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## About Syracuse Architecture

Founded in 1873, the **Syracuse University School of Architecture** consistently ranks among the best schools of architecture in the nation. The reasons most often cited are our committed and diverse faculty, our number and variety of study abroad opportunities, and our nationally-accredited, professional degree programs, which provide students with the technical skill and the cultural knowledge necessary to practice in an increasingly competitive global marketplace.

The studio experience, at the core of our programs, focuses on the intense exploration of the creative process, supported by the most challenging approaches to history and theory in the context of the technologies that inform the future of our field. The **School** provides a highly innovative environment for design education in which students benefit from extensive one-on-one communication with dedicated faculty in formal reviews and informal interactions.

To prepare students for a world shaped by globalization, the **School of Architecture** offers study abroad semesters in London and Florence at our **University** centers staffed by full time architecture faculty. Students also have the opportunity to spend a semester at the **University's Fisher Center** in New York City, a state-of-the-art facility opened in 2013. Shorter study abroad programs are available

in locations such as Taiwan, Turkey, Japan, China, and India. The **School** also brings world-class practitioners and educators to teach and lecture at our home campus, as demonstrated by our visiting lecture series featuring renowned architects and designers, and our visiting critic program in which internationally recognized professors lead studios on campus.

Over the past decade, the practice of architecture has undergone dramatic change, placing the architect, once again, at the center of some of the most defining issues of our time. **Syracuse Architecture** has not only kept pace with these changes, but our faculty, staff, students, and alumni have led and continue to lead the effort to make a better world through the design of better buildings and cities.

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# Introduction

We are very pleased to present our third annual Syracuse Architecture thesis book. This is a special time of year at the school and a special time in the lives of our graduating students and their parents and loved ones.

Spring 2017 has been a very busy semester with a number of lectures, symposia and exhibitions. Our spring lecture series opened in January in New York City with the inaugural Robbins lecture, delivered by New York City-based SO-IL partners, Jing Liu and Florian Idenburg. Later in Spring, at Slocum Hall, Undergraduate Chair Larry Davis organized “Density: Through Thick and Thin,” a symposium focused on the challenges presented by the need for new housing and increased densification in cities like Los Angeles. The symposium featured an interdisciplinary panel of scholars from across the university as well as two visiting critics, Sam Lubell and Greg Godin, co-authors of the highly-regarded books, *Never Built New York* (2016) and *Never Built Los Angeles* (2013). And, our final speaker of the year, Hsinming Fung, AIA, principal of Hodgetts + Fung (HplusF), an award-winning architecture and design firm in Culver City, California, will deliver our convocation address. Fung is also a leader in architecture education, having served as president of the Association of Collegiate Schools

of Architecture (ACSA), and as a faculty member and administrator at the Southern California Institute of Architecture (SCI-Arc) in Los Angeles. I cannot think of anyone better suited to speak to our students as they embark on the next chapter of their lives as architects.

We end the semester and school year with three excellent exhibitions. Assistant Professor and inaugural Harry der Boghosian Fellow, Maya Alam, exhibited “~Ish: Stages Before the Real,” in late March in the Marble Room in Slocum Hall. And in May, we conclude the year with “The Image, The Object, The Table,” an exhibition of faculty work and, “Shelf Life,” the annual student thesis exhibition.

The theses documented in this catalogue reflect the range of techniques, positions and pedagogies our students are exposed to during their time at our school, and provide a testament to the dedication and hard work of the students themselves as well as our outstanding faculty. The thesis project offers students an opportunity to think about where they have been, where they are and where they are going. For the wider School community, it is a wonderful way to bring a successful spring semester to an end.

**Michael Speaks**  
Dean and Professor

# On Thesis

More than any other course in Syracuse Architecture, thesis represents the intellectual diversity of our faculty, students and other disciplines as they relate to architecture. The relationship of the School to its larger university setting further fuels the range of values, concepts and techniques found in our thesis projects. To this end, it is not uncommon that coursework outside the discipline will inform a student’s thesis topic. Over and over again, our students and faculty are curious about how architecture can matter to arenas not necessarily associated with the design of space, form and function. The speed and intelligence that our students apply in synthesizing multiple interdisciplinary influences is nothing short of impressive. More importantly, their efforts are increasingly relevant to solving the numerous challenges facing the collective metabolisms of our daily lives, from intimate scales all the way up to those that are global.

At an individual level, thesis is a critical experience for our students, one that matures their talents and intellect and reinforces the School-wide value that analysis on any given topic is a key element to both steer and enhance the more intuitive talents; aptitudes they have been cultivating throughout the time they have been in the School. The level of personal responsibility to identify

a project that, more often than not, begins with a suspicion about and topic and molds into a sharp and compelling contention about architecture, ideally one applicable to an understanding of the discipline beyond the example of their project, can be formidable and intimidating. Yet with enthusiasm, our students and faculty tackle the complexity of these thesis projects and in the best cases arrive at elegant and sophisticated ideas and material solutions that speak in distilled and powerful ways to its situation. For this reason thesis is the kind of project that stays with our students their entire professional lives. Its themes, successes and shortcomings subconsciously threading through one’s voice as it matures over the decades, often in unexpected ways.

**Lawrence Davis**  
Undergraduate Program Chair

# Disruption

I was asked recently to lecture on 'disruptive innovation' in the field of architecture at an interdisciplinary pitch competition (think: Shark Tank, the academic version). This is a well-rehearsed context: groups prepare business plans and pitches for innovative ideas, seeking seed funding to put their plan in place. It is a context that rewards those projects that both strive to venture into untested territory and provide a meaningful defense of their ambitions. This one, the one at which I was speaking, sought the most disruptive of ideas—those that create often radically new markets designed to disrupt the status quo—and involved a range of creative disciplines that weren't typically at this table. Thus, my invitation.

Preparing my notes, which in part sought to provide an overview of the architectural discipline to non-architects, it became apparent both how familiar architecture in fact is with this conversation, and what it can still learn. We, too, reserve our strongest regards for projects that venture into untested territory while clearly articulating and defending their ambitions. We not uncommonly see our graduates branch off and form their own start-ups (we call them "firms") to engage the discipline from alternative perspectives than those that are readily available.

We are regularly disrupting our own 'markets' as we challenge the very definition and constitution of our discipline, and critically engage the idiosyncrasies of design and design aesthetics for each of our practices—or each of our projects. Yet thankfully (if I may editorialize) we refrain from the often transparent hyperbolic market-speak that accompanies the innovation industry. Start-ups, innovation, disruption: they are a common thread of our practices.

A disruptive innovator in electronic technology might very well seek to make the technology invisible, pushing it to the extreme to make it appear like there is nothing electronic involved. Think: e-paper. Such an innovator in the publishing industry might create a crowd-sourced, participatory forum for shared knowledge that thoroughly alters the writing, editing, and printing of reference books. Think: Wikipedia. We, arguably, disrupted when we figured out how to turn lime, ash, and rock into a building material (concrete), how to prevent a closet-sized box on a cord from dropping the people inside to their untimely death (Elisha Otis' elevator), or how to mass-construct houses in one day (Levittown). These novel ideas profoundly transformed the very constitution of our discipline and its practices.

While these happen, in the right times, in the right places, with the right people, I muse: can we more intentionally prepare future generations to be more acutely aware of their potentials as disruptors? Then the answer appears before me, as it does you right now. This very question is at the core of our thesis—the students whose projects are documented here, each in their own way, have been encouraged to disrupt, some perhaps just a little, others perhaps more profoundly, the world they see ahead of them.

Finally, there is one thing we don't share with the pitch competition: the \$50,000 prize for best implementation plan... Now that might be something to consider...

Brian Lonsway  
Associate Professor  
Graduate Program Chair

# The Reality Check, Please

This year, like every other since sometime in the 1970s, and as will continue into the near future until the planned extinction arrives, students at Syracuse Architecture have completed their professional degrees by spending two semesters immersed in the strange wonders, practical challenges, inevitable blockages and unanticipated rewards of Thesis Projects. The expectations and pressures of the Thesis experience are outsized, and the specifics of each project's modalities are fungible in proportion with the student's ambition, imagination and desire.

No successful Thesis proceeds smoothly and that is by design. Feedback can hurt your ears or resonate in your imagination, whether its source is an honest self-assessment of actual work produced set against first presumptions and inklings, or a coming to terms with the implications of edgy and engaged conversations with one's advisor, or taking stock of one's own evolving realizations of what her education has delivered (or dismissed) and what needs to be done (or undone) to adequately prepare for the imagined but unpredictable opportunities for creative pursuits that might come next. Perhaps all of this has always been true to some degree, but I think it is

more amplified and important this year than last, or the year before that, and before that.

The aims, approaches and processes of Thesis are changing in response to the same forces that are impacting higher education, global culture, pervasive technologies, climate change and systems of governance. Whether it is explicitly stated or not, every Thesis is a test of architecture's capacities and incapacities to engage those realities through speculation, research and self-examination. Thesis is no longer a test of general competency across the subject areas of the curriculum as it once was: our discipline and our world are far too uncertain today for that kind of squandering of potential. Thesis is now a test of each student's ability to achieve what he can imagine as the most compelling possibilities for architecture today. By necessity and by desire, students and faculty are continually and collectively reinventing "thesis." Each year, with varying degrees of talent, earnestness, and idiosyncrasy, thesis projects find new ways to assess the state of a rapidly changing world and to test students' capacity to engage it—a capacity which is augmented and guided by the faculty's ability to understand and explain the current challenges of architectural practice and, through

their teaching, to construct the conditions for students to acquire the requisite skills, insight and knowledge.

What we are ultimately striving to achieve is rarely clear to any of us as we work and learn day to day, week to week, semester to semester, year after year in studios and on reviews, at exhibits and public lectures, in core courses in history, theory and technology, through global travel or academic advising, or in the varied activities of student organizations. The work produced as theses, precisely because it is when we are most speculative, most ambitious and most demanding, serves as an annual reality check for our presumptions about the efficacy and intrigue of architecture. If theses prove anything, and whether that thing is reassuring or perplexing or both, it is that we believe architecture has a future.

Mark Linder  
Professor  
Thesis Director

## SUMMER 2016

**A**

Benjamin Farnsworth  
David Shanks

## FALL 2016

**B**

Daekwon Park  
Tarek Rakha  
David Shanks

**C**

Molly Hunker  
Richard Rosa  
Francisco Sanin

**D**

Ted Brown  
Jonathan Louie  
Yutaka Sho

**E**

Lawrence Chua  
Sekou Cooke  
Terrance Goode

**F**

Amber Bartosh  
Elizabeth Kamell  
Richard Rosa

## SPRING 2017

**G**

Amber Bartosh  
Ivan Bernal  
Brian Lonsway

**H**

Larry Davis  
Elizabeth Kamell  
Tim Stenson

**I**

Lawrence Chua  
Greg Corso  
Joseph Godlewski

**J**

Sekou Cooke  
Terrance Goode  
Yutaka Sho

**K**

Julia Czerniak  
Lindsay Harkema  
Molly Hunker

**L**

Bess Kreitemeyer  
Tarek Rakha  
David Shanks

**M**

Julie Larsen  
Sinead Mac Namara  
Nicole McIntosh

**N**

Ted Brown  
Jonathan Louie  
Daniele Profeta

**O**

Francisco Sanin  
Daekwon Park

**P**

Susan Henderson  
Randall Korman

## Invasive Culture: Architecture as a Form of Invasion

Like American culture as a whole, Puerto Rican culture is the creation of its diverse inhabitants. Our society has a richness and depth from influences that can be traced back hundreds of years, in our food, dances, music, and art. Architecture is another important component of this culture, helping to define and reflect advances and changes in our history and to showcase the different players that shaped it.

Puerto Rico has experienced two major invasions in modern history that have fundamentally affected its history and culture. The Spanish arrived in 1493, bringing with them a new language, religion, urban planning, etc. This new culture entered the island and started intermingling with the native's culture. After the Spanish settled the process of Creolization began, and resulted in the mixing of cultures between Spanish, Taíno, and African, formed the Criollo. After years of establishment of the Criollo culture, the US invaded the island in 1898. After this invasion they brought with it yet a new culture which they tried to impose to the people of Puerto Rico. Through the process of cultural assimilation and transculturation, the US started undertaking the deculturalization of the Puerto Rican. Both had a profound impact on the island. This project will confront the past in the form of the ruins present in the abandoned Navy Base of Roosevelt Roads in Ceiba, Puerto Rico, and

document the distinctive qualities of Puerto Rican culture and life.

Architecture becomes a form of counter-invasion. The site is the abandoned Navy Base of Roosevelt Roads in Ceiba, Puerto Rico, occupied by American forces from 1943 to 2004 when the 8,000 acre site and its many buildings were left abandoned. Puerto Ricans will retake land which was closed off to them for so many years. They will “re-invade” it with new public facilities to trigger new connections socially and historically, and catalyze civic culture and public engagement. On this site there are different important historical and natural features. Almost forty percent of the base is part of a Natural Reserve, having within it a diversity of animals and plants in different ecosystems. The goal of the building is to bring together different elements that have been introduced by the invading cultures in one space, by the use of specific materials and design components on the facades of the building, while shaping this dense landscape and taking advantages of the site conditions.

## Victor Abreu Collazo





This project's contention is to understand and focus on the visual recognition of ornamental patterns and symbols found within Islamic geometry as a way to reconsider the surface architecturally. My aim is to transform the two-dimensional pattern into three-dimensional architectural space by thickening, scaling, and reordering units into occupiable spaces, therefore, producing a layer of meanings (symbolism), effects, while also performing instrumentally.

Religion is materialized through the forms of geometrical shapes, with each having a symbolic meaning behind it. In the Middle East, as well as other Islamic countries, art and design is important as it reflects spirituality and a connection to God. The simple geometry is later repeated endlessly in a more complex, infinite, and symbolic pattern as a way of communication.

These Islamic patterns started out in isolation in the Middle East, first emerging on travelers' clothing as a means to ward off evil during their long desert journeys. Later, the patterns appeared on furniture, enclosures, and building facades, which are known as *mashrabiya* screens.

Even though geometry might have been used solely as ornamentation by the 11th century<sup>1</sup>, the passerby or viewer can experience the decoration as a spiritual symbol and has the ability to analyze it as a form of art. As mentioned in 'The Mediation of Ornament' by

Oleg Grabar, "Geometry is the perfect intermediary, for it attracts not to itself but to other places or other functions than itself...Geometry is, in hypothesis, an intermediary to another technique, not a representation of it, but an expression of its essence."<sup>2</sup> The geometry within the ornament itself holds a relationship between visual observation and reasoning.

As a result of the spread of Islam, these patterns weaved their way into other civilizations across the world, specifically into high end luxury brands such as Dolce Gabbana. As a point of a departure from research, I am analyzing one of their specific two dimensional patterns in Hong Kong and will be manipulating it three dimensionally by adding onto or subtracting from the building masses of their specific stores in different locations. Thus, my project results in not only a physical experience though space, but also an informative exhibition of the stories behind the patterns.

1-2 Oleg Grabar, *The Mediation of Ornament* (Princeton, NJ: Princeton University Press, 1992).



Gropius wrote a book on grain silos, Le Corbusier a book on aeroplanes and Charlotte Perriand—it was said—brought a new object to the office every morning...<sup>1</sup>

—Peter and Alison Smithson

...but today we store everything

—Jon Anthony

*Stuff*—junk, data, things, information, memories, and matter permeate our everyday lives. Oscillating between use and idleness, stuff finds itself in various storage environments for a possible future. Screenshots pile up on our desktop. Stuff accumulates in large warehouses and overfilled sheds. Closets and cupboards in our very own house remind us of our hyper tendencies to store.

As our methods of storing grow, our storage environments tend to not adapt. Representations of storage environments—one being that of the large self-storage facility depicts objects covered in dust and packed away in boxes indefinitely. But our stuff in storage is much more. Stuff is collective, active, blurred, borrowed and inherited. Stuff is maintained, appropriate and inappropriate. Stuff breaks down, blends in, stands out and changes.

It is time to acknowledge and confront the lack of attention to how we store our belongings. *Rethinking Stuff* addresses the complex nature of

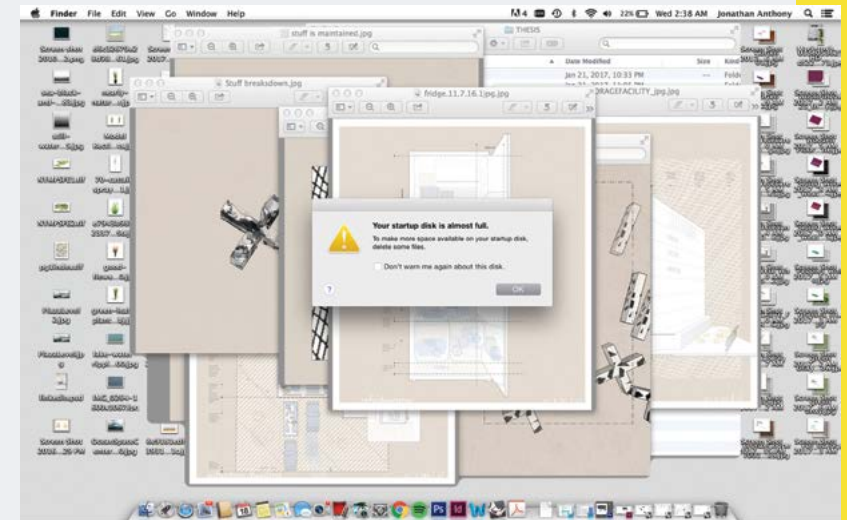
‘stuff’ in our constructed environments by leveraging the latent potential of it in storage today. This thesis attempts to address the effects of stuff in storage by capitalizing on the notion that stuff is increasingly challenging notions of property, ritual, temporality, accessibility and materiality. Through the re-imagination of familiar storage environments, *Rethinking Stuff* becomes a narration of possible spatial storage futures.

As Peter Smithson mentions in his article *In Praise of Cupboard Doors*, “rarely in architecture is the right level of attention—the sense of fit—to do with the individual and his/her specific possessions.”<sup>2</sup> No longer a secondary element of a larger architectural conversation, the stuff we store will be exploited, celebrated and embraced.

<sup>1</sup> Alison and Peter Smithson, “But Today We Collect Ads”, *Ark*, no. 18. 1956.

<sup>2</sup> Dirk van den Heuvel and Max Risselada, eds., *Alison and Peter Smithson: From the House of the Future to a House of Today* (Rotterdam: 010 Publishers, 2004), 227-228.

# Jonathan Anthony



The border is an element of both spatial obstruction and political construction. Physically, the border manifests itself as a series of layered architectural elements on a landscape, each intended to strengthen control over movement and exchange. While existing as a site of exchange for people and goods at ever increasing scales, it is also a militarized zone policed by the border patrol and concerned citizens. Although the official function of a border is to separate, divide, and guarantee that things do not mix, in practice a border can also form a meeting place and serves as a conveyor belt between the separated parts. Ultimately, a border is a contradictory structure that simultaneously prevents and permits, separates and connects, and that consequently provides its own tools for circumventing itself.

Architecture has brought the world together in all shapes and forms. We have seen the power, architecture can bring to justice. From aid in water crises to mistreatment of power to even global acts of aggression. Potent design and structure has helped mankind prosper, but also we have seen first hand the destructive nature poor and neglectful architecture can have on a society. The ominous and constrictive border between the nation of Israel and Palestine, has negatively impacted the economic and living situations of Palestine. The border cascades over the nation to what many have said feels like a prison. The psychological

torment alone warrants a call to action, what better way to do so than through reconstruction of the looming border wall of Israel and Palestine. Both sides of the division pass along and cross through the wall everyday, engage in trade, and lay claim and pray in the same ancient, religious places. But the wall separates, marking stark difference in resources, access and freedom of movement.

This project is an investigation into the existing threshold that currently separates Israelis from Palestinians in the West Bank. Through the dismantling of the Israeli border checkpoint and reinterpretation of its parts, this project intends to rethink the sequence of passing through the threshold. By framing mundane activities through dramatic scenes, this architecture can reveal themes of division in movement, religion, and resources. This architecture also intends to highlight the imbalance of the current conflict and those involved in it, by creating an architecture equally absurd and ambitious.



## 5 The City After Petroleum: Re-purposing Refineries to Decentralize Economy

Many cities around the world have developed around the social and economic benefits that oil refineries offer. Punto Fijo is located in a peninsula of Paraguana in Venezuela with a population of 345,000 people. It has the second largest refinery in the world—Amuay refinery complex. The Amuay refinery complex produces 940,000 barrel per day and offers 140,000 jobs.

Understanding the great amount of jobs, constant fuel production and economic benefits that Refinery offers to city, and also considering that technology is moving the away from fossil fuel, it is indispensable to find a solution to the question of what will happen to the city of Punto Fijo in 2060 when the Refinery of Amuay stops operating?

This thesis focuses on developing a strategy that begins with an analysis of the exciting structure and special capabilities, which allows introducing a specific program, and new components that enhance the exciting elements on the site. This creates a new life for this site through adaptable reuse.

Its infrastructure will embrace new possibilities that divide the economy and offer opportunities for new jobs. The outcome will seek to improve the social, economic and environmental aspects of the city by creating a synergy of the old and the new in a dynamic and proactive manner, where the secondary resources are exploded. The site will transition from a polluted and obsolete place to a diverse and stimulating post-petroleum city.

## Romina Avila



## 6 Collecting and Submerging Memories: Navigating the Floodwaters in a Disappearing World

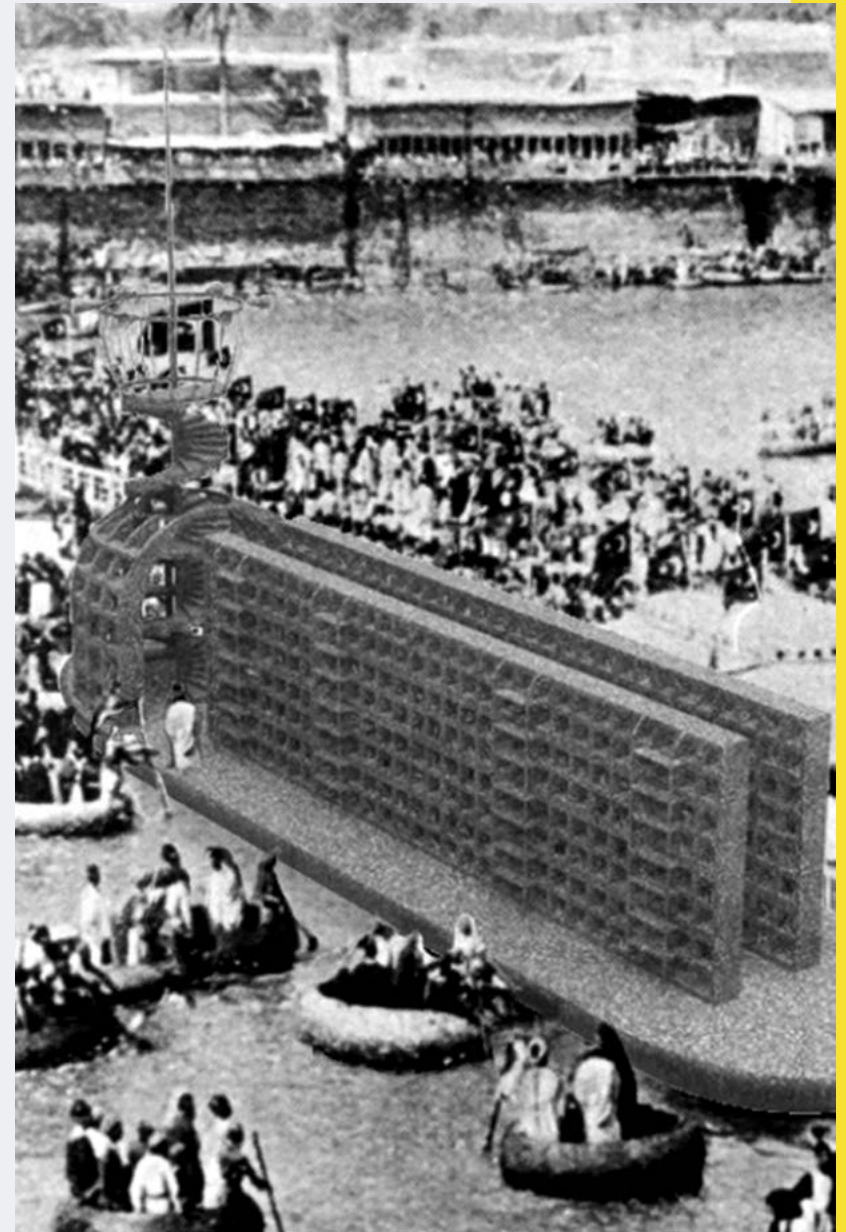
I came here, with my memories of old photographs, to try and find what I had seen in books. The news back home was that it would all be gone soon, and I yearned to find it. I thought maybe if I could see it for myself it might remain in my memory, even if it disappears from reality. And so I sailed, far away from everywhere, to the birthplace of humanity. Navigating up the river of my dreams, I passed abandoned and pillaged cities, but continued on. I heard there is a memory bank upstream, with memorials to all that has disappeared, and I dreamed of such a place filled with other people's memories on display for me to absorb as my own. After countless days I saw, through the sandy haze and salty mist, the picturesque skyline of an unforgettable place.

Arriving at the last inhabited city in the place of antediluvian times, I pulled my boat to the shore of an island where I could admire the expansive view. Seeing the city for the first time, ghost images from my memories played my vision like a silent film. In the place of the birth of humanity, far away from everywhere, surrounded by the stuff of the beginning of time, is the city of Baghdad. There is a fog of trepidation hanging in the streets: pieces of this city and others are already invisible: only in the mind's eye can they still be seen, in dreams and memories. There were libraries built to document the disappearing, but those are gone too. At any moment the city could be

overtaken by the black hole of turmoil, in an instant erasing the last monuments of the ancient world. One wonders, maybe it is already gone and we did not even hear it fall.

At the tip of the island I discovered a cave attached to a covered porch, where fishermen were gathered. Peering into the cave, I saw images of each disappeared place, and shelves of photographs and letters describing places my heart longed to see. I could spend months here, exploring the buried temple of memories I have yet to experience. Ascending, I found the fishermen listening to the news, anxiously waiting to hear where the disappearance descended today. One fisherman boarded a floating library, sailing to share some of the memories abroad, and return with new ones.

## Ana Sanya Bahrani

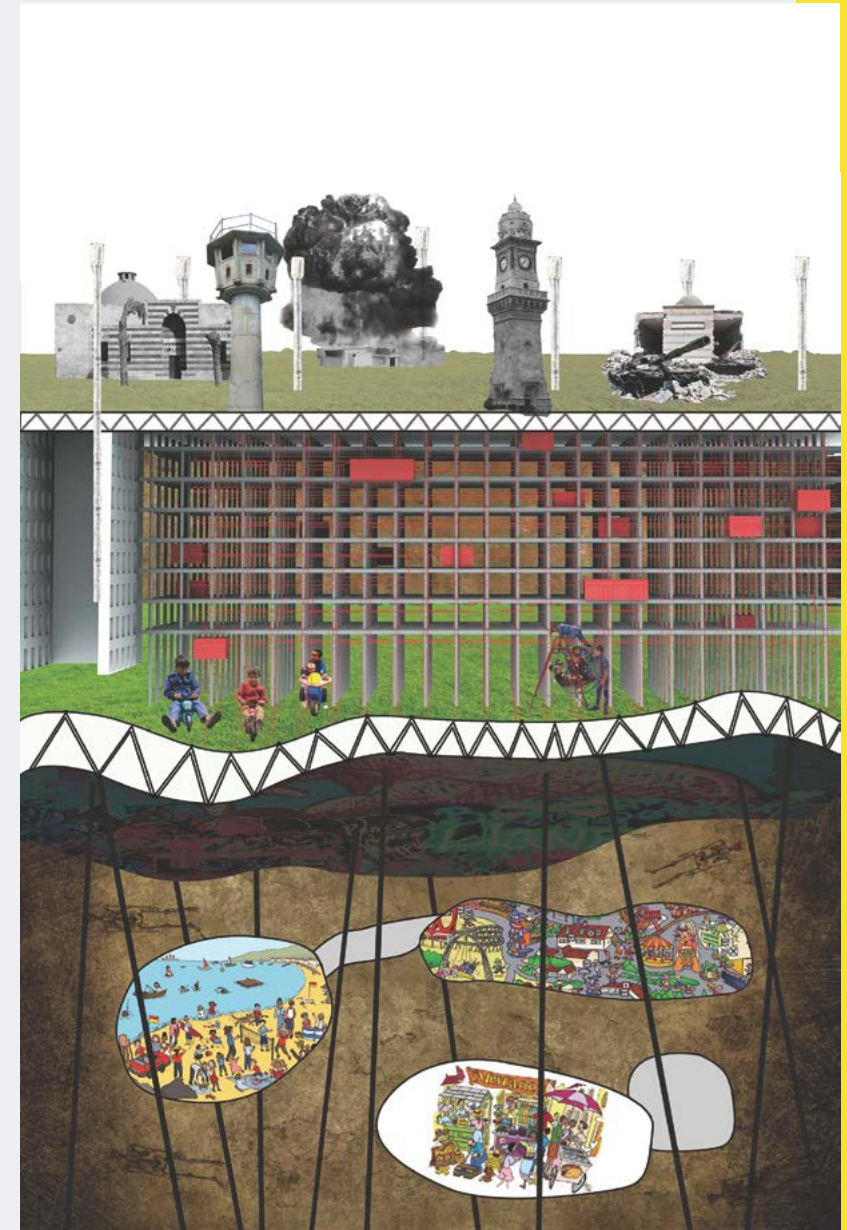


In emergency situations, architecture tends to act only after the conflict by providing temporary aid, such as refugee camps. This kind of emergency remedy displaces many refugees to countries all over the world. Refugees may be discriminated and treated as second class citizens in the host countries. They may be restricted in small areas like prisoners rather than citizens with equal rights. The thesis calls attention to this problem and attempts to affect the countries that refuse to participate in betterment of refugees' livelihood.

Aleppo, the most populous city in Syria, acts as a testing site for a proposed hyper-real and sarcastic project in the form of Underground Refugee Park. I presume that Syrian people will remain within the country throughout the war and be imprisoned underground instead of imprisoned in refugee camps away from their homeland. This project takes advantage of the war to create a new society for Syrian refugees who must flee domestic and multinational forces fighting over their land. Refugees will enter the new subterranean world through the heritage sites they are familiar with. Tourists who are interested in war zone and the life of refugees will enter the underground world from neighboring refugee camps and travel to Opperland by cable car. Opperland will be structured according to a re-organize city network. It consists of three layers which I call Uptown,

Mid-town and Downtown, literally and allegorically. Uptown is the existing heritage sites of Aleppo that have become a space of nostalgia, history, and now "open sesame" to the subterranean world. Mid-town which connects with original city is the layer for tourists' transportation and underground pipe works. The Downtown level is where the refugee camps and entertainment industry are located.

The intention of this thesis is not to provide a better living condition for refugees or to stop the ongoing war. It is an attempt to provoke the countries that secretly support or promote the war in a cynical and provocative way.



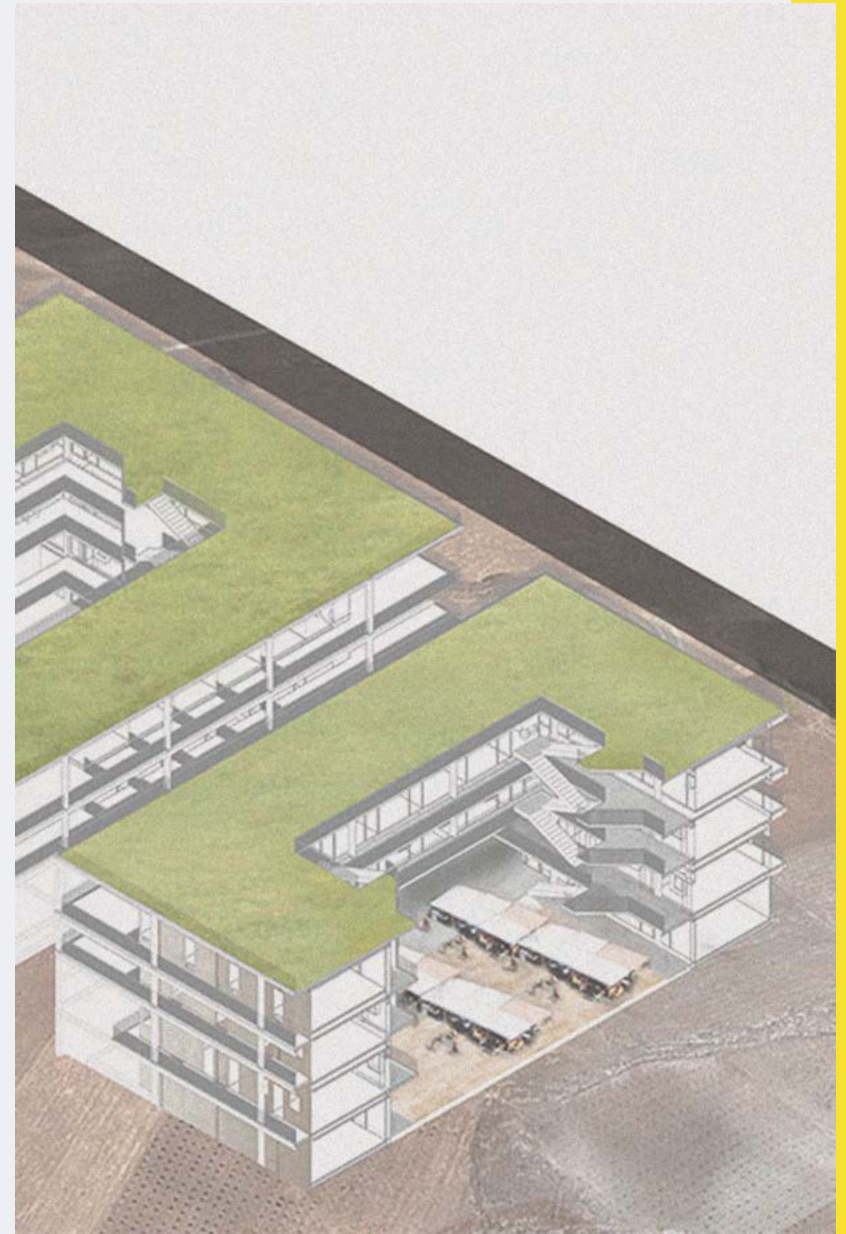
## An Adaptive Architectural Typology for Permanent Crises: Speculating Permanence for Modern Syrian Resettlement

The Syrian plight has shocked a media-savvy generation with images of immense suffering, recorded both within Aleppo and in neighboring refugee camps. Displaced people occupying camps, once officially promised relocation within two years, are now acknowledging semi-permanence in their new homes though establishing informal infrastructural, economic and social solutions with misappropriated materials and planning strategies. Philanthropic architecture needs oscillate between temporary and permanent elements to truly bring long term solutions to refugee user groups, offering a neighborhood scale typology with opportunities to rebuild not only their architecture, but permanent communities that may well prosper to the seemingly elusive extent that the Old City once did. Today, the city's condition is truly dystopian: it has a decaying infrastructure, rundown urban fabric, and a ring of congested road traffic. Aleppo arguably holds much of its beauty in the eyes of its citizens, through their memories of a beautiful and remarkably functional urban fabric. In addition to offering a vast historic density, the city has provided several morphological readings to each of its critical elements, including the Quweiq River establishing a natural topography, the symbolic Citadel on a spectacular plateau, the walls and gates offering opportunities for both historical readings and methods for future

growth, and the significantly dense residential fabric, where dwellings remain humble but deeply regarded. The city emulates Le Corbusier's machine: through the "labyrinth" of finely planned and unplanned arteries, offering opportunities for both planned and unplanned encounters, the city is a setting for communication—a precedent that every ambitious company, school or university, and institution is today doing its best to reproduce.

The opportunity to conceptually disassemble and "clean out" this machine pushes past the assumption that the Syrian relationship to the Old City is solely based on the nostalgic tendency to long for what is lost; Aleppo is a radical case study for new and evolving postmodern landscapes, in that it offers a tendency toward optimization in all architectural realms, including passive climate conditioning systems, dimensions of dwelling units, aggregate building conditions, their relationships to the street, the scale of pedestrian dwelling, and so forth. Reestablishing this optimized urbanity for refugee rehabilitation and recovery is an opportunity for architects of all scales to participate in a more socially conscious solution to the age-old problem of semi-permanent settlements, and a unique insight into the ways architecture can both function as a shelter and a mechanism for systematized growth.

## Katherine Barymow Jacqueline Morin



What society holds sacred can be evidenced through the architecture it constructs. Sacred space and sacred architecture are no longer restricted to the religious. A sacred space serves its users in a transcendental way and allows them to experience space outside of the simple demands of enclosure. This thesis aims to explore architecture's role in facilitating the transcendental experience, foster contemplation and reflection, and evoke a secular sacred space.

Sacred architecture and sacred space serves as a sanctuary for a person, group of people, or an idea. Bridge II will explore the less traditional notion of the non-religious, essentially secular or profane, sacred space. The paradox of the profanely sacred poses an interesting mystery and an equally interesting architectural opportunity.

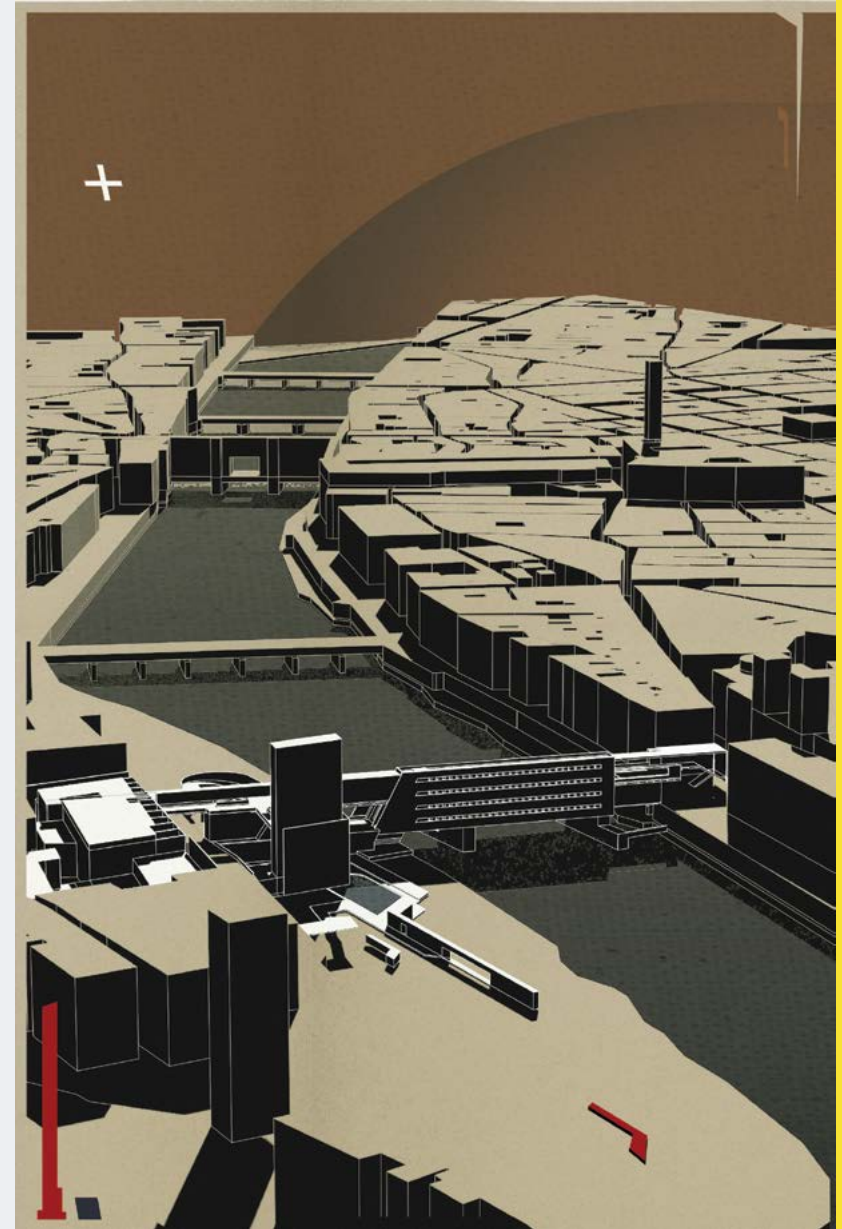
Bridge II hopes to mediate and understand the forces of the individual and the collective and their respective notions of what sacred can be. Doing so, will allow for the creation of a hyper-constructed, ritually driven space devoid of religious affiliation. Bridge II will be outfitted with the program of a fine arts academy, specializing in the traditional crafts of Italy. This hopes to foster the rebirth of the sacred master-apprentice relationship and pay respect to the traditional roots of Italian arts. Housing for the students will line an inhabitable bridge, constructed of two sacred planes. This formal gesture

will serve as the connection across the Arno and will carry students and visitors into the academy compound.

Studying religious formal frameworks and elements, and drawing from Italian formal design allows for a new sacred architectural language to be born: the Sacred Tektonik. The Sacred Tektonik utilizes the formal aspects and construction of the tectonic systems with the affect and visual impact of the stereotomic. Bridge II becomes a non-religious church and accompanying monastery, filled with art-student monks, performing non-religious piety.

The artist constructs a new symbol with his brush. This symbol is not a recognizable form of anything that is already finished, already made, or already existent in the world—it is a symbol of a new world, which is being built upon and which exists by the way of the people.

—El Lissitzky





Mapping can be defined as the dynamic and temporal representation of the existing ground condition as well as the abstract operations that begin to experiment with these elements.<sup>1</sup> This thesis aims to identify, through the process of mapping, the ways in which Rochester could shift from an industrial to knowledge-centric city. Mapping reveals that the ingredients to Rochester's revival lies within the existing conditions of the city. James Corner describes the process of mapping as:

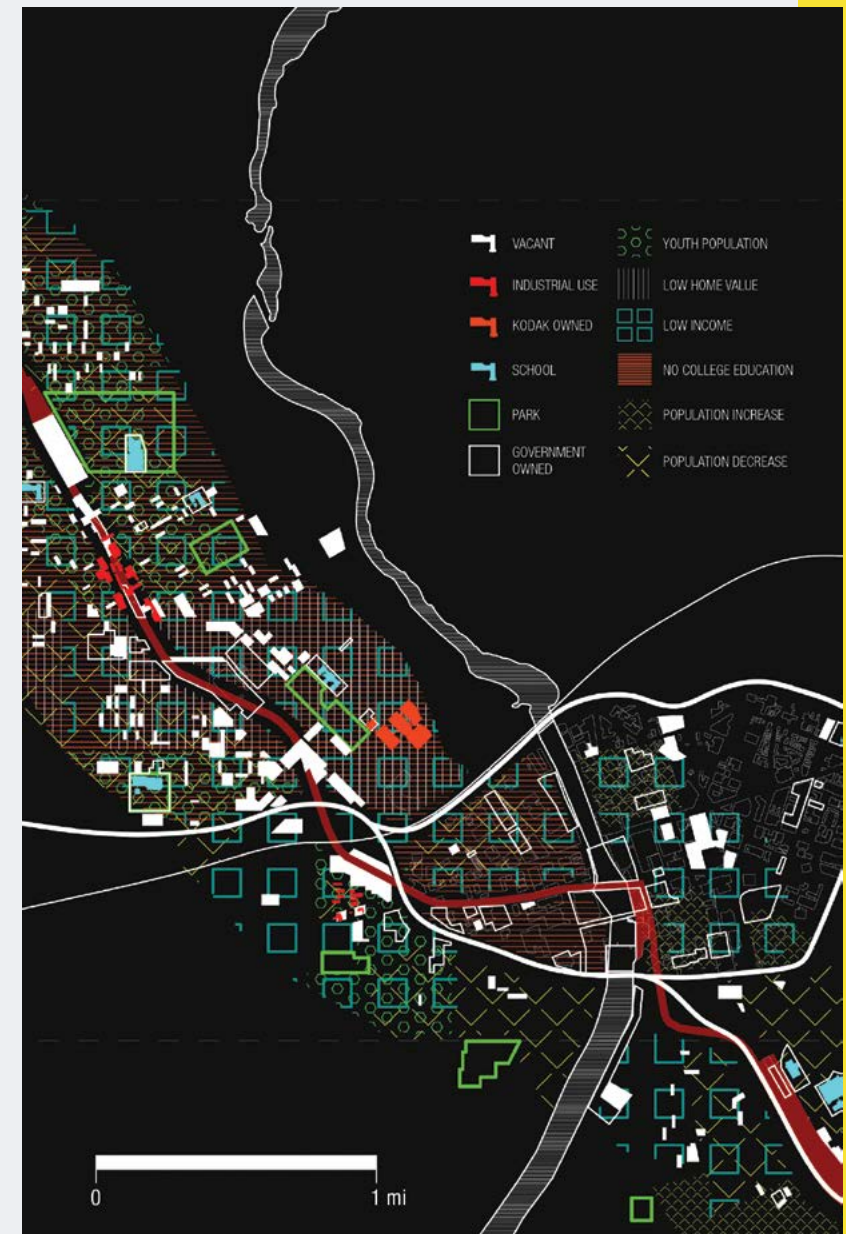
The act of [discovering] new worlds within past and present ones; [inaugurating] hidden grounds upon the hidden traces of a living context.<sup>2</sup>

Going with the theme of past and present, a relic of the city in the form of an old canal network that runs through the center of Rochester is reintroduced. The canal network later formed into the Rochester subway, a series of rail car lines that brought residents from the periphery to the city center. Today the subway is no longer a clearly defined feature of the city, its lines have been cleared while roads, highways and parking lots have taken its place. Retooling the area of the subway is an effort to generate a discussion about the future of Rochester and other Rust Belt cities. Mapping becomes a generative tool to lay the groundwork

for more efficient means of occupation and organization of this infrastructure.

In terms of knowledge creation, mapping allows for the selective representation and experimentation of knowledge-centric elements in the city of Rochester. Mapping is a tool to construct a new framework atop of an existing context, which begins to suggest connections amongst otherwise disparate parts. The idea of the map transcends more traditional city planning and zoning methods to create a more layered, complex fabric. Each layer of the city is not viewed as an isolated condition, but instead as a stratified amalgam of relationships. Mapping illustrates the potential for Rochester to become more heterogeneous and open-ended in its transformation to a knowledge-centric city.

<sup>1-2</sup> James Corner, "The Agency of Mapping: Speculation, Critique and Invention", in *Mappings*, ed Denis Cosgrove (London: Reakton Books, 1999), 214-252.



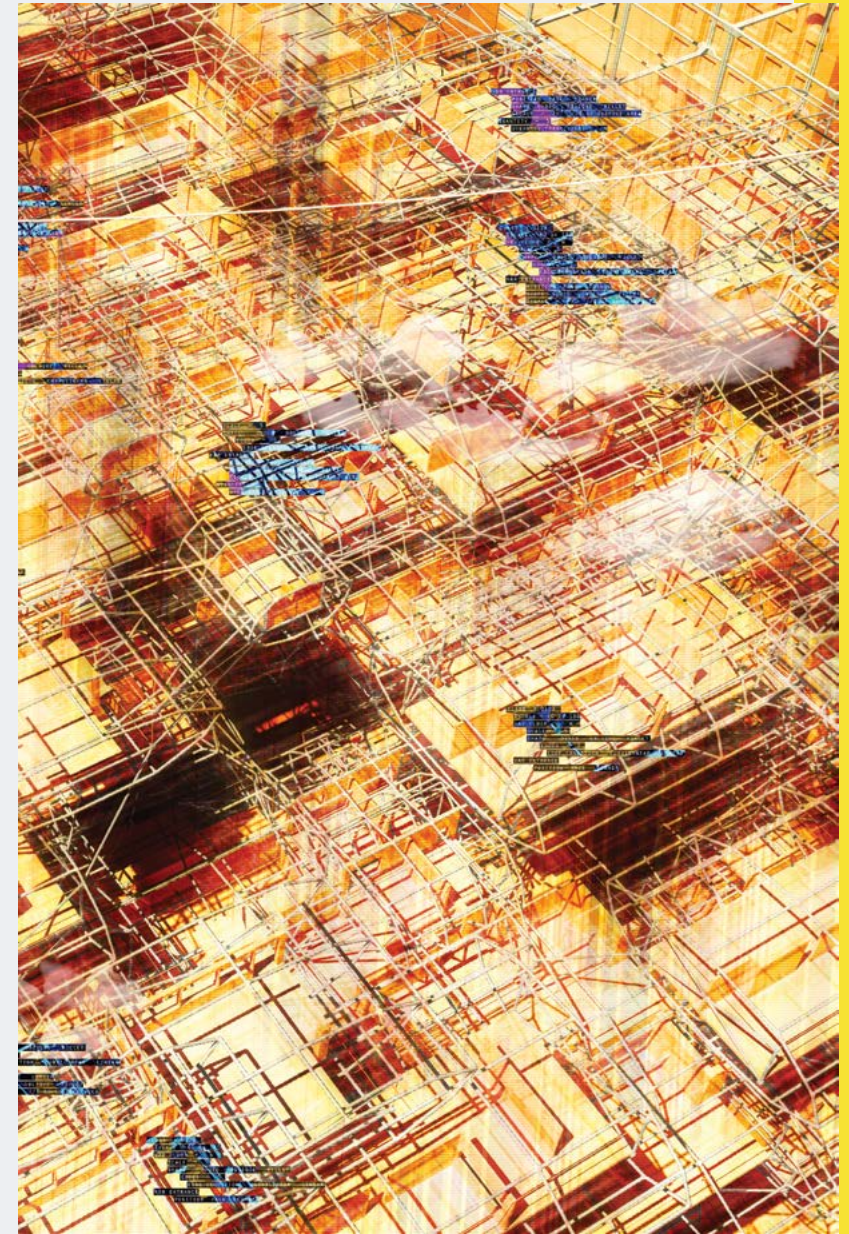
The networked device is becoming an integral part of the ways in which human beings interface with their environment. This project seeks to explore the architectural implications of this trend as it reaches its logical conclusion in the cyborg mind. Access to information concerning specific geographic and architectural locations is already a tool used in the creation of communities and defining spatial boundaries. The ability to do so relies on the interconnected layers of virtual and physical objects. This relationship is described in Benjamin Bratton's *The Stack* which labels the mass of connected devices and users as an "accidental megastructure." Currently, our interactions with this megastructure are mediated through external interfaces. However, it seems inevitable that through augmentation, humans will adopt abilities that allow them to interact directly with both physical and virtual spaces. As the cyborg becomes more prevalent, architects will have to address structures that can interface directly with the cyborg mind.

Our investigation utilizes the city as a test site for an iterative series of prototype communities. Divided into four phases, beginning in the present day, and ending in an urban megastructure that is fundamentally designed around the cyborg. In each iteration of cyborg gentrification increasingly claims real estate, first virtually, then physically. Once claimed,

spatial instances are copied and pasted into empty areas of the existing city. Corresponding infrastructure arises to support these duplicate rooms, and a web of structure and services arises. The result is an edifice inscrutable to the few humans that remain—hundreds of rooms suspended on top of one another. However, to the cyborg, who is able to cull and sort through complex information, the web is a small town, only a handful of virtual spaces occupying hundreds of physical instances.

Although brain-computer interfaces maybe an inevitable part of our future, we do not mean to present this project as an inevitable outcome. Rather, we hope to join a growing circle of architects exploring the possible manifestations of overlays of physical and virtual space. Through a mix of conventional representation techniques and augmented overlays we hope to simulate the experiences of both human and cybernetic users, ultimately demonstrating the necessity of new kinds and possibility for architectural and urban organizations for cyborgs.

# Chris Bressler Colin Thomas Hoover



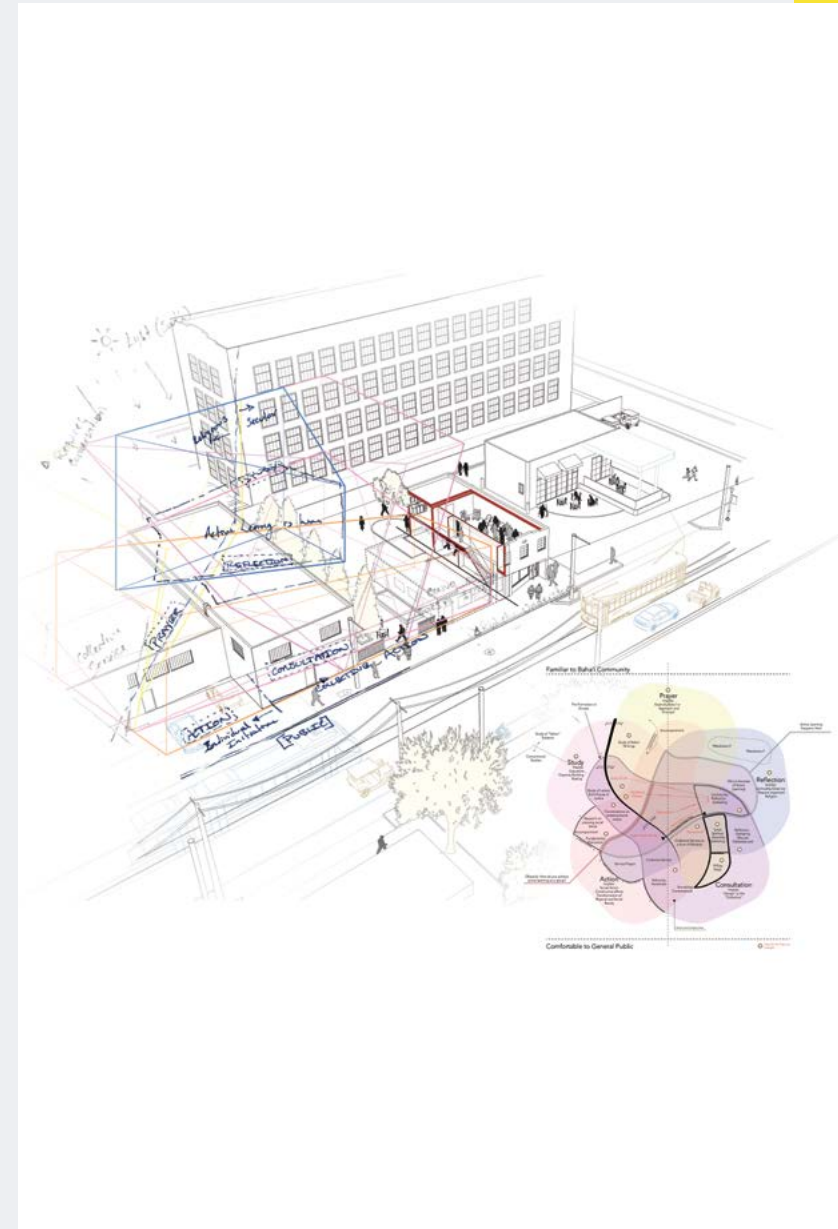
## An Integrative Space: Exploring the Connected Role of the Atlanta Baha'i Center

Daring to overlook obedience to the law, the black and white friends of the Atlanta Baha'i Community of 1959 did not believe they were any different from one another, but the Jim Crow laws required two distinct congregations. White people used the front door, the black members of the congregation entered through the back. However, with closed shutters, the friends crept upstairs to hold a single, united congregation in secret. Located only two blocks from the home of Martin Luther King, the neighborhood became a focal point for the promotion of racial equality until the segregating laws were abolished in 1964.

As the understandings of society advanced in the last sixty years, so did the complexity of the Baha'i community and its programs. Today, Baha'i centers around the world are transforming and are giving way to spaces that can meet the needs of a quickly evolving community. Serving as a core for a systematic learning process of study, consultation, action and reflection—the Baha'i center must cater to a range of activities and audiences.

This thesis identifies a humble building in the early days of a Faith—a Faith that has yet to see an architectural typology emerge. Rather than suggest a single crystallized form as a typology, this thesis contends to develop a conceptual model that reflects the evolving framework of the learning process and the activities that mobilize the Faith.

The framework is translated into a spatial organizing system that generates connections, rules, and boundaries regardless of site. Tested on the land adjacent to the historic Atlanta Baha'i center, the translation of the diagram into a work of informed architecture will be used as a means to edit and refine the spatialized framework.

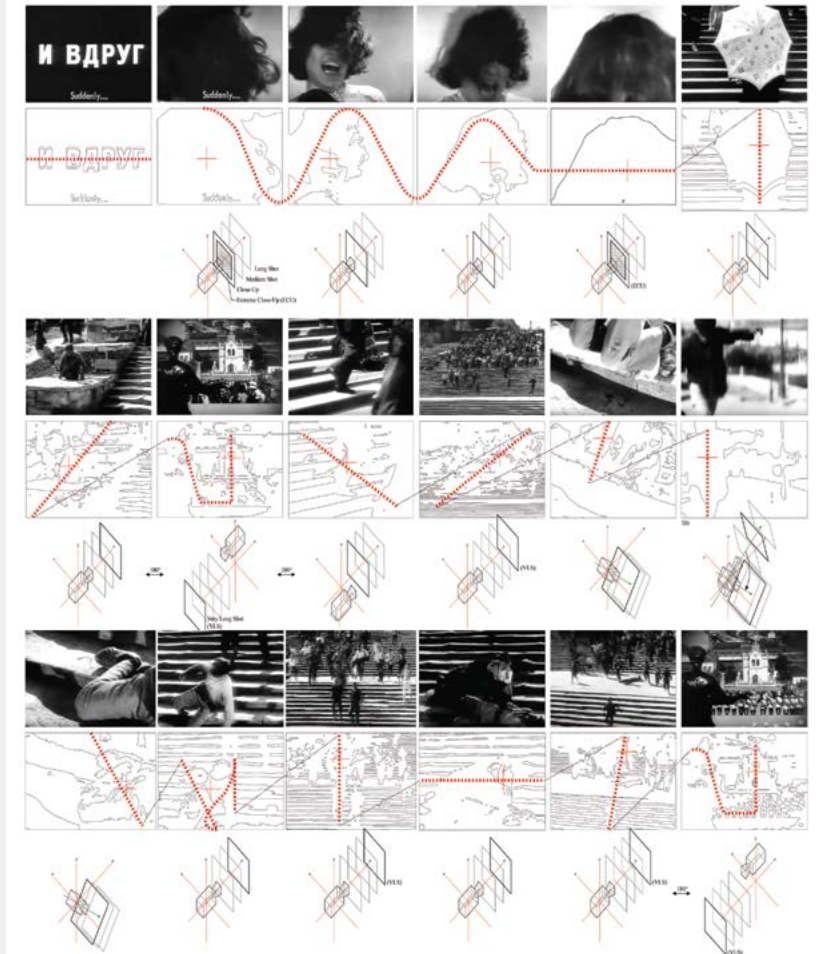


Sergei M. Eisenstein, a film theorist and a pioneer in the theory and practice of montage, conceived the idea of a 'vertical montage' to create synchronicity between picture and sound with the aim of structuring film as an audiovisual medium. Ultimately, it is through working at the edge of pre-filmic montage and structural principles of music that film could materialize its own repertoire of patterned language. This thesis seeks to provide a case for an extension of Eisenstein's original concept of montage in architecture in the form of a multi-medial exhibition space that simultaneously acts as an atlas of Eisenstein's work while reconsiders disciplinarity and medium specificity in architecture.

In today's world, we are increasingly working with a wide range of media across a multi-medial terrain, architecture constructed to house precinematic body of images or objects are often static and moves little beyond the Classical model of organizing things in a 'table' that invited spectators to browse the collection. How can we move beyond that model and create a new synchronicity between the moving image and the architectural space? How can the architectural space activate both simultaneity and multiplication in spectatorship?

Let us reconsider the surface of the display, whether it be wall, canvas, or screen. When meeting projection or transmission, it begins to disclose

layers piling up, traversing, or spilling over and thus defies its planarity and becomes a space of real dimension. The visual also manifests itself materially in different ways on different surfaces. Hence, the visual is mediated on what we understand to be an architectural surface. It is through the intertwining of medium and matter that architecture will finally be able to experience the crossover of different mediums and see their connection in texture and surface tensions.



## For the Love of Concrete: Embracing the Ugly Duckling, Not the Decorated Shed

It's all in the name! *For the Love of Concrete* is at its heart an homage to concrete, advocating its beauty, versatility and durability. *For the Love of Concrete* celebrates concrete's ability to create spatial experiences that are compelling, varied, acoustically attuned and thermally tempered. In the face of increasing superficiality in the world at large, *For the Love of Concrete* above all celebrates the authenticity and substantiality of concrete.

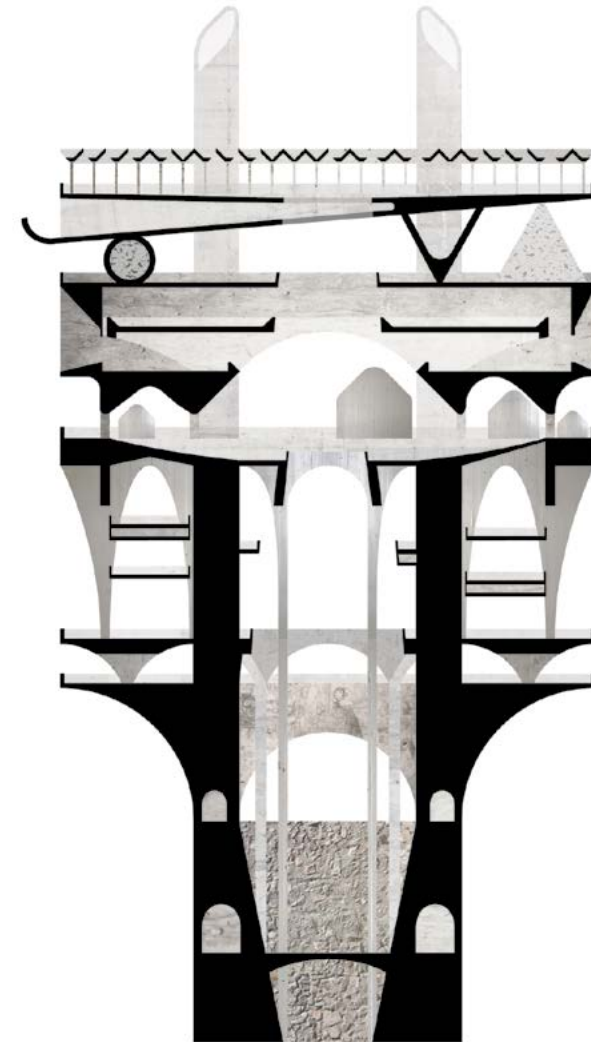
What prompted this research is debate around 'Brutalism', the oft-misjudged architectural style. Brutalist buildings are architectural *ugly ducklings*, beloved by many designers but loathed by most others. A cult following has grown up around it, valuing its honesty of material (predominantly concrete), nuanced surface treatments, bold structural moves, and its befuddling balance of historic and decidedly futuristic expressions. Still many noted Brutalist structures have been prematurely demolished, unable to earn wide community support or be preserved through litigation. Brutalist architecture explicitly references ancient architecture in its massing and materiality; these buildings were built to be immortal! But ironically, Brutalist buildings are now being torn down in droves despite their demonstrated potential to be adapted. They are at worst being replaced by parking lots and at best being replaced by

monotonous glass-skinned boxes that value the optimized, ethereal and temporary over the whimsical, substantial and eternal.

Some say that beauty is only skin deep. In kind, many architects at present have become obsessed with (and are often relegated to) solely the design of facades. *For the Love of Concrete* advocates the design of good bones, not just beautiful skin. *For the Love of Concrete* focuses on the design of said bones, encouraging a return to the solid, *poché*-driven structures of old. Therefore, it forages for inspiration in the history of concrete construction (from ancient Roman, through 20th century Brutalism, to the exquisitely executed Swiss concrete of today).

Concrete: ubiquitous, yet anything but common; durable yet adaptable; robust yet beautiful.

## Steven Carlson



## The Uses of Urban Ballparks: Applying the Principles of Jane Jacobs to Urban Stadium Design

The central argument of this thesis is that the placement of large-scale baseball stadiums into an urban fabric as a catalyst for city development, even though returning to the historic roots of original stadium design from the beginning of the 20th century ignores the realities of many conditions of city life. By including the ideas of Jane Jacobs from her book *The Death and Life of Great American Cities*, into the overall design of an urban stadium, the negative effects that these large-scale projects tend to have on their surroundings can be minimized.

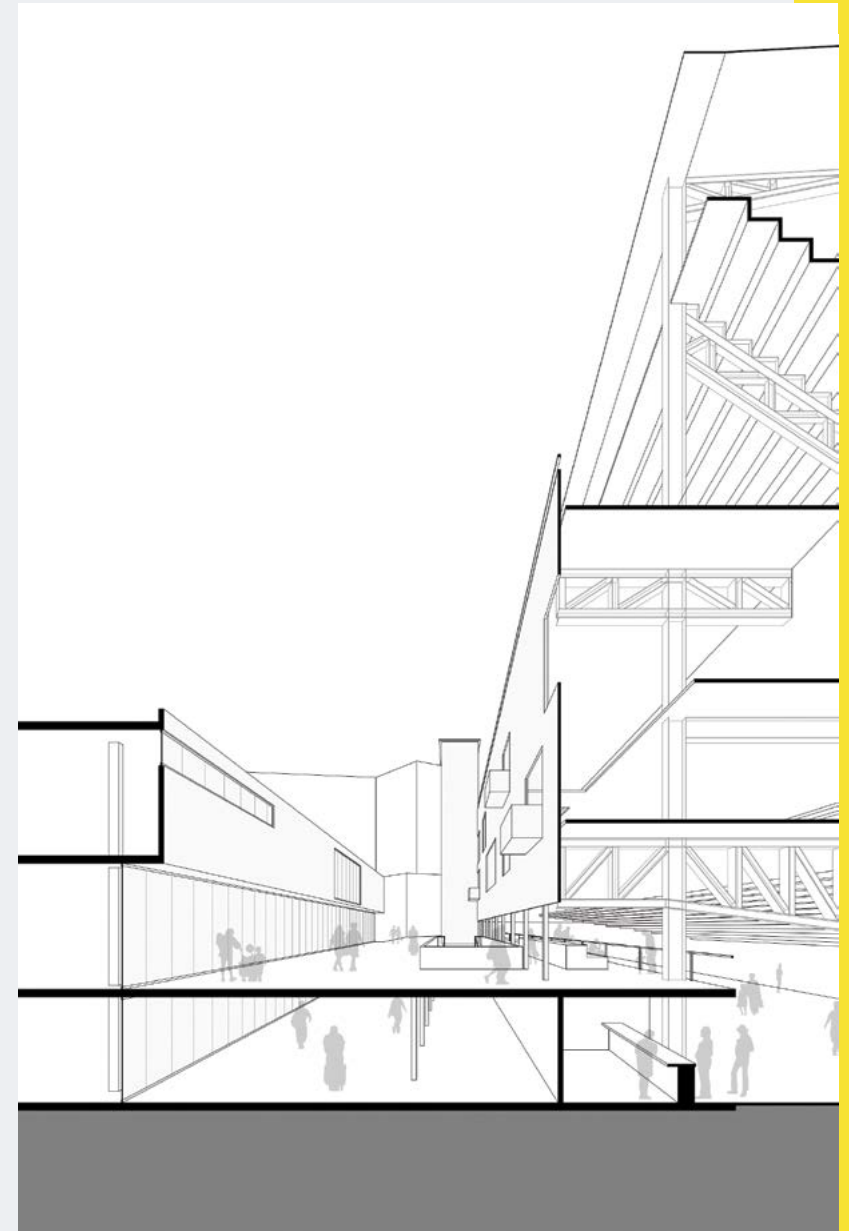
Professional baseball has recently gone through an explosion of stadium construction, with cities trying to mimic the development of the Inner Harbor area of Baltimore following the opening of Camden Yards; 21 new facilities have opened in the 25 years since that project was completed. The decision to place a new stadium in downtown Baltimore was itself an attempt to stimulate the growth of the types of communities that grew around older ballparks, such as Boston's Fenway Park and Chicago's Wrigley Field. However, many of these projects ignore the needs of their surroundings at times beyond those in which the stadium is in use.

Due to the inevitability of stadiums being constructed in urban centers, the designs of these projects can, and should, integrate the everyday urban life of these cities into the stadium itself much more successfully. Jane

Jacobs, who undoubtedly would have disliked any massive project like a baseball stadium, makes observations on successful city life that can be influential when thinking about the functions of stadiums beyond hosting large events. Jacobs believes that successful street life tends to come through organic growth and use over time, and the interactions of a city's users, rather than a strictly top-down urban planning approach. One of Jacobs' central beliefs is that successful cities are incumbent on "a most intricate and close-grained diversity of uses that give each other constant mutual support, both economically and socially."

The zone of space between the stadium and the street becomes the site of this thesis project, using the urban planning principles of Jane Jacobs to create a more positively influential urban design. The integration of these two entirely different methods of thought, one that focuses on maximizing profits and another that focuses on the everyday needs of individual users, while seemingly incongruent, can allow for a more vibrant street life in a city neighborhood around an urban stadium.

## Logan Carroll



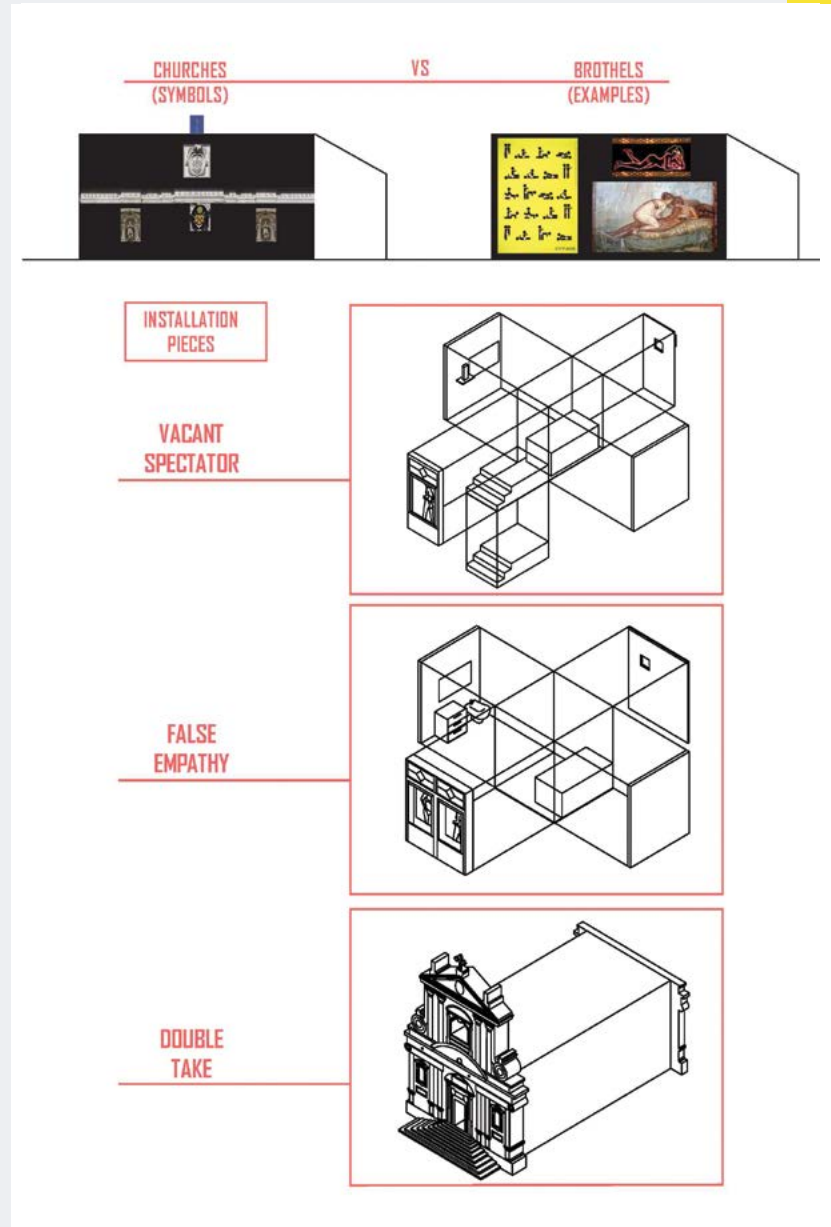
## The Scamming Facade: A Facade Study of Rome's Baroque Churches and Amsterdam's Red Light District

Through analysis of the Red Light District of Amsterdam and Baroque church facades, a set of facade elements was identified to comprehend the desired function of the facade message. After being able to speak to prostitutes, clients, priest and visitors a change in the thesis process was created. I shifted my focus from the relationship between the facade elements and the message portrayed by such to the direct relationship that architecture has with the creation of an ideal image of what the interior experience will be. By treating architecture as a medium through which the image of an ideal interior can be created a different meaning is attributed to architecture, that of an optical illusion.

When comparing the facades of both Rome's Baroque churches and Amsterdam's Red Light District it is necessary to understand the society in which both typologies were originated. While the Baroque churches started in an atmosphere of decline by the church due to the increasing number of Christians that had become pagan, the Red Light District of Amsterdam was founded due to an increasing number of visitors in Amsterdam that came through the port in the Amsterdam harbor. Both the Catholic Church in Rome and the prostitutes in Amsterdam should be consider the creators of the message that is exposed in the facade of their businesses. Both facades have one objective: attract customers.

Although changes in politics and religion have occurred since both Amsterdam's Red Light District and Rome's Baroque churches were built, it is possible to say that the current society has prevailed to be extremely interested and preoccupied with the concept of facade and the message that can be exposed to the watching audience rather than concentrating in the way in which a space can create a psychological and sensorial experience that will allow for topics that are considered taboo to becomes accepted as a topic of conversation.

## Alejandra Charrabe



This research project maps the contemporary landscape of public housing in New York City in order to set up an urban, financial, and architectural foundation for the projection of public housing redevelopment.

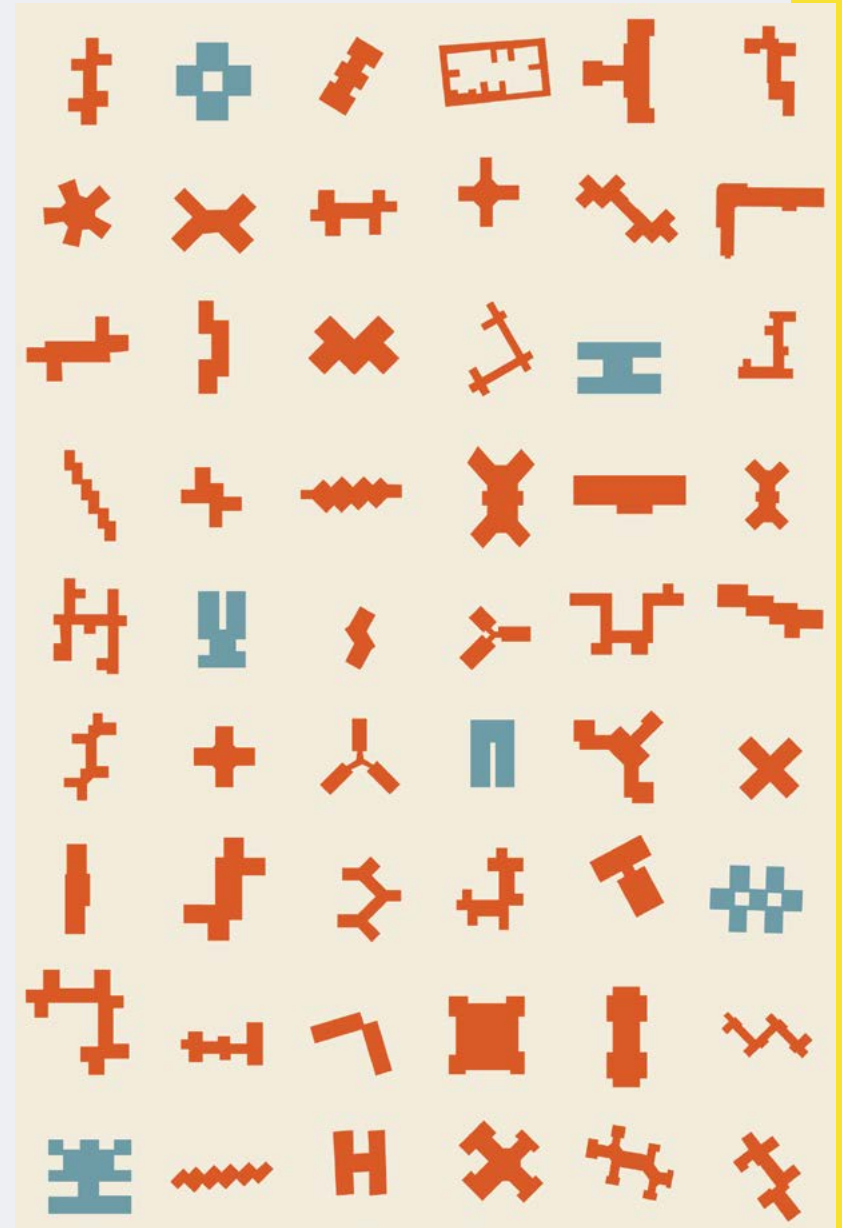
All of the public housing stock in the five boroughs is owned and managed by the New York City Housing Authority (NYCHA), making them the largest landlord in the city serving 1 in 14 New Yorkers. Many of their projects are in need of improvement due to a lack of public funding, and their “towers in the park” site strategy is not optimal for contemporary considerations. This thesis argues that this particular form of housing can be improved for low-to-moderate income households by designing more efficient building systems and incorporating public programming.

In conjunction with an unprecedented demand for affordable housing in the city, this project explores the option to simultaneously increase the public housing stock and combat urban stigmatization by including new public programs. Because these housing projects are so similar in terms of form and materiality, our research shows that they can be systematically demolished and strategically re-designed to take advantage of underutilized spaces. Construction methodologies are re-examined in order to not displace existing tenants.

Our specific test site is the LaGuardia Houses, a public housing project located in the Lower East Side. The urban and architectural elements of the LaGuardia Houses are dissected and analyzed based on the presence of inclusive public program, neighborhood connectivity, comfort of housing units, and transportation access.

Architecture can act as a social mediator and economic equalizer, shaping the forces which influence it in return. The public sector in New York City is already trying to utilize new initiatives, such as Mayor Bill DeBlasio’s housing plan to incorporate 200,000 new units of affordable housing over the next ten years. However, by offering incentives for new and private developments, the city is ignoring its rapidly deteriorating existing stock. The goal of this project is ultimately to persuade the public sector to view their properties as investments with a more economically and urbanistically sustainable timeline. In doing so, we plan on formulating a prototype and a new architectural vocabulary for the reconstruction of public housing throughout New York City.

## Ruo Piao Chen Caroline Jeon





## Reconstruct the Missing Narrative: Rethinking Contemporary Chinese Architecture Through Ancient Landscape Paintings

“To appreciate traditional Chinese painting, one needs “special” eyes, which means you are not only an audience, but part of the painting. One needs to put themselves inside to experience the surroundings. How does one feel when sitting inside of the architecture of the painting?”<sup>1</sup>

### Narrative:

In ancient Chinese landscape paintings, especially those from Five Dynasties to Yuan Dynasty, audience can always perceive a narrative quality embedded within. This quality is also regarded as the idea of 移步换景, which means the scenery changes as one walks. It was integrated into ancient garden planning and created a total effect that could be perceived by humans moving through the blend of architectural and landscape scenes. This effect or type of experience also reflects an important theme in Chinese culture: reclusion. It not only means the way of living inside nature, but also the attitude of pursuing happiness from nature.

### Missing:

In contemporary China, the lack of identity in architectural discipline is a common and important issue due to the intense pace of development in the country. Facing this issue, some contemporary Chinese architects have proposed and practiced their own design manifestos. This thesis proposes a different way to address this issue; to revive the narrative quality embedded in landscape paintings.

### Reconstruct:

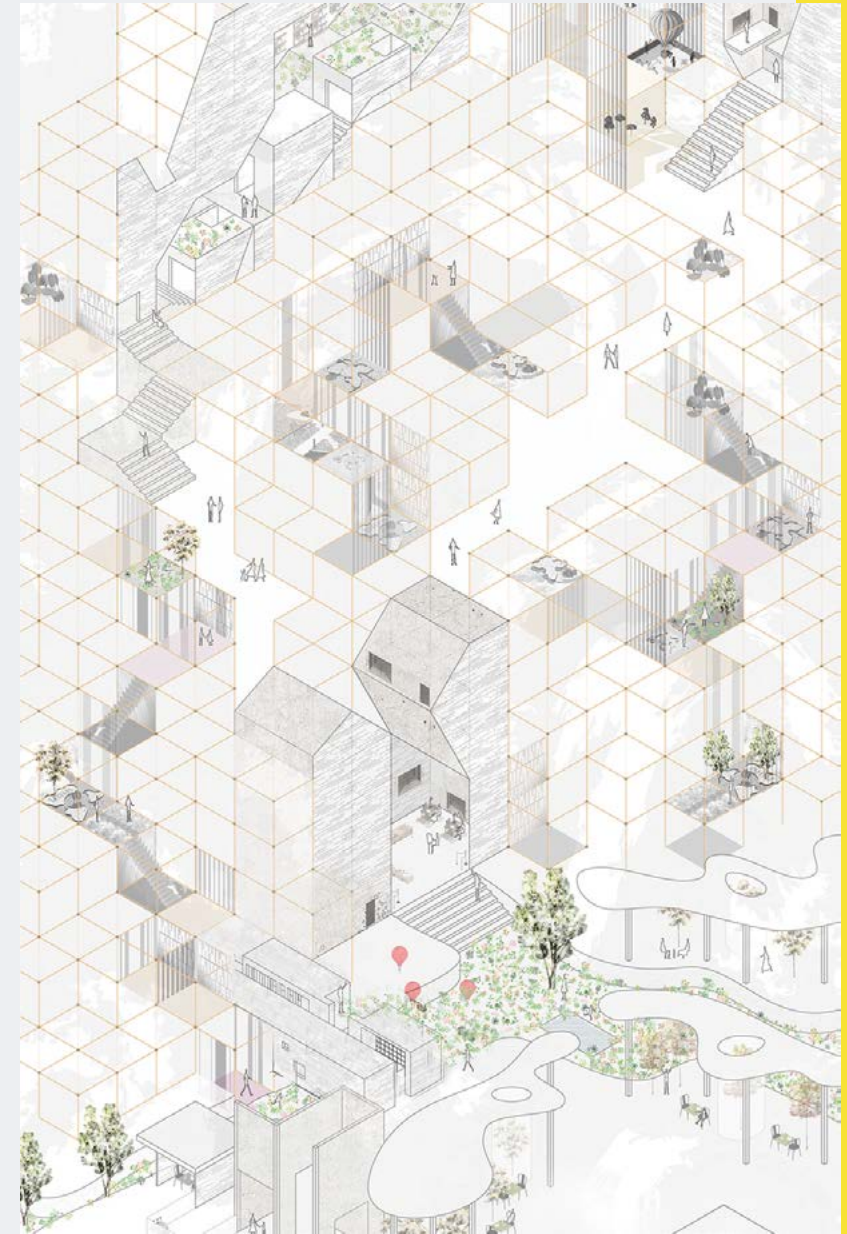
The selected paintings are all under the theme of reclusion but represent three stages of the period and three subcategories of reclusion. To pass on the spirit of reclusion in contemporary context, the entire project provides participants with a tranquil environment and a temporary retreatment from the city life. Based on original narratives of three paintings, the project sets up three parts/stages for participants to experience:

- 1 Thinking: one retreats from the city to the most isolated place and starts a journey of contemplation.
- 2 Making: one begins to engage in working and producing, and try different activities such as handcraft arts, spinning, and planting.
- 3 Seeking: one looks for activities he/she feels comfortable with in a more mundane environment, while maintaining the spirit of reclusion.

Aimed at creating an environment that provides personal experience and exclusive meaning from a participant's point of view instead of an omniscient view, the thesis is not to resolve the issue, but to provoke new thoughts by exploring landscape paintings as a possible design method to revive the missing narrative.

<sup>1</sup> Wang Shu, “The World's Most Earthy Architecture,” *Yitiao*, September 2, 2016.

## Taiming Chen Yiwei Wu



There is no place for growth in Shenzhen!

Known as the “instant city”, Shenzhen is a rising city of almost 10 million people in China, situated within the Pearl River Delta bordering Hong Kong. Shenzhen became China’s first and most successful Special Economic Zone thanks to China’s economic liberalization. Since the reform and opening-up policy in the late 1970’s, Shenzhen has experienced unprecedented growth from a fishing village of 30,000 to a city of almost 12 million.

Unprecedented growth and lack of zoning controls accelerate major urban sprawl in Shenzhen, and the city will reach its land limit shortly. To maintain the economic growth, the city is looking for a solution of the land area restriction other than eliminating urban green land. The idea of *Architecture + Infrastructure* responds to this demand.

Designed to serve the functions of communication, transport, movement, and framework, infrastructure plays a significant role in forming the new urban order. Among all kinds, transportation infrastructure system is the most visible and the most relevant to us. Coupled with the rising automobile culture, transportation infrastructure accelerates the urban growth and urban decentralization. With such power, however, most of the infrastructure is built under the culture of standardization and serves a single purpose. New disciplinary hybrids are needed to stimulate other possibilities with the existing condition.

Besides the issue of singular functionality, people’s physical accessibility to places within cities is weakened due to the automobile oriented transportation system. Rapidly developing Asian cities celebrate the new spatial order with the help of new urban infrastructure. Cities have been cut off by road systems, resulting in segregated super-blocks that are physically inaccessible for people to walk to. They are only accessible by car.

This thesis, addressing the needs of urban re-densification and the current issue of fragmented urban fabrics in Asian cities, rebuilds physical connections through transforming existing infrastructural objects (passenger-bridge, roundabout, and acoustic barrier) into inhabitable and iconic spaces. New transportation infrastructure will be designed with multi-performativity and strong connectivity—where new spatial quality and urban experience would be generated.



*Form* in architecture has become synonymous with geometries as opposed to the philosophical Aristotelian notion of form. This thesis rests on two beliefs: *space* and *form* are co-present, as *space* without *form* is nothing and likewise *form* without *space* leaves no room to materialize itself. An *object* results when *space* and *form* are co-present; architecture as an object then subsequently reveals itself when a third element of *human movement* is introduced.

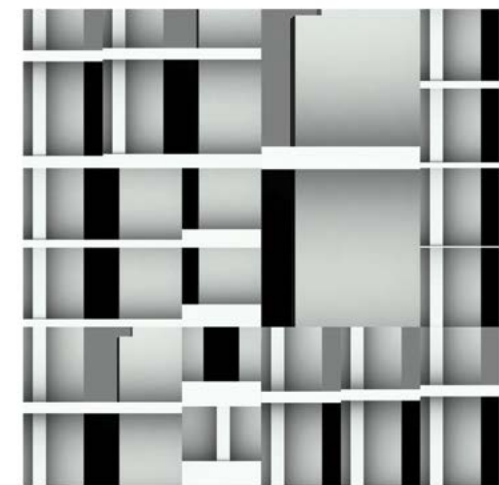
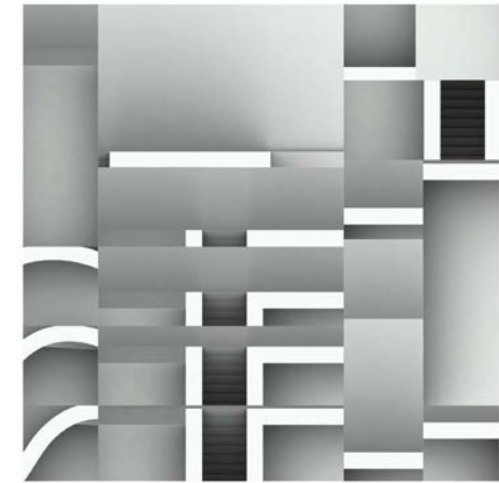
This thesis contends that if architecture is perceived through the introduction of *human movement*, then it is peculiar that architectural representation has historically been represented through means of *static images*. Through what is delineated as the *moving image*, this thesis explores a new mode of architectural representation that utilizes the dynamism of movement as a means of design for architectural form.

By using Bernard Tschumi's "The Manhattan Transcripts" as a base of exploration and experimentation, we are able to explore the idea of movement in architecture through means not represented in Tschumi's original documents. One of the core issues that we contend with against Tschumi is how he visually articulates *movement*. Tschumi's use of an imaginary character traversing through 'stage sets', and the subsequent diagramming and mapping of this character

movement helps Tschumi create a methodology to his representation and architectural form making. With this methodology, Tschumi then attempts to visually represent the 'stage sets' and *movement* through section, plan, axonometrics and perspectives. This thesis questions, however, if simply representing character movement through a series of static images is able to genuinely capture the dynamism of *human movement*.

While the goal of this thesis is a visual representational methodology for the *moving image*, it also aims to achieve the original equation of *object (space + form)* and *human movement* is architecture. Every artifact and image generated for the moving objects is ultimately a culmination of a series of two-dimensional images. To fully engage *human movement* and *object*, the representation of the project must be realized into three dimensions.

## Eujean Cheong, Sol Yoon & Andrew Kim



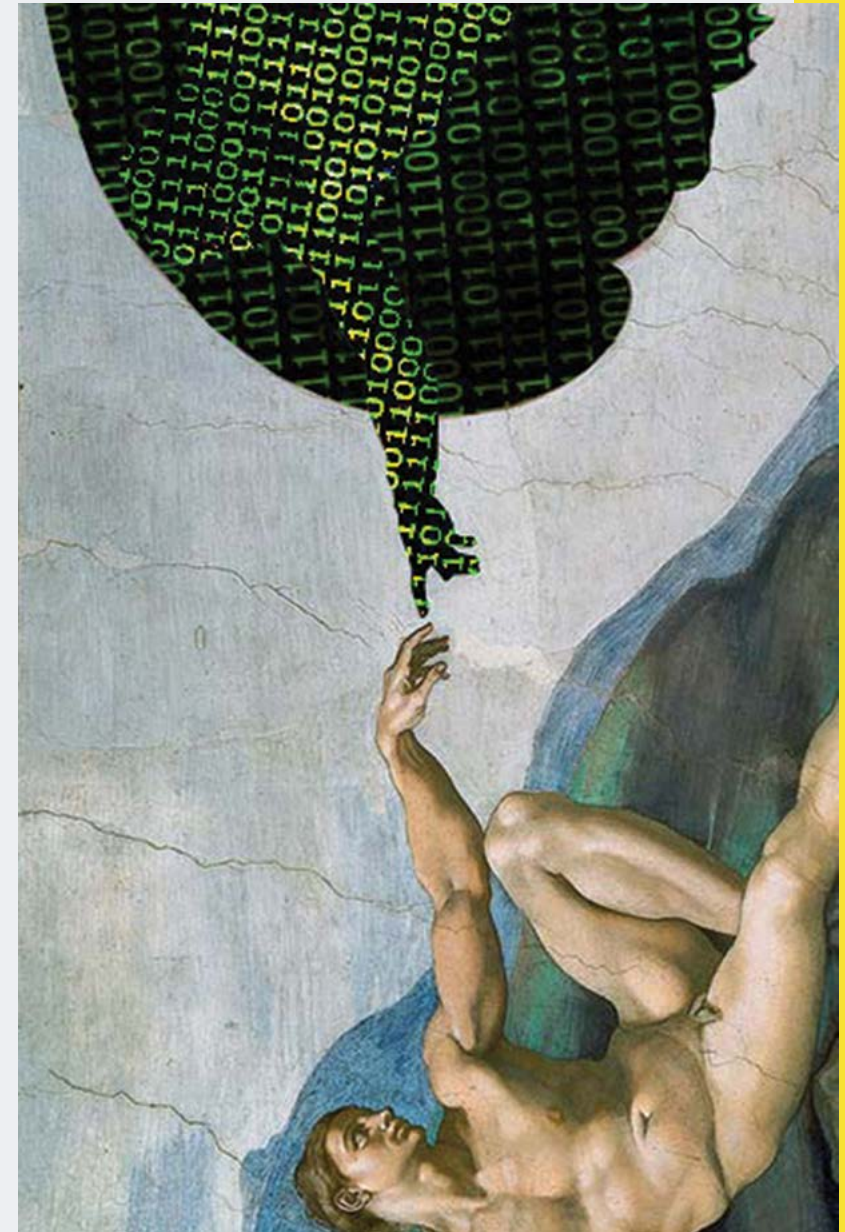
Jessica looked over her shoulder. The man walking a few paces back had been trailing her long enough that instinctive caution was turning to concern. Walking wasn't a crime but the destination she had in mind held a certain stigma in the eyes of the government and she was sure there were plenty of eyes on the street monitoring the activity. She gripped the straps of her backpack tighter and forced herself to keep her pace seemingly light and carefree. Resting somewhere in the backpack, a tome was adding an illusory weight to her shoulders though physically it was no more than a thin sheet of metal. She was determined to get it to the data cathedral without the interference of government grunts or hacker vigilantes. What had started as isolated attacks on the digital realm had devolved into an all-out war; a war that had started decades before Jessica was born and that would probably continue until long after she was gone. While the shutters of government information were pulled tight, the doors of citizens' personal data were kicked down. Her family had managed to keep this tome safe so far and she wasn't about to let that change.

Turning north onto 5th Avenue, Jessica let out a sigh as the edifice of St. Patrick's came into view. The jewel-toned glow emanating from the towering spires excited a sense of wonder. Her pace quickened in anticipation but her pursuer was faster.

She felt a sharp tug at her sleeve and turned to see his face sneering at her.

"You got anything for me in there sweetheart?" he drawled as he grabbed for her backpack. In response, she kicked him forcefully in the shin and broke into a sprint. She careened through the doors and cried out for sanctuary. Immediately, two sentinel droids came forward from their posts to inspect her. Between their legs she could see a staircase climbing up to a luminous space but they directed her through a door to her left and into a stark room. The contents of her backpack were scanned for malware infection by one droid while the other stood guard.

"Please follow the corridor to the first available deposition room where an attendant will see that your files are properly secured. Then you are free to go upstairs and reference your files or access any of the public data collected there. Welcome."



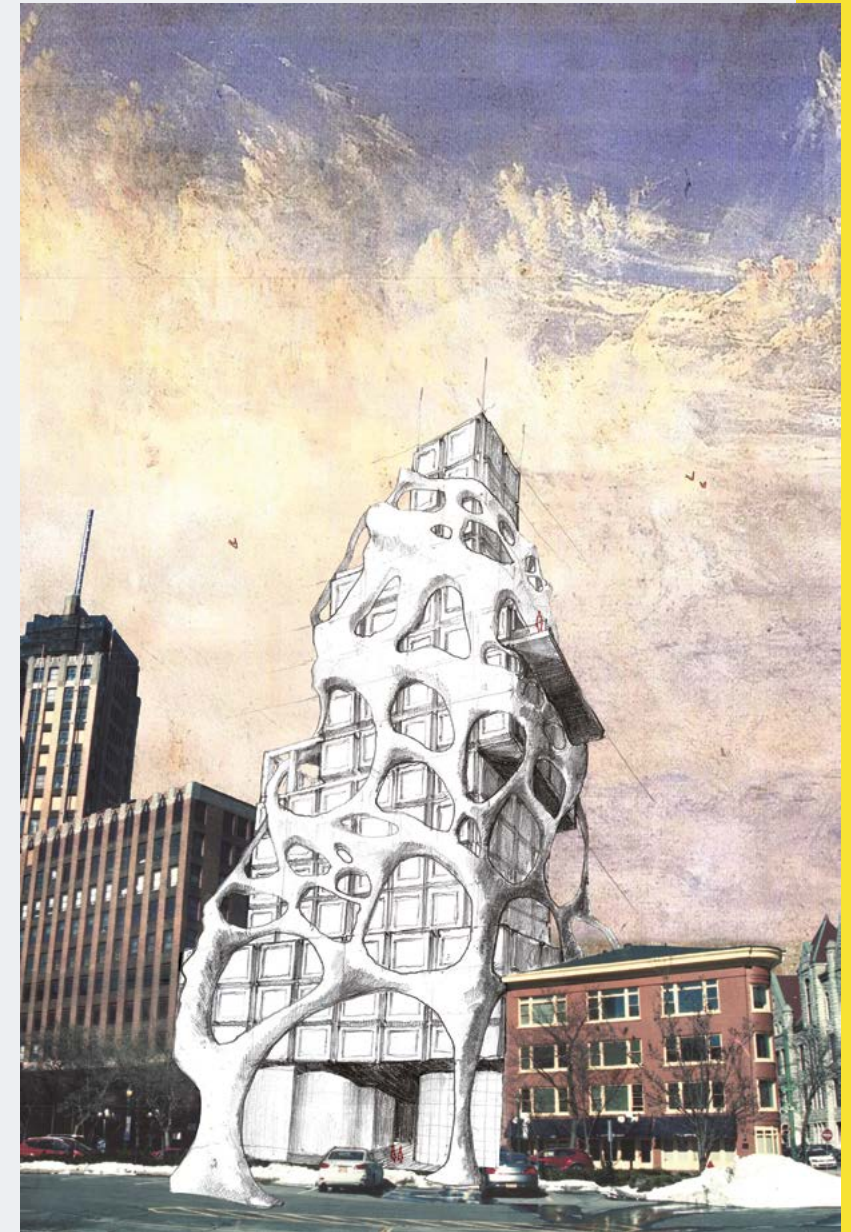
The Graduate School Collaborative (the GSC) is the new satellite school of architecture in downtown Syracuse. With a mission to engage the institution with local community members, the school both actively and passively participates with the city. Working to break down the perceived attributes of an institution, the school functions almost as a public library, where knowledge is disseminated freely to anyone who seeks it. Spaces within the satellite school are designed to foster possible interactions across disciplines. The building engages with the city much like the University in Bologna. One does not need to open doors or bring in keys to access the woodshop, lecture labs, digital fabrication studios or library whether an SU student, an architecture graduate, or a local resident of Syracuse. Students and faculty are encouraged to create and contribute to discourse in the city. Whether by offering public events within the building such as gallery openings, workshops, and movie screenings, or by creating opportunities within immediate context such as pavilion raisings. The satellite school serves as both a crucible of knowledge and a platform for multiple voices within design fields.

The building provides a platform of exploration for those who seek it, creating a space for makers, DIY-ers and craftspeople of all areas and media to create. As an icon, the building

redefines the Syracuse skyline, creating a symbol of the unity in the building between city and institution. The archive preserves the work of the creators, displaying the art and establishing a visual library to inspire future generations. The craft of the building becomes the highlight of the narrative, the nucleus to which the school functions, providing space of study, presentation, and reflection.

The institution of architecture has excluded the artisan and end crafts-person from the process of design. The GSC welcomes the crafts-person—and any person motivated to create—into its philosophy, curriculum, and space.

## Jake Copich Stanislav Nedzelskyi



## Method Meditation: An Experimental Demonstration of Systemization in Architecture

### Abstract:

The place of psychology in architecture has always been a contentious topic. Though the physical environment influences how occupants feel and behave, neither architects nor psychologists have been able to produce environments that can consistently create a desired effect. To address this situation, many architects, such as Christopher Alexander, have utilized methods similar to those of psychologists, consisting of patterns, graphs, and statistics. Though many great buildings have been designed using this systemization, others designed using the same systems have failed. This lack of consistency has been attributed to a lack of empirical evidence, current developmental methods, and even the personal biases of the architects themselves.

Meanwhile, other artists and architects have used systemization to push the boundaries of their own design. In these cases, the effect the rules of the system have on the result is clear. And though the results are often far from the “perfect” design Alexander is searching for, the intent of the artist also remains clear.

In this thesis, I have continued to test the legitimacy of systemization in architectural design by using a rigorous survey of potential users. My system is informed by previous experiments, yet also employs the critiques of these systems to inform the rules.

It's theorized the byproduct of this unlikely system should be the “perfect” space for calmness and relaxation.

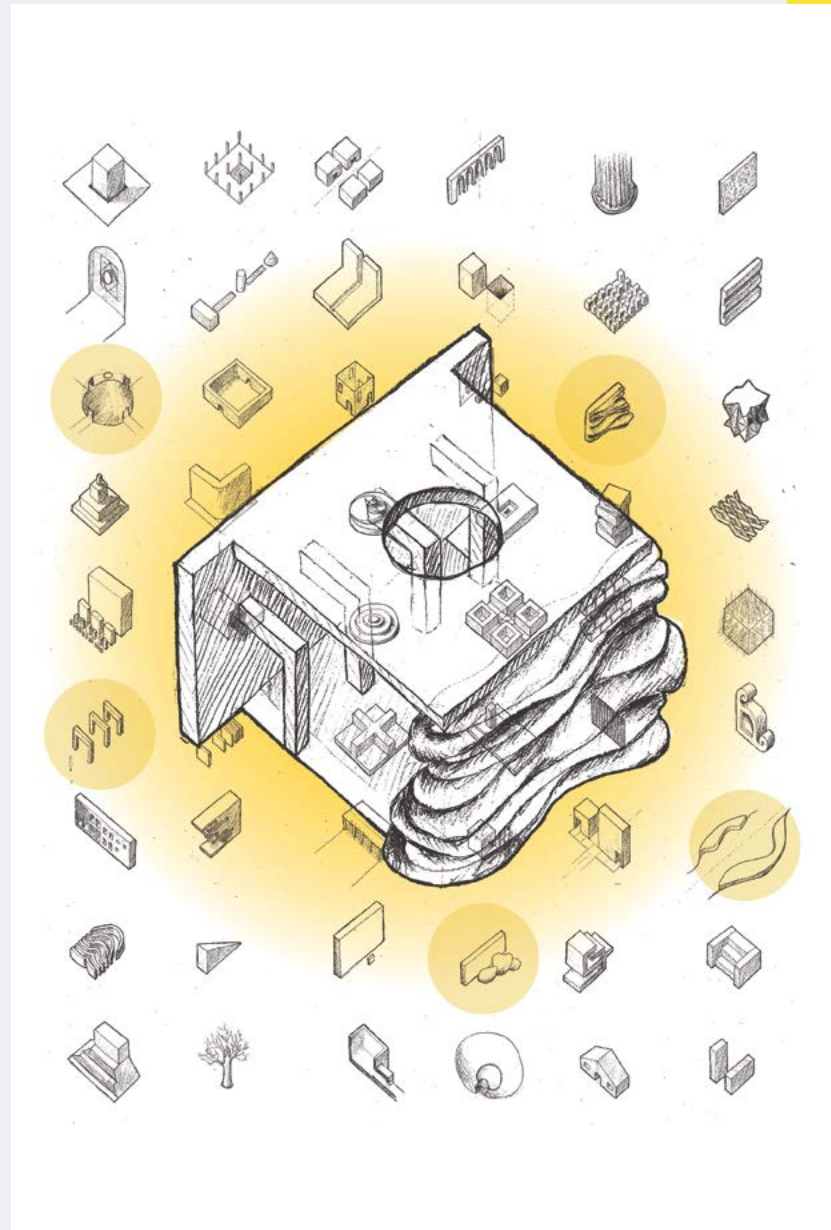
### Method:

The system itself is designed based on the techniques and methods of Alexander. These are incorporated mainly in a series of components I have composed based on his fifteen fundamental principles of harmonious architecture. However, participants from outside the realm of architecture have provided the rules. They did so by choosing which of the designed components are best for calmness and relaxation via a series of surveys. I interpreted these survey results, and have designed a series of relaxation pavilions based on what the participants chose.

### Results:

I hypothesize these pavilions will not provide relaxation for all who enter them, nor “perfect” relaxation for anyone. However, these pavilions provide a forum to discuss order and systemization as a method to find “truth” in design. As a whole, the experiments reflect on the disciplinary expertise of architects and the role of user input in the design process.

## Armand Damari



The library has always been the place where we organize documents containing information. For centuries the book has been the preferred method of long term information storage as well as short term display. The information age has changed the way society interacts with the academic library. Library historian James Thompson, writing in 1982, claims, "Library users have changed their roles from guardians and supporters of libraries to consumers of information services. This change has been described as a shift from asking "'Where is the answer...?' to 'What is the answer...?'"<sup>1</sup> The experience of the library is a process of information retrieval and examination that takes time and leads to discovery by paths unknown to the user at the beginning of their journey. The infotorium is a project that overlays this traditional narrative with a virtual one, reinforcing the process of wandering through space to find information. This thesis challenges what happens to the spaces in the project when the requirements of the stacks are alleviated.

The project contains three types of spaces; the permanent condition, the narrative spine, and the residual spaces. This organizing framework is determined by both physical and virtual conditions overlaid on each other. The infotorium starts a user on a narrative by offering general information in the permanent condition containing the

infrastructure for book retrieval. These towers function similarly to the stacks in a library in that they both define the spaces of the project and are the starting point to the on-site research process. Once a topic has been chosen, a pathway through the narrative spine is determined by the AI and the user is led into another spatial condition which is more defined by virtual information. Once a path has been taken, the user returns to a permanent condition to begin a new journey. The spine winds its way up the infotorium through a series of ramps in a central space containing a communal information hub which displays research trends. The residual spaces carved out by the narrative spine contain collective workspace program attached to the permanent towers. Each of these spaces has a gradient of virtual information overlaid within them defining the program at a finer grain detail. This thesis contends that using augmented reality technology within a designed spatial narrative can reinvigorate the process of acquiring information at the library.

<sup>1</sup> Thompson, James. *The End of Libraries* (London: C. Bingley, 1982).

# Matthew Dinsmore Avery Nackman



## Surface: Leveraging Water as a New Platform for Emergency Relief

One thing we know for certain: disasters hit somewhere in the world on a fairly regular basis and at some point in the future, there will be another. There has been and will always be some sort of human suffering caused by such events and which requires global assistance.

Architecture is often presumed to have a sturdy foundation and strong relationship with its ground. There exist certain situations, however, where a more adaptable, fluid architecture would suggest a better alternative. In cases of natural disaster, ground is often no longer reliable and infrastructure is compromised to such an extent that it is not accessible. Humanitarian organizations often struggle with ways of accessing, constructing, and managing the kinds of spaces they need in order to deliver expedient and effective aid. My thesis aims to place architecture as a tool that can play an important role in making this aid more effective and better designed. Since coastal cities are generally at higher risk for natural disasters, I'm looking to take advantage of water as an underutilized asset to architecture. The solution is to go offshore.

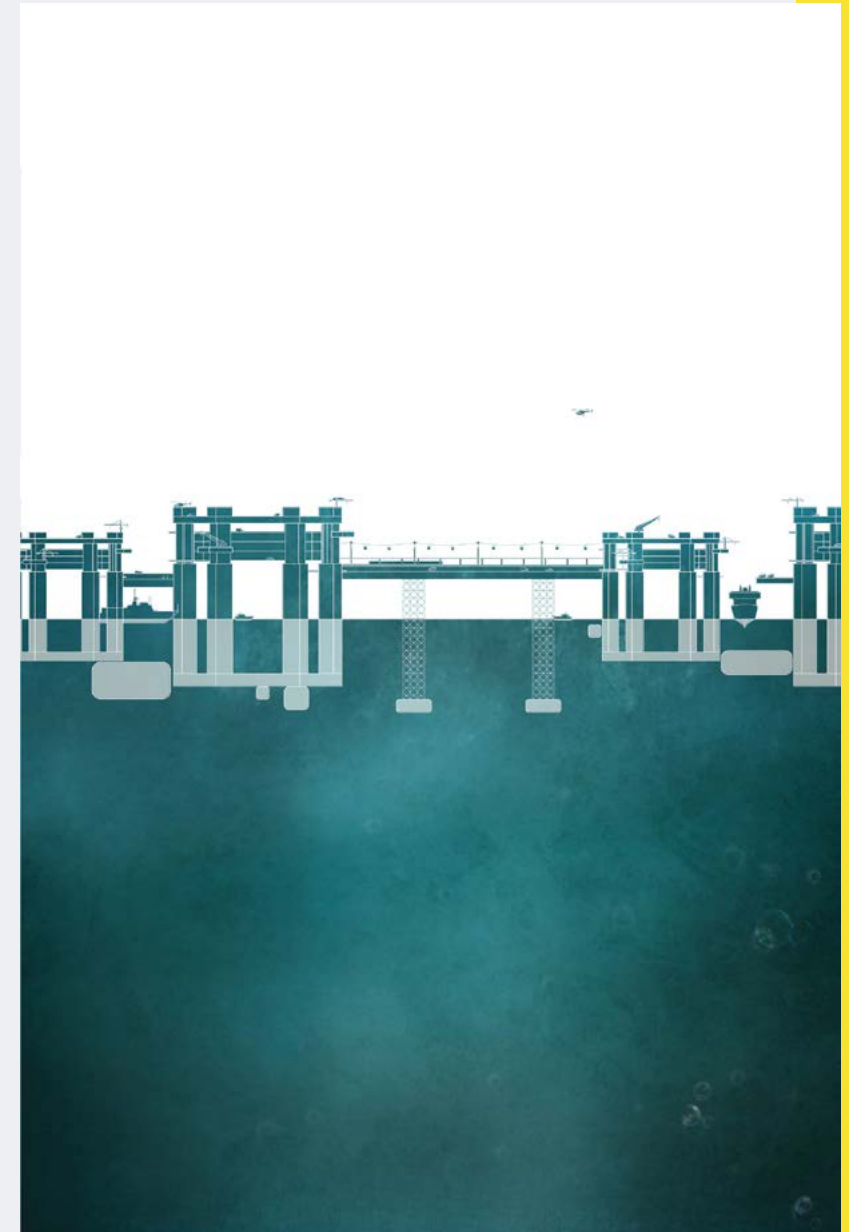
A major earthquake in Manila, Philippines is the scenario chosen to be a vehicle to showcase the proposal. The project is a part-to-whole system of buoyant, reconfigurable components that are easily deployable and available globally. The goal is to design a

platform for new means of inhabitation, leveraging water in order to meet the needs of humanitarian aid. There is a strong focus on mobility, aggregation, and logistics processes, ultimately elevating architecture's and society's relationship with water.

A background on metabolist architecture principles has helped to position the organizational approach of the project. Metabolically designed architecture is based around a fixed, spine-like mega-infrastructure surrounded by modular, transient pieces that accrete as needs dictate. In this case, the major infrastructural pieces themselves are also modular, but once set in place become the fixed framework for the other pieces. The latter are intended to support ad hoc design decisions made by end users or aid workers, as contingencies are always something to prepare for in these kinds of situations. Floating just off shore, the system ultimately expands upon existing forms of aid to drive a more effective and adaptive response to the constantly changing and indeterminate needs of a place in crisis.

Because sometimes it's easier to fix what's on land when you're not standing in the way.

# Monika England



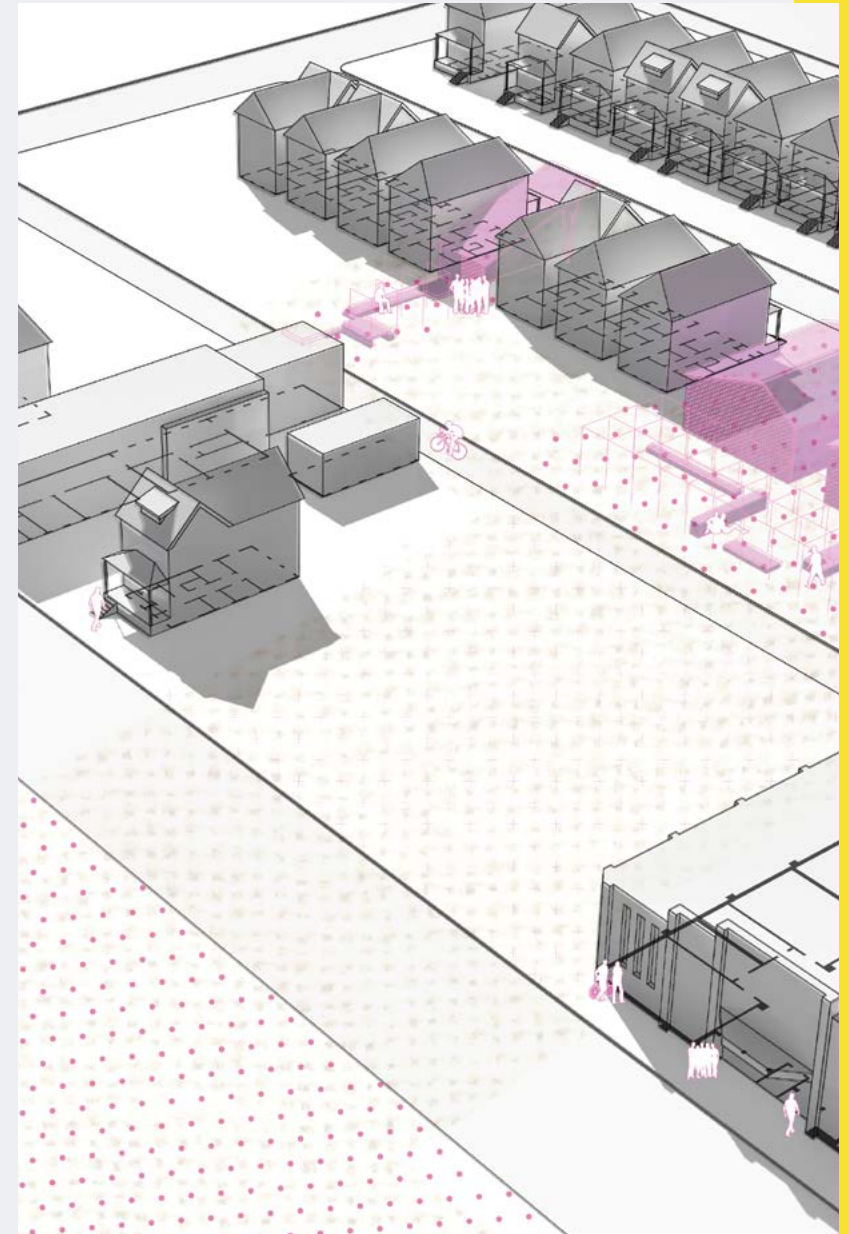


In Detroit, vacancy is a problem, a void is an opportunity. Stan Allen's "Nothingness" and O.M. Unger's "The City in the City—Berlin: A Green Archipelago" deal with the void as not just leftover space, but rather as a ground of potential that can serve as a catalyst for growth in the city. "Vacancy" refers to unoccupied property, while "void" is an opportune gap in the already dispersed urban fabric of Detroit, physical or programmatic, through which this thesis can insert and intervene.

Peaking in 1950 at a population of 1.8 million persons within city-limits, it has lost over half its population in the last half-century and as of the 2010 census has 713,000 residents. With a footprint of 149.2 square-mile of largely detached single-family units, a new, varied landscape has emerged in the city, ranging from dense suburban blocks to urban prairie. In neighborhoods like Northwest Goldberg, the common practice of residents claiming vacant land adjacent to their homes as a side yard or garden, is fostering a new density through informal infill. This practice creates intermittent pockets of density, but the dispersed nature of the city and neighborhoods still leaves a fabric with voids between the nodes. Building on this existing strategy, this thesis proposes to claim ownership over the void between pockets of density through a new layer of urban fabric based on food that is overlaid

at two scales which intersects both itself and other layers of the existing to facilitate increased social density and physical density.

Amidst the widespread vacancies, access to food has become severely limited, with no grocery stores within reasonable walking distance of many resident homes. Grassroots initiatives have responded to the problem, creating over 1,400 community garden plots throughout the city. These standalone nodes, however, lack the system or infrastructure to increase distribution to residents in need. Commercial nodes such as the Eastern Markets provide the opportunity for individual vendors to sell their products at temporary markets as well as specialized warehouses for large distributors. Food production and distribution operates at many different scales, from dining to production, and is inefficient without a system that works between them. The food network is composed of new community kitchens that insert themselves into the pockets of dense residences at a hyper-local scale, and mechanisms of distribution and production that occupy the larger physical voids between the dense blocks.



The urbanism in China is sick. The gated community is the virus.

Living in the urban environment is a paradox. If worded in an architectural way, it would mean building a most personal space exposed to the most public surroundings. The innate need of privacy propels the existence of the gated community.

The gated community is a matrix of residential buildings that is walled and gated. It is walled as a property package, a security unit and a secluded village from the rest of urban surroundings. Through the 50 years' development up to now, the gated community has become *the* residential forms in China's cities. Furthermore, the more urbanized the area is, the more it aggregates. The proliferation has proved its successful achievement of the original intention to solve the strong living demand. However, the excessive layering of walls has deteriorated the communities into the malignant tumors that are blocking the porosity of the urban system.

The brick walls that enclose the whole block of gated communities force the sparse transportation network, which result in the severe traffic congestion. Moreover, the brick walls also rigidly separate the public spaces and private communities, which force the public activities to gather along the narrow pedestrians while the nice garden spaces inside communities are left under-used.

Thus, the thesis aims to transform the existing community walls into an infrastructural system as the mediator to enhance the porosity of the urban edges and balance the need of public space and living privacy, through the manipulation of the form variety and the materiality of brick.



## Learning from the Informal: Designing a New Housing Typology for Informal Development in Cairo

People are reverting to familiar proved solutions that are much more successful than the architect's. Planners should understand what the people do and help them with what they cannot do to allow them to improve. We have to find a formula that is more in tune with the culture. This is what informal areas are doing. What is common and creates those patterns are the socio-cultural norms. These are making them successful.<sup>1</sup>

—Dr. Dina Shehayeb, Director of the Housing and Building National Research Center in Cairo.

This thesis examines what to design when designing for the informal and questions the role of the architect. The project combines the inherent qualities of the informal; self-built, incremental construction, and flexibility of spatial uses, with alternative urban design strategies.

Housing 20 million people and still growing, Cairo mirrors the global phenomenon of unplanned urban growth. People have been forced to construct their own dwelling units as the government fails to provide them successful housing. Approximately 65 percent of the population of Cairo lives in so-called informal housing: four to ten story concrete and brick infill structures built without legal permits. These informal housing projects are built on intuitive and inherent formal

qualities. Despite their evolved formal language these uninformed structures result in hazardous living conditions and unsanitary environments. These informal neighborhoods are plagued by lack of public space to house social life and activity.

The design strategy is to control the ground plane and roof scape, while leaving an open frame in between to be incrementally filled with housing. This frame allows residents to voice their identity by physically constructing their homes. It introduces an urban system that is composed of blocks that consist of an aggregation of identical units. The blocks are connected through a nodal point; the public court. This system allows for repetition and infinite growth beyond the boundaries of the site.

<sup>1</sup> Dr. Dina Shehayeb's response when asked about the future of informal Cairo and the solution to the city's future development.



Initially interested in the observable trend of production falling into the hands of the individual, this thesis investigates the concept of mass customization as it relates to architecture, and speculates on the conditions, ramifications, and externalities that could characterize and describe this hypothetical reality.

A society where individuals have the capacity to create and modify their surroundings at will would elevate the prominence of individualism. This individualism is also a projection of trends in increased visibility and representation. Additionally, observing the explosion of pop-ups, pavilions, and experiential installations that populate cities nowadays, we have extracted that this future society is in the self-actualizing tier in Abraham Maslow's hierarchy of needs theory. Having had their more basic needs fulfilled, this populous chases creative and expressive pursuits. Mass customization has overthrown standardization and the urban landscape is in a state of mass informality.

If mass informality is commonplace, and if anyone can be the architect, there must be an ease of making and un-making in place. This leads to an impulsive mentality in production and the fulfillment of needs and desires. There is little gravity and consequence in actions and design. Does this result in an impoverishment of design or better design through constant

iteration and evolution? Where does the architect fit in? Is the role of the architect more that of an editor?

Further following trends, we can recognize nowadays, automation, increases in productivity, and working from home have changed the meaning of "work". The scale of work vs. play is therefore shifted, as less time spent working means more time seeking out leisure and recreation. The physical office building heads toward obsolescence. This contributes to the individualist condition we are describing, as the office, a major platform of social control, fades away. What happens to these typologies that become obsolete, such as offices and factories? Are they infilled with spaces of leisure to please a leisure-based society? And what does office life look like, if some still exist? These are some of the questions that have guided our exploration.

Organizing these thoughts into three separate yet entangled factors (individualism, mass customization, and leisure over work), the architecture of this hypothetical world is eclectic, temporary, experiential, and ever changing. Architecture is the new image, instant and direct. It is malleable to the event, it changes with our moods, desires, and tastes. It fulfills the desire for discovery, experience, and serendipity.

# Olivia Flores-Siller Steven Worthington



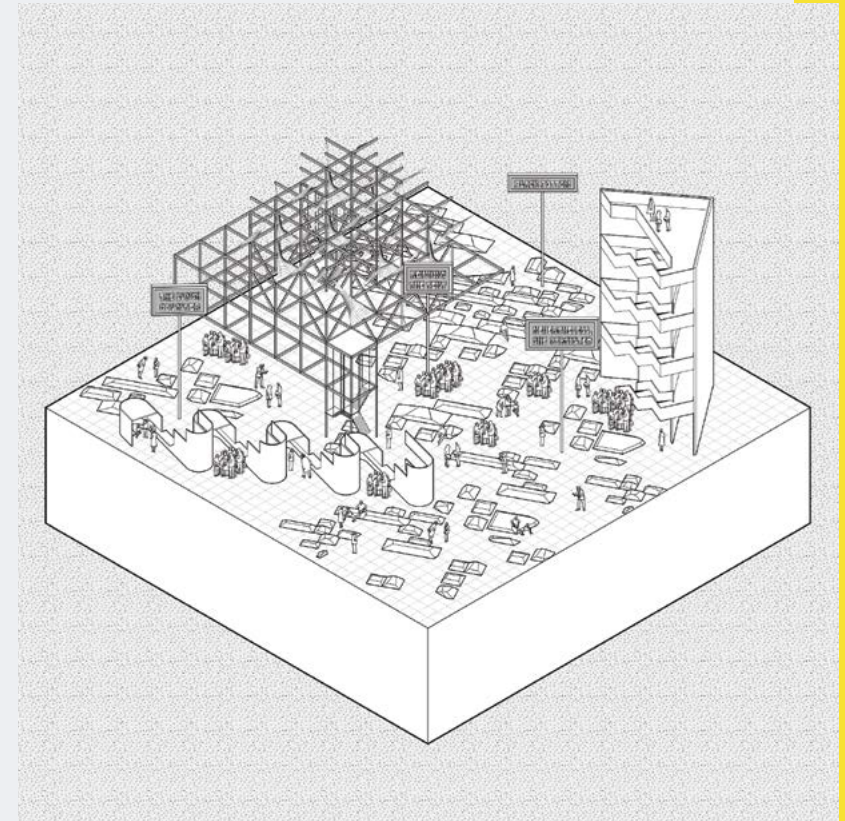
## Y'All Come Back Now, Ya Hear: A Reflection on Nashville's History and the Carnavalesque

With the departure of manufacturing and industrial production from urban centers, contemporary American cities have turned to tourism as a method of turning the experiences and memories of a site into a commodity for public consumption. In an effort to combat the historical perceptions of urban centers being places that are dirty, poverty stricken, and dangerous, municipalities have attempted to reshape the city's image. This shift has turned the city into a place of attraction, starkly contrasting the realities of urban decay and political strife that may or may not exist. Governments now seek profit through a series of simplifications and reductions of culture, converting the cityscape into advertisement. This propaganda interprets the essence of a city, telling visitors what they should do, feel, and even think. The investigation of this thesis is to hyper accelerate these negations, creating spectacles of commodity fetishism into an absurdist event of carnival through a series of urban pavilions, revealing the discrepancies and contradictions between crafted illusions and realities of experiences.

In the hope of illuminating these occurrences, the investigation utilizes Walter Benjamin's technique of the dialectical image, a medium that interprets interactions between the past and present as a means of producing an in between other. Benjamin considered this other to be powerful enough upon

reception to awaken the masses from the all-encompassing nature of false consciousness. By juxtaposing the predictable nature of daily present life with the mythic qualities attributed to that of the past, Benjamin hoped to construct a result which undermined the "myth's claim to express transcendent, eternal truth".

This thesis seeks to utilize this technique of allegorical image in understanding both the past and present histories of Nashville. By collaging aspects of past and present, the images produced seek to present the emerging alternative. This otherness constructs an in between in which the narratives of both instances begin to merge and mutate. These collages establish a landscape of Nashville which is no longer constricted temporally or spatially, remaining open to interpretations and resisting a clear sense of closure. The designs that I propose are meant to clarify the neglected traumas and occurrences of the past to demonstrate that these moments are not so far removed from the present consciousness as most people would consider. In this way, the pavilions attempt to act as lenses that provide an apparatus in which dialectical images could therefore be produced and experienced.



## Shopping (is) More: Explorations of the Adaptability of Shopping Malls in an Urban Context

“Shopping (is) More” is aimed to explore the future potential of shopping malls. The thesis propose an argument that the existence and development of which will further integrate the life of people in cities of increasing densities. Throughout the development history of shopping-related architecture in history, from basic store fronts to commercial streets, department stores to today’s shopping malls, the ideal goal of all these architectural inventions are maximizing the efficient of people’s good and spiritual consumptions. In the future, the shopping mall itself will evolve into an independent, autonomous architectural typology which is larger than a single architectural project in that it will be equipped with all necessary social functions of a modern city. Eventually the sustenance and social life of urban residents will fully dependent on the shopping malls in the city.

### Ch. I: A Catalogue of Design Strategies

The first part of the thesis investigates different types of shopping malls and categorizes their design strategies by ways of how people circulate in the shopping malls and how do the shopping malls look like. The circulation determines the organizations of the programs and also affects people’s experience when exploring the shopping mall; the building envelope of a shopping mall engages the relationships with the mall and

its immediate contexts as well as the interior space and people’s subjective experience. Circulations within and around the shopping mall is prioritized in the thesis project.

### Ch. II: Strategies Tested in Reality

My research established 3 basic models in shopping mall design, which are:

- a. Existing urban fabrics model
- b. The inflexible model (circulations and envelope is confined by specific site and design language)
- c. Hybrid model (the circulation is flexible when engaged with city routes)

These strategies will be tested on the site in a traditional district in the historical center of Shanghai, which is undergoing the redevelopment process. The shopping mall on the site is to accommodate all possible needs of different users from the city.

Based on conclusions of the site analysis, its immediate context mainly consists of the urban fabric models and the inflexible models. I therefore introduce the Hybrid model in the new project on the site by providing flexible routes that relate to existing road networks and neighborhoods in order to adapt to future urban transformations.



## Ganjapreneurial Design: Creating the First Cannabis Campus as an Agricultural Wellness Experience Prototype

Cannabis is a plant with history, culture and benefits but no unification. It has many functions and uses that are overshadowed and dispersed by its illegality. However, now that marijuana is progressively becoming more accepted in the United States, new architectural endeavors open up. How do designers create with cannabis as the starting point? What challenges will arise out of social overlaps, site conditions and institutional models? What physicalities, experiences and contexts need to be understood to produce a cannabis manifestation for the plant's components? Out of the hybridization of agriculture, wellness and recreation will emerge an unprecedented architectural identity for cannabis.

The current state of cannabis design is focused on adapting vacant spaces, emerging state-of-the-art facilities and developing new products and brands. At a glance, the vast majority of new projects are stand-alone dispensaries and growhouses. There are currently no buildings that encompass the plant's main components of growing, recreation and medicine. The manifestation of such an all-encompassing building is unclear and faces many questions.

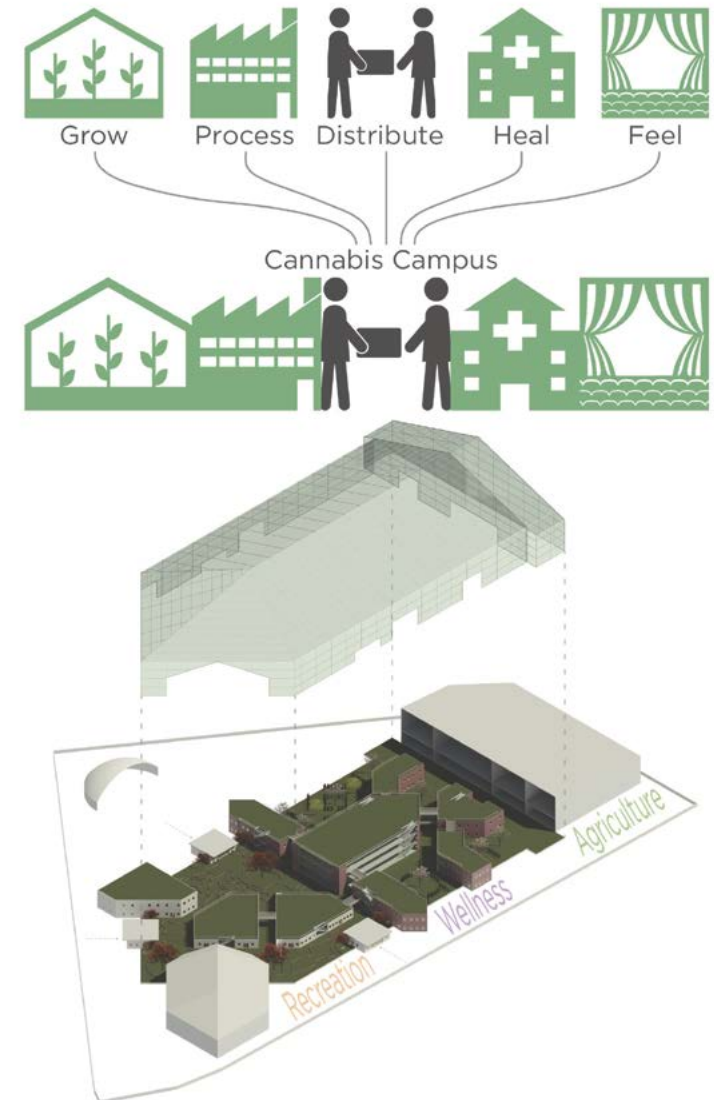
Context and identity arise first. Does it want to be urban, suburban or rural? Does it want to be a network, a campus or a factory? Through research, the most promising outcome

for a cannabis building is a suburban campus for its ability to cultivate and educate simultaneously, for its ease of access and distribution due to size and location, and for its potential to create a new hybridized program for all of cannabis's components.

The campus will utilize strategies driven by the effects of Sativa and Indica and their association with recreation and wellness. Other strategies include site responsive geometry, creating space with Cannabis plants, and education through exposure through a create-your-own adventure experience. Additional strategies being implemented are circulation and escalation, aesthetics and architectonics, and pushing cannabis history and culture into the future.

The Cannabis Campus will strive to form a public presence and represent itself architecturally to its social and physical surroundings. The project aims to uphold the values of de-stigmatizing past notions of the plant and its users, educating the commonwealth on the present and historic conditions and offerings of marijuana, and promoting a healthy and beneficial lifestyle moving forward with cannabis. This new Cannabis architecture will attempt to unify the various users, patients and newcomers in a transparent and regulated atmosphere that is safe, comfortable and legal to all.

## Jacob Granoff



According to how different human societies developed under the varied influences of climate [and] natural surroundings, the combinations in which the four elements of architecture were arranged also had to change, with some elements becoming more developed while others receded into the background.

—Gottfried Semper,  
*The Four Elements of Architecture and Other Writings*

Emergency housing almost *always* turns into a permanent condition that is absent of place, culture, and architectural elements. Often post-disaster housing units meet the criteria for immediate need, yet fail to adopt the long term needs of the user. Current post-disaster housing options do not cater to the needs of various users, or even reflect that all natural disaster victims may have a standard list for survival but do not have cookie-cutter demands for comfort or community. These long term necessities can range from needing heat and running water, or more than one bedroom so that a family of four is not sharing a full sized bed for more than two months.

This thesis aims to develop a system in which temporary housing can expand with the user over time to develop a permanent housing condition. Through several material deployments over a period of time, an initial housing

condition built for survival can adapt to become a permanent dwelling for families of all sizes. Each deployment will supply materials for adding or subtracting to/ from the current unit, in hopes to work towards a desired permanent living condition.

Gottfried Semper, German architect and theorist, suggests that architecture can be broken down into four elements deriving from the first signs of settlement, then manipulated to adapt to the surrounding influences. These four elements cater to the necessities of individuals after a natural disaster and transition through the three phases of post-disaster reconstruction: survival, comfort, and community. By tailoring to the ideas that architecture, specifically dwelling, can be defined by the four elements Semper outlined, this thesis can create a criteria for emergency housing.

The goal of this thesis is to acknowledge and critique the flaws in current post-disaster shelter options, then create a unit that takes a family's primary, secondary, and tertiary needs into consideration. This system will be designed to be deployed anywhere a disaster strikes. It is no secret that a family's comfort and stability are not taken into consideration; it's time we make that a priority, too.





## Imagucation: A Study of the Corridor as a Transition Space for Elementary Children on the Autism Spectrum

This thesis contends that existing architectural environments of schools that specialize in educating developmentally disabled students unintentionally neglect the very groups they intend to serve. This thesis is concerned then with the specific needs of elementary school aged children on the Autism Spectrum.

This thesis intends to integrate the school corridor with the coexistence of developmentally disabled children and non-disabled students. Children with Autism typically fear the social corridor space due to directional ambiguities, claustrophobia, and intense social interaction. Elementary schools today that offer special education to developmentally challenged students, promote non-integration in classrooms and corridors, keeping autistic children isolated from high intensity social interaction.

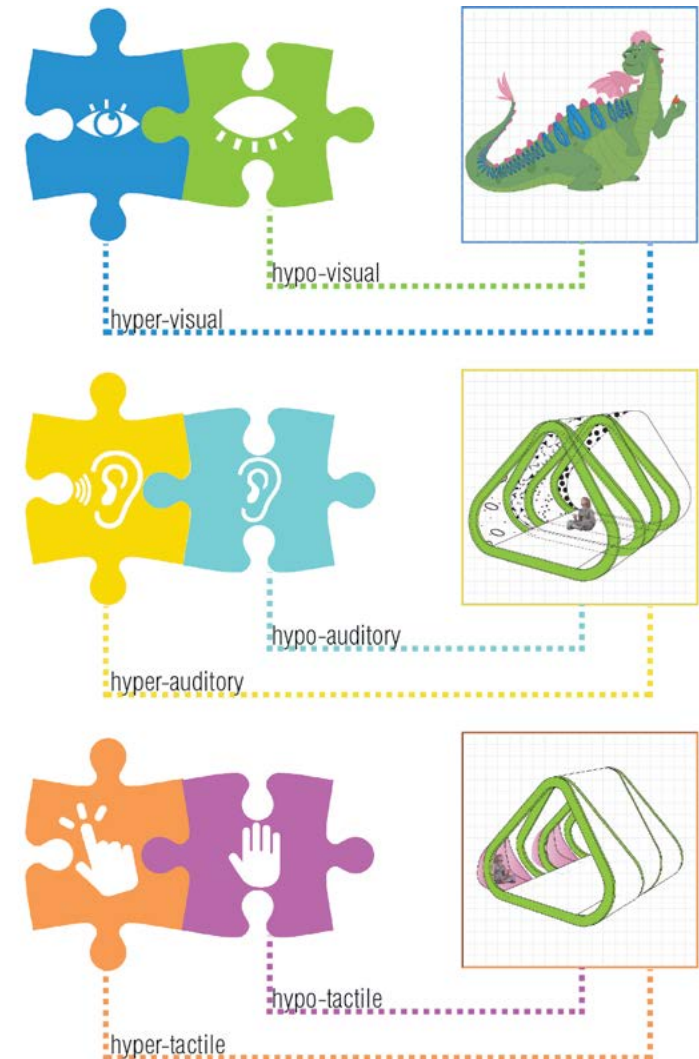
This thesis suggests the inclusion of developmentally challenged students through the use of specifically designed architecture. This new learning environment breaks the boundaries established by our current knowledge of what a corridor is and should be. This new corridor creates an entirely different set of criteria for all elementary students, not just children with autism. All students are to exist in these new circulation spaces where imagination and creativity play a role in the minds of all children. The idea of this corridor is to urge students with autism to utilize

their creative abilities and promote a more imaginative learning environment, ultimately resulting in a more pristine learning outcome.

This thesis proposes the creation of 'Elliot' as the dragon that replaces the corridor in any elementary school. Elliot borrows his way through the school, breaking through floors and walls, and swallows everything in his path. The belly of the dragon is now the new corridor where children circulate and play through a ribbed structure of dragon bones. Elliot is a friendly dragon that integrates the individual scale of a child as well as the social scale of a group space. The change in scale allows for a fully integrated dragon that acts as the only means of circulation throughout the school.

The development of Elliot is supported by two key ideas: The potency of narrative and storytelling to engage students with learning disabilities, and somatically enhanced environments that stimulate the senses. The ribbed structure of Elliot the dragon is manipulated by shape, thickness, and material. The interior environment illustrates a narrative, incorporates a sensory environment, and supports the needs of autistic students.

This thesis argues that specialized architectural design is essential in creating an educational environment that is inclusive of children with learning disabilities.



Home is located in space, but it is not necessarily a fixed space. It does not need bricks and mortar, it can be a wagon, a caravan, a boat, or tent. It need not be a large space, but space there must be, for home starts by bringing some space under control.<sup>1</sup>

The domestic realm is a ground filled with furniture, materials and stuff which connects to personal preference, evokes a sense of intimacy and sets the stage for a flux of activity. While explicit architectural form of what we call 'home' may express certain programmatic designation and usage; the user is ultimately king. Through personal selection and curation of the interior, one sets their own parameters, rules or regulations on how to govern space.

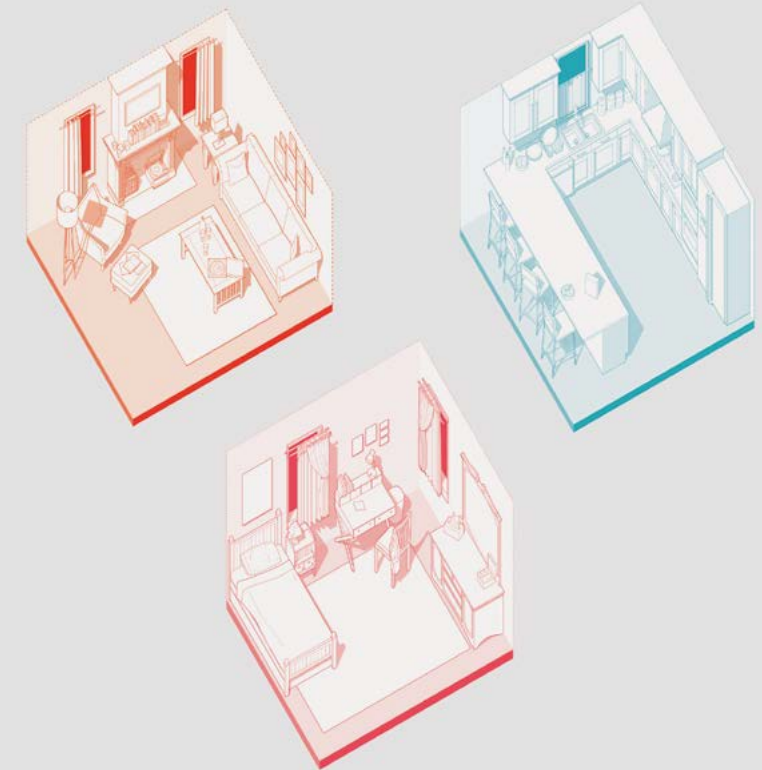
Public space, on the other hand, is explicitly managed from the top down. Rules are set by an elite governing body and enforced by cultural expectations of appropriate behaviors and actions. Inherently these regulations are imposed to ensure the betterment and safety of our environment, but sometimes these rules elucidate what we *can't* do in a public space rather than presenting what public space can do for us.

Privately Owned Public Space, or POPS, a typology manifested from New York City's 1961 Zoning Resolution, is one such particular case where private interests have misconstrued

the promise of public space. The city's initiative for POPS has led to the creation of approximately 3.5 million square feet, however, there is still a severe incongruity between the vast quantity of public space and their quality. About 41% of POPS today have been deemed of marginal quality. The conflicting condition of this typology brings into question if the real problem begins at their conception, where private entities are held responsible for the well-being of public interests. Is there a future for Publicly Owned Private Space?

This thesis contends that public space should be reexamined and architecturalized with an intelligence gleaned from the domestic realm. Elements within domestic rooms have the gravity to hack, subvert and transform traditional conventions in today's public grounds into an entity capable of hosting intimate, differentiated and user specific experiences that are usually bound within the confines of our domestic environments.

<sup>1</sup> Mary Douglas. "The Idea of a Home: A Kind of Space." *Social Research*, vol. 58, no. 1, 1991, 287-307.



The house, as one of the most fundamental architectural archetypes, has long been used as unbuilt or built manifestos to declare the avant garde of the discipline. Formerly they offer the most intimate scale at which to work and symbolically they have always maintained a potent force; both as a vivid representation of lives lived inside their walls and as a powerful influence over the changing course of architecture throughout the centuries. Iconic houses are an essential language and shorthand of architecture itself. Follow us as we investigate a return to the design of a house as a manifesto for today's generation.

Technology has, since the printing press, to the steam engine and now the internet, changed the way we live. The difference today is the intense presence technology has in our lives and the speed of change it is provoking. Today, technology is shaping our imagination. In fact, we are living in an era in which people are constantly curating a parallel virtual reality. As designers, we need to re-visualize design concepts to create architecture that integrates and corresponds to the way we dwell. By leveraging 3D printing technology, we can innovate design to build for today's needs, bridging the gap between the way we live and the way we design.

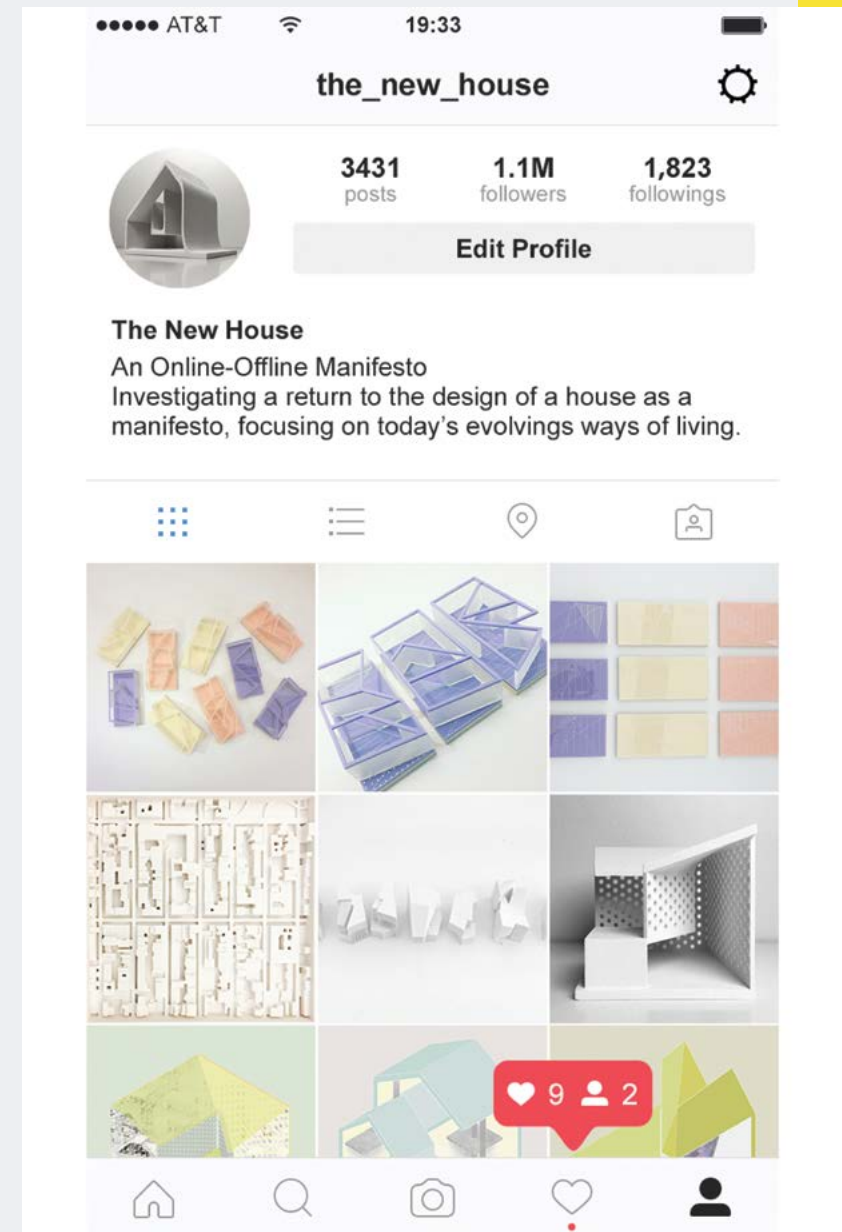
Our thesis represents itself as an experimental house, an architectural manifestation that re-frames the understanding of the built physical

space and the three dimensional implications of the curated images we capture for the virtual space. Social platforms like Instagram, are allowing individuals to instantly create 3D images of what life "is" or "should be" based on curated, snap moments.

Instead of using program as a descriptor, the\_new\_house brings the qualities of these three dimensional images into its physical spaces. Using forced perspective geometries and illusion tricks to spatially create an understanding of space that resonates with the way a flat image is perceived in an online platform.

The plans and sections of this experimental house follow experiences, rather than static program as in traditional architecture. The movement is vital to the development of this architectural manifestation, where scenes shift in space. With this in mind, plastic materializes the house, being the very idea of its infinite transformation, plastic is less a thing than the trace of a movement. The shifting characteristics give the house the ability to collapse, transpose and extend the design, while maintaining an architectural form.

# Ana Hernandez Derbez Domenica Velasco



## Project of the Periphery: How the Implementation of Autonomous Vehicles Can Reshape Suburban/Urban Housing Typologies

Through the implementation of autonomous vehicles in my site, the need for the personal car no longer exists. Much of the land within suburbs and cities has been dedicated to the personal car, in which we only use a fraction of our daily lives in comparison to the office, home, public spaces, etc. My goal is to create an urban cell in the within the suburbs of the Washington D.C. greater metro area that is able to increase the capacity for housing and people while reducing the overall infrastructure that has been put in place to service cars. This urban cell does not aim to replace the existing suburbs or cities of America, but provides the opportunity for a new housing typology implemented around the periphery of cities to help aid in the rapid increase of population and overcrowding of cities and urban sprawl of the suburbs.

The removal of parking lots, street parking, and driveways frees up large amounts of newly developable land as well as reducing the amount of paved surface areas and elimination of cars on the site. A fleet of autonomous cars servicing the neighborhood and surrounding area provides the transportation to major public transportation hubs as well as transportation outside of the walkable area of the new suburban prototype. By separating the main artery of autonomous vehicles from the public promenade between mixed-use programmatic bars, pedestrian activity, movement and

interaction is better promoted. Even with greatly increasing the number of units on site, open spaces and amenities are drastically increased to cater to the increase in population. My goal is to create an example of what future housing typologies could be like without the personal car as a more sustainable living typology.

## Matthew Hill



## Gardens Above Garbage Trucks: Architecture and Urban Agriculture Transforms Undesirable Buildings into Community Amenities

Imagine seeing, smelling and hearing noisy garbage trucks entering and exiting a sanitation garage every morning across the street from your home. For the residents of the Marcy Houses in Brooklyn's Bedford-Stuyvesant neighborhood, this is just what they're potentially facing with a new sanitation garage set to begin construction across the street in 2018. For the historically black neighborhood of Bedford-Stuyvesant, a sanitation garage isn't necessarily the worst thing that the residents have seen in their community. "Do or die Bed-Stuy" was once the saying to describe the crime and poverty that plagued this neighborhood for many years. But recently, positive beacons of hope have emerged in the form of community gardens. By infilling vacant lots, balconies and leftover spaces between apartment buildings, there are small oases of green space that pleasantly contrasts the rough brick, concrete and steel textures of the street. Residents of the Marcy Houses are now building lasting relationships over time spent cultivating food, feeding one another and enjoying the warmer seasons in their gardens. However, an adjacent a garage could negatively impact the positive steps forward that this community has seen in recent years.

When intelligent architectural design is utilized, even undesirable buildings, like sanitation garages, can add value to a neighborhood. For example, when

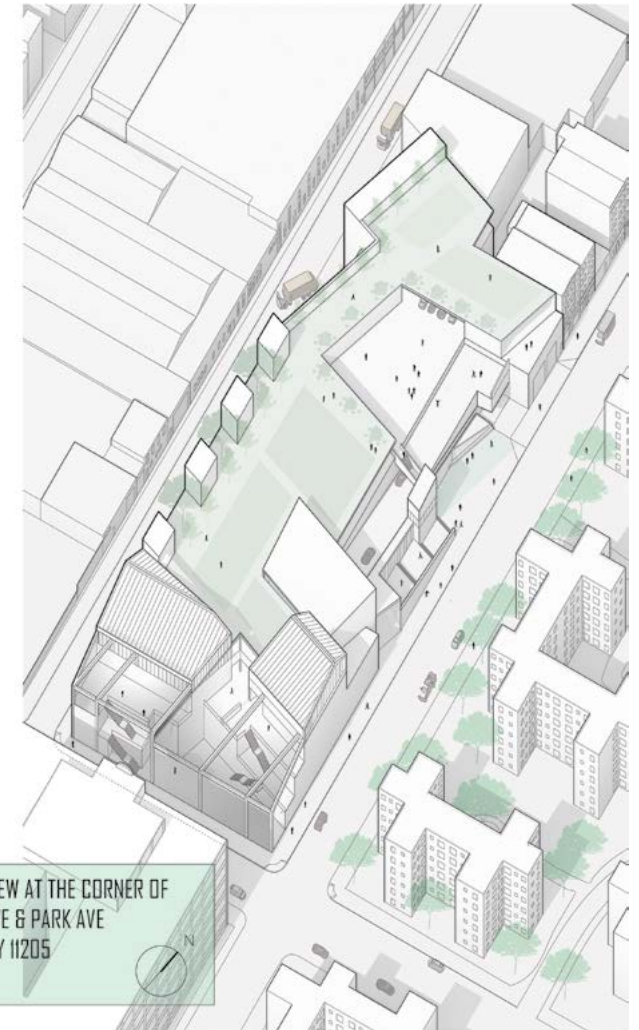
the DSNY 1/2/5 garage was proposed in Manhattan, condominiums went unsold for months at time because potential residents were discouraged by the idea of living next to the noise, smell and unsightliness of such a building. However, it was a careful and elegant design that demonstrated that this garage wasn't an unruly eyesore, but rather an aesthetically pleasant addition to the streetscape.<sup>1</sup>

Bedford-Stuyvesant is a community that is increasingly characterized by lush community gardens, so for a sanitation garage to make a positive contribution, it would need to integrate urban agriculture throughout its design. Noise and odors would be considerably reduced by forming the structure to work with landscape elements for noise deflection and odor mitigation.<sup>2</sup> By dedicating 70% of the rooftop area to cultivation, community resilience would improve from the added local food source. Within the most protected spaces from noise and odor, public spaces for gathering and special events will emerge. In this way, the negative impacts of the sanitation garage's use can be eliminated and the positive changes of urban agriculture will continue.

<sup>1</sup> Janet Adams Strong. "LULU Hits the Streets: A Sanitation Garage Shows How to Make a Locally Undesirable Land Use... Desirable." *Oculus*, vol. 76, no. 4, Winter, 32-33.

<sup>2</sup> John Tyndall & Joe Colletti. "Mitigating Swine Odor with Strategically Designed Shelterbelt Systems: A Review." *Agroforest Syst.*, 69. 2007. 45-65.

## Josiah David Hinkle



BIRD'S EYE VIEW AT THE CORNER OF  
NOSTRAND AVE & PARK AVE  
BROOKLYN, NY 11205

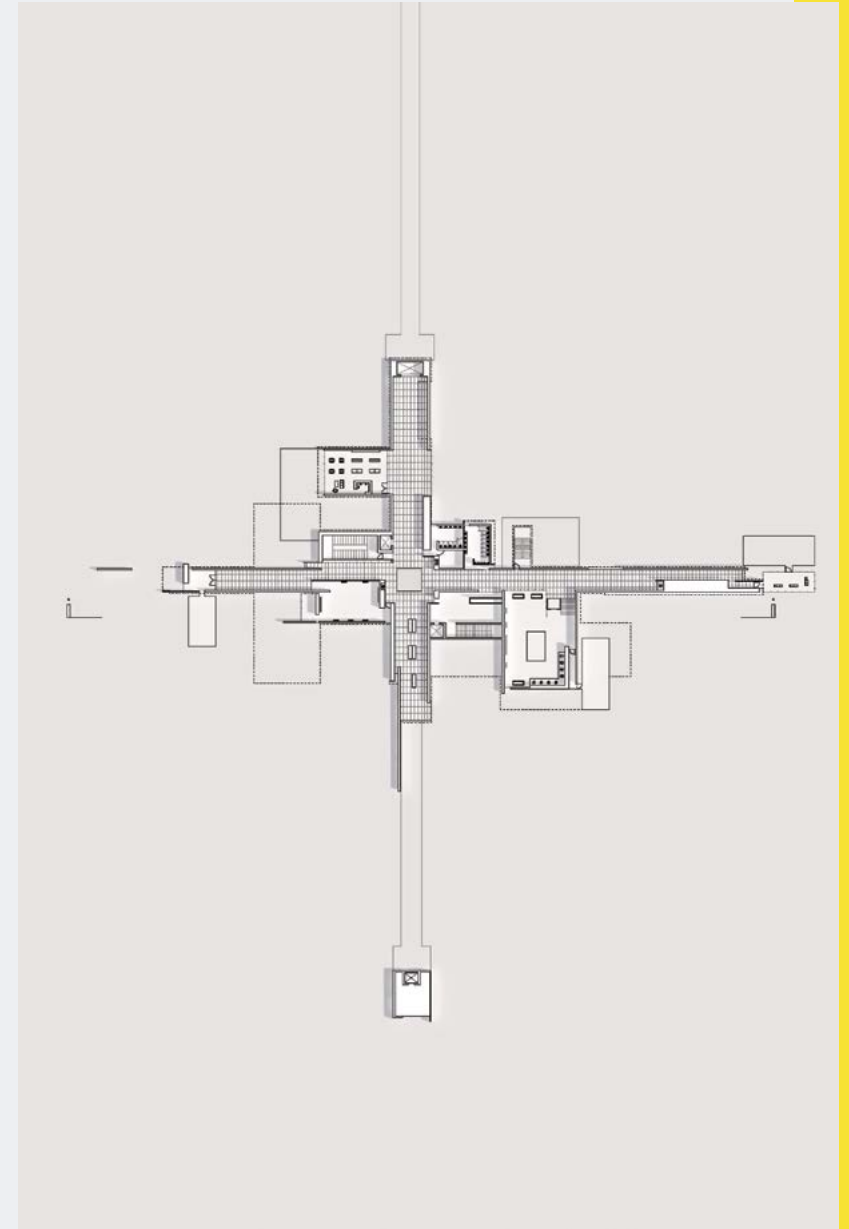
Neo-plasticism was the artistic ideology that underlay the movement known as de Stijl. Officially formed in 1917, as the First World War was drawing to a close, it flourished mainly in the Netherlands, but eventually faded out, most likely a result of Theo van Doesburg's passing in 1931. And though the movement was radical and dynamic, it was short-lived, ending before realizing its full potential. The movement advocated for a separation from the natural world as by means of abstraction. In this the work took on a more universal meaning. Though these concepts began to make their way into other artistic disciplines, they were not fully realized, a result of the brief time de Stijl was an active movement. As such, there is still much value in this exercise.

The contention of this thesis is that there is much untapped potential in the unfinished project that is neo-plasticism. As a result, there is value in extending these principles into a modern context, applying them to a contemporary architectural project. This extension will attempt to illustrate the greater potential of neo-plasticism as an aesthetic system.

Initially, neo-plasticism was applied solely to the plastic art of painting, but de Stijl artists advocated for the unification of the arts and neo-plasticism grew to encompass disciplines such as sculpture, furniture making, and architecture. There was

much debate among the artists as to whether neo-plasticism was an ideology that could be realized in its full potential in these other art forms, specifically architecture. The painter Piet Mondrian was very critical of this overlap claiming that it was his contention that the limitations of building methods at the time may have played a significant role in why neo-plasticism was never fully realized in architecture.

Given the progress in building technologies since the 1920's, it can be argued that, in its current state, architecture would be able to more fully address the core objectives of neo-plasticism as outlined in the 1917 manifesto. Applying the principles of neo-plasticism to a contemporary architecture project would allow for a greater capacity of formal and spatial freedom, illustrating the true potential of de Stijl architecture.



## Re-Gen: Three Scale Courtyard Co-housing in an Aging Urban Society

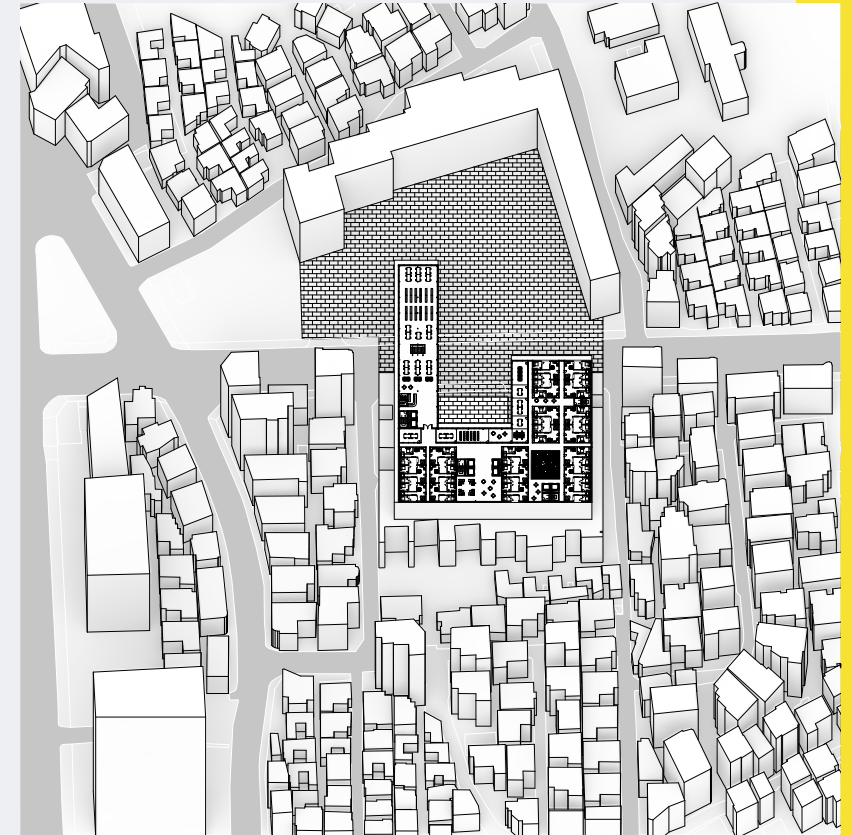
What is the role of architecture in this social issue of aging? Most elderly people prefer an independent residential environment, where they can be unrestricted economically and physically, but most of the elderly residential homes that currently exist in Seoul, Korea are dependent facilities. Therefore, a new type of architectural method is required from the general residence types that we have in Seoul today such as detached homes or small apartments. Also, the social isolation and loneliness of the elderly increases the chance of death. To address this issue, a new format of living that allows generational interaction is required. Therefore, it suggests Co-housing as an alternative closely that is linked to the local community and that allows co-existence with the younger generations.

The architectural way of activating the intersections and activities among generations is a courtyard space. Courtyard space is a tool that causes various actions by attracting people and making them stay in various ways and forms in Eastern and Western cities and architecture. Therefore, I would like to propose three scales of courtyards as methods for city linkage, intergenerational intersection, and community activation. The first is a city-scale courtyard that contains a school and a site. The second is a courtyard that surrounds a building. The third is a small-scale courtyard, which serves as

a community in a residential space. The city scale, which is the large-scale courtyard, has a cantilever space with the function of a library that encompasses the school and the site. The library program provides connections to local communities. The cantilever library, which is used by various age groups, is a necessary program in the area. In addition, the cantilever floating in the air makes the school and the site a closed space. The building-scale, which is the medium-scale courtyard, has a form of mat-building. The lower part of the building was reconstructed with the organization and scale of the city before redevelopment. Additionally, a swimming pool was built around the sunken courtyard in the basement, which is the core courtyard of the building.

The residential space scale, which is the small-scale courtyard, is used for light and ventilation in the residential center. It also functions as a space for sharing and communicating with neighbors. I proposed a method to vertically utilize the functional aspects of the front and back yards, which are from the existing traditional residential space.

## Seokhyung Hong



## Destination Towers: Regeneration of Industrial Landscapes as Experiential Monuments

The Three Mile Island meltdown was the most significant accident in US commercial nuclear power plant history. Although the health effects were not serious, the accident heightened public fears and led to the immediate shutdown of several plants. A temporarily halt in licensing of all new reactors, significantly slowing the industry for several years. Incidents, such as the Three Mile Island Meltdown, have created a negative association with nuclear power and the architecture that represents it. This understanding has led to the common misconception that nuclear power plants are toxic wastelands and are bound to be demolished or become derelict.

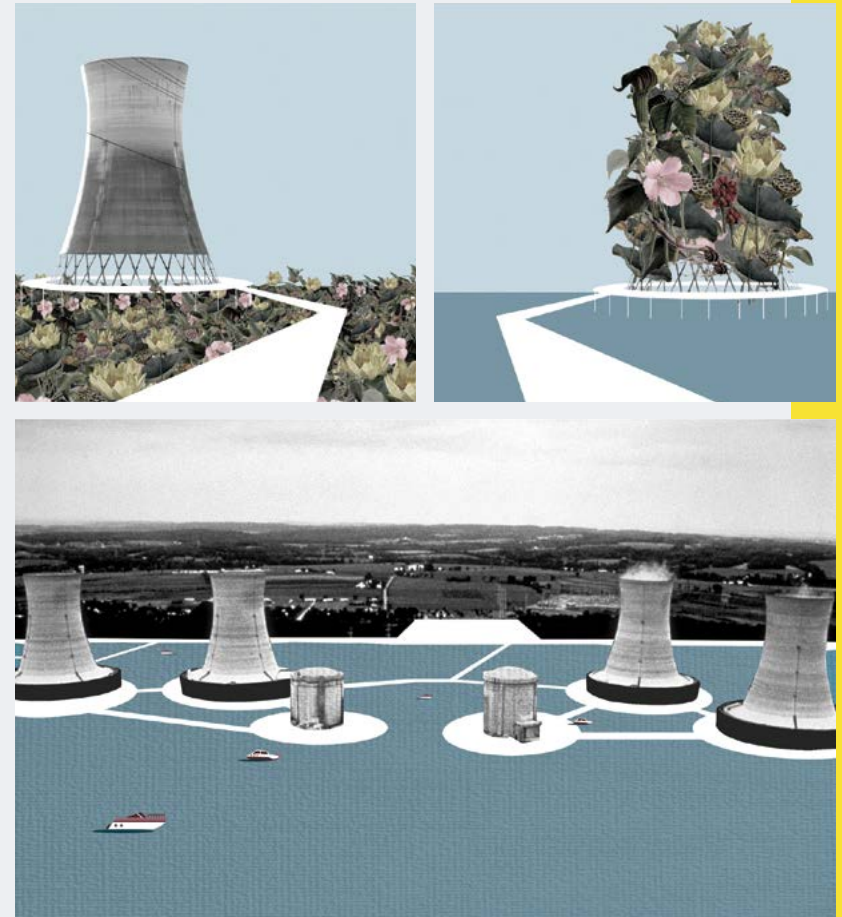
This thesis presents an architectural alternative to alter these negative associations, in which the nuclear figure could be turned monument through re-appropriating the iconic cooling structures. This monumentality is grounded in the act of disassociation from the public's previous perceptions by allowing the site to generate environmental engagement based upon temporal growth and seasonal occupations.

The main approach to the research and development of this project is an analysis of two different scales: the scale of the site, and the scale of my intervention, the cooling tower. The site contributes the socio-ecological spectrum by developing a material palette as well as connections between

surrounding nodes of activity that describe the ever-changing, cyclical characteristic of the area. The different forms of accessibility between these nodes of activity provide a different experience between automotive, pedestrian and water travelers. This allows for the project to explore the possibilities of each form of approach and how each experience differs and immerse travelers into the intervened site.

In the scale of intervention, this project concentrates on creating tourist destinations and implementing program by understanding the spatial and formal characteristics of these existing cooling towers. This thesis presents new ways of experiencing the site through connectivity. Focus on the design of a new identity, altering the "icon" and public's perception through with these experiential monuments.

## Maggie Huang





Oceans take up 71 percent of our planet and barrier islands are the first line of defense against storms and will be most affected by sea level rise. Long Beach Island is a barrier island where many families travel to in the summer for the allure of beaches, bars, and boardwalks. We have come to know this as beach culture and without these traditional attractions, New Jersey would be hurt economically. There is no stopping sea level rise and the time and money spent thus far has not been efficient and requires a different approach. In the next decade, this island could be devastated and without proper design intelligence might not be able to reshape itself.

The survival of these beach communities is tied to the culture of place that originates from form and density of the island. We believe it is possible to preserve this vital part of regional culture through an architecture and landscape strategy that incorporates barges and boardwalks to mitigate the potential damages brought on by storm surges and sea level rise through site density and framework.

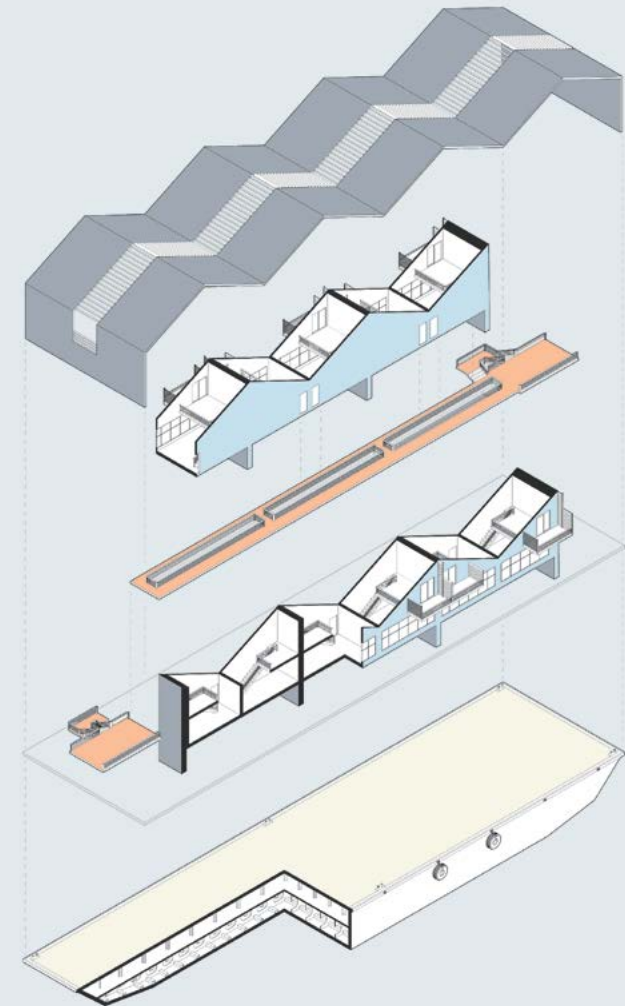
In a hypothetical situation where a super storm breaches Long Beach Island and divides it; the need for reconnecting the existing main avenue becomes critical to maintaining residence on the island, preserving island identity and beach culture.

Preserving beach culture is not just about keeping houses on the island, it's

about matching or exceeding intensity of use in relation to both housing and commercial activity. Barges were designed for carrying and transporting large loads which makes them the ideal engine for the flotation of a new community. They are a blank slate with the possibility of being houses, restaurants, shops, or even bars depending on the layout.

To maintain and manipulate some of the existing characteristics of beach town structures we have chosen to maintain the gable roof, porches, decks, yards, and docks that are part of the identity of shore cities. In this process, we have designed multiple barge types to demonstrate and explore the flexibility of design and layout. Houses are designed to address varied styles of living, while the commercial barges utilize openness and pathways. The potential to create a replicable system that can be rigorously implemented along the coast using barges to maintain a place of provisional permanence for the residents and summer visitors on a slowly submerging island. Without this system, the regional culture of Long Beach Island faces extinction.

## Ian Jackson Matthew Marinelli



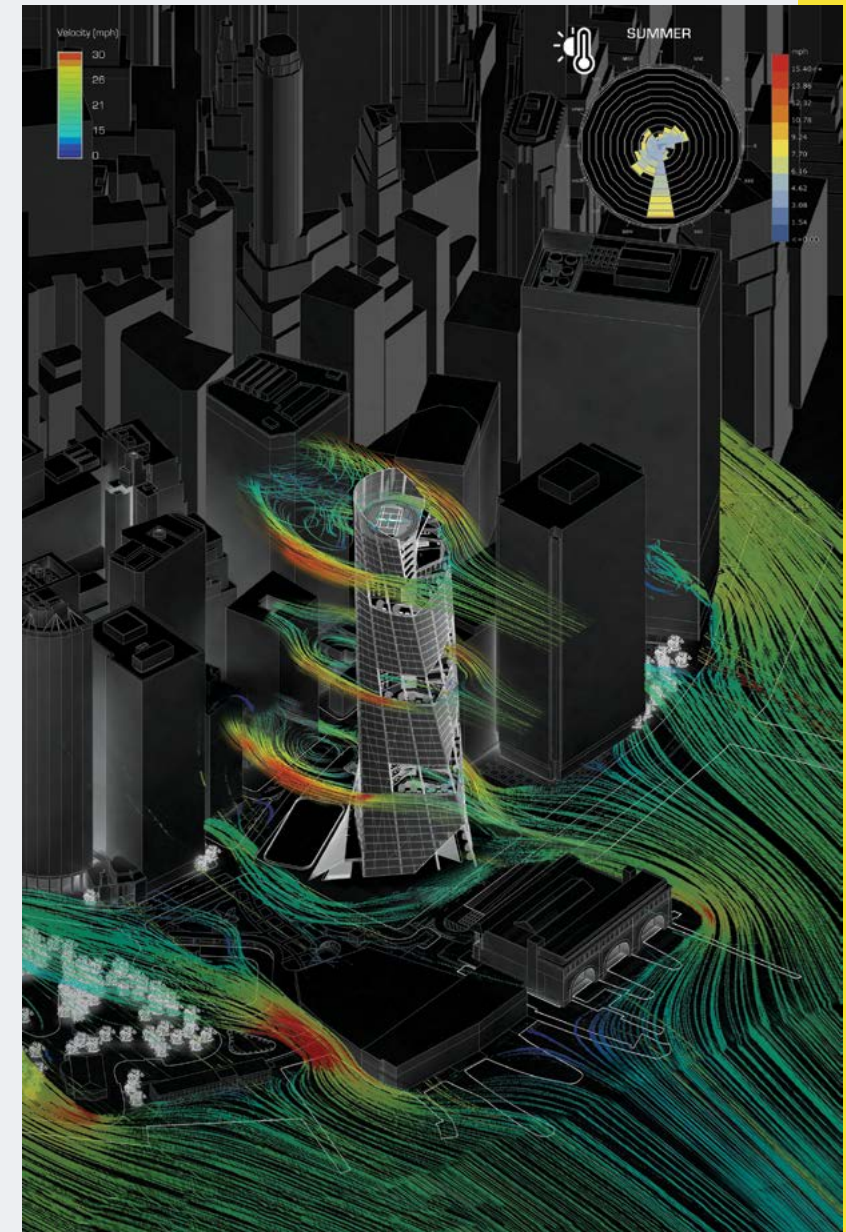
Today most skyscrapers occupy the full real estate land available and leave little or no space for the public. Skyscrapers are often surrounded with an open plaza, however they usually do not create a comfortable environment all year round. Public spaces are affected by sun, wind and precipitation conditions, which are often not taken into account during the design phase and are considered a problem rather than an opportunity. Because of that, we are left with many skyscrapers that are energy inefficient and forced to be retrofitted with energy consuming mechanical systems. Environmental performance will define the success of the skyscrapers of tomorrow. Designing them to fully benefit from the climate and site conditions will be the key factor to consider. With the increased global population, public spaces will be in demand and respected more than ever, encouraging architects to include them efficiently into skyscrapers.

By analyzing those trends and understanding the environmental benefits of sustainable design, architects should respond with structures that incorporate public spaces efficiently throughout the skyscrapers and keep those spaces comfortable and occupiable all year round and in every weather condition. From an economic standpoint, public spaces in skyscrapers can add value and even become an additional revenue stream, however they have to be carefully integrated

to the overall design strategy of the building and adhere to its social and environmental goals.

The successful implementation of public spaces into skyscrapers must consider the benefits of the environmental site conditions through sustainable design strategies and careful program selection to increase the comfort of occupying them all year round. By performing solar and CFD wind simulation studies, architects can better understand the site conditions and respond with designs that benefit from them rather than avoid and treat as a problem. Solar heat gain can make the spaces comfortable during winter and through passive strategies wind can cool the building during summer. Environmental conditions at different building heights can create opportunities for specific building programs that would benefit and take full advantage of those conditions.

This thesis contends that public spaces should create a better integration between social and environmental criteria in skyscrapers.



## Details Matter: Indian Architecture as the Product of an Assembly of Details and Their Specific Functions

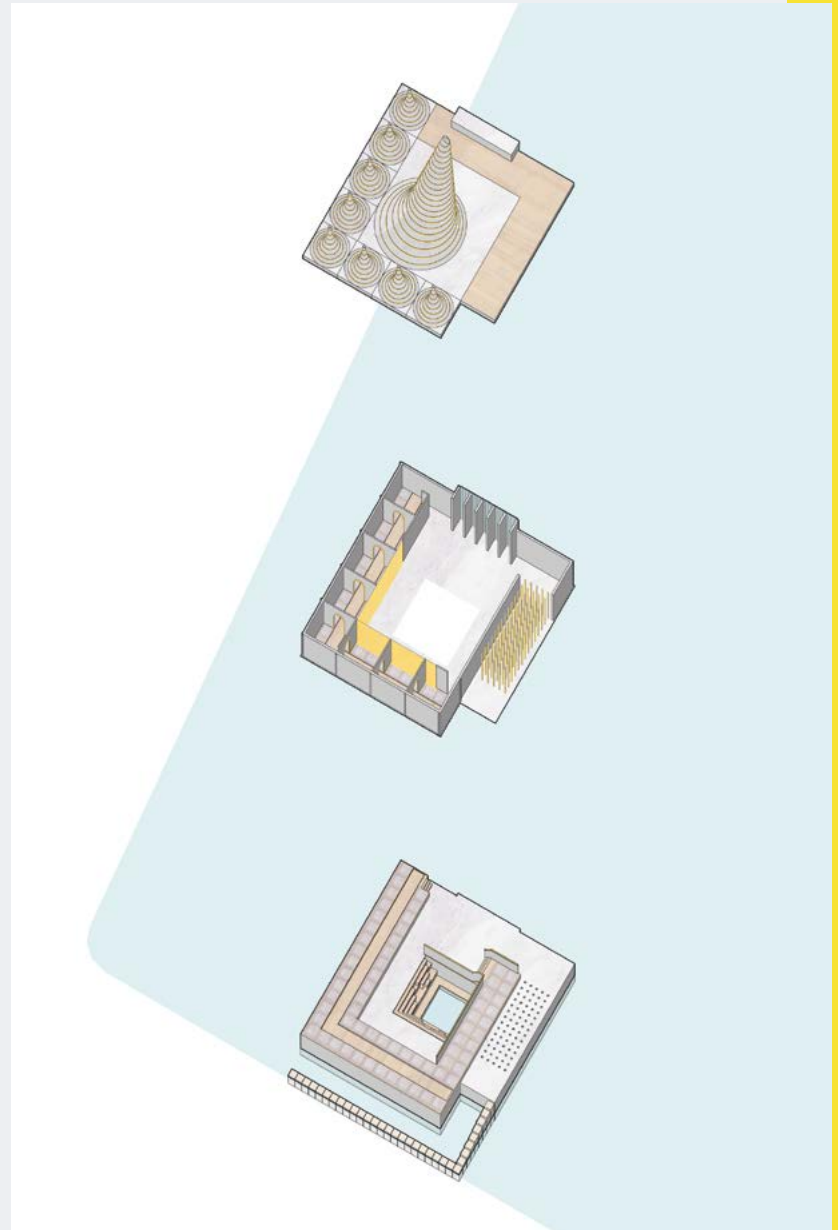
The persistent cultural identity of Indian architecture resides in the assembly of its components and the specific functions they are intended to perform. As Charles Correa mentions in the book *Vistara*, Indian architecture has historically evolved through time and space, shaping itself through India's global discourse—a dichotomy of established building traditions and foreign cultural influences. The evolution of this architecture can be understood through traditional Hindu temples, Buddhist stupas, Mughal Islamic structures, British colonial influences, and post-colonial modernist architecture.

Over the years, new myths have come into being, been absorbed, ingested, internalized—and finally transformed into a new architecture.<sup>1</sup> However, even as the centuries have passed, Indian architecture has been classified as a product of certain elements that have persisted through the ages. These key elements are: relationship to immediate context, relationship to natural elements—earth, water and sky, plan-based organizational tools (*mandala*), constantly changing intimacy of spaces, emphasis through repetition, garden spaces and rising plinths. Each of these elements perform a specific function. For instance, the *mandala* is a reflection of man's relationship to the cosmos and increasingly intimate spaces express movement towards the sacred. Hence, Indian architecture is understood as the product of an assembly of such details.

To explore the spatial conditions these details could produce, this thesis proposes a national pavilion for India at the Venetian Arsenal, one of the sites for the Venice Biennale. The design of a pavilion for India at the Venice Biennale is an opportunity to understand architecture as a vehicle that illustrates values that are simultaneously universal, and culturally specific. While the proposed Indian pavilion incorporates the details that define Indian architecture, they are appropriated to the highly articulate Venetian context because principally, Indian architecture is malleable and fits within its local environment. This cross-cultural representation is accomplished through symbolic relationships to natural elements and site, abstract architectonic form and space, and in particular construction detailing. In this regard, it becomes important to consider the details and material palette of Carlo Scarpa's work in Northern Italy. Scarpa produces coherent details that exude the culturally rooted architecture of Venice. Improvising the functional components of Indian architecture to fit into the context of Venice would expand India's global discourse, giving rise to new myths and metamorphosing architecture in India.

<sup>1</sup> Carmen Kagal. *Vistara: The Architecture of India, Exhibition Catalogue, Festival of India in U.S.A.* (Bombay: Festival of India, 1986).

## Rajkumar Kadam



The thesis addresses the notion of limit and boundary. The two words have been interpreted architecturally for centuries and continue to present opportunity for experimentation and discovery. From these two words can be derived a series of concepts that evoke architectural implications: separation, protection, enclosure, exile, interiority and sanctuary. What is necessary for these concepts to convey meaning is something to respond to: a situation, a problem, a context. For this thesis, it is the war-torn ancient city.

The project is located in Aleppo, Syria. It is a place where East and West meet—a city that has been continuously inhabited since the Early Bronze Age. The city is represented as a collection of invaluable architectural monuments and spaces by an archeological drawing that shows what once was. The Syrian Civil War has destroyed much of the city's architecture and so the aim is to experiment with separation, protection, enclosure, exile, interiority and sanctuary as a means of preserving the memory of the city.

The idea that limit is equal to sanctuary is tested through architecture holding a museum program that is organized according to accessibility and time. Three monuments in Aleppo—the Citadel, representing the political fortress; the Great Mosque, representing the religious monument; and the Souk, representing the space needed to sustain the economic vitality

of the city—are chosen as sites for three museums. The first, addressing the Citadel and receiving its entrance, is a subterranean archive for rare precious objects and manuscripts containing the history of the city. It is the least accessible and contains the oldest objects. The second, surrounding the Great Mosque, is a perimetral museum that contains books as well as fragments of the surrounding ruins to be preserved and restored. The third, defining the ancient Roman souk road that cuts an axis through the city towards the Citadel, serves as a collection space for people to come and store their valuable possessions, old photographs, letters and so on. Questions to ask are: what role does architecture play in a crisis? How can architecture preserve? How does architectural limit impact the city? One side of the perimetral museum faces the mosque and the other side faces the everyday fabric of the city; what is the difference between the two sides? These questions bring attention to the meanings and relationships that architecture can convey.

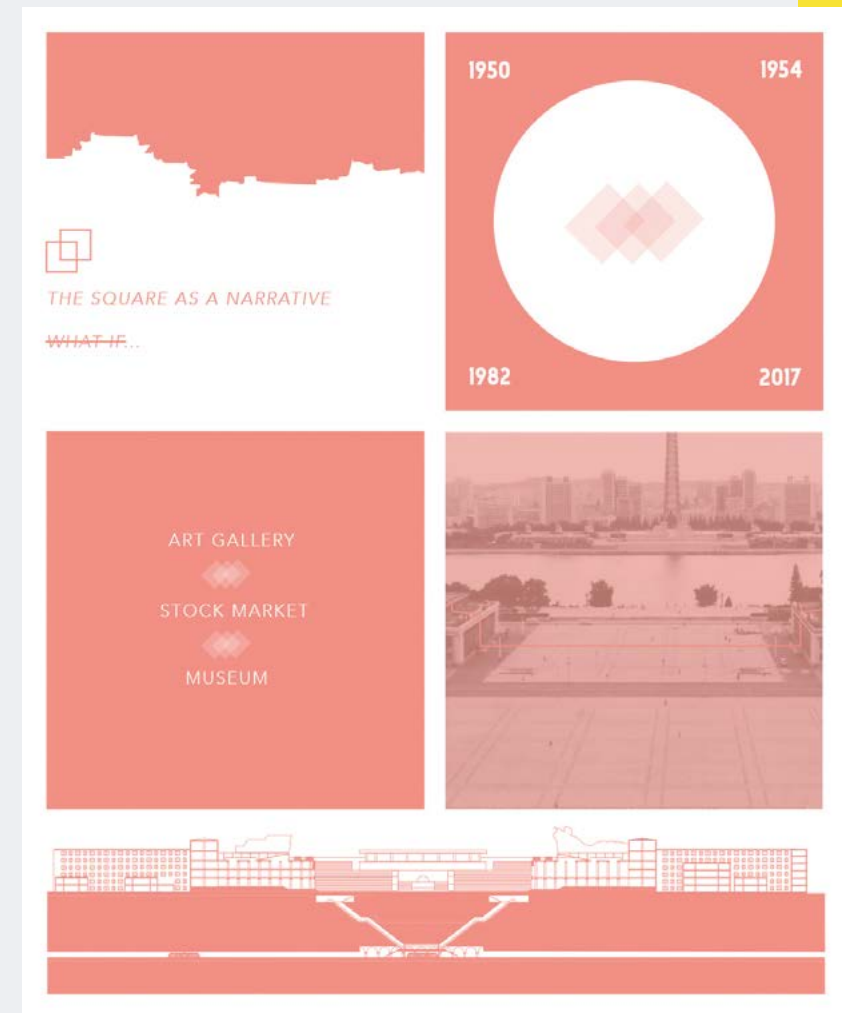


Architecture starts from a desire to create a place. Starting from a blank slate during a pause in the Korean war in 1953, North Korea's capital, Pyongyang, which had been destroyed, was re-planned according to a master plan that emphasized strong political motifs in the architecture as a means to embed ideology into the built environment. This thesis considers the symbolic public square in Pyongyang and explores the existing programs, art gallery, and museum around the square, as well as the addition of stock exchange market underneath the square. It intends to provide new functions to the subdivision of the square in response to the layers of propaganda characteristics and spatial transformations over the past half century situated in a “unique moment” of socioeconomic and political scenario.

New program adoptions to the square place the square as the central node, knotting multiple layers and functions together as a social blender of historic fabrics influenced from urban structure of Pyongyang. These transformations indicate change to the form and symbolism in a framed urban condition like Kim Il-Sung Square, and further question the merging of two conflicting systems in a space strictly designed to emphasize authority that discourages human engagement. This project attempts to articulate the method of engaging its future inhabitants through the lens of new

sets of hierarchy in the cultural and commercial context of the space.

In this regard, the design of the square aims to blur the encapsulated expression that lies in the block with circulating strategies that oppose the characteristics of the original square since 1954. Through the interactions of art gallery, museum, and stock exchange market, this new scenario envisions a landscape of human-scaled interaction that act as a metaphor to contradict the “falsehoods” of ideology transformed into architectural identity.



Charon's Passage is the product of *nimiety*<sup>1</sup>: a pyramid for the 21st century. By engaging the mausoleum within the context of global urbanization and global consumption, notions of permanence and object-form relationships are challenged and renegotiated through the introduction of foreign agents and spatial products.

As an architectural project, the mausoleum engages with architecture for architecture's sake, a side-effect of the program-less status it enjoys. Furthermore, the mausoleum is conceived as an object of permanence: culturally and tectonically it is designed to last forever and, by association, formally predicated on autonomy. Consequently, the mausoleum typology affirms the issue of significant form, privileging formal operations over the context, the user, and the program. Yet, the mausoleum falls back on antiquated imagery and symbolism, relying on its stoic stasis that has resisted change and contemporary design methodologies. Limited by an autocratic definition of form, the mausoleum is unyielding whereas 21st century architecture is dynamic; a malleable system open to interpretation. Thus, the mausoleum stands in opposition to urbanization's ethos of pluralistic formless expansion of the city.

Charon's Passage reclaims the idle territory of the mausoleum by activating it with public space for the living as well as the dead to undermine its conventional dialectics

and identity of funerary architecture. Reconceptualizing the mausoleum with the active program of the casino-resort proposes a synthesis of opposing parts, a conflict that positions stereotomic form against the tectonic. Cohabiting antagonistic forces now produce an architecture of simultaneities in the mausoleum. The resolution of the mausoleum-resort/resort-mausoleum manufactures unorthodox urbanistic and social relationships between architecture and capitalist "modes of accumulation."<sup>2</sup> As casino, the typology rejects the "capitalist myth of work,"<sup>3</sup> in favor of an "expansive choreography of leisure,"<sup>4</sup> resulting in a product where life and death are bound by a singular utopian concept: paradise. In this Eden, the mausoleum is positioned as a formal artifact that empowers its own (a)political and economic systems of control. The mausoleum is now an architectural and infrastructural chassis that no longer hinges on reflection or lamentation, but supports spirited civic activities. Ultimately, the agency of the project is facilitated by overlapping autonomies that assume the scale, density, and power structures of a city-state as exhibited by the casino-resort while reinforcing the sacredness of the mausoleum's objective formal agenda.

<sup>1</sup> *Nimiety*. n. the state of being more than is necessary or desirable.

<sup>2</sup> Pier Aureli. *The Project of Autonomy* (Princeton: Princeton Architectural Press, 2013), 6.

<sup>3</sup> Aureli. 38.

<sup>4</sup> Keller Easterling. *Enduring Innocence* (Cambridge: MIT Press, 2008), 23.



## Beyond the Birdhouse: A Shift in Architectural Design From Anthropocentric to Biocentric

“[W]e become animal so that the animal also becomes something else,” the philosopher Gilles Deleuze once said. He was interested in the displacement of the human subject from the center of philosophical discourse, which in turn would transform the unjust established order to which all other non-human beings are connected. This thesis uses the same logic to respond to the alarming effects the Anthropocene<sup>1</sup> has had on the destruction of wildlife habitat globally. What would an architectural typology that responds to the needs of both human and non-human look like? How can we as architects begin to transform how people interact with animals in urban areas?

This project aims to propagate biodiversity in Manhattan by focusing on providing habitat to the Warbler—a neotropical migratory songbird that is currently endangered. In addition, the design intends to change the way humans perceive their environment and their role in an ecosystem that views wildlife as equally important. The building itself will combine a wild bird rehabilitation center and public museum with a façade that provides a thickened habitat skin to birds that live in Manhattan. In this exploration, the focus is to define the way we as architects think about the interactions humans have with animals. The interfaces between human spaces and bird spaces present an opportunity to

be restructured in a way that redefines the “established order” of living. The design of these surfaces will play with visibility, audibility and movability between spaces. They will also have qualities that allow for the intended user to live comfortably based on their

*Why do we care?* Besides the fact that the idea of humans as a superior species is simply unethical, biodiversity is at the root of what governs the clean air, water, and food that we all need to survive. In addition to that concept, Warblers specifically help keep insect populations down. A single bird consumes an average of 1980 leaf-eating pests every day, so we can begin to understand the crucial role they play in the ecosystem. If we take Warblers out of the equation the amount of green we see around the city will slowly start to disappear.

<sup>1</sup> *Anthropocene*, n. a proposed term for the present geological epoch (from the time of the Industrial Revolution onwards), during which humanity has begun to have a significant impact on the environment.



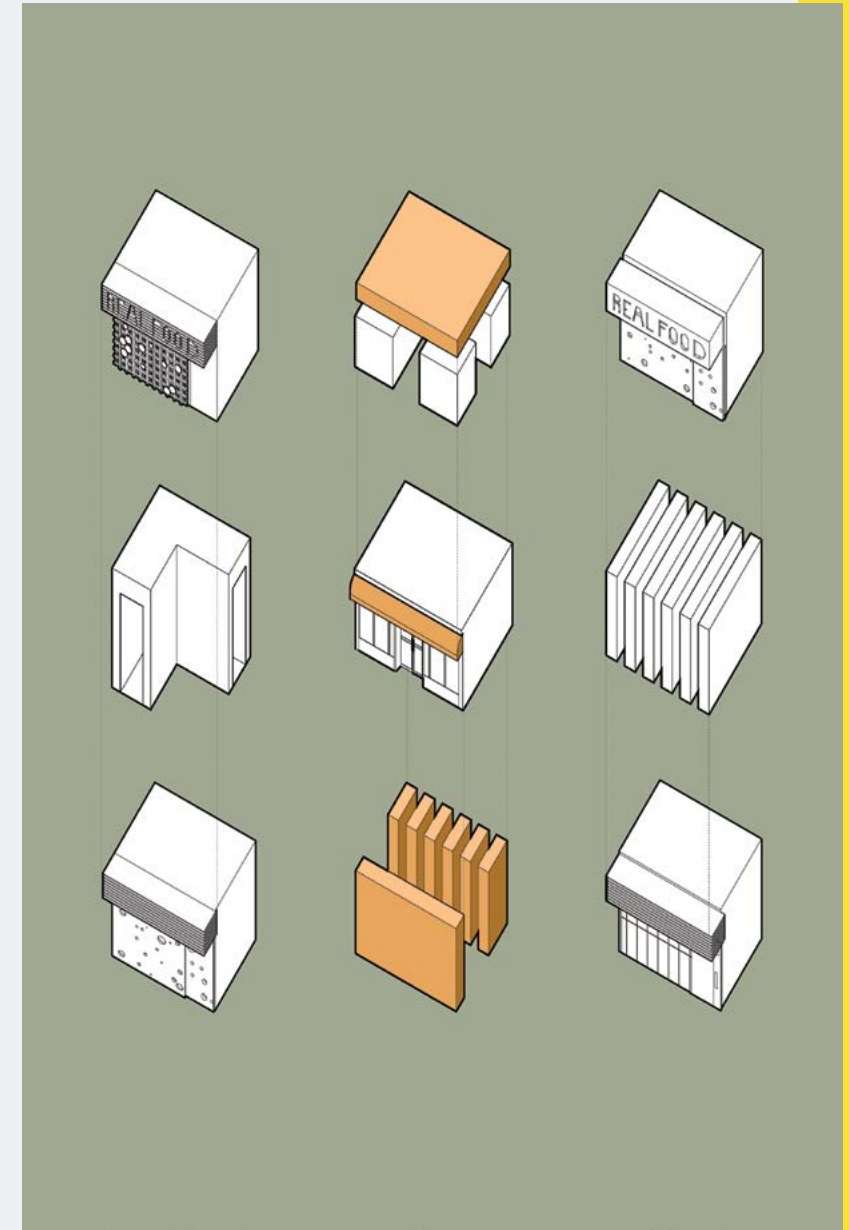
## Appropriating Convenience: A Systematic Approach to Redefining Associations with Food and Corner Stores

The principle motivation for the design of this new architecture is the understanding of the corner store site as a unit of entry into a food-growing backyard network and as an iconographic symbol that informs how urban dwellers associate food with convenience. Grouping the backyard micro farming with its convenient entry points creates a prototype that will repeat countless times throughout a much larger system of residential blocks, which begins a dialogue with the food insecurity of an entire city.

This thesis aims to show the potential for an architectural intervention to respond to the spatial quality of a city, particularly in a space commonly found in various residential blocks within food deserts, the convenience store. The transformation of existing convenience stores into to a portal that enters a micro-farming network will begin to address the economic, educational, and cultural issues of food deserts found within this marginal branch of society.

The USDA understands the corner store to be a public unit of fresh food commerce filled with cheaply imported merchandise and produce, whose various insertions within the community efficiently serves the dense population of urban neighborhoods. This new architecture will not destroy what exists without leaving a trace, but sit within the underutilized interstitial space sandwiched between the

backyards of residential buildings. This would require the redesigning of every convenience store and backyard scape that meet qualifications determined by the prototype. Redefined by a new iconography [sign] that represents that culture of the users and neighborhood, the façade is the main component that will draw users and customers to this new convenience store. The plan will begin to direct circulation through the convenience store and begin to better accommodate the fresh produce sold in the store. The backyard scape transforms into hydroponic/areoponic growing spaces, learning gardens and community gardens.





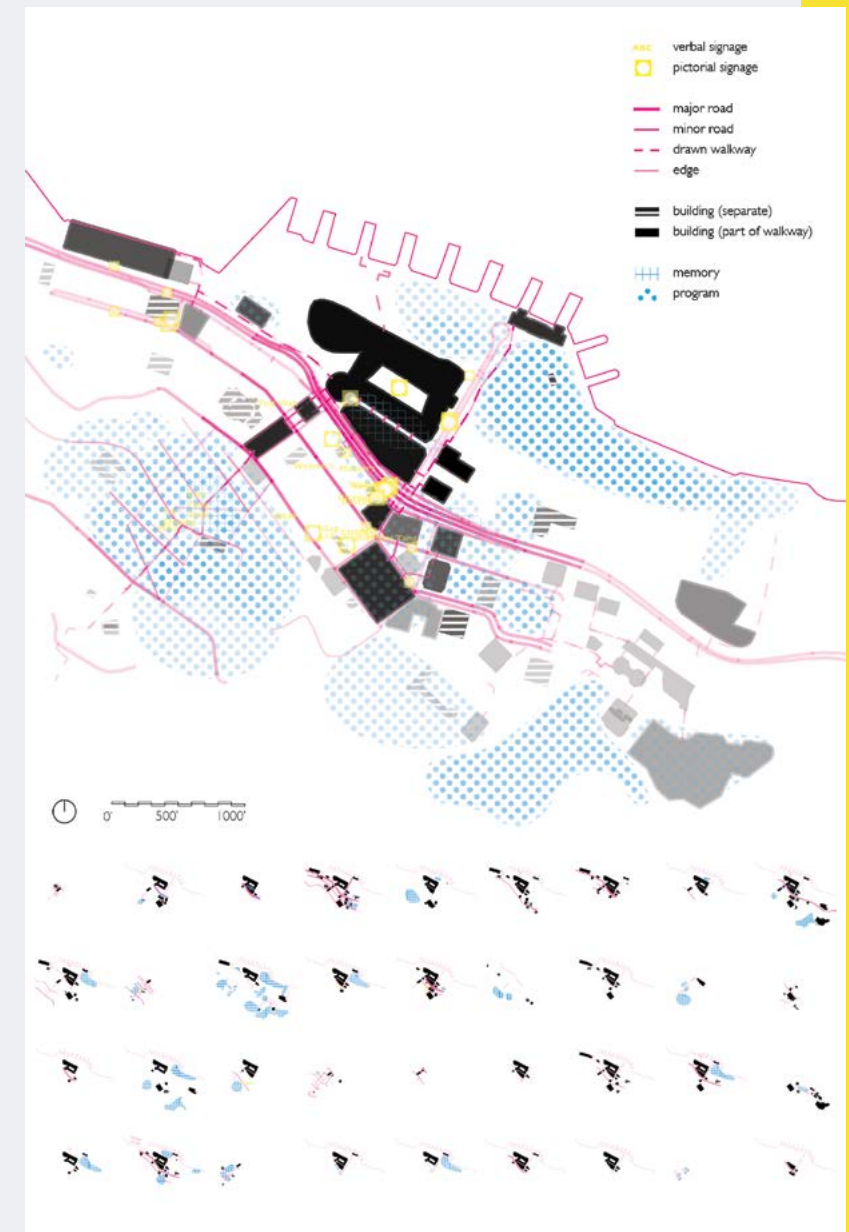
Narrowness can be either highly memorable or easily forgettable. Narrow skyscrapers change a city's skyline into something iconic and memorable (a narrow solid), while a narrow slot between buildings renders that area of the city as dark and "forgotten" (a narrow void). This thesis posits that to render a narrow void memorable, one has to shift focus from the horizontal plane to the vertical plane. By doing so, architecture emphasizes the character of its site, which strengthens the overall image into a memorable one.

A preliminary mapping exercise—its methodology inspired by Kevin Lynch's 1960 book, *The Image of the City*—was conducted to explore how mapping of memory can start to reveal biases in the city. A collective image of Central Hong Kong was created with 36 mental pictures from 36 participants acquainted with the area. These were diagrammed to the same scale and graphic notation, and then overlaid to produce the collective image. The image is a representation of the memorable areas and objects of the city, while where the image does not occupy (the white spaces) is a representation of the forgotten, and the site for this thesis.

Within the forgotten zones of the collective maps, two narrow streets—Li Yuen Street East and West—were identified as ideal sites to test how narrow urban void can

be made memorable. In this case, it is a combination of the narrow proportion of these streets, but also the architecture that fills it, which renders these streets forgettable. The architecture here is a vernacular one—a line of shacks selling an assortment of dry goods. The occupation of limited ground space by these shacks is not in harmony with the proportions of the street. As remote access to the streets show, the combination of such narrow streets crammed with ground-oriented objects reduces the site to a visually impenetrable wall.

The thesis is convinced that a memorable narrowness can be achieved in an urban void if the architect shifts focus from the horizontal plane to the vertical plane. Indeed, a large portion of what can be seen when approaching a narrow street is not "the front", but "the sides". By using the current vernacular palette to develop vertically-oriented shacks, the thesis proposes two alternative designs to reimage these cracks in memory.



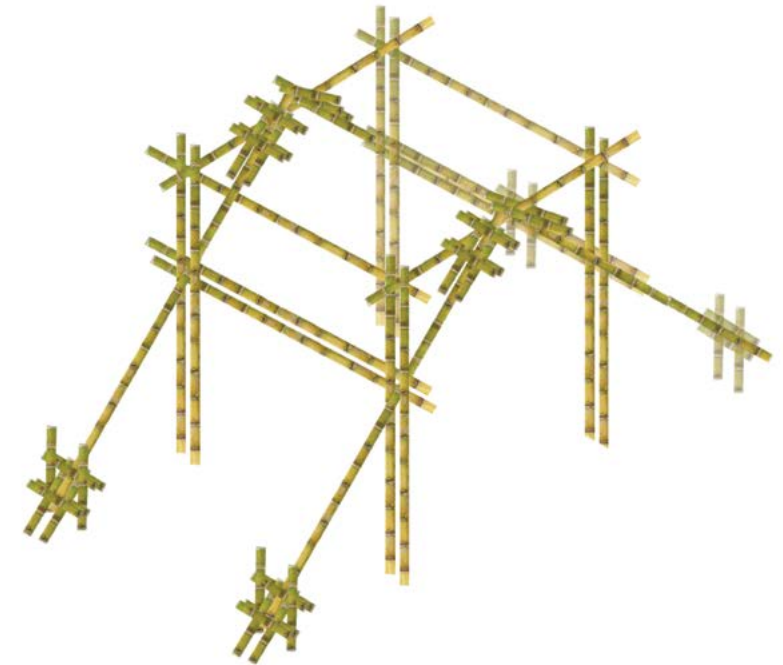
Everybody wants the same thing, rich or poor...not only a warm, dry room, but a shelter for the soul.<sup>1</sup>  
—Samuel Mockbee, architect and Founder of Rural Studio

Of the things we as human beings have a 'right' to—air, water, food—shelter seems to be the last necessity that is compromised, in the history of disaster relief. In fact, at least 3 million Western Europeans are homeless each winter, 700,000 people on any given night are without shelter, while another 600 million urban dwellers and 1 billion people in rural areas live in overcrowded and poor-quality housing—slums, railway platforms, old buses.<sup>2</sup> These statistics are vacuous from immediate disasters, like the most recent Caribbean disaster, Hurricane Matthew, which displaced hundreds of thousands of people. “Designers cannot just stand by and watch as the refugee crisis unfolds”—and although architects and designers can’t save the world, through design, we can alleviate consequences of scarcity. It’s not about creating a structure that will withstand the ends of time or endure the most extreme climate, it’s about how to respond in an emergency with the most geographically intelligent prototype that utilizes the utmost importance of on-site materials so the bare minimum of an instruction manual or few key tools can be optimized to offset distribution obstacles.

This thesis aims to find a medium between a framework that allows for a quick dispatch of a structure that can emulate these programs and a comprehensible system that can be accomplished by the average citizen without an architecture background. This will be achieved through the usage of local materials to minimize construction material cost and weight distribution, as well as empowering locals with education to build a structure of their own. With Guadeloupe as the site for intervention, we see that flooding from hurricanes 5–6 months out of the year creates the state of emergency. However, by identifying the island's most abundant resource (sugarcane), we can start to utilize and manipulate the properties of this crop from stalk to pulverization (bagasse) as the main component of the prototype design to build inexpensive and immediate structures of refuge. With the juxtaposition of enduring destruction, I propose a methodology of rebuilding and rehabilitation, aiming to design for the 99 with affected homes and communities at peak moments of crises.

<sup>1</sup> Bernard Friedman. *The American Idea of Home: Conversations about Architecture and Design* (Austin, Texas: University of Texas Press, 2017).

<sup>2</sup> Gordon Mcgranahan, Deborah Balk, and Bridget Anderson. “The Rising Tide: Assessing the Risks of Climate Change and Human Settlements in Low Elevation Coastal Zones.” *Environment and Urbanization*, 19, no. 1 (2007), 17–37.



We would like to propose a series of urban armature to stitch back the scars from Interstate-81. In a scenario that the I-81 is going to be turned into a boulevard as proposed, this project is going to construct a series of armatures, the same entity as the Interstate, but utilize in a way that it will behave drastically differently from the Interstate.

We began by defining the points of interest and creating zones that will be acting as nodes. The proposal is to connect the key places and destinations that we designated, through a series of multi-functional urban armature. In creating connecting paths, various moments will be presented; there will be conditions with different spatial hierarchy and quality such as walls that get occupied, bridge conditions, canopy conditions and series of rooms. Additionally, along the paths of various scales, thicknesses and elevations, we hope to create moments of density on middle grounds that the path goes through, utilizing private, public, and commercial programs. Through insertions of specific things on specific sites, we hope to connect and activate the divided city as a walkable urban fabric. The project will prioritize pedestrians and bicycles, to create an infrastructure that people will be inclined to.

# Jaegwan Lee Se Won Min

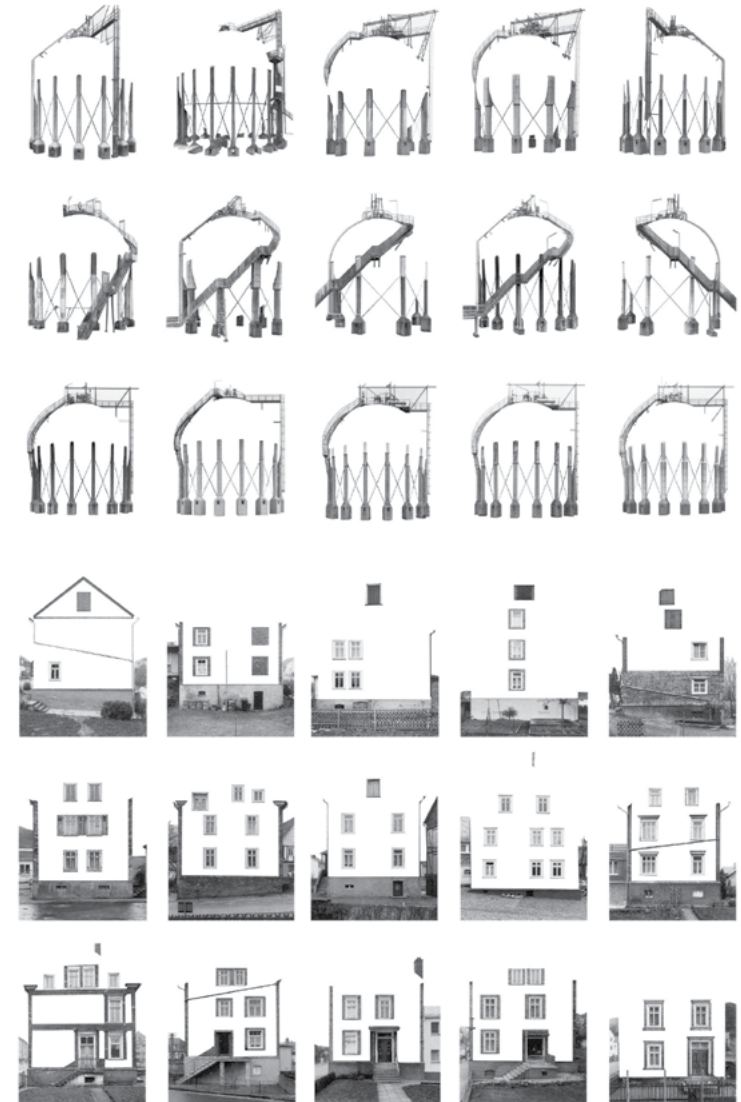


In the world's ubiquity of images and growth of visual culture, it is appropriate to reconsider images as a source for producing architecture. Search engines and image-based social media illustrate Jacques Rancière's alterity of images—that images are autonomous from and other than the objects they represent—to a degree like never before. Given this vast field of images that make up our perception of reality, this thesis exposes and embraces the inherent distinctions between images and their represented objects to arrive at an architectural sensibility of distinction and otherness. By re-drawing, re-imaging, and re-presenting Bernd & Hilla Bechers' "Typologies" series, this thesis produces a matrix of images and artifacts that re-frame the everyday by what it's not, the removal of essential similarities, and what it's near, the privileging of subtle distinctive features.

Bernd & Hilla Bechers' image series have been described as typological. However, discursively typology has been theorized as spatial composition through geometry, typically in plan. The Bechers' work is then more accurately described through Quatremère de Quincy's definitions of Essential Character and Distinctive Character. These definitions deal purely with the appearance of architecture, entirely beholden to visual perception. Essential Character is the appearance of the means and methods of construction

and Distinctive Character is the ways these assemblies result in different configurations and originalities. The Bechers' series have also been described as a document of reality in their style, or non-style. But according to Rancière, all images are documentary—of something autonomous. The question then is not "what is true documentary photography", but rather "how should we perceive the images before us?" This thesis responds through a matrix of images that maintains a relationship with Essential Character but produces alternate logics that are neither in step nor totally out of step with it.

In his definitions, Quatremère alluded to the etymology of character, the marks and traces of writing, which translated into the marks and traces of construction methods and techniques. Architectural Character is now captured and disseminated through images, effectively de-familiarizing them. While Quatremère didn't consider Character through the camera, his conceptualization of character as purely through appearance and visual perception aligns with how we see images today. Resulting from this thesis is an embrace of distinction and the architect's mastery applied to the wrong things offering a way to see, analyze, and classify distinctions in images across media and utilize them as a resource for architectural design.



## The Returning Authenticity: Historic Preservation as a Design Strategy in the Shikumen Reconstructions

The old historical architecture, Shikumen, has been widely demolished by the government and replaced by high-density buildings. The economic development addresses itself at the opposite side of historical preservation and destroys the culture pattern.

Yet, profit and historical context could have a symbiosis relationship. Thinking historic preservation as a design strategy. Making this culture pattern to be merged with the economic needs and allow more people to visit and experience it.

Learning from the historical preservation precedents, different strategies can be summarized out of the famous cases. The stylistic reconstruction started after the French Revolution. Making restorations to the buildings with the similar aesthetic characteristics into a complete state. The maintaining restoration states repairing is pointless by creating meaningless fake elements; the authenticity of ancient buildings is the traces of vicissitudes. The logical of differentiating reintegration in architectural heritages' restoration not only depends on the difference between the restored part and the original part, but also on the aesthetic unity. Overhaul renewal, the value of historical buildings from oriental is more about the intangible value, that is, to maintain the integrity and technical process inheritance. Economic renovation most happened in China

during the recent decade based on the economic needs.

As most of the Shikumen housing that are still remaining in Shanghai do not have a comfortable living condition and some Shikumen house that has a better condition is changing its function, which is not suitable for living. The new technologies, mechanical equipment, and the new materials could better support the contemporary requirements for commercial purpose.

Creating a livable community that could serve to the public allows more visitors or even locals to experience the culture and the traditional Shanghai's lifestyle, which activates the surrounding areas simultaneously. With the contemporary urban development, those old Shikumen houses could have an alternative way to exist rather than being demolished in the future.



Chinatown is an important neighborhood in the city. For some it is an image of home, and for others a tourist attraction, with its unique characteristics and cultural elements, it is an invaluable neighborhood in the city. As the third largest Chinatown in the United States, Boston's Chinatown is seeing an increasing number of luxury developments that are starting to change the image and shrink Chinatown as a whole. What if new urban developments take over that significant cultural part of the city? This enclave may soon not exist anymore. Visually, a layer on top of the physically built environment, Chinatown with its temporal elements, such as signage, décor and archway is in danger to disappear for forever.

This thesis argues that on the building scale, architecture can preserve the image of Chinatown and perform as a place for cultural exchange. Moving beyond the iconic iteration of the archway and the temporal elements that form Chinatown, my thesis proposal is a building at the entrance of Chinatown in Boston that symbolizes its essence and acts as a gateway of Chinatown. To preserve and facilitate cultural exchange, the main program of the building will be a community center that encourages interaction amongst those that pass through.



### Issues/Argument:

In the urban context, transportation stations are important in people's daily lives. They are used as infrastructural spaces for people to circulate around the city or to connect the suburban and the city. However, stations come with two major features—first they have the characteristics of temporality (rush hours vs. non-rush hours); second, they usually have lots of spaces and facilities that are lack of architectural qualities (massive parking spaces or waiting platforms). Those two features as a beginning imply that especially in the transit-oriented areas, there are some underlying roles that the transportation spaces could play in addition to simple stations—hereby they are potentially able to become urban generators that unify the area and promote a new typology of urban life by redesigning the spaces.

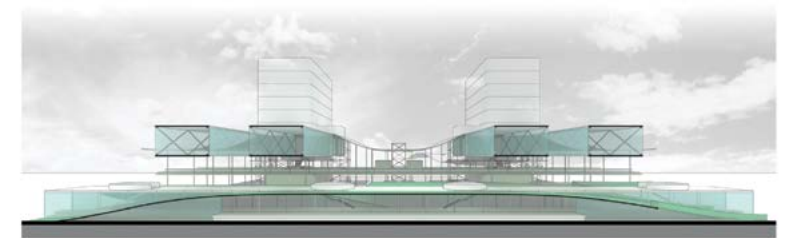
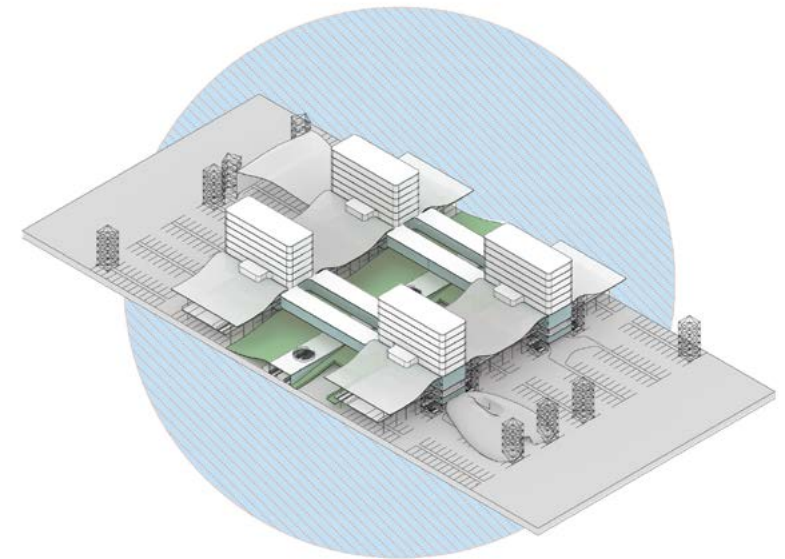
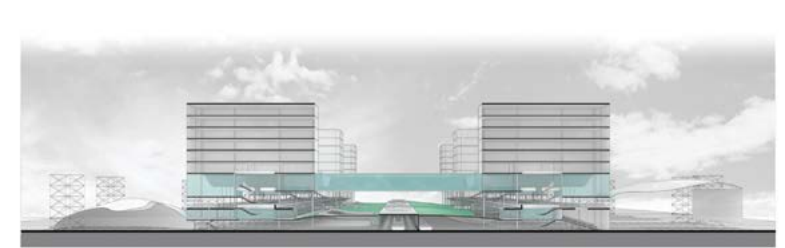
### Site/Research Targets:

In this project, Long Island Rail Road (LIRR), as the busiest train system in the U.S., is used as a transportation system study base for the design. The train operation enables a unique lifestyle in suburban areas—in rush hours, people take the train as a major commuting tool to their workplaces in the city, while in non-rush hour stations become a relatively empty public places with tones of facilities such as parking. Specifically, along one of the major branches, East Farmingdale is

the place where there's an intersection of route 110, the major employment corridor in Long Island, and LIRR train line. Therefore, this intersected spot is selected as the research and design site for a new proposed station with an innovative design.

### Design Approaches:

The project is to explore the idea of “transportation community”—the lifestyle is heavily relied on different transportation as a comparison to Manhattan walkable grid community. In other words, it's about how the infrastructure and foot traffic a station has can be used as the foundation to integrate the additional programs, as an attempt to promote a new typology of urban life. Specifically, on the one hand, the massive parking spaces are re-designed to allow the flexibilities for the various public activities. On the other hand, by creating “the little blocks” along the station, the design is to create this overlapped network of different modes of circulation or transportation (people, bikes, cars, trains).



## Constructing a New Ritual: Providing a Cultural Experience as An Alternative to the Pragmatic

Cities are characterized by the cultures that occupy them. The ones that have a long history of occupation tend to conserve their urban fabric to showcase their historic heritage. This thesis aims to draw attention to the historic district of Toledo, Spain given its unique condition of urban history, as understood through the urban structure and artifacts that comprise the city. Positioned in the center of the Iberian Peninsula, this fortified complex has been occupied by a multitude of civilizations including the Romans, the Visigoths, the Muslims and the Christians alike.

Given its rich and complex development it is interesting to see how this district has maintained its unique character throughout the centuries. Today, it is not only the geographic center of the city of Toledo but also the commercial, cultural and administrative center. The functionality of the city in this contemporary era has increased the circulation needs of the vehicular and pedestrian traffic. The essence of fortification and protection is still preserved through its walls and gates, however other pragmatic access points have compromised the historical notion of the urban sequence.

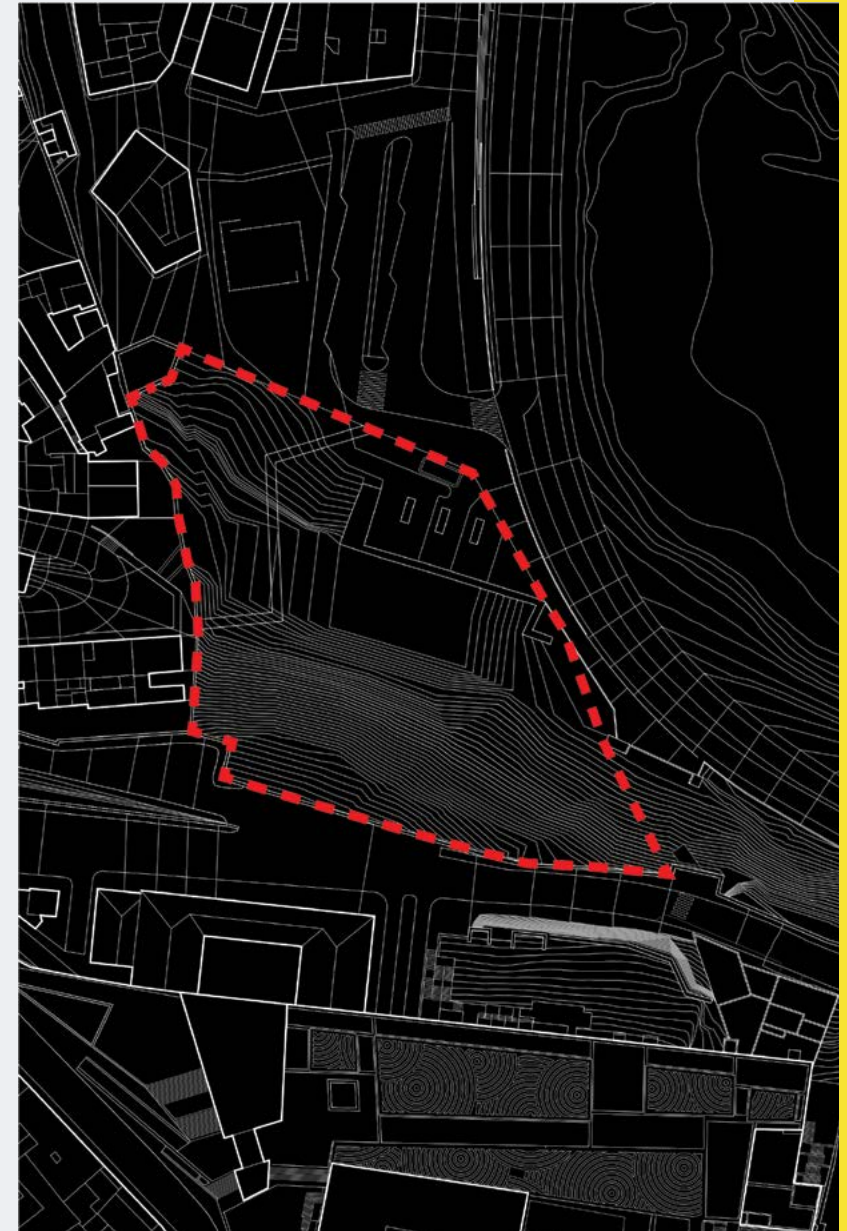
The contention of this thesis is that a modern architectural intervention into a liminal site of a historic district can operate as a didactic threshold between the exterior and interior environment such that it facilitates the

access between the two or more realms creating a sequence of memory and meaning relative to the existing urban artifact.

This thesis will focus on the pedestrian sequence into the historic district, specifically the northeast access condition that has been recently rerouted by a public escalator system addition. Considered to be the new gate of access of the 21st Century, this access point is limited by its pragmatic character of entry. The aim is to refurbish the neglected liminal site that is adjacent to the new escalator route and provide a meaningful architectural intervention that would extend the ritual of access into the historic district.

The selected program for the architectural intervention intends to compliment the functionality of the Historic District by providing a space of cultural leisure that meets the needs of the modern resident and visitor population. It seems that the exhibition quality of Toledo is only limited to its historic occupations and does not showcase any modern works. The intervention would therefore house a contemporary art museum that would serve as a cultural alternative to the pragmatic escalator experience.

## Angel Lopez Olijnyk





One of the main arguments for hosting the Olympic Games these days is its potential legacy. This is what a city can gain at the end of an event of only 45 days (Olympics and Paralympics). The Olympics are commonly used by governments to argue for investment and therefore are marketed as an opportunity for a city to go through deep transformations that will create long-term investment in infrastructures, tourism, and employment. The post-event legacy becomes an argument and justification for urban transformation in relation to socio-political policies and urban design.

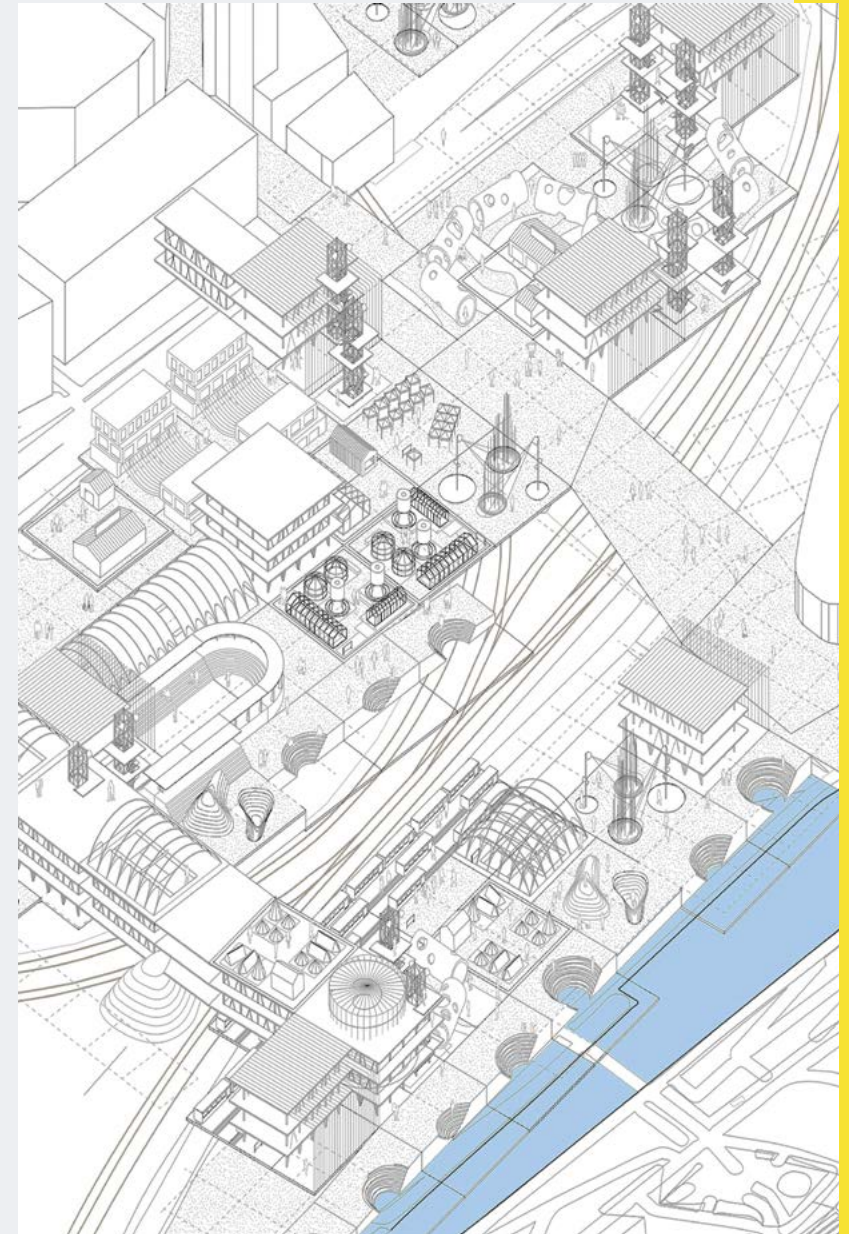
By discussing how the Olympic Park be a new model of a gated community, in which public infrastructure are not just insertions but an integral part negotiation between the private communities and the general public.

By analyzing the Olympic master plan (urban, architecture, infrastructure) as a driven force to negotiate socio-political issues and post-Olympic urban, architecture, infrastructure transformations.

By providing challenges and solutions for London Stratford Post-Olympic site and as an anticipation for the urban transformation for 2020 Tokyo Olympic Game.

The thesis aims to explore multiple forms and modes of urban and architectural legacy of pageants in relation to urban design, to engage multiple scales and forms of research of pageants and legacies within the city development, and to examine the city

as a transformable, logic, enjoyable, and engaging space of activities, and culture that involves a complex network of designing and planning by applying and experimenting three urbanists' prototypes: Rem Koolhaas, Leon Krier, and Mohsen Mostafavi on to the Stratford post-Olympic site to discover and synthesize the ideal urban idea for Stratford.



## Urban Mobilizers: A Framework for Mobility Hub Design in the Sustainable Mid-sized City

Mobility has become a condition for our modern lifestyles. Contemporary society is dependent on access and transportation in urban and regional conditions for work, services and leisure activities.

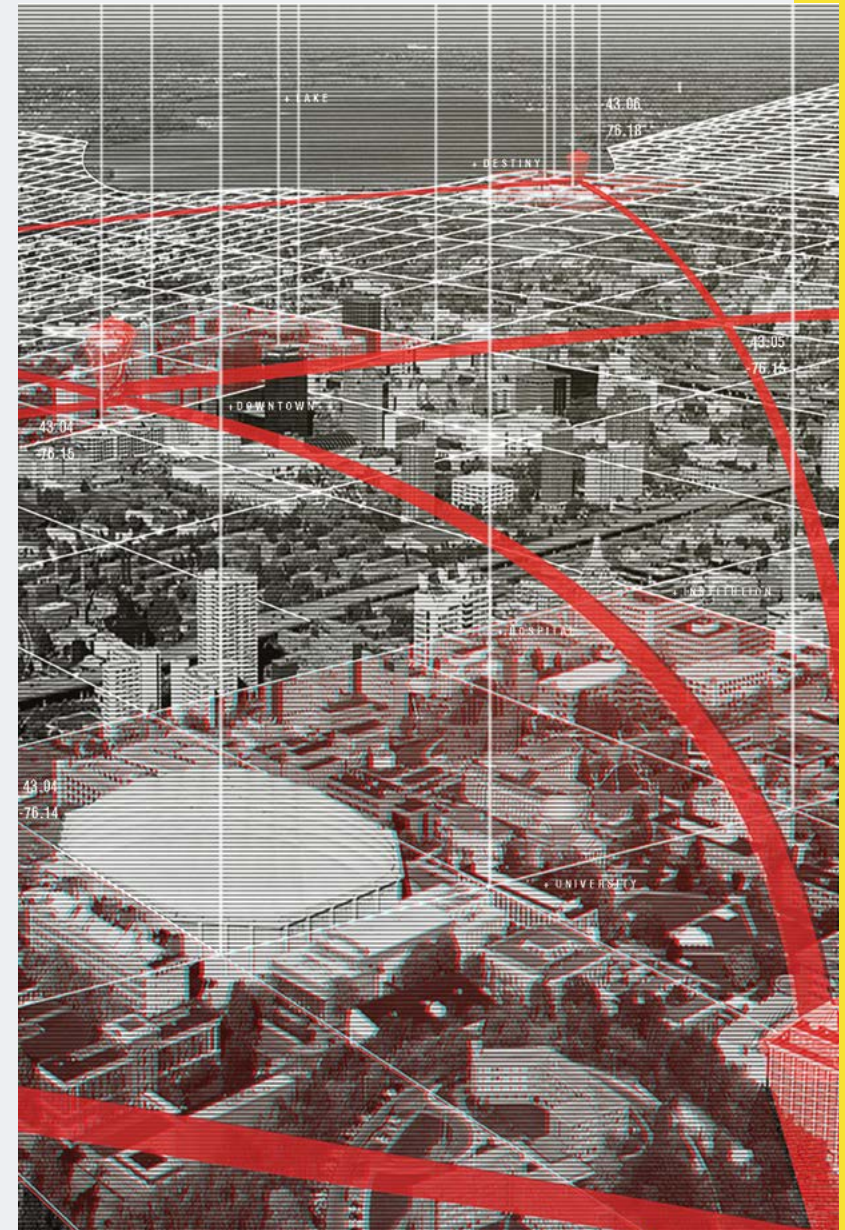
Transportation infrastructure is regarded as a primary measure of a city's success and is viewed as a prominent field for design investment. Recent changes of perception have shifted the outlook of mobility from car-centric plans and ideologies toward more human-powered and shared modes in an effort to reduce carbon emissions and improve health and standard of living. Thus, the need for sustainable multi-modal travel into, out of, and throughout a city is foremost.

This thesis aims to identify the role architecture plays in urban transportation infrastructure. Mainly, how it can enhance, support and/or initiate improved sustainable transportation modes and change social perceptions of travel within mid-sized cities. Advanced sustainable technology for urban mobility is certain to occur in cities of all sizes, but mobility in mid-sized cities requires closer investigation due to its unique issues. Travel mode in mid-sized cities relies on the relationship between access to transportation infrastructure and the architecture of the destination rather than the sole integration of congested urban transit networks. This thesis proposes the design of a network of

mobility hubs or urban mobilizers in mid-sized cities that challenge the established method of infrastructure planning; a framework for the design of these mobility hubs is also presented in this project.

The City of Syracuse has been selected as a case study for the exploration of the influence of an architecturally driven urban transportation system. Three urban conditions in Syracuse are analyzed: urban sprawl, downtown core, and institution node. A method is presented for the development of an integrated urban architectural system that fosters sustainable urban mobility, including design guidelines for mobility hubs, development of scenarios for the arrangement of programming and infrastructure integration, and strategies for system and network optimization. Urban Mobilizers proposes a set of architectural interventions tailored to mid-sized cities and adaptable to urban variables. This investigation suggests a position for architecture in urban transportation design that is necessary for provoking a sustainable future.

## Christian Martinez

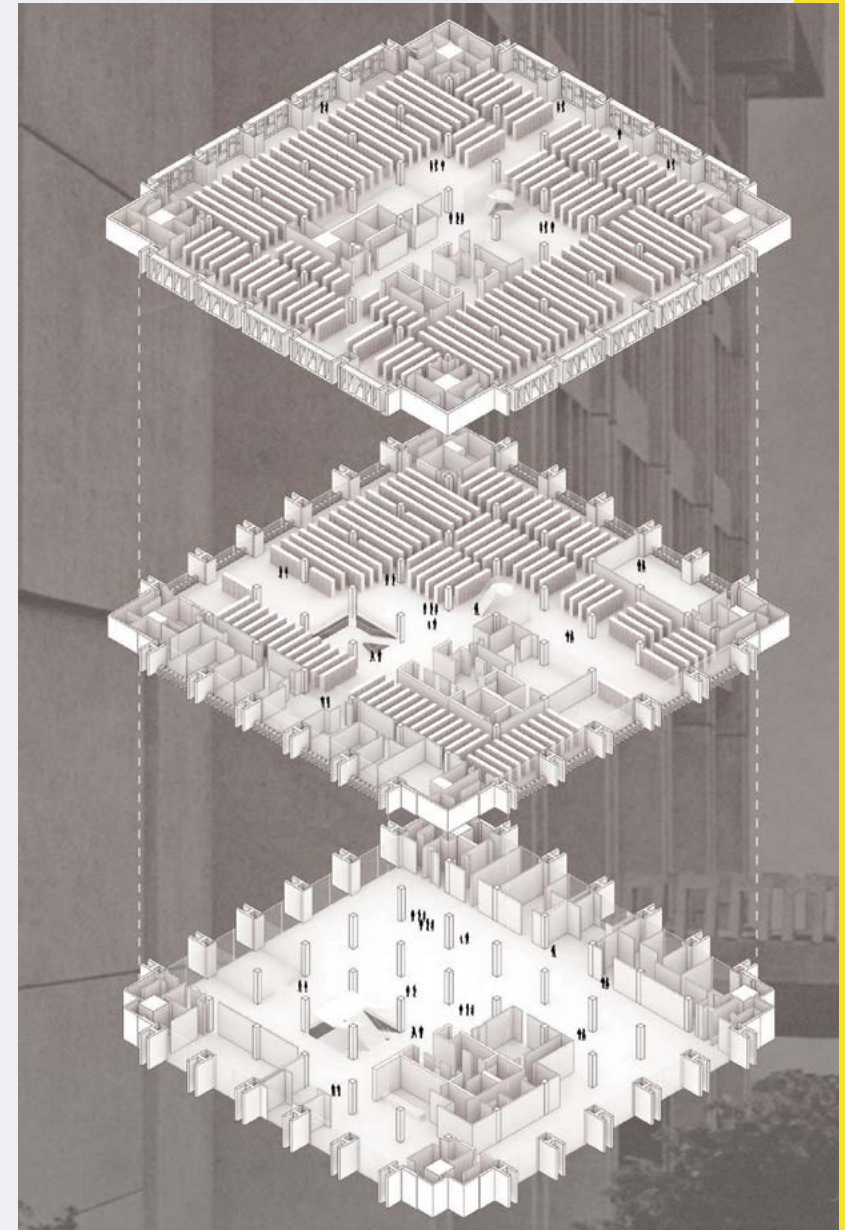


The design of the campus library has an instrumental impact on its use. Given that the library is an academic destination unlike others on the campus it is crucial that its character and design fit into the community in order to promote its best use. Classroom buildings, dining halls, and dormitories are all campus buildings that a student is forced to pass through. The library, however, is a destination that although sometimes is required to use—for the most part is visited by choice. Although the library's main function is as an archival database, its equally important role is as an academic tool for the campus community. The library is a destination, which provides space for the cross-pollination of ideas and disciplines within the school. The design of the campus library should encourage its use—as the social and intellectual nucleus of the campus.

With the continued development of online networking and information transfer technology, modern campus libraries are continuing to move away from destinations only for the storage of physical documents. In many cases, libraries predating the 1990s have had no choice but to add new functions and remove outdated ones. However, in many cases, small renovation is not enough to remedy the problems of outdated design. The libraries of the past offer the opportunity for adaptive re-use, which can reinvigorate their position on campus and improve

their performance (spatially and environmentally). This thesis contends that adaptive re-use is an economical and effective strategy to re-engage campus libraries that have lost touch with their academic community.

Built in 1969, Bird Library currently lacks the ability to provide efficiently for the students, faculty, and community of Syracuse University. The building's architecture is disengaged with the students and faculty that pass it each day, which is why it is considerably underused. Bird Library should be transformed from an avoided barrier, into a transparent beacon that takes advantage of its site. Renovation provides the opportunity to re-engage Bird within the community by connecting Walnut Park and the University Place Promenade while providing new program that the current library is lacking. The renovation will also provide the opportunity to lower Bird's current energy footprint by employing modern envelope technology that utilize solar exposure and passive heating/cooling strategies. The design should strengthen the historic image of the main library while expressing a fresh enthusiasm for intellectual growth and change.

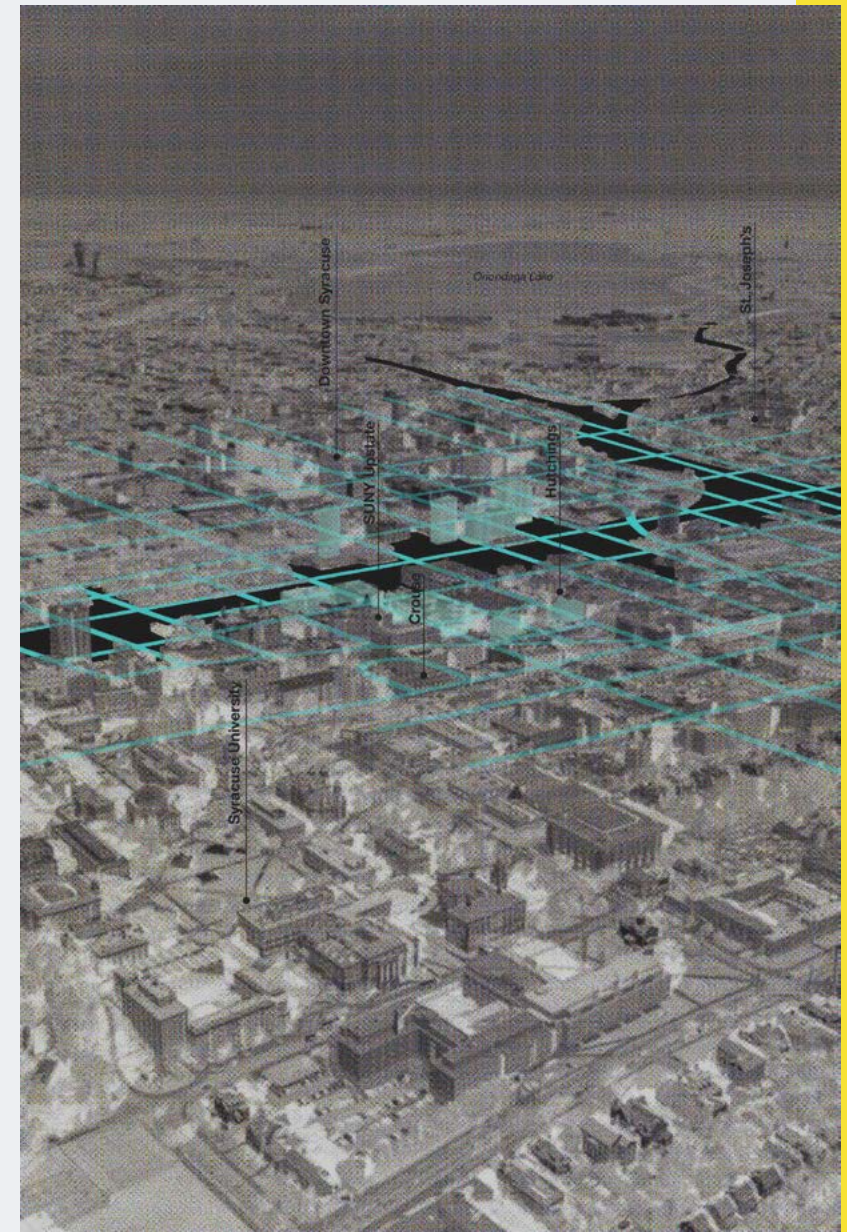


This thesis investigates architectural opportunities in healing the divisions that highway infrastructure has caused in the fabric of American cities. Four different American cities (New Orleans, Syracuse, Philadelphia, and Boston), with three different highway infrastructure methods (elevated viaduct, depressed highway, and tunnel) were evaluated and revealed a common phenomenon: the most valuable properties and neighborhoods in these cities lie on both sides of the highways, as if attracted to highway vicinity and access. However, the least valuable properties in the cities are wedged between these valuable neighborhoods, directly adjacent to the highway. The highway has presence as both a stent and a dagger in the heart of the American city (DiMento, 2009).

Theoretically, removal of the highway infrastructure and its undesirable characteristics in these cities would render that under-developed land between two highly desirable districts the most valuable property. Using the Syracuse Interstate-81 Viaduct as a case study for this issue plaguing American cities, this project will tackle the three issues of access, program segregation, and scalar shifts caused by highway infrastructure. Based on the evaluation of different highway infrastructures in other American cities, this project has chosen to remove the viaduct for an urban street grid model and replace the highway with an at grade boulevard.

Interstate-81 was constructed to quickly ship materials and products when Syracuse relied primarily on a manufacturing and industrial economy. A bioresearch start-up lab for small businesses and research teams working in the medical field will complement the mixing of healthcare, educational, and student housing programs, while fueling the city's current "Eds and Meds" based economy. This bioresearch campus will also help to redevelop the fabric of Syracuse's Old 15th Ward and mediate between differing structures on opposing sides of the highway by reintroducing the missing street grid and creating a gradient between shifting scales.

The goal of this project is to fuse together the Eastside and Westside of Syracuse in order to spawn development along the current route of the I-81 Viaduct. This will fill in *the gap* between the most valuable districts of Syracuse University Hill and Downtown while generating an economic opportunity for small business and increasing the amount of taxable property and revenue in the city.



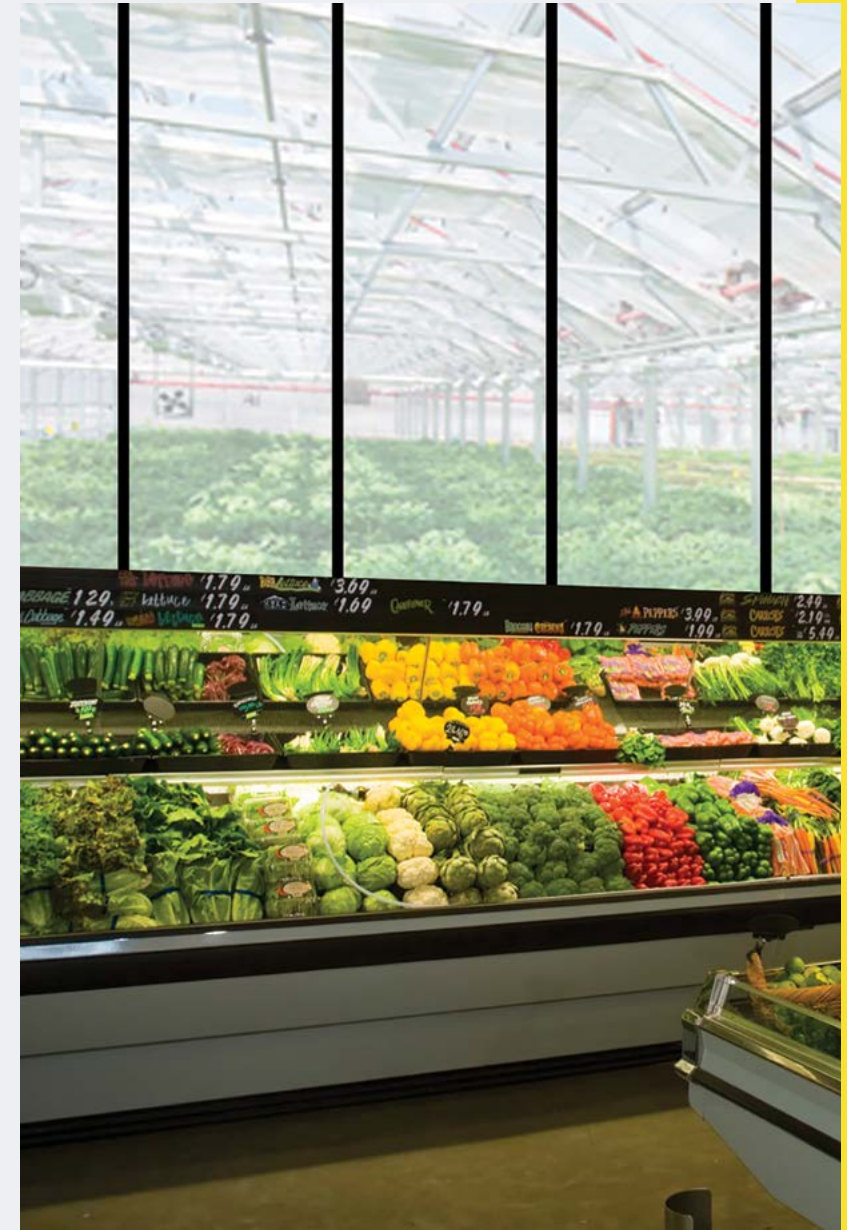
## AgroPark: Combating Food Insecurity Through Hybrid Typologies

Food insecurity is one of the biggest problems our country faces, where despite being from the richest nation in the world; over 42 million people (1 in 6 US households) still suffer a lack of access to healthy and nutritious food. Issues surrounding food insecurity disproportionately affect low income neighborhoods, already victims of systemic disinvestment, where the main sources of food stem from low-cost fast food restaurants and corner store bodegas supplying predominantly non-perishable foods.

With over 18 percent of people living in food-insecure households, Chicago acts as a testbed for how we can begin to combat food insecurity. Considering the Southside of Chicago as an area of intervention, this thesis aims to develop a new system of food production and distribution within the confines of the city and the communities that are currently suffering a lack of access. By creating a network of production “hubs” and retail “nodes”, we can envision a new network of hybridized programmatic typologies combining food production with education and access. By combining educational and productive agricultural program, these “hubs” can begin to operate as destinations for the community to experience the production, aggregation and distribution of food, helping to promote a sustainable approach to addressing the problem of food insecurity.

In looking forward to the future of our cities, how can we ensure access to food for all members of our community? Understanding that our urban populations are continuing to rise, further straining the already failing food distribution systems; how can we move forward with a plan to answer the question of providing food security for all members of our society? By developing this new network of food distribution and education, focused on the creation of multi-faceted hubs acting as destinations for food education and community gathering, we can begin to envision a new sustainable solution to tackling the problem of food insecurity.

## Bradley Miller

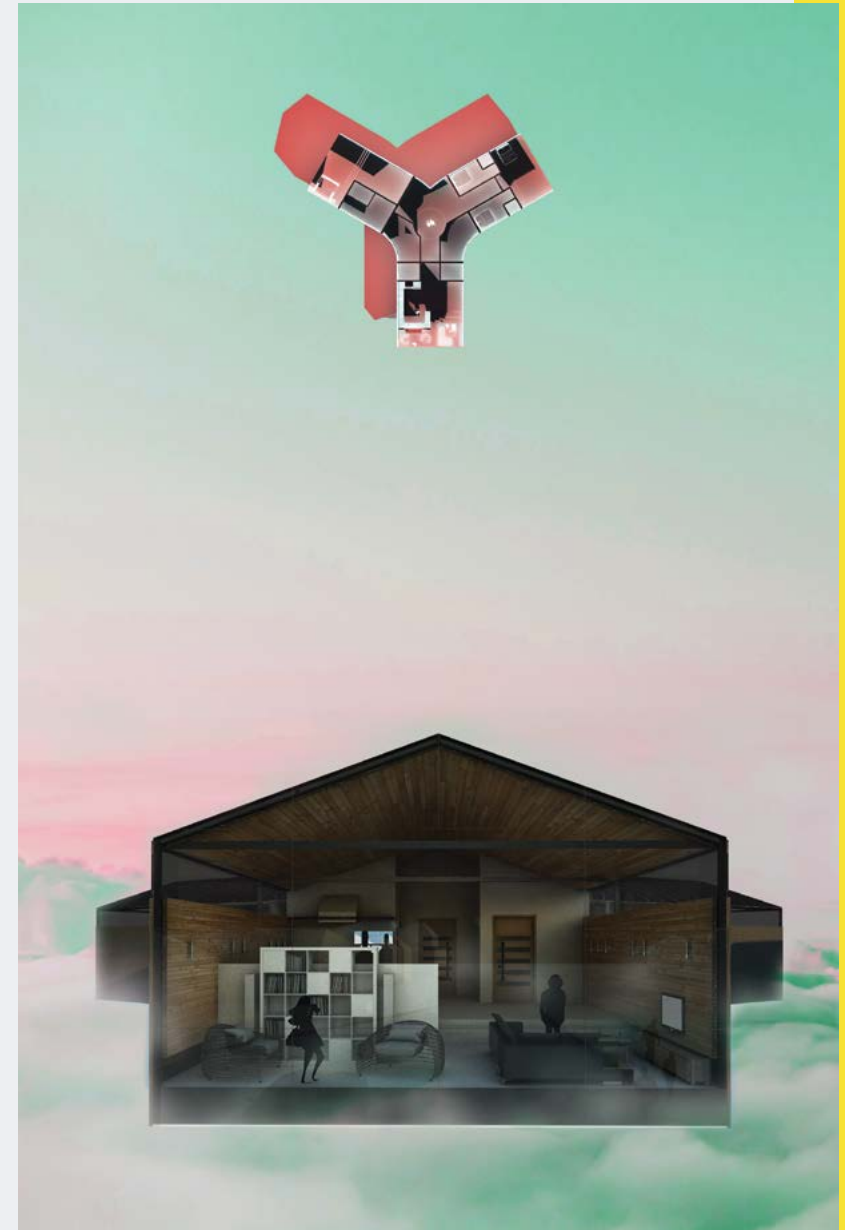


## Levitation: Detach. Elevate. Levitate. Integrate. Activate.

Levitation technology will have a wide variety of positive impacts on the world. Everything from small scale to large scale implications. Architecture is a large-scale service in society today. Architecture affects the way people see the world and our place in it. Architecture can bring strong emotions to someone's life (good or bad). When an architect designs a space with a high level of quality, it resonates with the user, be it intentional or unintentional. Levitation technology may be the key to a higher resignation with society. Through levitation techniques such as developing suspension systems within buildings to help with earthquake events or other natural disasters, LT (levitation technology) can create free standing joints and hinges for large and small scale structure and/or finishes, different facade typologies, and overall allow the mind to create new ways to improve this technology in ways that benefit architects design. Eventually I see entire buildings and communities in levitation. Creating new ways of circulation within an urban setting. The opportunities truly are limitless with this technology at its peak the world as we know it would cease to exist. A brand new vision of society would be in full operation with LT operating at its highest level. This dream and vision of mine is grounded in the understanding that human beings have always and will always push to elevate themselves both literally and figuratively, until

eventually there is a separation. There must be a disconnect. At some point our technological advances will surpass the idea that we should be grounded to the earth. It is already seen in transportation not only with airplanes, but also with the invention of magnetic levitating trains that operate for miles connecting major cities in Asia. LT has the potential to aid society in various ways disaster prevention, emerging energies, and environmental protection to name a few. Imagine if we had no literal footprint on mother earth and our buildings just hovered over the untouched natural surface that was meant to be there in the first place. Imagine a place where we can live worry free about if we are harmfully damaging the earth that has brought us everything we need. Imagine that if we ever needed anything we would simply have to ascend or descend to receive it. What if our relationship to each other and the earth was now in the atmosphere?

## Michael Montalvo



The rise of the autonomous vehicle will change the urban landscape at a pace equal to the industrial and digital revolutions. The efficiency and speed of these vehicles, along with their ease of use will rival contemporary forms of public transportation, giving rise to a new transit architecture typology. Unlike the railroad, which orients itself within the center of a relatively sparse area and terminates within the dense center of the city, or the subway, which only thrives within the density of the city, the highway is decentralized, relegated to the outskirts of the city. Based on this logic, this new inter-modal center will also be decentralized.

The autonomous vehicle as a bridge between private and public transportation will live within the realm of the commuter bus and commuter train reaching its threshold of efficiency just outside of high density metropolitan areas. This threshold occurs when the speed/efficiency of rapid transit exceeds the speed/efficiency of commuter transit. The form of these hubs is taken from the train station due their similarity in function, while the infrastructure is taken from the airport due to similar vehicle capacity needs.

Each transit hub must meet 3 design criteria; they must be adjacent to a highway, they must be within the threshold of efficiency, and they must all accommodate some form of rapid transit.

This scheme implemented in New York Metropolitan area would need 4 hubs on the New Jersey side and 6 hubs on the Long Island side to accommodate the traffic load of approximately 300,000 commuters per day. My site is just one of these interventions located in Jersey City at the intersection of the Pulaski skyway and the journal square path train line.

This knot does not belong to the surrounding context, but rather, it is part of the infrastructural network it is attached to. The parti is to evoke and encourage movement, therefore the form is linear. The structure is steel and concrete as a direct response to the materiality of the highway and railway. The transit hub is self-referential and inward-facing, and there is a direct dialogue between the concourse and platform.

This project does not represent a rigid system in which all of the future transit centers must follow, but rather, it imagines a new transit architecture in the face of the autonomous revolution, emphasizing its qualities and envisioning its possibilities.

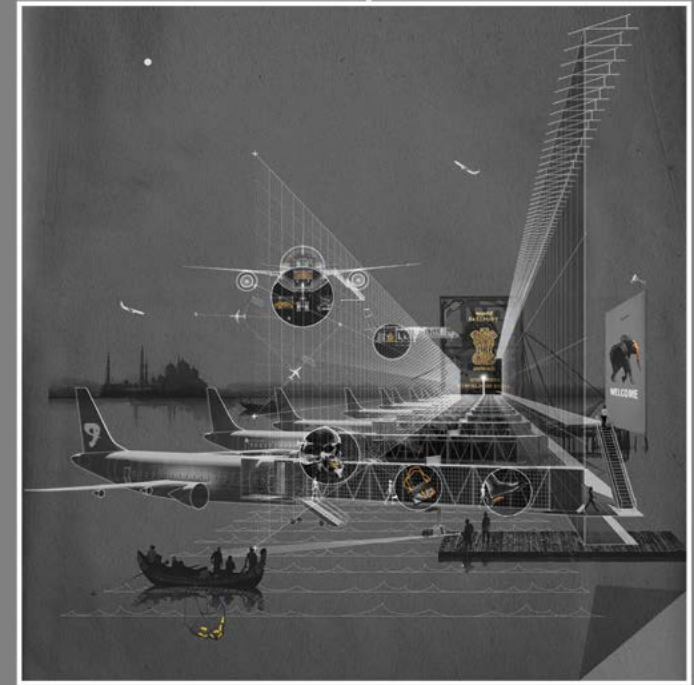


The thesis explores the latent influences of gold and its value systems on the urban geo-politics of a South Indian city. It is an anthology of sporadic narrations recording the growth and transformation of a city over time. These narrative compositions contain traces of the past, the city of the present and speculative futures. They indicate change without erasure. Their values are embodied in gold; malleable, ductile and fungible in its different forms.

As the largest hoarder of gold commodities in the world, India's relationship with the precious metal transcends the definitions of a mere obsession. It percolates through traditions and beliefs extending from religion to economy, politics to trade; acting both as form and signifier, material and language. As a result, it frames the primary and imagined urban geo-politics of a number of burgeoning cities within the country. Delving into sections of the complex landscape of a city in India, the Thesis projects a pattern of growth organized by the latent value systems of a commodity that defines the city. This is actualized through the use of five disparate yet connected narrative structures that deal with specific architectural typologies and their relationship to gold. These "stories" are revealed by short movie montages that are eventually framed as overlaid sheet compositions.

The intention of the thesis is not to merely speak of a specific commodity nor is it to narrate the history of a city. It is an attempt to overlay and map the synthetic geographies of the city and to perhaps articulate a method of engaging its future implications. The Thesis devalues the very precious and staid nature of the commodity in question, it instead employs it as an operative element; cutting through the most interesting sections of the city.

## Vivek Vijayan Njanappilly





## Spatializing Sex: What Happens When Sex Becomes the Primary Program

In *Sex and Buildings* Richard J Williams claims that “If sex becomes a driver of an adult life, then it leads to a different set of spatial priorities; bathrooms and bedrooms sublimated, public and private blurred”. Many elements come into play when designing a space. Choosing sex as the primary design influence challenges what we consider traditional spaces to change for this program.

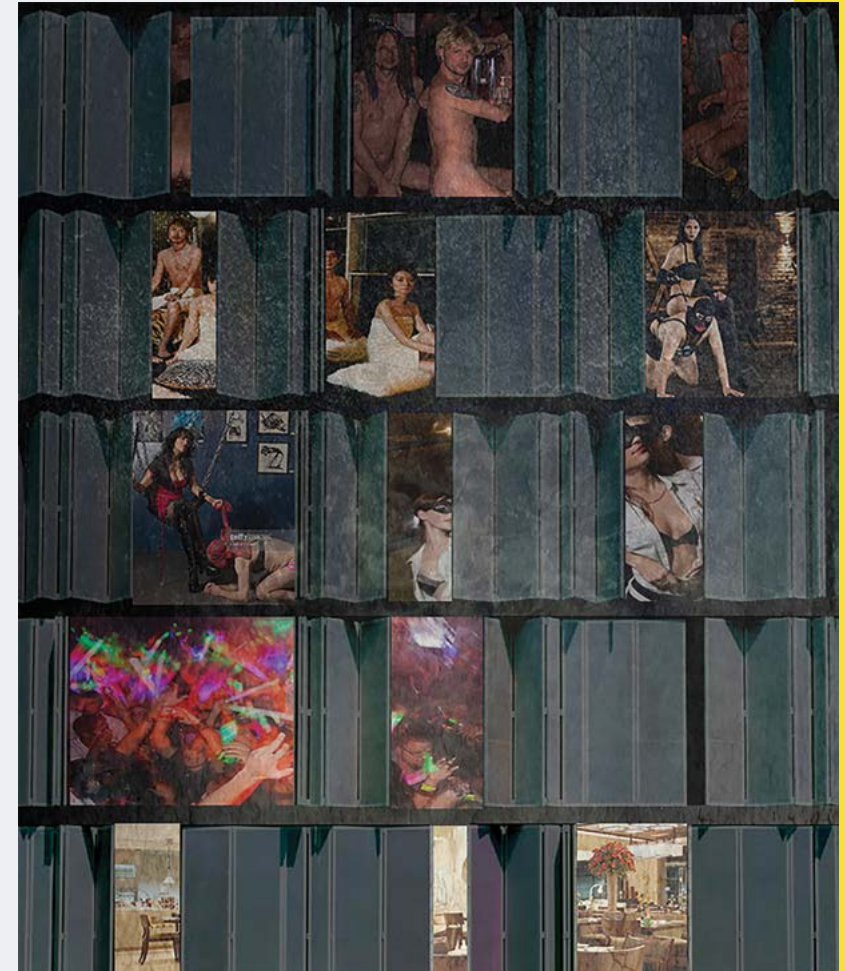
When designing a building we often allow program to influence our designs. Usually the spaces are used for activities other than their intended program but they are not designed for those activities. Sex is an activity that happens in many spaces but is rarely the driver of the design. In this project, I have turned that around. What can happen when sexual activity becomes that driving force—when sex is the primary program rather than an incidental activity. To explore this, I took the typology of the hotel, a place where sex is a strong underlying activity but whose design is also driven by anonymity, experience, and escapism and inserted sex as the driving design program.

Different styles and sized spaces can limit or extend your possibilities for action, therefore, I tried to understand that in the ways that it could affect sex. Williams, while referencing the television show *Mad Men* also proposed that “...the sex (it’s location, duration, nature, form) is strongly conditioned by

its surroundings; the office becomes in effect a sexual device”. This led me to think about my design as more than just a space where sex happens—but a space for sex.

When deciding what I wanted to design I wanted to shy away from the concept of the brothel to create a building that is about the experience and the escapism factor of sex between two interested people. The project also differs from a sex club in the concept of a personalized experience. Sex is very subjective so choosing from a variety of choices allows the person to create their own sexual experience. This project creates a building that allows sexual activity to define the design and develop an experience that is uniquely sexual for each guest.

## Haniya Orloff



### Background:

Sci-fi architecture gives humans a chance to dream about fantasies without realistic restrictions. At their best, these dreams represent a human desire for what architecture should be. Given this, we should recognize sci-fi architecture's importance and give these designs value and attention.

This project aims at examining architecture in science fictional world, through looking at the logic behind the narrative and analyzing the function and purpose of the architecture. Proposing questions like, how does the speculative architecture represents the fictional world, and more importantly, how does these designs can possibly impact the reality?

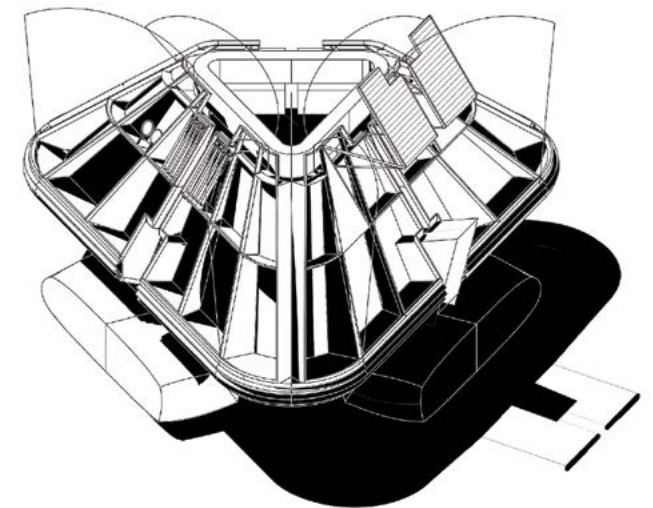
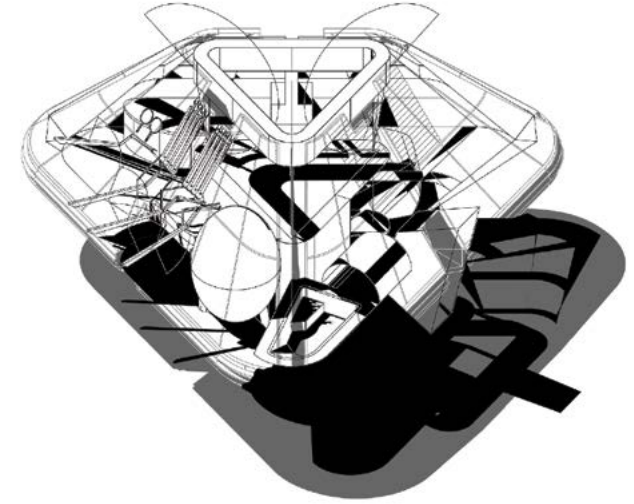
This thesis could be seen as a collection of ideas from sci-fi. As a starting point, I began with an analysis of the "XS" or "extra-small" elements—the speculative technological appliance then progressed to the "XL" or "extra-large" elements—the urban design to get a full understanding of the ideology behind the scenes.

### Outcome:

Through the process of thesis prep, the project narrowed into an examination of housing projects to look more specifically into how science fiction and technology could impact the future of housing. While technology had been evolving for millennia, residential housing "technology"

has not undergone the kind of shift we have seen from other corners of the technological landscape. The intersection of technology and housing has been very limited whereas in science fiction, artists are free to rethink how technology could impact living spaces.

The outcome of this project is a "housing device" with speculative technologies and ideas collected from different science fictional films. It's a device that is nomadic, adaptive and automated, providing future residents with a brand new mode of living.



## reCONNECT: Amplifying Circulation Typologies to Radically Rethink Urban-Aqueous Relationships

The waterfront isn't just something unto itself; it's connected to everything else.

—Jane Jacobs

Divisions exist throughout the urban environment whether they are physical, social, economic, or political. Architecture has responded to connect across these divisions by building elements such as stairs and arcades and bridges but these types of connectors are generally more successful operating in the individual, micro-scale instances of the city. Connecting across multiple, macro-scale sites is more challenging and as the divisions scale up in size (bridges becomes overpasses, sidewalks becomes streets), it only makes sense to scale up the connections as well. By rethinking the idea of urban connection and the typologies of connectors, we can create new hybridized connections that will address the challenges that reconnecting across macro scale divides in the contemporary urban setting holds.

The research on this topic has resulted in a catalogue of connection typologies that indexes, compares, and contrasts their existing qualities with those that have potential at new and various urban scales. The project proposes to use the hybrid connectors as nodes on an urban path system, which spans city to water and informs the design of a large scale

urban bathing initiative. The program of bathing has been chosen because it exposes an idea of connection—a *social* connection between people and a *physical* connection with the water. The overall contention is then tested in the setting of Toronto's waterfront as it faces three macro-scale dividers—a wall of skyscrapers, a highway, and a railway—that isolates the waterfront from the urban fabric of the city.

This thesis proposes a radical rethinking of city-water relationships to leverage existing infrastructural and architectural divides; because it holds great architectural and social value to work within and challenge existing systems, and because access to the waterfront—for sustenance, transportation, commercial, or leisure purposes—is a core human need. The project questions what happens when connections are scaled extra-large, yet aim to maintain the qualities that are imbued within them at the micro scale to generate increased public activity at the water's edge.

# Tiffany Pau



The use of 3D printing technology as a means in which to produce building materials is now becoming a reality. This tool, which can create highly detailed and sculpted objects, can be used in pioneering new ways to create spaces with virtually an infinite amount of detail. By understanding the processes in which these designs can occur and the materials which will be used to fabricate those concepts we can develop spaces with hyper densification of detail; those at the forefront dealing with overall form and spatial composition and continuing down in scale until no longer visible to the human eye.

This thesis wishes to peruse the potential of 3D printing ornamented designs with the use of shale/clay powder. This material compound, through my research, has been shown to be compliant with 3D printing technology so that it can be sculpted by the tools of the architect into complex geometric “blocks.” These can then be printed and fired allowing them to become the tectonic building bricks for a new way of building. Through researching this material, I have to demonstrate the usefulness and possibilities of this time tested substance in the creation of new architectural spaces.

By producing highly sculpted architectural elements at both a low cost and in a short amount of time, we could begin to bring this concept not

only to into the built environment for architects but for a broader audience; for all those in the built environment. With the use of Shale rock found throughout the upstate area we can substitute the more commonly used materials in powder printing and, through iteration, develop bricks with compressive strengths equal to that of industry standard load bearing bricks. 3D printing is used heavily for quick generation of prototype designs throughout the fields of architecture and engineering, as well as many other professions. With a multi-bed configuration, it will be possible to achieve mass produce objects quickly.



Tectonic Column Assembly. 180 degree twisted  
and interlocking brick column s system.

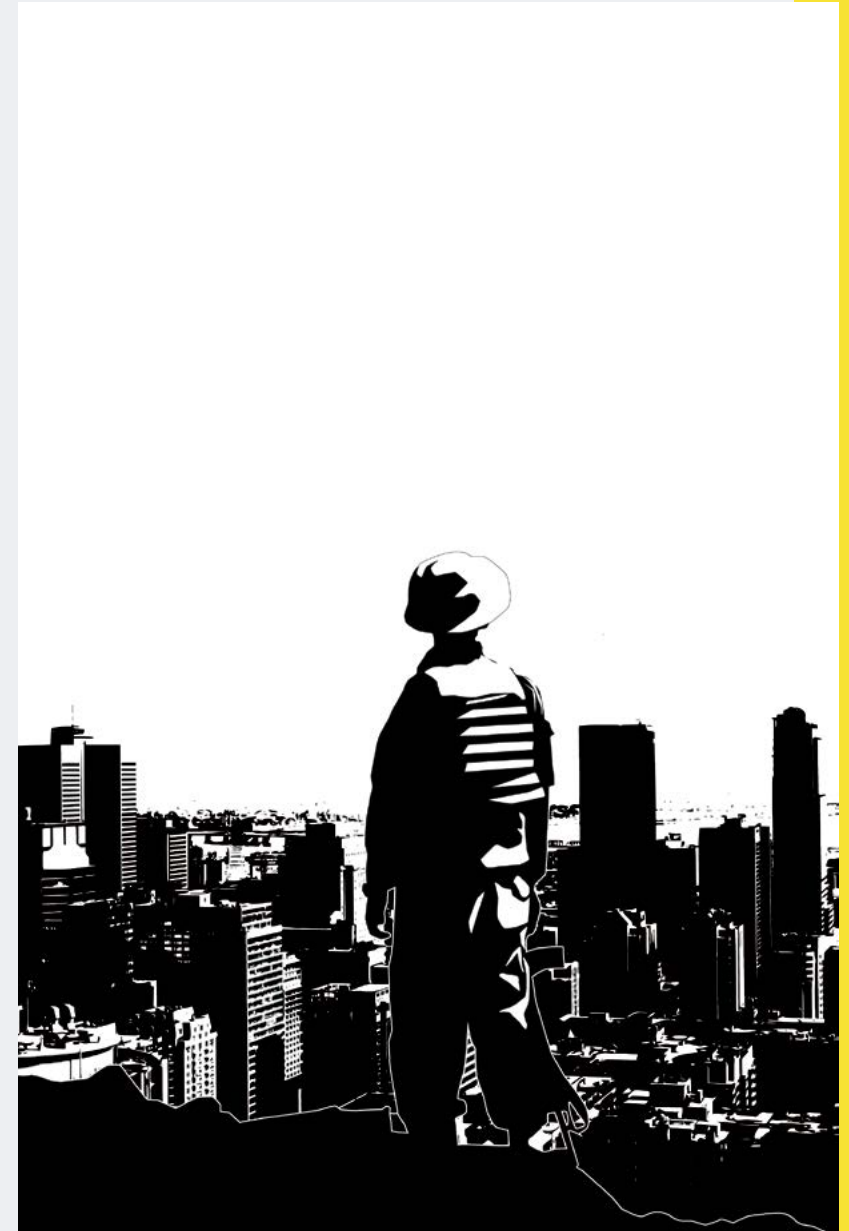


Military tactics can be interpreted as architectural methods, and from there utilized to create an architecture that benefits veterans. These military architectural tactics and methods can be categorized and are able to become a language for design of a veteran specific architecture. This language becomes a field manual for not only the specific project in Syracuse but also similar projects in alternate locations. The flexibility of the tactics and their combinations allows for the editing of program and location, while continuing a similar language of design.

The tactics can be used in both the overall *parti* as well as on a smaller more individual level of programmatic intervention. The introduction of specifically chosen tactics into individual programs responds to the needs of that program and informs the diagram. These tactics create either a separation or an integration with the exterior, making clear the level of connectivity of the program. In addition, this portion of the project becomes inwardly reflective, responding to the multiple layers of the community within the larger context. This allows for the specific program to become best suited for the veterans involved.

On a larger scale, the assembly of programs within the site utilizes similar tactics to optimize the integration and separation of program and communities in methods that create or limit interactions. These large-scale tactics, similar to those of individual programs, allow for a response to the site and external factors as well as internal conditions. The result is a multi-layered project with a specific military rationale for its design moves in response to its targeted communities.

## Christopher Pitfield



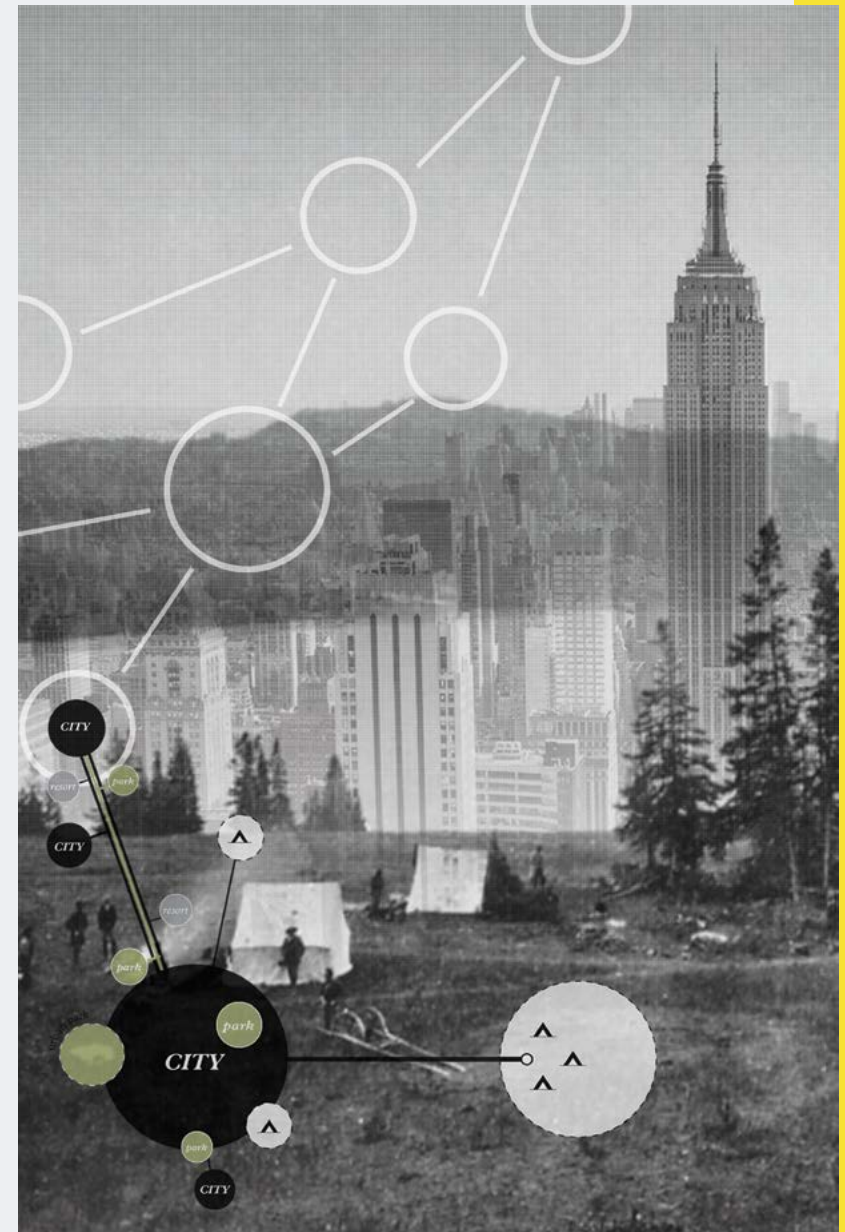
Urban theorist Edward Soja claims: “every square inch of the world is urbanized to some degree.” The term *urban* traditionally brings to mind crowds of people, miasmas of pollution, and canyons of buildings. Since the rise of industrial cities fitting that description, urban residents have gone out of their way to pursue opportunities to seek retreat from such an urban environment. In New York City, this meant that residents with sufficient means left the city for summer cottages or hired guides to host them at camps in the Adirondacks and eventually, the National Parks Service came about as a way to protect those destinations of retreat. Those without were left behind.

In his recent publication describing the evolution of the American campground, Martin Hogue explains: “this fundamental displacement—from the city to nature, from the indoors to outdoors—forms the basis of a defining experience.” Today, that displacement and distance has evolved into a disassociation between the experience of city and nature. However, the strategic pairing of architecture and policy can mend that disassociation to bridge the divide between city and nature that makes camping, or simply spending time outdoors, such a foreign concept to urban residents who have grown so accustomed to their urban setting.

This thesis proposes a destination for recreation and retreat on Plum Island, New York that references the

model of the National and State Park Services and whose intended audience is primarily residents of New York City who are without the means or methods of easily seeking other experiences of nature outside the realm of city limits. The first step of this design process involves reexamining the traditional definition of “urban” to shorten the leap from the comforts of the city to the unknowns of nature. From there, the project identifies and resolves three challenges that stand between urban residents and retreat: proximity, equipment, and ownership.

## Celeste Pomputius



## As Above, So Below: Tapping into the Latent Energy of Abandoned or Underutilized Infrastructure

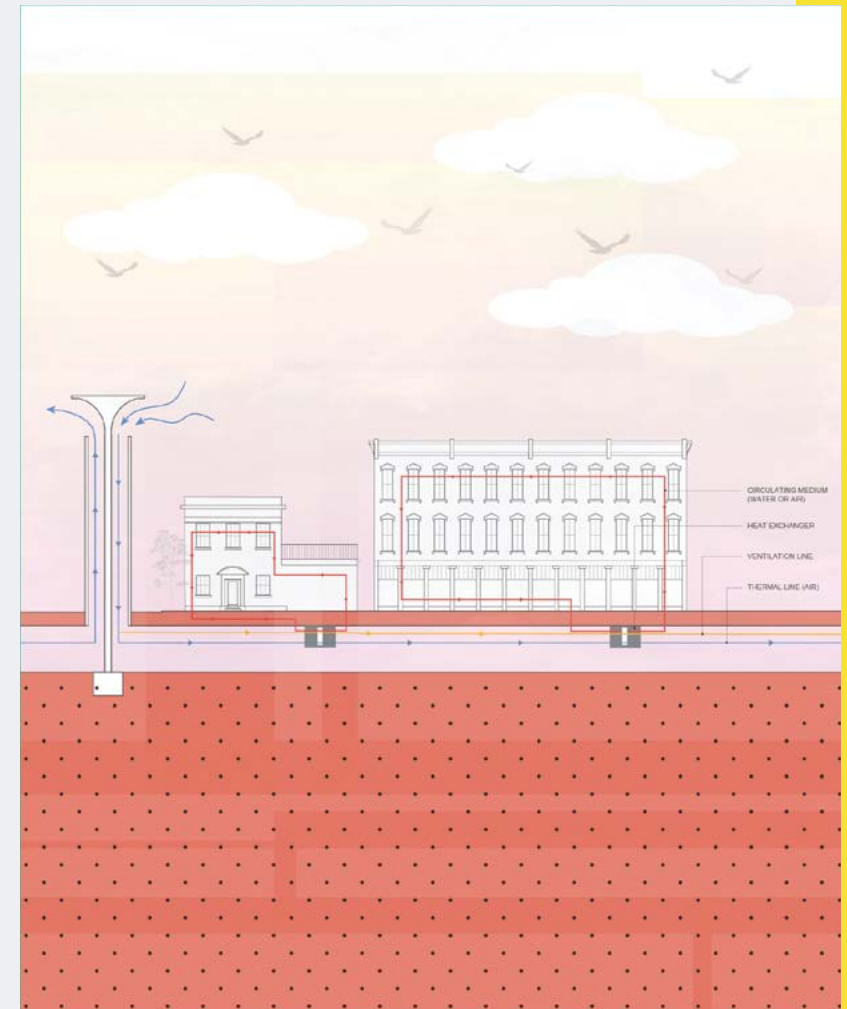
Our modern society espouses a culture in which there are a million and one ways to waste something. We have a surplus of energy that comes in many forms. There is an overproduction of goods, waste heat from machines, and abandoned or underutilized infrastructure to name a few. In an efficient and well-oiled economy one would think that this surplus would be used to benefit someone or something, but oftentimes this is not the case. Food is thrown away, abandoned buildings are left to rot, and societies overlook assets they already have. Throughout history, however unsystematically, people have found ways to dip into this bank of excess resources—for example a homeless man taking shelter within an abandoned underground tunnel, or sleeping on subway exhaust grates for warmth. Anecdotal stories of people exploiting an inefficient system scurry through conversation, but can it amount to more? How can architects formalize the use of surplus energy to reach more people in a more systematic way? This thesis tries to imagine creative ways in which the architect can redirect a type of surplus energy to benefit the layman and in turn, the greater economic and social sphere.

Abandoned underground infrastructure is an example of an untapped surplus in energy that an architect has the opportunity to repurpose. Tunnels in particular, can be used as systems to heat or cool a

network of buildings above ground to create more sustainable urban environments. In addition to greater energy efficiency, the system could also have beneficial social implications within segregated cities by providing fluid connections between divided neighborhoods. Underground tunnels and other metro infrastructure have qualities very complimentary to an integration of passive geothermal systems. Being at least 6 ft. below the earth's surface, this infrastructure is able to take advantage of the earth's more stable temperatures. There is an offset in seasonal temperatures due to the "thermal lag" principle which leaves the earth cooler in summer and warmer in winter.

Finally, the use of geothermal energy allows the architect another opportunity; to really design an engaging system that celebrates this form of sustainable energy typically overlooked by the public. Geothermal systems have the potential to uniquely spatialize the human experience when brought to the forefront of design. This thesis experiments with semi-tempered framing, surfaces, and programs that work with underground space to improve street life and create an atmosphere of aesthetic and temperate comfort.

## Alexandra Ramirez



The rise of modern suburbia transformed its inhabitants and altered the American Dream. During the post-World War II period, the suburbs emerged as the primary home of the nuclear family. These traditional suburbs promoted ideas of family, individual home ownership, and the automobile. Today suburbia is experiencing a demographic shift caused by market forces in the economy: the recent collapse and limited recovery of the housing market that has not reached all cities, the relocation of major businesses to the suburbs, and soaring costs of elderly care. In addition, demographic shifts spurred by a global trend in immigration show more migrants relocating to suburbs over cities. Where once the American dream was to own your own home, a family with 2 kids, and a car, now the dream is to address many different cultural norms and the overriding need for convenience alongside affordability. Market forces including increased globalization have served as the catalyst for this transition. Today's suburban demographics are now composed of more minorities, young adults, and a growing elderly population than ever before, however, the current conditions place severe limits on the lifestyles of suburbia's emerging residents.

In response to recent trends, developers are reproducing isolated incidents of urban life in the suburbs by replicating infrastructure such as

highrise towers, multi-unit housing, and parking garages. A method used since the 1950's which chooses to identify markets and make normative assumptions about ways of living to reproduce basic housing models. These methods however, are unsuccessful as today's demographic continues to grow increasingly more diverse. Keeping with this strategy serves only to further fuel the automobile-centric lifestyle of suburbia. The suburban fabric presents a need to grow from within, by looking at likely places for expansion rather than implanting foreign structures. By taking advantage of the overlooked spaces between houses, yards, and neighborhoods modern suburbia can create a continuous nature of everyday activities.

This thesis proposes strategies to overlay on the outdated settlement patterns which are mismatched to the current demographic and offer new methods to accommodate a changing lifestyle. In doing so, the elements of privacy and nature will be retained, while new desires of convenience (walkability) and community will be implemented. These infrastructural insertions include both residential and commercial programming to produce fully functioning walkable suburban blocks.





In a world of increasing divisiveness and nationalist politics that belie economic codependence and efforts directed at global sustainability, the boundaries surrounding nations emphasize their differences between cultures, religions and territories rather than common purpose. Despite shared objectives, borders, divisions, demilitarized zones and walls that mark and represent irreconcilable difference, persist. In fact, their presence may be the only thing that maintains peaceful coexistence.

The border is an element of both spatial obstruction and political construction. Physically, borders manifest themselves as a series of layered architectural elements on a landscape, each intended to strengthen control over movement and exchange. Although the official function of a border is to separate, divide, and guarantee that things do not mix, in practice a border can also form a meeting place and serves as a conveyor belt between the separated parts. Ultimately, a border is a contradictory structure that simultaneously prevents and permits, separates and connects, and that consequently provides its own tools for circumventing itself.

The wall that divides intertwining borders of Israel and the West Bank is such a division. Palestinians and Israelis pass along and cross through the wall everyday, engage in trade, and lay claim and pray in the same ancient,

religious places. But the wall separates, marking stark difference in resources, access and freedom of movement. This project is an inquiry into the existing threshold that currently separates Israelis from Palestinians in the West Bank. Through the dismantling of the Israeli border checkpoint and reinterpretation of its parts, this project reimagines the sequence of passing through the threshold. By framing the mundane activities of border passage through theatrical scenes, this architecture can reveal themes of division in movement, religion, and resources. This architecture also intends to highlight the imbalance of the current conflict and those involved in it, by creating an architecture equally absurd.

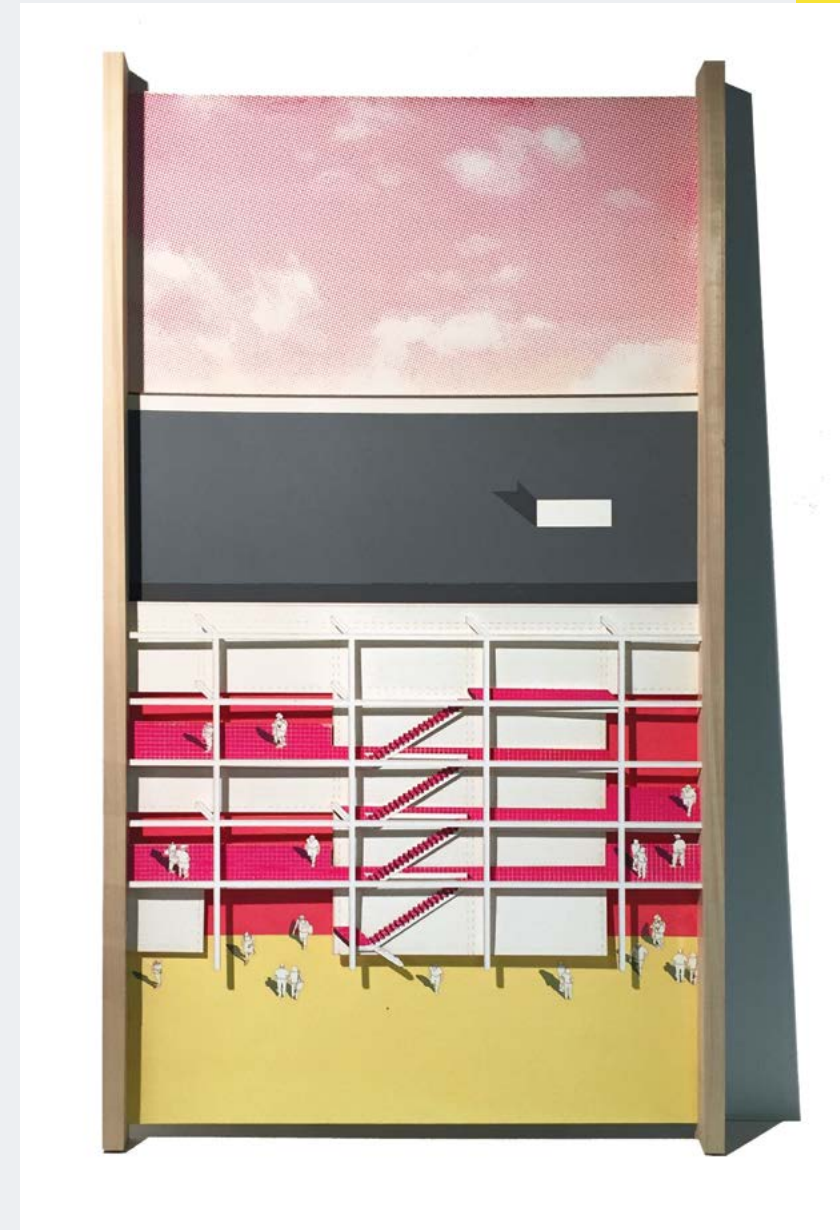


Historically festivals have generated temporary instances of intensified urban delight, blanketing city centers with heightened activity, cultural events, social and commercial exchange. Since the time of antiquity, the festival has brought recreation to the city prior to the mass production of entertainment. Today, street festivals, pop-up markets, and art fairs foster a spectacular transformation of the built environment, creating a transient overlay within existing infrastructure to capitalize on the latent energy of urban ground. A temporary deviation from the norm, festivals propose an alternative to the daily urban routine by exploiting the collective social desire to consume and congregate. This thesis speculates on design tactics for permanent urban regeneration by learning from the temporary phenomena of the festival. By envisioning the festival as an operation rather than an occurrence, this thesis generates techniques of urban preservation in a radical approach to adaptive reuse and revitalization.

Emphasizing increased urban permeability and public social spaces to excite and enhance the pedestrian experience of urban ground, this project proposes a method of preservation that augments the existing in Newark, NJ. With a tendency to undertake large, costly, and time-consuming civic projects in an effort to negate poor reputations; second-tier municipalities like Newark are struggling to keep up

as urban centers across the country continue to densify. Rather than curating the inherent urban character through insertions that have a lighter touch and more powerful impact, this method of development has yielded a vision for Newark that is largely characterized by a *tabula rasa* (clean slate) approach to urban design. This project adopts teachings on altering existing buildings from Bryony Robert's *Tabula Plena*, and transformation of empty or underutilized sites from Peter Bishop's *The Temporary City* to propose a methodology of reuse that is carefully woven into existing physical, cultural and experiential qualities of the site. Through this ideology the project produces alternative constructions of public space, circulation and infrastructure that are infused with Newark's bold but brash qualities.

This proposal for "radical preservation" celebrates the city's vibrancy by intensifying the activity of the everyday with greater opportunities to consume and come together. By hybridizing seemingly opposite phenomena: the temporary festival and strategies for urban preservation, an alternative approach to Newark's redevelopment emerges through alteration. Augmenting Newark's existing structures to heighten the experience of city, ground and public space, this thesis radically reimagines the city as a festival.



The world is changing around us. There is no more denying it. We are running out of resources. We are polluting our air and water. Sea levels are rising, and with it, natural disasters. Hurricanes, earthquakes, tsunamis, wildfires, drought. We are killing each other. Economies are collapsing and countries are dissolving. The world is changing. Stories of an apocalypse have been prevalent in our society for decades, but they may not be a thing of science fiction anymore. When the world does change, what are architects going to do about it? An architecture must be designed to enable the survival of people when existing infrastructure fails.

Imagine the following scenario: the New England region of the United States after a major blizzard has hit. Roads are impassable, power is inaccessible, food is unattainable. The architecture that previously supported society has failed. When the architecture is gone, what is left?

### The Gap:

A hole between the material world of objects, resources and tools and the systems that at one point kept our world going.

Three stakeholders in this new world, each with their own narrative, will be attempting to survive the catastrophe by three different means. The NOMAD, the ADAPTER and the RENOVATOR will all require a flexible and adaptable new form of architecture to last.

An architecture needs be designed for the gap between the material and infrastructural which must be bridged when architecture fails under extreme conditions. These “bridge the gap” objects allow humans to continue to live in spaces where design has failed and are the key to a survival architecture.

This project investigates the possible duality, reuse and re-conception of architectural objects used in common residential construction. By taking objects that are often overlooked—doors, windows, railings, etc.—and re-imagining them in an extreme scenario, we can begin to uncover the possibilities of designing for the future. This project seeks to challenge the sedentary aspects of architecture. By forcing them into an extreme situation, these conditions—be it scale, function, material—can be critically investigated. Progress is not made without adversity, so perhaps architecture must demand an environment of severity in order to move forward. This process will create a design space for hyper-creativity and inspiration, which is much needed in order to design for the future we are facing.



## Library to Nowhere: A Library with a Place, Yet No Place Within

This thesis explores the idea of the architectural paradox, one which questions the possibility of experiencing exterior (pyramid) and interior (labyrinth) spatial conditions simultaneously. The pyramid makes places of architecture, while the labyrinth effectively displaces architecture. New York City, as the site of the project, is an example of how the architectural paradox works on an urban scale, whereas the *Library to Nowhere* condenses these ideas consciously into a local scale. Besides the physical layer of architecture as a labyrinth, the *Library to Nowhere* enters a psychological realm that forces visitors to transcend reality into the sublime of the labyrinth.

The *Library to Nowhere* is a labyrinthine archive extension of the New York Public Library in Central Park, specifically Columbus Circle contained in three interconnected, underground wells. What is seen above ground, is the pyramid, while what is below ground is the labyrinth. The space cannot be understood and experienced simultaneously.

Using historical accounts of the Lost Labyrinth as a precedent to record architectural themes of modularity, repetition, and scale, through drawing, certain typologies, like the labyrinth, become inherent and defined solely by their architectural space—devoid of program. Only when the architecture of the labyrinth has been established is the program of the library applied: a library to nowhere—a library with a place, yet no place within.

## Anna Sernicki

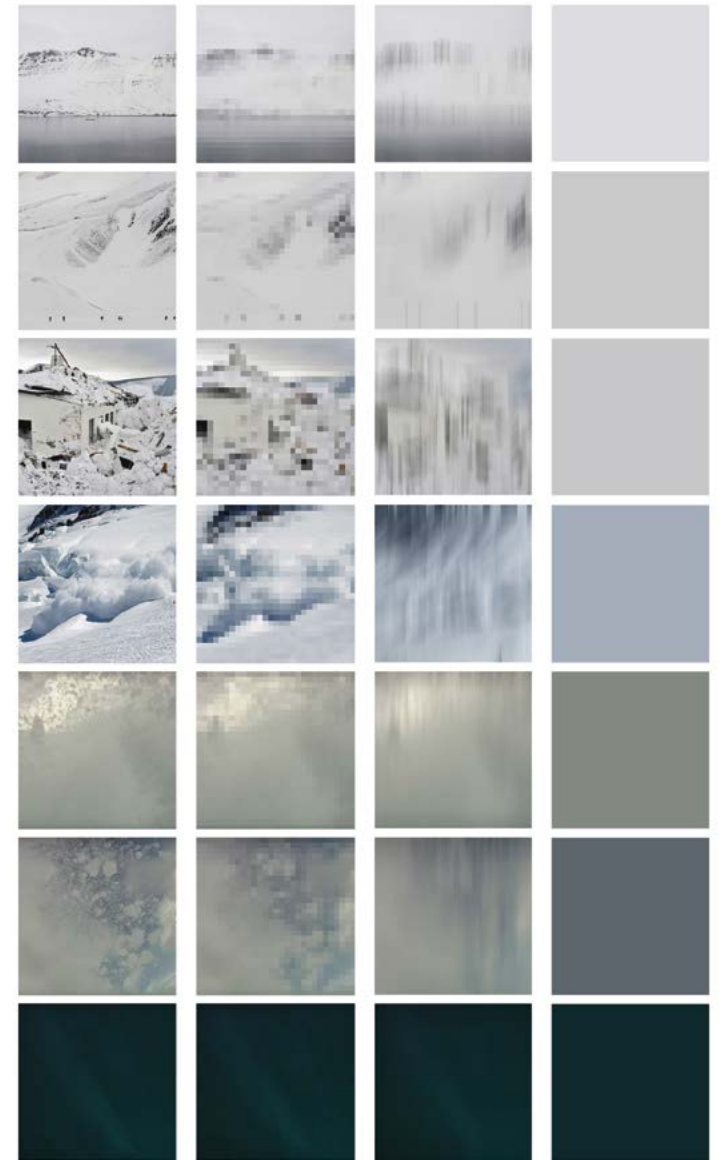


“Blur Out” explores ideas about architecture that seek ephemerality rather than legibility, eidetic affects rather than demanding of focused attention and atmospheric or emotional spaces rather than conventional spaces. The exploration is situated within the research topic of different states of snow that are generated from avalanche phenomena of Iceland, which develops site-specific understandings of the phenomena and effects. The project aims to build a blurred boundary both literally and experientially between the built environment and the natural environment to challenge representing and re-presenting the spectrum of tangibility to intangibility. By exploring the familiar architectural and natural context of Iceland, this new understanding of perceiving and experiencing the avalanche phenomena creates an uncanny relationship that would change and draw attention to sublime as the norm to sublime as the spectacular.

The experience of atmospheric spaces is closely related to experience of form, color, texture, and moment. As much as perception is linked with memory and recognition, our relation to these aesthetic effects are formed by past memories and culture. As Olafur Eliasson claimed, “The precise presentation and experience of the visual surface evokes by looking and remembering, seeing and thinking individual and social ideas and recalls familiar experiences.” This thesis looks at

cosmetics (Kipnis) of the phenomenological effects and utilizes them directly and indirectly to develop a palette of elements that architecturalize the spatiality, temporality and materiality (Corner) of the phenomena.

The program examines small particles and intangible states of snow to act as an active dimension that can be tuned and constructed. The narrative of an avalanche as a phenomena and its aesthetics construct spaces that does not emphasize on a specific perception, but conditions that allow for the formulation of an open understanding of identity: an identity that enables the visitors to have their own, unique experience where some can mourn for the dead, or some could engage with the atmosphere.



Dining is a constructed and manipulated landscape of tradition, memory, function, and delight. It is the layering of materials, physical and abstract: from the physicality of the table surface to the people present to the food that is eaten, as well as the implications present in these choices.

Semper's *Elements of Architecture*<sup>1</sup> attempts a general architectural theory with an anthropological framework, stressing the importance of the architectural surface as bearer of meaning and a place for communication and exchange: a space divider rich with meaning and symbolic imagery. Indeed, the architecture student journal, *POOL*, at UCLA wrote of the table as "an analog for the primitive hut and the hearth, as a surface of production and consumption, discourse and negotiation, exhibition and exchange... [it] became a working diagram of the discipline, through its organizational and coordinative capacities."<sup>2</sup>

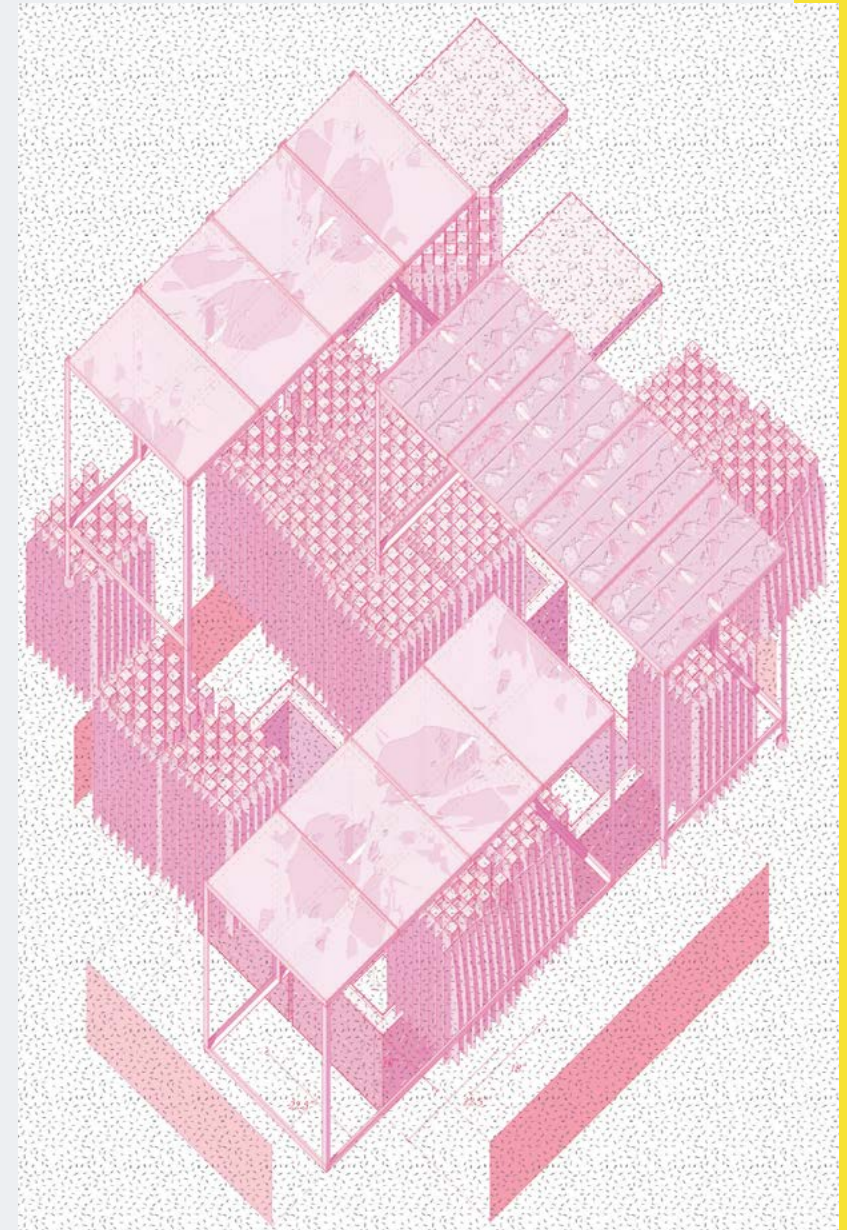
Though these artifacts are more defined by their role as an occupiable surface rather than a table, they can all be seen as different kinds of tables to stretch the traditional notion of one. Unified by their interest in abstraction of the horizontal dining surface, they are reflective of the body scale and responsive to functional requirements, as well as design principles of modularity and mutability. These artifacts also take the liberty to play with alternate materialities inspired

by traditional domestic surfaces like marble, wood, cushions, gingham, and vinyl.

This thesis explores a contemporary narrative of fabricated, occupiable landscapes through full-scale architectural *partis*. Subsequent testing through their engagement of the dining event itself seeks to both access design possibilities of an architectural-social interface and qualify the capacity for these thesis investigations to create spatial conditions that reinforce the communicative possibilities of the architectural surface and promote social sustenance.

<sup>1</sup> Gottfried Semper & Harry Francis Mallgrave. *The Four Elements of Architecture* (Cambridge: Cambridge University, 1989).

<sup>2</sup> "Letter from the Editors," *POOL*, Spring 2016.



With the exploration of the cultural meaning and structural capacity of the traditional Chinese joinery known as *Sun Mao*, the intent of this thesis is to propose a joinery-driven design system, which bridges the vernacular Chinese culture with the contemporary fabrication technology.

The thesis is tested through iterative designs and the test ground is the China Pavilion in Dubai XPO 2020. Through the evolution and transformation of the structure of an ancient Chinese building, *Sun Mao* joints will be examined under three criteria, length of span, height and multiple surface overlap. Using the same strategy and methodology as Ancient Chinese building did, this series transformation conducts and explores the new application of *Sun Mao* joints.



Detroit, Michigan continues to uphold the title of being one of the poorest and most racially segregated areas in the United States with a staggering population of 700,000 and just over 40 square miles of vacant land. Operating on the belief that everyone is entitled to good architecture, this thesis contends that it is our responsibility, as architects, to address the issues of poverty given that it is an artificial condition. To approach this multifaceted issue, I propose a new architecture school pedagogy in tandem with construction trade courses and professional architectural practice, as a long term means of transforming impoverished cities such as Detroit.

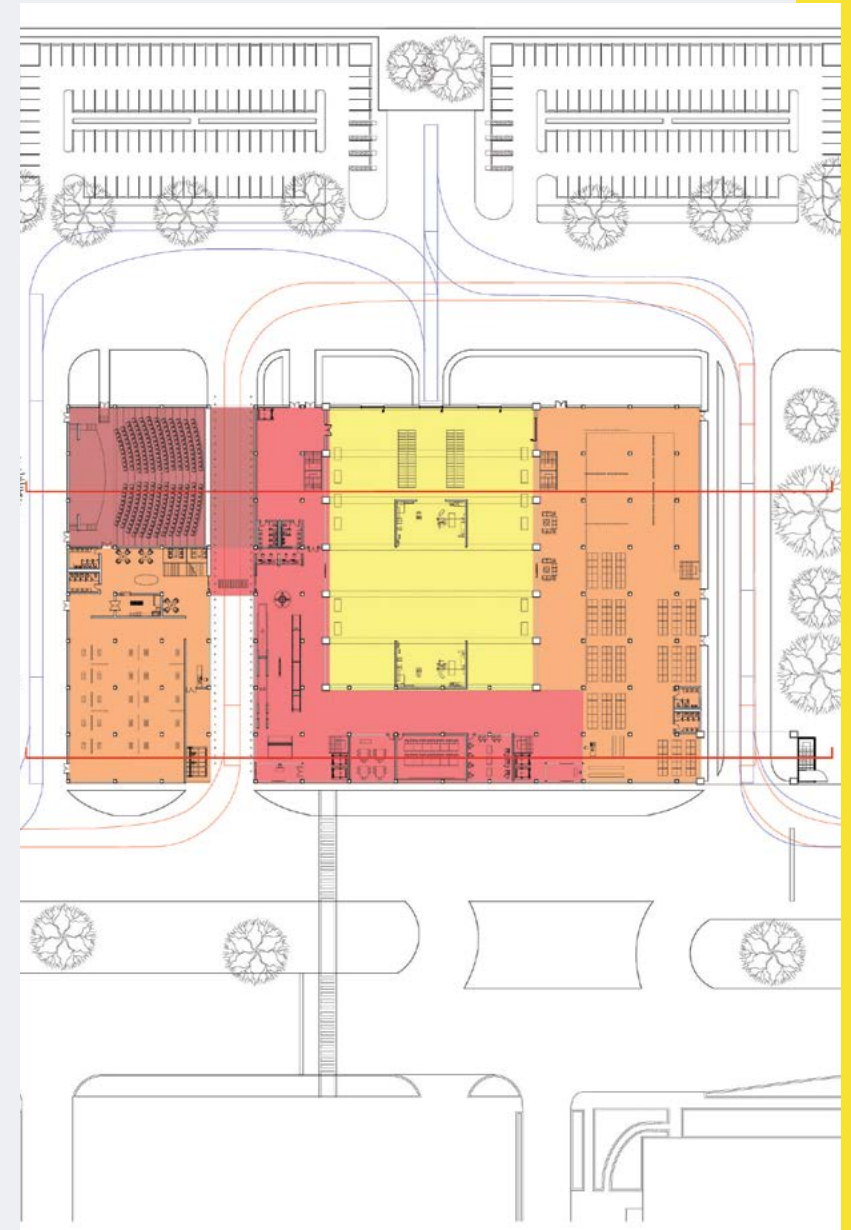
The Detroit Collaborative Design Center, a nonprofit architecture and urban design firm at the University of Detroit Mercy School of Architecture, already works to tackle Detroit's deficiencies. Since 1994, the DCDC has worked with over 80 Detroit nonprofit organizations including stakeholders to fulfill its mission to revitalize Detroit. Despite the DCDC's efforts, exposure of this facility appears to be granted to students and faculty at the university—a campus which is gated from the public. This spatial arrangement significantly reduces community engagement.

What sort of changes would start to emerge if architectural education and practice were more exposed and accessible to stakeholders in a city like

Detroit? How would the profession of architecture manifest itself if architecture firms and architecture schools operated together as a single entity? How would the profession manifest itself if construction trade courses were integrated into architectural discourse?

To increase stakeholder involvement with the DCDC as well as increase exposure to the profession of architecture, I propose the firm join forces with the Detroit School of Carpentry Apprenticeship to foster a new facility that bridges the gap between design firm, architecture school, and construction trade in a site that is physically and visibly accessible to Detroit stakeholders. This thesis aims to challenge the current beaux arts model of studio-based teaching by embracing a teaching model that allows current UDM architecture students including 40-50 Detroit stakeholders to assist the DCDC's design professionals on current projects as part of their curricular requirements as well as learn the methods of construction. To challenge racial tensions I decided to place the new architecture school on Farwell Field's vacant lot situated along 8 Mile Road: a programmatically vibrant street acting as Detroit's racial demarcation.

# Daphnee Stowers





There are things that belong to the past. They contain treasurable memories but no longer fit in contemporary world. The thesis presents light as a solution. Artificial light, especially volumetric light can be materialized and transform the existing ruin. Light is a material in between physical and virtual realm. Through revealing, hiding or introducing additional information, the designer can refurbish the past and present it to the public.

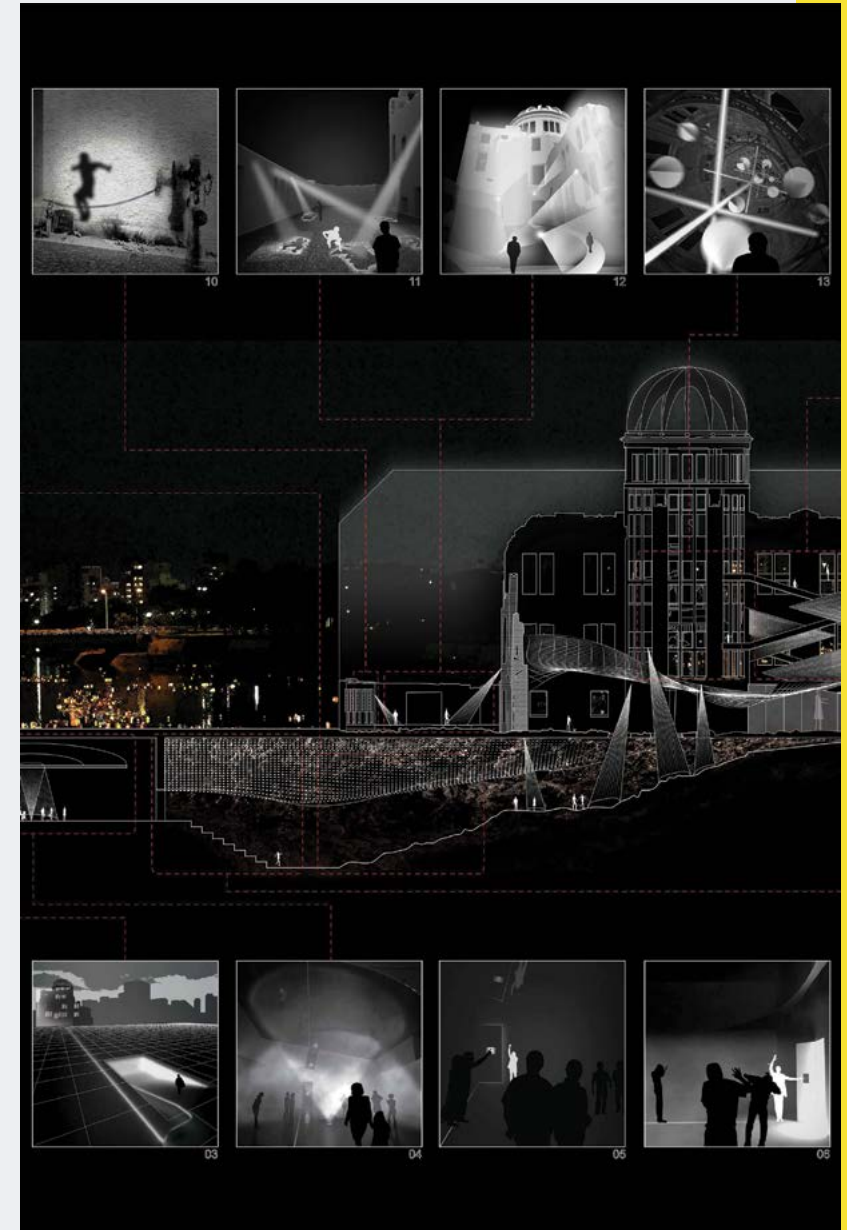
Genbaku dome was the only structure to survive the atomic bombing of Hiroshima. This thesis seeks to choreograph the interaction between people and light to compromise, or lessen, the tragic feeling of the Hiroshima Memorial Dome. Inspired by Mark Rothko's mural painting, whose colors faded 50 years after commission and were then adjusted by projecting an additional layer, the thesis aims to not only restore parts of Hiroshima Dome's appearance, but also introduces experiences of laughter and playfulness to lessen the tragedy.

When designing memorials, architects often face the conflict between healing and forgetting, or confronting and grieving. While the theme of most war monuments is military triumphalism; for defeated countries or victim people, the memorials are designed to make visitors feel heavy, and re-emphasizes the facts to prevent similar events in future. But heavy subjects such as war or nuclear weapon can be discussed in

a different manner. The re-envisioned Hiroshima Dome remains a tragic piece during the day, while it converts to a playful memorial where light interacts with people and produces laughter.

The design process starts with the visual categorization of artificial light as ambient, projection, volumetric and animated. Digital projections, shadow plays, silhouette shows, and gobos radically change the perception of surfaces. Essentially, projection enlarges designated information, but can also diminish the role of light itself. Meanwhile, volumetric light produces primitive shapes of light such as cones and extrusion, fundamentally challenging the basic configuration of column-beam spaces based on Cartesian grid.

Since light is such an ethereal substance that interacts with the solids in a unique way as well as because the movement of light adds the fourth dimension, animation appears to be the most appropriate tool that characterizes the interaction between people and light, also empowers the designers to investigate the complex behavior of light. The animation investigates the possibilities that light can be materialized and transform the physical ruin on site.



## Food, Form, Function: Investigating Agricultural Production Within the City

Urban agriculture is the alteration of landscapes, urban spaces, infrastructures, and architectures. Additionally, it can act as a social movement for sustainable developments, where organic farmers, local growers, and “foodies” form networks created from a shared ideology regarding nature, community holism, and sustainable design. In order to maintain our global economy and produce food we rely heavily on natural resources including fertile soil, water, and energy. Years of unsustainable practice have led to the degradation of these resources.

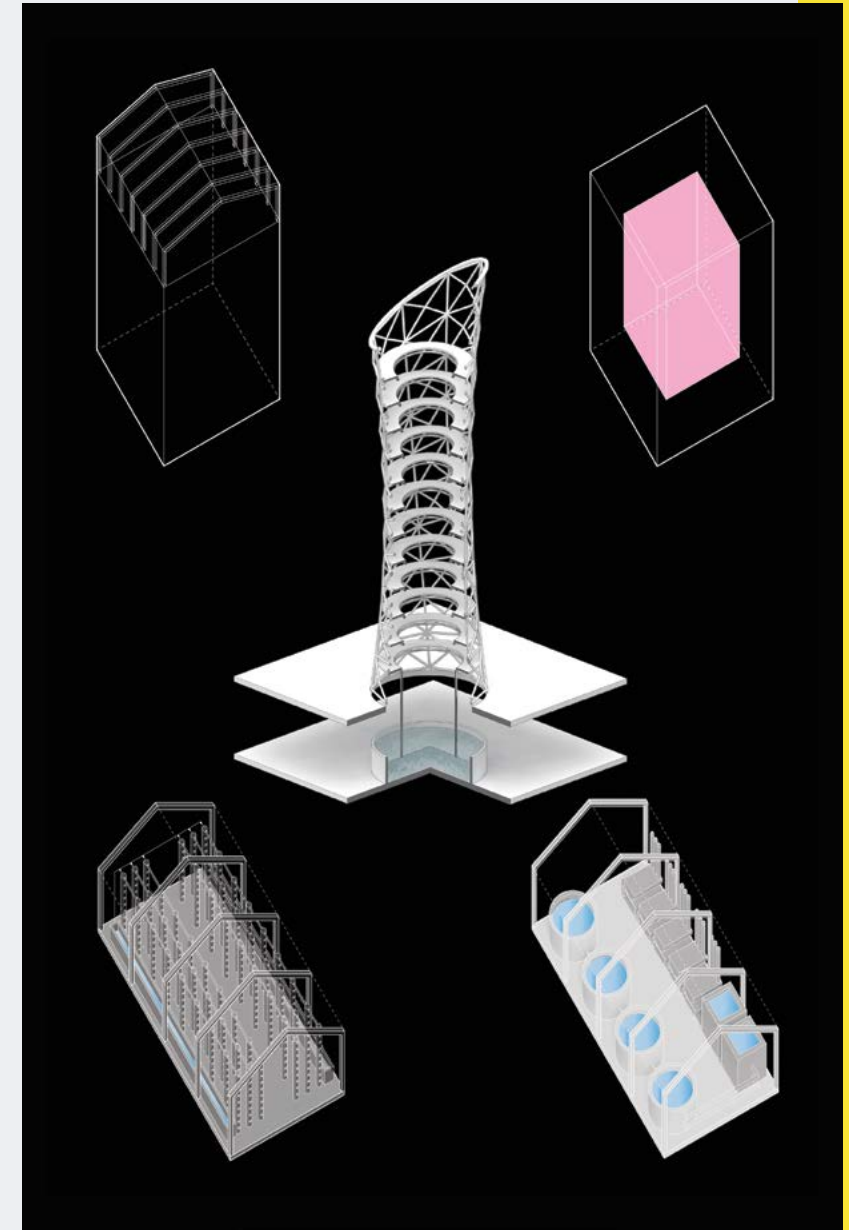
Food production for the ever-increasing global population can no longer be sustained through traditional farming techniques. Additionally, the use of pesticides, and chemical fertilizers all negatively impact our environment. If we do not possess the capacity to sustain soil-based farms, where will our food come from? The answer lies in our cities where we have the potential to practice sustainable urban agriculture. This study aims to evaluate how architecture and urban agriculture can be used to reconnect people with locally source food in a sustainable way. Questioning the possibility of feeding millions of people with urban vertical farms.

This study suggests that solar design strategies can influence a more sustainable approach to food production, focusing on New York City to determine a potential site in

which an urban farm can be integrated. Specific case studies are presented to determine whether urban agriculture can be developed in an economical and sustainable manner. Additionally, several factors were analyzed including solar exposure, renewable resources, site accessibility, and development potential. This prototype urban farm will expose people to three categories of food production; controlled environment agriculture, productive vegetated facades, and rooftop agriculture.

Integrating food production into dense urban areas can reconnect us with food and create more resilient cities. By establishing a sustainable prototype urban farm there is great potential for these structures to germinate across cities. I conclude that building technology and design can adapt to feed the increasing urban populace.

## Travis Telemaque



Earth is dying; it is estimated that by 2100, if the current trends are maintained, human kind will potentially face a 5-degree Celsius rise in temperature resulting in widespread flooding, famine, drought and the dangerous potential of passing the 6-degree tipping point that would render much of the planet uninhabitable. Nevertheless, exponential technological advancement has now allowed us to seek an alternative place to dwell: Mars.

What are the implications of a city on Mars? To speculate on a future city for Mars, the project will revisit the evolution of city making, from early Greek Polis to present Global Cities to extract and apply this knowledge to the Red Planet. In addition to the historical research, the harsh Martian environment will set new parameters for dwellers as well as designers, redefining the way we experience and create space.

Through an exploration of the modular on three different scales, the project will attempt to speculate on possible systems that could facilitate and enhance the creation of singular environments, as a prerequisite for future mass settlement on the Red Planet.



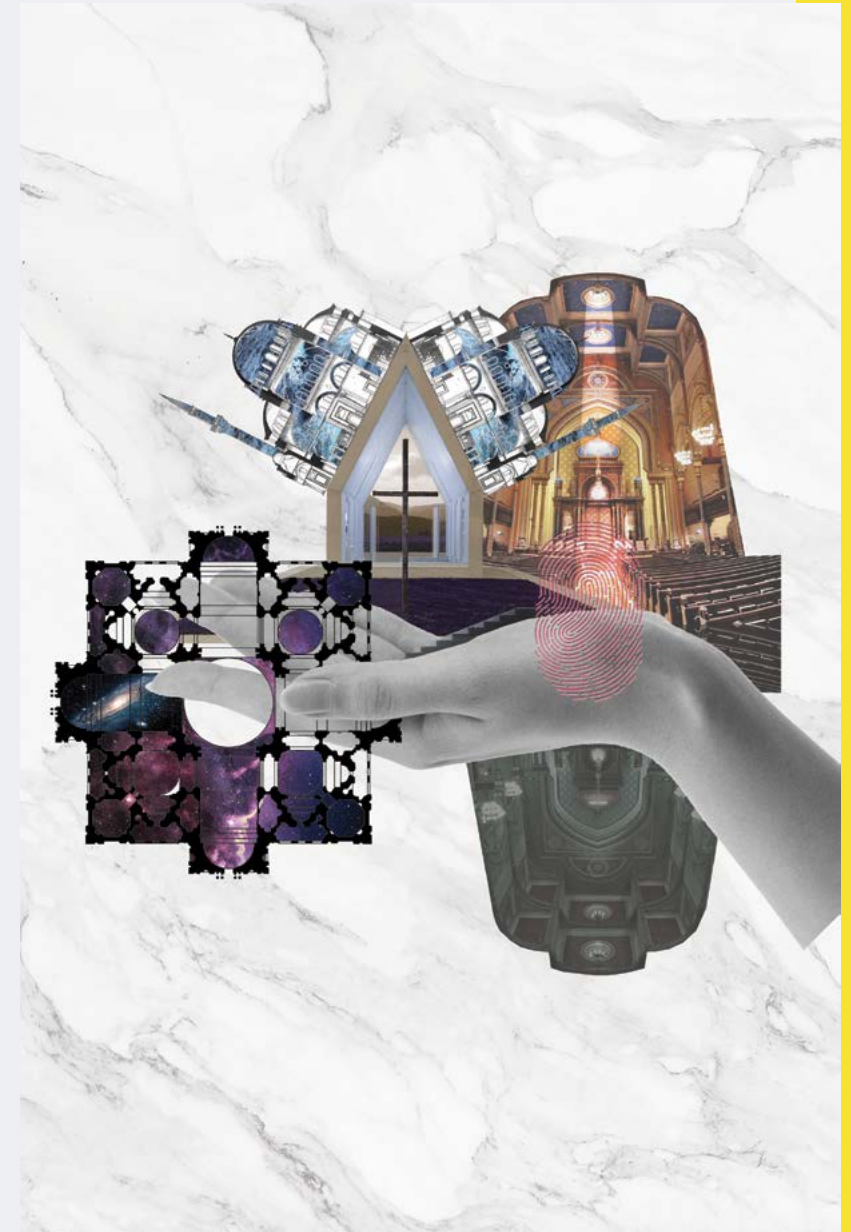
The exterior and interior forms, negative and positive spaces of the religious architecture have not lost their form, function or meaning throughout the centuries. Although there is a global modernization influence in the sacred space design, the iterations repeats the traditional typology with the symbolic architectural elements without adapting to today. As much as exacting the symbolic elements from a space would transform the experience, portraying an architecture that does not compliment the initial intention or the meaning anymore also distorts the depth of the practice. The qualities of the space is what creates the feeling of sacredness, rather than the architectural elements. Elevating the soul in a high domed grand space has been the way of abstracting one's mind from the outside world for centuries in a synagogue, a church and a mosque. Would it be possible to rethink an alternative typology abandoning the outdated architectural methods, however protecting the values of the sacred experience? Is it really the minaret and the dome that makes the mosque sacred?

The thesis proposes a prototype in the light of reimagining the space of worship in Islam, with the intention of providing the individual the feeling of sacred within the logic of set rules for the ritual. The liturgical necessities of the Islamic worship space are simple and individualistic. On contrary to a

Christian churches' being theatrical for the context of worship with processions of gestures and a stage.

A mosque can be filtered to any type of abstracted space that one can perform the ablution and can depict the direction of Mecca. Beyond these two mandatory requirements, the space of practice can take any form or no form at all. In fact, in Islamic believe a construction or a building is never sacred, however the body and soul of the individual who practices the ritual in the space is. Therefore, it is the only pure body and soul of one facing Mecca that is sacred.

The prototype rethinks the logics and requirements of the ritual by simplifying it to the requirements of the space. Being aware that the body and the soul is what makes the space sacred, the architecture focuses on the comfort of the individual to elevate the soul. A direction and an ablution is the only two necessities of the ritual, however is it enough remake one feel sacred and at God's presence comfort?



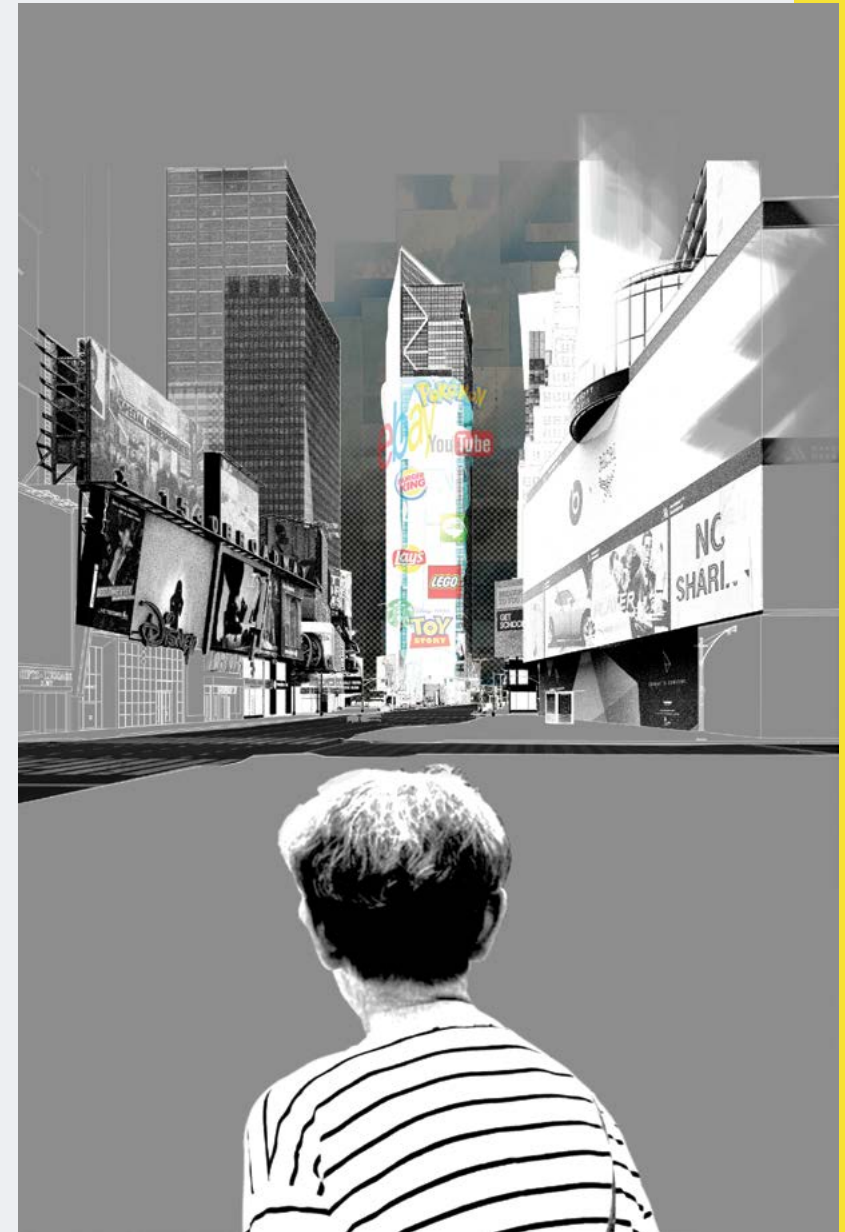
For a generation, *Learning from Las Vegas* by Denise Scott Brown, Robert Venturi and Steven Izenour admonished architects against controlling the construction of visual environment and accept the glitz of billboards and signage design on the strip. Their work examines a kind of architecture in which textual and visual communication situated in space—or signage—defines the identity of the building in particular and the city in general. Signage and billboards attached to existing structures parasitically and as a result boldly subvert their framework. If Times Square is an extreme example of this condition, One Times Square is the ultimate symbol of this place.

The building is a site hosting billboards in different sizes, making the space behind undesirable or even inhabitable. The average rate of billboard space in Times Square is almost three times more expensive than the average rate of office space in Manhattan. What would happen if the physical existence of these billboards can be taken out of this equation?

We are entering the age of post-human architecture. In this digital age, our body will no longer be the dominant measure of space, and we will see our surroundings not through the naked eyes, but a layer of digital information embedded and visualized by technologies. Augmented reality is a live direct or indirect view of a physical, real world environment whose elements are

augmented by computer-generated sensory graphics input. Augmentation is in real time and in sematic context with environmental elements. Buildings and city will be perceived through camera lens, sensor, or scanner. They identify a scene or an object by searching for predefined relationships, patterns or geometries. In this context, we need to start imagining new design that is understandable by both human and machine. This totally transforms the relationship between buildings and signage, as the signs and billboards' physical existence is no longer necessary. The skin becomes an architectural interface where augmented information is placed on. The skin can communicate with human without overshadowing the space behind.

In the age of Augmented Reality, the value of One Times Square will be measured by both the occupiable space and the skin. Thus this project challenges this hierarchy by taking a closer look at the surface property of architecture and seeks to explore how augmented reality (AR) technology changes the relationship between signage and buildings.



## Ruin-naissance: Bringing the Ancient Fragments Together Through the Lens of Contemporary Architecture

The principal contention of this thesis is that a better understanding of the fragmented evidence presented by an archeological site can be seen through the lens of a contemporary architectural intervention that responds sensitively to an ancient site. In doing this, the intervention must address issues of contextual identity, narrative content and historiography. The new architecture should not ignore or in any way obscure the existence of ruins. Rather, it should treat the ruins as an integral part of the design, where their integration is essential not only as objects or space, but also as a didactic agent of the site's history.

When new architecture is introduced into a historic context, ideally, a critical dialogue should emerge. The reading of the ruin itself creates the first state of the experience. The new building by itself generates the second state. When the ruin and new building begin to interact with each other, the third state is created. This new state results in an elevated and conjoined experience of both the archeological context and the contemporary architecture. In this way, both ruin and new structure complement each other, resulting in an enhanced reading of both. Where interpreting the archeological remains of the site was formerly left largely to the imagination, the contemporary intervention permits greater interpretive opportunities. This kind of architecture can reproduce the sense

and experience of the pre-existing forms and space without the need of a more speculative restoration of the site.

One way this can be achieved is by introducing a defined circulation route along which are located a series of interpretive buildings that create a new dialogue with the existing historic context. This prescribed pathway will not only be a walking experience but it will also be designed to contain a narrative of the historical site. In this way, the pathway becomes a key element that will manifest the context's historic past where space, event and movement all converge into a larger experience, effectively creating an open-air museum.

## Fatma Tunc



## Pleasurescapes: Mechanized Conveyances as Agents of Alternate Urban Experiences

This thesis explores the architectural possibilities of creating pleasurable destinations that engage urban environments through the deployment of mechanized conveyance systems. The development of these systems in history respond to the evolving mobility of social and human activities, and have transformed our visual climate. Spanning a breadth of novel, amusement-oriented and pragmatic manifestations, these linear movement systems share core design principles despite their face-level idiosyncrasies. Tending to recruit scenic and theater designers on the amusement spectrum and engineers on the pragmatic, exploring their potential was mostly left to 20th century world expositions and amusement parks (such as Coney Island), which typically resided outside of dense urban centers.

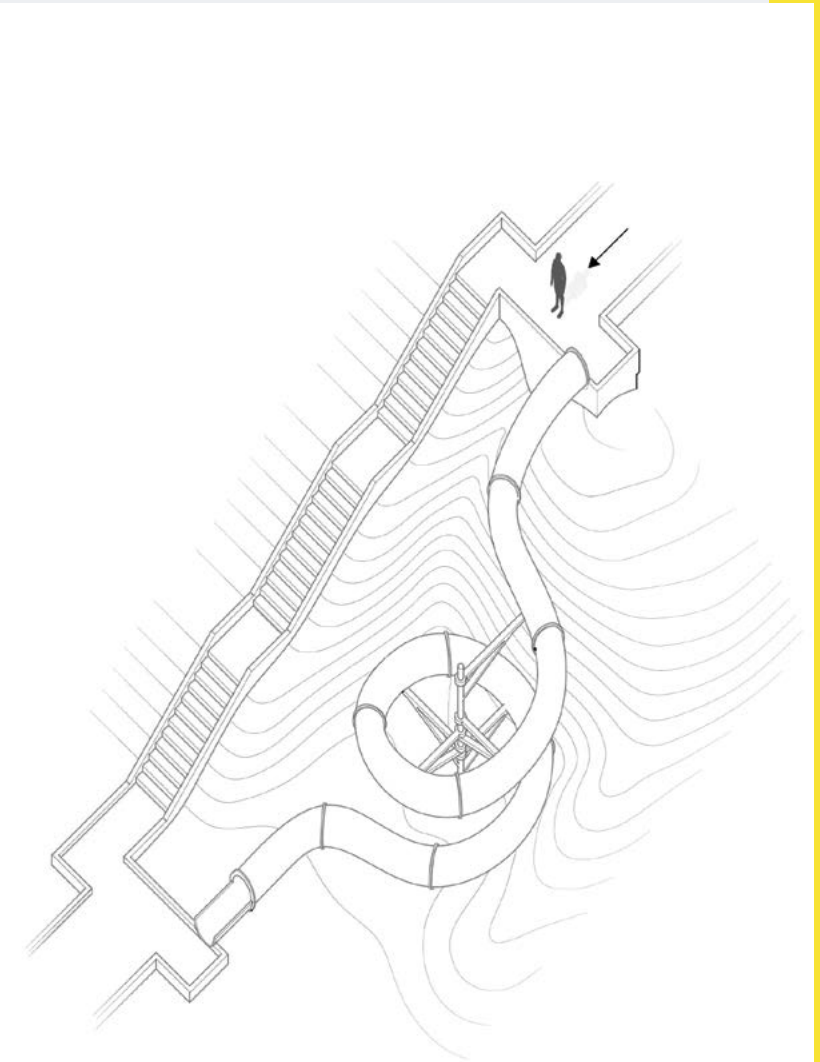
However, having welcomed more than 20 million visitors since 2014, The High Line is a linear, architectural and spatial spectacle that transforms the everyday urban experience of walking with a curated procession and engaged vistas, which suggests an overlap with some of the design methodologies of mechanized conveyance systems. This curation situates a “vehicle” (a human) for locomotion along a linear path through an environment, creating unique vistas from the High Line while in turn creating unique vistas from off the High Line on the street. Combined, these elements construct

the cinematic experience of the High Line, with its techniques dating back to the Greek’s design of the Acropolis, which Auguste Choisy described as one of architecture’s “greatest films”.<sup>1</sup> The use of vista in the construction of experience is also a technique used at early 20th century amusement parks and world expositions, where what Josephine Kane described as the “whirl and wonder” constructed a tandem spectacle: physically riding and visually witnessing people riding mechanized attractions, respectively.<sup>2</sup>

With this suggested connection, this project explores the intersection of the architectural promenade and dynamism of mechanized conveyances on the Minneapolis Skyway, the largest skybridge network in the world, in order to explore the possibilities of how architects can use mechanized movement to enhance day-to-day movements and experiences. The Minneapolis Skyway isn’t geographically-specific to finding a solution to the best alternative movement system, but rather, is a banal infrastructure for movement that serves as a framework for exploring various possibilities of mechanized movement in parallel to the everyday.

<sup>1</sup> Sergei M Eisenstein, Yves-Alain Bois and Michael Glenny. “Montage and Architecture.” *Assemblage*, no. 10. 1989: pp 111-31  
Doi: 1.2309/3171145

<sup>2</sup> Josephine Kane. *The Architecture of Pleasure: British Amusement Parks 1900-1939*. (Surrey: Ashgate Publishing Limited, 2013), 15.



Historically, in the rural context, agriculture had a gathering space called the grange. Individual farms comprised of collections of a scalar range of structures and tools were dispersed over vast areas of land, but their occupants convened at a central grange hall in town or a regional location to organize and discuss collective matters of concern. The grange is where vocational agriculture education was born and where farmers rallied for political advocacy. It was the meeting place, the civic center before industrialization of agriculture became the norm. These places do still exist and continue to serve as an organizing feature in the system of civic agriculture.

In the urban setting, agricultural activities do not have a meeting place yet. Urban farmers, community and guerrilla gardeners, Community Supported Agriculture (CSA) members, farmer's markets participants, coop market members, edible schoolyard students, rooftop gardeners and other city farmers, food activists and interested parties do not have place where they can convene. Lately, in Brooklyn, the Brooklyn Food Coalition has held a few meetings in school auditoriums and church basements. In order to give the good food movement, the public presence it deserves, it needs a home. The Urban Food Hub is meant to be just that.

Through a proposal for land exchange, the Brooklyn Urban Food

Hub project is anchored on a 44,000sf lot within this centrally located and politically charged site. Juxtaposed with the Atlantic Yards and stadium spectators, the Urban Food Hub seeks to inspire the re-emergence of the alternative collective embodied in the good food movement and provide them a home.

This thesis proposes that a new kind of architecture is possible to collect the historically decentralized activities of urban food production, distribution, consumption and education into one central home—The Urban Food Hub. This home is a civic center that is also a food infrastructure anchor. The hope and goal of the architecture is to integrate the sustenance, health, education and gathering of society with the production, distribution and consumption of food to create an overall more inclusive and diverse urban ecology.





With the way we are currently powering the world around us, we are putting our future at risk. Our levels of pollution are disturbing the landscape, heating up the planet, making the oceans more acidic, and most detrimental to us is that we are making the air unhealthy to breathe and potentially fatal. Since city air pollution is more intense than in less urban areas, cities are more suited for immediate intervention. By incorporating performative systems into the design of an urban park, we can help to remove pollutants from the air and give the surrounding population a healthy outdoor space to interact and enjoy.

There are many benefits to adding green landscape into the cityscape besides improving the air quality like reducing heat island effect, improving the local water cycle, and increased outdoor interaction. There are many examples of urban parks but not all of them are successful projects. By investigating both the positive and negative precedents to understand what made them work or fail, this thesis can avoid the mistakes of failed projects and adapt aspects of successful projects. Incorporating performative features into the design of an urban park can not only improve local air quality but can generate a thriving social space. Placing what is basically a clean air factory in the middle of a city can provide an oasis of comfortability and health to the public in an otherwise barren landscape.

For an urban park to be successful in today's city environment, it needs to not only provide a space for people to enjoy the sun and the outdoors, but to also give back to the community in one form or another. By analyzing local wind patterns to track the movement of pollution, architects can design an environment that grabs as much on-coming wind as possible to treat it and deliver it back to the public. This will help to reintroduce social interactions and a social landscape to a city crippled by poor air quality. By responding to a condition that affects the entire city, the park would have a better chance of becoming successful and inspiring a city typology that embraces the natural world.

This thesis contends that urban parks should not only be designed with Social parameters in mind, but should also include features that can provide the public with a healthy environment.



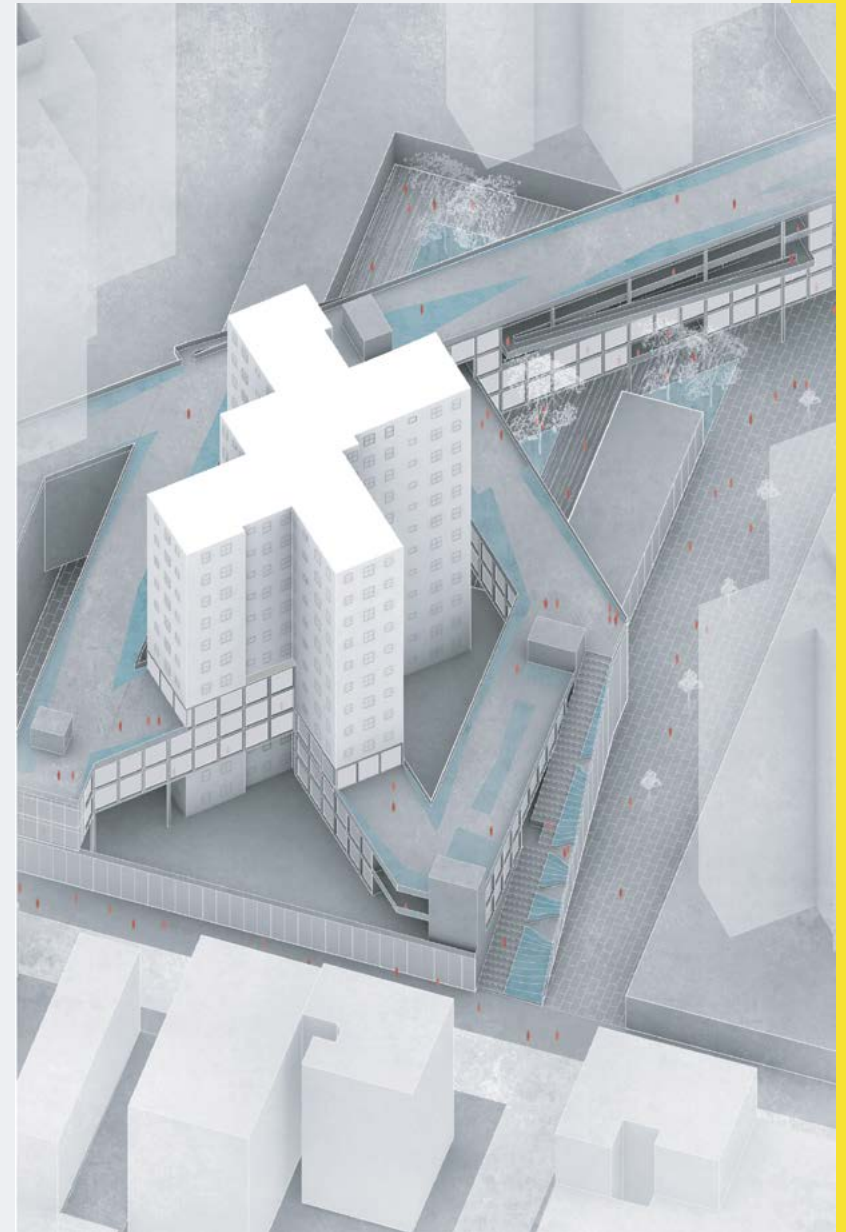
Photo Credit: Influx Studio

## Optimized Density: Rehabilitating the Tower in the Park for the 21st Century

Whether spreading out evenly across the land in individualized parcels or condensing vertically to make minimal contact upon earth's surface; humans have always wanted to feel in touch with nature. From this urge, two top-down construction typologies were created: the suburban ranch upon land and the urban tower in the park. As time progressed, suburbia became the embodiment of the American Dream while cities became abandoned. Without the stimulus of a thriving and local middle class, American Cities became increasingly desolate. Despite the growing contrast between city and suburb, in the 40s and 50s many of our cities, especially in New York, faced heavy "slum" clearance to make way for towers in parks. The tower in the park still could not answer to the promise of land ownership in the suburbs and additionally sterilized the once unique urban communities. Soon the tower in the park became recognized for its negative connotation rather than for its innovative modernist planning principals. Today, the tower in the park is still a part of many urban environments. While other historical typologies have been adapted, the tower in the park remains unchanged. It lacks correspondence with its surroundings and isolates its inhabitants from the city ultimately becoming iconic for a sense of false optimism and even dystopia. While these modernist developments throughout American cities are

extraordinarily prevalent, their lack of social interaction can become their upside. Optimized densification is the exploitation of under utilized space to create a more dynamic cooperative based density often times adding onto what is already exists. The pursuit of maximizing intelligently can help to relieve socioeconomic exclusivity, create a more ecologically sustainable lifestyle and influence social mixing. Though architecture can only have a limited influence on the social climate of a place like New York City, re-envisioning and optimizing the density of the tower in the park typology can lead to a more harmonious engagement between buildings and their surrounding context or population. Optimizing density could be the modern day American dream by providing affordable and stable living situations to increasingly dense metropolitan areas.

## Emmett Walker



The point is to situate man within painting, rather than in front of it, man does not live in the construction but in the atmosphere generated by the surfaces.

—Theo van Doesburg

What do we see when we see? The colorfulness of the wall painting, the gloss of the marble floor, or the rectangularity of the corner? Seeing means experiencing a space with a pair of subjective eyes. We are not only grasping some outstanding features of objects<sup>1</sup>, but also arranging/re-arranging those features by our own narratives.

In order to enable the viewer to act as the intermediary between image and imagination, building and drawing, reality and representation<sup>2</sup>, architectural representation should be more than a rigid drawing toward objective reality, but rather a multi-faceted interpretative lens.

A codified architectural representation, the axonometric drawing is objective, yet an audience's reception of a building is perspectival and constructed through a spatial narrative over time. In response to this paradox, Axon-orama is proposed as a new representational technique—a set of variational drawings with pliable arrangement and hybrid expression—explored through the use of the Chinese board game, Myriorama. The work blurs the boundary between objective and subjective representation/

perception, offering a new system of architectural inquiry.

There are five fundamental logics behind Axon-orama:

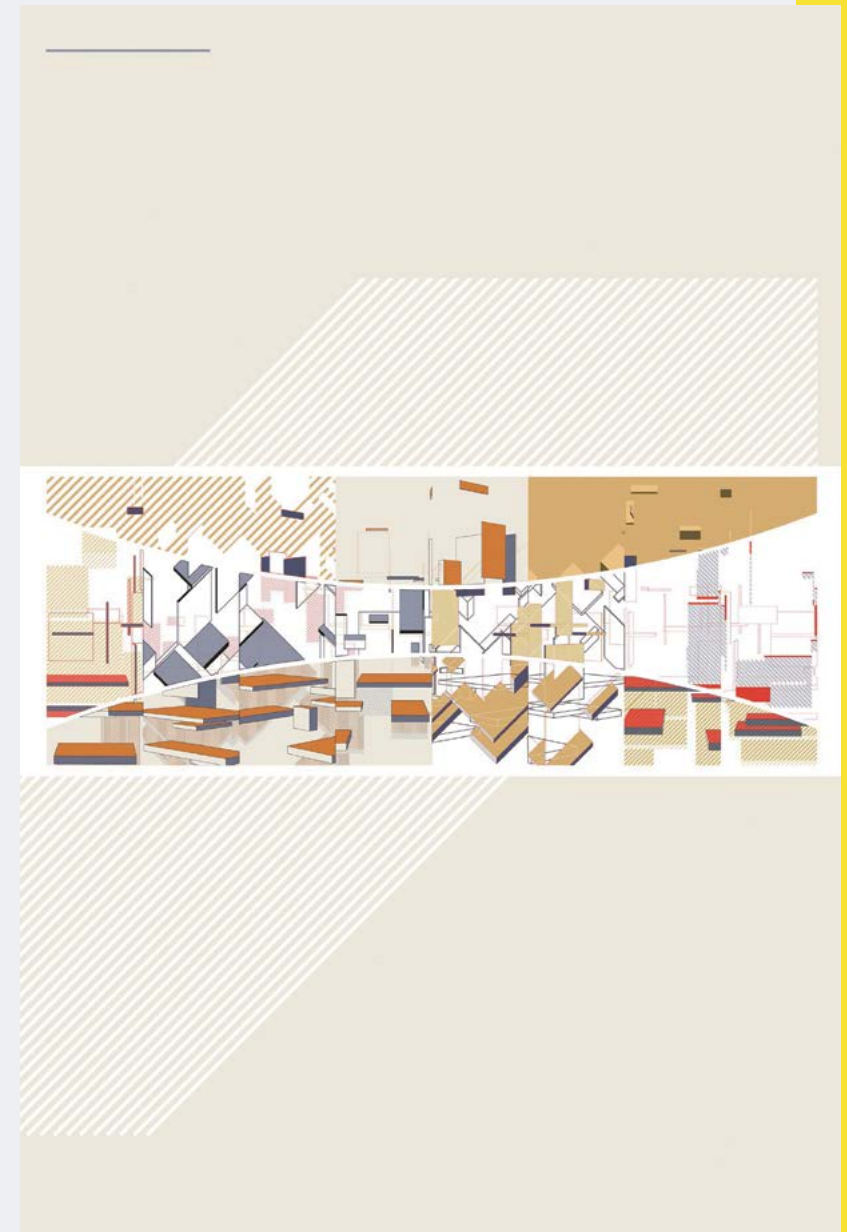
- Representations are re-arrangeable
- Representations are endless
- Representations are random
- Representations are valid
- Representations are originals

Drawing from these five logics, this thesis develops a new system of representation that allows objects to be reconstructed, rearranged, and distorted. As the panels' arrangement varies, alternative narratives are created. All roads reach the same destination without convergence.

Inspired by Theo van Doesburg's argument and borrowing his axonometric “counter-construction” drawings for the *Maison Particuliere*, this thesis aims to make further investigation in “situating the subject the within painting.”

<sup>1</sup> Rudolf Arnheim. *Art and Visual Perception: A Psychology of the Creative Eye*. (Berkeley: University of California Press, 1974), 43.

<sup>2</sup> Thomas Kelley, Carrie Norman, Norman Kelley. *Eyecon*. (Chicago: The Graham Foundation, 2015), 15.



The highway is a critical infrastructure in the age of transportation; it is convenient yet it causes new problems as it intersects the city.

A heavy, permanent and singular infrastructure, the elevated highway cuts through cities producing a zone of underutilized public land, creating barriers between urban neighborhoods. But the territory of the elevated highways, its right-of-way and adjacent public land, can spawn a new type of rhizomatic infrastructure (light, temporary and multiple) as a network of connection and incubator for social exchange.

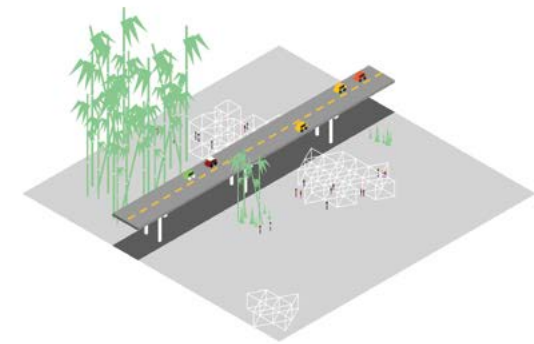
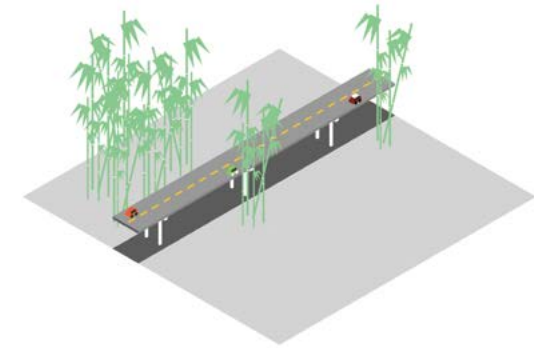
This thesis imagines opportunities in the underutilized and underdeveloped public land around the elevated by re-thinking the role of the elevated highway, and thinking the “highway” as both physical object and vast parcel of public land. Using the city Dallas as a vehicle, the projects project tests the possibilities of constructing a temporary, light and multi-functional infrastructure.

An invasive species in Dallas, bamboo is a fast growing rhizomatic grass. But contained within the highway right-of-way, it is both a renewable forest and the source of material for lightweight temporary construction that provides shelter for the homeless and structures for events, encloses recreational activity, and is the scaffold for a network of circulation and advertising. Supporting a new con-

struction industry, the material can be utilized in public projects and be utilized by citizens of the city. In turn, the elevated highway is modified to harvest rainwater to irrigate bamboo and provide gray water to service facilities that “crop up.”

It is the “Instant City” of the 21st century: a thick infrastructure, rhizome both in concept and in fact, a renewable forest that supports everyday life that is the foundation for a new economy.

# Jingyuan Wang Tong Zhao



Workplaces have experienced a dramatic transformation during the history and evolution of the office. Working environment, interaction, and work-life balance are three main changes through the evolution of the workplace, and these changes were reflected through architectural space, layout, organization, and relations with natural surroundings.

The three contemporary and popular workplace models are tech campus, co-working space, and home-offices. Although they are aiming to offer better working environments and more active interaction, at the same time they are revealing some deficiencies, such as distraction, isolation, and more importantly work-life imbalance.

This thesis is intended as an experimental solution for exploring a new typology of workplace that can offer a work-life balanced and high-quality workplace in dense urban environments. This thesis explores the possibilities of combining work, life, and amenity space together for meeting the needs of three types of contemporary workplaces, addressing current workplace deficiencies, and allowing for a new workplace typology that could integrate life and enjoyment qualities into a workplace.

This thesis starts from exploring different working and living scenarios that happen in three contemporary workplace models to find out their deficiencies. And then with these

deficiencies, this thesis goes back to the history of the office evolution to explore how the workplace deficiencies change and what the main aspects and parameters that have been influencing the workplace architecture are. Also, based on the developing trend of the future workforce, this thesis is rethinking a new workplace that features flexible work, life and enjoyment qualities and is sited adaptively for the future.

The thesis project design starts from unit design to meet daily routines of salary-men, freelancers, and teleworkers that work in three contemporary workplace models. And then based on three organizing principles, which are work-focused, life-focused, and amenities-focused principles, the thesis generates a set of clusters grouping different numbers of units together. Then by combing and organizing different clusters together, the thesis creates three different typologies to meet different work-life needs. The thesis mainly focuses on the mat-like typology, intended to be sited in East Midtown, Manhattan.

In summary, the goal of this thesis is to explore a new workplace typologies that integrate life and amenities into a workplace that provides people with an active, enjoyable, and balanced working environment.



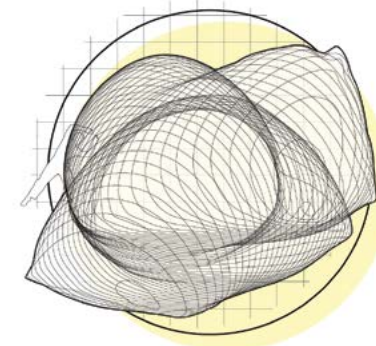
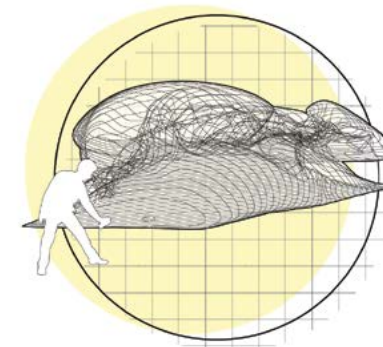
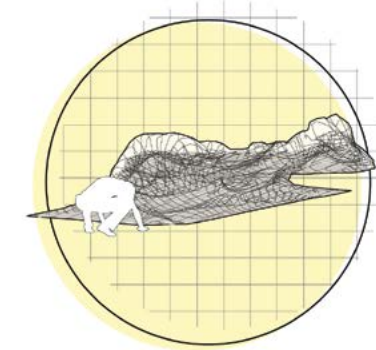
Almost everything can be seen as an “embodied practice”. Actions or devotions that might appear seemingly small or as just moments of escapism are actually instrumental in shaping our lives and interest. Watching a favorite show, collecting trinkets, or gathering with others who share a similar interest are rituals. Complete with their own system of sequences, codes, and behaviors.

These rituals are not tied to a place, but exist in the realm of placelessness. Transience in this case is a fixture, an operation, and an experience. It parallels and compliments a modern life. One shaped by a growing and fleeting set of interests. One that is in a constant state of flux, renegotiation, and assembly.

What solution would accommodate a ritualized world, whose significance is owed to its users and not as much with its physical embodiment?

Something that ultimately seeks to legitimize the user as the primary driver of a space. Something that utilizes design not as a tool to construct a singular vision of the world, but instead provides people the tools to validate and shape their own interest.

The pneumatic is as much about ephemerality, accessibility, and convenience as it is about experience. It is shaped by its ability to transform. It makes itself useful to whatever is most necessary at any given time, and as quickly as it appears, it disappears.



## Active Apparatus: Designing for the Social Occupation of Public Space Through the Lens of Theatricality

Amidst the current tense political environment, during which activists are organizing as individuals and groups seeking forms of resistance, there is a clear need for public spaces to support their expression. Rather than remaining passive, there is an opportunity for architecture to form spatial and experiential conditions for expression and activism. Throughout history, theater has been a venue for the experimentation and production of contested ideas and themes, through the manipulation of audience and performer relationships, making it a relevant model for activism in public space. It is imperative that we understand the need to provide physical spaces for the support of an active and activist public.

This thesis proposes a physical apparatus for urban space that is an infrastructure for activism: for collective discussion, public speaking, group performance and debate. Through the placement and choreography of paths of movement, adjacent to public “rooms” for activism, the apparatus has the potential to alter everyday life. Composed of a collection of scenic rooms and surfaces the project provides free and public spaces for these prominent programs of activism while engaging with the systems of the city in a more robust way. Understanding that significant events of the public realm are both experienced physically and shared digitally on

social media, the active apparatus accommodates and enhances various modes of its encounter. Operating as surface, frame, and backdrop, the apparatus supports constructive activities of activism from discussion to demonstration, and puts these occurrences on display to the surrounding context.


Movements, demonstrations and occupations sprawl across public spaces, infiltrate our circulation networks and embed themselves in the urban fabric with behaviors that mirror that of a theatrical performance. A public design intervention informed by the theater is strategically driven to provide a heightened experience of publicness. As an apparatus, the structure constantly repositions actor and viewer relative to each other, and as a stage, putting activists on display in its physical setting, as well as through its broadcast on news and social media. By producing a public space that frames and supports these events, we gain control over the image they produce. Architecture maintains an agency to produce spaces that amplify communication, enhance and orchestrate visibility, and promote congregation, fostering a vibrant and active public realm.

 **activeapparatus**  
Washington Square Park



6K likes

**activeapparatus** #activism #assembly #publicprotest

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Social Infiller is a catalyst to express the value of alleys—small, underutilized spaces that come as a result from urban development. Through the concept of play and playgrounds, another social layer can be generated to make alleys beneficial, engaging and ultimately accepted as part of the urban fabric. The intent of this thesis is to provide a social network of accessible nodes, alluding to the idea of an informal playground to invigorate the alleyways of the city of Amsterdam; a city that thrives on its commercial industry, but lacks the initiative to develop “in-between” spaces. This thesis then takes three alleyways that enable passive, neutral, and engaged play by allowing the user to experience a clear, directional circulation path with program nested along and within what formally is an object on the site, operating internally more so than externally.

There is the concept of play and then there is the concept of playgrounds.

Play is a universal word for an action or activity, but it takes different ways to enable it. How each of us plays differs by space and how we create a dialogue between ground, body and objects. Playgrounds offer an arena for play. Without playgrounds, play rarely takes place.

Alleys are threatening, narrow, vertical, unsafe and vacant, not a space that is activated by people. However, socially activating an alley involves taking away its preconceived negative connotations and transforming them by introducing play as a mechanism for disassociation by promoting exploration in the potentials of alleys and what they could offer spatially and programmatically.





The moving image is one of the most pervasive and accessible media forms of the 21st century. The ability of film technologies to realistically represent the possibilities of an architectural future is just one of the many ways that this important medium can impact thinking about the design of current and future environments. Film can convincingly ask “what if?” as well as answer the question for itself.

With great interest in the relationship between film and architecture, this project establishes its subject matter on the possibilities presented in science fiction cinema and speculative design. In current years the relationship between the built environment and what is being portrayed in film has been outdated, without necessarily portraying to the masses the immense possibilities that current architectural advances could propose. By extracting attributes from movies and current technological advances that would influence design and architectural concerns, a bridge between the disconnected imagined and real can be created through the creation of a speculative scenario and a narrative. It seeks to utilize cinematic design and storytelling conventions to successfully convey the desired atmosphere, architectural realities, and life conditions of a fictional future city.

The advantage of utilizing film to teach architectural lessons is the ability of the media to provide a

comprehensible grasp on the experiential nature of spaces and ideas that otherwise become trapped in 2-D media. For the purpose of this thesis, films that represent a future or alternative city strictly in live-action movies were analyzed to create a series of design standards. Taking these standards and applying them to design, the project culminates in a short time based animation that not only informs on the current technological and material advances in our field, but also inspires and starts a conversation on the possibilities they suggest for our built future.

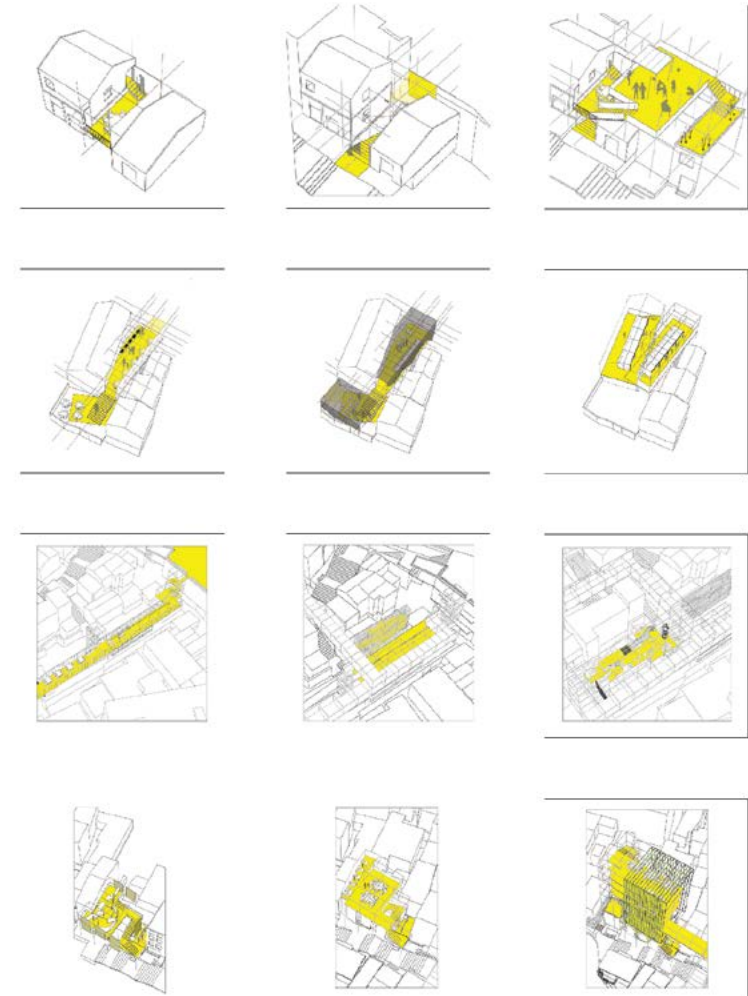
# Sofia Zavala Ferreira



The project is an urban renewal project at the Shibati Community in Chongqing, China, looking to explore alternative strategies other than two main traditions of urban renovation in the last decades in China. One is the tower block, simply built megastructural commercial complexes ignoring history. The other is the simulation of the traditional Chinese style, only mimicking the appearance and ignoring the essence of the old architecture. The title “Real Estate” suggests that the land never becomes “real” until there are activities and communications happening between the occupants. The project is a critique of what the Chinese government and other official agencies in China have tended to respond to the issue of urban renewal and preservation of the vernacular architecture. The design seeks an alternative strategy of urbanization under the globalization and increase need for commercial space within the old town. The project is trying to provide a tactic intervention, which is a mixture of top-down and bottom-up design, started from small interventions by residents and connected to the megastructure by government and other investors. It provides an urban growing possibility that what the Shibati will become in the future through time and process. The project has two time frames and strategies.

One starts from a small-scale, flexible and easily-assembled modular

structure which can be built in between the space of the existing vernacular buildings and reproducible by residents either for private use as a balcony, or public use for opening a grocery shop. The other is a large-scale intervention of producing an infrastructural system provided by the government that connects all the small interventions into a new system that recreates a new ground plane and a system of growth. The project allows for different scenarios and transformation over time. Not just expanding horizontally to other sites, the project itself is growing. It can transfer from the small scale to the larger scale, which lower level are fragmented space for small business, and two or three programs meet at the upper level to form a larger space to occupy. The design seeks to provide a development strategy allowing various scenarios to happen. The project can be treated as complete, or a stage for continuing development. The existing houses might be removed, but the new interventions help trace the outline of its history, and it becomes the footprint of a memory.



## Assisted Design Workflow: An Assisted Design Workflow for Designing Public Space in Downtown Syracuse

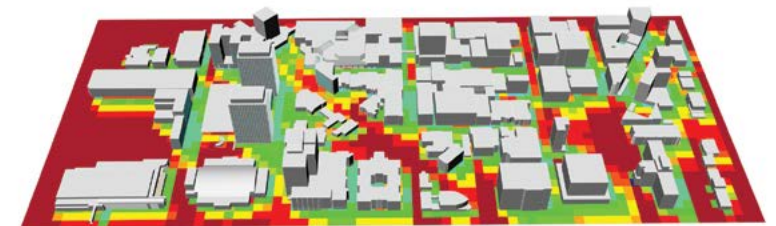
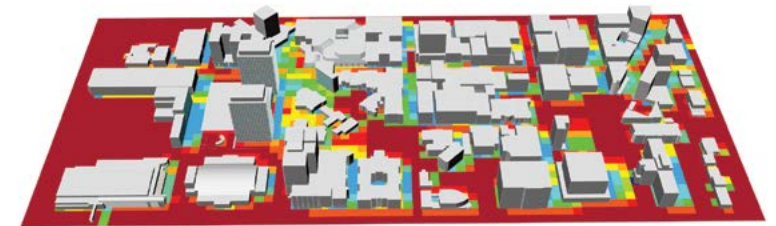
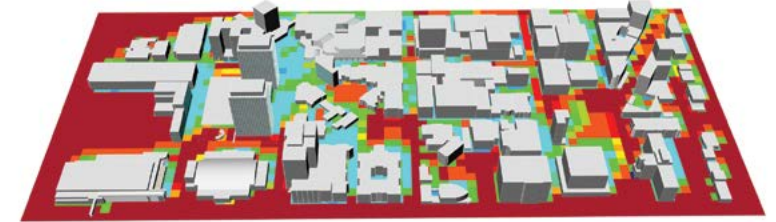
Outdoor spaces are important to sustainable cities because they accommodate daily pedestrian traffic and various outdoor activities and contribute greatly to urban livability and vitality. Encouraging more people to be active in outdoor spaces will benefit cities and citizens from various perspectives, including physical, environmental, economical, medical and social aspects.

Among many factors that determine the quality of outdoor spaces, outdoor thermal comfort and microclimatic experiences are among the most important issues. In contrast with car commuters, pedestrians are directly exposed to their immediate environment in terms of variations of sun and shade, changes in wind speed, and other characteristics. Thus, people's sensation of thermal comfort is greatly affected by the local microclimate. Microclimate also influences decisions on whether to use outdoor spaces or not.

This thesis aims to analyze and visualize outdoor thermal comfort in downtown Syracuse, using Rhino and a Grasshopper definition as the design workflow. The proposed framework is broken down into 3D modeling as a first step to produce what is called an "Urban Surfaces" model. Surface temperature simulation takes place then, borrowing from the field of computational "raytracing" to calculate annual radiation falling on all subdivisions of Urban Surfaces, to become an input for Heat Diffusion Equations used to

calculate surface temperatures. The tabulated results for every hour of the year are then recalled as part of a workflow to calculate Mean Radiant Temperature (MRT) through analysis nodes. To compute MRT, the analysis nodes also use raytracing for surface temperatures, as well as shortwave/long-wave sun and sky radiation.

The outcome of this thesis aims to aid architects and city planners to design comfortable urban spaces. According to previously reviewed studies, there are technical and conceptual barriers in terms of analyzing and integrating thermal comfort in designing urban spaces. Therefore, this thesis aims to bridge this gap and helps in evaluating different design solutions, and provides a convenient interactive interface to help in better understanding of urban microclimates.



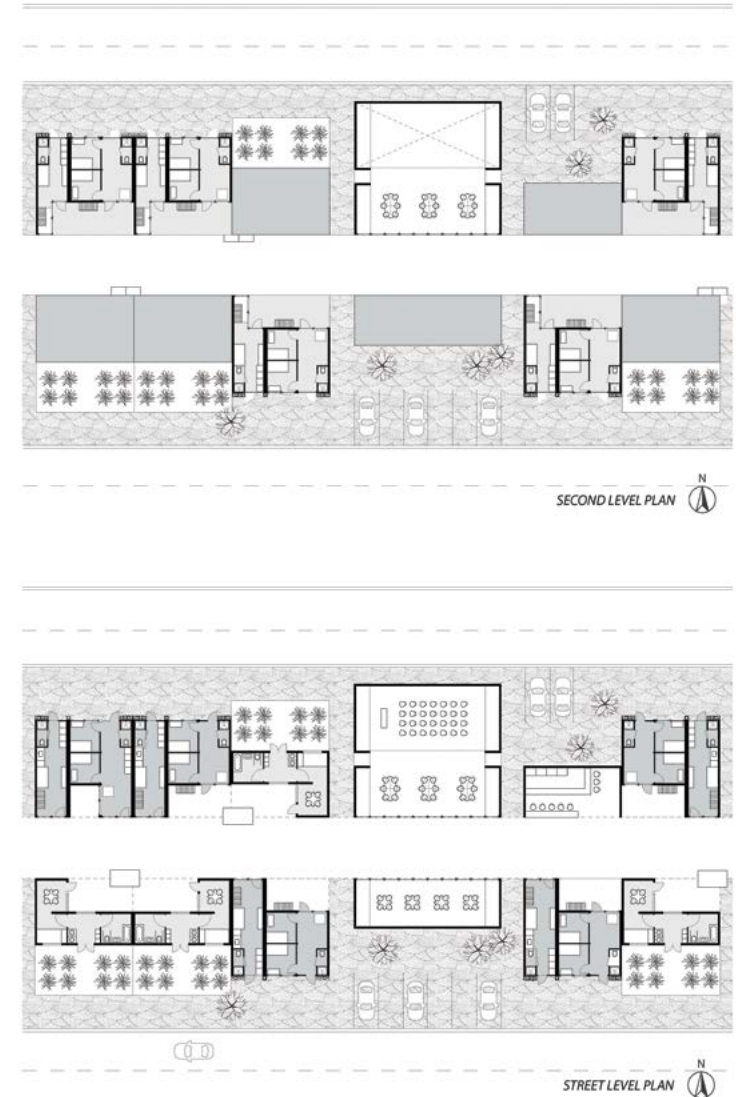
For the past thirty years, the progress of urbanization in China was indeed remarkable; creating internationally known cities like Shanghai, Shenzhen, and Beijing. Yet, excessive attentions on those cities lead to extreme imbalance between urban and rural in China. In 2006, the Chinese government initiated a set of policies to confront the issue of developing the countryside, constructing new rural towns with the intention of ensuring social stability, providing a strong economic base for the adjacent urban areas, and stemming rural-to-urban migration.

According to the government stats announced in 2015, there will be 300 million people, which is about the entire population of the United States, moving from country to the cities by 2025. For this purpose, the Chinese Central Government announced the plan of *chengzhenhua* (“townization”) that while maintaining the population stable in big cities, developing small cities, towns and villages to digest the 300 million population load. The goal of *chengzhenhua* is to achieve the reformation of the Chinese economic system and to reduce the portion of agriculture and industry and to enhance the third industry, and to raise domestic demand, achieving the reformation from a developing country to a developed country.

In order to implement *chengzhenhua*, the Chinese townization, the government abolished the long-standing binary household registration system, *hukou*,

in over 30 provinces. In the past, the household registration is one of the main forces that keep people in their places. People with an agriculture *hukou* are not allowed to purchase house properties in the cities. Indeed, they could rent in the cities, but they could never have the social welfares that a non-agriculture *hukou* entitles, nor their children. Now, with the plan of total abolishment of *hukou* by 2020, the structure of small cities, towns and villages will be completely changed, but the intention remains certain, which is to modernize the agriculture industry in China and transfer the overdue population to the third industry to achieve the economy reformation.

For this purpose, my thesis is not to anticipate the upcoming transformation of small cities, but to investigate the prospective towns and villages that are closely related to the agriculture industry, to search a new paradigm for towns and villages that copes with the government policies and intentions. It is architect’s role to provide sustainable and viable solutions to this process, preventing *chengzhenhua* to be another disastrous history like the Great Leap.



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