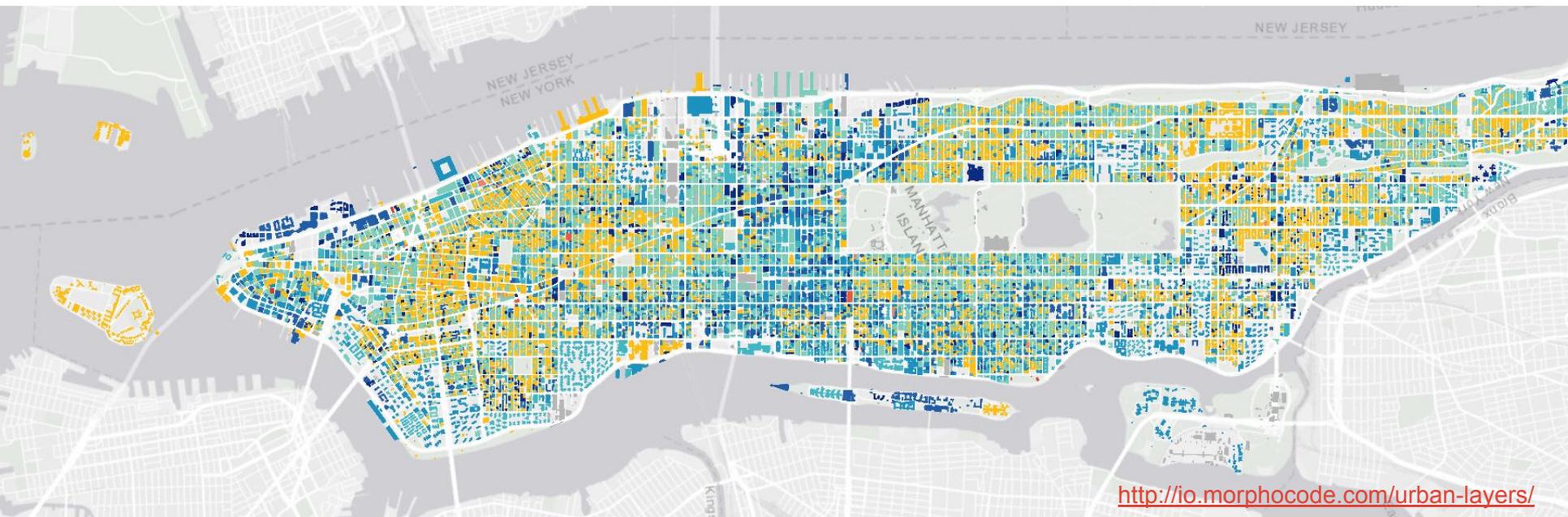


曼哈顿图鉴





Bachelor of Architecture (B.Arch)



Architectural Designer

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Newark Liberty International Airport Terminal One

[View Project](#) ↻



<https://www.youtube.com/watch?v=aRVSP7A8yM>

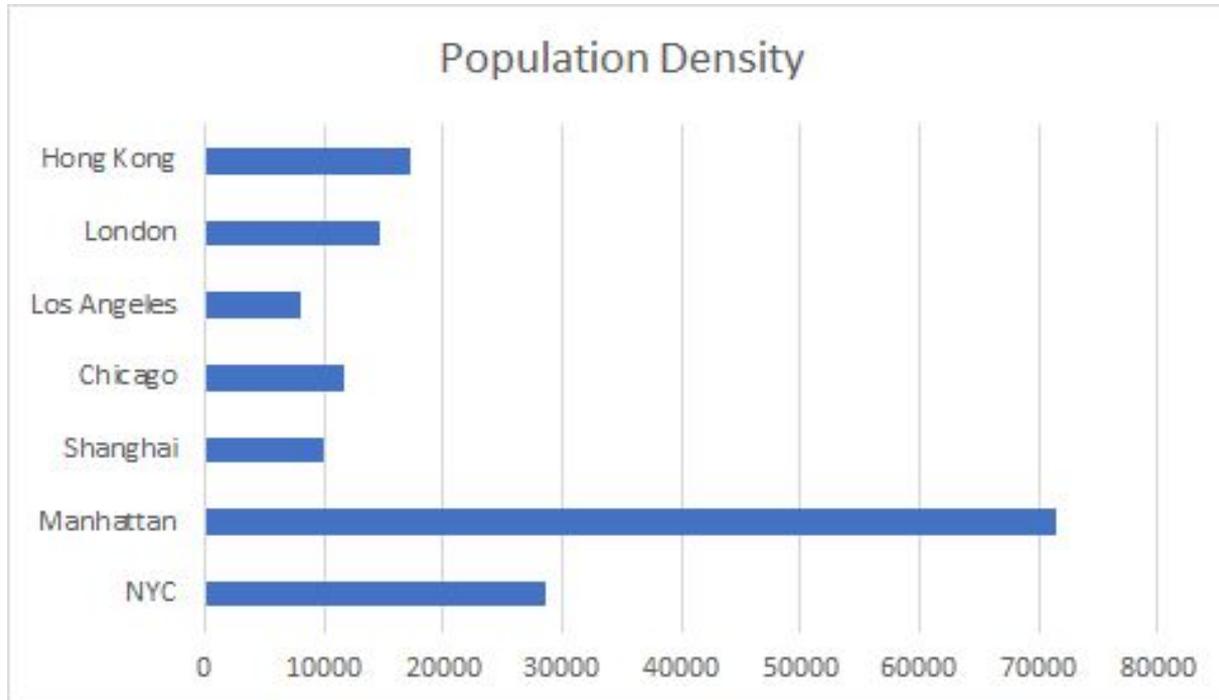
“Heartbeats of Manhattan” [gif](#)



- **Area** - 302.6 mi² (783.7 km²). Manhattan 22.82 mi² (59.1 km²);
 - Shanghai: 2,448 mi²; Chicago: 234 mi²; LA: 503 mi²; London: 607 mi²; Hong Kong: 427 mi².
- **Population** - 8.632 million (2015). Manhattan 1.629 million;
 - Shanghai: 24.2 million; Chicago: 2.716 million; LA: 4 million; London: 8.9 million; Hong Kong: 7.4 million.



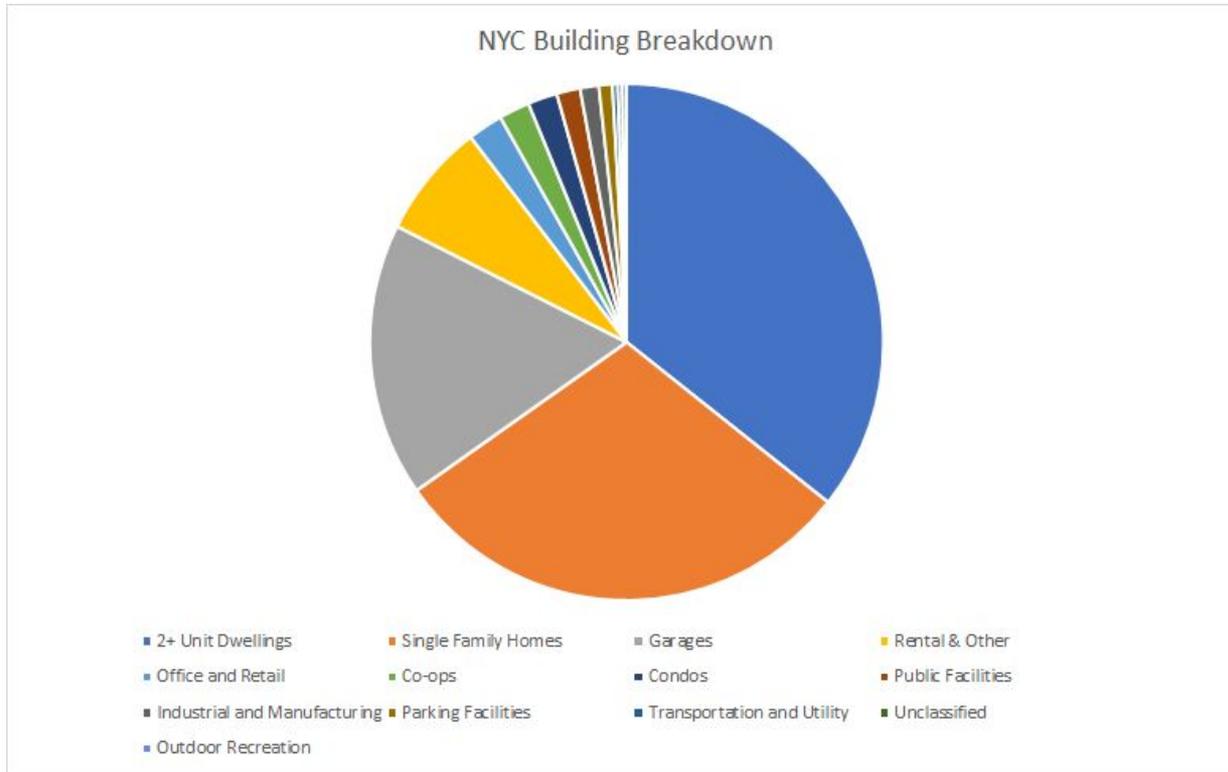
- US Population Density: 92.6 ppl/mi²
- Manila, Phillipine: 106,278 ppl/mi²



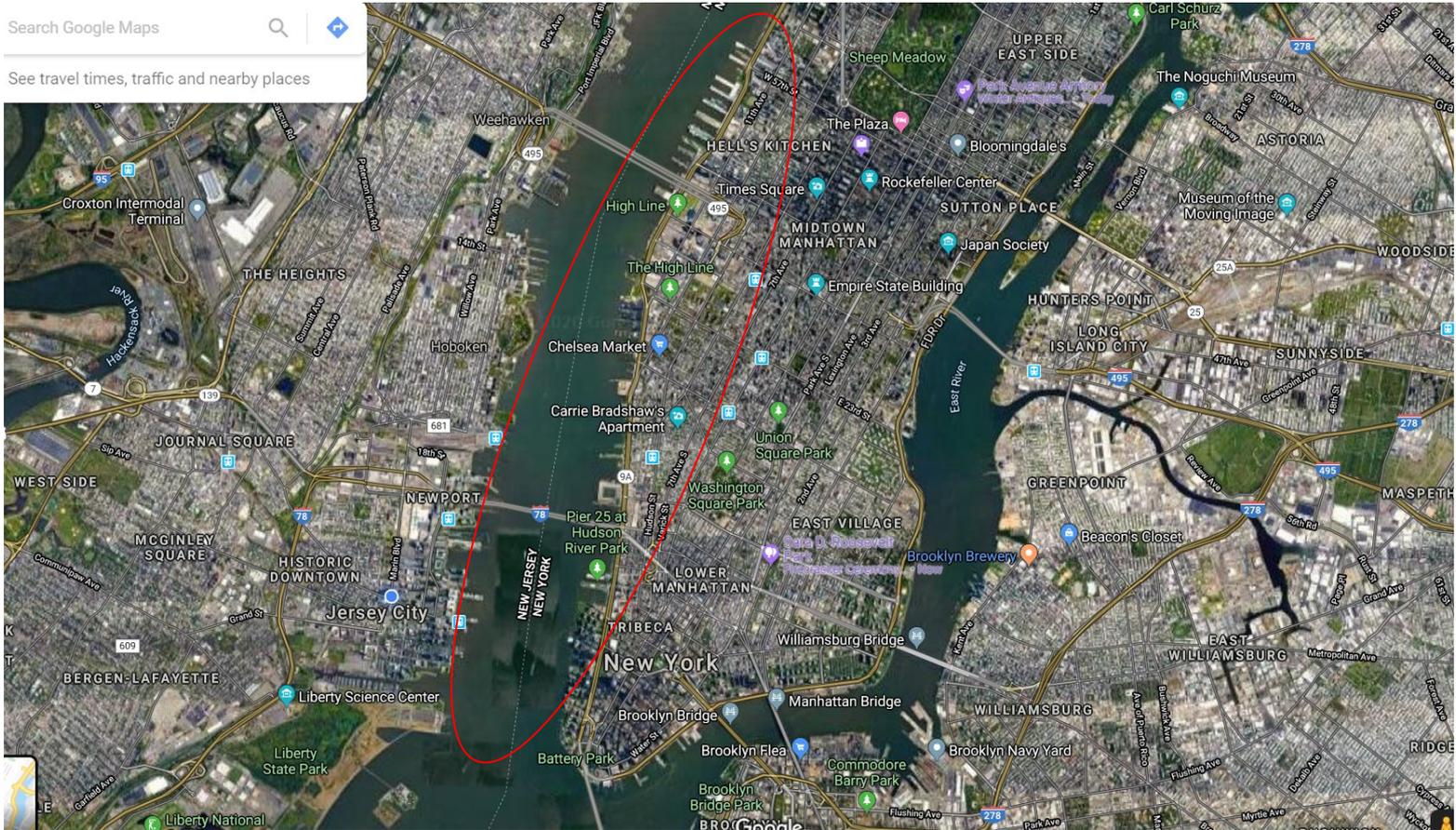
- **NYC Subway Ridership** - 5.6 million on weekdays, 3.2 million on Saturdays, 2.5 million on Sundays, 1.7 billion annually (NYCT, 2017);
- **No. of Buildings in NYC - ?**

NYC QUICK FACTS

- There are 1,101,623 buildings in NYC as of February 2019 (Data Source: Market Proof, NYC Department of Buildings)
- 134,041 Parcels in Manhattan
- iPhone XR Resolution: 1792 x 828 = 1,483,776

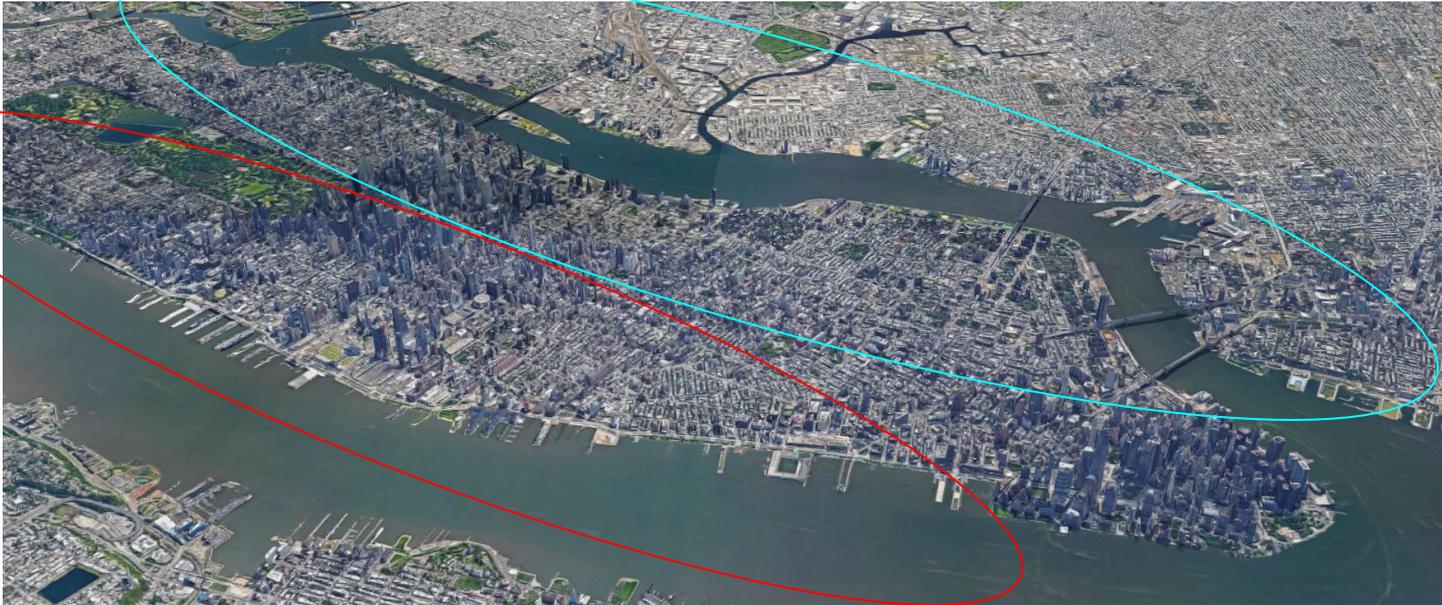


- Docks



- **Major Waterbodies around Manhattan**

- **Hudson River** is **not** technically a **river**, but an estuary (where the tide meets the stream);
- **East River** is actually a “**salt water tidal strait**” since it's not comprised of any fresh water.
- **The lower Hudson river** is maintained at a depth of at least **32** feet for commercial traffic from the Port of Albany to New York City, but is as deep as 200 feet in places.
- East River: actual main channel depths along the river vary; with a depth of **24' or less**



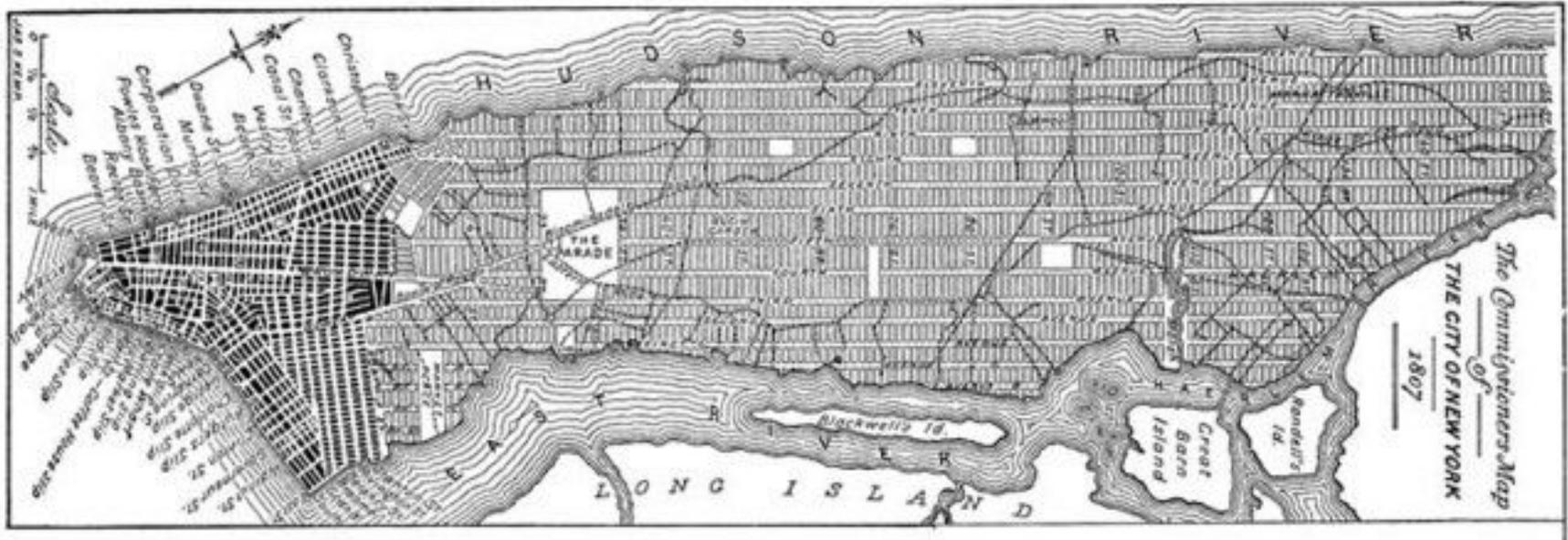


- Greenberg, Stanley, and Karrie Jacobs. *Codex New York: Typologies of the City*. The Monacelli Press, 2019.

- **Urban Planning**
- **Urban Design**
- **Real Estate Development**
- **Architecture**
- **Civil Engineering**
- **Structural/Electrical/Mechanical/Geotechnical Engineering**
- **Landscape Architecture**
- **Interior Design**
- ...

BUILT ENVIRONMENT DISCIPLINES

- **Urban Planning** - the planning of city strategies, structures and policies



- **Urban Design** - the design of city features



- **Real Estate Development** - the business process, encompassing activities that range from the renovation and re-lease of existing buildings to the purchase of raw land and the sale of developed land or parcels to others



- **Architecture** - the planning, design and construction of buildings and other large structures



- **Civil Engineering** - the design, construction, and maintenance of the physical and naturally built environment

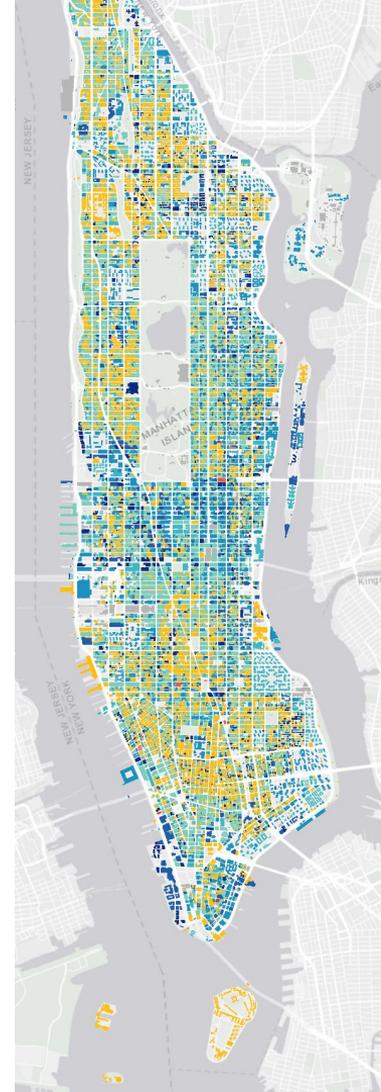


- **Landscape Architecture** - the design of outdoor areas, landmarks, and structures to achieve environmental, social-behavioural, or aesthetic outcomes

PLAN OF THE CENTRAL PARK, CITY OF NEW YORK, 1860.



- **Milestones in the History of Manhattan:**
 - **Before 18th Century**
 - Pre-colonial Era
 - New Amsterdam - Dutch Colonial Era
 - New York - British Colonial Era
 - **18th Century**
 - American Revolution
 - Population Growth
 - Fire Accidents and Social Conflicts
 - **19th Century**
 - Commissioner's Plan of 1811
 - Riots from 1840s to 1860s
 - Epidemics and Health Concerns in the 19th Century
 - The Creation of Central Park and Other Public Spaces
 - The Construction of Iconic Infrastructure Projects
 - **20th Century**
 - Immigration in the Early 1900s
 - New York Subway System
 - Early Skyscrapers (vs. Chicago)
 - Development as A Global Cultural Center
 - "The Roaring 20s" and the Great Depression
 - World War II and Moses Rehabilitation
 - US Interstate Highway Movement
 - Construction of Skyscrapers & Growth as A Commercial Hub
 - Rise of Consumerism
 - **21st Century**
 - 911 & WTC Redevelopment
 - Infrastructure Development
 - Development of Surrounding Region
 - Global Climate Change



- "...each block is covered with several layers of phantom architecture in the form of past occupancies, aborted projects and popular fantasies that provide alternative images to the New York that exists."
-- Rem Koolhaas, "Delirious New York"

<http://io.morphocode.com/urban-layers/>

Before 18th Century



Lenape, Rockaway and Canarsie Indians once occupied what is now New York City.



An Italian, Giovanni da Verrazano discovered New York Harbor in 1524.



In 1609 an Englishman, Henry Hudson, sailed up the Hudson River.



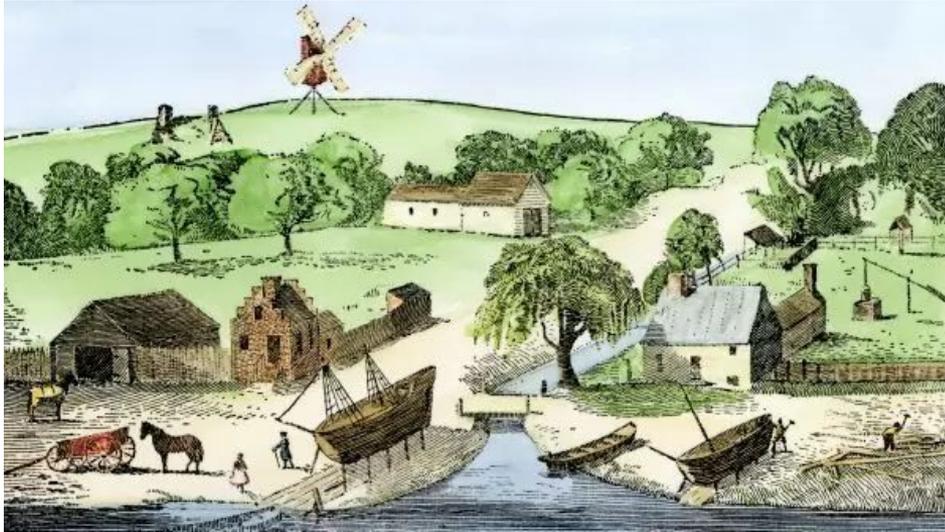
Then in 1624, the Dutch founded the first permanent trading post.



In 1626 the first governor, Peter Minuit, bought the island of Manhattan from the Native Americans.

The Dutch built a little town on the southern tip of Manhattan Island.

- About 1,500 inhabitants in the mid-17th century
- Trading animal skins
- Some farmers cultivated the land in Manhattan and in Brooklyn. (The Bowery takes its name from Bouwerie the Dutch word for farm).

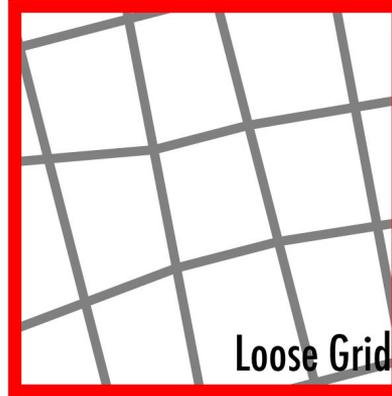




Gridiron



Organic



Loose Grid

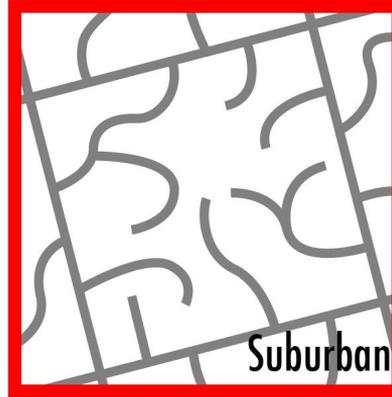
Common Systems ↑

Less Common Systems →

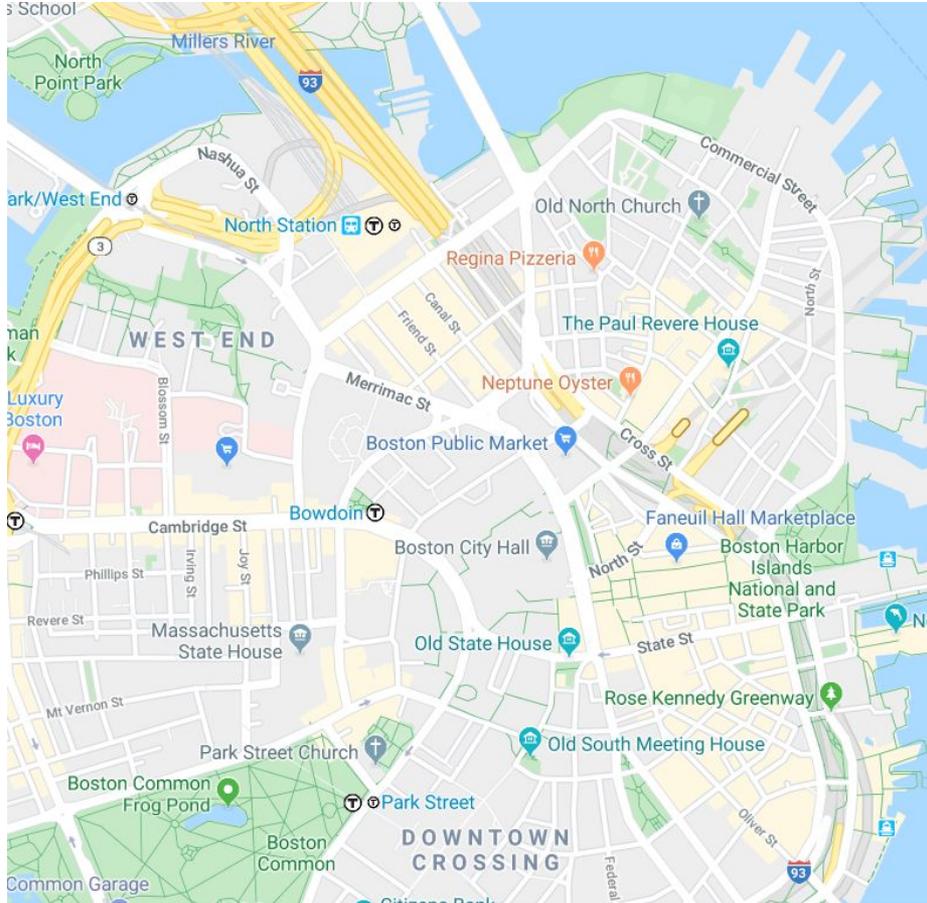
Street Systems

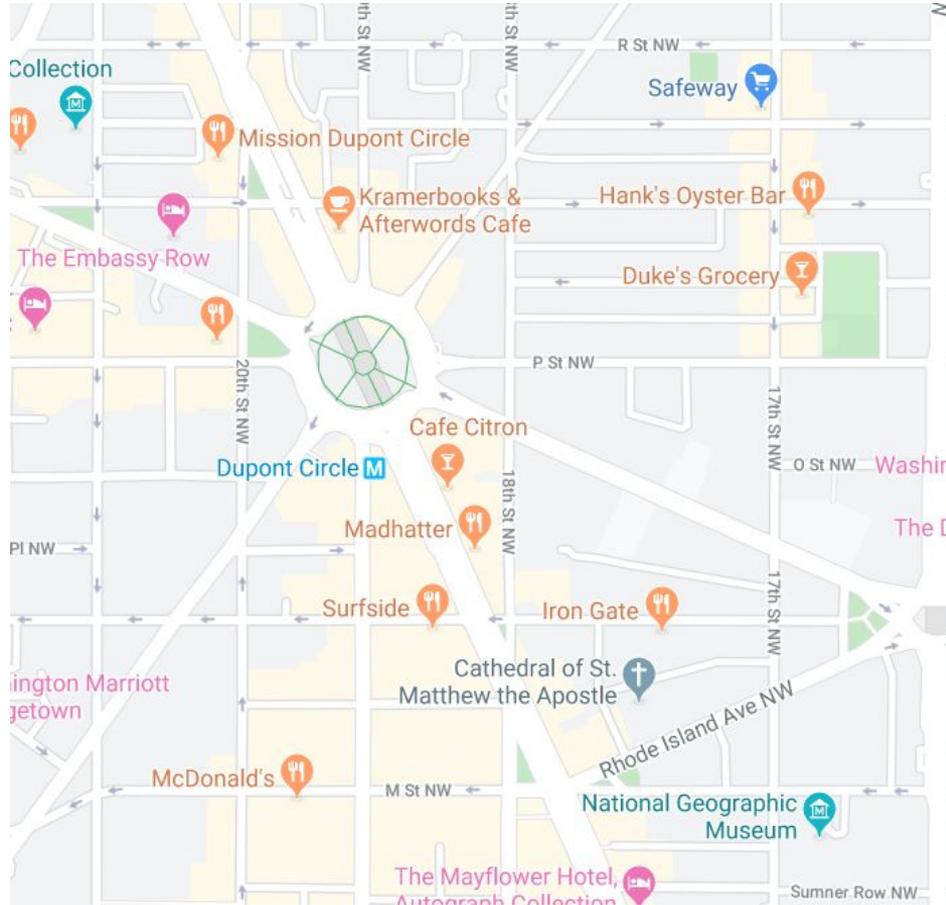


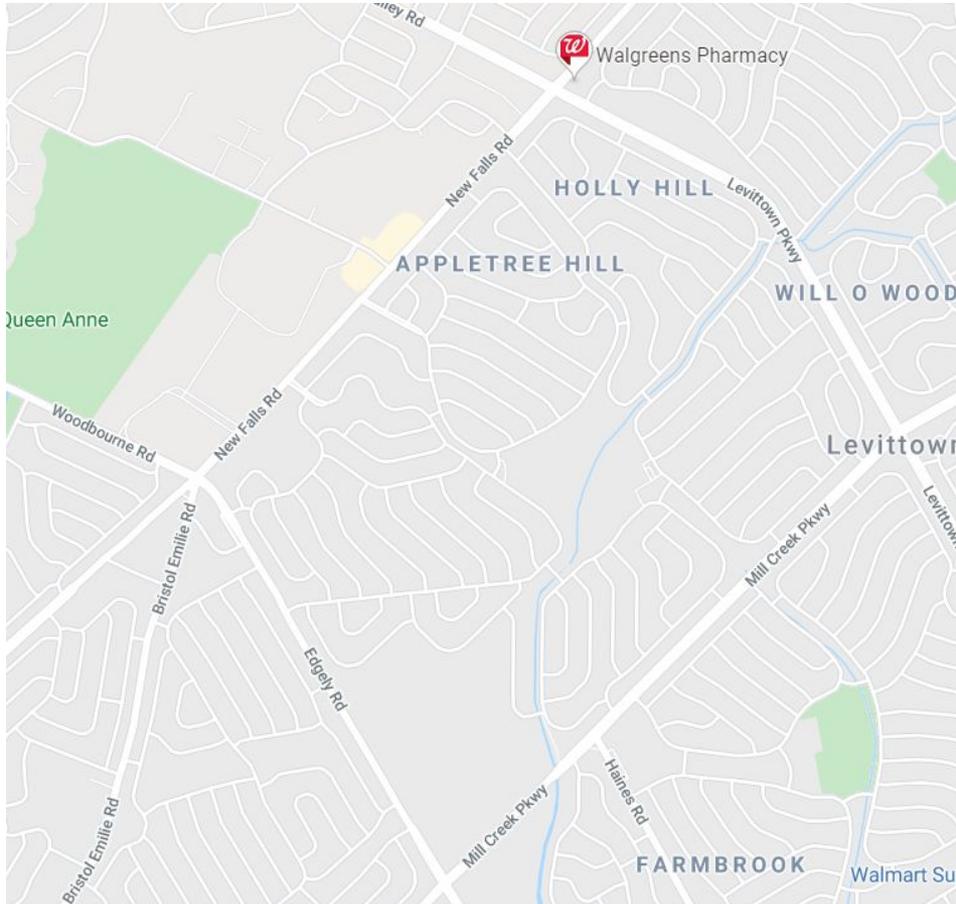
Radial Grid



Suburban



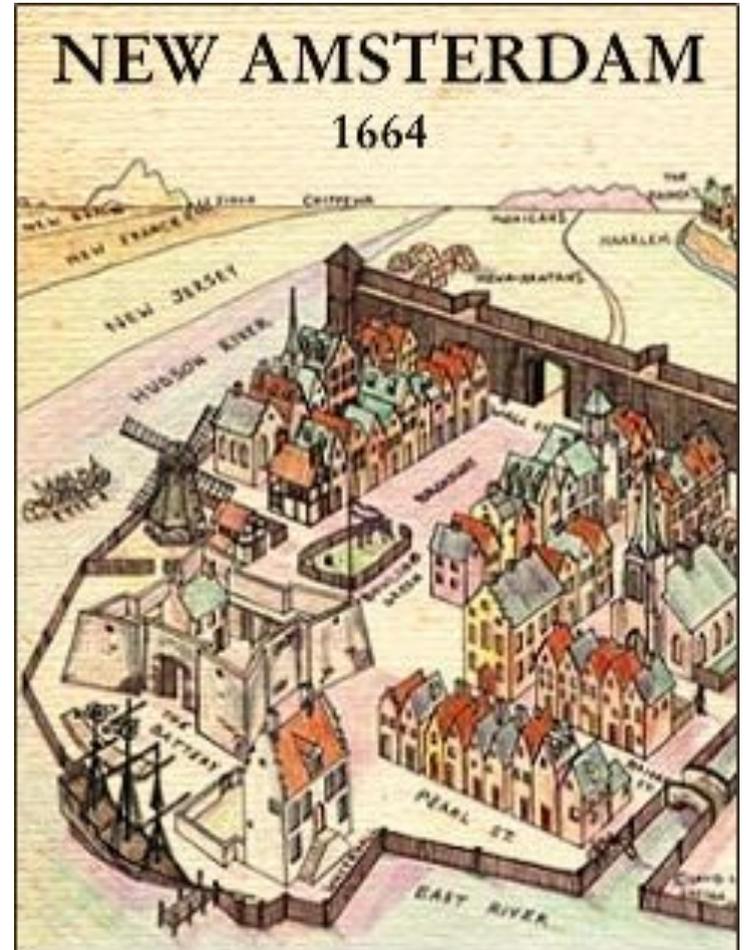




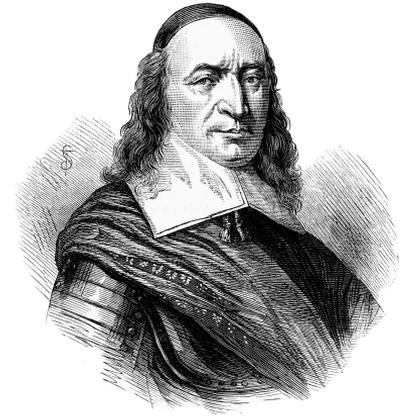
- Walloons (from what is now Belgium), French people and English people
- Slavery
- Buildings were, at first, made of wood but in time houses of stone or brick were erected



- In 1653 a wall was built across Manhattan Island to protect the little town of New Amsterdam. The street next to it was called Wall Street.



- In 1647 Peter Stuyvesant (c. 1592-1672) became governor of New Amsterdam.
- “I shall govern you as a father his children”
- A municipal government for New Amsterdam based on those of Dutch cities.
- 1664 an English fleet arrived - Stuyvesant surrendered.
- 1673: Dutch recapture
- 1674: Dutch lost again, New Amsterdam renamed New York
- 1698, Trinity Church dedicated
- Fort Amsterdam - Fort George - Battery



18th Century

- 1700 population: 5,000
- 1776 population: 25,000
- 1800 population: 60,000
- Milling, trading (with Britain) and shipbuilding



19th Century

- New York grew in a haphazard way
- Yellow Fever at the end of 18th century
- 1807 the governor of the state of New York appointed a commission to draw up a plan for the city
- The Commissioner's Plan of 1811

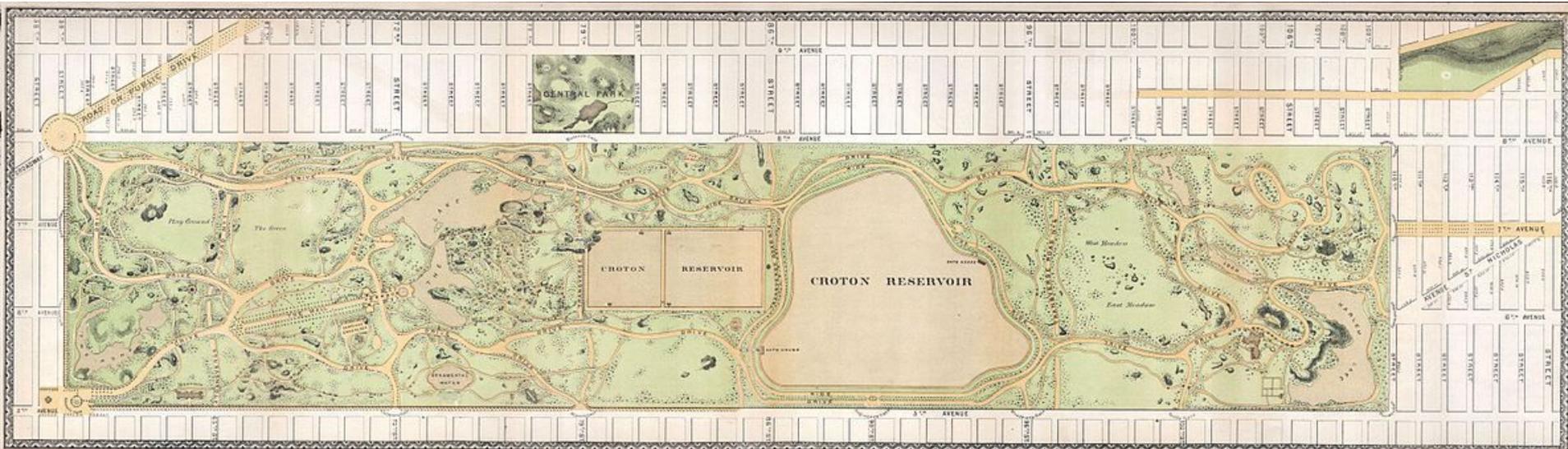


- Rules
 - Streets run east-west
 - Street numbers ascend as they move northward, from 1st street in Greenwich Village to 220th street in the Inwood section
 - Avenues run south-north, with numbers beginning on the east side of the island and ascending to the west
 - Lexington, Park and Madison Avenues (east-west in that order) run between 3rd and 5th Avenues
 - Street address numbers begin at Fifth Avenue, and increase as they move outward
 - Twenty city blocks (measuring north-south) are equivalent to 1 mile (1.6 km)
 - Broadway criss-crosses the straight avenues and creates large, open intersections (Union Square, Madison Square, Herald Square, Times Square, Columbus Circle, etc.)

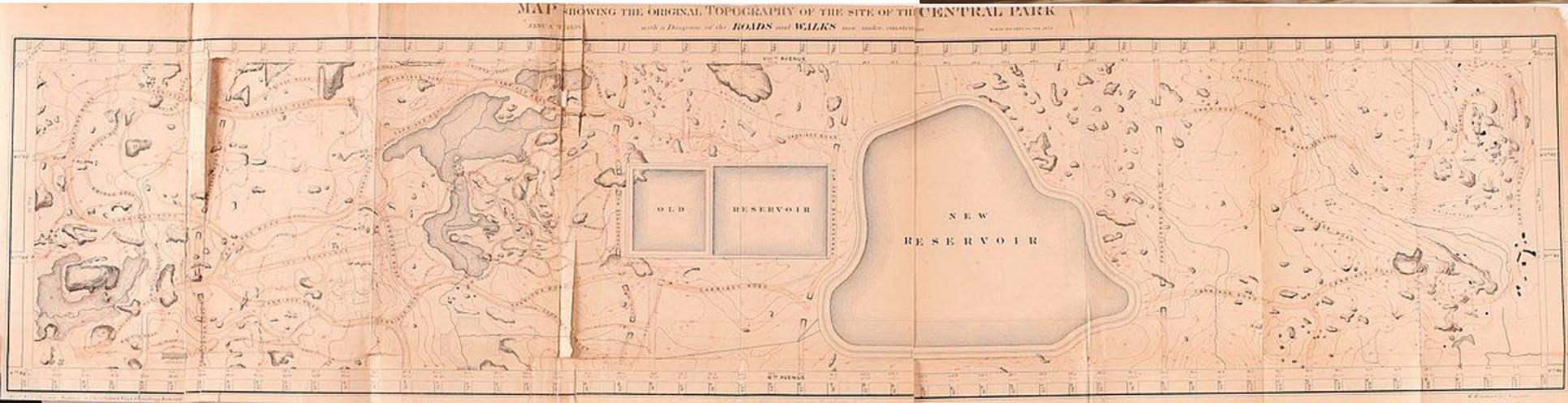
- Riots
 - Astor Place Riot
 - Draft riots
- Health Conditions
 - Cholera struck New York in 1832, 1849 and 1866
- Infrastructural Improvement
 - In 1832 the first horse drawn streetcars ran in New York
 - The first elevated railway in New York began carrying passengers in 1868
 - First telephone installed in 1878
 - Electricity supply in 1880
 - Brooklyn Bridge, 1883



- Central Park
 - Frederick Law Olmsted and Calvert Vaux, 1858
 - Olmsted was responsible for the overall plan, while Vaux designed some of the finer details
 - Generally rocky and swampy landscape
 - Funding issues until June 1858



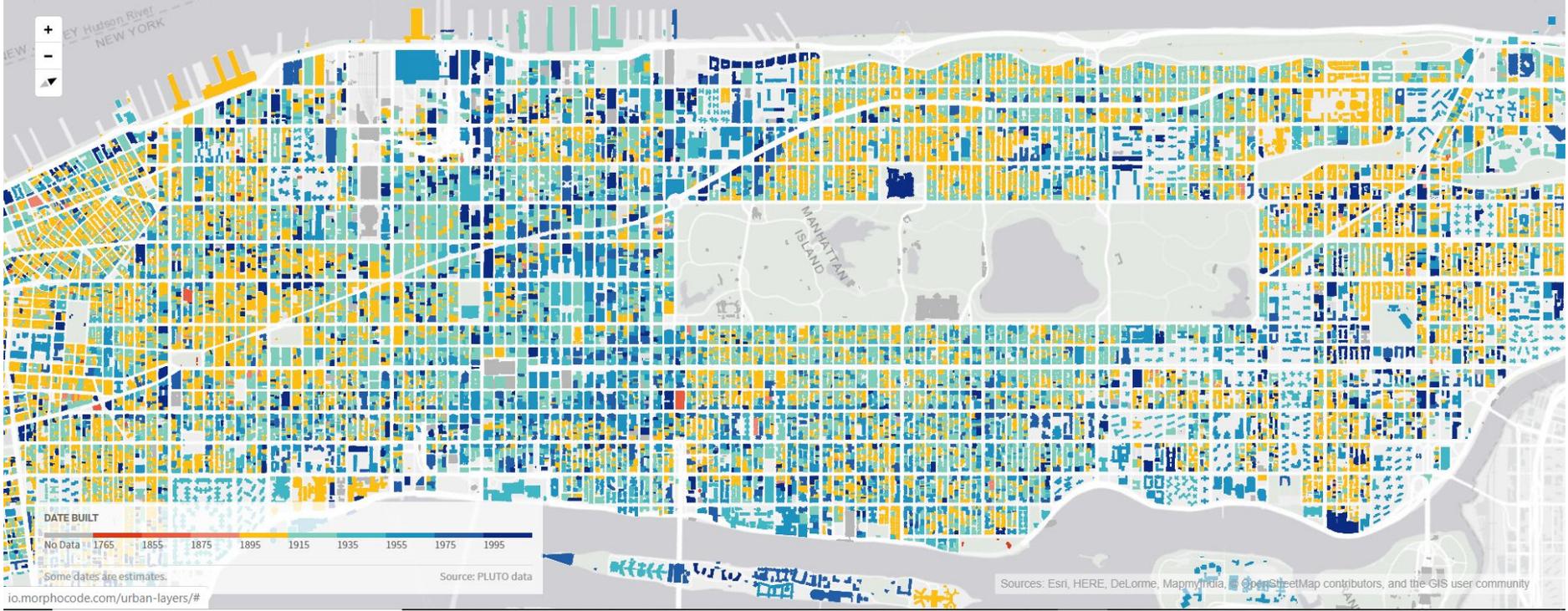
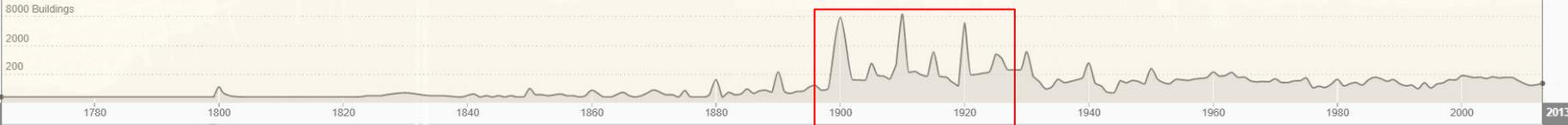
- Central Park
 - Olmsted often clashed with the park commissioners, notably with chief commissioner Green, resigned in 1862
 - Green was appointed to Olmsted's position
 - "Carriage Parade", a daily display of horse-drawn carriages that traversed the park
 - Rehired Olmsted and Vaux
 - 1870-1876: completion



- Cultural Development
 - The Museum of Natural History in New York was founded in 1869
 - 1886 Statue of Liberty
 - The Metropolitan Museum of Art was founded in 1870
 - Carnegie Hall opened in 1891
 - Bronx Zoo opened in 1899



20th Century





TIM ROTH
A Fable by Giuseppe Tornatore

THE
LEGEND
OF
1900

ORIGINAL MOTION PICTURE SOUNDTRACK

Music Composed, Arranged and Conducted by
Ennio Morricone

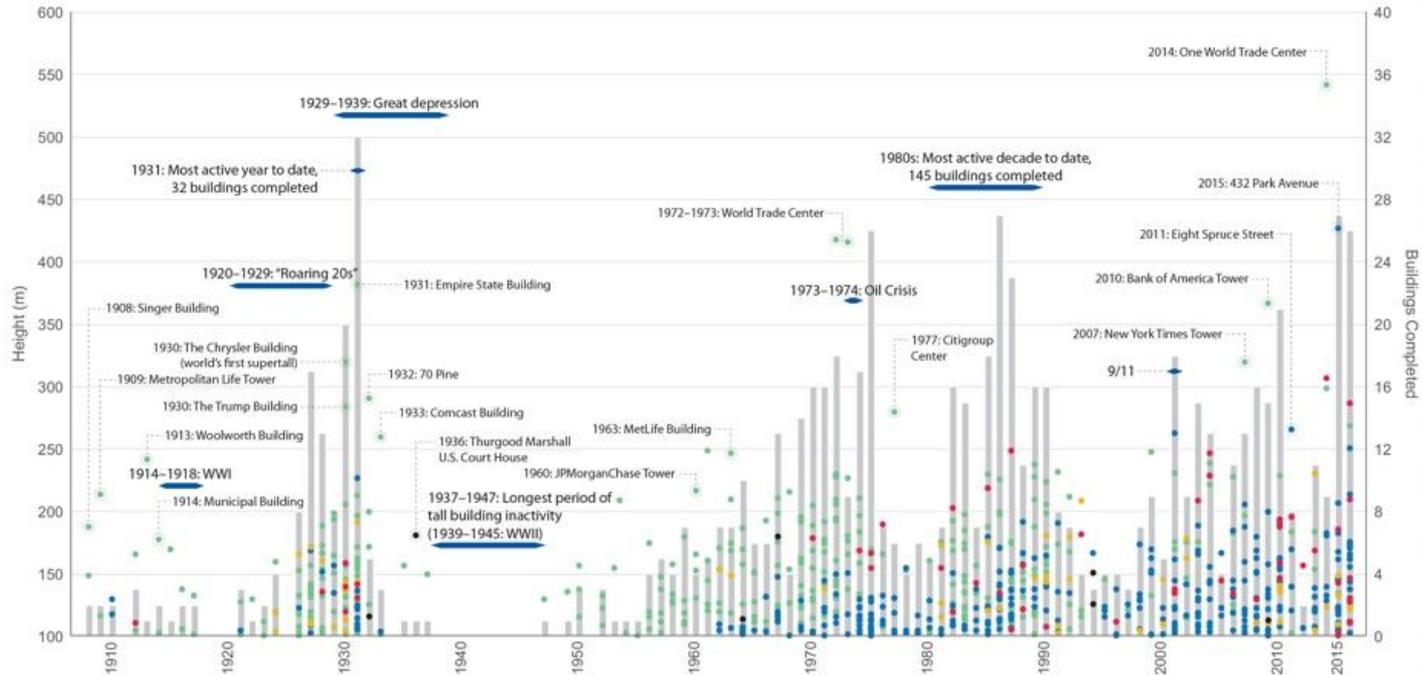
Follow the fluctuations of the city's skyscraper construction—which mirror the ups and downs of the U.S. economy.

Timeline of Tall Building Completions over 100 Meters in the New York City Region⁴

Bars represent the total number of buildings completed each year. Dots represent a specific building and its height and function.

Note: chart begins in 1908 with the completion of the Singer Building, the world's tallest building at the time

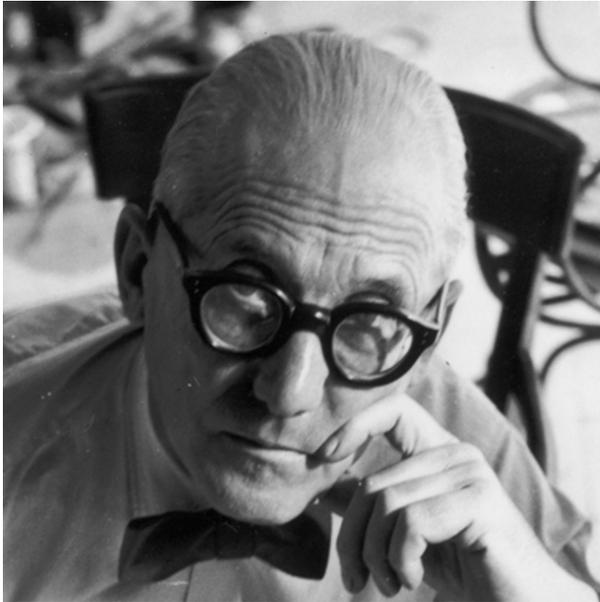
● Office ● Residential ● Mixed-Use ● Hotel ● Other



- Early Skyscrapers
 - The Flatiron Building was built in 1902
 - The Woolworth Building was erected in 1913
 - Competition with Chicago



- Modernism
 - “Less is more”
 - “Eyes that do not see”
 - “Form follows function”



- World War II and the Great Depression



- Development as an global cultural center
 - The Museum of the city of New York was founded in 1923
 - The Museum of Modern Art was founded in 1929
 - Gertrude Vanderbilt Whitney founded the Whitney Museum of American Art in 1930
 - The Guggenheim Museum was founded in 1939 but it moved to a modern building in 1959



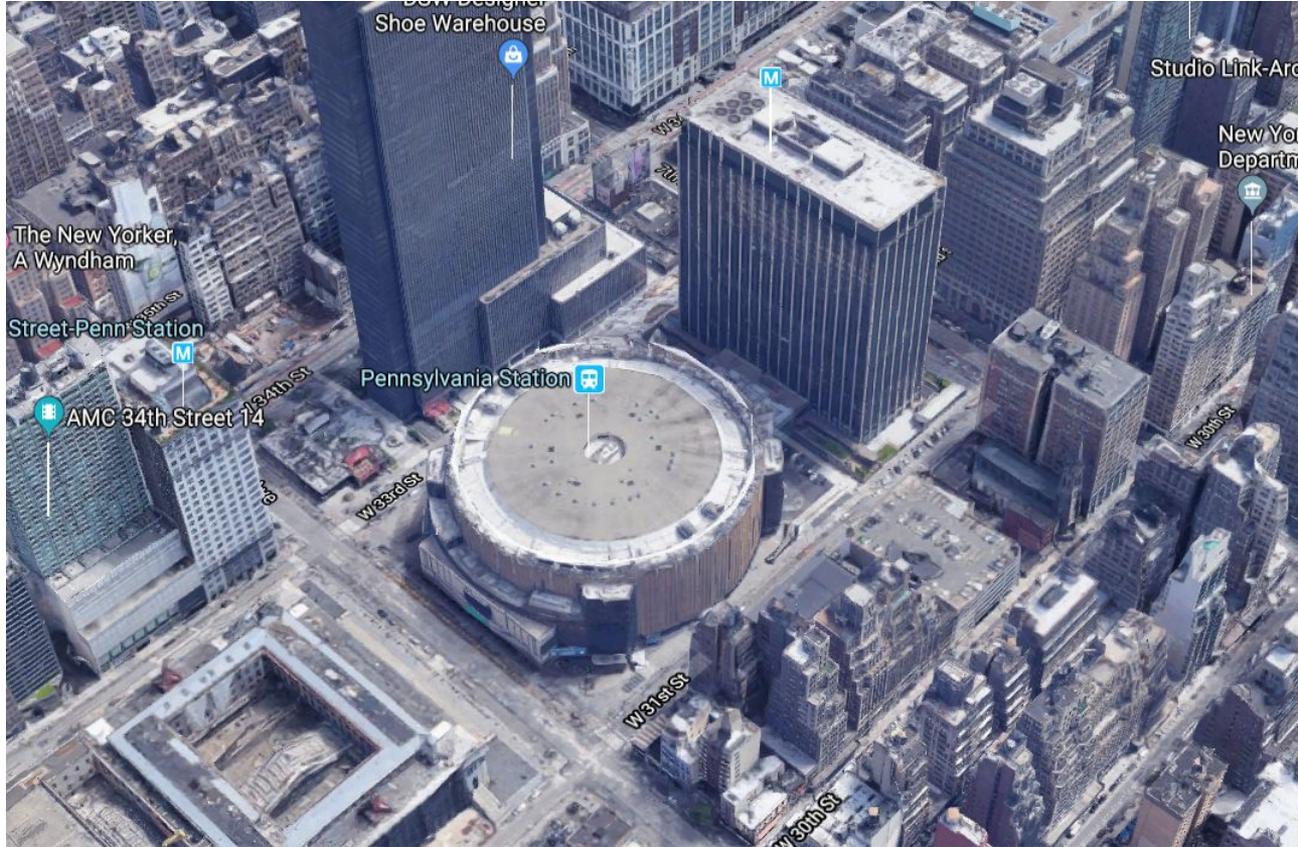
- 1960s - 1980s: Supertalls and Transit-Oriented Developments
 - Grand Central Terminal
 - Penn Station (Old)
 - Rockefeller Center
 - Empire State Building
 - World Financial Center



- The Historical Pennsylvania Station



- Today's Pennsylvania Station



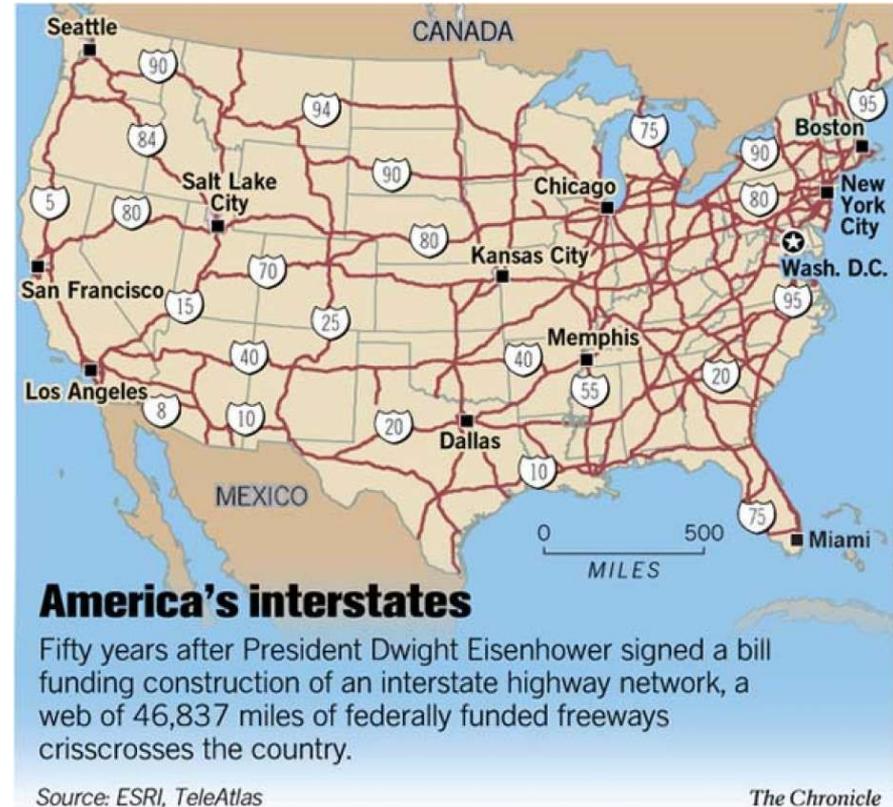
- Historical Pennsylvania Station



- Proposed Penn Station Moynihan Hall

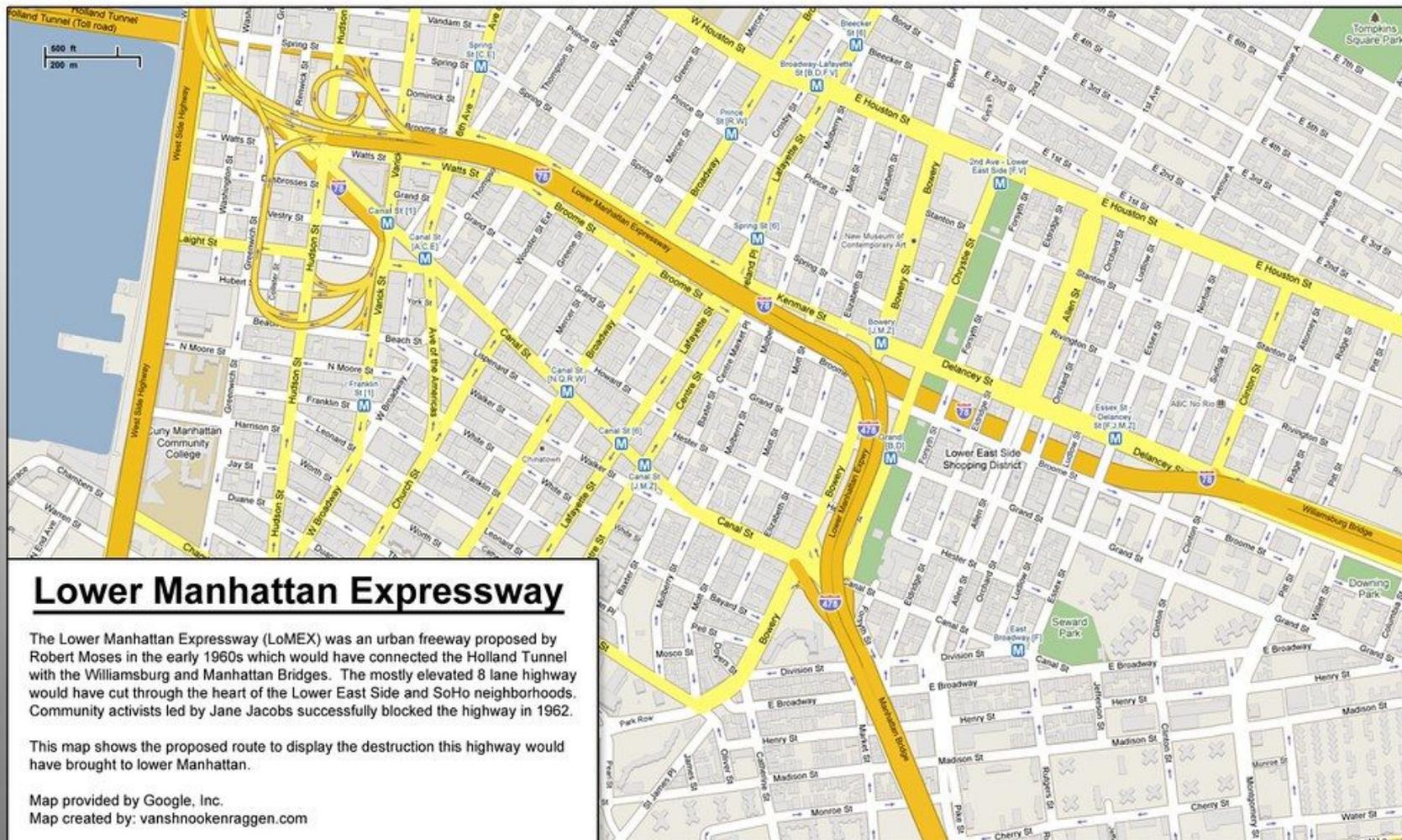


- Interstate Highway System
 - President Eisenhower conceived the Interstate System
 - A way of evacuating cities if the United States was attacked by an atomic bomb
 - Defense was the primary reason for the Interstate System
 - Launched by the Interstate Defense Highway Act of 1956
 - Interstates are intended to serve only traffic going from State to State
 - Congress should have put the money into transit instead of the Interstate System



- Lower Manhattan Expressway



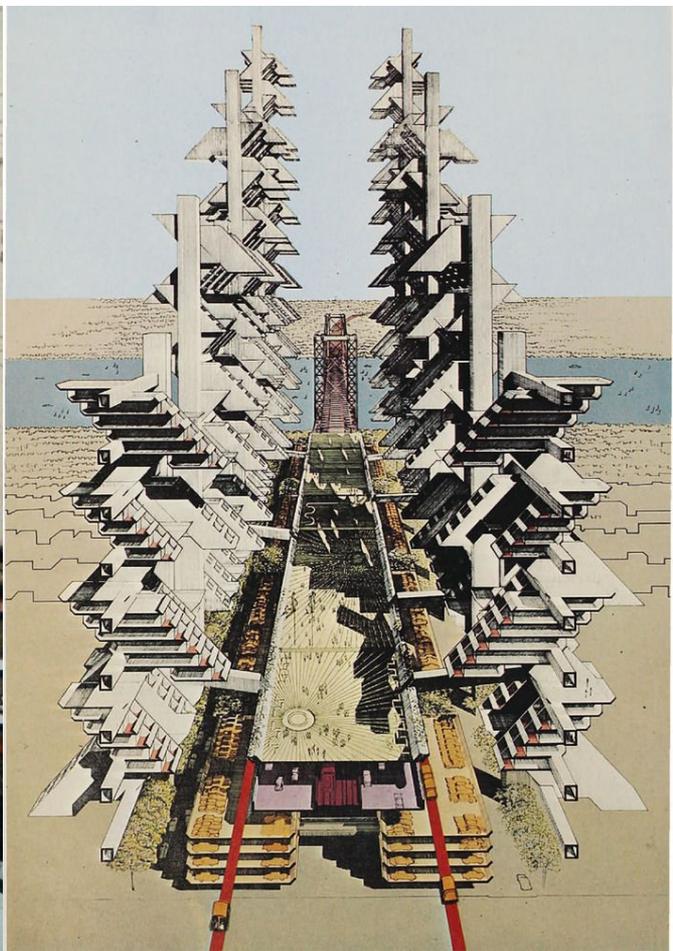
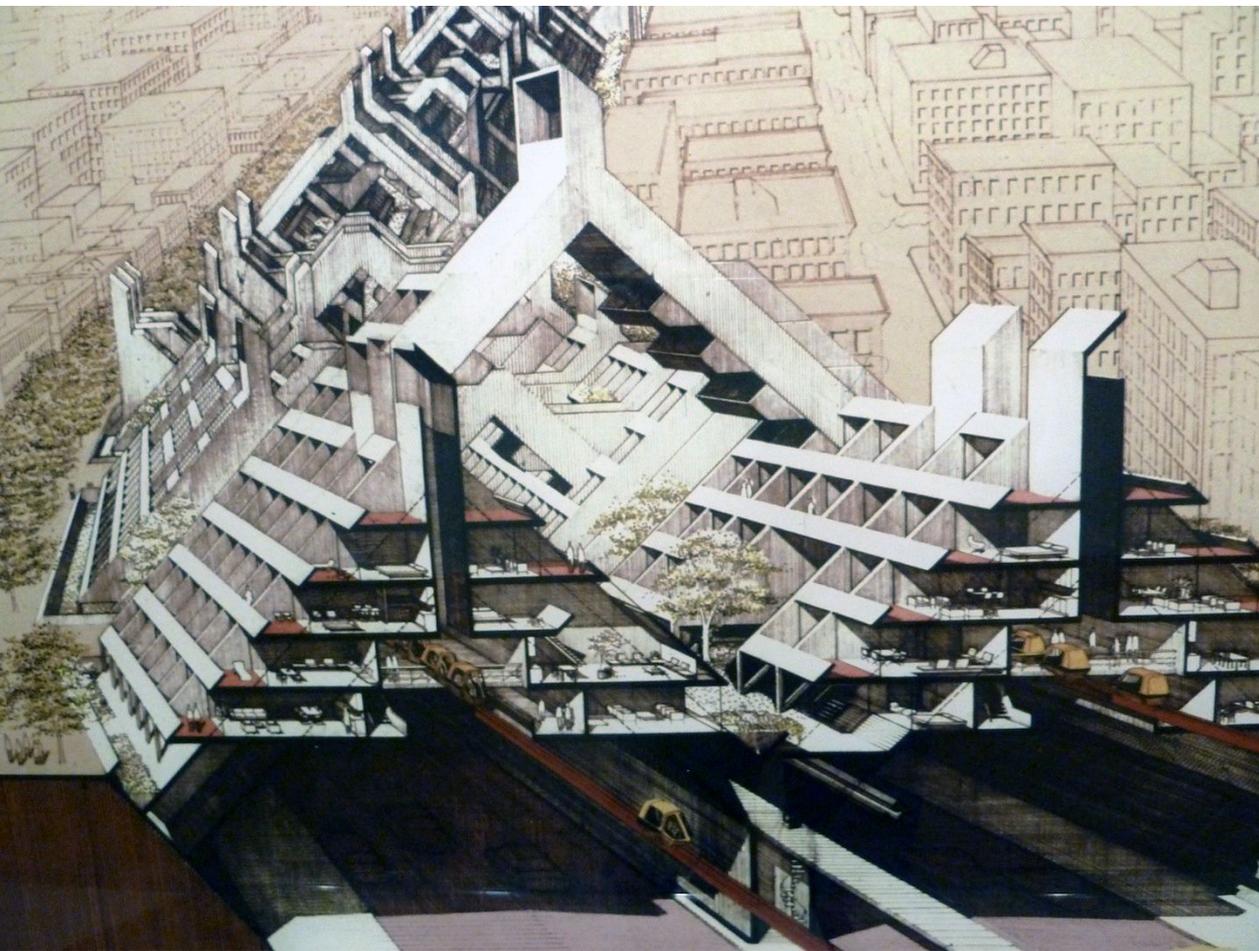


Lower Manhattan Expressway

The Lower Manhattan Expressway (LoMEX) was an urban freeway proposed by Robert Moses in the early 1960s which would have connected the Holland Tunnel with the Williamsburg and Manhattan Bridges. The mostly elevated 8 lane highway would have cut through the heart of the Lower East Side and SoHo neighborhoods. Community activists led by Jane Jacobs successfully blocked the highway in 1962.

This map shows the proposed route to display the destruction this highway would have brought to lower Manhattan.

Map provided by Google, Inc.
Map created by: vanshnookenraggen.com







BOSTON CITY HALL

- Jane Jacobs
 - Born in Pennsylvania & Began Working in Journalism After Graduating From High School
 - *The Death and Life of Great American Cities*
 - a critique of 1950s urban planning policy, which it holds responsible for the decline of many city neighborhoods in the United States
 - The right to the city
 - Modernist urban planning overlooked and oversimplified the complexity of human lives in diverse communities
 - Greenwich Village



- 911 Attacks

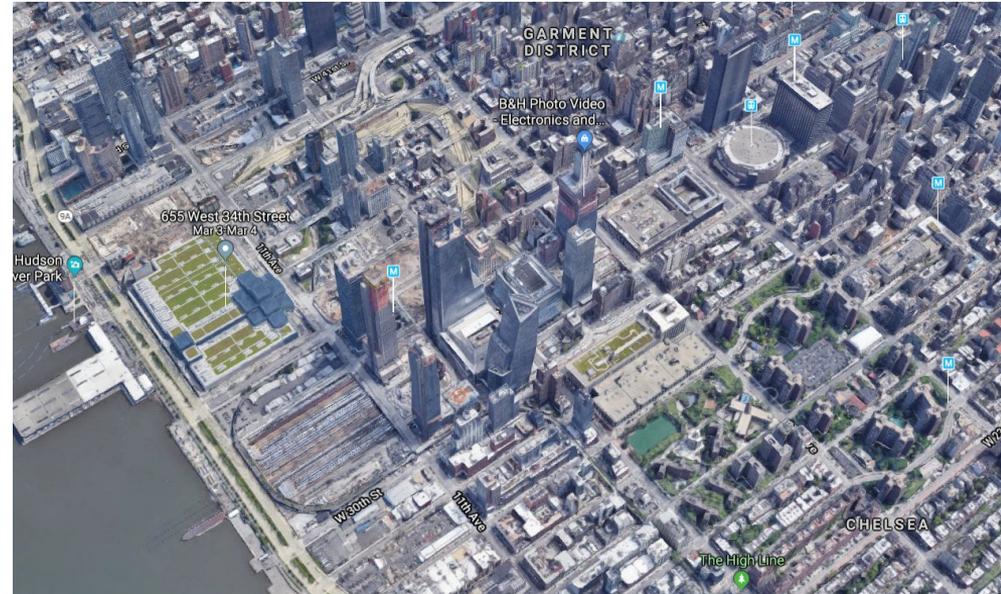


21th Century

- Ground Zero



- Hudson Yards
 - Transit-oriented megastructure
 - Hudson River Park Act
 - Land Use
 - Conception and Construction
 - Environmental Resilience





"What is now called "green architecture" is an opportunistic caricature of a much deeper consideration of the issues related to sustainability that architecture has been engaged with for many years. It was one of the first professions that was deeply concerned with these issues and that had an intellectual response to them." ~ Rem Koolhaas

Thank You