Four Freedoms Foundation: Roosevelt Island, New York City

Advanced Studio II: Arch. 595 & Arch. 506G

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In the future days, which we seek to make secure, we look forward to a world founded upon four essential human freedoms.
The first is freedom of speech and expression -- everywhere in the world.
The second is freedom of every person to worship God in his own way -- everywhere in the world.
The third is freedom from want, which, translated into world terms, means economic understandings that will secure to every nation a healthy peacetime life for its inhabitants -- everywhere in the world.
The fourth is freedom from fear, which, translated into world terms, means a world-wide reduction of armaments to such a point and in such a thorough fashion that no nation will be in a position to commit an act of physical aggression against any neighbor -- anywhere in the world.
That is no vision of a distant millennium. It is a definite basis for a kind of world attainable in our own time and generation. That kind of world is the very antithesis of the so-called "new order" of tyranny which the dictators seek to create with the crash of a bomb.
Franklin D Roosevelt, The Four Freedoms, 1941

I had this thought that a memorial should be a Room and a Garden.
That's all I had.
Why did I want a Room and a Garden?
I just chose it to be the point of departure.
The Garden is somehow a personal nature, a personal kind of control of nature, a gathering of nature.
And the Room was the beginning of architecture.
I had this sense, you see, and the Room wasn't just architecture, but was an extension of self.
Louis Kahn, 1973

Architecture should speak of its time and place but yearn for timelessness.
Frank Gehry

Design Philosophy: The central question is what Architecture might become; what is its potential as each new building is inserted into its unique context and specific place in time? How can architecture simultaneously evolve from its historical continuum, be derived from contemporary culture, appropriately respond to season, weather and time of day, be of its time and place, and also be built for posterity?

Architecture is compelling in its continuous evolution, expression of its embedded ideas, processes of creation, and the instincts of its designer. Architecture is advanced through the purity of its logic, and utility. Architecture is advanced through poetics, image, and artistry. If Architecture has always been, and is also derived from its particular contemporary circumstance, what strategies and design characteristics can advance the realm of Architecture?

The first question of the semester is: What is Architecture?
The last question of the semester is: "How and why is your design Architecture?

A great building must begin with the unmeasurable, must go 1through measurable means when it is being designed and, in the end, must be unmeasurable.
Louis Kahn

Architecture is an art; the technology merely supports it.
Louis Kahn

A proper building grows naturally, logically, and poetically out of all its conditions.
Louis Sullivan

Realization is the merging of Thought and Feeling at the closest rapport of the mind with the Psyche, the source of 'what a thing wants to be. 'It is the beginning of Form.
Form encompasses a harmony of systems, a sense of Order and that which characterizes one existence from another.
Form has no shape or dimension.
For example, in the differentiation of a spoon from spoon, spoon characterizes a form having two inseparable parts, the handle and the bowl. A spoon implies a specific design made of silver or wood, big or little, shallow or deep.
Form is "what." Design is "how." Form is impersonal.
Design belongs to the designer. Design is a circumstantial act, how much money there is available, the site, the client, the extent of knowledge. Form has nothing to do with circumstantial conditions.
In architecture, it characterizes a harmony of spaces good for a certain activity of man.
Louis Kahn, Form and Design, 1960

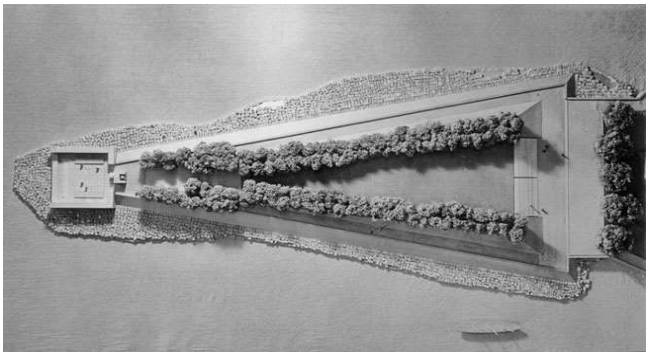
Context and Site: Roosevelt Island is a narrow neighborhood located in the middle of the East River in Manhattan. About two miles long and only eight hundred feet at its widest point, it is a neighborhood for about twelve thousand residents.

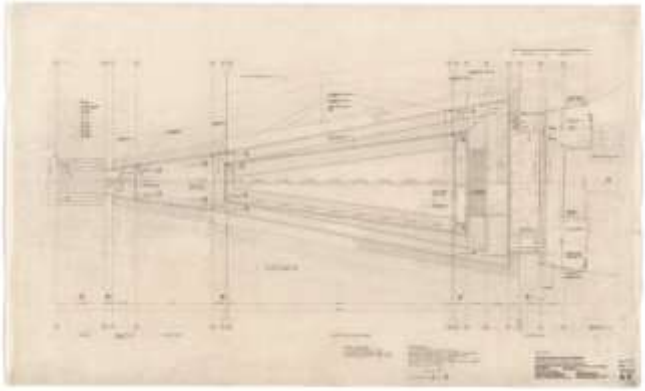
From 1921 to 1973 the island, then named Welfare Island, was used principally for hospitals for contagious deceases. In 1973, it was renamed Roosevelt Island in honor of Franklin D. Roosevelt. The island has served many purposes from its original purchase in 1637, including the Canarsie Indians settlement, a location of prisons, asylums, and workhouses. The first contagious decease smallpox hospital was located on the island, and most recently the Cornell Technology Center was opened, with its additional residential blocks to be added soon. The central and northern portions of the island include numerous apartment buildings, all of which are served by the Tramway, NYC subway and vehicle access bridge from Dutch Kill neighborhood of the Borough of Queens to the East.

Roosevelt Island has a distinguished collection of historic and contemporary architectural works including the Blackwell House from 1796, Chapel of the Good Shepherd by Frederick Clarke Withers, and contemporary works by Philip Johnson, John Burgee, Josep Lluis Sert, Rem Koolhaas, Peter Eisenman, Robert A.M. Stern and Oswald Mathias Ungers.

The proposed Four Freedoms Foundation site is between the new Cornell Technology Center, the Franklin D. Roosevelt Four Freedoms Park which was designed by Louis I. Kahn and dedicated in 2012, and the ruins of the one hundred bed Smallpox Hospital designed by James Renwick Jr. which opened in 1856. Located at the southern tip of the island's loop roadway, the Four Freedoms Foundation site is the transition from the residential and academic neighborhoods to the north, and the public recreational and cultural amenities located at the southern end of the island.

I had this thought that a memorial should be a room and a garden. That's all I had. Why did I want a room and a garden? I just chose it to be the point of departure. The garden is somehow a personal nature, a personal control of nature, a gathering of nature. And the room was the beginning of Architecture.
Louis I Kahn.

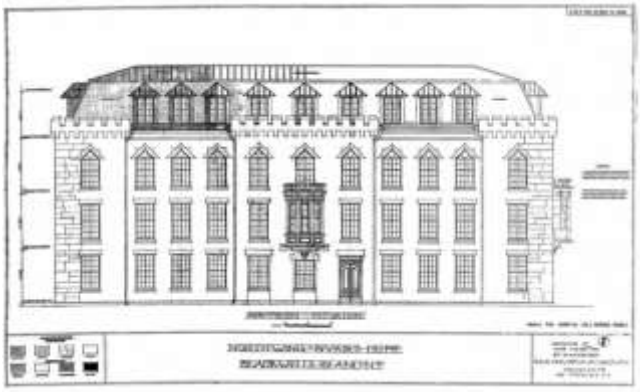




Four Freedoms Park: *Louis I. Kahn is widely considered one of the masters in the pantheon of 20th century architects. His seminal works helped define Modernism: the Yale University Art Gallery, the Yale Center for British Arts in New Haven, Connecticut, the Salk Institute in La Jolla, California, the Capital City in Bangladesh, the Kimbell Art Museum in Fort Worth, Texas, and the library at Philips Exeter Academy in New Hampshire. All display his masterful use of bold geometric forms, the skillful manipulation of natural light, and the artistic control of architectural expression to create a richly layered spatial experience. Museum of Modern Art, NYC*

Kahn shared Roosevelt's desire to enrich the lives of all people. Kahn's design makes perfect use of the triangular shape of the Park's site, emphasizing it, and employing a forced perspectival parti to draw and focus the visitor's gaze toward the head of Roosevelt at the threshold to the Room. https://www.fdrfourfreedomspark.org/overview

Renwick Hospital with Addition



Original Renwick Hospital: 104’ long and 54’ high,

Smallpox Hospital: *The first major U.S. hospital dedicated to the care of victims of Smallpox. The Gothic revival structure was designed by the renowned architect James Renwick, Jr., who was also the architect of St. Patrick’s Cathedral in New York City and the Smithsonian Institution in Washington, DC. The original hospital opened in 1856, and had a rectangular footprint that measured 104 feet by 45 feet. It was situated at the southern end of the island at the water’s edge, was three stories tall, and was constructed of granite gneiss quarried from the island.*

The building had Gothic revival decorative detailing: a light-filled tower with recessed arches supported by corbels sat at the central Mansard roofline, a smaller cupola was positioned just above the main entry, a large single-story porch and bay window marked the entrance, and throughout were crenelated parapets, pointed arches, and mullioned windows all of which were the revival fashion of the day. The hospital provided health services for all with charity cases of the city who were housed on the first floor, with private cases located on the upper floors.

https://www.theruin.org/history-hospitals

The Small Pox Hospital ruins are undergoing a five-million-dollar stabilization project whose landscape and park will eventually be opened to the public as part of Southpoint Park. Paul Zucker, in his 1968 book Fascination of Decay ascribed to ruins:

An expression of an eerie romantic mood ... a palpable documentation of a period in the past ... something which recalls a specific concept of architectural space and proportion.

Renwick received his first major commission at the age of twenty-five, in 1843, when he won the competition to design Grace Church, an Episcopal church in New York City, which he designed in the English Gothic style.

Three years later, in 1846, Renwick won the competition for the design of the Smithsonian Institution Building in Washington, DC. Built between 1847 and 1855, it was a major influence in the popularity of Gothic Revival in the United States.

Renwick went on to design what is considered his finest achievement, and his best-known building, St. Patrick's Cathedral, New York, corner of Fifth Avenue and 51st St.

https://en.wikipedia.org/wiki/James_Renwick_Jr.

Architecture is about exploring culturally, historically, psychologically, anthropologically, and topographically; every commission is different.
So, the real risk is that, as an architect, you end up imposing your stamp before you understand what the reality of a place is. Architecture should not simplistically integrate, but should make a contribution to the context.
When dealing with cities, you must employ a homeopathic process instead of surgery, because cities are vulnerable and you can easily destroy their subtle dynamics.
Renzo Piano

Every building is built for a specific use in a specific place for a specific society.
Buildings try to answer questions that emerge from these simple facts as precisely and critically as they can.
Peter Zumthor

Strecker Memorial Laboratory: *Built in 1892 to serve as a laboratory for City Hospital, it was "the first institution in the nation for pathological and bacteriological research". The building was designed by architects Frederick Clarke Withers and Walter Dickson in the Romanesque Revival style with large arched windows to provide plenty of natural lighting and ventilation. On the first floor were an autopsy room and an office, while the floor above housed laboratories where specimens were examined. The cellar was used as a mortuary and for storage. An additional storey was later built, providing room for the examination of histological samples, a scientific library and a pathology museum.*

In 1907, the Russell Sage Institute of Pathology took over the running of the lab. In time, this became associated with the Rockefeller University, and work continued at the laboratory until it closed in the 1950s, after which it fell into disrepair.

In 1972, it was added to the National Register of Historic Places, and in 1976 it was designated a New York City landmark. The Metropolitan Transportation Authority decided to use the structure to house a power conversion substation for the subway trains that run through the 53rd Street Tunnel underneath Roosevelt Island. The city faithfully restored the building, and the substation has been active since 2000.

https://en.wikipedia.org/wiki/Strecker_Memorial_Laboratory

Southpoint Park: The Four Freedoms Foundation site area is at the boundary of the urban and landscape, at the southern end of Roosevelt Island. It is the transition from Cornell Tech campus residences and the Historic cultural settings of the Small Pox Hospital and Roosevelt Memorial.

At the same time, it is within the Southpoint Park landscape. Its function is directly related to the Roosevelt Memorial, Four Freedoms site. Its location is also the southernmost occupied building on Roosevelt Island, and will inevitably have an important presence on the East River and Manhattan shoreline

There are many choices of location of the building envelope within the site area that profoundly influence the Four Freedom's relationship to both the immediate context, historic structures and sites, and its relationship to the East River context.

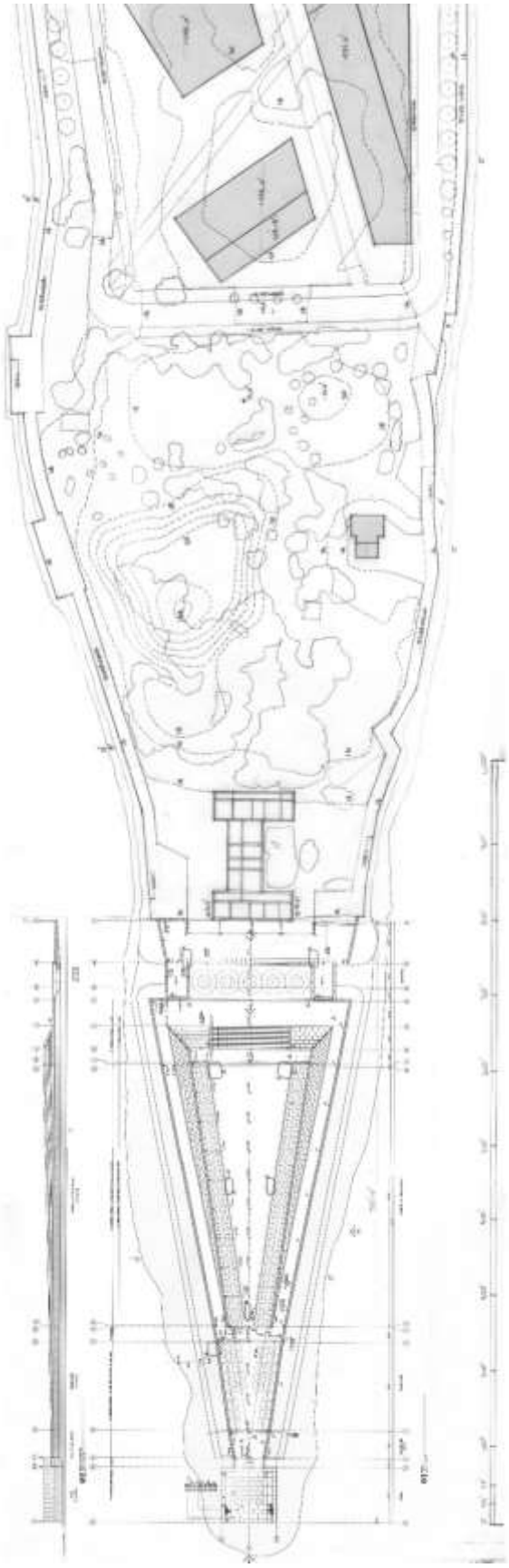
The location of the building envelope, and its resultant public spaces, will vary in scale, shape, and relationship to the surrounding context having different solar orientations, views, relationship to the riverfront promenade, and adjacencies to the campus, park and waterfront.

A linear concept and form can be located along an East-West axis, North-South axis or diagonal axis of the site, resulting in dividing the site and creating sequential spaces. It can also be a network concept interrelated interior and exterior spaces, Foundation and Park functions. The degree of linearity verses network form of the building envelope significantly effects both the Four Freedoms Foundation and the Southpoint Park,

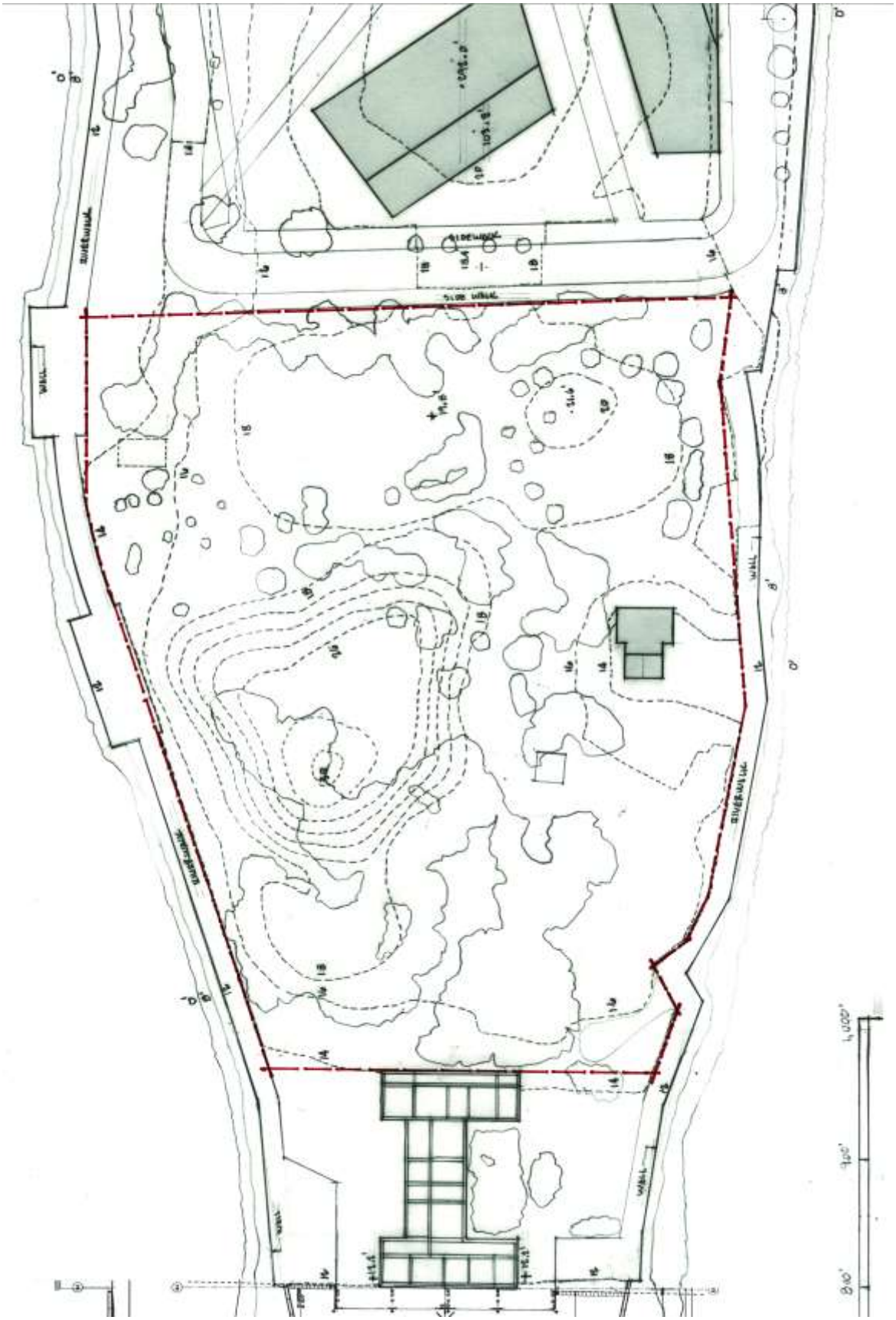
The Four Freedoms Foundation exterior spaces; piazza, private courtyards, public terraces, gardens and their relationship, especially to the Southpoint Park, is a fundamental aspect of the success of any proposed design. Whether within, below, above the Building Envelope, set at its edge or separated from it, the exterior spaces and their activities are intended to enhance the activities, memories and visual character of the site.

The Southpoint Park is both an oasis from the city and the residential portions of Roosevelt island, and vantage point in which to appreciate the Manhattan skyline, East River frontage, United Nations building, and other landmarks.

Along the FDR Drive and its surrounding context, the Four Freedoms Foundation is likely to be a visible landmark representing the history and values expressed in Roosevelt's Four Freedoms address.



Southern Roosevelt Island Site Plan



Four Freedoms Site Plan (Four Freedoms Site Boundary in Red)

Site Area = 292,424 sq. ft.
Northern Boundary along sidewalk = 494’ Southern Boundary at hospital ruins facade = 290’

Urban Design & Zoning Requirements:

All the following Zoning Requirements must be met and proven by the proposed architectural and site design. There is no mechanism for Zoning Variances or hardship.

Also, see the Site Access & Site Services and Planning & Other Requirements information that follows.

A. Site Boundary: The Site Boundary, indicated in red on the Four Freedoms Site Plan is the limit of all construction, whether above or below grade. It extends from the edge of the sidewalk along the loop roadway to the north (494 ft.), along the edge of the eastern and western pedestrian promenade, and from the exterior face of the northern façade of the Small Pox Hospital (290 ft.).

B. Max. Building Envelope Impervious Coverage: The total lot coverage of all Four Freedoms Foundation interior spaces, balconies, overhangs, canopies and all other impervious surfaces, either at grade or above grade is strictly limited to a maximum of 20% of the total lot area within the Site Boundary. Therefore, the total "impervious shadow" of the building cannot exceed 20% of the total 294,424 sq. ft. site area, (58,885 sq. ft. maximum)

Building Envelope Impervious Coverage does not include landscaping elements such as piazza surfaces, walks and vehicular paths that are part of Souhtpoint Park.

C. Maximum Building Envelope Height: The maximum height of the occupied building interior envelope is Elevation 114'-0" above Sea Level.

D. Maximum Building Height: Occupied or unoccupied exterior (not heated or cooled) open or exterior roofed spaces, canopies, shading devices, and other construction, that does not enclose heated or cooled occupied spaces, can occur to a maximum height of Elevation 139'-0" above Sea Level.

E. Projections: Attached non-interior enclosing building construction such as shading devices, awnings, balconies, screens, exterior stairs and ramps cannot extend past the Site Boundaries, into required emergency and service vehicle access, into the drip line of trees to remain, or over Southpoint Park public sidewalks.

F. Horizontal Setbacks: Building Envelope Setback from all Site Boundaries is zero feet (0'), except as required when adjacent to historically designated structures.

G. East River Promenade and Embankment: The existing river embankment walls and walks cannot be modified.

H. Southpoint Park: Existing pedestrian paths within Southpoint Park can be redesigned and relocated in relationship to the Four Freedoms Foundation proposed design, the new East River pedestrian promenade and to provide accessibility and emergency services to the site.

I. Vehicular Parking: Only site services and emergency vehicle access is permitted within the Site Boundary. All parking will be located along the existing loop roadway.

J. Historic Contextual Zoning: Urban contexts, streetscapes, and architectural "styles" evolve over time giving unique character to cities and neighborhoods. It is important to determine how contemporary architecture can contribute to this inevitable change, while conserving and celebrating the special character of the historic environment.

The historic environment can, in fact, accommodate a rich variety of interpretations and expressions. It is the quality of the relationship between the old and new that is critical, not the "new" architectural language per se. Issues such as scale, form, siting, materials, color, and detailing are important to consider when determining the impact of a new design within a historic site.

Successful new buildings which are designed in a historic context inevitably rely on an understanding of, and then response to, the special character and qualities of the unique context.
Getty Center

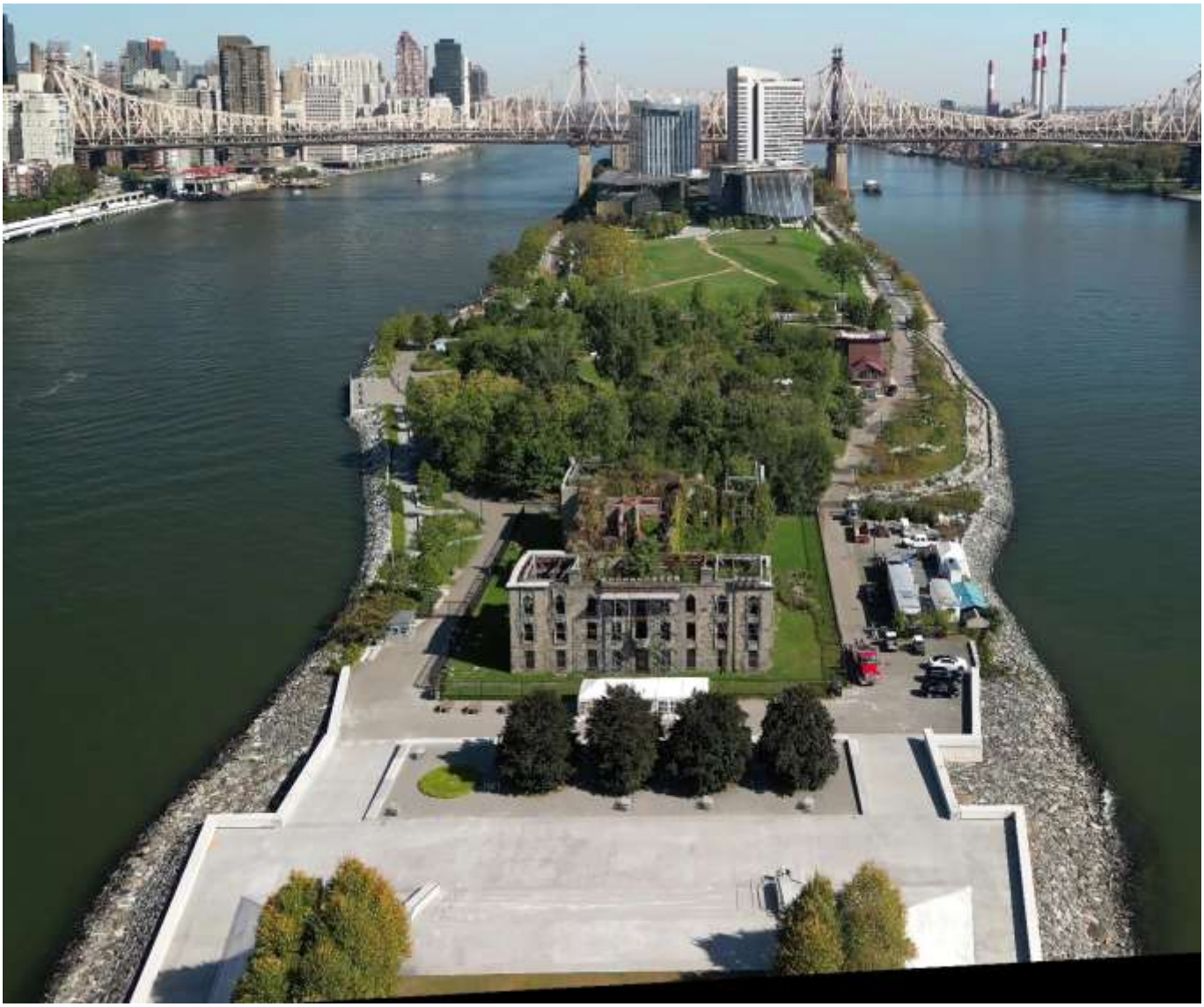
The Four Freedoms Foundation design must respond and relate to the variation in scale of the surrounding context: the Roosevelt Memorial, Small Pox Hospital and Strecker Laboratory Historic buildings, the East River pedestrian promenades, the overall East River context, relationship to Manhattan and Queens, and the scale of the Cornell Tech residential towers to the north.

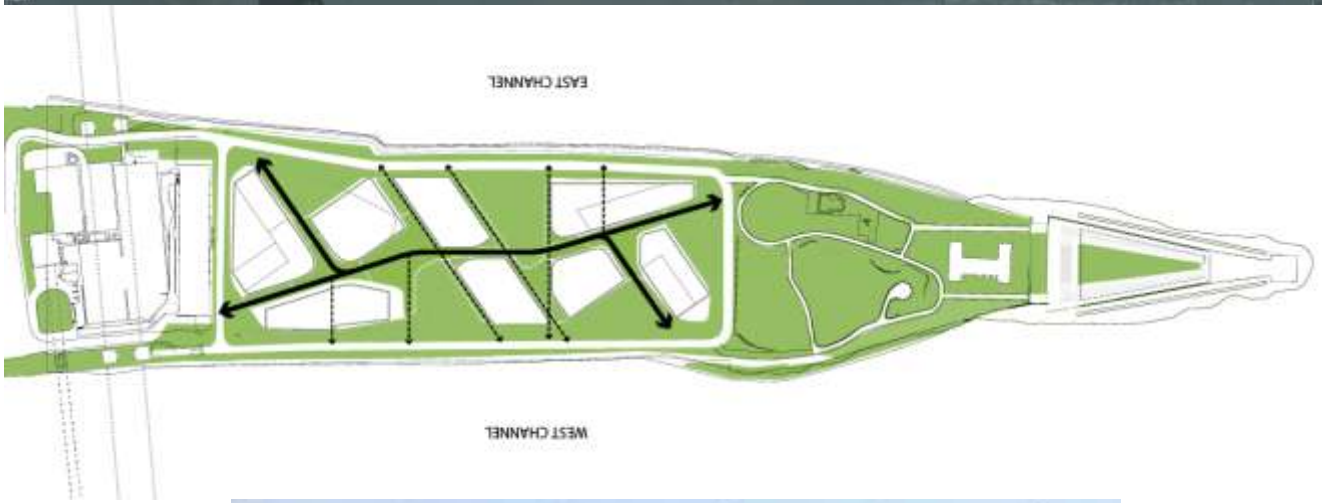
https://www.nps.gov/subjects/taxincentives/case-studies.htm

1. Minimum Historical Horizontal Setback: from all historically designated buildings, its facades and building footprints is fifty feet (50').

No portion of the proposed building, including all projections, overhangs, screens, shading devices, structural elements, etc. and exterior walks, patios, or other hardscapes can be located with the 50' Historical Setback.

2. Maximum Historical Height: Maximum Building Envelope Elevation (including all projections, overhangs, screens, shading devices, structural elements, etc.) located between fifty feet (50') and one hundred feet (100') from the designated historic building, its facades and building footprint, cannot be above the maximum elevation of the immediately adjacent historic façade or façade fragment.




EAST CHANNEL
WEST CHANNEL

Life is not just a series of calculations and a sum total of statistics.
It's about experience, it's about participation, it is something more complex and more interesting than what is obvious.
Daniel Libeskind

Buildings are not idiosyncratically private institutions: they are public performances both to the user and the passerby.
Thus, the architect's responsibility must go beyond the client's program and into the broader public realm.
Though the client's program offers the architect a point of departure, it must be questioned, as the architectural solution lies in the complex and often contradictory interpretation of the needs of the individual, the institution, the place and history.
Richard Rogers

Rather than imposing a style upon different sites and climates, or pursued irrespective of program, the unique character of a program and a site becomes the starting point for an architectural idea.
The phenomena of the space of a room, the sunlight entering through a window, and the color and reflection of materials on a wall and floor all have integral relationships.
The materials of architecture communicate through resonance and dissonance, just as instruments in musical composition, producing thought and sense-provoking qualities in the experience of a place.
Steven Holl

Simplicity is the ultimate sophistication.
Leonardo da Vinci

Perfection is achieved not when there is nothing more to add, but when there is nothing left to take away.
Antoine de Saint-Exupery

Initialing an architectural project comes down to specifying what the questions are, before any answers can be given.
Kazuyo Sejima

Architects have made architecture too complex.
We need to simplify it and use a language that everyone can understand.
Toyo Ito

There is a danger when every building has to look spectacular; to look like it is changing the world.
I don't care how a building looks if it means something, not to architects, but to the people who use it.
David Chipperfield

Architecture is like writing.
You have to edit it over and over, so it looks effortless.
Zaha Hadid

Architects don't invent anything; they transform reality.
Alvaro Siza

I would like the buildings I make to say:
"I understand something about what is around me".
I don't want them to give the impression of being aliens or having nothing to do with what is already there.
This is not an aesthetic matter, at least not primarily; it does not start with having to establish formal contact with the surroundings.
It is like searching for a kind of sameness in the form of emotional contact - an emotional reaction to the surroundings expressed through architecture.
Peter Zumthor

The difference between an architecture of technical functionalism and one of emotional functionalism is that the first simply attempts to get the job done with a minimum of effort as it appeals to reason alone; the second is technically functional in addition to establishing a place of dreams, desires and the intangible.
Nathaniel Coleman

Functional Requirements:

The role that a library can play in modern society is visible from its origin.
No architect's design has so precisely summed up this connection as the design for the first national library, by Etienne-Louis Boullee, dating back to 1785 – the eve of the French Revolution and the era when the idea of nationhood was born.
What is interesting is that Boullee combined a library with the idea of nationhood.
Thus, the library was not merely a functional space.
The library represented the nation.
In enlightened society, knowledge had reached such significant that, for the first time, the library instead of the church or the palace stood at the center of society.
Max Dudler, Architect.

An important and true aspect of the appraisal of physical libraries, their timeless and relaxed while at the same time concentrated atmosphere.
At the same time, they also spread out a miraculous slowness, a quietness and a calmness in all rooms which we almost unlearn and scarcely find today.
This is a mystical environment to dive into.
It is easy to concentrate here on our own ideas, our own thought and the still unknown.
Georg Gewers, Architect

In a good bookroom, you feel in some mysterious way that you are absorbing the wisdom contained in all the books through your skin, without even opening them.
Mark Twain

The studio project includes interior and exterior spaces for the Four Freedoms Foundation, whose primary function is that of an archival library. It is dedicated the protection and display of a wide range of valuable artifacts which illustrate the values that are expressed in FDR's speech to Congress in 1941.

It is a repository of rare and valuable documents spanning a wide range of sources and media throughout American history. Part of its mission is the preservation of its collection while providing controlled access to scholars and the public at large.

The Foundation also includes amenities for convenience and pleasure of its guests, those visiting Southpoint Park, the Smallpox Hospital site and the FDR Four Freedoms national monument, as well as students, faculty and guests of the Cornel Tech Campus to the north.

There are two restaurant facilities, one a Café and other a Restaurant. Both provide interior and exterior dining.

There are four Library Shops, each dedicated to displaying and selling reproductions and original documents of one of the four unique Libraries collection types.

The Foundation's social and educational events take place in the Foundation Hall and the Foundation's private exterior courtyard.

The Foundation's shared public exterior spaces, Piazza and Landscape, are to be new gathering spaces for those living on the island, in the city, tourists and those passing by. They are to compliment and complete the Southpoint Park and Smallpox Hospital National Parks, while also providing a connection between the Four Freedoms National Park site to the South.

Each of these elements is important, as is their interrelationship to the architectural design. To be successful, the proposed design must succeed at many scales, and be synthesized into the context of the national and state parks, Roosevelt Island and the East River waterfront and Manhattan itself.

It is intended to be a work of architecture commensurate with an internationally important cultural institution, and as it relates to the Four Freedoms monument.

The Director of the Foundation has instructed that all architectural proposals be cognizant of:

a. Maintaining, completing and improving the Southpoint Park for the residents of Roosevelt Island and its visitors.
b. Recognizing the relationships between the new Four Freedoms Foundation and Louis Kahn's Roosevelt Memorial to the south.
c. The importance of creating architectural characteristics that is appropriate to a public cultural building and have a timeless value.
d. The variety of interior and exterior functions are uniquely and specifically expressed by the architecture.

I have always imagined that Paradise will be a kind of a Library.
Jorge Luis Borges

Libraries store the energy that fuels the imagination. They open up windows to the world and inspire us to explore and achieve, and contribute to improving our quality of life.
Sidney Sheldon

Without archives many stories of real people would be lost, and along with those stories, vital clues that allow us to reflect and interpret our lives today.
Sara Sheridan

1. Four Freedoms Foundation Libraries:

A. Libraries:

There are four separate "closed stacks" Libraries, storing and displaying documents that tell their history of the Four Freedoms in the USA. Each of the four Libraries is dedicated to a unique set of document types:

Literary Library: first edition books, notated editions, rare books, magazine articles, letters, contracts, book and article drafts, poetry, and manuscripts.

Political Library: letters, newspapers, political fliers, placards, political cartoons and sketches, campaign buttons, telegrams, photographs and other ephemera.

Music and Performance Library: film and theater scripts, recorded and sheet music, historical and contemporary commercial films, television recordings, theatrical video recordings.

Fine and Graphic Arts Library: historical and contemporary photographs, fine art paintings, drawings, stamps, etchings, sketches, large format posters and post cards.

Architectural Character: The Director of the Foundation indicated that the libraries should be "grand rooms or spaces, in the long tradition of rare book libraries, whose design quality and character is equal to the importance of each of its collections."

Function: The Library's reading area is to accommodate researchers and other patrons; in small groups and as single visitors, all in a comfortable setting.

Each of the four Libraries has a Librarian and Research Librarian, who specialize in each of the document types, their history and connection to the Four Freedoms. Their work area is to be located in an open space within each Library, being directly approachable and having a visual overview of those entering and leaving the Library.

Security: The Librarian's work area must also have visual overview of all patron study areas. Overall security for each Library is accomplished by supervised controlled entry and exit. The four Libraries do not circulate their documents given the rarity and value of their holdings. Patrons must request items from the Librarian, who then retrieve them and brings then to the patron. Patrons do not directly access items.

Lighting: Each Library space should be day-lit, but it cannot receive any direct sunlight on any of the documents, storage or display areas, to avoid damage and as their cases often are glass enclosed. Under all lighting conditions, it is important that direct sun light does not fall near any document, at any time of day or time of year, nor create glare or strong shadow patterns in the reading areas.

The Director of the Library has indicated that table based reading areas should be provided with task lighting under the control of each patron.

(The floor area of each of the libraries is approximately equal to the Littman Library main room, (40' x 125'), with a similar gross storage volume.)

Storage: Each library must be designed to store the equivalent of 36,000 books, although the type of materials stored in each library varies considerably. This is equivalent to 6,000 linear feet of shelving (one tier high), or 8,000 to 10,000 cubic feet of storage.

Library storage types include enclosed secure bookcases, flat files, postcard files, small and large item drawers, enclosed poster hanging files, digital and film media cabinetry and artwork cabinetry.

The architectural characteristics and details of each Library should be designed to accommodate the specific variety of media type,

Display: The Libraries intend to rotate the displayed portion of their collections for public display, rather having all of their holdings being visually isolated from the visitor.

Each Library will include approximately 50 linear feet of glass secure and enclosed display cabinetry, a minimum of 36" deep, and ten feet tall.

Dimensions: The finished floor to ceiling height of each Library must be a minimum of 12'-0" throughout, and can include accessible balconies.

The Library widths must be a minimum of 24'-0", between any fixed walls or columns of the building.

Each of the four Libraries can be a single space or multiple spaces or rooms, (with no public space or room can be less than 1,000 sq. ft.

If a Library is on two or more levels, or is otherwise not "one room," all of its areas must be connected visually, so it is experienced as a unique and separate collection, one of four of the Four Freedoms Foundation holdings.

Access: All four Libraries must be interconnected by interior public circulator space.

Libraries **4 @ 5,000 sq. ft. each**

B. Library Exterior Courtyards:

Each of the four Libraries must have an exterior courtyard (terraces, gardens, etc.) which is in proximity to its companion Library. The exterior space must also be accessible only to patrons of each specific Library, providing security for the rare documents and maintain controlled entry and exit.

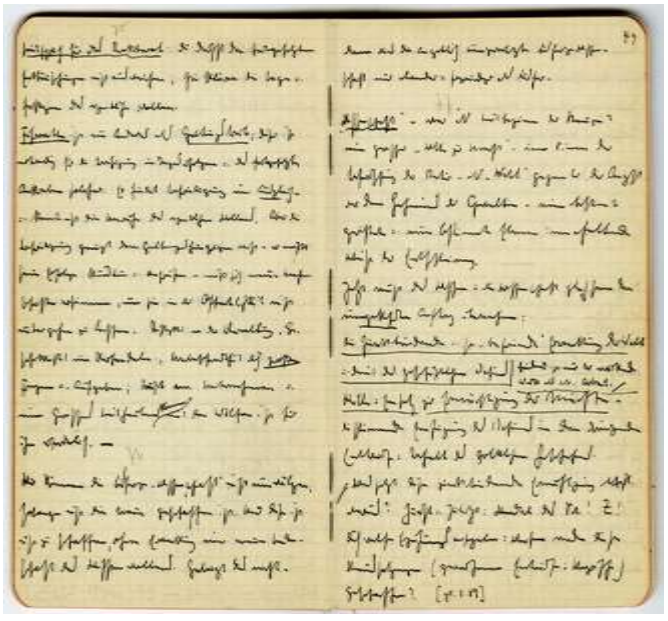
Each of the four private Library Courtyards are intended to be places of rest, for informal meeting, small social events, performances or readings related to that Library's collection. They should be comfortable during all weather conditions and time of year.

Private Exterior Courtyards **4 @ 1,000 sq. ft. min.**

Literary Library

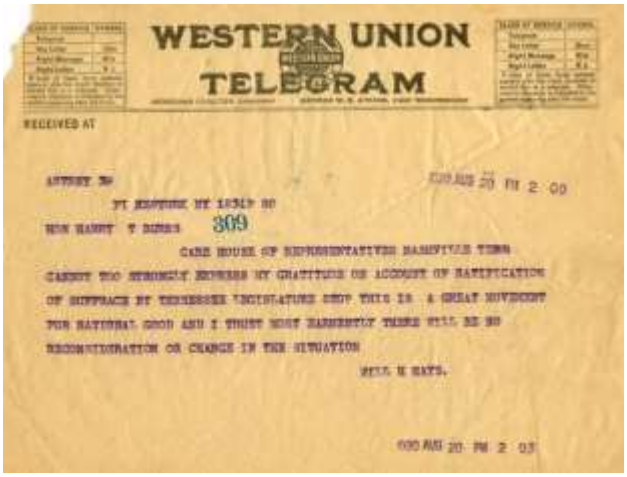
First edition books, notated editions, rare books, magazine articles, letters, contracts, book and article drafts, poetry, and manuscripts.

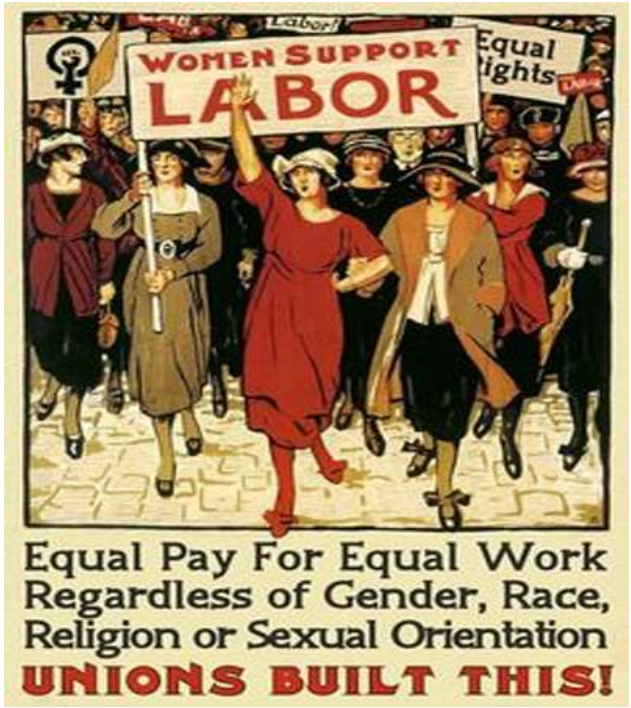

The Literary Digest
April 18, 1931

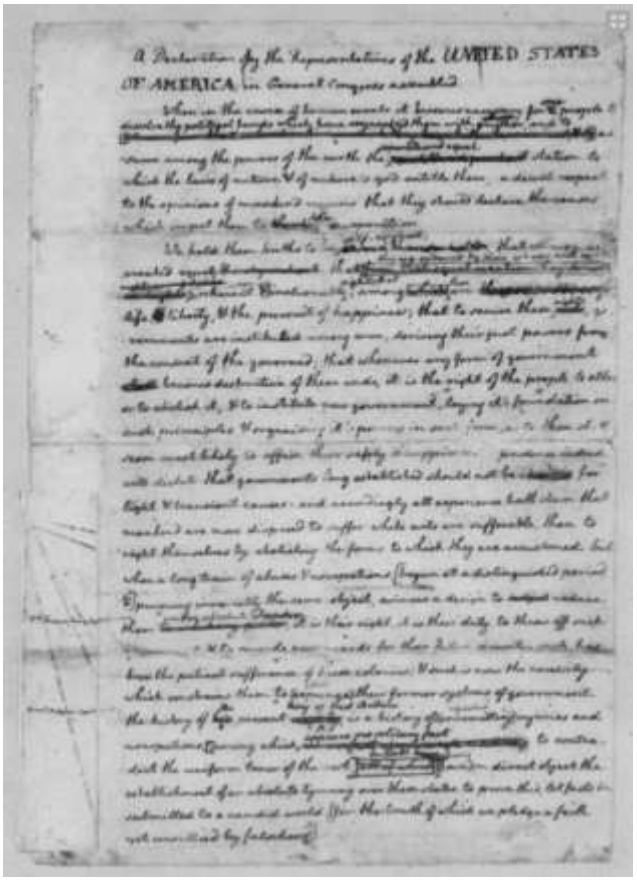


Political Library

Letters, newspapers, political fliers, placards, political cartoons and sketches, campaign buttons, photographs, telegrams and other ephemera.



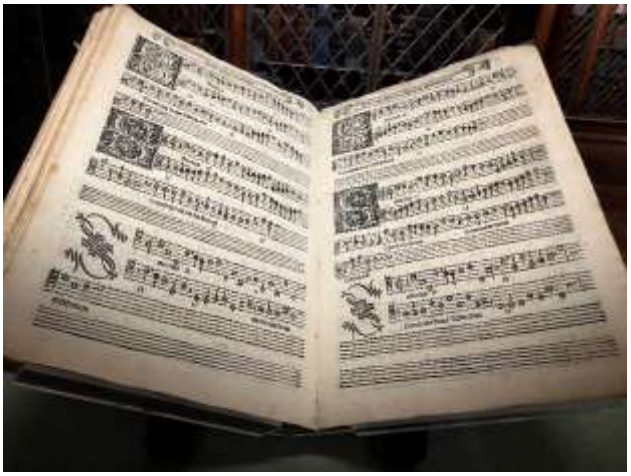


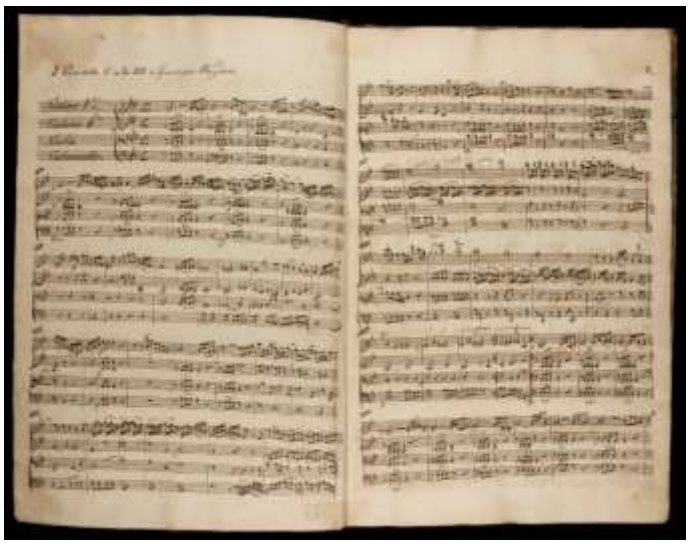


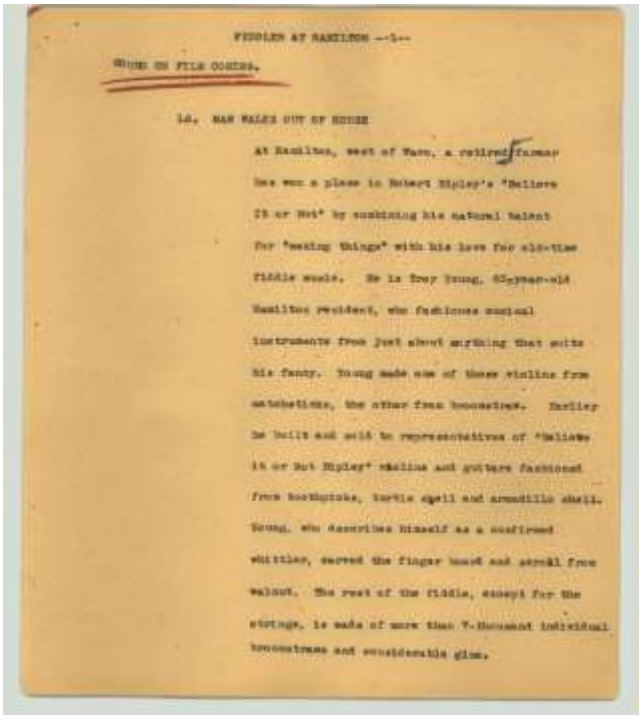
A Declaration by the Representatives of the UNITED STATES OF AMERICA in General Congress assembled

Music and Performance Library

Film and theater scripts, recorded and sheet music, historical and contemporary commercial films, television recordings, theatrical video recordings.







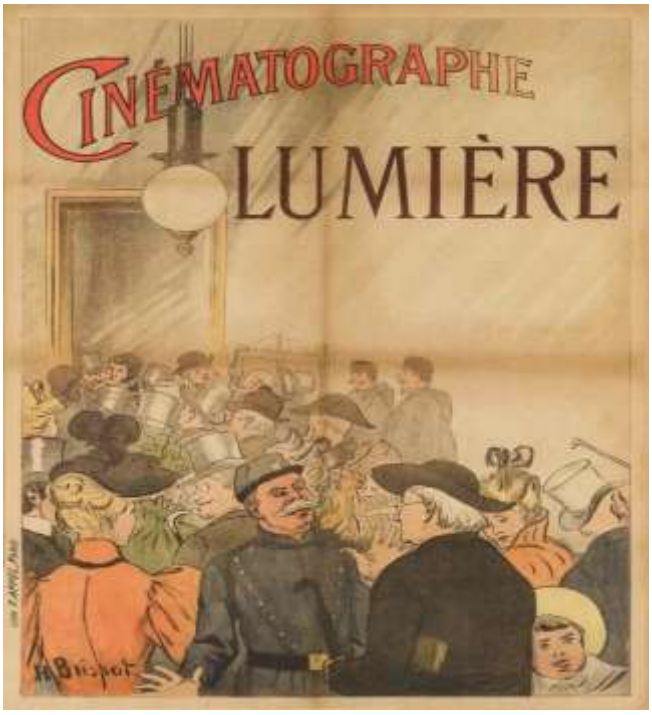
FIDDLER AT HAMILTON --1--

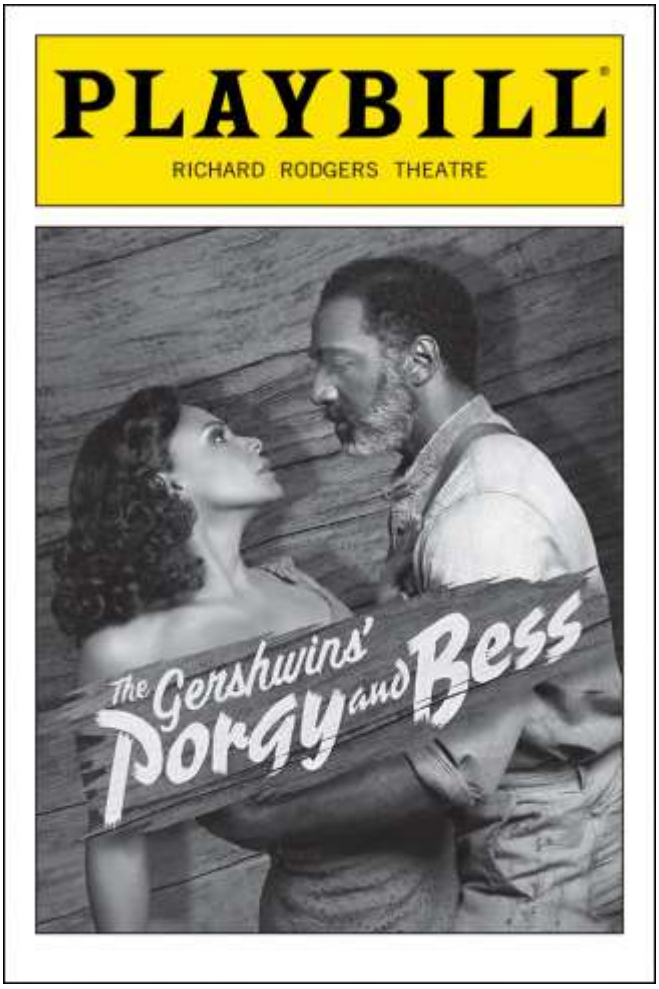
MUSIC ON FILM COMING.

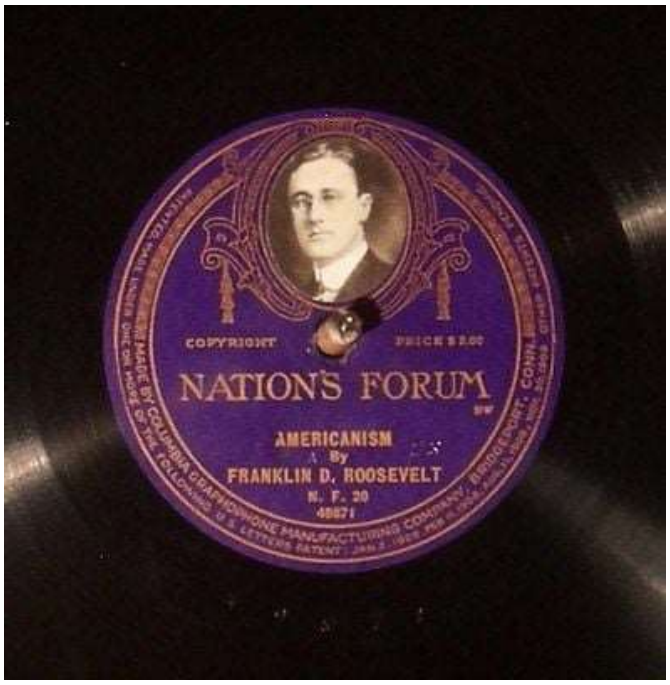
LG. MAN MAKES OUT OF HOUSE

At Hamilton, west of Ware, a retired farmer has won a place in Robert Ripley's "Believe It or Not" by combining his natural talent for "making things" with his love for old-time fiddle music. He is Troy Young, 65-year-old Hamilton resident, who fashions musical instruments from just about anything that suits his fancy. Young made one of these violins from matchsticks, the other from broomstraws. Ripley he built and sold to representatives of "Believe It or Not Ripley" ukelins and guitars fashioned from toothpicks, turtle shell and armadillo shell. Young, who describes himself as a confirmed whittler, carved the finger board and scroll from walnut. The rest of the fiddle, except for the strings, is made of more than 7-thousand individual broomstraws and considerable glue.


LIVE
CNN
CNN VICE PRESIDENTIAL DEBATE
#VPDebate

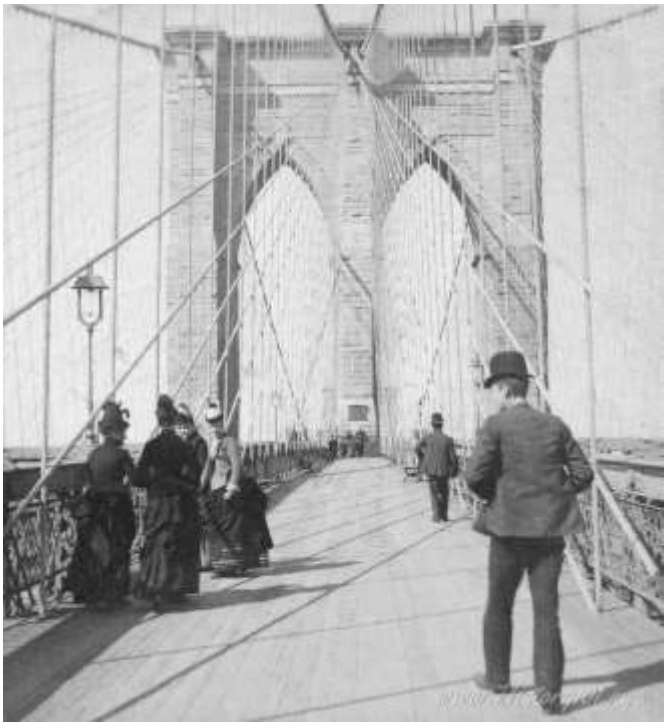

CINÉMATOGRAPHE
LUMIÈRE


PLAYBILL
RICHARD RODGERS THEATRE
The Gershwins' Porgy and Bess


COPYRIGHT
NATION'S FORUM
AMERICANISM
By
FRANKLIN D. ROOSEVELT

Fine and Graphic Arts Library

Historical and contemporary photographs, fine art paintings, drawings, stamps, etchings, sketches, large format posters and post cards.




WICKENBURG, ARIZONA
THE LAND WITHOUT WINTER
ARIZONA
VULTURE GOLD RUSH
The WICKENBURG WAY
Arizona's Scenic Wheel


FESTIVAL DE CANNES
OFFICIAL SELECTION
UN CERTAIN REGARD
Raya Martin's
INDEPENDENCIA
Sid Lucero
Alessandra de Rossi
Techie Agbayani
Mika Aguilos
Arte France Cinéma Cinematografica Aropic Razor Film Volya Films présentent "Independencia" avec la participation de Fonds Sud Cinéma World Cinema Fund Hubert Bals Fund Global Film Initiative Prince Claus Fund RoadRunner Inc. et le soutien de CineMart Cinéfondation Résidence du Festival de Cannes
Son Ronald de Asis Arnel Labuyo Musique Lunganbo Labiel Direction Artistique Digo Rácio Montage Joy Hada Image Jeanne Lapoirie Direction de Production Rolly Palmes Assistant Réalisateur Arni Cacanindin Producteur Délégués Anaïse Segovia Christophe Gougeon Producteur Adam Cuevas Scenario Raya Martin Ramon Sarmiento Réalisation Raya Martin
Distribution Shellac www.shellac-sheers.org
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GETTY IMAGES

2. Cafe and Restaurant:

As we envision the future visitor experience, we are delighted to be developing two exciting new dining options—for people who want a wonderful fine dining experience, and for families with children looking for casual dining.
Gail Harrity

Dining at the Four Freedoms Foundation is to provide two very different experiences. One a Cafe, an informal interior and exterior setting for the enjoyment of popular international cuisine. The second a Restaurant which is a venue for formal interior and exterior dining of classical American cuisine.

Its cliental are those walking by; on their way to the FDR Monument, Southpoint Park, or strolling along the Riverfront promenade, spending a day relaxing or playing in the park, students and faculty from the Cornell Tech campus. And, those who are visiting one or more of the Four Freedoms Libraries or Shops.

a. Cafe:

The Cafe is intended to maximize its connection to the existing and proposed pedestrian movement paths around and through the site. A cafe is less formal than a restaurant. The service is casual.

The primary cooking area is to be visually part of the culinary experience for as many patrons as possible, including its adjacent counter seating. Careful attention should be made to the grouping of various types of seating in relationship to the architecture, and the social and visual connection to the surrounding contexts.

At other than the counter, the service is by waiter and waitress. Service can also be accomplished by dumb waiter systems to serving stations. Beyond the service of meals and snacks, the Cafe is a place to relax, sit, converse, and possibly seek shelter from the rain, cold or the heat of the day.

The Cafe must be easily recognized by those walking by with an entrance that is directly found, and is easily accessible from a public pedestrian path. The Café's exterior informal dining area must located at grade. It must be able to be shaded from the sun and rain, and have direct access to the food preparation areas.

It is equally important to mention the history when we curate dishes.
For anyone to just add an ingredient thinking you're making a dish, it's important that you highlight the origins, feel and embrace the culture.
Food tells stories and sometimes the history makes you appreciate a certain cuisine more.
Millie Peartree

b. Restaurant:

The second dining experience is intended to maximize its relationship to the unique surrounding contexts. The Restaurant must also be easily recognized and found from the primary public pedestrian paths.

It serves lunch and dinner only, and requires a reception and waiting area for its patrons. The design should include seating areas of a variety of seating types appropriate to the architecture and surrounding contexts. It must accommodate individuals, two people, small or large groups. The exterior dining areas must be able to be protected from the rain and heat of the sun.

Run by the Culinary Institute of America, the restaurant's reputation is to be for "Michelin Star fine dining," serving locally sourced food, inspired in its creation by the historical cuisine of America, and a setting responding to its unique environmental context.

To have just a concessionaire wasn't up to the standards of what we were aiming for.
We wanted to offer our members and visitors something on a level of quality with the rest of the Foundation.

The Cafe will open to the public at 7:00 AM and close at 12:00 midnight. The Restaurant will open to the public at 11:00 AM and close at 12:00 midnight. Both will be open seven days a year, throughout the year, and in all weather.

Both the Café and Restaurant food preparation areas are to be organized on the center meal cooking island layout (see examples in the Google Drive "Restaurants" folder), with surrounding dishwashing station, food pickup station, and dessert and salad preparation areas, including a separate entrance for food pickup and dish return.

The island-style layout places ovens, ranges, fryers, grills, and other principle cooking equipment together in one module at the center of the kitchen, while other sections of the kitchen are placed on the perimeter walls in the proper order to preserve a circular flow. This layout is very open and promotes communication with supervision of the food preparation. It also results in open floor space areas within minimum alcoves for easy cleaning.

(Commercial kitchen design includes a complex set of requirements and regulations including fire protection, health and safety, specific ventilation requirements, food handling procedures, etc. which are not part of this course requirements.)

Cafe Dining Area	**3,000 sq. ft.**
Kitchen and Storage	**1,000 sq. ft.**
Public Exterior Dining Area	**2,000 sq. ft. min.**
Restaurant Dining Area	**3,000 sq. ft.**
Kitchen and Storage	**1,000 sq. ft.**
Staff Restrooms & Changing	**1,000 sq. ft.**
Private Exterior Dining Area	**2,000 sq. ft. min.**

3. Foundation Hall:

Considering the uniqueness of the project's site and context, the Director asks that the public spaces and circulation areas, including their planned and informal events, be considered as important as the required programmatic areas.

A primary function of the Foundation Hall is to host social and cultural activities throughout the day and at special times of year. It is intended that it is also Four Freedoms Foundation entry point, a gathering space, "salon-living room" for informal events during the day, live performances including music, plays and the spoken word. It is not intended to be an isolated or otherwise enclosed room. It is in effect an interior and private "Town Square", or Piazza" for the Foundation. The ability to see performances from various vantage points in the space is important. It is intended that the Foundation Hall be a part of the public life of the Foundation.

Foundation Hall **4,000 sq. ft. min.**

4. Foundation Shops:

Each of the four Libraries have unique a Shop to sell a wide variety of items pertaining to its collections about the Four Freedoms; including post cards, books, videos, folios, prints, posters, and also original documents such as letters, sketches, and newspaper articles. They also stock a wide collection of materials about the origins of democracy in the USA and throughout the world.

Importantly, they must be found and directly accessible from a pedestrian path by the tourist and those simply passing by. They must have a "public presence.

As a major source of revenue to the Foundation, the shops should be a special setting for the display of its wares.

Each shop will receive shipments directly, and store its stock in cabinetry within the store's display area. The service counters should have direct sight lines to control the entry, have access to the display areas, to provide guidance for the visitor, and to provide security.

Shops **4 @ 2,000 sq. ft. each**

5. Foundation Interior Public Spaces:

The Four Freedoms Foundation is a cultural institution where the public spaces, places of socialization, relaxation, rest and movement are central to the experience of the visitor. The Director of the Foundation requires that the public (non-programmed) interior spaces of the building be an important aspect of its architecture and the experience of the visitors. The architectural quality of all public circulation, meeting and relaxation spaces, i.e. "connections" between the functional elements are meant to be memorable and significant.

Public spaces and their thresholds often announce and preface entrances to (functional) spaces.
They are integrated into the sequence of arriving and, with their braking properties, slow down those approaching.
In particular, thresholds in entrance areas organize the transition and mediate between outside and inside.
In their extended form or in summation, thresholds also create spaces. Together with space defining elements, they establish the staging for threshold spaces.
Till Boettger

Total **TBD**

6. Foundation Services & Administration:

Public: Reception Desk, Coat Check Area
Private: Foundation Director and Administrative Assistant Offices, Curator's Office

Total **2,000 sq. ft. Est.**

7. Foundation Logistics:

Document Conservation Work Area	3,000 sq. ft.
Document Storage Room	2,000 sq. ft.
Total	**5,000 sq. ft.**

8. Building Services:

It is necessary that the Libraries shipping and receiving, the building's general supplies, Café and Restaurant's food stuffs, refuse and other materials be received or shipped from a loading area, be able to be easily moved to the four Libraries. (Each of the four Shops will receive and ship directly from the store.)

Building's operational services include:

Building Maintenance Storage
Building Supplies Storage
Employee Restrooms / Lockers
Building Manager's Office

Total **4,000 sq. ft.**

Building's mechanical systems include:

Electrical Services Room
Sewage Pump and Processing Room
HVAC Systems Room(s)

Total **4,000 sq. ft.**

9. Circulation & Services:

Public Restrooms	**TBD**
Egress Refuge Areas	**TBD**
Emergency Egress	**TBD**
Public Circulation and Gathering Spaces	**TBD**
Services Circulation	**TBD**

(See the IBC and ADA for requirements)

Total	**TBD**

10. Foundation Courtyard:

The Foundation requires an exterior courtyard for important social and cultural events, such as its monthly musical performances, and the benefactors' quarterly receptions that the Foundation will host throughout the year. The Director of the Foundation cites the success of the Piano and Roger's Centre Pompidou piazza in Paris , and Frank Gehry's Fondation Louis Vuitton roof terrace also in Paris, where the public experiences may be more as significant and remembered than the institution's collections themselves.

Importantly, the courtyard is to be the Foundations own semi-enclosed setting, separated from the Small Pox Hospital and Southpoint Park environment, the Roosevelt Memorial, and the Cornell Tech Campus.

It must be able to provide shade from the sun and rain, be open to the sky in good weather. It is the Foundation's own public square, piazza, gathering place. It is intended that this exterior space be part of the Four Freedoms setting, and not directly part of the passersby's experience, or public East River promenade, On occasion, events in the courtyard will be via invitation or ticketed, thus requiring control or separation from the East River promenades, Southpoint Park, and the general public.

It is preferred that the exterior space be able to be covered when it rains or under the intense summer sun, but be open to the sky at other times.

Private Courtyard	**4,000 sq. ft. minimum**

Piazza / Square & Landscape / Garden:

Urban planning approval for the Four Freedoms Foundation is predicated upon the creation of a new public Piazza / Square and Landscape / Garden within the project site area. The quality of design of these functions is as important to the success of the Foundation as the building itself. The Piazza and Landscape can either be inter-related or separate spaces. They must be easily and directly publically accessible throughout the day and night. They are be an integral part of pedestrian movement around or through the project site.

The Piazza and Landscape designs can be:

1) An extension or completion the East River waterfront promenades.

2) Completing and extending the landscape concepts and forms of the Southpoint Park.

3) Be unique setting or settings.

The proposed design should minimize the impact to Southpoint Park. The proposed design must meet all existing grade elevations along the Four Freedoms Foundation red line site boundary.

The Piazza / Square and Landscape / Garden can be located anywhere within the Site Boundary.

Piazza / Square:

Streetscapes and piazzas are the principal sites of public life in this city. The squares vary in character, form, size and location in the city and offer a rich spectrum of urban experiences to residents and tourists alike. The experiences we have in these settings are as real and important to the survival of the city as its landmark structures and cultural history. Traditional Piazza's are open, irregularly shaped stone paved public space are surrounded by buildings and ground floor activity: the buildings, which vary scale, historical period, height and in function. They often contain small shops on the ground floor and private dwellings above. Piazza are almost always located at the crossing point of two or more pedestrian routes.

Public spaces are not a frivolity.
They are just as important as hospitals and schools.
They create a sense of belonging.
This creates a different type of society - a society where people of all income levels meet in public space is a more integrated, socially healthier one.
Enrique Penalosa, former Mayor of Bogota

A large piazza can bring together ten to fifteen thousand people, of every age and social background, living and working within its neighborhood. It is the village square, public living room, where elders sit and talk, where chance meetings occur, where teenagers flirt, children play, where there are farmers' markets, outdoor theaters, street performances, and where family or community festivals take place. They are unique in their variety, unpredictability, relief from the density of urban setting, diversity of activity, visual character, and landmark qualities, yet most were anything but formally planned. They were the result of a process for centuries. While a few contain a tree or two, most are fundamentally empty. Almost all have outdoor seating, and importantly are connected to the functions and activities of the surrounding building's ground floor.

Public Exterior Space Requirements:

Piazza and Garden	**20,000 sq. ft. minimum**

See Urban Squares:

Lantern	AWP Atelier Oslo
Brick Pit Ring Walk	Bloch Durbach
Ecoboulevard	Ecosistema Urbano
Vieux Port	Norman Foster
Market Hall Ghent	Robbrecht & Daem

Architectural Landscapes / Gardens:

Waterscape: water garden, reservoir. tidal, reflecting pool, reservoir. natural vegetation. waterways, water displays: water jets and walls, cascades, accessible waterscape. Playful. Calm, Theatrical, Winter-scape, Summer-scape, Night Lit, Turbulent and Still, Reflective and Opaque,

Natural Landscape: untamed, never pruned, indigenous materials, reaching its own equilibrium, illustrating the natural cycles of growth and decay. With are no specific paths, nor absolute edges. Natural landscapes are self-maintaining, composed exclusively of indigenous flora and fauna. They evolve into a natural equilibrium with climate, soils and weather.

Architectural Landscape: creates orchestrated sequences that are integrated into and derived from the classical forms in the city landscape. Plant materials are cultivated for specific effect, trimmed to control and define man made form, and are selected for specific horticultural events throughout the year. Architectural landscapes are outdoor rooms, capable to be enclosed or open to vistas. Their forms, colors, textures and details are often derived from the characteristics of the adjacent and related architecture.

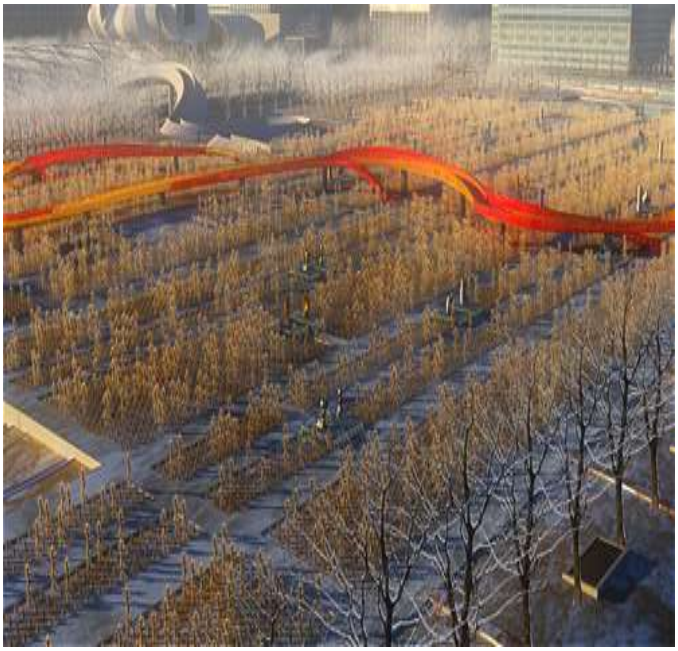
Self-sustaining Landscape: self-maintaining, water conserving, soil-less, non-chemically dependent, lightweight. New technologies create an orchestrated series of displays and harvests. No longer ground based, landscapes forms vary from thin lines to vertical planes, from static to dynamic movement. Systems respond to variations seasonal, daily and weather conditions.

I do not divide Architecture, Landscape and Gardening;
to me they are one.
Luis Barragan

Man creates around him an environment that is a projection into nature of his abstract ideas.
It is only in the last century that the collective landscape has emerged as a social necessity.
Geoffrey Jellicoe

I must have nature to be soothed and healed, and to have my senses put in tune once more.
John Burroughs

A path can become the thread of a plot, connecting moments and incidents into a narrative.
The narrative structure might be a simple chain of events with a beginning, middle, and end.
It might be embellished with diversions, digressions, and picaresque twists, be accompanied by parallel ways (subplots), or deceptively fork into blind alleys like the alternative scenarios explored in a detective novel.
Charles Moore, William Mitchell, and William Turnbull



Landscape References: (Design Research \ Landscape folder)

Landscape Architect	Project
Burchhardt	MFO Park
Carlo Scarpa	Brion Cemetery
Carlo Scarpa	IVAV Courtyard
Carlo Scarpa	Querini Stampalia Courtyard
Diller Scofidio Renfro	Highline, NYC
Ecosistema Urbano	Ecoboulevard
James Corner	Field Operations projects
Patrick Berger	Parc Andre Citroen
RO&AD Architects	Moses Bridge
Bruno Munro	
Fernando Caruncho	
Kathryn Giustafson	
Peter Latz	
Piet Oudolf	
Wirtz International	

The Poetics of Gardens: Moore, Mitchell, Turnbull, MIT

Adjacent Contexts:

Southpoint Park: The Southpoint Park will continue in its' "English tradition" of an informal wandering landscape, incorporating the open ruins of the Small Pox Hospital, and as the entrance and exit of the adjacent to Four Freedoms Park. The existing trees and topography will remain unchanged. The parking areas and restroom facilities are to be removed, and the pedestrian walks will be relocated to correlate to the landscape-site design of the new Four Freedoms Foundation and the Smallpox Hospital site.

The Roosevelt Island East River pedestrian promenades will be assumed to be completed based upon the LANGAN Lincoln Brown (LBI) proposed design. The East River embankment is being designed to include stabilized riprap to control soil erosion, and a tree lined promenade along both the eastern and western East River shorelines.

http://www.lincolnbrownillustration.com/south-point-park/fvdqlgl7ql51dwd4owkbhbxqnp0bg0

Both a new Piazza / Square and Landscape / Garden are to be designed within the Four Freedom's Site Boundary. Whether an extension of the Four Freedoms Foundation, an extension of the Southpoint Park, or "new spaces", it is intended to be designed to interrelate to the adjoining public functions and contexts.

The recently renovated and historic Strecker Memorial Library in the Southpoint Park is to remain.

Cornell Tech Center: The Four Freedoms Foundation should be designed in response to the Master Site Plan of the Cornell Tech Campus to the north. While the character of the architecture has not been determined, the building footprint, heights and massing have been established as shown on the Site Plan of the context.

The Four Freedoms Foundation design should assume that the planned Cornell-Tech residential blocks will be constructed as indicated on the site plan, north of the loop roadway, including their scale, heights, pedestrian paths,

Site Access & Site Services:

The public will access the three historic sites via the Roosevelt Island Tram, Subway, the existing Roosevelt Island shuttle bus system and the vehicular motorway that accesses the island from Queens. Roosevelt Island is designed to be pedestrian, and it is assumed that parking will be limited, and available only along the existing loop roadway curbside parking areas.

Public and employee parking, shuttle bus drop off and pickup, emergency and ADA parking will only be provided across the street along the existing the loop roadway system. Guests may also park at the parking garage at the north end of the island, and take local transportation to the site.

With the completion of the entire Roosevelt Island East River Promenade, and the new residential towers to the North, it is anticipated that pedestrians will approach the site relatively equally, along the Eastern and Western tree lined walking paths.

The Roosevelt Memorial site, Smallpox Hospital site, Strecker Laboratory, Southpoint Park and the Four Freedoms Foundation all will require access by the NYC Fire Department vehicles, ambulance services, box truck deliveries, ADA access.

The proposed design must include a minimum 12 foot wide hardscaped access route with turn around area. The access route must connect to the loop roadway at either its Eastern or Western ends at the radius corner.

The Historical Commission of Roosevelt Island and the US Park Service requires that the access route be part of the natural landscape. It should be designed to be primarily used and enjoyed by pedestrians.

Program Space Summary:

1. Net Interior Areas:

Total Interior Net Square Feet: (a + b)	58,000 sq. ft.
a. Interior Public Spaces	38,000 sq. ft.
b. Interior Service Spaces	20,000 sq. ft.
c. Restrooms	TBD
d. Public Spaces, Circulation and Egress	TBD

2. Exterior Areas:

Four Freedoms Foundation: 12,000 sq. ft min.
(Impervious areas is included as part of Building Coverage)

Public Piazza and Gardens: 20,000 sq, ft. min.
(Impervious areas not included as part of Building Coverage)

Architectural programming consultants have provided a list of net floor areas that are predictions only, based upon interviews with clients and in comparison to similar projects.

All Net Square Foot areas are preliminary estimates only, and can be adjusted by plus or minus 10% of the Net Square Foot Floor areas indicated.

Net floor areas do not include the area of wall thicknesses, emergency egress, public egress and gathering spaces, staircases, ramps, public and service elevators, escalators, restrooms, double or triple height spaces, light wells, etc.

The Total Gross Floor Area, including all programmatic interior spaces, restrooms, stairs, storage areas, service areas, mechanical spaces, elevators and escalators, interior and exterior walls, public and egress circulation, is anticipated to be approximately 133% of the Net Square Foot Floor area.

Planning & Other Requirements:

a. Planning Board approval is predicated upon avoiding the unnecessary removing of large areas of the existing the Southpoint Park landscape.

b. The proposed design must meet all existing grade elevations along the Four Freedoms Foundation red line site boundaries and all existing landscapes which are to remain.

c. New York City weather should be analyzed to determine the extremes and patterns of weather on the design of interior and exterior spaces and architectural characteristics:

Climate Consultant 6 Software
https://www.sbse.org/resources/climate-consultant

See weather software and data found in the Course Syllabus / Weather folder.

d. The proposed plan to mitigate against the rise of sea level of the East River permits the assumption that future flood control measures will protect the island from flooding above Elevation +11'-6" above Sea Level.

e. For the purposes of this project, the New York City Zoning Code and Building Ordinances do not apply. See the project Zoning and Planning Requirements, and the International Building and ADA Codes.

f. The Cornell-Tech Campus master plan will add new residential blocks just north of the existing loop roadway. The architectural character of the proposed residences has not been determined and is not part of this project.

g. The maximum depth of construction, bottom of slab, is Elevation -26.0' below Sea Level, which is the top of basalt rock strata.

(From Elevation -26.0' to existing grade, Roosevelt Island is stabilized ground fill material taken from the original NYC subway excavation.)

The Basalt Rock strata varies in depth from Elevation -27'-0" to -51'-0" below Sea Level.

h. All areas, other than unoccupied storage and mechanical spaces that are either below grade or above grade, must have natural light as per the International Building Code.

i. Refuse removal will be accomplished by the Roosevelt Island centralized underground vacuum collection system.

j. Library deliveries, Restaurant frozen and packaged food stuffs, building supplies, USPO and UPS deliveries will be made after regular business hours.

k. Building housekeeping and maintenance services will occur between Midnight and 8:00 AM.

l. The East River cannot be used as a source of ground water for the heat pump systems.

m. Due to the 70 foot NYC Fire Department ladder maximum height (vertical reach), all occupied floor or roof areas above floor Elevation +82'-0' above Sea Level must have areas of refuge as required by the IBC 2022.

n. All occupied and un-occupied interior spaces will be protected by fire suppression and smoke exhaust systems.

o. All elevator lobby areas, egress and other stairwell landing will be equipped with emergency call and communications systems.

p. All energy sources for the Four Freedoms Foundation are limited to ground water based electrical high efficiency heat pumps for heating and cooling, and alternative energy sources such as photovoltaic systems.

1,000,000 BTU / Hour: Ground Water Based Heat Transfer

Four Freedoms Speech Transcript

(1941) *I address you, the Members of the Seventy-seventh Congress, at a moment unprecedented in the history of the Union. I use the word "unprecedented," because at no previous time has American security been as seriously threatened from without as it is today.*

Since the permanent formation of our Government under the Constitution, in 1789, most of the periods of crisis in our history have related to our domestic affairs. Fortunately, only one of these--the four-year War Between the States--ever threatened our national unity. Today, thank God, one hundred and thirty million Americans, in forty-eight States, have forgotten points of the compass in our national unity.

It is true that prior to 1914 the United States often had been disturbed by events in other Continents. We had even engaged in two wars with European nations and in a number of undeclared wars in the West Indies, in the Mediterranean and in the Pacific for the maintenance of American rights and for the principles of peaceful commerce. But in no case had a serious threat been raised against our national safety or our continued independence.

What I seek to convey is the historic truth that the United States as a nation has at all times maintained clear, definite opposition, to any attempt to lock us in behind an ancient Chinese wall while the procession of civilization went past. Today, thinking of our children and of their children, we oppose enforced isolation for ourselves or for any other part of the Americas.

That determination of ours, extending over all these years, was proved, for example, during the quarter century of wars following the French Revolution.

While the Napoleonic struggles did threaten interests of the United States because of the French foothold in the West Indies and in Louisiana, and while we engaged in the War of 1812 to vindicate our right to peaceful trade, it is nevertheless clear that neither France nor Great Britain, nor any other nation, was aiming at domination of the whole world.

In like fashion from 1815 to 1914-- ninety-nine years-- no single war in Europe or in Asia constituted a real threat against our future or against the future of any other American nation.

Except in the Maximilian interlude in Mexico, no foreign power sought to establish itself in this Hemisphere; and the strength of the British fleet in the Atlantic has been a friendly strength. It is still a friendly strength.

Even when the World War broke out in 1914, it seemed to contain only small threat of danger to our own American future. But, as time went on, the American people began to visualize what the downfall of democratic nations might mean to our own democracy.

We need not overemphasize imperfections in the Peace of Versailles. We need not harp on failure of the democracies to deal with problems of world reconstruction. We should remember that the Peace of 1919 was far less unjust than the kind of "pacification" which began even before Munich, and which is being carried on under the new order of tyranny that seeks to spread over every continent today. The American people have unalterably set their faces against that tyranny.

Every realist knows that the democratic way of life is at this moment being' directly assailed in every part of the world--assailed either by arms, or by secret spreading of poisonous propaganda by those who seek to destroy unity and promote discord in nations that are still at peace.

During sixteen long months this assault has blotted out the whole pattern of democratic life in an appalling number of independent nations, great and small. The assailants are still on the march, threatening other nations, great and small.

Therefore, as your President, performing my constitutional duty to "give to the Congress information of the state of the Union," I find it, unhappily, necessary to report that the future and the safety of our country and of our democracy are overwhelmingly involved in events far beyond our borders.

Armed defense of democratic existence is now being gallantly waged in four continents. If that defense fails, all the population and all the resources of Europe, Asia, Africa and Australasia will be dominated by the conquerors. Let us remember that the total of those populations and their resources in those four continents greatly exceeds the sum total of the population and the resources of the whole of the Western Hemisphere-many times over.

In times like these it is immature--and incidentally, untrue--for anybody to brag that an unprepared America, single-handed, and with one hand tied behind its back, can hold off the whole world.

No realistic American can expect from a dictator's peace international generosity, or return of true independence, or world disarmament, or freedom of expression, or freedom of religion - or even good business.

Such a peace would bring no security for us or for our neighbors. "Those, who would give up essential liberty to purchase a little temporary safety, deserve neither liberty nor safety."

As a nation, we may take pride in the fact that we are softhearted; but we cannot afford to be soft-headed.

We must always be wary of those who with sounding brass and a tinkling cymbal preach the "ism" of appeasement.

We must especially beware of that small group of selfish men who would clip the wings of the American eagle in order to feather their own nests.

I have recently pointed out how quickly the tempo of modern warfare could bring into our very midst the physical attack which we must eventually expect if the dictator nations win this war.

There is much loose talk of our immunity from immediate and direct invasion from across the seas. Obviously, as long as the British Navy retains its power, no such danger exists. Even if there were no British Navy, it is not probable that any enemy would be stupid enough to attack us by landing troops in the United States from across thousands of miles of ocean, until it had acquired strategic bases from which to operate.

But we learn much from the lessons of the past years in Europe-particularly the lesson of Norway, whose essential seaports were captured by treachery and surprise built up over a series of years.

The first phase of the invasion of this Hemisphere would not be the landing of regular troops. The necessary strategic points would be occupied by secret agents and their dupes- and great numbers of them are already here, and in Latin America.

As long as the aggressor nations maintain the offensive, they-not we--will choose the time and the place and the method of their attack.

That is why the future of all the American Republics is today in serious danger.

That is why this Annual Message to the Congress is unique in our history.

That is why every member of the Executive Branch of the Government and every member of the Congress faces great responsibility and great accountability.

The need of the moment is that our actions and our policy should be devoted primarily-almost exclusively--to meeting this foreign peril. For all our domestic problems are now a part of the great emergency.

Just as our national policy in internal affairs has been based upon a decent respect for the rights and the dignity of all our fellow men within our gates, so our national policy in foreign affairs has been based on a decent respect for the rights and dignity of all nations, large and small. And the justice of morality must and will win in the end.

Our national policy is this:

First, by an impressive expression of the public will and without regard to partisanship, we are committed to all-inclusive national defense.

Second, by an impressive expression of the public will and without regard to partisanship, we are committed to full support of all those resolute peoples, everywhere, who are resisting aggression and are thereby keeping war away from our Hemisphere. By this support, we express our determination that the democratic cause shall prevail; and we strengthen the defense and the security of our own nation.

Third, by an impressive expression of the public will and without regard to partisanship, we are committed to the proposition that principles of morality and considerations for our own security will never permit us to acquiesce in a peace dictated by aggressors and sponsored by appeasers. We know that enduring peace cannot be bought at the cost of other people's freedom.

In the recent national election, there was no substantial difference between the two great parties in respect to that national policy. No issue was fought out on this line before the American electorate. Today it is abundantly evident that American citizens everywhere are demanding and supporting speedy and complete action in recognition of obvious danger.

Therefore, the immediate need is a swift and driving increase in our armament production.

Leaders of industry and labor have responded to our summons. Goals of speed have been set. In some cases these goals are being reached ahead of time; in some cases we are on schedule; in other cases there are slight but not serious delays; and in some cases--and I am sorry to say very important cases--we are all concerned by the slowness of the accomplishment of our plans.

The Army and Navy, however, have made substantial progress during the past year. Actual experience is improving and speeding up our methods of production with every passing day. And today's best is not good enough for tomorrow.

I am not satisfied with the progress thus far made. The men in charge of the program represent the best in training, in ability, and in patriotism. They are not satisfied with the progress thus far made. None of us will be satisfied until the job is done.

No matter whether the original goal was set too high or too low, our objective is quicker and better results. To give you two illustrations:

We are behind schedule in turning out finished airplanes; we are working day and night to solve the innumerable problems and to catch up.

We are ahead of schedule in building warships but we are working to get even further ahead of that schedule.

To change a whole nation from a basis of peacetime production of implements of peace to a basis of wartime production of implements of war is no small task. And the greatest difficulty comes at the beginning of the program, when new tools, new plant facilities, new assembly lines, and new ship ways must first be constructed before the actual materiel begins to flow steadily and speedily from them.

The Congress, of course, must rightly keep itself informed at all times of the progress of the program. However, there is certain information, as the Congress itself will readily recognize, which, in the interests of our own security and those of the nations that we are supporting, must of needs be kept in confidence.

New circumstances are constantly begetting new needs for our safety. I shall ask this Congress for greatly increased new appropriations and authorizations to carry on what we have begun.

I also ask this Congress for authority and for funds sufficient to manufacture additional munitions and war supplies of many kinds, to be turned over to those nations which are now in actual war with aggressor nations.

Our most useful and immediate role is to act as an arsenal for them as well as for ourselves. They do not need man power, but they do need billions of dollars' worth of the weapons of defense.

The time is near when they will not be able to pay for them all in ready cash. We cannot, and we will not, tell them that they must surrender, merely because of present inability to pay for the weapons which we know they must have.

I do not recommend that we make them a loan of dollars with which to pay for these weapons--a loan to be repaid in dollars.

I recommend that we make it possible for those nations to continue to obtain war materials in the United States, fitting their orders into our own program. Nearly all their materiel would, if the time ever came, be useful for our own defense.

Taking counsel of expert military and naval authorities, considering what is best for our own security, we are free to decide how much should be kept here and how much should be sent abroad to our friends who by their determined and heroic resistance are giving us time in which to make ready our own defense.

For what we send abroad, we shall be repaid within a reasonable time following the close of hostilities, in similar materials, or, at our option, in other goods of many kinds, which they can produce and which we need.

Let us say to the democracies: "We Americans are vitally concerned in your defense of freedom. We are putting forth our energies, our resources and our organizing powers to give you the strength to regain and maintain a free world. We shall send you, in ever-increasing numbers, ships, planes, tanks, guns. This is our purpose and our pledge."

In fulfillment of this purpose we will not be intimidated by the threats of dictators that they will regard as a breach of international law or as an act of war our aid to the democracies which dare to resist their aggression. Such aid is not an act of war, even if a dictator should unilaterally proclaim it so to be.

When the dictators, if the dictators, are ready to make war upon us, they will not wait for an act of war on our part. They did not wait for Norway or Belgium or the Netherlands to commit an act of war.

Their only interest is in a new one-way international law, which lacks mutuality in its observance, and, therefore, becomes an instrument of oppression.

The happiness of future generations of Americans may well depend upon how effective and how immediate we can make our aid felt. No one can tell the exact character of the emergency situations that we may be called upon to meet. The Nation's hands must not be tied when the Nation's life is in danger.

We must all prepare to make the sacrifices that the emergency-almost as serious as war itself--demands. Whatever stands in the way of speed and efficiency in defense preparations must give way to the national need.

A free nation has the right to expect full cooperation from all groups. A free nation has the right to look to the leaders of business, of labor, and of agriculture to take the lead in stimulating effort, not among other groups but within their own groups.

The best way of dealing with the few slackers or trouble makers in our midst is, first, to shame them by patriotic example, and, if that fails, to use the sovereignty of Government to save Government.

As men do not live by bread alone, they do not fight by armaments alone. Those who man our defenses, and those behind them who build our defenses, must have the stamina and the courage which come from unshakable belief in the manner of life which they are defending. The mighty action that we are calling for cannot be based on a disregard of all things worth fighting for.

The Nation takes great satisfaction and much strength from the things which have been done to make its people conscious of their individual stake in the preservation of democratic life in America. Those things have toughened the fiber of our people, have renewed their faith and strengthened their devotion to the institutions we make ready to protect.

Certainly, this is no time for any of us to stop thinking about the social and economic problems which are the root cause of the social revolution which is today a supreme factor in the world.

For there is nothing mysterious about the foundations of a healthy and strong democracy. The basic things expected by our people of their political and economic systems are simple. They are:

Equality of opportunity for youth and for others.
Jobs for those who can work.
Security for those who need it.
The ending of special privilege for the few.
The preservation of civil liberties for all.

The enjoyment of the fruits of scientific progress in a wider and constantly rising standard of living.

These are the simple, basic things that must never be lost sight of in the turmoil and unbelievable complexity of our modern world. The inner and abiding strength of our economic and political systems is dependent upon the degree to which they fulfill these expectations.

Many subjects connected with our social economy call for immediate improvement.

We should bring more citizens under the coverage of old-age pensions and unemployment insurance.

We should widen the opportunities for adequate medical care.

We should plan a better system by which persons deserving or needing gainful employment may obtain it.

I have called for personal sacrifice. I am assured of the willingness of almost all Americans to respond to that call.

A part of the sacrifice means the payment of more money in taxes. In my Budget Message I shall recommend that a greater portion of this great defense program be paid for from taxation than we are paying today. No person should try, or be allowed, to get rich out of this program; and the principle of tax payments in accordance with ability to pay should be constantly before our eyes to guide our legislation.

If the Congress maintains these principles, the voters, putting patriotism ahead of pocketbooks, will give you their applause.

In the future days, which we seek to make secure, we look forward to a world founded upon four essential human freedoms.

The first is freedom of speech and expression--everywhere in the world.

The second is freedom of every person to worship god in his own way--everywhere in the world.

The third is freedom from want--which, translated into world terms, means economic understandings which will secure to every nation a healthy peacetime life for its inhabitants-everywhere in the world.

The fourth is freedom from fear--which, translated into world terms, means a world-wide reduction of armaments to such a point and in such a thorough fashion that no nation will be in a position to commit an act of physical aggression against any neighbor--anywhere in the world.

That is no vision of a distant millennium. It is a definite basis for a kind of world attainable in our own time and generation. That kind of world is the very antithesis of the so-called new order of tyranny which the dictators seek to create with the crash of a bomb.

To that new order we oppose the greater conception--the moral order. A good society is able to face schemes of world domination and foreign revolutions alike without fear.

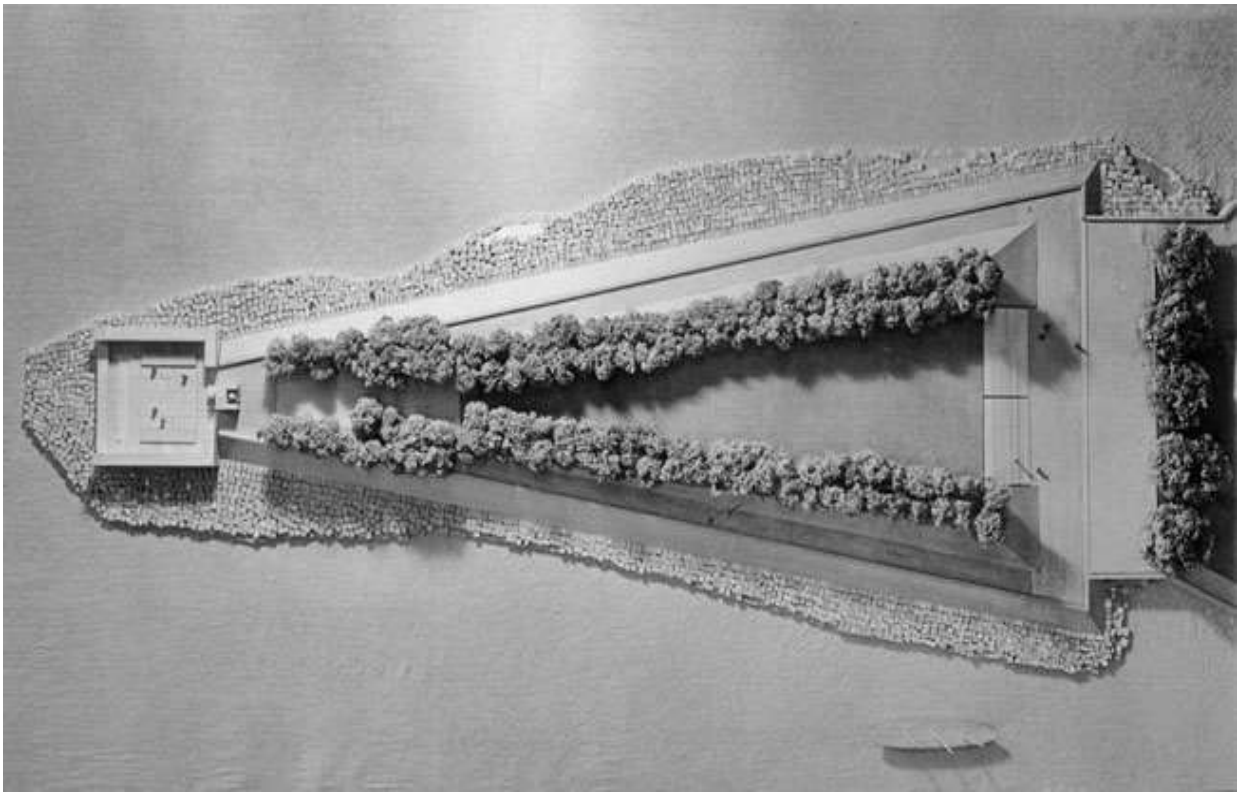
Since the beginning of our American history, we have been engaged in change -- in a perpetual peaceful revolution -- a revolution which goes on steadily, quietly adjusting itself to changing conditions--without the concentration camp or the quick-lime in the ditch. The world order which we seek is the cooperation of free countries, working together in a friendly, civilized society.

This nation has placed its destiny in the hands and heads and hearts of its millions of free men and women; and its faith in freedom under the guidance of God. Freedom means the supremacy of human rights everywhere. Our support goes to those who struggle to gain those rights or keep them. Our strength is our unity of purpose. To that high concept there can be no end save victory.

Franklin D Roosevelt, 1941

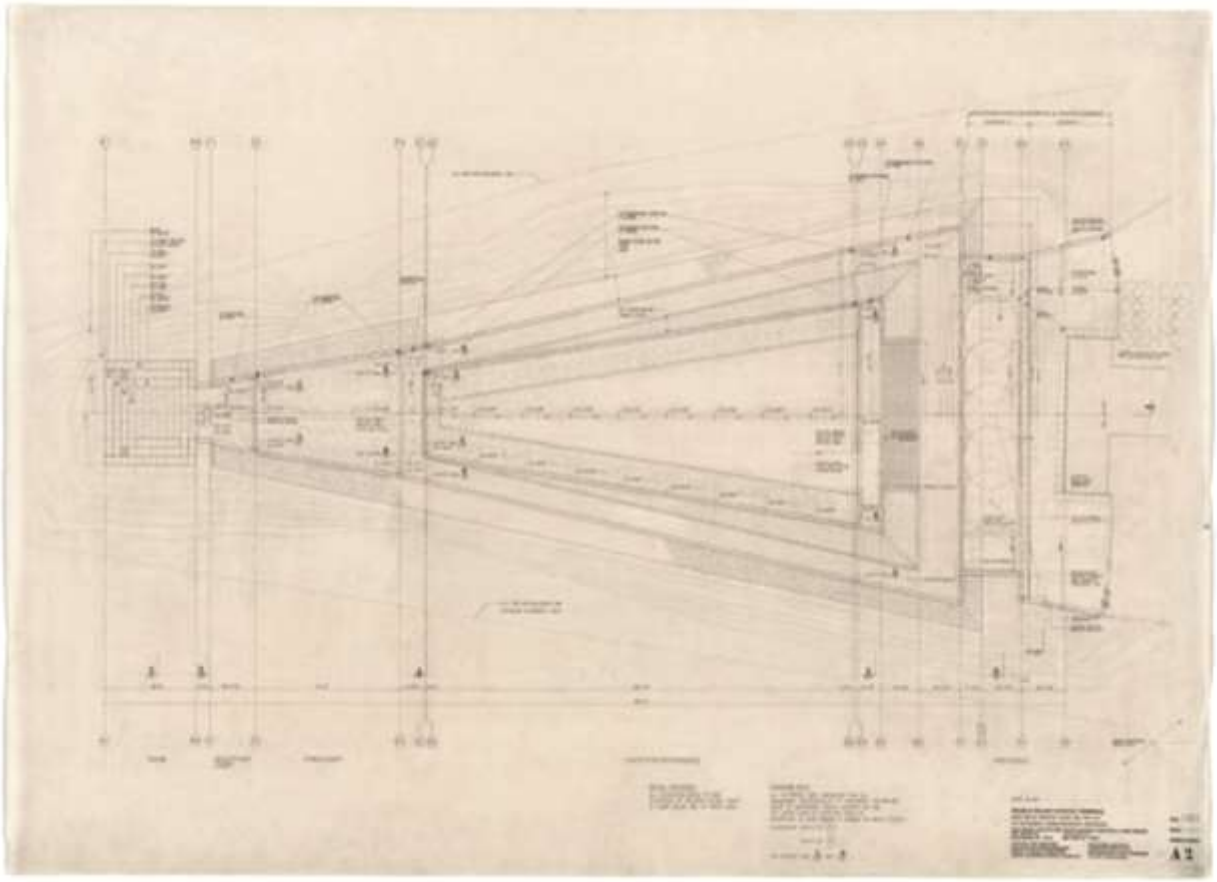
Norman Rockwell: Four Freedoms

https://www.nrm.org/2012/10/collections-four-freedoms/



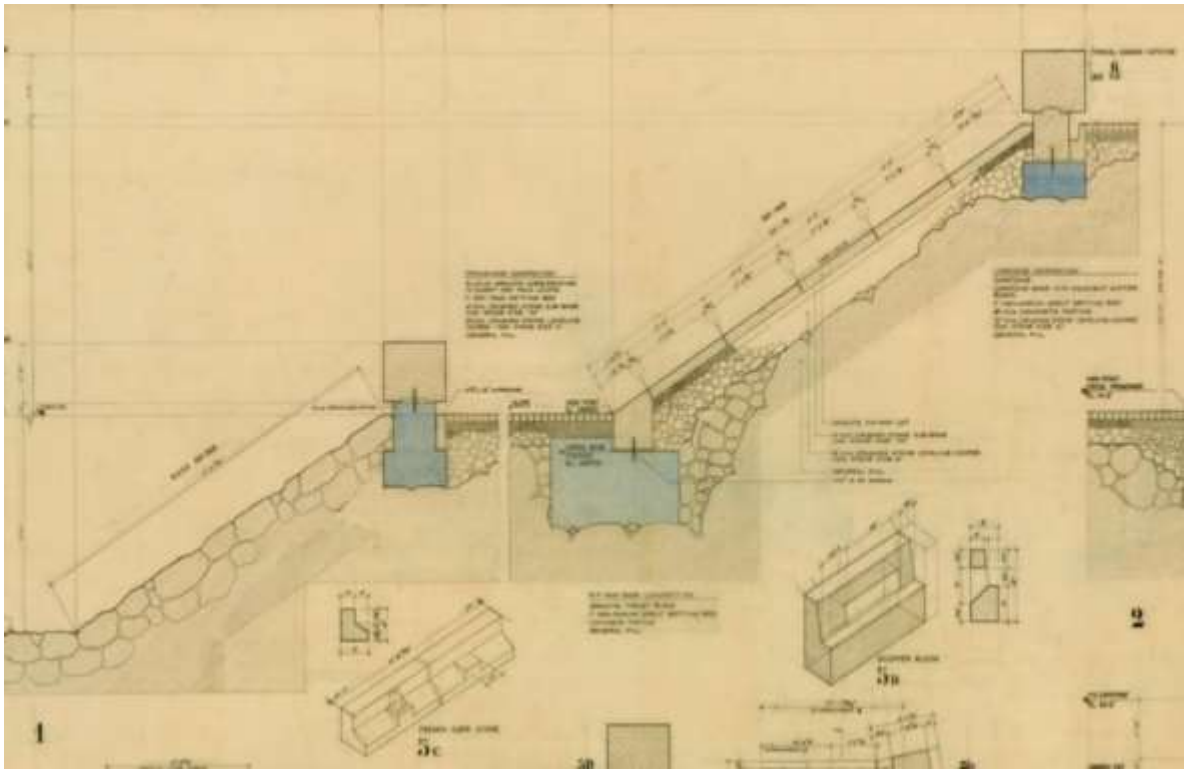
Louis Kahn's Roosevelt Memorial: Proposed Design

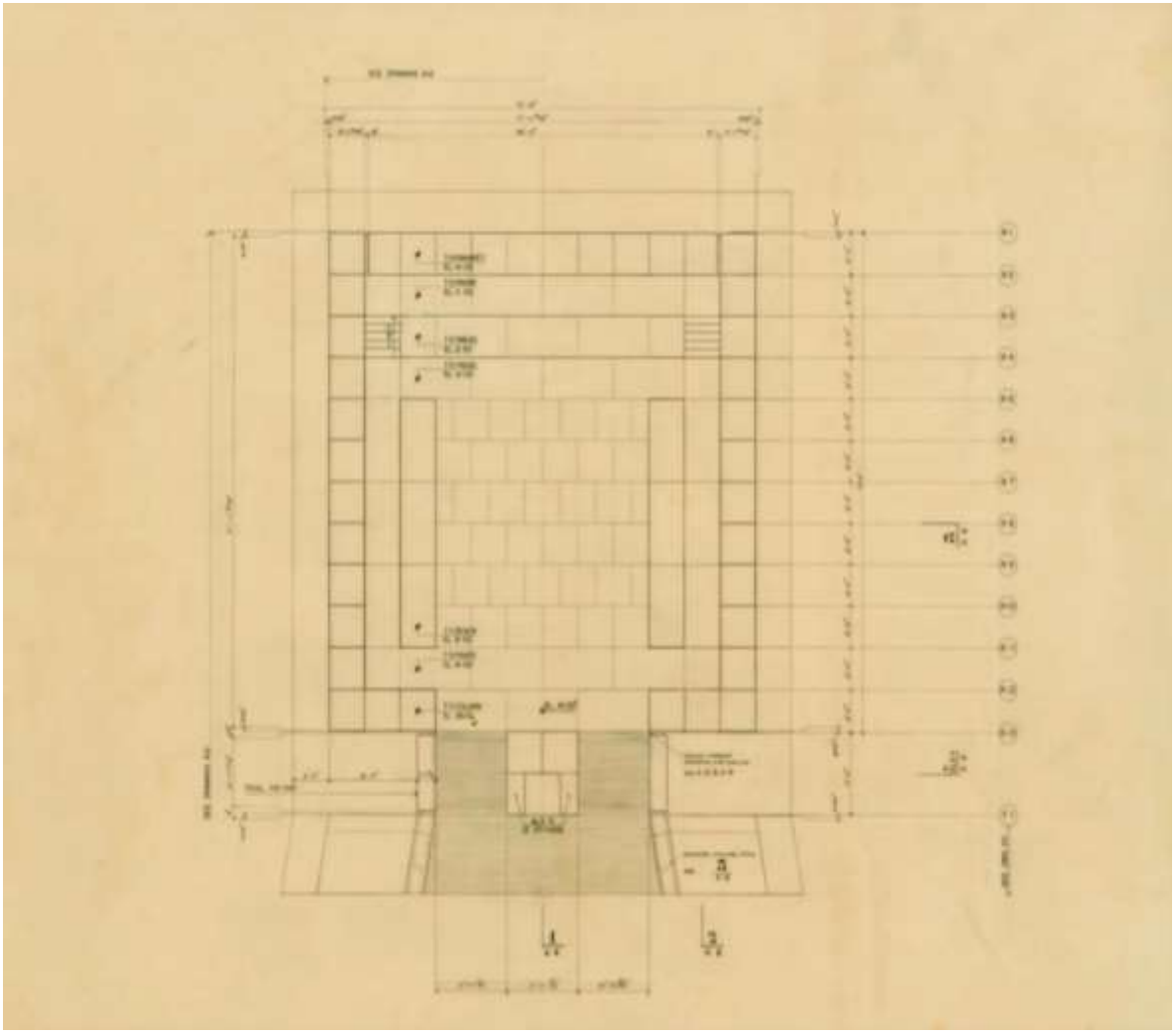
"I had this thought that a memorial should be a room and a garden. That's all I had. Why did I want a room and a garden? I just chose it to be the point of departure. The garden is somehow a personal nature, a personal control of nature, a gathering of nature. And the room was the beginning of architecture." - Kahn

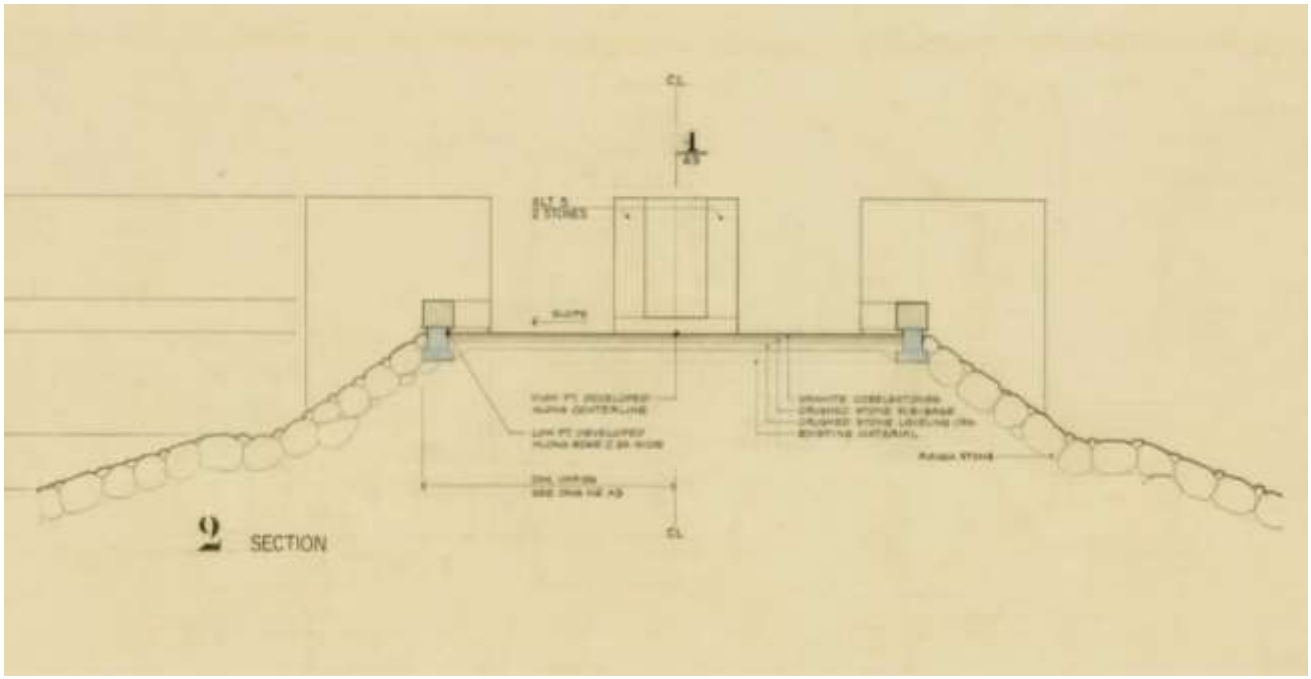


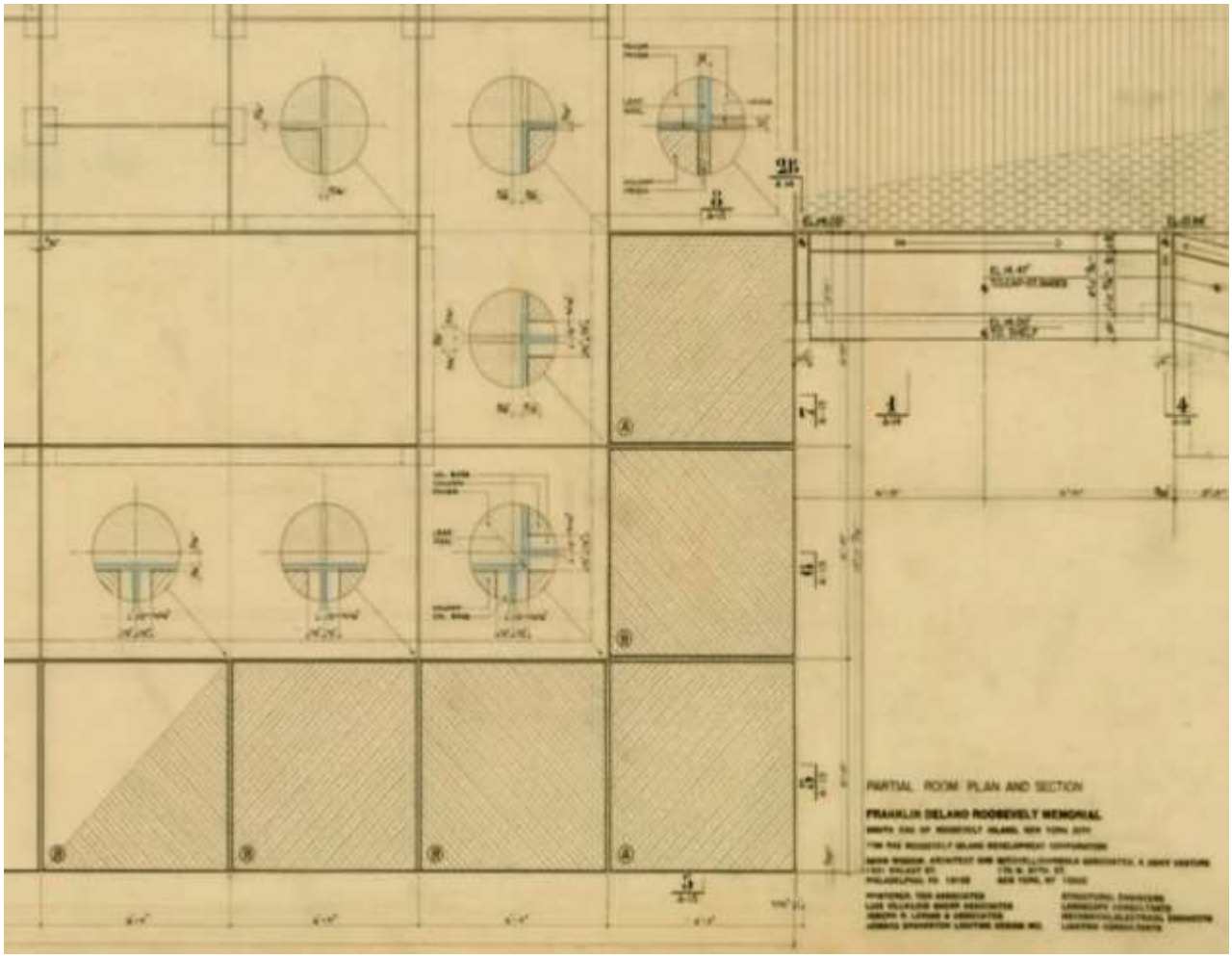
Roosevelt Memorial as Built (Except for location of trees.)

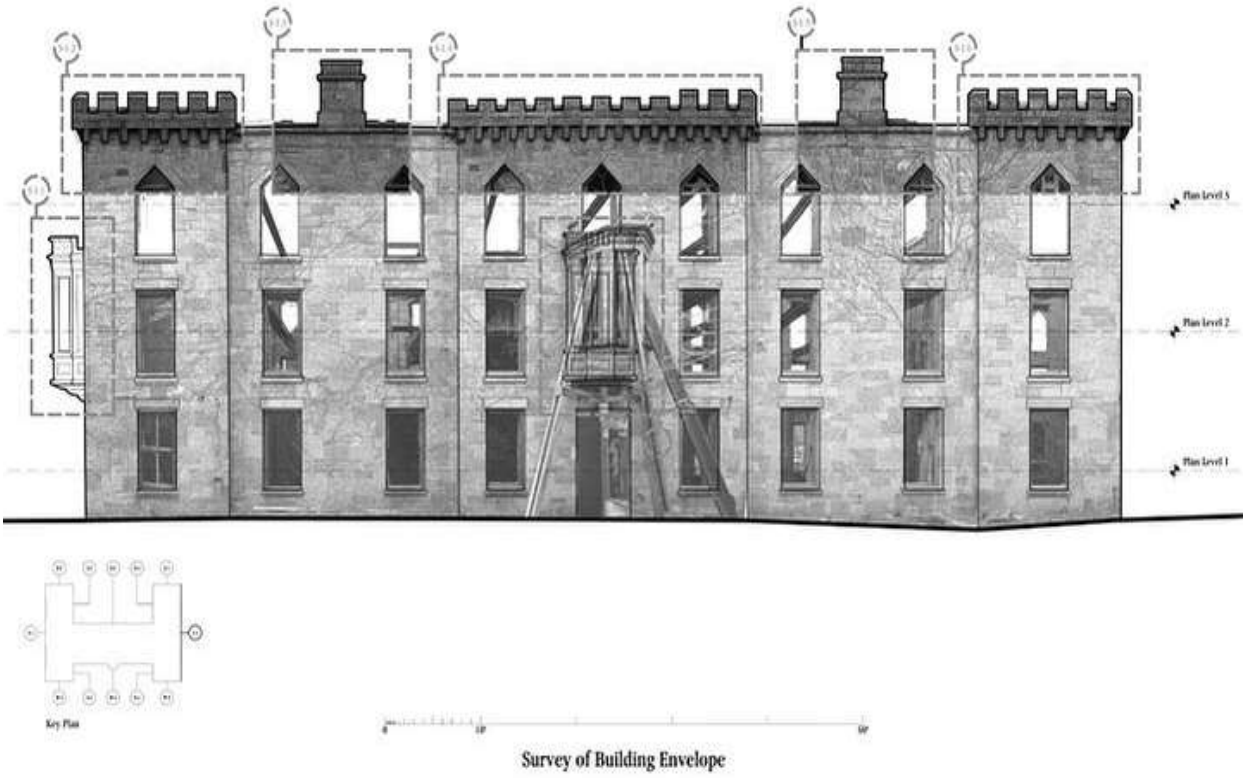
Roosevelt Memorial and Small Pox Hospital



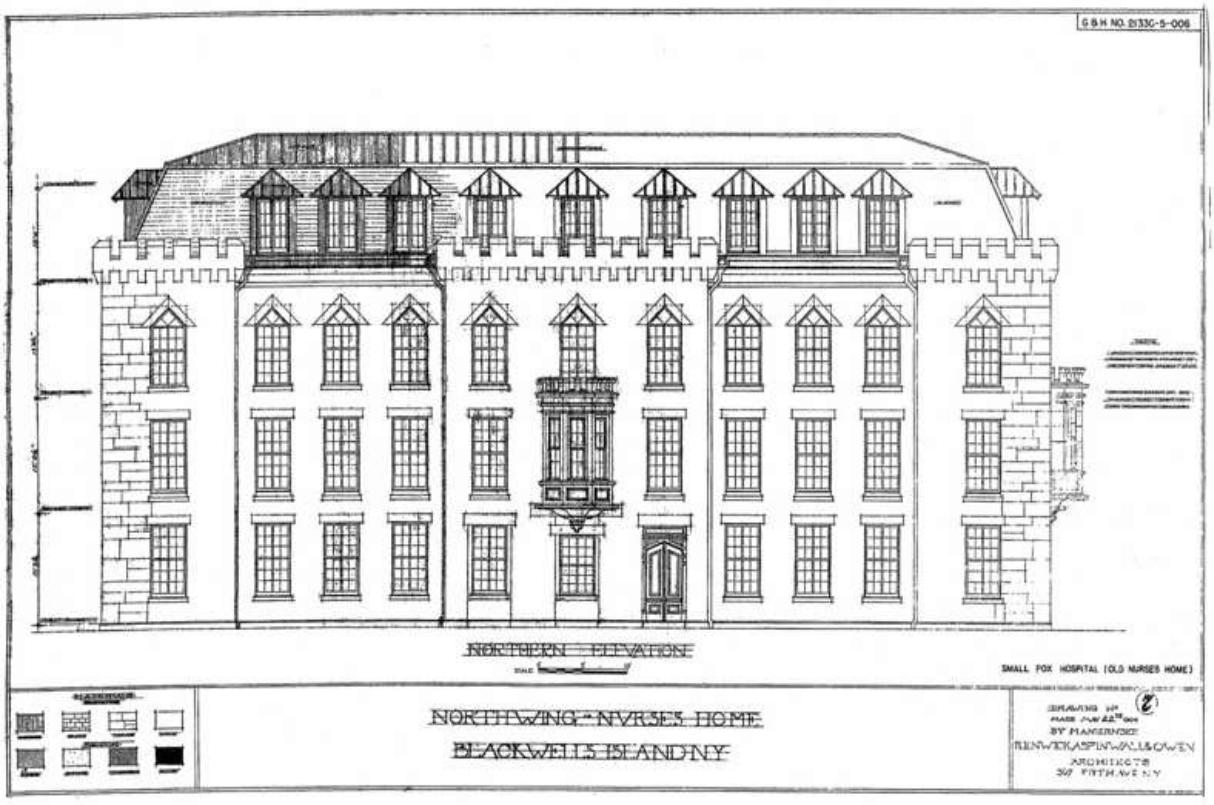



2 SECTION


PARTIAL ROOM PLAN AND SECTION
FRANKLIN DELANO ROOSEVELT MEMORIAL



Smallpox Hospital Ruins



Original Smallpox Hospital










Louis I. Kahn (1901–1974)

Believed strongly in the value and importance of architecture in society. Kahn felt that well-designed buildings could influence and improve people's lives. He is known for his monumental building projects and also for his role as an artist, teacher, and philosopher of architecture.

At first glance, Kahn's work appears simplistic in its form and program. Upon closer investigation, however, layers of incredible programmatic complexity and design innovation become apparent. Kahn was resolute in his philosophy that architecture is the thoughtful making of spaces whose design can and should simultaneously reveal the story of their construction and meet the aesthetic and functional needs of the people who inhabit them. He believed strongly that architecture should appeal not only to practical and aesthetic needs but also to the humanistic needs of the people and communities it serves. He was continually striving to create spaces that evoked a sense of spirituality, a sense he felt was lacking in the built environment of that time. With every project, Kahn's starting place was the same. Whether he was designing a place of worship, a school, a private residence, or an art museum, he always asked himself questions, trying to define and articulate the unique qualities embodied by that institution. But how does one translate those qualities, which are immaterial and immeasurable, into a material and measurable building? This was the root of Kahn's quest. His desire to elevate architecture from the design of utilitarian forms to meaningful and important spaces, coupled with his rigorous attention to programmatic detail and construction and his interest in the inspirational and transcendendent quality of architectural spaces, set him apart from other architects of his time.

Kahn earned a bachelor's degree in architecture from the University of Pennsylvania in 1924. He studied closely under Paul Cret, an architect educated at the École des Beaux-Arts, who advanced a classical approach to design. Kahn and Cret balanced classicism with a democratic approach, allowing for designs that addressed the differing requirements of each project. Upon graduation, Kahn worked as a draftsman at a Philadelphia architecture firm, where he applied his fine-tuned drawing skills. Eventually, after working at several firms, he established his own office in Philadelphia in 1935. Kahn was inspired by the work of many modern architects, including Le Corbusier, Frank Lloyd Wright, Ludwig Mies van der Rohe, and Carlo Scarpa, and was equally drawn to classical and ancient forms of building.

He synthesized old and new building styles by designing monumental forms that spoke of the past but employed current construction and design solutions.

At the University of Pennsylvania, Graduate School of Fine Arts, he taught the post-professional Master of Architecture II Studio with Norman Rice, Robert Le Ricolais, and August Komendant, until Kahn's death in 1974. Kahn was a devoted teacher who felt he often learned more than he taught.

It is good to be a member of your class, where teacher learns through the reactions of the student.

A good question is always greater than the most brilliant answer.

Four Freedoms Memorial:

Louis I. Kahn is widely considered one of the masters in the pantheon of 20th century architects.

His seminal works helped define Modernism: the Yale University Art Gallery, and the Yale Center for British Arts in New Haven, Connecticut, the Salk Institute in La Jolla, California, the Capital City in Bangladesh, the Kimbell Art Museum in Fort Worth, Texas, and the library at Philips Exeter Academy in New Hampshire. All display his masterful use of bold geometric forms, the skillful manipulation of natural light, and the artistic control of architectural expression to create a richly layered spatial experience.

Kahn revered President Roosevelt. He credited FDR for enabling him to support his family during the early years of his architecture practice through housing and community planning projects that were part of Roosevelt's New Deal programs. Kahn shared Roosevelt's desire to enrich the lives of all people. During design review meetings for Four Freedoms Park, conversations often veered off topic, becoming nuanced discussions of Roosevelt and his policies.

Kahn's design makes perfect use of the triangular shape of the Park's site, emphasizing it, and employing what could be called a forced perspectival parti to draw and focus the visitor's gaze toward the colossal head of Roosevelt at the threshold to the "Room." Underlying Kahn's design is a naval theme, a nod, perhaps, to Roosevelt's love of and connection to the sea, and to the unique location of the site. The Park design is symmetrical, and the construction drawings themselves are dimensioned off a centerline, as is standard in naval architecture. A sketch of an earlier iteration of the design shows a floating, tug and barge-like structure against the skyline of the city. The final scheme acts as a prow to the island's "boat."

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17


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m. Site Photographs: Photographs of Four Freedoms site and context.
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Abbey Library of St. Gall, St. Gallen, Switzerland (Peter Thumb)
Al-Qarawiyyin Library, Fez, Morocco (renovation: Aziza Chaouni)
Biblioteca Statale Oratoriana dei Girolamini, Naples, Italy (Giovanni Antonio Dosio)
Bodleian Library, University of Oxford, UK (Thomas Holt; Giles Gilbert Scott)
British Museum Reading Room, London, UK (Robert Smirke)
French National Library, Paris, France - Unbuilt proposal (Etienne-Louis Boullee)
French National Library, Paris, France (Henri Labrouste)
George Peabody Library, Baltimore, USA (Edmund G. Lind)
Handelingenkamer Old Library, The Hague, The Netherlands (Cornelis H. Peters)
Laurentian Library, Florence, Italy (Michelangelo)
Maria Laach Abbey Library, Andernach, Germany (unknown Jesuits)
Oberlausitzische Bibliothek der Wissenschaften, Goerlitz, Germany (A. von Gersdorff)
Real Gabinete Royal Portuguese Reading Room, Rio de Janeiro, Brazil (Rafael da Silva)
Royal Library at the El Escorial, near Madrid, Spain (Juan Bautista de Toledo)
State Library of South Australia, Adelaide, Australia (E. J. Woods)
Sterling Memorial Library, Yale University, New Haven, USA (James Gamble Rogers)
Stiftsbibliothek Admont Abbey, Austria (Josef Hueber)
Stockholm Public Library, Stockholm, Sweden (Gunnar Asplund)
The Library of Parliament, Ottawa, Canada (Thomas Fuller)
Trinity College Library, Dublin (Thomas Burgh)

Modern Precedents:

Atlanta-Fulton Central Public Library, Atlanta, US (Marcel Breuer)
Basel University Library, Basel, Switzerland (Otto H. Senn)
Beinecke Rare Books & Manuscript Library, New Haven, US (Gordon Bunshaft, SOM)
Berlin State Library, Berlin, Germany (Hans Scharoun)
Carre d'Art, Nimes, France (Foster+ Partners)
Central Public Library of Vancouver, Vancouver, BC, Canada (Moshe Safdie & Associates)
City Library Heidenheim, Germany (Max Dudler)
Cranfield Library, University of Cranfield, Bedfordshire, UK (Foster+ Partners)
Geisel Library, University of California, San Diego, US (William Pereira)
German National Library, Deutsche Nationalbibliothek expansion, Leipzig (AratKaiser-Kaiser)
Grand Bibliotheque Nationale de France, Paris, France (Dominique Perrault)
History Faculty Library, Cambridge University, Cambridge, UK (James Stirling)
Jacob & Wilhelm Grimme Centre, Berlin (Max Dudler)
King Fahad National Library, Riyadh, Saudi Arabia (Gerber & Partner)
Kitakyushu Central Library, Fukuoka, Japan (Arata Isozaki & Associates)
Mt. Angel Abbey Library, Portland, Orgeon, US (Alvar Aalto)
Municipal Library Viana do Castelo, Portugal (Alvaro Siza Vieira)
Oita Prefectural Library, Oita, Japan (Arata Isozaki & Associates)
Peckham Library, Peckham, London, UK (Will Alsop)
Pedro Salinas Library, Puerto de Toledo, Madrid, Spain (Juan Navarro Baldeweg)
Phillips Exeter Academy Library, New Hampshire, US (Louis Kahn)
Public City Library Ana Maria Matute, Carabanchel, Madrid (RSP Architects)
Rovaniemi City Library, Finland (Alvar Aalto)
Salt Lake City Public Library, Salt Lake City, Utah, USA (Moshe Safdie & Associates)
Saxon State and University Library, Dresden, Germany (Ortner & Ortner)
Science Library, University of California Irvine, CA, US (James Stirling Micahel Wilford & Associates)
State and University Library Goettingen, Lower Saxony, Germany (Gerber & Partner)
T. Fisher Rare Book Library, University of Toronto, Canada (Mathers and Halden by)
The British Library, St. Pancras, London, UK (Colin St. John Wilson & Partners)
The Hague City Library, The Hague, the Netherlands (Richard Meier & Partners)
University Main Library, University of Aveiro, Aveiro, Portugal (Alvaro Siza Vieira)
Viipuri Central City Library, Vyborg, Finland (now Russia) (Alvar Aalto)
Wolfsburg City Library, Wolfsburg, Germany (Alvar Aalto)

Contemporary Precedents:

Agave Library, Phoenix, Arizona, US (Will Bruder)
Austin Central Library, Austin, Texas, US (Lake-Flato)
Bankstown Library and Knowledge Centre, Bankstown, NSW, Australia (FJMT)
Bibliotheca Alexandrina, Alexandria, Egypt (Sn0hetta)
Bibliotheca Vasconcelos Public Library, Mexico City, Mexico (Alberto Kalach & TAX)

Billings Public Library, Montana, US (Will Bruder)
Birmingham Central Library, Birmingham, UK (Mecanoo)
Bishan Public Library, Singapore (Look Architects)
Bunjil Place Cultural Centre, Narre Warren, City of Casey, VIC, Australia (FJMT)
Burton Barr Central Library, Phoenix, Arizona , US (Will Bruder & OWL Architects)
Calgary New Central Library, Calgary, Canada (Sn0hetta)
City of Perth Library and History Centre, Perth, WA, Australia (Kerry Hill Architects)
Cottbus BTU University Library, Cottbus, Germany (Herzog & de Meuron)
Craigieburn Library, Hume City, North Melbourne, VIC, Australia (FJMT)
Daegu Gosan Public Library, Daegu, South Korea (Jaja Architects)
Darwin College Study Centre, Cambridge, UK (Jeremy Dixon & Edward Jones)
Delft University of Technology Library, Delft, the Netherlands (Mecanoo)
Des Moines Public Library, Gateway Park Des Moines, US (David Chipperfield)
Dodi-Helsinki Central Library, Helsinki, Finland (ALA Architects)
Frank Bartlett Memorial Library and Moe Service Centre, Gippsland, VIC, Australia (FJMT)
Free University's Philology Faculty Library, Berlin, Germany (Foster+ Partners)
Hanoi Public Library, Hanoi, Vietnam (Farming Architects)
House of Wisdom Library, Sharjah, UAE (Foster + Partners)
James Hunt Jr. Library, North Carolina State University, US (Sn0hetta)
Jose Hierro Public Library, Madrid, Spain (Juan Herreros & Inaki Abalos)
Kanazawa Umimirai Library, Kanazawa, Japan (Kudo & Horiba with KHA)
Las Vegas Central Library and Children Museum, Las Vegas, US (Antoine Predock)
LocHal Library, Tilburg, the Netherlands (Mecanoo)
Luis Martin Santos Public Library, Madrid, Spain (Mario San Juan Calle et al.)
Martin Luther King Jr. Memorial Library, expansion, Washington, D.C. (Mecanoo)
Max Webber Library, Blacktown, NSW, Australia (FJMT)
Media Library, Bourg-la-Reine, France (Pascale Guedot)
Media Library, Thionville, France (Dominique Coulon & Associates)
Mediatheque, Bordeaux, France (BIG)
Mesa Public Library, Los Alamos, New Mexico, US (Antoine Predock)
Muenster New City Library, Muenster, Germany (Bolles-Wilson + Partner)
Municipal Library, University of Sassari, Alghero, Sardinia, Italy (Giovanni Maciocco)
National Library of Israel, Jerusalem, Israel (Herzog & de Meuron)
Obama Presidential Center, (Tod Williams Billie Tsien Architects), 2022
Pinghe Bibliotheater, Qingpu, Shanghai, China (Open Architects)
Queens Public Library, Hunters Point, New York, US (Steven Holl Architects)
Rolex Learning Centre, Lausanne, Switzerland (SANAA)
Ryerson University Student Learning Center, Toronto, Canada (Sn0hetta)
Seattle Public Library, Seattle, Washington, US (OMA, Rem Koolhaas)
Sendai Mediatheque, Sendai, Miyagi, Japan (Toyo Ito & Associates)
Shenzhen Library and Cultural Center, Shenzhen, China (Arata Isozaki & Associates)
Shenzhen SUST University Library, Shenzhen, China (Urbanus)
Springdale Library, Brampton, Canada (ROH Architects)
Stavros Niarchos Foundation Library, expansion, New York, US (Mecanoo)
Stuttgart Municipal Library, Stuttgart, Germany (Eun Young Yi)
Surry Hills Library and Neighbourhood Centre, Sydney, NSW, Australia (FJMT)
Svalbard Global Seed Vault, Norway (Sn0hetta)
Tainan Public Library, Tainan, Taiwan (Mecanoo)
Tama Art University Library, Hachioji, Tokyo, Japan (Toyo Ito & Associates)
Temple University Charles Library, Philadelphia, US (Sn0hetta)
The Hive, Univ~rsity and County Library, Worcester, UK (Feilden Clegg Bradley)
Theodore Roosevelt Presidential Library, North Dakota, US (Sn0hetta)
Tianjin Binhai New Area Library, Tianjin, China (MVRDV)
Toyonokuni Libraries for Cultural Resources, Oita, Japan (Arata Isozaki & Associates)
University Library, Jussieu, Paris, France, unbuilt proposal (OMA, Rem Koolhaas)
Vagelos Education Center, Columbia U, New York, US (Diller Scofidio + Renfro, Gensler)
Vienna University of Economics Library, Vienna, Austria (Zaha Hadid Architects)
Virglio Barca Public Library, Bogota, Colombia (Rogelio Salmona)

Readings on Library Design:

Bieri, Susanne and Fuchs, Walther (2001). Bibliotheken bauen, Birkhauser, Basel.
Black, Alistair, Pepper, Simon and Bagshaw, Kaye (2009). Books, Buildings and Social Engineering: Early Public Libraries in Britain from Past to Present, Ashgate, Farnham, Surrey.
Bosser, Jacques (2003). The Most Beautiful Libraries in the World, Harry N. Abrams Publishing, New York, and Thames and Hudson, London.
Brawne, Michael (1970). Libraries: Architecture and Equipment, Praeger Publishers London.
Brawne, Michael (Ed.) (1997). Library Builders, Academy Editions, London; and Lanham, Maryland.
CABE (2003). Better Public Libraries, Commission for Architecture and the Built Environment (CABE), London.
Campbell, James W. (2013). The Library: A World History, University of Chicago Press, Chicago.
Eco, Umberto (2019). Libraries: Candida Hoefer, Schimer Verlag/Mosel, Prestel Gmbh, Munich.
Ellsworth, Ralph E. (1973). Academic Library Buildings: a guide to architectural issues and solutions, Associated University Press, Boulder.
Futagawa, Yukio (Ed.) (2006). GA Contemporary Architecture, Vol. 03: Library, A.D.A. Edita, Tokyo, Japan.
Hille, R. Thomas (2018). The New Public Library: Design Innovation for the Twenty-First Century, Routledge, New York/London.
Johnson, Alex (2015). Improbable Libraries: A Visual Journey to the World's most unusual Libraries, The University of Chicago Press, Chicago.
Kaser, David (1997). The Evolution of the American Academic Library 'Building, Scarecrow Press, Lanham, Maryland.
Lushington, Nolan, Rudolf, Wolfgang and Wong, Liliane (2019). Libraries -A Design Manual, Birkhauser, Berlin/Boston.
Metcalf, Keyes DeWitt (1965). Planning Academic and Research Library Buildings, McGraw-Hill ,'New York; 2nd edit.ion, by Philip D, Leighton and David C. Weber (1986). Republished by the American Library Association, Chicago.
Murray, Stuart A. (2009). The Library: An Illustrated History, Skyhorse Publishing, New York; ALA Editions, Chicago.
0ehlerts, Donald E. (1991). Books and Blueprints: Building America's Public Libraries, Greenwood Press,New York.
Roth, Manuela (2014). Masterpieces: Library Architecture+ Design, Braun Publishing, Berlin.
Ruppelt, G., and Sladek, E. (2018). Massimo Listri: The World's Most Beautiful Libraries, Taschen, Cologne.
Schlipf, Fred and Moorman, John (2018). The Practical Handbook of Library Architecture: Creating Building Spaces that Work, ALA Editions, Chicago.
Thompson, Godfrey (1973). Planning and Design of Library Buildings, Architectural Press, London.
Wheeler, Joseph Lewis, and Alfred Morton Githens (1941). The American Public Library Building, Scribner, New York, Chicago.
Worpole, Ken, Greenhalgh, Liz and Landry, Charles (1992). Libraries in a World of Cultural Change, UCLPress, London.
Worpole, Ken (2013). Contemporary Library Architecture: A Planning and Design Guide, Routledge, London.

Websites on Library Design:

a. Designing Libraries (UK) website and blog: www.designinglibraries.org.uk
b. Library of the Future blog by the American Library Association: www.ala.org/tools/future/blog
c. Documentation of examples of library buildings bye-architect: www.e-architect.com/library-buildings
d. Top 100 Largest Libraries in the World: a pro~ect by the World Creativity Science Academy (WCSA World) : www.wcsa.world/news/world-copyright-academy/top-100-largest-libraries-in-the~world-p99-princeton-university-library-usa
f. 100 Famous Universities in the World: www.worldkings.org/news/world-top/top-100-famous-universities-in-theworld-university-of-basel-88
g. Photographer documenting library architecture: www.thomasguignard.photo/libraries

Other Sources on Library Design:

a. The International Federation of Library Associations and Institutions (IFLA) is the leading international association of library organizations. It is the global voice of the library and information profession, and its annual conference provides a venue for librarians to learn from one another. IFLA is based in The Hague, Netherlands. www.ifla.org
b. The American Library Association (ALA) is a nonprofit organization based in the United States that promotes libraries and library education internationally. It is the oldest and largest library association in the world, with more than 57,000 members, and it is based in Chicago. www.ala.org
c. Library Journal (published in New York) has since 1945 devoted its December issues to articles on library architecture
d. A recent design showcase on libraries: https:// a merica n Ii bra riesmagazi ne.org/2020/09/01/2020-1 i bra ry-design-showcase/ Previous years and-a few podcasts are available here: https:j/americanlibrariesma@zine.org/tag/design-showcase/
e. Article by the AIA on five American Libraries:
https:// ma i I .google:com/ ma i I/ u/0/?pl i= 1#i n box/FMfcgxwLttDKrXvQkTQcdSjTcZNTXksz

Design Research & Conceptual Design Process:

The creation of architecture is neither completely new nor derived for historical precedents. It is neither the personal expression of one individual, nor the collective decision of many.

To become relevant over time, it must both express the present conditions, and be valued in the future, in some cases many centuries or millennium.

No architecture stands in isolation. While it may express the values and philosophies of its designer, and the views of the collective architectural profession at a particular moment in time, its success must also be recognized by its inhabitants and the passersby.

Unlike almost everything else that is designed, architecture is fixed in place and responds to its specific context; culturally, programmatically, environmentally, esthetically, physically and technically.

Significant architectural practices are the result of insightful and skilled practitioners who develop a set of values that prioritize many design determinants, utilizing both personal and shared design methods, all of which they have developed over time. The greatest of architecture is the result of design experimentation within a framework of theoretical, technical choices and philosophical values. Whether it is a specific formal or visual aesthetic, a set of technical systems and details, or discrete design vocabulary, architectural is built upon previous work.

Architectural design is not a single creative act, nor based upon a single insight, prescribed by a list of functional requirements, nor predetermined by the bias or set of preferences of the designer.

As the architectural designer "composes and conducts," many questions are considered: What are the range of possibilities based upon the combination of design objectives and constraints? How can the multiplicity of issues be orchestrated into a coherent and expressive whole? How can the choices that are made, both express the values of the designer, and the external conditions of program, context, culture and time? What establishes a great work of architecture in its time and place, and into the distant future?

Architectural design does not start from nothing. We do not begin with a blank piece of paper or empty screen. Previous design experiences, memories of great works of architecture, and the specific and unique circumstances of the project itself, all provide a "pre-existing" starting point.

The design process is twofold:

1) Creative and expressive, finding of architectural ideas, forms and characteristics through "seeing what the sketches, drawings and model suggest."

2) Logical and rational, fulfilling the specific needs of the given program and its context. Considering the scale and volume of the interior and exterior spaces, and the connections to context and its networks of movement and public spaces.

To facilitate "starting in the middle" of the non-linear Design Research process, we will utilize the samples of abstract or artistic images, conceptual models and images created by others. Of course, none of the work was created for our specific studio project, but seeing the architectural attributes, character, "reading" of the model or image, provides insight about our work.

Our predilection to make connections, see relationships, find patterns and forms, interpret meaning, see the work through the eyes of the "Four Freedoms Foundation Library and Roosevelt Island, NYC" makes the "random image or model" highly valuable. It is a way to discover ideas, concepts, architectural characteristics that can become foundational to the development of ones starting point and architectural concept.

For the most part, conceptual Models and Drawings have no scale. Most have a high level of abstraction. Therefore, it is possible to stretch, scale, shrink, and rotate the model or drawing to "fit" the site and entire program, maximizing its relationship, creating an extension of the surrounding spatial and pedestrian context. Or, one can consider the source Models and Drawings to be used repeatedly, at the scale of a portion of the functional needs of the program or a piece of the context, or repeated at a smaller scale of many rooms or architectural elements.

Designing directly in the context physical models permits a high level of experimentation, encouraging the creation of both predefined and spontaneous design studies. Working interactively and directly in the context of the site model permits many dozens of alternatives to be created for each design study. "Playing" with the architectural model informs the design. Interacting with the model suggests the next design alternative.

Phase I: Design Research

Design Research: Precedent Debates

Each three person Discussion Group is to select two of the Precedent Libraries from the list below, which is also located in the Advanced Studio II shared Google Drive folder "Design Research Phase References / Debate Library Precedents."

Each discussion group in a studio section should have two unique Libraries to study, on a first come first serve basis. Your study of these precedents should be exclusively "Affirmative" and "for" the design as it applies to this studio project, specifically as addressed by the Debate Statement listed below.

The overriding objective is to determine in what ways each of the selected Library Precedents would be an excellent basis for a work of architecture located in Roosevelt Island, in the context of the project site, and as the Four Freedoms Foundation.

This assignment focusses upon the study of the detailed and unique nature of the studio project itself, through the evaluating the architectural concepts and characteristics of the Library Precedent directly to the Four Freedoms Foundation project.

It is important to realize and consider that an Archival "Rare Book" Library is a very specific and unique library type. Its purpose, functional requirements and architectural characteristics differ substantially from a community, research or multimedia library. The Precedent list of libraries includes a wide variety of library types, some of which apply to the studio project much more than others.

In preparation for the Debate, study and evaluate each of the two selected Precedent Libraries based upon information found in the Studio's Google Drive, HCAD Library and other sources. Prepare a visual / verbal presentation to support the Debate Statement for each precedent.

Most importantly, it is your detailed study of the information in concert with your dialogue with the discussion group members that will develop a case proving the Debate Statement for your groups two selected Library Precedents.

The debate presentations content must not simply tell what the information already shows, but rather explain and tell why the Precedent is the best design to answer the Debate Statement, as the only criteria. Proving the merit of the Precedent on issues other than the Debate Statement is not considered as part of the success of a team's presentation.

Debate Library Precedent List:

(See Studio's Google Drive / Design Research / Debate Library Precedents folder, and see the HCAD Library's special reference area dedicated to these projects.)

Ando: Shibo Ryotaro, Japan

Asplund: Stockholm Public Library

Furness: The Fisher Fine Arts Library, Univ.Penn

Henri Labrouste: Bibliotheque Richelieu

Henri Labrouste: Sainte-Genevieve Library

Herzog & de Meuron: Cottbus Library

Holl: Hunters Point Library

Kalach & Verea: Jose Vasconceios Library

Kaplicky: National Library of the Czech Republic

Koolhaas: Seattle Public Library

Li Xiaodong Atelier: Liyuan Library, Japan, 2011

Mackintosh: The Glasgow School Art Library

Mazzanti: Parque Biblioteca, Medellin, Columbia

MVRDV: Spijkenisse Library

Nouvel: Institut du Monde Arab

Orsi, Strahov Library, The Theological Hall: Prague

Perrault: National Library of France

Piano: Stavros Niarchos Foundaton

Renzo Piano: Morgan Library

Stirling: The Faculty of History Library, Univ. Cambridge

The Wren Library, Emmanuel College, Univ. Cambridge, UK

The Wren Library, Trinity College Library, Dublin

Tod Williams Billie Tsien Architects, Obama Presidential Center, 2022

Debate Organization:

Each studio Discussion Group engages in two debates.

Debate 1 Precedents One & Two
Group 1 Group 2

Debate 2 Precedents Three & Four
Group 2 Group 3

Debate 3 Precedents Five & Six
Group 3 Group 4

Debate 4 Precedents Seven & Eight
Group 4 Group 5

Debate 5 Precedents Nine & Ten
Group 5 Group 1

Each Debating group will have fifteen minutes, timed maximum, to present their evidence to support the Debate Statement.

Each Debate's outcome will be decided as "winner" by majority voting of the other members of the studio, i.e. the audience:

Which of the presentations most completely and best proves the Debate Statement?

Debate Statement:

The focus of each debate is to prove through words and illustration the following statement:

"If the concepts, ordering and formal systems, architectural characteristics, aesthetics and materiality of the Precedent were applied to the Four Freedoms Foundation project, it would be a significant work of Architecture, which would be valued over time."

Consider the following:

a) The relationship to the urban scale of the Cornell Tech Campus.

b) The relationship to the cultural and historical importance of the Smallpox Hospital and Roosevelt Memorial.

c) The relationship to its location on an island in the middle of the East River and NYC.

d) Its relationship within and related to the park and natural landscape,

e) Its architectural visual and formal characteristics that define it as an internationally important cultural institution.

Precedent Study Debate

Due: Thursday 25 January Noon – 3:00 PM

Record of Presentation: Each three person Debate Group is to create an 11 x 17 PDF document for each of the two Precedents that they have studied and debated. The document should include;

1) the best perceptual images of the design from above and eye level,

2) a set of floor plans and building sections,

3) The notes from the Debate, listing the "proof" of the presentation.

Due: Thursday 25 January Noon

Upload to: Studio's Google Drive / STUDENT WORK / "Studio Section" / Phase 1 Design Research / Debate folder.

Design Research and Conceptual Design Architectural Characteristics:

The Design Research and Conceptual Design Phases are to be based upon exploring four architectural polarities:

a. Linearity verses Network
b. Order verses Disorder
c. Heavy verses Light
d. Mono-Type verses Multi-Type.

Design Research Phase: requires design studies that consider the contextual relationships, scale, movement patterns, general functional relationships through the conceptual and organizing characteristics of Linearity, and Network, Order and Disorder.

The two of the most fundamental systems of form and conceptual systems are line and network. A single line defines a linear system. A series of adjacent, perpendicular, askew or overlapping lines defines a network system. A Linear or Network system of order creates the shape, scale, relationship of interior and exterior spaces differently. The choice establishes primary relationships to environmental conditions such as the path of the sun, prevailing winds, significant views, structural systems, etc.

1. Linearity: A thin and linear Four Freedoms Foundation creates site-scale transitions separating the surrounding contexts. It permits the creation of an orchestrated sequence of movement and space that connects activities and contexts. At the scale of the north-south Manhattan block, it can create a series of adjacent urban scale forms, events, paths. Openings within the linear form create passageways or transitions from one side to the other.

Locations in the middle, ends, edges, in-between, are all a profound influence upon the buildings functional relationship to their immediate surroundings, the scale of the design, the movement of people to, through or around the design. Linearity in this context can emphasize panoramas; connect riverbanks, correlate to solar movement patterns and seasonal variations.

2. Network: A series of paths, interlocking or distributed forms permits the Four Freedoms Foundation to create a network of spaces, events, with a series of interior and exterior spaces closely integrated into the Southpoint Park context. It potentially separates events and building form. It can be a series of paths and destinations, patchwork of spaces and enclosures.

The degree to which a system of form is organized, the degree to which the rules of its composition are recognized defines the Order and Disorder spectrum. It can be compared to music; harmony verses dissonance.

3. Order: develops alternative designs from highly ordered, pattern based, rectilinear rooms, spaces and sections, well accommodate programmatic functions, close packing and efficient, are easily measured, are generally repetitive and predictable, provide uniformity of structure or modularity. Repetitive or Tartan Grids, Centerline Relationships, Modules, Proportional. The traditional ordering systems have a nested relationship; created urban patterns, city blocks, building form, individual rooms and spaces, closets and alcoves.

4. Disorder: develops alternative design from abstraction of form and geometry non-orthogonal plans and sections, irregular structural patterns, complex shapes and facades, new spatial experiences and functional relationships, novel structural and enclosure systems, a new aesthetic or style.

Conceptual Design Phase: will re-consider fundamental architectural characteristics of Heavy and Light, Mono and Multi Type at the scale and level of detail of site and building.

1. Heavy and Light: develops alternative experiments derived from pre-existing images of 2D and 3D conceptual models which suggest a spectrum from enclosed to open, thick to thin, etc.

2. Mono and Multi Type: develops alternative experiments varying the sameness or uniqueness of alternative experiments suggested by sets, patterns, grouping.

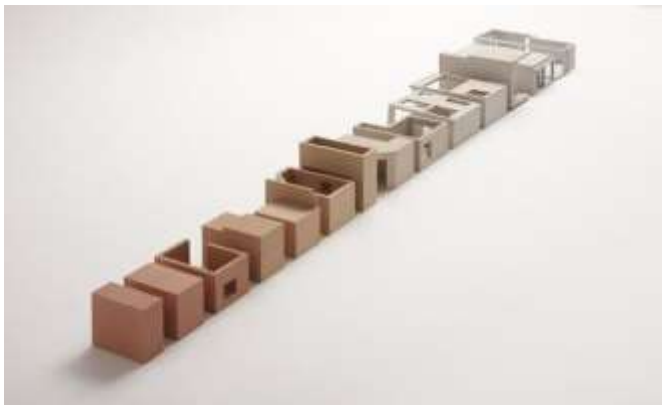
Linearity:

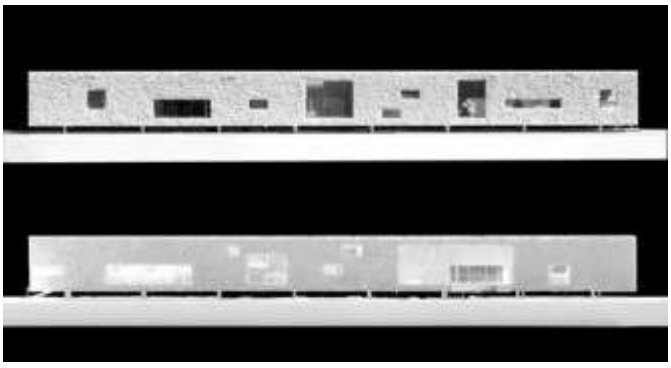
Sequence, Dividing, Thin, Ends and Middle, Short verses Long, Perspective, Distance

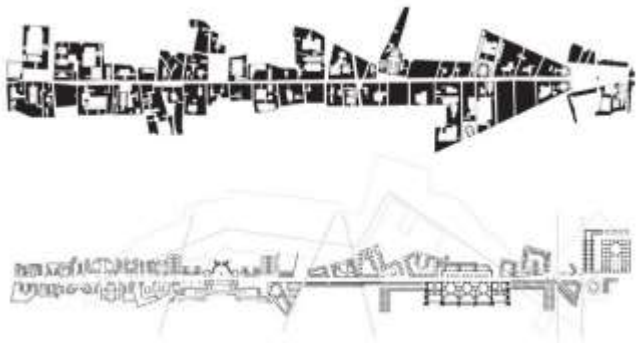
Inherent in the project is the expression and benefits of the linear building envelope, in the trapezoidal site. As maximum Building Envelope spans from East to West or North to South, it is also a boundary or transition from the river to river or campus to park.

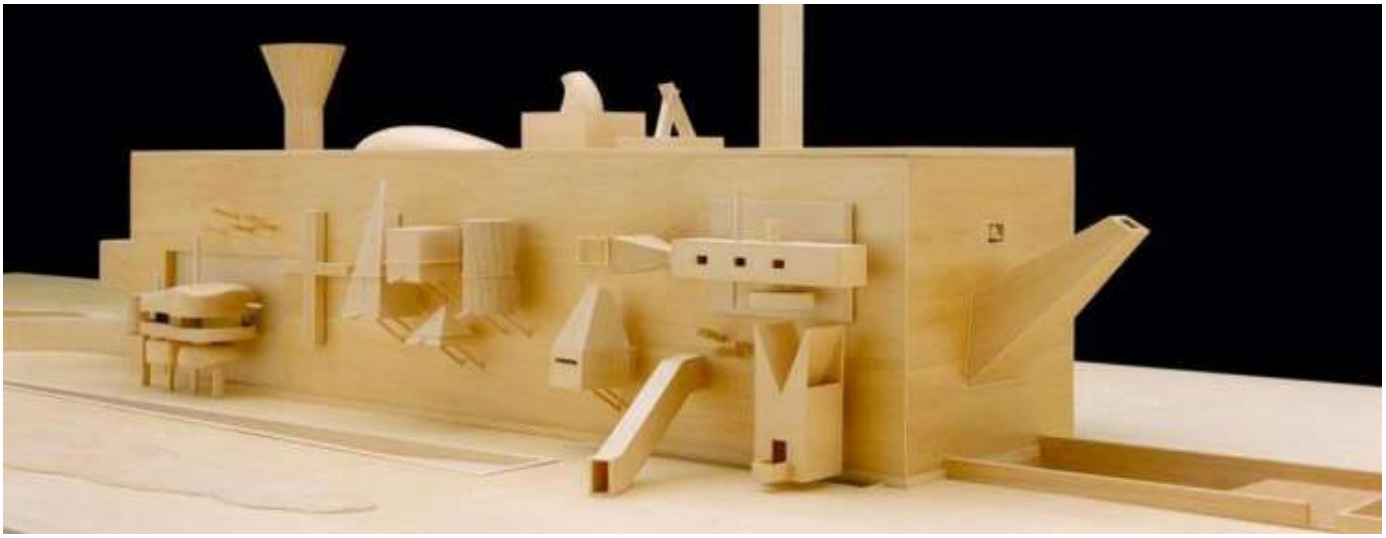
The building envelope's length and narrowness is similar to the collection of many similar and different "pieces" which are part of an urban block. The narrowness and proportion of the building envelope can be developed as a discrete sequence of varying events or spaces, an assembly of differing building forms, floor heights, number of stories, all with a variety of scale and architectural characteristics. But, the simple linear building envelope might also suggest a singular larger scale cultural institution, with continuity of events, or large scale spaces, taking a more important role in the urban fabric, consistent with the many adjacent architectural and cultural landmarks.

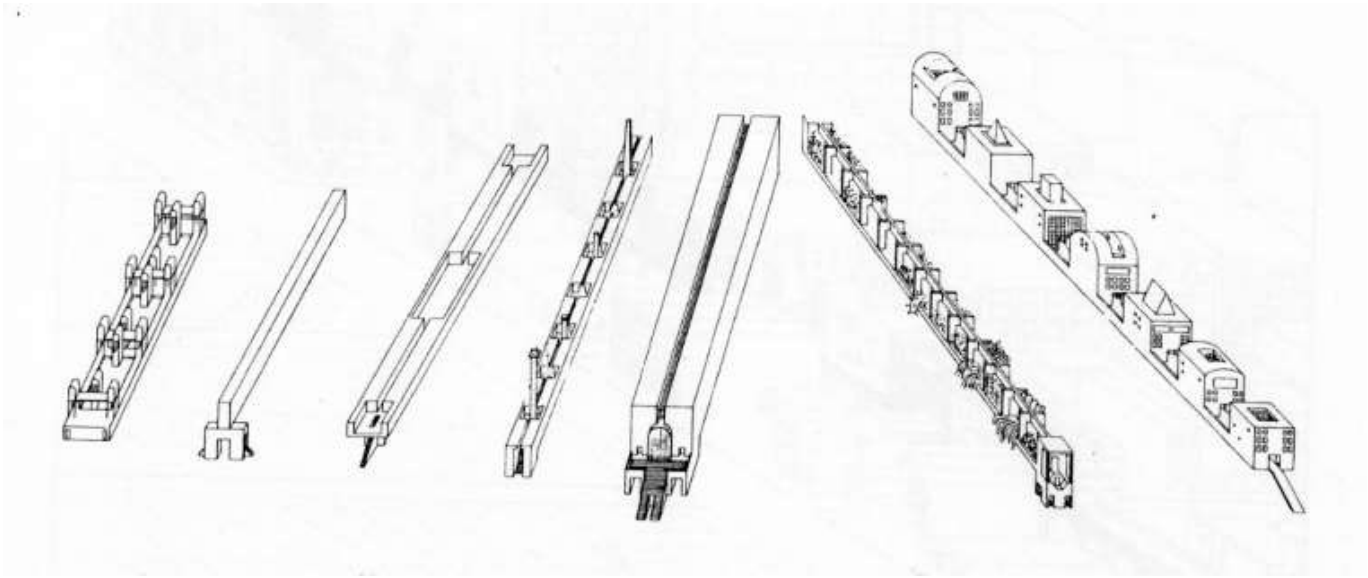
Linearity suggests an order of succession, a sequence that combines the attributes of uniformity and predictability, with difference and surprise. Compositionally, like music, it is the choice between one continuous note, a musical phrase or tune or random notes. Somewhere between a single note and random notes is music. Architectural linearity enhances the need to define and develop a set of organizing principles, forms, patterns, and then selectively choose and create differences. All of the arts, of which Architecture is one, share the attributes of order, rules, logic and disorder, random, surprise. Linearity may emphasize the difference between north and south, or east and west. End conditions are particularly unique and important.

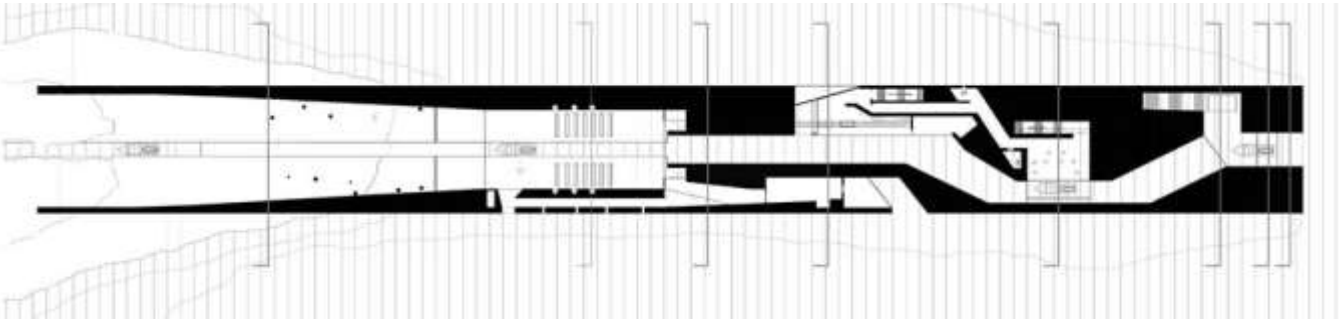


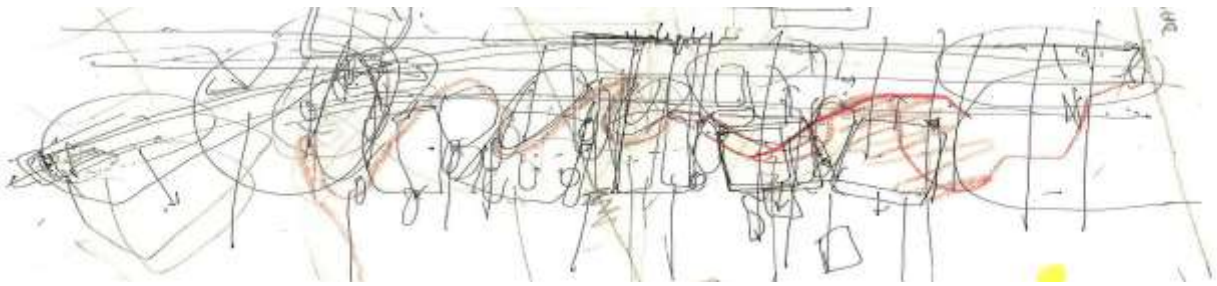












Network:

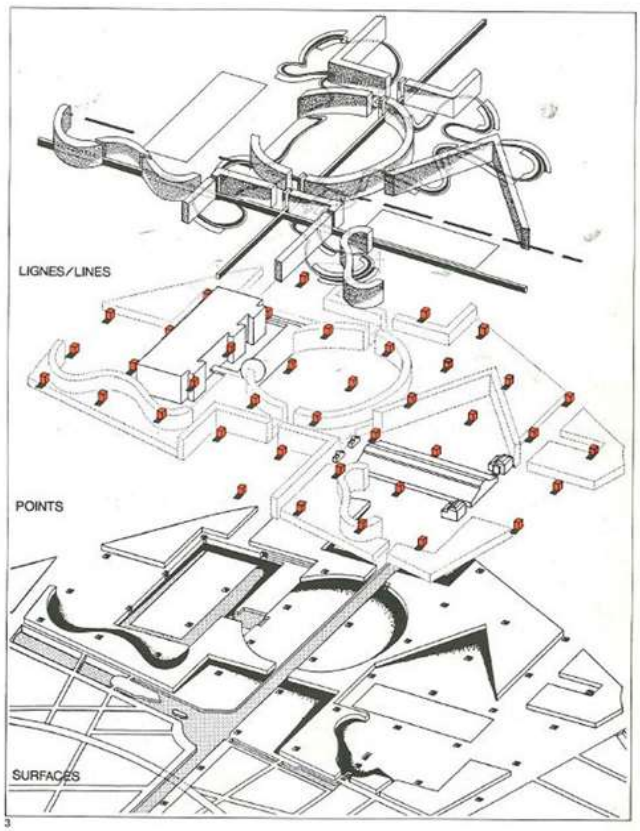
Distributed, Connecting, Diverse

Contemporary architecture as a multifaceted, combining traditionally separated functions, creating a distributed system of events, basing architecture on time-based experiences, adapting or generalizing architecture to accommodate unknown and future conditions.

Network ordering systems value decentralized movement in which there are points of activity, a diverse and distributed system of events, places and functions impacting a large portion of the entire site.

Points of interested would either be found in the existing context, or new / missing points of interested are be created. The strategy is to find unique places and events, move from one to the other, see or find one's next destination that are part of a larger system and scale, fitting into or creating a relationship to the overall urban or natural context.

Multiple paths might connect existing and surrounding contexts and create new points of interest. The pedestrian system provides choice in movement from direct and purposeful connection to random and spontaneous travel.



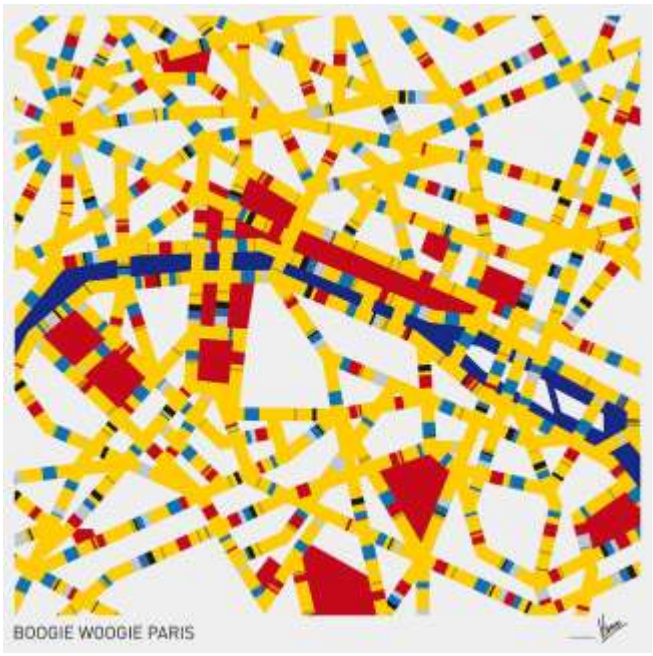
Parc de la Villette **Bernard Tschumi**

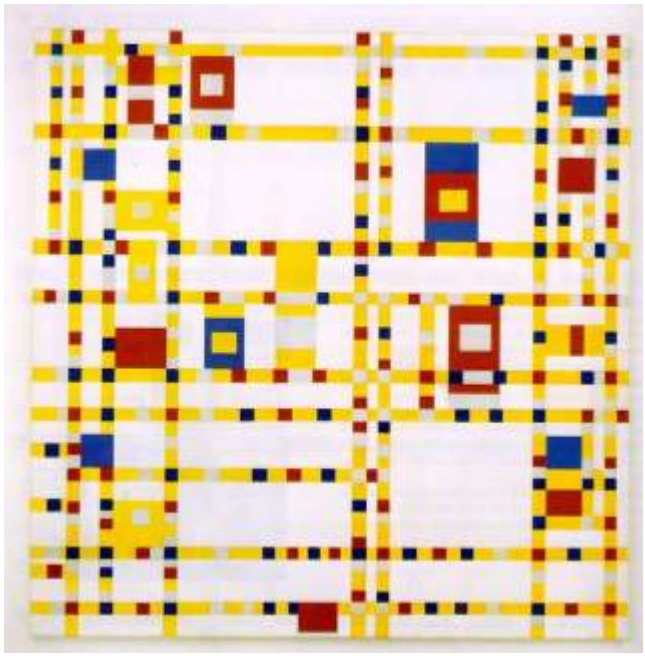
Order:

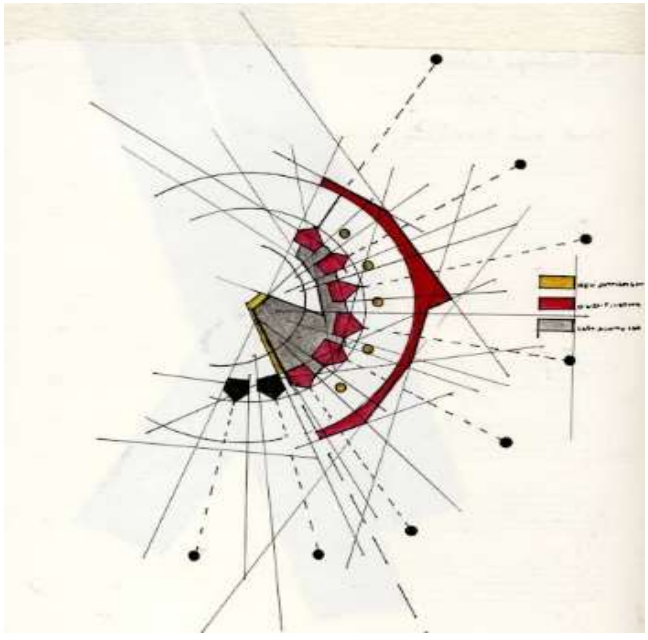
The often symmetrical, highly ordered, pattern based pre-contemporary or “Modern” architecture, i.e. prior to the Bauhaus School, is the underlying ordering system for most architecture. Rectilinear rooms, spaces and sections well accommodate programmatic functions, are close packing and efficient, are easily measured, are generally repetitive and predictable, provide uniformity of structure or modularity.

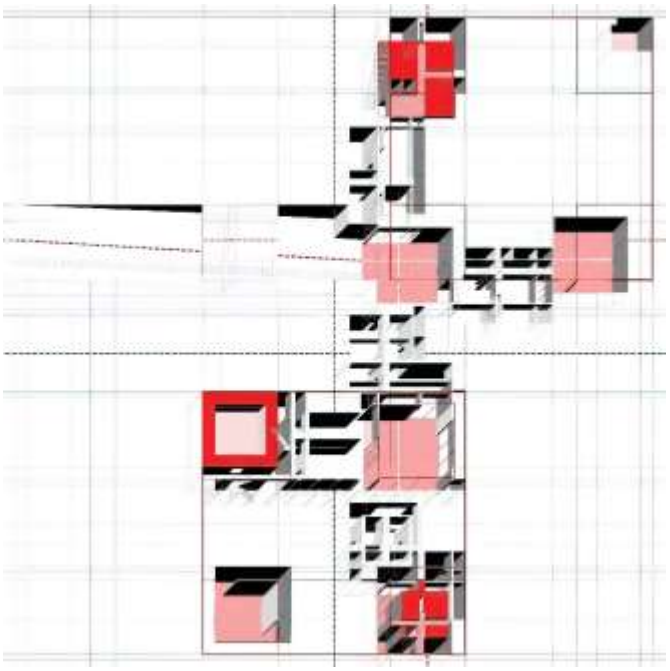
Repetitive or Tartan Grids, Centerline Relationships, Modules, Proportional Systems have been a fundamental aspect of traditional drafting, “T” Square, Parallel Rule formulated architecture.

The traditional ordering systems have a nested relationship; created urban patterns, city blocks, building form, individual rooms and spaces, closets and alcoves.









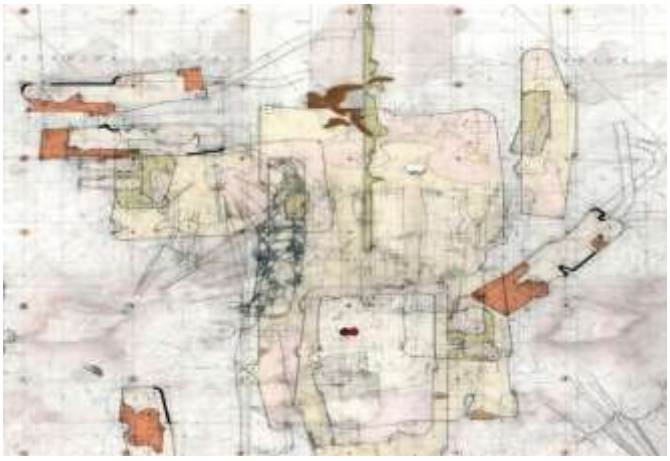
Disorder:

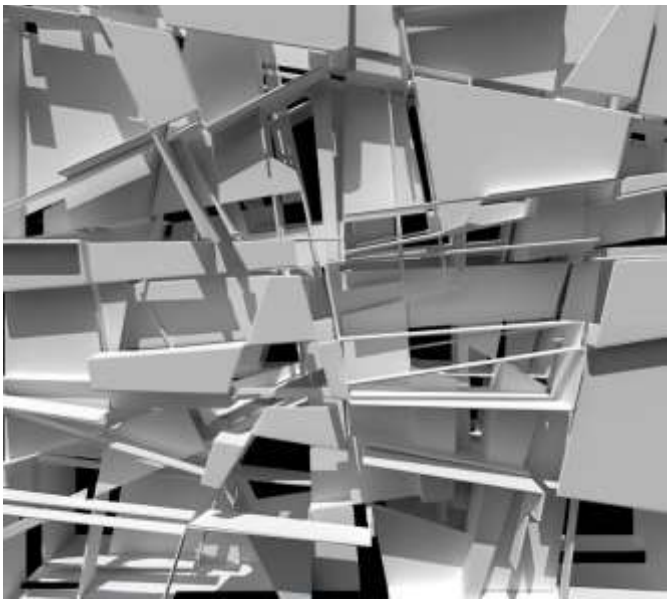
The abstraction of form and geometry has been a fundamental and integral attribute of post Beaux-Art architecture. The symmetrical basis of pre-contemporary architecture has developed into a language of form that includes non-orthogonal plans and sections, irregular structural patterns, complex shapes and facades.

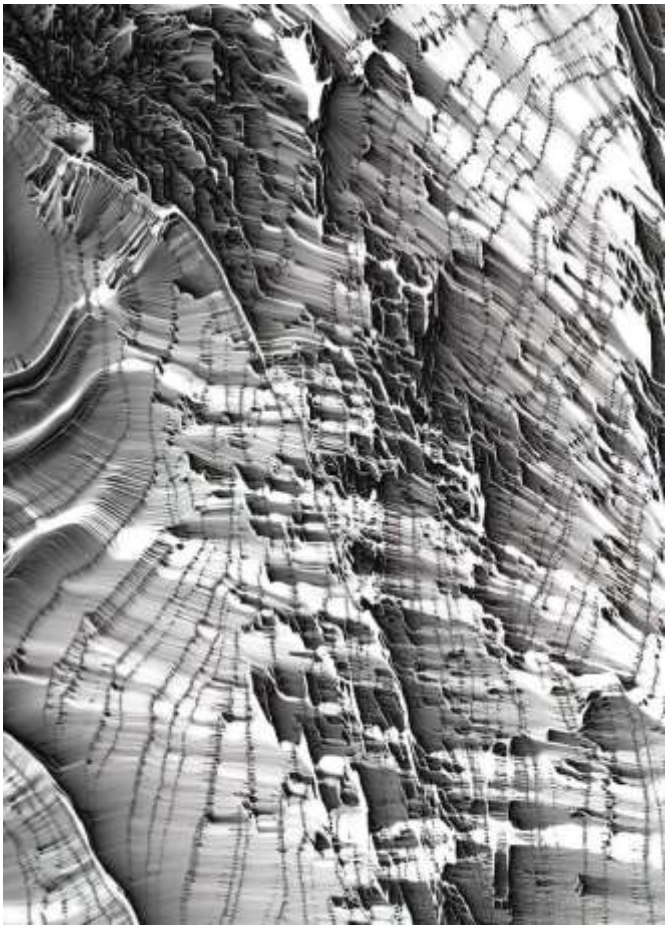
Starting with Dis-Order images and geometries can be instrumental in creating new or novel forms and aesthetics. It provides one of the means for creating new spatial experiences, functional relationships, novel structural and enclosure systems, a new aesthetic or style. All of which illustrate the time and place of a new work of architecture in the current 21st Century. Its abstraction, separation from context, whether physical, environmental, aesthetic, technical or form proves the opportunity for experimentation and newness.

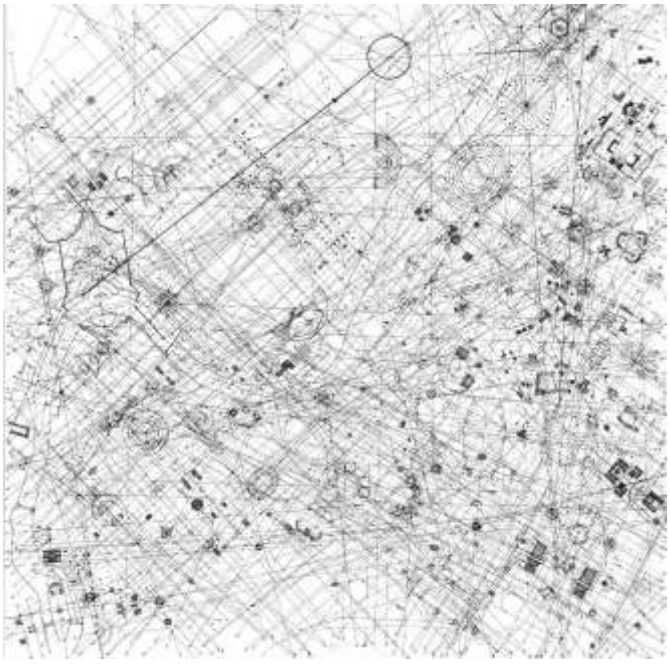
On the other hand, novel newness may grow out of fashion, seem out dated, obsolete, the shock or joy of the new may become boring, possibly only understood by its designer, soon dismissed, forgotten, and possibly hated?

How does starting with Dis-Order image provide a means for the design to “express the new: be of its time and place” without negatively affecting its context, or becoming un-respected or discredited over time? What qualities are necessary for a new work of architecture to become timeless?









History-Theory: Picturesque

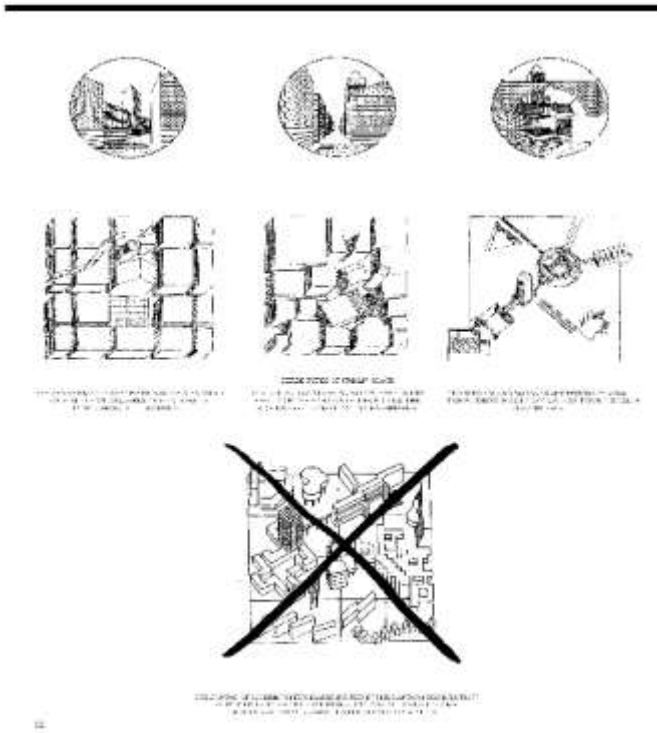
Gordon Cullen's Townscape focuses upon analyzing and extending existing conditions, creating visual variety and hierarchical architectural characteristics, and seeks to find the most appropriate fit for new architecture in its setting.

Cullen's (picturesque, vernacular) focuses is upon the sequence and variety of the visual experience in time, from eyelevel, way finding, landmarks, arrival, etc. He prioritizes architecture as series of events, "theater" which one discovers over time. It is at the scale of someone walking, finding their way, seeing a destination, discovering, finding somethings unexpected, thus creating visual memories. It is analogous to a comic strip or theatrical script.

Cullen's asks how does the design take advantage of the place itself, and use the program to create a specific experiential / visual narrative.
His objective might be to design based solely upon the picturesque and contextual conditions of the existing context, or to orchestrate specific experiences within a neutral or uniformly experiences context. In a sense, the design is a "stage set" viewed by the pedestrian from eye level as they move through the site and building. Its focus is the boundary conditions between inside and outside, public and private, human scale, way finding, background and foreground buildings, vernacular and landmark.

Cullen's view is that urban landscapes and the buildings that help form them are pedestrian experiences, experienced from eye level at a walking pace. They provide a variety of experiences, scales of space, near and far views, present surprise experiences, provide multiple paths for exploration, combine multiple functions, have hierarchy and formulate exterior space as a series of public rooms and varying visual experiences.

https://en.wikipedia.org/wiki/Gordon_Cullen



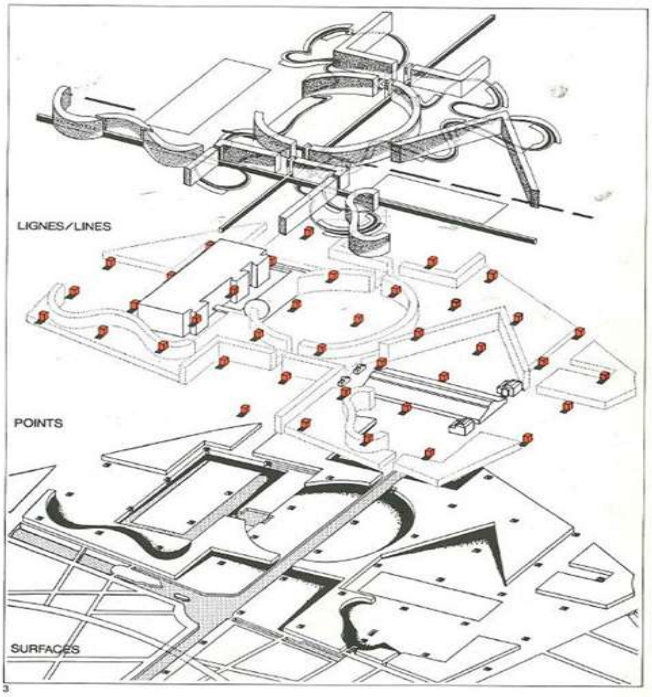
History-Theory: Formal

Leon Krier's Architecture and Urban Design focuses upon analyzing and extending existing systems of organization and form to find the most appropriate fit for new architecture in its setting. Krier's (formal, classical) focus is upon the architectural relationship between the existing contexts ordering principles such as axis, hierarchy, urban blocks, landmark and background, related architectural characteristics and language, particularly as an extension of the public realm,

Design principals are derived from center-lines, axis, hierarchy of streets, background and landmark buildings, definition of the public realm, the shared character and aesthetic of the facade, common architectural characteristics such as fenestration, roof forms, variation in size and scale, organization of interior functions, private exterior areas, etc.

Individual buildings are derived from and considered to be an extension of the existing urban and landscape context. There is an emphasis on the collection of individual buildings into an urban block. Blocks and landscapes are part of a larger urban system. Cultural and other public institutions are given importance,

https://en.wikipedia.org/wiki/L%C3%A9on_Krier



History-Theory: Node

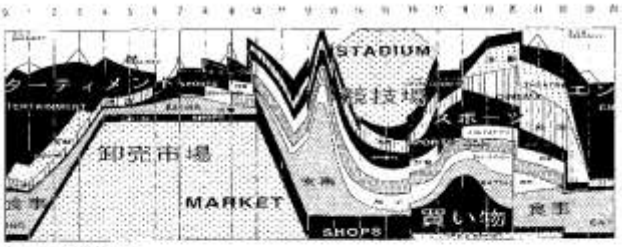
Tschumi's The Manhattan Transcripts and Architectural Concepts views contemporary architecture as a multifaceted condition, combining traditionally separated functions, creating a distributed system of events, basing architecture on time-based experiences, adapting or generalizing architecture to accommodate unknown and future conditions.

Tschumi values an orchestrated system of movement to interact with a system of activity or landmark nodes. The points of activity create a diverse system of events, differences of place and functions which impact the entire site, connecting adjoining neighborhoods which are also understood as a singular construct..

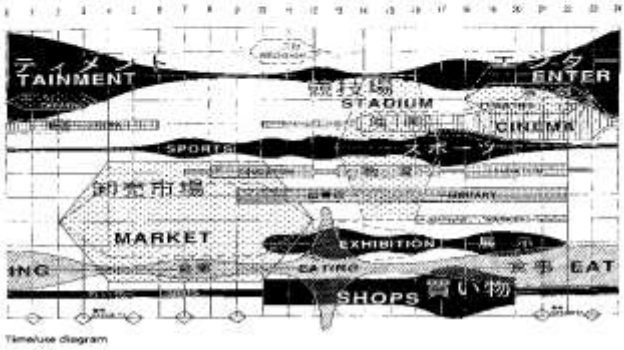
Points of interested are either be found within the existing context, or are created as new / missing points of interested. The strategy is to find unique places and events, move from one to the other, see or find one's next destination, create a system of unique and individual places that are part of a larger system and scale, while fitting into or creating a relationship to the overall urban or landscape context.

Nodes located at the intersection of pre-existing or new pedestrian baths are enhanced by "follies" which provide points of interest, and a variety of interior and exterior functions. The pedestrian system provides choice in movement from direct and purposeful connection to random and spontaneous travel.

https://en.wikipedia.org/wiki/Bernard_Tschumi



Montage of programs



Time/use diagram

111

History / Theory: Combined

Rem Koolhaas's Delirious New York and S, M, L, XL view contemporary architecture as a multifaceted condition, combining traditionally separated functions, creating an interrelated system of disparate events, basing architecture on time-based experiences, adapting or generalizing architecture to accommodate unknown and future conditions.

Koolhaas considers contemporary values, the politics of art, the clash between tourist and resident, the purposeful combining of elements as a means to provoke change and adapt into the future. He might consider the traditional separation of both the private and public functional elements of the design no longer appropriate. Space would be defined by activity and program. New architectural forms are derived from functional overlaps, and movement paths.

https://en.wikipedia.org/wiki/Rem_Koolhaas

Design Research: Design Studies

The design studies are to be based upon concepts of:

a) Linear and Network
b) Order and Disorder

as a means for defining architectural strategies for the Four Freedoms Foundation, in the context of the site, to investigate alternative functional concepts, to the approximate scale and volume of the project.

Using the Google Drive's library Linear and Network, and Order and Disorder images experiment with numerous design alternatives in three dimensions and importantly, in the context of the site plan. The studies are to include physical modeling on prints of the context site plan and digital modeling.

Part of the study is considering and illustrating how the 2D image is either a network based ordering system or a linear one. Google Drive images can be "sampled," rescaled, edited to relate to the context or suggest basic programmatic characteristics.

The 2D image is to be developed into a 3D model, illustrating design elements such as the scale and location of the Four Freedoms Foundation interior and exterior spaces, interior and exterior movement systems, public spaces, relationships to the Southpoint Park, Historic Sites, East River pedestrian walk, architectural concepts and form, etc.

What is discovered from the design process, the reaction and instinct to what is seen, is as important as logically developed designs. The objective is to discover the best architectural concepts, characteristics and strategies that suggest meaningful site and context relationships at the urban scale in three dimensions, and begin to define a set of architectural concepts and strategies for the project at the building scale.

The studies are to speculate and understand not only what is possible. What are the range of strategies for the "best" architectural and urban scale design concepts; considering the NYC, Roosevelt Island, Cornell Tech, Smallpox Hospital scales, architectural scale and form, general size and volumetric scale of the functional requirements, the formulation of public spaces, pedestrian and vehicular movement patterns of the island?

Format: Physical Models, scale 1 to 600 (1" = 50'), model photography of each design study, Digital Model in the context of the site, and aerial and eye level perspectives.

Consider:

a. What is the best location and overall 3D form of the Four Freedoms Foundation (not simply based upon functional organization) that is discovered from the various design studies?

b. What should the location, scale and character of Piazza / Square and Landscape / Garden be?

c. What are the alternative strategies for connectivity the pedestrian movement along the riverfront, to the Roosevelt Memorial park and through the site?

d. What are the minimum and maximum limits, and variations of scale and size, that establish an appropriate scaler relationship to the context and functional program?

e. What are the advantages a linear organizational form verses a concept based upon a network or movement and distributes spaces?

f. What are the advantages an ordered form verses a concept based upon disordered form?

Presentation Requirements:

1. Four (minimum) best 3D Linear-Network-Order-Disorder design models in the context of the site.
2. Photographic or rendering documentation all design study experiments, whether "successful" or not.
3. Analyze and list in writing the best selected design's most successful and least successful qualities for presentation and discussion in the studio.

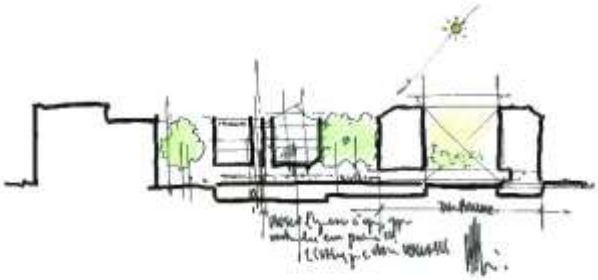
Upload to: Studio's Google Drive / STUDENT WORK / "Studio Section" / Phase 1 Design Research / Design Study folder.

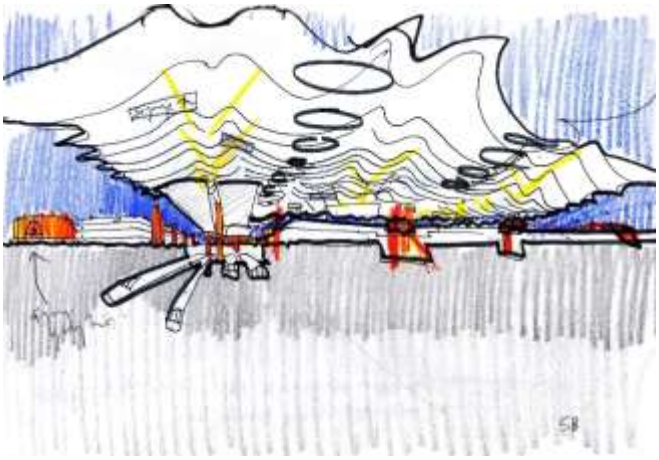
Due: Monday 29 January Noon

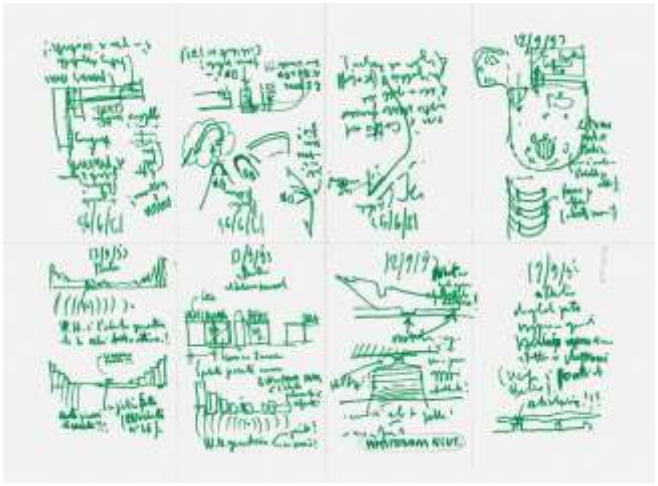
Design Research Notebook: (11x17 PDF Booklet Format) Create an informal notebook of all your Design Studies work, and include the selected Google Drive library images on which you based your design studies.

Due: Monday 29 January Noon

Phase II: Conceptual Design







Conceptual Design: will focus upon the architectural concepts, 3D forms and ordering systems, specific program requirements for interior and exterior functions, public circulation systems, structural form, relationships to surrounding context and the natural environment, to develop architectural characteristics and design strategies.

What is the story of your design (concept)?

What architectural characteristics are most appropriate to story of your design (concept)?

It is the intention that the development of alternative Conceptual Designs be informed and based upon your previous work of the Design Research Phase, rather than starting with a “blank piece of paper or screen” or simply organizing the various functions within the Building Envelope. The Conceptual Design Phase is the next step or evolution of the design process, rather than another beginning.

Frank Gehry’s architecture is markedly different from Renzo Piano’s through differences of architectural, design methods, formal ordering systems, materiality, form and order, and technical expression. They have fundamentally different concepts. However, they both resolve the programmatic and technical requirements of the project brief.

The defining of an architectural concept is the beginning of differentiating a specific design strategy, which is the result of a very well-articulated point of view. It is the expression of the specific location, function, time and place of the design, and the insights and interpretations of great architects.

At the same time, Conceptual Design also addresses the specific requirements of the functional program, analyzes the site and context, defines specific relationships to the urban or natural landscape and climate. It organizes and creates appropriate sizes, scales and relationships between functions, both interior and exterior, as well as the development of public and private circulation systems. It does so, while conceptualizing public spaces, circulation systems, architectural forms and volumes at an accurate scale and within the project setting.

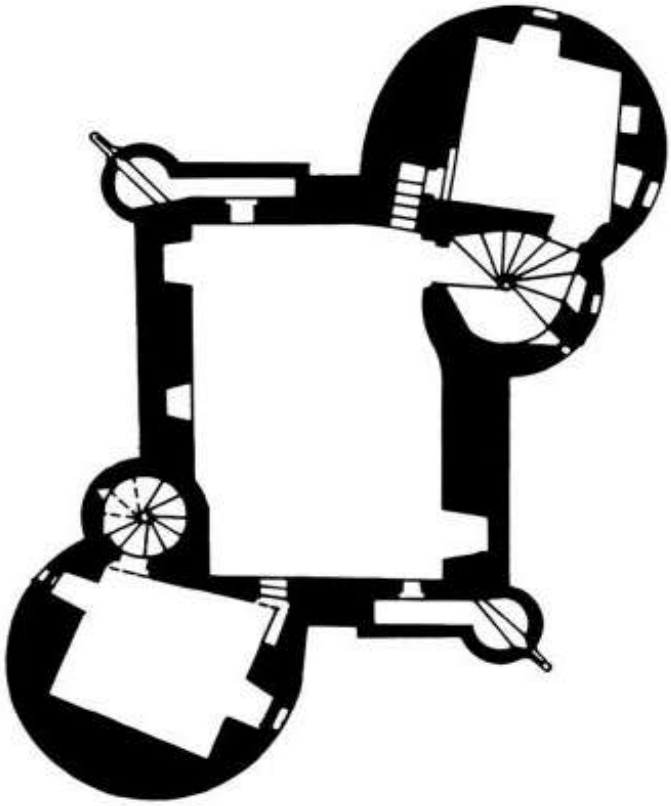
Process: Working at 1 to 600 (1” = 50’) scale develop conceptual sketches, diagrams, and architectural drawings, digital and physical models which evaluate, edit and combine the previous Design Research Phase studies with the more specific architectural concepts, programmatic requirements and contextual conditions of the project.

The final conceptual design sketches, models and drawings should include the fundamental qualities of heavy-light, and mono-type, while also developing a logical relationship between functions spaces, both interior and exterior, the development of public interior and exterior circulation, appropriately scaled to the functional program and context..

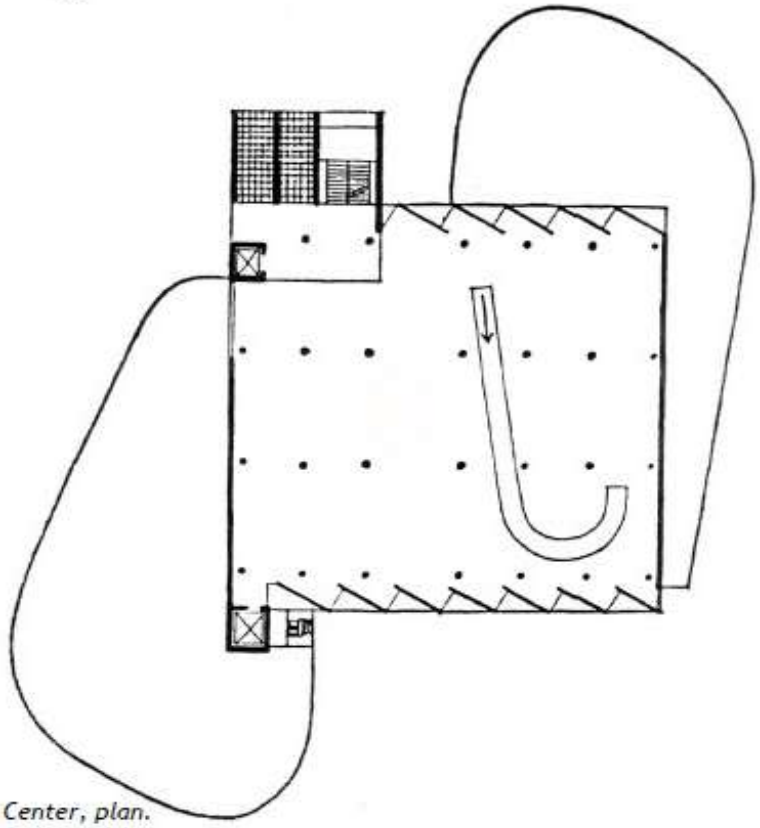
The conceptual architectural drawings should accurately represent the size and height of all programmatic spaces both interior and exterior, the piazza and garden public spaces, and interior and exterior circulation systems in three dimensions within the context of the Maximum Lot Coverage, Site Boundaries, and adjoining context and neighborhoods.

The Conceptual Design Phase should create at least two evolutions of the design, testing and developing specific architectural concepts and intentions.

All designs models and drawings must be illustrated in the context of the site and surrounding neighborhood.



15) b. Claypotts Castle, plan.



16) b. Carpenter Center, plan.

Heavy Architecture:

Figure-Ground, Permanence, Enclosed Space, Isolated, Stable

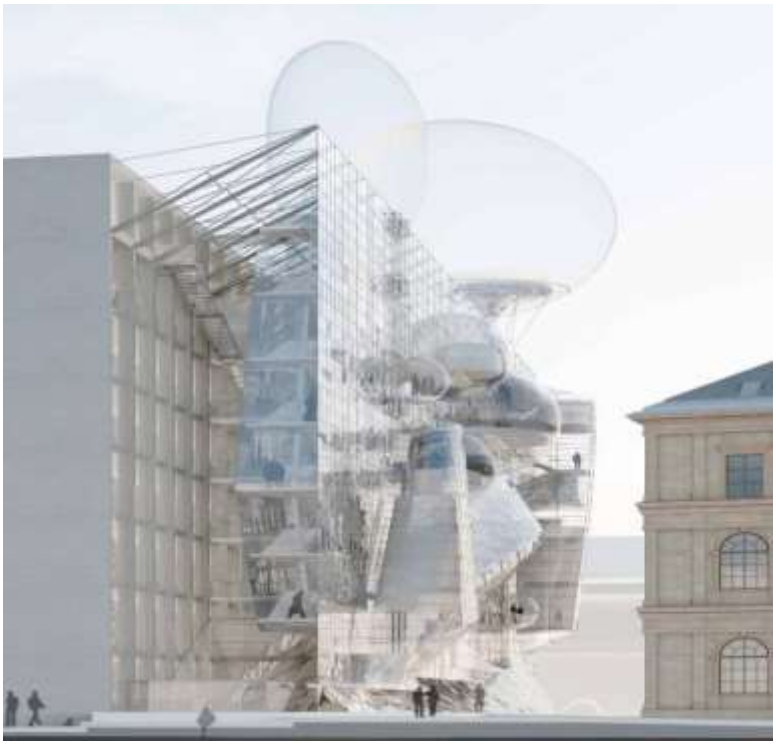
Monumentality in architecture may be defined as a quality, a spiritual quality, inherent in a structure that conveys the feeling of structural perfection which has contributed in great part to their impressiveness, clarity of form and logical scale.

Heavy-weight buildings are those which have their facades and internal walls subdivide space, provide environmental protection and act as the structure of the building. Composed of a single material that provides water and air tightness, thermal insulation, visual and light control, acoustic isolation, physiological isolation and are related to the landmarks of architecture until the last century. Generally, building of this type have thick walls that extend from the foundations to the sky. The lateral stability of the building is either accomplished through thick walls, or positioning walls at right angles for buttressing. Internal surfaces, colors and textures extend to the external elevations of the building. Heavy-weight architecture can also be accomplished through thin physiological barriers, permanently in place, dividing, stable illustrated by the sculpture of Richard Serra.

No architect can rebuild a cathedral or another epoch embodying the desires, the aspirations, the love and hate of the people whose heritage it became.
Therefore, the images we have before us of monumental structures of the past cannot live again with the same intensity and meaning.
Their faithful duplication is irreconcilable.
But we dare not discard the lessons these buildings teach for they have the common characteristics of greatness upon which the buildings of our future must, in one sense or another, rely.
Louis I. Kahn

Proportions should govern the parts, so that they may give the appearance of a body perfect and whole, rather than a sum of incomplete and disjointed parts.
Leon Batista Alberti

Maryhill Overlook	Allied Works
Corte San Pietro Hotel	Daniela Amorso
Innovation Center	Alejandro Aravena
Zamora Offices	Albert Campo Baeza
Alcarcer do Sal Residences	Manuel Aires
MateusIglesia de Santisimo	Fernardo Menis



Light Architecture:

Movable, Connective, Adaptive, Anti-Space, Unbounded, Continuous

An architecture which is contemporary: new materials, environmentally responsive, expressive of the limits of what is possible, eventful, exploring new methods and assemblies, risk taking, extending the new, a surprise and a celebration, other than. The search for slim, light, transparent, adaptive architecture has led to the use of glass, metal and other thin sheets as the primary space dividing system. The role of structural support and stability is provided by a separate structural frame rather than the wall itself. As a result, the building is "skin and bones."

Transparency, environmental responsiveness, and direct connection between spaces emphasized. While protection from sunlight, direct views to the exterior provide the opportunity for dynamic elevations. Added to the variety of single layer and double layer glass technologies, light-weight buildings are often clad in metal sheet, fabric or other light filtering materials. Lightweight architecture has the potential to move, adapt, respond to seasonal change and weather, changes in use, enclosing or extending space.

Architects have preferred to change the existing environment rather than enhance what is there.
Yet architects who irreversibly denaturalize environments and contexts do so on behalf of third parties.
Do architects really operate in an empyrean realm governed solely by personal aesthetics, which bear no relationship to society, citizenship and cultural memory? Should they not have a broader vision when they design and build a structure transforming a city or the natural landscape?
Salvatore Settis
Director of Getty Research Institute

I used to be a symmetrical freak and a grid freak. I used to follow grids and then I started to think and I realized that those were chains, and that grids are an obsession, a crutch. You don't need that if you can create spaces and forms and shapes. Scale is a struggle. Lighting is always a difficult, complex problem. The question: do we make an absolutely new thing that has nothing to do with its context and surrounding architecture, or do we make a kind of homage to the place but not like the real place, real architecture.
I am not going to do either of those things. It will have a familial relationship.
Frank Gehry

Barrio del Foro Romano	Amann Canovas Maruri
Everday Coffee Pavilion	Sean Godsell
Villa Roces	Govart Vanhoutte
Ingfah Restaurant	Tungthunya

Multi-type Architecture:

Varied, Maximizing Differences, Perfected, Localized, Ideal

The multi-type is generally viewed as a precise fit to site, function, local conditions, climate, the nuances of place, and differences of function, variation of experience, diversity, surprise, contextual differences, and hierarchy. Their uniqueness can be generated from local conditions, the expressive values of the design or builder, disregard for precedent, desire to be or express the new. The multi-type provides potentially the highest level of visibility, identity, ownership, functional and environmental perfection to the architectural work.

In its purest sense, every room/space is unique, nothing is exactly the same. Multi-type can range from a purposefully rich variety of experiences, to an extreme condition of undifferentiated complexity, delight or chaos. The complexity of multi-type is often illustrated by random or hybrid visual systems, ranging from countless elements randomly within a context or conversely strategically differentiated elements in a complex framework or context.

In what ways can a multi-type be more than a collection of non-repetitive elements?
What relationships can develop between non-repetitive elements?
When should irregularity or non-predictability be introduced into an architectural concept or situation?
At what point does complete variety result in chaos, extreme or oppressive complexity, disorientation?

Mono-type Architecture:

Similar, A Set, One of Many, Related, Identical

A monotype is generally viewed as having a rational set of spatial, formal and functions relationships which are idealized, logical when identically or near identically repeated, creating recognizable symbols. There basic attribute is sameness, a set of similar or identical pieces. Monotype implies multiple instances of the identical designs, whether discrete or part of a larger whole.

In its purest sense, monotypes are replicated with little difference, or developmental variation. Their advantage is in part their twin-ness. As they are a set, they often collectively create an architectural system at a larger scale. Commonality results in uniform and predictable relationships. However, the repetition of monotype elements in architecture can obscure larger concepts, where a collection of many identical smaller elements do not create other scales of building mass, scalar relationships to context, appropriate human scale, or are inconsistent with structural or environmental requirements.

Is it possible to create a prototypical architectural design, which is also adaptable with minimal variation to the specific physical locations, environmental orientations, architectural characteristics, urban conditions?
In what ways should a monotype be more than a collection of exactly repetitive elements?
What types of variations or exceptions should be introduced into a mono-typical system?
At what point does complete uniformity result in disorientation, boredom, a force-fit?

Conceptual Design: Design Studies

Heavy & Light and Mono-Type & Multi-Type

All architecture is a combination of the characteristics “Heavy to Light,” and “Mono-Type to Multi-Type” and are required to be the basis of your Conceptual Design studies.

These four architectural characteristics define the broadest range of possible architectural forms and aesthetics, environmental and functional relationships, technological and material choices within architectural design.

All great architecture over the millennium express these characteristics. While they define specific architectural characteristics, they do not prescribe a specific architectural period or style.

Often great architectural works are the result of being exclusively heavy or light, such as cave verses a tent. Some are based upon the opposing differences between heavy and light such as that of a Gothic cathedral. Edward Lutyen’s is quoted as saying that all great works of architecture are best made out of one material, organized and expressing by how it is made.

The Conceptual Design Studies focus upon Heavy to Light: a) the isolation or continuity to the physical context and climate, b) the inherent architectural forms and ordering systems, c) the implications to structural form, the relationship between interior and exterior spaces, d) the adaptability to climate, weather, solar conditions, e) the relationship to the landscape and topography, f) the open or cellular character of the architecture, all are derived from the Heavy to Light characteristics.

The Conceptual Design Studies focus upon Mono to Multi Type: The program has sets of similar functions such a Library, Restaurant, exterior Courtyards. The degree to which they differ in defined by whether they are mono-type or multi-type. Exterior facades as the orient to differing solar and contextual conditions may differ or be similar. The ground level functions or facades and upper level functions or facades / roofs may differ from the middle levels. The architectural form or massing may be uniformly repetitive or a set of unique elements. Variations of color, texture, materials may be uniform, monochromatic or diverse and unique.

What are the best possible architectural concepts and strategies that result from considering the architectural dialogs between Heavy & Light, and Mono-Type & Multi-Type?

For example: the polarity or dialogue between Heavy and Light includes a wide range of architectural characteristics:

1) The psychology of space,
2) The relationship between spaces,
3) The separation or connection between interior and exterior spaces,
4) The nature of the structural system,
5) The degree to which the architecture is dynamically changing or static,
6) Relationships to context, technology,
7) Division or continuity of space and function,
8) Environmental sustainability and energy efficiency
9) Daylighting and solar control, etc.

For example: the polarity or dialogue between “Monotype and Multi-type” includes a wide range of architectural characteristics:

1) The identicalness of functionally similar spaces,
2) The balance between order and disorder,
3) Variations of experience, scale, mood,
4) Importance,
5) Human and contextual scale,
6) Structural and mechanical systems logic,
7) Relationships to varying conditions such as sun paths, seasons, times of day, variety of events, weather, orientation,
8) Hierarchy of scale or systems, etc.

A. Heavy - Light Design:

a. Select many similar examples each for Heavy and Light, from the Design Research: “Heavy-Light,” folder in the studio’s Google Drive. Interpret their potential meaning, conceptual and design potential as it applies to the specifics of this studio project and importantly to your work thus far. The images should not “solve the problem or be the design,” but rather illustrate Heavy-Light characteristics which can develop and illustrate your architectural ideas, concepts and intentions which you have formulated thus far.

b. Review the images and select the single “best” Heavy and single “best” Light image. If your design was to be developed as exclusively Heavy, what would be the advantages and disadvantages? How would it advanced your architectural intentions and redefine your concept? If your design was to be developed as exclusively Light, what would be the advantages and disadvantages? How would it advance your architectural intentions and redefine your concept?

c. Create a set of “Heavy” and “Light” 3D physical and / or digital study model pieces that, as closely as possible, replicate the characteristics of the selected images. Overall, the studies strive to maintain the basic conceptual and architectural characteristics of the original image as much as possible.

The design is to be done on top of a 2D site plan printed at 1 to 600 (1” = 50’) scale to maintain architectural scale with the details of the surrounding context, to see and respond to specific site relationships, while also working within zoning and planning requirements of the program.

You are encouraged to explore alternative designs with your Discussion Group; ”playing a game” to discover the best possibilities, helping others find or see the qualities and interpretations of models, each design leading to another possibility. This is not an assignment to accomplish alone without the benefit of reactions, instincts and the curiosity of your peers. Importantly, this design process is not “starting your design from scratch.”

B. MonoType - MultiType Design:

a. Select many similar examples each for Mono-Multi Type, from the Design Research: “Mono-Multi Type,” folder in the studio’s Google Drive.

Interpret their potential meaning, conceptual and design potential as it applies to the specifics of this studio project and importantly to your work thus far.

The images should not “solve the problem or be the design,” but rather illustrate Heavy-Light characteristics which can develop and illustrate your architectural ideas, concepts and intentions which you have formulated thus far.

b. Review the images and select the single “best” MonoType and single “best” MultiTypet image.

If your design was to be developed as exclusively MonoType, what would be the advantages and disadvantages? How would it advanced your architectural intentions and redefine your concept?

If your design was to be developed as exclusively MultiType, what would be the advantages and disadvantages? How would it advanced your architectural intentions and redefine your concept?

c. Create a set of “MonoType” and “MultiType” 3D physical and / or digital study model pieces that, as closely as possible, replicate the characteristics of the selected images. Overall, the studies strive to maintain the basic conceptual and architectural characteristics of the original image as much as possible.

The design is to be done on top of a 2D site plan printed at 1 to 600 (1” = 50’) scale to maintain architectural scale with the details of the surrounding context, to see and respond to specific site relationships, while also working within zoning and planning requirements of the program.

You are encouraged to explore alternative designs with your Discussion Group; ”playing a game” to discover the best possibilities, helping others find or see the qualities and interpretations of models, each design leading to another possibility. This is not an assignment to accomplish alone without the benefit of reactions, instincts and the curiosity of your peers. Importantly, this design process is not “starting your design from scratch.”

Conceptual Design Study Requirements:

1. Four (minimum) best 3D Heavy-Light-MonoType-Multi-Type physical and digital design models in the context of the site.
2. Photographic or rendering documentation of all design study experiments, whether “successful” or not.
3. Analyze and list in writing the best selected design’s most successful and least successful qualities for presentation and discussion in the studio.

Upload to: Studio’s Google Drive / STUDENT WORK / “Studio Section” / Phase 1 Conceptual Design / Design Study folder.

Due: Monday 5 February Noon

Conceptual Design Study Notebook:

(11x17 PDF Booklet Format) Create an informal notebook of all your relevant Conceptual Design Studies listed above and also include the Heavy, Light, Mono-Type and Multi-Type images selected from the course’s Google Drive.

Due: Monday 5 February Noon

Review 1: Conceptual Design

A. Conceptual Design:

Explain your design objectives and strategies by answering each of these questions through diagrams and words:

What is “story” of your design?
Explain how the design is “heavy” and / or “light” and why?
Explain how the design is “mono-type” and / or “multi-type” and why?
Explain how the “linearity” or “network: influenced your design.
Explain how “order” and “disorder” has influenced your design.
How is your design a response or development of contemporary architectural concepts and technologies?
Explain why is your design “Architecture?”
Illustrate your design intentions through a series of freehand conceptual sketches

B. Comparable Architectural Diagrams:

Explain and illustrate the design’s organization though the following four diagrams.
Each of the following requirements should be illustrated at the same scale and point of view.

1. Site Relationships: Illustrate the Conceptual Design’s exterior courtyards and public spaces, pedestrian circulation and entries, pedestrian and boat movement systems and connections, relationships to the architectural and physical context.
2. Formal Ordering Systems: Illustrate the Conceptual Design’s concepts, determinants of form and scale, patterns and organizing principles, linearity characteristics, and relationship to the surrounding context.
3. Functional Organization: Illustrate the Conceptual Design’s primary functions location, size and height and relationship to each other, both interior and exterior, public and service circulation systems.
4. Environmental Response: Illustrate the Conceptual Design’s response to Solar Orientation, Daylighting, changes of season, weather, time of day, etc.

C. Conceptual Architectural Documentation:

1. Contextual Plan: Aerial Google Earth view of building in the context of the surrounding neighborhood and river. (1” = 100’)
2. Conceptual Site Plan: Aerial view of building’s ground floor in the context of site and surrounding context. (1:600 or 1” = 50’)
3. Conceptual Floor Plans: Architectural ground level site plan and plans of all other levels of proposed building in the context of surrounding site. Ground level floor plan to be in the context of the surrounding site details and context. (1:300 or 1” = 25’)
4. Conceptual Building-Site Sections: Architectural Longitudinal (one minimum) and Transverse Building-Site Sections (two minimum) in the context of surrounding site. (1:300 or 1” = 25’)
5. Conceptual Building-Site Exterior Elevations: Architectural Exterior Elevations (four) in the context of the surrounding site and context. (1:300 or 1” = 25’)

D. Perceptual Documentation in 3D:

Explain the design in context and from eye level experientially.

1. Design Research Models: Physical model detail equivalent 1 to 600 (1” = 50’), with photographs.
2. Conceptual Phase Model: Physical model detail equivalent 1 to 600 (1” = 50’), with photographs.
3. Serial Views: A sequence eye-level Serial View perspectives in context. The sequential views are to illustrate moving to and through the design, as experienced at eye level and in its surrounding site context, including all major interior and exterior spaces. Serial Views must include approaching the proposed design from major points of access, entering the Foundation, moving to and through all major spaces (Libraries (4), Restaurant, Café, Hall, Shops).
4. Contextual Views: A set Contextual Views from eye-level (four minimum) and aerial level (two minimum), which are photographically accurate renderings of the building scale digital model superimposed on eye level and aerial site / context photographs, with accurate matching of perspective, size, horizon line, lighting conditions and shadows, color tint and value, (with minimized building surfaces and landscape textures.)

Due: Monday 12 February Noon

Phase III: Schematic Design

Schematic Design:

Will focus upon the development of 2D architectural drawings, while further developing architectural concepts and formal strategies, the physical and technical aspects of the design. Architectural drawings will illustrate the functional development of rooms and spaces, the architectural and technical characteristics of the building section, the fundamental characteristics of the structural and mechanical systems, and the environmental and contextual response. The schematic design must also resolve the basic requirements of life safety egress, and resolve the basic requirements accessibility.

Schematic Design illustrates functional relationships of location, size and proportion of all interior and exterior spaces, the primary structural system, design of the primary egress and exit system, design of the primary accessibility, basic solar control and daylighting strategies for Galleries, Shops, Restaurants and other public spaces.

It develops the conceptual design to incorporate the primary exterior elevation characteristics including glazing, foundations, and landscaping / site characteristics. Wall, floor, roof thicknesses accurately illustrate structural systems requirements. They are based upon slenderness ratios of columns and walls, and structural span to depth ratios of girders, beams and slabs, trusses and provide lateral stability and minimized deflection for the structure.

The Studio's Google drive Architectural Drawings and Models \ 2D Section and 3D Section folders include a wide range of examples of both drawing type and illustrations of Schematic Design level of detail. The level of detail is increased from the Conceptual Design Phase to that associated with 1 to 196 (1/16" = 1'-0"') scale architectural drawings.

Piazza and Landscape Design Notebook:

What are the design concepts and strategies for your projects exterior spaces?

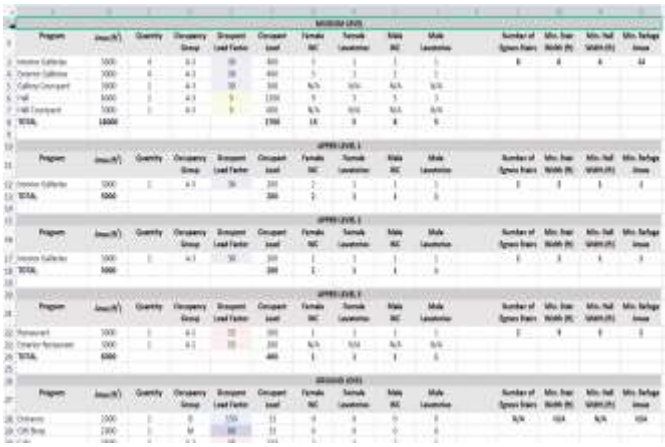
Select landscape-garden and campo-piazza examples from the Google Drive / Design Research Phases / Landscape folders. Notate how the selected images would apply and become part of your Schematic Design, focusing upon the public and private exterior spaces; the Garden(s) and the Campo.

Consider both the application of contemporary landscape systems for self-sustaining plant materials, water conversation, new landscape forms, and the architectural characteristics that are inherent in the traditional Venetian campo. The notebook should be the basis for the development of all the exterior spaces for your design.

Due: Thursday 15 February Noon

Regulatory, Life Safety & Accessibility Schematic Design:

Calculate the following information based upon your current Schematic Design using the provided Excel Sheet:



(See Google Drive, Course Documents folder for a copy of the schematic S24 Life Safety Analysis, Excel file.)

Application of Regulatory, Life Safety and Accessibility Analysis: (PDF Booklet Format)

Due:

Schematic Design Presentation:

A. Design Concept:

Explain your design objectives and strategies by answering each of these questions through diagrams and words:

What is the process and "story" of your design?
Why is the proposed design worthy of being the new "Four Freedoms Foundation?"
Explain how the design is "heavy" and / or "light" and why?
Explain how the design is "mono-type" and / or "multi-type" and why?
Explain how the "linearity" or "network: influenced your design.
Explain how "order" and "disorder" has influenced your design.
How is your design a response or development of contemporary architectural concepts and technologies?
Why is your design "Architecture?"

B. Comparable Architectural and Building Systems Diagrams:

Explain and illustrate the designs organization though diagrams. Each of the following requirements should be illustrated at the same scale and point of view.

1. Schematic Site Relationships: Illustrate the Conceptual Design's exterior courtyards and public spaces, pedestrian circulation and entries, pedestrian and boat movement systems and connections, relationships to the architectural and physical context.
2. Schematic Formal Ordering Systems: Illustrate the Conceptual Design's concepts, determinants of form and scale, patterns and organizing principles, linearity characteristics, and relationship to the surrounding context.
3. Schematic Functional Organization: Illustrate the Conceptual Design's primary functions location, size and height and relationship to each other, both interior and exterior, public and service circulation systems.
4. Schematic Environmental Response: Illustrate the Conceptual Design's response to Solar Orientation, Daylighting, changes of season, weather, time of day, etc.
5. Schematic Structural Form: Illustrate the Schematic Design's basic structural form characcter, heavy or light, frame-grid-load bearing wall, etc.

C. Architectural Documentation: (Detail equivalent to 1/16" = 1'-0" or 1:192, except at notated)

1. Schematic Contextual Plan: Aerial view of building in the context of the surrounding neighborhood and lagoon. (1" = 100' or 1:1200)
2. Schematic Site Plan: Aerial view of building's ground floor in the context of site and surrounding context. (1" = 50' or 1:600)
3. Schematic Floor Plans: Architectural ground level site plan and plans of all other levels of proposed building in the context of surrounding site. Ground level floor plan to be in the context of the surrounding site details and context.
4. Schematic Building-Site Sections: Architectural Longitudinal (one minimum) and Transverse Building-Site Sections (two minimum) in the context of surrounding site.
5. Schematic Building-Site Exterior Elevations: Architectural Exterior Elevations (four) in the context of the surrounding site and context.

D. Perceptual Documentation:

Explain the design in context and from eye level experientially.

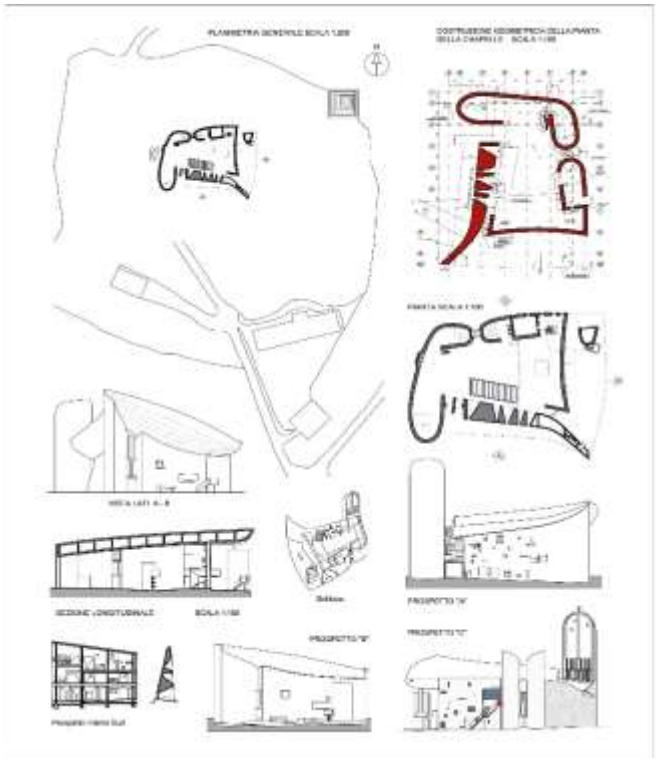
1. Design Research Models: Physical model detail equivalent 1 to 600 (1" = 50'), with photographs.
2. Conceptual Phase Model: Physical model detail equivalent 1 to 600 (1" = 50'), with photographs.
3. Schematic Phase Model: Physical model, detail equivalent 1 to 600 (1" = 50'), with photographs.
4. Serial Views: A sequence twelve to twenty-four eye-level Serial View perspectives in context. The sequential views are to illustrate moving to and through the design, as experienced at eye level and in its surrounding site context, including all major interior and exterior spaces. Serial Views must include approaching the proposed design from major points of access, entering the Foundation, moving to and through all major spaces (Libraries (4), Restaurant, Café, Hall, Shops).
5. Contextual Views: A set six to twelve Contextual Views from eye-level (four minimum) and aerial level (two minimum) , which are photographically accurate renderings of the building scale digital model superimposed on eye level and aerial site / context photographs, with accurate matching of perspective, size, horizon line, lighting conditions and shadows, color tint and value, (with minimized building surfaces and landscape textures.)

Due: Monday 26 February Noon

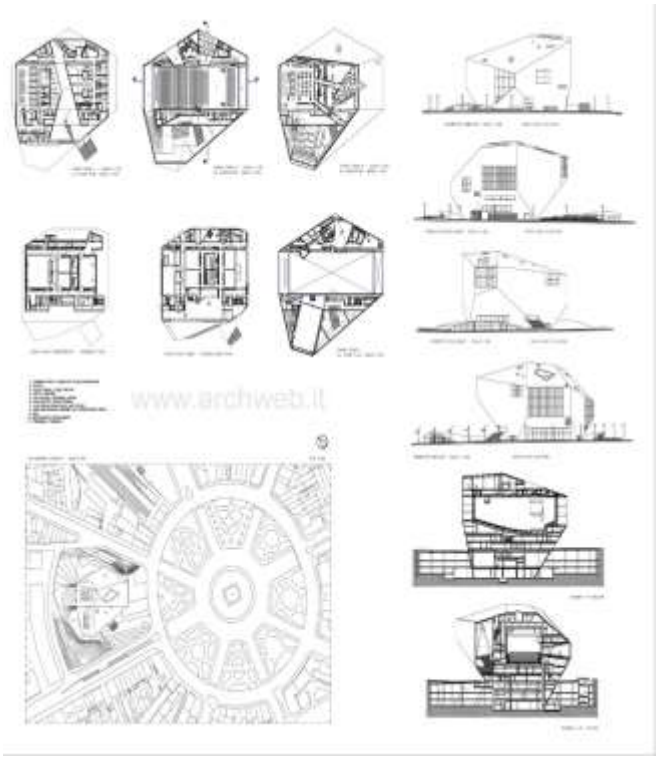
Phase IV: Design Development

Design Development is to the further develop the conceptual, functional, regulatory and technical aspects of the Schematic Design.

The level of detail is that associated with 1/8' " = 1'-0" architectural drawings. The focus is the development of a set of detailed 2D architectural drawings with all drawings of proposed design shown in the context of the site and neighborhood.



All drawings must be in context (not as illustrated).



All drawings must be in context (not as illustrated).

Design Development:

The design development phase will focus upon the following:

a. Compliance with all major regulatory, life safety and accessibility requirements.
b. Structural system design and dimensions and including building foundations, component dimensions and lateral stability
c. Environmental control systems locations and distribution.
d. Design of the building exterior envelope at the scale of the entire project.
e. Functional details such as the design of kitchens, restrooms, dining areas, exterior courtyards and site landscapes/hardscapes.
f. Selection and design of the exterior façade, its materials, systems, and visual and thermal performance at the building scale.

See the Studios Google Drive:
"Facades" & "Technical References and Tutorials"

Exterior Elevation Notebook:

(11x17 PDF Booklet Format) Develop an annotated notebook of all examples of exterior facades or portions of facades of projects with similar architectural characteristics and materials that you are considering to use as a basis for the development of the project.

Sources of information include the eighteen Studio's Google Drive / Building Systems and Facade Reference folders and the HCAD Library's online access to DETAIL Magazine. Select examples which both illustrate your design concepts, related selection of building materials, and which are an appropriate fit to the surrounding urban and natural landscape.

What should the architectural character of your design be to express its architectural concepts, programmatic functionality, relationship to the surrounding context, and environmental response?

Due: Thursday 29 February Noon

Review 2: Design Development

A. Design Concept:

Explain your design objectives and strategies by answering each of these questions through diagrams and words:

What is the process and "story" of your design?
Why is the proposed design worthy of being the new "Four Freedoms Foundation?"
Explain how the design is "heavy" and / or "light" and why?
Explain how the design is "mono-type" and / or "multi-type" and why?
Explain how the "linearity" or "network: influenced your design.
Explain how "order" and "disorder" has influenced your design.
How is your design a response or development of contemporary architectural concepts and technologies?
Why is your design "Architecture?"

B. Comparable Architectural and Building Systems Diagrams:

1. Schematic Site Relationships: Illustrate the Conceptual Design's exterior courtyards and public spaces, pedestrian circulation and entries, pedestrian and boat movement systems and connections, relationships to the architectural and physical context.
2. Schematic Formal Ordering Systems: Illustrate the Conceptual Design's concepts, determinants of form and scale, patterns and organizing principles, linearity characteristics, and relationship to the surrounding context.
3. Schematic Functional Organization: Illustrate the Conceptual Design's primary functions location, size and height and relationship to each other, both interior and exterior, public and service circulation systems.
4. Schematic Environmental Response: Illustrate the Conceptual Design's response to Solar Orientation, Daylighting, changes of season, weather, time of day, etc.
5. Schematic Structural System: Illustrate the Schematic Design's structural system including foundations and all major structural components. Also, illustrating the lateral stability of the design.
6. HVAC Systems: Illustrate the Schematic Design's major HVAC systems and their distribution.

C. Architectural Documentation: (Detail equivalent to 1/8" = 1'-0" except as noted)

1. Design Development Contextual Plan: Aerial view of building in the context of the surrounding neighborhood and lagoon. (1:1200 or 1" = 100')
2. Design Development Site Plan: Aerial view of building's ground floor in the context of site and surrounding context. (1:300 or 1" = 25')
3. Design Development Floor Plans: Architectural ground level site plan and plans of all other levels of proposed building in the context of surrounding site. Ground level floor plan to be in the context of the surrounding site details and context.
4. Design Development Building-Site Sections: Architectural Longitudinal (one minimum) and Transverse Building-Site Sections (two minimum) in the context of surrounding site.
5. Design Development Building-Site Exterior Elevations: Architectural Exterior Elevations (four) in the context of the surrounding site and context.
6. Design Development Exploded Axonometric of Design in Context: Illustrating architectural concepts, formal ordering systems, building systems, environmental response, etc.

D. Perceptual Documentation:

Explain the design in context and from eye level experientially.

1. Design Research Models: Physical model detail equivalent 1 to 600 (1" = 50'), with photographs.
2. Conceptual Phase Model: Physical model detail equivalent 1 to 600 (1" = 50'), with photographs.
3. Schematic Phase Model: Physical model, detail equivalent 1 to 600 (1" = 50'), with photographs.
4. Serial Views: A sequence twelve to twenty-four eye-level Serial View perspectives in context. The sequential views are to illustrate moving to and through the design, as experienced at eye level and in its surrounding site context, including all major interior and exterior spaces. Serial Views must include approaching the proposed design from major points of access, entering the Foundation, moving to and through all major spaces (Libraries (4), Restaurant, Café, Hall, Shops).

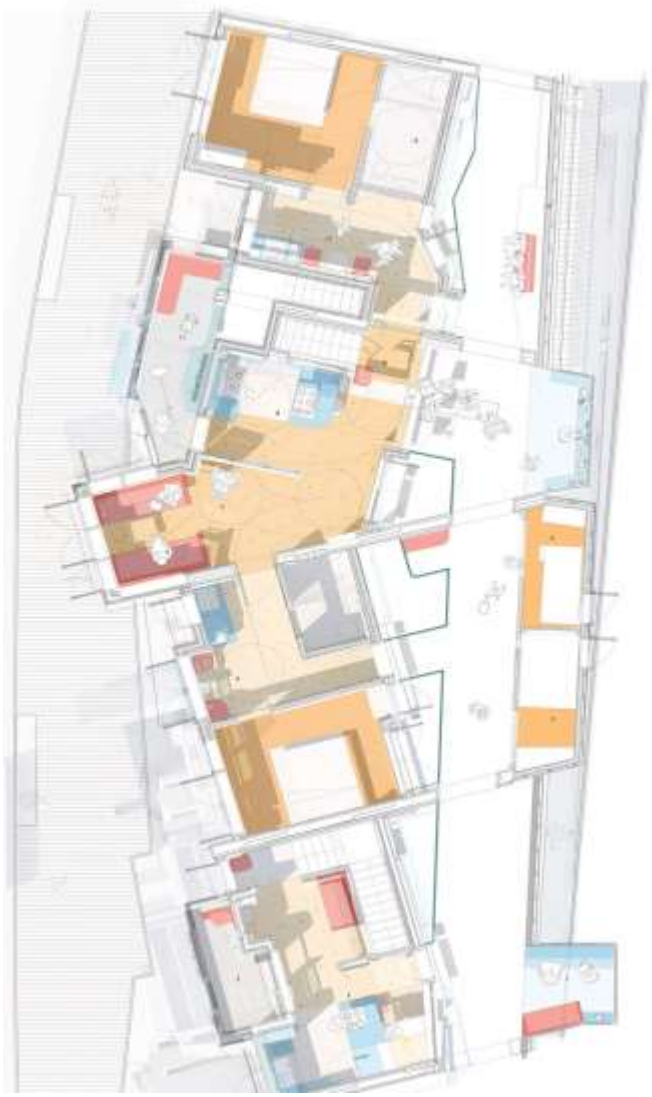
5. Contextual Views: A set six to twelve Contextual Views from eye-level (four minimum) and aerial level (two minimum) , which are photographically accurate renderings of the building scale digital model superimposed on eye level and aerial site / context photographs, with accurate matching of perspective, size, horizon line, lighting conditions and shadows, color tint and value, (with minimized building surfaces and landscape textures.)

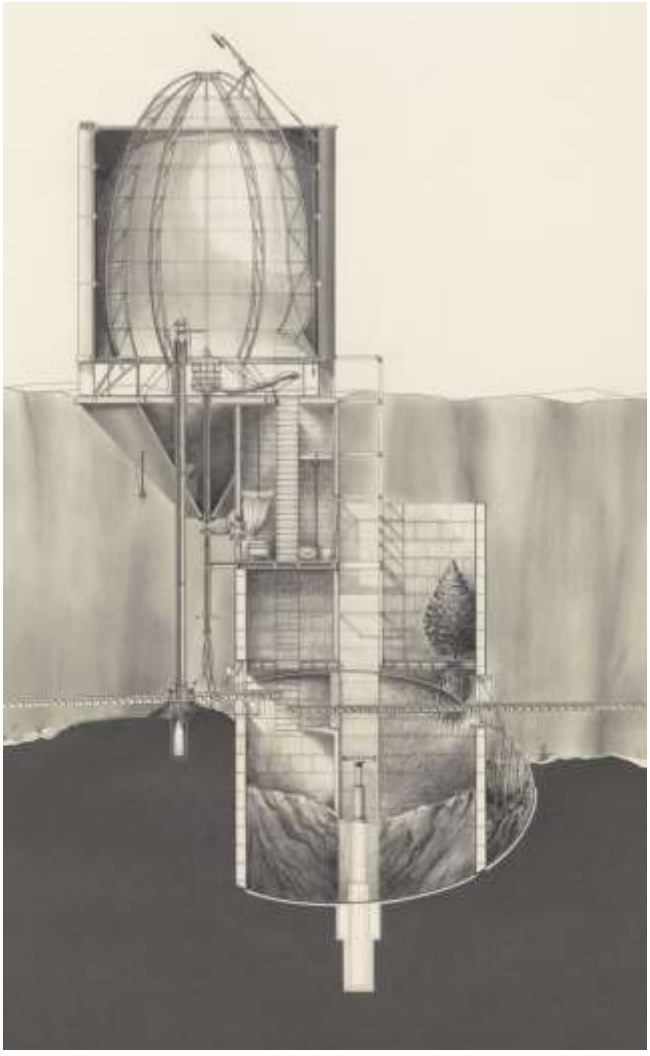
E. Design Development Technical Documentation: (A developed portion of the overall building and site model as follows.)

1. 3D Building Section Digital Model: from footing to roof. A three-dimensional detailed digital model including building structure, enclosure systems, roof, floors, foundations, HVAC integration, light control, materials and systems, etc. at a level of detail and specificity associated with 1 to 24 scale, (Detail equivalent to 1/2" = 1'-0"). The 3D Building Section model must include the two major façades and their immediate context, including a minimum of one and one half structural bays along the length of the building. The model must also include at least a portion of one of the Library, and extend continuously from below the foundation to sky.

Due: Monday 19 March Noon

Design Development Level of Detail and Graphic Quality:





Phase V: Technical Development

Technical Development:

(A selected portion of the Design Development 3D Building Section model as follows.)

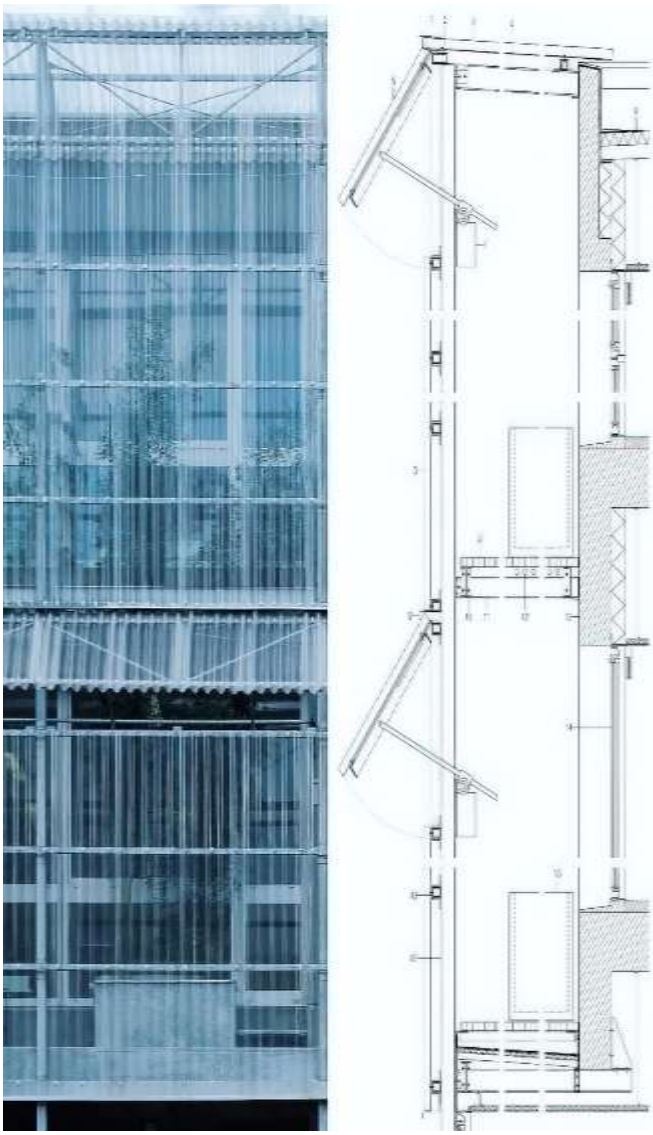
The Technical Development phase of the project will focus upon the architectural design and technical development of the major exterior façade of proposed building, located at the 3D Building-Wall Section studied in the Design Development phase of the project. The study includes issues of building thermal insulation requirements, sun control and shading, natural ventilation, integration of structural, mechanical systems, waterproofing, building foundations, interior finishes and building facades, construction detailing.

Select approximately ten feet along the North to South axis of your building from the Design Development 3D Building Section model, which includes at least one Gallery, from "footing to sky," a minimum of ten feet into the building and including the adjacent site area.

Its level of technical development will therefore be greater than the other portions of your design. The level of detail is that associated with 1 1/2"= 1'-0" architectural drawings.

As part of the development of this portion of the project, select specific materials and systems, which will be notated on the 2D Technical (a one point perspective) view of the 3D Building-Wall Section model.

See the Studios Google Drive:
"Technical References and Tutorials"



Issues that are relevant to the selection of the materials include:

a. The appropriate thickness for performance and stability.
b. How materials and systems are assembled, attached or supported by other systems, and the structural system.
c. The thermal energy performance.
d. The requirements minimum Fire Rating.
e. The carbon footprint.
f. The minimum required insulating values (U).
g. The drainage of rainwater.
h. Control of sunlight throughout the diurnal and seasonal cycles.
i. The lateral and vertical stability of systems and structure.
j. The continuity of thermal insulation and requirements for thermal breaks.
k. Infiltration and vapor barriers.
l. Integration of the structural, HVAC, electrical lighting, fire protection, building services in the wall, floor, ceiling and roof assemblies
m. Relationship between materials and systems addressing the conceptual and aesthetic characteristics of the project.

Materials and Systems Notebook:

(11x17 PDF Booklet Format) Develop an annotated notebook of the primary building products, materials and assemblies that you are considering to be part of the development of the project.

Sources of information includes: Studio's Google drive includes a wide range of Technical "wall section" drawings, selected projects from Detail Magazine, design and technical references.

Also, consider:

1. Transmaterial 1, 2 and 3
2. https://transmaterial.net
3. Manufacturer's websites
4. sweets.construction.com
5. materialconnexion.com
6. https://www.thomasnet.com
7. https://www.azom.com\
8. https://transparencycatalog.com
9. https://calrecycle.ca.gov/condemo/products
10. https://www.archdaily.com/641265/introducing-our-new-materials-catalog
11. https://www.arcat.com/catalogs/divs/product_catalogs.shtml

Due: Thursday 21 March Noon

Review 3: Technical Development

A. Comparable Architectural and Building Systems Diagrams:

1. Design Development Site Relationships: Illustrate the Conceptual Design's exterior courtyards and public spaces, pedestrian circulation and entries, pedestrian and boat movement systems and connections, relationships to the architectural and physical context.
2. Design Development Formal Ordering Systems: Illustrate the Conceptual Design's concepts, determinants of form and scale, patterns and organizing principles, linearity characteristics, and relationship to the surrounding context.
3. Design Development Functional Organization: Illustrate the Conceptual Design's primary functions location, size and height and relationship to each other, both interior and exterior, public and service circulation systems.
4. Design Development Environmental Response: Illustrate the Conceptual Design's response to Solar Orientation, Daylighting, changes of season, weather, time of day, etc.
5. Design Development Structural System: Illustrate the Schematic Design's structural system including foundations and all major structural components. Also, illustrating the lateral stability of the design.
6. Design Development HVAC Systems: Illustrate the Schematic Design's major HVAC systems and their distribution.

B. Architectural Documentation:

1. Design Development Contextual Plan: Aerial view of building in the context of the surrounding neighborhood and lagoon.
2. Design Development Site Plan: Aerial view of building's ground floor in the context of site and surrounding context.
3. Design Development Floor Plans: Architectural ground level site plan and plans of all other levels of proposed building in the context of surrounding site. Ground level floor plan to be in the context of the surrounding site details and context.
4. Design Development Building-Site Sections: Architectural Longitudinal (one minimum) and Transverse Building-Site Sections (two minimum) in the context of surrounding site.
5. Design Development Building-Site Exterior Elevations: Architectural Exterior Elevations (four) in the context of the surrounding site and context.
6. Design Development Exploded Axonometric of Design in Context: Illustrating architectural concepts, formal ordering systems, building systems, environmental response, etc.

C. Technical Documentation:

1. Design Development 3D Building Section Digital Model: (a developed portion of the Design Development 3D Digital Model). A three-dimensional detailed digital model from footing to sky, including building structure, enclosure systems, roof, floors, foundations, HVAC integration, light control, materials and systems of a portion of the building. The 3D Building Section model must include the major façades and their immediate context, including a minimum of one and one half structural bays along the length of the building. The digital model must also include at least a portion of one of the Library, and extend continuously from below the foundation to sky.

2.Technical Development 3D Wall Section Model: (a developed portion of the 3D Building Section Model) with 45 Degree Axonometric View and 2D One Point Perspective views: from footing to roof which illustrates relevant relationships between materials, assembly and support, visual characteristics, integration of major building systems, thermal insulation, waterproofing details. Annotate building materials and products, including notation of building systems, material thicknesses. Include vertical dimensions of floor to floor heights, construction thicknesses etc. The Wall Section is to be located within the 3D Building Section Digital Model, and must include at least a portion of one of the Libraries, and extend continuously from below the foundation to sky. (Generally, the 3D Wall Section model extends about ten feet into the building, is about ten feet along the length of the exterior façade, and includes a portion of the immediate context.)

3. Technical Development Partial Exterior and Interior Elevations: A one-point perspective rendered with shadow, of the exterior and interior elevations of the 3D Wall Section model is required.

4. Technical Development Wall Section Details: Three Building Wall Section details, enlarged and annotated taken at the 1) ground plain, 2) between two intermediate floors and 3) at the roof taken from the 3D Wall Section model.

Due: Monday 1 April Noon

Phase VI: Presentation

The Pre-Final Review and Final Review is a presentation of both printed architectural and technical drawings and a series digitally projected single images of design concepts, diagrams, contextual and perceptual images.

The time after the Pre-Final Review is dedicated to the revisions of the Pre-Final Presentation, the creation of the Final Presentation Model and its photography.

The Final Record Phase completes the design and assembly of the digital PDF and JPG "wall poster" of your project.

The Final Presentation and Final Record tells the "story of your design," and should maximizing the relationship between the architectural and technical drawings, organizing all the information in a logical manner, and as graphically "clear and simple" as possible. Consider the hierarchy of importance of each image and image type.

Graphically design both the Final Review's multi-sheet printed and sequential digital presentation and the Final Record "wall poster" format to be logical and graphically simple, dividing the overall presentation into topical areas and reading sequence, interrelating the architectural drawings, giving visual clarity to the most important architectural aspects of the design.

A. Final Perceptual Images:

1. Serial Views: Develop Serial Views that illustrate moving to and through the proposed design. Carefully select a variety of the most important interior and exterior spaces and create final presentation quality images from exactly eye level and in the context of the surrounding site, from approaching and walking to the building and by walking through all major programmatic interior and exterior spaces. (Eye level photographs must be from exactly 5'-0" off the ground plane or floor. Avoid excessive use or representation of material textures and saturated colors. Use digital 3D people, furnishings, etc. rather than superimposing 2D cutouts or masks.)

2. Contextual Views: Develop images of the proposed design that are superimposed on photographs of the project site and surrounding locations to accurately illustrate the relationships between the prosed design and the overall and local context. Carefully match the perspective, horizon line and point of view, shadows, colors and tonality of the original photographs to the rendering.

B. Pre-Final and Final Presentation Format:

All sections of the Advanced Studio II require a hybrid media format:

1. Printed Display: Three or Four 36" x 72" Printed Sheets (landscape or portrait), including the Final Presentation Requirements: "C" Architectural and "D" Technical Documentation. The three to four printed sheets are to be displayed on a wall.

2. Sequential Digital Display: Including the Final Presentation Requirements: "A" Design Concept, "B" Comparable Architectural and Building Systems Diagrams, "E" Perceptual

Documentation. A series of images, diagrams, photographs, renderings of your work displayed, mostly individually, in an orchestrated sequence on a large monitor.

3. Final Presentation Physical Model: in the context of the studio's site model.

C. Final Record Final Presentation Model Photography:

Photographs of the Final Presentation model in the context of the site model.

D. Final Record Phase Presentation:

1. Final Record Poster: All sections of the Advanced Studio II require a digital PDF and JPG format "wall poster" of the Final Record presentation:

The Final Record presentation is to be designed as a single, 72" high by 216" long, to a maximum 288" long, "wall size poster," composed of a combination of landscape and portrait 36" x 72" PDF Sheets.

A single "wall size poster" composed of Six to Eight 36" x 72" PDF and JPG Sheets, which include all Final Presentation and Final Presentation Model photographs.

Tutorials and References:

Rhino Camera Matching:
https://www.youtube.com/watch?v=W6RwUZmo79I&t=1234s

Basics of Model Building, Alexander Schilling
https://primo-njit-du.libdb.njit.edu:8443/discovery/fulldisplay?context=L&vid=01NJIT_INST:NJIT&search_scope=MyInst_and_CI&isFrbr=true&tab=Everything&docid=alma991359573405196

Pre-Final Review

The Final Presentation Physical Model and its photographs are **not** due for the Pre-Final Review presentation.

The Pre-Final Review is intended to be as complete a mockup of your Final Presentation as is possible. Every requirement should be shown with the latest image or drawing. In other words, do not use blank placeholders.

See the Presentation Types at the end of this document and examples on the studio's shared Google Drive.

The range of scale listed in the Presentation Requirements is to indicate the level of information and detail that is required, and not the size of the printed drawing. In other words, all drawings, diagrams and images are to be scaled to fit the format of the printed presentation. The size of an image or drawing is a function of readability from a variety of viewing distances, and the relative importance or level of detail required of the specific image.

All Architectural Drawings must have a graphic scale, but a specific scale is not required. (In the past, floor plans, building sections and elevations have been printed at 1:300 or 1" = 25'-0") for sites and medium scale projects of these dimensions.

The ground floor plan, exterior elevations and building sections must be in the context of the site and its surrounding context.

The Final Presentation can be printed completely in black and white (grey scale) to completely in color. Or individual sheets can be printed either in black and white or color.

Individual images or drawings can be any size, but spanning more two or more sheets with match lines is not advisable.

Review 4: Pre-Final Review Requirements:

A. Design Concept: (Digital Format)

Explain your design objectives and strategies by answering each of these questions through diagrams and words:

What is the process and "story" of your design?
Why is the proposed design worthy of being the new "Four Freedoms Foundation?"
Explain how the design is "heavy" and / or "light" and why?
Explain how the design is "mono-type" and / or "multi-type" and why?
Explain how the "linearity" or "network: influenced your design.
Explain how "order" and "disorder" has influenced your design.
How is your design a response or development of contemporary architectural concepts and technologies?
Why is your design "Architecture?"

B. Comparable Architectural and Building Systems Diagrams: (Digital Format)

1. Site Relationships: Illustrate the Conceptual Design's exterior courtyards and public spaces, pedestrian circulation and entries, pedestrian and boat movement systems and connections, relationships to the architectural and physical context.
2. Formal Ordering Systems: Illustrate the Conceptual Design's concepts, determinants of form and scale, patterns and organizing principles, linearity characteristics, and relationship to the surrounding context.
3. Functional Organization: Illustrate the Conceptual Design's primary functions location, size and height and relationship to each other, both interior and exterior, public and service circulation systems.
4. Environmental Response: Illustrate the Conceptual Design's response to Solar Orientation, Daylighting, changes of season, weather, time of day, etc.
5. Structural System: Illustrate the Schematic Design's structural system including foundations and all major structural components. Also, illustrating the lateral stability of the design.
6. HVAC Systems: Illustrate the Schematic Design's major HVAC systems and their distribution.

C. Architectural Documentation: (Printed Format)

1. Design Development Contextual Plan: Aerial view of building in the context of the surrounding neighborhood and lagoon.
2. Design Development Site Plan: Aerial view of building's ground floor in the context of site and surrounding context.
3. Design Development Floor Plans: Architectural ground level site plan and plans of all other levels of proposed building in the context of surrounding site. Ground level floor plan to be in the context of the surrounding site details and context.
4. Design Development Building-Site Sections: Architectural Longitudinal (one minimum) and Transverse Building-Site Sections (two minimum) in the context of surrounding site.
5. Design Development Building-Site Exterior Elevations: Architectural Exterior Elevations (four) in the context of the surrounding site and context.
6. Design Development Exploded Axonometric of Design in Context: Illustrating architectural concepts, formal ordering systems, building systems, environmental response, etc.

D. Technical Documentation: (Printed Format)

1. Design Development 3D Building Section Digital Model: (a developed portion of the Design Development 3D Digital Model). A three-dimensional detailed digital model from footing to sky, including building structure, enclosure systems, roof, floors, foundations, HVAC integration, light control, materials and systems of a portion of the building. The 3D Building Section model must include the major façades and their immediate context, including a minimum of one and one half structural bays along the length of the building. The digital model must also include at least a portion of one of the Libraries, and extend continuously from below the foundation to sky.

2.Technical Development 3D Wall Section Model: (a developed portion of the 3D Building Section Model) with 45 Degree Axonometric View and 2D One Point Perspective views: from footing to roof which illustrates relevant relationships between materials, assembly and support, visual characteristics, integration of major building systems, thermal insulation, waterproofing details. Annotate building

materials and products, including notation of building systems, material thicknesses. Include vertical dimensions of floor to floor heights, construction thicknesses etc.

The Wall Section is to be located within the 3D Building Section Digital Model, and must include at least a portion of one of the Libraries, and extend continuously from below the foundation to sky. (Generally, the 3D Wall Section model extends about ten to feet into the building, is about ten feet along the length of the exterior façade, and includes a portion of the immediate context.)

3. Technical Development Partial Exterior and Interior Elevations: A one-point perspective rendered with shadow, of the exterior and interior elevations of the 3D Wall Section model is required.

4. Technical Development Wall Section Details: Three Building Wall Section details, enlarged and annotated taken at the 1) ground plain, 2) between two intermediate floors and 3) at the roof taken from the 3D Wall Section model.

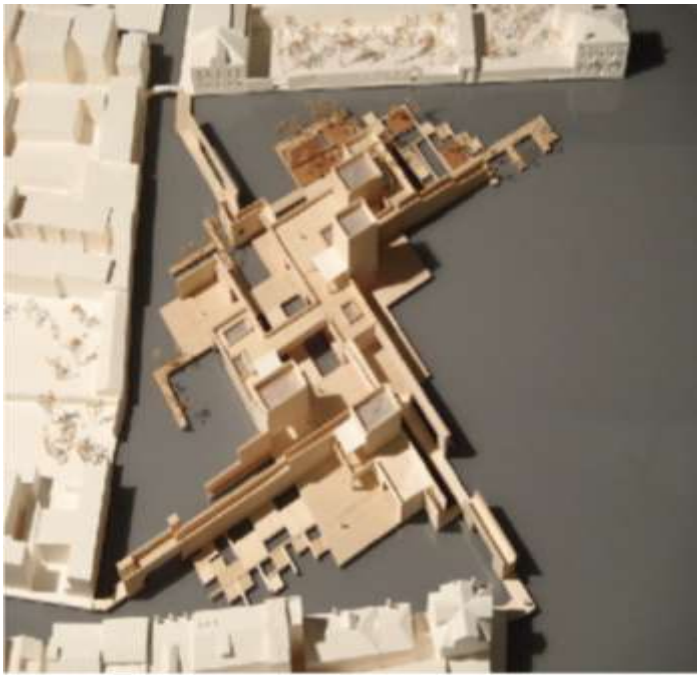
E. Perceptual Documentation: (Digital Format)

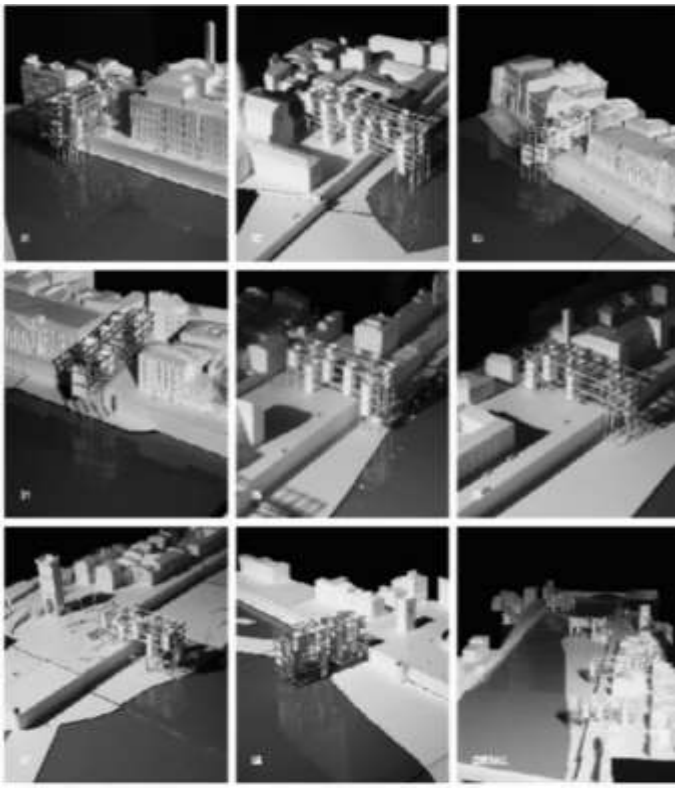
1. Design Research Models: Physical model detail equivalent 1 to 600 (1" = 50'), with photographs.
2. Conceptual Phase Model: Physical model detail equivalent 1 to 600 (1" = 50'), with photographs.
3. Schematic Phase Model: Physical model, detail equivalent 1 to 600 (1" = 50'), with photographs.
4. Serial Views: A sequence twelve to twenty-four eye-level Serial View perspectives in context. The sequential views are to illustrate moving to and through the design, as experienced at eye level and in its surrounding site context, including all major interior and exterior spaces. Serial Views must include approaching the proposed design from major points of access, entering the Foundation, moving to and through all major spaces (Libraries (4), Restaurant, Café, Hall, Shops).
5. Contextual Views: A set six to twelve Contextual Views from eye-level (four minimum) and aerial level (two minimum) , which are photographically accurate renderings of the building scale digital model superimposed on eye level and aerial site / context photographs, with accurate matching of perspective, size, horizon line, lighting conditions and shadows, color tint and value, (with minimized building surfaces and landscape textures.)

Due: Thursday 11 April Noon

Final Presentation Model:

Physical Model: Create the Final Presentation Physical Model in the Studio Section's 1:300, 1" = 25' Site Model with photographs included as part of the Final Record submission.





Review 5: Final Review

The Final Presentation is to be printed and displayed on a screen as indicated in the Final Presentation Requirement list, with the Design Research, Conceptual, Schematic and Final Presentation physical models displayed. The Final Presentation Model must displayed within the studio section's site model.

Final Presentation Requirements: (A-E)

A. Design Concept: (Digital Format, displayed sequentially)

Explain your design objectives and strategies by answering each of these questions through diagrams and words:

What is the process and "story" of your design?
Why is the proposed design worthy of being the new "Four Freedoms Foundation?"
Explain how the design is "heavy" and / or "light" and why?
Explain how the design is "mono-type" and / or "multi-type" and why?
Explain how the "linearity" or "network: influenced your design.
Explain how "order" and "disorder" has influenced your design.
How is your design a response or development of contemporary architectural concepts and technologies?
Why is your design "Architecture?"

B. Comparable Architectural and Building Systems Diagrams: (Digital Format, displayed sequentially)

1. Final Site Relationships: Illustrate the Conceptual Design's exterior courtyards and public spaces, pedestrian circulation and entries, pedestrian and boat movement systems and connections, relationships to the architectural and physical context.
2. Final Formal Ordering Systems: Illustrate the Conceptual Design's concepts, determinants of form and scale, patterns and organizing principles, linearity characteristics, and relationship to the surrounding context.
3. Final Functional Organization: Illustrate the Conceptual Design's primary functions location, size and height and relationship to each other, both interior and exterior, public and service circulation systems.
4. Final Environmental Response: Illustrate the Conceptual Design's response to Solar Orientation, Daylighting, changes of season, weather, time of day, etc.
5. Final Structural System: Illustrate the Schematic Design's structural system including foundations and all major structural components. Also, illustrating the lateral stability of the design.
6. Final Systems: Illustrate the Schematic Design's major HVAC systems and their distribution.

C. Architectural Documentation: (Printed Format)

1. Final Contextual Plan: Aerial view of building in the context of the surrounding neighborhood and lagoon
2. Final Site Plan: Aerial view of building's ground floor in the context of site and surrounding context.
3. Final Floor Plans: Architectural ground level site plan and plans of all other levels of proposed building in the context of surrounding site. Ground level floor plan to be in the context of the surrounding site details and context.
4. Final Building-Site Sections: Architectural Longitudinal (one minimum) and Transverse Building-Site Sections (two minimum) in the context of surrounding site.
5. Final Building-Site Exterior Elevations: Architectural Exterior Elevations (four) in the context of the surrounding site and context.
6. Final Exploded Axonometric of Design in Context: Illustrating architectural concepts, formal ordering systems, building systems, environmental response, etc.

D. Technical Documentation: (Printed Format)

1. Design Development 3D Building Section Digital Model: (a developed portion of the Design Development 3D Digital Model). A three-dimensional detailed digital model from footing to sky, including building structure, enclosure systems, roof, floors, foundations, HVAC integration, light control, materials and systems of a portion of the building. The 3D Building Section model must include the major façades and their immediate context, including a minimum of one and one half structural bays along the length of the building.

The digital model must also include at least a portion of one of the Libraries, and extend continuously from below the foundation to sky.

2.Technical Development 3D Wall Section Model: (a developed portion of the 3D Building Section Model) with 45 Degree Axonometric View and 2D One Point Perspective views: from footing to roof which illustrates relevant relationships between materials, assembly and support, visual characteristics, integration of major building systems, thermal insulation, waterproofing details. Annotate building materials and products, including notation of building systems, material thicknesses. Include vertical dimensions of floor to floor heights, construction thicknesses etc.

The Wall Section is to be located within the 3D Building Section Digital Model, and must include at least a portion of one of the Libraries, and extend continuously from below the foundation to sky. (Generally, the 3D Wall Section model extends about ten feet into the building, is about ten feet along the length of the exterior façade, and includes a portion of the immediate context.)

3. Technical Development Partial Exterior and Interior Elevations: A one-point perspective rendered with shadow of the exterior interior elevation of the 3D Wall Section model is required.

4. Technical Development Wall Section Details: Three Building Wall Section details, enlarged and annotated taken at the 1) ground plain, 2) between two intermediate floors and 3) at the roof taken from the 3D Wall Section model.

E. Perceptual Documentation: (Digital Format, displayed sequentially)

1. Design Research Models: Physical model detail equivalent 1 to 600 (1" = 50'), with photographs.
2. Conceptual Phase Model: Physical model detail equivalent 1 to 600 (1" = 50'), with photographs.
3. Schematic Phase Model: Physical model, detail equivalent 1 to 600 (1" = 50'), with photographs.
4. Final Presentation Model: Physical model, detail equivalent 1 to 300 (1" = 25'). Do not simulate landscape colors or textures. Model is to be monochromatic, include all surrounding context, people to scale, revised topography, accurate massing and detailed facades, openings, fenestration, heavy-light characteristics, and landscaping. Do not use spray paint. Avoid ultra-realistic elements like "green landscape materials, masonry patterns, etc."
5. Final Presentation Serial Views: A sequence twelve to twenty-four eye-level Serial View perspectives in context. The sequential views are to illustrate moving to and through the design, as experienced at eye level and in its surrounding site context, including all major interior and exterior spaces.
6. Final Presentation Contextual Views: A set four to eight Contextual Views from eye-level and aerial level, which are photographically accurate renderings of the building scale digital model superimposed on eye level and aerial site / context photographs, with accurate matching of perspective, size, horizon line, lighting conditions and shadows, color tint and value, (with minimized building surfaces and landscape textures.)

Due: Thursday 25 April Noon

Phase VII: Final Record

1. Model Photography PDF:

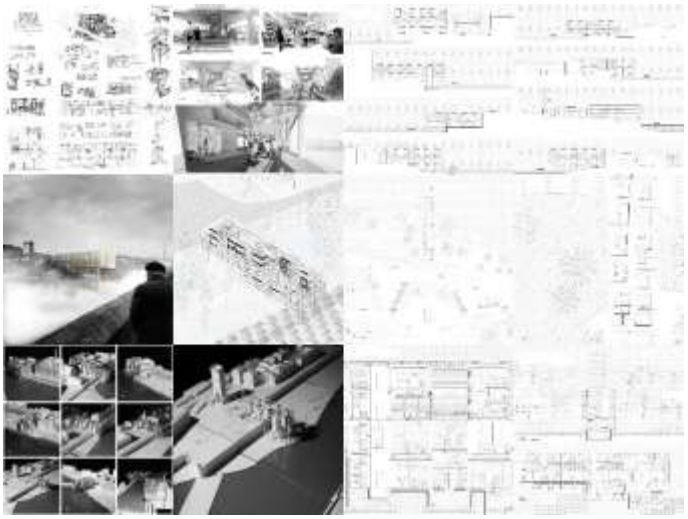
Final Presentation Model Photography: The Final Presentation Model can be photographed either before or after the Final Presentation and is due at the Final Record Submission. Photographs should include the Design Research Models, Conceptual and Schematic Design Models, and Final Presentation Physical Model. At least one-half of a 36" x 72" sheet should be devoted to the Final Presentation Model itself, in the context of the site model including people to scale, accurate facades of surrounding buildings, and topography, all in a monochromatic color scheme. Photograph the physical models with a neutral background, without other objects or images of the room appearing in the photograph. The model photography should have distinct shadows simulating the position of the sun.

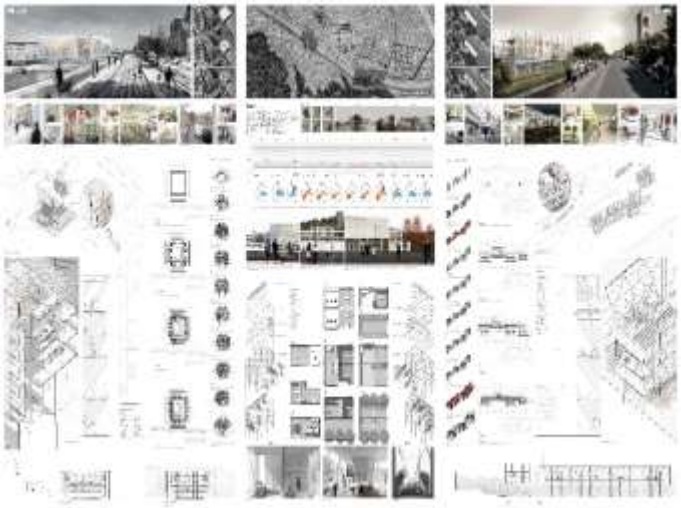
It is recommended that photographs be taken with a camera on a tri-pod rather than cell phone. And, that lighting be provided by studio lights on stands, or other stable light sources available in the HCAD Library. Generally, one light is used to simulate sunlight and shadows, and two or more indirect lights are used to simulate skylight. It is recommended that a minimum of two dozen photographs be taken from all directions, eye level, axonometric and from directly above for each physical model, with the best selected for Final Model Photography PDF. This PDF will be your only and lasting record of the design and presentation models completed during the semester.

2. Final Record Poster Documentation:

All sections of the Advanced Studio II require a single file digital PDF and JPG format poster of the Final Record presentation:

The Final Record Poster presentation is to be designed as a single, 72" high by 216" long to maximum 288" long "wall size poster," composed of a combination of six to eight landscape and/or portrait 36" x 72" sheets. See examples below:





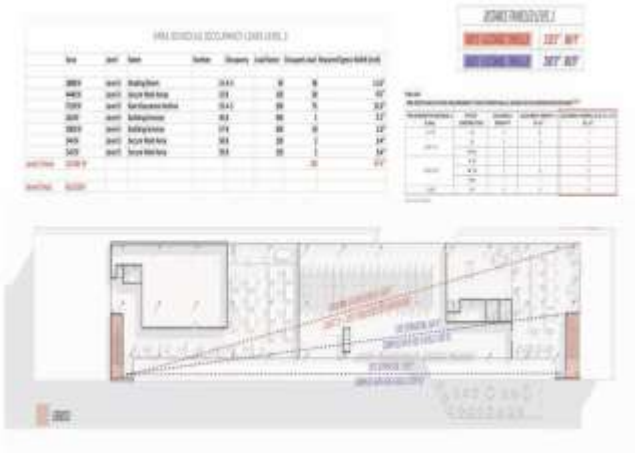
3. Synthesis Seminar Course Final Notebook:

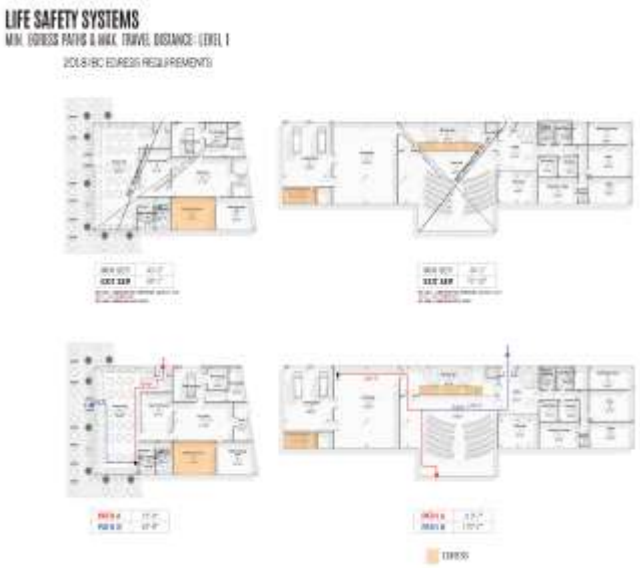
See the Synthesis Seminar course Syllabus for further information: PDF booklet can be completed either before or after the Final Presentation.

The Synthesis Seminar Notebook is the documentation, through notations and illustrations your designs compliance with the ten NAAB Criteria. (It is not highlight charts or quotations from codes without illustrating and notating how the have been accurately applied to your design.) The Notebook is to use notated plans, sections, diagrams, as much as possible taken from the Pre-Final, Final Presentation or earlier presentations, rather than newly prepared images, drawings etc. Notes, dimensions, paths, etc. can be digitally overlaid or hand-drawn on top Studio images or drawings. For example: notate the maximum egress travel distances in your design compared to the IBC required maximum distance, or for example, designs exit paths widths compared to their required minimum widths / capacity, or designs maximum dead ended exit path distances compared to the required maximum distances of exit paths of the IBC.

See the Synthesis Seminar for course assignments, required reading, references, due dates and Final Record requirements.

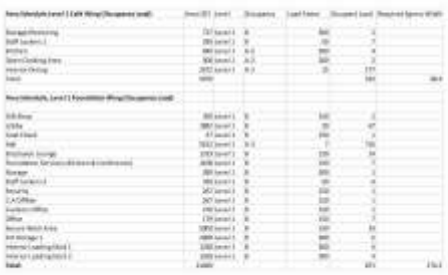
Synthesis Seminar Examples:





Occupancy Room Schedule

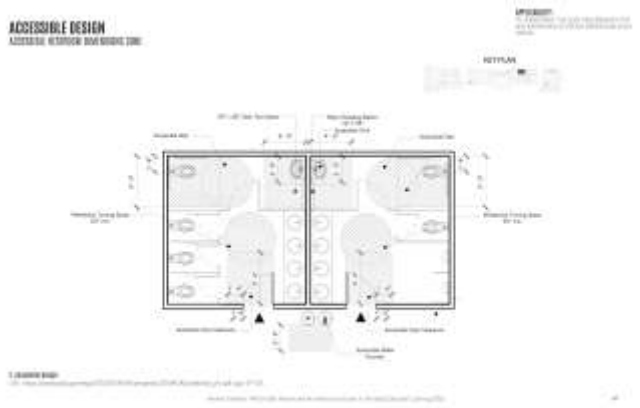
Level 1



Level 2

Area Schedule Level 2 (Occupancy Load)

Name	Area (SF) Level	Occupancy	Load Factor	Occupant Load	Required Egress Width
Rare Document Archive	7208 Level 2	A-3	100	72	
Reading Room	2410 Level 2	A-3	50	50	
Gallery Reception	1171 Level 2	B	30	31	
Gallery 1	4856 Level 2	A-3	30	168	
Gallery 2	5186 Level 2	A-3	30	168	
Gallery 3	5089 Level 2	A-3	30	167	
Gallery 4	4952 Level 2	A-3	30	174	
Sun Room (Gallery 4)	1387 Level 2	A-3	30	54	
Art Storage 2	925 Level 2	B	300	3	
Art Storage 3	2128 Level 2	B	300	4	
Total:	34053			871	174.2



Final Record Submission Requirements:

As per HCAD / NJIT policy, Final Grades cannot be issued until your work is completely submitted to both Canvas AND your Studio Section's shared Google Drives:

A. Advanced Studio II on Studio Google Drive:

Studio Google Drive: SPRING 2024 Four Freedoms Foundation / STUDENT WORK / "Studio" / Final Record / "Last First Name"

Due: Midnight, Sunday, 5 May

All submissions must exactly follow every requirement and detail listed below:

1. JPG File Type: sized or resided to JPG format in 300 dpi minimum, 3840 x 2160. (JPG file type ONLY)
2. JPG File Naming: "Students Last Name"_"Students First Name"_Image Name and Number ("001" etc) ("Jones Sally 001.jpg")
3. Create and upload to the following sub-folders under "Studio Section Name" / "Final Record" / "Last–First Name" / and the following "Subfolder" names:

Subfolders and labels in the following 7 sub-folders:

1. **Combined Presentation:** One PDF and one JPG of the five to eight combined Final Record PDFs, at the maximum resolution possible. In other words, a single PDF and single JPG that shows all your Final Record work, as if it were a "large scale on the wall" presentation.

2. **PDF Sheets:** Each of the six to eight Final Record PDFs, at the maximum resolution possible.

3. **JPG Images:** Ten to twenty of your best single JPG images, drawings, diagrams, contextual or perceptual views of your studio project. Each image should show only one view, without labeling, or borders, etc.

4. **Model Photographs:** JPG format high-resolution images of Conceptual, Schematic and Final Presentation model photographs in the context of the site model, organized into Design Research, Conceptual, Schematic and Final Presentation subfolders.

5. **Source Files:** All source 3D Digital Model and 2D Drawing files, SketchUp, Revit, Rhino, Photoshop, Illustrator, Insight, etc. used for the Final Presentation.

6. **Notebooks:** in PDF format.
   - Design Research Study Notebook
   - Conceptual Design Study Notebook
   - Piazza & Landscape Design Study Notebook
   - Exterior Elevations Notebook
   - Exterior Façade Notebook
   - Materials and Systems Notebook

B. Advanced Studio II on NJIT Kepler:

Due: Midnight, Sunday, 5 May

All submissions must exactly follow every requirement and details listed below: Follow the Instructions for Kepler on Canvas uploading

https://njit.service-now.com/sp?id=kb_article_view&sysparm_article=KB0010630&sys_kb_id=1cb35bf41ba319104c82cddf034bcbdb&spa=1

All files must be re-sized and renamed as indicated below.
1. Images must retain their original proportions.
2. File Type: sized or resized to JPG format in 300 dpi minimum, 3840 x 2160 and PDF. (JPG and PDF Formats ONLY)
3. File Naming: "Students Last Name"_"Students First Name"_Image Name and Number ("001" etc) ("Jones Sally 001.jpg")

Subfolders, labeled as follows:

1. **Combined Presentation:** One PDF and one JPG of the five to eight combined Final Record PDFs, at the maximum resolution possible. In other words, a single PDF and single JPG that shows all your Final Record work, as if it were a "large scale on the wall" presentation.

2. **PDF Sheets:** Each of the six to eight Final Record PDFs, at the maximum resolution possible.

3. **JPG Images**: Ten to twenty of your best single JPG images, drawings, diagrams, contextual or perceptual views of your studio project. Each image should show only one view, without labeling, or borders, etc. (See File naming requirements)

4. **Model Photographs:** JPG format high-resolution images of Conceptual, Schematic and Final Presentation model photographs in the context of the site model, organized into Design Research, Conceptual, Schematic and Final Presentation subfolders. (See file naming requirements.)

C. Synthesis Seminar on Google Drive & NJIT Kepler:

Due: Midnight, Tuesday, 7 May (This is a duplicate submission to both the Studio Google Drive and NJIT Kepler.)

Synthesis Seminar Final Booklet: 11 x 17 landscape PDF file.

A. Cover Page:
Student Name / Teachers Name / Date / Course #

B. Advanced Studio II Final Presentation:
1) Final Record Boards as one "large wall poster" one page.
2) Each Final Record Board (36" x 72") per page.
3) Architectural Documentation, one or two drawings per page.
4) Technical Documentation, one drawing per page.
5) Comparable Architectural & Building Systems Diagrams, one system drawing per page.
6) Final Presentation Model, 4 to 6 views, one per page.
7) Serial Views, 8 to 12 views, four per page.
8) Contextual Views, 4 to 6 views, on one page.

C. Synthesis Seminar Documentation:
1) Site Conditions
2) Environmental Impact
   a. Tally Analysis of Building Envelope
   b. Summary evaluating effectiveness of design and technical changes of building façade.
3. User Requirements
4. Regulatory Requirements
5. Accessible Design
6. Life Safety Systems
7. Structural Systems
   a. Structural System 3D Drawings
   b. Structural Analysis
8. Environmental Control Systems
   a. HVAC Systems 3D Drawings
9. Building Envelope Systems and Assemblies
10. Building Performance
   a. Conceptual Design Insight Analysis
   b. Design Development Insight Analysis
   c. Graphic Comparison and Evaluation of Insight Analysis
   d. Written summary evaluating effectiveness of design and technical changes.

Each Chapter is to address all of the criteria topics listed in italic type and each of the questions listed in "VIII. Synthesis Seminar: National Architectural Accrediting Board Criteria."

Advanced Studio II & Synthesis Seminar Final Grades

Final Grades Due: Friday, 10 May, Midnight

The Final Grade of Incomplete can only be issued when the NJIT Office of the Dean of Students has previously received and approved information directly from the student regarding a health or family emergency issue.

This approval must be received via email or in writing by the faculty prior to the end of the last day of the Final Exam period. The Faculty cannot override this requirement.

In accordance with NJIT Policy, Final Grades are not official until they have been recorded by the NJIT Office of the Registrar.

Faculty and student communication about Final Grades is unofficial until the grades are posted online by the Register.

Faculty cannot change Final Grades once they have been posted.

The Final Grades are submitted to:

1. NJIT Grade Registrar Submission:

Via the NJIT.edu main page under:

MyNJIT Login

“Faculty Services “

“Final Grades”

Scroll to Find the Course, Section and Term

Select “Grading Status” on Left Side

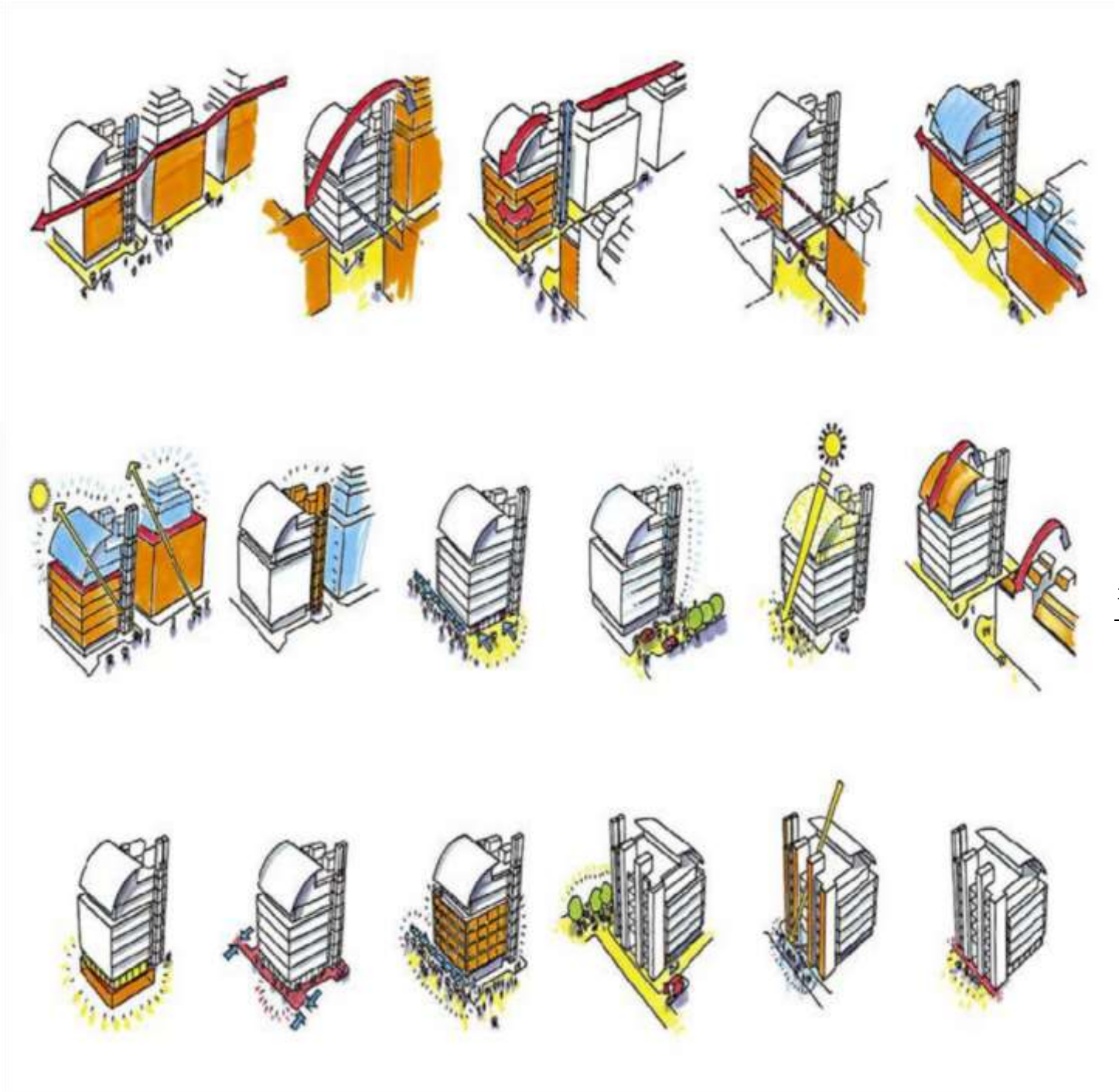
2. NJSOA Grade Record Submission:

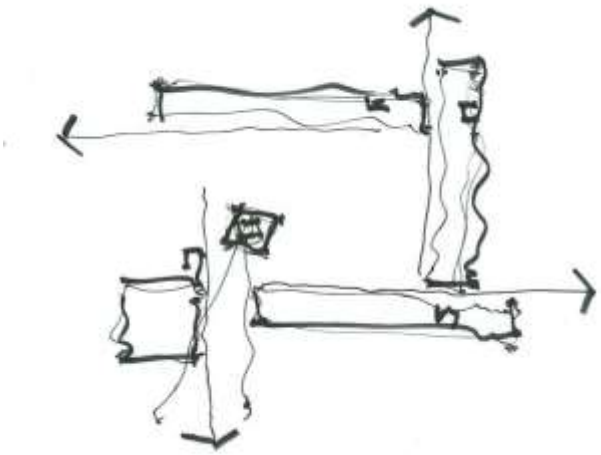
Faculty are also to submit a list of Final Grades organized by student last name.

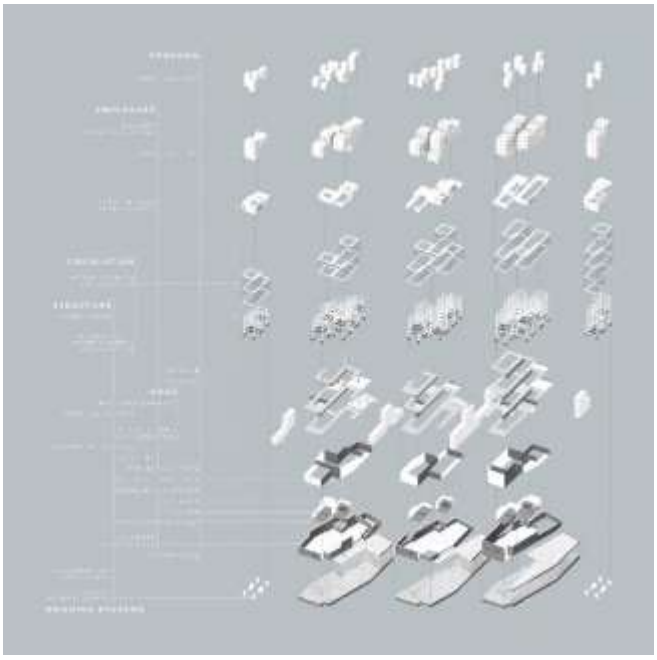
Send to Professor Zdepski, via email at zdepski@njit.edu.

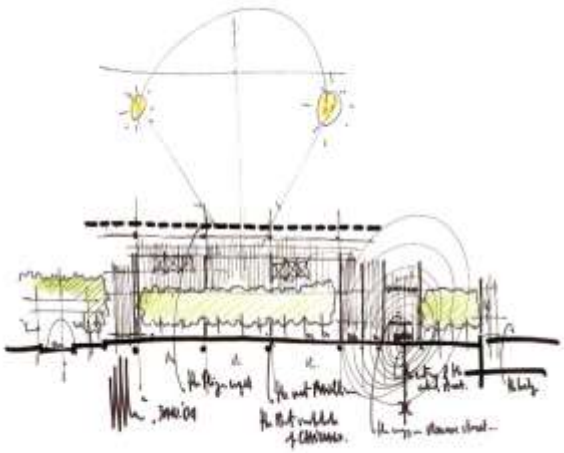
Presentation Types:

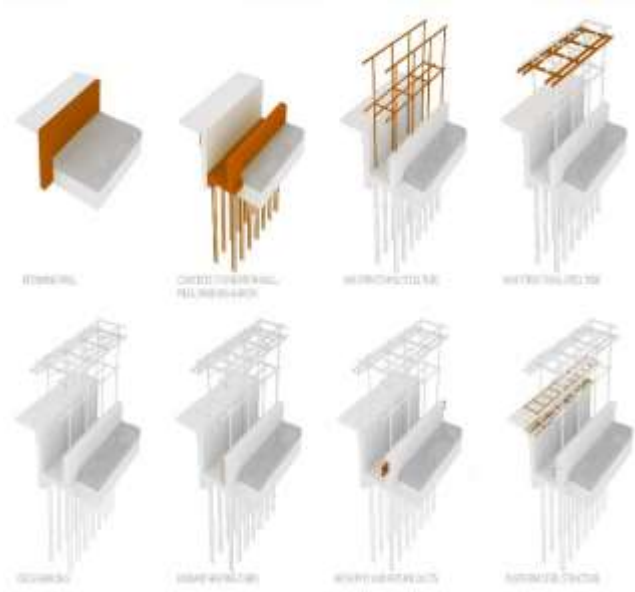
A) Design Intent through Notated Diagrams and Drawings:

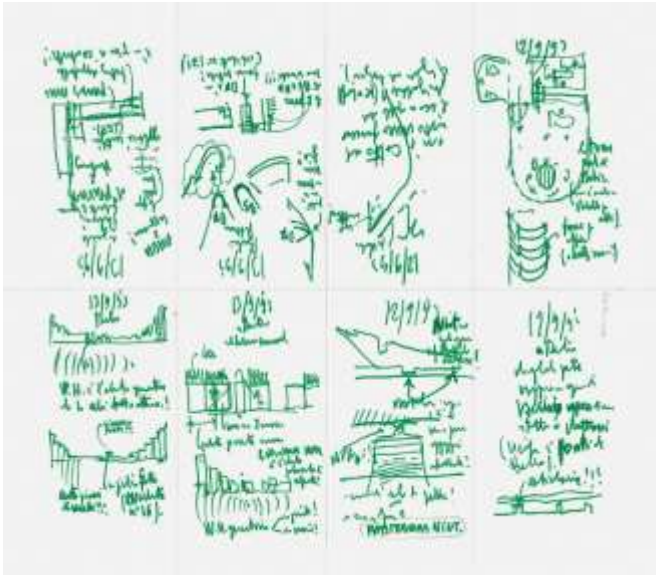




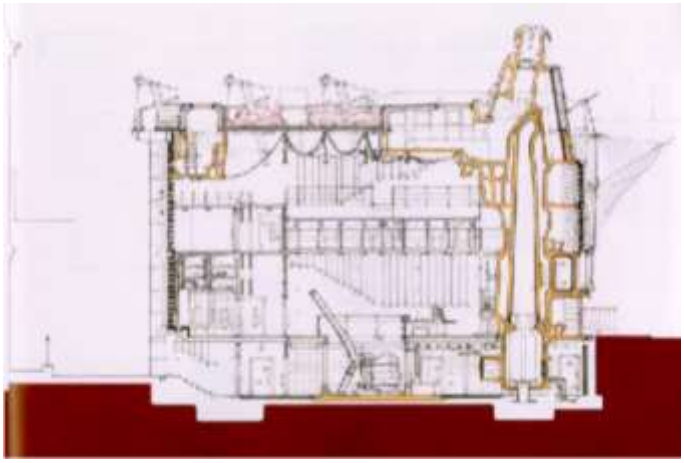


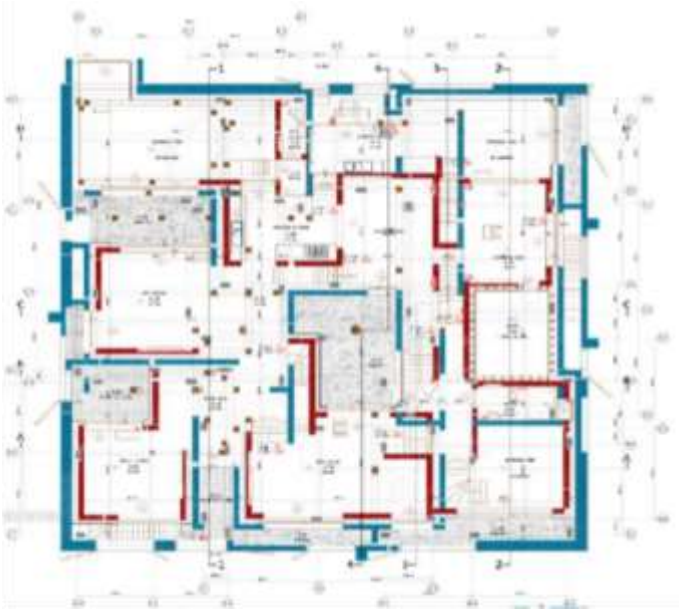




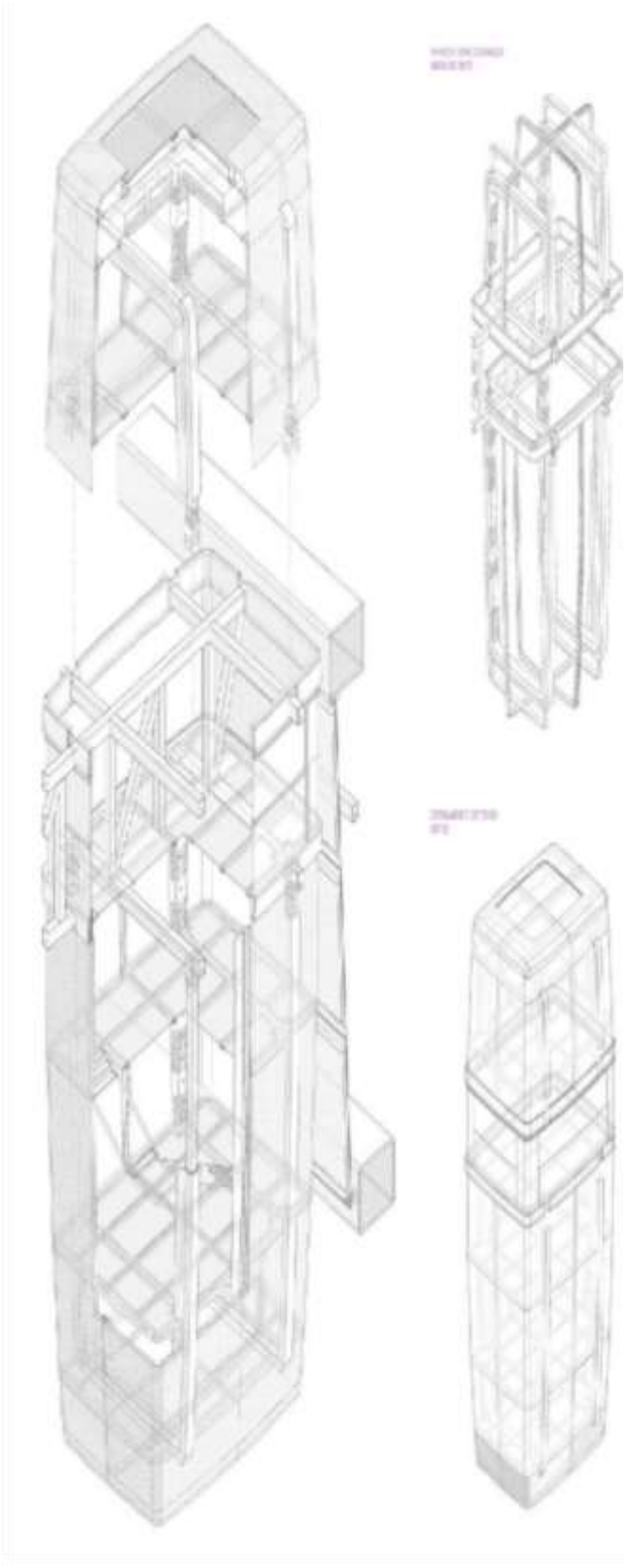


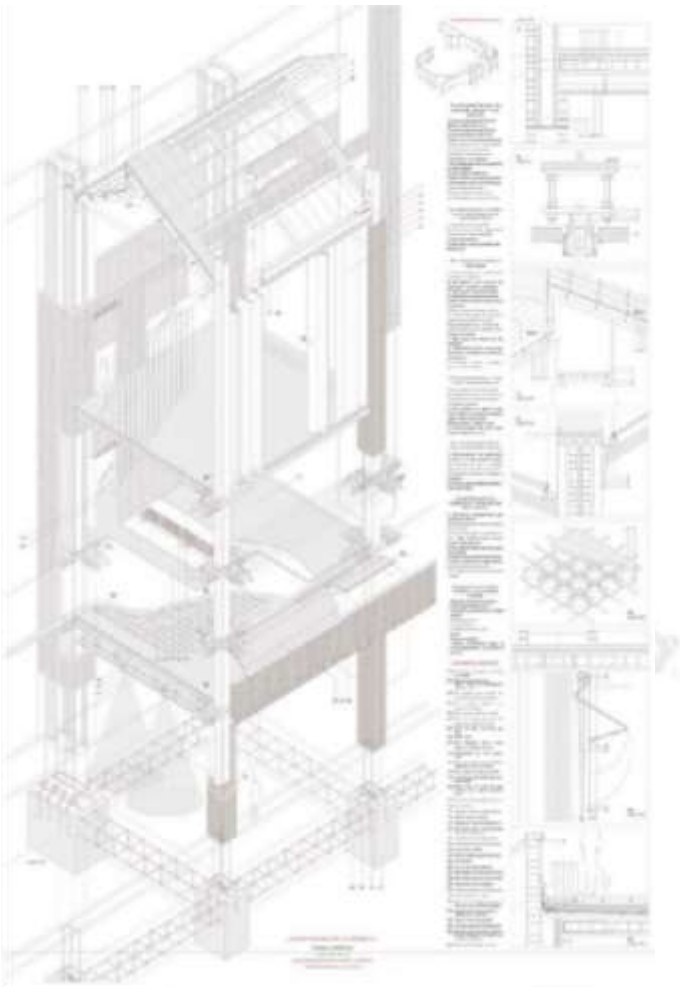
B) Architectural Documentation in 2D:

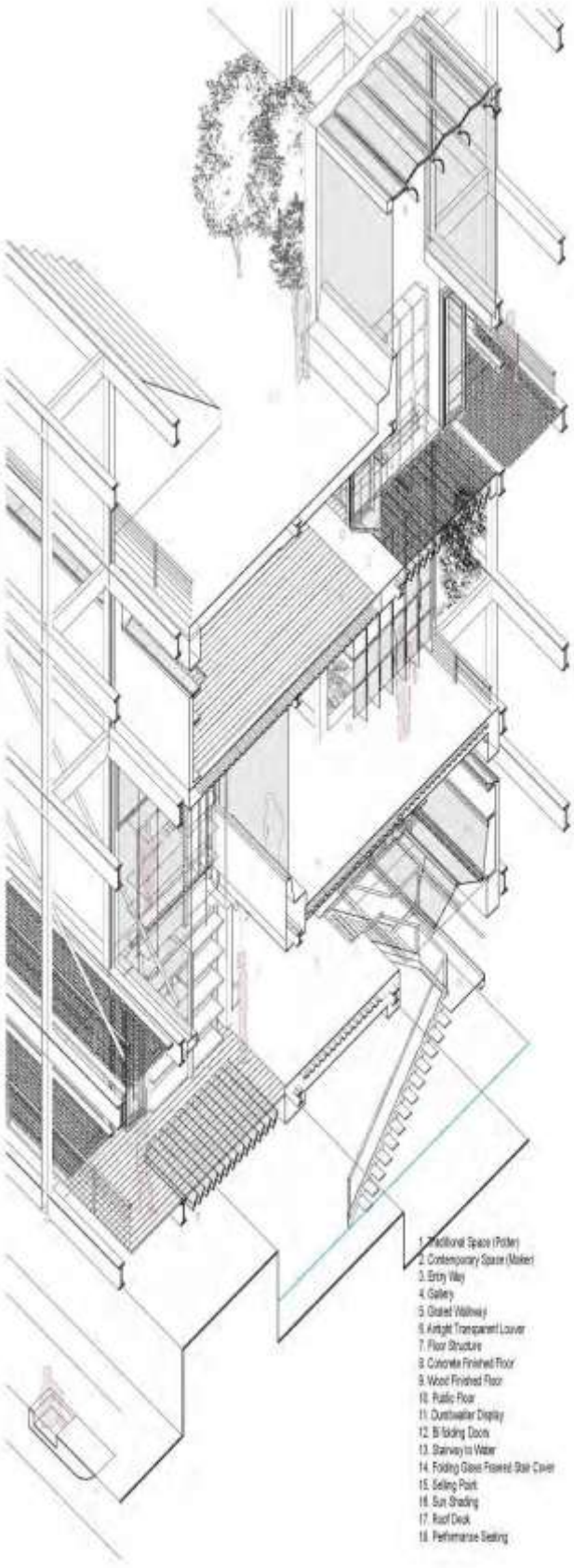


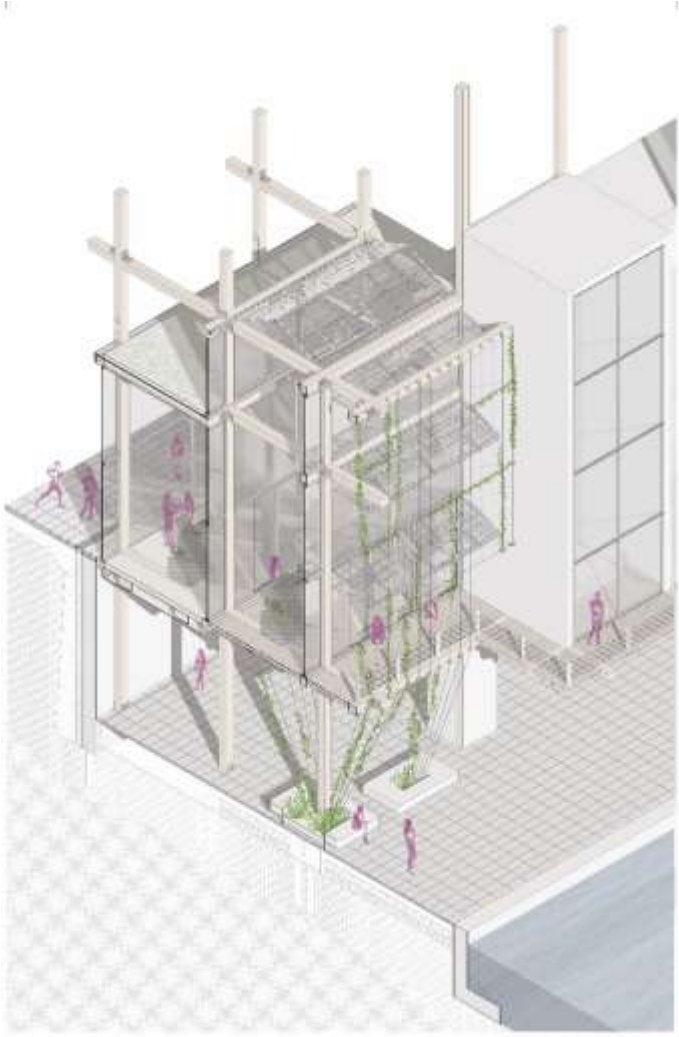


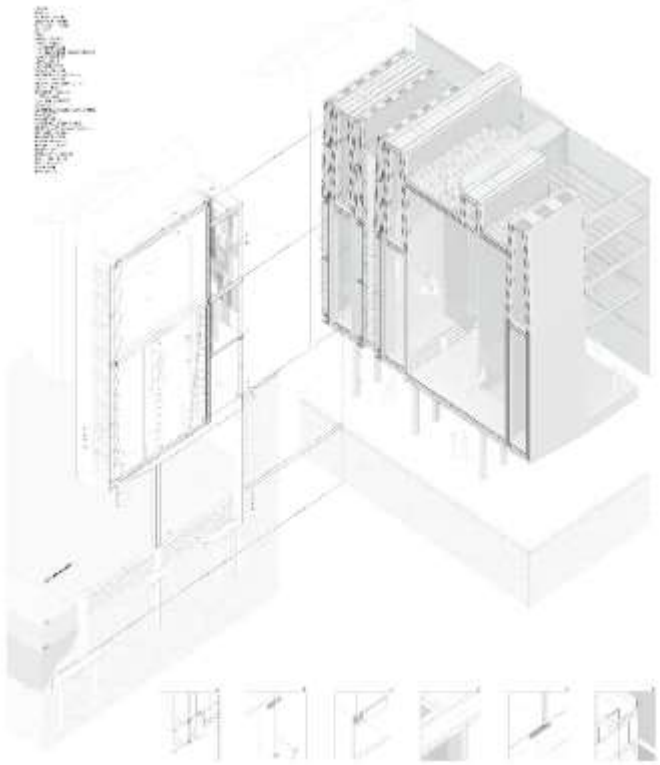
C) 3D Building-Wall Section:

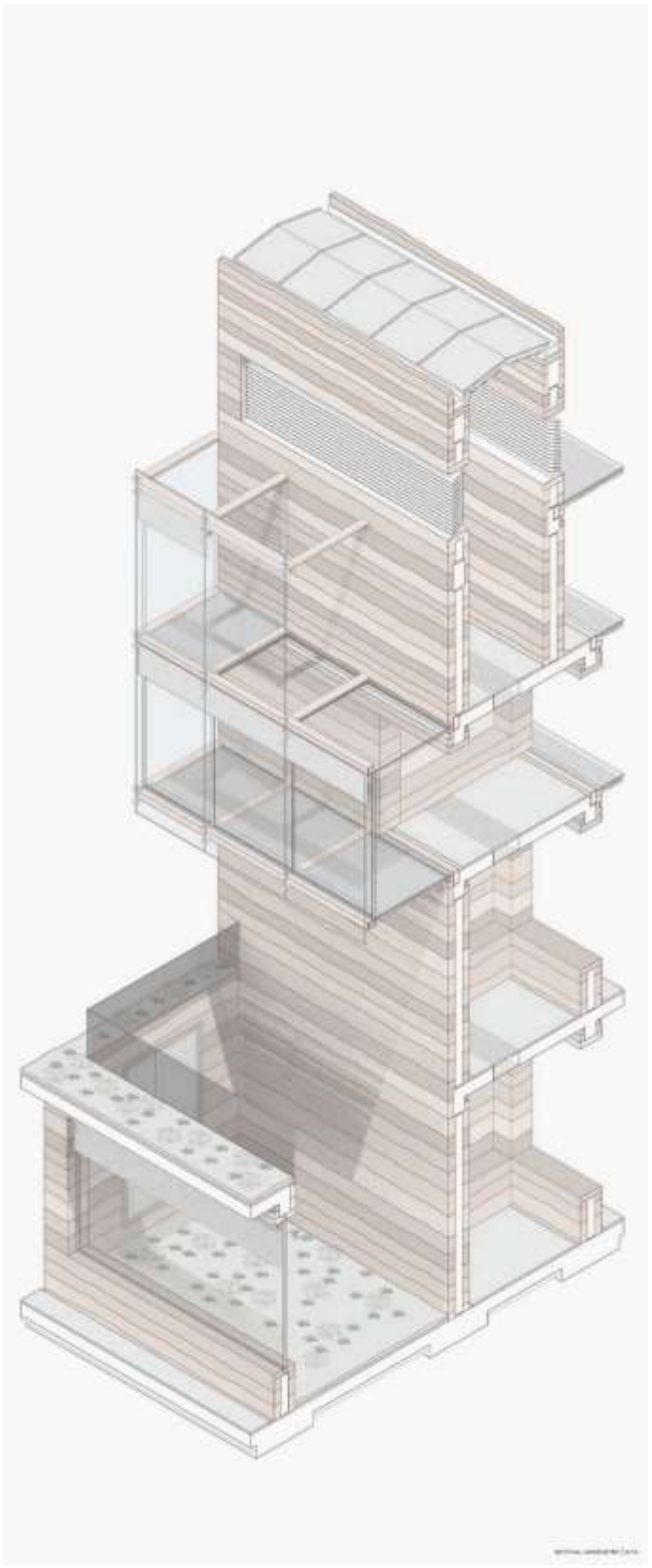


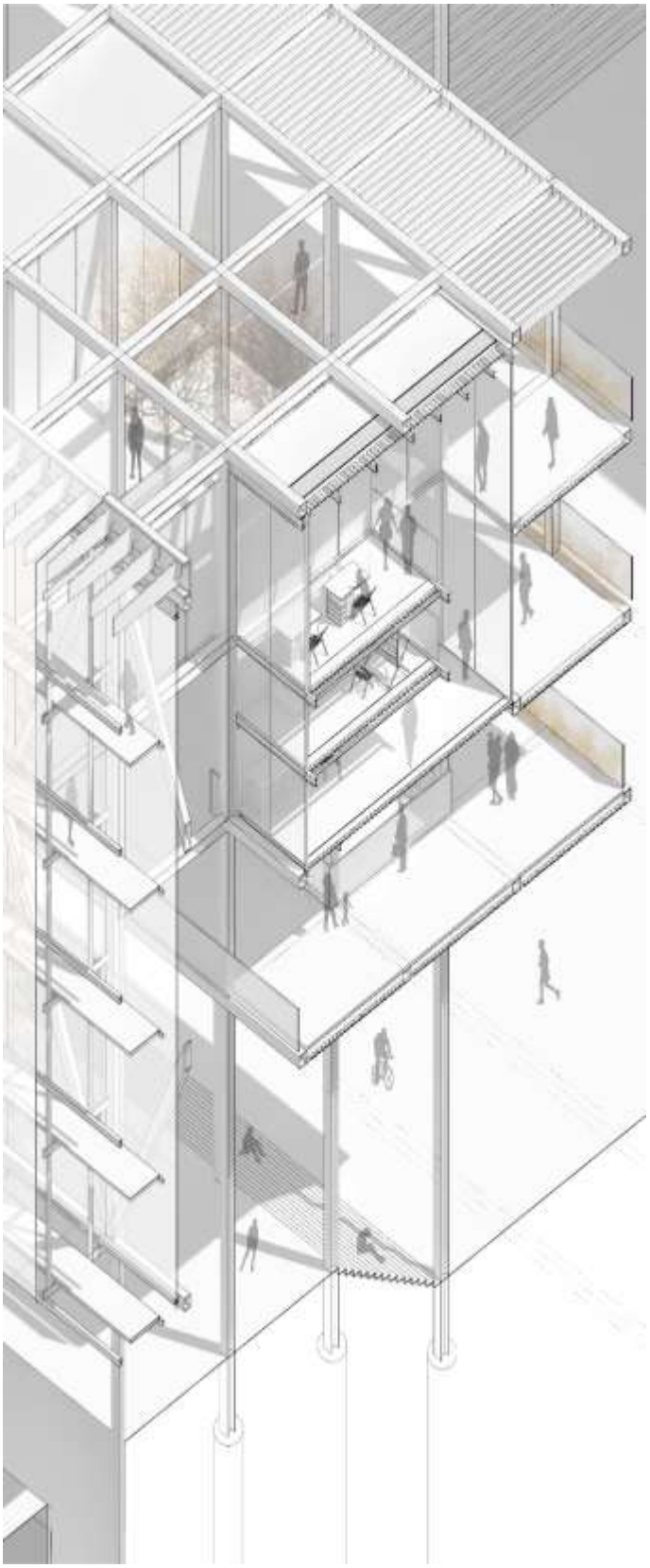



1. Traditional Space (Potter)
2. Contemporary Space (Maker)
3. Entry Way
4. Gallery
5. Glazed Walkway
6. Airtight Transparent Louver
7. Floor Structure
8. Concrete Finished Floor
9. Wood Finished Floor
10. Public Floor
11. Dumbwaiter Display
12. Bi-folding Doors
13. Stairway to Water
14. Folding Glass Framed Stair Cover
15. Selling Point
16. Sun Shading
17. Roof Deck
18. Performance Seating



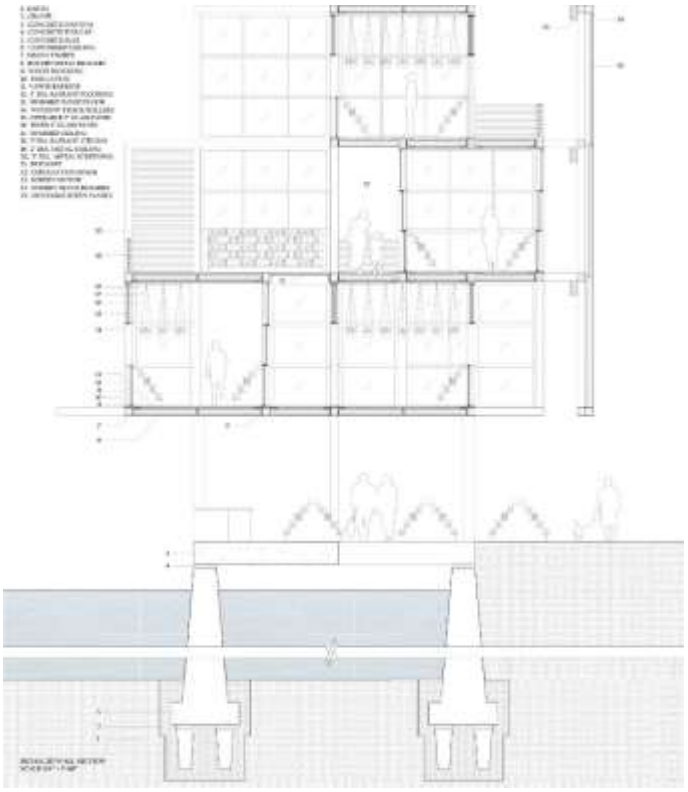


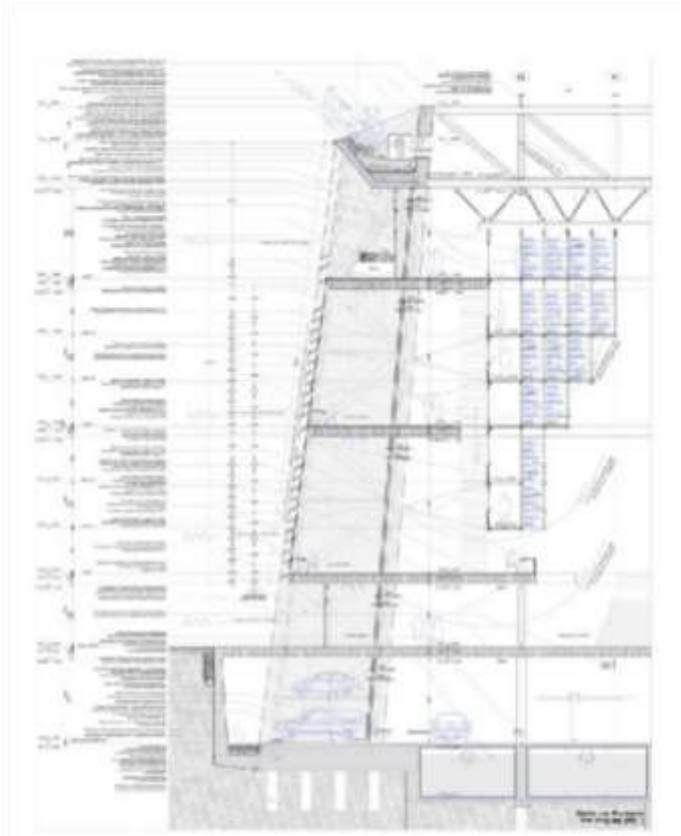


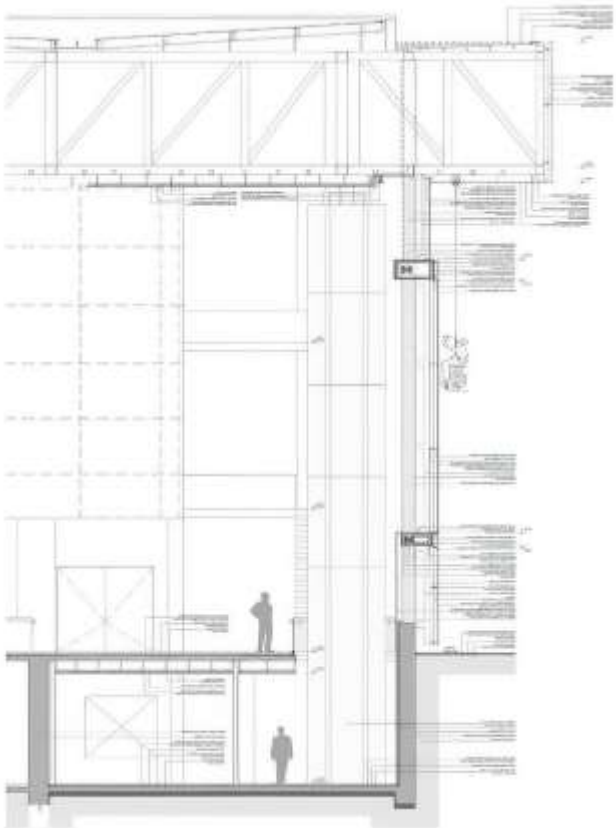


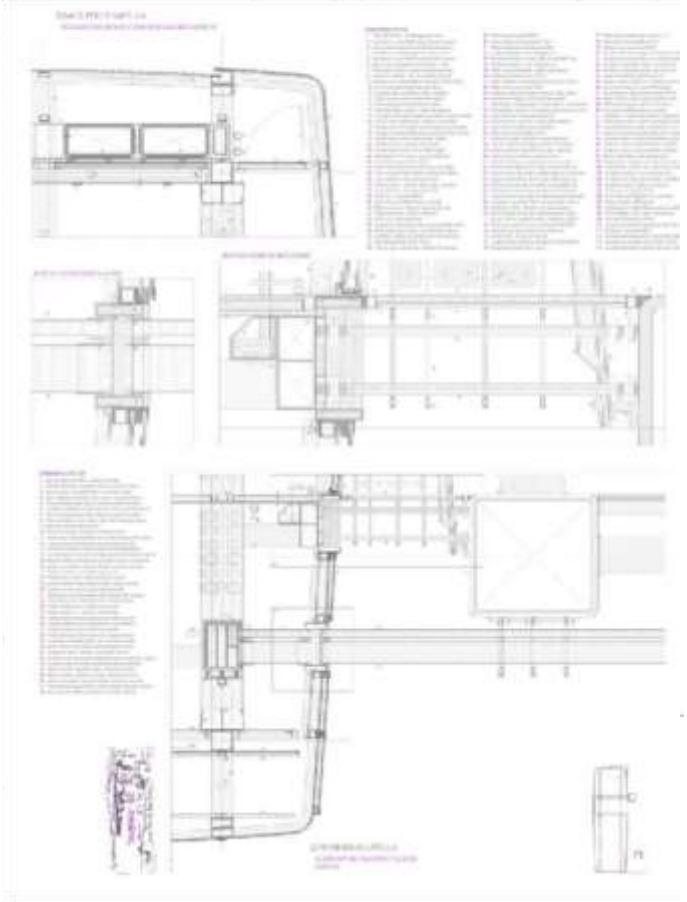
D) 3D One Point Perspective Building Wall Section:

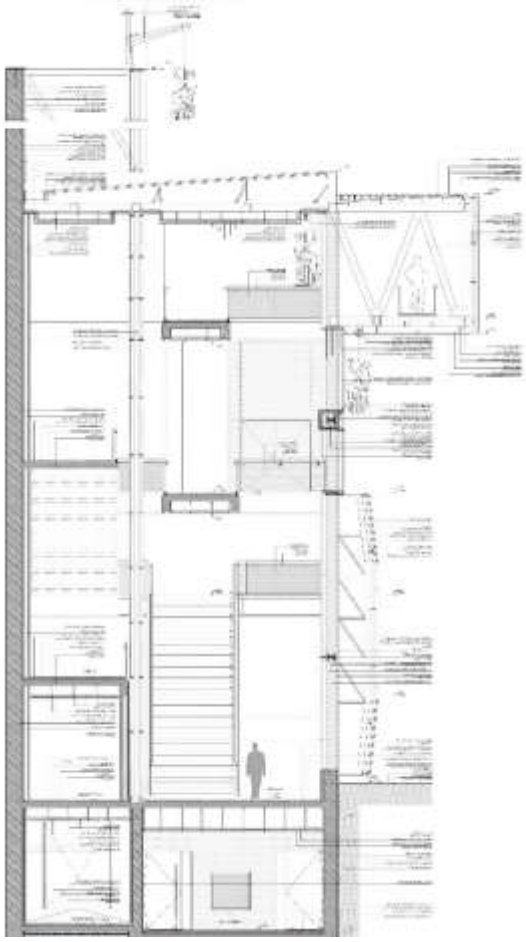
(To be 2D Perspective view of the 3D Wall Section model)

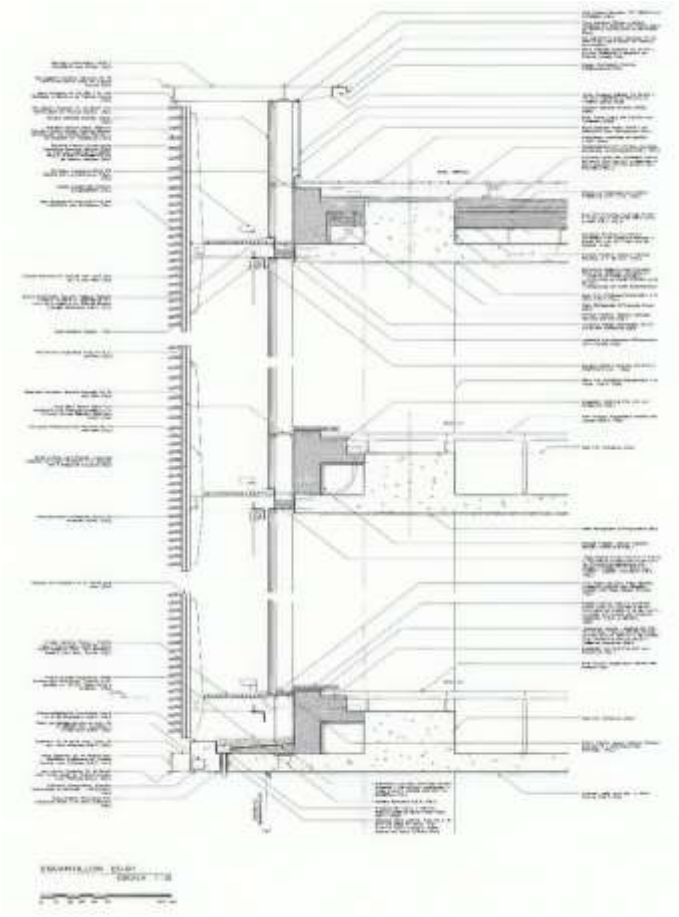


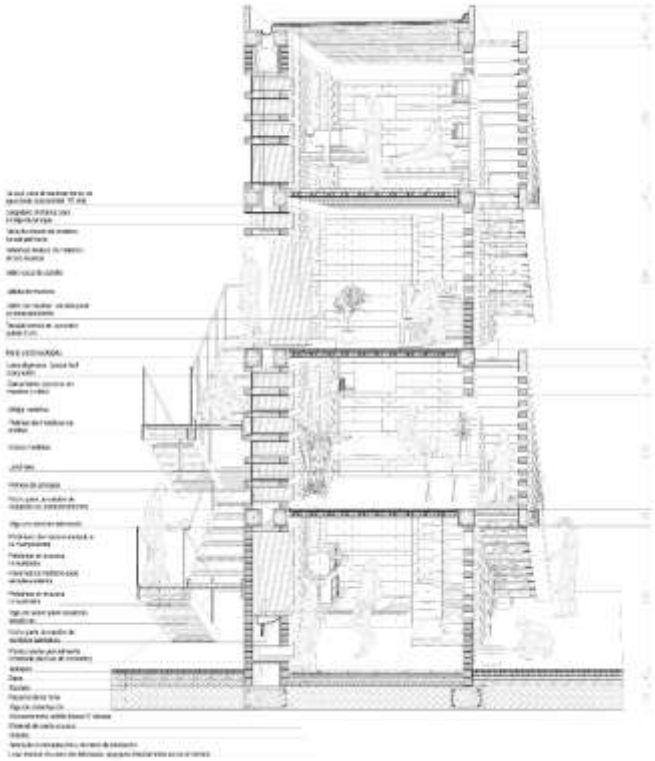


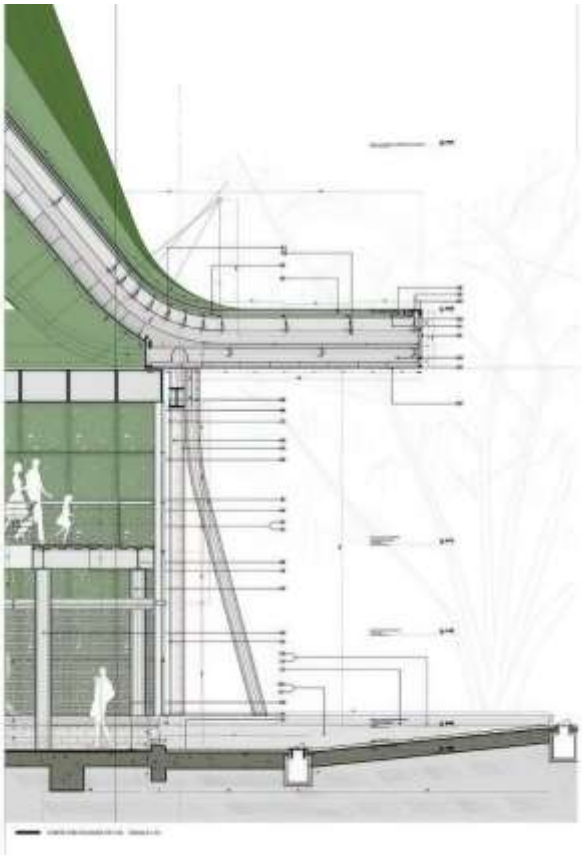




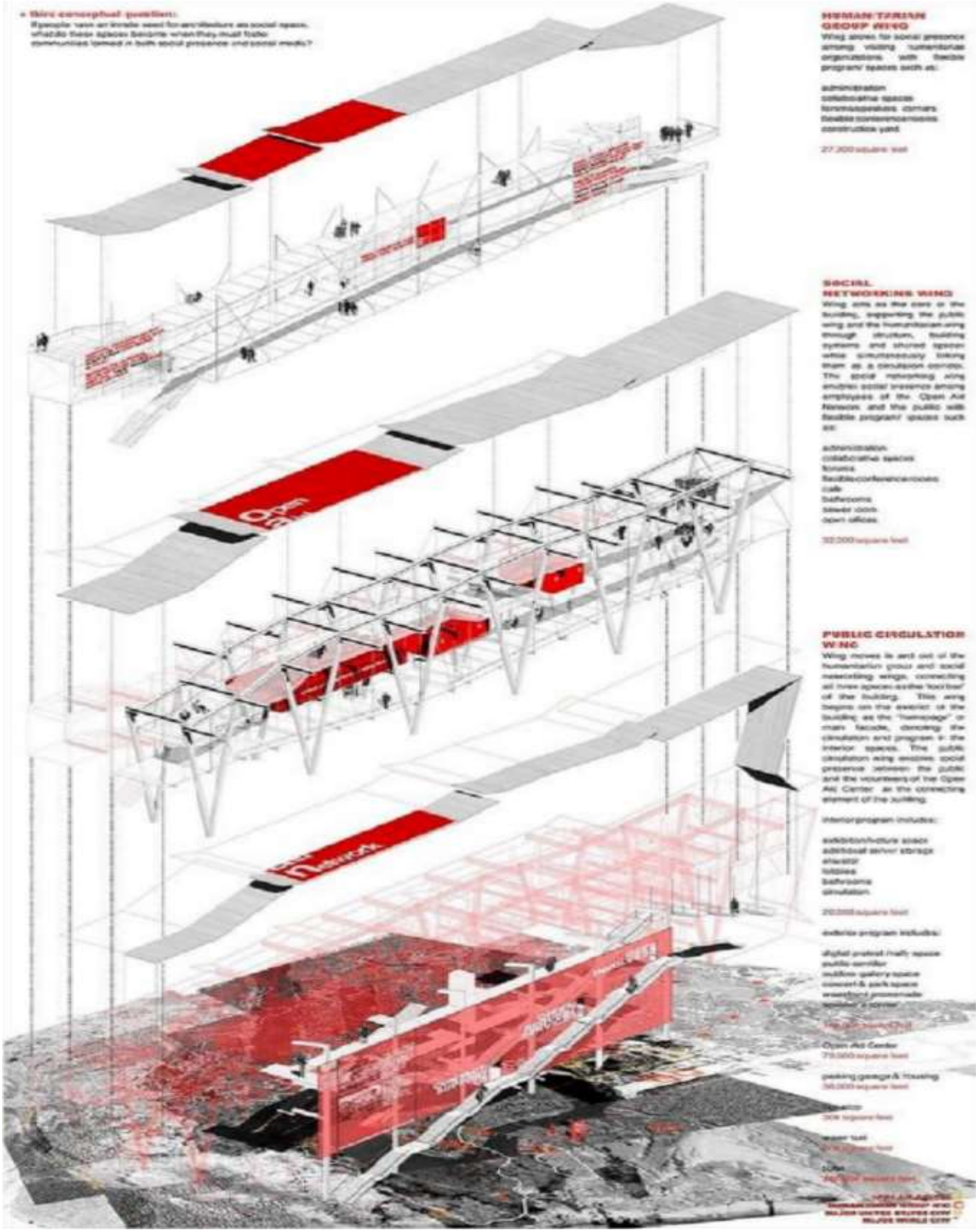






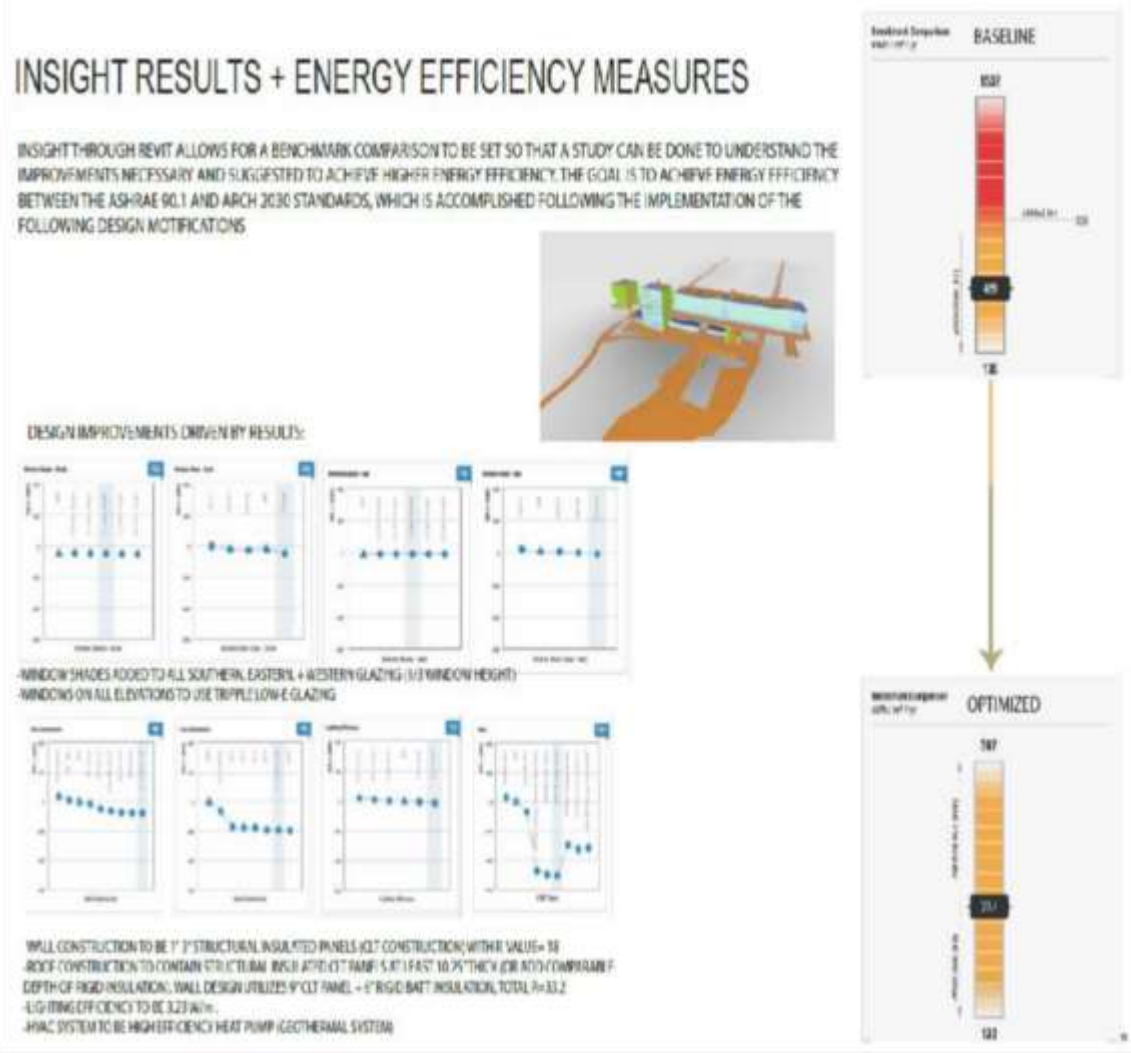


E) Exploded Building / Site Axonometric:



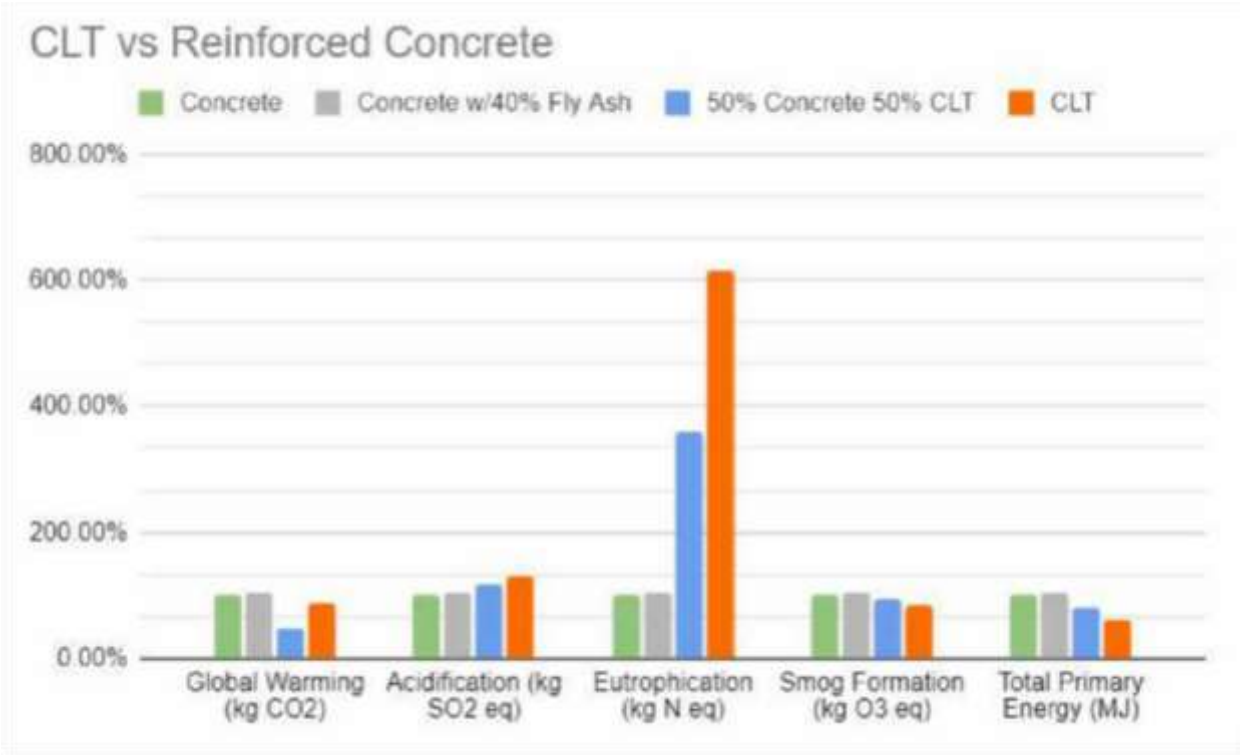
F) Building Performance Comparative Conceptual to Technical Development Analysis

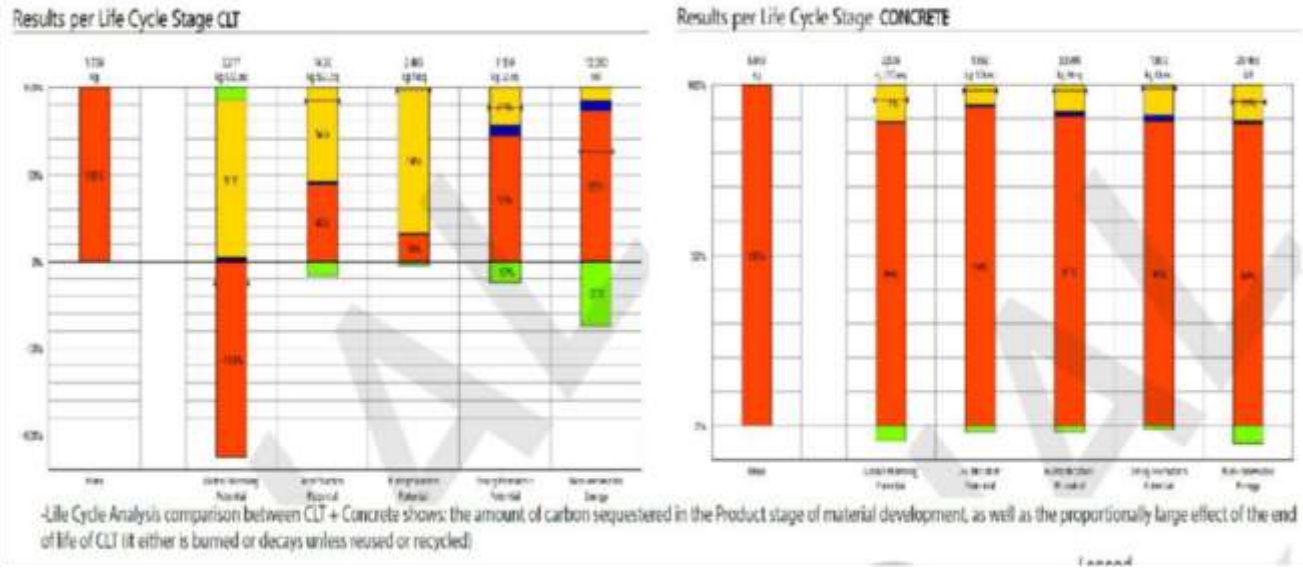
(Synthesis Seminar; Energy & Daylighting):



G) Environmental Impact Comparative Analysis:

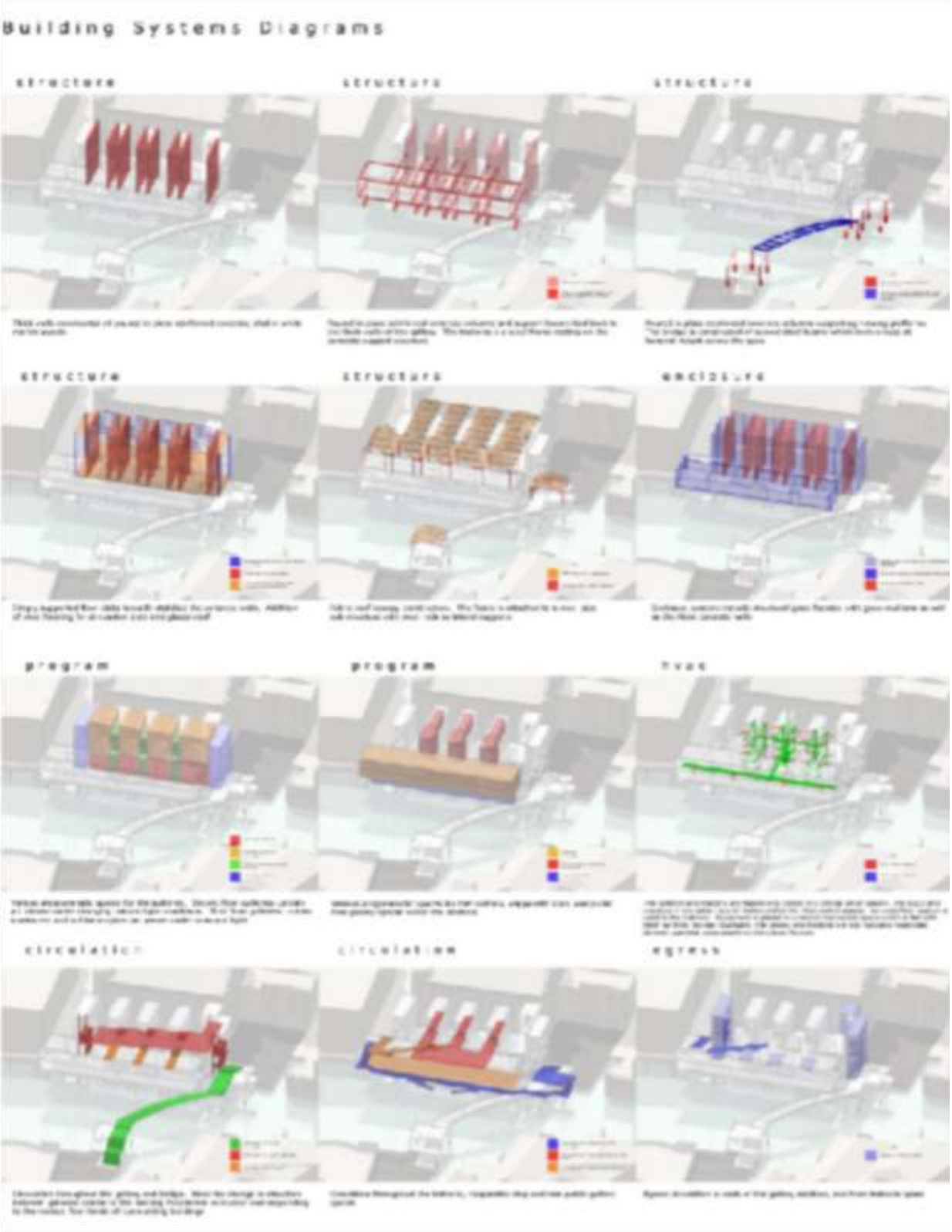
(Synthesis Seminar)





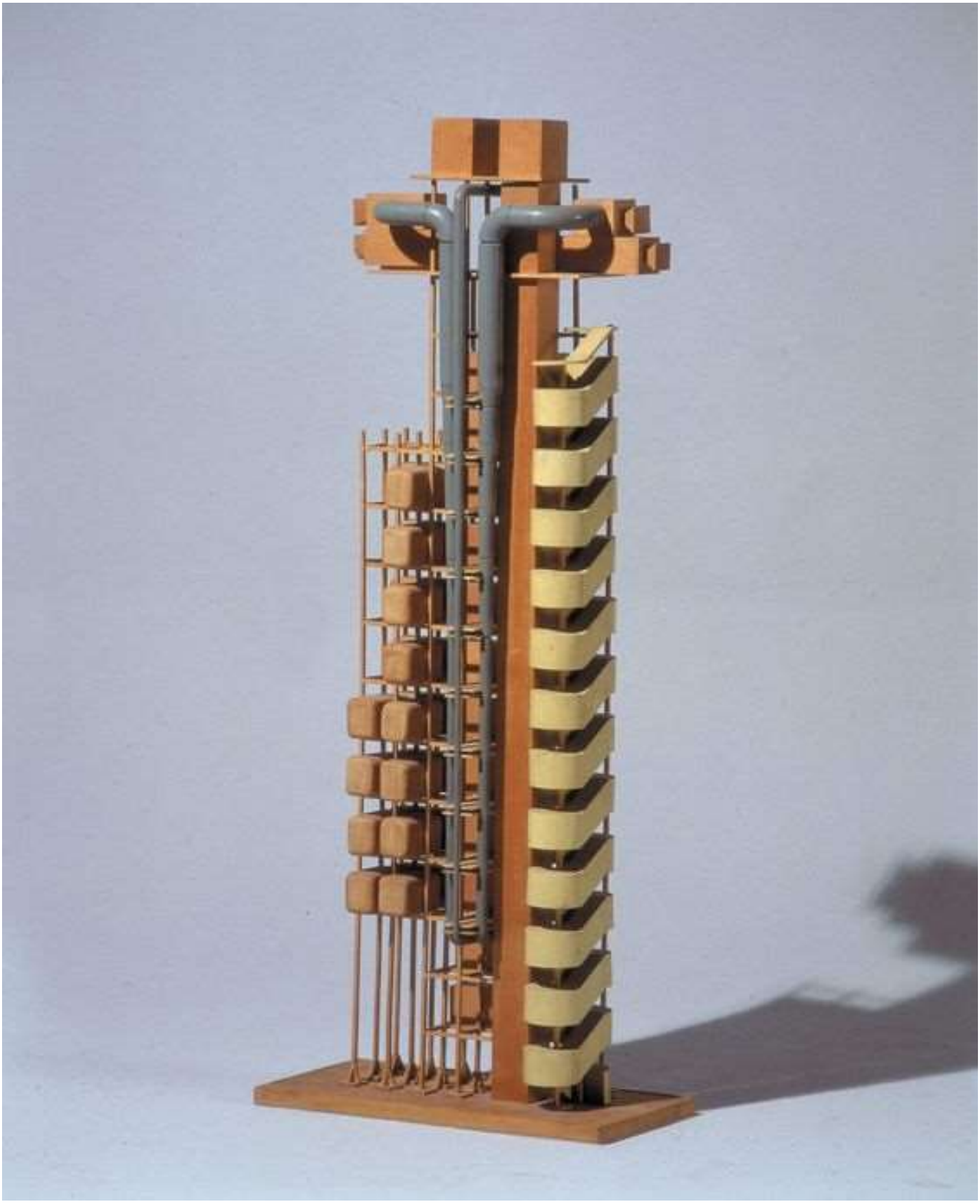
-Life Cycle Analysis comparison between CLT + Concrete shows: the amount of carbon sequestered in the Product stage of material development, as well as the proportionally large effect of the end of life of CLT (it either is burned or decays unless reused or recycled)

H) Comparable Architectural and Building Systems Diagrams:



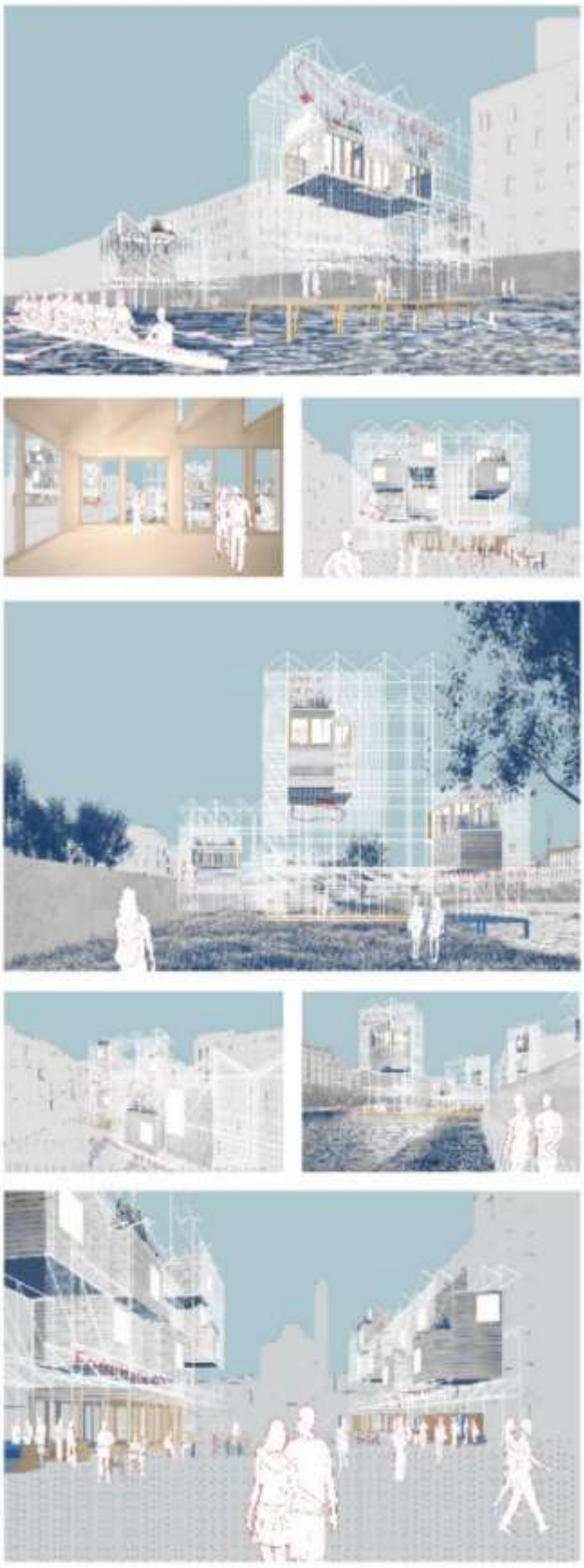
HVAC Systems

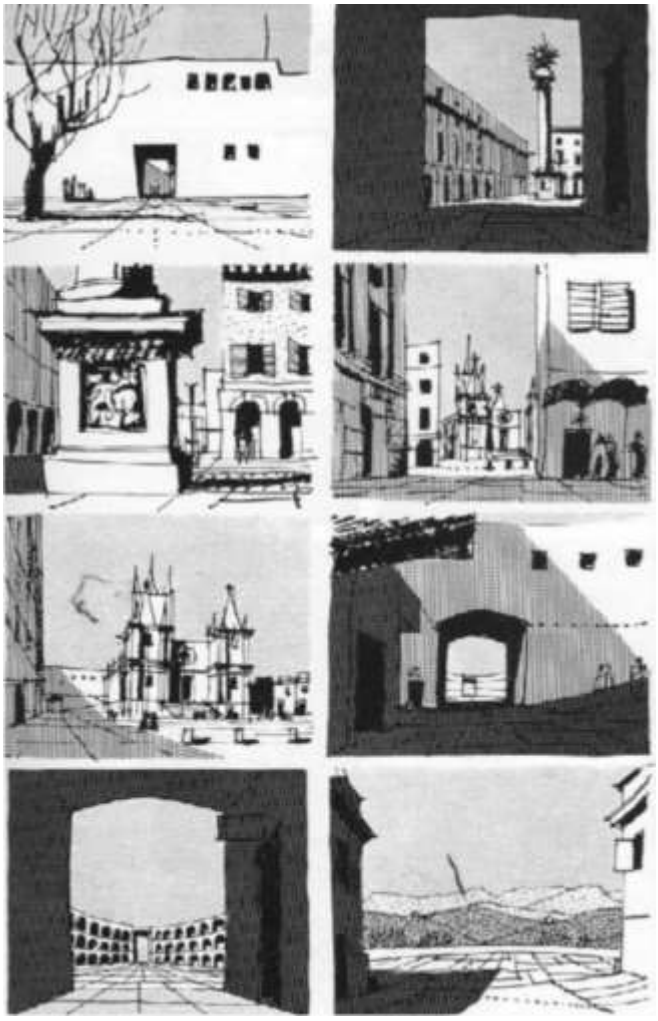
HVAC Systems



Egress, Public Circulation and HVAC Systems

I) Serial Views: taken from eye level.





J) Contextual Views:

Design superimposed on photographs of the context of the surrounding site, from eye level and above.

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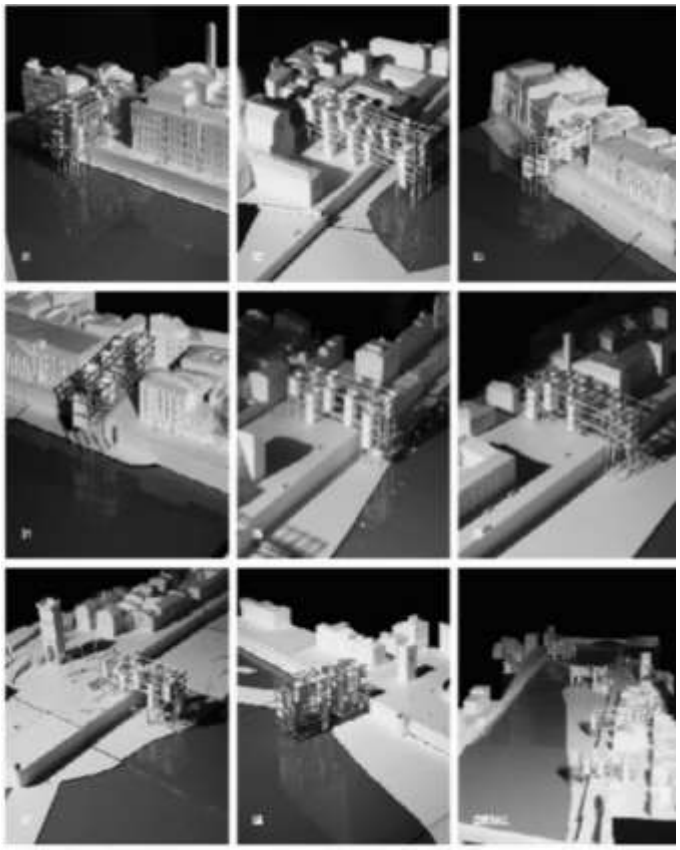
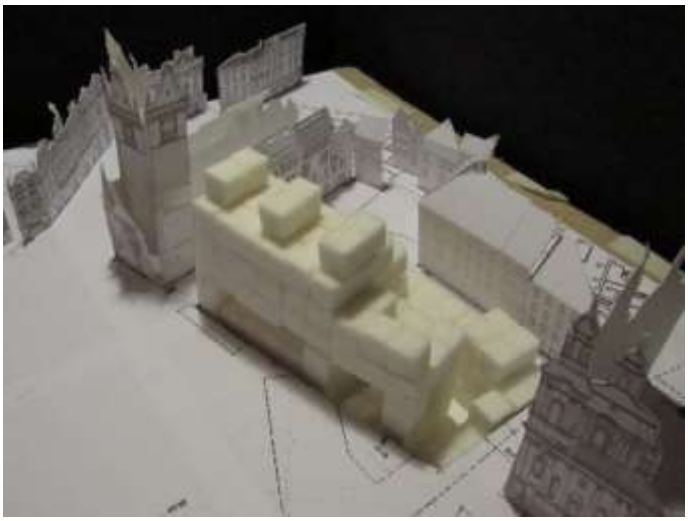
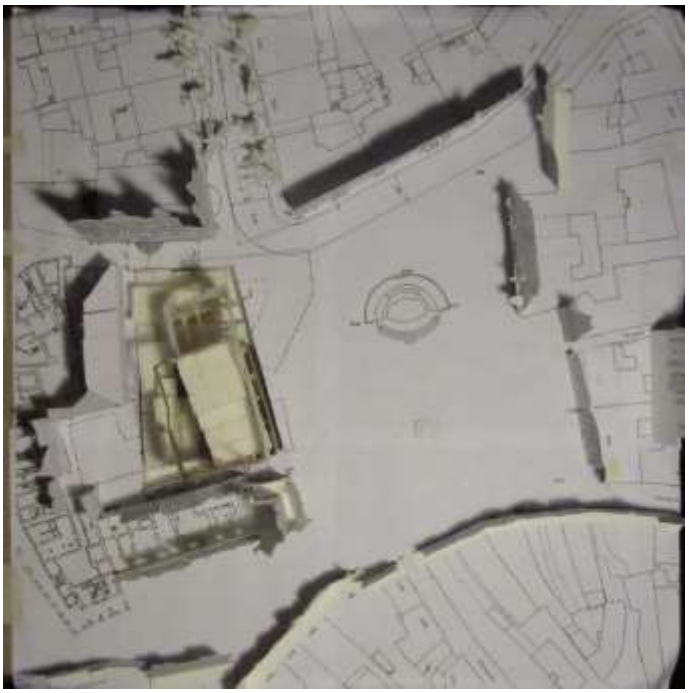
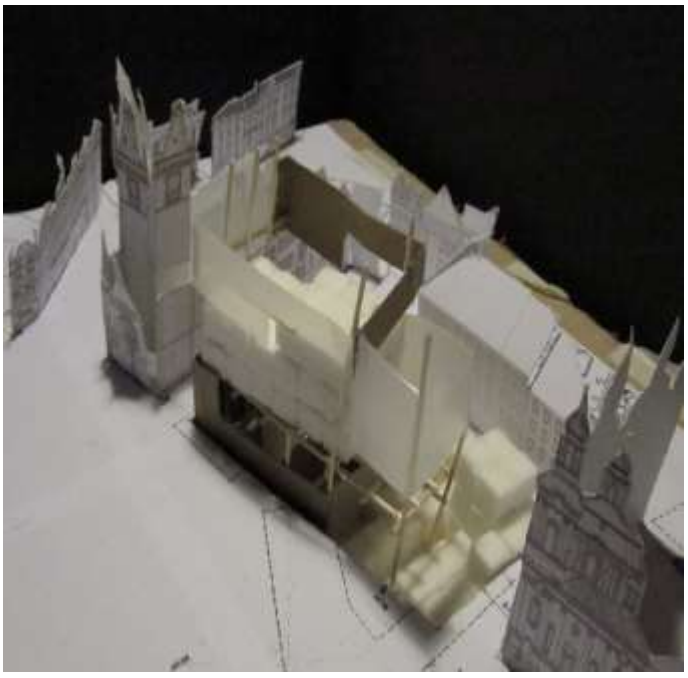
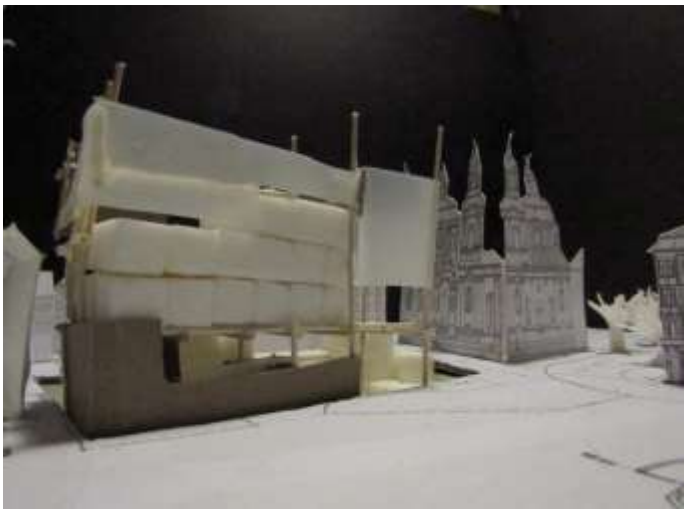
K) Design Research, Conceptual, Design Development and Final Presentation Physical Models:

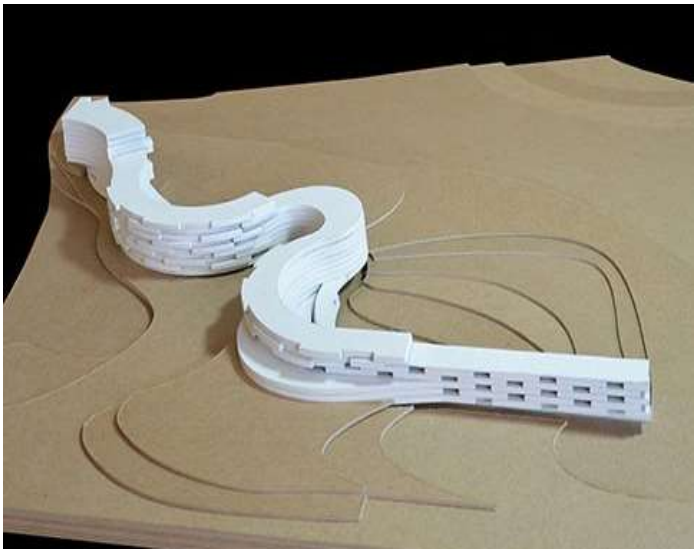


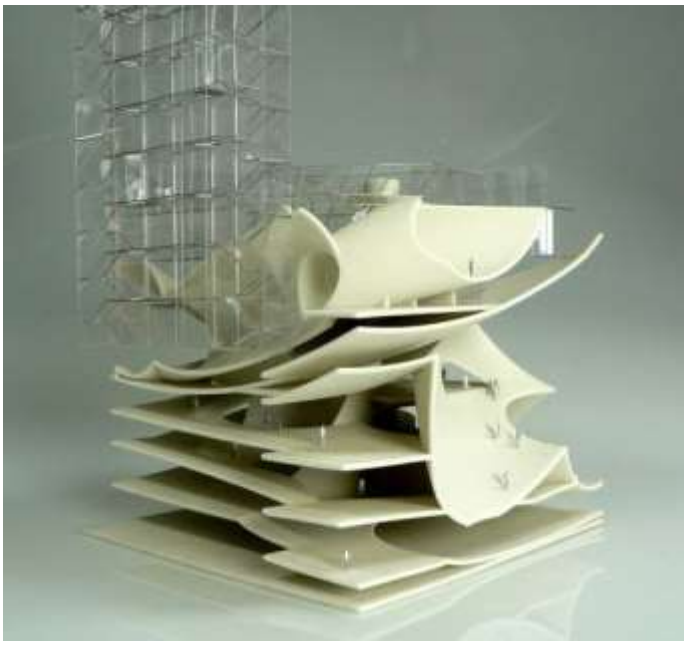


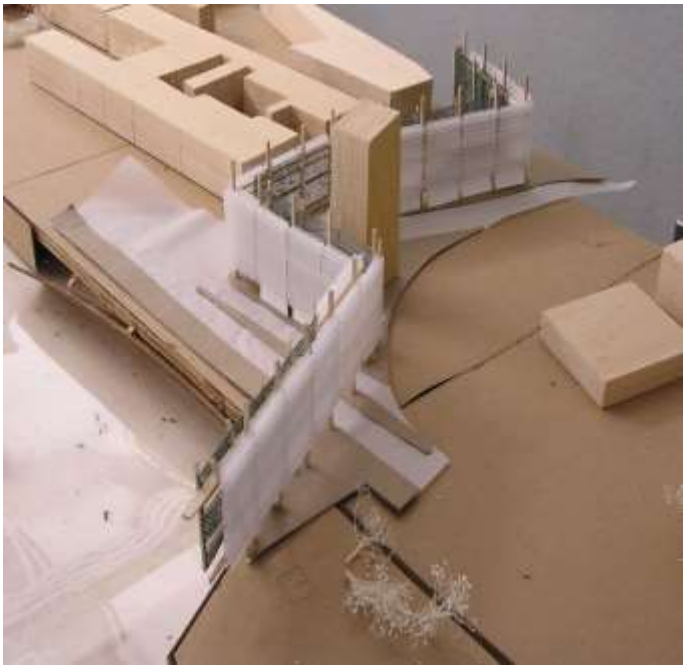


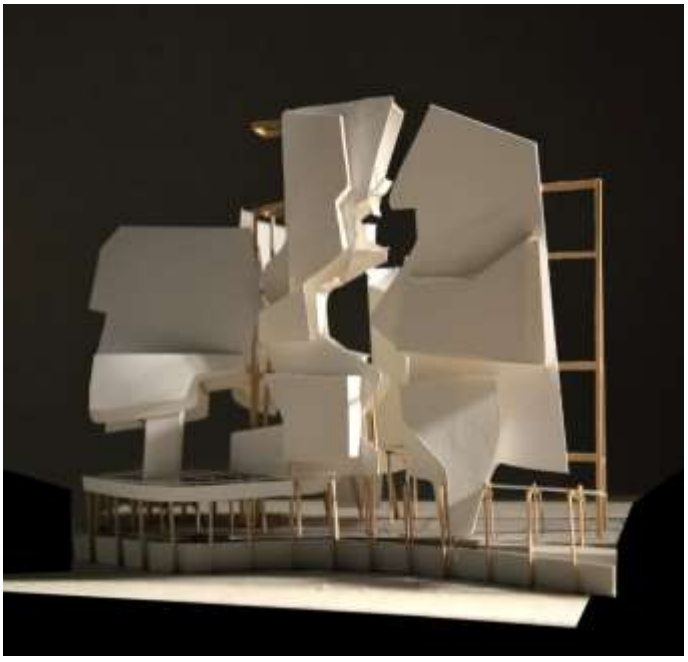


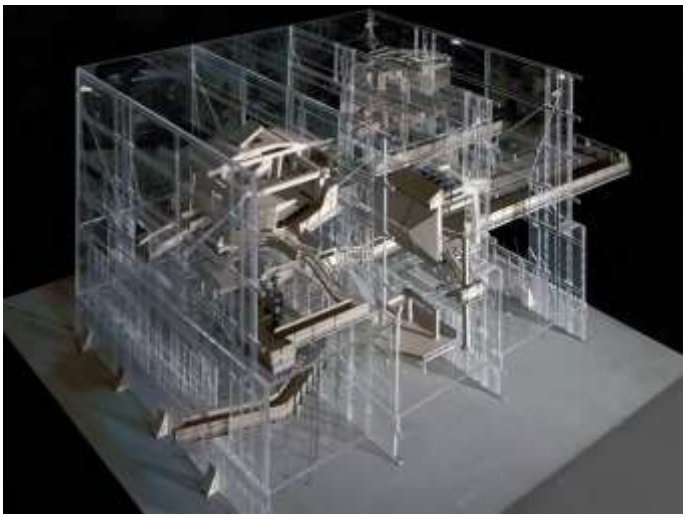


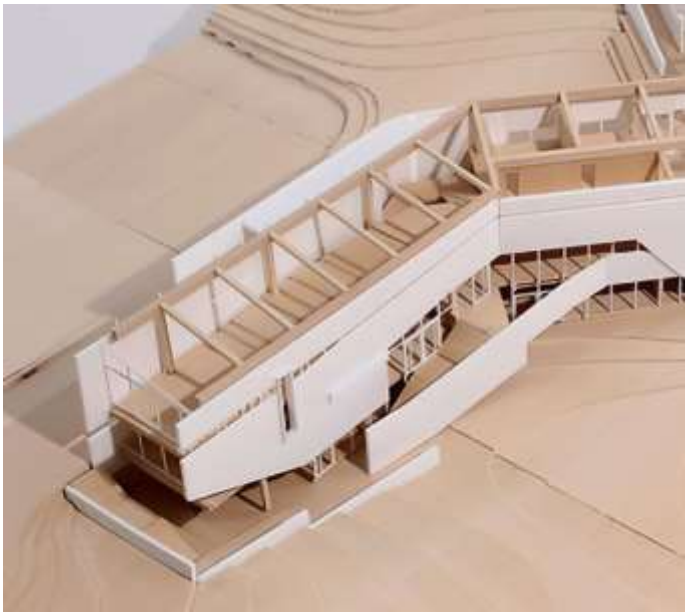


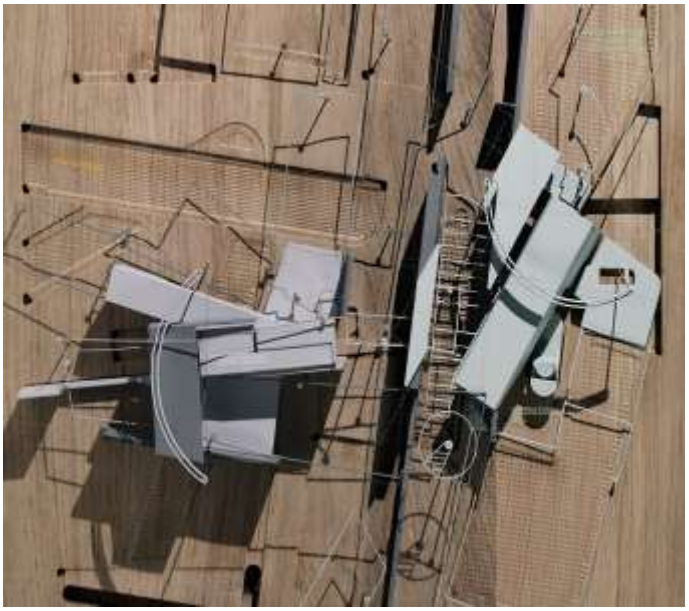


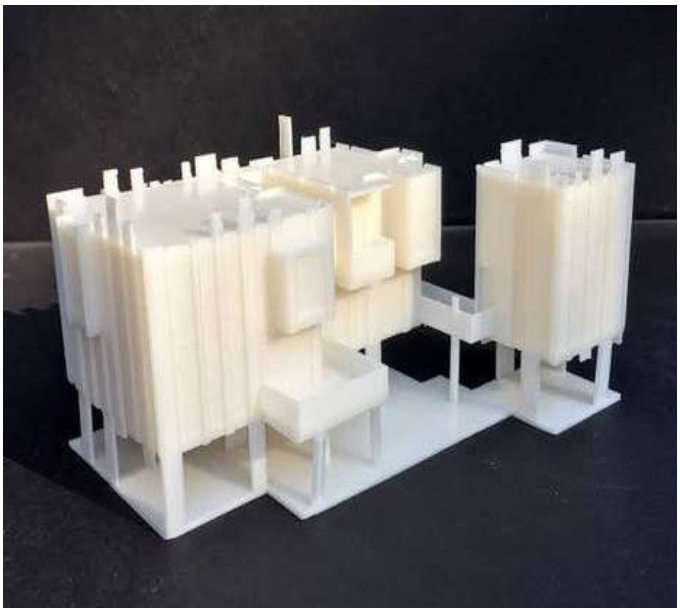


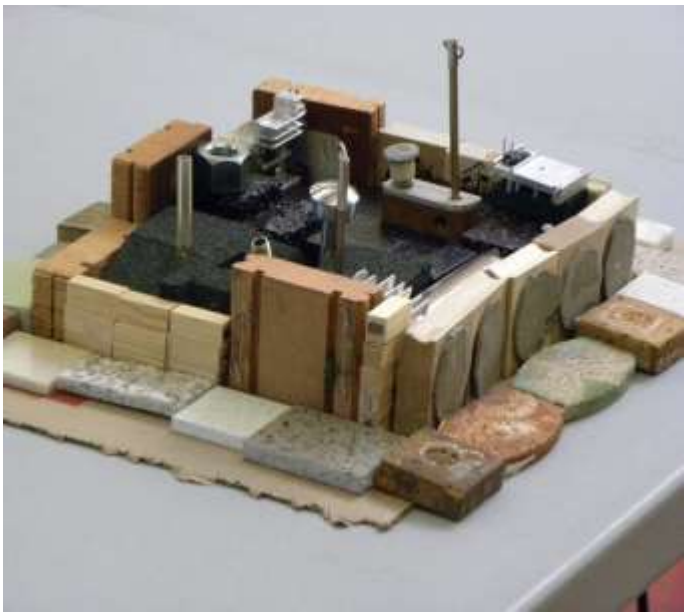


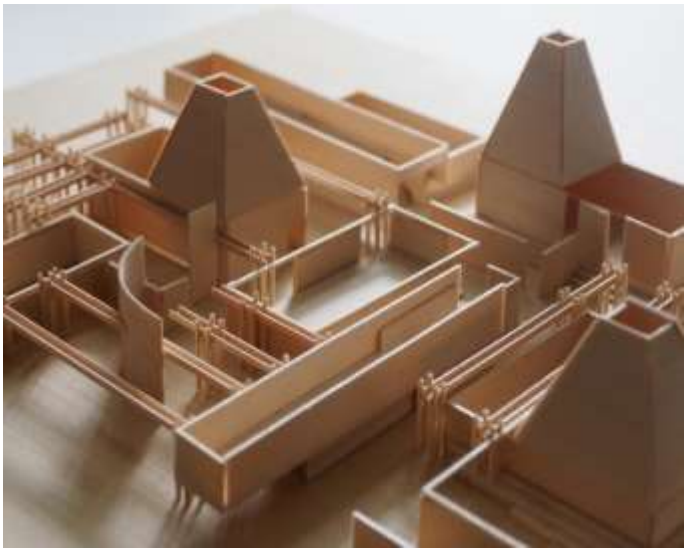


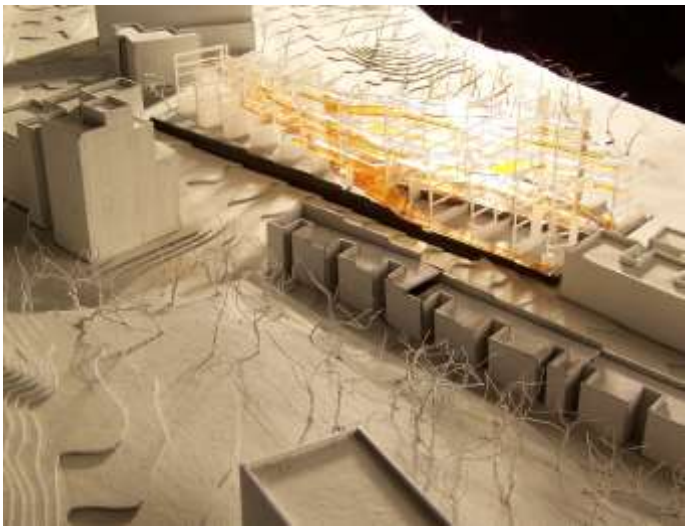


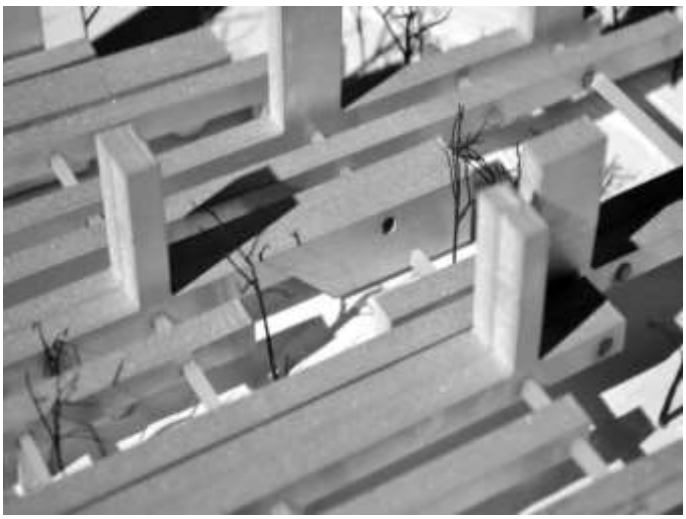




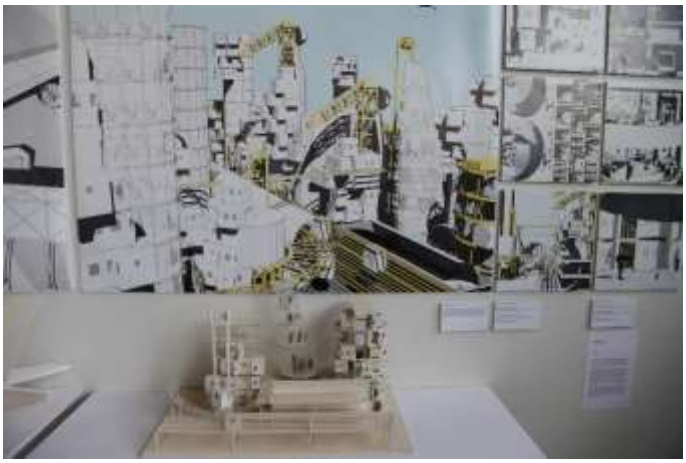




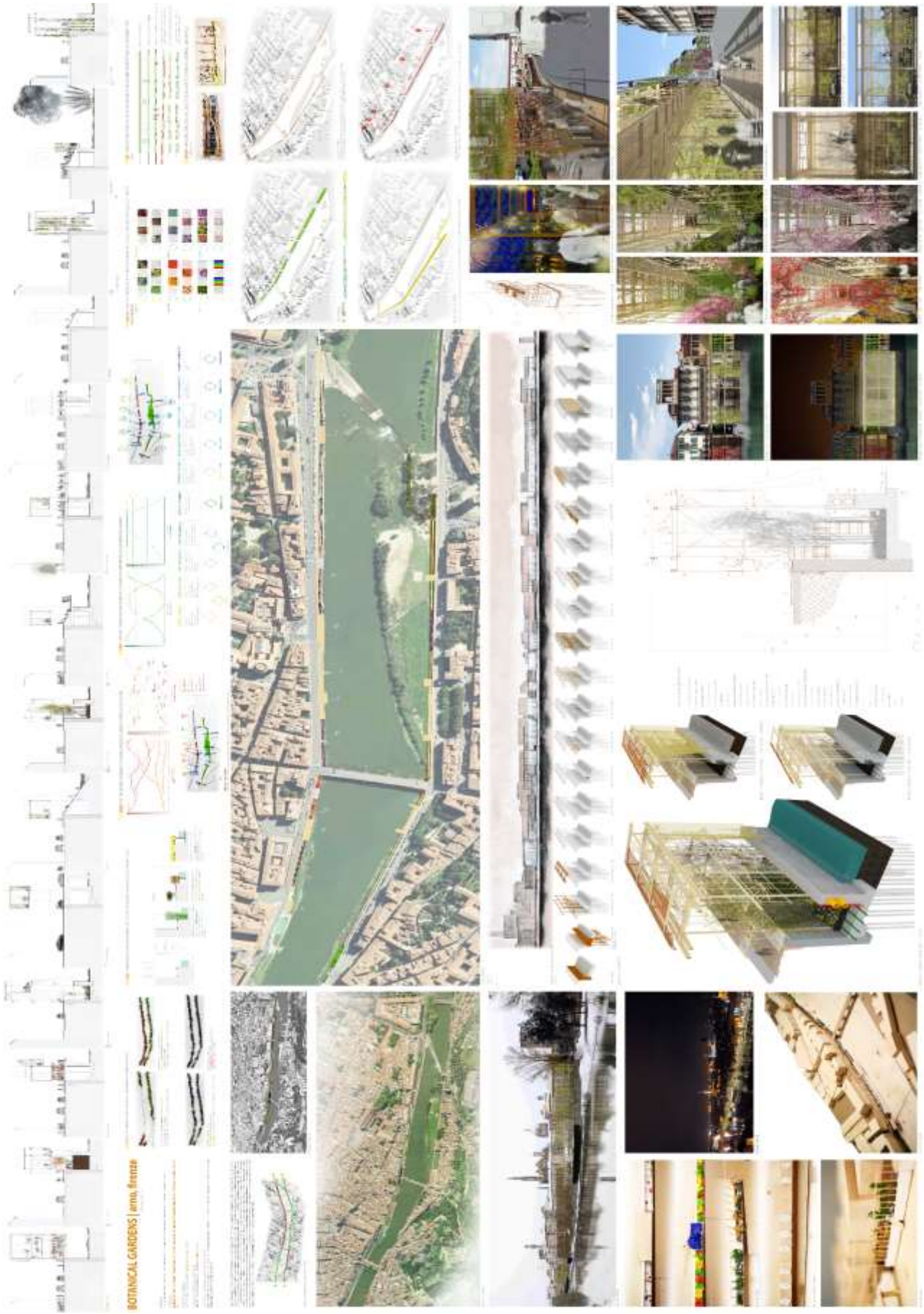


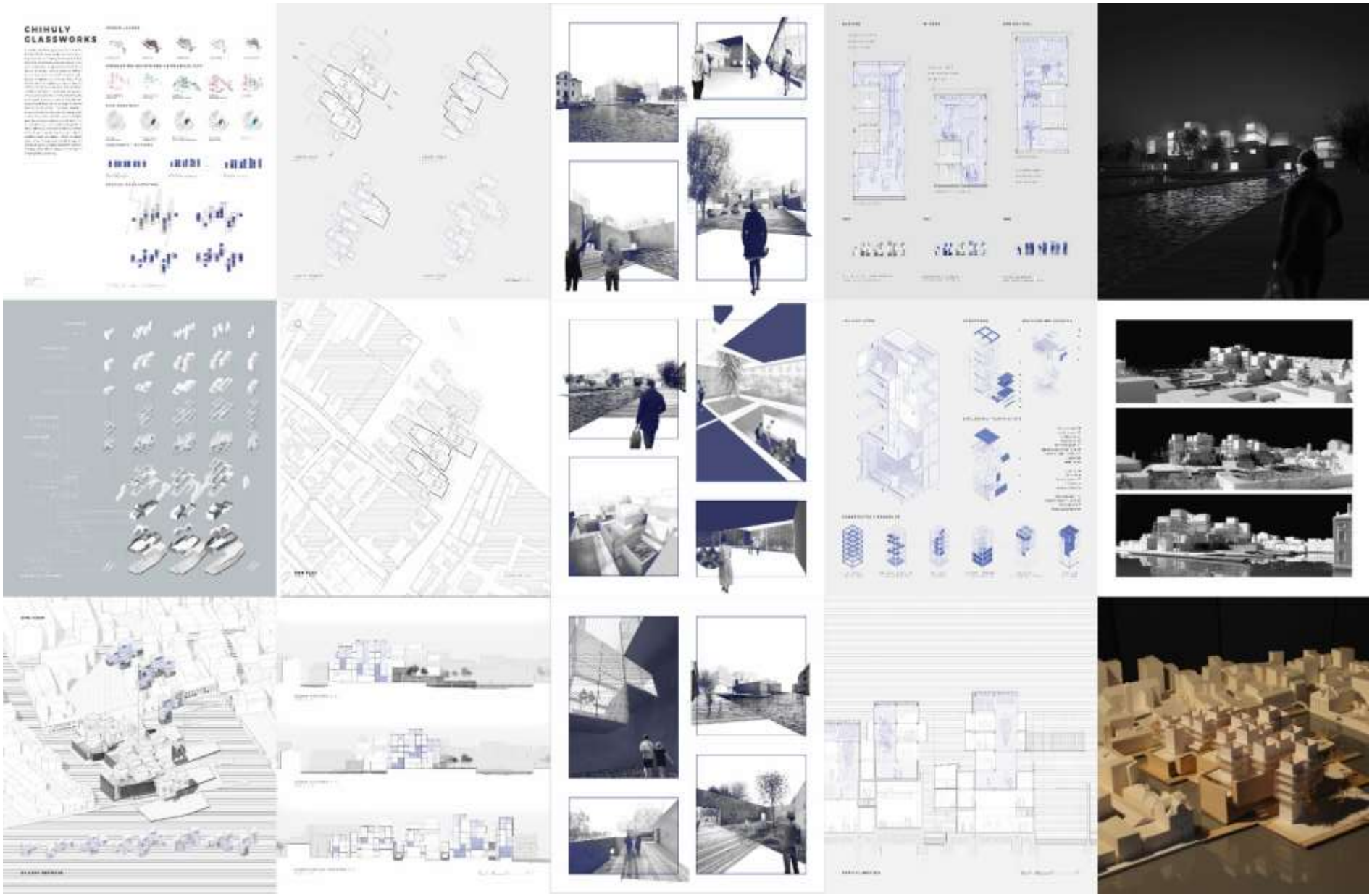


L) Final Presentation: Poster and Models Display



Examples of Final Record Presentations: (Examples do not include all Advanced Studio requirements.)

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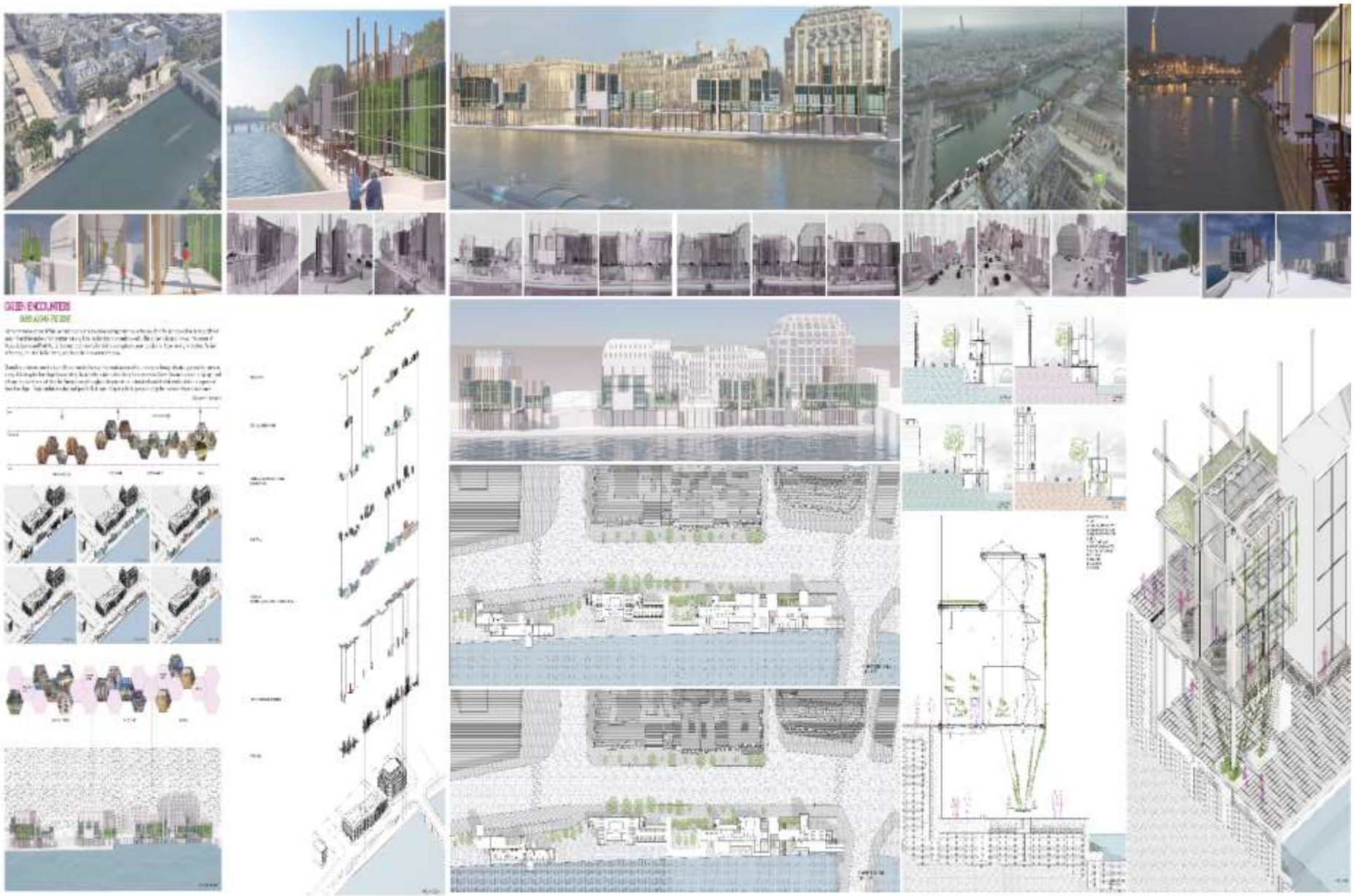
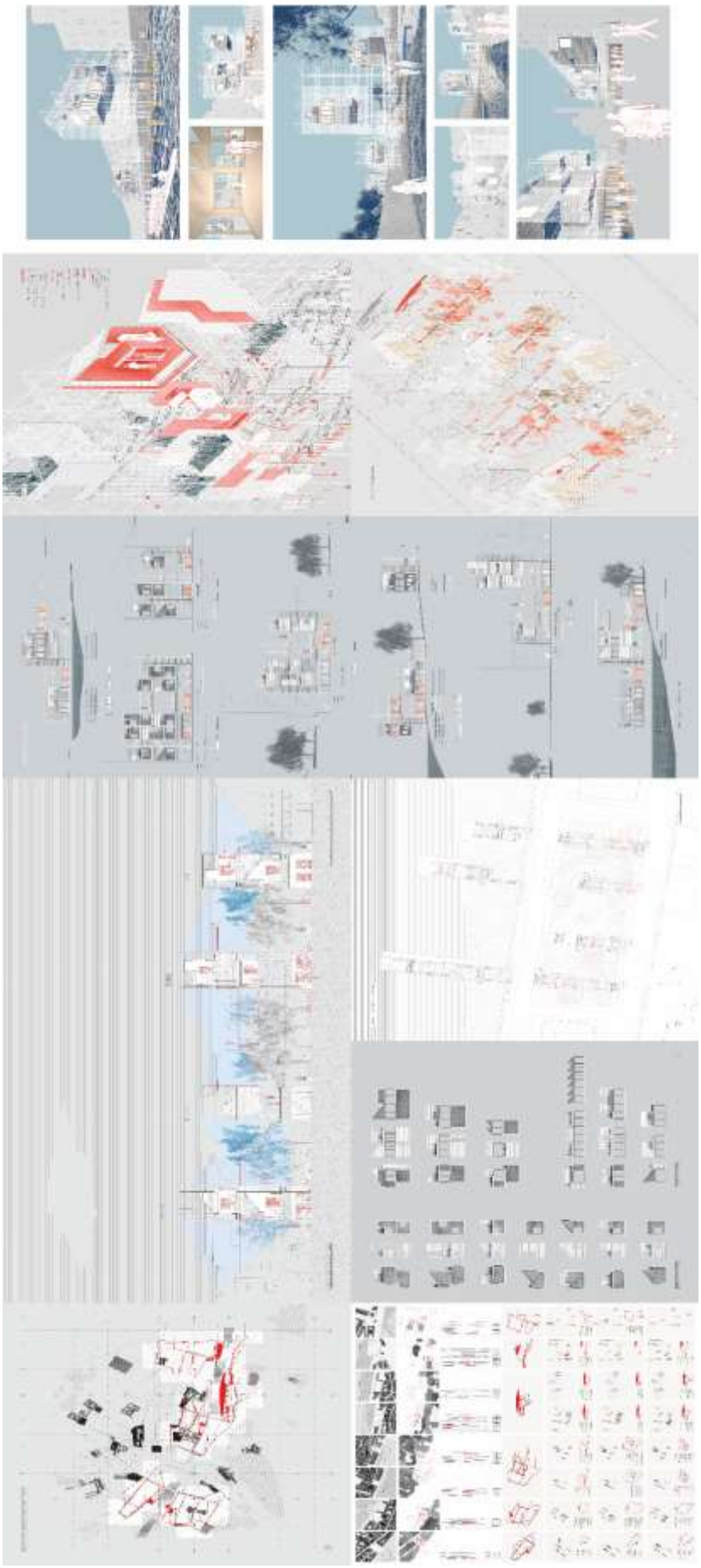
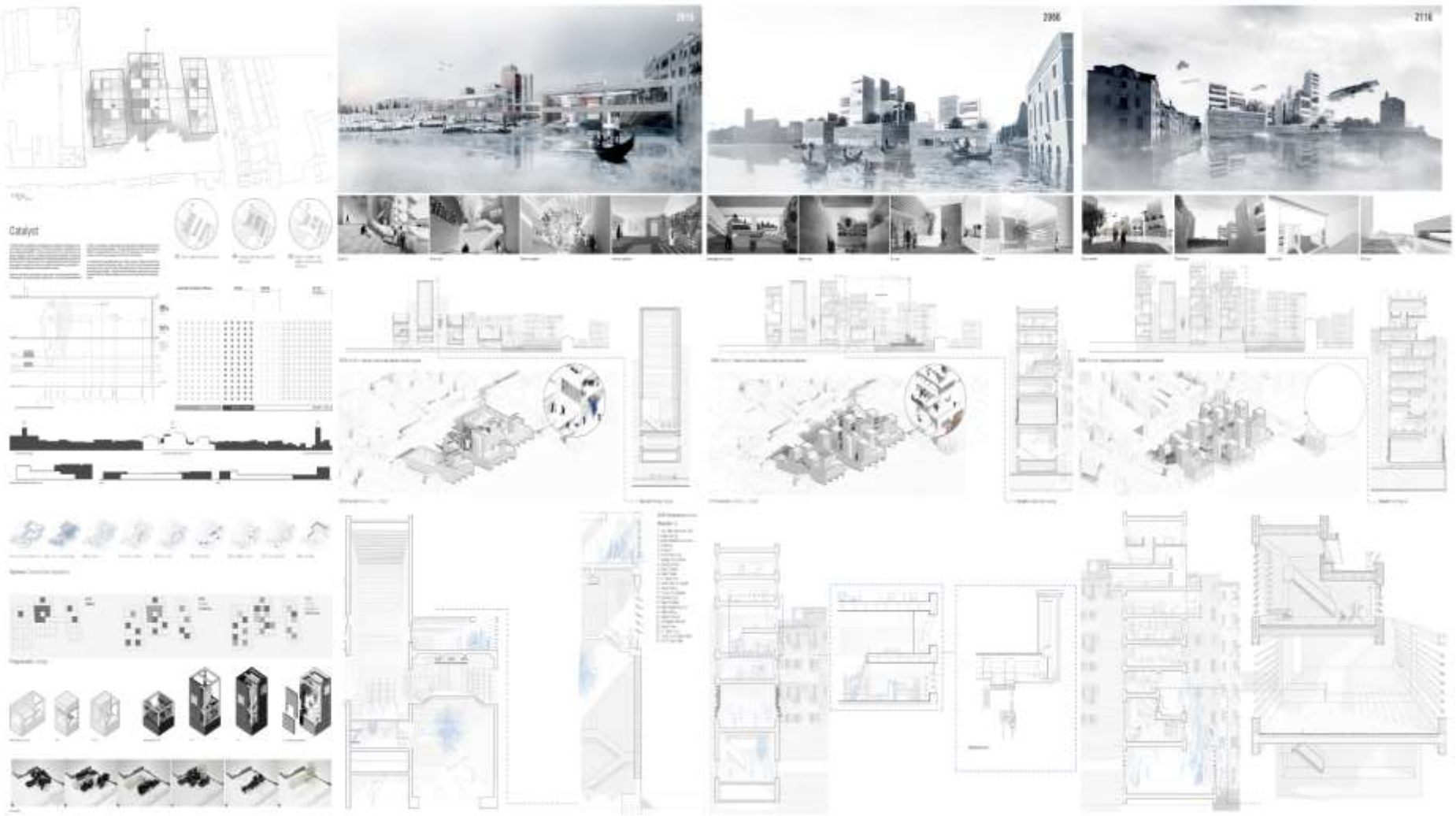
GLASSWORKS



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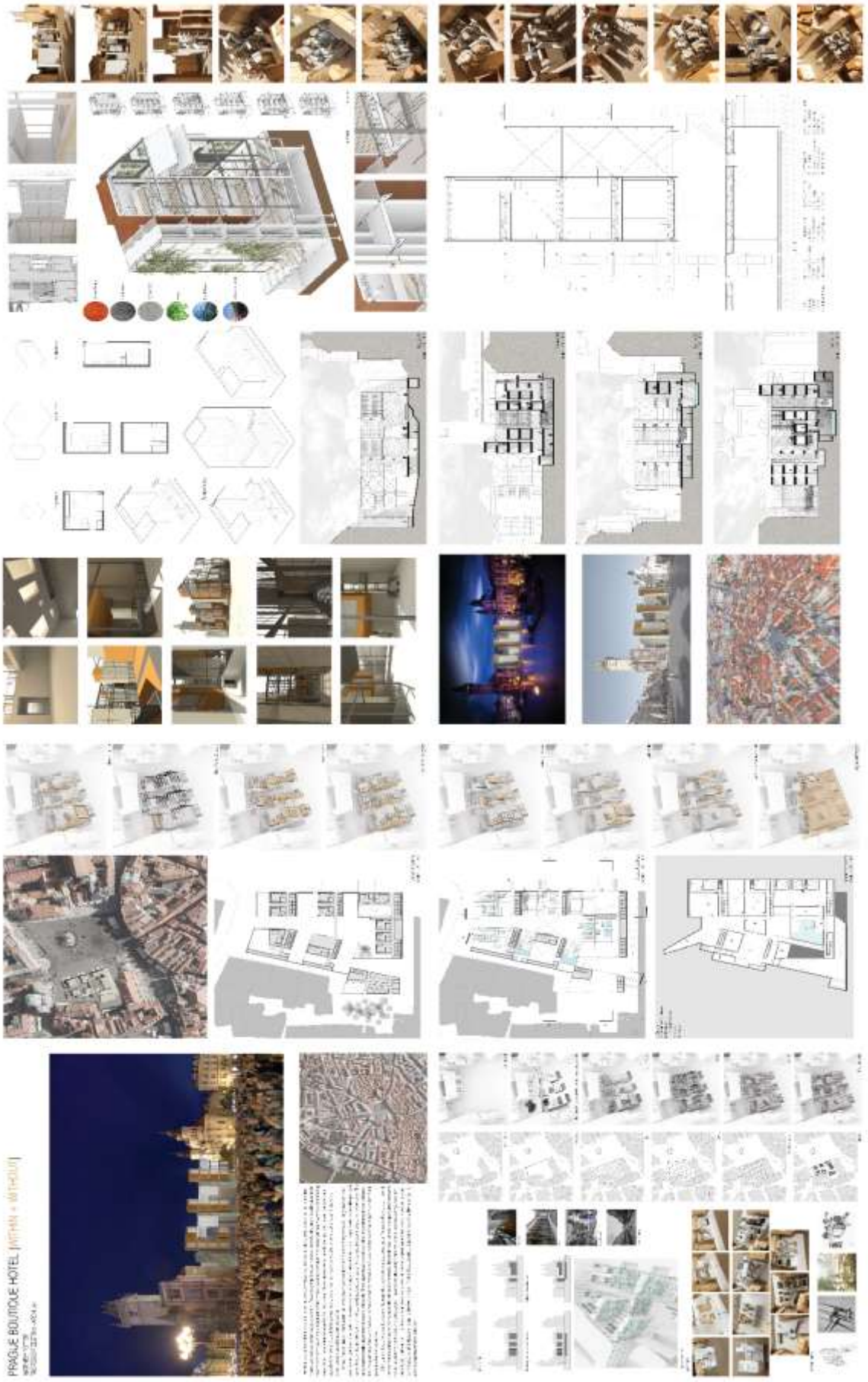
CROSSING THE ARNO **WEST**


PRAGUE BOUTIQUE HOTEL

Advanced Architectural Studio II:

The Advanced Studio II requires that each student individually illustrate how each of the course determinants listed in the Advanced Studio and NAAB Criteria have been integrated and synthesized into their Studio's Final Presentation, Final Record and as illustrated and explained in the final Synthesis Seminar Booklet. **Each of the ten NAAB Criteria must be successfully proven to pass the Synthesis Seminar, as per the NAAB requirements.**

It is important to note that solely meeting the individual Criteria is not, in itself, a basis for passing the Studio or in determining the final studio grade. The synthesis of the many criteria into a significant work of architecture should result in the sum being greater than its constituent parts. Additionally, the design process is not linear, as it requires reconsideration or revision throughout the process to create a significant work of architecture, which is both technically and artistically sophisticated.

The list Advanced Studio and NAAB Criteria categories and questions indicates the specific topics to be addressed, without suggesting that the thirteen topics have equal value. The semester's Schedule fractional values are to indicate the relative importance to each portion of the semester's work, however they should not be considered as basis for "cumulative or averaged test scores" which result in the final course grade.

Architectural design involves synthesis and integration of multiple issues both in both a linear/progressive and reflective/reconsideration process. As a result, it is impossible to measure or predict the quality of final architectural proposals through the summation or averaging of individual assignments or reviews. This is even more relevant for the Advanced Studio II and Seminar, where the National Architectural Accreditation Board places exclusive importance on the Final Presentation, Final Record and the evidence provided by the Synthesis Seminar booklet.

Final course grades are determined by: 1) the definitions of letter grades defined by the NJIT faculty, 2) the level of architectural sophistication, 3) the range of rigor and quality illustrated by proposed design, 4) by the critiques and opinions of guest critics, 5) by review of the studio section's teacher throughout the semester, 6) by the collective discussion of all teachers of the course during in the semester.

The overall sophistication and quality of the proposed design is evaluated based upon that of an upper level accredited professional education in architecture.

Advanced Architectural Studio Criteria:

1. Architectural History and Theory:

a. How architecturally sophisticated and significant are the conceptual and theoretical intentions of the proposed design?
b. How difficult, (i.e. how much risk) does the design concept engage?
c. How does the design's concept and technical development relate to contemporary architectural thought and praxis? In what ways is the proposed design an extension of contemporary architectural theory(s)?
d. Overall, does the design, and its relationships between concept, context, program and technology, illustrate a level of sophistication and rigor appropriate to "capstone" Advanced Studio within a professional degree in architecture?
e. How does the design illustrate the development of contemporary architecture which appropriately responds the dynamics of architecture including; seasonal variation, changes in weather and time of day, and enhancing, completing and relating to the unique characteristics of its specific site and context?
f. How does the design illustrate the development of contemporary architecture, which appropriately responds to the specific details, and characteristics of the functional program, both the interior and exterior spaces?
g. How does the design illustrate the development of contemporary architecture, which appropriately integrates and synthesizes building technologies and systems, energy and sustainability performance, and materials / products selections?
h. How does the design illustrate the development of contemporary architecture whose aesthetic and experiential characteristics relate to the visual context, environmental performance, and are aesthetically sophisticated?
i. Will the proposed architecture be valued over time and representing Architecture within its time and place?

2. Aesthetics and Architectural Design:

a. Is there a consensus that the proposed design is "Architecture?"
b. Is the design process and proposed project intend clearly legible, and illustrating rigorous conceptual thinking?
c. Is the design well-proportioned to its program and context, sophisticated in its selection and use of materials and colors?
d. Does the design illustrate and apply a sensitive understanding of human and contextual scale?
e. Does the design illustrate appropriate architectural ordering systems, beyond simply functional relationships or abstract geometric forms, such as Heavy-Light, Mono-Multi-Type, Linearity-Network, Order-Disorder, Picturesque, Formal, Node, Combined?
f. Does the proposed design express the nature of its materials?
g. Does it illustrate a purposeful set of visual experiences including natural light and shadow, variations in mood or settings?

3. Process and Representation:

a. Has the Design Research and Conceptual Design phases of the process developed a series of designs which successfully related the specific characteristics of the project (site, program, etc.) and the topics of the design studies?
b. Has the Design Research and Conceptual Design studies positively influenced the development of the proposed design throughout the semester, including design attributes such as: Heavy-Light, Mono-Multi-Type, Linearity-Network, Order-Disorder, Picturesque, Formal, Node, Combined?
c. Has there been rigorous design inquiry, including the development of alternative design strategies related to a well-formulated design concept and set of architectural values?
d. Does the Final Presentation fully and accurately illustrate the conceptual, contextual, programmatic, aesthetic and technical aspects of the design proposal?
e. Does the Final Presentation include the required range of architectural drawings, images, diagrams, statements to illustrate and explain the proposed design in its surrounding context, technically, as experienced by its occupants, and illustrated at many scales?
f. Is the Final Presentation designed to tell the "story" of the design, why it has taken the form and architectural characteristics that distinguishes it from other design proposals?
g. Is the Final Presentation well designed and organized maximizing the relationships between drawings and the varied elements of the presentation?
h. Does the Final Presentation accurately illustrate the architectural characteristics of the proposed design, through the control of modeling and rendering systems?
i. Is the Final Presentation complete and graphically clear, including accurate, professional quality 2D plans, building-site sections, and building-site elevations?
j. Is the Final Record a complete and graphically sophisticated single large-scale multi-sheet poster interrelating the various elements of the Final Presentation?

National Architectural Accrediting Board Criteria:

4. Site Conditions:

Pedestrian and Vehicular Movement, Topographic Conditions including Steep Slopes, Protection of Environmentally Critical Areas, Integration of Surrounding Architectural, Urban and Landscape Contexts, Integration with Functions of Adjoining Neighborhoods, Historical and Cultural Context, Responding to Specific Seasonal Conditions, Diurnal Variation, Variations in Weather, and Solar Access and Control.

Municipal Zoning Regulations: Yard Setbacks, Maximum Impervious Coverage, Maximum Building Coverage, Maximum Floor Area Ratios, Maximum Building Height and Stories, etc., Protection of Wetlands and Water Courses, Land Use and Planning Policy and Historical District Requirements.

a. Does the design comply with zoning and land use policies such as setbacks, maximum height, maximum floor area ratios, maximum lot coverage, maximum impervious coverage, etc.?
b. How does the design respond to the character of the surrounding physical contexts including: relationship to existing buildings architectural characteristics and functions, topography, natural landscape, principal views, scale, pedestrian and vehicular movement systems, etc.?
c. How does the design respond to environmental conditions of the site including solar orientation, seasonal variation, variations in weather, sunlight, exterior temperature and humidity, wind, precipitation, etc.?
d. In what ways does the proposed design respond to differences in orientation, relationship to urban and/or natural landscapes, sunrise-sunset, significant views and panoramas, below grade, at grade, above grade and rooftop activities and characteristics, pedestrian paths and access? And, are the exterior facades of the proposed architectural designed to respond to these differences?
e. Overall, is the proposed design an appropriate and skillful addition to the existing landscape and/or urban context?

5. Environmental Impact:

Minimum Carbon Footprint, Use of Sustainable Materials, Water Conservation, Application of Renewable Energy Sources.

a. Does the proposed design demonstrate an understanding of sustainability in its selection and use of materials and systems?
b. Does the design have an overall positive effect on the natural and built environment?
c. Based upon a measurable analysis of the exterior envelope of the design, illustrate and prove: the design and technical improvements to comparable global warning impact, ozone depletion effect, smog formation contribution, non-renewable verses renewable energy demand for the building enclosure systems?

6. User Requirements:

Appropriate Relationships of Functions, both interior and exterior, Accommodation Building Services, Clarity of Way-Finding, Accomplishing Specific Requirements of Each Functional Type, and for the needs of a Diverse Range of Occupants including variation in age, needs for privacy and overall comfort.

a. Does the design accomplish the functional needs of the client, and various groups of users?
b. Are the rooms and spaces designed to include finish materials, interior design elements such as furnishings, and designed for the technical and architectural characteristics for each of the specified functions?
c. Does the design include service spaces, mechanical spaces, service access required for the functioning of the building?
d. Are public areas and the circulation systems logical, clearly understood by the occupants, and overall part of the architectural concept and form?
e. Are the rooms and spaces appropriately sized and proportioned, fitting the needs of the functional program, and overall part of the architectural concept and form?
f. Are the various interior and exterior functions of the building appropriately related, interconnected, or isolated?
Is the design successful in accommodating the needs of various users such as: visitor, employee, owner, neighbor, child, senior citizen, or passersby?

7. Regulatory Requirements:

International Building Code 2021: Occupancy Classification, Mixed Use Requirements, Required Type of Construction, Allowable Maximum Floor Areas, Maximum Building Height and Number of Stories, Site Determined Building Area Modifications, Building Separations, Atrium Requirements, Fire and Smoke Barriers, Prescriptive Fire Ratings of Building Construction, Fire Smoke and Sprinkler System Requirements, Restroom Requirements and Stair Design.

a. Has the design addressed the requirements of various occupancy types, construction types, and limitations to building dimensions, number of stories and floor areas?
b. Do mezzanine spaces meet the requirements of the IBC?
c. Does the design accommodate fire safety, including fire rated materials based upon the function class, maximum floor areas, heights and number of stories of the proposed design?
d. Are the various portions of the building appropriately fireproofed?
e. Are the various exterior elements of the building appropriately thermally insulated, and acoustically designed for sound transmission?
f. Does each room or space have natural light as required by the IBC?
g. Does the daylighting design enhance each functional space under all solar conditions and functional uses?
h. Does each room or space have natural ventilation or fresh air as required, and as is appropriate to each function?

8. Accessible Design:

2010 ADA Standards for Accessible Design: Ramp Slopes and Safety Areas, Wheel Chair Access, Turning Circles and Maneuvering Clearances, Doors and Doorways Requirements, Refuge Area Requirements, Restroom Design, Elevator and Platform Lift Design, Accessible Roots, Equivalency of Design and Accessibility.

a. Does the circulation system (path of travel) within the building meet general ADA requirements including ramps widths, maximum ramp pitches and landings, access to elevators, stair, exit stair, elevator refuge areas, accessible seating and toilet room facilities, wheel chair accessibility?
b. Are restrooms designed to meet the IBC and ADA requirements?
e. Does the design provide the required accessible routes?

9. Life Safety Systems:

International Building Code 2021: Exit Access, Exit Access Maximum Travel Distances, Aisle Minimum Widths and Combined Widths (Corridors & Stairs), Min and Max Separation of Exits within a space, Maximum Dead Ended Exit Distances, Number of Required Exits, Maximum Common Exit Path Distances, Means of Egress Minimum Widths and Minimum Widths by Capacity, Corridor Continuity, Horizontal Exits, Exit Discharge, Egress Court and Exit Lobby Restrictions, Required Door Widths and Swing Directions, Direct Exit Paths, Elevator and Escalators

a. Illustrate and prove by measurement in the final proposed design all primary life safety requirements, listed above.
b. Does the building ensure safe egress to exit discharge from all occupied interior and exterior portions of the building?

10. Structural Systems:

Criteria for selection and design of Foundations, Primary and Secondary Structural Systems, Load Bearing Walls and Columns, Girders and Beams, Floor Slab Design, Lateral Stability, Deflection Limitations of Structural Elements, Maximum Slenderness Ratios of Structural Members, Accommodation of Required Live and Dead Loads, Continuity of Load Paths to Subsoil.

a. Does the structural system serve the design intent and concept?
b. What are the requirement minimum Live, Dead and Wind Loads for the various functions?
c. What are the required maximum deflections of all structural components?
d. Illustrate how the design provides lateral stability for the structure in all directions?
e. Is the choice of the structural form and materials consistent with other characteristics of the architecture?
f. Do structural system elements working logically as a system?
g. Is the structural performance of the building proven through one of the following?
    1) calculation of typical elements including foundations, load bearing walls, columns, girders, beams, slabs, frames while assuring maximum deflection and lateral stability.
    2) by detailed comparison to similar structural precedents, explain the logic of your structural systems behavior?
h. Are the structural systems and members appropriately proportioned to all structural forces and spans?
i. Are the structural systems and member design consistent with the performance of the specific materials selected, (wood, steel, concrete, etc.)?

j. Is the structural system integrated with mechanical and other building systems?
k. Does the structural system support and is integrated with the building enclosure system?
l. Are the vertical and lateral structural forces (loads) of the building effectively transferred to foundations and subgrade, through logical load paths?
m. Does the design adequately address lateral foundation forces and subsoil conditions?

11. Environmental Control Systems:

Criteria for selection and design of Heating, Cooling and Ventilation Systems: System Type and Distribution Systems, Ventilation, Solar Control.

a. In what way does the mechanical systems enhance the design intent and concept?
b. Are all spaces appropriately natural and artificially lit, heated, cooled and ventilated by natural and/or artificial means?
c. Are the selection and general design of the mechanical systems appropriate to the function, architectural concept and form?
d. Are the mechanical systems integral to the design concept including lighting, heating, cooling, and ventilation?
e. Illustrate the distribution and functioning of the various mechanical systems logical, and integrated into each occupied space.
f. Are design and technology strategies integrated to create a sustainable proposal, including passive and active systems?

12. Building Envelope Systems and Assemblies:

Selection and Design of Building Envelope Systems, Thermal Insulation and Bridging Standards, Material and Product Specification, Fire Rating of Assemblies, Water and Moisture Protection, Sound Transmission and Acoustics, Integration of Mechanical Systems.

a. Does the building envelope illustrate the design concept and form, visually enhancing the design intent?
b. Is the building envelope appropriate to its context, including the surrounding buildings and natural landscape?
c. Is the building envelope appropriate to its climate, seasonal variation, weather conditions, solar access and shading?
d. Is the building envelope system waterproofed, appropriately insulated and fireproofed to meet the basic IBC requirements?
e. Is the building envelope logical, functional and stable?
f. Is building envelope illustrated with specific and appropriate materials, assemblies and systems, at level of detail associated with the scale 1 1/2" = 1'-0", including vertical dimensions, materials specifications, from foundation to sky?
g. Does the building design and detailing illustrate a basic knowledge of the construction assembly process?
h. Does the design illustrate the selection of specific construction materials, products and assemblies that are consistent to and enhance the design's performance, concept and intent?
i. Does the design illustrate a knowledge and suitable development of technical and design precedents?
j. Overall, is the enclosure system sophisticated in concept, function, and relationship to the physical and environmental context, esthetics and construction?

13. Building Performance:

Performance of Energy Consumption, Day-lighting, Solar Protection, Natural Ventilation, Natural Cooling, Building Insulation-Thermal Mass, Building Form and Orientation, Climate, Weather and Diurnal Response, Solar Access, Alternative Energy Sources.

a. Does the proposed design illustrate and analytically prove using measurable analysis, design and technical modifications to minimize the energy consumption of the project, while maintain thermal and visual comfort?
b. How does the annual building energy use compare to the average energy use of a similar building functions and locations?
c. Does the design minimize the use of energy consuming systems through the accurate design of solar control devices by orientation, use of natural ventilation, design of day lighting and use of alternative energy sources, as may be appropriate to each building function and in relationship to the design intent and form?
d. Are the non-critical environmentally controlled spaces cooled through natural ventilation?
e. Does the design comply with the ASHRAE 90.1 maximum annual energy use standard?
f. How close to the Architecture 2030 Energy Standard does the design accomplish?
g. Which aspects of the architectural design are most and least efficient in terms of annual energy consumption?
h. What design and technical changes where most influential in accomplishing minimum energy consumption?
i. Does the design provide sufficient levels and uniformity of daylight in the selected portion of the project?
j. Does the design prevent inappropriate levels of visual glare in the selected portion of the project?
k. Compare the preliminary and final energy analysis data, illustrating relative importance of the design and technical changes of the design?

Advanced Architectural Studio References:

Architectural Design:

The Language of Architecture, Simitch and Warke
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Twenty Buildings Every Architect Should Understand, Simon Unwin
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Analyzing Architecture, Simon Unwin; Spon Press
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Atmospheres, Zumthor
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Design and Analysis, Bernard Leupen; Christoph Grafe;
Informal (Architecture) Cecil Balmond, Prestel Publishing
Language of Space and Form: James Eckler, Wiley
Material Precedent; Gail Peter Borden, Wiley
Precedents in Architecture: Roger H. Clark; Wiley Paperback
Ten Canonical Buildings 1950-2000; Peter Eisenman, Rizzoli
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Diagramming the Big Idea: Balmer and Swisher
The Architecture of Diagrams: Andrew Chaplin Threshold Spaces: Till Berger
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Basics of Model Building, Alexander Schilling
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Architectural Representation: Greenstreet and Shields Architectural Drawing, David Dernie
https://primo-njit-edu.libdb.njit.edu:8443/discovery/fulldisplay?context=L&vid=01NJIT_INST:NJIT&search_scope=MyInst_and_CI&isFrbr=true&tab=Everything&docid=alma995065852005196

Site Conditions:

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Site Analysis, Edward T. White, Architectural Media Site Planning; Kevin Lynch, MIT
Urban Design: Street and Square, Architectural Press https://archive.org/details/designwithnature00mcha/mode/2up

Climate Consultant 6 Software https://www.sbse.org/resources/climate-consultant
Sun, Wind & Light, Brown & DeKay
Architecture Site Analysis Guide - Data Collection to Presentation (firstinarchitecture.co.uk)

Environmental Impact:

An Environmental Life Cycle Approach to Design; John Cays, Springer. Athena Impact Estimator for Buildings https://calculatelca.com/software/impact-estimator/overview/

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RHINO: https://www.solemma.com/climatestudio License: EDU_NJIT:1x769y3pwwihixtr
REVIT: Tally for Revit https://kierantimberlake.com/page/tally
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A Pattern Language, Christopher Alexander

Architectural Graphic Standards, AIA, Dennis Gall, Nina M Giglio
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Timesaver Standards for Architectural Design Data, Donald Watson

Regulatory Requirements:

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Applying the Building Code: Step-By-Step Guidance for Design and Building Professionals, Geren, Wiley Pub. http://ebookcentral.proquest.com.libdb.njit.edu:8888/lib/njit/detail.action?docID=6790678

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Accessible Design:

2010 ADA Standards for Accessible Design
ADA In Details: Janis Kent, Wiley
https://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/guide-to-the-ada-standards

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https://www.access-board.gov/ada/guides/

Life Safety Systems:

Revit:Travel Path Tool:
https://blogs.autodesk.com/revit/2020/02/18/revits-path-of-travel-tool-makes-for-quick-and-easy-egress/ IBC 2021;
https://codes.iccsafe.org/content/document/759

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Structural Systems:

Model Perspectives: Cruvellier, Sandaker and Dimcheff

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DartmouthX-The engineering of Structures Around Us
https://www.youtube.com/channel/UCTzQ-ZNy1DrKhchVBmPwU-Q
https://www.masterseries.com/products/powerpad-student-edition#tab-4

STRUCALC https://strucalc.com/
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Environmental Control Systems:

Mechanical and Electrical Equipment for Buildings, Grondzik, Kwok, Stein, Reynolds
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https://www.engineeringtoolbox.com/duct-velocity-d_928.html

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Geothermal Heat Pump: https://www.nordicghp.com/commercial-heat-pumps/ (81 ton)

Building Envelope Systems and Assemblies:
Detail Magazine / Detail Inspiration via HCAD Library website/

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Modern Construction Case Studies, Andrew Watts
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Introducing Architectural Tectonics: Edward Ford

Modern Construction Envelopes, Andrew Watts

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Sun, Wind & Light, Brown & DeKay
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(www.wbdg.org/design-objectives/sustainable)

Autodesk Student Software: https://www.autodesk.com/education/students

Climate Scout: https://www.callisonrtkl.com/climate-scout-intro/

RHINO AND REVIT: https://www.cove.tools/education-resources

Insight / REVIT: https://www.autodesk.com/products/insight/overview

Sketchup or Rhino: http://www.sketchup.com/products/sefaira

https://blogs.autodesk.com/revit/2021/07/06/autodesk-insight-webinar-series/

https://www.sbse.org/resources/climate-consultant

Climate Studio: License Key: *EDU_NJIT1:UAHQU10EIQVU:94*
ClimateStudio v1.9 Installer: https://urldefense.com/v3/__https://solemma.us14.list-manage.com/track/click?u=0bb7072dcf582b174e27a4181&id=dd44b65097&e=74f8f9f642__;!!DLa72PTfQgg!JhHiz7UlxiZowjorTQqoWxmIjDJoWNw9xpINithpYAI35bVC_prWAukaW5soq-yyirjZudmyntXIHTSlzu0xj80$

Software Documentation: https://urldefense.com/v3/__https://solemma.us14.list-manage.com/track/click?u=0bb7072dcf582b174e27a4181&id=4ba6cc32d4&e=74f8f9f642__;!!DLa72PTfQgg!JhHiz7UlxiZowjorTQqoWxmIjDJoWNw9xpINithpYAI35bVC_prWAukaW5soq-yyirjZudmyntXIHTSlMbfgdfo$

Learn ClimateStudio: https://urldefense.com/v3/__https://solemma.us14.list-manage.com/track/click?u=0bb7072dcf582b174e27a4181&id=1e2bd4ad75&e=74f8f9f642__;!!DLa72PTfQgg!JhHiz7UlxiZowjorTQqoWxmIjDJoWNw9xpINithpYAI35bVC_prWAukaW5soq-yyirjZudmyntXIHTSlY5b4vJ0$

For technical support, email support@solemma.com to setup a help ticket.

HCAD / NJIT Administrative Policies:

1. Architectural Studio Policies:

The use of cell phones, texting, emailing, etc. during studio hours is not permitted. Emergency calls should be taken outside of the studio environment. Entertainment including movies, games, etc. during studio hours is prohibited. Participating in social networking during class hours is not permitted.

All students are to take detailed notes of studio / seminar group and individual discussions. The notes are to record and evaluate these discussions for their application to your specific project.

The studio section will be divided into three person seminar, debate and discussion teams. Each team may engage in project research, evaluation of alternative design strategies, and design reviews. However, each student is required to complete a unique and separate project.

The development of design research and numerous alternative design studies, defining relevant architectural concepts, creating functional building plans and sections, the selection and integration of numerous building systems, developing construction details, the study and development of architecture of many scales, and a complete formal presentation all require significant time, focus and effort.

The combination of the five or six credit hour Advanced Studio and three credit hour Synthesis Seminar is fourteen or fifteen class hours per week. The anticipated out of class time dedicated to these two courses is approximately 30 hours per week, minimum, throughout the entire semester.

It is the responsibility of each student to seek architectural criticism, references and general guidance throughout the entire semester from their studio critic, other members of the NJSOA faculty, guest critics and utilize HCAD library, studio's shared Google Drive resources.

The courses shared Google Drive includes extensive project reference materials, course Syllabi, examples of Presentation Types and Final Presentations, Architectural Precedents, Required Readings, Site Data and Photographs, Technical References, Tutorials. It is the responsibility of each student to be familiar and study the provided materials.

The submissions of late work, non-participation in studio or class discussions, and absence from interim critiques or formal presentations can be the sole basis for not passing the course.

Review Presentations are to be uploaded and time stamped by Midnight the evening before the scheduled presentation, on the studio's shared Google Drive, in the following location: Spring 2024 Four Freedoms Foundation \ STUDENT WORK \ (Studio Section) \ (Phase) \ (Last First Name) folders.

In fairness to all students and following Institute Policy, unless there is cause due to bereavement, medical concerns, military activity, legal obligations, or university-sponsored events, justification for the submission of late work and the issuing of the final grade of "Incomplete" must be approved by the Dean of Students Office within fourteen days of assignment's due date. Without this approval by the Dean of Students Office assignments uploaded or submitted late will be reduced in grade as follows: up to 24 hours = 15% point reduction, 24 to 48 hours = 30% point reduction, after 48 hours = no academic credit for the assignment.

Without the approval by the Dean of Students Office, not attending or presenting at a Review will result in a reduction in the grade for that Phase of the semester's assignments. Presentation and dialogue with studio teachers and guest critics are a fundamental aspect of professional Architectural Studio education. Not participating or not presenting work will result in a 15% point reduction in the grade of that Phase of the work, if the work is uploaded on time to the appropriate Student Work folder. Work not submitted on time is subject to an additional late penalty as described above.

It is the student's responsibility to meet all assignment deadlines and requirements for both the Advanced Studio II and its co-requisite Synthesis Seminar during the semester.

2. Course Accreditation Criteria:

The National Architectural Accrediting Board (NAAB) accredits NJIT's architecture programs. The NAAB criteria must be covered

by any architectural curriculum to attain their approval. This course directly addresses the following, as outlined in the 2020 NAAB Conditions for Accreditation:

PC.2 Design—How the program instills in students the role of the design process in shaping the built environment and conveys the methods by which design processes integrate multiple factors, in different settings and scales of development, from buildings to cities.

PC.4 History and Theory—How the program ensures that students understand the histories and theories of architecture and urbanism, framed by diverse social, cultural, economic, and political forces, nationally and globally.

SC.5 Design Synthesis—How the program ensures that students develop the ability to make design decisions within architectural projects while demonstrating synthesis of user requirements, regulatory requirements, site conditions, and accessible design, and consideration of the measurable environmental impacts of their design decisions. See the "Advanced Studio Criteria List" list for their topics and questions.

SC.6 Building Integration—How the program ensures that students develop the ability to make design decisions within architectural projects while demonstrating integration of building envelope systems and assemblies, structural systems, environmental control systems, life safety systems, and the measurable outcomes of building performance. See the "Advanced Studio Criteria List" list for their topics and questions.

3. Course Pre-Requisites:

The Advanced Studio II course has the following requirements:

Bachelor of Architecture:
1. Grade of "D" or higher in Advanced Studio I, Arch 495.
2. Grade of "D" or higher in Structures I & II, Construction I & II, ECS I & II and Landscape and Urbanism.

Master of Architecture:
1. Grade of "C" or higher for Advanced Studio I, Arch. 505G.
2. Grade of "C" of higher in Structures I & II, Construction I & II, ECS I & II and Landscape and Urbanism.
3. Arch 503G and Arch 504G average grade of "B" or higher is required for the awarding of the M Arch degree.

4. NAAB Advanced Architectural Studio Course Outcomes:

This course requires that all students achieve the following competencies:

Explore and analyze various modes of discourse related Architectural Design. These include site documentation, architectural precedents, verbal presentations, informational diagrams, technical drawings, and analysis of technical requirements.

Respond critically to discussions of readings, research and the development of alternative architectural designs as they pertain to the architectural project, its site and program, contextual and environmental conditions, and technical requirements.,

Synthesize multiple design variables and architectural objectives into an independent architectural design proposal.

Formally present an integrated architectural project including:

1) Design Intent Diagrams and Statements
2) Architectural Drawings
3) 2D Perspective and Axonometric Building Wall Sections
4) Perceptual Views in Context
5) Architectural and Building Systems Diagrams
6) Serial Views
7) Physical Models
8) Building Performance: Energy Consumption and Daylighting Performance
9) Environmental Impact: Sustainability

10) Life Safety, Accessibility and IBC Regulatory Requirements

See the NJIT Website for the general course description.

5. NJIT / HCAD / NJSOA Academic Policies:

A. Studio Culture:

Design studio is an intense experience. Learning takes place continuously alone at the desk, in individual discussion with the critic, and most critically in dialogue with a larger group. Students must complete all assignments on time, and be must be present and fully engaged in studio work during all class sessions.

Assignments are given as minimum requirements/ It is expected that Superb and Excellent work will exceed the expectations of the assignment. Design work is graded according to many factors; quality, invention, and development of the design proposal are essential to superior work. Neither attendance nor completion of assignment(s) does not guarantee a passing grade.

The studio is an academic environment; it is a place that allows the exchange of information and knowledge. The majority of class time will be spent discussing your work in a group. It is required that you participate in group discussions and reviews, and that you actively participate in the review of your classmate's work. Although there may be individual one-on-one critique, much of the studio time will be group discussions where work will be presented collectively to class, and in small discussion groups. For this format to be effective, everyone must participate. Absence from studio will also significantly affect your ability to achieve the desired educational outcomes.

Attendance and participation for the duration of any class Review or Presentation is mandatory.

Students should not expect that they will be able to work on their project during studio time; as many of these sessions will be dedicated exclusively to group critique, discussions, seminars, etc.

All students are required to review the HCAD Studio Culture Policy at the start of the semester in order to facilitate communications and clarify expectations between students and instructors.

In addition to the values and ethics of the university, the New Jersey School of Architecture is dedicated to diversity, professional conduct, constructive evaluation and instruction, a collaborative community, health and wellbeing, time management, school-life balance, respectful stewardship and space management, and well-rounded academic enrichment. The pedagogy of architecture and design is as complex as it is rewarding, and as dynamically evolving as the people who learn and teach it. This understanding resides at the core of the NJSOA.

B. Academic Integrity:

Academic integrity and honesty are of paramount importance. Cheating and plagiarism will not be tolerated. The NJIT Honor Code will be upheld, and any violations will be brought to the immediate attention of the Dean of Students. All students are responsible for upholding the integrity of NJIT by reporting any violation of academic integrity to the Office of the Dean of Students. The identity of the student filing the report will remain anonymous. All students are expected to adhere to the University Code on Academic Integrity and to the Code of Student Conduct.

Please note that it is the teacher's professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. Any student found in violation of the code by cheating, plagiarizing, or using any illegal software will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university. If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at dos@njit.edu.

Dean of Students: www.njit.edu/doss Code of Academic Integrity:
https://www.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf

Code of Student Conduct: https://www.njit.edu/doss/policies/conductcode/index.ph p

C. Plagiarism:

It is extremely important that students familiarize themselves with a proper way to cite visual and intellectual sources. Plagiarism

whether deliberate or inadvertent simply cannot be tolerated. Simply put, plagiarism is the use of visual or intellectual material created by others without proper attribution. Even the use of one's own material for more than one assignment can also be considered plagiarism. Students should not do so without the expressed written consent of all instructors involved.

Students are particularly cautioned that the use of artificial intelligence software or systems requires the proper citation regarding the origin and outcome of any A.I. generated written, graphic or other output. Without proper and complete citation of the origin of the AI material, AI generate submissions or submissions of edited AI generate work is considered plagiarism. The source of AI generated or Internet accessed materials can be evaluated through attribution software analysis systems.

The HCAD Librarian, Dr. Maya Gervits has assembled excellent resources on copyright, plagiarism citing, and avoiding plagiarism:

http://researchguides.njit.edu/c.php?g=671665&p=4727 920

D. Students with Disabilities:

It is the school's moral, ethical, and legal obligation to provide appropriate accommodations for all students with physical and/or learning disabilities. If students need an accommodation related to disabilities, all official documentation must be filed with the Dean of Students and the Disability Support Service Office. It is the responsibility of the student to notify the instructor at the beginning of the semester if accommodations are warranted.

Dean of Students: https://www.njit.edu/doss/ Disability Support Service:
http://www.njit.edu/studentsuccess/disability-support- services-0/

E. Students Rights and Responsibilities:

http://catalog.njit.edu/undergraduate/academic-policies- procedures/student-rights-responsibilities/

F. NJIT Undergraduate Grading Definitions:

A	90	Superb
B+	85	Excellent
B	80	Very Good
C+	75	Good
C	70	Acceptable
D	60	Minimum (Meeting all Course Criteria)
F	< 60	Failure
I	Incomplete	(Pre-Approved by Dean of Students)

A (Superior) Architectural design proposal demonstrates advanced understanding of learning objectives and a high level of achievement. Work is reflective of an intensive process of conceptual and technical development. Work illustrates a well-defined connection to and development of contemporary architectural theories, objectives and values. Presentations demonstrate a very high level of sophistication, craft, attention to detail, contextual, programmatic and technical accuracy. The architectural proposal artistically and technically incorporates the all the specific design issues which are outlined in the course documents to create a significant work of architecture.

B+ (Excellent) / B (Very Good) Architectural design proposal demonstrates good understanding of learning objectives and a good level of production abilities. Work is reflective of a complete process of conceptual and technical development. Work illustrates a connection to and development of contemporary architectural theories, objectives and values. Presentations demonstrate a high level of sophistication, craft, attention to detail, contextual, programmatic and technical accuracy. Work illustrates a connection and development of contemporary architectural theories, objectives and values. The architectural proposal incorporates all the specific design issues that are outlined in the course documents to create a work of architecture.

C+ (Good) / C (Acceptable) Architectural design proposal fulfills the requirements in terms of conceptual understanding and technical ability. Work has some engagement with an iterative design process. Presentations demonstrate an average level of sophistication, craft, attention to detail, contextual, programmatic and technical accuracy. Work demonstrates basic level of independent initiative. Work illustrates an understanding contemporary architectural theories, objectives and values. The architectural proposal incorporates all the design issues that are outlined in the course documents to create a satisfactory work of architecture.

D (Minimum) Work fulfills the requirements of each exercise in terms of conceptual understanding and technical ability. Presentations are complete but demonstrate poor development of craft, attention to detail, understanding and integration of architectural concepts and theories, contextual, programmatic and technical accuracy. Work illustrates an awareness of contemporary architectural theories, objectives and values. The architectural proposal incorporates all the design issues that are outlined in the course documents to create a complete building illustrated in its context and accomplishing the functional needs of the program.

F (Failing) Work is incomplete or does not demonstrate an understanding of the course content or abilities related to required skills. Work does not illustrate an awareness of contemporary architectural theories, objectives and values. The architectural proposal does not incorporate design issues that are outlined in the course documents to create a work of architecture.

Historically the average grade of all students for the undergraduate Advanced Architectural Studio II has been between "C+ and B." (75 to 80 points) (2.75)

G. NJIT Graduate Grading Definitions:

A	90	Excellent
B+	85	Good
B	80	Acceptable
C+	75	Marginal
C	70	Minimum (Meeting all Course Criteria)
F	< 70	Failure
I	Incomplete	(Pre-Approved by Dean of Students)

A (Excellent) Architectural design proposal demonstrates advanced understanding of learning objectives and a high level of achievement. Work is reflective of an intensive process of conceptual and technical development. Work illustrates a well-defined connection to and development of contemporary architectural theories, objectives and values. Presentations demonstrate a very high level of sophistication, craft, attention to detail, contextual, programmatic and technical accuracy. The architectural proposal artistically and technically incorporates the all the specific design issues which are outlined in the course documents to create a significant work of architecture.

B+ (Good) / B (Acceptable) Architectural design proposal demonstrates good understanding of learning objectives and a good level of production abilities. Work is reflective of a complete process of conceptual and technical development. Work illustrates a connection to and development of contemporary architectural theories, objectives and values. Presentations demonstrate a high level of sophistication, craft, attention to detail, contextual, programmatic and technical accuracy. Work illustrates a connection and development of contemporary architectural theories, objectives and values. The architectural proposal incorporates all the specific design issues that are outlined in the course documents to create a work of architecture.

C+ (Marginal) Architectural design proposal fulfills the requirements in terms of conceptual understanding and technical ability. Work has some engagement with an iterative design process. Presentations demonstrate an average level of sophistication, craft, attention to detail, contextual, programmatic and technical accuracy. Work demonstrates basic level of independent initiative. Work illustrates an understanding contemporary architectural theories, objectives and values. The architectural proposal incorporates all the design issues that are outlined in the course documents to create a satisfactory work of architecture.

C (Minimum, Passing) Work fulfills the requirements of each exercise in terms of conceptual understanding and technical ability. Presentations are complete but demonstrate poor development of craft, attention to detail, understanding and integration of architectural concepts and theories, contextual, programmatic and technical accuracy. Work illustrates an awareness of contemporary architectural theories, objectives and values. The architectural proposal incorporates all the design issues that are outlined in the course documents to create a complete building illustrated in its context and accomplishing the functional needs of the program.

F (Failing) Work is incomplete or does not demonstrate an understanding of the course content or abilities related to required skills. Work does not illustrate an awareness of contemporary architectural theories, objectives and values. The architectural proposal does not incorporate design issues that are outlined in the course documents to create a work of architecture.

Historically the average grade of all students for the Graduate Advanced Architectural Studio II has been between "B and B+." (80 to 85 points) (3.25).

A "B" average overall GPA, for all courses, is required to qualify for the awarding of the Master of Architecture degree.

A “B” is average is required for the Advanced Studio I & II to qualify for the awarding of the Master of Architecture degree.

H. Faculty Office Hours:

All faculty teaching Advanced Studios are available by appointment for either in person, email or online video conferencing. Contact your instructor to make an appointment to meet outside of regularly schedule class times.

I. Course Documentation:

Kepler and GOOGLE DRIVE: This course will use the learning management system Kepler and the studio’s shared Google Drive, as the repository the Final Record. All student work must be uploaded in the appropriate assignment folders.

1. Kepler on CANVAS: To access CANVAS, you must have a UCID account with NJIT. KEPLER: Students must upload copies of their assignments to the new KEPLER 5 system found under the KEPLER tab in CANVAS "Modules". CANVAS assignments folders are automatically ported to KEPLER, although students need to initiate a separate KEPLER upload. Any file, regardless of file size, or type can be uploaded, although .pdfs and .jpegs are required ensure view ability. KEPLER no longer has individual student folders. Student work is now available for review in either "List View" organized by student or "Gallery View" with thumbnails of all work in an assignment folder viewable at once.

2. GOOGLE DRIVE: Access and upload your work to the specific GOOGLE DRIVE folder for each Phase of the Project and Studio Section subfolder. Work not uploaded to the appropriate folder can be considered not completed or submitted. Note the grade penalty for non-submitted or late work.

J. Rights and Conditions:

All student work, both digital and physical, may be retained by the New Jersey School of Architecture, HCAD, NJIT, teacher or faculty member for accreditation purposes, academic reference, design competitions, conferences, papers, institute publications, public display, whether in print and online.

NJSoA/HCAD/NJIT retains the right to a copy of all academic material prepared by students in conjunction with all courses and research. Student work includes preliminary and final academic work including physical models, digital images, prints, drawings, and their digital source files.

Only students enrolled in this specific course are to have access to the educational and reference materials provided.

All reference materials provided on-line, via electronic communication or as part of classroom instruction, including but not limited to videos, music, sounds, books, e-book links, journal and magazine articles, online images, links to any other publication, tutorials, images, models, articles, writings, diagrams, drawings are to be used in conjunction with this academic course’s assignments only, and cannot be retained, copied, distributed or used for any other purpose, person or at any other location.

All educational and reference materials are to be deleted completely, including from all storage devices, no later than the end of the last exam day of the semester. They are not to be shared or retained for any other purpose, or in any form, beyond the direct use for academic assignments.

Academic presentations, reviews, discussions, notes, recordings or other materials and references which are part of the course materials and references are not to be transmitted, shared, posted online, made publically accessible, or to be used by any person not enrolled in this course, or other third party without the written permission of the course Coordinator.

All in-class or online discussions, formal and informal reviews which are part of this course are not to be screen captured, recorded, transmitted, shared, posted online, made accessible or made public at any time or in any manner without the express written permission of the instructor and guest critics.

Students, whether on or off campus, attending class, participating in field trips, engaged in model making or any other academic activity are responsible for their own safety and well- being. Faculty, teachers and guest critics accept no responsibility, directly or implied, for the safety, health, actions or inactions of any student or group of students regardless of their age or circumstance.

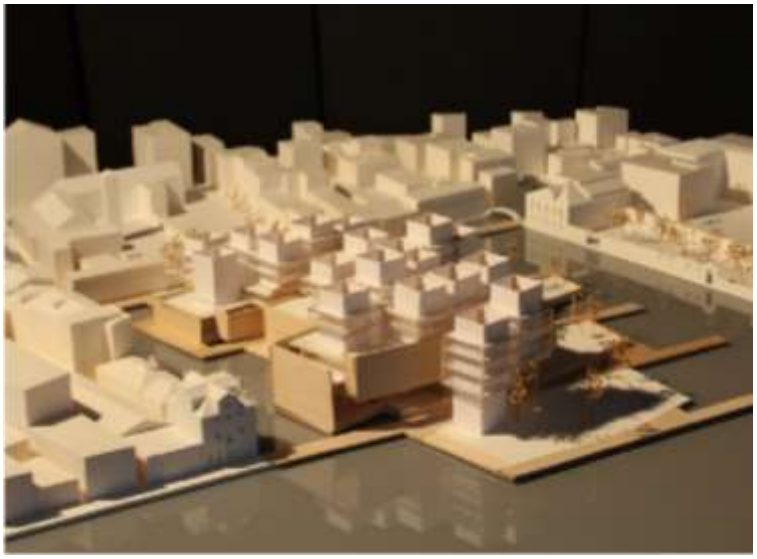
Registering for this course, accessing any course material or attending any meeting of the course in person or remotely, confirms your acceptance of all the “Rights and Conditions” listed above.

Physical Model Instructions:

A. Design Research and Conceptual Phase Site Model: (Individual Student Models)

a. Each student is to construct a physical site model at 1 to 600 (1" = 50') to the extents of the Site Plan.
b. See the studio's Google Drive folder for Dwg, 3dm and Skp models and drawings of the site.
c. Use Google Earth and its Street View for additional Site Model information.
d. The Design Research model should have "stage set" facades of all adjacent building. Print in grey scale the elevations of the surrounding site, mount to rigid board.
f. Use the site photographs and Google Earth Street View and the Site Plan to determine the length and height of the facades and their position in the context.
g. The extent of the model is that of the Site Plan.

B. Schematic Phase and Final Presentation Site Models: (Studio Section Model)



Physical model at 1 to 300 (1" = 25'), to the extents of the Site Plan, see Studio Drive for provided digital models.

The studio section's Schematic Design and Final Presentation site model includes the surrounding buildings, landscaping, reflective water surfaces, and people in and around the site, all in monochromatic colors. The extent of the model is that of the Site Plan.

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Advanced Studio II & Synthesis Seminar Semester Schedules:

Phase I	**Design Research**		18 January – 29 January		
	Studio Meeting	**Thursday**	**18 January**	**12:00 - 1:00 PM**	**Alumni**
	Begin Construction of Individual Design Research Site Model at 1 to 600		**18 January**		
	Roosevelt Island Site Visit	**Saturday**	**20 January**	**10:00 AM**	
		(Meeting on the staircase of Louis Kahn's Roosevelt Memorial)			
		(Saturday	27 January	10:00 AM	Rain Date)
	Linearity-Network Design Study		18 January – 29 January		
	Order-Disorder Design Study		18 January – 29 January		
	Seminar: Site Conditions & User Req.	**Thursday**	**25 January**		
	Precedent Debates	Thursday	25 January	Noon – 3:00 PM	
	Design Research Notebook	Monday	29 January	Noon	
	Design Research Presentation	**Monday**	**29 January**	**Noon**	

Phase II	**Conceptual Design**		29 January – 12 February		
	Seminar: Regulatory Notebook	**Thursday**	**1 February**		
	Studio Begins	**Thursday**	**1 February**	*** 12:30 PM**	
	Heavy and Light Design Study		29 January – 12 February		
	MonoType and MultiType Design Study		29 January – 12 February		
	Conceptual Design Notebook	Monday	5 February	Noon	
	Seminar: Conceptual Insight Analysis	**Monday**	**12 February**		
Review 1	**Conceptual Design Review**	**Monday**	**12 February**	**Noon**	**0 – 15 Points**
	First Academic Warning		**14 February – 17 February**		
	Begin Construction of Studio Section's Schematic / Final Presentation Site Model at 1 to 300				

Phase III	**Schematic Design**		12 February – 26 February		
	Studio Begins	**Thursday**	**15 February**	*** 12:30 PM**	
	Piazza-Landscape Notebook	Monday	15 February	Noon	
	Seminar: Regulatory Excel Spreadsheet	**Thursday**	**15 February**		

	Seminar: Structural Notebook	**Monday**	**19 February**		
	Seminar: Structural Diagrams	**Thursday**	**22 February**		
	Seminar: Structural Analysis	**Monday**	**26 February**		
	Finish Construction of Studio Section's Schematic / Final Presentation Site Model at 1 to 300				
	Schematic Design Presentation	Monday	26 February	Noon	

Phase IV	**Design Development**		26 February – 18 March		
	Exterior Elevation Notebook	Thursday	29 February	Noon	
	Seminar: HVAC Systems Diagrams:	**Monday**	**4 March**		
	Spring Recess		**10 March through 16 March**		
Review 2	**Design Development Review**	**Monday**	**18 March**	**Noon**	**0 – 15 Points**
	Second Academic Warning		**19 March – 23 March**		

Phase V	**Technical Development**		18 March – 1 April		
	Materials and Systems Notebook	Thursday	21 March	Noon	
	Studio Begins	**Thursday**	**21 March**	*** 12:30 PM**	
	Seminar: Preliminary Technical Doc.	**Monday**	**25 March**		
	Seminar: Design Develop Insight Analysis	**Thursday**	**28 March**		
Review 3	**Technical Development Review**	**Monday**	**1 April**	**Noon**	**0 – 15 Points**

Phase VI	**Presentation**		1 April – 25 April		
	Seminar: Sustainability Analysis:	**Thursday**	**4 April**		
	Seminar: Final Booklet		**5 April – 7 May**		
Review 4	**Pre-Final Review**	**Thursday**	**11 April**	**Noon**	**0 – 10 Points**
	Studio Begins	**Thursday**	**18 April**	*** 12:30 PM**	
Review 5	**Final Review**	**Thursday**	**25 April**	**Noon**	**0 – 35 Points**

Phase VII	**Final Record**		25 April – 5 May		
	Final Model Photography	Sunday	5 May	Midnight	
	Studio Final Record: Google & Kepler	**Sunday**	**5 May**	**Midnight**	**0 – 10 Points**
	Synthesis Seminar: Google & Kepler	**Tuesday**	**7 May**	**Midnight**	**0 – 100 Points**
	Final Grades Recorded	**Friday**	**10 May**	**Midnight**	
	Synthesis Seminar Evaluation Rubric	**Friday**	**10 May**	**Midnight**	