

03

01 MAXIMALISM
Residential

11

02 TAURUS II
Exhibition

19

03 VOID EXPANSION
Wall Detail

23

04 NEO-BEDOUIIN SHELTER
Defensive Ecology

31

05 ENGAGE-ACTION
Library

37

06 UN "OFFICE FOR ALL"
Commercial




MAXIMALISM: Physical model of main staircase





01 MAXIMALISM


Residential | December 2019

This project was a **townhouse renovation** in Brooklyn. One of the client's family members was **claustrophobic** - this became the driver for the design of the project. Creating an **'expansive space'** became the key focus, which was achieved by **decluttering** and **rigorous alignment**. The expansiveness and character of a seemingly minimalist space was heightened by creating **implicit dimensions of space through light and shadow**, hence the title of this project: "Maximalism" a term coined by Flavin Judd.

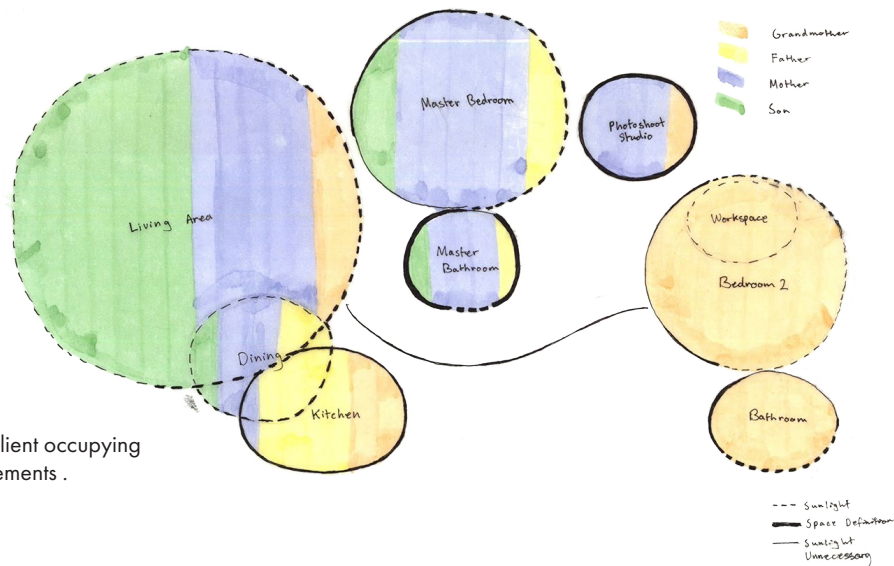
 Name: Ai xin jue Luo
Age: 60 yrs

 Name: Yi Jiangnan
Age: 33 yrs

 Name: Yang Aijun
Age: 32 yrs

 Name: Yi yang qian xi
Age: 5 yrs

- Experience with fasion and textiles in Paris/China
- Helps daughter in law (Aijun) run homemade clothing business
- Childhood in China, abroad to New York at 13
- Works in the United Nations, full-time
- Ex-student of Ai xin jue Luo
- Operating an anti fast-fashion clothing label
- Online store using social media presence
- Diagnosed with **claustrophobia** - gets panic attacks frequently in compact or crowded places.



Adjacencies based on client occupying hours & program requirements .

- * - Windowless rooms
- Crowded elevators
- Congested highways (Heavy traffic)
- Subways
- Party/Concert
- Closet
- Restroom cubicle/NORMAL Restroom
- Doors (Obstructive, covering an exit/threshold)
- Important to acknowledge severity of phobia (varies ALOT: patients have their own 'scale')
- Typically related to traumas, but also genetic inherited sometimes.

Treatment: Psychotherapy

- Cognitive behavioral therapy
 - Control negative thoughts/reactions
 - Relaxation/Visualization techniques
 - Exposure therapy: More exposure numbs fear
 - Anti-Anxiety medication
- The key is to reduce anxiety triggered from claustrophobic situations.

Claustrophobia Research Notation.

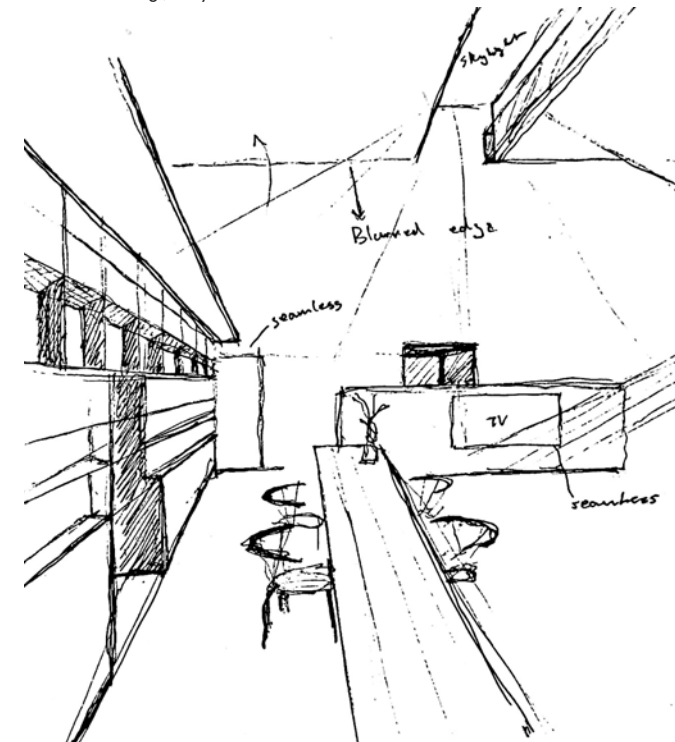
Possible qualitative solutions based on research:

- Indoor/Outdoor living
- Continuous/Fluid Multi - level space
- Expansive optical illusions
- Seamless storage/cabinetry
- Light, naked furniture

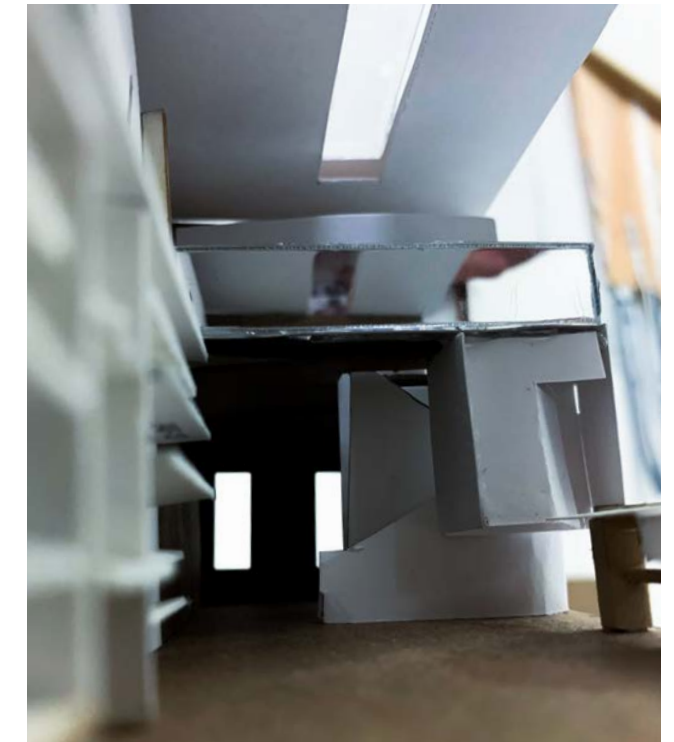
**De-cluttering/
Expansive Space**

Library House

Architect: Shinichi Ogawa
Location: Tochigi, Tokyo



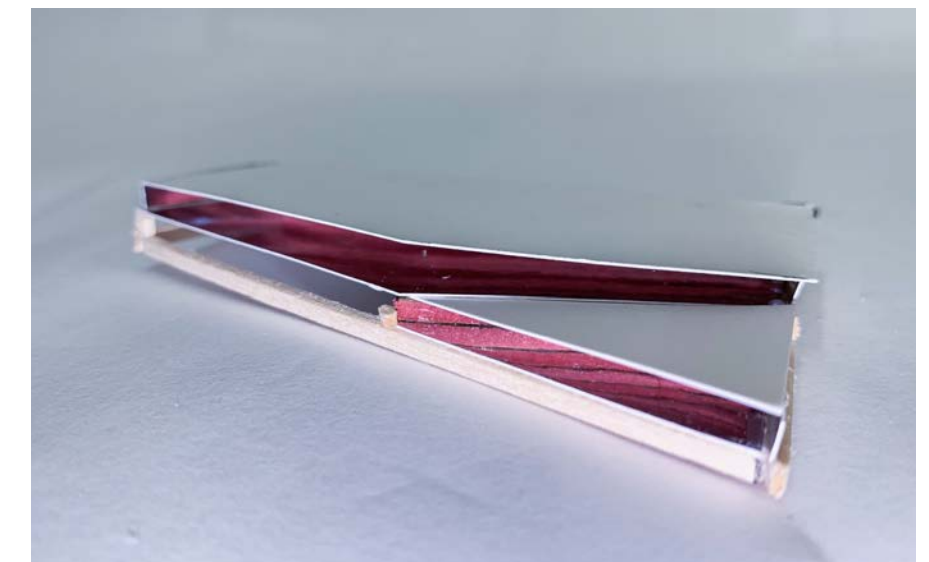
Case study: Japanese minimalism.



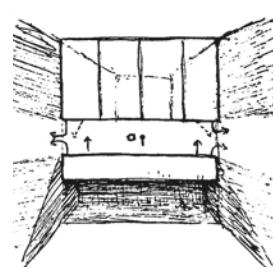
Concept model: Mirror railing extends space

Untitled

Artist: Donald Judd
Completed: 1989



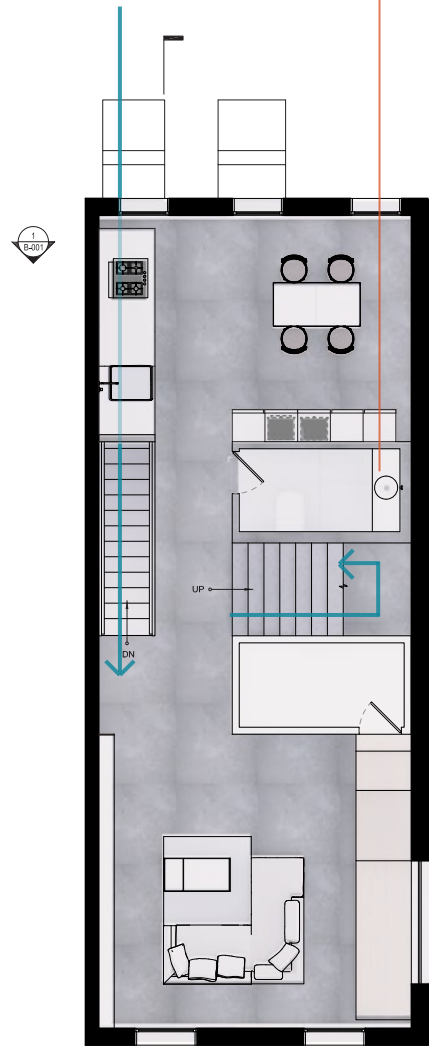
Concept model for a platform: Mirrored interior finish expands the vertical surface infinitely.



Cove light bouncing onto adjacent walls. Faucet recessed under cabinetry.



Sliding bathroom doors into interior walls.



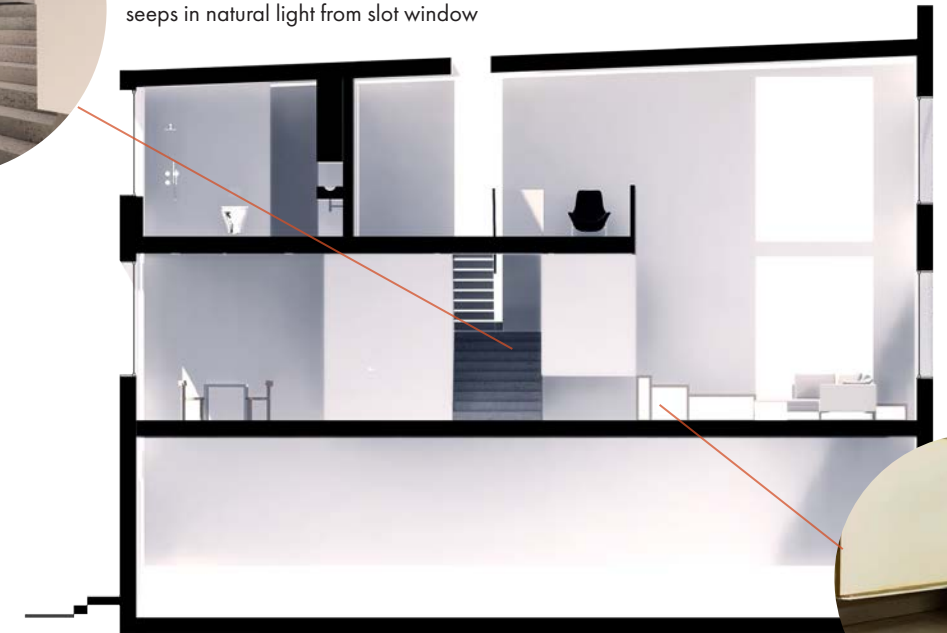
Second Floorplan



Third Floorplan



Cantilevering staircase looks floating & seeps in natural light from slot window



Longitudinal Section A

Hollow oak platform with mirrored interiors circulate into 'floating' photography studio.



Short Section B

Atrium/terrace poetically connects the house to the outside, while maintaining privacy - a perfect retreat from work.





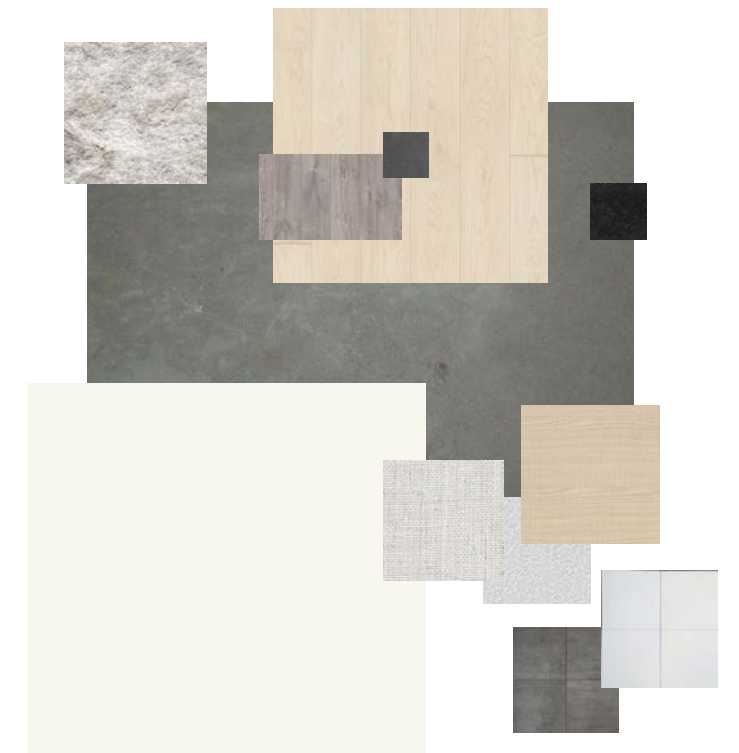
Custom kitchen cabinetry: Seamless, aligned, decluttered. Mirror kitchen partition & polished concrete expands vertical & horizontal datums.



Double-Height living room with 'floating' photography studio.



Interior window peering 'outside' into atrium from grandmother's room.



Muted materials: a 'canvas for light'.
Hints of ash & oak for warmth.



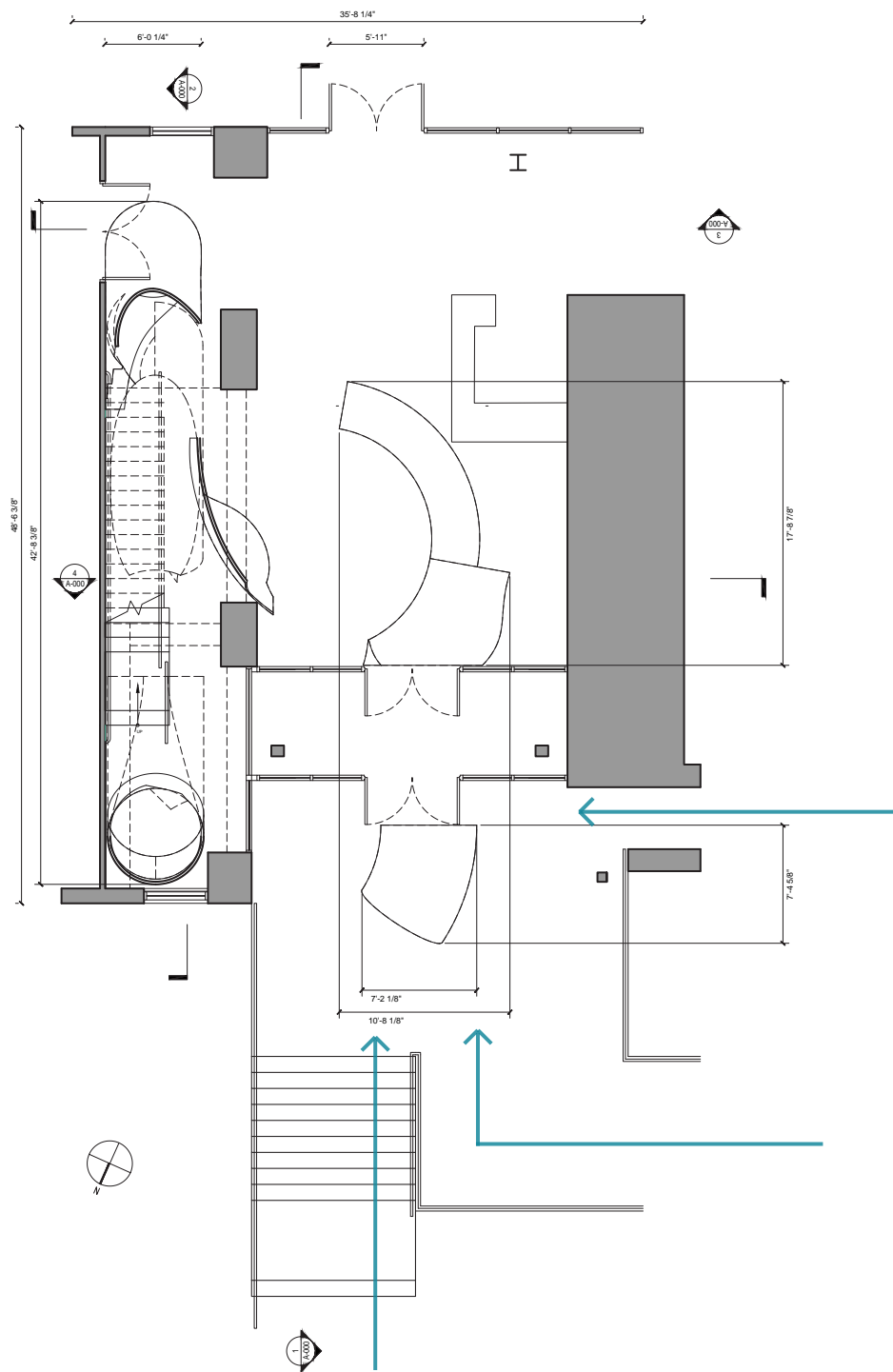
Sleek, 'naked' furniture selection that stay true to form & material.



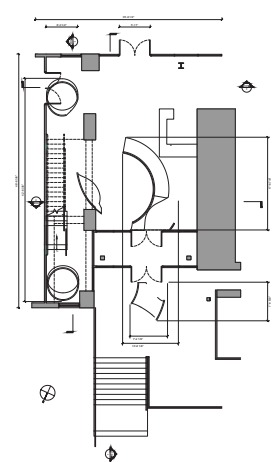
02 TAURUS II

Exhibition Design | May 2019

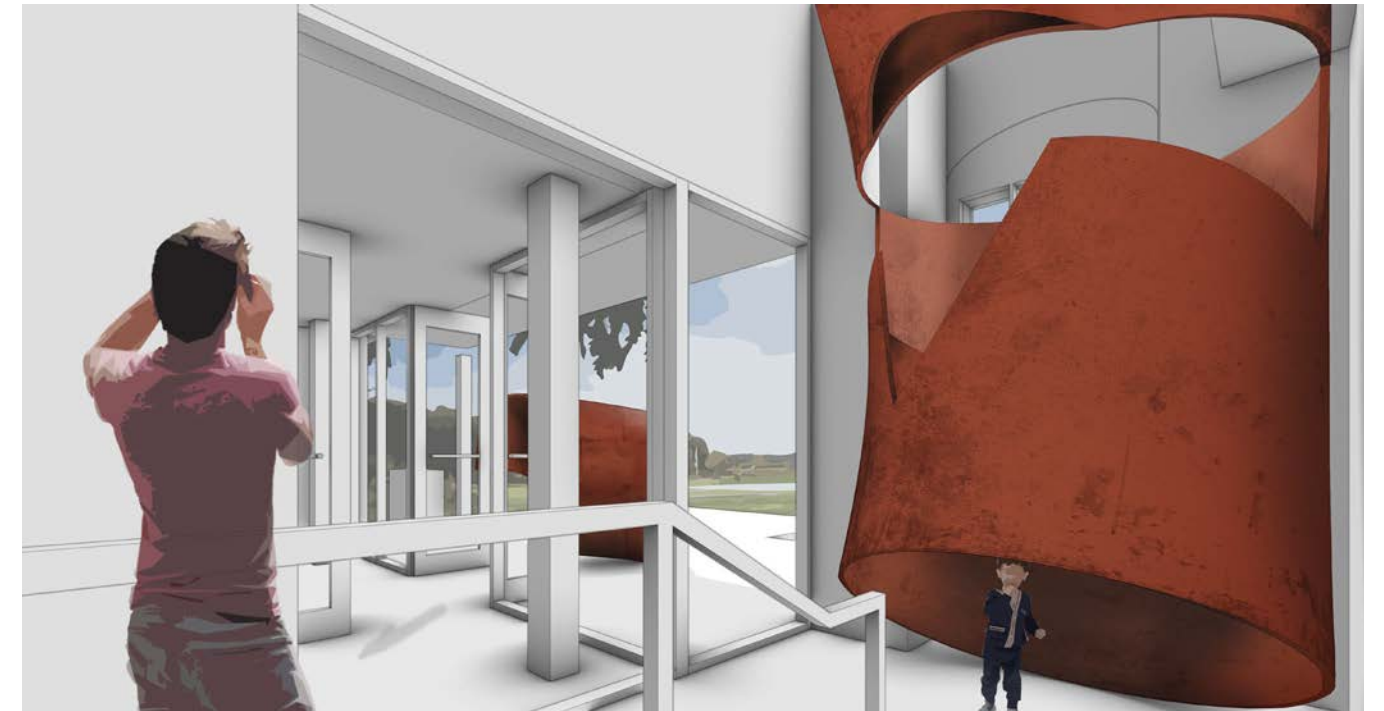
Taurus II is a concept **space vessel/station**. The design was driven by an assemblage of iterations of a torus. Its spatial capacities were explored in order to make an **immersive installation** that **commemorates** the achievements of the astronauts. It was important for it to be similar to its original scale so that viewers could be inspired just like the astronauts were. The biggest challenge was to fit the installation in a complex multi-height space - the design building of Pratt Institute.



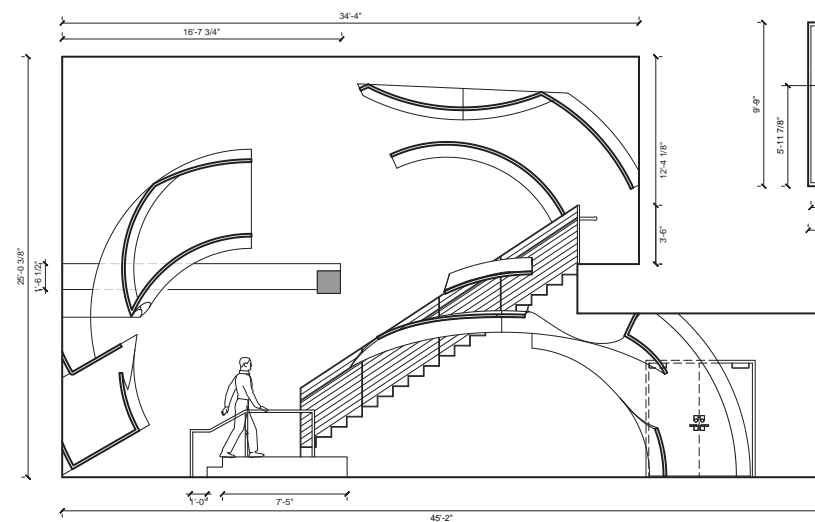
Plan View



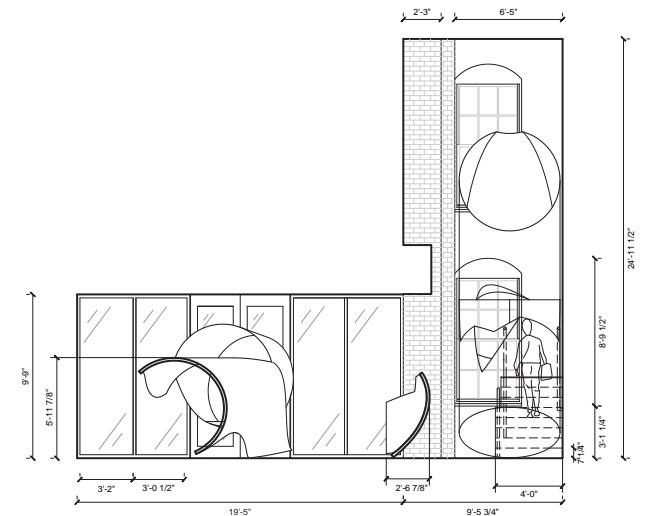
Cut Floorplan



Unnatural proportions encourage interaction

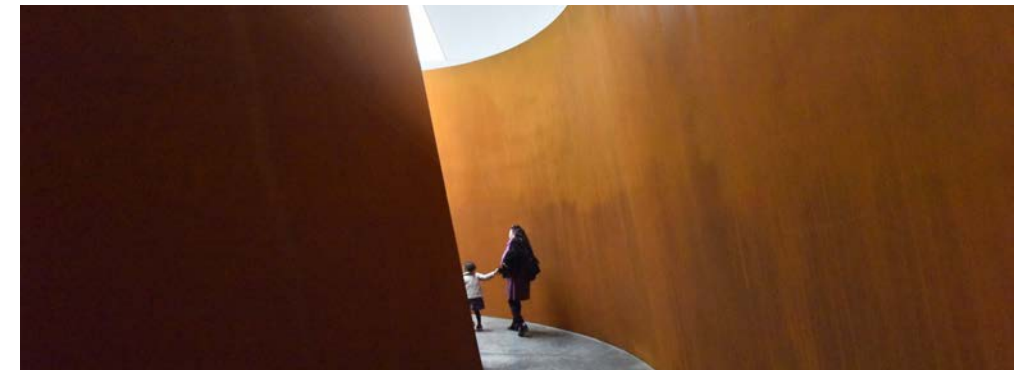


Section 02

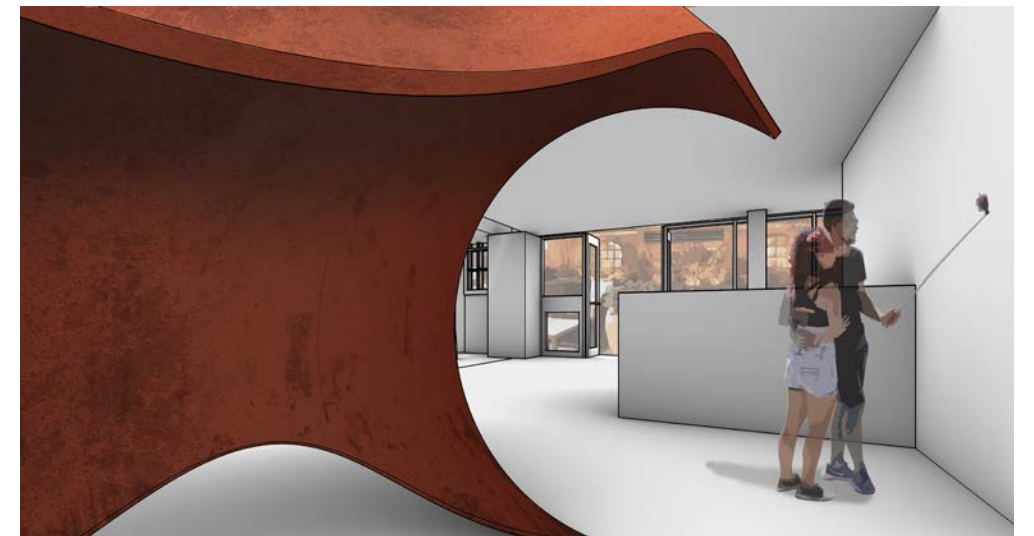


Section 04

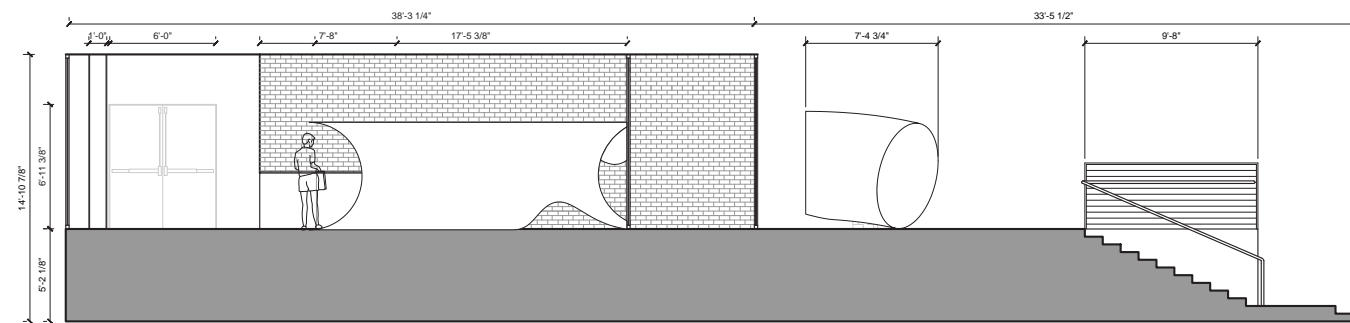
Scale takes advantage of double-height site.



Richard Serra - Band



Site: Pratt Institute School of Design Building
 Address: 200 Willoughby Avenue, Brooklyn, New York 11205



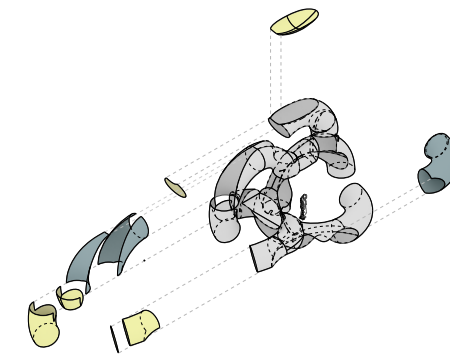
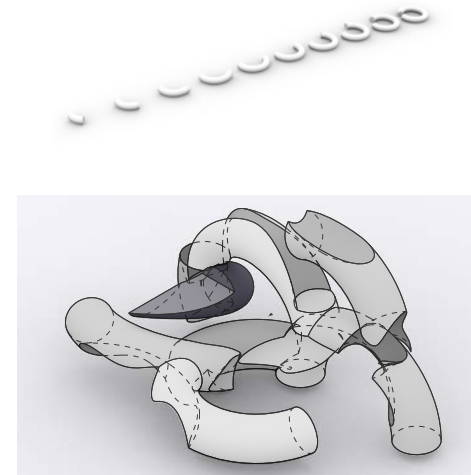
Section 01

Tailored tightly to human body for a stimulating & immersive experience.

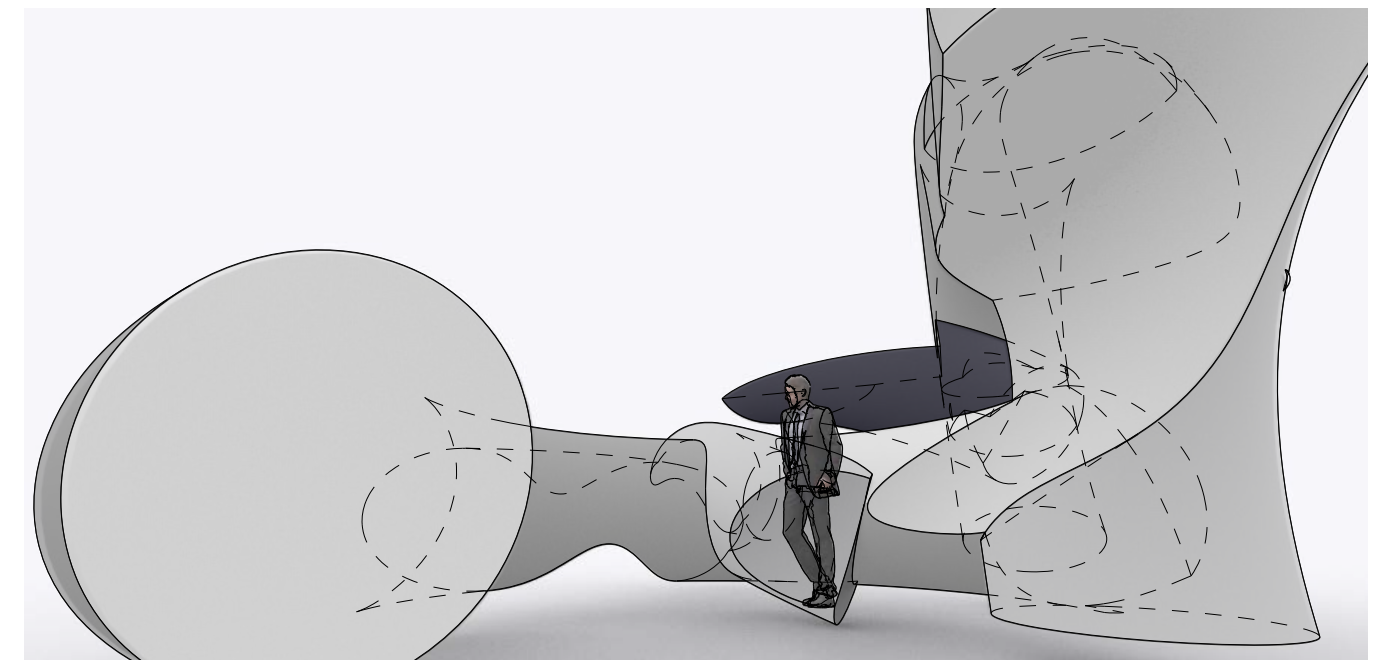
The forms circulate through thoroughly enough around the lobby space and the staircase. The material choice of steel was inspired by works of Richard Serra. This particular installation immerses the viewer by forcing participation - making them duck, crouch, and take limited paths of circulation. It is an active aid for vividly imagining the adventures the astronauts had partaken.



3D Printed Physical Models



Top to bottom:
 Form iterations of a torus
 Assemblage of manipulated forms
 Spatial capacity exploded axonometric



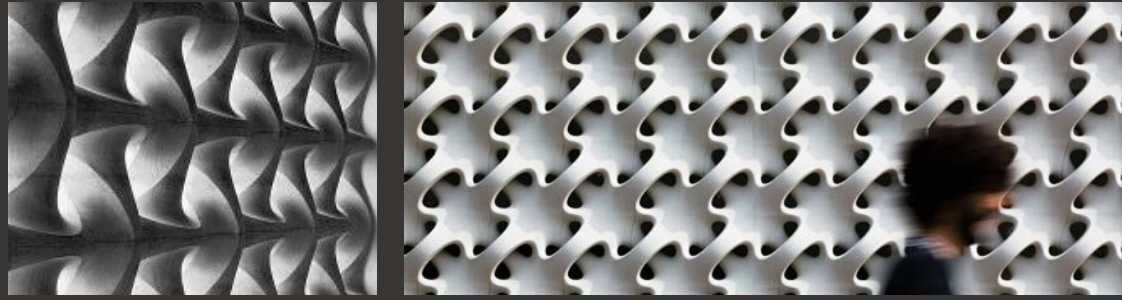
Scale relationship to the human body



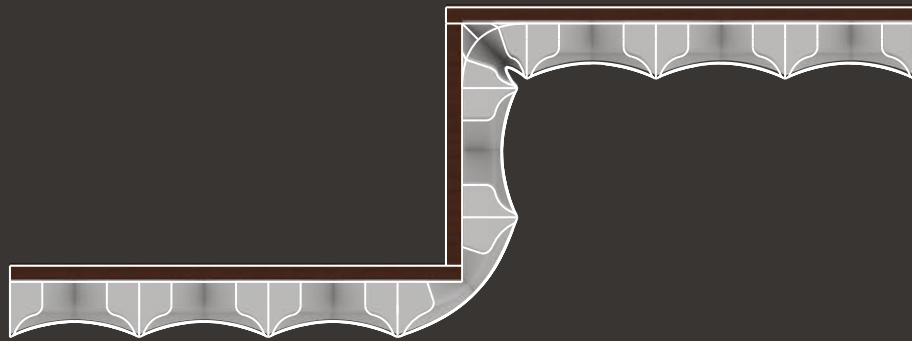
03 VOID EXPANSION

Wall Detail | December 2019

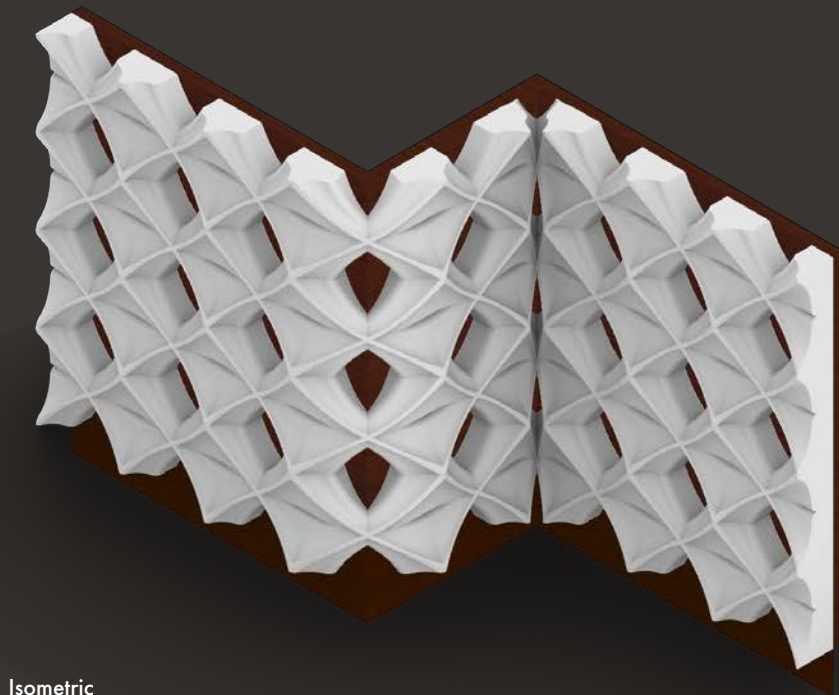
“Void-Expansion” is a decorative wall panel for a luxury residential space. It has modernist traits in its modularity and neutral or more precisely, its colorless nature. Doing so draws out the highlights and shadows, creating spatial depth and illusion, adding another dimension from what was a static wall. Thus, the wall becomes something dynamic, creating a dramatic moment/atmosphere.



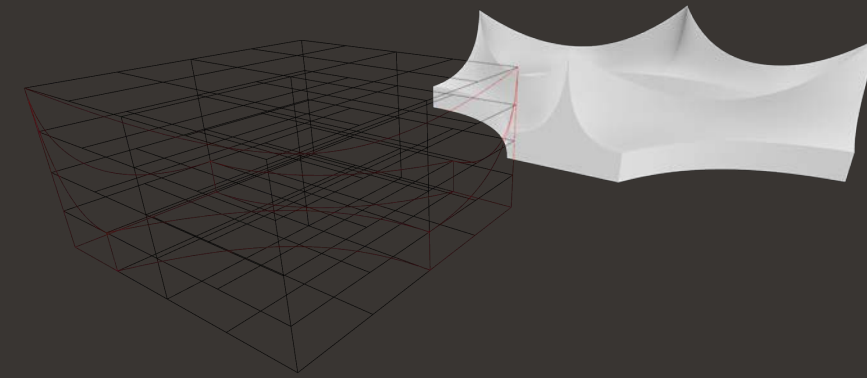
Inspiration: Ceramics by Erwin Hauer



Plan



Isometric

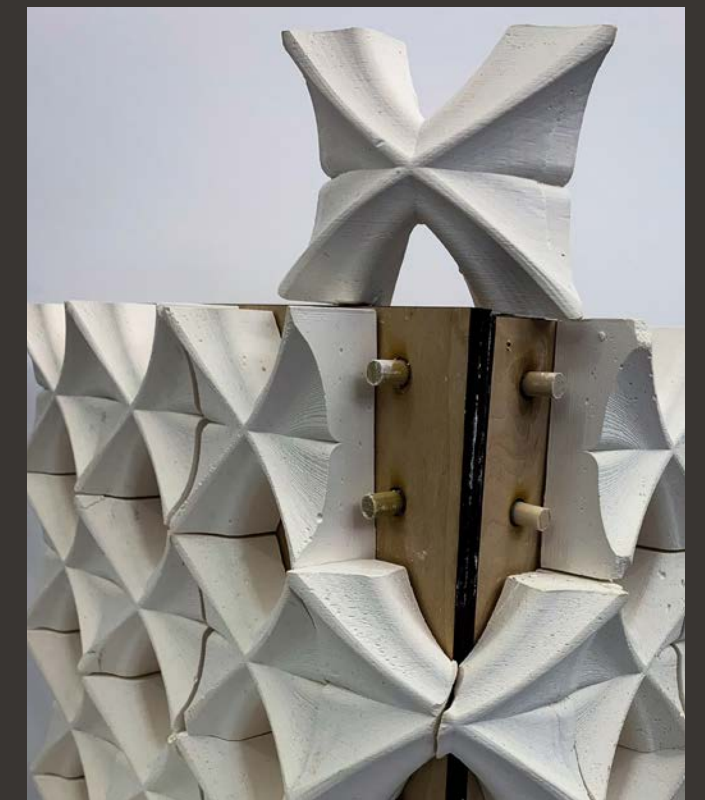


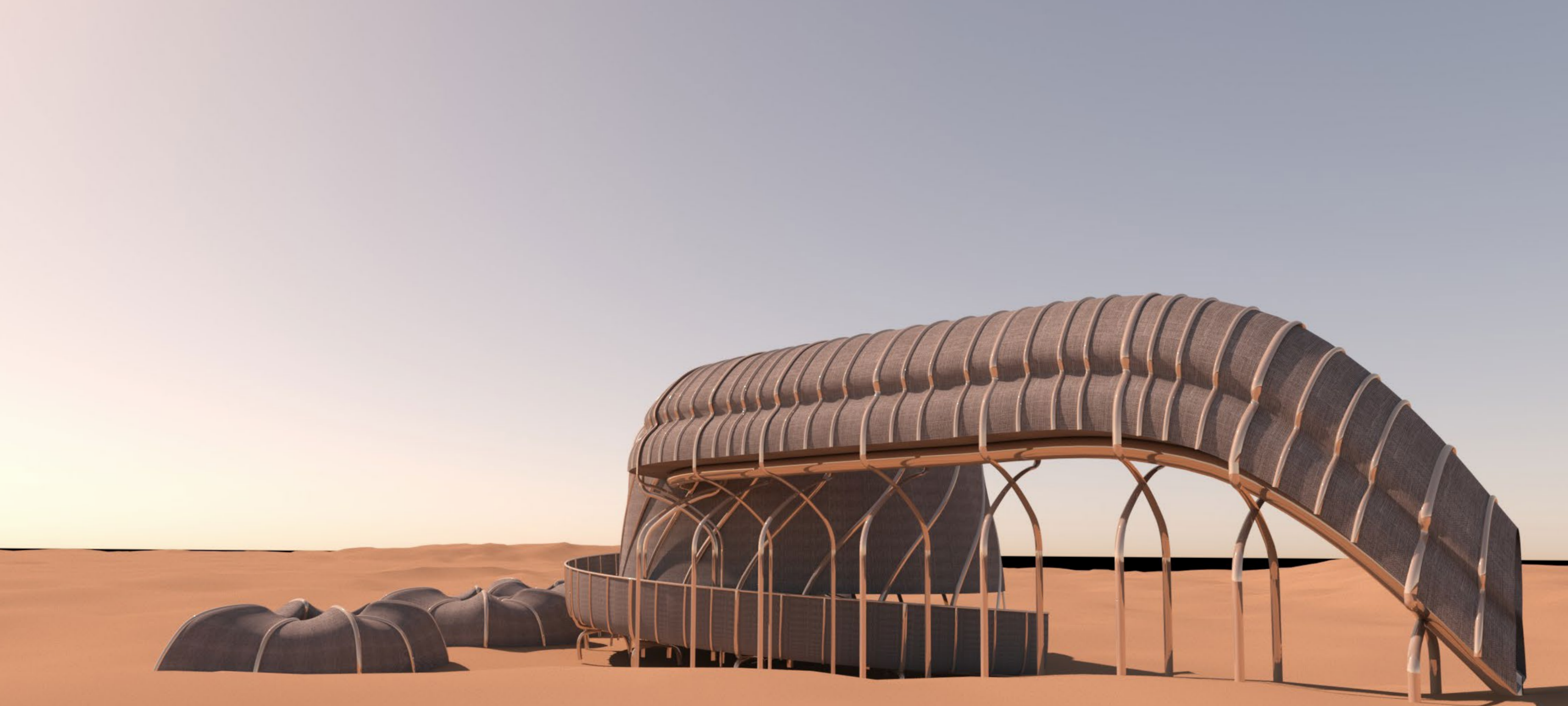
Parametric Grid for form



Silicone molds from 3D Print

- METHODS**
1. A singular module was **modeled in Rhino 6** following a set of rigorous rules and symmetry on a 3D grid. They were modeled in 1:1 scale so the final outcome could be a life size mockup.
 2. Three distinct modules, (two corner conditions) were **3D printed**.
 3. A **silicone mold** was created for each module. The challenge was to successfully make a two part mold that took into account for the undercuts due to the complex geometry.
 4. The molds were used to create multiple **plaster casted** modules.
 5. The modules were **drilled** in the back so they could be **fixed onto a wooden panel** with numerous dowels cantilevering out of it.





04 NEO-BEDOUIIN SHELTER

Defensive Ecology | December 2020

This project address both immediate and long-term questions relating to the **survival and sustainability** of the human species, while recognizing the importance of and utilizing the unique benefits of **coexisting lifeforms** to achieve those purposes. This will be accomplished through the creation of a **defensive ecology**; defined as a **human-driven intervention** intended for **anthropic inhabitation** or use, as existing within the greater context of radically-altered Anthropocene global and local ecosystems. This **shelter** was designed in the Omanese **desert** to **preserve** their dwindling **bedouin identity**, both in a **cultural and ecological** sense.

Site: Wahiba Sands Desert, Oman

Based on research, a species other than the locals of Wahiba sands was to be considered, as well as crises or problems in both a literal (climate) and non-literal (loss of bedouin culture) sense. The relationships of these various components were illustrated in a ecosystemic drawing to draw up an initial solution.

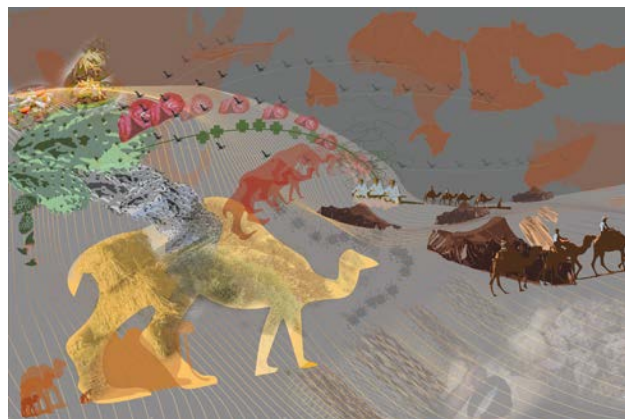
Species: Camels, Cacti (Prickly Pear)

Crises: Cyclones, loss of bedouin culture/practices.

Community: Bedouins (nomads of the middle east), Neo-Bedouins (younger generation bedouins who spend more of their time in modern civilization).

The ecosystemic drawing on the right illustrates a 'beacon' and 'tent' system. The beacon is a self sustaining structure that protects the local species, including any bedouins against harsh climatic conditions - it includes a **water collection & storage** system, **halal camel meat** processing, **aerodynamic** considerations, and temporary shelters for all species.

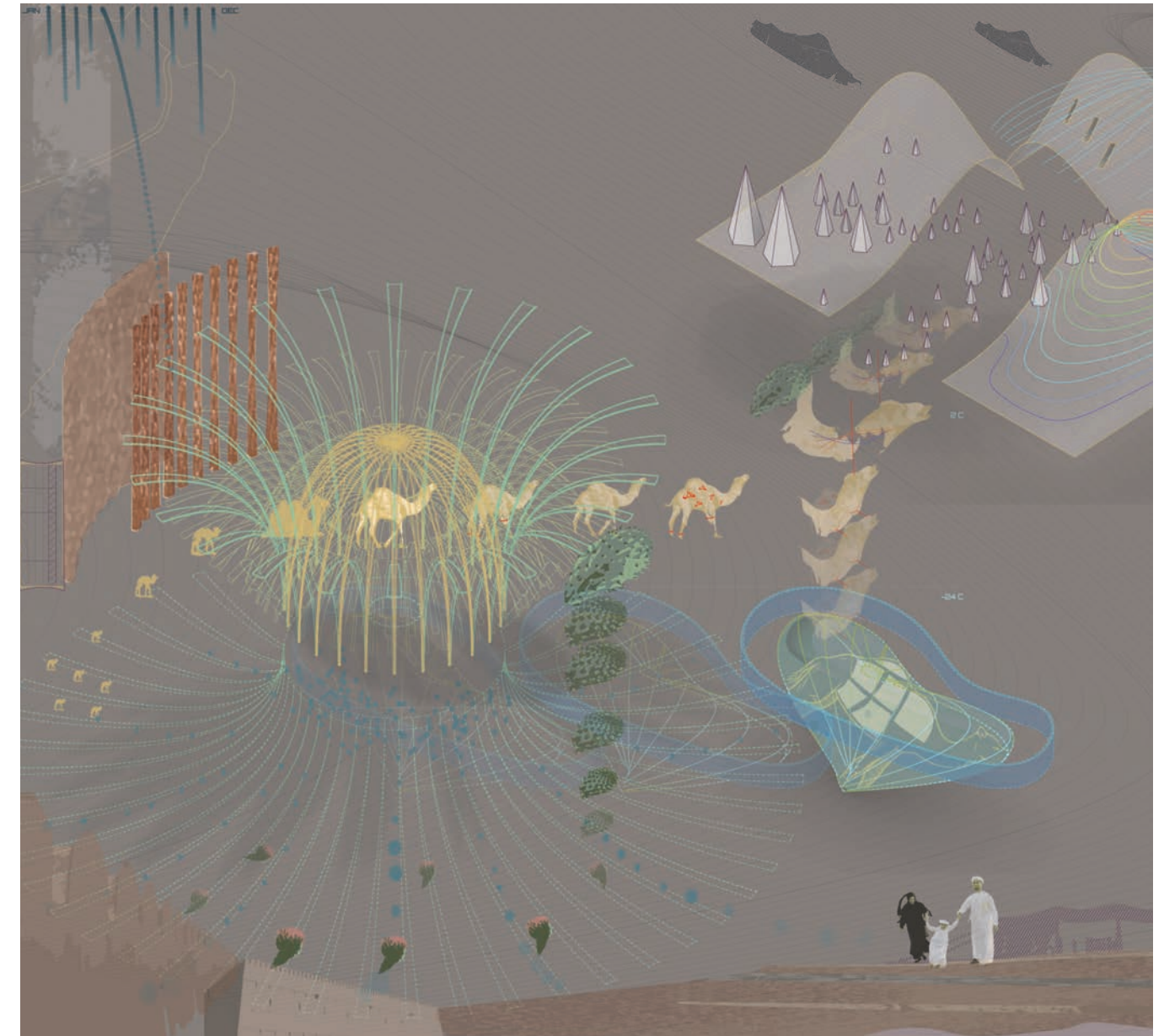
The drawing also addresses **sustainable, local sourcing of materials** such as **sandstone and camel hide**. Sandstone's rigidity is comparable to that of cement and brick, making it a suitable material for structure. Camel hide is weaved for layering traditional bedouin tents because it expands upon rainfall, and contracts when it's dry for ventilation.



Process drawing: Both species can be used as food, but camels are also used for transportation and camel hide.

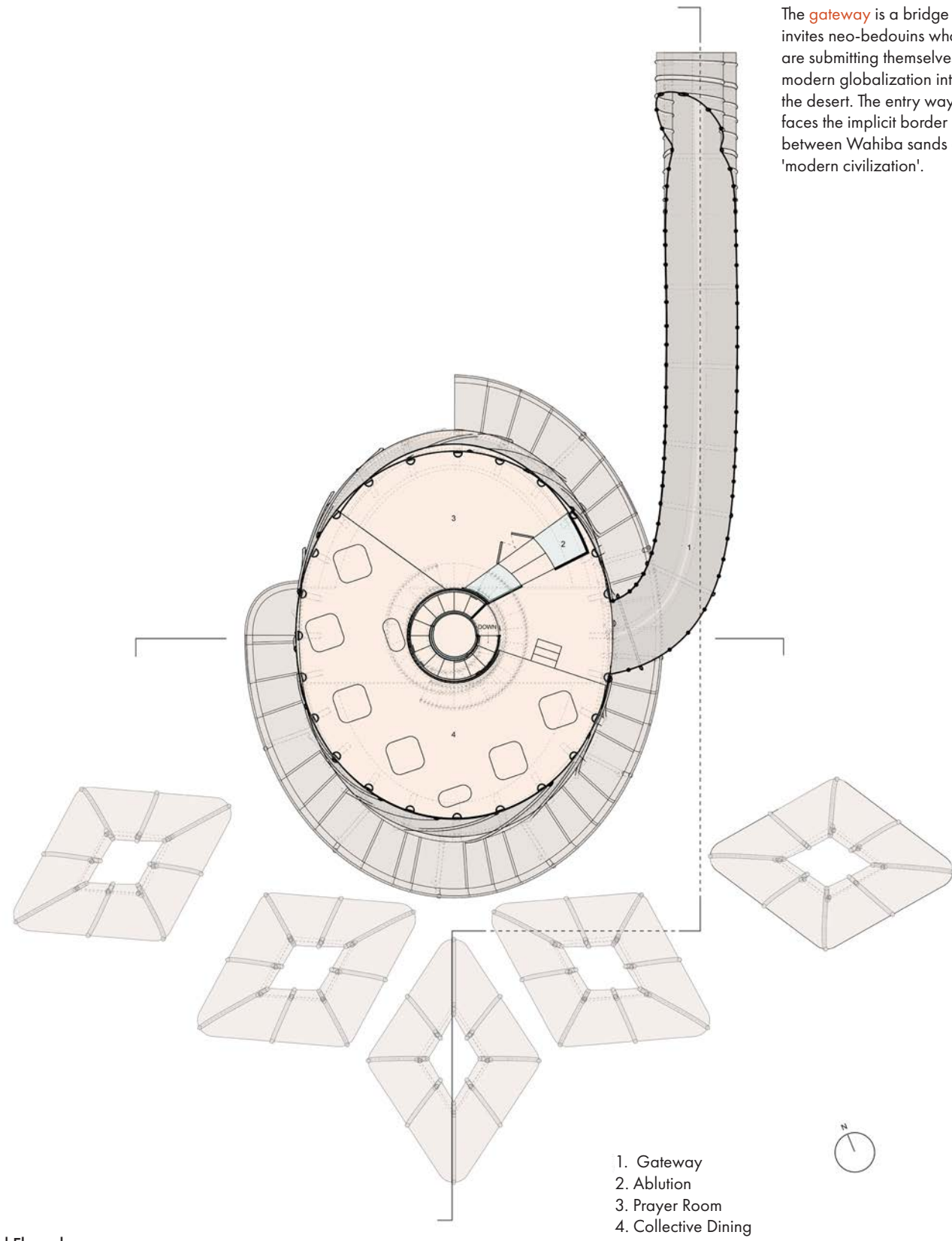


Process drawing: The site analyzed in section, topography, and other climatic data.



Final Ecosystemic Drawing: Abstract diagram of initial strategy based on the ecological relationships (elaborated in detail on previous page) of Wahiba Sands, Oman.

The gateway is a bridge that invites neo-bedouins who are submitting themselves to modern globalization into the desert. The entry way faces the implicit border between Wahiba sands and 'modern civilization'.



- 1. Gateway
- 2. Ablution
- 3. Prayer Room
- 4. Collective Dining

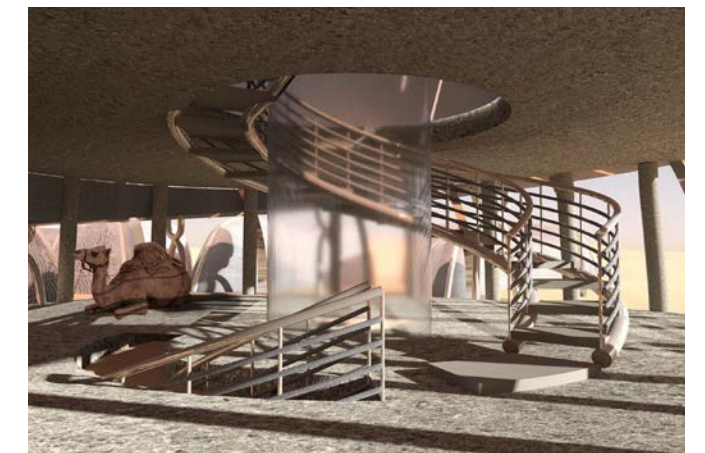
Third Floorplan



Third Floor: View upon entry from gateway. The ablution area on the right and collective dining area on the left.



Second Floor: Bedouin culture gallery/library



Ground Floor: Camel shelter & Central staircase



JAN

DEC

1

2

3

The beacons are fixed structures whereas the tents are freestanding elements. Operationally, there are a **community** of beacons situated along the implicit 'border' between the desert and 'modern' Oman to provide several access points.

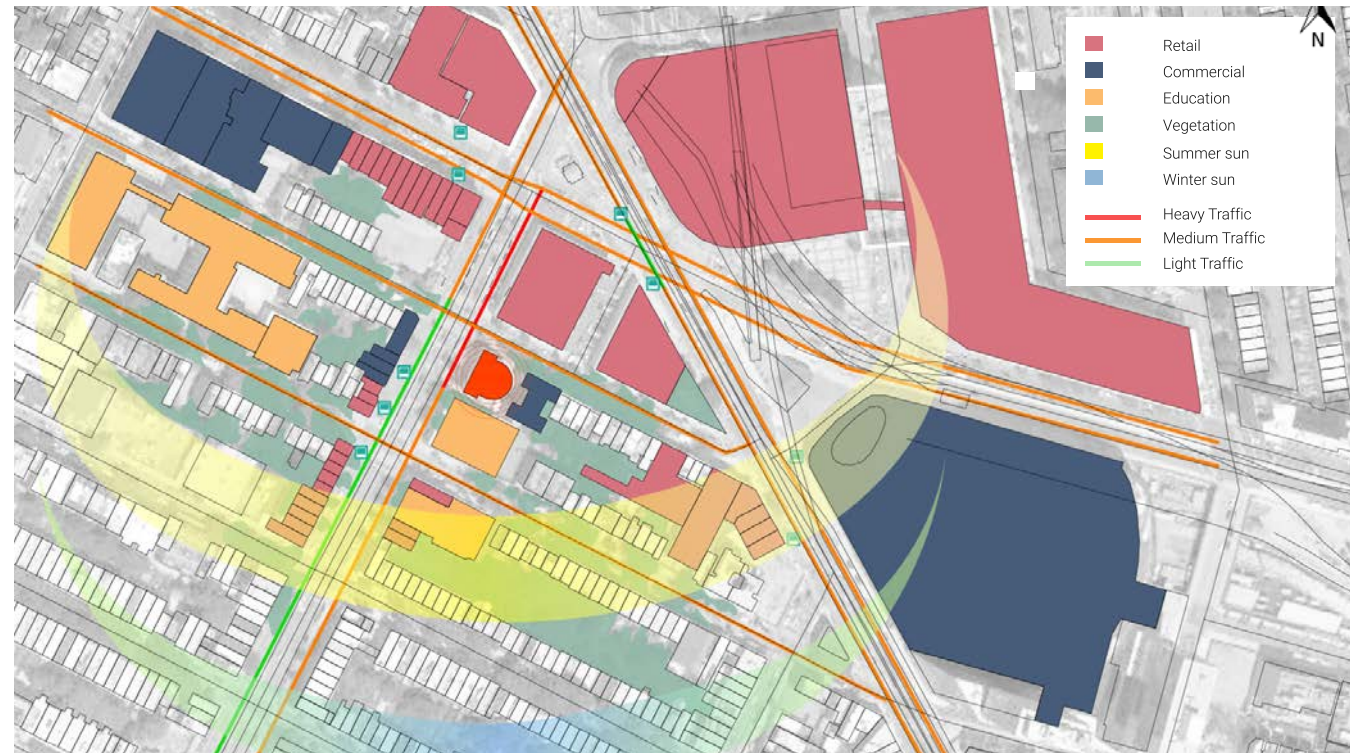
- 1. Aerodynamic facade
- 2. Camel hide membrane
- 3. Internal sandstone structure



05 ENGAGE-ACTION

Library | October 2019

This project was a Brooklyn Public Library renovation. The client (BPL)'s concern was that emerging technologies refrains several demographics (mostly younger generation) to interact with the library. The library was re-envisioned to encourage a stimulating/engaging learning experience. All conventional furniture was replaced with custom modules that can be aggregated to create temporary and flexible spaces. It requires the user to plan what they want to learn and how they want to learn it, allowing them to become an active participant in the learning process.



Site: Brooklyn Public Library - Pacific Branch
 Address: 25 4th Ave, Brooklyn, NY 11217

Library was quite vacant despite urban diversity, including schools.

Technology commodifies information - one absorbs whatever google spits out onto your screen.

This proposal will force users to **actively/physically participate in their learning process**. Thus, learning in the library becomes engaging, stimulating, and a little playful.



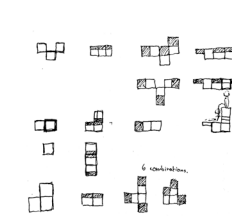
Storage

Seating

Desk

A module can be arranged into three programs. The user combines the modules, to create a tentative work environment, **actively thinking** about their learning objectives.

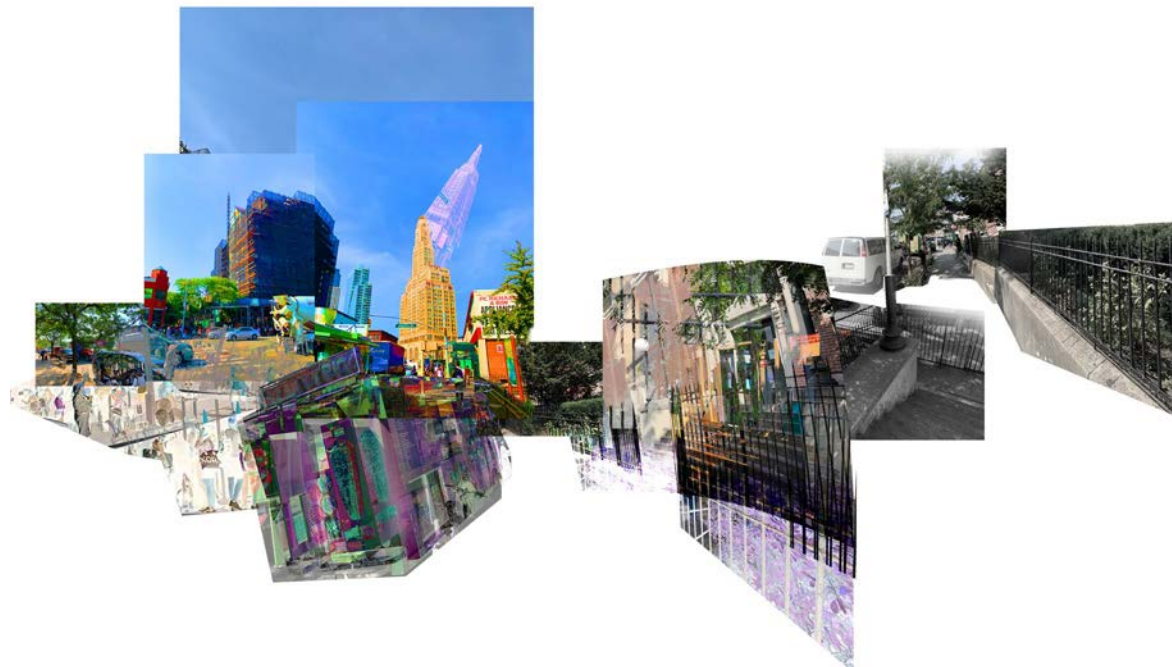
| # of cubes | closed floorplan | closed perimeter | open perimeter | open courtyard | NOTES |
|------------|------------------|------------------|----------------|----------------|---|
| 1 | [Diagram] | [Diagram] | [Diagram] | [Diagram] | seating (small 2 person stool) |
| 2 | [Diagram] | [Diagram] | [Diagram] | [Diagram] | bench (two ppl) L shape bench (informal/pro) |
| 3 | [Diagram] | [Diagram] | [Diagram] | [Diagram] | bench (highland pricing) bench (24 pricing, both rest sitting on floor) large bench little collective bench long linear bench |



Permutations: Ways to fold a cube



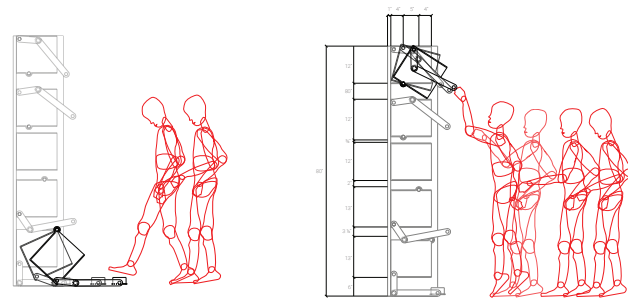
Process modules



Brooklyn Atlantic Avenue

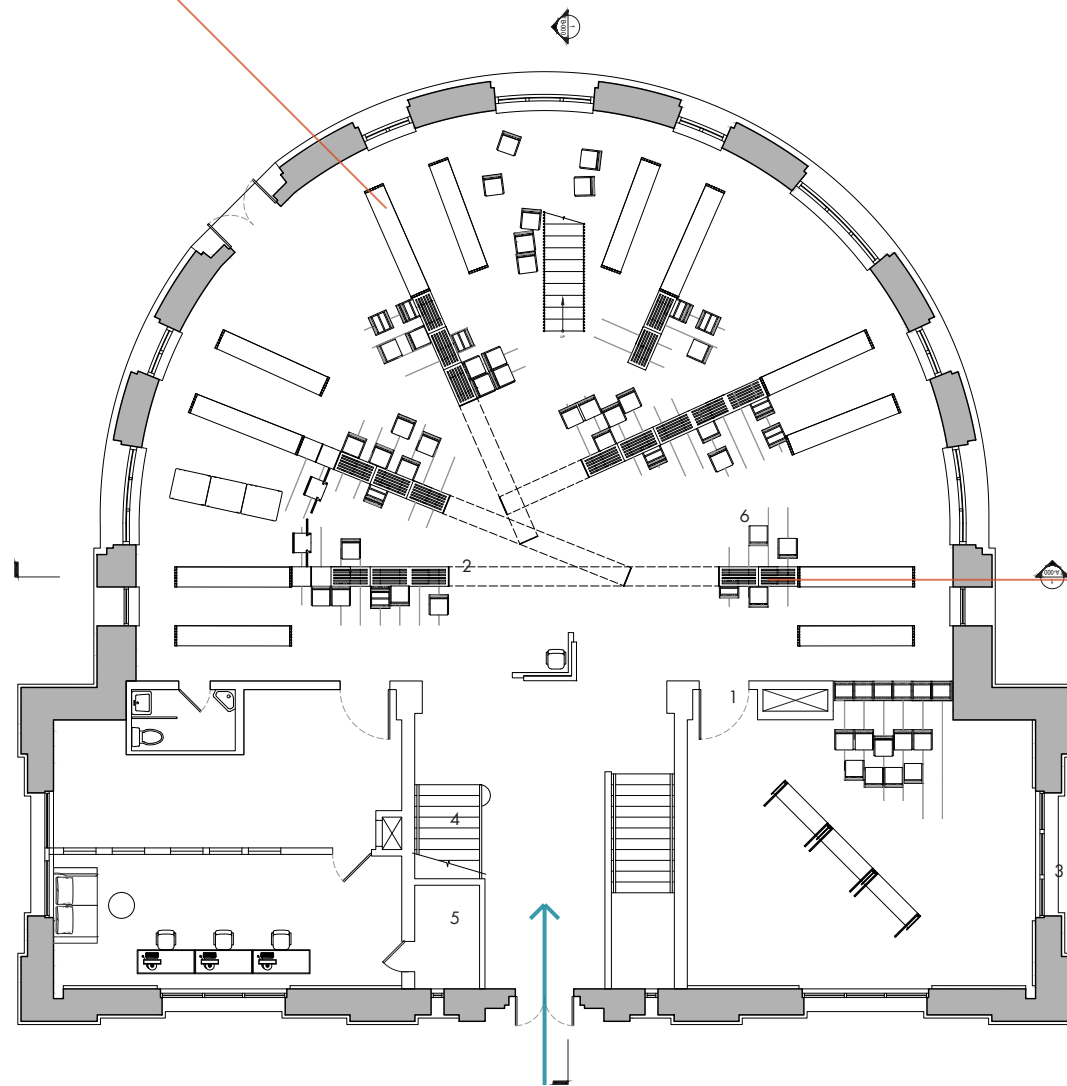
Divide

Brooklyn Public Library



Addition: shelves rotate using user's limbs so book spines become easier to read.

Another moment of **physical engagement** with the library.



1. Librarian's Desk
2. Multimedia
3. Workshop Area
4. Resources
5. Librarian's Office
6. Open work space



Mezzanine: **Seating + Desk = Personal work-station.**



Modules inside framework that extend from existing bookstacks



06 OFFICE FOR ALL

Office | April 2020

This is a office design for the Division for Inclusive Social Development (DISD), which is affiliated with the United Nations. The site given was at 500 Park Avenue, and required programs were 'work', 'rest', and 'educate'. Based on their values, an "office that integrates itself with the community through transparent accessibility of resources and inclusivity that negates hierarchy" was designed.



Faucet



Fridge



Pantry modules with resting nooks of various privacies



Inter-agency coordination

Stakeholder **engagement**, partnerships, **communication** and outreach



Knowledge management

Capacity Development

Policy **Analysis**

An office that **integrates** itself with the community through transparent **accessibility of resources** and **inclusivity** that **negates hierarchy**.



Formal meeting spaces



Lecture room for visitors. Work environment open to public.

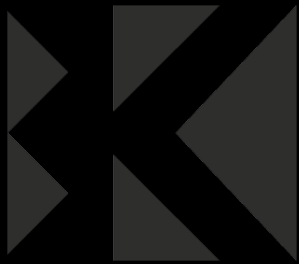


Open Work Space Modules

Employees slide back into **private nook** to take a phone call.

Wall **rotates** into a table to open up private nooks into a meeting space of four. **Casual team meetings** are encouraged

Custom shelves: **Open library** for everyone (including visitors) facing circulation, and **private storage** facing desks.



Thesis Booklet
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