What if…

FLOATING New York: Expanding an Over-expanded City

PART 1 _Water transportation + the Flood

With New York City’s subway trains jammed to capacity and more people than ever pouring into neighborhoods outside Manhattan, New York City’s Mayor Bill de Blasio has embarked on an ambitious plan to create a fleet of city-owned ferryboats that crisscross the surrounding waterways and connect all five boroughs.

At a cost of more than $325 million, Mayor de Blasio’s expansion of ferry service would be one of the biggest bets any city in the world has made on boats as vehicles for mass transit. Initiated in 2017, ferries have carried more than 2.5 million passengers a year, about as many riders as San Francisco’s ferry system handles.

To further complicate; these new ferry terminal sites are often located in areas of high risk of flooding given the newly released FEMA maps and impacted by new data and modeling*

PART 2 _The Elephant in the Room

November 7, 2018; Amazon announced its plan to open a new headquarters (HQ2) at Anable Basin in Long Island City. HQ2 will bring tens of thousands more workers and residents to a Queens neighborhood that was once heavily industrial and now has a mix of rowhouses, towers, and a slowly growing collection of local residential infrastructure and amenities. The first Amazon employees arrive this month, and the company indicates that they will add them gradually, with a goal of 40,000 hires by 2034.

Given the “elephant in the room”, students will take a position on the impending arrival of Amazon: i.e., what should New Yorkers – the public - get in exchange for this deal?

*provided in the Sea, Lake and Overland Surges from Hurricanes (SLOSH) maps, the Stevens Institute New York Harbor Observing and Prediction System (NYHOPS), and the revised city evacuation map
Key Questions
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 and what will it be made of?
How will it sustain itself? Is it tethered to the City, is it self-sustaining?
What if the 100-year flood line is the new water’s edge?
How will life be integrated into this new edge?
How is public space considered within this new urban edge given the anticipated density?

Program
Students will propose strategies and designs for new public programs together with a new ferry terminal at this key urban interface of water and land in NYC.

These new prototypes for cultural programs at and with the Ferry Terminal: such as Museum, Recreation, Library, Assembly, Clinic, OR Workspace; demonstrating how this new life, will be scripted on and at the water and the water’s edge at Anable Basin.

Site/Context
We will begin by analyzing the Anable Basin site and its extended context on the East River. Students will propose an expanded site condition, to distribute, strategize and test their proposals on the land’s edge and at the body of water adjacent to the Basin.

Long Island City has been one of the busiest neighborhoods for new construction in New York, according to Localize City, a building data site. In the first six months of 2018, about 3,000 residential units were completed, representing about a quarter of all the new units in the City, and another 3,300 units are expected to be completed there by 2020.

Studio Process
The studio will begin with an initial phase of team research on issues pertaining to the site, our program, floatation technologies, land and water infrastructure, environmental and climatic systems, and coastal development strategies. Concurrent with this research phase; students will work individually or in teams to develop programs, concepts, and site strategies along with fabrication and material techniques to formulate their proposed architectural project.

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

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, tide and other technologies not typically available to most NYC projects.

Travel
The studio will include a trip to Venice and Rotterdam, Approximate travel dates: March 8-15. The purpose of this trip will be to see first-hand two cities that have lived next to and on water for centuries. We will tour Venice and then Rotterdam to meet with experts in the field of urbanization of coastal and river delta areas. We will also visit significant examples of contemporary architecture looking at comparative programs in both cities.
**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, and architects now 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**

**Midterm:** Each student/or team will develop a concept with their proposed program to test their strategy. This selected area of study will be developed as a detailed architectural proposal.

Students will work towards models, large scale mock-ups and drawings – positioned within the architectural project for the final.

**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 - *Water/Waterfront*


Mostafavi, Mohsen; Doherty, Gareth (2010). *Ecological Urbanism*. Harvard University, Graduate School of Design: Lars Muller Publishers


**Articles**


Anable Basin


Bibliography - Amazon


https://newyork.cbslocal.com/2019/01/07/seattle-lawmakers-discuss-amazons-impact/

https://www.6sqft.com/how-new-york-won-amazon-see-the-official-proposals-for-each-nyc-neighborhood/