A HISTORICAL AND CONTEXTUAL PERSPECTIVE OF LAND USE MANAGEMENT OF THE HUDSON YARDS, NEW YORK CITY:

CONSIDERATIONS FOR A FIRST APPROACH TO CHOICE MODELING EXPERIMENTS IN URBAN DESIGN PROJECTS

Máster Universitario en Estudios Avanzados en Arquitectura – Barcelona
Línea de Gestión y Valoración Urbana y Arquitectónica

Universitat Politècnica de Cataluña

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/// OBJECTIVES
/// METHODOLOGY
/// CASE STUDY
/// CRITICISMS
/// CHOICE MODELING
/// CONCLUSIONS
OBJECTIVES

PRIMARY:

1. To examine and explain the tools and mechanisms involved with the development, edification, and management of land use in New York City within a modern contextualized understanding of the Hudson Yards redevelopment.

2. To provide a historical context for the redevelopment project of the Hudson Yards by providing the historiographical evolution of the neighborhoods of Hell’s Kitchen and Chelsea, and more specifically, the West Side Rail Yard within the Special Hudson Yards District.

SECONDARY:

1. Develop potential attributes and levels of the urban landscape could be surveyed using choice modeling methods, with particular attention to its potential application to Phase II of the Hudson Yards project.
METHODOLOGY

Bibliographical Historiographical Study:

- New York City Regional Master Plan
- Zoning Resolution and Zoning Text of New York City
- Hudson Yards Final Environmental Impact Statement
- Urban Land Use Review Procedure Text
- Final & Generic Environmental Impact Statement

- Hudson Yards Infrastructure Corporation
- Hudson Yards Development Corporation
- Department of City Planning
- Related Companies & Oxford Properties Group

- The New York Times
- The Boston Globe
CASE STUDY

THE HUDSON YARDS

OBJECTIVES – METHODOLOGY – CASE STUDY – CRITICISMS – CHOICE MODELING – CONCLUSIONS
Context - **THE HUDSON YARDS**
Timeline - THE HUDSON YARDS


- 1901 – New Tenement Law Passed
- 1904 – Subway Being Operating
- 1915 – Equitable Building Completed Hadacheck v. Sebastian Ruling Upholds Land Use Restrictions
- 1916 – Original Zoning Resolution
- 1921 – Port Authority Founded
- 1926 – Village of Euclid v. Ambler Realty Upholds Inhibitive Use of Private Land (Zoning)
- 1929 – 1st Regional Master Plan Completed
- 1934 – Construction begins on FDR Drive
- 1936 – City Planning Commission Established
- 1937 – Lincoln Tunnel Opens
- 1950 – Port Authority Bus Terminal Opens
- 1960 – 2nd Regional Master Plan
- 1961 – 2nd Zoning Resolution
- 1964 – Penn Station Rebuilt
- 1968 – Metropolitan Transit Authority Established
- 1973 – Twin Towers Built & Battery Park City Built
- 1976 – NYCDPR Established
- 1979 – Expansion of West Side Yard Begins
- 1982 – West Side Line Ceases Operation
- 2005 – 2nd Special HY District Established
The Hudson Yards Project, undertaken in 2 phases, is expected to be the largest development project in the history of the United States upon its completion.

**FACTS:**

- 17,560,000 ft²
- 1,631,377 m²
- 28 Acres
- 11 Hectacres
- $25,000,000,000
- €22,625,000,250

### PHASE I
**EASTERN YARD**
From 10th to 11th Avenue between West 30th and West 34th Streets

<table>
<thead>
<tr>
<th>Office</th>
<th>1,800,000 SF</th>
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</thead>
<tbody>
<tr>
<td>Residential</td>
<td>2,600,000</td>
</tr>
<tr>
<td>Retail</td>
<td>2,300,000</td>
</tr>
<tr>
<td>The Shops</td>
<td>1,300,000</td>
</tr>
<tr>
<td>The Shed</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Hotel</td>
<td>50,000</td>
</tr>
<tr>
<td>Retail Pavillion</td>
<td>220,000</td>
</tr>
<tr>
<td>Residential</td>
<td>1,870,000</td>
</tr>
<tr>
<td>The Shed</td>
<td>200,000</td>
</tr>
</tbody>
</table>

**Total:** 11,340,000 SF

### PHASE II
**WESTERN YARD**
From 11th to 12th Avenue between West 30th and West 33rd Streets

<table>
<thead>
<tr>
<th>Office</th>
<th>2,000,000 SF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>4,000,000</td>
</tr>
<tr>
<td>Retail</td>
<td>100,000</td>
</tr>
<tr>
<td>School</td>
<td>120,000</td>
</tr>
</tbody>
</table>

**Total:** 6,220,000 SF
The Project - THE HUDSON YARDS
### Stakeholders - THE HUDSON YARDS

#### Public
- Hudson Yards Infrastructure Corporation
- Hudson Yards Development Corporation

#### Private
- Related Companies
- Oxford Properties Group

#### Methods of Financing

**Public**
- Tax Increment Financing (TIF)
- Payments in Lieu of Taxes

**Private**
- Private Investment and Capital Injections
Public Investment Projects - THE HUDSON YARDS

THE HIGH LINE & 7 LINE EXTENSION – $2.5 billion
Planning & Zoning - **THE HUDSON YARDS**

**OBJECTIVES**
- Vision 2020: Waterfront Plan
- Active Design Guidelines
- PLACES: Neighborhood Planning Studies

**METHODOLOGY**

**CASE STUDY**
- ADMINISTRATION MAYOR’S OFFICE
- Department of City Planning

**CRITICISMS**

**CHOICE MODELING**

**CONCLUSIONS**

**Environmental Impact Statements**
- Residential
- Commercial
- Manufacturing
- Special Districts
- HY

**State and Federal Administrations & Regulations**

**Department of City Planning**
- Binding Plans
- Non-Binding Plans

**Regional Planning Association Master Plan**
- Zoning Resolution & Zoning Text
- Urban Land Use Review Procedure (ULURP)

**Community Board**
- Borough President
- City Planning Commission
Current Zoning- THE HUDSON YARDS

Zoning is the set of laws and regulations that manage the tools that dictate the development of real property in most major US cities.

Zoning laws typically specify residential, industrial, or commercial zones. Besides restricting the uses that can be made of land and buildings, zoning laws also may regulate the dimensional requirements for lots and for buildings on property located within the town, and density of development.
**Current Zoning - THE HUDSON YARDS**

**Zoning Resolution 1961**

**ZONING DESIGNATIONS:**

1. Residential
2. Commercial
3. Manufacturing
4. Special Districts

**ZONING TOOLS:**

1. Floor Area Ratios (FAR)
2. Incentive Zoning
3. Inclusionary Housing (IHP)
4. R10 Program
5. Transfer of Development Rights (TDR)
6. District Improvement Bonuses
Current Zoning Tools - THE HUDSON YARDS

Floor Area Ratio (FAR)
**Current Zoning Tools - THE HUDSON YARDS**

**Transfer of Development Rights (TDR)**

**Zoning Lot Merger**

**Corner Lot Transfer**
Zoning Resolution Change - THE HUDSON YARDS

When zoning regulations do not permit the intended use of a site by the owner, a Zoning Resolution and Zoning Text Amendment must be requested. A zoning map or text amendment is a legislative, legal action that can be either city wide or to a specific zoning district. An amendment may also be necessary to allow a development at a location or permit a layout that is not allowed.

Zoning Resolution Amendment Procedure:
Additional Requirements for Zoning Resolution Changes - THE HUDSON YARDS

Urban Land Use Review Procedure ULURP

1. Filing of Certification
2. Certification
3. Community Board Review
4. Borough President Review
5. City Planning Commission Review
6. City Council Review*
7. Mayoral Review*

Environmental Impact Statement

- **Cultural Impacts** – Actions that impact historical or cultural sites
- **Natural Impacts** – Such as threatened or endangered species, Air and water quality
- **Social Impacts** – Impacts to local communities such as displacement of families, impacts to housing stock, aesthetic impacts or increase in noise.
- **Economic Impacts** – Includes impacts, both positive and negative, to businesses, property values or jobs
Criticisms - THE HUDSON YARDS

Socio-Economic

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Expected to contribute thousands of new jobs to the neighborhood.</td>
<td>• Likely gentrification</td>
<td>• Increase affordable housing units</td>
</tr>
<tr>
<td>• Increase in city revenue</td>
<td>• Potential for revenue losses due to TIF and PILOT program expenditures.</td>
<td>• Create a program to encourage low and middle income families to stay in the neighborhood.</td>
</tr>
<tr>
<td>• Overall economic growth for the existing neighborhood including rising property values.</td>
<td>• Loss of neighborhood character</td>
<td>• Use zoning to prevent gentrification. The main mechanism of gentrification is not development of investment, it’s zoning.</td>
</tr>
<tr>
<td></td>
<td>• Large public sector expenditures to support public sector investment (Line 7 extension)</td>
<td>• Provide mechanisms to allow existing residents to have first options for jobs in the new developments.</td>
</tr>
<tr>
<td></td>
<td>• Displacement of jobs from other neighborhoods</td>
<td></td>
</tr>
</tbody>
</table>
# Criticisms- THE HUDSON YARDS

## Design

<table>
<thead>
<tr>
<th>Strengths</th>
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<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in public services and amenities such as public schools, privately owned public parks and transit stops (7 line extension).</td>
<td>1. Shifts the existing focus of the Manhattan skyline dramatically uptown and away from the Empire State Building.</td>
<td>Break down the project from super-block to normal city sized blocks.</td>
</tr>
<tr>
<td>Good design methods, such as creating interesting street walls.</td>
<td>2. Loss of low-rise historic character.</td>
<td>Encourage the development of historic low-rise buildings either through reuse, or through the construction of similar sized buildings.</td>
</tr>
<tr>
<td></td>
<td>3. Creation of one large super-block which seems not only to shift from the historic tradition of the city block, but isolates the design in a certain way from the rest of the city.</td>
<td>Reduce the scale of the project. This may mean abolishing the District Improvement Bonus program which allows the construction of such tall buildings.</td>
</tr>
</tbody>
</table>
## Criticisms - THE HUDSON YARDS

### Environmental Impact Statement (EIS)

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Recommendations</th>
</tr>
</thead>
</table>
| • Considers the various aspects of any project, including:  
  o Land Use and Policy  
  o Socio-economic Impacts  
  o Community Facilities and Open Space  
  o Historic and Cultural Resources  
  o Urban Design  
  o Neighborhood Character  
• Examines both positive and negative impacts of development.  
• Typically provides alternatives and mitigation methods. | • Uses “No Action” scenario as it’s baseline.  
• Can be swayed by political opinion and administrative requests.  
• The EIS is only a tool. Although the EIS may be in opposition to the project or certain aspects of it, the City Council and Administration can still choose to approve the development anyway. | • Encourage an independent outside agency that isn’t related to the administration to perform the EIS. This will allow for impartiality.  
• Allow certain baseline actions that regardless of the plan, would not allow it to pass. For example, if the plan calls for the displacement of 500 families, the plan would automatically be denied and not allowed to pass.  
• Use existing conditions, not “no action” as the baseline for the EIS. |
## Criticisms - THE HUDSON YARDS

### Planning Process

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Receives input from a multitude of sources from various levels of municipal and state government.</td>
<td>• Waits until after the plan or design in done to allow for public comment and input.</td>
<td>• Encourage public participation much sooner in the development process, particularly through the design process. This will not only increase public equity and involvement but also provide key services and amenities to the public as they deem necessary.</td>
</tr>
<tr>
<td>• Always includes public comment through the ULURP process.</td>
<td>• Fails to guarantee public input during a city-designed project.</td>
<td>• When a project is given incentive zoning bonuses for the inclusion of public space, the space should be equally designed by the public as well as the developer.</td>
</tr>
<tr>
<td></td>
<td>• No public say in the development of its public parks when developed through the Incentive zoning process.</td>
<td>• Less reliance on the EIS for justification until it is done through an external agency.</td>
</tr>
<tr>
<td></td>
<td>• Heavily relies on the Environmental Impact Statement which can be biased or skewed.</td>
<td></td>
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</tbody>
</table>
Choice models investigate the choice preferences of consumers while attempting to determine correlations between a good’s various attributes. In doing so, the model aims to establish the willingness of consumers to pay for those attributes, making choice modeling one of the most suitable study methods for estimating a consumers’ willingness to pay for attribute improvements.

The following are the suggested attributes and levels for a potential choice model experiment, based in the historiographical study and with its application towards Phase II of the Hudson Yards redevelopment project:

**Project Management:** Referring to implementation as well as management of the development with three levels: private, public, or public-private-partnership.

**Connection to the Hudson River and Proposed Hudson River Park:** Option to connect the project to the Hudson River using a direct visual and physical connection such as a bridge or pathway, or to maintain the existing poorly defined connection.

**Project Scope and Scale:** Using two different levels, the first preserving the existing plan as drawn, or allow for a second plan that allows for a rescaling of the project into tradition NYC blocks.

**Outdoor Recreation Facilities:** Currently, the project contains no recreation facilities, so a choice model would allow for the inclusion of either active recreation facilities (basketball courts, tennis courts, etc.) or keep the design “as-is”.

**High Line Treatment:** The current plan calls for the removal of a portion of the existing High Line structure. Three levels would suggest either removal of the section and salvage, removal and no salvage, or the preservation as-is.

**Cost and Concessions:** Examine the willingness of the public to tradeoff an increase in open space for cost which would come in the shape of FAR bonuses or a targeted increase in property taxes for those adjacent to the project.
Conclusions- THE HUDSON YARDS

The planning and design process was developed to serve all citizens alike, rich and poor. Unfortunately, there are aspects that fail the constituents whom they were supposed to serve.

Evident flaws in the planning process, including a heavy reliance on the often biased Environmental Impact Statement in the decision making process can skew or alter the results. When this occurs, it can often lead to negative consequences, particularly for those with the fewest means of combating them. Projects such as this undoubtedly alter the city and the way its citizens interact with it and each other. Unfortunately, these developments also tent to impact those most greatly who can’t afford to change such as the working poor and elderly. This often leads to an accelerated gentrification process and a further burden on the allocation of public services and city resources.

Not only does the Environmental Impact Statement often include strong bias, but the planning process itself is based on the disenfranchisement of the public it should be serving. By failing to include more public participation in the planning and development process, the city and developers often produce projects that fail to serve the needs of the public, and implement projects that work in the best interest of the wealthy.

All this comes back to remind us that although gentrification is a result of development, development itself is a result of zoning. Therefore, the best way to prevent gentrification and ostracizing the working poor, is to adapt the zoning process to better fit their needs. While further analysis of choice modeling methods need to be examined so as to better adapt their use in urban development projects and public spaces, it is my belief that they along with traditional tools and mechanisms of development can help to produce a more inclusive city where all citizens take pride in its development and share equity in its growth.

In response to the use of choice modeling experiments, while they do in fact have a place in the design and development of public urban spaces, the lack of public participation vis a vis New York City prevents them from being integrated as part of a holistic participation plan. While the use of stated preference experiments could be remarkable useful in determining the wishes and expectations of the public in relation to their parks, until there is more transparency in the process, a choice experiment or stated preference model is unlikely to be effective.
¡GRACIAS!

THE HUDSON YARDS - 2030


Angel, Solly, and Patrick Lamson@Hall. Urbanization Project: The Rise and Fall of Manhattan's Densities, 1790 @ 2010. 5 Dec. 2014. Raw data. New York University Faculty Digital Archive, New York City, New York. URL Handle: http://hdl.handle.net/2451/33846


“Inclusionary Housing Program” - New York City. (n.d.). <http://www1.nyc.gov/site/planning/zoning/districts@tools/inclusionary@housing.pa>


Lionel Pincus and Princess Firyal Map Division, The New York Public Library. "Plate 18: Bounded by W. 36th Street, Eighth Avenue, W. 25th Street, Thirteenth Avenue, [Hudson River, Piers 55-60], and [Hudson River, Piers 61-66], Twelfth Avenue."


