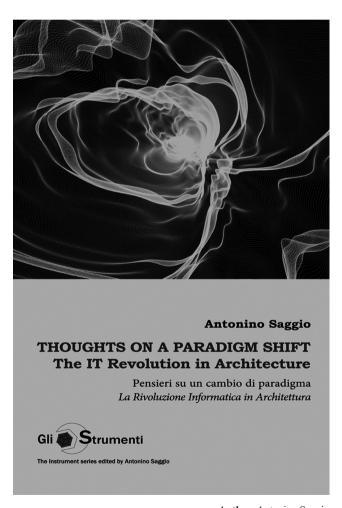# Thoughts on a Paradigm Shift/ the IT Revolution in Architecture

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How can we define the IT paradigm in Architecture? Which are the substances that can guide us through the discovery of a new aesthetic in the discipline? Also, how can architects catalyze these new enzymes to position themselves into a shift of historical significance? These are just some of the main questions that are contained in the book *Thoughts on a Paradigm Shift/ The IT Revolution in Architecture* written by Antonino Saggio, full professor of architectural design and information technology at Sapienza - University of Rome.

This edition is a new version of the original manuscript that was firstly published in Italian in 2007 (*Introduzione alla Rivoluzione Informatica in Architettura*), and then translated in English in 2013 by Stephen Jackson, and presents itself merging for the first times the two previous releases. Not by chance, it is also enriched by a series of colored panels that aim to show the impact that this text had over the last 15 years on at least two generations of young architects. Indeed, before exploring the structure of the book, and describing some of the inner concepts that build the narration of Antonino Saggio, it is important to contextualize the cultural humus at the time of its first publication.

At the beginning of the 2000s, a whole generation of young professionals was deeply inspired by the possibilities of applying the IT technologies to the architectural discipline; young practitioners and re-searchers such as Marcos Novak, Greg Lynn, Kas Oosterhuis, Ben van Berkel, Makoto Sei Watanabe, etc. were some of the main actors that were deeply involved in experimenting with digital tools and in exploring the limits of the latter in the contemporary architectural debate.

Besides their important efforts, all the investigations until that time were fragmented and punctual and struggled to succeed in creating a theoretical framework that could sustain and legiti-

mize their field of interests and activities.

When the first edition of Saggio's book was published, the intention of the author was indeed to fill this enormous gap and to provide to all the young 'digital architects' solid bases in which they could recognize themselves and position their works and aspirations. The author clears this inner intent the Foreword itself where he states that 'our relationship with in-formation technology is structural, cultural, and formal at the same time'. This is an iconic passage of the whole book because it underlines the need of a complete shift (a paradigm shift) regarding the way that until that moment architects have been approaching the IT tools: not indeed an instrumental knowledge, but a holistic understanding of new substances that could define specific mental categories that could lead us to understand the central position of the link between the IT revolution and architecture in the contemporary culture.

Furthermore, the book is permeated by two main strong concepts that clarify the thesis contained in it and act like road companions for the reader. Firstly, a Kuhnian vision of the history where the emergence of new scientific discoveries generates se-vere moments of discontinuity in the history and mankind and lays the foundations for the rise of a new paradigm that unveils new trajectories putting into crisis the precedent one until reaching an epochal and revolutionary shift. Secondly, the certainty that – following the thought of the Italian critic Bruno Zevi and the French soci-ologist Jean Baudrillard – at the core of the architectural discipline there is the concept of the 'crisis' intended as the element able to give rise to aesthetics of rupture and to generate a newborn (timeless) 'modernity'.

According to Saggio, if we want to generate new modernity, able to embrace the changes gener-ated in the surrounding world by the emergence of IT technologies we need to bravely accept to put in crisis our inner structures, to shake our mental world from its founding, and to trace a sign in the ground (like in the famous myth of the foundation of Rome) to firmly position ourselves inside or outside this debate. With a closer look at the structure of the book, the most attentive reader will notice a very original composition for a volume of this kind. The index develops more like a website than a paper publication, where every single chapter is a system of hyperlinks that allows everyone to jump from a chapter to another without forcibly following a linear progression, and this decision stands within an inner operative and conceptual coherence of the author.

Like the bright LEGO bricks mentioned in the opening of the book by the author as an important event of his childish life, every single section is organized with the main intent to put the reader in an active position to build and un-build the narration in the way he prefers.The latter can then follow different links and different directions when discovering the text; one can skip from the first chapter "Substances" directly to the last one "Synthesis", or one can start the reading directly from the

interesting final section "For Further Study", without losing any single fundamental passage in the narration but, instead, building for himself a personal journey through the important implications of the IT Revolution in Architecture.

The opening section, "Substances", has the important role of opening Saggio's digression. In light of the famous quote by Edoardo Persico - "Architecture substance of hoped things" - it defines some fundamental substances that architects have to understand and make their own to trigger new thoughts regarding the future shape of architecture in the times of the IT Revolution. The three interconnected words 'communication', 'city', and 'landscape', are then analyzed not through a mere scale-jump but, rather, on how they can be inserted in the logic of the informatics paradigm and continuously interrelated using the through the dynamic interconnections such paradigm allows.

The second part, "Theoretical Aspects", goes deeper in this examination and, through the fundamental concept of information as the 'application of a convention to a datum', the notions of 'space', 'time', and 'model' are analyzed under the lens of cultural implications they are facing through the impact of the IT Revolution. Specifically, the last one, the model, is the main actor of this triptych, because it is unveiled under a new simulative, generative, and interactive, meaning where the dynamic interconnections are its inner core and where the two precedents terms - space and time - are continuously questioned not by a mechanistic conception, but rather by an Einsteinian relativity framework.

The last two chapters, "New Spaces of Interactivity" and "Summary", get into the heart of the architectural material and the need to give shape and aesthetic to the consequences of the IT Revolution in Architecture. According to the author, every paradigm shift has its catalyst able to condense its enzymes and gives birth to an 'aesthetic of rupture' from the previous times. If in the case of the Industrial Revolution, transparency was the main catalyst - and Saggio magnificently explains this concept through the example of Walter Gropius's Bauhaus - the catalyst of the IT paradigm is interactivity that can be used to catalyze all the hints of an 'informatizable architectures' where information and dynamic interconnections become the raw material of architecture (for who might have any doubt about it, go and see the Diller and Scofidio's work 'Blur', still one of the most convincing examples of total 'space as information container').

As part of a young generation of critics that formed itself with Antonino Saggio, let me underline two main things that I believe we are author's debt. On the one hand, the recurrence in the contemporary architectural debate of a Zevi-influenced 'operative critic' that slowly disappeared in the last decades either from the main debate platforms but also in the academic world. With many years of international teaching activities,

Antonino Saggio reminded us that the main objective of the critic is to unveil the inner dynamics within the discipline of architecture, and to write – and think architecture – through the lens of the necessity of the 'making' and not only through Machiavellian thoughts that confuse and picture the architect as a demiurge, owner of a not-transferrable knowledge.

The author does this specifically through an operative and historical-critical method where history itself is understood and used not as an inert material but as a generative substance that could foster and trigger future and speculative thoughts.

On the other hand, what I think it is fundamental to underline is the endless hope that Antonino Saggio places in the younger generations. Following the teachings of Bruno Zevi and its iconic 'now you continue, you, you', the author aims not to create disciples or faded versions of himself. He aims for emancipating the researchers and practitioners to trace their path starting from the multiple messages that he left in his books. It is not by chance, indeed, that the books of his series 'The IT Revolution in Architecture' - whose releases are inserted through color pages within this new edition - are mostly written by young architects that used those volumes to outline for themselves possible research paths and directions.

Furthermore, it is in small details that you can understand the importance of things, and the final section of the book For Further Study is exactly that. Differently, from the canonic 'reference section', the closing of this volume is a hidden treasure that helps the reader to open new chapters that, otherwise, would risk passing unnoticed. Coherently with the hypertextual structure of the whole book, it is another link that one can decide to open or not, it is another chance for emancipating ourselves from the simplifications of the current critic (divided too often between the rhetoric of the 'loss' and the 'new') and to go deeper in the inner components of things through those dynamic connections of which this book is one of the main poles itself.