

Assignments



Project I_ Context + diagrams remake

Systems context

Phase Assigned 3/28 Due 4/08

More deeply research the patterns of behavior and requirements of the species that will inhabit the building. Much was done last term, now be more specific in terms of architectural requirements | prospects. Rethink your design in relation to neighborhood context.

Questions

What are some of the architectural and experiential implications of being in proximity to animals?

What are the experiential | spatial implications?

How can you tell this story with drawings?

Intent_ Define the physical and social boundaries of your project

Include: (bees)

- pollinator flight patterns and limits
- new habitat infrastructure (stations)
- Research the synthetic and/or natural means of feeding (bees).
- influence over time (10+ years)

Include: (worms)

- food scrap sources
- influence of composting over time (10+ years)

Systems Design_ Research, Design and Draw the components required for feeding support.

- Draw the required resources (cooling/water/light) and distribution network for the services (Plan + Section)
- Design for the thermal conditions the animal requires. (Section)
- Detailed section of animal | human interaction interface. (Section)

Documentation

- Improvements to site plan, plan + section
- Remake diagrams (systems, public private, communication to city, program, circulation, egress, neighborhood)

Social Context _ Neighborhood Communication + Relationships

Questions:

What do you bring to the neighborhood?

What influence does our project have on the social, commercial, and environmental context of the neighborhood?

How does the project communicate to the neighborhood?

How does the project signify home?

Documentation

- One board (Plan Determine scale based on project influence)

Documentation

- Improvements to site plan + section

P2 Responsive | Adaptive Systems

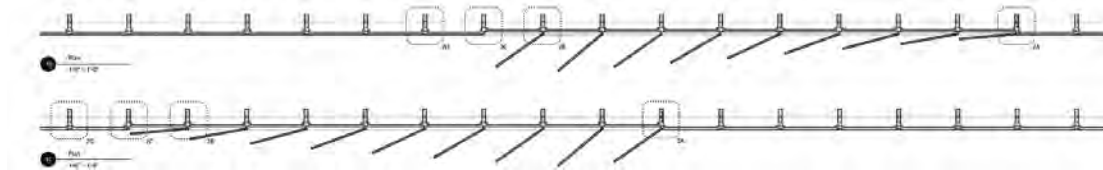
Revision 1	Assigned 3/30	Due 4/11
Revision 1		Due 4/18
Revision 1		Due 4/25

The pedagogy of modeling must not operate by giving precepts, but by the culture of experimentation making an appeal to the imagination in its transactions with reason, eliciting aesthetic and rational judgment, and giving to precise criticism the positive force that advances the sense of the proposition.

Álvaro Malo

Redesign the adaptive component from last term. The component should enable the building to respond to light, wind, and/or heat. It should also sensorial connect the human to subtle changes in the environment. The system should be operable and help your habitat and/or internal spaces thermally self-regulate. Draw in section, plan and elevation. This project is intended to tie in directly with the 342 Exercises 1-3 and Project 2.

Working models are a means to experiment first hand with materials and modes of assembly associated with natural forces /phenomena of light, air, water and heat. The end goal is to identify building strategies that allow humans to live in balance with nature. In this sense working models are a vehicle to discovery, innovation and practical application. In this course, modeling is a creative and reasoned hypothetical proposition.



Objectives

- Applying models + wall sections as vehicles for architectural research, critical thinking and design evaluation;
- Use of line weight and tone to clearly convey drawing content

Model 1:1

This part of the project consists of a series of iteration to increase model quality and qualitative feedback.

- Model 1_ a single component. Show range of operation and effect in drawing
- Make a field condition
- Model 2_ Remake the component or field condition to a high degree of resolution
- Model 3_ Make refinements in craft and operation

Feedback

- Testing_ Time lapse photo sequence
- Drawing_ (3-d model, choose view, make 2-d, transfer to illustrator for color and line work) or plan + section (discuss in class)
-

Critical Evaluation_ These are points that I will be looking for in your work, and ones that you can use for critical evaluation.

- Craft
 - Creative and technical prowess with tools and materials
 - Feedback
 - a. Gain feedback from models to advance current thinking and the process of design
 - b. Attentive to the nature of materials in modeling and drawing
-
1. Presentation to the group at noon June 29
 - 3-4 minute Video (Feedback, Unit and System)
 - Demonstration of prototypes in the test chamber.
 2. Documentation 8.5 x 11. Format your work to date in a high-resolution pdf file.

Drawing Set 1 at 1/2" = 1'

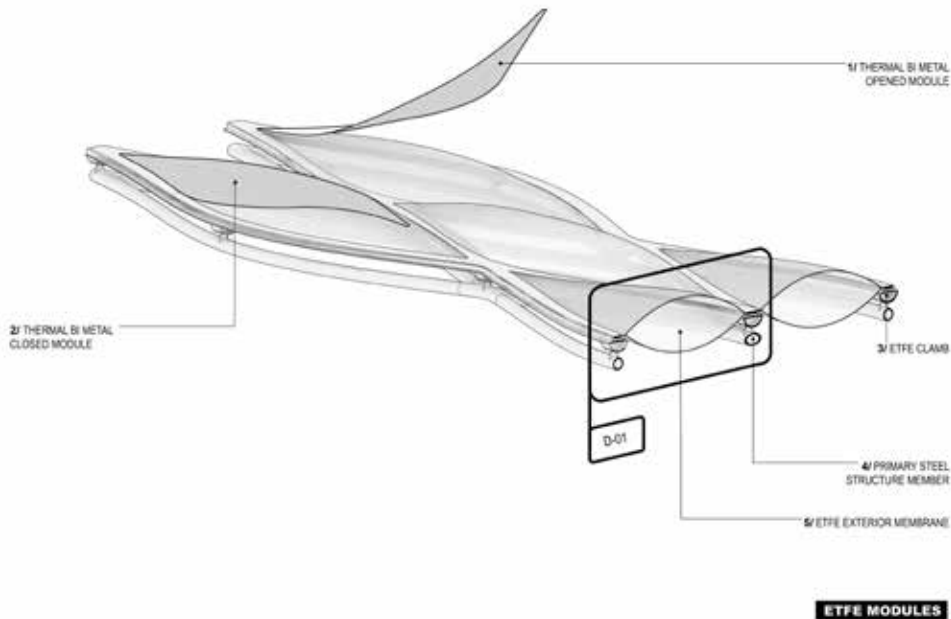
A section perspective, plan cut

Drawing Set 2

1:1 (discuss) scale section axonometric or section perspective detail

Include:

- Notation
- Tone | Color
- Line work



Design Revision_ Drawing [section + wall section]

Moment in a life

Phase 1 Assigned 4/22

Revision 1 Due 4/27

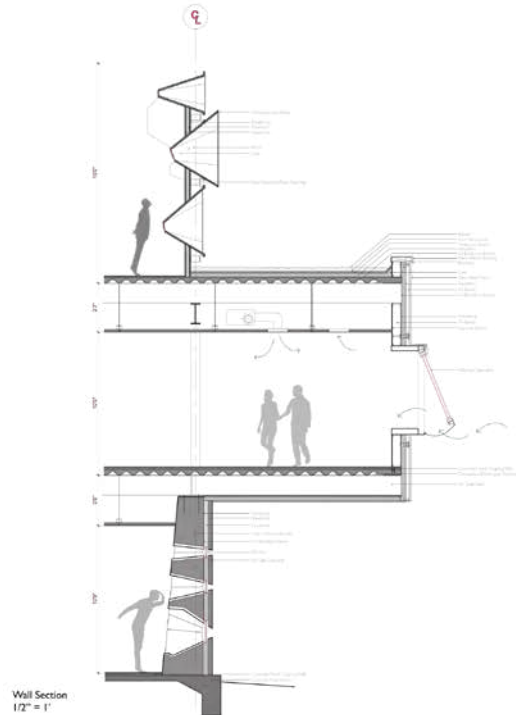
Revision 2 Due 5/4 (common hour pin-up 5/6)

342 + 353

Sophia De Christopher

Moth Spot

A significant nectar corridor is present along the coast of California and continues through to Mexico, though due to urbanization, the nectar corridor for pollinators has been fragmented and severed. Moth Spot focuses on re-linking the nectar corridor and supports migratory pollinators along their migration path. The environmental center is situated in Los Angeles and provides a feeding station along the pollination route and is designed to engage the public in meaningful interactions with the pollinators.



Intent

- 1) Develop strong spatial and experiential relationships in section. The 'large moves' should be clear. Focus on increasing the prevalence of the synthetic interaction between humans and nature.
- 2) Increase articulation. One aspect of this is systematically bringing in your work from project 2.

Method

- Study a wall section that you find compelling – choose one that clearly shows an interesting use of materials and shows a strong relationship between interior and exterior. Post to our pinterest site. Print. Notate (on the print) the parts you find interesting and relative to your own work.

Make

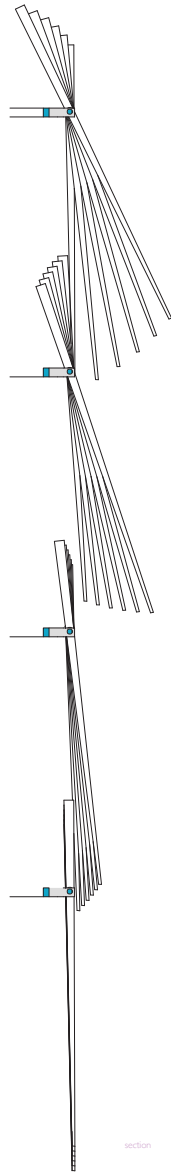
- Wall section at $\frac{1}{2}'' = 1'$
- Building section $\frac{1}{8}'' = 1'$
 - Begin to translate to a section perspective

attention to:

- line weight
- tone
- shadow lines (section)
- context
- notation
- scale
- project title
- call out to a detail (could be a revised photo of project 1)

Post

- Post to PolyLearn.



Winter 2016

352 | 353 Student Projects

Responsive Components Project Final Project_ Permanent Housing for the Homeless

A. Schafer | M. Iida
E. Townsend | L. Dion
K. Bromley | K. Johnson
M. Luzi | S. Reddy

Significant effort was placed on deriving ideas from the
feedback of working prototypes,

Project_ Simple Responsive Systems

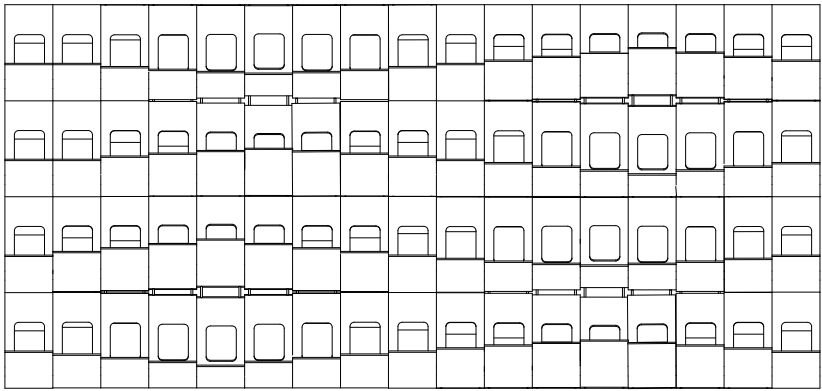
A. Shafer and M. Iida

Material_ Photocromatic dye, Epoxy resin

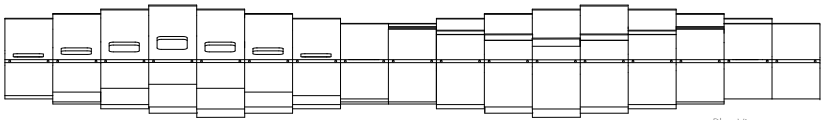
Responsive to light

Intent_ Light responsive screen that increases opacity in response to UV light exposure.

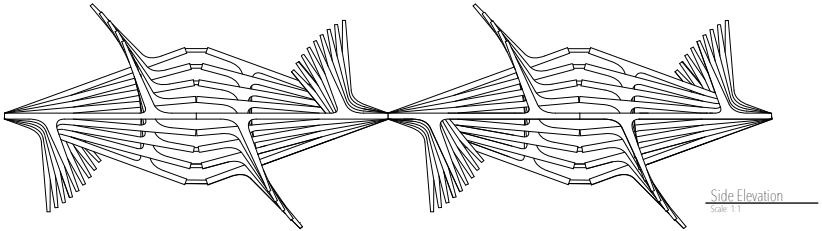
F I E L D C O N D I T I O N



Front Elevation
Scale 1:2

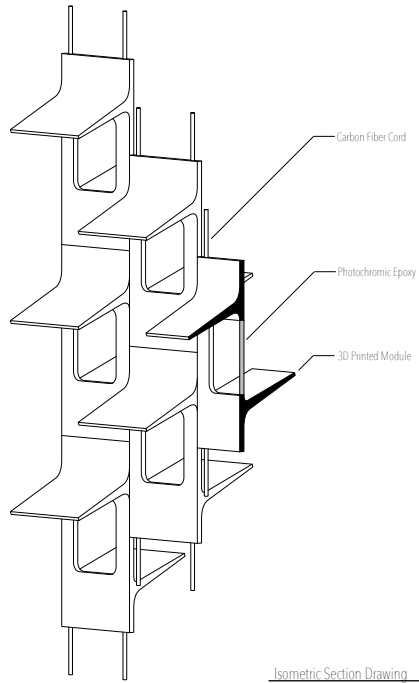


Plan View
Scale 1:2

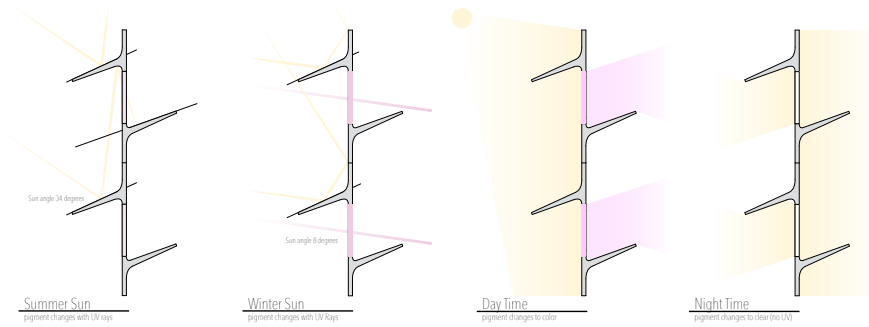
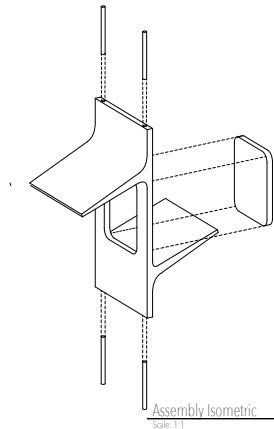
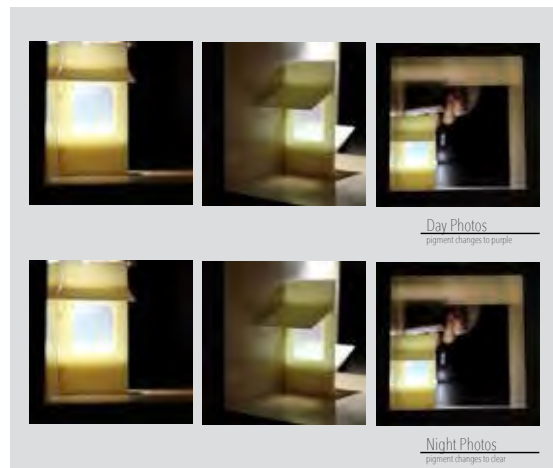


Side Elevation
Scale 1:1

I S O M E T R I C S E C T I O N

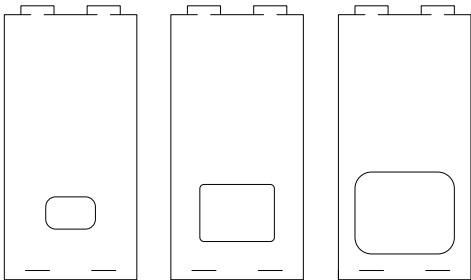


D I A G R A M S + F E E D B A C K

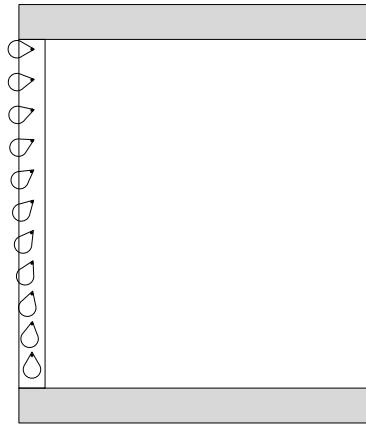


PHASE THREE

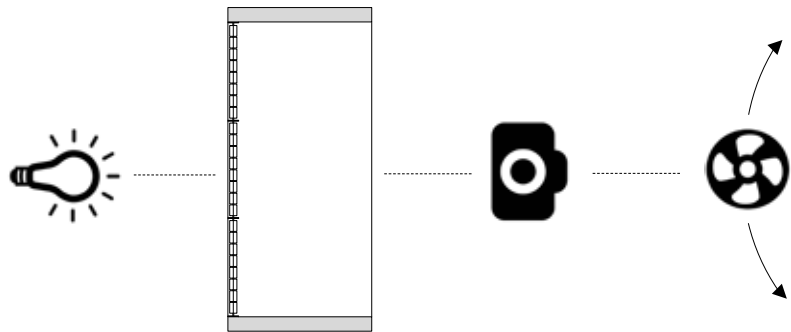
LAURA DION | ELIZABETH TOWNSEND | DALE CLIFFORD | WINTER 2016



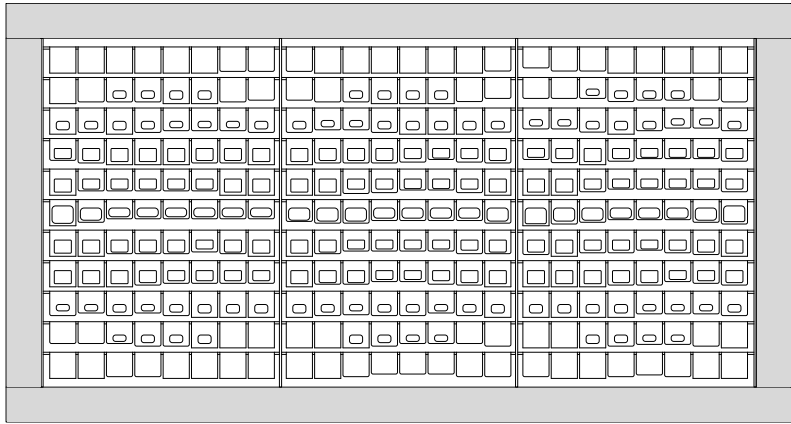
MYLAR PIECES | 1" = 1"



SECTION | 1" = 4"

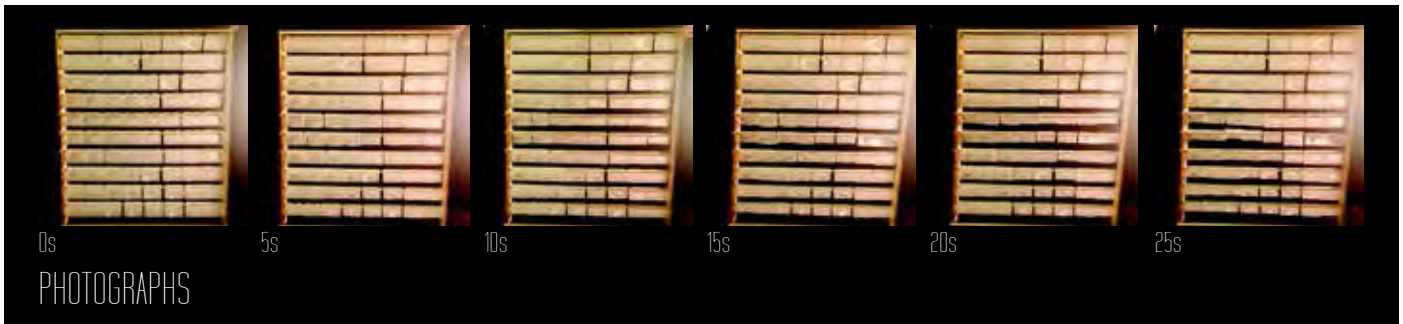


PROJECT SETUP (PLAN)



ELEVATION | 1" = 4"

By switching from hot gluing our Flaps to the applicator sticks, to taping the connection to make a tear drop shape, we were able to get more of an effect from adding wind to move the Flaps. We then in this phase changed the connection to a cleaner, tab version, which accomplishes the same outcome as the tape connection did. We then experimented with cutting different sized shapes, decreasing the amount of material, out of the Flaps on one side to see how the light and wind movement effects changed. The smaller the cut out, the less movement in the Flap. Looking straight on at the Flaps, the effect is pretty interesting, because you can notice the difference even without harsh direct light, however, direct light greates the effect and the light is still diffused.

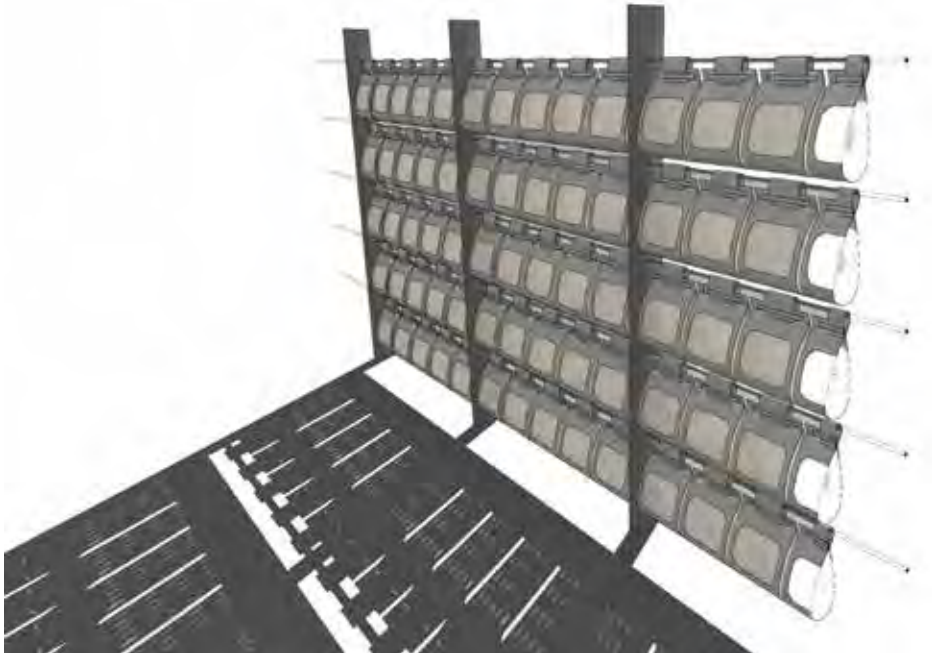


PHOTOGRAPHS

KINETIC SCREEN

LAURA DION | ELIZABETH TOWNSEND | DALE CLIFFORD | ARCH 253

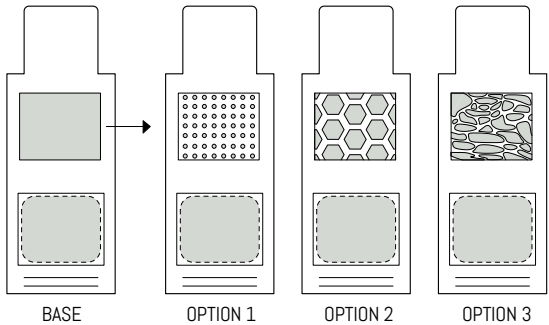
This building facade system, largely similar to the kinetic works of Ned Kahn, aims to filter harsh sunlight from the west, while providing interesting shadow phenomena to the occupants that interact with it. While interaction with wind was not originally the main concern of the system, it became added benefit via the use of lightweight materials, which caused the screen to shift and react to even the slightest wind currents that came in contact with it.



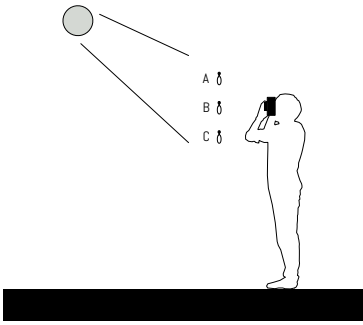
SYSTEM COMPONENT ASSEMBLY



COMPONENT VARIABLES



SYSTEM SET-UP



SYSTEM FEEDBACK



352
Revision 3

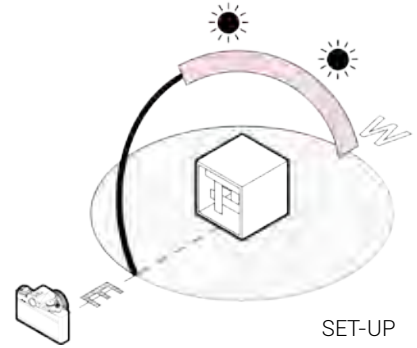
M. Luzi and S. Reddy

Material_ fiberglass cloth

Responsive to light

BOXANOVA

With this iteration of Project 1, the main focus for our group was to build upon the feedback we gained from drawing, modeling, and photography during last term. What emerged was the study of both layering of materials and the way light and shadow falls upon these layers. With the addition of the sliding extension on the end of the box, we were able to keep the presence of light patterns within the module while adding an operable piece which could be used to control the amount of light entering the space. By pulling the siding back and forth, the patterns remain constant while the distance between the paper screen and fiberglass strips becomes the variable. As the piece is separated from the box itself, this creates a gap between the two parts, thus creating a space for light to fully enter the interior. With the combination of direct and indirect lighting, the interior of the space seems to alter its size based upon the lighting conditions and the time of day.



CLOSED



HALFWAY EXTENDED



FULLY EXTENDED



14:00

15:00

16:00

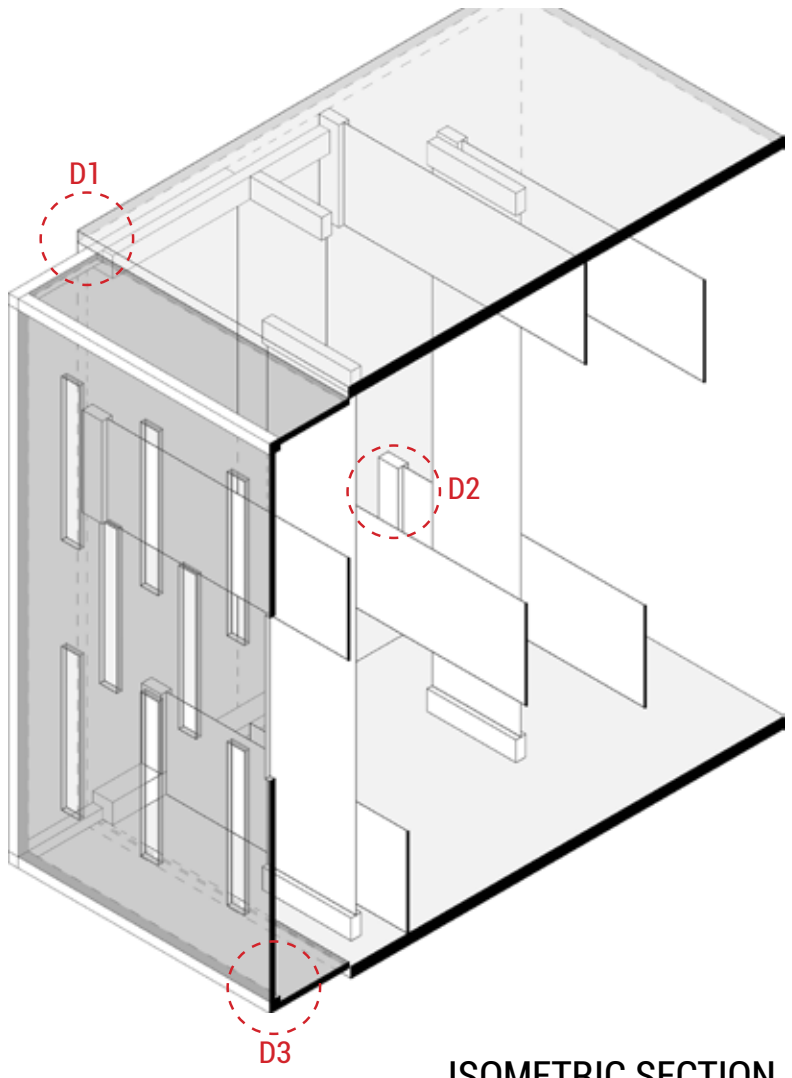
17:00

18:00

1/2" bracket
1/4" acrylic screw

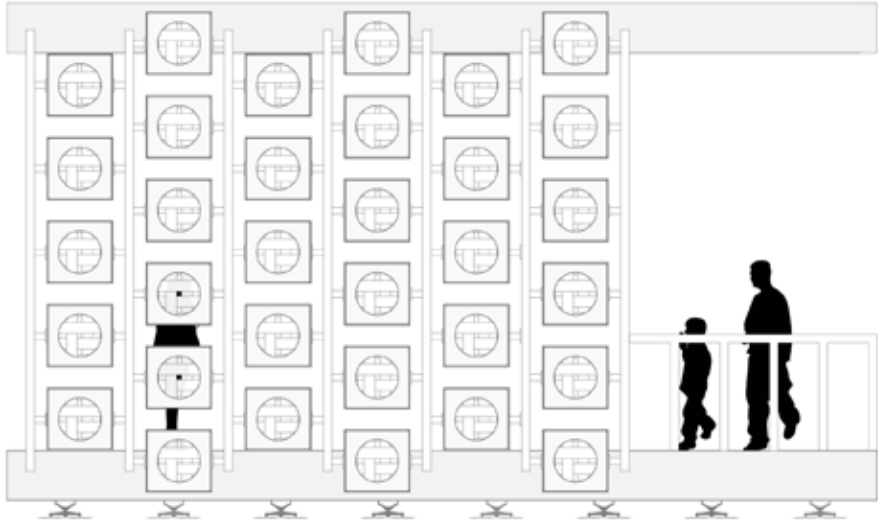
1/2" acrylic
1/2" wood x2
1/4" wood

1/2" acrylic
3/2" mylar
1/4" wood



ISOMETRIC SECTION

SCALE : 1" = 2'



FIELD ELEVATION



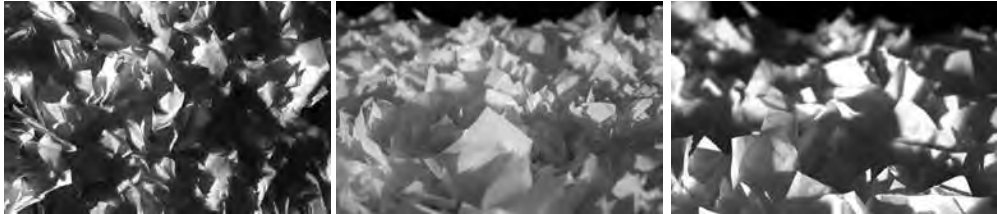
FIELD SECTION

352
Revision 2

K. Bromley and K. Johnson

Material_ Wood

Responsive to wind and light





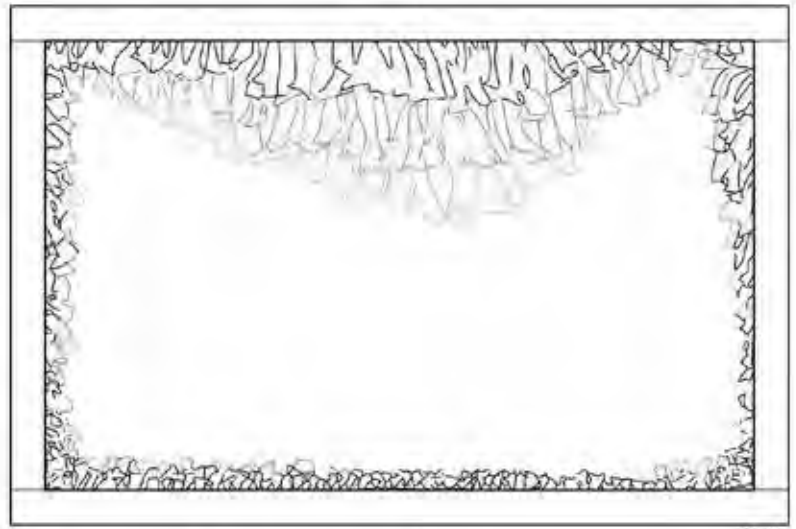
0010 0010



0011



0012



0013



0014 0015



BASURA 10

La Basura explores the material quality of the plastic bag, and its architectural and phenomenal possibilities. Through a process of discovery and iteration, we tested how different plastic configurations responded to wind. In all cases the material responded with sound and movement. When blessed with air, this design created consistent movement and sound. In the large scale model we are testing the full capabilities of this configuration. At full scale we have discovered that the plastic engages touch as well as sight and sound, as the plastic wrinkles have formed a soft surface.

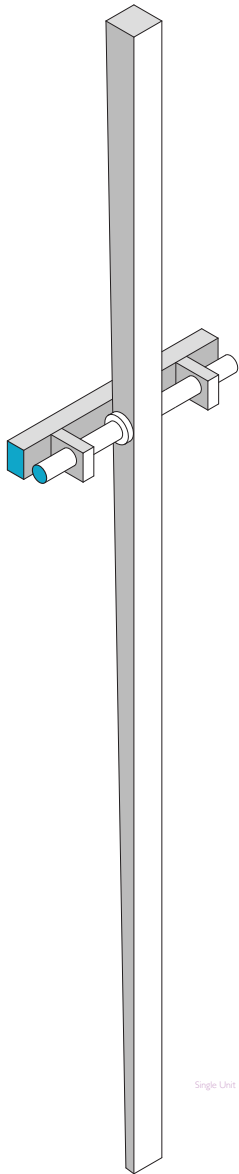


0016 0017 0018 0019

K. Bromley and K. Johnson

Material_Wood

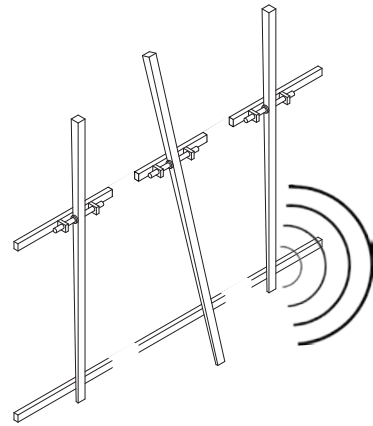
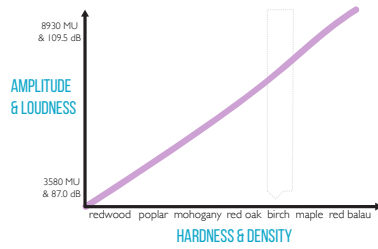
Responsive to wind and light



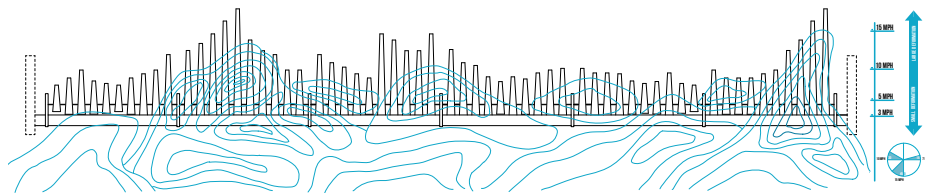
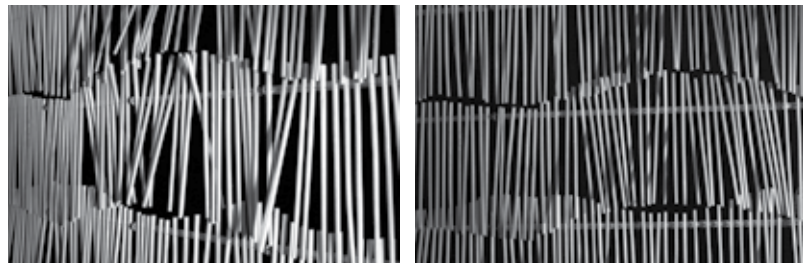
CLINK CLINK

Kay Bromley Kallie Johnson

an exploration of how the material properties of wood respond to wind conditions to create varying light and acoustical phenomena

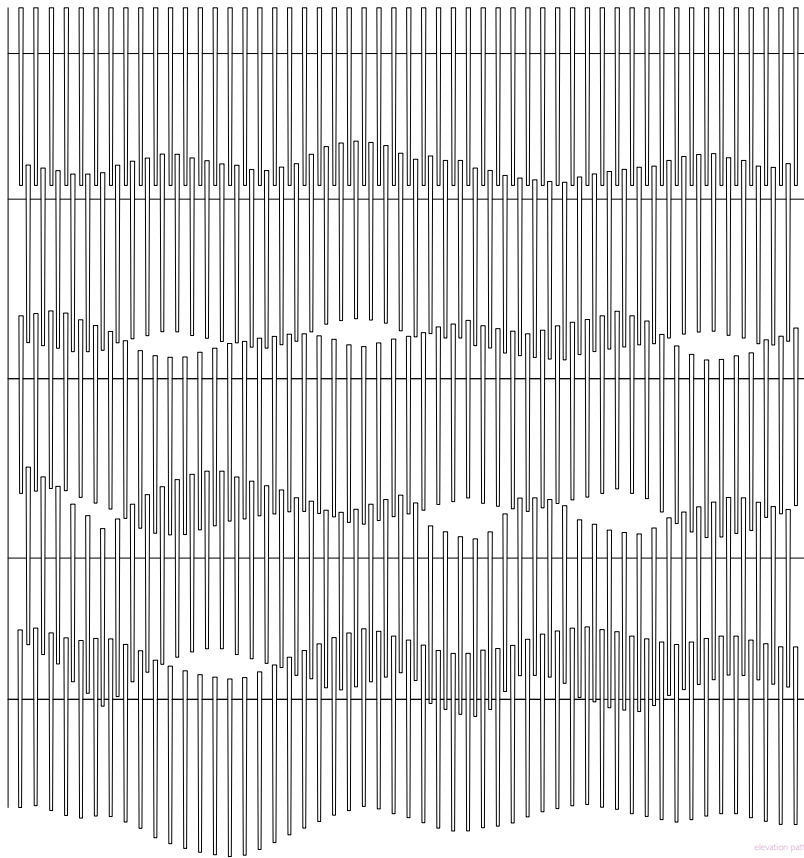


acoustic response diagram

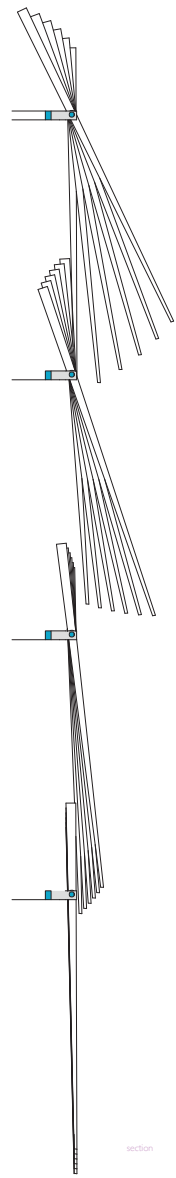


wind response diagram

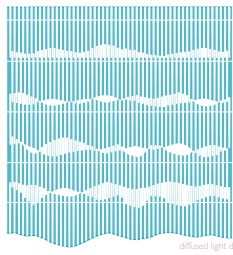
Single Unit



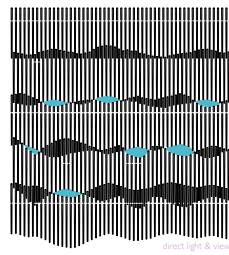
elevation pattern



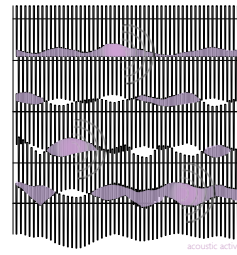
section



diffused light diagram



direct light view diagram



acoustic control diagram

Projects are representative of the ARCH 353/353 learning curve and coupled with ARCH 342 are intended to fulfill many of the NAAB requirements for comprehensive design.

352/353 Final Projects

Permanent Housing for the Homeless

Skid Row, Los Angeles

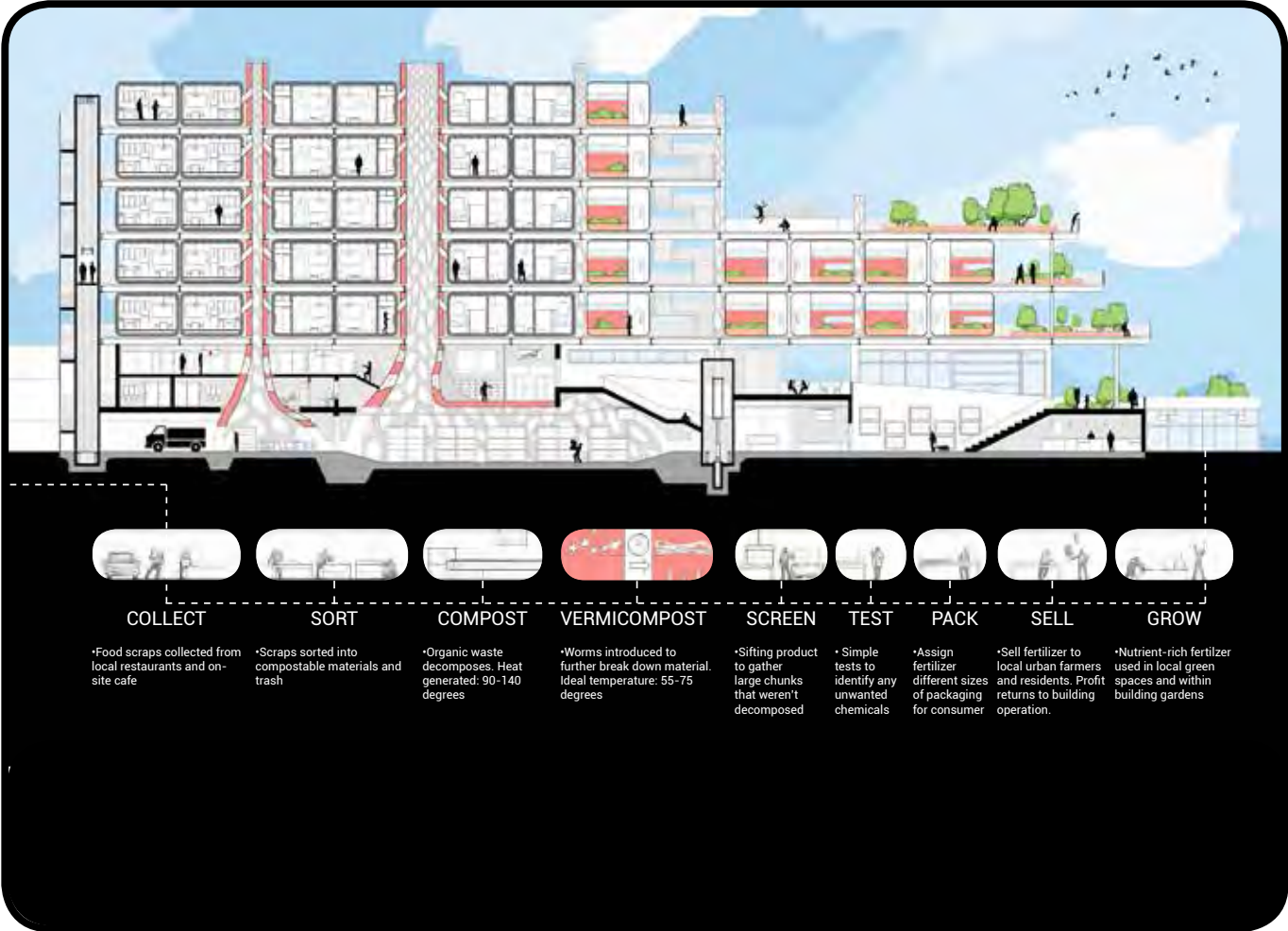
S. Reddy and M. Luzi	(Team for two quarters)
K. Bromley	(Team in 352, individually in 353)
K. Johnson	(Team in 352, individually in 353)
A. Schafer and M. Iida	(Team for two quarters)
E. Townsend and L. Dion	(Team for two quarters)

Mark Luzi
Suraj Reddy

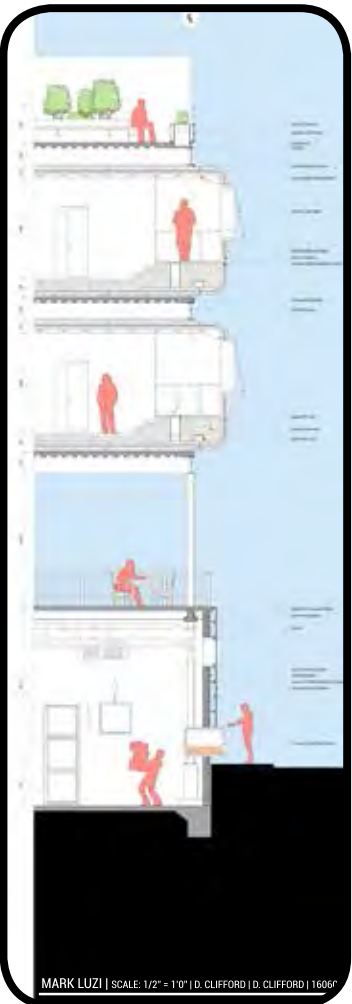
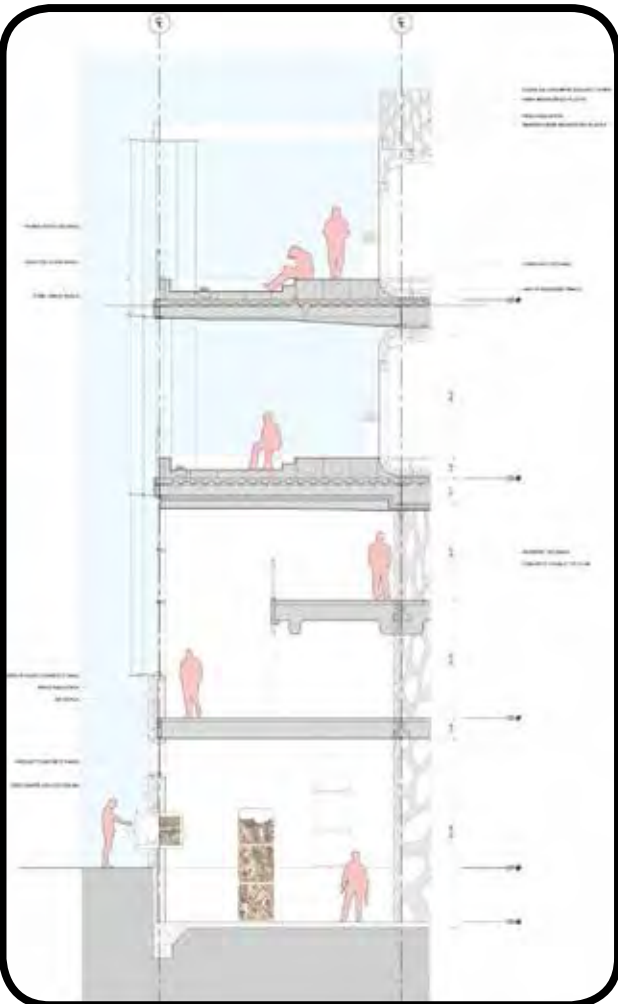
ON TRACK (People, Pods, Production)



In the city of Los Angeles, and more specifically Skid Row, the condition of homelessness has gone unchecked for years, creating the nation's largest unsheltered population. Linked with a form of criminalization, society has turned a blind eye towards this western LA district. Combining both a sense of place and community with the notion of interactive architecture, this project seeks to blur the line between established members of society and those hoping to begin their transition back into the community. In order to rebuild this connection, the design focuses on creating a unity between living and working conditions, providing spaces for chance interactions, and taking a firm stance on design equality. Coupled with the densely overpopulated homeless community, this design also seeks to redefine the idea of green space in an urban context with the application of community gardens and open air courtyards within the structure.





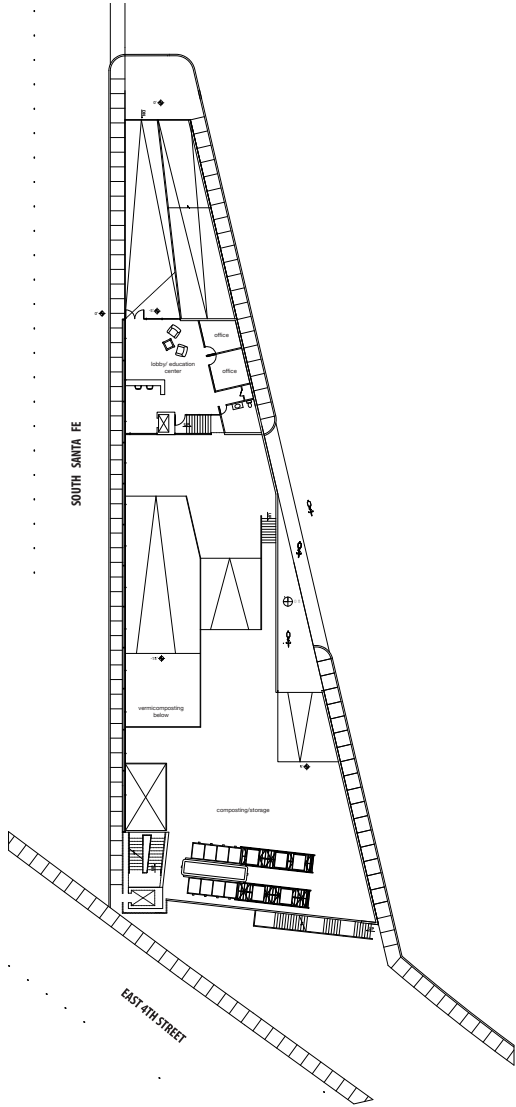


Kailie Johnson

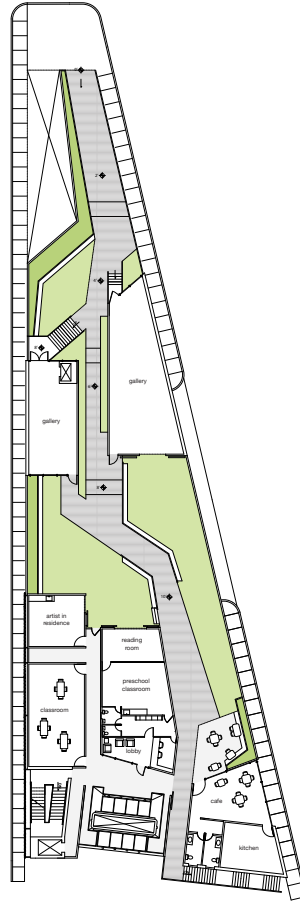
Worm Hearts, Warm Homes

This project aims to mend the relationship between the homeless and the larger Downtown Los Angeles community through shared outdoor spaces and on-site vermicomposting—a workforce training program that benefits the entire neighborhood. The main strategy for creating community and social interaction is a winding centralized, public circulation path that connects to outdoor green spaces (fueled by vermicomposting soil) and public programs. Empowering the often-forgotten pedestrian in DTLA, the building circulation gradually rises from the ground plane and welcomes all to explore. For the residents, these outdoor programs positively engage the body with soft spaces in contrast to the harsh conditions on the streets. Creating transparency between the neighbor buildings and the on-site job training fosters a relationship between the immediate context and greater community.

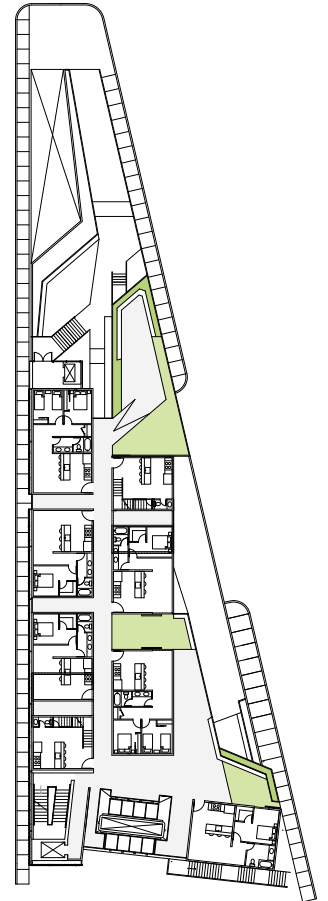




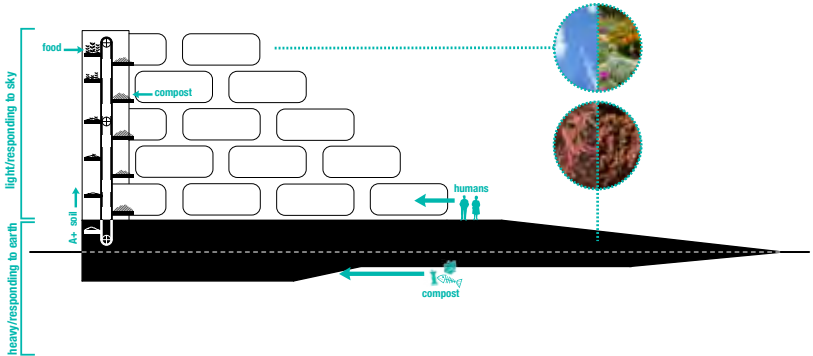
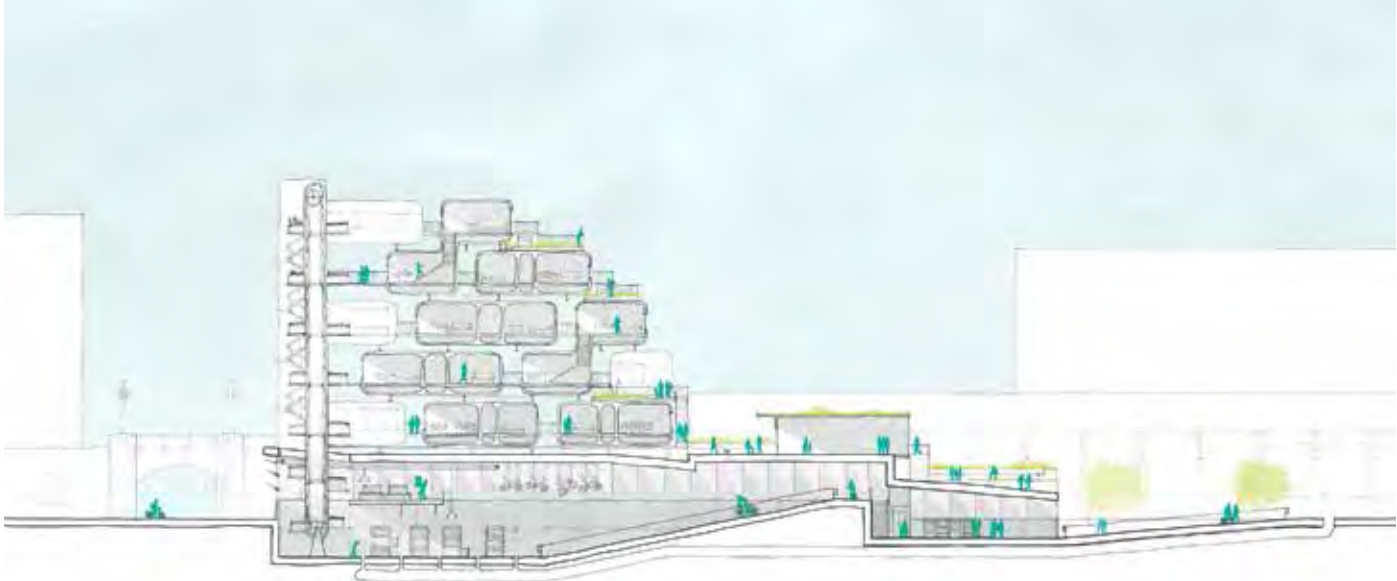
FIRST FLOOR



SECOND FLOOR



THIRD FLOOR TYP.



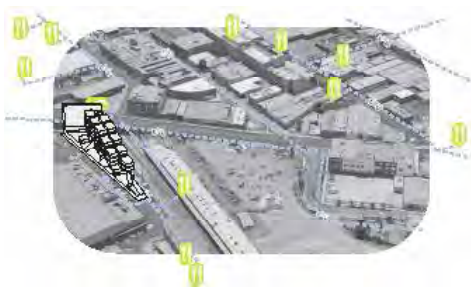
K. Johnson



Kay Bromley

Compostable

This project is about how vermicomposting and the systems associated create a better experience for the resident and visitor of the Arts District. Vermicomposting provides a workforce training program for the formerly-homeless residents and creates a product that benefits the entire neighborhood by enhancing and inspiring future green space. By placing abundant green space in this project all visitors and residents are encouraged to interact. In this way, vermicomposting and the spaces it creates begin to heal the relationship between the homeless and the residents of downtown LA. In addition to the social benefits of vermicomposting, this building utilizes the byproducts in order to create a healthier physical environment to house people and plants. Heat passively cycles through the building to augment the Los Angeles climate, as encouraged by the thermal products of vermicomposting and the thermal comfort of our small wiggly friends.



[now] collect food scraps from neighborhood



[later] enjoy greener neighborhood! cool!

