

**Syracuse University
School of Architecture**

**B. Arch/M. Arch
Thesis 2016**



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Editor in Chief
Michael Speaks

Editor
Benjamin Farnsworth

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Adam DJ Brett
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Alexander Kim
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Elaine Wackerow
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Graphic Design
Common Name

Syracuse University
School of Architecture
201 Slocum Hall
Syracuse NY 13244
(315) 443-2256
soa.syr.edu

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.

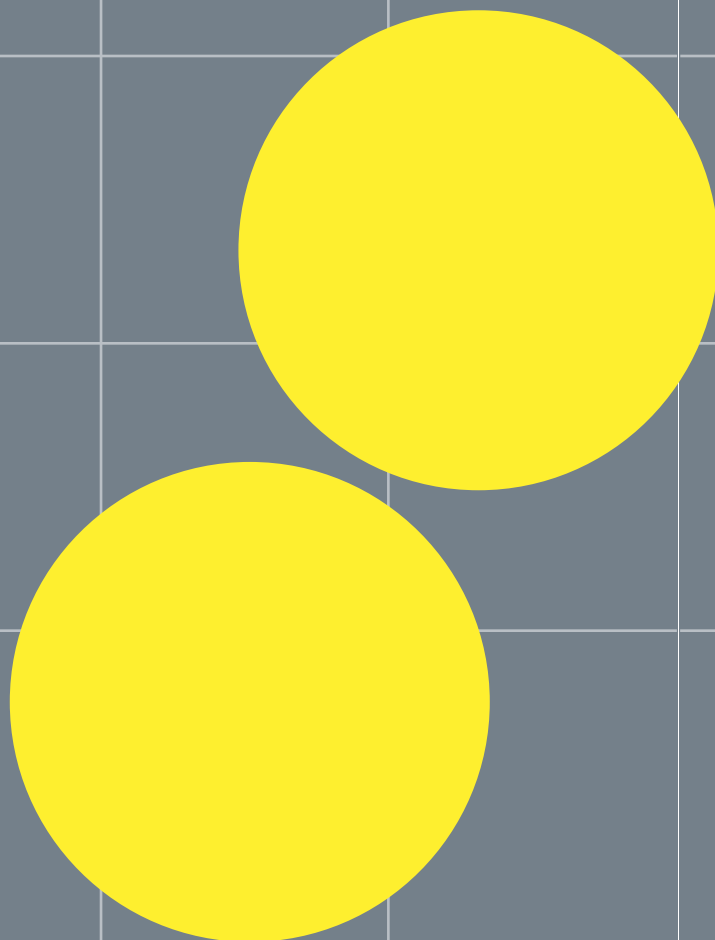
To prepare students for a world shaped by globalization, the School of Architecture offers study abroad

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.

Syracuse Architecture Thesis 2016



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Introduction

We are very pleased to present our second annual Syracuse Architecture thesis book: **Big things are happening here on campus.**

The University's ambitious new campus framework is being driven forward by Steve Einhorn, a Syracuse Architecture alum and member of the SU Board of Trustees. Professor and Associate Dean Julia Czerniak and I have been working very closely with him and Boston-based Sasaki Associates on the framework plan over the past two years and we're excited that the preparations for the construction of the first piece in the jigsaw—the University's National Veterans Resource Complex—are shaping up. This semester the School community was excited to host a number of lectures and exchanges by principals of the three world-class architecture firms chosen as finalists vying to design the facility. Craig Dykers, of Norwegian firm Snøhetta, William Sharples of New York City firm SHoP Architects, and David Adjaye of London firm Adjaye Associates all lectured for us.

The School's Marble Room Gallery has hosted a number of events this year, including two important exhibitions of the work of Syracuse Architecture professors Art McDonald and Bruce Abbey, in celebration of their long-time contributions to the School. At the Syracuse University Fisher Center in New York City, studios

and classes led by Assistant Professor Angie Co go from strength to strength. This summer, we will continue work as part of a three-year summer project in NYC called "Gentrification Lab," led by Rotterdam-based firm ZUS. Also this summer, Syracuse Architecture, in collaboration with IE Business School and IE School of Architecture and Design in Madrid, Spain, will team up to offer an innovative summer course at the Fisher Center, *The Business of Architecture*. The six-week course is intended for those studying for a professional degree in architecture (B.Arch and M.Arch), as well as young professionals and qualified students in related design fields. Combining the strengths of both institutions and complemented by special "backstage" lectures by outstanding professionals in the field, the highly interactive classes will provide an intensive "boot-camp" experience for understanding the business side of architecture and design.

Our studio programs in Florence and in London—led, respectively, by Professor Richard Rosa and Professor Francisco Sanin—continue to offer students semester-long opportunities to experience life, architecture, and learning in these great European cities.

This semester, the School's reach also extended to the Arabian Gulf via our symposium, *Start-Ups in the Desert: Finding Value in Environmentally*

Responsive Built Environments. Discussions and presentations focused on the architecture and urbanism of the UAE, Dubai, and the value of sustainability in the desert. The symposium also served as the final review for the Dubai-based Syracuse Architecture travel studio taught by Assistant Professor Tarek Rakha, and sponsored by El Seif Engineering Contracting Company.

Some of you may already know that this fall the School is launching a brand new post-professional Master of Science (MS) in Architecture. The course, *Design | Energy | Futures*, will take the form of a concentrated research program focused on energy and the built environment. Research and design projects will range across many scales: from urban design to high performance buildings; from landscape urbanism to building material research and product design; and across a range of disciplinary and practice areas including adaptive re-use, real estate development and urban planning.

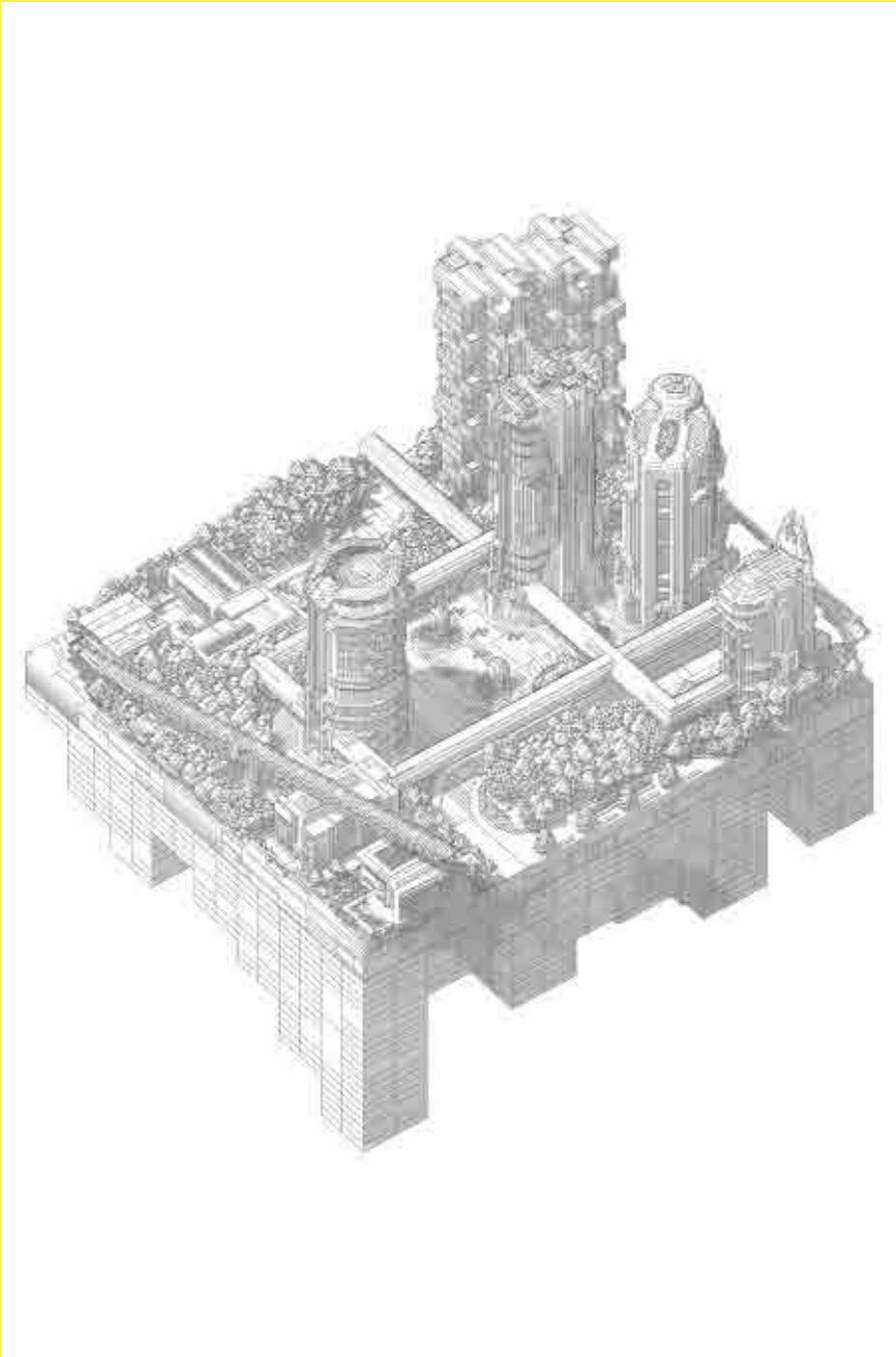
As always, we continue to teach the fundamental design skills the School is known for, but we also aim to help students develop their own understanding of design intelligence. It is this, above all, that will enable the next generation of Syracuse Architecture alums to innovate and to add value to the professional offices, energy and resource management firms, and governmental/non-governmental

agencies where many aspire to work.

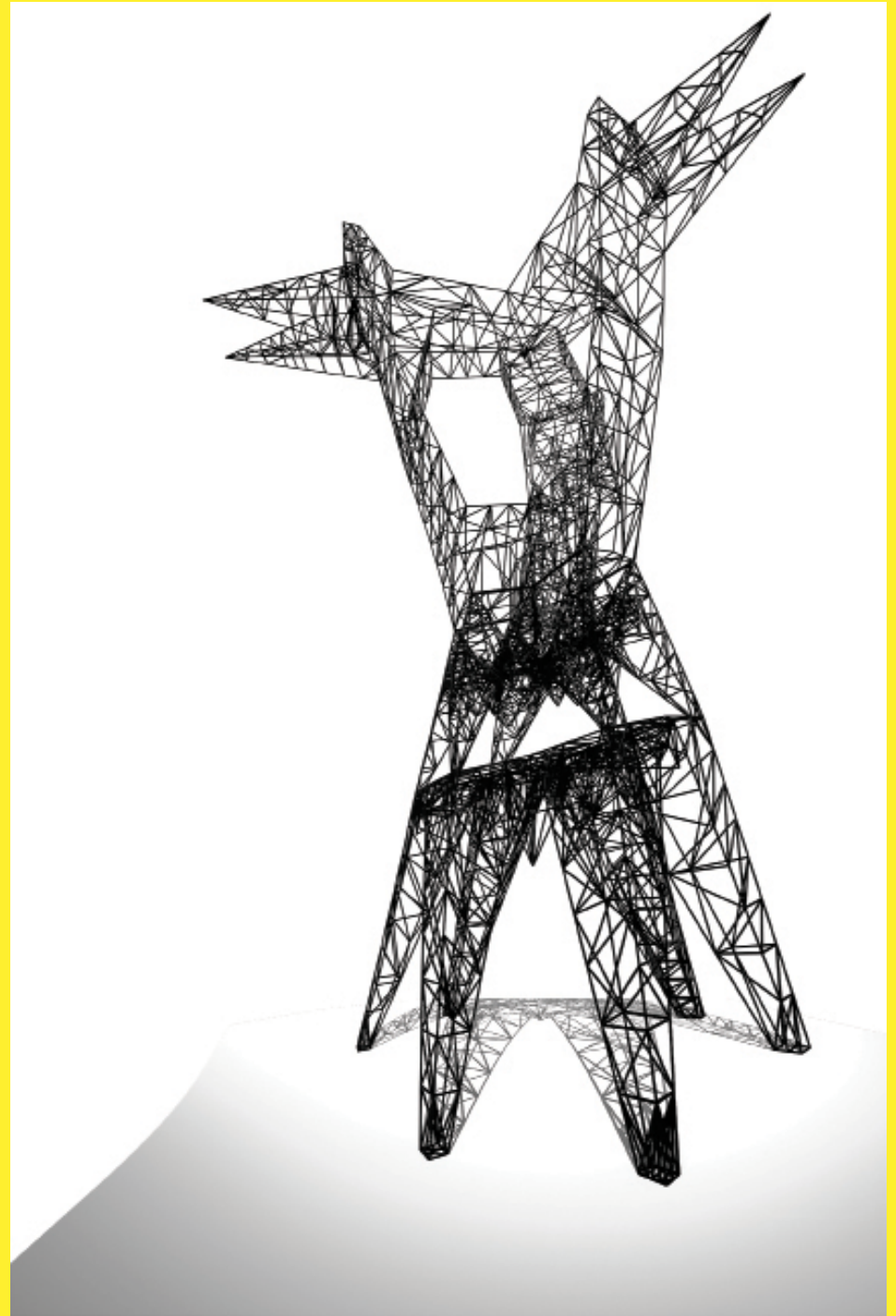
The theses documented within reflect the range of techniques, positions, and pedagogies our students are exposed to during their time here, and provide a testament to the dedication and hard work of our outstanding faculty. The thesis project offers students an opportunity to think about where they have 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. But perhaps, more importantly, the conclusion of the School's capstone thesis class offers a moment to pause, allowing each of us to ponder the ways in which every one of our graduating students has synthesized her or his unique design DNA while at Syracuse Architecture.

Michael Speaks
Dean and Professor

Temitope T. Olujobi
Unreal Urbanisms



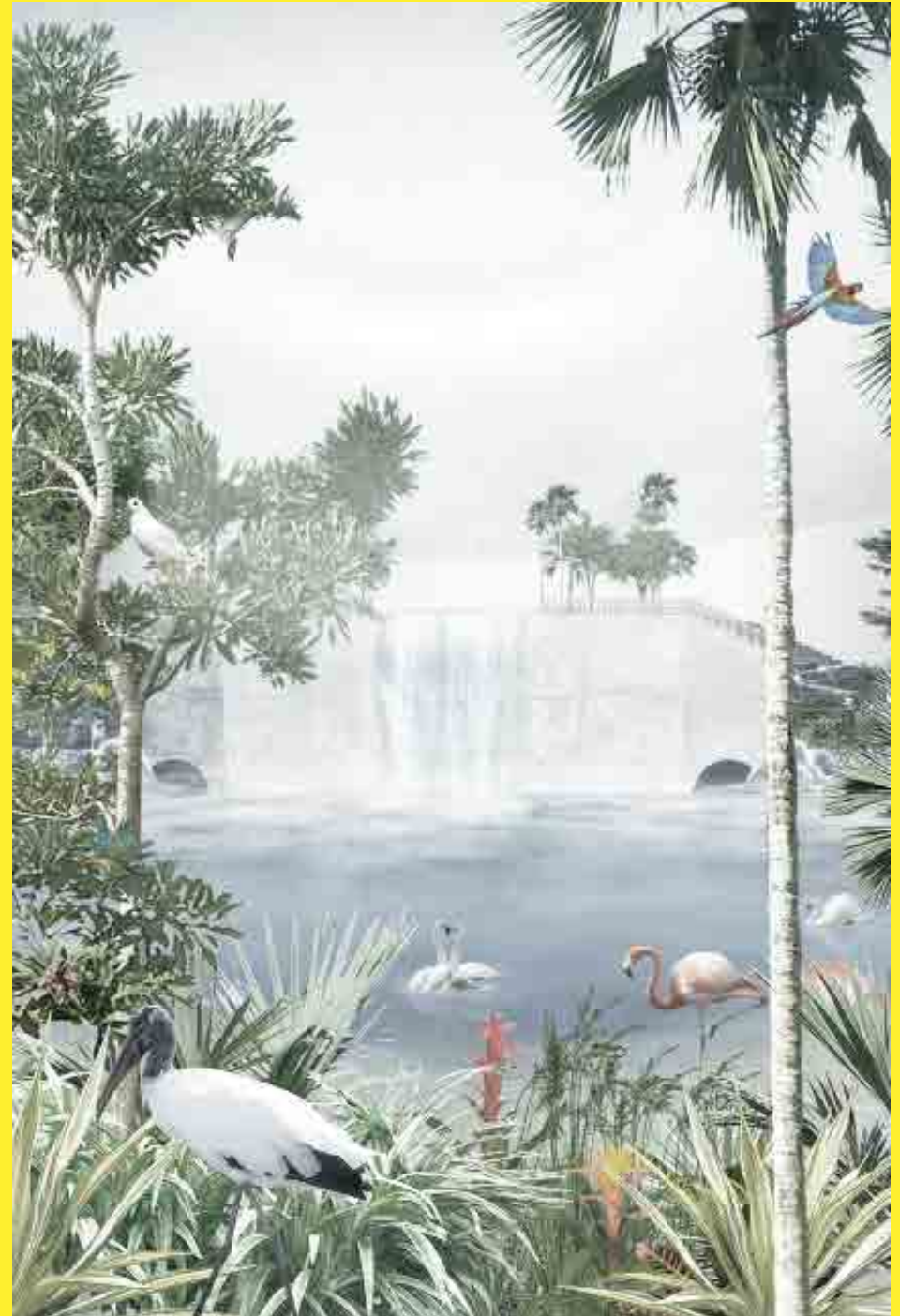
Maxwell Rosner
Innie/Outie



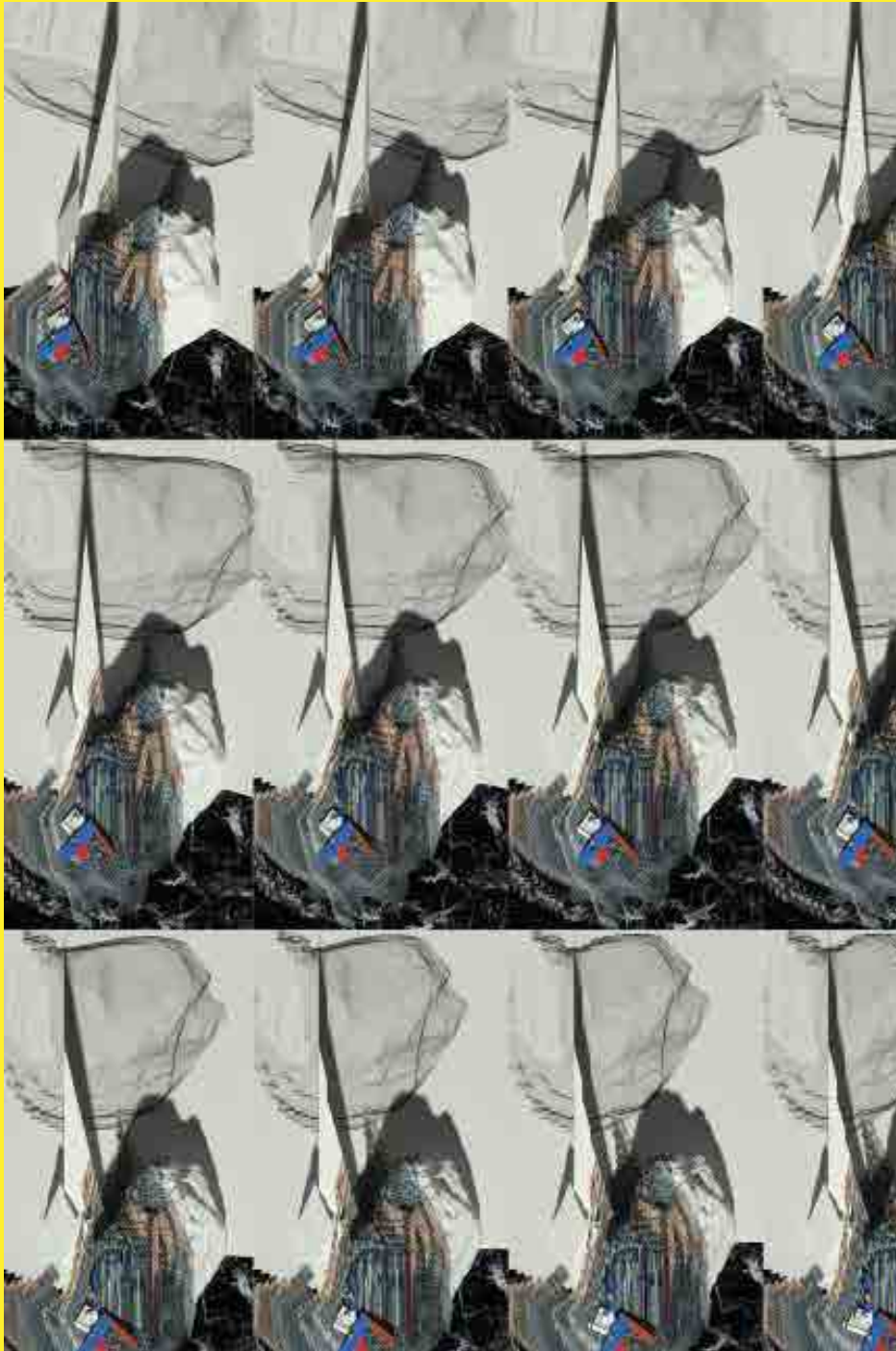
Fang Fan
Imaging The Near Future



Alyssa Goraieb
Other Wildernesses, Other Realities



Alexander Kim
Aftermarket Supermarket



Whys— Argument & Authorship

In architecture it starts early, the challenge of authorship. A new field of knowledge, previously unimagined ways of seeing, arcane techniques, and you are making stuff. Creative production is gratifying, and for most a new experience—at least in such large doses. Yet from the outset, even in the School's first year studio, design faculty are asking you, "why?" (Also "how?", but that's another story). Within set limits at first, which may make the questions somewhat less daunting, but always the nagging why. Never fully satisfied, even as significant achievements are recognized, your critics are always with the why—questioning your ideas and their relation to the sorts of forms produced.

As studio follows studio and production progresses, the questions also advance. Vexingly, the whys can vary widely between studios—and even from day-to-day within a given studio. From within, your efforts are questioned on programmatic, contextual, technical, and formal grounds. From without, your work may be criticized from political, cultural, social, or historical vantage points—not to mention the socioeconomic, and the technically formal, etc.

Initially, the wide variety of whys may be confusing, infuriating even, seemingly arbitrary. But the pedagogic objective is not to limit questioning and indoctrinate design students with a fixed set of whys, or

truths. This would be a far-simpler endeavor. Rather it is to consistently insist that where there is a form there is also a why. In other words, as faculty we are not after truth teaching, but the pursuit of relevance and quality in design. Architecture's significance develops, or at least one could argue that it should develop, across multiple levels. Ultimately, the why gets you to the argument and the argument to relevancy—and so why, why, why.

When effectively focused, arguments—aggregations of whys—configure broader problems in architectural terms and thus overlap or intersect architecture with larger cultural concerns and frameworks. Entangling ideas and forms problematizes architecture's societal contribution while simultaneously activating its agencies. Forging this combination can be surprisingly difficult—as any thesis prep student can testify. However, when rigorously engaged, the mutual consideration of argument and formation can substantially and satisfyingly advance both.

This is a hallmark of Syracuse Architecture's studio-centered education: the simultaneous joy and challenge of making arguments while making stuff.

Tim Stenson
Associate Professor
Chair of the Undergraduate Program

Ceremonies of the Image

You cannot imagine how much time these students waste and how many opportunities they seize to run hither and thither, checking up on the drawing, the plate, and the engraver, urging speed, making changes, making corrections, checking the proofs, and so on. There's no end to it! And while they are attending to these things, they think about nothing else but how to improve the outward show of their defense, and thus two or three months pass during which they completely neglect their studies.¹

Anyone involved in architectural education—particularly faculty who do not teach design—will be familiar with this rant. It highlights the extreme—and, for the author—disproportionate effort students deploy to hone designs and images in preparation to their last jury. Aren't the long hours devoted to the crafting of images, the author asks, detrimental to other topics future architects must master? Doesn't the obsession with visual mastery undermine their education?

Far from architecture faculty, the author of this quotation is an anonymous seventeenth-century professor at the Collegio Romano who is condemning the craze for *thesis prints*. Thesis prints are fascinating artifacts that emerged during the seventeenth and eighteenth centuries. As art historian

Louise Rice has discussed, young noblemen attending Jesuit colleges commissioned lavish printed broadsheets to accompany the public defense of their theses. Printmakers engraved students' theses—series of topics most commonly derived from classical authors—that degree candidates expounded in dazzling displays of rhetoric. Artists accompanied these texts with complex images that combined heraldry, emblematics, and learned references to classical literature and mythology. They devised their compositions to flatter the student's sponsor and to please an erudite public of high-ranking ecclesiastics and princes.

In keeping with the Baroque fascination for spectacles, thesis defenses were elaborate, multimedia events. In addition to the illustrated thesis prints that served as much as advertisements as *libretti* to these events, students commissioned music and verses from composers and playwrights. Musicians punctuated the students' speeches. Decorators decked the defense hall with flowers and rich fabrics and even strewed fragrant petals on the floor.

The parallel I have drawn between Baroque thesis prints and architectural thesis drawings is certainly fanciful. What can young Roman noblemen and Syracuse architecture students possibly have in common? One would indeed be hard pressed to find flower petals

in the rooms at Slocum Hall during final reviews. Yet, as did the Collegio Romano, Syracuse Architecture trains students to preside over veritable ceremonies of the image. Like their seventeenth-century peers, twenty-first century architecture students rely on the power of images and that of rhetoric to win a knowing audience. They seek the jury's praise; that coveted reward crowning years of study. In emulation of their Baroque forebears, today's thesis students stage festive events that mark an important rite of passage in their education. The "thesis prints" assembled in this publication document these decisive moments in a student's life.

Jean-François Bédard
Associate Professor
Chair of the Graduate Programs

¹ Cited by Louise Rice, "Jesuit Thesis Prints and the Festive Academic Defence at the Collegio Romano," in *The Jesuits: Cultures, Sciences, and the Arts, 1540–1773*, ed. John W. O'Malley et al. (Toronto: University of Toronto Press, 1999), 148–69; see note 5.

Theory, Thesis, Theme Song

For a number of years, before I had the splendid title and awesome responsibilities of Thesis Director, I was asked, like many faculty members, to give a talk to the students in the Thesis Prep class. The charge to each of us was to convey how our area of expertise is essential in the students' efforts to define, develop and explore their projects. My talk began with a bit of etymology, and concluded with a pithy aphorism: "Every thesis needs a theme song." It's obvious, when you simply look at the words "theory" and "thesis" and give it a little thought (object lesson #1), that

the two are related. And rudimentary research (object lesson #2) reveals complex, deep affiliations going back at least to ancient Greek.

Both words suggest the act of staking a claim, making a case, or demonstrating one's intelligence and position. But there are crucial distinctions. For the Greeks, and still lingering as a mistaken implication today, theory suggested idealized detachment and objectivity: dictionary definitions of theory still use words like contemplation, view, intellectual, or concept. Definitions of thesis, by comparison, suggest action, affirmation, putting, placing, proposing. "Theme," it turns out, is a word closely related to thesis in meaning and origin. So direct and didactic connections between the three words can be derived, or designed, based on information

in the Oxford English Dictionary (object lesson #3): "originally and properly, according to ancient writers" a thesis is "the setting down of the foot or lowering of the hand in beating time, and hence the stress, or ictus." So quite literally, for the Greeks a thesis was nothing less than taking the steps and taking a stance, rhythmically, repeatedly, that are needed to produce a work and achieve an effect. Curiously, according to the OED, "later Latin writers ... practically revers[ed] the original meaning" and thesis became the "unaccented or weak part of a foot in verse."

Thus thesis evokes two very different rhythmic reversals, from stressed to unstressed in the actual time of a performance and a fundamental semantic inversion over the extended time of history. Perhaps it is not too much to presume that a thesis cycles dialogically over time not only between accented and unaccented, detached and engaged, active and passive, Greek and Roman, strong and weak, but also between brilliant and dreary, thrilling and tedious, now and then, academia and profession, speculation and application.

Stated simply, my thesis theory is this: the production and performance of any thesis worthy of the name has its ups and downs, and moving ahead requires mastering and managing the lapses and stresses of its unpredictable rhythms.

And since the root of word thesis is in fact the same as the word theme, I arrive at the proposal that every thesis needs a theme song to set its pace, actually and conceptually. By way of demonstration, I ended my talk by playing the opening measures of some pretty decent songs: a top ten list of rhythmic themes for theses.

Mark Linder
Professor
Thesis Director

- 1 (What's So Funny About) Peace, Love and Understanding (33")
— Elvis Costello
- 2 This Book Is a Movie (70")
— Spoon
- 3 Good Times, Bad Times (12")
— Led Zeppelin
- 4 Symphony #9 in D Minor, Second Movement (±80")
— Ludwig von Beethoven
- 5 Canción de Todo Va Mal (75")
— Le Mans
- 6 Our Time Has Passed (20")
— Pernice Brothers
- 7 Fuses (60")
— Stereolab
- 8 Straight, No Chaser (18")
— Thelonious Monk
- 9 Cello Concerto #1 in E Flat, First Movement (±86")
— Shostakovich
- 10 If You Want Me to Stay (24")
— Sly and the Family Stone

The Allopoiesis of the Urban Artifact and the Palimpsest of Context

This thesis consists of a dialogue between the two strategies of growth, aiming to reconnect Rossi's "pathological urban artifact" to the city.

"Allopoiesis" is the process by which a system produces something other than the system itself. In this thesis, "allopoiesis" is considered to be the mapping of the urban artifact's underlying geometry as a catalyst for new urban developments.

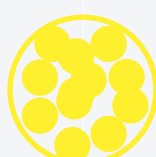
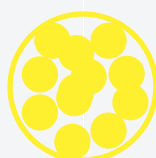
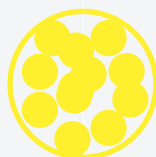
Rossi sees in the "propelling urban artifact" a formal structure that confirms the presence of the city and persists through time independent of program. Alternatively, "allopoiesis" offers a strategy for urban development as a projective (propelling) project derived from the "pathological urban artifact".

The "palimpsest" has been defined as "a manuscript or piece of writing material on which the original writing has been effaced to make room for later writing but of which traces remain". In this thesis, the "palimpsest" becomes a single map created by the superimposition of several historical periods.

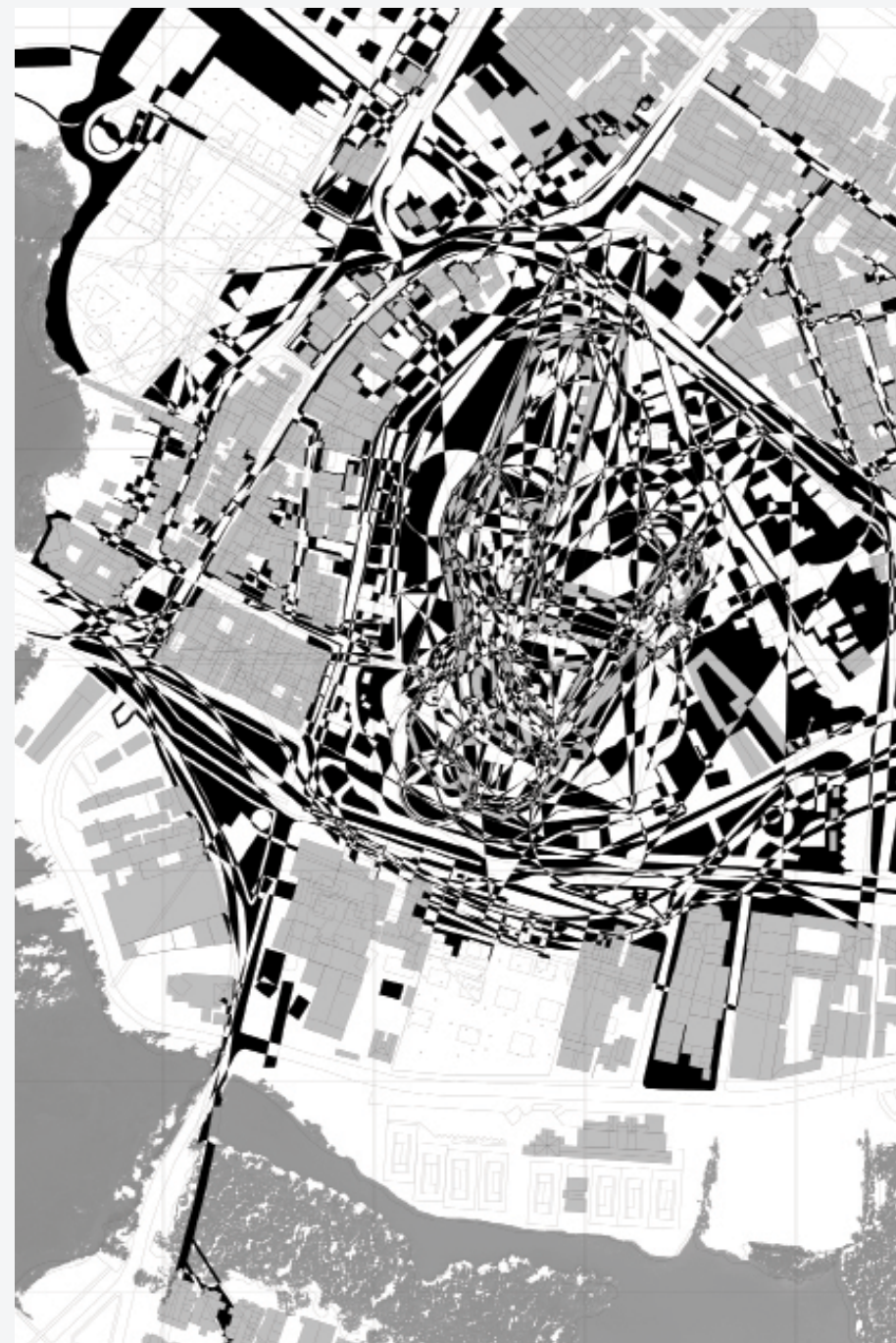
The development, use, and occupation of the artifact has been arrested, thus a pathological diagnosis emerges. The development of the context is inconclusive. The strategy for the growth of the artifact must be projective, and specific in relation to its "system." The strategy for the growth of the context is the continuation of its on-going logic of historical appearances, disappearances, and reappearances.

This thesis attempts to define a procedure that maps the artifact's system and claims that this system is based on morphological development. The overlaying of both artifact and context's morphological developments create a hermeneutic texture or a framework for a third city.

Constructed as a single drawing, *The Allopoiesis of the Urban Artifact and the Palimpsest of Context* creates a new projective map for the site. Subsequent interpretations of this new map as a series of figure-ground conditions establish a generative process for further urban interventions.



CRISTINA ABONDANO



Algorithmic Settlements Modeling Informal Settlement through Automated Generative Design

As technical innovation occurs, the focus of those developing these innovations becomes increasingly specific, allowing for increased productivity and rapid advancement. However, one challenge faced by architects in respect to this phenomenon is that in the design process, there are countless areas of expertise that may have an effect on a particular project. The role of the architect is partly to choose which information is relevant and which is not, and to do so across a broad spectrum of fields. There is no way for an individual to be an expert in all fields that are relevant. Considering this, Christopher Alexander claimed as long ago as 1964, that “*design problems are reaching insoluble levels of complexity*”. So, perhaps what designers need are specific tools at their disposal with which to approach design problems, tools that aid in the organization, legibility and accessibility of information.

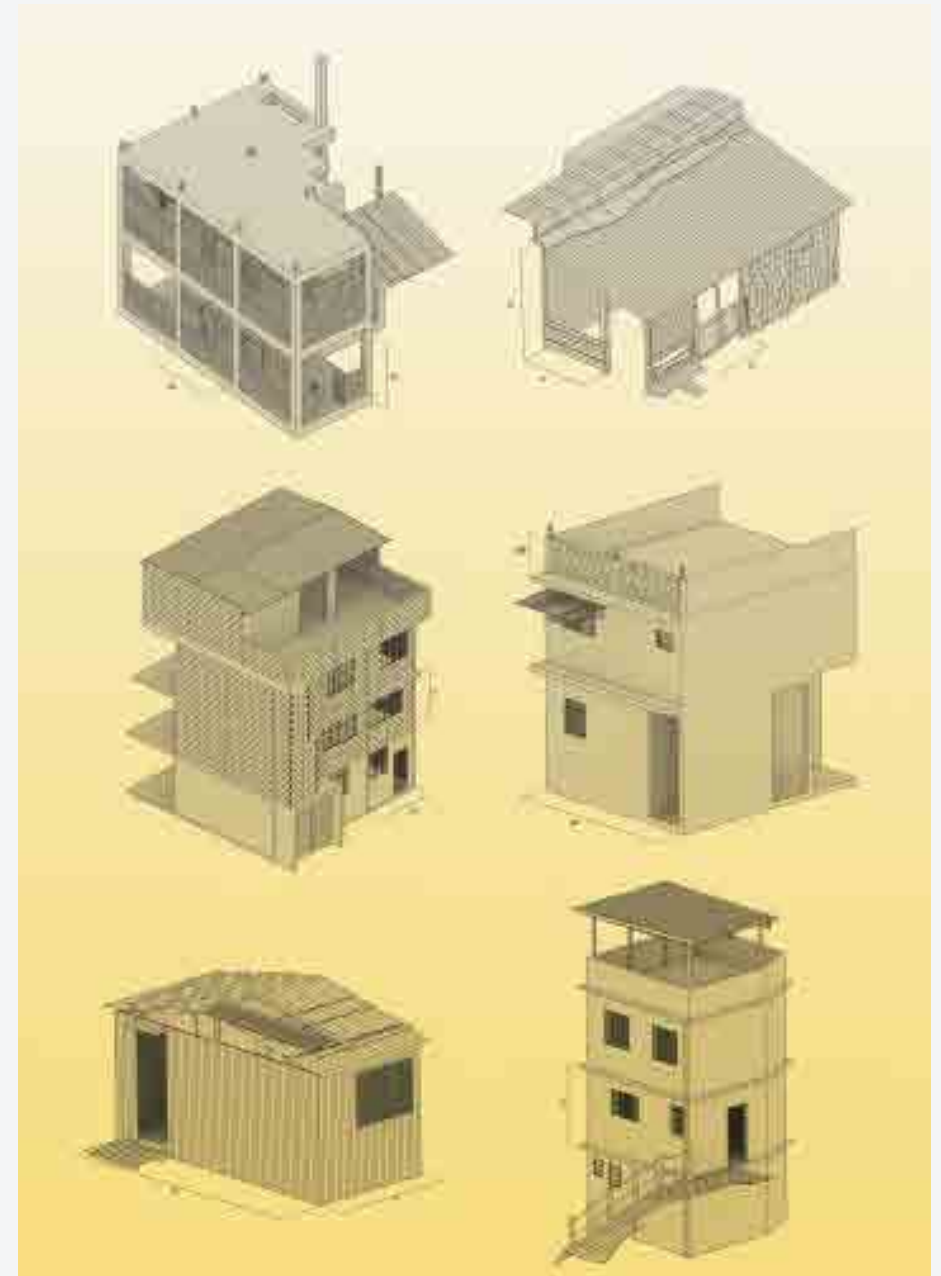
Research into various informal settlements has uncovered intriguing instances where government housing and other master-planned projects acted as platforms for occupant-driven growth. In one particular case, Cidade de Deus in Rio de Janeiro, a suburban plan for 10,000 people was densified into an urban area for 30,000. And at the same time, the

neighborhood transitioned from one of the most dangerous and ostracized neighborhoods into a growing lower-middle class community. The architectural formalism of the initial master plan hybridized with the informal additions led to the investigation of an architectural tool for designers that could analyze these conditions. Starting from an existing building plan, or a new master-planning scheme, this thesis explores how informal growth can occur and the effects it can have on spatial planning.

Examining results of a tool run over many iterations, modeling the aggregation of materials and volumes in an informal settlement as accurately as possible, architects will be able to better understand potential growth patterns in these settlements. Drawing from data and statistics on materials available and building typologies, an existing base model of a settlement can be used as a framework on which to begin modeling potential growth patterns. The program can generate permutations of massing or material usage in a two-dimensional way throughout a settlement from which an architect can extrapolate. The output of such a tool would be a set of visual data which helps to postulate what forms might be generated by occupants over time given specific user-defined conditions.



BENJAMIN ANDERSON-NELSON



Green Blot District Considering Low Density Neighborhoods

This thesis contends that by adjusting the texture of now declining early 20th century outer-urban neighborhoods to adopt low density blocks, the resultant architecture can produce an intricate spatial fabric that mediates between individual customization and the collective suburban image essential to the detached American dwelling. Overlapping functions, spaces, and surfaces offer a new cohesion necessary for developing physically and socially tight-knit communities in a thinning, object-made fabric.

This thesis rethinks suburban practices at the scale of the house, lot, and block, in order to speak directly to issues of building autonomy, the non-spatial surface and volume conventions, and residential-program-only zoning. Creating the scheme for a new garden suburb typology is achieved by codifying the nature of informal blotting, urban farming, and residential artist movements; designing at multiple scales through residential fabric and

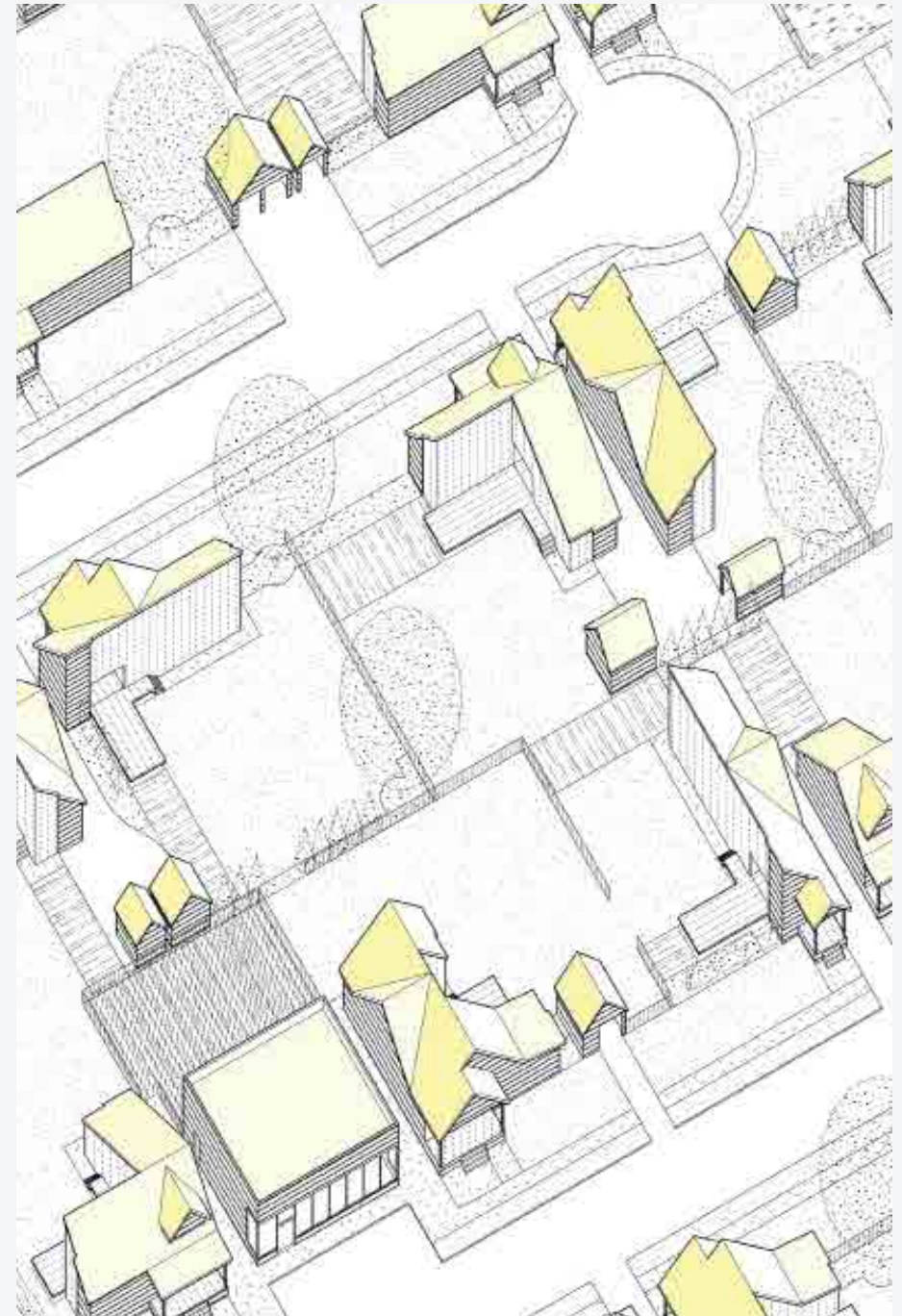
zoning guidelines; and re-imagining the detached bungalow house. A blot is a collection of vacant zoning lots, combined by the owner through adjacency either legally or illegally, to create one larger lot for residential use.

Grixdale, a vacancy-plagued neighborhood in Detroit, is assigned as a part of this thesis to become a "Green Residential Zone" in accordance with Detroit Future City's 50-Year Detroit Land Use Plan. Designing this urban neighborhood as a model for this new zoning region enables this thesis to speculate on architecture's ability to alleviate problems of physical and social blight, underutilized space, and lack of community engagement in a city projected to begin growing in population in the period after 2030.

This thesis strives to act as a concrete and detailed precedent for other declining post-industrial urban neighborhoods facing comparable residential issues.



TOM ARLEO



Adaptable Workspace

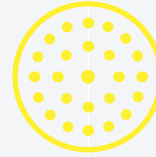
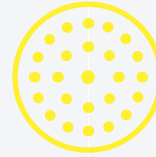
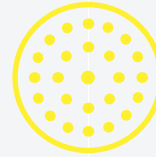
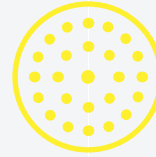
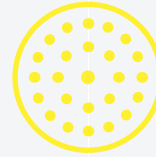
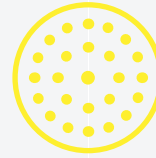
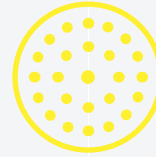
The Office is No Longer Stagnant

Existing architectural typologies related to the workplace have attempted to respond the needs of high-tech industry, but these responses have not helped, and instead have been a hindrance. This thesis contends that through the use of adaptive design, architecture can create contemporary workspaces for the high-tech industry that reflect Silicon Valley's entrepreneurial culture and the rapid pace of change in the information technology arena.

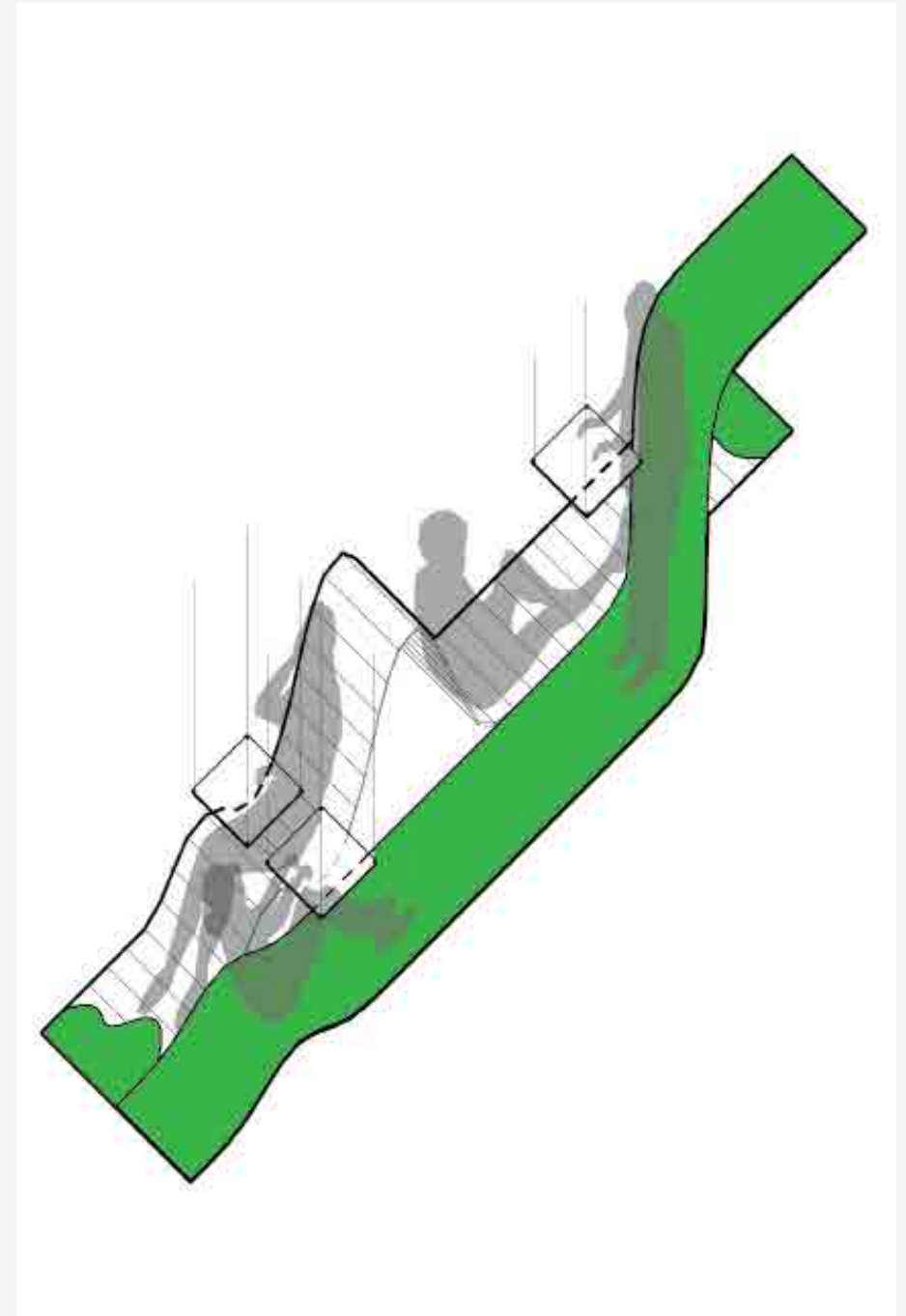
Adaptive design refers to the ability to provide adequate functionality for multiple programs and various densities of occupants. Looking at current office space configurations like the open office concept reveals that it is not the adaptive space that it is imagined to be. Instead, It is a

restrictive space. Elements must be introduced and once introduced, most often limit the interaction of space. Many budding tech startups spend a vast amount of money redeveloping their open office spaces only to outgrow the space shortly afterwards. Without adaptable design to accommodate this growth, many companies use their funding inefficiently and cannot sustain the cost of a startup. The foci in this thesis will be the adaptability of walls and workstations, in regards to their spatial relationship within the office.

This thesis proposes the use of adaptable walls and workstations to allow a company to grow in numbers while supplying the proper amount of open and closed space.



NATHANIEL BARATTA



Home, Strange Home Towards a Global Vernacular

Everywhere everything gets more and more like everything else as the world's preference structure is relentlessly homogenized.
— Theodore Levitt

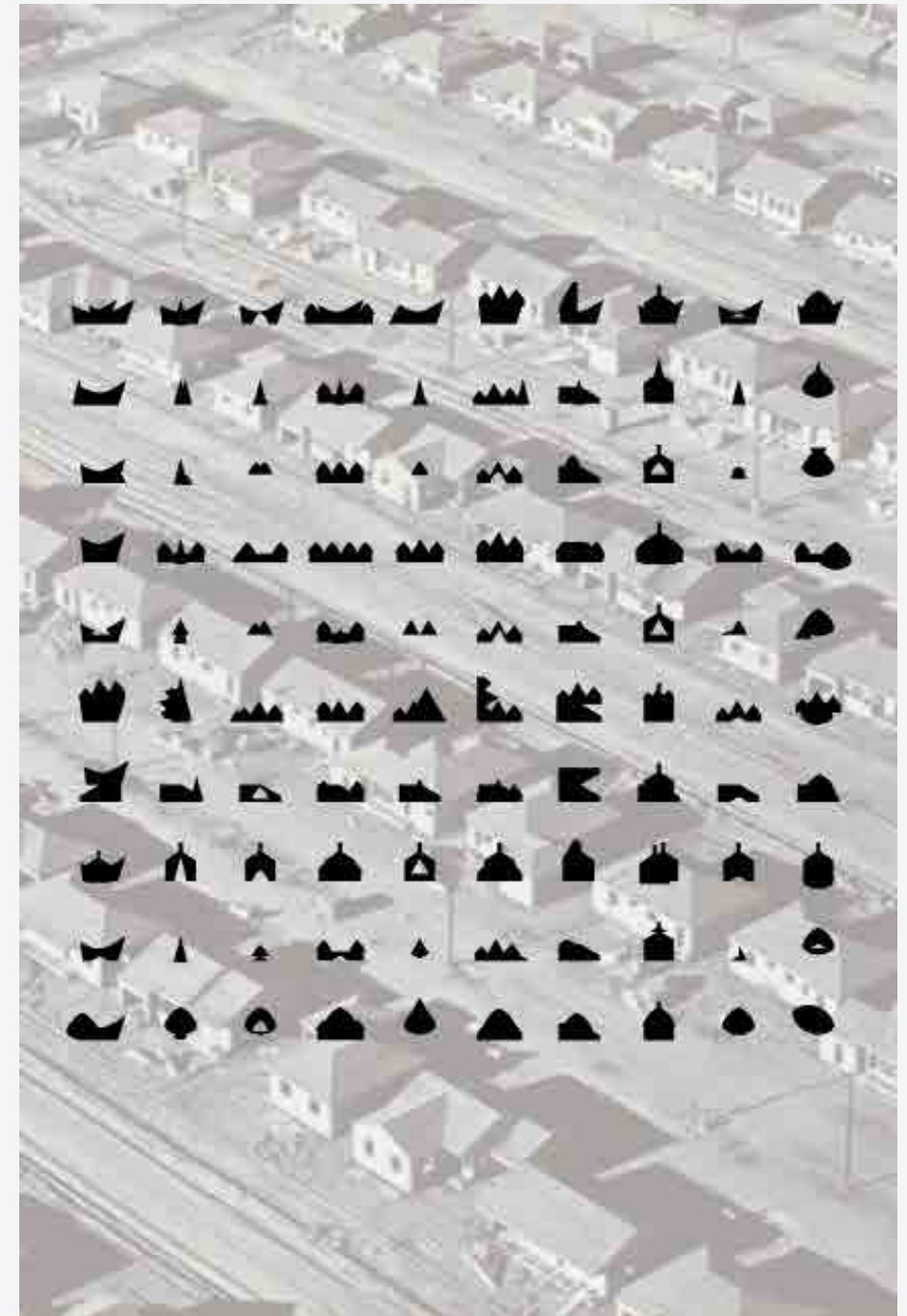
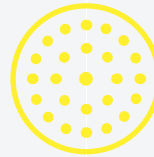
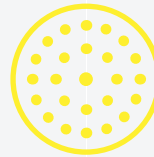
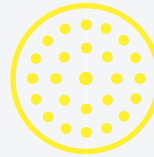
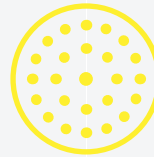
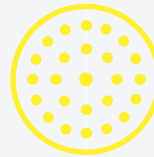
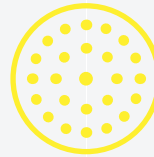
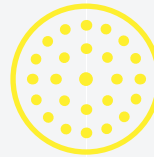
Globalized and homogenized architecture is now omnipresent. The so-called star architects put their seemingly iconic signature everywhere, favoring their own products and identities over cultural heritage. While this might be a desirable development for the corporate world, office buildings, airports, international hotel chains, and shopping malls, it is peculiar that this homogenization is also to be seen in our homes. Endless copies of houses in the suburbs of different parts of the world duplicate the same characteristics. Photographer Martin Adolphson documents this situation in his book *Suburbia Gone Wild*, and demonstrates sameness with the pictures of suburbs from Mexico to Egypt, Russia to USA, Thailand to India.

Rows of single-family detached houses with a yard and a garage now provide a place to live for the diverse

groups from all around the world. However, these changing identities of communities haven't shaped our designs yet. The historical development of globalization in architecture is closely related with certain strands of "modernism", most notably the "international style". Globalization and the internet have democratized knowledge, and craft. In the near future, it's likely that a huge proportion of the human population will be able to 3D print their own version of familiar objects. This mass customization will allow us all to reinvent the idea of the "international style" for the 21st century: a new global vernacular.

Traditional houses all around the world have been designed according to local needs, site conditions, available materials, local cultures, and traditions. These qualities might differ as their location in the world changes. *Home, Strange Home* suggests that by looking back at the distinctive figures of selected traditional, vernacular houses from five continents, it may be possible to arrive at a new vernacular via the mixing of each precedent's special characteristics.

GIZEM BAYHAN



A Stadium for the People

Rethinking Urban Stadium Typologies

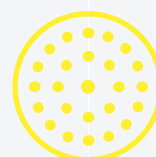
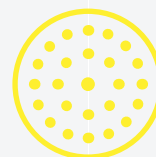
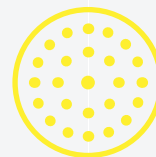
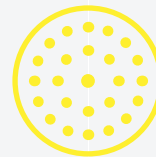
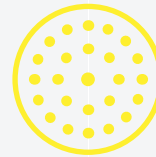
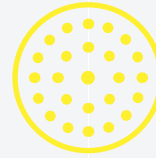
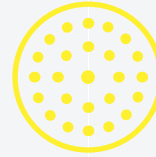
The unfortunate reality of sport stadiums is that many have not been designed to be fully utilized and inhabited outside of game-day or during the course of other special events. Indeed, it has become all too common to read about multi-million or billion dollar stadia that now lie empty.

There are many instances where a stadium does not live up to its "multi-use" expectations, leaving the given city with a mega-structural white elephant, its social life flowing around, rather than within or through the arena. Rethinking the design and programmatic usage of large scale sports stadia allows for a study of the impact of these stadia within the urban environment.

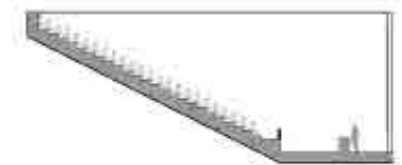
Given that public money pays for a majority of these urban stadia and that unfortunately the public are only able to inhabit and utilize the facilities on game-day, this thesis contends

that via the strategies and tactics of architecture it is possible to re-imagine these urban stadia as truly public pieces of infrastructure.

In the city of St. Louis, Missouri the Edward Jones Dome has no tenant after the NFL St. Louis Rams departed for Los Angeles. This thesis will focus on redesigning the existing Edward Jones Dome so that it might in future become a home for a new MLS franchise while also serving as a public park for the community's use on non-game days. Rather than having the stadium sit awkwardly within the city, left standing empty most days, this thesis intends to rethink how this space can be utilized on a daily basis, connecting fragments of space and linking different parts of the city together, for an opened-up stadium has the capacity to lure new publics to the neighborhood.



TREVOR C. BLENMAN



Prison Walls

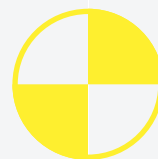
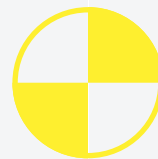
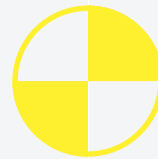
The Perception of Authoritarian Architecture

Today the United States accounts for five percent of the world's population but is responsible for twenty-five percent of the world's incarcerated individuals. Incarceration rates in the United States have been on an exponential rise over the last ten years, increasing by forty percent. This increase is a sure sign of a flawed system that currently sees one in every two ex-prisoners return to incarceration. These rising rates of incarceration are redefining the human population and the society in which we live.

Correcting this problem requires the redefinition of the architectural and programmatic foundation of the carceral archipelago, creating one that promotes rehabilitation before punishment and integration before isolation. The focus must be redirected to aiding the individual in their path to re-entering society. The manifestation of this change being that one must alter the perception society has toward the system and those who are its

occupants. To achieve change, the concepts of perception and security need to be analyzed and fused into various architectural debates.

This thesis proposes to fundamentally alter the way those in the system and those not in the system, interact with one another. The Syracuse University site allows for students, faculty, facilities staff, and the general public to interact with the first-time non-violent offenders that are serving three to five years in the rehabilitation facility. The re-imagined wall then becomes not a means of separation, but rather a means of connection and inherent interaction. The wall, a third user group, becomes the source of a previously nonexistent relationship. One where education fills the void left by the removal of stark segregation and promotes a new sense of mutual responsibility, to create a rehabilitation facility in which the reality of recidivism can begin to dissipate.

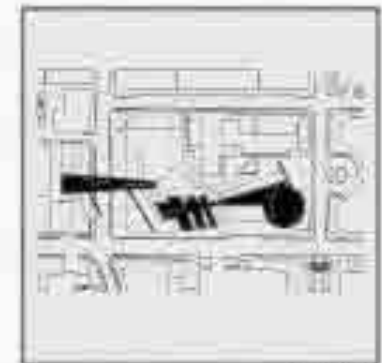


MATTHEW BORNER

ANNIE RAY



GEOMETRY



OBJECTS



ENCLOSURE



PROGRAM



EXTERIOR SPACE



ENTRY CIRCULATION

Redefining the Constraint

Designing Control to Support Rehabilitation

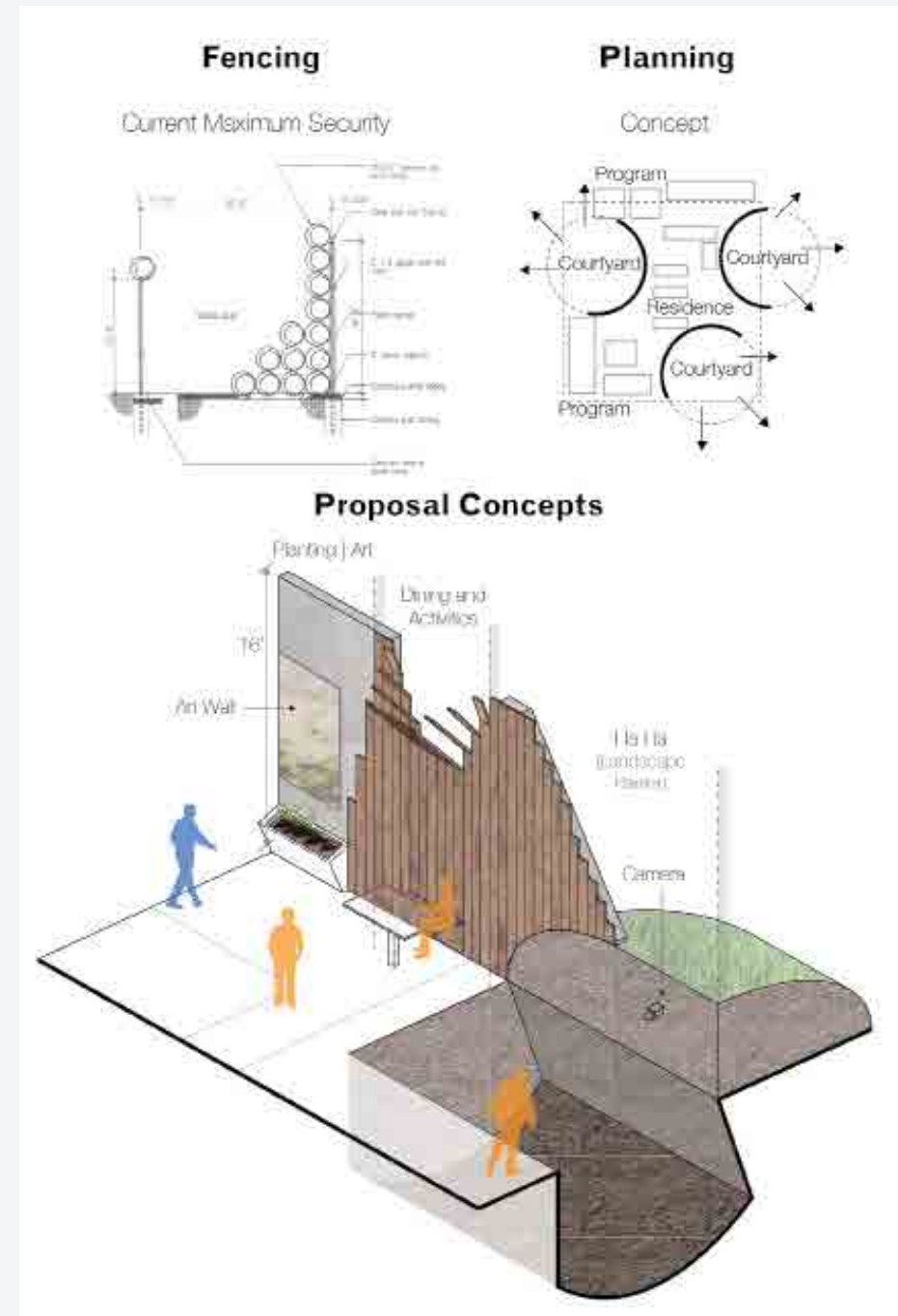
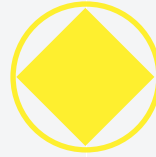
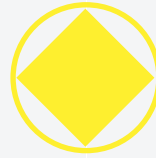
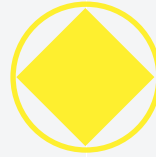
We need to come up with a solution that reduces the prison population while keeping our community safe [...] and I believe that by reducing spending on incarceration our community would not be less safe.
— Hillary Clinton

The concrete lined cells of a contemporary prison do not lend themselves well to processes of rehabilitation. This thesis contends that it is time for architects to rethink the architecture of the prison. When an inmate knows he is being watched, he tends to exhibit positive behavior out of fear of the consequences of any action

deemed to be negative. This thesis contends that by incorporating the apparatus of surveillance seamlessly into a prison's architecture it may be possible to provide spaces that feel more open and less oppressive.

One way to generate a feeling of openness is to create well-lit and airy spaces. Courtyards might be reconstructed to provide a feeling of freedom instead of confinement while still maintaining proper control and observation. The prison is thus transformed to become a forward thinking, innovative rehabilitation center capable of instilling positive change in the lives of inmates and jailers alike.

JESSICA BORRI



Monuments Are Lazy A Counter-Jefferson Memorial

Architectural monuments have been utilized as a method of remembering events, individuals, and religious figures for millennia. While monuments represent the gravity of the past, they are also made to educate, inform, and propagate political ideologies. However, there's a present crisis in the discourse of remembering. The monument has become displaced, almost removed from the expanded field, leaving us with lazy, disassociated, and deceptively a-tectonic architectural objects. This situation is epitomized in Washington, DC. With static figures of the past looming in the skyline, their stories are lost, enigmatic myths that fail to engage the individuals, collectives, and landscapes they inhabit. Their lessons are obscured by the pretense of permanence, impervious materials, and rigid geometries that prevent further investigation. They allow historical fictions to persist rather than promote critical reflection. This creates an awkward position for the design of future monuments: they can either revert back to worn-out techniques, or progress by embracing the passage of time, shifting meanings, and tectonic articulation as tools for memorialization.

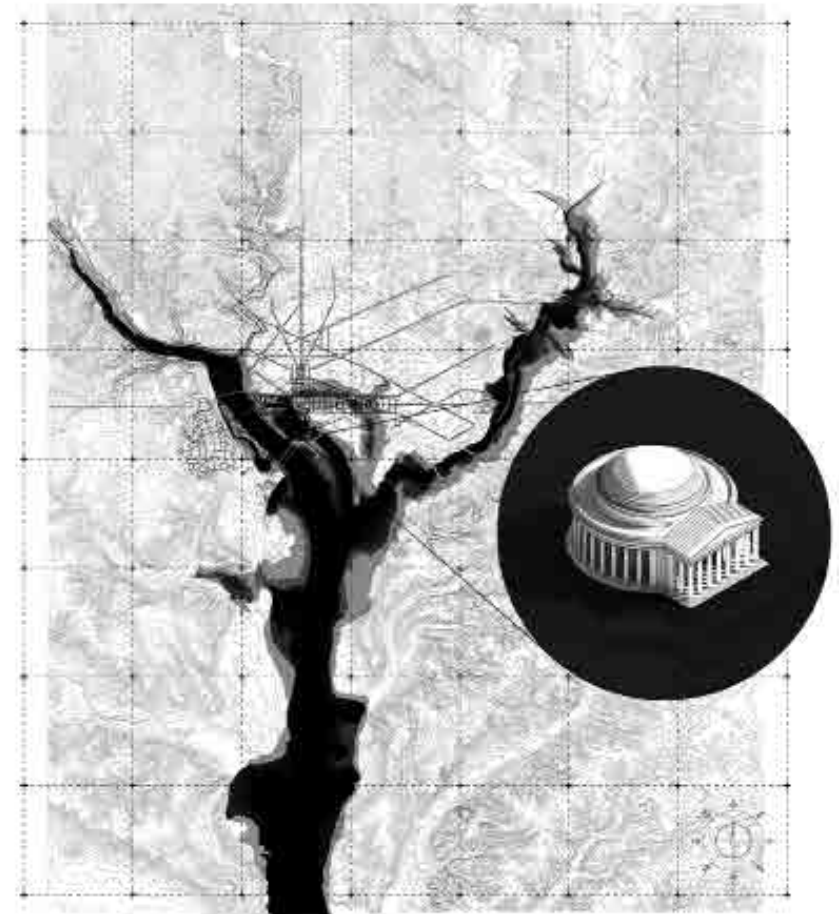
The United States has transformed many men into architectural symbols, but few in the manner that it has Thomas Jefferson. He has been idealized as a symbol of liberty and equality, revered for his agrarian expansionism, and forgiven for the "minor yet necessary" slight as a benevolent slave owner. But what is

often forgotten is that Jefferson's implementation of planning ideologies led to the extermination of natives, harsh plantation practices, and the creation of American sprawl. Jefferson's contradictory character is as unstable as the soil his memorial is built upon. Situated in a marshy area near Washington, DC's Tidal Basin, the Jefferson Memorial is slowly sinking into the earth due to rising sea levels caused by climate change. Currently, the neoclassical monument imposes propagandistic notions of Jeffersonian planning precepts, which have created issues related to America's relationship with the natural environment and sprawl. This thesis envisions a new "memorial park" that counters the assumptions of traditional monuments and the founding architectural principles this country was built upon.

This thesis investigates these issues by proposing a speculative landscape that creates spaces for revealing and reflecting upon Jefferson and the effects of his planning ideals. By subverting the imagined permanence of the existing memorial through conscious acts of neglect, the proposed park will eventually reclaim the site as a memorial of a different kind. Through a series of perspectives and tectonic studies interrogating the geomorphic and political ground, the area is reimagined as space of encounter. The contested meanings of the country's past and future can be debated, leaving the sobering effects of Jefferson's legacy to be contemplated more fully.

Advisor: Joseph Godlewski

GABRIEL BOYAJIAN



It's Not Easy, Being Whole

Reevaluating the Relationship of Part to Whole in Pursuit of a New High-Rise Vernacular

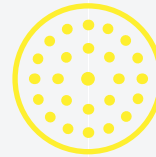
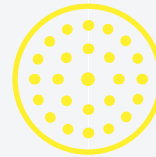
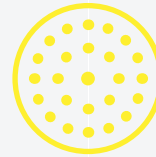
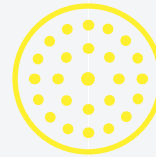
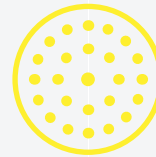
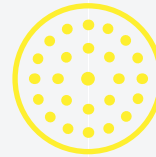
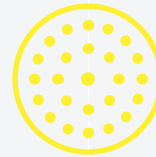
Architecture has the power to structure societal relationships. Specifically, architecture's form can bring the balanced relationship between community and individual identity, as exhibited in vernacular single-family homes, to the housing tower. This thesis plans to achieve such a social orchestration through a nuanced understanding of formal part-to-whole relationships, or "differentiated" parts within the whole, exhibited in a 300' housing tower in Seattle, WA.

Single-family homes in the Seattle region tend to balance both the individual and the collective, endowing each with a distinct identity. A palette of horizontal wood siding (or a vinyl equivalent), pitched roofs, porches negotiating the public street to the private interior, and a catalogue of typological ornaments, give the region a collective identity – a vernacular style. Inversely, each specimen within this larger region is its own unique manifestation of that catalogue, granting each residence an individual identity. However, this balanced relationship begins to struggle and eventually dissolves as density increases, and house turns to tower. Each successive unit in The Skyline Tower is articulated as a component

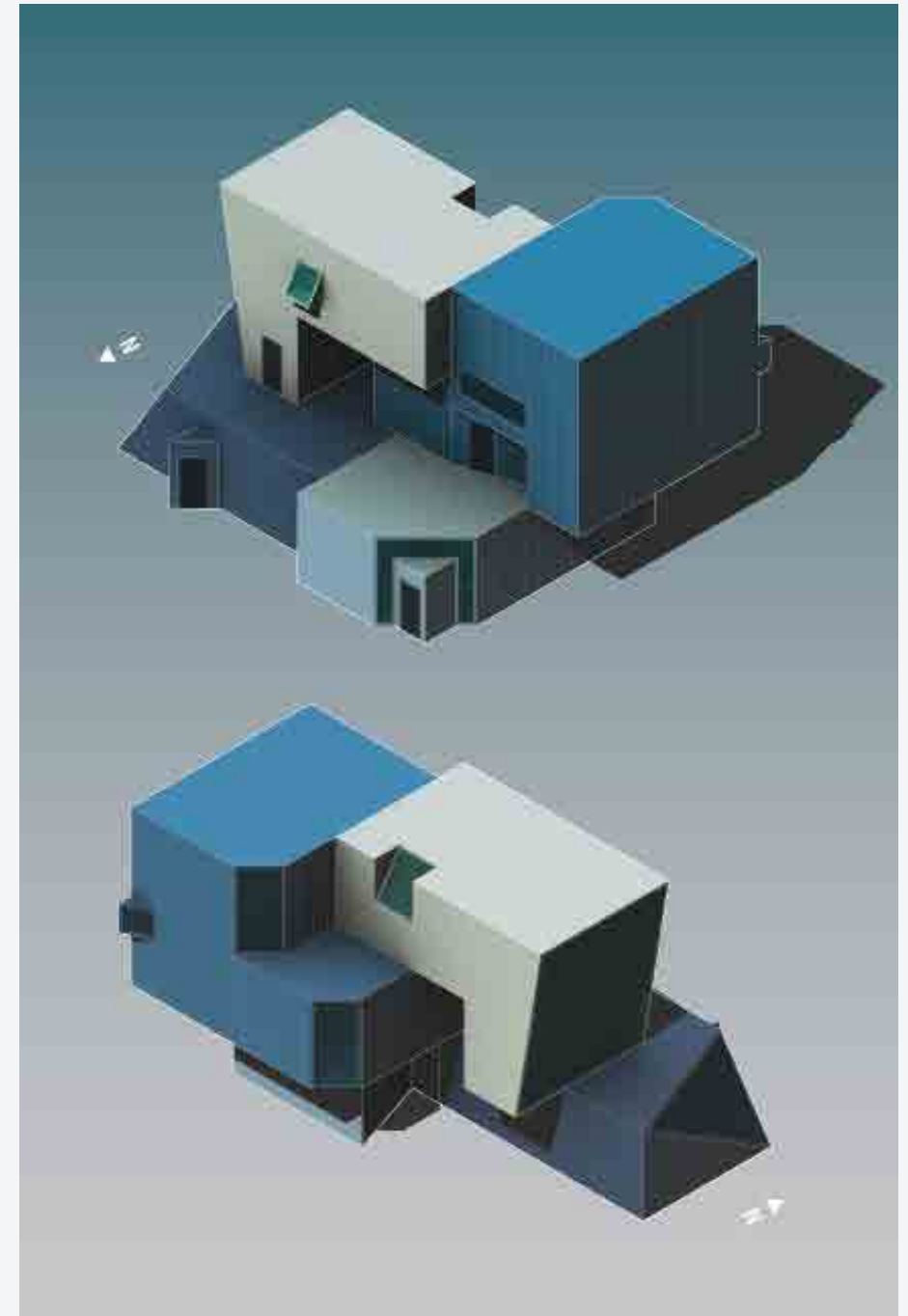
piece of the whole. Floors may be registered, and drape colors may vary, yet in the grand scheme of things, the parts are diminished, while the whole is articulated.

It is important to distinguish the subject-matter of this thesis from the failed history of previous part-to-whole buildings via this project's desire for differentiation. By stripping *Habitat '67*, or any of Sou Fujimoto's recent projects, of their pedagogical baggage, one can see that the latent formal intention was not to distinguish the parts, but to uniformly replicate them to communicate the underlying order. Meanwhile, architectural piles, such as the recent slew of vertical village projects, or Andrew Kovacs' *Goods Used*, also fail but suffer an inverse fate, since there is no discernable relationship between parts, and the perception of a whole is thus denied.

By carefully balancing the relation, material, scale, and form of each part, this project will achieve this difficult whole (of differentiated parts). Mining this middle ground will produce a housing tower in Seattle, which actively balances the identities of both its larger community and its distinct individuals, confirming the social potential of architecture's form-making strategies.



JOSH BRANSKY



Small Sections An Infrastructure Exchange

The city adapts to, and is disrupted by, changing modes of urban circulation. As each iteration of infrastructure is introduced, it brings with it a singular instrumental logic and subsequent impact on the form of the city. These large-scale, extra-territorial interventions disrupt a cohesive urban landscape; *Small Sections* is a study that considers the multiple overlapping scales of speed, space, and experience present in circulatory knots of the contemporary city.

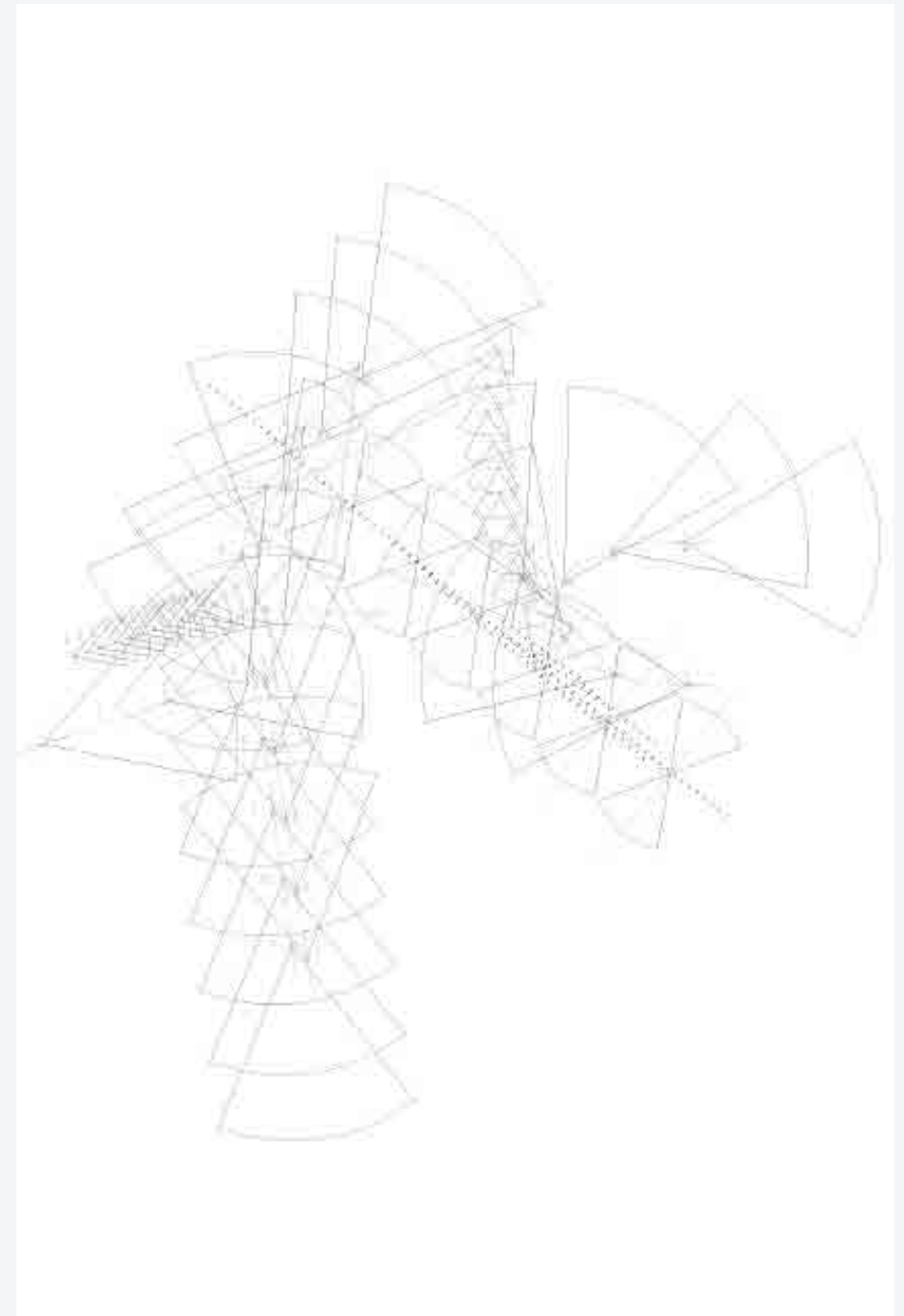
The grid designed for the circulation of pedestrians and horse-drawn buggies can be understood as a field of small veins and capillaries. As new arterial routes in the form of canals and railroads were grafted into the city's tissue, urban surgeons truncated connections in the host along the path of insertion, while suturing the new and old only at critical points of the transaction. These stitches allowed for the body to thrive as a whole, but caused large swaths of neighborhoods to decay from lack of access. Seeing this malady, modern planners sought to create a new apparatus that would bring greater exchange through the city. Their elevated highways would streamline movement within the urban body

enough to support rapid growth, but would fail to bridge between areas that had been cut so long ago—if not make them worse.

Containing all manner of lifeless, mutated and severed infrastructural systems, the City of Syracuse is the perfect specimen to study the effects of transportation's fluctuating influence: its grid developed alongside evolving technology and adapted in response to each change in technique and attitude. As one infrastructural system was privileged over the last, knots formed and blocked previously productive links in the city's fabric.

Nearly sixty years after the automotive revolution, new technological innovations are poised to rewrite the city fabric once again. Unlike the modernists and mega-structuralists, *Small Sections* embraces the hippocratic oath: the thesis proposes to undertake a study of these complex knots through "sectioning" to facilitate intervention while doing no harm. Sensitive, regular sections taken along and between existing transportation systems illuminate the potential for architecture to create a thickened infrastructure at historic knots, reintroducing multi-scalar human occupation through a non-invasive surgery.

CHAD BROCK



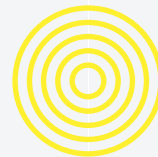
The Internet of Things User Interface Navigating Physical and Virtual Information Spaces

It is projected that the boundary between our physical and virtual environments will be further blurred through the emergence of the “internet of things” (IoT). The IoT is a network of physical objects embedded with electronics, software, sensors, and network connectivity that enables its objects to collect and exchange information on the internet. The most prevalent example of IoT today is your mobile phone. The mobile phone is an electronic device with software that tracks your location via GPS and your preferences based on your interactions on the internet. The collecting and exchanging of information in today’s centralized internet infrastructure is controlled by a few powerful political and corporate institutions, who have influence and ownership over the physical infrastructure of the internet (its fiber optic cables, submarine cable stations, data centers, etc.) and over how one navigates it.

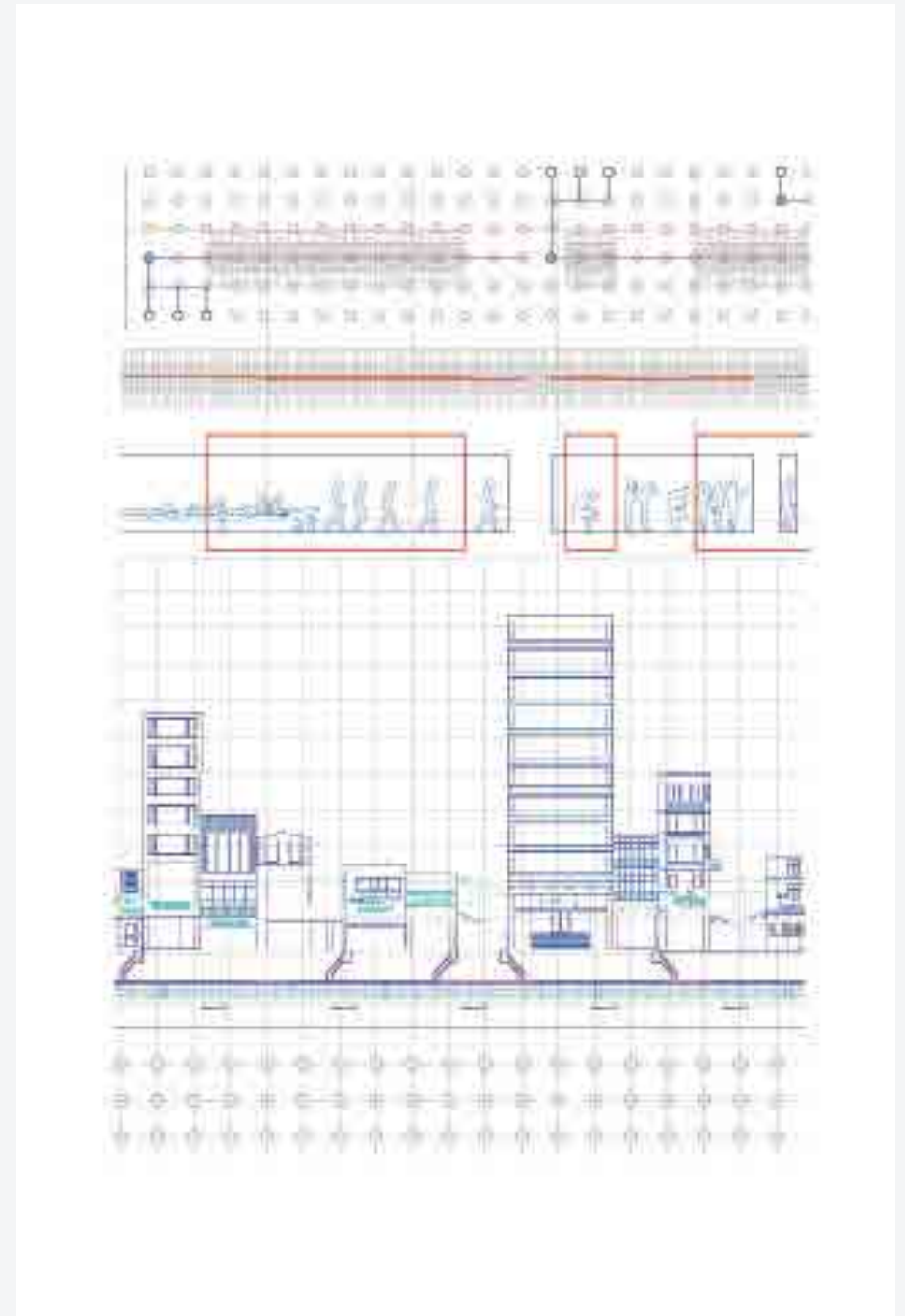
This thesis builds upon the “hacktivist” mentality of information accessibility. “Hacktivism” is fundamentally rooted in the belief that information should be free and accessible to everyone. Thus, this thesis looks closely at the politically contested and censored environment

of Vietnam through the introduction of a hacker space, a hub for technological innovation in Hanoi, as a seed intended to transform the physical and virtual landscape of Vietnam.

Through drawing, this thesis explores the global, national, and local scale of the physical infrastructure that permits the internet to function. *The Internet of Things User Interface* uses concepts from theorist Martyn Dade-Robertson’s work, as a way to describe our interactions with the internet and its emergence into the physical environment. This allows us to explore the micro scale of an individual’s interaction with smart objects, especially the visualization and navigation of the “screen space” of those smart objects. “Screen space” is described as a space composed of pixels with a visual language that is used to display information. This thesis is also inspired by Bill Hillier and Julienne Hanson’s ideas about space syntax in their work, *The Social Logic of Space*. In space syntax, spatial structure and control are revealed through a diagram of circles linked by lines to other circles as a way to represent cells or rooms with entrances or exits.



NHAN BUI



The State of Stadia A Critical Analysis of the Modern Stadium

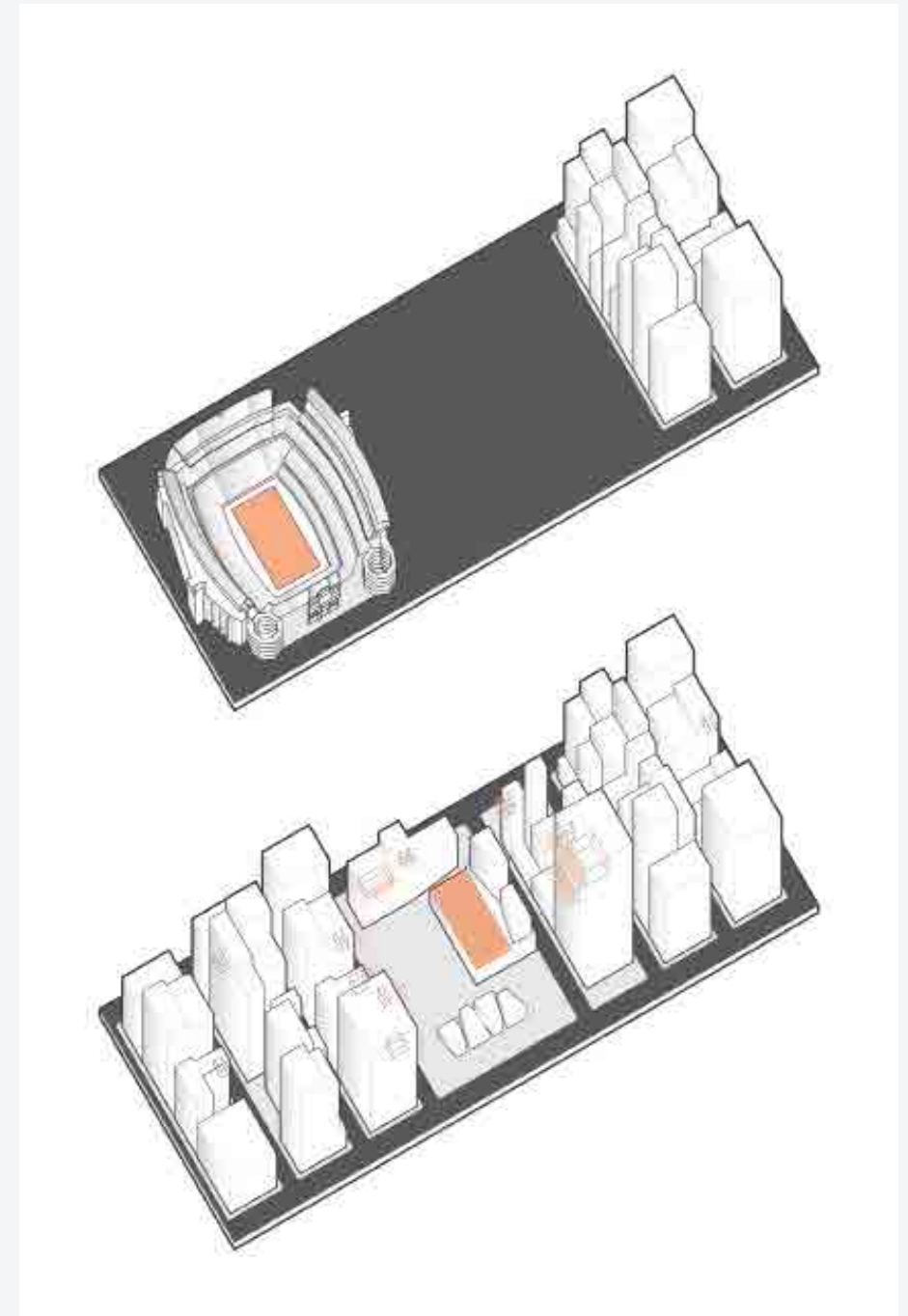
The modern sports stadium is at a crossroads; the typology as we know it is failing. Far too often over scaled and unadaptable, over budget and underutilized, the sports stadium has become recognized the world over as an encumbrance upon many of the towns, cities, countries, and societies that have built them, and lived to regret it. Seen in many cases as “white elephants”, the modern stadium experienced a boom, from 1995–2003 during which time, the typology evolved from a simple concrete bowl into a billion dollar physical manifestation of corporate power.

In a time where the game day experience is rapidly shifting from spectating to experiencing, the stadium will be forced to respond. The typology’s departure from, and necessary return to its urban context is paramount. Future growth of immersive and interactive entertainment will result in a more radical change over time. NFL attendance is down while viewership across the globe continues to rise. While stadia continue to be built at unprecedented scales and filled with

unparalleled amenities, I believe that we need to begin building smarter rather than bigger. No longer can we keep adding bigger video screens and more seats, but instead the typology itself must adapt.

Something needs to change. This thesis aims to dramatically rethink, reimagine, and reconsider the stadium typology as we currently understand it and critically imagine what the future of strategic stadia design might become. The typology must accept its role as a key piece of not just urban architecture, but urban infrastructure. Stadia will need to relinquish their identity as isolated monolithic monuments. No longer will there be a need for such excess; instead stadia will become vital threads woven into the fabric of the societies which build them. Future stadia will need to be flexible yet practical, adaptable yet functional, and most importantly, beneficial to their context year round. Applicable program will need to be introduced, building footprints reduced, and communal impact increased to ensure a useful and longevous lifespan.

MATTHEW BUNIS



Hybridized Residential Models and Identity The Search for a New University Housing Typology

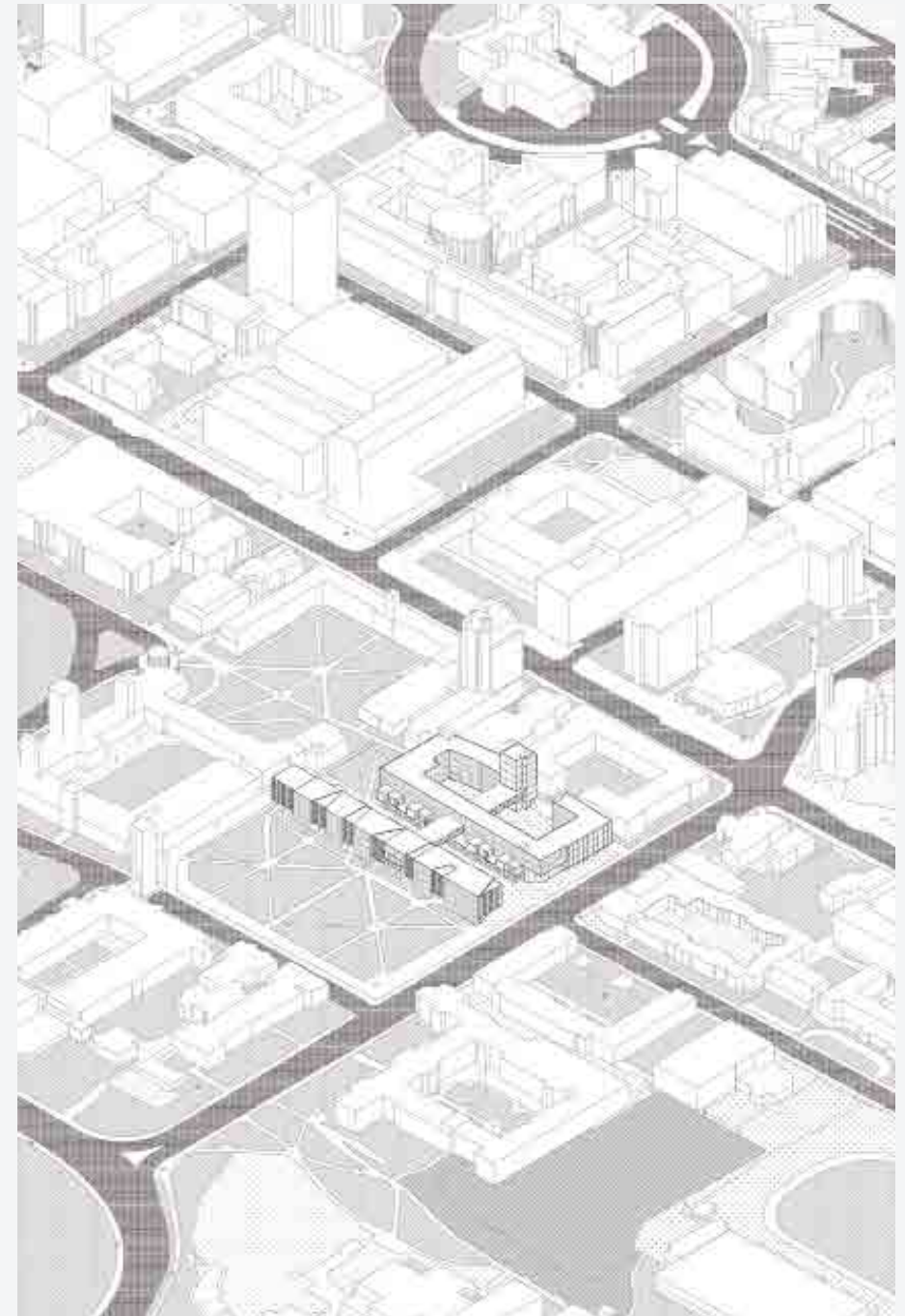
The discovery of one's identity in a university setting reflects the "finding" of oneself within a physical context that promotes interaction with individuals and groups of people. The goal of this thesis is to design a project with a residential program, that could provide multiple experiences, places of activity and learning, and a greater redefinition of place than the typical "residential college" or "academical village" housing models currently in place throughout North American universities allow.

This thesis proposes the design of a residential and academic complex for the University of Toronto, which collages and merges elements from the closed and courtyard-based Oxbridge residential college model with the open Jeffersonian "academical village" plan. The final design consists of an academic building, faculty offices, a student residence with three different unit types, faculty and graduate housing, a connective bridge, a courtyard, lawn, and gardens. As a result, the design of this new typology promotes varied spaces and mixed programs in order to reflect the diversity of the campus and city, and develops a planning style that successfully combines both the patterns of the surrounding urban context as well as those patterns found on campus.

Closed: In this thesis, referred to as a system of campus planning, most famously exemplified by the residential colleges in place at Oxford and Cambridge. The closed campus arranges academic and living program around a central courtyard, or multiple courtyards. It is not uncommon for the earlier versions of this system to include a church or chapel, library, dining hall, student housing units, and faculty housing units all into a single complex. Currently, this model heavily influences the University of Toronto's campus.

Open: In this thesis, referred to as a system of campus planning which treats the university campus as a village. The open system is exemplified by Thomas Jefferson's Academical Village at the University of Virginia. Thomas Jefferson's model at UVA lines two continuous rows of program along either side of the central lawn, a place for socializing, recreation, and learning. The program was originally intended to house ten pavilions, each specializing in a different discipline and providing space for instruction and living quarters for professors, connected by strips of student living units.

KAMILA BURACZYNSKI



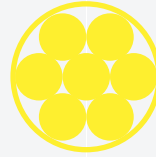
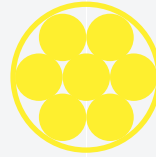
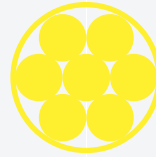
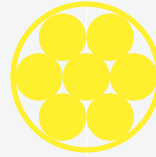
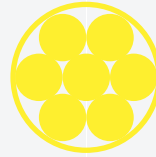
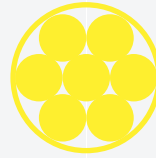
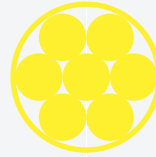
The Image Machine

Here I am in the presence of images, in the vaguest sense of the word, images perceived when my senses are open to them, unperceived when they are closed.
— Henri Bergson

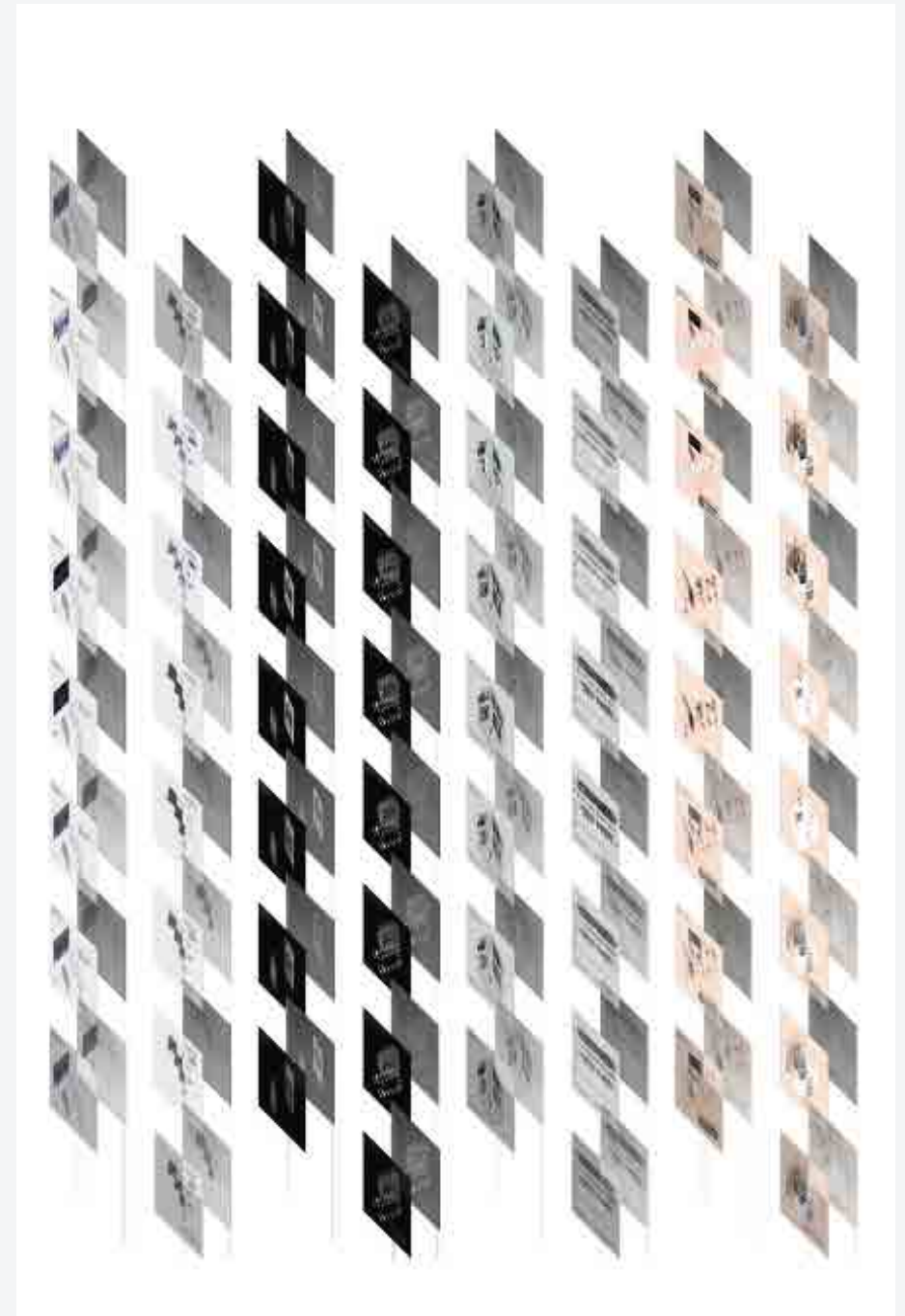
Architecture has always been an image machine. From the Lascaux cave paintings to the Sainte-Chapelle in Paris to the multimedia installations of the Eameses to the early projects of Diller Scofidio, images and architecture have cohabited persistently and productively for centuries. However, since the dawn of the digital age, the ontological status of images has changed; and in turn so has the relationship between images and architecture. Rather than being anchored to a specific material support, images exist as manipulable data. While some have viewed the digital turn as the transcendence of information beyond the human subject, an era of “post-humanism,” others, such as Mark Hansen, himself building on Bergson, have claimed that “the

‘image’ has itself become a process... irreducibly bound with the activity of the body”. *The Image Machine* creates a haptic image environment—an architecture for an active form of image reception that engages the whole body. **New media** may look like media, but it is only the surface.

The Image Machine is a digital archive and display of MoMA’s 200,000 works of art that are, for the most part, locked away, as well as any visual document related to the MoMA including film stills, live performances, surveillance footage, and amateur photographs. These 7.4 billion images—one for every person on the planet—question the current boundaries associated with the word “image” and the ways institutions exploit image power. In 1997, Rem Koolhaas called the MoMA “the aura machine”. In contrast, this project is a machine of the “after-aura,” an environment that stages a haptic image experience of the body through the more distributive and manipulable capacity of new media.



JEREMY MIN BURNS



The Cardboard Shelter Prototypes for the Seismic Regions of Peru

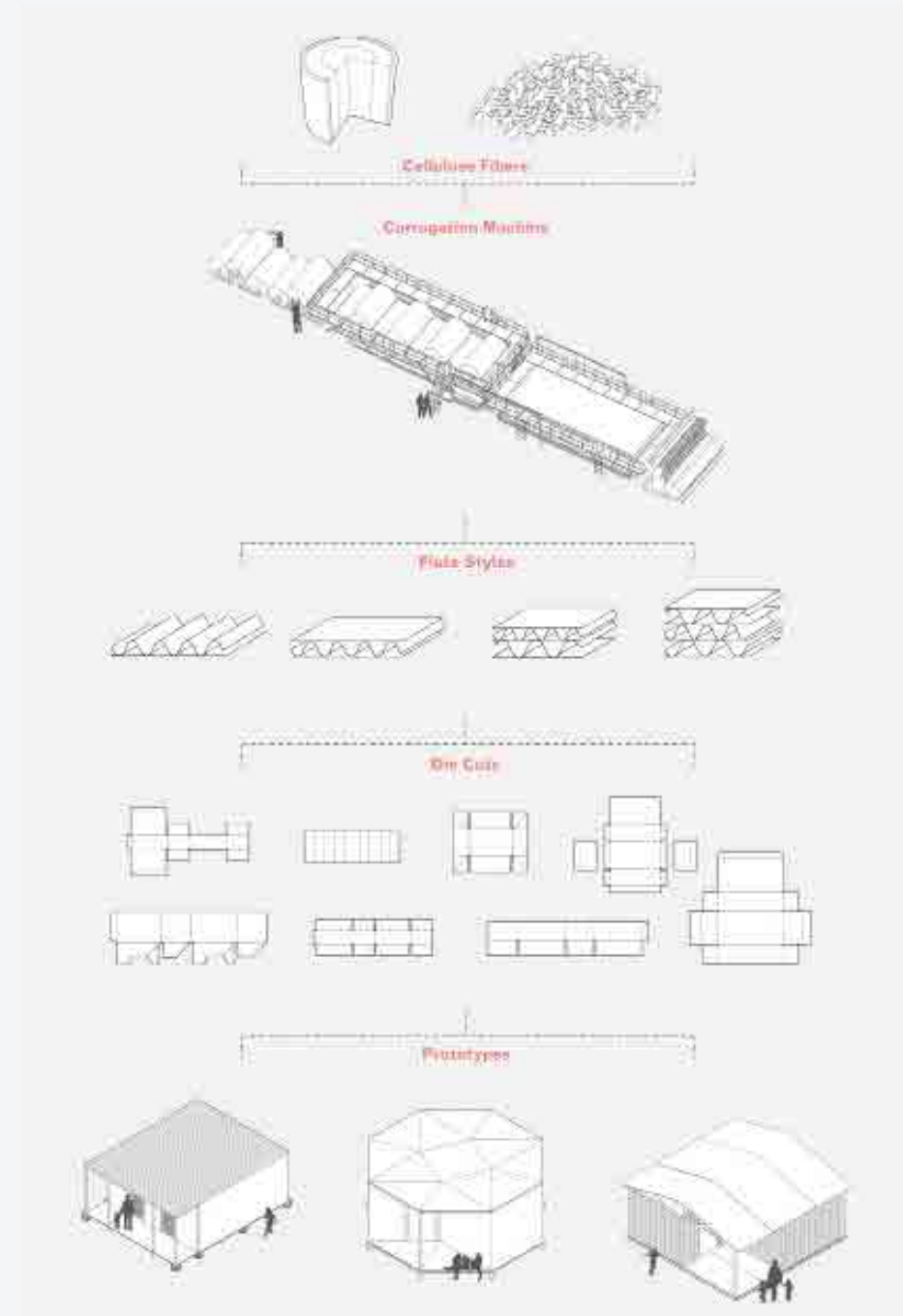
Cardboard boxes are used in almost everything we buy. Whether it be a cereal box taken out for breakfast each morning or an online order arriving in the mail, a cardboard box is an excellent example of the strength and resilience that cardboard can achieve. However, when viewed as a building material, it is too often associated with homelessness or labeled as a waste material with a limited life expectancy.

This thesis aims to test the viability of cardboard as a building material for temporary natural disaster relief shelters in the seismic, dry coastal regions of Peru. The specific setting for the study is Lima, the country's

capital, which has a long history of seismic activity and a recently growing economy in the packaging and waste management sectors. Cardboard is used in the shipping and packaging industries as a low cost recyclable material, so implementing cardboard to the design needs of a temporary shelter would utilize much of the infrastructure already in place.

Through designing shelter prototypes that test the material applications of cardboard in the context of Peru's climate, economy, and culture, this thesis asks the question: is it feasible to build a temporary relief shelter out of cardboard?

ANIKKEN BUSACK



Collaborating with Catastrophe A User's Guide to Post-Apocalyptic Farming

Dear Reader,

Thank you for choosing this book as your guide to navigating the complex world of systematized crop production in the aftermath of our civilization's destruction. We here at Armageddon Publishing, Inc. are excited to be a part of your recovery process and hope that you enjoy seeing how you can thrive on this barren wasteland of a planet.

When the "Events" began in 2018, no one would have guessed that the initial natural disasters were only the precursor of the environmental backlash which was to come as a result of humanity's abusive treatment of the earth, or that the scarcity of clean water would result in massive outbreaks of disease, which, when combined, would decimate the world's population. In the aftermath, we are finally beginning to rebuild, but the technologies and methods necessary to survive in this new world are intricate and manifold. Many might find the farms of today intimidating, but becoming a farmhand is a noble vocation, and so this guide aims to clarify today's agricultural processes and usher in some innovative new remediation techniques.

Collaborating with Catastrophe embraces the narrative as a generative force in the architectural design

process. This guide is the culmination of your peek into the world of post-apocalyptic farming. Taking stock of the present day failings of society in the face of climate change, we then extrapolate a potential future dystopia in order to engage this thesis as a literary jeremiad, utilizing architecture as a visual manifestation of the toxic, and capturing the sublimity and absurdity of unchecked human-caused destruction on the environment.

This edition focuses specifically on the western Pennsylvania countryside, in what was once an area heavily invested in hydraulic fracturing—a harsh drilling process used to release natural gas from geological shale formations miles beneath the Earth's crust. The side effects of this process are numerous, and include pollution of water sources, fugitive emissions, and ruination of the landscape. We then envision how ridiculous farming systems and technologies must become in order to counteract the damage and, more importantly, seek to evoke commentary and deliberation about the current trajectory of humanity.

We hope you have a bountiful harvest.

— Armageddon Publishing, Inc.

PATRICIA CAFFERKY



Atlas Reimagined Richter, Flusser, Architecture

This thesis is built from the materials of Gerhard Richter's *Atlas*, a collection of 802 image plates (and counting) that the German visual artist has been assembling since the mid 1960s. Comprised of newspaper cuttings, sketches, drawings, photographs, and paintings, *Atlas* is both a companion to Richter's other work and a work in and of itself.

Atlas Reimagined applies the theories of Vilém Flusser, the late 20th-century philosopher and theorist of image and media, to Richter's work to devise alternative forms of architectural imaging. Richter's *Atlas* when examined in terms of Flusser's distinction between technical and traditional images becomes a source for new modes of representation and production, and offers new methods of seeing and observing.

Observing takes more than just looking, which explains why we have insight into hardly any of the many things we see... This contradiction between looking and observing, between "superficial reading" and "close reading," raises the familiar issue of the distance between the observer and the observed.

— Vilém Flusser, *Into the Universe of Technical Images*, 2011: 33

Images in dialogue with one another have the power to show relationships among things that we ordinarily do not suspect.

...technical images are inherently different from early pictures, which will be referred to here as

"traditional". More specifically, technical images rely on texts from which they have come and, in fact, are not surfaces but mosaics assembled from particles (ibid, 6).

For Flusser, different classes of images [traditional/technical] can impact and affect the ways we see and experience in the digital age.

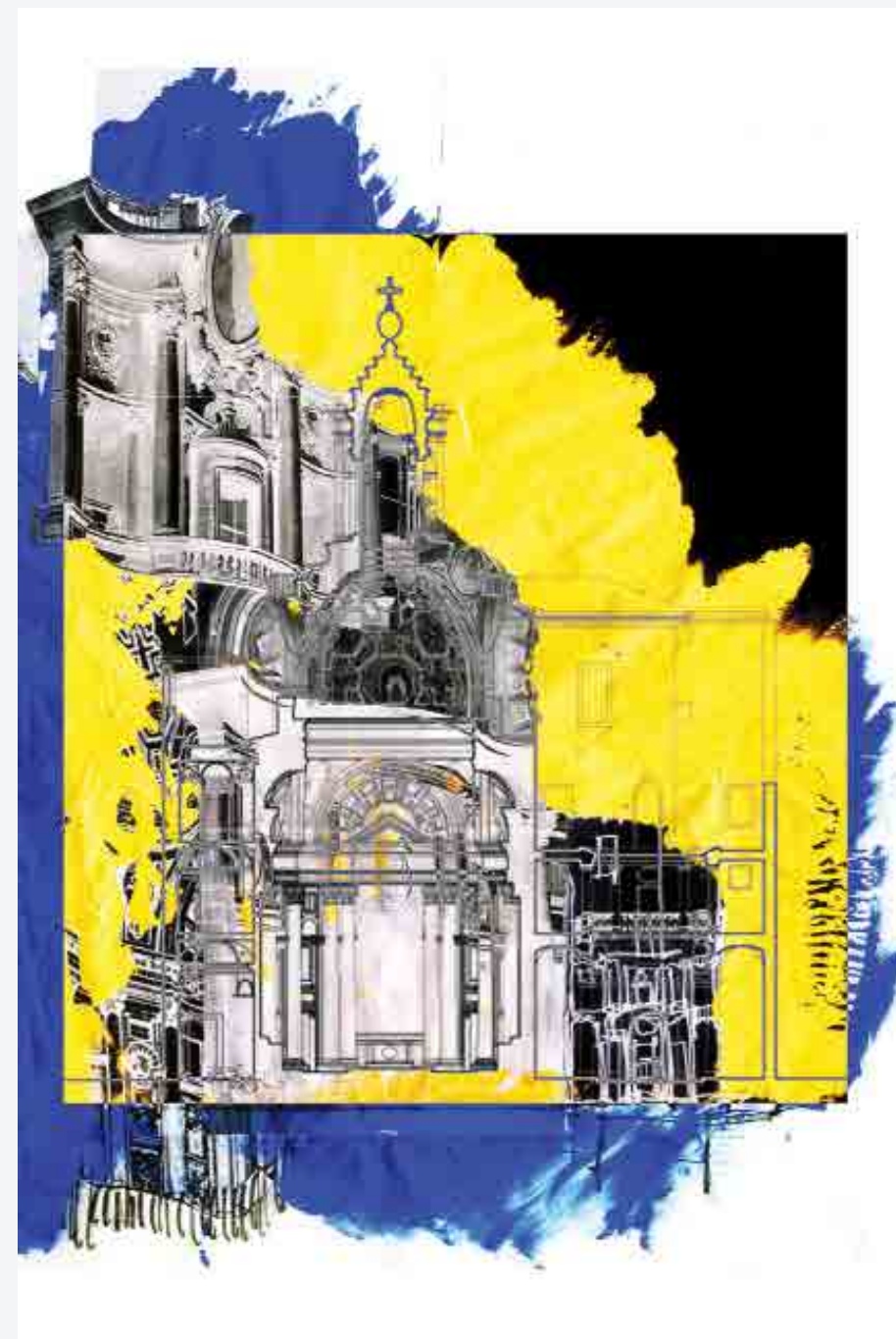
Information is an essential term in Flusser's theories. It is the discovery of order in an essentially chaotic universe of infinite possibilities. This order can only be attained by arranging content into forms, symbols, patterns- that is, by encoding them with elements that allow them to be deciphered, to give them meaning. The image is, as every other medium, a way of bringing order into the world of things.

According to Flusser, how images are created, either through analog methods or through apparatuses, matters. How they begin to operate within these orders might be conceived of as "the" meaning of the world.

To be intersubjective (to be decoded by others), each image must rest on a code known to a community (initiates), which is the reason images are called "traditional". An image must be part of a chain of images, for if it were not in a tradition, it would not be decipherable.

Future images will be art at a high level because they will owe their production to this dialectic between the theory embedded in the apparatuses and the intuitive hallucinatory power of the envisioners (ibid, 103).

BLAKE CAPALBO



Constructed Perception Forced Perspective Architecture

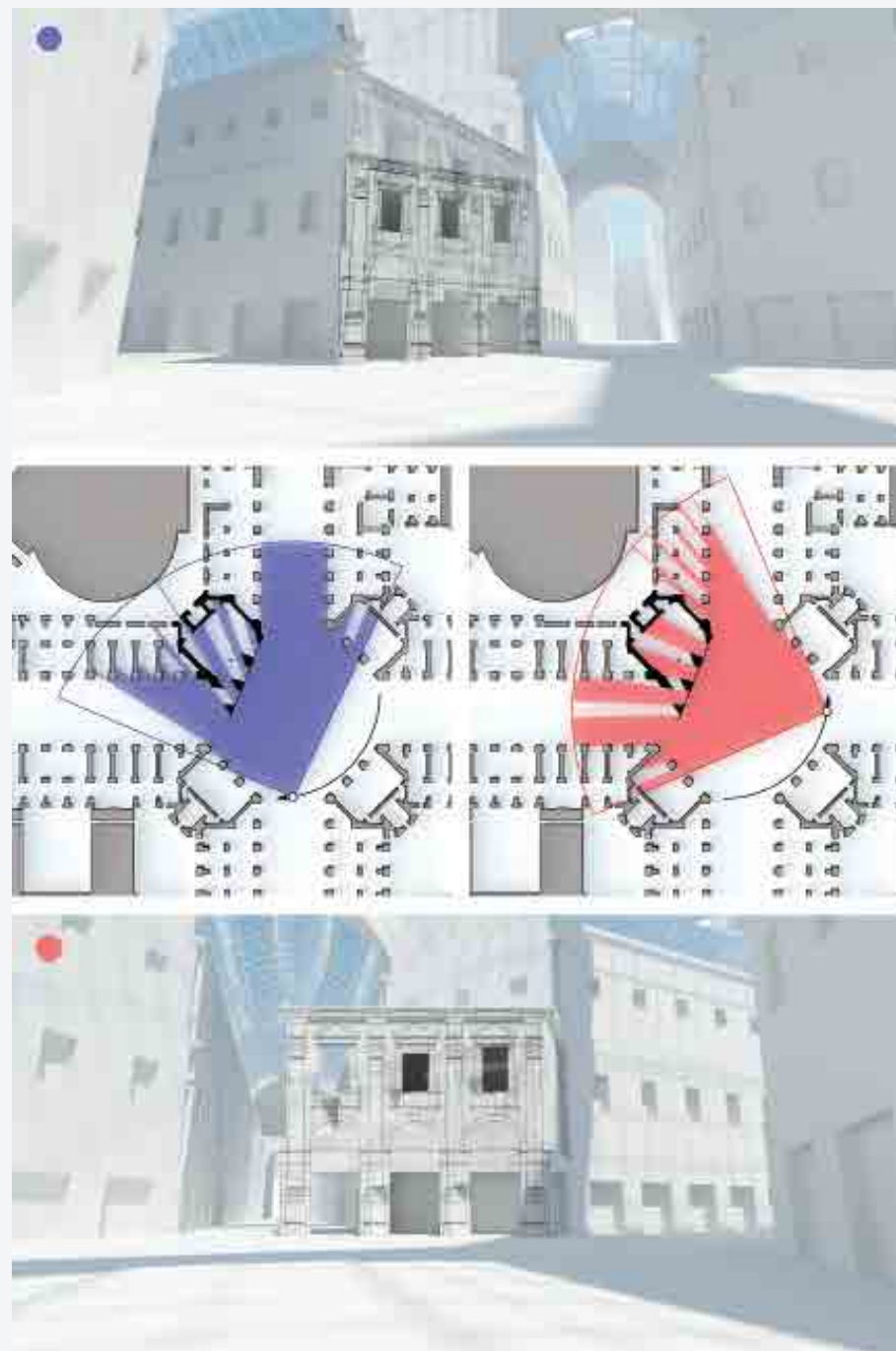
This thesis contends that articulate control of form will create forced perspective scenes that will heighten a viewer's perception of space. This thesis will be an intervention, refocusing visitors' circulation to occupy specific perspective vantage points through the alignment of views. Viewers will experience a new perception of the space they circulate through because their position will influence the visual representation of the project's form.

Forced perspective spaces make many appearances in historical architecture. They were used as forms of spectacle, creating illusions of extensive depth in areas of restricted space. While these created convincing follies, they were limited in result because they relied on the specific control of viewers' standing point. This restricted the participation of viewers within these illusive spaces, therefore confining them to have singular effects. The next stage in the lineage of these design strategies is producing spaces and forms which are able to provide different experiences as they are viewed from several angles. Thus creating a spatial interaction for viewers and allowing for the engagement of multiple façades in one. This technique has had application in art, but there has not yet been an occupiable architectural intervention.

The Galleria Vittorio Emmanuelle II in Milan will serve as the host for this intervention because it offers the opportunity for the defamiliarization of a common architectural spectacle. The retailers within the mall are aware that the traffic to their businesses weighs heavily on this location, and they will often go to great lengths to ensure it remains at a peak level of repair. Prada has even gone as far as to sponsor the renovation of the entire Galleria Vittorio Emmanuelle II. While this successfully increases the amount of people visiting to the mall, it does little to advertise for the specific retailer paying for the restoration. This project will use the renovation as a catalyst for creating influential changes for the retailer that is investing in the preservation of the historic space.

After being influenced to interact with the perspective alignments of the intervention, viewers will be able to enter the Prada store and physically occupy the space that makes up the forced perspective forms of the intervention. The interior of the store will become a zone at which multiple perspective alignments converge, adding occupiable depth to the once flat façade. The resulting views will draw visitors into a space housing an exhibition of Prada design, providing publicity for their contribution to the renovation.

ALEXANDER M. CASE



Commercializing Communal Agriculture Cooperative Markets for Rural Cities in Chile

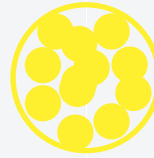
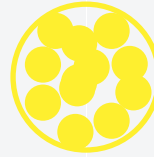
The ideological nature of Chilean agriculture policy and practice that has developed over the last five decades; combined with the country's diverse climate and topography, it offers an opportunity to test the claim that architecture has the capacity to strengthen communal agriculture practices in manners that better resist the globalization of the mono-cultured industry.

Commercializing Communal Agriculture develops the design of a cooperative market in the Vth region of Chile as a prototype that can be modified to appropriately respond to climates in the north and south regions of the country. The market's proximity to small-scale farms, highway infrastructure and port facilities would ensure the success of small-scale farms' production and growth against mass mono-cultured corporate farms. This particular design is located in La Calera, a rural city in the center of Chile, alongside Route 5, the most traveled and longest highway in Chile.

The cooperative market will act as a vehicle for the procurement, distribution and tourism connected to farming products such as citrus fruits, avocados and dried goods. It will also test the claim that an architecture informed by local building, farming and urban practices can offer a prototypical approach that will better empower the community involved in the production of agricultural products to be consumed at a global scale.

Somewhat ironically, the Spanish colonial hacienda formal structure of relaxed quasi-enclosed courtyards is used as an organizational starting point to facilitate a cooperative market. Originally imported from Spain, the hacienda's model provides areas for well-being, recreation, comfort and security. It is an ideal scheme type made of organized sequences of spaces connecting series of open courtyards. The cooperative ownership of the market would support public, semi-public and private spaces for a working environment of diverse activities that are utilitarian, practical and functional.

André Ravéau stated, "Order in architecture is the organization of elements into a constructed whole, apart from its functions. This organization depends upon laws, notions of composition such as unity, balance, proportional relationship, rhythms, axes, hierarchies and symmetries—orders instituted through civilizations, often to comply with building programs". A cooperative market design organizes zones of community, procurement, production and distribution in one site, at the edge of a rural city for individual small-scale farmers and local resident's to maintain, occupy and increase their economic revenue by utilizing the proposed building program as a foil against the existing mono-cultured and globalized agricultural industry in Chile.



ISABEL C. CASTELLANO



The Gamification of Gamification A Conflation of Practices Architecturizing Fable and Game

The Gamification of Gamification comprises a series of ludodromic interventions throughout the city of Kuala Lumpur, Malaysia.

Stiff governmental control of civic and commercial life in Malaysia has caused various counter-narratives to arise, manifesting in protests and demonstrations that the government cracks down on. This thesis seeks to demonstrate the shifting role of the architect. Nursing a conscience beset by political conflicts, societal stigmas and environmental consequences, the architect is refigured as an agent of change with the power to enact social reforms.

The Gamification of Gamification is composed of three parts:

The first, a research portion that sets the context of the problem in which gamification is set.

The second phase explores the methodology in which players may game or traverse this "platform".

The third part of this thesis will provide snapshots of various scenarios in which *The Gamification of Gamification* may be played out.

Through unorthodox auxiliary design techniques, *The Gamification of Gamification* proposes an architecture of hacktivist interventions to game the system of governmental controls. Analysis of the existing urban context resulted in a catalog of the various issues that beset the city. A syntactical operating system designed to counter these issues via a series of gamification methods aims to counter the suppression of information and freedom of expression.

The seven strategies of operation are:

- Amplification
- Projection
- Adaptive Media Interfaces
- Data filtering and Management
- Virtual and Augmented Realities
- Counter-Surveillance
- Consumer Systems

These strategies are to be deployed across a range of time periods including daily resistances, weekly rituals, and large-scale annual events. Each of these virtual-real crossover events may be represented via the phygital syntax of a notary 3D diagram-model. The specific features and characteristics of these crossover or virtual spaces are:

- Radial projection and clustering due to exponential growth
- Simultaneous spaces
- Architecture as a filter or screen

The Gamification of Gamification constitutes the proposition of a new systematic methodology of architectural design. The fictional game world unifies a series of heterotopias linked rhizomatically. The architectural interface exists through infrastructural, virtual and augmented realities applied to tackle various site-specific problems. In the manner of a narrative design strategy, *The Gamification of Gamification* ultimately wishes to provide the reader/viewer/user/player with a cognitive palette via which they can interactively self-author visceral real world outcomes.



LISA SHIN YING CHAN



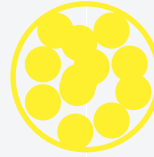
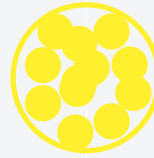
Making Hayward More Cohesive A Suburban Fabric + Public Space

In contemporary society, the bar has become a destination where the modern person plays out his or her public identity. During 17th and 18th centuries, travel and greater social movement led to the creation of the public house, inn, and tavern in Britain and throughout the “New World.” These places provided refreshment and respite for travelers. While contemporary hotels, restaurants, bars, and clubs have moved well beyond the boundaries of their historical ancestors, they nevertheless remain critical elements of the public sphere where people socialize and interact: Bars have become a place of entertainment, spectacle, and display.

The boundaries between the various types of establishments have become increasingly blurred in modern society. For example, restaurants and hotel bars often turn into clubs later in the evening. Freeing architecture from the constraints of tradition allows for aesthetic experimentation. No longer are bars seen only as drinking and entertainment facilities but also as a place of social interaction.

In *The Structural Transformation of the Public Sphere*, theorist Jürgen Habermas defines that sphere as wherever people gather to trade opinions on contemporary issues in an attempt to discern and influence public opinion. Public debate may occur in bars, salons, cafés, or any venue that functioned as a public forum. For Habermas, the public sphere is created anytime and anywhere private people join to form a “public”. While economic developments were vital in the evolution of the public sphere, Habermas emphasizes the role of capitalist modes of production in the development of public spaces.

This thesis uses Hayward, California as a test case for integrating Habermas’ theories with contemporary architectural practice. Hayward is an ethnically diverse metropolitan area that lacks integrated spaces for the creation of Habermasian public sphere. Attempting to create a public sphere this thesis proposes an integrative mixed-use “urban network” area replete with a bar, town hall, library, and common market areas.



HENRY H. S. CHANG



Interactive Pavilions The Responsive Transformation of Structural Systems

For centuries, architecture has been designed and built using static structural systems. While a static structural system supports and connects the building's entirety, it also limits the adaptability of the entirety to the context and users. Guy Nordenson once said: "If architects designed a building like a body, it would have a system of bones and muscles and tendons and a brain that knows how to respond. If a building could change its posture, tighten its muscles and brace itself against the wind, its structural mass could literally be cut in half". This statement argues that tectonic designs could be more materially efficient and elegant if they can intelligently and dynamically respond to changing compression and tension loads instead of being overly massive for conservative "control".

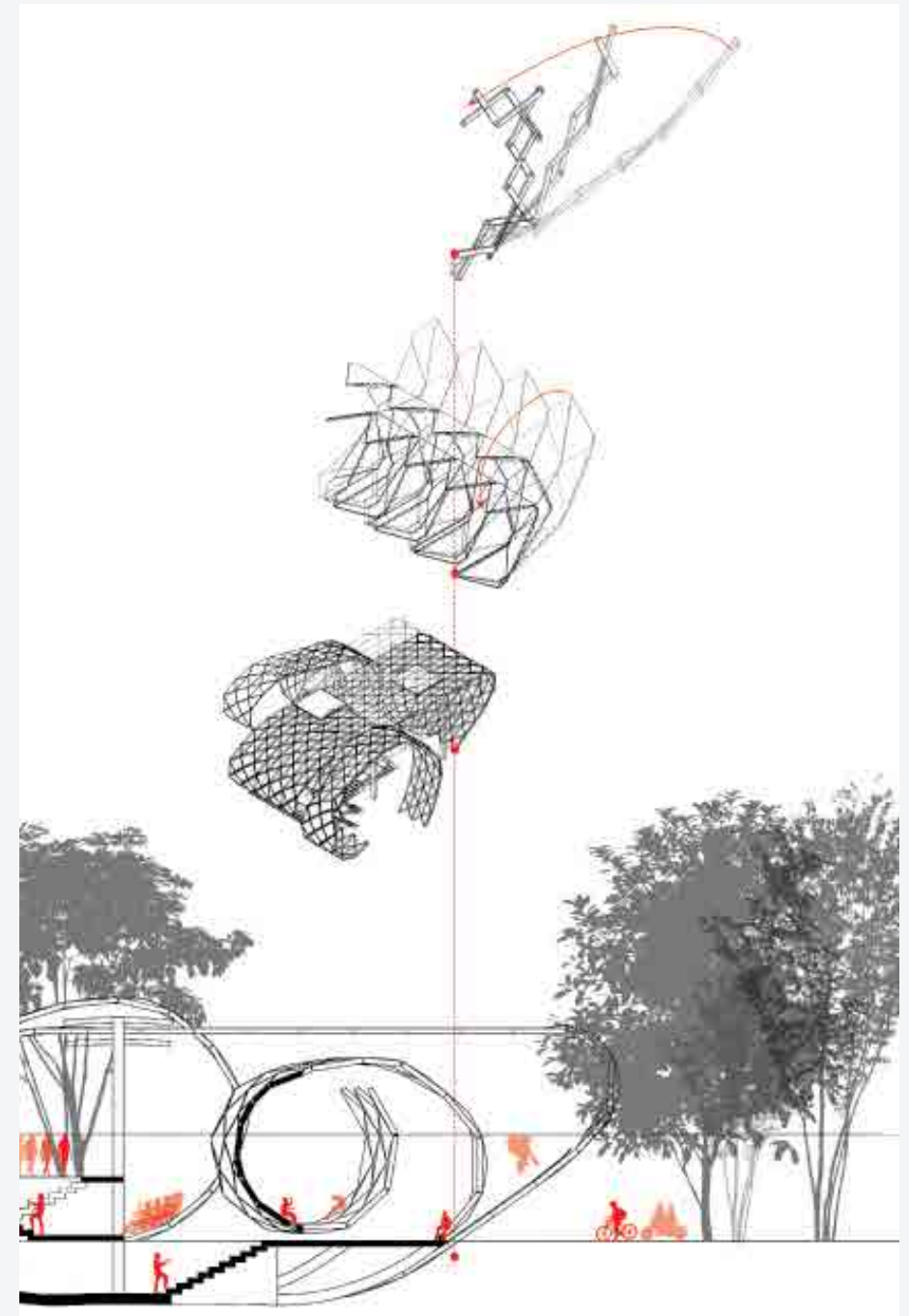
In today's evolving and complex social and urban environment, the demand for intelligent architecture has developed from spatial preferences to functional requirements. Interactive architecture develops methods and techniques to enable architectural works to respond to environments and inhabitants. Through the use of sensors and digital analysis, the conversation between human/environment and buildings has developed in recent decades from "buildings can learn" to "buildings

can learn, respond, predict, and influence human behaviors and environments". The study of interactive architecture has radically challenged, changed, and even redefined people's presumptions that buildings are always static. However, the current study of interactive architecture focuses primarily on the façade or other surface components of a building, rather than the entire architectural work, or to be more specific, the space created by the structural system.

To serve today's demand for flexible space better, this thesis is aimed at expanding the capacity of tectonic design from "form follows function" to "form changes as function changes". By engaging interactive technology to provide spatial transformation, this thesis aims to design a mix-use pavilion, which detects occupancy and lighting/temperature conditions, and then transforms its structure in shape and scale to satisfy the spatial demands for use. The responsive pavilion will use folded plates and a framing mechanism as the structural system, that will transform and respond to the various spatial demands of different programs. Small protected spaces for the stationary activities of resting will open to larger semi-enclosed spaces for the activities of exercising and social gathering.



XIANGRU CHEN



The Escape

Considering Multisensory Experiences in Threshold Space

This thesis contends that the space of the architectural threshold has the potential—both actively and passively—to produce spatial and atmospheric awareness through sensory manipulation. Accordingly, this thesis uses the thermal bathhouse as a testing ground for the notion of “threshold space”.

Though bathhouses differ by location and culture, throughout history a single common theme threads through the evolution of these buildings—the sequence of spaces associated with the different types of sensorial conditions that the bathers experience via the process of cleansing.

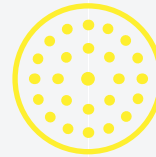
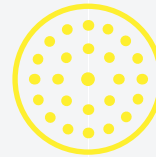
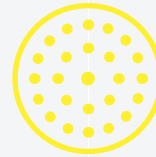
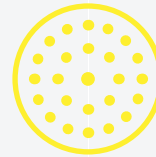
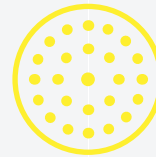
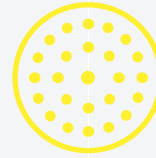
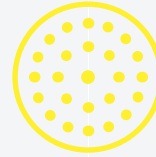
In this thesis, a series of “threshold spaces” serve to direct and stimulate people via a succession of specific sensory experiences that belong to the traditions of the bathhouse. Temperature, humidity, and light are deployed to affect the speed, mood, and volume of flow of the bathers. Conventional programmatic space is underplayed—instead, this thesis emphasizes “threshold space” as the primary spatial design factor. Contemporary thresholds are most often underplayed, being deployed as a thin surface, or intentionally minimized in terms of thickness. This thesis argues that the term threshold should itself be thickened to unlock a deeper sense of the possibilities of architectural space. When a threshold is stretched and thickened conceptually from a surface to a volume, it becomes a “threshold space”.

“Threshold space” can be subdivided into four types in increasing scale according to a program’s needs:

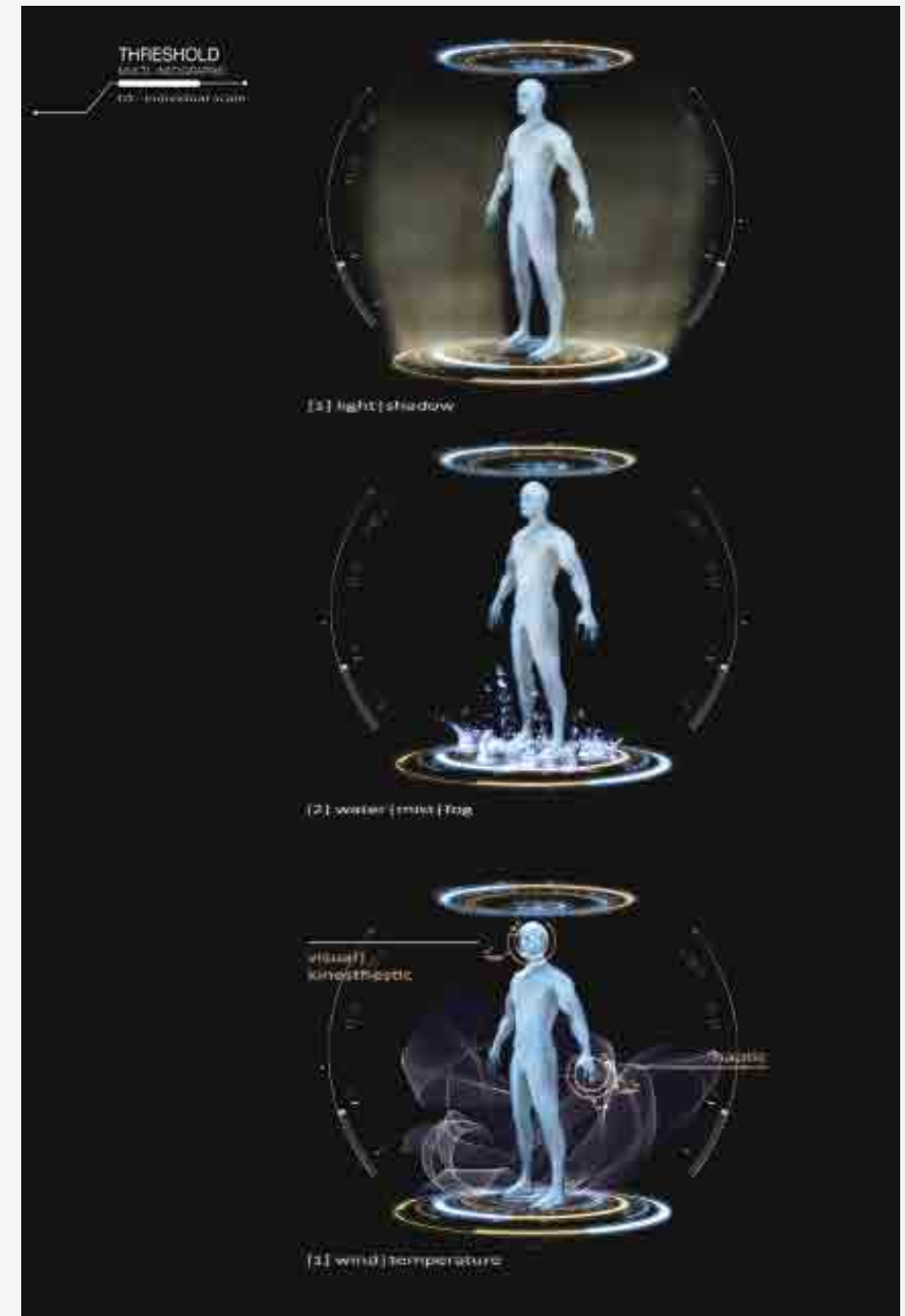
- Threshold as a surface plane
- Threshold as an object
- Threshold as a wrap
- Threshold as a field

At the same time, one or more of the senses (visual, kinesthetic, and haptic) could be intersected and overlapped with a certain threshold space to create diverse transition experiences. According to the density and type of senses in a given threshold, the space would generate a variety of atmospheres. The “threshold space” now extends beyond the function as pure physical connection and segregation of privacy—it opens up spaces and organizes transitions that can be perceived in both space and time.

“Threshold space” exists between two scales: the architectural and the human blend into one, demanding that users approach and leave “the destination” or “the served space” while affecting users’ behavior and mood. Materials, lighting, and atmospheric conditions (temperature, humidity, etc.) are prioritized in this thesis to create spatial obstacles and lighting conditions that invite the user to seamlessly experience a space—produce a steady movement, or on the contrary, slow down—thereby extending the experience of a particular space in the building. Hence, a multisensory “threshold space” might blur the boundary of interior and exterior, public and private, and also past and present.



SONRISA XIHAO CHEN



The Foreign Complex A Cross-Cultural Vernacular

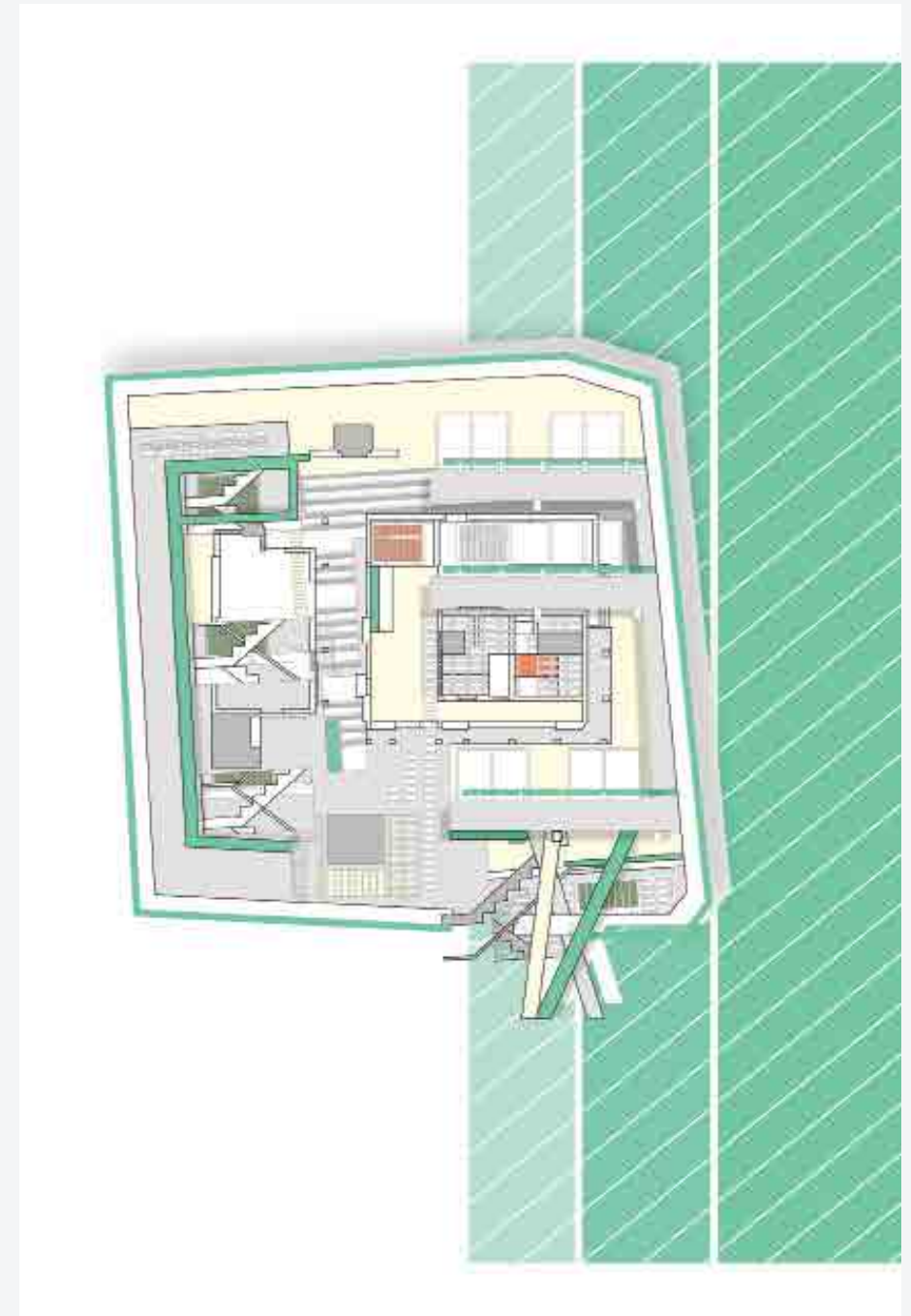
A military base exists as a walled off compound, with a seemingly autonomous existence. At the decommissioned MCAS Futenma in Okinawa, the need for the military installation to integrate into its context challenges our ideas about the alien-like autonomy of the process of military occupation. Marine Corps Air Station Futenma occupies the center of the city of Ginowan and is distinguished from the postwar fabric of the surrounding city by a series of security thresholds. Local residents and military personnel experience and occupy the city very differently; one group circumvents the base, and the other moves from enclave to enclave. In the unique case of Okinawa, the island has negotiated between these enclaves in its infrastructure and culture, revealing moments of cultural crossover in social values and built form. As the base is decommissioned, this series of barriers will have to reorient its relationship with the city's fabric and redefine the relationship of foreign visitors to local populations.

As an ancient lynchpin in a widespread trade route, Okinawa's built environment reflects a broad range of influences that have synthesized into a peculiarly Ryukyuan culture. A history of how military occupation has been fitted into this hybridized environment provides an opportunity for architecture to reflect the current political and social state of the island.

The evolution of MCAS Futenma constitutes an opportunity to reinstate the ecology of the island at the heart of a modern town. Rapid development has created an unfortunate divorce from a once holy, direct relationship to the island's subtropical environment. Deriving a set of methodologies and a vernacular vocabulary distilled from these ancient roots, a hangar, an airstrip, and a barracks become tools to mediate the interactions between tourists and locals, while connecting people to the island's unique ecology. Futenma has the opportunity to be "re-stitched" as a productive experiment grounded in the qualities that make the island and its inhabitants unique.



DEXTER CICCHINELLI



An Extension to the Sea

Rethinking Beirut's Transportation Infrastructure

For several decades traffic congestion in Beirut has been a prevailing, if not worsening, issue. Lebanon is a relatively narrow coastal country with major circulation problems and an ineffective public transportation system. The majority of Lebanon's cities are located along its Mediterranean coastline, in which nearly 60% of its population resides. Parallel to the sea, is the only highway that connects the north of Lebanon to its south. This is compounded further by the increasing number of circulating cars and by the city's rising population. This over-dependency on cars in a country where road infrastructure is neither planned nor controlled, has led to the encroachment of valuable real estate, and more notably, public space. The severe lack of accessible public space has left Beirut with one of the lowest ratios of access to public space per person, equating to less than 0.5m². Moreover, the current public spaces in Beirut either suffer from poor accessibility or are reserved exclusively for the middle/upper class. However, in the case of the waterfront, the absence of undeveloped land and open public space is not merely an outcome of sporadic road developments, but also a result of its "near-complete" privatization.

In order to decrease the dependency on road infrastructures and allow for Lebanon's public sphere to re-emerge, both spatially

and "infrastructurally", this thesis suggests that a new mode of mass transportation needs to be developed. Since the coastal zone bears the highest urban density, it is only logical to construct a mass-transit system that links the north to the south in this zone. However, due to the lack of residual space for additional infrastructure, the proposals for the reorganization of roads or the development of a new railway network along the coast are unrealistic.

This thesis proposes that the only feasible urban solution for the procurement of additional space is the extension of Beirut's public transit infrastructure to the sea through the creation of a maritime public transportation system. The development of a ferry terminal on Beirut's diminishing public waterfront will be physically intrusive and further marginalize public accessibility. Therefore, the program will be masked under a "blanket" that reflects the organic form of the neighboring outcrops, while maintaining public activity on top. Looking from the city towards the waterfront, the terminal will not be initially evident to the pedestrian, as it would appear as a continuous landscape. When arriving to Beirut from the sea, one would notice the city's skyline in the backdrop and the "lightness" of the ferry terminal that is "carved" out of glass underneath.



NADER DAOU



Living Landscapes Restoring Life to the Boston Harbor

Boston Harbor is dead.

After centuries of polluting and landfilling these delicate coastal environments, the waters no longer host the life they once did. Currently, some efforts are being made to reestablish these marine environments along the shoreline of the city, but on too small a scale to have a profound impact. This thesis will support the revitalization of native marine species and enhance community involvement in the restoration of these urban marine environments. It will provide spaces for the regrowth of oysters and sea grass through a modulated network of floating biomimicry labs that aggregate organically along the coastline. At certain locations, the aggregated module becomes a living, breathing space where people can witness and participate in these regrowth processes. The goal of this thesis is to not only bring life back to the Boston Harbor, but to engage with the public and showcase the importance of these revitalization efforts.

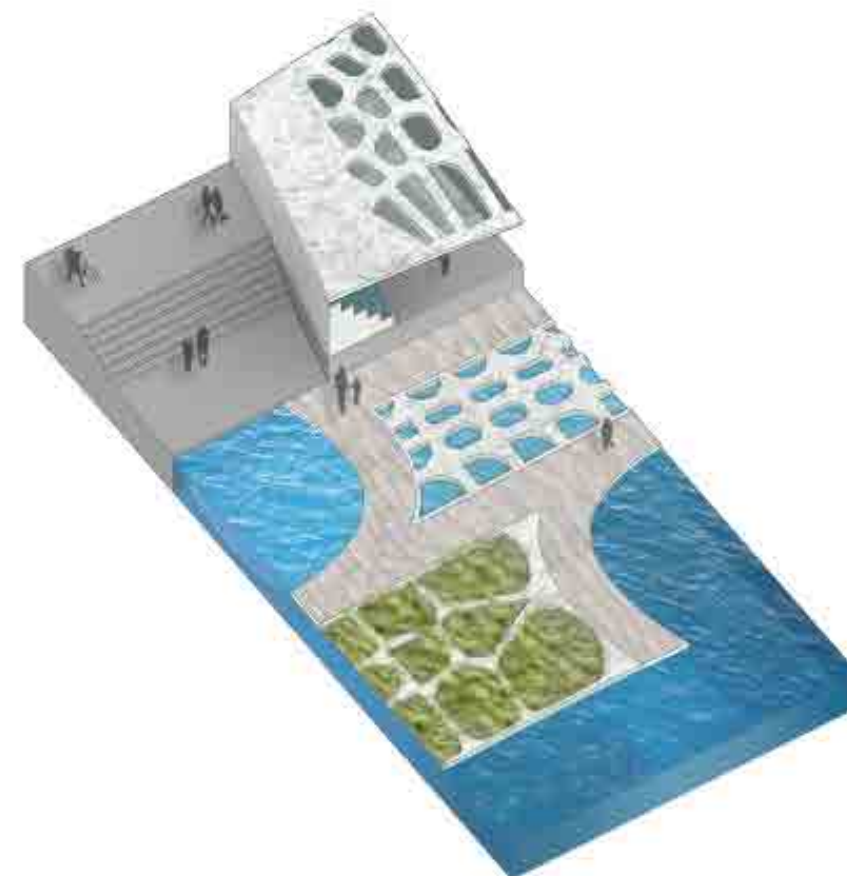
Boston Harbor once teemed with life that the people of Boston relied very heavily on. However, through the rapid industrialization of the late 19th century, Boston extended its boundaries into the harbor area. This process of urbanization dramatically affected the natural ecosystems that once thrived in these waters. Today, water quality in the harbor has improved due to the creation of a new large-scale sewage treatment facility

located just off the coast of Boston. Despite the improved water quality, many native marine species have not yet been able to return of their own accord. A group based out of UMass Boston has been making efforts to reestablish both the local oyster population and the saltwater marshes that were filled in during Boston's rapid expansion. A single oyster can filter up to fifty gallons of sea water a day; so, despite their small size, these shellfish can have a significant impact on their local marine environment. Also, these saltwater marshes provide a home for many marine species as well as a buffer against destructive storm surges.

This thesis will align with the goals of the UMass Boston group in seeking to provide public spaces and infrastructure for these revitalization efforts. By engaging the shoreline at several sites along the Boston coastline, a network of amphibious zones will aid in the regrowth of the oyster population as well as biomimic the ecosystem of a saltwater marsh. One of the intervention sites will be an extension of the Boston Children's Museum, where there will be interactive learning spaces where visitors can experience the oyster beds and newly established saltmarshes at first hand. This intervention, and others like it, will show the people of Boston the importance of reestablishing these marine environments.

Through this thesis, Boston Harbor can begin to host life again and truly become a "green" harbor.

DYLAN DASCO



Never-Land A Parasitic and Accumulative Approach to Urbanization in China

By utilizing construction sites as a catalyst, this thesis proposes a parasitic and accumulative process for urbanization in China, arguing that the future growth of a city and the assumption of citizenship of its migrant workers can happen simultaneously.

The current operation of urban construction sites in China is problematic. On the one hand, the “walled-in” construction mechanism constrains the living and working activities of migrant workers, isolating them from the rest of the city. Thus, physical isolation intensifies social segregation. On the other hand, the dismantlable temporary hut provides constant low-quality dwelling experiences. Workers’ capital accumulation never results in physical improvement. Thus, migrant workers have little sense of ownership or citizenship.

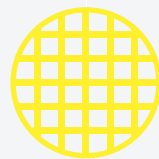
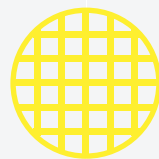
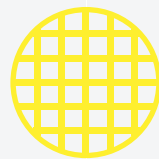
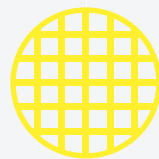
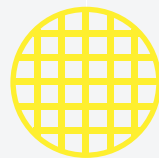
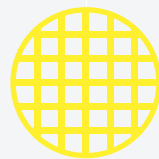
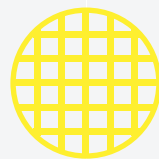
However, the omnipresent construction sites have positive impacts on the city. Workers’ living needs stimulate spontaneous business actions next to the fencing walls, that result in a diverse vernacular streetscape. Additionally, workers create an invisible network based on recreational programs and existing infrastructures, which potentially can link migrant workers to the larger plurality of a city’s social life.

This thesis proposes an alternative approach to urban construction

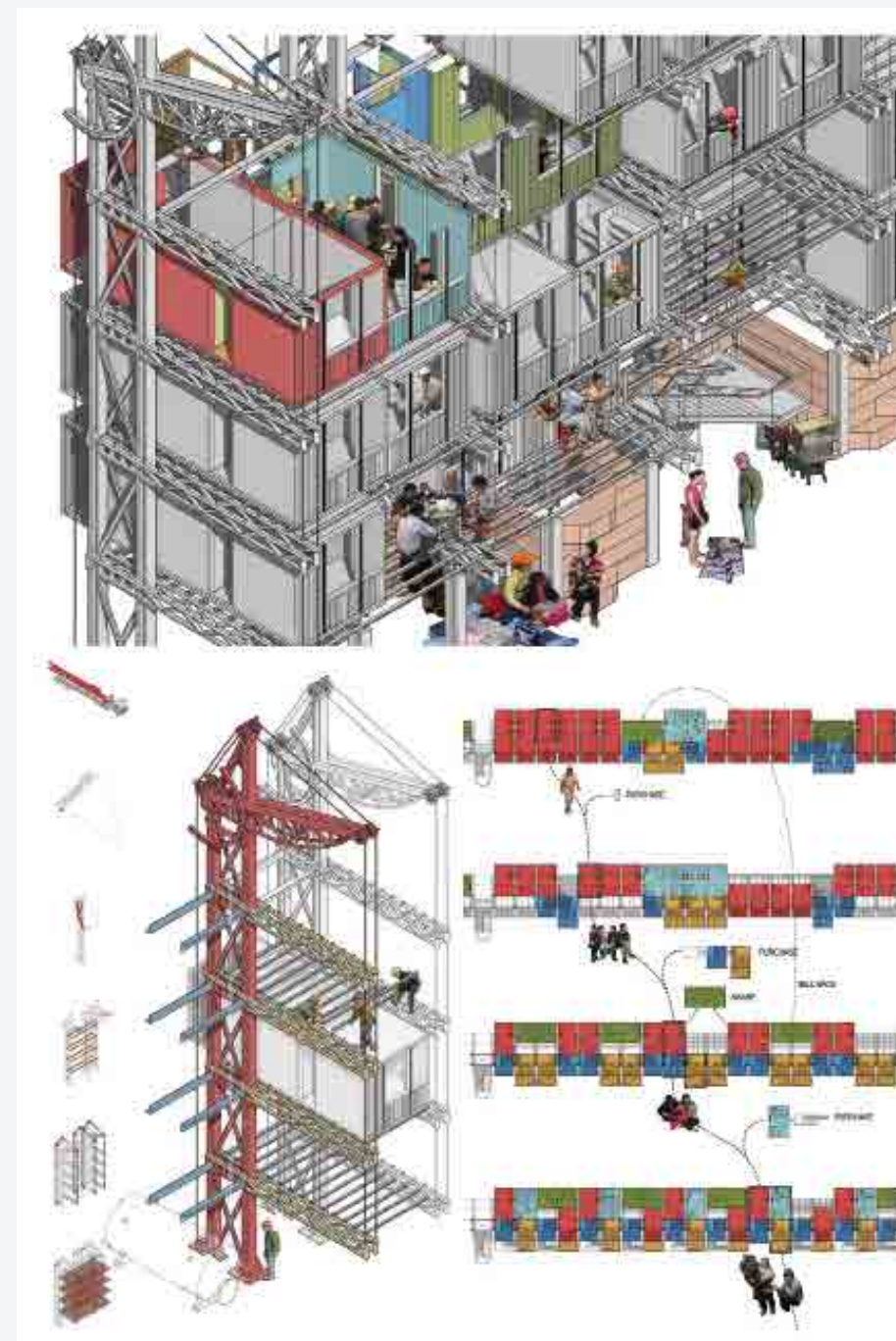
sites and their afterlife. Firstly, a pre-fabricated “skeleton” structure is assembled on site, where the fencing wall would stand. Then, modulated dwelling units can be plugged into this “skeleton” structure. Migrant workers own the units, either individually or collectively. After construction, the skeleton can be disassembled and reassembled for other construction events or future social housing plug-ins, while the units remain in the hands of migrant workers as their permanent assets. Units are mass customized so that they can be accumulated and reconfigured according to the wealth and needs of their individual owners.

With the expansion of the city and its migrant population, construction and common living needs lead to the congregation of migrant workers. Accordingly, the “skeletons” and “units” can be accumulated to give birth to migrant communities, where individual workers are encouraged to create their own family and integrate into the social life of the city.

Thus, the ultimate goal of this thesis is not simply to identify the omnipresent construction sites and their workers as the cause of city degradation and then to cure them. Instead, it aims to use these situations as the projective context for a proactive, rather than reactive, way of city making, turning the introverted dystopia into a welcoming place of interaction.



XIAOYAN DONG



The Malleable Seam Revitalizing Santurce through the Reconciliation of its Imaginaries

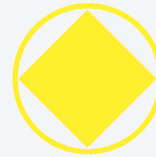
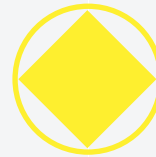
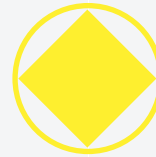
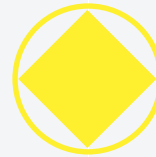
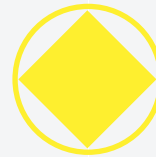
Over the last ten years, public space has become the setting for a wide variety of developments. On the one hand, there is an increased control and emphasis on 'clean, decent and safe'. Conversely, the public domain is more and more frequently used for all kinds of festivals and temporary constructions intended to give identity to the city. These would seem incompatible developments, but both derive from a wish for attractive, public space. — Kristian Koreman & Elma van Boxel, *Re-public*

In the district of Santurce, in San Juan, Puerto Rico, there is an apparent excess of space related to the rapid increase of housing vacancy and the proliferation of foreclosed businesses as a consequence of Puerto Rico's dire economic climate. This excess space is concomitant with a continuing demand for affordable housing, additional parking space, and accessible public spaces. Addressing this paradoxical convergence of excess and death, according to their needs and interests, both the local populace and the municipal government have developed reclamation strategies that are commonly perceived as disparate and mismatched regarding urban planning and architecture. While the municipality of San Juan aims to increase population density

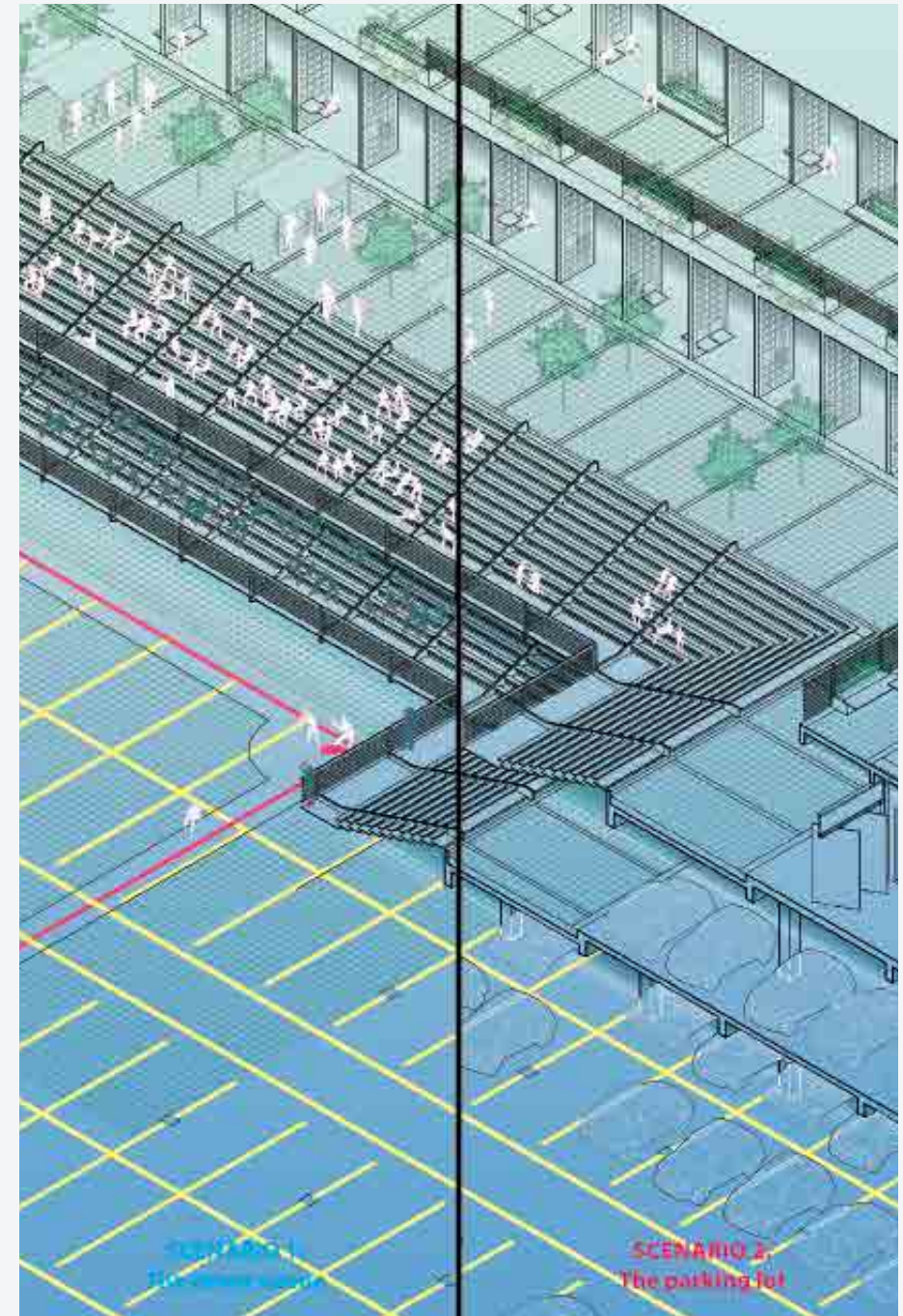
and develop additional public venues through the deployment of a tabula rasa approach that relies on expropriation tactics and tax exemptions meant to attract private investment. Santurce's residents have started reclaiming abandoned lots that, through minimal intervention, are transformed into impromptu marketplaces, informal theaters, and other public-oriented spaces. These efforts are ultimately precarious due to a lack of political and financial support.

The intention behind this thesis is to examine these disparate visions, so as to reconcile both strategies through the design of public space that is capable of encouraging the cooperation between public and private interests since it can "guarantee varied use and interaction between its various users".

Three programmatic categories will be employed to identify and display existing overlaps between the architectural gestures deployed by local groups of residents as well as the local government: 1) parking, 2) housing, and 3) spaces of gathering (which include public services and private businesses). These are not to be regarded as isolated programmatic requirements, but as interlocking programs that, when sewn together, help to create new opportunities through the articulation of space, structure, and movement of populations.



RENÉ DUCHESNE-SOTOMAYOR



Imaging The Near Future

I am in the yellow zone of the ring.
Below me is the city I lived in as a child.

Today this land is a quiet one. No wind. No rain. No sound of other living creatures.

All I can hear is the pulse of the machine.

My grandfather used to take photos of me when I visited him here in Chinatown, but it's no longer the same. The next century is near and, in this city, the sky tower has buried the last.

Through the window, I see the colorful flowers dancing in the sun and a red kite flies as high as a skyscraper in the distance. I reached gate 18757.

Near it there is a gigantic antique store where I bought my first physical novel,

The Adventures of Sherlock Holmes. I started reading, but quickly fell asleep within the warm and soothing capsule. The space made me feel at home. I woke up to the sound of sand blown by the wind from when the capsule passes through the hill. It was difficult to get used to the blinding daylight after passage from the darkness of the concrete cavity. As the capsule deepens, the sole source of the light was the hole from where I entered.

I closed my eyes again. It is peaceful in here.

No connection to the outside world. I can meditate and try to make this experience last longer.

30



FANG FAN



The Post Oil City Revitalizing Daqing City

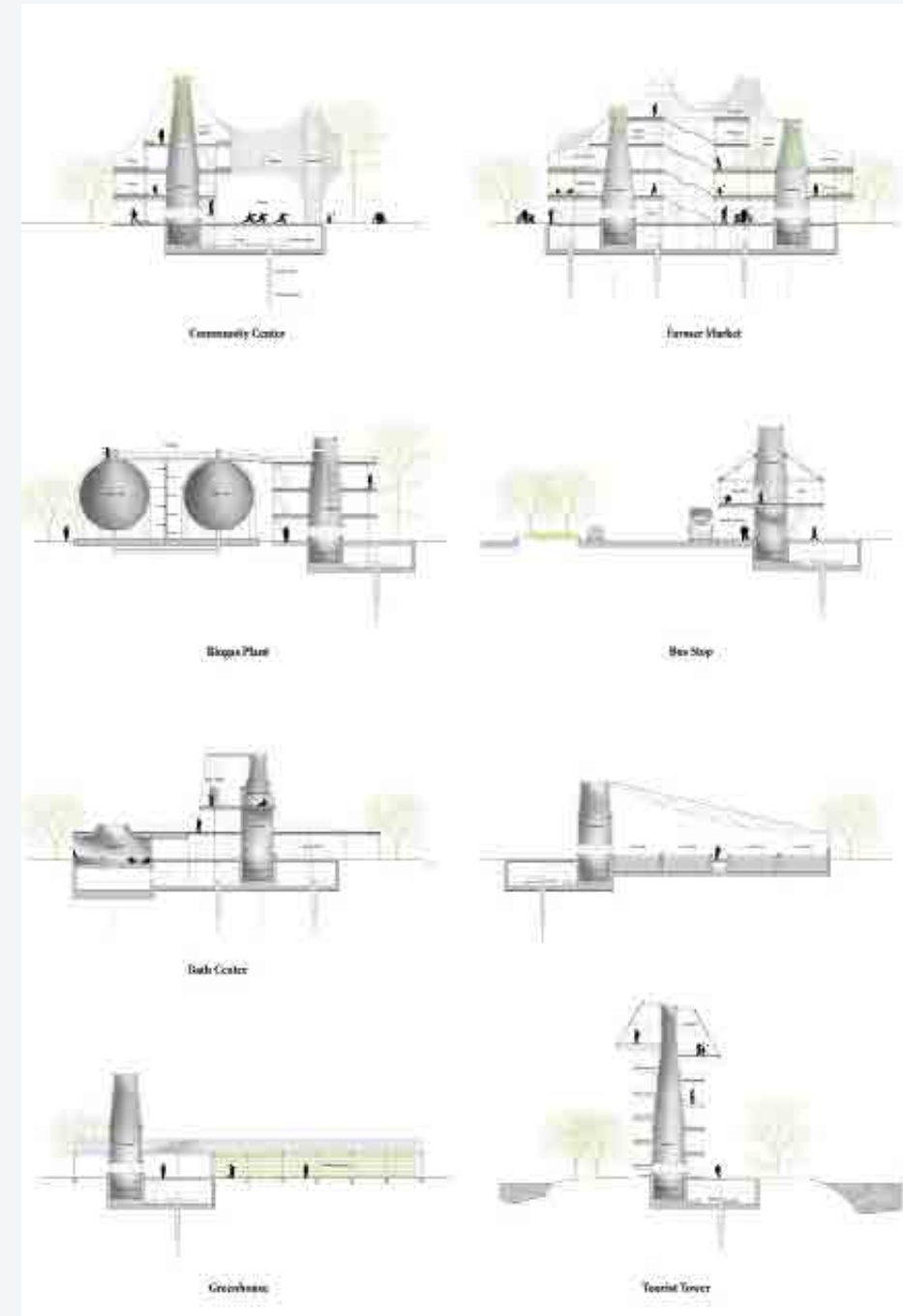
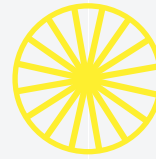
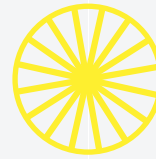
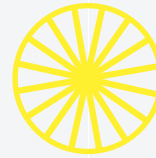
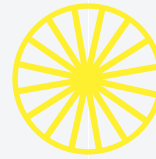
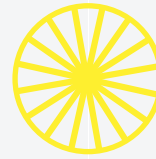
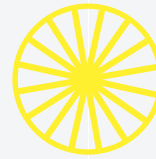
This thesis uses Daqing, China as a means of proving that an oil based city can be transformed into a geothermal city, relying on low-carbon energy rather than fossil fuels. Through various architectural strategies, this thesis tests how to utilize industrial facilities and convert the region's many oil wells into new amenities that serve to foster urbanity in communities and revitalize the city in its post-oil period.

Economically, Daqing has lead oil production in China for the past 50 years. With these advantages, the oil production industry—which occupied as much as 50% of the GDP—became the pillar industry of the city. However, with the decrease in oil production, the increase in cost, and the reduction of profit, the oil industry is declining, and so is the city which has relied on a single industry. In light of this, this thesis contends that Daqing must enter into a transition phase, whereby its reliance on oil diminishes. Early settlements in Daqing were mainly for oil workers. During that time, three main urban settlements were constructed close to the railway built

by Russia during the late Qing Dynasty. As a consequence of the predatory exploration of energy, oil production has profoundly changed development patterns. Two settlements on the east and west sides of the railway developed into two downtowns.

Daqing follows a policy called “Surface After Underground” which gives the government the power to demolish constructions above a detected oil reservoir. This has resulted in a disorganized network of oil related infrastructure which splits the urban and rural areas into fragments. On the other hand, the oil wells affect daily life in the city by occupying valuable spaces and creating noise and nuisance. Depending on the temperature of the sources of geothermal energy below the city, geothermal technology is likely to be able to provide various efficient alternatives to existing dirty industries. It is hoped that by transforming the high concentration of oil wells into geothermal architectural installations will turn Daqing into a vibrant urban center.

CHUNQI FANG



Phasing Permanence Through Flux A Framework for Shrinking Cities

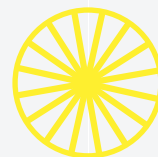
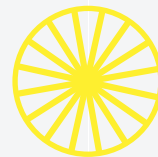
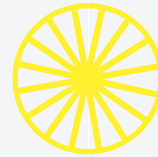
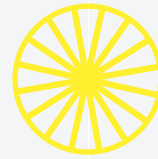
Dropping, or at least loosening, the historical belief that architects, engineers, and developers should focus on permanent edifices will allow them to research and experiment with current building technologies faster. Short-term, experimental projects can help find quicker, more responsive, and highly flexible solutions to the needs of diverse city populations. Embracing impermanence can allow more designers and planners to test out new types of structures or services without having to endure long governmental approval processes normally in place for permanent buildings.

— Allison Arieff

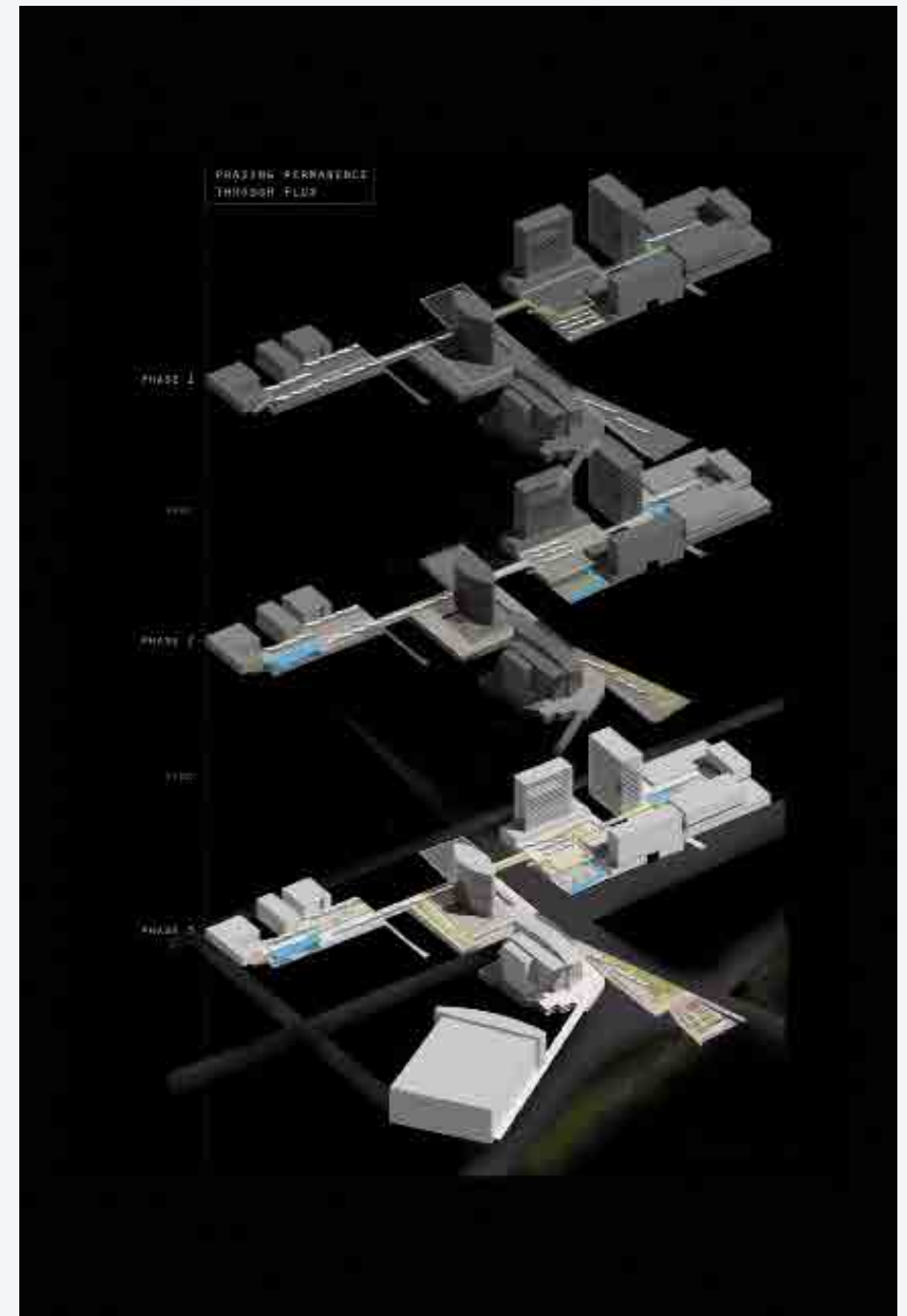
The “post-industrial revolution” has, in its wake, given rise to a swath of cities suffering economic decline and social deterioration. These “shrinking cities” have experienced a loss in population to their surrounding suburbs and other dormitory settlements. Once thriving cities have been reduced to functioning as overdeveloped business parks where people come to work for five

days a week—but then leave each evening to return to suburban ideal. It is unreasonable to assume that any masterplan alone can promote the future success of a shrinking city. Rather, this thesis contends that by dissecting the historical narratives and spatial qualities of these existing environments, it is possible to create a framework that locates a middle ground between the permanence of a masterplan and the temporality of seasonal programs.

By implementing the “bottom-up” concepts familiar to the tech start-up scene via an architectural framework plan, this thesis argues that community interest in the future of depressed neighborhoods can be stimulated. By designing a flexible new infrastructure to house multiple interventions, designers can quickly and economically test ideas. As these concepts are tested and feedback is collected, the platform will increasingly become more reflective of the community’s needs. By pivoting towards such successful interventions, an architectural language can be derived, allowing for more permanent plans to be implemented.



ESTEFANIA MALDONADOV ANDREW FILKOFF



The Phenomenology of Contemplative Space

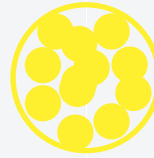
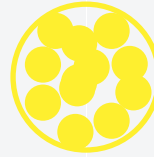
This thesis proposes that architecture has the potential to script a hyper-specific spiritual experience catered toward both the individual and the collective. Architecture and its devices can invoke an essence of spirituality regardless of one's own affiliation towards religion – in the case of this thesis, by providing a monastery for ex-priests that challenges the notions of contemplation in Rome, a city that includes over 900 places of worship, most of which serve the Catholic Church. This monastery performs as a device, providing a chapel for contemplation, a library to discuss the notion of doubt, as well as a garden and residence to meander between areas of the complex.

The Phenomenology of Contemplative Space is to be realized through the creation of an architectural sanctuary, to produce a universal setting for contemplation with direct regard to the urban architectural issues on site. The site in question seeks to reclaim the *Piazza della Libertà* as a new threshold into western Rome, one that rivals the offset view of the Vatican from the Pincian Hill.

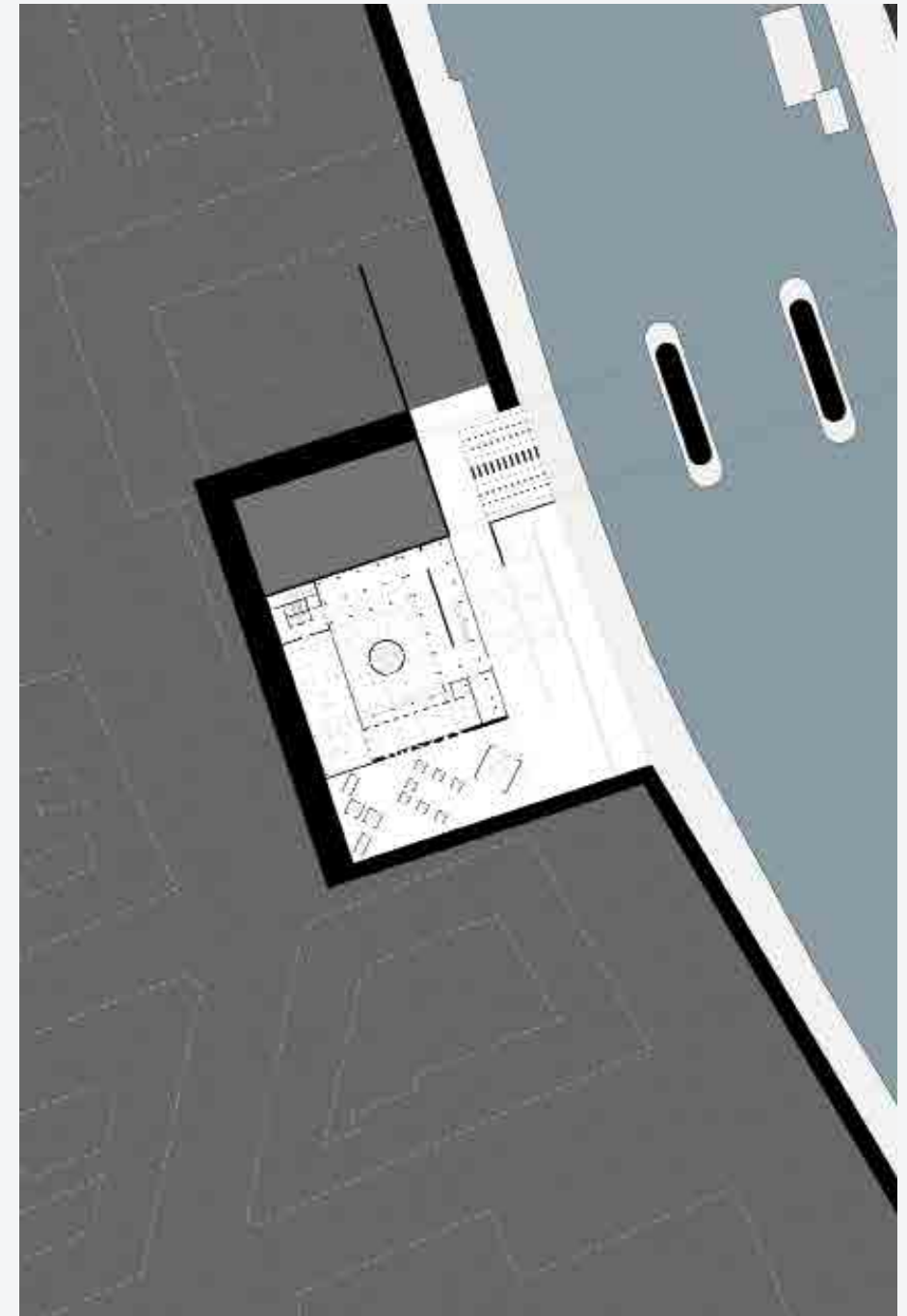
This proposal takes account the extent of the existing *Ponte Regina*

Margherita and the embankment wall, inviting the route established by the bridge to extend into and across the site. The existing bridge performs as a datum creating a series of dualities within the complex. The bridge stitches the proposal together, but allows for separate dueling worlds, one of reality, and the other in its shadow. An above-grade bridge perpendicular to the existing bridge connects these two worlds.

The grid represents the garden of doubt, and it registers itself throughout the entirety of the site. The grid is the only non-dual condition. To the north of the existing bridge is the world of reality, and to the south, the shadow world. These dual worlds are reciprocally related; the formal adjustment of the embankment wall figuratively completes the complex. This displacement of the embankment wall seeks to isolate the shadow world from its immediate context. The new wall adds a layer of complexity by encouraging occupants to question what it means to be within the embankment wall, outside of it, within the wall within a void, outside the wall within a garden, and inside the wall within the garden of doubt.



FRANK J. FUENTES



(Urban) Waste Producing (Urban) Space Reusing Privatized Infrastructure for Public Benefit

This thesis addresses the topic of waste energy, with a focus on the re-utilization of waste heat from data centers, contending that although data centers typically consume more energy than they produce, we can capture wasted energy in the form of heat and electricity to create new models for urban experience.

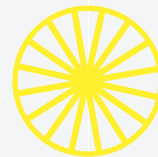
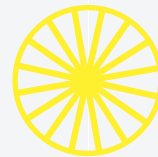
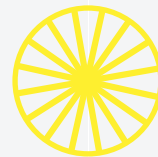
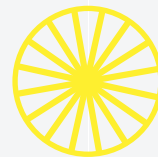
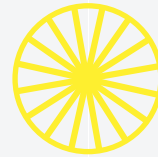
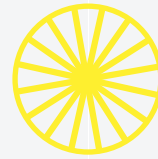
Heat, as a by-product of industry, is often overlooked due to its intangible nature. This is especially true for data centers, which are energy hogs. In order to offset the high temperatures produced, data centers demand extensive cooling systems to maintain optimal temperatures for the data servers.

Due to their significant need for both cheap energy and high security, data centers are commonly located on the periphery of cities, and are often not integrated into urban life. Many data centers are designed as generic structures, and are inserted into cities without regard for specific site conditions. They are typically designed as flat, singular entities that don't allow for any sort of public access or awareness.

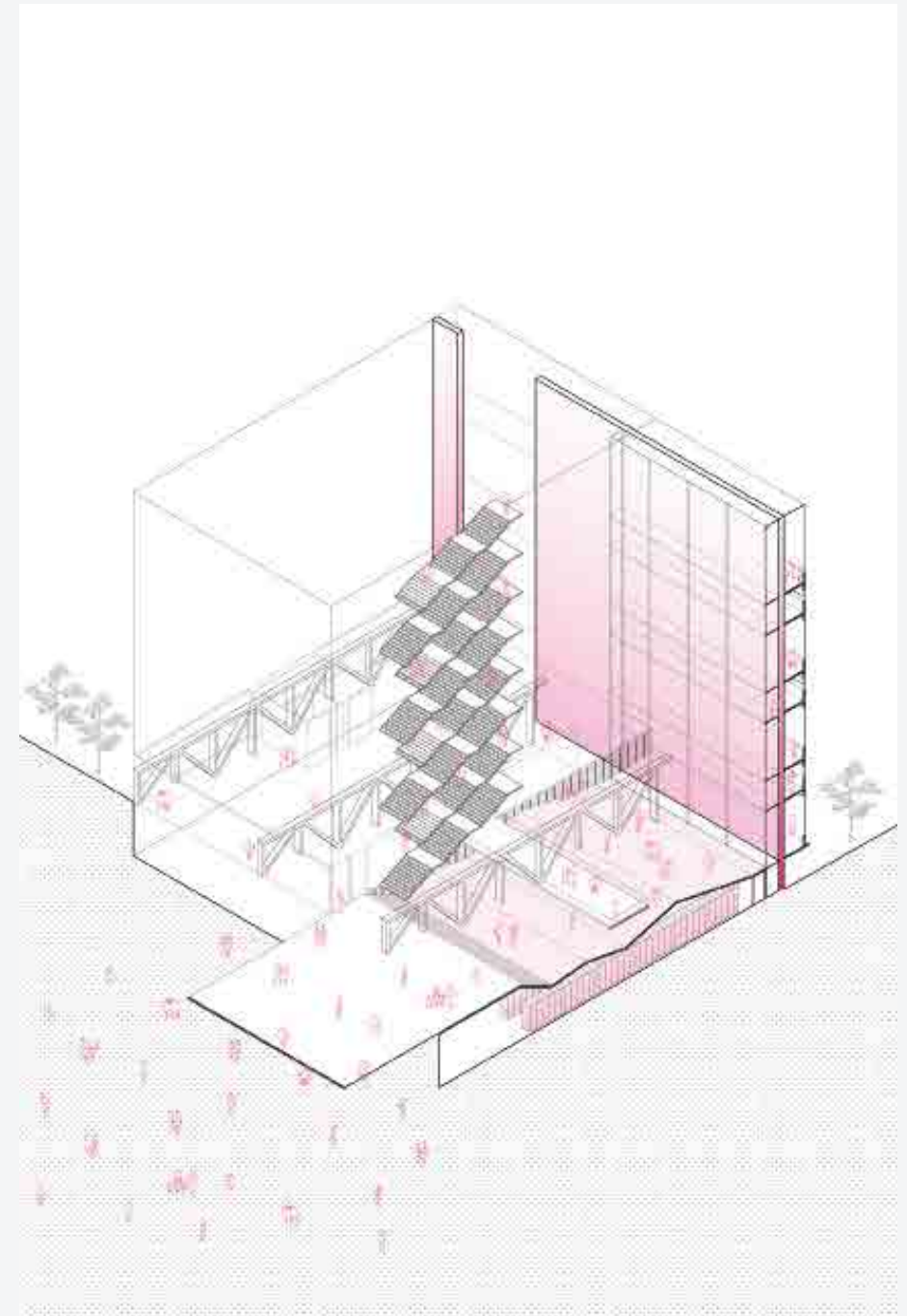
The main concern of this thesis is to challenge the spatial distinction between private and public realms in regard to energy optimization systems. It aims to re-utilize the by-products of the digital age in order

to produce a bi-functional architecture that efficiently reuses resources while simultaneously making them accessible to the public through strategic distribution.

As a result, this thesis calls for a project that is specific in its thermal control techniques, while maintaining flexibility in order to better connect with urban conditions. The project optimizes heat capture through the integration of thermal masses, chimneys and the laws of convection. The project simultaneously provides cooling through natural ventilation produced by stacking public access floors in between server floors. The various thermal regulation strategies are combined with the public promenade in order to bridge the gap between the producers and consumers of waste heat. The project emphasizes thermal controls in parallel with public access and therefore circulation is a primary driver of design. By manipulating the public arena's floor plates to undulate where thermally necessary, the people are able to inhabit a variety of primary and secondary atmospheric zones that are unique to the project. Ultimately, the project has a dual function of optimizing waste energy reuse while stitching data centers into urban experiences.



MRUNMAI FULAMBARKAR



Occupy POMO

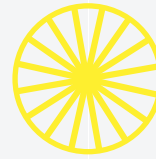
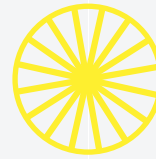
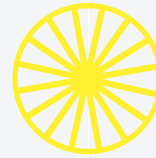
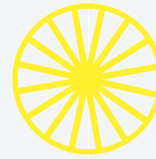
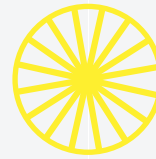
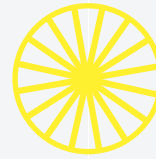
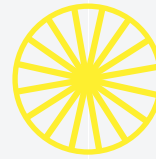
A Citizen's Guide to Urban Excavation

Traditionally, architects' definitions of solid-void conditions create a dichotomy between private, or built matter, and public, or void, spaces. Yet, this notion is a missed opportunity to understand the complex society of the twenty-first century that no longer operates within the realm of open, public space nor acts as a point of primal cohesiveness for culture and community. Rather than aggregating at instances of density, it is lost within a new ghostly cosmopolitan substitute of mass consumption and globalized culture. This new public realm is a "phantom public sphere", one comprised of "sub-publics", tailored to the demands of a mass culture. But how can the public realm mediate between these emerging "sub-publics" without submitting to isolation?

By critiquing the role of park revitalization as a tool of neighborhood gentrification, as well as understanding the imbalanced opportunity cost of "Floor Area Ratio" (FAR) bonuses gained by private developers in return for oftentimes sterile "Privately Owned Public Spaces" (POPS), *Occupy POMO* proposes to further deploy public

space as a political mechanism, driven by post-modernist (POMO) discourse and strives to reshape the city as it speculates on strategies for designing public spaces that can more truly reflect the public realm. This thesis acts as an agent of infiltration, infiltration into the vertical city, the city of tenants, rather than the city of corporations. Through a series of interventions that superimpose the culture of the "sub-publics" onto the existing site, *Occupy POMO* questions the traditional solid-void condition of the city and its high-rise typology and explores beyond the adjacencies and collections of spaces and looks into moments and boundaries of intersection. This thesis posits a new notion of an urban cavity, through which the public realm infiltrates into the private sector.

A city as dense as the Manhattan real-estate grid will always be a space of agitation, where private development demands and biases will convolute the way the public domain operates. This thesis speculates, via the dichotomy between ownership and accessibility, on how politics and architecture might be equally complicit in the process of urban form-making.



KRITI GARG



The Ottoman Han Recovery of a Lost Typology

Globalization creates a monoculture of repetition and sameness in architecture. To resist this trend, this thesis contends that it is crucial for cities to create unique experiences based on characteristics that are local to the city and the region. In this way it is possible to maintain continuity between the past and the future. This thesis seeks to draw attention to the traditional *han* typology and to the Hans District, located on the historic peninsula of Istanbul, and now designated a UNESCO World Heritage Site.

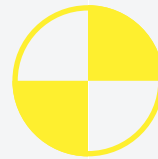
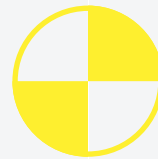
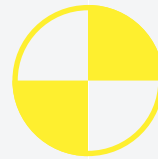
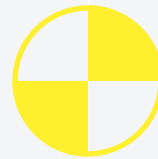
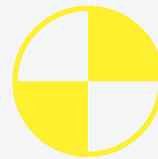
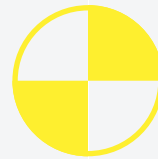
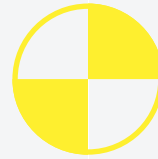
The *han* typology has been serving the needs of commercial life in Istanbul for over 600 years. However, during the 20th century it lost much of its popularity due to the vagaries of modernization.

This thesis focuses on both the preservation of the *Buyuk Valide Han* and the design of new complementary buildings for the site. The central aim of this thesis is to create value for future generations and to preserve the historic district through modern architectural interventions. The contention of this thesis is that a contemporary response to a historic context must assume the role of leveraging the special character and quality of the historic environment while contributing to the significance of the genius loci through the sensitive execution of multiple strategies; namely, the introduction of modern architecture together with appropriate preservation and urban design strategies. A critical issue

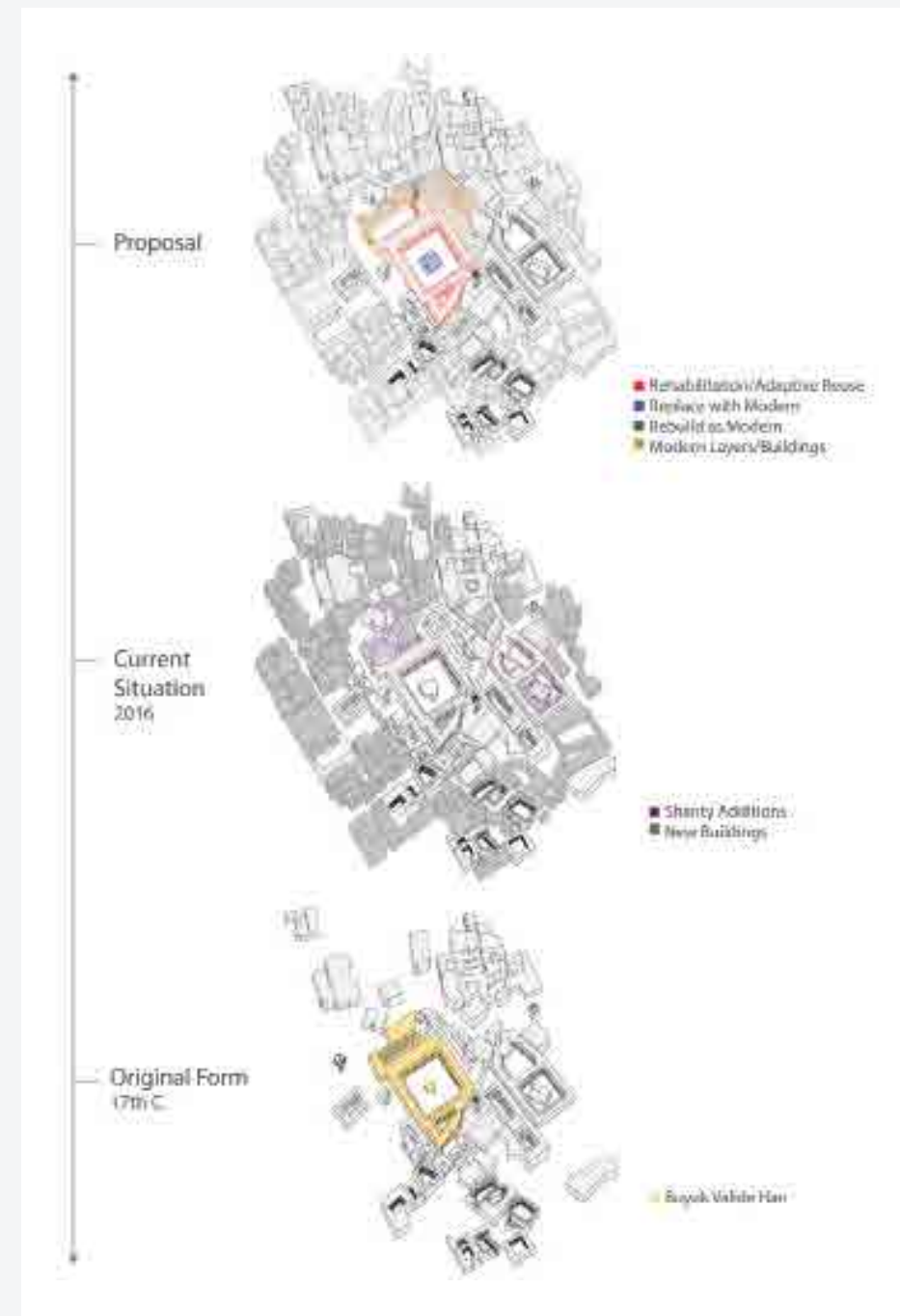
is implementing proposals into an architecturally and functionally unified historic context without causing irreversible damage to the site.

This thesis selects rehabilitation and adaptive re-use as the most appropriate preservation strategy. When determining the influence of the intervention within a historical context, issues such as scale, form, siting, materials, color, and detailing are crucial. The thesis proposes rich new layers by replacing the old masjid with a modern interpretation, erecting a new tower in place of the torn-down Byzantine tower, and designing a contemporary museum and guild administration building. All of the new structures are kept in scale with the surrounding context and the general fabric of the old city. It is crucial that contemporary programs open up the opportunity to acknowledge the traditional commercial identity of the Hans District, revive the master-apprentice mentoring traditions and introduce cultural and educational programming. The new proposal of a museum-guild administration building serves as an instrument of change and progress.

This thesis argues that modern architecture must not neglect the importance and value of history, but should instead strive for continuity. Doing this not only enriches the modern proposals, but also revives the historical buildings, making them available and meaningful to future generations.



ASLI B. GERMIRLI



Imperfect Square

Reconsidering the Dialectical Condition between Fabric and Object in Urban Environments

This thesis proposes to provide a new urban design approach to improve blighted areas in urban environments. It offers a strategy to patch together the fragmented physical landscape of the so-called “shrinking city” into a cohesive urban fabric.

The issue at hand is the need to recapture “lost” space—the underused and deteriorated areas of Syracuse, NY. To the east of downtown, buildings are dispersed throughout a vast wasteland of parking lots and vacant land. The area lacks a cohesive, unifying framework. The blighted neighborhoods are in need of infill, an insertion of urban fabric to stitch the city back together. By applying theories of fabric and object to this undeveloped portion of the city, this thesis aims to elicit new meanings and forms, and to establish new connections between presently isolated urban fragments.

In understanding the structure of the city as an interwoven pattern of variegated levels of density and pockets of open space, this thesis accepts the reality of a less dense built environment. It does so by reconsidering the traditional notion of urban fabric as a solid “poché” to create something that is less dense and more open, but still adhesive. Through an interwoven pattern of solid and void, the thesis aims to show that

a grouping of objects can merge into a stretch of fabric that can reunite fragmented portions of the city.

In consideration of the current realities of its post-industrial situation, the thesis asks how underused land can become an asset, rather than an obstacle, to the future development of the city. This thesis contends that—rather than anticipate any large-scale redevelopment capable of extending the size of the current downtown core—Syracuse should conceive a long-term strategy for repurposing the open space in its urban center.

The project that emerges is thus a master plan for a “rurban” development that acts as a new institutional campus for the research of urban agriculture. Private institutions also support a public commercial farming complex with the aim of reviving the city’s struggling economy through a shift towards urban food production.

The proposed educational research facility is conveniently located within the city’s aspiring innovation district, the so-called “Connective Corridor”, a collaboration between higher education institutions, the public sector, and private enterprise to revitalize areas of the city as the home of a cluster of new knowledge-based industries.



RICHELLE GEWERTZ



Learning from Limerick Transforming Heterotopia into Thirdspace

This thesis proposes the transformation of the “heterotopic” landscape surrounding our nuclear power production facilities into a so-called “thirdspace”. Through the upgrading and replacement of existing reactor systems, the collection and curation of iconic American suburban typologies, the encasement and enclosure of the retired cooling towers, and the arrangement and planning of public and private spaces within, this thesis contends, the “heterotopic landscape” can transform into a place for living.

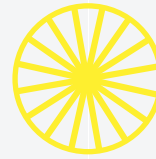
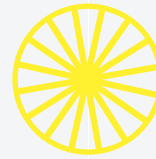
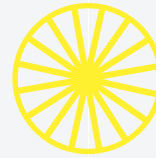
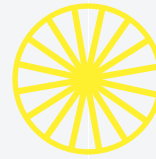
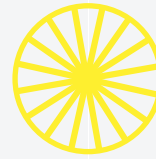
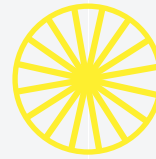
The “heterotopia”, defined by Michel Foucault in his book *The Order of Things* as spaces of “otherness”, can be understood as a space that functions under non-hegemonic conditions. “Heterotopias” are spaces of deviation, or institutions where we place behavior, individuals, and/or objects outside societal norms.

The “thirdspace”, as developed by Edward Soja in his book *Thirdspace*, is a space of “critical awareness”, a distinct mode of rebalanced spatiality, historicity, and sociality. It is a place that displaces the histories that constitute it, setting up new structures of authority; giving rise to something new and unrecognizable.

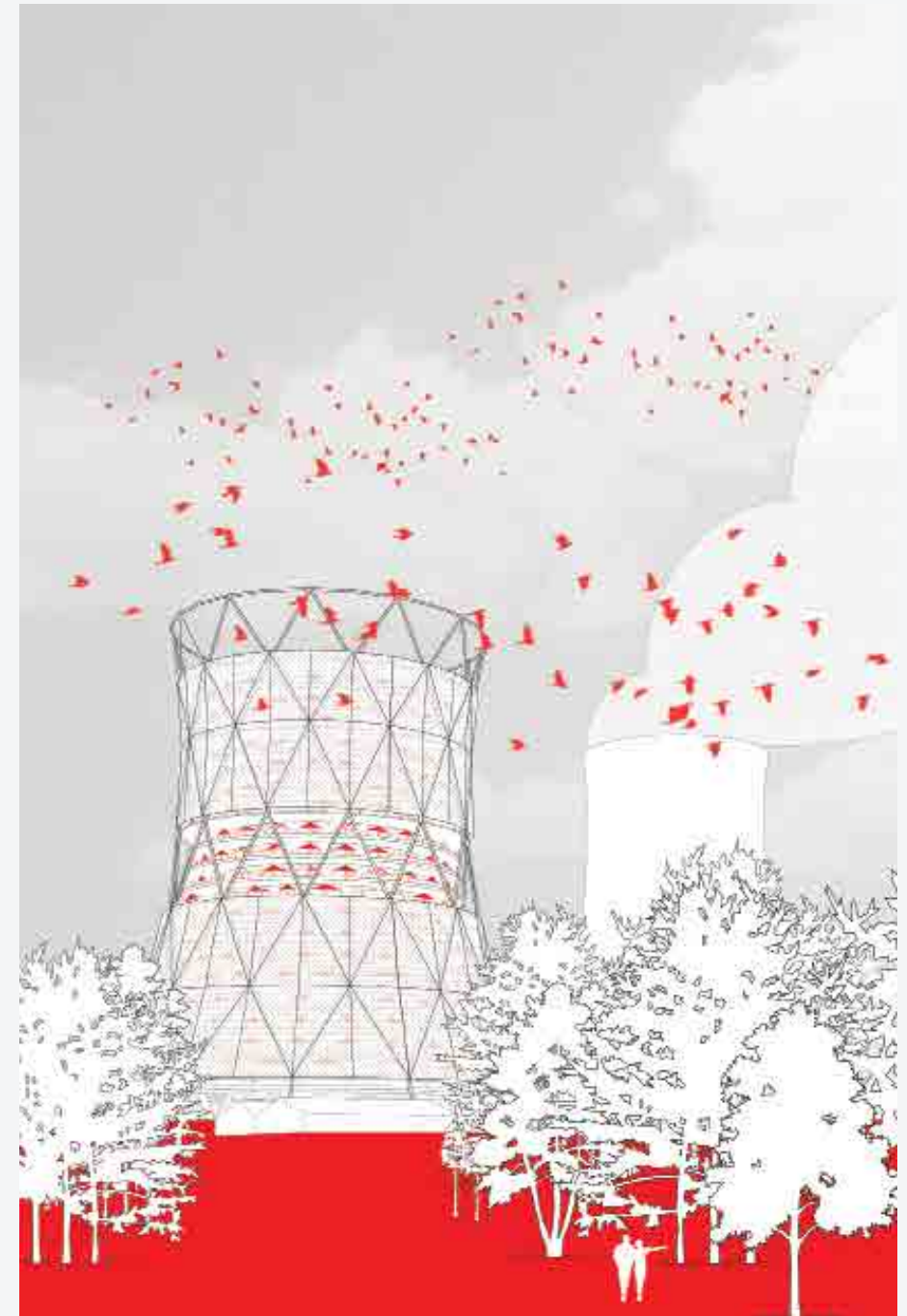
Learning from Limerick transforms the “heterotopia” into a “thirdspace” via the repurposing of uranium and plutonium-based nuclear reactors into clean, next-generation thorium-salt

reactors. The science behind these reactors ensures small scale, high-energy production, but also safety from the threat of disaster that envelops traditional nuclear processes. The reactor consumes waste fuel slowly and thoroughly, over the course of decades, transitioning the abundant on-site “spent fuel” resources into a long-term energy source of new energy. Within this new environment, processes of energy capture and feedback become entrenched. Waste heat is captured from the reactor processes by repurposing the site’s existing hydraulic systems; in tandem with the natural evaporative cooling effect of the tower, year-round acclimatization can be achieved. On-site production of direct current electricity provides structure-wide power and the near elimination of transmission losses, with large-scale conversion and exportation of alternating current electricity remaining consistent.

This dogma carries inside the newly skinned towers, which serve as mega-structures upon which rebalanced spatiality and critical awareness can be constructed. The shelves lining the tower become neighborhoods, with “the Bungalow”, “the Colonial”, “the Ranch”, and “the McMansion”, all remnants of an earlier paradigm, serving as the primary program to construct an environment that is familiar, but decidedly new.



JUSTIN LEE GOEHRING



Other Wildernesses, Other Realities A Framework for Shrinking Cities

This thesis is an experiment to imagine the possible realities that emerge from a redefining of the “*idea* of wilderness”

Wilderness is an *idea*.

Its definition is slippery. It is **neither** a physical place nor a **state of being** (as the “-ness” suggests). Wilderness is a human construct defined by varying cultural and social attitudes. This fluid meaning drove numerous paradigms throughout American history—from eighteenth century romanticism’s sublime doctrine to today’s environmentalism.

Inspired by past American paradigms, this thesis invents five other wilderness ideas that exist as parallel alternatives to our own. Each produces a representation of a possible manifestation of the reality informed by that paradigm.

Paradigm

Wilderness is inhospitable.
Wilderness is an aesthetic scene.
Wilderness is a site to see and consume.

Wilderness is valuable and at risk.
Wilderness is free of human purpose, utility, or design.

Manifestation

The Isolated Oasis: Wilderness threatens the pleasure garden.

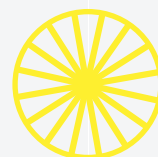
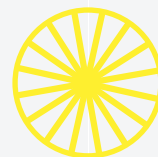
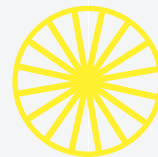
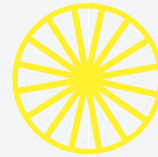
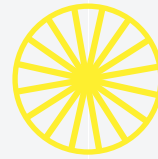
The Opera: A viewing device.

The National Park: Tourism at the wilderness museum.

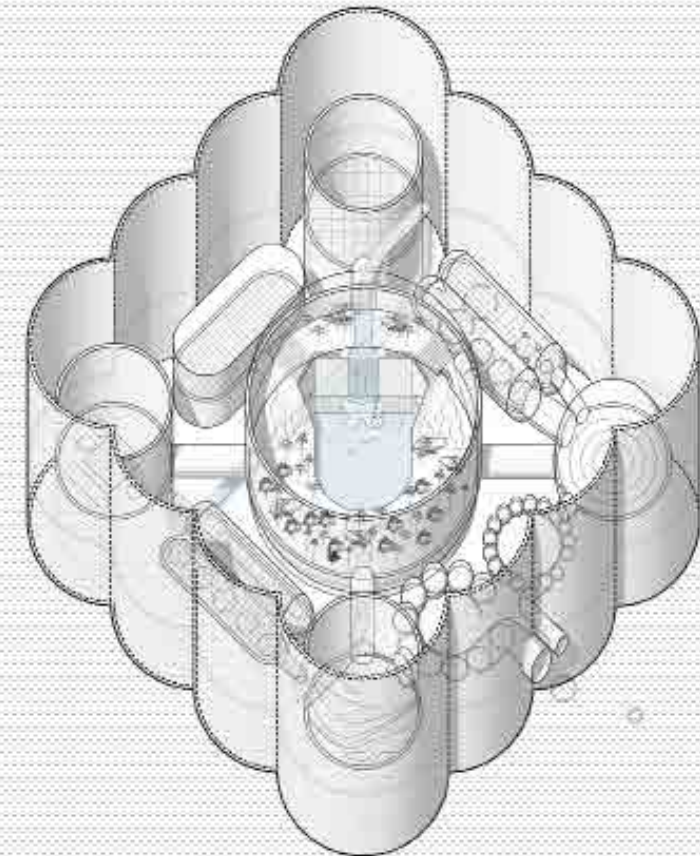
A Condition at Stake: Management of a fragile ecosystem.

Autonomous yet Altered: An affected landscape left alone to evolve.

The culmination of the five manifestations of alternate realities is a provocation intended to position architects to design differently in the future as the relationship with wilderness continues to change.



ALYSSA GORAIEB



Porch Prospects

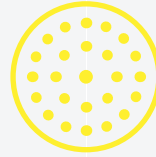
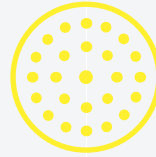
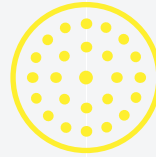
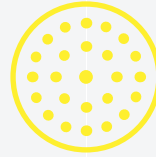
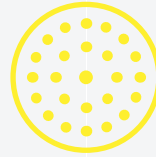
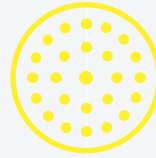
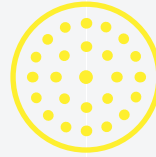
A Framework for Shrinking Cities

Analyzing and unpacking the perspectival framing of American porches provides a method for defining opportunities for the observation of architecture and its surroundings. The parameters of a porch guide inhabitants to and through a built work. This thesis tests out how utilizing a play of perspectives allows a larger institutional complex to incorporate flâneuristic elements to frame architecture, program, and landscape as spectacle, in order to attract strangers to observe and participate. Applying these strategies to the small town of Bennington, VT, a recreational facility provides an opportunity to engage the greater public through a curated display of procession that emphasizes both the experience of interior program projecting outwards and the welcoming of landscape inwards.

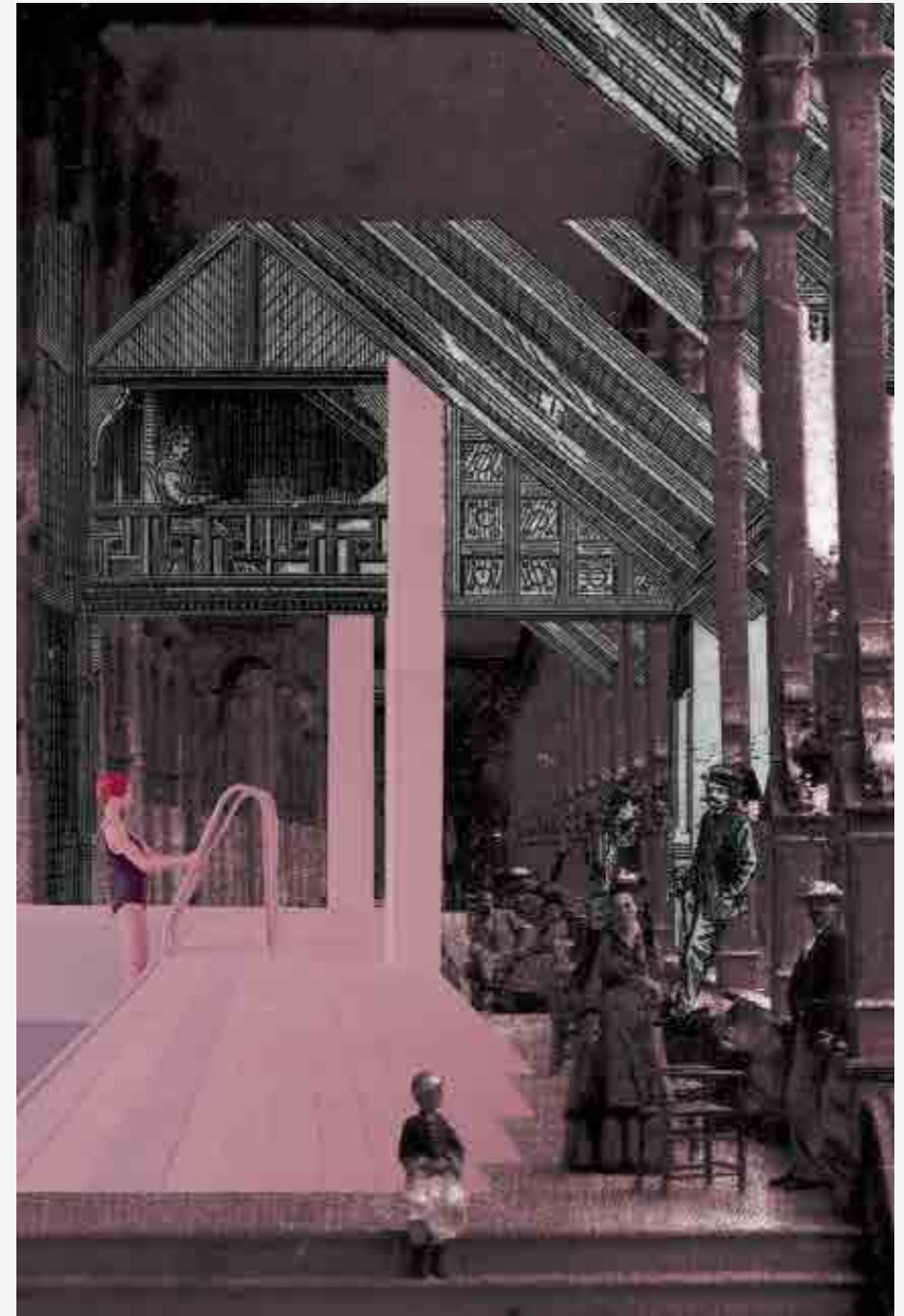
Jay Appleton describes the pleasure of viewing a “prospect” as the ability to be hidden while viewing “refuge”, but the prominent display of porches allows for inhabitants as spectacle on the one hand, and spectator on the other. The many typologies of sheltered outdoor space of the porch and its relationship to the architectural object reflect many of the processional and observational attitudes that Gordon Cullen documents in his study of the common English town. Adopting Cullen’s appreciation for the small town, the subtle methods used to frame movement and views are the main interests of this thesis.

A taxonomy of New England homes catalogs familiar formal elements and ornaments that expand upon how public and private spaces are molded. Drawing and model studies help understand the existing organizational and surface treatments of residential architecture in pre-industrial periods of Bennington’s history, and how these moments illustrate procession, observation, and spectacle. Contesting decisions in—but not limited to—gables, bracing, and cladding, this thesis hopes to appropriate contemporary details, ornaments, and materials to strengthen the moments of indoor programming to be projected and outdoor programming to be framed.

As a counter to passé fabricated notions of diletantism in small-town tourism, this thesis acts as a reminder of America’s earlier homestead attitudes about urbanity, while embracing the material sentiments of wood-frame construction. Framing the discussion to posit that intermediary transitional space affects a built work as much as the contents of its interior program, the thesis dissects the spectrum in which institutions, homes, and porches act as refuge against the many angles of perspective that define them. Ultimately, this thesis contends that by understanding the spatial implication of porches, neighborhoods can come together as a community to recognize the potential of sheltered outdoor spaces to amplify the curation of architecture.



JOEL ALBERT GUERRERO



The Architecture of Ritual

A Transformative Approach to Winery Design

This thesis is about a ritual.

A ritual one can savor, share, and celebrate: the ritual of wine making.

Wine making encompasses an extended process from the harvesting of the grapes to the moment a glass sits on a dining table. By affording each intermediate step in this process—the pressing, bottling, decanting, smelling, and tasting of the wine—its proper place, wine making can be characterized as a form of ritual.

What makes wine so special is its ancient cultural roots, and most importantly its transformative qualities. Regular fruit-based beverages take the fruit, press it and turn it into juice. However, wine takes it one step further as the liquid juice is reprocessed by a process of fermentation. Wine's second transformative quality is its physiological effect. Alcohol consumption affects the brain, loosens muscles, increases the heart rate and blood flow and will—of course—get you drunk.

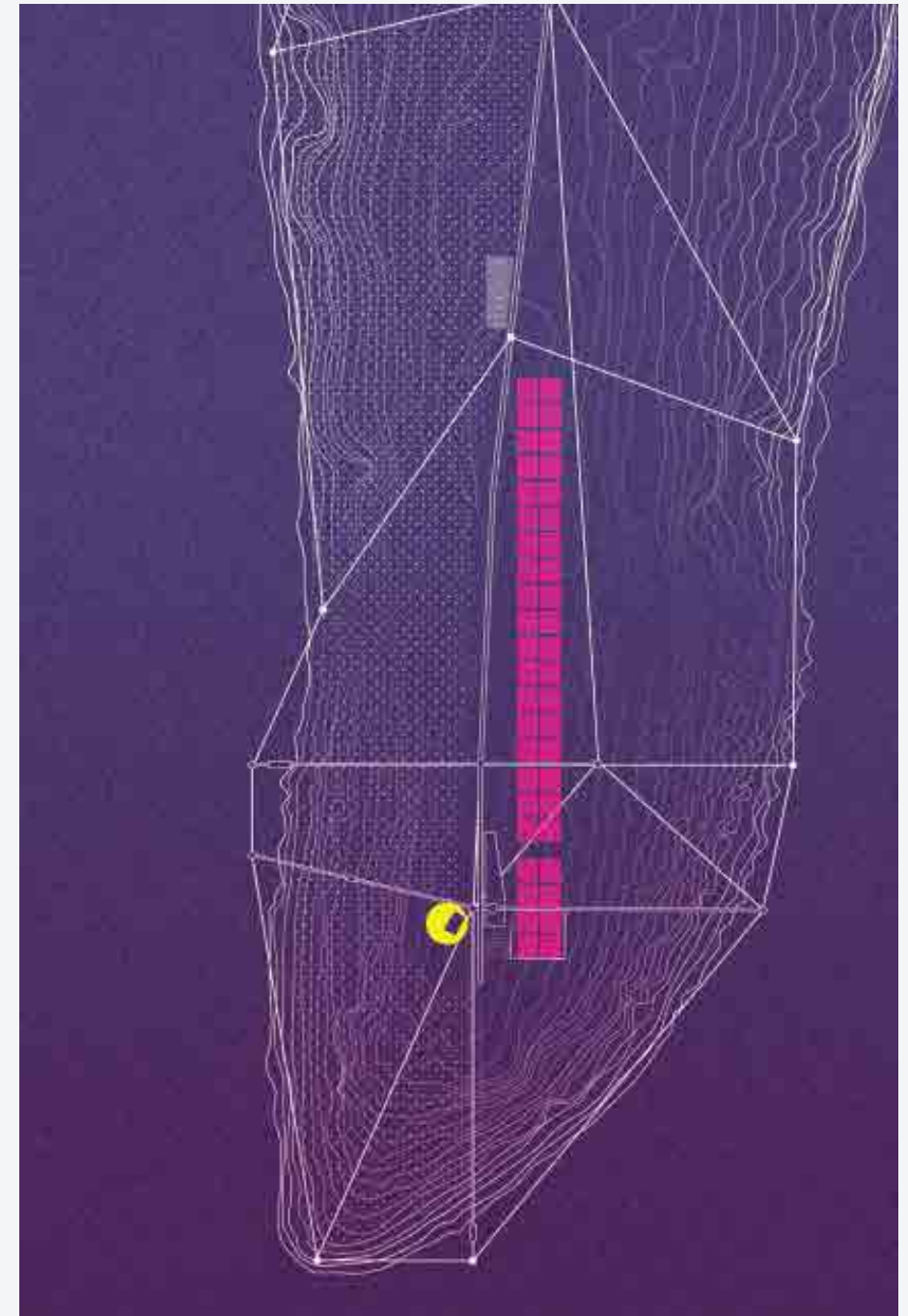
This thesis argues for wine making to be understood as a

ritual that induces transformation. Rituals are characterized by a set of actions routinely conducted in the same manner. Rituals create meaning through repetitive actions, transforming the mundane into the ritualized. The relationship between wine making and a sense of ritual is strengthened by the traditions, myths and stories associated with the long history of wine making in human cultures. In this thesis, “the architectural ritual” is intended to express the dichotomy of nature versus culture. In the same way that wine comes from the earth, the nature of the winery emerges from the ground that nurtures it. Culture becomes the site of discovering the art of wine making and this dichotomy between nature and culture itself becomes the ritual, and transformation becomes the path between the two. The dialectical tension between nature and culture is concretized in the form of a wall. Transformations occur when people interact with the wall and the wall becomes a site of ritual.

“It’s going to be a beautiful wall!”



ALESSIA HADDAD



Daphne Abject Domesticity

In 1941, *Powers of Horror, An Essay on Abjection*, by Julia Kristeva defined the “abject” as something that disrupts system, identity, and order. She writes:

The corpse, seen without God and outside of science, is the utmost of abjection. It is death infected life. Abject. It is something rejected from which one does not part, from which one does not protect oneself as from an object. Imaginary uncanniness and real threat, it beckons to us and ends up engulfing us.

On the surface it would seem that the corpse represents abjection in that it reminds the onlooker of his or her own fragility and eventual death while also determining that the corpse represents something that is neither human, nor non-human, but an in-between state. Looking further into Kristeva's quote through the lens of Sartre, the word God presents an argument much deeper than the horrific nature of the image. “Seen without God...” would seem to suggest the greater presence of abjection is not solely limited to the individual caught by surprise but within the loss of ability to relate a death to a higher power, no longer an act of God, but a senseless death that would plague each individual at a moment in time. The abjection is no longer being able to place our identity before God as a belief system of control and order, but that each person has a freedom to determine how to act and decide what kind of world they would like to live in.

This lapse in meaning and disruption of an established system, identity, and order is the root cause of the psychological state of repulsion, one of disgust, one of horror. It is the moment when the individual instinctually retreats out of extreme discomfort. In a way, it represents the undesirable aspects of everyday societal life that architecture and urban planning strive to rid itself of. The theme of cleanliness was one reason for Georges Bataille's criticism of architecture turning against itself, for architecture was, in Bataille's opinion, society's superego. The “superego” was a term used by Sigmund Freud to describe the highest level of psychological apparatus in which the mind recognizes its conscience and sense of morality, and morality is thus distinguished from a parental agency. The cleansing of Paris and removal of the slaughterhouses symbolized the moment in which architecture had turned against itself in support of the removal of the abject, the blood and corpse, in favor of the grass carpet of clean leisure.

This thesis assumes Bataille's notion of architecture acting as “superego” to be correct in so far as it represents one's idealized self image. Where architecture today differs is in our understanding of the architectural monument as essentially post-monumental. Today, this thesis argues, social order is reinforced not via the monument by via the monumental scale of domesticity itself.

MAX HARDEN



Breaking the Monopoly Operating on an Ailing Mall Typology

America was introduced to the shopping mall in 1956 by Austrian-born architect Victor Gruen. In his design for the Southdale Center in Edina, MN, Gruen envisioned the building as commercial spine—an interiorized “Main Street” intended catalyze a new sort of suburban ideal. Southdale’s glass roofed central court was to be the agora of the American century.

Today, stripped of their optimism, Southdale and its siblings across the country cut somewhat diminished figures. Vacancy rates are high, footfall is falling, and the mall’s place at the heart of American suburbia is under threat. Malls have become hulking architectural remnants of a privately-owned, capitalistically organized way of thinking about public space that seems strangely out-of-step with the horizontal, networked,

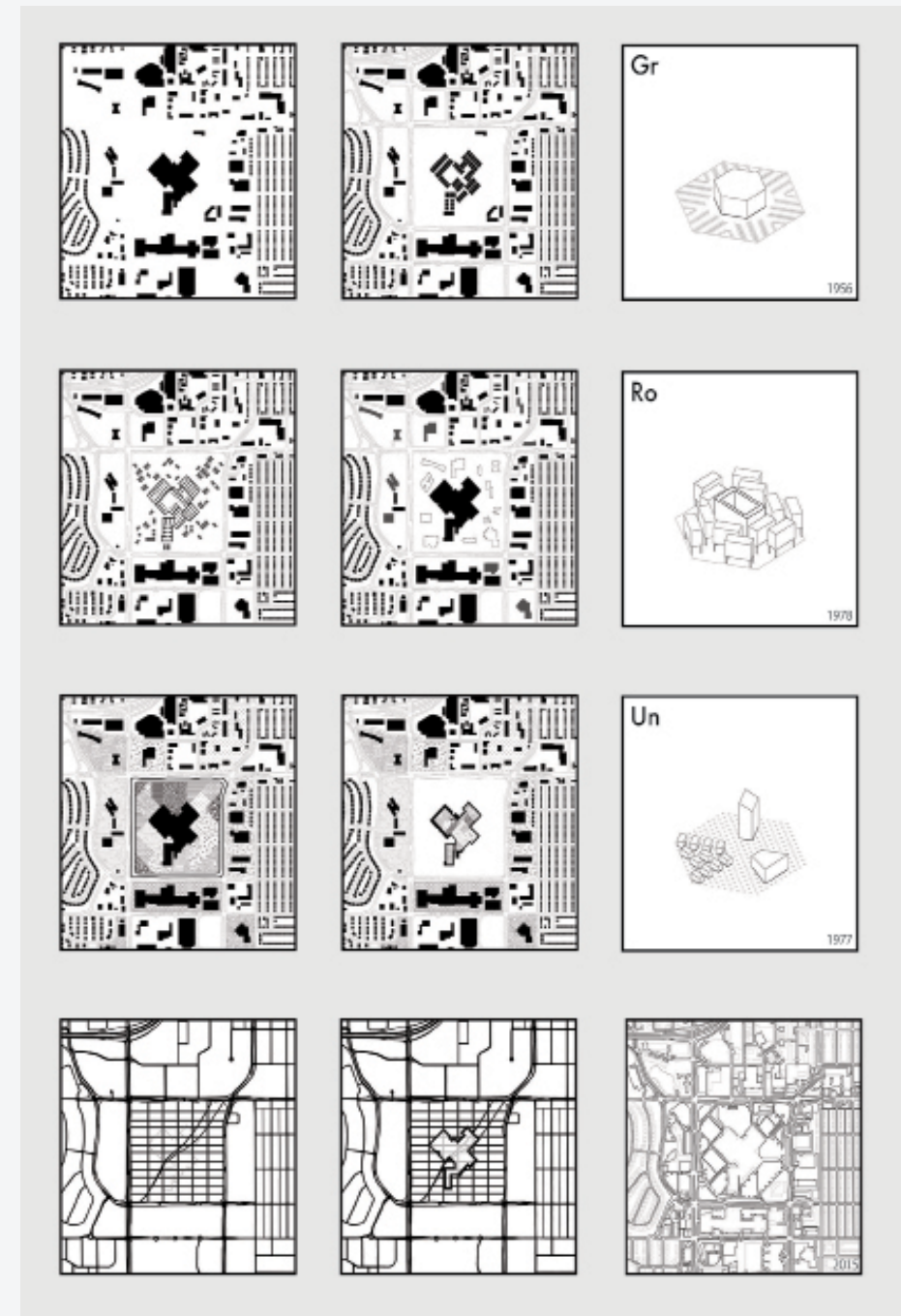
hacker-oriented culture that the best of America’s cities exemplify.

This thesis conceptualizes the existing Southdale Center, as a place of difference, exchange, and collective activity—as well as shopping.

Through a restructured approach to ownership and control Southdale emerges as a locus for new sorts of community engagement and activity: The parking lot becomes an urban farm. The anchor store is repurposed as a cultural center. New leisure and social uses are inserted into the mall. Theorizing these interventions, this thesis proposes a new future for the mall, as a flexible zone uniquely placed to meet the needs and aspirations of the diverse communities that comfortably coexist in the 21st century version of the American suburb.



AVNIKA HARI



Thinking About Thesis: Susan Henderson & Yutaka Sho

Professor Susan Henderson specializes in the fields of Islamic and early modern European architectural history. She has taught at Syracuse Architecture since 1991. Yutaka Sho has taught at Syracuse Architecture since 2008. She became an Associate Professor in 2015.

SH
We've been having this conversation about thesis for many years.

YS
That's a good thing. It means that the School is always responding to issues and to people coming in and out, and that we're constantly reevaluating ourselves against them. It's more interesting than the predictable and scripted approach to thesis evident in some other schools.

SH
Yes, and the profession continues to evolve as well. With the massive changes in building and digital technology, and a much healthier diversity in gender and ethnicity among both professionals and clients, the School should always mirror and even anticipate this state of change, in a constant rethinking of the best way to prepare students for the design world.

YS
That said, there are certainly more than a fixed number of models for the "capstone project". The tools I have picked up from the architecture schools that I value are those skills needed to negotiate and coordinate the various moving targets that form a part of

any larger project, as much as a skill to design as such. I sometimes wish we paid more attention to developing those kinds of skill. There has been a particularly strong change in recent years at many colleges and universities, not just in the sorts of theses being produced, but in approaches to professional practice and professional elective courses.

SH
I think the key shortcoming with existing models for thesis, whether it's that promoted in the Beaux Arts tradition, or something more radical like the work of "the rural studio" at Auburn, is that they focus only on the way that thesis students engage with their peers and with the faculty; they ignore the question of content. We should be shaping fields of investigation that reflect the School's and the students' strengths and not propose that a thesis "can be anything."

YS
At Syracuse Architecture we have tended to understand the "integrated design studio" as the place where students should demonstrate a comprehensive ability to propose buildings, and that's freed-up thesis to some degree, enabling it to

be a place where students feel able to pursue their own foci. That said, I think that expecting any single project to embody everything you've learned during your time at architecture school is unrealistic and unhealthy. Some schools choose to publish projects from all studios—from the freshman class to the senior studios — indicating that thesis projects alone cannot be seen as a summary of what the School is about.

SH
We disagree there. I think of thesis as a moment of maturation. You aren't being given an "assignment," but are free to craft your own work for the first time and that doesn't mean starting over in unknown territory. By the way, I understand the goal of the fourth year "integrated design studio" to be something else. Its goal is to reinforce how the technologies, in particular, are integral to making built work; it's not about design experiments in method or architectural philosophy. However thesis is, in allowing the student to shape her ideas and approach to architecture through a project that she alone determines and creates.

In that sense, thesis remains an "academic" experiment; you will not find its like in the profession.

YS
I agree that students should not start over. They should pursue what they have cultivated over the years and have tried, at smaller scales, in previous courses. But that doesn't mean that it has to be presented in a neat package. Thesis could be a place to concentrate students' efforts in specific areas so that they know what kind of designers they want to be. It is a kind of a beginning. But I think we don't spend enough time teaching students how to research, and all of a sudden we ask them to do it right. Thesis has to be a stepping stone toward independence. And after students graduate, they can and should practice their thesis.

SH
So back to the question of how to structure a thesis program, and how best prepare students prior to thesis. Research has been a subject of some discussion in recent years. We saw "phone books" of statistics replacing site data and programming, a mistaken direction I think and one that seems to be coming to a merciful end. But the issue of what research is still seems unsettled. Perhaps the term itself, tying the architectural thesis to science, rather than to art, sets up false presumptions. What constitutes "proof", for example. On the other hand, the thesis prep course that comes in the semester prior to thesis proper can indicate rather practical preparations that need to be made in advance of a project- gathering materials and information that will be

needed to proceed. This alongside the development of an "idea" perhaps rather than a "thesis", should be its goal.

YS
That requires the student to have a research trajectory in earlier years. The student could benefit by having a curriculum that builds toward her own independent research experience. They need time to build knowledge but right now the curriculum is entirely decided by us faculty. I think the School's SU Abroad programs could become the place to explore these ideas. Being in a foreign country is in some ways like doing thesis—students are thrown into an unknown space and have to find their way around.

SH
Replacing the term "thesis" could also expand the number of potential methodological pathways available to students and faculty alike. Some students may develop a "thesis", some will seek to demonstrate their expertise in design and innovation as in a capstone project, others could be more philosophical.

YS
I think I have more problems with the term capstone project than thesis. Capstone in its finality and glorification sounds like you have to demonstrate that you have mastered something in your 5 years at architecture school. I haven't mastered anything in my entire life! In thesis I expect students to take their tools and tenacity and tackle urgent issues, and make a big mess of it all courageously. And I agree that this mess should be a building, or at any rate that buildings make great beginnings for courageous messes!

SH
!!!!

Parity Redundancy and the Machine

Data centers operate as a challenge to contemporary infrastructure and present a unique problem for architectural design. Data centers host large arrays of servers, expelling both information and heat. Because they are “lights out” facilities, data centers work under a different paradigm of energy consumption. This consumption does not correlate with a human function other than the exigencies of the internet, and, more specifically, its hosted data. Data becomes the central actant in the ecology of the data center.

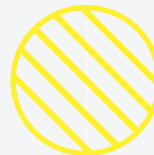
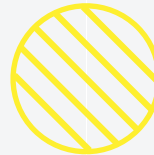
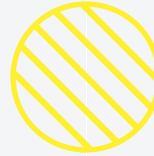
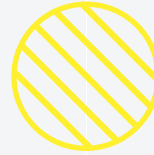
Ecology itself is the central theme of *Parity*. In attempting a closed loop system, *Parity* attempts to achieve “efficiency”, a term at odds with another central tenet of data centers: redundancy. Most data in the “cloud” has a copy somewhere else. Moreover, engineers configure data centers to have multiple power sources, often leading to a “2n + 1” formulation. With *Parity*, there are three power supplies: geothermal, hydroelectric, and wind power.

The site also provides another significant kind of energy: cold air. With the need for multiple renewable energy sources as part of the closed system, Greenland offers an ideal yet unconventional locale in its eastern coastline. The town of Tasiilaq is both a tabula rasa for an automated, closed infrastructure and an energy-specific context for the needs of a unique

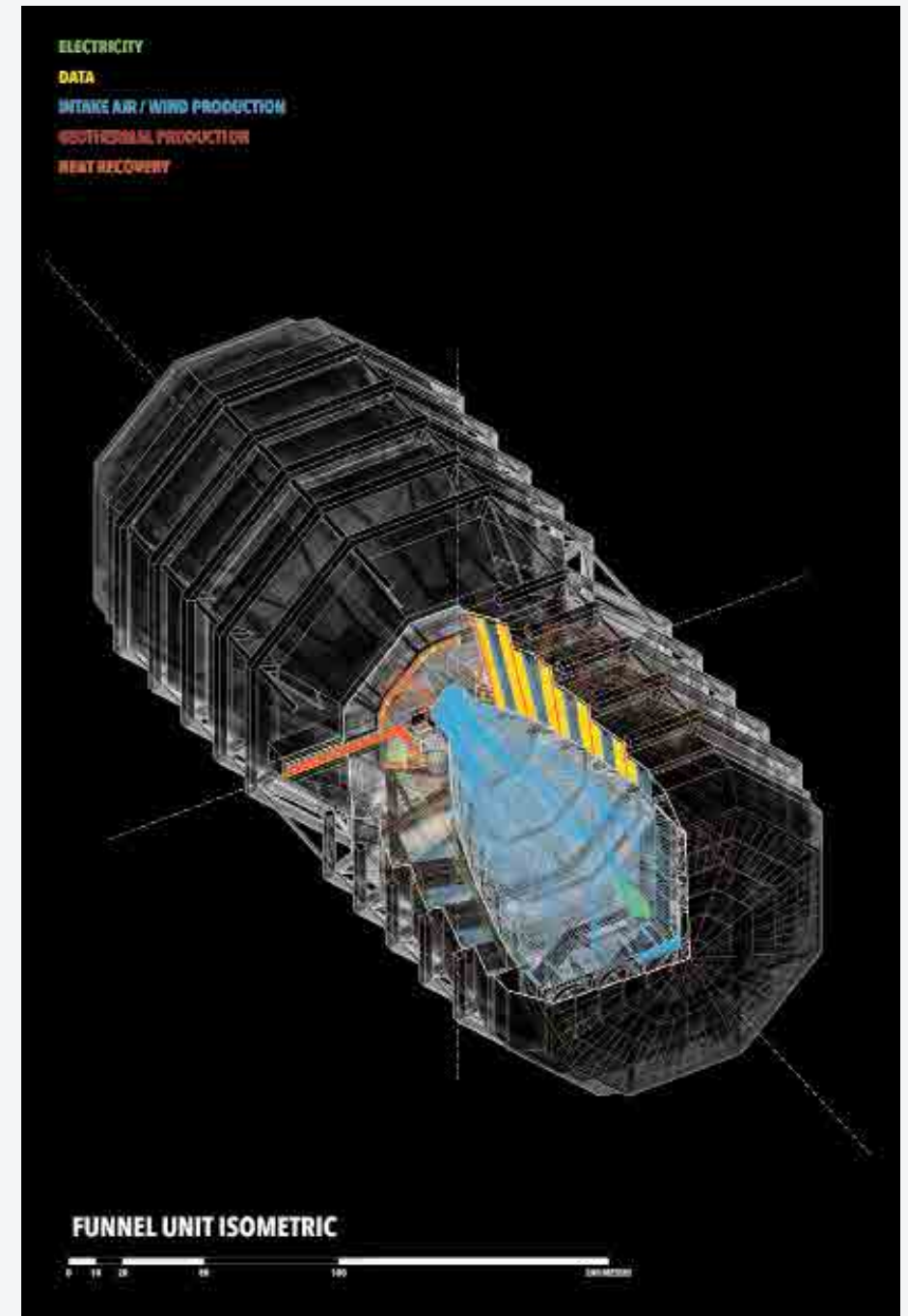
ecological program. The Greenlandic frontier hearkens to the infrastructural modernism of Buffalo’s historic grain silos and towards a future where infrastructure and the machine sublimate into a single edifice.

In thinking of efficiency and redundancy within discourses of ecology and closed systems, *Parity* becomes a machine-organism. Its modularity is not anthropomorphic, but data-centric: the individual server blade. By eliminating human occupancy all together, automatons—robots—become the stewards of data infrastructure. These robots’ geometries conform to the dimensions of a single blade, reducing the size of “mechanical corridors” into ventilation shafts. In energy, maintenance, and geometry, ecological flows parallel the organic flows within the animal body. This metaphor becomes a cybernetic relationship, complete with communication and feedback among the different constituents of the overall being: the data center.

The fiction in *Parity* is not in the possibility of a fully automated machine structure but in its posthuman narrative. The human usually exists as exceptional to or as the telos of architectural performance. *Parity* frames architecture as a problem of performance, automation, and objects and offers a glance into the withdrawn, inner space of a closed ecological system.



HAMZA HASAN



The Sacrifice of Space Transgressive Tactics for Micro-Apartments

This thesis contends that people are willing to live in small spaces for big payoffs. Why else would someone respond to a Craigslist ad for a 100-square-foot apartment? "\$795 / 100ft²—room \$795 all included shared bath (Harlem / Morningside)". Why else would someone live in a room the size of Ikea furniture? The answer can be found outside, with significant urban amenities within walking distance. The site is NYC, the epicenter of micro-housing.

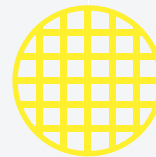
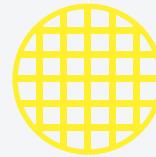
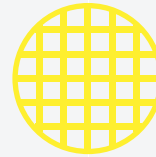
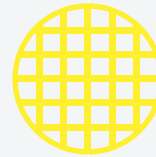
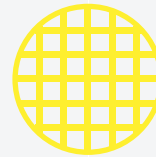
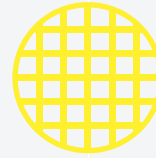
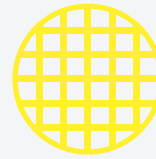
The thesis follows the young professionals who live in micro-housing. It doesn't matter, though, as one exclaims, "My living room is Central Park!". As a result, micro-apartments near urban points of interest were studied. It's here that the thesis discovered a design solution to an existing housing crisis.

"There are 1.8 million one- and two-person households and only one million studios and one-bedrooms to meet this housing demand," states the City's website. In response, Mayor Bloomberg announced the adAPT NYC competition, encouraging the private sector to submit designs for micro-apartments. In the end, nArchitect's My Micro NY won the competition. The project will be the first micro-apartment building in NYC,

demanding rents of \$2,000–3,000 per month for 260 to 360-square-foot rooms in Kips Bay.

But problems exist with this solution. Not only is the project nowhere near affordable for young professionals, but also it's located on the periphery rather than adjacent to urban amenities. This thesis proposes an alternative, with micro-apartments infiltrating desirable neighborhoods like the Upper West Side. By redesigning residual spaces for alleys, driveways, fire escapes, and windows, the project provides affordable housing near important urban spaces.

Real estate developers, economic forces, and government sanctions are all creating micro-apartments. Few things are left to fight back, such as building codes and the ADA. Despite this, tenants of micro-apartments contribute more to the life of the city than their more affluent counterparts. They rarely travel or stay indoors, opting instead to enjoy local urban attractions. However, some might argue they do so by residing in spaces unsuitable for living. Using various modes of representation through a satirical perspective, this thesis creates a design solution that mediates between these two perspectives.



MATTHEW HONIG



Deployable Domesticity

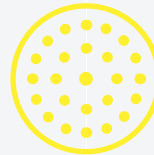
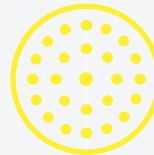
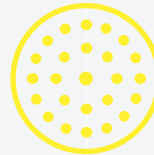
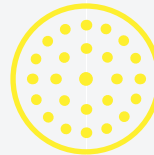
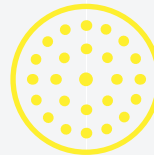
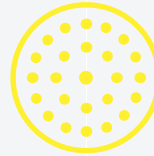
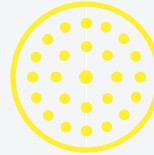
Amidst erratic anthropogenic and environmental developments, global societies are strained to respond to altering social, political, economic, and physical demands. Simultaneously, domestic permanence is challenged as unstable living conditions lead to ephemeral nomadism and forced globalization. While the zeitgeist calls for “the humanitarian response”, this response is flawed by restrictive and undignified conditions. This thesis aims to identify the most critical applications of rapid shelter, and respond with a new domestic unit that promotes safety, dignity, and comfort. Through flat-packing and adaptable fabrication strategies accommodated by the “living hinge”, as well as economic and environmental considerations of material lifespan, this unit aims to bridge existing voids between transient deployment and stable housing.

The developed domestic unit will be poised to respond to a variety of critical applications ranging from migrant farmer housing to post-disaster shelters. However, as the result of sociopolitical and statistical trend analysis, it is first positioned within the realm of refugee housing. More specifically, it is geared towards

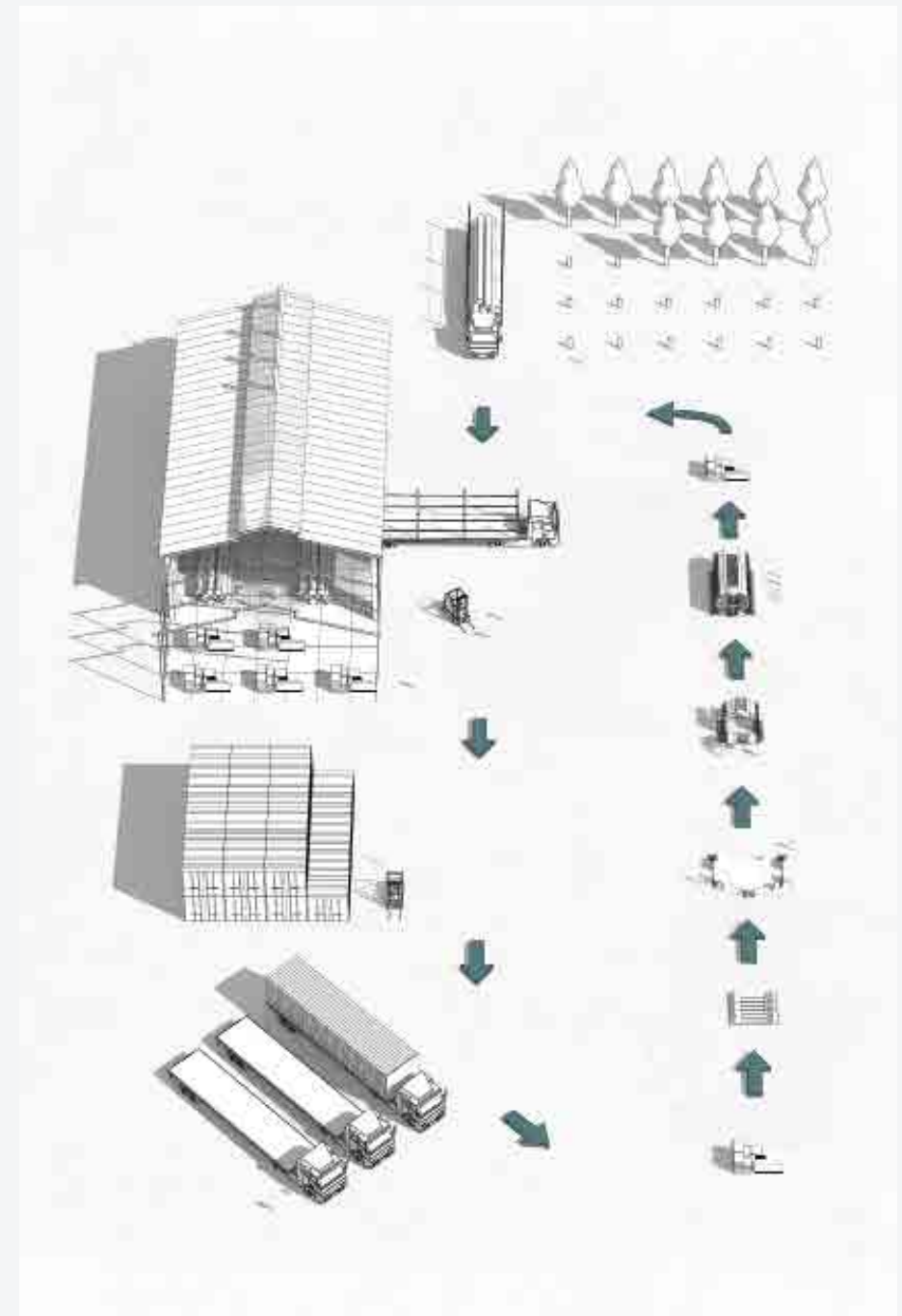
mediating the increasing rates of global movement to nations such as Germany and Sweden, which, while providing access to job markets and fruitful lifestyles, are inundated by unexpected quantities of asylum seekers.

Although the field of refugee housing has been thoroughly marked by attempts at providing rapid protection, the often unanticipated duration of displacement demands a greater attention to the quality of domesticity. Perhaps it is a merger between the efficiencies and innovations of the IKEA Better Shelter and the deployable homes of Jean Prouvé that is necessary to address concerns of both home and fabrication. In this thesis, the means of deployment, methods of construction, and performative and programmatic issues of home will characterize imperative progressions.

Through utilization of the “living hinge”, a system that exploits reductions in material thickness for flexibility, the proposed unit can achieve formal and performative advantages. This thesis seeks to promote total-design and differentiation through adaptability, increased daylighting and ventilation.



DANIEL HOPKINS



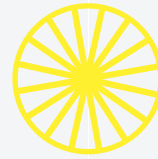
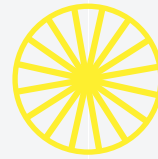
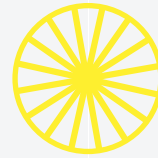
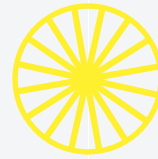
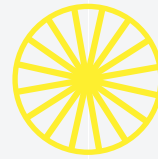
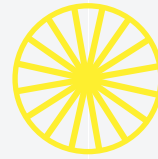
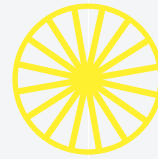
Delightfully Disgusting Post-Human Design, Ft. Pigs

Humans have used architecture to isolate themselves from larger natural systems and other animals, even though they are themselves—or were once considered to be—animals. This thesis contends that buildings can be designed to accommodate the needs of humans and animals simultaneously, and so foster symbiotic relationships between the two. Humans' tendency to separate themselves from animals and to domesticate them has resulted in sterile and overly tame urban centers. This condition results from common attitudes humans have cultivated towards animals: they are dirty or clean, useful or useless, pleasant or annoying, harmless or dangerous, and cute or ugly. In short, we are all torn between delight and disgust for animals. These judgments directly articulate a distinction between the things and creatures that we keep interior and exterior to our lives and minds.

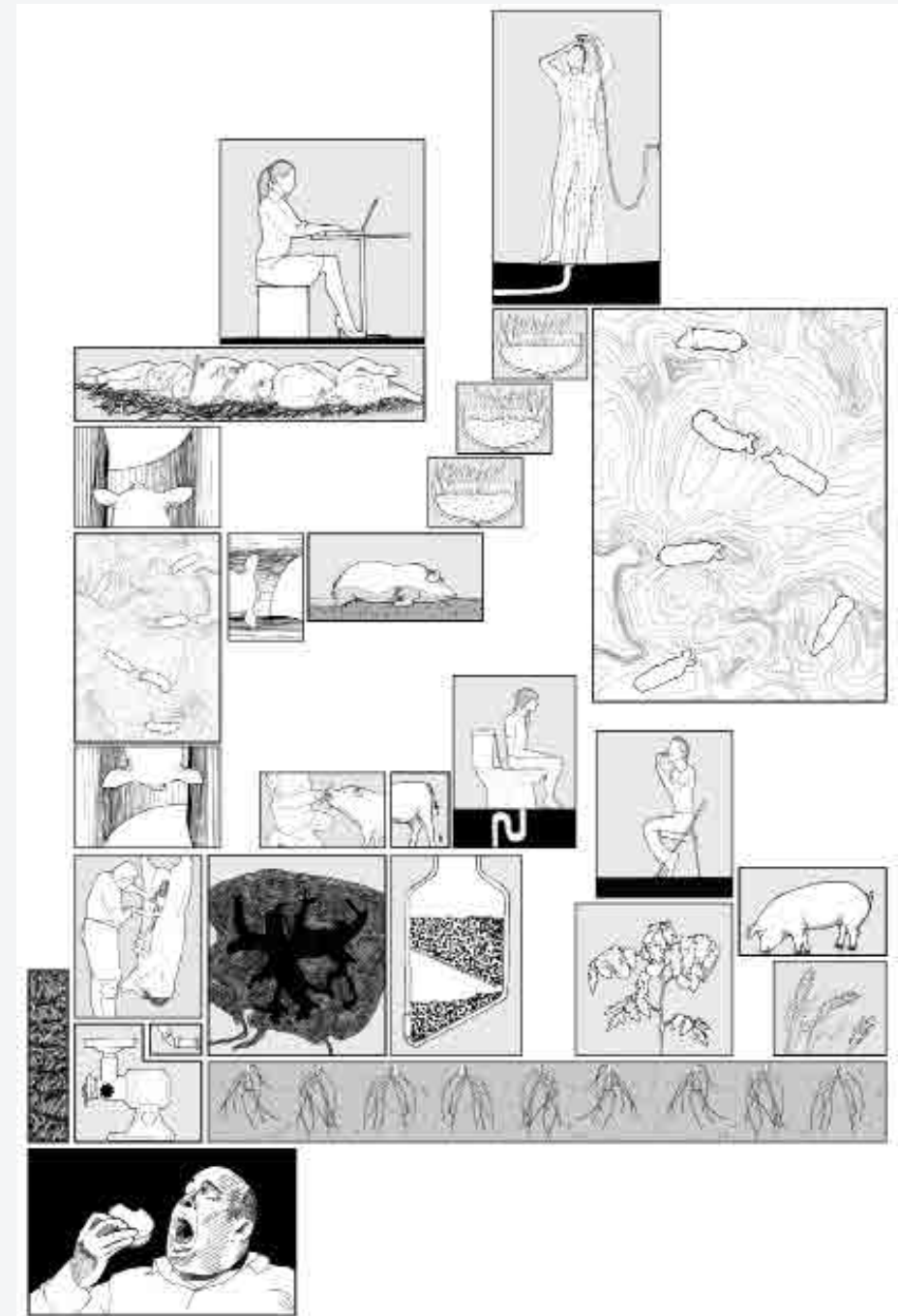
Theorists, such as Catherine Ingraham, have suggested that we currently live in a “post-animal” era: a state in which humans have become “modern” by defining themselves as something other than animal and of higher importance. Humans view other animals as four categories:

- Pest (Animal as enemy)
- Pet (Animal as accessory)
- Livestock (Animal as capital)
- Wildlife (Animal as spectacle)

This thesis aims to reflect on and critique the place that animals have in the city, and to offer provocations on the way buildings can reimagine our animal lives through designing a building where systems and program revolve around a symbiotic relationship between humans and pigs. A mixed-use building in the post-human era located in a parallel world, where dense cities have extended their reach over all land, leaving no “natural” land, New Pork City is designed to keep pigs and humans within the urban center. Through combining attitudes of delight and disgust, this thesis will reflect post-human design thinking to engage both humans and pigs to create increased interconnectedness between the two. Reservoirs, funnels, mounds and slopes infiltrate the architecture as a result of a reorganization of systems (food, waste, water), but also as a way of creating spaces that allow for curiosity, play and interaction between humans and pigs.



JING YI HUANG



Dwellings With Charm

The progression of architecture is an additive and collective process. Innovative styles and aesthetics almost always take cues from the past in order to create something new. Therefore, architecture is almost never original, but rather a constant evolution. It is almost impossible to create something new without looking at prior examples.

After World War II, in the mid twentieth century, there was a boom in suburban housing developments giving birth to several new housing styles. New styles were symbolic of the American dream and its accompanying lifestyle, which intended to represent an idyllic lifestyle scenario that resulted in an overall sense of charm. Charm has been defined as “the power of giving delight or arousing admiration”. This is manifested in characteristics like abundance, comfort, and familiarity and accomplished through a sense of nostalgia, due to the historic longevity of some styles and their prevalence in certain regions. We thus become familiarized and attached to certain styles through constant exposure. It is also visible in qualities like privacy and spaciousness, human-sized proportions, procession of pastoral landscaping in front yards and

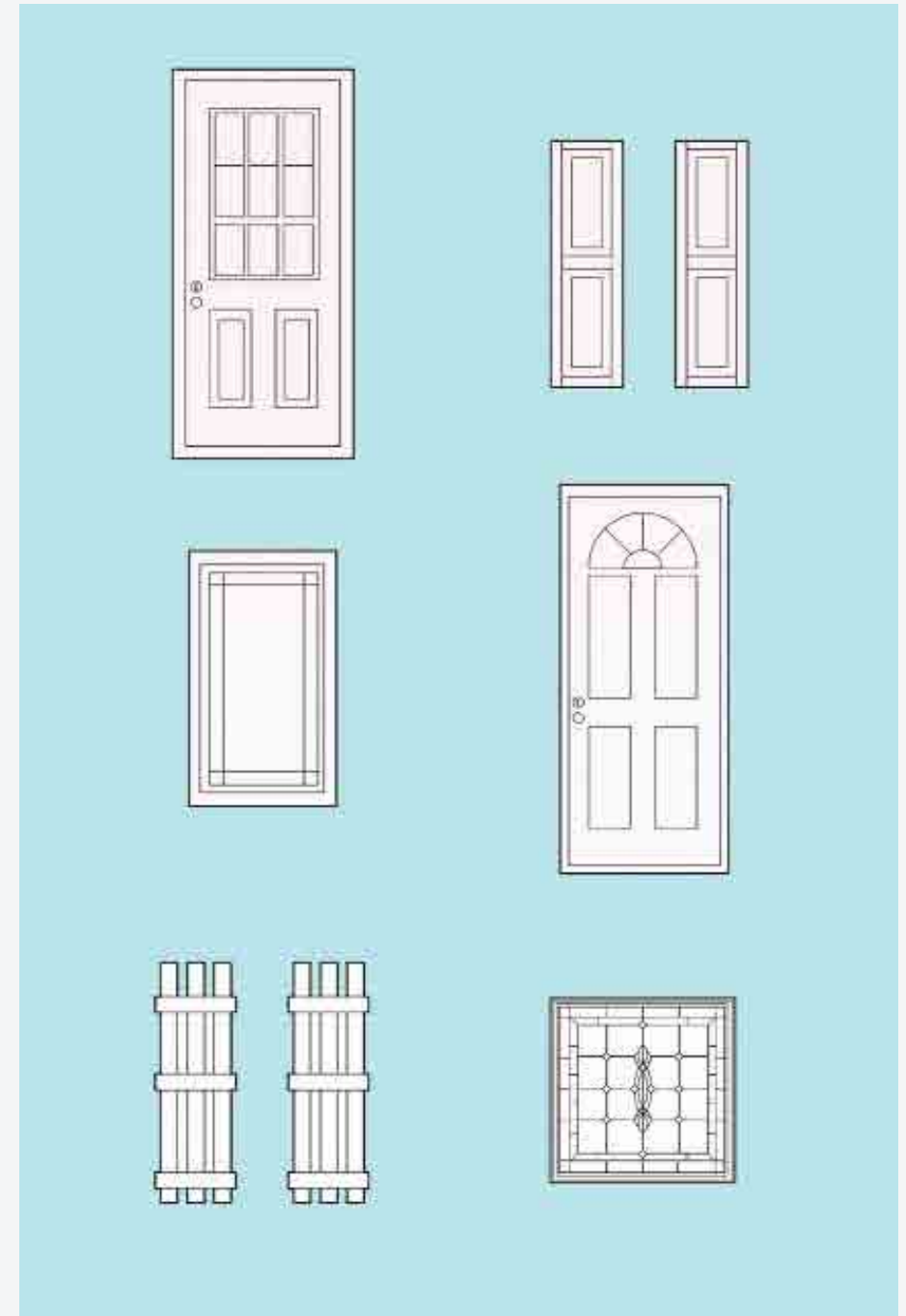
backyards, and well-balanced uses of material, as well as in cosmetic details like the use of warm woods, soft carpeting, and neutral paint colors. All of these qualities add to a sense of idyllic-ness that creates the overall charm.

However, charm is an equivocal term because of its contradictory implications. The suburban home is almost never idyllic because families are never perfect, there are flaws in the lawn and neighbors do not always get along. With suburban living there are several comforts, but there is also labor-intensive maintenance and long commute times. Even though developments are spacious, life can be very monotonous. The suburban house is customizable, but has also been commodified. The ambivalence surrounding charm will be exploited in this thesis.

This thesis intends to hybridize the sense of charm found in prolific American-style homes into a denser typology that consists of multiple dwellings. Through the exploitation of commercially available products and materials these dwellings will then get reorganized into a new typology. The challenge is how to preserve a sense of charm while simultaneously using products.



DALTON IANNUZZO



Dis-Placed

This thesis proposes a new Nigerian consulate in LA that suggests relationships with Nigeria, rather than seeking to “represent” the country as such. Dis-Placed claims that a representative architecture is tragically superficial, and despite the most genuine intentions, results in an appliqué architecture that operates as a reductive simplification of the signified.

Modernism is guilty of attempting to produce representative architecture as its derivative styles spread across the globe. The “international style” sought to transcend variation and eclecticism in architecture, in favor of a simplified, efficient and technologically driven (Western Anglo-American) aesthetic. Later, “tropical architectures” asserted the influence of vernacular buildings and use of local materials placed on buildings that respond to a place’s climatic conditions.

More recently, the “critical regionalism” movement has expanded on this approach, emphasizing the influence of light and tectonics over the vernacular.

I contend that a new “suggestive architecture” is entirely possible. It neither claims authenticity nor relies on representation. Rather, it acknowledges the dynamic and elusive concept of “place” and expands on the agencies capable of producing

a qualitative resonance with it. In the context of colonized nations, architecture has been too concerned with representing static images of people and places. Regionalists claim that the role of place is to resist the effects of globalization. However, this charge perpetuates historicist viewpoints, which seek to somehow preserve a frozen vision of places and people. This thesis argues that the role of “place” is not to resist the effects of globalization, but to contribute to them. Globalization, in its most optimistic sense, implies exchange.

What peculiarities of “place” can be extracted to produce a Nigerian consulate that is suggestive without relying on mere representation? Qualities that resonate with “place” are not solely derived from climate, materials or vernacular forms, but may also be presented through an interaction with a wider range of agents. Agents, in this sense, are instruments by which guiding intelligence exposes qualities associated with (but not exclusive to) a particular place or people. This thesis explores the chosen qualities of four objects (the wrapper, the gate, the compound, and the roundabout) found in Nigeria that will serve as tools to shape and sculpt the architecture of the consulate.



UZOMA BALOSIBINA CHURCHILL JR. IDAH



Built By Bots

An Instruction Manual for Robotic Architecture

Advancements in the fields of rapid prototyping, software and robotics are changing every industry. Manufacturing has long relied on mechanization and automation, but now service industries are following suit. Everything from surgery to pizza delivery is guaranteed to change in the next few decades. The construction industry has yet to embrace this revolution, but there have been some significant experiments. Software (BIM in particular) has already changed how architects work and communicate with builders in a relatively short time. Should the construction process become automated, the design process will have to change again.

This thesis explores and attempts to document that transition in a three stage case study: first analysis of current robotic construction proposals, second the creation of a unique building machine, and third the development of a suitable architectural design that uses the robot. This thesis is structured as an instruction manual that could be used to inform, guide and inspire future robo-architects in the process of designing with robotic building techniques that have yet to be invented.

Machines capable of fabricating whole buildings or building components that have been proposed by architects and engineers to create include a Gramazio & Kohler drone built tower, and a seamless metallic pavilion entirely assembled by robotic arms designed by Coop Himmelb(l)au. Each of these approaches are highly specialized and provide

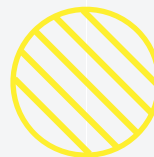
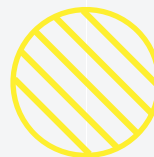
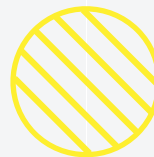
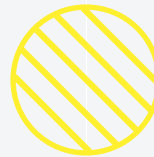
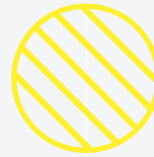
different advantages or disadvantages. These limitations are a testament to the fact that each field is still in its infancy, but what can be successfully produced with each method is highly determinative of the outcome's design.

The Mobile Autonomous Robotic Extruder (MARX) was designed as a small-scale prototype that combines the mobility of a remote-controlled car with the fabrication abilities of a 3D printer. By extruding hot glue, it creates a translucent mass that solidifies quickly in any variety of flexible self-supporting shapes. Instead of relying on a single printing bed, dozens or more of these robots can be orchestrated to build on any terrain.

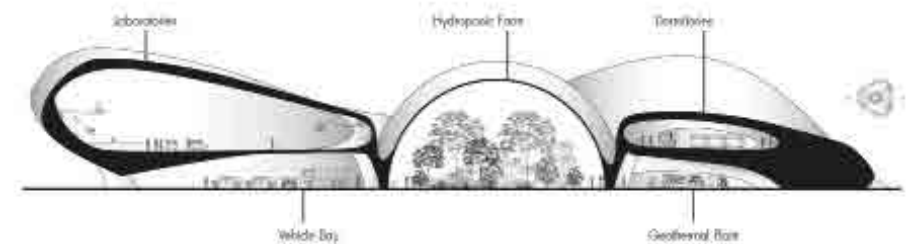
The limitations posed by the robot's shape, movement and the structural capacity of the ethylene-vinyl acetate that makes up the glue are the determining factors for a scaled-up architectural design.

The Antarctic Research Station proposal takes advantage of robotic construction to tackle a hazardous site that is typically only accessible by human builders for a few months out of the year due to the extreme climate. Using the robots to build without human presence during the winter months provides a logical building sequence that would not be hindered by inclement weather.

The research center derives its form from material explorations that identified the structural limits of the ethylene-vinyl acetate and the abilities of the extrusion mechanism.



AHREN BARNARD JEFFRIES



Plug-In Water System Architecture As Complementary Water Infrastructure

The development of water infrastructure at the city scale has made access to clean water and the disposal of sewage much more convenient. Due to continuing urban expansion and population increases, the water infrastructure can no longer keep up with demand. This thesis contends that architecture has the potential to play a bigger role in urban water management through reducing the workload of the water infrastructure.

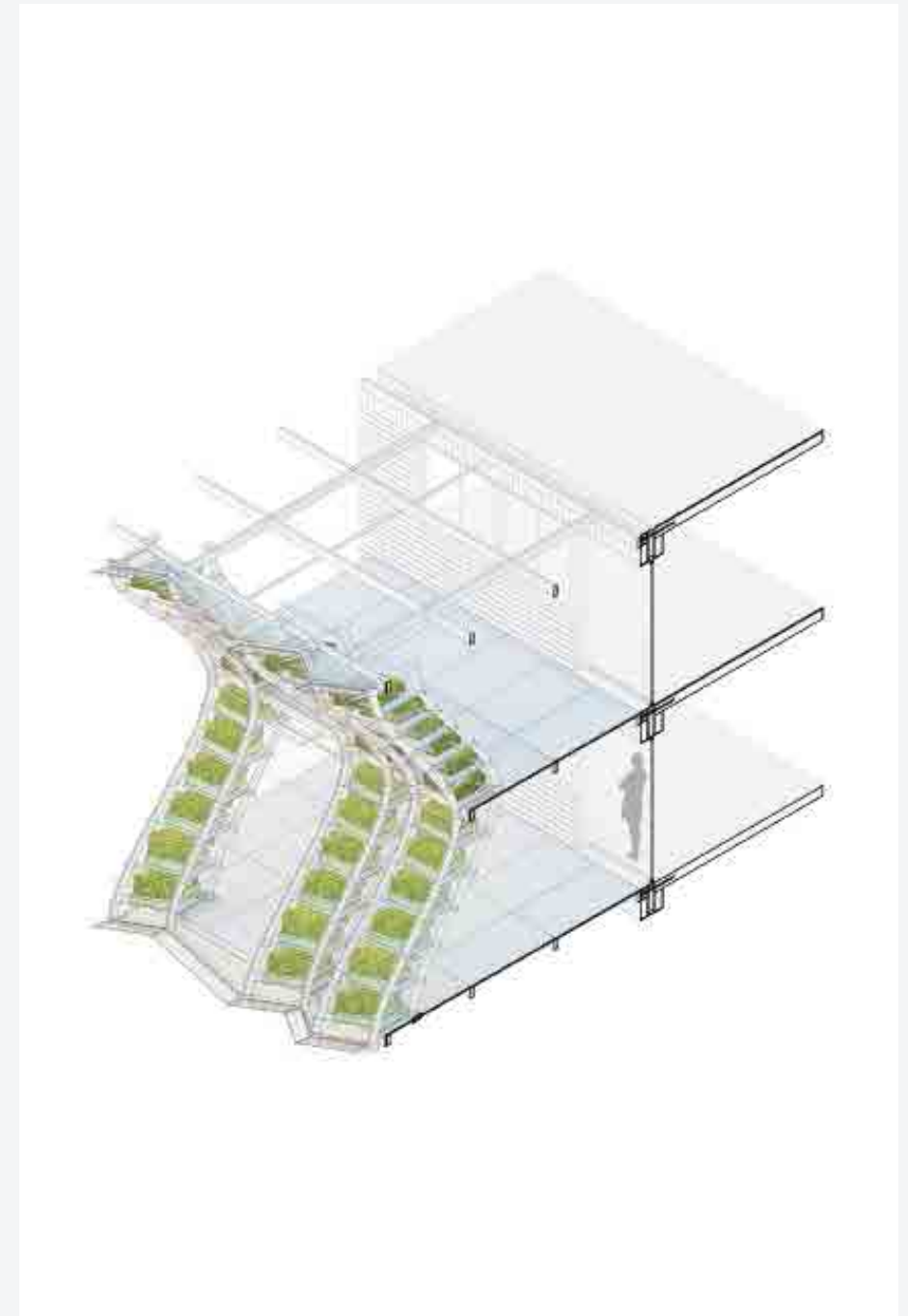
The site of the thesis will be New York City for two reasons: first, the city's dense urban environment and second, its intricate water infrastructure which is having trouble keeping up with the increasing demand. The city has been constantly expanding its water infrastructure to keep up with demand. The old combined sewage system of the water infrastructure is having trouble handling the amount of sewage entering the system during heavy rainfall, which leads to sewage overflow. The lack of pervious surfaces to allow for natural rainwater infiltration further increases the amount of rainwater that the sewage system has to handle.

The continuous expansion of water infrastructure to meet the city's urban water management demands would require hefty financial investments,

a large amount of land, and decades to complete. Instead of solely focusing on centralized infrastructural systems to solve the urban water consumption and management issues, architects should also look at the architectural levels for decentralized strategies to solve the problem in order to alleviate the problems more efficiently by using less land, financial resources, and time.

This thesis proposes a plug-in system that reconfigures the relationship between architecture and water infrastructure, in which architecture starts to play a small role in urban water management. The system consists of modules that collect rainwater and filter sewage using natural ecosystems. This would reduce the amount of rainwater and sewage that is going into the sewage system to prevent sewage overflow. The collected rainwater and filtered sewage will be consumed on site for greywater usage. The modules can be implemented in a variety of ways to create various spatial configurations to hold different programs that respond to the building and the occupants' needs related to water consumption. The system will become a didactic façade intervention that allows occupants to be more aware of how the system works and how water is being processed and consumed.

VICTOR JIANTO



Mediating the Market

The Supermarket as a System of Spatial Tactics

The interior of the contemporary supermarket is an underwhelming representation of—and harbors little reference to—the very complex networks and conditions that create it. Because the supermarket lacks spatial reference to where food comes from, and where it goes, consumers remain largely unaware of these industrial and commercial processes. Although modern supermarkets have explored, and at times, embraced concerns of food system transparency, their attempts have generally not extended beyond product changes and surface-level branding styles. This thesis proposes that in order to invoke change or progress within the food system's consumer landscapes, and evolve the typology to meet today's consumer demands of transparency and traceability, the supermarket's frameworks must be critiqued and challenged from within.

Investigating the intersection of the supermarket's operational logistics, socio-political and economic constructs, interior psychology, and socio-spatial theory to frame architectural tactics of intervention, this thesis aims to situate the supermarket as a mediated ground between institutional structures and everyday activities; an adaptive environment mitigating logistics and demands. The redistribution of program and prototypical distribution systems encourages behavioral change at the level of the chain store.

Embracing architecture as a spatio-temporal construct and as spatial form, the system employed on site is never fully fixed by its physical constraints.

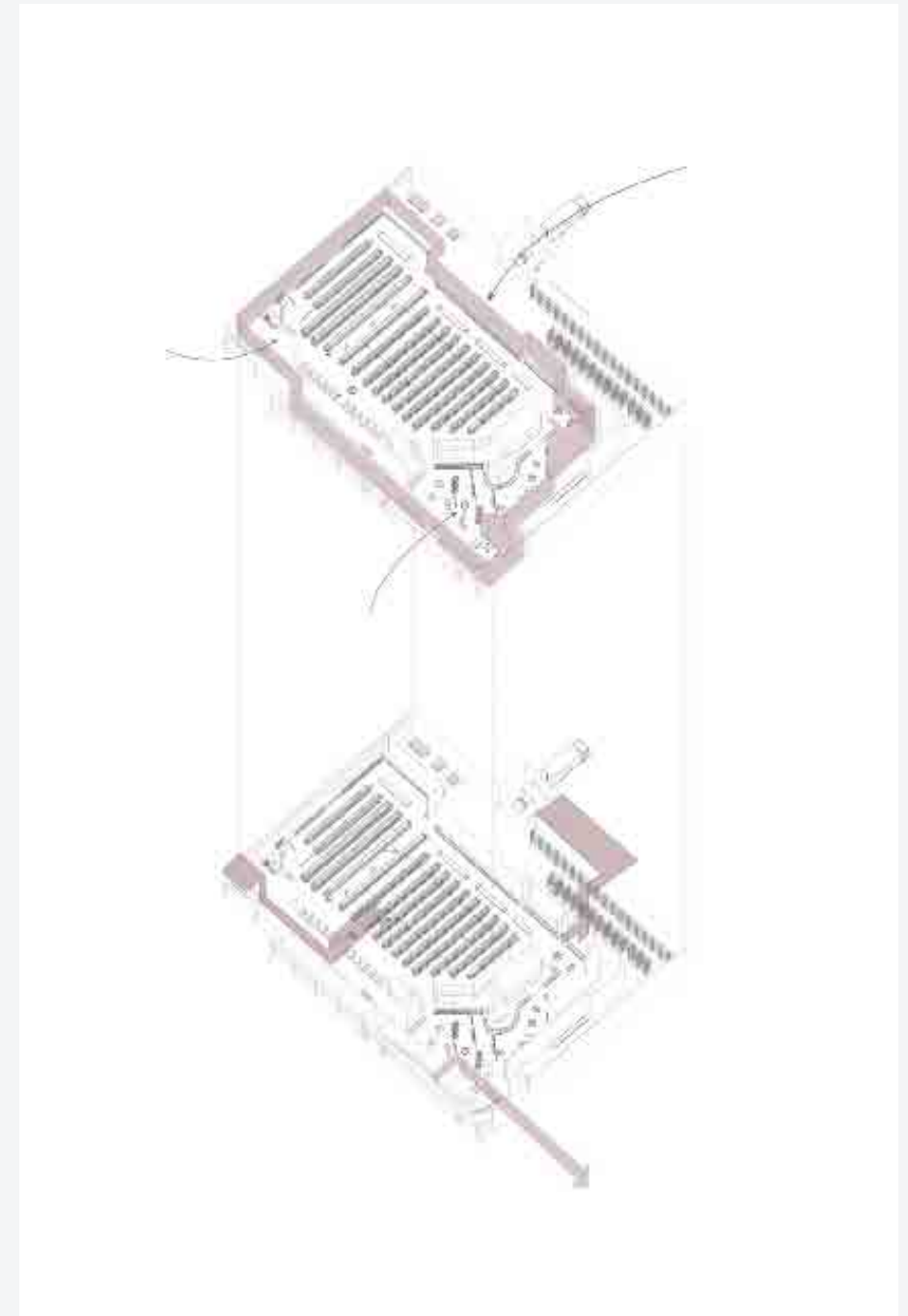
As it fluctuates formally, programmatically, and operationally, the site re-appropriates and represents traces of user interactions, logistic relations, and the everyday processes of food distribution and consumption.

Elements, zones, and components that make up the new supermarket experience allow opportunities to further the consumer-user's engagement and interaction while shopping, and seek to advance a critical understanding of these processes at work.

Beyond the design of systematic and programmatic transformations, this thesis's experiential focus and analysis of activities aims to express the agency of the supermarket's users—consumers and workers alike—as producers of space. Conceptualizing the supermarket as an open system whose design encourages a multiplicity of opportunities and spatial alternatives within its limits and exposes the complexities of such environments, sets the stage for users to explore the larger processes of food distribution and retail missing in today's supermarket model. The design aims to blur the lines between producer and consumer-user, production and consumption, and the authority that lies within these roles and systems. By using architectural elements as infiltrative instruments for empowerment, education, and exposure of current strategies, the limits of the supermarket become active opportunities for a politicized user agency and expanded knowledge for the everyday user in the commoditized food chain.

Advisor: Brian Lonsway

TAYLOR D. JOHNSON



Mediating Between Ritual and Science

Designing a Holistic Wellness Therapeutic Center for Spiritual and Physical Well-Being in Varanasi, India

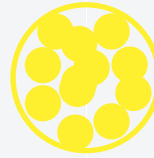
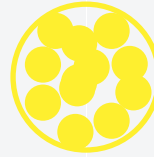
Among the many symbols of India endowed with spirituality, water is the most sacred, at once the purifier and the origin of the mystery. It is the real and imagined source of life. — Steven G. Darian.

The Ganges, often referred to as the "river of life", offers truly devout Hindus "soul cleansing" and "soul releasing" in life and death. Every year, millions of Hindus congregate along the eighty-seven "Ghats" that line the riverbanks in Varanasi to participate in the spiritual experience.

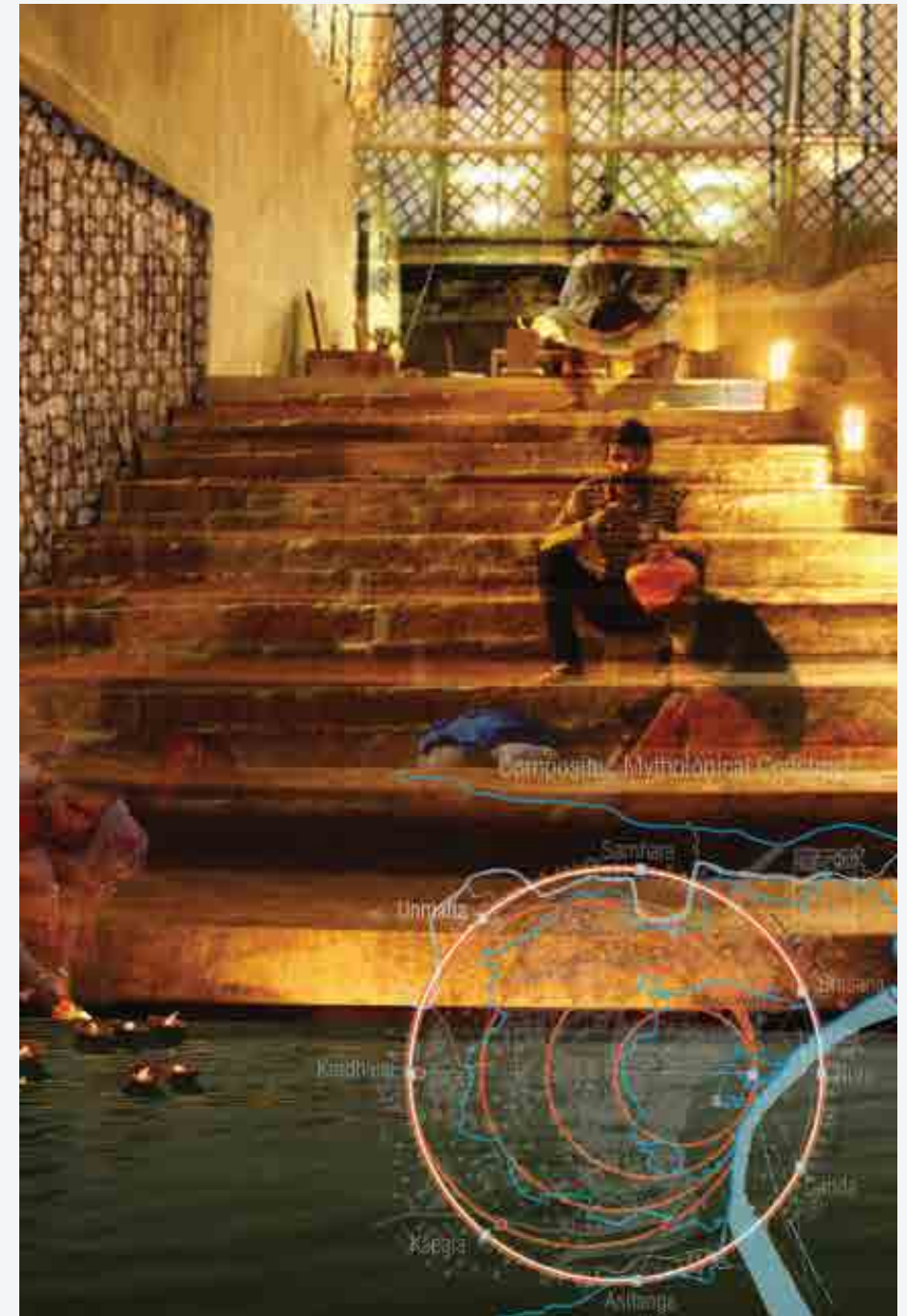
This thesis aims to evolve the concept of bathing in the holy water of the Ganges, creating a holistic experience via the confluence of spirituality and science, exploring the balance between the ritualistic and therapeutic purity of bathing in the river, using modern standards of cleanliness and sanctity. This investigation will focus on reiterating that science and ritual practices co-exist, even though the modern mindset is perhaps more aware of ritualistic modes of bathing than those that are scientific. At the heart of this duality lies the apparent contradiction in the sanctity of the Ganges. Even though the Ganges

may be physically unclean due to effluents, she will not be impure; the uncleanness deposited on the riverbanks has no impact on the river's spiritual purity. As Kelly Alley has stated, "sacred purity does not render purity and uncleanness mutually exclusive categories and conditions".

The architectural proposition at the heart of this thesis will reinterpret of Vedic/Vastu architecture and the mandala. As Alexandra Mack argues, "Mandala-inspired architectural arrangements reflect the cosmological structure in the earthbound landscape, thus connecting the two". Vastu Shastra describes the spiritual approach through the science of architecture. Vastu is "earth" and Shastra is "science" or "technology". This model will allow for aggregate functions to form into an interdependent collection. The proposed wellness therapeutic center will operate as a mediator and connector between the dense, urban city and the water. The facilities in close proximity to the city will encourage city-dwellers and pilgrims/worshippers to experience the spiritual journey as a new and enriching prospect.



MALIKA JOHNSON



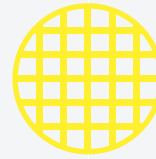
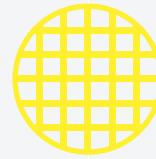
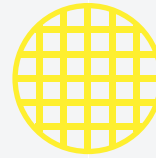
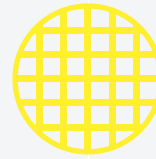
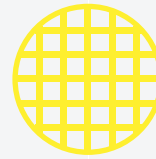
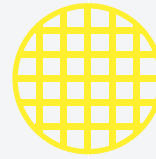
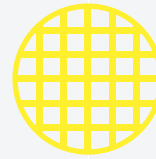
Ambient Intelligence Cognizant Architecture for the Restless

In recent decades, technology has proliferated throughout our architectural spaces, from personalized handheld gadgetry to smart systems and appliances. This constant barrage of screens and interfaces that humans interact with for large portions of our day has grown to define our very living conditions, particularly by disrupting our circadian rhythms. It is well documented that lack of sleep can lead to numerous long and short term health problems such as weight gain, irritability, to more severe acute conditions like hallucinations and organ failure. This thesis will address architecture's potential to interact with individuals utilizing smart environments that drive kinetic architecture. Through communication between many connected gadgets and the architecture of the college dormitory, the room will be able to create the optimal working or sleeping conditions for the user.

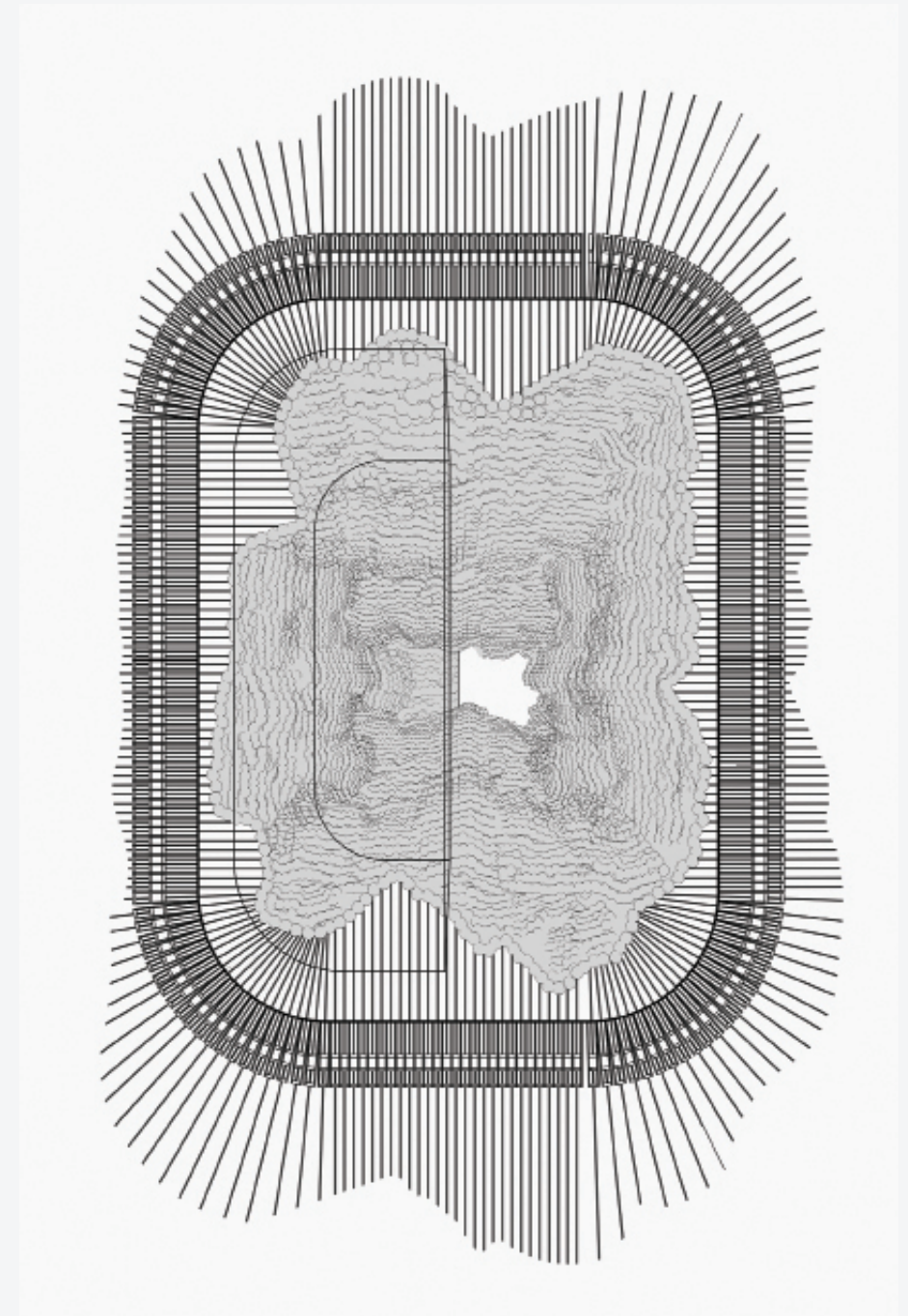
The room will adjust five specific factors that control the quality

of a person's sleep: light, sound, temperature, body position, and brain activity. In the case of sound, the room will break up and disperse noise by creating uneven surfaces and exposing soft textures, such as fur. The room can automate physical change according to personal preferences set by the user and constant communication to smart devices that are ubiquitous in modern society. By constantly monitoring and adjusting these five factors, architecture can induce and sustain a more restorative sleep for the inhabitant, leading to increased work production, as well as improved mood and general health for the occupant.

This architecture will allow for a more efficient sleep-work schedule, which will contribute to greater health, focus, and wellbeing of the average overworked college student.



ANNE JUDKIS



Breathing Architecture

Breathing Architecture seeks to use “nature” to solve environmental problems and replace traditional mechanical infrastructural systems in Beijing, China.

Beijing has a serious problem with air pollution—the combined product of factory pollution and poisonous airborne substances. At present there is no effective solution to protect people from this disaster. Currently, the best way to avoid the “pollution haze” is to hide inside a building and close all the windows. People are required to stop outside activities in the winter because levels of air pollution are often overwhelming from October to April.

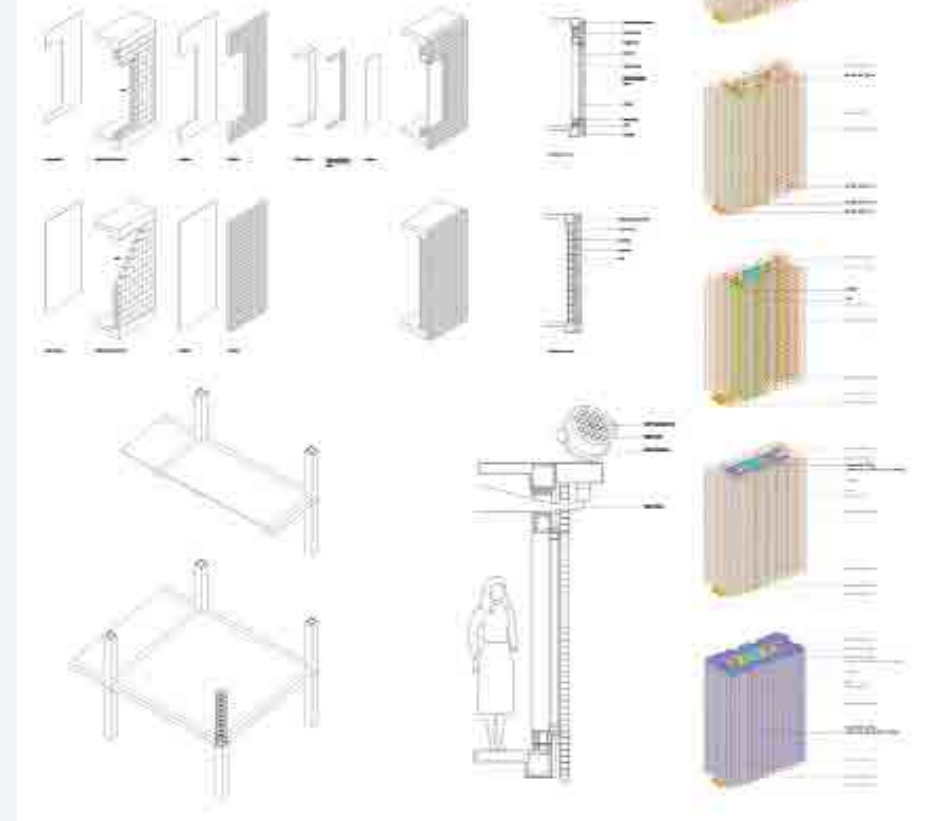
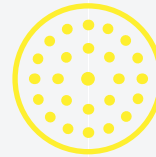
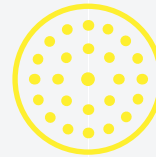
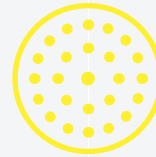
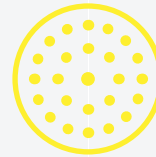
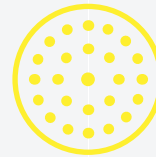
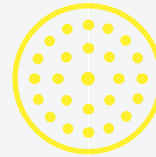
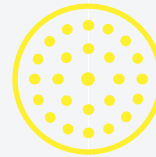
Traditional architecture addresses environmental challenges through its deployment of mechanical systems,

including boilers, chillers, pumps, heat exchangers and ventilation units. However, a lot of energy is required to operate such systems, in turn causing pollution.

This thesis will operate on the existing Wangjing Center, a high-rise apartment building in Beijing with a traditional mechanical ventilation system typical of the area. Using the wind’s natural energy, the existing mechanical systems will be replaced, shifting the building from an “active” to a “passive” ventilation system.

Breathing Architecture proposes a new way of building in the Chinese capital that seeks to integrate “nature’s” resources to provide a cheap and zero energy solution to Beijing’s air pollution problem.

YICHAO KANG



Aftermarket Supermarket A Speculative Retrospective

An excerpt from Jeffrey P. Bezos' September 2023 letter to Amazon.com, Inc. shareholders:

The synthesis of our digital commercial infrastructure and the immersive experience afforded by virtual reality began as a rough experiment to more deeply partner with our third-party sellers through virtual tours, learning sessions and immersive advertisement campaigns... Looking back after a more successful few years, the initial approach we took to VR as a tool for delivering tangible products was clearly lacking in imagination. Simply using the technology to place our users in a virtual representation was little more than a gimmick—the true value of VR was in its facilitation of a direct (albeit virtual) connection between the makers of products and their consumers and the potential of experience as a medium for the personalization of production and consumption.

The speculative narrative and its surrounding artifacts delineated in this thesis explore the potential proliferation of commercial typologies as corporations like Amazon adopt virtual reality as a base of operations. As a technology grown and growing out of game design and social media, the virtual inherits the characteristics

and biases of those media forms—a UI-based spatial interaction with ludic systems is fundamental to how the virtual delivers experience and information. As a system incongruent with existing commercial models bound in the physical, virtual reality as a commercial medium inherently pushes commercial practice to the fringes of its familiar territory. In turn, architects in this new mode of work would similarly be called upon to operate at the fringes of the existing bounds of our discipline. The existential liberation of the autonomous architect is fully realized as the contingencies of reality are obliterated, and the roles of digital image and model, for example, transcend those of communicative devices in pursuit of a removed output to become self-actualized mediums of delivery. However, without an audience, production in the virtual may as well be nonexistent. So, as a result of its inevitable dependency on audience as a source of tangibility, architecture in the virtual takes on a new form of contingency—one exclusively beholden to public opinion and aesthetic preference. So do author-architects pander to the masses and “sell out” as their audiences grow? Perhaps not—if the atemporal conditions of our digital culture, Rule 34, and the 733,853 unique Subreddits available tell us anything, it's that if it exists, there's an audience for it.

ALEXANDER KIM



The Shenzhen Activist Program

There is a gap between being an architecture student in western countries and working as an architect in underrepresented communities. Architect Teddy Cruz defines the role of an activist architect as “expanded mode of practice”, and the task of “designing the protocols or the interfaces between communities and spaces”.

This thesis contends that architecture schools need to continue to embrace the widely-accepted norm of studios studying abroad and working in an international studio. Current study abroad programs tend to skew towards being touristic field trips and there is not a curriculum or programmatic investment in cultivating relationships between the visiting students, local schools, and the local people. Helping the local communities through sustainable architecture remains an afterthought.

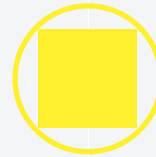
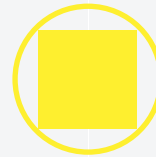
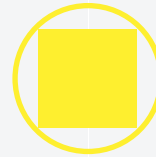
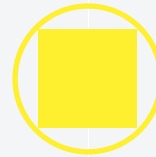
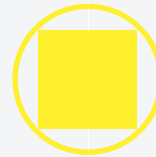
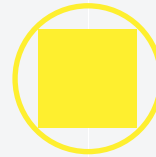
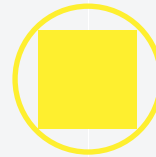
The Shenzhen Institute of Building Research hosted a building competition for low-carbon city development. The three participating research universities were Syracuse University, UC Berkeley, and TU Delft. The intended development site for the project is Pingdi, a small district in Shenzhen, China. This competition focused primarily on the technical aspects of low-carbon sustainable development and not on building

something useful and meaningful to the local inhabitants. The official plan is to demolish the existing residential Hakka community along with other urban villages displacing local migrant workers. Despite the official declaration encouraging local participation, there was little to no local involvement and the competition participants were lacking the necessary information to build these projects and to fully understand the stakes of this type of sustainable building project.

Sustainable architectural design should not just be limited to the technical it must also be grounded in the site. Architects need to understand the contexts generated by a multitude of economic, political, social, and cultural factors have to be reflected upon and incorporated into a series of design phases.

This is not just a building, but a framework for all the different users; students (of architecture, engineering, citizenship and public affairs), local people (residents, and workers), industrial stakeholders where interactions among users are encouraged. Recognizing the valuable contributions from local inhabitants, and business owners and including these people as prominent members of low-carbon sustainable development projects results in better design.

Advisor (S): Terrance Goode
Advisor (F): Yutaka Sho



HYUNGGYU KIM JAE HYUN KIM



Breaking Space by Making Space

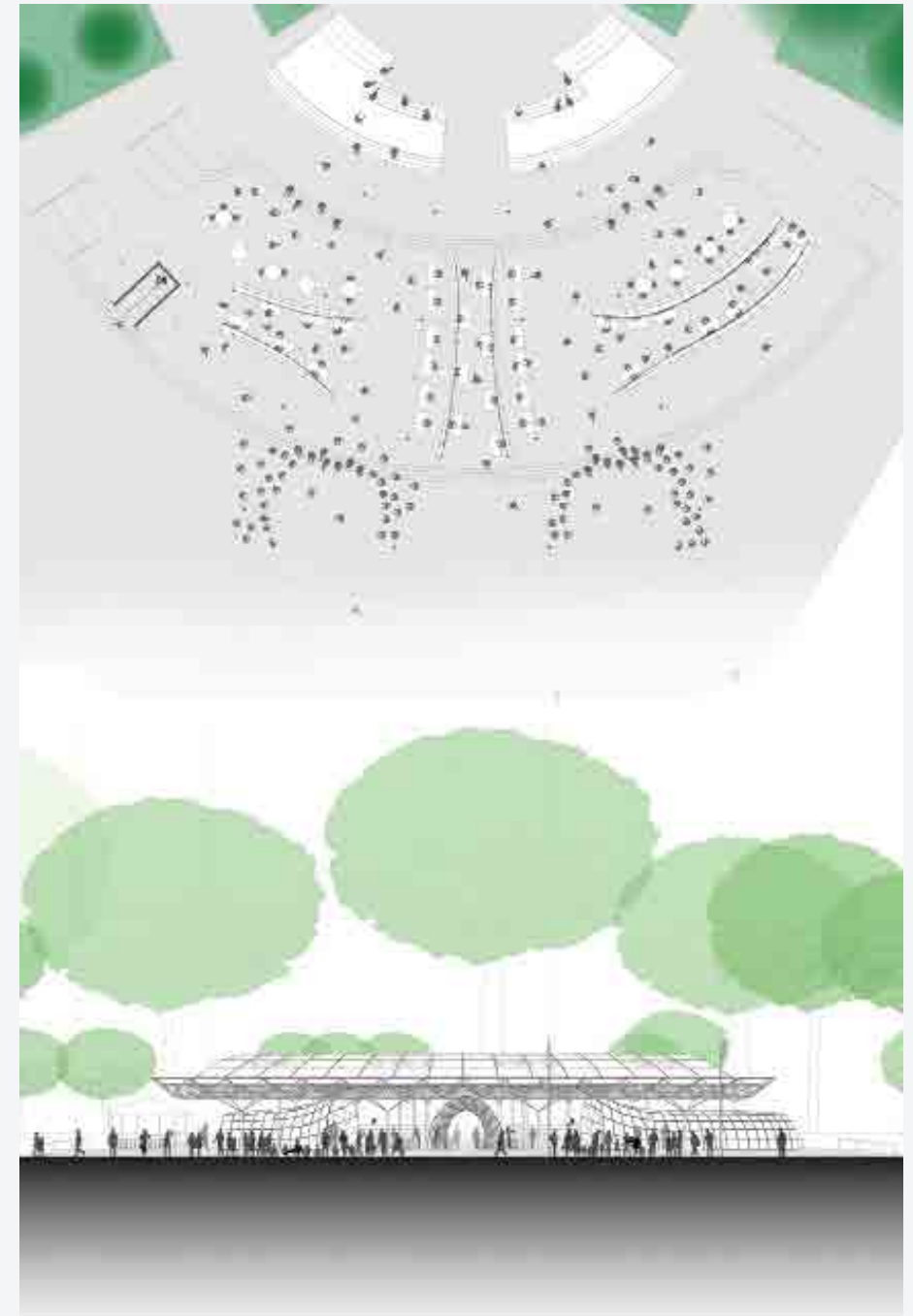
This thesis seeks to explore and expand on the politics of public space via the rubric of “the event”, and will do so through the lens of breakdancing culture.

Breakdancing is a dance culture that originated in the 1970s in the South Bronx. People who become part of this dance culture gather in many spaces that are otherwise open to the public and dance. At its height, there were several areas throughout New York City that break-dancers occupied frequently. This notion can be linked to Bernard Tschumi's theory of “the event”; read as a form of event, breakdancing establishes a new relationship between itself and the space it inhabits. This creates an “architectural interpretation of reality” during the short time period that a given space is occupied by break-dancers. Breakdancing also exemplifies Aldo Rossi's idea of the “urban artifact”, in that the occupied space functions as a space for breakdancing in addition to a number of other uses, but when it is occupied by breakdancing, the use of the space as well as those of the existing elements are altered for the duration of the event.

From breakdancing's beginnings, its modus operandi has consisted of people forming their own dance circles in public spaces throughout New York City. Despite becoming a global phenomenon, the movement has been operating in this manner for the majority of its existence; therefore, this thesis seeks to expand on Rossi's and Tschumi's definitions of the “urban artifact” and event, respectively, and ultimately the politics of the “breakdance space”.

This thesis will be tested in the form of a perennial pop-up pavilion that will host a festival of breakdancing in Union Square once a year. The pavilion will house gathering spaces, spaces for the sale of food, markets, and a freestyle dancing venue, as well as workshops and other spaces for performance. The pavilion is designed such that it can easily be assembled and disassembled using a specific range of structural logics that encourage not just the aforementioned functions, but also a set of formal configurations in relation to the existing elements of the Union Square plaza.

EDWARD J. KIM



Everything I Can Do With Lines

A line is a one-dimensional figure with no thickness that extends infinitely in either direction. This is a definition of a line in geometry. In architecture, a line can have multiple interpretations. It can be an elevation of a piece of furniture, a section cut of a partition wall, or even simply a specific hatch of a particular material. However, this only undermines the potential of lines encountered in everyday life.

Previously, architects Daniel Libeskind and Jimenez Lai have challenged the limits of architectural representation in their projects *Micromegas* and *Beachside Lonelyhearts*, respectively. Libeskind contested the conventions of architectural drawings, while Lai questioned the restraints of the interpretations of architectural drawings through storytelling.

Lines in architecture and in architectural drawings are often mistaken as “a one-dimensional figure.” Thus, a catalog of identified line types is established:

- Demarcation: a line dictating and scripting a specific activity
- Association: a line signifying a character, image, or an idea
- Depiction: a line illustrating a scene of space

This thesis contests the absolute singularity of architectural perspectives and proposes an alternative usage of multiple line types for multiple singularities to exist. Rather than depicting spatiality, which is the case for architectural perspectives, the agency of the conflation of multiple line types is to instead construct multiple episodes and ultimately, space.



HANNAH KIM



(Un)Inhabitable Ameliorating Polar Madness

The thesis investigates the application of Antarctic vernacular architecture to a new research station design in order to improve the quality of living conditions beyond utilitarian function.

Architecture not only protects inhabitants from the environment, but also provides suitable space for their lives. With the development of new technologies, limited conditions led architects to produce heavily engineered structures in extreme climates. While utilitarian buildings operated by mechanical systems can create moderate temperature range, they still have some limitations: massive energy consumption, lack of ventilation, and disharmony with landscape. Design limitations create minimal and stark space that results in uninhabitable environments that can lead to a multitude of symptoms of psychosomatic illnesses for long-term occupants residing in an extreme and remote site. Therefore, Antarctic stations are in need of a transformation from monotonous containers to dynamic bunkers in order to promote healthy, experiential conditions and place or space for the occupants' daily lives.

The extreme conditions provoke innovation within the field of vernacular architecture. The vernacular uses regional materials within design strategies that respond to the local environment. This thesis proposes using diverse construction methods of snow and ice to develop innovative structural components in Antarctica. Ice sheet and snow structures can create large spaces for research and community activities. Dome or arch structures composed by innovative ice block construction create small pods within large spaces.

Antarctic vernacular architecture has advantages over current research station designs. First, the Antarctic vernacular architecture can create more square footage per person than current research stations provide. Also, a multi-layered structure can create temperature zones, which can save on energy consumption. These transitional zones allow for more diverse activity. Furthermore, occupants can maintain their privacy as well as social exchanges in a dynamic and flexible spatial experience.



JINSUNG KIM



Food [In]Securities Networking Food Systems in the Bronx

Hunts Point, Bronx, is home to the largest food distribution center on the East Coast. Millions of pounds of fresh produce and thousands of trucks move through this neighborhood a day in an effort to provide food for New York City. Yet, adjacent to this huge production facility is a community that experiences difficulty finding fresh produce at an affordable price. This thesis explores opportunities for architecture to improve this problem of access from a systems approach—with an approach to “scalar thinking” that suggests that any intervention in this particular neighborhood could act as a precursor to the establishment of a larger national network.

By hijacking the systematic flow of food throughout Hunts Point at the scales of transportation/distribution and pedestrian/neighborhood, the flows of food are redesigned to serve the needs of individuals in this neighborhood in addition to their original function. This thesis operates on three sites:

A Site: [Compost Generation] is integrated within the Hunts Point Terminal Produce Market to take advantage of the large volume of organic waste generated on site daily, filtering it through an in-vessel

compost system. Here, the zone between the distribution center and the neighborhood is redesigned as an activated public space rather than just a boundary, helping to bring residents physically closer to their food supply. **Intervening** at this location also creates an opportunity to redirect truck movement outside of the community's central corridor, a huge benefit for an area that is currently so bisected by over 2,000 trucks daily.

B Sites: [Garden Hubs] become recipients of the compost generated from the distribution center. These sites are strategically spread throughout the neighborhood—activating vacant and underutilized spaces within the community and engaging existing community infrastructures to support an easily accessible food supply.

C Sites: [An Expanded Network] identifies a network of farmers associated with the Local Economies Project “Hudson Valley Farm Hub” who could become recipients of excess compost generated at Hunts Point within a 200 mile radius. This third component of the network helps to finance an on site operation.

TAYLOR KINSEY



The Loosely Large

In his 1995 book *XMLXL*, architect Rem Koolhaas contends that capitalism produces **BIGNESS**. For Koolhaas “**BIGNESS** transforms the city from a summation of certainties into an accumulation of mysteries. [...] **BIGNESS** is no longer part of any issue. It exists; at most, it coexists. Its subtext is fuck context. [...] If urbanism generates potential and architecture exploits it, **BIGNESS** enlists the generosity of urbanism against the meanness of architecture”.

In his 2010 book *Another Scale of Architecture*, architect Junya Ishigami seeks to expand what he calls “the concept of architecture” to enable the discipline to operate at a greater number of scales.

For Ishigami “[...] if architecture itself can be made very small and low density or thin and expansive, we may be able to locate it at intervals between diverse things. To toss things of all kinds into a world of interacting and fluctuating relationships, so that all slowly expand, as if from within quantum fluctuation. Vague concepts, vague functions, vague roles, vague territories, vague aggregations, vague directions. Architecture thus created

will melt into the new environment now emerging and, simultaneously, give form to a new environment”.

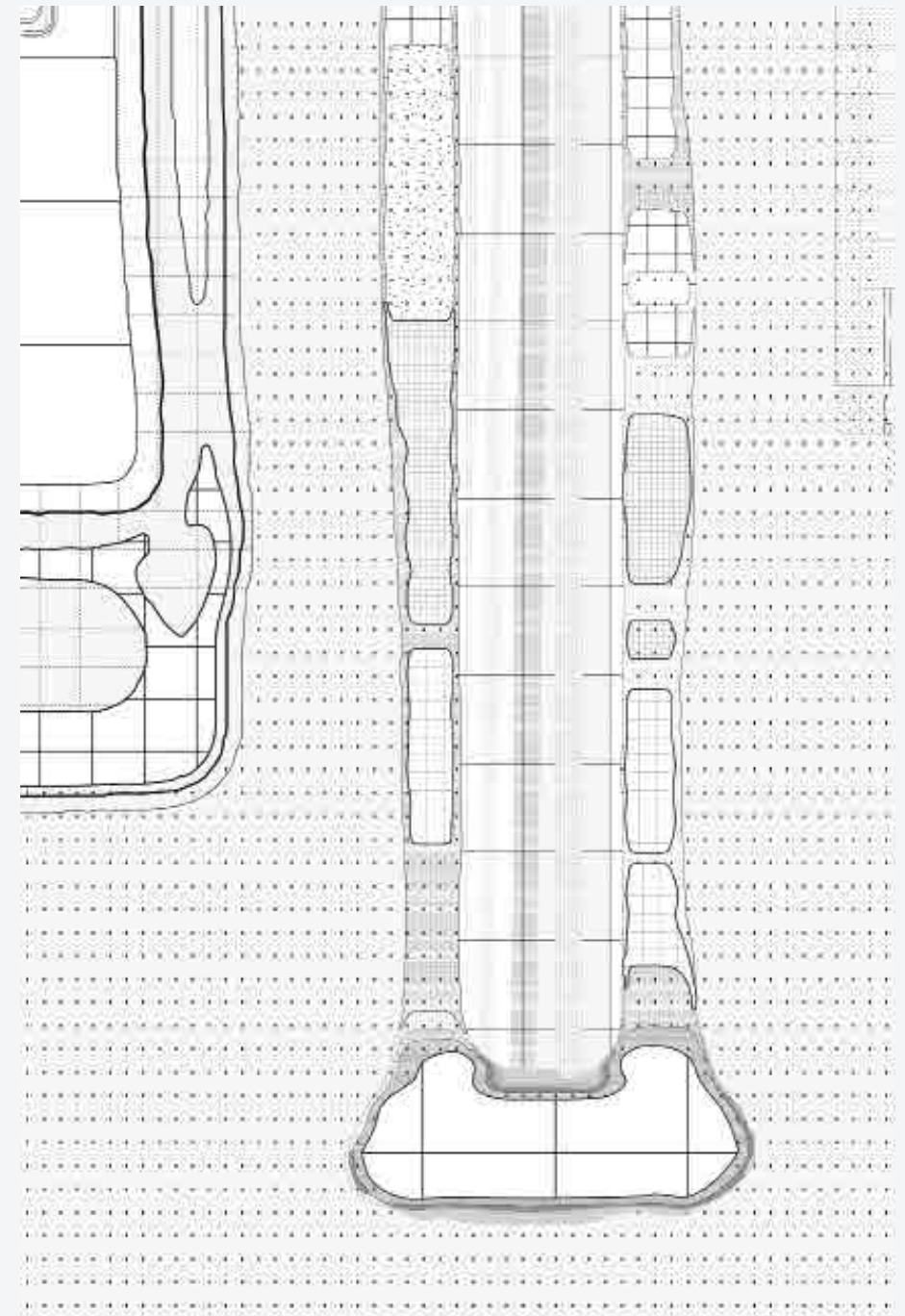
For Koolhaas, **BIGNESS** is a number. A bill of quantities, Koolhaas’ **BIGNESS** emerges from the white heat of technology, it is spewed forth from the malfunctioning cash register, or the terrifying, infinite scroll of the Tumblr page and Pinterest account. Koolhaas promises us that **BIGNESS** depends on “regimes of freedoms, the assembly of maximum difference” but color and the character of those freedoms and differences is sublimated to become the exclamation points that follow “complexity!” “enormity!” “accumulation!”.

Ishigami is content to consider the qualities, not the quantities of **BIGNESS**. Features of the world beyond the city limits linger on the edge of metaphor: “cloud” “forest” “horizon”.

This thesis comprises a speculative journey that seeks to map and then remap the relationships between architectural images, models, and the qualities and quantities of **BIGNESS** in pursuit of a special sort of after-architecture: *The Loosely Large*.



CHENJUNG KUO



Incision of Division Spatial Mediation in Nicosia, Cyprus

Healing is a matter of time,
but sometimes also
a matter of opportunity.
— Hippocrates

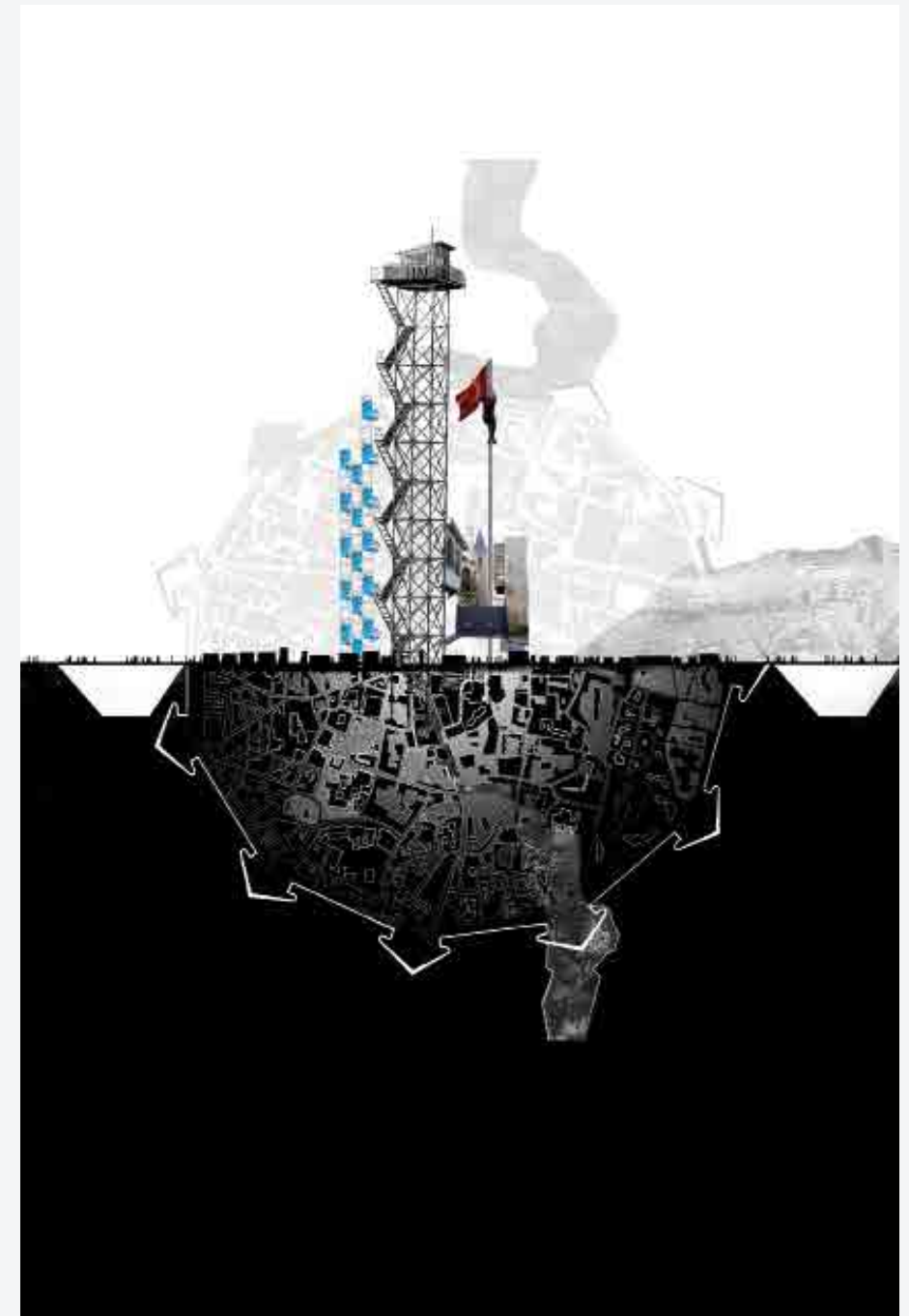
Conflict is a timeless topic of conversation, rising and recurring in various parts of the world. Whether active or dormant, the conflict exists within our urban environments in multiple forms and scales. A border that cannot be crossed. A building that cannot be accessed. A view that cannot be seen. It defines how we move within our cities and creates distinct boundaries. Architecture can diverge from its current use of division to instead exhibit the potential for mediation. It can confront the divide through incisions into the existing site thus exposing the need for intervention. It can create a wall that can be passed, a tower that can be climbed, and a bridge that can be crossed. A new view of the urban conflict can be obtained through the use and manipulation of the decayed urban fabric itself. This view creates a more palpable icon of the conflict that can be confronted and thus changed.

Nicosia, the last divided capital of the world, exemplifies this need for a tangible architectural fabric

to perform as a space of mediation and conversation. With Cyprus' 2016 deadline to create a resolution to its conflict with the occupied North fast approaching, now is a crucial time to expose and confront the division. Since the 1974 war, contact between both populations has been limited. The border, the decayed urban segments, and scars of the conflict have created a nostalgic experience of the city, crippling its ability to move forward. As the conflicting meeting point, Nicosia holds a great strategic power. If a solution for Cyprus is a unity between the two communities, the architecture of the city itself houses the potential to make or break the resolution.

Urban citizens need to have a place of contact and a reason to pass through the wall to experience the scar of the city. This thesis puts forth a series of interventions that allow inhabitants to climb a tower to see a new perspective of the other side, to cross the bridge from one side to the other. Strategically inserting these incisions into the neglected fabric, this thesis utilizes the decayed urban texture to create a monument to the war and spaces of mediation. It contends that only once you acknowledge a wound can it be healed.

NICOLETTA KYVERNITI



Fiber-Climates Rethinking Hemp Architecture

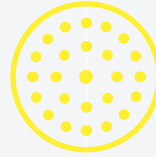
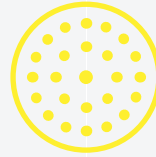
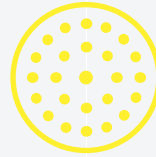
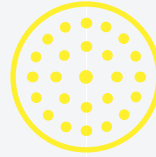
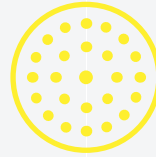
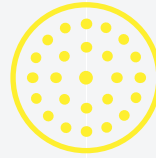
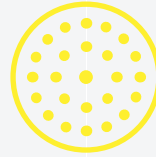
The material characteristics of industrial hemp make it a viable resource for sustainable building. However, stigmas and legalities surrounding hemp have limited its development as material replacement for other common building materials. This thesis explores the physical properties of hemp fiber to develop hypotheses regarding its architectural potential.

The hemp fibers offer tensile strength, resistance to moisture and mold, as well as having a net-zero environmental impact, thus formulating an interesting conversation for the

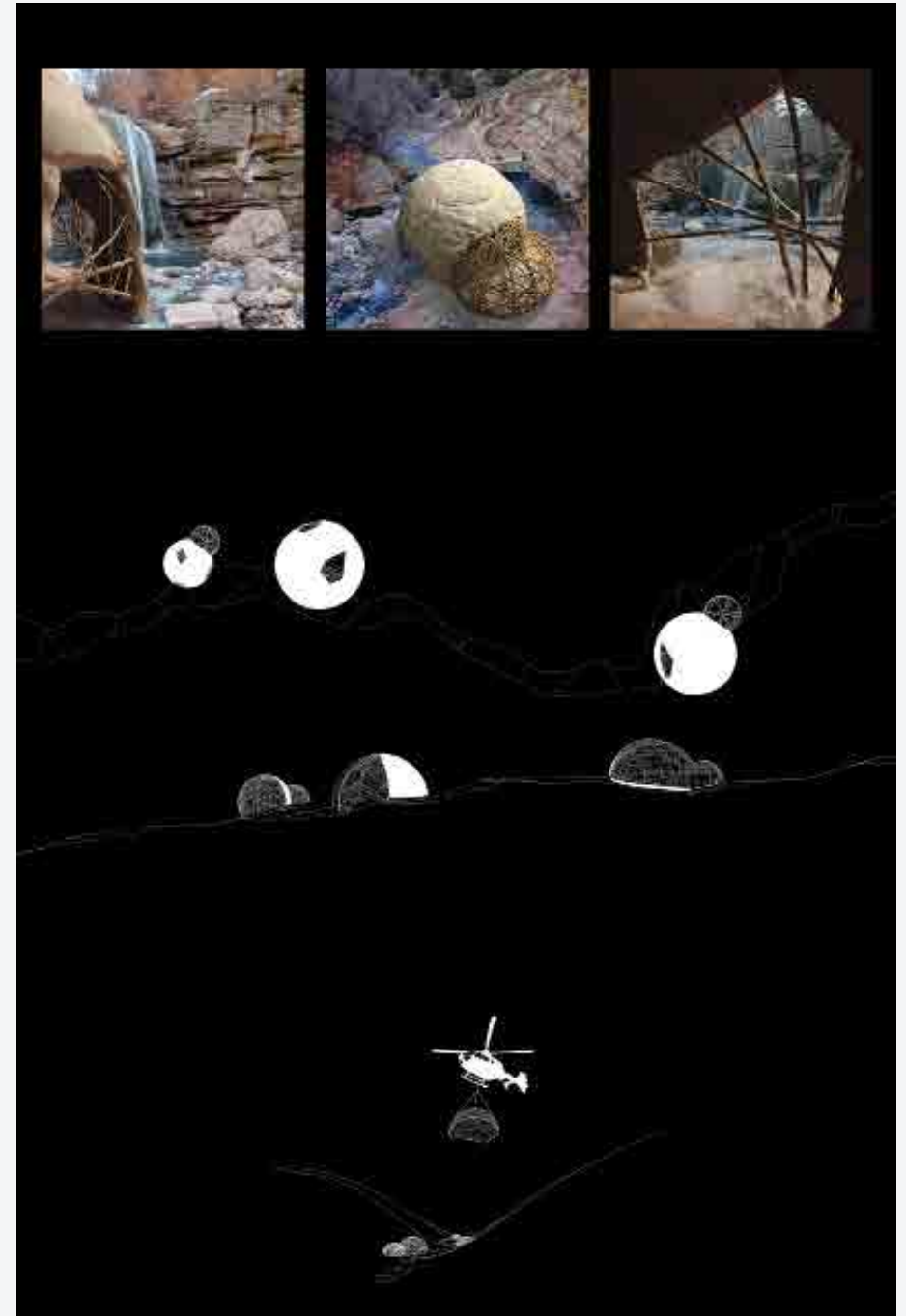
future of building. In this proposal, the fibers are utilized for their absorptive, durable, and temperature-lenient characteristics.

In each of the fiber-climate types developed, the hemp composite aims to create a specific microclimate influencing interior conditions: humidity, temperature, and exposure. Utilizing hemp fiber as structural reinforcement, as a moisture retention device, and for its aesthetics, positions the proposal within the scope of an intrinsically hemp architecture.

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KEITH LECLAIR



Thinness in Mall Architecture

A Study of Technology's Implications for Space

From the moment we wake up, to the second we fall asleep; we are constantly interacting with various forms of technology. Technology's impact on our lives is unmistakable. The rise in digital technology has led to the restructuring of American malls due to the increasing reliance on online shopping by the population. As malls experience the start of a new cycle in their existence, architecture has the opportunity to push the extent to which forms of technology may impact these spaces. This thesis explores the various technologies that will affect mall design and studies the full potential of the technology at both the scale of the individual store and the entire mall. The final product, which will be a prototype mall, will rely on a flexible system that will be able to accommodate the different spatial characteristics of the technology, while balancing the difference between digital interactions and human interactions.

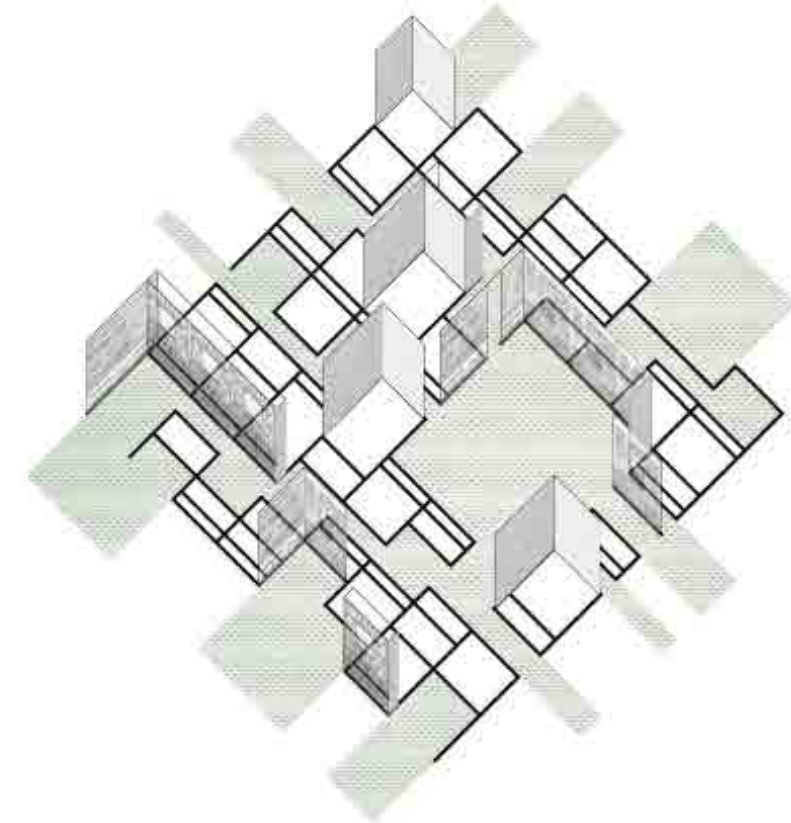
Virtual shopping, drone delivery, and automated retailers, in addition to smartphones, are just a few of the technologies that are already impacting the way we shop. These technologies allow for previously necessary elements such as checkout or display areas to be eliminated. Resultantly, spaces can become

smaller. Certain retail technologies like virtual shopping have the potential to become a shopping platform that exists on only a surface. Furthermore, the same technology can start to evolve in different forms and organizations depending on the program it is serving. Because the spaces are changing at the scale of an individual store, the methods through which these elements can be composed also needs to evolve.

Explorations at a smaller scale set up a construct via which further design tests can be undertaken at the larger scale of the mall. With the addition of variables such as parking, communal spaces, or entertainment areas, this thesis proposes to create an architectural experiment with the aim of discovering a new mall prototype.

Malls are spaces that are incredibly sensitive to changes in social patterns and new technological advancements due to the direct correlation between their success as buildings and their profitability as businesses. This makes any reconsideration of the mall type a valuable opportunity to test out the extent to which technology can impact the design strategy of a space, while simultaneously studying how the same approach impacts the sorts of social exchanges that may take place inside.

ENSAM LEE



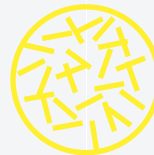
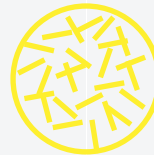
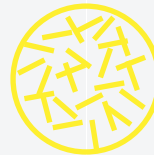
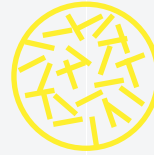
Releasing the Unconsciousness Visualizing the City

This thesis explores how subway stations lost their identity as strategic nodes of connectivity which constructed the prevailing image of New York City. In *Civilization and Its Discontents* (1930), Sigmund Freud famously compared the human mind to the city of Rome. He argues that both contain strata of memory and history which have accumulated over the years through a messy and ad-hoc process. Like Rome, New York City also has a layered history, albeit not as deep.

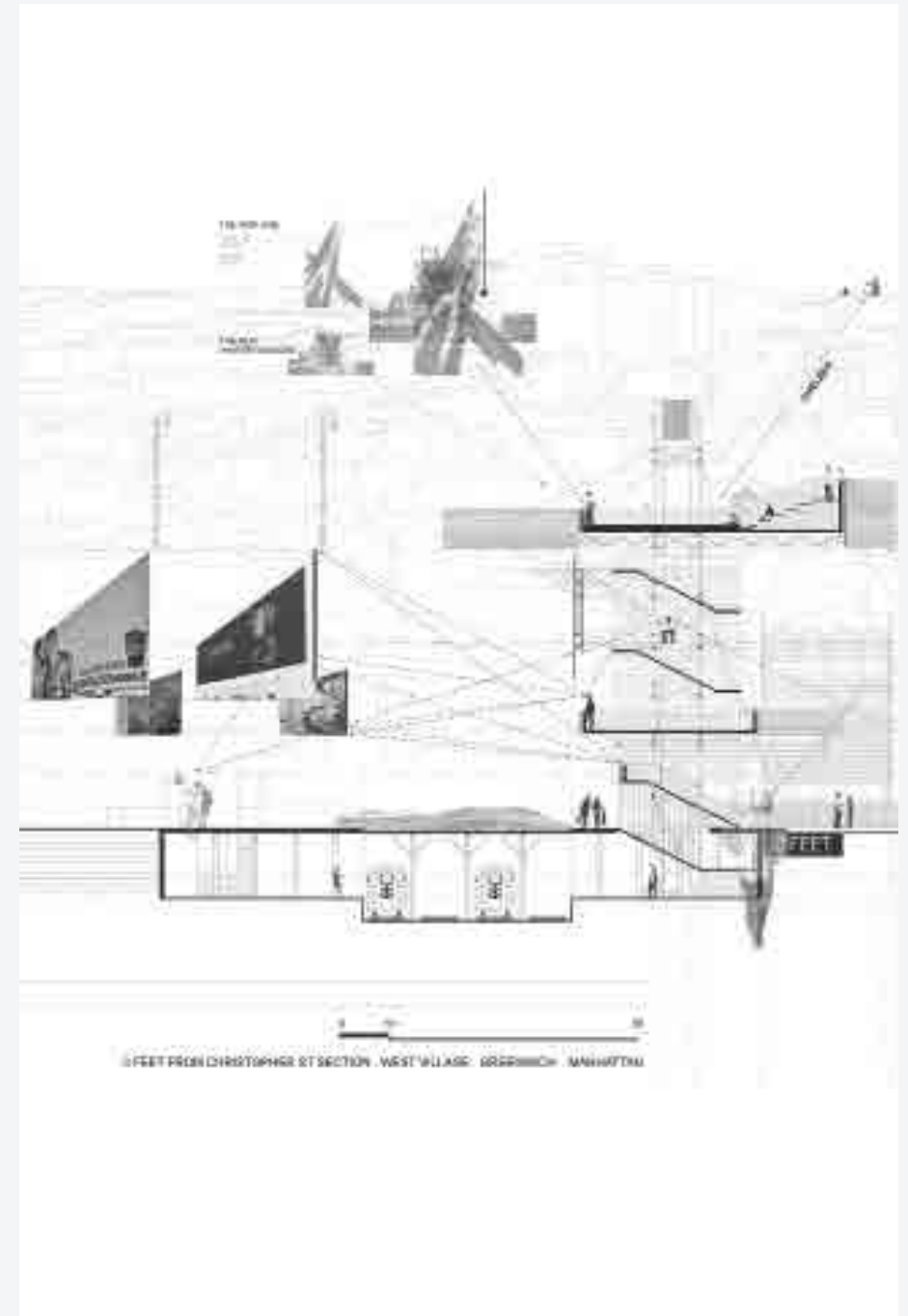
This thesis contends that the subway entrance serves as an experiential entré into the unconscious experience of the unknown elements of the past. These subterranean city/mind experiences contribute to one's image of the city. Building on Kevin Lynch's argument that nodes serve as "the strategic foci into which the observer can enter", the subway station is a concentration of "doors" of decisions (Kevin Lynch, *The Image of the City*, 1960: 72). However, subway stations are usually detached from the city's above ground structure.

Therefore, this thesis challenges the assumed ground/underground plane to integrate subway stations into the past and present urban contexts. This integration reinforces the connections between an already disconnected netherworld and the terrestrial world of Manhattan through the creation of new subway entrances that reveal the unconscious layer of the city.

Two of the elements of Lynch's image of the city that are emphasized, in this thesis, are node and district. Focusing on simulating these concepts requires the construction of an occupiable boundary between the nodes of the neighborhood and the subway stations. Focusing on the nodal point of the subway station reveals the possibility of it becoming the focal point of the district and thereby highlighting its stratified layers of un/conscious memory. The dynamic relationship between the subway as a nodal point and the neighborhood as a district foregrounds the occupiable boundaries between the two and the way they create the image of the city.



TAIHUI LI



Multidimensional Dialogue Through Architecture An Exploration of the Possible Dialogue Between Humans and Walls

This thesis proposes that architectural design no longer has to be primarily static, but rather it can be dynamically responsive to multiple information streams and conditions.

Multidimensional Dialogue Through Architecture is developed from the understanding of human factors and ergonomics. The dispersed works on research and inference are different ways to explore the interaction between the discipline of architecture and the other fields, such as psychology, engineering, biomechanics, physiology, cognitive science, and anthropometry. Therefore, the purpose of this thesis is not to design a specific building that works perfectly in particular conditions but rather to use architectural elements to mediate among different fields.

This thesis focuses on one of the most important architectural elements, the wall, as the parameter to explore the possibilities that interact with different fields. The wall as a fundamental architectural element works as an intermediary between

human and machine intelligence. By exploring different conversation in the dialogue, the result of this integration is that the wall can intelligently interact with humans.

This type of holistic thinking methodology is inspired by Gordon Pask's "conversational theory". Pask's theory is a framework for design thinking, that seeks to reframe the problem in a new and interesting way rather than solve it. This "thinking by doing" process allows communication be more adaptive and interactive. Iterations involved in this conversation are a series of hypotheses which are based on empirical data analysis and practical experiments. As prototypes provide different plausible solutions to transform the design progress and create new knowledge for conversational dialogue. Therefore, the goal of this research is to reinforce the dialogue by assimilating the conversational idiosyncrasies from each species and asking the wall to be a predictive model that responds to human behavior.



FENGQI LI



Step into the Sublime

The passion caused by the great and sublime in nature is astonishment, and astonishment is that state of the soul in which all its motions are suspended, with some degree of horror. The mind is so entirely filled with its object that it cannot entertain any other, nor reason on that object which fills it. Astonishment is the effect of the sublime in its highest degree... No passion so effectually robs the mind of all its power of acting and reasoning as terror; and whatever is terrible with regard to sight, is sublime.

— Edmund Burke

How do we experience sublime paintings within a 3-dimensional space? Today, we typically experience paintings as a 2-dimensional surface on a plane. While this is an effective method for viewing traditional paintings, I believe that there is more to be experienced if one looked at the spatial implications of the artwork. This thesis contends that when sublime paintings are looked at 3-dimensionally, the spatial implications that arise help the designer create spaces which evoke the same emotions as the paintings

themselves. These spaces, when strung together form a cohesive promenade and have the potential capacity to draw strong feelings of sublimity within the viewer.

This thesis proposes to design a sublime art museum within Central Park in New York City. This new museum will give visitors the option to experience sublime paintings both 2-dimensionally and 3-dimensionally. Gallery spaces will be catered to specific paintings to evoke emotions inherent to the paintings themselves. This museum will be an emotional experience, invigorating and robbing the senses to instill fear within its visitors without placing them in any actual danger, which in turn will produce delight in self perseverance.

This thesis will accomplish its aims through the careful curation of five famous sublime paintings with strong spatial implications and ties to key points within Central Park. Systematically analyzing these paintings will reveal a set of kit parts that will fulfill the aims of this thesis. The aim here is not to recreate the paintings spatially, but to evoke strong feelings of sublimity and astonishment through spaces that are reminiscent of the paintings themselves.

JENNIFER LI



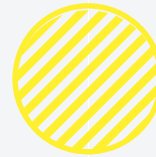
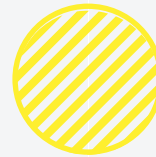
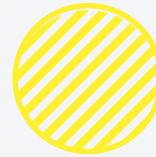
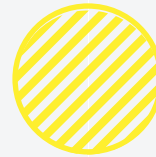
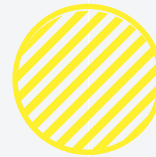
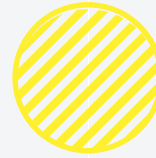
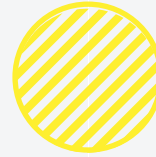
A Lifelong Accumulation The Retirement Home as Institution, Museum, Warehouse

This thesis is an exploration of the relationship between everyday objects and architecture. Peoples' experiences of the incidental artifacts of everyday life are often clouded by our senses of memory (and forgetting) and these objects play a role in fashioning one's identity.

In focusing on these everyday objects, one's attention is brought to bear upon the strange discontinuities that exist between the size and scale of what is commonly labeled "architecture", and the intimate size and scale of hairdryers, soda bottles, and sneaker laces. Such everyday artifacts tend to accumulate over the course of a person's life. The average contemporary home in the United States is stuffed full of consumer durables (and not so durables), which wind-up stored in attics, basements, garages, under beds, and on top of cupboards. The idyllic suburban life overflows with stuff. One response—advocated by the simple-living movement—is to throw most of

this stuff away. However, for many people, these objects of everyday life are repositories for a wide range of emotional investments. The table in the hallway might be the lone reminder of a lost loved one. Or, an ornament on the mantelpiece a token of love from a child. As these artifacts accumulate in a domestic space, the contours and character of that space shift and bend.

This thesis contends that the accumulated objects of our everyday lives can be understood as a second order of architectural deposits. Accordingly, this thesis proposes the creation of a flexible system of modular units that are capable of accommodating—and celebrating—our intimate fascination with, and accumulation of stuff. The primary focus of this investigation is the retirement home. Here one may begin to seek and reimagine the home as a place for affirmation and the commemoration of the residents' well-lived lives, through the collected artifacts of everyday life.



QIUCHEN LI



The Renaissance of the Railway

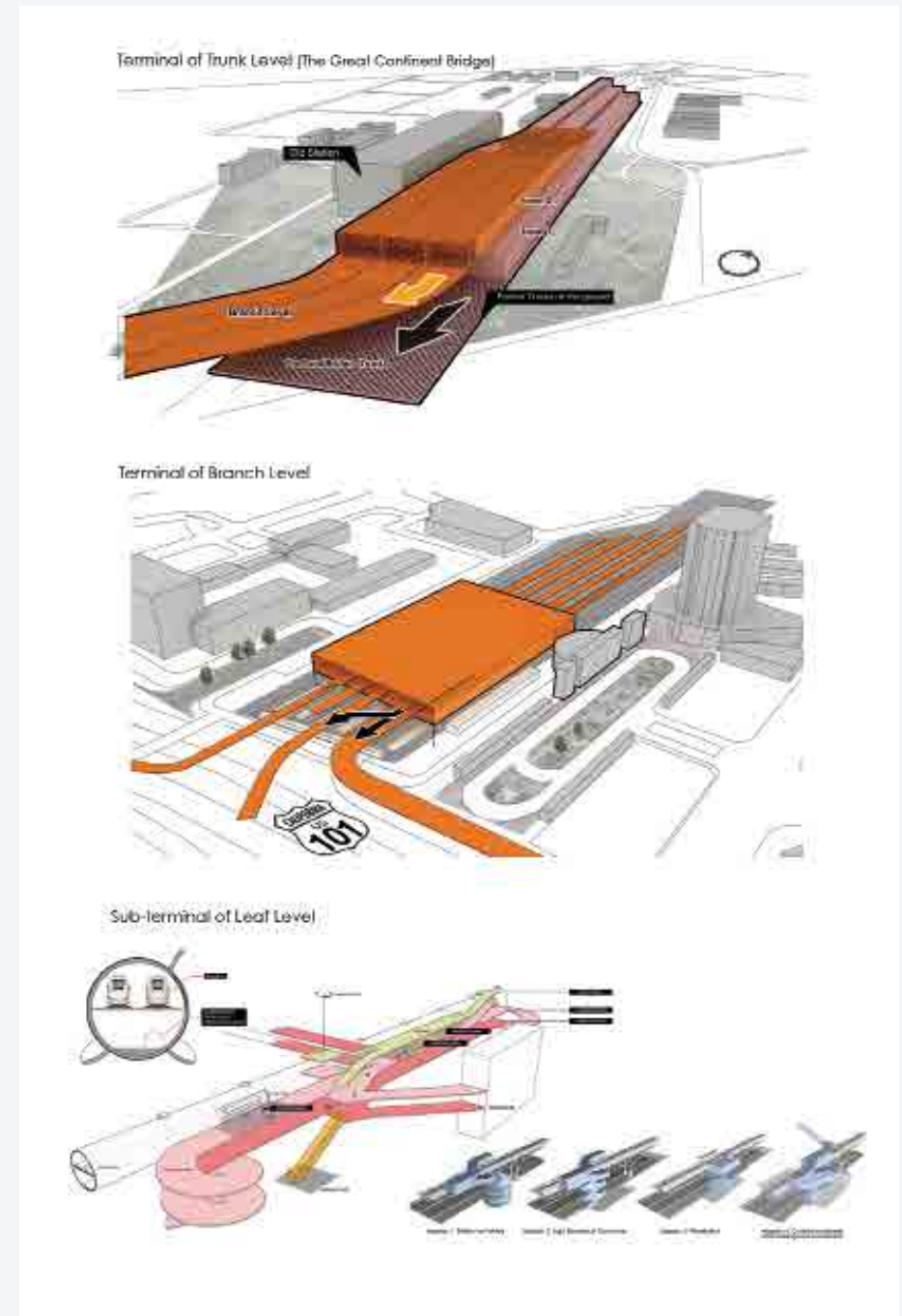
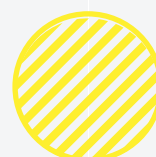
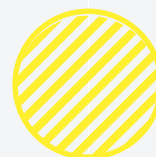
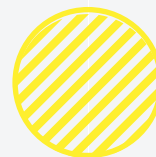
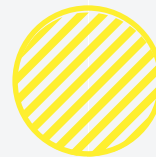
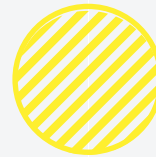
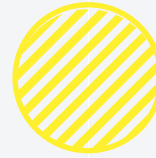
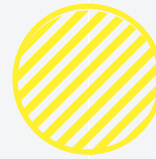
Towards a Global High-Speed System

The railway has shown its unique character as a mode of transportation since its invention in Europe during the Industrial Revolution. In the beginning, its carrying capacity made it stand out, transforming human behavior, and stimulating economic productivity. During the 20th century, air travel, the railways, and long-distance road networks have shared the burden of human transportation—in many countries the car and plane have won out. In recent decades, however, new interest in the railway's potential has been generated as a result of the emergence of new technologies like high-speed rail and the maglev system. Greater speeds are making trains viable again.

Based on the high speed of these new trains, this thesis proposes that we now have the possibility to set up a

global high-speed railway system. This concept can be described as a “great continental bridge” similar to the route that human beings traversed 200,000 years ago when our ancestors stepped out of the African savannah.

This thesis focuses on the importance of effective transportation for society. Through observing nature one discovers that the metabolic systems of plants are efficient delivery systems for nourishment. These metabolic systems may provide a model for creating a more efficient global transportation system. Based on this concept, a train station—like the leaf of a tree—can work as both dispenser and collector. The land bridge acts as the trunk. The networks of countries play the role of branches, connecting new mega-regions and dispersed communities.



A Case for the Musical Tectonic Toward a New Instrument

This thesis observes and investigates the relationship between musical instruments and architectural construction. It begins to test relationships between musical and architectural logics. It also argues that musical instruments can provide key insights into how architecture might possess the same qualities of interactivity, action, and identity that musical instruments inherently own.

Tectonics is employed as a method that is specifically interested in the “components” of architecture, how those components are detailed and assembled, and how the thoughtful consideration of construction can be expressive. It allows musical instruments to be dissected, categorized and reassembled into new typologies of “instrument.”

The lessons learned from the musical tectonic can provide analogies for architecture:

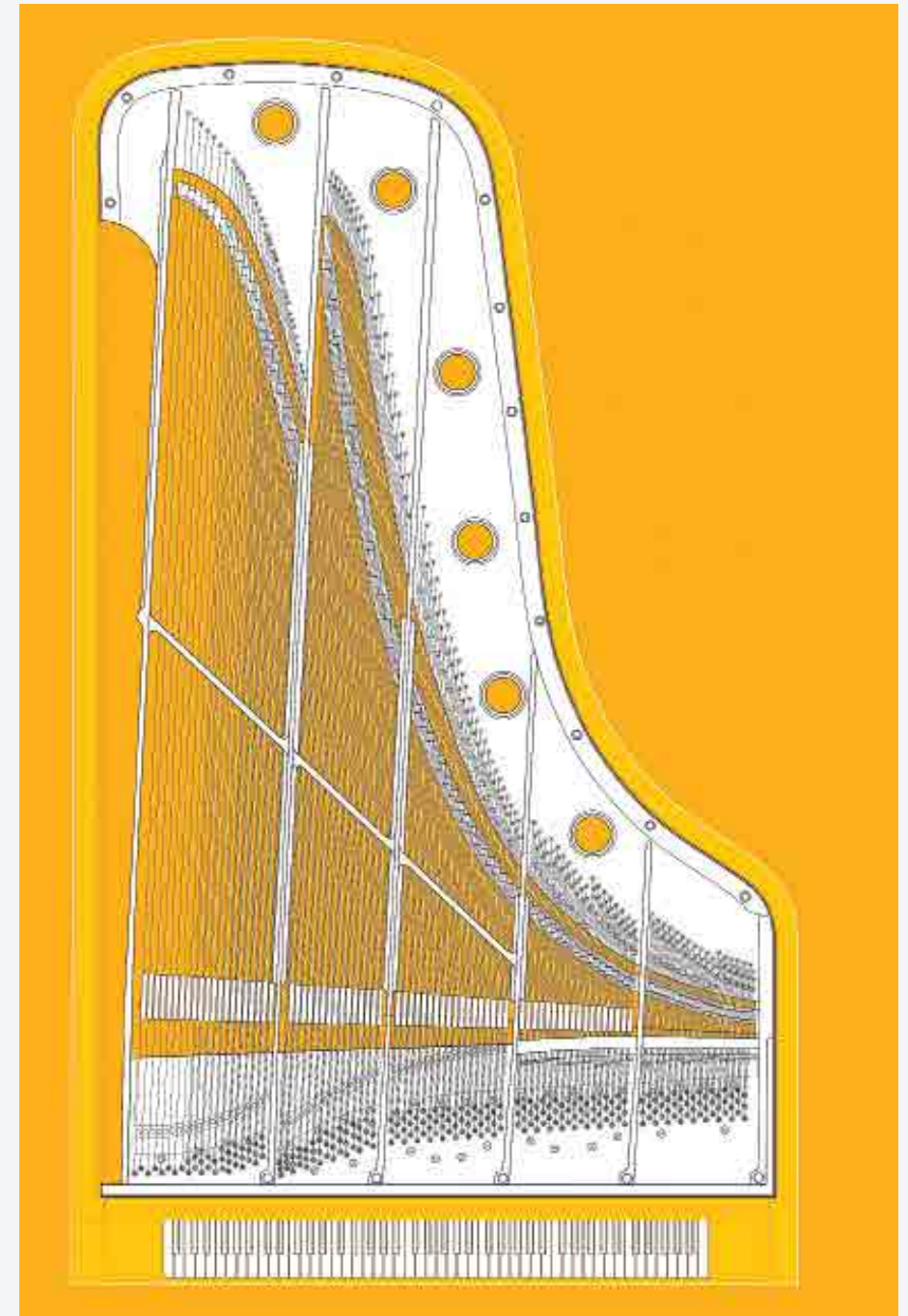
Every instrument needs a Case (must be protective and projective);
Every instrument needs Components (must be a “thing” made of “things”);
Every instrument needs a Console (must be able to be played)

These categories are not meant to be mutually exclusive; instead, they are meant to characterize certain discrete “parts” of musical instruments, in order to facilitate a new understanding of what might be the discrete “parts” of architecture.

Instruments administer an attitude toward an architecture of consoles, or an interest in the elements of architecture that get directly “used” by people. Through the lens of “instrument”, doorknobs and windowpanes might be treated like tuning pegs on a violin scroll, keys on a keyboard, or stops on an organ. Through the tectonic of a console, a common performative language can be understood and spoken. What results is an architecture that can be configured for different performances and performers.

Within the discussion of music and architecture is the constant threat of cliché. The hope is that including music as the principal subject of an architectural problem can allow the abstract architectural discussion to become almost literal. The desire is also that the radically subjective discourse of music can sincerely find its roots in architecture through the radical rationalism of tectonics. Or, at least, that maybe architecture just got some new toys.

ALEXANDER LIEVENS



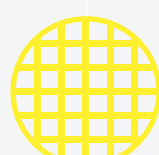
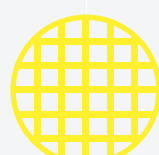
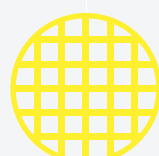
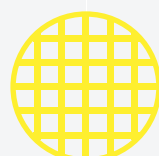
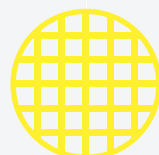
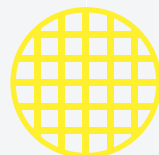
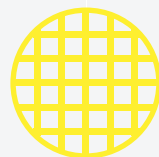
The Seed Urban Vertical Farming Germinated

Cities work as ecosystems in many ways. However, today we don't live within efficient ecosystems due to the current waste output and food input systems. With this in mind, this thesis proposes that we need to reestablish our relationship with food and nature. Urban "vertical farms" will produce social and economic hubs capable of feeding ever-increasing human populations. These buildings, however, must work within a larger network to function as efficiently as possible. At the turn of the 20th century, Ebenezer Howard proposed a new model of a city revolving around the idea of an urban population surrounded by a farming society. This framework, which may have been effective if it had been implemented, could not sustain current urban populations. *The Seed* proposes to flip this model around through islands of "vertical farms" within the greater fabric of the city.

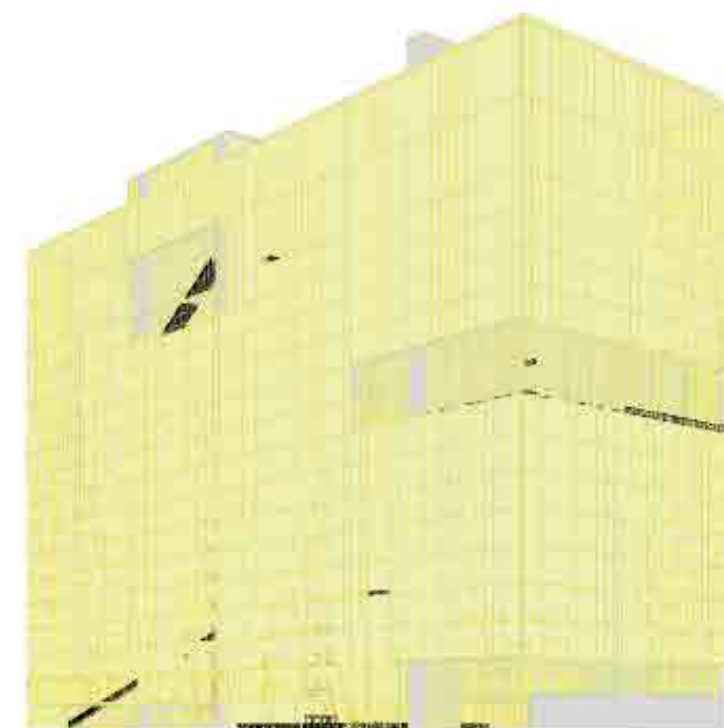
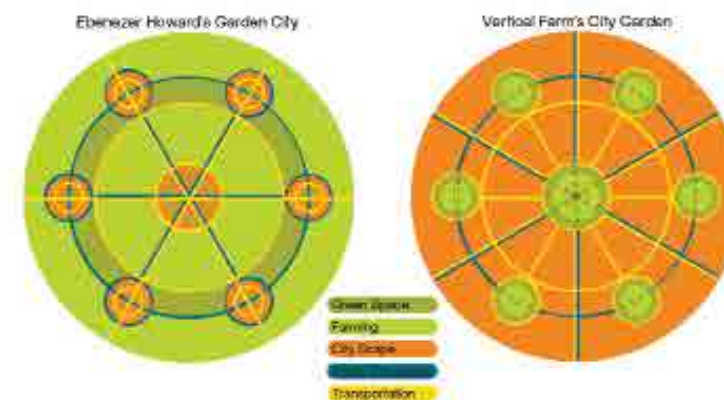
The industrial food system has done many great things for people including freeing up time for other activities. However, it has also changed the way people see food and the important place that it holds in the shaping of culture. The mechanization of food has given many people jobs and supported

lifestyles people previously could not sustain, but at what cost? With government provisions and sustainable growing strategies, buildings could support their local area in an immediate way through the production of food in its most basic form, fruits and vegetables. This thesis proposes a single seed that would grow out to a large network of buildings. *The Seed* is a mixed-use commercial and agricultural building within the Warehouse District of Minneapolis, Minnesota. The area has seen a population rise of 1100% in the last ten years and is in close proximity to areas in need of food justice oriented interventions. This structure investigates the ability of buildings to act not only as shelter for people, but also as a life force for those living close by.

Food production, water treatment, and education regarding people's interaction with food are three of the tenets that *The Seed* closely addresses. Through careful study and intricate understanding of the systems needed to sustain urban farming, this thesis explores this new typology and presents a framework that can be applied to urban buildings.



MICHAEL LIMA



Another Milstein Hall

In a certain Chinese encyclopedia it is written that the animals are divided into: (a) belonging to the emperor, (b) embalmed, (c) tame, (d) sucking pigs, (e) sirens, (f) fabulous, (g) stray dogs, (h) included in the present classification, (i) frenzied, (j) innumerable, (k) drawn with a very fine camelhair brush, (l) et cetera, (m) having just broken the water pitcher, (n) that from a long way off look like flies.

— Jorge Louis Borges

Jorge Louis Borges' list of animals supposedly drawn from his fictional *Chinese Encyclopedia the Celestial Emporium of Benevolent Knowledge*, highlights the potent absurdities

and lacunae to be identified in any taxonomic system.

This thesis speculates that architectural form-making flows not only from geometric or programmatic precepts but also from an ever fluctuating understanding of part-to-part relationships that resists any easy attempts at categorization. Following the historical precedent set by OMA's Milstein Hall this thesis investigates Rem Koolhaas' formal, programmatic, and rhetorical transgressions to reveal the slippery nature of the relationship between form and content in architecture.

This thesis speculates on the contingencies inherent in such slipperiness to arrive at another Milstein Hall.



DANIEL LIN



A Mat Response to Deinstitutionalization A Model for Spatial Medicine

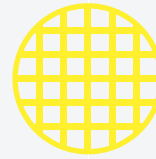
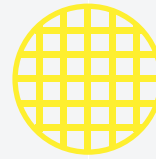
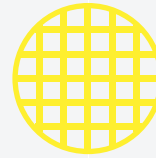
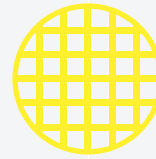
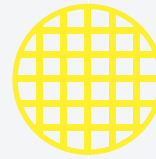
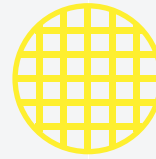
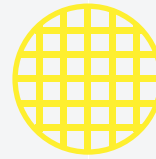
In an attempt to salvage the institution, this thesis adopts the “mat-building” strategy and typology, described by Alison Smithson in 1974, exploiting its inherent qualities as a minimal, flexible, and temporal framework that best supports the unique program of a community mental health center (CMHC). This thesis responds to the contentious relationship between architecture and mental health. The two fields became estranged from one another with the onset of deinstitutionalization, beginning in the 1960s. As a result, further social issues have manifested. These include higher proportions of those considered mentally ill making up the prison and homeless populations throughout the United States and an overall lack of proper mental health treatment. According to a 2012 report by the New York State Office of Mental Health, “Nearly 40% of adult New Yorkers with serious mental illness did not receive mental health treatment in the past year”. The problem has not been solved, but rather transferred somewhere else in what has been referred to as “transinstitutionalization”.

In response, this thesis proposes the realignment of architecture and psychopathology to create a more symbiotic relationship via the rubric of a “spatial medicine,” where architectural environments may

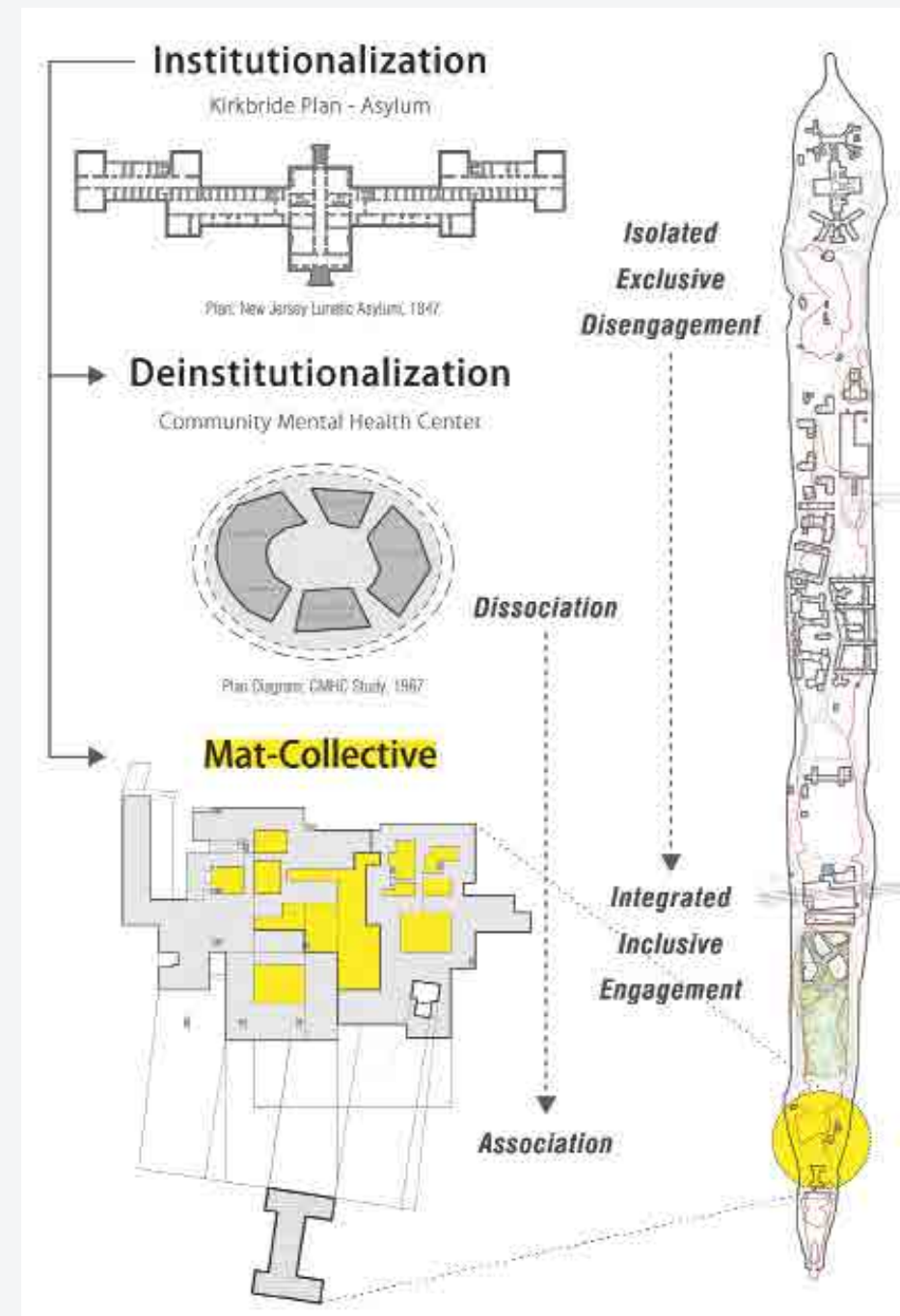
elicit a placebo effect. It pulls from the shift in unfulfilled architectural strategies that were drawn out of a new understanding and approach to mental health in the 1960s, picking up where the ball was dropped following the proposals for new CMHCs under the Community Mental Health Act of 1963, which was never fully realized.

This thesis also draws from “mat-building” design during the same period, including Le Corbusier and Guillermo Jullian de la Fuente’s designs for the new Venice Hospital. The mat typology as CMHC offers a solution to previously failed mental health typologies, like the Kirkbride asylum. The project exploits the mat’s capacity to engage users through the perceptual and phenomenological aspects of sensation and affect.

As a place of “spatial medicine”, it will amplify and imbue life into this historically mechanistic architecture by externalizing, or physicalizing, internal/psychic conditions through architectural strategies implicit within the mat typology, including the concepts of “theraserialization” and “hinged space”. The project surfaces the dormant, sensate qualities that the “mat-building” affords, catalyzing the capacity of architecture to act on its inhabitants’ perception, experience, and subjectivity with the ultimate goal of bettering one’s mental health and wellbeing.



DOMINIC S. LIPUMA



Hacking the Urban Village Architecture As Board Game

This thesis proposes the board game as a new research methodology and platform for the study of southern China's urban villages.

Hacking the Urban Village examines the urban villages that have, in recent decades, become a common but informal settlement type in China as a result of China's unprecedented period of urbanization.

This research forms the contextual core of a board game where game settings present the current urban conditions and players may explore alternative forms of urbanism. The board game offers players the opportunity to investigate both the formal conditions of the urban village life along with its attendant social relationships and juridical contexts. Unfortunately, many architects are educated to design static buildings using drawings and models, a style of architecture that fails not only to meet the dynamic challenges of

China's urban villages but also the complicated technical requirements, and complex urban development needs of a growing population.

However, urban villages thrive on their inhabitants' ability to hack and re-organize the existing spaces and infrastructure, in a useful manner. Urban villages are embedded within a system of chaos and creativity, which is best exemplified through a hackable board game that allows players to reconfigure the game through additions, subtractions, and replacements on the game board. The dynamic and random in-game events in the game demonstrate the absurdity and uncertainty of the urban village. This representation of the complexity and uncertainty of the challenges of urban development in China today allows for the gamers to imagine new possibilities and new forms of urbanism.

XUYUN LIU



The Industrial Intervention

A Narrative Approach to an Architecture of Adaptive Re-Use

As time has passed since China's industrial revolution, many urban factory buildings dating from the middle of the last century have been abandoned. Cities have transformed as economic entities, from their previous focus on industrialization and production to their current interest in financial and commercial growth. During the past 10 years in Beijing, for example, the government has argued that by moving manufacturing industries out of the city, it can support a more sustainable city, improving standards of environmental protection and human health.

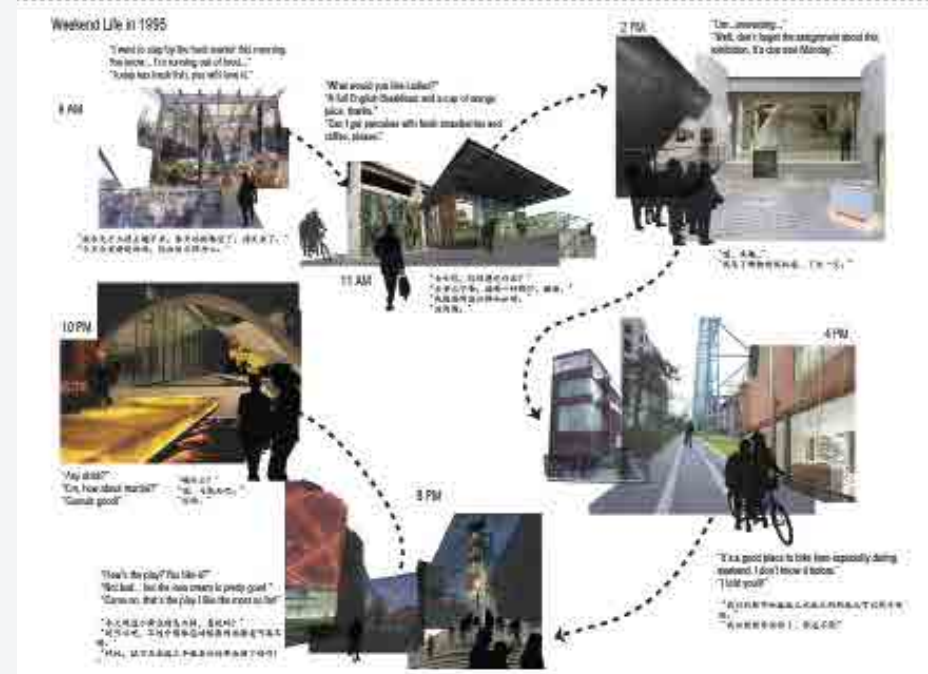
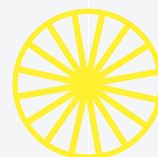
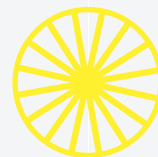
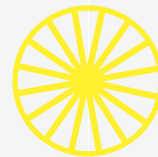
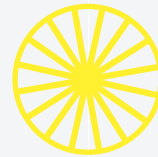
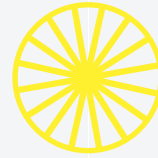
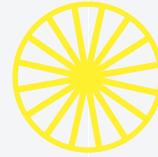
Thus, the term "adaptive reuse" has become prevalent today among architects to describe the reuse of materials and resources to lower costs and energy consumption in construction. Projects such as the High Line in New York City, the Tate Modern in London, and the 798 Art Zone in Beijing, creatively build on their respective cities' industrial heritage to construct inspiring and invigorating new spaces.

However, such approaches are not appropriate in all cases, including 798 Art Zone, the site of this thesis. Typical approaches towards adaptive reuse in this, and many former industrial complexes in China, tend to overlook each site's varied history, including their infrastructural logics, social activities, and daily life. Factories were not only a place of production, but also sites that

activated narratives and the social lives of their working populations. In response, the goal of this thesis is to create a new typology that can seize upon the site's unique history to propose interventions capable of engaging the past and future of this abandoned industrial site.

In China, industrial companies were structured to provide many related services for workers and their families. Facilities included kindergartens, colleges, food factories, theaters, and housing that together created a shared culture and social environment for each company. As Bernard Tschumi has argued, the social relevance and formal invention of architecture cannot be dissociated from the events that happen in it. Similarly, Cedric Price's proposal for a "fun palace" for north London suggests that architecture must be highly adaptable to the shifting cultural currents and social conditions of its time.

This thesis studies the scale and space of different types of programs and seeks to transform this formerly industrial site into a place that brings back the lifestyle of the 1990s and meets our needs of today's life simultaneously. To address the inevitable conflicts between the scale and form of the existing factories and new space we require for contemporary daily life, this thesis introduces two parallel strategies: "must-fit" and "mis-fit".



Public Park(ing) Reconsidering Suburban Public Space Through Convertible Typologies

Surface parking lots are a major component of America's urban and suburban landscapes. These vast and greatly underused spaces are generally uninhabited.

This thesis seeks to restructure the suburban American shopping center via the relocation of its parking lots. To define public space one must first seek to define the "public." This thesis posits that what is or is not "public" does not rest upon ownership but rather upon use.

In contemporary cities, public space is usually an abstraction based on the supposed public need. It has been relegated to "leftover" space. These spaces are manifested in our cities as the divider between roads, or what is left over after the construction of a private building.

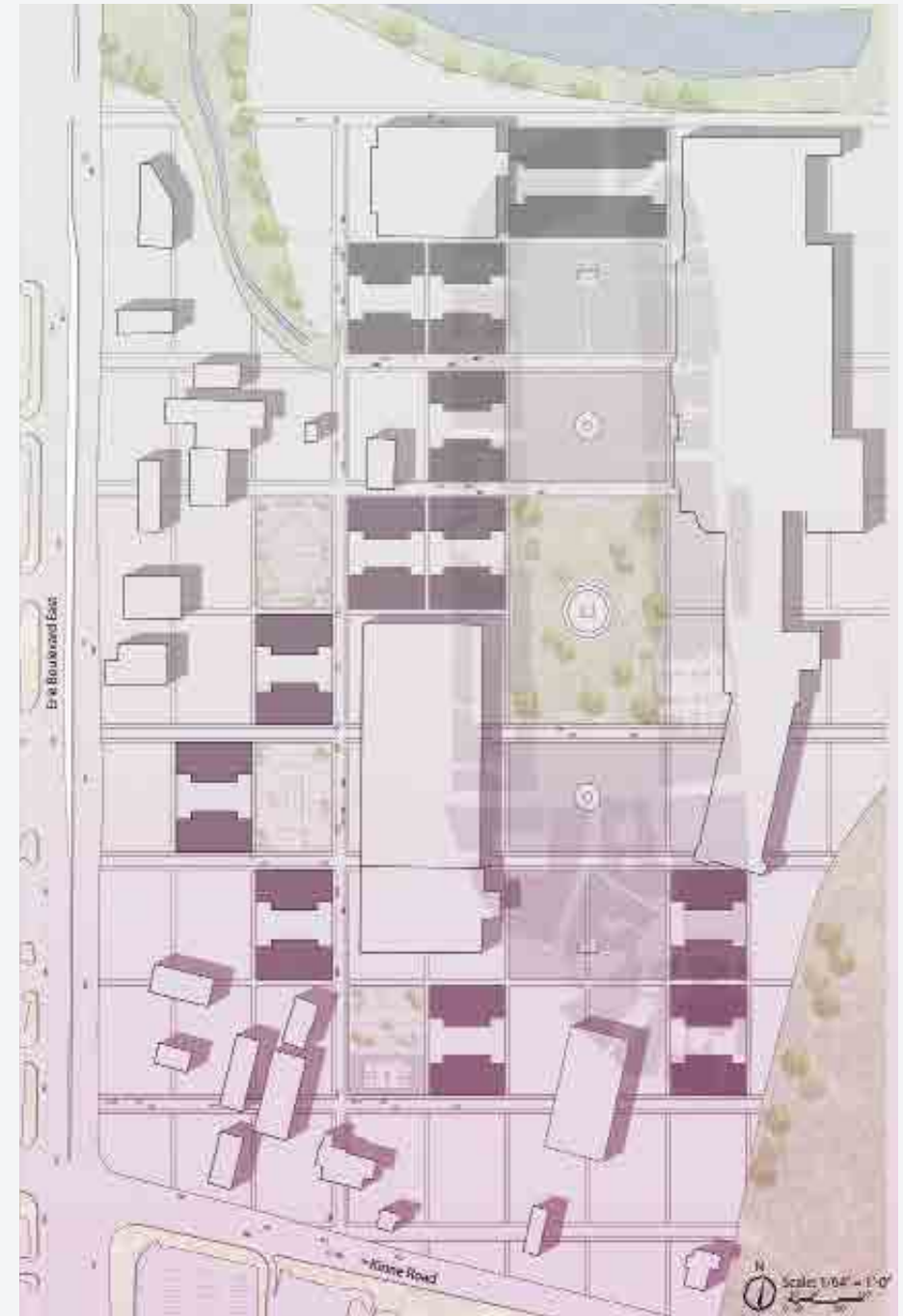
To begin this analysis of this "leftover" space, I have chosen to

locate the research at the Marshall's HomeGoods Plaza in Dewitt, NY. This thesis poses a development to be carried out in cooperation with the current owners of the site as well as the town of Dewitt. The plan does not assume a tabula rasa, but rather a series of additions to—and the development of—the site as it exists.

The architectural interventions proposed exist in the form of a modified parking garage. This presumes a reduction in the dependence on cars as the century progresses.

Should self-driving cars become popular in succeeding decades, the first set of garages can be converted into apartments with ground floor retail or other program as required. As the dependence on cars lessens further garages can be converted until no parking remains on site.

NICK LO CICERO



The Architecture of Jealousy

KUN LU

In Alain Robbe-Grillet's *Jealousy* architecture has a strange and complex presentation that raises fascinating questions about the architectural drawing. To the author's annoyance, a site-map appeared in 1959 English translation of Robbe-Grillet's novel, presumably to help readers to get a sense of the house in which the events of the novel take place.

That diagram is not my doing. Moreover, it conflicts with the very text of the book on several points... There is an uncertain room and we do not know exactly what it contains- something like the hidden room of a possible crime... Things are mobile...
— Alain Robbe-Grillet

Parenthetically, "la jalousie" can be translated as "jealousy", but also as "the jalousie window". And the jealous husband in the novel spies on his wife through the Venetian blind-like slats of "the jalousie windows" of their home.

What might be a better way to design or describe the architecture as it appears in the novel? This thesis pursues this goal in two ways.

The first way is to redesign the plate using conventional architectural modes: plan, section, shading, repetition, pattern, and so on. In the novel, emotions are expressed in an objective way and scenes are not presented in chronological order, and they often overlap or become duplicated. The house in the novel is uncertain with a blurred boundary so that the original drawing is unable to reflect the precise representation of the architecture. Therefore, this thesis tries to redesign the architecture as appropriately as it can by following the adequate or inadequate depiction from the novel.

The second way is to read *Jealousy* as a film script and to test the Rietveld Schroder House (1924) capabilities as a film set. The mobile quality of the sliding door in the Schroder House could refigure the space to some degree. Like Robbe-Grillet's approach to writing the script for the movie *Last Year at Marienbad* (1961), this novel, or this script, attempts to precisely and objectively describe what is spoken and what is seen on a real film set.

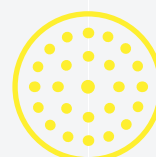
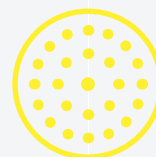
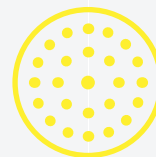
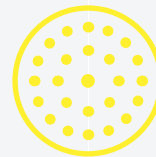
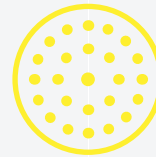
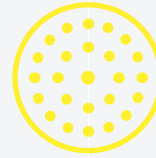
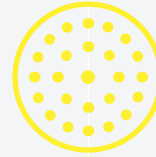


Performative Architecture A Measurable Means of Evaluating Formal Systems

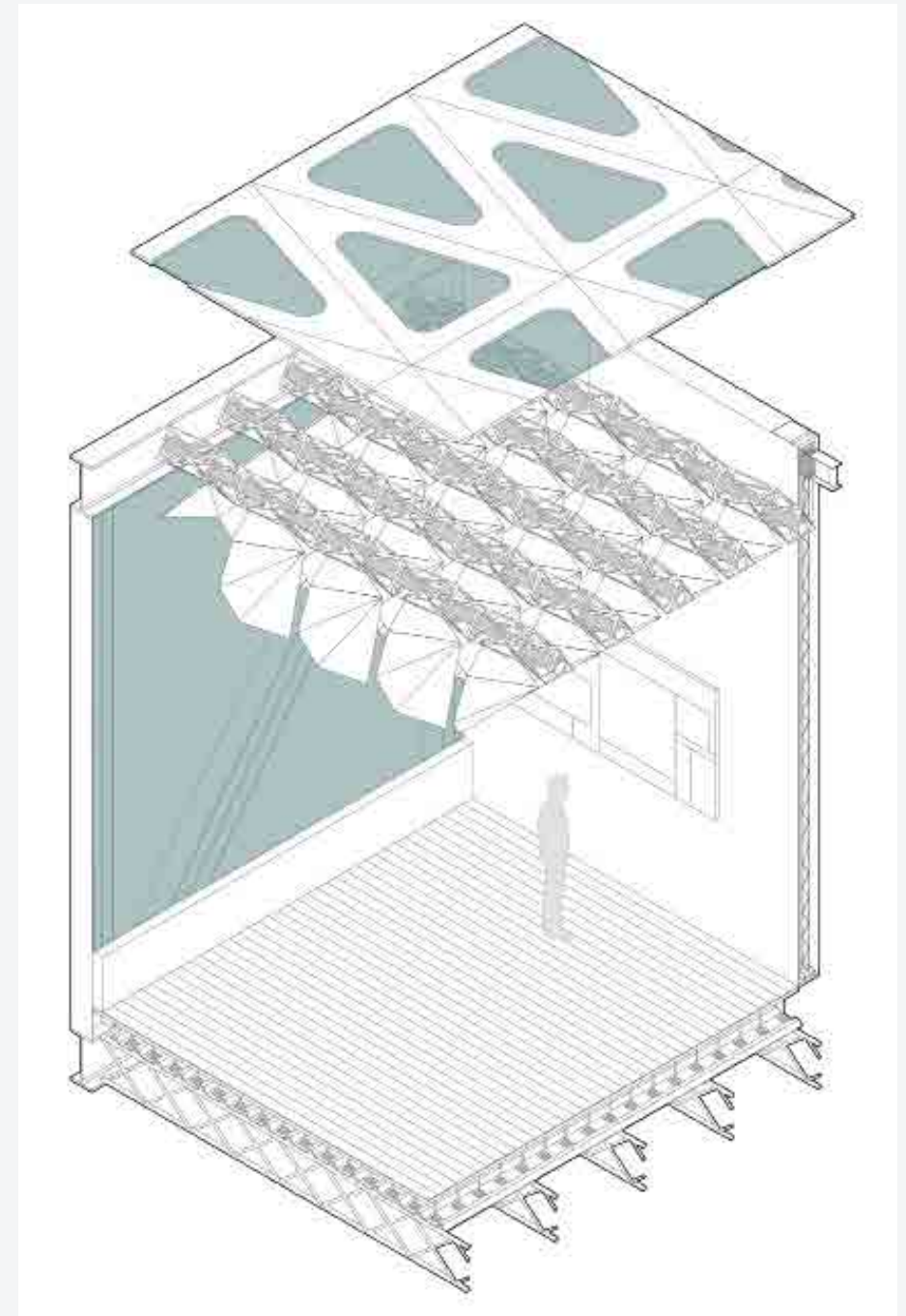
The Gothic, Baroque, and Rococo architectural styles relied on perception and an underlying adherence to classical formulas to provide merit and deem an architecture valid. Up through the 19th century, before the emergence of modernism, these established canons would reemerge both in isolation and as an amalgam of styles. Henry-Russell Hitchcock described this latter episodic phase of building as exhibiting an eclecticism of style, where features of different styles were used together on a single building like those in the Beaux-Arts tradition. In the early 20th century, Louis Sullivan's modernist dictum of "form follows function", while seemingly providing design with an explicit methodology and structure, also created an architecture with an undefined basis for evaluation. With this prescribed mode of design and a strict adherence to employing a truth to materials, architecture succumbed to a type of sterilization. Buildings that were supposed to be liberated and announce their typology were whitewashed, further concealing their identity. Currently, the use of metaphor in contemporary practice frequently serves as a post-rationalizing vehicle for the creation of meaning, once again leading the discipline no further in establishing a measurable means of formal evaluation or value system.

At Renzo Piano's Menil Collection in Houston, Texas we see the use of the metaphor employed to derive a delaminated roof scheme that employed a series of fixed louvres, referred to as "leaves". Although this building illustrates a type of performance-driven formal strategy, this leaf reference is part of a larger organic metaphor that can be seen in other building elements. The form of the trusses from which these daylight modulators are suspended, is given an organic bonelike rendering with no structural or construction-based rationale, furthering this unfounded use of metaphor.

This thesis posits that performance as a design criteria has the ability to serve as the primary guiding metric for the design process, providing the basis for a measurable means of evaluating formal systems. Through the use of parametrics, analysis, and simulation tools that are guided by site and program specificity, it is hoped that an architecture where form truly follows function will emerge. This parametric design space will be defined through both construction logic and a set of predetermined geometric constraints that undergo an iterative optimization process.



GARRETT MARINI



Domestic Glitches in the “City of Good Neighbors”

The familiar that is a little off has a strange and revealing power.
— Denise Scott Brown & Robert Venturi

A glitch occurs with the overlap of opposing domestic structures. Refugees living in Buffalo, NY present this in microcosm and foster an opportunity to rethink domesticity.

The next housing bubble crash is predicted as early as 2017. Arcus Design and Development has been awarded \$30 million from the Better Buffalo Fund to revitalize Niagara Street in Buffalo’s West Side, transforming the neighborhood into a business hub. Their campaign, “Buffalo: The City of Good Neighbors”, is marketed through the hollow buzzwords of “green,” “sustainable,” and “community building”. This thesis envisages the burst of the housing bubble forcing Arcus to abandon the project and Buffalo’s West Side neighborhood. As the value of homes plummets, many residents are forced to foreclose on their properties and locate in clusters to share resources.

The cycle of rise and decline has historically shown itself as a catalyst for new urbanisms. In opposition to the large-scale, top down approach to development proposed by Arcus,

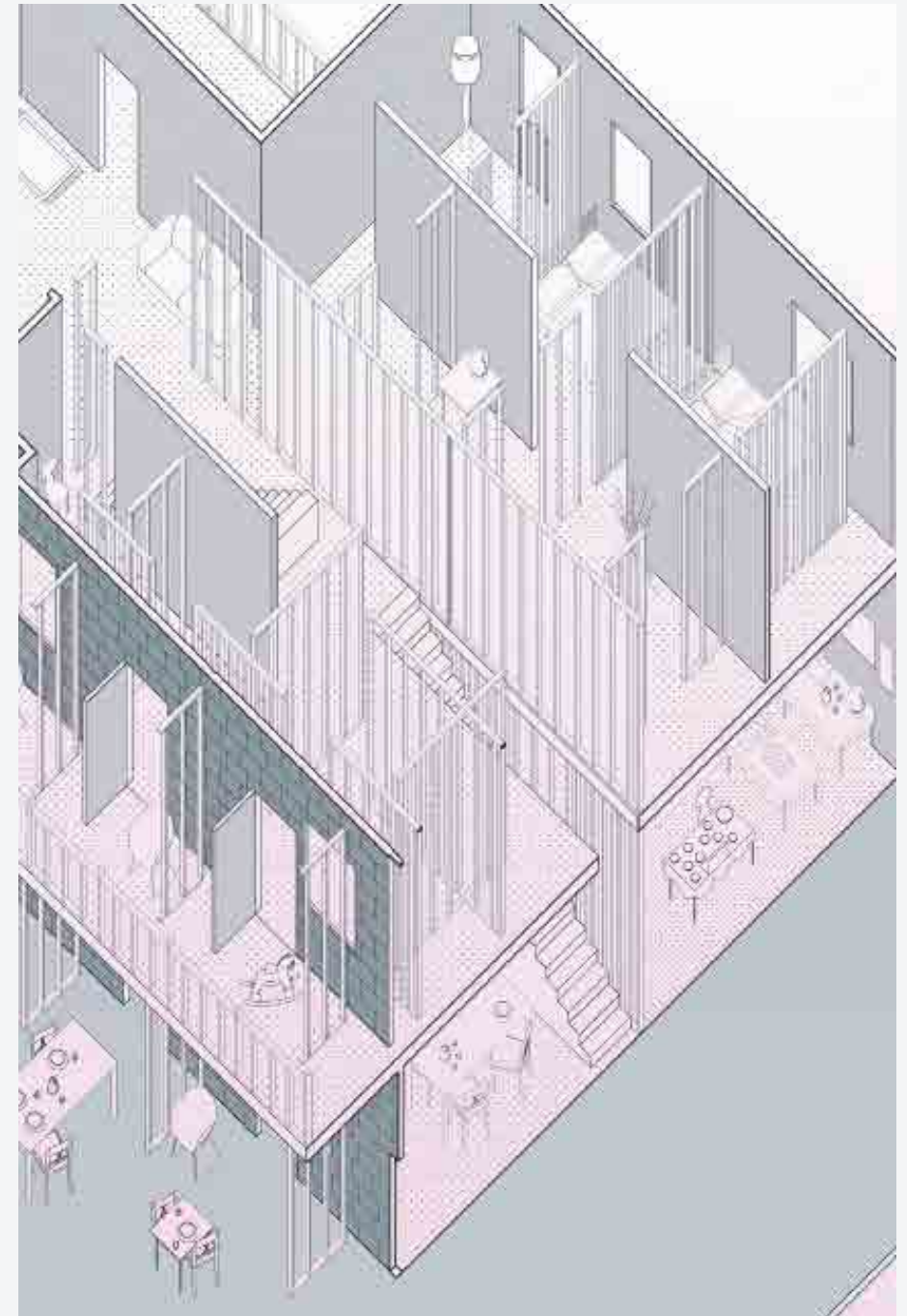
small-scale development is realized through the restructuring of domestic space. “Green” becomes a grow house, “sustainability” is achieved through shared production, and “community building,” is exchanged for communal living.

Houses in American de-industrialized cities, built for a population that is no longer present are subject to hacking, as the house can no longer accommodate the needs of the current inhabitants. Cuts and patches on the exterior signify these shifts in the interior program. Building upon, rather than anew, fosters a tabula scripta urbanism described by Charles Jencks as “an urban landscape that keeps rewriting its memories the more it ages”.

Foreign populations bring with them alternative domestic structures that do not fit seamlessly within existing houses. Rather there are micro reconstructions of the house as inhabitants figure out what parts work for them and what do not. Glitches, irregularities, or disruptions allow two realities to co-exist at the same time and have the ability to change the reading of each disparate part. This overlap of conflicting domestic structures creates a glitch allowing an exploration into other kinds of living.



REBECCA MARSH



Absorbent Resiliency A New Coastal Housing Typology

In Red Hook, Brooklyn, excess water is a fact of life. Red Hook's close proximity to the Atlantic coastline leaves it susceptible to flooding, which in turn acts as a catalyst for a slew of other problems, such as sewer backups and drain overburdening. At the same time, New York City mayor Bill de Blasio has set a goal for 200,000 new or renovated housing units across New York City's five boroughs over the next ten years. This thesis presents a new housing typology that can be plugged into the city's existing fabric to harvest and reuse excess floodwater.

Stevens Institute professor and former NYC Chief Urban Designer Alexandros Washburn is working on innovative home designs that are resilient to storms such as 2012's Hurricane Sandy. The Living Building Challenge promotes self-sufficiency in architecture through water reuse and solar electricity. By pairing the Hurricane Sandy environmental scenario with the Living Building Challenge case studies' system designs for autonomy from the grid, a new housing typology emerges. This typology is an absorbent infrastructure to remediate the excess water in Red Hook and lower demand on traditional water supply systems, while strengthening what the city calls the *Empire Zone*—an incentivized

economic area of NYC.

What form does this architectural innovation take? When water interacts closely with stone, distinct textures of erosion develop. As a basis for form, erosion has the potential to be an aesthetic statement of coastal resiliency. Integrating building form with cistern design, the new typology can operate at a number of architectural scales including the small public park, the street wall infill, and the tower. Each typological scale can absorb four times its building footprint of water in a scenario like a hurricane, where 36–48" of water can stand across the site. This massive volume of water is then used to supply a building's potable and grey water applications. Natural filtration processes occur on site, such as designed wetlands and vertical green walls that use indigenous flora species to screen water before any mechanical filtration takes place in order to produce potable water for the building.

The neighborhood becomes a living organism that intakes excess water for its own use and slowly releases water after a storm has passed. Rather than walling off the city from the sea, this new type of urban condition welcomes excess water to assist its day-to-day functions.

JAMES MARSH



Interactive Modularity in Teen Library Spaces

As a population, teens are greatly underserved by their library services and research on their specific information related behaviors is incredibly lacking. Teenagers have long been viewed as being in an “in between” phase of their life, no longer a child but not yet an adult, and their treatment in library spaces is reflected by this. Typically, public libraries have separate adult and children’s sections but no designated teen space. Teenagers are left to create their own space, often disrupting the rest of the library, both visually and acoustically, making them unwelcome in a supposedly public space.

However, the nature of these public library spaces is changing. As building and land prices continue to increase and government budgets decrease, public libraries are beginning to move into cheaper spaces, including abandoned big-box stores and malls which provide heavy foot-traffic as well as open and expansive floor plates. This shift to mall libraries offers a unique opportunity to not only rethink the interior environment of a library, but more specifically, provide teenagers with a library interior environment all their own.

Teen trends and styles are constantly changing, so too are libraries as they expand and contract during this digital age. It

is almost impossible to design an environment that can keep up with the unpredictability of teens and libraries.

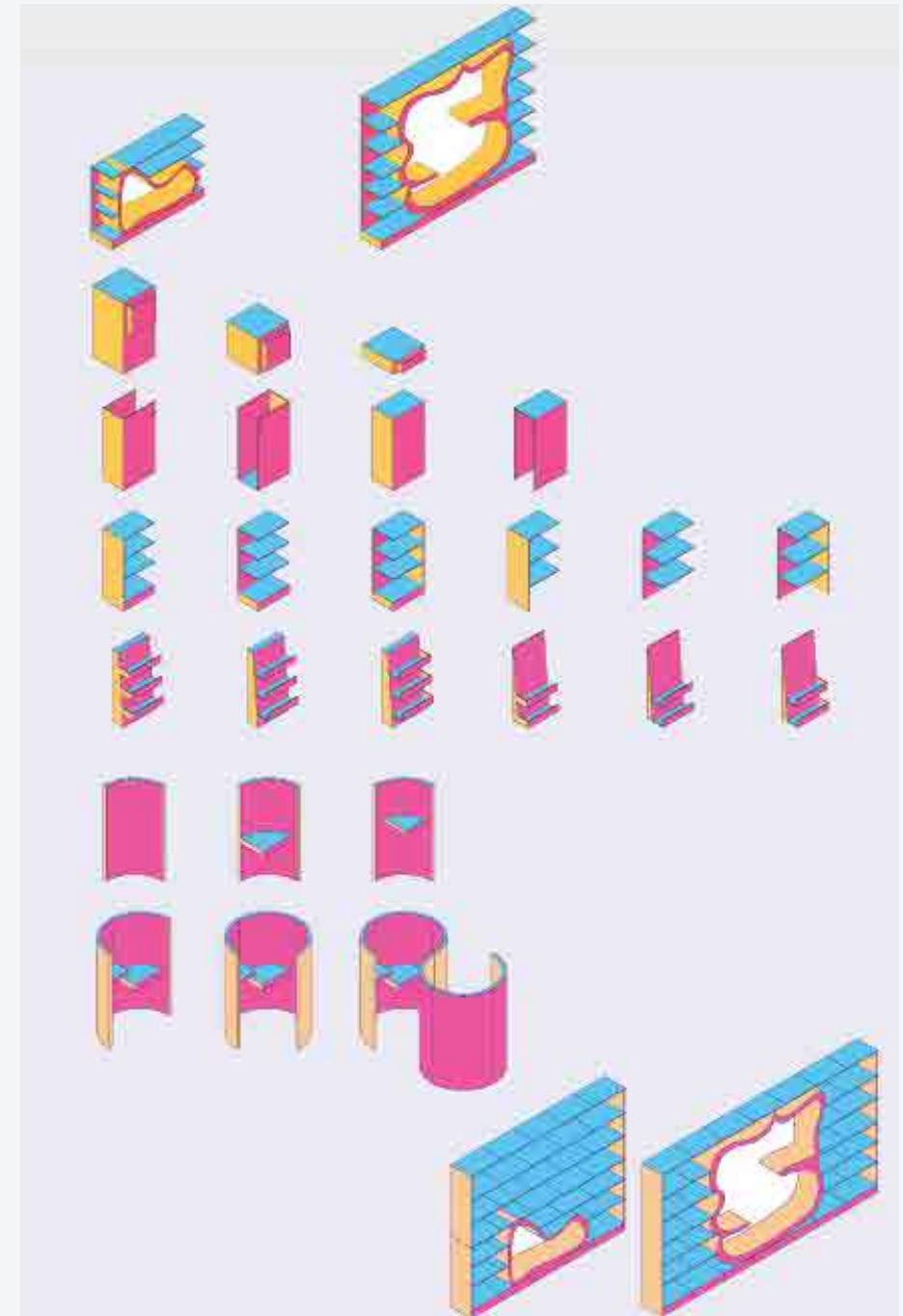
This thesis contends that a modular system of transformable space-makers is the best way to create an interior library environment that can be as flexible as teen and library trends. By creating a system in which all pieces work together to create a cohesive space that can continually be reconfigured to fit teen and library needs, the teen library becomes a usable space in which teens are welcomed and encouraged to interact.

This thesis contends that there is no hard line dividing furniture and architecture, but rather a spectrum of inhabiting and defining space in the interior environment. The varying scales, movability and transformability of the system modules all rest somewhere on this spectrum and are not considered either furniture or architecture, but space-makers that users can inhabit, change and design as their needs change.

This thesis contends that teenagers need their own library space, one that is as flexible as their tastes and spatial needs. By utilizing a system which relies on the spectrum of space-making, teenagers can begin to interact with a library space that is all their own.



MEGAN MCCUNE



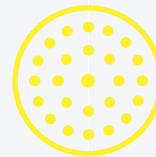
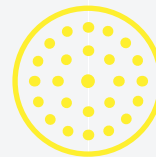
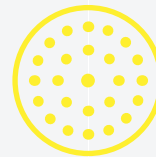
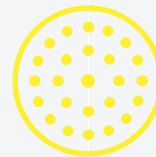
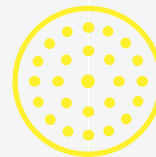
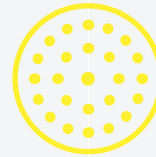
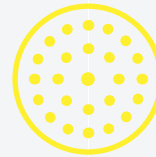
PHILEP A Self-Sufficient Pod

Since 2011 civil war has erupted in Syria causing many Syrians to flee the country. About 9 million people have been internationally displaced causing disruption to the surrounding countries, which have had to create new accommodations. Primary issues have been shortage of basic needs such as shelter, food and water. Through analysis of disaster situations and refugee conditions, the types of infrastructural systems needed for survival can be better understood. This analysis can determine how to integrate systems into an architectural solution to this global issue: temporary housing pods.

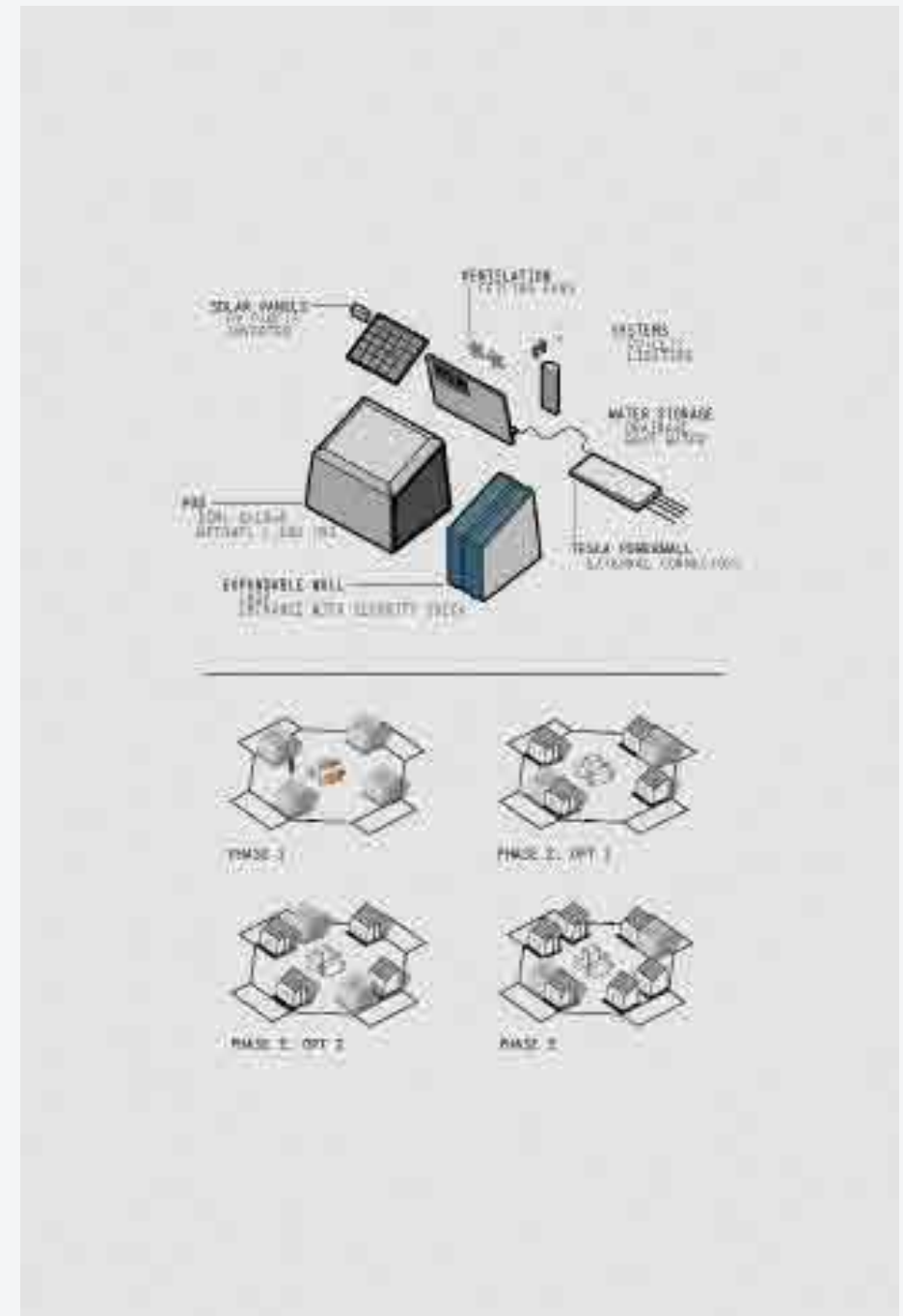
Michael McDaniels, EXO Reaction Housing founder, has created a prototype of a housing pod. This pod is an efficient model for maximizing livable space, while still being lightweight and easily transportable. The problem with this pod is it lacks the ability to be a self-functioning system and only contains one of the major necessities needed for survival.

Although the previously mentioned housing systems create shelter they are lacking major necessities from an energy perspective. This thesis presents, a typology of temporary

relief housing that is self-sustaining and better addresses the procedure and process of housing individuals affected. The proposed pod is adaptable in order to fit the needs of different types of environmental conditions, while still encompassing the architectural necessities of light, heat, and energy. The characteristics of this housing type can be listed: quick assembly, mass transportation in quantities, and the incorporation of major necessities such as shelter, water, food, and safety. Not only is this temporary housing system more efficient, but also it is able to become its own energy source. In order for easy transportation these pods have pre-fabricated parts that can be shipped, efficiently packed and assembled on site. These particular pods have been tailored to focus on the areas affected in neighboring Jordan, the site location, which is currently experiencing a mass exodus of refugees due to lack of food and water. Creating an organized camp layout and altering pods to become self sufficient, which address the issues of resources encourages refugees to stay within Jordan.



BRENNA MEROLA



Hijacked

Reclaiming Legislative Loopholes

LARA MOOCK

ARTICLE 1: GENERAL PROVISIONS

SEC. 100. PURPOSES

San Francisco's current political legislation has critical loopholes that have led to a powerful shift in the city's identity and urban fabric, as well as an obvious neglect of the public realm and social agenda. The recent move of the Silicon Valley tech headquarters to the city's center has dramatically changed the architectural landscape as well as reinforced a growing push for corporate privatization. This thesis aims to expose and confront the hidden political and social dynamics of the constructed environment and reclaim the existing loopholes in order to propose a project without major exemptions from the initial legislations' intentions. The main purpose is not to critique the lack of strict code requirements but rather envision an alternative proposal that maximizes the potential of the city's legislative constraints and ultimately hijacks the spaces that have been deprived of the diminishing public usage.

SEC. 102. PARAMETERS

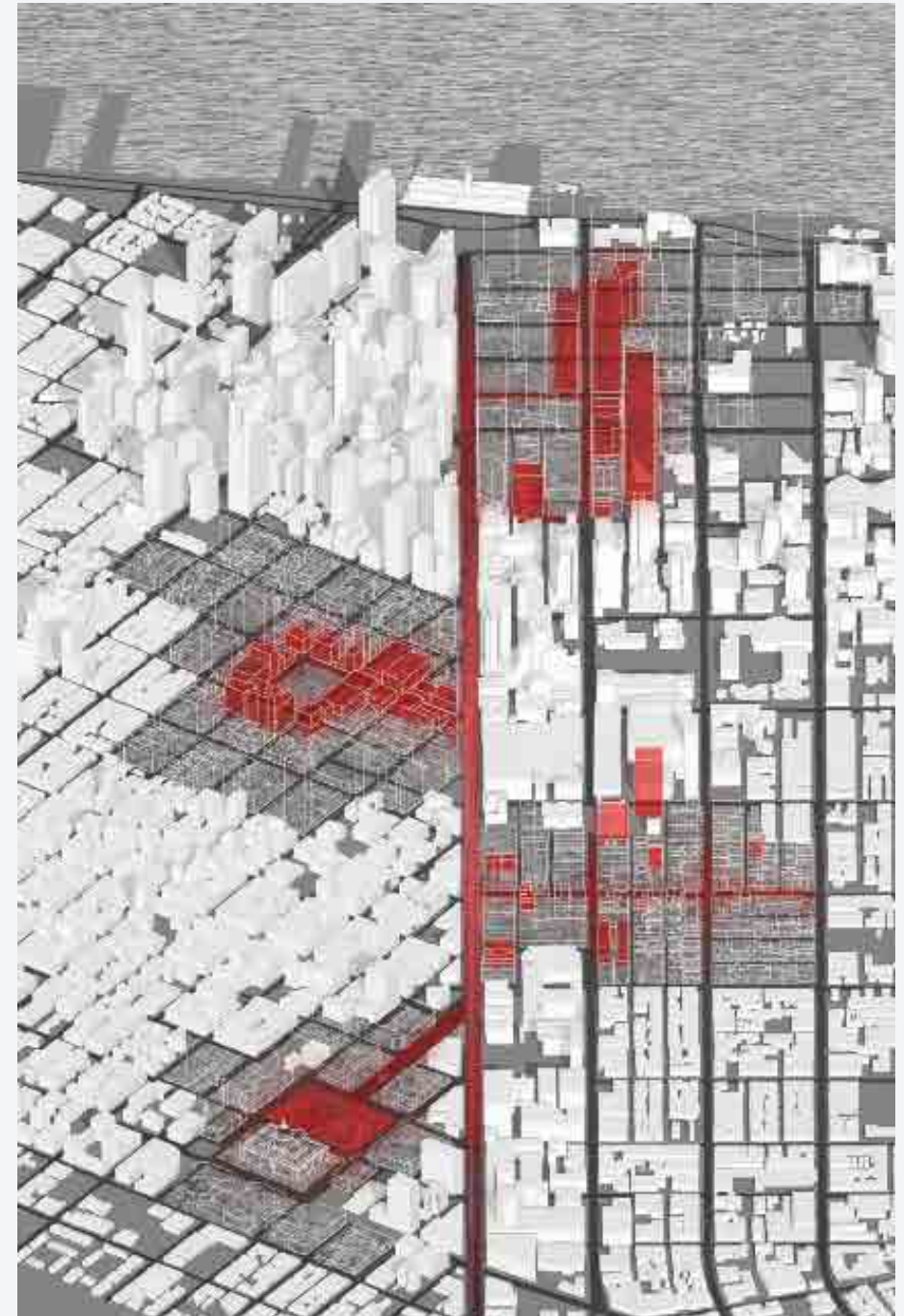
The Bay Area is comprised of four varying typological nodes that are connected through the infrastructural spine of Market Street, each containing a set of different parameters that set up the context for the overall symbiotic interventions. The architectural project will consist of hijacking four exemplary buildings, one within each node, in order to showcase the

variety of loopholes as well as design possibilities. The four proposals within each node are as follows:

- 1 High-Rise Node. This proposal hijacks the interior lining of the Privately-Owned Public Open Spaces (POPOS) that are either visually buried within the building or not located on the ground floor.
- 2 Mid-Rise Node. This proposal hijacks the street frontages of the retail spaces that neglect any pedestrian stimulation or interaction.
- 3 Row-House Node. This proposal hijacks the growing number of condos that have failed to incorporate the necessary program to resonate with the surrounding community.
- 4 Civic Node. This proposal hijacks the only underground historical landmark currently used for storage.

SEC. 103. IMPLEMENTATION

The dissection of the legislative code of the four existing buildings reveals the loopholes and uncovers the hidden design opportunities that have not been explored. Each approved exemption is reclaimed to be re-designed in compliance with the planning code as well as to illustrate the full legislative potential. All four nodes implement the same design logic of calling out the added spatial, material and programmatic amenities in order to make them cohesively discernible within the city's landscape.



Memory + Architecture

The Act of Forgetting

Memory always unfolds in space, for when memories could not be located in the social space of a group, then remembrance would fail.
— Christine Boyer

The contemporary urban fabric is a collection of architectural elements that reflect a variety of historic events. As new layers are introduced, the way we understand and experience the city is transformed. This thesis investigates how architectural interventions can actively transform the traumatic experience of a site's history without completely eradicating it.

Buildings such as correctional institutions, asylums and war sites are recognized as symbols of trauma for political and social reasons. Once no longer in use, they leave a mark of a nation's traumatic history and are secluded from the urban fabric. Like tombstones, they are constant reminders of grief and distress. This thesis investigates the manner by which architecture embodies memories and participates in the process of forgetting, through the implementation of techniques of adaptive reuse in Hiroshima, Japan to create new relationships between memory, place and daily life.

Architecture and the built environment are directly linked to the recollection of memories because they trigger four of the senses that evoke them.

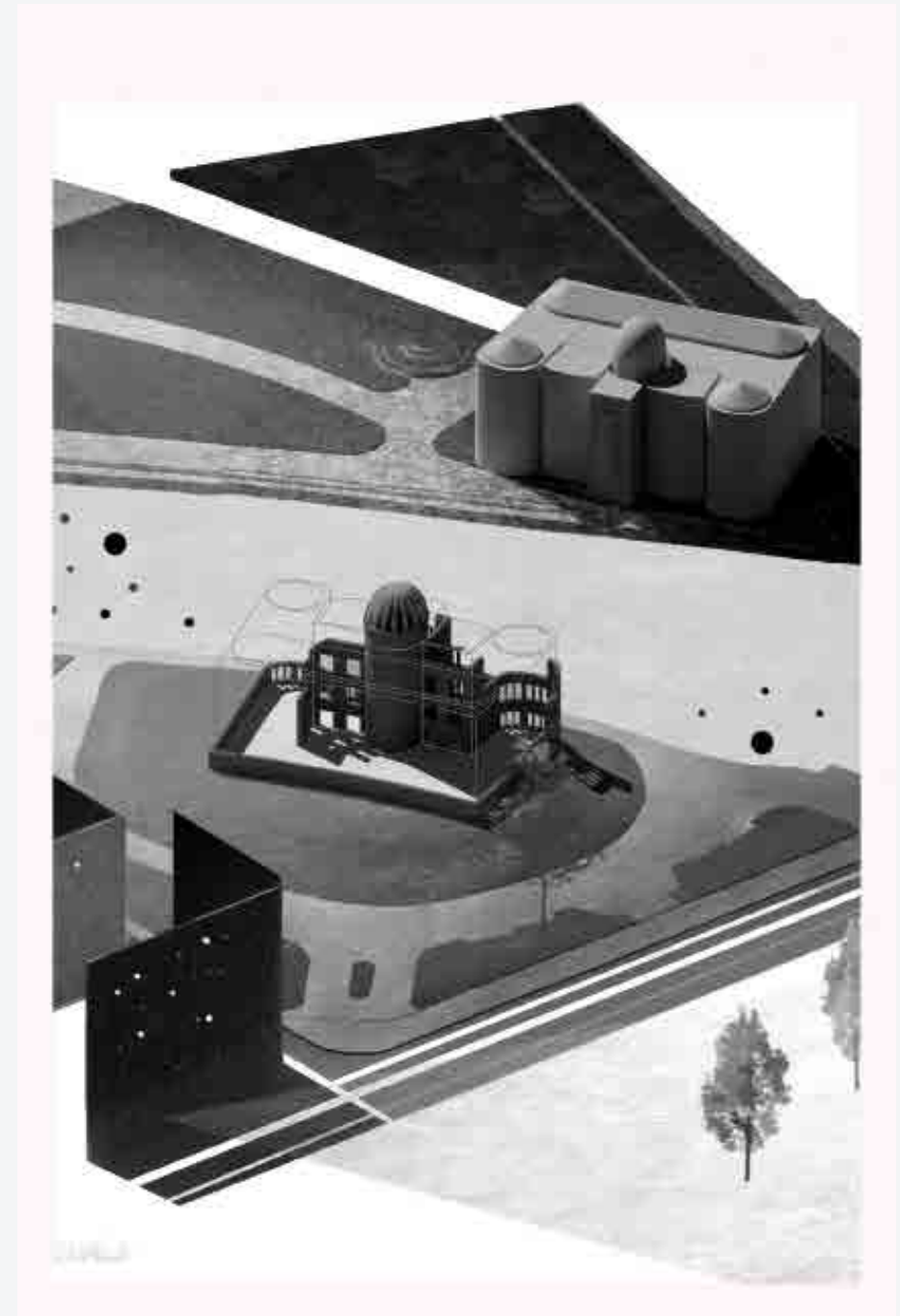
To forget is an active, not a passive, endeavor.
— Dr. Clarissa Pinkoles Estes

Conscious forgetting is not an act of erasing memories, but of transforming them by removing the emotional responses produced by our recollection of these memories. Like memories, buildings that have been recognized as sites of traumatic events are restricted to a cycle of recollection and repression. The first phase of transforming traumatic memories is to come to terms with them and to acknowledge the emotional impact they produce. The second phase is to transform these memories and eliminate the negative emotions that are produced from recollection. In this thesis, adaptive reuse serves as a gradual process of modification of the urban environment and as an act of forgetting. This is achieved by activating the site through formal and material interventions. It is a type of therapeutic architecture that gradually takes over the space of trauma.

This thesis proposes the activation and repurposing of the Genbaku Dome and the Hiroshima Peace Memorial Park. The project proposes to retroactively redesign the Hiroshima Peace Memorial Park as an episodic overlapping of architectural and infrastructural interventions that represent the stages of acknowledgement, grief, remembrance and conscious forgetting. Rather than proposing a static memorial, this thesis takes an evolving approach to sites of memories, influenced by methods of temporality and ritual in traditional Japanese architecture.



MARIEL MORA LLORENS



Uncreative Construction Domestic Mutations in America

A shift in residential patterns in American cities has fostered a breeding ground for mutant buildings. Owners split, manipulate, and expand their houses as they create idiosyncratic constructs of great visual and spatial complexity. Originally developed for a middle class population, single-family homes have become mixed-use or multi-family complexes thanks to the resourceful implementation of commercial materials.

This thesis aims to develop a new strategy for transforming the normative American house by using the conventions of platform frame construction. Variations will emerge from a set of design constraints, which—unlike that employed for typical houses—are based on data that disregards aesthetics or styles. This process attempts to emulate the qualities of the mutated homes found in shrinking cities.

Because mutated homes result from a strange curation of everyday building materials, this thesis elects to adopt uncreative design procedures. The idea of "uncreativity" stems from poet Kenneth Goldsmith's notion of

"uncreative writing", which involved the collection and manipulation of existing texts. With sources ranging from Shakespeare, newspaper articles, to YouTube comments, Goldsmith creates what he calls a "textual ecosystem". He uses this ecosystem as a petri dish for his textual experiments. For Goldsmith, writing is not about authors producing new content but how they alter, manipulate, and arrange found texts to generate compelling, if unpredictable, results. Borrowing from the spirit of "uncreativity", this thesis developed processes for *Uncreative Construction* uses data such as average square footage per room, project cost, and percentage of siding material related to geographic regions collected from common house building organizations such as simplyadditions.com, the National Association of Home Builders, the National Association of Realtors, and the City of Syracuse Zoning Code. This information is then codified into a construction manual of numeric poems that are the "textual ecosystem" for the project from which emerge layered arrangements and unexpected forms.



SEAN MORGAN

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7

Thinking About Thesis: Art McDonald & Kyle Miller

Professor Art McDonald retires from Syracuse Architecture in 2016 after more than 40 years of dedicated service to the School. Kyle Miller has been an Assistant Professor at Syracuse Architecture since 2013, and is shortly to take up a new role as Director of the School's Florence Program.

KM

In the final section of his well-known essay "Practice vs. Project", Stan Allen writes about errant trajectories in contemporary architecture. He draws a parallel to De Certeau's walker in the city to describe the ways in which there will always be free movement and tactical improvisations against the structure imposed by the city.¹ His point is that control exercised by any regime can never be total. Resistance will always find other ways around (or through) constraints imposed from the outside and there will always exist fissures and cracks in existing frameworks that enable tactical reworkings. I believe that thesis lives in these disciplinary and cultural crevices and is motivated by the opportunity to invent new trajectories for contemporary architecture.

AM

I like Allen's reference to De Certeau as an analogy to architectural production. As an educational model for all of our thesis students, it's a stretch—but not to be discouraged.

Thesis, as you suggest, "is motivated by the opportunity to invent new trajectories for

contemporary architecture."

A goal of contention perhaps, but certainly not a requirement. An "opportunity" for all, taken by few, as a moment of pedagogical resistance or as a psychological condition to be *avant-garde*. The key word here is *invention*. We agree, architecture described as a process of problem solving doesn't fulfil the definition of Architecture (with a capital A). A better definition would include the act of invention in its production process. Invention, within the capstone educational experience of thesis can also be found, for most students, in the understanding and application of newly acquired disciplinary knowledge to an analysis of contemporary contexts. It's the comprehension and transformation of disciplinary structures (customs) that provides the opportunity for relevant invention for contemporary architecture (prophecy) within the "crevices" of contemporary culture. This way it's both an affirmation of knowledge gained and developed methodological application while discoveries of potentially new relationships advance interests for further inquiry.

KM

Regarding *customs, prophecy*, and the ambition for *invention*, I'm reminded of a quote from Peter Eisenman's Topaz Medallion acceptance speech in Toronto at the ACSA Annual Conference in March of 2015. Eisenman stated, "In the land of the unknowing, originality is king."² For this exchange, we might trade *originality* for *invention*.

I'm inclined to side with Eisenman, as I believe that all architectural invention is born from a combination of rigorous analysis and speculative, even playful, projection. And to make a meaningful contribution to the discipline of architecture, one must dance with the most potent historical disciplinary adventures and extend their relevance through engagement with contemporary culture and modes of production. Perhaps this is limiting for the thesis moment. How might we account for *intuition* and the *extra-architectural* in what we've positioned as a possible target for the thesis student—*invention*?

AM

In "Precedent and Invention," Colin Rowe publishes a letter to the editor that addresses

the call to investigate "*the use of precedent and the role of invention in architecture today*." He argues, "For are not precedent and invention opposite sides of the same coin."³ Rowe contends that only through the act of mimesis and reference to precedent that a genuine innovation can be proclaimed. The letter is a good read for all students.

I don't think the "dance" is limiting for the thesis student, but is necessary for establishing a field of information for inspired intervention, which seeks to communicate the intentions, ideas, and values (political/social/cultural) of the author. It is the cultural precedents of the signs and symbols that enable the reading and cognition of the transformed syntax of the architectural innovation (invention). Again, Rowe concerning precedent and language, "Further, in the romantic predicament of interminable novelty, surely one must be at a loss to discover how any discourse (other than a grunt) is to be conducted?"⁴

Intuition is, of course, influenced by personal history and propensities, often operating at the subconscious level. The intuitive insight gained with practice develops over time into an informed intuition for the architect, providing the moment for the "extra-architectural" invention during the process of design. For the student, being "educated in a much more expansive milieu, with

boundaries and limitations fragile to say the least"⁵, the event of intuitive insight during production is certainly a goal, aided by advisory guidance, but understood as a patient acquisition of wisdom through life-long performance.

KM

We're on the same page, but I suspect that many of our colleagues and most of the students participating in thesis this year might not have the same affinity for what we might understand to be the discipline of architecture—in a more traditional sense. Beginning at the turn of the century, if not before, we see the development of the architect operating in a much more expansive field⁶ with regards to sources of inspiration on the front end and a diversified array of deliverables on the back end. What this has produced is a disciplinary map with blurry boundaries and an absent core. Architecture has dissolved into a subject matter underneath which multiple disciplines of architecture reside. More so than in recent years, and because of this continual expansion, the thesis projects in this academic year—a rich array of possible identities for our discipline, each with their own set of values, points of reference, and visually dynamic representations—produce what Allen has identified as "errant trajectories" for contemporary architecture. The degree to which these provocations will emerge from the cracks and make their mark in a more discursive way will have to be evaluated at a later date.

AM

The "errant trajectories" certainly provide for very thought provoking and meaningful discussions concerning the interest in the expansive application of architecture—whatever definition is given to the discipline—particularly in these instances when seen as being too traditionally limited in boundary. And, the university context is the traditional place for such investigation, discovery and conversation/debate. This is to be encouraged when educationally appropriate. Here appropriateness is a challenge. Who decides, what are the potential student benefits and under what initial circumstances? I think the question for the thesis student wishing to explore beyond what we might agree to be, although a bit vague at times, the traditional disciplinary boundary is: *are you prepared?* Now, for "core" education in any discipline; no core, no discipline, and no boundary, and therefore all "trajectories" are indistinguishable. This makes recognizing "new" ground gained close to impossible.

1 Stan Allen, "Introduction: Practice vs. Project," in *Practice—Architecture, Technique and Representation* (New York: Routledge, 2000), (XXII).
2 Peter Eisenman, "On Authority and Originality," Topaz Medallion Acceptance Speech, ACSA Annual Conference, Toronto, March 23, 2015.

3 Colin Rowe, "Letter to the Editor," *Harvard Architectural Review: Volume 5*, 1986: 188.
4 *Ibid*, 188.
5 *Ibid*, 188.
6 Anthony Vidler, "Architecture's Expanded Field," *Art Forum*, April 2004.

Skin Deep Thickening The Architectural Cosmetic

In *The Cunning of Cosmetics*, architectural theorist Jeffrey Kipnis proposes that the architectural “cosmetic is related only to skin and nothing but the skin”. Therefore, for Kipnis, the architectural cosmetic is defined as an inherently superficial concept, capable of transforming a building’s façade into an image. Kipnis differentiates “the cosmetic” from ornamentation by claiming cosmetics are “indiscrete and relate only to the skin—taking the body for granted,” while, “ornaments attach as discrete entities to the body—reinforcing the structure and integrity of the body”.

This thesis contends that the notion of the architectural cosmetic is better understood as not merely a superficial characteristic. Rather, it is the cosmetic’s ability to have both superficial qualities and sensible depth (distinct from any idea of “ornamentation”) that mark it as a peculiarly architectural phenomenon. Accordingly, this thesis wishes to argue that the architectural cosmetic

does not only relate to the skin, rather it permeates *skin deep*.

For architectural theorist, Gottfried Semper, the architectural envelope finds its origin in weaving. According to Semper, a woven object possesses both physical and optical thickness. The cosmetic, skin, and bone merge into one entity, a “structural woven skin”. For Semper, typically, a “structural skin” involves the invasion of the skin by structural elements. This thesis proposes to explore the possibilities and boundaries of what defines a “structural skin”, that is a skin where the cosmetic invades structure to produce a thickened understanding of the architectural cosmetic.

Working on Mies Van Der Rohe’s Seagram Building in New York City, this thesis proposes a thickened Seagram façade that has the ability to refigure the curtain wall as a zone of transition and exchange capable of producing specific sensual and spatial atmospheres inside, and out.



ERIC MUN



The Synchronous City

Architects' conceptualizations of cities reference and reflect trends in contemporary culture. During the early 1900s, architects such as Ebenezer Howard and Tony Garnier speculated on modernist visions for cities, while in the mid-late 1900s, radical visions of cities authored by the likes of Archigram and Archizoom emerged. This thesis will operate within the framework of previous visions of cities by architects to imagine a city rooted in the use of digital information and communication technologies (ICTs).

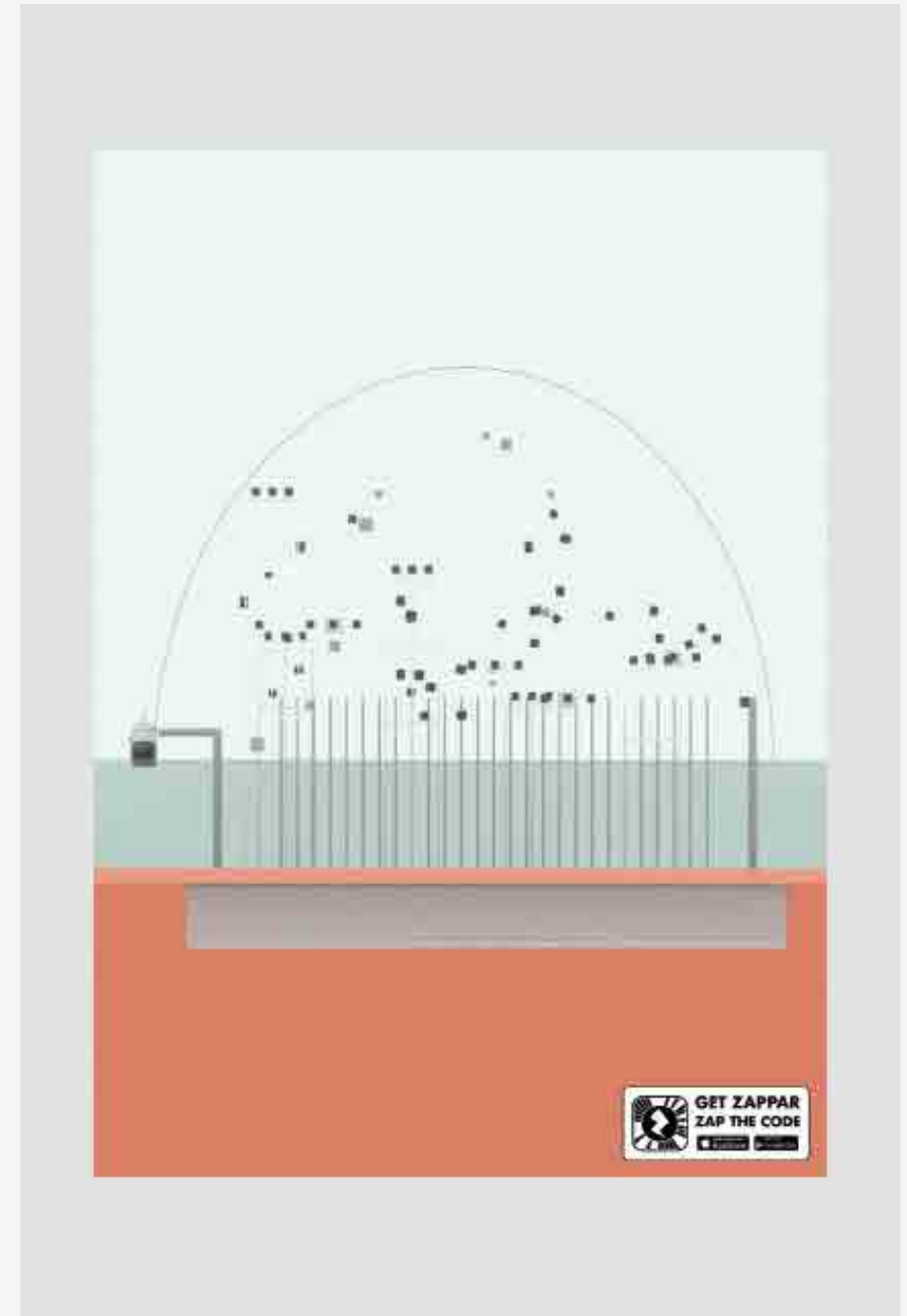
In order to best engage this type of city as the primary means of exchange and interaction between citizens (as opposed to cars, pedestrians, ships, etc.), this thesis explores the use of third-generation mobile technologies (also known as smartphones) as the key interface between the physical and digital realms. A city that is distributed, controlled by its citizens,

composed of both kinetic and static elements, emerges and provokes new theories on urban life. It is a city that redefines notions of public and private, and is part of a larger network of ICT-based cities that extend through vast landscapes,

Hypothetical cities are of relevance not just to trained architects, but also to the general public: they promote the ideas and ideals of a better society and suggest changes to existing urban principles in order to provoke thoughts about the future of city life. As a result, architecture and experiments in representation collide in order to reference popular culture, and to engage and interact with it. In this thesis, unconventional architectural representation methods such as coding, GIF drawings, and projection on drawings and models are explored in order to reference the digital nature of ICTs.



PATRICIA OLIVERA



Unreal Urbanisms

User Generated Virtual Cityscapes in Massive Multiplayer Online Games

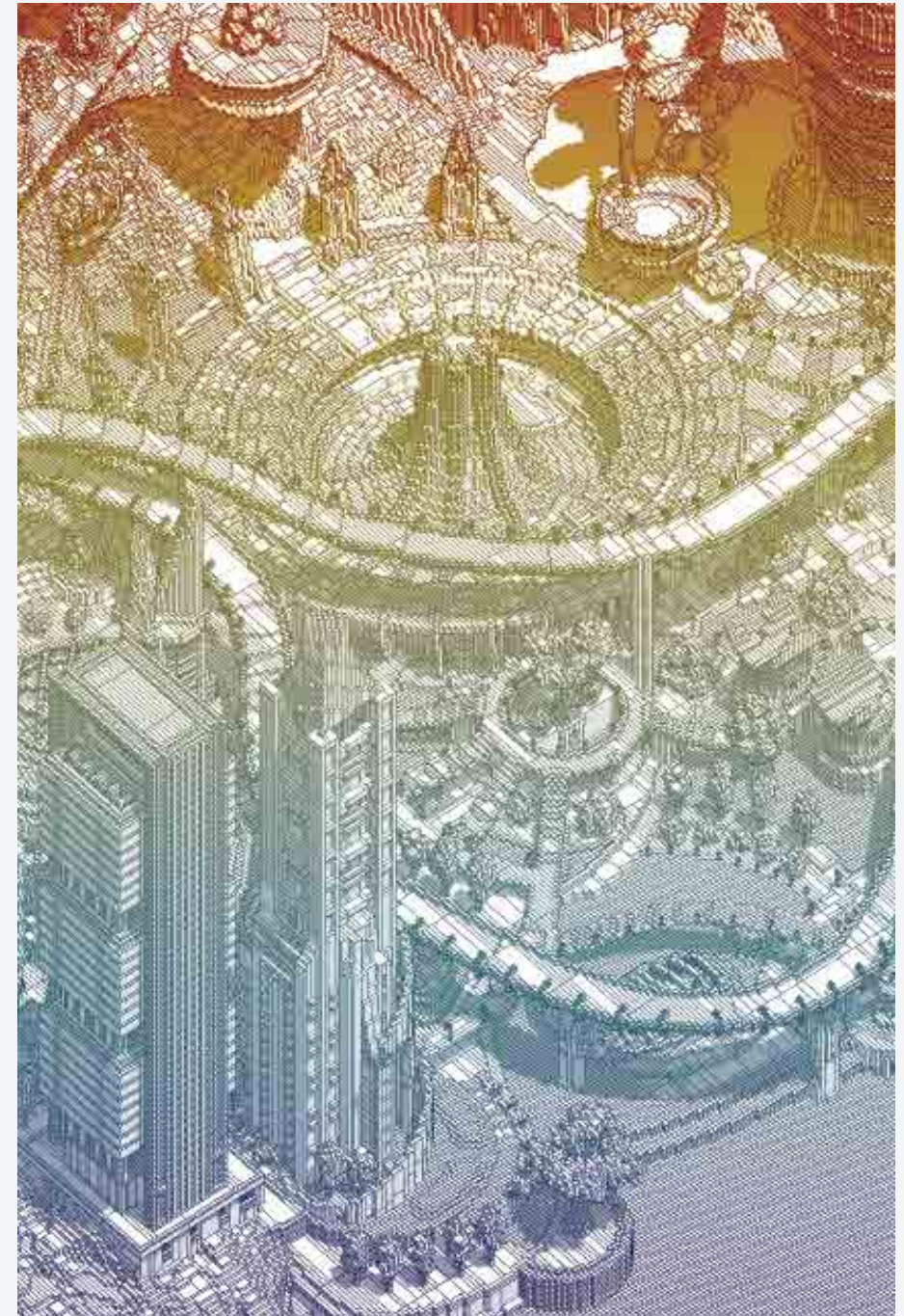
The virtual environment is the digital manifestation of a user's transnational image of the city. It is an image conceived through small-scale, short-term interventions that prompt experimentation and iteration. Its development is implemented solely through active participation, community engagement and crowd sourcing. In contrast, planning experimentation in the built environment is a climate that conceives slow, costly and often unimaginative progress. *Unreal Urbanisms* contends that cities in the built environment can use the "user generated" image of a city created in virtual environments to collaboratively reinvent and re-imagine the design of the urban environment. In the absence of reality (i.e. gravity, atmospheric conditions and real-world internationally recognized governance), the computer-generated environments produced in virtual gaming are to be analyzed as simulations rather than absolute and direct substitutions for the built environment.

This project seeks to contribute to the existing "games for design" framework and architectural

discourse, specifically in regards to community planning. Creating and planning communities in the virtual environments of massive multiplayer online games can reform the collaborative process of idea generation in community planning by facilitating player agency in its design. Player agency describes the ability of a player within a game to interact meaningfully with their existing game-world. More than simple action/feedback interactivity, agency refers to knowing actions taken by the player that result in significant changes within this world. In this practice, player agency establishes inquiry about control and maximum freedom within not only the game environment, but in parallel to the process of collaborative community planning. There are two imperative questions to be answered in the investigation of this thesis: Can massive multiplayer online games serve as a tool to stimulate player agency in the process of collaborative planning? How can player agency result in a complex legible order, rather than descend into visual chaos?



TEMITOPE T. OLUJOBI



Wonderland

An Architectural Interpretation of Children's Literature

Wonderland. Oz. A great green room. A forest of wild things. Willy Wonka's chocolate factory.

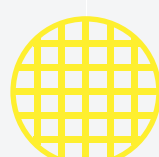
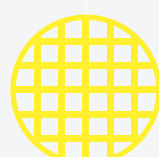
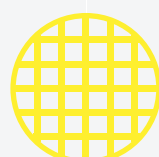
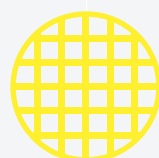
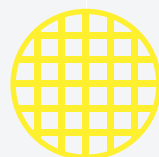
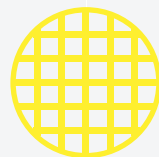
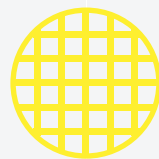
Here, there, or anywhere. These places and spaces are just a few of the many canonical lands that a child may encounter when reading a picture book. Imagine that the place you learn and the setting of your favorite children's book were one and the same. The product would allow for these environments and atmospheres of wonder and fantasy to work together to teach through an intrinsic abstraction of the stories. By architecturally crafting fictional landscapes, creativity and imagination can be cultivated in spaces of learning. These possible collaborations between the environments of children's literature and built design can produce worlds that are somewhat familiar while also still being fantastical—a combination which acts as a new architectural tool to encourage critical thinking and creativity.

The design of a school affects a child's social interaction, physical growth, emotional development, and intellectual achievement. The average public school in the United States has yet to advance from its original factory-style architecture. These box-like facilities embody cultural messages, such as education is standard, methodical, and linear—which is false. Architecture can shape the nature of learning by drawing from imaginative lands to flourish the creativity of students.

The iconic stories of western children's literature provide abundant

material for how people (at any age) develop sensitivities to their surroundings, whether realistic or not. Through architecturally analyzing the exposition, rising action, climax, denouement, and resolution of each tale, this thesis aims to develop formal, material, structural, cosmetic, and atmospheric qualities of an architectural environment of education and wonder. By analyzing the "architecture" of the plot development, each story's spatial qualities are foregrounded, and these taxonomies generate a recipe to design a didactic architecture that is reminiscent of the enchanted plots. These conditions pulled from the books are properties that should exist in a learning environment, but remain in literature in a more enhanced and fantastical way.

This thesis draws from the spatial qualities of picture books' texts and illustrations as a means for designing a new prototype for public schools to inspire the creativity and imagination of students. Similarly to how the stories were unfolded by identifying the five stages of the plot, the architecture is designed by different user groups' five stages. A toddler, a teenager, a parent, and a tourist are just four of the many characters that can emerge in this design's story. A narrative and sequence drives the architecture to redesign and redefine the way a learning environment communicates itself in the most eccentric way—through realizing the fantastical, dreamy, and imaginative discoveries of make-believe worlds.



JESSICA ORDAZ-GARCIA

STEPHANIE TAGER



Puertoricanism A Catalyst for National Identity

Beginning in 1952, the Commonwealth of Puerto Rico has acted as a political liaison with the United States while maintaining its unique cultural nationalism inherited from 400 years of Spanish rule. This history of colonialism has presented a bifurcated identity shaped by the two imperialist countries' control of the island. The ceding of the territory to the United States in 1898, was a pivotal point in Puerto Rican architecture which became first the product of a stylistic interpretation of these events, and second an "image of international sameness" as Enrique Vivoni has called the application of modernism on the island.

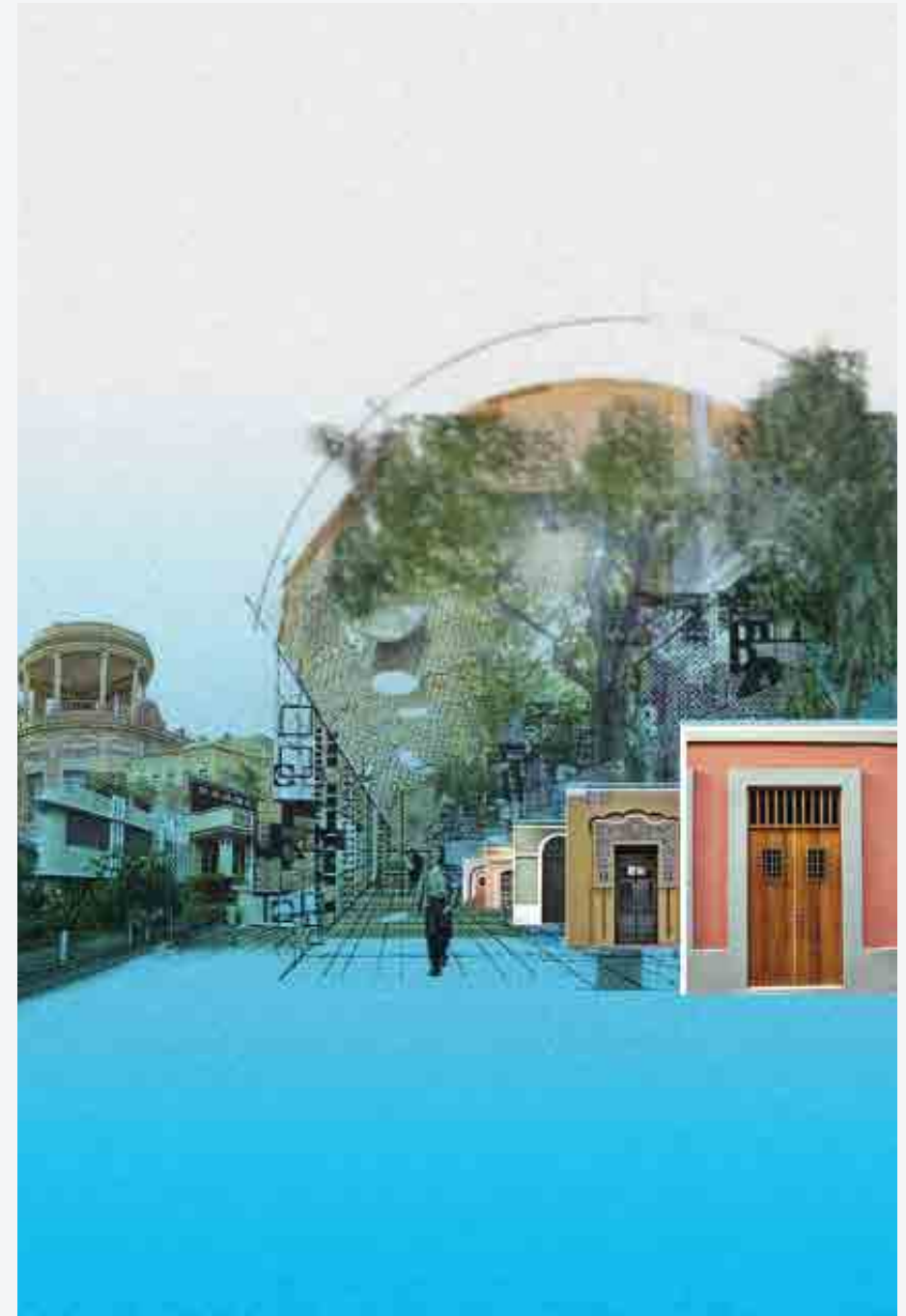
Cities are defined by their built environments, created, transformed, eroded and reborn throughout time as a consequence of socio-political, economic and historical events. These events mark key moments in time where external influences penetrate local culture and directly affect future expressions. Slowly interconnecting, these influences are abstracted, hybridized, morphed, and built upon to create a conglomerate expression of national identity. Puerto Rico's peculiar ambivalence flows from its

political, economic, and by now social assimilation into the United States as well as the socio-cultural legacy of its Hispanic past.

A national architecture is an architecture influenced by culture, where tactics of identity negotiate between the influential factors that conjointly create the place. This thesis calls for understanding and evaluation of cultural and architectural influences brought forth by historic, political and social events. It contends that national identity is a product of this conglomerate and must be referenced in creating the place within the scope of a national pavilion or monument to human culture and architectural narrative.

What is the architecture of culture in a non-nation-state within a hegemonic interplay between socio-political stances? By understanding these layered historical and cultural narratives, this thesis proposes the use of "collage" that can be implemented to create models for a hybridized national identity whose influences are not seen as separate systems that precede each other, but as contributors to an evolving notion of "Puertoricanism."

ADRIANA OSTOLAZA



The Architecture of War

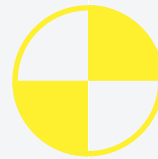
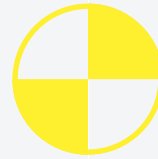
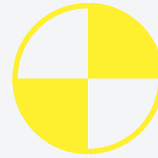
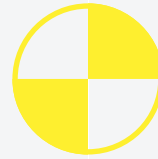
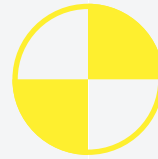
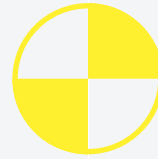
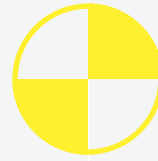
Exposing the Tactics of Conflict

Wars are constantly fought over conflicts happening at various scales, and can be understood in two ways: through the narrative of either side and by the physical ways war is fought. Many of these conflicts are “invisible wars”, that is wars that are not formally declared by a nation but have similar effects. Since these wars are waged over the control of space, in order to best understand the nature of these conflicts it is important to explore the ways in which either side stages war through the tactical manipulation of space.

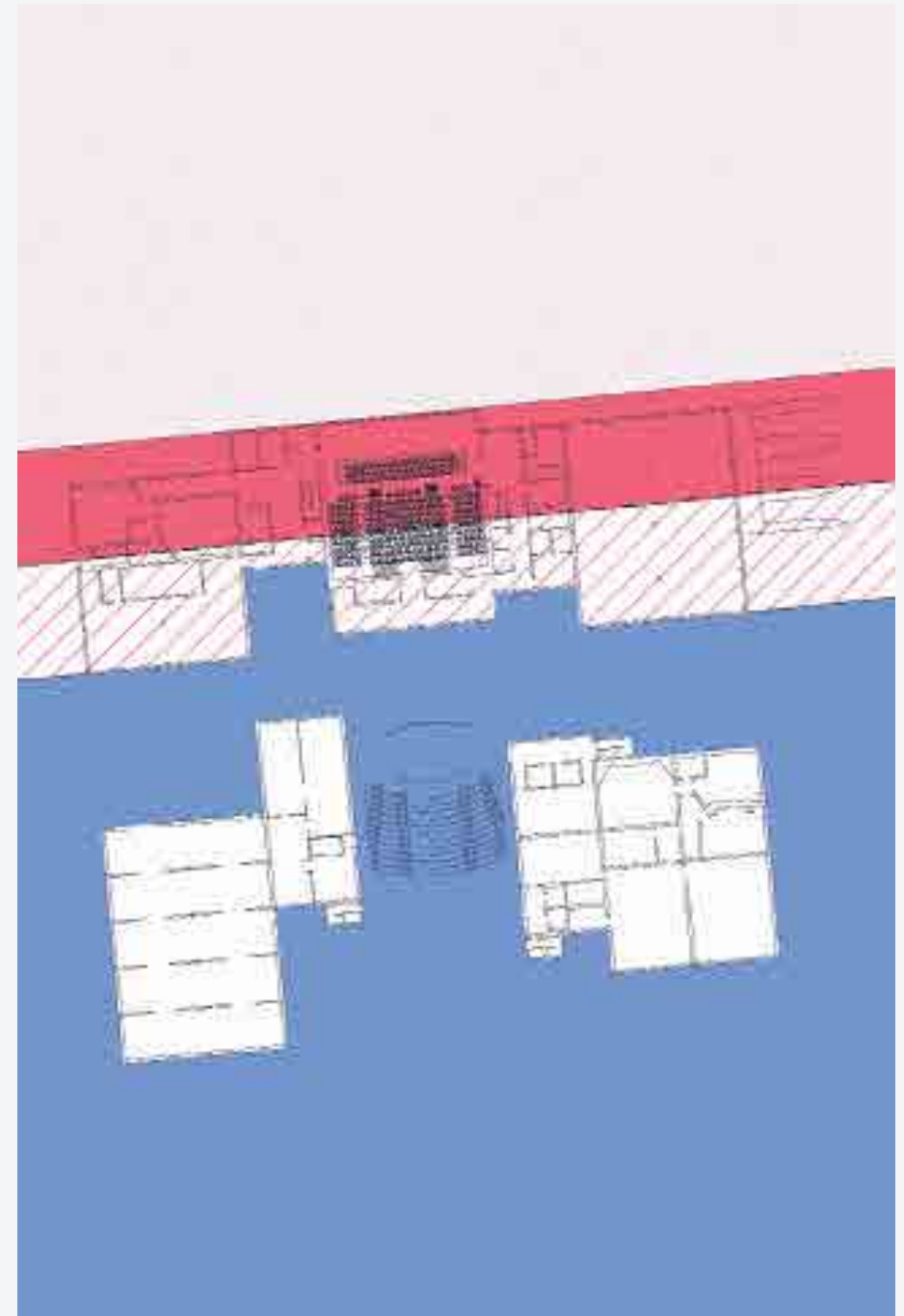
This thesis contends that architecture can expose tactics of war, and when designed in politically charged space, can highlight the tension of conflict. Architecture can become a lens through which we might understand the covert tactics used over a contested landscape. Responding to these tactics, design plays a role in the way a conflict can be understood through a controlled narrative. This thesis' research focuses on understanding the spatial relationship of war tactics through several lenses, allowing for the development of formal design strategies used to inform the design project.

At the border of San Diego and Tijuana, a site of the so-called “War on Drugs” and “War on Immigration”, the U.S. and Mexico deploy tactics through built infrastructural projects and patrolled control over the landscape to respond to the illegal flow of people and drugs across the border. In choosing this site, it is important to understand the covert and overt tactics of these wars, in order to reveal the unique border condition and suburban war tactics this thesis aims to address. While a political border remains as the symbolic spatial divider, the U.S. has taken over Mexican land in order to protect its border through immigration control measures.

By proposing a new “War Institute” that will house two separate building (the propaganda headquarters and the journalism headquarters), the tactics of these border wars can be understood and redesigned through both narratives. Opposing structures, materials, programs, and circulations will respond to the tactics of both wars, creating a new border condition that highlights the tension between the two sides.



SARAH PARKINS



Open/Closed The Lean 2.0

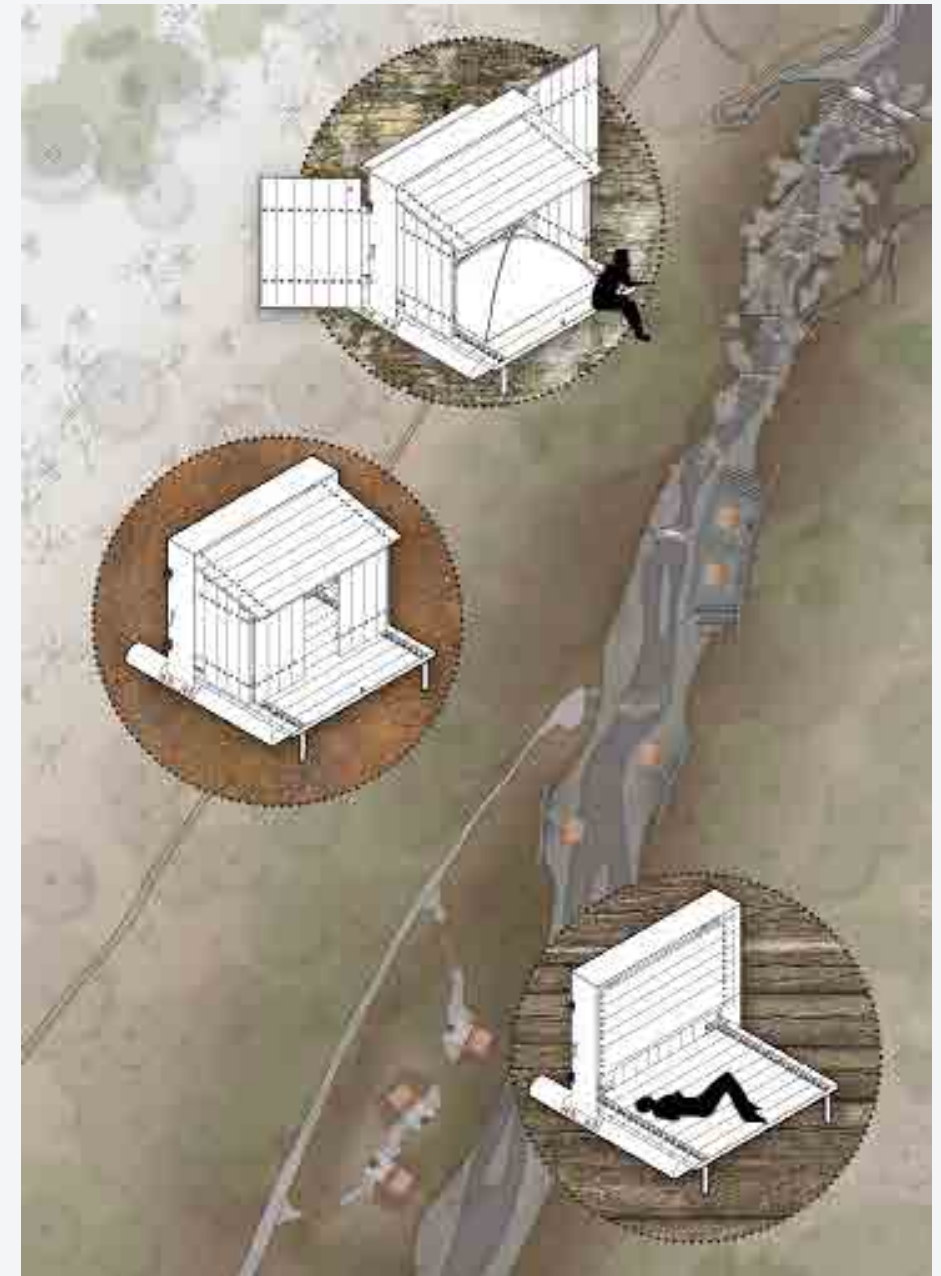
This thesis contends that the singular state of an enclosure limits connections between the inhabitant and the environment around them. Using a user-oriented set of adjustable shelters for new recreational areas in a state park will provide a more dynamic alternative to relationships between people, enclosures, and the environment.

Permanent walls, heavy foundations in the landscape, and abrupt boundaries between conditioned/constructed and unconditioned/unconstructed space constrain the individual within the former and limits their interactions with the natural world. Limiting the interactions that a person may have in a state park to a single set of experiences for closes other possibilities for enjoying nature and leaves only a static and ossified experience that is regulated through the architectural frame. This thesis disrupts the common perception of the boundary of an image as a fixed aperture, by transitioning to a model of a dynamic flow. The main objective for this changeability is to create a state of kinetic spatial experience. Allowing the user to refine and redefine the spatial envelope creates

dynamic spatial settings. These kinetic scenes flow through unconscious perception allowing for new user relationships and experiences to unfold within the state park.

The Lean 2.0 explores the idea of the sites, materials, and kinetic experience. Through analysis and cataloging of site features, the project is located below a 70' waterfall in the Morgan Hill State Forest. The unique character of the waterfall reveals three common types of experiences: first, there is the space just below the falls along the steep hillside, second there is the area slightly further down the stream and third further downstream perched among the vegetation upon a hill. These experiences integrate their natural surroundings and allow for the development of adaptable shelters on the ground plane within the vicinity. Situating *The Lean 2.0* within these contexts demonstrates how a harmonious relationship between architecture and the natural world allows the visitor to the state forest to have a multiplicity of potential recreational and leisure encounters with the natural world.

CHRISTOPHER PAULSEN



Total Fiction The Artifice and the Armature

This thesis considers architecture a total fiction. It aims to explore the representational and communicative qualities of the architectural surface. Architects have always abstracted raw materials in order to create a larger conceptual basis for architecture but the relationship between abstraction and reality has not always been concrete. In the past, ideals of “truth” and “authenticity” have played a central theoretical role in defining how architects approach building. For example, John Ruskin and Eugène Viollet-le-Duc decried various forms of material deceit, in favor of an authentic and truthful architecture. Alternatively, architects interested in the communicative agency of architecture have questioned the dogmatic eradication of applied decoration from the architectural lexicon.

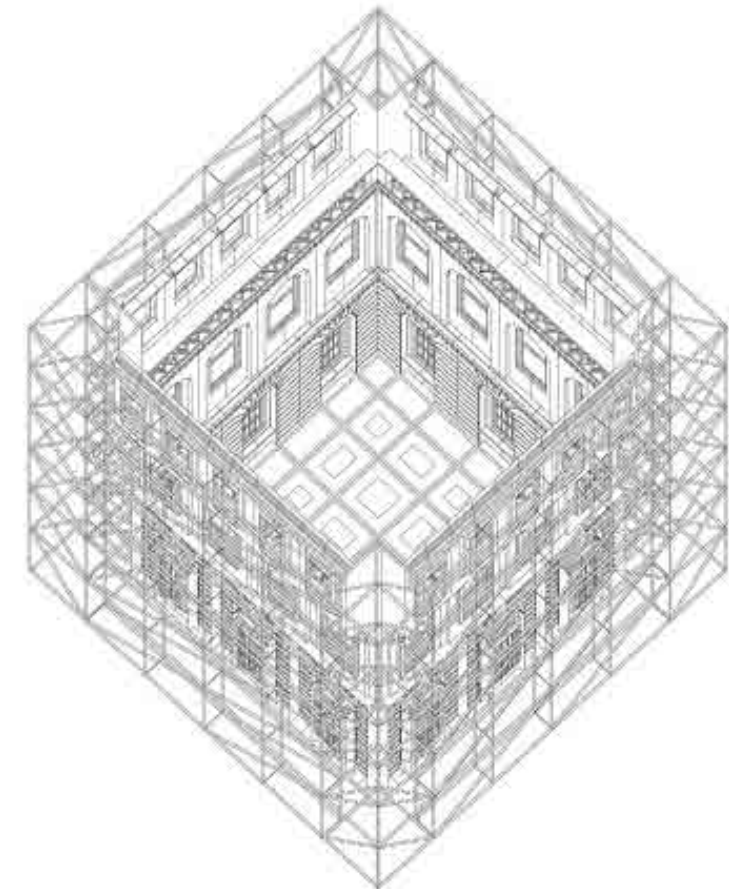
Gottfried Semper argued for the dematerialized character of the architectural surface. He viewed this suspension of reality as a necessary step in the construction of meaningful, symbolic form. He believed that surface forms and applied colors symbolize human events. Denise Scott Brown and Robert Venturi were similarly interested in an architecture of communication involving symbolism and mixed media. In a similar vein,

Charles Jencks sought to apply semiotic theories to architectural modes of communication. More recently, David Leatherbarrow and Mohsen Mostafavi have written about the theoretical and practical isolation of the building surface as the site for architectural meaning.

This thesis does not aim to present a theory for how architecture should be, rather, it aims to explore the following questions: What kind of architecture would be created by delaminating the interface of architecture from the tectonic of architecture? Which is more desirable, honesty or deception?

Jean Baudrillard theorized that with post-modern society, there has been a great increase in the number of signs produced by mass media, causing meaning itself to become destabilized to the point where we are not quite sure what's real and what's not. Fiction and reality dance with each other, creating slippages between truth and fiction. Los Angeles is a city where the relationship between representation and reality is famously muddled. The hyper-real city is an architectural genre all of its own and is the site of this thesis, which proposes a design for a new film school located at the intersection of 4th St. and Hill St. in Downtown LA.

ANRAI PEARSON



Obscuring the Vertical Plane

Discovering Emergent Phantom Sites

Obscuring the Vertical Plane theorizes a new typology for public space; a public space that utilizes the “phantom site”. “Phantom sites” are defined as the conceptualization of lost development space. Such sites are a condition arising from aggressive real estate practices.

While the “phantom site” is organized through the pixelization of bureaucratic concepts (e.g. the FAR and developable square footage), this thesis makes use of the methodology of Claude Parent and Paul Virilio’s *Function of the Oblique* to destabilize the initial structure and construct a varying range of spaces with the ability to handle a multiplicity of different “publics”. This capability to facilitate precise and multiple “publics” across space and time is not found in other public spaces. Privately-owned Public Spaces, Privately Endowed Spaces, and Pocket Parks are products of an exploitative agenda in the city, which lessens the public’s claim to space in New York City. All these types of spaces arise from policy decisions

that have intentionally removed publicly owned spaces from the Manhattan grid. Since this watershed moment in Manhattan’s history, several resolutions have tried to reform this void, only to create fixed spaces concerning a singular public in mind for a singular site bound to the horizontal plane.

The public spaces emerging from this “phantom site” strategy understand the “publics” to exist in a plurality. And while the “phantom site” design also creates relatively hard fixed spaces, these hard spaces function as a kit of parts in concert with one another as the structure’s scales vary. This system matches with the progression of activities and publics that may occupy a singular site. More importantly, these hard spaces respond to their immediate neighborhood specifically, an element framed by the initial pixelization of site. This overall strategy allows each “phantom site” to be distinguished from the other while also being implemented at a mass scale.

ALEXANDER W. PHILLIPS



Remember the Mission An Urban Complex for Orphans in Downtown San Antonio

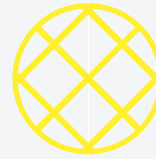
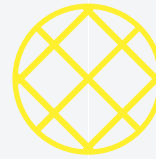
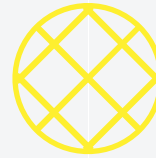
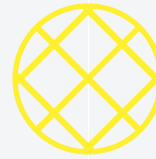
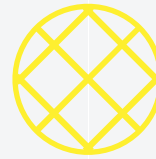
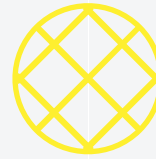
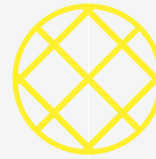
This thesis is a translation of an historical typology, the "Spanish Mission". Using this typology, one can begin to organize and culturally ground designs for a contemporary institution. This thesis focuses on an urban housing complex for foster children that modernizes the historical mission typology.

In America, the primary institution for orphaned children is the foster care system, and the primary foci for this system are reunification and adoption. It is an outward looking program that is not without its flaws. Traditionally orphanages attempt to provide a relatively stable environment, but this limits children's engagement with society.

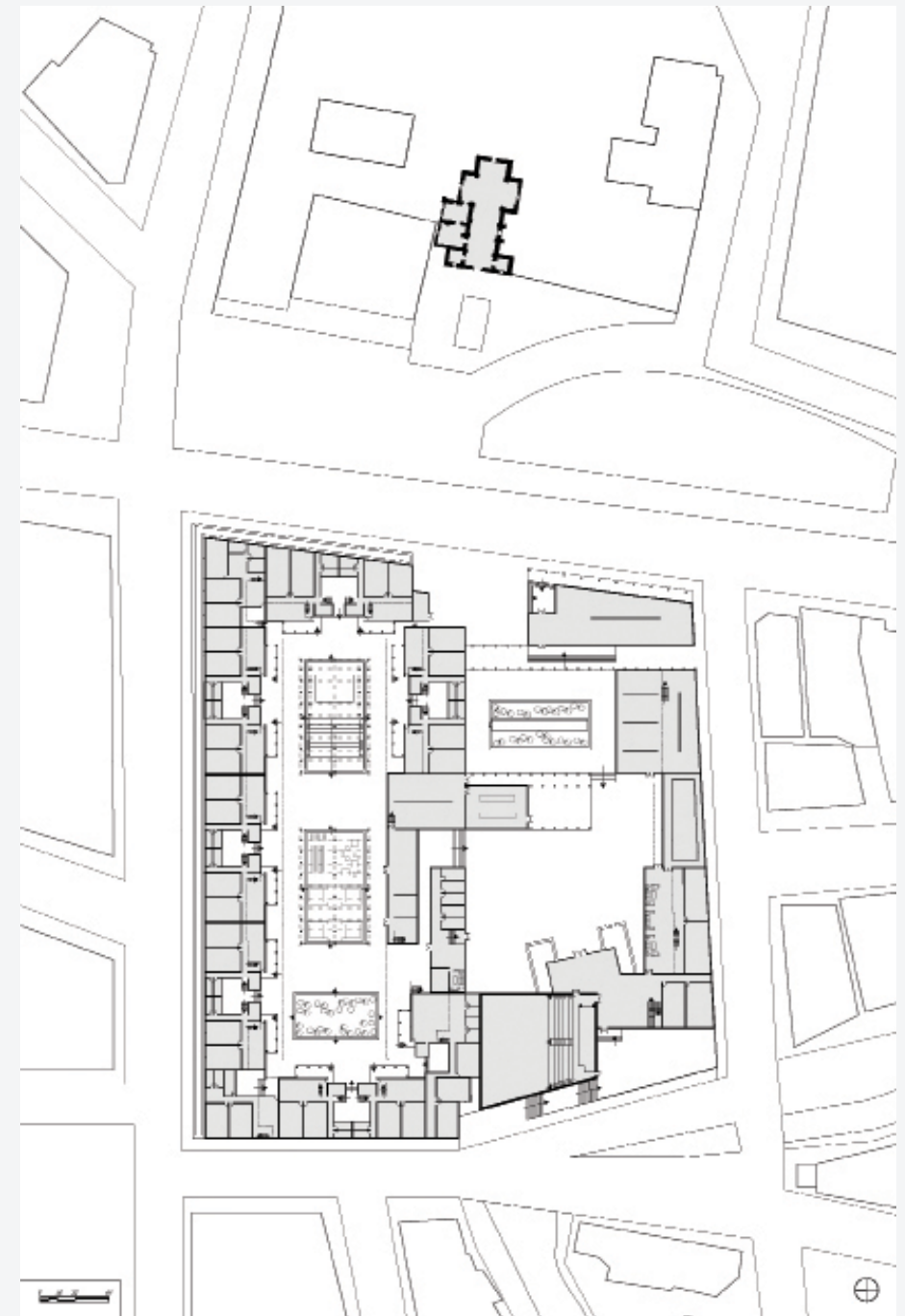
Focusing on five existing Spanish missions in San Antonio, Texas, this thesis explores the ways in which mission courtyards facilitate the

transition between, public, semi-private, and private space. Courtyards allow children to have a semi-public engagement with the surrounding city, in a relatively safe place. Using mission style architecture in orphanages allows for graduated access between public and private space. Integrating the gradated space of the courtyard into contemporary orphanages gives children the opportunity to create a sense of community that may extend partially beyond the walls of the orphanage.

This thesis seeks to create a new program for orphaned children that provides a stable community and allows children to become a part of the urban setting and develop life skills within the project, skills that are not usually focused on in the current U.S foster care system.



ANNI PI



Speculation on the Library of the Future Changing the Way We Learn

The institution of the library has a very rich history as one of the oldest institutions around. From its evolution from stone tablets to privately printed collections, and to modern day digital libraries the institution and typology of the library has constantly changed since 3000 BC. Libraries serve many purposes but it is this thesis's contention that a library's main purposes are to be a repository of knowledge, and to help individuals get the information they need.

For centuries, people have gone to libraries to access information and typical in an individual fashion. Beginning with the digital age, technology has moved at an astounding pace and changing the way in how buildings are used and designed. Technology allows more and more people access to repositories of knowledge from anywhere in the world, people are now using the library

as a space of social interaction and not just a place to get information form. The institution of the library has been around for centuries and has one of the longest richest histories of any building typology. In this age, the typology of the library needs to change in order to stay relevant and provide a social learning experience for both the individual and community it resides in.

By incorporating more social interaction and digital connectivity the idea of what the library is can change to function more efficiently be more of a social destination that provides more of a service for the community will still being a repository of knowledge. The library of today should not merely be a place to store and preserve documents, it must also be a place that engages and integrates with the day-to-day life of its local neighborhood.



ANTHONY PRINCIPE



The Narrative of the Home Personalization, Sequence, and Creating Opportunities for Cognitive Attachment in Contemporary Styles of Design

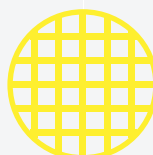
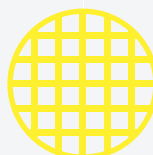
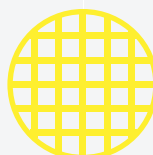
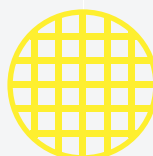
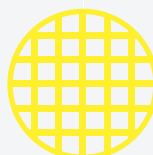
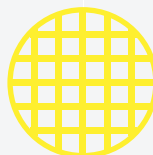
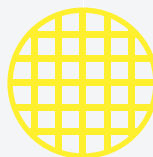
Contemporary styles of architecture, by their very nature, are foreign to most people. They don't rely on historical references, they go against the vernacular, and they look to the future, rather than our past. In their often pure, undecorated geometry, contemporary styles give no indication of the inhabitants within.

This becomes problematic in houses, which tend to be tied to their owners' lifestyles in intricate ways. Without connections to the forms that clients have come to associate with the very idea of the "home," and without options to personalize the space to make it feel familiar, it can be difficult for clients to develop attachments to the place in which they live. This thesis contends that architects can reestablish the associations and attachments that are inherent to the traditional icon of a house by designing architecture that emulates the experiences and conditions of these homes, utilizing as guidelines, the psychological principles through which people perceive these environments. As an organizing factor, we can draw on the human tendency to understand the world via narrative, which enables people to build cause-and-effect relationships, while breaking down large sequences of information into understandable groups. Within these groups (or

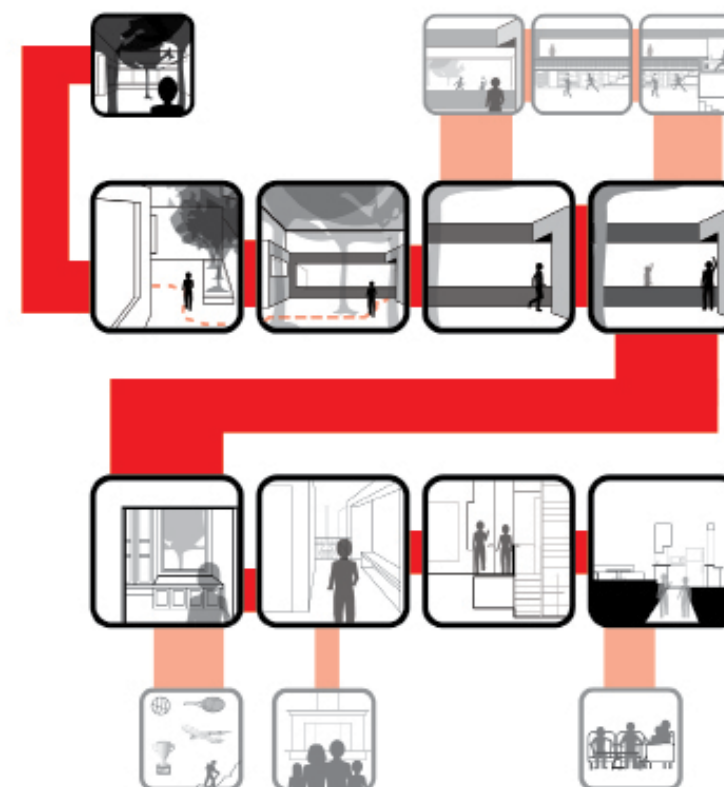
architectural moments), we can insert opportunities for personalization by the owners. In essence, architects can design houses around the concept of the story that plays out in the space as the client's store, display, and live their lives through the architectural framework we provide.

This thesis will apply these principles to create a new methodology of design, one in which the architecture of the home is structured around building experiences that highlight and enhance key aspects of the inhabitant's life, allowing them to define what those aspects are. This can be exemplified by using architectural space to direct user's attention and actions towards key moments or objects of significance in the client's life, and allowing the client to dictate what those moments or objects will be. To accomplish this, *The Narrative of the Home* iterates a series of simple contemporary home designs by analyzing perspectives and exploring how altering the design can change the user experience as the user moves through the space.

The goal of these investigations is to humanize modern designs and develop a useful methodology in which architects can apply evidence-based psychological principles inherent to human experience in order to guide future design endeavors.



WESLEY RATLIFF



A Shifted Perspective on Affordable Micro Housing

This thesis contends that growing cities around the world are out-pricing the younger demographic from the urban fabric. It recognizes that constantly rising real estate markets are forcing millennials outside of city centers. It understands that socially, the younger demographic provides the energy and atmosphere required to keep the city alive, and ultimately believes that in order for young professionals to reclaim their position in the housing market, a new typology of housing needs to be established.

Such housing takes increasing urban density into consideration, and provides an appropriate dwelling supply for expensive cities moving forward. It is a typology that builds upon the ADAPT NYC initiative started by Mayor Bloomberg and promotes micro unit housing as the progressive solution to expensive rental rates around the world.

However, this thesis also acknowledges the existing socio-political and economic issues surrounding micro unit housing today. Current zoning ordinances do not permit this typology and developers

need to be granted government-owned land in order to both construct and find profit in each venture.

As a solution, this thesis contends that micro unit housing should become a subdivision within a larger mixed-use development. It argues that through a series of financial models, a flexible combination of commercial, retail, and high-end residential spaces will establish the economic feasibility for developers to provide micro unit housing at an affordable rate.

Additionally, this proposal addresses the zoning allowances architecturally through the invention of a new apartment archetype: a residential typology that provides a series of shared communal spaces, which provide programs to the inhabitants of an otherwise 350 square foot apartment unit.

Communal spaces, which are comprised of bars, cafes, lounges, offices, and so on, will begin to connect all of the building's occupants, while bridging the political gap existing within a mixed-use development, and merging the building into one holistic community.

JONATHAN REISMAN



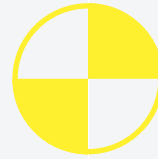
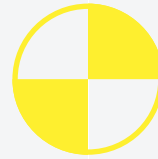
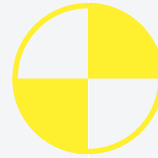
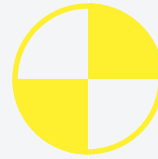
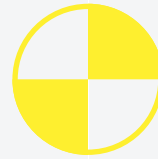
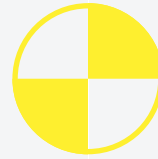
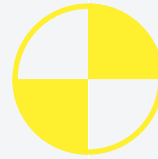
Redeveloping Commerce Comuna 20 as the Commercial Gateway of the City

Lasting over fifty-one years, Colombia's debilitating civil war, has inflicted suffering and hardship upon millions of people. Indeed, countless civilians have been forcefully displaced from their rural homes into informal settlements on the outskirts of the major cities. These densely populated, ad hoc constructions surround the cities as unstructured enclaves festering with crime and disease exacerbated by isolation and government indifference. The vast social, economic, and cultural divide between these settlements and the contiguous cities pose a major problem for contemporary Colombia that must be addressed. In spite of these conditions, the commercial sectors in these settlements are the most important places for sustaining the local economy and providing basic services to these communities. These areas are always characterized as being disorganized, dirty, and dense. This is not only a problem of urban space but also poses a serious health and safety hazard to the people working and residing in these areas. New urban infrastructure and planning are desperately needed to provide the basic goods and services for the people of these communities.

All public spaces in Colombia's informal settlements are constructed,

reconstructed, and modified in myriad ways by the residents themselves. In their ever evolving form these spaces convey the desires, needs, expectations, and opportunities for the residents. And it is the commercial structures in these public spaces that perhaps best defines the social and economic character of these informal neighborhoods.

The primary contention of this thesis is that by bringing regularization to the urban context, it will be possible to revitalize the area, and to integrate the neighborhood and the city as a whole. Indeed, the primary characteristics of this site at present are its inefficiencies. Most of these ad-hoc structures are poorly constructed and lack any sense of organization. Leveraging the economic prospects of the site allows for the potential transformation of this area into a symbol of progress for the people of Comuna 20. Architecturally upgrading the provisional settlements allows for them to be integrated into the city. Enhancing the economic and social prospects surrounding the community enhances everyone's lives. The successful transformation of Comuna 20 could serve as a prototype for the transformation of other ad-hoc settlements.



CARLOS RESTREPO



Innie/Outie Renegotiating Figure and Structure

This thesis contends that in order to sustain its claim to be a socially progressive and accessible enterprise, the discipline of architecture must resist the divorce of figure and structure.

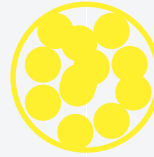
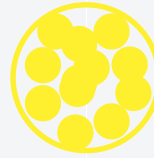
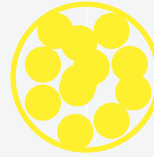
Architects use typological classifications to contextualize, diagram, flatten, and ultimately iconize ideas about space so as to render them intellectually accessible to their audience as social constructs. This system of classification may use the figure as the signifier of type. Some of us, however, resist the exercise of typologization in favor of the pursuit of total spatial autonomy—a critical preoccupation with that which is, rather than that which appears to be. This methodology privileges structural organization over figural expression. *Innie/Outie* suggests that while both of these methods represent valid pursuits within the discipline, neither may supplant the other, lest we continue to limit the modes by which we may perceive architecture.

The high voltage transmission tower as a piece of infrastructure simultaneously delineates the American power grid, framing the space that its constituent users occupy, and generating its own subjectivities in the space that it occupies. We can understand the transmission tower as the intersection between a figural and a structural proposition. Architects from the advent of modernism onward have tended to favor the narrative of infrastructure as framework, privileging

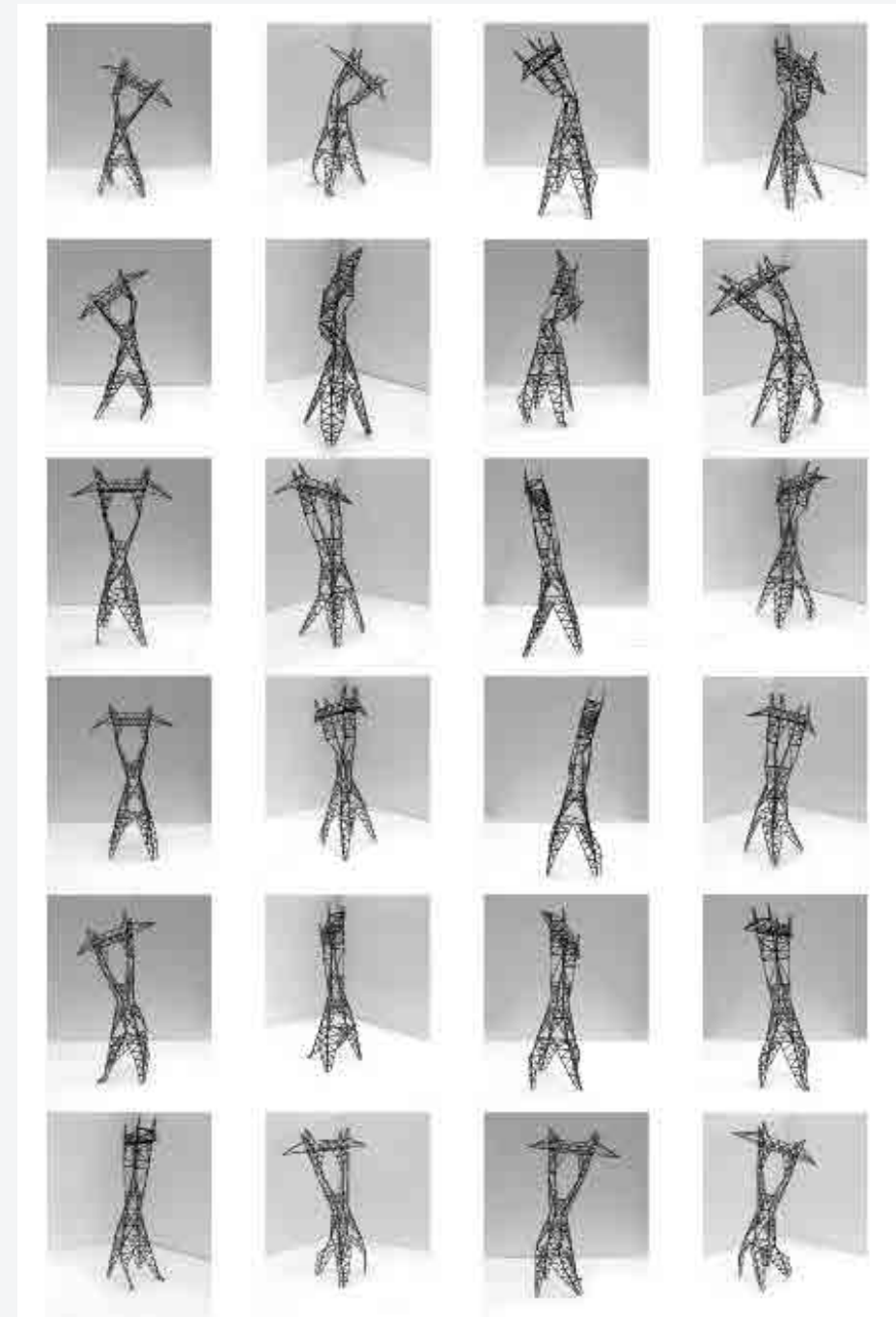
its functionality over its aesthetic value, and deferring authorship of its aesthetic to the engineer.

This thesis seeks to momentarily suspend the narrative of the transmission tower as framework, capitalizing on its latent serial objecthood as the vehicle for the construction of a grid that is occupied—rather than framed—by infrastructure. *Innie/Outie* thus suggests a methodology for the design of infrastructural systems not only as supports but also as objects of architecture. In its full tectonic resolution, the transmission tower resists being flattened by contemporary modes of image production. 3D scans, panoramic photography, and surface drapes obliterate the signifier of the transmission tower, disallowing an effective strategy for re-spatialization in three dimensions.

Innie/Outie is thus tasked with the development of a representational strategy that allows for the momentary flattening of the transmission tower in anticipation of its structured projection back into three-dimensional space, with each tower in the grid acting as single-frame instance of the real-time oscillation between representations of figure and structure. *Innie/Outie* situates the architect both as translator and as interpreter, and exploits the process of translation as an opportunity to synthesize readings of figure with character, structure with posture, and infrastructure with landscape.



MAXWELL ROSNER



Resuscitating Suburbia A Collage of Pocket Utopias

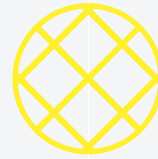
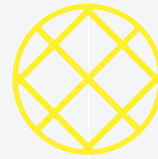
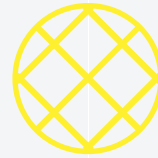
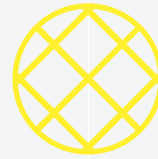
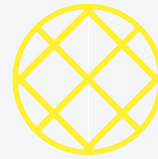
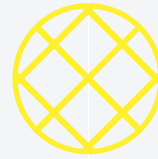
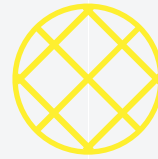
Zoning codes, transportation investments, and lending practices have continued to perpetuate out-of-date, disconnected urban and suburban development patterns which have led to the partial obsolescence of suburbia today. This thesis will analyze contemporary ideas and forms of the suburban lifestyle in relationship to those of specific experimental cities particularly sustainable communities, that have anticipated the future of the city. Through this analysis, and the combination of Colin Rowe's top-down and Venturi Scott Brown's bottom-up techniques of collage, this thesis proposes the creation of a self-sustaining, multi-generational community as a test case for transforming sites of partial obsolescence within suburbia.

Lacking an architectural precedent for the planning of suburbia, the suburbs developed in an ad-hoc fashion. Developers worked in competition with one another to build different aspects of suburbia. One of the best examples of the problems caused by suburban sprawl is the daily traffic gridlock of people commuting from the suburbs to their jobs in the city. Attempting to retain customers, businesses moved out to the suburbs so people would have easier access and not be constrained by congestion. This shift briefly helped to alleviate some of the congestion in downtown areas, but ultimately it just redistributed the traffic and led to people spend more time commuting than they did before.

Another reason for escaping to the suburbs was to immerse oneself in the natural environment. Ironically, the development of the shopping mall and office park created a need for parking, which surrounded these structures with asphalt, thereby removing the natural in favor of the fragmented and ever isolating constructed landscape. Finally, suburbs required more natural resources like land in order to grow. Other natural resources that were required to facilitate suburban development were construction materials, water, electricity, fuel, etc. All of these materials were either needed to replicate the infrastructure of the city in the suburbs or as an unexpected consequence of this cultural shift.

This thesis critically examines the dying ShoppingTown Mall and its attendant suburbs in Syracuse, New York. Pairing Rowe's theory about creating spaces in between juxtaposed buildings, with Brown's theory of the icon as an architectural element, a master plan is created to enhance the suburban lifestyle and create a sustainable neighborhood that can be implemented not only in Syracuse but also across the United States. The residential aspect of the project uses the typical housing icons of a pitched roof, a chimney, and large windows to create a collage of housing types. The goal is to create a self-sustaining community using wind farms for power, and urban farming for the growth of food.

Advisor (S): Art McDonald
Advisor (F): Anne Munly



JOSHUA RUBBELKE



Sponge Logics

Rethinking Thresholds Through a Porous Mass

This thesis contends that the separation and distinction between the envelope and the mass in contemporary architecture is to be resisted. Architect and theorist, Greg Lynn argues that mass “is not only the outward shape of a building; it’s also the projection of shape, plan organization, spatial and sectional type, and façade”. This critical reevaluation of mass and its relationship to interior spaces and the building’s face is particularly pertinent to the modern construction in Jaipur, Rajasthan, India. The character of the historicist and post-modern buildings that make up Jaipur is solely based upon the applied façade. This thesis argues that this strategy does not work at the building scale because it simply becomes an act of surface creation that does not impact the space beyond. Additionally, at the urban scale, the applied façade is an even weaker strategy with rigid boundaries that does not capitalize on the inherent richness of the urban grain.

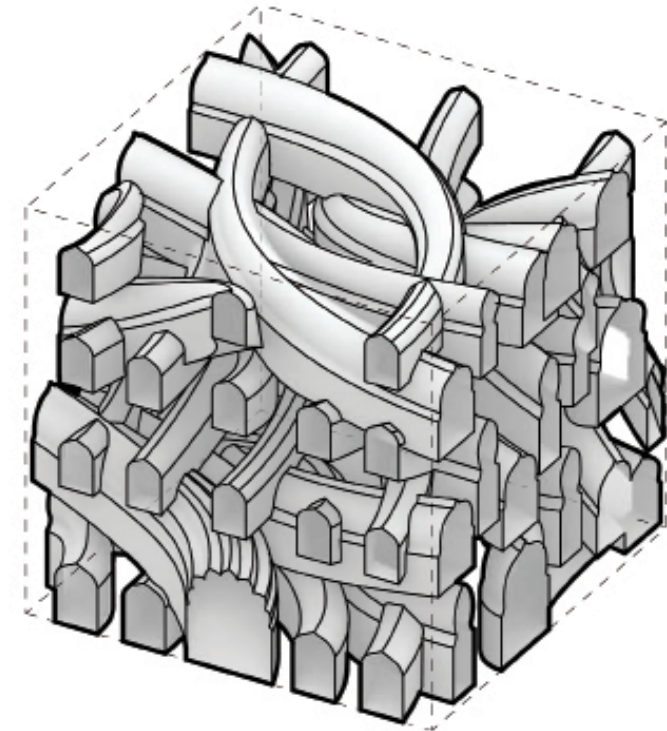
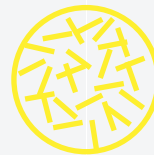
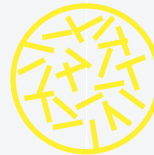
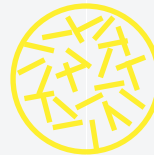
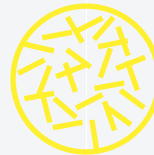
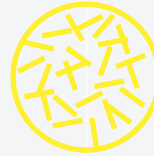
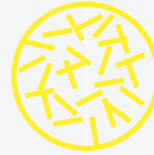
Rajput architecture, typical of Jaipur, used extravagance to project power to the people and the coeval dominant political entity, the Mughal Empire. It elevated the façade, an element of exclusion and inclusion, to reflect the social distinctions of the Kachwaha dynasty of Jaipur. Hawa Mahal, or the Palace of the Wind, is a prime example in that it serves as a screen for the court women to

visually engage in the urban activities through its 953 *jharokhas* or windows, but restricts physical interaction. This thesis learns from and updates Hawa Mahal’s conceptual, literal and socio-political thickness by **challenging** the role of the observer and the observed. Using the ideas of massing put forth by Lynn, this thesis reimagines the potential of a new type of architecture based on “sponge logics” that transcends the established Rajput thresholds, enabling a more inclusive experience, indicative of the current society of Jaipur. The Hawa Mahal, acting as a screen, privileged the observer but “sponge logics” challenges the relationship between the observer and the observed, mirroring the changing social dynamics of contemporary Jaipur.

While a sponge can be identified autonomously, the lack of distinction between the mass, the structure, and the façade make it part of an endless field condition that absorbs and transforms what is around it. The overall mass of a sponge is “an elaboration of conditions established locally” that can filtrate through the dense urban fabric of Jaipur. Doing so allows the street life of the city to filter in and the building life to filter out by sponge logics that identify the potential of a porous building to contribute to the enrichment of an already packed urban environment.

Advisor (S): Benjamin Farnsworth
Advisor (F): Molly Hunker

TANVI SANGHVI



Inverted Landmarks Formalizing the Contextual Vernacular

Inverted Landmarks is a thesis interested in transforming the vacant, decaying structures of an historic city into new landmarks through the use of contextual architectural elements as a catalyst for generating form.

In his book, *The Image of the City*, Kevin Lynch argues that landmarks are one of five elements that people use to create mental maps of their surrounding urban contexts. As defined by Webster's Dictionary, a landmark is a "building or other place that is of outstanding historical, aesthetic, or cultural importance, often declared as such and given a special status ordaining its preservation, by some authorizing organization."

For the past 20 years or so, newly built architectural landmarks have been interested in formal expression and ideas of iconicity. The tendency, however, has been to create architectural icons that are representative of the individual designer rather than holding contextual significance. Contemporary visions of urbanism should be conceived as organic, ever changing, and unpredictable. While constant change and development is readily acceptable within developing cities, the same isn't necessarily true in older urban zones.

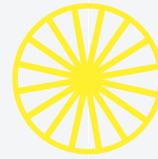
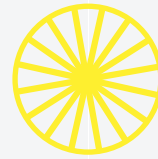
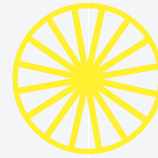
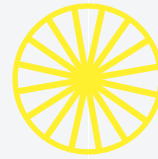
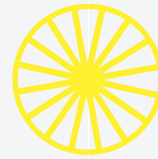
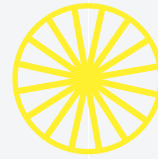
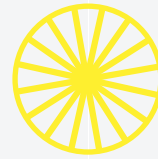
Old San Juan in Puerto Rico is the historic district within the island's capital. Established in 1509 and settled

in 1521, it is the oldest remaining settlement in the capital. Old San Juan contains a collection of various architectural structures ranging from the 1500s, during the Spanish colonial period, to the 1950s.

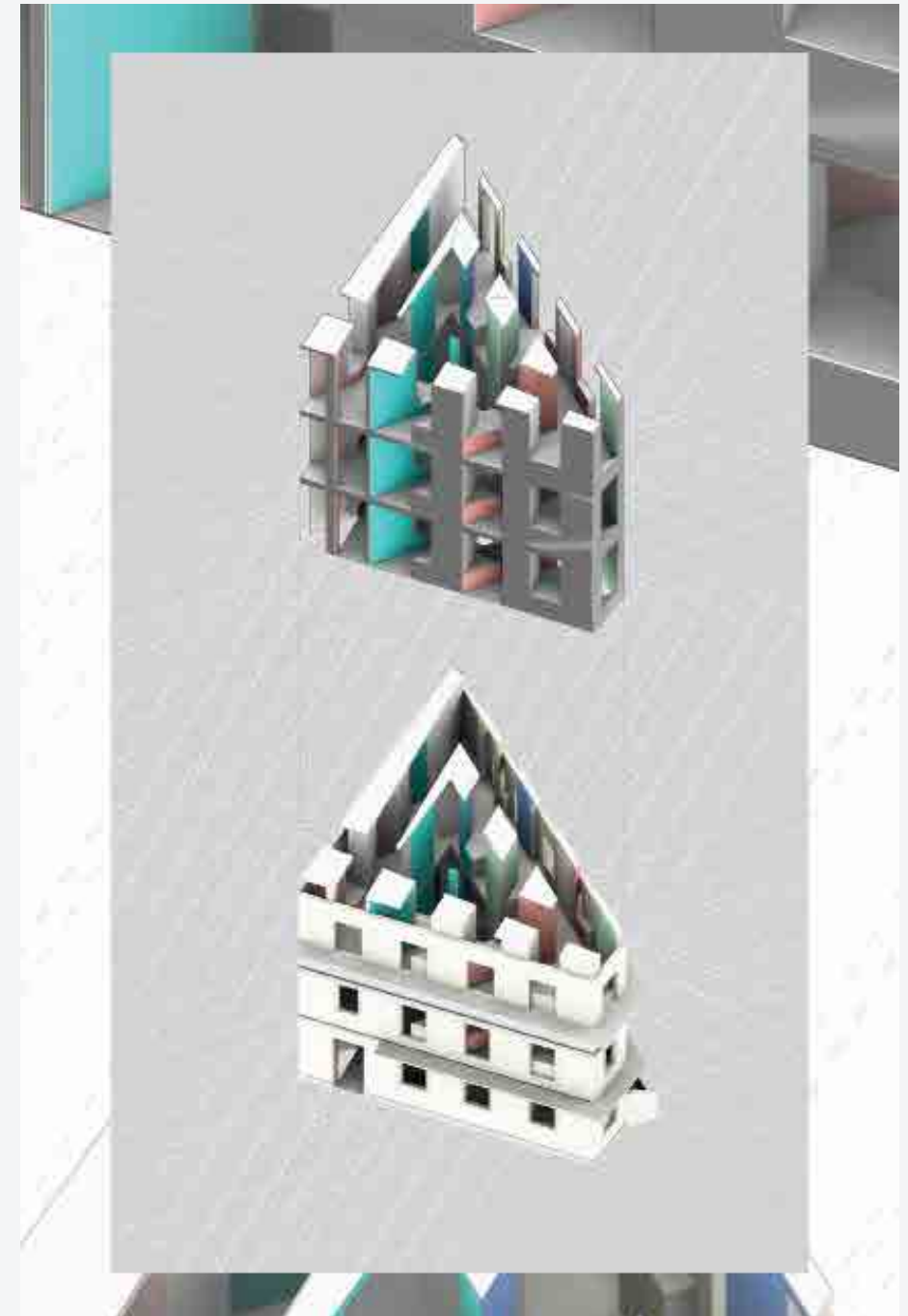
Buildings that share a common architectural language, along with bright, pastel-colored facades, characterize the city. However, within Old San Juan, the preservation of buildings is very regimented, making architectural intervention a very difficult process. This has contributed to the dilapidation and decay of unused buildings.

Individual works of architecture are intrinsically connected with the overall character of the city, therefore, preserving individual buildings contributes to the overall quality of the city. Architecture is to be appreciated regardless of its function since building functions are ever-changing.

This thesis uses projection as a method to generate new forms from existing buildings' elements along with other contextual architectural elements. By doing this, this thesis seeks to generate new contextual landmarks that balance the ideas of both development and preservation, while contributing to a stagnant city's urban fabric by giving vacant structures a use that isn't restrained by programmatic dependency.



ISMAEL SEGARRA



Elementary Environments Cultivating a Connection with the Outdoors

The architecture of elementary schools has undergone many changes over the past hundred and fifty years. From the traditional one-room schoolhouse, to the classroom and corridor model, to the open school, learning environments for children have been transformed. Throughout all of these changes there has been an ever more limited interest expressed in the interaction of the school with the world outside the classroom. Today, increased importance is placed on performance in standardized testing while attention spans decrease with the proliferation of devices and screens. More and more frequently, children find themselves sitting inside boxes we call classrooms, with minimal outside light and even less time to actually be outside. This thesis contends that this lack of interaction with nature and fresh air is detrimental to both elementary school students' acquisition of knowledge, and their ability to think creatively, and argues that architecture can be understood as the means of facilitating the necessary change in the relationship between indoor and outdoor education spaces.

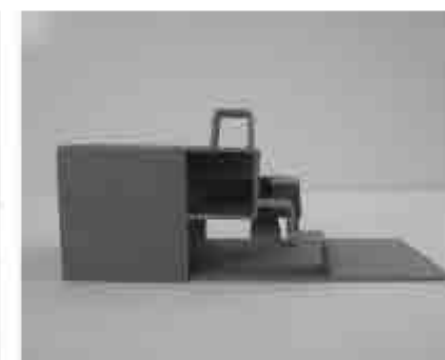
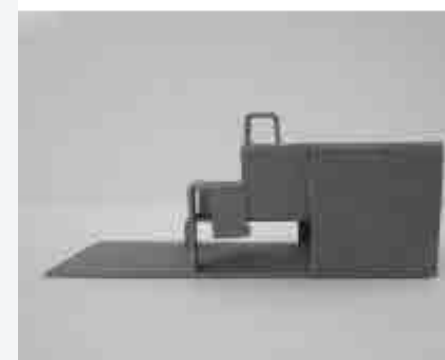
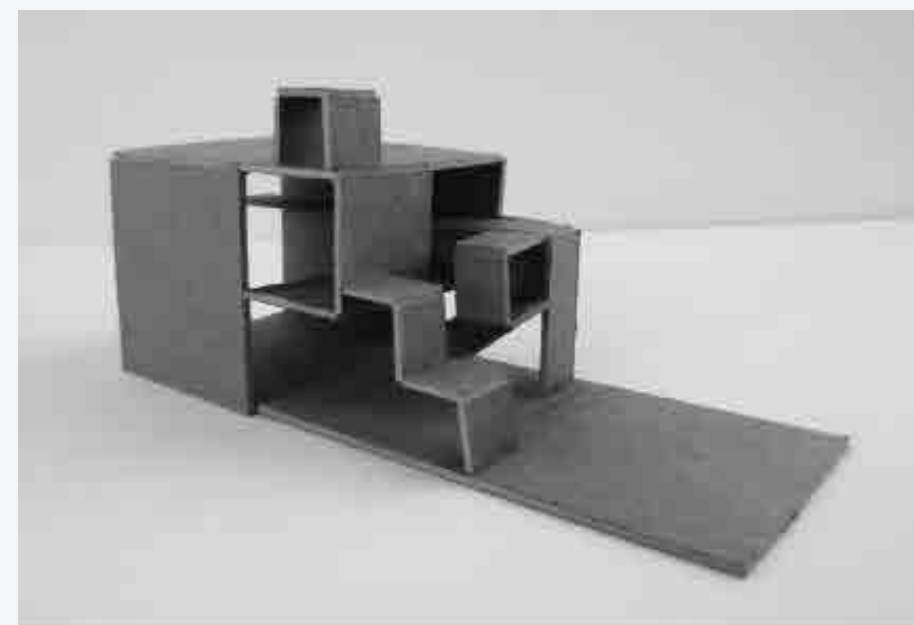
This thesis will manifest itself in the design of an educational facility that exemplifies a proposed standard for 21st century elementary schools in the United States. By learning from global teaching practices in varied climates ranging from Israel to Norway, this thesis will reflect these integral relationships with surrounding outdoor environments in the design of a school in Pittsburgh. This site, both

in a four-season city and alongside the edge of a protected park, will maximize the ability for this school to create both a visual and physical connection to the outdoor environment, in addition to incorporating components that could be applied to a wide range of sites across the United States. This thesis promotes a balance between outside activity, knowledge acquisition, social interaction, and technology. It does not negate the necessity of indoor education spaces, but rather emphasizes the gap between indoor and outdoor that must be bridged.

This thesis looks to intercalary zones as the thread that will stitch together indoor and outdoor spaces. These zones will provide tangible connections that will allow the school's occupants to experience the fluid transition and integration of indoor and outdoor spaces. The term "intercalary" has also been used to describe literary relationships including some specific chapters in John Steinbeck's *Grapes of Wrath*. These distinct chapters diverge from the central plot of the main characters, but provide relevant context about the social and political atmospheres that link various components of the plot. In the same way, the intercalary zones proposed by this thesis will be both spatially distinct from the indoor and outdoor spaces, while inextricably linking them to highlight the fluidity with which the students will be able to experience this progression, which is currently nowhere to be found.



HANNAH SEIGEL



Oppositions

The headquarters of the United Nations in New York City is a socially produced representation of power. It stands on a six-block stretch between 42nd and 48th Street, on Manhattan. Intended as an icon of peace and unity at a global scale, the building is now seen in juxtaposition to these ideals and represents a privatized, closed off agenda within the fragmented, conflict-prone workings of the United Nations.

The architectural solution to this paradox of the U.N. building is an intervention program for the existing building and site. By exploiting the public aspects of the U.N. Headquarters, the need for changes in the building become apparent. After reimagining the U.N. site, the borough of Manhattan can have a new icon that emulates the ideals of peace and unity while providing the public access to understanding the concepts which are discussed within the walls of the building.

Currently, little is being done to create a strong public presence in one of the world's most politically charged spaces. Seizing the opportunity to re-evaluate the "publicness" of the site this thesis focuses on three aspects of transformations to be made at the U.N. headquarters.

First, the removal of the North Lawn Building to create a new public plaza that connects the city back to the waterfront. Second, to break up the existing infrastructure into spaces that allow for Non-Governmental Organizations to occupy the site and develop better relations with the

United Nations. By incorporating NGOs into the site, representatives can contribute information and ideas to the public and advocate more effectively for change. Transforming the headquarters might strengthen and deepen the U.N.'s relationship with NGOs and create a stronger and more effective organization. In practice, what gives NGOs their influence is not only what an individual group accomplishes, but also what they can do collectively with each other to reach the public. NGO networks facilitate the transnational movement of norms, resources, political responsibility, and information. Through forms of oppositions between cultures, political identities, program pieces, circulation patterns, and perspectives, this thesis encourages a collision between these forms which reflects a forward-thinking for the United Nations mission, agenda, and values.

Third, the next aspect of NGO occupation shifts towards the Secretariat Building, where the NGOs can occupy meeting spaces which overlap with the existing structure of the iconic building. This creates opportunities for the two parties to converse and, therefore, increases accountability and legitimacy of the global process which occurs inside the U.N. compound.

By creating an infrastructure that influences the everyday workings of the U.N, architecture can begin to give representatives who have little political power the potential to make an impact and influence policy outcomes.

BROOKE E. SHEA



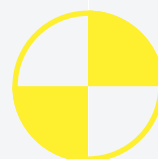
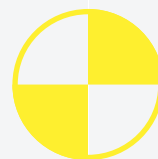
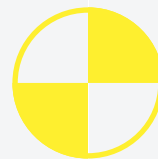
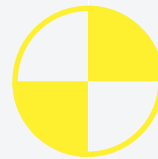
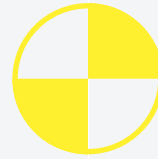
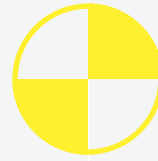
China's New Weird A New Urban Typology for Beijing

This thesis offers a critique of the diminishing communal life in the contemporary Chinese city which is created by the gap between large-scale master planning strategies and the contemporary need to focus on the individual instead of the structure of communities.

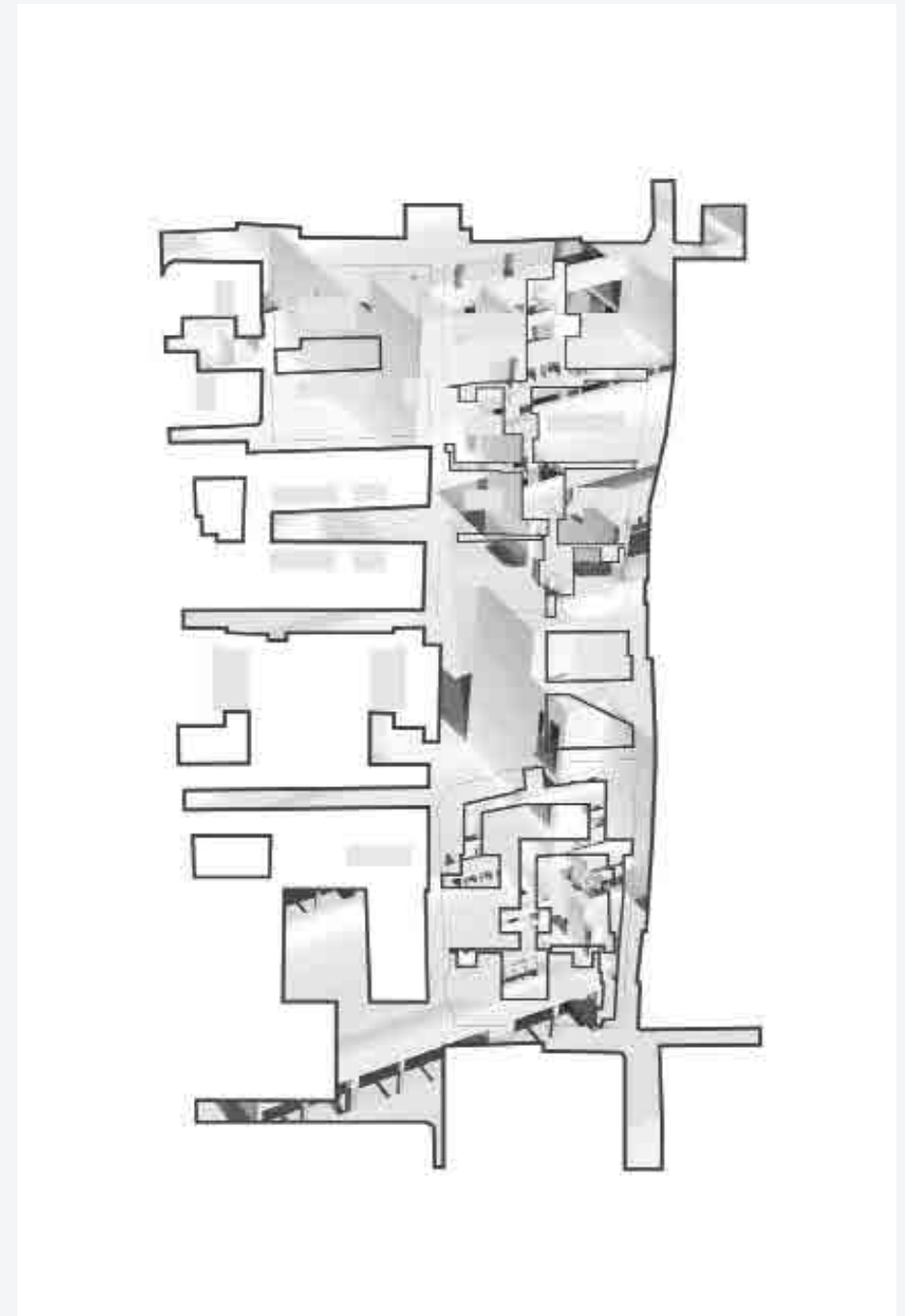
China's New Weird proposes an alternative to large-scale urbanism through the use of micro-urbanism strategies that preserve the relative scale and character of traditional urban settlements, like those of the "hutong", while also addressing the contemporary need to increase inner city population densities. The intention is to adapt the patterns of space and use that are found in these traditional environments into more modern building techniques and contemporary urban spatial planning.

The occupants of these traditional settlements consist of the elderly

and migrant workers without nearby families. These two groups are lacking the social ties normally available to them in the traditional "hutong" typology. The "hutong" type offers a finer grain of distinction among progressive zones of private and public space. To achieve these aims, this thesis proposes a reformulation of the spaces of the "hutong" that will preserve the intimacy of the "hutong" type while also increasing the density to match the modern needs. The goal of this thesis is to develop a prototype of a neighborhood with a renewed sense of hierarchy of shared space designed to cultivate a greater sense of communal life. The new community will start from a human scale, then moving up to large scales to build up a prototype of neighborhood with systematically sequential shared space.



SHI BANGYUAN



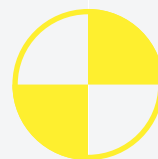
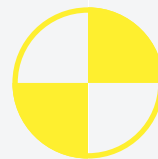
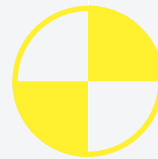
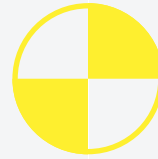
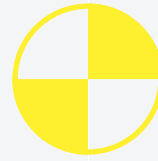
Hacking the Cloud

Revealing the Hidden Physicality of Virtual Networks

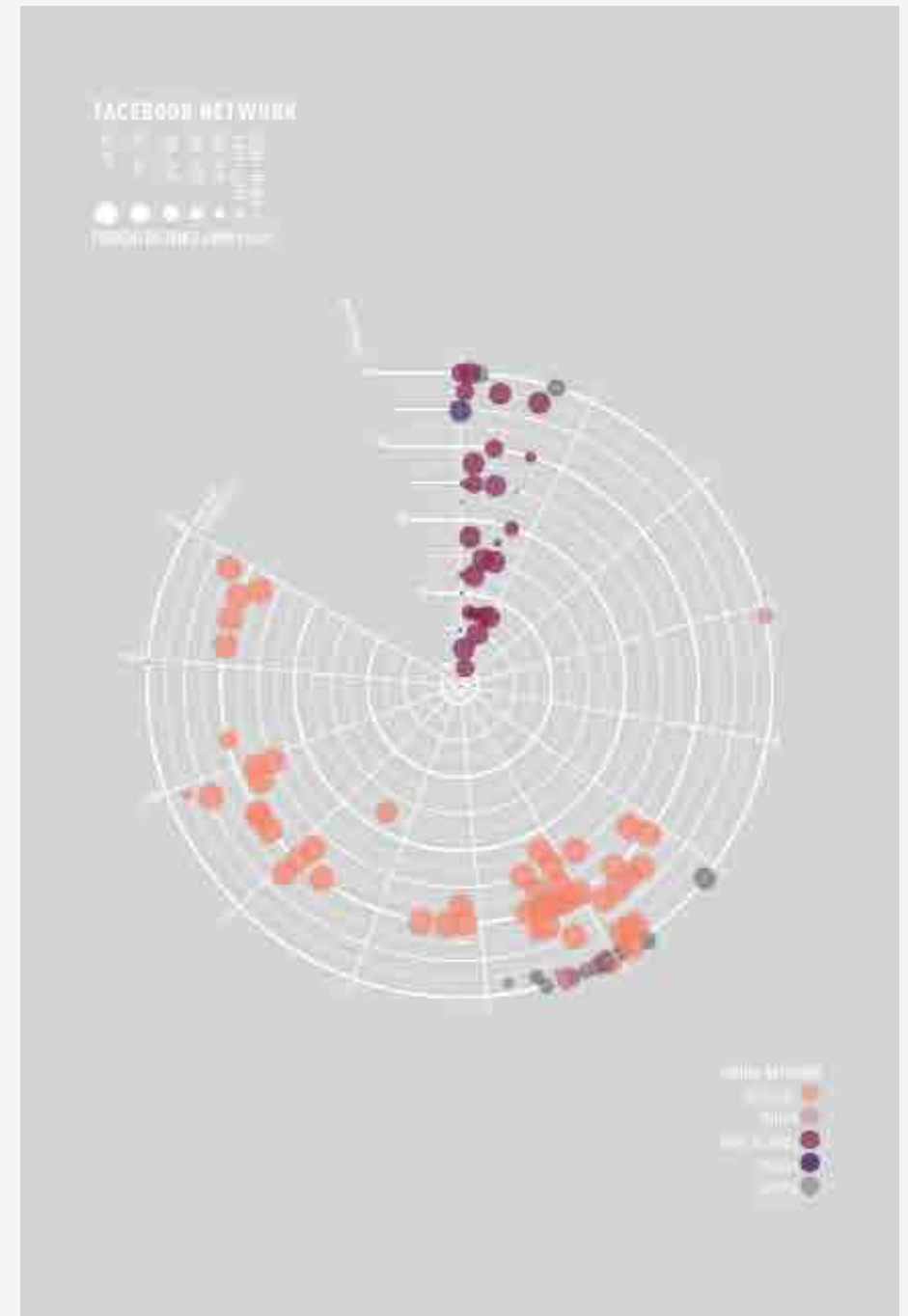
Technology tends to have a profound effect on the way society inhabits and shapes the city. In the recent past the advents of the automobile, telephone, and television have all worked to compress time and space. Most compelling today is the rapid growth of social media and the almost ubiquitous presence of society on its platforms. This new venue of social expression has offered new ways to communicate and interact with others, spurring an evolution in the composition of social networks. Social life is now dually sided, existing physically in the tangible world and partially in this virtual realm, changing a society's needs for physical space. The virtual sphere is different; it's filtered, altered, has varying degrees of access and control, and is seemingly unrelated to geographic space, existing in "the cloud". What is less apparent is that this ephemeral network is tethered to reality by physical spaces. This thesis asserts that architecture has the power to reveal the hidden or unknown aspects of the virtual realm, specifically the tangible infrastructure necessary to support it.

This is investigated by carving a corridor of public space, which acts as an extension of the Highline in New York City and invades two adjacent buildings. In this way architecture is used to expose the guts of two publicly inaccessible buildings that play important roles in the life of digital content, from generation to cloud storage. The sequence of the Highline, Chelsea Market, and the Google Building at 111 8th Avenue in Manhattan provide the opportune location for this exploration. The intervention connects and exploits targeted nodes of existing programs to reveal relationships of physical spaces to digital content as a means of revealing the unseen duality of digital networks.

By re-imagining urban public space so as to expose and reveal the nature of society's virtual presence, architecture can act as a tool to make people aware of the two sides of social life and what the growing prevalence of the digital portion means for the physical spaces of the city.



NICOLE SMOLENSKI



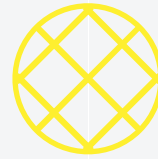
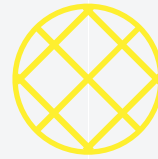
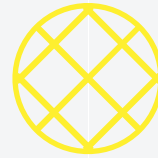
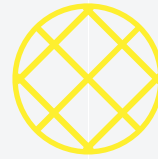
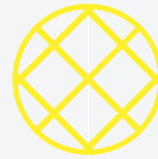
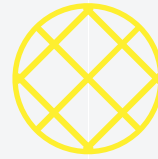
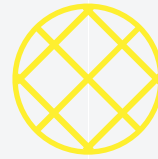
The Question of Slim A Critical Look at Manhattan's Recent Trend Towards Slimness

The sudden emergence and rapid proliferation of slim condo towers within the context of Midtown Manhattan are of specific interest to this thesis. The rise of "slimness" in Manhattan is evidence that a typological paradigm shift is currently in motion. In a much broader sense, Slimness is bringing to light just how much control finance exercises over architecture in all aspects of the profession. The apparent disregard for any intentional or unintentional consequences of this building movement has become a critical point of departure for research, speculation, and intervention. This thesis draws inspiration from Koolhaas's *Delirious New York*, and seeks to frame contemporary issues within the context of Koolhaas's notion of "Manhattanism". This thesis serves as a commentary on how "slimness" is representative of an extreme exploitation of the inherently flawed relationship between architecture and the economy.

This thesis contends that financial benefits of "slimness" is exploiting architecture to a point where the discipline is now driven solely by

immediate economic benefits, and consequentially architecture has become formally, socially, politically, economically, and environmentally irresponsible. This analysis and critique of "slimness" utilizes a series of ironic and speculative scenarios about 432 Park Avenue and W 57th Street in Manhattan, aka "billionaire's row", as the site for a not-too-distant future financial dystopia.

This thesis begins with a series of fantastical renderings of the existing framework of 432 Park Avenue, that have been formally and programmatically altered. The slim figure is forced to make bizarre and unexpected formal and programmatic accommodations, which causes "slimness" to be seen in a new light. These wildly fanciful renderings are then paired with a series of hyper-real architectural drawings and models that will attempt to illustrate an exposé depicting the actual nature of "slimness" as it exists today. The goal of this thesis is not to propose solutions for the issues that "slimness" perpetuates, but rather to evaluate them from a polemical point of view.



RAYMOND SOVA



Absorbency in Tidal Resiliency

The Thickened Pier

The inevitable truth of climate change has placed coastal cities at great risk. Past natural disasters in the United States, such as Hurricane Sandy and Katrina, displaced many people because these communities' only protection was their failed infrastructure. Although hard and soft infrastructure strategies have addressed rising sea levels, architecture at the building scale creates static surfaces and divisions that are slow to adapt to flooding and leave little to no room for the ambiguity of tidal flooding and storm surge.

Though numerous areas are at risk of sea level rise across the globe, the Chesapeake Bay area is one of the areas to face the highest risk in the Americas with several growing urban metropolises and an expansive estuary environment. This thesis responds to the current threat of sea level rise on coastal cities and proposes to create an absorbent condition through spatial repetition of the module that adapts to the local conditions.

According to architect and theorist Stan Allen, field conditions, specifically "mats", allow for ambiguity and uncertainty of a space. This thesis seeks to re-evaluate Allen's "thick 2D" as a resilient, absorbent

architecture by speculating on the mat building as a landscape condition at the infrastructural scale, while further examining the thickened surface at the edge between land and water at the architectural scale. As a thickened surface, a pier prototype would function as a resilient and adaptable breakwater. The pier consists of a repetitive module that can be expanded, widened, shortened, and is based on the topographic and programmatic constraints of each site.

In order to allow for the pier to evolve over time, the surface consists of an altered breakwater unit to create a structural module. By observing the state of the Chesapeake Bay, the seed buoy will provide the greatest benefit as a soft material device for the pier by improving the ecology of the bay and allowing for wave attenuation.

The materiality of the module can be both soft and hard based on the edge of the specific deployment of the infrastructure.

This thesis proposes a resilient network of fisheries and fish markets on the Chesapeake Bay that respond to the fluctuations of sea level rise and storm surge and the stages of ecological restoration.

SHAUNA STRUBINGER



An Urban Buddhist Facility Modernizing the Buddhist Architectural Vocabulary

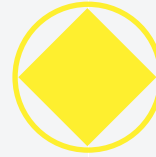
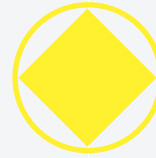
Buddhism is the fourth largest religion in the world and has an increasing number of adherents in the U.S.A. according to the 2015 "Religious Landscape Study" conducted by Pew Research Center for Religion and Public Life. Contemporary Buddhist communities face a growing demand for more facilities that are situated within a culture that is both local and urban.

This thesis is intended to re-calibrate Buddhist design principle in an urban context by merging traditional Buddhist architectural space and modern urban amenities. The main concern of this thesis is how to reconcile the discrepancy between Buddhist architectural space and modern urban environment, as culturally and architecturally divergent as these two counterparts are.

This thesis leads to the design of a tranquil place for Zen meditation that is located in the SoHo area of New York City. Aside from the high population

density and commercial-driven characters, the site is congested and narrow. Programmatically, it would not only accommodate the daily liturgical routine for residing monks and nuns, but also preserves the work-where-live style of artists, who have long been rooted in this area. Accommodating these multiple programs extends social attention to the nearby community with services, such as artist's workshops, performance events, and meditation.

This facility would encourage spatial and visual interaction among artists, laity and clergy in both private and public situations. Disparate groups of windows would channel direct and indirect sunlight into the interior. Climbing the diagonally-branched stairs would allow users to encounter programs in different heights and would create a dynamic sequential experience through the building. Urban amenities and ritual process would be dispersed and intertwined in an organic relationship.



SHUXIAO TAO



Private Room on the Wheel A New Form of Transient Dwelling

...because he had no place he could stay in without getting tired of it and because there was nowhere to go but everywhere, keep rolling under the stars...

— *On the Road*, Jack Kerouac

The cross-country highway and road trip are deeply rooted in the American psyche. Supported by the rapid growth in ownership of automobiles by American families since the 1940s, these concepts are associated with a sense of freedom, leisure, and mobile lifestyles. However, other highway users, like truck drivers, have less control and freedom over their daily routine. These users are part of a vast network of international commerce, reliant on the long haul.

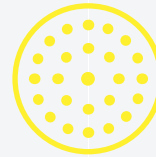
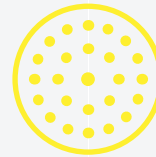
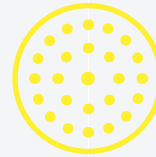
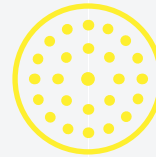
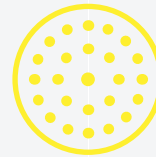
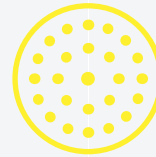
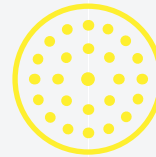
The time long-haul truck drivers are away from home is prolonged, with the end of each day spent sleeping in fixed truck cabins and eating at banal truck stops.

I can be talking to a guy one day, and then be gone a thousand miles and come back two days later, and the guy can't imagine what I just did... Whatever his territory, the trucker's world is long and skinny, the width of a highway, punctuated with warehouses, factories, and oases called truck stops.

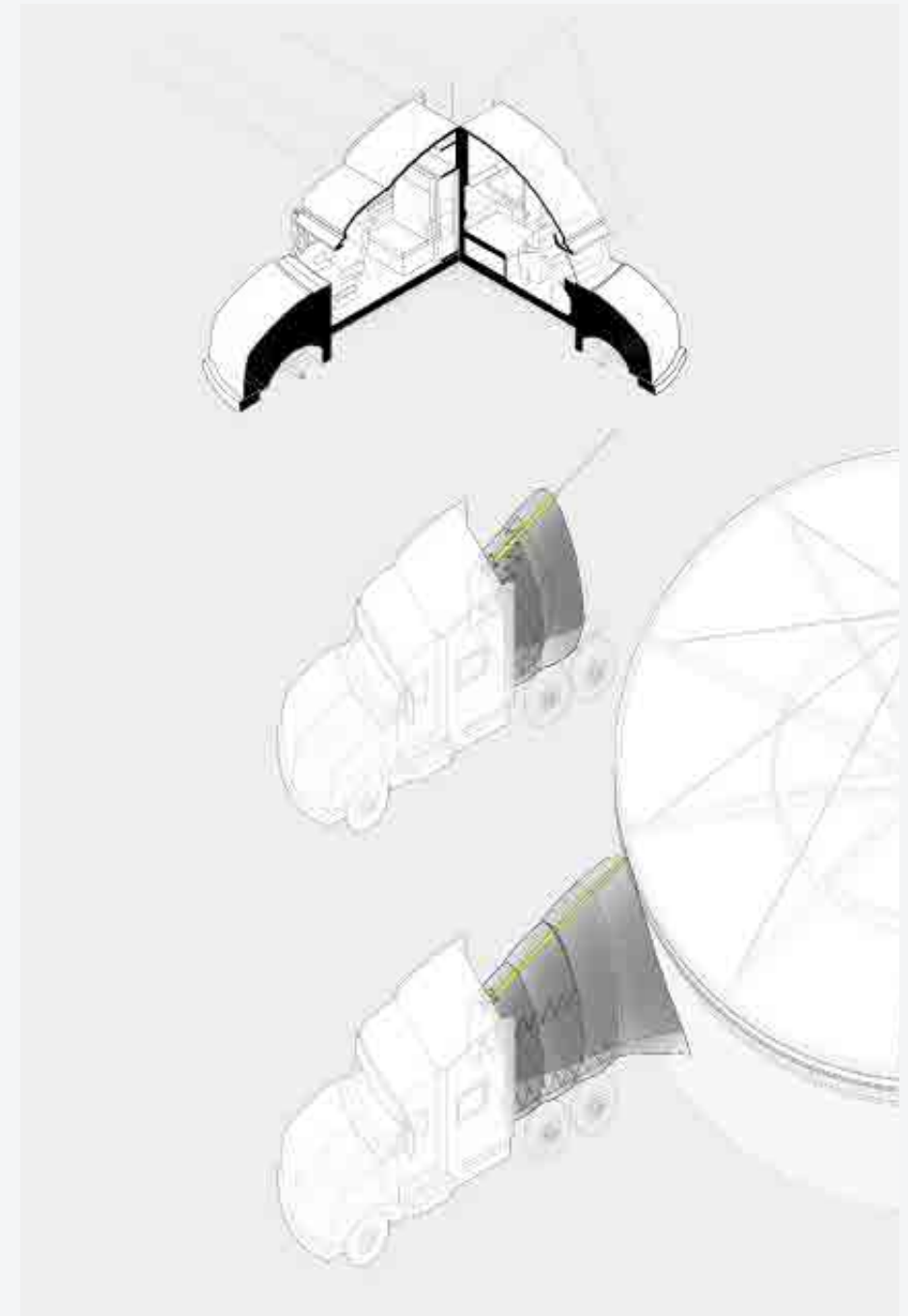
— Richard Wolkomir

This thesis reconsiders the truck stop along the freeway, by studying the transport network at multiple scales, including truck drivers' daily routines and their live-work practices. By proposing a new truck stop prototype, it functions as a core infrastructure of the future mobile metropolis and transient lifestyle. The speculative prototypes transform into a new American landscape along the freeways, seeking to offer transitory community to those on the road, including their families.

The truck stop's narrow focus on providing limited and costly services to truck drivers, constitutes a missed opportunity to re-conceive of such infrastructure, as well as the truck cabin itself as flexible and transitory. Responding to existing technical and hauling criteria, the *Private Room on the Wheel* seeks to optimize the truck cabin and plug into a new docking mechanism. Connected by the existing American highway network, this new infrastructure will better address truck drivers' needs, and also promote a transitional lifestyle based on radical mobility.



KATHY TENG



Contentment Ending

Rethinking the Eldercare Home in China

China is facing an urgent “aging society” problem due to the one-child policy of the 1960s. Nursing responsibility is becoming onerous and is shifting from the family domain to municipal and private facilities. The ratio of elderly people to younger adults will be 3:1 by the 2050s.

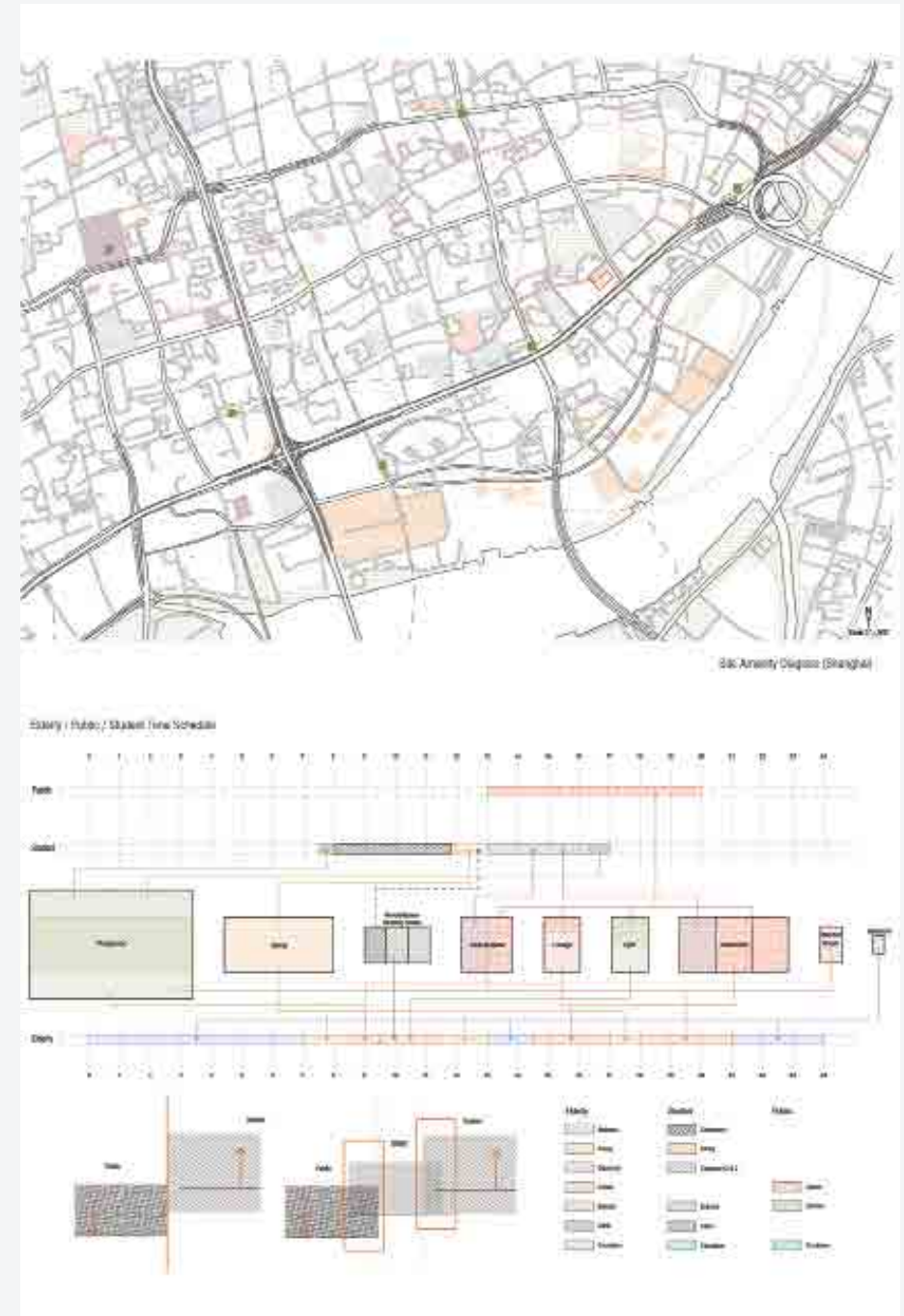
Therefore, the Chinese government is working on what they describe as the 90-7-3 solution in which 90 percent of elderly people will be taken care of at home, 7 percent will use community centers and 3 percent will live in nursing homes. However, existing facilities are either lacking in quality and have limited bed numbers (public) or are located in isolated areas and are offered at high cost (private).

Through the study of the daily behaviors of senior citizens, their special physical requirements, and the developers’ management systems, this thesis focuses on the importance of eldercare homes in China and

proposes a new type of eldercare home that mutually benefits its residents and the developer. This thesis proposes the creation of affordable facilities for more senior citizens, and seeks to provide a healthier and more socially active lifestyle for residents, permitting senior citizens to rejoin society. At the same time, this proposed system seeks to provide a new way to reduce the initial cost of development.

To achieve this, this thesis will conduct research aimed at reducing the cost of providing elder care via the creation of a ten-year rent-free land agreement with government, and the relocation of eldercare homes to city center locations so that senior citizens can use existing city amenities. Moreover, convenient transportation links will provide more opportunities for families to visit residents and a safe way for senior citizens to use city amenities, while also making the new homes more accessible to the public.

ZHENQIANHUI TONG



Amphibious Architecture Adaptation

The Resilient 3-in-1: Park+Ride, Community Center, and Flood Relief Center

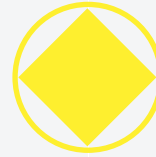
Modern Bangkok is located on an area of former marshland that sits below sea level and has a high rate of subsidence. This places the Thai capital among the top 10 cities in the world in danger of being permanently submerged by flood waters as sea levels rise.

By 2050, the city is predicted to be affected by long-term flooding likely to exceed in terms of severity even the most recent mega flood in 2011. The 2001 flood lasted for 175 days, and affected 13.6 million people in 65 out of 77 Thai provinces. At their peak, water levels were as high as 3 meters (12ft) above the usual threshold. Events such as these could cripple Thailand's emerging economy, triggering social and political instability for decades to come.

This thesis contends that the government's proposed flood management solution relies too heavily on "top-down" projects that primarily attempt to stop such flooding from occurring (dykes, dams, canals, sea walls etc.). This will not be enough to sustain a city of Bangkok's size over the longer term, especially when

the network of official "flood relief centers" is so patchy. Instead, this thesis argues that our attention should turn to more resilient, "bottom-up", localized flood management methods that could directly benefit the inhabitants of the city during periods of prolonged flooding by assisting citizens to connect to major transportation nodes, healthcare facilities, shelters and other key infrastructural loci, so that life might go on alongside the flood itself.

The project proposed by this thesis—a 3-in-1 park+ride, community center, and flood relief center—will connect to the existing sky walk and sky train transportation systems in Bangkok. The project's focus is on simplicity, adaptability, and localized customization taking account of the city's existing social and material characteristics. Socially, economically, and politically Bangkok has proven itself to be a resilient and spontaneous city, this thesis contends that it should be endowed with an architecture and infrastructure that is equally robust.



STHAPANIK TOONGTONG



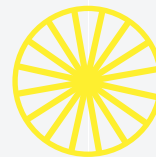
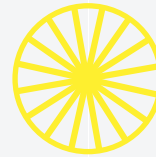
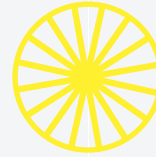
Two Lands, One System Redefining the Border Crossing

The Israeli and Palestinian populations each have their own distinct infrastructural systems, which operate independently and fail to connect the people of this troubled region. This thesis contends that if a two-state solution is implemented under the guidelines of the 2003 Geneva Accord, new infrastructural connections can stitch the populations of Israel and Palestine together through a reimagined border system.

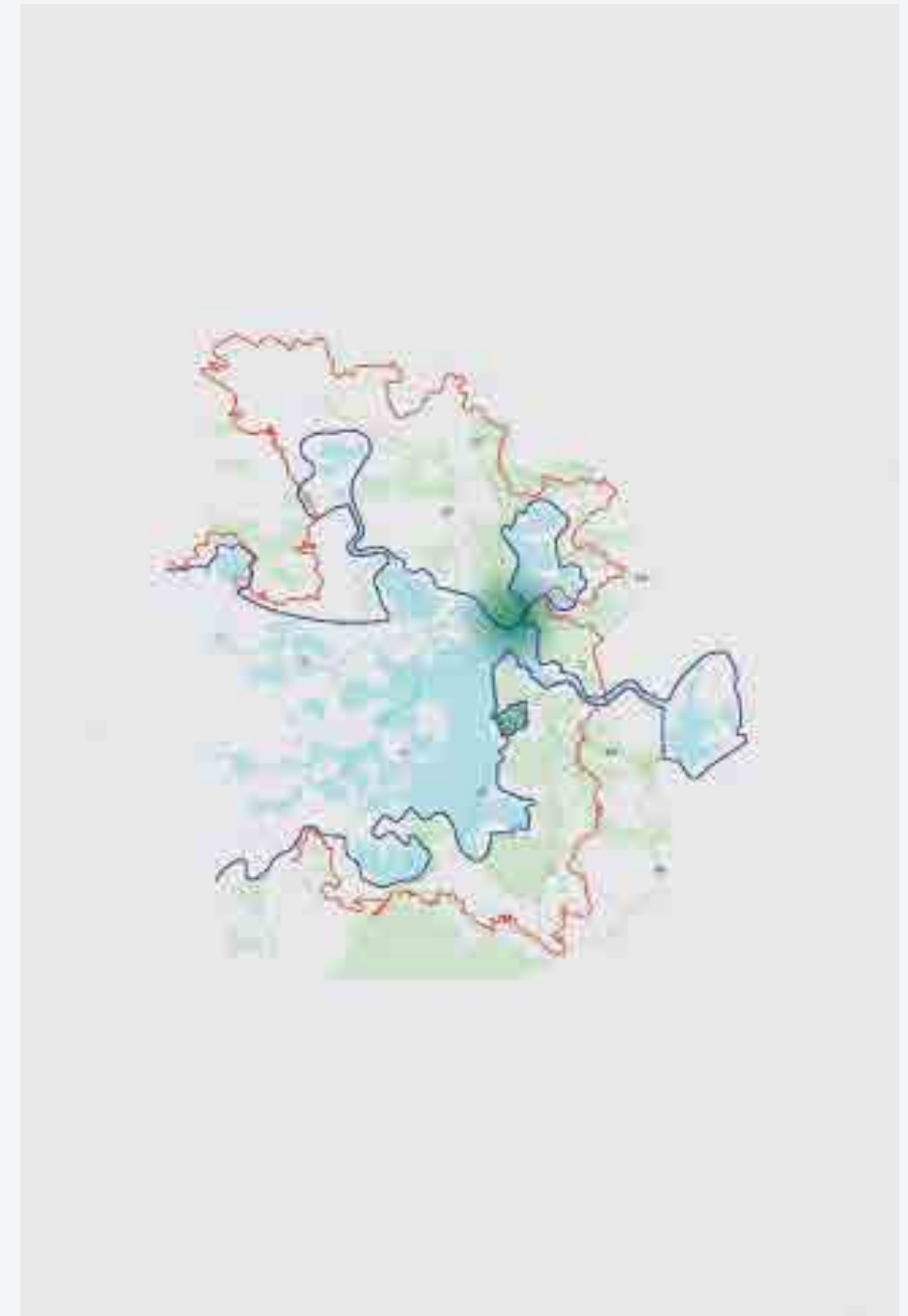
These divisive infrastructural networks, which are a result of tense relationships, have also sparked increased violence throughout the region, particularly in Jerusalem. The French Hill, located north of the Old City in Jerusalem, is positioned at a critical point in the infrastructural network that would allow it to become

the preeminent crossing between the two nations. Here, the confluence of major highways, public transport, and densely populated communities creates a node where the border crossing can exist.

The border crossing will engage multiple modes of transport in an effort to not only link the two communities, but also allow for interaction between these populations. The key link in the crossing will be a market that aims to facilitate the exchange of goods and ideas in a setting that promotes interaction amongst those that pass through. The border crossing will become one part of a larger reconstituted border system that seeks to move away from the traditional built wall and allows for the topography to act as a new peacetime new border.



MATTHEW TRULLI



The Burning Building

Designing the Contemporary Hearth

WINNIE TU

Fire! Fire! Fire!

In ancient times, fire was seen as the primeval element, one of the many themes competing for a place in architecture's origin mythology. The role of fire in architecture's evolution is widely acknowledged, but the extent of its capabilities has not yet been fully explored. This thesis contends that fire's paradoxical nature has the potential to redefine contemporary systems of design.

Due to technological advances, the hearth's energy has been transformed into a remote machinic element that is used discretely in industrial and commercial buildings, hidden under basements, or replaced all together by other forms of energy. The hearth in today's architectural culture has been transformed into a mobile object capable of creating temporal climates of comfort, rather than being stationed squarely within the home.

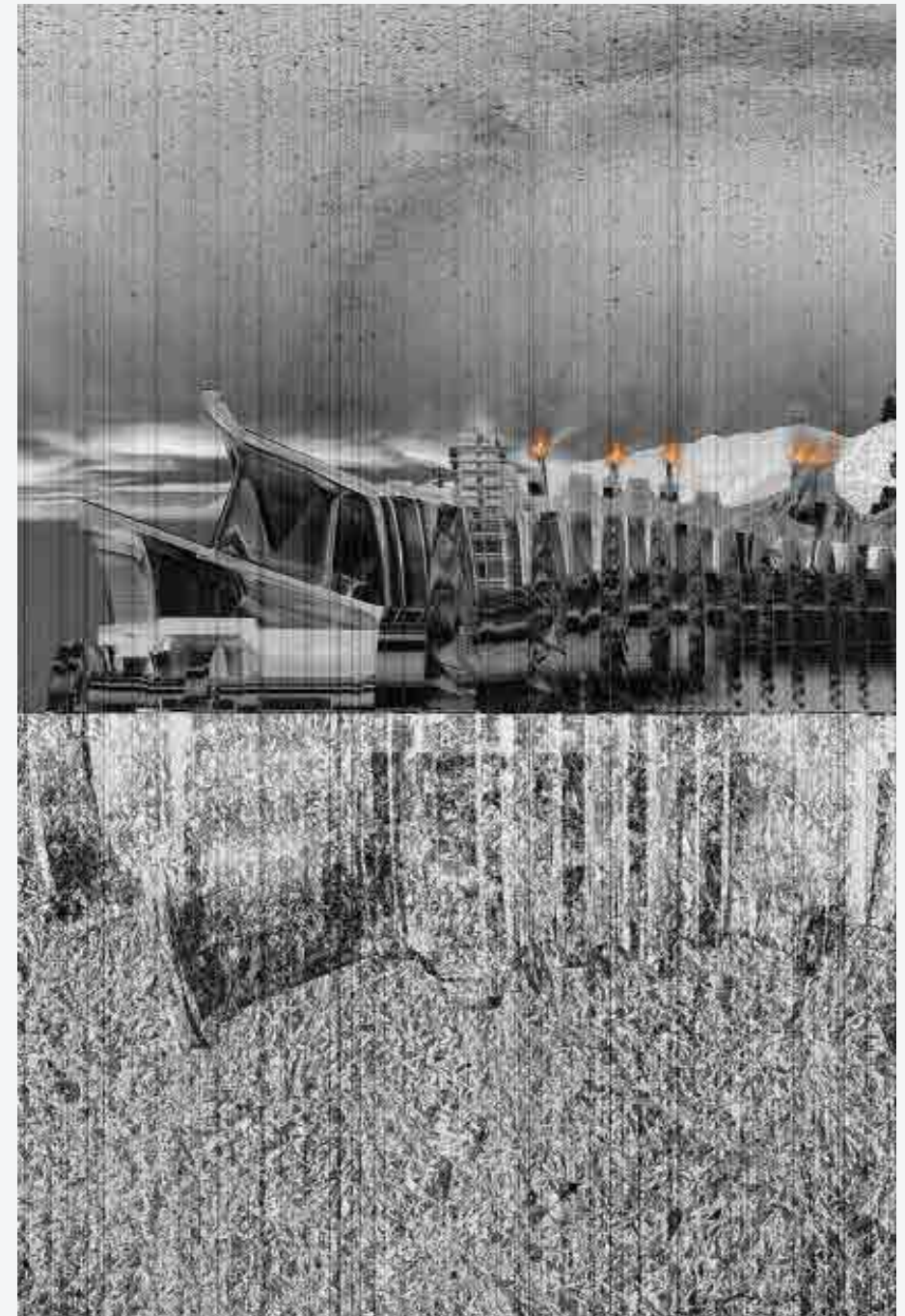
Gottfried Semper's model of the primitive hut suggests the hearth as the most important element of architecture: the physical materialization of space is designed around it, to protect and observe it.

Over time, the primitive hut has been systematically altered, with the functionality of the hearth expelled from the built environment, transformed, and reinserted back into architecture in the form of energy and heat. To further evolve this model, this thesis proposes an alternative architectural typology to Semper's

primitive hut by seeking to redesign spatial conditions via the idea of the "inverted hearth". Here, the hearth becomes the sole architectural element of design. Space is not defined by walls and enclosures, but through the design of fire and the environment.

When fire is controlled, hearths and campfires can induce relaxation as part of a multi-sensory, absorptive, and social experience. Thermal qualities are an important part of our experience of a space. They not only influence what we choose to do there, but also how we feel in the environment. The architecture of the "inverted hearth" will be designed around the exploration of fire and its spatiality to result in the design of immaterialized spatial boundaries.

This architectural research begins with the design of the contemporary hearth as a system of control that takes form at three scales: the intimate, the social, and the public. The architectural typology of the "inverted hearth" redefines the idea of fire as an instant catalyst for comfort that can fluidly transform programs of space without the use of physical elements. As a result, the intangible heat space generated by the altered primitive hut dictates the body's relationship to the environment, which in turn creates a new social phenomenon. It is architecture in its raw environmental state, a disintegrated primitive hut, a burning building.



Projected Materiality The Purposeful Blurring of Screen-Based Digital Production and Tangible Façades

Envision a building that reimagines the traditional materiality of the architectural façade by coupling the functional with the aesthetic expectations of a day-lit building face with the supplementary material and narrative possibilities of a projected night time display. Engaging the potential of new architectural technologies, this thesis celebrates both the novel and sensational qualities of physically manifested materials and textures while simultaneously exploring the future possibilities of virtual and augmented materials through digital projection mapping.

Set in spectacle-friendly Las Vegas, Nevada, the test site for this experimentation is the Flamingo Resort

in Las Vegas, a pivotal intersection of pedestrian and motor traffic. The façade of the Flamingo could disrupt the complacency of perception and become imperative for a passersby to stop, reflect, and perhaps even change their thinking. Thereby building and creating projections that develop a visual repertoire that evoke a displacement of oneself in the present. Re-cladding the generic glass and concrete façade affords the investigational creation of a sculptural canvas that is visually activated by both sunlight and the projected image. The image to the right illustrates a series of material studies which examine the capacity of applied cladding to provide transparency, reflect daylight and interact with digital projections.



ANNAGRACE WALTON



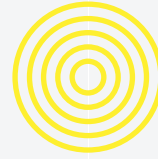
Shogaisha Space Confronting Social Stigma in Japan Through Design

There is a social stigma in which having a handicap is seen as a negative. Shogaisha is how one refers to handicapped individuals in Japan. The word consists of three characters (障, 害, 者). The first character stands for hindrance or impairment. The second character suggests misfortune or harm. The last character indicates a being or individual. With the way the characters are put together to create the word, one can see how people see and treat those with a disability. This can be seen in how the Shogaisha are treated in Japan. Although there have been multiple welfare plans that are intended to help and create awareness among the general public, the fact of the matter is that such plans are superficial at this point.

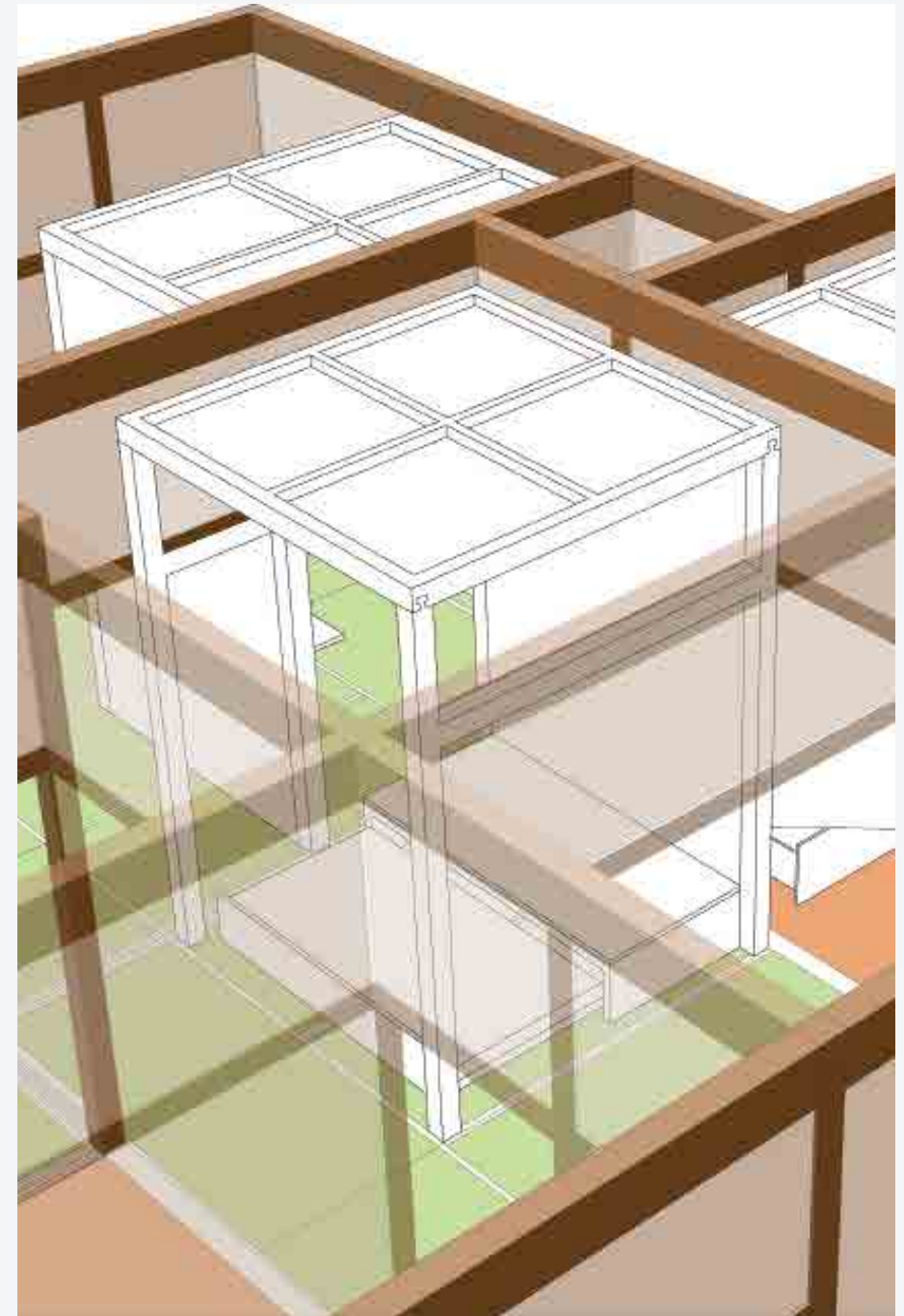
Culturally, Japanese people tend to be fixated on the way people see them, so they always try to present the best of themselves and hide the rest, this applies to both private and public life. In terms of housing, this means that at certain times the Shogaisha are relegated into the corner away from the view of others, making them isolated even within their own house. This idea

is backed up by the social stigma that exists in Japan about the Shogaisha. The houses in Japan are typically not handicap friendly due to their structural layout and the way people perceive and use space. Whether it is more contemporary or traditional, the way architecture is done has always been more or less the same. With almost 1 in 20 people having a physical disability, this is a major concern.

The goal of this thesis is to design a prototype that deals with social and architectural prejudice that exists toward disabilities within the setting of a house. This prototype will not only fit into both the contemporary and more traditional forms of architecture, but it will also be multi-functional, universal and compact. By doing so, the idea is to design something that can be inserted into any housing situation, while serving the needs of the various users without having to perform a major remodeling. The prototype aims to bring into question how one breaks away from the social stigma against Shogaisha, while at the same time still adhering to Japanese architecture and its sensibility.



SHUYA WASHIDO



Where Wellness Begins

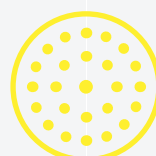
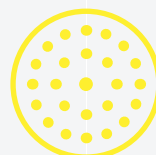
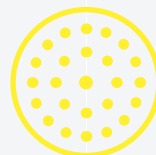
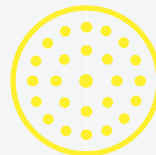
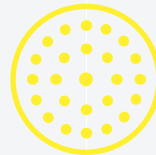
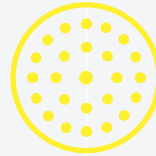
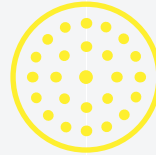
A public need for improved health has called into question the manner in which one's built environment has the ability to affect a person's health and well-being. Recent studies have revealed a correlation between health and residence, suggesting that the built environment has a significant influence on occupant health and well-being. As a result of such studies, Delos Living, a well-building consulting firm, has proposed a set of design standards that can be used to promote occupant health. The problem with such methods is that there are processes of certification relying primarily on post-design evaluations. This thesis seeks to align itself with Delos' WELL Building Standards through the development of a schematic design process that can be used alongside the WELL Building Standards in order to promote wellness during the initial stages of design.

This proposed schematic design process utilizes nine elements of health, which address the physical, social, and mental components of occupant well-being. These elements can be understood as three categories of interrelated elements with associated design principles:

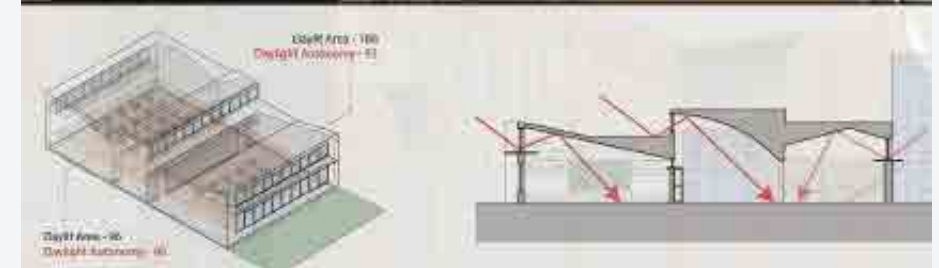
- 1 Daylight, fresh air, and vegetation
- 2 Nutrition, physical activity, and community
- 3 Medical need, alertness, and occupant satisfaction

Each design should focus on the elements that are most important to site-specific demographic needs. As such, this thesis contends that if occupant health is placed at the forefront of design, utilizing a design approach that selects and addresses two or three of the nine proposed elements of health based on demographic mapping in a spatial/human-centric manner during the initial stages of design, the resulting architecture will promote occupant well-being.

This thesis focuses primarily on the visual and non-visual effects of daylighting by juxtaposing the benefits of daylighting on occupant health with architectural design strategies. The proposed process of design is then utilized in conjunction with these best-found design strategies for daylighting to redesign Blodgett Middle School on the Near Westside of Syracuse, NY. The success of this proposed process of design will be evaluated by comparing the daylight availability of the newly proposed Blodgett Middle School to that of the original structure and an exemplary WELL certified building, the CBRE Headquarters in LA, through daylight simulations prepared using DIVA for Rhino.



CHELSEA M. WHEELER



Free Encounters Giving Form to the Informal Workplace

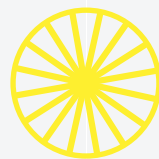
This thesis contends that the “office” as a solely economic construct is no more: Its utility as an engine driving productivity and the accumulation of capital has stalled in our present age of information where value is constructed through knowledge exchange and interaction.

Via the use of new technologies, millennial workers’ transition from the college campus to the office has become more seamless and, this thesis argues, it is in this paradigm shift that it is possible to identify a blurring of the public and private spheres. The millennial worker-turned-freelancer’s life exists forever suspended between work and play, place and space.

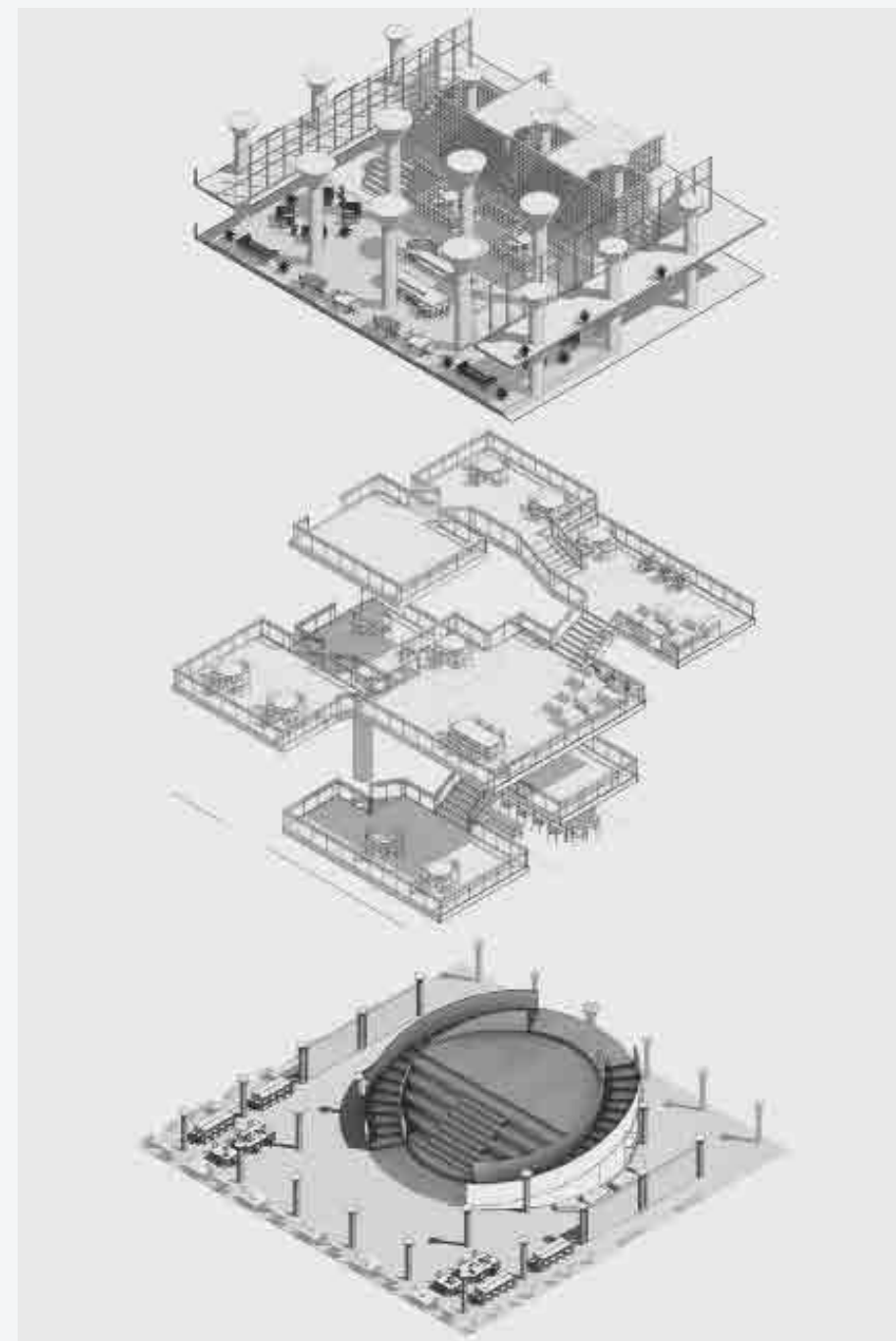
Increasingly, it is possible to identify a trend towards entrepreneurship within the United States. Tech companies have become the champion for the small business

owner, encouraging a new generation of millennials to go out and make it on their own. Currently, however, the United States does not have the infrastructure to support this self-empowered working class. With an increasing number of small business owners and a decreasing amount of rentable office space, the modern freelancer is left to navigate the urban grid of the American city, conducting formal work tasks in informal work environments.

It is in these informal environments and organic encounters that meaningful connections might be made. No single space serves to cater to these criteria, and no single space is capable of highlighting this informality. This thesis looks to re-conceptualize the modern office through three formal strategies that attempt to catalyze a range of “organic” encounters.



RYAN WILLIAMS



Reconstruct Education A Campus of Experience and Connection

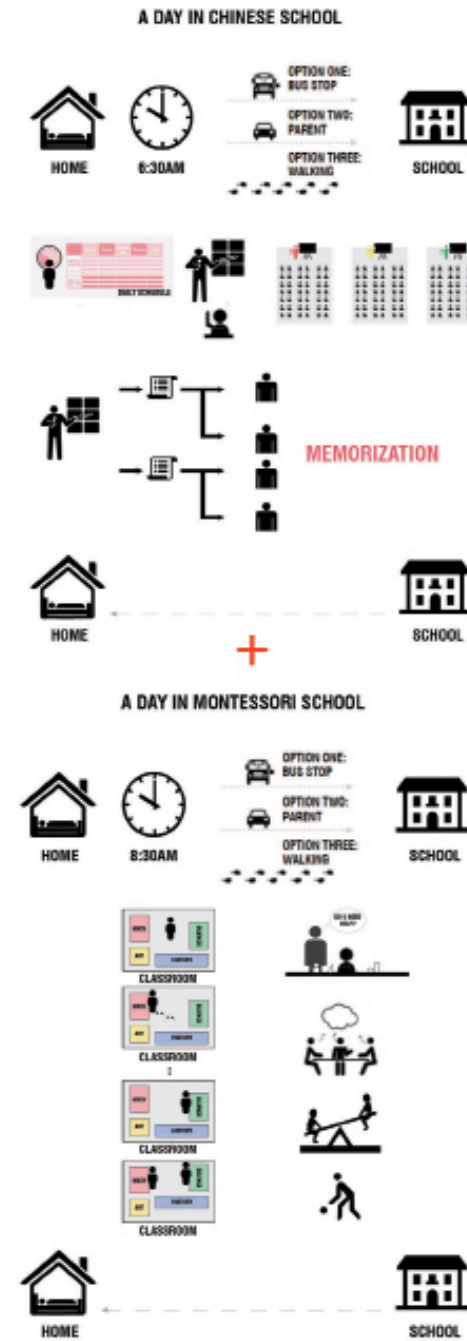
With more and more new immigrants pouring into Beijing, the population has become increasingly overwhelming for the city. The city has proposed the relocation of populations within Central Beijing to the suburbs to form new satellite cities. The expansion of these new cities is supposedly a crucial strategy in the repositioning of the city's dense population, reducing burden of traffic and overpopulation. However, there are many potential difficulties with this process of suburbanization. The planned new cities not only lack job opportunities, but also lack good education facilities for children, something regarded highly by families in China.

The site for this thesis is Changping, a city within Beijing province, on the northwest side of Haidian District, and the perfect location for the creation of a new education network for this new

generation of satellite cities. Changping is closest to the NW part of Central Beijing, where educational facilities are densest. Haidian is one of the largest educational districts in Beijing, and also the second most heavily populated district in the Chinese capital. Thus the creation of a K-12 all-in-one learning facility attached to one of the top universities in China will certainly take the burden off traffic in the central city while speeding up the relocation process.

As the starting point for a new education network, the proposed education campus will also challenge the existing Chinese education model, learning from aspects of Montessori education to further enhance the currently set-in-stone curriculum. The focus of this thesis will be on the design of an elementary school within the proposed campus, the focal starting point for students within Chinese education.

KYLE J. WU



Manga Architecture

From Narrative to Architectural Form

XUE YANG

The hierarchy and degree of definition of spaces, their relative size and location, and the sub-architectural apparatuses of each space (furniture, appliances, media devices) all of these are defined by and in turn give definition to the social and psychological narratives that influence the behaviors (encouraged, allowed, discouraged or forbidden) associated with each space.

— Mark Rakatansky

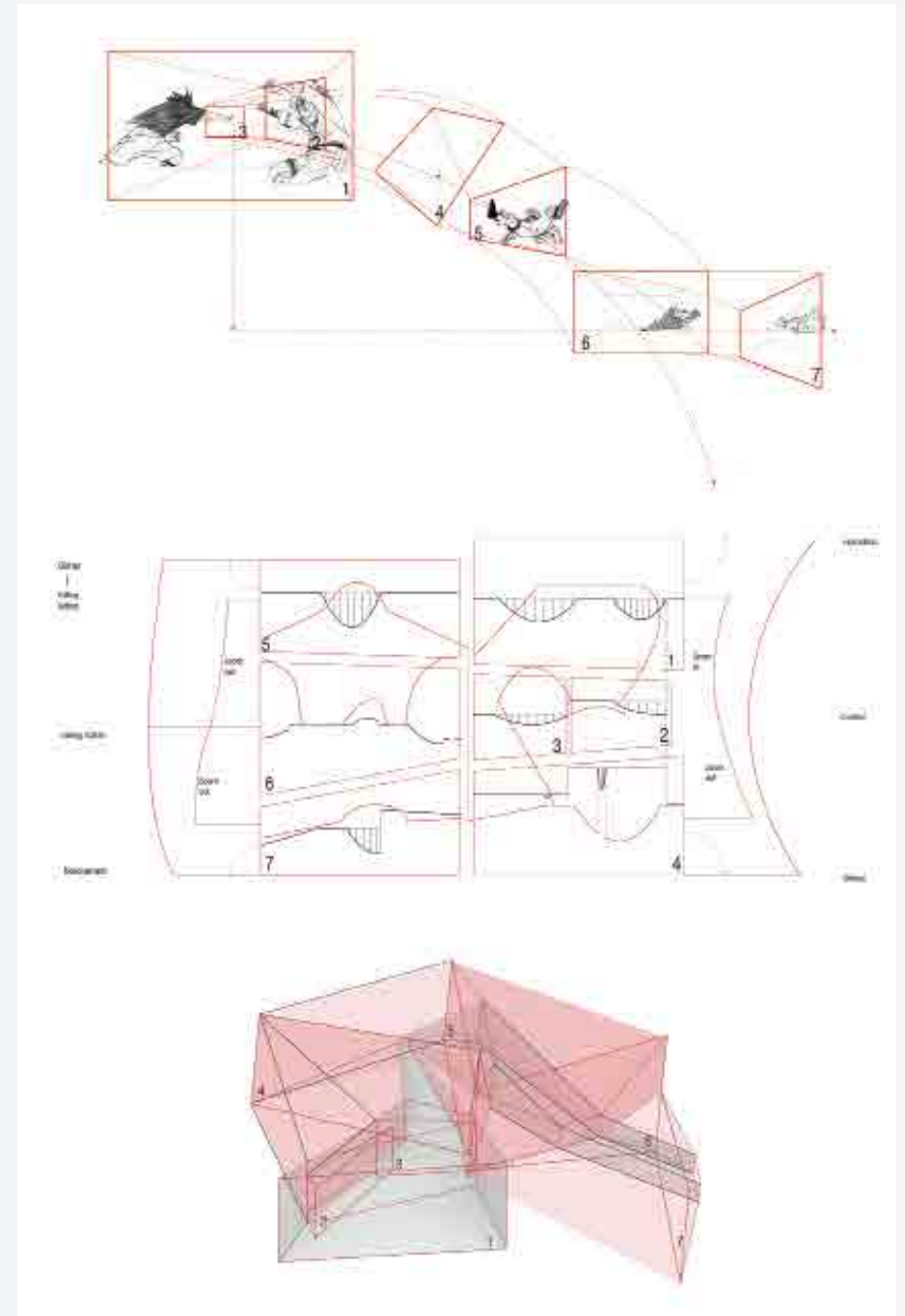
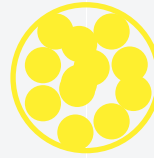
This thesis proposes an experimental design method with the aim of transforming narrative into architectural form through the study of narrative structures used in the “Manga” tradition of Japanese graphic illustration, applying the narrative techniques used by this popular comic book genre to form perceptual sequences in architecture.

Architecture is neglected as a device for storytelling. As opposed to the “object” configured from the outside based on compositional or programmatic expression, the use of narrative structures can construct a procession through “the inside”, profoundly shaping our experiences of the building. The narrative behind architecture makes it a powerful instrument for religious, political, and democratic purposes. The art of storytelling derived from “Manga” offers an opportunity to create

expressive an architecture that can communicate with users. Research includes examination of cross-disciplinary efforts moving between diagram, image, and spatial-temporal proposition. Diagramming eye movement as one reads a “Manga” comic book sets up a spatial sequence of different depths. The narrative is revealed in the processional experience through this sequence.

The popularity of “Manga” as visual art cultivates its own reading conventions and visual sensations, which are easily perceived by a viewing public. The narrative structure embedded in the unique layout of “Manga” pages provides potential for “Manga” to become the medium between narration, image, and formal expression in architecture. Many common genres in contemporary “Manga” deploy dynamic aesthetic and implied movement of characters that can be applied to spatial design that celebrates activities and events.

The visual narrative formed by scale shift and angle change in “Manga” is able to simulate representations of biotope narrative, defined by architect Nigel Coates as “an urban field that includes a variety of functions and storylines that are mutually supporting yet independent”. This thesis contends that “Manga” can serve as a projection, a formulation, and a speculation for the complex procession through architecture.



Anarchy City

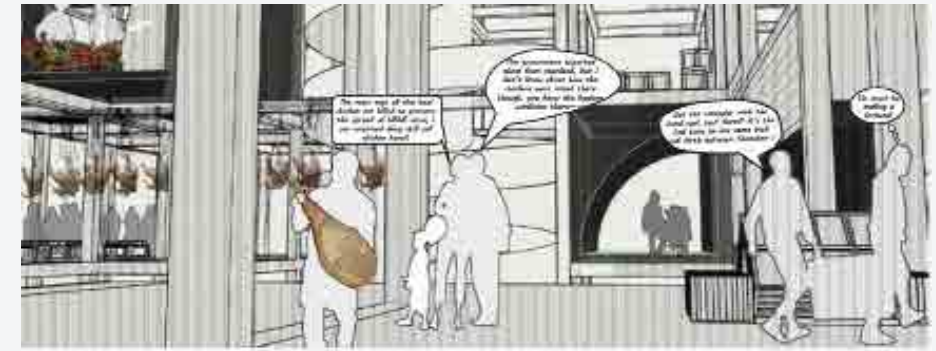
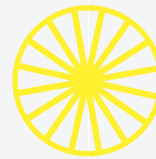
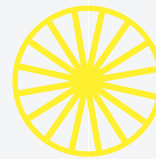
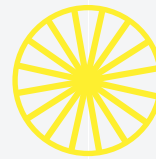
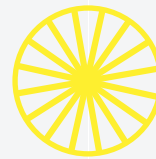
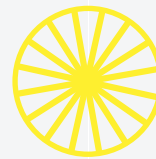
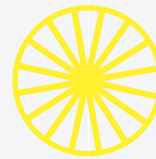
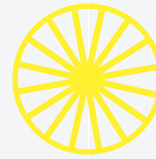
This thesis is a political manifesto that seeks to address the current chaotic and undesirable political environment on the border between Hong Kong and Shenzhen (*Anarchy City*).

Acknowledging that:

- *Anarchy City* has evolved from political borders whose purpose was to create division.
- *Anarchy City* possesses width and depth, is a 3-dimensional space of physical presence.
- *Anarchy City* is a "zone of exception" independent from the entities it sets out to separate.
- *Anarchy City* is anarchic, free of formal rules and regulations and thus free for interpretation.
- *Anarchy City* is deliberately distinguished from, and openly challenges, the existing political and social norms.
- *Anarchy City* promotes unrestricted possibilities of exchange both in material and intellectual forms as the apparatus for the dissolution of division.
- *Anarchy City* advocates a perpetual "in-between status" that becomes so substantial as to be able to register its new identity.

This thesis proposes a reconceptualizing of *Anarchy City* as a place for the progressive rethinking of the Hong Kong-Shenzhen hinterland.

ZHUOCEN YAO



Biophilia

Synthesizing the Built and Natural Environments

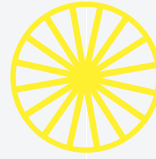
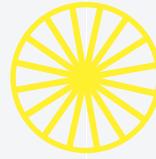
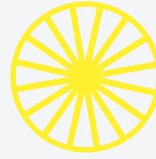
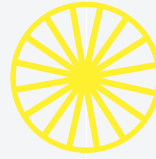
This thesis proposes that the “living façade” can be more than just a surface of greenery attached to a building; it can occupy and engage with spaces and programs to become more integrated with the building as an organism.

The “living façade” can also act as a spatial ribbon that flows between façades and into the building to connect views and spaces. Integrating a “living façade” into the building will provide sustainable benefits in interior and exterior environments. Such benefits include: increased air humidity, decreased air temperature, cleaner air, natural cooling, sound insulation, thermal insulation, habitats for biodiversity, increased solar reflectance (to mitigate the greenhouse effect), rain and grey water recycling, and increased greenery without occupying space on the street level.

In addition to these sustainable benefits, “living façades” provide a visual connection with nature, which “biophilia theory” suggests is necessary for humans’ well-being and health. According to this theory

humans are innately attracted to nature and other lifelike forms. There also exists empirical evidence that a visual connection to nature reduces tension, anxiety, anger, fatigue, and confusion.

This thesis envisions a new building envelope that integrates a “living façade” into the architecture of the existing Embarcadero Center in San Francisco, California. This project aims to improve the sustainability and health of the center’s interior office environment and the surrounding cityscape, while re-engaging occupants and pedestrians with the natural environment. Re-designing the building envelope of the existing Embarcadero Center serves as a prototype for future and current office buildings in dense cities. Today more than ever architects are needed to design spaces and cities in ways that re-connect people with nature. This thesis contends that synthesizing the built and natural environments is not a luxury; it is a necessity for peoples’ health, well-being, and the environment.



SERENA YE



Reclaiming Energy in Architecture

Exploring Deep Retrofitting Strategies

More than two hundred years of building construction in the US has resulted in a total floor space “under roof” of approximately 87,043 million sq ft across all building typologies. The US is the second largest consumer of energy following China, even though the US houses only 4.6% of the planet’s population.

A plurality of the energy consumed in the US is used by the construction sector, which represent 7% of primary global energy consumption. With this in mind, it is clear that “the era of procrastination, of half-measures, of soothing and baffling expedients, of delays is coming to its close. In its place, we are entering a period of consequences”.

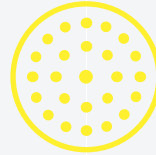
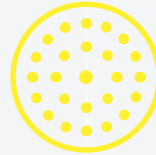
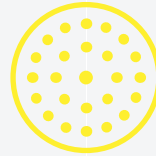
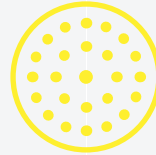
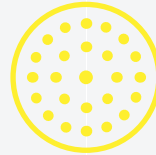
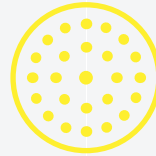
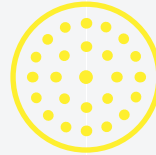
This thesis contends that it is time to be proactive in the deepest sense of the word, arguing that existing architecture needs deep retrofitting implementations to counter the evident, possibly unintended, but critically undesirable consequences of current unsustainable built environments.

By *Reclaiming Energy in Architecture*, new building system technologies, sustainable design strategies and building energy systems will merge to develop an energy efficient and conservative plan that follows a systematic retrofit approach. Energy audits and energy building modeling need to consider design tools that can adequately revitalize the built environment and create

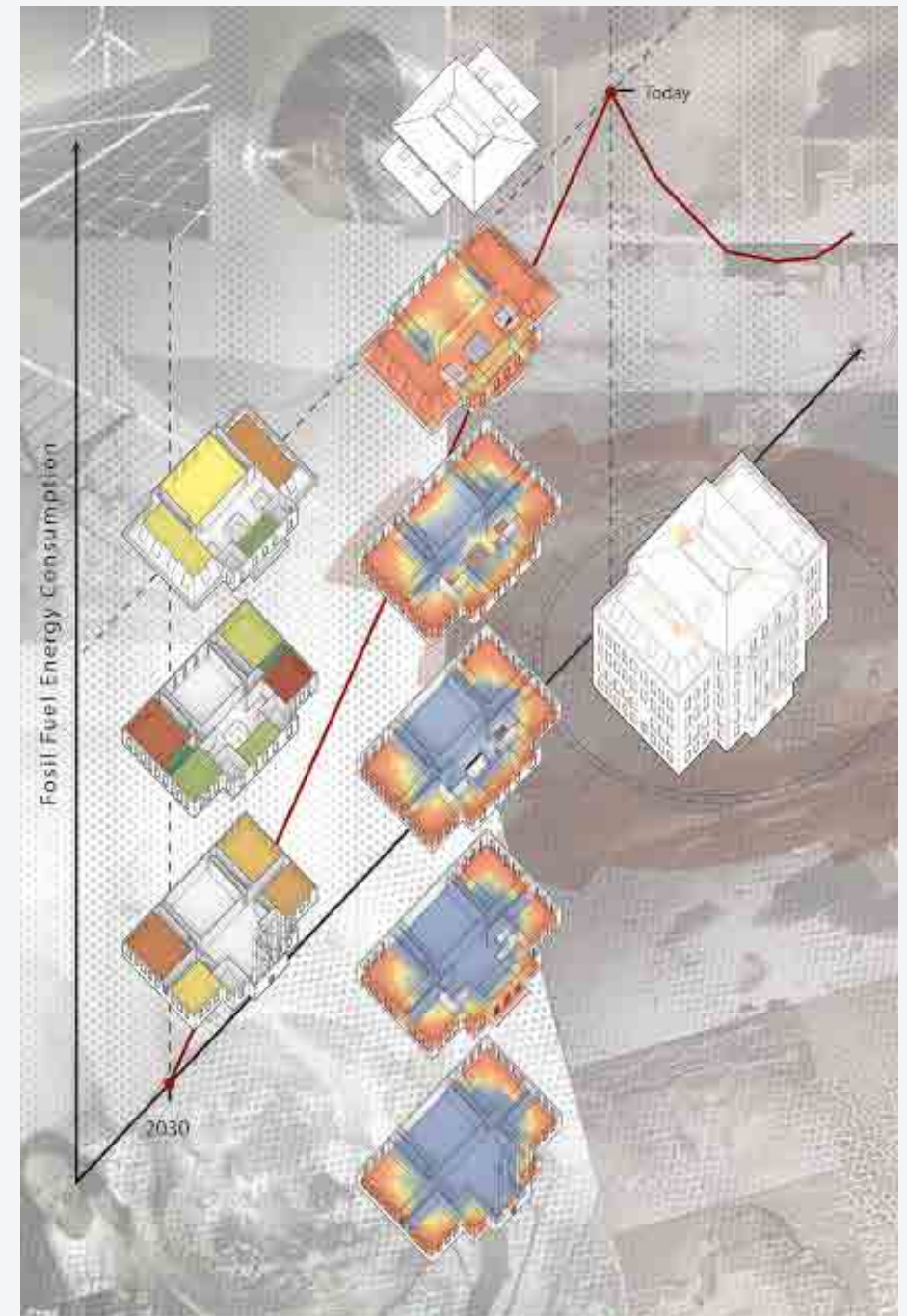
livable spaces that would meet the efficiency standards of the 2030 net zero challenge. Targeting the design and renovation of all new and existing buildings and developments would help meet a fossil fuel, GHG-emitting, energy consumption performance standard

of 90% efficiency for that building type by 2030. By rooting this new architectural approach in educational institutions, specifically architecture schools, it is possible to lower energy consumption and CO2 emissions significantly, at the same time students and future architects can experience the significant benefits of this holistic method. These measures would lead to its prospective implementations and further development because, as Buckminster Fuller once said, “the best way to predict the future is to design it”.

This factual-based architectural design intervention requires a deep analysis of the existing conditions of the building envelope, HVAC systems, occupancy patterns, and specifically site energy and source energy consumption and to develop an accurate energy model. The model would serve as an evaluative design tool to further optimize the integration of architectural strategies, new building energy systems, and technologies. The deliverable will determine its sustainable effectiveness as a social movement, environmental obligation, and economic viability.



ERIK A. YEPEZ REYNALDO



Brand New Old

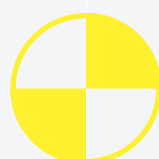
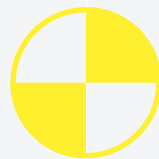
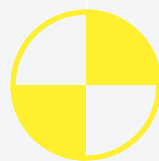
According to the most recent national census, the population of China is currently 1.37 billion. This represents an increase of 7.1 million since last year. Within the general population, 210 million are over the age of 60, which is approximately 15.5% of the total population. Those over 65 have reached 136 million, which is approximately 10.1% of the total population. Life expectancy in China is currently approximately 75 years and is only expected to rise. The increase of the number of elderly over the number of births is causing a dramatic modification of the social structure and has resulted in a deficit in the needs and services required to accommodate this population.

Since there are more and more elderly, adequate housing for the elderly is far from being sufficient to meet their needs. The middle-class elderly population is the group that suffers the most from this shift in the social structure. Today, only the wealthy can afford retirement homes of quality with good services. The current typology of retirement homes is so limited that most people cannot find a suitable place that is affordable and attractive. This current poor situation of elderly housing and retirement communities needs to be addressed and improved.

This thesis argues for the need for a hybrid housing typology that

will bring the elderly population back into a mixed community with more important social roles. *Brand New Old* contends that architecture is like a chemical reaction; it produces richer results by combining more interactive ingredients. A hybrid housing typology offers the possibility of this progressive reaction. By blending housing typologies for both groups of people—the elderly and young families alike—it is possible to create a hybrid living environment that will produce a richer mixed community.

A successful elder care model in China will need to be perceived by both those paying for the care, and those receiving it, as meeting the cultural expectations of how seniors are to be honored and taken care of in their old age. The re-introduction will materialize through an investigation and reformulation of current retirement home typologies and traditional housing typologies. The point of intersection will be a series of programs that promote interactions between the elderly and their families. The whole community, as residents in this new building typology, would share spaces created for physical and social interchange. This thesis seeks to decrease the physical and social distance between the elderly and their families resulting in a more integrated and active community.



QINGYANG YU



New Beijing A Renewed Vernacular

What does the term “vernacular” mean? In an increasingly flat world, this thesis seeks to define the essential elements of the vernacular architecture of Beijing in order to propose a contemporary residential archetype.

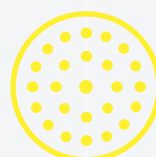
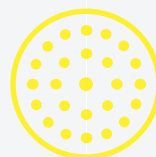
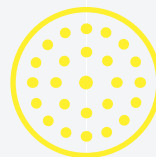
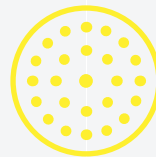
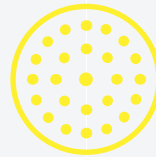
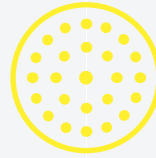
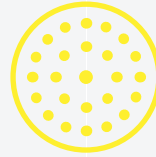
In the past century, China has experienced unprecedented economic growth and development. Along with the many influences introduced by cross-cultural interactions, the phenomenon of architectural and social gentrification has begun to affect many of the populations living in urban centers. The same gentrifying forces that have drastically changed Greenwich Village and other New York City neighborhoods has rapidly moved to China and has replaced centuries-old vernacular communities and neighborhoods with generic modernist apartment buildings and housing blocks. Both urbanisms witnessed a “vernacular” architecture of single resident homes become slumified though horizontal densification and then consequently demolished in favor of generic public housing blocks.

The aim of this thesis is to analyze the positives and shortcomings of existing housing typologies and their respective urban strategies in order to create a renewed architecture and urban plan that embodies the best

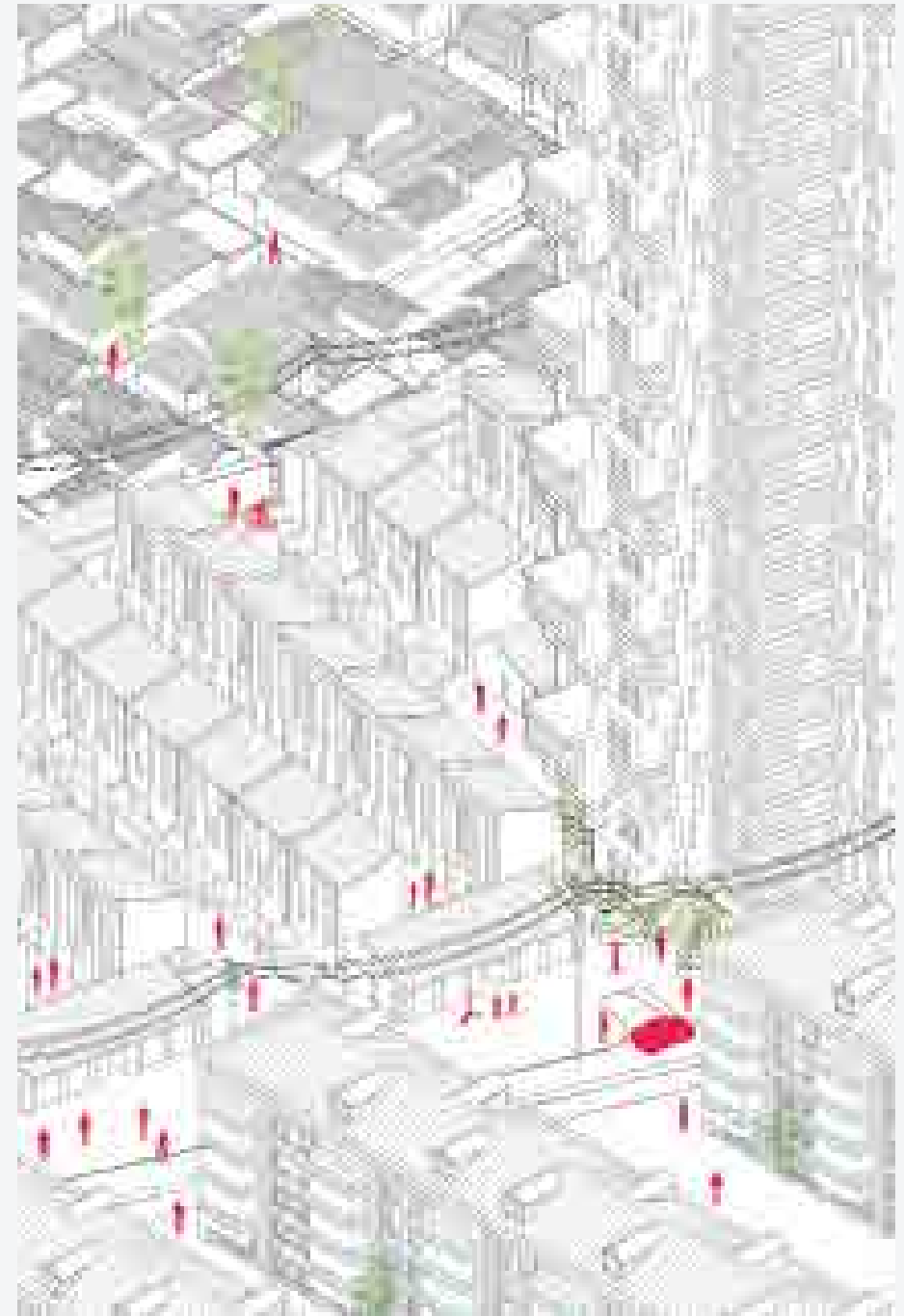
of both sides. By viewing the social behavior of residents in private, public, and semi-public spaces in the urban fabric, the new urban plan seeks to combine multiple typologies to achieve real estate and development goals, while also maintaining the essence of the vernacular. Beyond the physical qualities of the vernacular, such as materiality, the goal is to replicate the lively and colorful interactions and social behaviors of the courtyard typologies in order to maintain or foster the activities and conditions that have allowed the vernacular neighborhoods to remain sustainable.

The contention is that through an integrated incorporation of low-lying, communal, courtyard compounds and high-rise towers, both typologies can coexist in a symbiotic relationship. Those living in the lower courtyard compound typology provide a healthy, interesting ground urbanism, while those living in the towers do not push out and gentrify the existing residents.

It is the belief of this thesis that through the careful integration of both housing typologies into a unified urban scheme, the social gentrification that is rapidly plaguing so many cities can be curbed, and the ideals of both preserving the essence of the vernacular and development goals can be achieved.



BOWEN VICTOR ZHANG



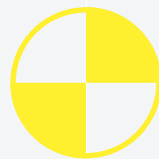
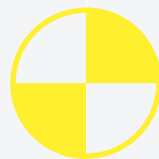
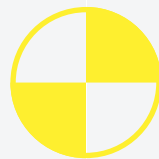
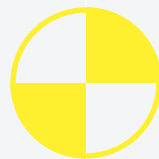
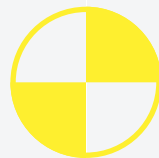
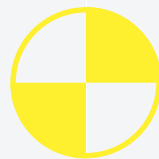
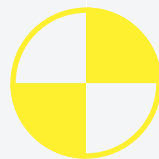
Subtraction Construction in Reverse

The life of a building does not begin at the creation of the new; it starts with the subtraction of the old. As the pace of technological development accelerates, buildings are erected and demolished at an unprecedented rate. Cities use their urban artifacts like skyscrapers, to portray economic and political prowess. For example, the ghost cities of China are relics of a burst financial bubble while Venezuelan ruling party elites name business towers after themselves as a show of power and prosperity. Many parts of the world today are now overbuilt with artifacts that decline into obsolescence. Demolition procedures erase the failures and mistakes of our architectural predecessors. When Pruitt Igoe was demolished, the incident marked not only the collapse of a housing complex but also represented the end of modernist design. Now, more than ever, architecture needs to understand demolition and the subtractive procedures as both a tool to reduce overproduction in the world, and as a technique for space-making. Bernard Tschumi once stated: "there is no space without event, no architecture without program". This thesis contends that a series of programmed demolition events within the *Torre David* will reclaim an urban space lost to overproduction.

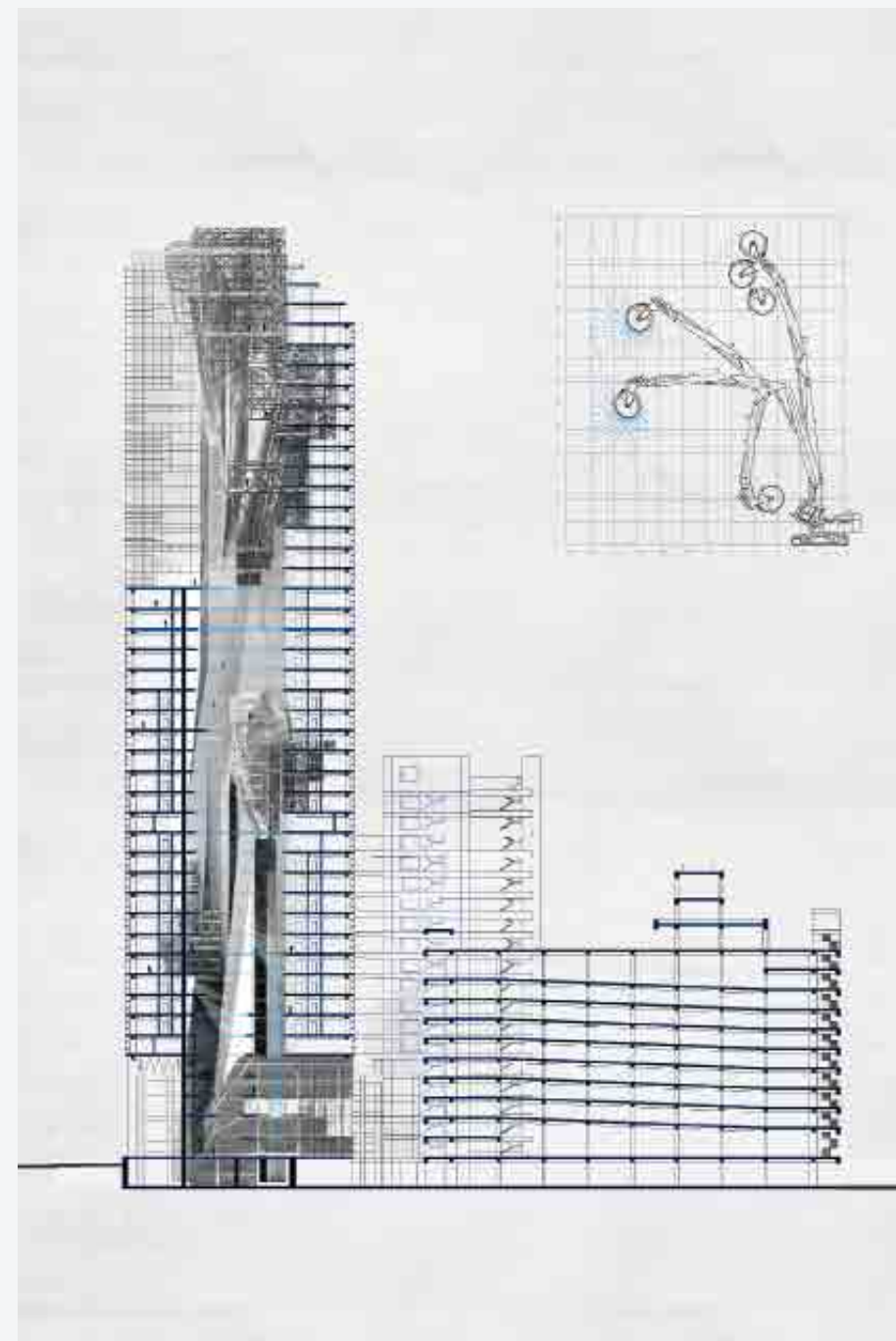
In 1990, David Brillembourg was commissioned to build the *Torre David*, in the business district of downtown Caracas but construction came to a standstill in 1994 due to the financial

collapse. Famously FOX News has given the *Torre David*, the ignoble nom-de-plume "the world's tallest slum". Over time, up to 85 families occupied the abandoned building and made it their home. As of July 2014, the Venezuelan government launched "Operation Zamora 2014" to relocate these families in prepare for building demolition.

This thesis proposes three possible scenarios for the demolition of obsolescent towers. The first and second scenarios proposed are standard demolition procedures while the third scenario inserts speculative design and planning into the typically staid demolition process. Each scenario crafts different spatial experiences, visual effects, and operates within different temporal frames. Scenario one creates an urban spectacle through implosive demolition over the time span of 20 minutes. Scenario two aims to create a sustainable and low impact demolition process over the course of 2 years. Scenario three utilizes five programmed events that are incorporated into the existing routines of the occupants of the *Torre David* to generate a new method for building demolition. Each of these five events modify common methods of subtraction and carving by incorporating unique specificities generated by each device used for demolition. Together the five events would complete the process of demolition of the *Torre David* and frame a rubble landscape in downtown Caracas.



SHERINA S. ZHANG



University as a Site of Dissent The Architectural Elements of Protest

The first university was born in Paris when a student union—the *universitas*—protested and demanded privileges and protection from the King. Since then universities have become sites for expressing ideas and academic freedom. Universities are agents of intellectual provocation, social change, and political action. The trajectory of current universities reveals that the initial concept, the university as a site of dissent, has been frustrated by the spatial and architectural form of contemporary campuses. However, there is evidence of conventional campuses turning into active arenas for expressing dissatisfaction. Campuses can be hijacked in a variety of ways; these include demonstrations, protest marches, occupations, and culture jamming techniques. This thesis intends to build upon these ideas to explore how the architecture of University might be reconceived as a site designed for dissent.

In order to realize this conception, this thesis builds from an analysis of the Free University of Berlin, a project that was intentionally designed to encourage social interaction. This thesis's strategy is to identify architectural elements of dissent existing at the Free University of Berlin, and to amplify and explore further potential for these elements.

The identified elements are:

- Amphitheaters
- Courtyards
- Ramps
- Roofs
- Corridors

The areas of the university where all five elements meet together are transformed, becoming active zones of dissent and venues for protest.

AIYM ZHUMASHEVA



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