



*Jane's Carousel during Hurricane Sandy: October 22<sup>nd</sup>, 2012*

## What if...

### **FLOATING New York: Expanding an Over-expanded City**

#### **INTRODUCTION**

*Higher sea levels and increasing coastal flood exposure pose growing challenges for the large population and major economic assets along New York City's shoreline. Historically, a number of severe coastal floods (both hurricanes and nor'easters) have struck the city, causing great harm. Superstorm Sandy in 2012 generated the highest water levels in at least 300 years and caused an estimated \$19 billion in damages and 43 fatalities. But major coastal storms are not the only hazard associated with rising seas.*

*An early manifestation of sea level rise is the increasing incidence of clear-weather "nuisance flooding", or tidally related flooding of streets, basements, and low-elevation highways. The number of such events has increased substantially in the United States since the 1950s. Parts of several low-lying New York City neighborhoods surrounding Jamaica Bay and Rockaway Peninsula already experience frequent flooding not associated with storms.*

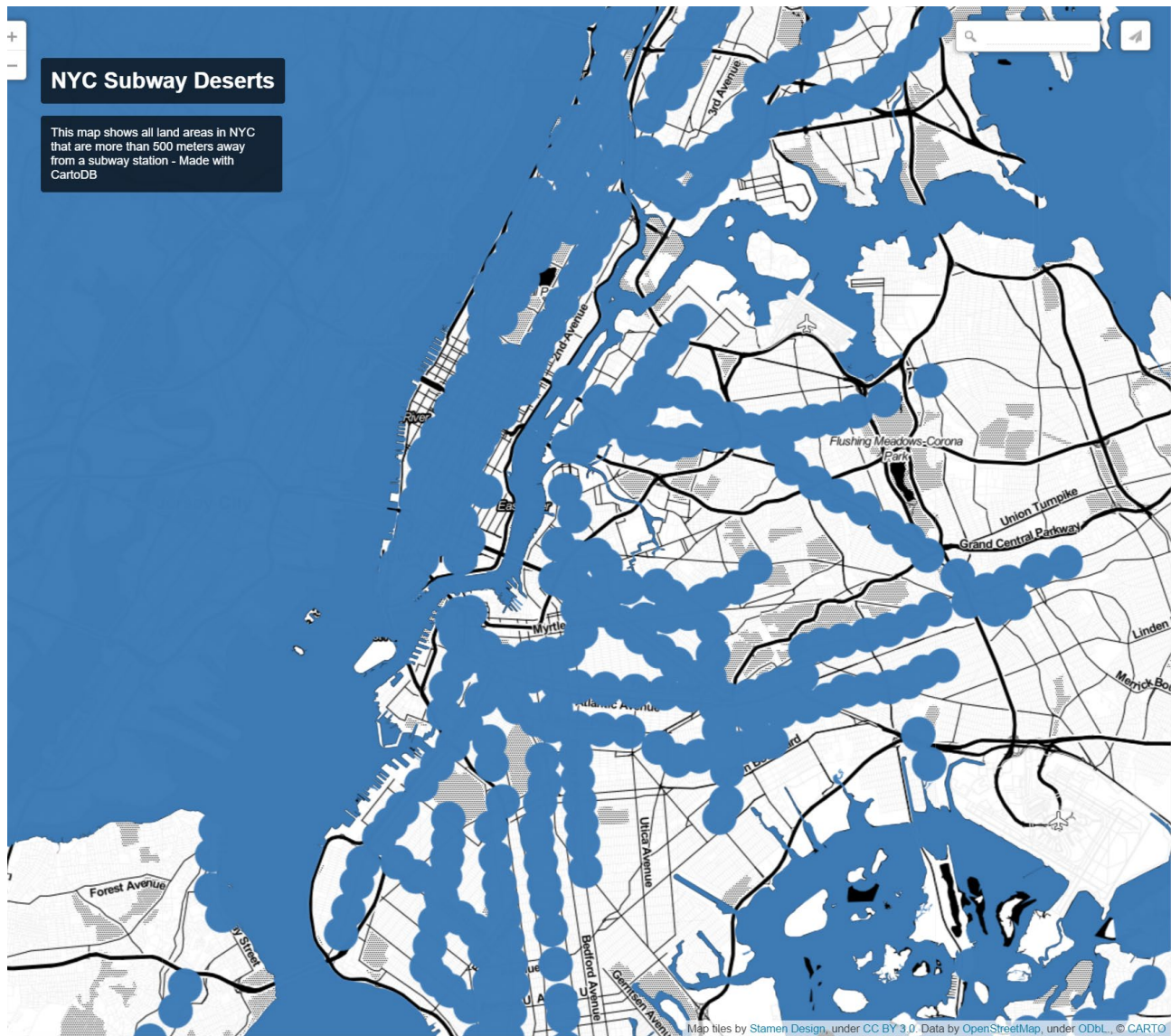
September 2019, Vivian Gornitz, NASA Science Briefs

#### **PART 1\_Transportation and The Flood**

*With New York City's subway trains at capacity and more people than ever pouring into neighborhoods outside Manhattan, New York City's previous Mayor 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 is 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\*. They are also strategically located in areas determined to be *transportation deserts*\*.*



\*transportation desert, Chris Wong

## **PART 2 \_The Elephant in the Room**

December 2022; New York Mayor Adams pledges to boost the City's housing by 500,000 units. Whether you agree with the current Mayor's process or not; IF, NYC follows through, Anable Basin in Long Island City is a possible site which would 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.

**Could the water to land interface negotiate both The Flood and the Elephant?**

## **PROGRAM**

**In this studio we will design structures that transition from WATER to LAND.**

new programs could expand public access and interface in this watery land.

Students will speculate on ways in which strategies and designs for new public programs together with a new ferry terminal at this key urban interface of **watery land** in NYC.

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

Programs will be proposed; possessing a new architecture in every sense of the term. The intention is to explore and reimagine that architecture and its role in shaping this essential watery public infrastructure now and in the future.

## **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 completed there by 2020 with more to come.

## **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?

## **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 through a number of assigned exercises to study 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 through weekly assignments and pin ups using all available types of modeling; including handmade, 3D printed, laser, CNC milling, and 3D printing machines.

## **ENERGY AND HIGH PERFORMANCE**

Energy and High Performance 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 6-10**.

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 observe analyze and document the urbanization of coastal and river delta areas. We will also visit significant examples of contemporary architecture looking at comparative programs in both cities.

## **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 with physical and digital 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.

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## Program

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## SEMESTER SCHEDULE

\*LH \_ Laurie Hawkinson in Studio

\*AO \_ Alonso Ortega in Studio

| JANUARY  |    |  |          |
|----------|----|--|----------|
| WEEK 1   |    | STUDIO INTRO + RESEARCH + SITE MODELS  |          |
| M        | 23 | Studio Meets Ware Lounge<br>Intro, Portfolio Review + Assignment #1, Research Teams + Topics,<br>+ Assignment #2.0 | LH*, AO* |
| TH       | 26 | Desk Crits, Site Visit (weather? TBD)  | LH       |
| WEEK 2   |    | RESEARCH GROUPS + ADVANCED SITE MODELS   |          |
| M        | 30 | Studio Meets 115 Avery<br>Pin up Assign Model #2.0, Assign Model #2.1  | LH, AO   |
| FEBRUARY |    |  |          |
| TH       | 2  | Desk Crits   | LH,      |
| WEEK 3   |    | SITE RESEARCH + SITE MODELS  |          |
| M        | 6  | Studio Meets Ware Lounge,<br>Pin up Assign Model #2.1, Assign Model + Concept Strategy #2.2                        | LH, AO   |
| TH       | 9  | Desk Crits   | LH       |
| WEEK 4   |    | COLLOQUIUM – SITE RESEARCH + PROGRAM   |          |
| M        | 13 | Studio Meets 115 Avery<br>Research Colloquium Assignment #1, Pin up Assign #2.2<br>Assignment #4                   | LH, AO   |
| TH       | 16 | Desk Crits<br>Assignment #4 DUE  | LH       |
| WEEK 5   |    | CONCEPTS + STRATEGIES + MODELS STUDIES   |          |
| M        | 20 | Desk Crits,  | LH       |
| TH       | 23 | Desk Crits   | LH       |
| FRI      | 24 | MIDTERM REVIEW 115 Avery   | LH, AO   |



|                |             |   |               |
|----------------|-------------|---|---------------|
| <b>WEEK 6</b>  |             | <b>CONCEPT DEVELOPMENT, CHUNK MODELS + PROGRAM DIAGRAM</b>  |               |
| M              | 27          | Desk Crits, Assign Chunk Model #3, Trip Assignments #5 + #6   | LH, AO        |
| <b>MARCH</b>   |             |   |               |
| TH             | 2           | Studio Meets 412 Avery<br>Pin up Chunk Model #3 + Travel Photo Assignment   | LH            |
| <b>WEEK 7</b>  |             |   |               |
| <b>M-F</b>     | <b>6-10</b> | <b>KINNE TRAVEL</b>   |               |
| <b>WEEK 8</b>  |             |   |               |
| <b>M-F</b>     | <b>13-1</b> | <b>SPRING BREAK</b>   |               |
| <b>WEEK 9</b>  |             | <b>PROJECT REVISE, DEVELOP + DETAIL</b>   |               |
| M              | 20          | Studio Meets Ware Lounge<br>Pin up Review Assignments #5 + #6<br>Assign Model #4 Detail,<br>Revise Scheme Development,<br>Section Development | LH            |
| TH             | 23          | Desk Crits - Envelope Diagram   | LH, AO        |
| <b>WEEK 10</b> |             | <b>ENVELOPE + SCHEME DEVELOPMENT</b>  |               |
| M              | 27          | Studio Meets 115 Avery<br>Pin up Model #4 Detail<br>Assign #7 Envelope + Section  | LH, AO        |
| TH             | 30          | Desk Crits – Envelope + Section   | LH            |
| <b>APRIL</b>   |             |   |               |
| <b>WEEK 11</b> |             | <b>TECHNICAL DEVELOPMENT</b>  |               |
| M              | 3           | Studio Meets 115 Avery<br>Pin up, Assign #5 Envelope, Plan, Site Section, Screen Shots. 3D Model  | LH, AO        |
| TH             | 6           | Desk Crits  | LH            |
| <b>WEEK 12</b> |             | <b>MODELING – FINAL MODELS</b>  |               |
| M              | 10          | Studio Meets 115 Avery<br>Model Review  | LH, AO        |
| TH             | 13          | Desk Crits  | LH            |
| <b>WEEK 13</b> |             | <b>SITE + MODELING + FINAL DEVELOPMENT</b>  |               |
| M              | 17          | Desk Crits  | LH            |
| TH             | 20          | Desk Crits  | LH, AO        |
| <b>WEEK 14</b> |             | <b>FINAL REVIEW</b>   |               |
| <b>W</b>       | <b>26</b>   | <b>FINAL REVIEW Ware Lounge</b>   | <b>LH, AO</b> |