ARCHIVES

MOCI: Museum of Contemporary Information

by

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Bachelor of Fine Arts
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Submitted to the Department of Architecture in partial fulfillment of the requirements for the degree of Master of Architecture at the Massachusetts Institute of Technology

September 2009

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ABSTRACT

As the internet is becoming the primary point of access to information, we are confronted with new issues related to information retrieval. These include who has access to information, credibility of sources, and most importantly, how to sift through the massive quantities of available information.
Traditionally the library has been the point of public access to information, but in light of the effects of new technologies the typology of the library needs to be rethought. Where historically the dissemination of information has been fairly low and access has been primarily in a public realm, in recent years this relationship has reversed. This results in a situation where the issue is no longer access but one of critical engagement.
The built environment should not only respond, but it should play an active role in guiding the way that communities adopt and employ new technologies. There is an opportunity to provide a context which promotes personal interaction and civic engagement. The library has the potential to become the center of a new civic space; a space that encourages active engagement with information and civic agency.

Thesis Supervisor: Adele Santos

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Thank you:

To my advisor, Adele Santos, and to my readers, Alexander D'Hooghe and Nader Tehrani, for their criticism, support and enthusiasm throughout the project.

To my parents, my sister, Melissa, Edoardo and Adrienne for their patience and support.

CONTENTS

Introduction

Background

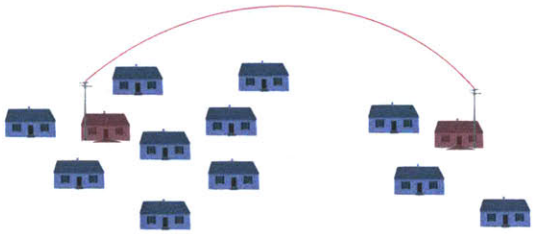
Communications Technologies: from the telegraph to contemporary wireless devices

A clear characteristic of contemporary society is instantaneous communication and the instantaneous availability of large quantities of information. This type of accessibility results in a collective understanding of information and communication that is independent from location. This has not always been the case, the origins of both the technology of new media and the social implications can been seen in the development of the telegraph.

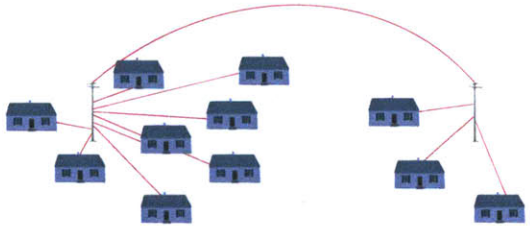
The innovation of the telegraph not only formed the foundation for the electrical goods industry, but it also facilitated noteworthy changes in language and awareness. James Carey discusses the effects of the telegraph in an article called *Technology and ideology: the case of the telegraph*. He makes an important observation that, on a fundamental level, "It [the telegraph] permitted for the first time the effective separation of communication from transportation" (Hassan 226). Before the telegraph there was no distinction between communication and transportation because messages had to travel with a person; with the telegraph information could move more quickly than, and separately from transportation. This facilitated several significant changes in ideology, commerce and communication that are still apparent in contemporary communications ideology.

Arguably the most significant effect of the telegraph was an ideological shift in the way communication was understood. Because information could travel in an invisible rather than written form, location and information started to become independent conceptually. This trend of disassociation continued with technologies like the telephone, and then with cell phones and mobile computing devices.

the telegraph



the telephone



wireless mobile devices

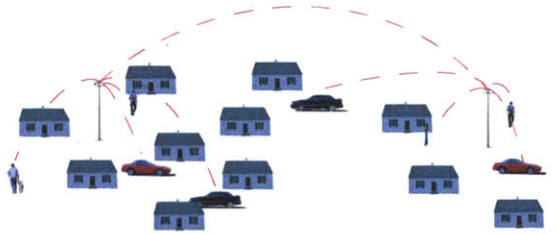


Fig. 1-3

The telegraph also marked the beginning of a dramatic shift in the availability of information and news. It allowed news that would have taken weeks or months to travel from one location to another to be delivered almost instantly. Since then, with the development of increasingly sophisticated technologies, the availability of news and information from distant places has continued to increase. Today news is effectively instantaneous while the network of distribution is approaching the level of every individual. One might ask if this high level of connectivity improved or corrupted our polity?

In an essay titled *Pangloss, Pandora or Jefferson? Three scenarios for the future of technology and strong democracy* Benjamin Barber discusses the way new technologies are used to access or dispense information. In his discussion of the relationship between technology and democracy, he outlines three scenarios for the future: the Pangloss, the Pandora and the Jefferson. The scenarios represent a posture of complacency, caution and hope respectively (Hassan 188-202).

The scenario which Barber describes as the most desirable and the most difficult to achieve is the Jeffersonian scenario. He discusses the potential of technology to aid in rebuilding community, but warns that this will only happen if citizen groups and governments actively adapt new technologies to their needs. He argues that because democracy is a form of government that depends on information and communication, the traditional model of active programming and passive spectatorship needs to be rejected. He writes "Linked together horizontally by a point-to-point medium like the internet, citizens can subvert political hierarchy and nurture an unmediated civic communication" (Hassan 196). He emphasizes the importance of access to information and the educational potential of computer information networks. He argues that if we want to pursue a more optimistic scenario for the future, we need spaces that enable and encourage this kind of behavior and access to information in a public context is key.

If we agree that there is a need to consider how new technologies can be employed to strengthen personal, community and global relationships, then we need to consider how architecture can be a facilitator in the democratization of technology. The role of the built environment in the manifestation of this vision should be to provide spaces for active engagement with information and civic discourse. The public library is a natural point of departure because it has traditionally housed information and because it is one of a very few truly public spaces.

Common Public Spaces:

In general contemporary public spaces tend to be retail oriented. The two clear exceptions that are truly public (in terms of being accessible to all) are the library and the public park.

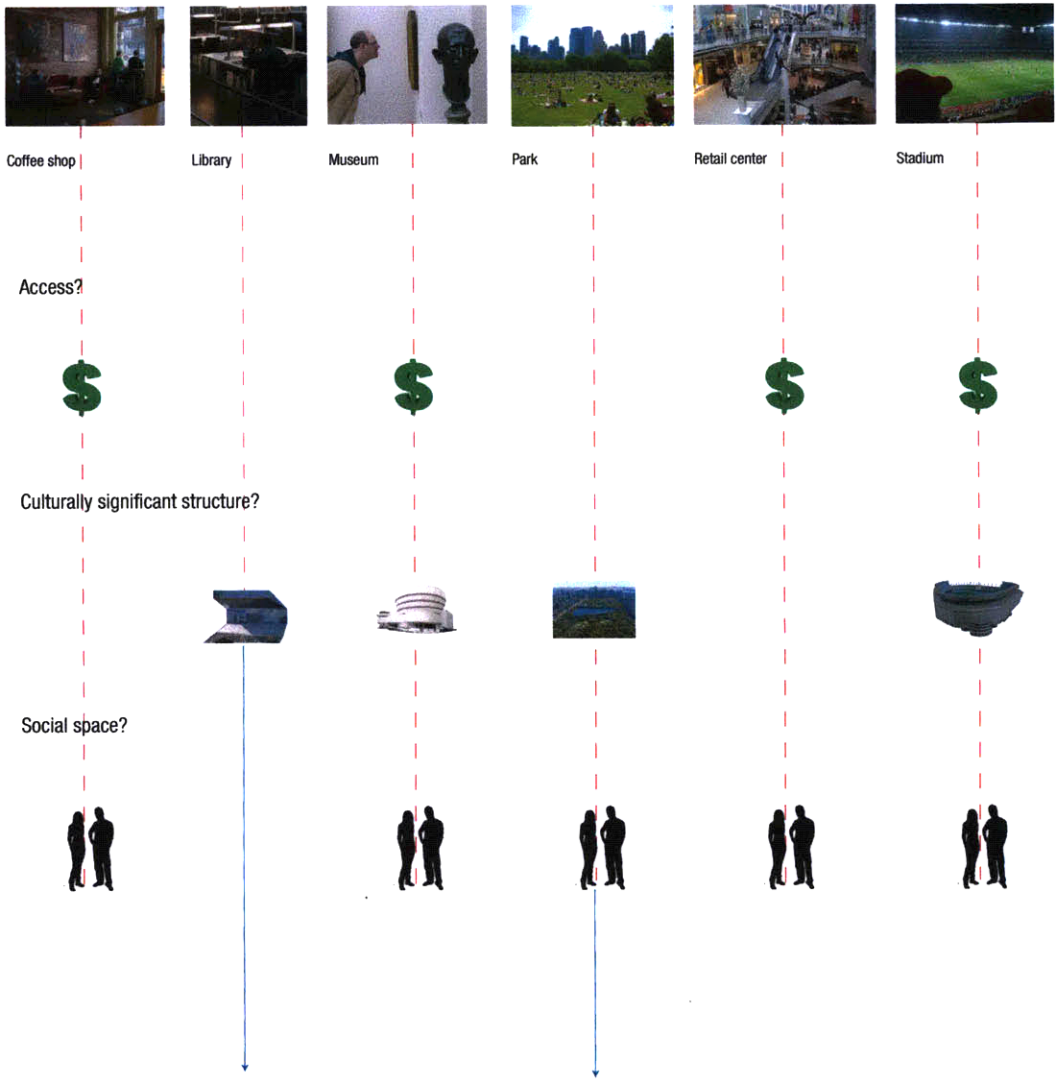


Fig. 4-13

A Space for Civic Engagement

The New Condition of Dissemination and Absorption of Information

Contemporary digital technologies have enabled continuous access to large amounts of information independent from any discreet location. Throughout history the amount of available information has steadily increased but with the advent of non-spatially bound information we see a steep increase in the amount of available information. Because access is independent from location, and is generally through a personal device, access is likely to be in a private sphere. This positions us in a unique point in history where **dissemination of information is very high but access tends to happen in a private realm** (see figure below). This condition should be the point of departure in designing a space for civic engagement.

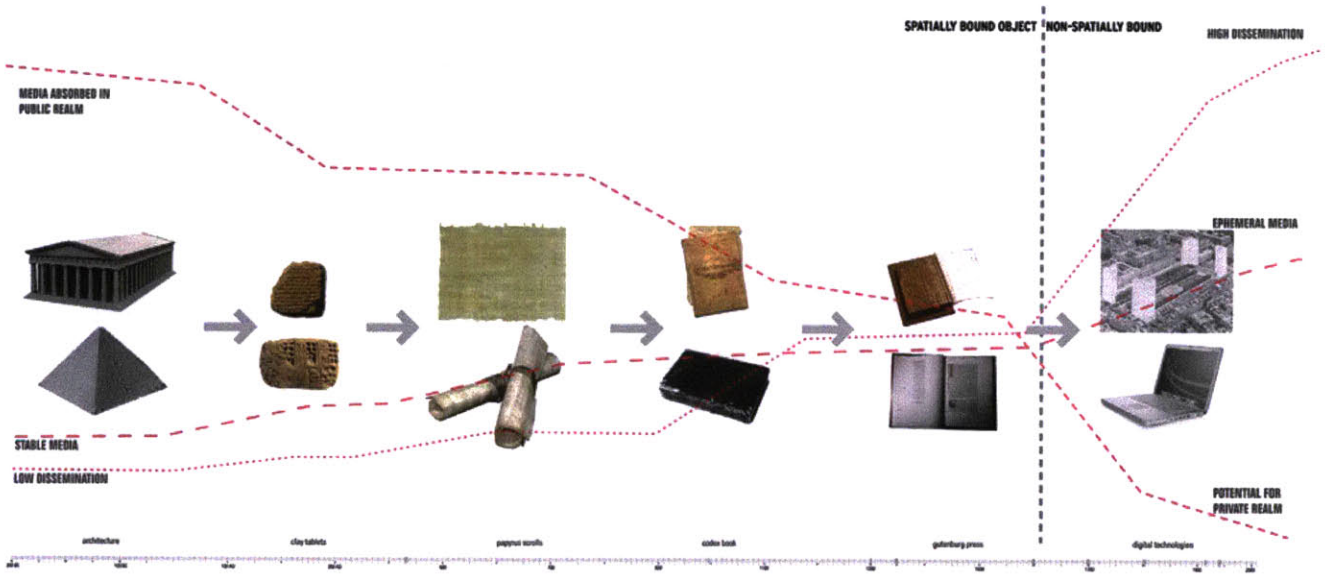


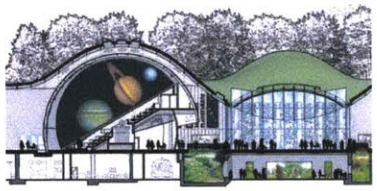
Fig 14.
The Infrastructural Space of Appearance:
Mediums of Information
by Neeraj Bhatia

The Need for a New Typology

As the internet is becoming the primary point of access to information, we are confronted with new issues related to information retrieval. Among these are issues including who has access to information, credibility of sources, and most importantly, how to sift through the massive quantities of available information. It is up to the individual to learn how to effectively extract the desired information often in a private context. These activities have traditionally taken place in public libraries but because information is no longer spatially bound a discreet location is no longer necessary for retrieval of information. Libraries have responded to this condition but the response has not been strong enough.

Traditionally the library has been the point of public access to information, but because our relationship to information has dramatically changed, we need to dramatically rethink the library. In newer libraries the focus has shifted to include information via new technologies. The stated goal of the Seattle Public Library is ". . . to redefine the Library as an institution no longer exclusively dedicated to the book, but as an information store where all potent forms of media – new and old – are presented equally and legibly" (Kubo 11). In the design there is an effort to segregate spaces for books and newer, less predictable, technologies. Although critics tend to agree that this is a successful library, I will argue that it is not enough. We need to reinvision the library as something more than an "information store". It needs to be a space that focuses on facilitating engagement with information as well as with other people, a hybrid typology that lies somewhere between a library and a museum. This hybrid typology should provide a public context for discourse, exhibitions, education and public production of media. It should be an interface through which information is made accessible to the public through active engagement.

MOCI: Museum of Contemporary Information



Science Museums

DELIGHT IN LEARNING

MUSEUM
OF CONTEMPORARY
INFORMATION

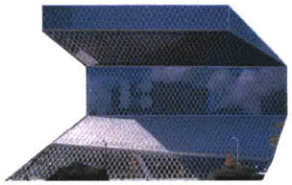
ACCESS TO INFORMATION

SOCIAL SPACE OF CONSUMPTION

Coffee shops

Reading rooms

SOCIAL SPACE FOR PERSONAL WORK



Libraries

Shopping malls

Fig. 15-18

MOCI: Program

Galleries	70,000ft^2
Archive	50,000ft^2
Retail/Cafe	25,000ft^2
Computing/reading areas	20,000ft^2
Video conferencing	
[Highend & Skype]	7,000ft^2
Public Broadasting	10,000ft^2
Hourly office space	4,000ft^2
Classrooms/workshop	20,000ft^2
Offices (MOCI)	4,000ft^2

The Museum of Contemporary Information aims to combine elements of the public library, art museum, science museum and typical coffee shop to form a space that addresses the needs associated with contemporary society's relationship to information. MOCI aims to be an interface for sorting through, effectively extracting and understanding primarily digital information. The building will function as an interface for participatory engagement in a public context.

Site

Brooklyn Bridge Park

Sitting on the East River, the Brooklyn Bridge Park offers a rare moment of visibility within New York City. The visibility of the site offers the possibility for MOCI to have a symbolic presence in the city. Siting the building in a public park also creates opportunities for adjacencies of leisure activities and exhibits.

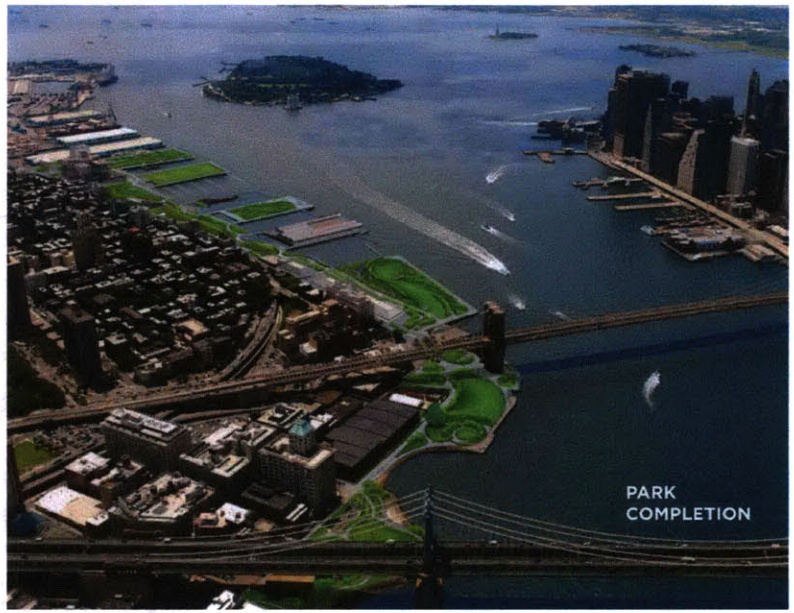
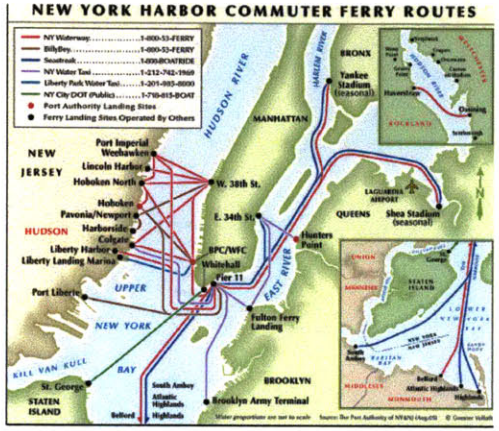


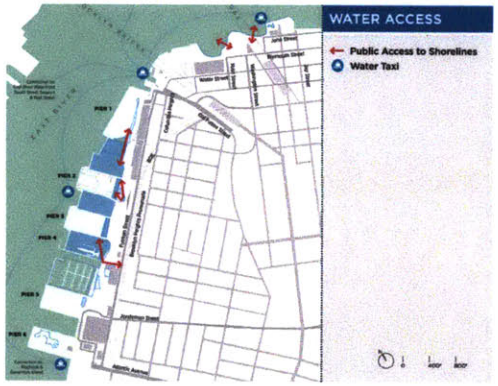
Fig. 19-20

Existing Park Proposal

The Brooklyn Bridge Park is an 85-acre public park development project currently underway in Brooklyn. Located on the East River, it will stretch 1.3 miles from north of the Manhattan Bridge to Atlantic Avenue. In the past the site was industrial area with a series of piers and warehouses. The proposed park will transform the industrial landscape into a number of different types of park space including beaches, habitats, playgrounds, playing fields and landscaped areas. It is the largest park development in Brooklyn since Prospect Park was built 135 years ago.

The park was designed by Michael Van Valkenburgh Associates (master plan by Ken Greenberg Associates) and it has received criticism for serving private interests more than public interests. The criticism focuses on several large residential towers sited at the (relatively few) entrances to the park. The towers will help fund the construction of the park, but critics argue that they will privatize areas of what should be public space.





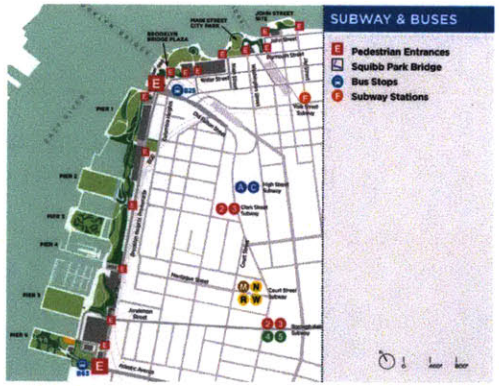


Fig. 21-23

PROPOSED RESIDENTIAL
170 ft tall, 130 units

PROPOSED LUXURY
HOTEL AND RESTAURANT
225 Rooms

PROPOSED RESIDENTIAL
150 Units

CONVERTED INDUSTRIAL
500 Unit residential

PROPOSED RESIDENTIAL
95 ft tall

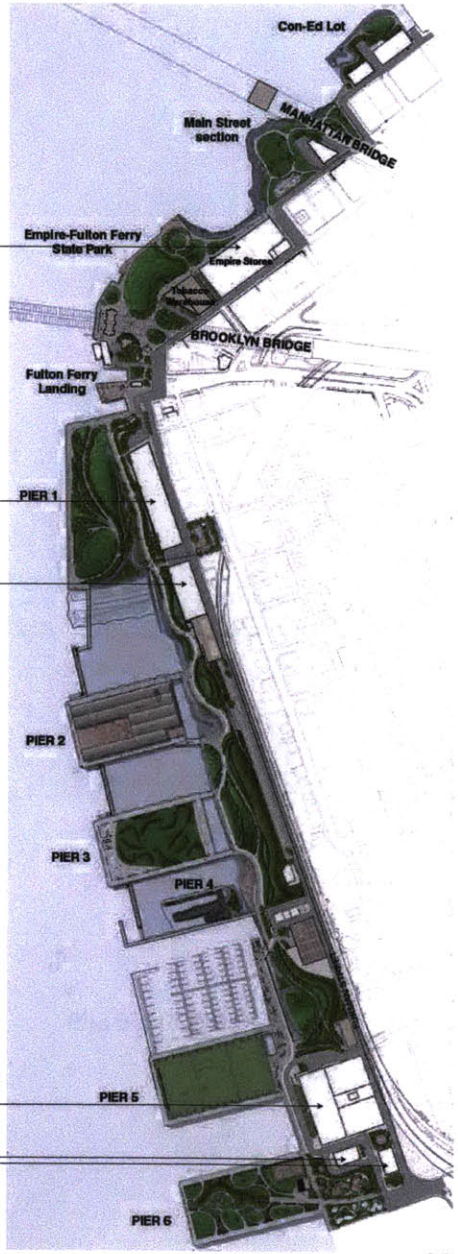
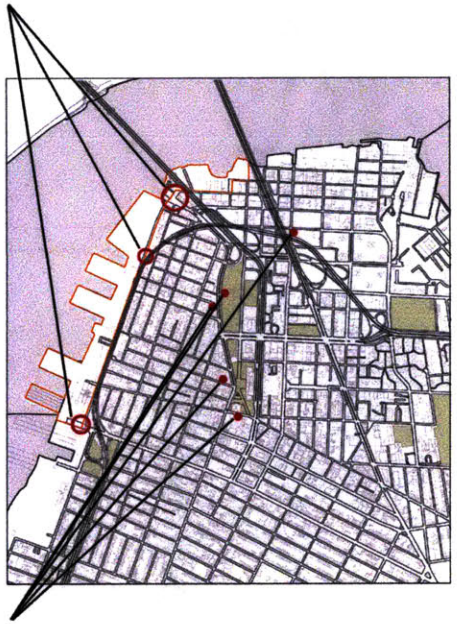


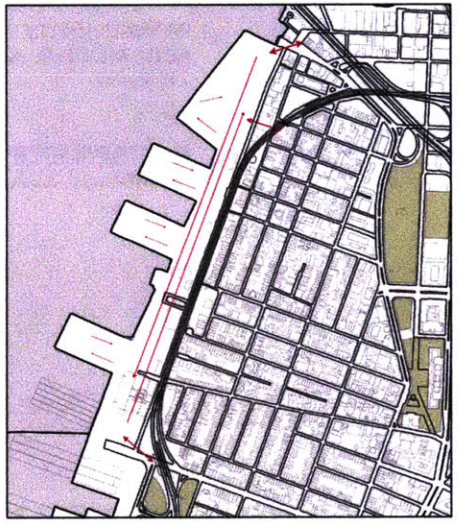
Fig. 24

Site analysis

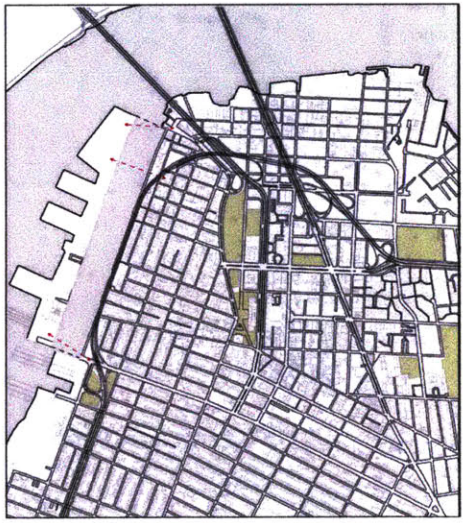
Points of access to the park



Subway stops adjacent to the site

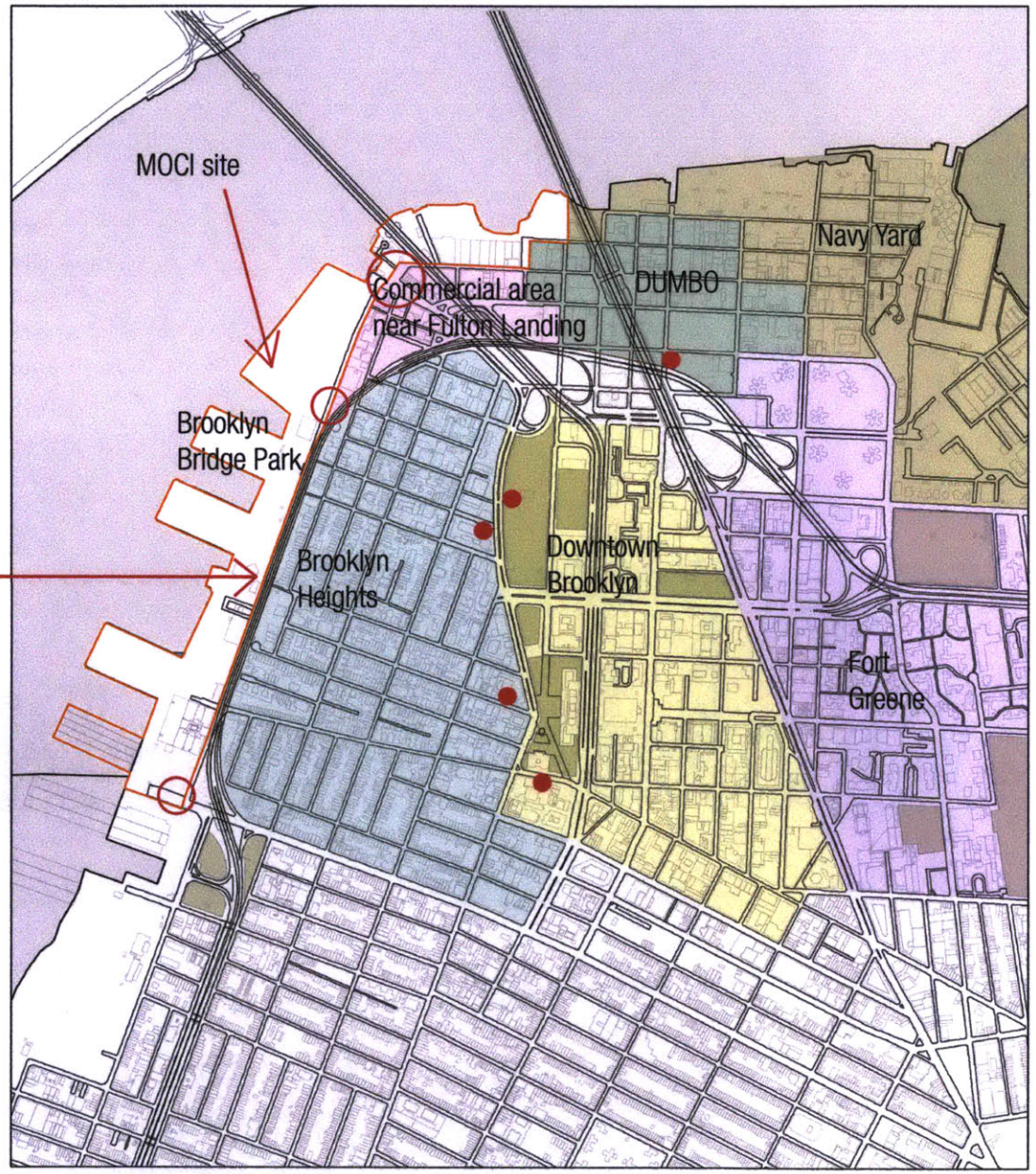


Circulation is predominantly along a spine that runs parallel to the highway



The park is essentially an island with three points of access to Brooklyn

Because the park is adjacent to a series of vertically stacked highways (reaching 60' above the level of the park) and there are only three points of entry, the park is relatively isolated from the adjacent neighborhoods. Although it sits next to the Brooklyn Heights neighborhood the park should not aim to serve that neighborhood but it should be a destination for people living all over the city. Siting MOCI in the park will help provide this independent identity.



Site: images

View of the site from Manhattan (red box denotes site)

View of the site from Brooklyn Heights (red box denotes site)

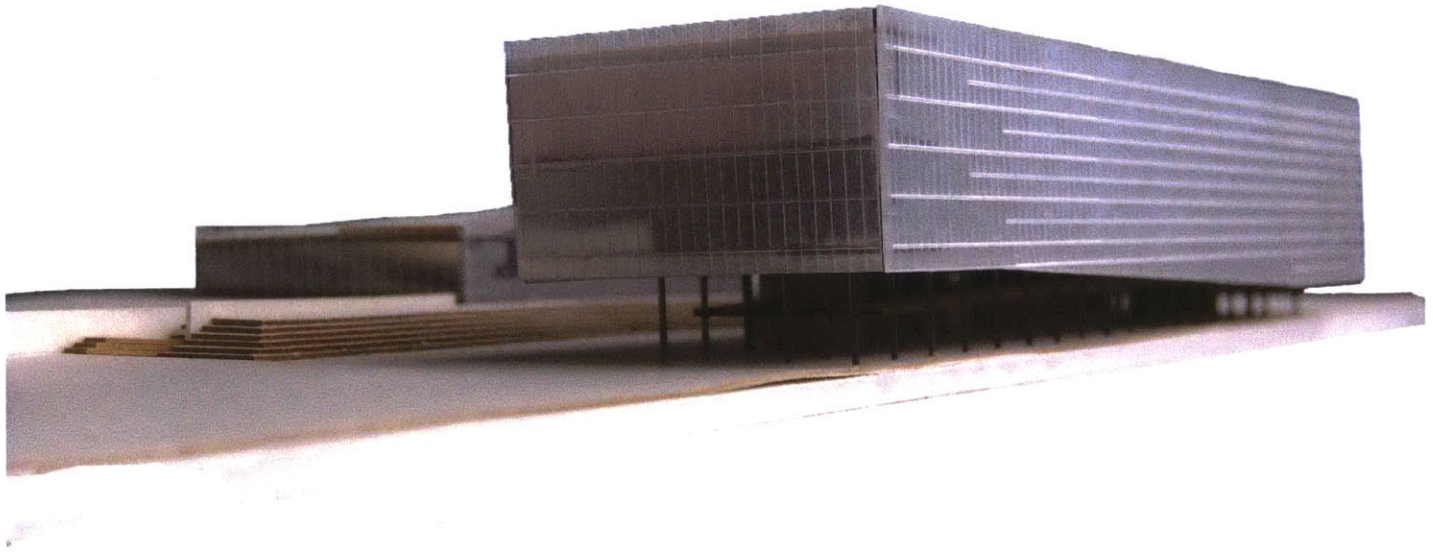
View of the site from Brooklyn Bridge (red box denotes site)

Commercial area adjacent to Fulton Landing (primary access point for the park)

Looking back into Brooklyn from Fulton Landing (primary access point for the park)

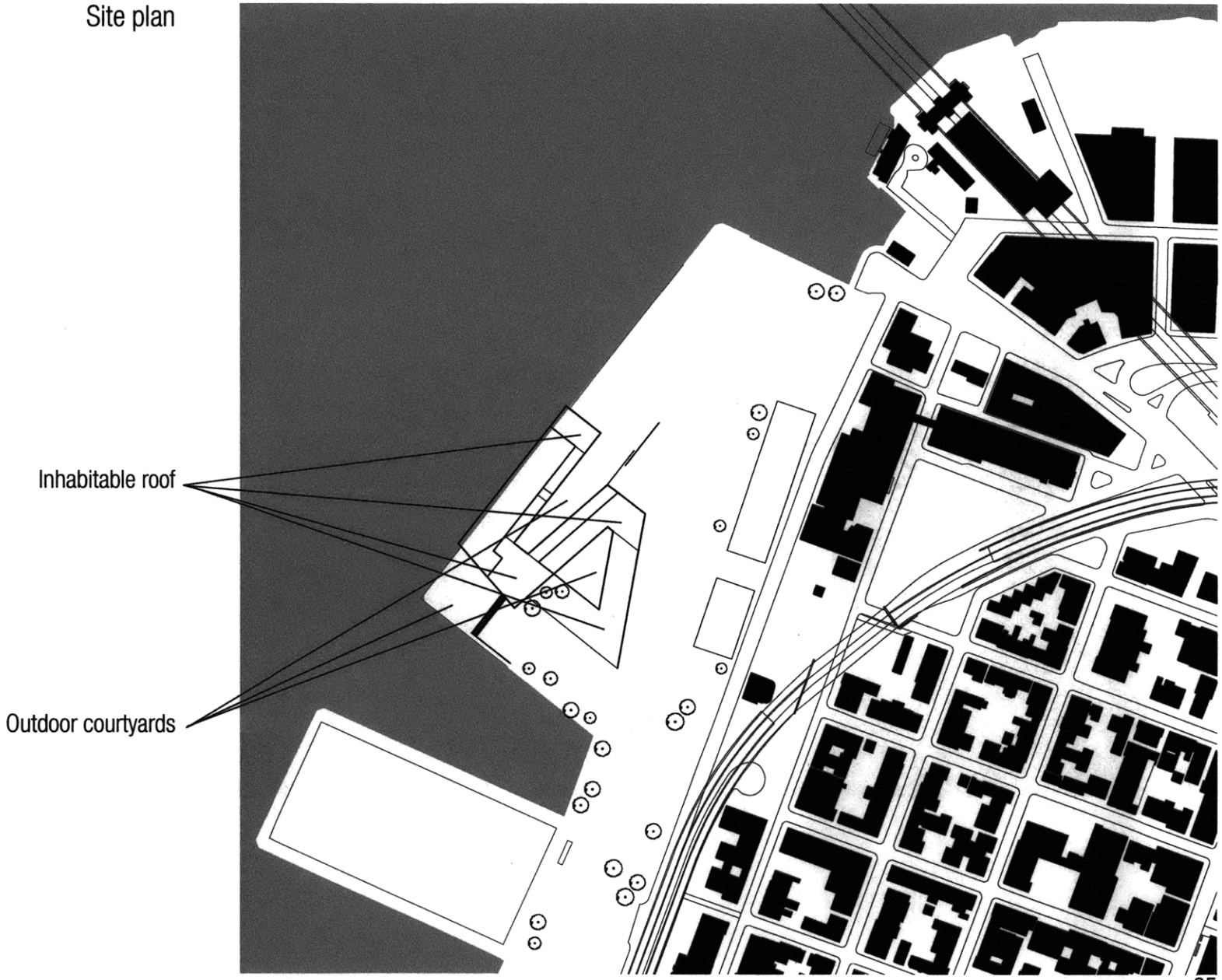
Highway that separates the park from the rest of Brooklyn

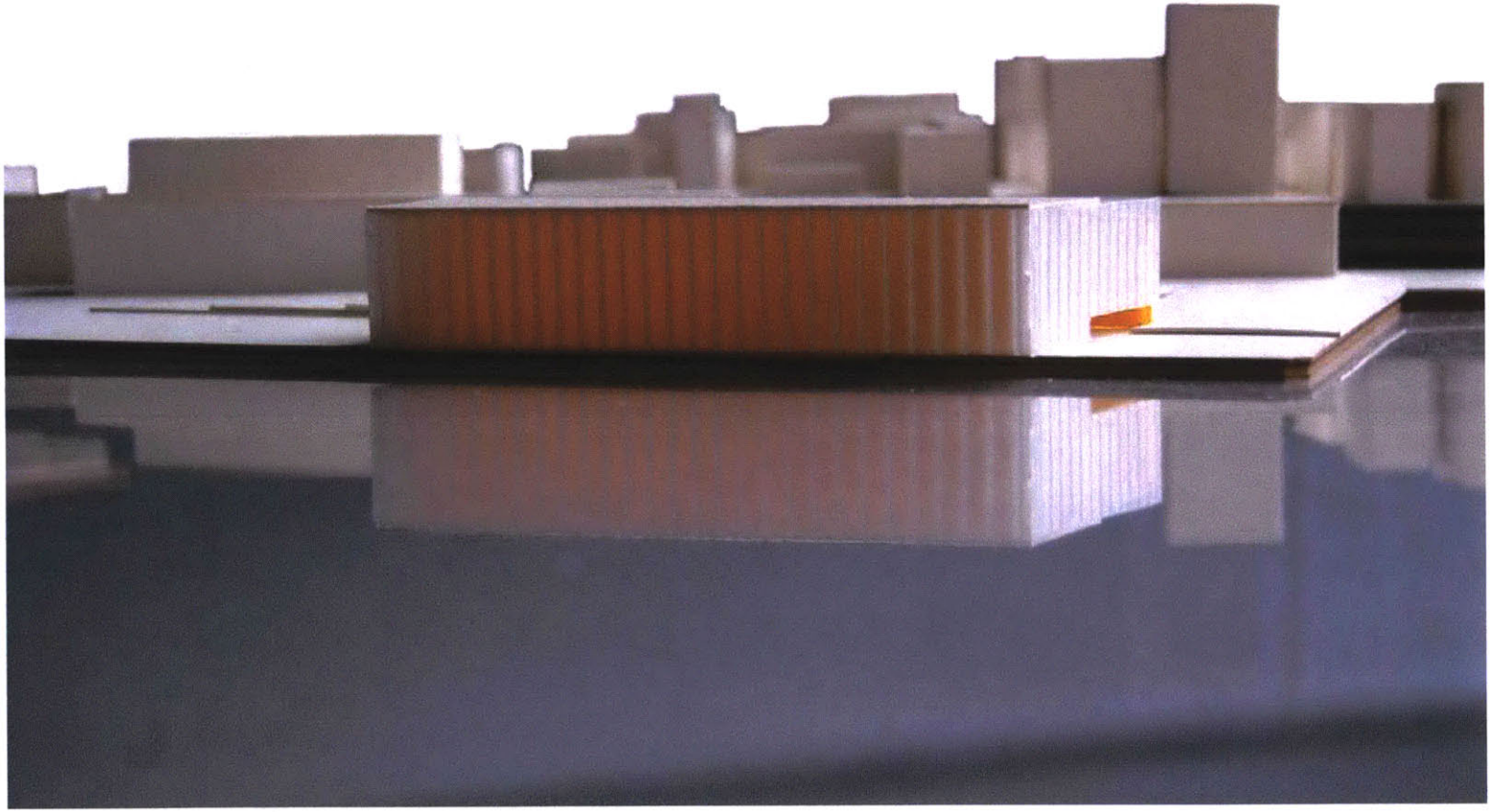
Proposal



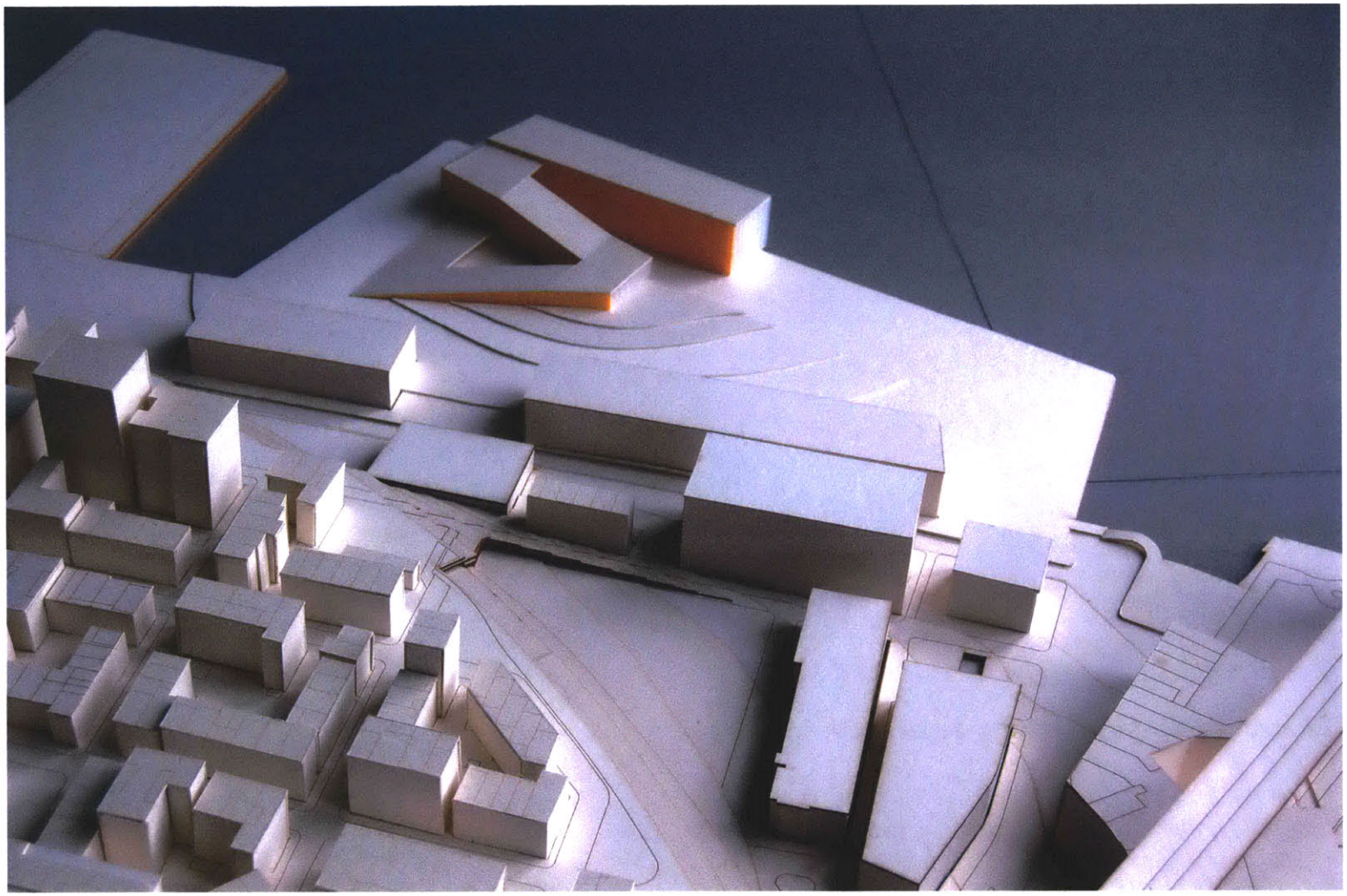
Model photo (view from the East River)

Site plan

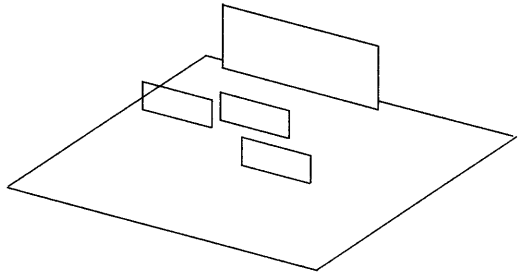


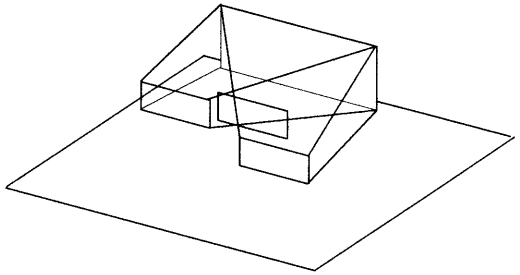


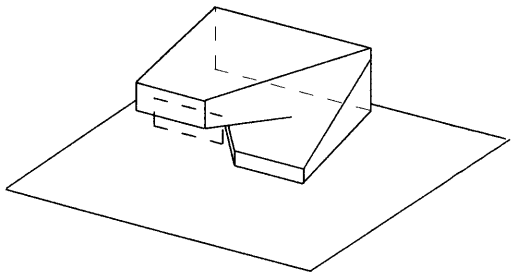
Site model



Site model

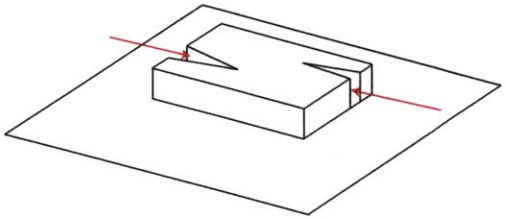


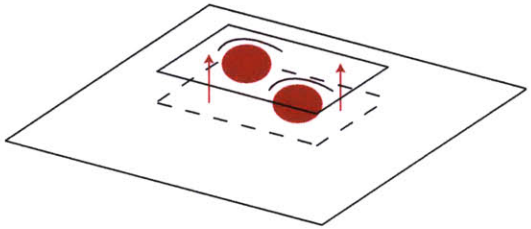


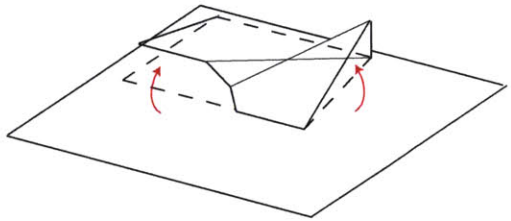


Two distinct sides: facing Manhattan verses Brooklyn and the park

From Manhattan the building appears as a singular monumental facade while on the Brooklyn side the building fragments into smaller facades (see diagrams above). The large, singular form facing Manhattan relates to both the distance from which the building will be seen and the larger scale of the buildings in lower Manhattan. The fragmentation of the building on the Brooklyn side relates to the more intimate scale of the park and the smaller scale of the buildings in Brooklyn.







moci

Fig. 25-26

Interface with the Park

Sitting next to each other in San Francisco's Golden Gate Park, Herzog and de Meuron's de Young Museum and Renzo Piano's California Academy of Sciences demonstrate two strategies for integrating a building into a park. The strategy of the de Young is to create fissures in the building that allow the park to slip into the building footprint. The strategy of the California Academy of Sciences is to lift a piece of park and slide the building underneath. The strategy for MOCI is to fold the building into the park, allowing the park to continue through and above the building.

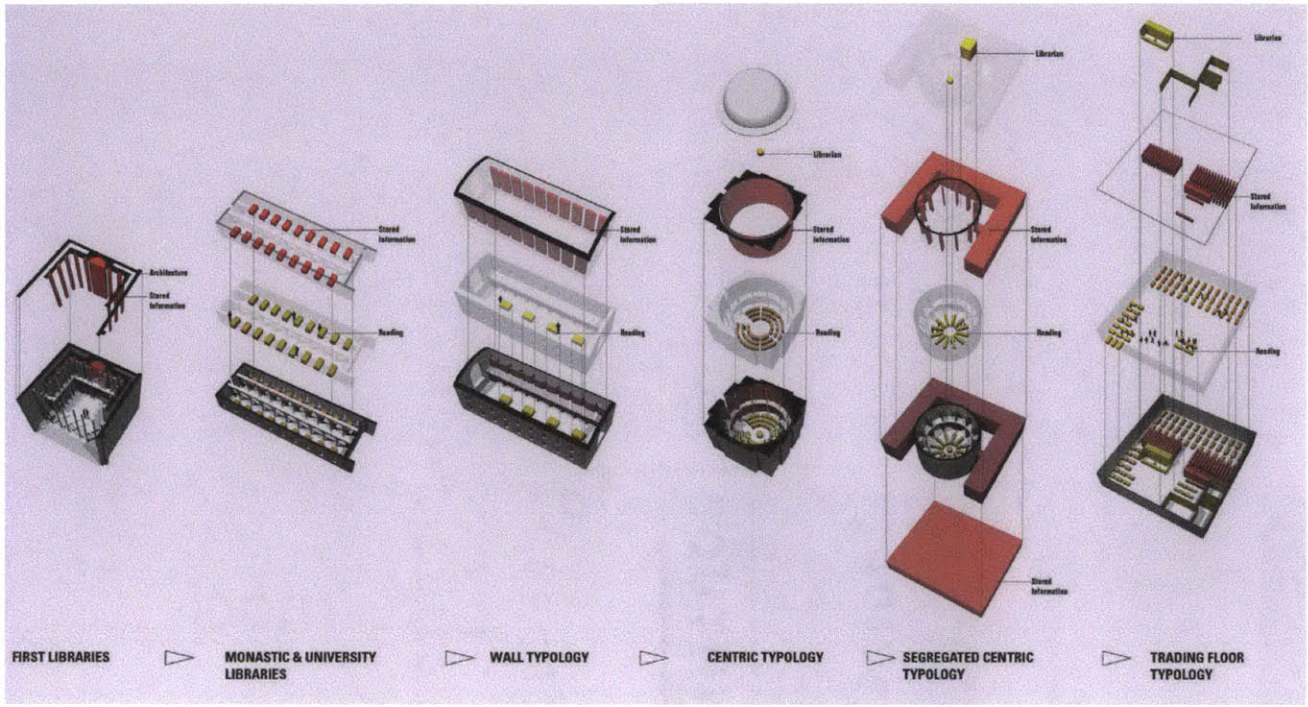
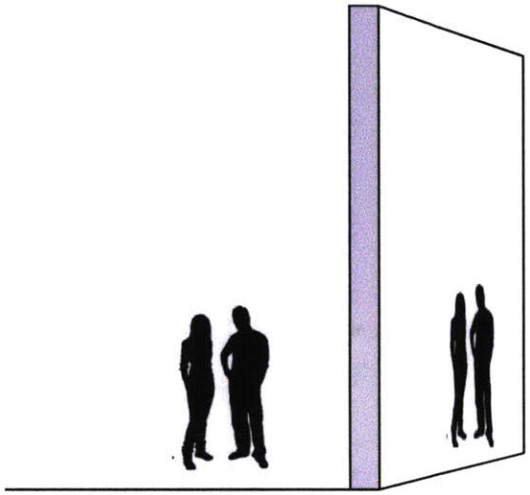
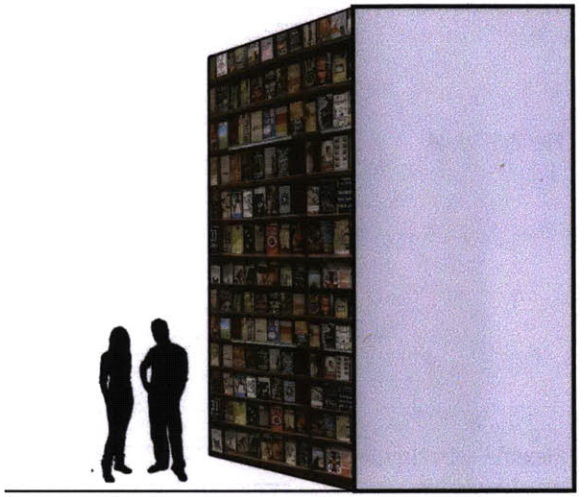


Fig 27.
The Infrastructural Space of Appearance:
Evolution of the Library Typology
by Neeraj Bhatia

Evolution of the relationships between book storage, structure and reading areas throughout the history of libraries.





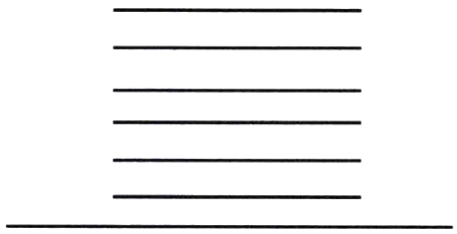
Program related to envelope and structure

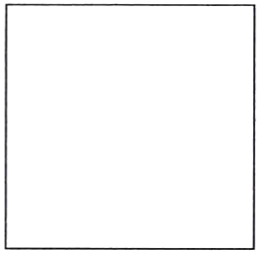
The envelope translates the activities within to make them visible to those on the exterior. The side facing Manhattan achieves this by forming a singular facade that reads as a low resolution screen from across the river. The side facing Brooklyn achieves this through transparency and multiple points of interface with the park.

Although much of the program is exhibition of digital content there will be an archive of printed material. The printed materials are housed in the structural core of the building. By placing the archive of printed materials in the structural core of the building, there is a clear rejection of the trading floor typology common to contemporary libraries.

Circulation Precedents

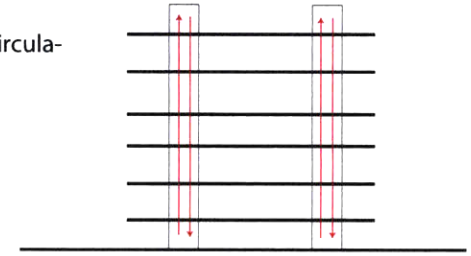
Flexible ideal

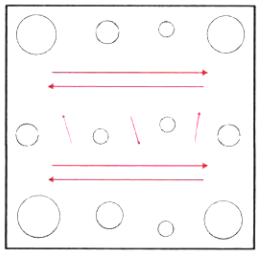


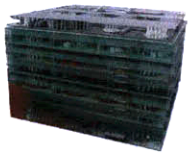


Idealized open plan; completely flexible (pompidou centre)

Flexible with circulatory hierarchy

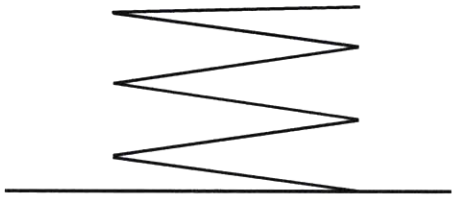


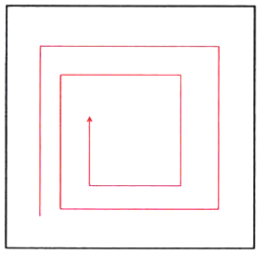




Open plan organized around periodic interruptions (sendai) mediatheque)

Continuous





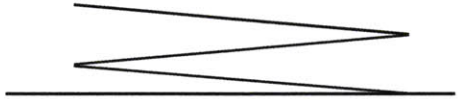
continuous surface; seamless circulation (shopping malls, book stacks in Seattle public library)

section diagram

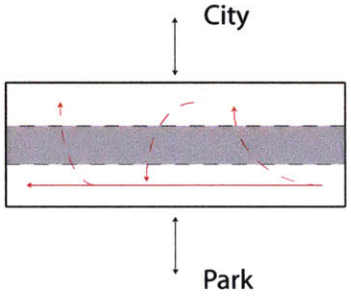
plan diagram

Fig. 28-31

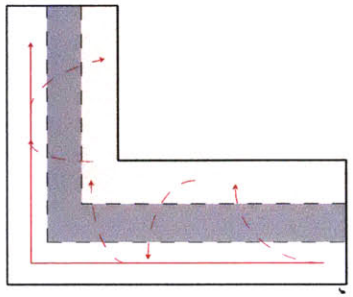
Layered continuous



section diagram



plan diagram



plan diagram

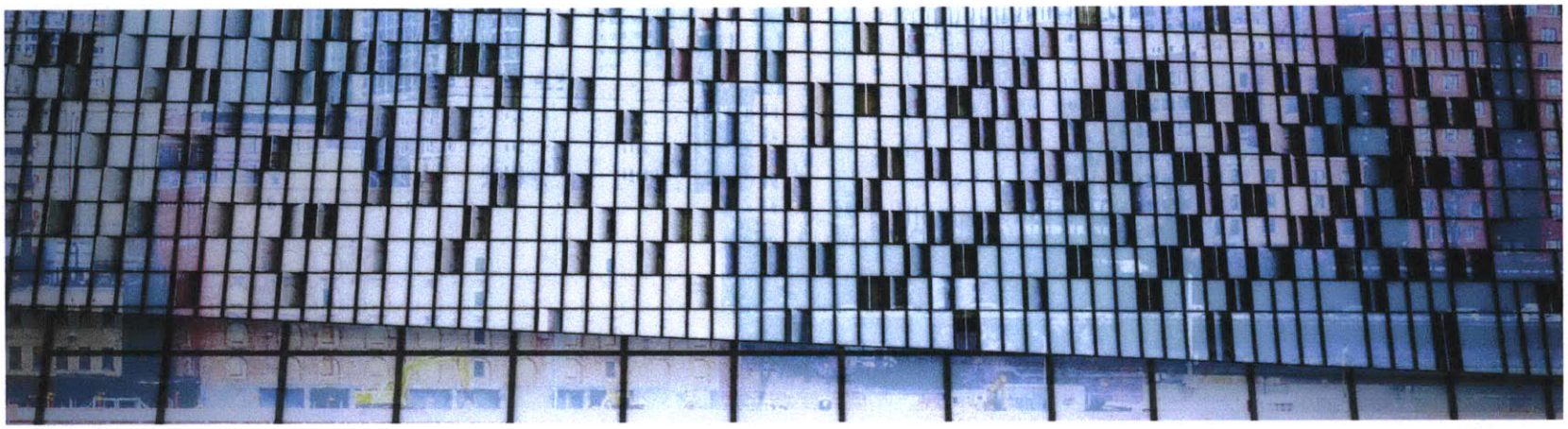
Park | Gallery | Information storage | Reading/computing | City

MOCI: circulation logic

The building has a clear linear logic where the galleries are located adjacent to the park, the reading rooms are located on the side facing Manhattan and the archive for printed materials occupies the core of the building. The ramping circulation allows for a continuous circulation path.

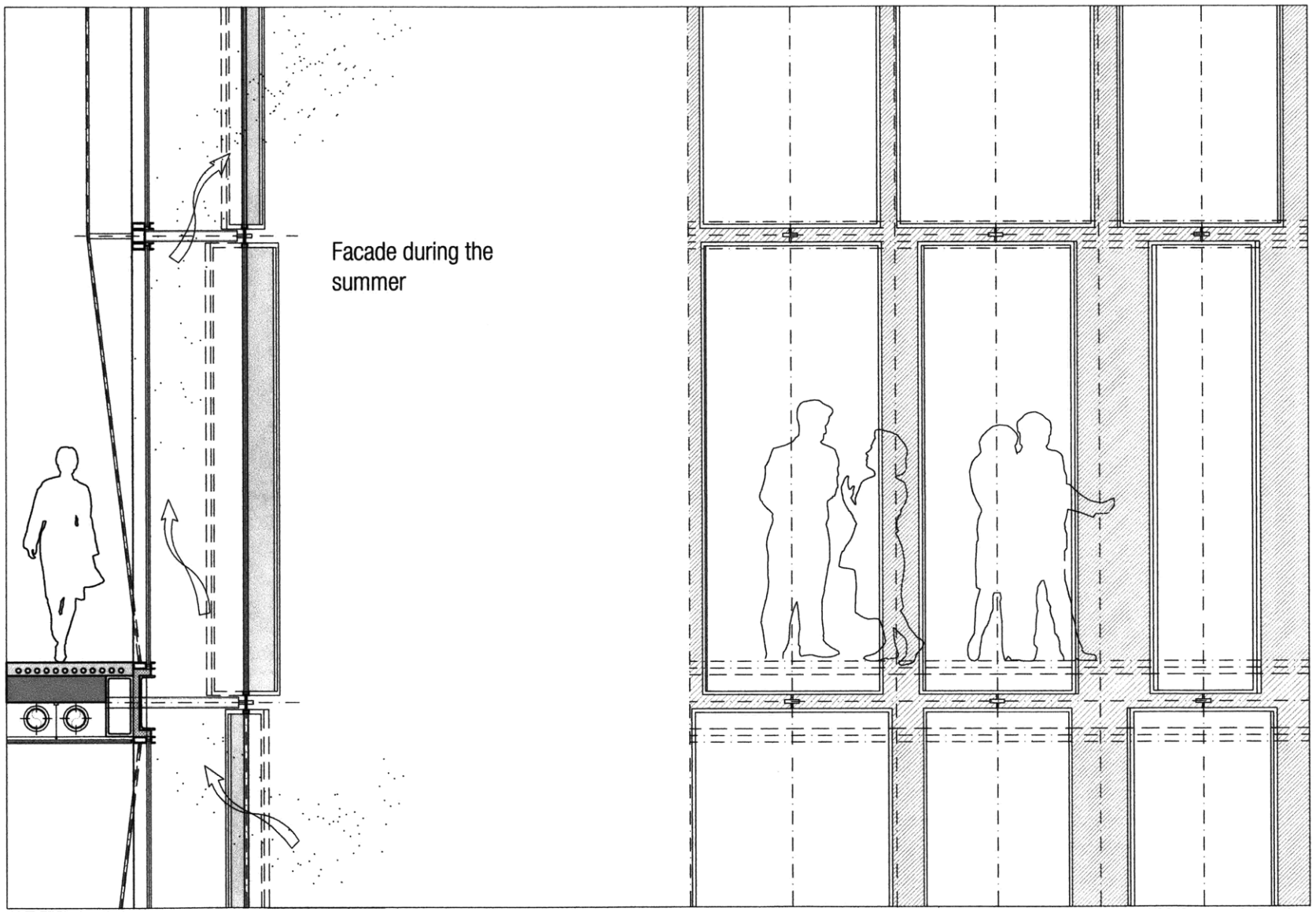
MOCI: facade facing Manhattan


NATIONAL



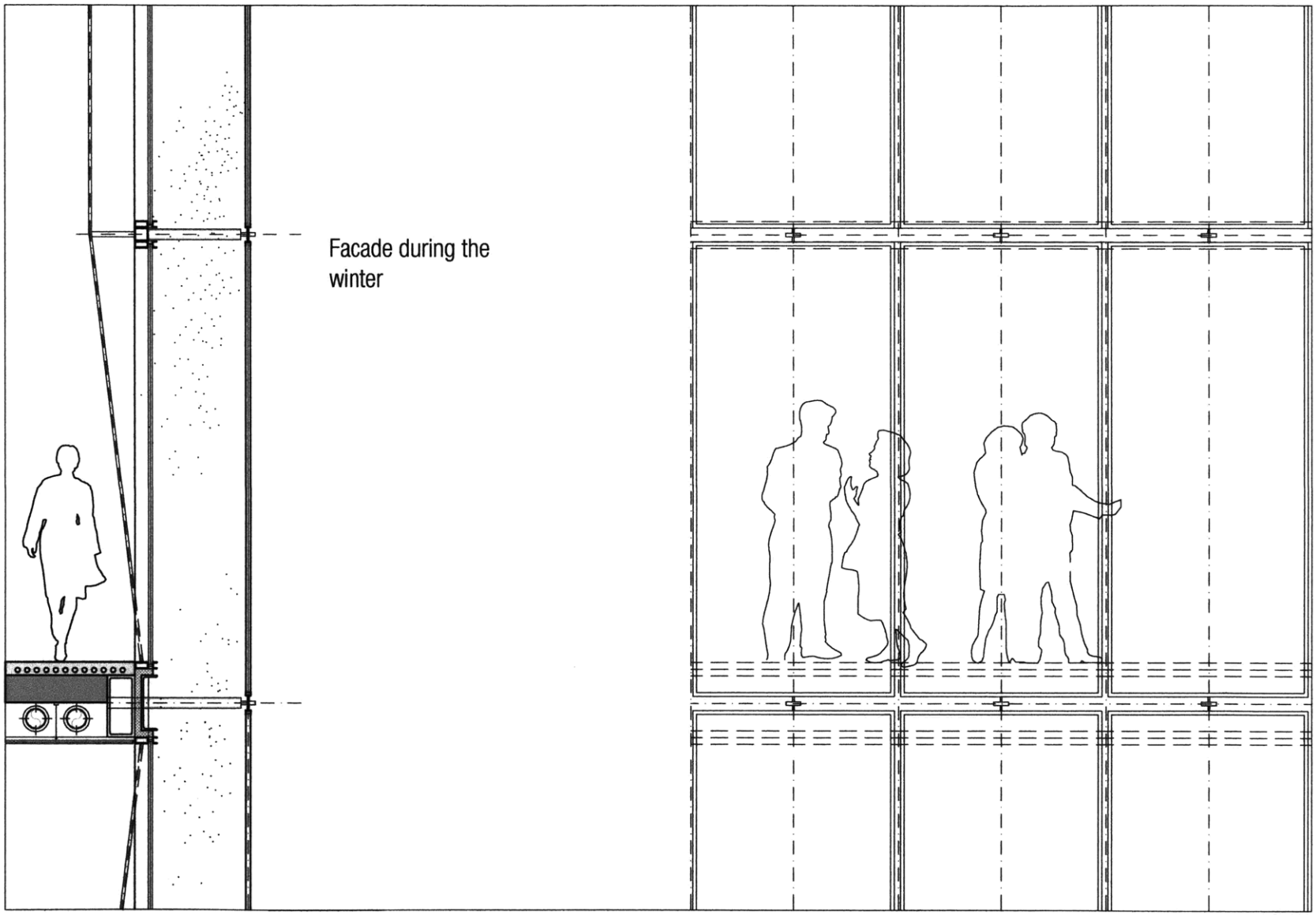
The singular facade facing Manhattan is a double facade with large operable windows on the exterior. From Manhattan the facade reads as a low resolution screen where each window acts as a pixel. In this way the facade relates to the scale of a person on the interior of the building while relating to the scale of the city on the exterior.

Facade at night



Section

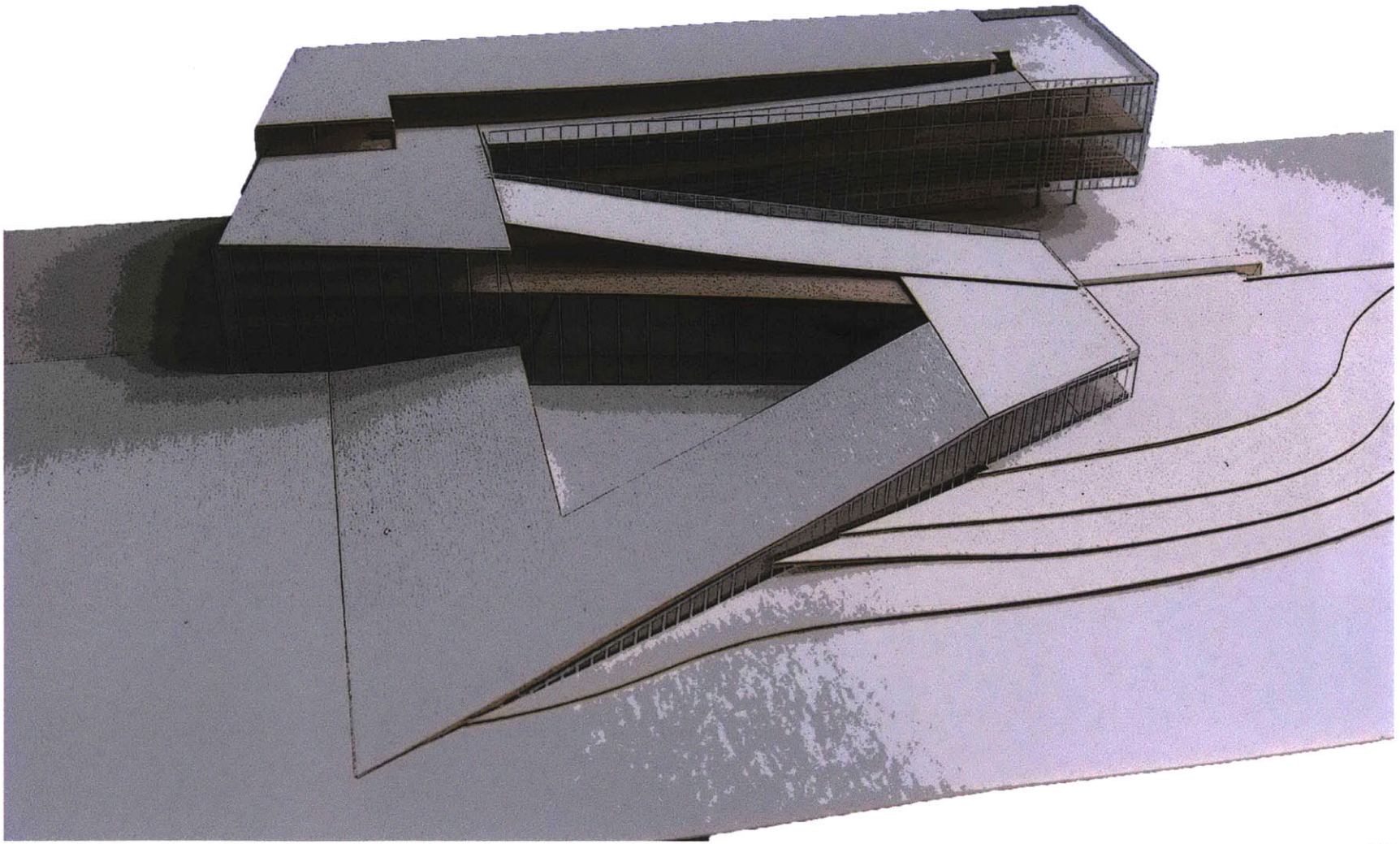
Elevation



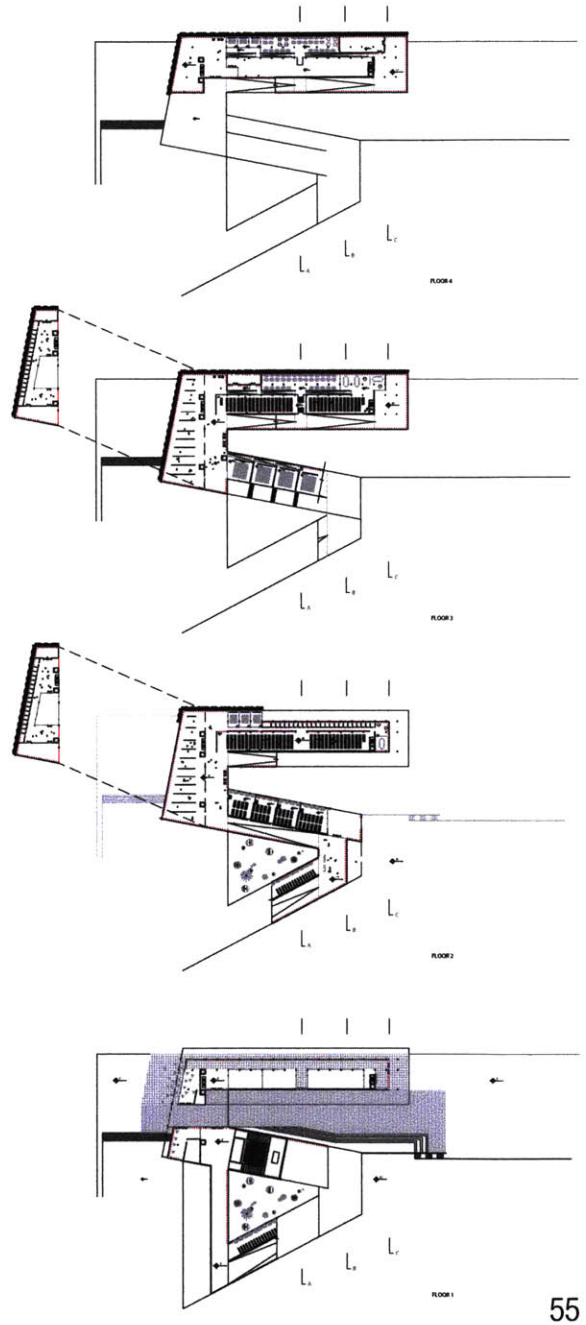
Section

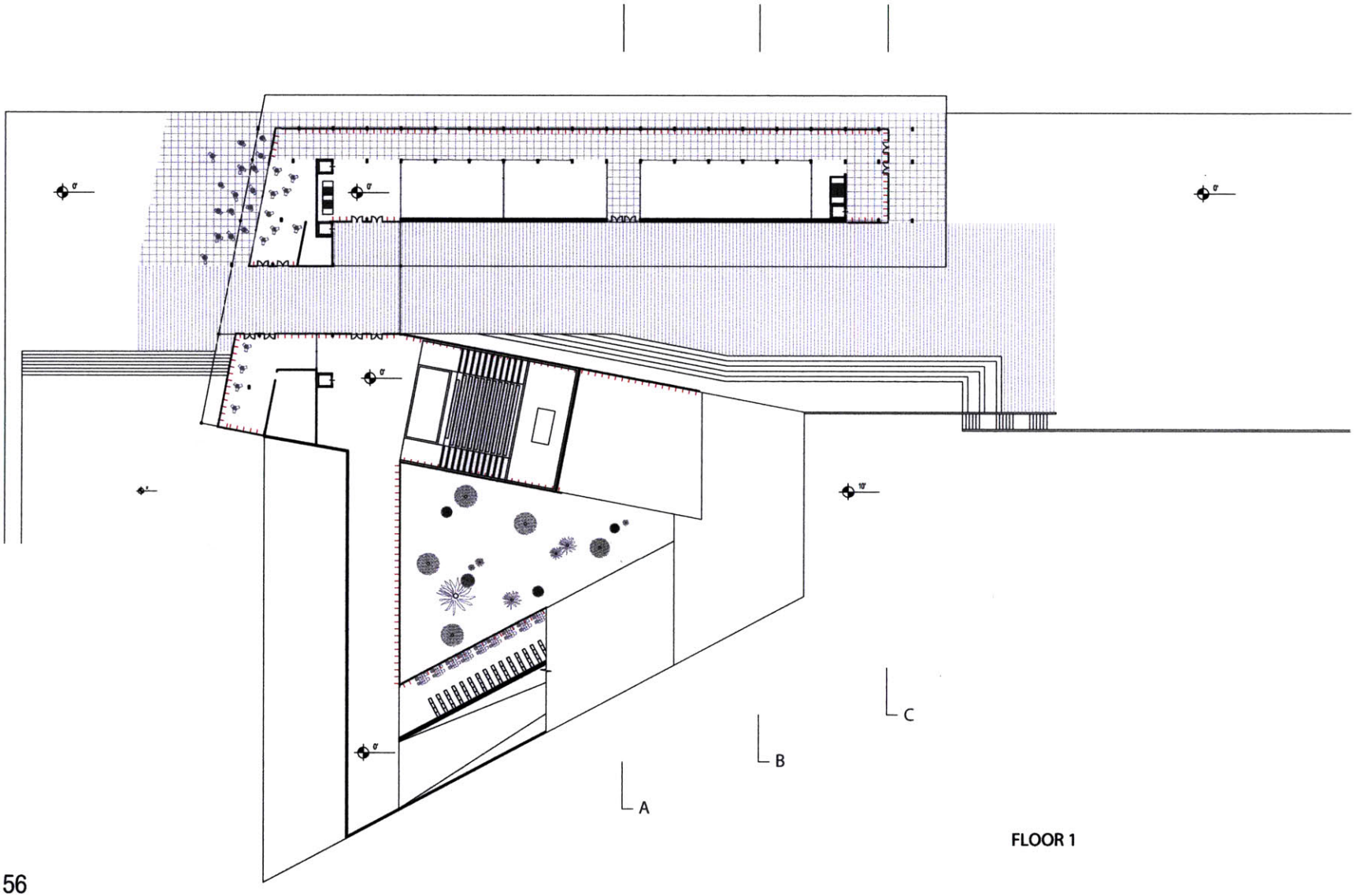
Elevation

MOCI: facing Brooklyn

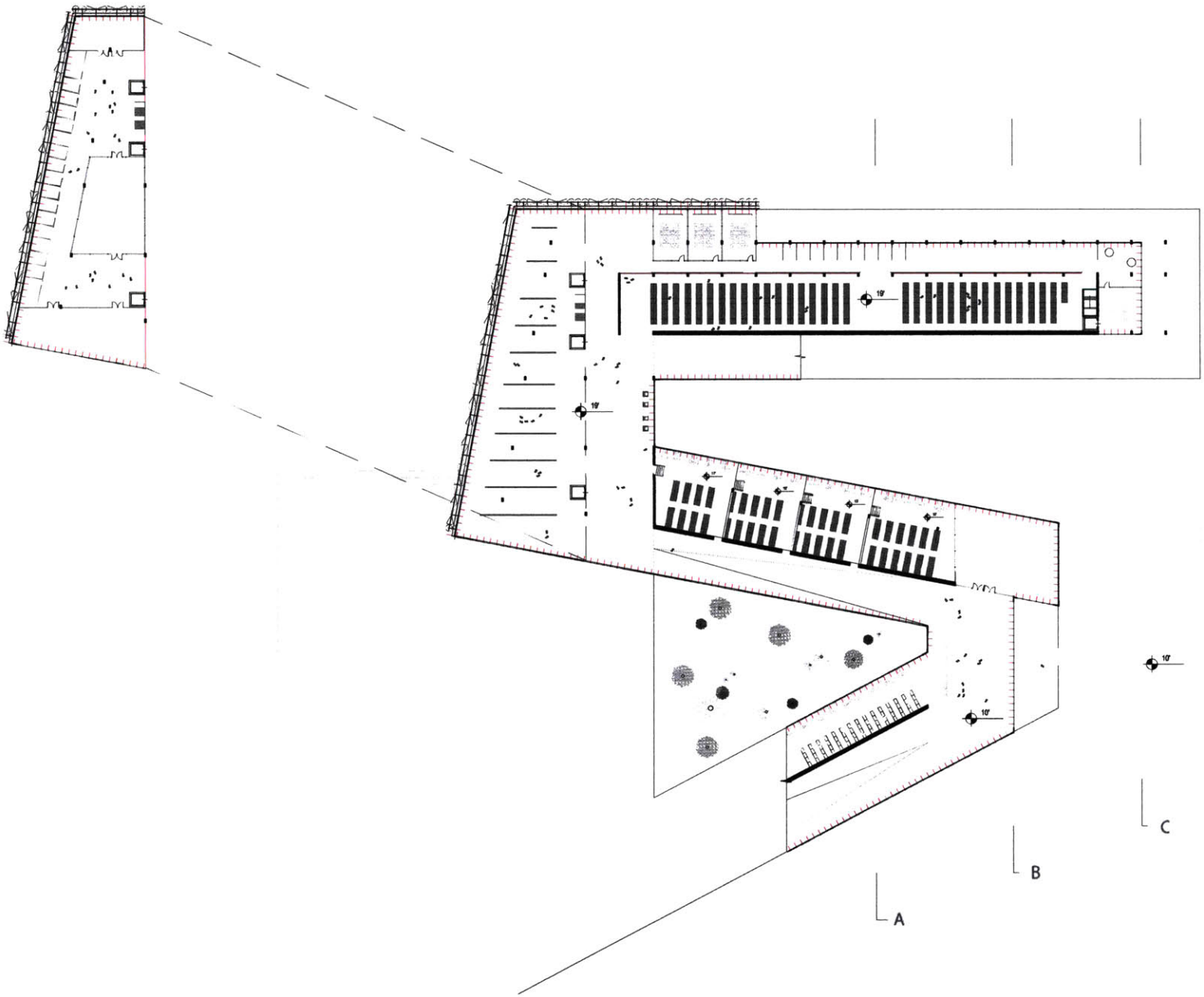


Plans and Sections

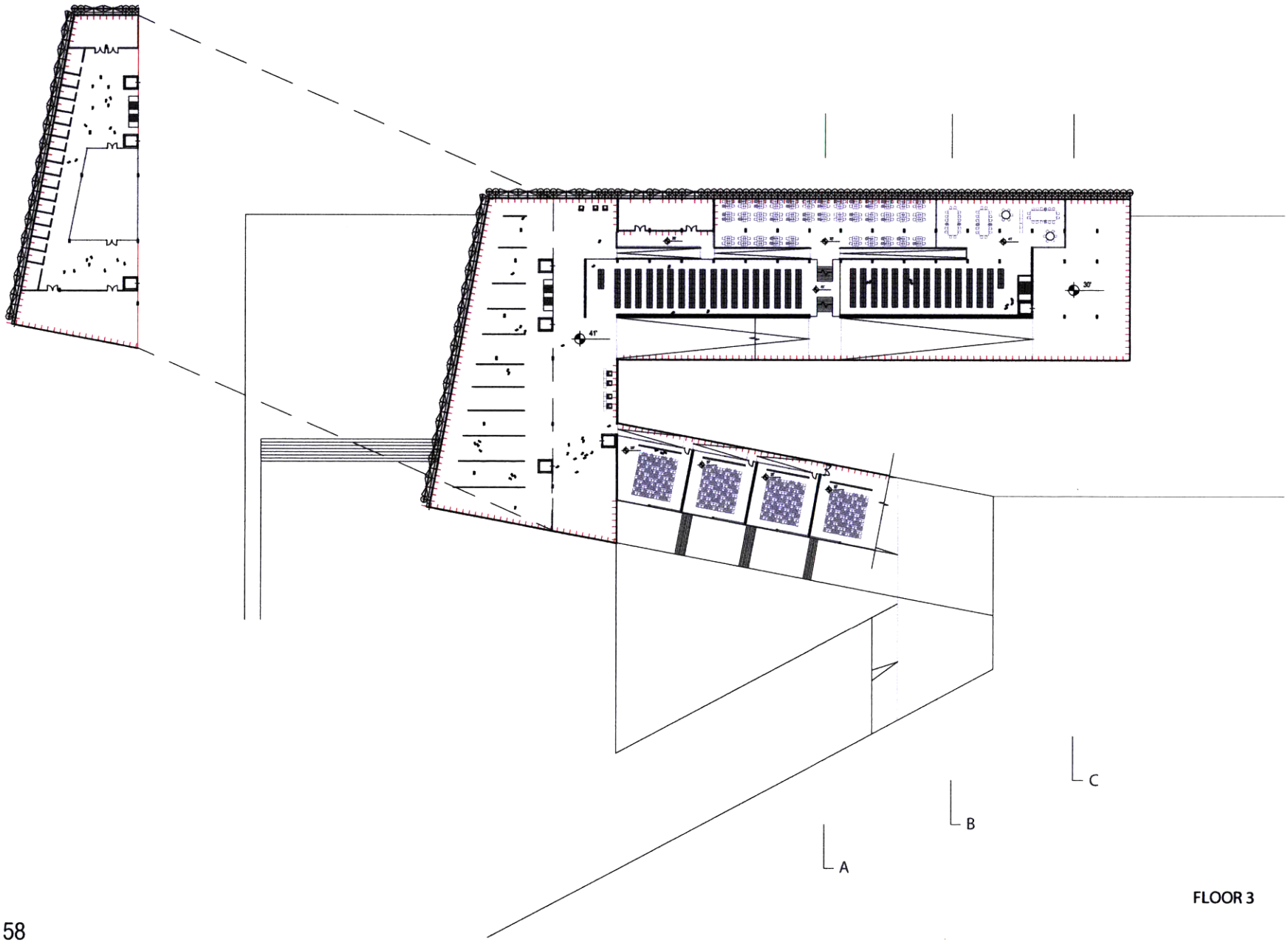

FLOOR 4
FLOOR 3
FLOOR 2
FLOOR 1



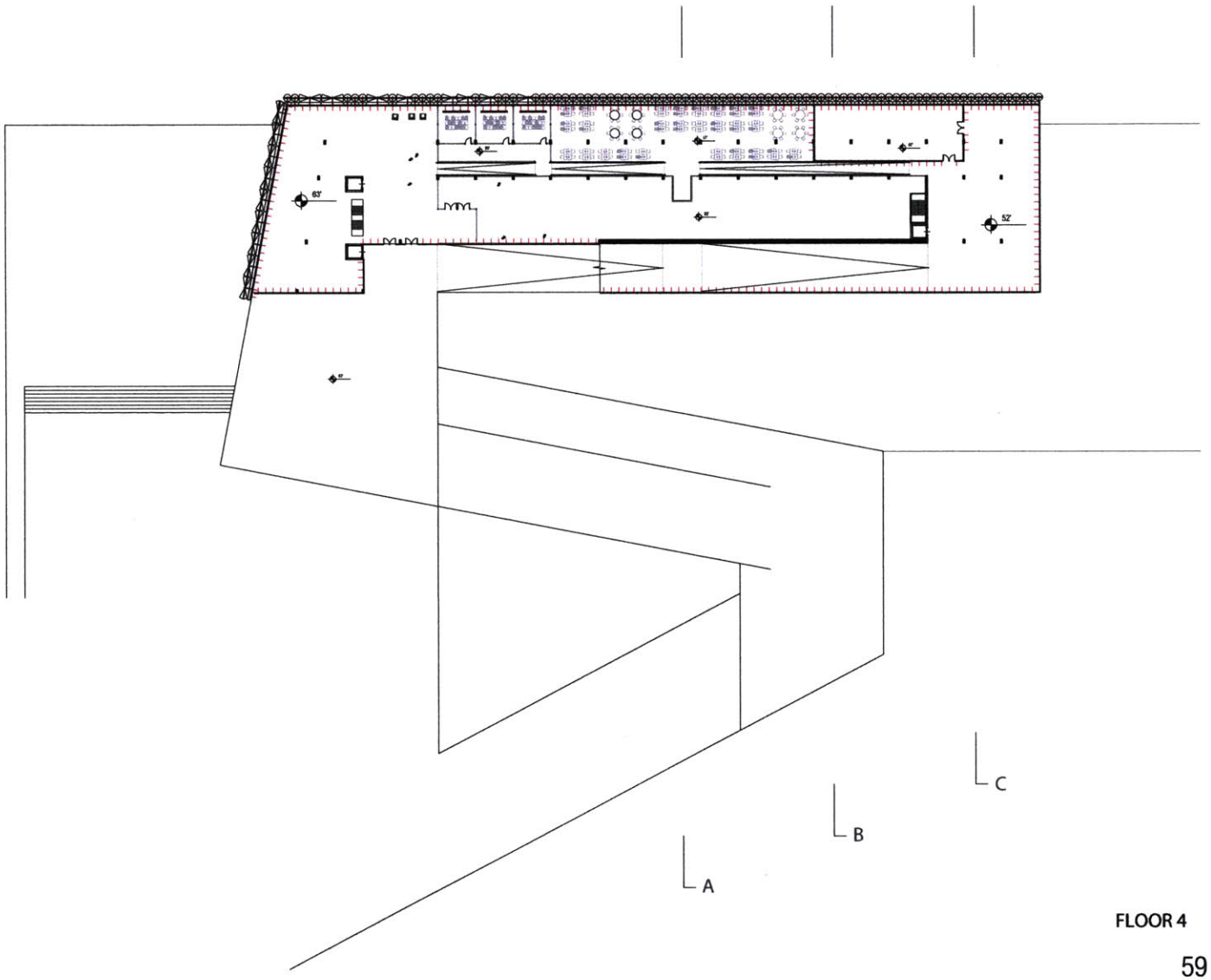
FLOOR 1



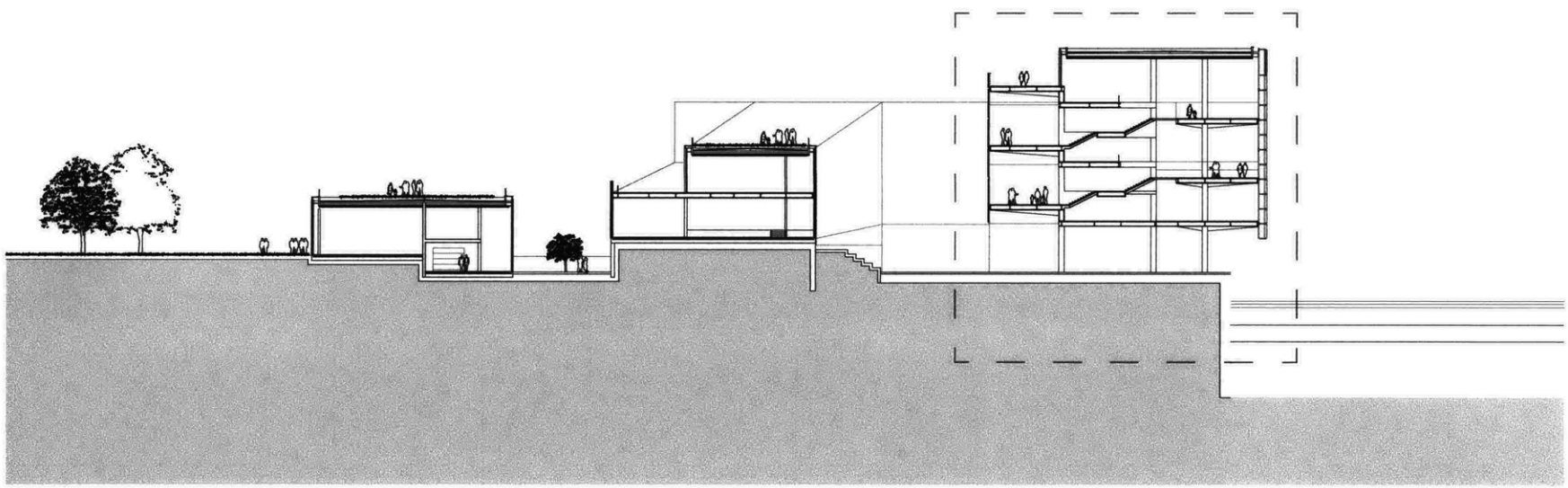
FLOOR 2



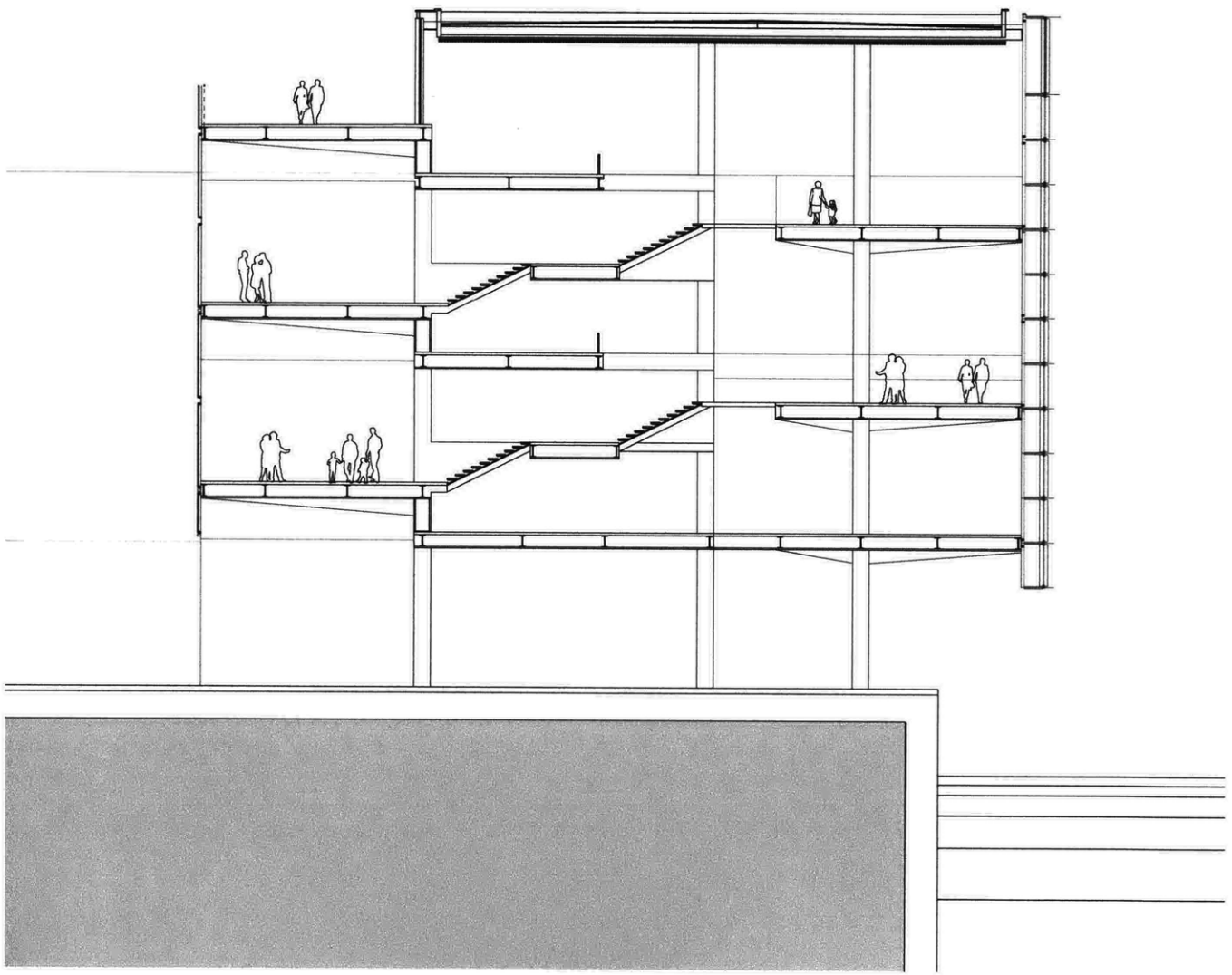
FLOOR 3



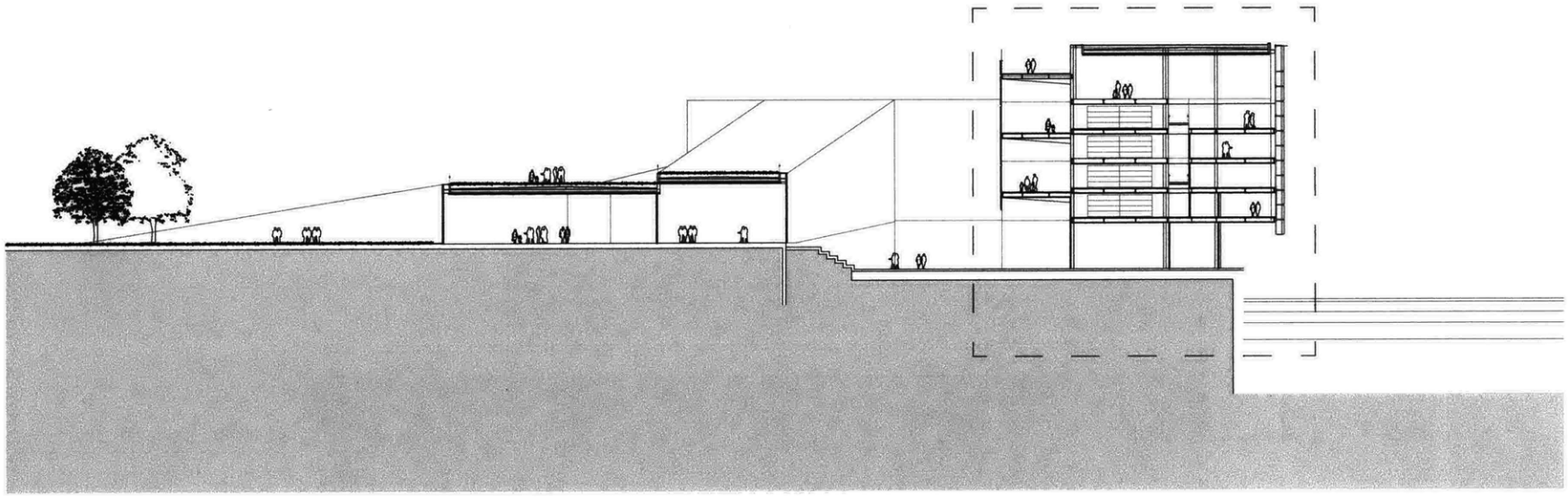
FLOOR 4



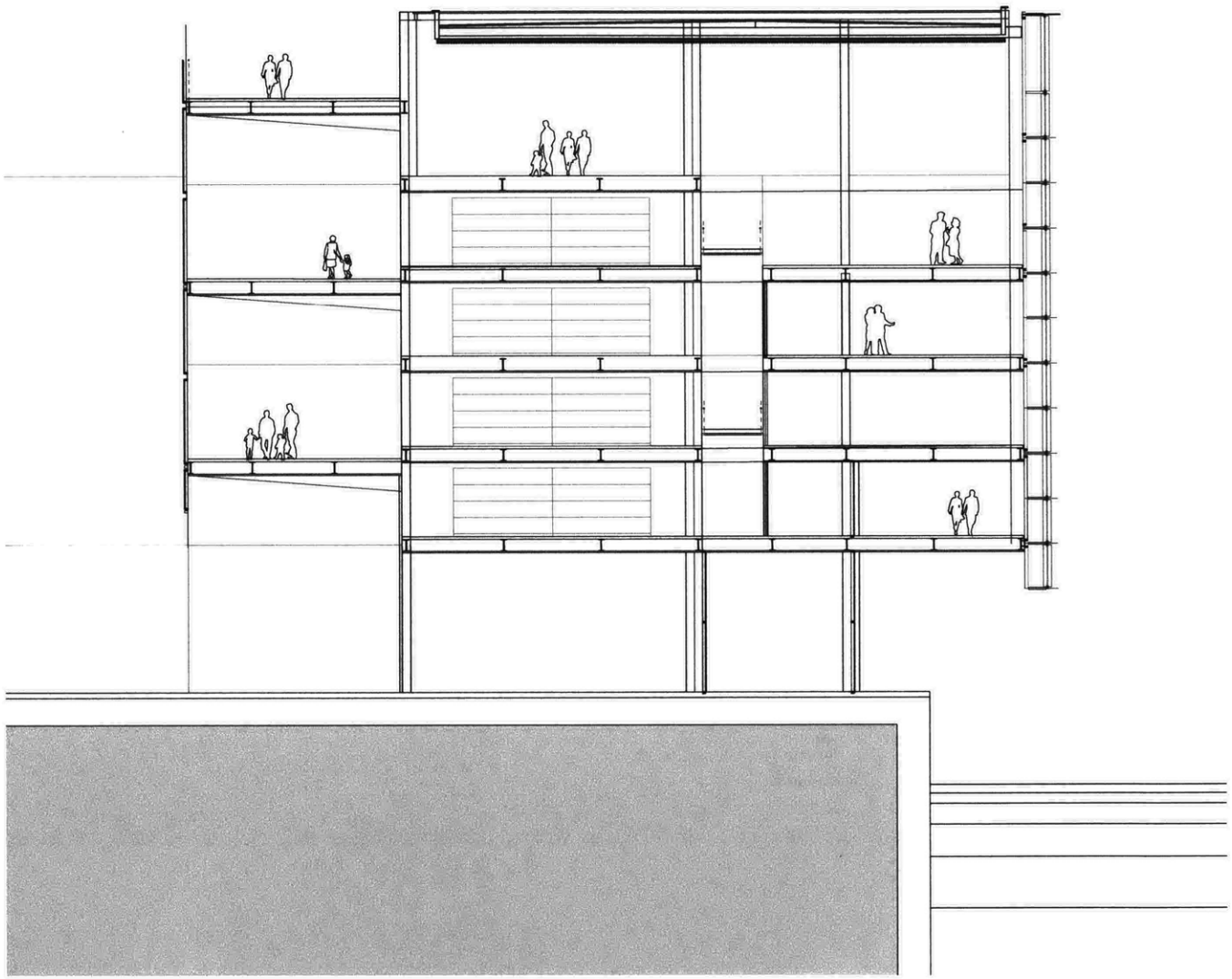
Section A



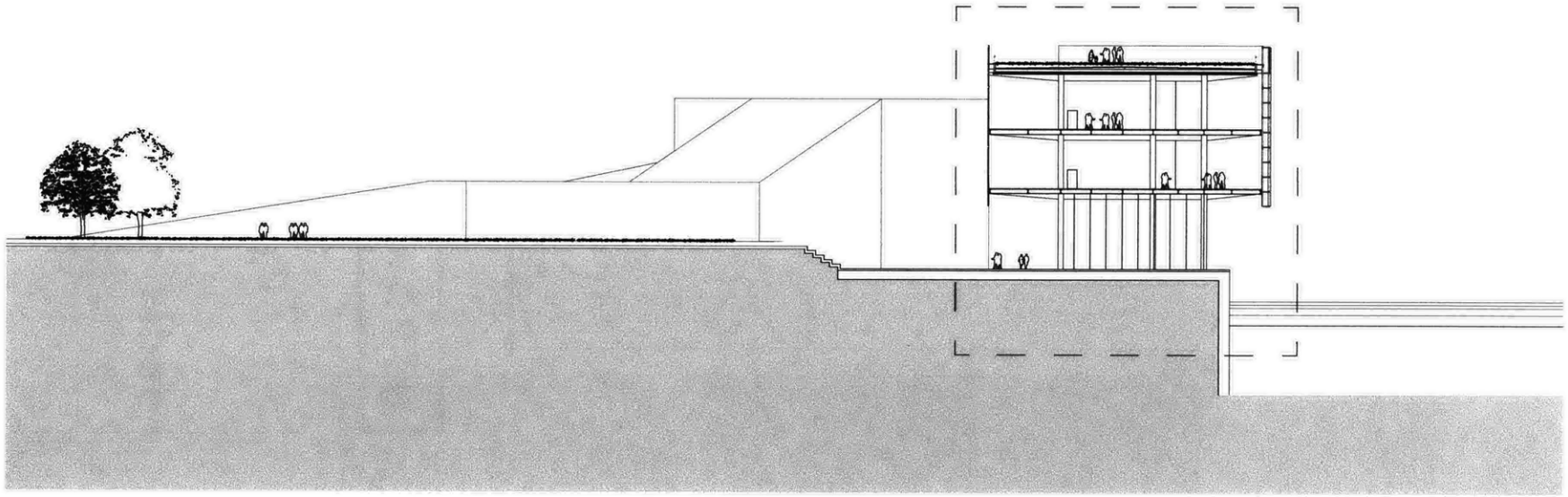
Detail : Section A



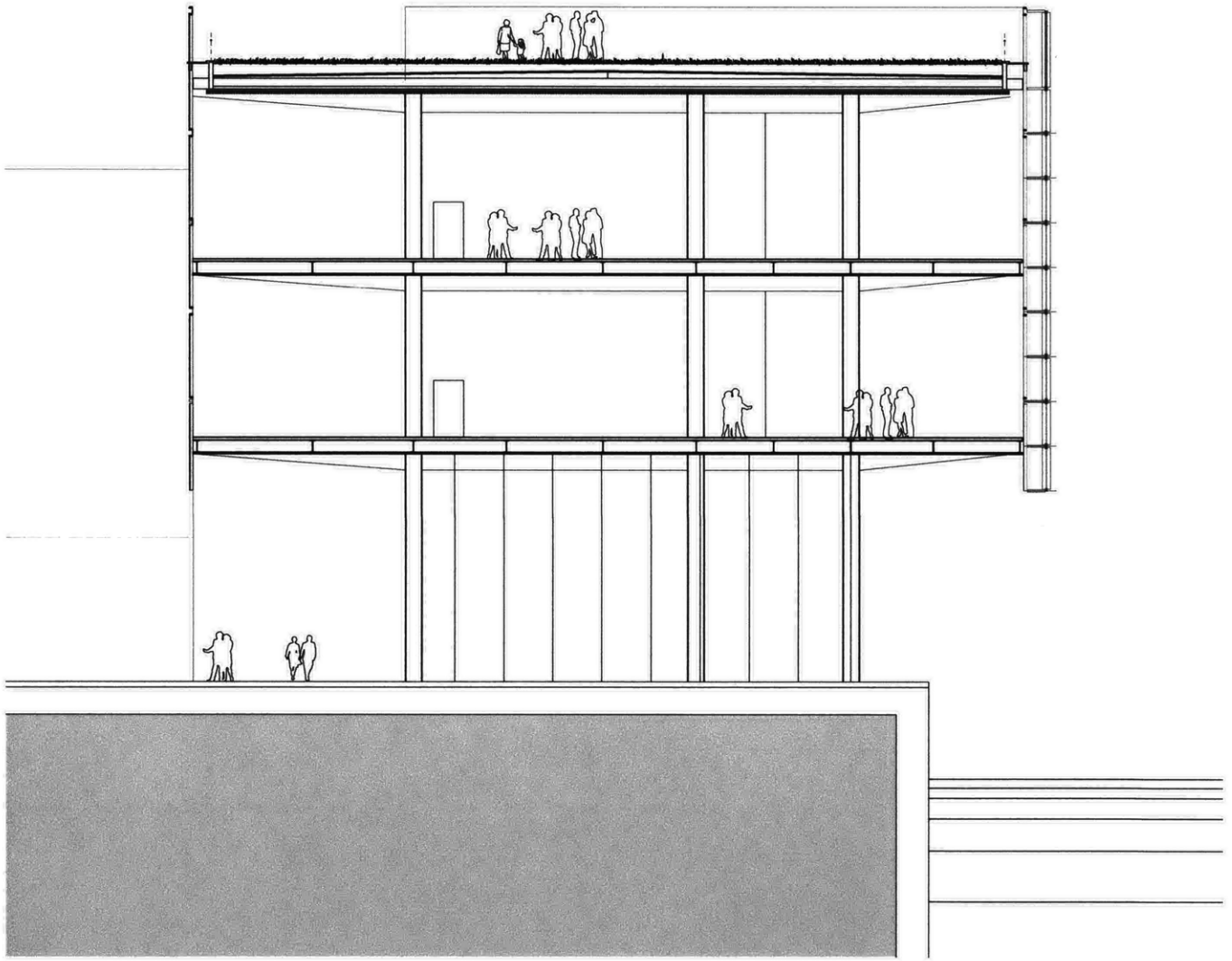
Section B



Detail : Section B

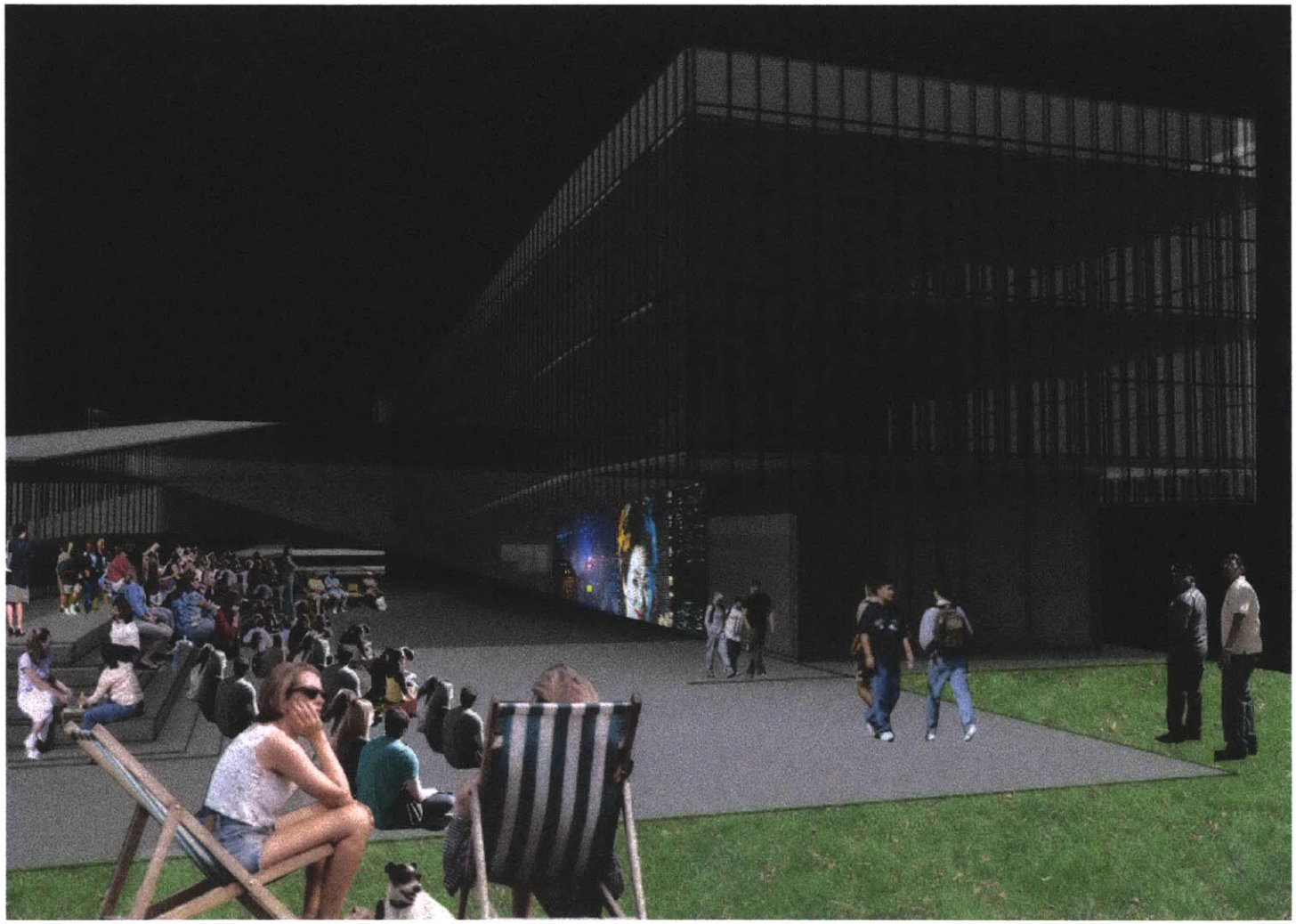


Section C



Detail : Section C

Interior view looking through facade towards Manhattan

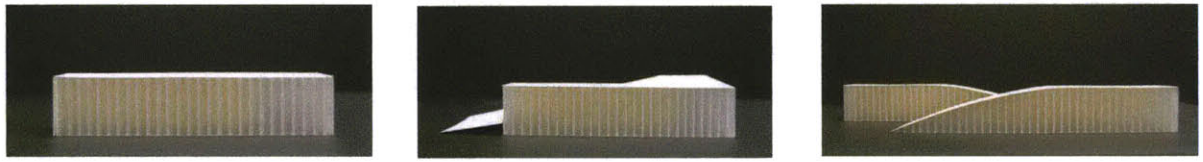


Movie screening in one of the outdoor courtyards

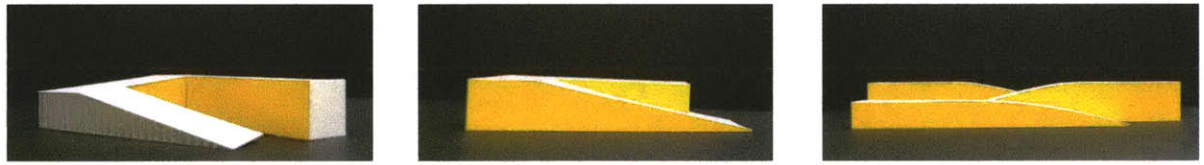
Process

Massing models

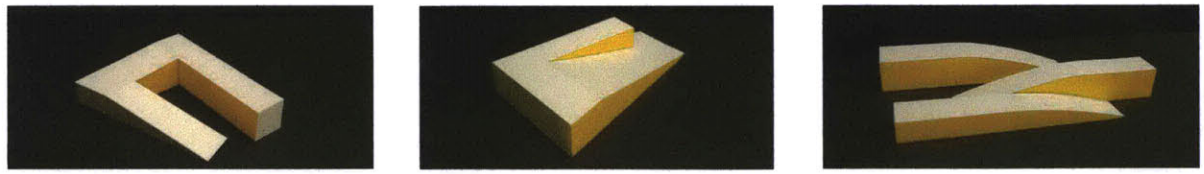
View from Manhattan

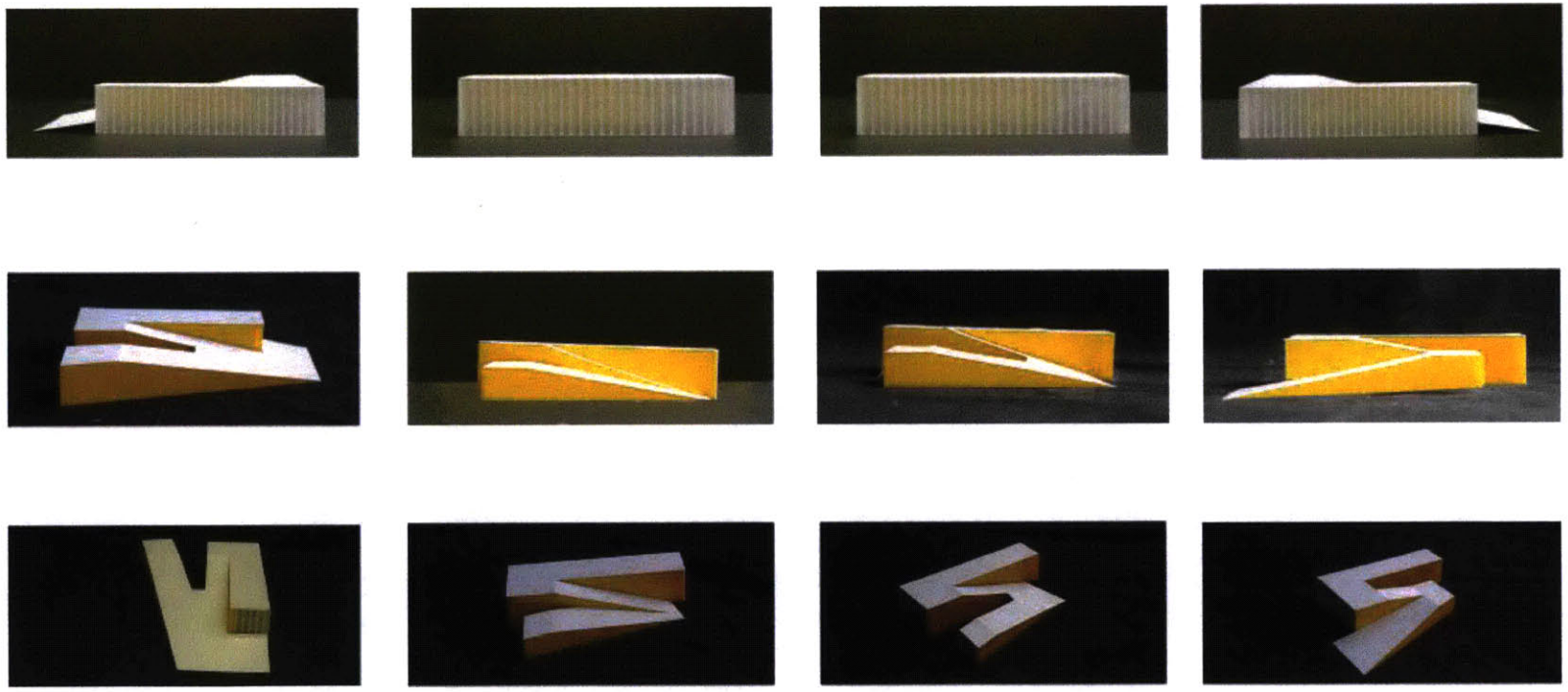


View from the park

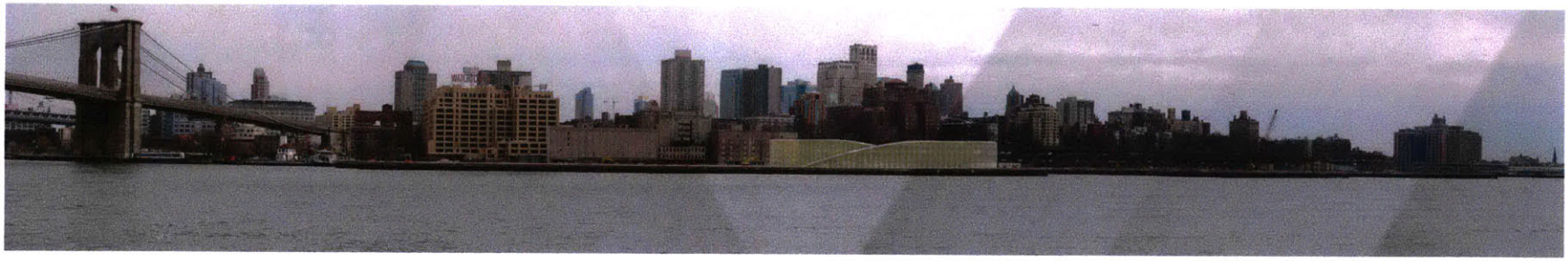


Aerial view



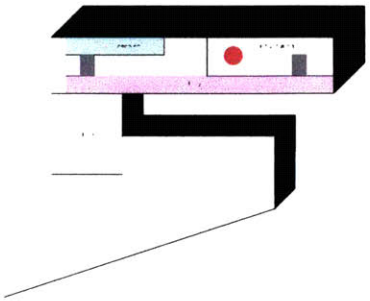


Early sketches

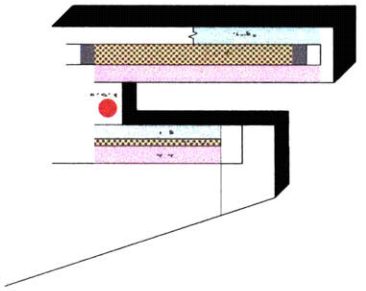


Early diagrammatic plans

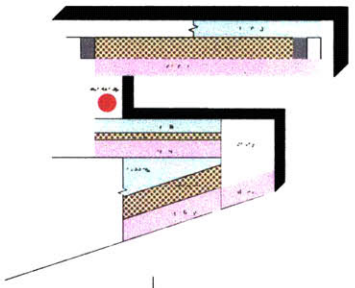
Floor 1



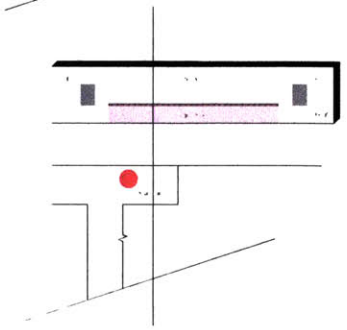
Floor 3



Floor 2



Floor 1



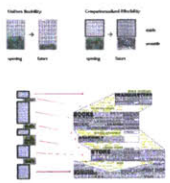
Precedents

Precedents

MOCI: precedents

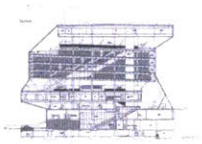
Libraries:

Seattle Public Library:
OMA, Seattle 2004



Living room plan

Reading room plan



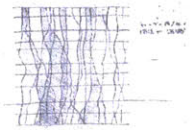
Programmatic organization:

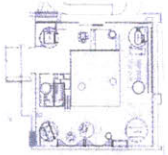
Program separated into vertically isolated boxes

Circulatory logic:

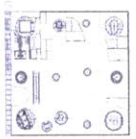
Spiral circulatory logic

Sendai Mediatheque:
Toyo Ito, Sendai 2000

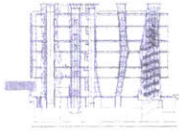


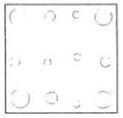


First floor plan

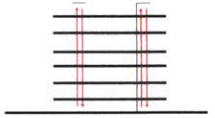


Second floor plan





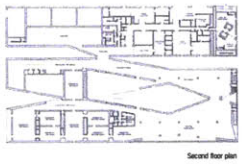
Circulation and programmatic organization defined by tubes and by temporary furniture.



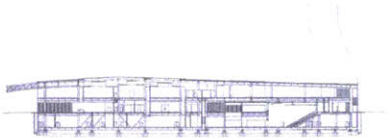
Transparent envelope, vertical circulation contained within tubes, thin floor plates that seem to float without structure

Museums sited in a public park:

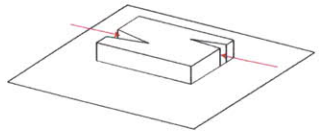
de Young Museum:
Herzog & de Meuron, San Francisco 2005



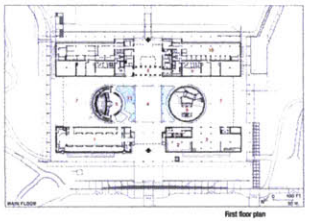
Second floor plan



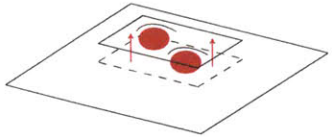
Relationship with the park:



National Academy of Sciences:
Renzo Piano, San Francisco 2008



First floor plan



Library program studies

Sendai Mediatheque:
Toyo Ito
17,500 m2

Seattle Public Library:
OMA
32,980 m2 (355,000 sf) library

Books: 12, 820 m2 (138,000 sf)
61 m long spiral

Phoenix Central Library:
Bruder DWL architects
26,074 m2

Book stacks:	15,150 m2 (including reading areas)
Study rooms:	89 m2
Conference rooms:	700 m2
Reference and periodicals:	1,163 m2
Technical services:	1,292 m2
Public services:	409 m2
Learning resources:	390 m2
Computer areas:	341 m2
Circulation, support	6,540 m2

The National Library of France:
Dominique Perrault
360,000 m2

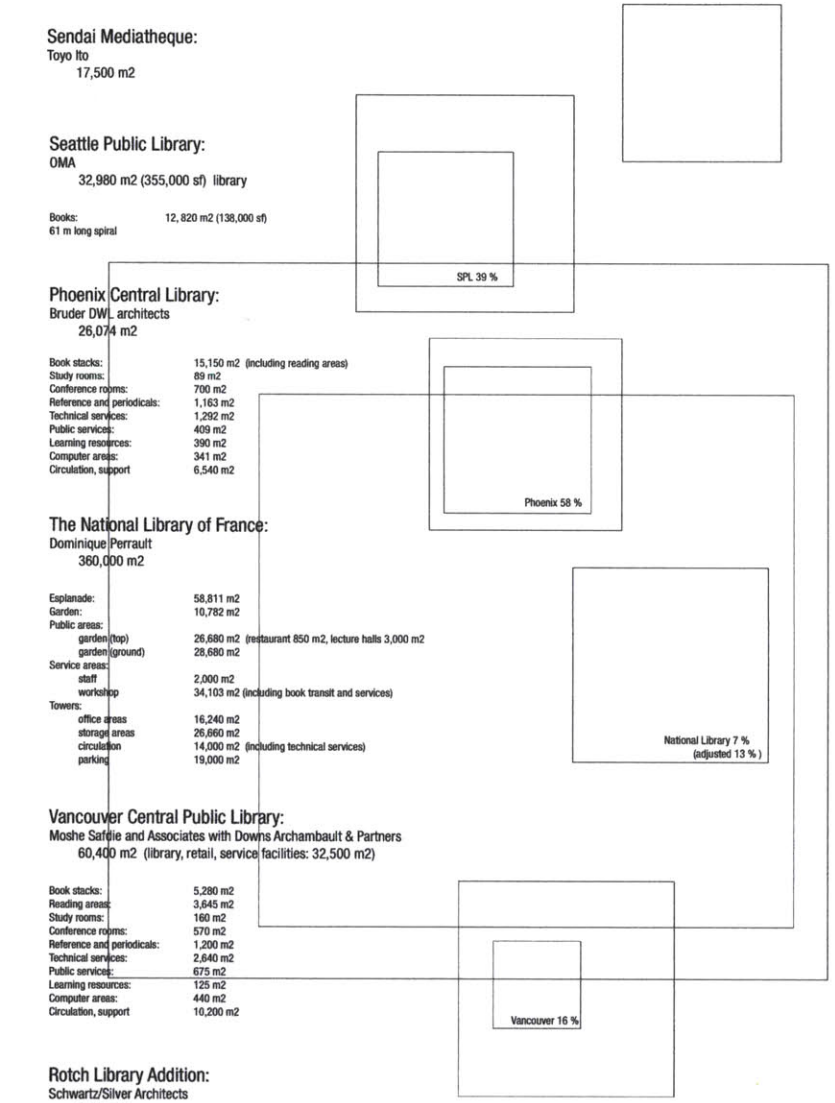
Esplanade:	58,811 m2
Garden:	10,782 m2
Public areas:	
garden (top)	26,680 m2 (restaurant 850 m2, lecture halls 3,000 m2
garden (ground)	28,680 m2
Service areas:	
staff	2,000 m2
workshop	34,103 m2 (including book transit and services)
Towers:	
office areas	16,240 m2
storage areas	26,660 m2
circulation	14,000 m2 (including technical services)
parking	19,000 m2

Vancouver Central Public Library:
Moshe Safdie and Associates with Downs Archambault & Partners
60,400 m2 (library, retail, service facilities: 32,500 m2)

Book stacks:	5,280 m2
Reading areas:	3,645 m2
Study rooms:	160 m2
Conference rooms:	570 m2
Reference and periodicals:	1,200 m2
Technical services:	2,640 m2
Public services:	675 m2
Learning resources:	125 m2
Computer areas:	440 m2
Circulation, support	10,200 m2

Rotch Library Addition:
Schwartz/Silver Architects
2,787 m2

Book stacks:	1,114 m2
Special collections:	186 m2
Reading areas:	204 m2
Study rooms:	232 m2
Reference and periodicals:	186 m2
Technical services:	279 m2
Public services:	93 m2
Computer areas:	93 m2
Circulation, support:	279 m2



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Witte, Ron [edited by] *CASE--Toyo Ito, Sendai Mediatheque* Munich : New York : Prestel ; [Cambridge, Mass.] : Harvard University Graduate School of Design, c2002.

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Fig 1: Telegraph operator "http://content.cdlib.org/ark:/13030/kt8x0nc7h3/?docId=kt8x0nc7h3&layout=printable-details"

Fig 2: Woman on phone "http://communication.howstuffworks.com/dock-n-talk.htm/printable"

Fig 3: Driving with cell phone "http://www.citywest.ca/prince_rupert/cellular/data/cellular_safety"

Fig 4: Coffee shop "http://seattlest.com/2008/02/01/java_joints_of_8.php"

Fig 5: Reading room SPL: unknown source

Fig 6: Man at museum "http://www.flickr.com/photos/missis_jones/2362924671"

Fig 7: Central Park "http://www.flickr.com/photos/missginsu/2525806909/"

Fig 8: Shopping mall "http://retaildesigndiva.blogs.com/retail_design_diva/2009/03/index.html"

Fig 9: Stadium "http://www.flickr.com/photos/frogfisher/1727601483/"

Fig 10: Seattle Public Library: modified from "http://www.flickr.com/photos/meredith-salget/2663179890/"

Fig 11: Guggenheim Museum: modified from unknown source

Fig 12: Central Park (2) "https://fisher.osu.edu/blogs/internship/2009/07"

Fig 13: Yankee Stadium: modified from "http://newyork.diarystar.com/yankee-stadium/"

Fig 14: from: *The Infrastructural Space of Appearance: Mediums of Information* by Neeraj Bhatia

Fig 15: California Academy of Sciences "http://www.inhabitat.com/2008/09/22/california-academy-of-sciences-unveiled/"

Fig 16: Coffee shop "http://seattlest.com/2008/02/01/java_joints_of_8.php"

Fig 17: Seattle Public Library: modified from "http://www.flickr.com/photos/meredith-salget/2663179890/"

Fig 18: Shopping mall "http://retaildesigndiva.blogs.com/retail_design_diva/2009/03/index.html"

Fig 19: Park before "http://brooklynbridgeparknyc.org/index.php?page=the-park" Public Meeting Presentation, pg. 2

Fig 20: Park after "http://brooklynbridgeparknyc.org/index.php?page=the-park" Public Meeting Presentation, pg. 3

Fig 21: Ferry routes "http://iboatnyharbor.com/Boat%20handling.htm"

Fig 22: Water access "http://brooklynbridgeparknyc.org/index.php?page=the-park" Public Meeting Presentation, pg. 18

Fig 23: Subways and busses "http://brooklynbridgeparknyc.org/index.php?page=the-park" Public Meeting Presentation, pg. 15

Fig 24: Proposed park plan "http://brooklynbridgeparknyc.org/index.php?page=the-park" Public Meeting Presentation, pg. 63

Fig 25: de Young Museum: unknown source

Fig 26: California Academy of Sciences "http://huxleythepartisan.wordpress.com/"

Fig 27: from: *The Infrastructural Space of Appearance: Evolution of the Library Typology* by Neeraj Bhatia

Fig 28: Pompidou Centre: modified from "http://www.brusselspictures.com/category/theme-park/"

Fig 29: Sendai Mediatheque: modified from "http://images.businessweek.com/ss/07/01/0102_wow_libraries/source/7.htm"

Fig 30: Seattle Public Library: modified from "http://www.flickr.com/photos/meredith-salget/2663179890/"

Fig 31: Escalator: modified from "http://www.vvork.com/?m=200709&paged=2"