ARCHITECTURE

PORTFOLIO

JULIA LIN

2021

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Tel: (240)-608-0936
Email`: jpl2182@barnard.edu

EDUCATION

September 2017 - May 2021 — **Barnard College | New York City, NY**
Bachelor of Arts, Architecture

TECHNICAL SKILLS

- 3D Modelling: Rhino 6.0, SketchUp 2019
- Drafting: AutoCAD 2017
- Drawing: Adobe | Photoshop, Illustrator, Indesign, Vray
- Office: Microsoft Office | Word, Excel, Powerpoint
- VR & AR: Unity | Vuforia Engine

LANGUAGE

- English: Native fluency
- Mandarin: Native fluency
- Japanese: Working proficiency
- Spanish: Working proficiency (Reading, Writing)

EXPERIENCE

Sep. 2020 - Present
Modelling Assistant

MIT Hong Kong Innoation Node | Kowloon Tong, HK

- create 3D models in SketchUp and Rhino for an AR Model Experience reimagining the Kowloon East district, as part of the 17th Venice Biennale International Architecture Hong Kong Exhibition.

Sep. 2020 - Present
Part-time Assistant

Jun. 2020 - Aug. 2020
Design Intern

KRIS YAO Artech | Taipei, TW

- hand-build concept models (of foam, paper, and wood) and assist with designing models (of laser-cut and 3D-printing).
- assisted Partner, Grace Lin. and Design Lead, James Hsu, with 3D massing, sectional studies, and project presentation for JiaoXi Resort. a hot spring resort in Eastern Taiwan province Yilan, containing villas, restaurants, bars, MPRs, an event hall, and recreational spaces such as a children's playspace.
- assisted Design Lead, James Hsu, with site analysis and project presentation to the board for United Daily News Building, Taipei branch.
- built concept and site model for the Xiamen International Bank Head Office in Xiamen, China, as well as the Haikou Financial Headquarters in Hainan, China.
- built physical and digital 3D models of window facade details for the Haikou Financial Headquarters in Hainan, China.

Jun. 2018 - Aug. 2018
Design Intern

C.Y. LEE & Partners | Taipei, TW

- assisted Partner, Richard Lee, with sectional studies, elevational drawings, and project presentations for Taiwan Insurance Corporation's C3 multi-use project in Nangang, Taiwan.
- built and managed workflow of 3D models in SketchUp and Rhino.
- edited drafts of plan, sectional, and elevational drawings in AutoCAD.

ENVIRONMENT AND SOCIAL FABRIC

ARCH. REPRESENTATIONS | PERCEPTION

... Morningside Park case study
... social architectural intervention

ADV. DESIGN STUDIO II | HARLEM NEXUS

... exploration and intervention of
the local community: Harlem

COPENHAGEN | FUTURE STRATEGIES

... engagement of Kay Fisker's ideology
... sustainable intervention

DIGITAL REPRESENTATION IN ARCHITECTURE

ARCH. REPRESENTATIONS | ABSTRACTION

... abstracting a social system
... people and the built environment

ADV. DESIGN STUDIO III | RESEARCH & DESIGN

... local community: Harlem
... workshopping and collaboration

MIT HK INNOVATION NODE | KOWLOON EAST

... interactive AR experience with phone
... simulation of environments for inclusive change

ABOVE THE PARK

LOCATION	Morningside Drive, New York, NY
PROJECT	Morningside Park
SIZE (ft^2)	~60,000

The project creates an architectural intervention that mediates between Morningside Park and its surrounding communities. Visitors are brought through various elevations within the park, and interaction with previously inaccessible elements of the park is created.

There are three areas within the site specially targeted to grant different experiences:

(1) the imposing stone wall along the western side of the park

(2) the somewhat steep but forested plain, and

(3) the steep grass clearing without any trees or overhead covering.

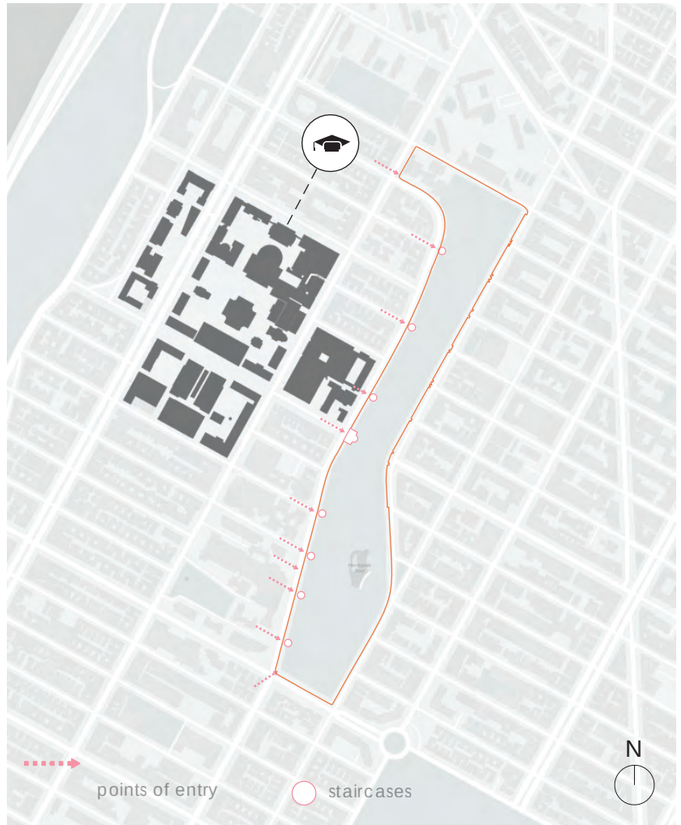
In each area, the visitors are guided to interact with the park.

Spring 2019 | Architectural Design: Environments & Mediations | Instructor: Ignacio Galan

ANALYSIS

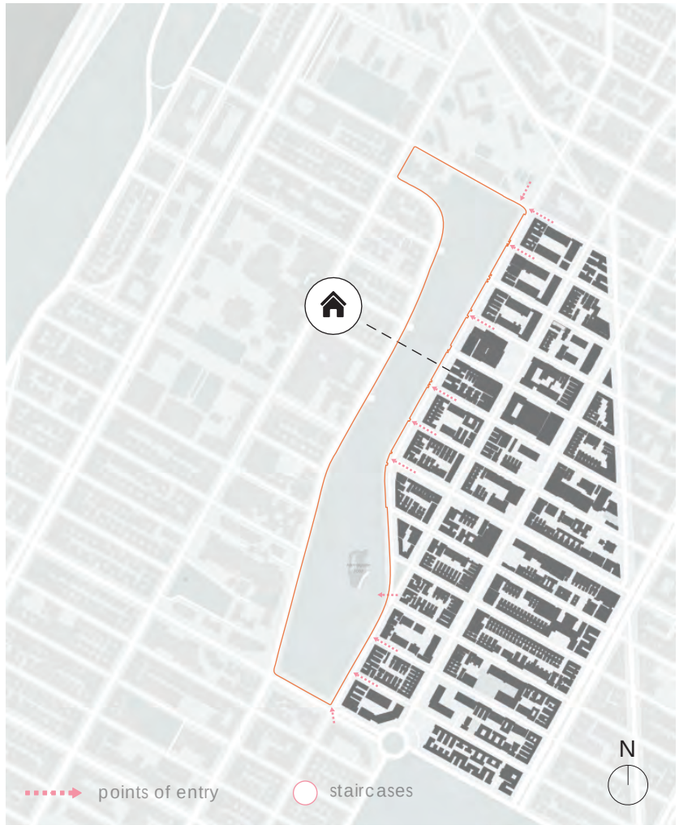
Morningside Park, completed in 1895, is a site of rather controversial history for its surrounding communities. Even now, its extreme topography and difficult accessibility continues to divide the people around it - mainly, the Columbia University community to the West, and West Harlem to the East.

Fundamentally, the park's Olmstedian nature does not serve the modern community - not only is the site empty save for passerby's and children playing in run-down facilities, but the lack of patrolling authority has made the area unsafe to its community.



MORNINGSIDE HEIGHTS (COLUMBIA UNIVERSITY)

college students
faculty & staff

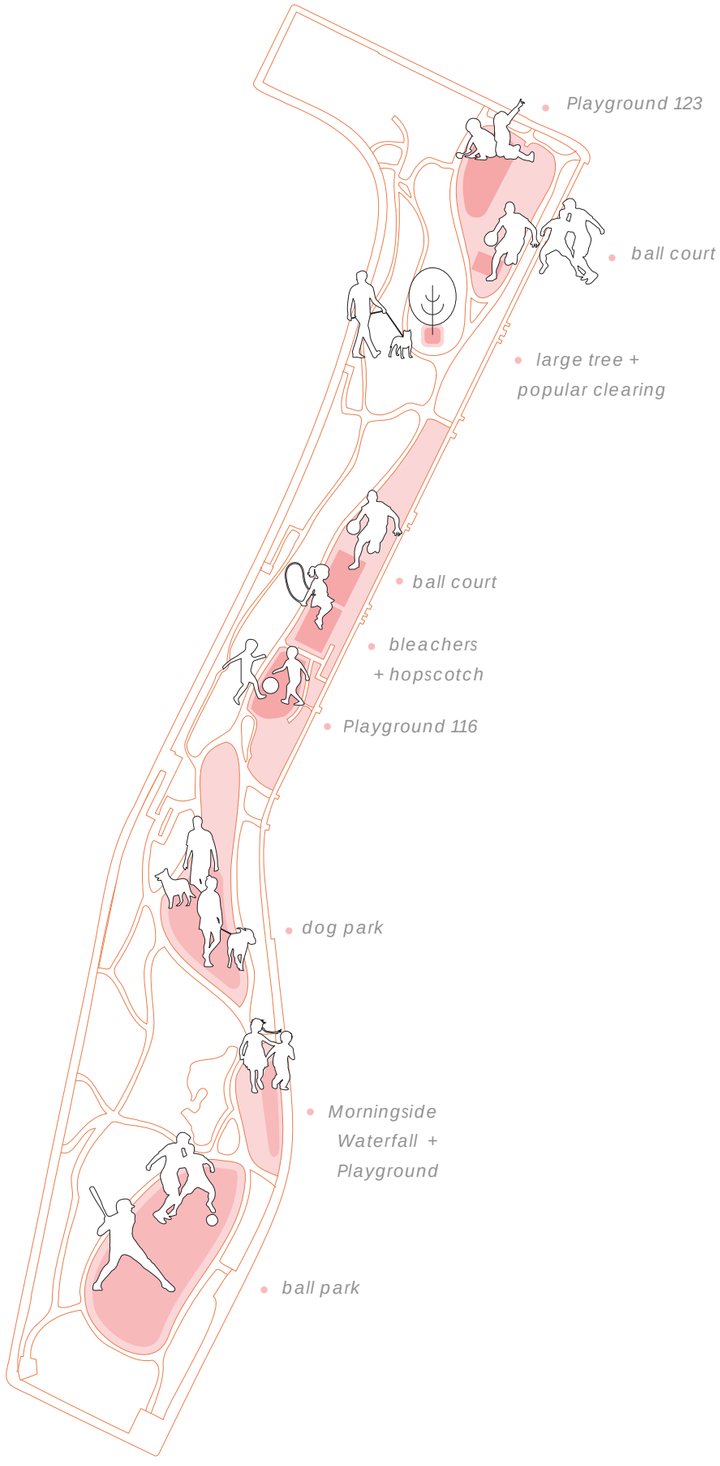


WEST HARLEM

elderly
young children & parents
teens & adults

TOPOGRAPHY

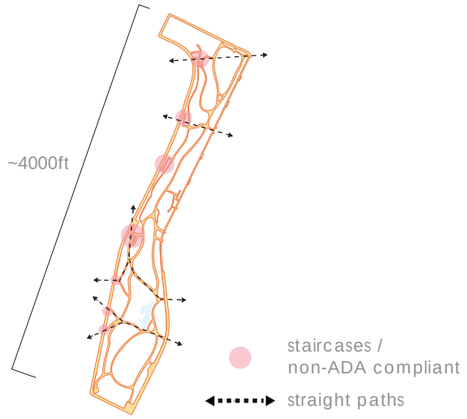
slopes & stairs



CURRENT PROBLEMS

Activities concentrated on the eastern side + Insufficient accessibility on western side

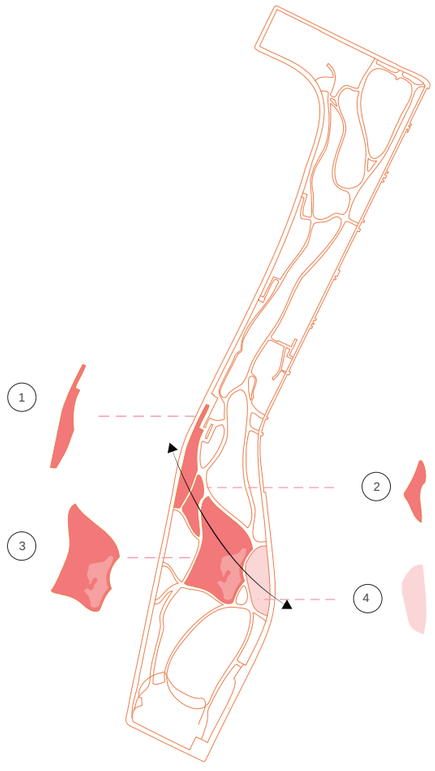
--> few straight paths between east and west
--> uphill from east to west



OPEN CONNECTION

Targeting high-traffic areas on either side of Morningside Park

(*West*) Church of St. John + Columbia University
(*East*) Morningside Waterfall + Dog Run



AREAS OF INTEREST

Flowing through each other as a ‘chain of experience’, these three areas cut from West to East. through the park.

1 Stone wall

An imposing stone wall that wraps around the park’s western flank. It is one of the main entrances to the park, and is a straight path along Columbia University’s Board Walk. But there is a lack of proper lighting, it is often dark, and many think it unsafe to walk at night.

2 Sloped copse

A slightly sloped and shaded copse, currently enclosed by fences. There is a decent amount of trees, with undergrowth. Some squirrels and birds inhabit the area.

3 Steep grass clearing

A rather steep grass clearing devoid of trees and undergrowth. Sunlight is stronger here, due to a lack of forestation. Not many wildlife venture here away from the more forrested areas. This steep slope also leads down to the Morningside Pond and Waterfall.

4 Streetside clearing

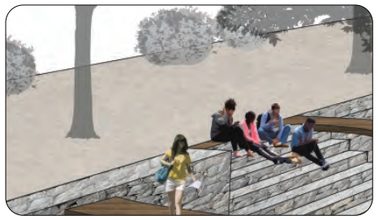
A clearing surrounding the Morningside Pond and Waterfall. There are many visitors in this area on a daily basis, engaging in activites such as picnicking, strolling, chatting on the benches, bird-feeding, and dog-walking. This area is easily accessible from the street.

STONE WALL: *intimacy* through *interaction*

1 *free-drawing*
community re-taking and ownership through art, inspired by existing chalk drawings on pavement.

2 *net-climbing*
surmounting fear of the daunting stone wall by allowing for fun travel along the its height.

2 *stairs-as-seats*
providing alternative paths of travel, opening up the wide stone stairs as a free site for relaxation.

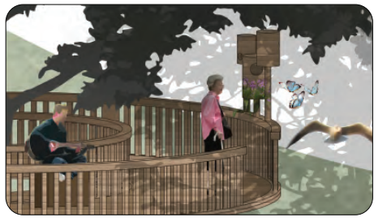


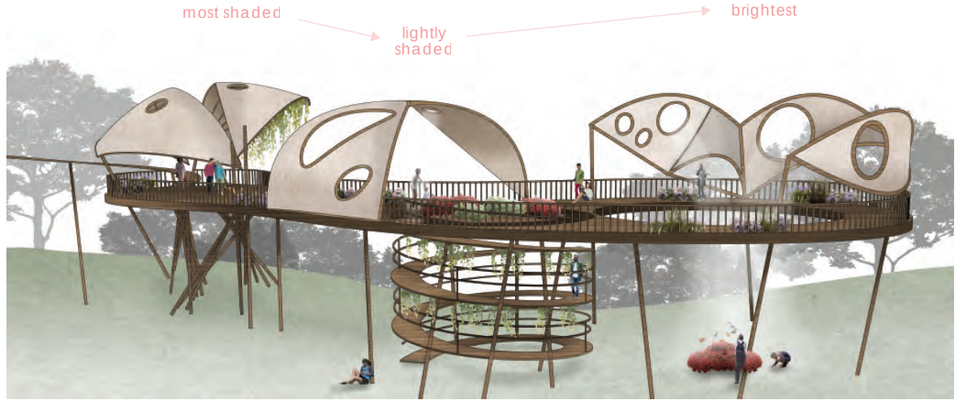
RAISED PLATFORMS: *understanding* through *elevation*

1 *open-relaxation*
opening a new breathing space amongst the leaves, choices are to remain stationary or ambulate.

2 *non-human actors*
creating mini-habitats for the many creatures in Morningside Park. (bird houses, squirrel houses, etc.)

2 *human-creature interaction*
opening a space to be shared between human and non-human actors, opportunities for observation.



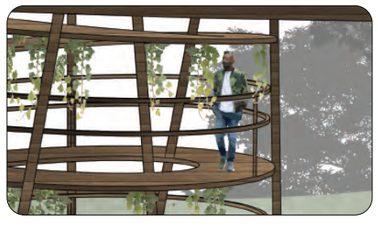


TREELESS CLEARING: *fostering* through *sunlight*

1 *diverse flora*
creating various lighting conditions for the growth of different flora, brightening the treeless clearing.

2 *raised spaces*
creating additional spaces with elevation, for more interaction between human and human, flora and human.

2 *human-creature interaction*
sharing a space amongst both human and non-human actors, opportunity for observation.



ELEVATION

HARLEM'S CULTURAL COMMUNITY CENTER

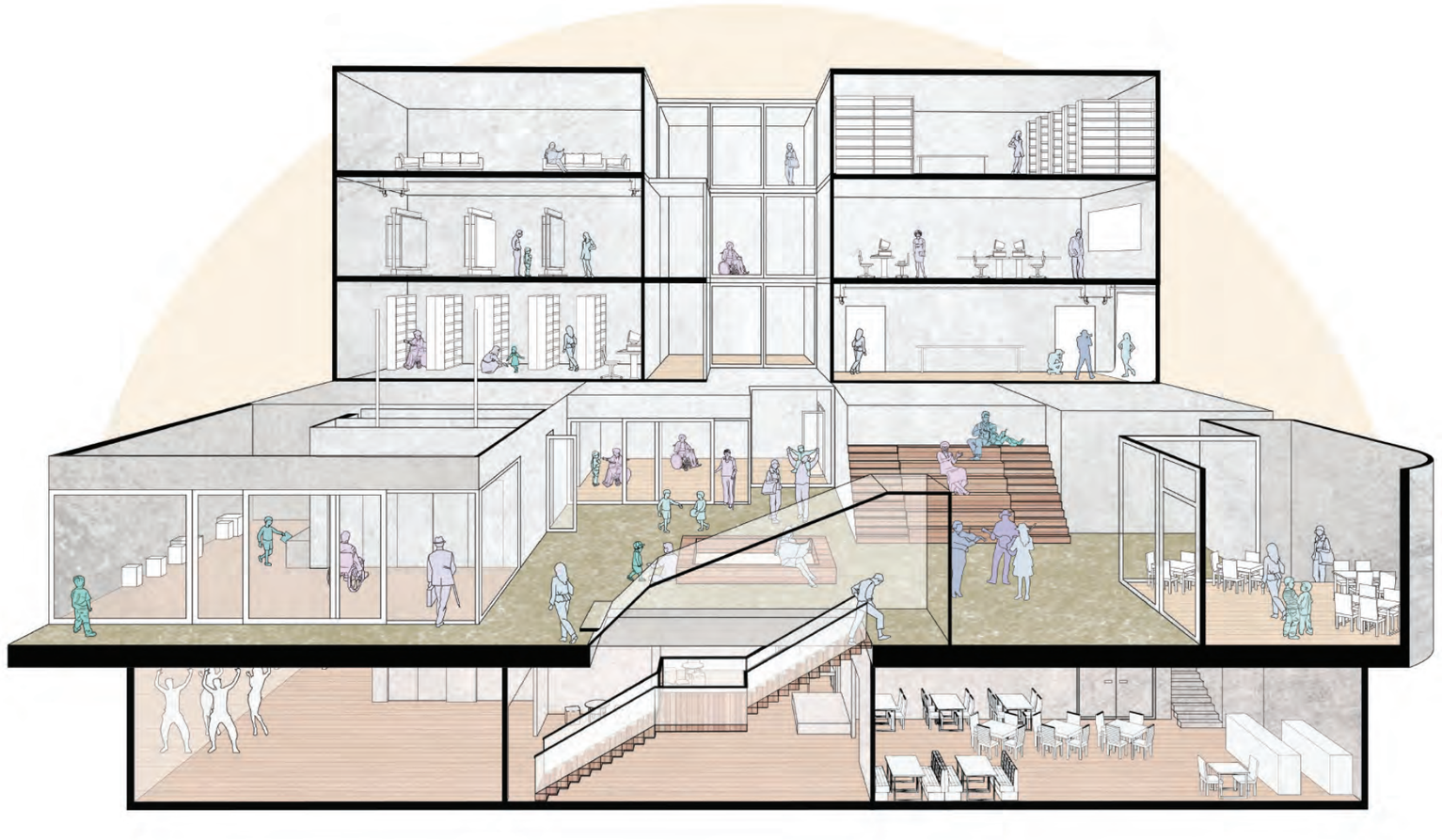
LOCATION	250 W 127th St, New York, NY
PROJECT	Apollo Theater
SIZE (ft^2)	~25,000 (min)

Harlem's Cultural Community Center addresses the loss and lack of spaces within the community: from recent demolition of parks and gardens to the spatial and generational divide between its people.

The site serves as a nexus within the Harlem community, providing a site where the people may co-exist. The many spatial intersections between architectural and age programming manifest organically throughout the building, shaping itself according to its occupants and their needs.

The commmunity center is organized with floor-specified themes, designed to ease the access and usage of space:

- 1F — space for public gathering (formal + informal)
- 2F — permeable green spaces and dedicated refuge for all ages
- 3F — Intimacy and quiet, for the gallery and administration
- 4F — space for learning, based a circular circulation and consolidated work spaces
- 5F — perusal and storage of the Apollo Archive



Spring 2021 | Advanced Architectural Design II | Instructor: Miku Dixit

SITE ANALYSIS

NYCHA PUBLIC HOUSING
SAINT NICHOLAS

A public housing spanning a superblock, from 127th-131st Street. Consists of thirteen 14-story buildings, with 1500 units.

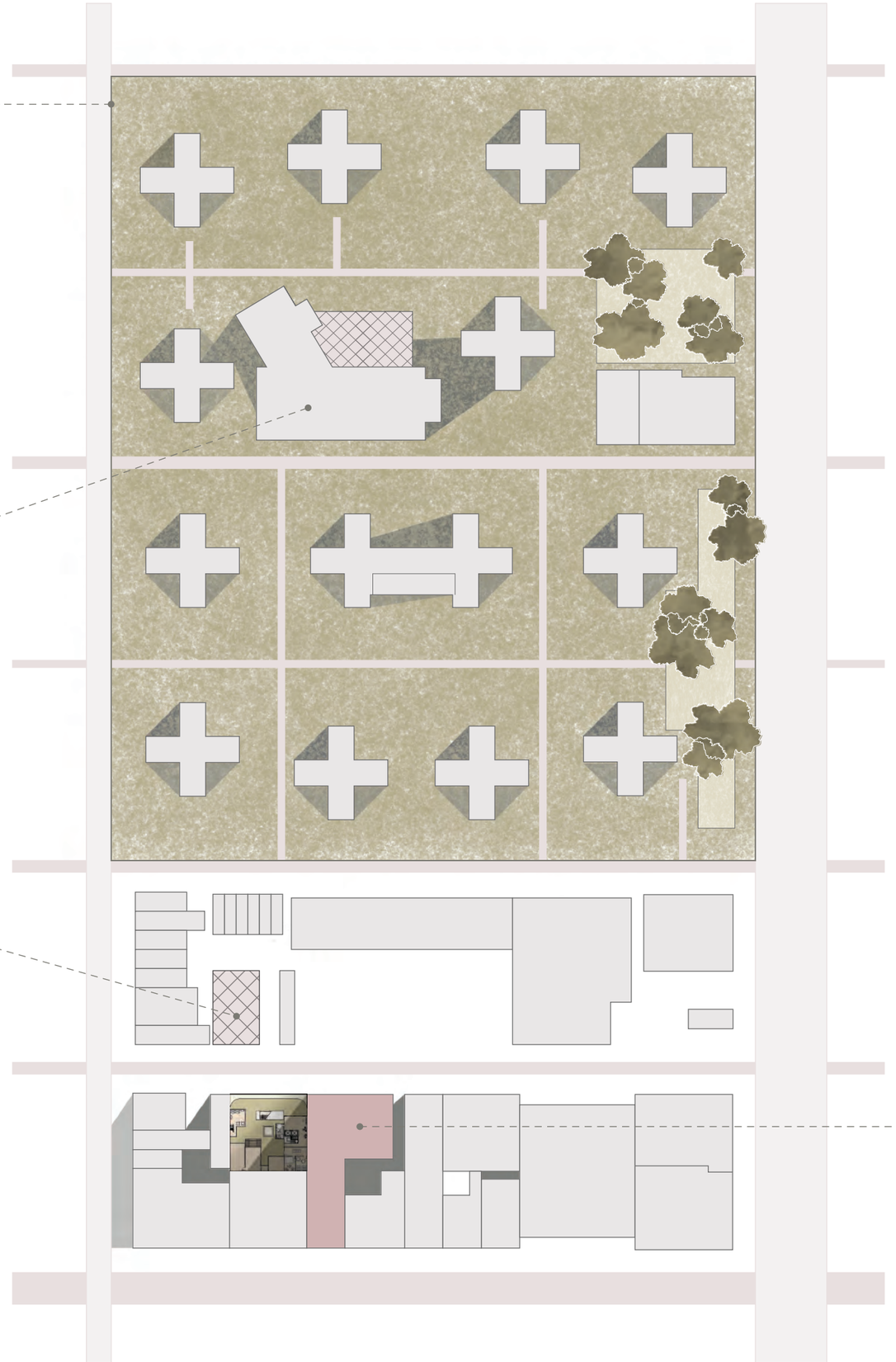
DISAPPEARING POCKETS
DEMOLISHED PARKS

Playground in St. Nicholas Houses

Demolished in 2011 to make way for the Promise Academy Charter School, completed in 2013. Residents challenged the city for prioritizing the potential impact of the charter school over the community's access to green space.

Nelson Mandela Community Garden

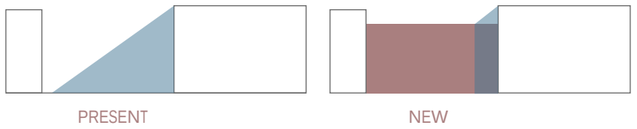
Stylized as the only Wildflower Meadow in NYC, the space has been booked for further construction of affordable housing. Having sat vacant for 30 years before the community garden's founding, the site was an attraction for crime before tranformation by the community.



CUTURAL STRONGHOLD
APOLLO THEATER

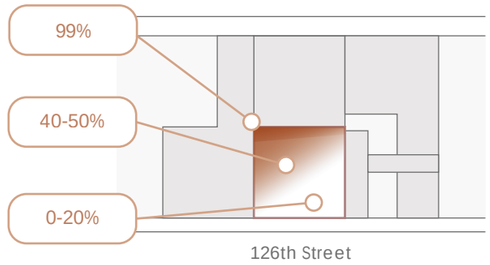
ENVIRONMENT ANALYSIS

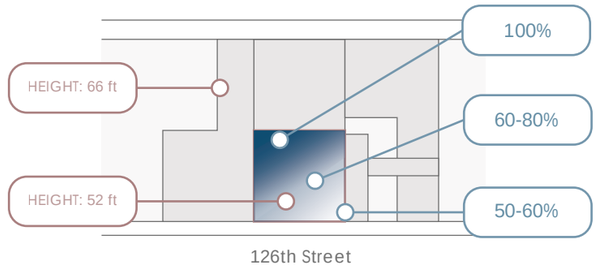
In an effort to bring back public and accessible green space, analysis was conducted to increase exposures of the lawn to sunlight.



THE HARLEM NEXUS
THE PEOPLE'S NEXUS

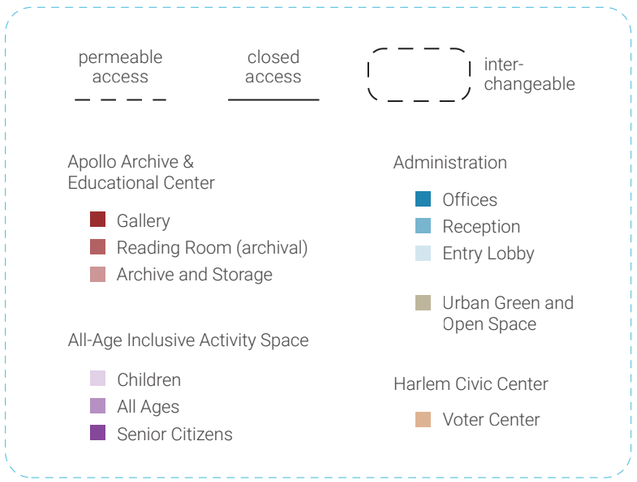
SUMMER AND WINTER
% OF DAY IN SHADOW

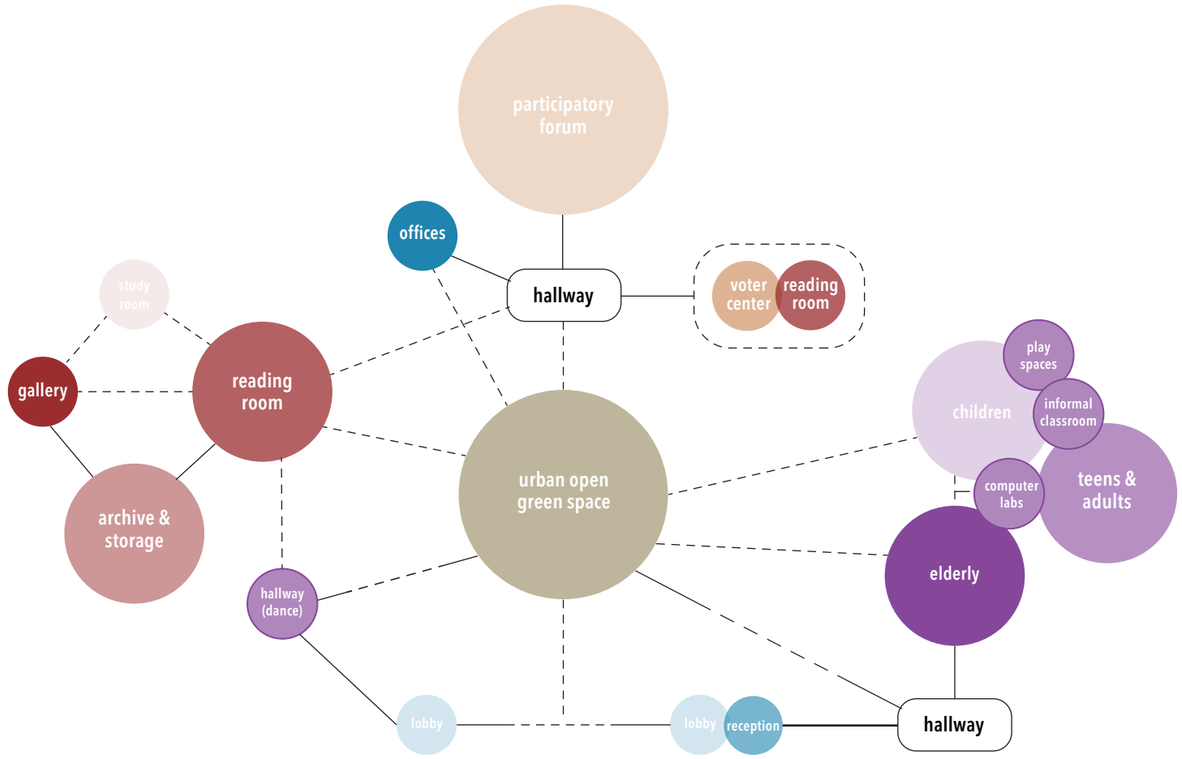




PROGRAM DIAGRAM

In order to optimize ease of access and usage of the site's programs, the spaces have been diagrammed to show the site's conceptual organization.



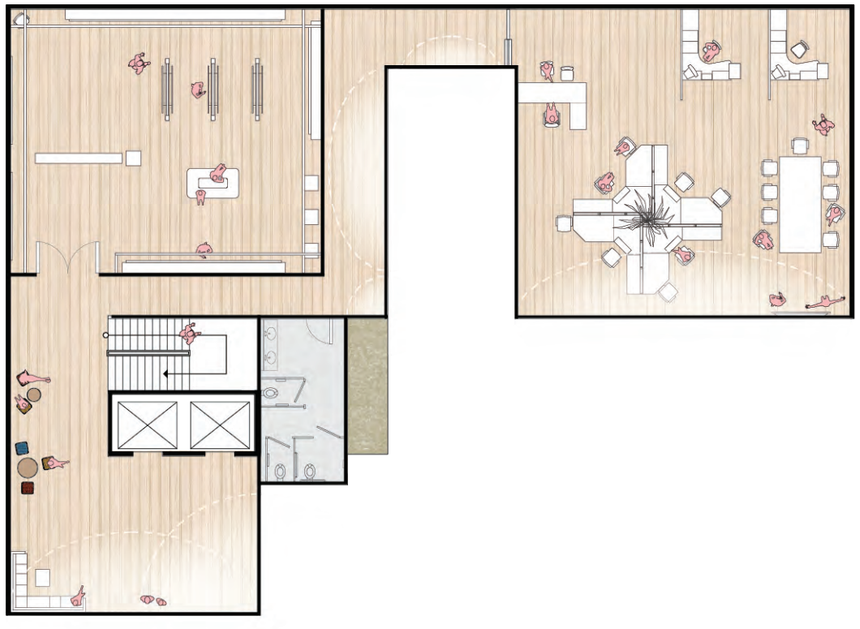


1ST FLOOR

2ND FLOOR

3RD FLOOR

4TH FLOOR



GROUND: PUBLIC GATHERING

8AM-4PM

Nursery Room 1
for ages 2-4 years old

Nursery Room 2
for ages 4-6 years old

4PM-8PM

Nursery Room
for ages 2-6 years old

Children's Activity Room
for ages 7-12 years old

8AM-8PM

Activity Classroom
for workshops, informal lectures, and reading space when not in use

FLEX

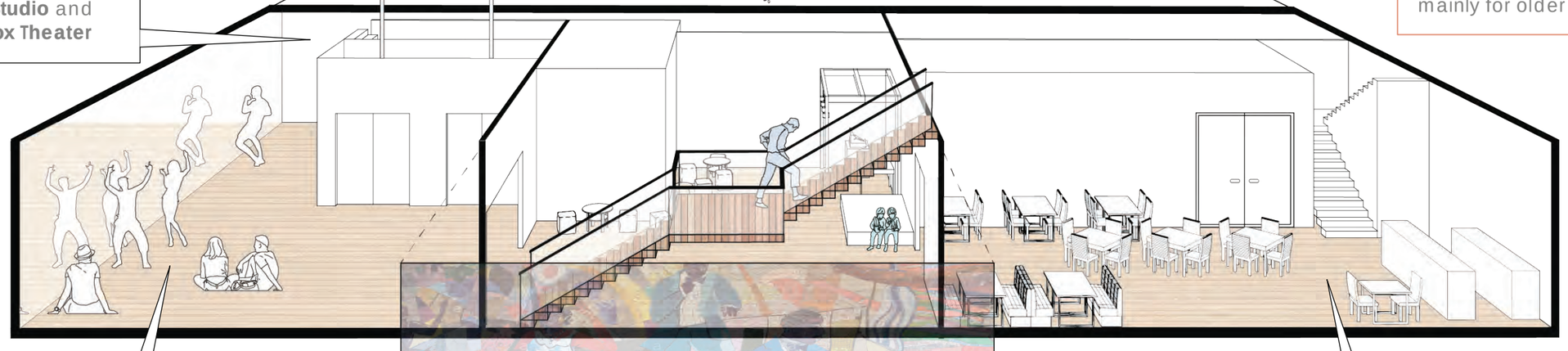
Moving Walls
for flexible use of space

Center Room
for intergenerational use

8AM-10PM

Sitting Lounge
mainly for older adults

Dance Studio and **Black Box Theater**



FLEX

Dance Hallway for casual gathering and practicing

Central Atrium for casual gathering and events

FLEX

Cafe for casual gathering (tutoring, volunteer, waiting, etc.)

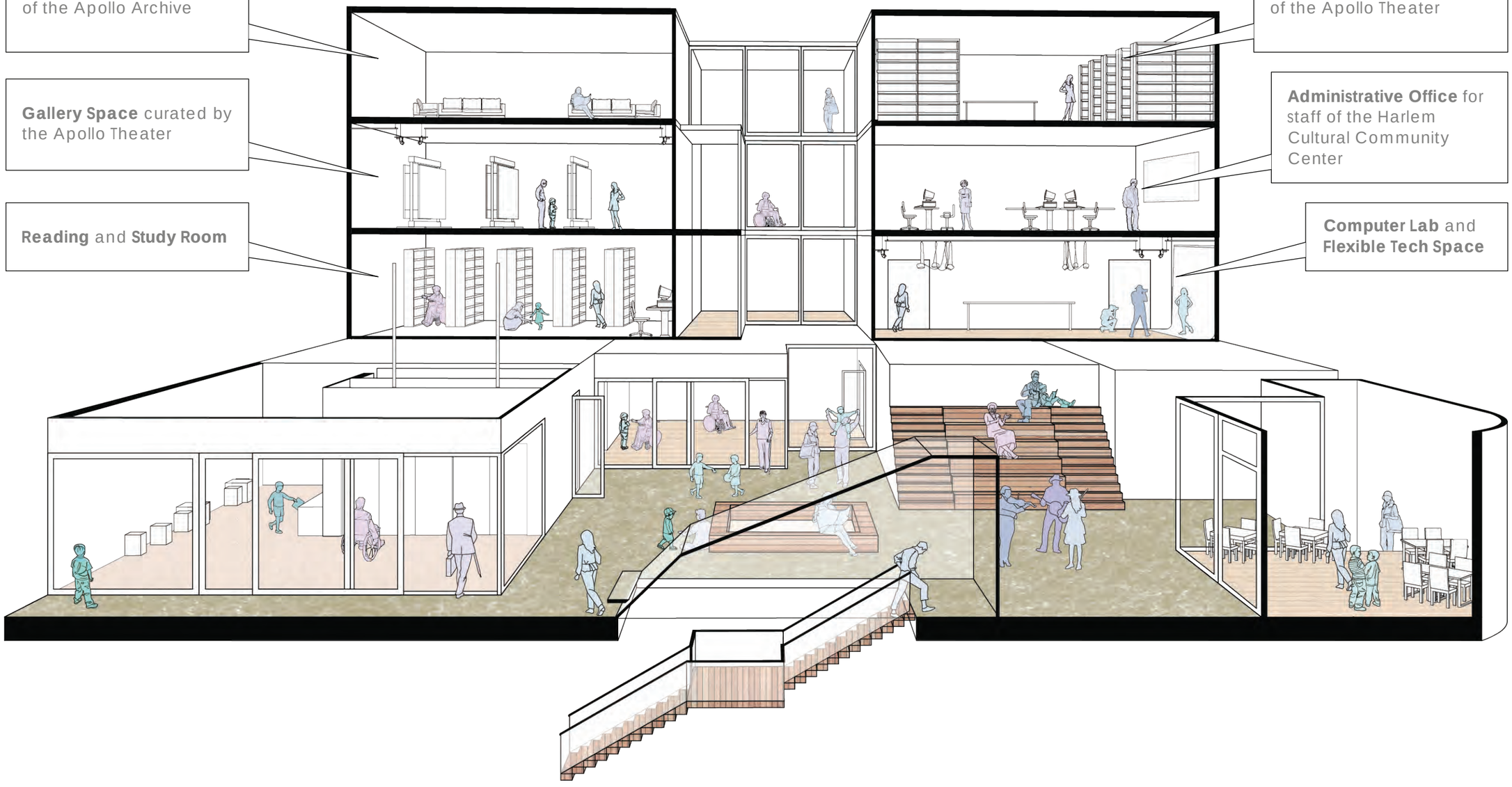
LAWN: INTER-GENERATIONAL

11:00AM
SAT

Reading Lounge for visitors of the Apollo Archive

Gallery Space curated by the Apollo Theater

Reading and **Study Room**



Archival Room for materials of the Apollo Theater

Administrative Office for staff of the Harlem Cultural Community Center

Computer Lab and **Flexible Tech Space**

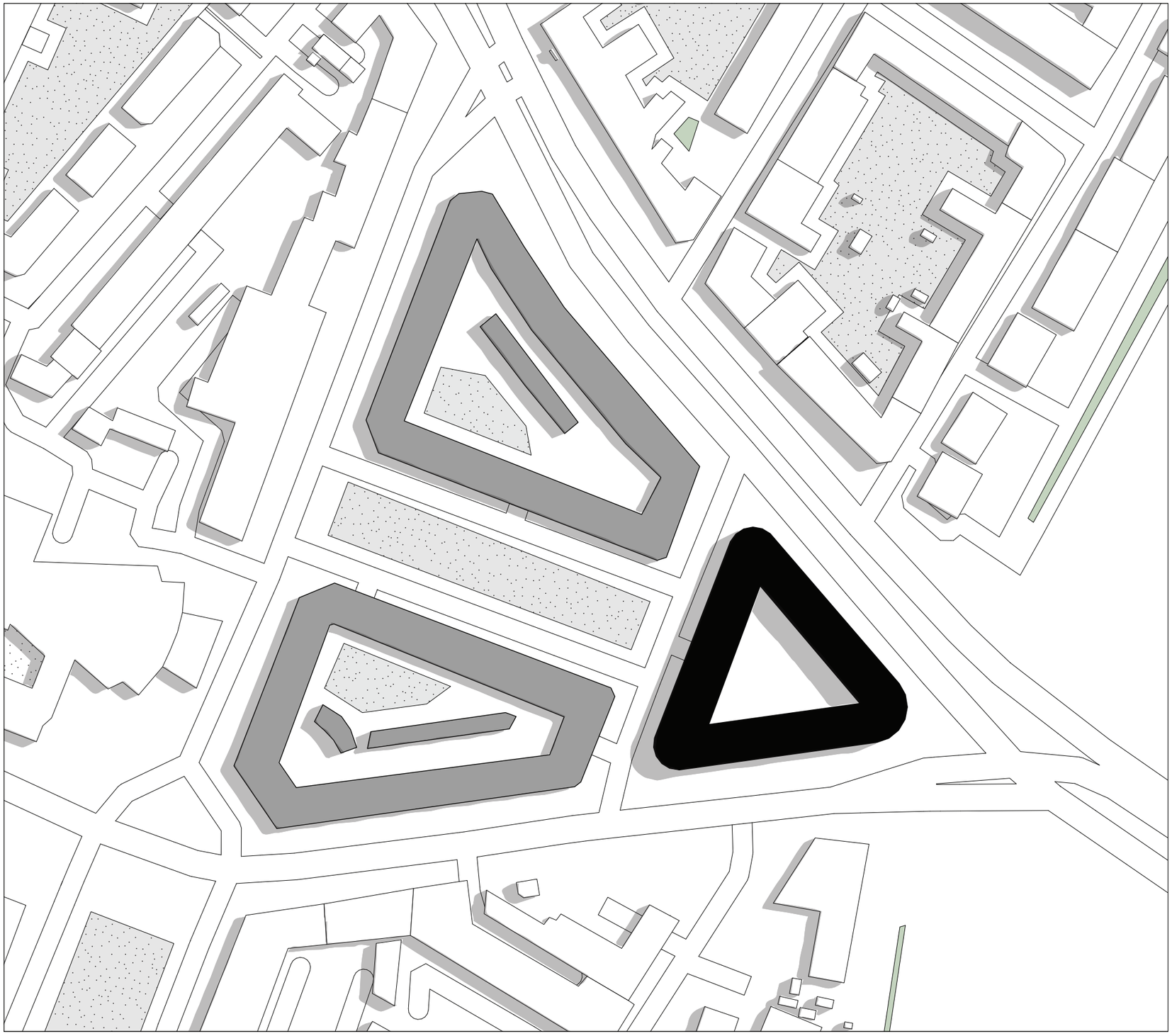
CHILDREN TEENS ADULTS ELDERS

FUTURE STRATEGIES

LOCATION	Rosenørns allé, Kleinsgade
PROJECT	*Trekanten* (”The Triangle”)
SIZE (ft²)	3102.36
ARCHITECT	Kay Fisker
YEAR	1930-33

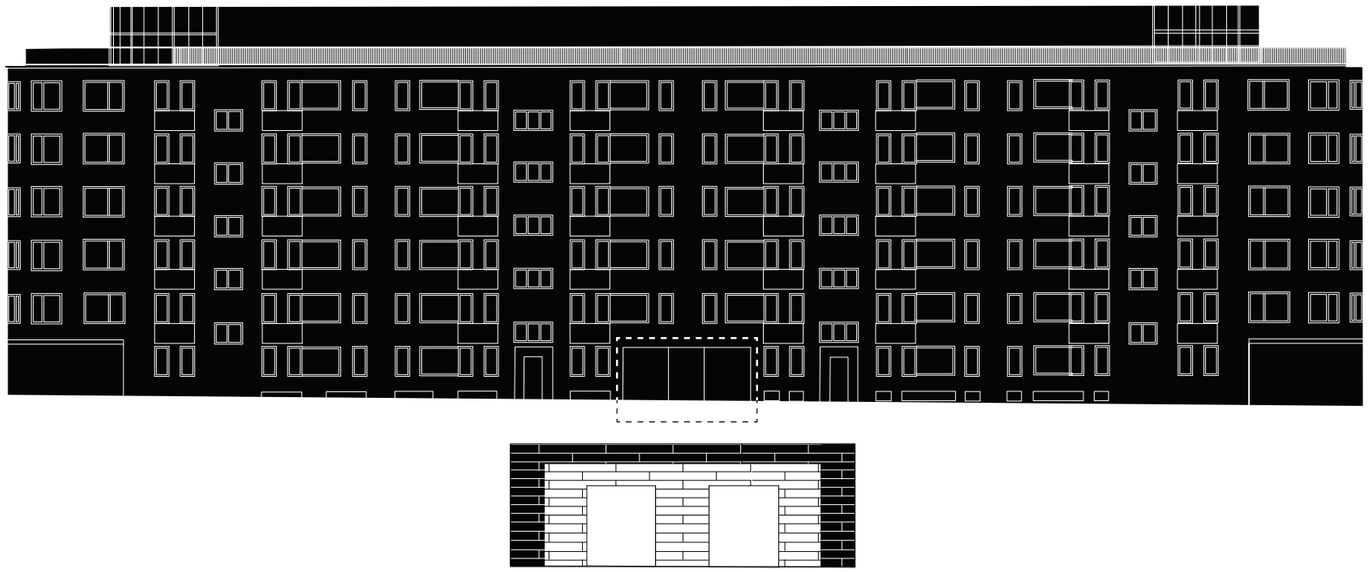
Kay Fisker’s ideals of functionality emphasize and strive to compliment the human lifestyle and efficiency. But the *Trekanten* (Kleinsgade Housing), completed in 1930, is an interesting mixture of both private and public space: the ground space of this triangular complex is largely reserved for retail space, resulting in a spatial conflict between private and public ownership.

Future Strategies analyzes Kay Fisker’s idealogy and how it manifests in his works. Possible changes to the project are made based on research of current site conditions and main usages.

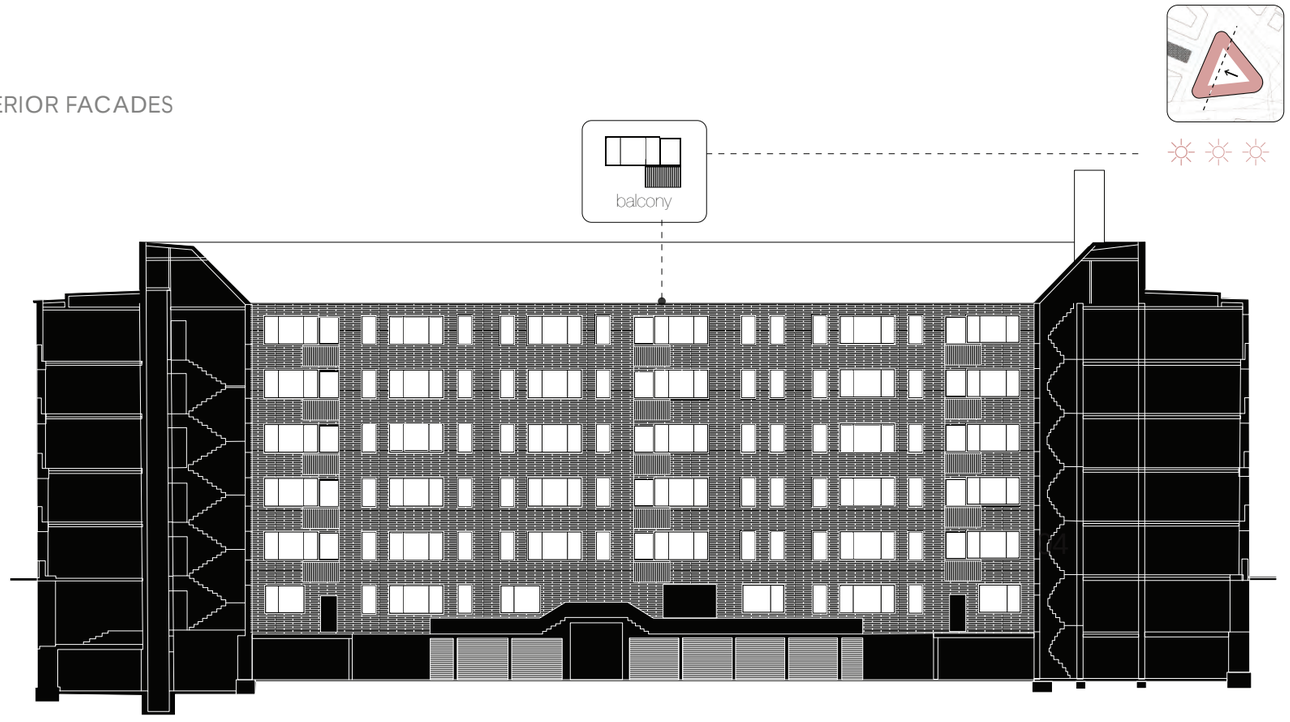


Spring 2020 | Detailing and Sustainability in Scandinavian Architecture | Instructor: Angela Gigliotti, Fabio Gigone

EXTERIOR FACADES



INTERIOR FACADES



ANALYSIS

One can observe Kay Fisker's ideals of funtionality through the existing facades:

(1) there is no view to admire from the interior, and so the windows and balconies on the interior facades are noticeably smaller and fewer in number.

It should be noted that two of the facades are offered as public spaces, with store-fronts on the ground floor. The west-facing facade of the building is the entrance to the private residences, and so:

(2) differently colored bricks also help to separate the public and private spheres, such as the sunken doors that are marked out by pale yellow bricks.

LEGEND

Brick

Glass

Fencing

Shutters

SECTION

0 5m 10m

PROPOSAL

The inner courtyard, which is traditionally a fairly private space, is instead overtaken by an underground garage that belongs to the retail businesses in the complex.

The addition mainly aims to provide more vegetation in a rather cramped site, as well as replace empty concrete paving with something much more servicable to the residents.

This addition to the existing courtyard will elevate a communal walkway above the garage, where residents can relax with a green addition to their community. This also connects the Trekanten to another two nearby Kay Fisker buidlings that green spaces of their own.

LEGEND

1 Wood
2 Concrete
3 Soil
4 Vegetation
5 Steel
6 Separation fabric
7 Draining material
8 Insulation layer
9 Moisture barrier

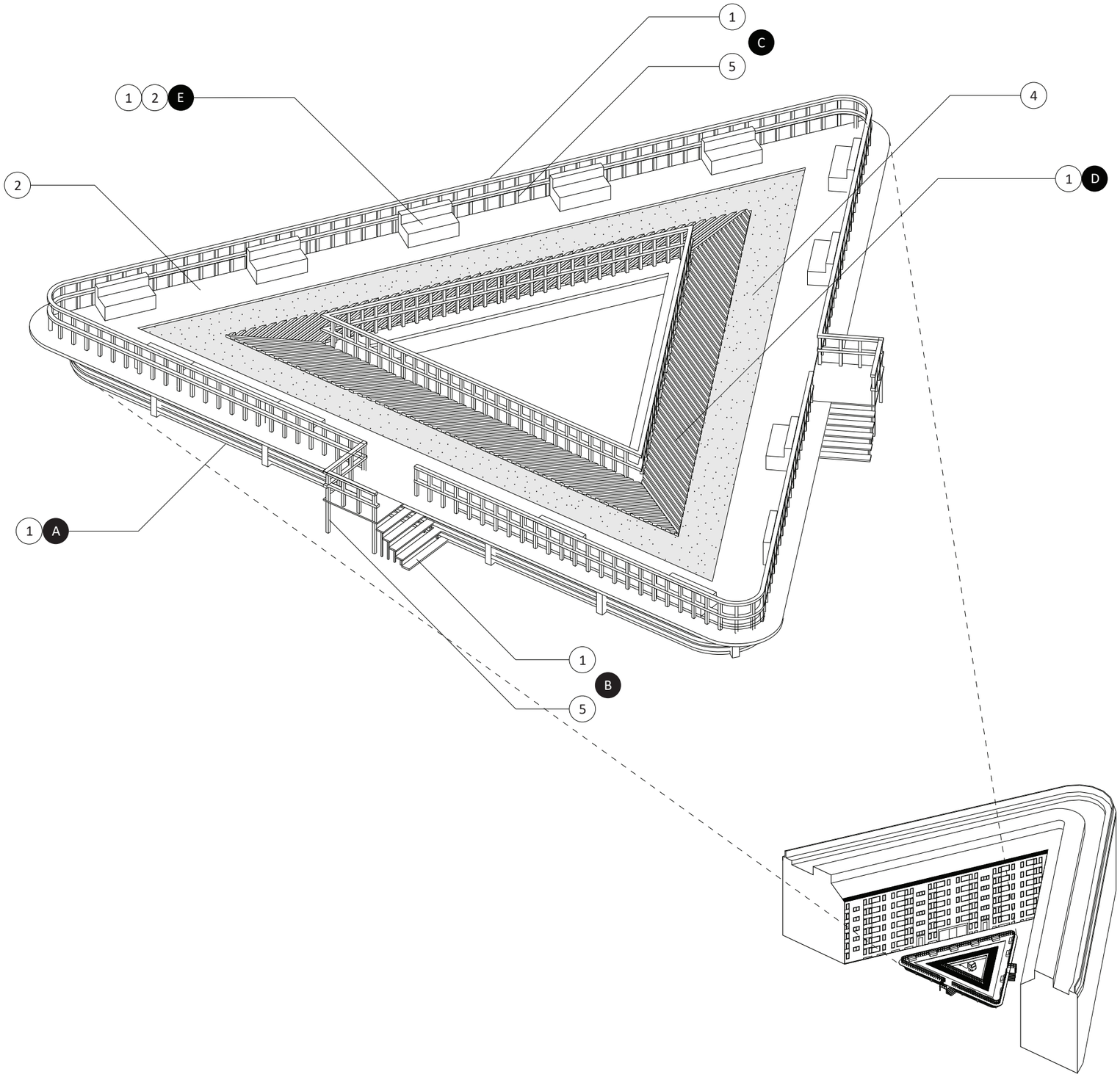
A Cladding
B Staircase
C Railing
D Decking
E Seating
F Light fixtures
G Hanging potters
H Irrigation

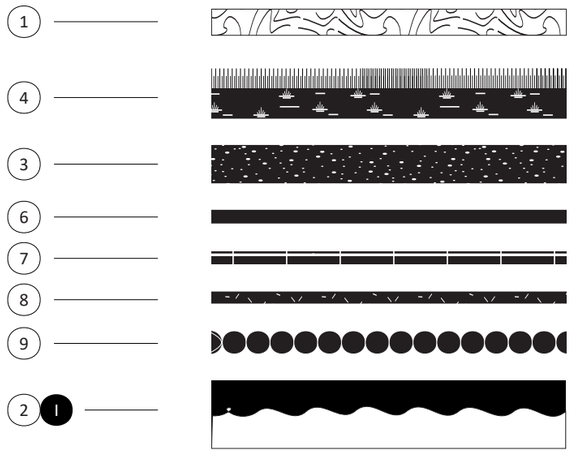
KEY MAP

AXONOMETRIC
1:350

0 1m 2m 5m

N





The most important element to be added through the walkway is the middle lane of vegetation, acting as a manner of green roofing. There are many benefits to green roofing, and many of them would suit the use of Kleinsgade Housing.

The existing roof has an inward slope that diverts rainwater away from pedestrains, but inwards to the inner courtyard, often creating irritating puddles of water. This makes the water management capabilities of green roofing a practical addition to the site. The additional greenery also helps reduce heat load from the sun, and will improve comfort within the courtyard.

LEGEND

1 Wood
2 Concrete
3 Soil
4 Vegetation
5 Steel
6 Separation fabric
7 Draining material
8 Insulation layer
9 Moisture barrier

A Cladding
B Staircase
C Railing
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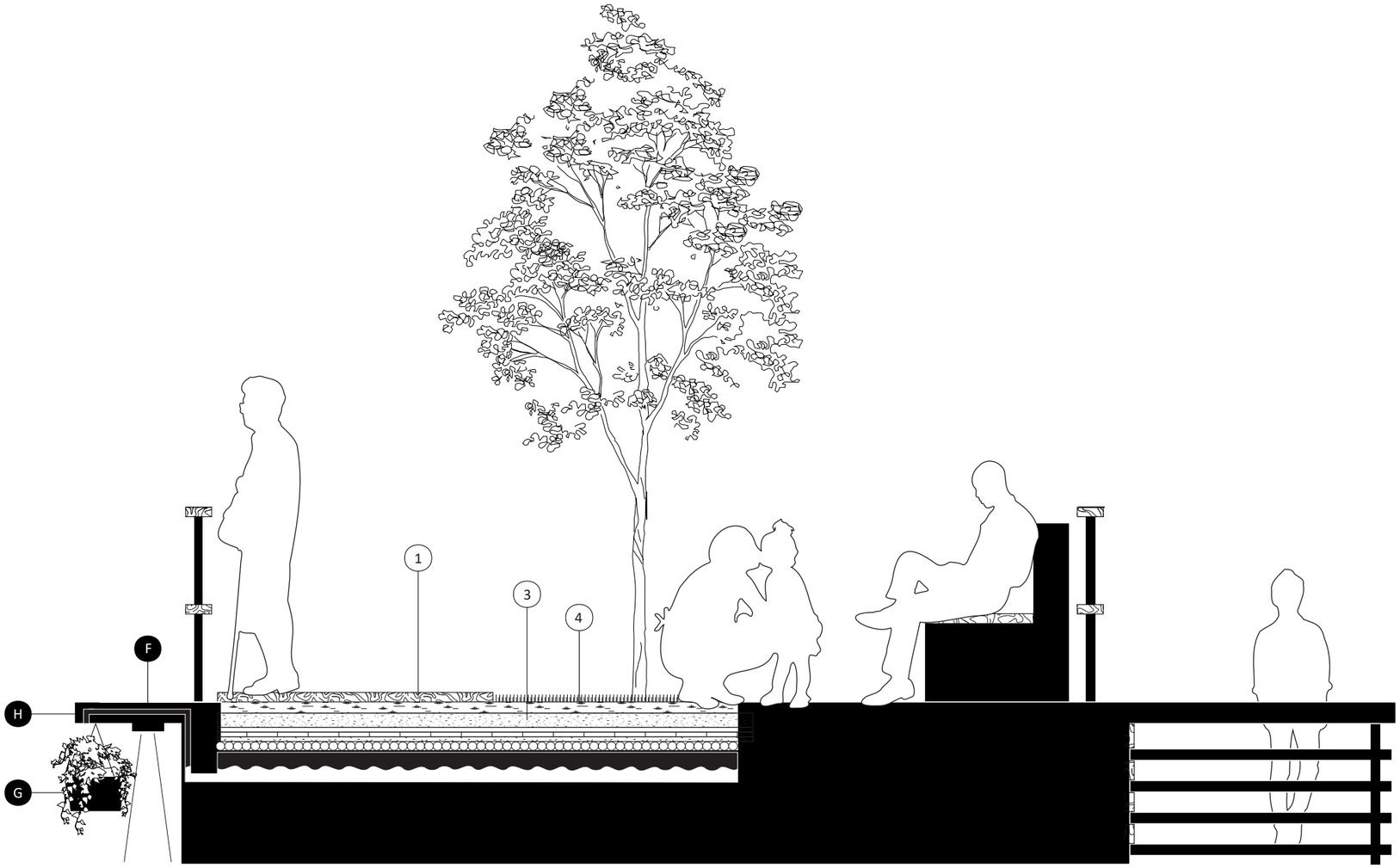


SECTIONAL CUT
1:250

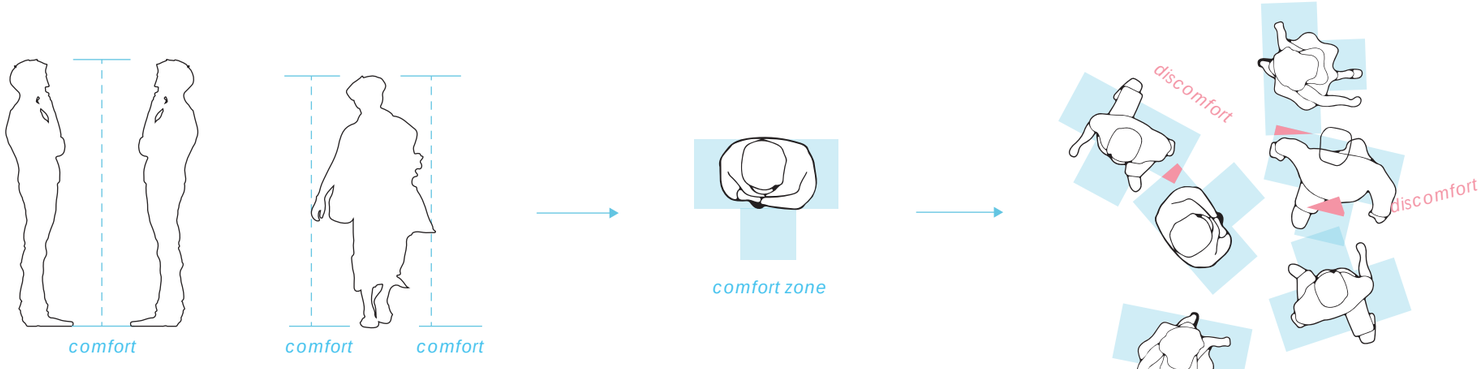
0 1m 2m 5m

ABSTRACTING THE SOCIAL SYSTEM

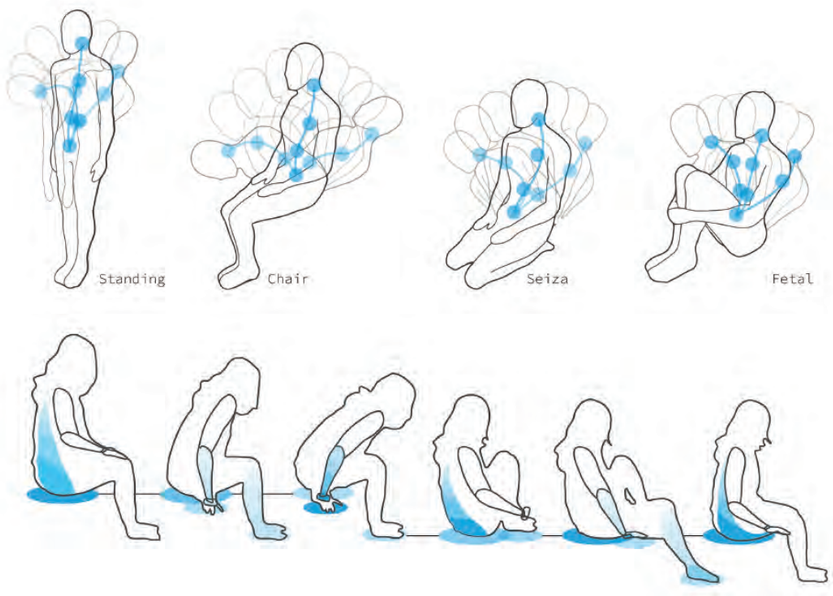
The project analyzes and abstracts a social system, creating a form that is both inspired by and responds to the material world and its inhabitants.

EXPLORATION OF THE HUMAN FORM

moving action (walking, running...)



stationary action (standing, sitting...)



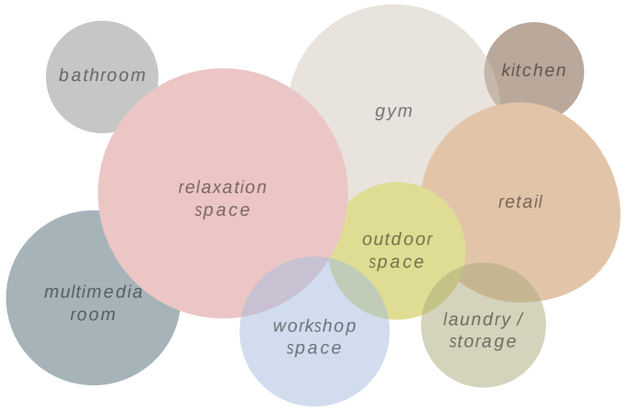
FC HARLEM SOCCER AN URBAN CAMPUS

The project reimagines a safe space for FC Harlem, an organization that has dedicated itself to creating more opportunities for Black and Latino youth from Harlem.

Branching off the activity of soccer, and devoted to the individuals while cultivating a supportive community, the site accomodates for the lack of resources in other paths of interest.

COLLABORATIVE WORK | WORKSHOP & CLASS

Which spaces are you most excited about?

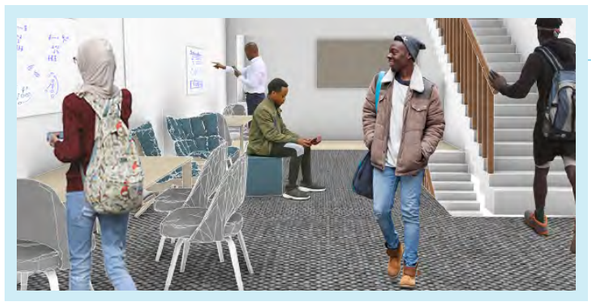


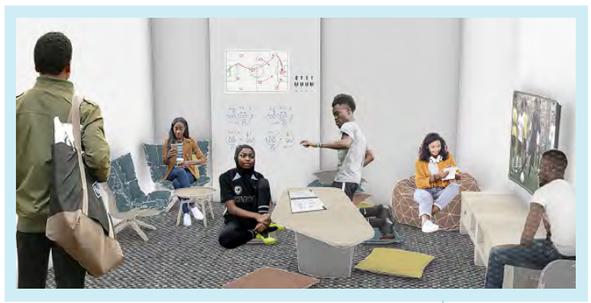
(polling activity with students)

(visual mock-ups for students)

INDIVIDUAL | PUBLIC GATHERING (2F)

(final visual proposals)





Spring 2021| Advanced Architecture Research and Design | Instructor: Karen Fairbanks

KOWLOON EAST: AN INCLUSIVE GROWTH

MIT Hong Kong Innovation Node

Team: Sunnie Lau, Rosalia Leung,
Ellena Wong, Shannon Hui

Kowloon East is Hong Kong's poorest and most densely populated district. It is undergoing a transition towards becoming the second CBD (Central Business District). However, there are a set of socio-economic challenges faced by underprivileged individuals for this urban regeneration process.

The team has produced interactive, AR models to demonstrate scenarios that would support a more equitable development in Hong Kong's Kwun Tong / Kowloon East area.

Scan!

INTERACTIVE AR MODELS *(Rhino 3D + SketchUp + Glitch Hub)*

The project harnesses an AR experience without the need to download an app - users can simply scan informational post cards with a phone camera.

Models can be accessed by clicking the links below, or by scanning the accompanying QR Code + Post Card on pg. 25)

Click hyperlinks!

ROOM SCALE x 2

+ Co-Working Office for Small- and Medium- Enterprises
+ Work-From-Home Space for Low-Income Mothers

BUILDING SCALE x 3

+ Multi-Functional Office Building: Retail and Dining (F&B)
+ Multi-Functional Office Building: Co-Working Space
+ Multi-Functional Office Building: Flexible Event Space

CITY SCALE x 1

+ People-Centric & Work-Life Balanced CBD