The CHALLENGES Of ARCHITECTURE & CONSTRUCTION

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RATTI ON ARCHITECTURE

One of the leading architects talks tech and more with Time Compression.

By Gary S. Vasilash / Editorial Director / gsv@timecompression.com

Carlo Ratti, professor at MIT and director of the MIT SENSEable City Lab (which he founded in 2004 to explore the intersection of digital tech and physical buildings and space; senseable.mit.edu), and principal of Turi, an Italy-based digital design and installation company, is one of the leading architects working today. Time Compression asked him some questions regarding the way he works and the importance of technology to that work.

TC: What are the guiding principles that inform your approach to architecture?

Ratti: It is about using the new possibilities offered by technology to create a more human architecture, focusing on social and environmental aspects.

TC: What is the importance of digital technology to your architectural work? Do you design with CAD? Do you sketch on a napkin or notebook and then execute in CAD?

Ratti: We do all of the above. It depends on the cases. However, I believe the greatest opportunities offered by digital architecture do not relate to CAD and 3D modeling, but to the possibility to create responsive buildings. It is the old dream of Michelangelo that becomes true: When he throws a hammer at Moses and shouts: “Why don’t you speak?”

TC: Does your use of CAD accelerate your projects or allow you to investigate more paths?

Ratti: I would say the second. It allows us to study more options and to create more feedback loops.

TC: Some of your projects have reused existing structures. Why?

Ratti: It is usually a criterion that you get by the client when you start a project. But at the same time, we like persevering as much as we can. It is because of environmental considerations, but also

// BACKGROUND INFO

To learn more about some of the people Carlo Ratti mentions, check these sites:

- Norbert Wiener: tufts.edu/math/wiener.html
- E.O. Wilton: eowilton.org
- Luis Barragan: barragan-foundation.org
- Geoffrey Bawa: geoffreymbawa.com/

(Edited on p. 38)
Design elements of the Cloud. It is described by professor Joerg Schleich, an expert on lightweight structures. "The Cloud is a delicate yet robust filigree of reliable high-tech components, its ingredients familiar, their composition radically new."

because it gives us interesting constraints to play with, that usually result in a better project.

TC: How important are environmental concerns to you as an architect?

Ratliff: They are very important and they are behind every project we do. However, one needs to combine them with the capacity to create human spaces.

TC: Who are your major influences as an architect?

Ratliff: Scientists such as Norbert Wiener. Digital artists such as John Maeda. Biologists such as E.O. Wilson.

TC: What is your overall assessment of the state of architecture today?

Ratliff: Very similar to the beginning of the 20th century, when Le Corbusier wrote: "Machine civilization is looking for and needs to find its architectural expression." It is the same today, but just change "machine" with "digital," "nanotech," "biotech," etc.

TC: Is architecture national or international, regional or global?

Ratliff: You cannot escape global trends. But I think that the most interesting projects will emerge from very specific local conditions, as it happened over the past decades with architects such as Luis Barragan and Geoffrey Bawa. TC