MANHATTAN

Fig 0.1 Natural topography  Fig. 0.2 Overlay of the 1811 grid

A violated landscape?
I Manhattan & New York City
NEW YORK CITY

An island sacred to the native Indians as a site for harvest ceremonies, Manhattan was initially settled by Dutch traders on its southern tip. These settlements eventually prospered into neighborhoods and into a merchant city.

The city covered only a small portion of the island in the early 19th century with the line of the present Canal Street being its northernmost boundary and beyond were large farms stretching up to Harlem.

![Map of early settlement on the island of Manhattan](image)

Fortunately or rather unfortunately by the early 1800s, the city officials recognized the site’s (New York) potential as a center of trade and commerce in America. Consequently they also realized the need
to control and regulate development on the island without letting it go unguided and run astray. What emerged from this realization was the 1811 grid iron pattern overlaid on top of Manhattan. The Commissioners Plan spread the grid over the island including Central Park leaving only a few squares and parks. Not just trade and economics but also ease of survey and division of land into real estate lots were the guiding factor in this decision. It created an urban street grid—a blank canvas with rectangular lots for development. What got lost through last two centuries of development was the natural topography and a balanced ecological system remnants of which can still be seen at Central park.

![An aerial view of contemporary Manhattan](image)

Fig 1.2  An aerial view of contemporary Manhattan
II Greenway Model for New York City
ORIGIN OF THE GREENWAY SYSTEM

Much of Olmsted’s ideal city of the future was embodied in the plan for Brooklyn, a plan he would elaborate in Boston and Buffalo. Just as the green or common was the center of the old New England village, the park would be the heart of the town. It was therefore to be planned in conjunction with the arteries of circulation with the rest of the system. These routes would preferably be “narrow elongations of the park”, picturesquely harmonizing with topography.

Olmsted’s basic blueprint of parkways radiating from a park and connecting with the residential sector and perhaps with other parks was grounded in a concept of social benefit. Such a planning framework would produce a healthier and more domestic environment.

Olmsted in a speech of 1870—“Parks and Enlargement of Towns”, commented on the desirability of having small grounds so distributed through a large town that some of them could be easily reached by short walk from every house. He envisioned that these would be laid out in conjunction with a system of parkways, forming a green chain in the residential sector of the city.

Olmsted as such designed both at the scale of the individual park to that of the city wide park system. Utilizing natural drainage patterns, he wove chains of green through the urban grid like an emerald necklace in Boston and Buffalo. His schemes for the development of
northern Manhattan and far Staten Island were never realized. In Riverside which was built according to his plan, he laid out curvilinear streets following natural topographical features. By developing a hierarchy of roads, he established the idea of segregating residential and commercial traffic.

New York City's greenway system and its connections to the emerging national network, and a network of redesigned green streets are a once-in-a-lifetime opportunity to soften the hard edges of an over-built city. These systems can connect a spectrum of urban environmental, cultural, health, recreational and historical resources communities and constituencies.

Fig. 2.1 Schematic Greenway Plan for New York
What is a Greenway?

A greenway is a linear open space, such as a path or trail, which links parks and communities around the City, providing public access to green spaces and the waterfront.

Charles E. Little, author of Greenways for America (1990), defines a greenway as:

1. A linear open space established along either a natural corridor, such as a riverfront, stream valley, or ridgeline, or overland along a railroad right-of-way converted to recreational use, a canal, a scenic road, or other route.

2. Any natural or landscaped course for pedestrian or bicycle passage.

3. An open-space connector linking parks, nature reserves, cultural features, or historic sites with each other and with populated area.

4. Locally, certain strip or linear parks designated as a parkway or greenbelt.
Fig. 2.2 Proposed Green Streets for New York City
Greenway Plan for New York

In 1993, the Department of City Planning published A Greenway Plan for New York City, the City's vision for a comprehensive system of transportation and recreation paths. The Plan outlined 350 miles of connective Greenways that would form a citywide network. The greenways run on new paths as well as old paths. Robert Moses constructed the old trails during his time as Commissioner of Parks (1934 - 1960). Sections of the many greenways that have been constructed, are in development, and in construction are a part of the New York City Bicycle Network.

The New York City Bicycle Network is a larger citywide effort to generate a citywide greenway system. Network members include the City of New York/Parks & Recreation, the Department City Planning, and the Department of Transportation. In 1997, the City of New York, Department of City Planning and Department of Transportation put together a New York City Bicycle Master Plan, detailing 550 miles of on-street bicycle lanes. Together with the greenway plan, New York City has a comprehensive planned system of 900 miles of on- and off-street paths.

The Inter-modal Surface Transportation and Efficiency Act (ISTEA) of 1991 established a federal transportation policy that promoted non-
motorized modes of transportation such as walking and cycling. This policy was re-emphasized in the new Transportation Equity Act for the 21st Century (TEA-21). Since 1991, millions of dollars of federal transportation funding has been made available to help finance the planning, design, and construction of greenways throughout New York City.
NEW YORK CITY PARK SYSTEM

Fig. 2.3 Present Day Parks

Fig. 2.4 Land Set Aside For Parks
EXISTING PARK SYSTEM OF MANHATTAN

Fig. 2.5 Existing Park System of Manhattan, New York
III Central Park
“It is common error to regard a park as something to be produced complete in itself, as a picture painted on canvas. It should rather be planned as one to be done in fresco with constant consideration of exterior objects, some of them quite at a distance and even existing as yet only in the imagination of the painter.”

Frederick Law Olmsted
New York by the 1830s was expanding by leaps and bounds. It had become the nation’s gateway into the heart of America. Between 1820 and 1840, the population of New York almost doubled as a flood of European immigrants began to swamp the new nation in search of opportunity. The harbor was surrendered to wholesale exploitation and commerce had started to engulf large chunks of the island. By late 1830s the city had become congested, exploited and corrupted to the extreme.

Amidst this chaos and rapid change of environment, public opinion in favor of open spaces and parks were starting to get aired. The poet and newspaper editor-William Cullen Bryant was one of the first public personalities to propose an alternative to the city’s deteriorating condition—that was to set aside land in north and central Manhattan for parks and public gardens. A second and equally powerful voice raised for a city park was that of landscape architect-Andrew Jackson Downing who suggested that “a large public park would not only pay in money but largely civilize and refine the national character, foster the lore of rural beauty……”

The demands of these two influential figures reflected an American current of a larger stream, the Romantic Movement, which saw in nature a refuge from the spreading industrial revolution.
By 1850s the creation of a large park became a political issue in New York. In 1853, the state legislature authorized the city to buy the site from 59th to 106th streets between 5th and 8th Avenues. The four sides of good taxable property appealed to businesses who bought into the idea and also its size made possible lengthy carriage drives which got in huge support from amateur carriage drivers and neighboring citizens. And as such Central park came into being. It was here that the picturesque landscape was to know its last great stage. Today it exists only in an emasculated form.

The winning entry in the open competition held for designing Central Park was the “Greensward” Plan by Calvert Vaux, an English trained architect and Frederick Law Olmstead, the Park Superintendent and amateur landscape planner. Their design for Central Park gave the picturesque a new dimension, placing it in the public domain.

Fig. 3.1 An aerial view of modern day Central Park
The design considers the park in two sections—upper and lower with the dividing line at the 85th street transverse road. The northern (upper) section having an already existing vivid landscape was left untouched except for the circulation system. The southern part because of its proximity to the actual developed city and far more heterogeneous character was thought as requiring a much more varied treatment. The program for the park mostly followed as per the existing context and the key to it lay in adopting the actual situation to its purpose. It worked upon the principles of the picturesque by taking full advantage of the natural features of the land.

![Fig. 3.2 Site Map of Central Park and section through park](image)

Many of the Park’s features reflect the ingenuity and thoughtfulness of the original design. The design laid out a sophisticated plan for the drives and transverse road system interweaving with the park space. The transverse roads below grade made cross-park automobile
circulation possible without disturbing the flow and circulation of the paths and landscape above. It also mimics the road system of Manhattan with the long drives running north–south and the transverse paths and roads running east–west. Bridges and tunnels at regular intervals minimize pedestrian crossings.

Various landscape and architectural elements form the crux of Central Park. These elements are all tied in together with a singular vision of a picturesque rolling landscape with axial linkages to the city. The grand promenade can be considered the main feature or a central figural element in the whole of the park with programs embedded onto its periphery. It however culminates in the Bethesda Terrace overlooking the fountain and a lake. The initial intention being to focus the promenade or the Mall to Vista Rock - a huge rocky outcropping, a reminder of Manhattan’s topological legacy.

Officially, construction of Central Park was completed in 1873. Realistically the Park’s completion cannot be pinpointed that definitely. The Park has been rightfully called a work of art. But as a living work of art, it has been vulnerable to change right from its start; responsive to change in the city that grew up to it, around it and beyond it; reflecting changes in city governments and changes in lifestyles and interests of its visitors.
IV  Development of the City Park as an Urban Model
DEVELOPMENT OF THE CITY PARK AS AN URBAN MODEL

The evolution of the City Park over time has been a long and complicated process. It’s inter-weaving into the built environment generating a new form of urbanism has taken place through several phases. These diagrams very briefly illustrate those phases.

**Villa d’Este**

![Fig 4.1 Site plan of Villa D’Este](image1)

![Fig. 4.2 axes along layout](image2)

Enclosed garden as the exterior space of house.

![Fig. 4.3 View of Villa D’Este](image3)
Gardens of Versailles

Formal relationship with the landscape-balcony, sightlines, distribution of monumental buildings. Garden as intermediary.
Stourhead

House at the center of the layout, landscape morphology integrated into design. Develops into Landscape Park.
Birkenhead Park

Landscape Park as model for City Park, linked to urban morphology; equality of views instead of private pleasure, wilderness at center of morphology of park.
UNIFYING ARRANGEMENTS

Middle ages

Fig. 4.10 Layout of a medieval garden
Unity achieved through repetition and co-ordination, the garden from which the outside world was excluded.

Baroque

Fig. 4.11 Layout of a baroque garden
Unity achieved using a hierarchical system of axes. Sight lines as routes.

1 Baljon, Lodewijk. Designing Parks: An Examination of Contemporary Approaches To Design In Landscape Architecture
**Romantic**

Fig. 4.12 Layout of a romantic garden

Sight lines and routes distinct. Viewpoints chosen for pictorial reasons.

**Volkspark**

Fig. 4.13 Layout of a Volkspark

Classical main layout with pragmatic elaboration of facilities or program
New Objectivity

Fig. 4.14 Layout of a New Objectivity park

The use of minimum means to build the elements of composition to a standstill. Equilibrium is fragile, so that additions are readable.

Post-Modern

Fig. 4.15 Layout of a Post-Modern park

Axis super-imposed on a collage. Coherence of topography replaced by a graphic composition.
**MEEUS DECOMPOSITION DIAGRAM**

![Functional Diagram](Zones.png)  ![Classic Diagram](Axis.png)

**Fig. 4.16 Functional**  **Fig. 4.17 Classic**

**Functional:** A hierarchy of mono-functional spaces acquires added value and coherence. Results in simple open spaces.

**Classic:** makes use of an interplay between symmetrical axes, parallels and cross lines and is based on the ideal of a central perspective, an overall view from one dominant point.
Fig. 4.18 Romantic

Romantic

Playing with scenes consisting of foreground, middle and background or vistas symbolizing a glorified nature. Contains romantic references, such as views of temples, pagodas and ruins.
The 19th Century Public Park

Genesis

- Island of landscape in a city of houses [earlier being-'a city in the landscape']
- As a result of the rapid expansion industrial city and its spatial shortcomings.
- Landscape around the city becomes inaccessible to citizens [public park as a compensation for the landscape which has become unreachable]
- Continuity in the relationship between landscape and city broken.

Landscape acquires a place in the city in an idealized form.

Features

- Designed specifically for strolling
- Based on an Arcadian illusion
- Essentially anti-urban in character [critique of city and urban society]
- Projection of pastoral idyll on city life [noble savage celebrated]
- Consists of images
- Doesn’t contain recreational program
Fig. 4.19  Central Park, New York Integration of urban form and program on landscape\(^2\)

\(^2\) Clemens Steenbergen, Teatro Rustico The formal strategy and grammar of landscape architecture
The People’s Park

- Programmatically defined space
- Functional program as bearer of composition
- As component of an urban structure of greenery including parts of the surrounding landscape
- Architectonic form linked to the world of mechanized production
- Recreational machine
- Program instead of nature becomes the source of unity
- Design oriented to Modern Architecture
- Lack of subjective aesthetic organization
V Ontological Analysis-Metaphorical Connections

City and the Park
ONTLOGICAL ANALYSIS

Park reflects the city: Versailles, Paris; Villa Lante, Rome; Gardens of Stowe, Buckinghamshire

Fig. 5.1 Louis IV Marly cottage   Fig. 5.2 Island of Manhattan
Fig. 5.3 Walled ideal garden   Fig. 5.4 Idealized garden of Central Park

CP at both the formal and philosophical level represents the plan of Manhattan
Major Road System [a warped grid system] vis-à-vis 1812 grid

Fig. 5.5 Orthogonal grid of Manhattan  Fig. 5.6 Warped grid of the park
Grand Promenade as secondary system as in Broadway

Fig. 5.7 Vista point on the Mall and Columbus Circle on Broadway as datum points. Broadway and Promenade[Mall]as the datum lines
Fig. 5.8 Manhattan as a natural island and Central Park as an island in the built form.
Fig. 5.9 New York as tall medieval fortified city & Central Park as a walled garden [the ideal city].
Fig. 5.10 Reservoir *vis-à-vis* location of Central Park within Manhattan
Fig. 5.11 Sections, neighborhoods as different landscapes in Central Park
Fig. 5.12 Broadway superimposed on Central park
Fig. 5.13 Manhattan Grid imposed on Park and Axial layout

Fig. 5.14 Orthogonal Grid on park and Axial layout
Fig. 5.15 Parks, Plazas & squares that Broadway creates on its path
Central Park

Fig. 5.16 Figure ground around Central Park
VI  Transportation & Circulation Systems

Park and City
Fig. 6.1 Road network around Central Park
Fig. 6.2 Highways around Central Park
Fig. 6.3 Subway system around Central Park
VII Urban Park Systems Analysis
Urban Park System Analysis

BUFFALO PARK SYSTEM, New York State

Buffalo was the first city to implement the advanced Park system ideas of Calvert Vaux and Frederick Law Olmsted who until then just had theoretical proposals for Brooklyn, Newark and Albany. It basically contained Olmsted’s far-reaching ideas for bringing the country to the city. In the undeveloped northern section of the town, Olmsted proposed to create one large and two small parks that would be joined to each other and to the central city by a system of parkways and boulevards.  

Fig. 7.1 Buffalo park system

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3 Barlow, Elizabeth. *Frederick Law Olmsted’s New York.*
They conceived the plan as a citywide recreational system and ascribed certain discrete functions to the three public grounds, each of which had a specific name. Delaware park, largest of the three represented the classic naturalistic or pastoral landscape, the Front, featured a viewing terrace and playing fields, the Parade on the eastern side of the town held space for military drills and active sports as well as children’s games. These three grounds were linked to each other by six miles of new parkways that curved around the city in an arc of green.

It is clear that this scheme benefited from the earlier schemes of Olmsted and Vaux. It also embodied their fully evolved ideal of a modern urban park system.
BOSTON PARK SYSTEM, Massachusetts

The Emerald Necklace is accessible on foot, by car, or by public transportation (MBTA 617-722-3200)

- MBTA Subway or Bus
- Restrooms
- Parking Lot
- Bicycle Path

Walking Distances (miles):
- Back Bay Fens to Leverett Pond - 2.4
- Leverett Pond to Jamaica Pond - 1.1
- Jamaica Pond to Arnold Arboretum - 0.7
- Arnold Arboretum to Franklin Park Golf Course - 2.2

Fig. 7.3 Schematic Layout of the Boston Park system
The park movement in Boston began in reaction to New York’s Central Park, which was begun in the 1850s. Nonetheless, a committee was not created until 1875. However, in the last half of the 1870s, the commissioners were finally able to develop a scheme for the Boston Park System.\(^4\) They envisioned a continuous line of parkland, stretching from the Boston Common to West Roxbury. During the 1870s, Frederick Law Olmsted had already designed two major park projects in Boston, the Arnold Arboretum and the Back Bay Fens. In 1887 he was enlisted by the park commission to interconnect those parks and to design more. The end product of this vision was the Emerald Necklace. The entire scheme comprised The Boston Public Garden, the Commons, Commonwealth Avenue, the Back Bay Fens, the Riverway, Olmsted Park, Jamaica Park, Arnold Arboretum, and Franklin Park, strung together with a series of parkways.

Franklin Park

The largest park in the Emerald Necklace, Franklin Park is 500 acres in size. Olmsted designed this as a "country park" similar to New York’s Central Park and Prospect Park, which he also designed. One can

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\(^4\) Zaitzevsky, Cynthia. *Frederick Law Olmsted and the Boston Park System.*
experience much of the same rural ambiance today. Within the park are the zoo, an 18-hole golf course, 100-acre woodland, and a 7-acre pond.

Arnold Arboretum

This 265-acre park, owned by the City of Boston and on long-term lease to Harvard University, displays world-renowned collections of shrubs and trees for education and research, including maples, crabapples, lilacs, rhododendrons, and conifers. As the oldest arboretum in the country, the Arnold Arboretum contains trees and shrubs from around the world, with special emphasis on plants native to Asia and New England.

Jamaica Park

Sometimes called "the jewel in the Emerald Necklace", Jamaica Pond is a 60-acre kettle hole formed by an ancient glacier. Natural springs make this pond, which is up to 90' deep, the largest and purest body of water within Boston. Prior to being acquired as a park in 1894, an ice-cutting industry flourished here. Fishing (trout, which is stocked
by Boston, as well as pickerel, bass, hornpout, salmon, and perch), rowing, sailing, and walking/jogging are the primary activities today.

Olmsted Park

This park, built by the City of Boston in collaboration with the Town of Brookline, with its woodlands, meadows, and three ponds, joins Boston and Brookline. Olmsted designed pathways and planting patterns that created a series of dramatic vistas to display the shapes, proportions and relationships of the land forms. Here one can fish in the relative seclusion of Wards Pond or stroll across the distinctive footbridges. Substantial restoration is ongoing, with bike and pedestrian paths already constructed along the Boston shore. A bike/pedestrian path system on the Brookline side from Jamaica Pond to Boylston Street (Route 9) was recently completed.

River way park

The narrowest park in the park system, it lies in the valley of the Muddy River, which is the boundary between Boston and Brookline. Wholly man-made, steep banks and edges wooded by majestic beech trees preserve a pastoral feeling, screening out the busy roadways
beyond. Three of the footbridges within this park were restored in 1997.\footnote{www.emeraldnecklace.org}

The Back Bay Fens

As Olmsted’s engineering masterpiece, the Back Bay Fens was designed to solve the increasing problems caused by flushing out the stagnant Muddy River waterway at low tide. Transformed from a salt-to-a fresh-water marsh after 1910 with the creation of the Charles River Dam, the Fens encompasses a variety of features; the elegant Rose Garden, War Memorials, and the community "Victory Garden".

\footnote{www.emeraldnecklace.org}
VIII Urban Parks-scale comparison
Urban Parks Analyses Scale Comparison with Central Park

Fig. 8.1 Parc de la Villette, Paris  Fig. 8.2 Prospect Park, Brooklyn
Urban Parks Analyses Scale Comparison with Central Park

Fig. 8.3 Grant Park, Chicago   Fig. 8.4 Parc Citroen, Paris
IX Edge Conditions of Central Park
Columbus Circle

The Circle had its origin in the 1860s, when the commissioners of Central Park transformed what had been known as the Bloomingdale Road, going from 59th to 155th Streets, into The Boulevard. The new thoroughfare's horse car tracks circled at 59th Street to form a turnaround, and the Circle was born.

The neighborhood developed with small hotels, warehouses, several theaters, and especially riding academies, one of them among the world's largest. In the 1890s, the decade when civic design began to flourish, the Circle acquired its first monument—a statue of the explorer upon a rostral column.

Apartment buildings rose, first on Central Park South, then on Central Park West, with the celebrated Dakota Apartments in place at 72nd Street by 1884. By contrast, Fifth Avenue remained all mansions until its first apartment building, the stately McKim, Mead, & White palazzo at Number 998, was completed in 1911. Most of what we behold in the frame today belongs to the 1920s—not just the splendid classical east flank but also the west flank, where Art Deco towers replaced older apartment buildings as the twenties roared on.

Columbus Circle since 1892 was a crossroads for two trolley lines, a major entrance to Central Park, and the gateway to the newly
burgeoning Upper West Side. Now it has become a transportation hub, with heavy automobile traffic and three subway lines running beneath. The monument, which once towered over a low cityscape, is lost amid much taller buildings and expanses of asphalt.

New York’s Municipal Art Society has called the circle as the city’s last great site. Its edges still hold out some hope especially along the Merchants Gate entry of Central Park and the existing potential to open up the city’s subterranean subway system to daylight.

In a juried competition sponsored by the Society, several proposals for the Circle were unveiled which provided radical and dynamic solutions to the problem. The illustrations below provide us with a glimpse into the Circle’s possible future:

Fig. 9.1 Proposal by Weiss/ Manfredi Architects
Fig. 9.2 Proposal by Rafael Vinoly Architects

Fig. 9.3 Proposal by Machado Silvetti/ Olin partnership
Fig. 9.4 Existing Conditions of Columbus Circle
Fig. 9.5 Alternative 1 for Columbus Circle
Fig. 9.6 Alternative 2 for Columbus Circle

Central Park flows into the circle, encircling the statue of Columbus and creating a public plaza.
Fig. 9.6 Alternative 3 for Columbus Circle
Fig. 9.6 Alternative 4 for Columbus Circle
X  Zoning and Land Use
Fig. 10.1 Central Park’s immediate periphery
Fig. 10.2 Land use map-New York City
Fig. 10.3 Land Use around Central Park
XI Identification of Urban Design Intervention
Fig.11.1 Greenway system around Central Park
Fig. 11.2 Identification of composite sites
XII Design Conclusions
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