



Cornell University, AAP Department of Architecture

## The Anthropocene Style

Option Studio, Spring 2019

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Architecture and Urban Design was traditionally primarily based on climate, comfort and health issues as we can read in treatises of Vitruvius or Alberti, writing about wind and solar exposures, humidity and temperature rates. These fundamental causes of the urban design were ignored during the 20th century thanks to the enormous use of fossil energy by pumps, motors, fridge, heating systems and air conditioning that cause today the greenhouse effect and the global warming. Sustainability and fight against climate change force the architects and urban designer to take back seriously the climatic issue in order to base their urban development plan and public spaces design on more consideration to the local climatic context and local energy resources.

At the urban level, we will analyze sunshine, wind direction, sources of pollutant and noise emissions and respond by working on the form, layout of programs, choice of materials and definition of new functions for the benefit of the quality of the atmosphere and the climatic sensuality of public space. Our tools will be real, those of the physical properties of materials such as albedo and emissivity, shading, meteorological phenomena such as evaporation, convection, pressure, whose behaviors will be modeled at the very beginning of the project with software to simulate fluid flow or solar radiation. We will as example revalue the political and social essence of public space through the fundamental climatic values of summer freshness and winter warmth in the millenary tradition of urban know-how forgotten during the 20th century.

At the architectural level, with formal, aesthetic and social consequences, we will respond to new environmental and energy requirements by providing a meteorological understanding of building physics, revealing internal convection movements, variations in thermal radiation, thermal conductivity gradations, water vapor emissions and trajectory, physiological air and light quality, and material effusivity and emissivity values in order to minimize the responsible energy consumption during building operation of more than 30% of the global greenhouse gas emissions. We also draw conclusions at the programmatic level by reassessing the degree of individualization and sharing of functions, which can enhance the value of living together and the community.

By abandoning the overrun use of fossil energy, we will abandon the 20th century Modern Style, white, thin and minimal, for a new architecture Style we will invent together: The Anthropocene Style.

Philippe Rahm will be in Ithaca on the following dates:

January 28-February 1, March 11-15, April 8-12, and May 3-9.

Visiting Critic Sarosh Anklesaria will collaborate in the studio on a full time basis in Ithaca.