



UN-HQ

Designing for Diplomacy - PRE WORK
New North Lawn Building, NYC
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ABSTRACT

The background of this assignment relates to the fact that the United Nations has experienced a massive expansion since the creation of the organisation in 1946. The circumstances of the organisation and its purpose and structure is still changing as the world situation develops.

Currently the organisation is renting multiple office spaces outside of the compound in NYC. These buildings are older office spaces of Manhattan, several of poor quality with little daylight. These conditions severely violate the construction manual for working conditions of employees at the UN (that they had me read thoroughly my first couple of weeks working at the UN).

Post 9/11 most of the diplomatic structures around the world have been constructed somewhat similar to bunkers. This was the first response of the governments to protect their employees overseas or in compromised positions. In recent years this response has started to gradually change, architects all over the world have started to discuss how to design for diplomacy. Expanding the UN has also fallen under this category with the recent refurbishment also relating to the issues of security.

Creating a diplomatic space is a diffuse subject. The term has different definitions and is interpreted differently around the globe. It was necessary to define what a new structure within the UN strives to achieve humanistically, ecologically, and symbolically.

There lies a fine line between security of the building and the potential for public space, as well as the public perception of the building and what it stands for.

Situated in New York City and next to the existing UN Headquarters designed by Oscar Niemeyer and Le Corbusier, a balance between old and new, modernism and sustainable building are important design aspects. The design must complement the history of the site and the UN and reflect the technology and knowledge of today . These issues call for a methodology that balances these conditions in such a way that creates value for the site and the city.

Looking at the task at hand it reflects several scales, the site at hand, regional, global. The project will investigate how ideas related to national representation, cultural exchange and sustainable development can facilitated architectural design and innovation working with the city that surrounds it and its purpose towards the public.

ACRONYMS

ERP	Enterprise Resource Planning
FDR	Franklin D. Roosevelt East River Drive
HQ	Head Quarters
LEED	Leadership in Energy and Environmental Design
NYC	New York City
NLB	North Lawn Building
ODMU	Oversesas Development Management Unit
SG	Secretary-General
UN	United Nations
UNDC1	United Nations development programme
WW2	World War II



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PROBLEM STATEMENT

The design criteria of this project focuses on the development of the world, history of the organisation also exploring the dynamic diplomatic relations within the UN organisation. This creates a task with some difficulties, diplomacy being full of paradoxes. These being individuals working for peace in a targeted environment.

How do you design a structure that relates to the site and it's surrounding in a global context with sustainability in mind. That is open and inviting and also ensure the security if it's inhabitants

With this in mind I wish to create a built environment that relates to the global context and encounters between nations. Resulting in a high quality structure relating to todays global issues and creates suitable surroundings for visitors and the employees of the organisation.

The design of the compound should be anchored in a city planning context, focusing on the need for maximum functionality, while at the same time utilising original symbols and features evoking the identity of the organisation. Equally important are the overall safety and security requirements for such an institution. The building will strive to function as an invitation to the visitor into a journey through the history and recent work of the UN evoking a physical experience of the achievements and currents works of the UN giving more to the public.



Security Council-Conference building
Donated by Norway

THE UNITED NATIONS

The United Nations was founded just after the WW2 to unite the nations of a war torn world.

The name “United Nations”, coined by United States President Franklin D. Roosevelt was first used in the Declaration by United Nations of 1 January 1942, during the Second World War, when representatives of 26 nations pledged their Governments to continue fighting together against the Axis Powers.

States first established international organizations to cooperate on specific matters. The International Telecommunication Union was founded in 1865 as the International Telegraph Union, and the Universal Postal Union was established in 1874. Both are now United Nations specialized agencies.

In 1899, the International Peace Conference was held in The Hague to elaborate instruments for settling crises peacefully, preventing wars and codifying rules of warfare. It adopted the Convention for the Pacific Settlement of International Disputes and established the Permanent Court of Arbitration, which began work in 1902.

The forerunner of the United Nations was the League of Nations, an organization conceived in similar circumstances during the first World War, and established in 1919 under the Treaty of Versailles “to promote international cooperation and to achieve peace and security.” The International Labour Organization was also created under the Treaty of Versailles as an affiliated agency of the League. The League of Nations ceased its activities after failing to prevent the Second World War.

The UN Charter, opened to the signature page, at the San Francisco Conference in 1945.

In 1945, representatives of 50 countries met in San Francisco at the United Nations Conference on International Organization to draw up the United Nations Charter. Those delegates deliberated on the basis of proposals worked out by the representatives of China, the Soviet Union, the United Kingdom and the United States at Dumbarton Oaks, United States in August-October 1944. The Charter was signed on 26 June 1945 by the representatives of the 50 countries. Poland, which was not represented at the Conference, signed it later and became one of the original 51 Member States.

The United Nations officially came into existence on 24 October 1945, when the Charter had been ratified by China, France, the Soviet Union, the United Kingdom, the United States and by a majority of other signatories. United Nations Day is celebrated on 24 October each year.



Signing of the UN Charter, San Francisco, 1945

UN HQ IN NYC- THE INSTITUTION

The structure in NYC was the organisations first complex. The main building is a massive slab block – Secretariat, 39-floor office tower – that rises up by the East River. A collaborative design team was chosen to conduct the design for the facility. Two designs stood out, that of French architect Le Corbusier and Brazilian architect Oscar Niemeyer. The final project named project 42G was a combination between the two that resembled Niemeyer’s work the most. It consisted of a large and imposing General Assembly building and a long, low, horizontal block that housed several other meeting rooms. A tall tower for the Secretariat and a public plaza were also important parts of the project.

Construction began in 1948 and was completed four years later in 1952. The Dag Hammarskjöld Library Building was added to the site in 1961. The financial backing for the project come from an interest-free loan of \$65 million from the United States government. The building is built in a modernist, international style that aims to impress not through outstanding structures or rich details but through efficiency, simplicity and the way the building actually embraces and enhances the surrounding landscape. The 155 meter tall main building has become recognizable the world over and the site with its large civic square and gardens are one of New York’s most balanced green spaces.

The entire complex underwent extensive renovation that was completed in the beginning of 2015. The announcement was made by UN officials on the 28th of July 2007. This was the first works done on the site since its construction half a century ago. Among works that needed urgent doing were the removal of asbestos, the installation of sprinklers and other safety elements, a total fixing of the interior plumbing and heating system as well as extensive structural, interior and exterior renovations. The total cost of the renovation amounted to \$2.1 billion.

The site is located between First Avenue and the East River on the Island of Manhattan in NYC.



Current Secretary-General Ban Ki Moon

SITUATION





SURROUNDINGS

The massive grid of Manhattan may be understood in the philosophical sense as a transcendental basis, imposed as a symbol of pure rationality abandoning any negotiation with the topography of the physical place and its natural conditions. This collision of the grid and the waterline of the East River creates fractional city blocks that today reflects the design of Manhattan.

This grid is dominated by a huge number of modern as well as beaux-arts skyscrapers. The complex is located in one of Manhattan's most exclusive neighbourhoods, Turtle Bay, the area has a high density of missions relating to the UN.

Its prime location provides great views over the East River and easy access to First Avenue and East 42nd Street. The land on which the UN project is located, as well as the entire interior space is considered its own entity and is administered by the UN as extraterritorial after an agreement with the United States government.

Its borders are First Avenue west, East 42nd Street south, East 48th Street north and the East River east. FDR Drive passes underneath the Conference Building of the complex.

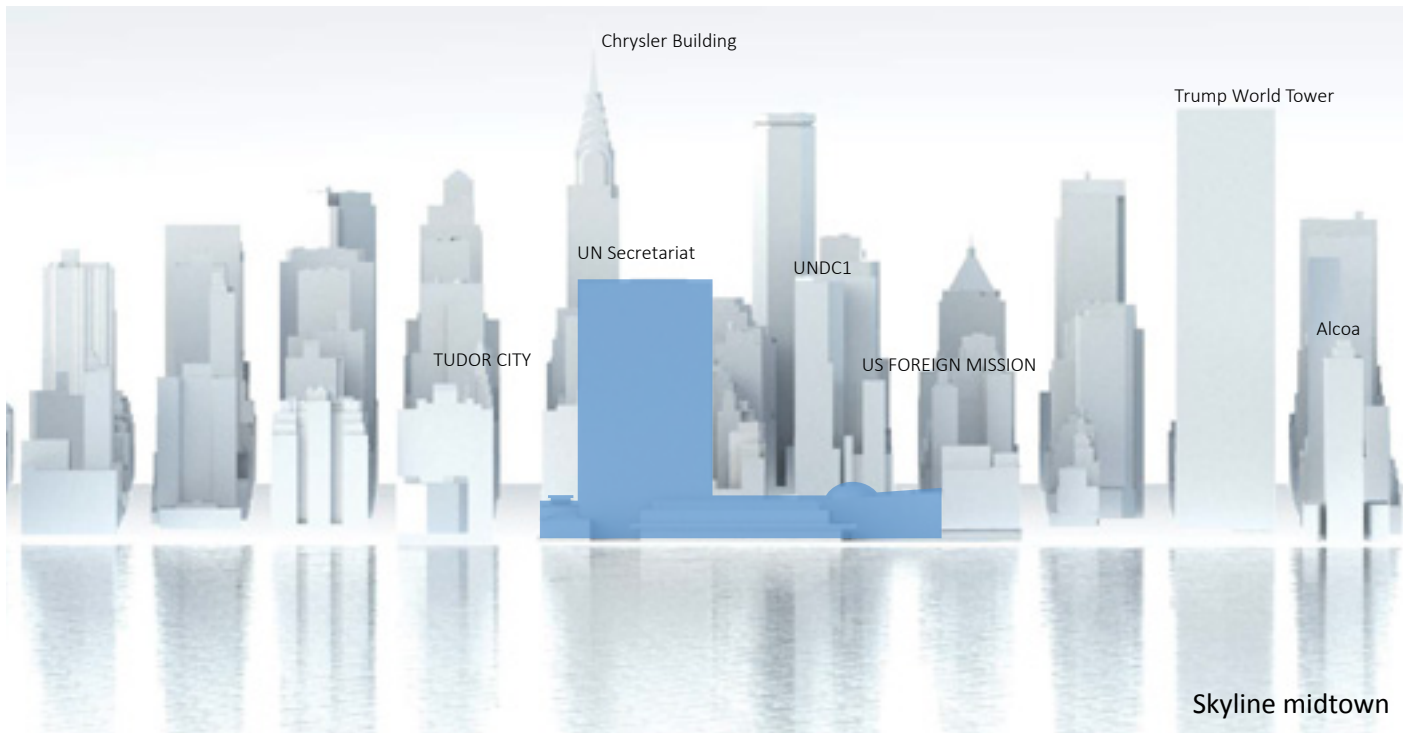


Manhattan view from Williamsburg

URBAN CONNECTION TO WATERFRONT

The organisation strives to relate to the public and create spaces that reflect their mission, recent years and security measurements have made this goal difficult to achieve. They state as follow:

- UN open space represents public and urban connection to the East River
- North Lawn Building may impact public access to UN plaza and waterfront
- Urban connection to waterfront is an important aspect of New York City. Precedents for waterfront access include the West Side Highway and Battery Park.

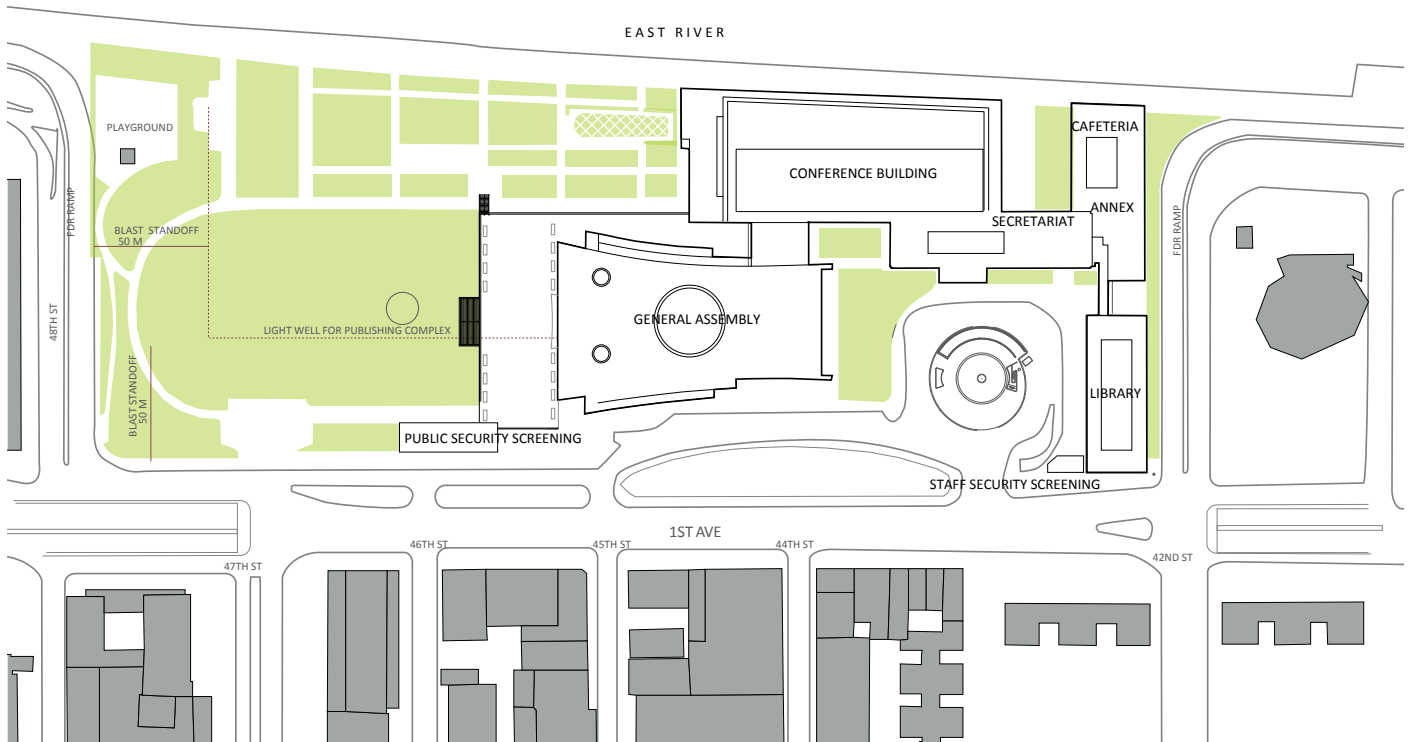


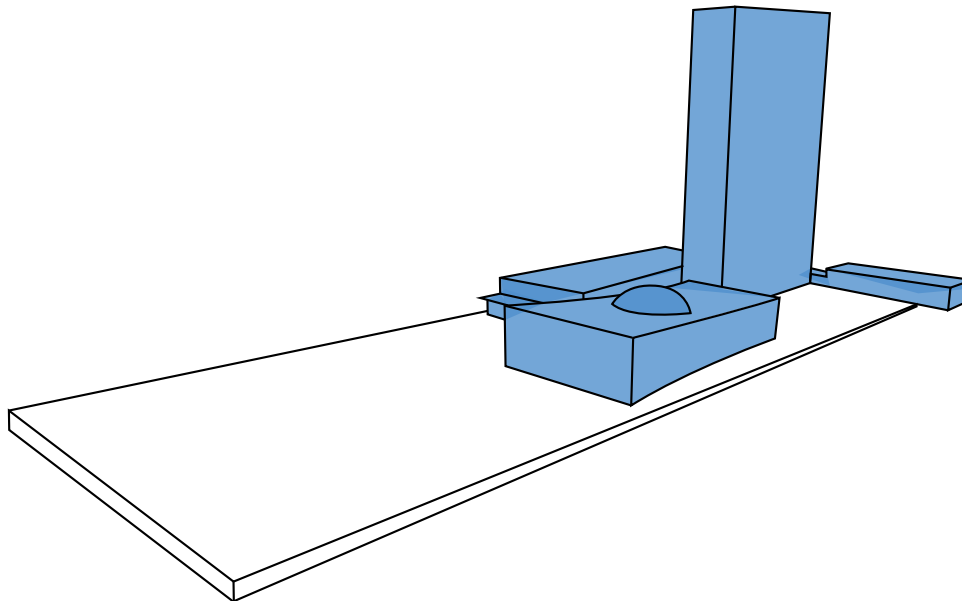
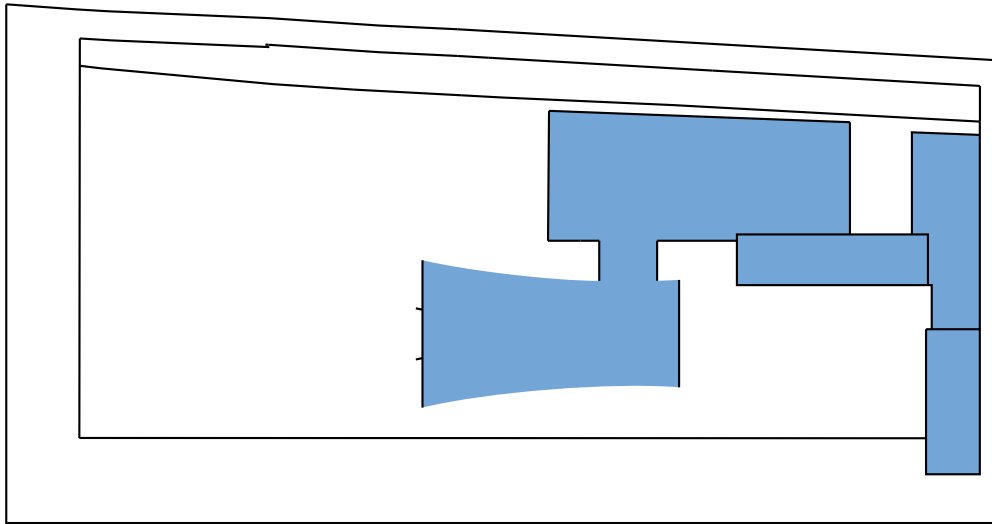
THE PLOT

The plot consists of a space between the East River and First Avenue. Ranging from 42nd street to 47st street.

The current buildings on site are the General Assembly, The Secretariat building, The Conference Building, South Annex with a cafeteria and the Dag Hammarskjold library. The development of the project will highly relate relate to these existing buildings and the metropolitan surroundings. Further analysis of the conditions will be explored in the project.

There is currently a temporary North Lawn building , constructed to incorporate the needs of the organisations during the refurbishment of the main facility, because this structure will be removed shortly, I've decided to disregard that it's still on the plot and create all my drawings and illustrations without the temporary structure.





Current UN Compound

TOPOGRAPHY

The site and area has a small amount of topography to consider, from the general assembly the terrain slopes towards the north part of the plot. The East River frames the east part of the location and provides open views to Queens and the Queensborough Bridge.

The topography can more be stated as the relations to the surrounding buildings and their massive scale following the grid of Manhattan. The crossroads and avenues should be taken into consideration whilst working with the location of the plot and the scale of the building.

CLIMATIC CONDITIONS

New York City has a humid subtropical climate. Weather in New York is heavily influenced by two continental air masses: a warm, humid one from the southwest and a cold, dry one from the northwest.

The winters are long and cold. In the winter seasons, a temperature of $-25\text{ }^{\circ}\text{C}$ or lower can be expected. The New York City area have warm summers, with some periods of high, uncomfortable humidity. Summer temperatures usually range from the 25 to $35\text{ }^{\circ}\text{C}$. In recent years NYC has experienced winter storms with massive winds.

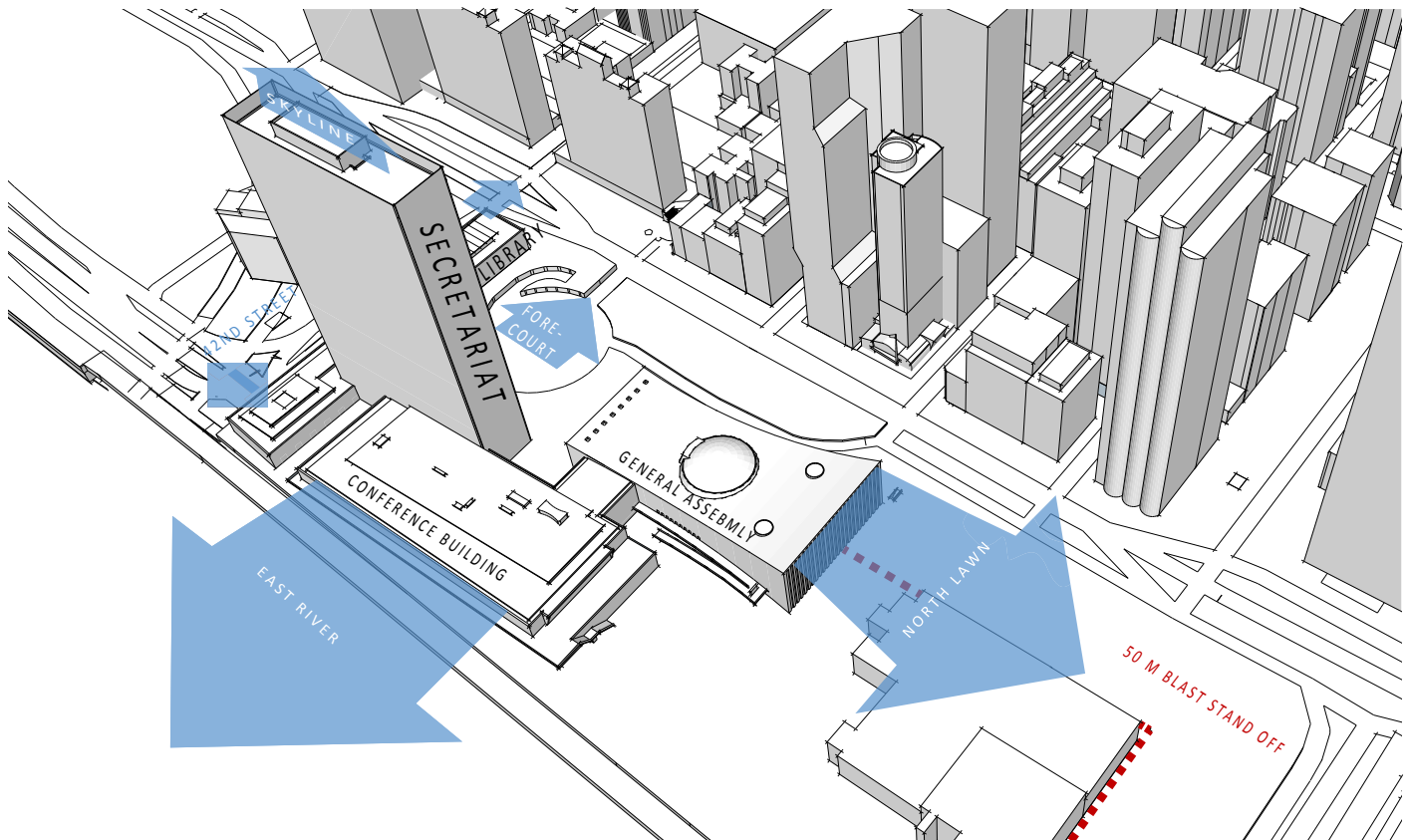




Photo: Stefen Turner, midtown

THE ORIGINAL DESIGN AND HISTORICAL CONSIDERATIONS

There was no competition conducted for the new design of the UN HQ after the war. The UN decided to commission a multinational team of leading architects to collaborate on the design. The American architect Wallace K. Harrison was named as Director of Planning, and a Board of Design Consultants was composed of architects, planners and engineers chosen by member governments. The board consisted of

N. D. Bassov (Soviet Union), Gaston Brunfaut (Belgium), Ernest Cormier (Canada), Le Corbusier (France), Liang Seu-cheng (China), Sven Markelius (Sweden), Oscar Niemeyer (Brazil), Howard Robertson (United Kingdom), G. A. Soilleux (Australia), and Julio Vilamajó (Uruguay)

ORIGINAL DESIGN INTENT

- Expressed Post World War II Optimism for Global Peace & World Humanitarianism
- Demonstrated the open planning of mid-century modernism and Le Corbusier's "Towers in a park"
- Buildings concentrated on the site to provide open and free space for dignitaries, workers, and the public
- Architectural form represents function inside, treated as sculpture within landscape

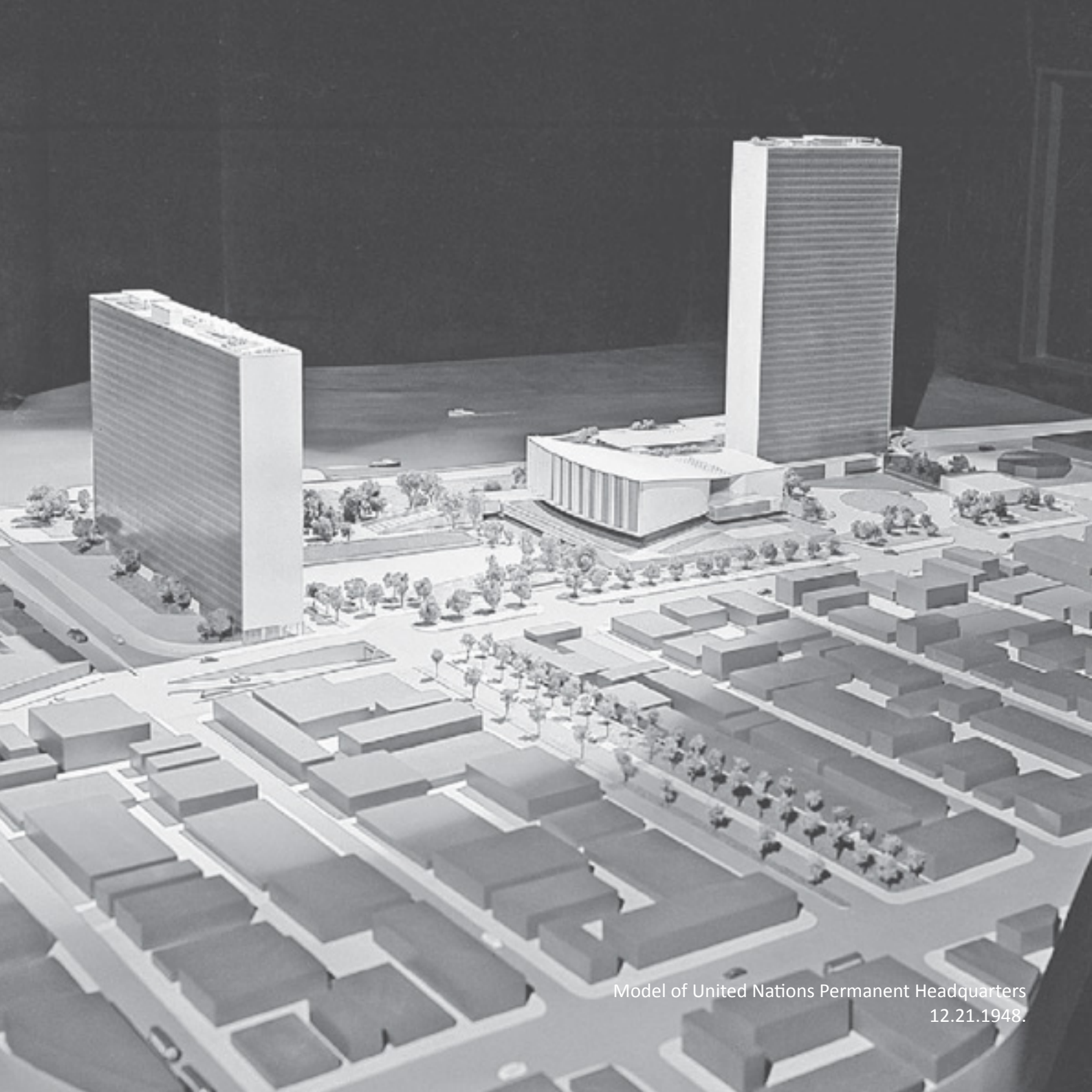
The Board of Design Consultants produced an icon piece of modernist architecture standing as a symbol of the collaborative spirit and hopeful aspirations of the time. As the youngest member of the Board, Oscar Niemeyer contributed key commentary during the design meetings and produced one of the two schemes along with Le Corbusier that would result in the final site plan for the UN Headquarters. In the final scheme, as presented to the UN Headquarters Advisory Committee in July, 1947, the complex included the integration of the Secretariat, the Council Chambers (known as the Conference Building), and the General Assembly into a complex assembly of volumes on the southern half of the site.

At the north end of the site, a slab tower, oriented on an east-west axis, framing the complex. This building was named the Special Agencies and Delegates Building, its massing and position is consistent with one of Niemeyer's Schemes which served as the foundation, along with Le Corbusier's Scheme 23, for the final design. Niemeyer considered the slab tower at the north edge of the site as the appropriate location for the UN's future growth. In regards to respecting the original architects of the main facility this fact will be taken into consideration and discussion whilst the project is being developed.

HISTORICAL REPORT

Including 1947 North Lawn Planning Concepts

- Original designers developed set of planning goals for the U.N. Headquarters site which included building on the North Lawn
- Site plan included major pedestrian/ceremonial entrance at 47th Street
- Visual and physical connections to the East River were part of original site plan
- North Lawn landscape was designed in a more classical language than the rest of the campus
- North edge of site was intended for future growth and remains un-built
- Dag Hammarskjöld Library (1963) and South Annex (1982) were completed in accordance with original planning goals



Model of United Nations Permanent Headquarters
12.21.1948.

VISION PRINCIPLES FROM THE UN

The following Vision Principles were endorsed by the Committee on October 6, 2010 and provided a framework for a Feasibility Study.

1. The United Nations Headquarters campus is a unique and visible symbol of the Organization's mission. The campus should remain open and accessible to the public while providing necessary security. Its identity should inspire all who work for the Organization as well as those who visit.

2. The New York real estate portfolio for the UN headquarters should be consolidated to create a sense of campus, promote efficient operations by maximizing the use of the existing facilities and provide greater operational efficiencies and security control.

3. Technology is central to the implementation of the UNHQ's future initiatives which include: the ERP, responding to global climate change, promoting workplace best practices such as a paperless (digital) office, and global conferencing.

4. The UN workplace should embody functionality while carrying equal importance for diplomatic decorum. The workplace should be flexible and facilitate efficiency & productivity to accommodate a population that fluctuates due to growth and mandates.

5. Continuous moderate growth of space requirements is projected. Global operations will continue to decentralize. At the same time, additional and expanded mandates are expected to lead to increased space needs. The UN's future real estate should provide for departmental elasticity and permit flexible space utilization to address the organization's fluctuating requirements. Policies should be adopted to implement efficient space management.

6. The highest green building goals will be recommended in accordance with the principles of energy conservation and sustainability.



Manhattan view from the Secretariat

SECURITY ISSUES

The design of the UN facilities around the world has been changed and modified with different situations developing in the world around it. The original design from 1947 shows an open scheme with public access to a vast amount of the current UN compound. Following a deadly attack against their Baghdad offices, the UN began building a \$21 million dollar barrier fence in and around the UN HQ in NYC. With the completion of the refurbishment in 2015 a new and advanced security checkpoint was also added by the gate. This was previously conducted within the visitors lobby.

Moving around in the building is also heavily regulated in accordance to security clearance. A small part of the building is available for public access. When joining a tour under supervision the public are also able to access a restricted amount of chambers in the conference building.

The UN operates with a range of security clearances. As an intern I had access to a larger part of the building than the public but also had to join the security clearance with a full scan everytime I was entering the building. Staff could enter an exit as wished through a special entrance or through the 42 st gate.

Blast issues has become a major security issue when constructing facilities in NYC. It's currently stated that there has to be a 50M clearing from the security barrier to the actual perimeters of the new structures to avoid extensive damaged to the structure should someone detonate a bomb by the fence. The US Mission building is a literal interpretation of the blast issue. Designed after this principle the vast part of the structure is constructed of pure enforced concrete. Here the amount of concrete is reduced as the level of the building rises.





FDR issues



Perimeter fence

OPPORTUNITIES AND CONSTRAINTS

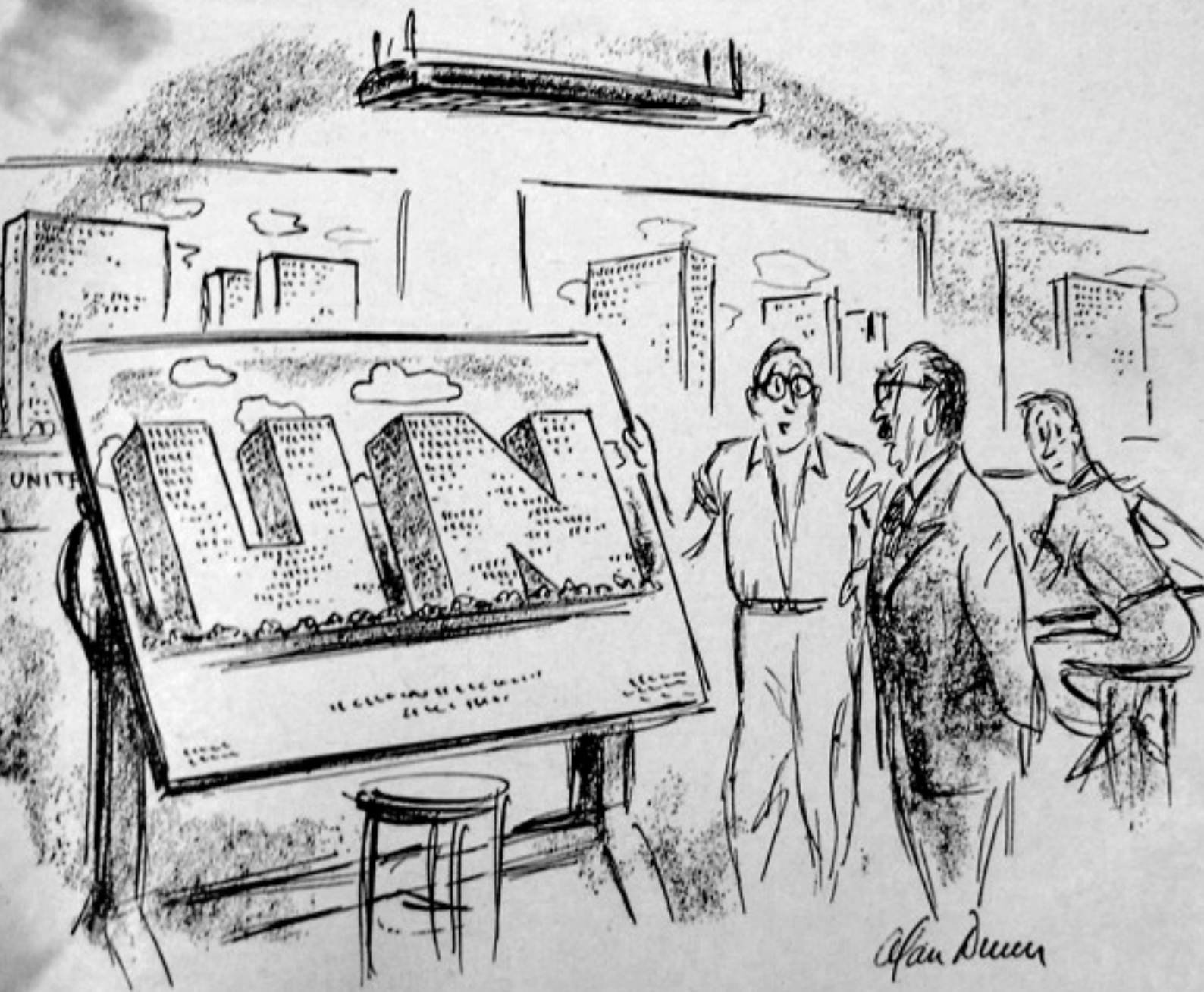
Constructing a North Lawn building provides a accommodation option using currently owned UN property. It was already envisioned in the original 1947 design, but modern day security setbacks and the 47 street view corridor will position the plot more south then the original design.

Constructing this project provides an opportunity for a unified campus solution with full control and ownership from the UN. The site is large enough to handle the security setback and the NLB would be able to serve occupants within the Secretariat and other campus buildings.

There is an existing publishing annex under the lawn on large parts of the plot, this would have to be taken into consideration, possibly integrating into the basement system of the new structure.

Relating to the blast issues creates a constraint with large parts of the plot being dubbed unsuited for construction.

Regarding the blast issue it's an interesting issue that creates an opportunity for a framework regarding the design of the structure. How do you create a space with restricted access that still seems open to the public? Is there anyway to design around the current closed aspect of the park within the compound?



"They never said what they had against it."

REFERENCE PROJECTS

Projects with relations to diplomatic international environments.

UN CITY - COPENHAGEN

Architects: 3XN

Scale: 20 000 sqm

Project Year: 2013

To accommodate all 1700 employees the architects have put up a star-shaped building on an artificial island in the northern harbour of Copenhagen. The star shaped structure “reflects the nature of each UN unit working independently, efficiently and professionally with clear roots in a mutual set of values”, says 3XN.

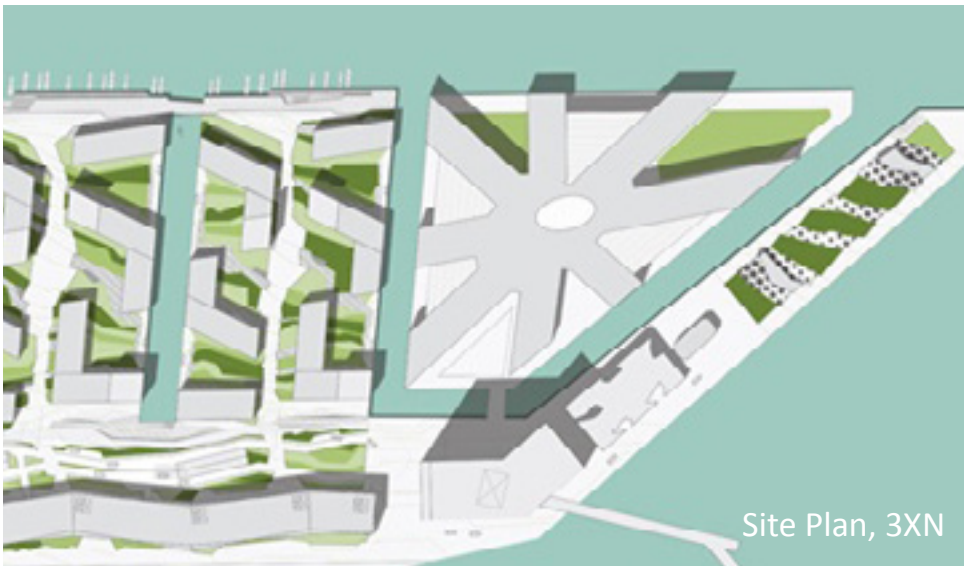
The structure is designed with an attempt to balance openness and security. This is achieved with the construction on the artificial island, separating the structure from the immediate city.

In the center of the building there’s a day lit atrium with an impressive sculptural staircase. This piece of art links all the floors of the building and creates a space for dialog, interaction ,positive encounters and socialising. Thus at the same time working as a symbol of the UN’s mission.

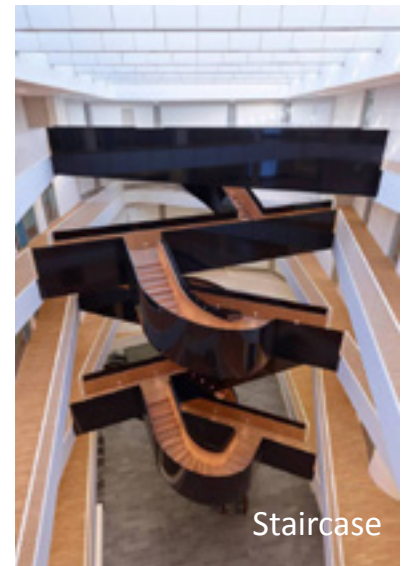
The project is covered in 1400 solar panels & collects rainwater to flush the toilets. In addition the building is cooled by seawater.



UN City Copenhagen, 3XN



Site Plan, 3XN



Staircase

FRENCH DIPLOMATIC CAMPUS NAIROBI

Architects: Terrenueve

Scale: 3224 sqm

Project Year: 2015

The project is located in a geopolitical context with increasingly unstable situations. In 2013 there was a horrific attack at the Watergate Shopping mall and more threats have been made. The development of this campus is aimed at expressing the openness of French culture. They use the landscape and architecture to define what is opened and closed to the general public.

The rounded off corners takes the edge of the building and the wood slats let's light into the building and works as an additional defensive structure.

The campus is made from wood and stone including LEED certification and a generally responsible environmental approach.



French diplomatic Campus in Nairobi, Terrenueve Architects

US EMBASSY BAGHDAD

Architects: Berger Devine Yaeger

Scale: 420 873 sqm

Project Year: 2005

This reference project is researched to portrait the extreme measures of diplomatic architecture in a strained context. The project was named a bunker quite early on. Reflecting both the size and the construction techniques used in the project. There are six apartment buildings situated inside the compound. Every single flat being bomb proof.

The embassy has extensive housing and infrastructure facilities in addition to the usual diplomatic buildings. The buildings include:

Six apartment buildings for employees

Water and waste treatment facilities

A power station

Two “major diplomatic office buildings”

Recreation, including a gym, cinema, several tennis courts and an Olympic-size swimming pool

The complex is heavily fortified. The details are largely secret, but it is likely to include a significant US Marine Security Guard detachment. Fortifications include deep security perimeters, buildings reinforced beyond the usual standard, and five highly guarded entrances.

The structure has amounted to a breathtaking cost of 750 million US Dollars.



CHOICE OF ASSIGNMENT

Spring 2015 I conducted an internship with the United Nations in NYC at the department of “Overseas Development Management Unit”. Working closely with the architects at the UN I was amongst other things engaged in the discussions around the possible expansion of the Head Quarters.

Surrounded by the international environment, listening to the various conversations at the current HQ and traversing the hallways every day expanded my interest. I decided eventually to make it the task for my master thesis since I was working so closely in the environment with insight to the development of the organisation and with the position to observe the officials and all the various visitors within the compound.

FOCUS

With my diploma I wish to focus on developing the structure within the UN Compound. Working parallel with analysing the surrounding city and similar facilities around the world to develop a concept. It will include a study of forms, sustainable aspects, materials & spaces. I will work in detail with creating a space that comments on the UN’s position today both locally in NYC and globally relating to the development of the organisation in a world wide aspect.

And for these ends: to practice tolerance and live together in peace with one another as good neighbours, and to unite our strength to maintain international peace and security, and to ensure, by the acceptance of principles and the institution of methods, that armed force shall not be used, save in the common interest and to employ international machinery for the promotion of the economic and social advancement of all peoples.

UN Charter Preamble



General Assembly United Nations NYC

PROGRAM

The United Nations has been the site for peaceful encounters between nations since the second world war. It is crucial with a varied program that can create an informal meeting space for the employees of the organisation. The space will be designed with reflections of the organisations development the last decades and it's relationship to the surrounding city. Keeping in mind the security aspect within the compound and also within the island of Manhattan. There will be a visitor centre to enhance the creation of a more public relation to the UN as an organisation.

This study relates to the current 2015 UN space needs and continues to look ahead for space requirements based on the staff growth and operational accommodation requirements. Also addressing the dynamic nature of the UN with the possibility to allow for expansions or contraction within a short to medium time frame.

Following conversations with several architects at the UN the focus will be on the following program:

Office spaces (large share of the space)

Entrance

Visitor area/Exhibition Space

Lobby/ Auditorium

Library/Resources

Language Training

Conference Rooms

Cafeteria

IT/Building Support

Mechanical Electrical Plumbing

Total amount estimated: **80 000 sqm**

USERS



PUBLIC

SEMI-PUBLIC



PRESS BUSINESS +



DELEGATES +



EMPLOYEES

PROCESS

I wish through my final project to develop as an architect by becoming more focused on high quality process and method work. A good project is the result off a high quality process. The process will be :

RESEARCH

Performing case studies of projects with similar functions and exploring the process/structure around everyday life at the UN in NYC.

MAPPING

The existing structures and the surrounding city.
Exploring the compound, future site and it's potentials.
Analysing the flow of the current facilities and relating to the modern day aspect of the situation.

SKETCHING

Brainstorming to develop various scenarios. Pushing the borders of the project and the restrictions from the organisation. Performed through fast sketching and simple models. Create a criteria to evaluate the scenarios and choose one for further detailing.

DETAILING

Create a detailed project from one of the scenarios and perform calculations on various elements of the project.

METHODOLOGY

I wish to work with physical models in different scales. I'm intending to use scenarios as a way to start the process of developing a shape for the project.

To keep the process flowing I will focus on different scales of the project as time goes by. Working both from the exterior to the interior and from the interior to the exterior. Another important aspect for me will be my fellow students and friends within the field with their external look to create discussions around my decisions.

In addition I will have a dialogue with my former employers at the UN and use them as reference points to some of my decisions.

PROGRESS PLAN-TIMELINE

DEFINE THE ASSIGNMENT

SITUATIONMODEL 3D/SECTION/PLAN

IDEA DEVELOPMENT

VOLUME STUDIES

ANALYSING THE UN

REFERENCE PROJECTS

PROGRAM ANALYSIS

CONCEPT DEVELOPMENT

MODEL STUDIES

DETAILED PRO

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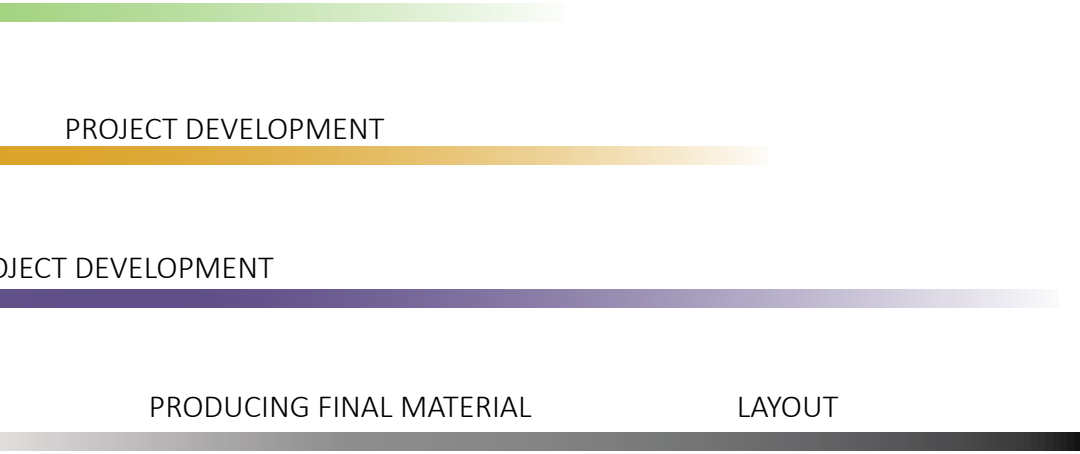
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- Starting point 10.08.15
- Mid-Semester Review
- Submission deadline 15.12.15
- Evaluation part 1 11-12.01.16
- Evaluation part 2 20-21.01.16



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PRINT RESOURCES

The Architecture of Diplomacy:

Building America's Embassies (ADST-DACOR Diplomats & Diplomacy)

-July 1, 1998, Jane C. Loeffler

The Embassy of the Future:

Recommendations for the Design of Future U.S. Embassy Buildings (1986)

Embassy Perimeter Improvement Concepts & Design Guidelines:

-U.S. Department of State

Bureau of Overseas Buildings Operations

PEOPLE

Jack Howard- Head of department

United Nations ODMU

Steffen Wellinger- Guidance Teacher

Associate Professor NTNU

Andrei Sdrula- BRB Architects

Local Architect Manhattan

INTERNET RESOURCES:

UN background:

<http://www.un.org/en/aboutun/history/>

US embassies abroad:

<http://www.citylab.com/politics/2012/09/fortress-america-how-us-designs-embassies/3289/>

Information Manhattan:

<http://www.newyorkpolonia.com/index.php?siteg=en&p=localinfo>

Original Design UN:

<http://www.histecon.magd.cam.ac.uk/internationalhistory/architecture.htm>

Blast Issues:

http://www.nyc.gov/html/nypd/downloads/pdf/counterterrorism/engineeringsecurity_040_guidelines_on_building_design.pdf

UN City:

<http://uk.phaidon.com/agenda/architecture/articles/2013/july/15/new-un-hq-is-inaugurated-in-copenhagen/>

French Diplomatic Campus:

http://www.terreneuve.fr/fr_FR/projets/tous-les-projets/Campus-diplomatique-francais-a-Nairobi-Kenya-2013-16

US Embassy Baghdad

<http://www.nbcnews.com/id/12319798#.Vk9H2t8vfuQ>





