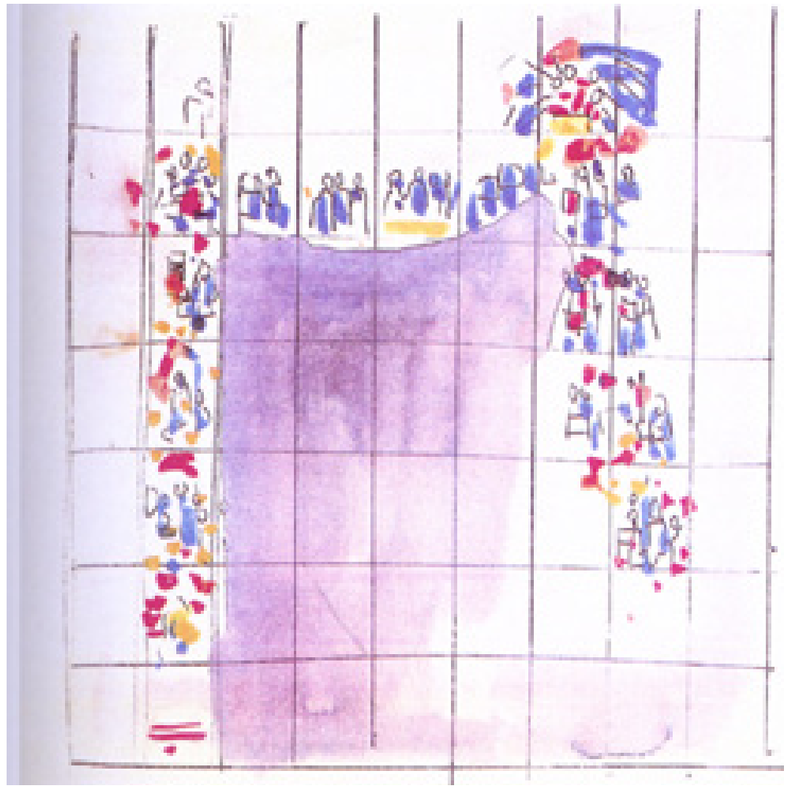
URBAN PLAYGROUND:

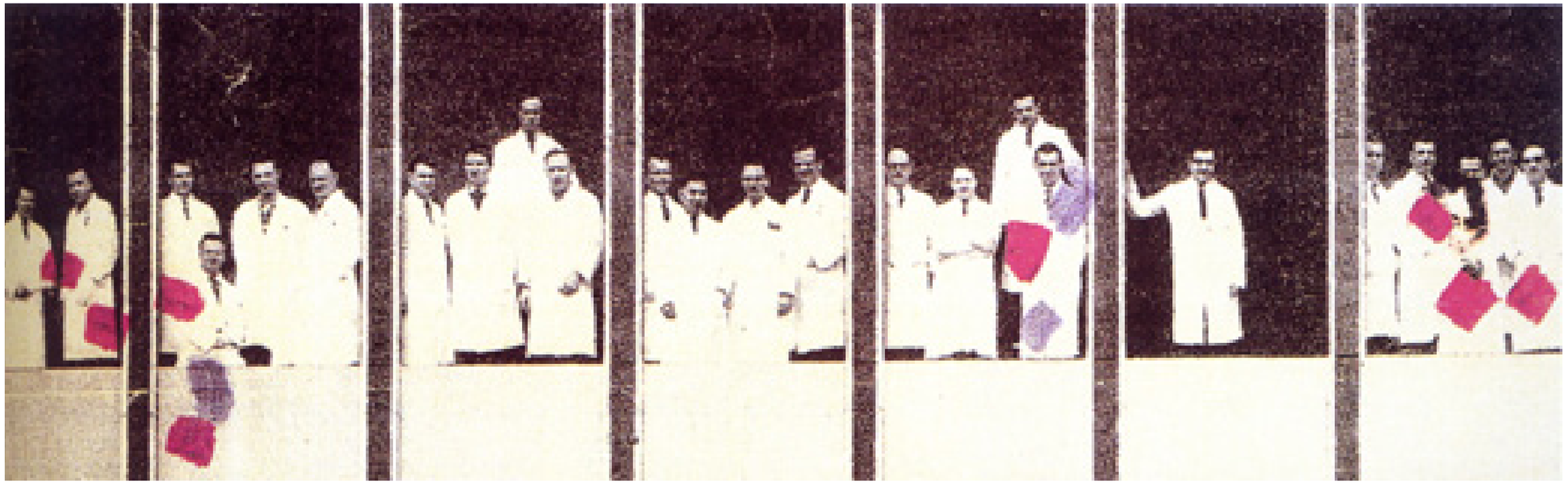
A CONCEPT FOR THE URBAN SCHOOL

JACQUELINE TWARDOWSKI

CONTENTS

The Urban Condition is a construction of
Rhythm, Nostalgia, and Mysticism.





Rhythm is derived from Motion and Progression.

(color)

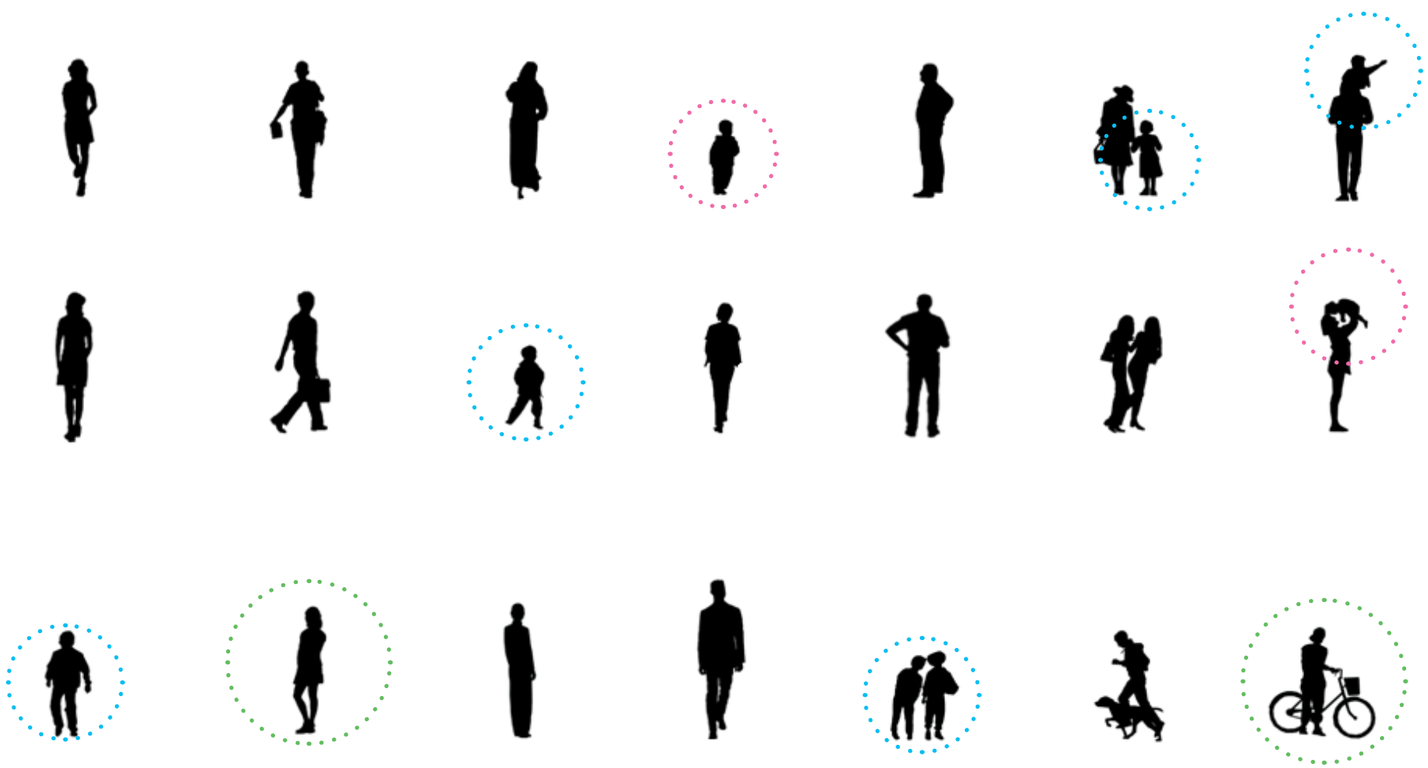
Nostalgia encompasses Memory
and Nature.

(culture; layer ; texture)

Mysticism engulfs the Sensory
in the City.

(threshold; light)

1. Urban
2. Neighborhood
3. INDIVIDUAL



I firmly believe that there is need for schools which are scaled both in concept and in size to young people who will be using them and who, I hope, will grow as individualists.
-from letter written by Bertrand Goldberg, July 1962

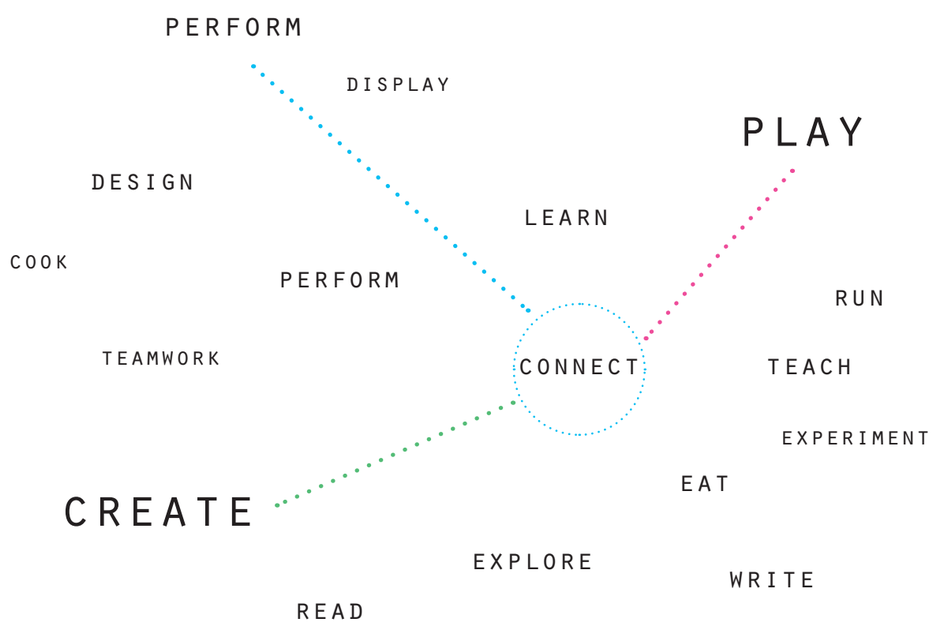
MENTAL MAP OF A 12 YEAR OLD GIRL

ZONE A

ZONE B

ZONE C

EXERCISE
READ
PAINT
PERFORM
PLAY
EAT


PERFORM
DISPLAY
PLAY
DESIGN
LEARN
COOK
PERFORM
RUN
TEAMWORK
CONNECT
TEACH
EXPERIMENT
EAT
CREATE
EXPLORE
WRITE
READ

Mode Gakuen Cocoon Tower

Project Name:	Mode Gakuen Cocoon Tower
Location:	Tokyo, Japan
Use:	Vocational School
Building Scale:	50 Stories
Structure:	Steel
Design Year:	2005
Completion Year:	2008
Architect:	Tange
Structural Engineer:	Arup
Client:	Mode Gakuen

Description:

Mode Gakuen Cocoon Tower is an innovative educational facility located in Tokyo's distinctive Nishi-Shinjuku high-rise district. Completed in October 2008, the 204-meter (669 ft) 50-story tower is the second-tallest educational building in the world. The building's elliptic shape, wrapped in a criss-cross web of diagonal lines, embodies the "cocoon" concept developed by Tange Associates. Student occupants are inspired to create, grow and transform while embraced within this cocoon-like, incubating form. In essence, the creative design successfully nurtures students to communicate and think creatively.

Source

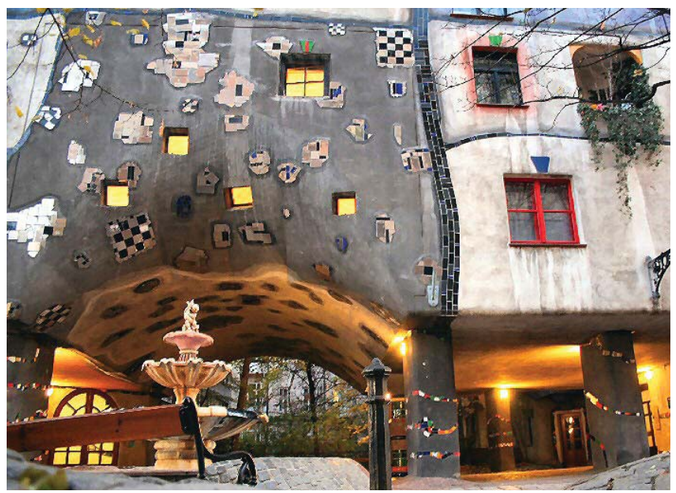
Mode Gakuen Cocoon Tower, Tokyo. CTBUH Journal 2009 Issue 1 pp.16-19

Druk White Lotus School

Project Name:	Druk White Lotus School
Location:	Nagahama, Shiga, Japan
Use:	Nursery School - 8th Grade
Building Scale:	1 story
Structure:	Wood
Design Year:	1997
Completion Year:	2009
Architect:	Arup
Client:	Drukpa Trust
Description:	The Drukpa Trust's intent to develop a model sustainable school was ambitious, not only in terms of 'hardware'—energy, site infrastructure, buildings, material resource use—but also in 'soft' skills like building up the local project management team, establishing a cost database, and in optimizing the use of local resources. The whole project is intended to demonstrate a new approach to teaching in such an unique rural community. It was also clear that the school could have a wide influence, contributing to the development of appropriate building technologies elsewhere in the world.
Source	Brian Carter - School of Architecture and Planning, Buffalo, New York : Buffalo Books, 2006.

Hundertwasser House

Project Name:	Hundertwasser House
Location:	Vienna, Austria
Use:	Residential
Building Scale:	5 Stories
Design Year:	1983
Completion Year:	1986
Architect:	Friedensreich Hundertwasser
Description:	The house was built between 1983 and 1986 by architects Univ.-Prof. Joseph Krawina and Peter Pelikan. It features undulating floors (“an uneven floor is a melody to the feet”), a roof covered with earth and grass, and large trees growing from inside the rooms, with limbs extending from windows At a 1980 press conference with the mayor of Vienna, Hundertwasser stated: “Man has three skins: his own, his clothing, and his dwelling. All three skins must continually change, be renewed, steadily grow and incessantly change or the organism will die. When the resident moves in, his creative building activity must begin; it must not be finsished when he moves in.”
Case Statement	A house in harmony with nature
Source	Malnar, Joy Monice., and Frank Vodvarka. Sensory Design. Minneapolis: University of Minnesota, 2004.



MV Lomonosov State University

Project Name:	MV Lomonosov State University
Location:	Moscow, Russia
Use:	Education
Building Scale:	39 Stories
Structure:	Steel
Design Year:	1949
Completion Year:	1953
Architect:	Lev Vladimirovitch Rudnev
Structural Engineer:	Nikolai Vasilyevich Nikitin

Description:

The main building was designed by architect Lev Vladimirovich Rudnev. In the post-war era, Joseph Stalin ordered seven huge tiered neoclassic towers to be built around the city. The MSU Main building is by far the largest of these. It was the tallest building in the world outside of New York City at the time of its construction, and remained the tallest building in Europe until 1990. The central tower is 240 m tall, 36 stories high, and flanked by four huge wings of student and faculty accommodations. It is said to contain a total of 33 kilometers of corridors and 5,000 rooms.

Facilities available inside the building include a concert hall, a theater, a museum, various administrative services, a library, a swimming pool, a police station, a post office, a laundry, a hairdresser's salon, several canteens, bank offices and ATMs, shops, cafeterias, a bomb shelter, etc.

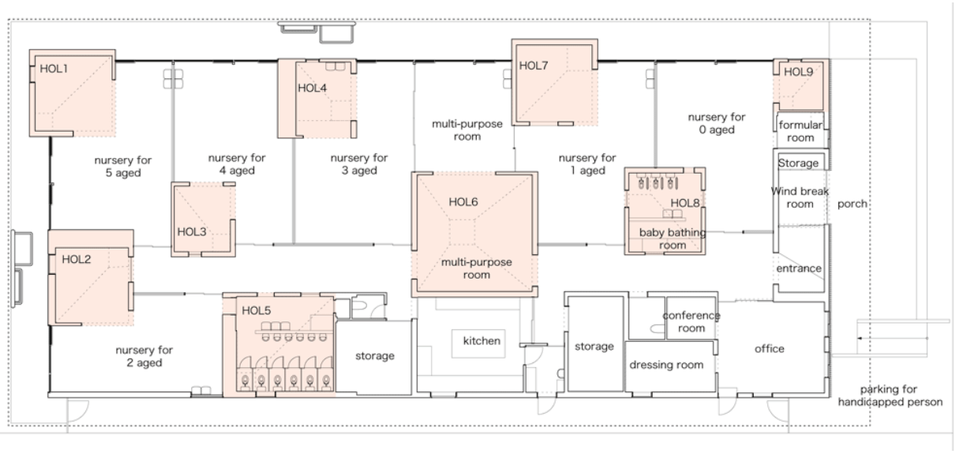
Source

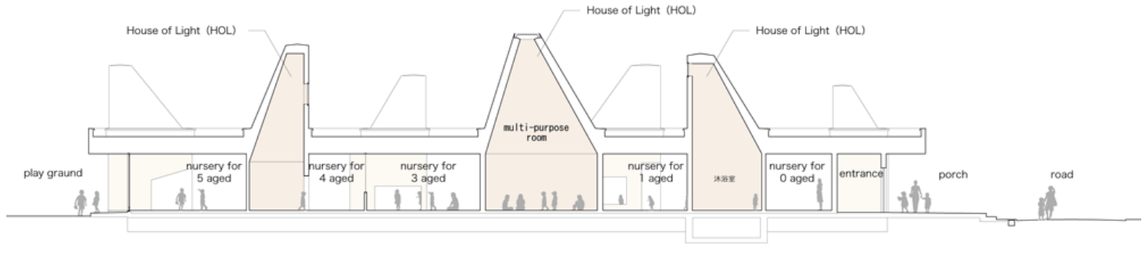
"History of Moscow University." Moscow University. Web. 18 Sept. 2011. <http://www.msu.ru/en/info/history.html>.

House of Light

Project Name:	Leimond-Nagahama Nursery School
Location:	Nagahama, Shiga, Japan
Use:	Nursery School
Site Area:	5625.4 m² (60551.3 ft²)
Building Area:	691.0 m² (7437.8 ft²)
Gross Floor Area:	600.7 m² (6466.2 ft²)
Building Scale:	1 story
Structure:	Steel
Maximum Height:	9.1 m(29.7 ft)
Design Year:	2010
Completion Year:	2011
Architect:	Hirotani Yoshihiro and Ishida Yusaku / Archivision Hirotani Studio
Client:	Social Welfare Corporation Lemonkai
Structural Engineers:	Umezawa structural engineers
Mechanical Engineers:	Azu planning
General Contractors:	K.K.Okuda Koumuten
Source:	Archivision. Web. 18 Sept. 2011. <www.archivision-hs.co.jp>.

PLAY
LEARN
PREP
COMMON





PSYCHOLOGY

COLOR
LIGHT
DAYLIGHT

SCALE

ROOM RELATIONSHIP
THRESHOLD
LAYER OF SPACE

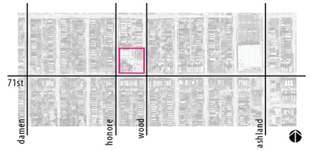
ERGONOMICS

PROPORTION
HEIGHTS
FURNITURE
MATERIALS

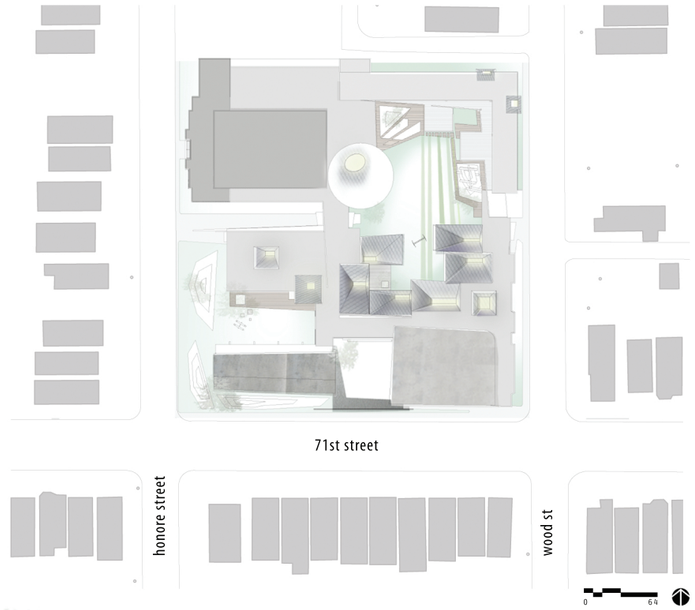
TEXTURE

Verb:
Give (a surface, esp. of a fabric or wall covering) a rough or raised texture:
Noun:
The feel, appearance, or consistency of a surface or a substance
Synonyms:
fabric - structure - tissue

Texture within the project is enhanced not only through the physical use of materials but also through the volumes of interior spaces as visible from the exterior. The site develops a unique identity in the neighborhood through the variation in roof scape.

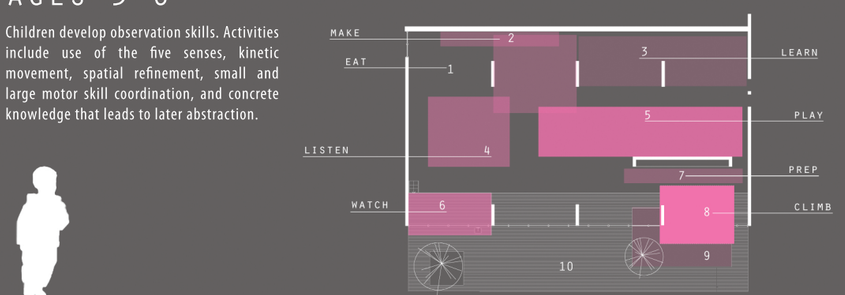


Englewood, Chicago, IL



AGES 3-6

Children develop observation skills. Activities include use of the five senses, kinetic movement, spatial refinement, small and large motor skill coordination, and concrete knowledge that leads to later abstraction.



LIGHT

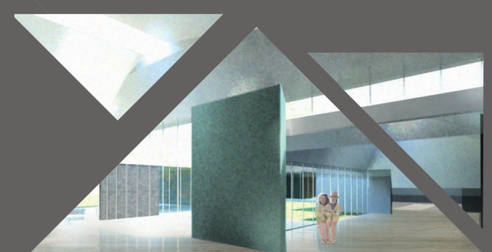
Noun:
The natural agent that stimulates sight and makes things visible
Verb:
Provide with light or lighting; illuminate
Synonyms:
noun. illumination
verb. kindle - ignite

Light plays an integral part in the relationship of space in the school. Apertures in the roof and walls are designed to optimize light depending on the function of the space: learning, reading, and playing. Children about the passage of time as light filters in and plays within the building throughout the day.

SECTION A

AGES 6-9

Though planning groups form occasionally, with the teacher or among the children, the main work is still done by the individual. Just as in the 3-6 class, it is the protected period of concentration and focus, interrupted by scheduled required groups.

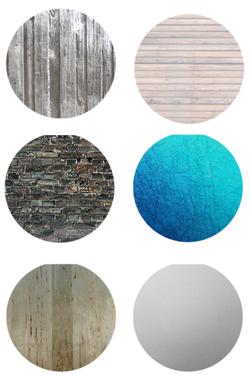


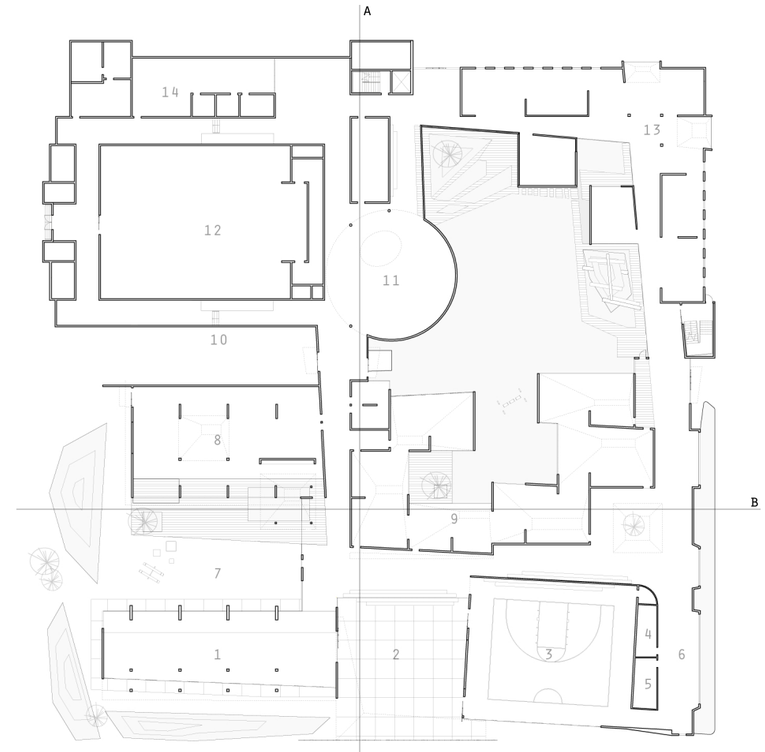
COLOR

Noun:
The property possessed by an object of producing different sensations on the eye as a result of the way it reflects or emits light
Synonyms:
noun. hue - paint - tint - colouring

Color is subtly applied through the use of materials. Perception of space is altered through color filters and perspective in progression through the building. Vivid colors are visible from the interior and exterior of the school to simultaneously illuminate and enliven the community and students.

MATERIAL STUDY





1 library/multipurpose
2 courtyard play area
3 gymnasium
4 girls washroom
5 boys washroom
6 studio
7 little kids playground
8 3-6 classrooms
9 6-9 classrooms
10 community garden
11 cafeteria
12 auditorium
13 9-12 classrooms
14 nurses clinic

SECTION B

AGES 9-12

Children begin to develop their own projects based on personal interests. They continue to work in a collaborative environment developing social and independence skills.

FLIP

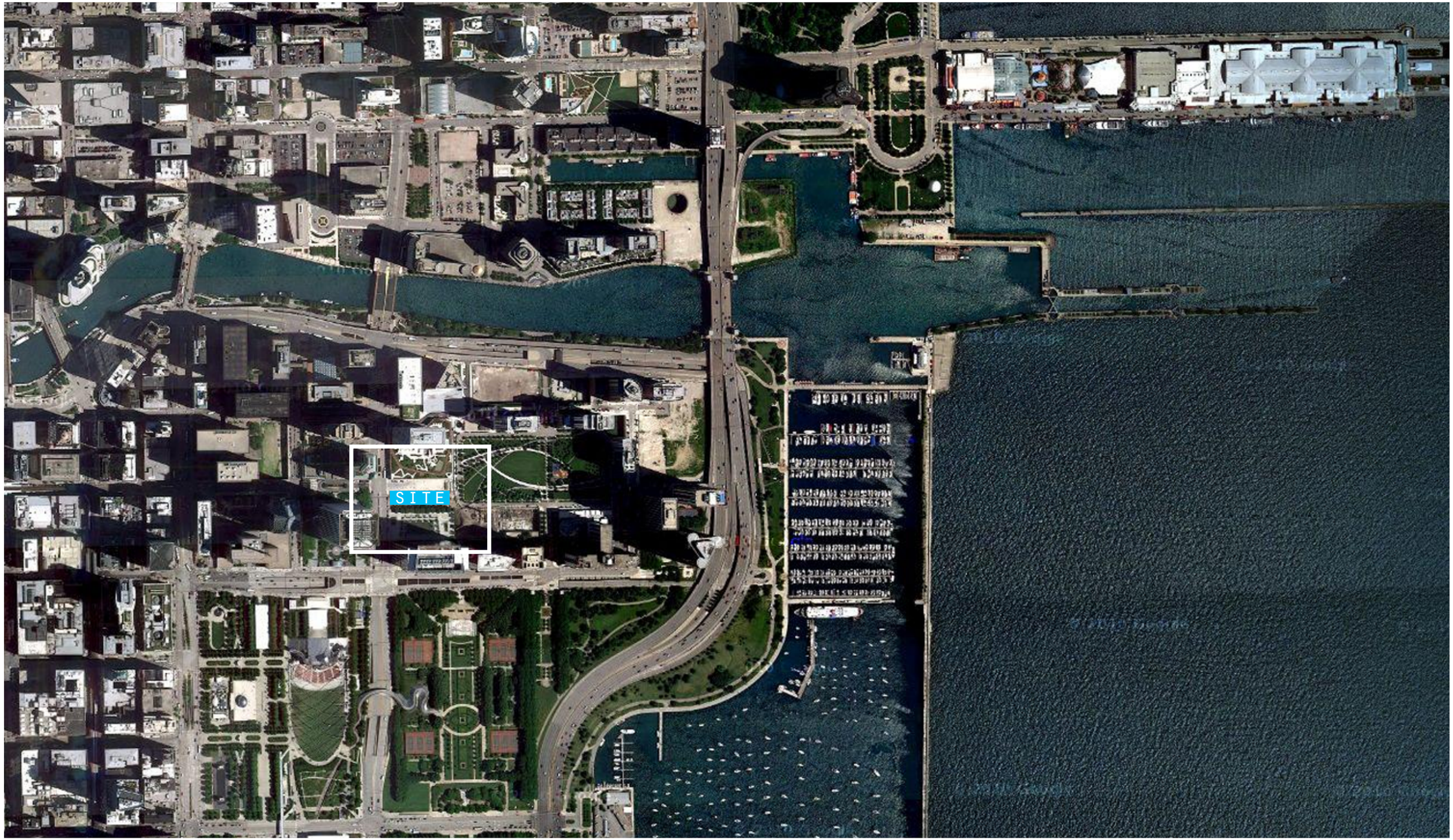
SUBURBAN
OPEN SPACE

URBAN
SPACE LIMITATION

SITE

221-257 N Columbus dr
Chicago, IL

+41° 53’ 8.08”, -87° 37’ 11.90”


SITE

BUILDING CATALOG

1 AQUA TOWER
2 THE TIDES
3 THE SHOREHAM
4 THE LANCASTER
5 The PARKSHORE
6 HARBOR POINT
7 175 N HARBOR DRIVE
8 400 E RANDOLPH
9 BUCKINGHAM PLAZA
10 VILLAGE MARKET CENTER
11 ON THE PARK
12 BLUE CROSS BLUE SHEID

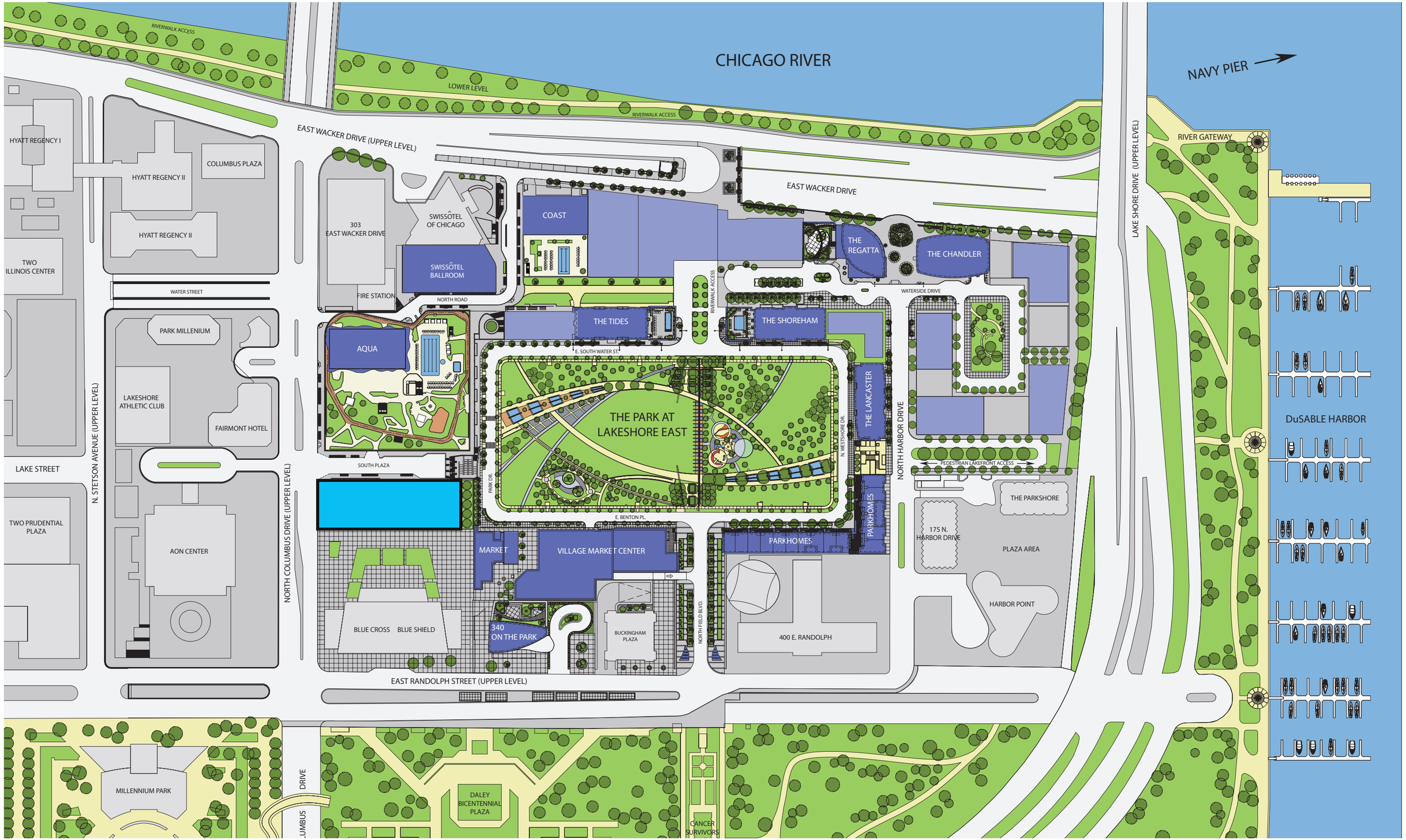
1
2
3
4
5
6
7
8
9
10
11
12

LAKESHORE EAST DEVELOPMENT

The master plan won the 2002 American Institute of Architects National Honor Award for Regional and Urban Design. The park was honored as the Best New Park in Chicago by Chicago Magzine and the city's Best New Open Space by the Friends of Downtown. The master plan, the park and several individual buildings have won numerous other awards.

DEMOGRAPHICS

POPULATION	8450 PEOPLE
POPULATION DENSITY	16838 PEOPLE/SQ MILE
TOTAL HOUSEHOLDS	5152 HOUSEHOLDS
TOTAL FAMILY HOUSEHOLDS	1627 HOUSEHOLDS
AVERAGE HOUSEHOLD SIZE	1.64 PEOPLE/HOUSEHOLD
AVERAGE FAMILY SIZE	2.41 PEOPLE/HOUSEHOLD
AVERAGE RESIDENT AGE	46 YEARS
AVERAGE HOUSEHOLD INCOME	$93,973
COST OF LIVING INDEX	125.9
AVERAGE PROPERTY VALUE	$532,169


CHICAGO RIVER
RIVERWALK ACCESS
LOWER LEVEL
RIVERWALK ACCESS
NAVY PIER
EAST WACKER DRIVE (UPPER LEVEL)
EAST WACKER DRIVE
LAKE SHORE DRIVE (UPPER LEVEL)
RIVER GATEWAY
HYATT REGENCY I
HYATT REGENCY II
COLUMBUS PLAZA
HYATT REGENCY II
303 EAST WACKER DRIVE
SWISSÔTEL OF CHICAGO
SWISSÔTEL BALLROOM
COAST
THE REGATTA
THE CHANDLER
TWO ILLINOIS CENTER
WATER STREET
FIRE STATION
NORTH ROAD
RIVERWALK ACCESS
WATERSIDE DRIVE
PARK MILLENNIUM
AQUA
THE TIDES
THE SHOREHAM
E. SOUTH WATER ST.
THE PARK AT LAKESHORE EAST
THE LANCASTER
N. WESTSHORE DR.
NORTH HARBOR DRIVE
LAKESHORE ATHLETIC CLUB
FAIRMONT HOTEL
PEDESTRIAN LAKEFRONT ACCESS
DuSABLE HARBOR
LAKE STREET
N. STETSON AVENUE (UPPER LEVEL)
SOUTH PLAZA
PARK DR.
THE PARKSHORE
TWO PRUDENTIAL PLAZA
AON CENTER
NORTH COLUMBUS DRIVE (UPPER LEVEL)
E. BENTON PL.
PARKHOMES
PARKHOMES
175 N. HARBOR DRIVE
PLAZA AREA
MARKET
VILLAGE MARKET CENTER
BLUE CROSS BLUE SHIELD
340 ON THE PARK
BUCKINGHAM PLAZA
NORTH FIELD BLVD.
400 E. RANDOLPH
HARBOR POINT
EAST RANDOLPH STREET (UPPER LEVEL)
MILLENNIUM PARK
DRIVE
DALEY BICENTENNIAL PLAZA
CANCER SURVIVORS

TRANSPORTATION

EL TRACK

- RED LINE (SERVICE BETWEEN HOWARD AND 95TH/DAN RYAN)
- BLUE LINE (SERVICE BETWEEN CHICAGO-OHARE AND FOREST PARK)
- BROWN LINE (SERVICE BETWEEN KIMBALL AND DOWNTOWN)
- GREEN LINE (SERVICE BETWEEN HARLEM AND 63RD)
- ORANGE LINE (SERVICE BETWEEN MIDWAY AND DOWNTOWN)
- PURPLE LINE (SERVICE BETWEEN LINDEN AND HOWARD VIA EVANSTON)

BUS LINES AND SERVICE POINTS

- RT 4 UPPER WACKER & UPPER N COLUMBUS DR (FROM SOUTH SIDE TO LOOP)
- RT 6 UPPER WACKER & UPPER N COLUMBUS DR (FROM SOUTH SIDE TO LOOP)
- RT 120-123 UPPER WACKER & UPPER N COLUMBUS DR (EXPRESS TO OGLIVIE STATIONS)
- RT 20 UPPER RANDOLPH & UPPER N COLUMBUS DR (TO OGLIVIE STATION)
- RT 134-136 MICHIGAN AVE & WACKER (EXPRESS TO LOOP FROM NORTH SIDE)
- RT 144-147 MICHIGAN AVE & WACKER (EXPRESS TO LOOP FROM NORTH SIDE VIA LSD)

OGILVIE TRANSPORTATION CENTER

UNION PACIFIC NORTH
UNION PACIFIC WEST
UNION PACIFIC NORTHWEST

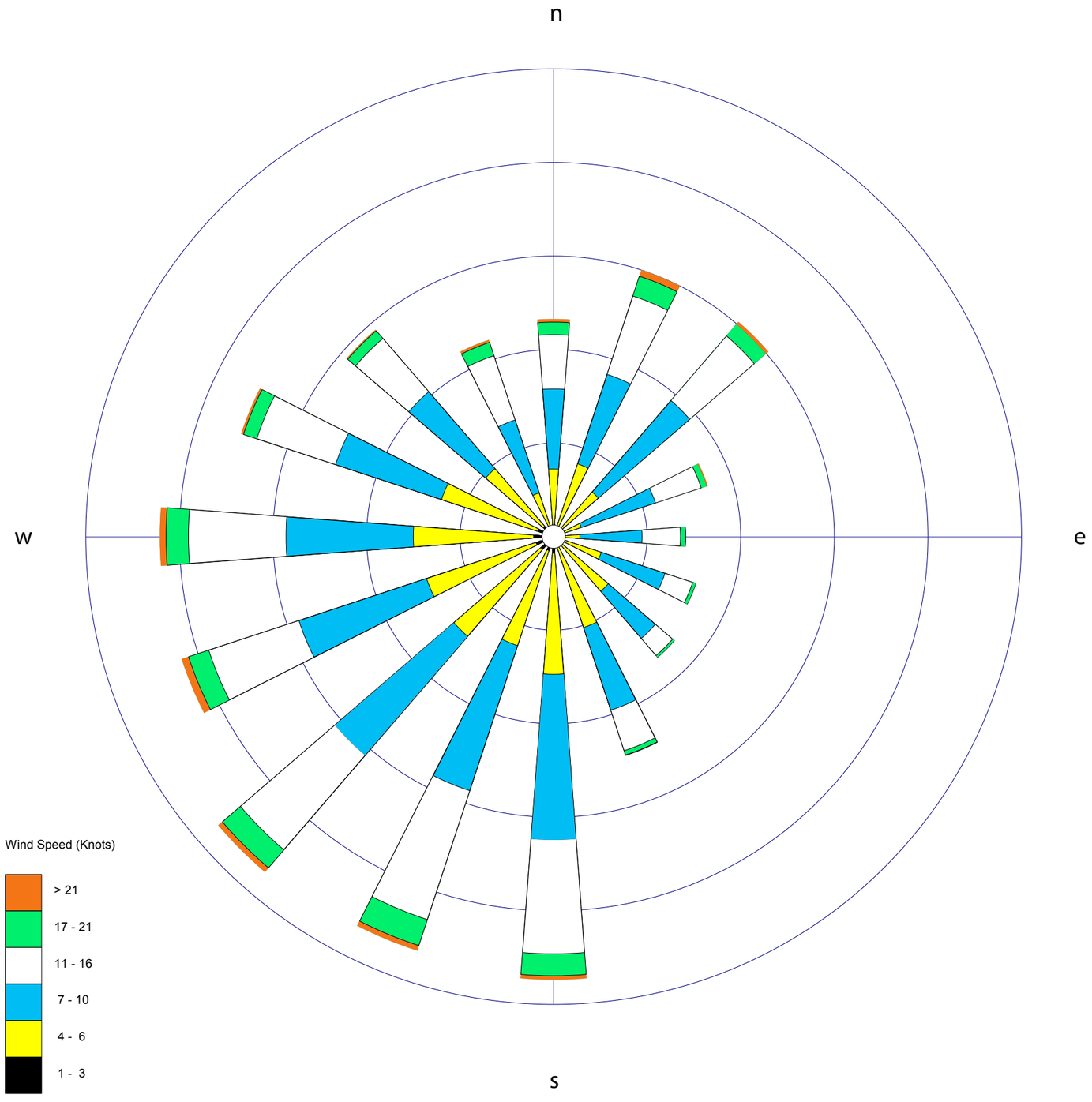
UNION STATION LINES

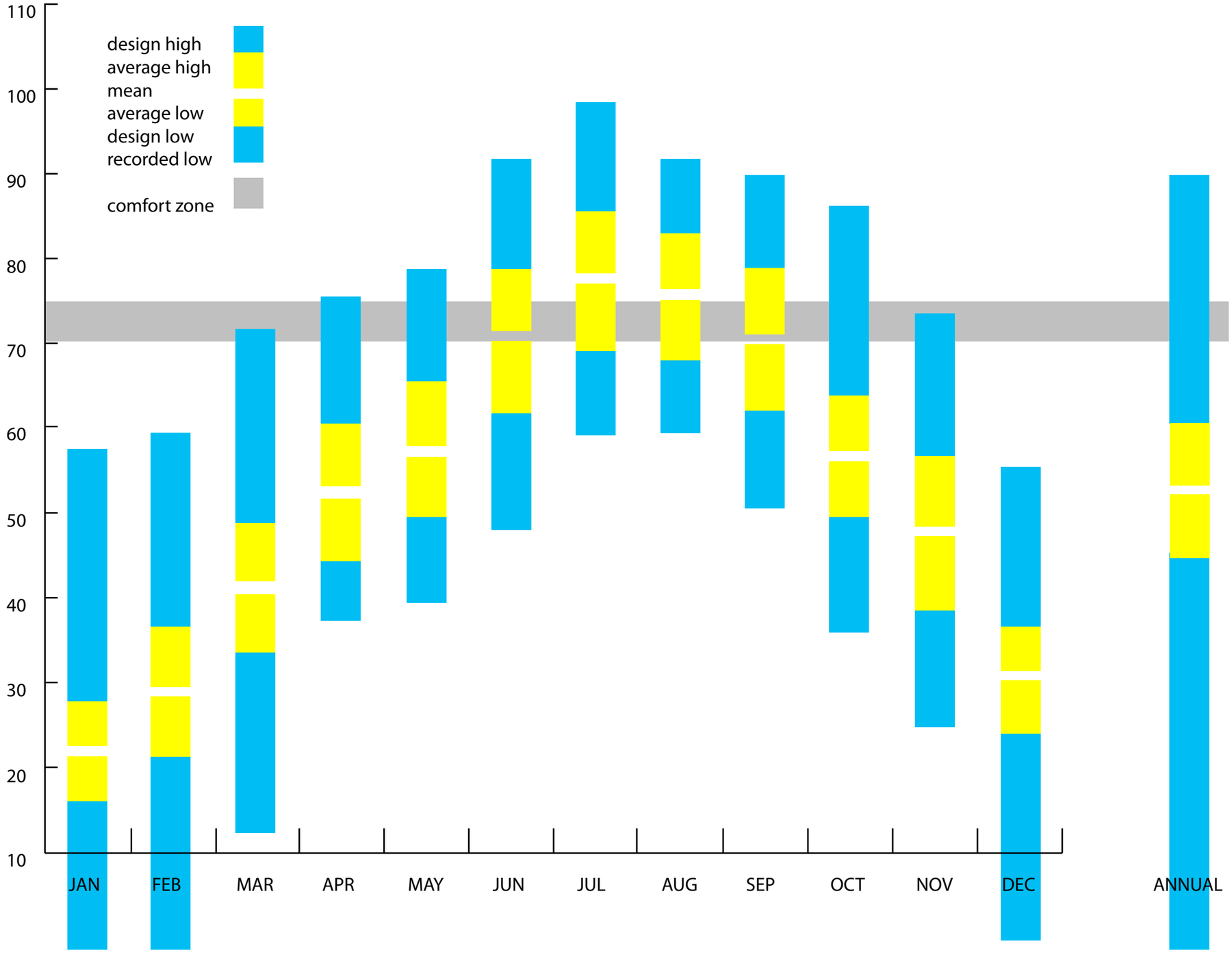
NORTH CENTRAL SERVICE
MILWAUKEE DISTRICT NORTH
MILWAUKEE DISTRICT WEST
BNSF RAILWAY
HERITAGE CORRIDOR
SOUTHWEST SERVICE

N COLUMBUS DR
LAKESHORE DRIV
E RANDOLPH ST

CLIMATE

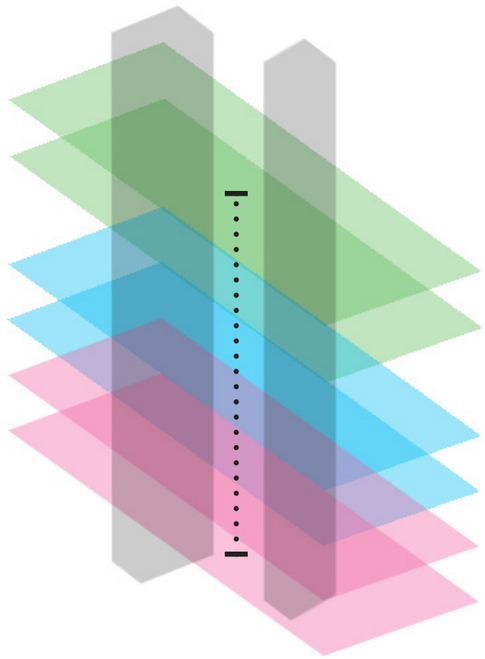
1 ANNUAL WIND
2 TEMPERATURE




110
100
90
80
70
60
50
40
30
20
10
design high
average high
mean
average low
design low
recorded low
comfort zone
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
ANNUAL

FRAMING THE ISSUES

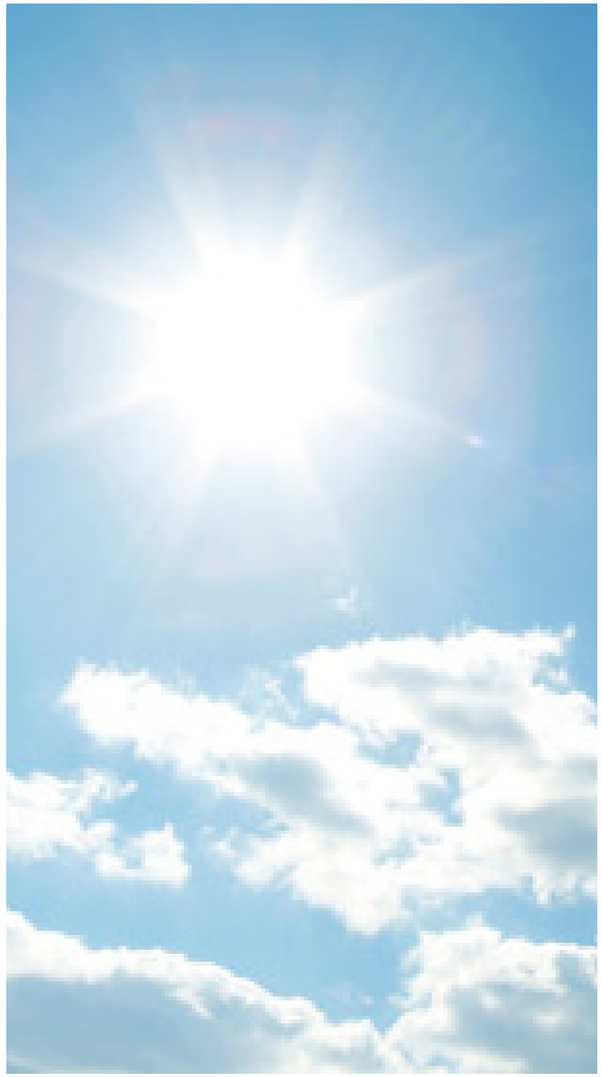
1 ESTABLISHING CIRCULATION AND CONNECTION BETWEEN LEVELS OF EDUCATION.



ISSUES

1 CIRCULATION
2 NATURE
3 DAYLIGHT
4 SAFETY
5 TRAFFIC
6 ORIENTATION
7 SITE PROPORTION

2 PROVIDING A STIMULATING ENVIORNMENT SENSITIVE TO THE HUMAN NEED FOR NATURE.



3 MAINTAINING PLENTIFUL DAYLIGHT TO ALL INTERIOR SPACES.

4 PROVIDING A SAFE ENVIRONMENT WITH SECURE ACCESS POINTS.

DESIGN FACTORS

Exploration

The school will foster learning, exploration, and development through an enriching, interactive environment. All parts of the design will be viewed as an opportunity for learning and will support growth.

Sensory integration

The design will engage students through the examination and utilization of sensory design methods, including material application, lighting, spatial configuration, and integration of exterior space.

Community

The school will add vitality and identity of the Lakeshore East community providing a central point of interest and neighborhood connection. It will be a catalyst for the development of neighborhood support buildings, as well as culture.

Connection

The school will provide opportunities for connection through a range of scales including: student-to-student, student to teacher, school occupant to the community, and the community to greater Chicago.

Large central rooms will encourage interaction between students and teachers. These central rooms should acts as a connective tissue horizontally but also vertically, housing all level-to-level circulation.

Classrooms should provide an abundance of light color and texture. The rooms should be flexible and allow for a variety of spatial configurations to occur.

PROGRAM
NEW CORES
ROTATION
GRID
ADAPTATION
SUN
VENTILATION
NATURE
COLOR
TEXTURE
LIGHT

PRECEDENT INDEX

PROJECT NAME
CITY, COUNTRY
ARCHITECT [COMPLETION]
FEATURE

Sofitel
Vienna, Austria
Jean Nouvel [2010]
PATTERNED VIDEO PANELS

q1
Essen, Germany
JSWD Architects [2011]
CENTRAL CONNECTION

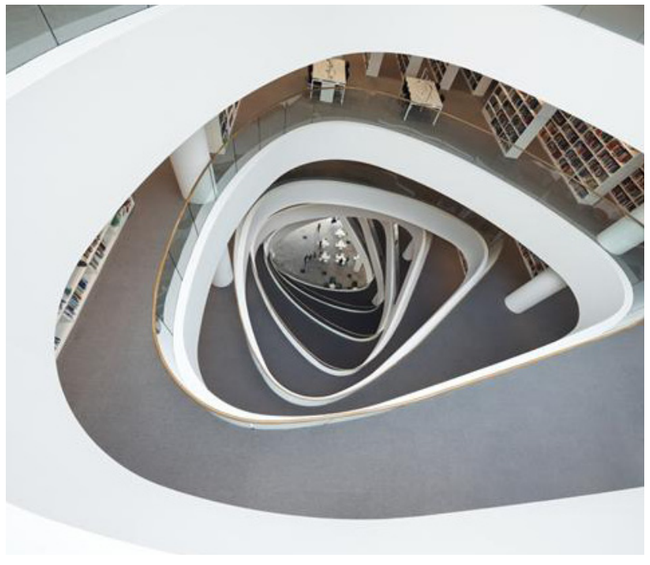
Cite De L'Ocean Et Du Surf
Biarritz, France
Steven Holl Architects [2011]
LIGHT; LAYERING

Sky Courts
Chengdu, China
Höweler + Yoon [2011]
Materials; texture

Joseph Brenneman Elementary School
Chicago, USA
Bertrand Goldberg [1963]
Organic composition; zoned spaces; daylight

Paris Parc
Paris, France
BIG [in progress]
programmed green roof

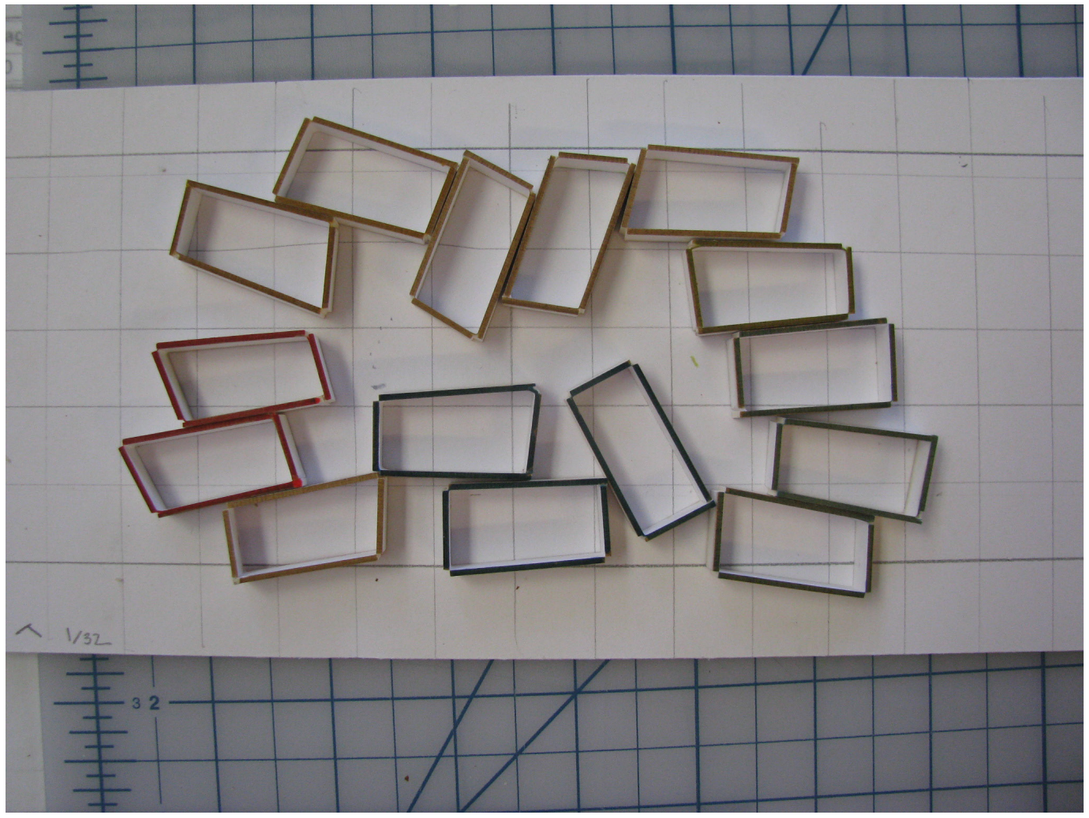
University of Aberdeen library
Aberdeenshire, Scotland
Schmidt Hammer Lassen [2011]
interior vertical connection

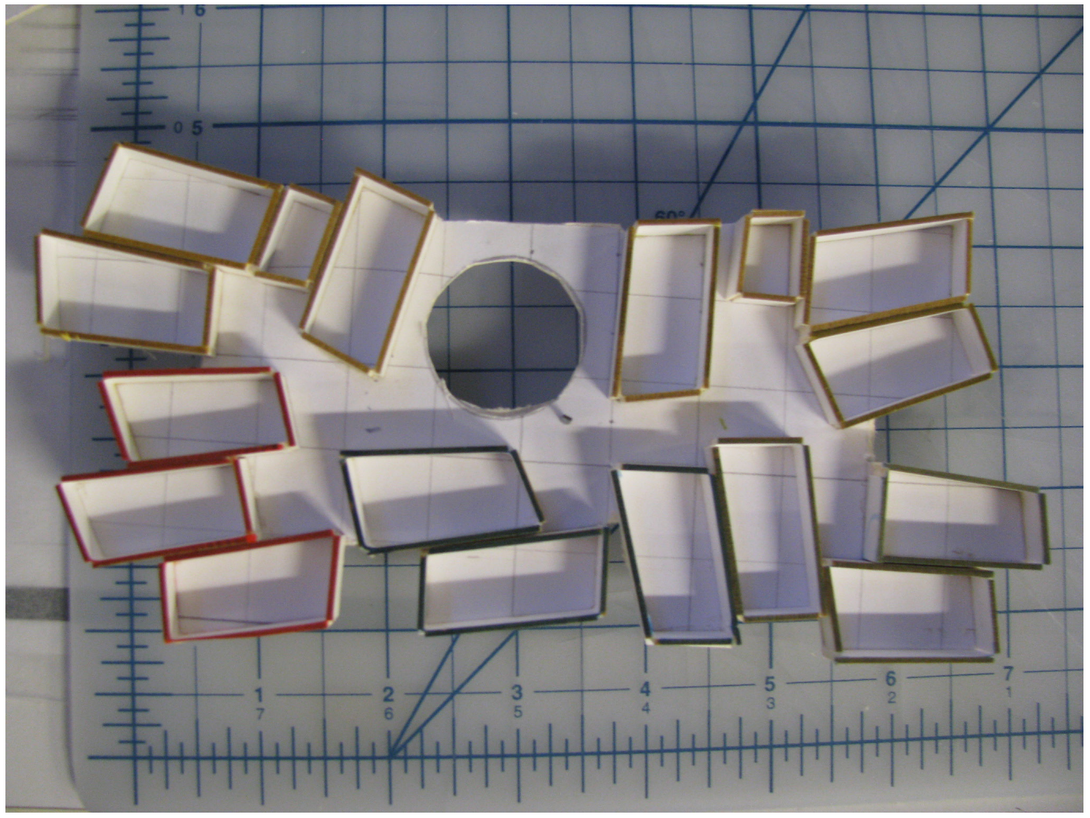


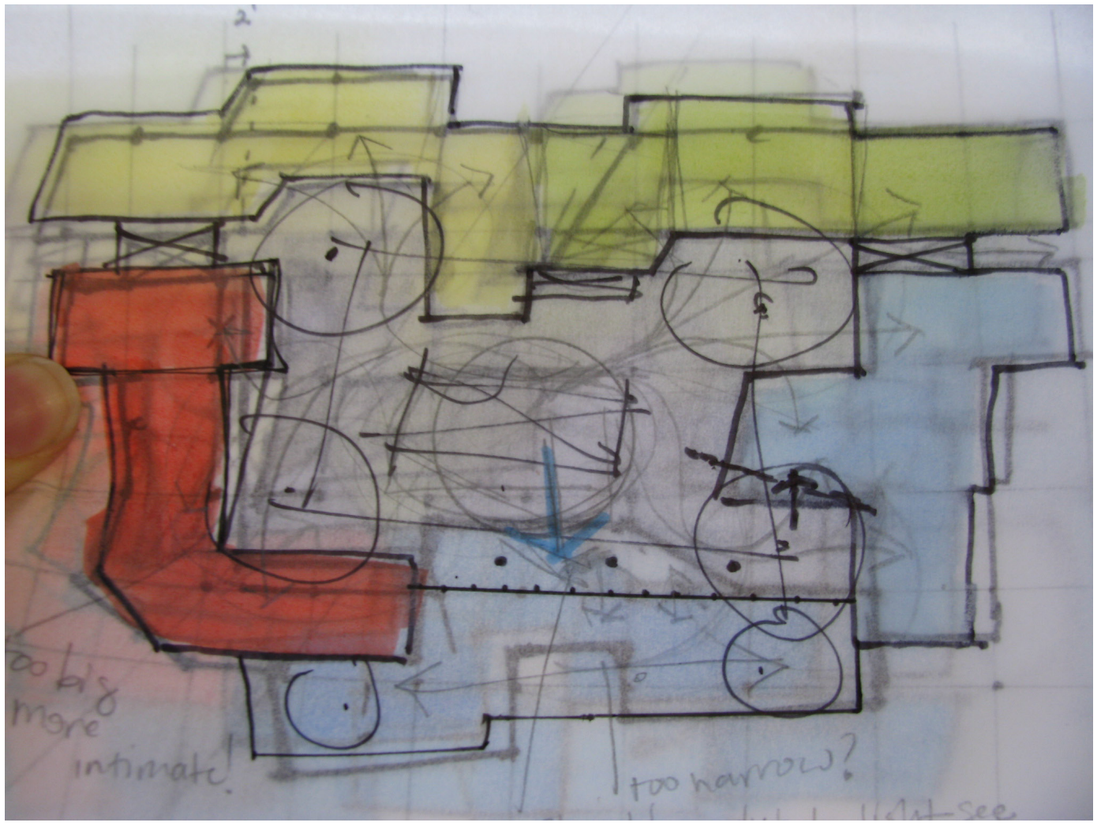
singapore school of the arts
Singapore
woha [2011]
natural ventilation; sky garden

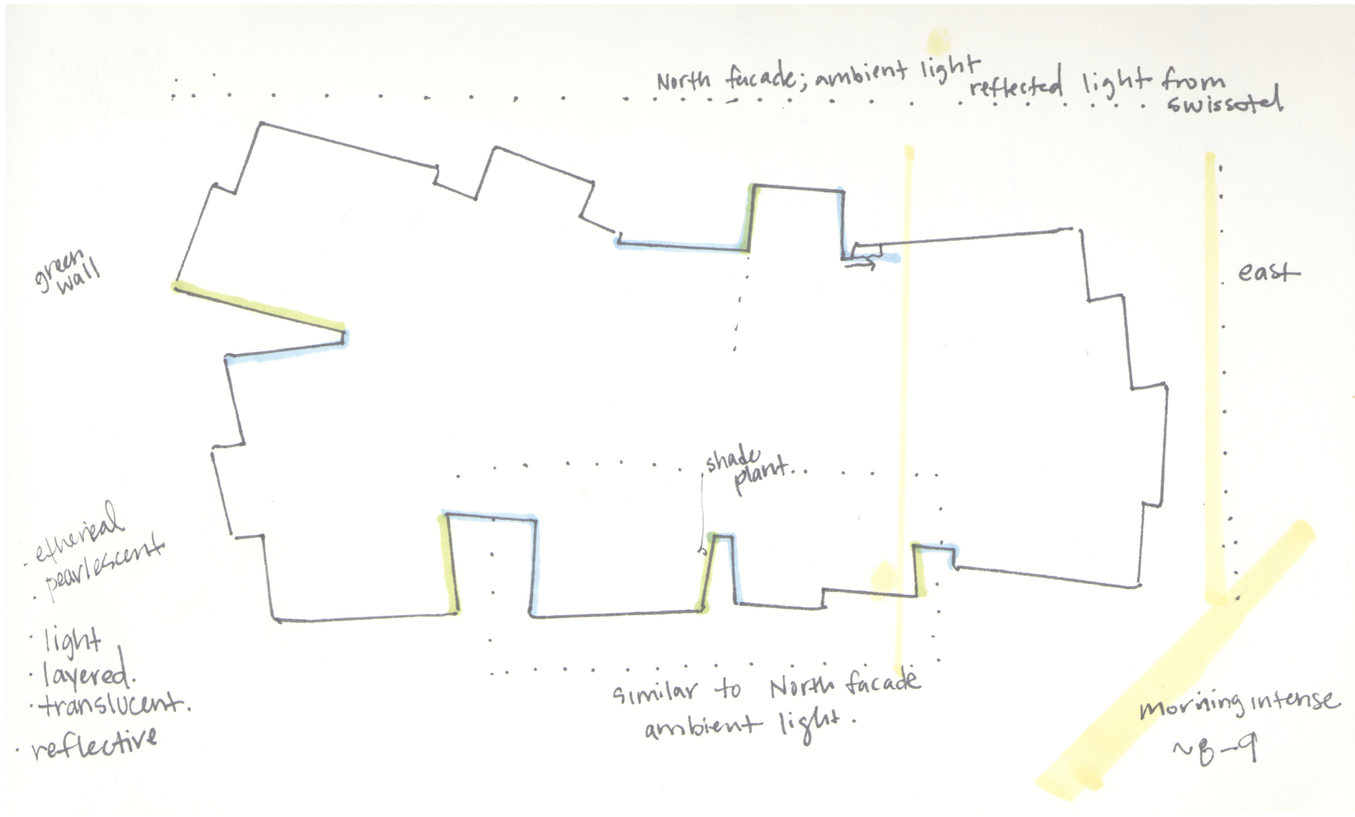
Sinatra School of the Arts
New York city, New York
Annead Architects [2009]
transparency

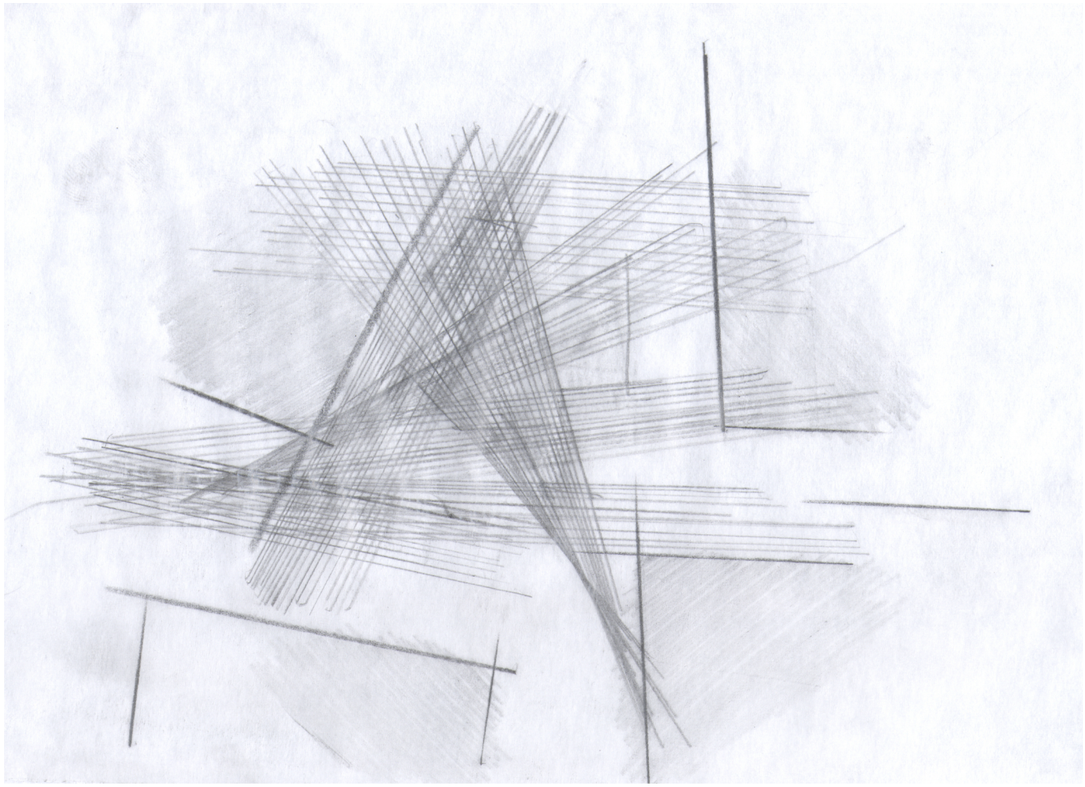
PROCESS

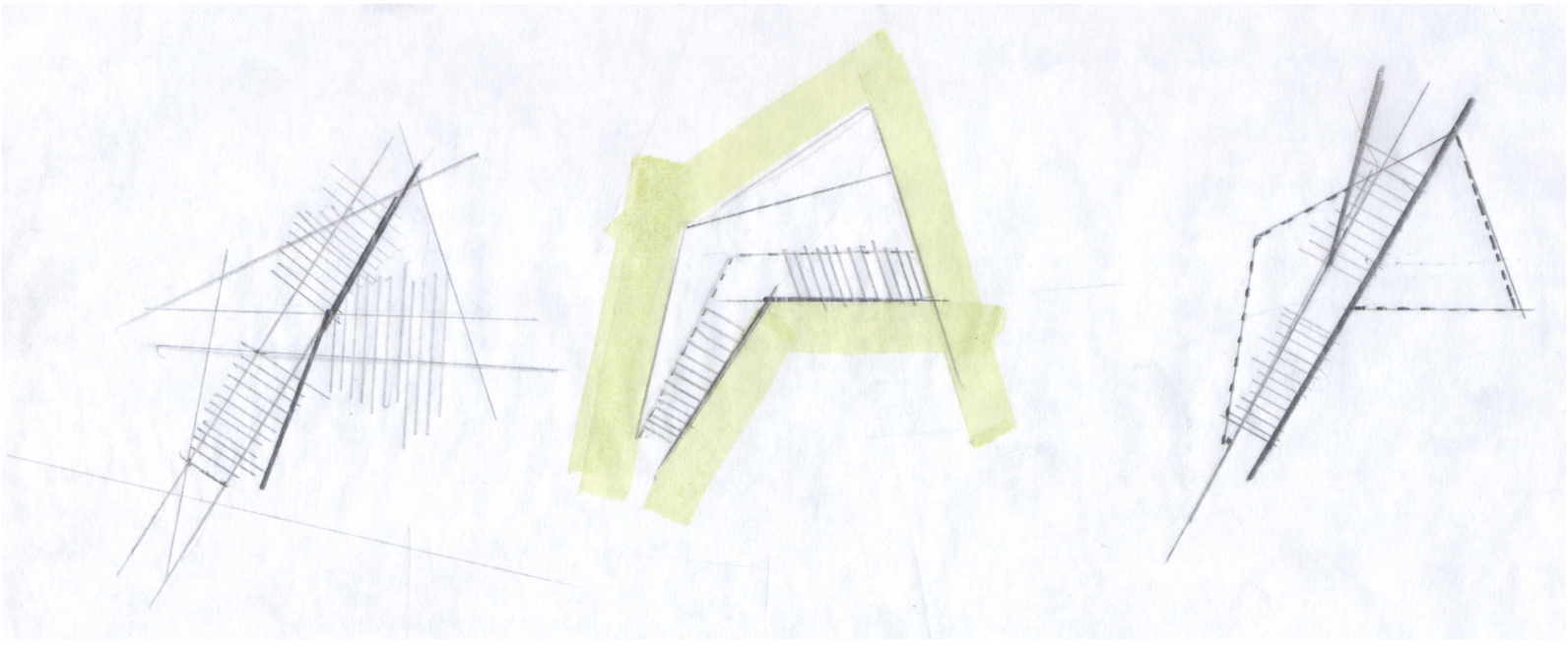


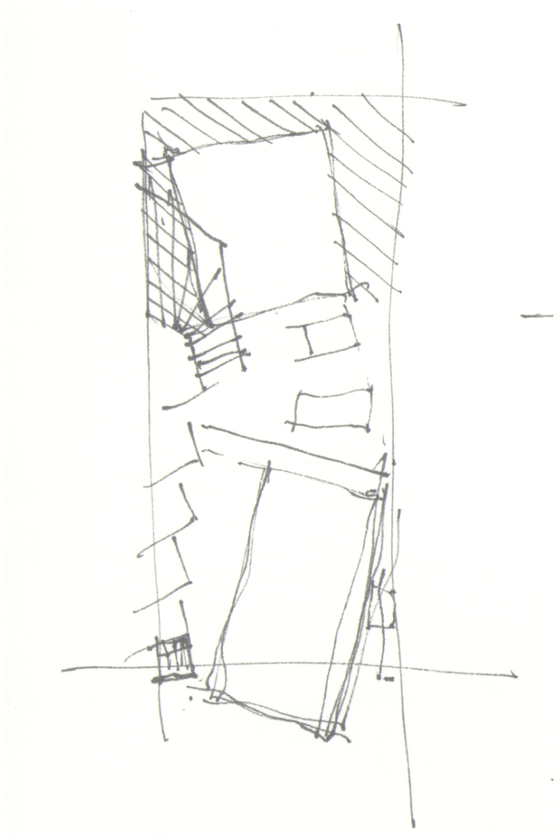


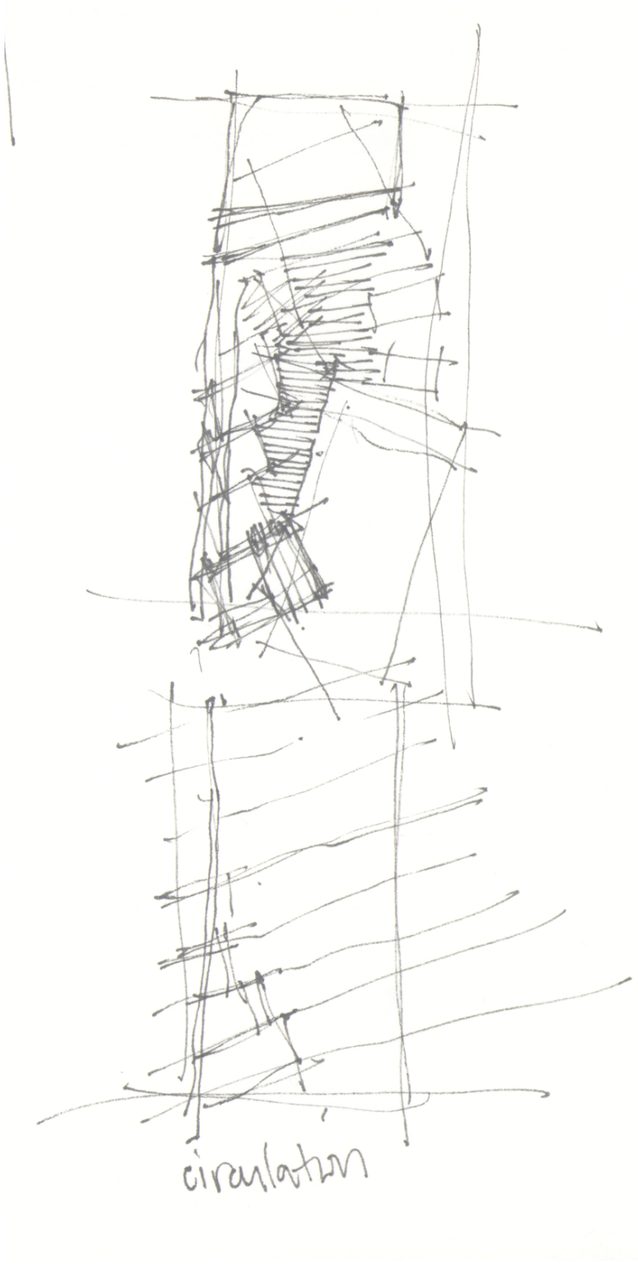

too big
more
intimate!
too narrow?

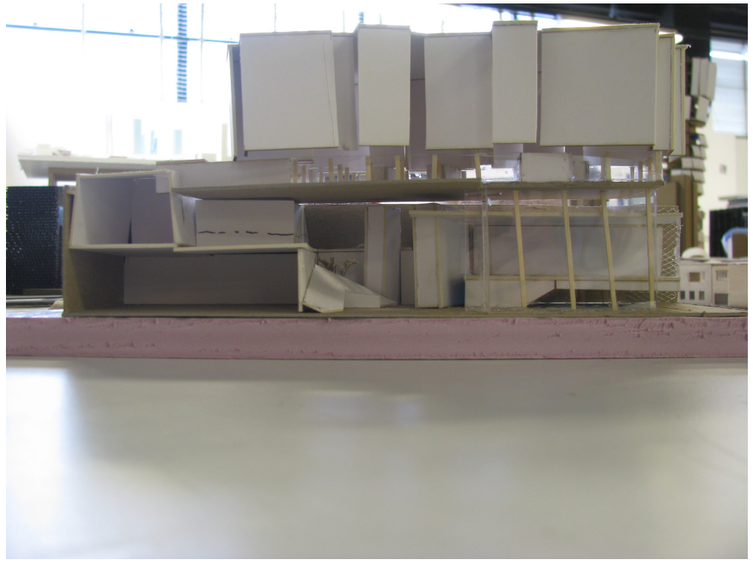

North facade; ambient light
reflected light from swissotel
green wall
east
shade plant
- ethereal
- pearlescent
- light
- layered.
- translucent.
- reflective
similar to North facade
ambient light.
morning intense
~8-9

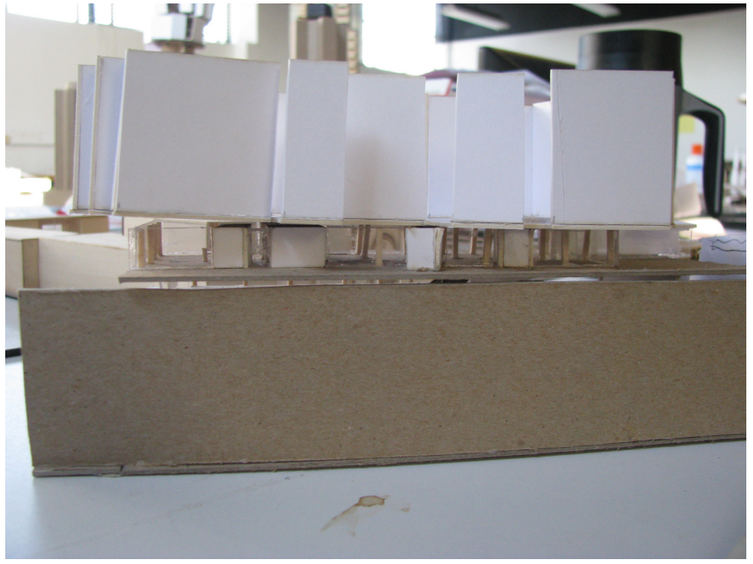


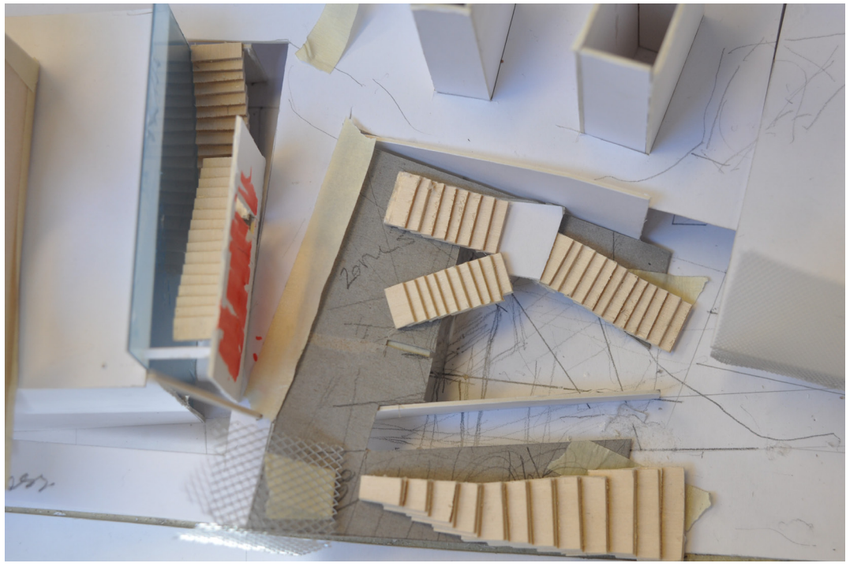


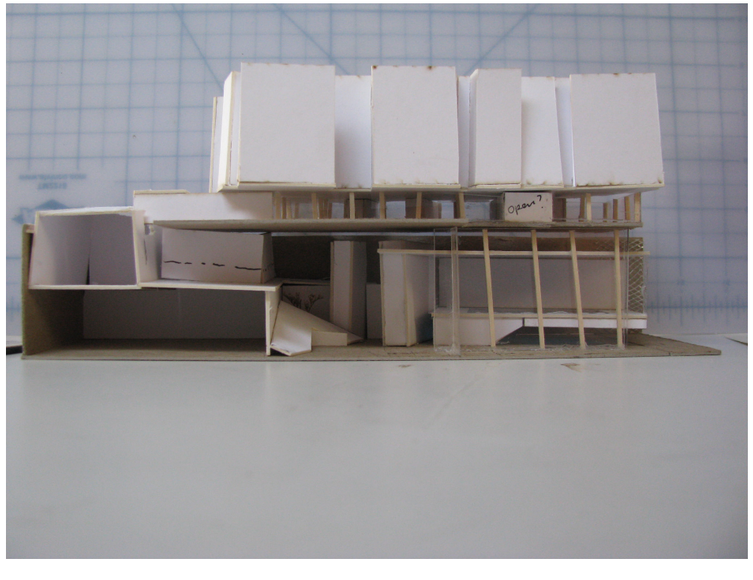


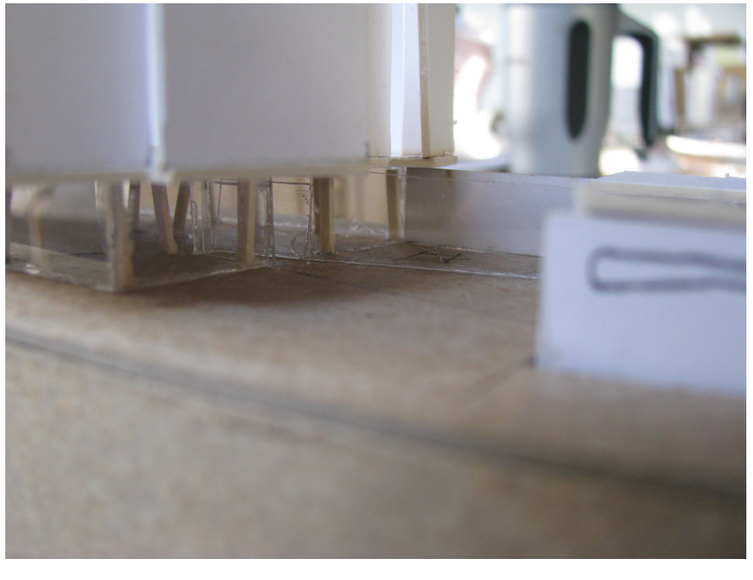

circulation

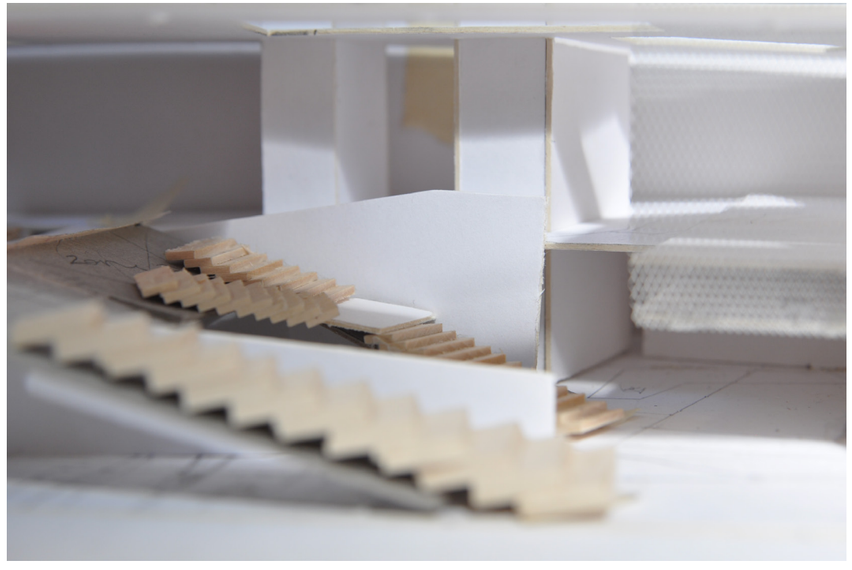


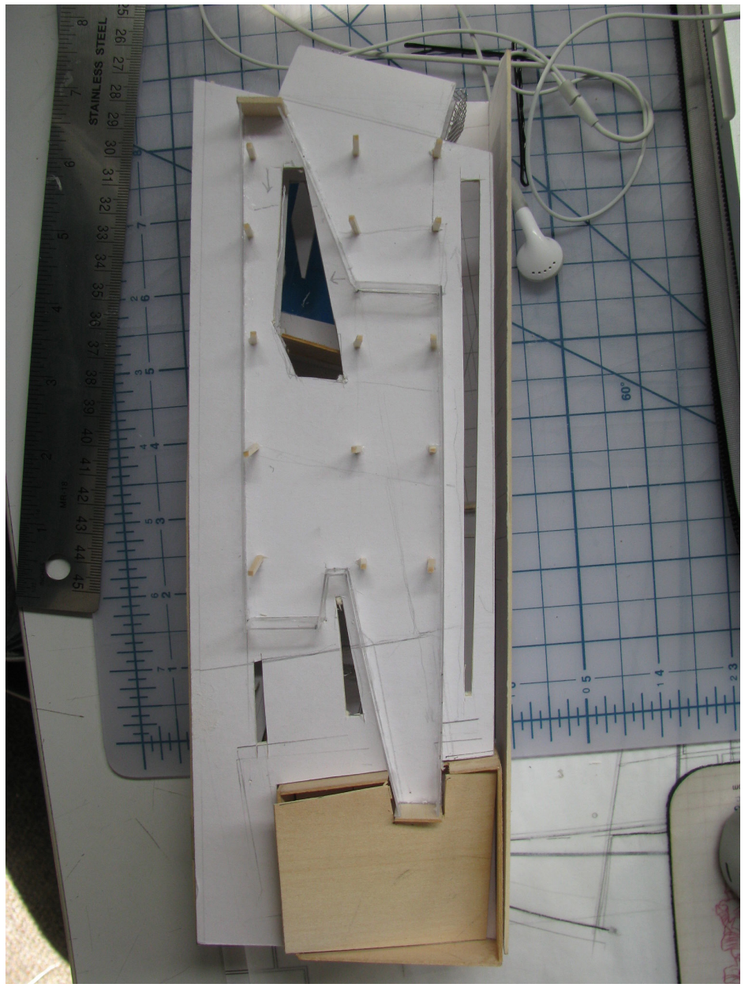


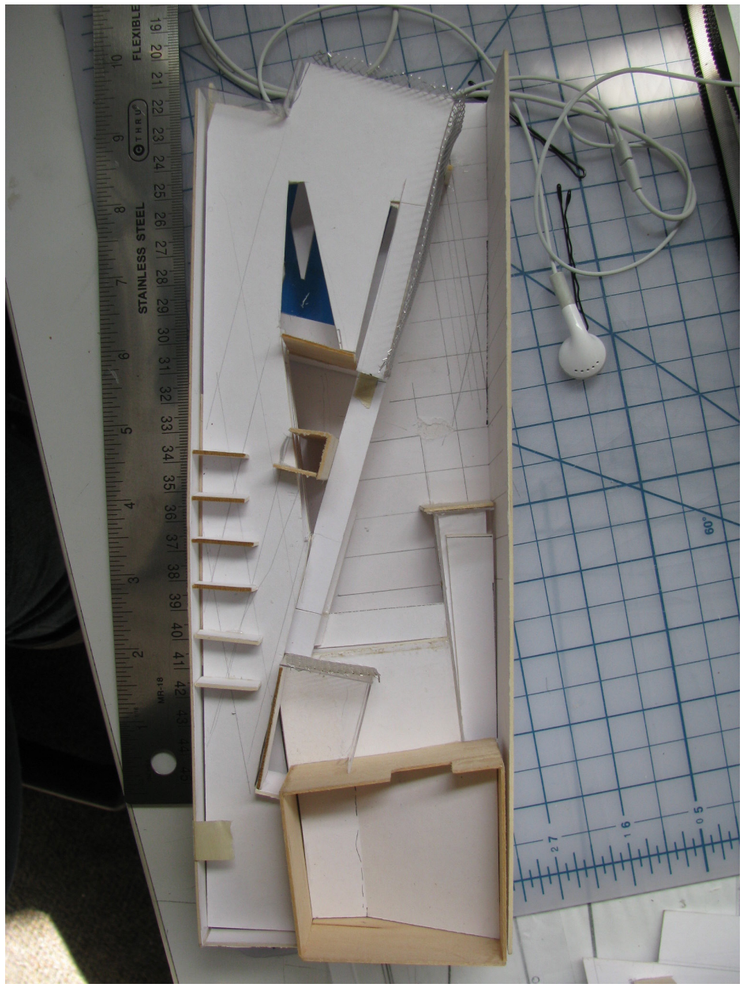


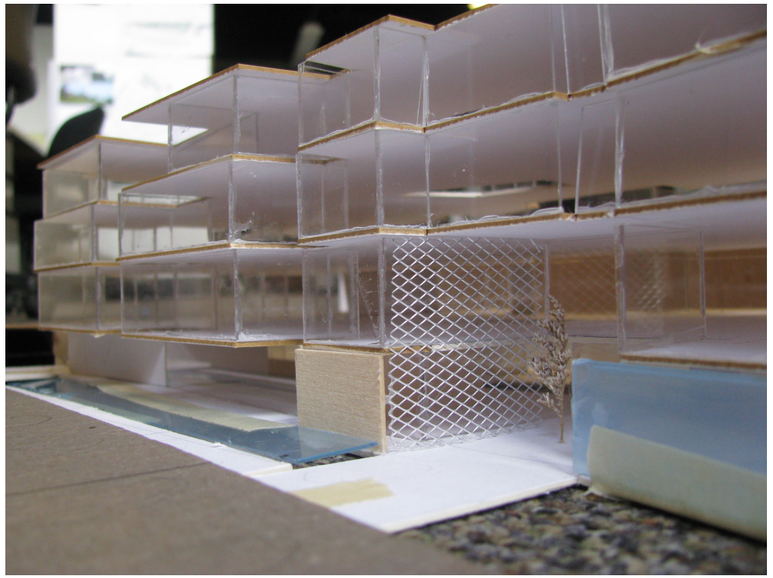


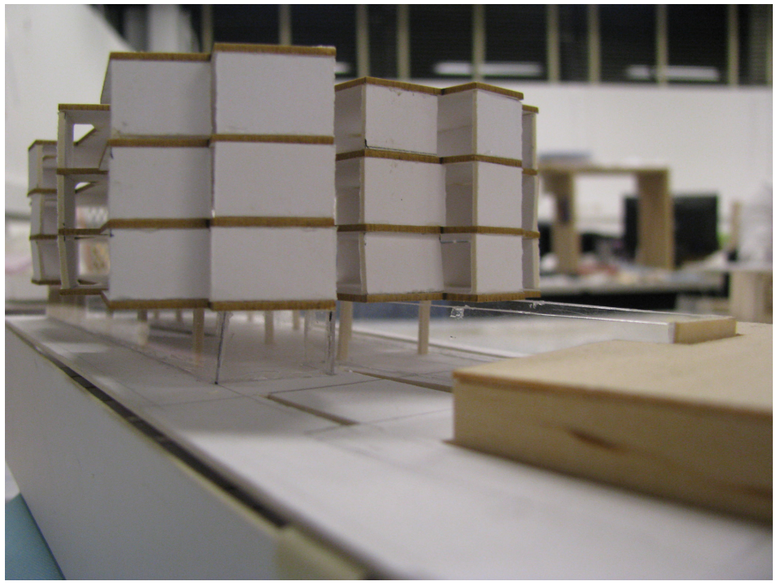


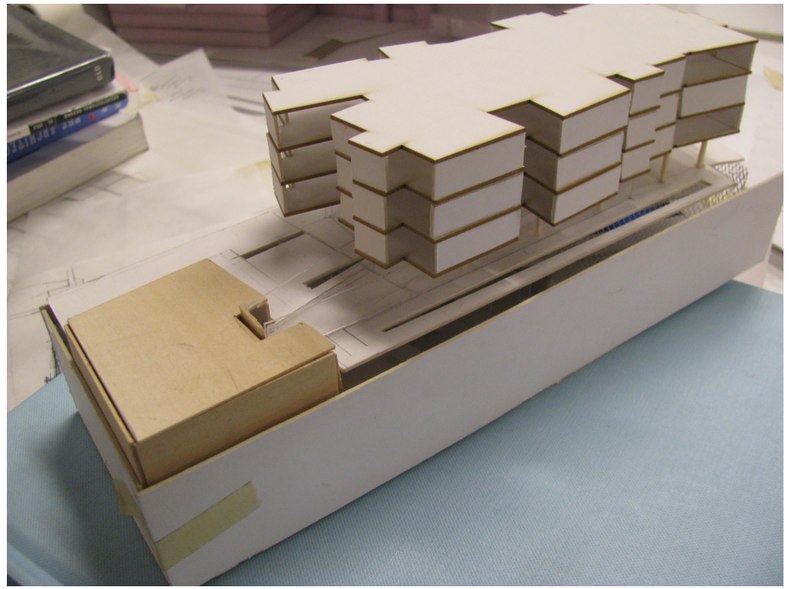


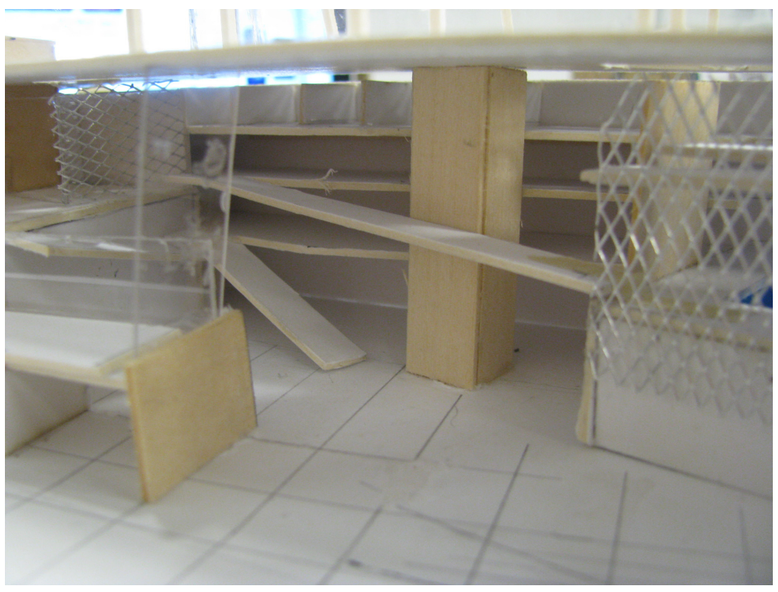


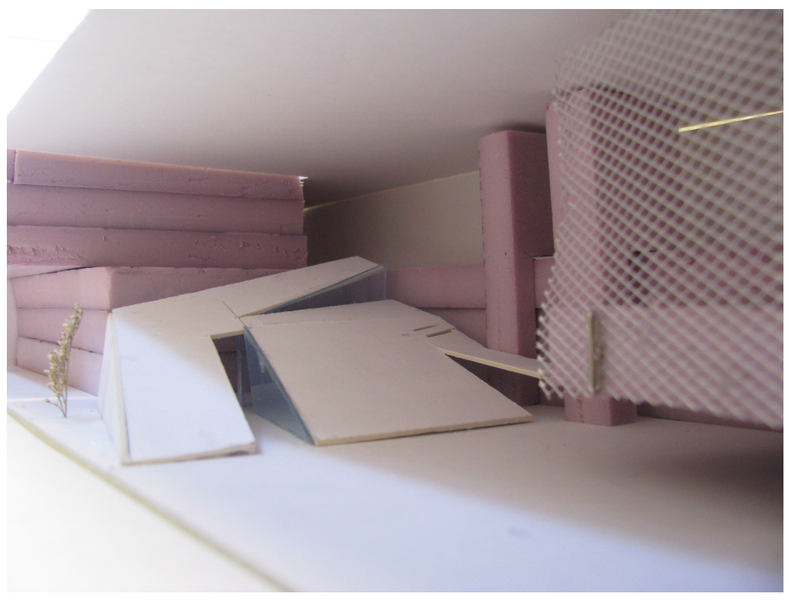


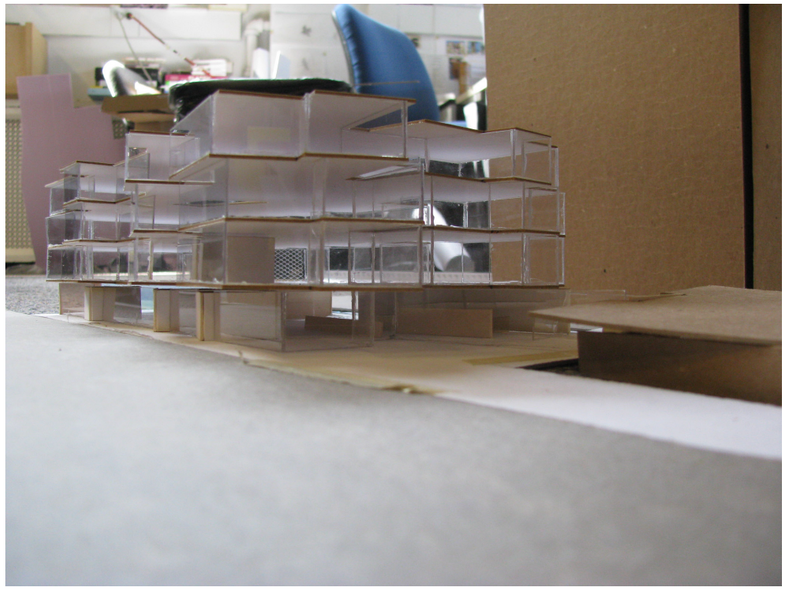


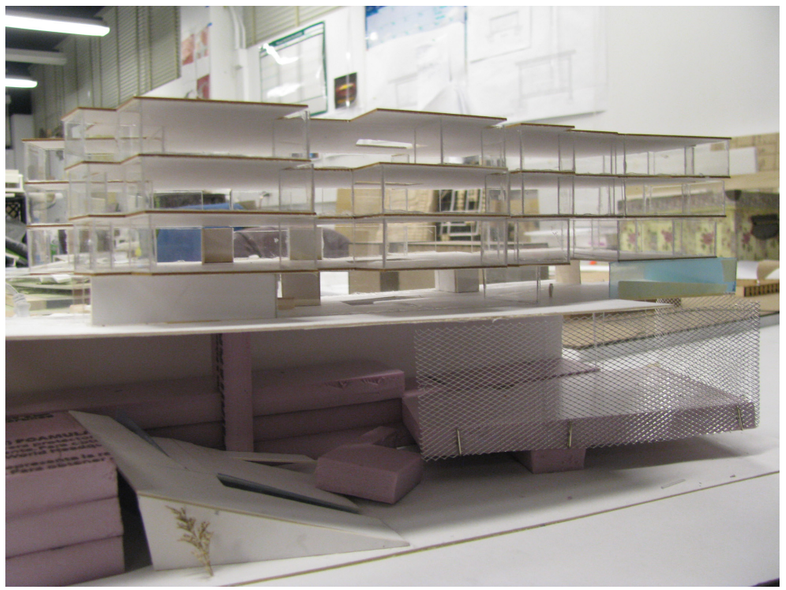


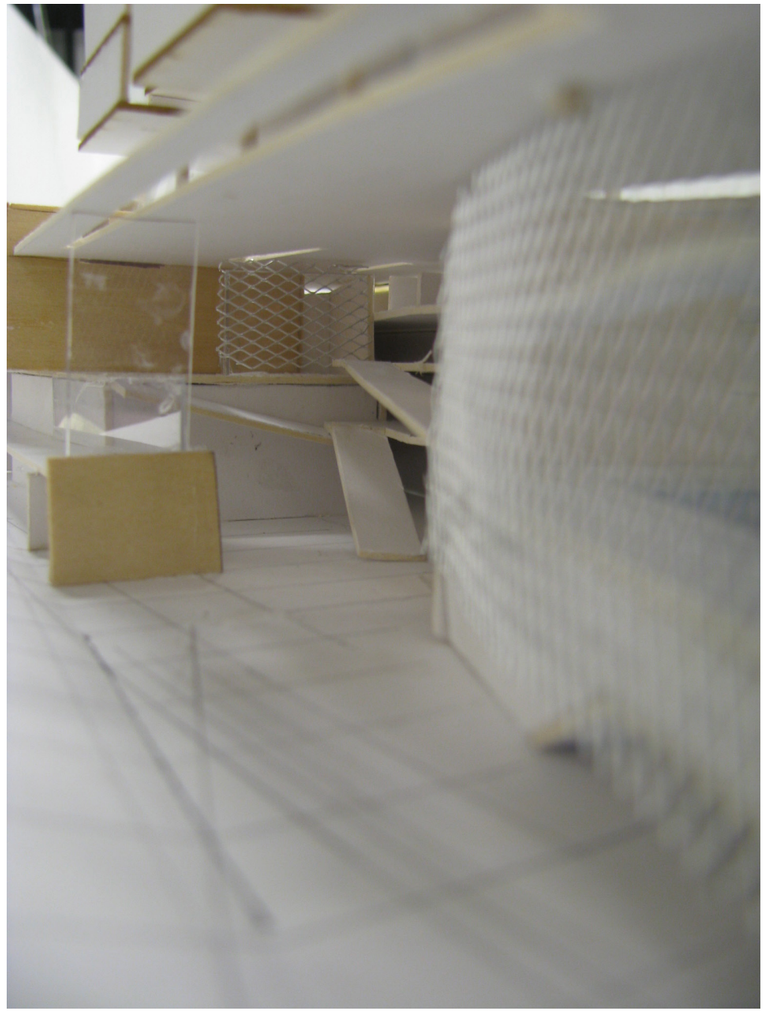


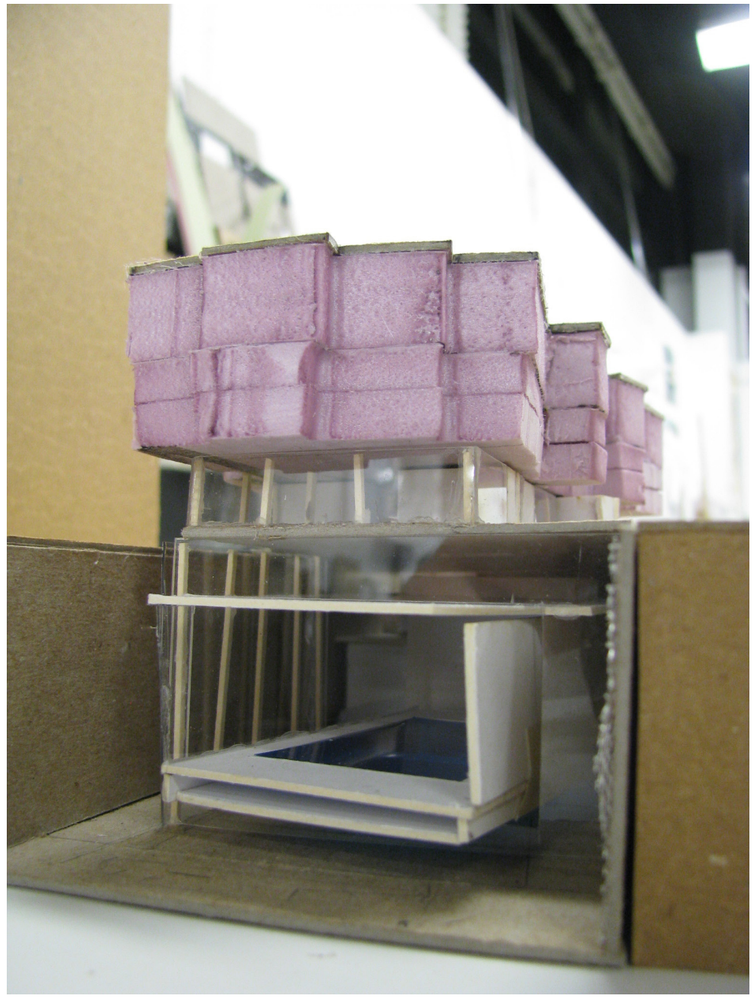


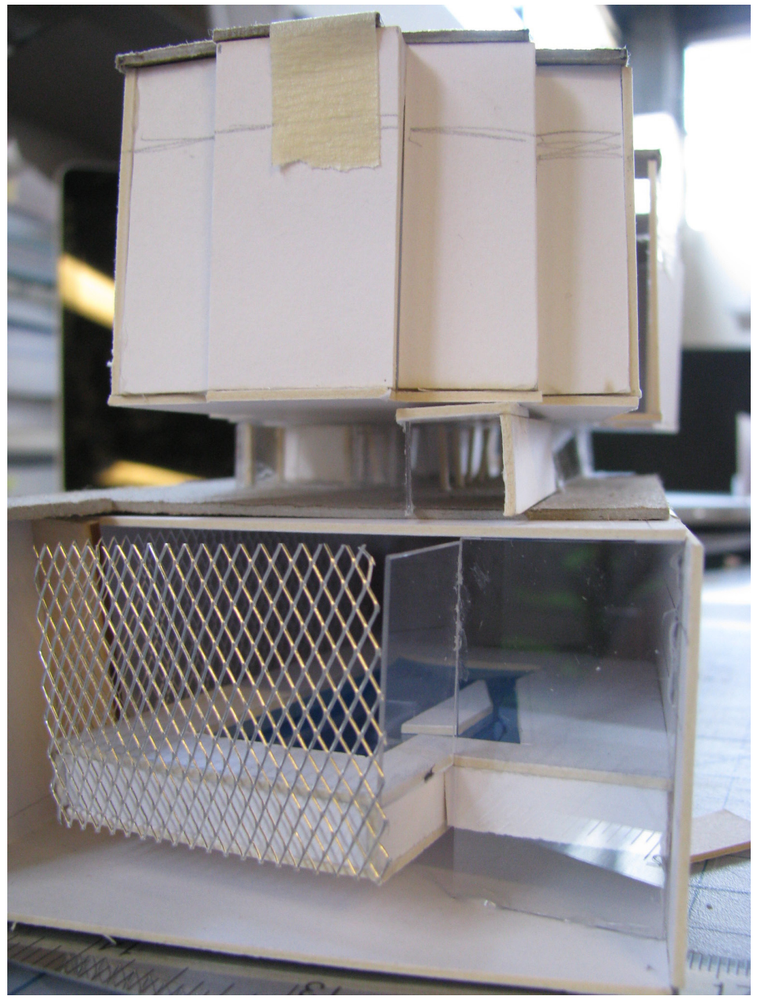


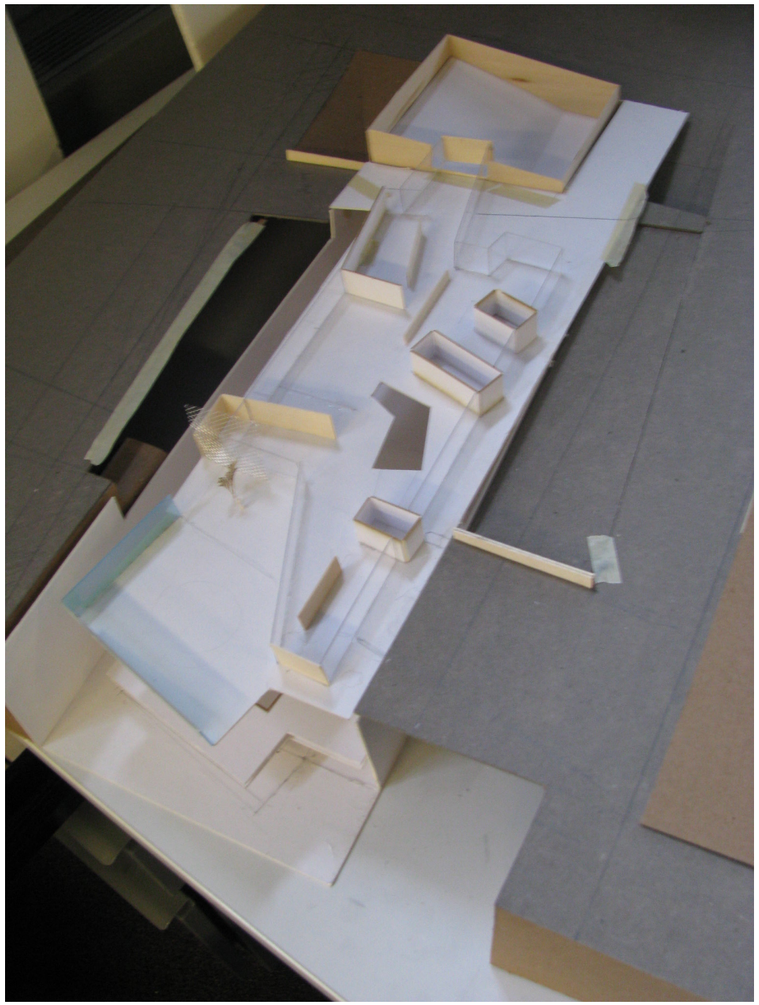












Captured Moments

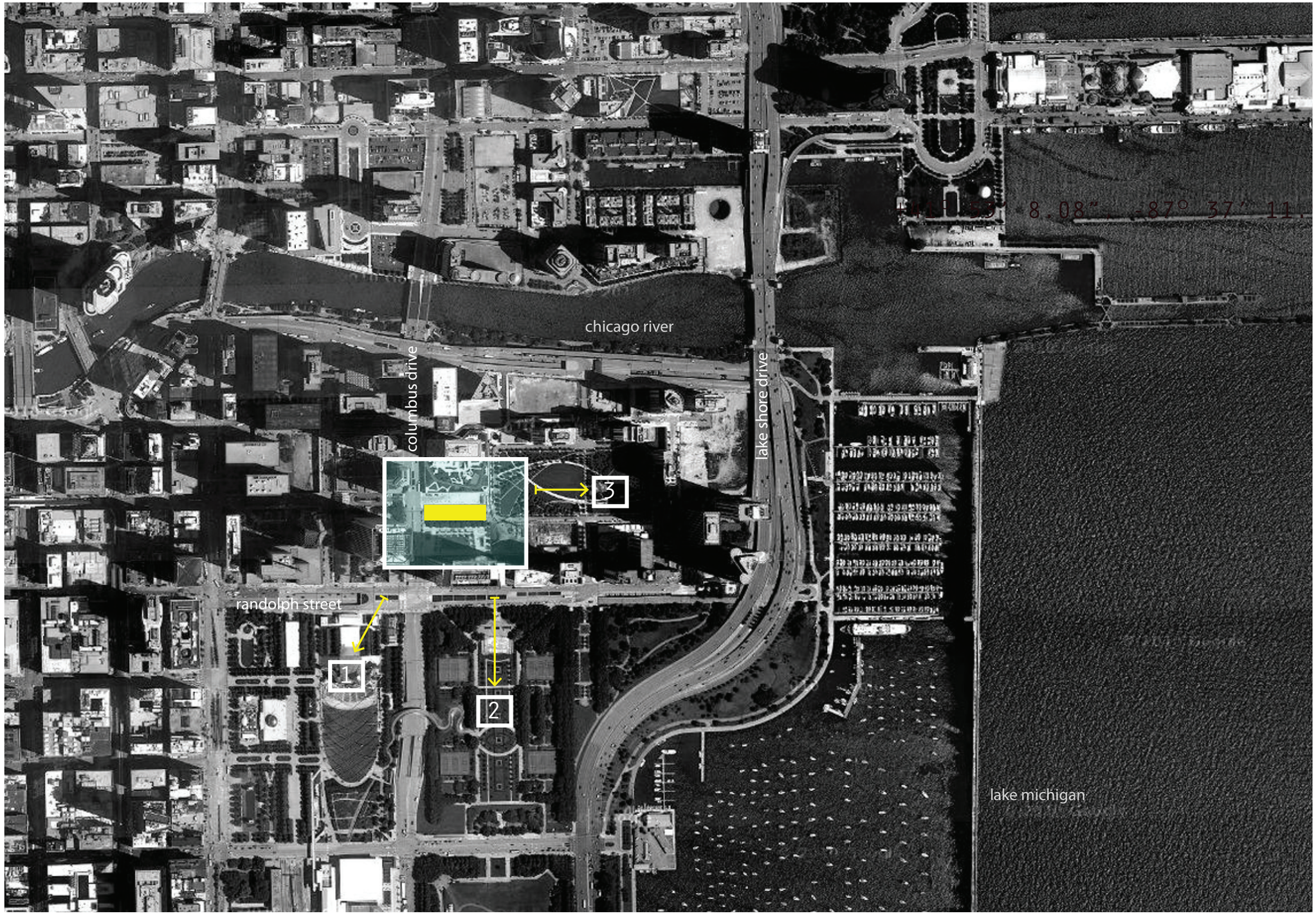
A Concept for a K-12 Urban School



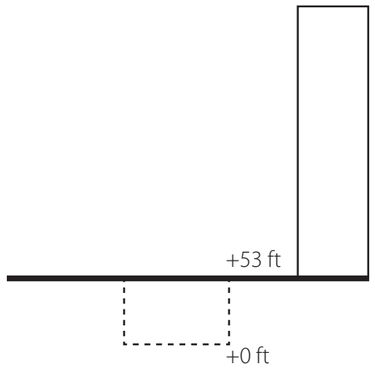
screen captures from jacques tati's mon oncle.

Uncle Hulot lives in a small old corner of Paris. His world is full of color, light, and frivolity.

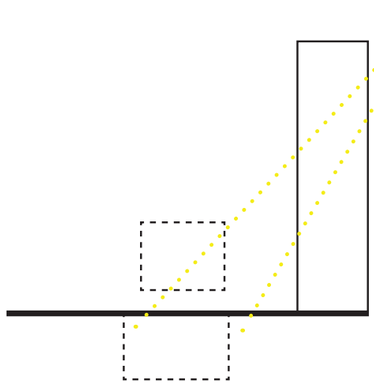
The series to the right captures a moment in which Hulot reflects light to bird cage, the light hits the bird and the bird begins to sing.



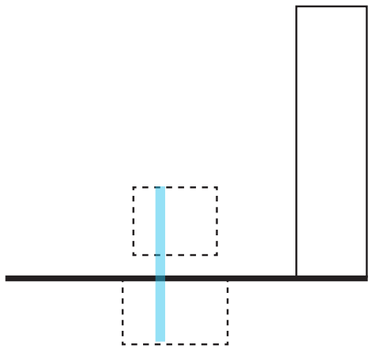
Lakeshore East, Chicago, IL | 1 Millenium Park 2 Grant Park 3 Lakeshore East Park



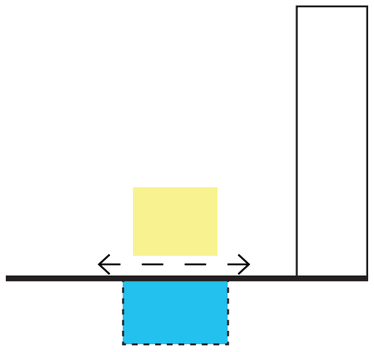
grade change



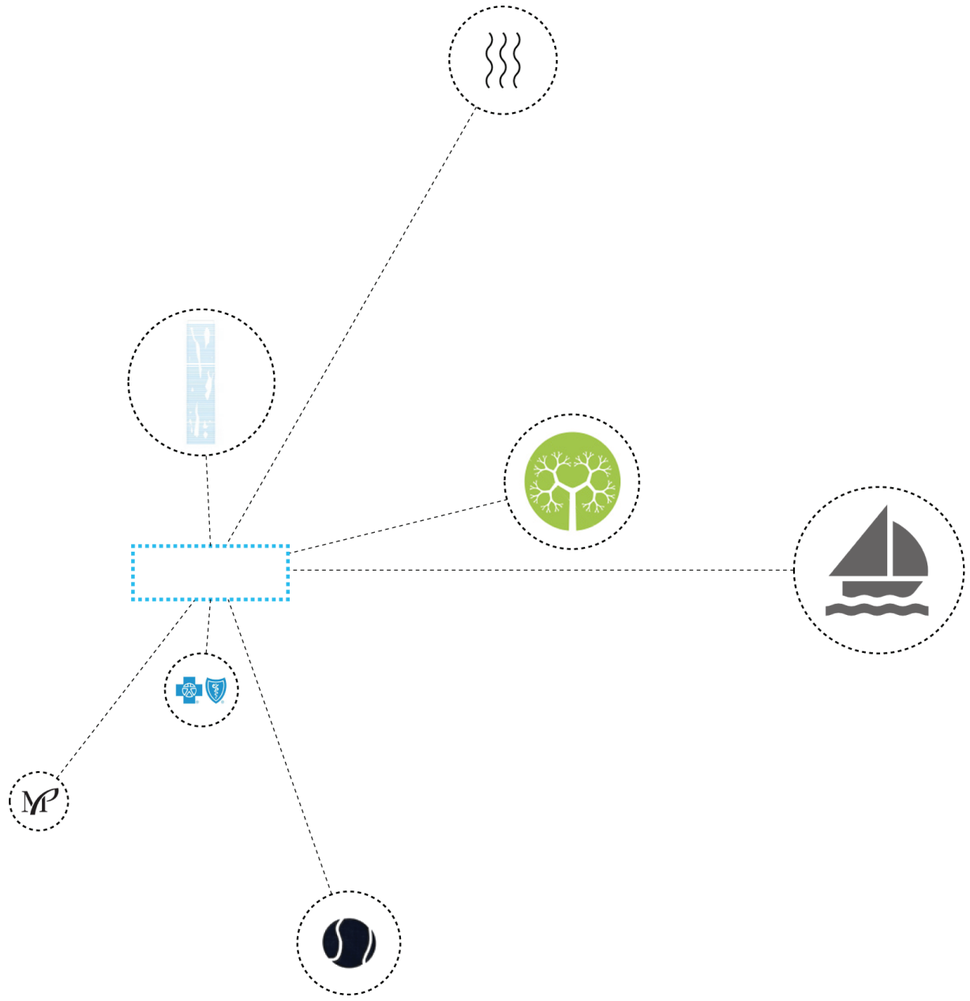
light

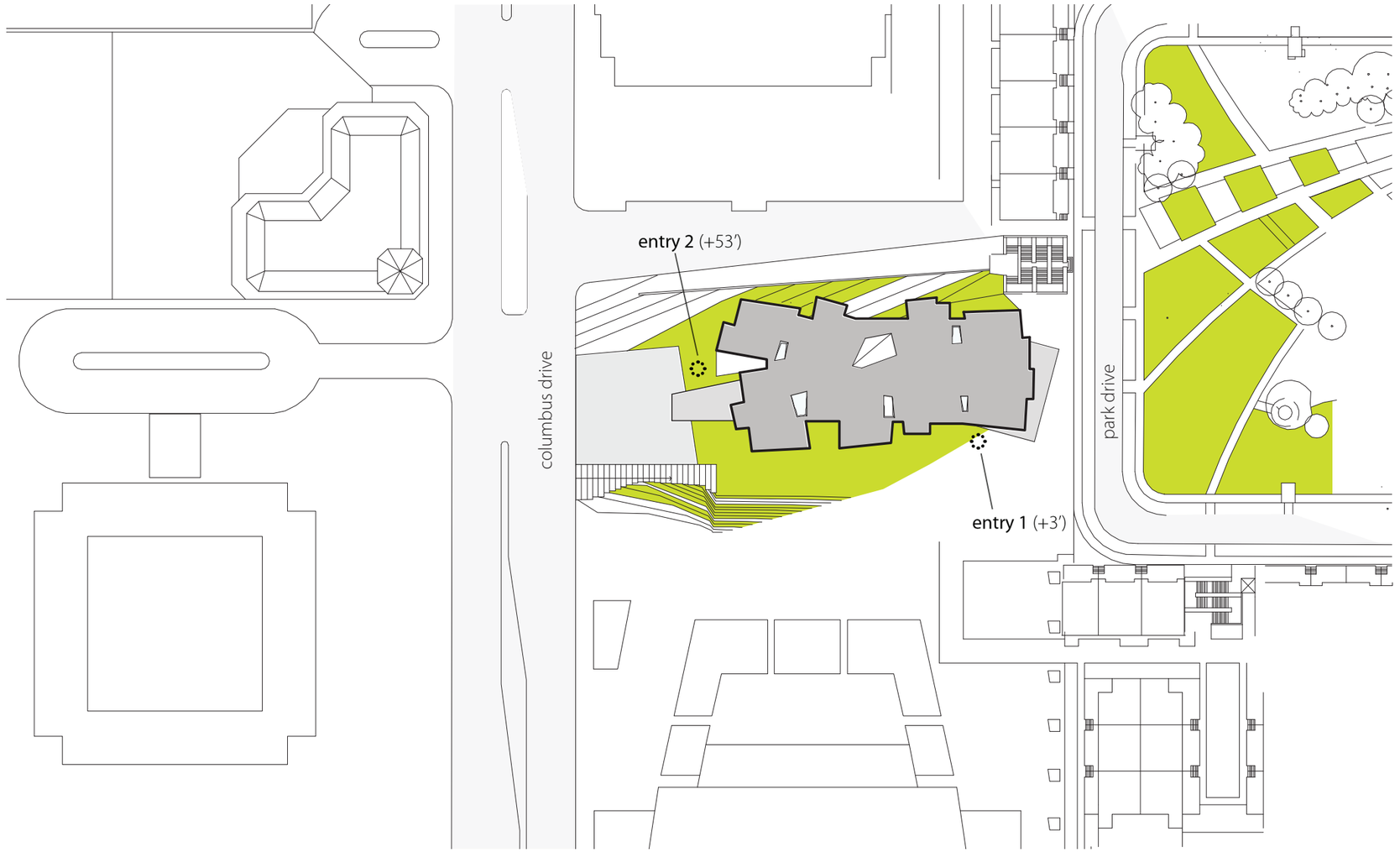


circulation



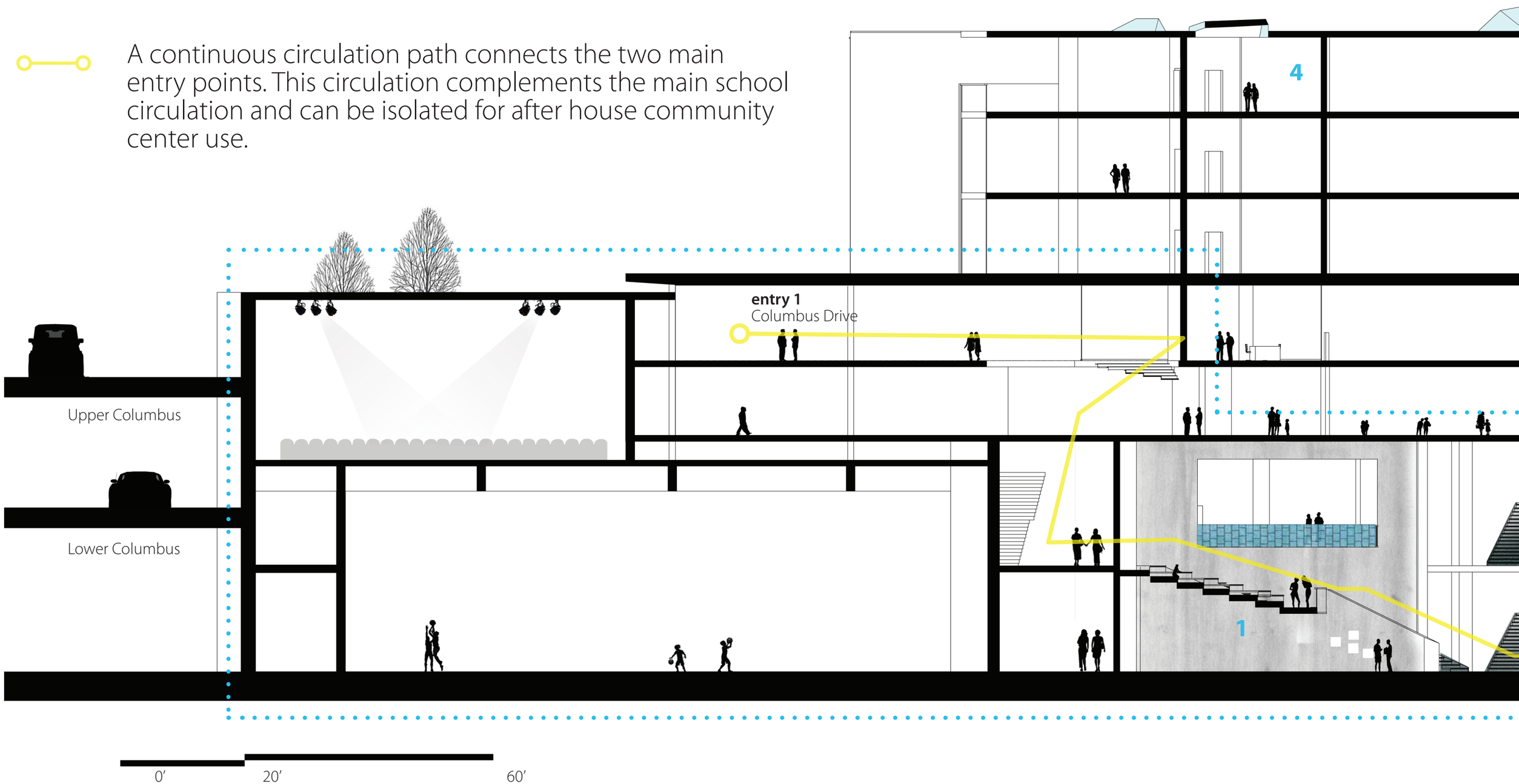
program

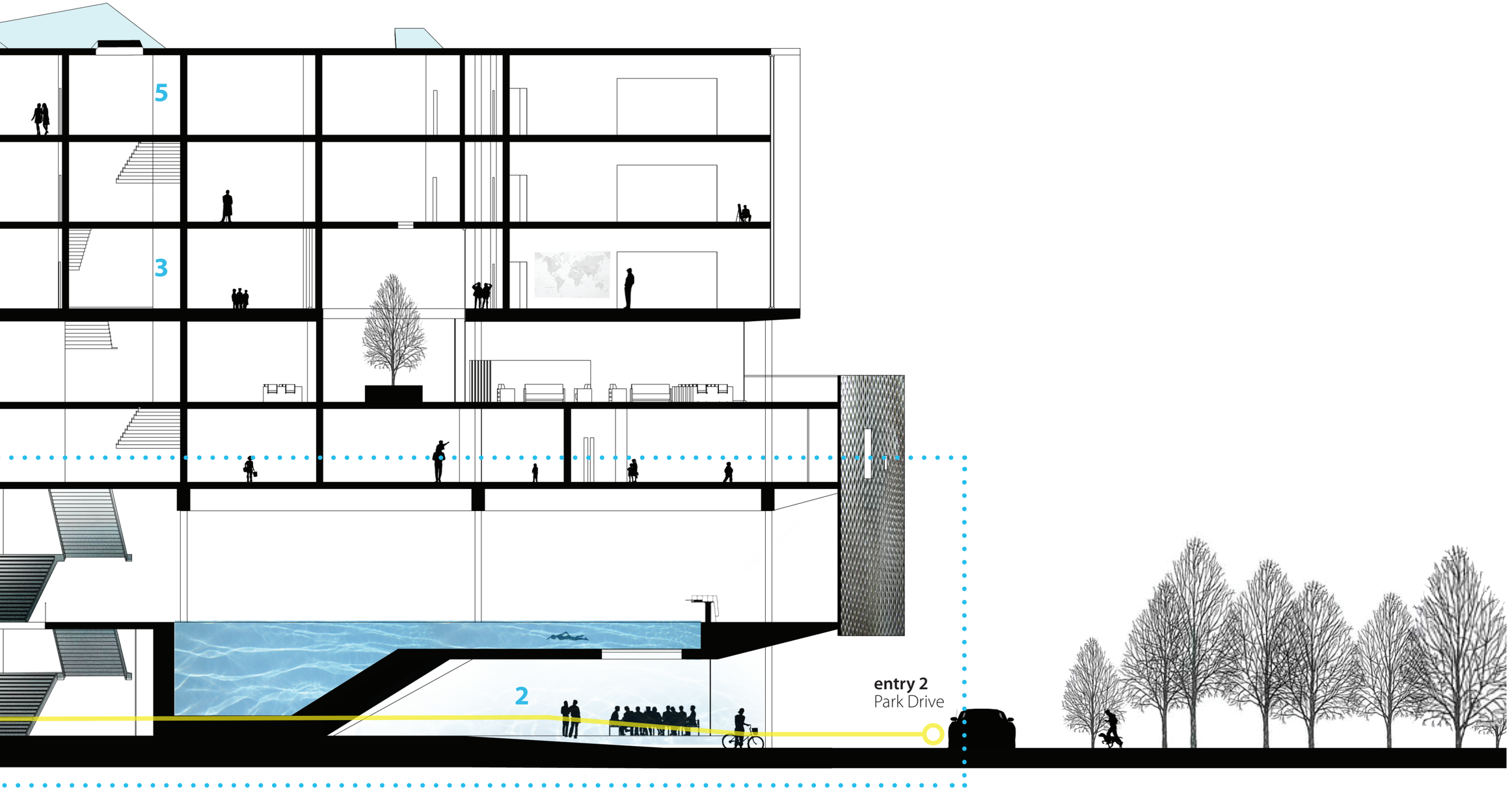


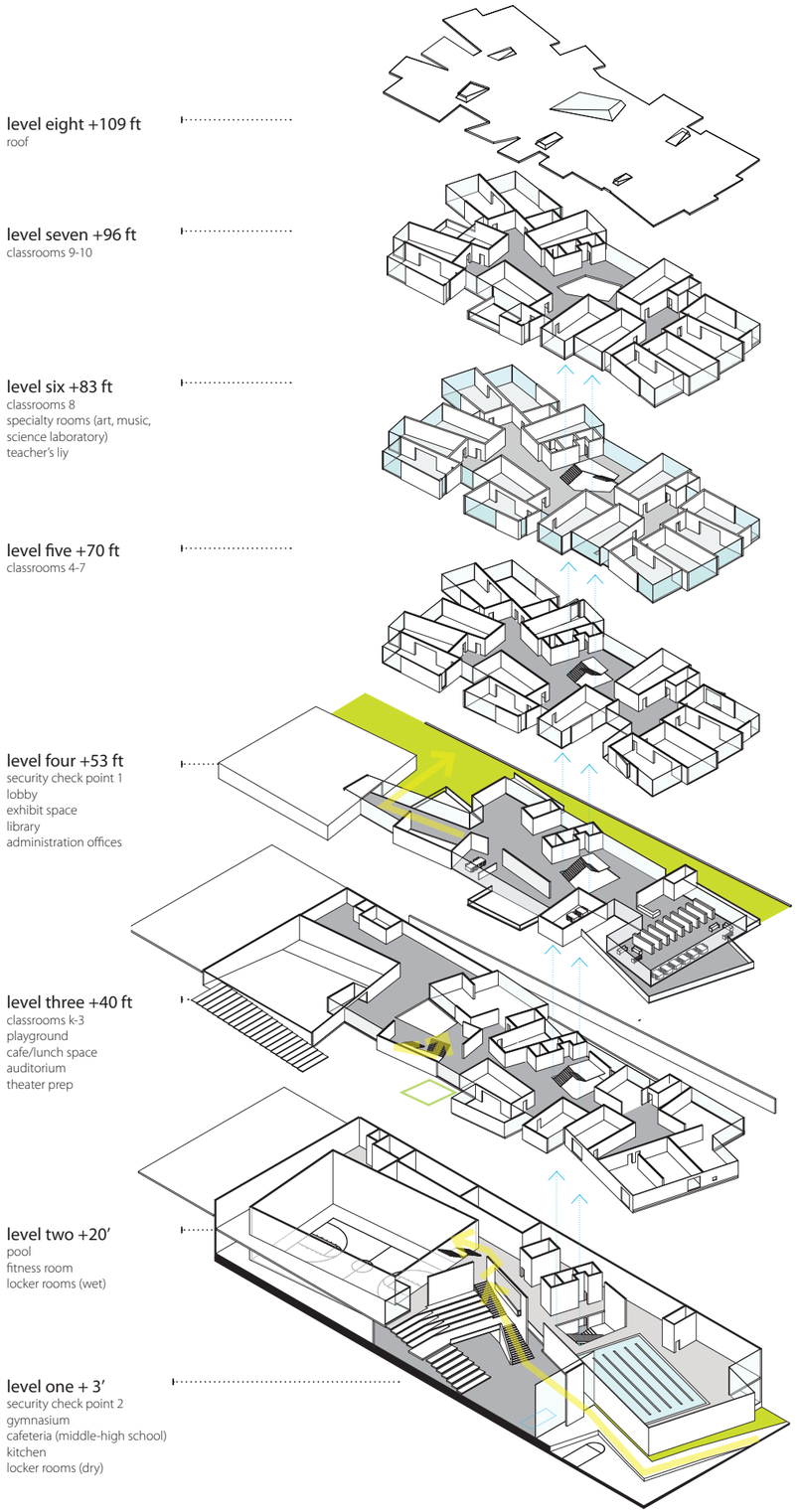

entry 2 (+53')
entry 1 (+3')
columbus drive
park drive

The lower portion of the school acts as community center that includes a swimming pool, gymnasium, and auditorium.

A continuous circulation path connects the two main entry points. This circulation complements the main school circulation and can be isolated for after house community center use.




5
3
2
entry 2
Park Drive



level eight +109 ft
roof

level seven +96 ft
classrooms 9-10

level six +83 ft
classrooms 8
specialty rooms (art, music, science laboratory)
teacher's liy

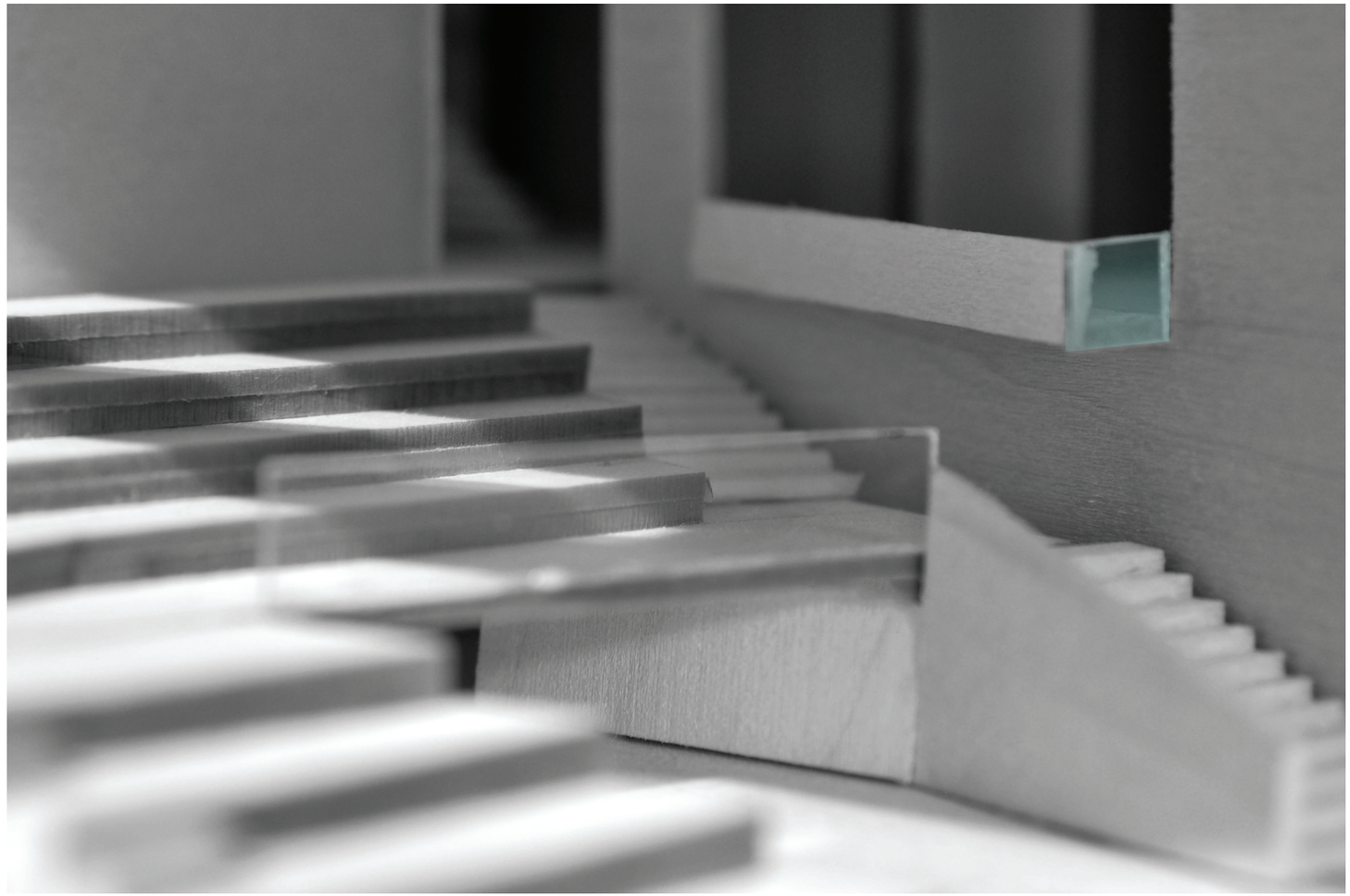
level five +70 ft
classrooms 4-7

level four +53 ft
security check point 1
lobby
exhibit space
library
administration offices

level three +40 ft
classrooms k-3
playground
cafe/lunch space
auditorium
theater prep

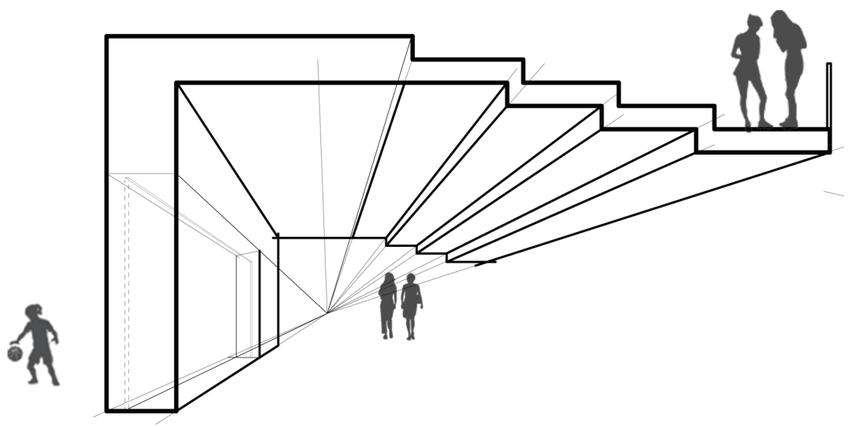
level two +20'
pool
fitness room
locker rooms (wet)

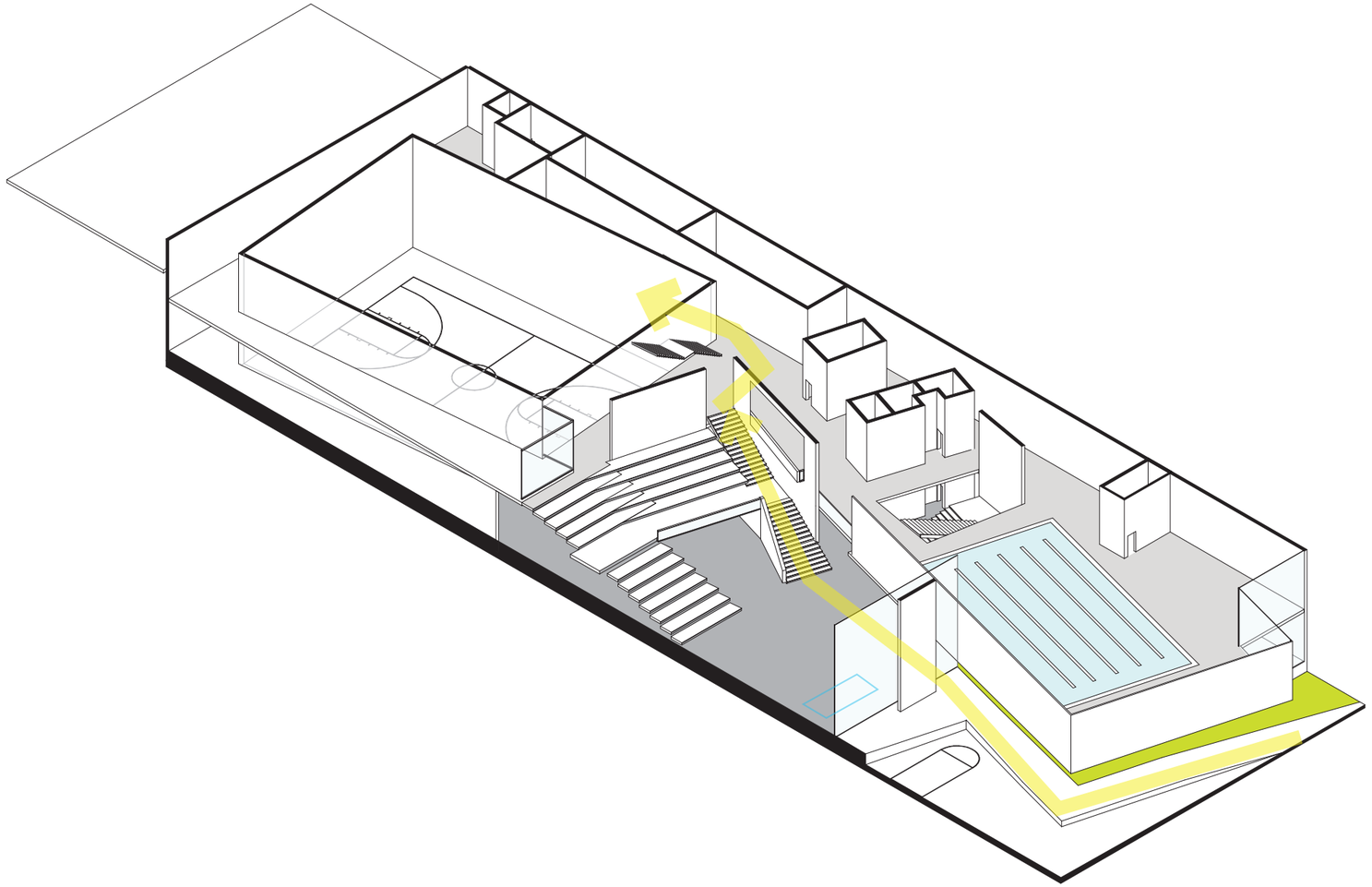
level one + 3'
security check point 2
gymnasium
cafeteria (middle-high school)
kitchen
locker rooms (dry)



1 illuminate. central gathering stair ascends

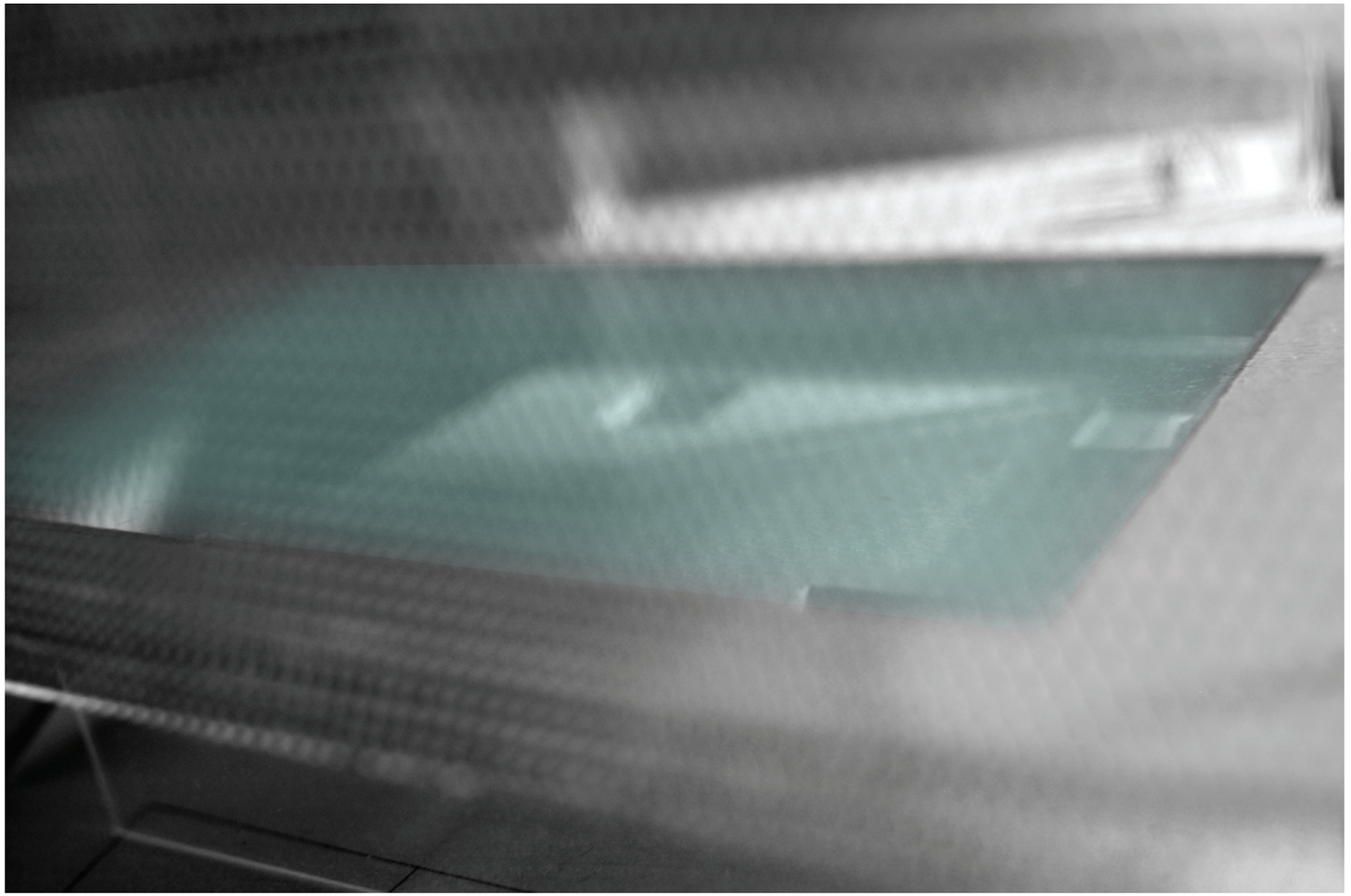
The central stair ascends and begins the sequence of vertical circulation. Light permeates the ground plane at the playground above and illuminates the stair. The lower portion of the stair frames views of the gymnasium beyond and creates a space for gathering.





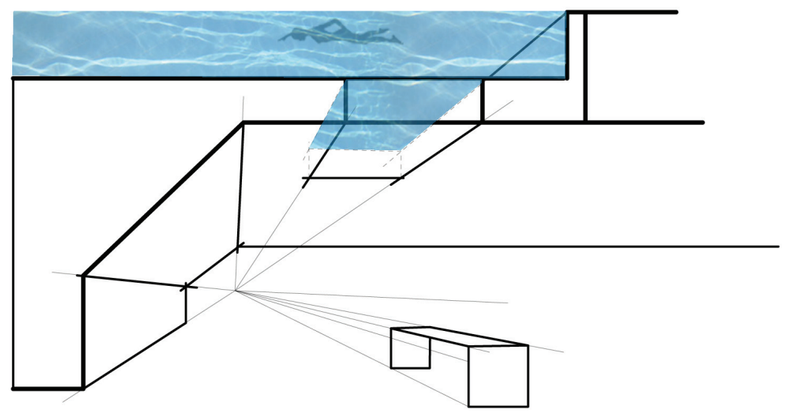
level two +20’

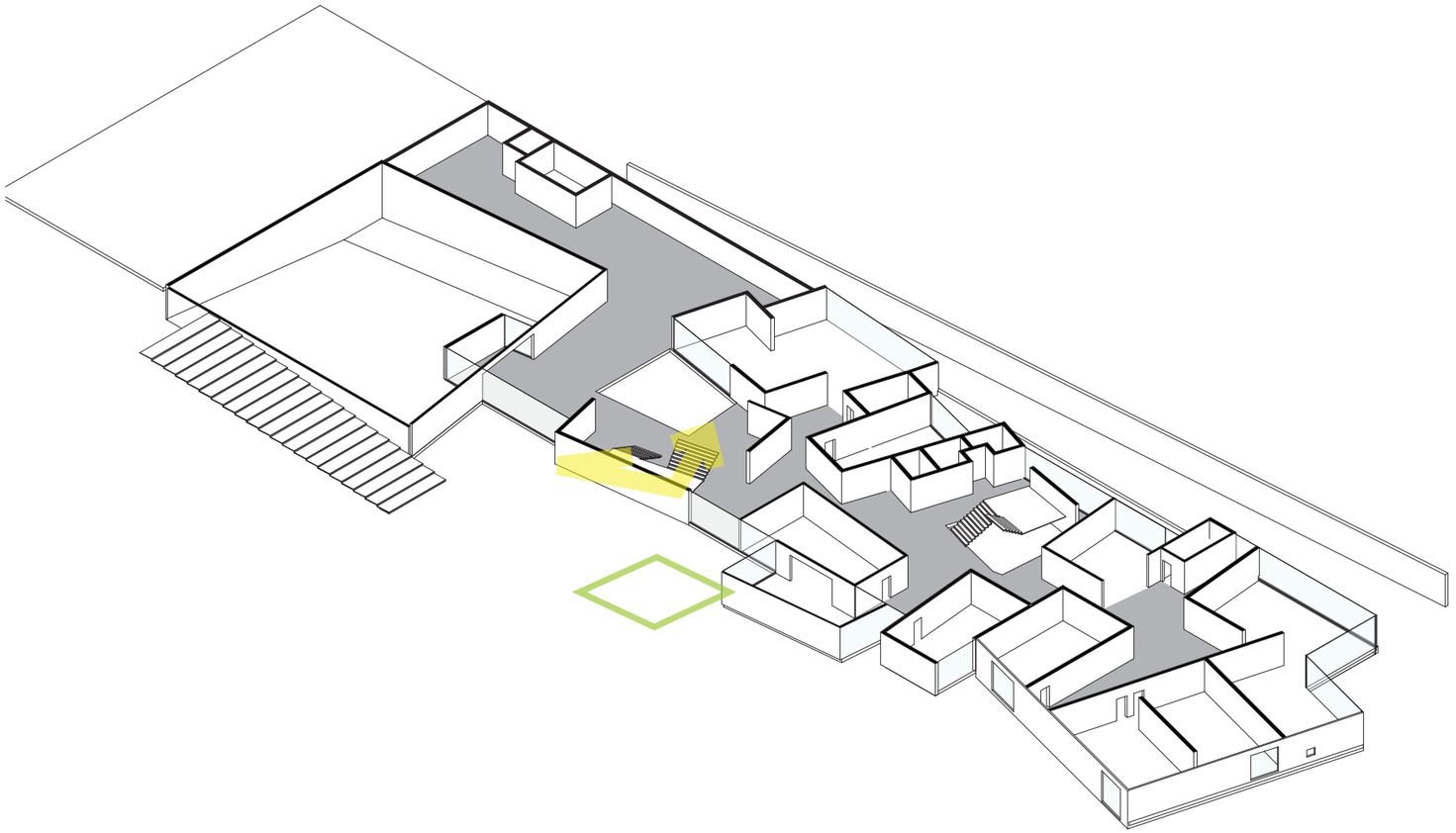
pool
fitness room
locker rooms (wet)



2 filter. elevated pool with transparent cut outs

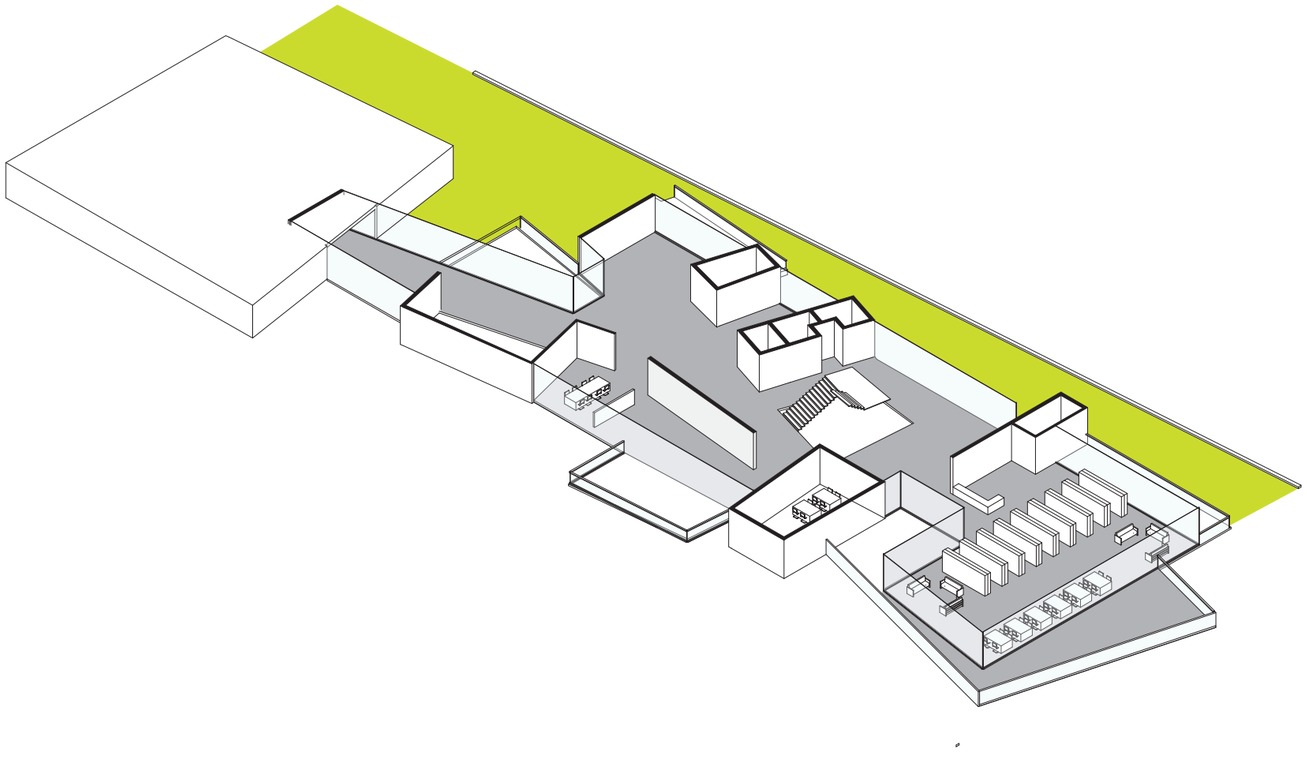
The pool volume energetically extends to the park. Plentiful light filters into the pool from both the East facade and central skylight. The pool is elevated above the cafeteria, transparent and translucent cut outs in the underside of the pool reflect the water qualities and create a constantly dynamic light quality.





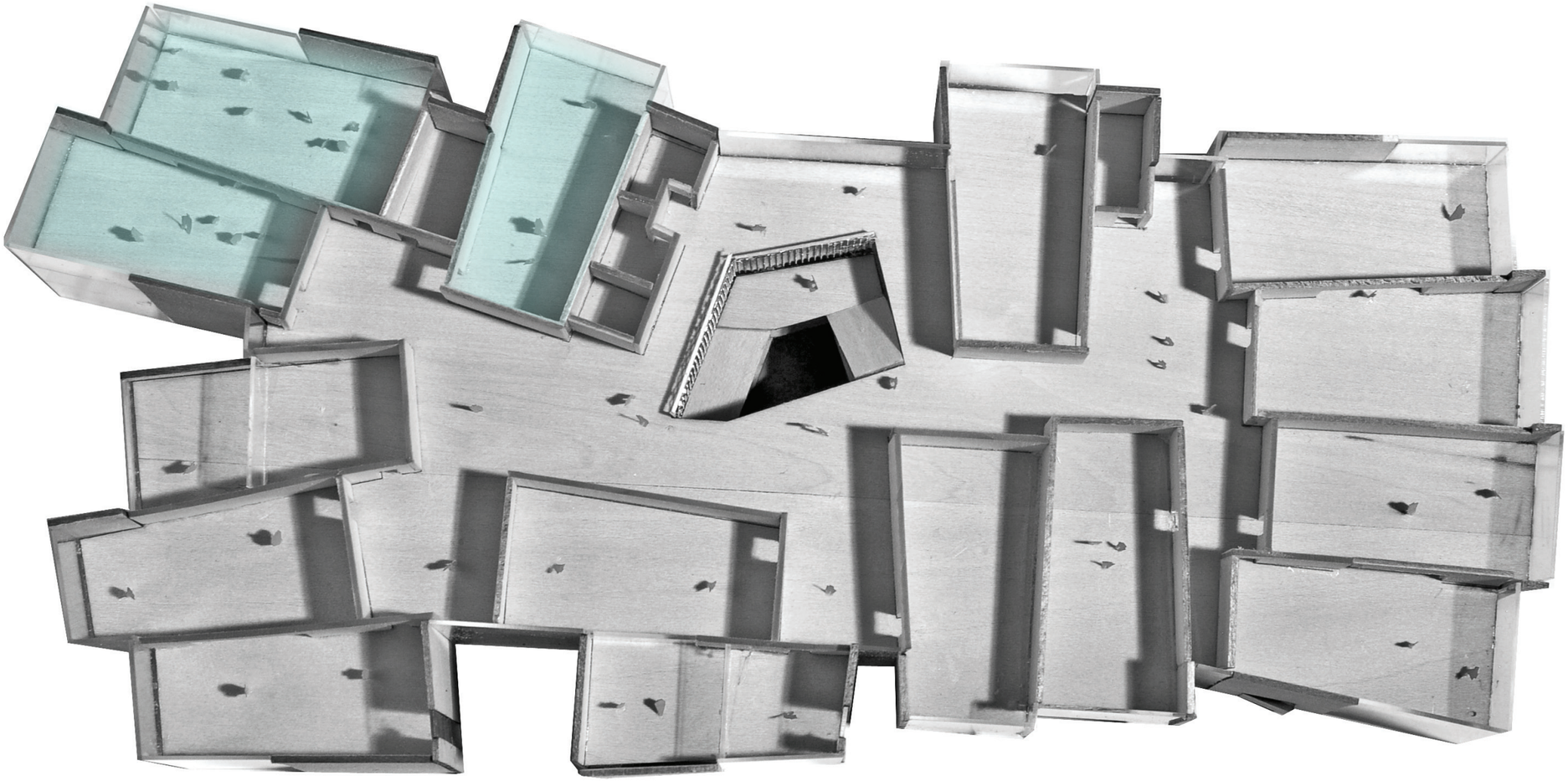
level three +40 ft

classrooms k-3
playground
cafe/lunch space
auditorium
theater prep

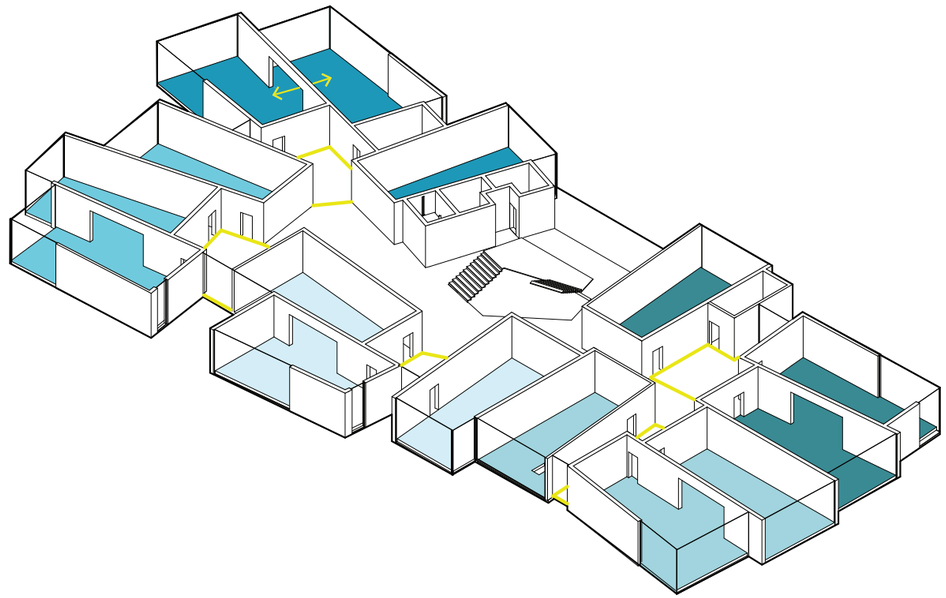


level four +53 ft

security check point 1
lobby
exhibit space
library
administration offices

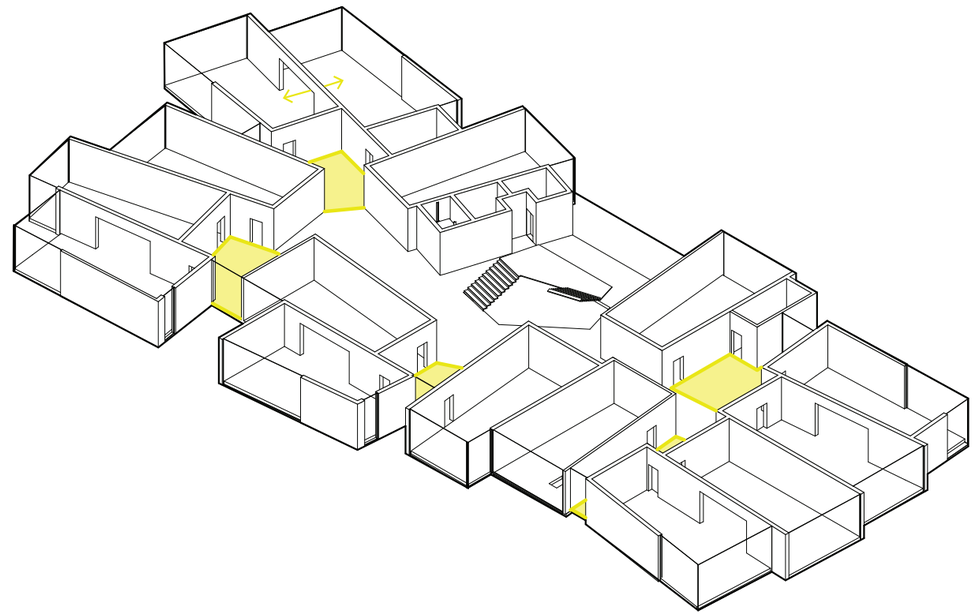


plan organization. grades are organized into clusters of three classrooms



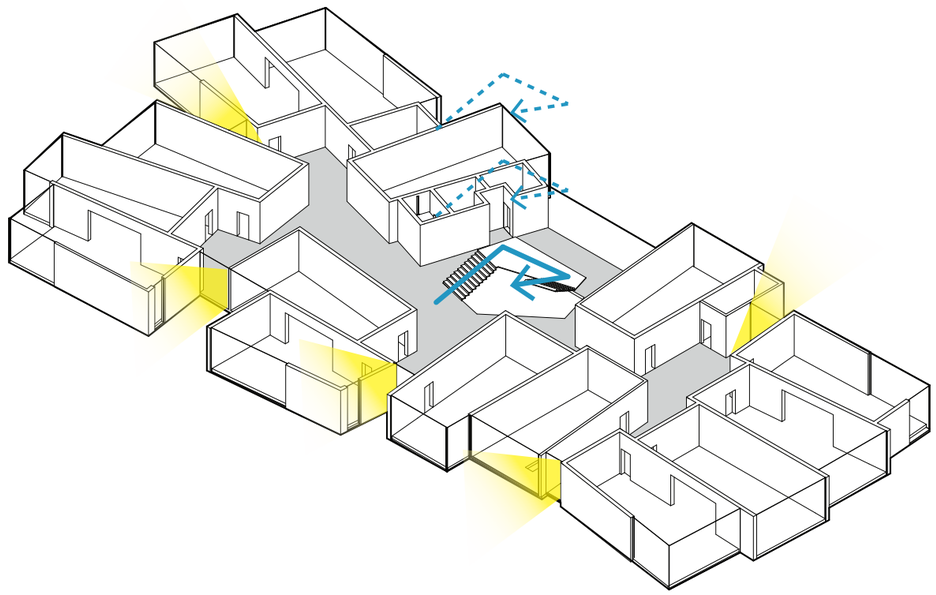
Grouping.

Classrooms are organized by in clusters of three, two classrooms have the potential to connect and form a larger collaborative space for students to interact.



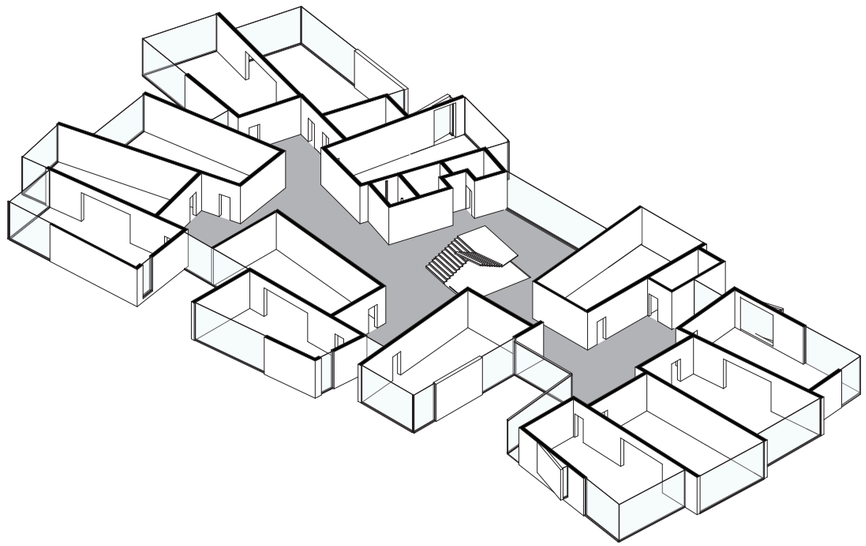
Break out.

Each classrooms cluster has a corresponding break out space which acts as a more informal learning space. Each break out space encourages interaction among students.



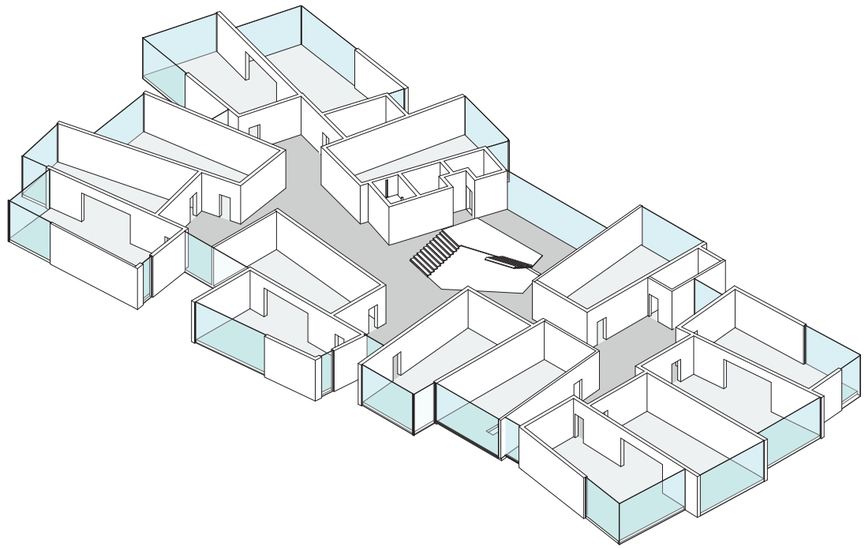
Exploration.

Circulation is driven by the concepts of refuge and prospect. Main circulation is slghtly contracted while the expansion of the break out space along with light draws the student through the space.



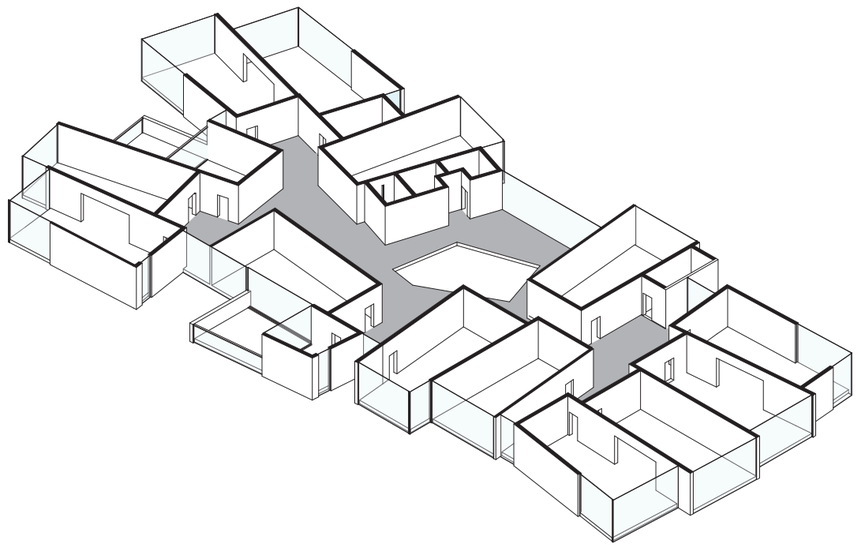
level five +70 ft

classrooms 4-7



level six +83 ft

classrooms 8
specialty rooms (art, music, science laboratory)
teacher's lounge

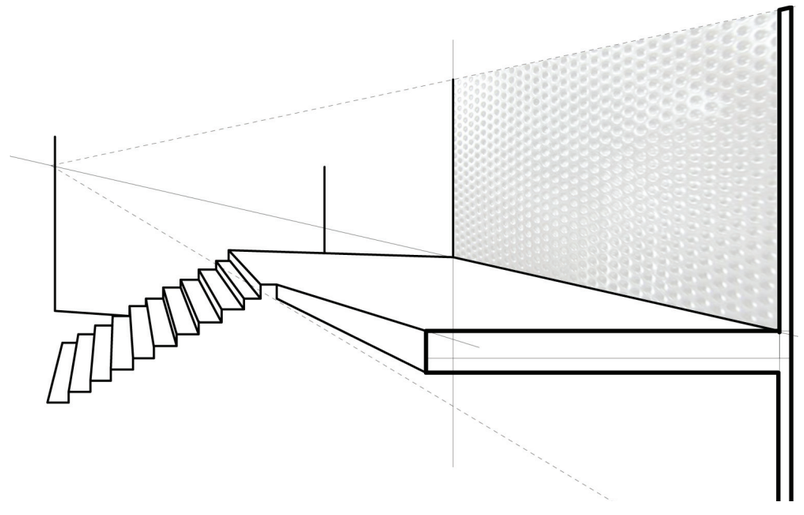


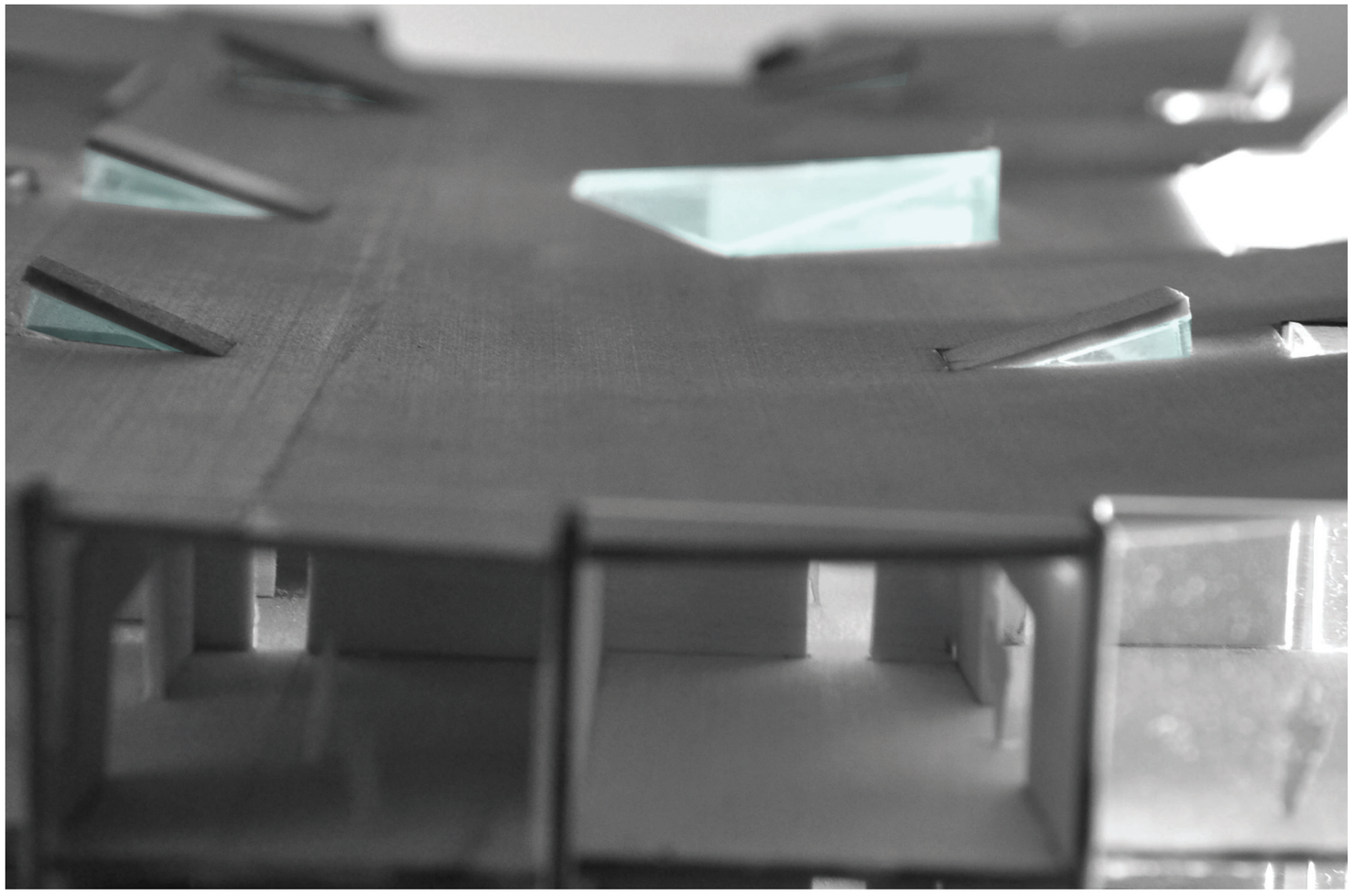
level seven +96 ft

classrooms 9-10

3 layer. connective vertical circulation stair

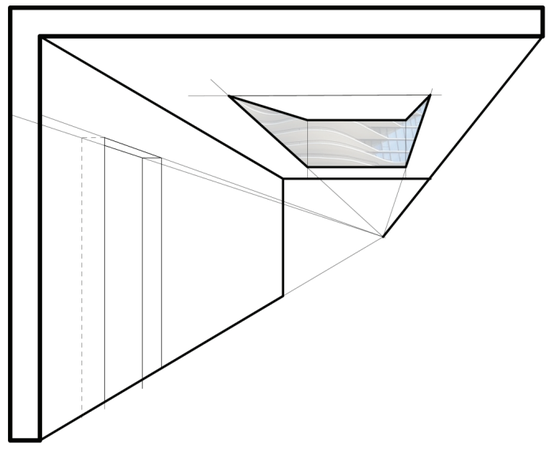
Material variation in transparency, translucency, and screening vary the light quality along the stair and create unique spaces for interaction both on and around it.





5 animate. skylights and roof looking into high school classrooms

Light playfully animates upper level breakout spaces as it enters and reflects off the colored surface below. The skylights look out to the city, students watch the elevators of the neighboring Blue Cross and Blue Shield or the shadows along Aqua Tower.



Captured Moments

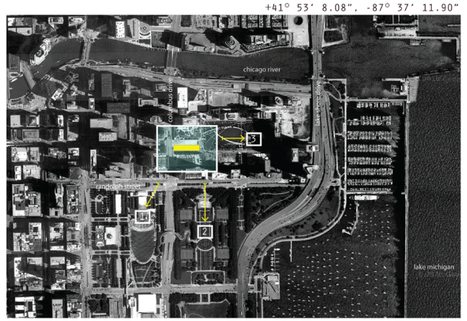
A Concept for a K-12 Urban School

The inspiration to develop a vertical urban school originates from rising urban density and the lack of interconnection and identity in some urban environments.

The urban condition is a construct of rhythm, memory, and the sensory. This condition is illuminated through the dense activity and interaction of city life. Similarly, schools mirror these lively environments. This scheme embraces the layers of activity and vibrancies inherent in the operation of schools and cities.

The recently developed Lakeshore East Community lacks the infrastructure to foster a healthy and energetic neighborhood. Although it is in close proximity to the Chicago Loop this residential community maintains an atmosphere of isolation. This school will link the physical community to the surrounding vitality of the city, establish the school as an integral community element, and catalyze the development of further neighborhood infrastructure.

+41° 53' 8.08", -87° 37' 11.90"



Lakeshore East, Chicago, IL | 1 Millenium Park 2 Grant Park 3 Lakeshore East Park

the space between

screen captures from jacques tati's *mon oncle*.

Uncle Hulot lives in a small old corner of Paris. His world is full of color, light, and frivolity.

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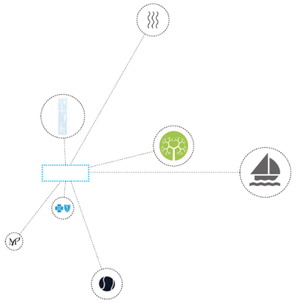
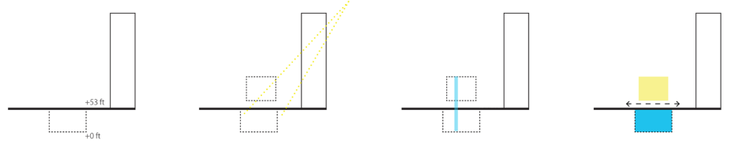




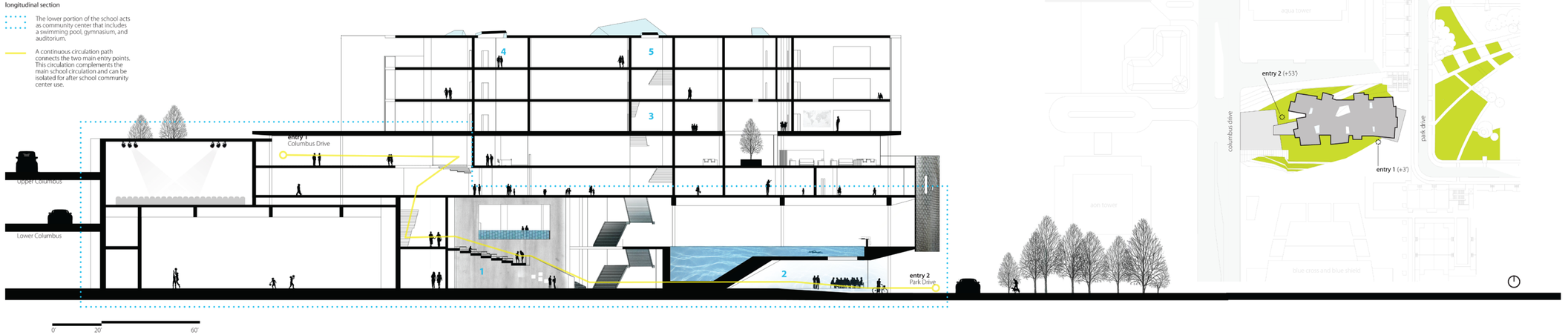
grade change | light | circulation | program

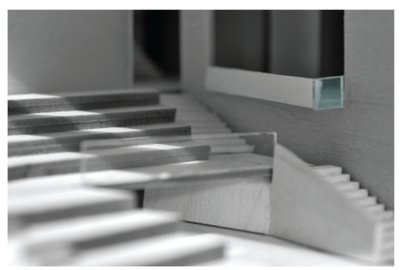
site synergy. It is typical for urban schools to form synergetic relationships with their context. Schools often utilize city parks and other resources, thezy will also often rent their facilities for weekend activities.

longitudinal section

The lower portion of the school acts as community center that includes a swimming pool, gymnasium, and auditorium.

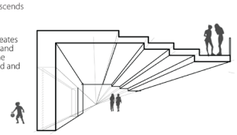
A continuous circulation path connects the two main entry points. This circulation complements the main school circulation and can be isolated for after school community center use.

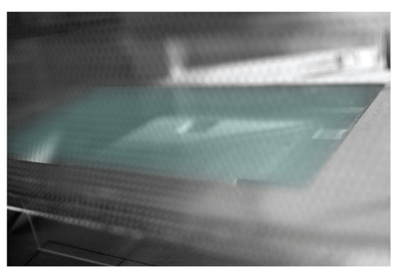




1 illuminate. central gathering stair ascends

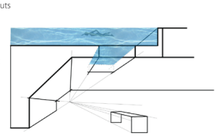
The central stair ascends and begins the sequence of vertical circulation. Light permeates the ground plane at the playground above and illuminates the stair. The lower portion of the stair frames views of the gymnasium beyond and creates a space for gathering.





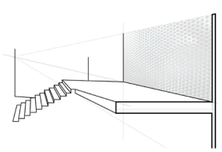
2 filter. elevated pool with transparent cut outs

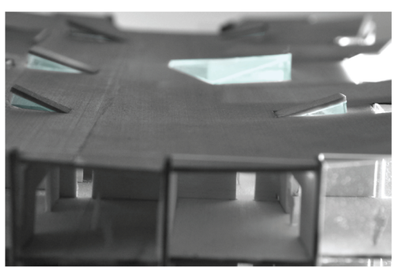
The pool volume energetically extends to the park. Plentiful light filters into the pool from both the East facade and central skylight. The pool is elevated above the cafeteria, transparent and translucent cut outs in the underside of the pool reflect the water qualities and create constantly dynamic light.



3 layer. connective vertical circulation stair

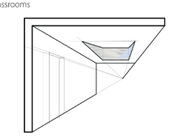
Material variation in transparency, translucency, and screening vary the light quality along the stair and create unique spaces for interaction both on and around it.

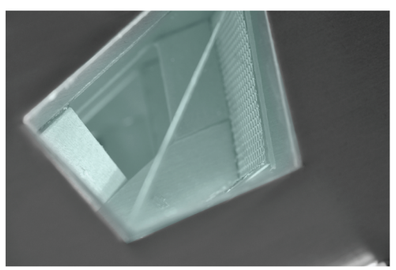




4 animate. skylights and roof looking into high school classrooms

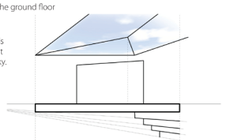
Light playfully animates upper level breakout spaces as it enters and reflects off the colored surface below. The skylights look out to the city, students watch the elevators of the neighboring Blue Cross and Blue Shield or the shadows along Aqua Tower.





5 capture. central skylight filters light to the ground floor

The central vertical circulation acts as a light well that pulls light into the subterranean levels below. In a similar way to the smaller scale light apertures, this skylight provides views to the sky.



level eight +109 ft
roof

level seven +96 ft
classrooms 9-10

level six +83 ft
classrooms 8
specialty rooms (art, music, science laboratory)
teacher's lounge

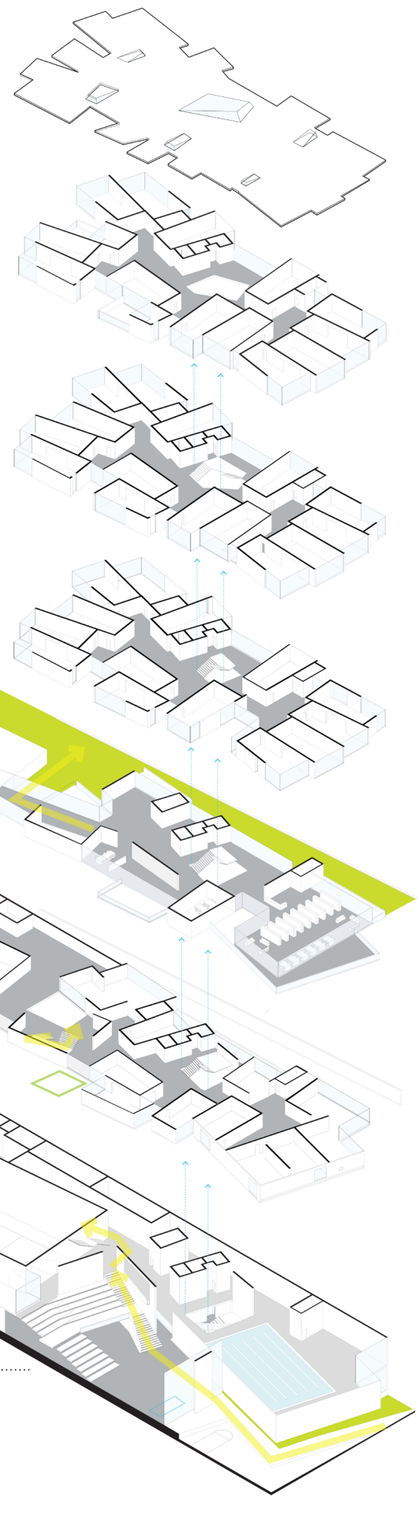
level five +70 ft
classrooms 4-7

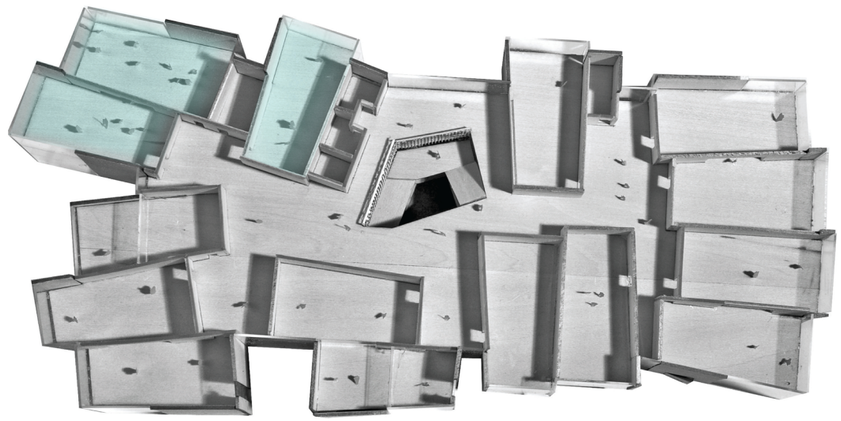
level four +53 ft
security check point 1
lobby
exhibit space
library
administration offices
conference room

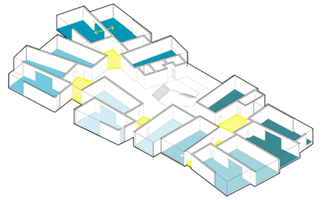
level three +40 ft
classrooms k-3
playground
cafe/lunch space
auditorium
theater prep

level two +20'
pool
fitness room
locker rooms (wet)

level one + 3'
security check point 2
gymnasium
cafeteria (middle-high school)
kitchen
locker rooms (dry)





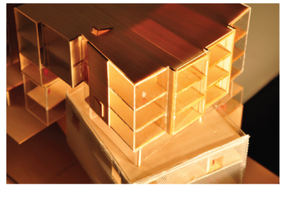


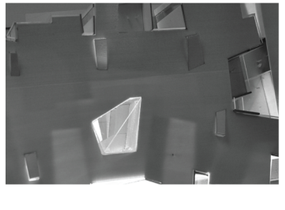
plan organization. grades are organized into clusters of three classrooms

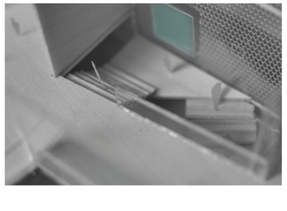
Grouping.
Classrooms are organized by in clusters of three, two classrooms have the potential to connect and form a larger collaborative space for students to interact.

Break out.
Each classrooms cluster has a corresponding break out space which acts as a more informal learning space. Each break out space encourages interaction among students.

Exploration.
Circulation is driven by the concepts of refuge and prospect. Main circulation is slghtly contracted while the expansion of the break out space along with light draws the student through the space.







RESOURCES

Bahamon, Alejandro. Tree Houses: Living a Dream. New York: Harper Design, 2005.
The book features various projects and calls out case studies of playrooms, weekend retreats, home offices, dining rooms, etc. This source will be used to understand a level of creativity through the study of these “dreamlike constructions”.

Elkind, David. The Child and Society: Essays in Applied Child Development. New York: Oxford UP, 1979.
The book explores ideas of the child’s presence in society on various levels. The source measures levels of a child’s interaction with the urban context mentally, physically, and psychologically.

Hillman, Mayer, John Adams, and J. Whitelegg. One False Move ...: a Study of Children’s Independent Mobility. London: PSI, 1990.
The book analyzes a child’s place in the urban context and addresses issues that arise from a child’s freedom to roam. The study explores travel patterns in relationship to personal autonomy of children 7-15. The source will be used to understand how children use spaces naturally and how to address problems associated with travel risks.

Malnar, Joy Monice., and Frank Vodvarka. Sensory Design. Minneapolis: University of Minnesota, 2004.
The book studies the implementation of techniques used in sensory design, through the exploration of its theory and significance. The source will be used to call into question the approach to the interior and exterior condition of a user in a school.

Schittich, Christian. Interior Surfaces and Materials: Aesthetics, Technology, Implementation. Basel: Birkhauser, 2008.
The book explores material properties of surfaces from a visual and haptic perspective. The source will be used to begin to understand techniques that can be used to implement sensory design ideas.

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Crawford, Patricia Joan, and A. E. Virgin. The Effects of High Rise Living on School Behaviour. [North York, Ont.]: Board of Education for the Borough of North York, Dept. of Educational Research Services, 1971.

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Trump, J. Lloyd. A School for Everyone: Design for a Middle, Junior, or Senior High School That Combines the Old and the New. Reston, VA: National Association of Secondary School Principals, 1977.