

Temporality, flexibility, durability: A new attitude for architectural education?

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At the time of modernity, the perfect adequacy of the architectural object to its use was enough to meet its legitimacy. In the perspective of sustainable development, the architectural object becomes "*environmental*". Building product cannot be considered anymore, as regards form, as finite and determined or established. It has to integrate open thought in terms of resources management as well as usage or social practice mutations.

Rapid mutations in various domains of urban and domestic life lead us into considering *temporality* related questions. Immutability and perpetuity of built space are firmly fixed notions strongly related to a representation of building as an object of transmission of property or political power (public buildings seen as monuments). A technical consequence of this conception of buildings being the durability, long life span and rigidity of pieces of work that compose them. Yet by the time, these notions are being discussed and rapid evolution of our societies lead to a demand for frequent changes of functions, destinations and picture of built space, considered internally and externally.

1.

Universal flexibility : Accountability or pursuit of contradiction ?

These considerations should not keep us away from the notion of accountable project in the perspective of collective liability.

Developing the concept of "*movism*", the french philosopher Terguieff (*1*) denounces an imperative which nothing seems to escape: neither man who is always required more flexibility and adaptation, nor institutions that are subject to perpetual reform. The term "modernization" has come to designate the repeated attempt to "*make up for the real always behind an ideal present*".(2) Thus modernization is permanently urgent.

Rapidity, efficiency, flexibility, profitability,...facing human universality then made abstract, we remain with insular individual, mobile and deprived of memory.. the globalization process legitimates the "technical/technological".

The danger of "*movism*" lays in universal flexibility: rapidity, efficiency, flexibility, profitability... may fire social links for the benefit of free trading interactions. In this blind pursuit, the world landscape our students face offers a contradictory progress towards uniformization and fragmentation, endowing the new kind of unidimensional man with two faces : that of "de luxe planetary nomad" and that of "sedentary imprisoned within its roots". Seduction of utopian explorations of nomad architecture or fragmented space must not let us forget about the principal of accountability.



Opposite attractors

Koolhas' naturalization of the real versus sustainable realities

Our students are seduced by contradictory discourses all of them pretending to be the concern of the real and the new. In view of the conformism resulting from regularization and normalization of urban policies and the attractive position of the "meteorologist of global urbanity" (*Didelon*) that is Rem Koolhaas, students do not resist seduction at first. Between difficult objectives of Agenda 21 and positions of architects and urban designers, as Koolhaas, praising the "real" and blindly backing to its causes, we can yet find a place for a scholarly and critical position about architecture.

If remaining far from its critical role, beyond provocation, architecture supposed to be experimental may become a "simple form of registration and intensification of urban transformations that operate exclusive of it" (3).



The urban world scene and the new real

In 2000, the famous exhibition "Mutations" in Bordeaux layed out the big show of a deliberately assumed urban apocalypse, hurling the spectator towards "junkspace" and the generalized ordinary run of "shopping" as a substitution to former social nature. According to Koolhaas, the certainty of patent failure of urbanism justifies his radical position to mould a world favouring the space of flow to the detriment of the space of place. This drastic tabula rasa reminds us of that of Le Corbusier who came to the same conclusion but whose argument was grounded on the opposite premise and belief that he had found *the* solution. (4) This proclaimed irresponsibility based on ideological position pretends that determined action against the current of strong trends induced by global market and its corollary "the generalized urbanity" (*Le Dantec*) or "metapolisation" (*Ascher*) would be illusion and source of errors.

Koolhaas' position tends to naturalize urban phenomena. He presents a generic city as a sum of chaotic and inexplicable transformations that would escape any aim. The city he describes seems to be moved by organic laws, with the repeated use of the term "mutation" ignoring that these are generally provoked or instrumentalized. It is not the result of a cultural construction, but an irrefutable fact where the real is given for natural. (5)



How many students in architecture are fascinated by this *up to date* position made dogma. If mobility, hybridization and juxtaposition of different scales are topical questions, is it necessary that we oppose city and architecture this way? And yet, experience shows that the more telepresent we are, the more

we need spatiality and real presence, let us say places. The growing strength of flood logic is far from canceling space logic.(6)

The heralds of a new generation enthusiasts of urban smartness or neo-colonial solutions promote peripheries shopping-attached without asking any of the questions such as:

- the difference between nomadism of the rich (associated with capital free flow) and nomadism of the poor,
- citizen participation,
- consuming of goods, territory and non renewable resources which are un-sustainable on a planet scale...

One can legitimately think that the growing strength of flows is far from voiding the logic of place and suppose that the idea of inhabiting by establishing relations with oneself, the other and the world, is still the future of humanity. But still we have to avoid politicians and urban planners to lose control of urbanization and globalization as they follow rationalities that transcend them.

From the apology of the "real" to the "negotiated project" as an object in process

For Crimson Architectural Historians (Rotterdam) also on the Dutch stage, the generic city with an authorless form is not a fatality but on the contrary a construction that is economical, political, cultural and needs to be amended in transforming the external constraints into internal opportunities. Crimson and Max 1 (for ex. in Leidsche Rijn project) work to reveal the cultural component of our environment. They present their approach as "*negotiated planning and design*". Of course, such a position of a planner or designer does not directly lead to a status of world-star.



The multiplication of actors implemented into urban or architectural projects and the confrontation of variable problematics do not accept pyramidal and deterministic development and planning practice. The certitude of universal programmes durable on the long term and susceptible to establish planning continuities disappear for non-functional programming.

In order to analyze the production of urban projects, and the role of its various actors, it is worth noting the importance of differentiating between two types of design concepts, the *hierarchic* and the *negotiated model* : linear production versus iterative production, compartmentalization versus opening of skills, rigidity versus inventiveness, information control versus joint elaboration.

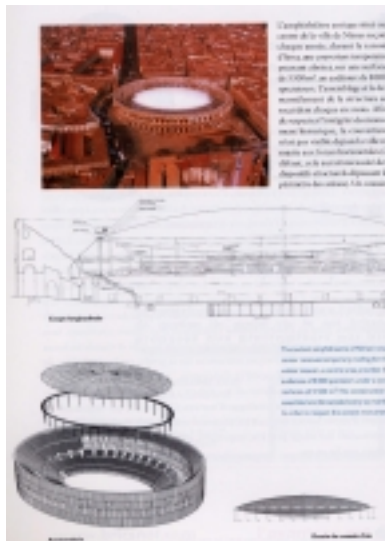
A new denotation and sense of flexibility happens to show up here.

From flexibility to adaptation : Lab-fac "bottom-up model"

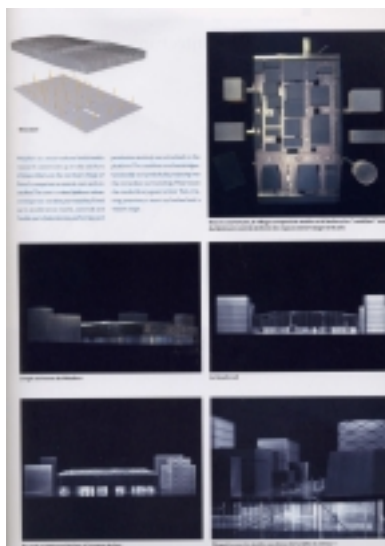
The temporality of spatial structures is also in the heart of Labfac work (Geipel & Michelin) where the "*bottom-up model*" is at work rather than the *negotiated model*. Labfac grounds its projects on a detailed analysis of content conditions (and not the content itself) on which they will found their decisions. They establish a new generic type of building adaptable to change, growth or uncertainty that could result from social, technological or cultural developments as well as new institutional limits.

Geipel and Michelin tend to privilege the organization of movement during the elaboration of the plan, withdrawing from formal configuration to the benefit of a minimalist programming of physical control, aiming at maximal organizational openness towards future uses and interpretations. They overstep traditional distribution principal in which the programme is given datum not to be modified in time.

According to A. Tzonis, the search for temporal flexibility leads to the development of a clear repartition that reminds us of the concept of distribution, more than areas dedicated to circulation as in the servant and served sense of Kahn. "Those are microzones that can channel a variety of movements, provide a variety of micro environmental or micro climatic controls, offering a variety of socio-ecological niches". (7)



Arena of Nîmes: tent pneumatic structure, Frei Otto inspired.



Aubervilliers Metafort: multimedia research center, clad in a perforated metal sheath + presence of layers of different grid patterns.
A central core and six satellites with variable permeability.



Munich rail wasteland : urban density, nodes, vegetation / long term occupation strategy and changing balance.

For Labfac, architecture is not a response to hierarchical layout systems, but a conception that is plural, differential as opposite to preconceived scheme organizations. Frontal strategies of progressive development usually followed in industrial processes are abandoned for an organization of the project in "*microcycles*" independent and free in their development. Their interconnections operate a certain flexibility of the system in a network (web) architecture endowed with evolvability. Despite strong preoccupations with process and information, Labfac projects do not lead to dematerialization of buildings, keeping a physical body, wary of inaction or intolerance.

2.

Flexibility, innovation, adaptation

The answers to the demand of temporal adaptation, whether programmatic or conceptual, form a subject of research and experimentation. They are fundamentally linked with the questions of sustainability. Approaches oscillate between sustainable or re-usable (evolvable) constructions and disposable, ephemeral or knockdown constructions. They challenge functional programming and consider at the various stages of their definition the temporality of buildings.

Conception choices, building adaptation to change, prevention towards ageing factors and damage or erosion have strong and often irreversible incidences on cost and quality of service. If the analysis of life cycles is relevant for the study and design of a building, considered as a product with an end, it is not the case for urban space which never dies but changes and grows.

Considering technical research the traditional occidental approach of innovation is still a linear technical progression. If we view a capacity of adaptation to uncertainty, we have to consider innovation at different levels of concern : social, cultural and environmental.

Evolution or retraining of buildings, adaptability to variable needs need to consider:

- making the relation subject/object explicit : not thinking the object in irreversible perpetuity, but as capable of satisfying to a destination in a determined duration
- redefining space contours and zones,

- reconsidering the immovable character of buildings, introducing the notion of mobility applied to the sheath or cover, to space partitions modelling the opposition inside-outside,
- rethinking constructive options : regarding their resulting rigidity (and especially environmental and economical criteria), considering dismantling versus flexible distribution,
- deepening the question of architectural integration of services and urban integration of buildings (networks, connections, individual elements, given and designed scales,...)

The notion of sustainability

Even if the contours of this notion are still difficult to outline, we can propose 4 major components of a definition :

- Economical development in long term viability, calling for a reasonable use of resources that need to be preserved for future generations,
- Lasting social development and notion of resources sharing, whether spatial, environmental or economical; notion of sense;
- Control of technological development concerning notably matter and materials (production, life span, life cycle analysis) and calling for maintenance looked at from a preventive and not curative point of view,
- Built territory not reduced to its strict geographical sense, but looked at from the angle of appropriation and practice, allowing new actors into the design process; a built space where the notion of quality stands far from the logic of subjectivity expression and questions legibility of space with its structural role and a sense of cultural values of community.

In this light, comes a question about the place of programming between demand and order, between quality process and sustainable development. The resulting notion of quality is different from the normative approach of a "professional" client traditionally concerned with return on investment, management rationality and performance objectives. Of course the idea is not to deny the notion of performance, but on the contrary to enlarge the notion of performance to future situations and to find new definitions of quality in long life span. This notion of *quality* carry on with the research concern and calls for a renewed definition.

3.

Temporality, flexibility, durability : a new attitude for architectural education?

This field of investigation is still under construction in architecture schools or faculties even if a great number of curricula claim to develop it. It is possible to explore it in different thematic courses, but it is mainly project design education and training that will offer answers to these questions.

In the first phase of the creation of the latest school of architecture in Paris - Paris-Malaquais - I worked with Finn Geipel and Patrice Mottini, to define the objectives of one of its five departments(8) named at that time "strategies, methods and techniques". Each department produces research, dissemination of architecture culture and contributes in the definition of the curriculum and modules.

Considering the methods of *negotiated project* and *bottom-up model*, we tend to develop into design project teaching principals as : iterative production, opening of skills, inventiveness, joint elaboration, open and evolvable expertise, etc.

We proposed to experiment in the project modules:

- focus on different methods and strategies, import knowledge into design : discussed lectures;
- redefinition of the notion of design project : iterative approach of an objective within a choice of problematics : *projet spécifique* (one department specific project)
- work in "integrated project" module: a project task and method being defined and followed by several departments and when possible with external partners who share a question and a territory : *projet commun* (two or three departments shared project).

Four kinds of investigations should characterize the design process in variable density with the passing years :

- Tools for learning : observation, fundamental knowledge, specializations
- Methods: transposition, implementation, self-governing development
- Experimentation: manipulation, 1:1, building scale
- Theory : references and development of concepts, theorization of practice

Quality assessment is necessary to allow a recognition of the effects of our general preoccupations and teaching orientations. But yet we consider that the spinned notions of *Temporality, Flexibility, Adaptation, Sustainability* are grounding an attitude which can be observed as:

- not a moral code but a collective consciousness, confronting the power of ideas and the economical power,
- not restraining but learning to reverse constraints,
- not adapting architectural production to new regulations , but rethinking architecture,
- not immediately attractive but in the end rather subversive in education policies.

¹ Pierre-André Taguieff, *Résister au bougisme*, Paris, Mille et une nuits, 2001

² Luc Borot, « Modernisation », *Cités*, n°5, 2001, pp.185-186

^{3/ 5} Valéry Didelon, « La conspiration du réel », *Le Visiteur* n°7, SFA, Paris, automne 2001

⁴ Jean-Pierre Le Dantec, « Rem Koolhaas et la mondialisation », *Urbanisme* n° 318 mai-juin 2001, pp.24-26

⁶ Manuel Castells, *La société en réseau*, Fayard, Paris 1998

⁷ Liane Lefaivre, Alexander Tzonis, « Architecture en réseau et minimalisme cartésien », *L'architecture d'aujourd'hui* n° 327 avril 2000, pp. 54-58

⁸ the school is organized in five thematic departments grounded not on disciplines but on questions : *Domestic architecture + art in general + matter, media, strategies + theory and history of project + city, territory, architecture.*
