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URBAN INTERSECTIONS: ENGAGING DUALITIES IN SHANGHAI

by

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ABSTRACT

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The absolute polarization of contextual and tabula rasa urban models has long been advanced, even blatantly promoted, within the discipline. Taken for granted as foils, the exclusive championing and application of context or tabula rasa has only served to undermine the agency of the contemporary city. Producing an ineffectual and one-dimensional duality, cities have been reduced to futilely choose between the old and the new.

A city of contradictory extremes, the clash between these concepts is embodied in the urbanism of Shanghai. With the impetus of China's "Economic Miracle," a previously unheard of scale and speed of urbanization has been achieved throughout the country with the creation of "instant cities." Embraced as testing grounds for contemporary urbanism, the characteristics and conditions of the instant cities have been enthusiastically and almost universally adopted, leading to a primacy of tabula rasa and vertical development. Partially transformed by this model of erasure, Shanghai's urbanism is defined by confrontation as the urban models of the past and present collide. The duality manifest by this conflict compels an examination of the seemingly agonistic roles of context and erasure in the city.

The ambition of this thesis is to eliminate such distinctions; the choice between contextual and tabula rasa approaches does not work. This false choice produces either a conservative preservationist tourist attraction or a generic and totalizing vertical city. The shallow tendencies of both approaches threaten the city as a multiple and collective space of possibility. By adopting a broader view of context and collapsing present dualities, this project seeks to create complexity and new confrontations through an urban morphology shaped by architecture. Moving beyond contextual preservation and tabula rasa, this thesis seeks to engage and create another reality using that juxtaposition to open new relationships within the city.

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URBAN INTERSECTIONS:
ENGAGING DUALITIES IN SHANGHAI

Shanghai and the "Instant Cities"

The Instant Cities

For the last twenty years, architects and urban planners have been zoomed in on Asia. Asian cities, and in particular Chinese cities, have been the object of obsession for much of this half–admiring and half–fearful frenzy for the new within the discipline.

A country with an almost unbelievably rapid industrialization, urbanization, and capitalization, China has offered architects a slew of possibilities– opportunities to plan entire cities, build millions of towers, and analyze the urban conditions of the "Economic Miracle." The most renowned effect of this accelerated urbanization is the creation of massive cities from seemingly nothing— the "instant cities." These vertical cities, with their ahistorical and non-contextual possibilities, have propelled architects to re-explore theories of tabula rasa, generic-ness, and scale in exhaustive classifications.

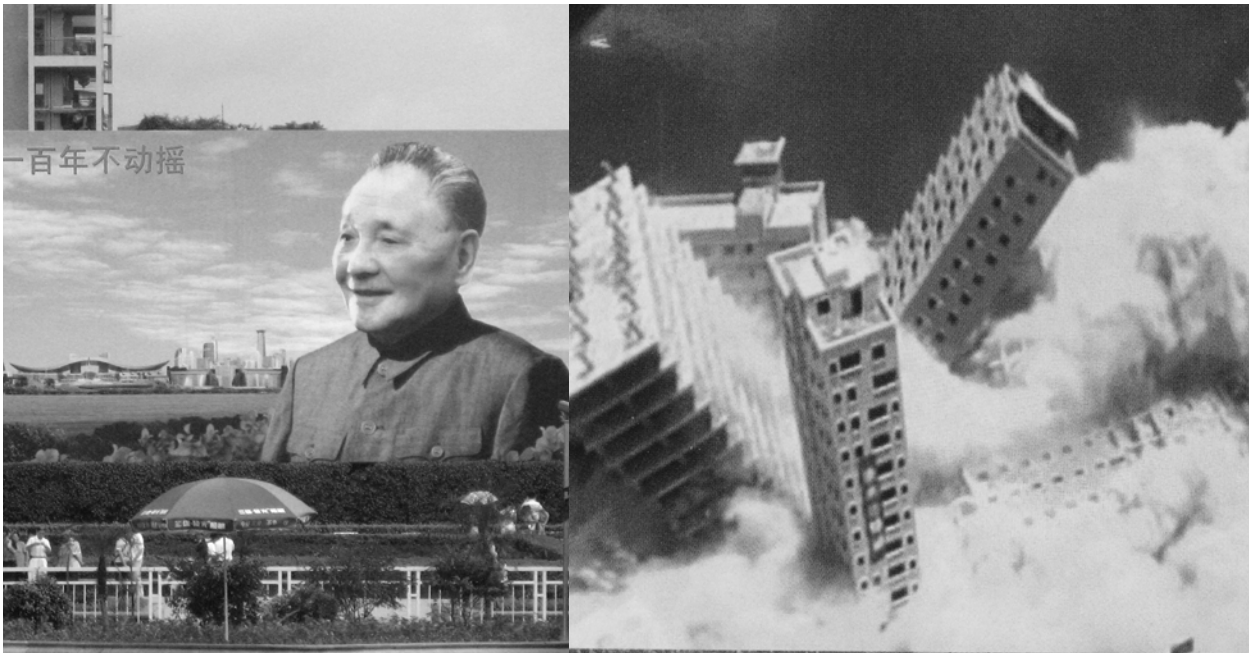
Serving as laboratories for current universal urban conditions, the instant cities were born from a scale of tabula rasa that reshaped entire ecologies. As a result, tabula rasa urbanism shifted to become a primary concern within the discipline, setting a contextual approach as the other.

Shanghai

Shanghai has stood out as an anomaly among Asian cities. Neither old, nor new, neither Western nor Chinese, neither extreme nor generic; Shanghai has remained unclassified in a discourse that classifies everything. Shanghai's century of history has not been enough to merit preservation efforts in China (Beijing's history dates back to the 11th century BCE). And Shanghai cannot be seen as one of the instant cities, either; it was not built in twenty years from nothing as Shenzhen, Lishui, Songdo and other instant cities were.

The same out–with–the–old and in–with–the–new urban agenda that realized the instant city has also led to enormous amounts of erasure within existing Chinese cities (as the cities strive to emulate the urban conditions that have generated economic success). Much of Shanghai's fabric (neither old nor new enough) has been cleared and rebuilt in the last fifteen years, which has led to a reading of its urbanism as a dull imitation of an instant city. Shanghai's urbanism is merely seen as problematic in the constant push for the new.

ABOVE: **Shanghai, China (city center)**



ABOVE: **The Creation of the Instant Cities,** Deng Xiaoping's urbanization policies and widespread destruction gave rise to the instant cities.

Urban Dualities

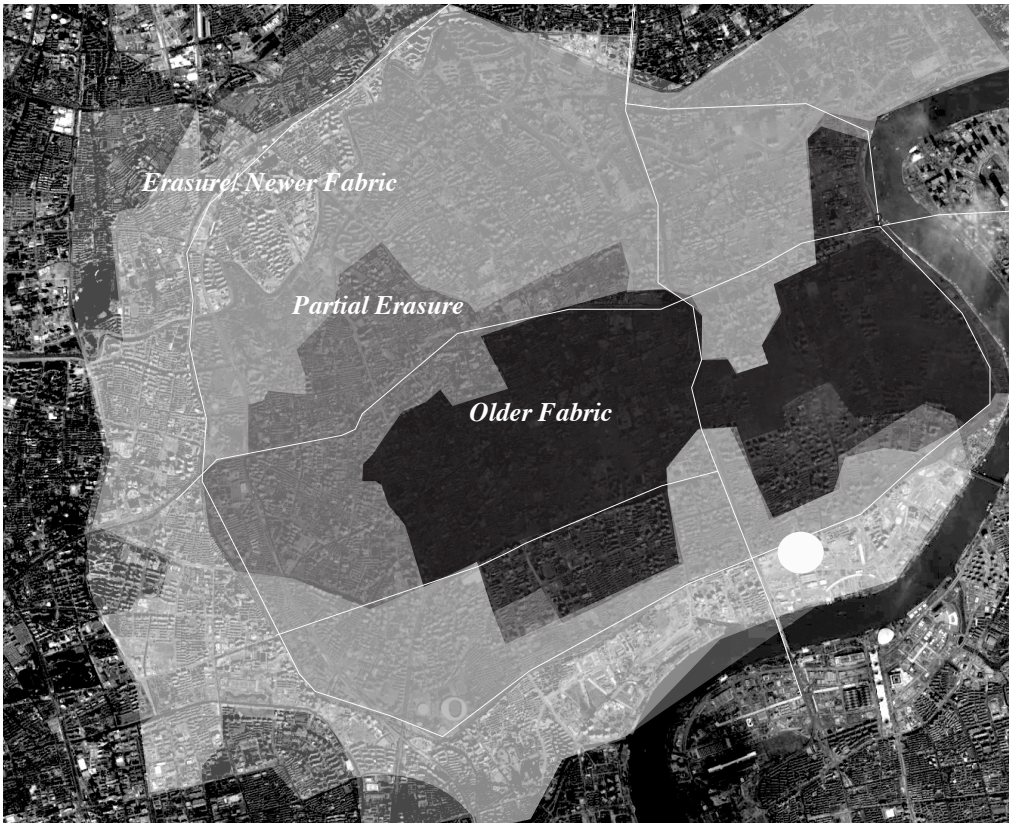
Juxtapositions

Caught in a partially transformed condition, the city has not yet been subjected to a total application of the tabula rasa/ vertical development model. Instead, the city itself is characterized by the clash between the old and the new— exemplifying a problematic hybridization of time, scale, and density in its urbanism. This clash has only become more extreme in the last decade, as an ever-increasing demand for densification has led the city's growth to sprawl back in upon itself, causing the tabula rasa model to threaten the traditional, historic center of Shanghai.

This encroachment of erasure and the vertical development around the center has produced the most acute juxtapositions of old and new in the city. The infrastructurally dominant model has splintered the fabric and layout of the city. Highways and train lines have segmented older developments, skyscrapers have risen in a neighborhood of two story houses, and entire swathes of historic fabric have been deleted. The juxtaposition of the older and historic city model and the erasure model is evident throughout the city, but is at its most extreme around the historic center.

The city's goal is to completely do away with the older fabric except for that which fulfills the requirements of a lucrative tourist economy. And the enthusiastically adopted erasure model (intrinsically tied to the instant city model and its verticality) threatens the city with expanding conditions of evenness and generic-ness.

ABOVE: **The Increasing Generic Conditions Around the City Center** diagram depicting the vertical and historic fabric as a grain



ABOVE: **Encroaching Vertical Development Around the City Center,** diagram

The Dominance of the Tabula/ Vertical Developement Model, the diagram depicts areas of extreme growth and erasure at the city center's periphery

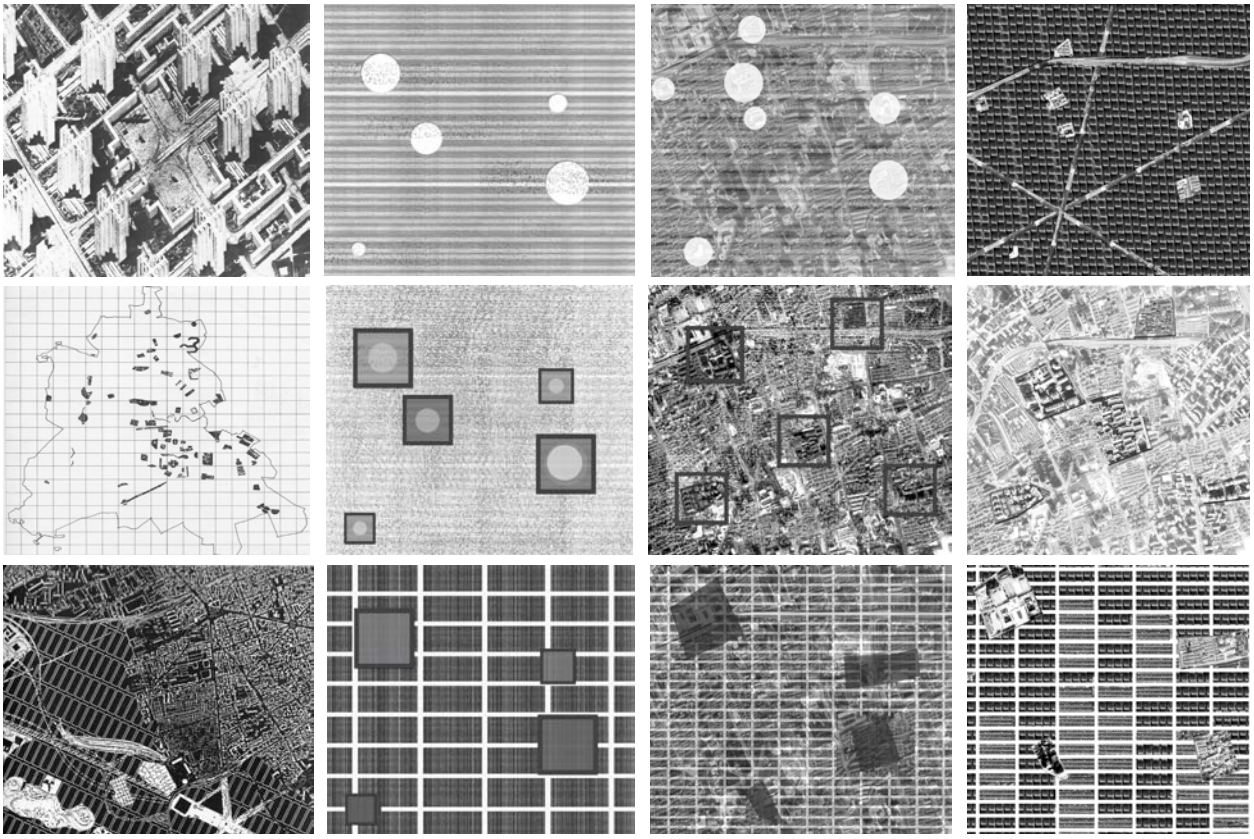
Dualities

The intense confrontation of the two urban models– the historic model and the tabula rasa model – compel an examination of the seemingly agonistic roles of context and erasure. A distinction, generally held as a sort of truth, that no longer has any relevance to the city.

To choose between context (applied through a conservative preservationist model) and erasure does not work. The choice of context only results in a frozen, romanticized tourist attraction. The "special" fabric is preserved and maintained as an increasingly pale imitation of the past. Or the choice of erasure leads to a totalizing, generic skyscraper city. The erasure supposedly allows for the possibility of the new, but the new is simply an exchange of typologies and scale. Too often, both approaches create bounded conditions of single user groups; the city becomes a loose organization of isolated pockets of activities. These one–dimensional models strip away the idea of the city as a complex and collective space.

This project seeks to do away with these distinctions because, at the very best, they have only produced a disconnected duality within the city— that between the old and the new.

The tabula rasa model's continued influence and dominance on the historic center of Shanghai is inevitable as the city continues to densify. The objective of the project is not to vilify the erasure model; rather, it is to embrace the new development and ensuing generic conditions, using architecture to shape it— both inventing and adapting to allow confrontations between the preservationist model and the tabula rasa one.



Analysis of Historic Urban Models and their Application to Shanghai, diagram

Columns: Project, Abstraction, Application to Shanghai, and Resulting Conditions

Top Row: Plan Voisin, Le Corbusier
Middle Row: “A Green Archipelago”, O.M. Ungers
Bottom Row: “Mission Grand Axe, La Defense Masterplan, O.M.A.

Le Corbusier’s Plan Voisin takes a decidedly negative view towards context; his treatment of what exists is simply tokenism. This totalizing erasure model is completely one-dimensional, espousing the tabula rasa model in its most rigid form. The begrudging and subjective admittance of a handful of points to be rescued from the onslaught of erasure could never be enough to provide any sort of meaningful difference in the city. While clearly defined as erasure models, La Defense and the Green Archipelago give a more substantive role to context, creating more productive conditions within the city. However, all of the models lack a complexity in the erasure’s contextual interactions (as well as, a density) to be operable in the contemporary city.

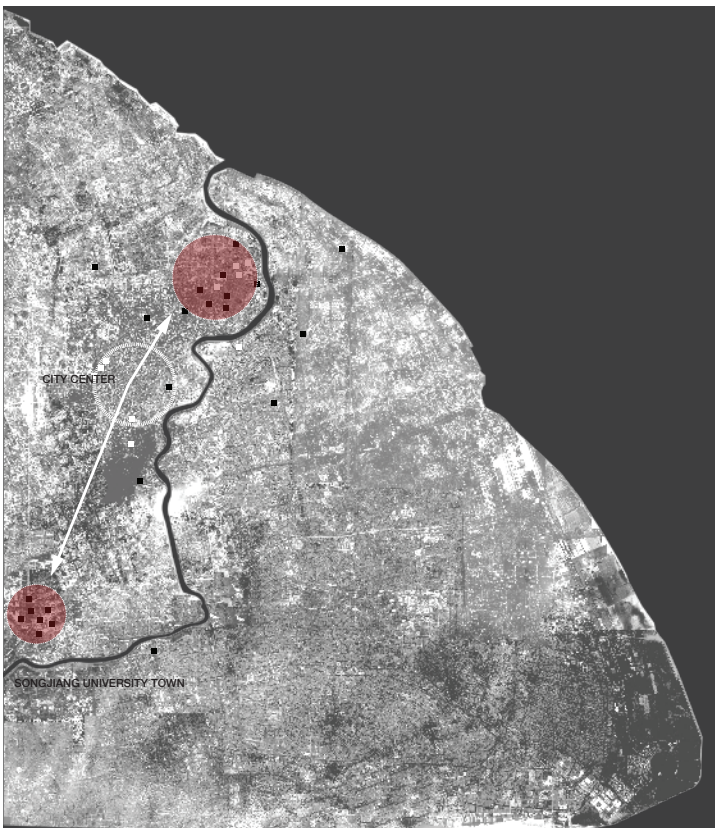
The Urban Campus

Universities

The urban situation of Shanghainese university" mirrors the larger problematic condition embedded in the urbanism of Shanghai. Some of those conditions being the necessity of expansion, as well as an increasing scalar demand, has resulted in a majority of the city universities vacating or reducing their traditional locations in the center of the city. Pushed further and further toward the outskirts of the city, the universities have greatly minimized any interaction with the city, even going so far as to create entire towns of undergraduate campuses (Songjiang University Town) forty miles from the center. Of the few campuses that maintain a location in the center of the city, all but one have been diminished to mere showpieces, containing only administrative functions. However, the the presence of universities or alternate developments in the city center (with all of its abrupt adjacencies and history) are still significant and worthwhile, both as a bridge to other campuses and to the city itself.

Proposal

This project proposes the creation of a new type of university in the partially erased area around the city center (where the highest levels of erasure and development are occurring), emphasizing the value of the urban campus. Most importantly, the university's central location allows an influx of new programs and user groups into the city, breaking apart the expanding evenness of solely residential or commercial fabric. Architecturally, the insertion of the university program into the traditional center allows the project to be a model for programmatic densification and diversity within the city.



TOP LEFT: **Universities in Shanghai**, diagram, representation of the universities' locations within the city

BOTTOM LEFT: **The Displacement of Universities From the City Center,** diagram representing the locations and movement of the unviersities from the center of Shanghai

A New Ground

Specifically focusing on a single block in a rapidly developing area, my proposal confronts both the preservationist and erasure models by treating the old and the new equally. Adopting a broader view of context and history and collapsing present dualities, the proposal seeks to create complexity and new confrontations through an urban morphology shaped by architecture.

Existing Conditions

The single superblock in Shanghai embodies the larger urban confrontations. The area (Jing'an district) in which the university is inserted is in an extreme state of flux; the tabula rasa/ vertical development model has become dominant here. Surrounded by skyscrapers and new roads, the superblock is one of the last holdouts of the older, historic fabric. The block itself features a dense mat of older, low (two to three story), and primarily residential fabric, which occupies most of the site. Residential and commercial towers line the northern edge of the site.

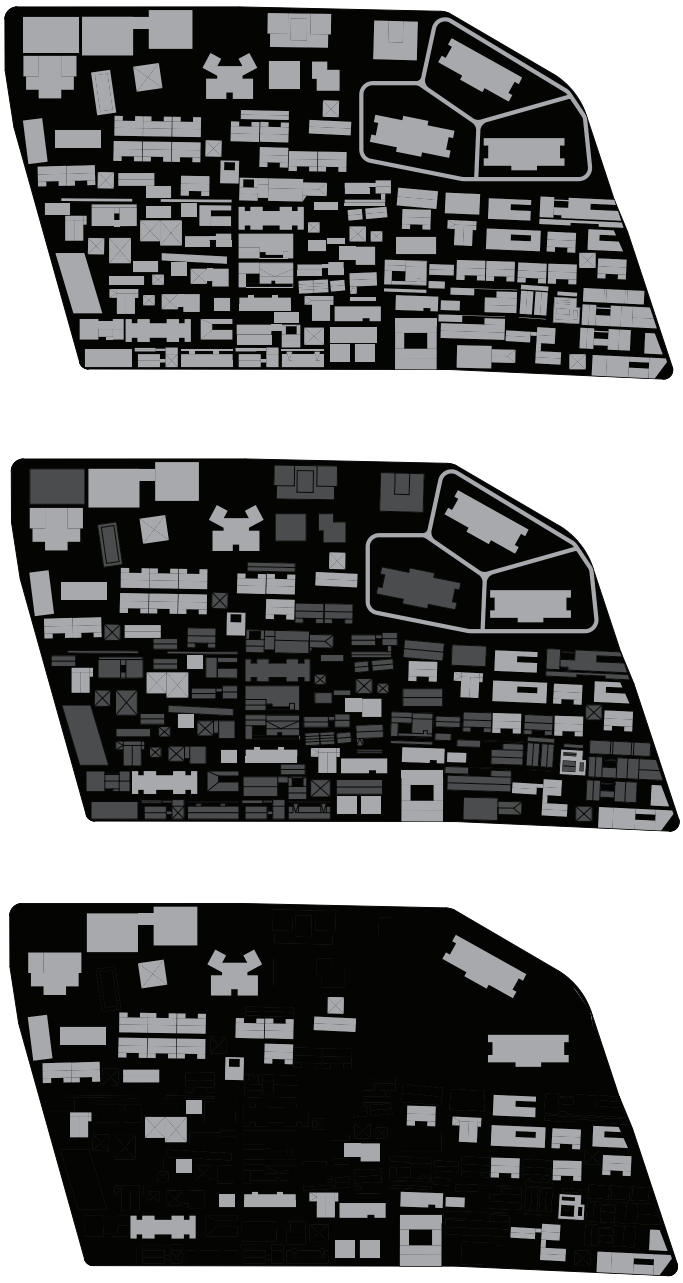
Interventions

The design proposal inserts the university into the existing block through a series of four interventions that adapt, erase, and add to the mix of the old and the new present on the Shanghai superblock.

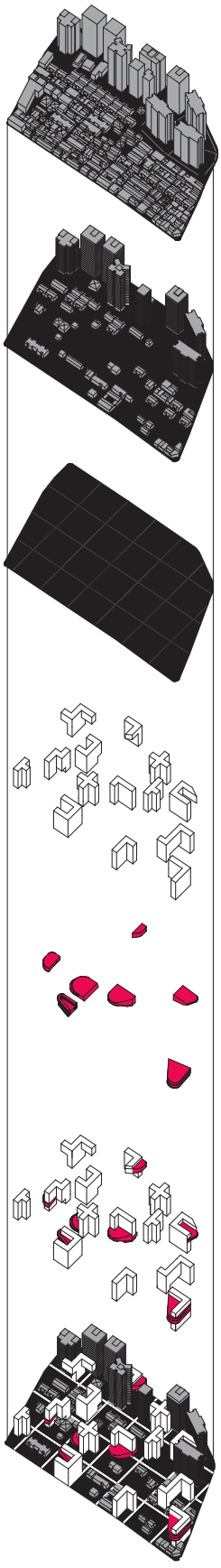
Erasure and the Projection of the Grid

The first intervention applied to the site is erasure. All fabric- the older fabric, as well as, the towers on the site- is viewed as malleable. This malleability allows for the possibility of a new morphology. Through an unbiased treatment of their history (viewing both as equally historic), both types are erased to create a new ground for addition to occur, modifying the usual tabula rasa approach. However, despite an application of the same treatment, the towers are erased in a slightly smaller percentage. The project's goal is to provide a new model for density within Shanghai, and the tower typology provides more density than the older fabric can.

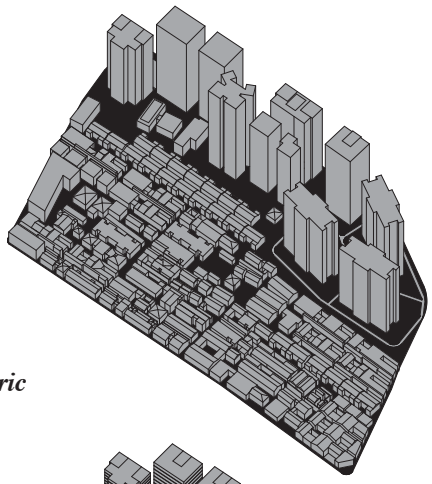
All in all, roughly sixty-five percent of the preexisting fabric is cleared. This erasure breaks up the composition of the existing fabric, allowing for the projection of a new system— the grid. Separating and further defining the superblock into a series of blocks, the grid influences and works with the erasure. The applied grid system and altered ground allow not only for a new organization of addition, but also transforms the relationships (the largest transformation being that the fabric is carved into components) of the extant buildings on the site.



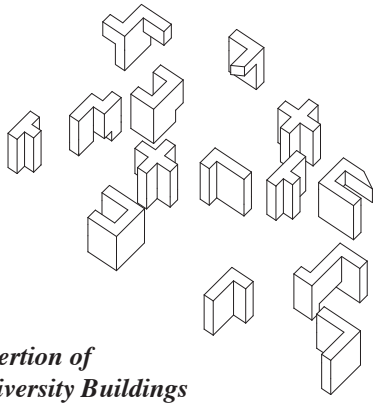
ABOVE: **The Initial Intervention: The Partial Erasure of the the Shanghai Superblock,** diagram



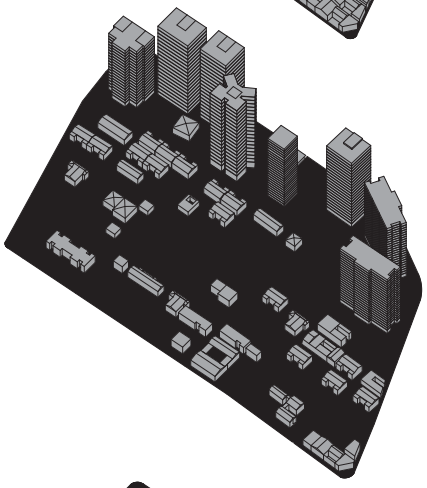
LEFT: **Erasure and Addition: The Stages of Intervention on the Block,** axonometric diagram



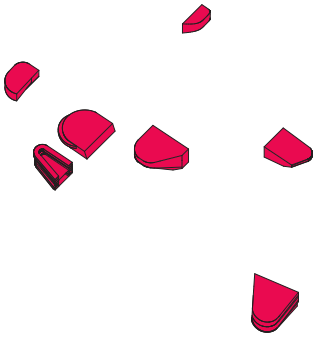
Existing Fabric



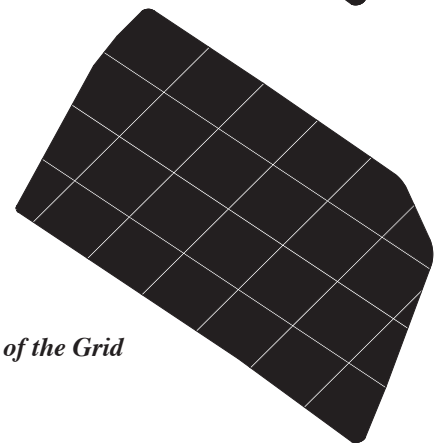
Insertion of
University Buildings



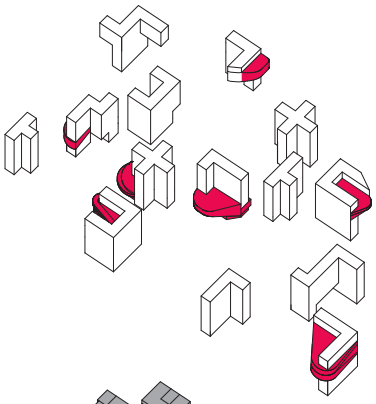
Erasure

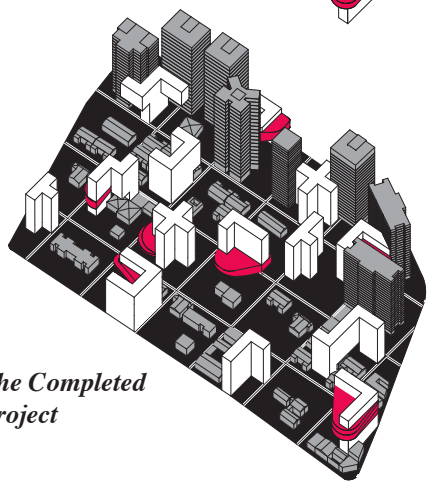


Addition of
Collective Spaces



Application of the Grid





The Completed
Project

The *OPEN FORMS*

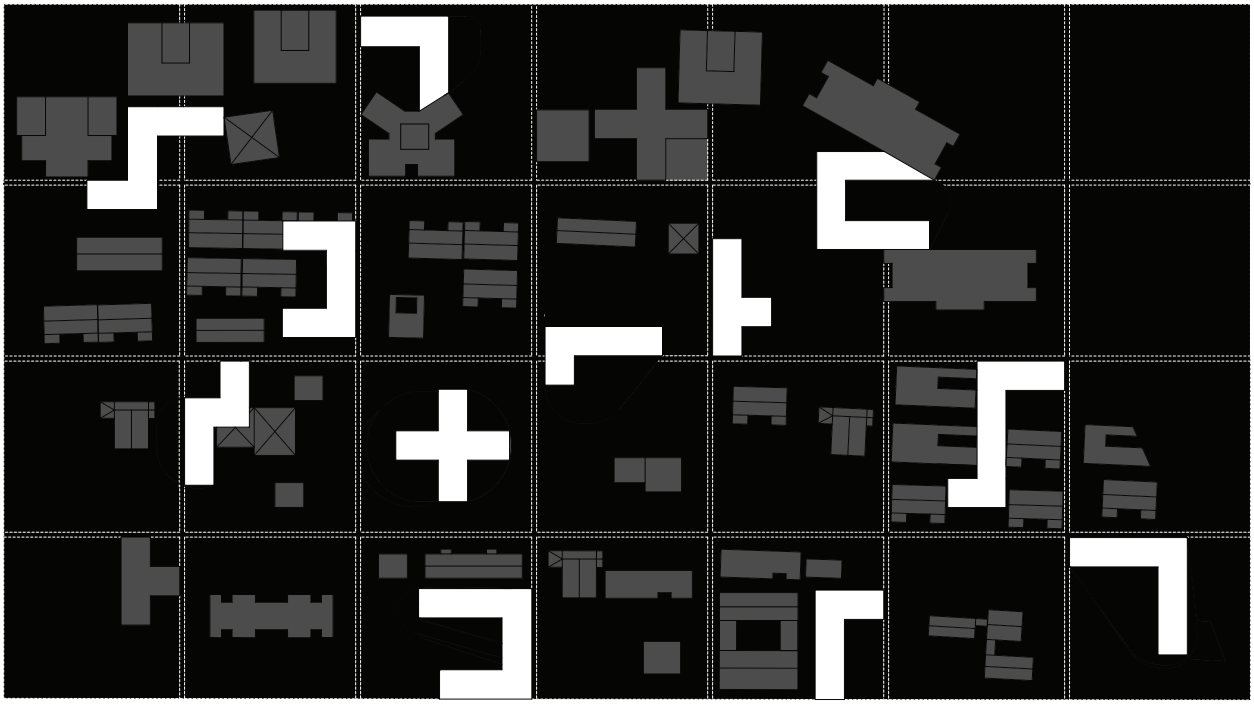
Addition becomes possible with the creation of a new ground, and the primary addition is the insertion of the university buildings through an infill strategy onto the site. The mid-rise bar buildings (the university buildings) house the majority of the generic university program- the classrooms, lecture halls, dormitories, and offices. Evenly projected across the site (regardless of the extant building types), the placement of the bar buildings further collapses the distinction between the historical and current urban models.

Formal Language

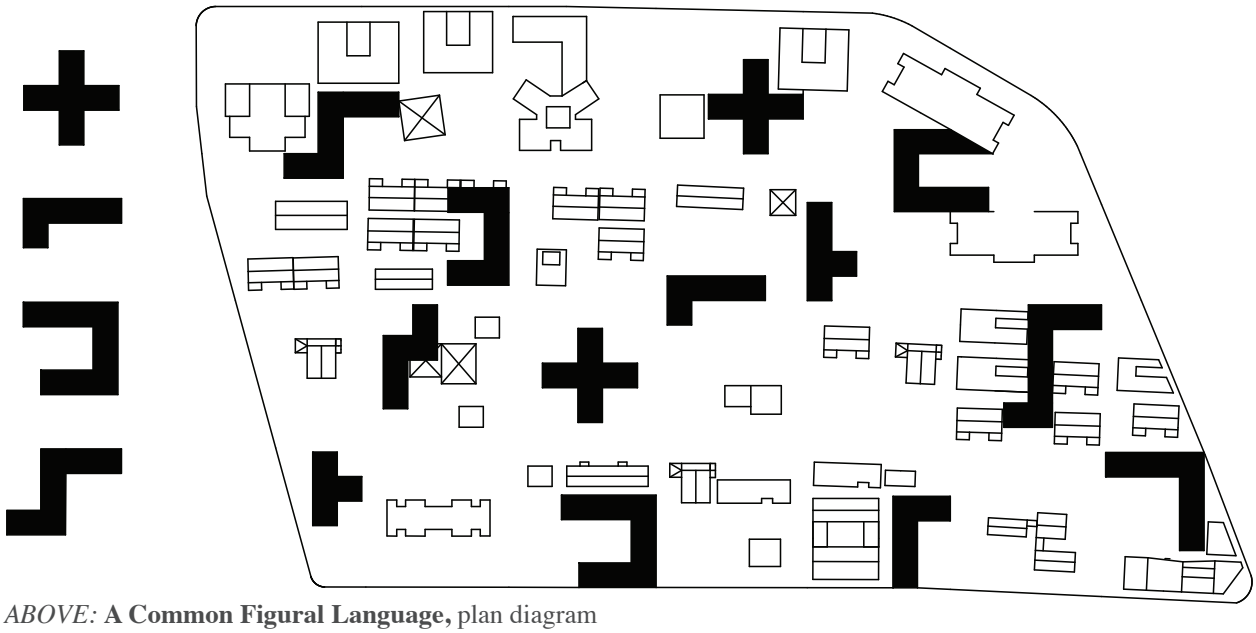
The fourteen university buildings share a common language- an OPEN FORM. These open-ended forms determine the resulting spaces and provide stability within the project. Their placement along the grid actually manifests the projected grid, ensuing this predominant organization within the project. Even beyond the grid and location, the serialized OPEN FORMS serve to define and differentiate the horizontal space within the project, framing and limiting it to reshape the ground and create urban contrast.

The shared formal language instigates new urban conditions, providing legibility to the project. Instead of merely producing the arbitrary juxtapositions of scalar differences by typical high–rise developments, the repetition of the university buildings and, primarily, the building forms permit diverse relationships and complexity while maintaining a sense of clarity and composition.
A wide variety of conditions from separation to merging, framing to overtaking are produced

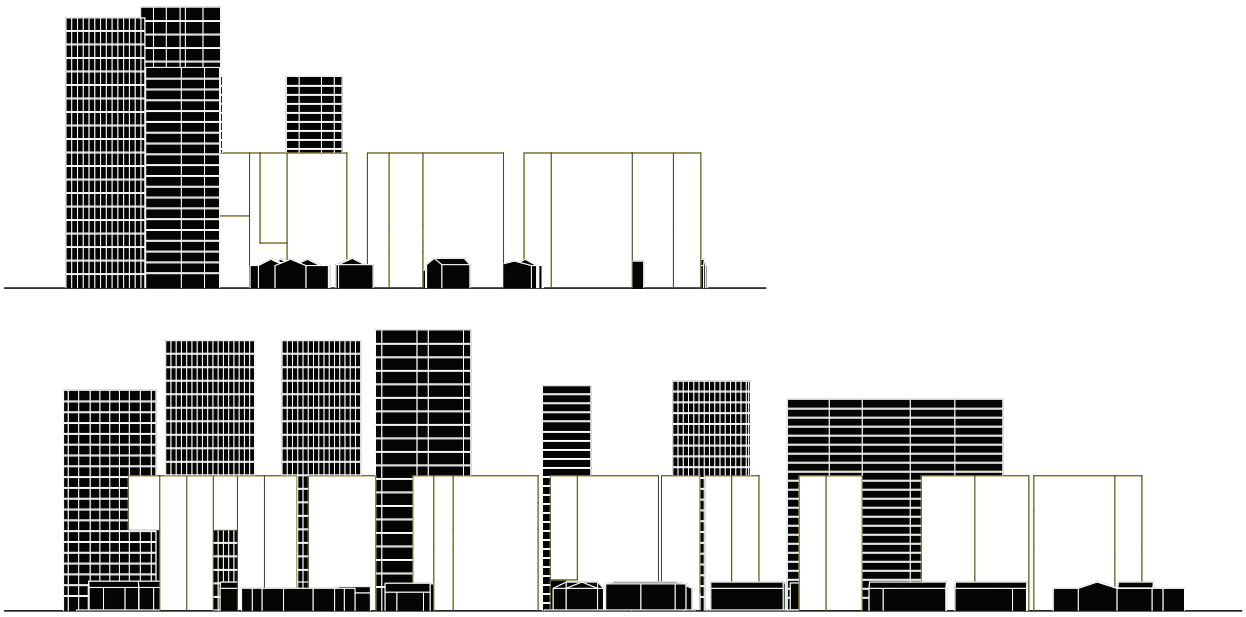
between the preexisting fabric and these open forms, between the OPEN FORMs and the ground, and between the open forms themselves. At the urban scale, the same relationships are produced, but the overall reading is one of openness and connection. The formal qualities give the entire block an unbound quality, in direct opposition to the closed off nature of the vertical development in the city.



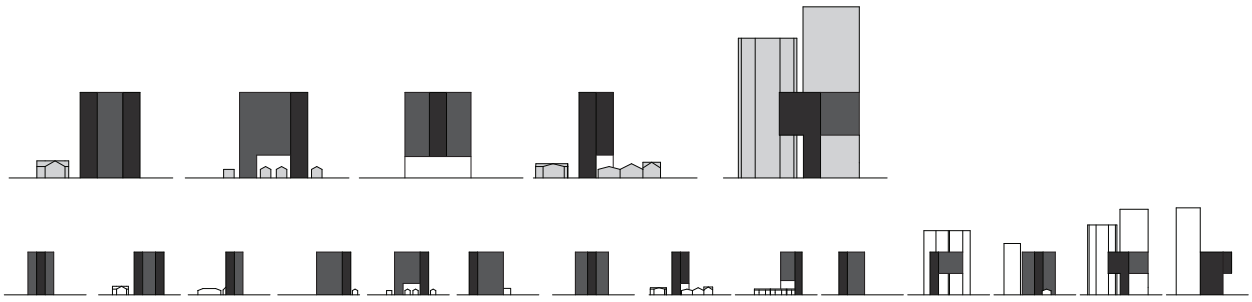
ABOVE: **The Relationship of the Open Forms to the Grid**, diagram depicting the placement and situation of the university buildings onto the projected grid



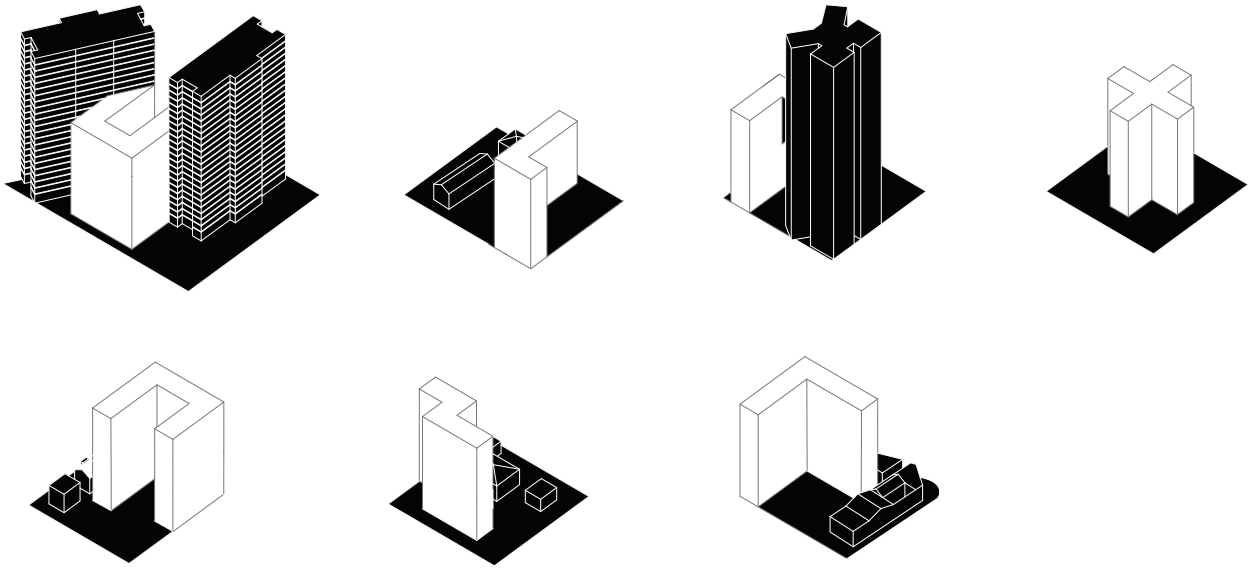
ABOVE: **A Common Figural Language,** plan diagram



ABOVE: **Urban Relationships,** elevation diagram, representation of the university building's larger relationship



ABOVE: **Contextual Relationships,** series and diagrams depicting the various contextual interactions



ABOVE: **Defining the Ground and Contextual Relationships,** axonometric diagram of the relationship of the university buildings to their

Collective Spaces and Publicness

Collective Spaces

While the open forms/ university buildings instigate the urban conditions that allow for the potential of complexity, the last intervention actually provides it. The further addition of larger public programs, the collective spaces, transform the university buildings, emphasizing the multiplicity that the OPEN FORMS can support. Allowing for a larger footprint and accommodating a high degree of public legibility, the seven collective spaces include a range of typologies and programs (the public programs include a library, a concert hall, a large lecture hall, a dining hall, an exhibition hall, a stadium, and a gymnasium.) The collective space's programs and visibility within the project further opens the university both to itself and to the city, bringing together a variety of user groups.

Program

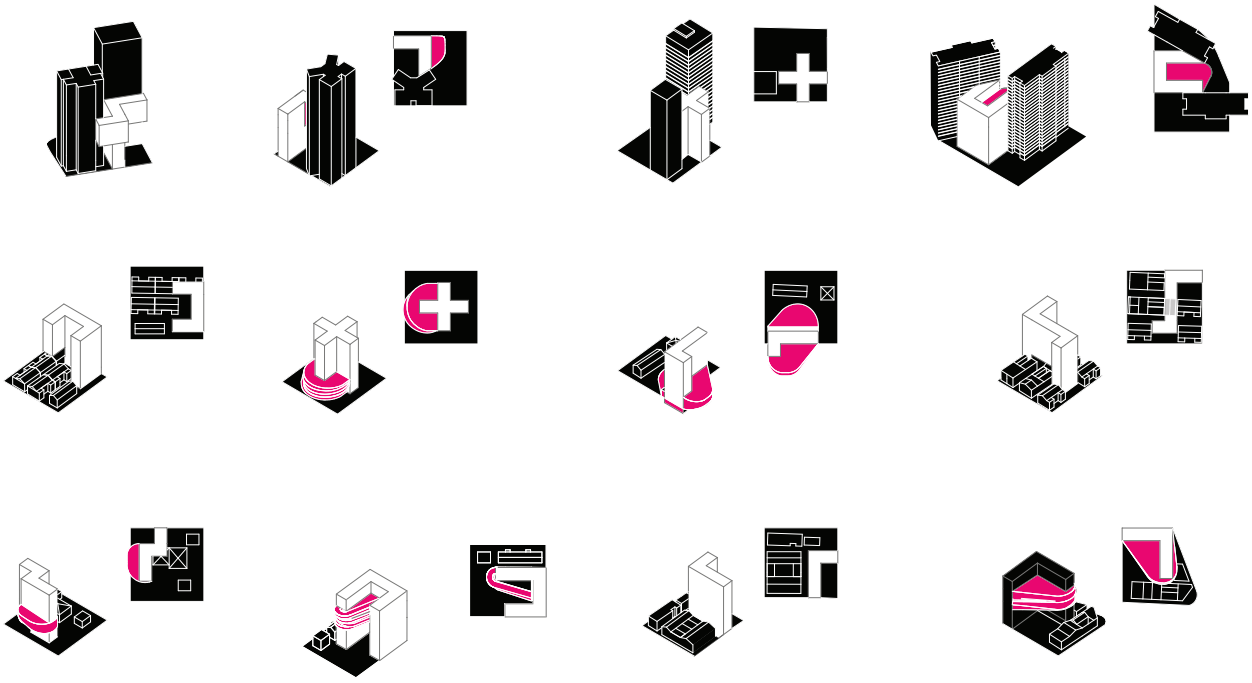
The program takes precedence in this addition, determining the form of the collective spaces. This insertion of these public spaces completely transforms and expands the generic bar buildings (this effect is the visible in the plans, page 36) to accommodate the diverse programmatic requirements. Because of the vertical nature and limited space of the open forms, the typical programmatic organization is often uniquely translated through stacking, creating an element of event and display within the collective space itself. Beyond influencing the form and internal organization, the collective spaces further organize the program across the entire campus. These spaces serve as the most public areas within the project and cause a disturbance, a

sort of ripple effect, of publicness around it. Within the university buildings, the public insertion creates a gradient from public (the collective space) to semipublic (classrooms) to private (dormitories), which occurs in all the university buildings across the site (though at different elevations, see *Organization* below).

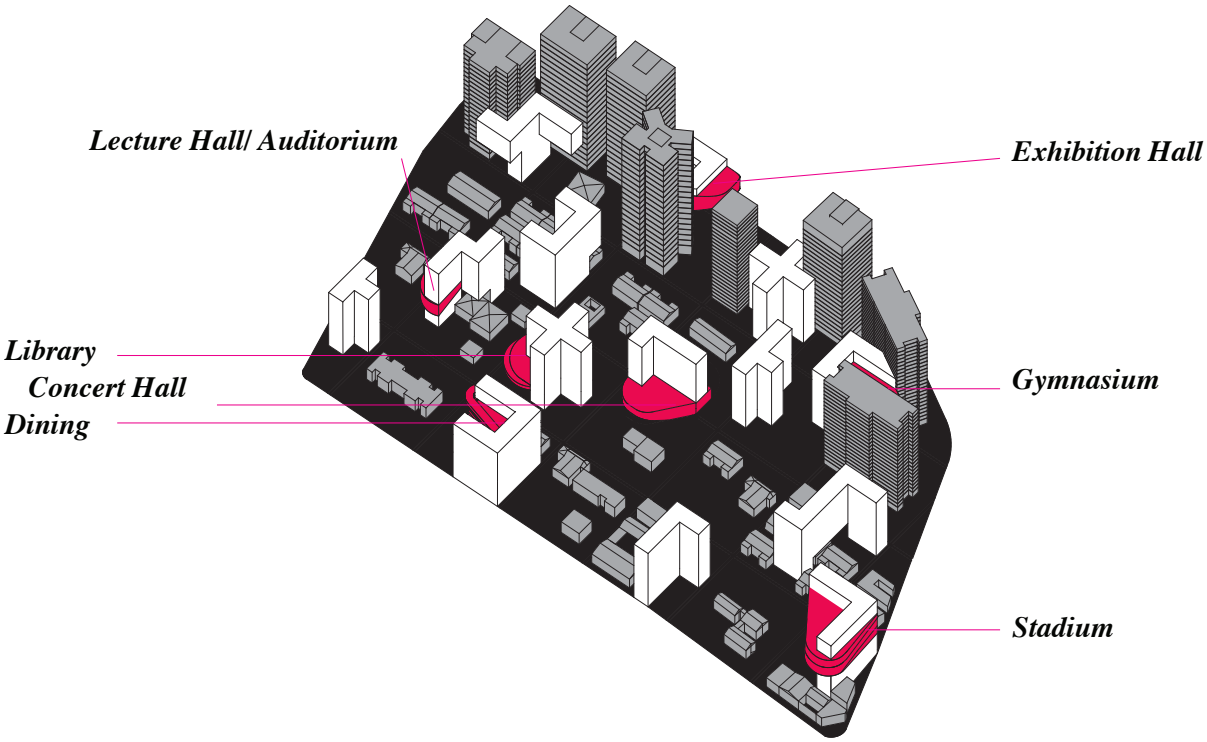
Organization

The collective spaces are looser and less prescribed than the university buildings/ OPEN FORMS; dispersed across the site, these spaces break up the determinate structure of the grid and pass over the existing context. As the university buildings/ open forms define and differentiate a horizontal ground, the collective spaces instead define a vertical ground while serving as urban volumes.

The placement of the collective spaces establishes this vertical ground and allows for a high degree of accessibility. The collective spaces at the edges of the block are located at higher elevations and contain programs of greater interest to the surrounding areas. For example, the gymnasium and exhibition hall are located near the preexisting office towers on the site. Dropping in elevation towards the center of the site, the placement of the collective spaces creates a legibility of publicness and a diversity of organization throughout the campus (the location of the collective space determines the entire building's programmatic arrangement).

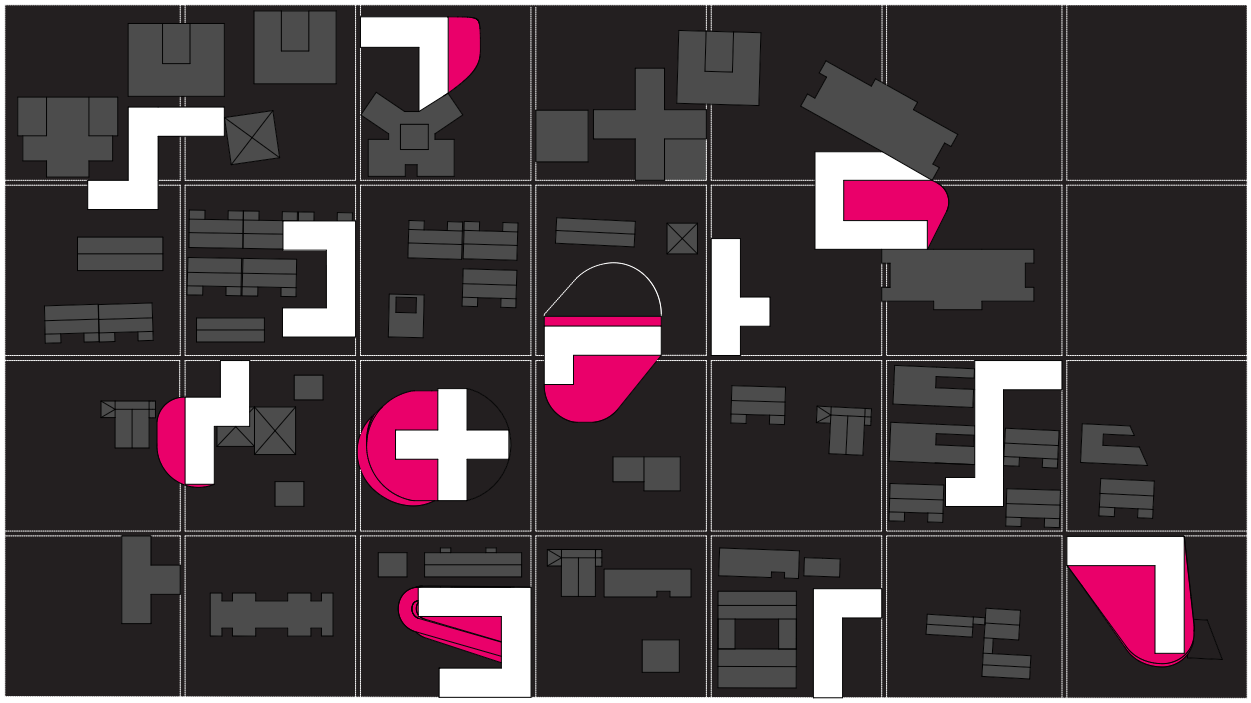


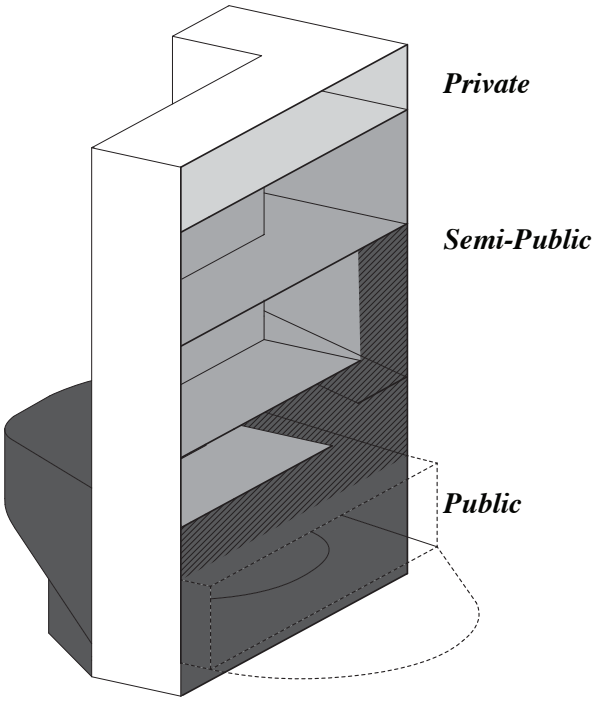
ABOVE: **The Collective Spaces,** axonometric diagram depicting a taxonomy of urban relationships of all the figures



ABOVE: **The Locations and Programs of the Collective Spaces**, axonometric diagram

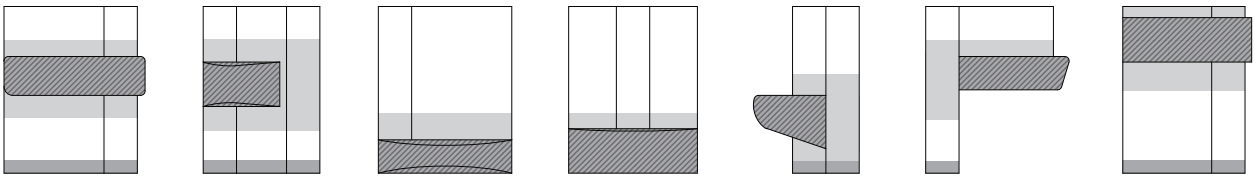
BELOW: **The Collective Spaces and the Grid**, plan diagram

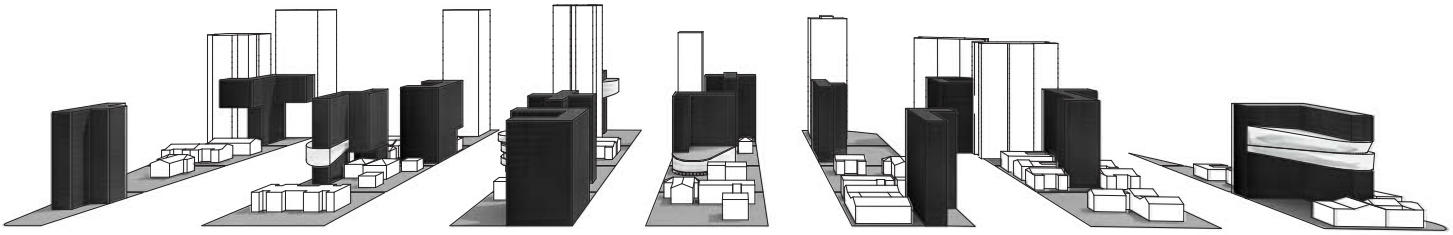


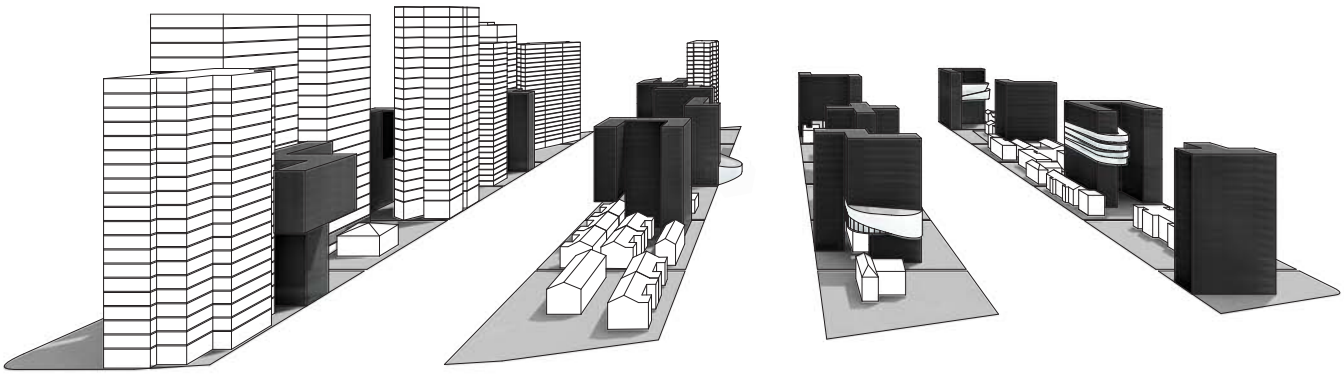


RIGHT: **Programmatic Disturbance,** axonometric diagram of the public gradient created by the insertion of the collective space into the open form

BELOW: **Vertical Organization of the Collective Spaces,** elevation diagram of the location and distribution of the collective spaces across the site







TOP: **Open Grid 1,** perspective diagram of the view corridors, endlessness, and open conditions created by the grid and building placement, looking North

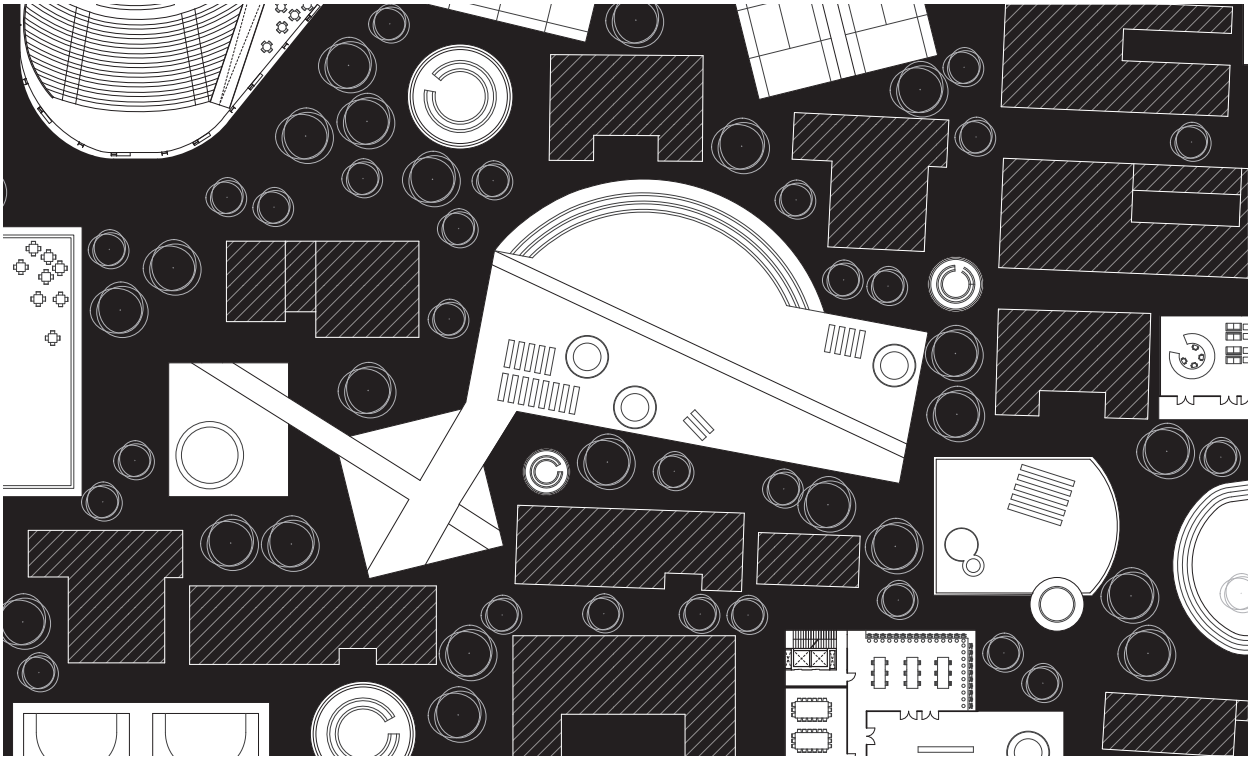
BOTTOM: **Open Grid 2,** perspective diagram of the view corridors, endlessness, and open conditions created by the grid and building placement, looking West

Ground, or the Eighth Collective Space

In addition to the seven collective spaces that are urban volumes, the ground plane serves as an eighth one. Containing a variety of activities and public areas from basketball courts to amphitheaters, the ground plane contributes to the complexity and diversity of urban conditions allowed by the generic qualities of grid and the open forms of the university buildings. The ground plane further emphasizes the openness and continuity of the project within the city.

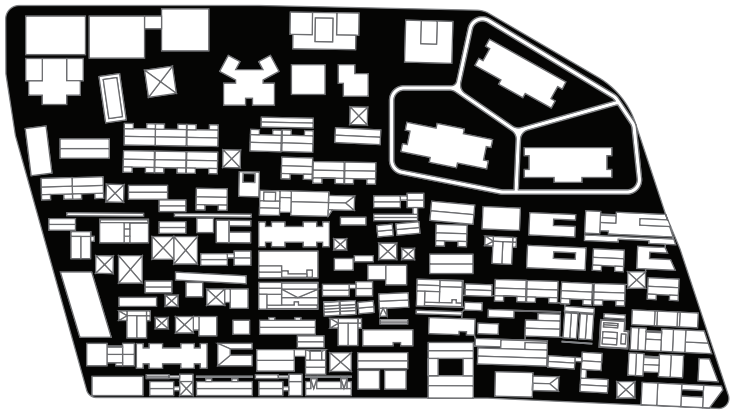
Project Timeline

The operations and strategies used in the project are not meant to be an all or nothing approach. The project has the ambition of further growth and an expanding influence on the extant fabric of the site. As for the sequence of interventions, once the initial erasure and building occurs, the collective spaces can be added as needed (when and where). But more interestingly, the entire block and surrounding area would be gradually transformed by the campus insertion. The preexisting buildings would be modified, and not by the university alone, to cater to the new user groups. The historic fabric's shops would most likely remain, but the residential buildings could become cafes, hotels, and gallery spaces,a nd nearby skyscrapers would change to become mixed use or provide additional learning centers. The influence of the university can easily spread to surrounding blocks, but its qualities and strategies prevent a loss of urban connectivity or the dominance of one user group.

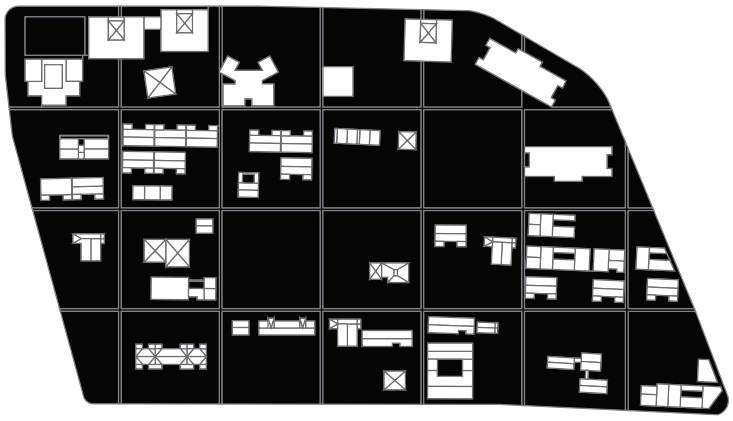


ABOVE: **Ground Plan Close-Up,** plan, a depiction of the variety of public spaces and programs at the ground demonstrating the overall complexity of the project

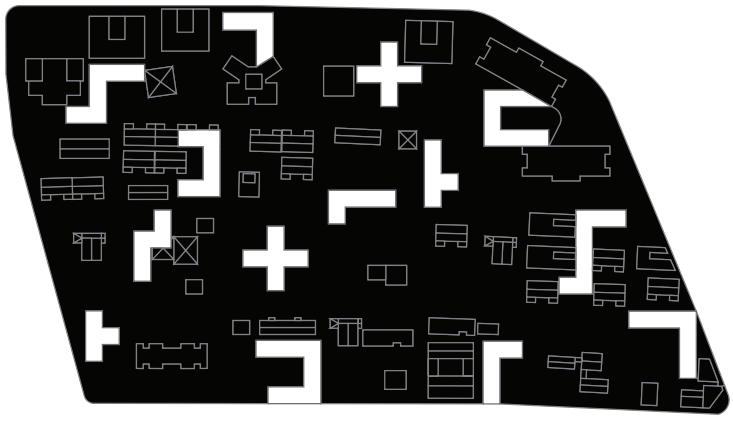
Timeline



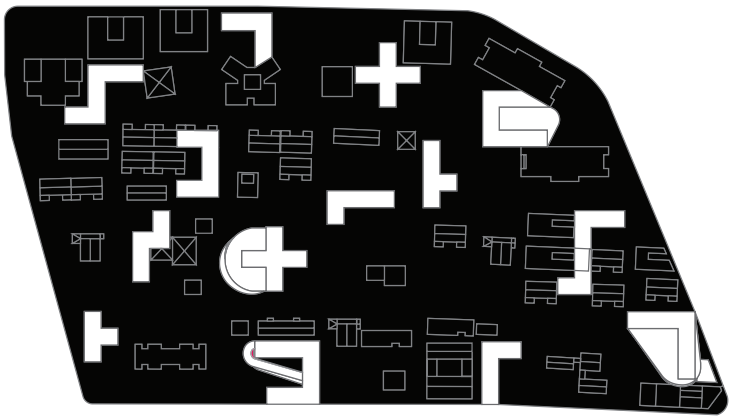
Existing Site Conditions



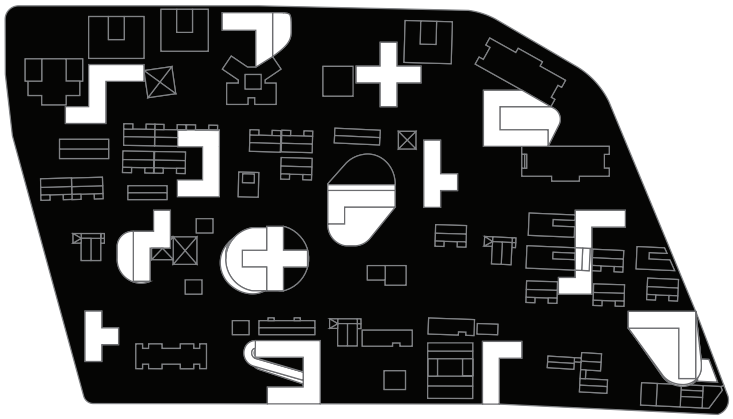
Erasure and the Grid Projection



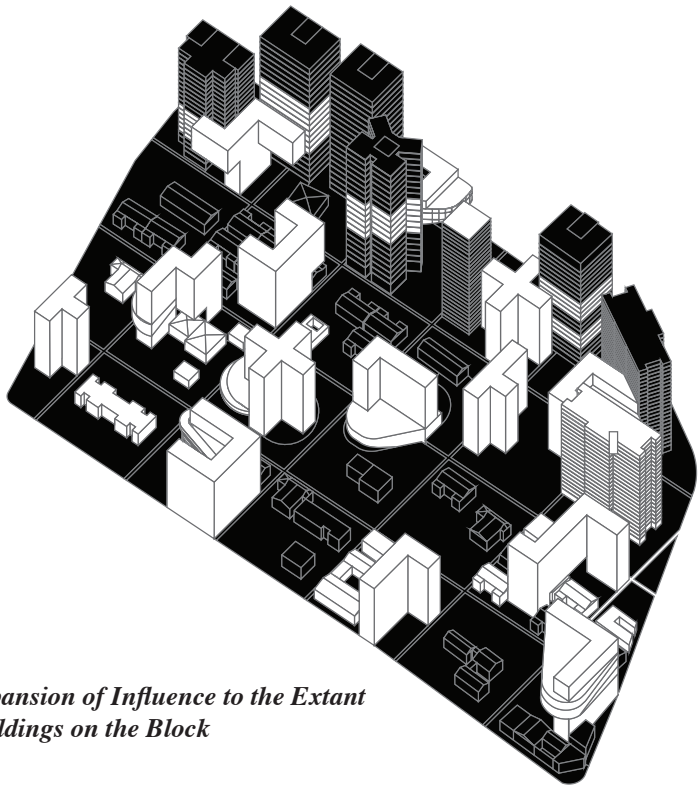
Insertion of the Unviersity Buildings



Gradual Construction of Collective Spaces



Completion of Collective Spaces



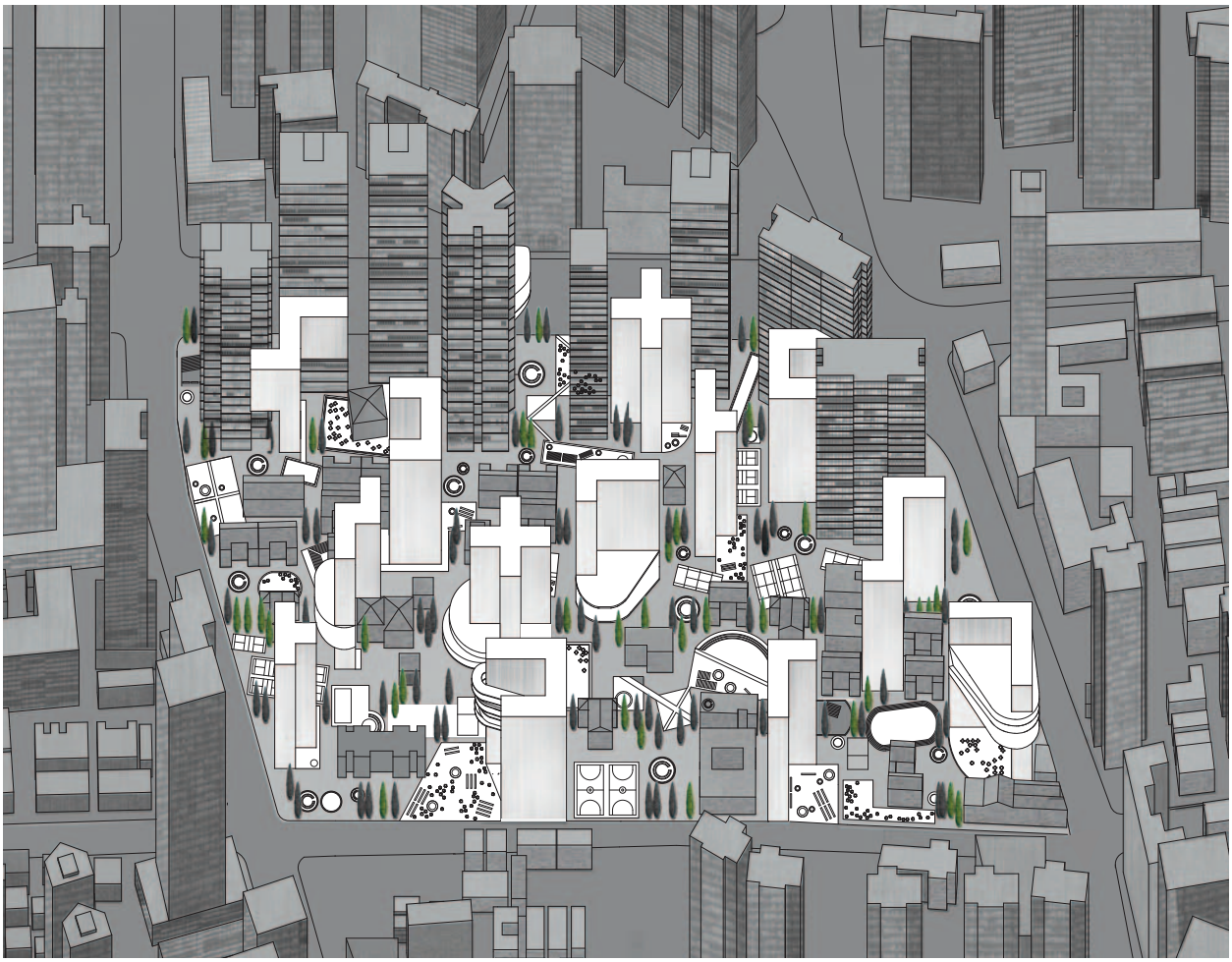
Expansion of Influence to the Extant Buildings on the Block

Conclusion

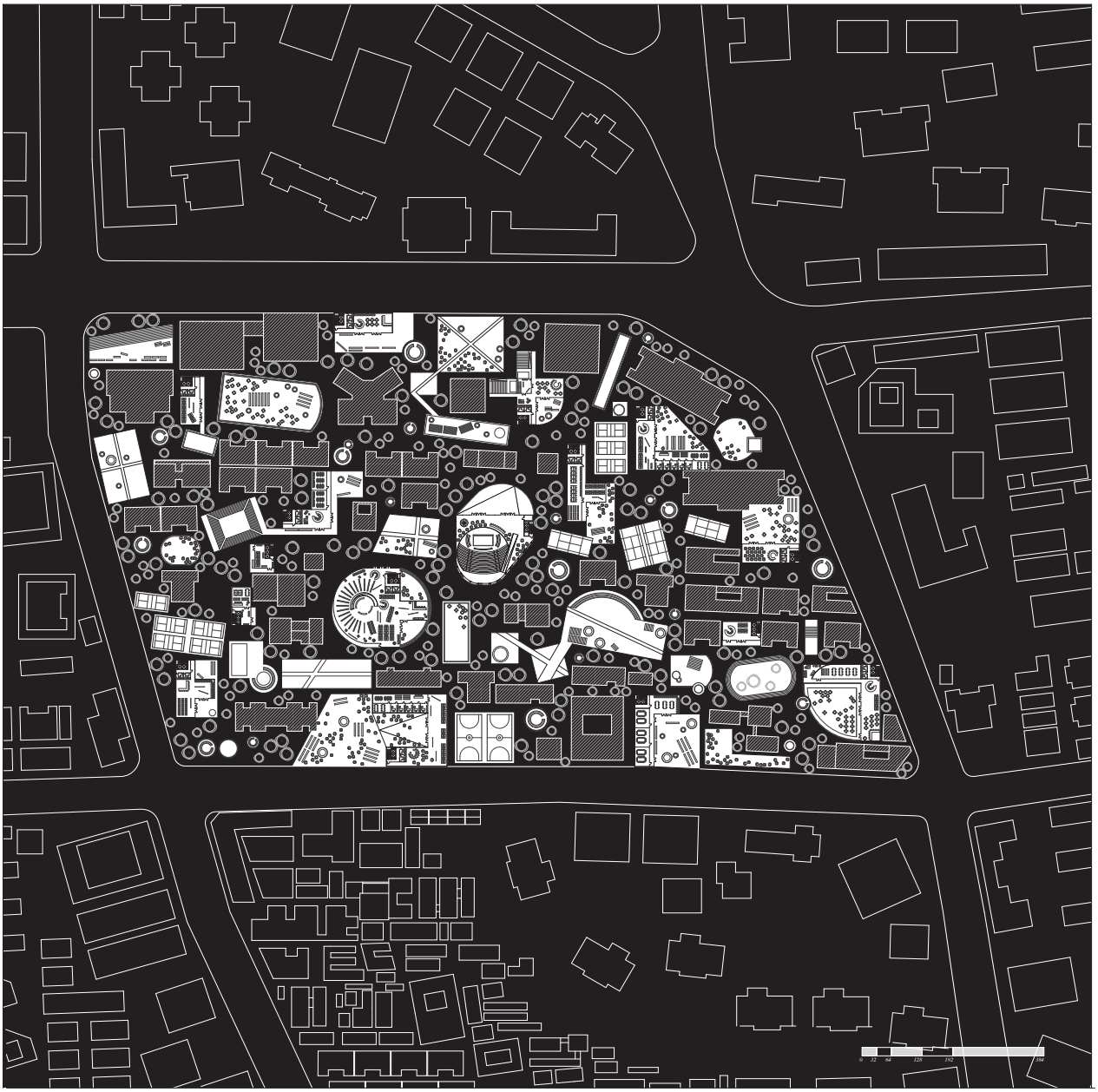
The goal of this project is to provide a new urban model that collapses contemporary dualities and unproductive distinctions between a contextual model (a conservative, preservationist model) and an erasure (vertical development) model. Moving beyond preservation and erasure at the urban level, this project seeks to engage and create another reality through architecture, using that juxtaposition to open new relationships within the city.

DRAWINGS

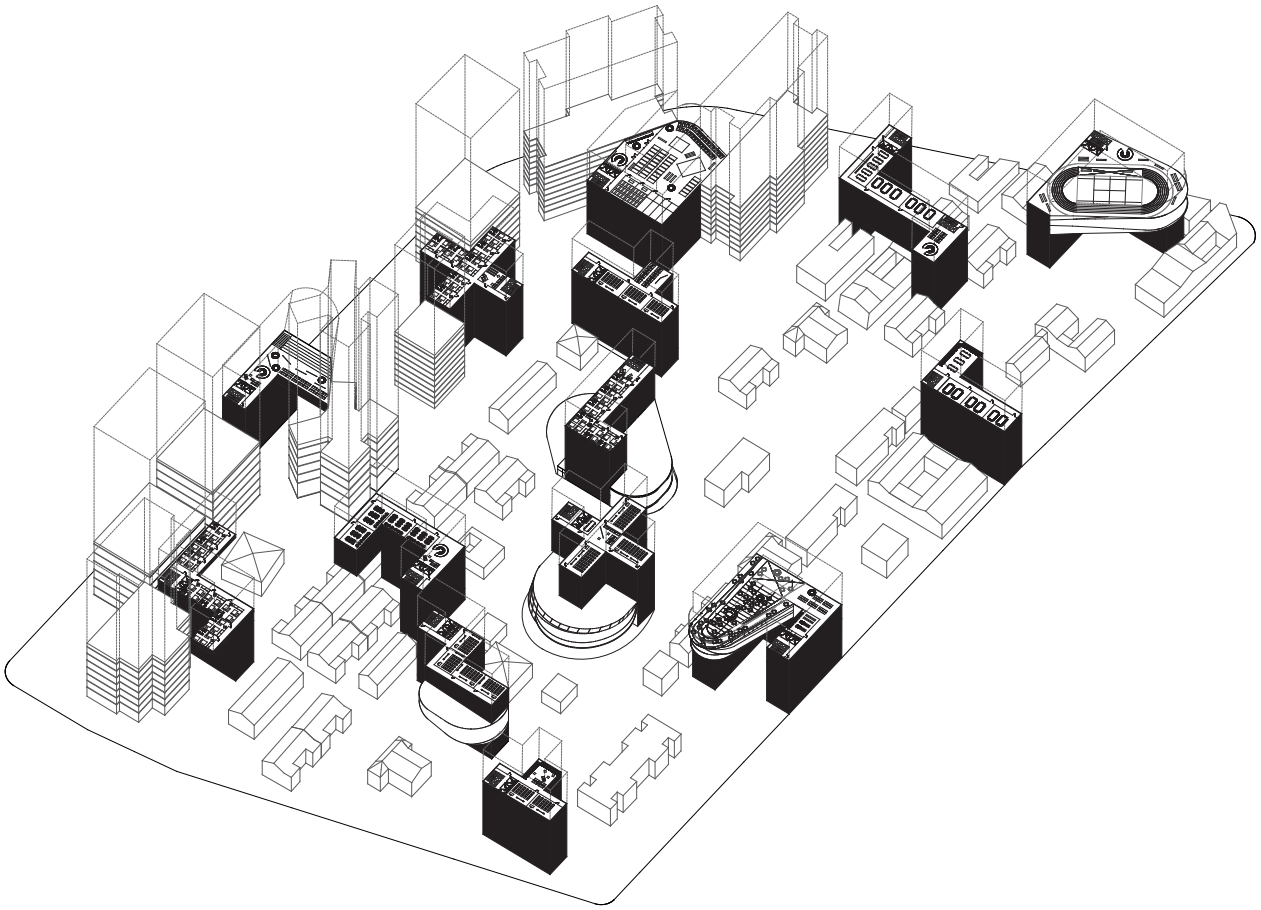
Please refer to the appendix to view larger versions of the images.



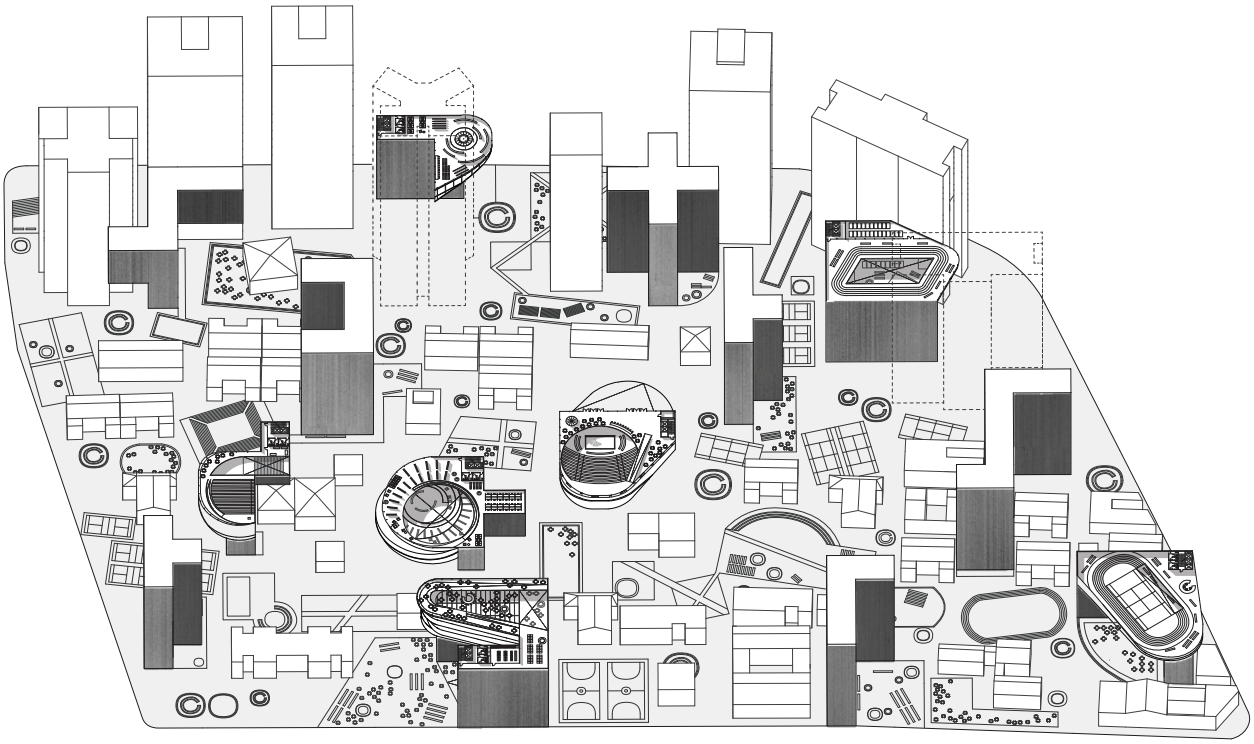
Axonometric View of the Superblock



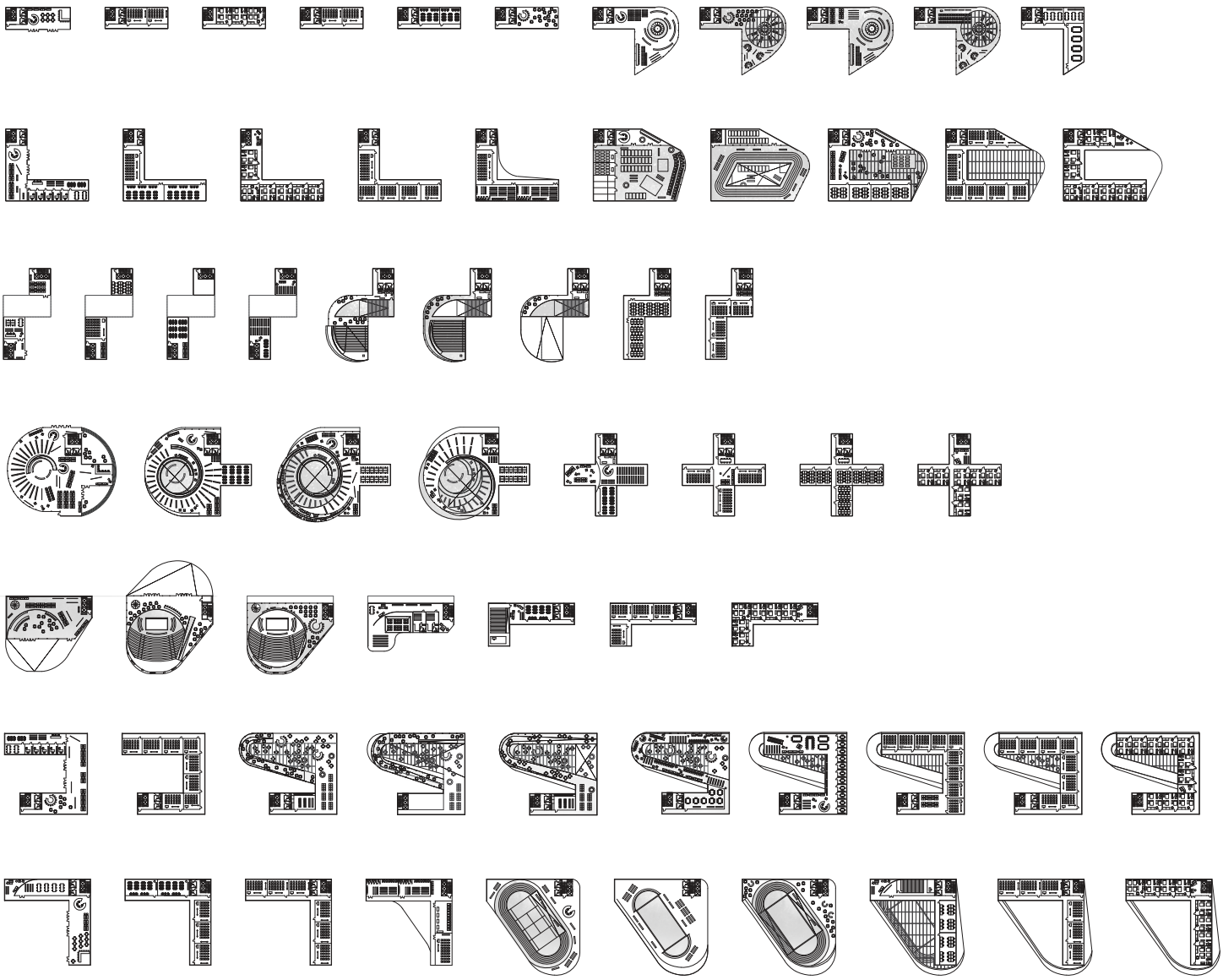
Ground Plan



Axonometric Plan, + 75’

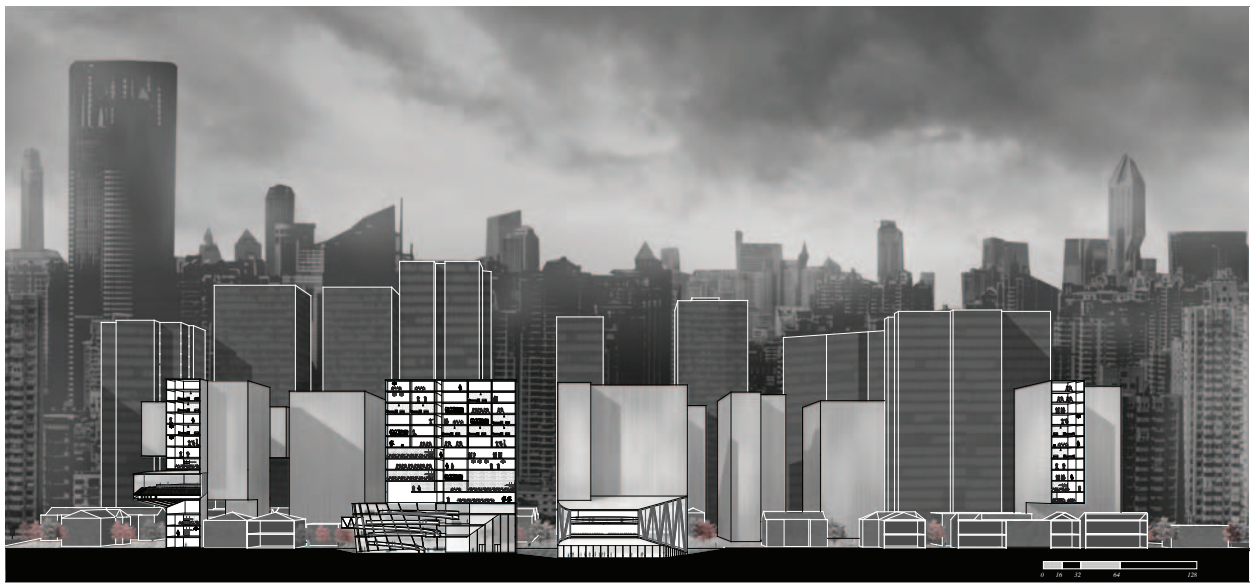


Axonometric Plan of Collective Objects

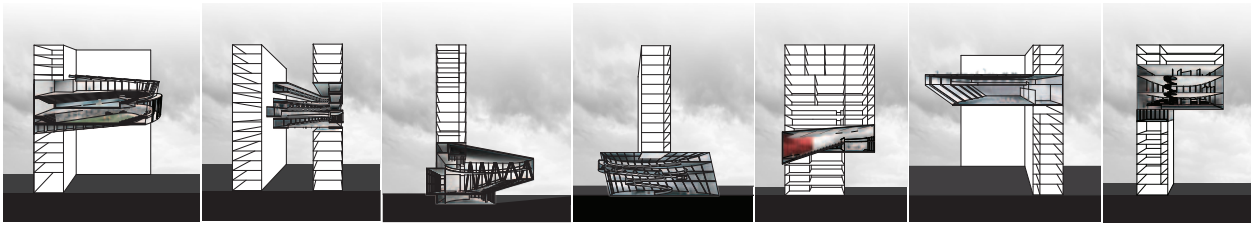


Individual Building Plans

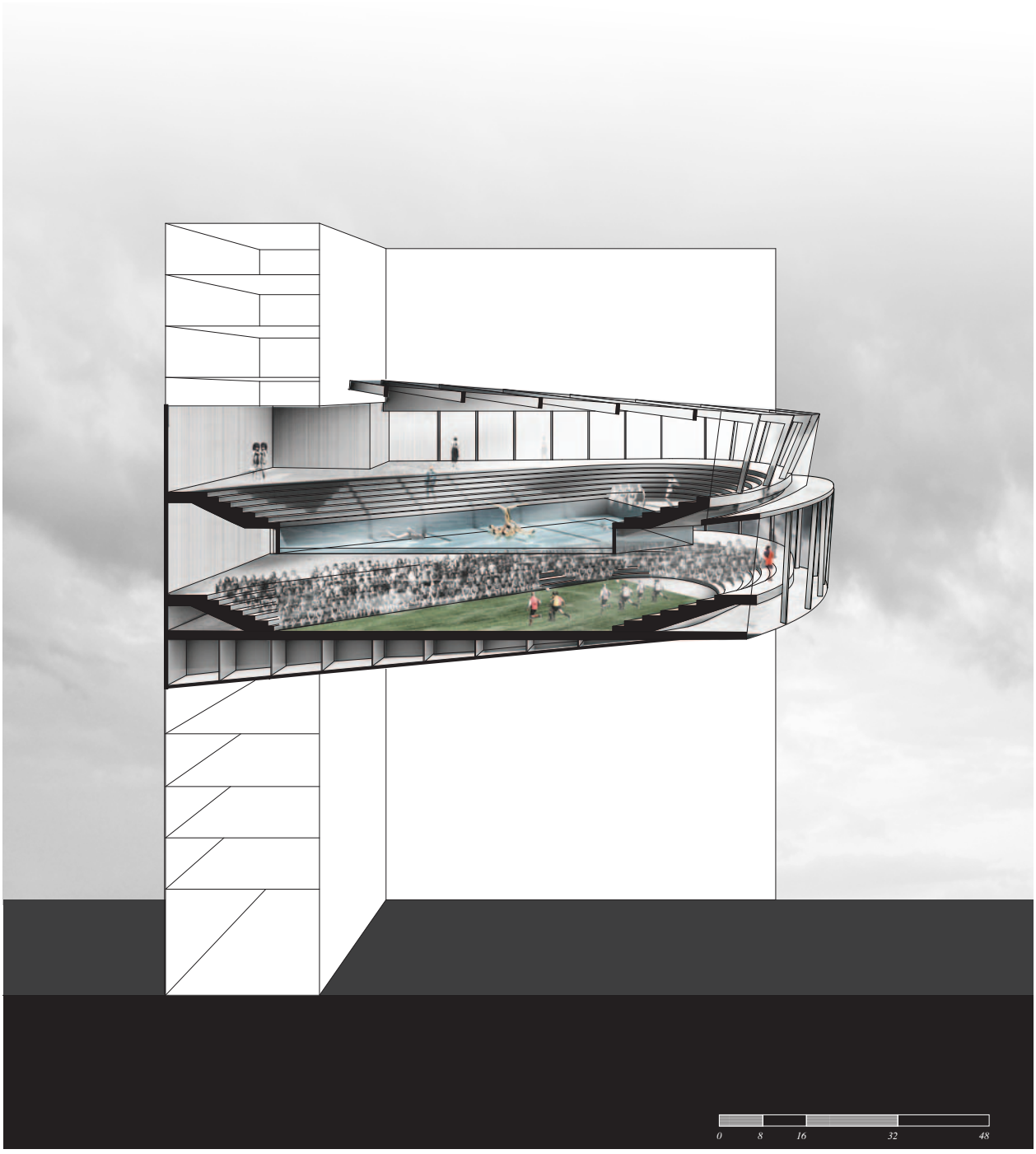
FROM TOP TO BOTTOM: Exhition Hall, Gymansium, Theater and Lecture Hall, Library, Concert Hall, Dining Hall, Stadium



Section Perspective, Center



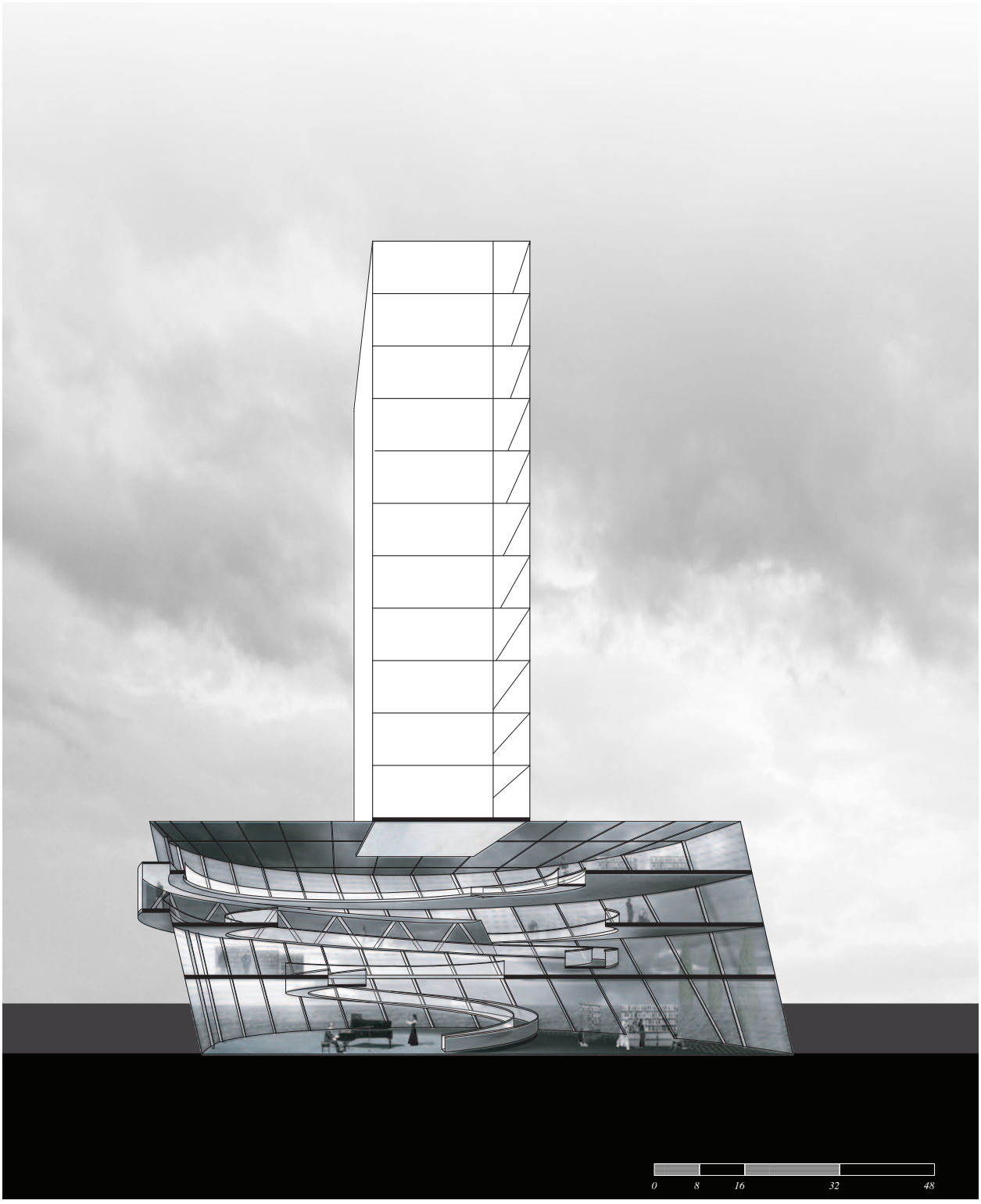
Vertical Organization of the Collective Spaces Across the Site



Section Perspective, Stadium

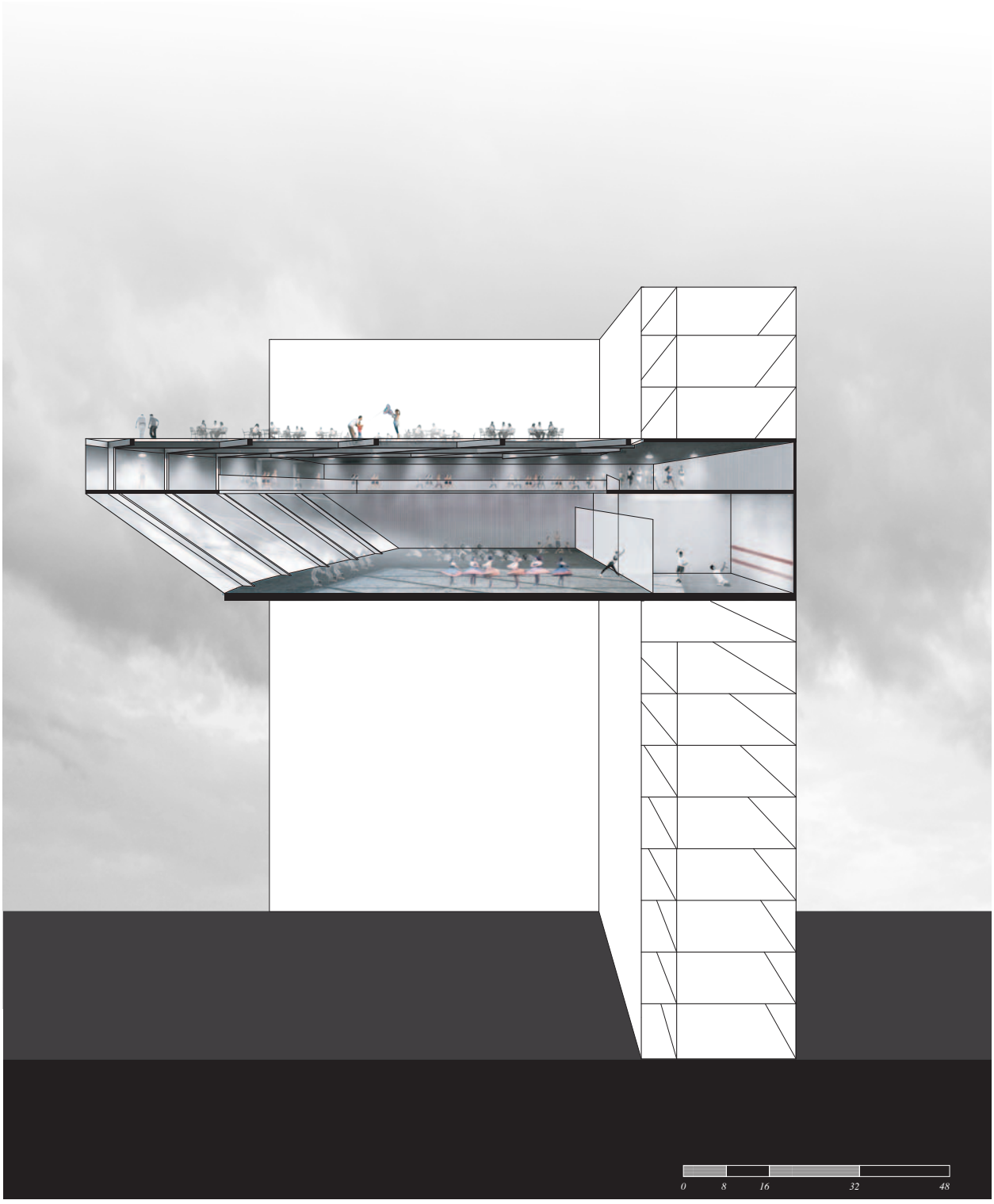
Section Perspective, Dining Hall

Section Perspective, Concert Hall



Section Perspective, Library

Section Perspective, Theatre/ Lecture Hall



Section Perspective, Gymnasium

Section Perspective, Exhibition Hall

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APPENDIX

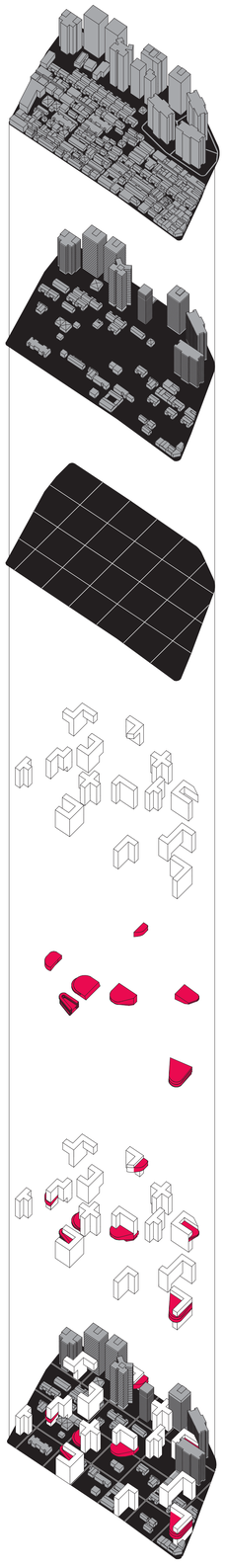
Large Scale Drawings

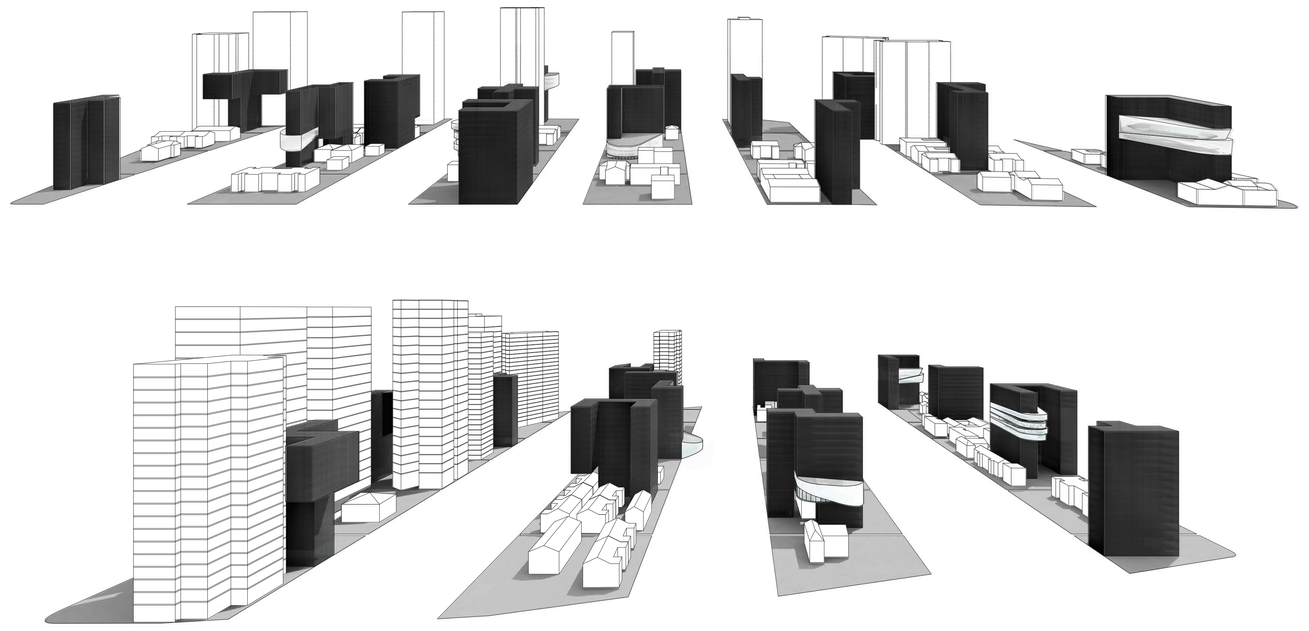
CLOCKWISE:

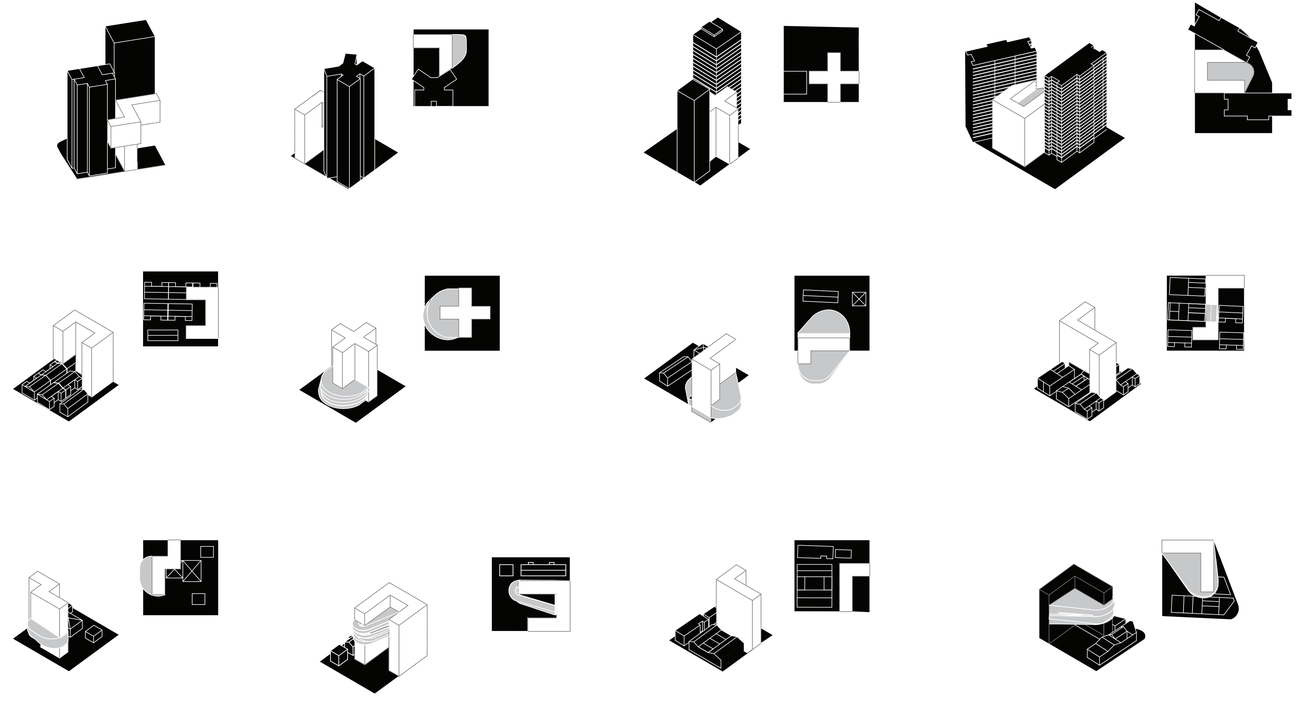
Erasure and Addition: The Sequence of Intervention

The Open Grid

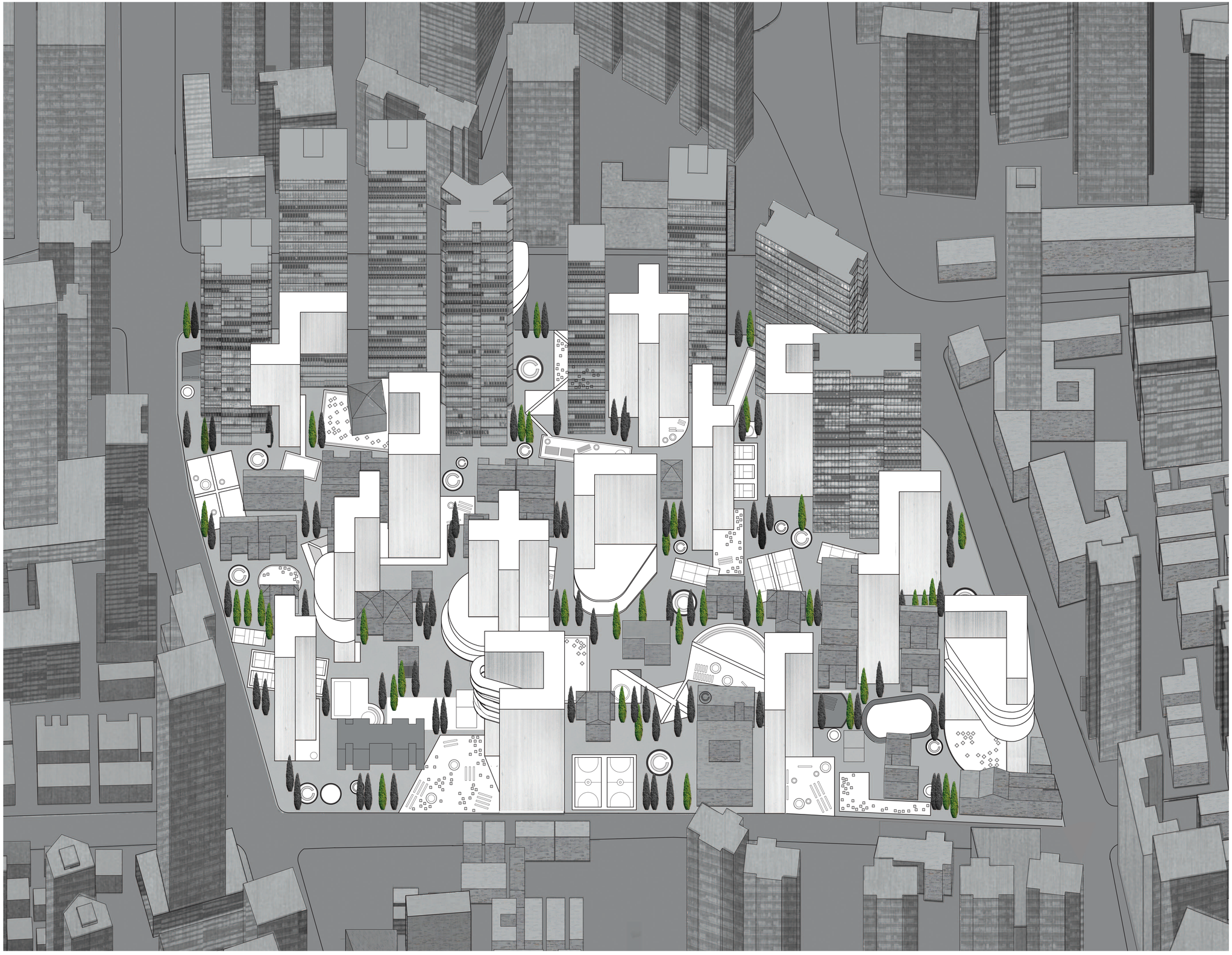
Urban Relationshipsof the Collective Spaces





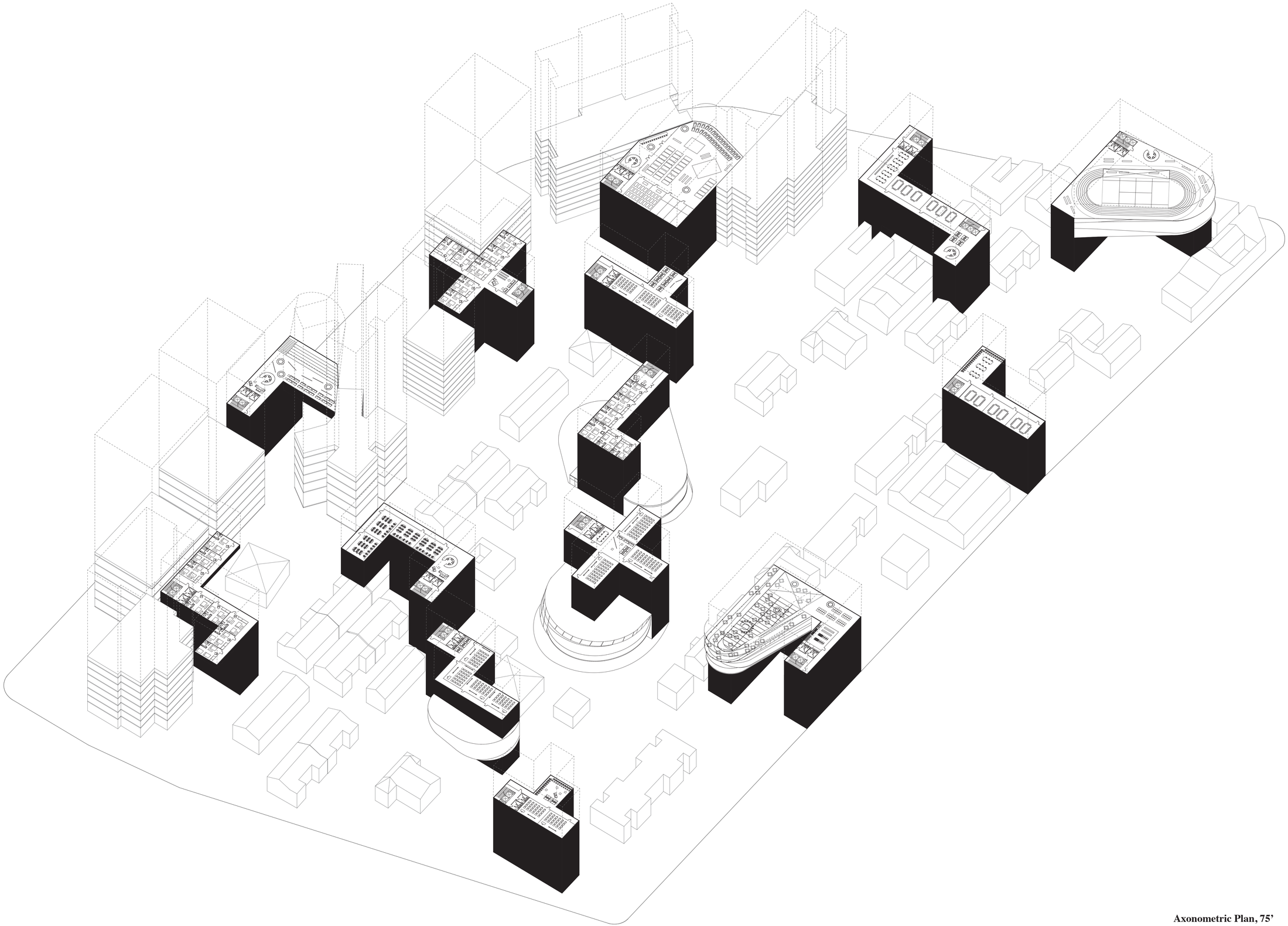


Selected Diagrams

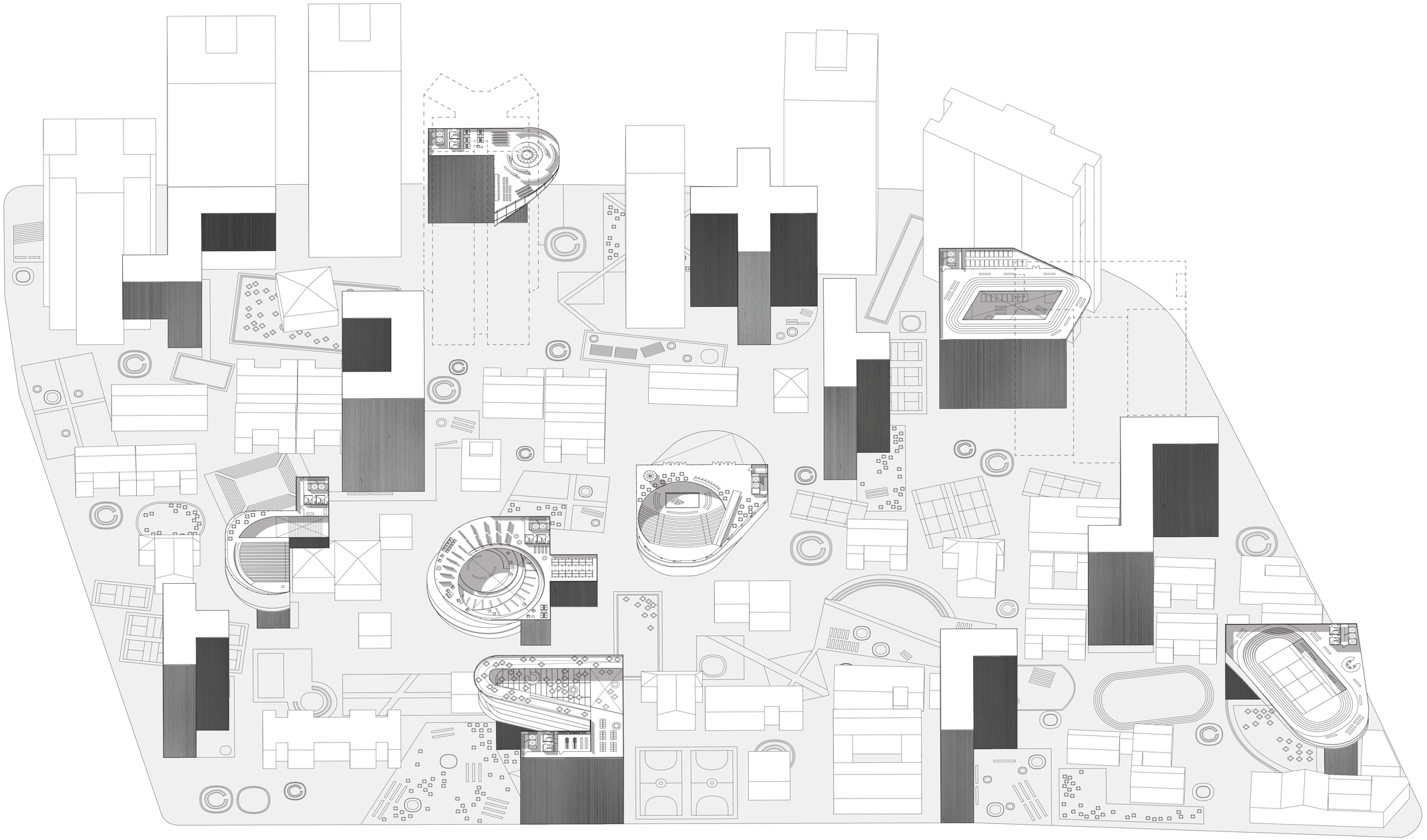


Axonometric View of Block

Ground Plan

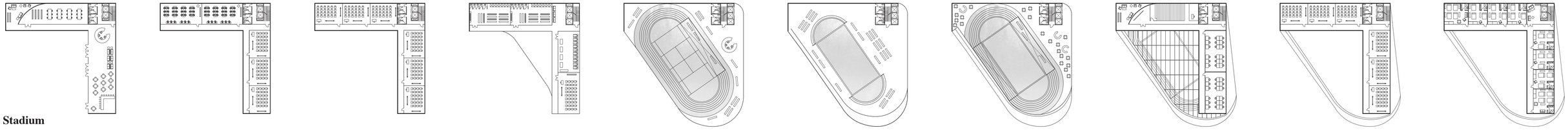


Axonometric Plan, 75’

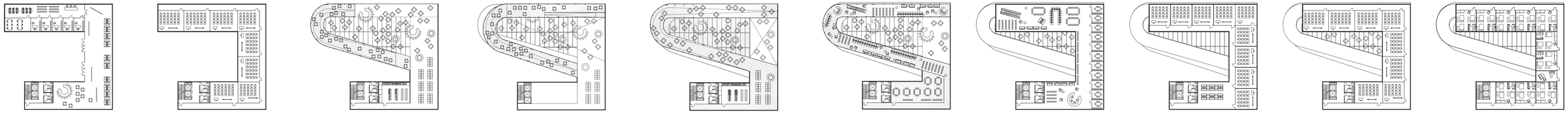


Axonometric Plan of Collective Objects

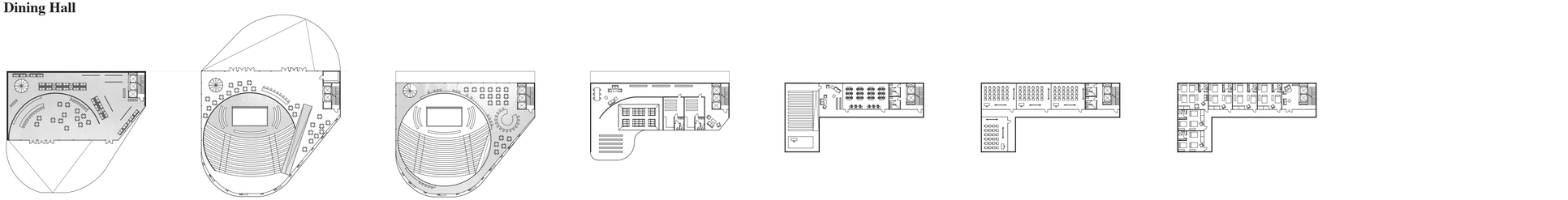
Stadium



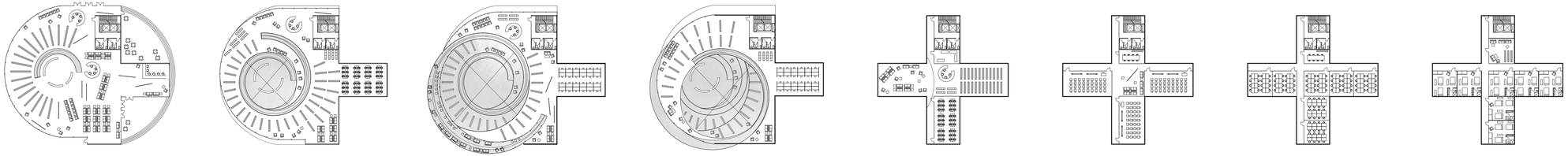
Dining Hall



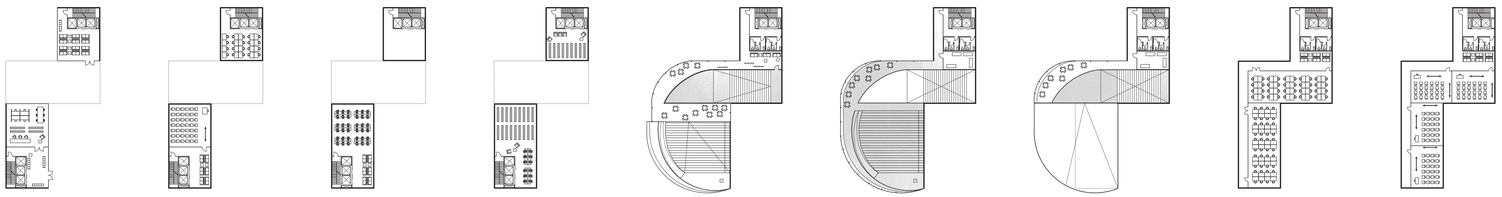
Concert Hall



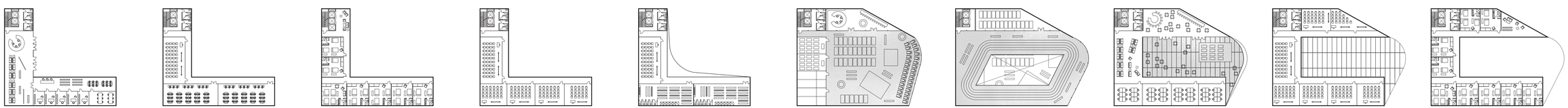
Library



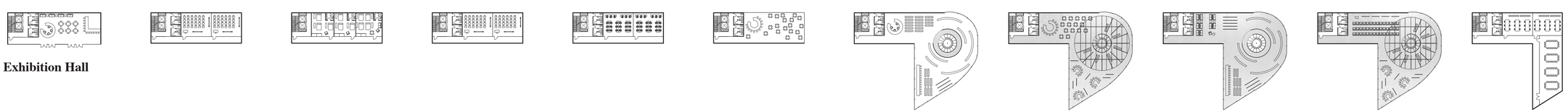
Theatre/Lecture Hall

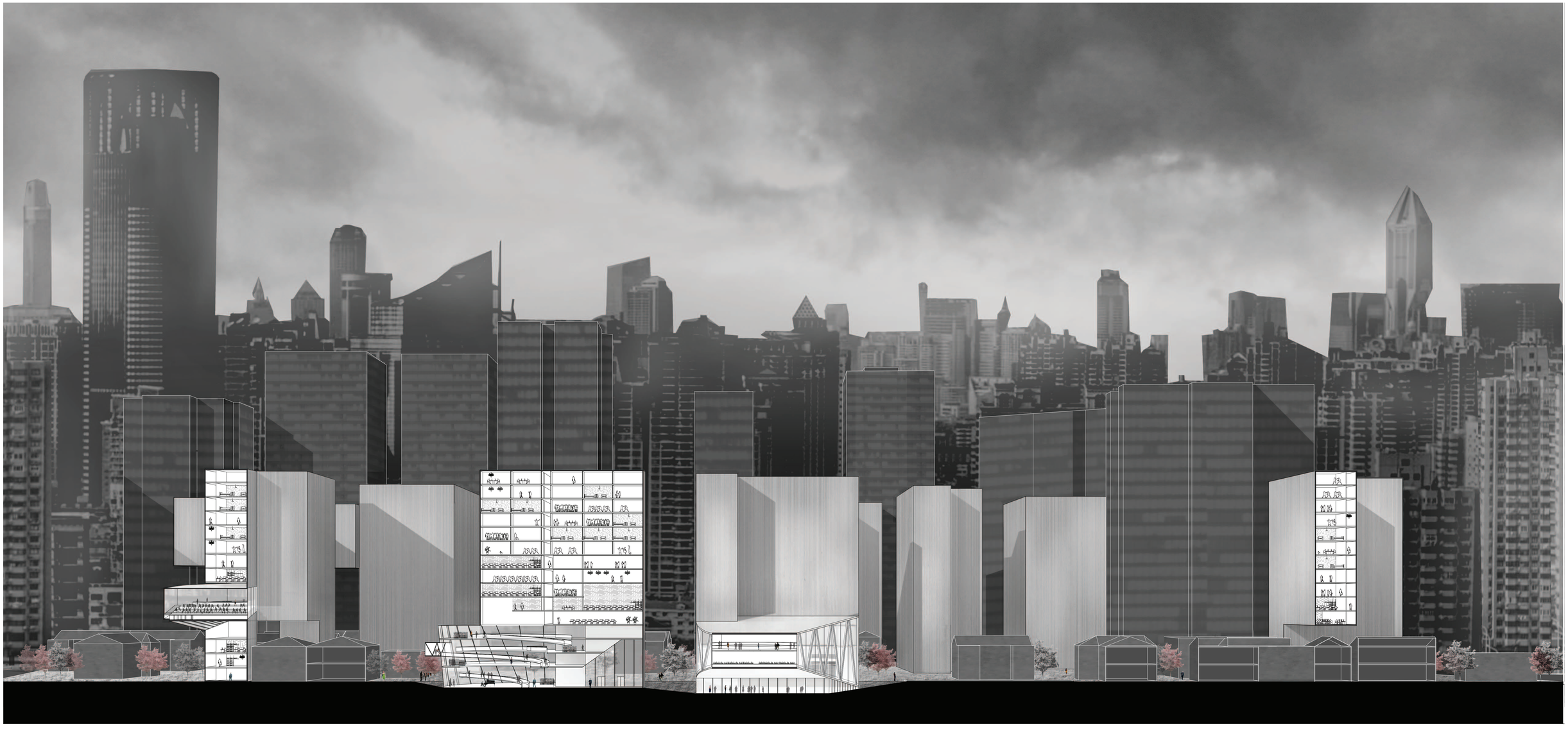


Gymnasium

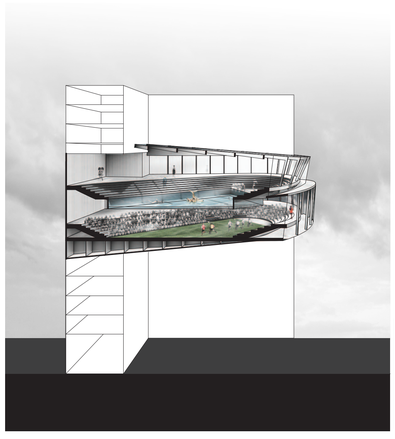


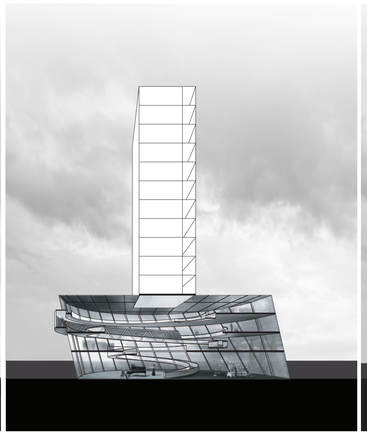
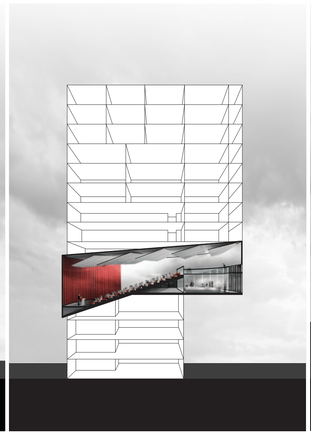
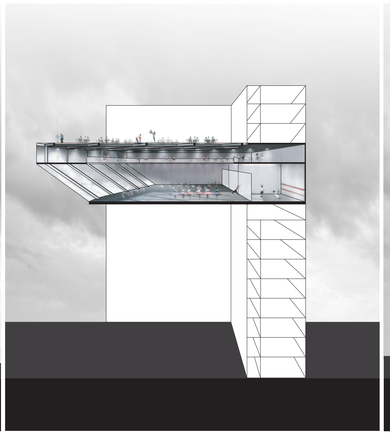
Exhibition Hall

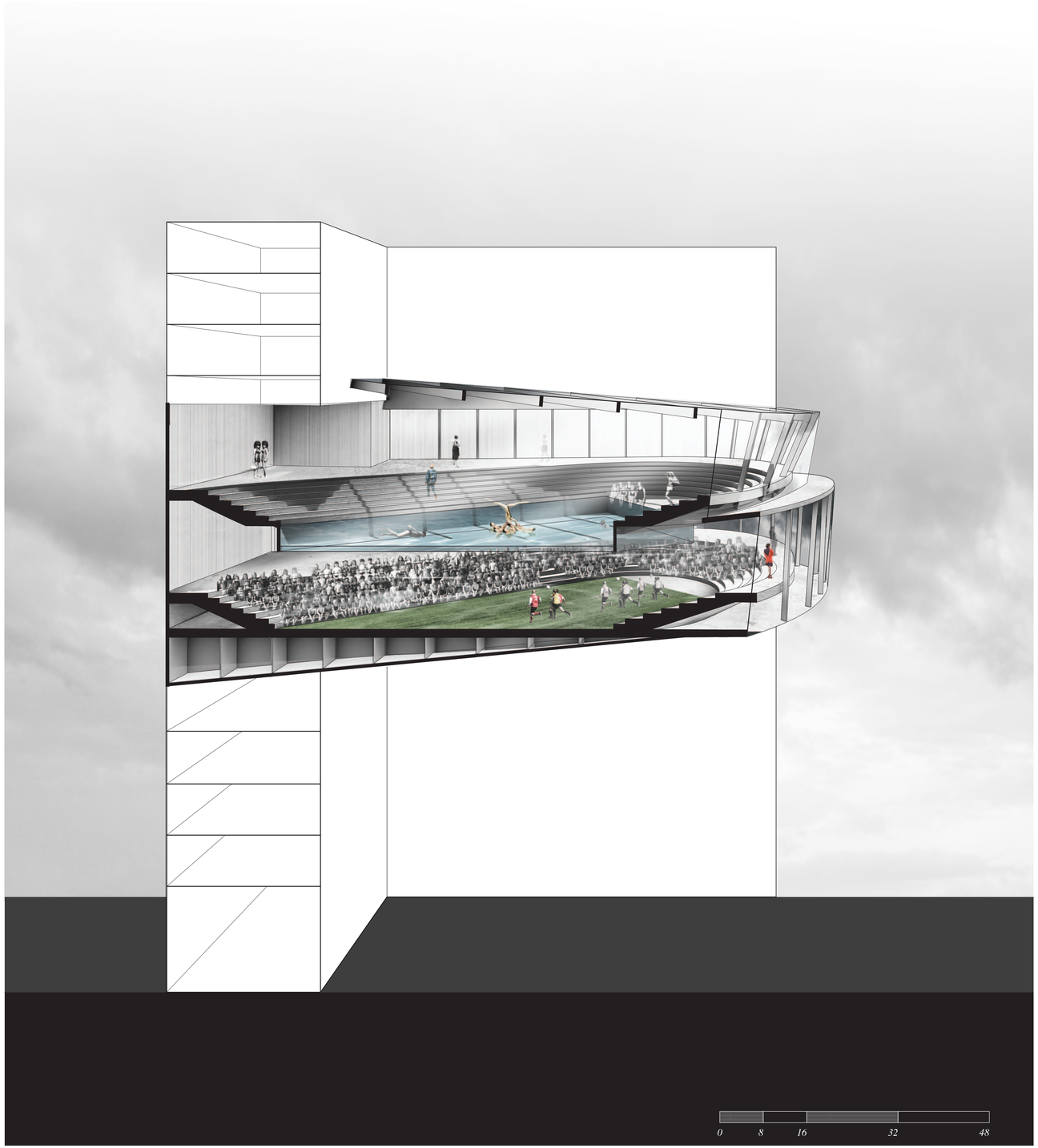




Section Perspective, Center



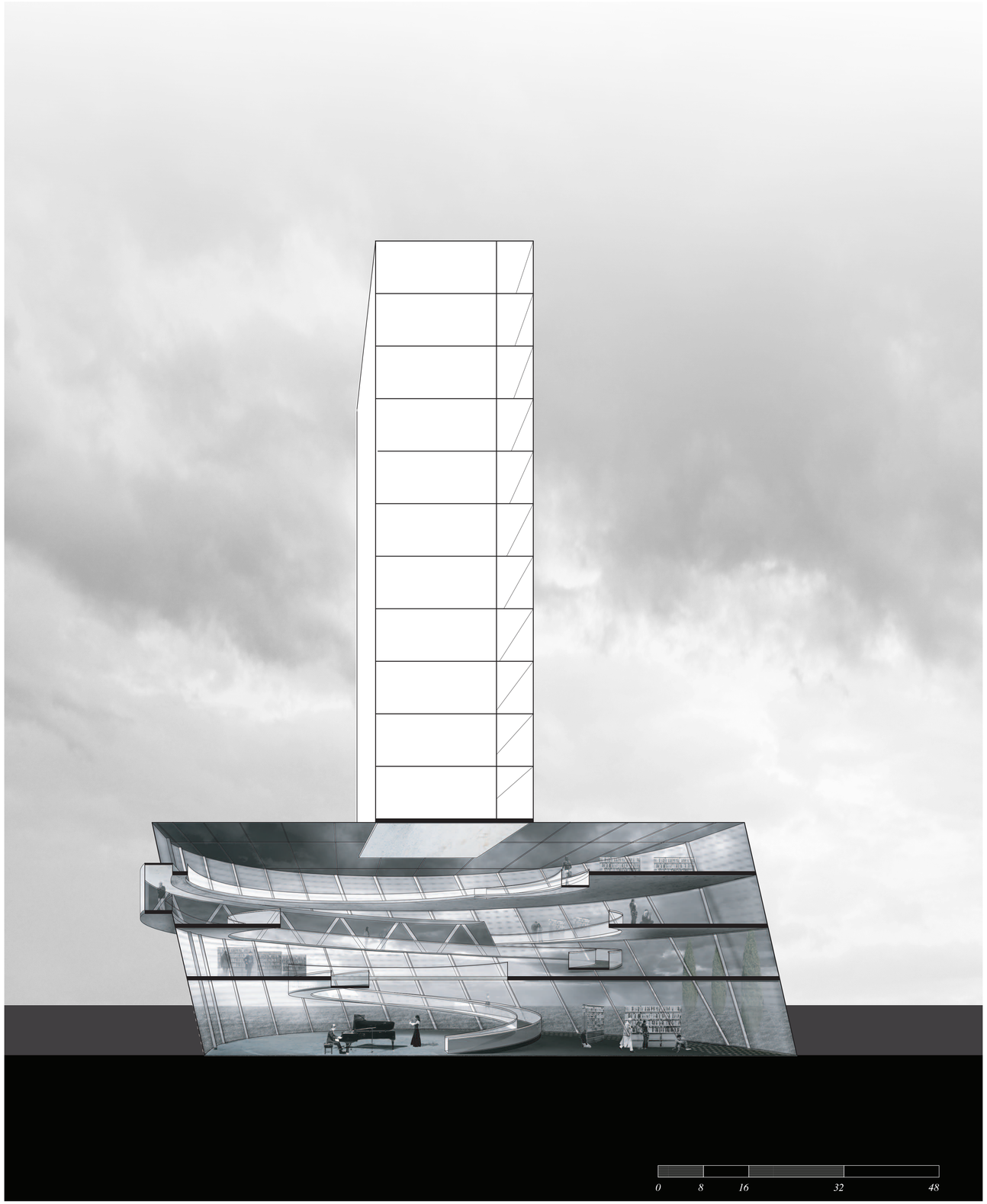






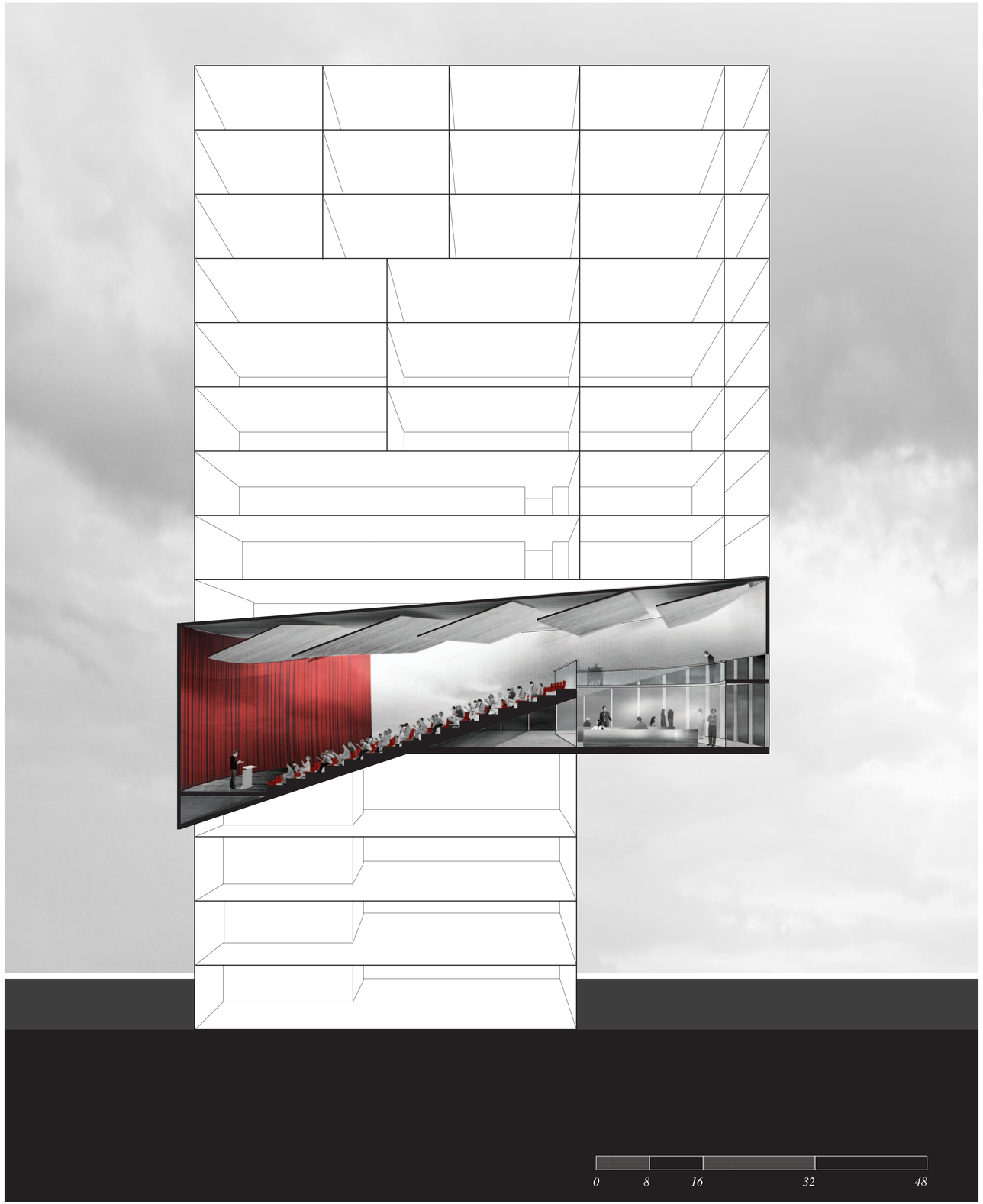
Section Perspective, Stadium

Section Perspective, Dining Haill

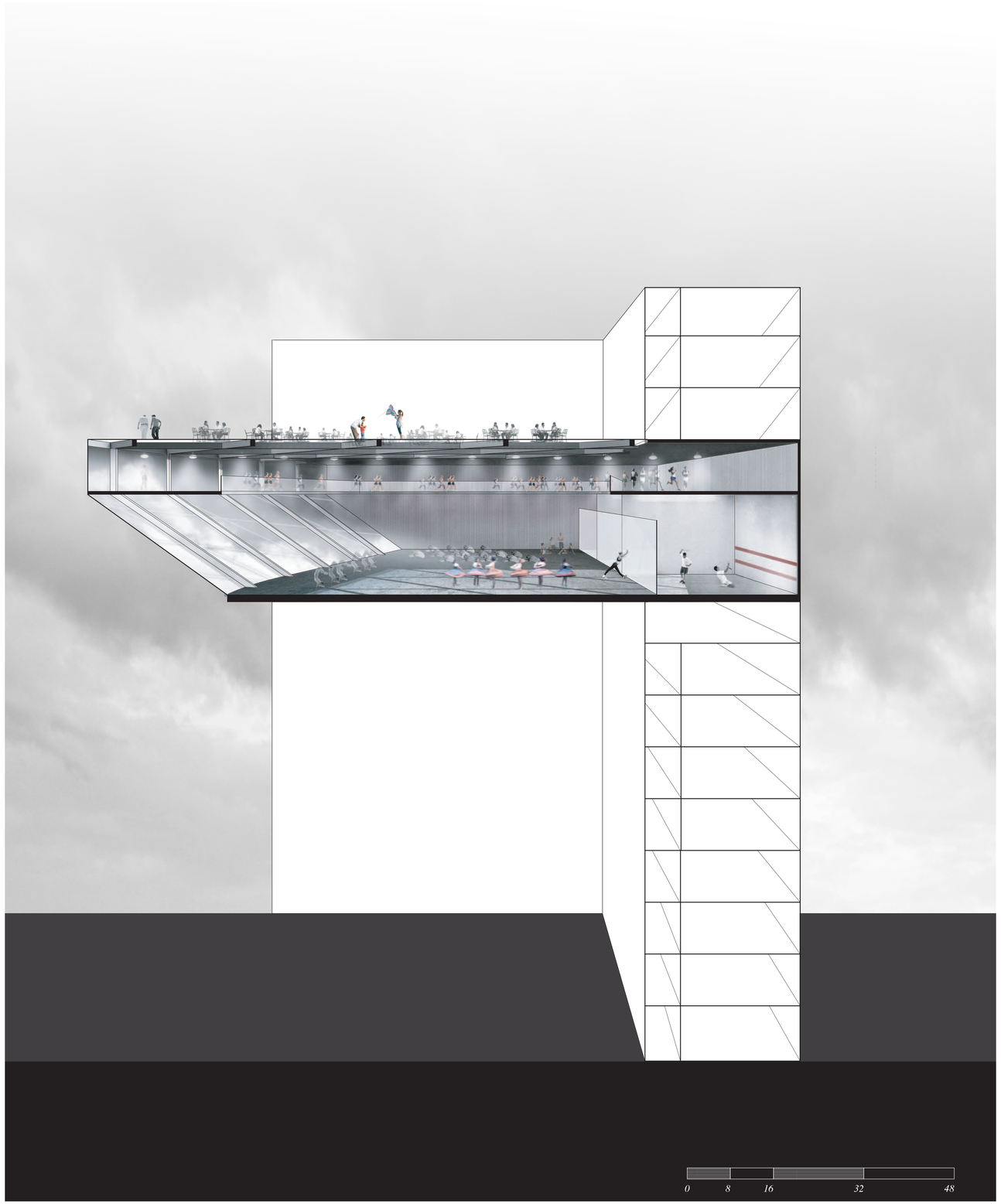
Section Perspective, Concert Hall



Section Perspective, Library



Section Perspective, Theater and Lecture Hall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8
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Section Perspective, Exhibition Hall