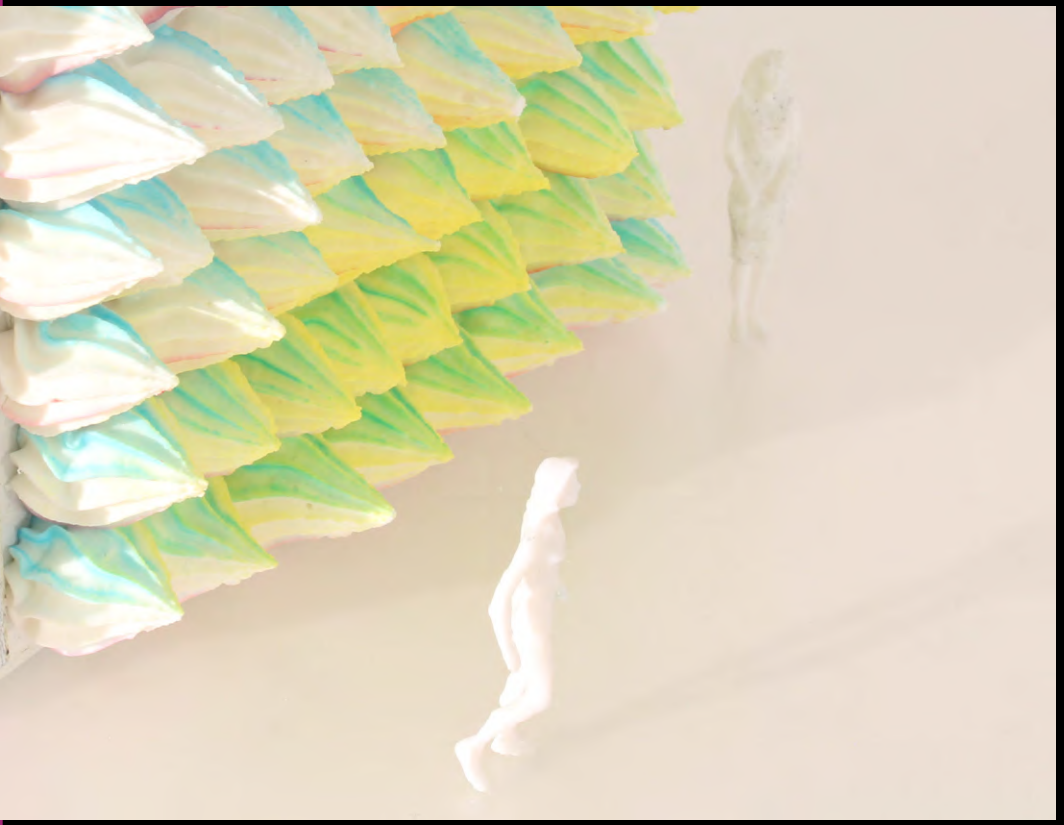
Laura Valdivia





M.Arch Portfolio| |UWM School Of Architecture and Urban Planning|

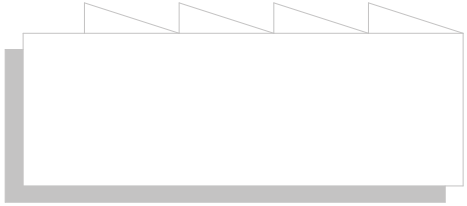
Table Of Content



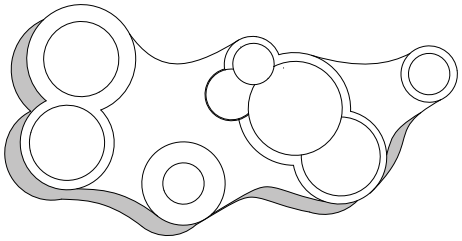
Candyland



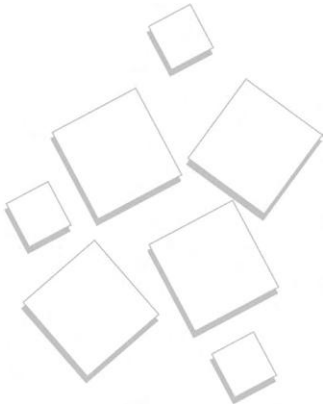
The Wedge



St. Johns Aquatic Center



In- B- Tween



Box in a Box

Urban Edge Workshop

Candyland

Candyland is the study of sugar as an architectural modeling material and how to conceptualize, find forms and spaces with sugar. This is achieved through the study of several sugar recipes and their inherent characteristics and applications, to a two-story wood construction shed.

In Candyland the sugar techniques are applied to an existing suburban wood structured home in Seaside Florida. Seaside Florida is a New Urbanistic town with a strict architectural code which gives seaside a monotonous field condition which results in a lack of diversity of inhabitants and use. This unique site allows for an interesting juxtaposition of color, dimension, material and a whimsicle use of spaces and programming resulting in a different enhanced suburban lifestyle and diversity. In Candyland I developed a recipe for a new architecture that has color, dimention, texture, and niches in which you can reside without the use of furniture that blur the lines between private spaces and public spaces.

Sugar Architectural Operations



Dripped chocolate

Dripped upside down



Stretched Marshmallow

Stretched marshmallow when warmed.



stretched sugar

pulled until sugar strarts cracking.



Dripped Chocolate

Lumps and strings intobuilds into an organicform.



Piped/Extruded

Extruded through a star tip.

Royal Icing

Ingredients

1 Cup egg whites or 3 T of Merengue powder
2 lbs powdered Sugar
3 T cold water



Tools

stand mixer(kitchen aid)
measuring cups
measuring spoons

Instuctions

Using a stand mixer and a whist attachment, make sure whisk attachment is grease free. any fat residue on tools will break down the icing. whisk all ingredients together until ingredients begin to fluff up into a buttercream like consistency(about 8min). add more water if its too stiff.

Marshmallow

Ingredients

3 packs unflavoured powdered Gelatin
1 1/2 C Granulated Sugar
1 C Light Corn Syrup
1 t vanilla extract
Food color



Tools

stand mixer(kitchen aid)
pot or saucepan
measuring cups
measuring spoons

Instuctions

Combine powedered gelatin with 1/2 C of water in a mixer bowl, set aside. in a pot combine sugar, light corn syrup and 1/2 cup of water, heat until sugar dissolves. Raise the heat to high and cook until sugar syrup reaches 240 degrees (softball stage). set mixer on low speed and slowly pour into dissolved gelatin powder. Once all the syrup is in raise the mixer to high speed and whisk until mixture is fluffy and thick. do not over mix as it will toughen.

Modeling Sugar

Ingredients

1 Cup of water
2lbs granualted sugar
1/4 C or (3 oz) gluecose or corn syrup
Food coloring



Tools

rubber silpat
oven
pot or saucepan
measuring cups
measuring spoons

Instuctions

Using a stand mixer and a whist attachment, make sure whisk attachment is grease free. any fat residue on tools will break down the icing. whisk all ingredients together until ingredients begin to fluff up into a buttercream like consistency(about 8min). add more water if its too stiff.

[Shed Sugar Recipes]



Cutout

cut from cutters and or sharp objectS.



Formed Gumpaste

Extruded through a round tip.



Piped Marshmallow

Extruded through a round tip.



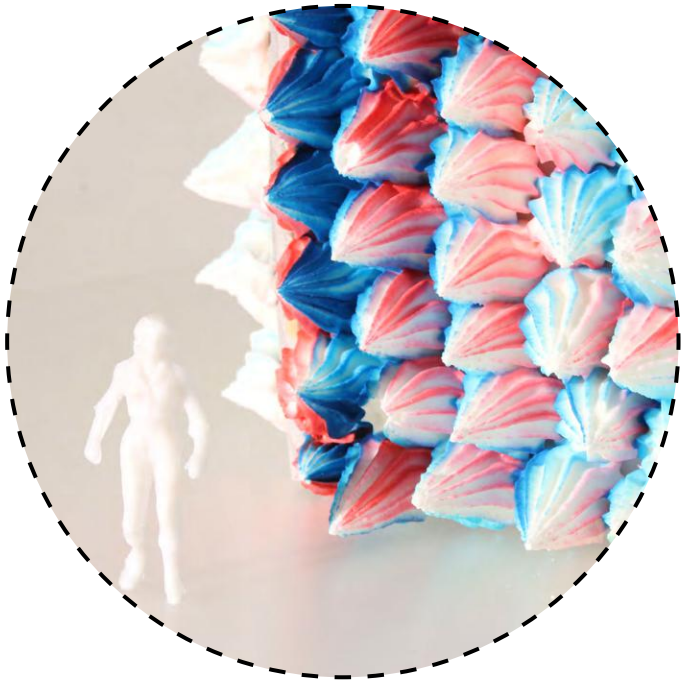
Texture

Applied shredds of coconut.



Texture

Applied cranberry to marshmal-low.



[Detail]



[Detail]



Layered sugar

multiple poured flat pieces of sugar
stacked on eachother.



Dalloped Marshmallow

Extruded through
a round tip.



Stretched Sugar

pulled until its breaking point



Poured sugar

sugar melted into organic form.



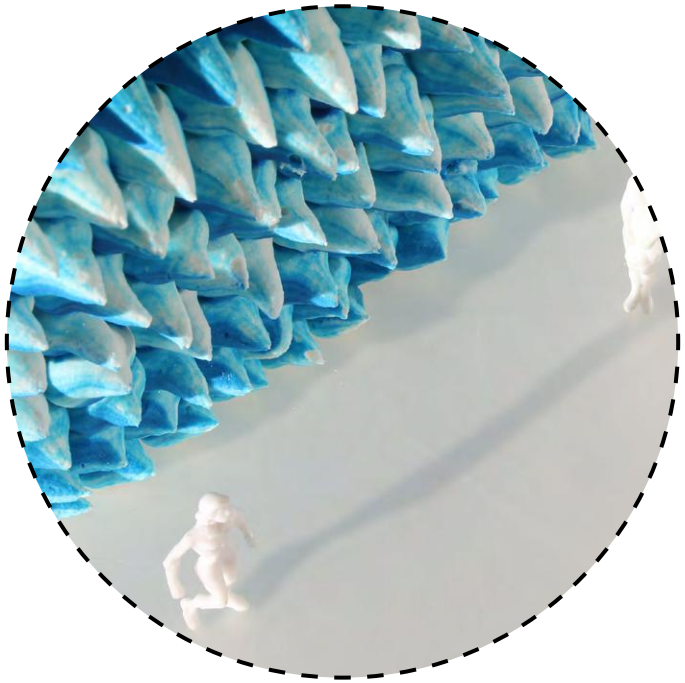
Poured Marshmallow

Over laps within itself. Drips thin out
as it mounds.

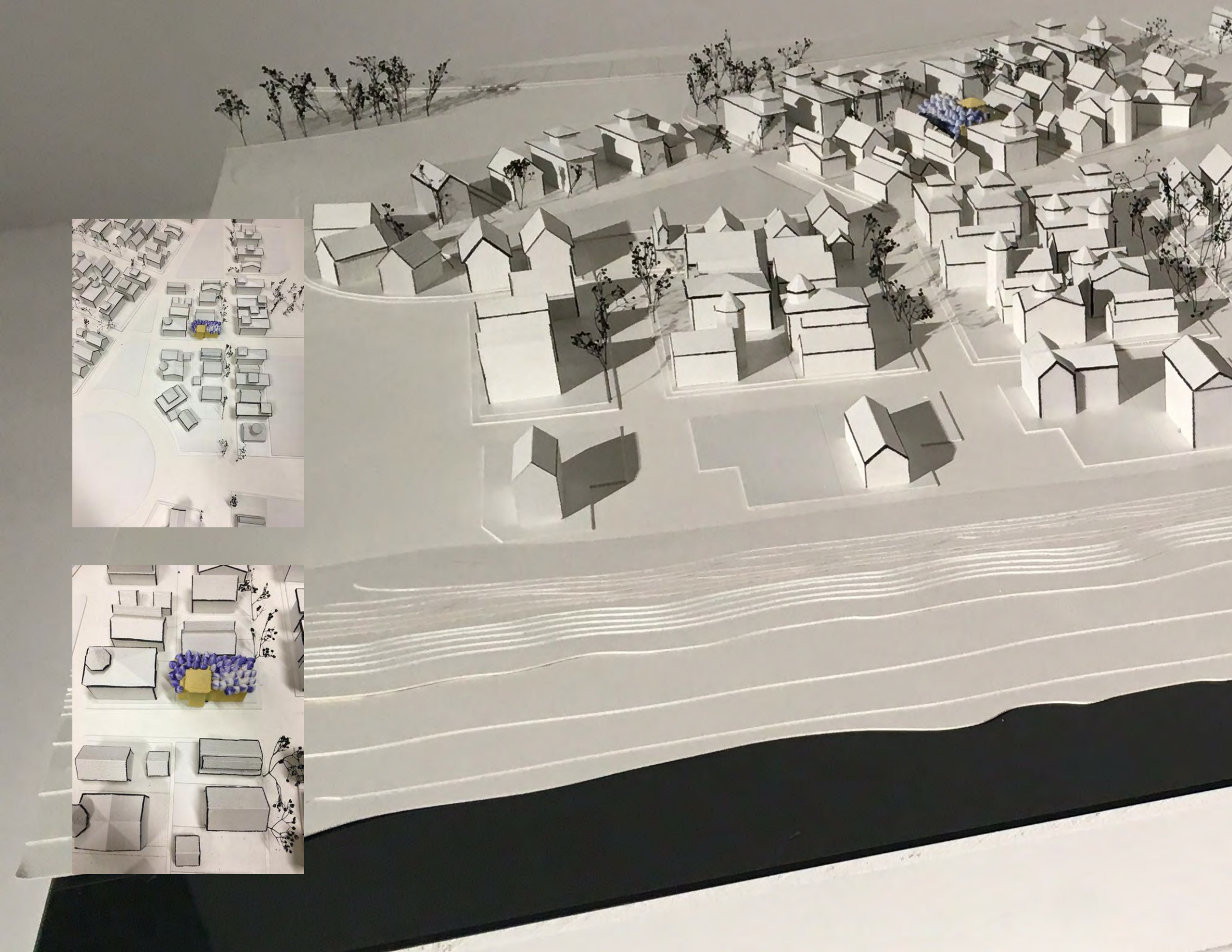
[Closeup]

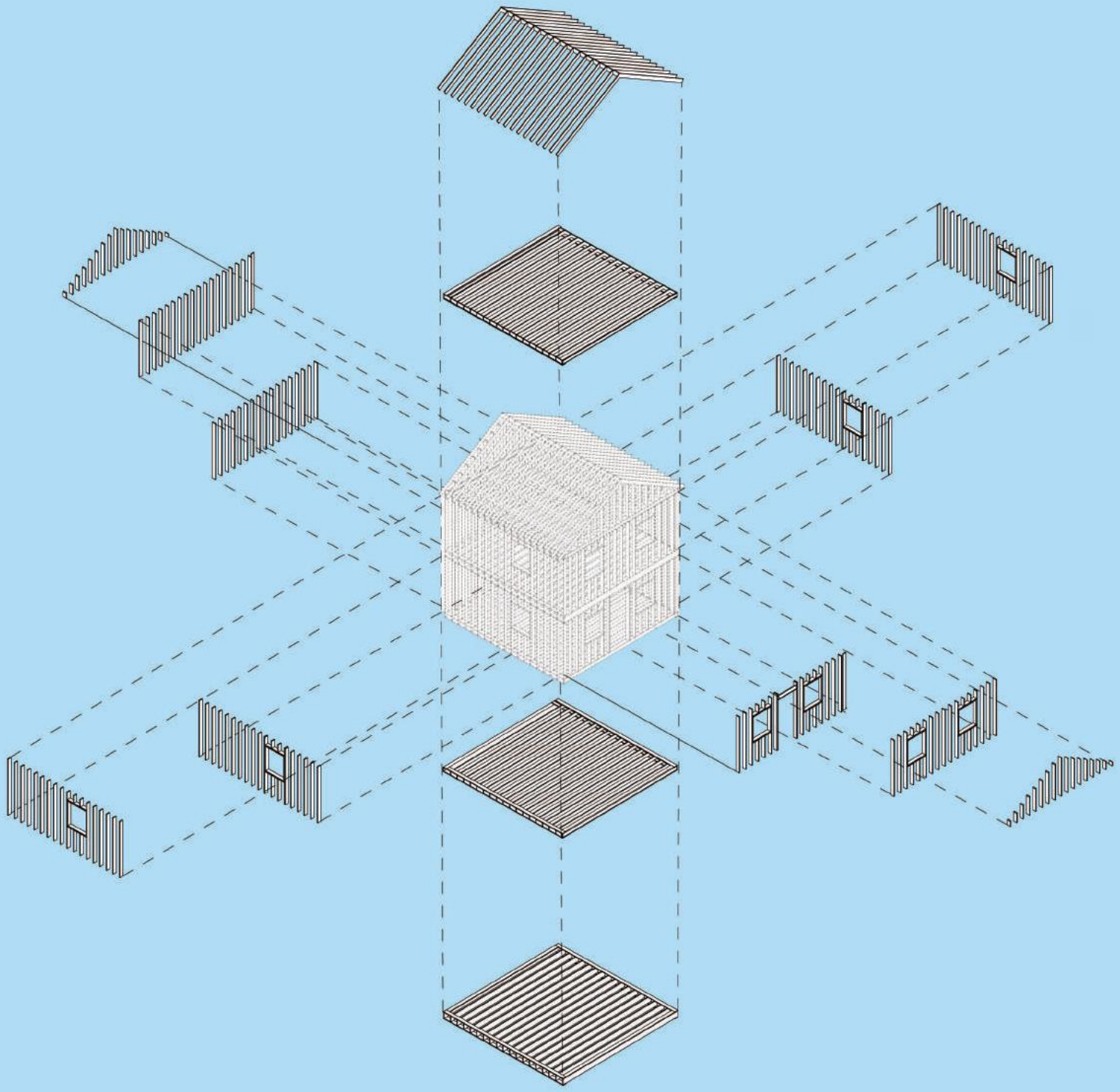


[FULL SCALE]



[Detail]





[Wood Shed Construction]

[SUGAR DRIP]



[Detail]



[side view]

[SUGAR FOLDS]



[Interior Detail]





[side view]

[COLOR DRIP]

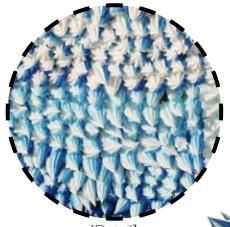


[Detail]



[side view]

[SPIKE PULL]



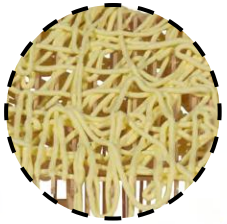
[Detail]





[Backview]

[SUGAR SKETCH]



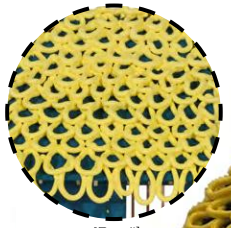
[Detail]





[side view]

[SUGAR LOOP]



[Detail]





[side view]

[SUGAR BEAD]



[Detail]





[side view]

[SUGAR FLUFF]



[Detail]





[side view]

[SUGAR CLING]



[Detail]

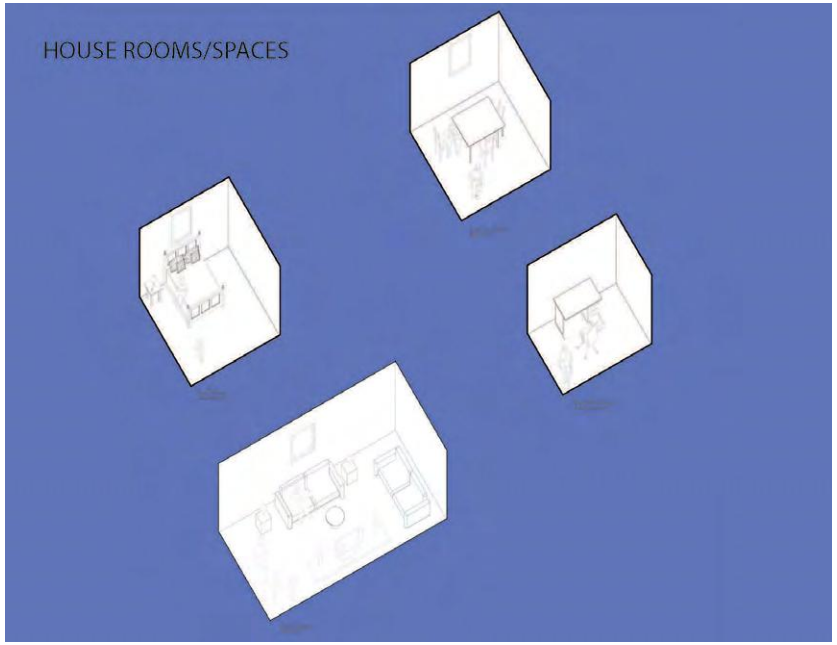




[side view]



[Site House Studies]

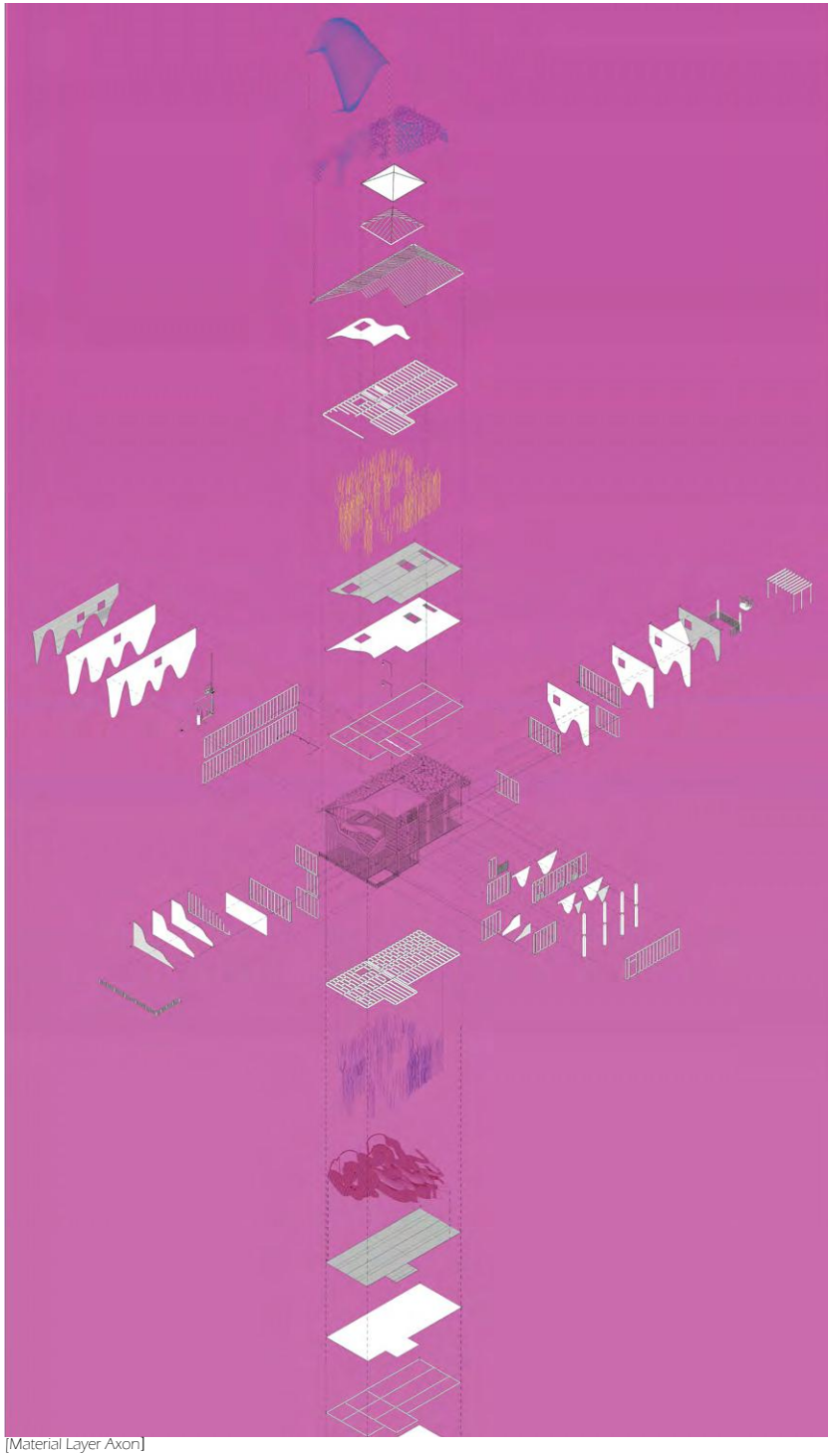


[Furniture arrangement space studies]

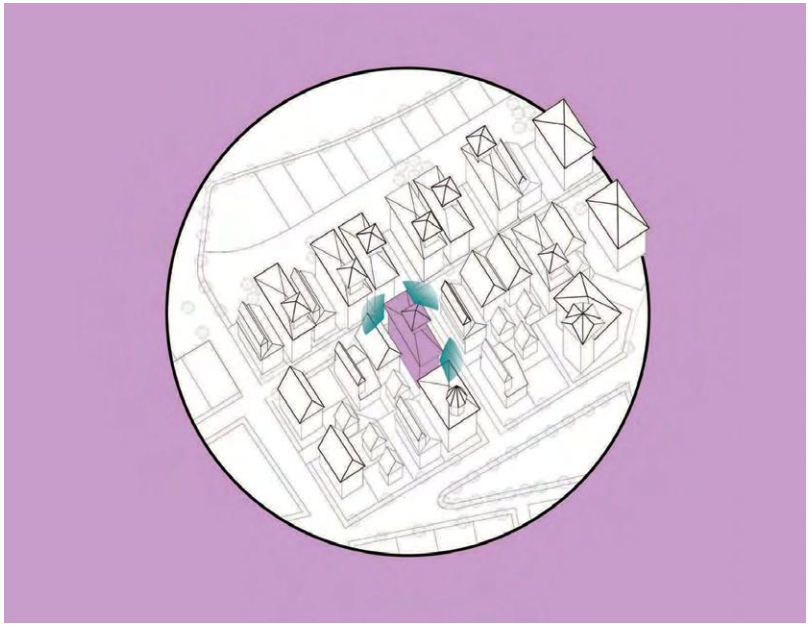


[site Lot]

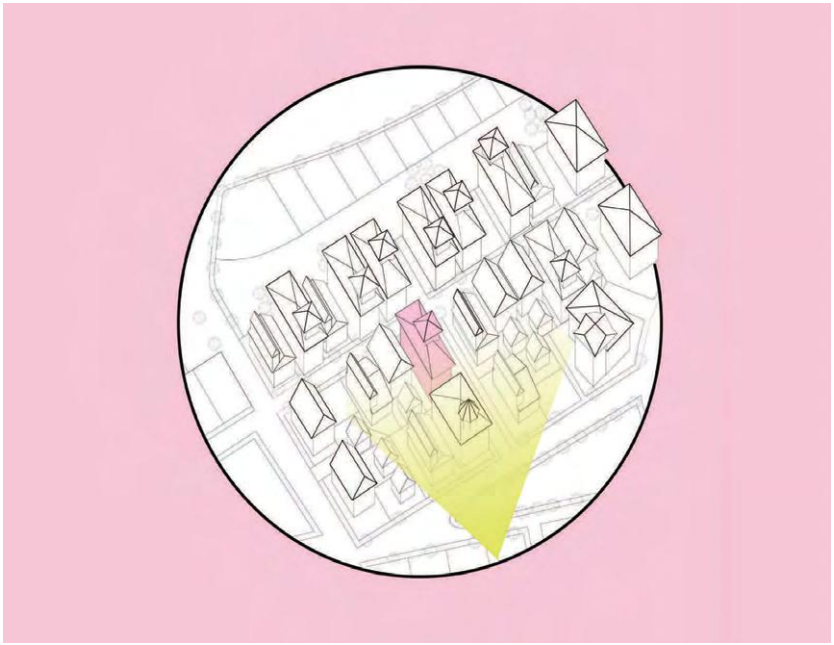




[Material Layer Axon]



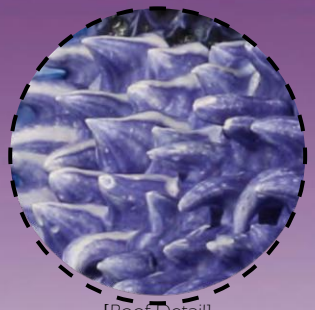
[vista studies]



[sun studies]



[Roof Detail]



[Roof Detail]

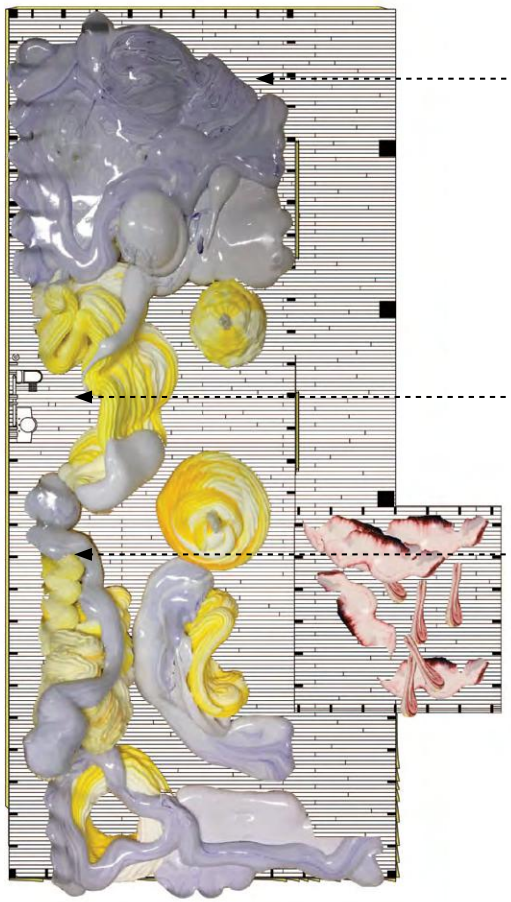


[Wall Detail]



[Floor Detail]

1st level



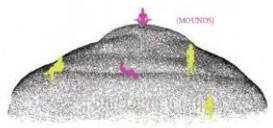


[Spacial studies of sugar]

[Sugar scans]

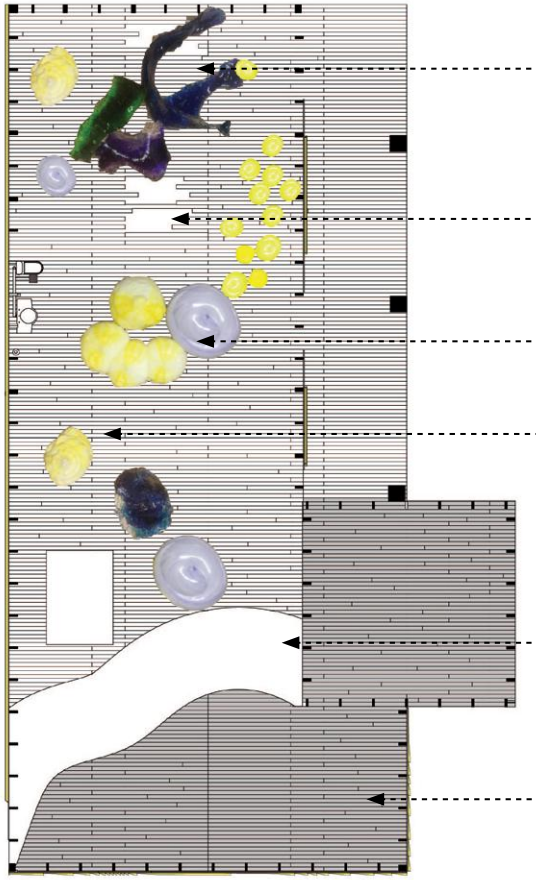


[Spacial studies of sugar]



[Spacial studies of sugar]

2nd level





[Sugar scans]

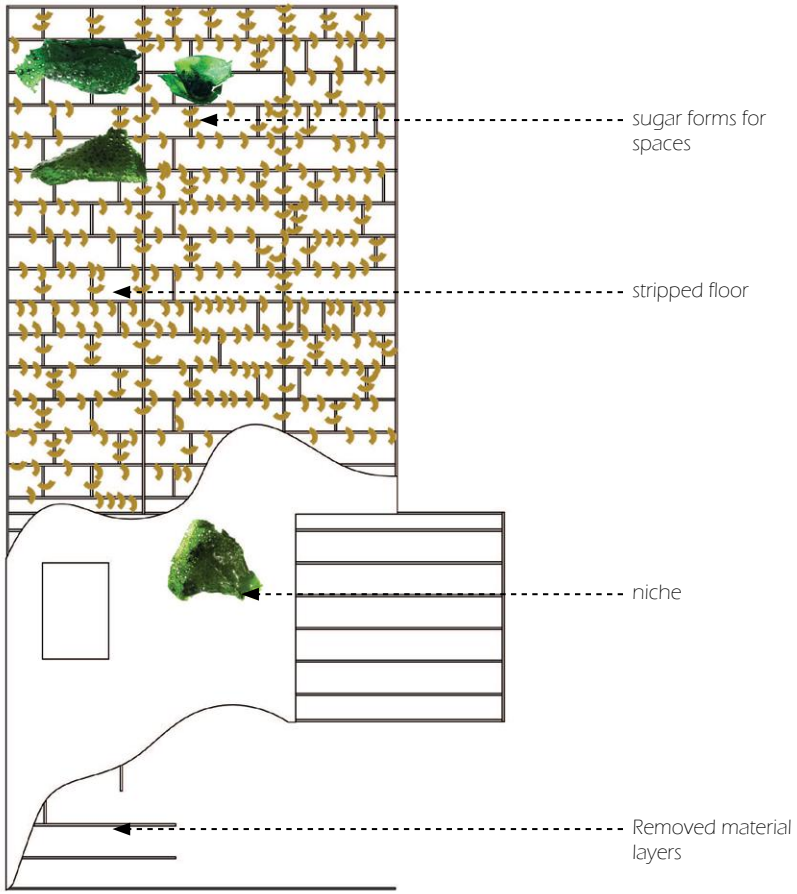


[Spacial studies of sugar]

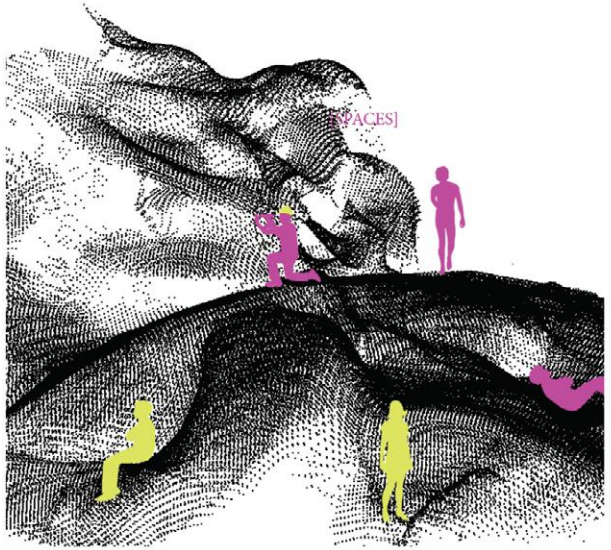


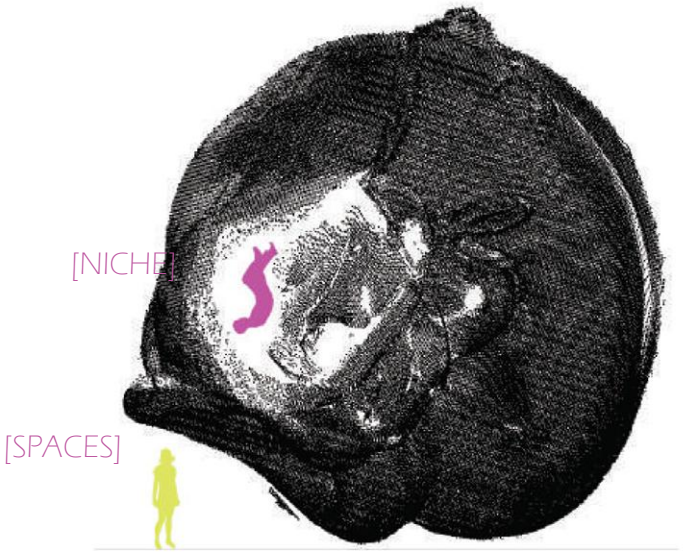
[Spacial studies of sugar]

3rd level


sugar forms for spaces
stripped floor
niche
Removed material layers

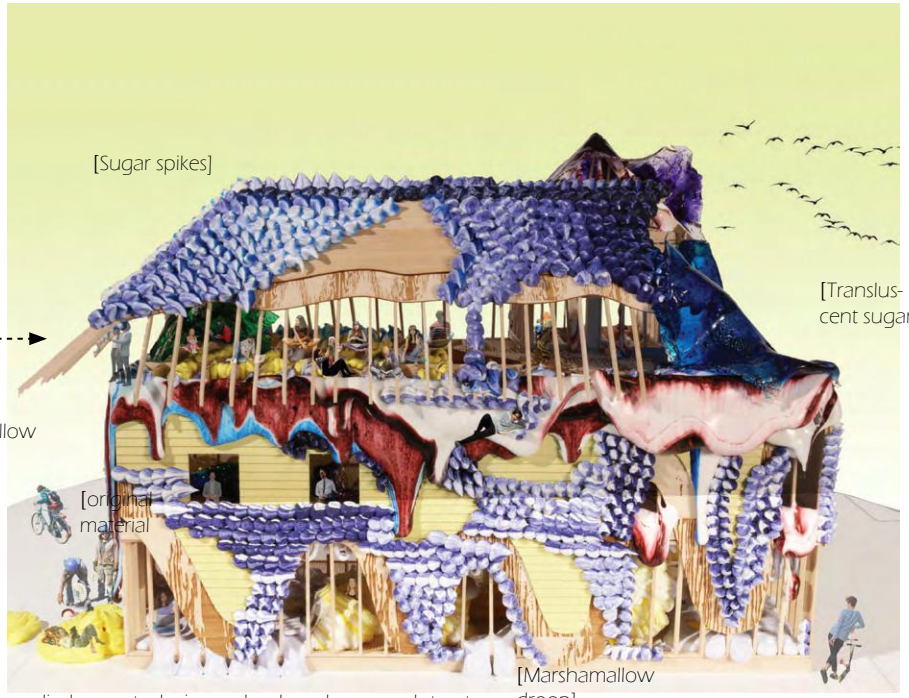



[SPACES]


[NICHE]
[SPACES]

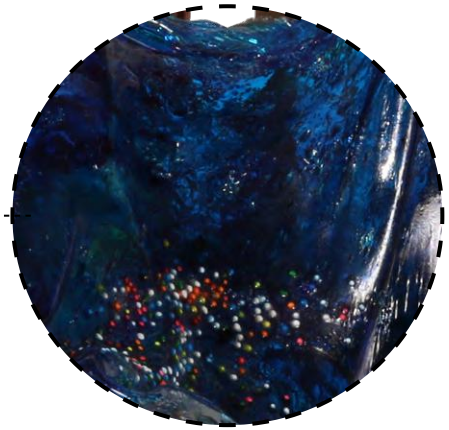


The texture allows for movement of the water when it rains



applied sugar techniques developed on wood structure sheds





Transparency,color and pattern for light illumanance, filtration of sun, and pattern in “glass” like material.

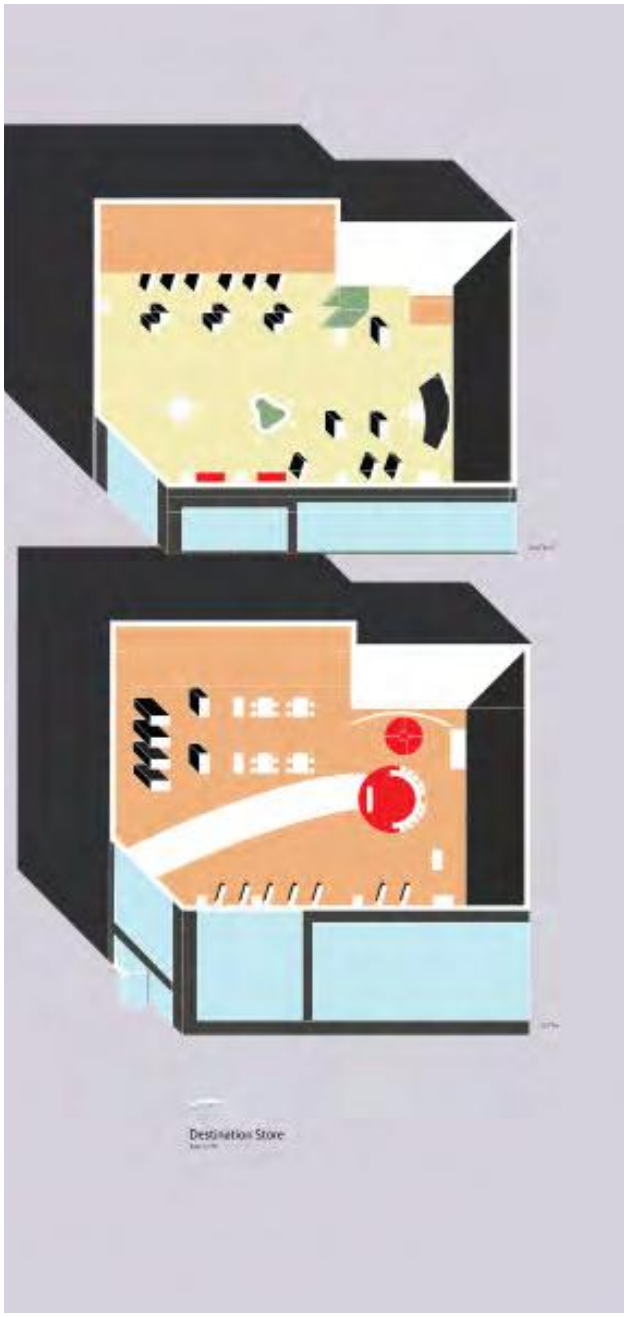
The Wedge

The wedge explores a small box telecommunications chain, called Verizon wireless. Here we provide an iconic building typology for a rural area, suburban area and urban area. The wedge explores different concepts, iconic forms and programs for the current basic retail store, all from which derive from a wedge form.













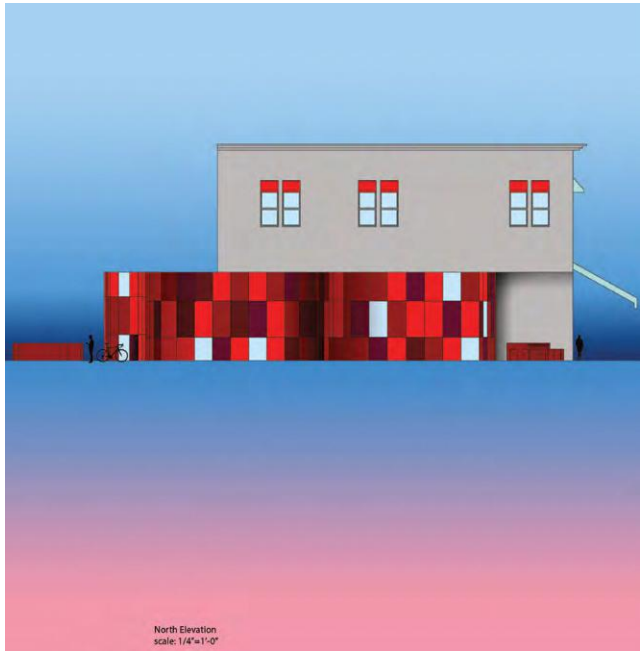
Verizon smart store Interior studies

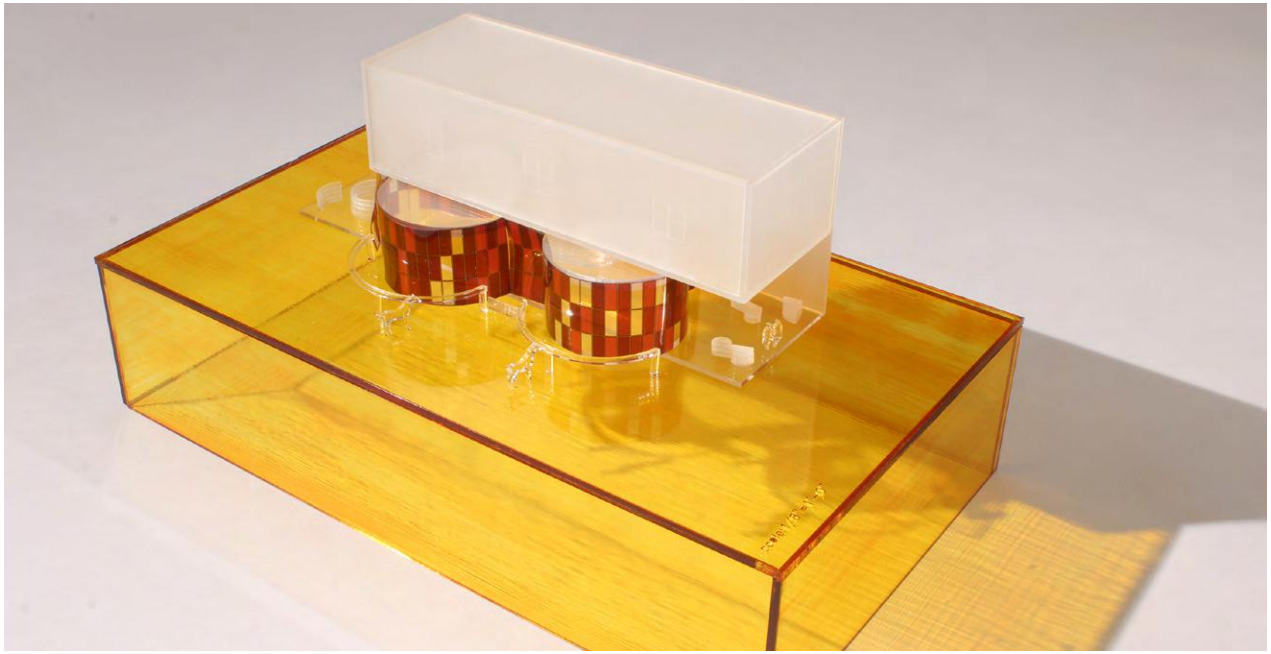
Verizon store studies 2000-2014

Rural



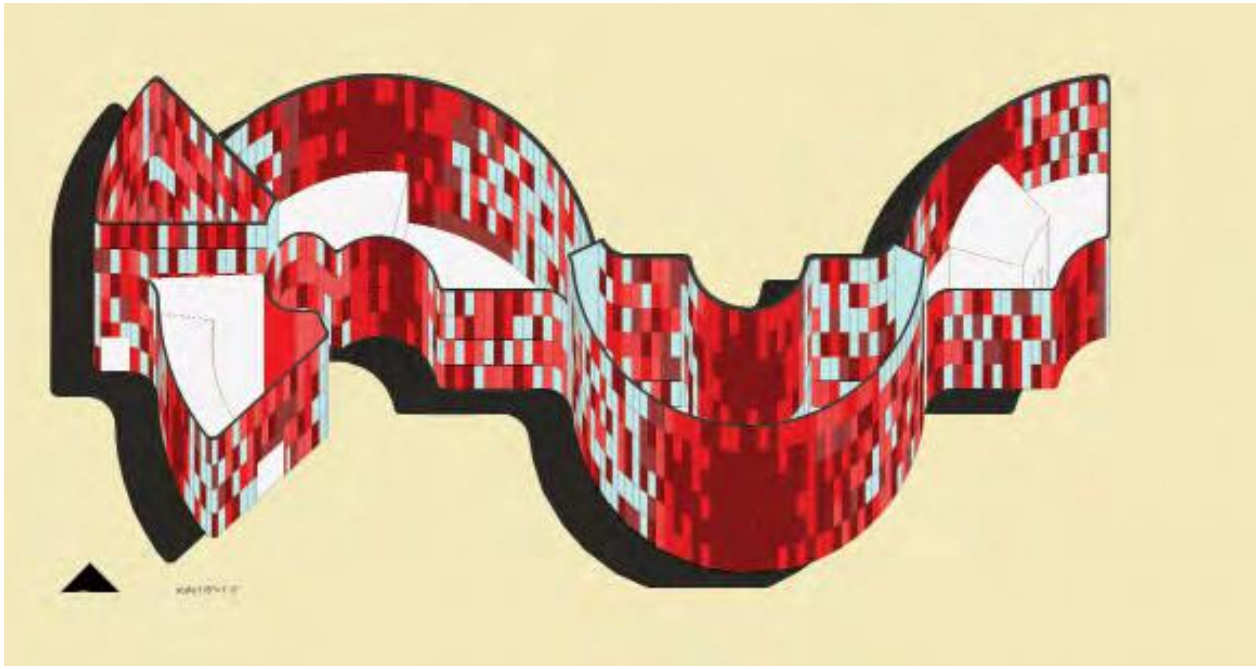
ackinaw Island, Michigan

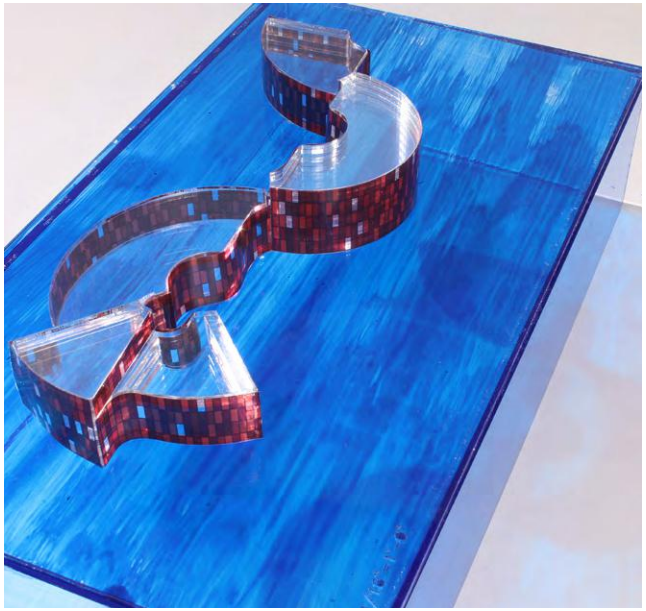






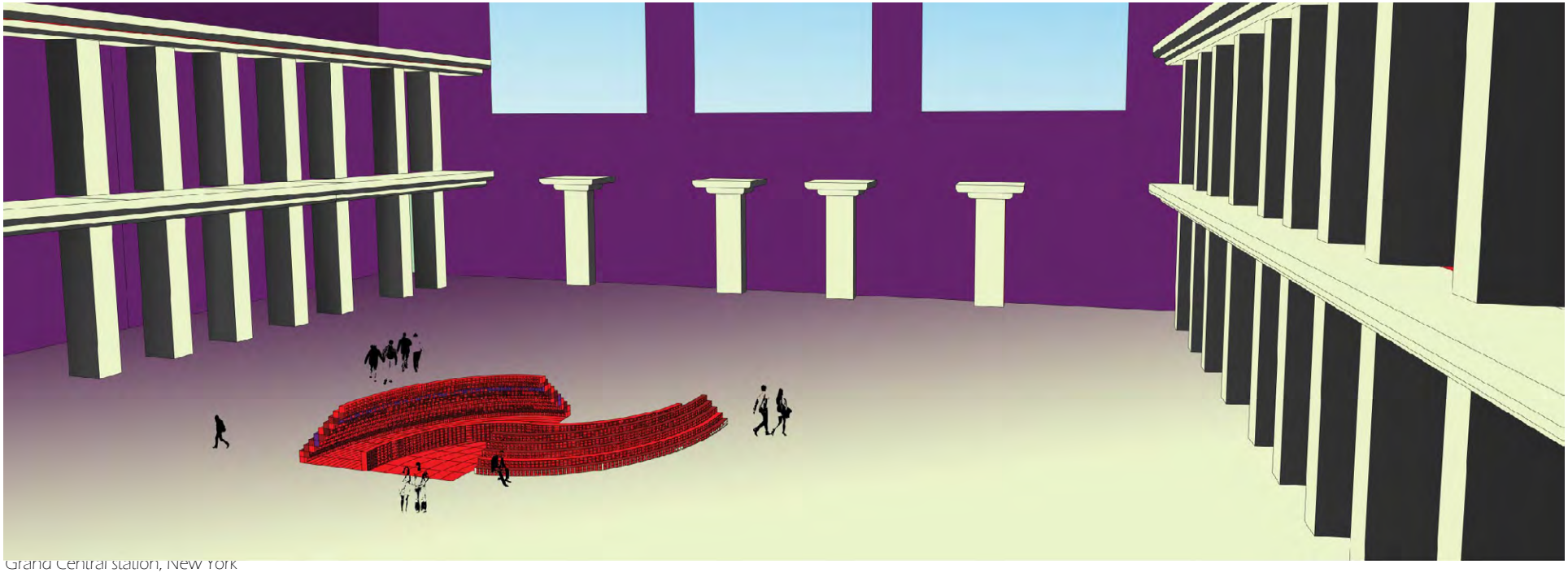
RAINBOW HARBOR, LONG BEACH CA



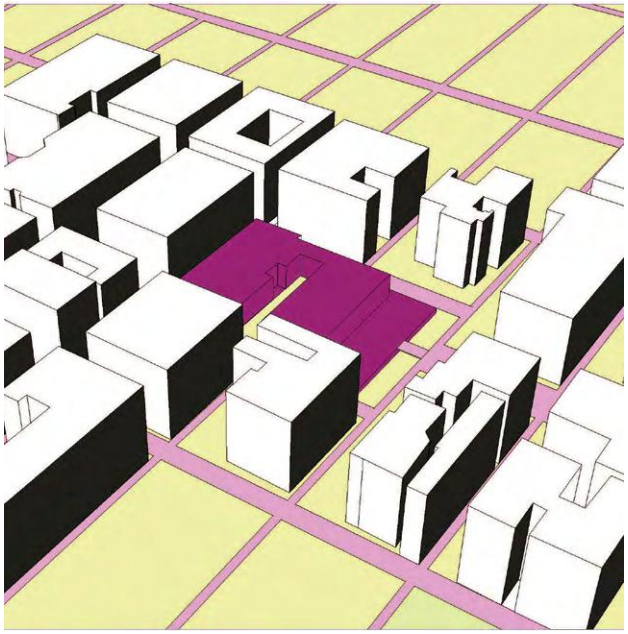




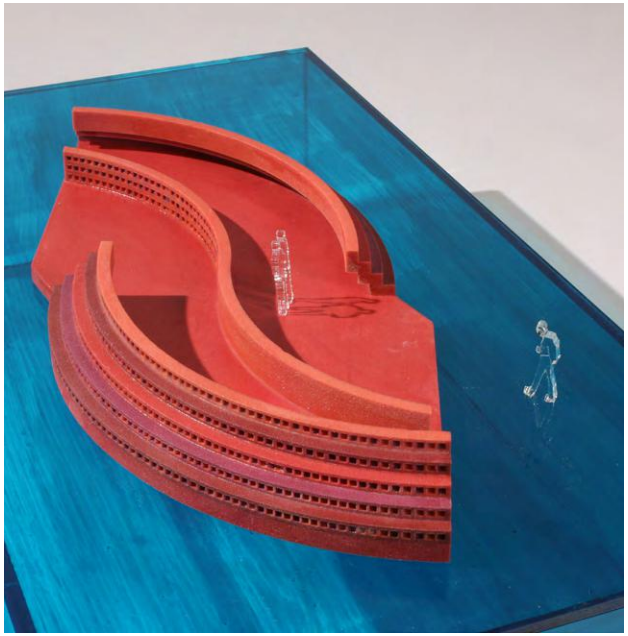
Urban I



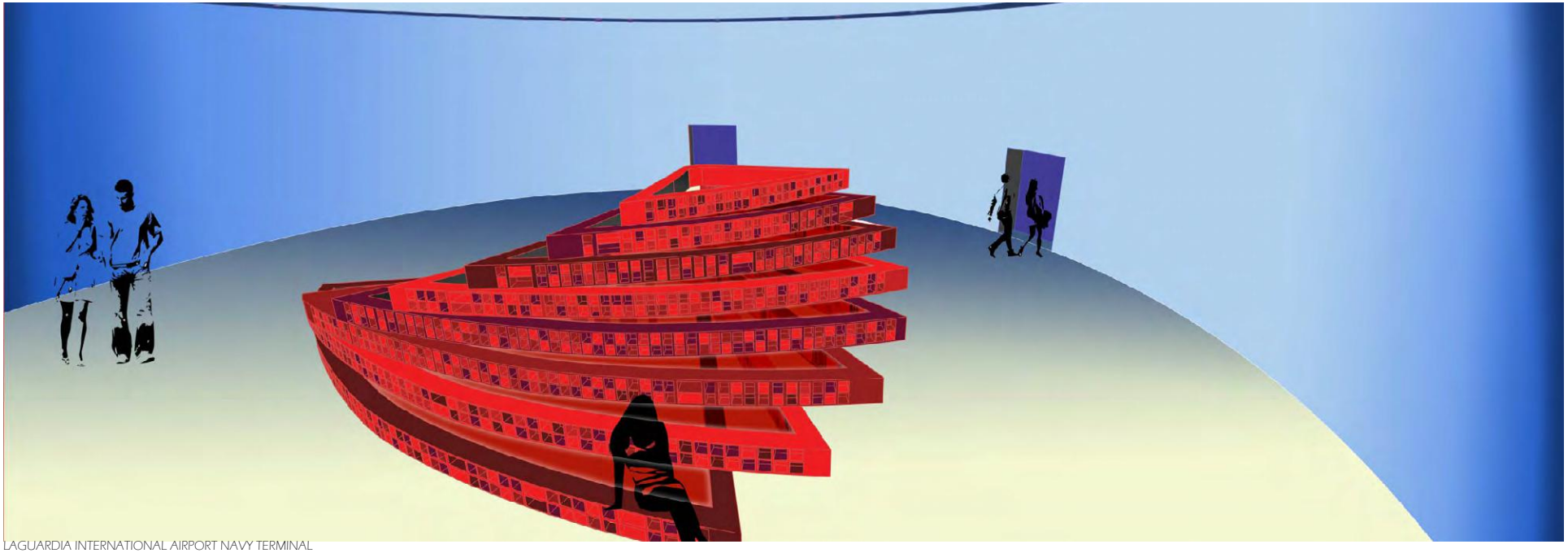
Grand Central Station, New York







Urban II



LAGUARDIA INTERNATIONAL AIRPORT NAVY TERMINAL



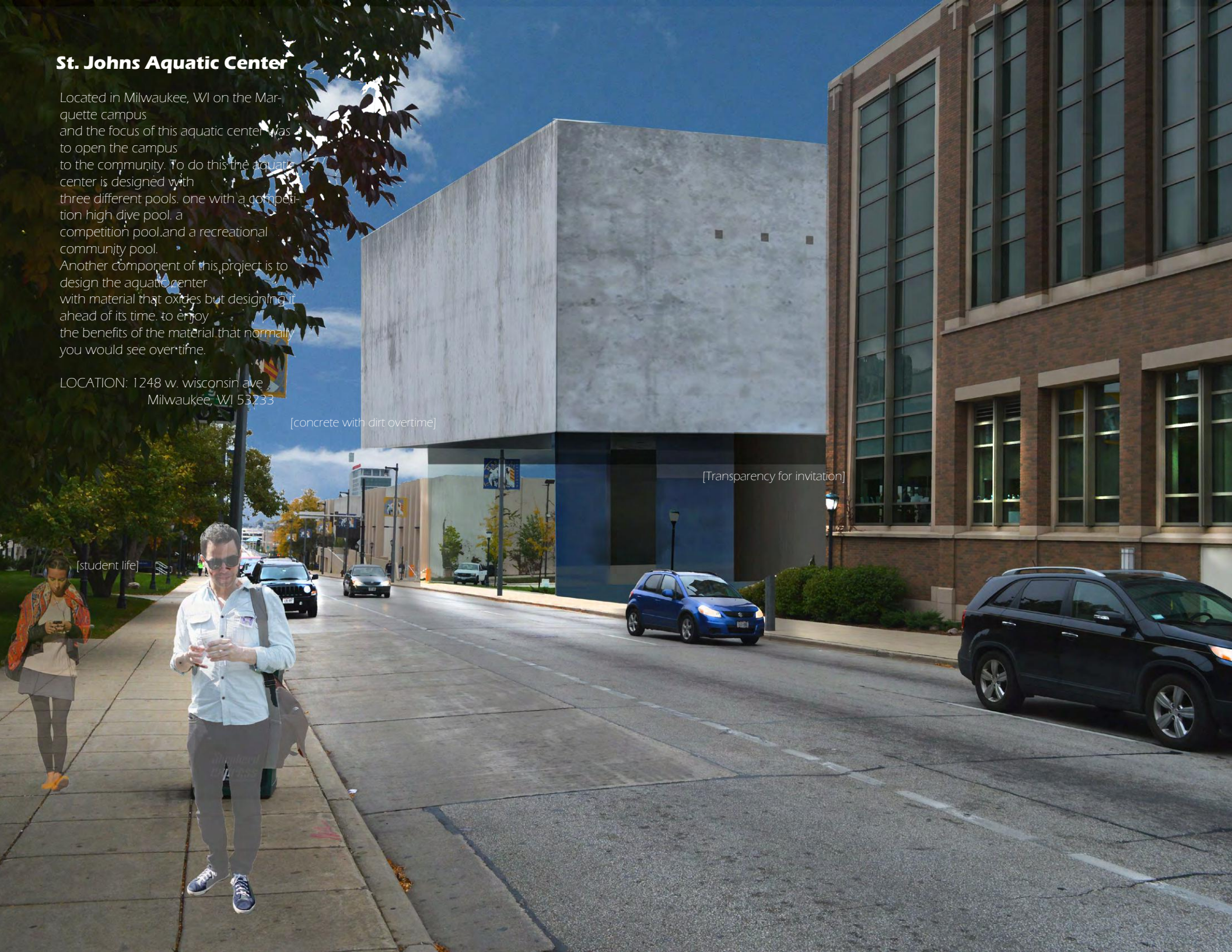


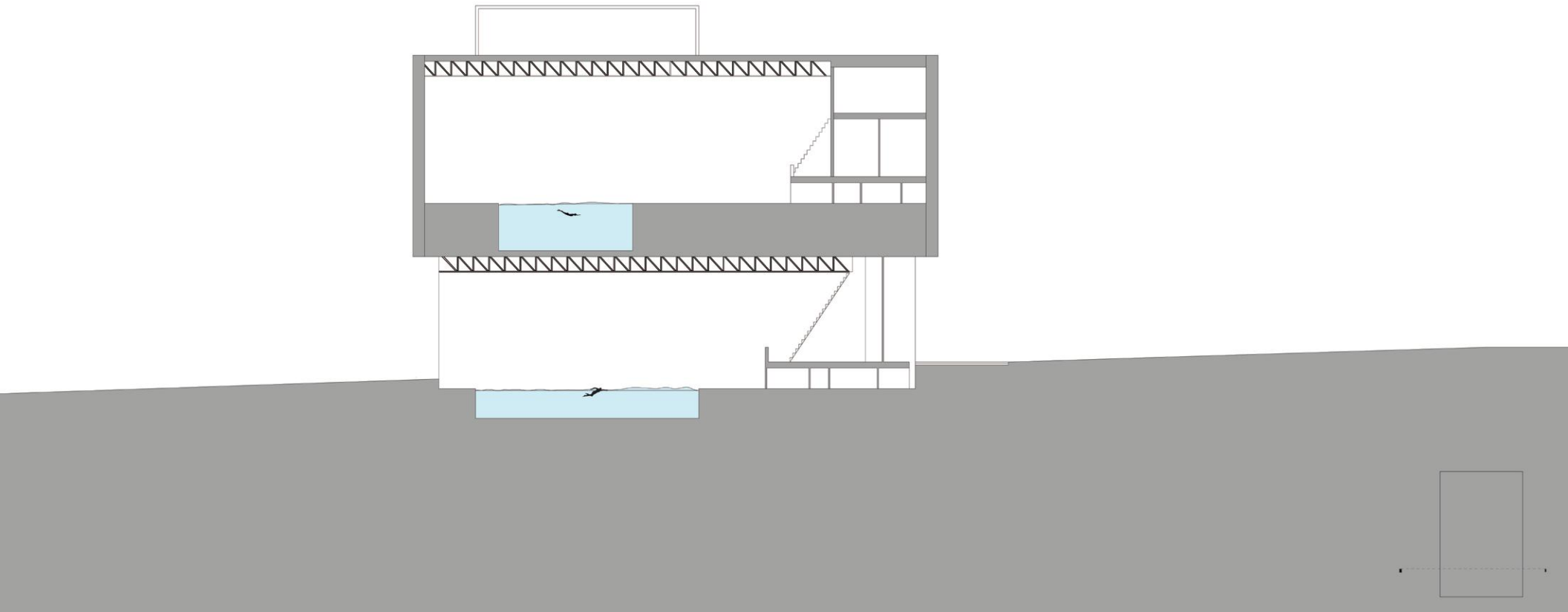


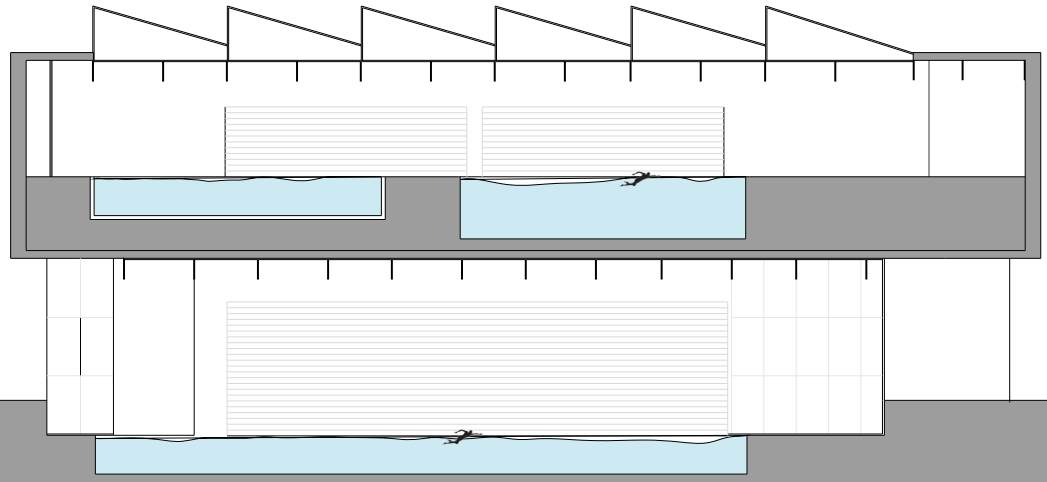
St. Johns Aquatic Center

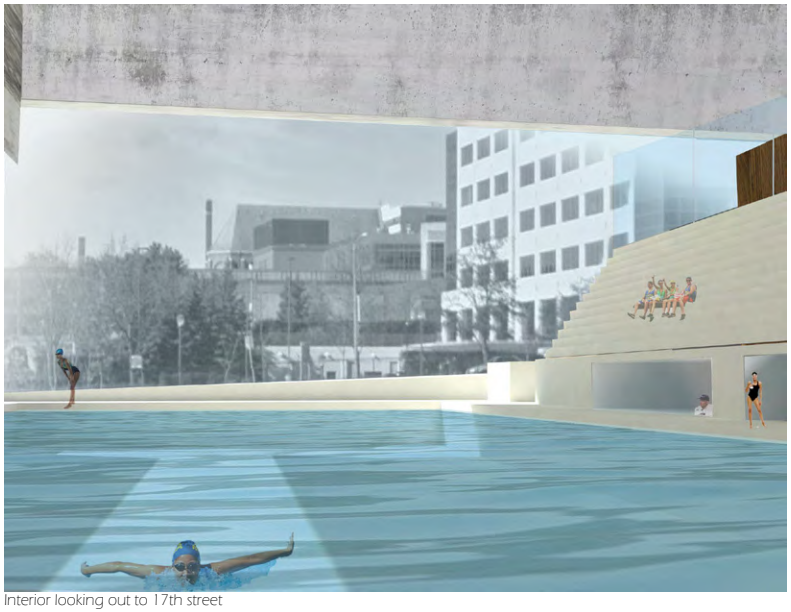
Located in Milwaukee, WI on the Marquette campus
and the focus of this aquatic center was to open the campus
to the community. To do this the aquatic center is designed with
three different pools. one with a competition high dive pool. a
competition pool.and a recreational community pool.
Another component of this project is to design the aquatic center
with material that oxides but designing it ahead of its time. to enjoy
the benefits of the material that normally you would see over time.

LOCATION: 1248 w. wisconsin ave
Milwaukee, WI 53233

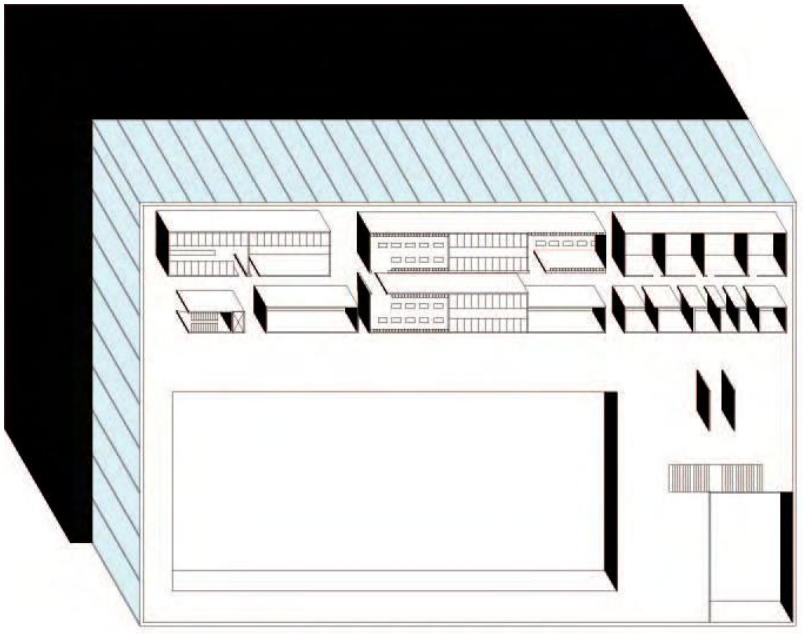




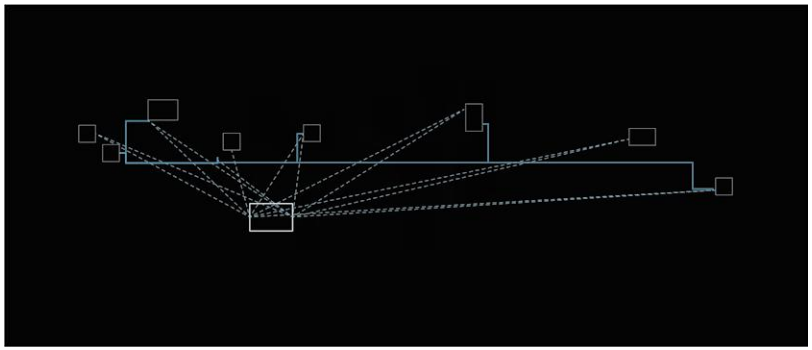




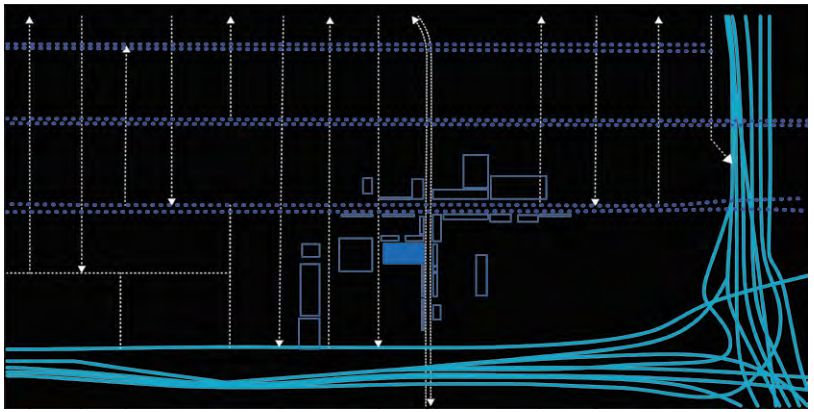
Interior looking out to 17th street



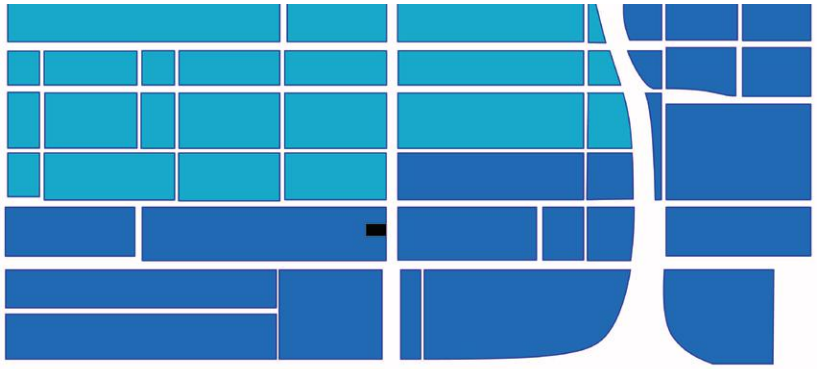
Lower Level Space Axon



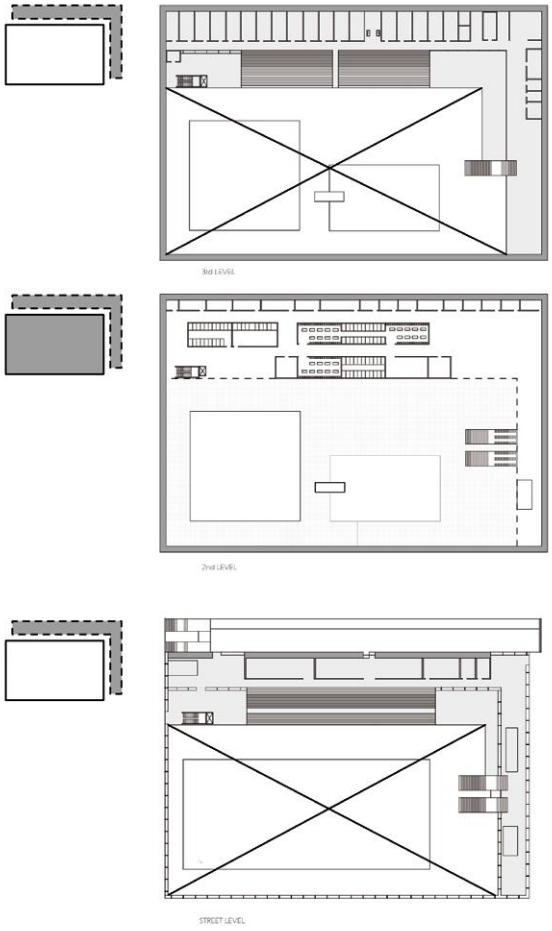
Student dormatories travel paths to site



Traffic directions

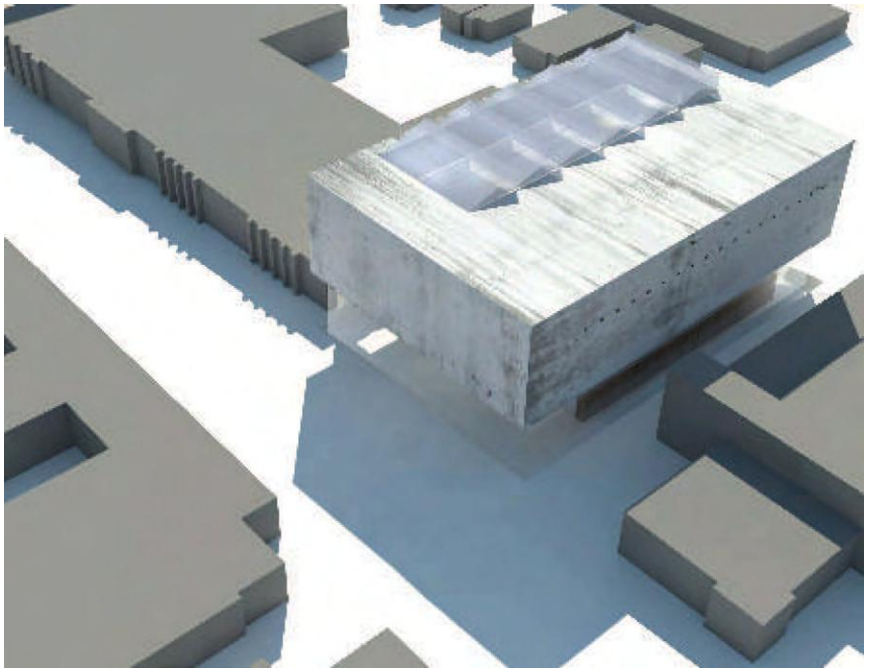


Residential vs Commercial

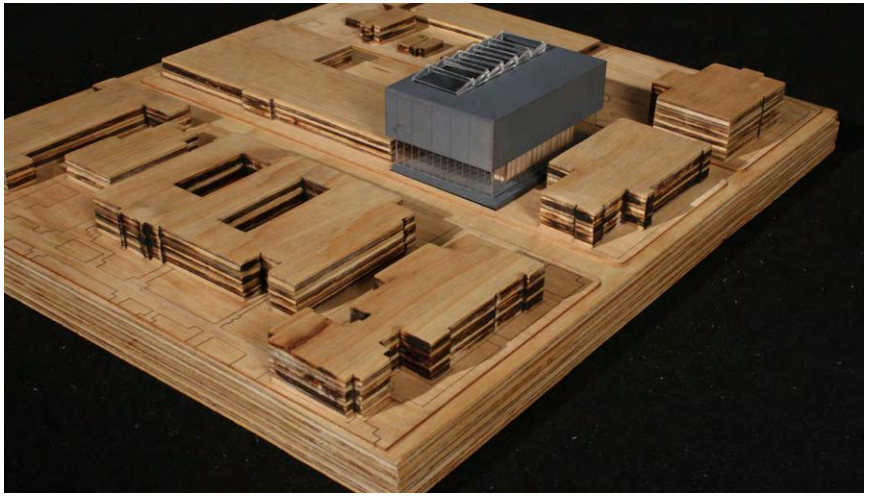


[plans]

[Concept]



[Birdseye View]



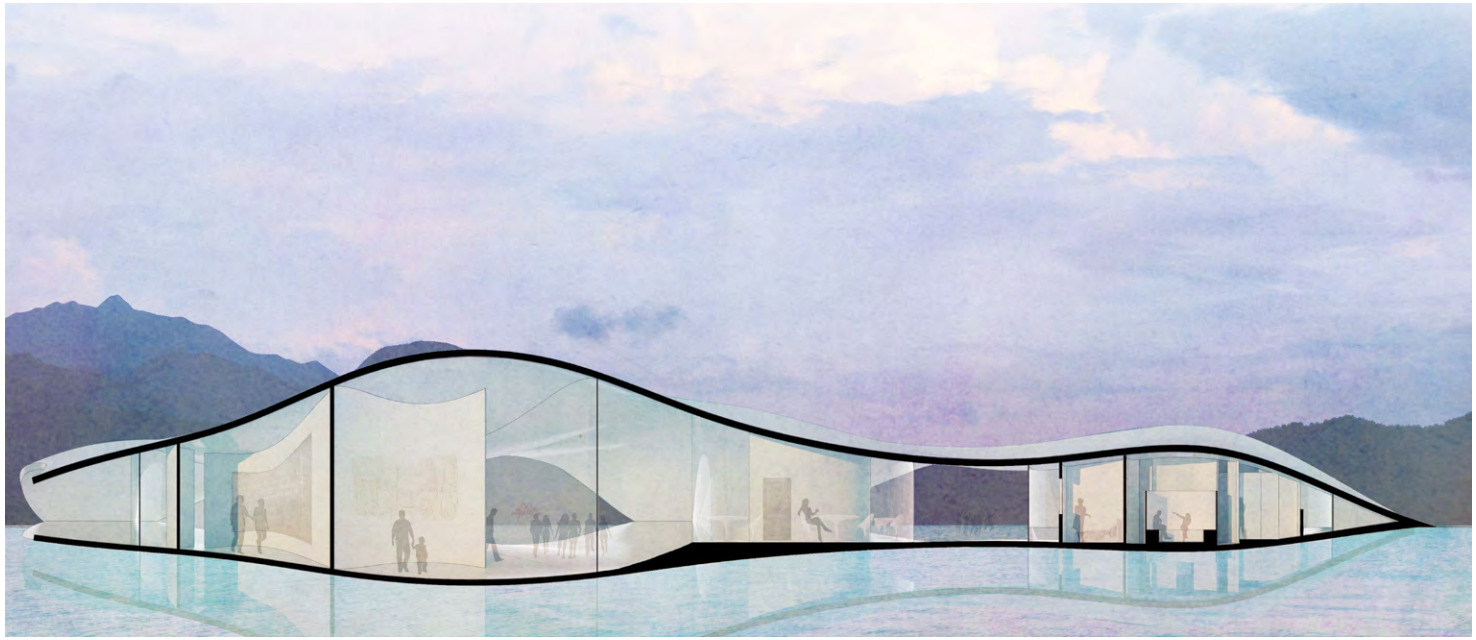
[Marquettte Campus Milwaukee, WI]

IN-B-TWEEN

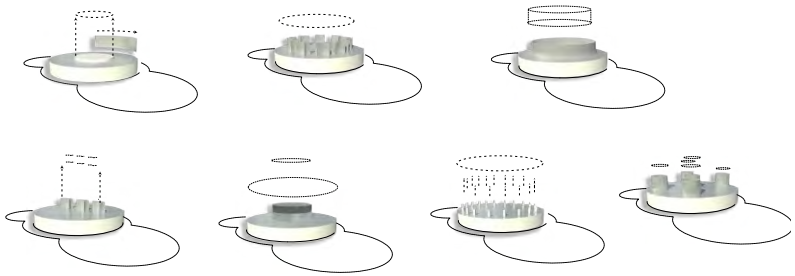
Salar de Uyuni is a natrual area we chose as a site for our nature center. It is amoung the Andes mountains in Bolivia and is the worlds largest salt flat. This bright white flat has a unique ecosystem full of flamingos the rare wild life in this area and the white salt rockformations and stillness of the flat is why we chose this location the context allowed us to conceptualise and formalize the IN-B-TWEEN concept of what happens to water between the air and ground. It is an additional formation to the ecosystem vs a build design. This nature center allows for one to be within the learining itself, and EXPERIENCE the formations while being able to learn.

Collaboration: vray Laura valdivia
photoshop: Hanxi Wu









Gallery moveable Diagrams

Floorplan & program

Circulation

Galleries

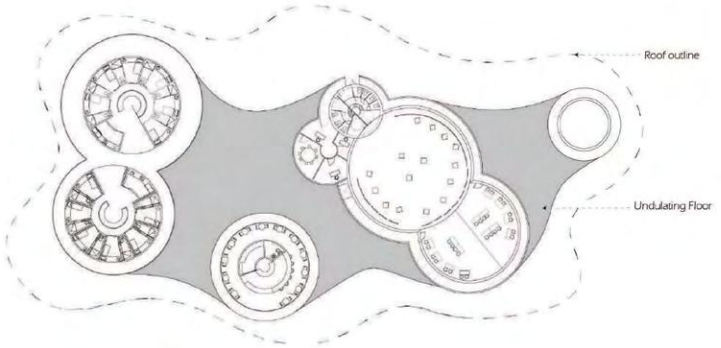
Dormatories

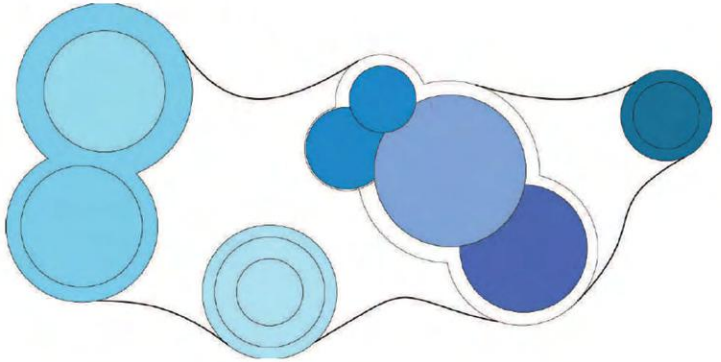
Classrooms

Restrooms

offices

cafe

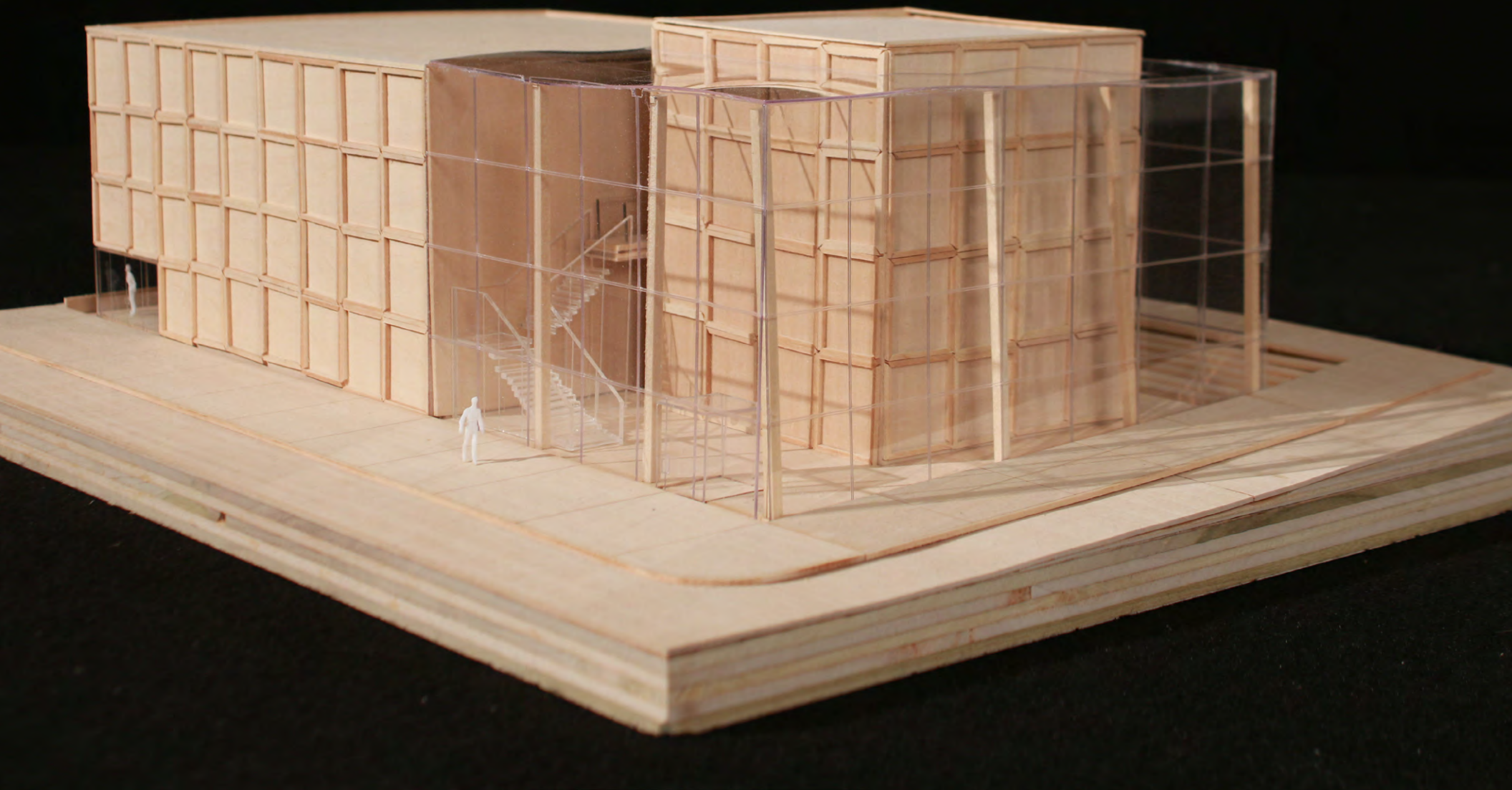


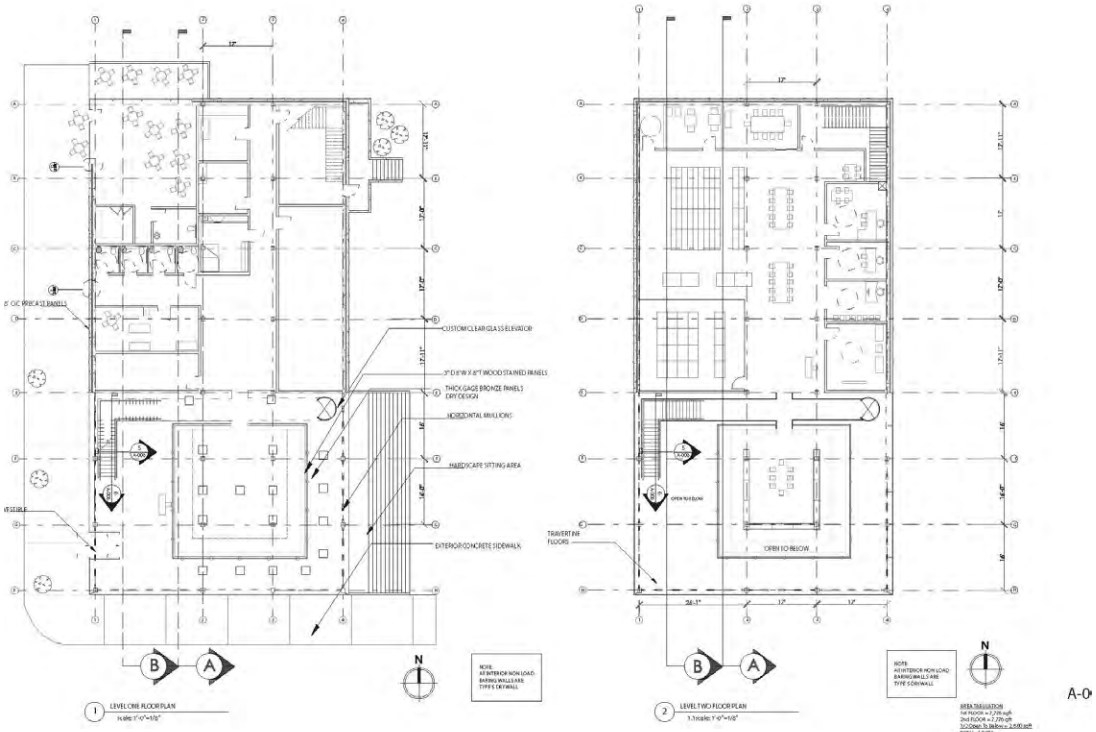




The Volt

Reading room and Gallery to Milwaukees Archives
The volt is a box within a box to secure the most valuable archives Milwaukee has. It's secure volt from condensation, sunlight and other elements are controlled in this brass cladded volt which is accessible to people to read and group/school and conferende spaces.




CUSTOM CLEAR GLASS ELEVATOR
HANDICAPE SITTING AREA
ENTERGY CONCRETE SIDEWALK
OPEN TO BELOW
TRAVERTINE FLOORS
N
A-0

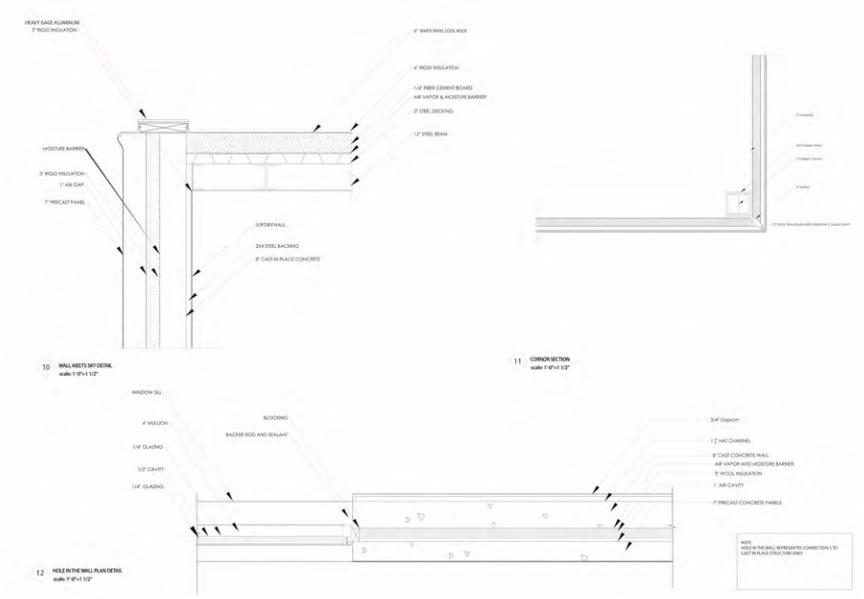




Lobby Space





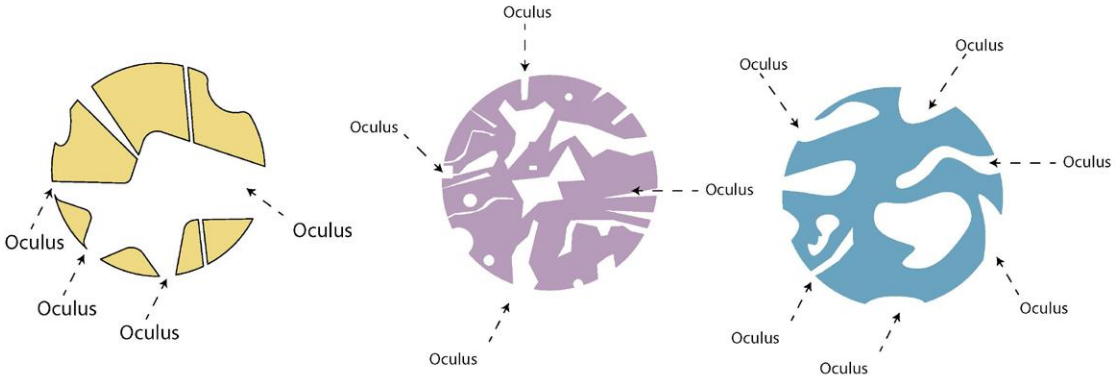

HEAVY GAGE ALUMINUM
3" RIGID INSULATION
MOISTURE BARRIER
3" RIGID INSULATION
1" AIR GAP
7" PRECAST PANEL
4" WHITE VINYL COOL ROOF
4" RIGID INSULATION
1/4" FIBER CEMENT BOARD
AIR VAPOR & MOISTURE BARRIER
3" STEEL DECKING
12" STEEL BEAM
5/8"DRYWALL
2X4 STEEL BACKING
8" CAST-IN-PLACE CONCRETE
10 WALL MEETS SKY DETAIL
scale: 1'-0"=1 1/2"
11 CORNOR SECTION
scale: 1'-0"=1 1/2"
WINDOW SILL
4" MULLION
1/4" GLAZING
1/2" CAVITY
1/4" GLAZING
BLOCKING
BACKER ROD AND SEALANT
3/4" Clipsum
1 1/2" HAT CHANNEL
8" CAST CONCRETE WALL
AIR VAPOR AND MOISTURE BARRIER
3" WOOL INSULATION
1" AIR CAVITY
7" PRECAST CONCRETE PANELS
12 HOLE IN THE WALL PLAN DETAIL
scale: 1'-0"=1 1/2"

Urban Edge

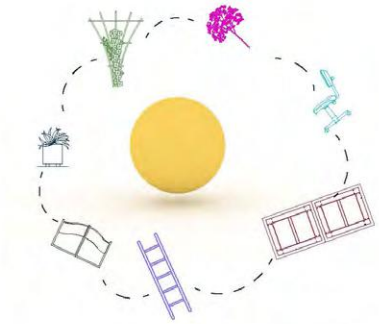
WORKSHOP1: THE VORTEX: URBAN VACANCY

WORKSHOP ONE OF THREE CHARETTE WORK-SHOPS STARTED OFF AS URBAN VACANCY OF SOUTH MILWAUKEE.
THE VORTEX IS LOCATED ON THE 30th STREET CORRIDOR IN MILWAUKEE,WI, IT IS A 4 MILE LONG POST INDUSTRIAL SITE OF EXACTLY 880 ACRES.OUT OF THE 880ACRES,100 OF THAT IS VACANT. OUR SITE IS ON A LOT LOCATED AMOUNG THE 100 VACNT ACRES.
THE VORTEX IS A CONCEPTUAL SPHERE IN WHICH IDEALLY IT SUCTIONS ALL OF ITS SUR-ROUNDING CONTENT IN SEASONAL STAGES. IT ABSORBS, ROTATES AND RESASSEMBLES THEN SHOOTS OUT ALL THE CONTENT ABSORBED DURING THE SUMMER AND ROTATED DURING THE WINTER SEASONS. DURING THE TYPICAL SPRING SEASON OF 30TH STREET CORRIDOR IN SOUTH MILWAUKEE IT SHOOTS OUT ALL PREVI-OUS UNUSED FLOWERS,CARS, GARBAGE, CHAIN-LINK FENCES AND SO ON AND REDESTRIBUTES THEM IN A FRESH NEW MANNER, IN WHICH THE INHABITANTS of 30th STREET CORRIDOR CAN VIEW AND USE IN A WHOLE NEW WAY.
COLLABORATIVE WORK: ALL DRAWINGS SHOWN DONE BY LAURA VALDIVIA

OCULUS



SUCTION







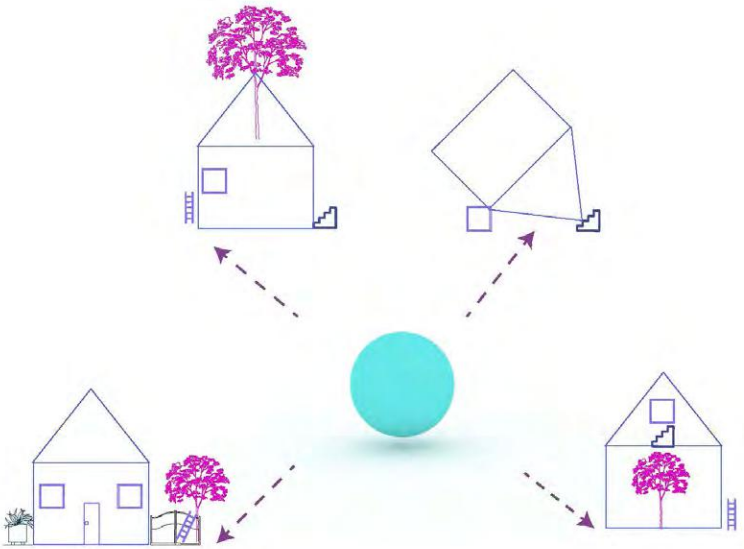


concept collage



concept collage

DISCHARGE



ROTATION

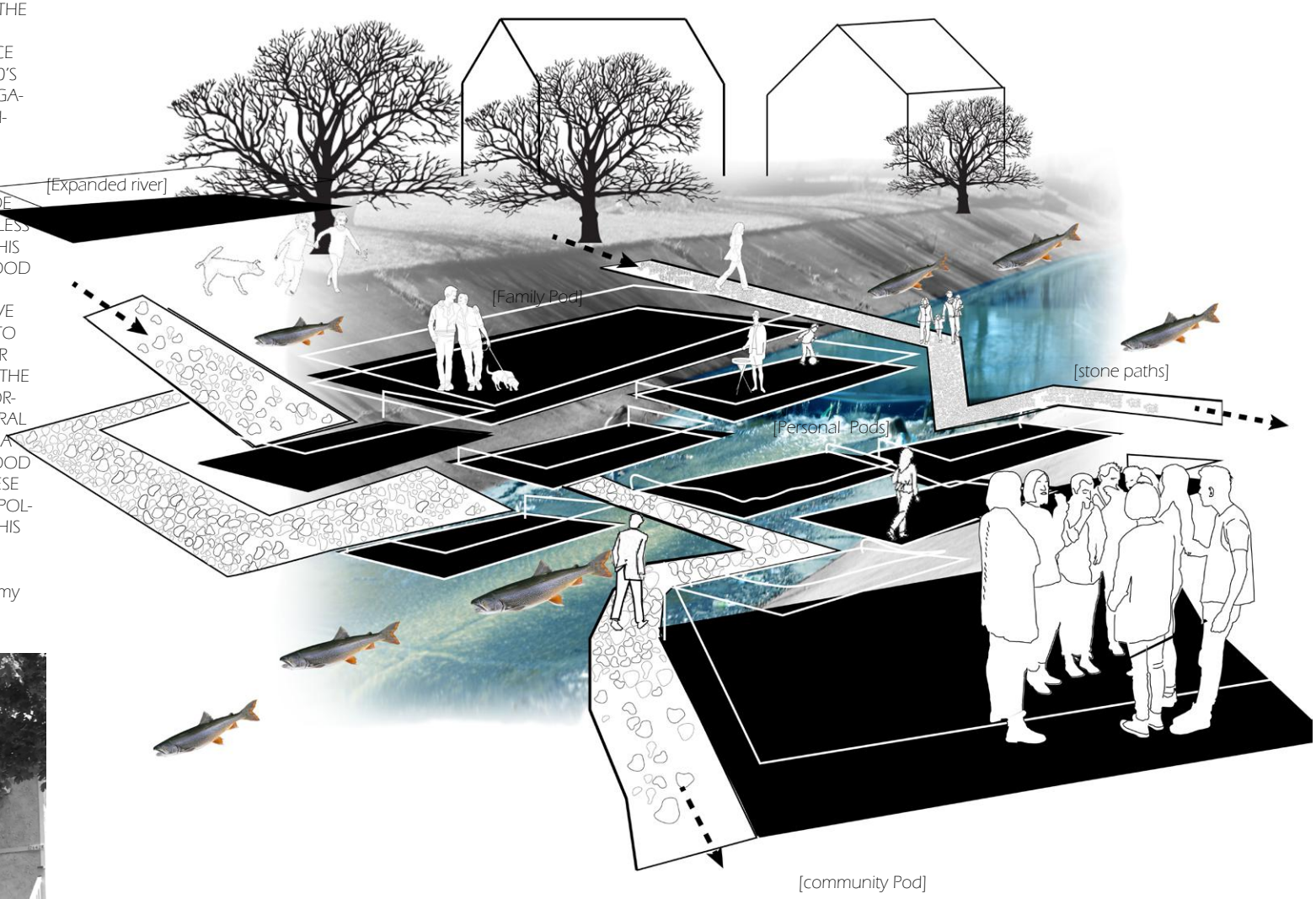


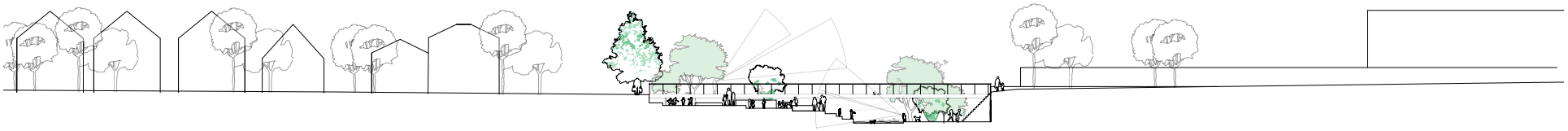
WORKSHOP 2 CITIZENS OF ALL PLACES COMMUNITY PODS: ADAPTIVE REUSE

WE CHOSE THE RESIDENTIAL AREA OF THE KINNICKINIC RIVER IN MILWAUKEE. THE RIVER IN SOUTH MILWAUKEE WAS ONCE A VIBRANT WATERWAY UNTIL THE 1960'S WHEN IT WAS CHANNELIZED AND NEGATIVELY IMPACTED WILD LIFE,THE NEIGHBORHOOD AND LANDSCAPE. UNABLE TO SUSTAIN LIFE AND ABSORB WATERS IT NOW LOOKS LIKE A SEWER DRAINAGE, UNPLEASANT FOR THE SOUTH SIDE NEIGHBORHOOD TO VIEW & USE. LIFELESS ,WATERLESS FOR THEM TO ENJOY. IN THIS PREDOMINATE HISPANIC NEIGHBORHOOD ONCE MOSTLY POLISH AND KNOWN FOR ITS POLISH FLATS AND CULTURE, WE PROPOSE BRINGING THE RESIDENTS INTO THE WATER AND EXPANDNG THE RIVER AND ITS' WILDLIFE INHABITANTS INTO THE NEIGHBORHOOD AS WELL THUS INCORPORATING COMMON HISPANIC CULTURAL PRACTICE OF MATERIALS TO ESTABLISH A RELATIONSHIP WITH THE NEIGHBORHOOD AND MAKE THEM FEEL AT "HOME". THESE PROPOSED PODS ARE RAISED LIKE THE POLISH FLATS AND SPREAD THRUGHOUT THIS SPECIFIC CHOSE AREA.

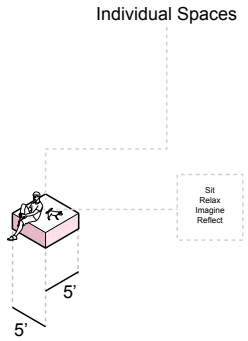
Collaboration: Floorplans/Elevation: Tommy yang
Renders: Laura Valdivia

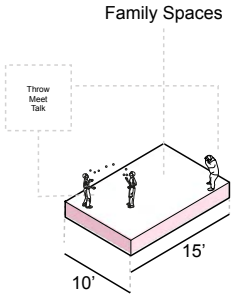


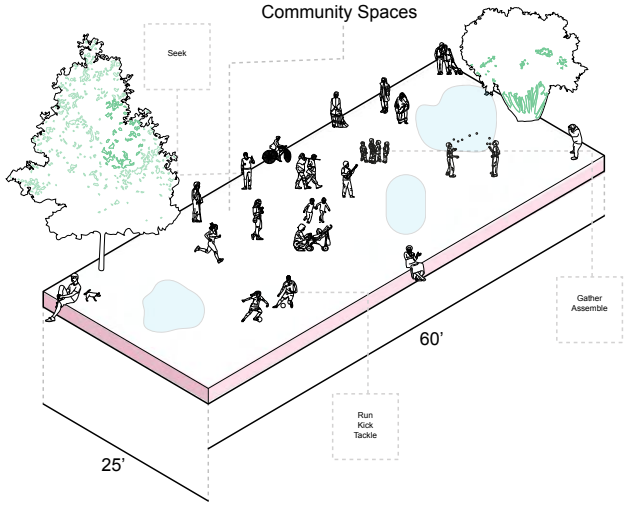




section of expanded and layered river space outward into neighborhood.







[Pod sizes]





Site Collage



Polish Flats

WRKSHP 3:THE IMMOVABLE MOVABLE: PRODUCTIVE LANDSCAPES

THE MENOMONEE VALLEY IS CURRENTLY AN INDUSTRIAL. AREA AND ONLY USED ONCE A YEAR BY THE COMMUNITY. FOR OUR CONCEPT IN THIS AREA OF MILWAUKEE WE CATEGORISED ITS' CONTENT INTO MOVEABLE AND NON MOVEABLE. ALL MOVEABLE ITEMS SUCH AS TRAIN CONTAINERS, CARS, AND SO ON WE USE AS A MEANS TO SEPERATE THE SPACES, WE FURTHER CATEGORIZE THOSE MOVEABLE OBJECTS INTO COLOR,USE,SIZE, PATTERN. WITH THESE NEW SPACES CREATED, WE PROGRAM THE NOW OPEN VACANT SPACES INTO FESTIVAL GROUNDS THAT CAN BE USED THROUGHOUT THE YEAR.

COLLABORATIVE WORK:ALL DRAWINGS SHOWN DONE BY LAURA VALDIVIA



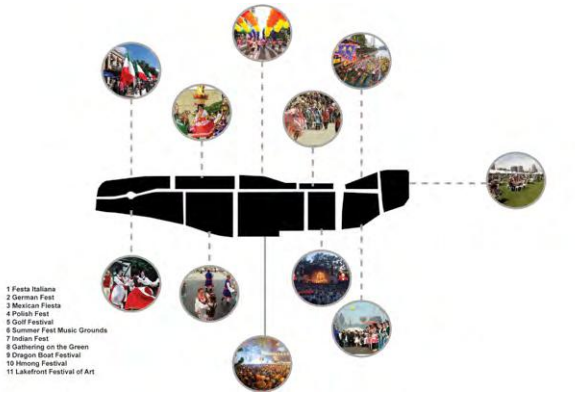
Cut out of Moveable objects Before

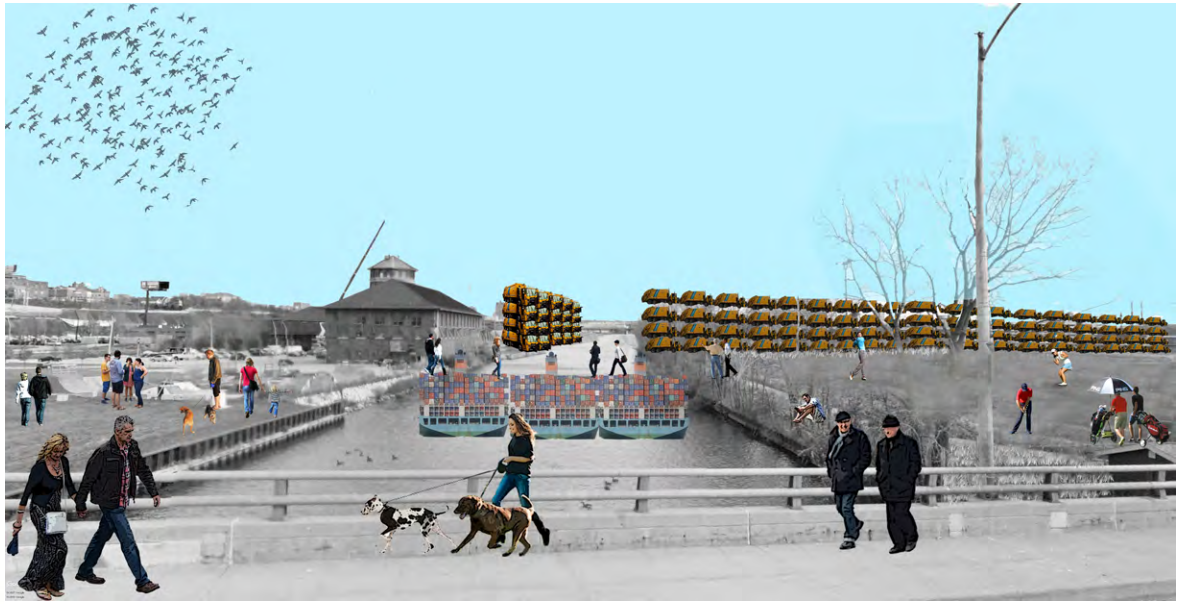


Moveable Objects ,



Menomonee Valley, WI





Concept Image: color coding of boats used to provide another means of access to other side of river



Concept Image: size and color arragement of moveable objects, to provide a space for golfing throughout the year & fest space with an "edge".

Thank You