

# 2018 SGH / Dri-Design Scholarship



**Spring 2018**

Arch 411 Architectural Design Studio: Integrate  
University of Nebraska-Lincoln  
College of Architecture





*The mission for the Architecture program is to provide the educational foundation for articulate, intellectually aware, self-realizing architecture professionals capable of performing effectively in evolving design disciplines.*



# 2018 SGH / Dri-Design Scholarship

1

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**University of Nebraska-Lincoln**

College of Architecture  
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**Spring 2018****Arch 411 Architectural Design Studio: Integrate.**

*Continuation of complex problems as it relates to the integration and consideration of environmental stewardship. Emphasizing technological considerations as formal and organizational influences including technical documentation, accessibility, site design, life safety, environmental systems, structural systems, and building envelope systems and assemblies.*

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**Photographs.**

*All photos by Craig Chandler, Director of Photography, University of Nebraska, Office of University Communications unless otherwise noted.*

#### 4 Sponsors

- 18 **Award of Excellence:**  
Rachel McCown and Danny Ortega
- 26 **Award of Honor:**  
Landon Beard and Megan Peterson
- 34 **Award of Merit:**  
Aaron Culliton and Yilie Wang
- 42 **Award of Merit:**  
Shayla Dick and Kristina Schneider

#### Spring 2018 - Architecture Design Studio Faculty

*Mark Bacon, AIA, Design Director / Senior Associate, BVH Architecture, Adjunct Professor of Architecture, University of Nebraska*

*Jason Griffiths, Assistant Professor of Architecture, University of Nebraska*

*Marc Maxey, Partner, Field Day, Lecturer of Architecture, University of Nebraska*

*David Newton, Assistant Professor of Architecture, University of Nebraska*

The College of Architecture at the University of Nebraska-Lincoln, in partnership with SGH (A Division of SGH Redglaze Holdings Inc.) and Dri-Design, has established a student scholarship competition for the fourth-year, undergraduate, architectural design studios. The scholarship recognizes student projects exemplifying outstanding design investigation, resolution, and significance. This opportunity brings together aspiring architects and industry leaders to advance disciplinary knowledge of design, materiality, and innovation.

Following the end-of-semester review, one project from each studio is selected to compete for the SGH (A Division of SGH Redglaze Holdings Inc.)/Dri-Design Scholarship. These projects are presented to an external jury who are all established practitioners in their fields. A finalist is chosen for producing and communicating a comprehensive architectural project that is a result of design decisions at different scales. To be successful, students demonstrate a high degree of professional dedication, rigor, open-mindedness, and resourcefulness. Projects are rigorously developed and clearly communicate the breadth and depth of investigation.

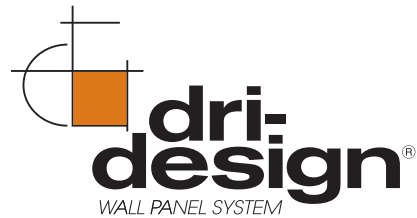
We thank our sponsors SGH (A Division of SGH Redglaze Holdings Inc.), a leading distributor and installer of customized building products, and Dri-Design, a producer of advanced and sophisticated metal wall panel systems.

**SGH (A DIVISION OF SGH REDGLAZE HOLDINGS INC.)**

For nearly 70 years, SGH has supplied the highest quality products and expert installation services to commercial builders throughout the Midwest. We are a leading distributor and installer of customized architectural products for the exterior and interior of buildings. From the initial idea to the final details, we have the resources to successfully execute projects of any size.

We have an intricate knowledge of how the products work and the best way to install them, which gives us a unique expertise our customers desire. We collaborate with owners, architects and contractors to ensure that products look stunning from concept to completion.

*We would like to thank Troy Burkey of SGH for helping establish this program and his continued support of the college and students.*



### **DRI-DESIGN**

Founded in Holland, Michigan in 1995, under the leadership of President Brad Zeeff, Dri-Design has turned the Metal Panel Industry on its ear. With Dri-Design, Zeeff set out to solve what he viewed as the significant shortfalls of traditional metal panel systems: delamination, staining due to the effects of weather on joints and gaskets, a lack of color and texture options, the rising cost of production and inefficient installation practices.

The result of Dri-Design's meticulous engineering, is a 100% recyclable, pressure equalized rain-screen, architectural metal wall panel system that attaches to nearly any substrate without the use of clips or extrusions. The pressure equalized rain-screen design can be installed simply over commercial grade Tyvek onto plywood, or as the most sophisticated outboard insulation pressure equalized rain-screen you can design.

*We would like to thank Jason Zeeff of Dri-Design for his continued support of the college and students.*



**CHRIS BARIBEAU**

modus studio

Chris Baribeau is the Principal Architect and co-founder of modus studio, a young and progressive design collective. Based in Fayetteville, Arkansas, modus has contributed a broad range of award-winning design projects since its inception in 2008. Along with its companion fabrication lab, the firm bridges the profession with architectural, prototyping, and fabrication work. As firm leader, Chris draws daily inspiration from his place, the threshold between the natural and man-made world of the Ozarks.



## **ROBERTO DE LEON**

de Leon & Primmer Architecture Workshop (DPAW)

Roberto de Leon is a partner and co-founder of de Leon & Primmer Architecture Workshop (DPAW), an award-winning design studio focusing on public projects with a cultural, civic or not-for-profit basis. His work operates at a range of scales and environments - both urban & rural - and has been exhibited & published nationally and abroad. In 2016, Roberto was elevated to The College of Fellows of The American Institute of Architects.



## **JEN MAIGRET**

PLY+ architecture, urbanism, and design

Jen Maigret's education and professional experience within the fields of biology and architecture inform her design expertise and approach to architecture as a component of broader environmental systems. Maigret was previously a partner in the trans-disciplinary, collaborative practice, MAde-studio LLC, and brings over 10 years of experience with projects ranging from regional green infrastructure analyses to fabricated architectural elements of public spaces to her new position as Principal at PLY + architecture, urbanism and design.







## PRE-DELIBERATION













# ANNOUNCEMENT















# Excellence

## Searching for the Ineffable

Rachel McCown and Danny Ortega  
*Faculty Mentor: Mark Bacon*

This project explores ways to evoke sacredness without religious affiliation. It is a sacred space for mourners and visitors who seek self-contemplation, a place to gather, and a place to remember those who have passed, through strategies of space, sensation, and natural phenomena. The design is a non-denominational space for visitors of diverse religious affiliations. Three main programs drive the form and division of the buildings with connecting points between each one. The reception, sanctum, and mausoleum work simultaneously to create a sequential experience using material qualities and light. One main conceptual moment happens in the sanctum where the casket of the deceased is placed on a ceremonial platform, and descends to the room below after the service. This was intended to bring importance not only to the circulation of the visitor, but also to the body. Our intent is that through strategies of atmosphere, form, scale, materiality, illumination, and shadow, we foster an environment with a quiet but strong presence that can encourage experiences of the ineffable.







Documenting Movement



Pod de Huis Office: Security Details as a

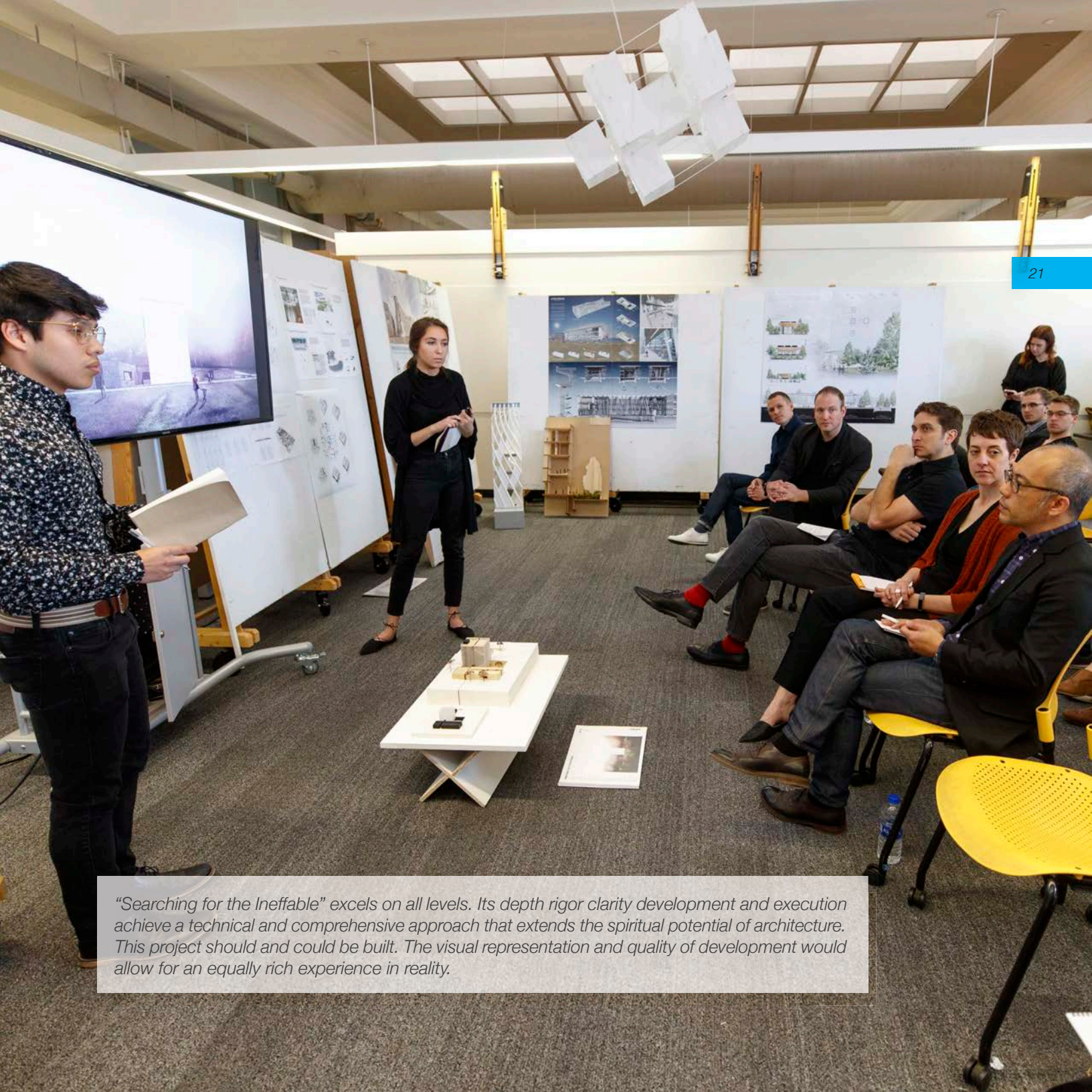


POPULACE









*"Searching for the Ineffable" excels on all levels. Its depth rigor clarity development and execution achieve a technical and comprehensive approach that extends the spiritual potential of architecture. This project should and could be built. The visual representation and quality of development would allow for an equally rich experience in reality.*



# SEARCHING FOR THE INEFFABLE

This project explores ways to evoke sacredness without religious affiliation. Investigations led to not only understanding what it means to be sacred, but to understand how to create spiritual experiences using architecture. An important reading for this project was a piece by Juhani Pallasmaa in *Transcending Architecture*. In this work he writes about how spiritual experiences in non-religious spaces can be evoked by character of place, form, scale, materiality or transcendent illumination. **This project is a sacred space for mourners and visitors who seek self-contemplation, a place to gather, and a place to remember those who have passed, through strategies of space, sensation, and natural phenomena.** The design is a non-denominational space for visitors of diverse religious affiliations.

DIVINE

PRIVATE CHAPEL



REQUIRED SQUARE FOOTAGE



DIVISION OF THREE SPACES



EXTRUSIONS AND SUBTERRANEAN LEVELS



THRESHOLD AND MAIN AXIS



COURTYARD AND MAUSOLEUM GROUND LEVEL

MASSING

## LIVING

RECEPTION

SANCTUM



**WYUKA CEMETERY**  
Wyuka, one of the oldest and largest cemeteries in the city, sits on a semi-deserted residential block. Two heavy traffic streets envelop the site on the North and South. The cemetery is filled with tall trees and thousands of gravestones. To optimize on privacy and privacy, the site selected for the project is in the heart of the grounds. The visitor enters through winding roads that eventually lead you to the destination.

SITE PLAN

## MORTALITY

COMMITMENT ROOM

GRIEVING GARDEN

PASSAGEWAY

MAUSOLEUM



ENTRANCE

SEQUENCE



LIVING

NORTHWEST PERSPECTIVE

- ALUMINUM COPING
- ROOF INSULATION
- WATER PROOF MEMBRANE
- RIGID INSULATION
- STEEL DECKING
- U-PROFILE GLASS UNITS WITH TRANSLUCENT INSULATION
- SUSPENSION ROD



The way the visitor circulates through this project became an integral part of the concept. The passage through spaces was intended to guide and prepare the visitor for the next space and experience. The entrance and exit have focused, directional strategies. The thresholds were designed with the idea of contract and release, and the sanctum stair was a moment of transition to mimic in architecture an out-of-body experience.



RECEPTION TO SANCTUM

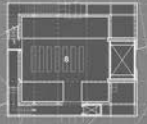
SANCTUM TO COMMITTAL

COMMITTAL TO TRANSIENCY

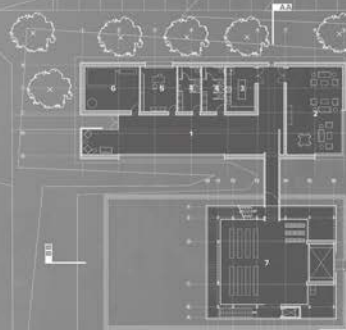
THRESHOLDS



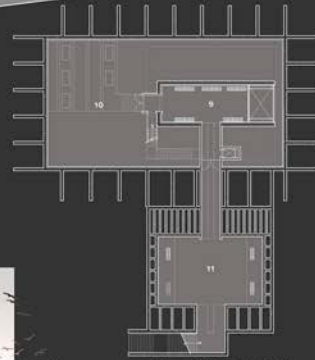
- LEGEND
- 1 FOREY
  - 2 MULTI-PURPOSE
  - 3 KITCHEN
  - 4 RESTROOM
  - 5 OFFICE
  - 6 SERVICE
  - 7 SANCTUM
  - 8 PRIVATE CHAPEL
  - 9 COMMITTAL ROOM
  - 10 OBSERVING COURTYARD
  - 11 MAUSOLEUM



SECOND FLOOR



MAIN FLOOR



LOWER FLOOR PLAN



SECTION AA

MORTALITY





**HVAC**

User experience was a subject that was highly considered in this project, along with user comfortability. A multi-unit VAV system is used for the building to keep the building cool during the warmer times of the month, while radiant heating floors was used for heating.

**STEEL FRAMING**

**SITE CAST CONCRETE**

**FOUNDATION**

**STRUCTURE**

The building consists of three main structural systems, which fit both functional and supportive of the conceptual framework. Site-cast concrete is used for the foundation and lower levels as well as the main level. The heavy structure supports most of the weight above. Finally, Steel framing is used in the section.

STEEL FRAMING

HOLLOW SQUARE TUBE CHANNEL

INTERMEDIATE CHANNEL CONNECTION MULLION ASSEMBLY

REPURPOSED GRAY BRICK FLASHING WITH SILICONE SEALANT

ALUMINUM HEADER

DOUBLE PANE WINDOW

PICKLED ZINC SHELF WINDOW

AIR GAP

TIE

VAPOR BARRIER

RIGID INSULATION

SITE CAST CONCRETE

LIGHT STEEL FRAMING WITH EAST INSULATION

WHITE OAK WOOD PANELING

**RECEPTION**

0 5 10

**SECTION BB**

0 10 20



# Honor

## The Future of Sprawl

Landon Beard and Megan Peterson  
*Faculty mentor: Marc Maxey*

The year is 2100. Suburbia is rapidly consuming the countryside leaving it unable to cater to the flourishing population. In order to accommodate this unprecedented growth, the invention of land is necessary. The only choice is to grow outwards by growing upwards. The only way to perpetuate sprawl is through the designing of new ground. The new ground is manufactured – it rises above us; we are longer confined to the surface on which to live.

Old ground becomes densely organized with commercial amenities for those who reside above, generating a landscape fit for society's reliance on consumerism. Elevated surfaces create an interwoven matrix, blurring our realities of the urban condition. We live on these surfaces under the illusion of suburbia. Verticality has suspended our disbelief. From below we see a complex of serpentine surfaces; from above a serene suburban neighborhood where technology allows us to transcend the ground plane. This new spatial condition epitomizes Rem Koolhaas's idea of the 'Culture of Congestion,' where independent lifestyles exist in close proximity, promoting a local culture derived from unique social intercourse. This infrastructure design generates a layered framework which embraces chaos, granting the individual the freedom to express their individuality.

This alternative urbanism is neither a dense city nor a sprawling suburb, it exists in between. It creates a suburban mimicry guided by vertical urban density. It leverages its horizontal appetite with a structural system allowing for simultaneous vertical growth. This is the successor of non-urban living; this is the future of sprawl.








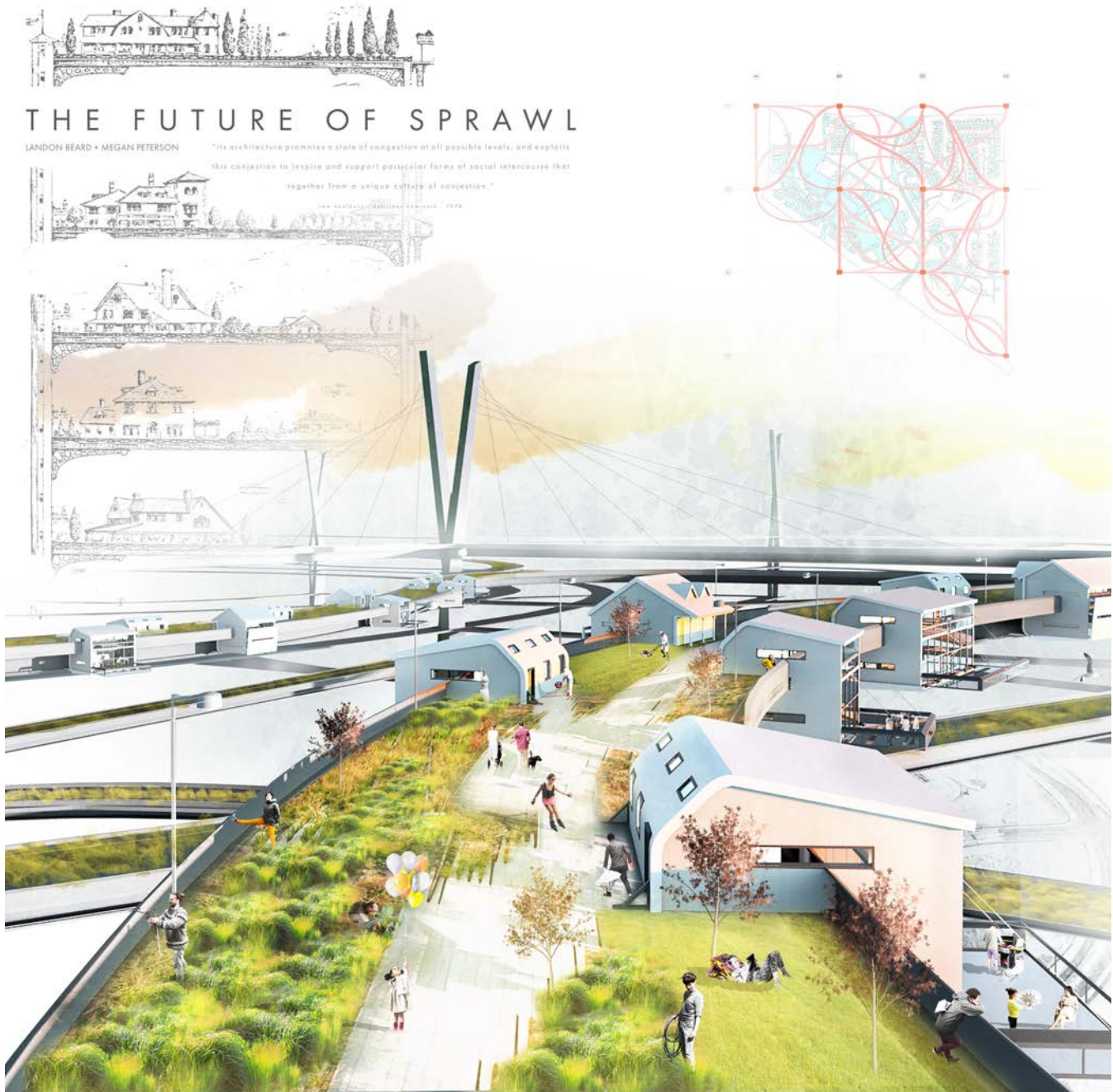


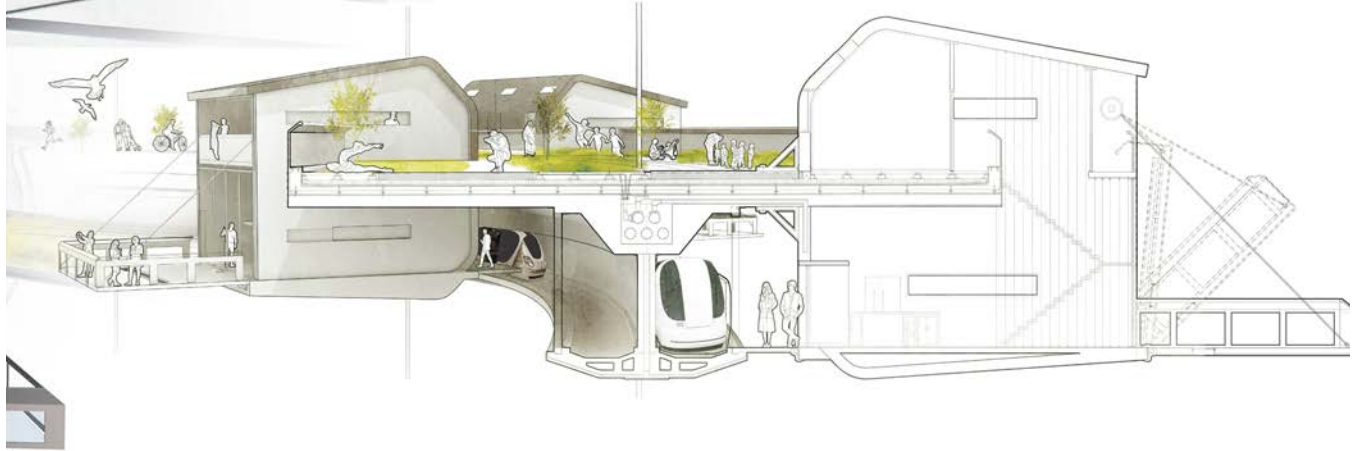
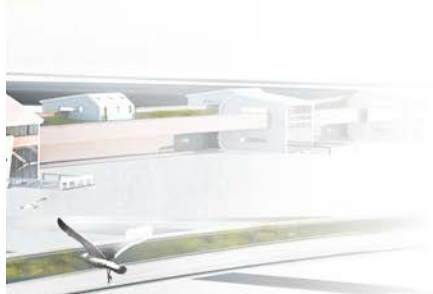
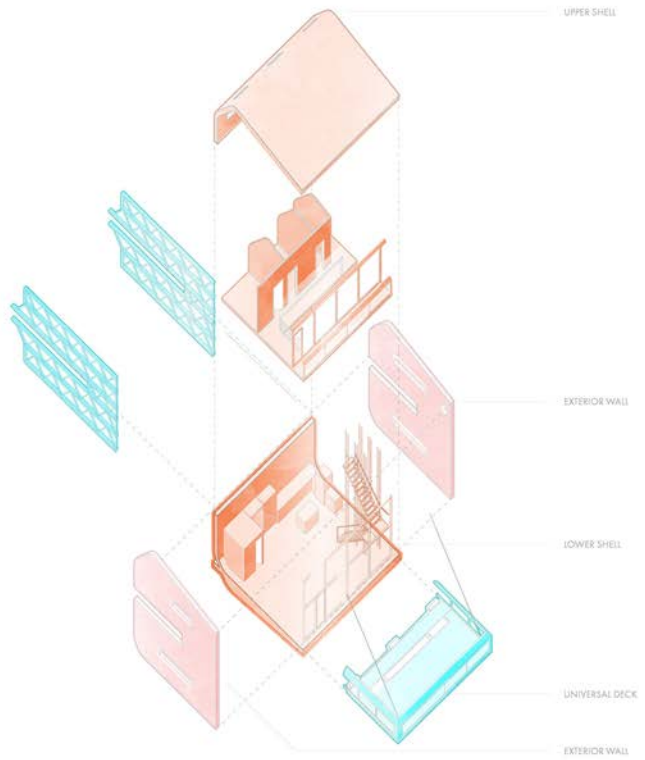
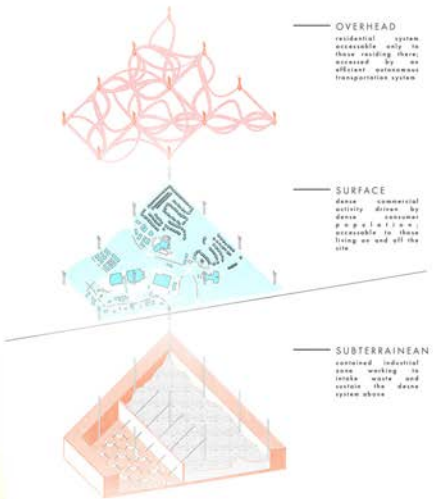




*Ambitious and risk-taking, this project proposes a new vision of community at a vastly different scale. It rethinks new possibilities of suburbia while undertaking a strong use of exuberant models, drawings, and level of production. The range of representations offered different ways of engaging the ideas within the project. Pleasantly terrifying.*

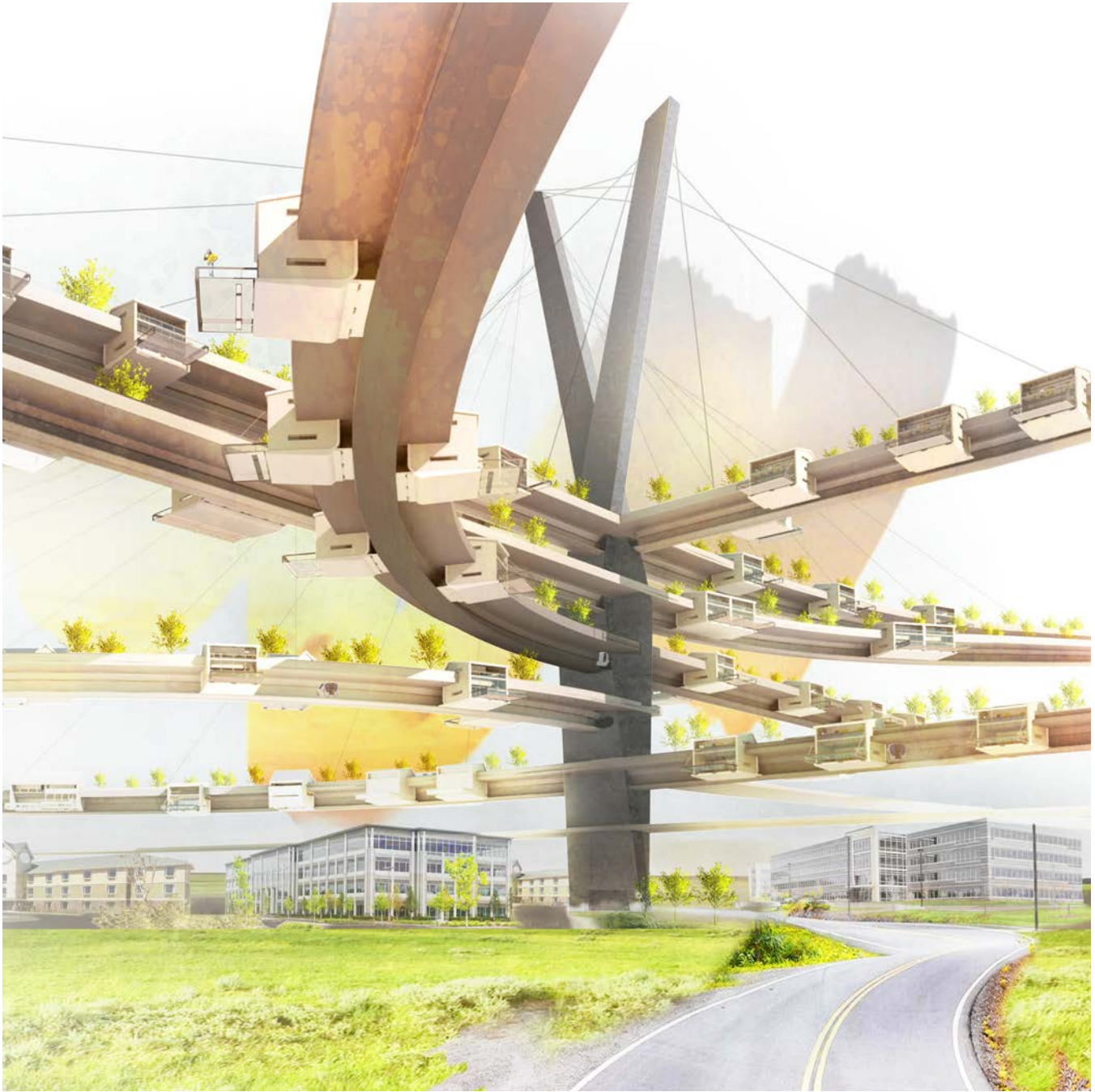












# Merit

## DSGN Integrate

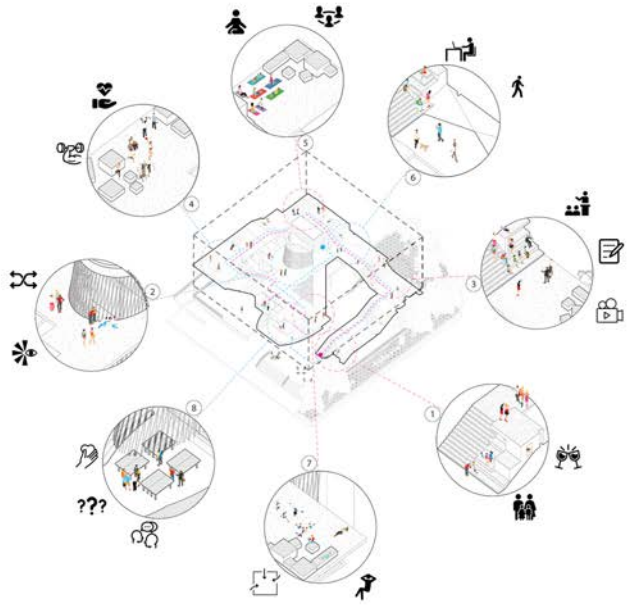
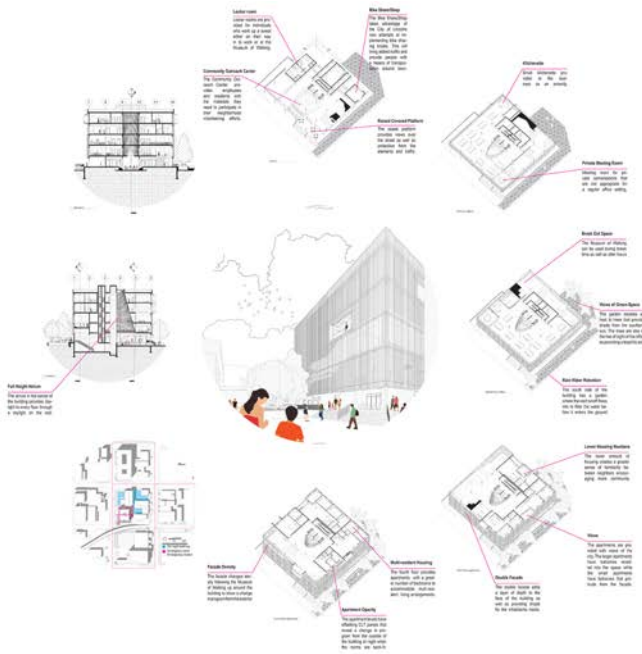
Aaron Culliton and Yilie Wang  
*Faculty Mentor: Jason Griffiths*

The building is built around the cultures that both the Museum of walking and B-Corp companies share and foster. Community, and outreach are the main focuses of the design. At the center of the building sits an atrium clad with bent cedar that cascades upward towards the sky. There is an intended visual connection between floors from the podium level through the offices finally connecting to the apartment levels. This connection enhances the narrative of community and can be experienced as you ascend on the elevator. The Museum of Walking encompasses the building from the outside, wrapping around each program as it moves vertically. It is more than just a space for artifacts to be curated. It is a culture, an ideal meant to be explored and discovered. It celebrates the movement and community shared by the people who bring the building to life. Where the atrium pulls the project together from the inside, so does the Museum of Walking from the outside. The Museum of Walking takes the visual connections of the atrium and makes physical bridges between them while promoting healthy lifestyles and staying true to the encompassing importance of the community.












A group of people are gathered in a meeting room. One person is standing and pointing at a board, while others are sitting and listening. The room has yellow chairs and a whiteboard in the background.

*The use of layering and construction methods has potential to initiate a community catalyst for integration of program, technology, and space through the consideration of novel construction techniques.*



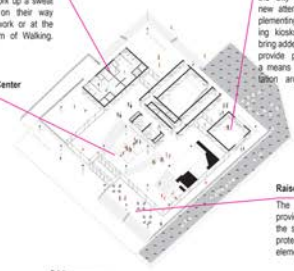




Section 1

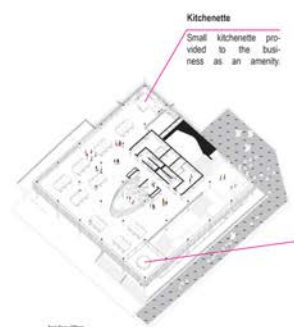
**Locker room**  
Locker rooms are provided for individuals who work up a sweat either on their way in to work or at the Museum of Walking.

**Community Outreach Center**  
The Community Outreach Center provides employees and residents with the materials they need to participate in their neighborhood volunteering efforts.



**Bike Share/Shop**  
The Bike Share/Shop takes advantage of the City of Lincoln's new attempts at implementing bike sharing kiosks. This will bring added traffic and provide people with a means of transportation around town.

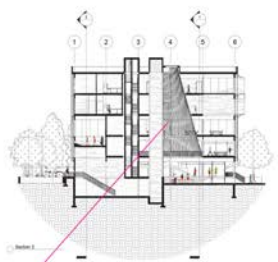
**Raised Covered Platform**  
The raised platform provides views over the street as well as protection from the elements and traffic.



**Kitchenette**  
Small kitchenette provided to the business as an amenity.

**Private Meeting Room**  
Meeting room for private conversations that are not appropriate for a regular office setting.

Floor Plan 0208



Section 2

**Full Height Atrium**  
The atrium in the center of the building provides daylight to every floor through a skylight on the roof.



**Break Out Space**  
The Museum of Walking can be used during break time as well as after hours.



**Views of Green-Space**  
The garden doubles as host to trees that provide shade from the southern sun. The trees are also in the line of sight of the offices providing a biophilic aid.

**Rain Water Retention**  
The south side of the building has a garden where the roof runoff flows into to filter the water before it enters the ground.

Ground Floor 0208



**Facade Density**  
The facade changes density following the Museum of Walking up around the building to show a change in program from the exterior.



**Multi-resident Housing**  
The fourth floor provides apartments with a greater number of bedrooms to accommodate multi-resident living arrangements.

**Apartment Opacity**  
The apartment levels have offsetting CLT panels that reveal a change in program from the outside of the building at night when the rooms are backlit.

Fourth Floor 0208



**Lower Housing Numbers**  
The lower amount of housing creates a greater sense of familiarity between neighbors encouraging more community.

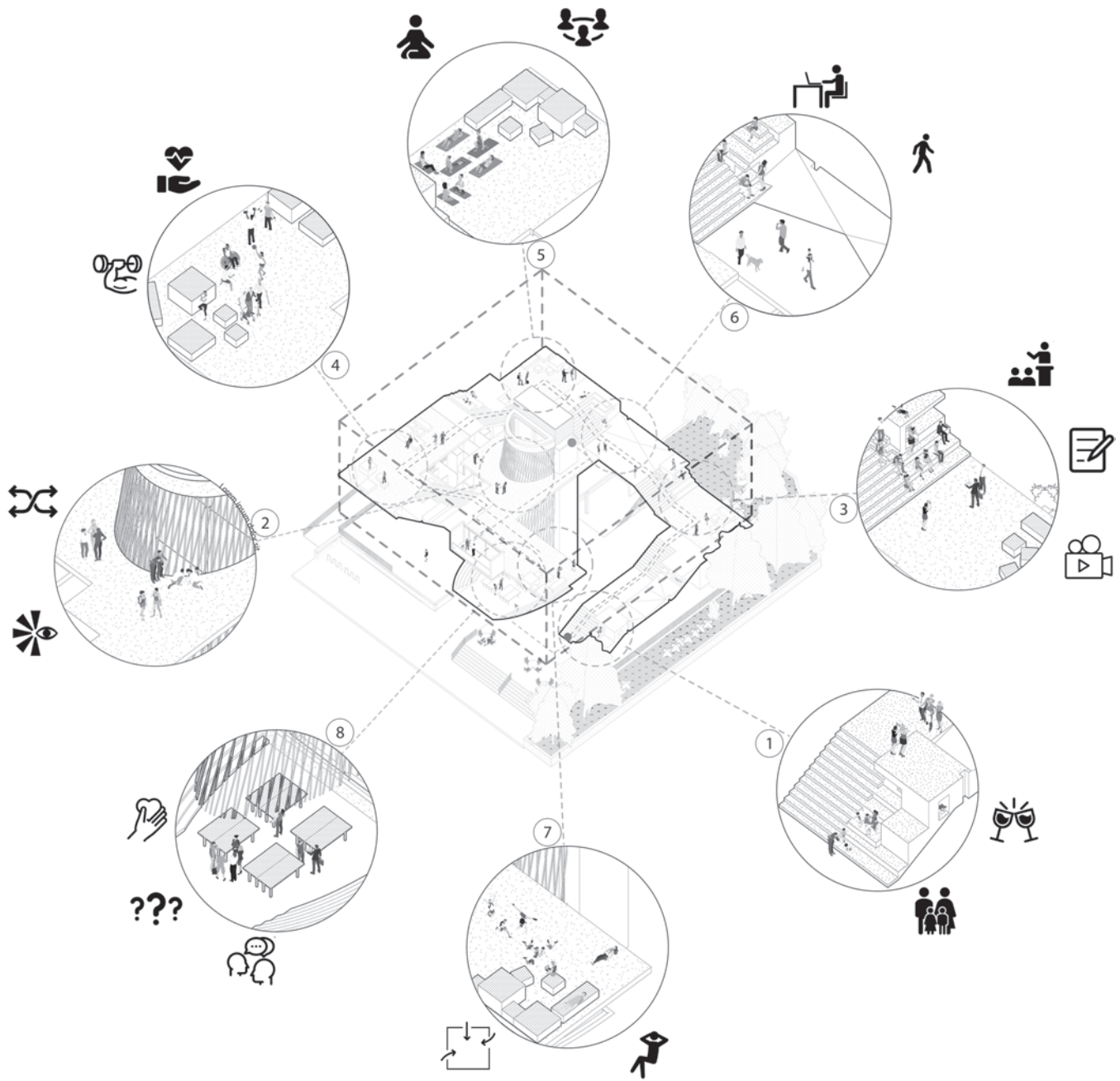
**Views**  
The apartments are provided with views of the city. The larger apartments have balconies recessed into the space while the small apartments have balconies that protrude from the facade.

Floor Plan Apartments

**Double Facade**  
The double facade adds a layer of depth to the face of the building as well as providing shade for the inhabitants inside.







# Merit

## Innovation Bundles

Shayla Dick and Kristina Schneider  
*Faculty Mentor: David Newton*

Innovation Bundles is an innovation center for emerging fabrication technologies located on Innovation Campus. Innovation Bundles is designed to be a place of interaction between professional researchers, university faculty, students, and the community. The creation of integrated research communities converges individuals with varying levels of expertise all exploring a specialized emerging fabrication technology topic. This integrated approach helps expand innovation through social and academic encounters across user groups. Each research community is equipped with a blend of offices, classrooms, and a variety of flexible collaboration spaces offering unique interactions which help to foster knowledge creation and collaboration. These research communities are then regionally connected to the central robotics and specialized labs. The lab space, which acts as the connection between the different research communities as a space of innovation and idea creation, is on display for the public. Finally, the entire building is connected globally through a series of experiential circulation paths and ramps with program nodes promoting unexpected interactions and boosting creativity. Overall, Innovation Bundles promotes socialization, increases creativity, and fosters knowledge creation through local, regional, and global interactions.











## INNOVATION BUNDLES

INNOVATION CENTER FOR EMERGING FABRICATION TECHNOLOGIES

To promote collaboration and innovation, the Innovation Bundles integrate the additional light-education programs, or generation, classrooms, faculty offices, and studio spaces are grouped into bundles. Based on research topics in order to promote collaboration across traditional boundaries. A central robotics lab brings all research topics together in a mixing space of ideas. All spaces are connected by one continuous ramp system, which boosts creativity through walking and increases innovation through human interaction.



PROGRAM BUNDLES

PROGRAM SITUATING

PROGRAM SIZING

PROGRAM SHAPING

PROGRAM CONNECTING

PROGRAM REFINEMENT

PROGRAM VENTILATING

1  
3

2  
4

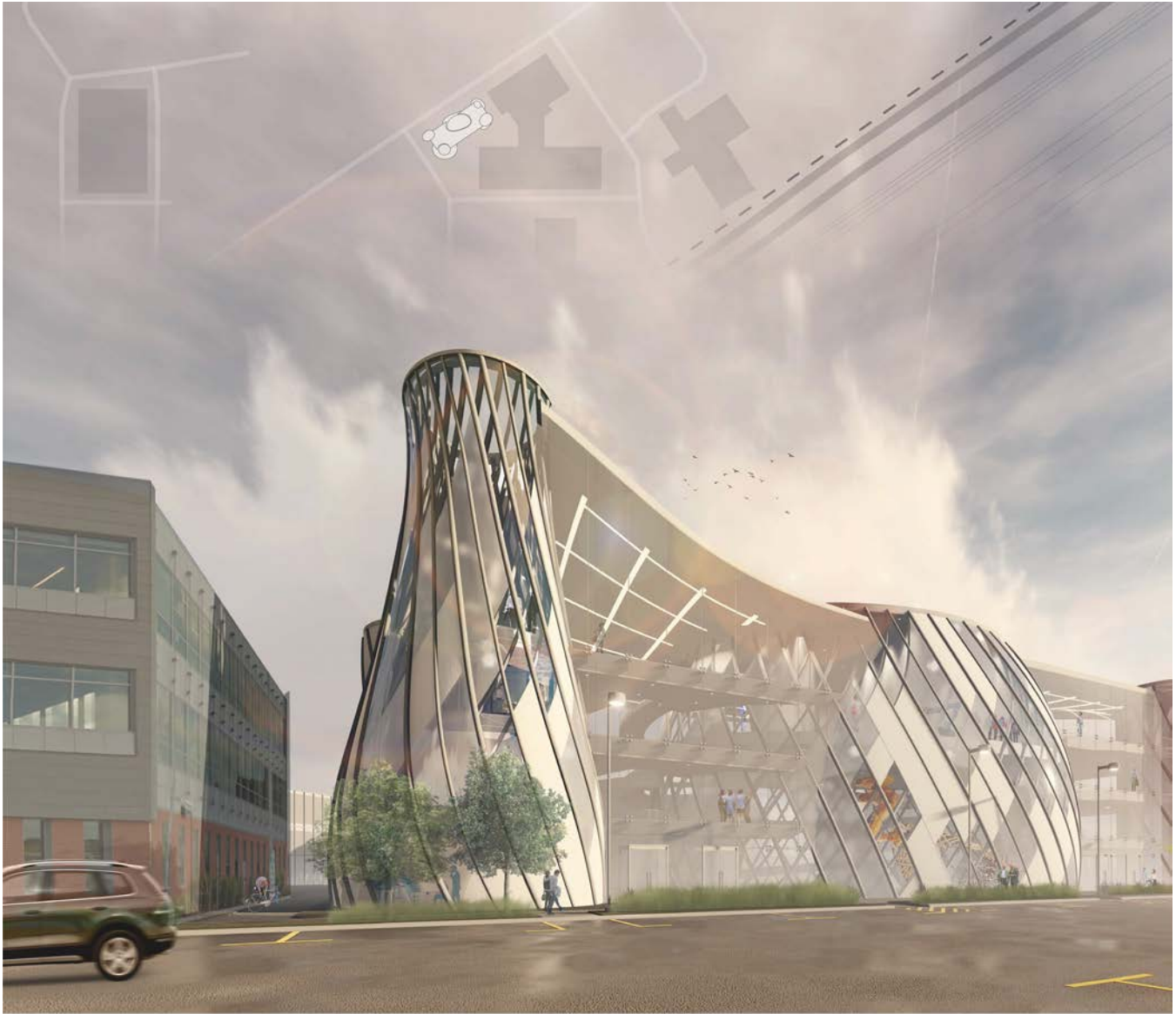




*Innovation Bundles is commendable for its use of technological analysis and research which lent a richness to the design and thinking process. The project took on complex challenges and was able to produce compelling overlaps of spaces creating a mixing chamber of ideas.*





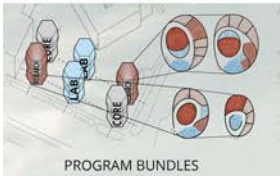


# INNOVATION BUNDLES

INNOVATION CENTER FOR EMERGING FABRICATION TECHNOLOGIES

To promote collaboration and innovation, the Innovation Bundles reimagine the traditional higher-education programmatic organization. Classrooms, faculty offices, and studio spaces are grouped into bundles based on research topic in order to promote collaboration across traditional boundaries. A central robotics lab brings all research topics together in a mixing space of ideas. All spaces are connected by one continuous ramp system, which boosts creativity through walking and increases innovation through human interaction.





PROGRAM BUNDLES



PROGRAM SITUATING



PROGRAM SIZING



PROGRAM SHAPING



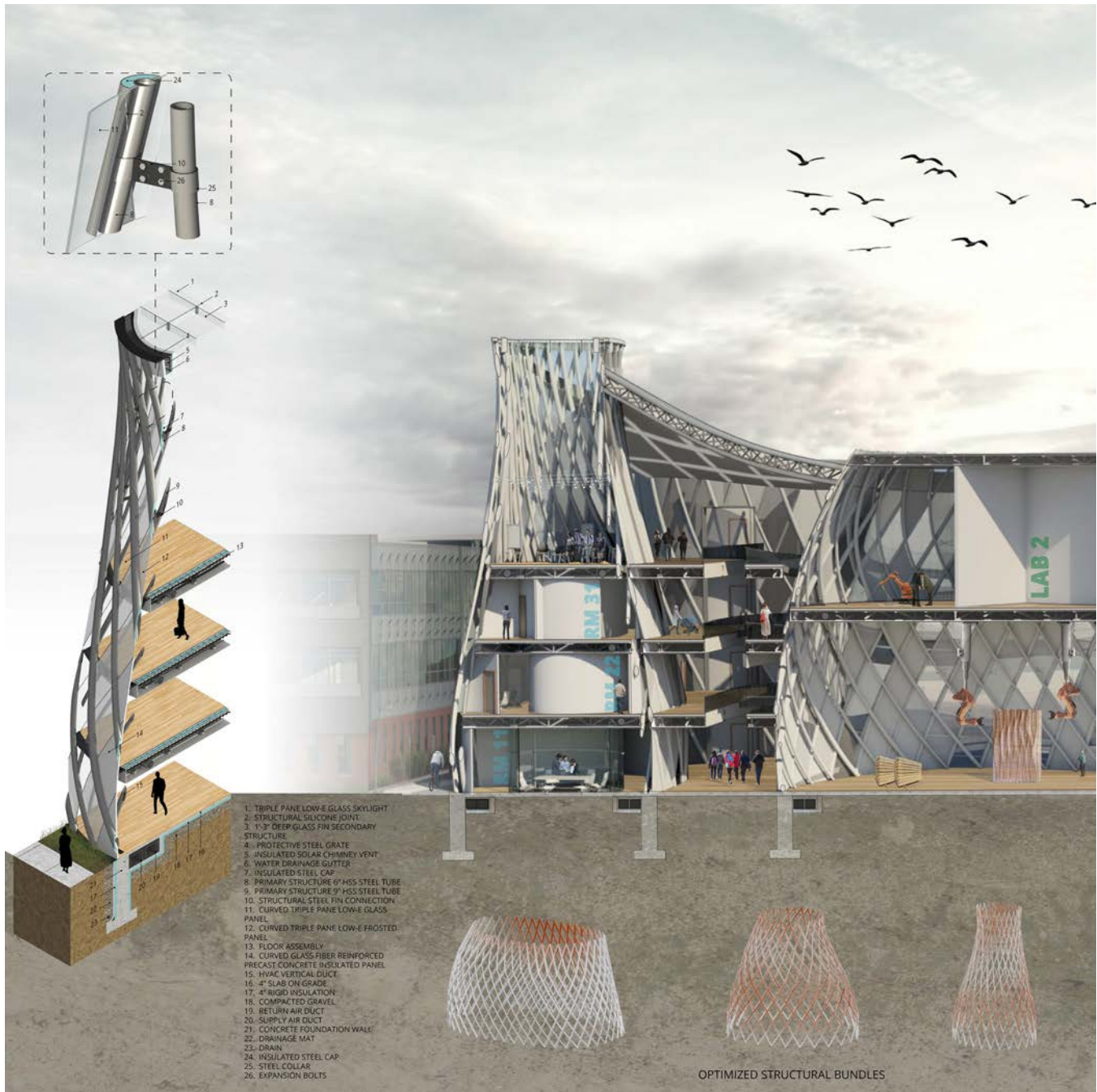
PROGRAM CONNECTING



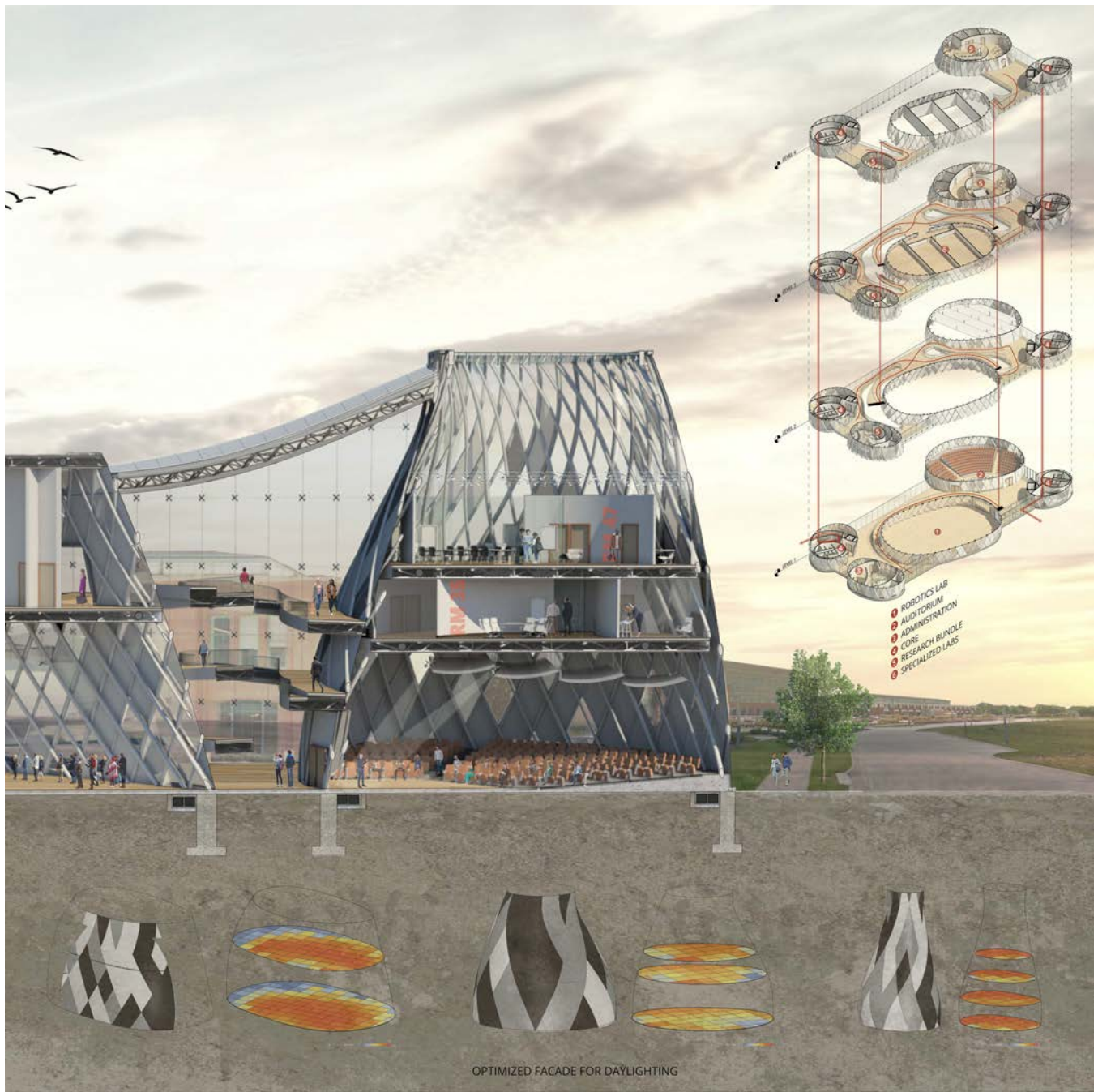
PROGRAM REFINEMENT



PROGRAM VENTILATING







Dick + Schneider | Board 4





*Troy Burkey from SGH presenting material and spatial properties. (photo taken by faculty)*



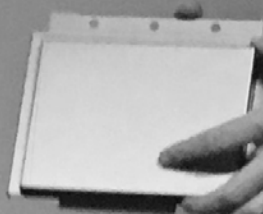


Dri-Design is not laminated, nor a composite  
will never delaminate and are non-flammable

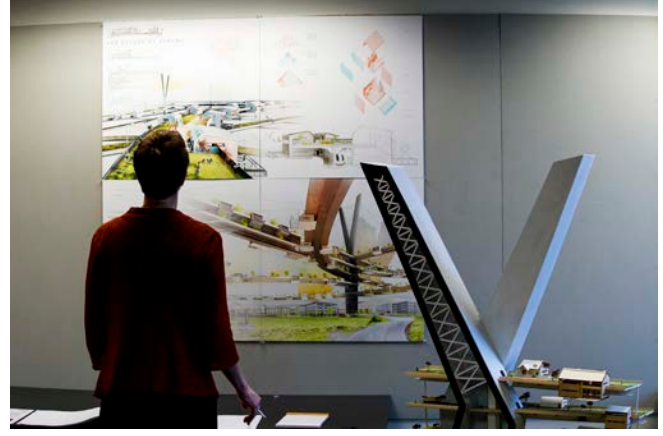
*Jason Zeeff from Dri-Design presenting logics of systematic assembly.  
(photo taken by faculty)*

e so panels

e.











**Mark Bacon, Adjunct Professor of Architecture**

\* Rachel McCown and Danny Ortega

Yan Chen	Ryan Miller
Charles Dowd	Jordan Morris
Landon Dubas	Abigail Nelson
Nathan Gradoville	John Round
Ian Jones	Manuel Ruiz
Collin Meusch	Hannah Schafers

**Jason Griffiths, Assistant Professor of Architecture**

\* Aaron Culliton and Yilie Wang

Violet Bast	Devin McLean
Hannah Christy	Zhen Qian
Hannah Cudaback	Andrew Rose
Kungang Ding	Shanna Satra
Brent Hoschar	Reid Shubert
Audrey Lanik	Chao Zhang

**Marc Maxey, Lecturer of Architecture**

\* Landon Beard and Megan Peterson

Rousol Aribi	Abigail Incontro
Elvira Batelaan	Rachel Jensen
Carly Brotherson	Eric Mason
Blake Brummels	Cale Miller
Matthew Drummond	Aiden Schneider
Joseph Holtz	Ruslan White

**David Newton, Assistant Professor of Architecture**

\* Shayla Dick and Kristina Schneider

Alacia Bayless	Kyra Stradley
Alec Burk	Alexis Tapia-Vergas
Drew Doyle	Griffin Thomas
Craig Findlay	Alfredo Vera
Robert Grebl	Jati Zunaibi

\* **Studio Finalist**





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**Spring 2018**

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