The Vertical Form of Public Ground
The Typological Reimagination of a Skyscraper
Through the Reinterpretation of Relationship between the Architecture and Urbanism of Manhattan

by
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B.S. Architectural Engineering, 2004
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Submitted to the Department of Architecture in Partial Fulfillment of the
Requirements for the Degree of
Master of Architecture
at the
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ABSTRACT

The 20th century’s notion of a skyscraper in Manhattan, a symbolic object aloof from a city, should be redefined due to the reinterpretation of the grid to accommodate more public amenity and facilitate the cultural contexts of Manhattan. These Days, pedestrian plazas, transportation infrastructure, and zoning resolution have given individuality to each part of the grid which used to be seemingly identical with little public provision. Especially, Mid-Manhattan shows this tendency clearly. Pedestrian activity and cultural programs of Theater District and Times Square has infiltrated into the strict grid and created Mid-Manhattan’s own public realm. In this regard, given the grid’s capacity for reinvention, how might architecture continue to adapt and response to today’s new change? Defying the conventional typology of a skyscraper, a stack of individual programs, the thesis is aiming to reimagine the typology of a skyscraper to address the building’s relationship with the urban fabric and respond to the existing street life and culture.

Finally, the thesis proposes a skyscraper as an urban connector, by virtue of rethinking of circulation and structure. This new type of a skyscraper supports the multiple strata of public space and cultural programs, such as a theater and a museum, to extend existing urban contexts, art and performance, of Mid-Manhattan, not only at street level but into the sky above. Also, as an urban-scale strategy, the project also seeks to interconnect the dense grid with vertical structures with the most dominant public realm in Manhattan, Central Park, through a 3 dimensionally manipulated building form.

Thesis Supervisor: Andrew Scott
Title: Associate Professor of Architecture
To my parents and my wife Hyunjoo, for everything else.

To Andrew, Nader, and Alexander for their inspiration and insight.
Introduction
Toward a new typology

The characteristic of Manhattan in architecture and urbanism has been generated from the strict grid, the Commissioner’s plan declared in 1811. The Manhattan grid was not only planned for the suitable way of regional urban expansion, but implies the capitalistic ideology of the new world, the United States. Also, the initial ideas of the grid, efficiency and convenience for the horizontal expansion, was transmitted to the vertical direction and created a peculiar building typology, a skyscraper. Moreover, despite its strict order, the artificial grid of streets has allowed the growth of overlapping patterns of human activity, which was the reason why Alexander described New York as an organic city.  

In this way, these two elements, the grid and a skyscraper, have been the most effective elements to establish the architectural and cultural particularities of Manhattan in the 20th century. Moreover, in theoretical perspective, two factors generated three-dimensional city form, totally different urban phenomenon from classical cities. In this regard, in his manifest book, Delirious New York (1978), Rem Koolhaas situated the grid as the singular generative force which gave birth to the “culture of congestion” known as Manhattanism, the urban condition of hyper-density.

However, nowadays, the culture of Manhattan is changing. The development of the city is less dynamic than it used to be, as a laboratory of architecture; and population will not be increased dramatically as current Asian cities. In this way, the grid is losing an initial intention, the urban machine for the expansion. So, currently, Manhattan and its grid have to be rethought for the new era, not dynamic and congestive, but stable and sustainable. These changes will affect not only human life but architecture. As Koolhaas defines the “culture of congestion” is the culture of the 20th century, we need the new definition of the relation between the grid and a skyscraper for the new century. Given the grid’s capacity for reinvention, how might architecture continue to adapt and respond to the challenges and opportunities that New York faces now and into the future? This thesis is started from seeking the answer of this question.

In this respect, the thesis will propose the vision of a Manhattan skyscraper as vertical urbanism. Through the analytic research of a historical change of the relation between the grid and a skyscraper, this thesis demonstrates that a skyscraper is not an individual object aloof from the city anymore. Indeed, the morphology of a skyscraper will evolve to have a strong relationship with not only the grid but human activity and environment. In this context, the design project, finally, is possible to propose the alternate mode of a skyscraper in the Theater District, where Manhattan’s particular phenomena are distinctly shown in terms of density.


Urban machine for the ideology of practicalism

The grid was not laid out primarily with transportation in view. Rather, the purpose of the grid was the rational exploitation of real estate. The city of the early era relied on water transportation at its periphery. The platted grid emerged as a politically practical and commercially efficient means for taming the wilderness, regardless, as its critics would later complain, of topography, aesthetics, or humanity.6

In addition, the Manhattan grid was realized as a machine-like ideology for accommodating explosively increasing population as well as efficient development and expansion, which can be found in the remarks of the commissioners in 1811. In terms of the accommodation for population, the commissioners -- Governor Morris, Simeon De Witt and John Rutherfurd Jr. -- wrote, “To others it may be a subject of merriment that the commissioners have provided space for a greater population than is collected at any spot on this side of China.”7 Moreover, about the efficiency of the urban expansion and development for the further development, they also mentioned, “A city is to be composed principally of the habitations of men, and that straight-sided and right-angled houses are the most cheap to build and the most convenient to live in.”8 Therefore, seen in commissioner’s statements, the dimension of the grid-- avenues each 100 ft, streets each 66 wide and rectangular plots generally 600 ft by 200 ft-- was articulated with practical ideas to provide regularity as well as order. Moreover, the Manhattan grid is explicitly different from conventional grids of the classical world’s cities such as democratic Athens, republican Rome, and humanist Italy, of which the grid demonstrated the social rationality.9 Also, the grids of Manhattan are distinct from others even in America. Different from earlier plans with gridirons in Philadelphia (1683) and Savannah (1770), Manhattan is more straightforward to the real-estate efficiency, less considering public welfare, whereby the grid became a total economic model. For example, Savannah, as it grew, tended to produce a green and dispersed city of open squares. Rather, in Manhattan, the small scale subdivision of the grid and the exceptional pressure to increase floor space within this, forced buildings upwards.10 In this respect, the physical dimension of the Manhattan grid influenced on its building typology.

Furthermore, in virtue of a geographical location suitable for a trading port connected with inlands be canals, Manhattan became the urban machine for business ideology. Also, from the point of view of economics and politics, the Civil War (1861-1865) was New York’s first great moment on the national stage; for fifty years a transportation hub, now it was the leading city in terms of both manufacturing and finance.11 In these reasons, a political event and geographical advantage drove Manhattan to be a mecca for businessmen, and simultaneously entrepreneurs emulated each other by architecture to show their commercial success and advertisement. This tendency generated the competition of building heights, by which architecture became the symbol of business. In this way, despite this basic weakness, as Frederic Olmsted loathed the grid as “the epitome of the evil of commercialism,” the grid in Manhattan has been successful to accommodate its supporters’12—entrepreneurs—desire.

Therefore, architecture in Manhattan has proceeded to adapt itself to the generic grid for maximizing profit and realizing commercial dream, and become particular building typology suitable for high-dense urban environment, a skyscraper, now representing a tall building in general. In this way, the causation between the grids and skyscraper has defined Manhattan’s characteristic. Hence, a skyscraper was the outcome of capitalism, individualism, and practicalism culture in the 20th century.
The Evolution of a Skyscraper
Relationship with the Grid and Urbanistic Visions
Architecture as a Commercial Symbol

As mentioned above, although a skyscraper was the product of the early 20th century's culture, the technological innovation of 20th century, such as an elevator as well as structural innovation, was the tool of skyscraper’s realization. Before the age of elevators and structural steel, although buildings were low to the ground and the emphasis was on the horizontal line. Even when new technology allowed architects to build vertically, architecture still displayed classical preference in appearance, the Gothic; and they adhere to the horizontal “layer-cake” construction of the classical model. This tendency was reinforced by the results of the Chicago Tribune competition of 1922. A stripped Gothic enabled the architect to overcome the problem of a large number of windows by means of strongly marked ribs which accentuated the verticalism and therefore the impressive appearance of towers. In this regard, architects in the early era of a skyscraper used the classical style to emphasize the symbolism of a building as an individual object, whereby a skyscraper did have no relation with urban contexts.

For example, the Flatiron building (1902) and Woolworth Building (1913) clearly show the tendency of the early 20th century. The floors of the Flatiron, designed by Daniel H. Burnham, wholly were multiplied by its site, which created a symbolic figure to represent the corporation, the George A. Fuller construction company. The building’s triangular site was not efficient in a real-estate view; however, Broadway was the appropriate location to symbolize a building as an object. Moreover, the Woolworth Building, known as the ‘Cathedral of Commerce,’ designed by Cass Gilbert, expresses the Gothic style to emphasize its verticality. Both buildings, the world’s tallest buildings at each time, have common points by two aspects. On the one hand, as Buckminster Fuller rightly remarked that “architects were still pretending there was no steel,” it still used a classical style to accentuate commercial imperialism, despite construction technology, the steel structure. Also, both buildings, through volume alone, life inside the both buildings are involved in a hostile relationship with life outside: the lobby competes with the street, presenting a linear display of the building’s pretensions and seductions. In this perspective, early skyscrapers were totally symbolic, like an anarchic individual as Tafuri described.

The Skyscraper is perceived as an element of meditation, a structure that does not wholly identify with the reasons for its own existence, an entity remains aloof from the city.

- Rem Koolhaas

The building becomes a stack of individual privacies...From now on each metropolitan lot accommodates an unforeseeable and unstable combination of simultaneous activities, which makes architecture less an act of foresight than before and planning an act of only limited prediction. 13

-Rem Koolhaas


# The Evolution of a Skyscraper

## Relationship of Public Programs and a Building Typology

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</thead>
<tbody>
<tr>
<td>Architect</td>
<td>Daniel Burnham</td>
<td>Raymond Hood</td>
<td>Raymond Hood</td>
<td>Gordon Bunshaft</td>
<td>Mies van der Rohe</td>
<td>Der Scutt</td>
<td>Hugh Stubbins</td>
<td>John Portman</td>
<td>Raimund Abraham</td>
<td>Norman Foster</td>
</tr>
<tr>
<td>Height</td>
<td>87M (22 Floors)</td>
<td>103M (26 Floors)</td>
<td>148M (33 Floors)</td>
<td>99M (24 Floors)</td>
<td>157M (38 Floors)</td>
<td>227M (57 Floors)</td>
<td>270M (59 Floors)</td>
<td>175M (49 Floors)</td>
<td>82.8M (24 Floors)</td>
<td>182M (46 Floors)</td>
</tr>
</tbody>
</table>

### Figureground

![Figureground](image1.png)

### Ground Plan

![Ground Plan](image2.png)

### Section

- Public realm (retail, cultural)
The historical significance of the designs of this able conjurer of images lies in their poetic celebration of the skyscraper. The skyscraper is “sung” by Ferriss in an attempt to restore an “enchantment” to what could by this time be only a “disenchanted mountain.”

- Manfredo Tafuri

Visions and Laws
Manhattan was an ideal city in the early 20th century. By virtue of the order and regularity of the grid, Manhattan became a laboratory of visionary ideas in architecture and urbanism. In the proposals of architects like Louis Sullivan, drawings of Hugh Ferris, and even movie scene, Manhattan was the place for their experiments about the future city. For instance, theoretical design by Louis Sullivan for a city of setback skyscrapers shows controlling of building form to utilize better environment through providing light and air to the pedestrian ground. Also, Hugh Ferris illustrated a multi-level city to separate pedestrian flows and vehicular traffic in the ‘Metropolis of Tomorrow.’ Moreover, Just Imagine (1930), directed by David Butler, was strongly influenced by Hugh Ferriss’s rendering, Metropolis of Tomorrow (1929), and took the archetype vision of the future city as defined by a Manhattan-like skyline.

As a result, these architectural ideals can be condensed with two aspects: the setback strategy of building form and a pedestrian realm separated from traffic flow. Also, these two ideals were influential on the enactment of the New York Zoning Laws in 1916. Such laws suggested the form; the laws shaped architecture into ziggurats and towers. In the regard, architects like Raymond Hood, created formal aesthetics from the regulation as seen projects like the McGraw Hill building (1931). Hence, visionary ideas were influential on the enactment of the regulation; and the law controlled architectural form. However, in spite of the effort to provide better ground condition by the regulation, a skyscraper was still not only symbolic, but also hostile with the public realm.

- Visionary proposals of architect, artist, and planner → the 1916 Zoning Laws → change of a building form
The Evolution of a Skyscraper

Relationship of Architecture and Urban Ideals in Manhattan

- **Extrusion of the Grid**
  - the Grid: Businessman's Dream
  - easy land subdivision and convenient access

- **Setback Strategy**
  - Louis Sullivan

- **Ziggurat Type**

- **Modernism**

- **Builtform**
  - Stack of Individuals

- **1913 Elevated Pedestrian Way**
  - Richard Rummel

- **1939 Sky Garden**
  - Rockefeller Center Early Proposal

- **1891 Setback Strategy**
  - Louis Sullivan
Realization of Utopia: the Rockefeller Center

What must change is not the Center but New York itself. The city must adopt the new scale which is identical with that of its bridges and parkways. Only then will the civic center must be transformed, not in the interest of single individuals but for the sake of the community as a whole.  

- Sigfried Giedion

The Rockefeller Center is the first building to realize ideal dreams of a utopia. Early skyscrapers like the Flatiron were an individual object as the symbol of corporations. However, the proliferation of similar types of buildings had saturated original meaning as well as economic value generated by building’s symbolic image. In this way, the Rockefeller center is a great momentum to expand the meaning of a skyscraper from an individual object to a catalyst for civic welfare. Pragmatically, the Center, with the set-back profiles imposed by the 1916 New York City zoning code, represented a victory for the zoning law by a perfect understanding of its full possibilities. At the same time, Rockefeller Center marked the definitive eclipse of the skyscraper as an individual, presenting itself as ‘a city within a city.’ Moreover, the Rockefeller Center seemed intent on integrating speculative aims, new conditions for work in the commercial city, and open spaces for leisure and recreation into a single, gigantic financial and publicity operation and all in the blackest years of the depression.

In addition, as the first landscaped skyscraper, the center’s civic programs, unrealized roof gardens, elevated pedestrian ways, and the well-known sunken garden, were utopian ideas, although they were strategic to realize a project from a bureaucracy and maximize commercial benefit. Nevertheless, simultaneously with their ideals, the sunken garden and plaza became a pulsating urban center, a point of magnetic attraction for the public. At this point, the Rockefeller Center was started with utopian dream; but the Center was also successful commercially.

- Form from the regulation + Public space by utopian ideas and commercial strategy → Commercial success + New type of urban symbol → Expansion of the meaning of a skyscraper
The virtue of the Seagram Building (1958) was not only its architectural aesthetics, as the first international style skyscraper except Lever House (1952) in Manhattan, but was its paradigm-shift strategy about the setback regulation. At a stroke, Mies replaced the setback skyscraper with a new idea: the glass tower in a plaza. Also, this reinterpretation about the regulation was almost universally adopted after changes in the 1961 Zoning Code allowed developers extra height as a tradeoff for providing public amenities such as plazas and improved subway stops. In this regard, the new style of a building influenced on the change of building codes, while the Law in 1916 directly resulted in a building typology.

However, developers' interpretation about the new Law was clever for benefit. The new Law caused buildings higher to get extra FAR bonus by providing a plaza. Many of international buildings erected during the 1960s challenged traditional urbanism by being set back from the street on broad plazas or built on landscaped sites that negated the city’s street grid entirely. Nevertheless, the 60s skyscrapers’ plazas, different from the plaza of the Rockefeller Center, did not have a programmatic connection with a building so that it became meaningless, empty. Peter Brake, in the Architectural Forum in 1965, criticized the problem:

Where the old Rockefeller Center grouped its building to create a variety of streets, malls, and a single landscaped, sunken plaza, the new Six Avenue is a chaotic agglomeration of piazzas, piazzettas, piazzettinas, arcade and ‘courts.’ Where the motto of the Beaux Arts period was ‘when in doubt, do a boulevard,’ The motto of some of today’s architects seems to be ‘when in doubt, do a plaza.’

In this regard, the international style—pure volume (box), structure (steel), and transparency (glass)—architecture in the 60s Manhattan accelerated skyscraper’s separation from the public as well as city context. Moreover, because of its formal proliferation, skyscrapers had been impoverished on the level of aesthetics as well as the social goal. Hence, a skyscraper became an individual object again from utopian dream.

*International style building (Lever House, Seagram Building) → the 1961 Zoning Laws → More FAR: makes a building higher and slender + a Plaza bonus: scattered privately owned plazas*
Rethinking of the Grid
Pedestrian Plazas generated by Modernism Style Skyscrapers

- privately owned public space
Modern Architecture died in St Louis, Missouri on July 15, 1972 at 3:32 P.M. when the infamous Pruitt-Igoe scheme, or rather several of its slab blocks, were given the final coup de grace by dynamite.26

- Charles A. Jencks

Since the establishment of the 1961 Zoning Law, eventually New York has indeed become a city of towers and open space, but a city whose elements were inevitably random and accidental. No matter how well the individual buildings were designed, the city itself would have no design at all with scattered open spaces.27 At the same time, most projects still produced meaningless open spaces to earn bonus floors. Although plazas provide valuable light and air for the office towers, at street level, they tend to be dull and lifeless. However, skyscrapers in the 70s started to be more diverse in terms of a building form as well as internal programs with the theoretical background of the postmodernism, comparing to international style’s repetitive forms.

In this regard, a project in the Theater District, One Astor Plaza (1972), designed by Der Scutt, is a good example, be means of building form and sectional particularity. In design process, because Times Square was seen as an unpleasant breeding ground of pornography and crime, the solution was to eradicate street life, and created different environment internally. In addition, another project in Times Square, Marriott Marquis Hotel (1985), John Portman designed, shows the same idea as Astor Plaza. To keep the separation with the street, the architect said, “We knew we had to overcome the negative image of Times Square, and created a design that looks to security, though not in a negative way.”28 Astor Plaza was the first building to exploit an easement of the 1961 Zoning Code that allowed developers to put up taller and bulkier than usual buildings as an incentive to build new legitimate theaters in the ailing Theater District. To make a legitimate theater also consolidated the cultural identity of Times Square. Paradoxically, a skyscraper had programmatic relation with the neighboring area, although the building was separated from the street.

Charles A. Jencks, the Language of Post-modern architecture, (New York: Rizzoli, 1983), 8.


* Aversion of the international style + Unpleasant condition of the ground

→ Diverse building form + Separation of a building from the ground
Rethinking of the Grid
Pedestrian Plazas generated by Modernism Style Skyscrapers
The explosive New York of the 1980s is more difficult to comprehend and cope with than the stagnant New York of the 1970s, but it is also truer to itself. Also, programmatic diversity and formal variety of skyscrapers are getting more remarkable nowadays, as Koolhaas already speculated this tendency 30 years ago. However, differently from previous eras, when one style, such as either the gothic or international, dominated skyscrapers’ design, now various styles are coexisting. For instance, Post Modernism buildings like Four Seasons Hotel (I. M. Pei, 1993) and 425 Fifth Avenue (Michael Graves, 2003) are inspiring Raymond Hood’s setback skyscrapers, such as American Radiator Building (1924). Also, the international style is still prevailing in Manhattan.

However, new waves are coming. The New York Times Building (Renzo Piano, 2007) and Hearst Building (Norman Foster, 2006) embraced public space internally, whereby street life can be absorbed with a building programmatically, while previously architects were aiming to disconnect and separate a building with the street. Also, this tendency can be found in bigger projects like the Time Warner Building (SOM, 2003). Furthermore, architects start to resolve the setback regulation with their creativity. Both Austrian Cultural Forum (Raimund Abraham, 2002) and the LVMH Building (Christian de Portzamparc, 1999) rethink ziggurat-like building’s repetition of building form; and proposed a unique façade. Moreover, in the Blue Tower (Bernard Tschumi, 2007), the architects suggested the reversed ziggurat building, which is a skyscraper version of the Whitney Museum, not only to accommodate light and view for residence, but to release the ground plane to generate open space.

That potential also implies an essential isolation: no longer does the city consist of a more or less homogenous texture—a mosaic of complementary urban fragments—but each block is now alone like an island, fundamentally on its own.

*Manhattan turns into a dry archipelago of blocks.*

- Rem Koolhaas
The good city is one in which the continuity of this complex ecology is maintained while progressive change is permitted. The fundamental good is the continuous development of the individual or the small group and their culture: a process of becoming more complex, more richly connected, more competent, acquiring and realizing new powers-intellectual, emotional, social, and physical. If human life is a continued state of becoming, then its continuity is founded on growth and development.\textsuperscript{30}

- Kevin Lynch
The definition of Kevin Lynch about a good city, the concept of ecology, has the same as Christopher Alexander’s, who described Manhattan as a natural city. In terms of this definition, despite the grid’s formal strictness, Manhattan is organic, whereby the grid will make the city ever-changing. Therefore, given the grid’s capacity and its allowance of overlapping layers of human activity and culture, architecture in Manhattan has evolved and will proceed to create its particularity and generate ‘vertical urbanism.’ By means of the grid, Manhattan’s architecture with its geographical, economic, and cultural characteristics became the representative of 20th’s metropolitan phenomenon.

However, nowadays, the situations of Manhattan are changing. The 20th’s economic transition of the city might not be happened for the future, as Asian cities like Shanghai are now. In this way, the grid is not the urban machine for the expansion anymore; so, the relation of the grid, a skyscraper and human activity should be redefined. We are already seeing new approaches to the grid as a catalyst for the new urban environment in the Bloomberg Administration’s bike lanes and pedestrian plazas. In today’s new context, what can other possibilities exist for rethinking the grid and architecture? Through the historical research to seek the interrelation between an urban plan—the grid—and architecture—a skyscraper—, the future change of Manhattan’s architecture, as a vertical urbanism, can be speculated:

Rethinking of Typology
in regard to the new reading of urban context

Architecture as a Connector
interconnection between two public domains,
Times Square and Central Park
- Bottom part of a building as a public infrastructure

Reimagination of an Elevated Platform
to overcome the physical limitation of the grid
- accommodation of cultural programs with big floor area
  (theater, gallery)
- externalization of a core for public-opened programs
### Historical change of Manhattan architecture

<table>
<thead>
<tr>
<th>Period</th>
<th>Era</th>
<th>Feature</th>
<th>Example</th>
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<tbody>
<tr>
<td>1811-</td>
<td>The Commissioner’s Plan</td>
<td>•Political and economic practicalism for the horizontal expansion</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>•Geographic advantage and limitation as an island</td>
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<tr>
<td>Late 19th–</td>
<td>the Cathedral of Commerce</td>
<td>•the Gothic style</td>
<td>Flatiron (1902)</td>
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<tr>
<td>Early 20th century</td>
<td></td>
<td>•Symbol of business</td>
<td>Woolworth (1913)</td>
</tr>
<tr>
<td>Early 20th century</td>
<td>Setback skyscraper</td>
<td>•the Zoning Law in 1916</td>
<td>Paramount Building(1927)</td>
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<td></td>
<td></td>
<td>•the first attempt for civic welfare by the regulation</td>
<td>New York Daily News(1929)</td>
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<td>McGraw Hill Building (1931)</td>
</tr>
<tr>
<td>1939</td>
<td></td>
<td>•Utopian dream realized by a developer</td>
<td>The Rockefeller Center</td>
</tr>
<tr>
<td>Mid 20th century</td>
<td>Skyscraper on a plaza</td>
<td>•the Zoning Law in 1961</td>
<td>Lever House (1952)</td>
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<tr>
<td></td>
<td></td>
<td>•extravagant use of plazas for the bonus FAR</td>
<td>Seagram Building(1958)</td>
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<td></td>
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<td></td>
<td>GM Building(1968)</td>
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<tr>
<td>Late 20th century</td>
<td>Programmatic diversity</td>
<td>•Internalization of public space</td>
<td>One Astor Plaza (1972)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>•Diversity of building form</td>
<td>Marriott Marquis Hotel (1985)</td>
</tr>
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<td>Recent</td>
<td>Programmatic diversity</td>
<td>•consolidation of the late 20th century’s tendency</td>
<td>The LVMH Building (1999)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>•new relation with the ground</td>
<td>Hearst Building (2006)</td>
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**A SKYSCRAPER IS NOT AN INDIVIDUAL OBJECT ALOOF FROM THE CITY.**

- Programmatic relationship between a building and the grid: Trials to connect the plots physically always have been failed.
- Internal or external public space with human activity: Disconnected Plazas can be connected by the articulation of programs.
- Building form for the interconnection: not only generated by the regulation, but to solidify the relation of human activity (publicness and programs) and environment (light and view).
- New Symbolism- the place where people want to stay makes the place special among many symbols of the city.
Design Studies
Building Form Study to Address Publicness

Alt. 01: Inter-Grid Bridge

Alt. 02: Geometric Transformation

Alt. 03: Carving
early models
study model: design development
Development possibilities

Site FAR

Bulk-type Development

Tower on a Plaza
+20% Bonus FAR

Included Affordable Housing
extra +33% Bonus FAR
Cultural Context of Mid-Manhattan

[Map of Mid-Manhattan with symbols for galleries, theaters, and subway lines, labeled streets and landmarks such as Rockefeller Center, Bryant Park, Times Square, and Central Park.]
Conventional Development

- FAR 12
- FAR 18

Retail

Hotel

Theater

Existing Ground Public Corridor

Interconnection of the Grid and Central Park

Vertical Expansion

Bridged Space of Cultural Programs and 3 Plazas

Design Strategy

Amenity (cafe, fitness): 6,254 m²
Retail: 15,000 m²
Transportation: 6,000 m²
Hotel: 9,000 m²
Theater: 10,254 m²
Gallery: 13,465 m²
Housing: 16,600 m²
Retail: 15,500 m²
Parking: 18,000 m²
Existing Ground Public Corridor

Bridged Space of Cultural Programs and 3 Plazas

Negotiation of Building Form
The Vertical Form of Public Ground
The Vertical Form of Public Ground

mid-level roofscape
The Vertical Form of Public Ground
elevated public platform
The Vertical Form of Public Ground

upper level public platform
1. Notion of the Publicness of Skyscrapers

- **Private Type**
  - CCTV, OMA
  - sky lobby, VIP lounge, President suite

- **Limited Public Type**
  - The Cloud, MVRDV
  - wellness center, fitness center, conference center, gardens and pools

- **SuperPublic Type**
  - programs respond to the cultural context of Manhattan

2. Historical Development of a Skyscraper in Manhattan

- **Individual Symbol**
  - 1920-1950 Bulk Type Development
  - hostile relationship with the street level culture

- **Tower on a Plaza**
  - 1950-2000 Modern and Post-modern Development to get bonus FAR
  - public programs in the ground part of a building

- **Super Public Type**
  - 3 Dimensional manipulation of the grid for total publicness

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The Vertical Form of Public Ground

3Dimensional Interpretation of Urbanism
The Vertical Form of Public Ground

3Dimensional Interpretation of Urbanism

Circulation

Private Circulation
Public Circulation
Parking

Program Distribution

Public (Retail, Theater, Gallery)
Private (Residential units)
Private (Hotel)
view from the 58th Street
The Vertical Form of Public Ground
A Skyscraper as the Urban Connector
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Reimagination of Typology
The Vertical Form of Public Ground

Reimagination of Typology

Escalator
Main circulation, connector of horizontal and vertical programs

Elevator
Vertical circulation

Structure
Facade, main structural element against wind load

Programs
Integration of circulation and function

Concept of the externalized core
Types of the externalized core

Type 01: Circulation + Sky Lobby
Type 02: Circulation + Exhibition Space
Type 03: Circulation + Intimate Theater
Type 04: Large-size Theater
Intimate Theater

Programmed public platform
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detail view of the elevated platform
street view from the 57th Street

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Reimagination of Typology
temporary exhibition room
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Plans

+95M Level Plan
+145M Level Plan
+120M Level Plan
+185M Level Plan

exhibition
rooftop plaza
rooftop plaza
mid-level roof plaza
The Vertical Form of Public Ground

The Skyscraper Responded to the Urban Context
The Vertical Form of Public Ground

The Skyscraper Responded to the Urban Context
The Vertical Form of Public Ground
The Skyscraper Responded to the Urban Context
view from Central Park
view from the 58th Street
The Vertical Form of Public Ground
The Skyscraper Responded to the Urban Context
Bibliography


For more information, please visit
www.co-de.com
The Vertical Form of Public Ground:
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