PETER SCHLOSSER

PORTFOLIO

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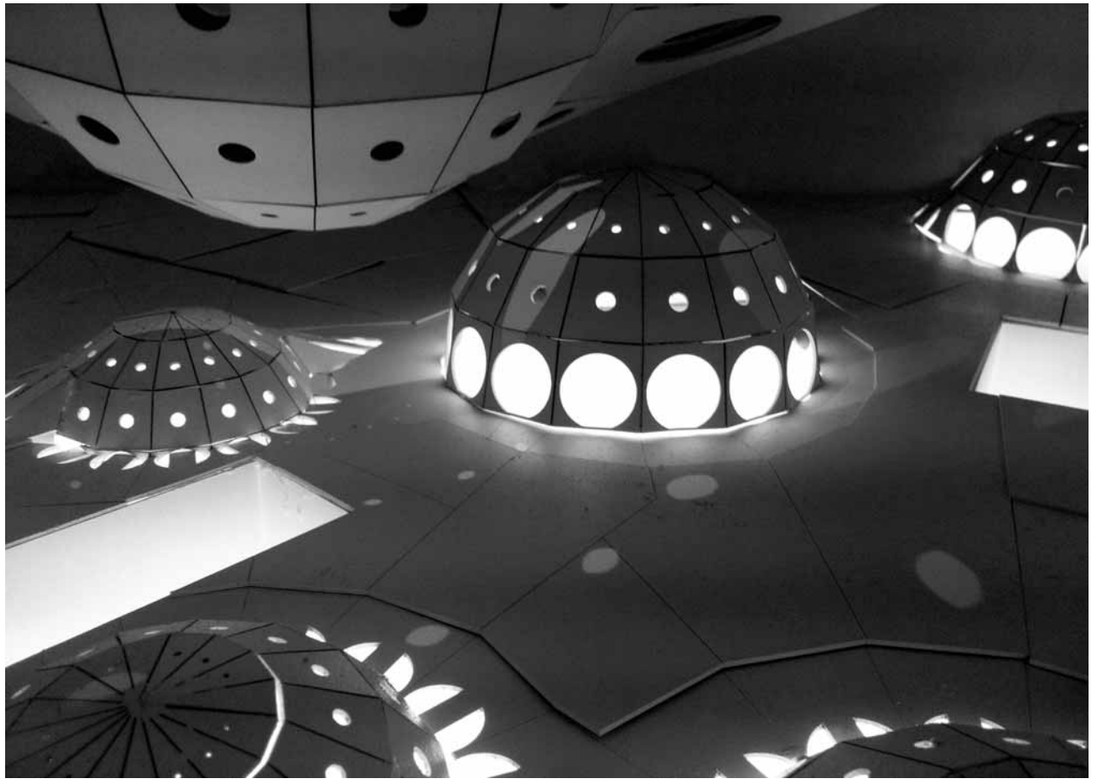
Peter Schlosser

UIC School of Architecture



INTERIOR SYSTEMS

Studio Fall 2014

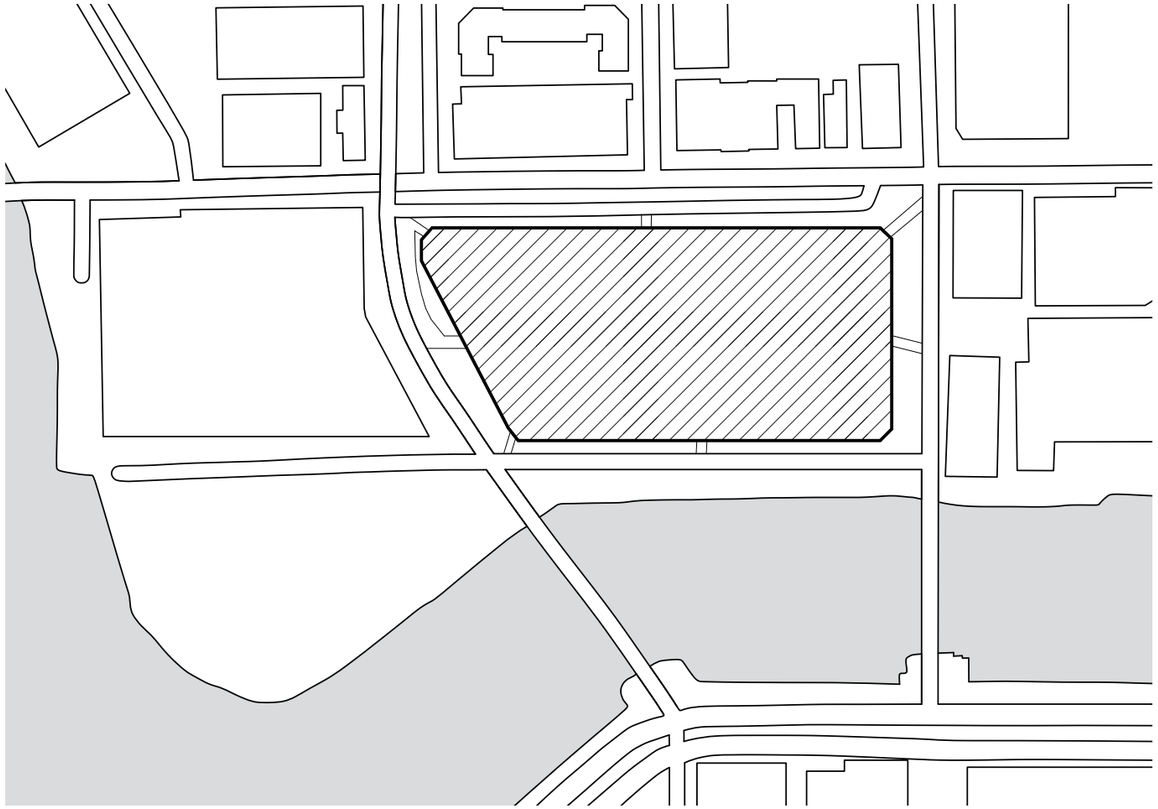
The focus of this studio is to reclaim the interior for architecture. In this studio we looked at the trend of contemporary architectures dependency on the envelope to convey all architectural, political, and cultural meaning. In the operation of prioritizing the exterior of the building often the interior is treated as a secondary problem that exists simply to support the system of the envelope. The prioritization of the envelope and decreased focus by architects on interior systems results in the creation of generic interiors and spaces that further create the notion that these are design problems that lay outside the discipline of architecture.

Further by ignoring the interior, architects are unable to operate in large portions of the already built environment such as the reuse of existing structures or the problems with building in historic districts that must contend with preservation and city codes.

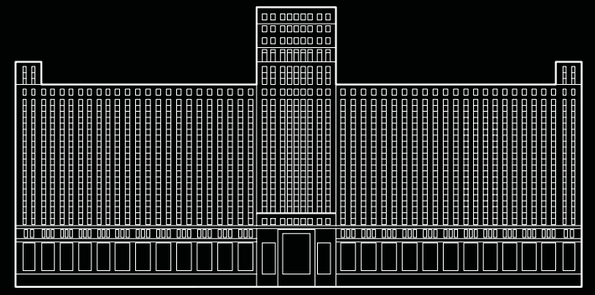
With so much of our built environment revolving around "Junkspace" typologies the reclamation of the interior is critical for architecture as our buildings grow larger and larger and it becomes necessary for architects to develop systems of control to design these mega spaces.

The Studio focuses on designing systems of organization that can be analyzed and utilized as a diagram for integrating specific architectural qualities and spaces into a large scale urban building, the Merchandise Mart in downtown Chicago.

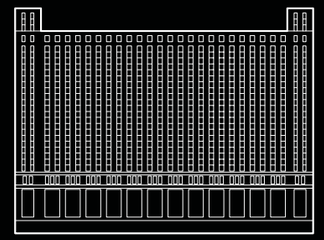
Instructor: Luis Ortega



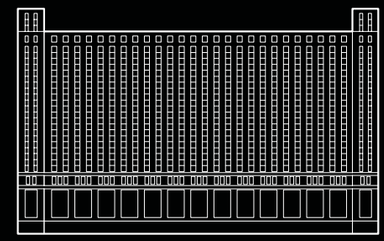
THE SITE: Merchandise Mart was chosen as the existing building for the project because of the prominent site it occupies in downtown Chicago, the fact that it is a very large mat building, and that the envelope already has such a charged cultural, historical, and economic meaning to the city of Chicago that touching the envelope would be problematic. The building currently exists as 25 floors of large-scale retail space. The introduction of a new interior system into Merchandise Mart focused on the idea of carving out interiors rather than thinking of the building as an empty shell. This was done because the envelope of Merchandise Mart already has tremendous forces acting upon it and by opting to leave the exterior untouched those forces must be taken into account such as the access points to the city streets, public transportation, the river walk, and existing windows. Therefor the introduction of the new architecture into the building is a compromise between two systems, that of the existing envelope and site and that of the new program and design.



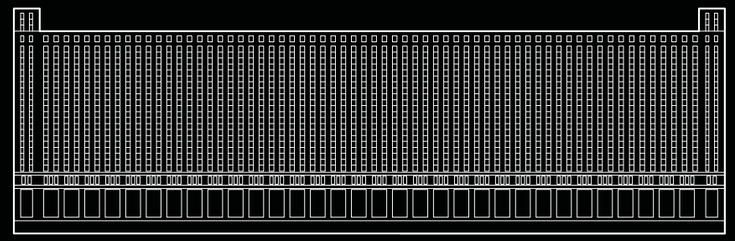
Merchandise Mart South Elevation



Merchandise Mart East Elevation



Merchandise Mart West Elevation



Merchandise Mart North Elevation

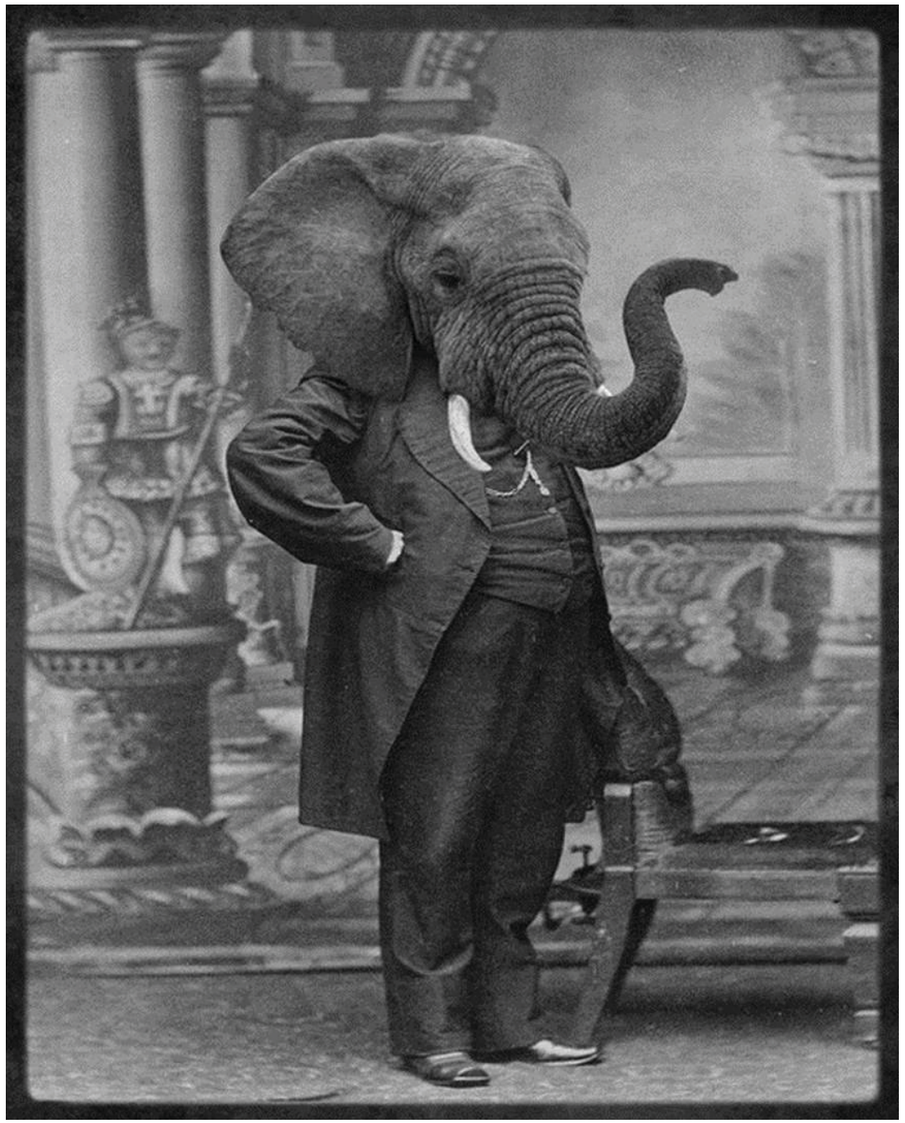
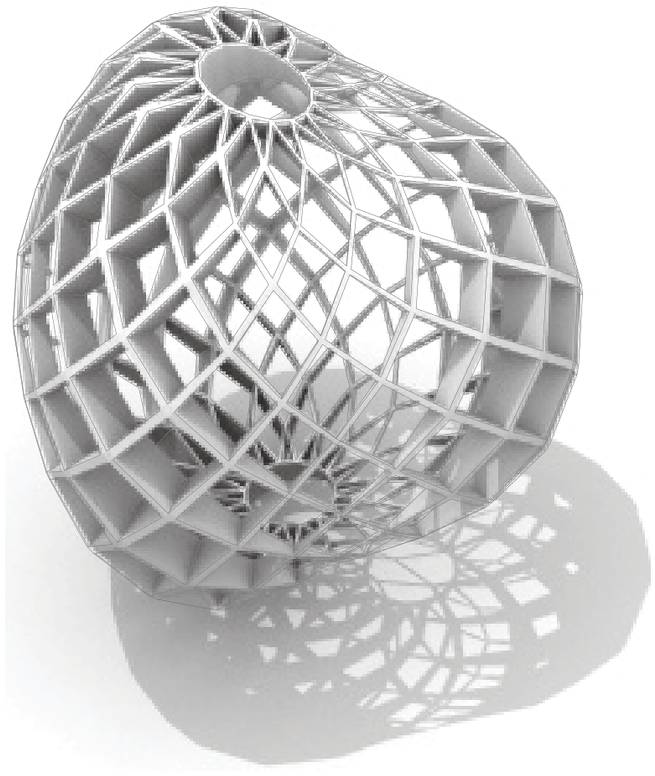


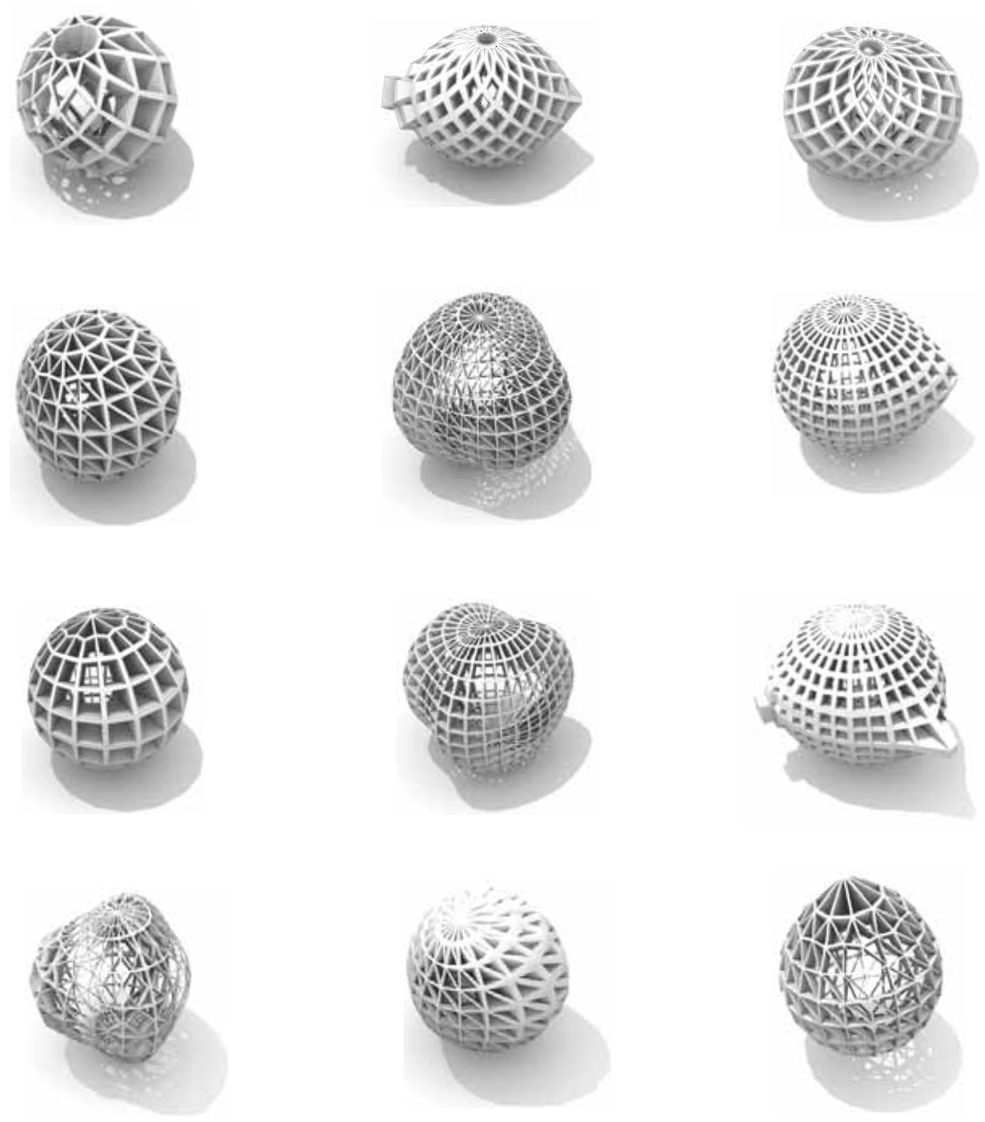
Image by Charlotte Cory

ELEPHANT MAN

The formal development of the architectural system deployed in the Merchandise Mart took its inspiration from the Victorian Animal. The Victorian Animal is the hybridization of a human and some type of animal such as the elephant. The resulting hybridization is neither human nor elephant yet has features that can independently be recognized as both. Centrally important to the Elephant Man portrait is the neck or the point of hybridization where neither can be understood as a single subject. The inspiration of this hybridization was than expanded upon through parametric modeling of architectural precedents distilled to basic architectural values that could create a library of techniques and systems that could be deployed in the Merchandise Mart.

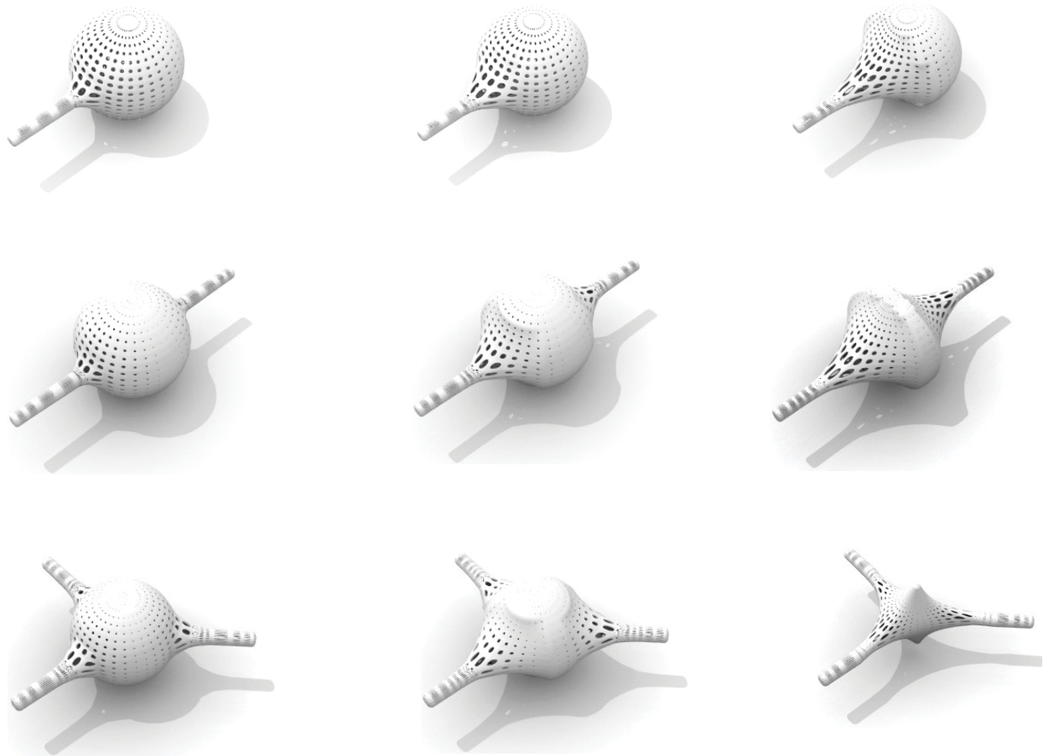


Animal one focused on experimenting with the subdivision qualities of spheres and the ability to grow and manipulate at scales ranging from whole objects to single cells.



Animal one Library (Subdivision and growth types) .

Animal two focused on the formal hybridization of the sphere and tube and the resulting effects on the applied pattern.

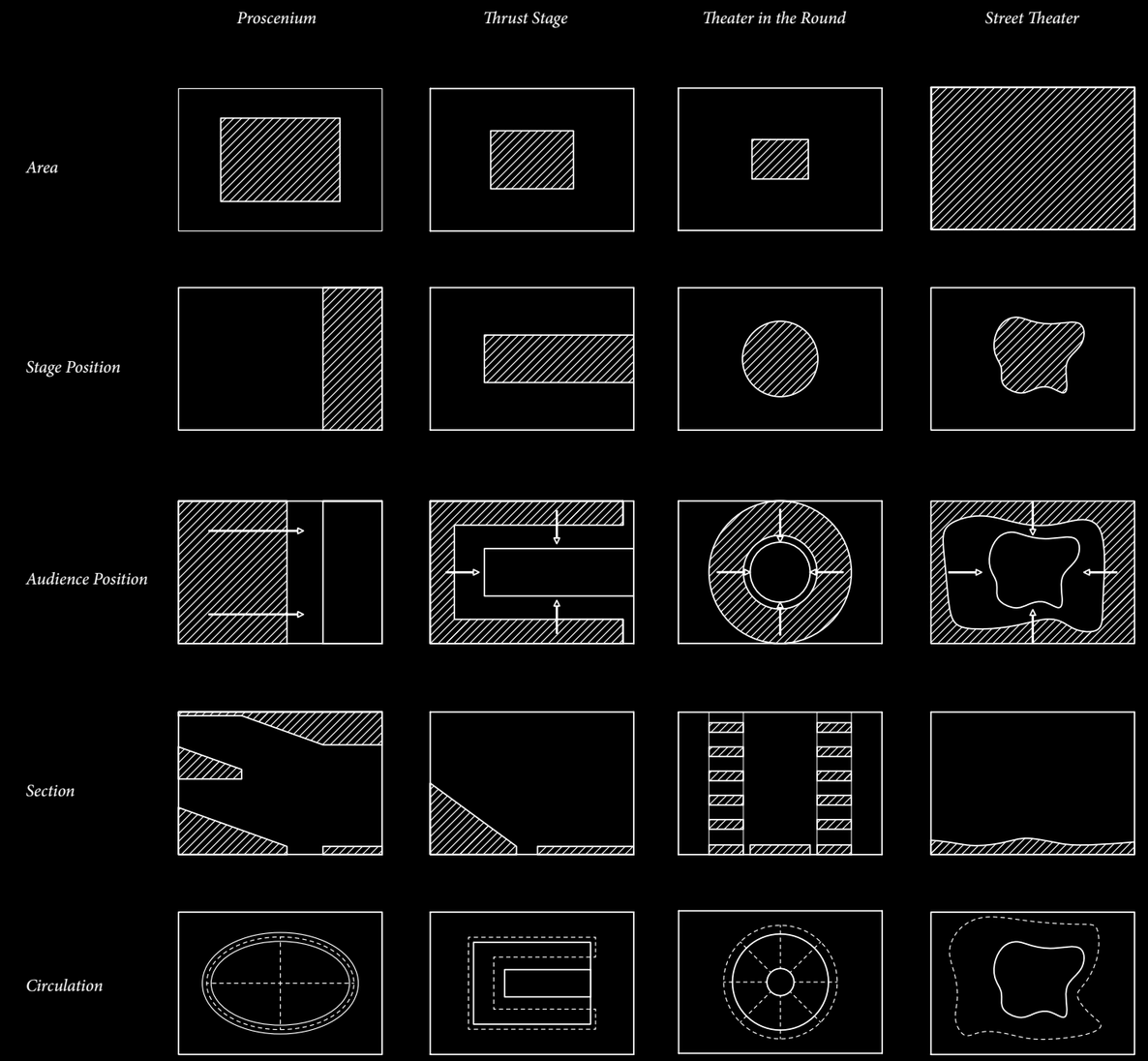


The matrix shows the resulting range of effects applied to the original sphere and tube geometries. As more tube geometries are applied to the sphere and the level of control points between those two geometries are controlled the form becomes a more highly hybridized convoluted version of the original.

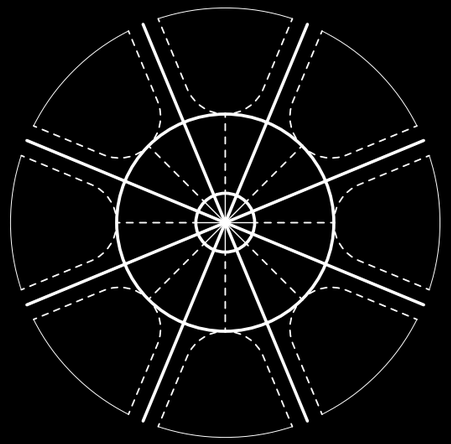
THEATER

TYPOLOGIES

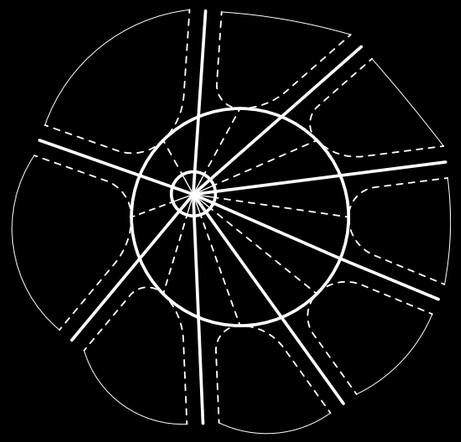
The library of research for animal one and animal two focused on the formal hybridization of tube and spherical geometries and the application of subdivisions to introduce local controls over a field condition. As an application into Merchandise Mart these parametric models were not representative of literal formal shapes to be inserted into the building that could be filled with any type of typical program. The hybridized models were rather analyzed, as a formal diagram with certain architectural qualities which when combined with Merchandise Mart itself would dictate and prioritize certain programmatic functions over others. The formal qualities of the diagram along with the enormous size of Merchandise Mart led to the studies of theaters as the main programmatic typology for the system. Theaters are in themselves a study of centrality and large void spaces that rely on specific formal operations to create acoustics, arrange the audience, performers, control views, and also create particular circulation systems. In addition the vast ranges of theater types introduce new feedback loops that the parametric model must react to as each type of theater operates in greatly different ways which forces the project to shift from one that is parametrically based towards one that has to be redrawn and diagramed to gain control over a very specific system that will produce a range of theatrical and theater typologies.



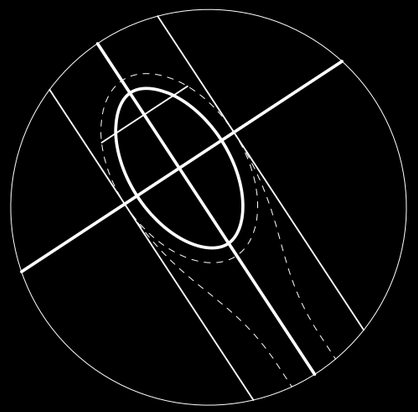
THEATER PICTOGRAMS (diagrammatic operations of various theater types at their most basic levels)



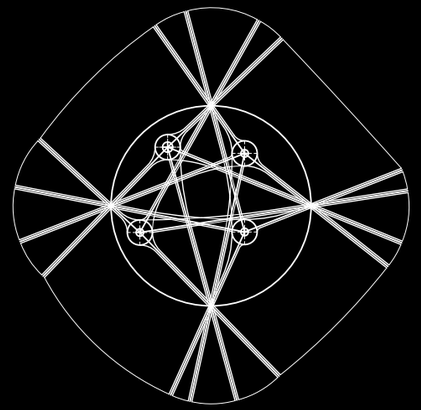
Arena Theater Diagram



Theater in the Round Diagram



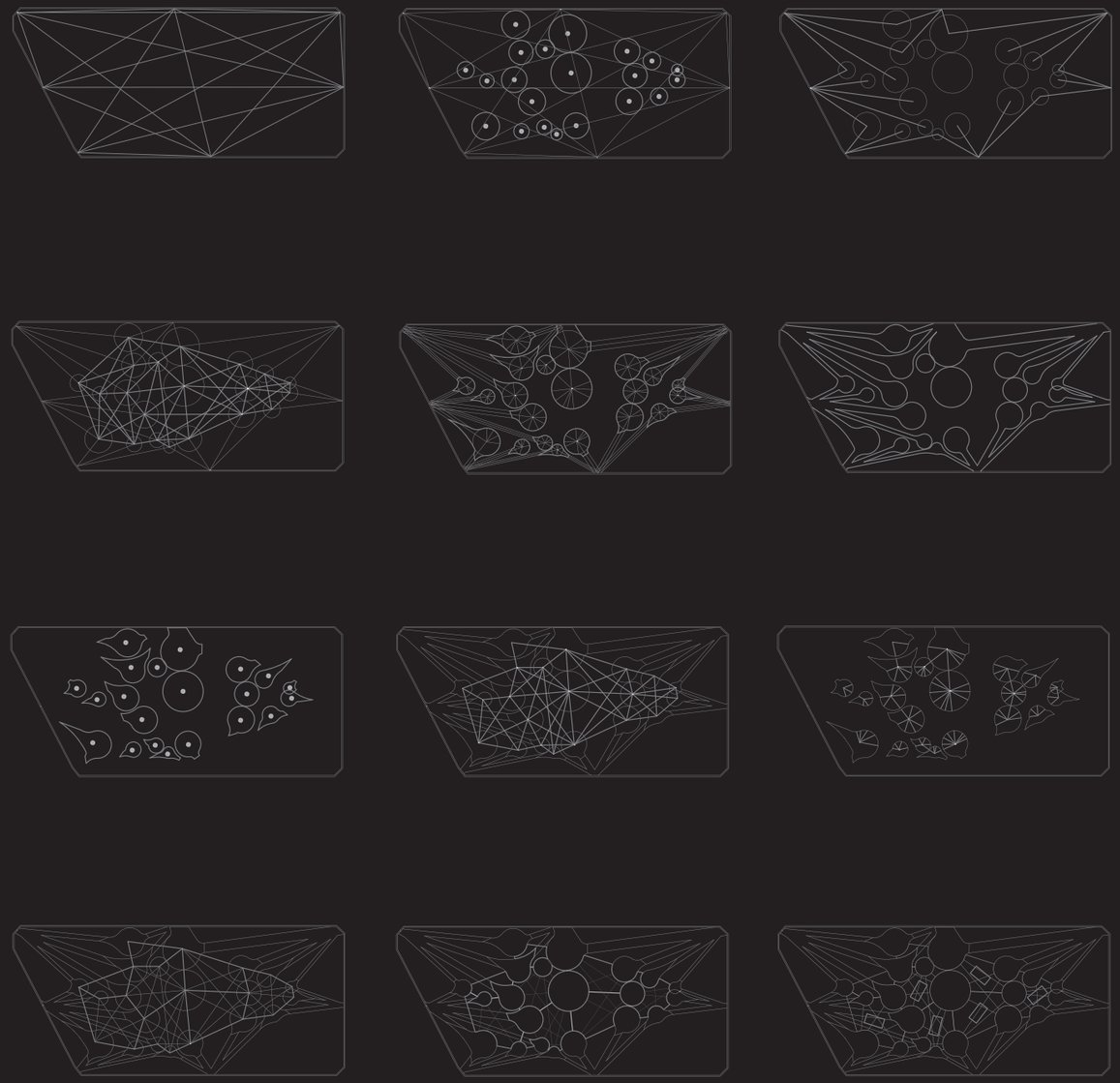
Procenium Theater Diagram



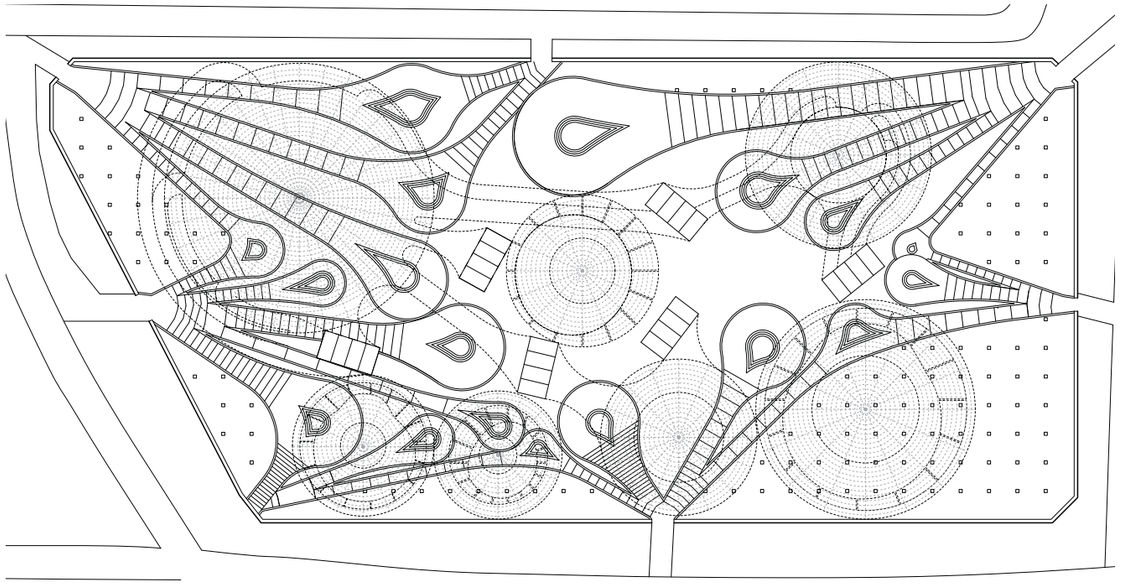
Black Box Theater Diagram

ABOVE: The redrawing of the theater into the diagram of the hybridized parametric form forces the parametric model to reflect its formal qualities such as stage position and circulation specifically to the operation of each kind of theater.

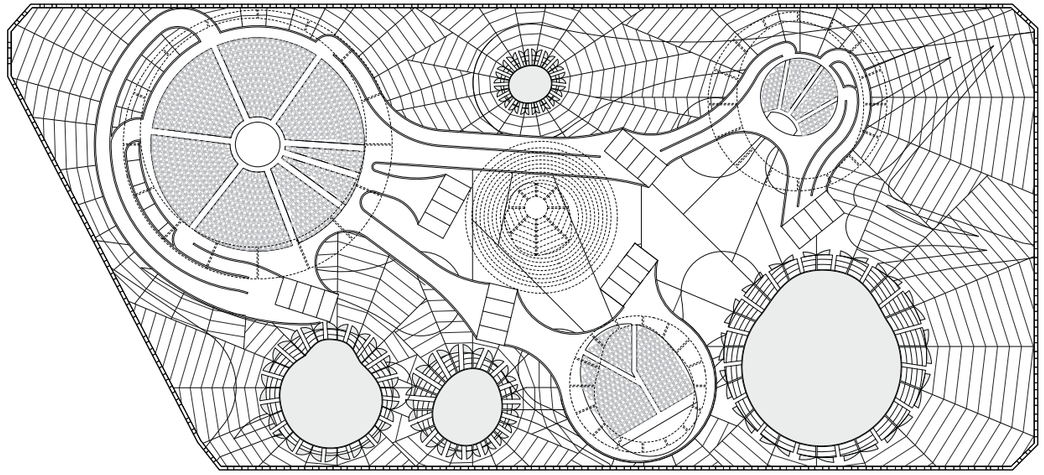
RIGHT: The rendering and diagram combination shows an overlay of how the differently drawn theater diagrams above would effect the formal qualities of the theater.



Lobby level ground floor street theater and core development

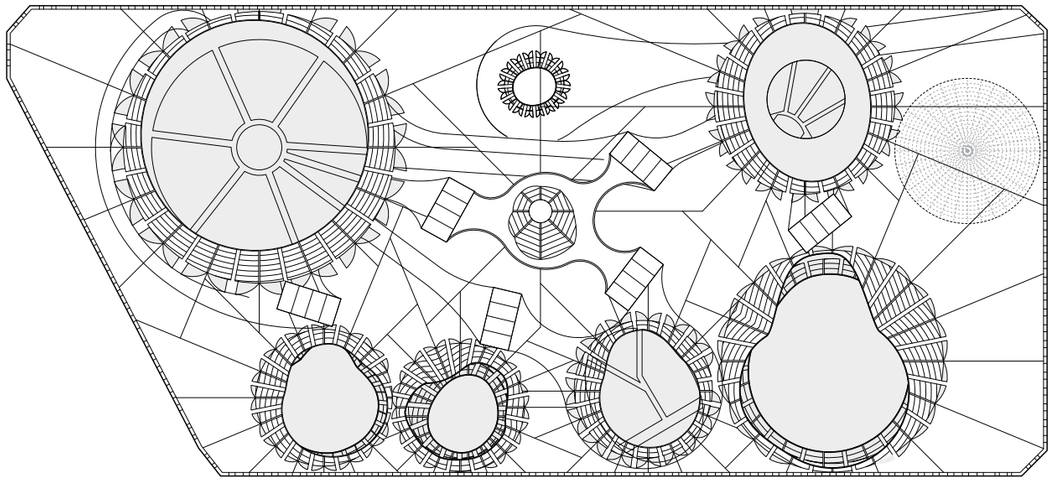


Ground Level Floor Plan

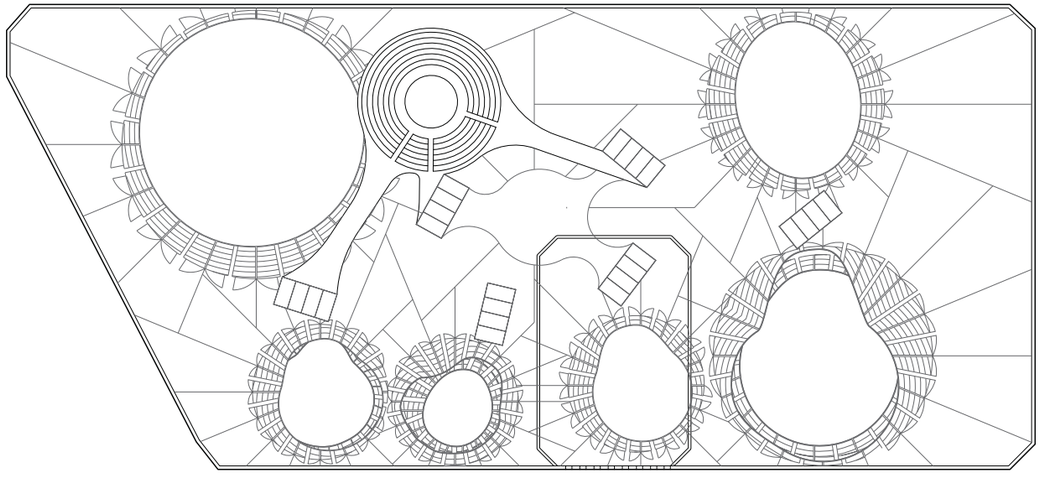


6th Level Floor Plan

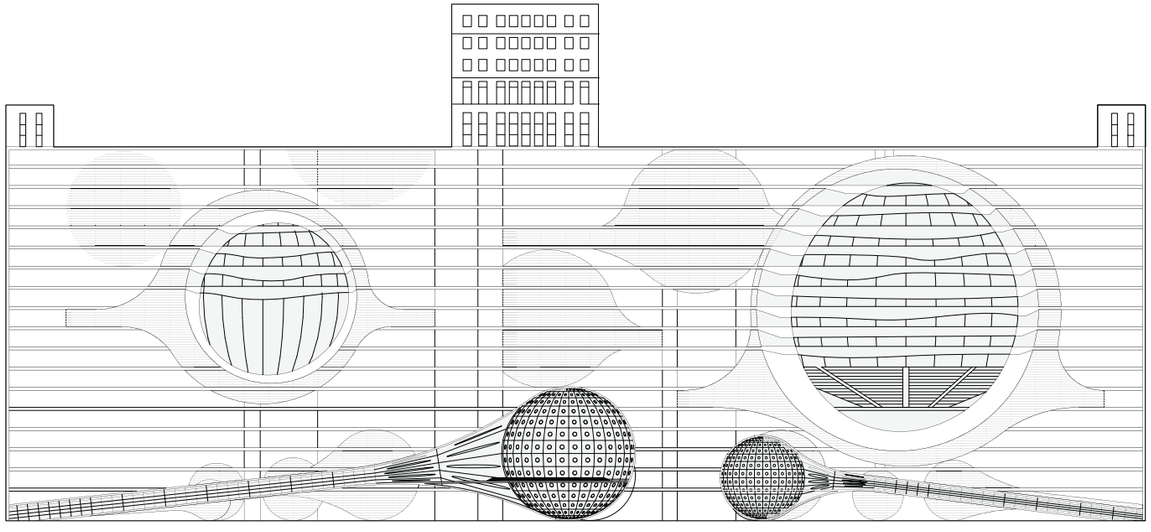
GROUND LEVEL FLOOR PLAN: The first level of merchandise mart is the level of the street theater. Since Merchandise Mart is such a large matt building occupying a prominent location in downtown Chicago creating the street theater allows for an extension of the outside streets and patterns of circulation to extend into the building. Utilizing the existing façade and entrances a system of street theaters is deployed across the building to create a walk able network of circulation, gallery, and performance stages throughout the lower section of the building bringing the city inward (see diagram on previous page). This system starts as the basis for vertical growth of other theater typologies with the formation of cores for vertical circulation.



7th Level Floor Plan



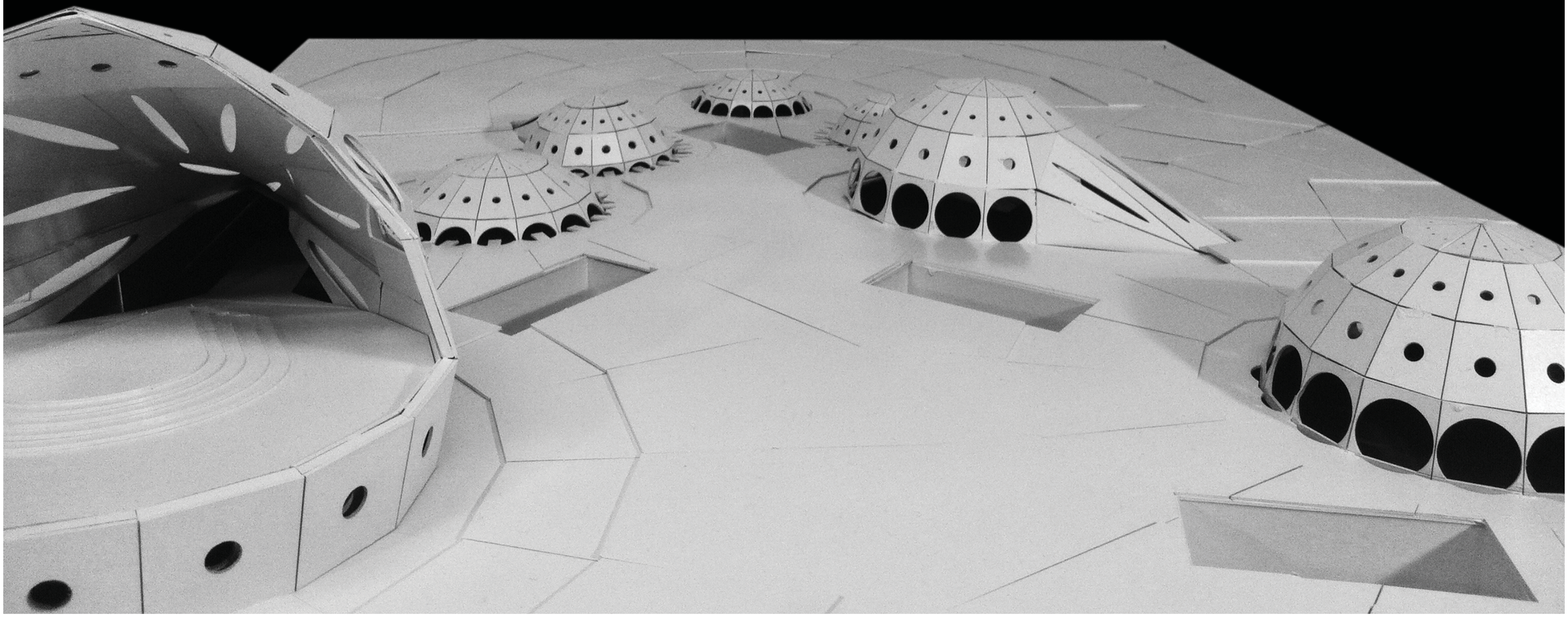
Roof Floor Plan



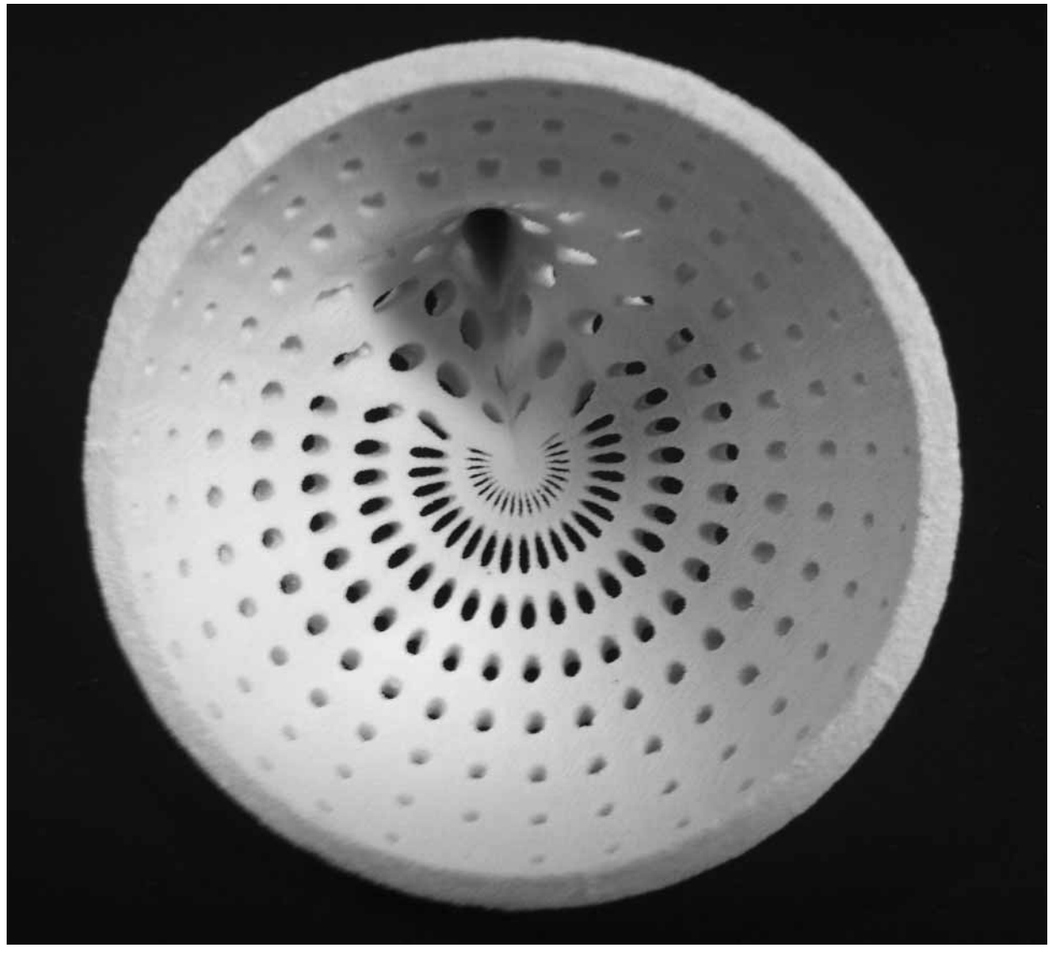
TYPICAL SECTION(ABOVE): Section cuts through street theaters below and larger auditorium and proscenium theaters above

TYPICAL FLOOR (LEFT): In total there are twenty-five floors in Merchandise Mart. Using the system of street theaters, the exterior envelope, and the new set of cores, additional theaters are dispersed vertically through the building. A catalog of theaters is used to measure and disperse a variety of theaters all the way from the ground to the roof of the building. Unlike the street theaters in which the tube section of the formal hybridization is reacting towards the external exits, the diagram of the theaters above the ground floor must react to the placement of the cores and thus react to the center of Merchandise Mart and not the perimeter. The void of the sphere, which hosts the theater program, has two main sections to it. The first section is the level of the specific theater and operates based on the rules of that typology. Above the first level of theater is the second section of the sphere that is the balcony section. The balconies and cells grow inwards or outwards depending on their relation to the envelope, cores, other theaters, and their ability to extend into the theater space while maintaining views of the stage. The balconies become extensions for the floor plates that hold the office and every other non theater space in the building.

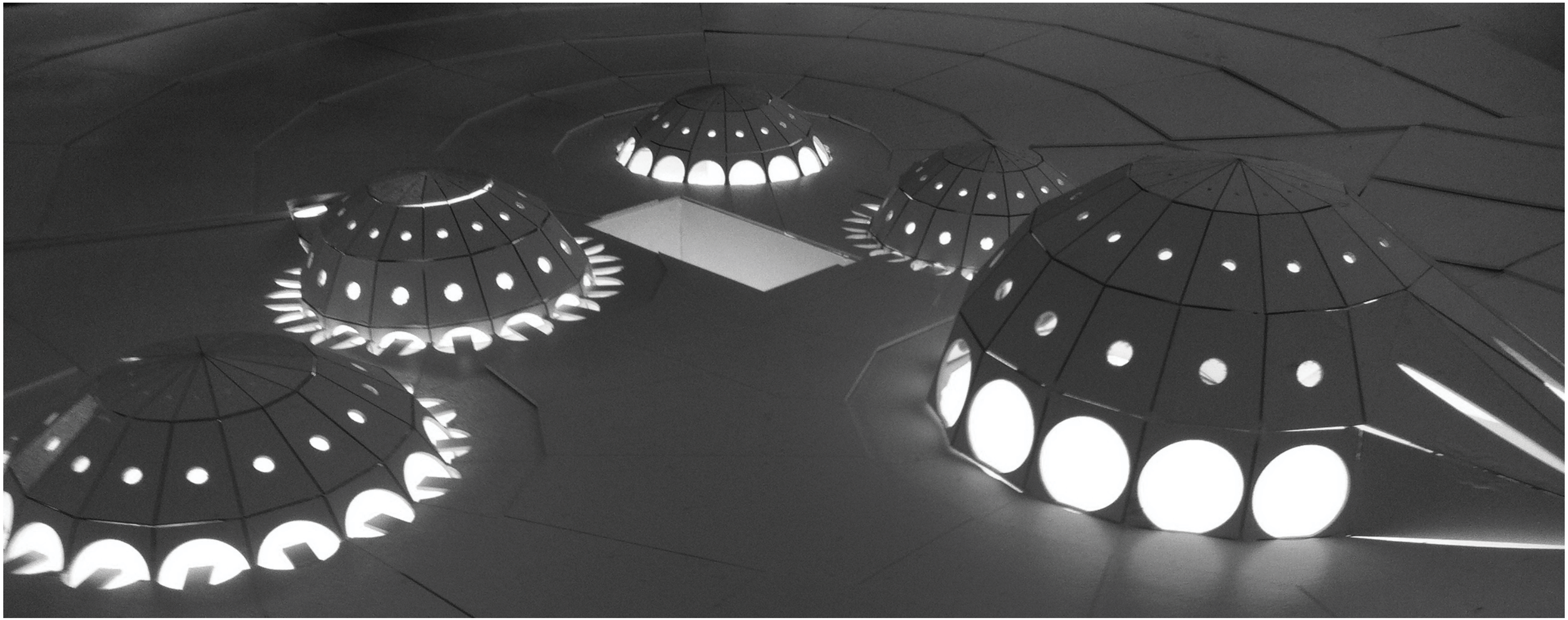
MODEL FLOOR PLATE SECTION: This section of the model further illustrates the area between the theaters on each floor plate where the office, support, and other non-theater program exist. The idea of theatricality is extended beyond the theater onto the office floor space by creating stepped areas for program. The balconies of the workspace extend into the theater creating a new type of office zone that becomes theatrical as workers become the spectators of the theater.



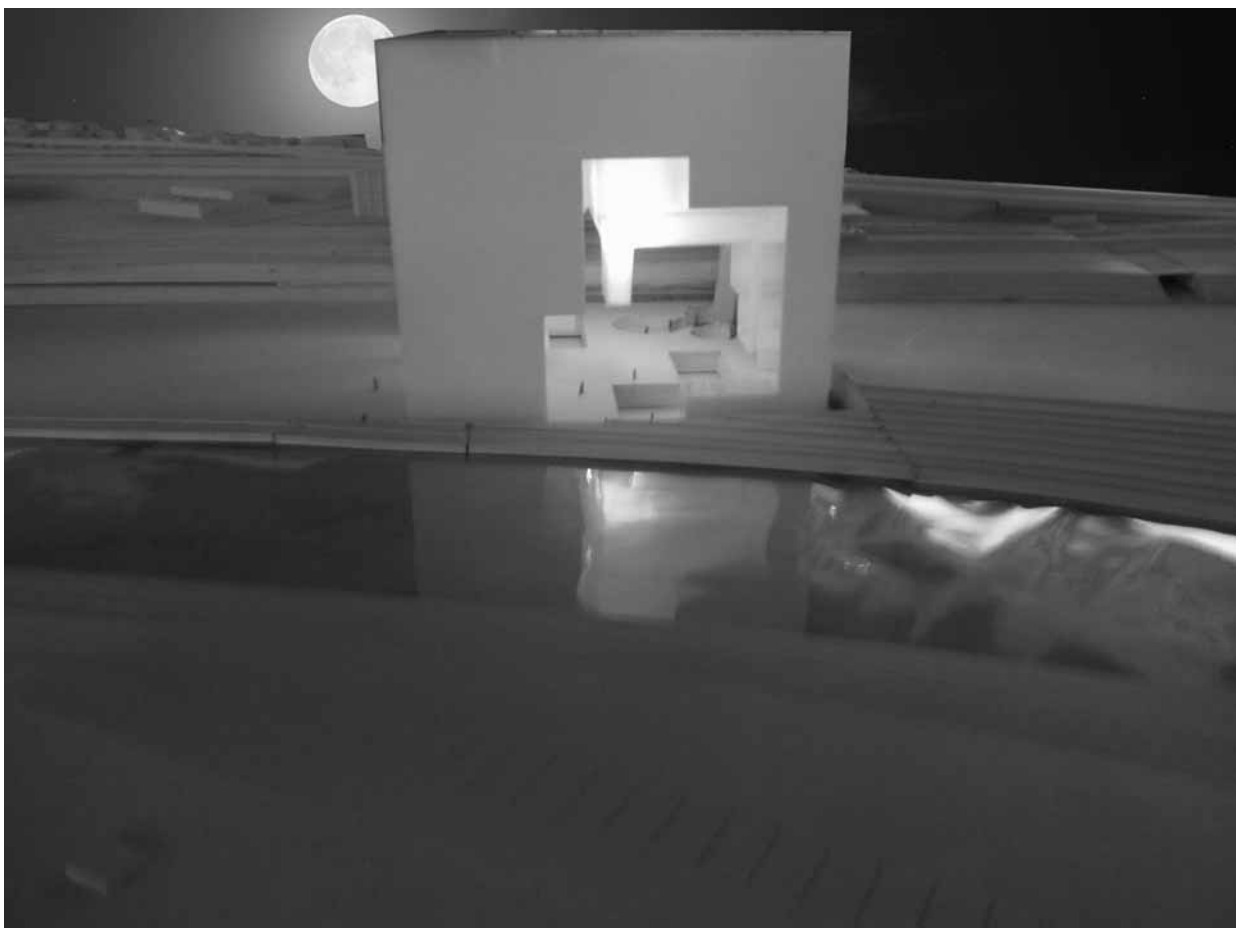
Model looking through one theater onto another



Hybrid study model internal shell structure



Final Model Illuminated Theaters



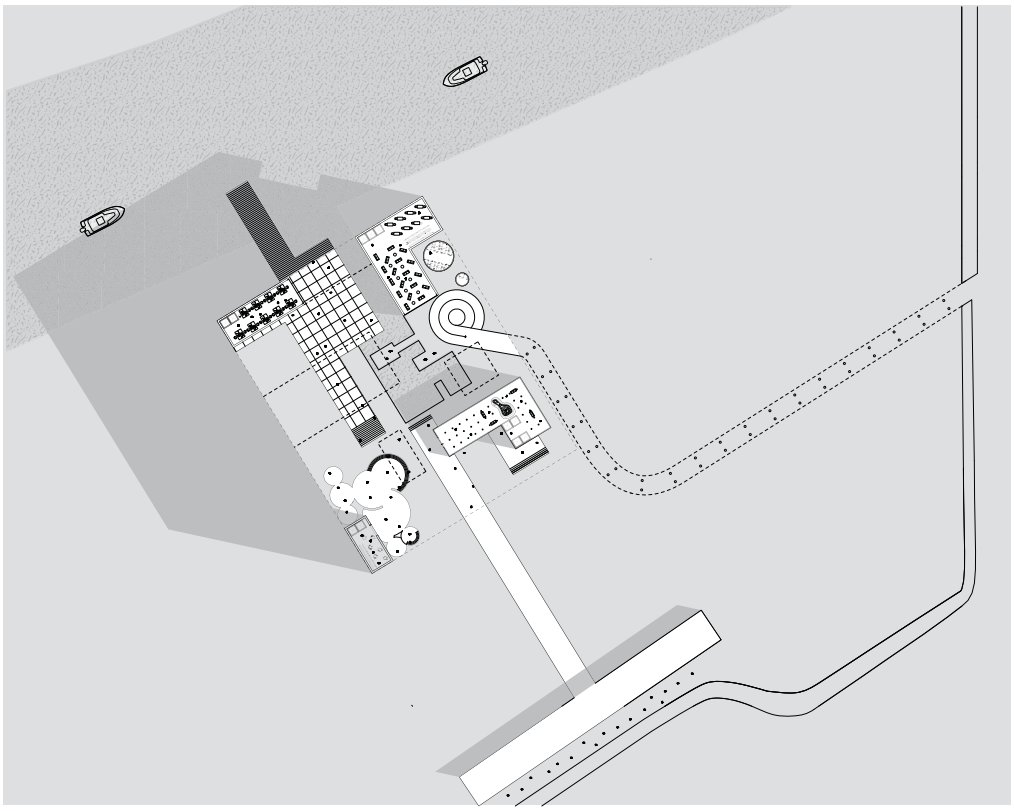
URBAN TABLE

Studio Spring 2014

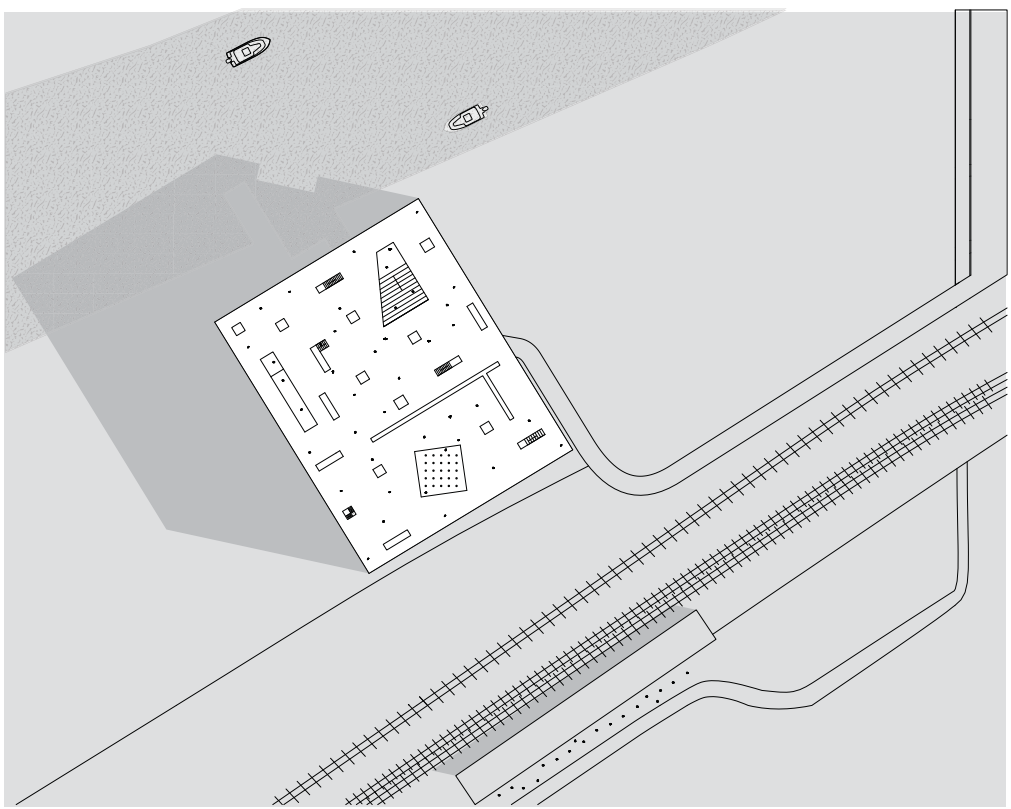
This studio focused on the creation of large-scale interior urbanisms. The design was for a half a million square foot YMCA in Chicago that would host a variety of programs including housing, offices, recreation, and education. The idea of the interior urbanism studio is to reflect on contemporary architectures problem with designing "Junk Space" typologies.

The design of the YMCA focused on the creation of architecture as it relates to the scale of the city, moving away from the autonomous small-scale architecture that populates most of our built environment. The studio looked at collage as a way to bridge these vastly varying programs with the interest of creating new relationships and scenarios through the act of juxtaposition. By organizing these disparate programs to selectively interact with one another new environments and scenarios are created. By controlling when and how the juxtaposition of the different programs happen a gradient of private, semi private, and public spaces are created.

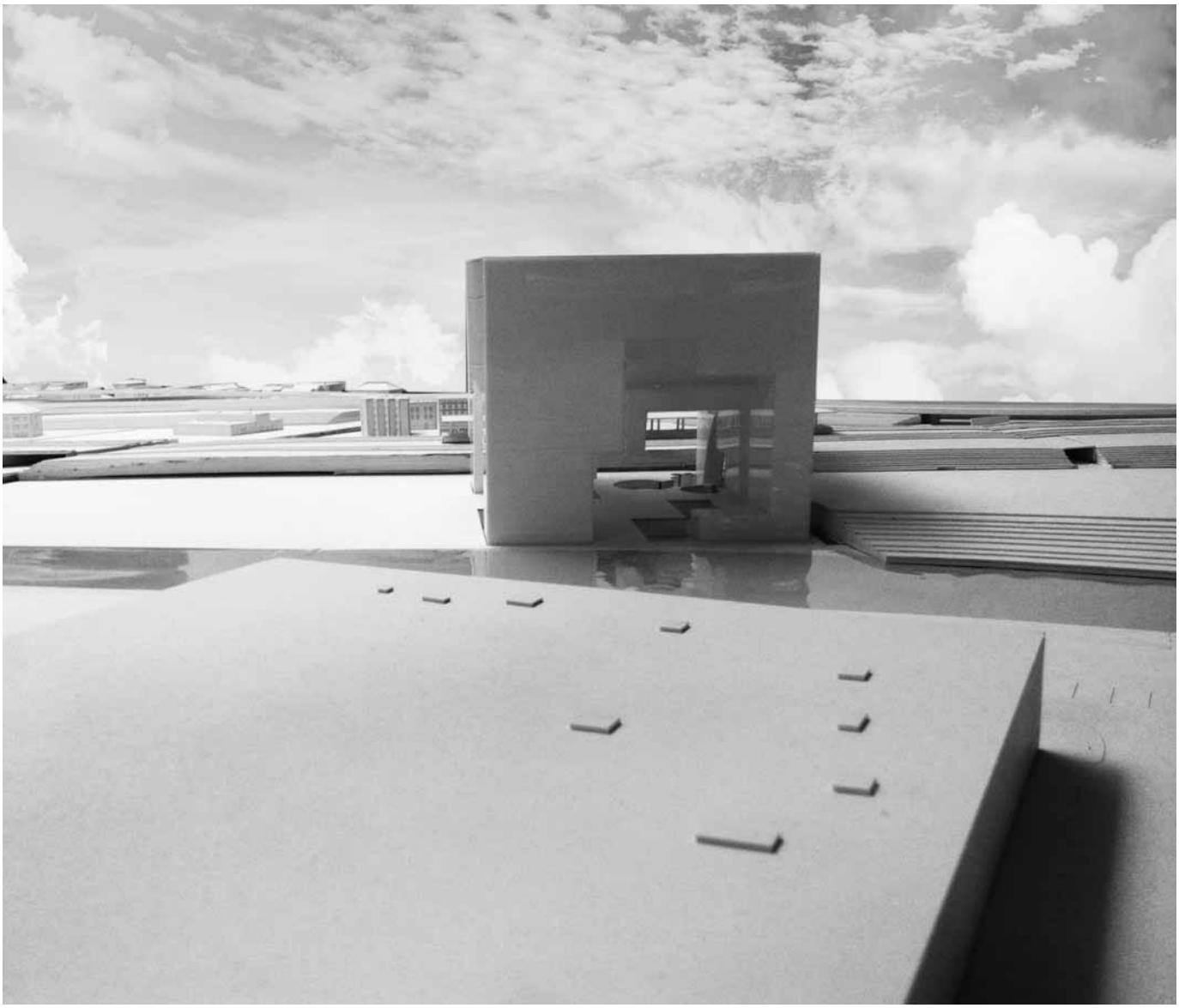
Instructors: Alexander Eisenschmidt, Jimenez Lai



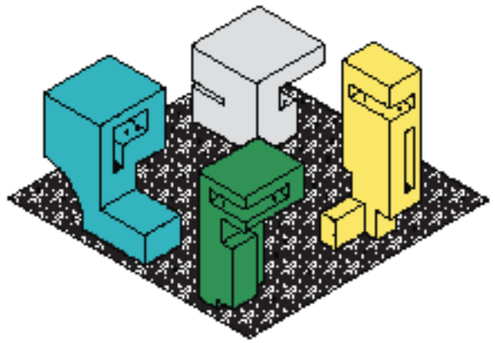
Site Plan



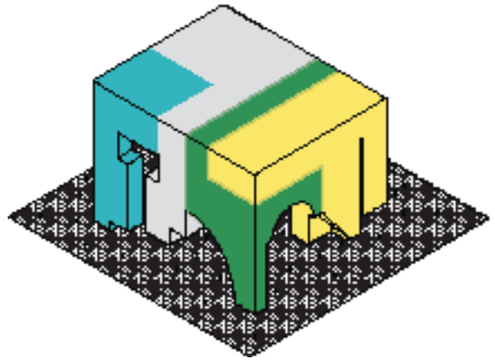
Roof Plan



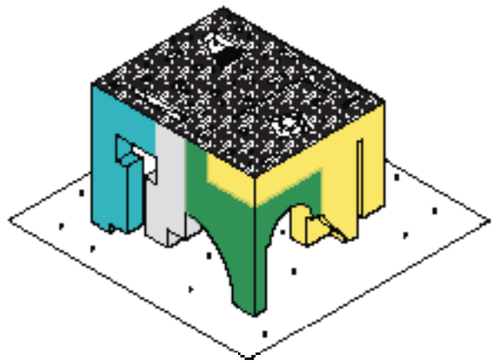
SITE: The site of the YMCA is an old brownfield lot in the Bridgeport neighborhood of Chicago. The site is bounded to the North by the Chicago River, closely to the east by I-90, and to the south by a busy public transit facility. Utilizing the four legs of the building, each attempts to draw circulation in from different areas to create direct access for people approaching in car, boat, bus/ train and on foot. The four legs each also have four differently designed and separate plaza spaces. The separate and distinct characteristic of each plaza is reflective of the organization of the program in the building as it starts out autonomous in character and than gradually bleeds together until it reaches the roof and is reorganized as the main public space.



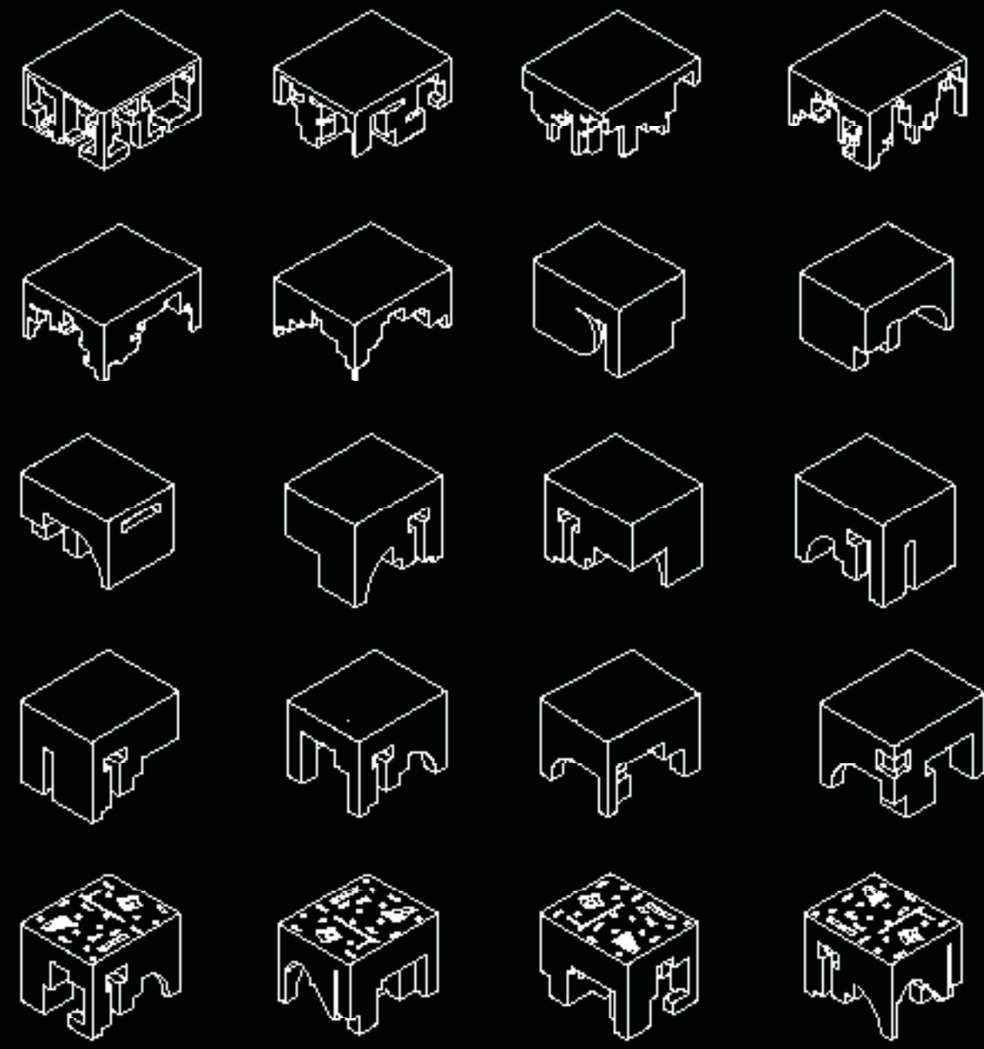
City as Autonomous Program



City as Conglomeration "Mixed Use"

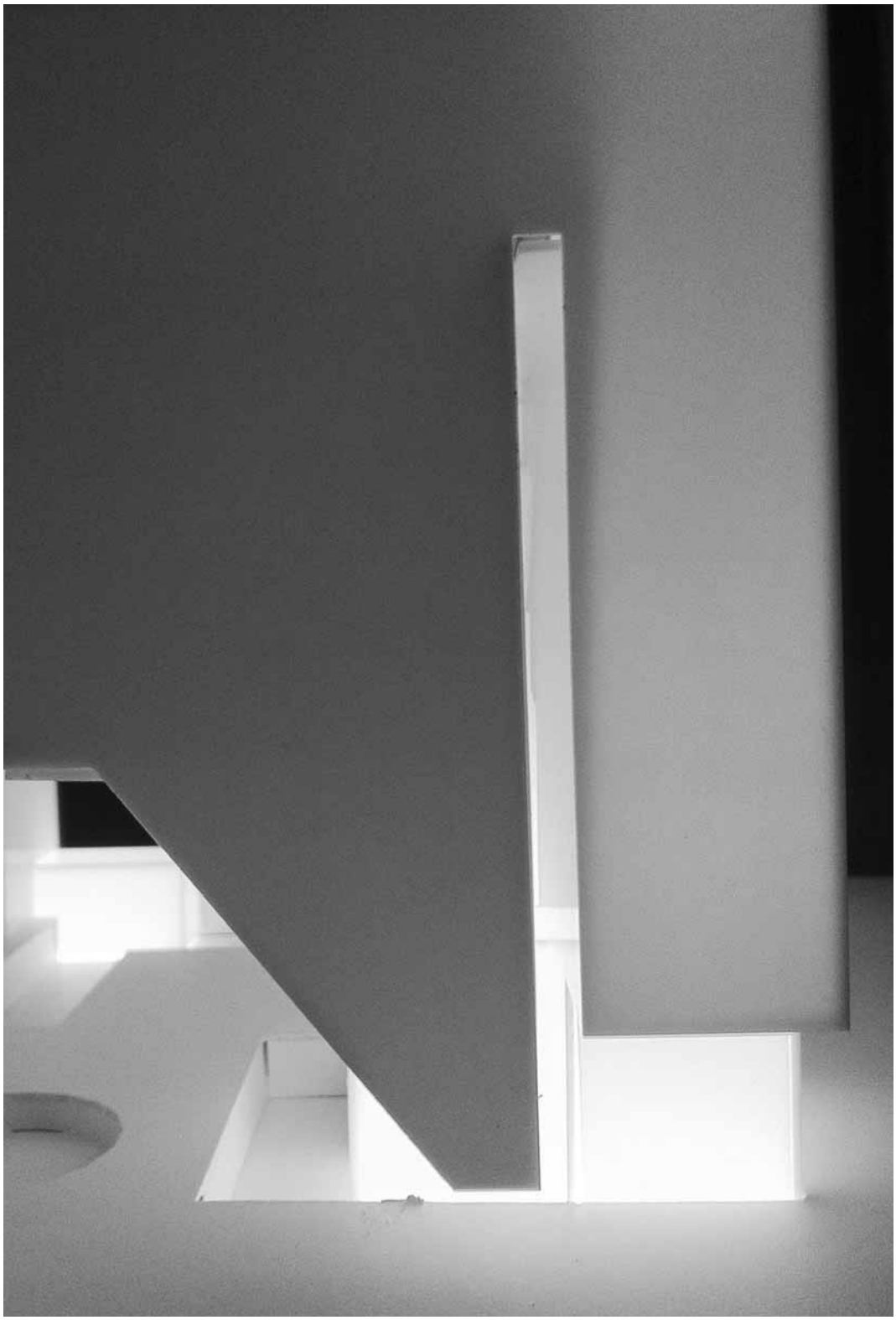


Social Condenser, Inversion of Public Space

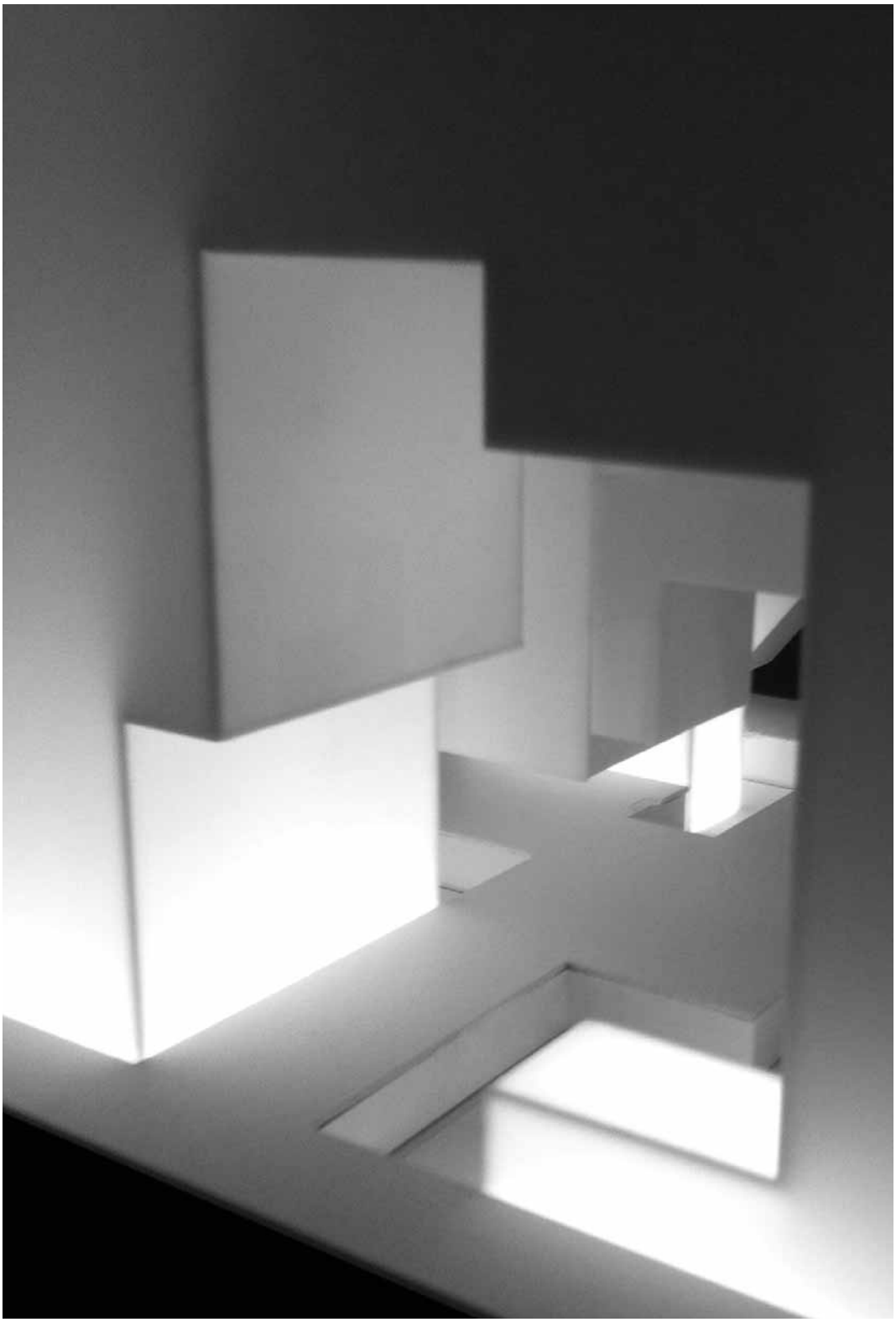


LEFT: The YMCA is composed of four primary types of program including sports and recreation, education, office, and housing areas. These series of diagrams illustrate the logic of evolution from individually autonomous buildings to a collage of multiple programmatic typologies into one structure. By combining the programmatic four "legs of the table", and activating the roof as a vertical public park space the traditional pattern of moving from the most public areas of a building through an escalation of semi public/ private, towards completely private spaces is inversed. The four legs of the YMCA pull the street and public square through the building vertically where they are reorganized on the roof.

ABOVE: The form of the YMCA is derived from the interaction of the four programmatic specific legs of the building. While the building touches the ground in four different locations as to draw from four different areas of the site, each one of these entry sites is the start of a separate programmatic zone. The bottom of each tower leg is where the program type is the most autonomous and as the building grows vertically the shape of the legs grow together and apart to create moments of interaction and crossover to blend the distinction of environment and program until the newly established roof datum creates the first distinct moment of sameness in the elevated public space.

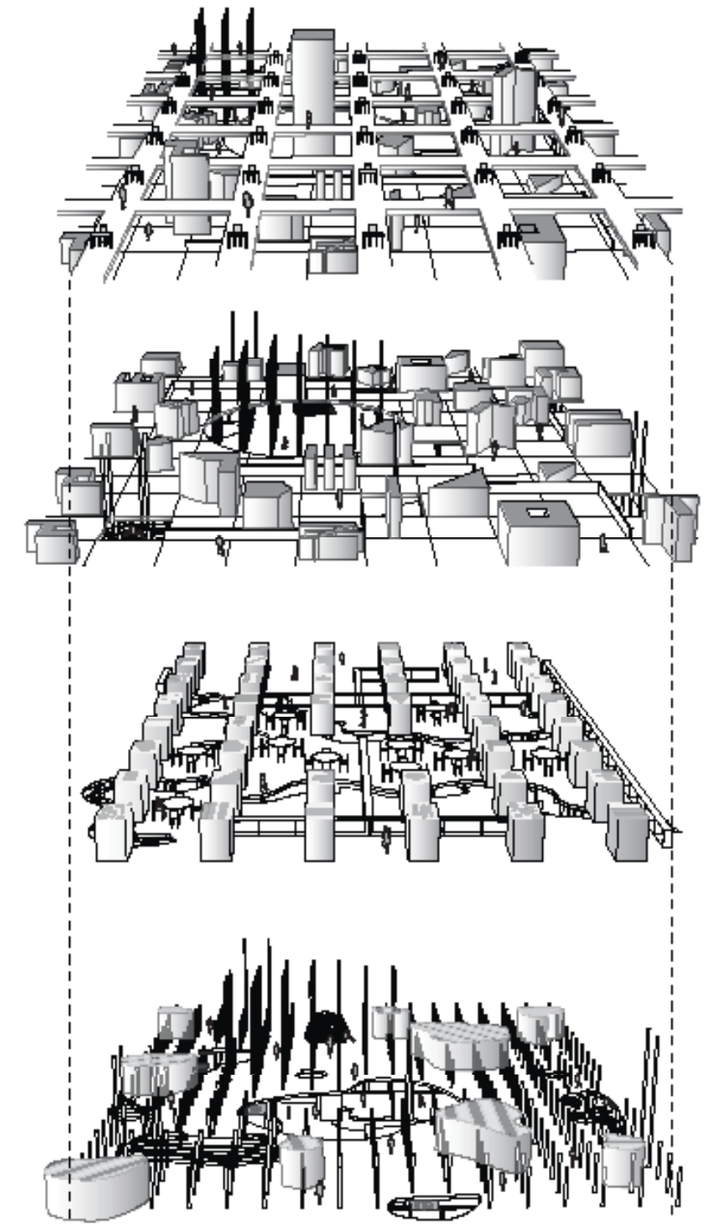


Exterior Model Photos

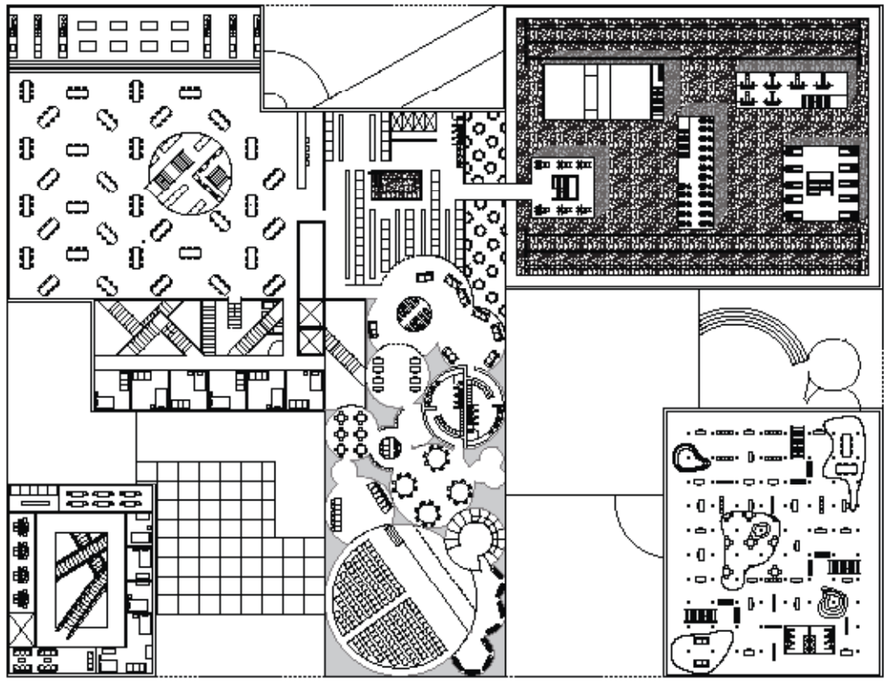


INTERIORS

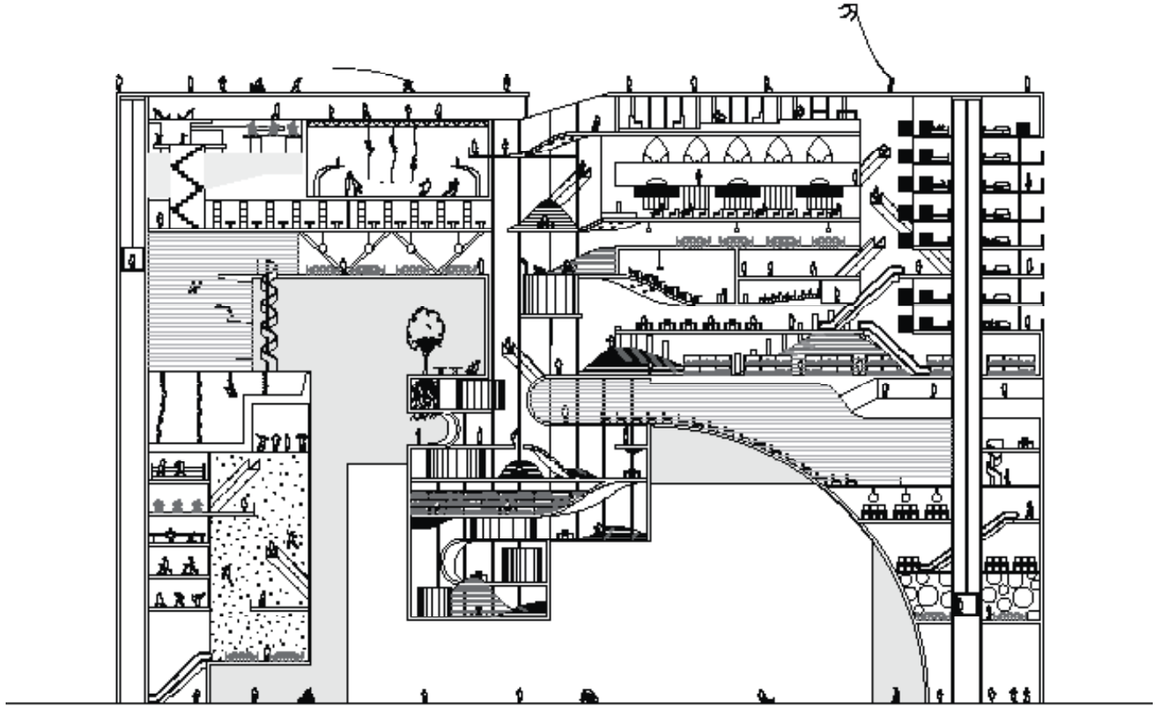
The interior of the YMCA was designed to show a gradient of scenarios from autonomous, mixed, and monotonous environments. Each programmatic leg started off with its own design that best fit that program and was in itself a unique architectural investigation. For example the office program started with a regular nine foot by nine foot column grids as the basis for prototypical work space. As movement happened vertically through the building the grid began to be disrupted by irregular shapes that took the form of offices and sloped seating and walking areas to make opportune the mixing of recreational, housing, and educational programs. The moments of disruption of the normative allow for new scenarios of mixing to occur. As seen in the model photographs autonomous environments were heavily saturated by one singular element such as light, texture, and color. The mixing of programs meant for the mixing of environments as well and the physical bleeding over of elements.



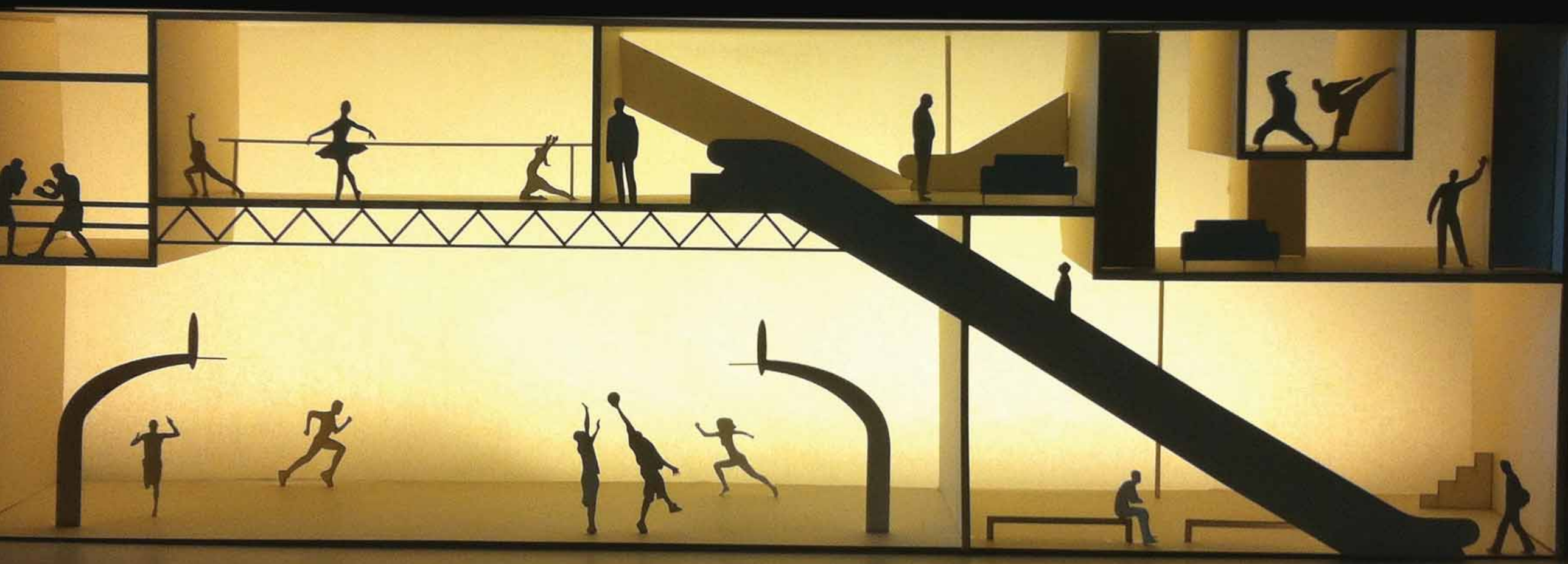
Layering of levels diagram



Typical plan (cut halfway up the building where some of the towers have come together and others remain autonomous)



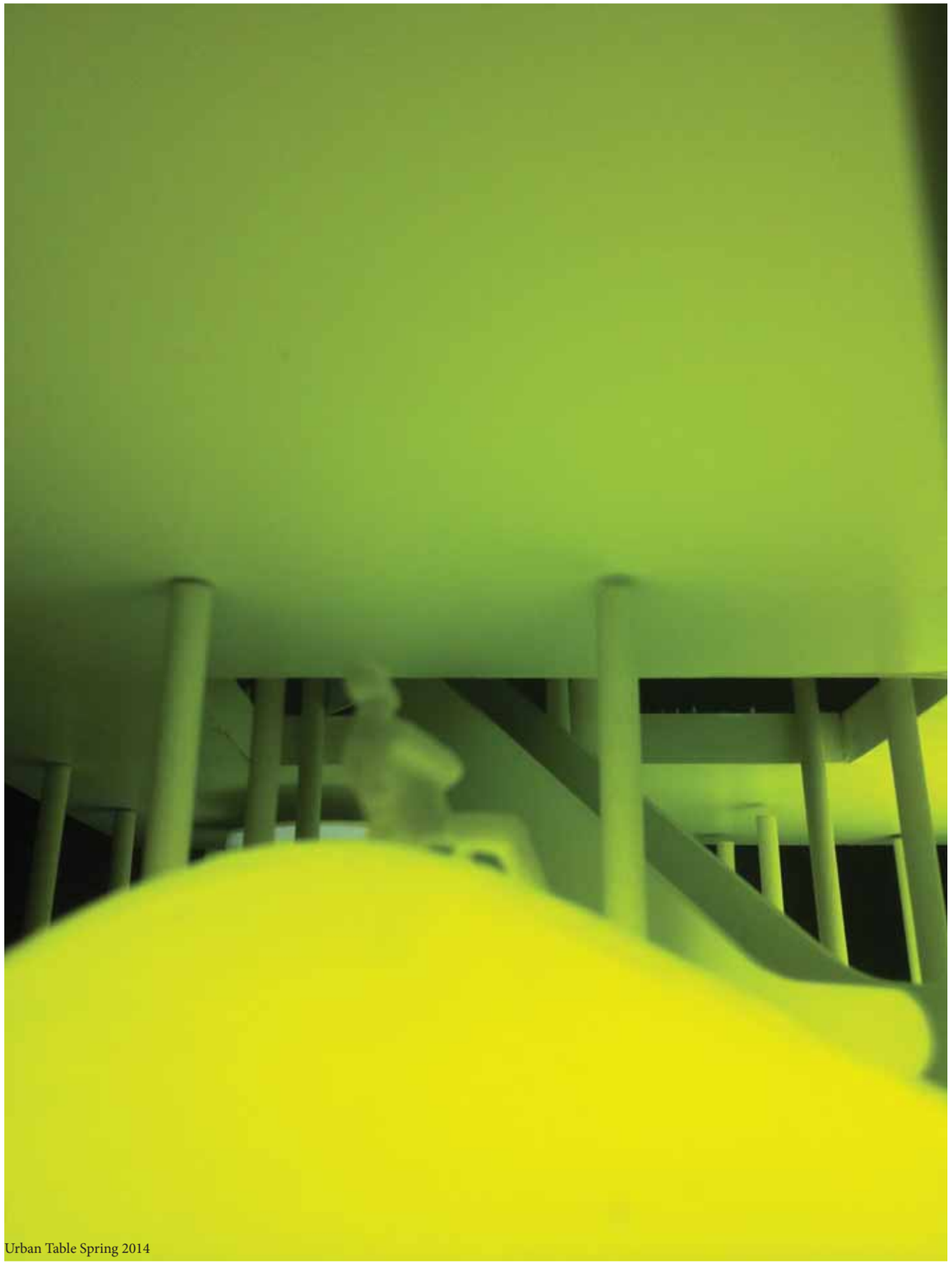
Typical Section (the section cut highlights the growth and design of the different programmatic areas and the moments of spectacle where the overlaying of programs creates unique moments and scenarios)

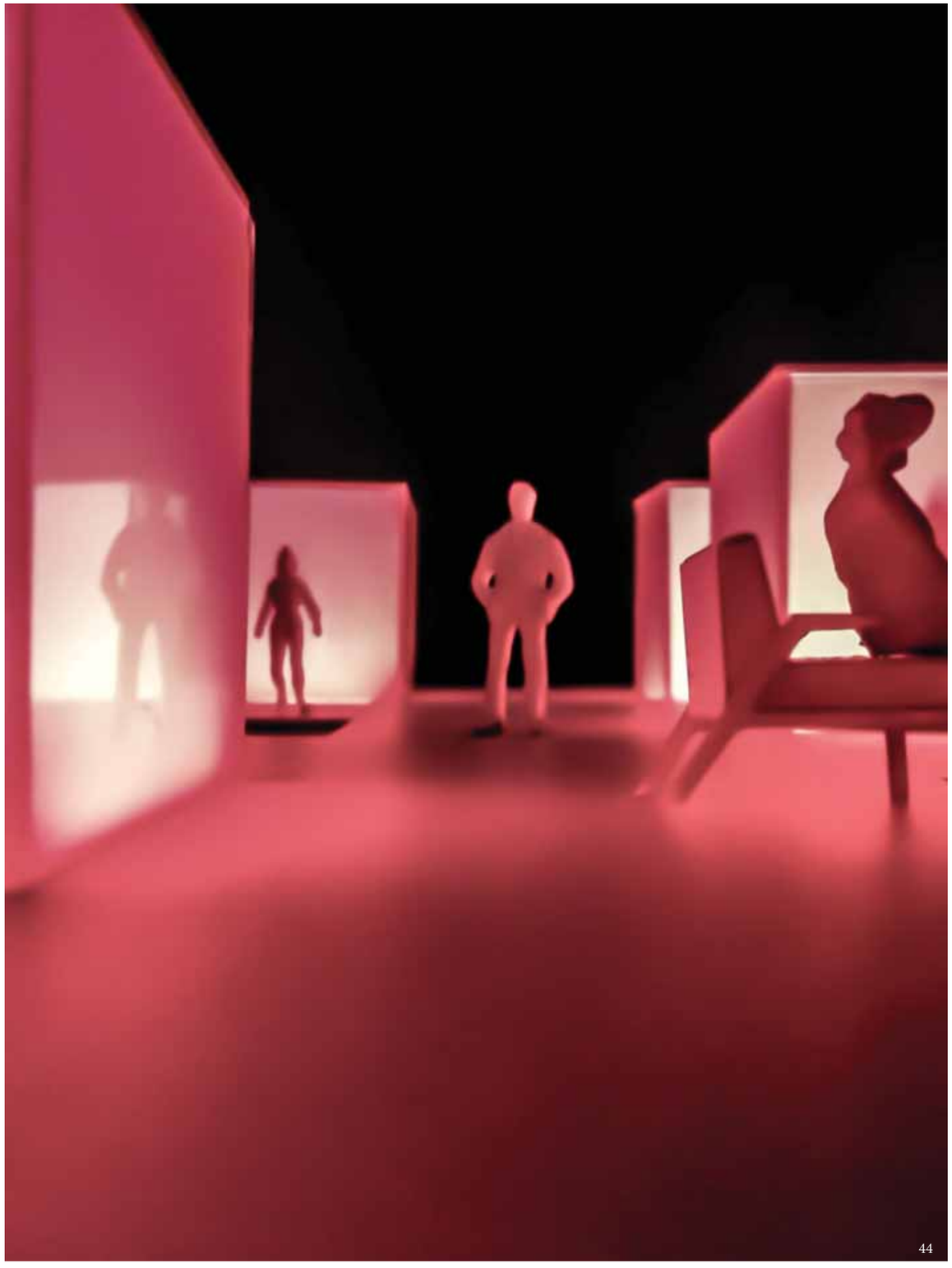


Sports and Recreation Shadow Model

The environments produced by the YMCA create ranging degrees of atmospheric intensities including areas of intense singular effects.

These environments have moments where they start to blend together creating hybrid environments. In the picture above for example the tactile finishes of the library are juxtaposed with the reveal of the program coming from the floor below.



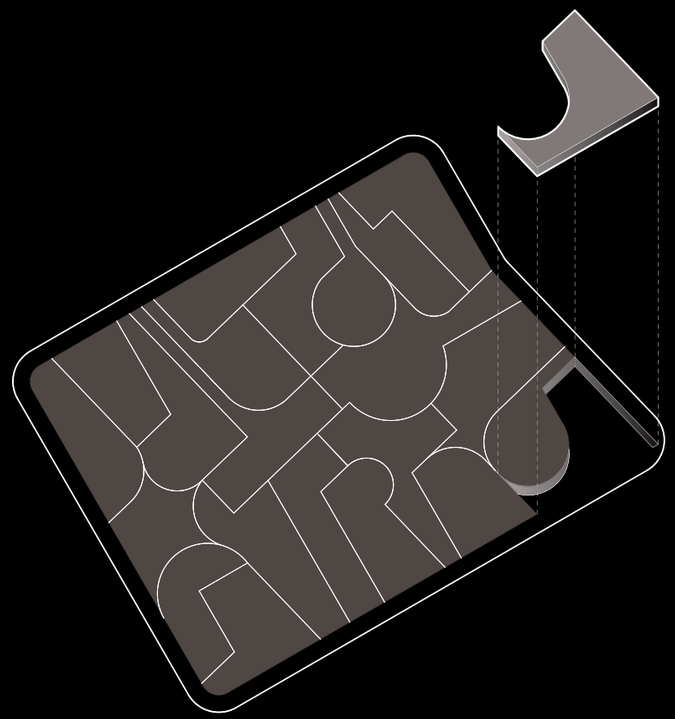


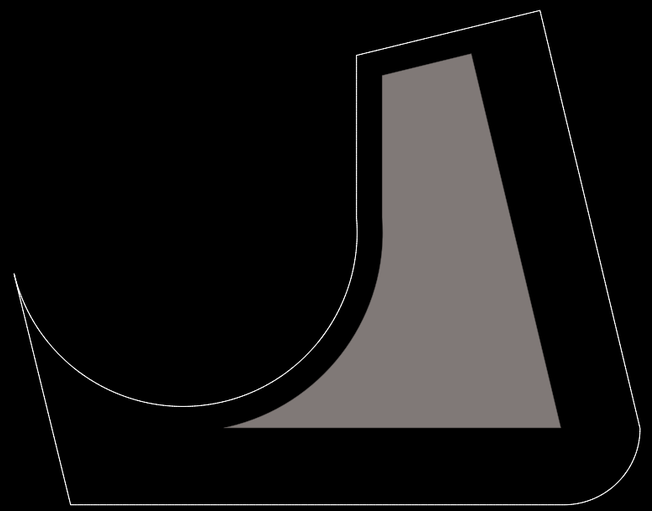
INSIDE OUT

Studio Fall 2013

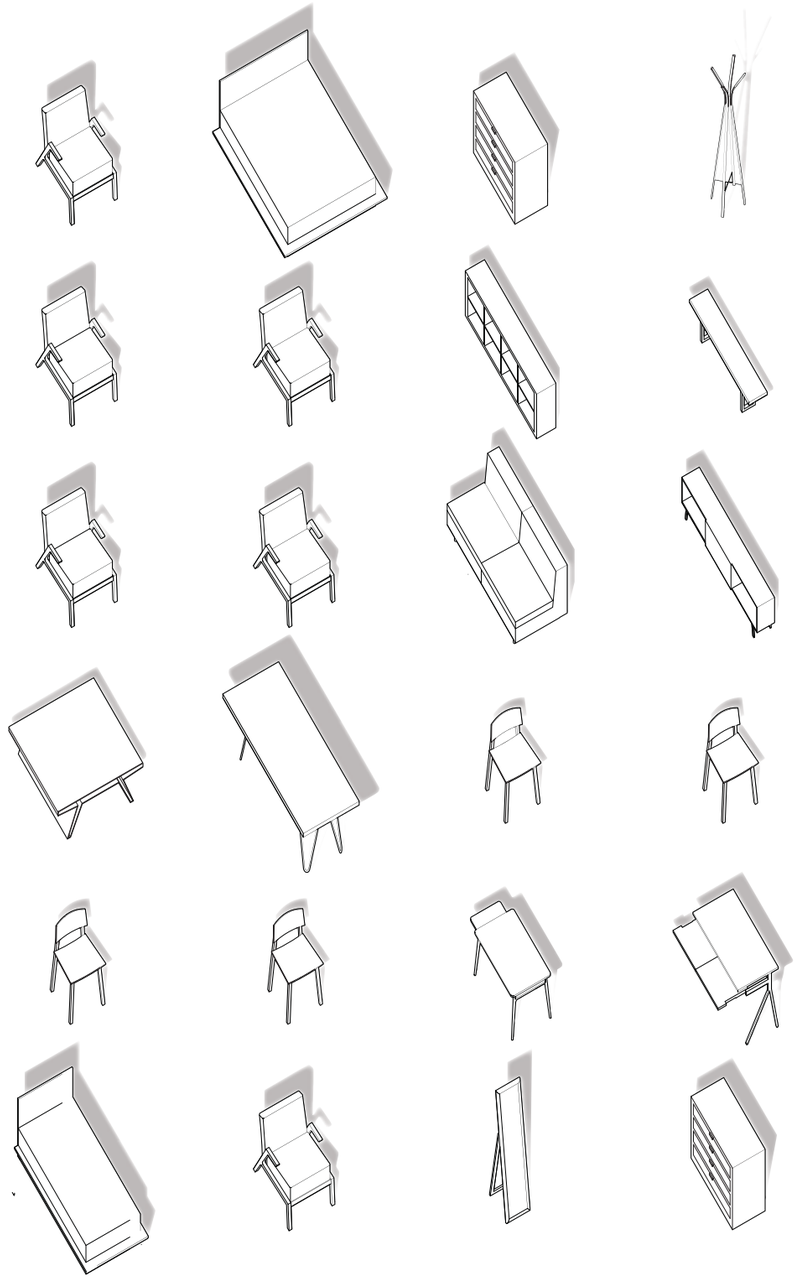
The house at Lake Meadows looks at the ability of décor and specifically super graphics as a means to influence architectural decisions. Working from the inside out a three-toned graphic pattern was used to produce a relentless interior effect along which furniture and built-ins are organized. The graphic pattern acts as an organizer in plan designing the furniture in parallel or perpendicular lines to the graphic pattern. In elevation the graphic works as a two toned yellow and blue color scheme that registers across built-ins and furniture as either blue or yellow depending on ones point of vision in relation to the graphic. The graphic further extends onto the walls and ceilings creating dropped ceiling conditions to define programmatic zones. The windows work to communicate the graphic pattern on the façade without the use of color through the repetition of a vertical panel system. The windows offer large amounts of light into the space without offering direct views from the street.

Instructors: Grant Gibson, Penelope Dean

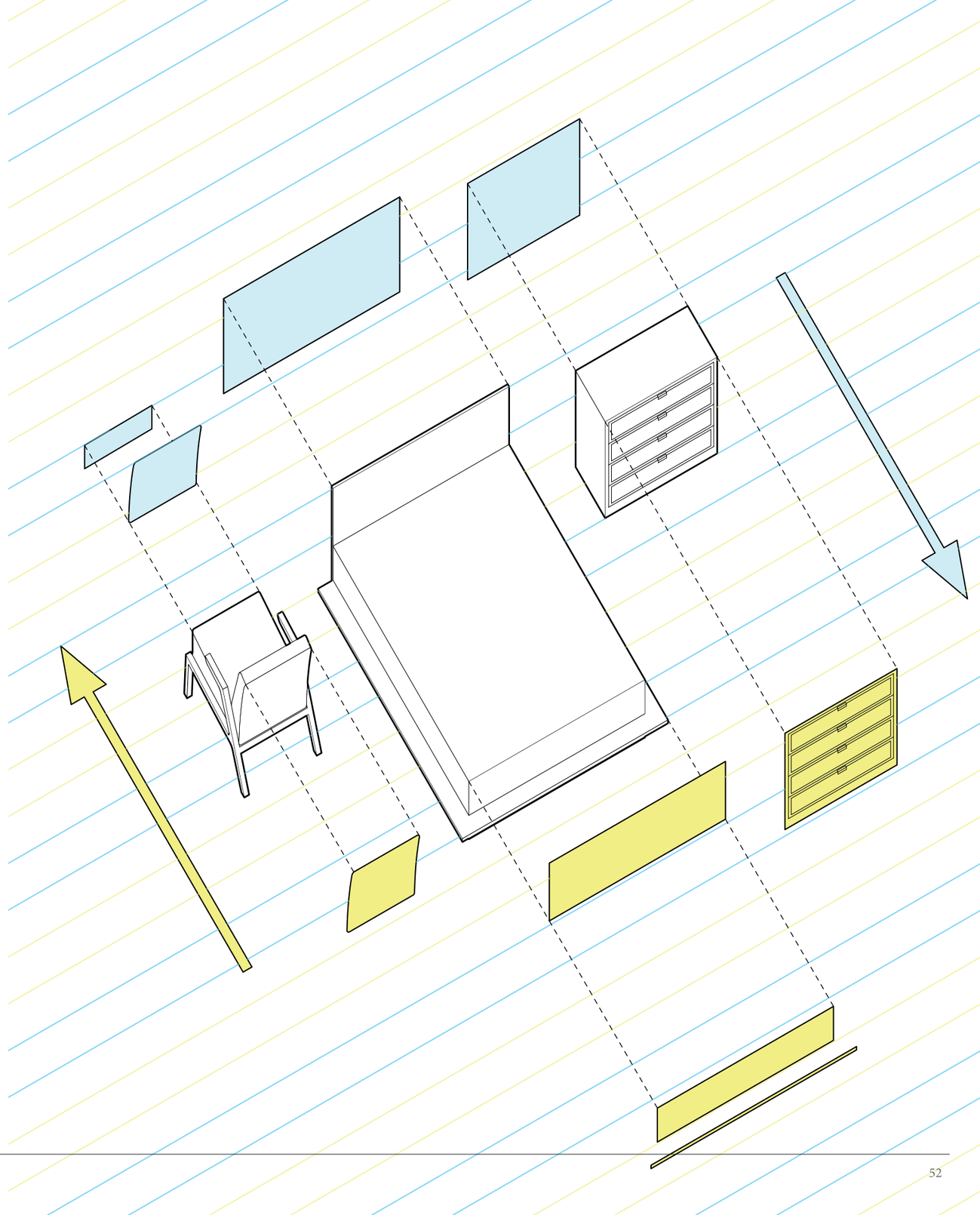




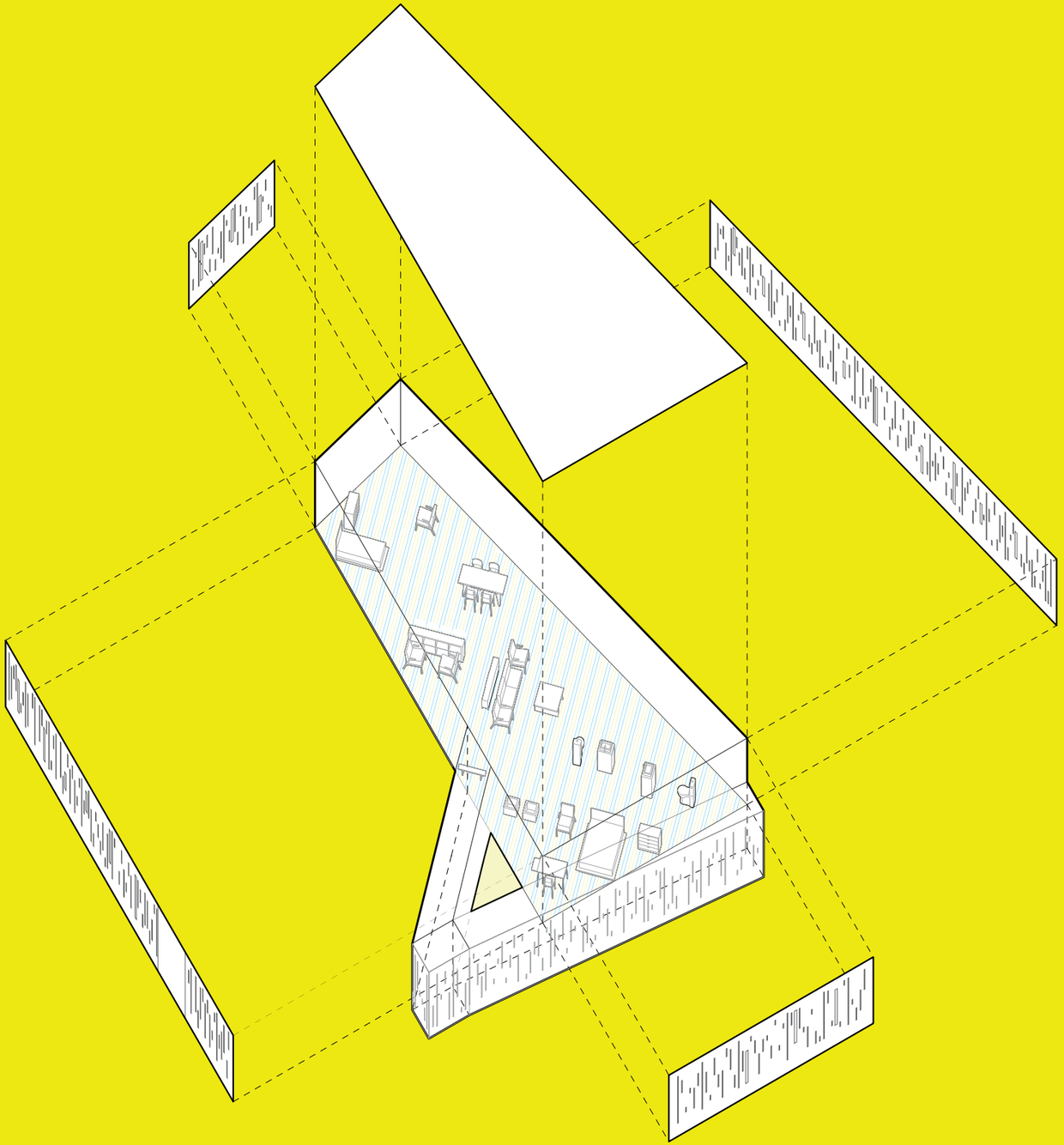
TOP: Lake Meadows Site Plan. BOTTOM: Buildable Area (Zoning)

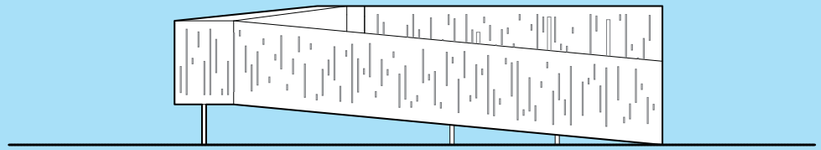


FURNITURE INVENTORY: The design of the house started with the selection of furniture. Generic mass-produced Ikea furniture was chosen so that it could later be transformed by the super graphic pattern and customized.



ABOVE (Super Graphic): The furniture is organized by a two toned super graphic. The graphic pattern gives directionality to the placement and orientation of the furniture.
RIGHT: In addition to the super graphic the décor of the house is organized so that when looking perpendicular to the direction of the pattern the viewer sees either completely yellow or blue elevations.





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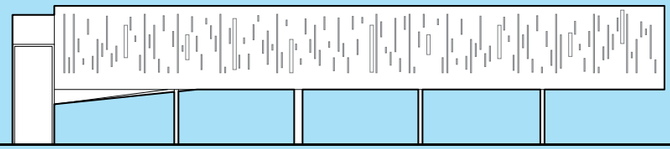

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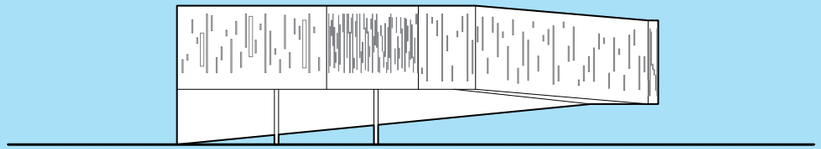

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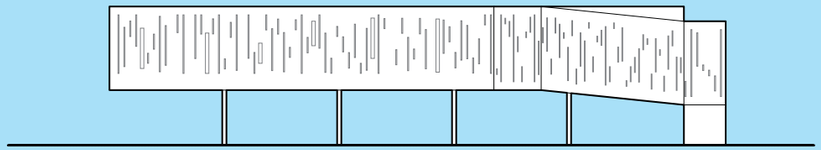
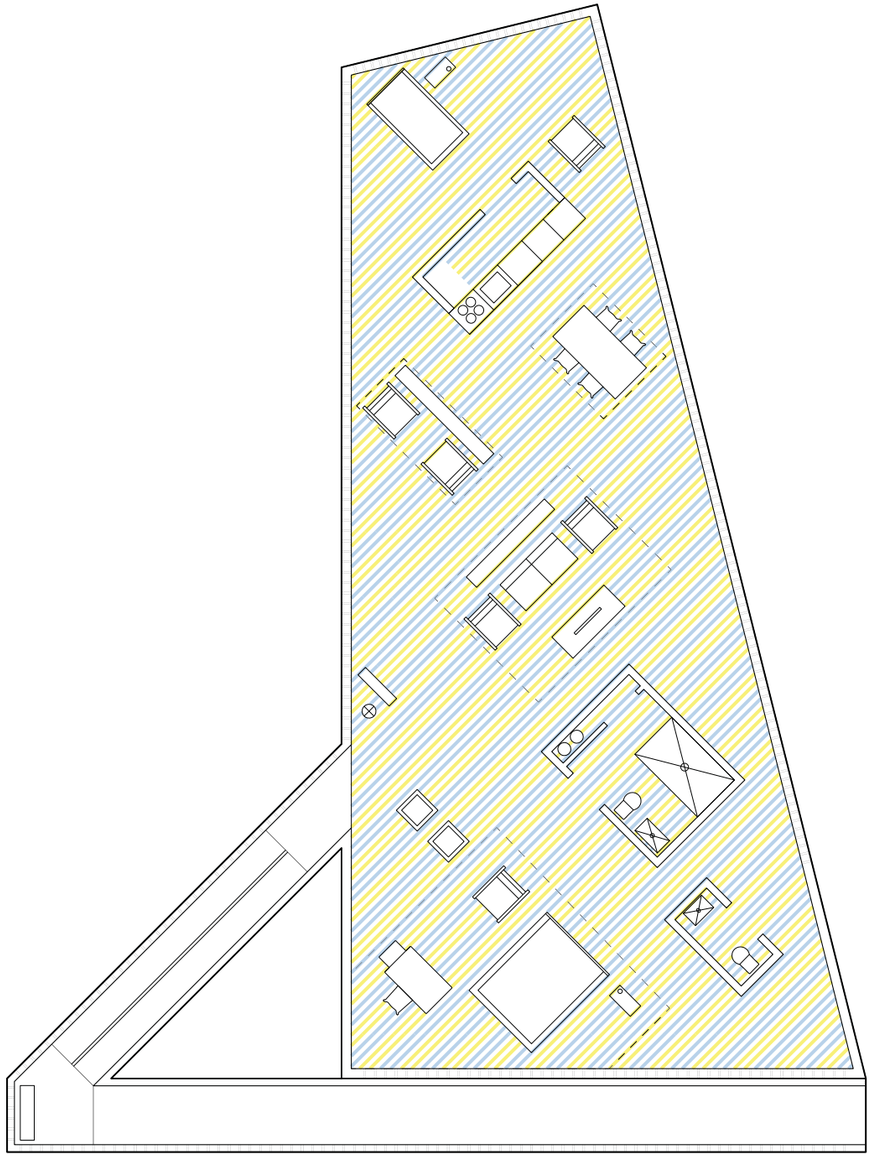
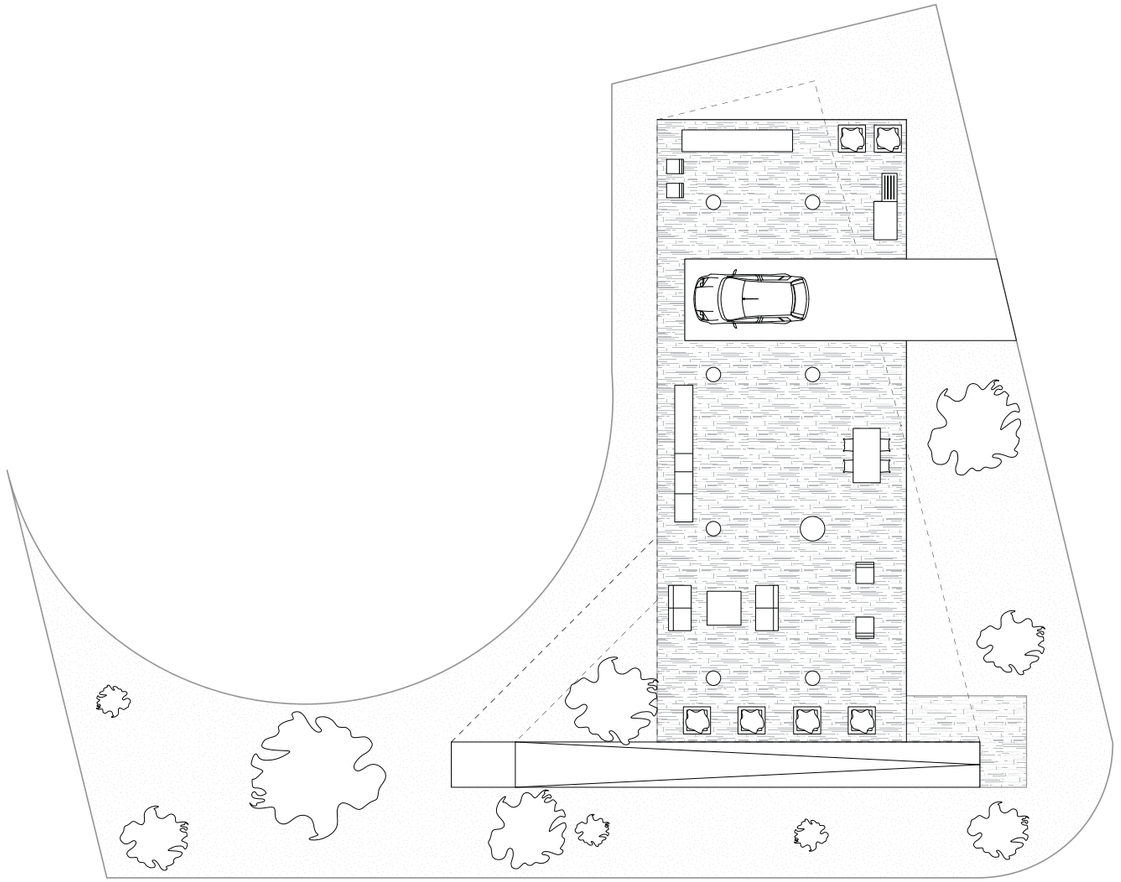


W

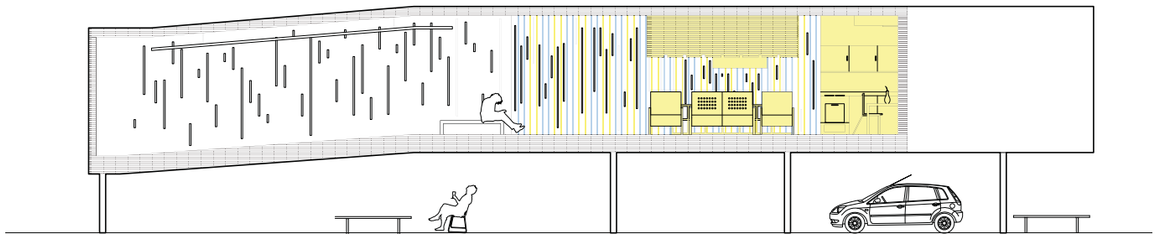
ABOVE (Envelope): The form of the building is designed to create a specific sequence of movement from the exterior into the main living space. Movement is directed from the muted exterior into the compressed ramp that funnels people up into the highly vibrant main living space.
RIGHT (Elevations): The windows are thin irregular slits that allow for a large amount of light to get into the interior but don't allow for one to see inside the house so as to give away the composition of the intense environment. .

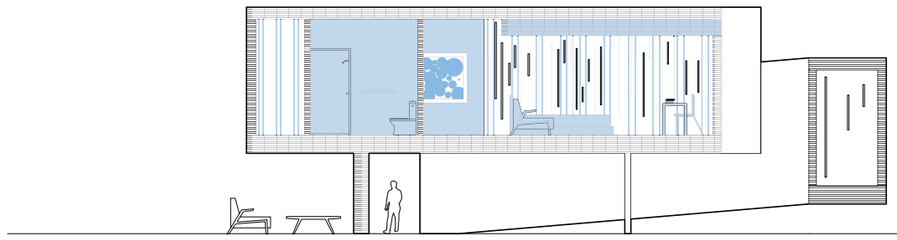


House at Lake Meadows Floor Plan

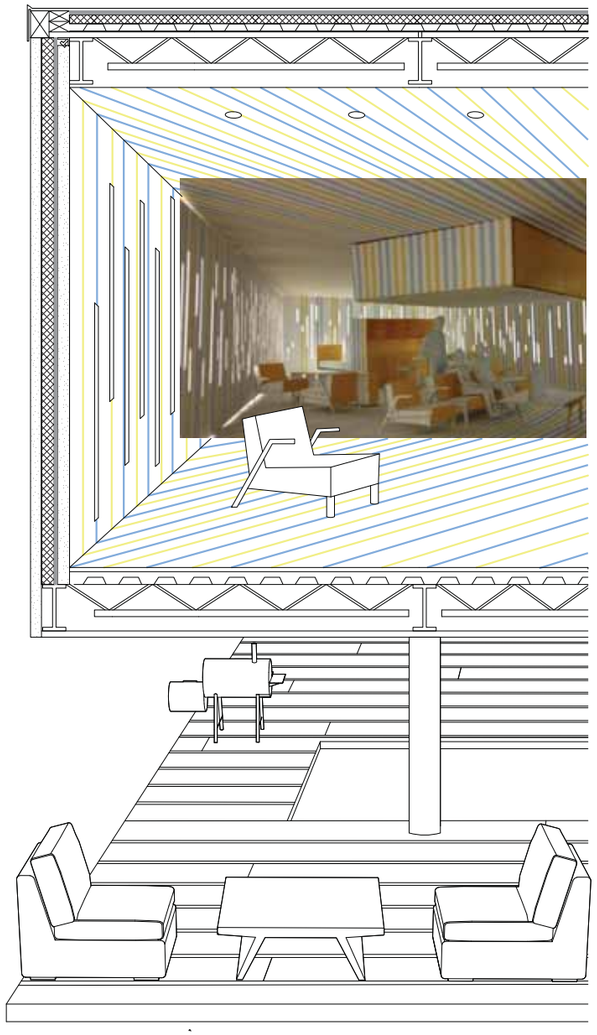


SITE PLAN: In contrast to the intensity of organization on the interior of the house, the outside living space is designed to go against the grain of the super graphic pattern. The exterior living space is designed as a normative condition that acts to intensify the experience of the interior. Movement is channeled from the outdoor living space through the tight ramp condition until one emerges into the "loud" main living space.

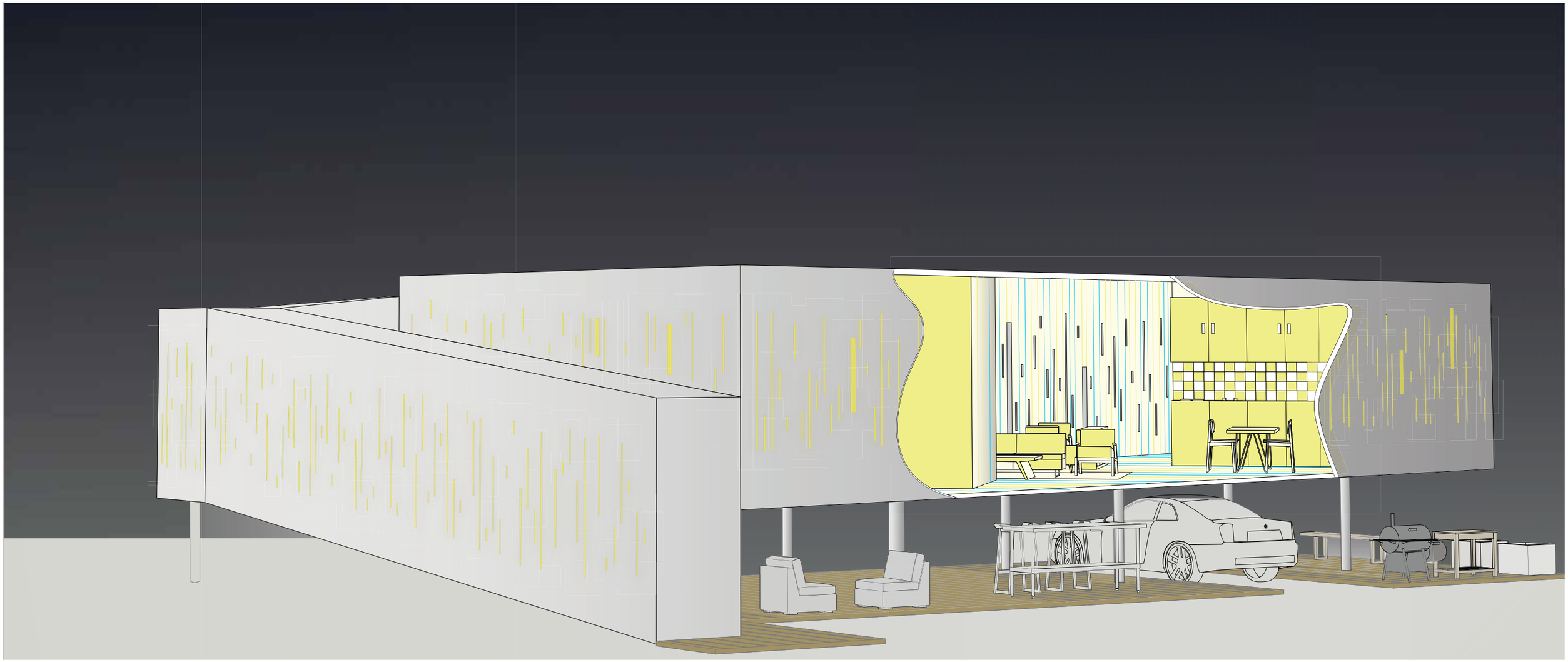




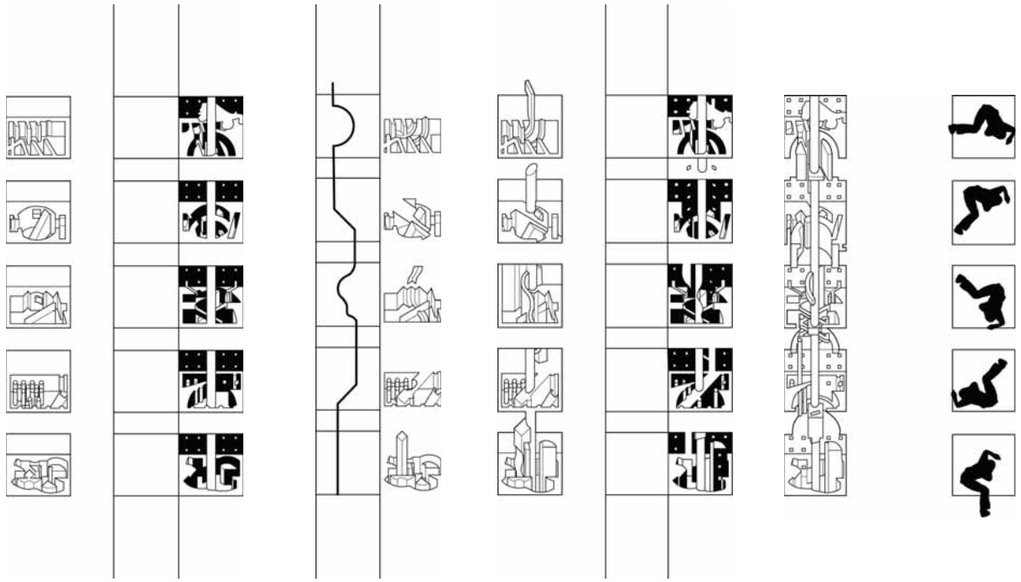
BUILDING SECTIONS: Each section shows how the decor color changes looking in opposite directions.



SECTION PERSPECTIVE: Assembly of building systems



Technical Cutaway Illustration



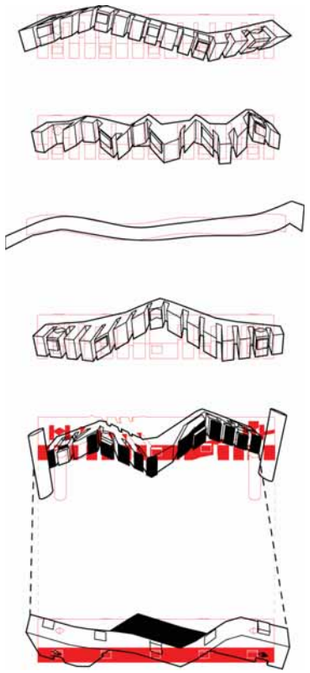
Bernard Tschumi Manhattan Transcripts (Copy)

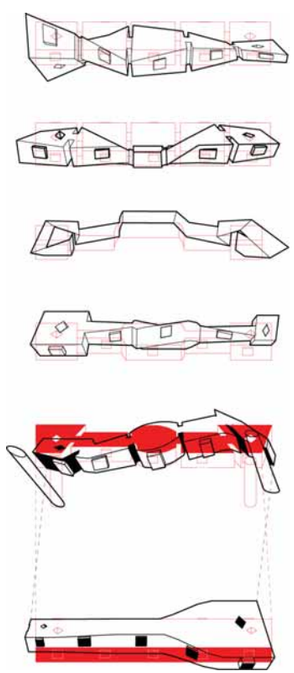
OFFICE TOWER

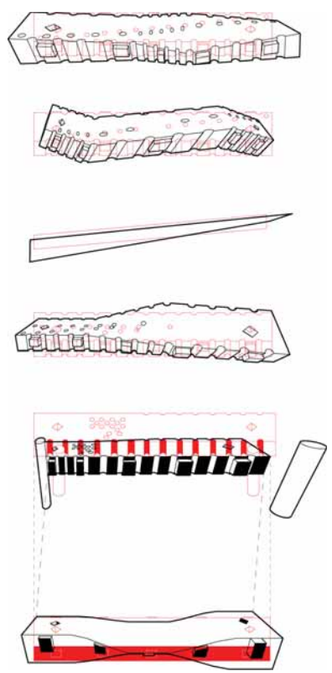
Studio Fall 2012

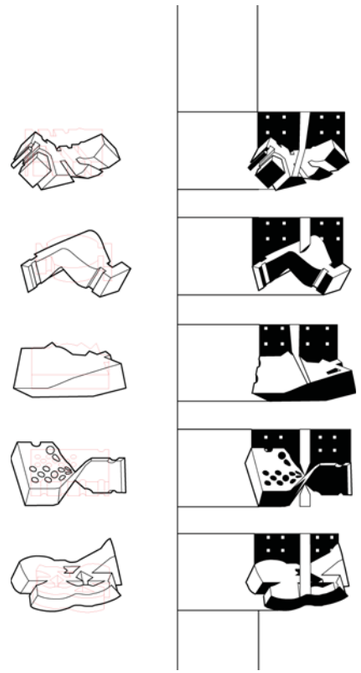
This project focused on control as it relates to drawing, digital modeling, and physical modeling with the desire to translate ideas between each medium. The studio started with Bernard Tschumi's Manhattan Transcripts as a template to facilitate a deeper understanding of an architectural drawing set through the act of copying. Controlling the copying of the drawings resulted in a detailed understanding of the relationships between individual lines, drawings, and the set at large. Using this knowledge a new study was produced by projecting the original themes into new distorted drawings and models. The play between positive and void in the drawing set along with applied deformations created unique spaces that formed the basis for a series of shape studies going forward. The shape studies were gradually refined based on a set of operational rules that described the physical making of the form. This form then became the basis for a fifteen-story office tower. Through physical models various structural systems, cores, and graphic schemes were tested and chosen.

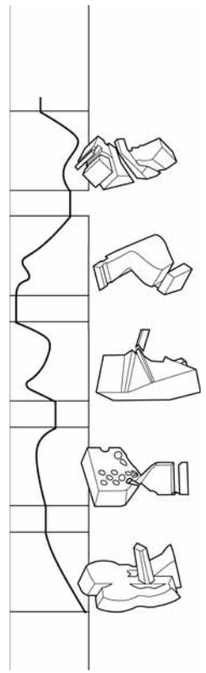
Instructors: Paul Preissner, Kelly Bair

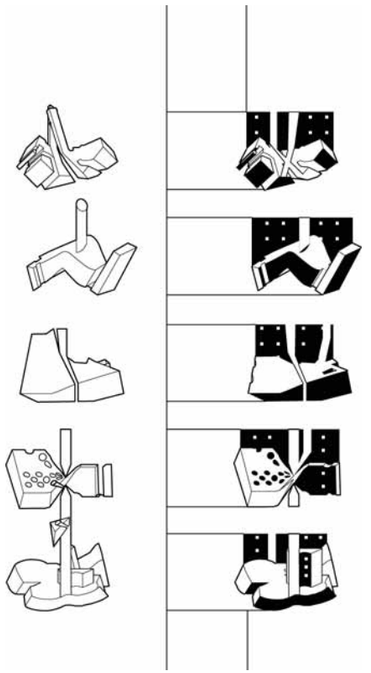




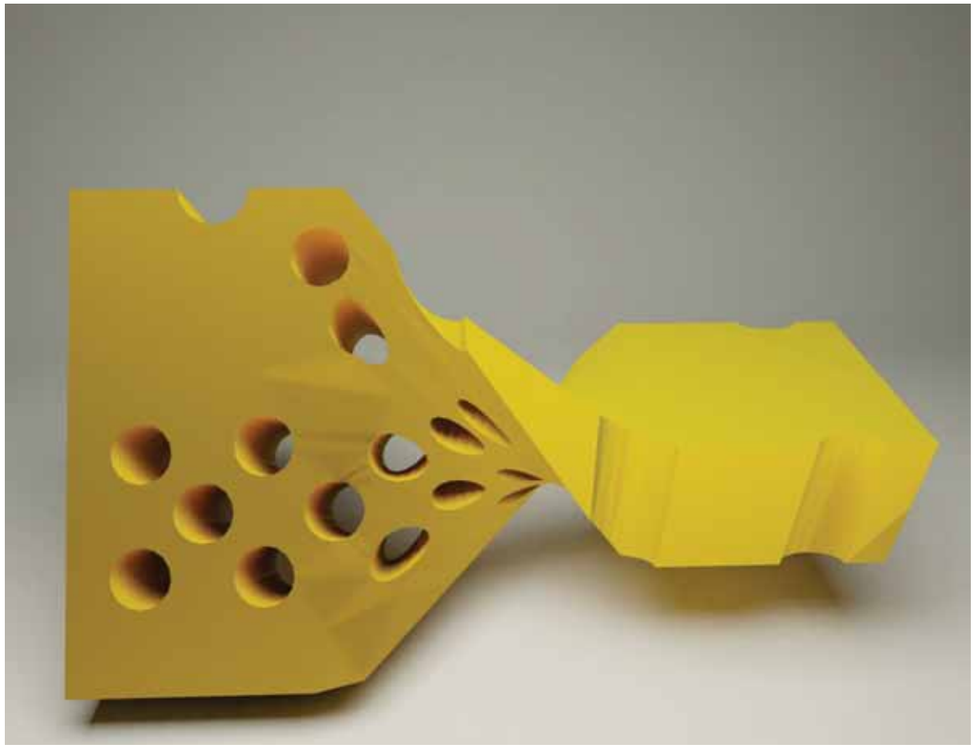




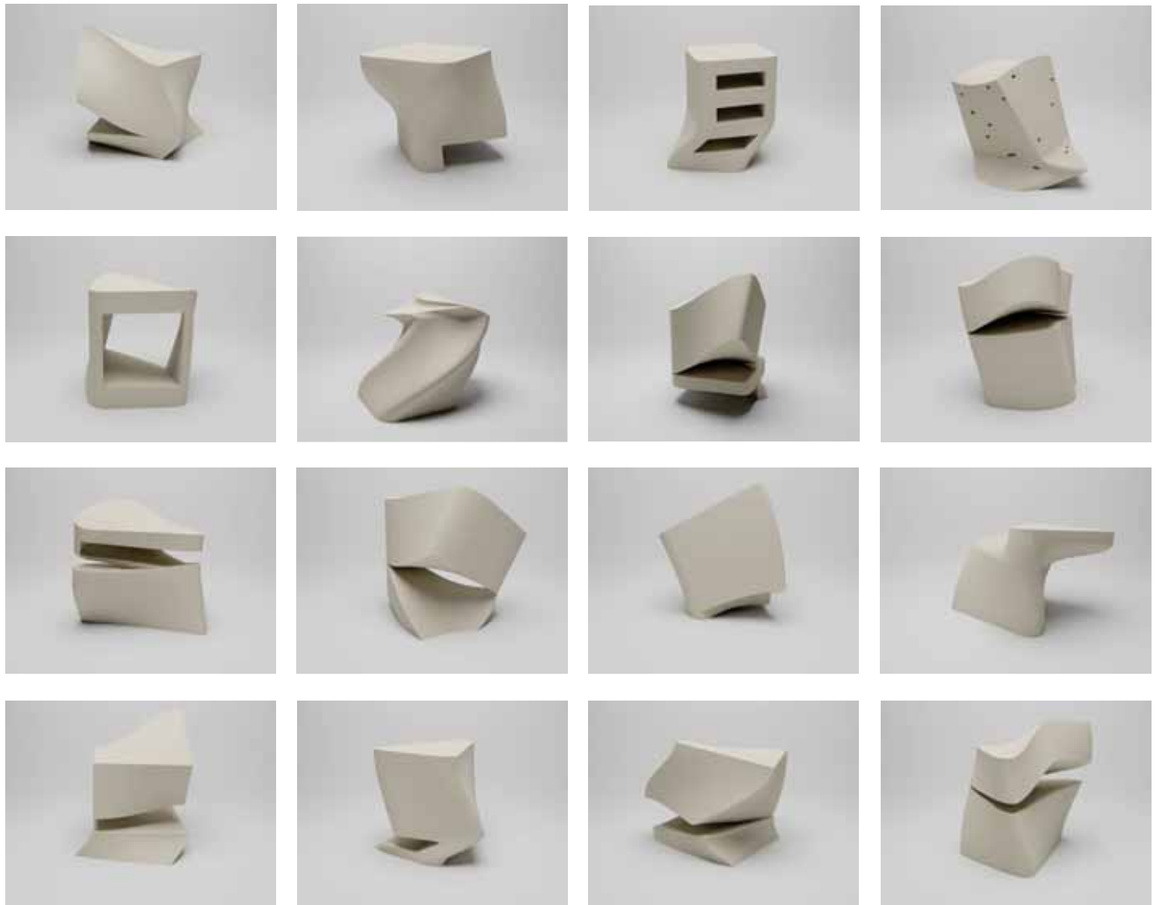




BERNARD TSCHUMI MANHATTAN TRANSCRIPTS DISTORTION: The transformation drawings of the original Brenard Tschumi drawings began with modeling the perceived negative space of the original Tschumi drawing as solid masses. Using a set of predetermined rules for each drawing transformations were applied to the solid masses and overlaid on top of the original drawing lightly shown in red. The original drawing set strongly emphasizes movement in a static drawing confined by the spatial organization of the corridor box each section occupies. The transformations seek to retain the value of movement while breaking from the linear box the original drawing set occupies.

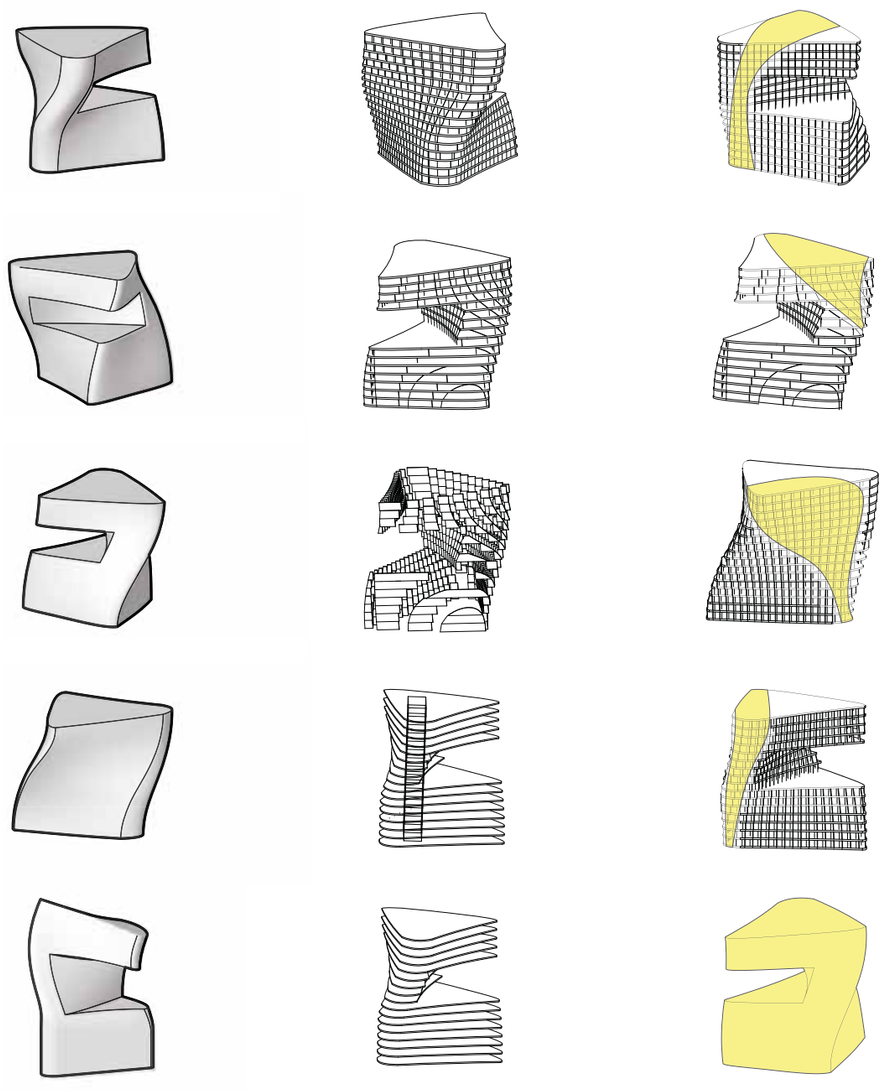


FORMAL DISTORTIONS: Using the transformed shapes created in the fifth Tschumi drawing models were created to advance the shape studies in the drawing set. The act of moving from two dimensional paper representations to three dimensional models meant that there was room for reinterpreting the forms to exagerate the new movement depicted in the drawing set.

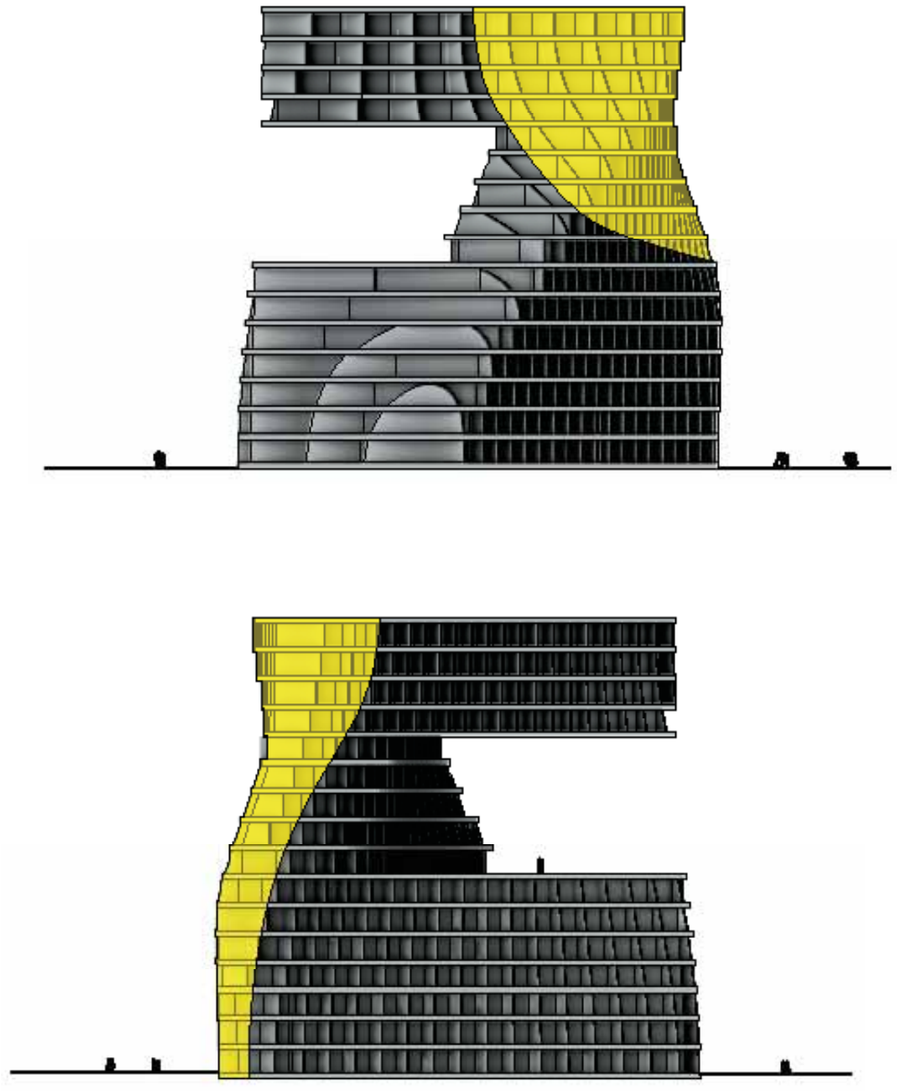


SHAPE STUDIES: The shape studies exercise was the first step in creating a fifteen-story office tower of roughly 50,000sq m. The following shape studies experimented in various techniques to capture the values of movement and softness of edges previously explored in the transformed drawing set and the digital models. The shapes were created from two different sections where the same operations of transformation such as bending, cutting, and folding, were applied but to different degrees creating both moments of continuity and difference.

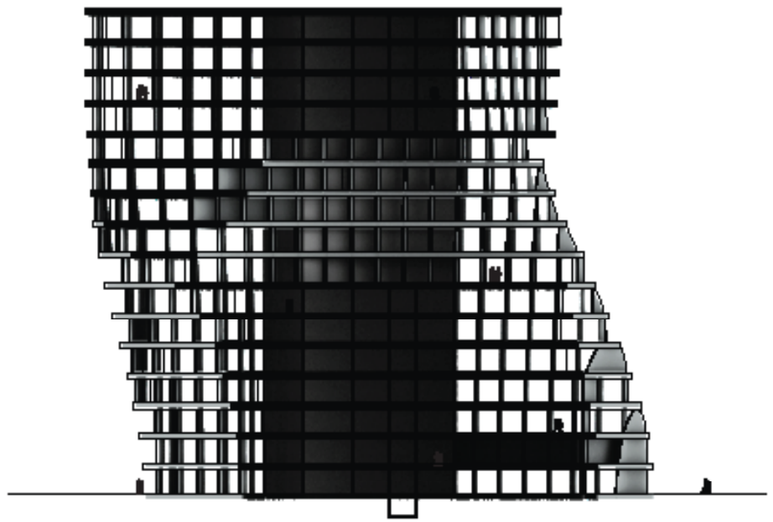
Final Model Chosen From Shape Studies



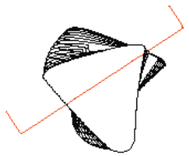
From Left to Right Columns: Office tower form, structure, application of color



Office Tower Elevations



Office Tower Sections



STRUCTURAL SYSTEM (FINS): The final model uses a fin system that operates under a constant set of rules where the width of fins, space between fins, angle of fins, and depth of the fins remain constant. When the rigid rules of the structural system are placed over the twisting form of the tower the resulting pattern is distinctly unique creating both moments of solidness and openness in the envelope.

Final Rendering