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tectonicsthatemergeasaconsequence of computation in architecture.

## Un radicale cambiamento di paradigma per una nuova definizione di architettura

## A radical paradigm shift for a new definition of architecture

L'architettura sta vivendo un periodo di grandi sfide e quindi di grandi possibilità, come è tipico di tutte le crisi. In questi frangenti, i paradigmi che si ritenevano sicuri fino ad oggi sono i medesimi che la crisi hagenerato, perciò essi dovrebbero essere sottoposti ad una revisione critica e nuovi modi di pensare e operare (guidati dal calcolo) possono essere attivamente esplorati e perseguiti. Piuttosto che ritirarsi in intellettuali "case sicure", l'architettura dovrebbe aprirsi ed essere ristrutturata dal nuovo accelerato cambiamento imposto dalla realtà, rinunciando a metodi obsoleti di anticipato e sforzato controllo e accogliendo un più dinamico comportamento aderente alla realtà. E' pertanto di primaria importanza promuovere l'esercizio di una immaginazione proiettiva.

Architecture is facing a period of great challenges and possibilities, typical of all crises. In such periods, the paradigms we have taken for granted so far are the same ones that generated the crisis, therefore they should undergo a critical revision and new modes of thought and operation (driven by computation) can be actively explored and pursued. Instead of retreating to intellectual "safe houses", architecture should open itself up to and be restructured by the accelerated pace of change imposed by reality, renouncing obsolete methods of anticipating and exerting control and welcoming a more proactive behaviour. It is therefore of primary importance to promote the exercise of projective imagination. LB

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Keywords: Proactive behaviour; Innovation trend; Pattern recognition; Complexity; Projective imagination.





What is the most pressing challenge that architecture is asked to resolve today?

Without the definition of a context it isn't possible to frame a single challenge. There are challenges pertaining architecture as a discipline (its own very definition and evolvability) or as a process (and how it relates with discipline), or the gap between its research forefront and current practice, or its effective capacity to relate to (withstand, support and/or shape) the evolution of society, life and its relation to a more comprehensive understanding of ecology (to put it in Zizek's words: one that gets rid once and for all of the "Big Others" Mother Nature and Father Reason). There can be many more of course (from the most contingent to the most universal), all equally important to

me under the lens of the question above. The challenge I am currently interested in is

the evolution of architecture's own definition and discipline to take full advantage of the accelerated innovation trend: it's not just learning new tools, it requires a radical paradigm shift, from theory to design approach. Of course this makes a lot of people uncomfortable because it undermines a lot of certainties, but it wouldn't be a challenge otherwise, would it?

With respect to the design of the contemporary city; what is the role of architecture in managing urban phenomena?



If I am to assume (as it is in most cases when the word is involved) "manage" as a synonym of "predict and plan", then architecture simply cannot pretend to manage urban phenomena - or at least when architects claim that for their own projects it's just a fairy tale. Architectures though play an inevitable part in such phenomena with their role as both nodes of a highly articulated network and catalysts or inhibitors for certain flows. Those flows in turn feedback across scales on the range of processes involved in unforeseen and unpredictable ways.

The perspective should be turned insideout, abandoning the ambition of an allpredicting, all-solving project (which is one of the most difficult myths to dispel), adopting a more proactive behavior (higher volatility, rapid correction and adaptability) in facing complexity and non-linearity. Architectures should be thought as part of larger ecologies but without the ambition to put the seconds under control and/or at the service of the firsts. I see much more "managing" as associated to "breeding", trying to guide an unfolding process that has its internal logics and rules to its full flourishing.



Architecture and design have established an exchange that is both operational and perceptive; buildings are conceived as objects and objects are conceived by those who design buildings. Between architecture and design, is it possible to define boundaries or intersections?



Scale matters. Although a simple a variable it might seem, it makes all the difference in the world when it comes to complex systems and phenomena. I mean a scale defined by the appearance of emergent system properties and behaviours (they can be detected in the whole but not in its constituent parts), which are non-linearly dependent and might be very different for architecture and design respectively. Such scale might also incidentally (but not necessarily) be proportioned with a metric scale. That said, in my view the attempt to categorize by placing boundaries first is a deprecated essentialist practice (the word "intersection" also assumes a sort of "purity" to each category, while things way more intricated and complicated than that). It is a lot more

productive to see things in terms of influence from centers of gravity and understand that there are manifold territories which are under multiple influences at once. There isn't something such as "pure" design or "pure" architecture (or, if it were to be, it would be a mathematical conjecture), but there are things that can be safely identified as fully pertaining to one focus or the other. I'm much more interested into the exploration of the manifold territories where a multiplicity of influences coexist, can be nested into one another and/or point at each other recursively appearing across scales; territories where declining what you are doing towards architecture or design is a secondary decision.





When giving advice to students, what is the most valuable tool that an architecture or design student ought to acquire during their studies?



Projective imagination: the capacity to coherently create, build and operate into new worlds. This implies mainly two very important basic attitudes: first, pattern recognition and pattern making. One is fundamental to reverse-engineer problems by looking for recurring trends and rules and project beyond the contingent situation, the other to build coherent harmonic processes and results. Second, but not less important: an unquenchable curiosity, a motivation to endeavor through the self-inflicted, unpleasant but unavoidable parts of a discipline, which is the basis of any serious interest for any subject (and yes, it is a bit masochist).

