

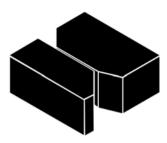
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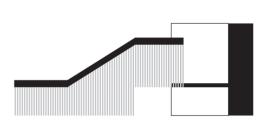
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PORTA

MUSEO DELLE MACCHINE
PIAZZALE PORTUENSE 1 | ROMA, ITALIA
ACSA COMPETITION SUBMITTAL | SPRING 2017
DURATION | 4 WEEKS

INSTRUCTOR:

Anthony Cricchio

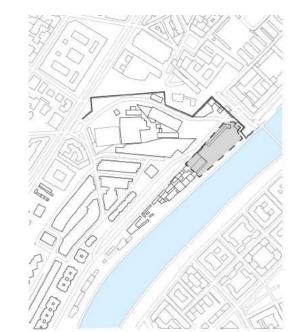
TEAM MEMBERS:

Kira Collins Kevin Dobbs Erika Omae Jacob Stinson

The design addresses a dense historical infrastructure, deteriorating site, and build potential, by creating a unique green neighborhood, renewing traffic and commerce at the ancient port, and creating a new industrial steel building that imagines the material in a digital future of information, adjustment, and resiliency.

THE PALIMPSEST CITY

Rome is a city of layers of infrastructure that over time has built people out of natural public space. The project addresses the needs of the city by creating a swath of public green space drawing people to the site, in order to create a new landmark and a pause for the inhabitants. The site near the old port gates has become forgotten over time. The park creates an approach to the museum marked with machines to remind visitors of the past use, Porta Portese is remade as an important transit stop for the city, and the museum revives the port as a site of industry and technological advancement. The museum is a teaching building designed to house old technology and showcase new purposes. Its volumes are assembled around the values of the site, and it pushes what a building can be by cloaking itself in a new system of movable, interchangeable, programmable, energy producing steel panels. In so doing, it continues Rome's history of reinterpretation and restructuring and takes it toward the future.



Existing Urban Fabric



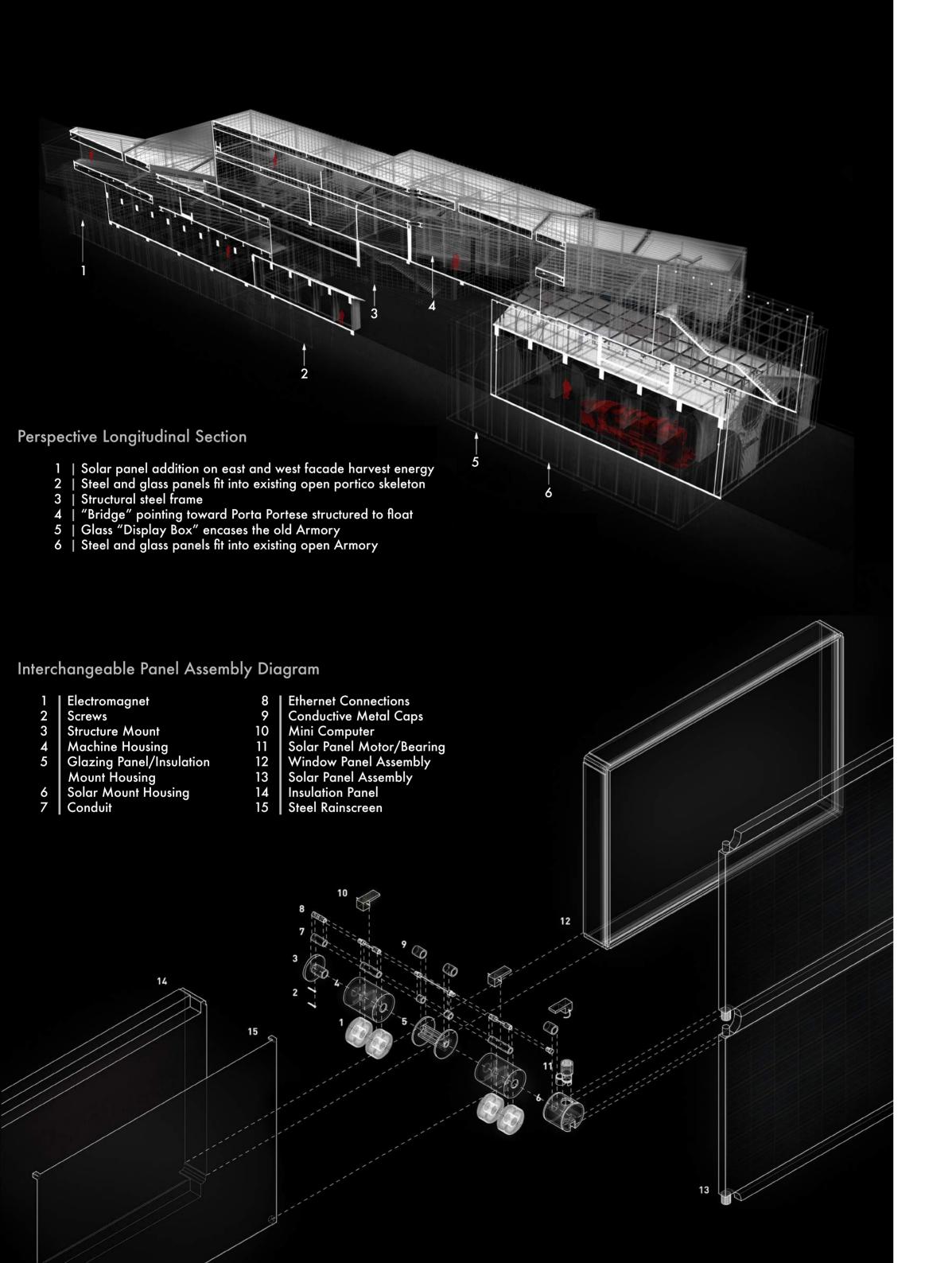




Adding Urban Park

Adding Urban Fabric







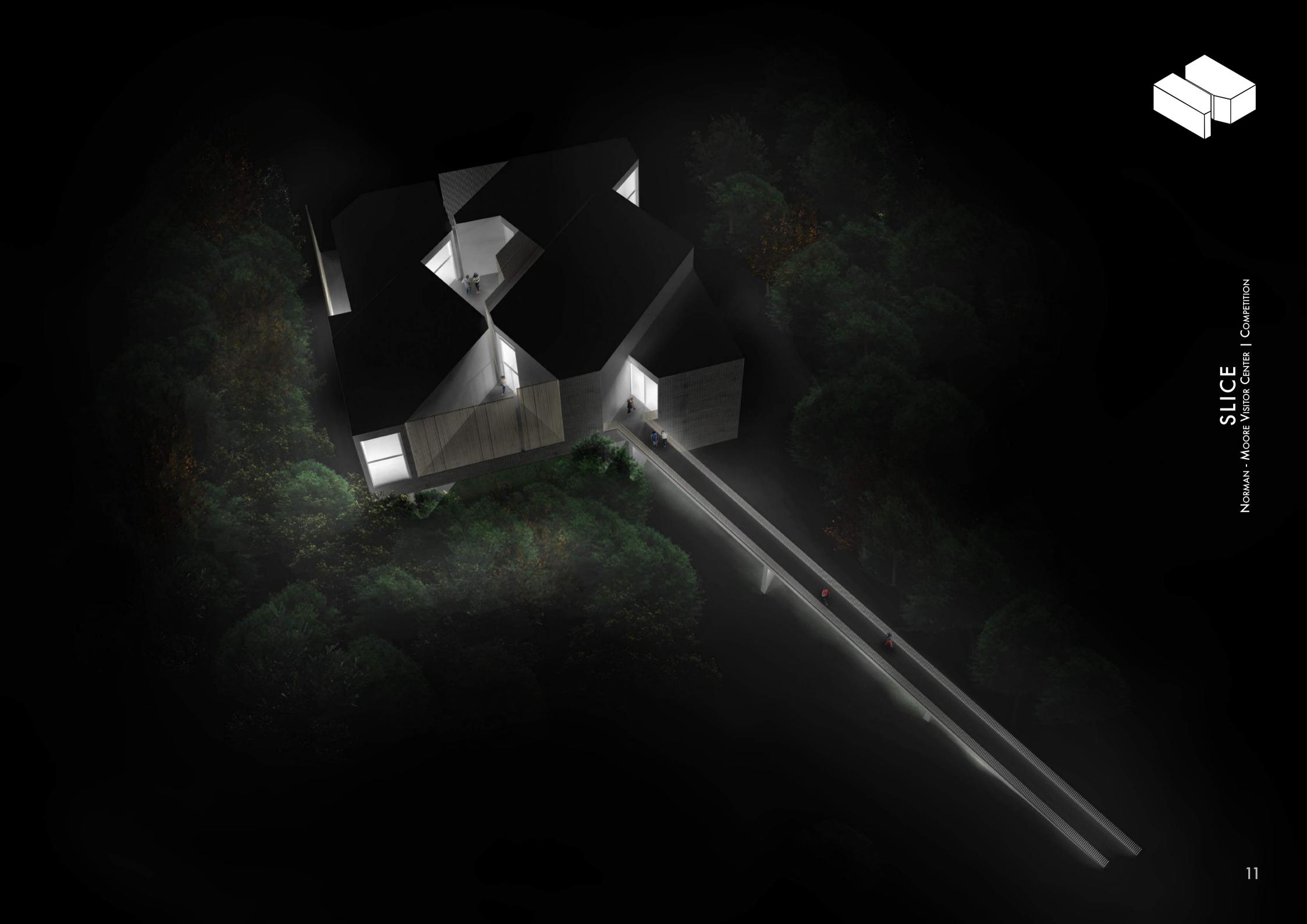
View towards Porta Portese

STRUCTURAL REMNANTS

The formal organization of the museum is an irregular grid molded around the existing structures, intersected by a volume angled toward Porta Portese. In addition to providing the hierarchy of the building, this mass creates the spine along which major circulations run. Visitors enter through the existing archway into the inner court of the building, then proceed along the major park axis through the main entry under the volume. Moving to the left on ground level takes you past the cloakroom, bathrooms, auditorium, and classroom. At the end of the axis on the north side of the building is the office and research space and the preservation room, which is glazed on the street facade so passersby can see the work being done. Rising upstairs into the volume lets you enter the gallery space, which you circle through and move south, to the other end of the volume. Stairs from this end let you down into the Armory, which houses temporary exhibitions. The café and gift shop are tucked away under the south end of the volume but are still accessible to the public. The basement under the building contains storage and a large mechanical room, along with the truck loading dock. A specialized elevator runs through the center of the building, intersecting the storage room, entry hall, preservation room, volume, and galleries, making visible the movement of people and machines.







SLICE

NORMAN - MOORE VISITOR CENTER

NORMAN - MOORE, OK, USA
COTE COMPETITION SUBMITTAL | FALL 2016
DURATION | 14 WEEKS

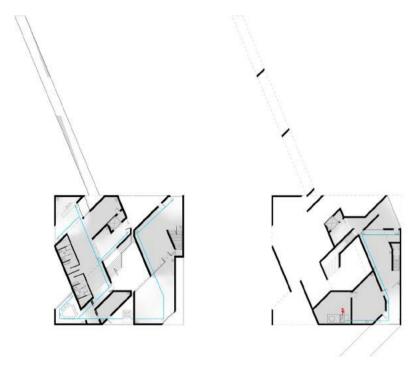
INSTRUCTOR:

Michael Hoffner Daniel Butko Anthony Cricchio

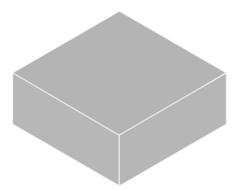
The Norman-Moore Visitor Center will educate people about the effects of natural disasters, inform them about the impact of building resiliency in disaster-prone areas, and minimize future damage by preparing visitors to face such events.

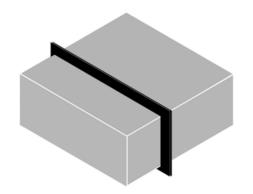
Through this objective, the feeling of emergence has become the driving concept for the visitor centers circulation, organization, and form. This concept pulls from the same feelings similar to that of experiencing a natural disaster. For example, starting in a familiar setting, one's home, then an unforeseen event causes the need to seek shelter. In this safe zone, one is restricted of knowing and seeing what is happening around them. When the event has finally passed it is safe for everyone to emerge from the secured location. Then, they are thrust into a new setting that is not known to them, but it eerily resembles that of what once was.

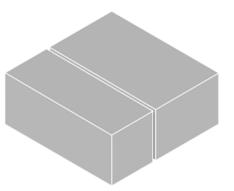
Starting with a pristine cube then using the most prominent wind directions to carve away spaces has led to an interior condition that would be unexpected from the outside. Having to take sharp turns and maneuvering from indoor setting to outdoor settings keeps the visitor in a state of "chaos" while also being fully aware of the visitor center's mission.



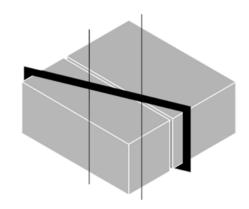
Floor Plans | Natural Lighting

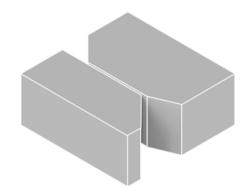


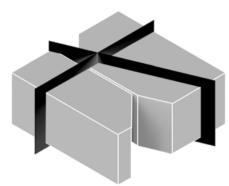




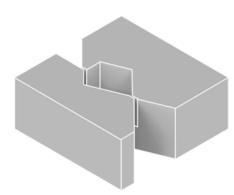
Pristine Volume Divided by Prominent Wind Direction

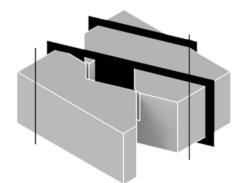


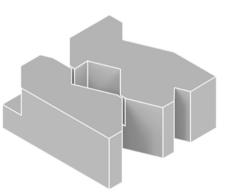




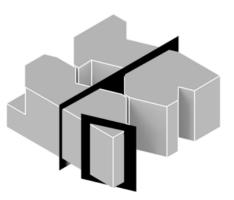
Slicing Exterior Courtyards

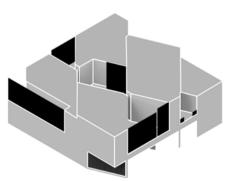






Slicing Interior Courtyard and Exterior Views





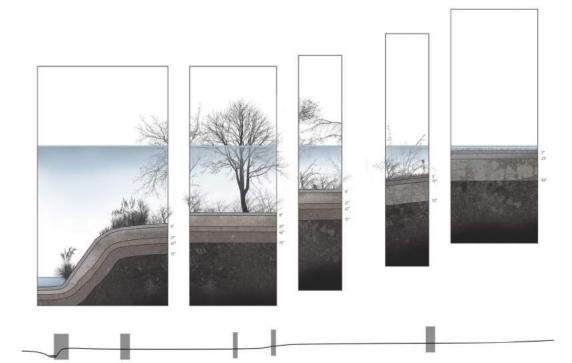
Carving Additional Exits and Paneling

12
Generation Diagram

CHALLENGING SITE

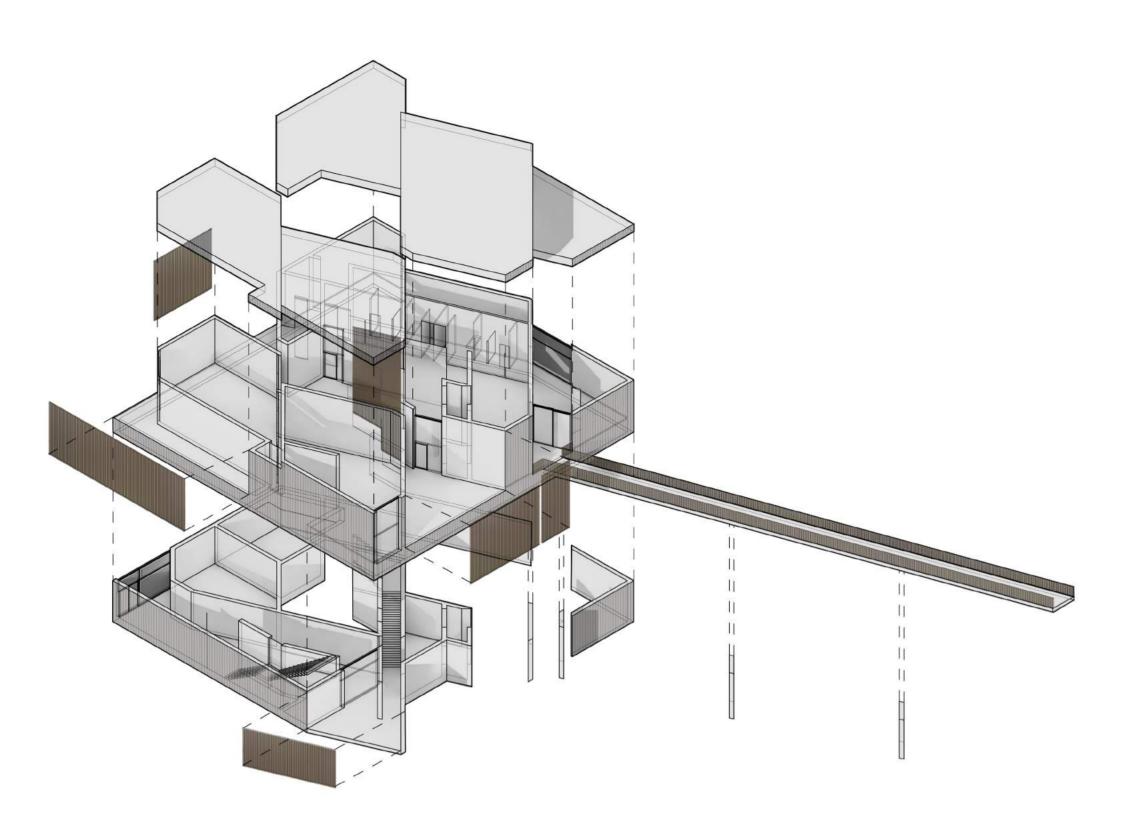
The limitations of the site become advantageous design features.

The Norman-Moore Visitor Center is located in a floodplain, as well as, a notorious tornado alley. To directly respond to these site conditions, the building has been raised 14' above grade to avoid the potential of flooding. In order to avoid the destructive high winds of Oklahoma, the building will be constructed out of durable and resilient 12" precast concrete sandwich panels with minimal opening to the outside. This allows the building to acquire a FEMA rating. Inside the center, there will be an educational aspect that allows visitors to learn about natural disasters and how to prepare for them. In addition to the building, the site will be landscaped to simulate the path of a tornado. This scarring of the earth will provide space for art installations and serve as a reference to the unique, natural character of the region. This center can also serve as an art exhibition space for surrounding colleges and local artists to further involve the community with this area.



Site Section | 100 Year Floodplain





FEEDBACK LOOPS

With the location of the Norman-Moore Visitor Center in Oklahoma, it provides an opportunity to raise awareness and understanding of natural disasters that frequently afflict the area. This center is meant to educate people about the effects of natural disasters, inform them about the impact of building resiliency in disaster-prone areas, and minimize future damage by preparing visitors to face such events. It achieves its objectives through design, materiality, and function.

Rather than ignore the effects of natural disasters, the design celebrates them through the use of experiential landscaping, durable building materials, and small design features that showcase wind. The visitor center's spatial organization tends to create an inadvertent experience of a disaster for the individual. Toward the exit, one is fully exposed to the effects and emotions caused from such events through the use of a simulation chamber and the dramatic portrayal of a tornado path through the scarring of the landscape.



View from Entry

View from Artwalk

View of Gallery and Interior Courtyard





FLOW

Tulsa Wetlands Business District

WEST ARKANSAS RIVER BANK | TULSA, OK, USA
VISION FOR WEST RIVER BANK COMPETITION WINNER | SPRING 2016
DURATION | 4 WEEKS

INSTRUCTOR:

Jay Yowell David Boeck

TEAM MEMBERS:

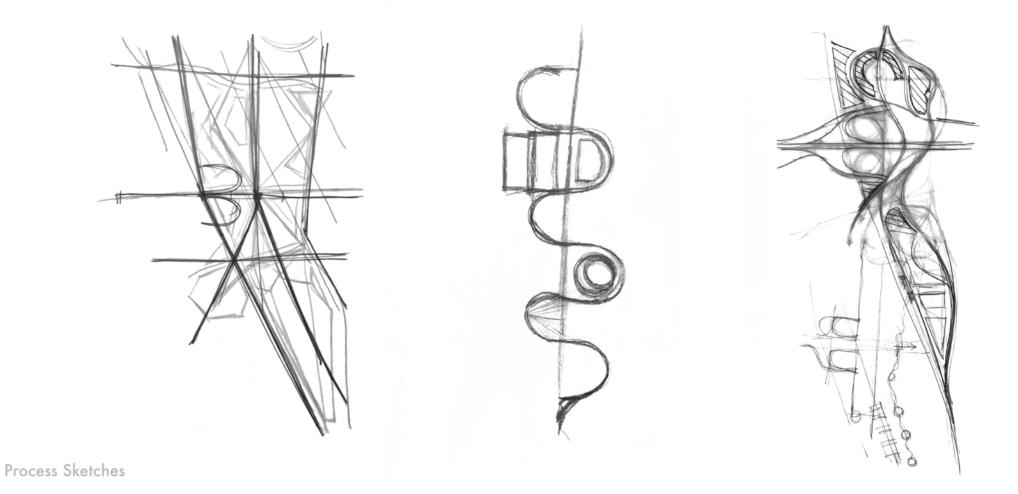
John Brown
Daniel Kleypas
Aubrey Pontious (Landscape Architecture)
Ky Sanderfur
James Spear
Jacob Stinson
Mahsa Yari (Landscape Architecture)

SUSTAINABILITY & COMMUNITY

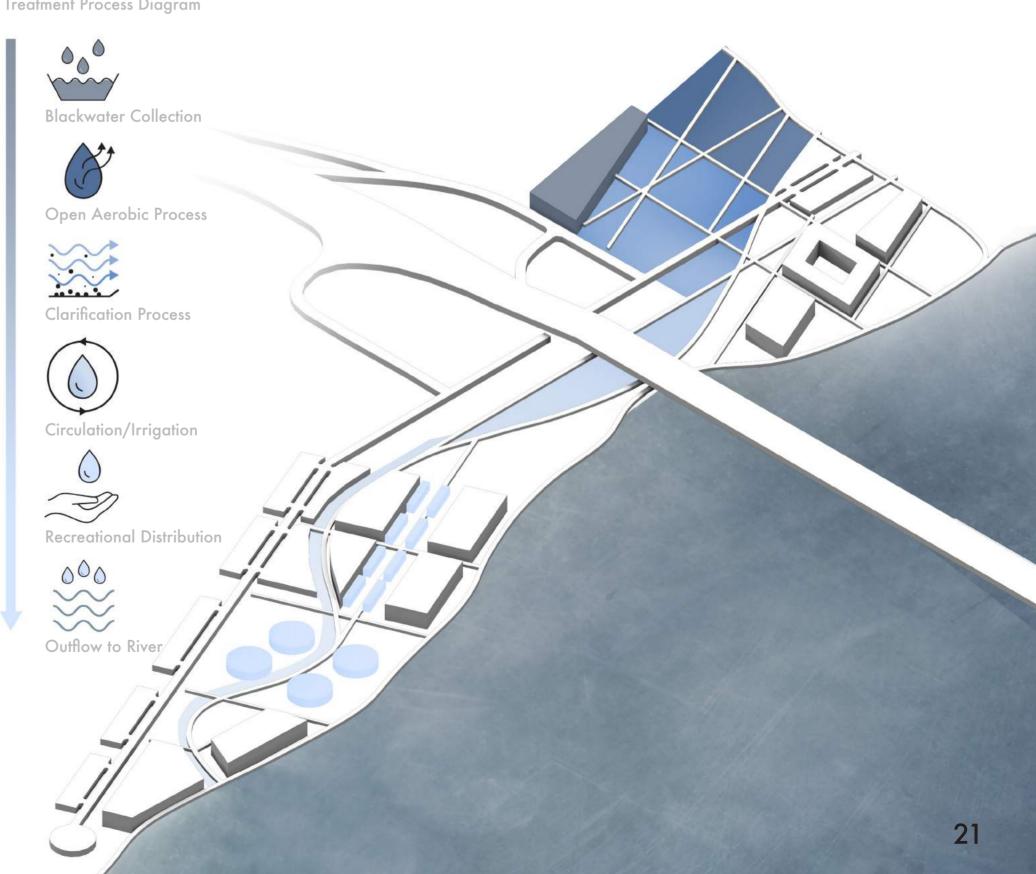
The west side of the Arkansas River in Tulsa County has been the home to Tulsa's industrial vein for many decades. As industry left these sites they became neglected, underdeveloped, and lost significance to the life system of Tulsa.

With the development of the Tulsa Wetland Business District, centered on I-44 corridor, life would be rejuvenated into the site once again supplying Tulsa with viable assets.

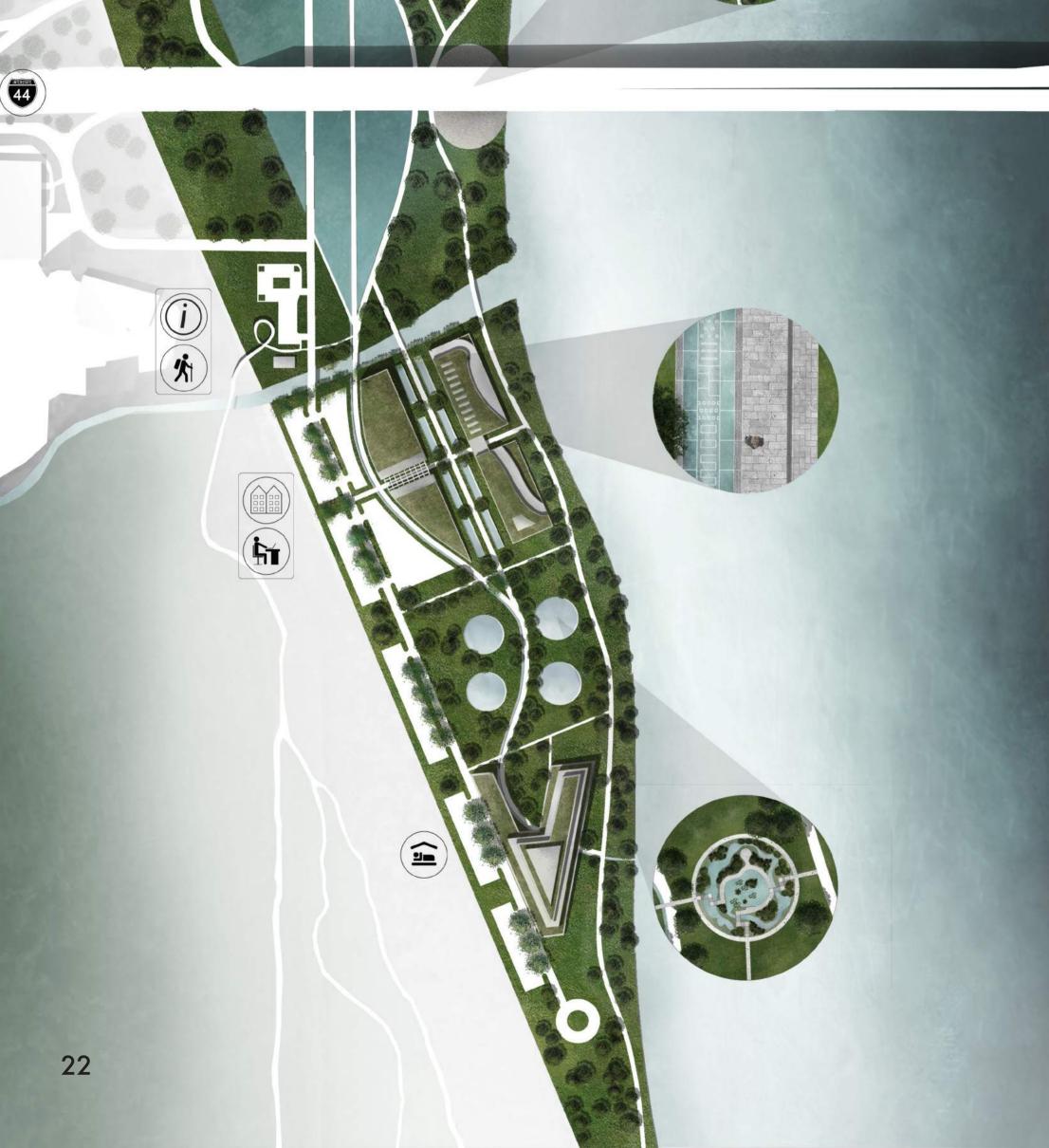
After taking into account the history of the site and the present condition of underdevelopment, we saw an opportunity to incorporate a more sustainable approach to the water treatment process and drew on this to inspire our vision for this project. Implementing a nature assisted system and converting the old site into residential and business spaces would encourage the community to use more sustainable practices. By integrating aspects of this process throughout the site plan, the new treatment plant will utilize the treated gray water for non-potable and irrigation uses.



Water Treatment Process Diagram







DESIGNING A VISION

The new, Tulsa Wetlands Treatment Plant is a multifunctional design strategy that provides water reclamation, habitat, educational opportunity, park restoration, visual enhancement and, above all, site security for a public works facility for future generations. This would be accomplished through a system of collection, primary, secondary, and tertiary treatments that implement natural elements along with mechanical filtration techniques to facilitate the process. In utilizing these practices we help to reduce carbon emissions, infrastructure need, energy needs, and chemical intensive processes.



View of Bike Path and Shading Structure

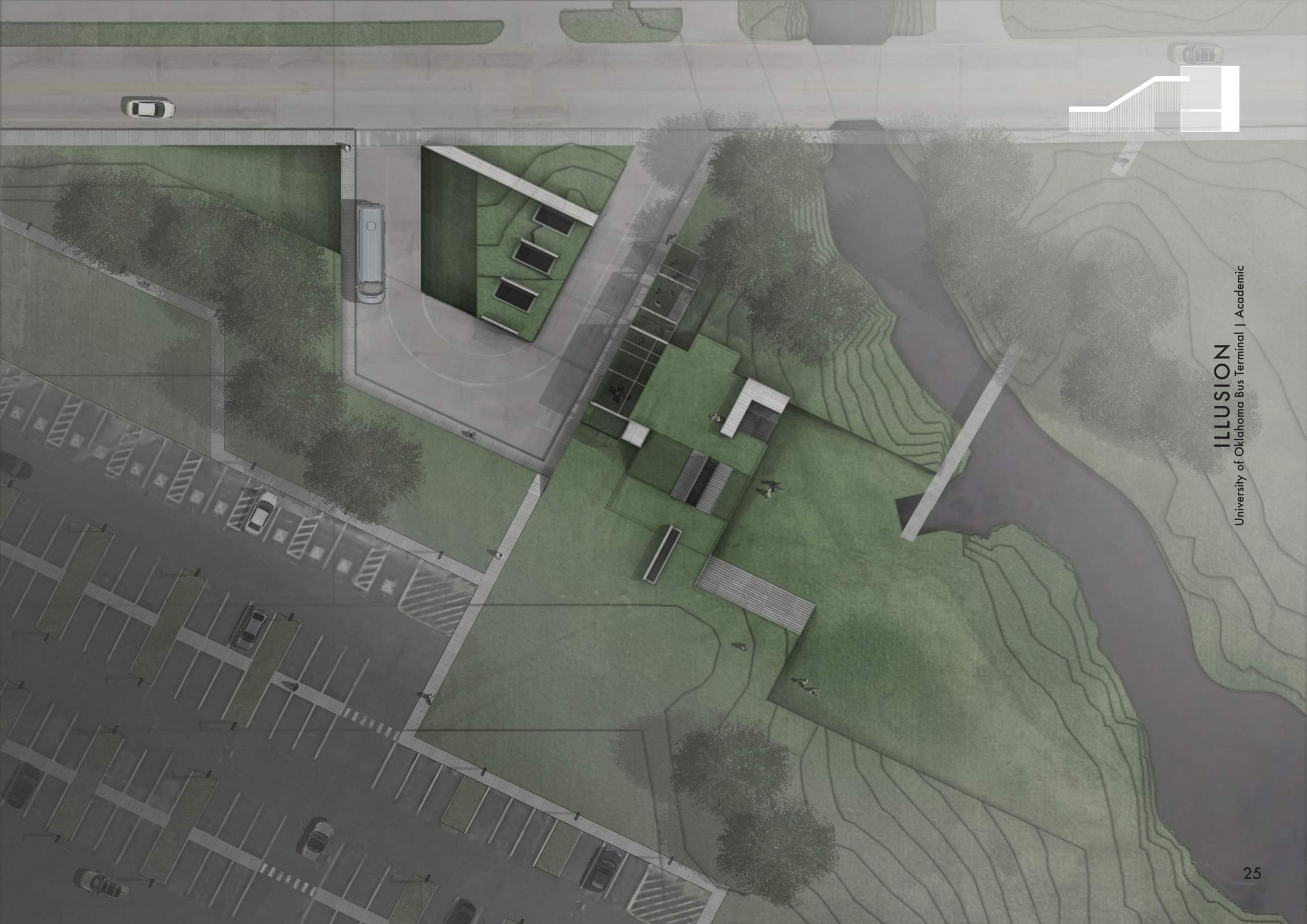


View of Pedestrian Bridge under the Overpass

This in-turn opens up the opportunity to redesign the South-Side Wastewater Treatment Plant providing a modernized infrastructure while also providing our communities with civic spaces that improve quality of life. The new Tulsa Wetlands Treatment Plant would provide treated water to the rest of the site supporting residential, park space, trails, water features, hotel, and office spaces that would otherwise use potable water for nonpotable uses. A supported civic infrastructure project that will update our essential urban infrastructure while simultaneously providing economical practices and promoting community would be a symbol of sustainable living unto the image of Tulsa.

View of Office Areas





ILLUSION

University of Oklahoma Bus Terminal

403 E Brooks Street | Norman, OK, USA ACADEMIC | FALL 2015 DURATION | 13 WEEKS

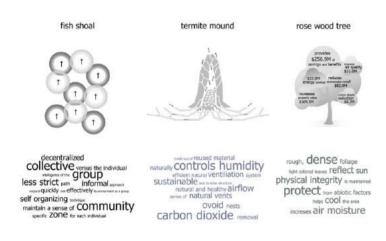
INSTRUCTOR:

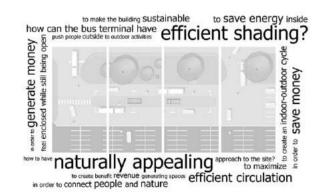
Jay Yowell

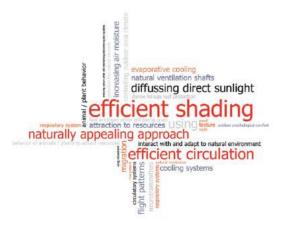
Dr. Khosrow Bozorgi

TEAM MEMBERS:

Firas Chamas Jacob Stinson





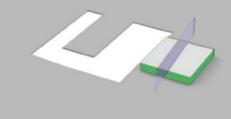


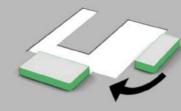
CART

The Cleaveland Area Rapid Transit (CART) has been serving Norman, OK since 1980. It transports more than 1 million passengers annually on a fixed-route bus system. CART buses run seven Norman city routes and three University of Oklahoma campus routes on weekdays and most Saturdays.

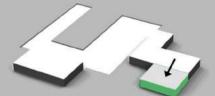
LAYERED CIRCULATION

The main problem with the existing bus terminal on the University of Oklahoma campus was its inability to adequately regulate the different layers of circulation. The four circulation categories; buses, bicycles, and pedestrians overlapped uncomfortably and erratically. The concept of manipulating the landscape to separate each circulation category became a driving force for the site development and building design.

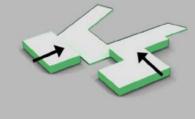




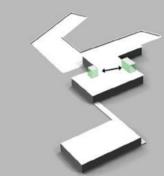




Program Placement

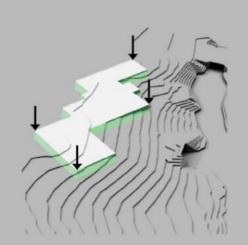




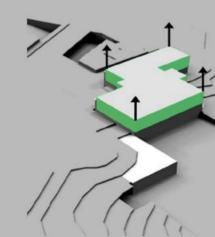




Program Concentration









Site Integration / Manipulation

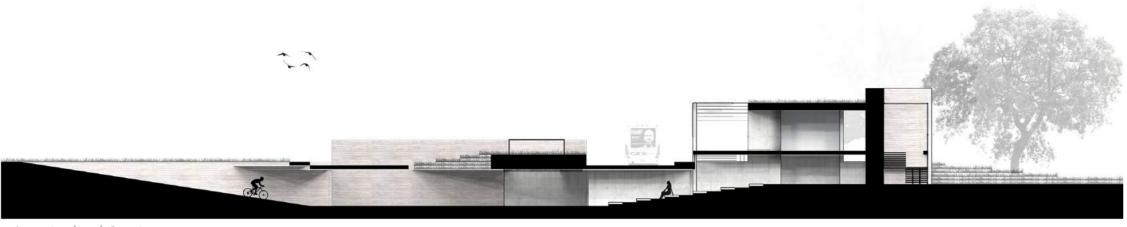






Site / Building Access

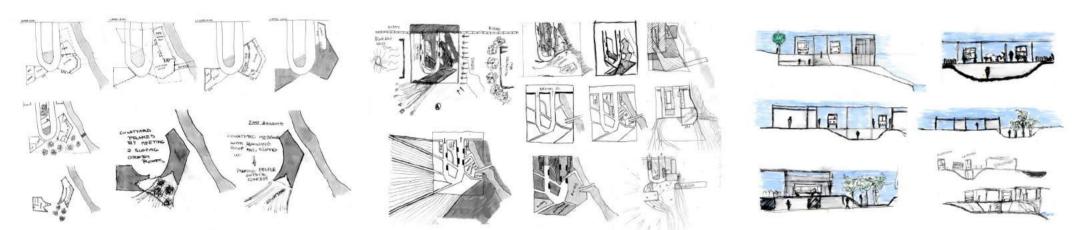
Generation Diagram 27



Longitudinal Section



Transverse Section

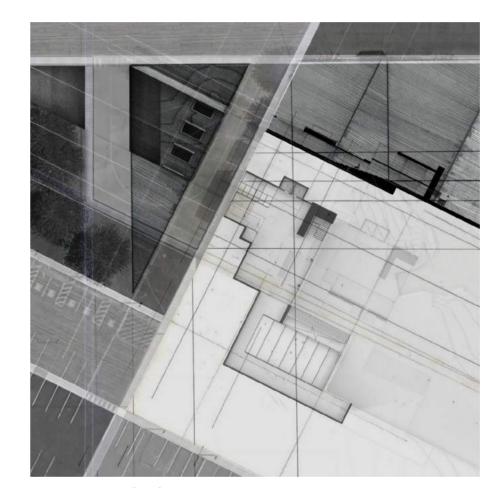


Process Sketches



MISGUIDED IMPRESSION

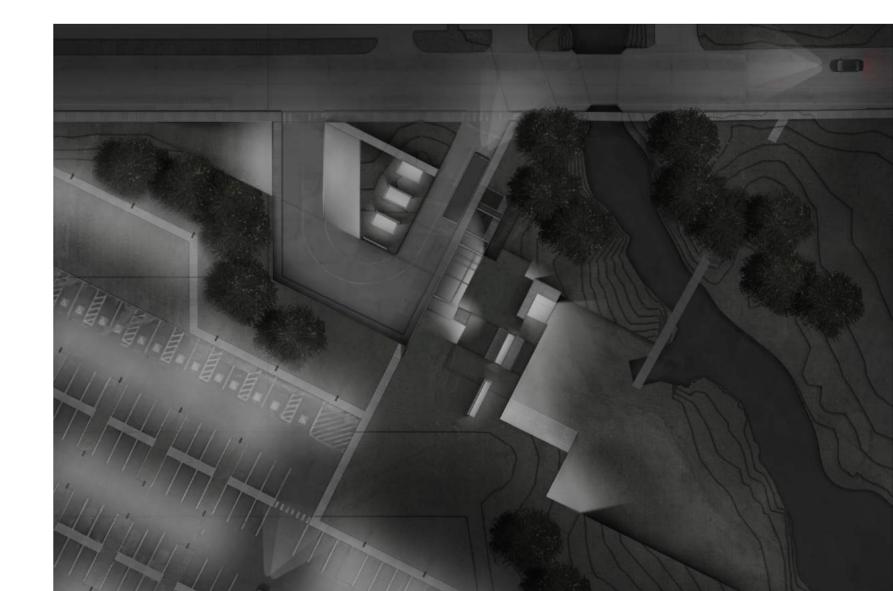
When approaching the site from the west, the building gives to the illusion that it is just another bus station with an outdoor waiting area and an adjacent small indoor facility. But when one enters or approaches it from the east, it reveals that it is a subterranean double story building that opens into an expansive lawn that overlooks the pond and maximizes the amount of views toward nature. This lawn is framed by the bus terminal and a newly added classroom that can be used as an interactive lab. It is a much needed amenity for the campus that can be used for outdoor art installations, openair markets, study areas, etc. to create a larger sense of community.



Proportion Hybrid

INFLUENCES

The bus terminal is arranged in accordance to optimize the sun and wind patterns of the site. The lower level is aligned to increase the amount of natural ventilation in the summer, but is able to be closed off in the winter. The building is oriented so it can filter in the maximum amount of light into the darker underground spaces. Additionally, two thermal masses are present in the complex, providing natural heating to the interior spaces.





GABLE

MEDICINE PARK ECO RESORT

WEST ARKANSAS RIVER BANK | MEDICINE PARK, OK, USA ACADEMIC | SPRING 2016

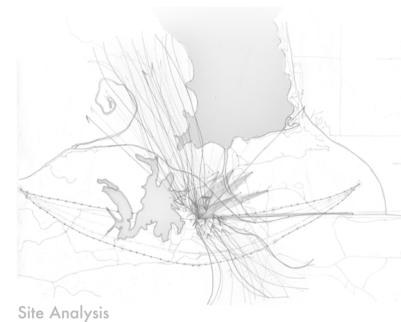
DURATION | 4 WEEKS

INSTRUCTOR:

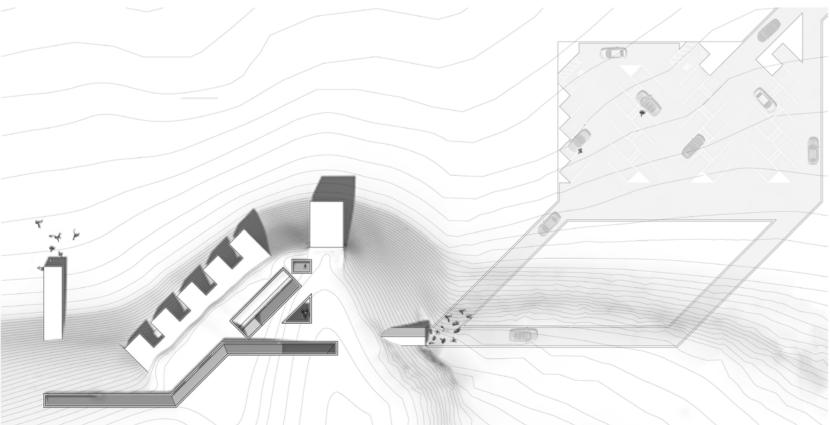
Dr. Stephanie Pilat Jay Yowell

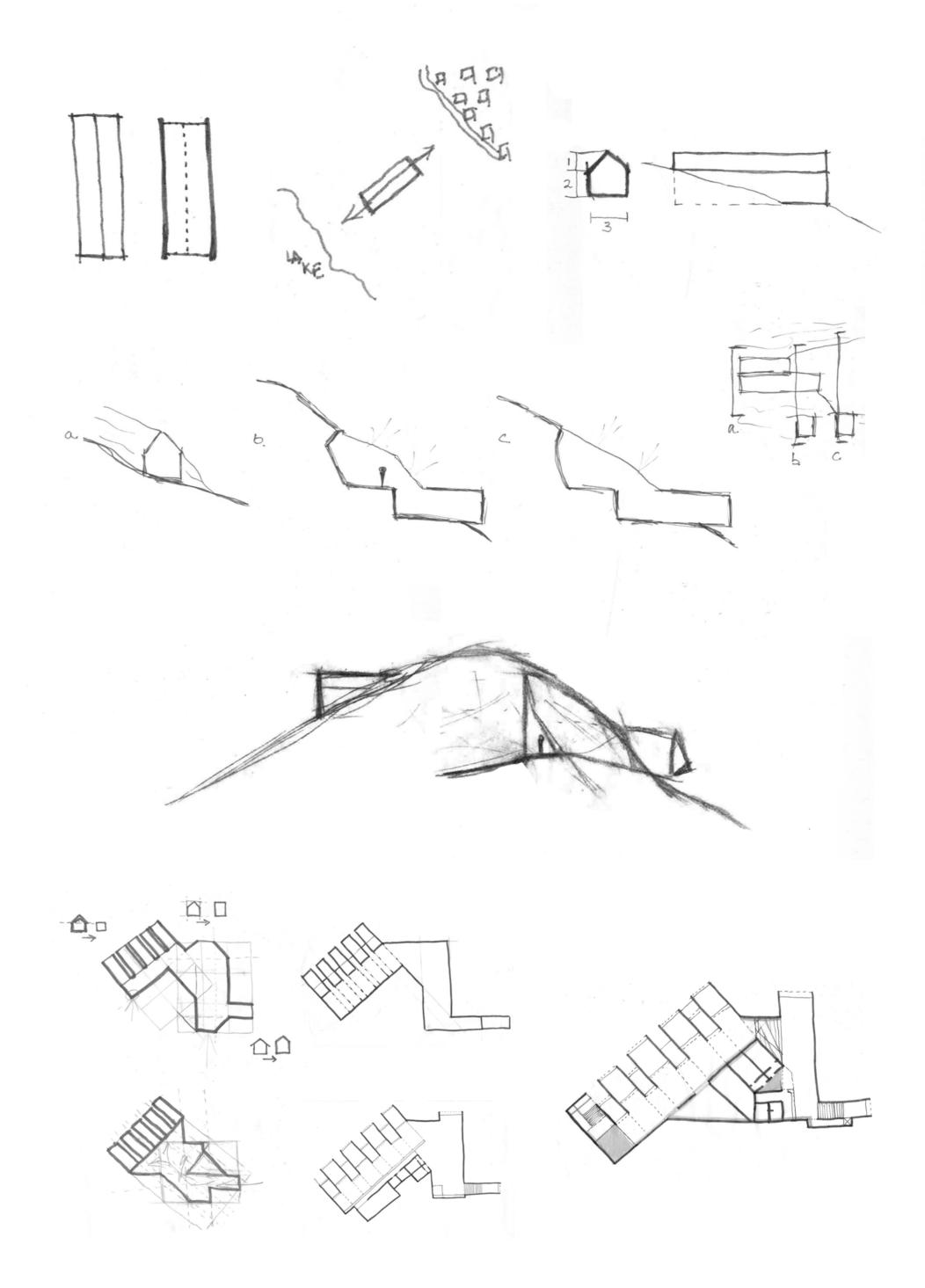
REVITALIZING AN ECLECTIC COMMUNITY

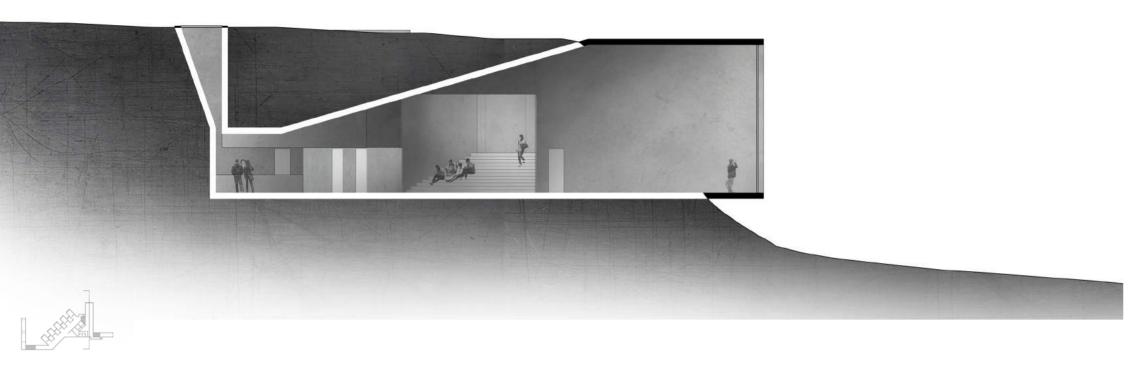
How do you make something that is set in the past new again?



The driving concept for the design was to revitalize a resort town located outside the Wichita Mountains National Wildlife Refuge and Fort Sill Military Base. Medicine Park is an eclectic town that is deeply rooted in its past. The city council envisioned the future of the town as a place to connect back to nature due to its close proximity to the wildlife refuge. The eco-resort is directed towards Medicine Park to relate to the past and to further the connection between the building and the people.







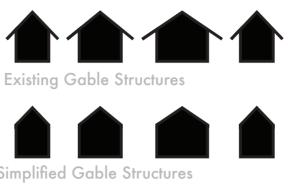
CONTRASTING PROTRUSIONS

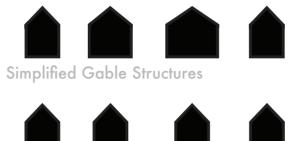
The portions of the resort that protrude from the earth are composed of a material that highly contrasts the ground, such as Corten steel or polished steel. This increases the contrast between the man-made and the natural to further associate the building with Medicine Park's past. Upon entering, the material that is visible from the outside transforms into a precast concrete that conveys a comfortable environment and relates back to the earth.

HIDDEN PROCESSION

Venturing into the resort, there is no view of what is ahead and one is compressed deeper into the earth. Then, it dramatically opens into a long 25' tall hallway that serves as the resort's lobby and market area. This space is aligned to have direct views toward the lake. Thin skylights run throughout the resort to pull visitors deeper into the resort and wash the walls in a soft light. Directly off the market area the rooms are placed in a row that allow ideal views toward Mt. Scott. They penetrate through the ground and their ends are left hovering above the grade.

REVITALIZING THE "GABLE"



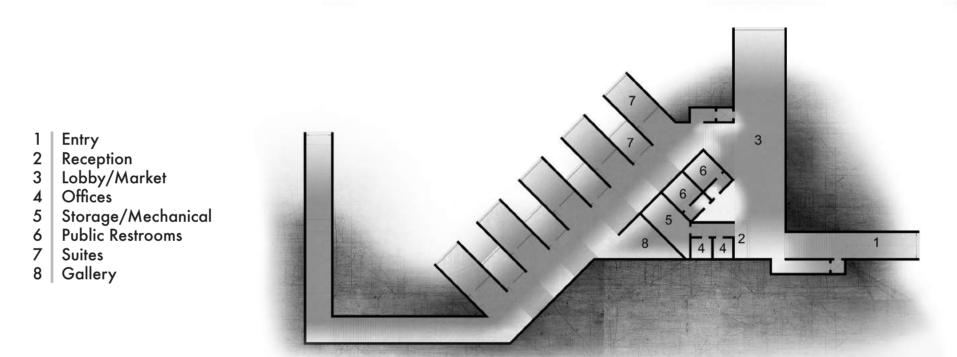


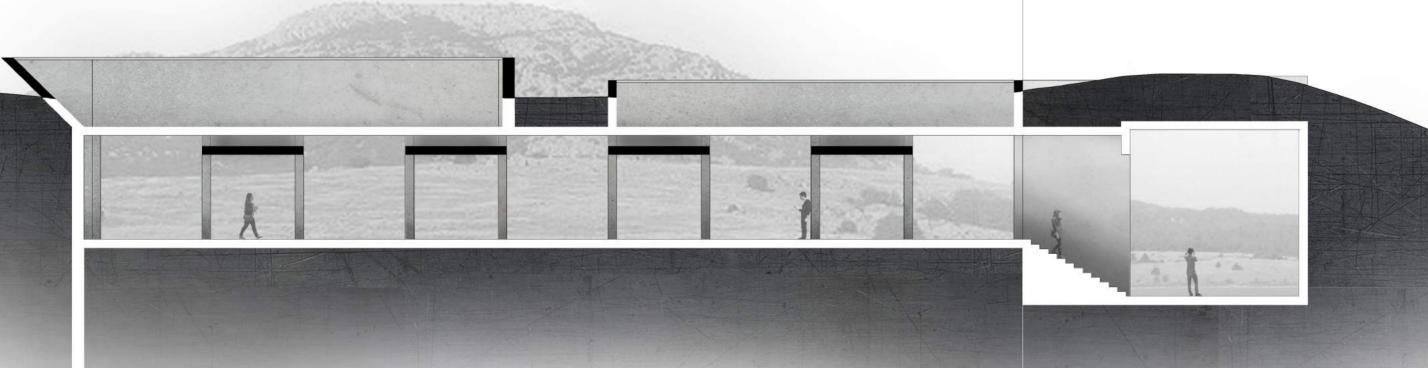
A gable is generally the triangular portion of a wall between the edges of the intersecting roof pitches. The shape of the gable reflects the climate, material availability, and aesthetic concerns.



Row of Shops Located in Downtown Medicine Park

The arrangement of the visitor's rooms is an obvious reinterpretation of the row of shops located in downtown Medicine Park. The eco-resort is intended to create a statement of renewal that contrasts the existing Medicine Park. This resort is one that evokes curiosity and mystery, but once inside it provides a deeper connection to nature that glorifies its beauty through the experience of the inhabitant.





35



STOMA

FILM ROW OUTDOOR THEATER

701 W SHERIDAN AVE | OKLAHOMA CITY, OK, USA ACADEMIC | SPRING 2015

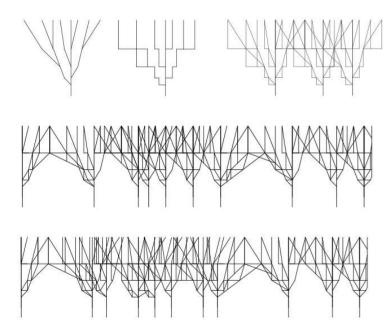
DURATION | 4 WEEKS

INSTRUCTOR:

Deborah Richards Anthony Cricchio

PERMEABILITY PRECEDENT

The structure and physical makeup of a leaf allows it to be permeable to certain elements of nature. It is composed of numerous spaces inside that are hollow. These voids are called stoma and are used to transfer air in and out of the leaf.

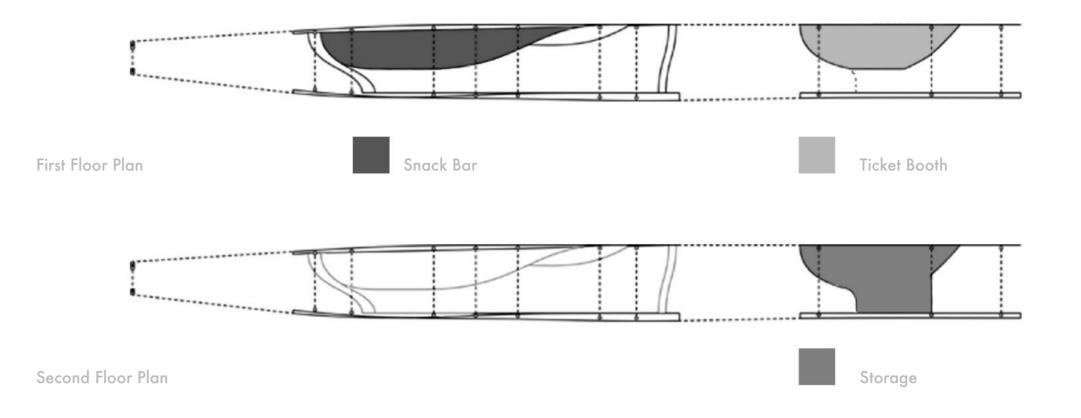


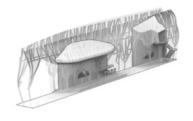
Generation of Structure

ORDERING NATURE

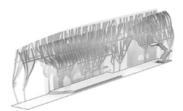
The materiality of the wall's outer membrane is a translucent sheathing draped over a structure that follows the Lindenmayer system. In addition to the L-system, the Fibonacci series and the golden rectangle provide a proportional rule that creates a "branching" effect.

This tubular structure becomes an artistic element that doubles as an attachment location for the translucent sheathing. It is then anchored to a more stable structure at the back of the wall.





Pedestrian Circulation



Vertical Circulation



Vehicular Circulation

INHABITABLE FACADE

This outdoor movie theater provides parking for local businesses during the day while transforming into a drive-in theater at night. The site parameters prohibited the theater from exceeding a maximum width of 10' to maximize the amount of parking on site.

The outdoor theater adopts the same aspect of the permeability of a leaf and manipulates it in a way that allows people, cars, light, and water to freely travel through it. During the night, the wall emits a subtle glow from inside lighting, attracting people towards the site. Once inside, the visitors are able to move freely throughout the space and fully interact with the wall.



