

Reflection Methodology of Process

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Project description

The assignment of the SADD (Strategic Architectural Design Development) studio is to design the UN Environmental Council at the existing UN plot in Manhattan. The main function of this organization and its building would be to house the coordinating body responsible for the sustainable development policies of the UN. In more detail the building itself has four main purposes-to collect, produce, propagate and exchange information about sustainability on a worldwide level. This also determines the visitors/users flows in the building that can be divided into general public, office employees and delegates. The design itself is separated into an urban development part and then a building development part.

Methodology

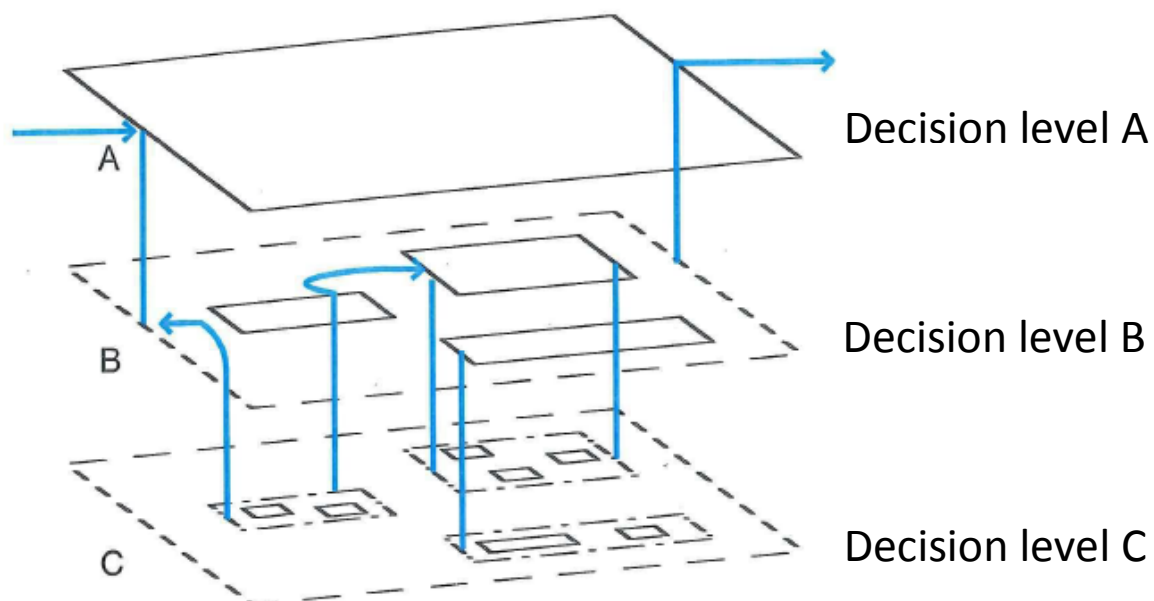
Kenneth E. Boulding (1956) distinguishes in his hierarchy system different complexity levels. Characteristic with this is that the complexity throughout the different levels increase chronologically. Every higher system level carries the characteristics of all the previous system levels.

The process of allowing new and detailed influences step by step can be compared with the zooming in of a camera. A camera with zoom lens can frame a complete landscape and by zooming in can define more and show more details of for instance trees and zooming even further the branches and leaves.

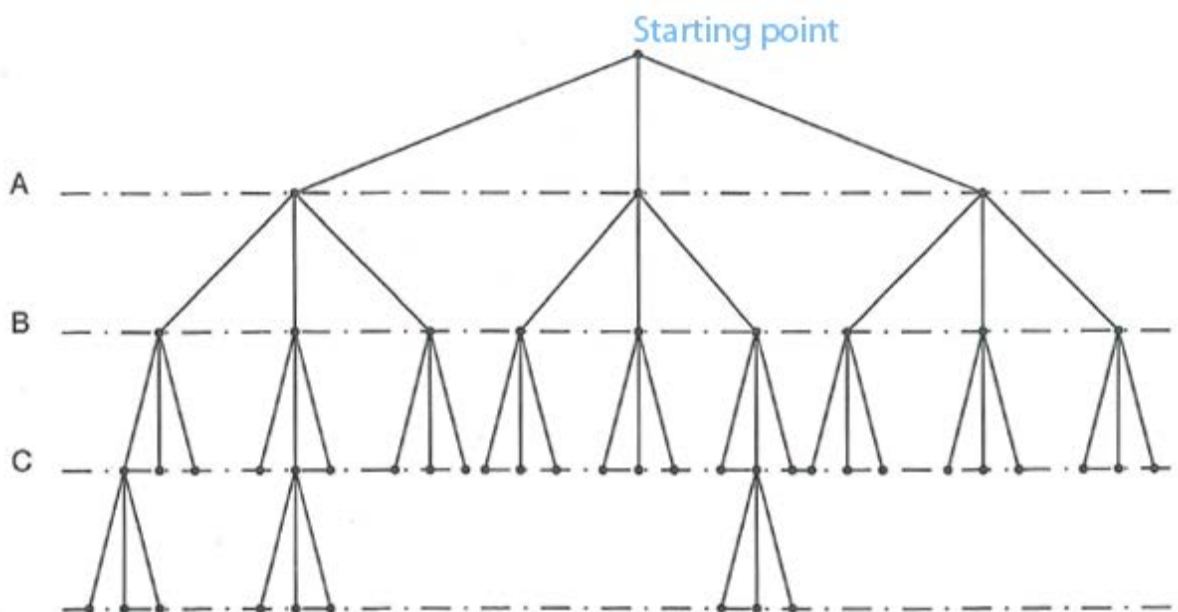
The process expires from a wide field of view wherein the relations on a specific level between the different subsystems become visible, until in the end a smaller viewing field becomes clear in which the different parts are researched this however can happen at the expense of losing the overview and the consistency of the different parts. One can divide this process into different steps. In this connection one talks of different levels of aggregation. One even speaks of the aggregation stadium.

Focused on the design process this analogy of the system hierarchy of Boulding can be divided into different levels and can be ordered hierarchal compared to each other.

This means that decisions made in a certain level are used as principles for the next levels. This structuring of levels implies that the decisions made in every level, seen in time, are made after each other. This seems logical, but after closer analyses of the design processes it shows that one is hardly trusted with it.



decision levels that follow each other in time and order of importance



example of a decision tree

Use of different techniques for generating solutions

Many great architects and even entire offices have their own method. *The Force is in the Mind; the making of Architecture* (Krashny, 2008) addresses a number of methods of various offices.

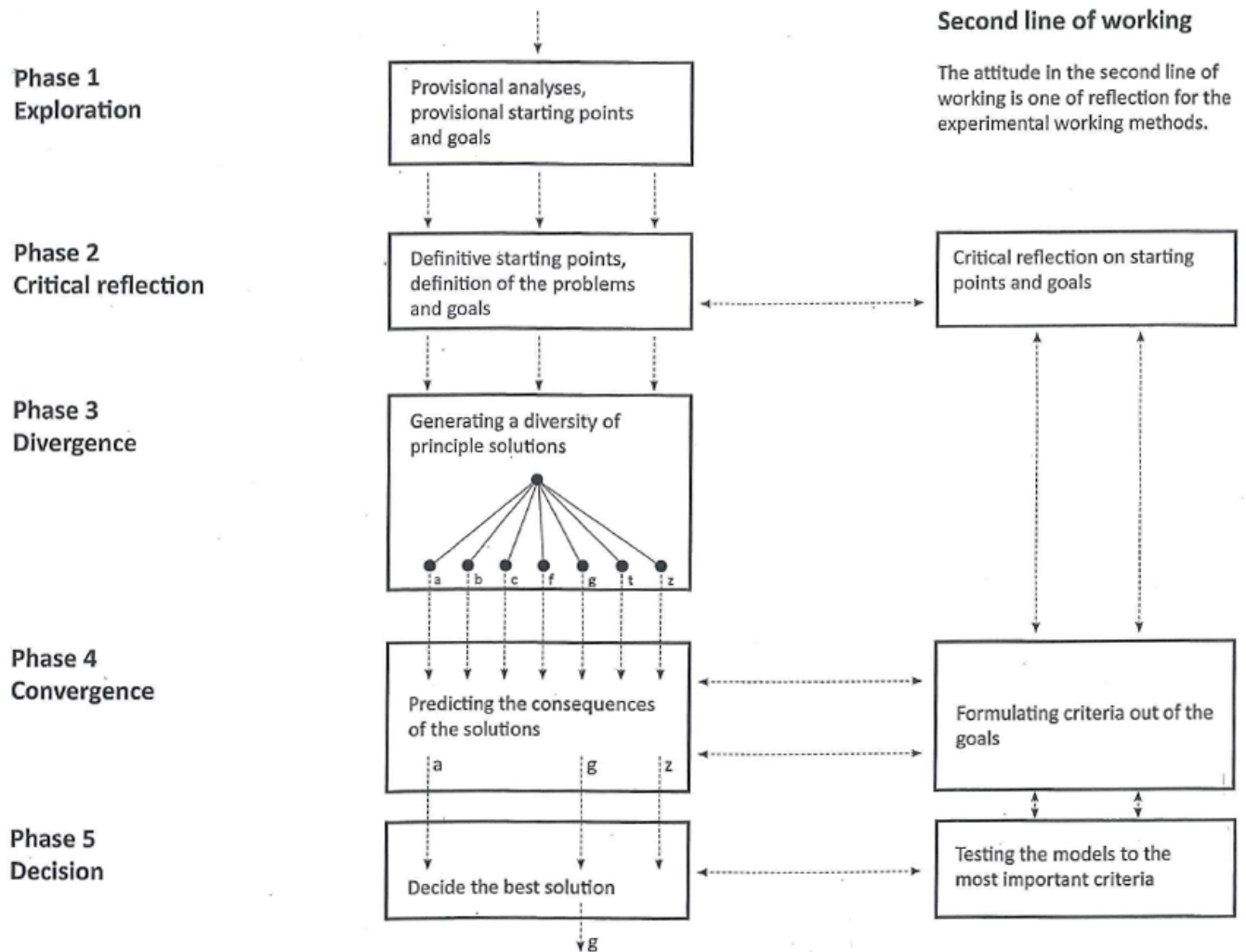
For generating principle solutions a large number of different techniques can be used. (Computer)models, (construction)drawings, diagrams or concept sketches are made with these techniques (sketching, painting, modeling, shaping with the computer). Not only the medium affects the outcome here, also the depicted image (principle sketch, plan, elevation or section).

Important is to present the alternative solutions in physical models, to make them easily readable for everyone.

Use of models during the design process

In *Ontwerpsystemen, een inleiding tot de ontwerptheorie van Richard Foqué* (1975), a number of models of the design process are analyzed. Foqué compares several models and names the strenghts and the weaknesses. He writes about the educational value of the models: "It opens new perspectives for the designer himself, creating a critical awareness with respect to his own actions and expands his horizon."

Basic cycle for a methodical approach



Urban development and Building form development

Urban development

Research of the city, and the location

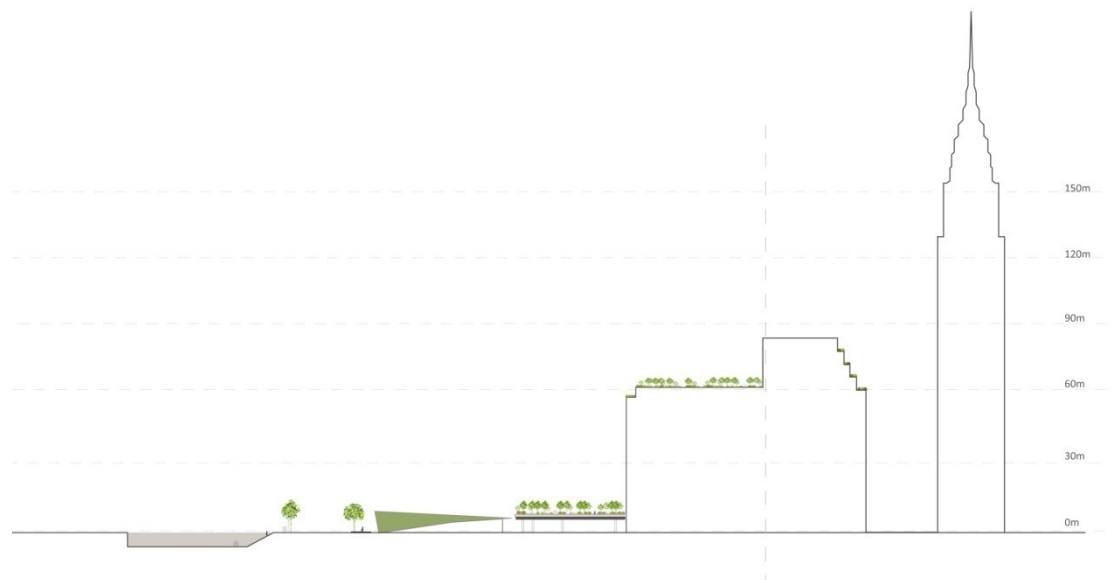
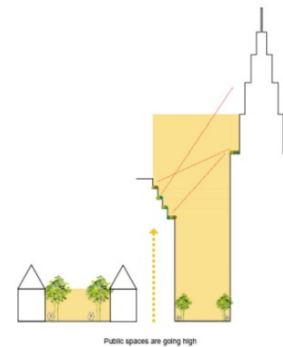
The city

Life of the city---New York form of “PUBLIC”

Public spaces go vertically—Public life at different height

The New York City is full of the high-rise buildings and skyscrapers. It lacks of the scaled public spaces and green areas when walking pass through the blocks. There are not many large-scale outdoor spaces can be public used on the street level. In this high density city, there are not many public actives happen in the streets. Most of time streets are used for the traffic and circulation. Instead, public spaces for leisure and green areas moved to the level around the street, such as the Rockefeller plaza, Highline Park, Lincoln center rooftop lawn... using the setbacks, rooftops for the semi-public purpose. Such as Rockefeller center roof top garden, Mad46 roof top restaurant. Public spaces in New York City go vertically. Hence, there are different public activities happening on different height. Vertical spaces in this city are used thoughtfully.

(Diagram attached in another page)



Public spaces in high level—rooftops and setbacks

Due to the setback rule in New York City, most of the setback rooftops are used as the semi-public space, such as the restaurants, bars, gardens. Because there are more skyscrapers in

the busy midtown commercial districts, so people on these rooftop semi-public spaces can have a better angle to enjoy the icon top of the surrounding buildings.

Public life in low level--Privately own Public spaces ¹

In the New York City, there are more than more than five hundred plazas, arcades, covered pedestrian spaces, and other privately owned public spaces at 320 commercial, residential, and community facility buildings.

There are varieties of the privately owned public spaces. Based on the category which showed at the book of "Privately Owned Public Space", the spaces can be divided into: Plaza, Arcade, Urban plaza, Residential plaza, Sidewalk widening, Open air concourse, Covered pedestrian space, Through block arcade, Through block connection, Through block galleria, Elevated plaza, Sunken plaza.

These privately owned public spaces provide the private associations the openness to the public. Citizens could breathe the air, light and life in such a dense city.

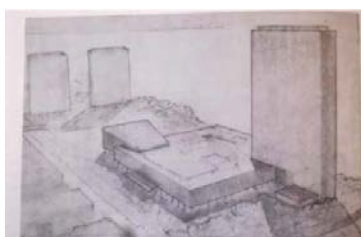
The Location--United Nations

Headquarters means an assemblage of persons and instruments at a given spot connected with the zone of operation by the most efficacious means of communication.

"Headquarters" brings to mind "Life", while "World Capital" brings to mind "Academism".

Organization of the existing UN compound

In the UN history, when the buildings were designing, the major functions: a Secretariat for its daily functions; a General Assembly Building for its twice-yearly plenary meetings; a Conference Building for the work of its major committees and councils; a Delegates Building where the members could hold offices. It is decided in the early



stage that the Secretariat was to house offices. It should be a central element of the complex: a tall, freestanding office building that saw as the refinement of the New York skyscrapers. The designer conceived of a park-like plateau, from the First Avenue to the river's edge. Brazilian

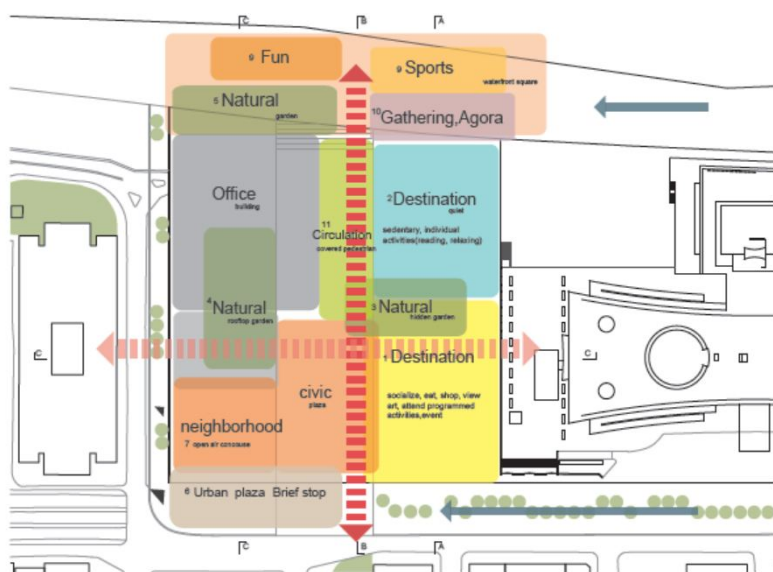
¹ The 1961 Zoning Resolution inaugurated the incentive zoning program in New York City. The program encouraged private developers to provide spaces for the public within or outside their buildings by allowing them greater density in certain high-density districts. Since its inception, the program has produced more than 3.5 million square feet of public space in exchange for additional building area or other considerations such as relief from certain height and setback restrictions.

architect Oscar Niemeyer made the decision to express the Assembly Building as a separate entity while pushing the Conference Building to the rear of the site, facing the river.

The proposal of the UNEC location

Based on the research of the public space in Manhattan, I categorized the users of the location into different groups, which are **employees, tourists (visitors), people live in the neighborhood, and delegates.**

After analyzed the traffic and people flow in the larger urban context around the design location, I combined the category of the users to the category of the NYC privately Owned Public spaces to define the characters of location.



Civic vs. Leisure Character: At the very early stage, I had made the decision to emphasize the main

pedestrian route from 47th street to the waterfront. And another invisible axis between the general assembly to the UN hotel (which is the two-towers building located next to the UN complex). In the design location, the east side is the waterfront, the west side is city, so the design location can be basically divided into two parts, which the west part has civic character while the east part has leisure character.

Destination Character: Most of the visitors come from the 47th street, walking through the 1st Avenue and arrive the design location. So the south part of the location has the tourist, sightseeing character, which is the destination place for them.

Office area: I made the decision to place the area where the employees working at the corner of the design location. Which has the ideal daylight for working, and also the working area is separated from the rest by the pedestrian route from the 47th street.

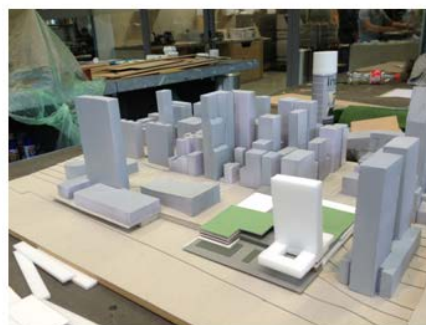
Leisure: There are some fun, gathering and sports activities included in the waterfront area.

Based on the character map of the location, I had made some try outs in form investigation.

Low approach



High approach



First stage of try out is to make the extreme trail based on the program required. That means calculate all program into volume, made the extreme high and low trails.



Seagram Building



Chase Manhattan plaza



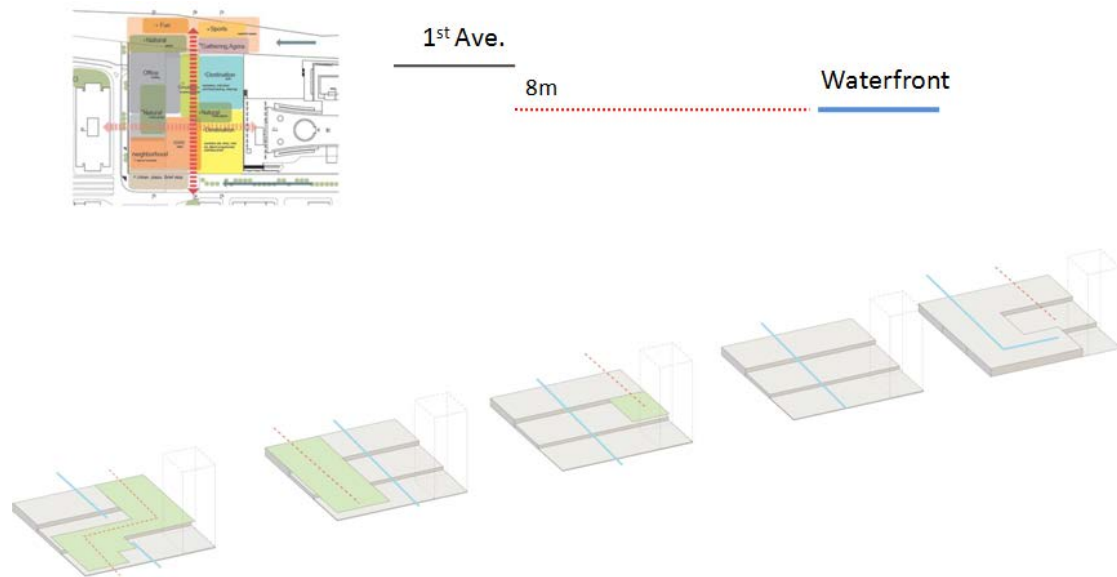
Rockefeller center plaza

These characters are defined by the different groups of the user, which are delegates, employees, tourists and people from the neighborhoods. The axis from the city to the waterfront is accentuated. To create best outdoor public spaces, I placed the building to the corner of the location, which creates an enclosed the area in between the new building and existing UN buildings. At this point, base on the characters of the location I made earlier, I tried low approach and high approach.

In the low approach, I organized all the programs in a flat building, and open all the roof top of the building to the public; in the high approach, all the programs are assembled in a vertical building.

To get the right solution, I researched the former office buildings in the New York City, which is Seagram Building designed by Mies van der Rohe and One Chase Building designed by SOM. They placed the public space as a high priority in the design of the building. A slender building and make the rest area as a plaza for public use. Besides, the repeated floor plan optimizes the efficiency and functionality on every level. Also I wanted to integrate my research of the New York City that public life in different height to the design, so I developed the high approach afterwards.

So in my design, the there is a tall building standing at the corner of the location, and the rest area is for public use. Based on this approach, I tried many options to organize the location by using the element from the category (plaza, Arcade, Urban plaza, Residential plaza, Sidewalk widening, Open air concourse, Covered pedestrian space, Through block arcade, Through block connection, Through block galleria, Elevated plaza, Sunken plaza.



Cause there is around 8m between the 1st Ave. and waterfront. I wanted to use the height difference to design the landscape. So I made 5 trials above.

First one I tried to make direct connection (step down route) from the 47th street to the waterfront. And make an elevated green park for the people from neighborhood use.

Second one I tried to move the elevated lawn to the other side and make the route clearly and pronounced.

Third one I tried to make the tourist route (visitor route) stronger and reduced the area for neighborhood use.

The fourth trial I tried to keep the site simple

The fifth one I make to make the direct route for the tourists (visitors) to the building, and make another route for the people from neighborhood. At the end of the route, I designed a sunken plaza for the people have the collective activities.

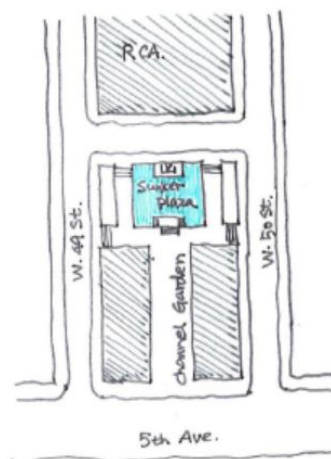
The step down site solution I made was based on the concept of La defense in Paris, which is a large scale going down pavement pedestrian route. I thought it was a fantastic place for the pedestrians. The fifth one I made based on the concept of Rockefeller Plaza in New York City. The relation between the sunken plaza and 5th Avenue, W 49th street, W 50th street makes the sunken plaza become the destination place of the city.

Sunken plaza creates high quality enclosed outdoor space. Four side of the space should be closed by the façade of the building. Sunken plaza is a way to build this kind of space. In New York City, the sunken plaza always work very well, such as Rockefeller Plaza, a successful case of the sunken plaza, a destination place of Manhattan. The sunken plaza provides not only the traffic function, but also short stay, communication, dining, view, and sports function.

Case study

Rockefeller plaza

From the 5th Avenue, passing through the 49th West Street or 50th West Street to the entrance of the building, there is no step, pedestrians go flatly. While from the 5th Avenue, going through the Chanel Garden, to the building, pedestrian must pass through the steps. The space in different height creates the Rockefeller Plaza as a high quality enclosed space. People in the sunken plaza have the feeling of the enclosed and private. I intend to use the sunken plaza to create a less public space, which house people have longer stay in that place.



Citigroup center, 153 East 53rd Street

The Citigroup Center exhibited four different kinds of the privately owned public space—a plaza, open air concourse, through block arcade, and covered pedestrian space, and a covered pedestrian space—it was the covered pedestrian space and its seven-story atrium that became the featured attraction.



On the buildings concourse level below the street, there are six access points from the surrounding streets, including an entrance from the plaza down steps into and through the open air concourse from the northeast corner of East 53rd Street and Lexington Avenue. Compared with most indoor spaces containing below ground levels, this one is usually accessible from the street, and such permeability is an important element in enriching pedestrian s to visit otherwise off- the- path, below-ground interiors.

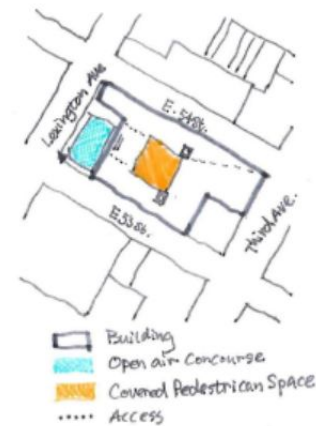


The covered pedestrian space is ringed by circulation corridors and storefronts at concourse and street levels, while the upper levels consist of glass picture windows interspersed with bands of polished aluminum. Public space users from below watch the office tenants above as much as or more than the office occupants peer down. The space features many usable amenities, such as food service and retail frontage. Numerous movable round and square tables and chairs are packed onto the polished granite floor. At the lunch time, sometimes people must wait for tables and chairs.



The space appears to be best understood as a hybrid, neither fully dedicated to retail, like Trump Tower, nor, fully devoid of retail, like 590 Madison Avenue. It gains much of its identity from diverse, changing set of users, like neighborhoods throughout the city.

From the layout of this building, the open air concourse is placed at the edge of the main avenue, connecting with the subway. It more belongs to the street rather than the building. It opens 24 hours. Compared with the covered pedestrian space, which is a destination space, the open air concourse has more public character. The office area starts from the seven floors above, the accessibility makes the office has more private character. The organization of the space is gradient from the public to private.



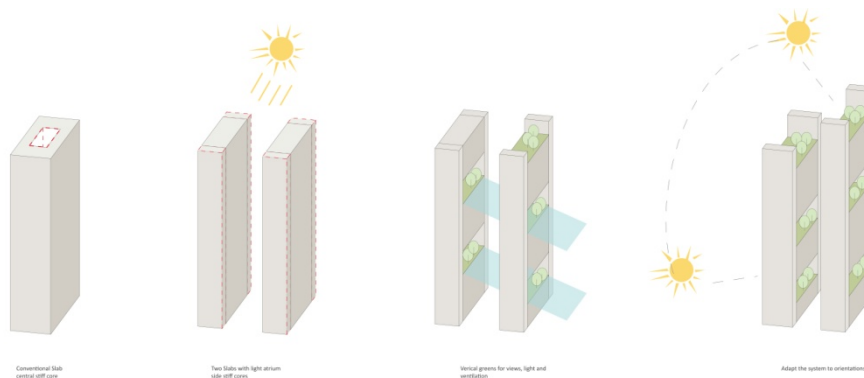
Through those options, I went further with the fifth one, which the auditorium function can be placed under the pavement. And the new auditorium area is near the existing auditorium area, which can be used together. The main users of the auditorium are delegates, which mean the auditoriums have the private character. It is problematic that the auditorium has different structure system and installation systems from the standard office. So it is better to separate the office building from the auditoriums. Another advantage to put the auditorium under the pavement is this secured function is out of the public route, which makes the public visitors would not have the feeling that there is a huge volume which is fenced out.

Building form development

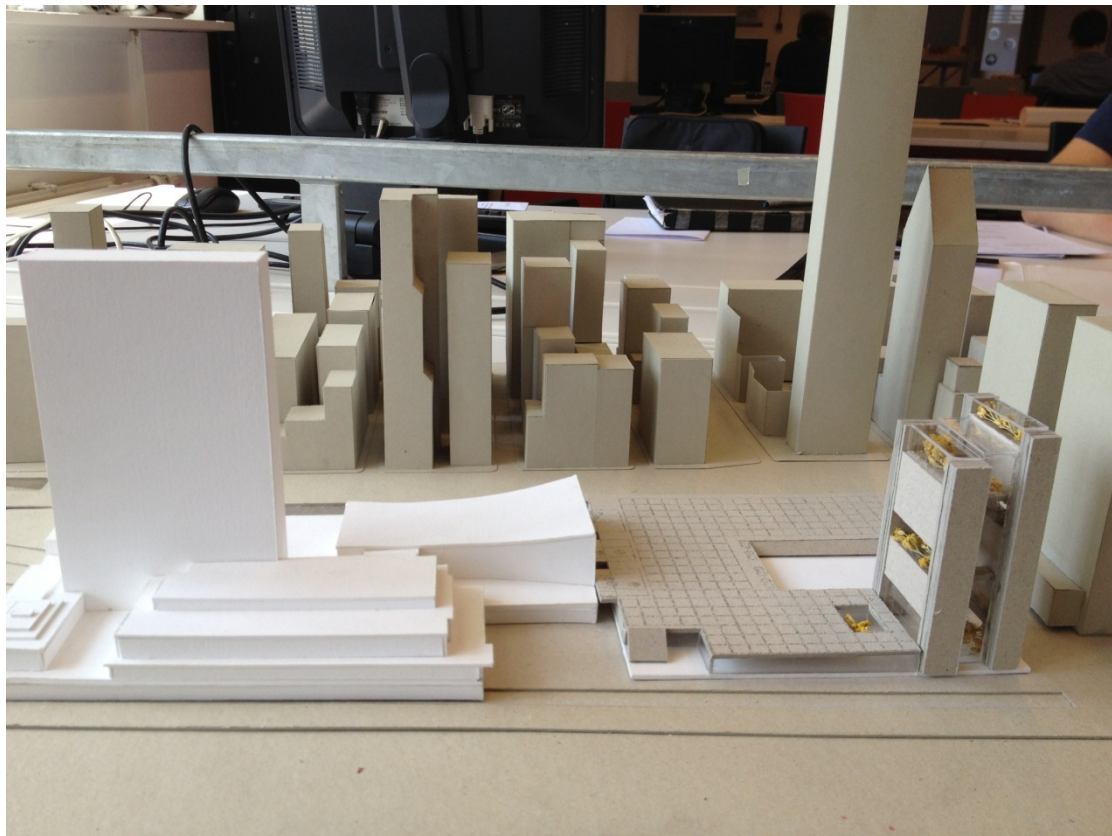




In the traditional office building, they always used one tower which places the vertical transportation core in the center and office area around the façade. However, in my building, I want to create high quality public space in the building; I divide the one tower into two towers, which create a atrium in between. The atrium can give the tower in the north side has more daylight.



I integrate the idea of public spaces at different height into my design, so I create gardens at the different height of the towers. The gardens can bring the tower in the north side more daylight.



Conclusion of the building in the urban context

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