Float Flutter Flow
Floating Islands

Columbia University
Graduate School of Architecture, Planning, and Preservation
Advanced Studio IV, Spring 2015

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I dream of a new age of curiosity. We have the technical means for it; the desire is there; the things to be known are infinite; the people who can employ themselves at this task exist. Why do we suffer? From too little: from channels that are too narrow, skimpy, quasi-monopolistic, insufficient. There is no point in adopting a protectionist attitude, to prevent "bad" information from invading and suffocating the "good." Rather, we must multiply the paths and the possibilities of coming and goings.

Michel Foucault, "The Masked Philosopher"

Floating Islands have captured the imagination of writers, artists and filmmakers from Homer to Jules Verne and Andrea Zittel to Robert Smithson. The Japanese are proposing floating cities to address climate change and weather. Long a mainstay of science fiction and fantasy- the technology exists to imagine these future landscapes.

We will explore these advancements towards the creation of a green edge of floating islands around Hoboken, NJ and designing a floating laboratory classroom for Hoboken students. A network of artificial islands is a productive, attractive, and cost-effective approach to create ecological infrastructure and new public space. Just as the great Aztecs produced agriculture on floating chinampas, or Bangladesh created societies around floating gardens, or just as Thailand's floating markets attract tourists and drive the local economy, floating islands could be the future of productive open space in the New York City Region.

There are several ecological benefits to a network of floating islands. The island module is expandable and flexible — it can be deployed to protect the city from storm surge and accommodate the rising sea level. They can be designed as a network of landscaped sponges that filter and clean the river. They can even provide a framework for new infrastructure for habitation and to capture energy. This studio will explore the potential value of a floating landscape.

Moreover, we can begin to look at their potential as productive spaces. Hoboken used to be an island and needs to develop innovative alternatives to managing water and waste. The floating islands may offer solutions to cleaning and storing water. The City could even develop new economies through resilience. It is a productive botanical urbanism. There is a delicacy, La Bonnotte potato, from Île de Noirmoutier, an island situated off the Atlantic Coast of France, that grows specifically in salt water.

Finally, and most importantly, they can provide fun and exciting opportunities for recreational public space. We imagine a network of islands equivalent to the size of Central Park around Manhattan. Like Central Park, this landscape will serve as a productive landscape infrastructure and innovative public space model for coastal cities in the 21st century.

Draft Format
The studio will challenge a linear design approach and is structured as an experimental design inquiry into the seemingly chaotic patterns of modern life. The studio project will investigate methods to sort, edit and weave endless streams of data and influence into design strategies, patterns and relationships. The approach is multidisciplinary; students are required to step outside of the traditional confines of the "designer's world" to absorb as much of the web of life as possible through immersion, exploration and exposure to a variety of influences in order to frame their design.

The goal of this project is design informed—and continually transformed—by investigations and experiences of the complex relationships among natural phenomena, inter-social dynamics, and ecosystems. Ecosystems are not isolated from each other, but are interrelated. The first principle of ecology is that every living organism has an ongoing and continual relationship with every other element that makes up its environment. The ecosystem is composed of two entities: the entirety of life (the biocoenosis) and the medium in which life exists (the biotope).

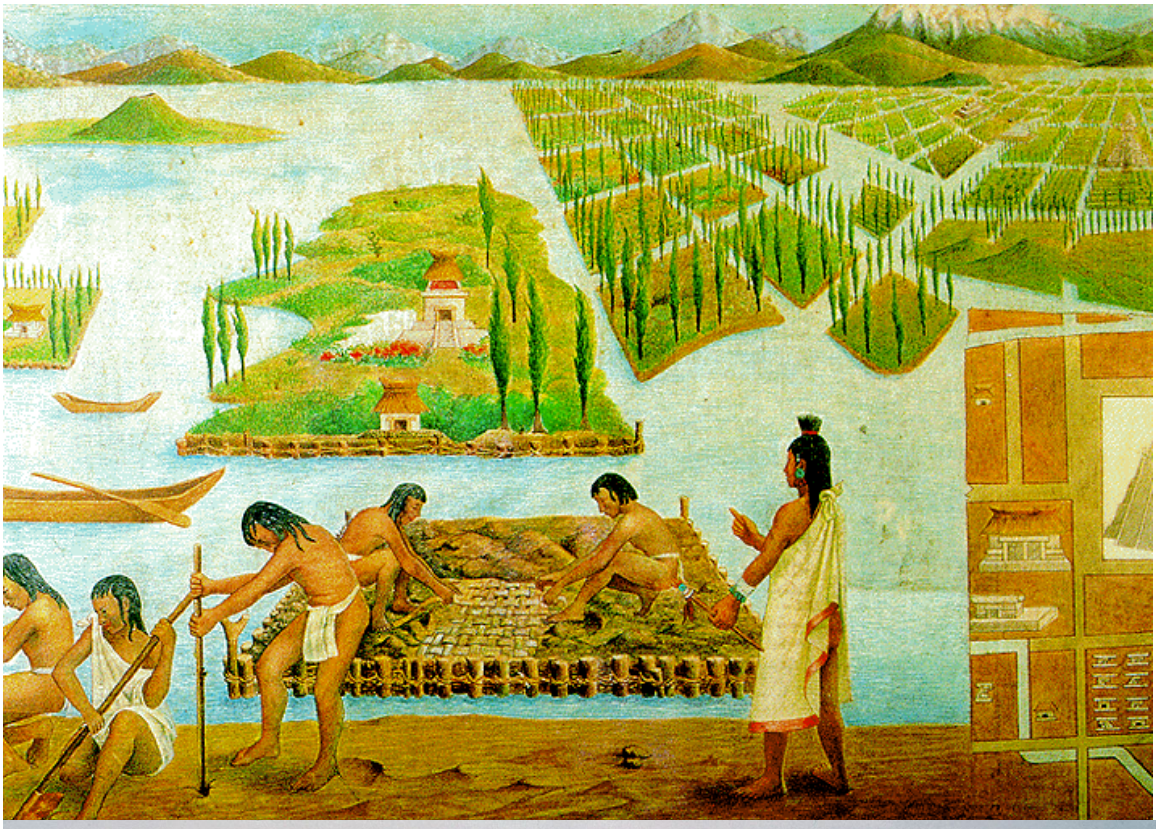
Like the weather, design is inseparable from personal experience and external influences. As we move towards the assimilation of work/play and architecture/ nature, designers must develop tools to negotiate complex assemblages of influence, social ecologies, systems, data sets, patterns, and behaviors, which are constantly shifting and changing and evolving. We will push the boundaries of linear design to create what I call dynamic design, which, like the weather, social interactions, and ecosystems are defined by changeability, mutability and the potential to evolve.

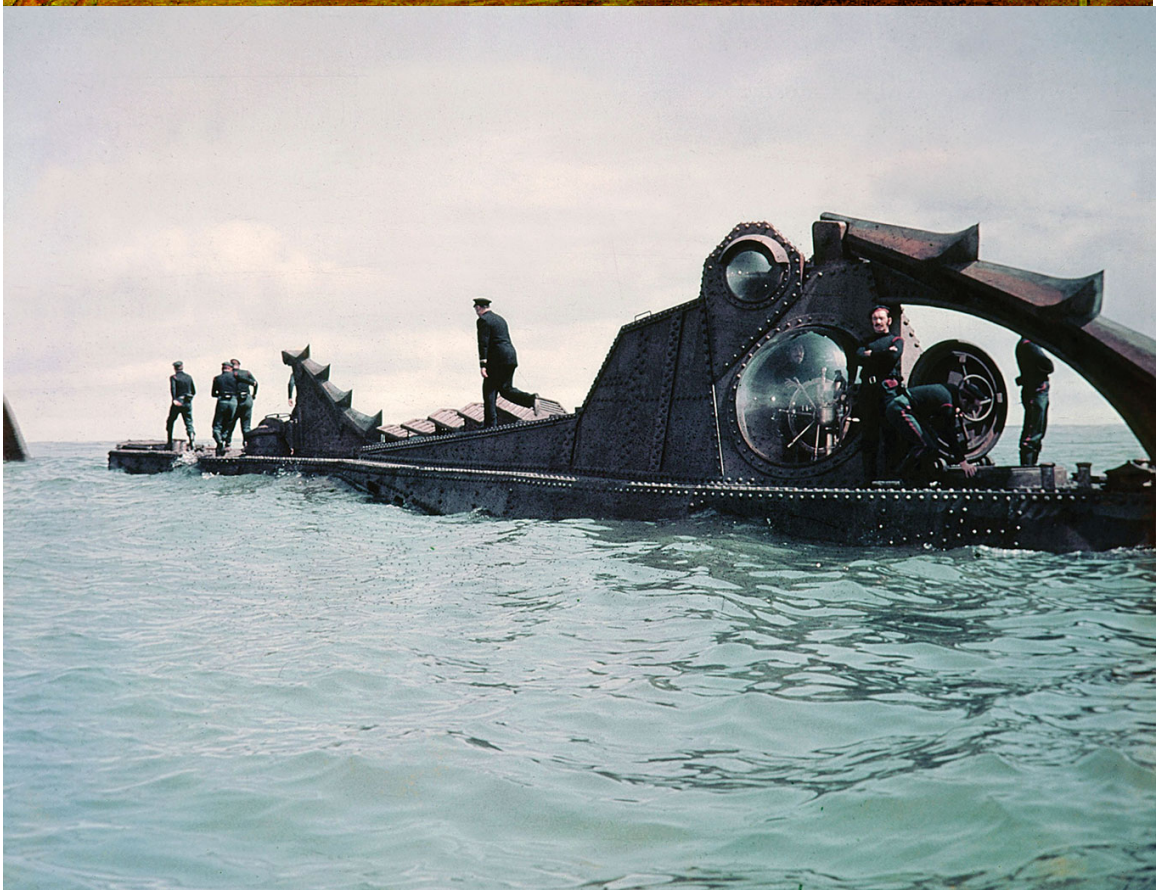
Of course without some kind of human construct in the designer's mind there would be chaos. A solution to this problem is the creative application of *algorithms* to embed ideas and experience into an emerging future. The algorithm is a dynamic and intuitive process. By applying an algorithm we create a heuristic set of rules and flexible procedures for discovery and decision making. The creativity of the process lies in playing out the formula and seeing the project evolve, adapt and transform according to the changing variables and collaboration of the players involved. New relationships, ideas and questions emerge from the game with every small tweak of the variables and through the human social interaction inherent in the approach.

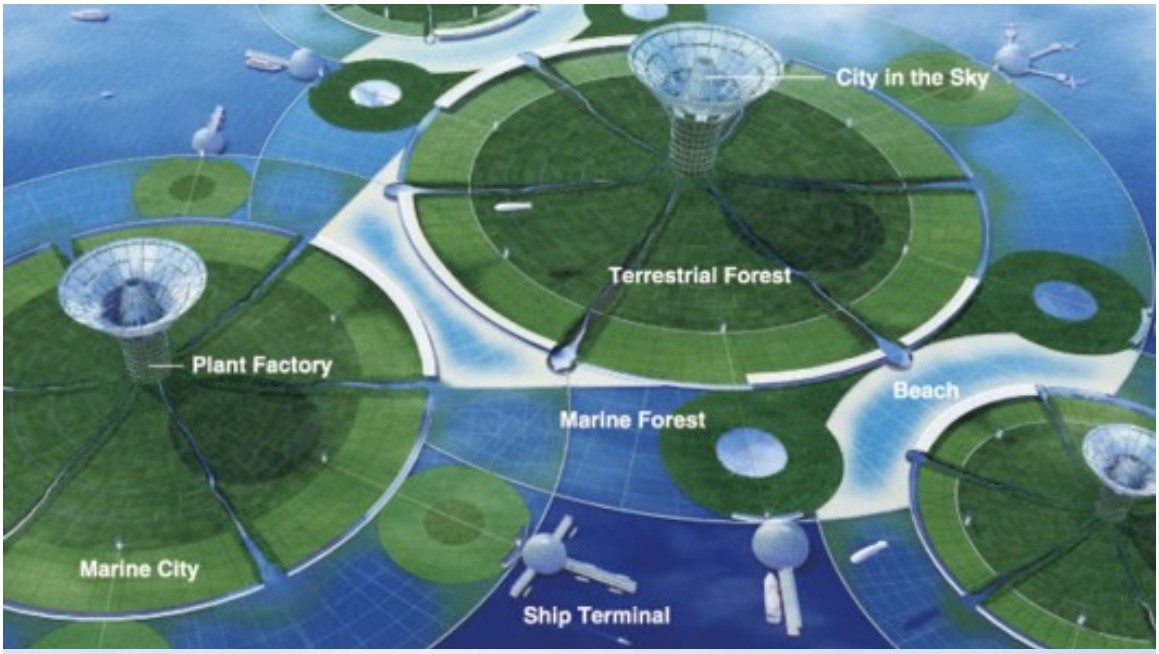
We will diagram, model (physical and 3d) and develop innovative landscape and building materials to design new typologies of architecture and landscape - city and infrastructure.

The studio is part of the "Scales of Environment" series, which includes eight sections of Advanced Studio IV. Building from the body of work of the Rebuild by Design Competition www.**rebuildbydesign**.org/, we will share information with the other studio sections and work with knowledge partners including:

Hoboken Mayor Dawn Zimmer
North Hudson Sewerage Authority
Stevens Institute of technology
OMA/HR&A/Royal Haskoning DHV
US Army Corp of Engineers






City in the Sky
Terrestrial Forest
Plant Factory
Beach
Marine Forest
Marine City
Ship Terminal