

## THE MICRO MEGA CITY

Mass Programming Randall's Island

A Vision for Manhattan, inspired by Zaha Hadid



“The World (89 Degrees) 1983”, Zaha Hadid

Critic:

Markus Dochantschi

Zaha Hadid had been pushing the boundaries of architecture until she suddenly passed away earlier this year. In 1983, Zaha Hadid expressed in her painting, *The World (89 Degrees)* her excitement to integrate emerging technologies and a change in lifestyle to push and develop new possibilities in architecture. 33 years later, Zaha Hadid has not only created a remarkable portfolio of work, but changed the way in which we see architecture.

With new technology available today, architecture will have to continue to reinvestigate its foundations and possibilities. The studio will explore new multifunctional cross-programmed housing typologies, and analyze design methodologies developed by Zaha Hadid.

The site, Randall's Island, has as many opportunities as it has challenges. As we move further into the 21st Century, the studio will be challenged to investigate future housing typologies by cross utilizing programs and utilizing new media tools. Booking systems like airbnb (belong anywhere) have interrupted traditional industries and made the desire for ownership obsolete. Space sharing changed how housing can become systematically and economically "affordable". The housing market will drastically change as will the way, in which we live, work, and play.

The Micro Mega City (MMC) on Randall's Island will allow for housing, recreation, and work to coexist with an unprecedented maximum of efficiency and a minimum of cost.

Large housing projects have in the past been dominated by density to achieve affordability. The studio will inject large recreational areas into to hyper dense and tall housing clusters, while establishing its own transportation network on the Island. The goal is to allow coexistence between homeless shelters, affordable housing, luxury housing, wastewater management, a psychiatric hospital, music festival, art fairs, a sport arena, and recreational sport fields: Micro Mega City for New York City (MMC-NYC)

Parallel to designing a mass programmed MMC on Randall's Island, the studio will be traveling to London to visit the office of Zaha Hadid Architects. The purpose of the visit is to analyse and explore the design methodology of the office, and for students to develop their own design methodology. The trip will also include visits of other London based firms, and will include a work shop with Adams Kara Taylor, one of the world leading structural engineers, fundamental in bringing Zaha Hadid's design visions to reality.

#### Background and Context Randall's Island:

Randall's Island and Wards Island are joined islands, located in the New York City borough of Manhattan. The island has a total size of over 500 acres and currently offers a diverse catalogue of programs, including athletic fields, picnic grounds, a psychiatric hospital, housing shelter for the homeless, hospitals, state police station, fire academy, and wastewater treatment plant. The island is connected to Manhattan, Queens and The Bronx via the Tri-borough Bridge and via a bicycle and pedestrian bridge to East Harlem.

In the 19<sup>th</sup> century the Island was known for several social facilities, including orphanages, housing and burial grounds for the poor, psychiatric hospitals, a homeopathic hospital, and rest home for Civil War Veterans.

Today the island is known for music festivals and art fairs, as well as sport facilities and recreational parks. One of the most underused qualities of the island is its water frontage.

### Background and Context Affordable Housing New York:

The City of New York developed a ten-year plan for the five boroughs to build and preserve 200,000 affordable housing units. The city is facing an affordable housing crisis as housing costs are continuing to rise to new heights, while income levels for most New Yorkers remain stagnant. If New York City wants to grow socially and sustainably as a city, it will have to promote new models for mixed used/affordable housing. While Micro Units will help to accommodate young professionals, a functioning Micro City will be dependent on an economically and socially diversified population.

[http://www.nyc.gov/html/housing/assets/downloads/pdf/housing\\_plan.pdf](http://www.nyc.gov/html/housing/assets/downloads/pdf/housing_plan.pdf)

### Studio Summary:

The studio will be tasked to design the MMC for Randall's Island. The students will be asked to develop their own design methodology, establish a mixed-use program, and to design a city, which will represent the spirit of a new lifestyle. It will shape the way New York City functions locally, and globally.

### Studio Research:

Each student will be tasked to research mass housing projects around the world, and to analyse Randall's Island. Students will also be asked to analyze the systems connecting Randall's Island to the local infrastructure, and develop a strategy to better connect and integrate it. We will use data collected by the City of New York to develop a master planning strategy and to inform the design of the MMC-NYC.

### Studio Project:

The goal will be to develop an unprecedented housing typology for the MMC-NYC: design and program should be in symbiosis with a visionary design aspiration, reminiscent of the demands of the future city dweller.

### The Program:

While the focus is on designing a housing cluster tower, we will investigate and cross-program hotel, housing (short term/long term), recreational facilities (local/visitor), conference centre (local/visitor), shopping (local/visitor), and healthcare (short term/long term).

We will investigate the rise of the "sharing" economy and its impact, take advantage of tools like *Kayak*, *Airbnb*, *Uber*, and look into shared work/living spaces like *NeueHouse*, *WeWork* and *WeLive*.

The design should incorporate sustainable goals and minimize energy consumption, reduce emission and noise, and be operational during a flood event. The transportation system should explore land, water, and airways to provide faster congestion free access. The MMC-NYC will provide a destination for locals and visitors.

## Site:

The site will be Randall's and Wards Island. The Island has a total of 520 acres and is some of the most underused real-estate in New York City.



## Studio Schedule:

### Phase 1: 2 weeks

In the first phase of the studio, we will dive directly into developing a program and master plan for the entire Island. We will research mass housing around the world, but we will also look into how the rise of the sharing economy (Uber, Airbnb, and WeWork) has changed the way we move, live, and work and how architecture can create new typologies to accommodate a nomadic, sharing society. This methodology will equip the studio to design a new, perhaps ideal, housing.

We will also investigate design methodologies developed by Zaha Hadid and each student will be tasked to develop their own design methodology in order to design the MMC-NYC.

### Phase 2: 2 weeks

In the second phase we will test programmatic assumptions in real scale and develop a first draft of a master plan to also include infrastructural solutions. The studies will be done as massing studies.

The design methodology developed will be tested in the form of diagrams and conceptual drawings.

### Phase 3: London trip

We will travel to London and meet with Patrik Schumacher of Zaha Hadid Architects, as well with Senior Architects from the office to learn about past and current projects to get an understanding of the design methodologies developed by Zaha Hadid Architects over the past decades. We will also meet with the office of Thomas Heatherwick and have a full day workshop with one of the world leading structural engineers: Adam Kara Taylor. The purpose of the trip is to equip the students with structural knowledge necessary to design a Housing Cluster Tower for the Micro Mega City.

The trip dates are October 06 to October 10.

### Phase 4: 10 weeks

In the fourth phase of the studio, we will design the Housing Cluster Tower for the Micro Mega City, implementing the goals developed in the first three phases. The designs will be somewhere between the scale of a neighbourhood and a building. The set goals will be tested against the specifics of the site and context. Modelling and animations will be used to simulate and analyse the architectural proposal.

The emphasis will be on the creation of a fully developed architectural scheme. We will invite environmental, civil, and structural engineering consultants, as well as representatives from large New York real estate developers, shopping mall operators, and housing experts (HP New York) to discuss the projects.