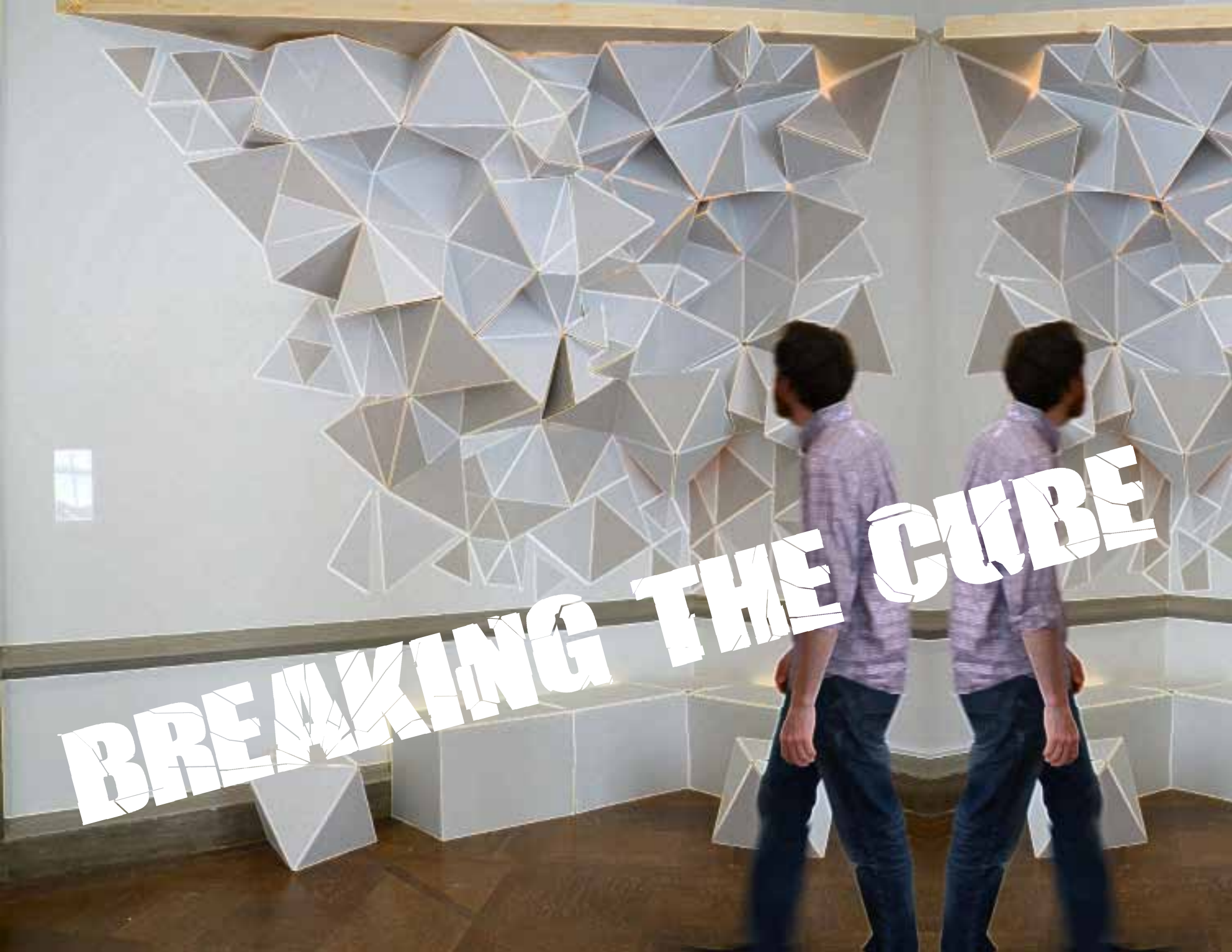




DESIGN PORTFOLIO

Haley Zimmerman



Breaking the cube explores extending the boundaries of space within the spectrum of a confined cube. Generally people spend large amounts of time in occupancies that are no more than a box on the interior. It is the interior designers primary goal for form to follow function. 'Breaking the Cube' explores the visual results of abstracting basic geometry, merged with organic form with the emphasis on function.

Breaking the Cube explores the intersection of restaurant design and sculptural interiors. It examines how the interior designer can rectify issues that arise when function is overlooked for form alone.

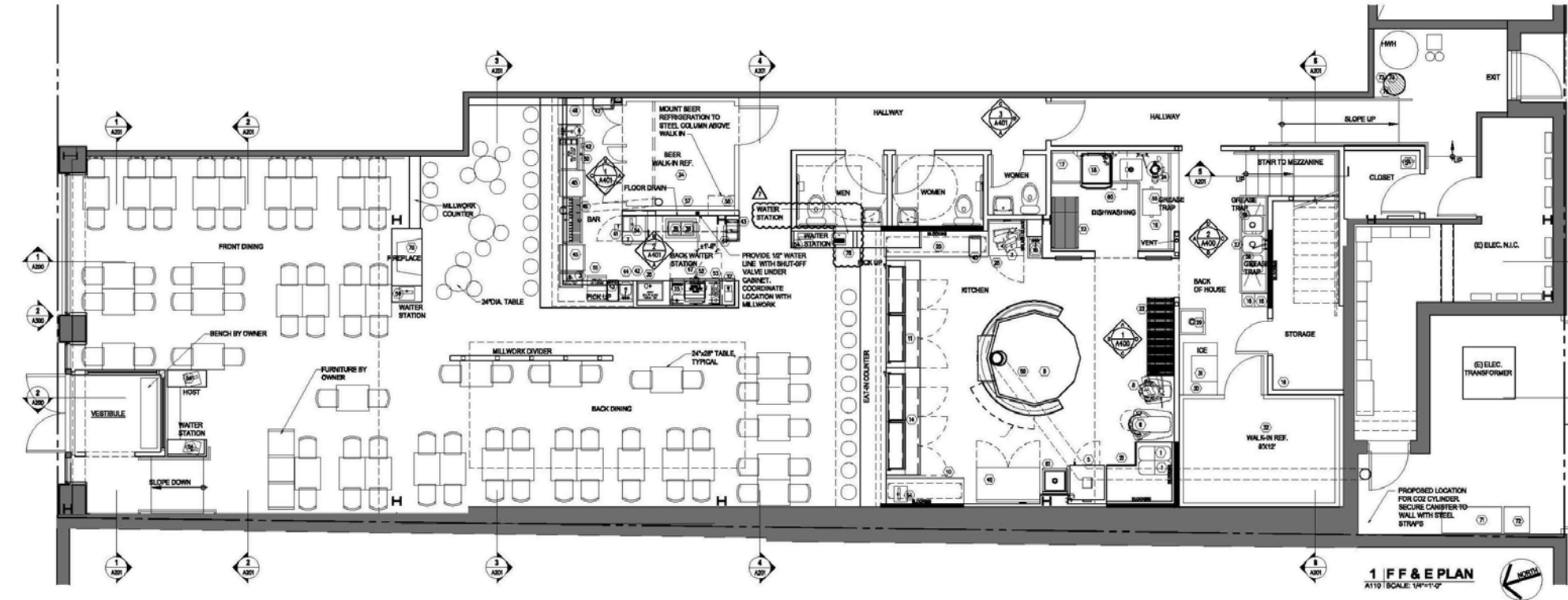
Existing Facade



Issues with Interior

- First thing you see when you walk into the space is the open kitchen in the rear
- Nothing within the space catches your eye first
- The long vista pulls the eye straight to the rear, there are no places for the eye to stop along the journey
- The bar and large windows are a lost opportunity to create a focal point
- Confusing wayfinding at entryway, where does the occupant stop and meet the host?

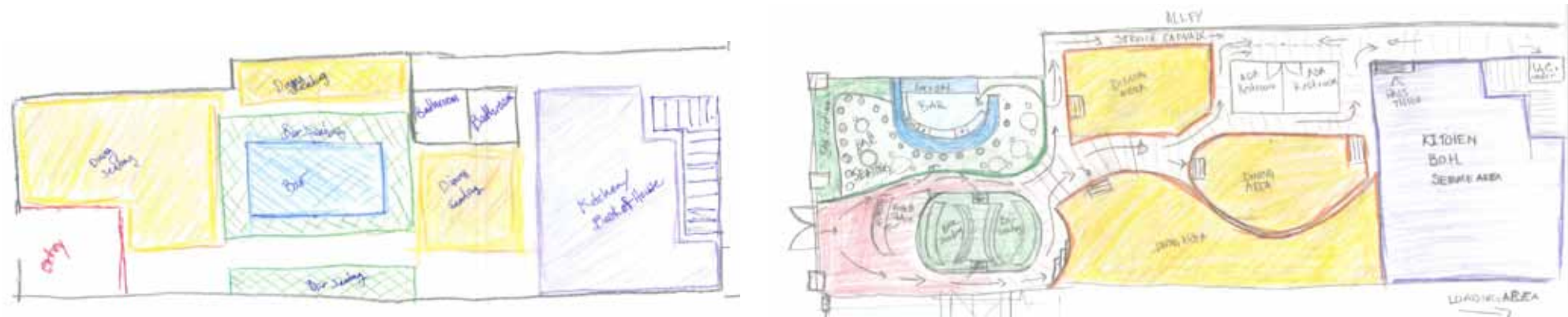
Original Floor Plan



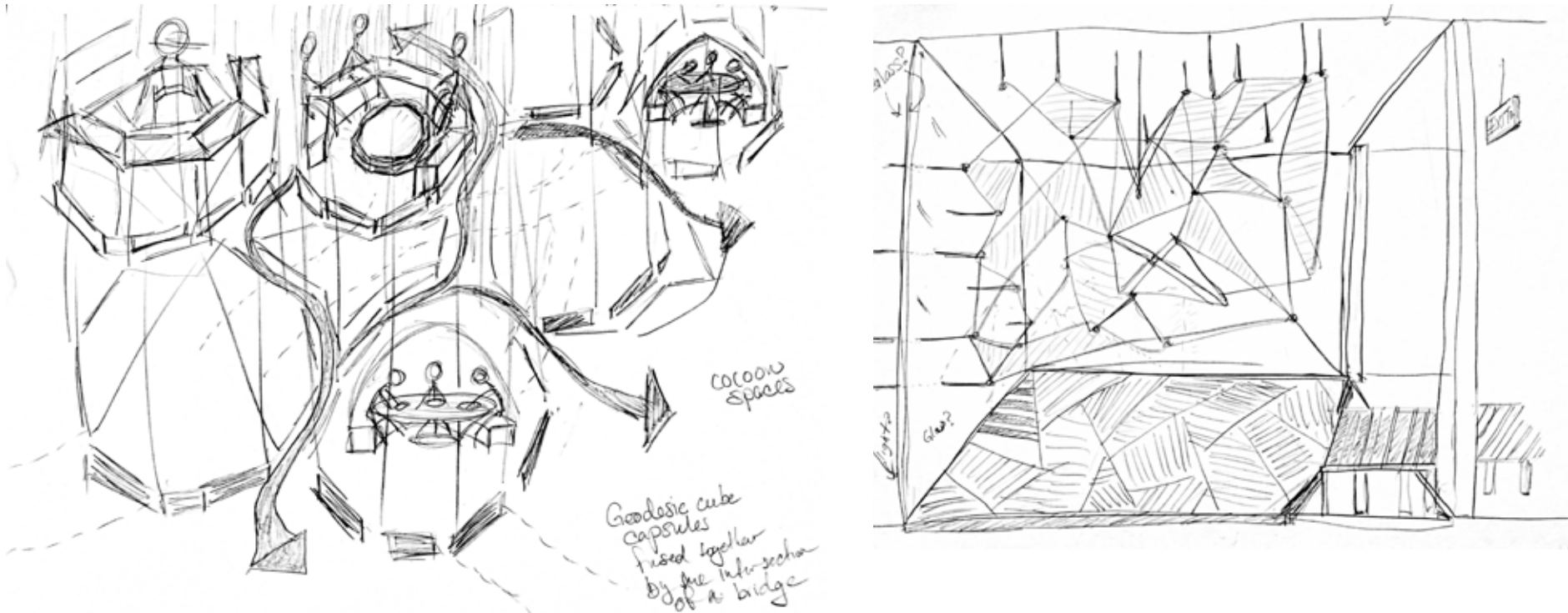
Existing Interior



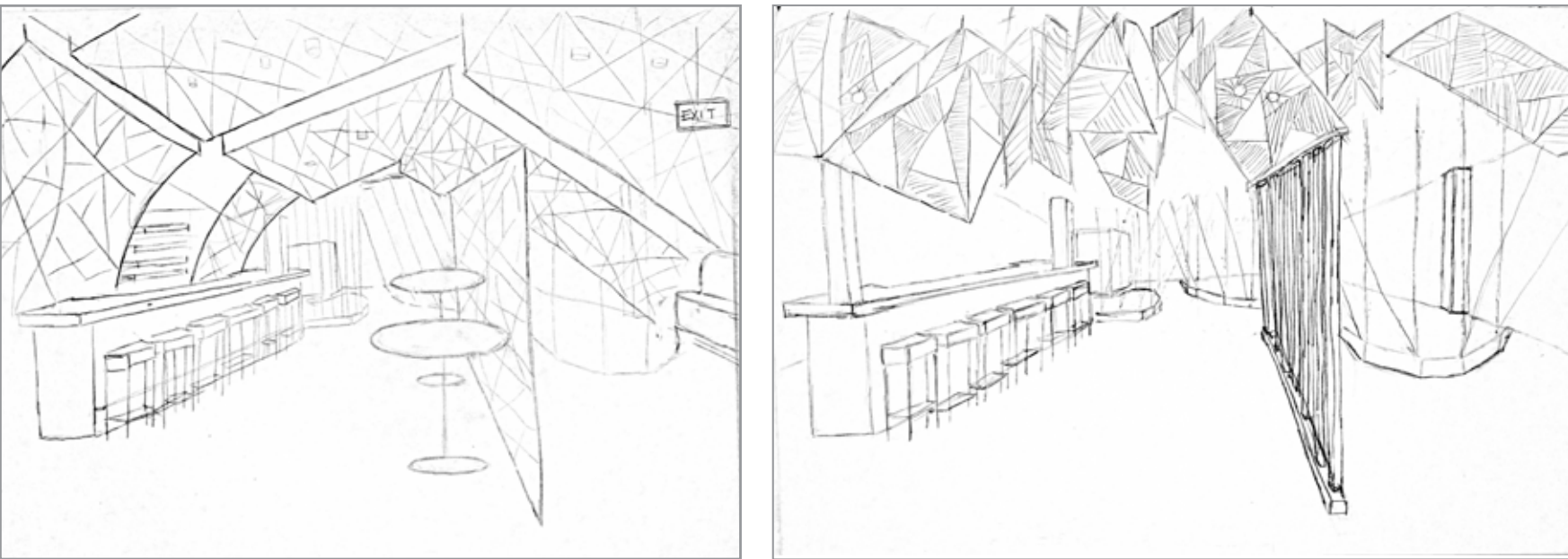
Block Plans



Graphite Conceptualizations



Graphite Conceptualizations

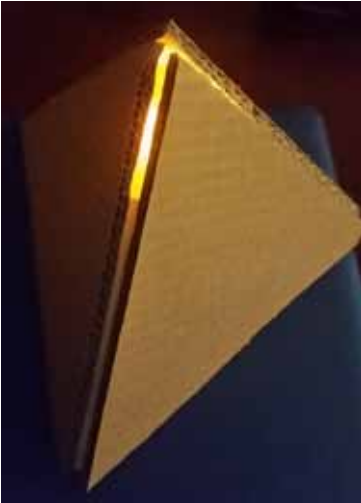


3D Conceptualizations: Small Scale Paper Models



3D Conceptualizations: Full Scale Mock-Ups

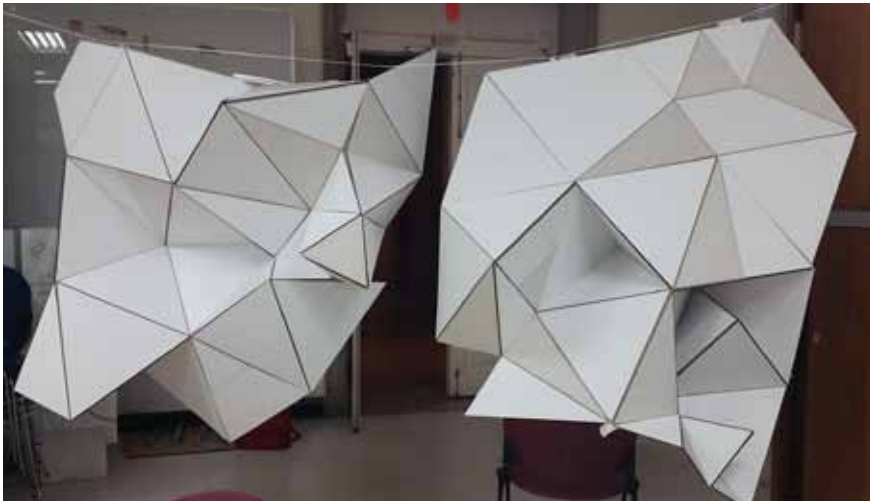
Cardboard Mock-up



The ceiling canopy will be backlit with LED's that shine through the holes in the fiberglass panels, like the cardboard mock up above.



Ceiling Canopy Panels



The ceiling canopy consists of a 1” thick fiberglass covered most likely with wool felt or a flame retardant material. This fiberglass is an excellent sound absorber, which has a NRC rating of .80. Attached to the back of the fiberglass is a layer of AudioSeal Sound Barrier with an aluminized facing. The canopy will consist of large fiberglass triangle pieces the shrink in size as they travel down the wall.



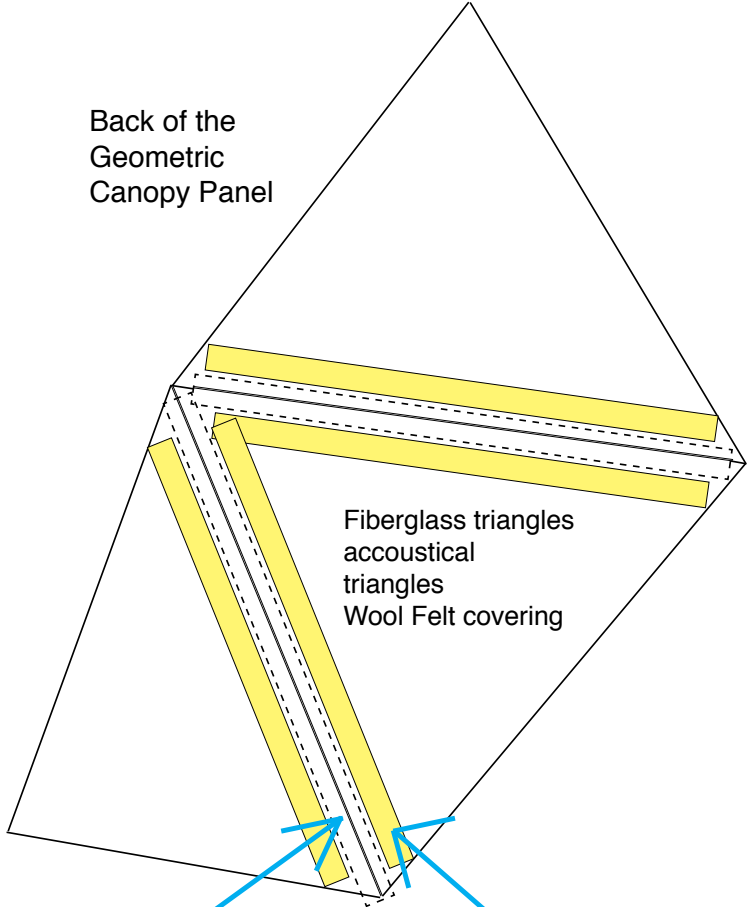
Suspension



Each multi-triangle prefabricated geometric panel will be constructed out of three basic shapes: a 17” equilateral triangle; an iso-soles triangle, half the original 17” shape; and a smaller equilateral triangle, 1/4 the size of the original equilateral triangle. The shapes in the panels will be arranged randomly for less predictability and will be suspended by four adjustable cables. The gaps in panels will be closed upon install but the panels are engineered to fit together seamlessly once suspended, allowing for fast install time.



Plenum Lighting



Inside Dotted line = Opaque Diffuser



Full scale model of lounge area 12’W x 10’ H x 5’ D
Materials: Cardboard, plywood, tape, string, LEDs

To light the plenum above the geometric canopy, there will be LED tape that will be adhered to the geometric panels along the sides of the thin opaque flters, to let light shine through, giving the warm glow of candle light on the underside with a correlated color temperature (or CCT) of 2700K. The lights will be dimmable to allow for proper adjustment upon install. The dimmers will be set to a timer during the day to allow for stronger light intensity as the night approaches.



LED Tape Strips



10 foot High Model w/ Back Lighting



The Back-lighting underneath the seating will be the ‘Sidewinder 12V LED Tape Light. The light is directional and points at a 90 degree angle parallel to the surface of the tape allowing for a the lighting to shine onto the floor from a reveal in the bottom of the seating, (not shown here). It will be on a timed dimmer to control intersnity during different hours of the day.



Direction of Light Output

Day Lighting & Incorporation of Shadows

Day Light Integration



Shadows from Daytime sunlight incorporation. Back lighting will be off during the day time.

Cast Shadows & Connection to Nature



To light the visible, underside of the canopy, facing the occupants, there will be wall sconce and ceiling mounted fixtures. The spacing of the wall sconces and ceiling mounted lights will duplicate the shadows on the ceiling that are produced during day light, replicating nature and causing a cave-like effect in the space that tricks the eye into seeing more shapes than are really present.

Vital LED Wall/Ceiling Light



Bar Accent & General Lighting



Tom Dixon Pendant Lights over the Bar

BEAT PENDANTS



Three types of the curvilinear shaped pendants will be used over the bar and hung at the same level. The curvilinear form breaks up the geometric triangular shapes on the ceiling, giving the eye refuge from the angled shapes.



LED Tape Strips

Over the bar area, recessed inside the dropped ceiling, will be a concave recessed triangular mirrored and distressed glass back-lit area, that will house the LED Tape light strips around the perimeter of the soffit, giving the space above the bar a glow, but still allowing occupants to look up and see partial reflections of themselves.

The floor plan illustrates the layout of the 2010 World's Fair Food Service building. Key areas include:

- Service Area (Left):** Features a bar with three coolers (Back Bar 72" Cooler, Back Bar 48" Cooler, and Back Bar 72" Cooler), a Machine Top Counter, and a Customer Activity area 30'. A Lounge Area is adjacent to the bar.
- Dining Area (Center):** A large central space with many square tables and chairs, and a designated Dining Area.
- Kitchen Area (Right):** Includes a Stove, Sink, Island w/ Dish Storage Top & Bottom, Plates, and a Dish Tray. A Loading Area is located at the bottom right.
- Restrooms:** Men's and Women's ADA Restrooms are located near the center.
- Other Features:** A Pick up area, Dry Storage, and a Staircase to the Museum are also shown.

This architectural floor plan illustrates the layout of a restaurant, including various rooms and their associated lighting fixtures. The plan is annotated with numerous labels and leader lines describing the lighting design:

- Front Lounge 8' A.F.F.**: Located in the upper left corner.
- Bar Drop Ceiling 8' A.F.F.**: Situated below the front lounge.
- Bar Customer Area 10' A.F.F.**: Adjacent to the bar drop ceiling.
- Entry Ceiling 12' A.F.F.**: Located at the bottom left entrance.
- Back Lounge 8' A.F.F.**: Situated in the upper middle section.
- Dining 10 A.F.F.**: The large central area for dining.
- Kitchen 10' A.F.F.**: Located on the right side of the plan.
- Women's ADA Bathroom 8' A.F.F.** and **Men's ADA Bathroom 8' A.F.F.**: Located in the upper right corner.
- Electrical Closet** and **Walk-In Freezer**: Located in the far right corner.
- Stairs to Mezzanine** and **Ramp to Loading Area**: Located on the right side.
- Loading Area**: Located at the bottom right corner.

Lighting annotations include:

- Soffit**: A label pointing to the underside of a structure.
- Centered above Bar in drop down is a opaque glass and mirrored installation, back lit along edges with LED tape, illuminating ceiling**: A detailed description of a lighting fixture.
- Light shines through cracks in the underside of the plenum**: A note about light leakage from a ceiling structure.
- Ceiling Fixtures - point to the underside of ceiling to light the Dining area during day**: A note about the placement of ceiling fixtures.



Dining Area

The Dining Area has the same structure as the Lounges but instead of being convex the shapes are concave, point up toward to ceiling.



Bar Area

Back-lit concave ceiling area above the bar that mimics the lounge area. The ceiling contains opaque glass and mirrored glass that partially reflects the people underneath.



Bar Area & Entry

All the angled shapes in the bar are created by the same geometric pattern and then extrapolated to create different features such as the angled window panes, the glass panels above the bar and the black string screen that separates the walkway from the bar seating area.



New Facade

Windows open to pedestrian traffic and potential customers on warm sunny days. Perfect window bar seating for people watching the busy streets below.



Skate Pavilion

This project that explores what happens when design is supported by community involvement, and evidence based design throughout the design process. It explores sustainable, environmentally conscious design, while bringing a community together through a love of sports and the outdoors.

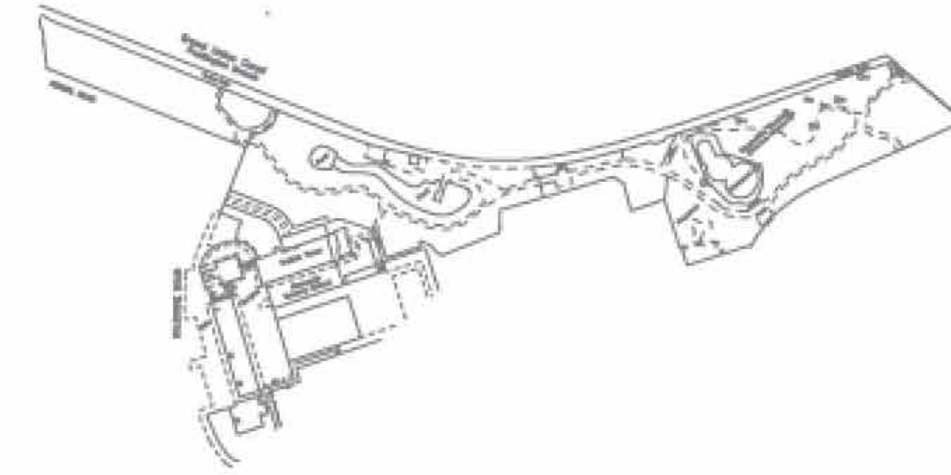
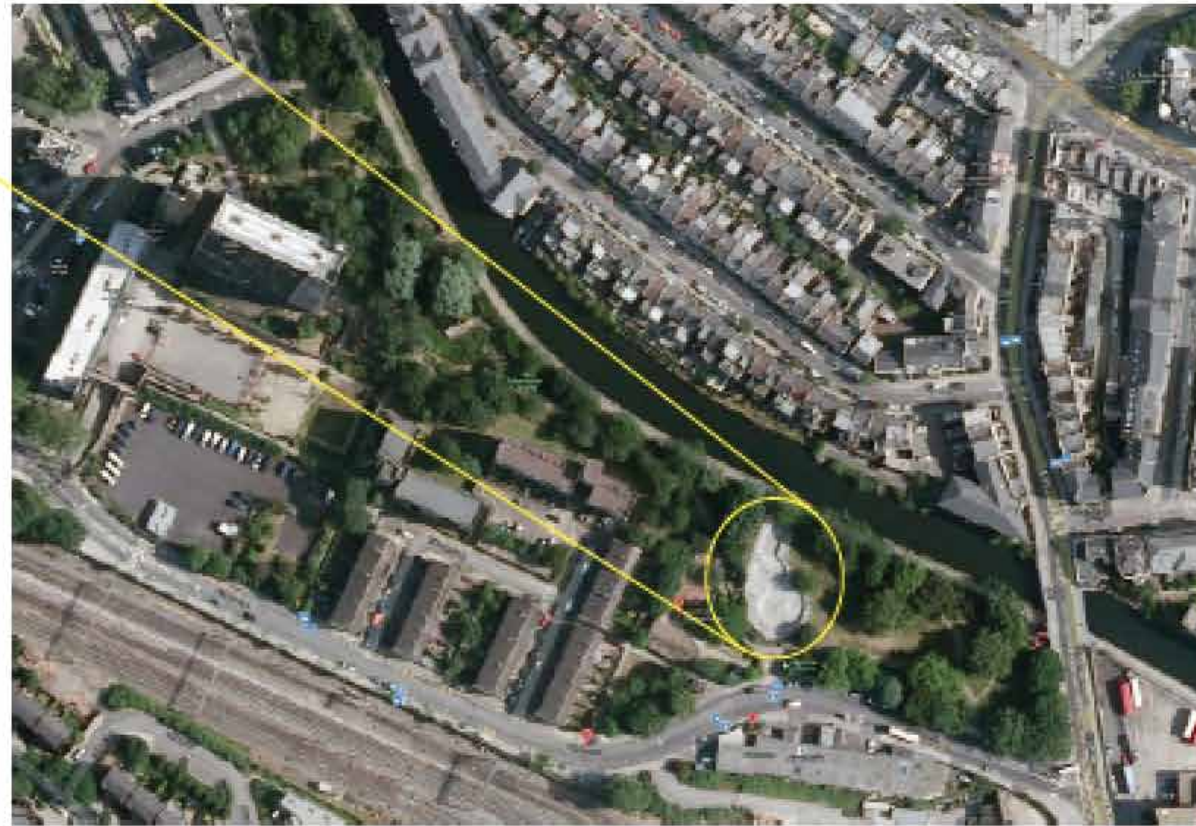
Through research, a planned intervention was decided upon by the community.



Meanwhile Community Gardens sits just outside the historic Trellick Towers. Once seen as a visual eyesore, the building is now on the historic register and it has become a safer, less crime ridden place to live.

Proposed Site:

Meanwhile Garden's contains the oldest skatepark in London, built back in the 1970's. The intervention will focus around making the skatepark befitting of its history. In the past Local residents have already tried to raise funds to have CCTV cameras installed as well as stadium lights for night time use and some kind of shelter so that the skatepark can be used all year round.





Meanwhile Community Garden Skate Pit - Proposed Site

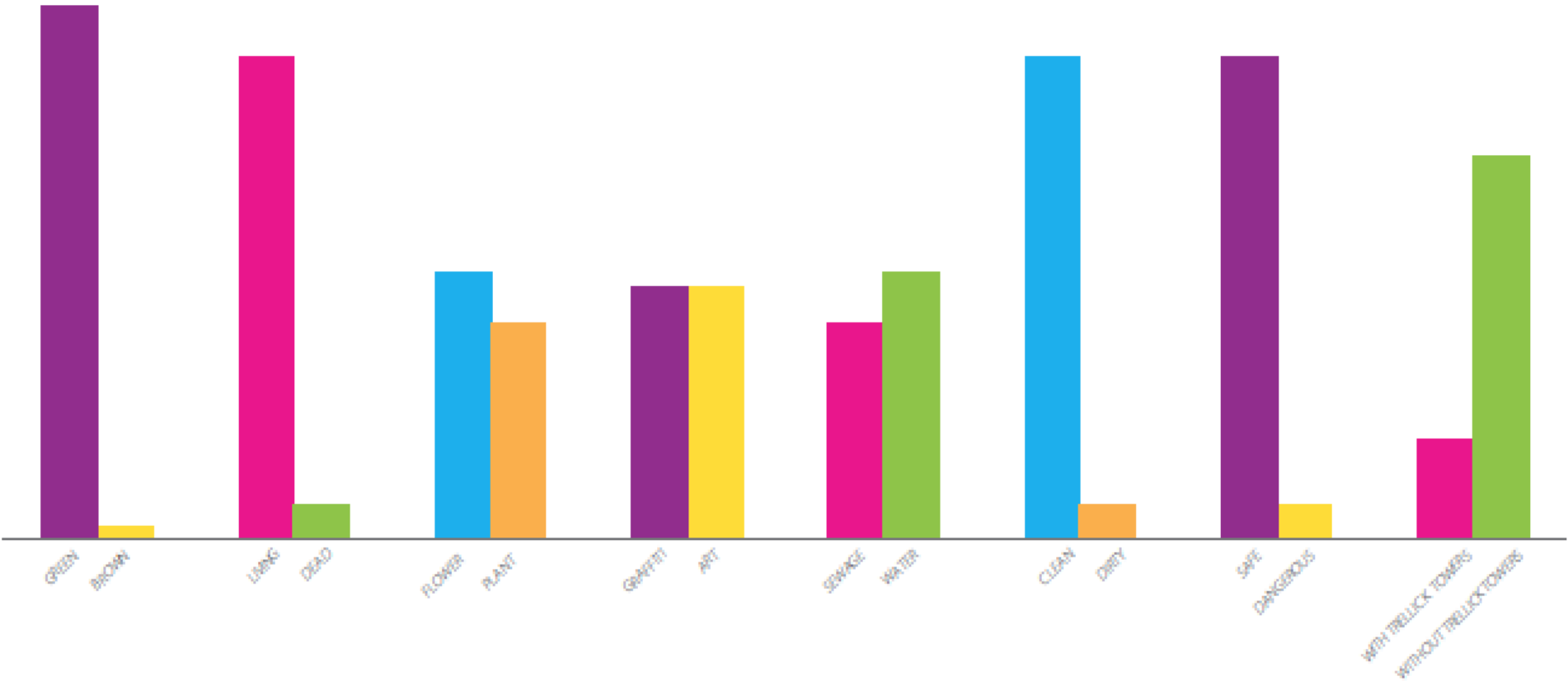
site research



About Meanwhile Community Gardens

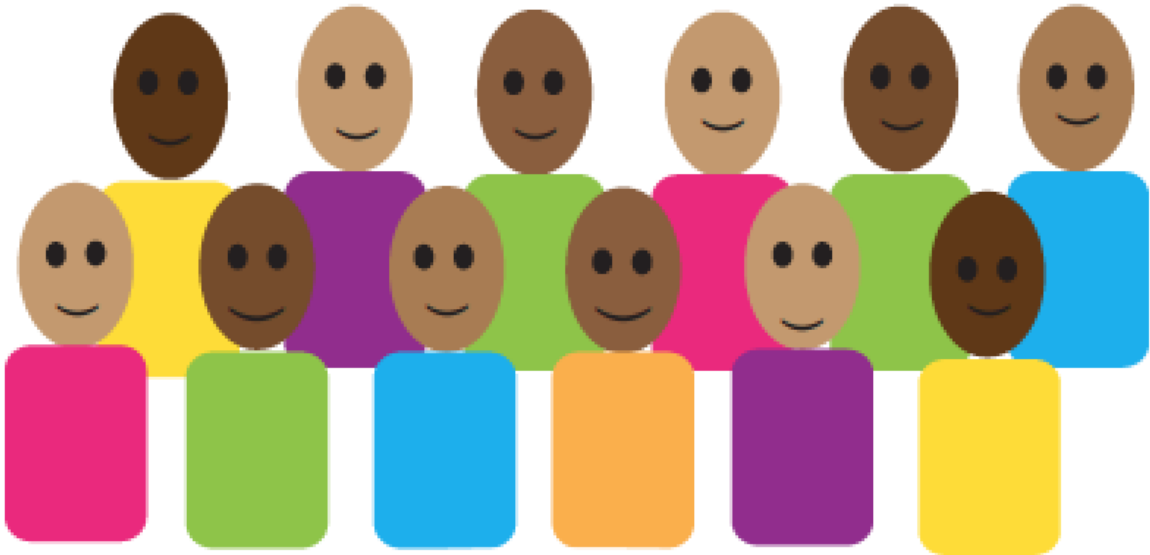
Meanwhile Gardens is a community garden. It was established in the 1976 with advice from the landscape section of the GLC (John Medhurst). The gardens have many features not found in contemporary public parks, demonstrating the value of community involvement in parks. The best known feature is the skateboard 'pit'. It was the first of its kind in London and quickly became famous. There is also an excellent wildlife garden which would be difficult to maintain with the non-specialist labour now responsible for park maintenance.

LOCAL COMMUNITY WORD ASSOCIATION POLL



Part of the site research consisted of action research where participants were asked to choose between two opposite words that they thought described Meanwhile Community Gardens. Most of the results were positive, most participants had an optimistic and positive view of the gardens, while only a few had negative feelings about the Gardens.

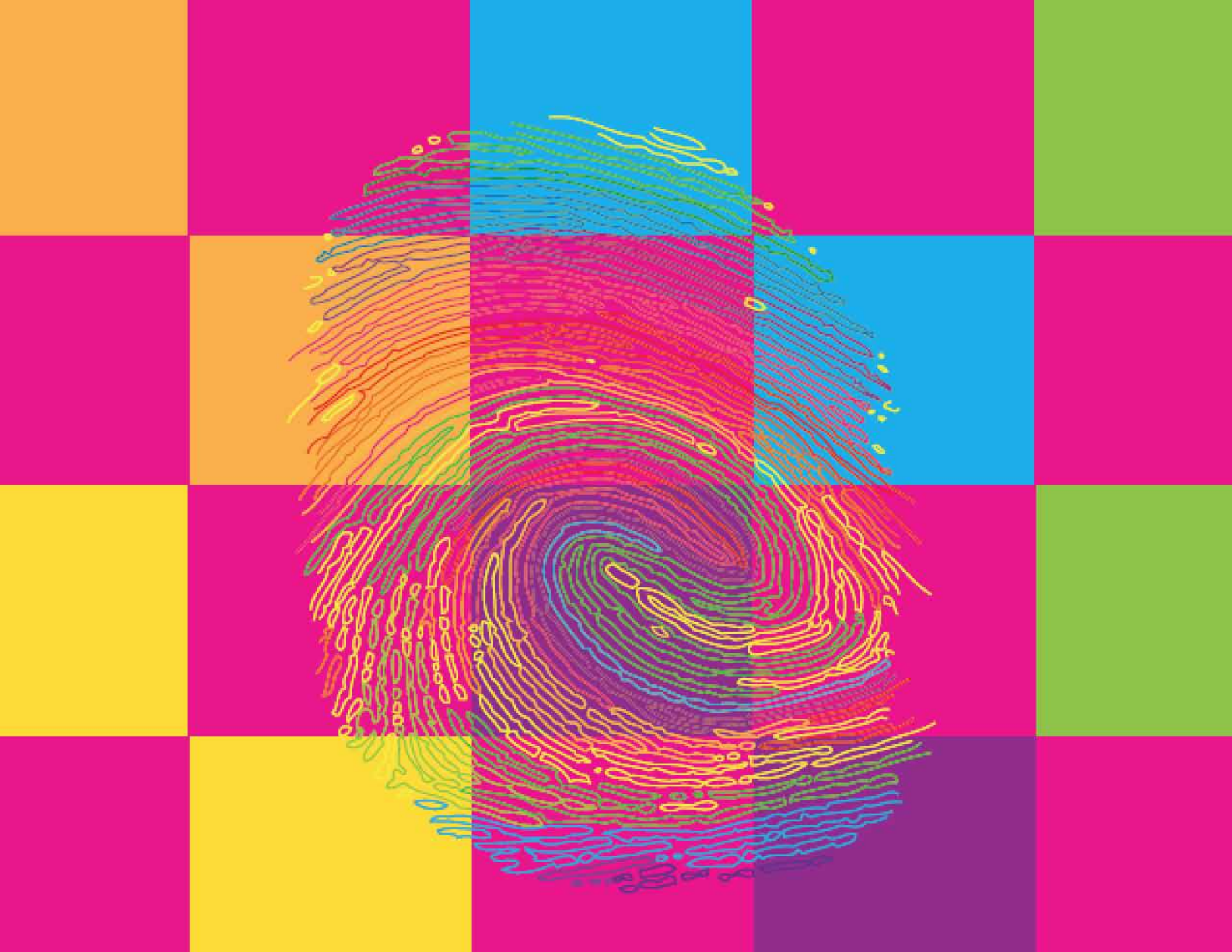
GENERAL CONSENSUS FROM POLLED RESIDENTS



Positive thoughts about the Gardens



Negative thoughts about the Gardens



design
proposal

Design Phases

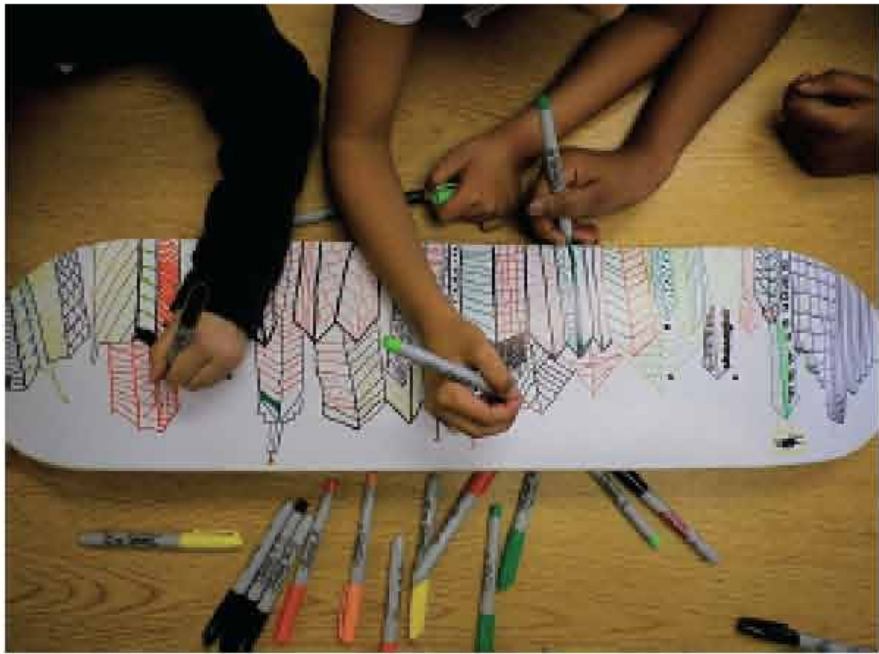
Phase One:

Begin the collection of old skateboards from the community and all over London. Ask skate shops for discarded decks. Recycle old deposit boxes and refurbish as skateboard drop points at all major skateparks in London.



Phase Two:

Begin the summer “ART IN THE PARK” series, aimed at local children and teens. It will include the painting and refurbishing of recycled skate decks for inclusion into the pavilion.



Phase Three:

Using community volunteers and volunteer wood workers, carpenters, and craftsmen, construct the pavilion out of the refurbished boards.



Phase One

Skateboard Collection

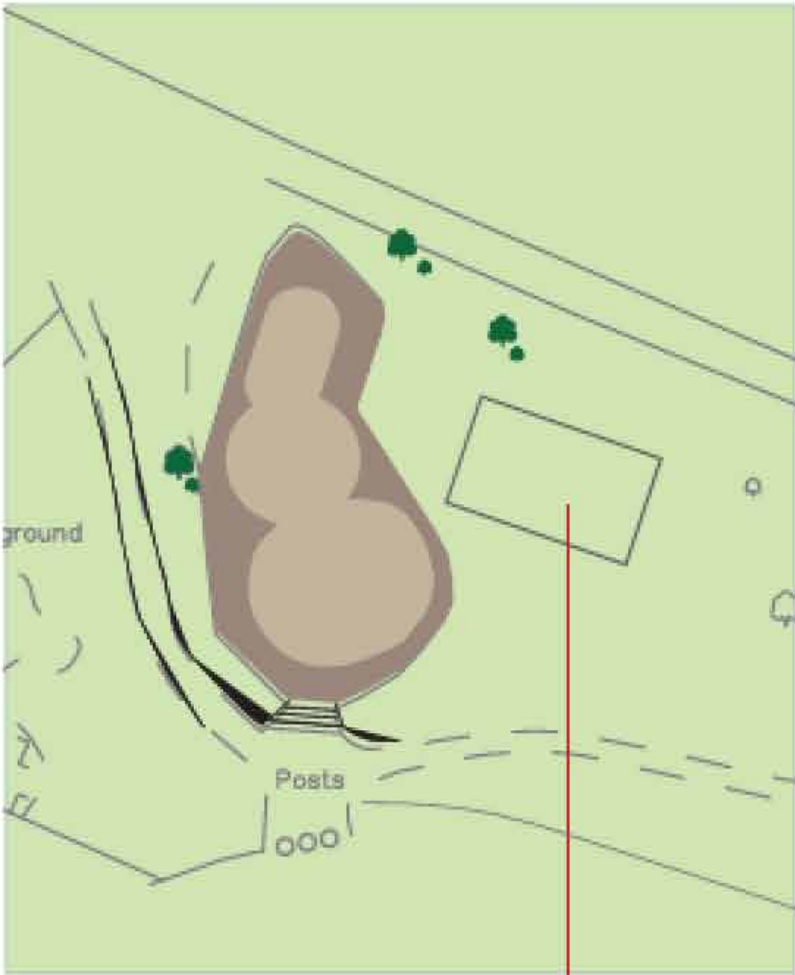
Skateboard collection boxes will be placed at all the major skateparks throughout the center of London. Periodically they will be checked and the contents will be collected. The collection process will also focus on asking skate shops to donate old or unused decks for inclusion into the pavilion.



Phase Two

Art in the Park series

Conduct the Saturday morning 'Art in the Park' series for as many sessions as it takes to complete the pavilion. The series is geared toward the Spring and Summer months, so collection will have to take place during the fall and winter. The pavilion will need about 384 skateboards depending on size and type.



Art in the Park Tent Site



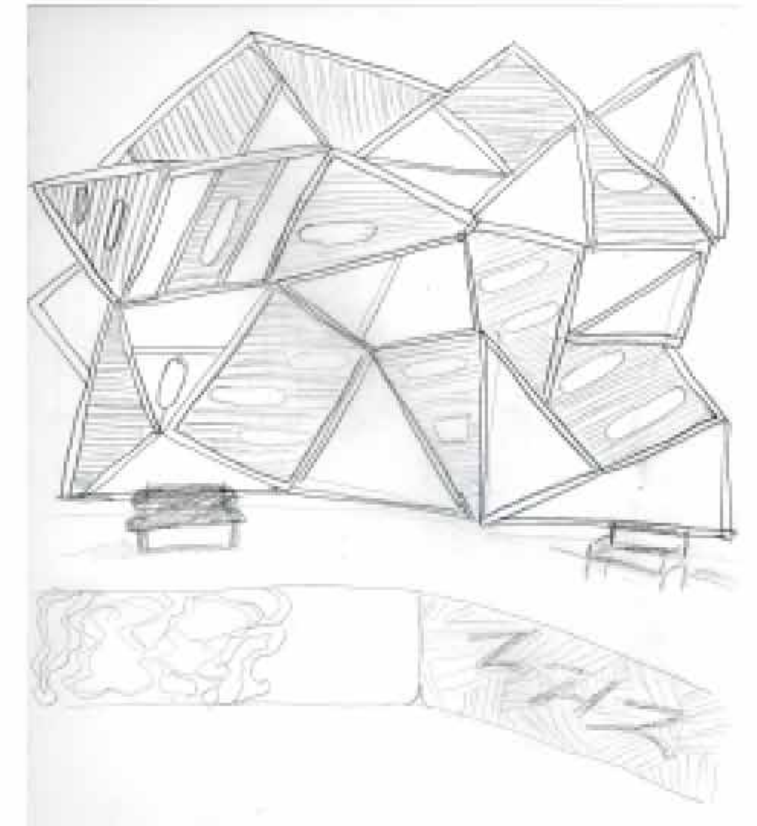
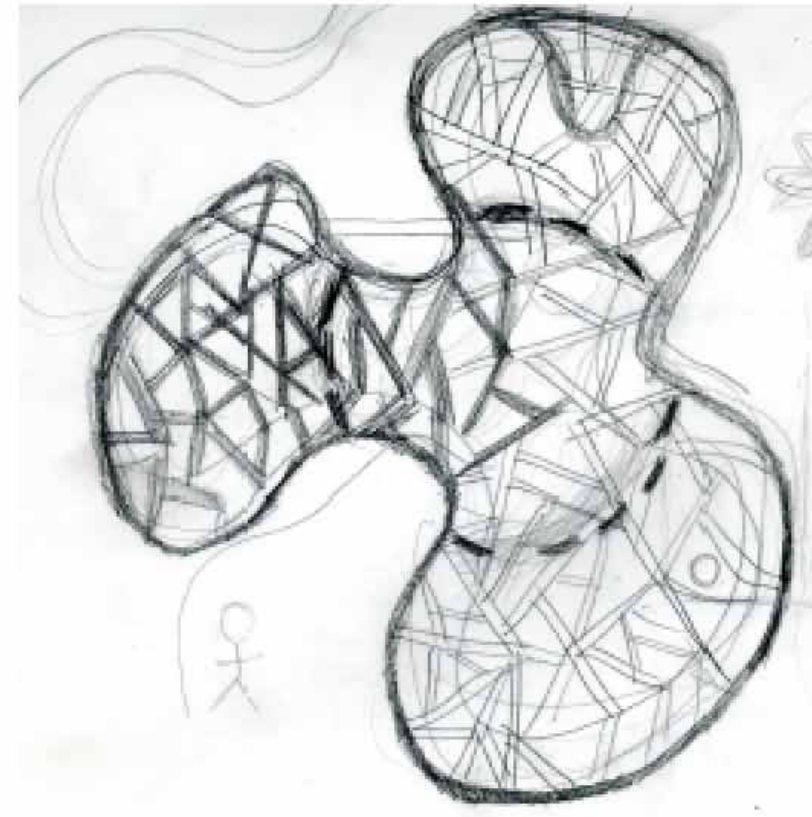
The event series will be aimed primarily at grade school age children and their parents. The event should bring the community together and get parents and the community talking about their community, and meeting new neighbors. It will help to foster pride in the community.



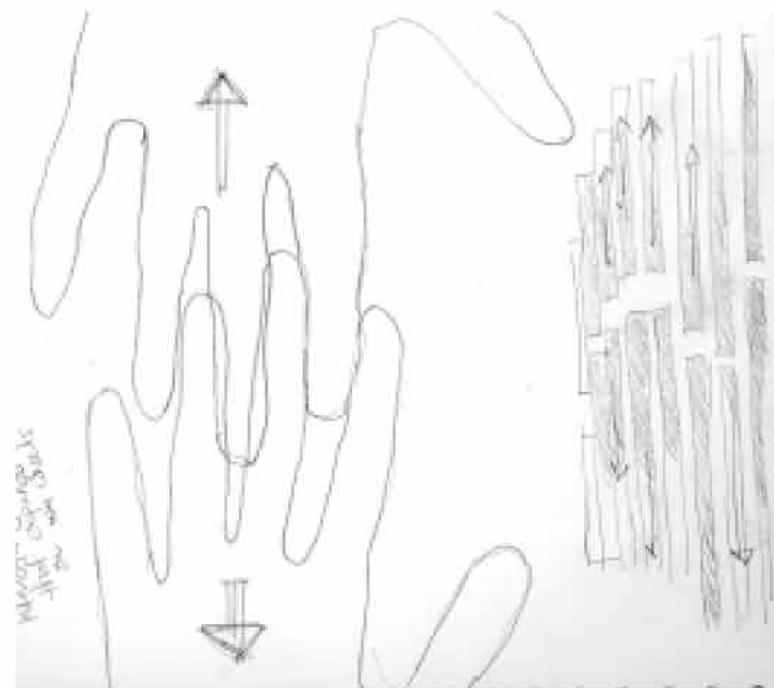
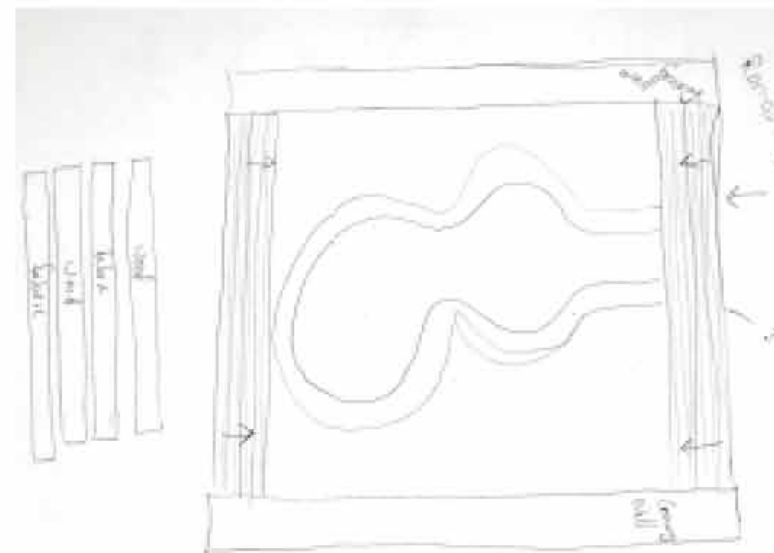
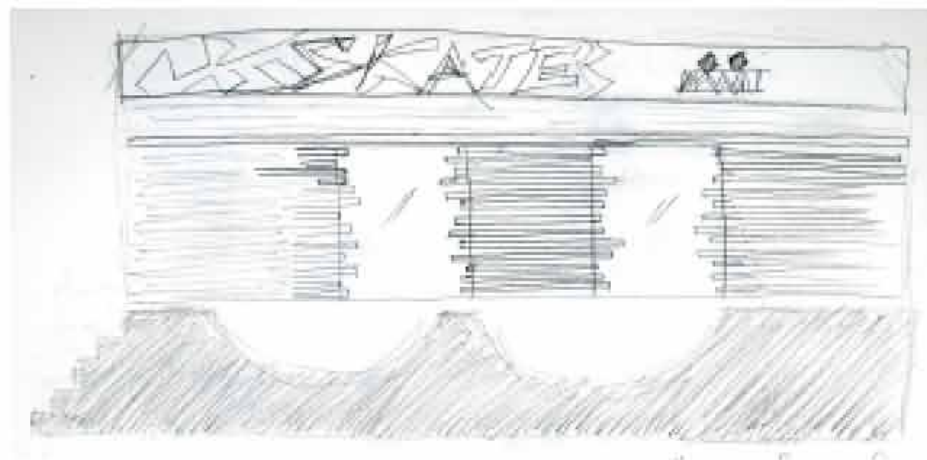
Entice the community with the lure of free snacks like skateboard themed cupcakes.

design evolution

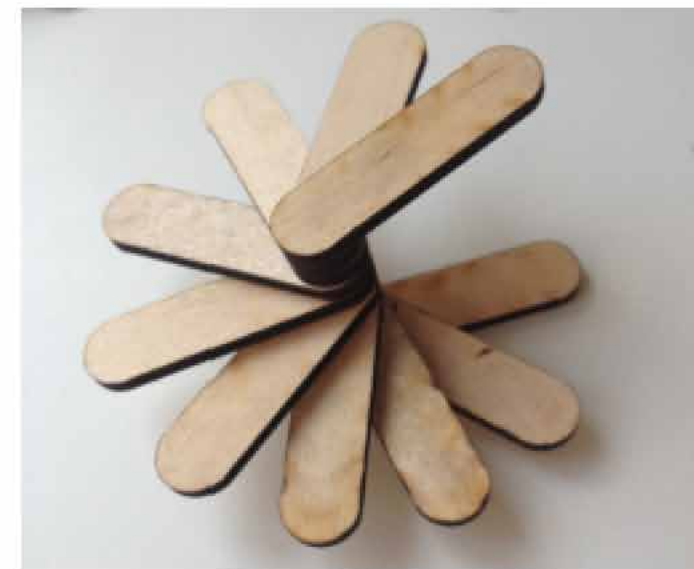
One initial design concept consisted of a pavilion with differing levels of canopy structures made out of recycled skateboards. In the diagram the circles represent the canopies made of skateboards. Each would be at a different height off the ground the darker ones are the ones that are the highest. The effect would be much like the canopy in a rain forest with different heights of trees that provide cover but also allow sunlight to enter, depending on the height of the sun.



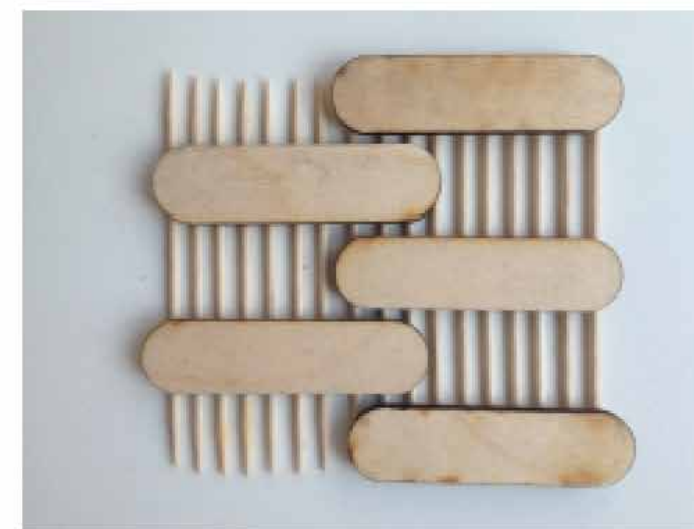
A secondary design concept consisted of constructing a geodesic dome made from wood, using an interwoven wooden slat design to allow the sun to shine through. The sections with slats and without the slats would house glass or a clear polycarbonate membrane to allow protection from the elements.



Other designs focused on having the roof made of wooden slats that would interlock like human hands and slide apart when the weather was nice enough controlled by solar panels. Another design consisted on arched wooden beams connected by clear polycarbonate. Another option was a shelter made from wood slats , very Asian inspired with graffiti on the roof.

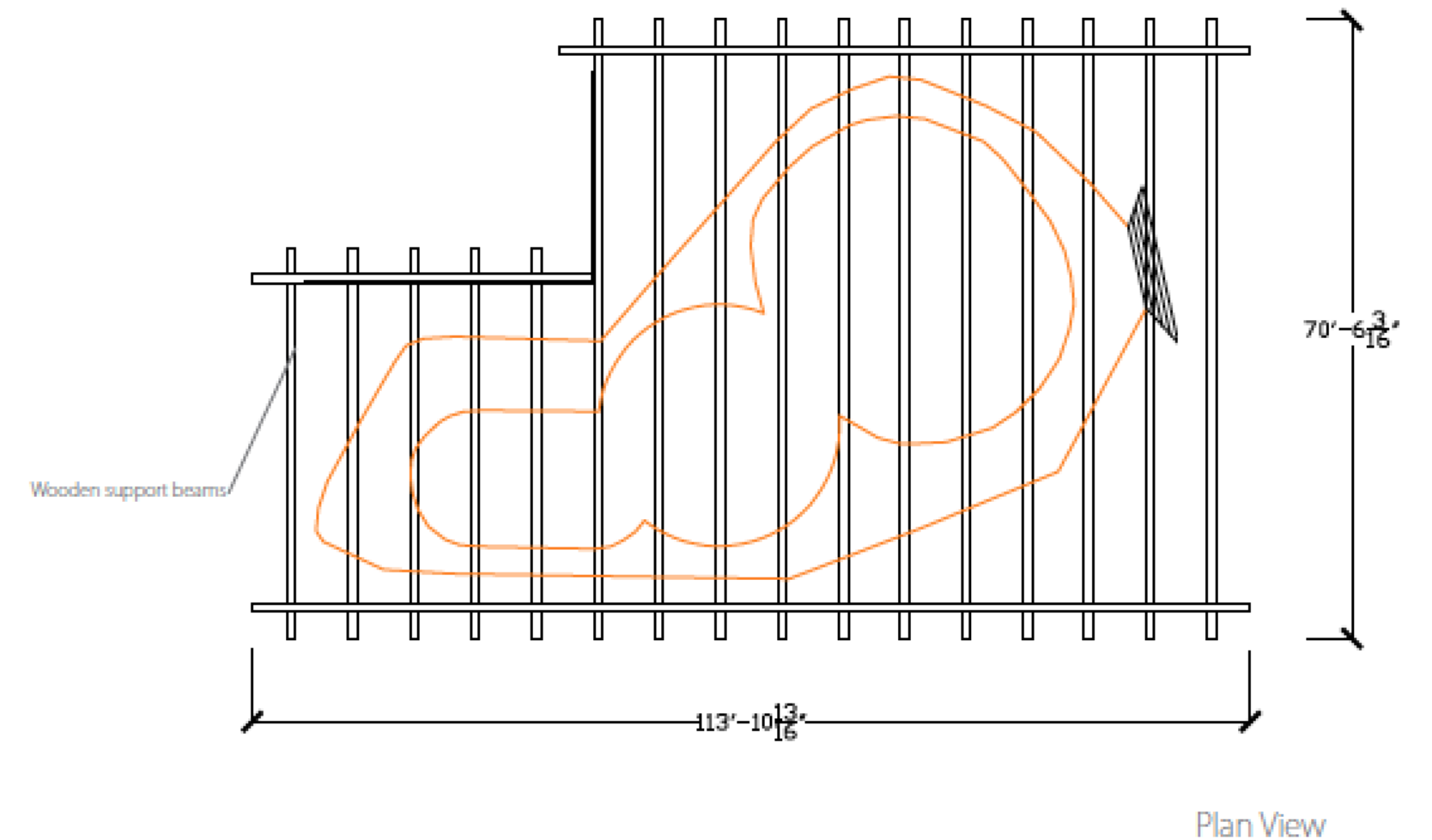


At this phase of the design evolution, mini skateboards were replicated as stand ins for the real thing. I arranged them into different patterns and groupings to help think through the design. In the end I found the lattice pattern the most useful in meeting all of my design goals.

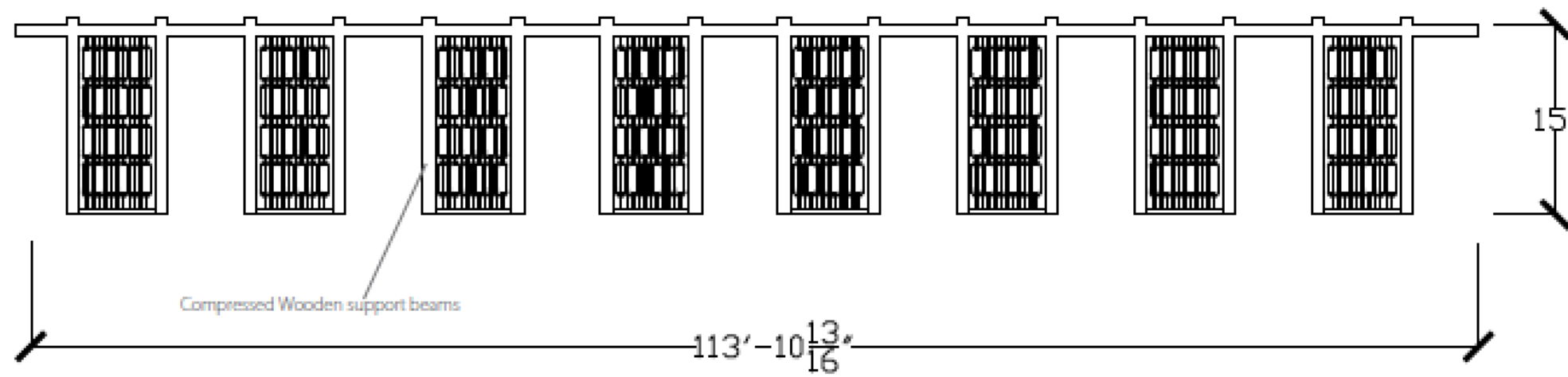


final design

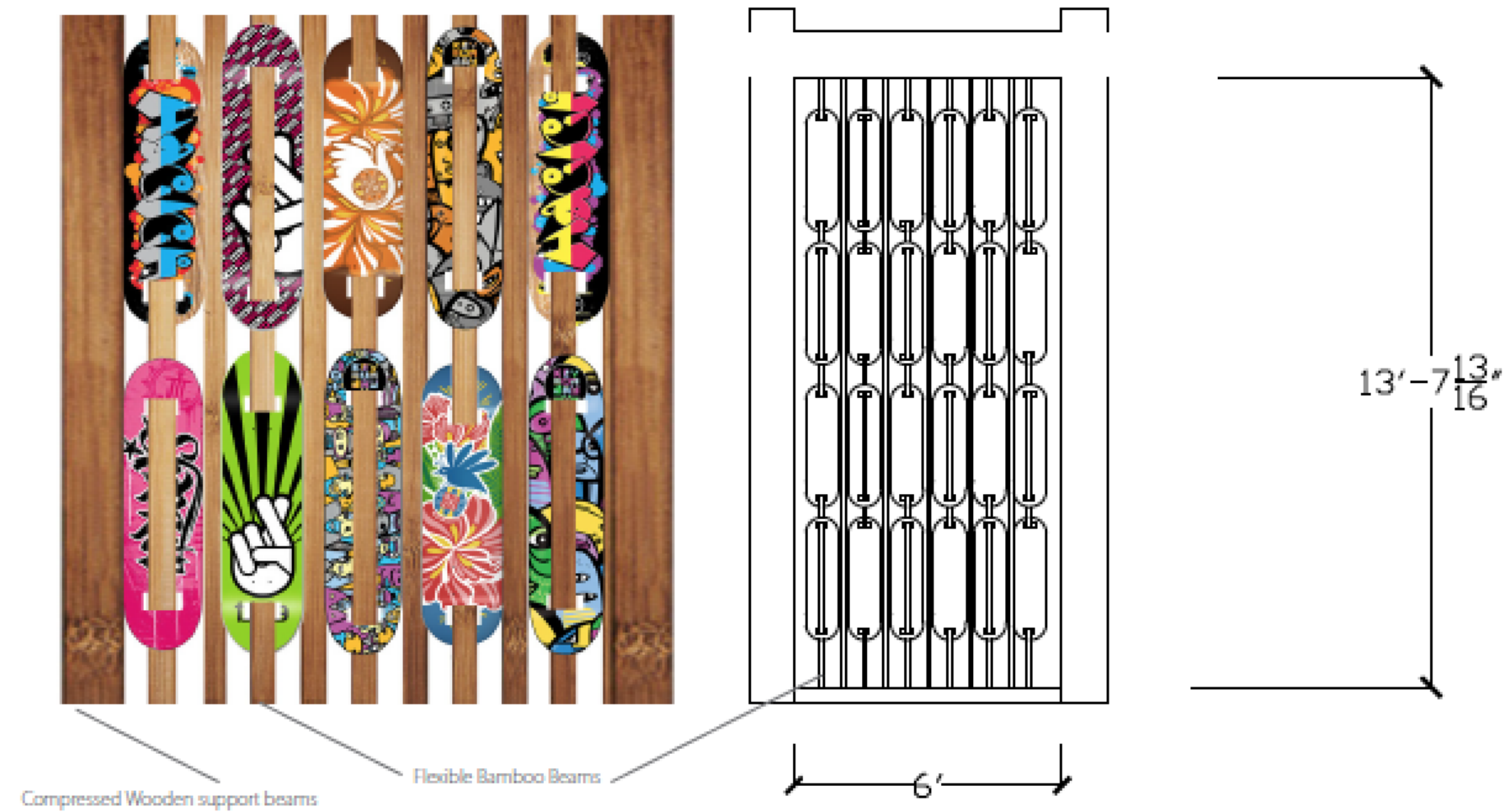
The final design will consist of a humble wooden trellis-like structure of composite wooden beams. The roof will support panels of clear polycarbonate. The vertical surfaces will include a lattice work of bamboo beams interwoven with the hundreds of skateboards that were donated and designed by the community.



Side Elevation

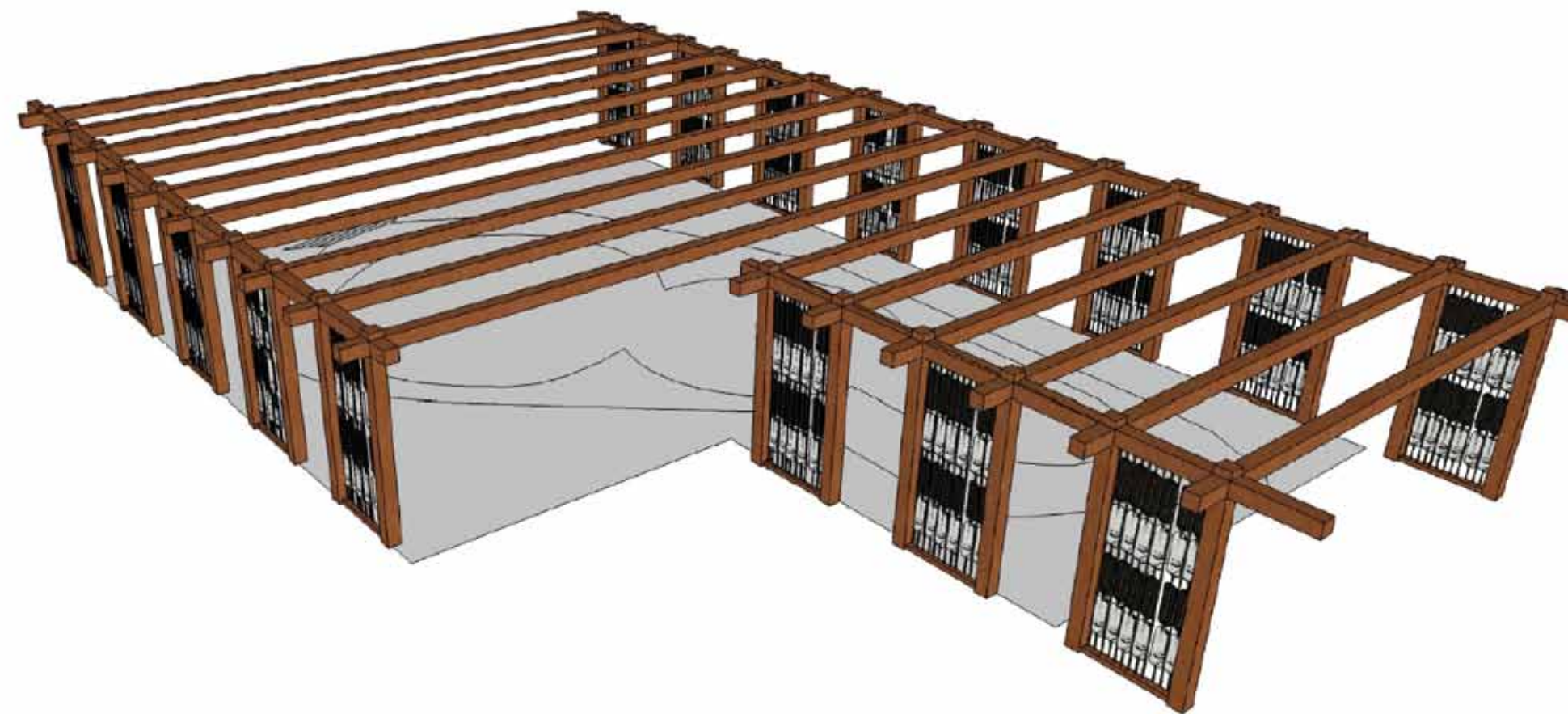


Detail of Side Elevation





Pavilion Rendering



THE END