

Bodyscapes

Body to Body, Body to City, Body to Self

by
Nicole Ashurian

A.B. Mathematics
Harvard University, 2012

Submitted to the Department of Architecture in partial fulfillment
of the requirements for the degree of

Master of Architecture
at the
Massachusetts Institute of Technology

June 2018

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Department of Architecture
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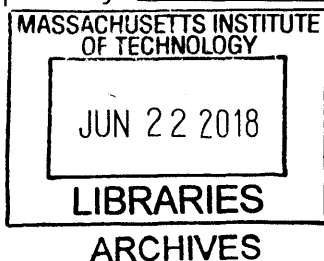
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Submitted To The Department Of Architecture
On May 24, 2018 In Partial Fulfillment Of
The Requirements For The Degree Of Master Of
Architecture

Abstract

Thesis Advisor: Azra Aksajima, Associate Professor

Our modern spaces are a result of a history of architects losing agency to technology. In the era of climate control spaces and the digital interfaces of social media, a sense of place and association with others is lost to enclosed spaces of satellite conversations detailed with attention to standardization rather than customization. These desires for comfort and control manifest in the lack of friction in our built realm. Spaces mirror the scaleless quality of the digital, impose no physical friction of environment and allow for isolation between bodies in the same room. Boarded in these spaces with the disappearing digital threshold, our friends fall in the same political silos as ourselves, empathy for others falters, context is arbitrary and we never have to be 'alone' when we have our phones.

The tech industry tries to offer solutions to alleviate these problems with apps and devices. However, without a violent change in environment – engaging the physicality of the body, its senses and its association to others and site, the problems will persist. 'Bodyscapes' is a series of provocations at varying scales that subvert the language of corporate standardization to allow new opportunities for human interface where the public and private realm meet.

Acknowledgments

Many people and the resources at the institute made this thesis possible. My sincere thanks for help and support during the completion of this thesis semester:

Azra Aksajima for your thoughtfulness, stimulating conversations, and friendly provocations. Thank you for believing in me.

Angelo Bucci for your shared hope in architecture and conversations I will always remember.

Marianna Ibanez and Jeremy Jih for feedback and enthusiasm at key moments.

Lorena Bello Gomez for being my rock throughout my years at MIT.

Timothy Hyde and Mark Jarzombek for apt critiques.

Justin Lavallee, Cynthia Stewart, Duncan Kincaid, Chris Dewart, and Jen O'Brien for your support. You are the glue that keeps the department together.

Jason and Sophia for your company, hugs, and reality checks.

Amazing friends and thesis helpers, whose incredible efforts helped in the final hour: Marlana, Ammar, Ben, Angeline, Alaa, Catherine, Adiel, Noora, Andrea, Zain

My parents without whom I would not be here. My family for keeping me in check, specially Morgan who remained at my side through the last week.

And to mamanjoon for reminding me to be kind to myself and to graduate as soon as possible.

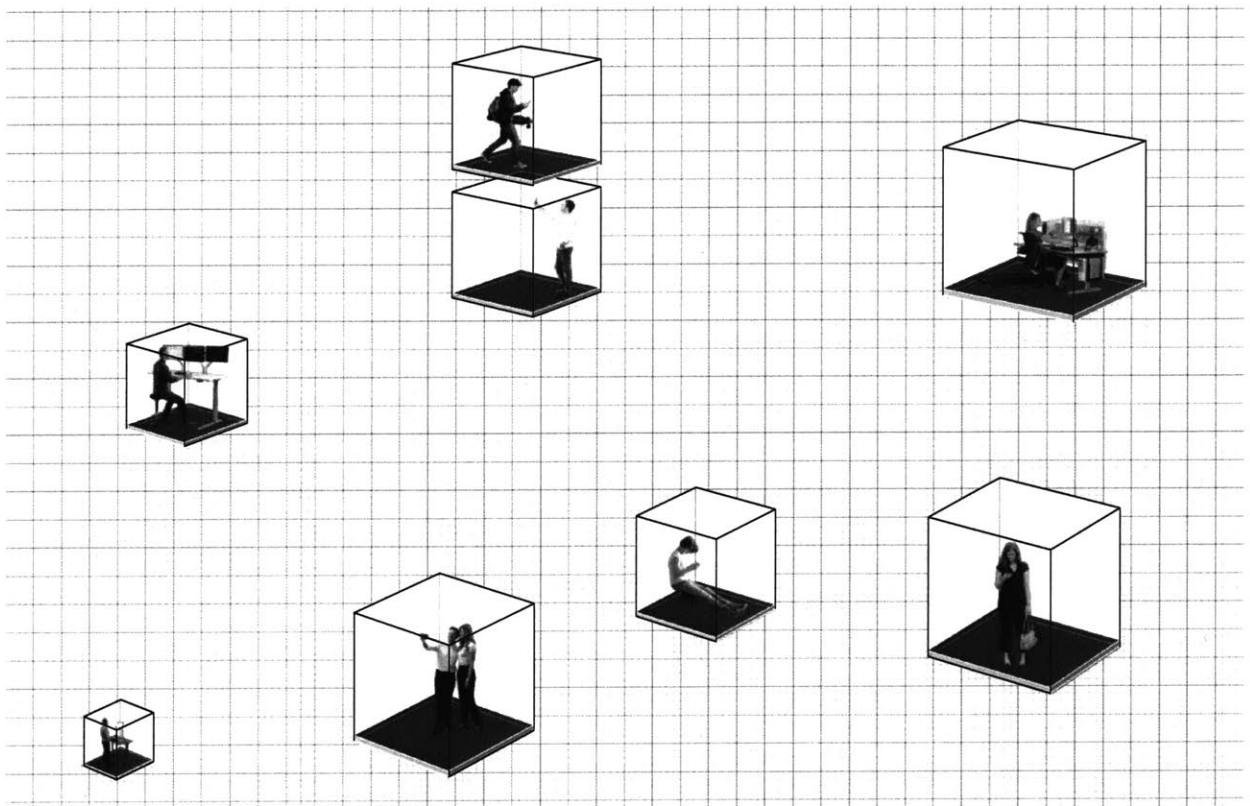
Bodyscapes

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CONTENTS

5	Abstract
7	Acknowledgments
11	Contents
13	Research
31	Site
39	Public Language
49	Forgotten Bodies
61	Nude Descending
71	Embodied Public
89	Notes
106	Bibliography

Research

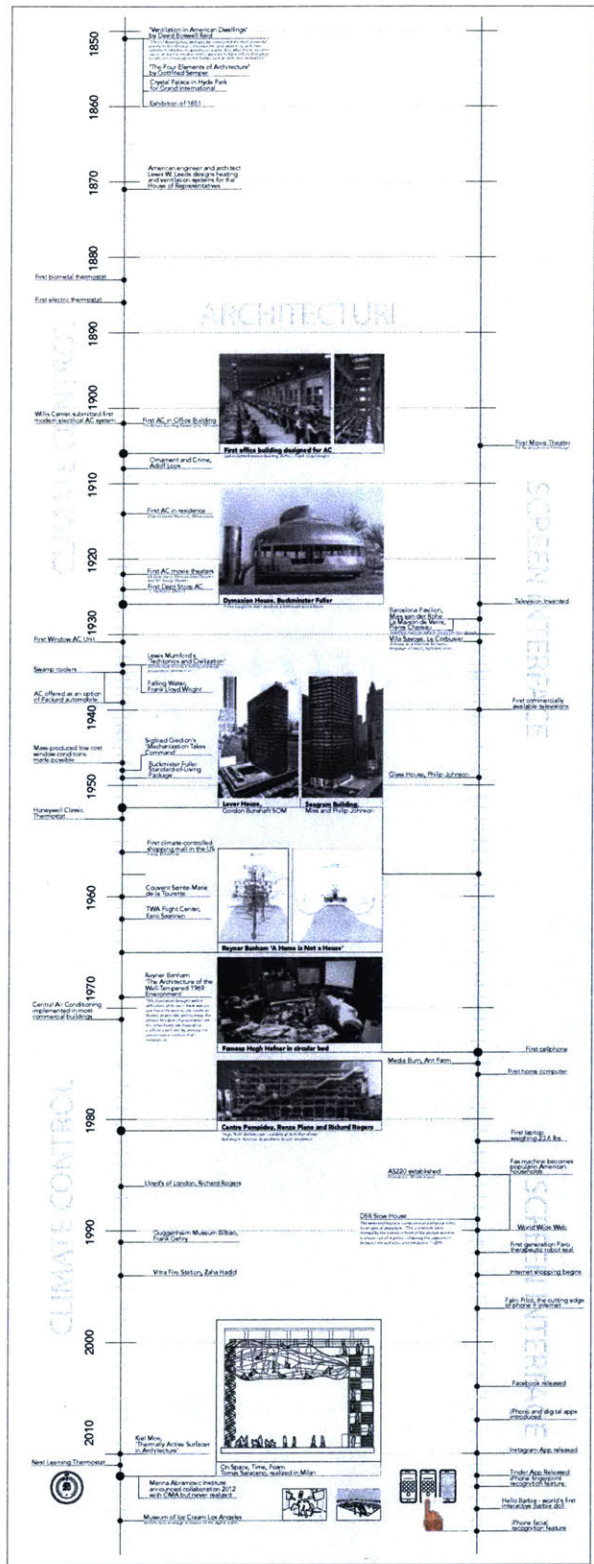


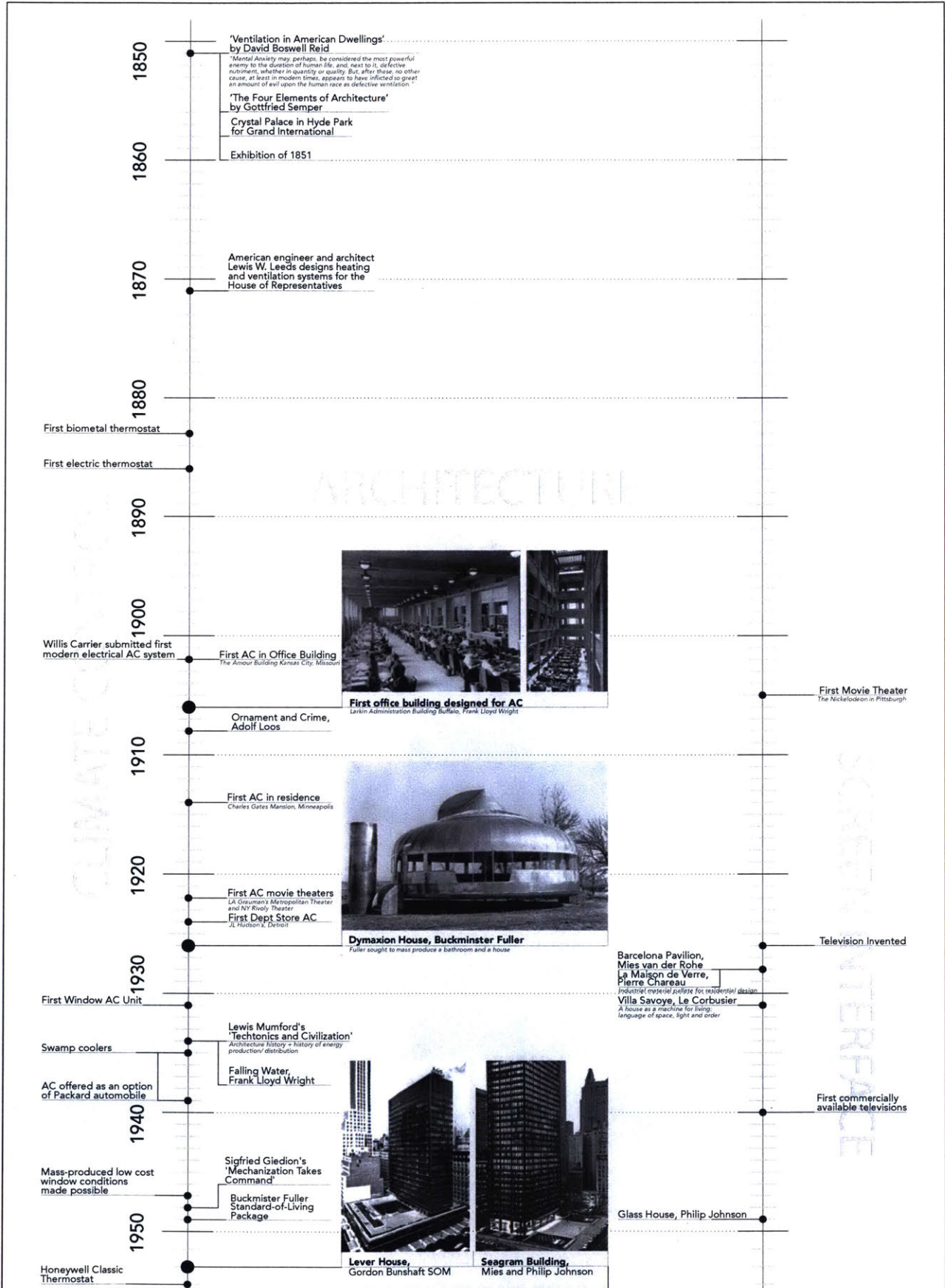
The introduction of climate control in the 1800's in architecture influenced the design of our spaces and the agency of the architect in creating space. Prior to mechanical systems, ventilation and thermal control were the responsibility of the architect to be dealt through with geometry, apertures, materiality and placement of the hearth. The designs were often delineated in time, leading to subdivision of spaces for a breathing room, in the literal sense. For example, the duration of time a person could spend in a given space was limited by how small or large a room was and the quality of air, light and temperature therein. The development of mechanical systems allowed for increasingly longer durations of occupancy in enclosed spaces without having the need to leave the said spaces. This also gave the freedom to build in any climate or site regardless of how extreme the exterior climatic conditions were. With this empowering tool, also came potential pitfalls in the way we interact amongst ourselves and our environment. It affords architecture autonomy, but also to isolate itself from the context.

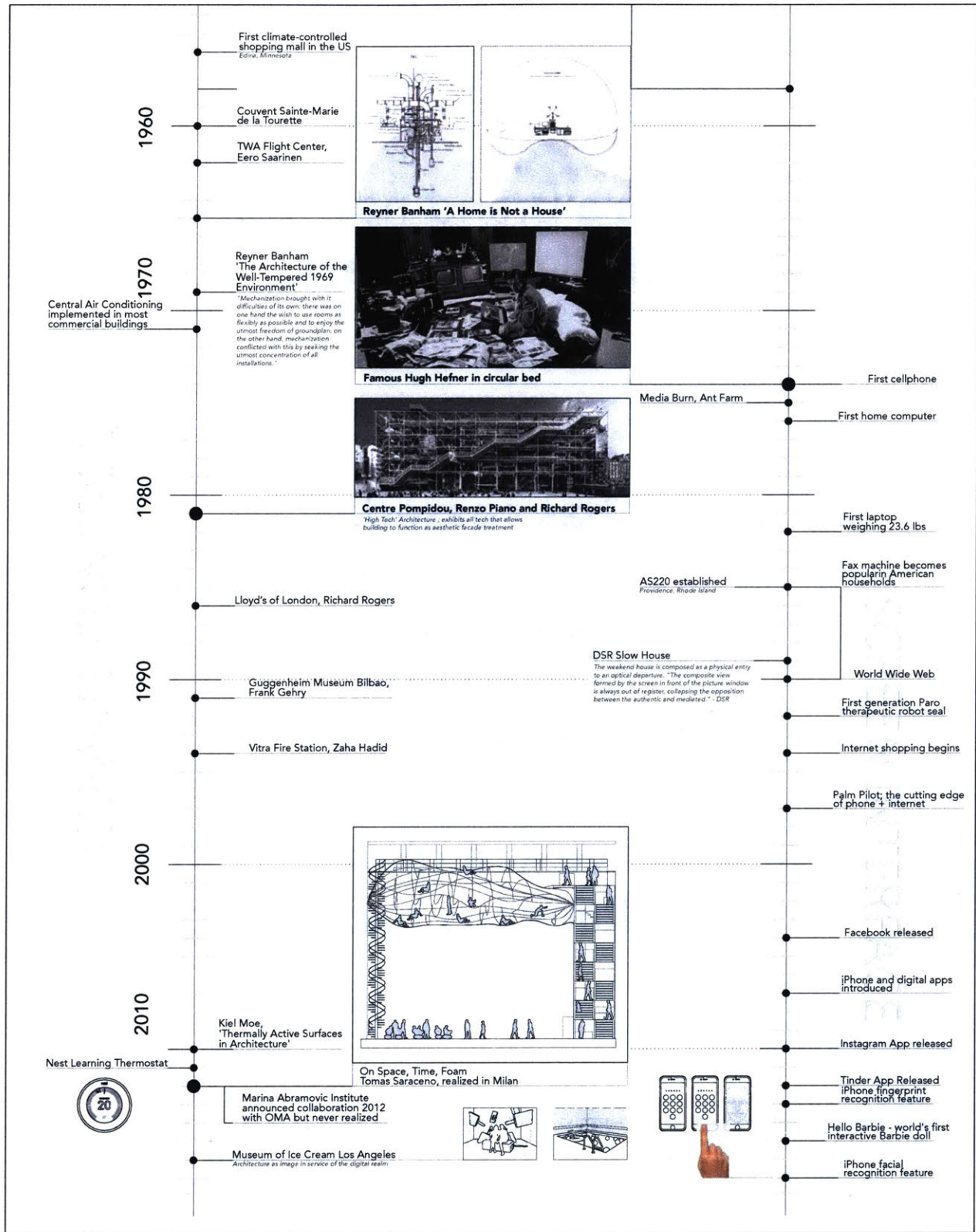
This interest brings this thesis to the notion of a interface, a screen or a facade, in the pervasive sense. Early on, screens were limited to public spaces like theaters, but in time they became smaller and more mobilized, ending up at devices in our hands. This led to the removal of any or all distance between the individual and our mediated screens. However, unlike climate control, the screens don't immediately impact the physical design of a building or the environment but rather transformed the way we experience our environment. When plugged into a device, all that is necessary is the immediate mediating objects like a desk or a chair and the degree of comfort where conditions allow for occupancy of space.

The way climate control allowed buildings to be independent of their context, modern screens/interfaces enable us to be detached from our loci -- in other words, the both engender a sense of disembodiment.

This timeline highlights the transformations of architecture (center) in parallel to the trajectories of growth for climate control to the left and screen interfaces to the right.







Ours is a brand-new world
of all-at-oneness.

'TIME'
has ceased,

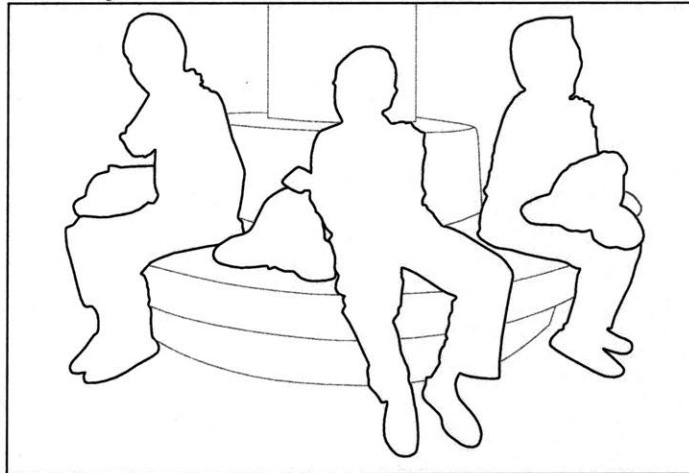
'SPACE'
has vanished.

We now live in a global village...
a simultaneous happening.

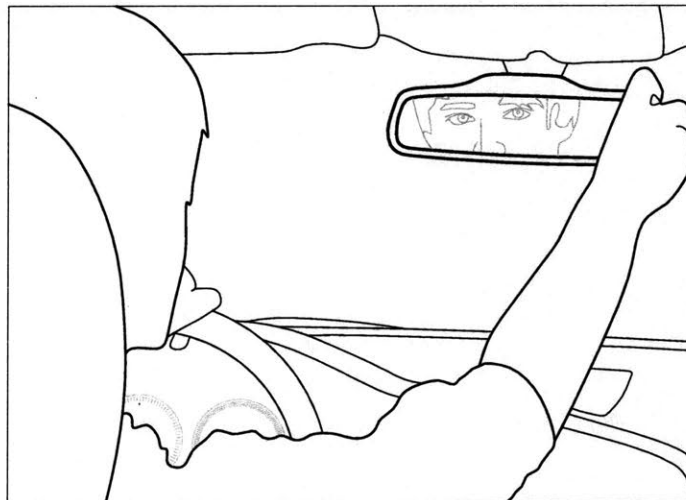
..At the high speeds of electric communication, purely visual means of apprehending the world are no longer possible; they are just too slow to be relevant or effective.
Unhappily, we confront this new situation with an enormous backlog of outdated mental and psychological responses. We have been left d-a-n-g-l-i-n-g. Our most impressive words and thoughts betray us - they refer us only to the past, not to the present." The Media is the Massage pg 63



Screen interface changed the relationship between us, our spaces, and each other. We can be connected from anywhere, even at the seat of the toilet.



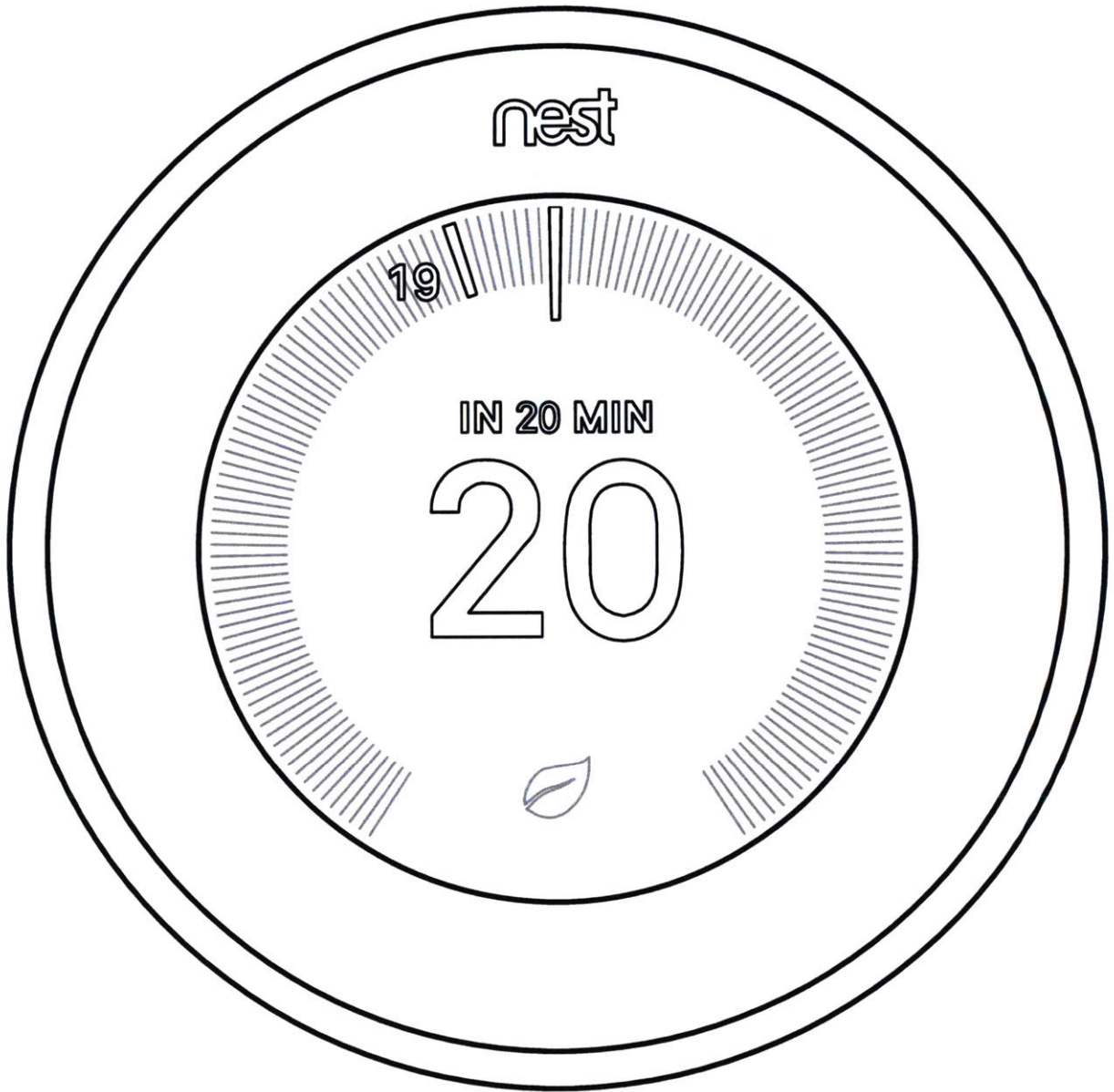
This also creates a disassociation from each other as we are always connected but apart in the same room. Empathy and connection are sought in inanimate objects like our phones and paro dolls.



Experience through the screen and social media are explored in the rear view mirror. There is no immediacy of time or place anymore. It is all saved in the lens.

"I felt myself at the cold, hard center of a perfect storm. We expect more from technology, and less from each other. And I ask myself, why have things come to this? And I believe it's because technology appeals to us most where we are most vulnerable. And we are vulnerable; we're lonely, but we're afraid of intimacy. And so from social networks to sociable robots, we're designing technologies that will give us the illusion of companionship without the demands of friendship. We turn to technology to help us feel connected in ways we can comfortably control. But we're not so comfortable. We are not so much in control."

-Sherry Turkle



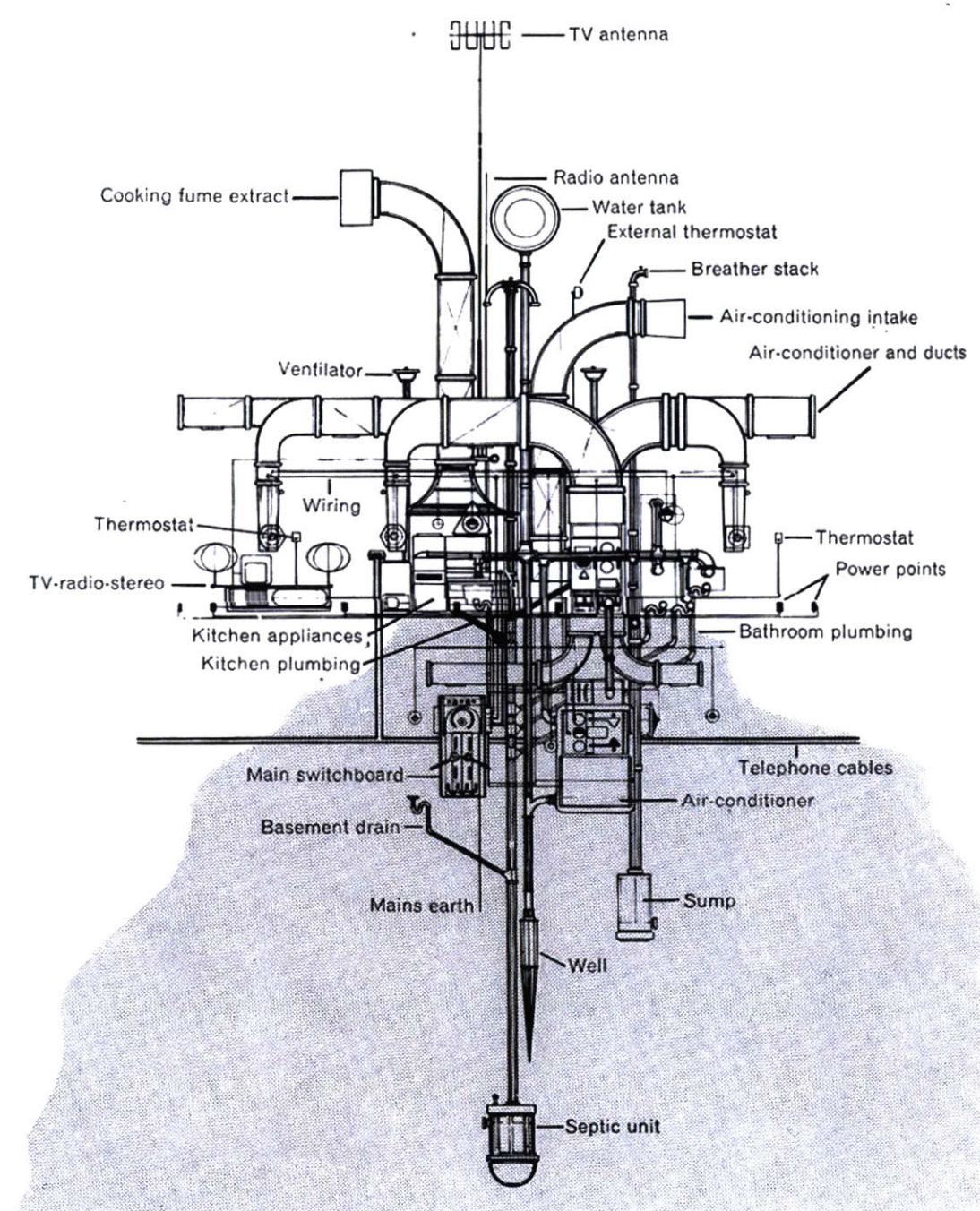
Expired Architecture(s)

The Hearth

The Hearth once played a central role in the home and community. The former tasks of the hearth gathered a community for tasks of heating, lighting, cooking, entertainment, and gathering space/ These tasks dispersed into various technology systems throughout the home and hand held devices. No longer is the meeting point necessarily a central large space of thermal warmth and lighting.¹ - it's not spatial at all. (This trajectory also went an opposite route from the bathroom which went from a dispersed condition to a central contained location, separate from the rest of the enclosed space.)

Furthermore, with inventions like the central AC and Heating and in particular the nest system, climactic comfort can be found the atmosphere of in any corner of a contained space, not just one central location and without need of attention for maintenance.

1. Marot Sébastien, et al. The Elements of Architecture: Fireplace. AMO, 2014.



Reyner Banham, 'A Home is not a House'

Expired Architecture(s)

Breathing Room

Breathing room once meant the literal sense of the word. In the late 1600's it was recognized that inhabitation of enclosed space was limited to a length of time where the space was supported with breathable oxygen. Robert Boyle put living creatures in a pneumatic engine, pumped out their air creating a vacuum and measured the time it took them to die. A healthy architecture needed to understand how enclosed air became corrupted and how architects could mitigate those effects.¹

Realizing that people created 'bad air,' architects evolved to be more responsive to the environment. Instead of windows arbitrarily following the design of the facade, they tried to follow patterns of ventilation. Spatial ventilation recognized a necessary volume of space to support occupancy for a limited duration of time. Joseph Priestly, famously credited with the discovery of oxygen, advised a separation of spaces where rooms were vacated after a certain length of time, "to have the dinner in one room, and the dessert in another."²

Architectural ventilation therefore often materialized in the subdivision of programmatic space or a relationship to openings and a pursuit of understanding airflow. The efforts were pushed most forward into mechanical ventilation by physician-architects initially in prison design, then hospitals. Ultimately, this resolved the architect's need and responsibility in addressing ventilation and duration of time within an enclosed space was no longer an issue.

1. Kisacky, Jeanne. "Breathing Room: Calculating an Architecture of Air." *Geometrical Objects Architecture and the Mathematical Sciences 1400-1800*, edited by Anthony Gerbino, Springer, 2014, pp. 247–279.

2. "

An approach in opposition

In the novel 'The Unbearable Lightness of Being', Milan Kundera writes. "Toilets in modern water closets rise up from the floor like water lilies. The architect does all he can to make the body forget how paltry it is, and to make man ignore what happens to his intestinal wastes after the water from the tank flushes them down the drain. Even though the sewer pipelines reach far into our houses with their tentacles, they are carefully hidden from view, and we are happily ignorant of the invisible Venice of shit underlying our bathrooms, bedrooms, dance halls, and parliaments."

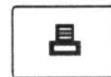
He highlights how the architect curates our environments to allow the human to forget how paltry the body is allowing for the disconnection of people and nature, but the modern technologies of climate control and the screen have allowed the body to be forgotten, secondary to this new space. A certain amnesia follows, leading us to have shorter memories and temperance as we walk, rest and move through spaces.

This thesis then, takes a contrary approach to the paradigm of control (as it figures in climate control and personalized screens), and towards a bodily engagement between the self and architecture.

As the devices of climate control and screen interface have allowed for further division of public and private space without the need for confrontation, this thesis uses the language of interface between private figures and their spaces of public interface to create spaces of sensory engagement that allow interactions between those local and foreign.

Site

Searching for a sense of place in Cambridge's hottest neighborhood



ARAM BOGHOSIAN FOR THE BOSTON GLOBE

Sarah E. Gallop was elected president of the Kendall Square Association Tuesday morning.

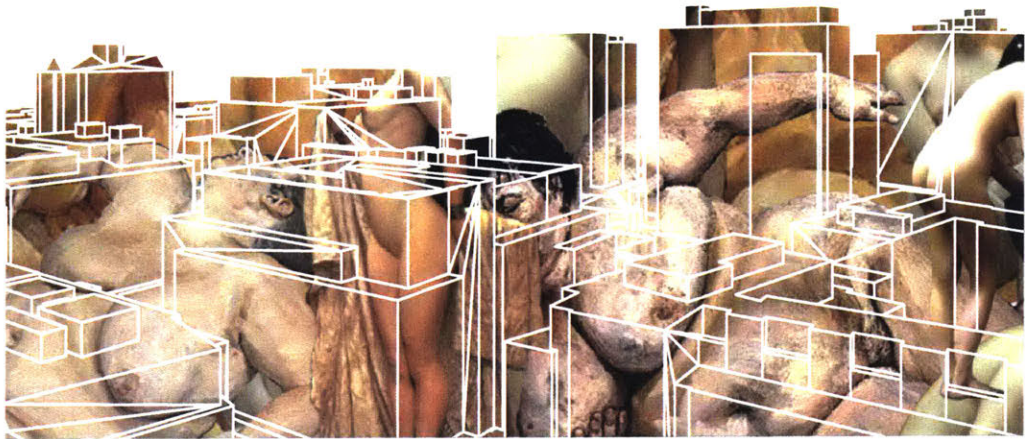
By Robert Weisman | GLOBE STAFF MARCH 22, 2016

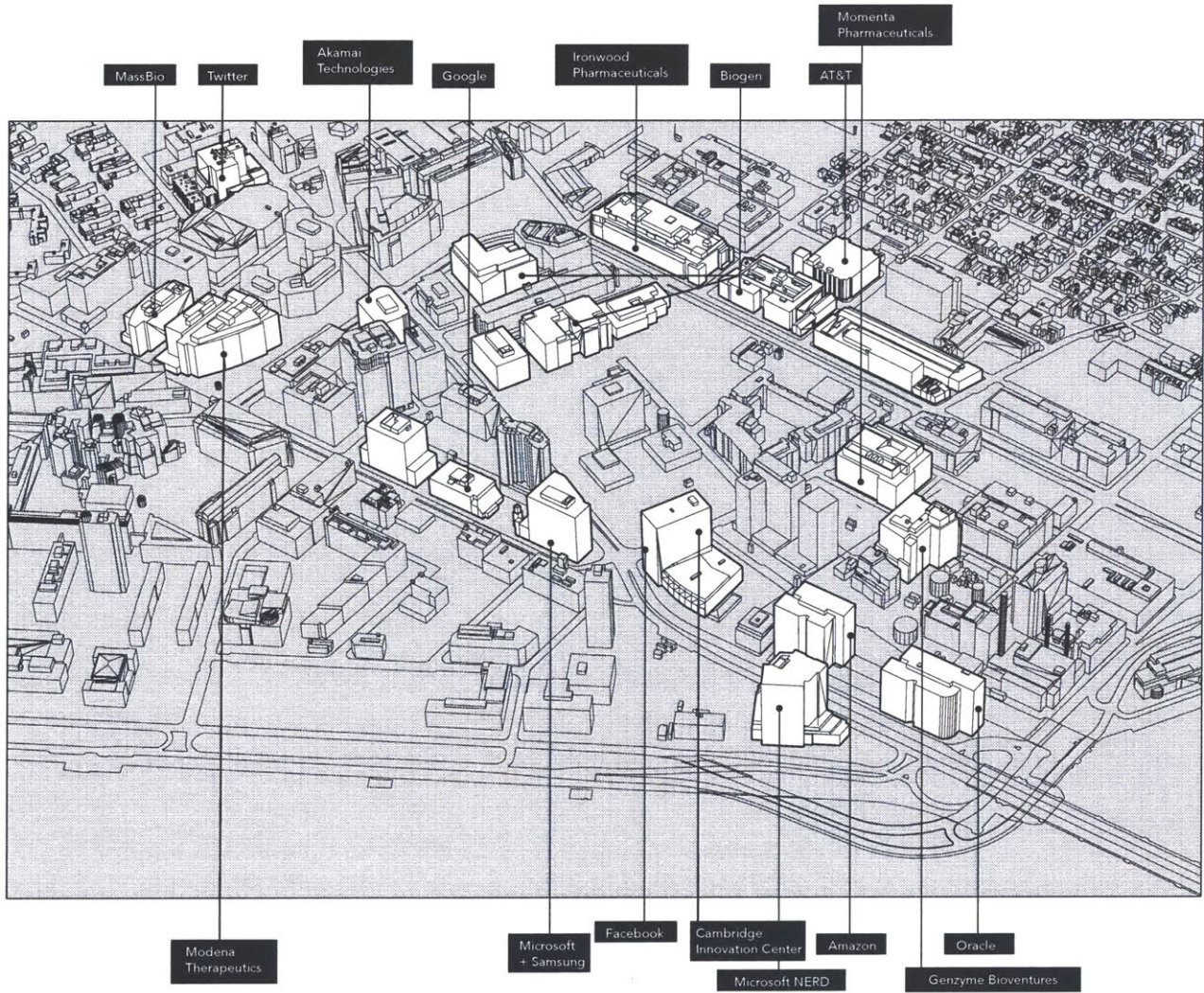
CAMBRIDGE — The incoming president of the Kendall Square Association said the business group wants to create more of a sense of place in a neighborhood increasingly defined by science labs and sprouting office towers housing biotech and high-tech companies.

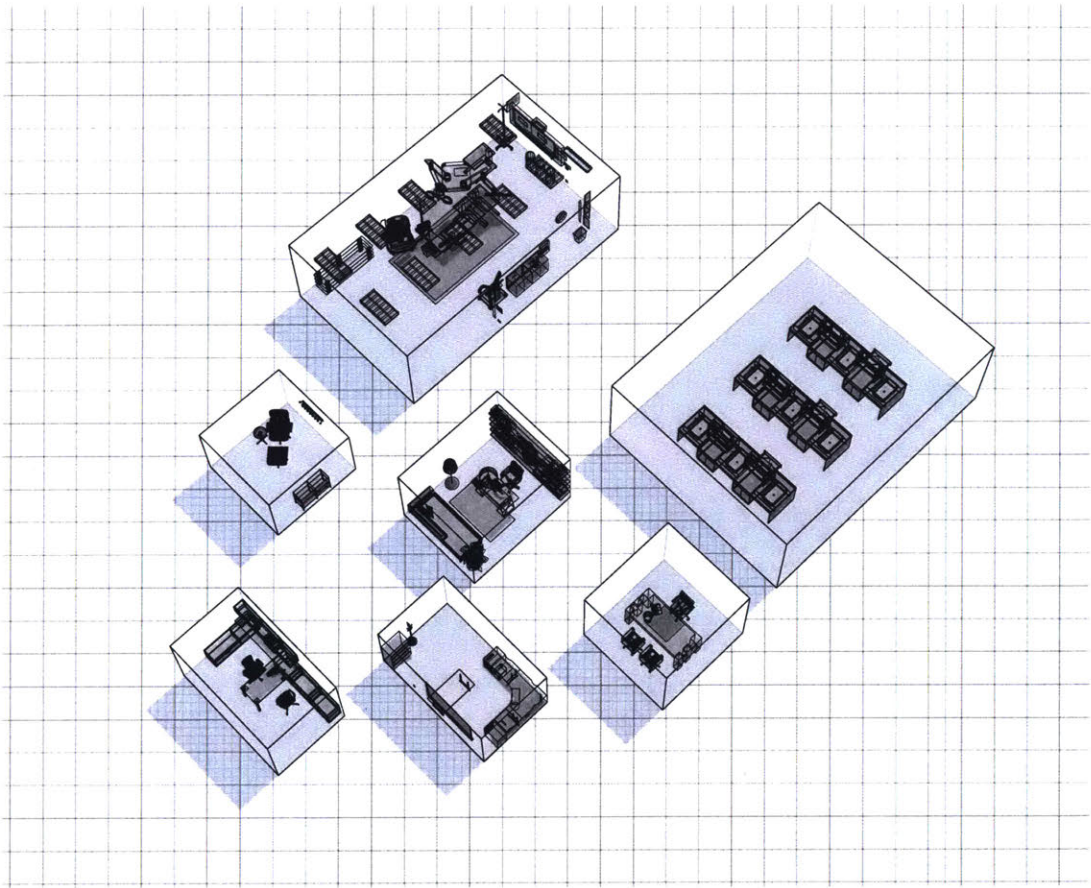
Efforts range from new walking maps and kiosks that will be launched this spring and summer to big projects such as MIT's proposed six-block Kendall Square Initiative near the MRTA station that

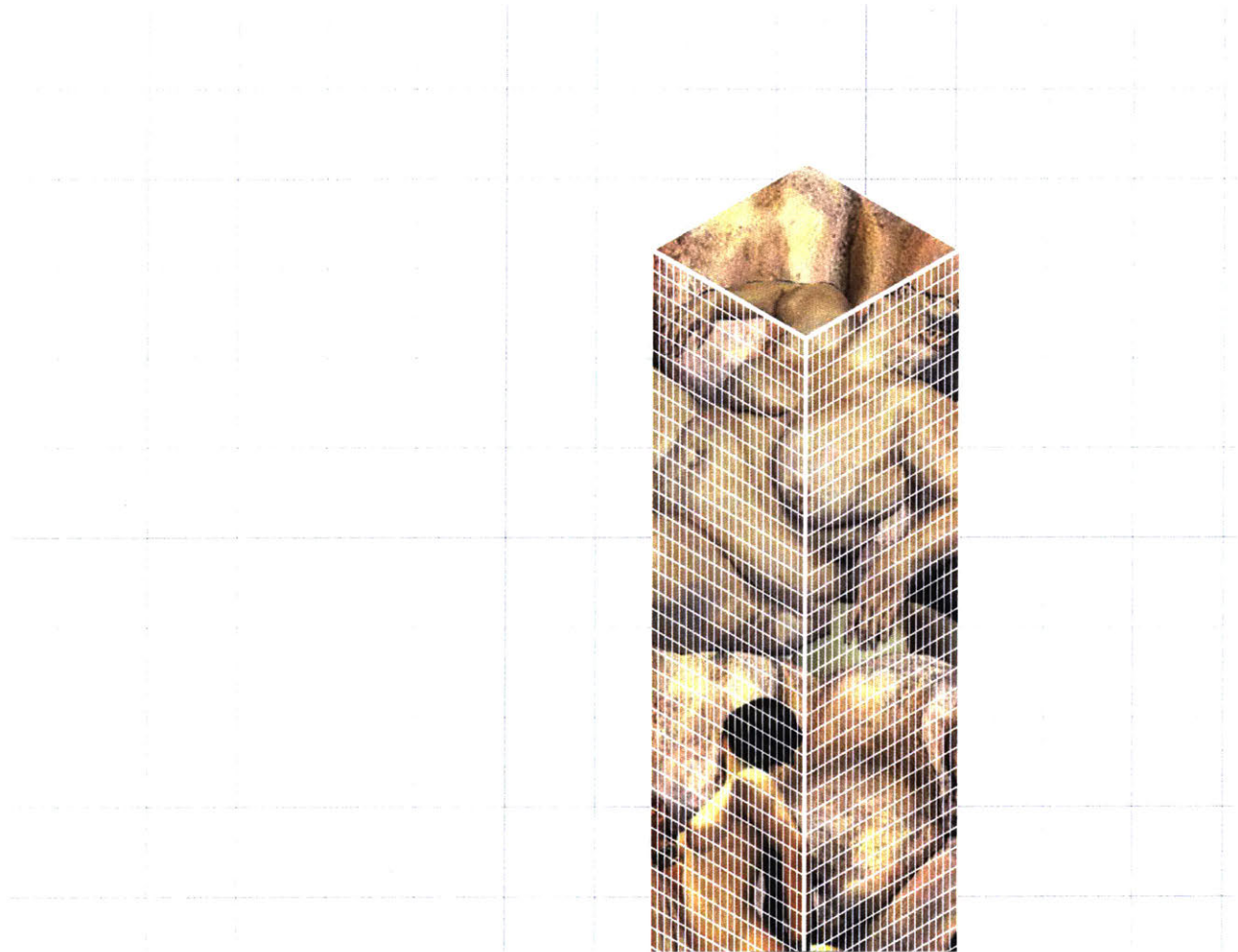
Kendall Square has been called 'the most innovative square mile on the planet' in reference to the high concentration of entrepreneurial start-ups and quality of innovation which have emerged in the vicinity of the square since 2010. Kendall Square is a place where mediatic devices and biological futures are designed. Tech companies, biotech companies, social media companies and pharmaceutical companies call it home.

But locals and publications critique it as a place without a sense of place. Towers continue to develop by private corporations and academic institutions for research and office spaces, what public spaces remain are overshadowed by towering figures, and everything is in pursuit of the next big profit. Besides the kayak station at the end of the canal, there is no collective destination where the locals and commuters interact.

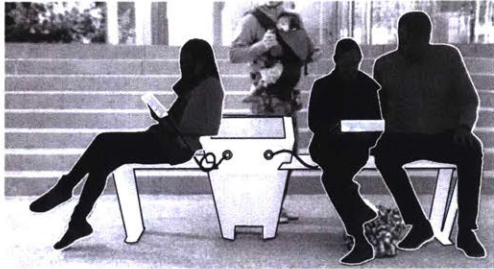








Public Language

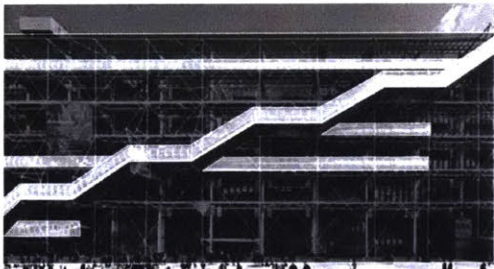


Soofa Bench, Cambridge



'The Wave' People's Corner Chicago

BENCH



Centre Pompidou, Paris



Housing Addition Lacaton & Vassal

FACADE



Lever House, nyc



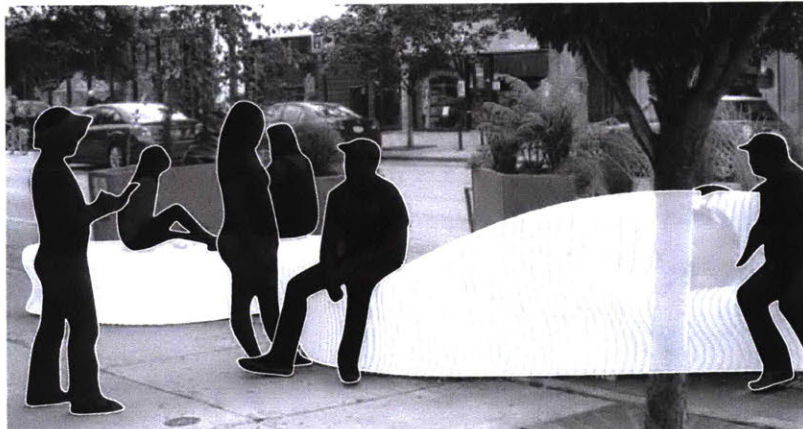
Sao Paulo Museum of Art, Sao Paulo

URBAN FIGURE

This thesis presents three provocations to subvert the existing architecture in pursuit of new spaces of interface and interaction, grounded in the senses, site and coordination of bodies.



Soofa Bench, Cambridge

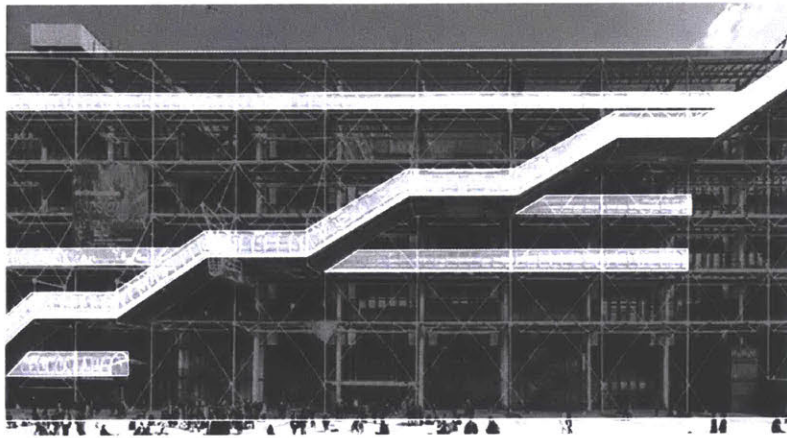


'The Wave' People's Corner Chicago

The bench is a staple of the public space, standardized to accommodate anybody but with arm rests to exclude the homeless from sleeping on them.

The Soofa Bench, familiar to Cambridge and founded by 3 MIT Media Lab Grads, follows the standard form of a classic bench with a twist, including a solar panel charging station for cellphones and computers. People sit to get plugged in.

The bench in blob form arbitrarily create a landscape for interaction but purely from an aesthetical standpoint and still closely following the standards of comfort for the classic bench.



Centre Pompidou, Paris



Housing Addition Lacaton & Vassal

In corporate America, the façade defines the enclosure of the corporate body, interior and exterior, private and public. It contains the climate conditions and blurs the wall condition in the case of curtain walls. Alejandro Zaera-Polo wrote in the politics of the envelope that the envelope may be the only thing architects have left but often architects are just employing standard prefabricated modules designed by the engineer. In these examples, the façade has transformed where the Pompidou celebrates and inhabitable façade circulation and the Lacaton and Vassal Housing project extends the façade to accommodate larger units.



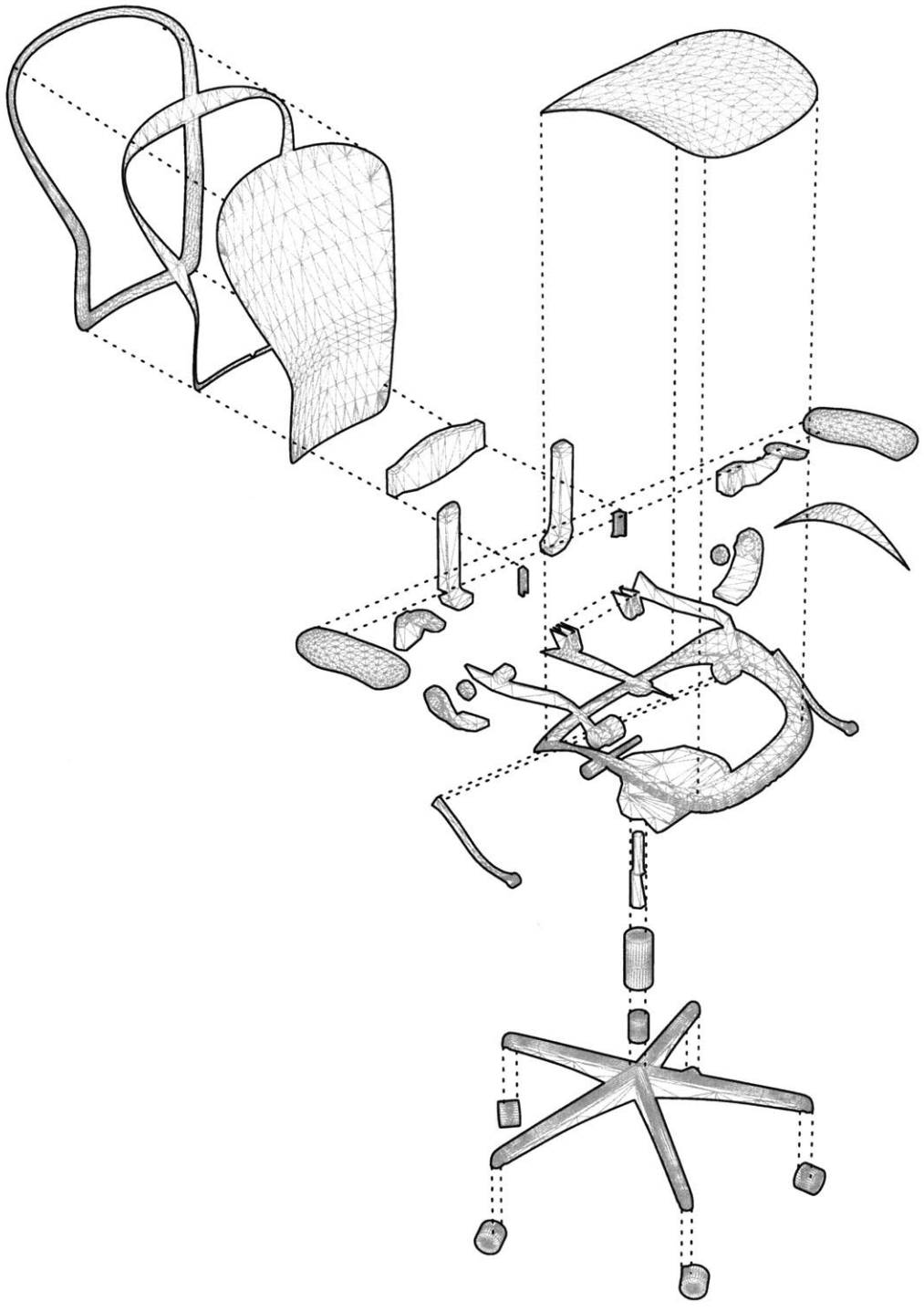
Lever House, NYC 1992



Sao Paulo Museum of Art, Sao Paulo

The tower lobby is where the individual confronts the constraints of a public. The ground condition is enclosed in high security and creates a wall condition to those not meant to enter. While the Lever House overhangs of public space, it remains in service of the private interests that work in the building. The Lina Bo Bardi Museum in Sao Paulo, while not a tower avoids this imposing ground condition by being lifted 27' off the ground. The space accommodates a public foreign to the program of the building itself.

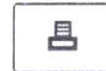
Forgotten Bodies



Kendall square is the land of protocol, efficiency and standardization from the office chair to the laboratory. This project begins with a revisited interaction with the public space of Kendall Square through the introduction of a bench as a instrument of discomfort.

'Area Four' residents live in the shadow of the future

Hard by the new buildings, ideas, and money crowding Kendall Square is Cambridge's poorest neighborhood

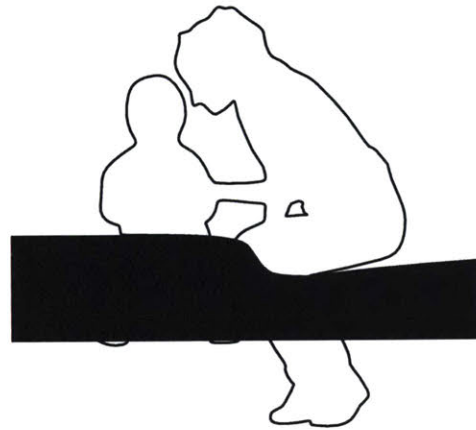


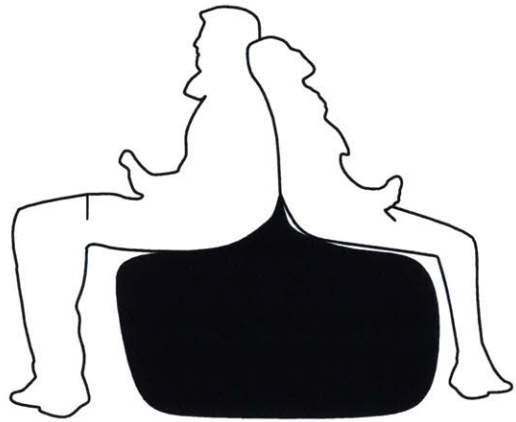
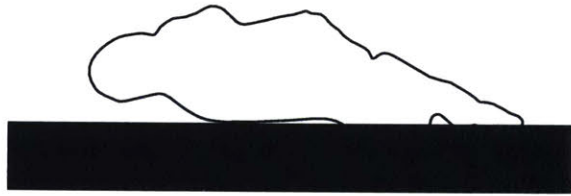
JESSICA RINALDI/GLOBE STAFF

Mark Pappas lives in public housing in a neighborhood simply known as Area Four, which has become a locus for biotech companies such as Novartis.

By [Katie Johnston](#) | GLOBE STAFF NOVEMBER 23, 2014

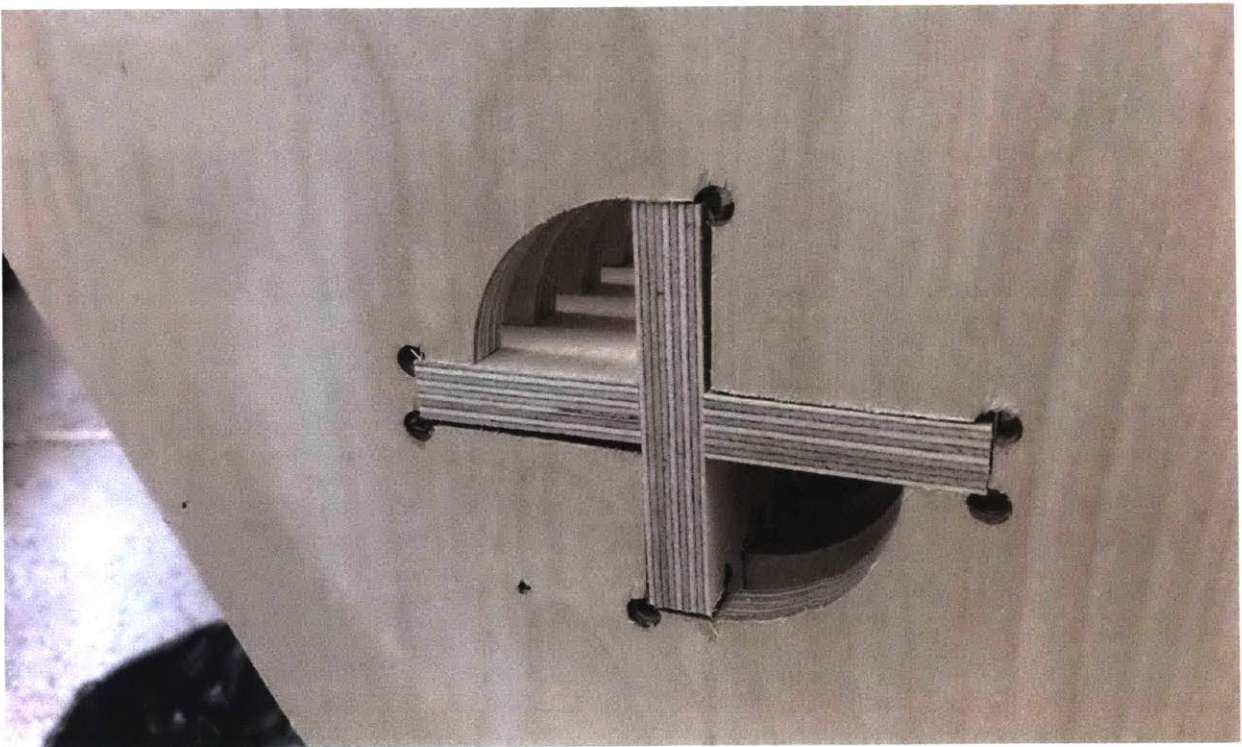
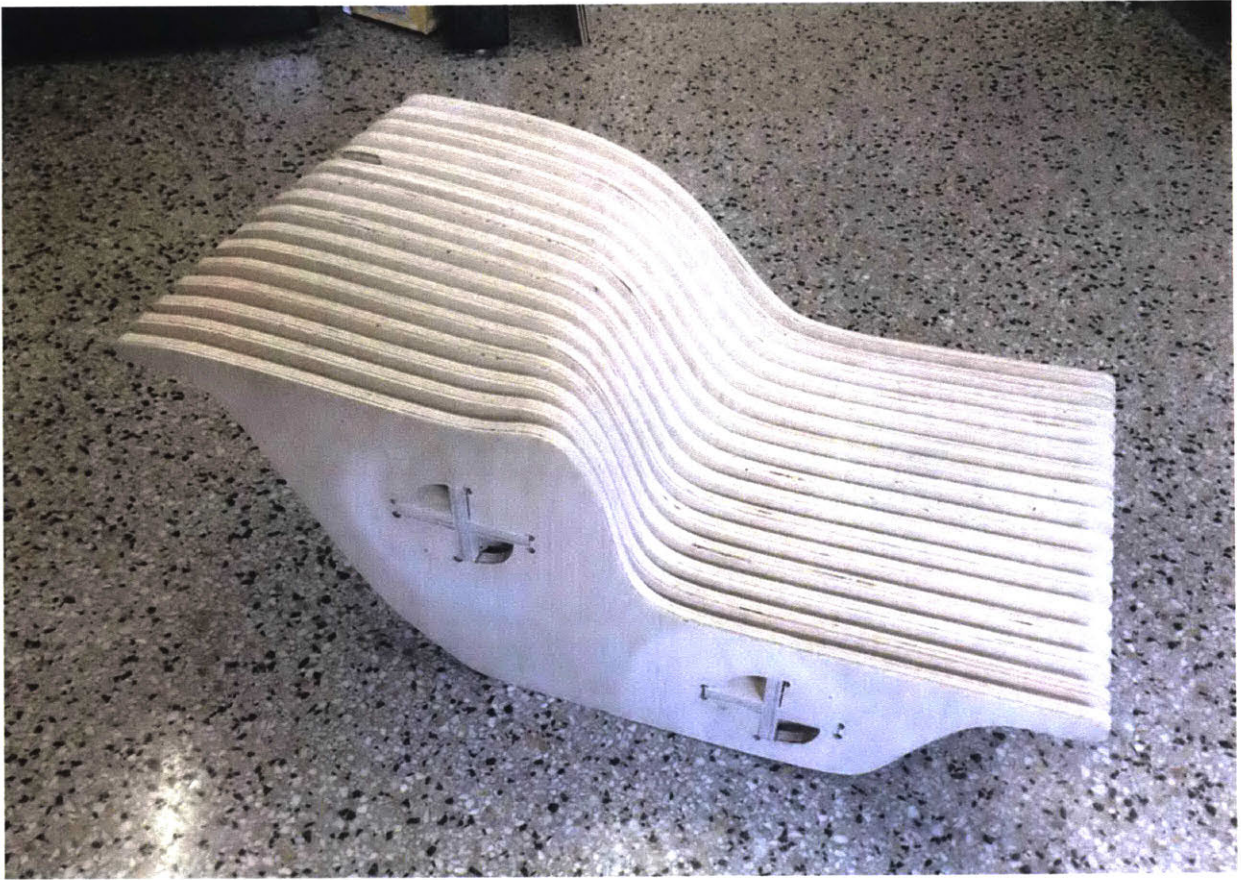
CAMBRIDGE — Trash blows through the playground at the Newtowne Court public housing development. A faint smell of sewage lingers in the air. Women sit at cement tables in a tree-lined courtyard, talking and laughing. Two men speak Creole through an open window.

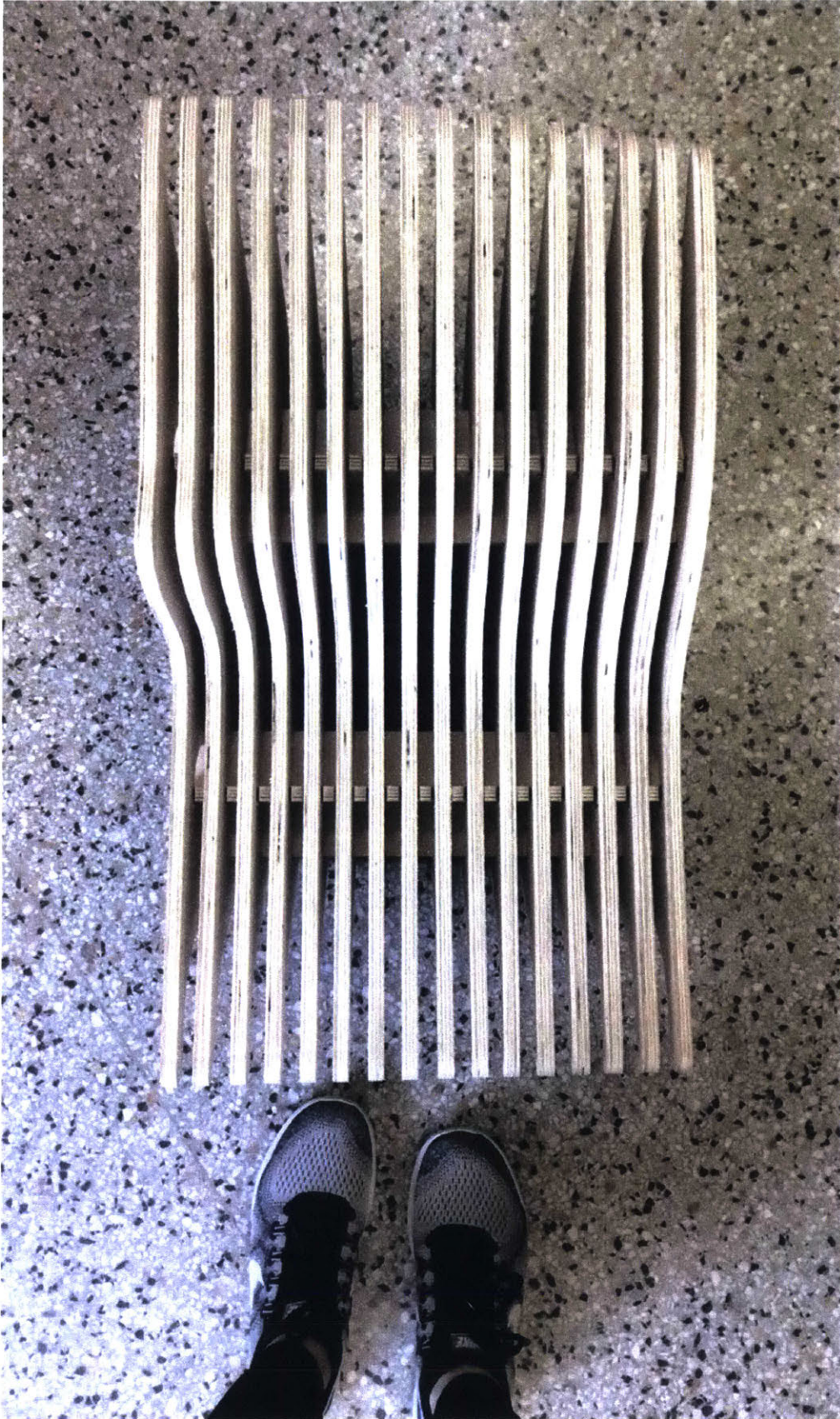




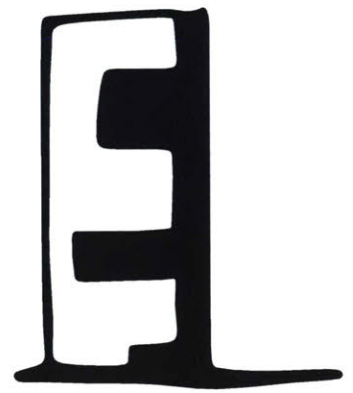
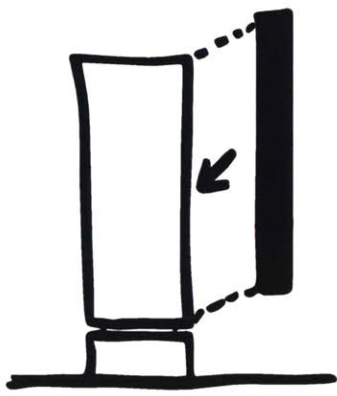
This form embodies the memory of bodies and relationships unfamiliar and now forgotten from Kendall square - this includes the homeless, lovers, friends, skateboarders, and a mother and child. When one descends into the seat, the unfamiliar height shifts their relationship to place as they embody the uncomfortable or intimate posture of a former Kendall occupant





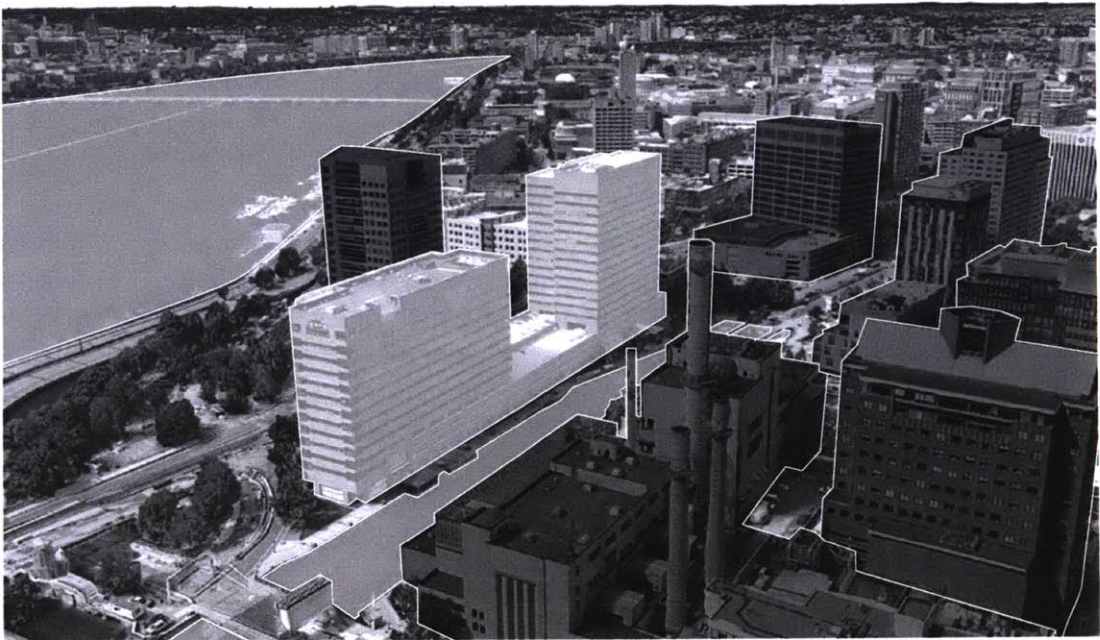


Nude Descending



This project is an addition to an existing structure. Sitting in the center of Kendall square beside the canal. The building acts currently as a wall, casting shadows on the active kayak rental at the end of the canal. The building isolates itself from context and distances the canal from the rest of Kendall square.

A three meter addition transforms the building becoming an inhabitable active facade circulation that invades the existing structure, carving out bath spaces, sauna spaces and points of entry into the former building. The public climbs vertically up bringing a sense of public, people, and place in the cold corporate figure. The materiality of stone, wood, and water center the individuals as they reacquaint with their own bodies and the voyeurs who feel the presence of foreign bodies in close proximity

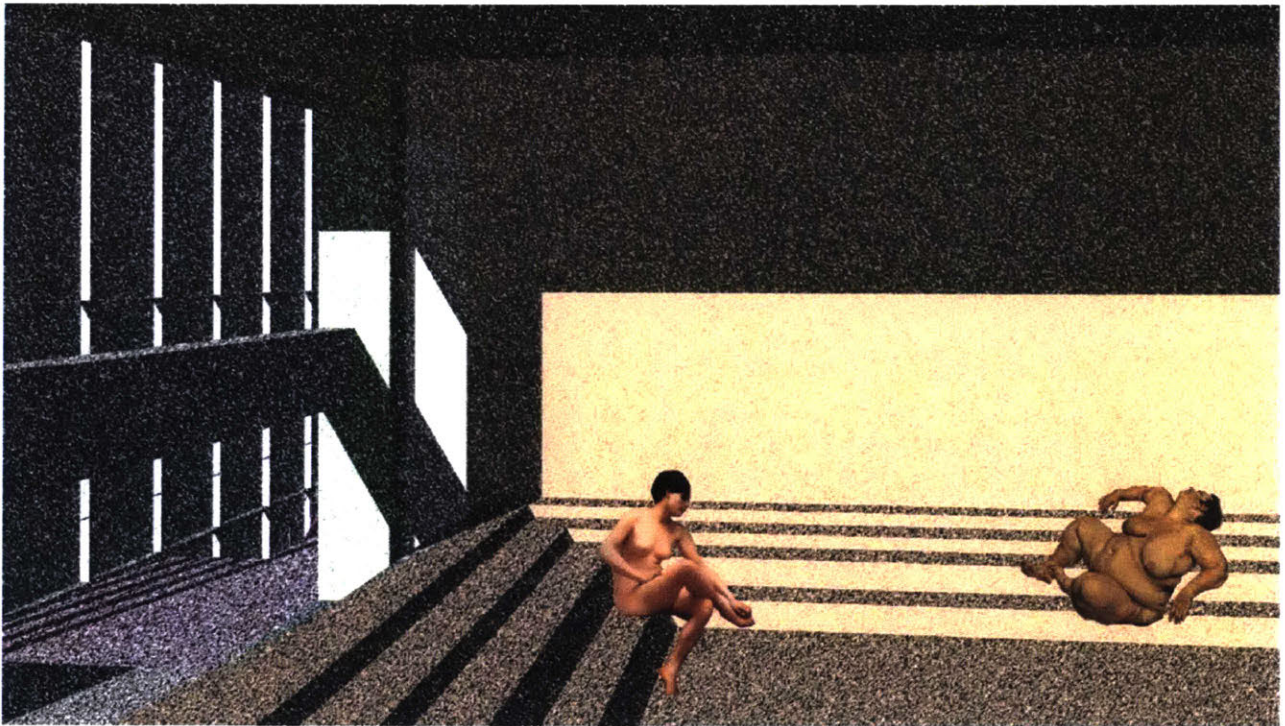












Embodied Public





In Kendall Square there is no sense of continuity in open public space. The site marked in black on the map to the left was planned for 20 years to become the 'constellation center' - an arts facility that would bring a cultural life to Kendall square. In the meantime, it remains an empty fenced in lot.

Last month the community was disappointed as the promised arrival of the constellation center never happened and was canceled. They argued that the construction cost and the high value of the land left the project incongruent financially but will be developed at another site instead. This parcel would now likely go to sale for the development of a future corporate headquarters.

CAMBRIDGE DAY

HOME ARTS + CULTURE BUSINESS CHECKLIST FEATURES NAMES NEWS OBITUARIES OPINION

POLITICAL NOTES

City Council candidates

RIDGE LINKS

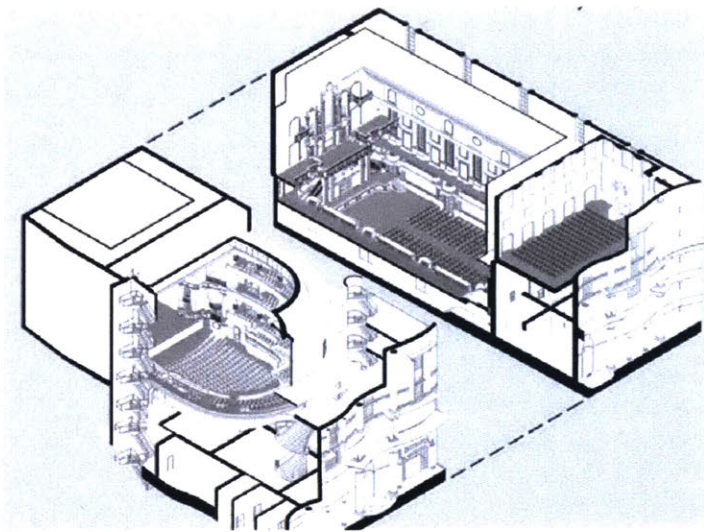
SUPPORT THIS SITE

School Committee candidates **elopment »**

Constellation Center land in Kendall Square will be sold, with arts plans to be relocated

Cambridge is not guaranteed to be site of a future performance hall

By Marc Levy
Thursday, April 19, 2018



Plans for the Constellation Center in Kendall Square had been drawn up by venue designer, planner and acoustician Alban Bassuet.

There will not be a Kendall Square five-hall Constellation Center for the performing arts, and the land where it was to go will be sold, said Glenn KnicKrehm, president of the Constellation Charitable Foundation, but the plans are a “movable feast, for application and realization on one or more sites elsewhere.”

The sale is first priority, but “Constellation’s real estate advisers are optimistic that suitable sites are available,” KnicKrehm said. It may be outside Cambridge, as he said his board expected “to be looking at a range of sites in Greater Boston.”



The cutting-edge arts utopia for Kendall Square was conceived in 1996 and at one time was expected

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FOR IMMEDIATE RELEASE: April 19, 2018

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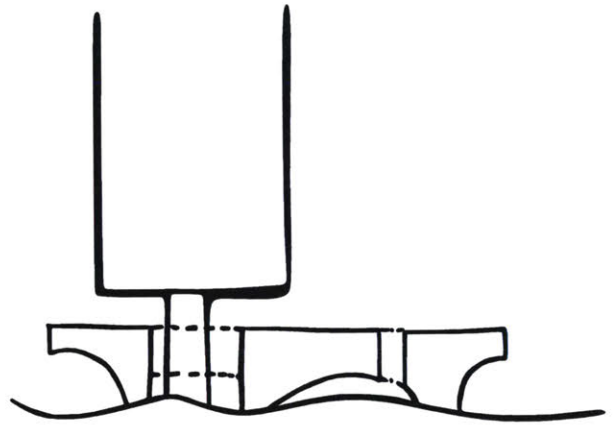
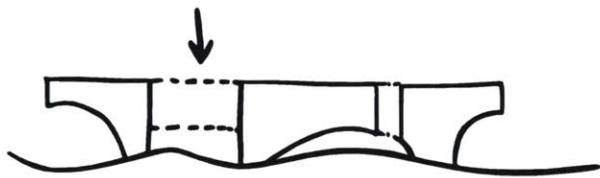
andy.hoar@cbre-ne.com

Constellation Charitable Foundation to Sell Kendall Square Land

Cambridge, MA—The Board of Directors of the Constellation Charitable Foundation has announced plans to sell its Kendall Square land, known as Parcel C, and to use the proceeds from the sale to pursue the fulfillment of its original philanthropic and artistic mission.

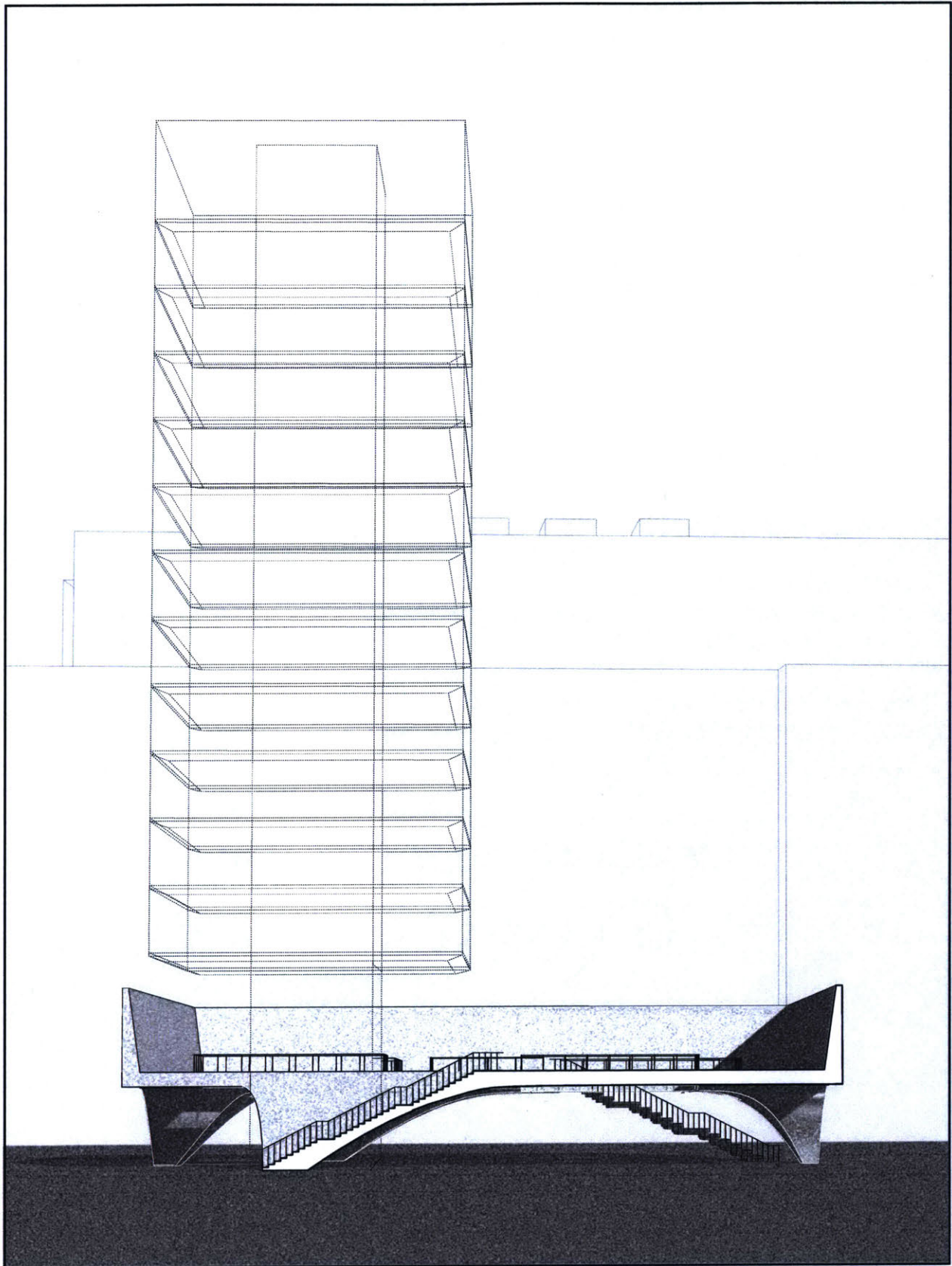
The main driver of this decision is that the pace of growth in the East Cambridge real estate market has far exceeded expectations, owing to soaring demand and reduced supply for space, particularly in the life science and tech sectors. The skyrocketing commercial value of the land outran the philanthropic value of committing the site to even a world-class performing arts center. The Board thoroughly explored the possibility of incorporating a mixed-use high-rise structure above the arts venues, but too many compromises in quality were required to accommodate the addition to the site of offices, laboratories, and residential spaces. Therefore, the Board has decided that the best option is to sell Parcel C, even as it carries forward its philanthropic mission in the performing arts.

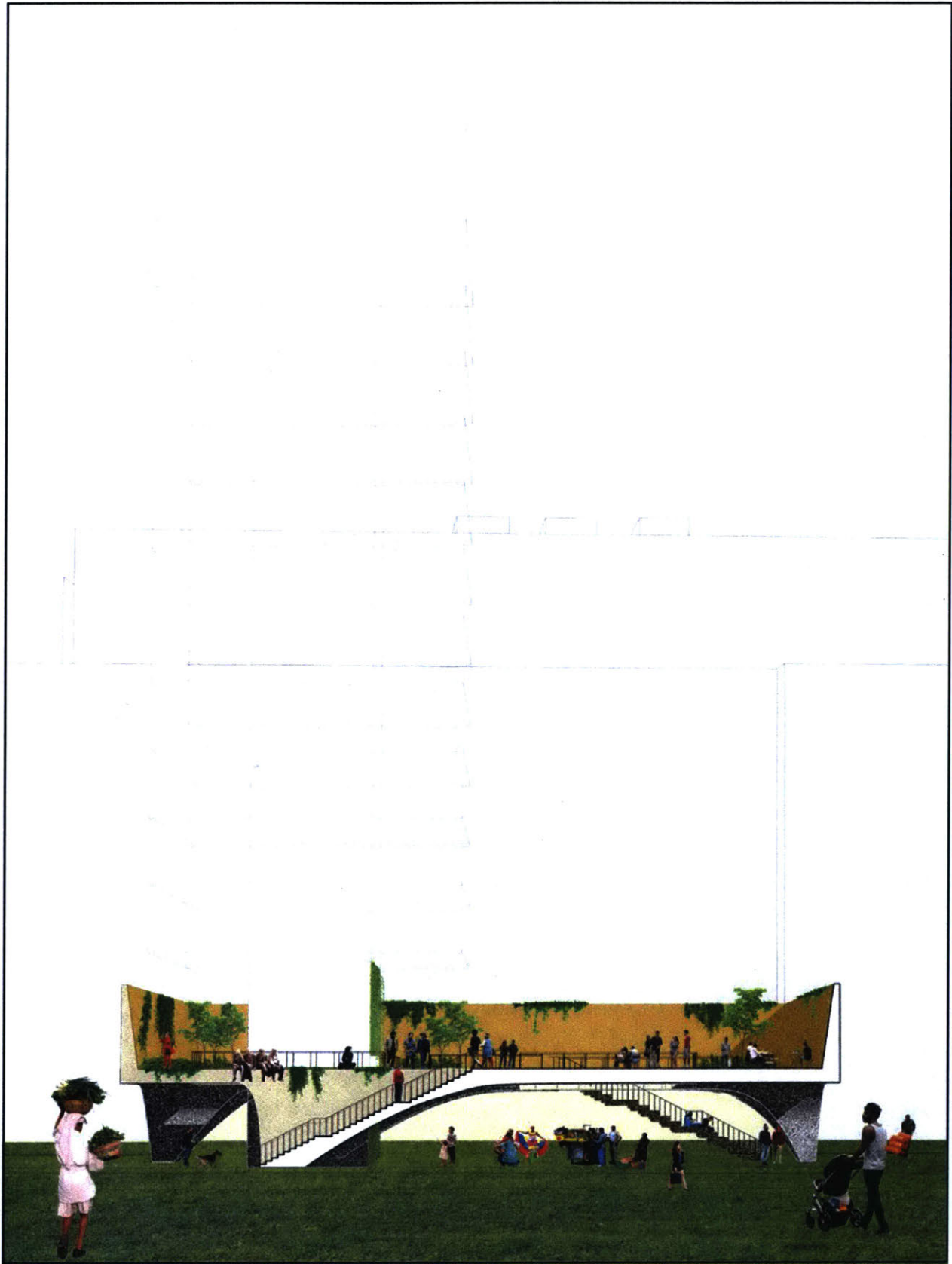
This ongoing work is made possible by the strategically significant accomplishments the Constellation team has made since 1996, pursuing its original research and design of architectural plans for the intended world-class performing arts "Constellation Center." Their work has been awarded numerous patents, with additional applications pending, and achieved revolutionary innovations embodied in the designs for a five-hall public facility for the performance of music, opera, theater, dance, and cinema. It was also designed to be used for community, educational, and family events, and included meeting, conference, and function space in support of presenters, arts organizations, and the Kendall Square Innovation District. All of this intellectual property, fortunately, can be a movable feast, for application and realization on one or more sites elsewhere.



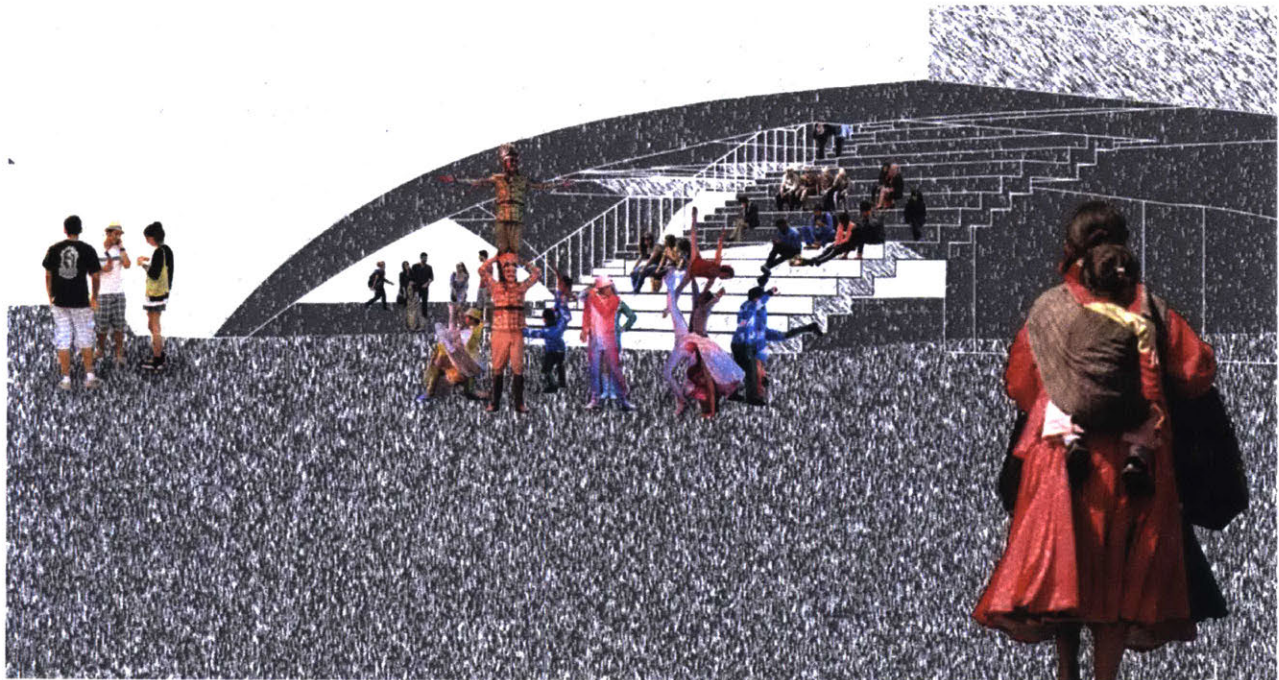
While arguments continue between the community and business oriented developers in charge of Kendall square as to how the future of that site should be treated, this proposal offers a generous balance. The 'urban body' is a project developed in stages where the public open platform of the tower houses an open market space on the ground floor, an outdoor theater, restaurant space and a community garden.

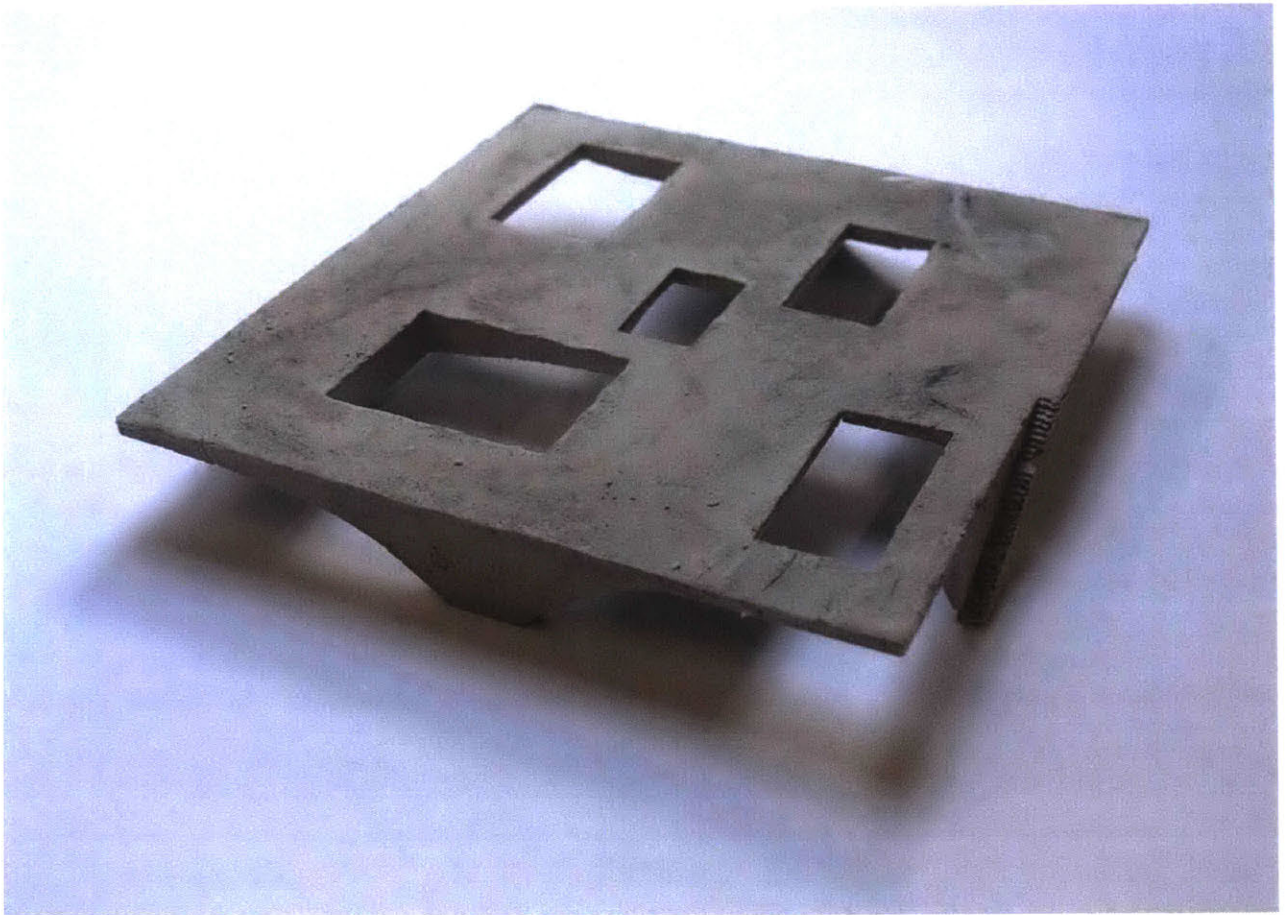
The project includes the infrastructure for the core of a future tower, limiting like a chastity belt the location and imposition of a future tower.

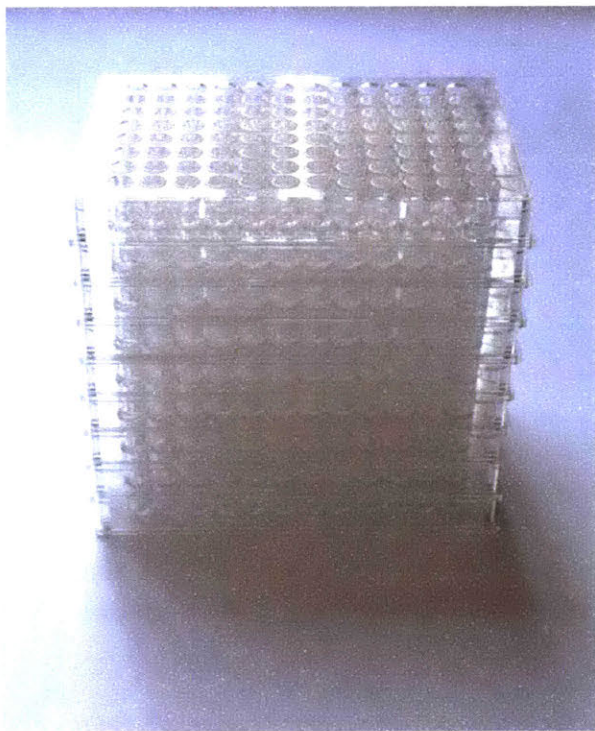




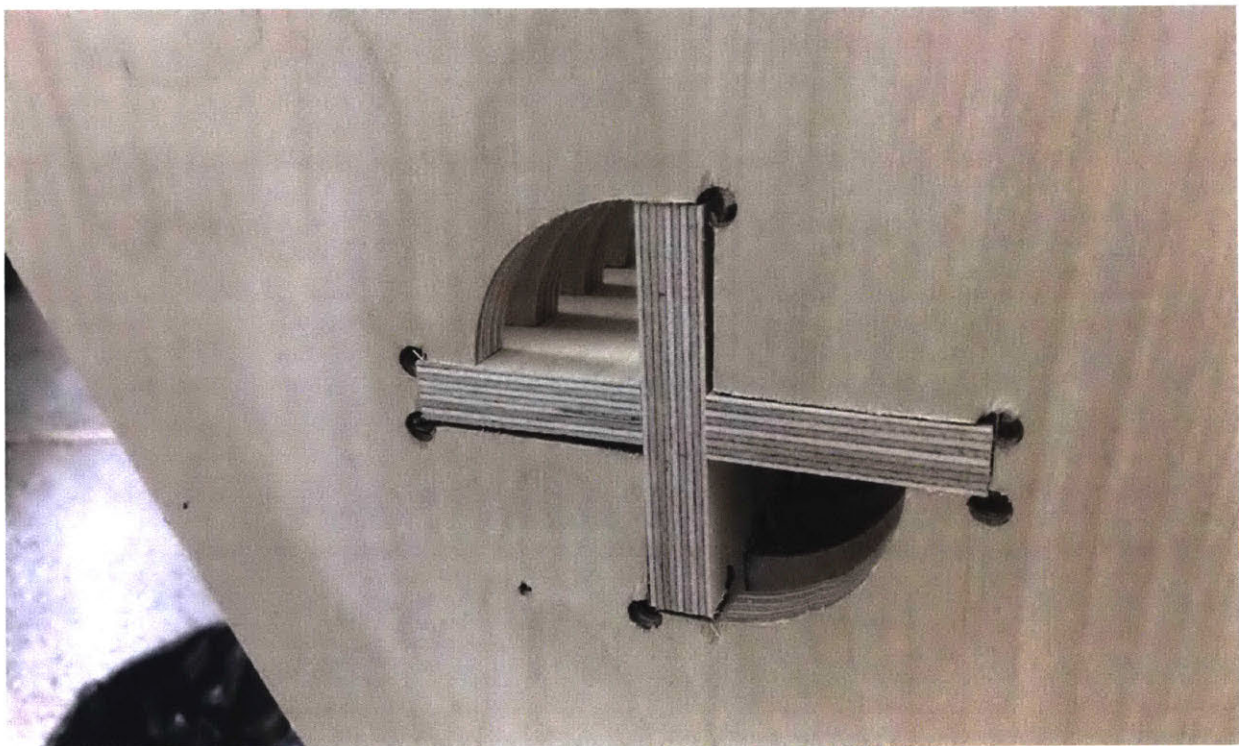


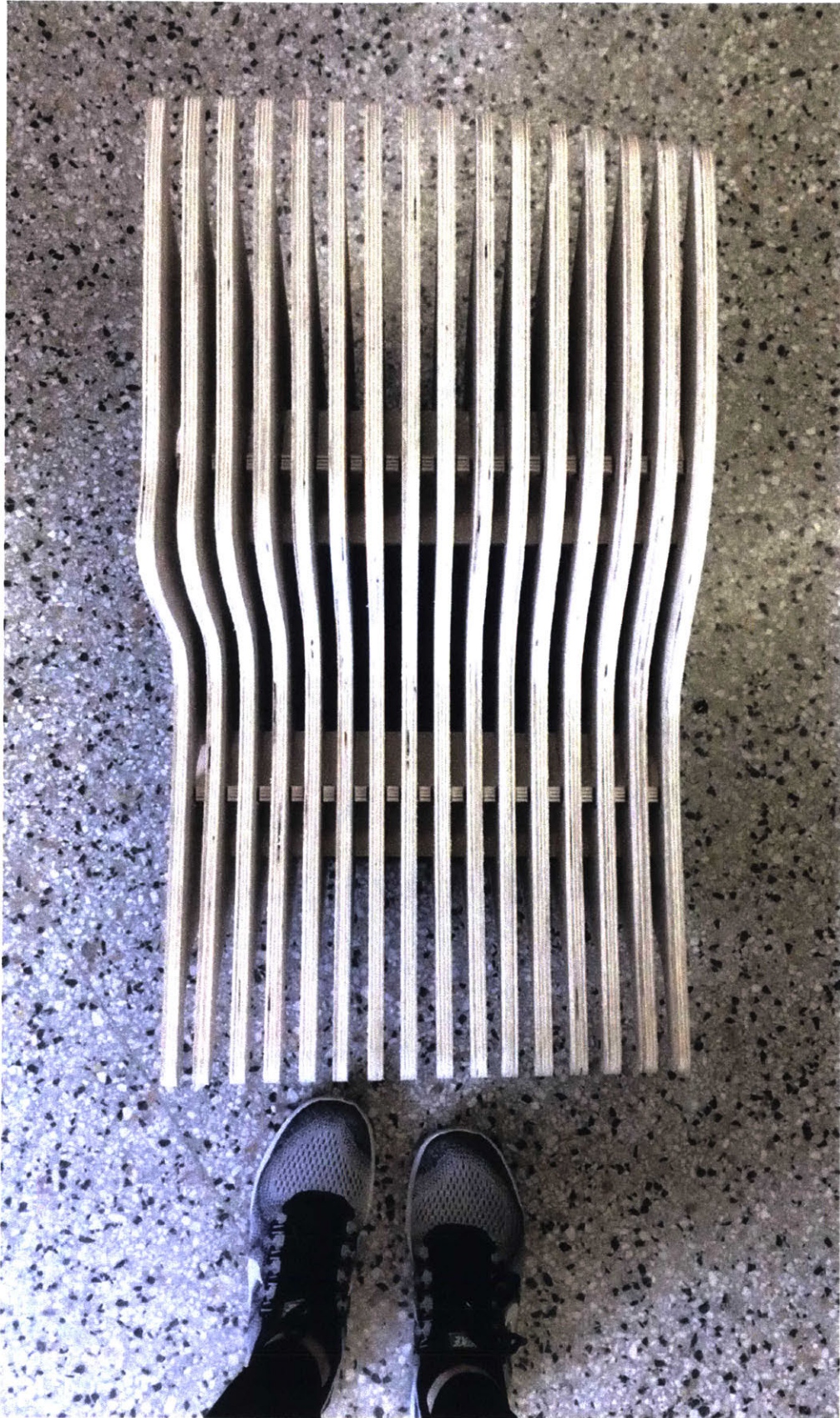


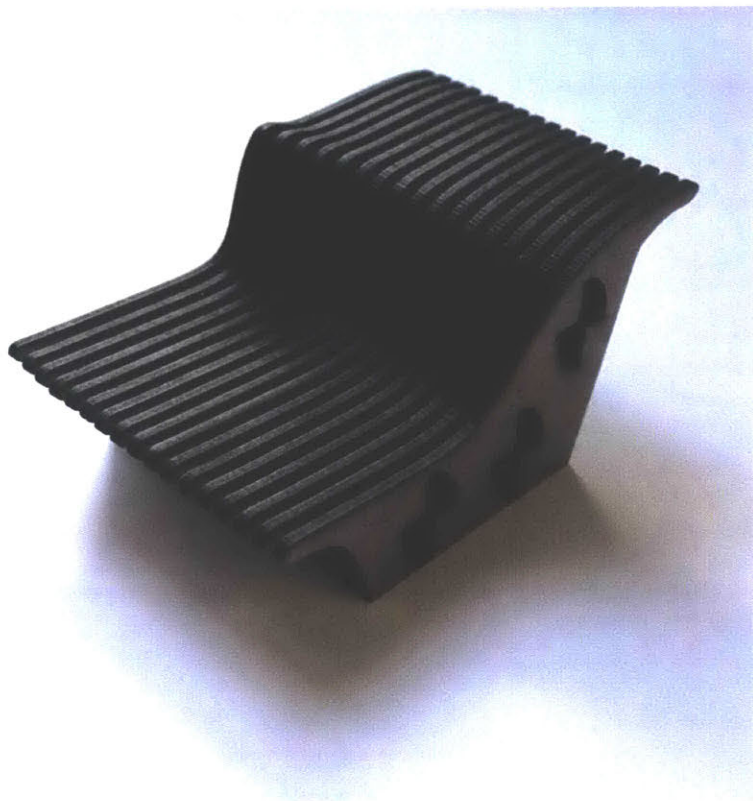
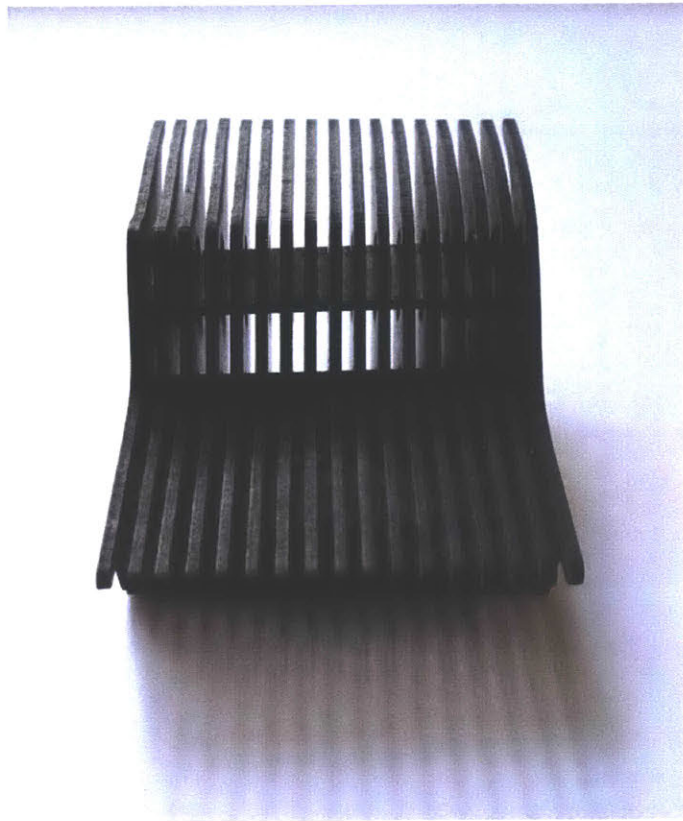


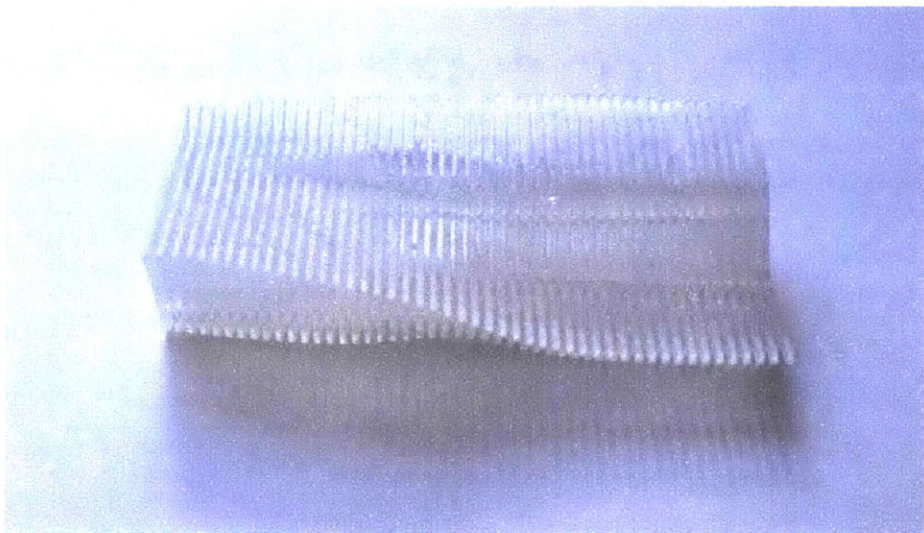
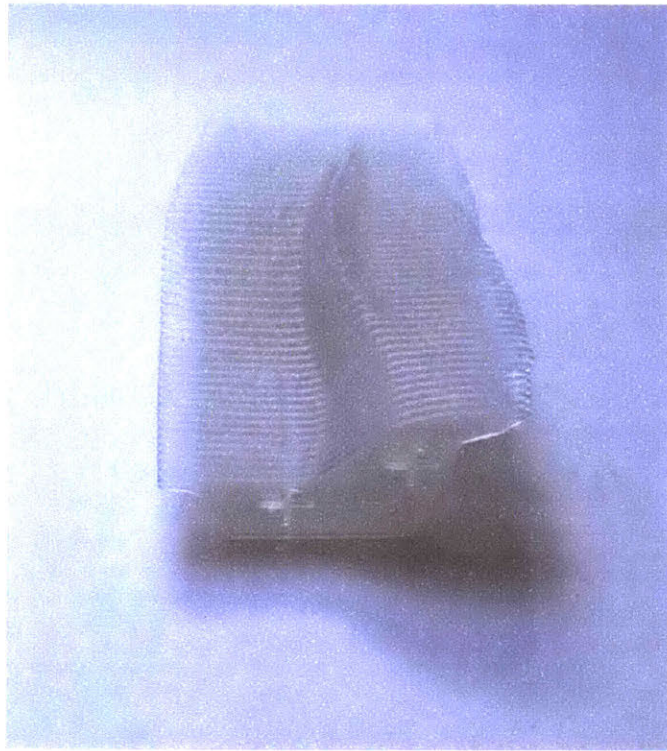


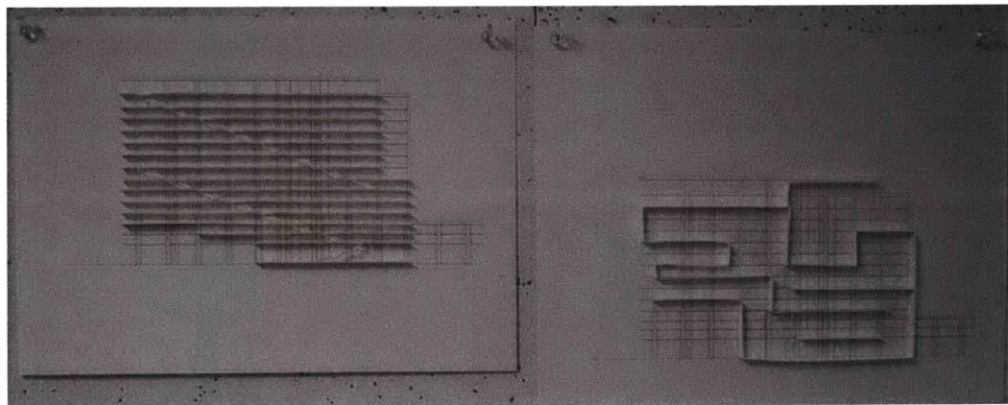
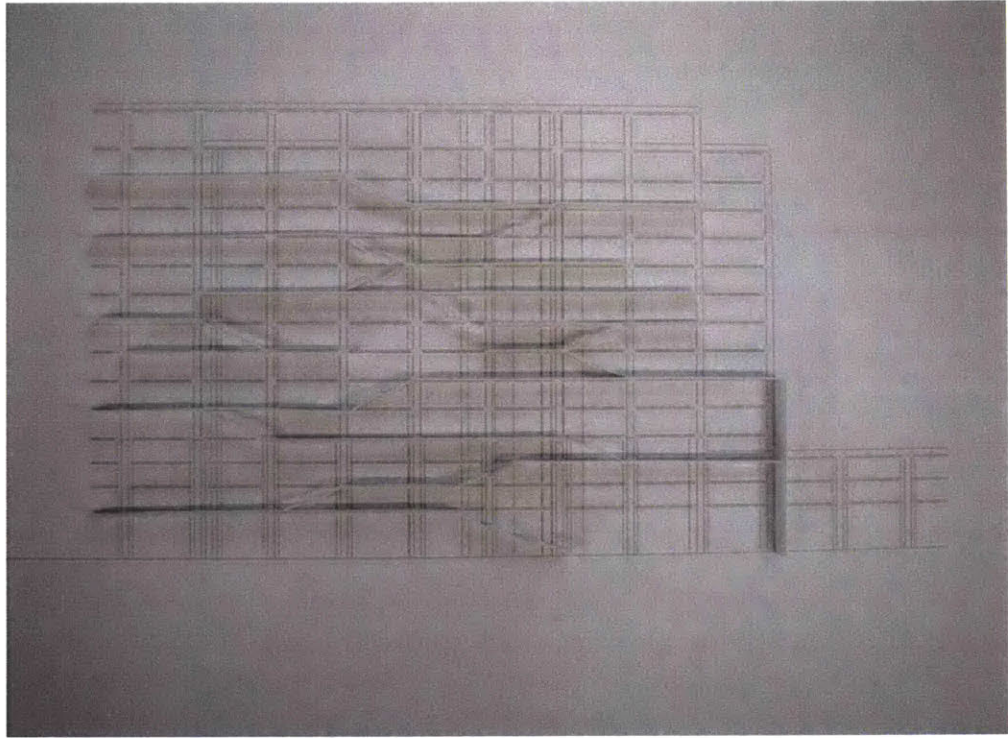
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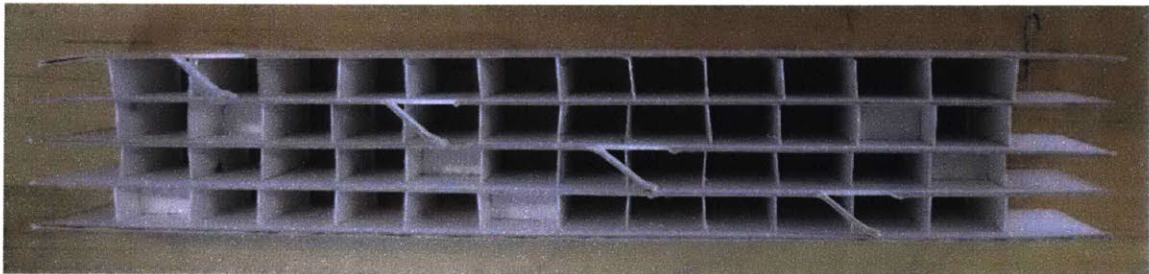
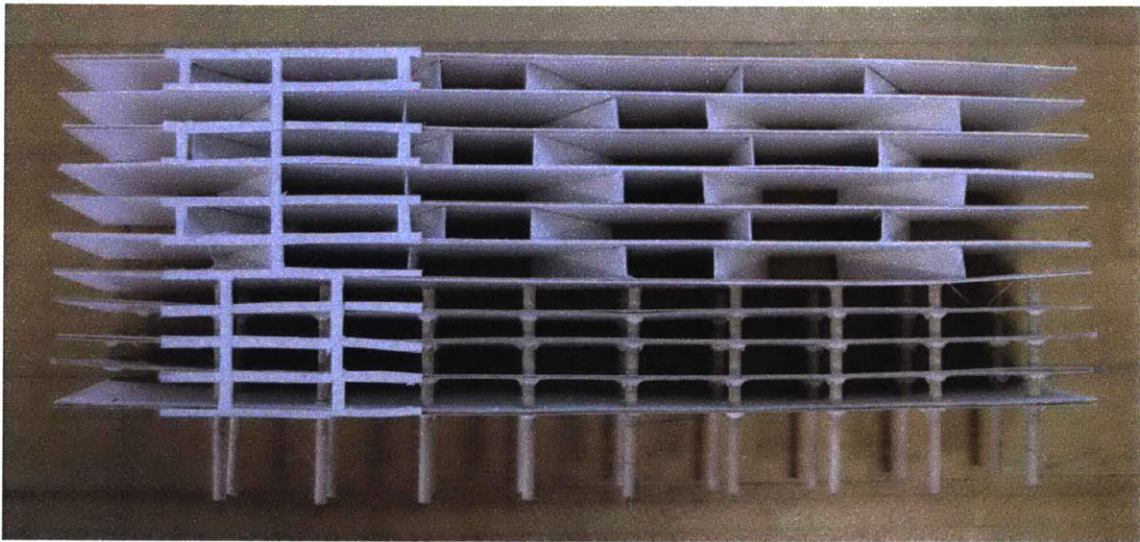


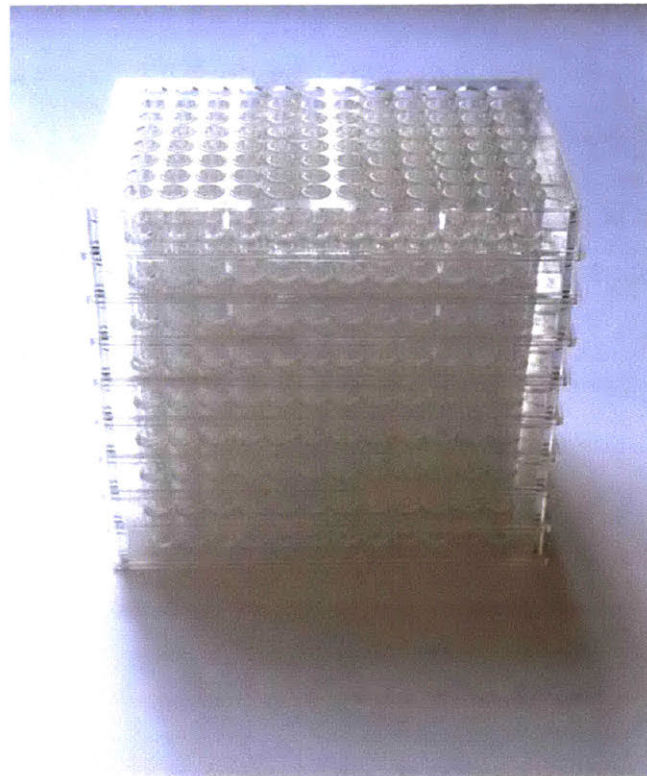
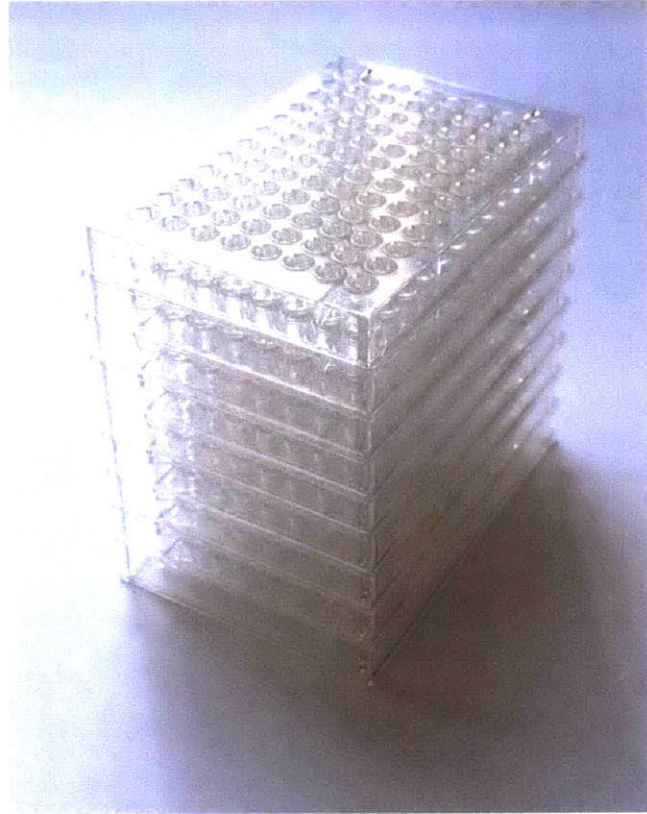


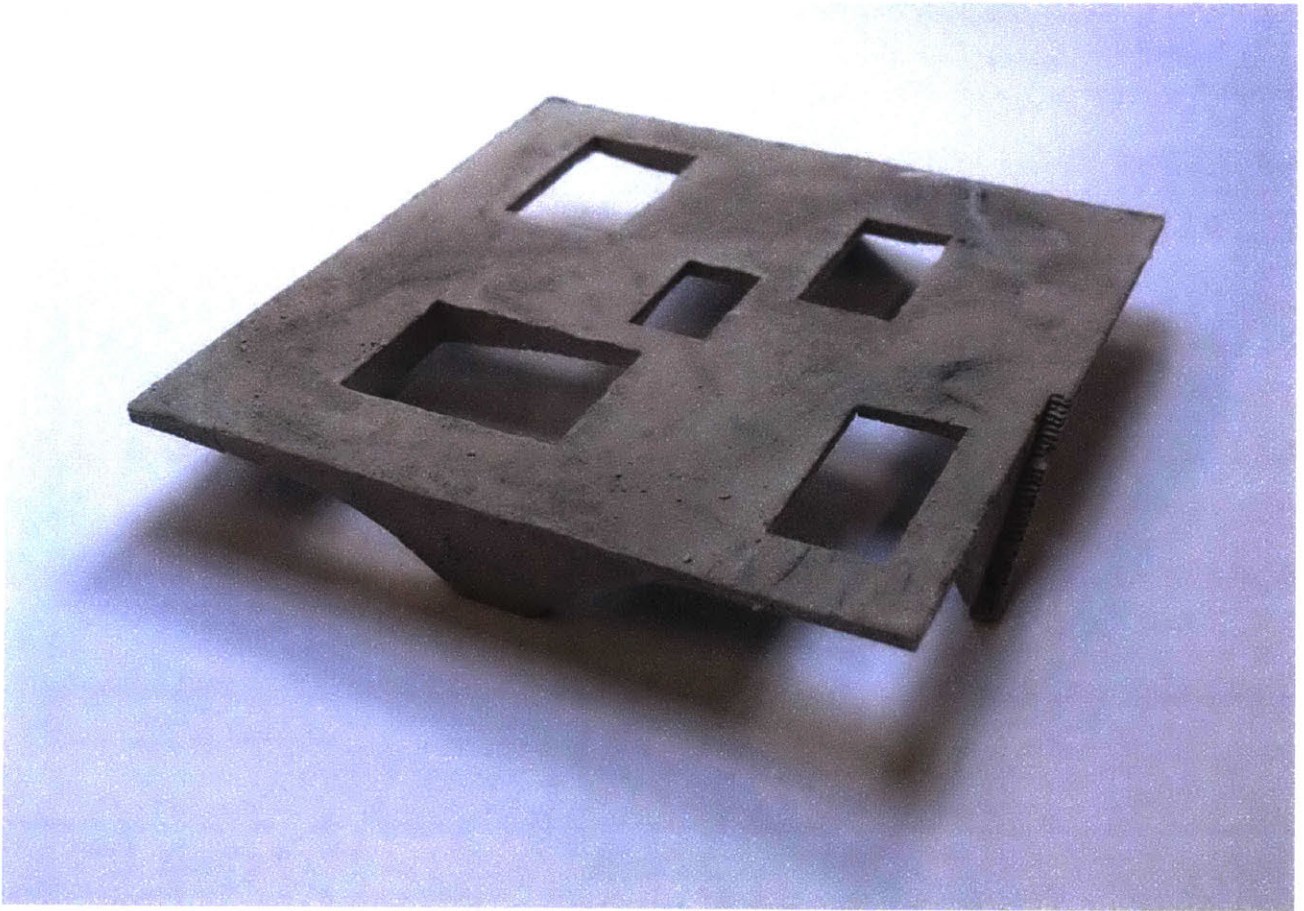


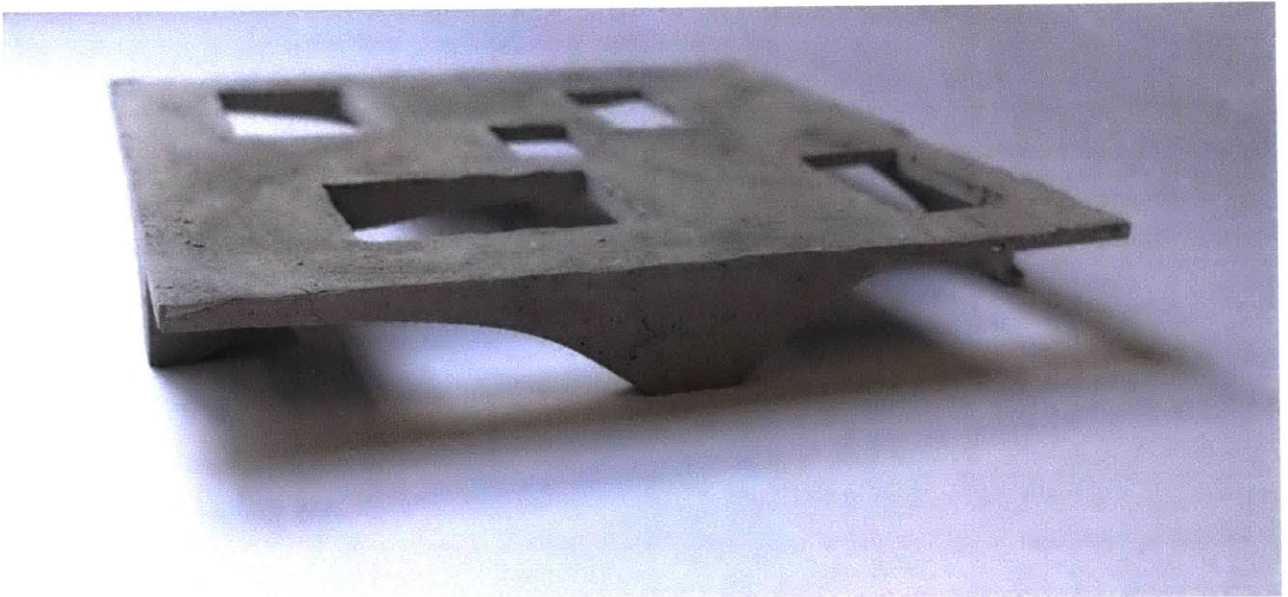


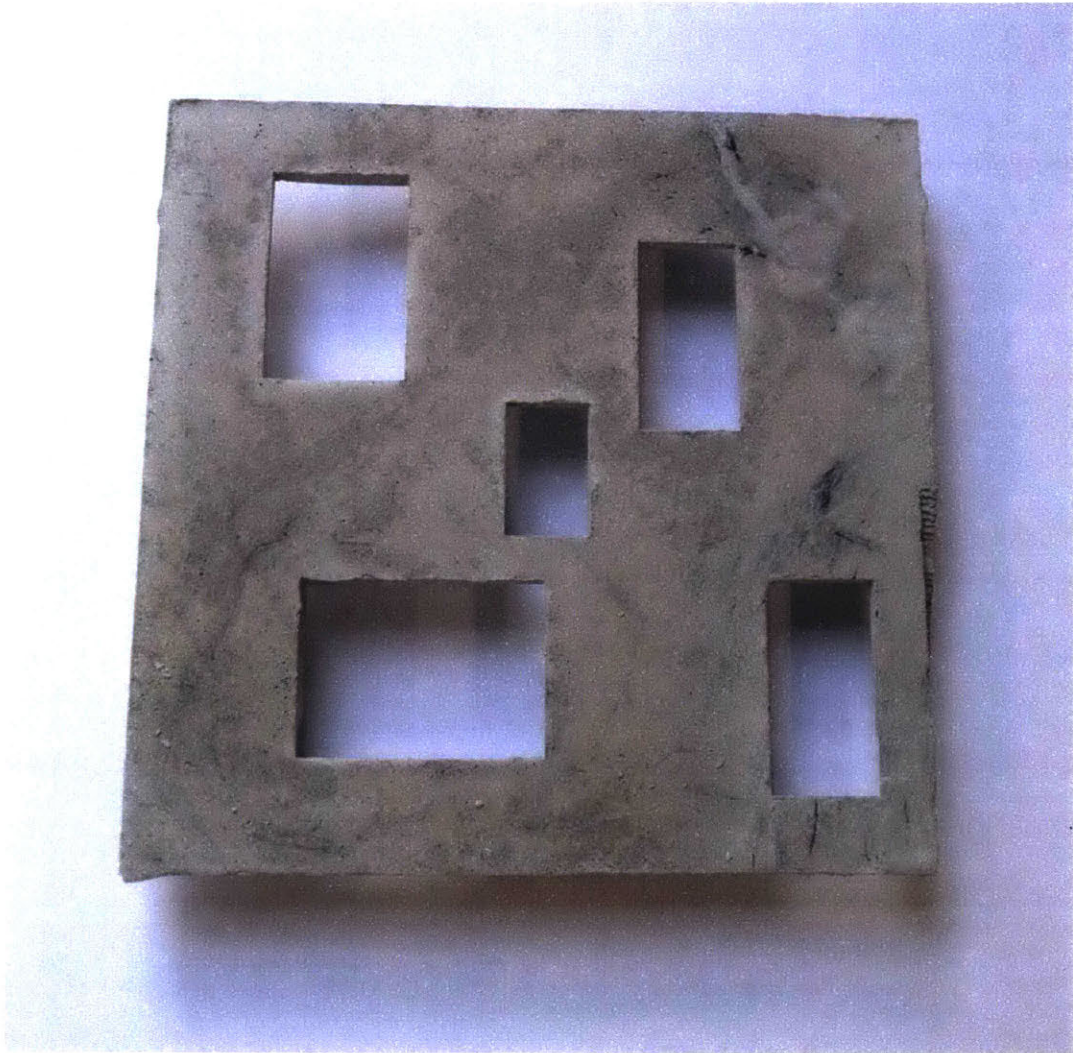




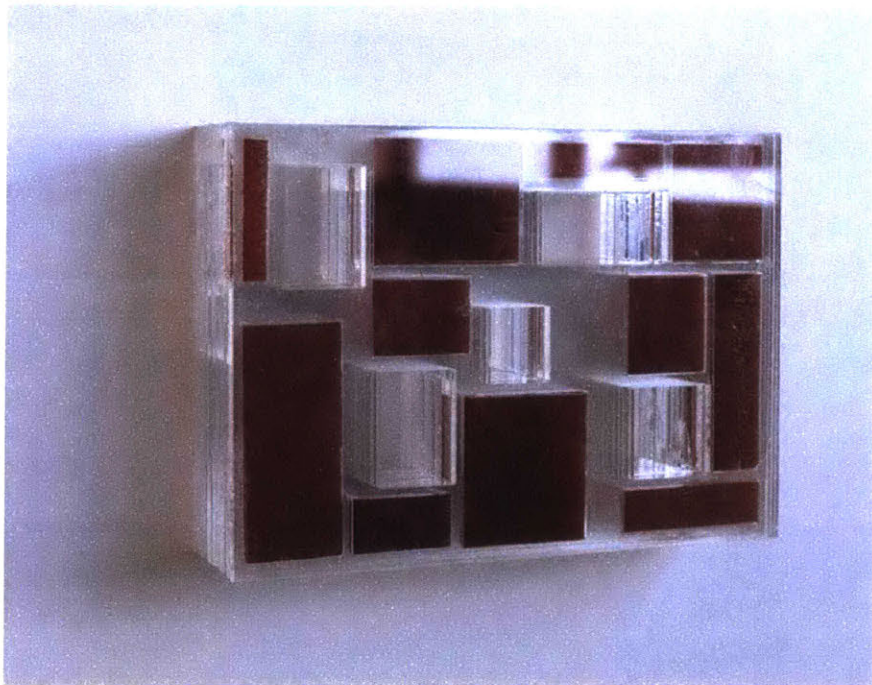
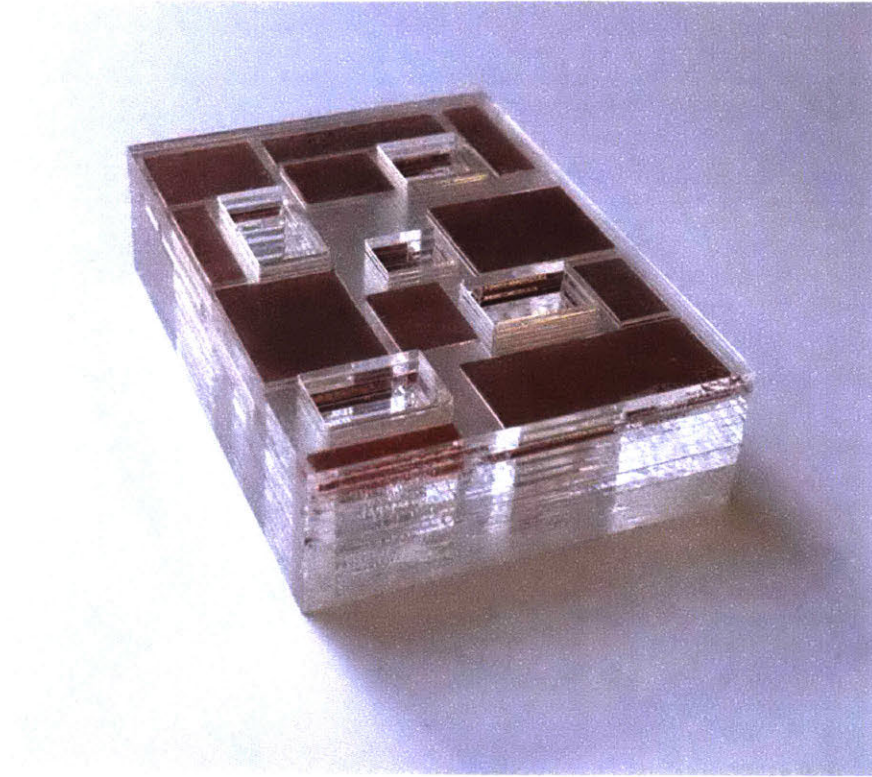


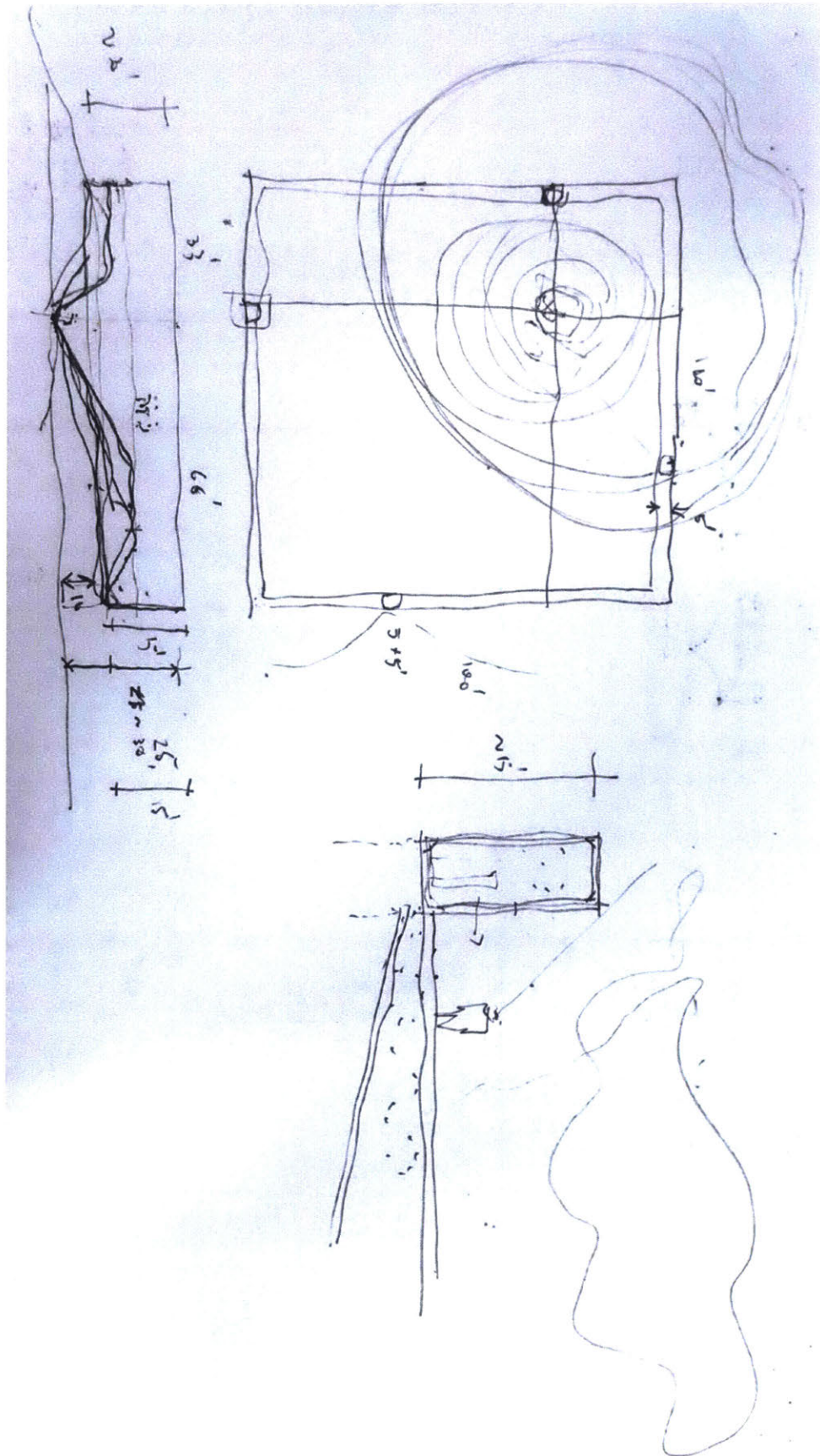


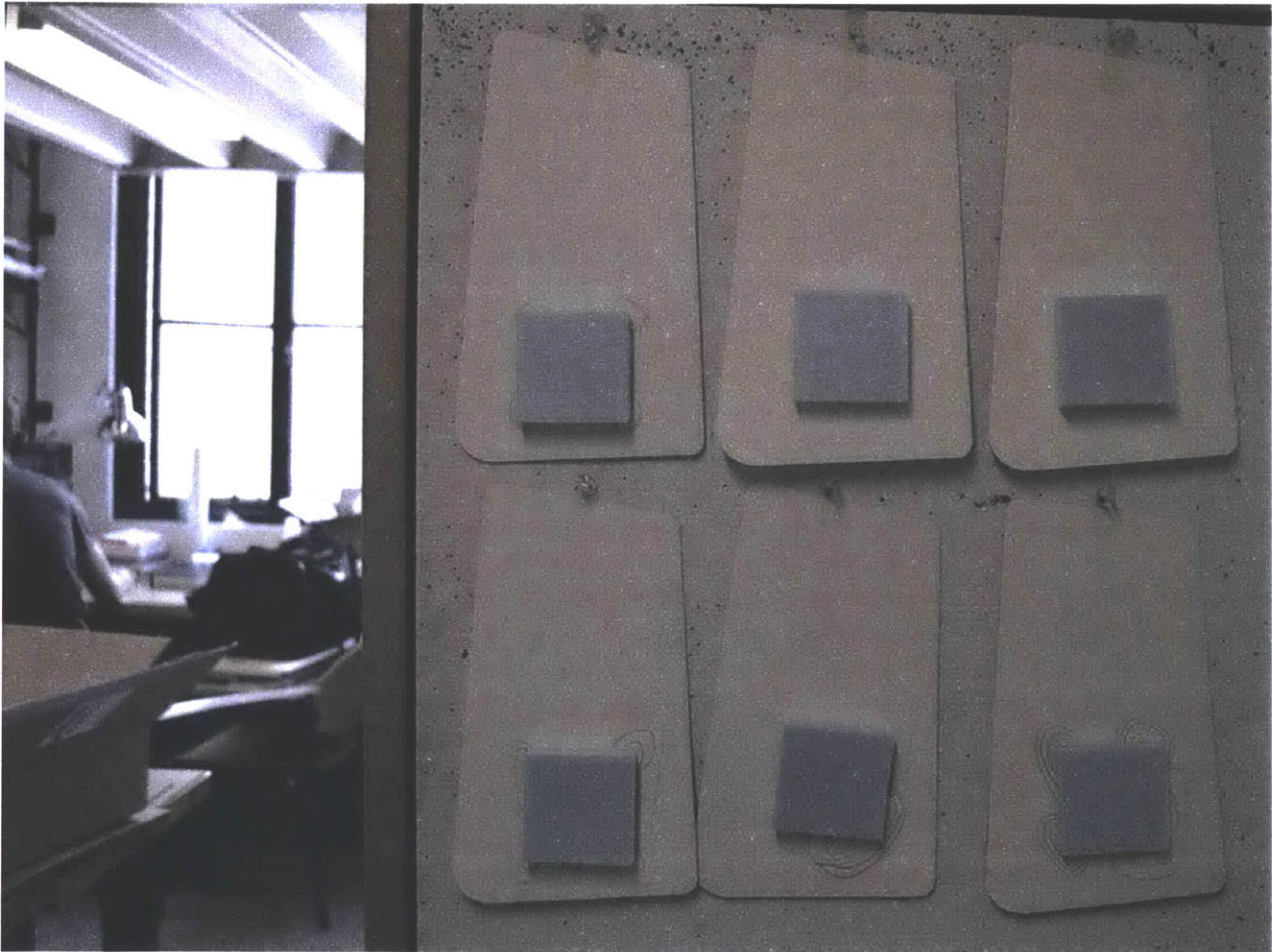


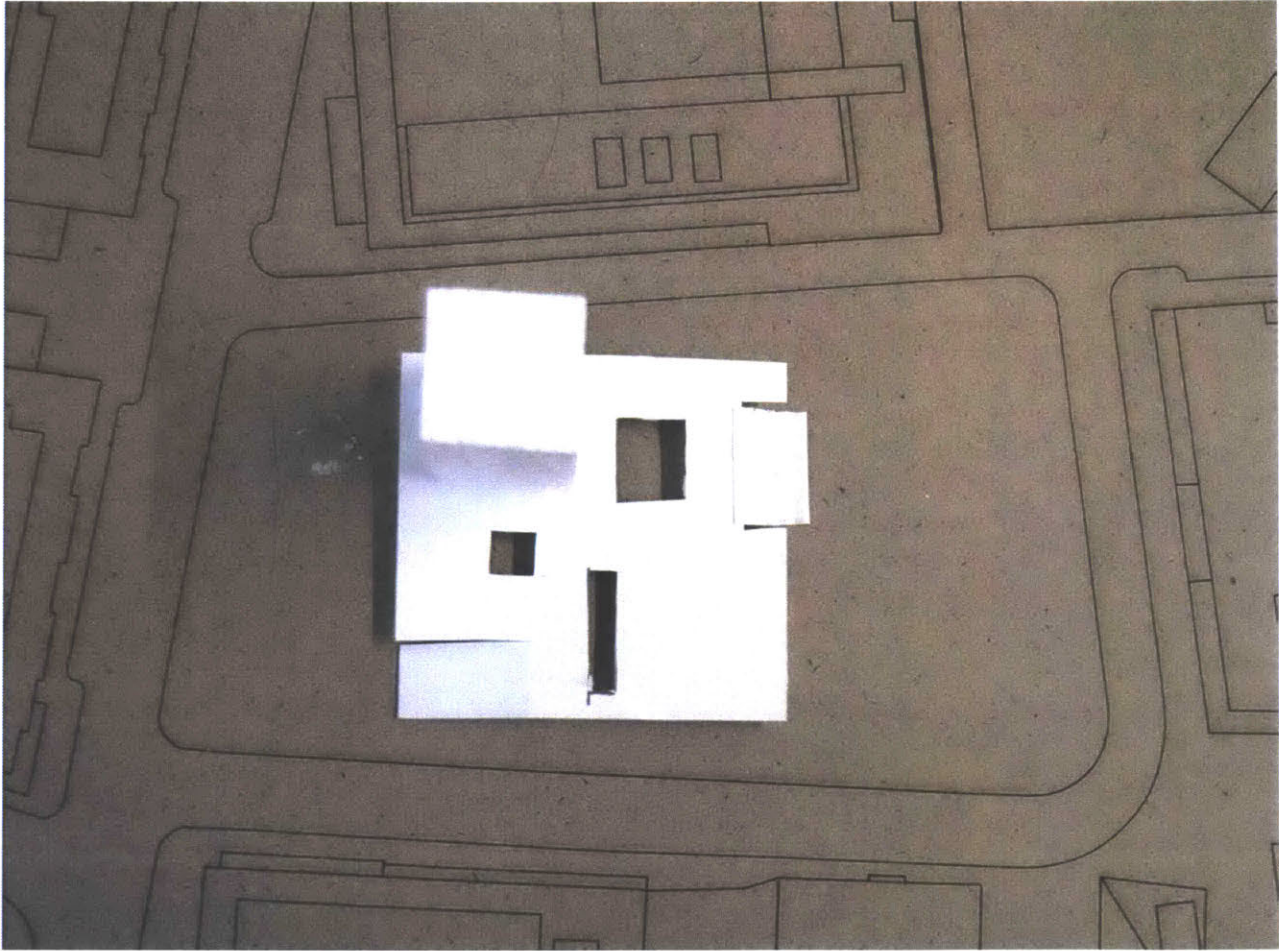




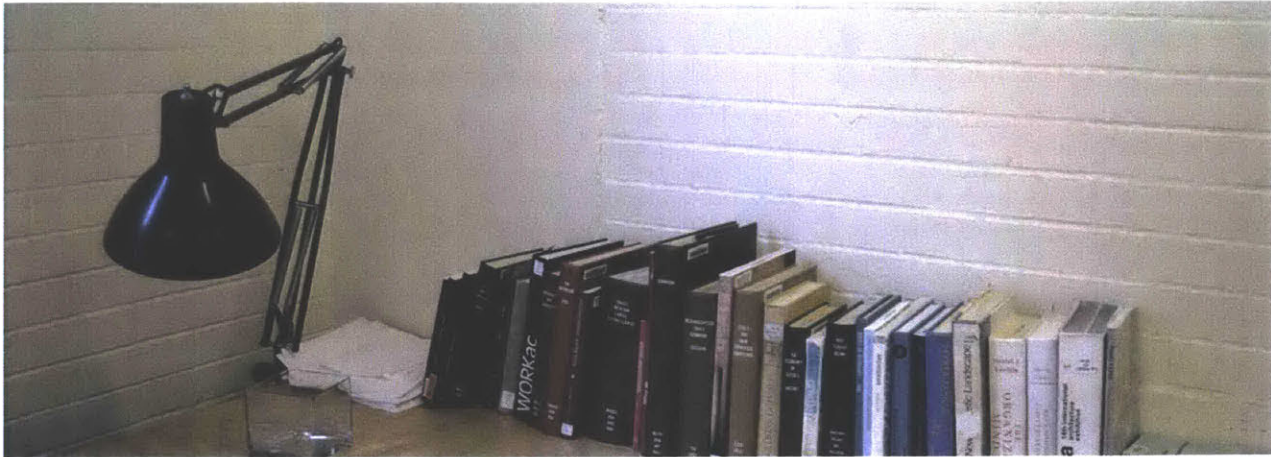












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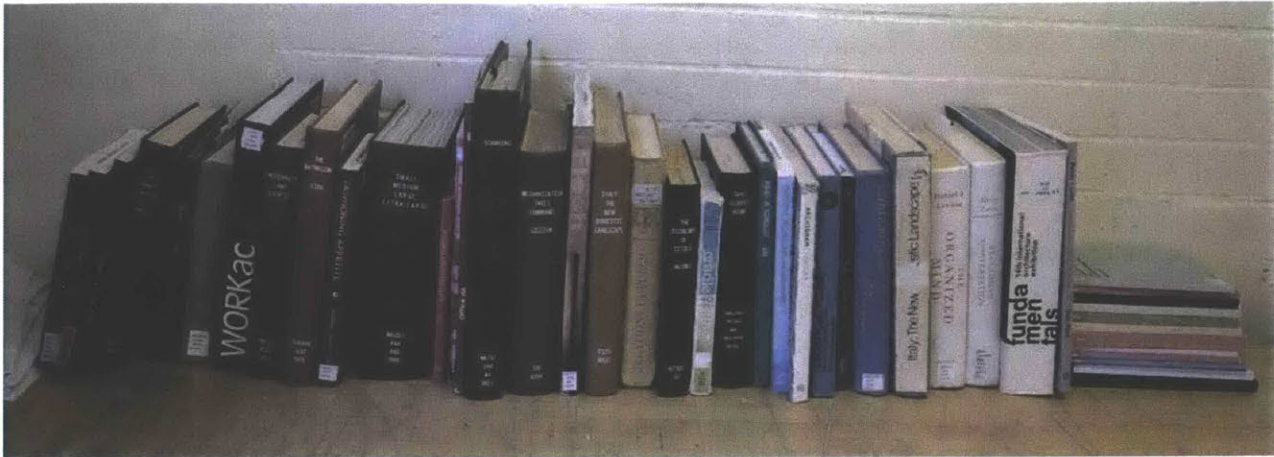
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