Master Thesis

New York City - Manhattan - West side - Hudson rail yards

New York City Theatre - Horizontal Skyscraper



POLITECNICO DI MILANO Scuola di Architettura e Società "Sustainable Architecture of Multi-Scale Project" A. A. 2012 - 201 Professor: Guya Bertelli

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Introduction

Abstract

New York City is a city of dreams, built up from dreamers, who had escaped from their reality in Europe, looking for new horizons to realize their dreams. During the epoch of industrialization, their minds had discovered unimaginable before opportunities and they had created a city – symbol of the eternal search of new heights and realizing the visibly impossible.

In this city — symbol of the technological success/progress - naturally starts a transformation. And if in the epoch of its foundation there had been necessity of building up factories (the places of productivity) , nowadays the new industry (this one of the mind and "soft" technologies), which takes place in office buildings, conquers the former industrial zones.

In this sense, the only place which keeps a past identity in Manhattan – the Hudson rail yards – logically needs to be transformed in order to respond to the present needs of the population.

On another hand, the city is located on an island, which because of its geography cannot grow endlessly. For being sustainable, an urban environment needs to comfort in best way its citizens. Sequentially, people need not only place to work but also place to recreate their energies.

In conclusion, we find the place of Hudson Rail yards extremely challenging for the reason that it must combine in its future development the two main aspects of human's life – work and recreation - and it is in our power to find and propose best balanced solution for achieving it.

What association evokes in us the word "infrastructure" in the context of urban and architectural planning?

Infrastructure forms the back bone of a city. It appears before actually the place to be inhabited. In case it comes after, than it necessarily modifies the place in a significant way, creating urban voids.

Some people call it No man's land - open spaces generated by infrastructure placed in the city and its periphery. Its use gives the character of the place – point/line of transition – for short time of use.

Infrastructure occurs as main instrument through which we experience and perceive territory and landscape. It makes the space operational and communicable, otherwise spaces would be disconnected.

Let's listen to the "places", recognize and respect its identity, which is not a fact, but a work in progress. Only in this way we will be able to highlight unexpressed potentialities and hidden characteristics and to give new meanings to place that have apparently lost their values.

Classen 2009/2010 – "I suggest that we pay attention to touch ... The cleanest source of energy, some say, is muscle power, and muscle power, by involving us in direct interaction with our physical surroundings, provides us with one of our greatest sources of pleasure. A tactile city would ... aim to increase opportunities for social interaction, such as the participation of the public in communal events or informal encounters."

Steven Holl, 2008 – "The sound of church bell through the streets makes us aware of our citizenship. The echo of the steps on a paved street has an emotional charge because the sound bouncing off the surrounding walls puts us in direct interaction with the space; the sound measures space and makes it scale

comprehensible. We stroke the edges of the space with our ears. $^{"}$

What association evokes in us the word "urban void"?

Research Context:

To investigate "infrastructural voids", it is important to build a framework to help define what void spaces left by infrastructure are and the main qualities that characterize them. In this section we will also make an attempt to reach to a clearer definition on their role within the city as well as the discussion around what to do in them and the part architecture should take in this development. For this we will address some concepts and issues related to these topics and quote some of the research done by other architects.

Urban Void

The interest for the empty spaces inside congested cities becomes of great interest for the scale generally these spaces have and their location within the city. They are often located in areas of high economic value and they are sometimes also the only existing remaining free spaces in high-dense cities. Their development represents

"Today, intervention in the existing city, in its residual spaces, in its folded interstices can no longer be either comfortable or efficacious in the manner postulated by the modern movement's efficient model of the enlightened tradition. How can architecture act in the terrain vague without becoming an aggressive instrument of power and abstract

reason? Undoubtedly, through attention to continuity: not the continuity of the planned, efficient, and legitimized city, but of the flows, the energies, the rhythms established by the passing of time and the loss of limits... we should treat the residual city with a contradictory complicity that will not shatter the elements that maintain its continuity in time and space."

With the term "Terrain vague", de Solá-Morales refers to abandoned area, obsolete and unproductive spaces and buildings, often undefined and without specific limits. These areas that are the result of the transformations of the city which adapts to the changing needs over time are embedded in contexts with very sharp features. As a consequence, Solá-Morales insists in the preservation of these characteristics in order to achieve a non-aggressive relationship between the new coming architecture and the existing tissue. He even makes reference to the value of this emptiness and state of ruin these areas have, and raises the idea of preserving the absence of buildings. In this way

"The cultural experience of the big city is formed by a human tissue in which the survival over time of the meaning of the locations cannot be underestimated."

"Only an equal attention to both, the values of innovation and the values of memory and absence, will be able to keep the trust in a complex and diverse urban life."

"The comparison with the phenomenon of urban parks cannot, however, deceive regarding the differences. Preserving, managing, recycling terrain vague, residual spaces of the city, cannot be simply rearrange them to integrate back into the efficient and productive fabric of the city, canceling the values

its emptiness and absence had. On the contrary, the void and absence must be kept to should make the difference between the federal bulldozer and the approximation sensitive to these places of memory and ambiguity."

With the coining of the term Terrain Vague, Ignasi de Solà-Morales is interested in the form of absence in the contemporary metropolis. This interest focuses on abandoned areas, on obsolete and unproductive spaces and buildings, often undefined and without specific limits, places to which he applies the French term terrain vague. Regarding the generalized tendency to "reincorporate" these places to the productive logic of the city by transforming them into reconstructed spaces, Solà-Morales insists on the value of their state of ruin and lack of productivity. Only in this way can these strange urban spaces manifest themselves as spaces of freedom that are an alternative to the lucrative reality prevailing in the late capitalist city. They represent an anonymous reality.

City Hall Analysis on the needs of New Yorkers

Research Context

New York is a city in constant growth and along with it, its demands and needs also increased. The 2010 census indicated that more than 8 million people live in New York and the residential growth as well as business activity is expected to keep on going up. The New York City government has always sought for solutions to meet the needs of its citizens but "In a place where dreams and ambitions are limitless, land is not" according to the New York Department of City Planning. The problem is that there are few free sites remaining for housing new buildings. The city's first priority currently is the rebuilt of Lower Manhattan and is expected to be finished by the end of 2013. However, the need for midtown Manhattan is unrelated to the rebuilding of Lower Manhattan. As a consequence the development of the Hudson Yards area represents an important issue for the government to provide new opportunities to the citizens. The main needs for this area can be resumed in Office space, housing and the extension of the Jacob Javits Centre. More details are given for each item:

. Office Space: New York region, it is anticipated that there will be the need to accommodate over 440,000 new workers, requiring 111 million square feet of new space by 2025. If Midtown captures near its historical share, 45 million square feet of office space would be needed over the next 20 years. There is perhaps room to accommodate only 20 million square feet in

Midtown. In a place where dreams and ambitions are limitless, land is not.

Over the last several decades, regional office growth trend shifted from the City to New Jersey and Long Island where land is plentiful and cheaper. This shift in office locations has implications for the Region and New York City. Suburban office development has an environmental cost as workers shift from mass transit to private automobiles and patterns of regional sprawl expand. Not only does suburban office development have a negative impact on the region, but it negatively impacts New York City as well. Income taxes and real estate taxes generated by Manhattan office space is the major contributor to our city's operating budget. This revenue provides services to all New Yorkers in every borough.

- . Expansion of the Jacob K. Javits Centre: Ranks only 18th in size in North America. The Javits is not only hindered by its size, but also by its array of spaces it can offer conventions. The Javits can't serve the 60 largest annual shows, and is fully booked for the limited space it does have. The convention center must expand to be competitive and must provide more meeting spaces, ball rooms, and plenary halls to attract new users.
- . Housing: Increasingly, people are moving into, and back to, Manhattan to be closer to work, and to feed off Midtown's cultural and entertainment energy. The demand for new housing

in New York City is great and is expected to grow in the following years.

Case studies - Competition 1999

IFCCA COMPETITION: Conceptual Design of Cities

The CCA Competition for the Design of Cities invited architects from around the world to submit solutions to a problem facing all major cities at the dawn of the 21st century: how to repair the scars left by transportation structures that are vestiges from a bygone era of economic activity.

The competition explored how twenty-first-century architects are imagining ways to heal the gashes that transport systems have left in the texture of the city. The site selected for the competition was a part of Manhattan's West Side, an area that played a key role in New York City's development during industrialization and the golden age of rail and sea transport and home to an impressive number of railways, warehouses and abandoned factories. However, a number of subsequent developments, such as the construction of a major rail terminal and the expansion of the Jacob Javits Convention Centre, indicate the potential of turning the area into a vital new centre. The uniqueness and complexity of the site, given the many different elements it contains, render existing urban development formulas ineffective, both socially and economically. Competitors were encouraged to consider how to overcome the site's isolation, spark new forms of urban experience, and vitalize those forms that may have been overlooked. In February 1999, a jury of eight international architects and city planners, headed by the CCA's Founding Director and Chair of the Board of Trustees, Phyllis Lambert, selected the five finalists among some one hundred nominations from around the world, and

subsequently announced Eisenman's design as the jury's choice.

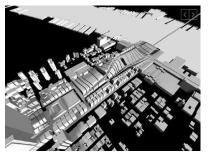
The five finalists were:

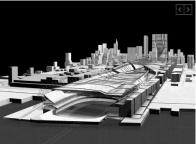
- Peter Eisenman. Eisenman Architects. New York
- Ben van Berkel and Caroline Bos, Van Berkel & Bos UN Studio, Amsterdam
- Thom Mayne, Morphosis, Santa Monica
- Cedric Price, Cedric Price Architects, London
- Jesse Reiser and Nanako Umemoto, Reiser + Umemoto RUR Architecture P.C., New York.

THE PROPOSALS:

In order to make a clear analysis of the proposals submitted by the five finalists of the competition, we will make focus on the problems encountered by each participant regarding the site and context. With a brief description of their projects we will show how the architect's solutions to address these problems and the future consequences as a result of these proposals.

PETER EISENMAN: The First Urban icon for the next millennium





Problem:

. The location of three of the buildings of the site: The Stadium, the Convention Centre, New Madison Square Garden. The scale and isolation of these buildings contributed to the destruction of the fabric of the city.

Proposal:

. The proposal is a low rise high density horizontal intervention at an urban scale that introduces public open space laterally into the city rather than along the river's edge. It comprises a new east-west park, which would flow along the West 30s form the Hudson River to the Eighth Avenue. The park would create an undulating public path, like a fold in the urban fabric. On the west side, this undulating park would connect with Hudson River Park, allowing for a pedestrian route from the riverfront into the centre of Midtown. At the end of the park on the east side a monumental office building would stand on Eighth Avenue, in the Madison Square Garden's current location, and the new building for Pennsylvania Station. A group of building with public

functions, such as the new Madison Square garden and an extension for the Javits Exhibition Centre would be built below the park. Such a lateral intervention could be mirrored on the New Jersey side of the Hudson in a kind of reciprocal development.

Consequences:

- . Integration between the old and the new in a new urban whole.
- . Integration of the river edge with the interior of the city.
- . A way to integrate low rise commercial and residential development at a scale and density that meet community needs with economic sense.
- . Blur of the traditional figure ground distinction between building and context.
- . A way to integrate regional, city wide and local public and private transportation systems to provide a new and ready access to the far west side.
- . Blur of the traditional concept figure/ground distinction between building and context.

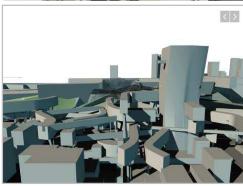
Critical Reading:

The proposal presents a very relationship between the site and the project. The low rise approach towards the river increasing the height only on the west part helps to integrate the project into the site. We find very important that the project takes in account the pedestrian connection between the riverside and midtown. In addition, an advantage of the project is the fact that the relation between the project and the New Jersey shore is studied.

THORN MAYNE: Mutating the city grid







Proposal:

The proposal is built around lines of connection and displacement. The project is based on an armature of public space running east and west. The central principle of organization of the public space is a public park (oriented ion the true east west axis) infused with a great variety of public recreational, private commercial, cultural, social and recreational uses. These are positioned in the multilayered platform, created by moving and folding the surface, supporting and spatially

integrated with the park and zoning envelopes and restrictions, points of connection, and border conditions set the design parameters for them. The park ends in a floating beach platform in the river supporting year round uses.

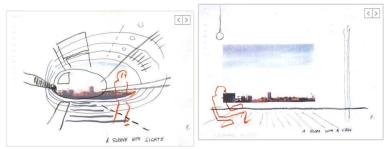
In the north and south territories additional private structures for office, commercial and housing are to be built, connected to the park above actual grade. The outer territories of the project which join with the existing city are to be design by others within a loose set of constrains focusing on border conditions.

Critical reading:

The project's proposal for a public space and park seem to suit the demands of the site and the need for green area. However, the direction of the location of these areas, breaking slightly the grid of the city, doesn't creates a harmonic relationship between the project and the surroundings. This break from the city grid creates misleading directions that isolate the project from the site instead of integrating it. Besides, the buildings don't seem to be related as well with the context, creating a chaotic composition.

A positive characteristic is the extension of the project towards the river side creating continuity, though it would have been also positive to have this relation towards Midtown.

CEDRIC PRICE: A lung for Midtown Manhattan



Problem:

Moving Fresh Air over the entire site.

Proposal:

The project comprises a series of elements and strategies to ensure the entrance and flow of fresh air towards Midtown Manhattan. These elements are:

- . Steel Laser transmission towers: encompass the entire site at the height of 85 feet from ground level to give a rough visual reminder to all of the former zoning. Laser beams affected by environmental conditions.
- . Hudson sleeve: A continuous enclosed public promenade fronting the Hudson bank. It extends across the entire site, providing a high level view for the pedestrian at the height of 20 feet above the river bank. It also provides shelter to the ground based pedestrian access.

- . West Yard building: two floors are to be removed to create a wind gap.
- . Javits Convention Centre: Extension towards the south.
- . The cleared land immediately to the south and north of the railways tracks is covered with a cascade of fused blue glass balls the size of cannonballs. Cleaned by rain and mist, they glisten in the sun while brooding darkly under snow.

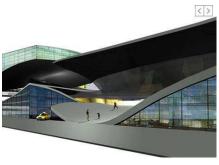
Critical reading:

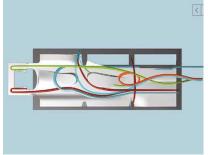
The proposal's attempt to bring fresh air to the area is interesting as a concept, but the way in which the project is developed is unrealistic regarding the practical side. The built elements of the project are not related to the site's surrounding, which creates a weak relationship between the project and the site. In addition, we believe that the project doesn't suits with the economic demands of the area, since leaving the area free of construction is not profitable, taking in account the high value of the land.

VAN BERKEL & BOS / UN STUDIO: On the importance of architects. A move away from the traditional urban planning process.









Problem:

- . The area contains a number of service facilities scattered around the area between 42 and 28 Street that are vital to the running of Manhattan, that have a negative effect on their immediate surroundings:
- . They block the further development of the west side and prevent the full land use of several districts.

- . They constitute physical barriers that block fluent connections between the locations.
- . Topological conditions: Absence of a ground level on the competition site and the Lincoln Tunnel Site.

Proposal:

The project's development lies on what they call "critical package", a term chosen to indicate relational qualities, seeking to find the correct combination of factors that ensures an optimum use if the site. According to these they propose to:

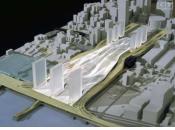
- . To concentrate as many facilities as possible and use the funds that is generated by freeing up the land for commercial development in the neighboring areas to build over the railways storage yards. The strategy involves reorganizing and densifying the facilities rather than replacing them. The advantages are the increased permeability of the barriers between the competition site and the neighboring areas. Economic advantages by relocating certain facilities to cheaper land and by the release of presently occupied blocks for commercial development.
- . Clusters: Mainly residential. Area can only become a community if enough people live there to generate local shops and other services. 80% of residences would be 2 and 3 room apartments, the rest studios and 4 room apartments. Living space for 15.000 people.

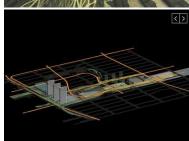
World media cluster: New type of conference and communication centre to replace the Javits centre. The Javits is now an exhibition centre but it is too small to work in the right way. Besides it does not need its high value waterfront location, it would be better on a lower value location near to public connections and facilities.

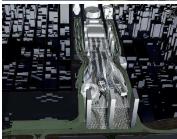
- . Public Surface: Conceived as a continuous landscape that bridges 10th and 11th Avenues, rises highly from Pennsylvania station towards the middle and slopes down again to meet the waterfront. Public surface as a surface that thickens hollows and stretches in various ways to accommodate the different programs. The clusters are linked to the public surface plane in different ways with regard their internal structural organization.
- . Infrastructure: Two service roads are planned parallel to the railway storage yards underneath the public surface keeping it free from heavy traffic. No allowance for private cars. New subway line North-South linking the World Trade Centre via the Media Centre of the proposal to the Lincoln Centre.

RESER/UMEMOTO: View from the roof









Problem:

- . Profound separation and monofunctionality of each of the singular programs. Radical segmentation (both in time and in space) as an insurmountable obstacle to the kind of urban activity that would justify the return on of investment.
- . Compared to the rest of the island grid, the distinction between street and fabric in this area is less clear; here the very large, open infrastructural elements which traverse the more architecturally scaled blocks and buildings of the site create an artificial geography to be harnessed for its organizational potential.

Proposal:

The project consist of various pre-existing infrastructures, in which several architectural programs are plugged in to produce architecturally useful space at scales not achievable in any other way for the production of high-density public use space. The extreme sectional variation produced by these infrastructures generates not one ground upon which a building is built, but rather multiple grounds within which spaces are developed.

The proposal comprises as well an extension of the Javits Centre and a park running along the Hudson River waterfront from 28th to 39th Street at two levels: one for water-based activities and another more elevated for green spaces. This park acts as a continuation of the Hudson River Park and includes programs such as retail, commercial, civic and activities related to the Javits Centre in order to create a mixture of programs and organization.

Crtitical Reading:

One of the project's positive aspects is the undulating structure that allows gaining useful spaces for the program needs and that it extends the Hudson River waterfront park trying to integrate it to the site. A disadvantage could be that this structure looks too massive to have it along the entire site n, not related to the context due to the great scale and separation of the breaking grid. Besides the three buildings designed for the waterfront don't seem to be integrated to the project, neither in scale or form.

Conclusion:

After analyzing the five different proposals we can distinguish positive and negative aspects of each of them that we take as reference for the development of our own proposal.

As positives contributions of the projects we can highlight:

- . The concept of different layers of soils, in order to gain space and integrate functions.
- . Low rise approach of that all the projects present act in favor of a harmonic integration with the riverside as well as with the midtown area.

Simoustaneously from each project we can distinguish the following:

Peter Eisenman: Pedestrian connection between the project and Midtown Manhattan.

UN Studio: The concentration of facilities to gain space and soften the barriers with the neighboring areas.

Reiser/Umemoto: The integration of the Hudson River Park on the site.

- . A very high built density area (with the exception of the proposal submitted by Cedric Price) despite the low rise approach that doesn't provide a sustainable environment for the site.
- . The non-integration of the existing urban grid into the site. This does not help the integration of the projects into the urban tissue.

Case studies – Competition 2007

<u>HYDC COMPETITION: Architectural Design of Hudson Rail</u> Yards

The MTA (Metropolitan Transportation Authority) and HYDC (Hudson Yards Development Community) in New York City had organized competition in 2007 for redesigning and requalifying the site of Hudson Rail Yards, only one large spot left in Manhattan island, that is un-built and highly valuable. There were 5 Real Estates companies chosen for preparing proposals. Each of them had made their own team of architects. Competition committee had weighed the design elements and public comments, as well as how much money each would generate for the cash-strapped agency. Construction would start in 2009.

All the plans on display preserve the High Line as it runs from Chelsea through the site, and all include pedestrian walkways over the West Side Highway to the Hudson River.

CONCEPT/URBAN DESIGN aims:

- Integration with neighborhood
- Open space / public park
- High Line incl. Spur
- Pedestrian bridge to river

PROGRAM/VARIOUS USES:

- Commercial space at 11th Ave
- Residential space/Affordable housing
- Planning public facilities
- Space for arts & non-profits
- Limited parking

OTHER:

- Sustainable design
- Strong labor provisions/MWB

The chosen 5 companies are:

- Brookfield Properties , with Skidmore Owings & Merrill;
- Durst-Vornado joint venture, with FXFOWLE Architects;
- Extell Development, with Steven Holl;
- Tishman Speyer-Morgan Stanley joint venture, with Helmut Jahn
- the Related Companies, Kohn Pederson Fox; Robert A.M. Stern; Arquitectonica

One member of the community board declared that all the plans were too big: "It's Hong Kong on the Hudson."

Brookfield Properties

<u>Architects:</u> Skidmore Owings & Merrill; Thomas Phifer & Partners; ShoP Architects; Diller Scofidio + Renfro; Kazuyo Sejima + Ryue Nishizawa; Handel Architects







<u>Concept:</u> Brookfield, to its credit, decided not to commit the design of the huge site to one architectural firm and while New York is defined by its architectural chaos and individuality is highly prized a site of this scale and importance might be better served by a cohesive rather than totally disparate design.

Four iconic office towers will make up the next generation of modern work environment. The towers soar as high as 62 stories above the railroad tracks leading into Penn Station. The core of the buildings sit on bedrock, while the surrounding elements are built on state-of-the-art bridge technology.

<u>Critical reading:</u> "Brookfield has included a few preliminary sketches of buildings by architectural luminaries like Diller Scofidio & Renfro and the Japanese firm Kazuyo Sejima & Ryue Nishizawa, but the sketches are nothing more than window dressing. The proposal includes a retail mall and commercial towers along 10th Avenue, which gives the public park an isolated feel. "Daily News, 2007

It is too much fragmented without clear vision of organization. It is over built. We guess because of the too many architectural studios involved there is lack of main frame of design concept.

The proposal regarding the High Line is to keep it, but no way of integrating it into the master plan had been demonstrated.

The good aspect is that the street grid is following the existing grid. There is as well relation to the new designed Hudson boulevard Park.

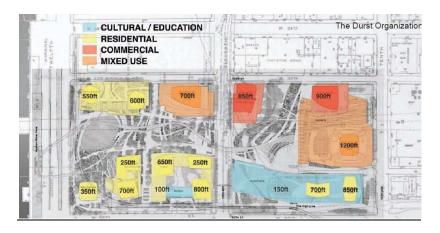
Along 30th Street, SHoP architects have designed residential buildings that are distinguished by their very interesting swirling notch forms that are very dramatic and very elegant. We find highly proper positioning of the residential units towards 30th street, as it creates continuation with the dominantly residential neighbor area on the other side of the street.

Durst Organization and Vornado Realty Trust

<u>Architects:</u> FXFOWLE Architects; Pelli Clarke Pelli Architects; WRT







<u>Concept:</u> The plan calls for a vibrant mix of cultural, residential and commercial buildings, linked to public transportation. The Durst/Vornado master plan is anchored by a new tower for Condé Nast. The plan provided a network of open spaces to serve as the connector between Hudson River Park, Hudson Boulevard Park, the High Line, and the Hudson Yards greenway.

The Durst Organization's scheme is envisioned as a sustainable development. There are four office buildings, one a 1.5 million square foot tower owned and occupied by Conde Nast and a 12-acre public park.

The plan would eliminate the High Line along 12th Avenue facing the Hudson River and it would have 12 acres of open space.

The proposal will pursue LEED Gold certification for each building in the plan, which includes a central cogeneration plant.

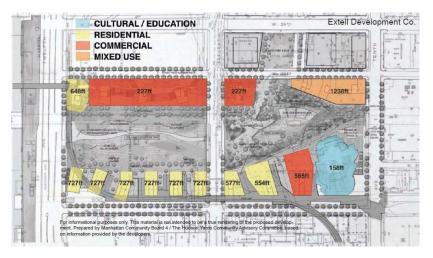
<u>Critical reading:</u> It has a nice clear organization of built /un-built space with the only exception of the proposed middle tower toward 10th avenue, which in our opinion, blocks the relation with the existing context (in particular Post Office building and Madison Square Garden).

Residential area has found its logical place but it has too high raised blocks.

The High line also has not been preserved.

Extell Development Company

Architect: Steven Holl





Operating two cultural squares – west and east – art square and music commons

Minimal disturbance of Railyards – all tall buildings located **on** the stable earth.

Open park toward Hudson boulevard working as new urban public space

Columnless structure which supports the park structure over the railways - much cheaper solution respect to other proposals.

Towers range on one side , shaped for openness and light access

Creating a new green area for Manhattan related through Hudson boulevard with the city center

Urban porosity, easy pedestrian approach

Changed ending of High Line

Creating **new Pier** in Hudson river (with proposal for new railway station)

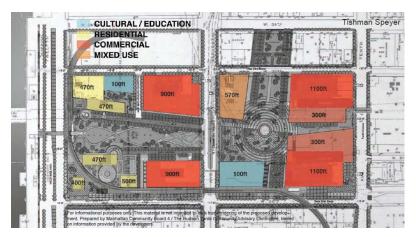
Critical reading:

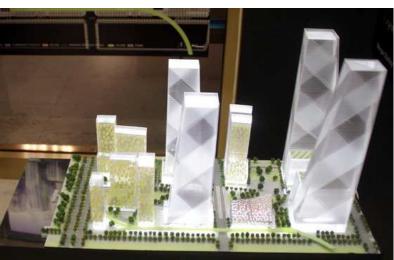
In our opinion, this project achieves in best way the given task, although, as all other projects, looks like overbuilding the area. But it has very good relationship with the context, it respects the High Line and gives a logical solution of its end. It lets the flow of space be not interrupted (relating Hudson Boulevard Park with central park space in the yards and then flowing in both directions - Hudson River Park and Madison Square Garden and

it creates new image of the site which is coherent with the image of the city. It respects in a very gentle way (the sequential order of the residential units) the aim for developing sustainable units for living.

<u>Tishman Speyer Properties and Morgan Stanley</u>

<u>Architects:</u> Helmut Jahn; <u>Landscape Architect:</u> Peter Walker





Concept:

Tishman's proposal, which is designed by Chicago architect Helmut Jahn and New York-based Cooper Robertson with landscape architect Peter Walker, will bring a taste of Rome to Manhattan, with a master plan that includes elements that are takes on the Roman forum and the Spanish Steps.

The plan calls for all the buildings to be LEED Gold-certified. The project combines a crowded mix of low-, mid- and high-rise buildings. According to an article in The New York Times by Charles V. Bagli five of the seven residential buildings "would be cantilevered over the High Line."

Critical reading:

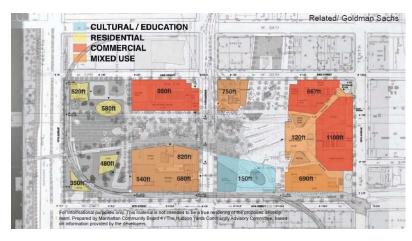
We find the project very well solved with some weaknesses.

The positive sides are good relation with the surrounding area (continuation of Hudson Boulevard Park into the site plan, transmitting the direction toward Hudson River Park), keeping opened the space towards Madison Square Garden with the "crack" between the two towers along 10th avenue, creating its own character with gathering point of the proposed square.

The weak points start from the too symmetrical composition (respect the axis west-east) and the lack of relation between the image of the new proposed towers and the existing image of New Yorkers' skyscrapers.

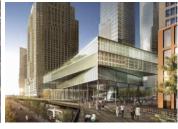
Related / Goldman Sachs - WINNERS

<u>Architects:</u> Kohn Pederson Fox; Robert A.M. Stern; Arquitectonica;









Concept:

The developer of the project is Related Companies, with Kohn Pedersen Fox Associates as the Master Planner. The Hudson Yards master plan includes 13 million square feet of commercial and residential development efficiently designed with cutting edge sustainability features. The master plan comprises six million square feet of state-of-the-art commercial office space, a 1 million square foot destination retail center with an over 130,000 square foot two-level space of specialty destination restaurants, cafes, markets and bars, a five star hotel, an iconic cultural space, approximately 5,000 residences and a new 750-seat school, all carefully planned around 14 acres of public open space.

Critical reading:

Similarly to the comment we have done for the proposal of Durst/Vornado organization, we don't find appropriate designing such a high-raised building facing 10th avenue. It cuts the relation of the site with the rest of the city toward East.

Moreover, the proposal of Related Companies mainly displays commercial interests and the searched balance between built /

un-built is lost in favor of the built. In our opinion, such a proposal is in crash with any sustainable and human-friendly environment, but serving only business appetites.

Very logically, we find the modification of this proposal, for the final which would be realized, improved. "The blocking tower"

had been split in 2 towers which let the space inward the city flow.

SUMMERY OF THE SUBMITTED PROJECTS:

Program summery	Brookfiel d	Durst/ Vornado	Extell	Tishman Speyer	Related
Total built	12 mln SF	12 mln SF	11.3 mln SF	12 mln SF	12 mln SF
Number of buildings	16	16	14	13	14
Tallest building	1,300 FT	1,205 FT	1,238 FT	1,100 FT	1,100 FT
Commerci al space	7.4 mln SF	6.0 mln SF	5.5 mln SF	10.6 mln SF	6.7 mln SF
Residential space	4.3 mln SF 4,000units	6.5 mln SF 6,500unit s	5.5 mln SF 3,812unit s	2.9 mln SF 3,00units	5.3 mln SF 4,962unit s
Affordable units	400 units	600 units	339 units	300 units	440 units
Public/ Cultural Facilities	355,000 SF	330,000S F	300,000S F	320,000S F	318,000S F
Open space	15.4acres	12.0acres	19.5acres	13.0acres	15.1acres
Parking	1,425 spaces	700 spaces	460 spaces	1.450 spaces	738 spaces

"But what is really at issue here is putting the importance of profit margins above architecture and planning. The Metropolitan Transportation Authority could have pushed for more ambitious proposals. For decades now cities like Barcelona have insisted on a high level of design in large-scale urban-planning projects, and they have done so without economic ruin.

By contrast, the authority is more likely to focus on potential tenants like News Corporation and Condé Nast and the profits they can generate than on the quality of the design. A development company like Extell is likely to be rejected outright as too small to handle a project of this scale, however original its proposal. (In New York dark horse candidates often find that ambitious architectural proposals are one of the few ways to compete with bigger rivals.)

This is not how to build healthy cities. It is a model for their ruin, one that has led to a parade of soulless developments typically dressed up with a bit of parkland, a few commercial galleries and a token cultural institution — the superficial gloss of civilization. As an ideal of urbanism, it is hollow to its core." NYTimes by Nicolai Ouroussoff, Nov 24, 2007

<u>Comment from Hudson Yards Development Advisory</u> <u>Community:</u>

.There is **too much density** for a successful environment – An unprecedented density over such a large area anywhere in the City, which far exceeds what can be considered good planning for the future of the City or the local community. To develop successfully, this must be a place where people will want to live, work and visit. That is unlikely to happen in an environment dominated by monumental and intimidating buildings.

.There is **no public infrastructure** and no commitment to build it.

- .There is no plan for affordable housing.
- .Big open space may not be the best. The open space will have to be articulated, subdivided and programmed to be successful, and not overwhelmed by the surrounding buildings.
- .The entire High line can and must be preserved. it should have a consistent identity along its entire length, incorporating the basic design treatment from the southern sections, so that it is experienced as a consistent park environment. Its structure should be distinct from adjacent structures. The 30th street view corridor should be open and unobstructed by buildings along its entire length. Connections to the High Line should be made at multiple but discrete points, both from grade and to the platform over the rail yards.
- .Require a genuine commitment to sustainability.
- .Put the **school** in a good location.
- .Make good connections to Hudson River Park. Pedestrian bridge toward Hudson River Park. The design of the bridge should be dimensionally inspired by the adjacent High Line broad enough to not quite feel like a bridge, but not an overpowering structure. It should remain open to the sky, and function as an extension of the Hudson River Park.

Case studies - Competition 2008

<u>HYDC COMPETITION: Landscape Design of Hudson Park and Boulevard</u>

Hudson Park and Boulevard will be an approximately four-acre system of broad, tree lined parks and open space and an adjacent street that will be constructed between 10th and 11th avenues from West 33rd to West 42nd streets.

The park and boulevard will be part of an approximately 20-acre open space system in the Hudson Yards district. Similar to Bryant Park, Hudson Park will provide a much needed amenity for area workers, residents, and visitors. It will create a sense of place, helping to change the perception of the district as being desolate and isolated from Midtown. The park and boulevard will break up the area's 800 foot long blocks, creating ideal development sites. There will be increased light and views and high-profile addresses in what would otherwise be mid-block sites. In addition there will be access to the new number 7 line station which will be located mid block between 33rd and 34th streets.

The project will be built in two phases: Phase 1 runs from West 33rd Street to West 36th Street, and is expected to be completed by 2013. Phase 2 extends from 36th Street to 42nd Street and will be constructed at a later date. The selected design team will create a design for Phases 1 and 2, and construction drawings for Phase 1. The selected design team will also design the streetscape components and create a streetscape plan for the area bounded by 10th and 11th avenues and West 33rd and West 36th streets and for the north

and south sides of West 33rd and West 34th streets between 11th and 12th avenues.

Five finalists have been chosen to participate in the design competition for the creation of the Hudson Park and Boulevard.

There had been selected five teams from a field of 18 firms that responded to a request for proposals.

The five teams selected for the short-list are:

- Gustafson Guthrie Nichol Ltd. (Kathryn Gustafson) and Allied Works (Brad Cloepfil)
- Hargreaves Associates (George Hargreaves) and TEN Arquitectos (Enrique Norton)
- Michael Van Valkenburgh Associates, Inc. Landscape
 Architects (Michael Van Valkenburgh) and Toshiko
 Mori Architect (Toshiko Mori)
- West 8 (Adriaan Geuze) and Mathews Nielsen (Kim Mathews and Signe Nielsen)
- Work Arquitecture Company (Dan Wood and Amale Andraos) and Balmori Associates (Diana Balmori)

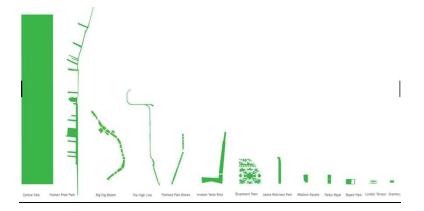
The goals of the program:

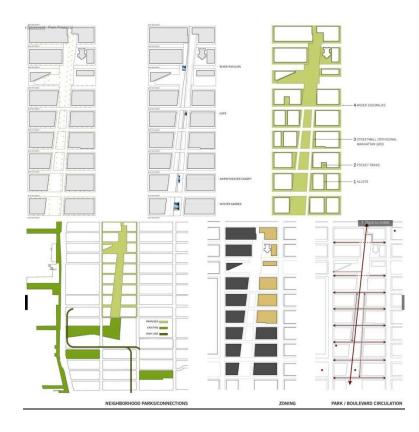
- Produce a **meaningful open space system** and streetscape system that serves workers, residents and visitors.
- Establish a **cohesive design** for the district's public realm that will create a high quality urban environment and contribute to **an identity for the Hudson Yards** area that is recognizable to New Yorkers and visitors alike.
- Capitalize on new transit investments being made in the Hudson Yards area
- Help to create transit-friendly and pedestrian-friendly streets.
- Use **public art** to stimulate use of the Hudson Yards open spaces and interest in the Hudson Yards area.
- Create direct and meaningful **connections to the waterfront**, **biking and pedestrian network** which build on the success of the Hudson River Park.
- Create an appropriate setting for architecturally significant buildings to be developed along the Hudson Park and Boulevard system with front door access and addresses for new commercial and residential developments.
- Promote environmental sustainability.
- Address the adjacency of the open space to be located on the MTA's Rail Yards.

Gustafson Guthrie Nichol Ltd. and Allied Works

They developed a detailed proposal as finalist for the design of Hudson Yards Boulevard Park in New York City. The 12-block park on Manhattan's west side is planned as the heart of a new high-rise, mixed-use development on the site of former industrial lands and rail yards. In addition to galvanizing the new district, the project will also help connect the area to existing infrastructure and green space networks throughout the city.

The proposal is composed of braided watercourses, lawns, wildflower meadows, plazas, a new subway entrance pavilion and winter garden. The design creates an identifiable precinct within the city through the introduction of a sheltering canopy of trees and columnar glass "prisms" that gather light and illuminate the below-grade levels of parking and infrastructure. Distributed throughout the district, the prisms create a winter canopy of light and lead to the park's principal structures. Allied Works' design for the winter garden and subway pavilion further explore the properties of light and glass, acting as lenses that capture, concentrate and transmit the ambient light of the city.





Hargreaves Associates and TEN Arquitectos

A plan from Hargreaves Associates and TEN Arquitectos calls for "ecological rooms," from chestnut tree forests to pine barrens, describes Hargreaves principal Ken Haines. James Carpenter-designed light wands installed throughout the park would capture and redistribute sunlight. The scheme's signature feature is a pedestrian bridge edged by a ribbon of grass that curls like a rollercoaster loop over the walkway.



Michael Van Valkenburgh Associates and Toshiko Mori Architect

A team led by Michael Van Valkenburgh Associates and Toshiko Mori took inspiration from Manhattan's Union Square but rearranged the formal plan "into a kind of carpet," explains MVVA principal Matthew Urbanski. Benches, plantings, and paved circulation routes similar to those in Union Square would be arranged in a more freeform scheme. Overhead lighting strung between buildings would illuminate the park, and an Scurve bridge with curled edges would bypass tunnel traffic.





West 8 and Mathews Nielsen

A proposal from West 8, Mathews Nielsen, and Weisz + Yoes envisions a "primordial landscape," with hills being constructed using schist excavated at nearby construction sites, says West 8 principal Jerry van Eyck. Features include a skateboard park, an art park, and a children's activity area, as well as a kinked bridge that would bring pedestrians above roads leading to the Lincoln Tunnel and deliver them to West 42nd Street.



Work Arquitecture Company and Balmori Associates

A team led by Work Architecture Company and Balmori Associates envisions a "Wild West Side," where "Times Square meets Central Park," says Work principal Dan Wood, AIA. The plan calls for undulating, grassy hills with space for cafes and other facilities underneath. Other features include urban gardens, a new animal habitat, and water collection systems that double as park furniture.



Analysis of the Context

West Side Yard



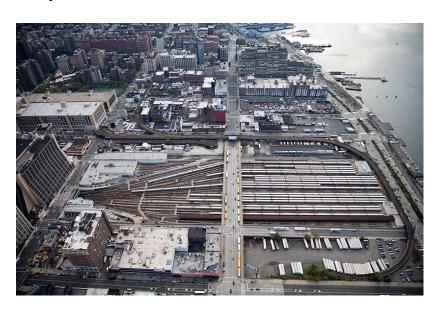
The West Side Yard (officially the John D. Caemmerer West Side Yard) is a rail yard owned by the Metropolitan Transportation Authority on the west side of Manhattan in New York City. Used to store commuter rail trains operated by the Long Island Rail Road, the 26.17-acre (10.59 ha) yard sits between West 30th Street, West 33rd Street, Tenth Avenue and Twelfth Avenue.

The yard includes storage tracks, a six-track indoor shop for light maintenance, a 12-car long platform for car cleaning, and lockers and a break room for employees.

Before the yard opened in 1987, trains arriving at Penn Station during the morning rush hour had to deadhead back to Long Island for midday storage. The West Side Yard also increased the LIRR's peak period capacity at Penn Station.

The Yard sits at the north end of the High Line, a former elevated rail line used for freight service that has been converted into a park, and south of the truck marshalling yard used by the Jacob K. Javits Convention Center.

History



The site was originally used as a depot for the Hudson River Railroad for a line running down Eleventh Avenue, as trains were not permitted to operate south of West 32nd Street because of a fear of explosions. New York Central later expanded the rail yards and used them as a freight terminal up until the 1970s.

The West Side Yard sits between Penn Station and the Hudson River.

The West Side Yard is named after John D. Caemmerer, a New York State Senator from East Williston who helped obtain \$195.7 million for its construction.

During construction, an underground tunnel was built that allows Amtrak trains from Penn Station to travel to Upstate New York via the West Side Line. Amtrak trains began using this tunnel on April 7, 1991; before this, Empire Service trains originated from Grand Central Terminal.

The West Side Yard was also designed to accommodate an overbuilt in its air rights, and space was left between the tracks for columns to support a platform above the tracks. Madison Square Garden was considering to move to the site in the mid-1980s and the rail yards were also considered as a possible stadium site for the New York Yankees. The rail yards were later proposed as the site of a sports complex containing a West Side Stadium for the New York Jets and the New York City bid for the 2012 Summer Olympics.

The eastern portion of the West Side Yard (east of Eleventh Avenue) was rezoned for residential use in January 2005 as part of the Hudson Yards Redevelopment Project. Following the defeat of the proposal to construct the West Side Stadium, the western portion of the rail yard was rezoned to accommodate residential and commercial development in December 2009.

Hudson Yards Redevelopment Project

The Hudson Yards Redevelopment Project is a New York City Department of City Planning and Metropolitan Transportation Authority proposal to encourage business development on Manhattan's far West Side along the Hudson River. The project initially included are zoning of the Far West Side of Manhattan, an extension of the No. 7 subway train to 11th Avenue and 34th Street, an expansion of the Javits Center, and

a stadium for the New York Jets over the MTA's West Side Yard. The stadium would have also been used for the 2012 Summer Olympics, had New York been selected to host, although stadium project failed to receive state approval.

The rezoning action, comprising approximately 60 blocks from 28th to 43rd Streets, was adopted by the New York City Council in January 2005 and, after the failure of the stadium project, the Western Rail Yard was similarly rezoned in 2009. As rezoned, the Hudson Yards area will have 25,800,000 square feet (2,400,000 m²) of Class A office space, 20,000 housing units, two million square feet of hotel space, 750-seat public school, one million square feet of retail and more than 20 acres of public open space.

In May 2010, the MTA announced it had signed a contract with a joint venture of Related Companies and Oxford Properties Group. The MTA will lease the air rights over the rail yard for 99 years to the joint venture, which will then build a platform over the rail yard on which it will construct the buildings.

Related Companies project

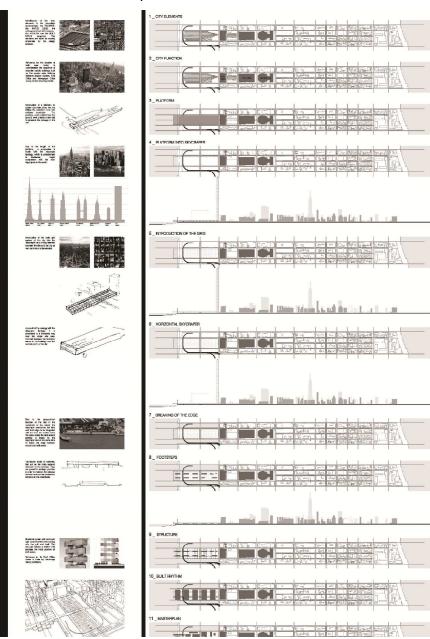
Hudson Yards is a proposed mixed-use real estate development that will be part of the Hudson Yards Redevelopment Project in Midtown Manhattan, New York City. The development is expected to consist of 16 skyscrapers using the air rights of the West Side Yard, and is planned to contain over 12,700,000 square feet (1,180,000 m²) of new office, residential, and retail space.

The developer of the project is Related Companies, with Kohn Pedersen Fox Associates as the Master Planner. The Hudson Yards master plan includes 13 million square feet of commercial and residential development efficiently designed with cutting edge sustainability features. The master plan comprises six million square feet of state-of-the-art commercial office space, a 1 million square foot destination retail center with an over 130,000 square foot two-level space of specialty destination restaurants, cafes, markets and bars, a five star hotel, an iconic cultural space, approximately 5,000 residences and a new 750-seat school, all carefully planned around 14 acres of public open space.

The project will be built on a platform above both the eastern and western portions of the John D. Caemmerer West Side Yard. The Related project is the centerpiece of the larger Hudson Yards Redevelopment Project; the eastern half was not part of the original 2005 rezoning.

The first building to be built will be a 1,017-foot-tall office building in the southeast corner of the site anchored by Coach.

Architectural Concept



Identification of the main elements in the immediate surroundings: the RAILWAYS, the WATER EDGE, the orthogonal street GRID system,

the HIGHLINE and the BUILT SPACE sequence. This elements are taken as starting references for the design process.

Reference for the location of built area, taking in consideration the sequence of important public buildings such as The empire state Building, Madison Square Garden, Post Office and Newspaper Office along the axe reaching the site.

Introduction of a platform, to create continuity along the site linking the waterfront area with midtown manhattan. The platform, which is lifted from the ground level, creates a new soil, to preserve the railways in the site.

Due to the length of the platform, a comparison is made with the skycraper tipology, which is predominant in Manhattan. Height comparison with the main skycrapers in the world.

Introduction of the main grid system of the city into the "skycraper" as a linking element between the site and the city as well as internal order element.

As result of the analogy with the skycraper tipology, it is positioned in a horizontal way over the whole site area. Contrast between the horizontal sense of the buildings and the vertical profile of the city.

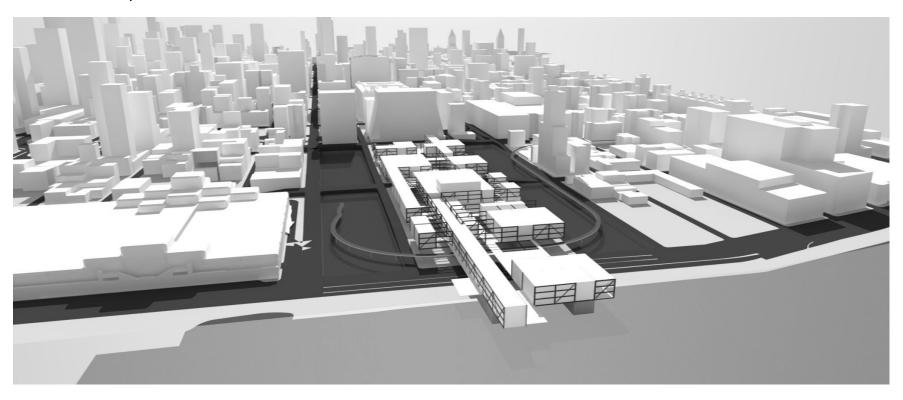
Due to the geographical location of the site in the waterfront of the island, the skycraper overcomes the land and built edge to be integrated with the river. On another hand the water enters the land area to provide a frame to the skycraper and at the same time to break the edge between natural and built space.

Foundation made of concrete, that act as the main support elements of the building. They are placed in strategic position in order to maintain the railways function and provide pedestrian entrance in the street levels.

Structural system with soild and rigid cores that links the building with the soil and itself. The structure follows a rhythm that provides the initial position of built space.

Reference to: "le Cinq" Office Tower in Paris by Neutelings Riedijk Architects.

Architectural Proposal



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READING **URBAN CONTEXT**

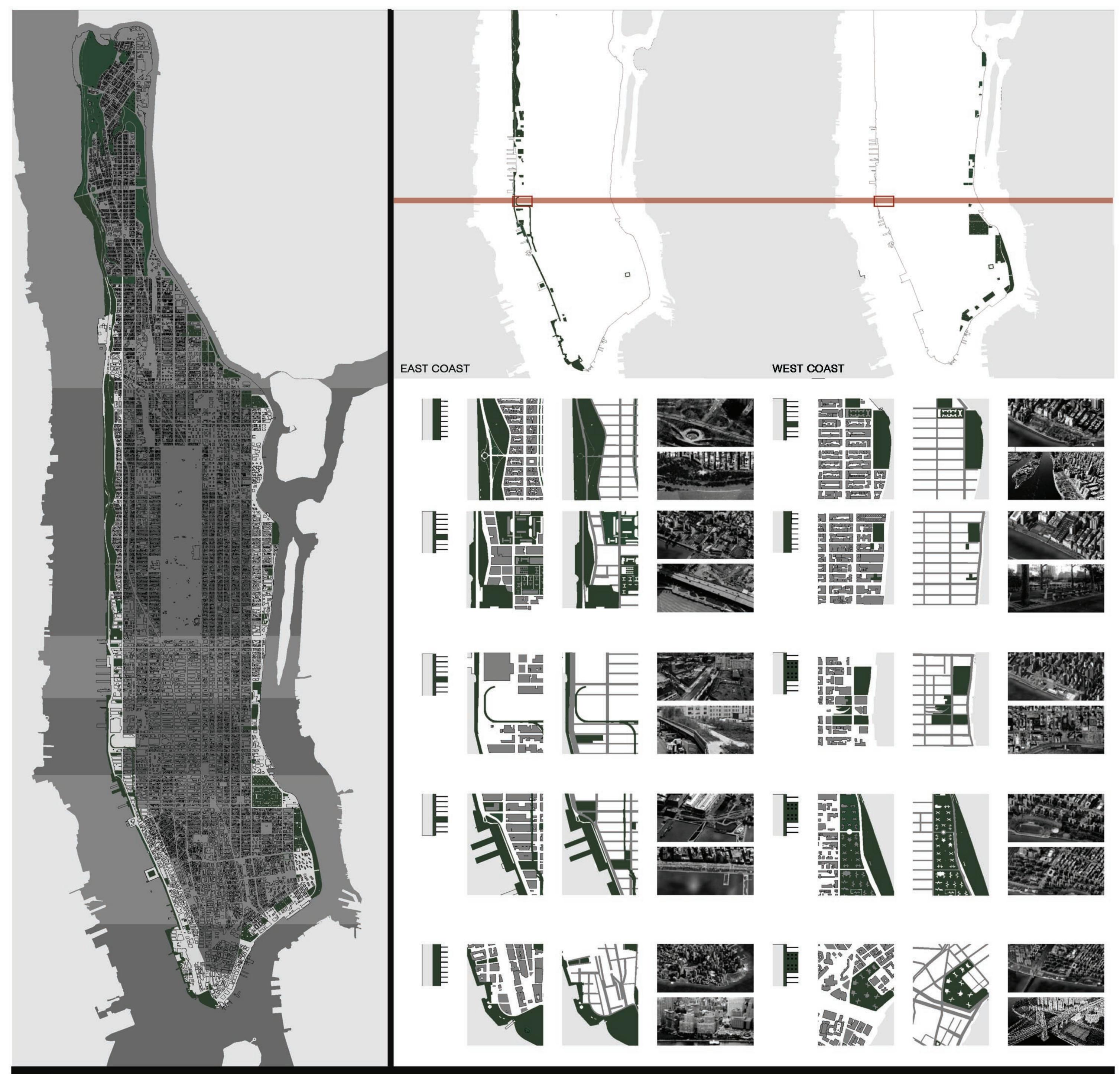
Located at the mouth of Hudson River, which feeds into naturally formed harbour and then into Atlantic ocean, has been a reason for foundation of the city as one of the very first American cities.

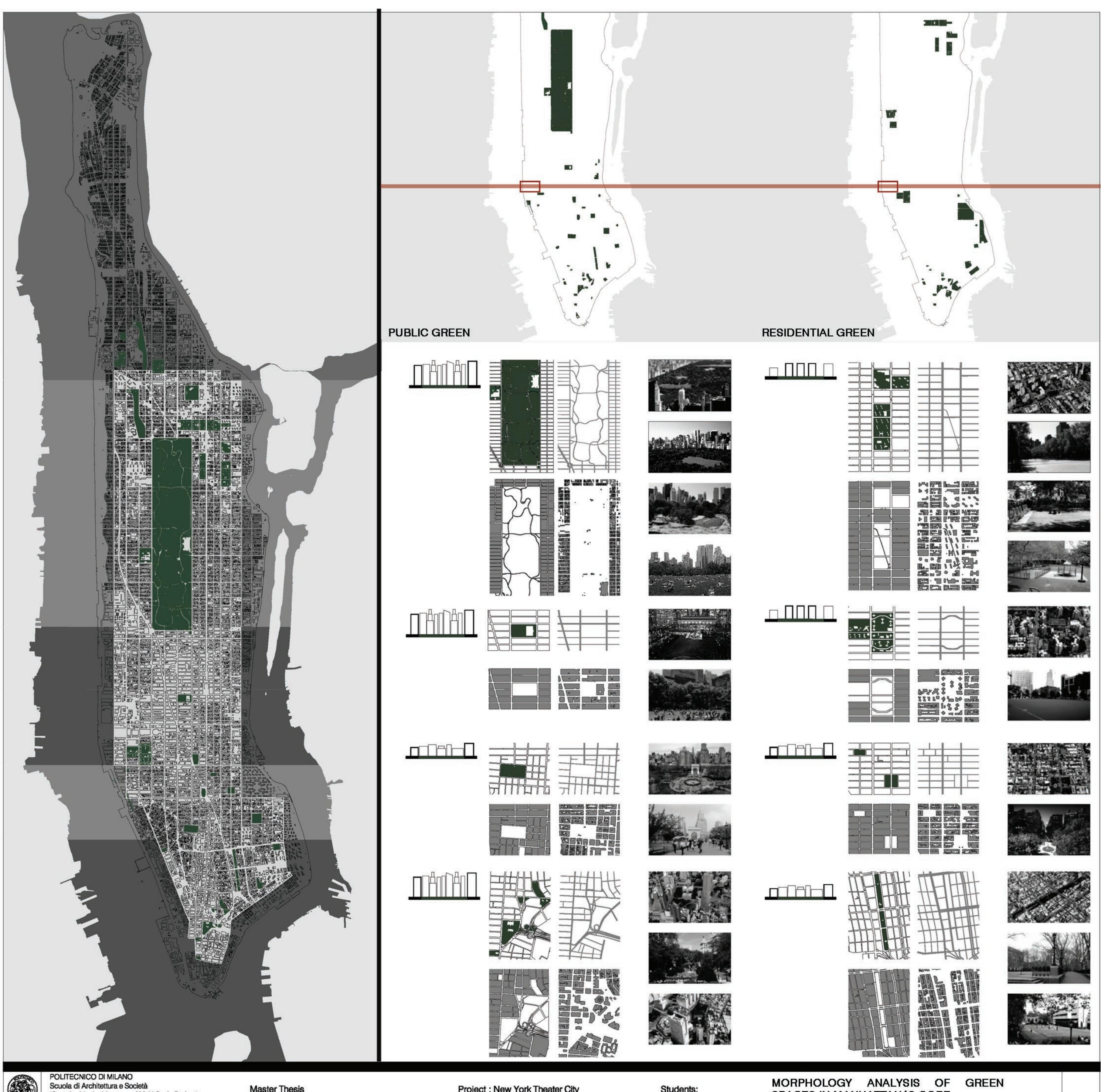
New York City is famous for being one of the most populous cities in the world. Most of New York is built on the three islands of Manhattan, Staten island and Long island, which has been the reason for the high population density of the city.

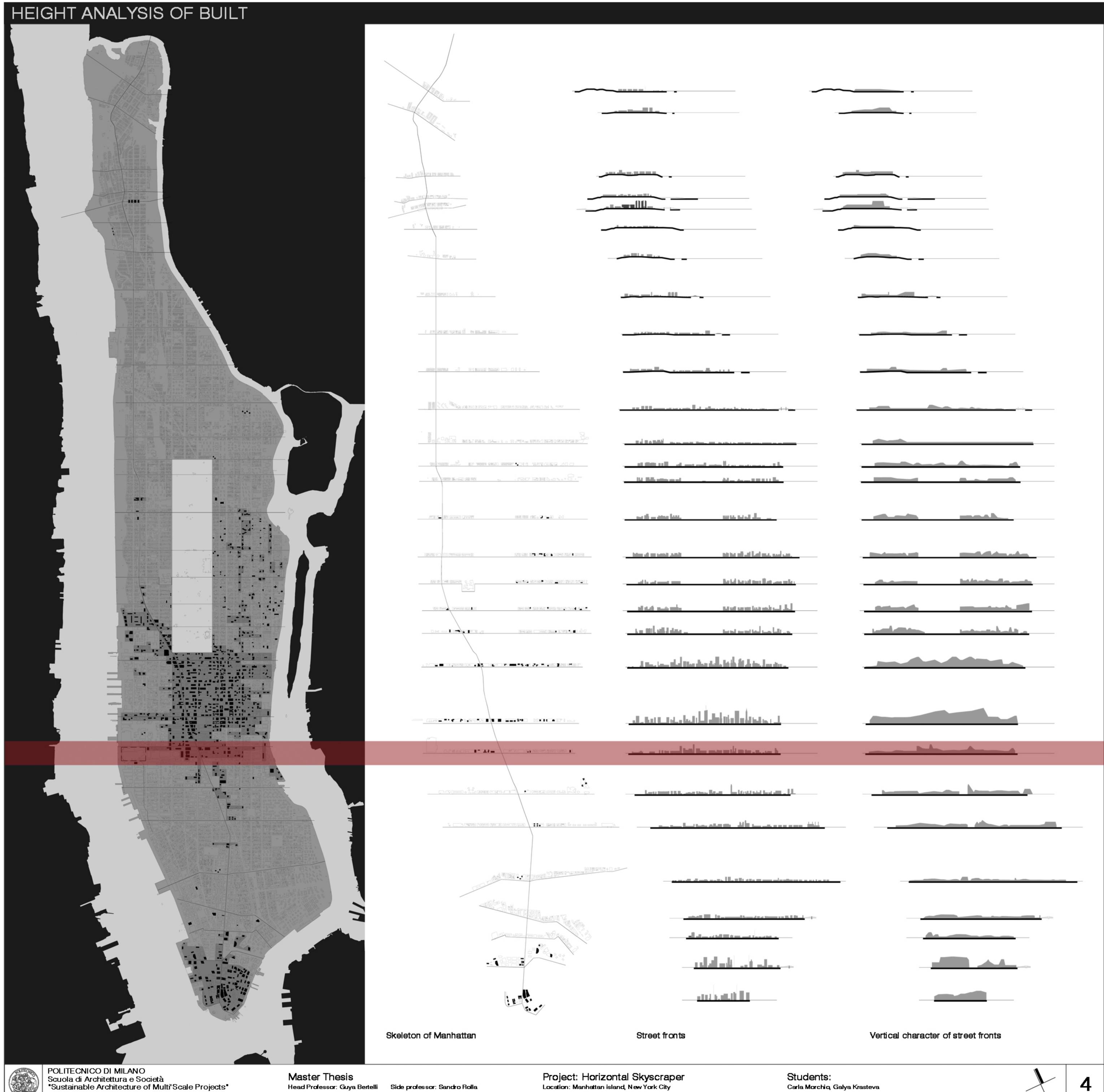
New York City has been first city with high density of skyscrapers, in particular in Manhattan island. Manhattan's skyline with its many skyscrapers is universally recognized, and the city has been home to several of the tallest buildings in the world. At present the highest building is Empire State Building with its 443.2m.

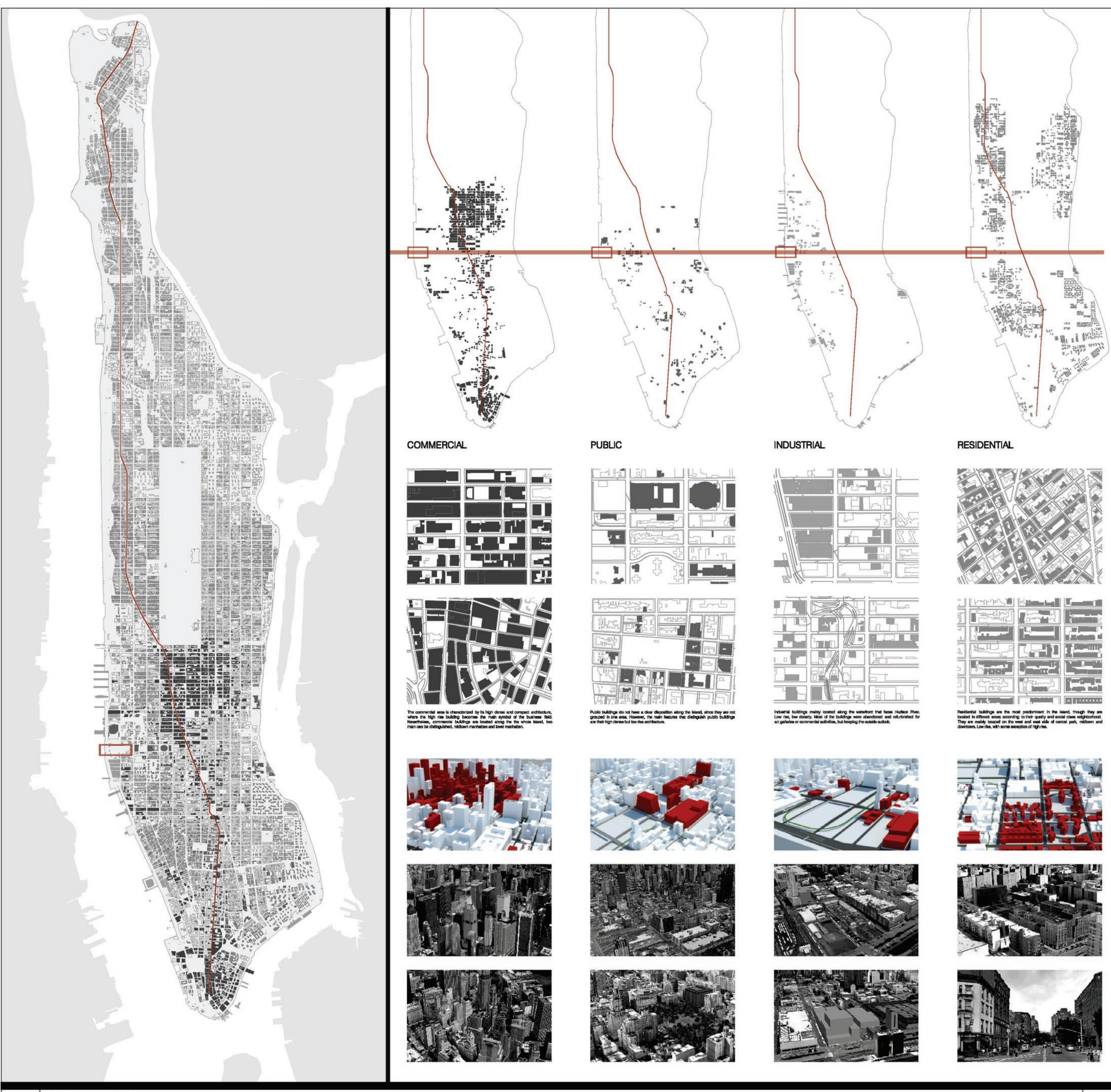


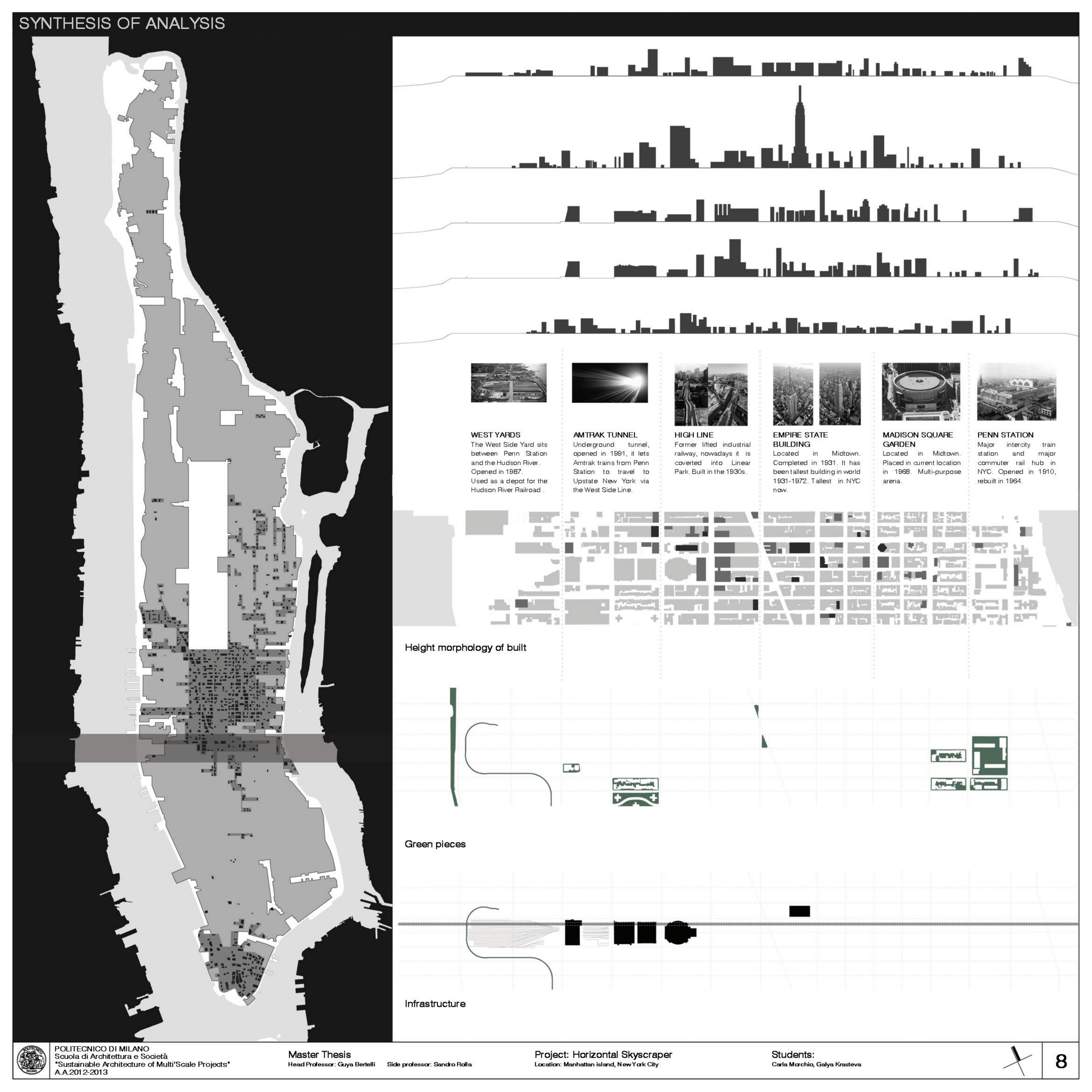


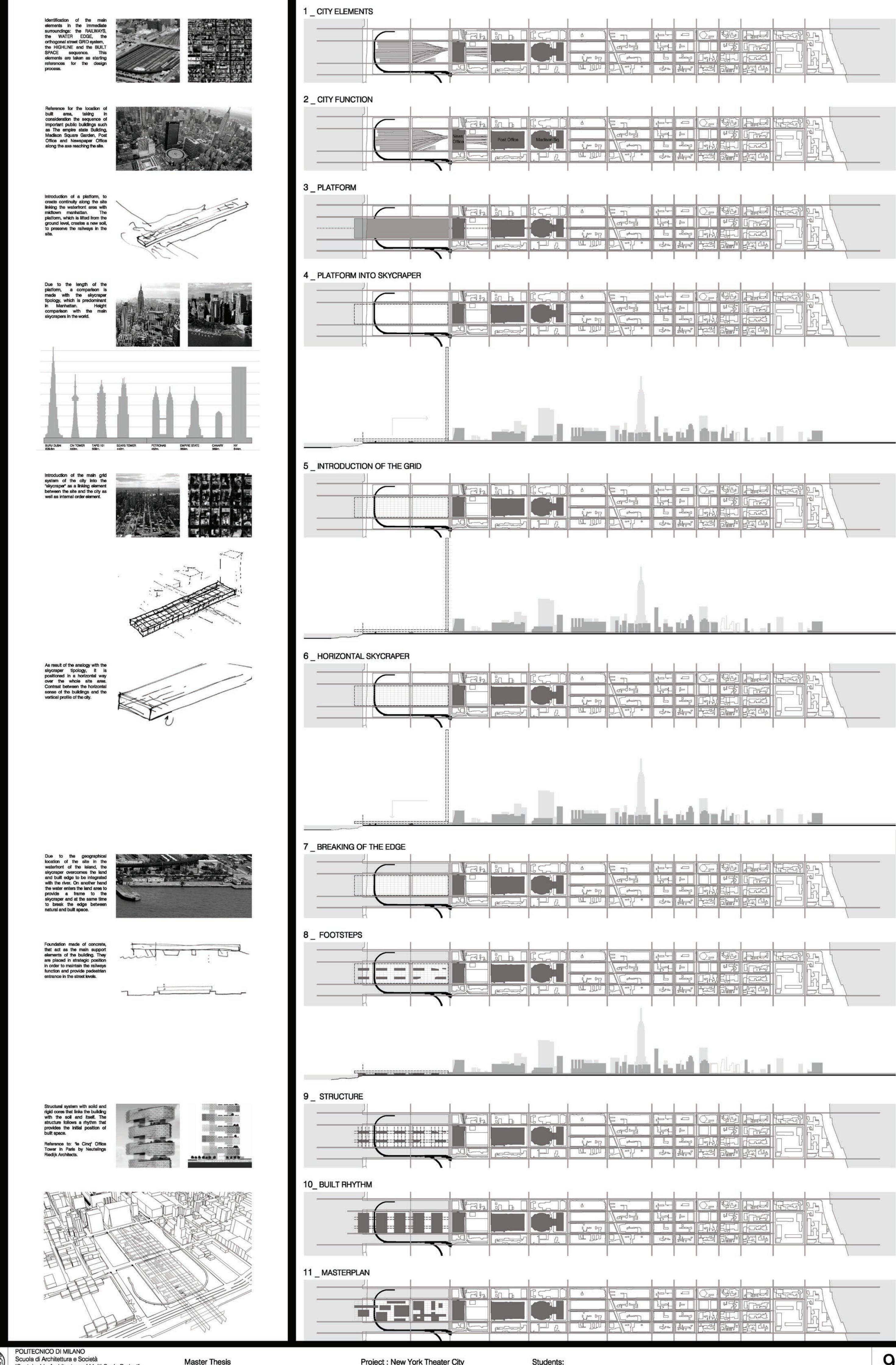


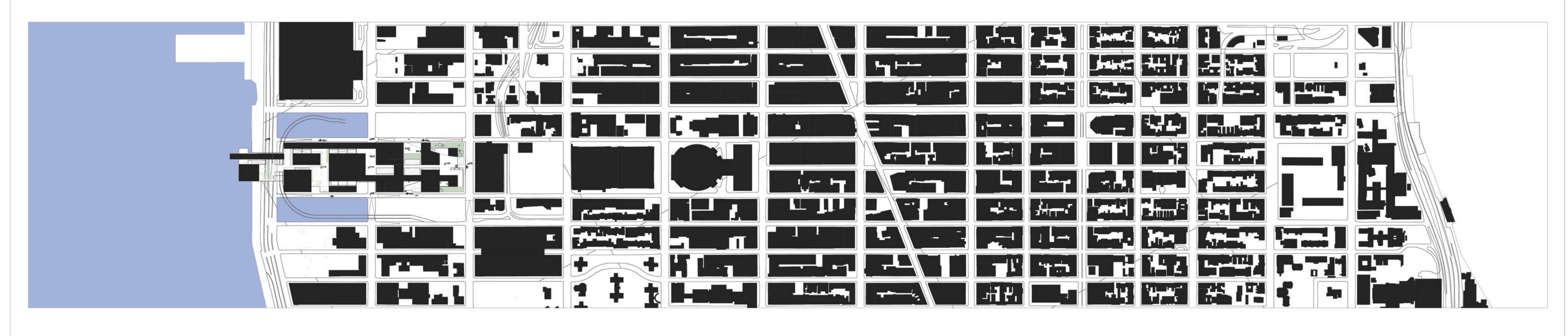


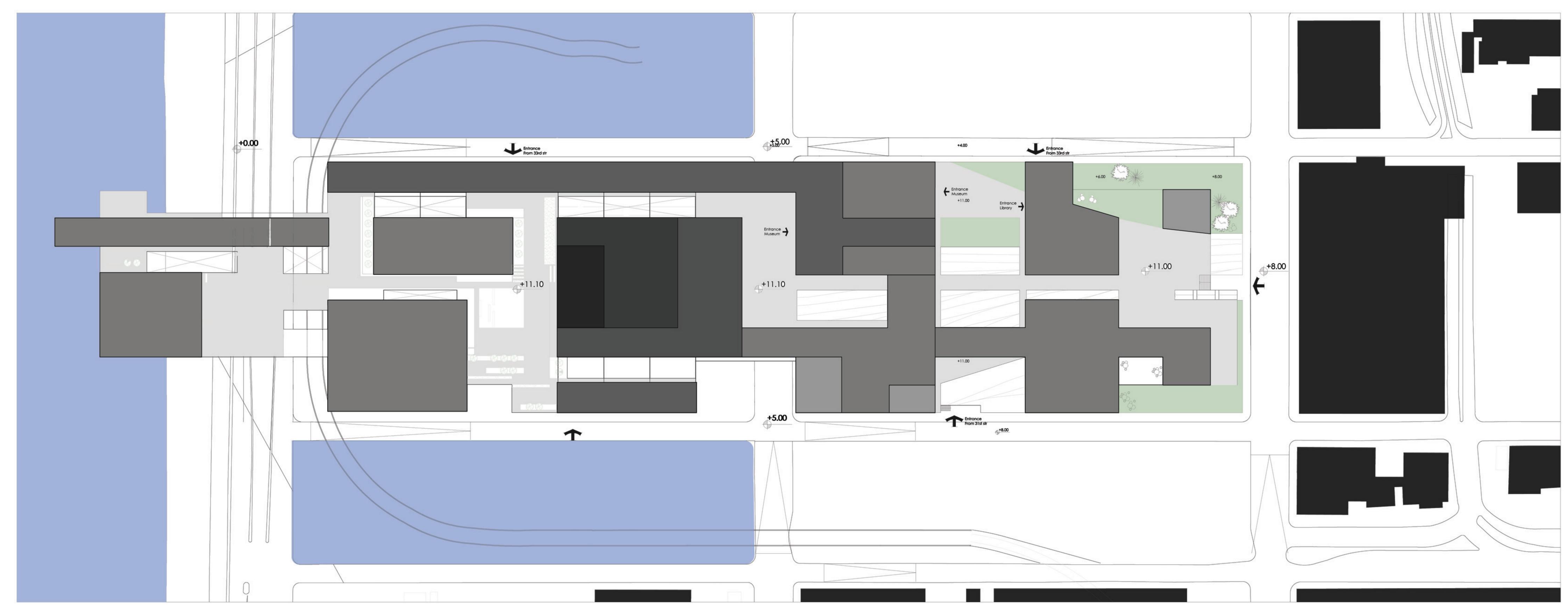










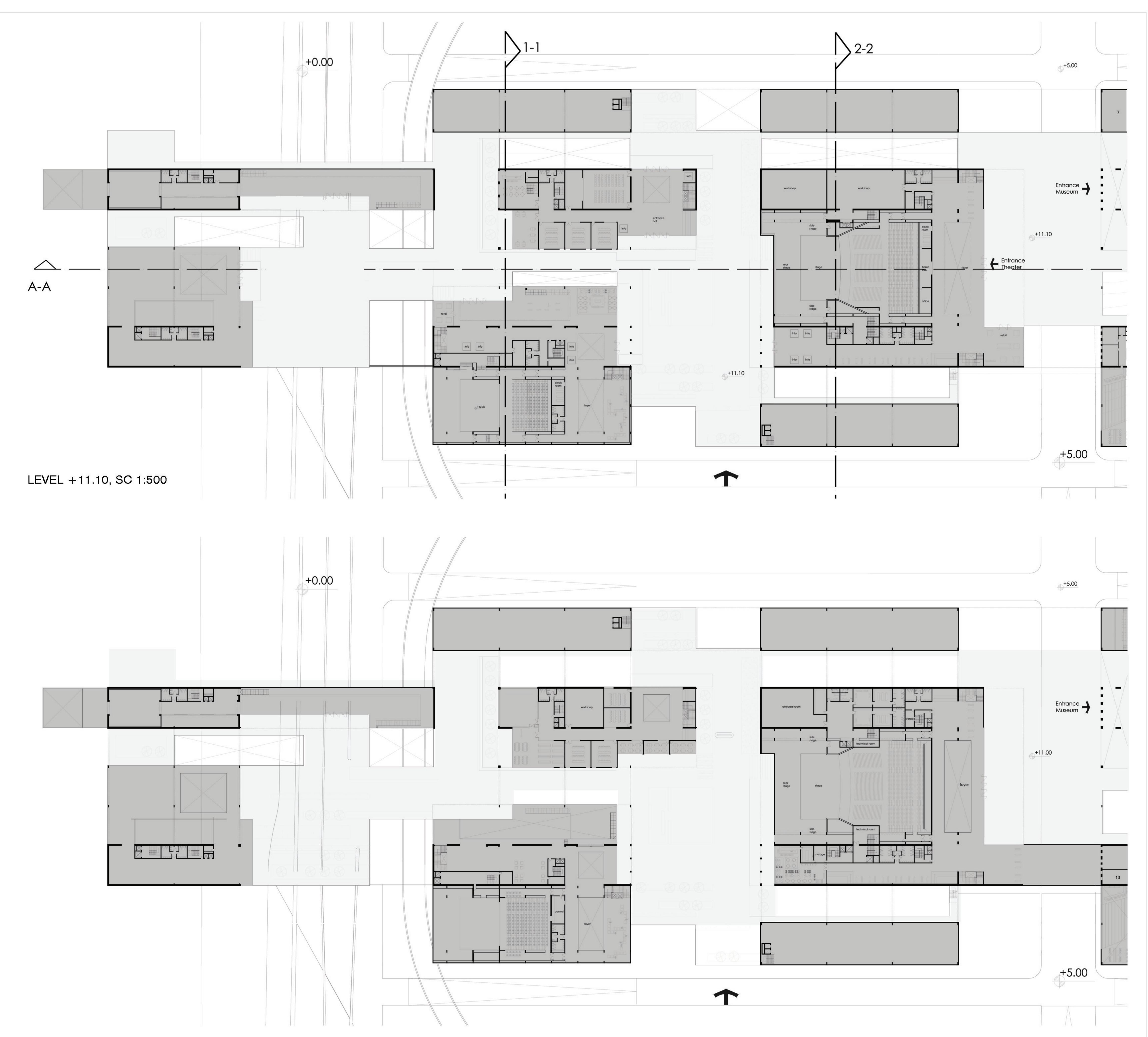






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