

## ARC2014: Design Studio 4 – Comprehensive Building Project Winter 2022

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### CLIMATORIUM



#### Overview:

The fourth and last in the sequence of core studios, the Comprehensive Building Project takes on integrated design practices to arrive at advanced building design as inseparable from the design of its site, urban, cultural, and environmental contexts.

The studio takes place in the current context of the climate emergency and is intended to be a framework to reimagine how buildings should be built/unbuilt and programmed for the future given we have 8 years left to decarbonize our industry.

It asks the students to rethink the social and material dimensions of buildings to create a Net Zero Climatorium in Manhattan's Financial District.

#### Site:

The project takes place in New York City. The city's urban structure, density, culture and endless transformations is the ultimate triumph of capitalism. At the same time, and perhaps as a result, it is a city of extreme climate vulnerability and social inequities. It has been the stage of some of the most spectacular recent global climate events, the superstorm Sandy in 2012, Ida in 2021 and also, in 2019, the site of the NYC Climate Strike, led by Greta Thunberg.

Located in the South Street Seaport area of Manhattan's Financial District at 250 Water Street, the site embodies the magnitude and urgency of the climate threat and the need for a new civic institution to help us transition into a decarbonized world.

#### Program:

The Climatorium is the new headquarters for the Civilian Climate Corps (CCC) and also a local community center. The CCC is a new public institution enabling the greater goals of the 'Green New Deal' to decarbonize our economy with a large and young civilian force trained to address the threat of climate change. The Climatorium is both the administrative and training center for the CCC and a social infrastructure for the local neighborhood.

#### Organization:

While the whole studio will work on the same site, program and deliverables throughout the semester, each instructor will stake a starting point and frame a specific approach for their group. Students will work in pairs for the entire semester.

The course will be informed by the participation and synchronization of the group of co-requisite courses on structure and building science and also a team of outside consultants to form a team-teaching model that allows for and promotes new depths of study and design resolution. These conversations will inform the negotiations between design intent, internal and external constraints and integrate criteria related to performance and constructability. It will teach working methods to evaluate the design process by quantifying and representing the relatively invisible forces shaping the material dimensions of buildings such as energy use, embodied energy, material supply chains and thermodynamics to deliver a Net Zero and circular building.

