

Four challenges on the century crossroad

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Architectural moment suggests to us some points of reflection:

1. Soft ideology

I.O. Absence of ideological programme enough established to be accepted as common referent by a sufficient majority of architects.

This absence, partially issued from architectural ideologies insecurity along the second half of the XX century, subjected to the dictate of thinking fashion, has also been paradoxically extended by the unusual increasing of specialised mass media.

The media demographical explosion, enhanced by the new power offered by the communication and information techniques, and pushed by the crescent role of some cultural marketing and propaganda, tends to reduce the ideological luggage of many architecture critics.

The difficulty of many architectural "authors" to be currently present in the media results pathetic. The growing tendency to specialisation makes the author and critic roles not compatible. This phenomenon is not exclusive for Architecture; it appears in every professional activity, starting by fashion, entertainment or plastic arts and finishing by economy, techniques and even sciences.

Also the production quicker rhythm of the press, with the request of immediate answer to ever daily cultural news, imposes the need of press professionals to interpret every human activity.

In the architectural field, this phenomenon, consolidated along the last third of XX century, shows some specific characters: The new professional of architectural media has to interpret an Architecture never projected or built by him, involved in a growing demand for "news".

Without news no press, neither TV or radio or net programmes can exist. Creating architectural news became an imperious need.

So, the concept of fashion, so useful to empower the dress market, is passing to the art and architecture field.

The problem is that the architectural production times is strongly slower than dress or entertainment one.

Complexity to define a brief adequate to the cost and implications of any architectural action, the construction processes long lasting, the natural growing schedule of a

landscape, and the development of a urban operation, even the smallest one, requires from the rigorous analyst a times seriously longer than daily or monthly specialised press.

The bad effect of these divergent rhythms produces the presentation of the last built as Fashion, and consequently, as something that would not be fashion in the next paper.

Nevertheless, Architecture is mainly a debate over "modus" (way) and not over "moda" (fashion).

The main consequence of the permanent need for new news has been the immediate consumption of ephemeral architectural tendencies appeared in the last third of the XX's, that first have been received as the alternative one to the modern movement and soon rejected like a Kleenex, without giving time neither to be rigorously constructed nor to auto-critic themselves and consequently to evolve.

Postmodernism, tendencia, structuralism, high tech, de-constructivism, low tech, land art, walk art...etc, appeared and disappeared in less than a generation, leaving to the minimalism and the neo-vanguards, paradoxically turned into preservative currents, the paper of maintainers of a formal and often epidermis cult to the old parents of the modern movement.

Nevertheless, in the roots of all these movements it co-exists, together with a vision again isolated and partial of the deep aspirations of the architecture, the will to make evolve the modern movement as an ideological proposal that offered its major contributions in the last years of the XIX and the first third of the XX, answering to an industrial, electrical and machinist revolution.

It is clear that after modernism, humanity has experienced at least three new revolutions: electronic, computers and telematics. The necessity to reframe Architecture from contemporary parameters do not necessarily implies an existential rupture with our grandparents' architecture, but is urgently resented.

The ephemeral life of all mentioned tendencies is based, in my opinion, in three common aspects for all of them:

*First aspect in ever tendency is that each of them perceive architecture from only one aspect of Architecture, whose simplification, although producing a fast assimilation by the great public, has provided ammunition

to the detractors of each tendency, facilitating an equally fast disqualification.

*The second aspect is in an immediate media-tic consumption of the first products of each tendency, creating a disturbed demand of orders to its epigones, practically forced by clients to copy themselves reproducing their previous works style. That makes difficult the maturation and consequent evolution of new projects, feeding therefore the loss of the media enthusiasm in few years.

*The third and probably deepest one relates to the production of formal models, perceived as simple images by great public, reducing architecture to a formal business.

The assumption of the modern movement by the general opinion was indeed the opposite: Common or very next ideas were able to generate diverse and complementary architectural answers.

All this situation, amplified by the excess of speakers, and the shortage of authors able to move to the media field to defend not only its formal production, but the ideas on that this production has been based, and with enough honesty to praise the work of other architects, has lead to the present situation of contemporary architectural thinking.

2. Richness and diversity

2.0. Richness and diversity of alternatives in contemporary architecture.

Contemporary Architecture offers a large formal diversity, as much as in developments of formal research as in multiplicity of technical alternatives.

Paradoxically, the ideological references weakness makes an easier richness of search related to both form and materialization.

In the beginning of the XX century, only a unique plan, containing the main drawings, was enough to build a house in the Barcelona's Ensanche. The program of bourgeois house assumed the cheaper techniques, the most frequent materials, and the socially acceptable formal repertoire. However, the architect director of the works had total power to do and to undo, like a boat captain on the sea.

We can define by antithesis the present situation: The multiplicity of available materials and applicable techniques implies instrumental dispersion for the architect, who needs knowledge and experience of all applicable technical solutions, with the positive aspect of a permanent learning for contemporary architects, but a negative effect of uncertainty.

The formal freedom search is in certain way the other face of this medal, caused by both relaxation in the strict observance of the principles of the modern movement and by the dilution of personal responsibility in selection processes.

Three characteristics can be defined in the contemporary architecture construction:

2.1. Typological research as project tool.

I do not try here to enter depth in this subject. But it seems needed to mention it in any contemporary architecture analysis.

I also would to clarify that typological investigation does not refers to the Rossian types, pure geometric approach without any relation with uses, symbolic contents or values. We take typological investigation in the sense proposed by Carles Martí in his book.

The reflection on the constructive types, is not more, but either less, than the humble and patient search of how our predecessors have solved similar problems, trying to find in the trajectory of these solutions the wire of a typological evolution, that, avoiding so many lost links, allows to intuit the future way. Then typological investigation becomes the opposite of the gestalt architecture, the architecture of compulsory "eureka" for each building, the star system architecture.

2.2. Progressive hibridation between building materials, produced by both plastics and new anchorage systems.

The construction of the Architecture of end of the XX and principles of the XXI displays the phenomenon of materials hybridizing, not only by the input of new "composites" given by relatively new techniques of gluing and fixation, but also by the inter-exchange in systems of anchorage: As example will mention three different cases:

1. Progressive convergence in textures and anchorages for glass and stone.
2. Anchorage of metallic plates with techniques derived from textile constructions.
3. Recovery of the wood for complex structures or for double skin façades.

2.3. Increasing assumption of the façade's membrane role, using it as special and spatial closure.

The understanding of façades as complex membranes, filtering inputs to control the exterior incidences acting over the building, but also managing the outputs produced by the building to its environment, opens a new way of projecting both cities and buildings.

The use of information systems together with forgotten traditional ways to save energy and to enhance the customer welfare and environmental harmony should strongly modify our projects in the next future, necessarily involved in recovering and improving environmental aspects of human settlements.

3. Environmental care for sustainable architecture

3.0. Forward a sustainable architecture, urban planning and construction.

New era is aware of the necessity to maintain environmental and ecological balance: The cultural interpretation of our century requires a fine paradoxical sensitivity.

Paradox is almost the only sample of humour that we can allow us. The relationship of our contemporary culture with environment participates widely in this characteristic.

Never has been so much spoken about environment, but it had never been attacked with more powerful means. Never has been preached sustainability before but never so big ecological wastefulness has never taken place.

Tourism, source of benefit and human and economic interchanges becomes an agent of aesthetic, cultural and environmental devastation. Religion and Democracy are used like justification of wars more destructive than ever. Industrial progress is eating the fossil power resources of the planet. Conditioned air contributes to the destruction of the ozone layer. The real estate speculation of small or great ground investors overbuilds many countries, while great part of the humanity crowds in inhabitable boxes.

In the next ten years, if the migratory flow follows the present rate, eighteen of the twenty most populated cities of the planet will duplicate (in some cases they will triple) the number of their inhabitants.

How to provide minimally effective room to more than a million of new citizens by year, in each great metropolis? It is a problem for architects or no longer it is?

Architects, city planners, landscapers, designers and constructors of the urban or natural environment, which is also the human scene: We are immersed in these processes and we cannot remain at the margin of it : Either we are part of the problem, either part of the solution.

In this context our program tries to frame itself. Architects, and still more architecture professors, usually are relatively sensitive to the environmental question.

But usually from an optics of "from always the architecture tried to save energy, to suitably orient buildings, to avoid aesthetic impacts in the landscape, to recover the degraded buildings... etc."

Nevertheless this position risks bring with it the most sterile auto-satisfaction. The danger in our schools can be the make up the inefficiency with the best intentions or beautiful forms, or the arrogance of believing we already still know what to do in relation to the sustainability of Architecture, Construction and Urban Design.

Sometimes again, both positions came together.

Our challenge will be the switch of the consciences, in order to achieve environmental actions in ethics and aesthetics ways, in order to respond at moral and economic requirements of our planet.

Our challenge will be to construct a worthy habitat for so many unprotected persons.

Our challenge will be to change our culture, orienting it towards environmental sensitivity, origin of any positive action on the matter.

Our challenge will be to produce and teach good environmental practices related to the Construction, Architecture and Urbanism.

To achieve it, we should resort four R key-words

Reflecting
Recovering
Reusing
Recycling

To speak here about reflection seems unnecessary: Reflection must go from the general to the individual: Thinking globally to act locally, or as our colleague Shigeru Ban proposes, to act "glocally".

Recovery cannot be reduced to the repair of buildings or degraded districts.

It is the same planet, or great part of him, who is undergoing degradation processes.

Therefore it will be necessary to bet, with our habitual means or with which we should invent, to recover the degraded ecosystems, the lost landscapes, the macro-metropolis implodes by an unstoppable demographic cancer.

Reusing is again a big challenge: The invention of new forms of use in our old structures and surroundings will help to one better distribution of the right to the health and the comfort in a worthy Habitat.

One of the new works of the architect will be to invent new uses for old houses, cities or landscapes.

Recycling will be the final condition at least, to avoid the conversion of the planet in a great one where the great recyclers are only termites or rats.

From these four key words we will be able to initiate our challenge against the self-destruction. They are the roots for a new architecture.

How can we finding a method, in our daily architectural work that allows us to reach these key words?

Once again by the originality: The return to the origin, the progressive adjustment of any project, through different environmental analysis layers, to the basic human natural needs.

Seven layers of analysing, necessary but not sufficient conditions for this method:

Meteorology: adequacy of architecture and its parameters to diverse climates, existing and to come, avoiding to establish cultural clichés that imposes an international architecture unable to solve in a sustainable way many local climatic problems

Mathematics: not only to quantify so many physical, social and economic aspects of the urban or architectural briefs, but to extract from it the concept and the practice of scientific rigor, so absent in many architectures

Material: to extract the best from it and the simplest forms.

Mechanics: to guarantee the security of us all, users, customers, the true clients of the architect.

Maintenance: to manage and save energy and raw materials avoiding environmental wastefulness.

Mix ness: to harness synergy between materials, systems and uses, increasing complexity in a balanced and intelligent way.

Mystics: of environmental harmony, including the symbolic values of each architectural culture.

May be the material that better symbolizes environmental care that must impregnate the century's crossroad is the wood, and its recovery in the contemporary construction:

Wood, along with some textiles and the water, is the only renewable material of the planet.

We will have to learn how to suitably manage forests, forcing our providers to respect and to improve the environmental conditions of the lumber operations.

Traceability of timber products prevails as unique form to avoid abusive wood speculator

Wood hybridising by means of gluing with wood or other materials, has allowed to surpass a great part of the disadvantages by which wood was restricted in its use during first part of XX century, becoming more and more important in the contemporary architecture and also facilitating the attribution to the woods an added value permitting the adequate management and recover of our forest, main part of planet biomass.

The environmental Architectural challenge in the beginning of XXI century also passes by Wood as basic material.