

MIT Professor Carlo Ratti: Looking Towards the Future of “Sensible” Cities

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Carlo Ratti architect and engineer, professor at the Massachusetts Institute of Technology in Boston and founder of the design and innovation studio, Carlo Ratti Associati

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The magazine Esquire listed him among the “Best & Brightest,” Forbes among the “Names You Need To Know” and Wired in the list of the “50 people who will change the world,” Fast Company has named him one of the “50 Most Influential Designers In America” and “Thames & Hudson” among the “60 innovators shaping our creative future.”

We are talking about Carlo Ratti, born in Turin in 1971, architect and engineer, professor at the Massachusetts Institute of Technology (MIT) in Boston, where he heads the Senseable City Lab, founder of the design and innovation studio, Carlo Ratti Associati. He graduated from the Politecnico di Torino and the École Nationale des Ponts et Chaussées in Paris, holds a Masters in Philosophy and a PhD in Architecture from the University of Cambridge, in England.



The master plan for the Currie Park waterfront of West Palm Beach, Florida, features a one-of-a-kind floating plaza that utilizes some of the same technologies employed in the construction of underwater vessels. Recently, it made the news that the Carlo Ratti Associati team is involved in the FICO (Fabbrica Italiana Contadina - the Italian Fruit Factory) project for the Eataly brand, which has developed a special interactive pavilion for the opening of Fico Eataly World, a new 80,000 square foot park dedicated to food and food production themes which will open its doors next year in Bologna.

L'Italo-Americano interviewed the Turin architect and professor at MIT.



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Tell us about the Italian Farmhouse project in Bologna. Will it also be implemented in the urban areas of other states, such as the American metropolises?

This kind of urban cultivation may one day be able to really satisfy the food needs of today's society, but it is an intelligent way to teach those who were born and raised in the city to respect the campaign by utilizing new technologies.

Moving through the space in the pavilion will be like moving in time: walking inside, you will be able to observe the progress of the growth of the plant: at the entrance there will be seeds and sprouts, and then within a few meters, you come to the fully developed plants.

With this project we highlight three concepts: past, innovation and production. There will be an area investigating future cultivation systems, a collaborative agriculture pavilion and a large circular hydroponic garden where visitors can choose and plant their seeds and watch and study the experience of growing and the development of the plant over time, even from home, through an app.



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Can you explain the concept of Senseable City applied to American metropolises?

The concept of Senseable City is simply the manifestation of a wider technological trend: the Internet is entering the space in which we live and becoming an “Internet of things,” embracing any aspect of our existence, from waste management to transportation, from water distribution to city planning to involve citizens. In our projects we try to explore how the internet of things is creating a new approach to studying the constructed environment. Our work seeks to allow a new relationship between people, technology and the city - by developing both research and applications, and making sure citizens have the tools to make choices that will better everyone’s lifestyle.

This attention to the human side is certainly the common denominator in most of our projects - whether carried out by Carlo Ratti Associati or the MIT Senseable City Lab.



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With that said, what will this mean for American metropolises? This is my hope: an improvement in the quality of life and a more efficient management of the res publica. However, there will be no foreseeable future, nor can it be reduced to a single answer: I am convinced that the best approach to managing a city is the participatory one - this means that citizens will be inventing the future city they want to live in.

As you see it, with respect to the technological development of urban areas, an operation such as the creation of the high line in NYC and the new low line, which reuses abandoned spaces to install green spaces, would it possibly also be exploitable for cultivation at ground 0? I am referring to the eHabitat project with the application of new technologies as well as to the world of food and sustainability.

I am very interested in the theme of the relationship between city and nature, and I believe that thanks to some new cultivation technologies - from hydroponics to vertical farming - it is possible to develop very interesting experiments. Beyond the New York case, Singapore is studying vertical farms to cover the facades of its skyscrapers, and in many metropolises there are abundant examples of gardens on the roofs of homes or in the unused corners of the streets.

Will urban agriculture alone satisfy the food demand of millions of citizens? Probably not, even for space and energy reasons (the amount of sunlight that hits an urban area is usually less than what is required for a field). However, it can play a key role in helping us strengthen our bond with nature - and with the surprise of life that is renewed following the seasons.

The hope is that, in the age of tomorrow, new technologies can allow an unprecedented integration of nature and culture. I have always been fascinated by the words of Elysée Reclus, the French anarchist geographer who at the end of the nineteenth century wrote: “Man should have the doubled advantage of access to the pleasures of the city [...], the opportunities offered for the study and practice of art, and at the same time should be able to enjoy the freedom that lies in the freedom of nature, and which is explained in the field of its vast horizon.”

Is the United States, in your view, receptive to this kind of innovative injection?

The United States is a universe - I'm not sure, for example, that President Trump's environmental and therefore urban policies are particularly open. At the same time, I'm comfortable with what I see every day in Cambridge, Massachusetts, a city able to experience the boundary between human and urban sustainability like few others in the world.