"On the Future of Design"

Remarks from Hashim Sarkis, Dean of the MIT School of Architecture and Planning, via an interview with Carlo Ratti for DOMUS Magazine

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CARLO RATTI: In your view, how is the process of design changing today? In particular, how is technology affecting the so-called digital chain - from BIM to rapid prototyping?

HASHIM SARKIS: Let us start with the very basic fact, that technology is stepping into the design process and taking over things that humans used to do.

… That seems to be a very broad definition. It reminds me French anthropologist's Leroi-Gourhan essay 'Le geste et la parole'…

I have a romantic view about this issue: I strongly believe that human beings should not do what machines can do for them. The ability to ask to the machine to do repetitive (or non-repetitive) tasks allows us to invest more in our creativity and our uniqueness as human beings.

Coming back to the specifics of your first question, and in the case of BIM, what it has also allowed us to do is to expand the domain of digital representation of architecture to include time and money – and hence changing the very scope of design. What were always considered to be externalities in the design process can now be integrated into it more meaningfully.

This sounds very optimistic… but could the bringing of technical and economical constraints in the design process take the toll on that crucial ingredient of design - utopia?

We have to differentiate between utopia and utopics: utopics is itself a practice of bringing utopia into this world. Design is always about imagining what is possible against what is there. I don't see it as a compromise. I think that's a way of rethinking the parameters of what we consider to be at the table of design against what we consider external to the table of design. BIM helps us expand the table. It also helps create continuity across the different phases of architectural production – all the way to execution.

Then do you think that we are going back to medieval times, when the architect was also the builder of the cathedral? Is the architect, again, a "maker"?

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Architects have often lamented some loss of authority over the building process to other experts. Today, we are going further in the direction of over-specialization but at the same time digital tools are allowing for more continuity across the different phases and aspects of design and construction. We are seeing both contraction and expansion in the authority of the architect. It is too soon to tell, however, how the profession will recast itself.

In this fluid context, how is the teaching of architecture changing?

We are asking this question every day. At MIT when you ask a difficult question, you also design the experiment to get the answer. In the Department of Architecture, and at the Media Lab the faculty are designing several experiments on this front. At the time when engineering and management faculty are coming to us to ask us, teach us how you teach design, we are interrogating the pedagogies that have been in place for some time. But we are also looking at how the breadth of design education can be combined with the depth of research.

What is, then, your definition of design? And of research?

There are many definitions of design that we have inherited from the past - and today they result in cohabitating anachronisms. If I had to choose a definition I would say: "improving the interface between human beings and the environment". At the same time, design could be seen as a way to bring together several factors that inform the problem to a particular resolution that appears to be the most opportune and expressive in the context it is proposed. Research involves asking a specific question and seeking a specific solution. Design, it is widely acknowledged, is more about resolution. With all these definitions, I do not think we can escape the aesthetic dimension that design brings to its areas of inquiry

If we accept your definition of design, we could say that it underpins most of MIT's endeavors, not only in the School of Architecture…

Absolutely! MIT is deeply invested in design. It's part of MIT's understatement to not talk about this, but we have 54 units that insert design as an important dimension of what they do, outside of the School of Architecture and Planning. At MIT, design is in architecture, engineering, management, and in science. It is about the very big and the very small, the object and the network, the product and the process.

If this is the case, which glue can keep together different disciplines in design?

Design itself is the glue. In an environment that is encouraging interdisciplinarity and innovation, it is no wonder that design's importance has risen. No doubt, it has to do with design's ability to synthesize and to propose new possibilities along the way. Interdisciplinary approaches are growing and MIT is a model, as an institution that encourages such dynamics. The challenge is to make disciplines flexible enough.

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Flexibility requires collaboration: what are the key MIT departments someone in architecture should collaborate with?

I think there is a lot of room for architecture and urban planning to expand their collaborations IDSS. This will allow me to go back to your first question about technology and design. Data is another technological frontier for design. Just as one example, the open sourcing of data is another dimension of technology that will radically change design. We still have to understand what will happen when the values of design are not only coming from the top down but also challenged and even changed from the bottom up. So many of our colleagues using data at MIT have a lot to teach us in the architecture department about these challenges.

But then let's look even broader, outside MIT… which other cities or places in the world do you see in the foreground when it comes to innovation in design?

The last Venice Architecture Biennale curated by Alejandro Aravena showed us that today there aren't just a few capitals of design, but there is a leveling of the field. It is no longer Europe and American showing the world where design is going. It is about the world (Latin America, Africa etc.) showing where design should go. There are no more frontiers or boundaries. Information and knowledge flow faster – inside our institute and across the whole world.

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