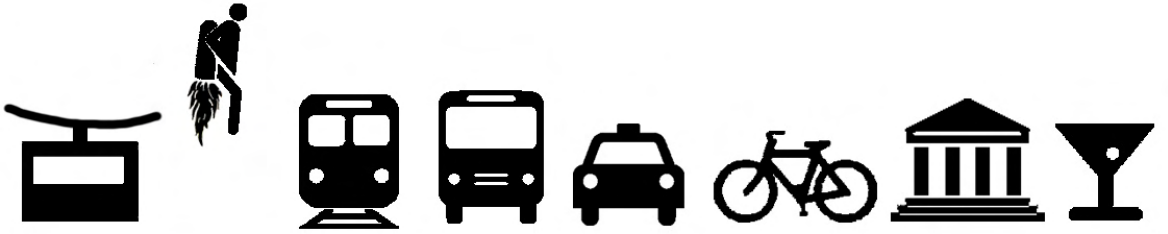

THE NEW HARMONY:
AN ADAPTIVE REUSE TRANSIT HUB

Michael Joseph Blake

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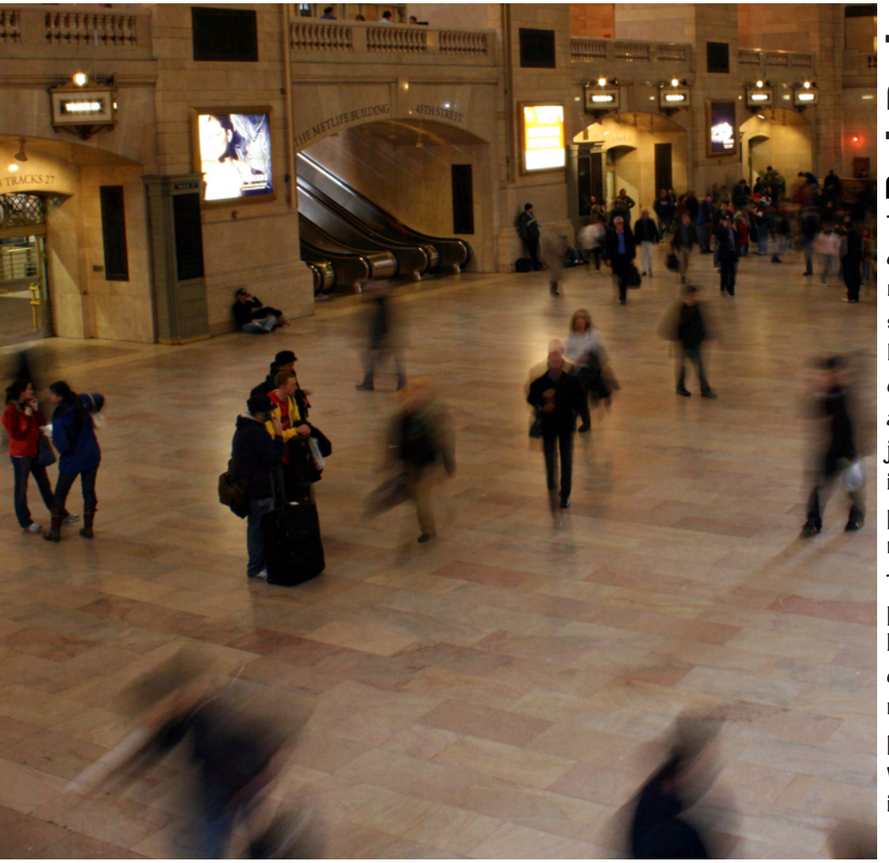

FIG. 1 : 'FROZEN'

THE NEW HARMONY: AN ADAPTIVE REUSE TRASIT HUB

MICHAEL J. BLAKE

The development of jazz during the American industrial revolution represents a broader shift in the zeitgeist of the New World. With a rich heritage of rhythmic emphasis in both art and life, African American jazz musicians were able to internalize the increasingly polyrhythmic nature of the metropolis, and groove with the potentially oppressive presence of the machine. Their brazen embrace of the temporal encouraged artists of all media, replacing the burden of permanence and exactitude with the fearlessness of an improvising jazz soloist.

The jazz-inspired works of Le Corbusier and Piet Mondrian, for example, explored a synesthetic relationship between the visual and the audible that has captured the imagination of the great artists, musicians, architects, and philosophers throughout the history of culture. My thesis exploration attempts to continue this tradition in the context of an increasingly accelerating speed of life, and the new, environmentally sensitive role of the machine. Just as Jazz poeticized the hectic rhythms of the industrial age, I believe that architecture should be conceived of as a synchronizing element within the contemporary urban landscape. Through my design of an adaptive reuse transit hub, my intent was to embrace the temporal in a manner that not only reflects the spirit of the age, but also creates musical architecture.

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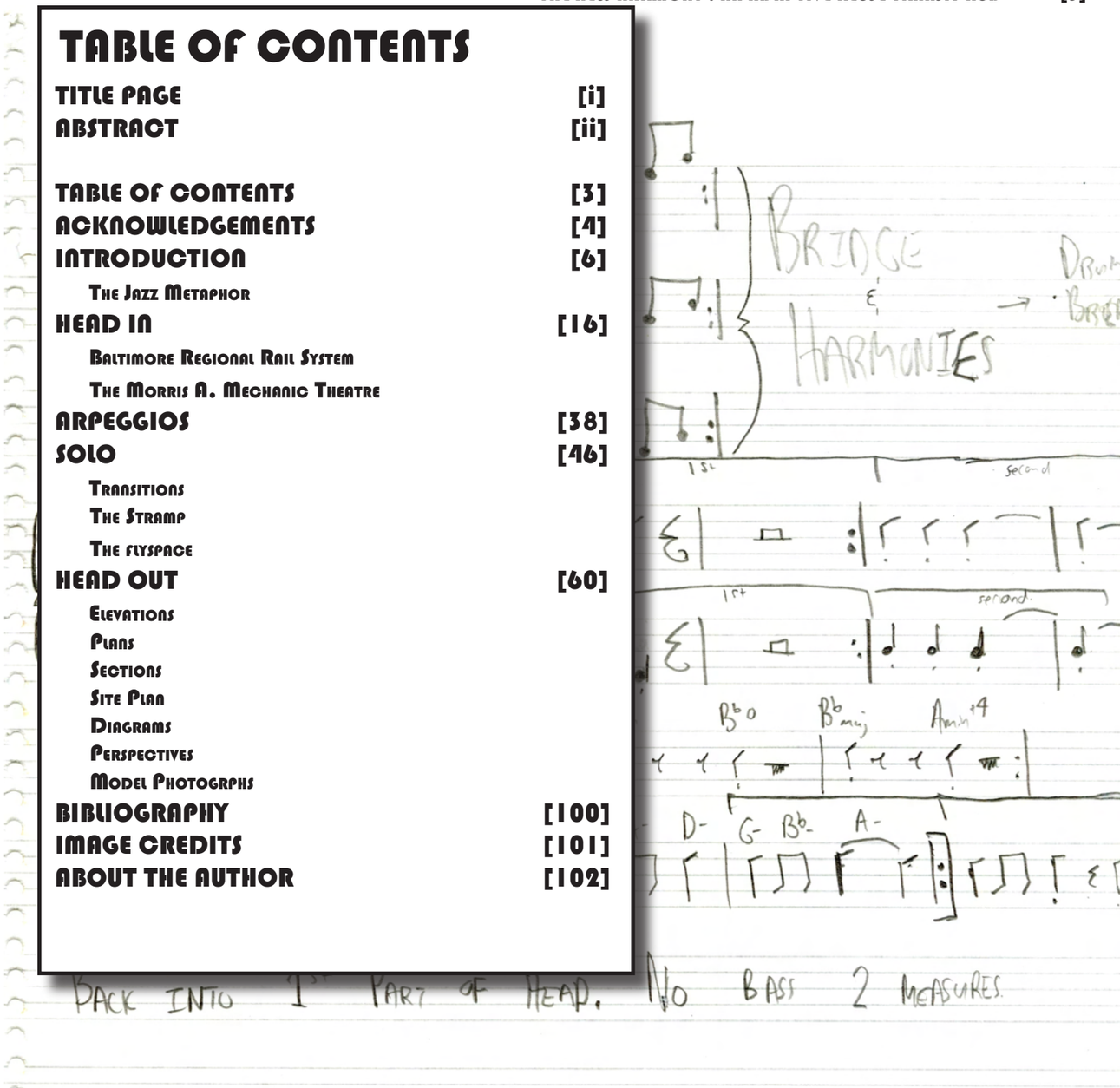

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for their support and encouragement throughout my
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Next, to
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Thank you for your patience during this process.
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Finally I would like to thank
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J.T. Fishman & Associates
for generously supplying me with
architectural drawings of the
existing Morris A. Mechanic Theatre,
which made this project possible.

FIG. 2 :
WAAC DEFENSE

THE JAZZ METAPHOR

The Rhythms of Change

Following his inaugural trip to the United States, Corbusier reflected upon his impressions of the new world in his book, *When the Cathedrals were White*. In the first chapter, entitled "Greatness of Things," he pays homage to Europe's historical articulations of a universal, timeless impulse of man to shape the terrain:

> The cathedrals were white because they were new. The cities were new; they were constructed all at once, in an orderly way, regular, geometric, in accordance with plans. The freshly cut stone of France was dazzling in its whiteness, as the Acropolis in Athens had been white and dazzling, as the Pyramids of Egypt had gleamed with polished granite. Above all the cities and towns encircled by new walls, the skyscrapers of god dominated the countryside. They had made them as high as possible, extraordinarily high. It may seem a disproportion in the ensemble. Not at all. it was an act of optimism, a gesture of courage, a sign of pride, a proof of master! In addressing themselves to God, men did not sign their own abdication.[1]

With great admiration for the intrepidity of his predecessors, Le Corbusier explains, "The new world was beginning. White, limpid, joyous, clean, clear, and without hesitations, the new world was opening up like a flower among the ruins. They left behind them all recognized ways of doing things; they turned their backs on all that. In a hundred years the marvel was accomplished and Europe was changed. The cathedrals were white." [2]

FIG. 3 : '1/2 SECOND IN NYC'

Shortly after his arrival in New York during his first trip to America, journalists asked Le Corbusier to describe his first impressions of the city. The following morning, the *New York Herald Tribune* published his comments:

> FINDS AMERICAN SKYSCRAPERS
> MUCHTOO SMALL
> Skyscrapers not big enough
> Says Le Corbusier at first sight
> Thinks they should be huge and a lot father apart.[3]

While Corbusier admits that his comments were made in a playful manner, this headline does speak to a certain level of disappointment in the skyline that he felt, despite a deep appreciation for American craftsmanship and the boldness of design. Perhaps his dissatisfaction can best be understood by his affinity for an American art form that he did feel was as optimistically devoted to the spirit of the new age as the white cathedrals that reached for the heavens: Jazz music.

In a subsequent section of his book entitled "The Spirit of the Machine, and Negroes in the USA," Le Corbusier discusses the built environment of the New World, comparing it to this progressive new form of music:

Jazz, like the *skyscrapers*, is an event and not a deliberately conceived creation. They represent the forces of today. The jazz is more advanced than the architecture. If architecture were at the point reached by jazz, it would be an incredible spectacle. I repeat: Manhattan is hot jazz in stone and steel. The contemporary renewal has to attach itself at some point. The Negroes have fixed that point through music. The simple spirit has caused the reformation to spring up from the depths and has situated it in our own times.[4]

1 CORBUSIER, *WHEN THE CATHEDRALS WERE WHITE*, 4.
2 IBID.
3 IBID., 51.
4 IBID., 161-162.

FIG. 4 : RAMP AT CARPENTER CENTER

Ebb & Flow

In 1959 Le Corbusier traveled to the Harvard University Campus in Cambridge, Massachusetts to visit the site that would inspire his most comprehensive expression of Music and Architecture. Completed in 1963, the Carpenter Center was commissioned to provide art galleries and studio space for students. After witnessing the varying rhythms that activated the campus as students moved from class to class, his interest and knowledge of jazz compelled him to introduce another layer of complexity. His contribution to the site rhythms is a large ramp that moves you through the building without ever opening a door, accentuating the tempo of an oblique body through the programmatic areas on display behind glass. Speaking about the Carpenter Center, David Brown comments:

> **In the context of the campus, le Corbusier implicitly advocates the meander... by setting in place a form and a motion that he had criticized as a mark of the pre-machine-age city. More important, he formed a moment of distraction, a delay, within the rapid flow of students proceeding from one class to the next. The building causes you to slow your pace, observe the surroundings, and perhaps become less serious and have an "active, ardent thought, which contains the joys of a profusely flowered field," something that le Corbusier found to be absent among Americans.[5]**

Intrigued by the notion of designing for multiple tempos and rhythms, I began to consider other environments where this "ebb and flow" dynamic occurs.

5 BROWN, *NOISE ORDERS*, 82.

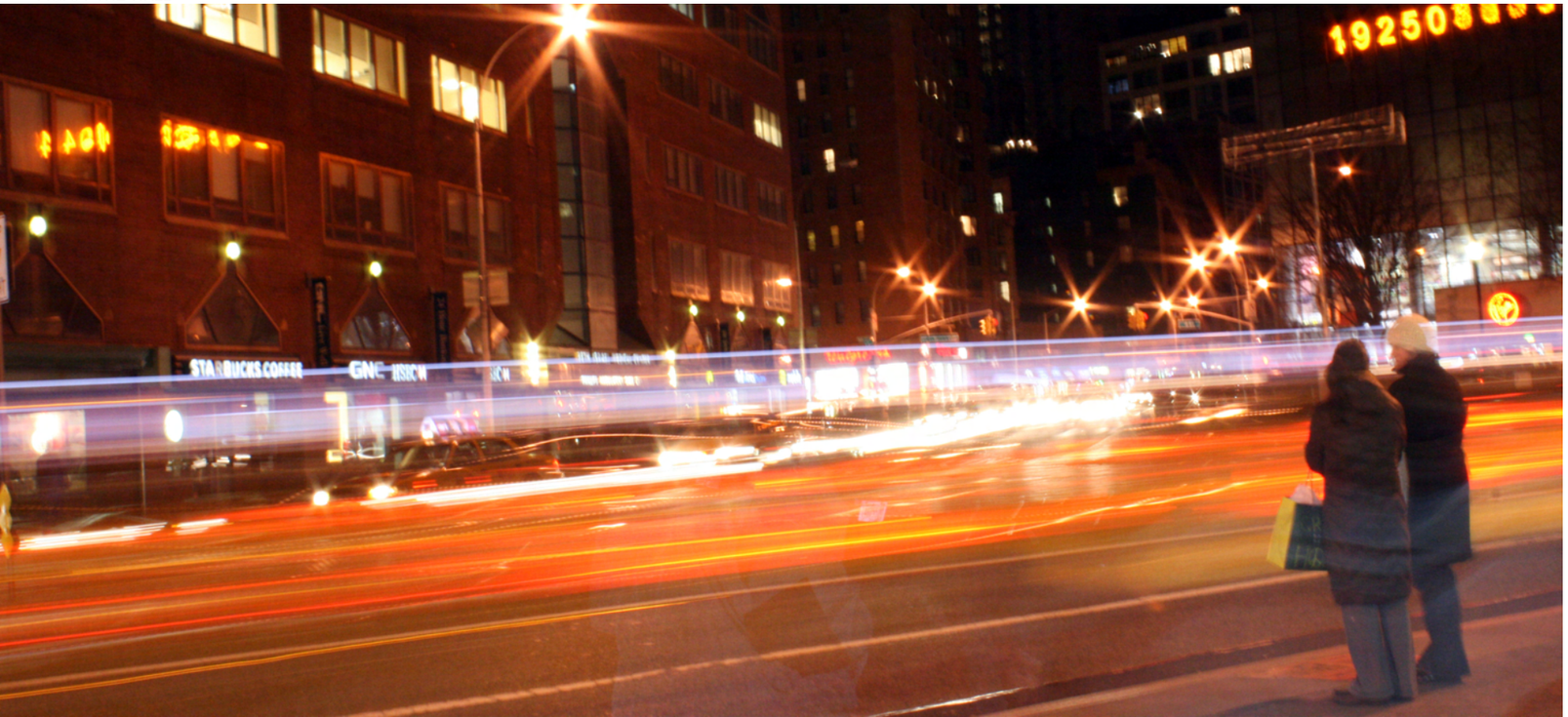
The New Harmony

Le Corbusier embraced the revolutionary spirit of Jazz music, which he explains, "has touched America because it is the melody of the soul joined with the rhythm of the machine." His emphasis on rhythm, as witnessed at the Carpenter Center, represented an architectural response to a larger shift in cultural value, which inevitably influenced the creative community:

> A major factor in the aesthetic revolution of modernism in music, architecture, painting, and modern dances was the revaluation of rhythm in human existence: the biological rhythms of the body, the rhythmic line in art, the creation and maintenance of a driving rhythmic beat in music and dance…. The previously unappreciated qualities of aesthetic beauty which machines brought into industrial society were speed, precision, flow, power and continuity.[6]

In our present day, high speed, "gadget-crazy" society, it is easy to understand that the introduction of the machine was responsible for this new sense of time. Perhaps the consequential aesthetic transition is most clearly witnessed in the works of one of the most outspoken artists of the time period: Piet Mondrian.

FIG. 5 : 'THE WALL'



Similar to Le Corbusier, a disparity between the city's timid buildings and the dynamic activity they enclosed encouraged a sense of rebellion within Mondrian:

> Although its rhythm is disequilibrated, the metropolis gives the illusion of universal rhythm, which is strong enough to displace the old rhythm. Cathedrals, palaces, and towers no longer constitute the city's rhythm. The noise of vehicles, etc., contains opposing relationships, whereas church bells have only the rhythm of repetition. Unconsciously the new culture is being built here. For some time yet, unfortunately, the tolling of bells and many other signs will remind us of the old culture.[7]

In 1918, he introduced his conception of the "New Plastic;" a fresh philosophy of art that he felt would express the spirit of the new culture. In the accompanying *De Stijl* manifesto, Mondrian explains, "In the new plastic the law of proportion leads the artist properly to realize the relationships of size and color on the picture plan: purely and simply though plastic means and not by any pictorial artifice. Rhythm becomes determinate: naturalistic rhythm is abolished."[8] In a footnote to this text, Mondrian appeals to our primitive instincts in an effort to clarify his emphasis on rhythm:

> **The remote past shows that transcendence of the natural is a general evolutionary process. In the lemurian and Atlantan periods, man was still so dependent upon the environment that the physical possibility of sleep, for instance, depended upon the rising and setting of the sun. Man lived in harmony with nature's rhythm. When, however, individual consciousness began to develop in man, there automatically ensued a disharmony between man and nature. As this disharmony increased, nature drew further and further outside of man. If today man's individual consciousness is maturing, then the lost harmony can be rediscovered, for no longer obstructed by individuality, the universal (in nature) can exist universally-independently, and perceptible to man. Abstract-real painting gives an image of this regained harmony.[9]**

6 DINERSTEIN, *SWINGING THE MACHINE*, 19.
7 HOLTZMAN, *THE NEW ART – THE NEW LIFE*, 221.
8 IBID., 40.
9 IBID., 49

Mondrian's suggestion that the pursuit of harmony is related to rhythm, accentuates time and space in a congruent manner to Le Corbusier's musically derived ramp at the Carpenter Center. As might be expected, Mondrian also found great inspiration and justification within the Jazz music of America:

> Strangers amid the melody and form that surround us, jazz and Neo-Plasticism appear as expressions of a new life. They express at once the joy and seriousness that are largely missing from or exhausted form-culture. They appear simultaneously with movements in various spheres that are trying to break with individual form and subjective motion: they appear no longer as 'beauty,' but as 'life' realized through pure rhythm, which expresses unity because it is not closed.[10]

He goes on, saying, "Jazz-being free of musical conventions- now realizes an almost pure rhythm, thanks to its greater intensity of sound and to its oppositions. Its rhythm already gives the illusion of being 'open,' unhampered by form."[11] This notion of a new form that is molded by the harmony of rhythms prompted the title of this thesis: The New Harmony.

Jazz Composition & Performance as an Interpretation of the Train

In his book entitled *Swinging the Machine: Modernity, Technology, and African American Culture between World Wars*, Joel Dinerstein explains the predictable influence that tempos of the New World had on the black community that gave birth to jazz music:

> African & Afrodiasporic musicians make sense of the Universe through the medium of sound, and the aesthetic element of rhythm; machines were simply another kind of rhythm to integrate.[12]

As the most prevalent machine to the general public, the train was of particular prominence in all modern art forms. Using the legendary Duke Ellington as an example, Dinerstein explains that its inevitable incorporation in jazz music was more a matter of intuition than a socially conscious comment.

> **When Ellington stylized train sounds and rhythms in musical compositions, his approach derived not from machine-driven modernism but from two functional imperatives of African-derived musical practice: that music is (functionally) for dance, and that it must aesthetically render the common environment in sound.[13]**

Regardless of the artist's intent, the revolutionary spirit of jazz music energized the world. With every unique performance, this undeniable American art form revealed the artistic potential embodied within the hectic reality of early 20th century life. Similar to the train, Jazz music was an important symbol of the city that unified citizens.

My experience as a jazz musician, devotion to public transportation, and interest in site rhythms inevitably led me to a building type for my thesis exploration: a multi-modal transit hub. I began to question how this crucial part of the urban fabric could make sense of the countless rhythms and tempos of modern urban life, and the machines that move us through it.

10 HOLTZMAN, *THE NEW ART - THE NEW LIFE*, 217
11 IBID.
12 DINERSTEIN, *SWINGING THE MACHINE*, 19
13 IBID., 14.

FIG. 6 : 'NIGHT DEPARTURE'

Jazz Composition & Performance as a Formula for Adaptive Reuse

While this affinity for the train deepens the jazz metaphor related to my transit hub, the most valuable lesson offered by this type of music relates to the dynamic balance of individual expression within a larger purpose.

Essentially every jazz piece you will ever hear performed is an adaptive reuse. Even if the original author is performing the piece, the improvisational nature of jazz means that the composition is forever changing and adapting to different audiences, environments, performers, and any number of other factors. While Classical Music compositions are designed to facilitate precise replication and essentially, historic preservation, Jazz compositions exist in order to provide framework for an interpretation that will occur in its own time and space.

The notions of historic preservation and adaptive reuse spark controversy in the world of Architecture and Urban Planning, inevitably hinging on personal aesthetic opinions. As the buildings of the great Modernist architects begin to reach a critical point in their lifespan, the zeitgeist of the period in which they were designed must be taken in to account. In order to embrace their spirit, their contemporary musical endeavors offer an emotional understanding, in the way that only music can.

It is with this conviction that I approached my adaptive reuse project. Consequently, this explanation of my work is organized in the form of a jazz guitar composition that I performed at my defense. The 'Head In' section contains the melody and basis of my project, in this case realized in the form of a massive concrete building. The 'Arpeggio' section analyzes the structure and exposes the full spectrum of possibilities embedded within the framework, and the 'Solo' section offers my personal expressions within the design performance. Finally, the 'Head Out' section recalls the melody of the project, enhanced by a deeper understanding and my own individual statements.

FIG. 9 : 'LITTLE WHITE MAN RHYTHM'

HEAD IN

Baltimore Regional Rail System
Morris A. Mechanic Theatre

FIG. 10 :
MECHANIC THEATER FROM BALTIMORE ST.

Baltimore Regional Rail System

In 2002, the Baltimore Regional Rail System Plan Advisory Committee released its recommendations for a transit masterplan, designed to provide the citizens of the Baltimore metropolitan area with a comprehensive network of convenient and efficient options for mobility. In an introduction to the report, the committee co-chairs explained the scope of their intent: "The objectives of our Plan are simple: 1) to establish, over the next 40 years, a true system of rail lines that provides fast and reliable rail service between major life activity centers in the region; 2) to serve areas with the greatest concentration of population and employment; and 3) to make the most of our prior transportation investments."[1] This effort was a much needed step towards the development of a public amenity that will not only improve quality of life, but also has the potential to reconnect Baltimore, a city that pioneered commercial electric mass transit in 1885,[2] with its heritage of public transportation innovation.

In an article about the past, present and future of transportation in the city, Baltimore Streetcar Museum historian Jerry Kelly illustrates a devotion to public transportation that even obscured the line between the informal and ceremonial. He recalls that "you'd arrange for the transit company to bring their funeral car as close as they could to your house. They had a little gurney they'd wheel down to your house. The pallbearers would place the coffin on the gurney and transport it up to the funeral car."[3] The author of the article, Mat Edelson, paints a picture of the city during its previous golden age of public transit, claiming that "So thick were the streetcars that Baltimoreans socially connected themselves by the number of their streetcar route…Charm City denizens worked, played, lived, and even went to the afterlife via the street car."[4] This is a difficult reality for a contemporary "Baltimoron" such as myself to imagine, growing up in a city that is socially, economically, and physically separated.

So how was such an important part of Baltimore's culture simply replaced by choking traffic jams of isolated drivers in their cars, and an inadequate, underused public transportation system? Would the divisive realities of city life in Baltimore be so prevalent if such a democratic, impartial symbol of citizenry survived America's short-sited obsession with the automobile? As Americans begin to face the harsh realities of our dependence on fossil fuels, public transportation will be paramount in urban restoration initiatives that will be required of cities throughout the country. With record high gas prices already causing the national working class to reconsider the economic feasibility of single occupancy transit, and a globally growing sensibility of environmental concerns reshaping public policy, the city is faced with the opportunity, and responsibility to rejuvenate Baltimore's transportation system; an action that could restore the city's reputation as an important model in urban planning and transportation engineering.

1 MTA, *BALTIMORE REGIONAL RAIL SYSTEM PLAN*, 2.
2 EDELSON, "THE TAO OF TRANSIT," 69.
3 IBID., 70.
4 IBID.

[OPP. PAGE] FIG. 11 : BRRSP DIAGRAM
REPRODUCED FROM
MARYLAND STATE, *BALTIMORE REGIONAL RAIL SYSTEM PLAN*, 8.

In their report, the advisory committee also addressed the economic factors, construction timelines, and details of the system that will determine the success of their proposed plan. Of particular interest to the intent of my thesis exploration was an identification of six major transition points within the system:

> Good connections within the rail system are of the utmost importance. The key transit hubs – Camden Station, Penn Station, West Baltimore, Madison Square, Lexington Market, and Charles Center – will provide for a direct transfer from one line to another. Each of these major transfer points must take advantage of the high volume of people coming and going at once, with a host of services and excellent customer information.[5]

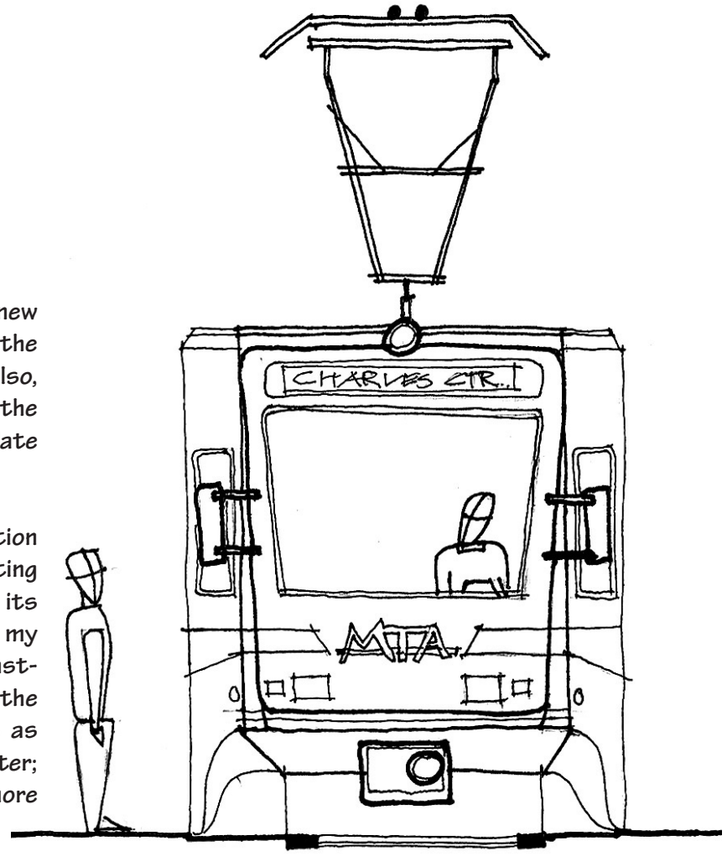
By no accident, these important nodes in the new transit masterplan all hold close proximity to the city's fragmented, operational transit lines. Also, they all inevitably represent developed parts of the city, which will have to adjust in order to accommodate a new responsibility to the urban fabric.

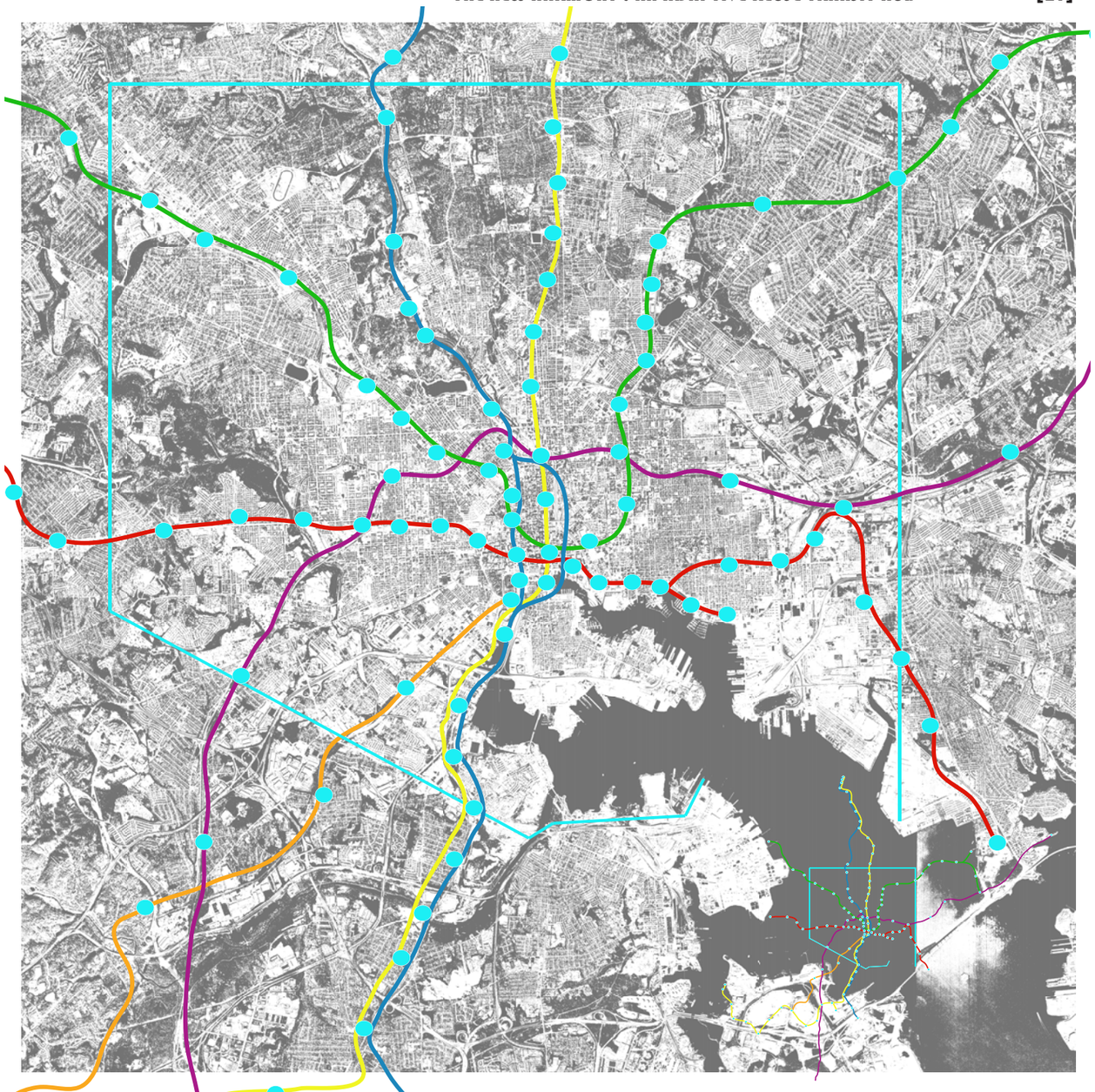
Charles Center, with its prominent downtown location and relationship to the proposed and existing transit lines, immediately appealed to me with its established site rhythms that could stimulate my temporal design thesis. However, the derelict, cast-in-place concrete architectural jewel, known as the Morris A. Mechanic Theatre, defiantly stands as the single most inspiring aspect of Charles Center; a site that will be pivotal to the proposed Baltimore Regional Rail System Plan of 2002.

5 MTA, *BALTIMORE REGIONAL RAIL SYSTEM PLAN*, 25.

[OPP. PAGE] FIG. 12 :
TRANSIT LINES OVER
BALTIMORE CITY FIGUREGROUND

[BELOW] FIG. 13:
LIGHT RAIL ELEVATION





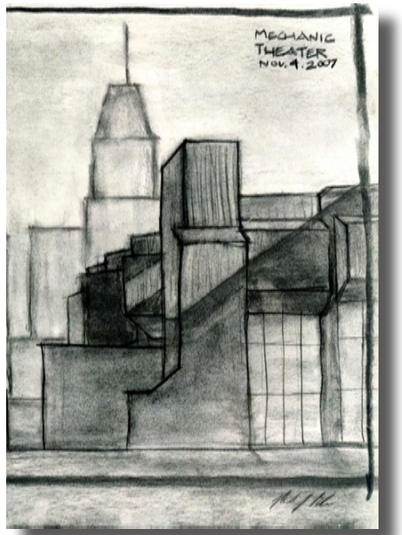
EXISTING SITE PLAN

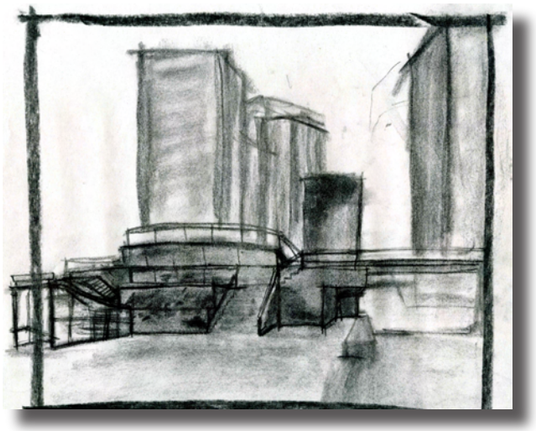
WITH CHARLES CENTER SUBWAY STATION ENTRANCES

The Morris A. Mechanic Theater

The Morris A. Mechanic Theatre, completed in 1967, was designed by the American architect John M. Johansen. Situated in the heart of downtown Baltimore, this sculptural, Brutalist building is located on the corner of Charles and Baltimore Street. Because of its proximity to New York City, Baltimore has traditionally served as a test city for the productions headed north.[6] However, with the demolition of his Ford's Theater in 1964, the city was left without a proper theater to support such a responsibility. Morris A. Mechanic, the former owner of the demolished theater, wanted to construct a new theater that would allow Baltimore, the city that had made him his fortune, to maintain its relevance in the cultural world.[7]

A strident, experienced businessman, Mechanic was very aware of the financial snares related to ownership of a theater. Speaking of the design process, Johansen explained that "Baltimore could not support two or three different theater types. Mechanic wanted to be very certain that this theater could be flexible enough to assure income from various sources."[8] In addition, the owner stipulated that the project should include non-theater program that would be able to financially sustain the playhouse.[9]



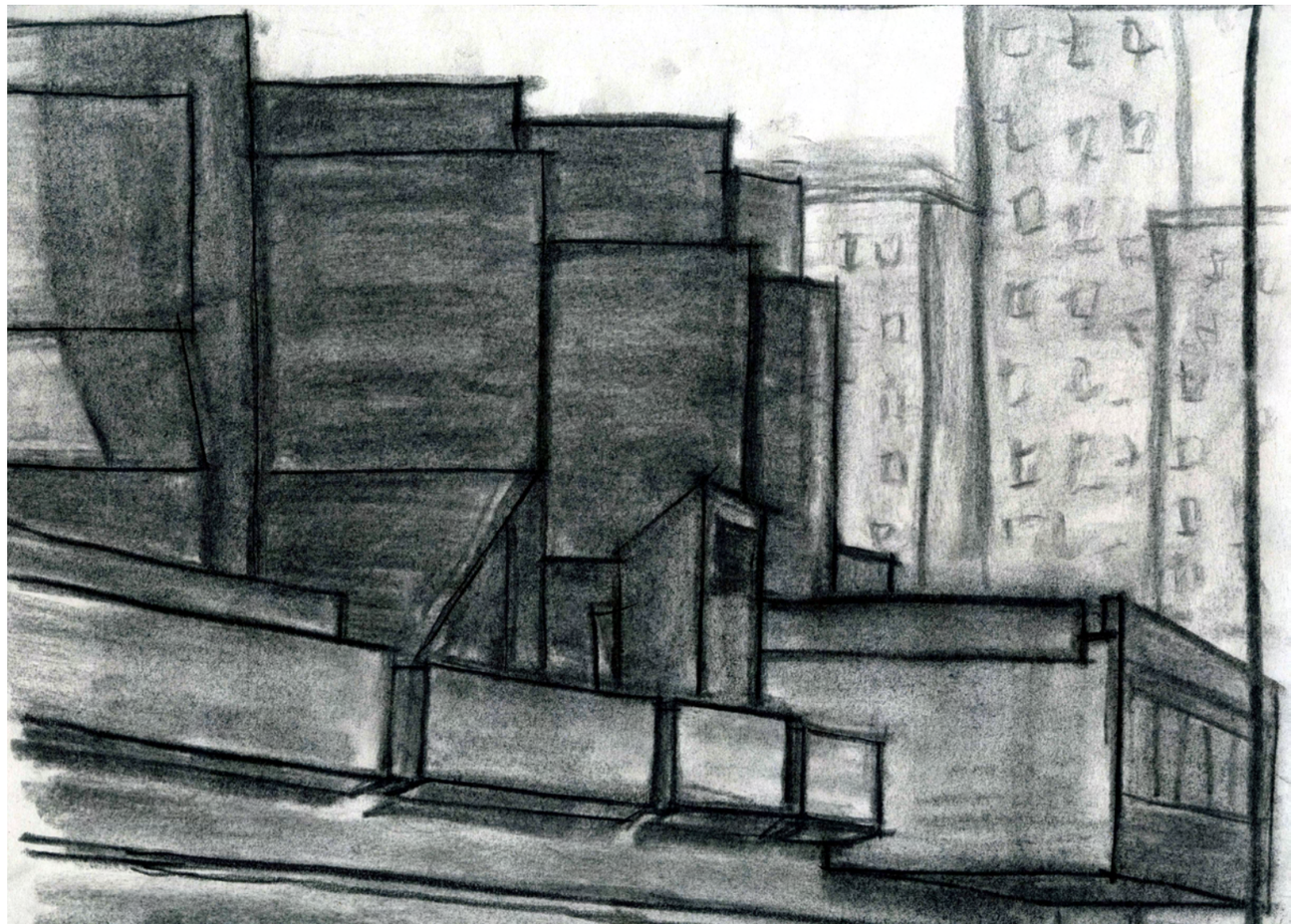


[TOP] FIG. 14:
MECHANIC THEATRE PERSPECTIVE

[ABOVE] FIG. 15:
CHARLES CENTER PERSPECTIVE

[OPP. PAGE] FIG. 16:
MECHANIC THEATRE PERSPECTIVE

6 DEAN, "EVALUATION: A TROUBLED THEATER ANCHORS BALTIMORE'S DOWNTOWN," 32.
7 IBID.
8 IBID.
9 IBID.



These economic considerations, combined with Johansen's architectural convictions, resulted in a truly unique building that was praised for its connection to the city: "Among the many urban-core renewal projects undertaken in the past decade, Charles Center was one that promised real urbanity. Out of 22 decaying acres at the very core of the city, it was to create a tight-knit complex of offices, apartments, hotels, and shops – and a theater."[10] The Mechanic Theater was an audacious project from conception to completion, intended to be the highlight of Baltimore's urban revitalization.

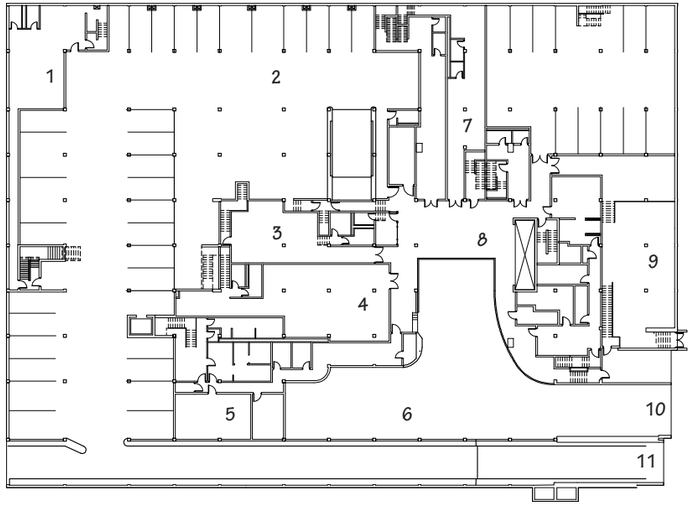
Johansen's design epitomizes the modernist conviction that form follows function.

> The sculptural forms of the theater grew directly out of Johansen's conviction that 'the outside is just the other side of the inside.' This approach is most obvious in the theater itself and in the lounges, stair towers, mechanical rooms, and the ventilating shafts that cluster around it. The podium of rental space from which they all rise looks very much like the 'universal space' that Johansen shuns. Yet even this seemingly inexpressive box does reveal what it is: a space of predetermined boundaries cut up inside like a jigsaw puzzle.[11]

Shattering preconceived notions of what a theater should be, the Mechanic was received with mixed opinions and was ultimately destined for hard times, as expressed in an article that appeared in the February 1978 AIA Journal. The piece, entitled Evaluation: A Troubled Theater Anchors Baltimore's Downtown, explains, "As a part of the urban fabric, the Mechanic Theatre is strikingly successful. As a functioning playhouse, it has had serious problems."[12] Though initially starting strong, after 8 years of a steady recession in theater attendance, the playhouse went dark in 1975. In general, criticism was related to the ambitiously desired flexibility of the performance space, which, unfortunately, hindered the theater's ability to adequately serve any one type of production. However, undoubtedly because of its success as a centerpiece for downtown, the city decided to help the theater get back on its feet. After 5 months of interior renovations, the "New Mechanic" reopened its doors to the theater-going public.[13] The Mechanic Theatre served as a functioning venue for more than 30 years, until the historic France-Merrick Performing Arts Center reopened its doors as the Hippodrome Theater in 2004.[14] This larger, more traditional theater doomed the controversial relic of modern architecture to obsoleteness in the world of theater.

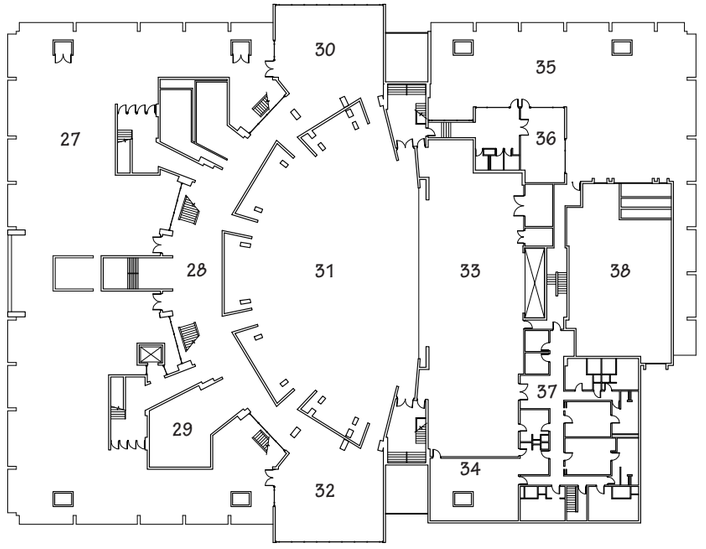
10 "NEW THEATER: A CENTER FOR BALTIMORE," 73.
11 IBID., 75
12 DEAN, "EVALUATION: A TROUBLED THEATER ANCHORS BALTIMORE'S DOWNTOWN," 32.
13 IBID. 33-35.
14 GUNTS, "PANEL ACTS TO PROTECT MECHANIC."

[OPP. PAGE] FIG. 17:
MORRIS A. MECHANICTHEATRE
W. ELEVATION FROM PLAZA



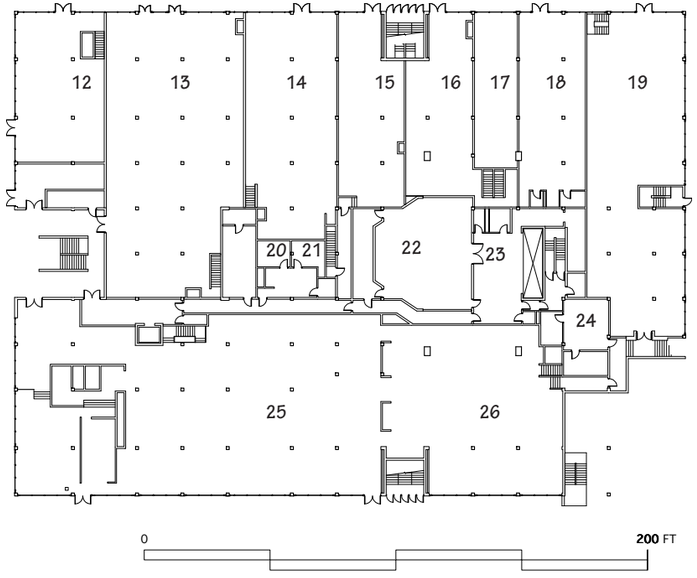
BASEMENT PLAN

1. RENTAL
2. PARKING
3. RENTAL
4. RETAIL
5. MECHANICAL
6. RAMP DOWN TO PARKING
7. RETAIL
8. LOADING DOCK
9. MECHANICAL
10. RAMP DOWN TO PARKING
11. RAMP DOWN TO PARKING



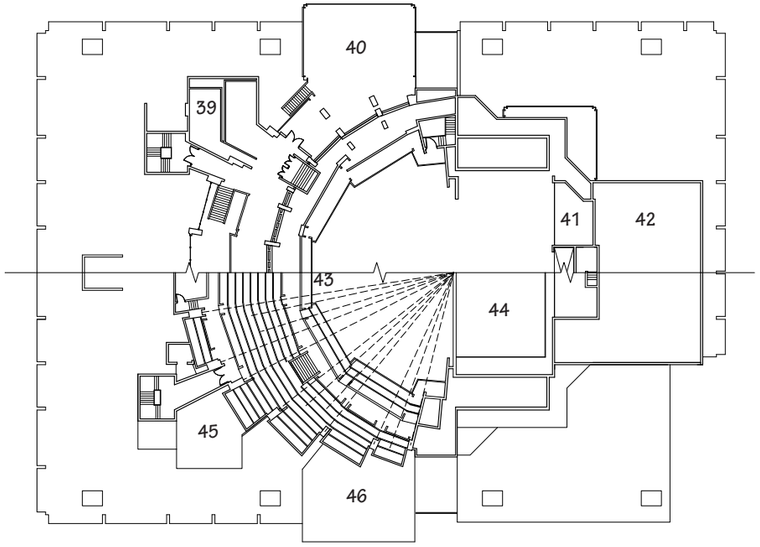
ORCHESTRA PLAN

27. TERRACE
28. LOBBY
29. COATROOM
30. LOUNGE
31. ORCHESTRA SEATING
32. LOUNGE
33. STAGE
34. WARDROBE
35. TERRACE
36. OFFICE
37. DRESSING AREA
38. MECHANICAL



STREET PLAN

12. RETAIL
13. RETAIL
14. RETAIL
15. RETAIL
16. RETAIL
17. RETAIL
18. RETAIL
19. RETAIL
20. OFFICE
21. OFFICE
22. ORCHESTRA PIT
23. STAGE TRAPS
24. STAGE DOOR
25. RESTAURANT
26. KITCHEN

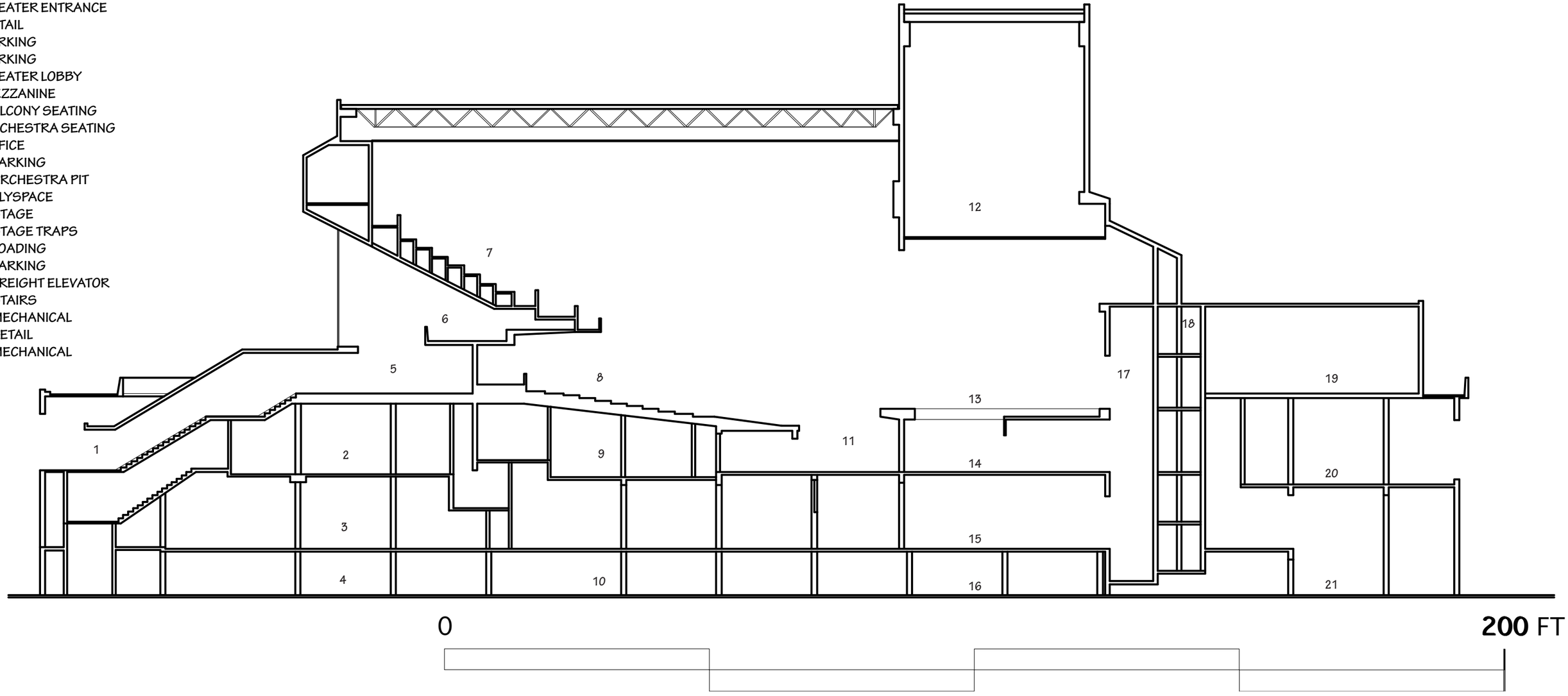


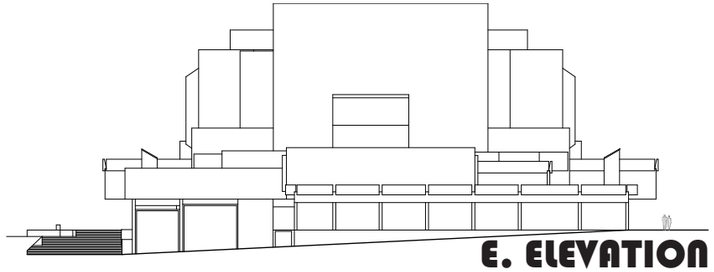
MEZZANINE & BALCONY PLAN

39. RESTROOMS
40. TERRACE
41. LOFT
42. UPPER MECHANICAL
43. BALCONY
44. FLYSPACE
45. TERRACE
46. TERRACE

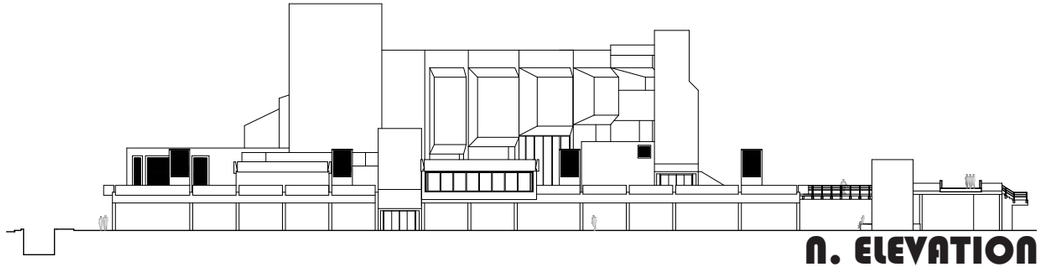
E/W SECTION

1. THEATER ENTRANCE
2. RETAIL
3. PARKING
4. PARKING
5. THEATER LOBBY
6. MEZZANINE
7. BALCONY SEATING
8. ORCHESTRA SEATING
9. OFFICE
10. PARKING
11. ORCHESTRA PIT
12. FLYSPACE
13. STAGE
14. STAGE TRAPS
15. LOADING
16, PARKING
17. FREIGHT ELEVATOR
18. STAIRS
19. MECHANICAL
20. RETAIL
21. MECHANICAL





E. ELEVATION



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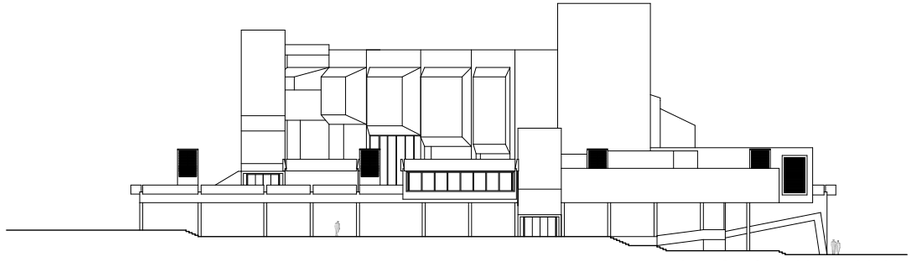
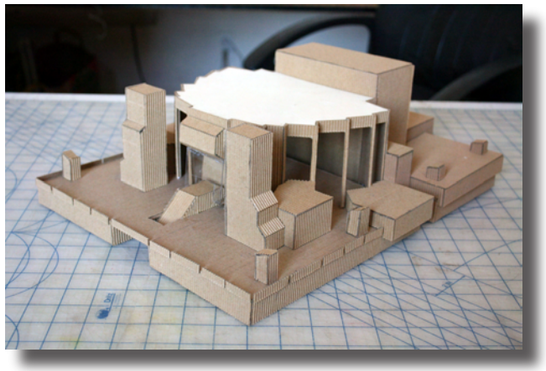
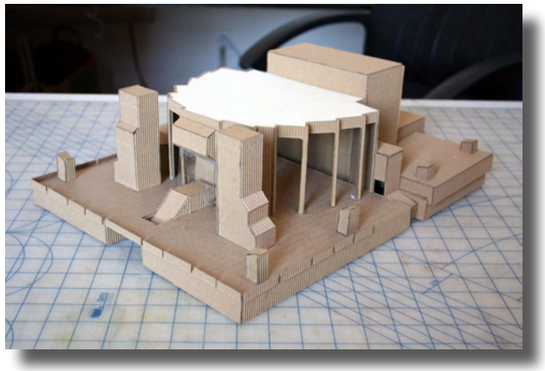


S. ELEVATION

W. ELEVATION





[ABOVE] FIG.18 A-C :
SUBTRACTIVE MASSING STUDY

[OPP. PAGE] FIG.19 :
EXISTING CONDITIONS STUDY MODEL

In 2005, the Morris A. Mechanic Theatre was sold for a price of 6 million dollars. The new owners, having no interest in continuing to operate the building as theater, proposed a transformation of the building that would house commercial, residential, and office spaces. Speaking of the design, the Baltimore Sun's Architecture critic Edward Gunts commented:

> In effect, the theater would be enveloped on all sides by new construction, including the housing tower on the east and a new glass entrance and shopping level on the west, facing Hopkins Plaza... Based on the renderings, the theater would be barely recognizable underneath. All that appears to be visible of the original building are angled walls on the north and south sides, where the seating was inside, and two piers that staked out the theater's main entrance.[15]

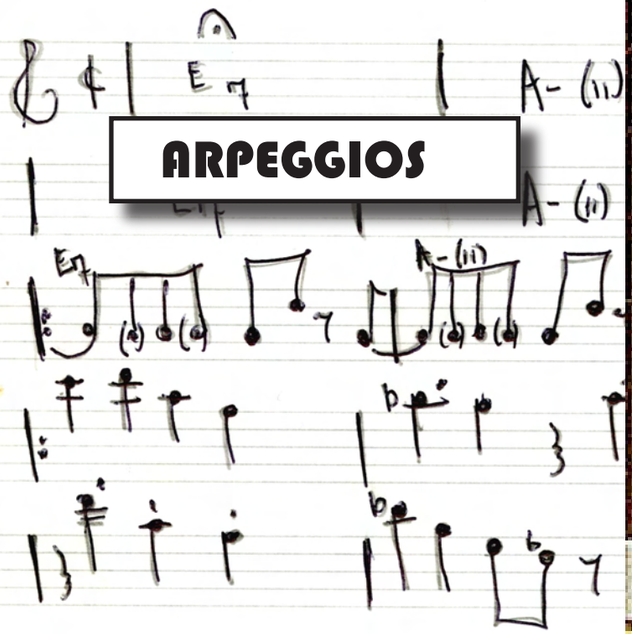
Specifically, he questions the incoherence of the original structure in the new, proposed scheme, explaining that a design that "changes the original creation beyond recognition, under the guise of preserving its memory," could in fact be worse than simply tearing the building down and starting with a blank slate. He suggests that this is especially pertinent to a building design in which the architect intended for the exterior elevations to be an artistic representation of the activities taking place within its solid concrete walls; an elegant gesture considering the opaque nature of the theater as a building type in general. However, Gunts also questions whether or not it is necessary to respect the original exterior, considering the fact that its embodied poetics would no longer apply to a building that no longer functions as a theater.[16] Apparently sharing these questions and concerns, Baltimore's Preservation Commission took action to halt construction of the proposed "Mechanic SuperCenter," and declared the Morris A. Mechanic Theatre a historic landmark. This designation recognizes the architectural significance of the building, and protects it from intervention without the approval of the Commission.[17]

While I agree that this was an important and appropriate action, I also feel that proper attention hasn't been given to the fact that this building is located directly adjacent to the existing Charles Center subway station that will be of great importance to the proposed public transportation masterplan. With a growing admiration for Johansen, and concern for the future of his building in my hometown, I knew my theoretical ideas about Music and Architecture had found the perfect home for an exploration in design.

The Morris A. Mechanic Theatre should be adapted in to a transportation hub that could provide retail spaces and services in the heart of downtown. In addition to providing an important building that will be absolutely essential for the future of public transportation in Baltimore, a transportation hub could preserve the spirit of Johansen's original design. Instead of representing the actions of performers on stage, the exterior elevations could represent the theatrical movements of commuters as they pick up a bite to eat at a deli, transfer from line to line, and interacted with each other.

15GUNTS, "PANEL ACTS TO PROTECT MECHANIC."
16 IBID.
17 IBID.

[OPP. PAGE] FIG.20:
J.T. FISHMAN & ASSOC. PROPOSED DESIGN
USED WITH PERMISSION OF JAMIE T. FISHMAN, AIA
HTTP://WWW.JTFISHMAN.COM/PORTFOLIO_MECHANIC.HTML



[OPP. PAGE] FIG. 21:
MORRIS A . MECHANIC THEATRE
REPRODUCED FROM JOHANSEN, *NANOARCHITECTURE, 14.*

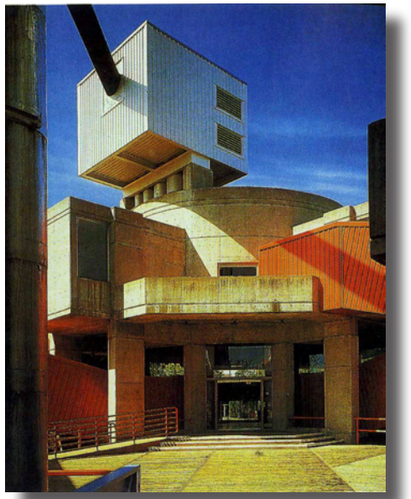
In a humble attempt to grasp the overwhelmingly distinct structure with which I had chosen to intervene, I began to research its creator. The more I learned about Johansen, the more I realized how relevant his architectural philosophy was to my interests in Music and Architecture.

In 2002, at the age of 86, Johansen published a book of sketchbook projects entitled *Nanoarchitecture: A New Species of Architecture.* In the introduction, which provides an overview of his long career, Kevin C. Lippert explains that the Mechanic Theater fits into a period of his career that carried a tendency towards Brutalism, as well as the "engineering and systems theory seen in the work of Archigram, R. Buckminster Fuller and others." [1] In reference to The Goddard Library at Clark university the (1968), another Brutalist building, Johansen describes the experience of his building:

> On encountering the final form, there is a feeling that one has come upon the various parts of the building in the process of assembly or attachment. The form is evolving and alive, not fully at rest. It is, in the terms of systems theory, a configuration: 'an integrated whole whose ultimate value is greater than the sum of the properties and functions of its parts.[2]

Though speaking of the construction process of a building, Johansen could just as well be describing the construction of a jazz composition. His interest in systems theory, as well the realities of building with concrete, introduce a temporal aspect to his architecture that, in my opinion, relates his buildings more to music more than to any specific style.

1 JOHANSEN, *NANOARCHITECTURE*, 13
2 IBID., 13-14



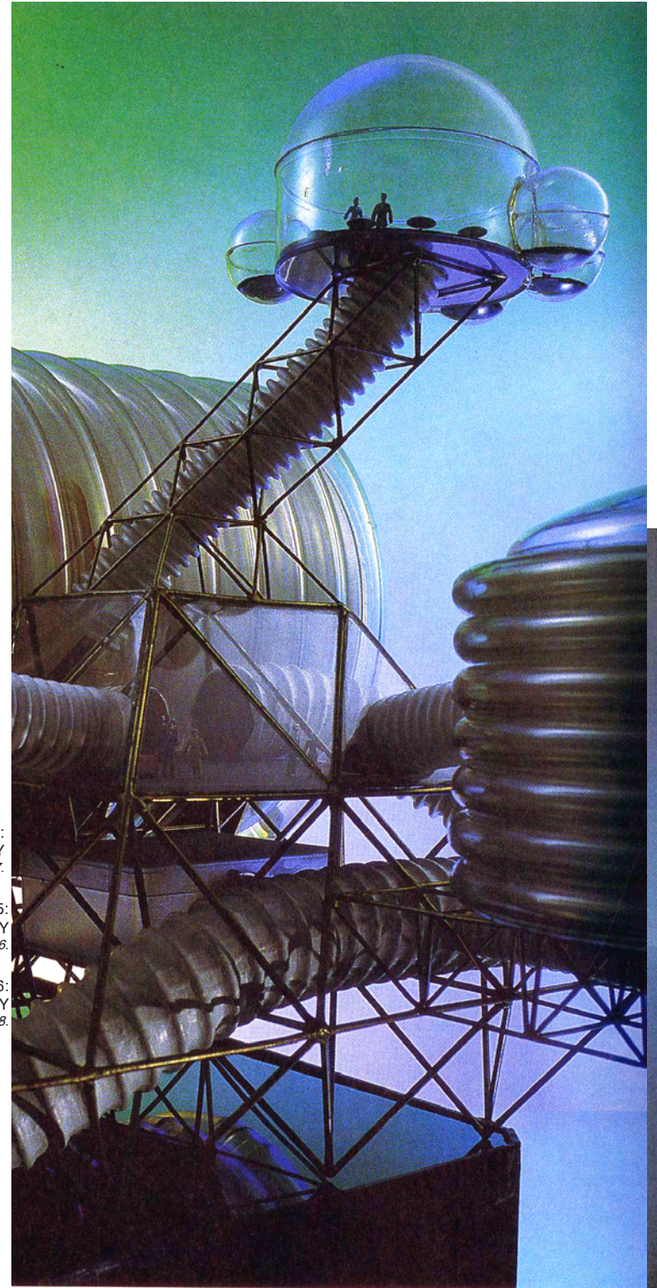
[ABOVE] FIG. 22 A&B:
MUMMERS THEATRE
REPRODUCED FROM JOHANSEN, *NANOARCHITECTURE, 18.*

[OPP. PAGE] FIG. 23:
GODDARD LIBRARY
REPRODUCED FROM JOHANSEN, *NANOARCHITECTURE, 15.*

An embrace of the element of time allows him transcend the contrast of consequence that separates the fleeting statements of a jazz musician to the persistent assertions of an architect:

> Perhaps process is the most important word, as it explains more of what I am doing that anything else. I have great faith that through the emerging idea I will arrive at a successful form. It is fear that make many architects seize upon the form first, instead of having faith in their own creative process. It is dangerous to rush into a preconceived idea of form, be it neoclassical or Brutalist. I make mistakes, but I am no longer afraid.[3]

While the Mechanic Theater, serves as a tactile justification of his design process, the theoretical projects proposed in Nanoarchitecture display the potentials of his philosophies. Whether by electro-magnets, ("The Mag-Lev Theater," "The Metamorphic Capsule") air pressure ("Air Quilt") or just the tides of the sea ("The Floating House") all of his sketchbook proposals design with time in a manner that adds interest and beauty to his work.[4]

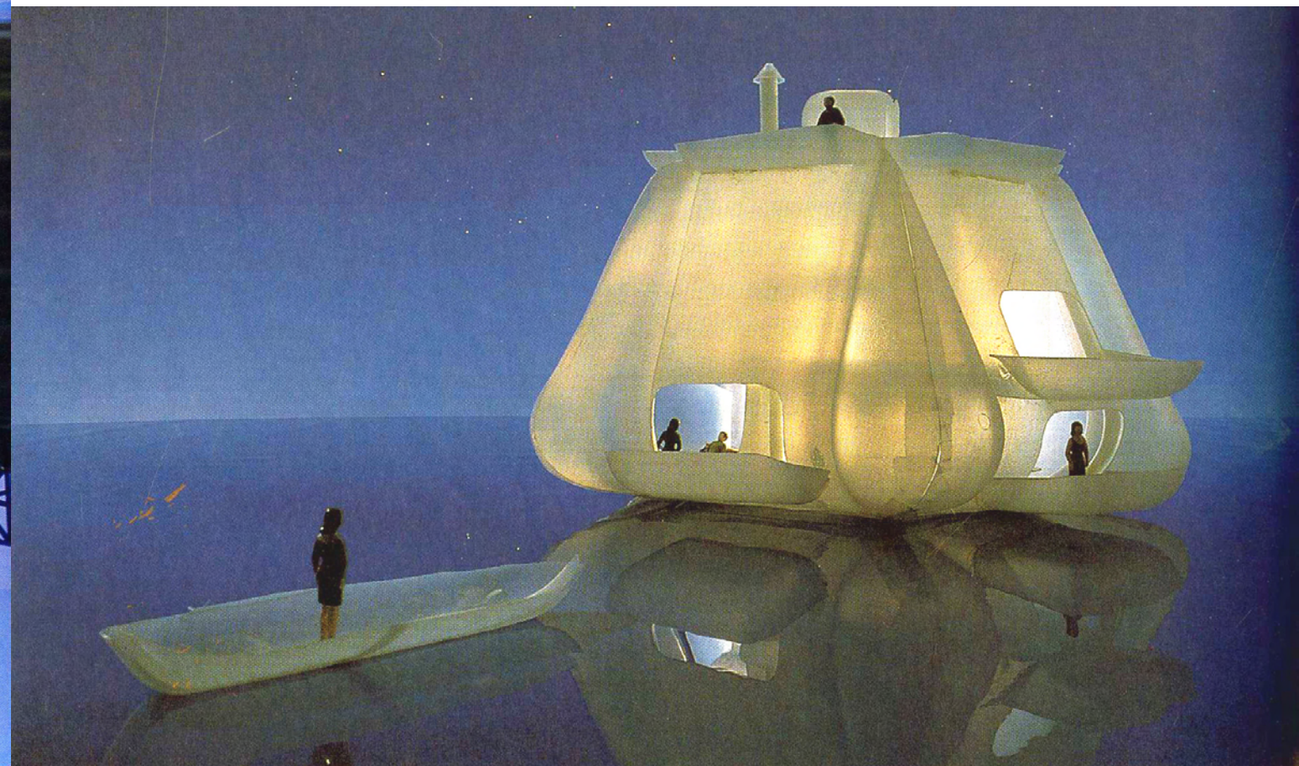


[RIGHT] FIG. 24:
GODDARD LIBRARY
REPRODUCED FROM JOHANSEN, *NANOARCHITECTURE, 77.*

[OPP. PAGE TOP] FIG. 25:
GODDARD LIBRARY
REPRODUCED FROM JOHANSEN, *NANOARCHITECTURE, 96.*

[OPP. PAGE] FIG. 26:
GODDARD LIBRARY
REPRODUCED FROM JOHANSEN, *NANOARCHITECTURE, 118.*

3 HEYER, *ARCHITECTS ON ARCHITECTURE,* 342
4 JOHANSEN, *NANOARCHITECTURE*, 69-87, 90-95, 97-99, 116-131.



Concluding his book, Johansen offers striking images of Molecular Engineered buildings that truly are a "new species of architecture."

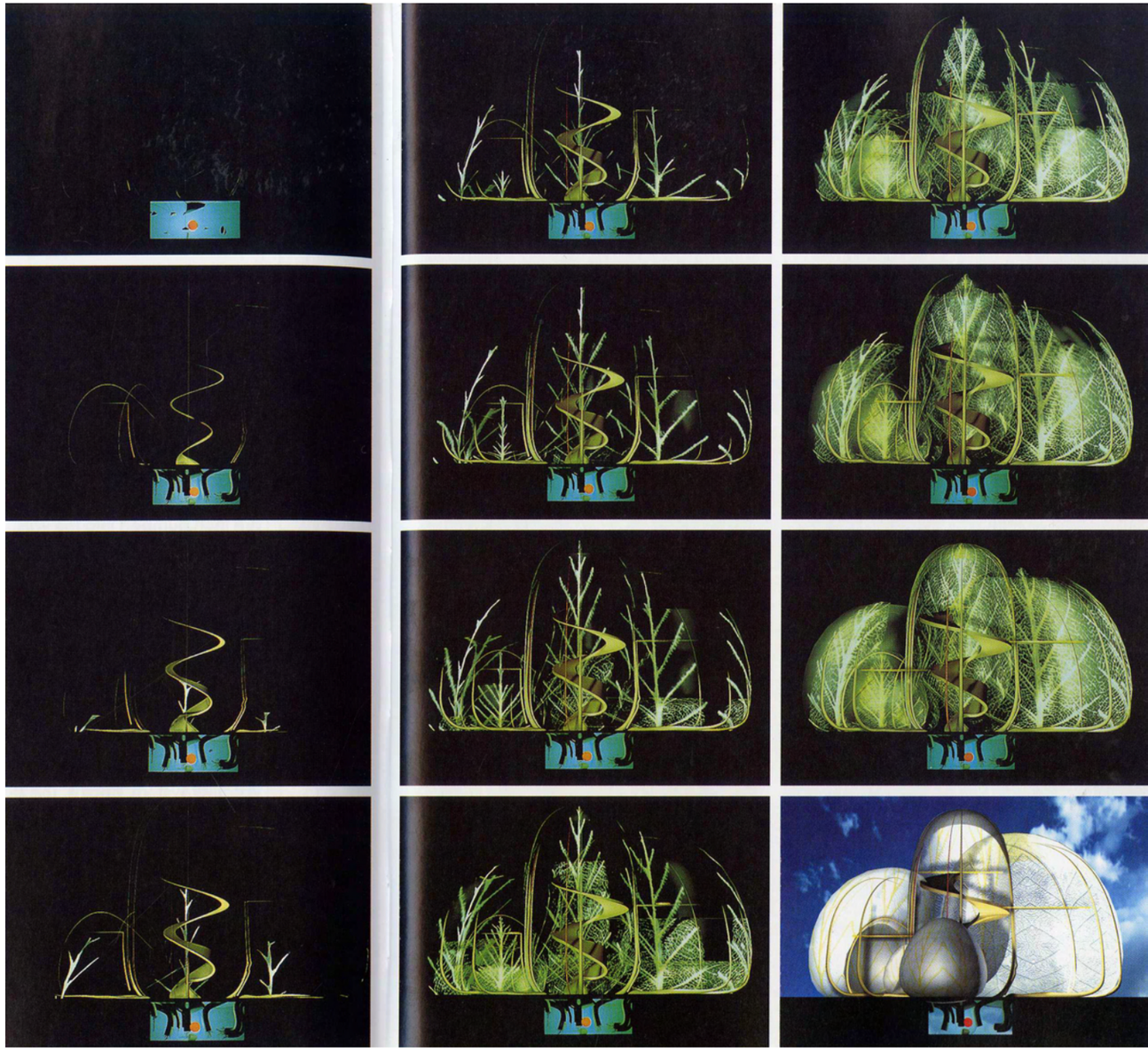
> We will look back upon present day structural steel assemblies and connections of milled parts, bolted and welded, as not only grossly inefficient and costly, but ludicrous. Molecular growth process will replace the abrupt joints and edges of contemporary construction with imperceptible transitions from one specialized substance to another, as bone tissue to ligament to muscle to skin. Structure will be integral with the building shell, walls, and enclosure, and building materials will be seamlessly fused in a completely unified entity.
>
> Looking back from the future, our present buildings will seem quaint. As we anticipate such buildings of strenth, lightness, integral structure, seamless continuity of surface, transparency, and evolving, growing forms, molecular nanotechnology will reshape the man-made environment. These new characteristics explain how the olecular growth process, subject to architectural design orchestration, will insist, in is own right, to express itself.[5]

In this new habitat, Johansen anticipates that the work of the architect will be the design artificial DNA coding which will be placed in specialized vats, buried in the earth of a building site. However, free from the burden of imitation, mankind can humbly proceed to understand the genius of our creator.

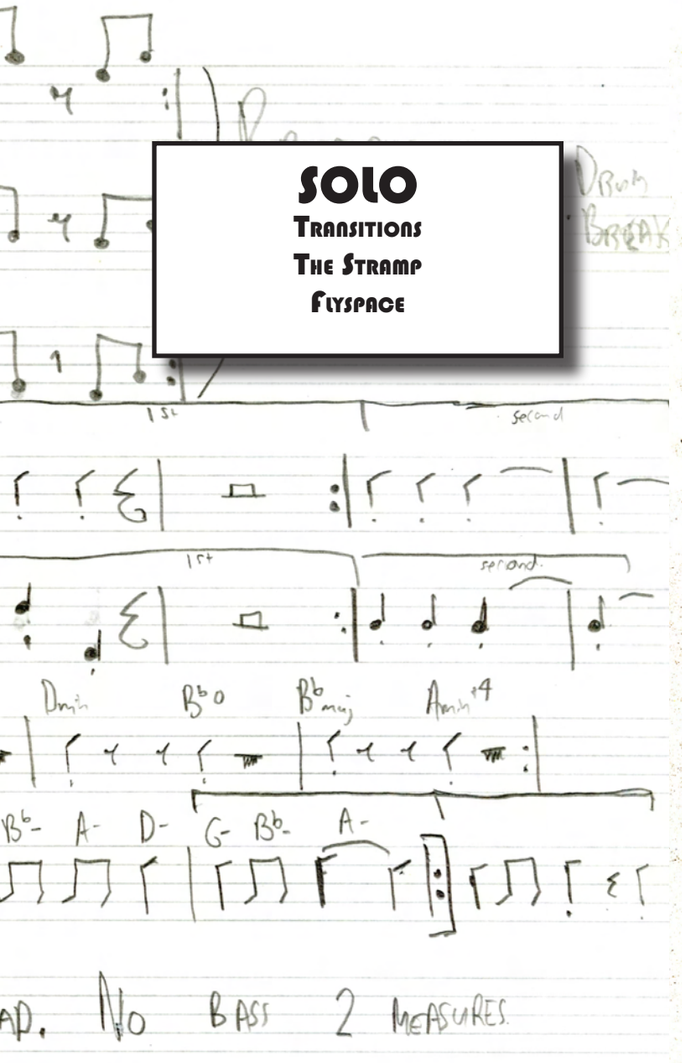
5 JOHANSEN, *NANOARCHITECTURE*, 157.

[ABOVE] FIG. 27 A&B:
GODDARD LIBRARY
REPRODUCED FROM JOHANSEN, *NANOARCHITECTURE, 144-145.*

[ABOVE] FIG. 28:
GODDARD LIBRARY
REPRODUCED FROM JOHANSEN, *NANOARCHITECTURE, 134-135.*



SOLO
Transitions
The Stramp
Flyspace



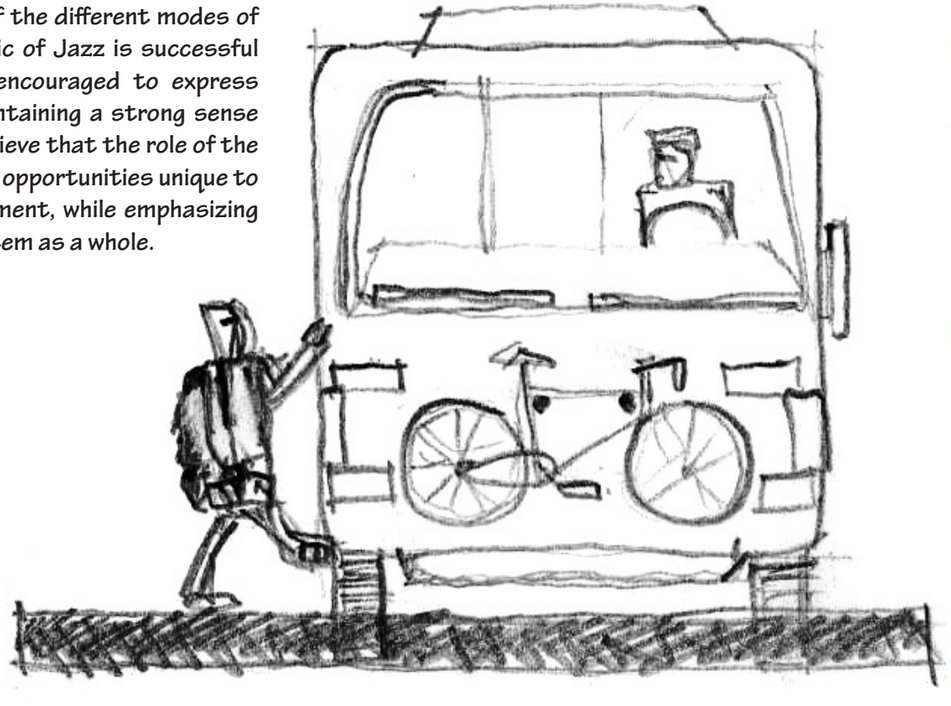
[OPP. PAGE] FIG. 29
IMPROVISATIONAL DESIGN

Transitions

The sum of my thesis design challenge can be expressed in one word: transition.

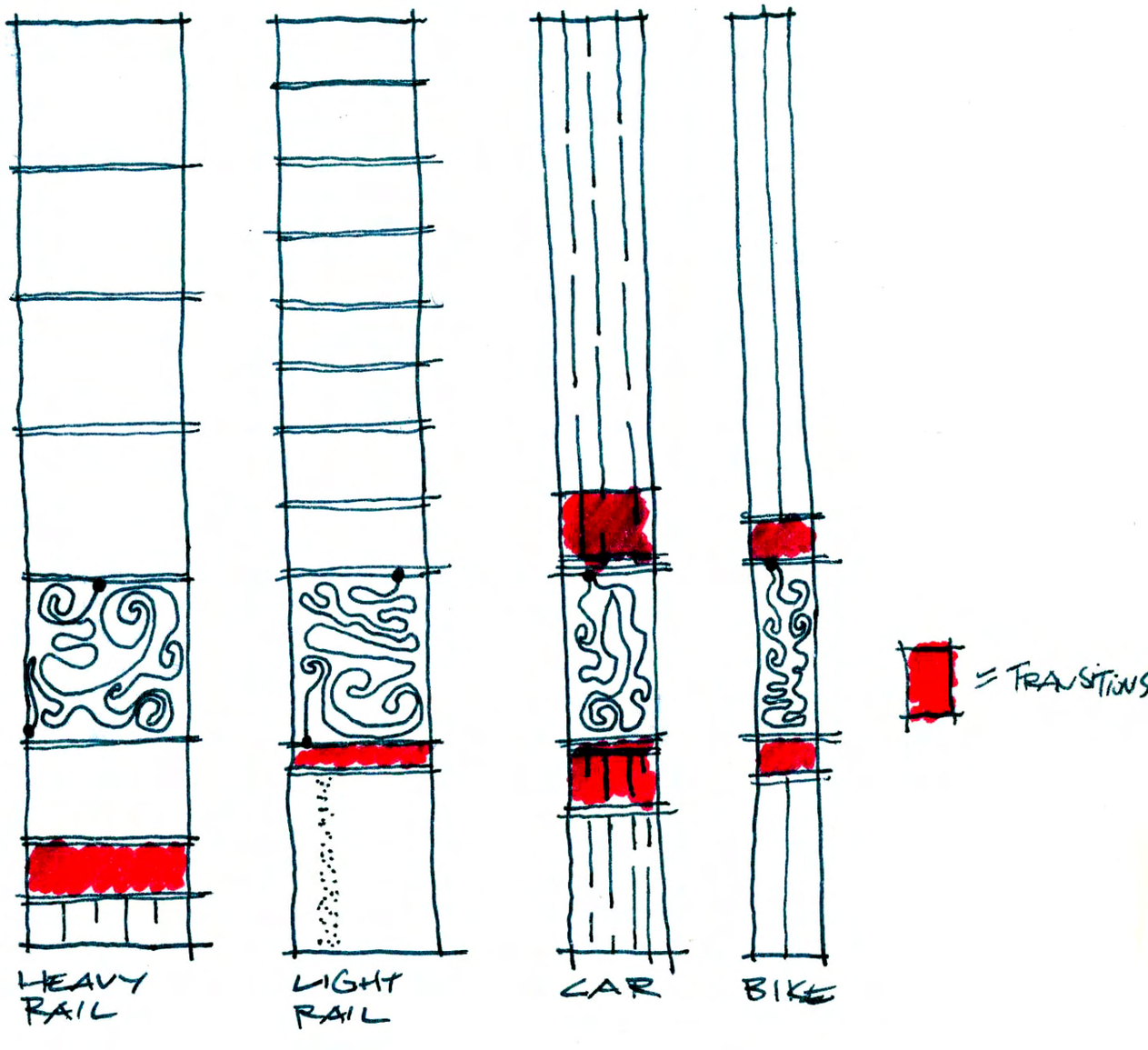
Needless to say, adaptive reuse requires some element of change in the life of a building. However, this building in particular required special consideration of transitions; The isolation of public and private spaces required in a theater, as well as the variety of programmatic functions within the Morris A. Mechanic Theatre resulted in a segmented structure.

Additionally, prior to the selection of a site and the subsequent incorporation of the Mechanic Theatre, my exploration of transitions related to the individual characteristics of the different modes of transportation. The dynamic of Jazz is successful because the individual is encouraged to express himself, though always maintaining a strong sense of the group. Similarly, I believe that the role of the transit hub is to expose the opportunities unique to the various means of movement, while emphasizing the connectivity of the system as a whole.



[OPP. PAGE] FIG. 30:
MODES OF MOVEMENT

[BELOW] FIG. 31:
TRANSITION



The Stramp

The Mechanic Theatre's existing sculpture on a podium motif placed an emphasis on movement upward. However, with its new life as a transit hub, the building's adjacency to the existing subway line demanded a new, downward gesture. Influenced by Le Corbusier's jazz-inspired ramp at the Carpenter Center, the prominence of promenade became an important part of my intervention.

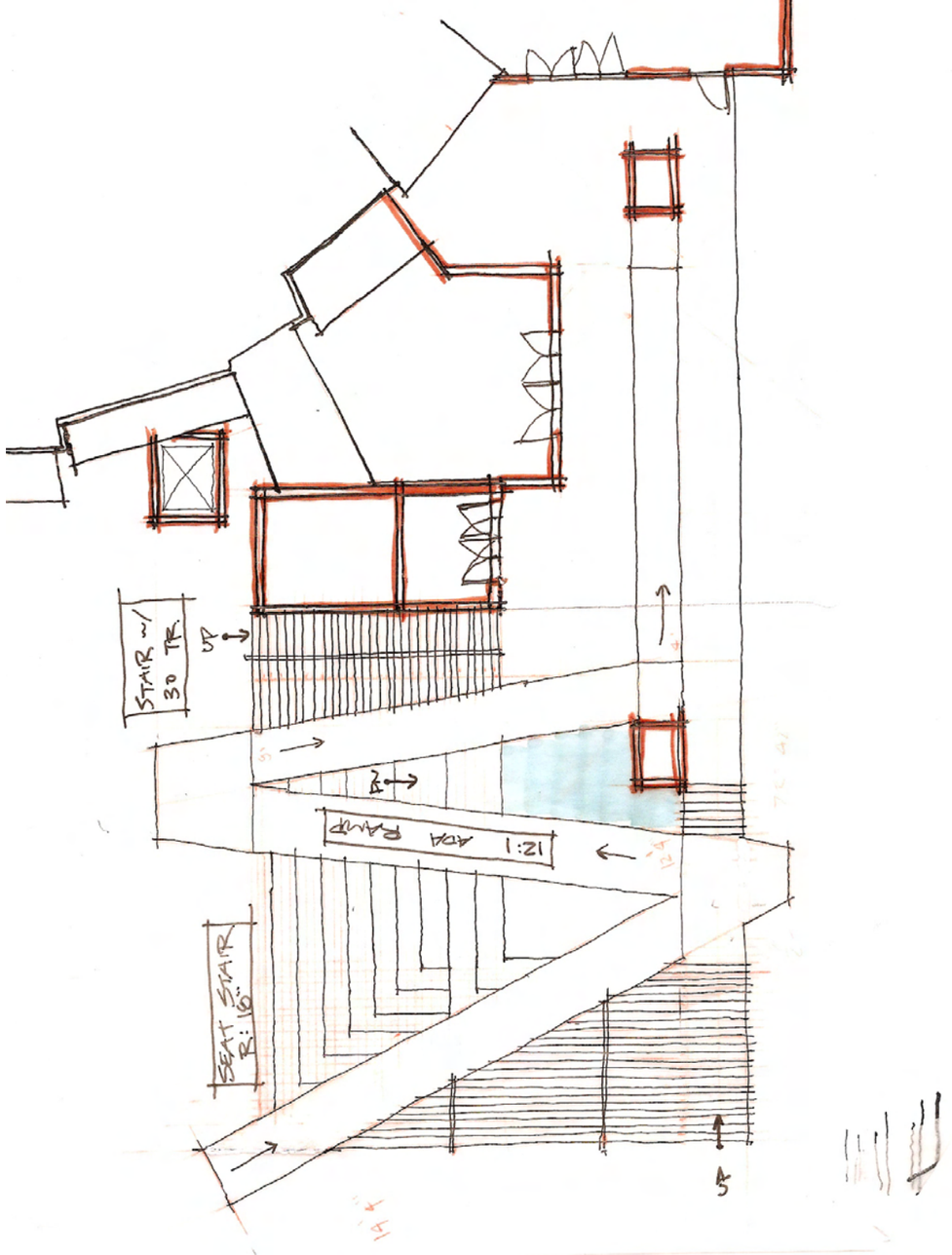
During a visit to London in the spring of 2007, I had my first encounter with an architectural element that may be called a "stramp." Intersecting a ramp that leads from St. Paul's to the Millennium Bridge, with a set of stairs to accommodate a change of elevation in the transverse direction, Sir Norman Foster created an ingenious hybrid. The stramp immediately appealed to me as a poetic strategy to confront the confines of accessibility requirements of A.D.A. However, it wasn't until I attempted to incorporate a stramp into my early design exercises that I realized the musicality of this tactile expression.

[OPP. PAGE] FIG. 32:
MILLENIUM BRIDGE STRAMP

Musical tones can be expressed as ratios. For example, the ratios 1:2, 2:3, and 3:4 represent the octave, fourth, and fifth of a diatonic musical scale, respectively. In consideration of ergonomics, and of course regulations, stairs and ramps are also expressed in terms of their rise over run ratios. For example, an A.D.A. ramp in the U.S. can have a maximum slope of 12:1 (12 ft. in the horizontal direction for every 1 ft. in the vertical), as opposed to a typical stair that may be 6:12 (6 in. riser with a 12 in. tread). Therefore, vertical circulation can be understood as a series of musical tones, or scale, that move users through space and time. Correspondingly, in western music, scales that move from a lower pitch to a higher pitch are said to be ascending, while the opposite direction is considered to be descending. In the same way that the combination of certain musical tones can be received as either harmonious or dissonant, the cadence of a stair or ramp can be of comfort or discomfort.

In both the audio and visual realm, the music doesn't really begin until the element of time is activated through rhythm. Similar to the manner in which jazz music incorporates several opposing rhythms in to one, coherent musical statement, a stramp connects varying rhythms of movement to a similar destination, pausing along the way at shared, harmonious landings.

While early explorations focused on linking the street level of the podium to the raised sculptural level via several smaller stramps, the true potential of this architectural element was to be one grand connection between the underworld of the subway and the light of open air.

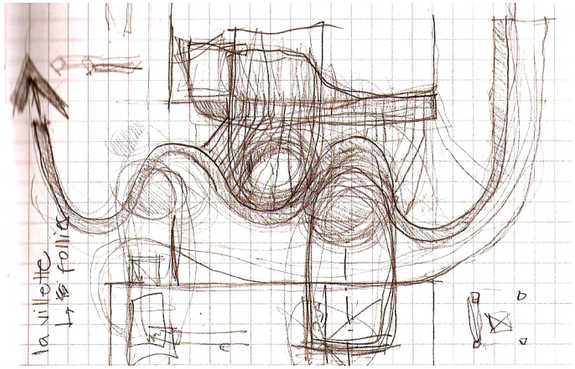


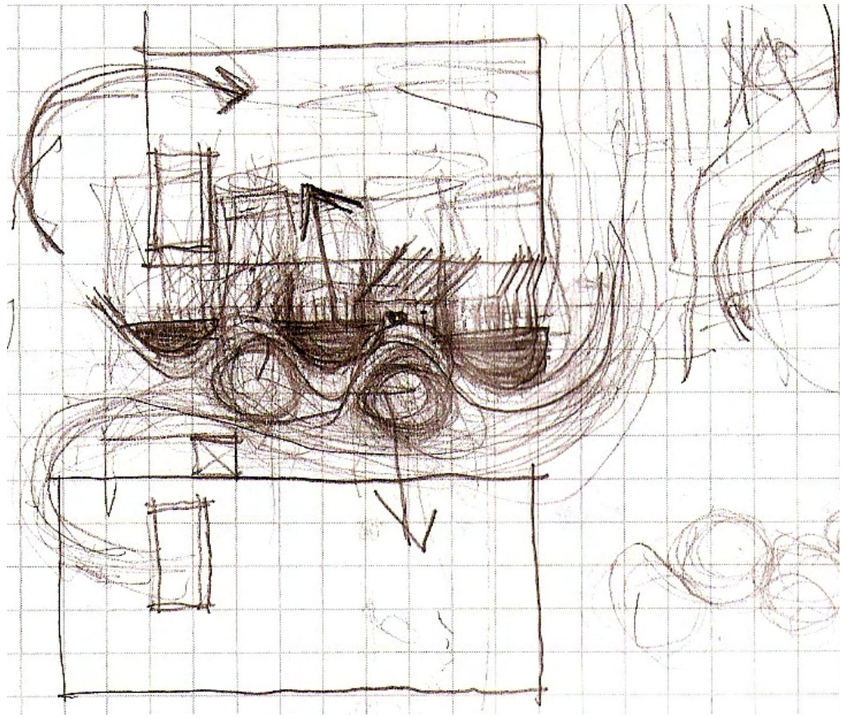
[OPP. PAGE] FIG. 33:
PRELIMINARY STRAMP DESIGN

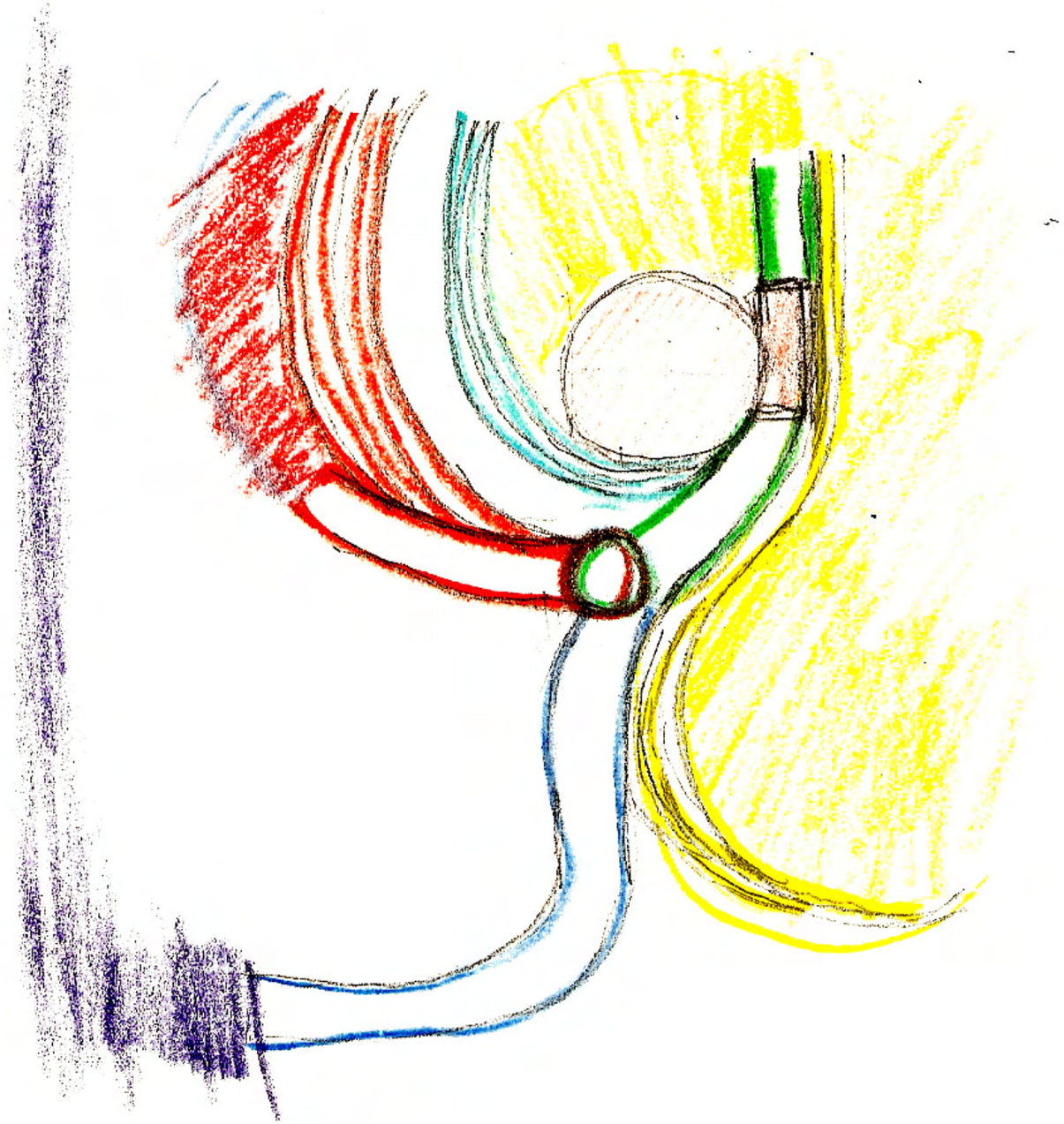
The stramp became my method of improvisation in the design process. I reacted to the existing conditions of the theater, as well as the standard regulations of vertical circulation, to create a statement that respectively asserted itself, striving towards the same balance that a soloist must achieve while interacting with his accompanists. Regardless of the success of the final design, the sense of liberation and play that I felt with a pencil on trace paper is the closest I have come to visually expressing what jazz music means to me. The same space consuming 12:1 slope which had previously deterred me from utilizing ramps in previous design endeavors became an important foil that determined the shape of my stramp, and ultimately the nature of the spaces within my transit hub.

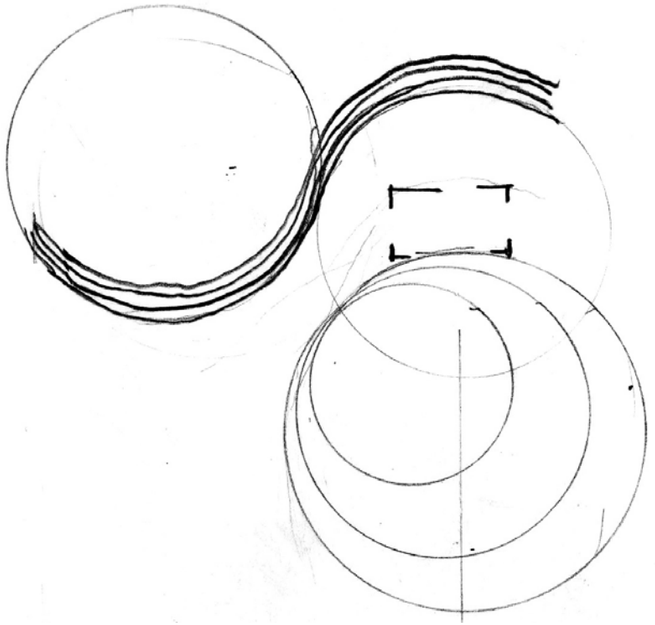
[OPP. PAGE] FIG. 34:
IMPROVISATIONAL STRAMP STUDY

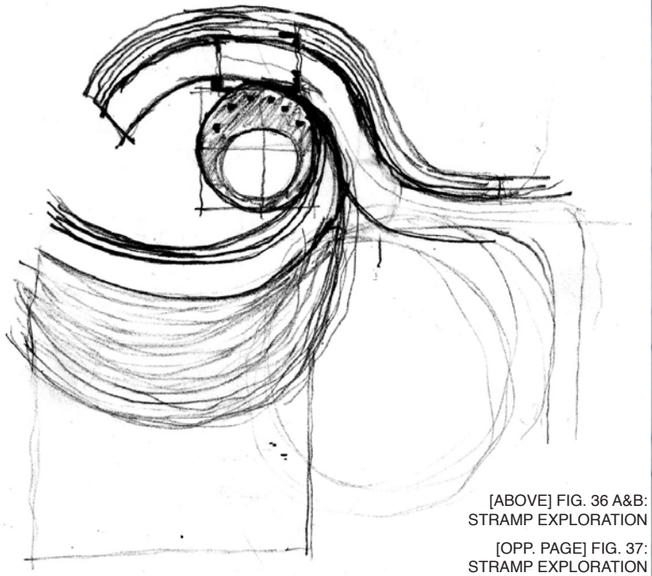
[BELOW] FIG. 35 A&B:
IMPROVISATIONAL STRAMP STUDY











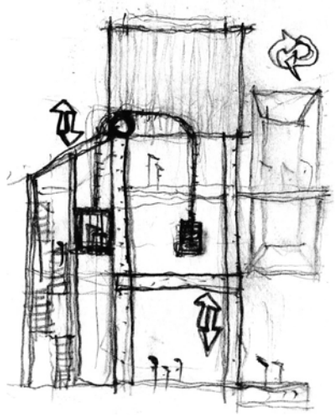
[ABOVE] FIG. 36 A&B:
STRAMP EXPLORATION

[OPP. PAGE] FIG. 37:
STRAMP EXPLORATION

The Flyspace

The importance of vertical movement is clearly expressed through the massing of the existing building. On the west side, two towers rise from podium, housing staircases that provided patrons access to all public spaces of the theater. Reaching slightly higher, the centralized tower of the flyspace expresses its pivotal role. Existing in order to rapidly move set designs and props during a theatrical production, this tower represents the spirit of transition that justifies the poetics of my adaptive reuse proposal. Throughout my design process, the flyspace tower was a sanctuary of movement, intended to embody the dynamic spirit of my transit hub.

As stipulated in Brutalist design, Johansen's conception of the Mechanic is inseparable from its concrete structure. For this reason, materiality considerations were of utmost importance in my design process. The flyspace tower's existence as a concrete shell concealing a highly expressive, mechanized steel contraption became an important metaphor that greatly influenced the use of steel within my transit hub.

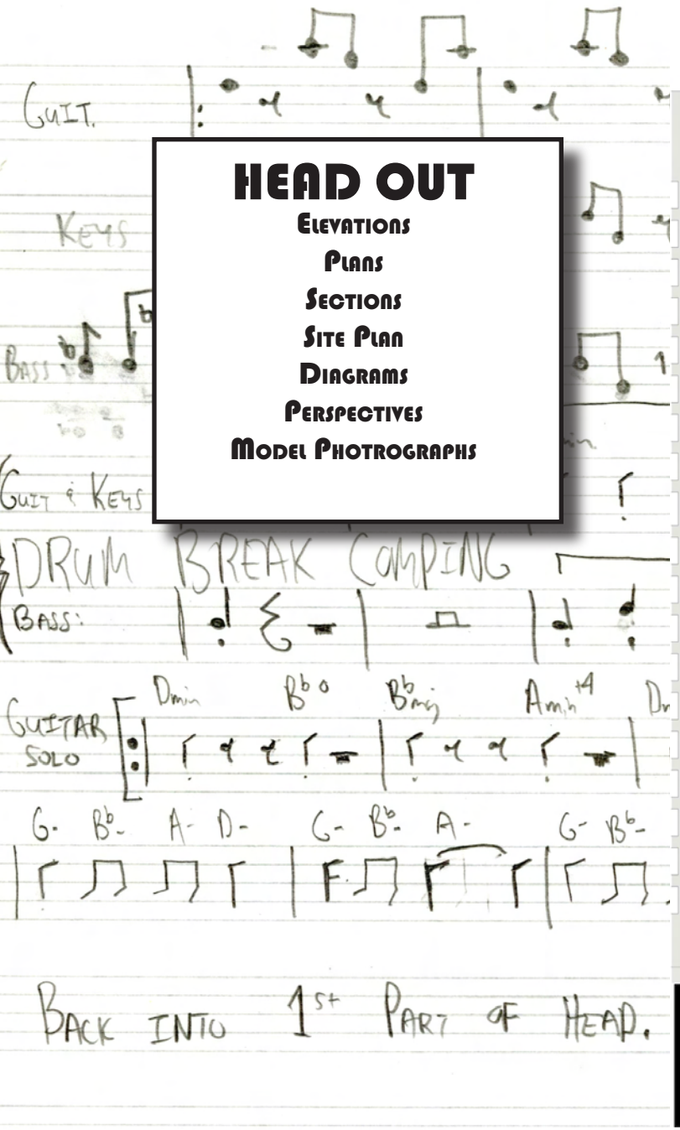


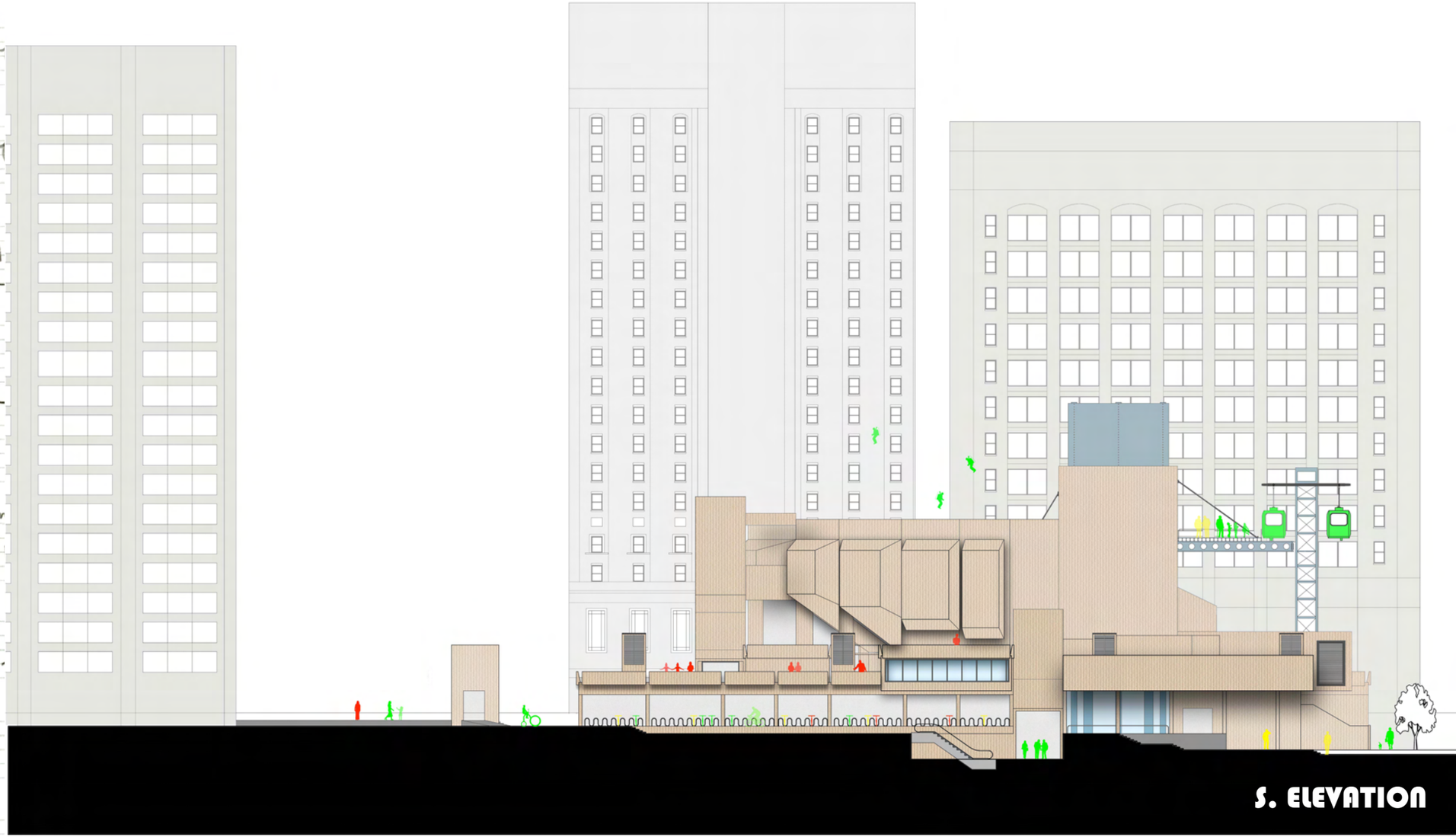
[BELOW] FIG. 38 : SECTION

[BELOW LEFT] FIG. 39 : FLYSPACE

HEAD OUT

- Elevations
- Plans
- Sections
- Site Plan
- Diagrams
- Perspectives
- Model Photographs





S. ELEVATION

N. ELEVATION

TRANSIT

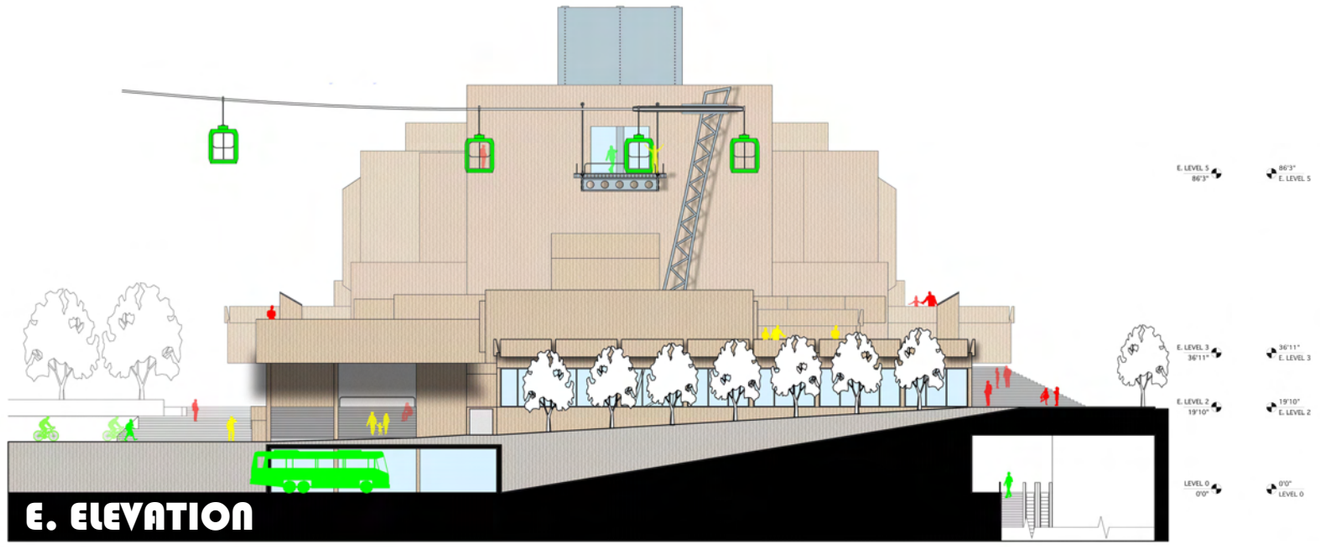
- Heavy Rail Subway Entrance
- Light Rail Platform
- Bus Station
- Taxi Drop
- Bicycle Parking / Rental
- Aerial Tram Terminus
- Individual Aerial Transit Platform

RETAIL

- Convenience Retail Area
- Market
- Restaurant
- Bar

CULTURAL

- Gallery Space
- Garden



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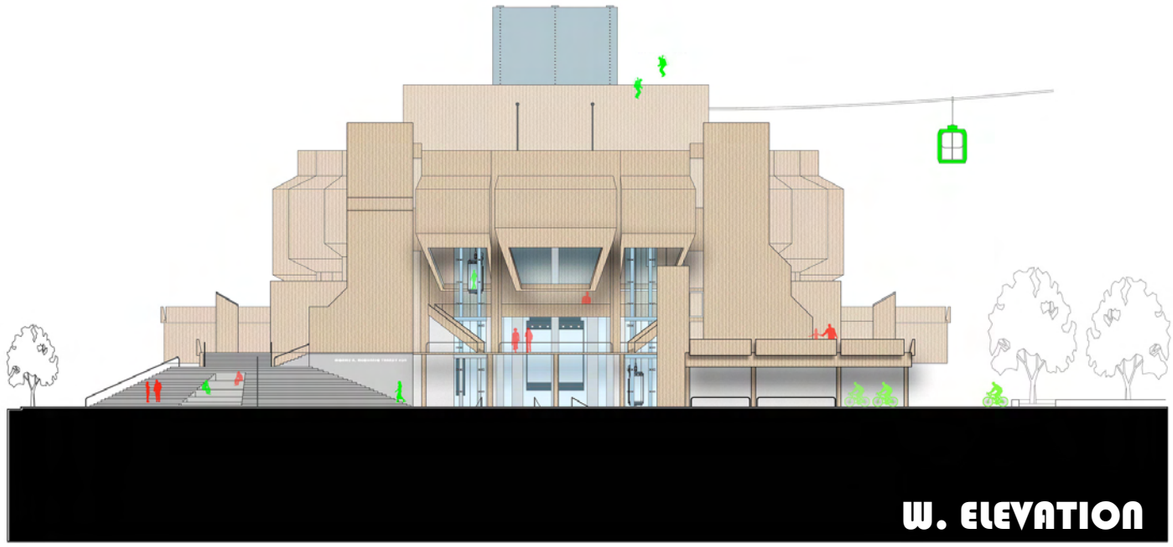
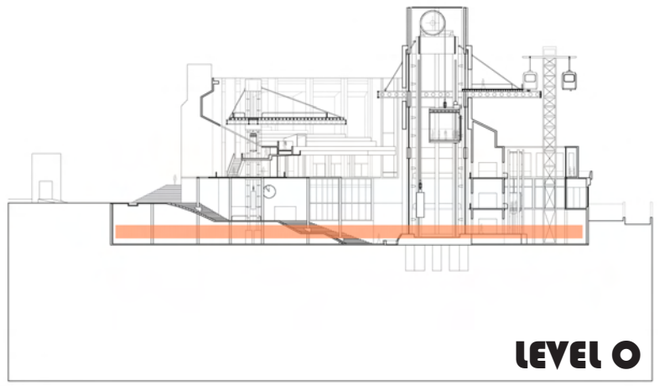


W. ELEVATION



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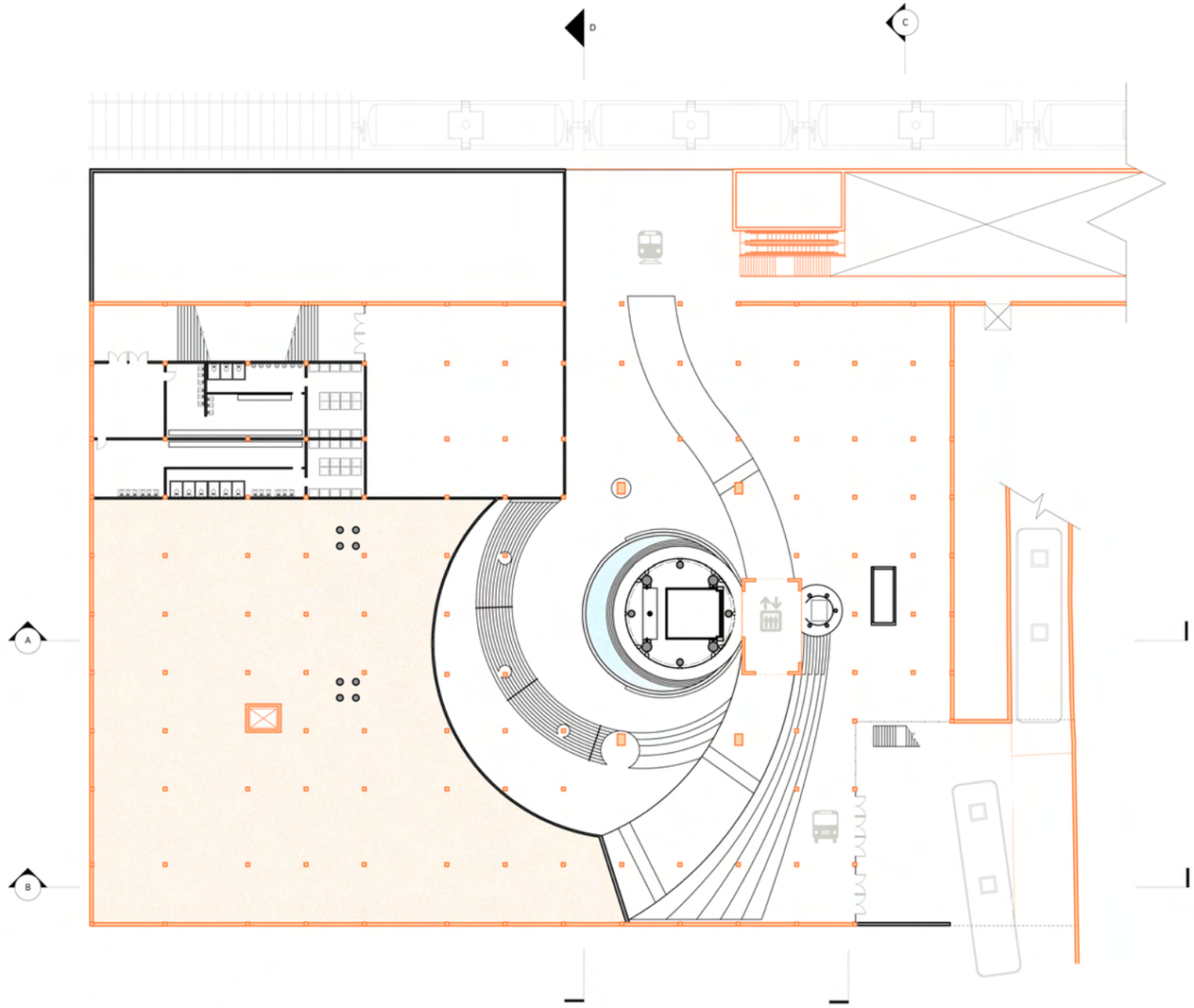

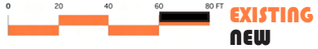

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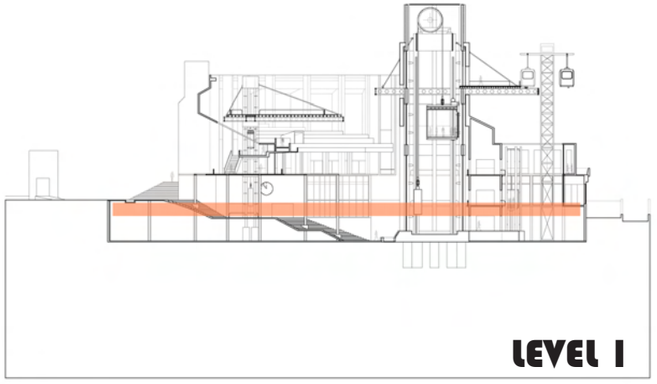

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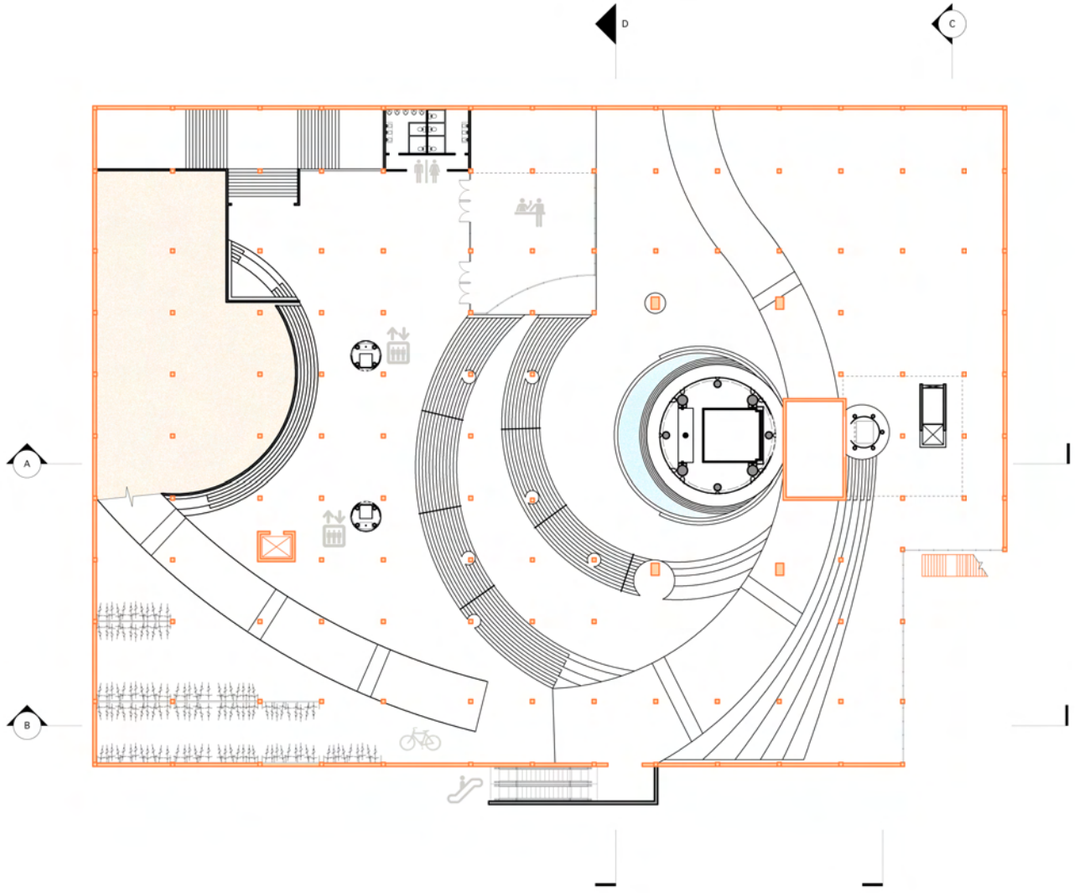

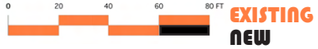

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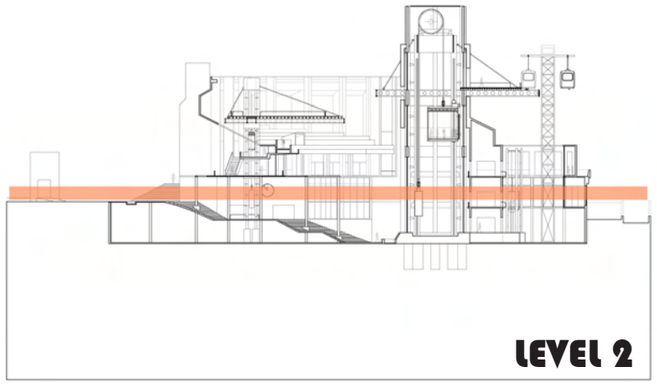

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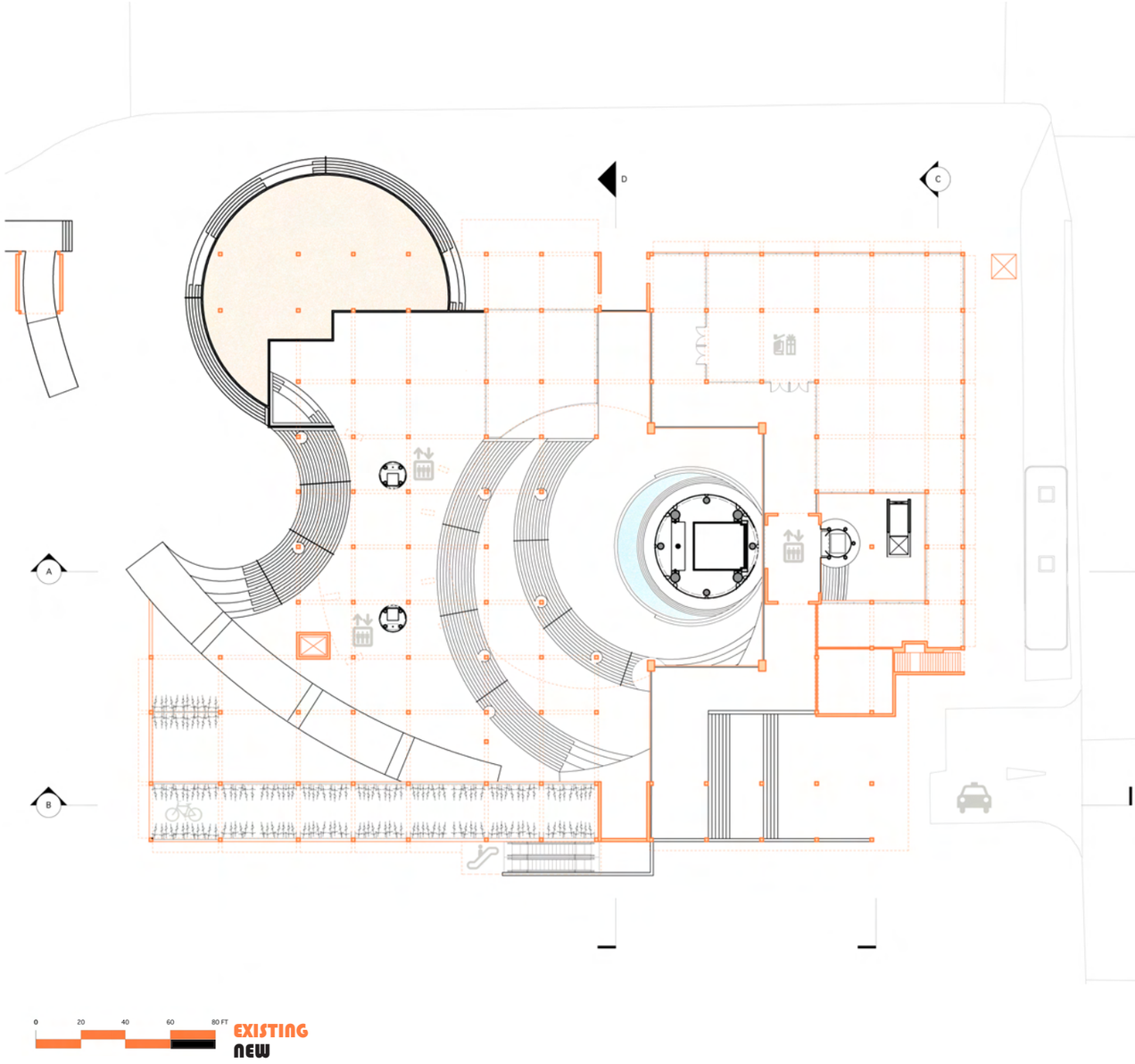
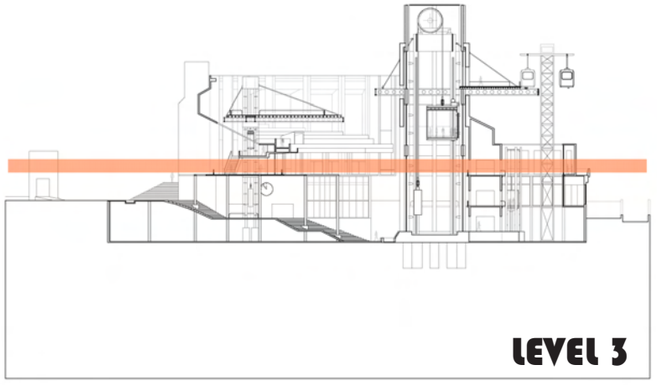
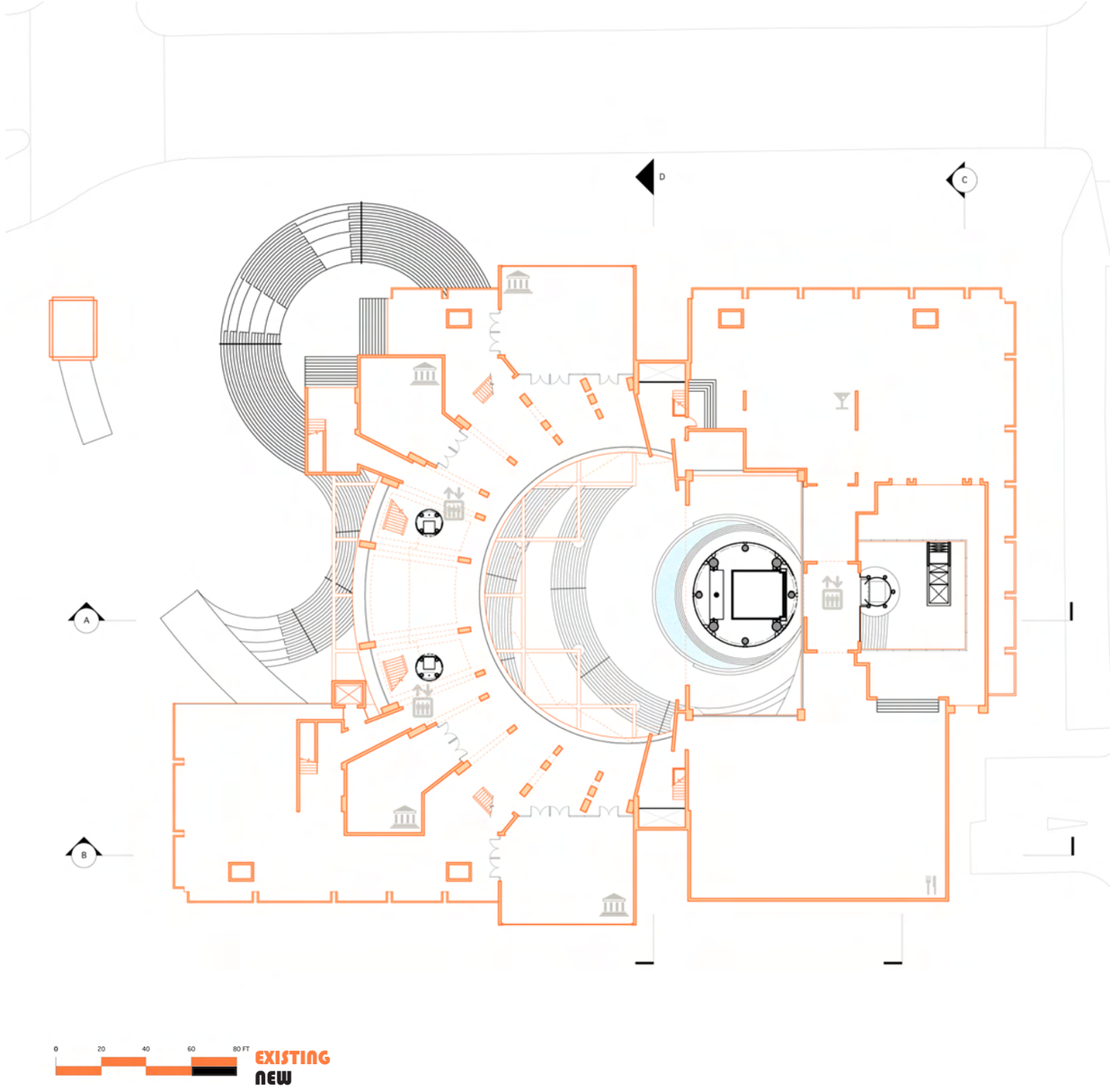
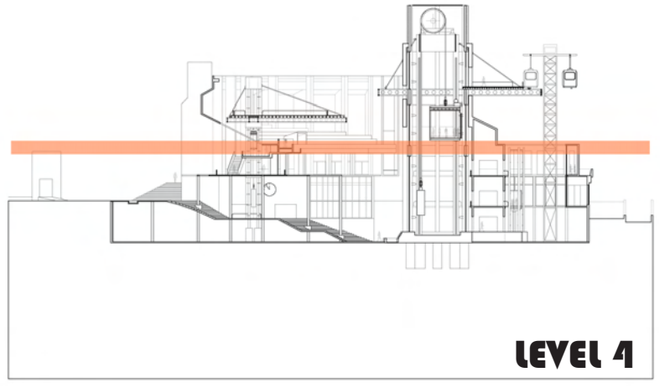




LEVEL 3





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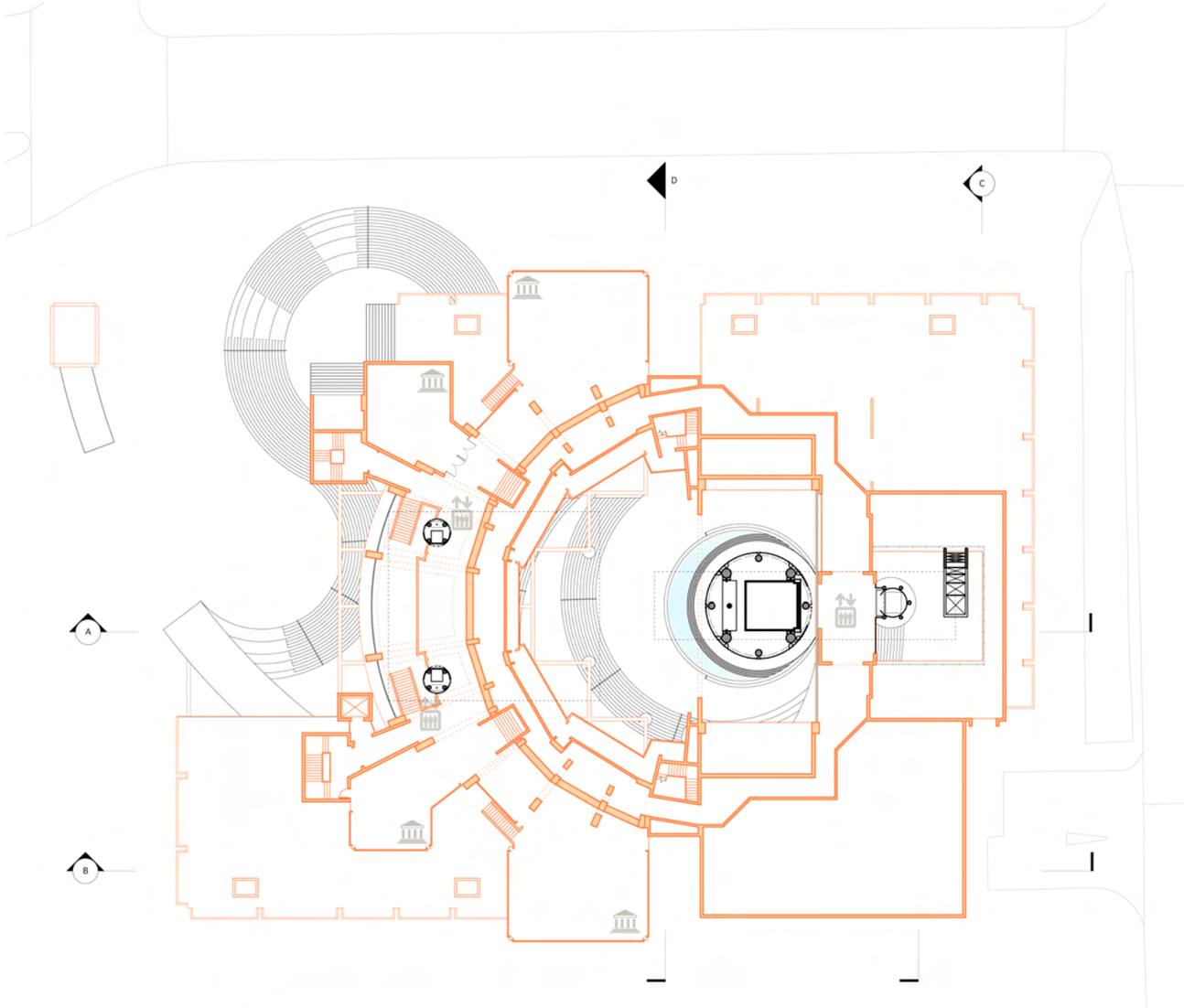
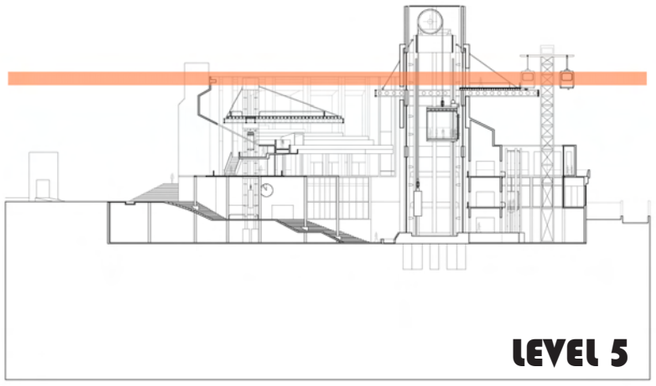


0 20 40 60 80 FT

EXISTING

NEW



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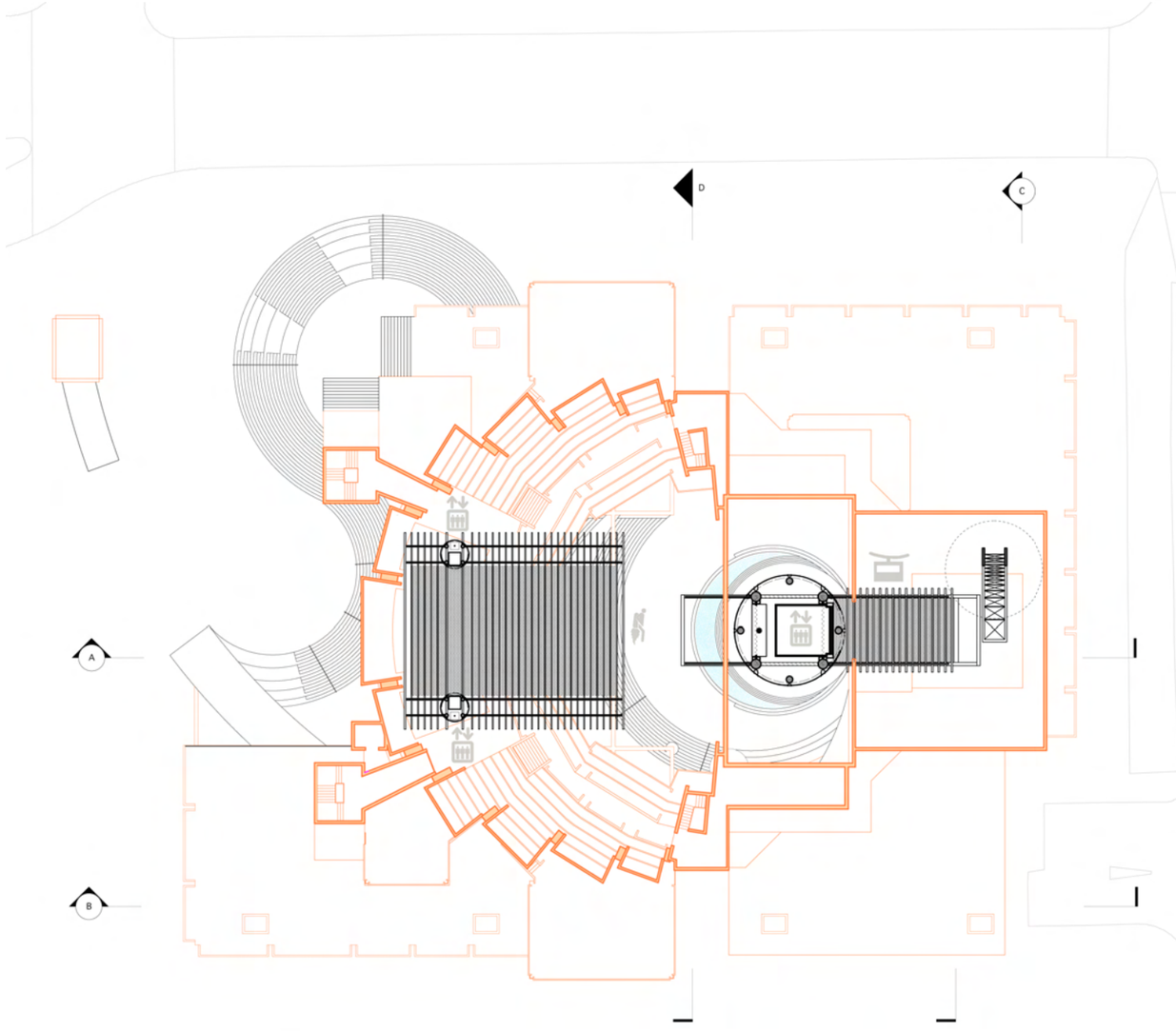
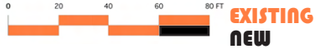
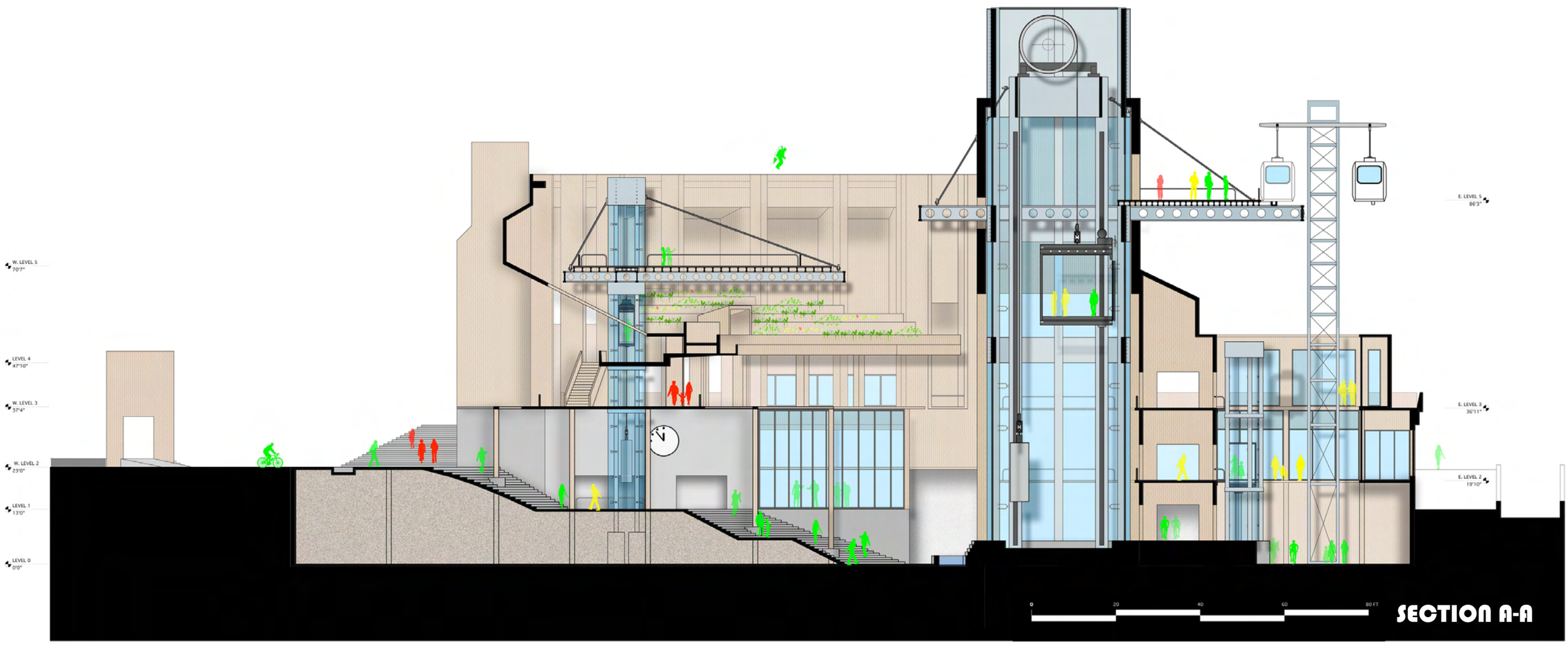
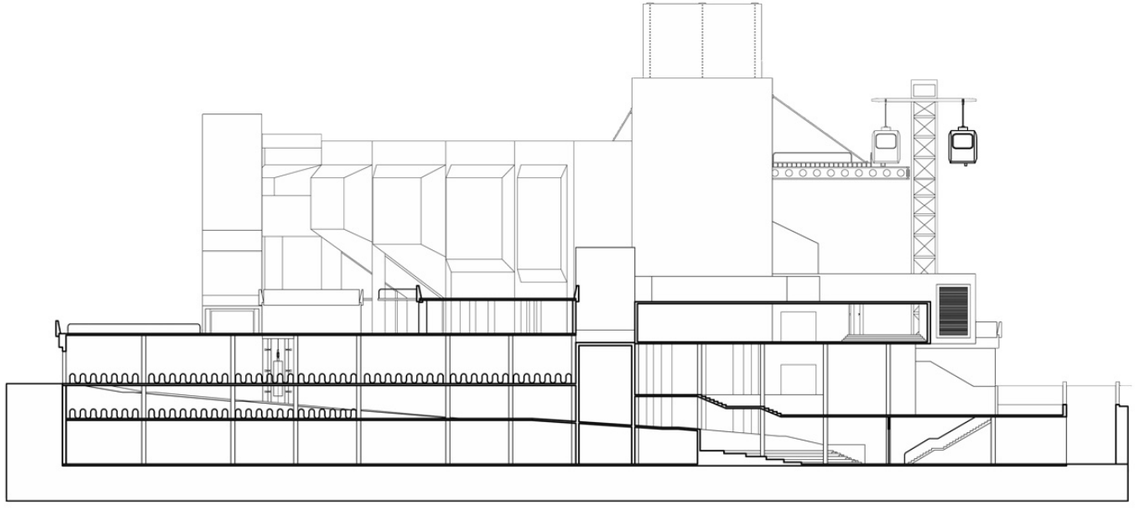


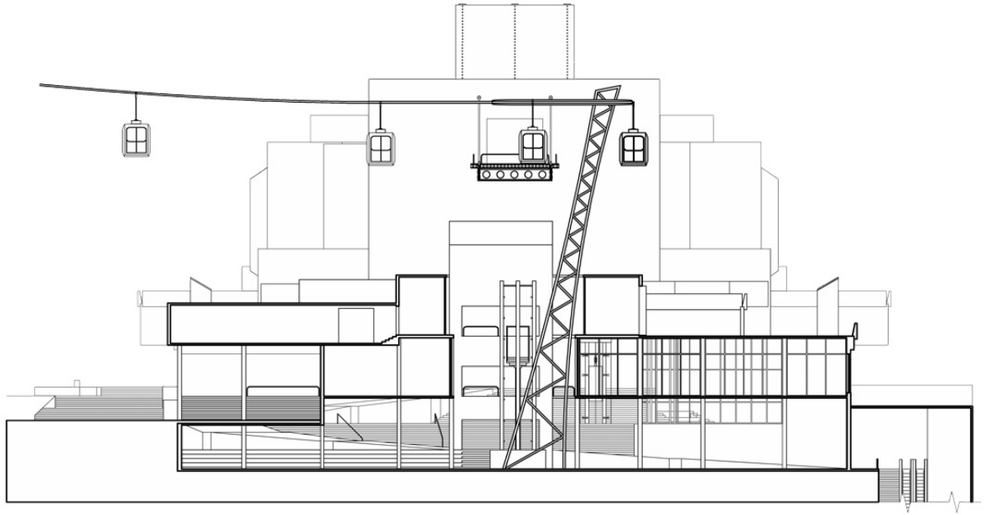


EXISTING
NEW


W. LEVEL 5
70'7"
LEVEL 4
47'10"
W. LEVEL 3
37'4"
W. LEVEL 2
23'0"
LEVEL 1
13'0"
LEVEL 0
0'0"
E. LEVEL 5
86'3"
E. LEVEL 3
36'11"
E. LEVEL 2
19'10"
0
20
40
60
80 FT

SECTION A-A

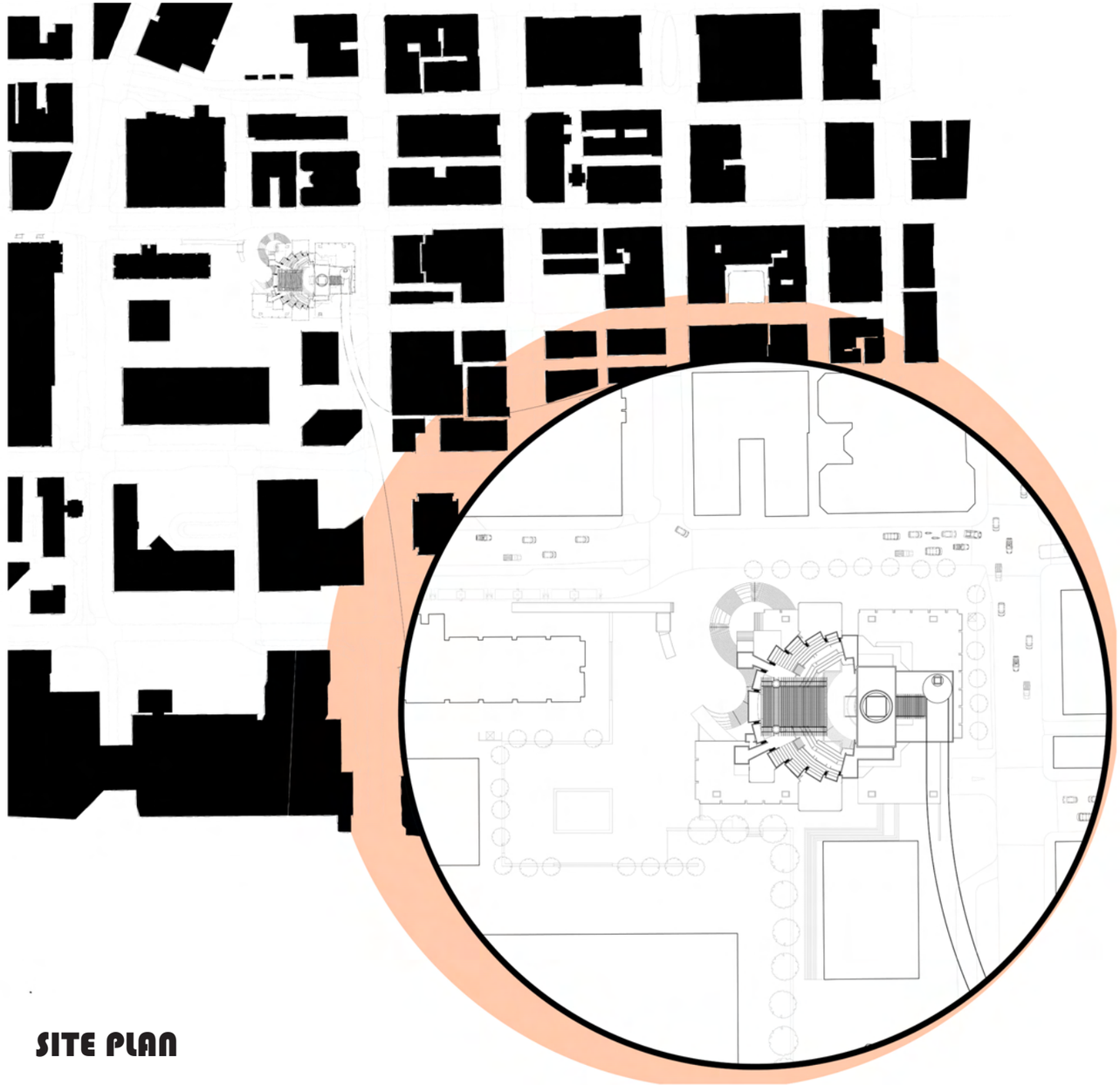




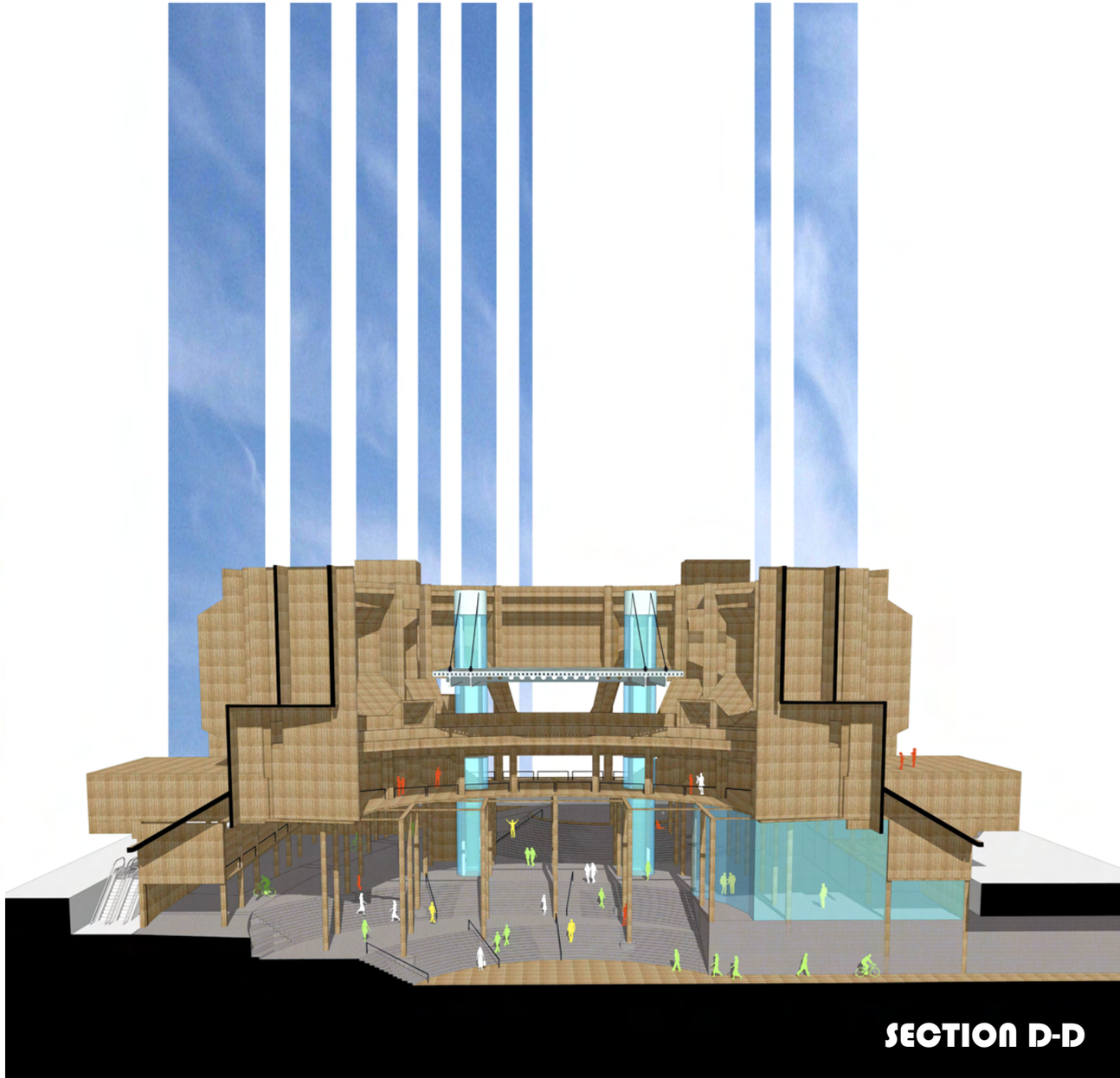
0 50 100 150 200 FT

SECTION B-B

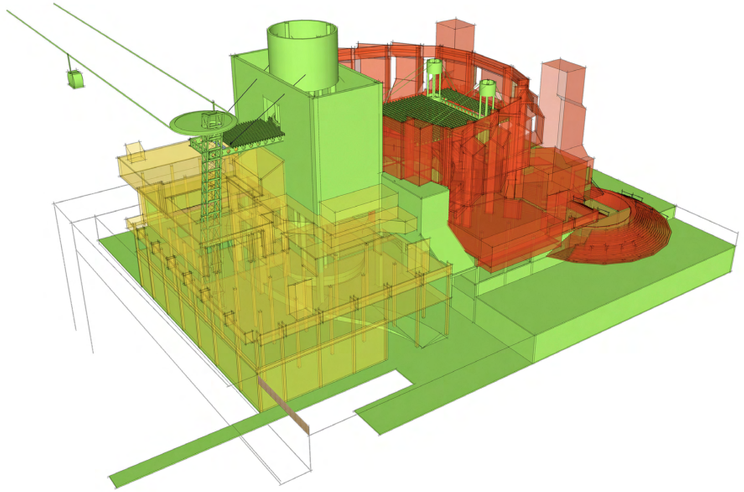
SECTION C-C

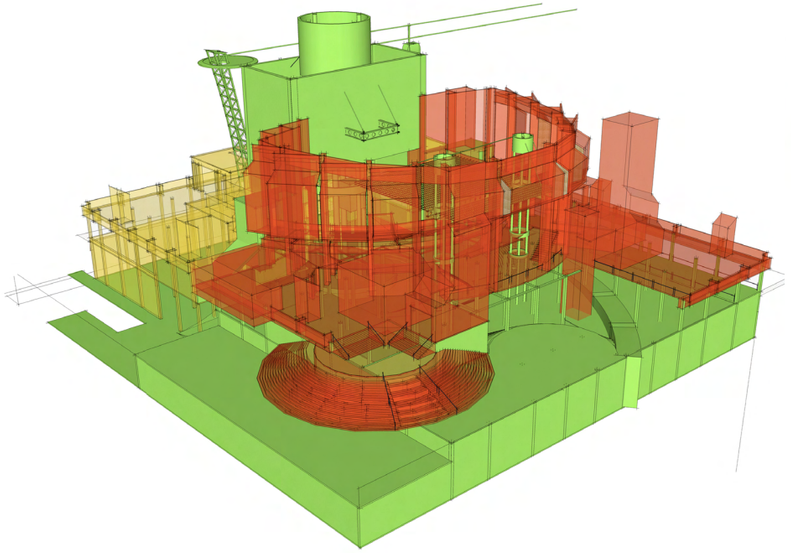


SITE PLAN



SECTION D-D



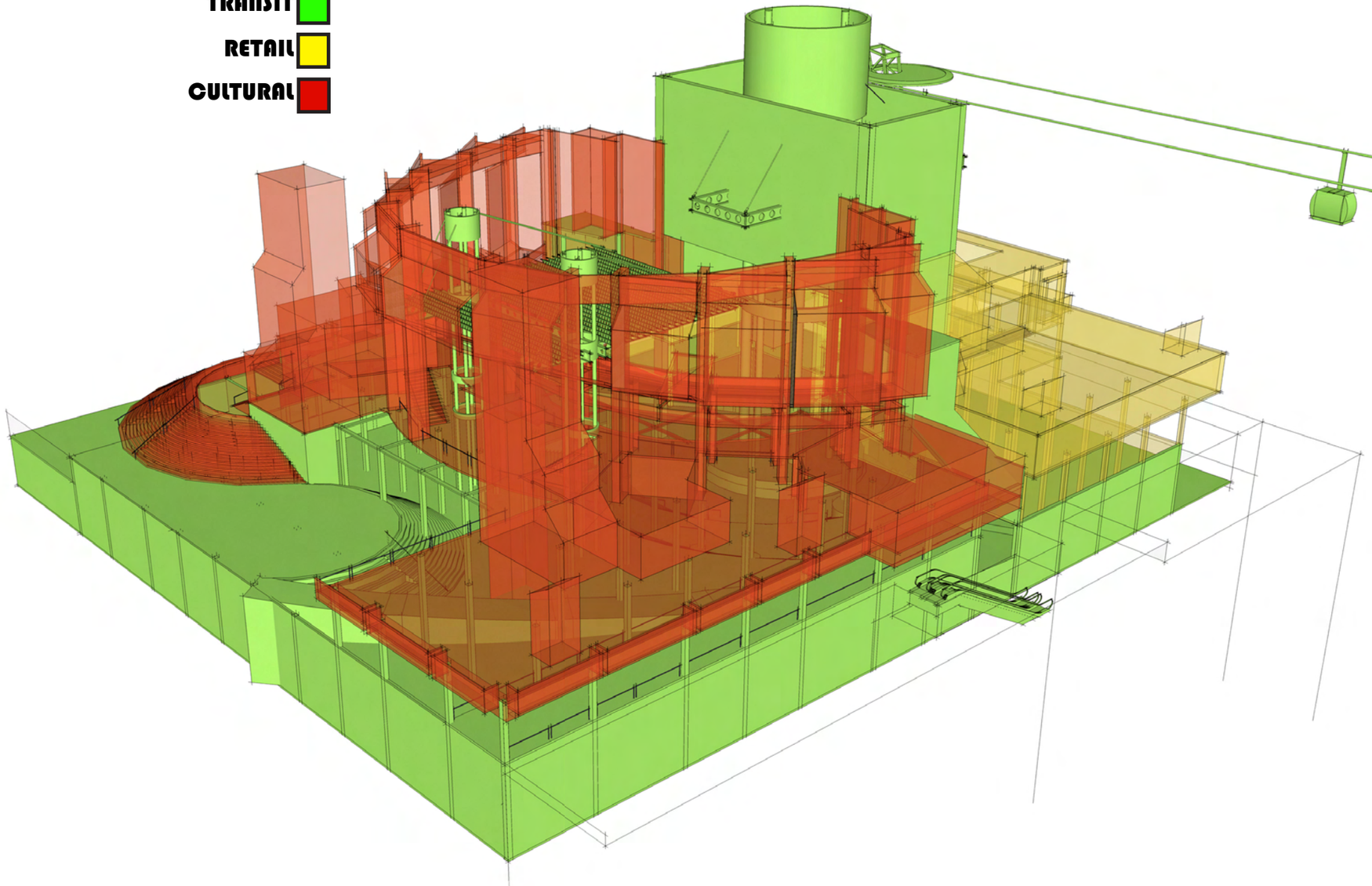


PROGRAMATIC DISTRIBUTION

TRANSIT

RETAIL

CULTURAL



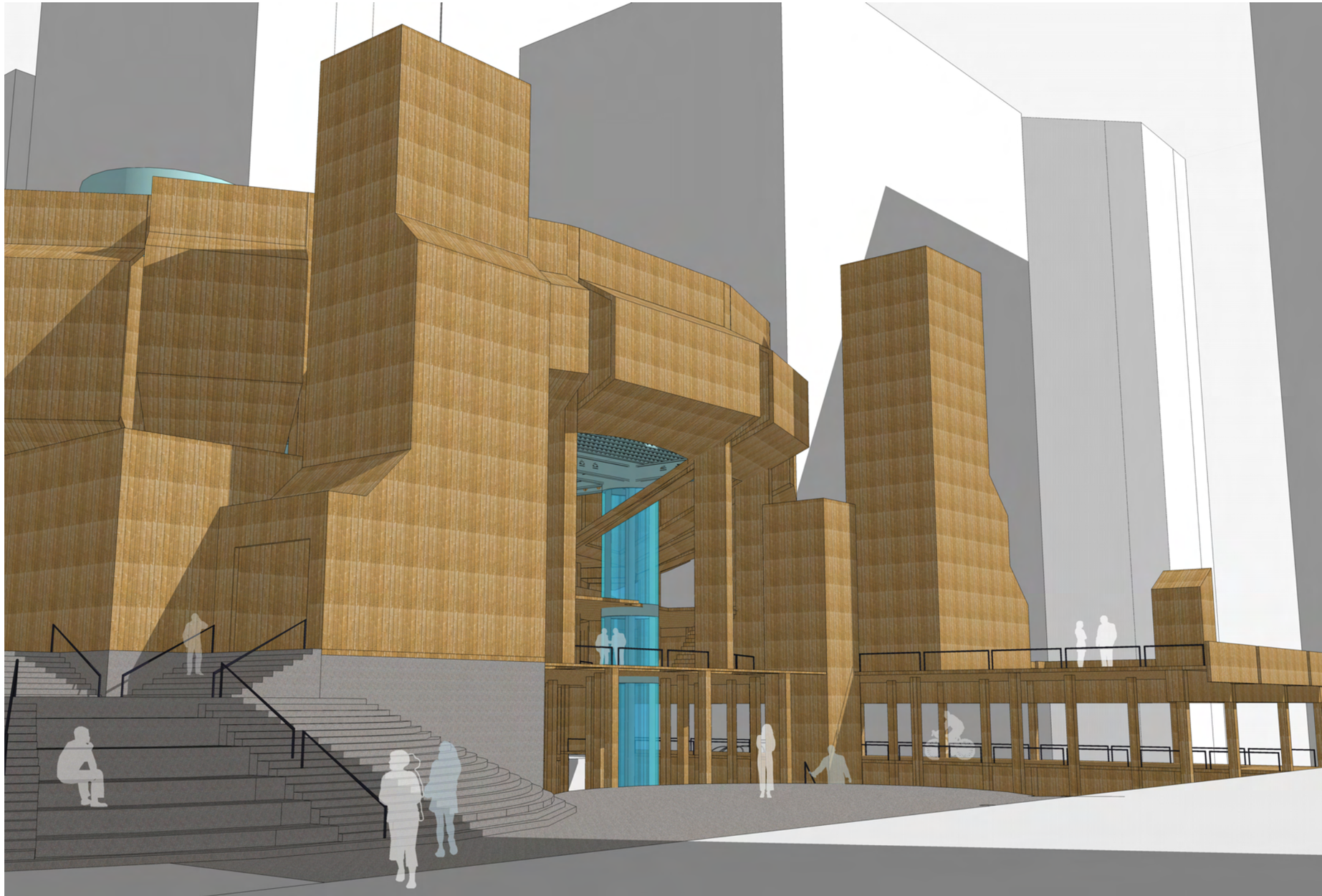


FIG.40 : PLAZA ENTRANCE PERSPECTIVE

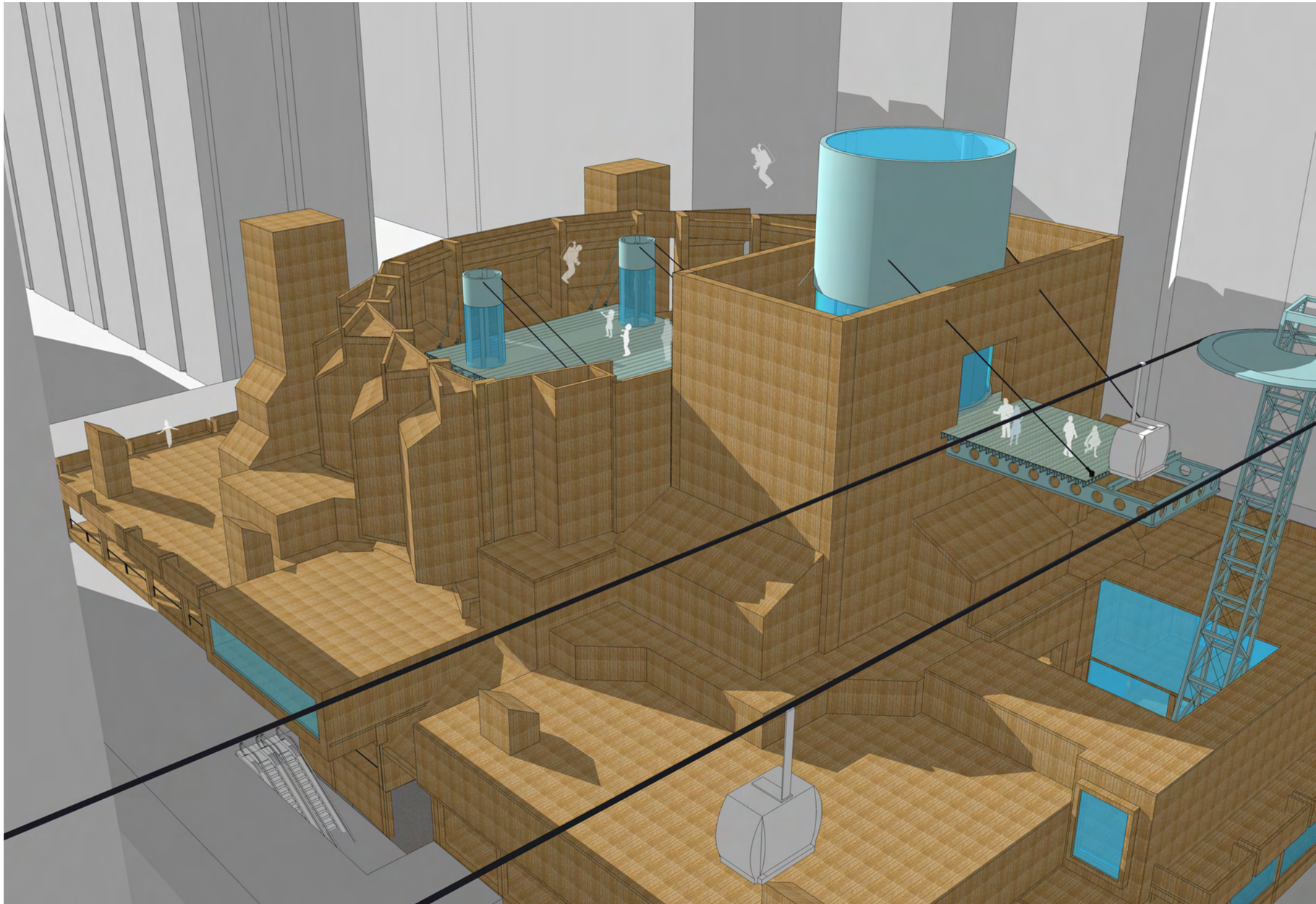


FIG.41 : BIRD'S EYE PERSPECTIVE FROM CHARLES ST.

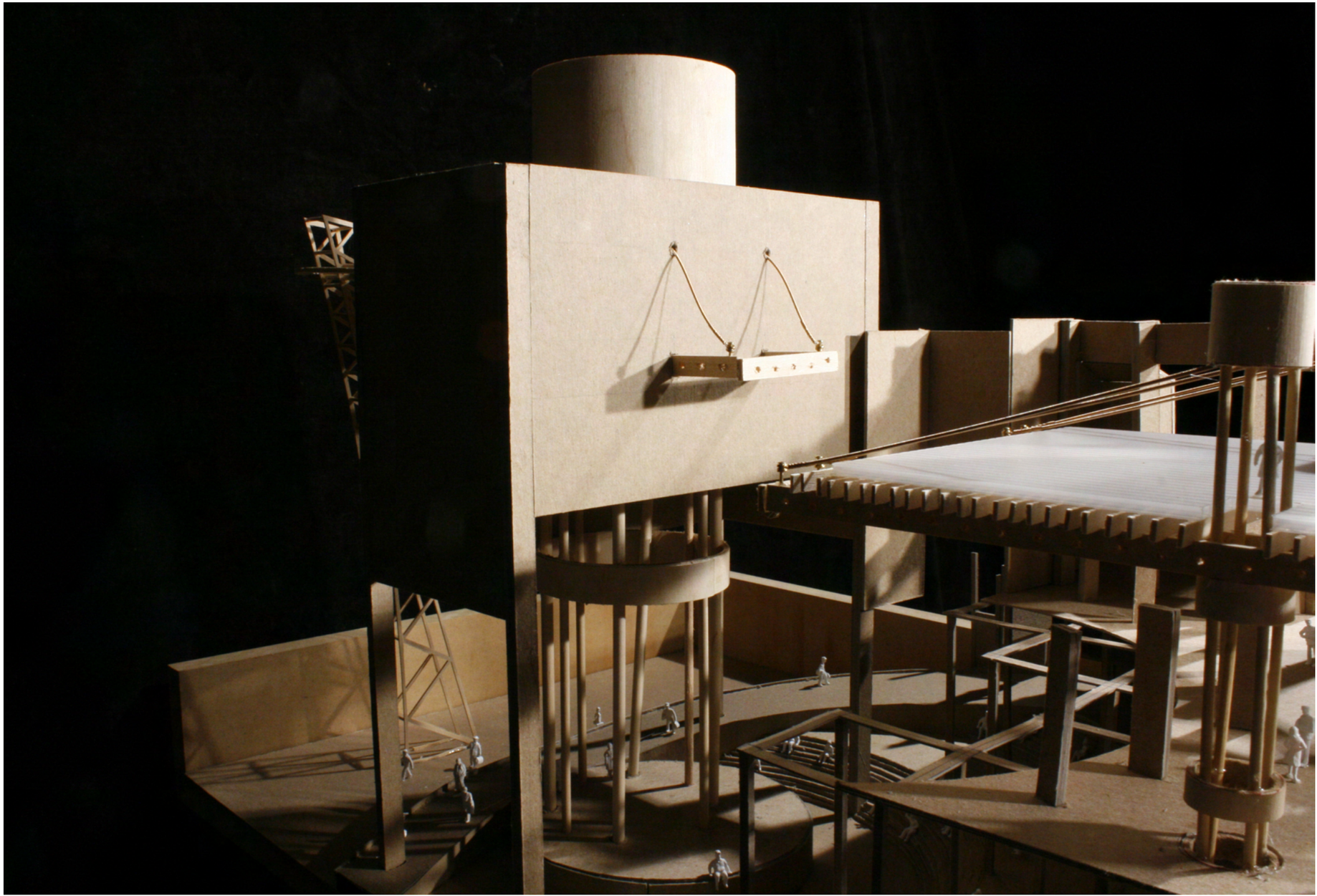


FIG.42 : CHIPBOARD & WOOD MODEL

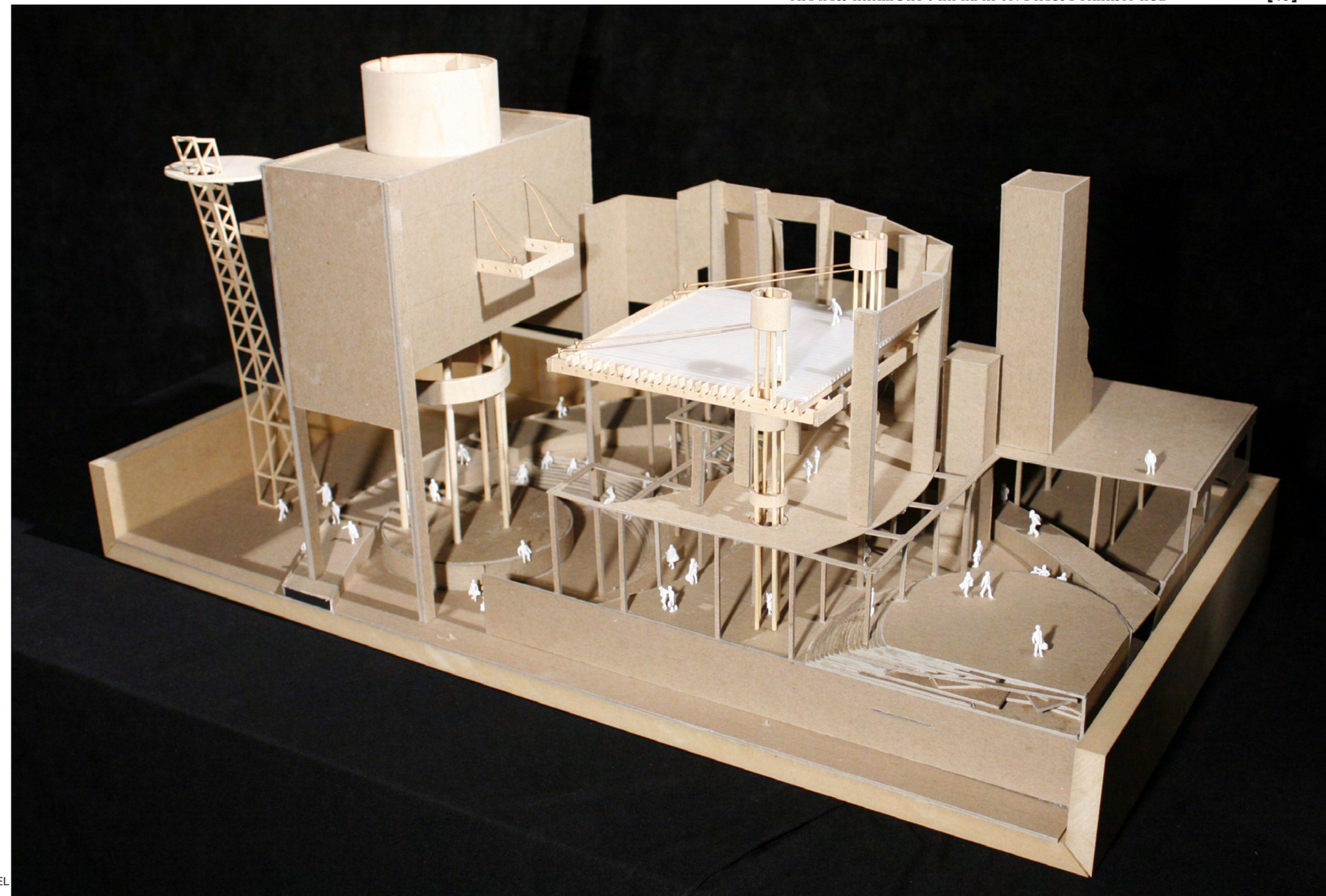
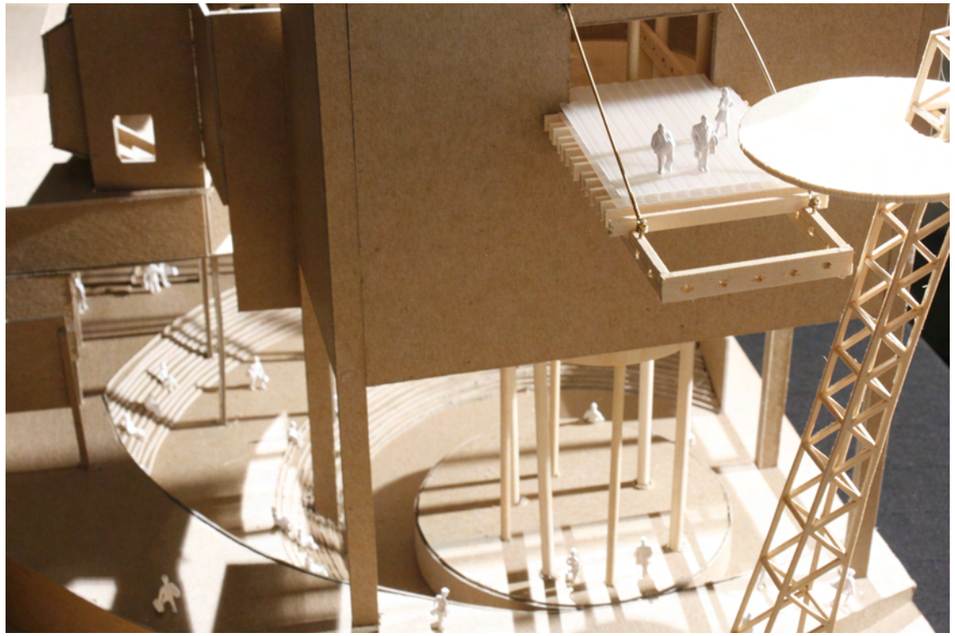
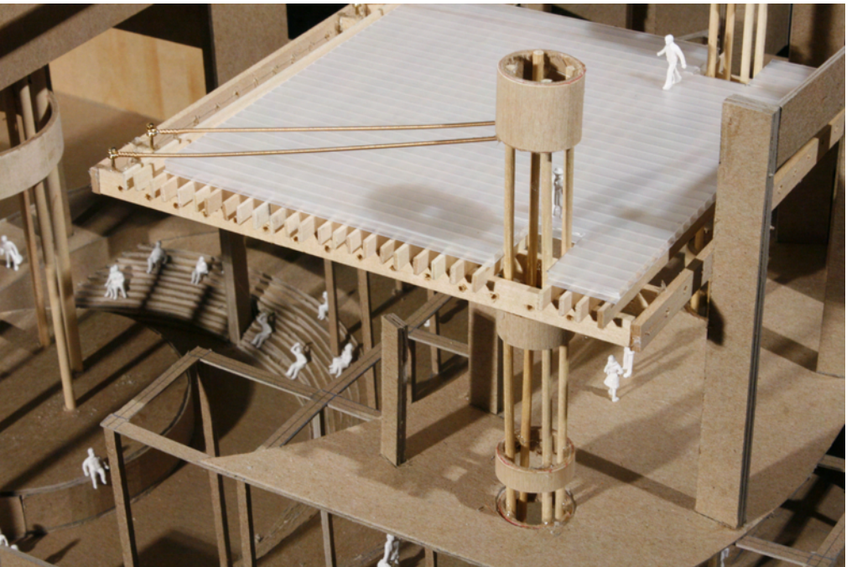
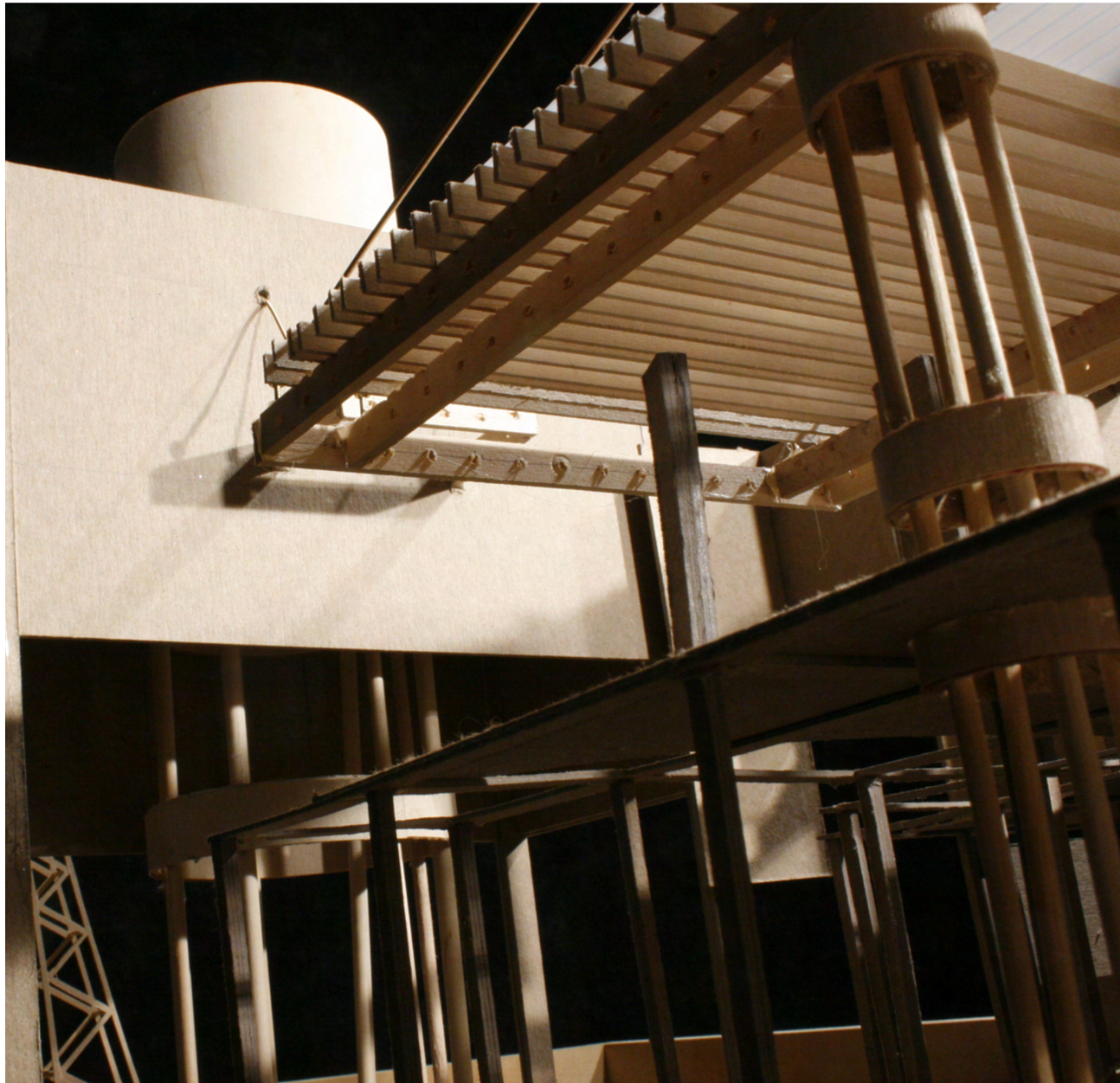


FIG.43 : CHIPBOARD & WOOD MODEL





[LEFT, ABOVE &OPP. PAGE]
FIG.44 : CHIPBOARD & WOOD MODEL



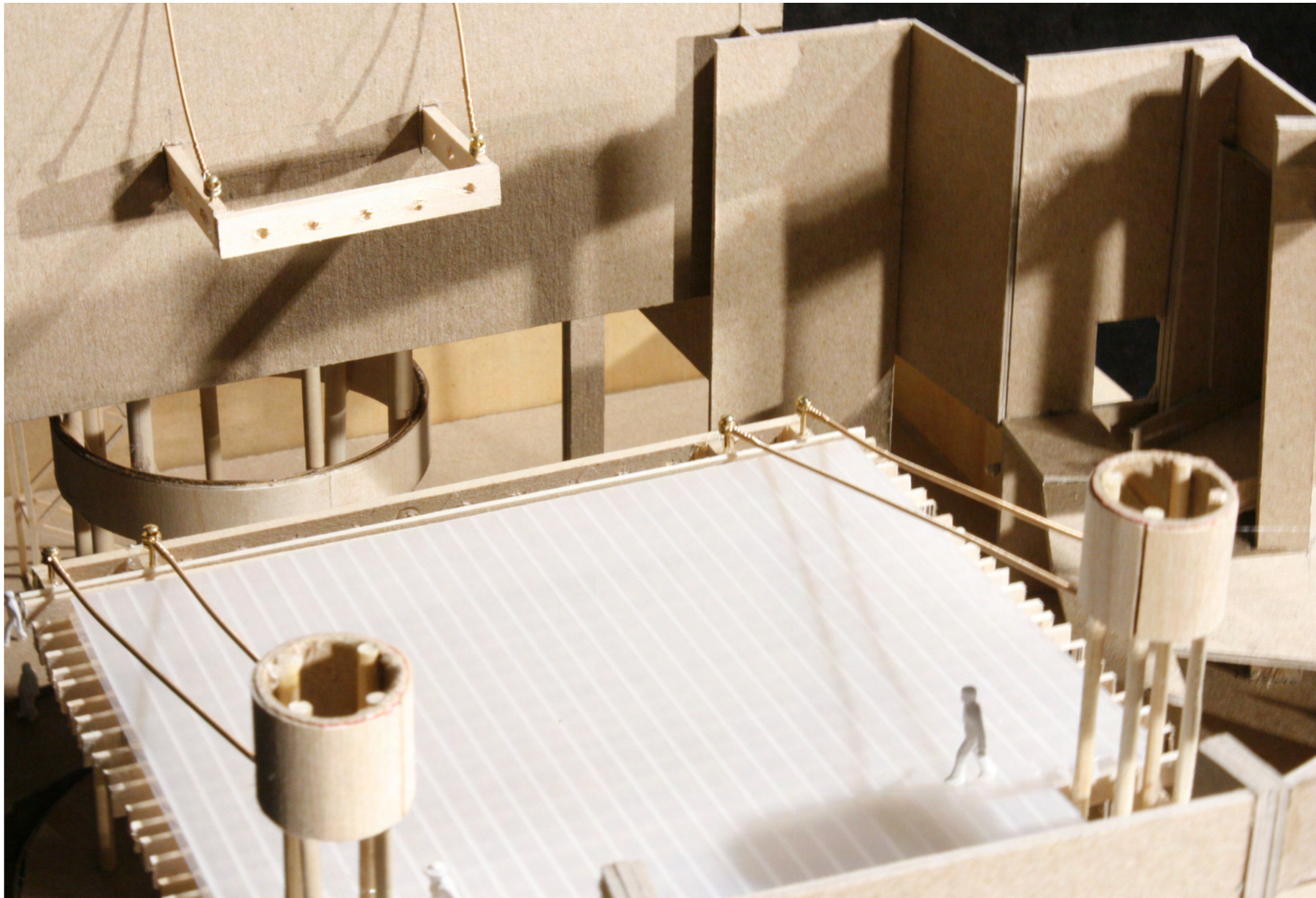


FIG.45 : CHIPBOARD & WOOD MODEL

FIG.46 : CHIPBOARD & WOOD MODEL

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27. Johansen, John M. *Nanoarchitecture: A New Species of Architecture*. New York: Princeton Architectural Press, 2002, 144-145.

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ABOUT THE AUTHOR

I began playing the guitar and studying musical theory at the age of 8 while growing up in Baltimore County, Maryland. I have been performing in various forms since that time, and it has really been the defining aspect of my life. For this reason, it was to the surprise of many people, including myself, when I followed the casual advice of my long-term guitar teacher and began to consider a higher education in Architecture. In my naivety, Architecture, a subject that I really knew nothing about, appealed to me as a career that would allow me to express my creativity and actually make a comfortable living. However as I began to take undergraduate courses at University of Maryland College Park, the emphasis on history, and importance mathematics and physics, as well as the element of personal expression appealed to both hemispheres of my brain.

While working towards my Bachelor of Science in Architecture degree at the School of Architecture, Urban Planning and Historic Preservation, I began to explore the relationship between Music and Architecture. Inevitably, if a student or professor realized I was a musician, I was consistently reminded that "Architecture is frozen music," a popular saying in the academic world, derived from the German author Johann Wolfgang von Goeth. However, it used to aggravate me because it was never followed up with any real substance about the relationship between these two art forms. I believed that my knowledge of music would allow me to create unique designs, and I began to research, write, and design in the context of Music and Architecture; upon reflection, this was probably a defense mechanism related to my lack of training in the tactile art forms.

The quote on the opposite page, which appears in Mondrian's "The New Plastic in Painting," satisfies my interest, really almost obsession, with artistic synesthesia. As I have developed as an architect, musician, artist, and person during my years at Virginia Tech's Washington Alexandria Architecture Center, I feel that I have gained an understanding of the power of comparison. Whether with music, cooking, sewing, or anything else, a metaphor can produce highly individual and expressive works that are naturally of great value to the designer. However, I have learned that you must not rely on the metaphor, and it is equally important, and fruitful, to step out of your comfort zone.

This thesis represents my passion for Music and Architecture.

"Comparison is the standard that every artist consciously or unconsciously uses and that shows him how to express (his) truth as determinately as possible.