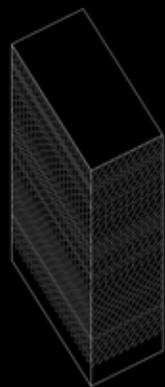


---

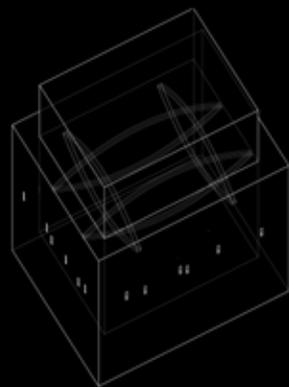
MALCOLM.  
WORKS.

CHRIS MA  
SAMPLE V

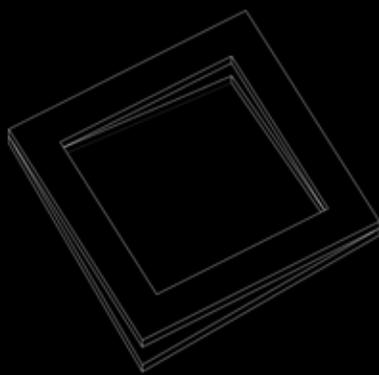
# E OF ENTS.



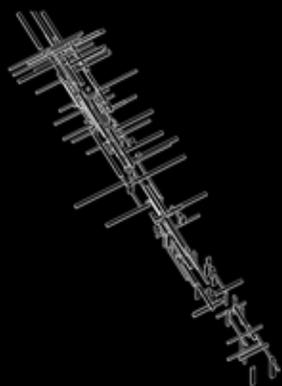
04



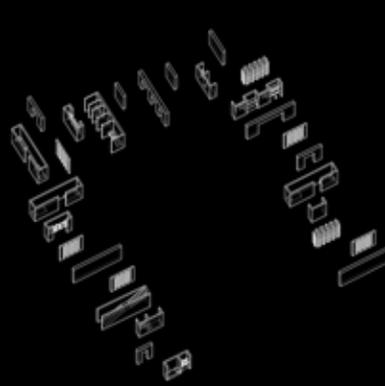
14



18



26



40



54

# TABL CONT

A STORAGE TOWER STUFF HUB FOR MANHATTAN. 04

AN OLD ICE TOWER TURNED CREATIVE OFFICES IN DOWNTOWN BOSTON. 14

A DEMILITARIZED AIRPORT TURNED PARK IN CARACAS. 18

A SATELLITE CITY FOR THE TECH INDUSTRY OF SOUTH KOREA. 26

A TAXONOMY OF HYPERWALLS FOR KINGSTON JAMAICA. 40

PROFESSIONAL WORK SAMPLES. 54

# THE STUFF HUB.

**Advisor:** Rients Dijkstra  
**Location:** Manhattan, NY  
**In Collaboration with:** Alex Marshall

The stuff hub, a project derivative of intense research on America's increasingly desired storage habits, seeks to situate itself into the urban context as a system of dense towers, designed to store all of New Yorker's seasonal property in a single generational instance.

The hub, in a sense, became a vertical version of storage centers in suburbs, but instead of existing on the periphery, we bring them to the forefront--creating a public spectacle, a meeting place, a monument to stuff.



When the average square footage of storage is calculated and multiplied by population of Manhattan, we subdivided accordingly to where people lived and population density in those areas. The result is an axis of stuff hubs, where any individual's residence is no more than .5 miles from their potential satellite storage.

Ideally, each stuff hub would be designed by a different architect, embracing the variance and monumentality of such a tower. We chose to focus on SH13 as a case study of the typology and architecture.



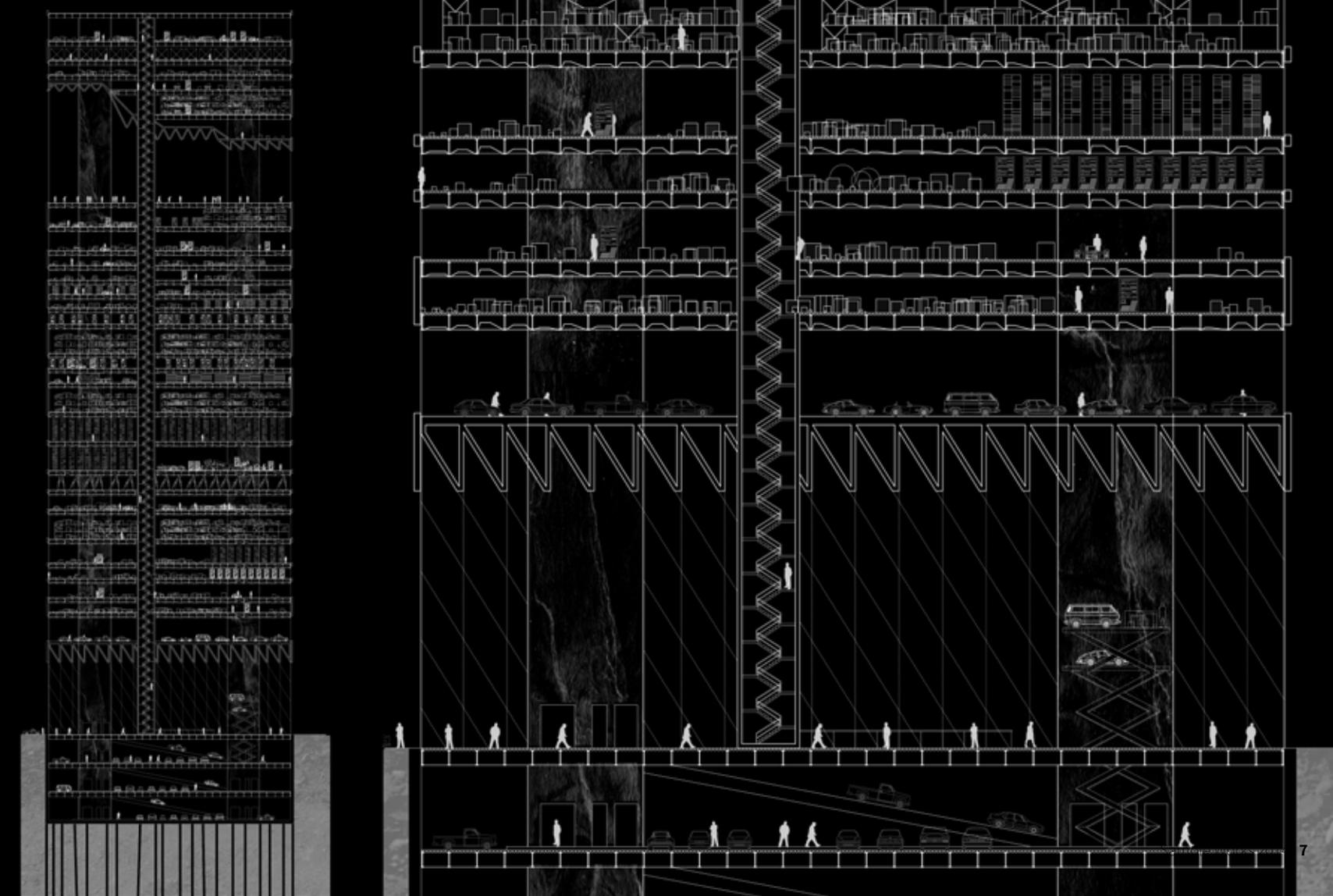


SH13

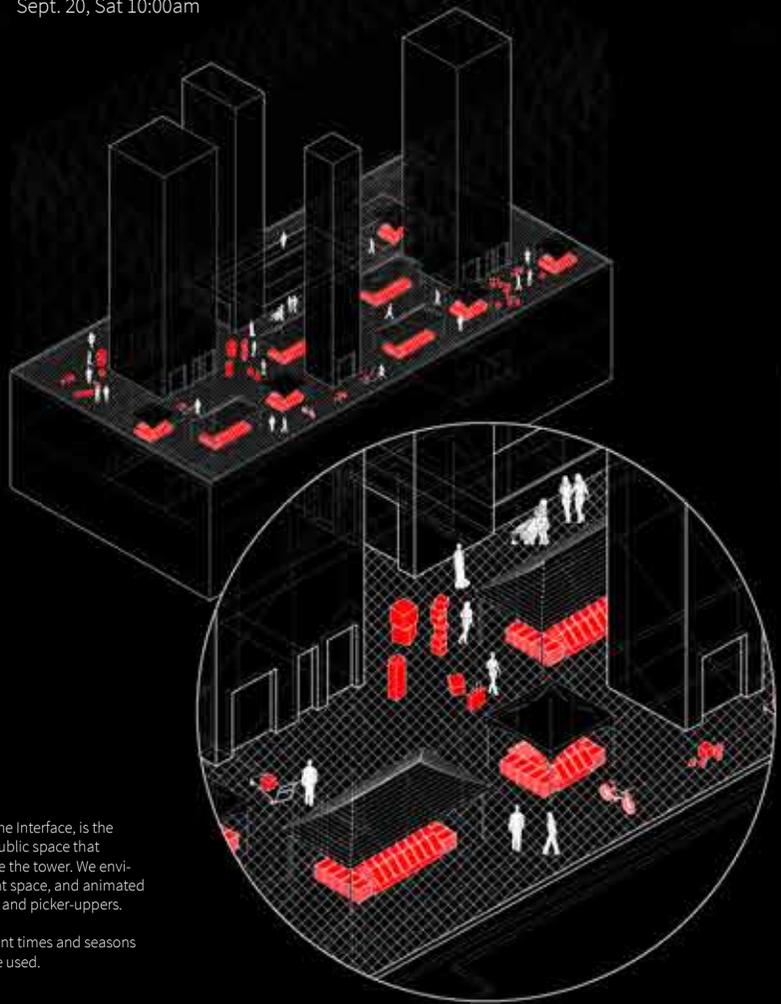
SH13 (Stuff hub #13), was locate overlooking Gramercy park. Our intention with focusing on this specific architecture was to develop the typological components of the vertical storage architecture as well as speculate on the sociocultural impact it would make.

Here we speculate that Gramercy, (and for that matter, nearby parks to Stuff hub in general) would be come a fold out of auctions, sales, markets of peoples things during weekends and peak moving times

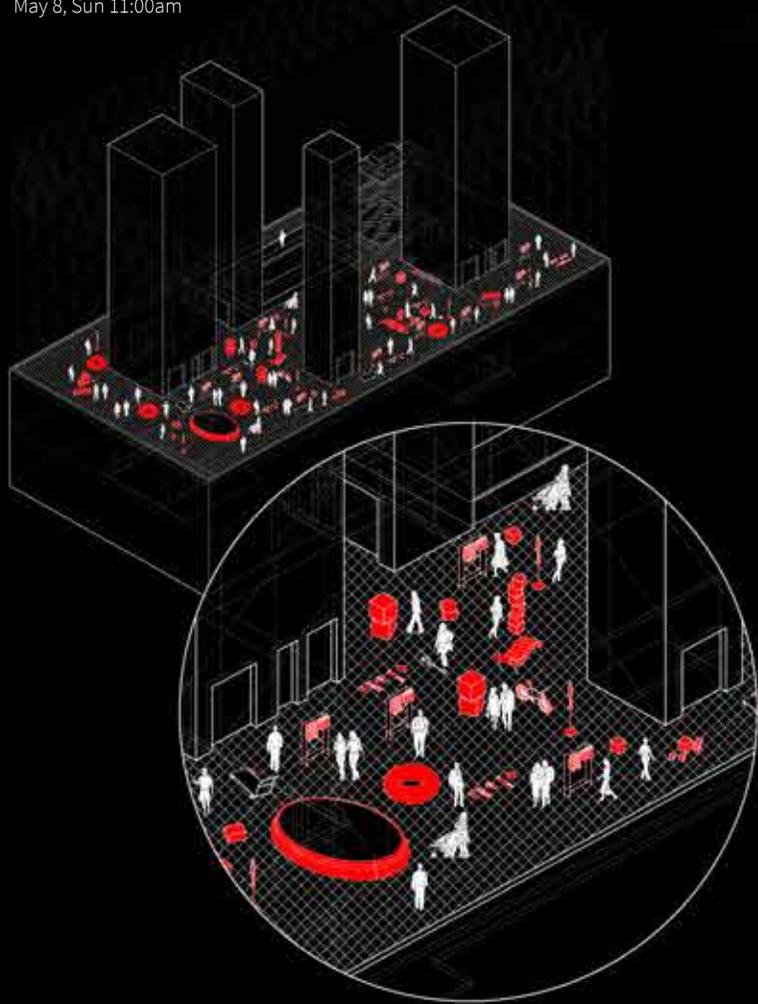
Inside the stuff hub is a variety of different floor heights and floorplan types, used to accommodate different scales and needs of storage objects. Some are human inhabitable, some are robotically automated, and some are publicly accessible for galleries and events.



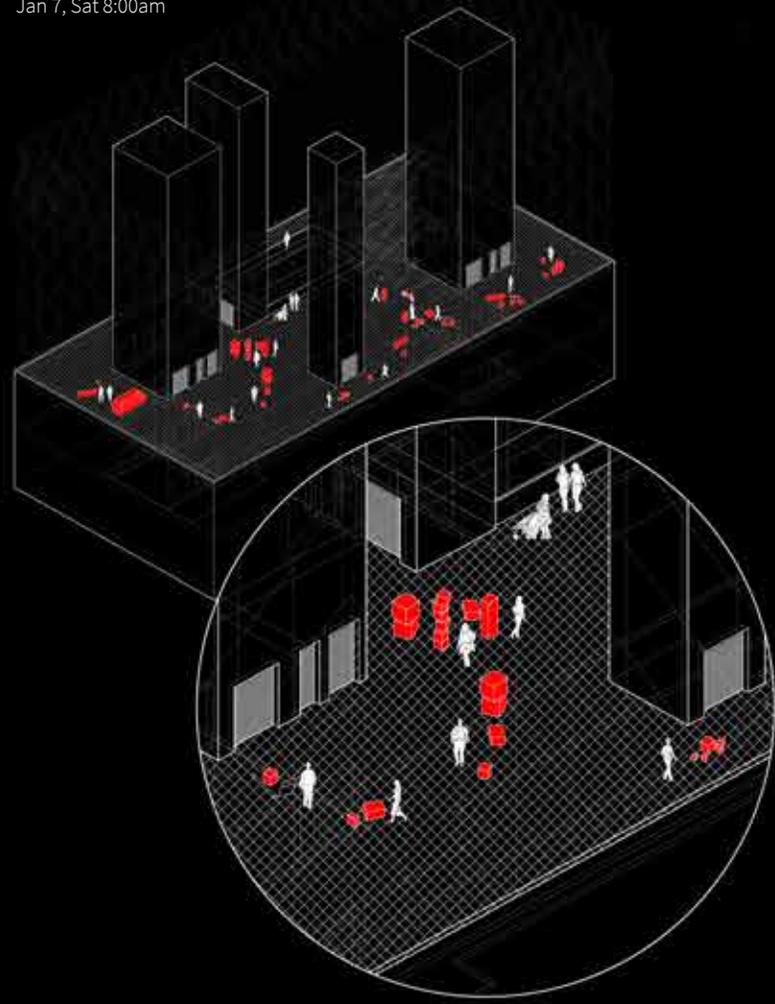
**Market Day**  
Sept. 20, Sat 10:00am



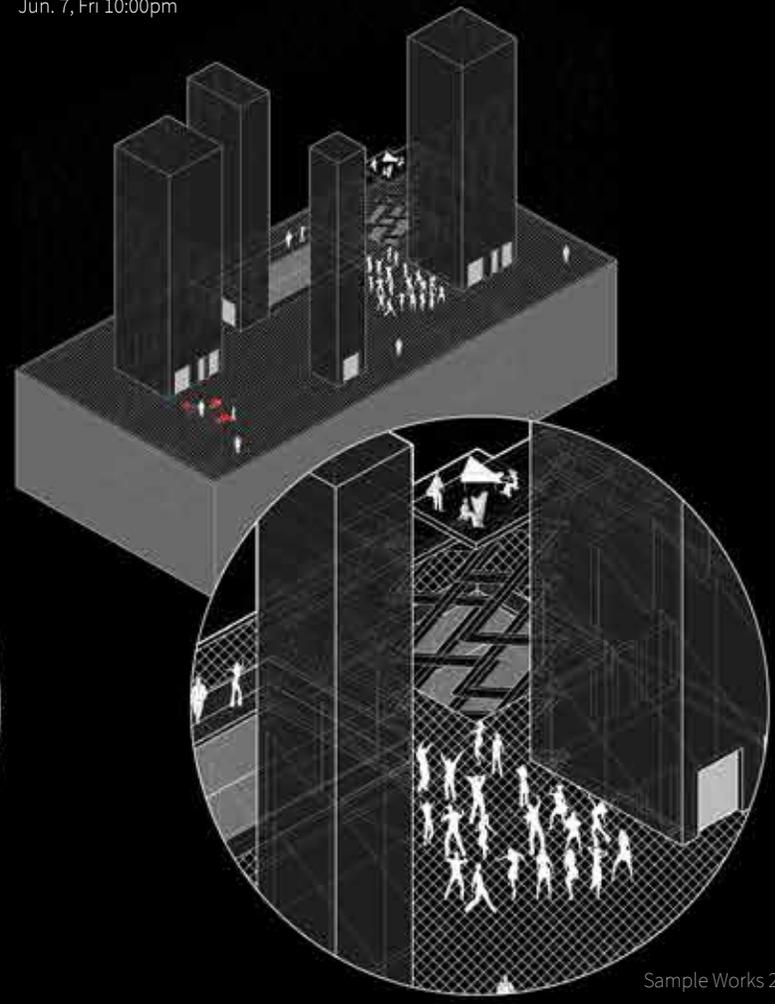
**Start of Summer**  
May 8, Sun 11:00am



**Mornings, Off-Peak**  
Jan 7, Sat 8:00am

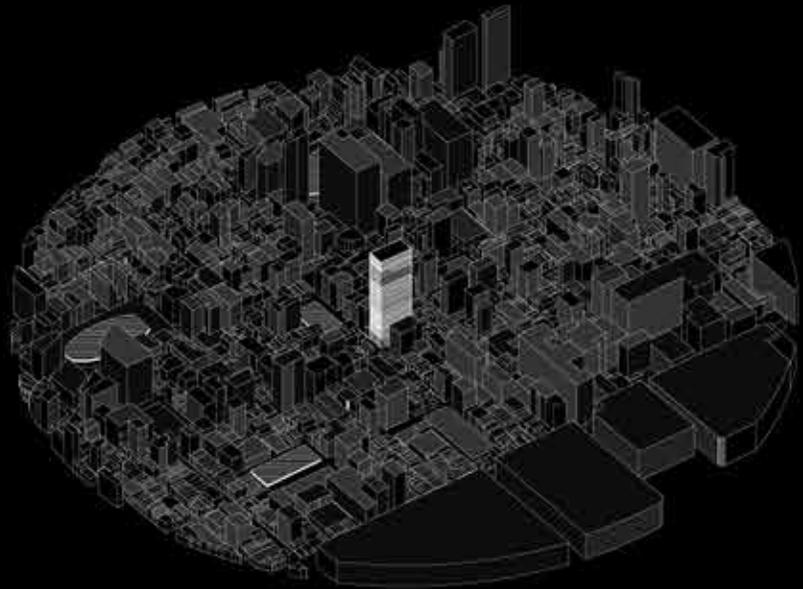


**Friday Night Event**  
Jun. 7, Fri 10:00pm

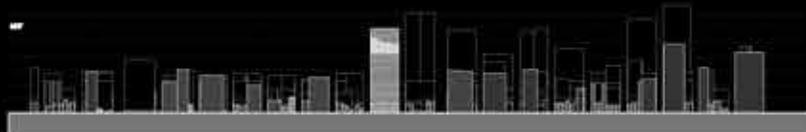


The main lobby, what we call the Interface, is the heart of the stuff hub, a large public space that receives the most activity inside the tower. We envision it as a meeting place, event space, and animated spectacle of movers, droppers, and picker-uppers.

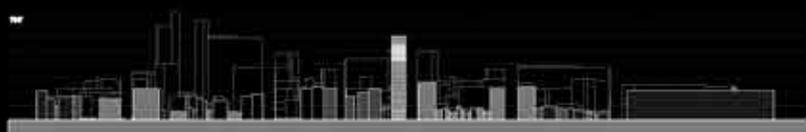
This page demonstrates different times and seasons in which the Interface would be used.



1/2 mile radius of stuff hub



W Elevation



N Elevation



The lit up floor depicted above displays the top gallery / large holding space. It can be used to rent out as temporary large scale installation space for the public.

◀ Context and elevation of SH13 within Gramercy area.

Various floorplans ▶ depict variety of storage scales and uses.



LOADING DOCK



PUBLIC PROGRAM



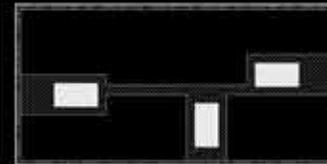
THE TWIN



ZEN GARDENS



INTERFACE



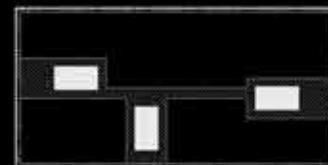
STORAGE CIRCULATION (MIRRORED)



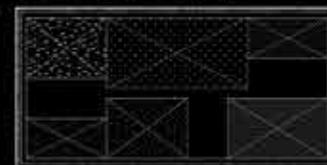
THE ANNEX



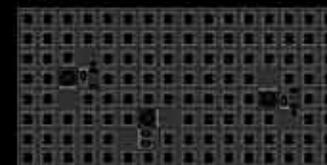
XL EFFICIENCY



STORAGE CIRCULATION



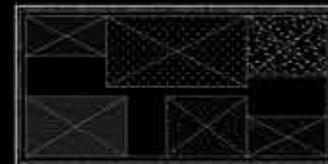
STORAGE ZONES (MIRRORED)



WALK IN COOLERS



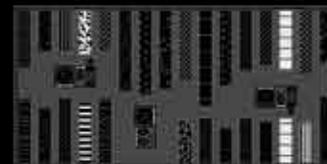
L EFFICIENCY



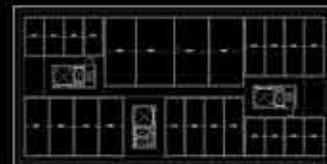
STORAGE ZONES



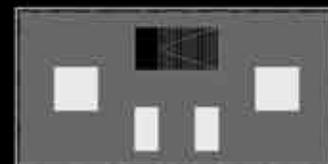
SUPER DELUXE



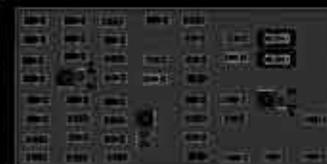
LONG ROOMS



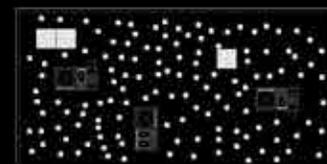
M EFFICIENCY



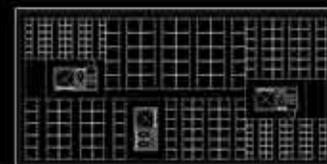
ELEVATOR TRANSFER



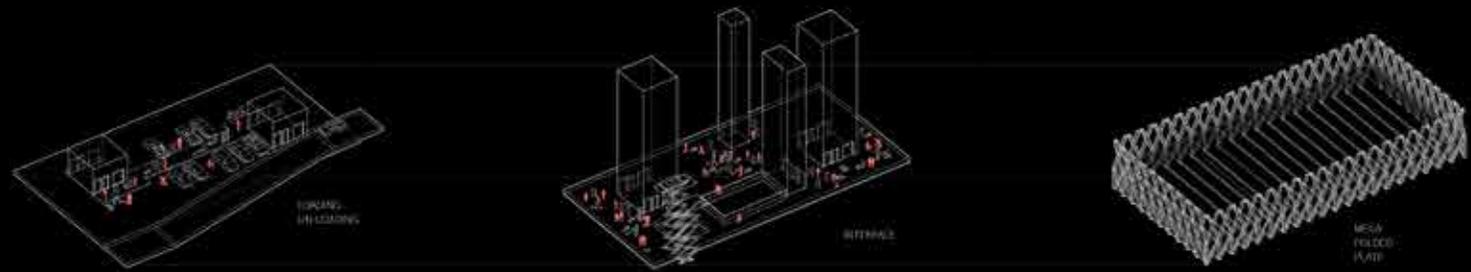
HOT CARS



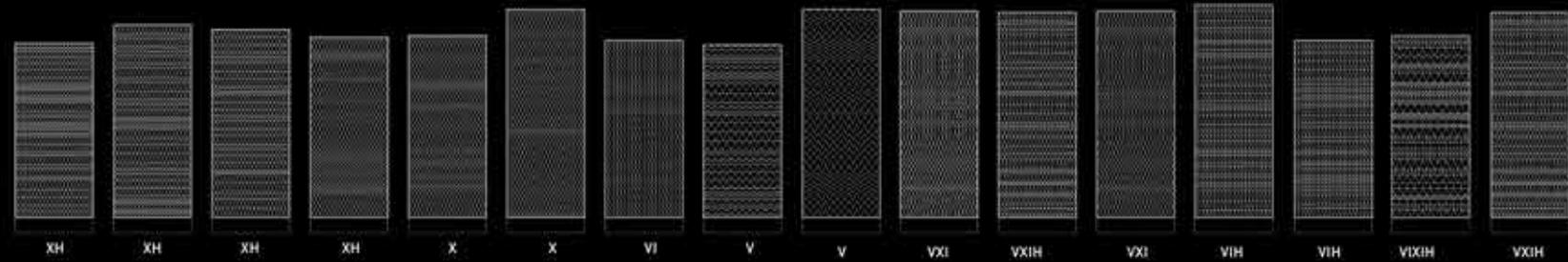
KIVA ROBOTS



S EFFICIENCY

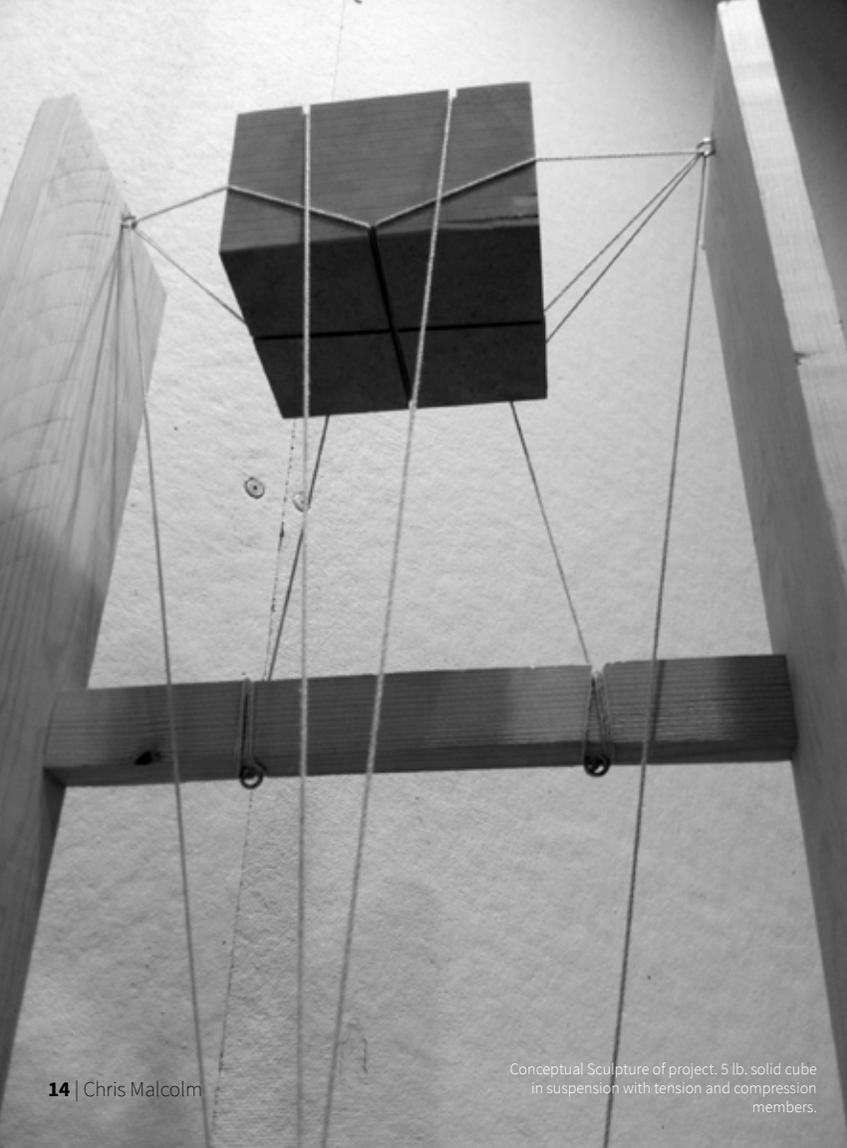


The Interface components were designed to allow moving of objects both by car and by person. It is essentially designed as a huge accommodating space, serving as a backdrop of moving animated people and objects.

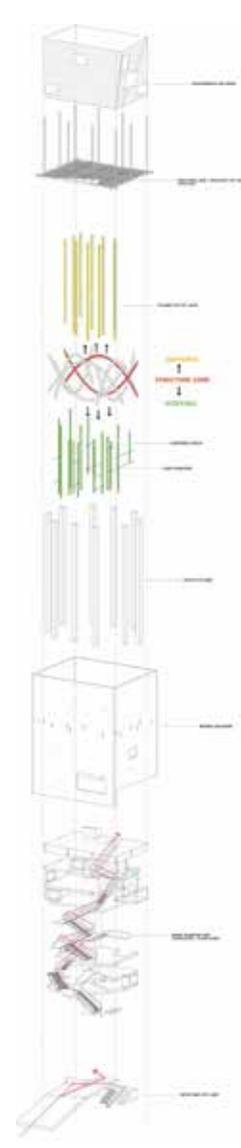
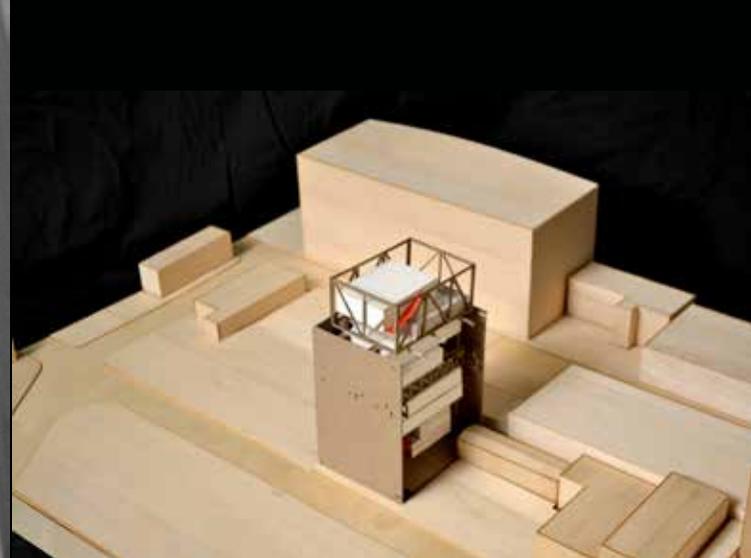


The facade was designed as an investigation of truss types to expose the ordinary, the efficient - As a beautiful pattern of X and V type trusses, abstracting the height floors it supports.





Conceptual Sculpture of project. 5 lb. solid cube in suspension with tension and compression members.



# THE ICE TOWER.

**Advisor:** Andrew Scott  
**Location:** Boston, MA

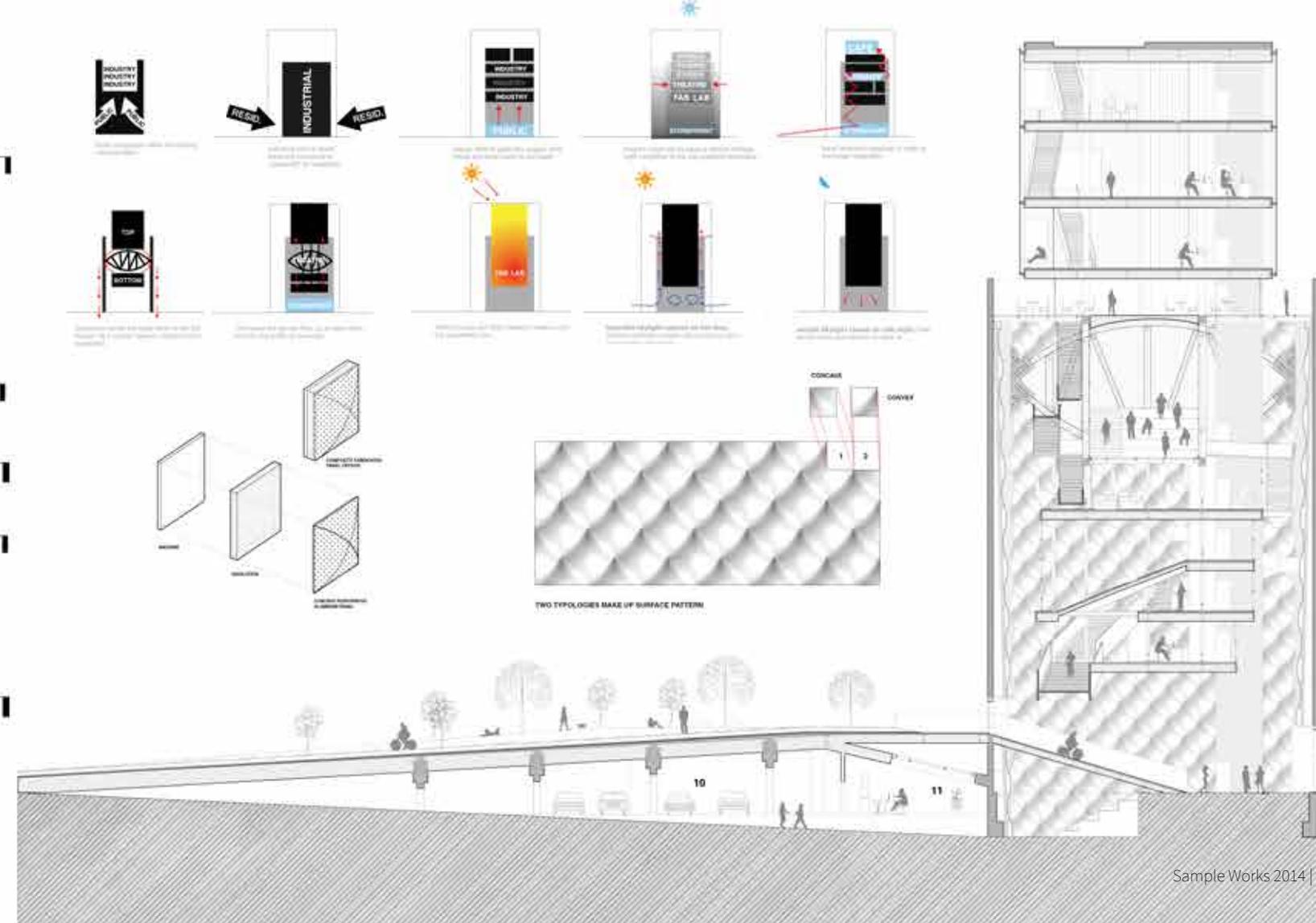
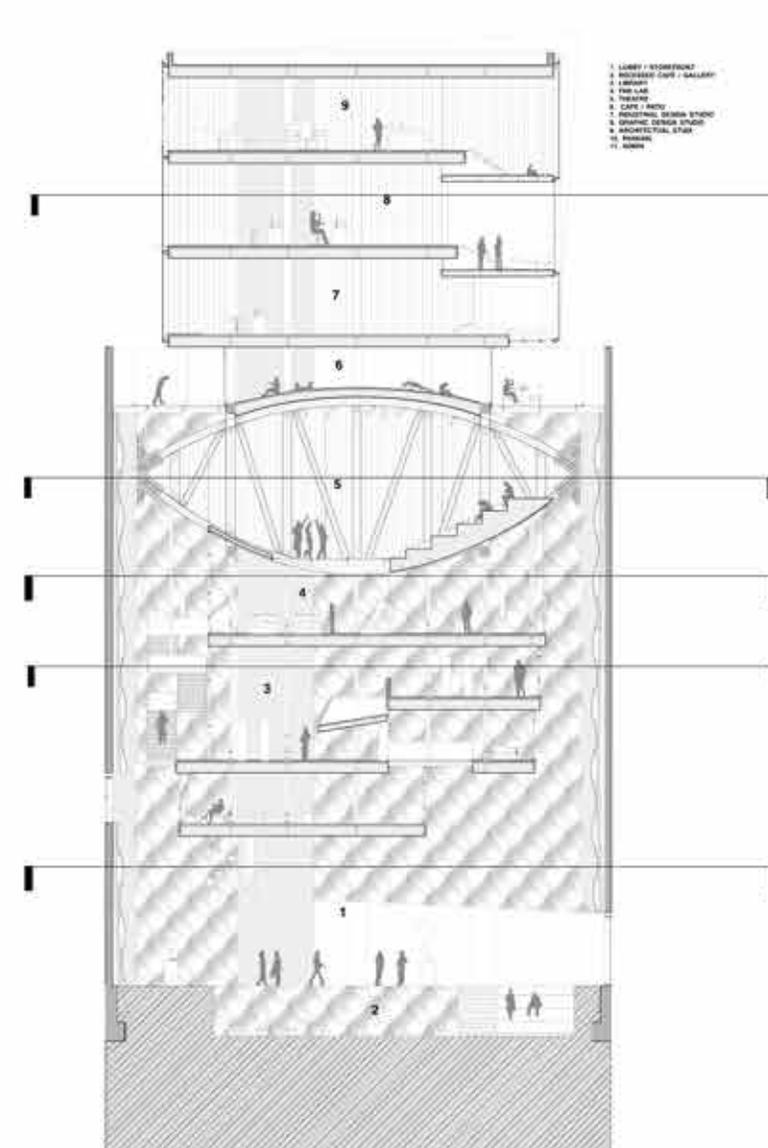


The Ice Tower is an adaptive-reuse project of an 8 story abandoned ice tower in Boston's industrial district, for the location of a new design collective of artists, architects, fabricators, and industrial designers. This duality was something that could be tangibly realized. So to keep the power, simplicity, and verticality of the existing mass, the addition is treated as a new fundamentally different volume suspended within.

The project then begins to speak about the old and the new, where the old retains its mass and heaviness—a receptacle, an image. The new becomes this new lighter emerging entity that rises from the top of the original building.



The internal lining of the facade is lined with composite perforated aluminum paneling, designed to reflect light down into the inner portions of the tower.





CURRENT SITUATION



LA CARLOTA "TWINNING EFFECT"

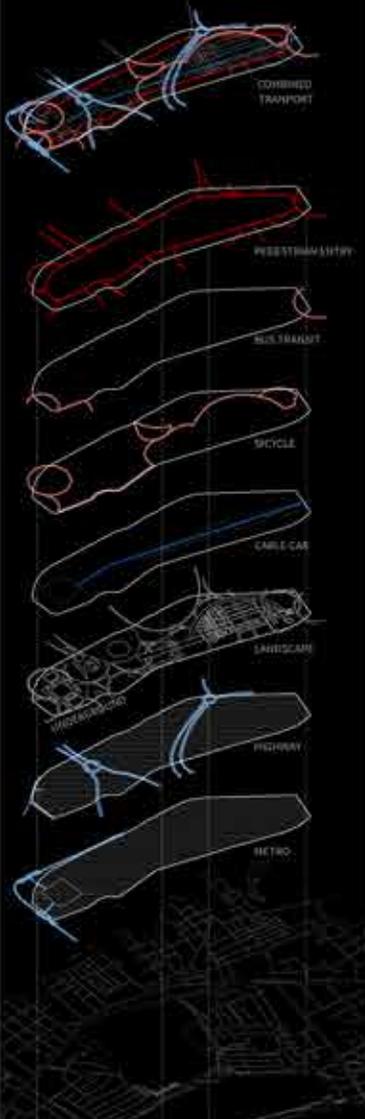
# DEFRAGGING CARACAS.

**Advisor:** Franco Micucci  
**Location:** Caracas, Venezuela

La Carlota Airport is an airport on the verge of demilitarization, and one of the last open spaces centrally located in the heart of the dense and sporadically expanding Caracas. This projects looks at the last void as a moment to defrag, or essentially condense the existing parameters of the site i.e. new program, highway infrastructure, and public open space.

In an effort to not further segregate spaces via highway systems or a singular massive park, the three parameters are layered, and infrastructure is glorified as part of the public experience..Highways and circulation are framed, layered, and glorified within a park of connections and paths, as well as a large scale connection to the northern park, *Parc del Este*.

As for the architecture, 3 major moves -- simplistically dubbed the Line (cultural), point (monument), and surface (commercial) were created. Rather than define an urban masterplan of zoning, specifically programmed entities that respond to its neighboring context are employed. In this way the area can grow organically and either become more park or more urban as deemed by each entities growth.



Micro connections mark axial definition



Park extension, and main circulation determined by axis.



Point, Line, Surface -- isolated architectural elements left for organic urban growth.

# THE STADIOPLEX

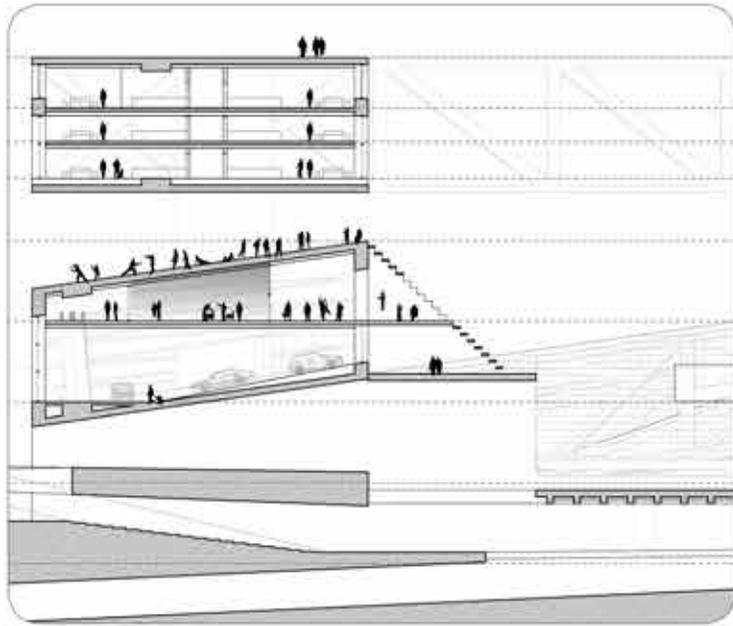
The STADIOPLEX (West district / Surface Object) was designed as the commercial hub of the park, responding to the adjacent Mall and complex. It is a combination of a stadium, shopping plaza (surrounding), and hotel (on top). The intention was to provide several commercial ventures that all combine into one architecture, a microcosm of the masterplan in itself.

The STADIOPLEX volumetric concept was to stack void, mall, and hotel program vertically.

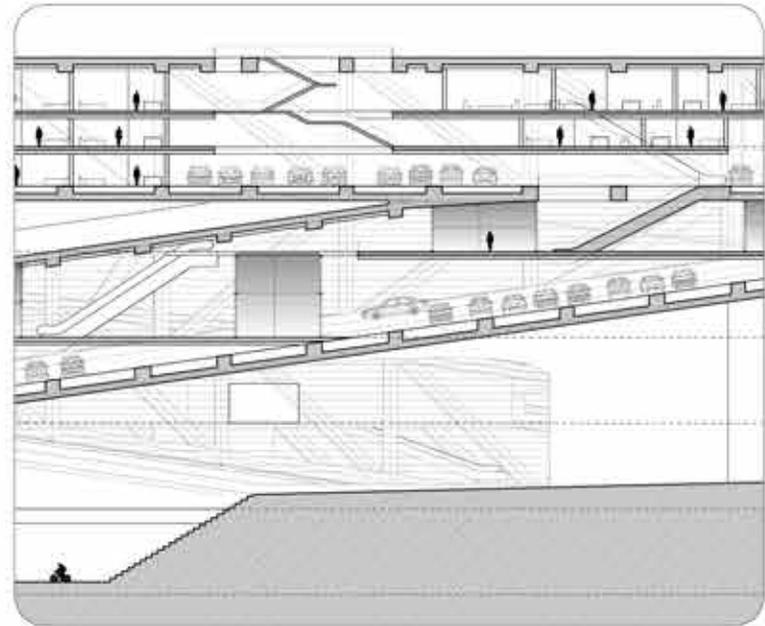
Then we move void into the middle, creating a space for events and concerts. Last we create a very open space by pulling down and up on the bottom volume...allowing the park to connect to the building, and provide views outward to the city of Caracas.



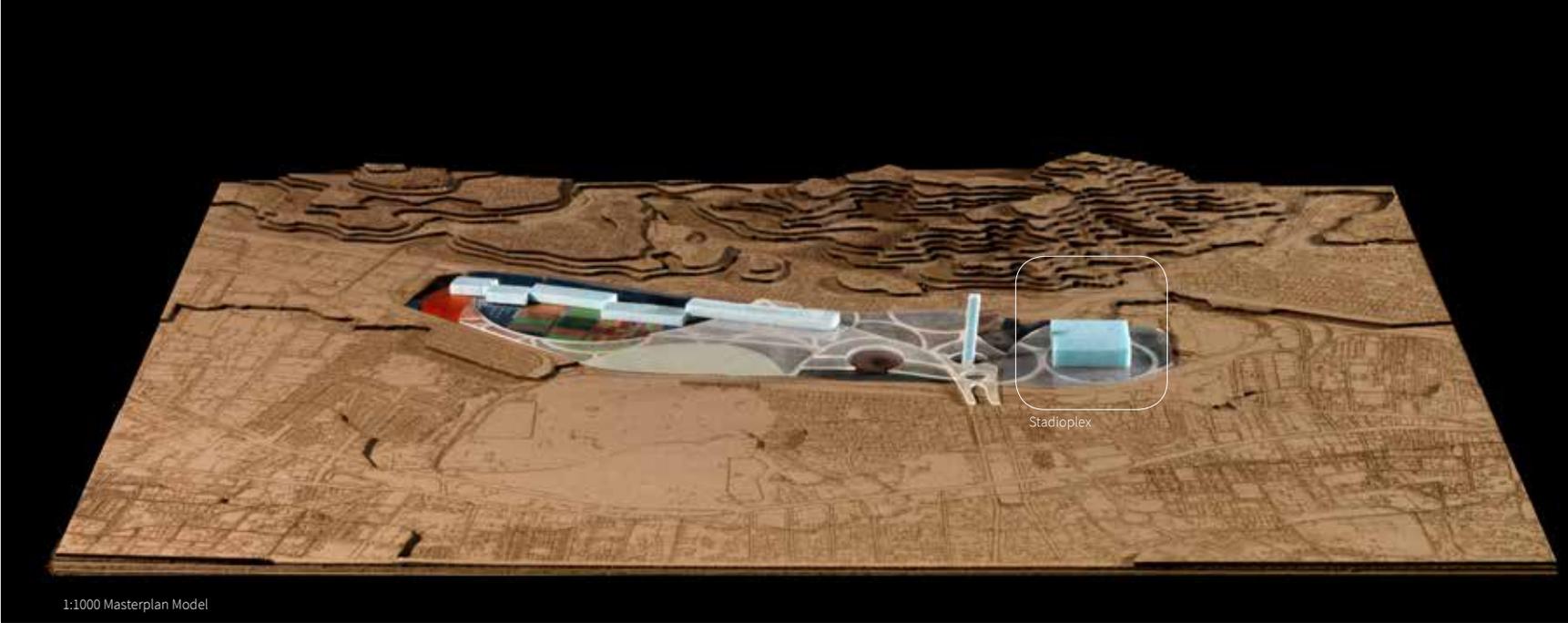
Exploded components of the stadioplex.



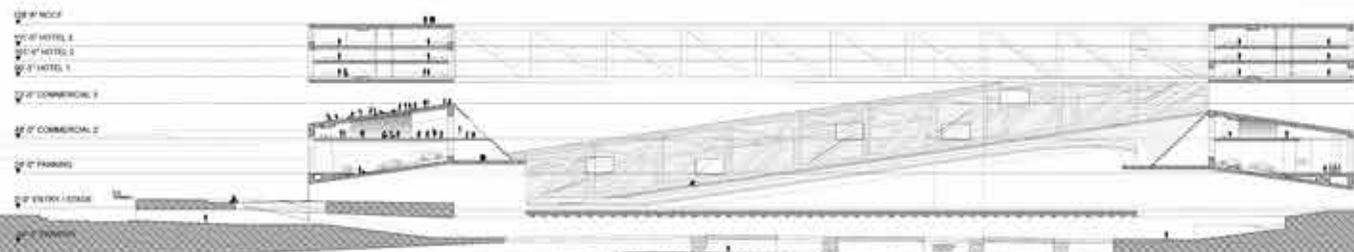
Zoom in of N Section



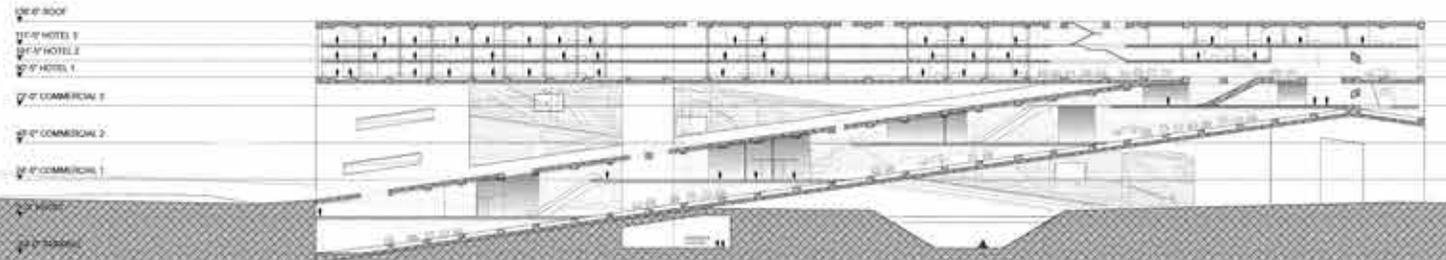
Zoom in of E Section



1:1000 Masterplan Model



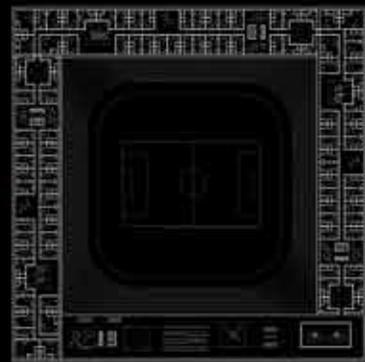
N Section



Sample Works 2014 | 23



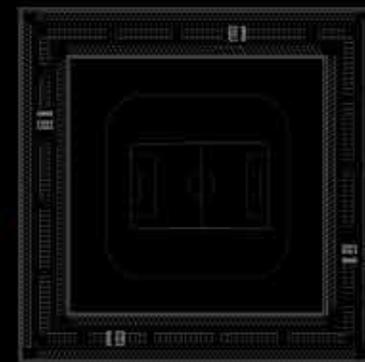
Hotel Level

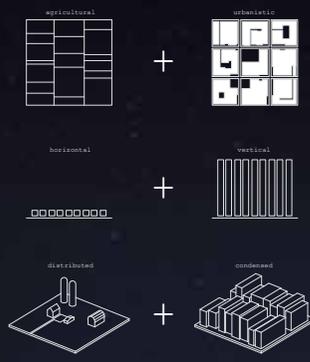


Shopping Level



Parking Level





# THE BINARY CITY.

**Advisor:** Anton Garcia Abril + Kim Young-Joon  
**Location:** Paju, South Korea  
**In Collaboration with:** Eric Randall Morris



Following the trend of moving Industry out of the hyper populated Seoul and into the rural agricultural landscape of Paju (Directly north of Seoul), this project sought to develop the third city in the sequence--Newly created book city (Paju I), and underway film city (Paju II) have set precedents as satellite cities for their aforementioned industries. The third (Paju III) is proposed as digital city, a city for samsung and the booming tech world, with an interesting restraint of only developing 15% of the agricultural land as Urban, and leaving the rest at rice fields.

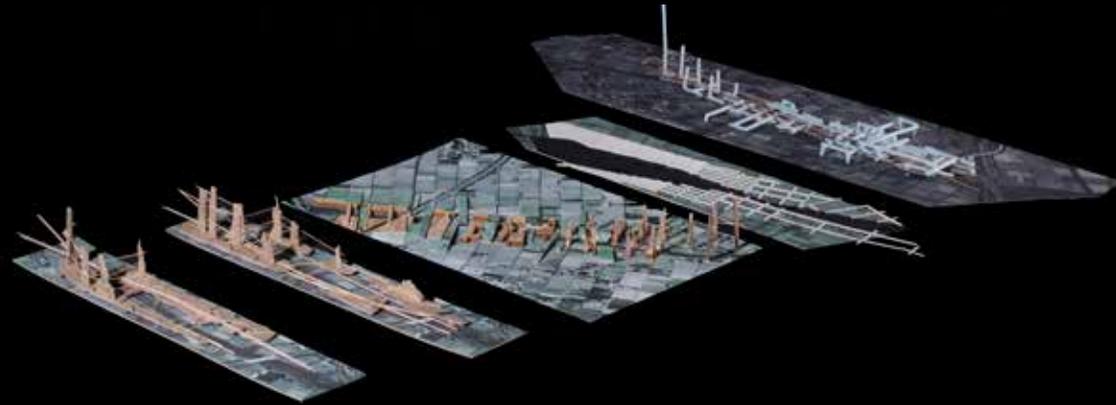


## CITY AS A GRADIENT

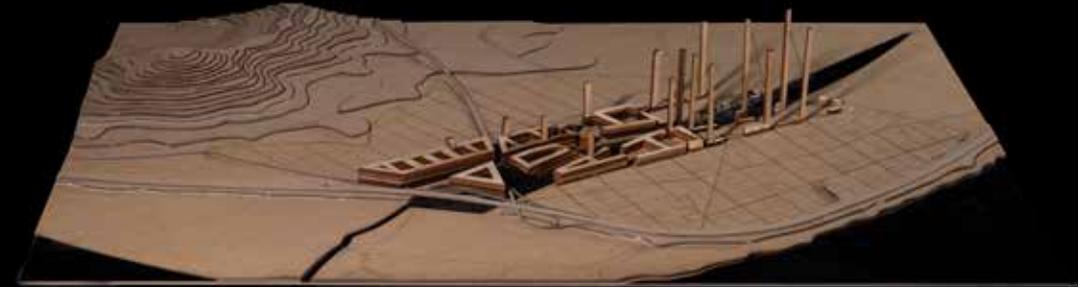
The question for the project became "How does one live in the digital city?" Our proposal was one of a progression of extremes, to think of a digital or future city, we thought of the inclusiveness of everything rather than leaving the past or future behind. We include hyper density at one end, and super low sprawl on the other, with a gradient of zones in-between. To live in a future city, we embraced the AND condition, denying the OR.

To have a city that has it all and then some is our portrayal of the digital city--we may want to work in hyper consolidated towers but live and play in a more low dense city, or vice versa. The digital city accommodates both, and the transformative hybrid between.

The task was then to translate the idea of a **city as a gradient** into a physicality, typologies, and rule sets.



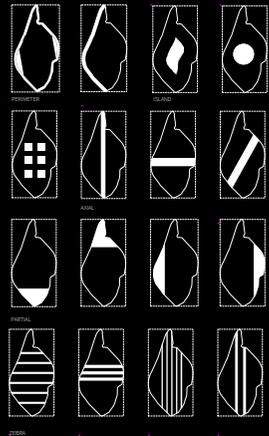
City morphology process models



Concept Model



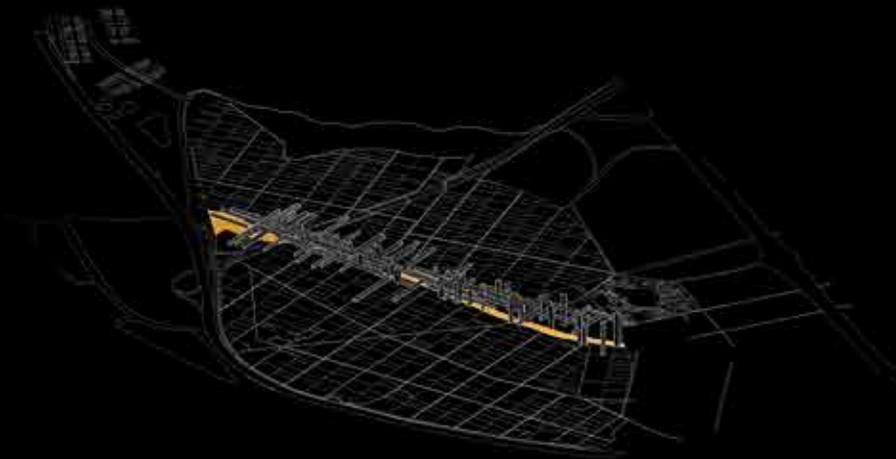
12' x 3' long model of final scheme.



### 15 % Urban, 85% Rural

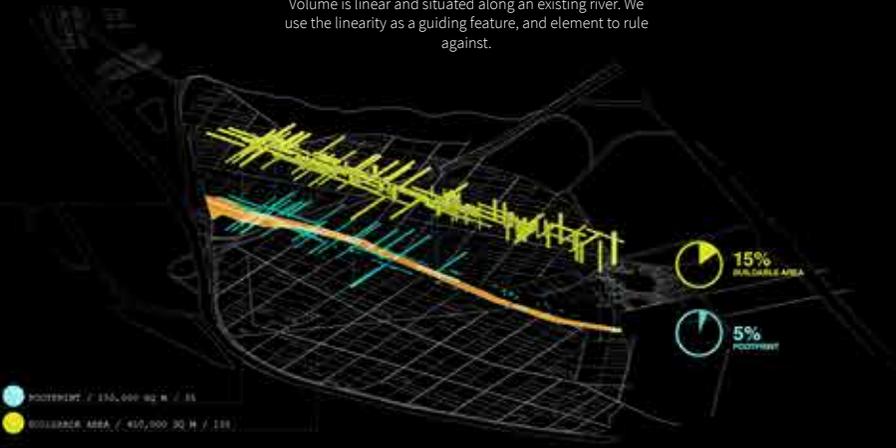
When developing Paju III, we originally were given one important restriction—that only 15% of the land's FAR should be developed, and the rest remain as agricultural landscape. This presented an interesting dichotomy of how to situate a hyper digital landscape into a flat rural landscape. We looked at a few strategies (as depicted above), but set on a linear city along the existing river on the site.

The river already divided the landscape so we chose to exaggerate this inconsistency of the landscape, creating a "stitch", our city, to connect and relate the two sides. The river then became our infrastructural ruler, allowing us to create all necessary parameters off the progression. We actually managed to use less than the maximum amount while achieving optimal FAR ratios.



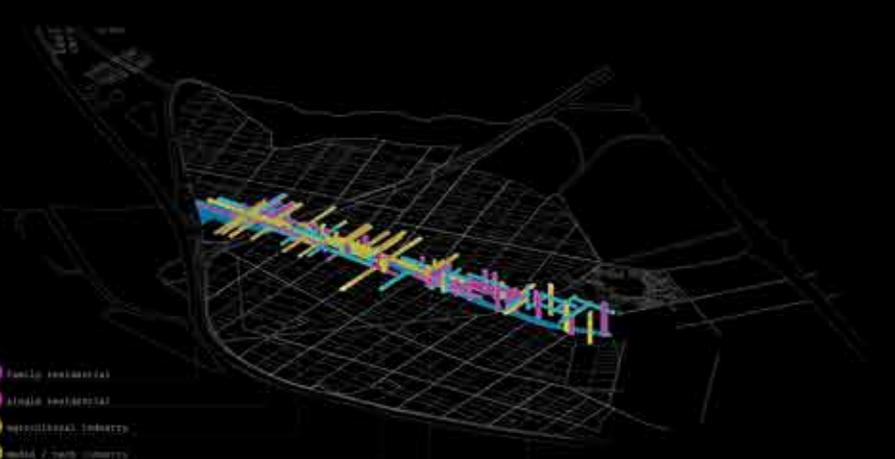
### Volume

Volume is linear and situated along an existing river. We use the linearity as a guiding feature, and element to rule against.



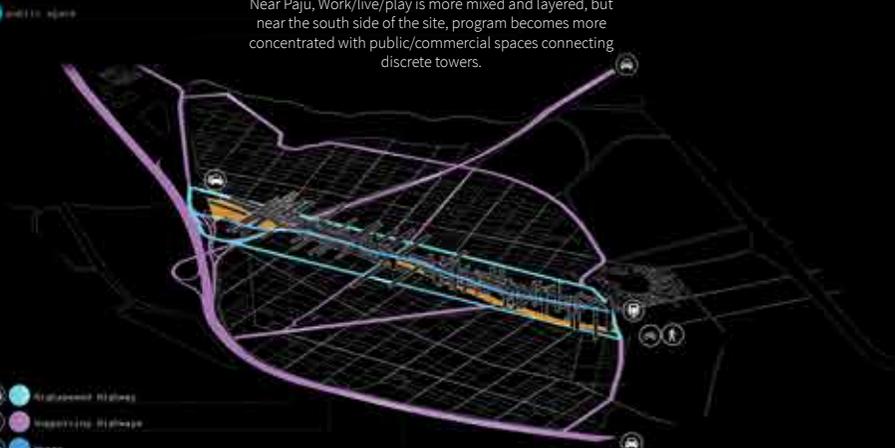
### Buildable Area

15% buildable area (as req.) is achieved while only obtaining 5% footprint.



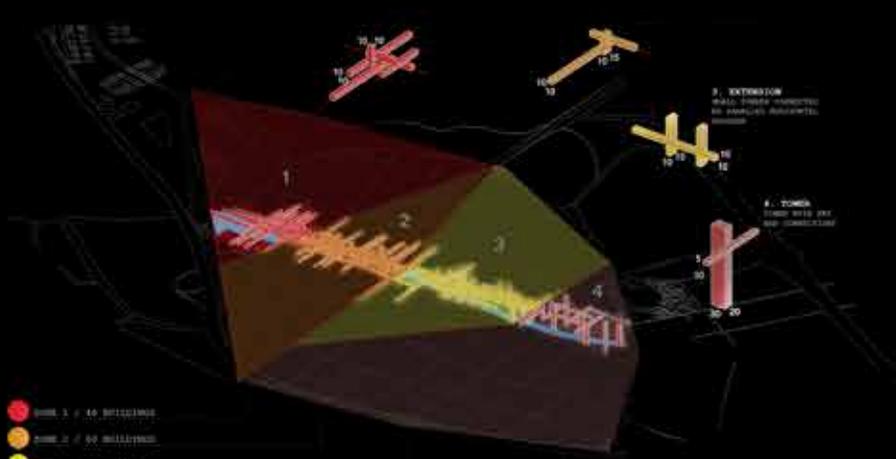
### Program

Near Paju, Work/live/play is more mixed and layered, but near the south side of the site, program becomes more concentrated with public/commercial spaces connecting discrete towers.



### Transportation

Supporting highways remain on the extremities, and high-speed highway exists as a loop on the outer portions of the city, allowing the interior river to be more pedestrian oriented.



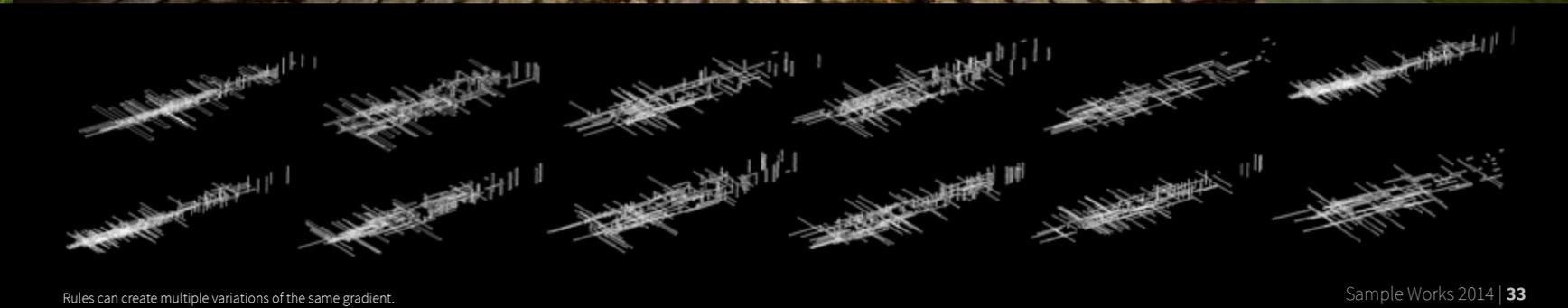
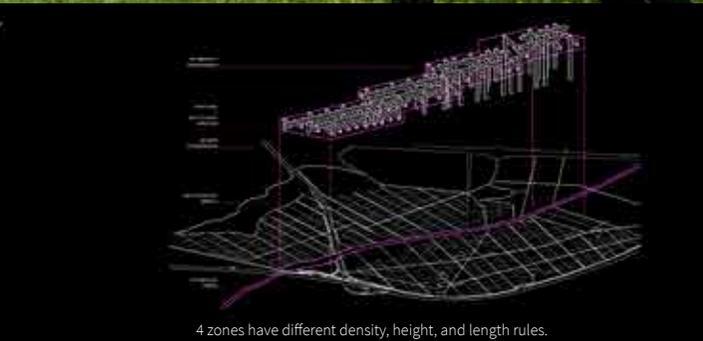
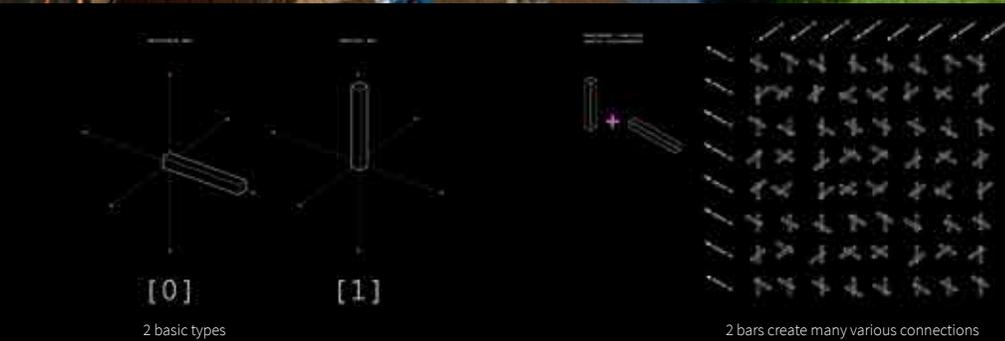
### Typologies

We define certain typologies by looking at the linear site in zones. These zones are broken up by existing and proposed infrastructural axis.



### Urban + Agricultural Integrations

Agricultural program exists on the extremities of the city, where urbanism starts to branch out and root itself in the existing context.





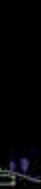
Digital Infrastructure



Culture

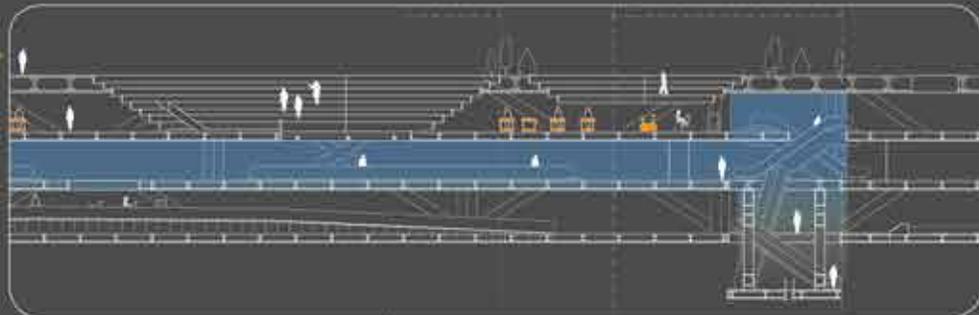


Recreation



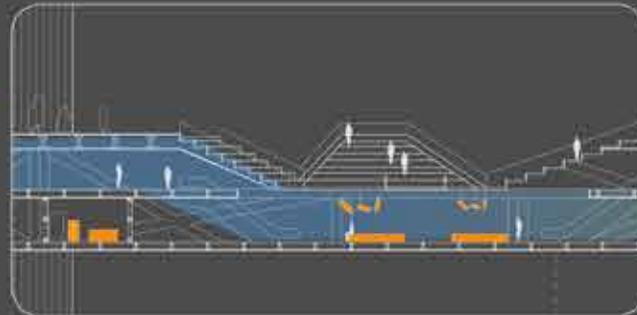
Open Zone

Section AA



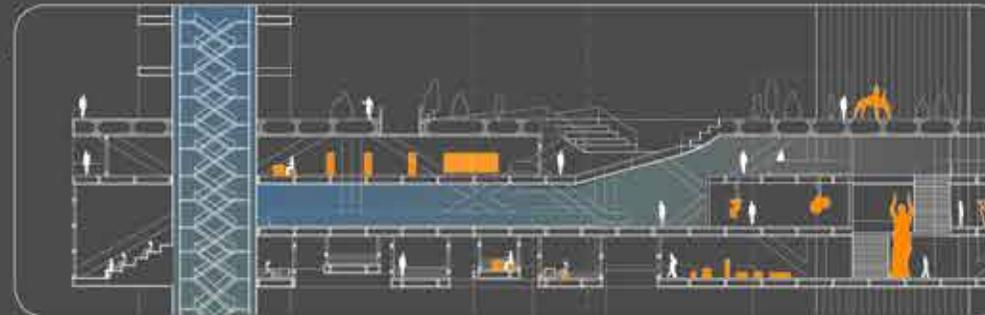
Gym / Circulation.

Section BB



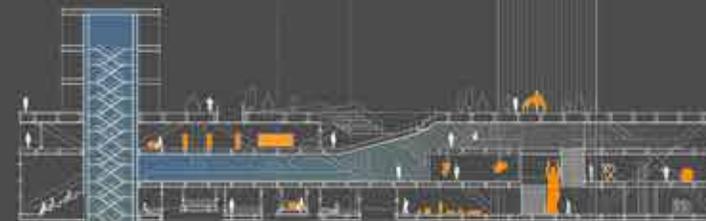
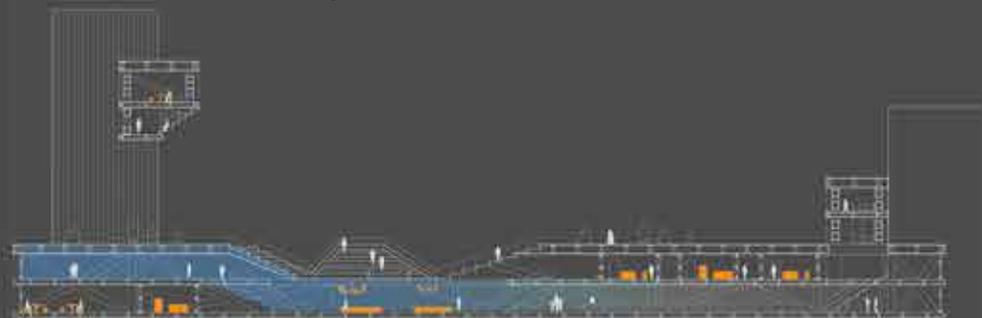
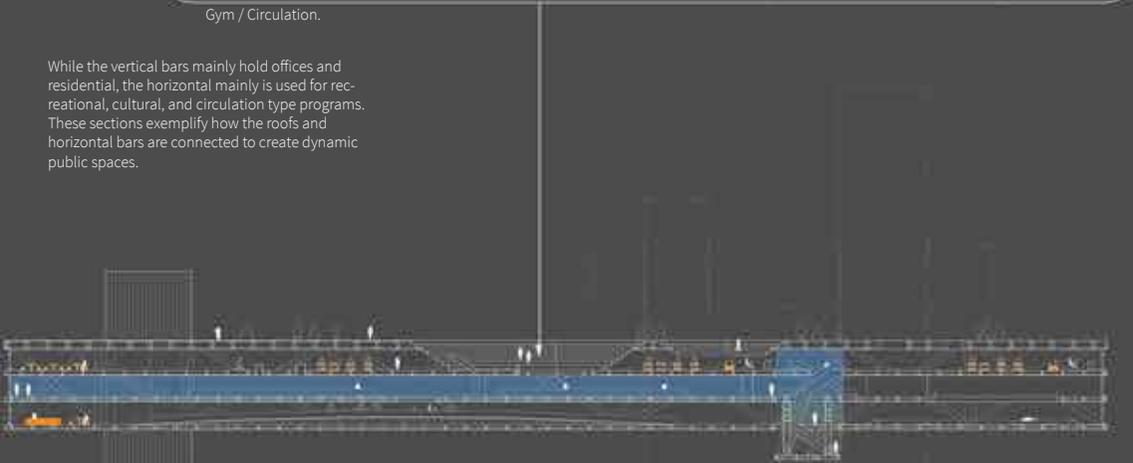
Shopping, Public Space.

Section CC



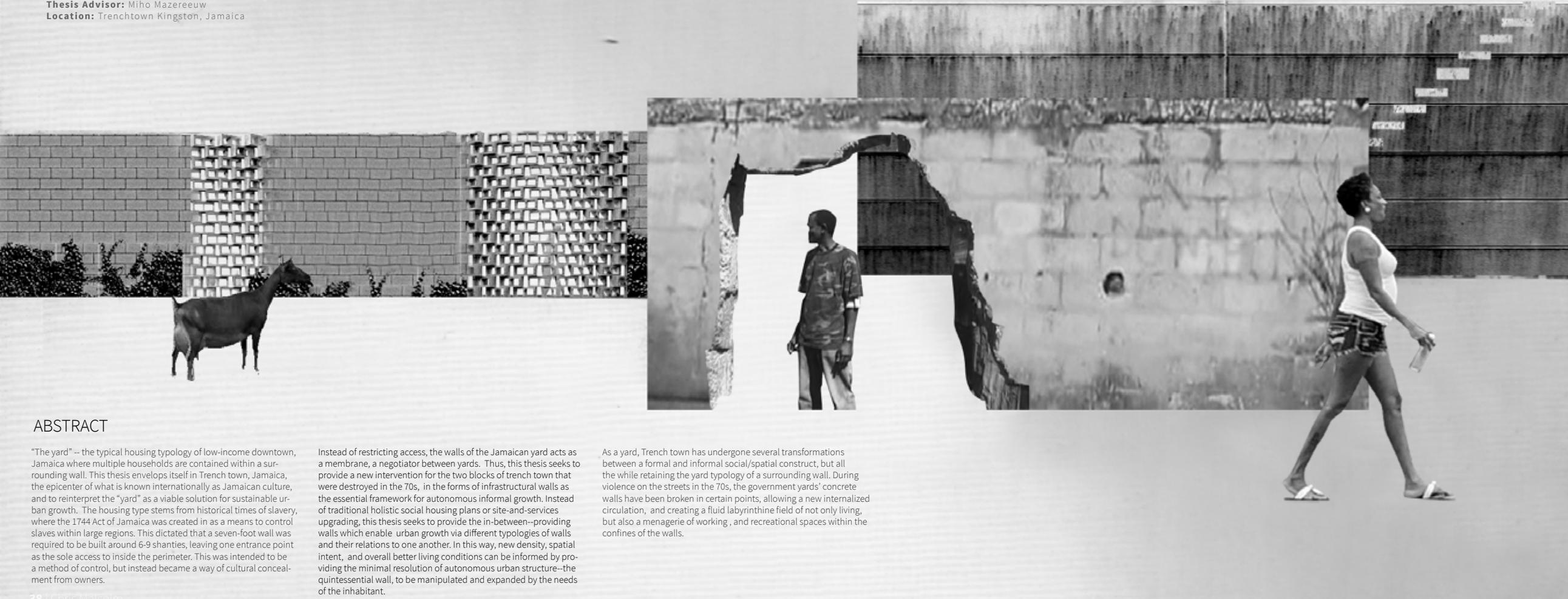
Museum / Library Area.

While the vertical bars mainly hold offices and residential, the horizontal mainly is used for recreational, cultural, and circulation type programs. These sections exemplify how the roofs and horizontal bars are connected to create dynamic public spaces.



# YARDITECTURE. NEW WALLS FOR TRENCH TOWN.

**Thesis Advisor:** Miho Mazereeuw  
**Location:** Trenchtown Kingston, Jamaica

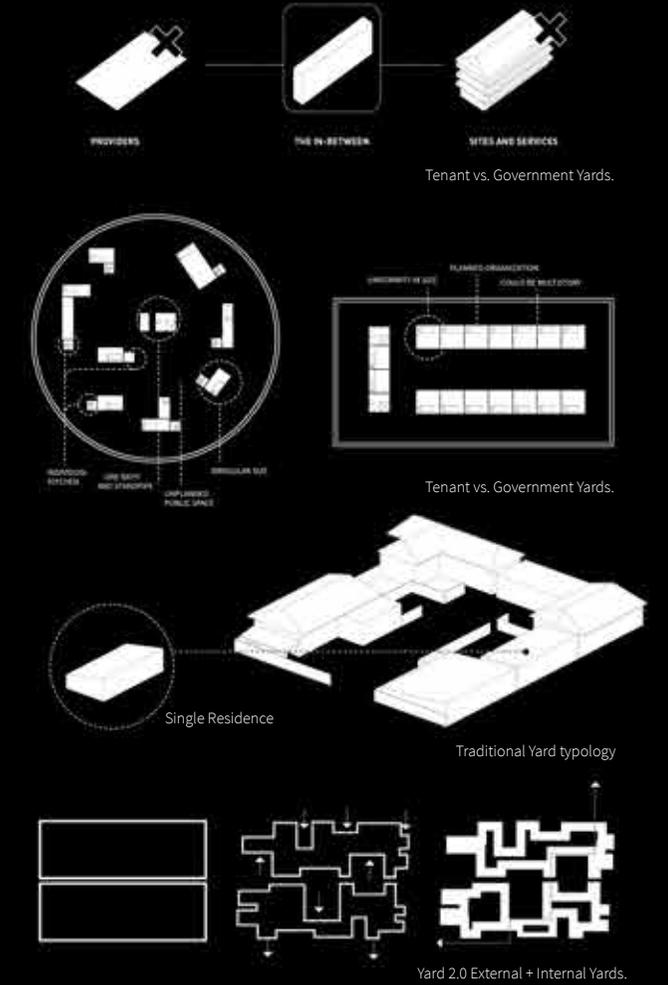


## ABSTRACT

"The yard" -- the typical housing typology of low-income downtown, Jamaica where multiple households are contained within a surrounding wall. This thesis envelops itself in Trench town, Jamaica, the epicenter of what is known internationally as Jamaican culture, and to reinterpret the "yard" as a viable solution for sustainable urban growth. The housing type stems from historical times of slavery, where the 1744 Act of Jamaica was created in as a means to control slaves within large regions. This dictated that a seven-foot wall was required to be built around 6-9 shanties, leaving one entrance point as the sole access to inside the perimeter. This was intended to be a method of control, but instead became a way of cultural concealment from owners.

Instead of restricting access, the walls of the Jamaican yard acts as a membrane, a negotiator between yards. Thus, this thesis seeks to provide a new intervention for the two blocks of trench town that were destroyed in the 70s, in the forms of infrastructural walls as the essential framework for autonomous informal growth. Instead of traditional holistic social housing plans or site-and-services upgrading, this thesis seeks to provide the in-between--providing walls which enable urban growth via different typologies of walls and their relations to one another. In this way, new density, spatial intent, and overall better living conditions can be informed by providing the minimal resolution of autonomous urban structure--the quintessential wall, to be manipulated and expanded by the needs of the inhabitant.

As a yard, Trench town has undergone several transformations between a formal and informal social/spatial construct, but all the while retaining the yard typology of a surrounding wall. During violence on the streets in the 70s, the government yards' concrete walls have been broken in certain points, allowing a new internalized circulation, and creating a fluid labyrinthine field of not only living, but also a menagerie of working, and recreational spaces within the confines of the walls.

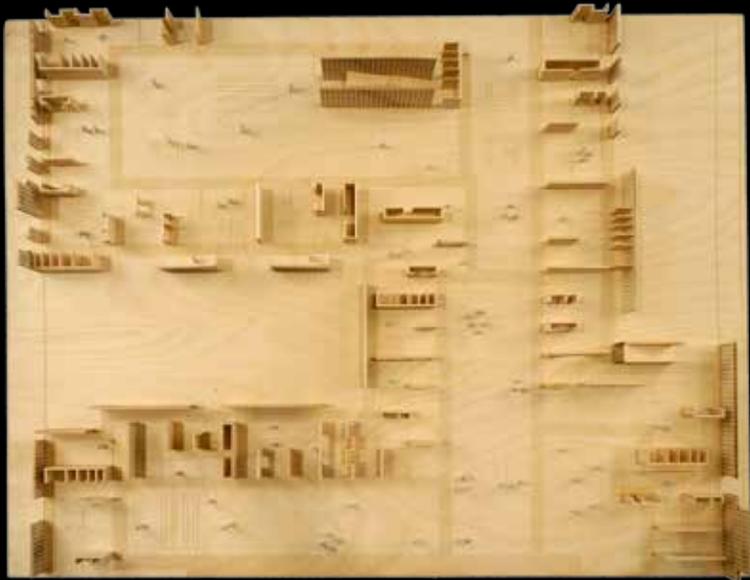


Tenant vs. Government Yards.

Tenant vs. Government Yards.

Traditional Yard typology

Yard 2.0 External + Internal Yards.

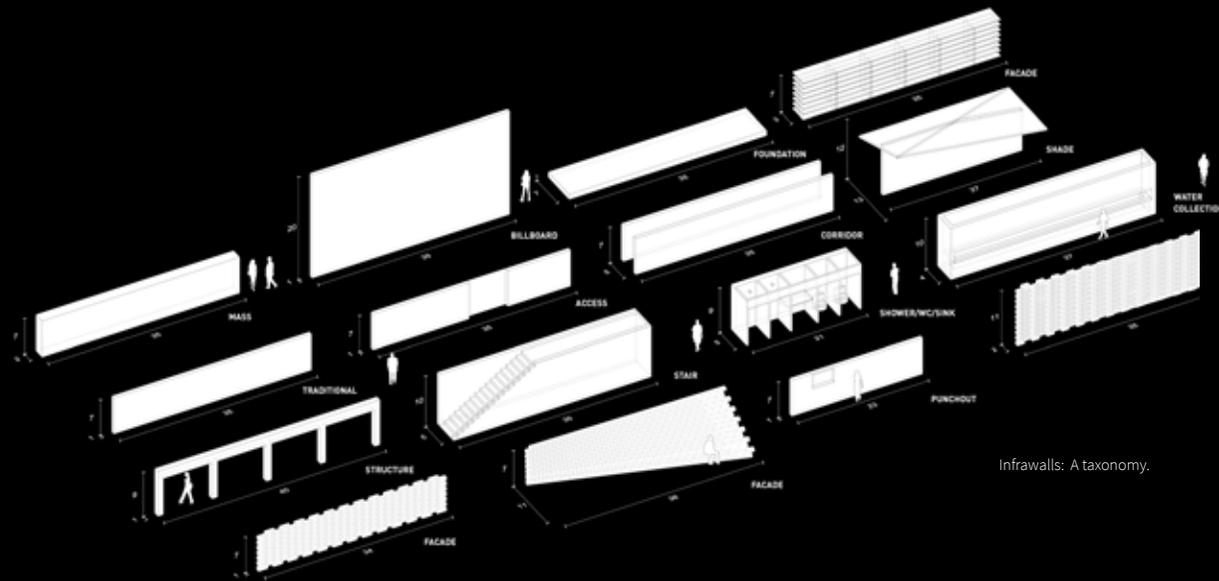


1:500 model portion of proposal.

## INTERNAL VS. EXTERNAL YARDS

This model depicts the built work of the architect, the infrawalls in which inhabitants will infill and expand upon. It is a fragment of 6th - 7th street block, showing the internal yard and two external pockets.

Since the 70s, a transition has occurred where some courtyards have been transformed into what can be considered "working yards"—moments where micro-industries and commercial enterprises have since entered the courtyard. Many industries can be found nestled within trench town such as lumber yards, scrap metal shops, auto body shops, bars, and restaurants. We introduce notions of Public vs. privatized zones—internal yards, an interconnected privatized area for the residents, plus 2. External yards, street visible yards intended for commercial ventures, open space, or whatever the community surrounding these "pockets" intend. This essentially tries to inform a formalized pattern without necessarily enforcing a specific growth pattern.



Infrawalls: A taxonomy.

## WHAT CAN A WALL DO?

Once understanding the design parameters of the existing yards, the take away is that the wall becomes the most significant element in defining the yard. In this respect, we come back to the question, what can a wall do? The argument here is that it not only can define types of spaces, but it also can serve various pragmatic functions—ones inherently built into the wall itself i.e. wet walls, stair cores to promote density, service walls, structural walls, storage walls, and etc. The proposal then becomes that the architect supplies a series of walls that inherently inform the program of the space. Together with a various taxonomy of walls, some being purely infrastructural, while others becoming porous or articulated to serve as aesthetic or public definition.

Perhaps with just this, it serves as the skeleton, the framework of a community by supporting walls and where they are placed. Everything else then becomes infill of the inhabitants. The walls themselves are the project, the formal construct.

## WITHIN CONTEXT

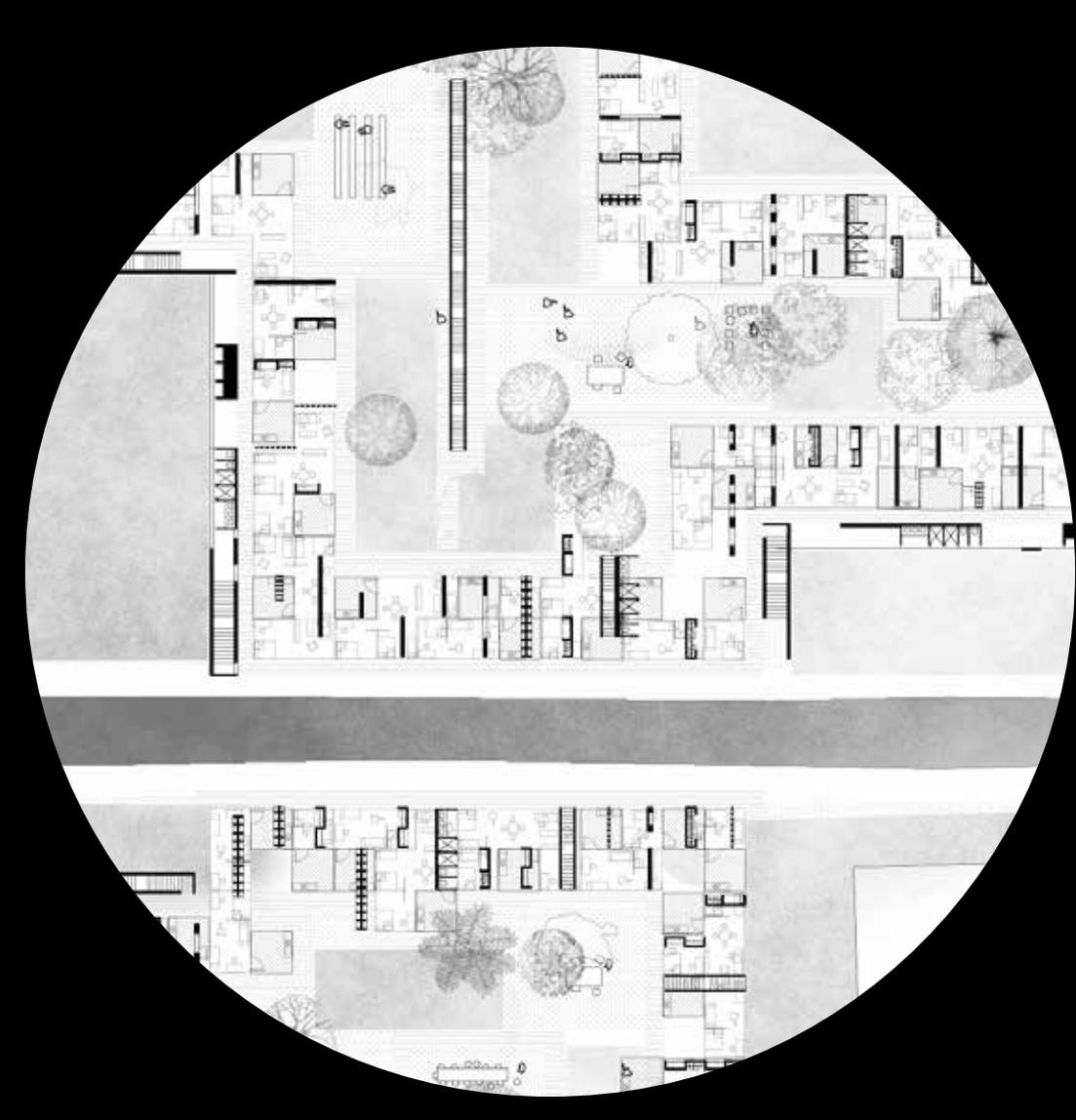
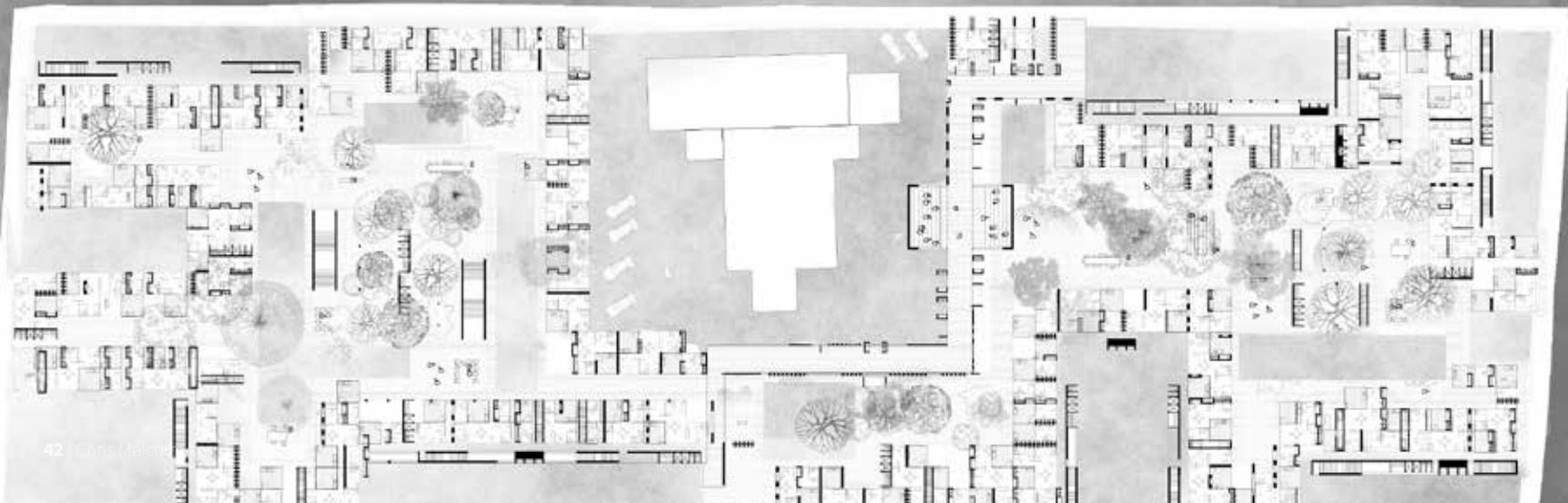
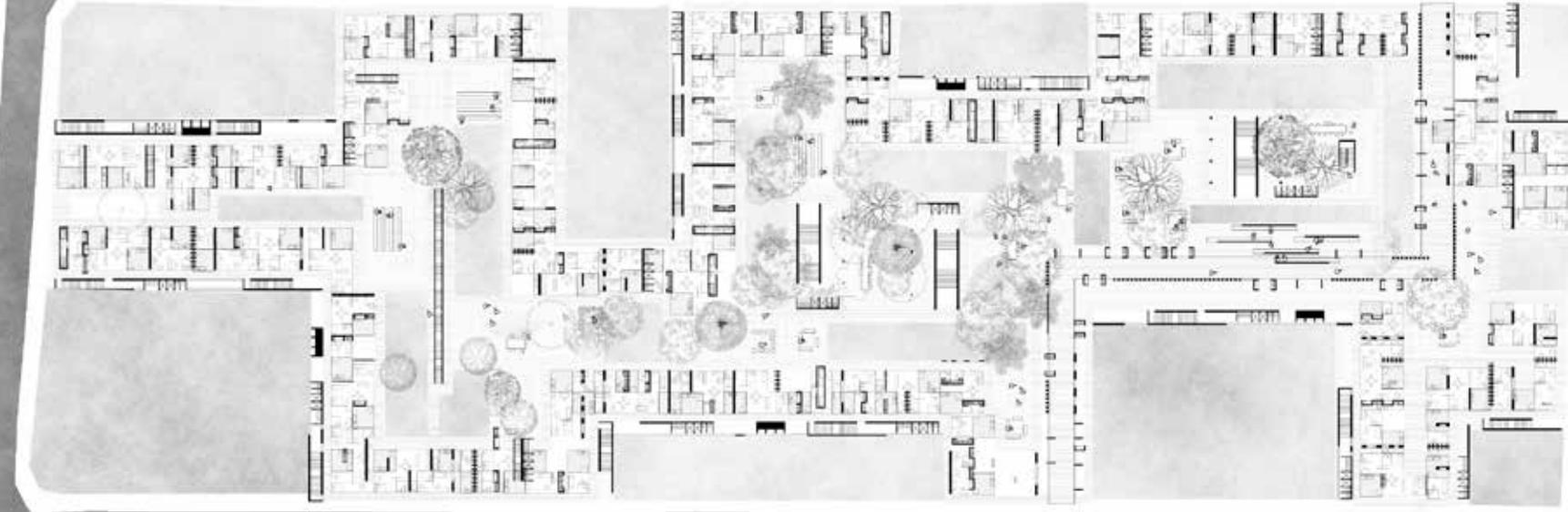
From a previous analysis of 6th and 7th street, we are able to understand the current conditions, flows, and developments. Together with our analysis of parameters extracted from 1st - 5th street yards, we create a new urban form, reminiscent yet unique from its preceding neighboring yards. We start with the full block as a ring of infrastructural walls. We manipulate the ring to engage the street creating exterior yards for mixed use program, and a continuous interior.

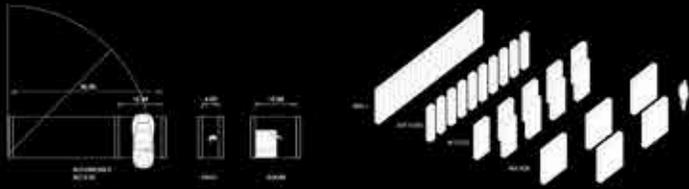
The benefit of the ring + wall strategy is that expansion is factored in. Expansion occurs both outward and inward, and can continue until circulation would be inhibited.



1:2000 site model of proposal.

“The wall. The most essential, for its ability to define space, leaving all other architectural fragments dispensable.”





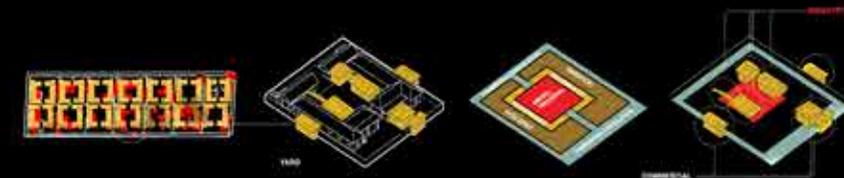
## INFORMING SPATIAL INTENT

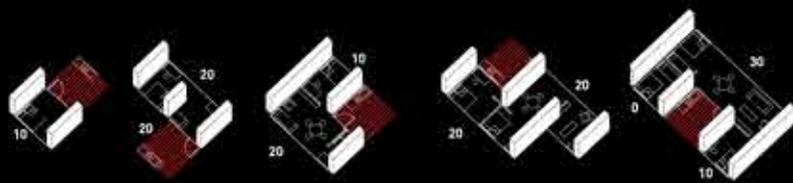
We use the wall as not only a singular entity, but the spaces between the walls as programmatic indicators. For instance, at one point a space between wall may be small enough only for circulation, which gives that space an informed program. A larger space then may inform a room, then even larger may be commercial, or public. The space placed between walls imply function, without necessarily decreeing it a specific program. In this way, the site is "zoned" for specific functions, but is flexible enough for deviations and future transformations--a truly hybrid planning system.



## MICROECONOMIES

Upon navigating the government yards, one stumbles upon an interesting programmatic organization. Originally the courtyard in the middle served as a preserved open space for each individual yard. Likewise there was an open buffer periphery between the units and the enclosing wall. Since the 70s, a transition has occurred where some courtyards have been transformed into what can be considered "working yards"--moments where micro-industries and commercial enterprises have since entered the courtyard.





## UNIT TYPOLOGIES

Units (A "unit" is a set of walls) took full advantage of the 10' x 10' module. Larger units are merely extensions of smaller units, allowing little to no awkward nooks between households. Additionally, because outdoor living and cooking outside is so essential to Jamaica, each unit design is equipped with a 10' x 10' outdoor space.



## WALL DISTRIBUTION

489 projected units made of a 10' x 10' module. This + 100 projected 2 story units makes the total 589. This surpasses the current density of two original blocks, which would be 384 units and also would match the 20% growth model the area would assume.



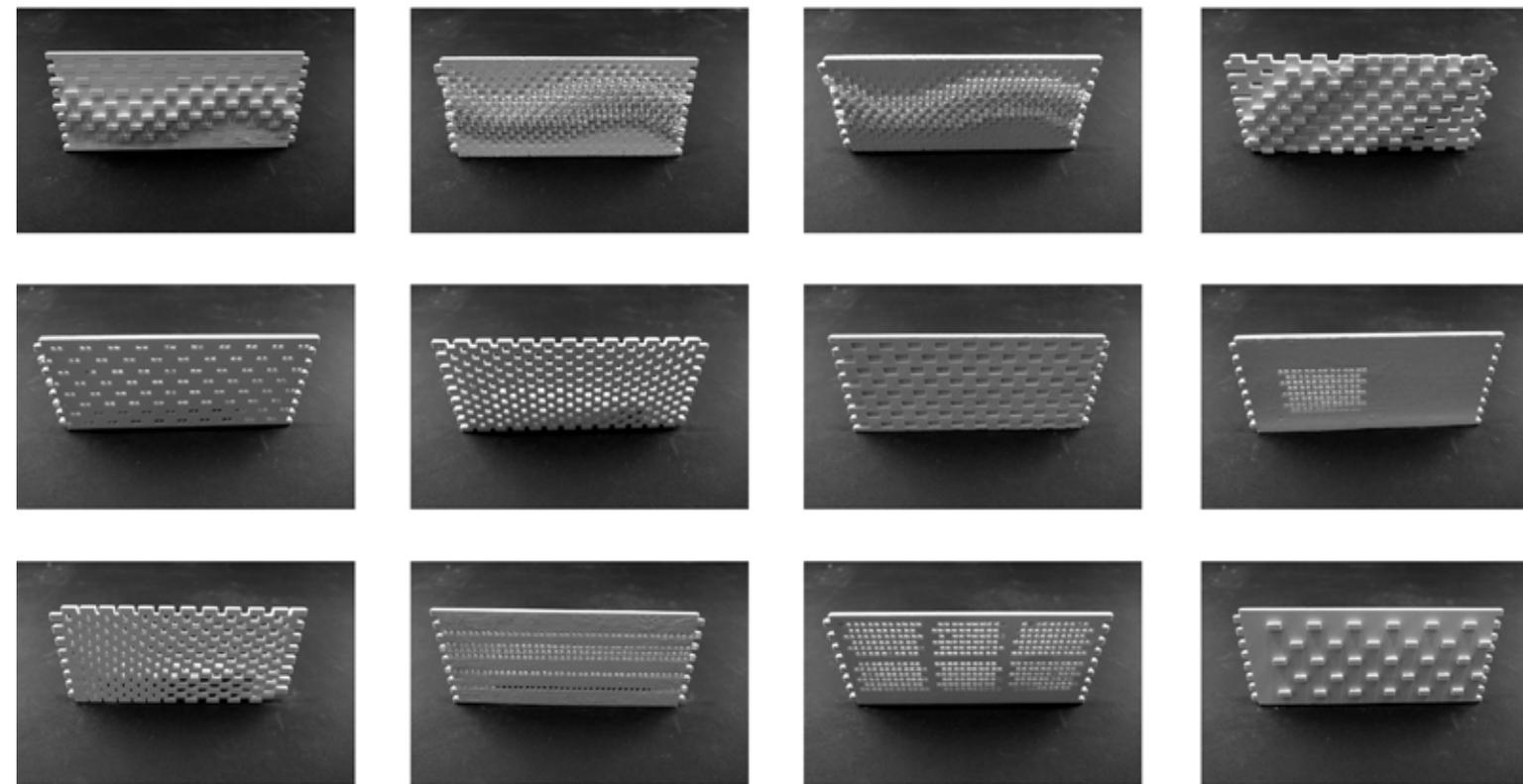


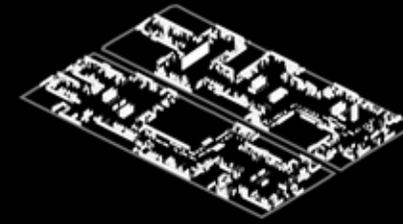
## WALL ARTICULATION

Walls in Jamaica are places of signage, innovation, public space. It is thus obvious that the wall should be celebrated in its aesthetics, responsiveness to light, porosity in a similarly unique way. Studies in various transformations were implemented.

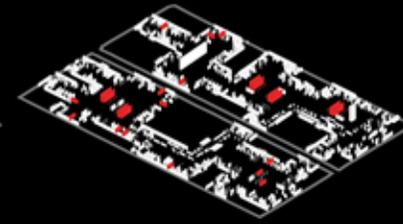
## 12 WALLS

This series was done in order to test not only different aesthetic enhancements of a basic concrete wall, but also aperture studies. Rotation for example can limit views into or out of a specific space, but allow views elsewhere. Simple pushing in and out can create dynamic shadows and opportunities for planters or seating. There is a range of complexity. Some must require professional work, or the use of mechanized systems. Others are quite simple and can be done manually. This range is intentional in that it reinforces the formal / informal relationship that is the root of the proposal.

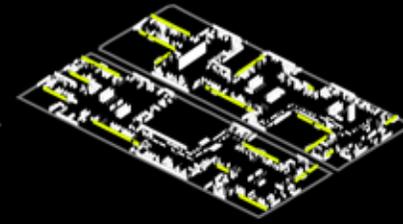




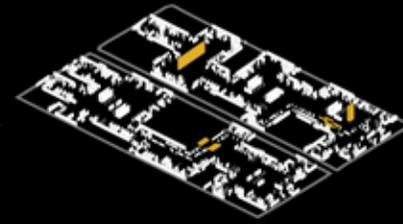
Base



Stair Cores



Heating / Ventilation / Services



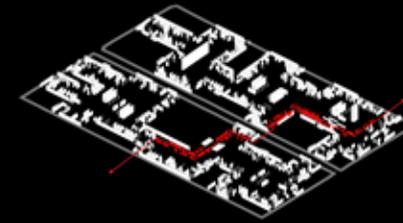
Anomalies



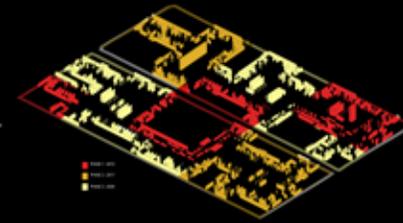
An external yard is used as an auto shop.



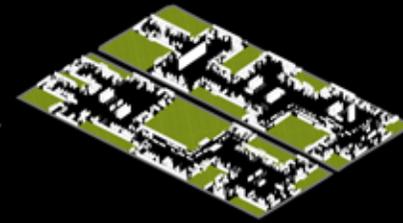
The same external yard could also be decided to remain vacant by the surrounding inhabitants. This allows for a variability unique to different areas of each yard segment.



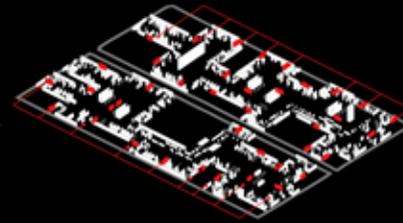
Market Path



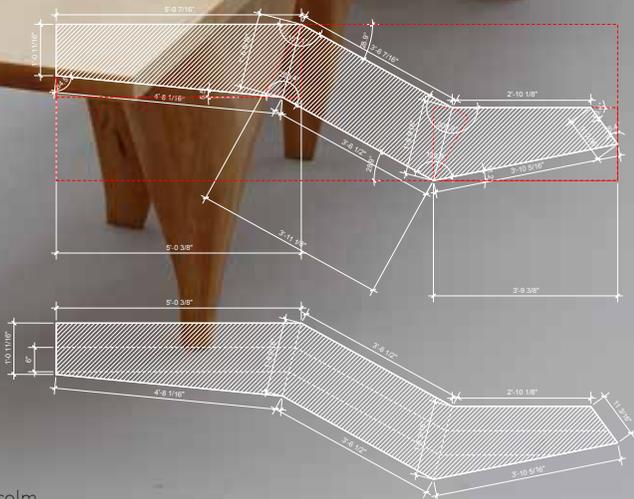
Phasing



External Yards



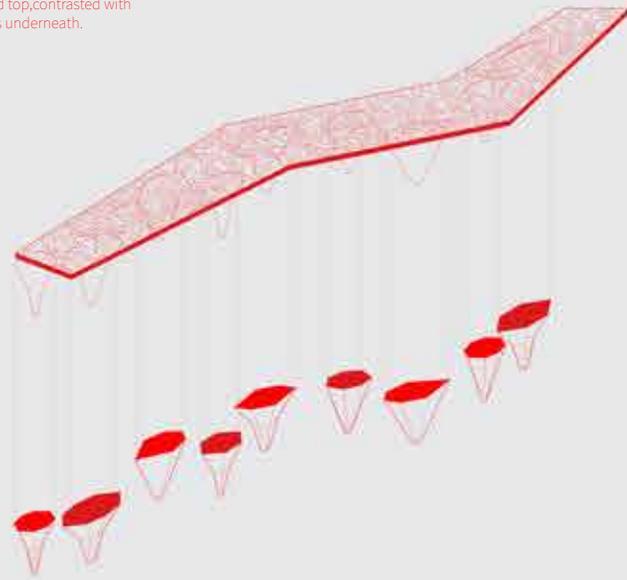
Wet Cores



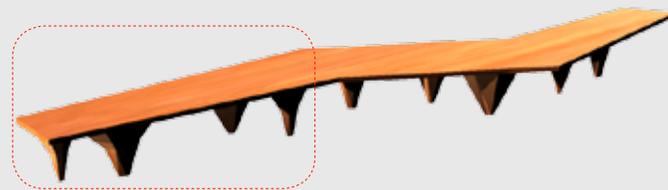
# THE CATERPILLAR BENCH.

**ADVISOR:** Christopher B. Dewart

The Caterpillar bench was designed as a maple wood bench to match the profile of a bay window of an apartment. The intention was to have a very rigid top, contrasted with more organic supports underneath.



CONCEPTUAL DIAGRAM OF BENCH



COMPLETED SECTION



## PROFESSIONAL WORK

Office: Bjarke Ingels Group **BIG**

The following work on next spread is a sampling of some projects that I worked on as a Design Assistant at BIG, Bjarke Ingels Group. I worked first in Copenhagen Office and then NY for a total of 13 months, and worked on 8 projects total.

Team size ranged from 2 (myself and project leader) to 10 person teams, roles included a wide range of tasks: Model Maker, 3d Modeling, Concept Design, Renderings, Drawings, Diagramming, Indesign Layout, Video, Rhinoscripting / Grasshopper work flows.

SIONAL

S.

PROFESS

SAMPLES



## AUDI DESIGN MIAMI

**Project Leader:** Martin Voelkle  
**Location :** Miami, FL  
**Size:** 190m<sup>2</sup> (Temporary Installation)  
**Team Size:** Varied 3-5 / **Phase:** Concept-Completed

- Short project of 2 weeks.
- **Aided in Initial Concept, Final Model, 3d Modeling (Final Curvature), Fabricator and Structural Research/Diagramming.**
- Responsible for Final sections and elevation Drawings that were sent to fabricator.

● Denotes work/image produced personally by Chris Malcolm.

## KAUFHAUSKANAL METROZONE

**Project Manager:** Martin Voelkle  
**Location :** Hamburg-Harburg, DE  
**Size:** 11500m<sup>2</sup> (Residential Masterplan)  
**Team Size:** 4 / **Phase:** Concept

- Revision of Original Proposal--Facade, Materials, Volumetrics, etc.
- **Pivotal role in Material Selection and Research.** Diagrams, renderings, and studies.
- **Responsible for finalized Facade redesign.**
- Aided in final modified floor plan drawings of apartments as well as masterplan sections and elevations.
- Completed Final and concept models, **Completed final renderings of new proposal.**



## CHICAGO NAVY PIER

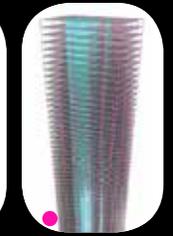
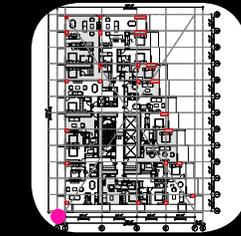
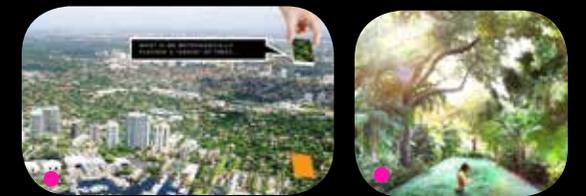
**Project Leader:** Daniel Kidd  
**Location :** Chicago, IL  
**Size:** 38019m<sup>2</sup> (Pier Redesign)  
**Team Size:** Varied 4-7 / **Phase:** Competition

- Competition to redesign Chicago's Navy Pier.
- **Completed multiple final renderings.**
- Responsible for designing pier "furniture."
- Assisted in final video.

## GROVE AT GRAND BAY

**Project Leader:** Leon Rost  
**Location :** Coconut Grove, Miami, FL  
**Size:** 58900m<sup>2</sup> (Pier Redesign)  
**Team Size:** Varied 3-7 / **Phase:** Concept

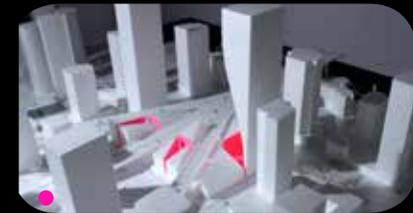
- Part of initial team for initial concept design. Heavily involved in Model making, Concept renders, Diagrams, Photographing, and concept plans and sections.
- **Played major role in facade + podium design and final "jungle roof" scheme.** Produced renderings, coco research, site plan, and drawings.



## VANCOUVER HOUSE

**Project Leader:** Agustin Perez-Torres  
**Location :** Vancouver, Canada  
**Size:** 60,000m<sup>2</sup> (493' Residential Tower + Multi-use podiums)  
**Team Size:** Varied 2-10 / **Phase:** Concept + SD

- **Main Project worked on at BIG, 6+ Months.**
- Involved in all facets of project-final and schematic model making, 3d model handling, scripting work flows, diagrams, Final and concept renderings, photos, floorplans, elevations, sections, layouts of updates, structural column design.
- **Crucial role in podium design-volume, facade, etc.**
- **Created crucial Rhinoscript to generate complete tower from a simple volume** (Facade, floors, mullions, etc) along with tons of grasshopper work flows for other parts of the project.
- Heavily involved in producing the city rezoning package, equipped with 11 in-site final renders x 4 different heights, Drawings, Podium renders, Photos of models, + more.
- **Primary 3d model handler**, and also responsible for structural column drawings in collaboration with Structural engineer.



**Education**

Cambridge, MA	<b>Massachusetts Institute of Technology</b> <i>Masters of Architecture, Concentration in Computation</i>	February 2014
Gainesville, FL	<b>University of Florida</b> <i>Bachelors of Design, Focus in Architecture</i>	May 2010

**Experience**

Cambridge, MA	<b>Massachusetts Institute of Technology</b> <i>Teaching Assistant for Anne W. Spirn, Landscape + Urbanism</i>	2012 - 2013
Cambridge, MA	<b>Arcbazar.com</b> <i>Web Developer</i>	Summer 2013
New York, NYC	<b>BIG, Bjarke Ingels Group</b> <i>Design Assistant (Arch. Intern), 7 months</i>	Jan 2012 - Aug 2012
Copenhagen, DK	<b>BIG, Bjarke Ingels Group</b> <i>Design Assistant (Arch. Intern), 6 months</i>	June 2011 - Dec 2012
Cambridge, MA	<b>Massachusetts Institute of Technology</b> <i>Assistant for SIGUS, Informal Housing development group. Rapid Prototyping Labs Web developer.</i>	2010 - 2011

**Skills**

Model Making	Skilled in Model Building, details, and construction.
Computer	Extensive Knowledge in: AutoCAD, Rhino 3D, Vray for Rhino, Grasshopper, Rhinoscript (VB + Python), Processing, SketchUp, Adobe Suite (Photoshop, InDesign, Illustrator) Basic knowledge of: Revit, ArcGIS, Digital Project
Web design	Experienced in Programming and Web design: Java, PHP, Processing, HTML, JavaScript, SQL databases, AJAX, CSS, FTP

26 Hardwick St. Apt. 2  
 Cambridge, MA 20141  
 +1 954.803.9277  
 chrisishere@gmail.com

---

MALCOLM.  
WORKS.

CHRIS MA  
SAMPLE V