GSAPP COLUMBIA UNIVERSITY Advanced Design Studio Spring 2017
Critic: Laurie Hawkinson

*Jane's Carousel during Hurricane Sandy*

# What if…

## FLOATING New York

**Post Assembly Fabrication for Expanding an Over-expanded City**

**What if** there could be "new ground" in New York City?
If so, would this new ground be sited, anchored or moving?
If anchored, then where?
If not anchored - why not - and what or why would it move?
What will this over-expanded city look like?
How will it grow, accumulate and expand?
How will it be made?
What will it be made of?
How will it sustain itself? Is it tethered to the City, is it self-sustaining?

**What if** Zone B is the new water's edge?
What will this change or affect?
How will cultural life be integrated at this new edge?
How is public space considered within this new edge condition?

**Studio Process**
This studio will privilege the architectural model in the process of research and production. The models will be developed using all available types of modeling; including handmade, 3D printed, laser, CNC milling, and 3D printing machines available at the GSAPP.

The studio will involve an initial phase of team research. Concurrent with the research students will work individually to develop programs and projects, site strategies and a fabrication/material technique to formulate their proposed architectural project.

**Iterative Modeling** - use the tools of 3D digital fabrication to create iterative experiments between drawing/computational drawing and physical modeling.

**Adaptation/Reactions** – to speculate and make assumptions and propose scenarios on the future edge conditions of New York City.

**Post-Assembly Fabrication** – to develop strategies for urban growth on water and to interrogate the new edge's potential to host floating architecture.

**Program** - to propose through the architectural project; new prototype for the six given cultural programs: Terminal, Museum, Recreation, Library, Assembly, Clinic and demonstrating how this new life (i.e. program) would be scripted on and at the water.

**Site/Context**
Site, distribute and strategize in any or all of the bodies of water adjacent to New York City.

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**Studio Format**
The studio will include field trips to, and discussions with, a number of shops and facilities that are innovators in fabrication and new materials technology relevant to this studio.

**Travel**
The studio will include a trip to **Venice and Rotterdam**. The purpose of this trip will be to see firsthand two cities that have lived next to and on water for centuries. During this trip we will tour Venice and then to Rotterdam to the campus of RDM and meet with experts in the field of urbanization of costal and river delta areas.

**Energy and Sustainability**
Energy and sustainability are given concerns to be addressed in the studio projects since the specific siting of the projects enables potential energy sources and resources such as water, wind and tide not typically available to most NYC projects.

**Techniques and Materials**
The potential of rapid prototyping techniques to develop viable full-scale architecture constantly changes the ways in which architects and designers think about standardization and construction. This is an old story now since many digitally driven fabrication techniques have short-circuited traditional production systems. Architects often have the ability to completely integrate processes from the design idea through fabrication and installation. Therefore a focus of this studio is to research and explore emerging and current fabrication techniques together with new materials and apply them to new architectural form. Materials cannot be separated from their physical properties and performance, while fabrication methods always have inherent limitations such as economics or environmental impact. New technologies are often born out of the combination or hybridization of two or more existing materials or processes. Students are asked to propose and develop proposals for an architectural project with potential prototyping capabilities using specific products and processes.

**Project Development**
Students will work towards models, large scale mock-ups and drawings and the production of a fabrication scenario – utilizing a technique and material relationship – positioned within the architectural project for the final. Each student or team will present the context – or scenario – for their Floating New York project.

At midterm, each student/or team will select a specific site or sites to test their proposed strategy. This selected area of study will be developed as a detailed architectural proposal.

For the Final Review, students will present their site strategy, the production of a scenario, and the detailed development of their test site at an architectural scale using drawings, models, mock-ups, and large-scale sections.

## Bibliography

Nordenson, Guy, Catherine Seavitt, Adam Yarinsky, Museum of Modern Art (New York, N.Y). On the Water: Palisade Bay. New York, NY: Hatje Cantz, 2010.

Dutch Dialogues, New Orleans, Netherlands: Common Challenges in Urbanized Deltas. Ed. Han Meyer, Dale Morris, David Waggonner, Amsterdam 2009: Uitgeverij SUN Architecture

Rutger de Graaf. Adaptive Urban Development. Rotterdam University Press, Rotterdam University 2012

Mapping New York, Ed. Duncan McCorquodale London, Black Dog Publishing (October 20, 2009)

Gastil, Raymond W. Beyond the Edge: New York's New Waterfront. Princeton, NJ.: Princeton Architectural Press, 2002.

Well, Alex. "Programming the Urban Surface." Recovering Landscape. Ed. James Corner. New York, NY: Princeton Architectural Press, 1999.

Ecological Urbanism. Ed. Moshen Mostafavi and Gareth Doherty 2010 Harvard University, Graduate School of Design: Lars Muller Publishers

Light-ness, Adrian Beukers and Ed van Hinte
Beukers, Adrian; van Hinte, Ed. (1998), Light-ness. Rotterdam: 010 Publishers

Kate Ascher, The Works: Anatomy of a City. (2005). The Works: Anatomy of a City. London: Penguin Books

Sanderson, Eric W., Markley Boyer. Mannahatta. New York, NY: Abrams, 2009.

## Articles

"New York Is Lagging as Seas and Risks Rise Critics Warn", NY Times, Mireya Navarro, Sept. 10, 2012
http://www.nytimes.com/2012/09/11/nyregion/new-york-faces-rising-seas-and-slow-city-action.html?pagewanted=all&_r=0

"Adaptation", Klaus Jacob, The New Yorker, January 13th, 2013 pgs. 32-37
http://www.newyorker.com/reporting/2013/01/07/130107fa_fact_klinenberg

"How High Could the Tide Go?" NY Times, Science Times, January 21st, 2013, Justin Gillis
http://www.nytimes.com/2013/01/22/science/earth/seeking-clues-about-sea-level-from-fossil-beaches.html?_r=0