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I am submitting herewith a thesis written by Jennifer Martillie Bradley entitled “The Temporal Life of a Site: Photomontage and Meaning.” I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment for the requirements for the degree of Master of Architecture.

_____
George P. Dodds, Major Professor

We have read this thesis and recommend its acceptance:

_____
Scott Wall

_____
Bruce Wheeler

Accepted for the Council:

_____

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The Temporal Life of a Site: Photomontage and Meaning

A Thesis Presented for
The Master of Architecture
Degree
The University of Tennessee, Knoxville

Jennifer Martillie Bradley
May 2008

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DEDICATION

This thesis is dedicated to Mary and James Jones,
who have made the path that I have traveled possible.

ABSTRACT

This thesis is an exploration of an urban heterotopia. Through the examination of the temporal life of a site, in combination with visual techniques of control, a proposed intervention transforms the site and its associated meaning/memory. The methodology involves memory and process, and an understanding of how memories are constructed, and why. Processes of defamiliarization, abstraction, and estrangement are given special emphasis, in order to demonstrate how a site can be transformed through design. The design is informed through exercises in collage, montage, and assemblage in order to cull out the ghosts of a site: its associations, narratives, and connections within the city. The concept of urban palimpsest, or the readings of layers on urban artifacts, is a theme of this exploration. Ultimately, the primary element of change is effected through the landscape. The design is a result of the readings of these layers, and an understanding of the value of the substrate itself.

PREFACE

Collective memory is the focus of this thesis. How memory is created, deconstructed, discarded, and the processes involved are central to my exploration. Examination of the creation of memories, and their place within the individual and collective consciousness, and the processes of defamiliarization (as defined by the avant-garde Surrealist movement: methods such as collage, assemblage, and montage), serve to reconnect the memory of a site to a new, expanded meaning. My approach involves a humanistic understanding of memory and its processes, combined with the application of techniques of defamiliarization with regards to the site.

My understanding of the site derives from three sources: the past of the site, the extant conditions of the place, and the imagined future of the site/usage. The past of the site comes from histories, photographs, and maps. The conditions for the present come from photographs, drawings, and diagrams. The programmatic feature of the future (the design) comes from analysis of the location, area, and site. The former warehouses become enclosures for another type of production: the making of art. The imagined future involves a more complex process: I collage possible future uses for the site, which in turn influence the programmatic and design process, which then yields a new collage of an adjusted possibility. The collages are the inspiration for the design and are also part of the process for understanding the site in situ. This technique of defamiliarization collapses the temporal experience of the site: the relics of the past that persist in the present are the stage for the future, and inform the design. Methods for understanding of the site are influenced by architects Carlo Scarpa, Sverre Fehn, and Julie Bargemann and artists such as Rachel Whitread, Joseph Cornell, and Gordon Matta-Clark. Collage is also an

important part of the landscape, as remediation and intervention are central components to both the design and the reference to temporality within the site.

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CHAPTER 1: SITE

The site is generally the 500-block of Jackson Avenue, more specifically 501-525 West Jackson Avenue (see Figures 1 and 2).

Figure 1. Song For A Building

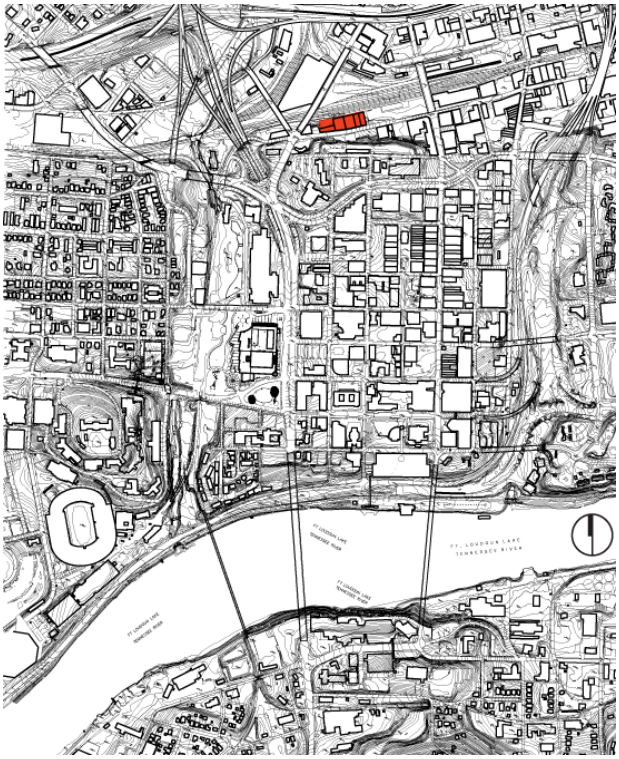

Figure 1. Site Map, Knoxville

History of Site

The first warehouses, 505 and 507, were built in 1893 and sat beside a ballpark, and were situated next to the railroad that ran through the center of town. The area was on the outskirts of the central business district, as most industrial sectors were at the time, and quickly grew under the stewardship of C.M. McClung and Sons, selling everything from cutlery to clothes. Buildings 501 and 503 were erected in 1903, followed eight years later by buildings 509-515. Warehouse 525, the largest on the lot, was erected in 1927, and was the last to be built in that lot, leaving a great deal of the space still undeveloped. By 1927, the ballpark was gone, but Sanborn documents from 1893-1924 do not illustrate its exact location.

Until 1969, the warehouses were still in use, until in 1970 a Connecticut holding company called Larchfield Corporation bought the firm for three million dollars and quickly liquidated its assets. The warehouses since have sat, largely unoccupied, until recently. Small sections of the warehouses were used for work and studio space for small companies such as Ernie Gross Cabinet Designs, and the rest rotted away for several decades, despite being on Knoxville Heritage's "Fragile Fifteen" list for several years. In the mid-nineteen nineties developer Mark Saroff bought the properties, with dreams of building condominiums and lofts in the spaces, but did nothing. On February 7, 2007, buildings 525, 515, and 513 burned down in a fire that is still being investigated as a case of arson. Since then, these buildings, and the block in general, has been the subject of much scrutiny and speculation. The block itself, owned primarily by John Sanders, Mark Saroff, and David Dewhirst, is slated for future development, but such development is still largely undefined.

The site is made up of an area that is naturally bounded by the river to the south and a topographic depression that runs across the city and is occupied by the rail line (the L&N, mostly). The area lies between Second and Third Creeks, and account for much of the topography there. Because of such topography, the location also became the site of Interstates 40 and 75, which provide the boundaries for the location itself, while the site is contained by streets and rail: Broadway, Jackson Avenue, and Gay Streets (see Figures 3-5).

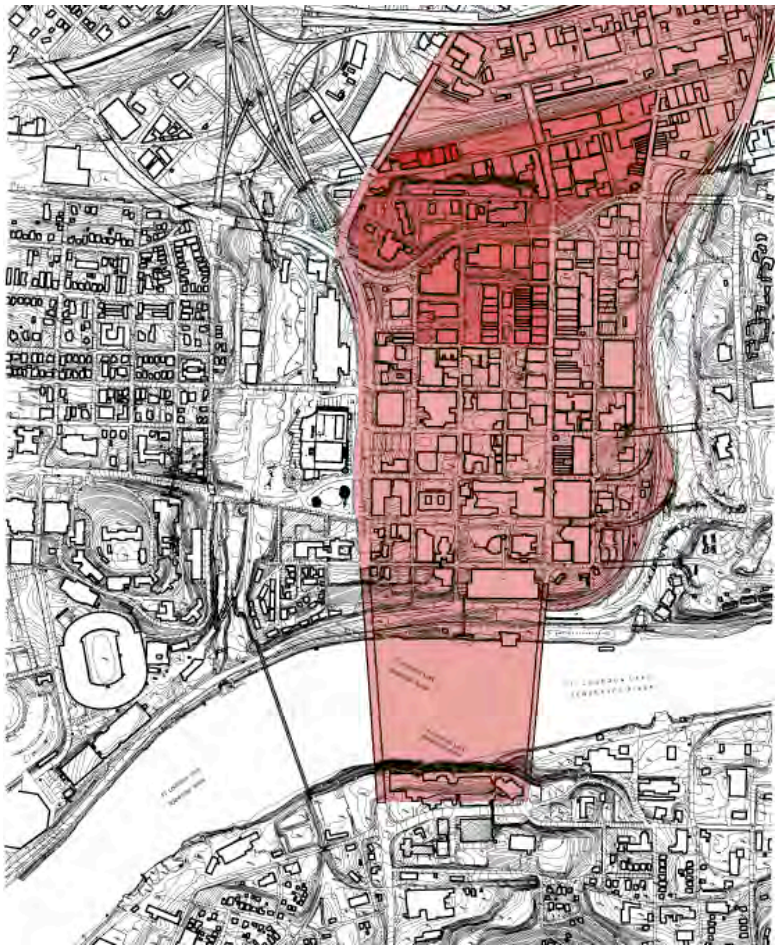

Figure 2. Diagram of Area, Location, and Site

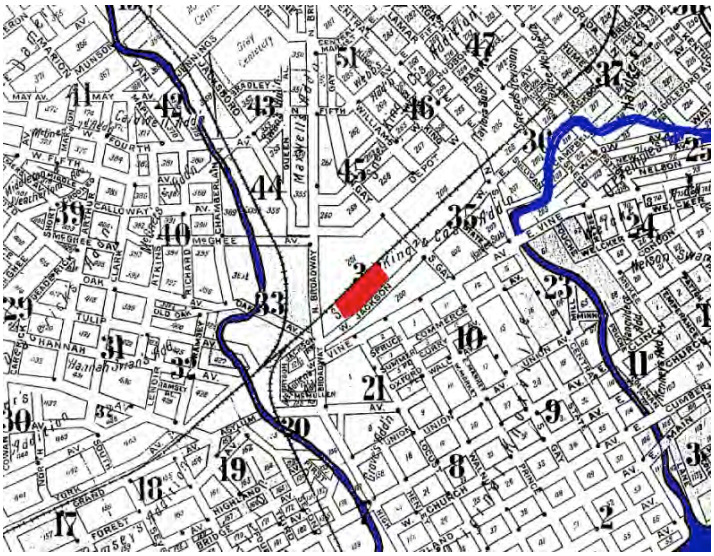

Figure 3. Second and Third Creeks

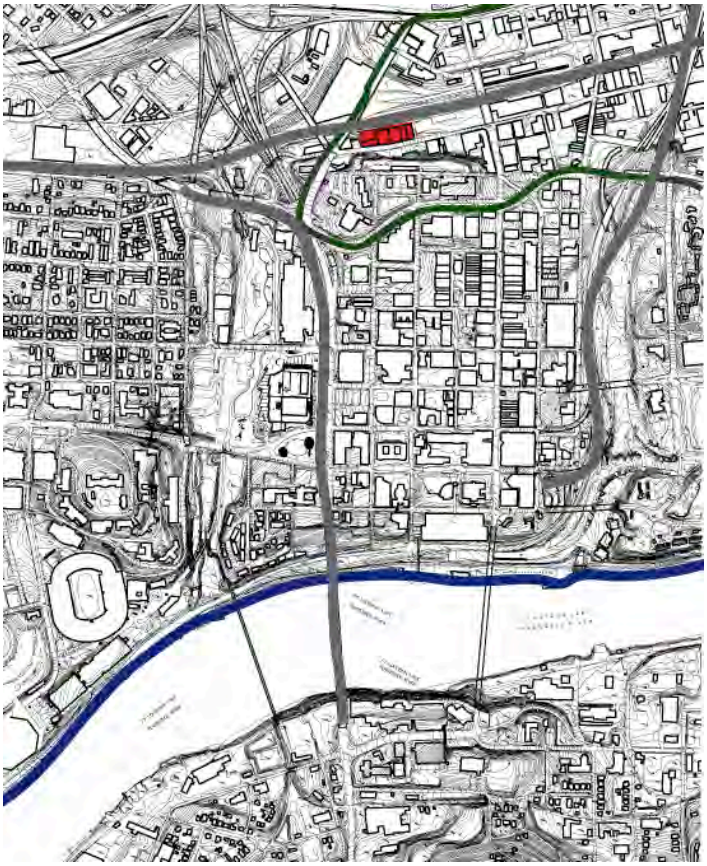

Figure 4. Edges and Boundaries

The site exists as a derelict, abandoned lot in the middle of a small sector that enjoys the same status. A fire on February 7, 2007 incinerated buildings 525, 515, and 513 (see Figure 6).

Figure 5. McClung Warehouses, February 7, 2007

The block is currently blighted, but still has the potential to be a significant connector in the downtown district in Knoxville. The area was once a center of industry and commerce, and connection and production in Knoxville (see Figure 7).

Figure 6. McClung Warehouses, 2005

Examining the Sanborn and GIS documents, one finds that this area, rather than being the nexus for downtown, or at least a satellite zone of the urban center, is instead an area of disconnection. The block itself it at a crossroads within the urban fabric: situated parallel to the railroad, between Gay Street and Broadway, and essentially laying between Market Square, the Old City, and the Fort Sanders historic neighborhood, the block has the potential to be a connector, rather than the heterotopia that it is now (see Figure 8).

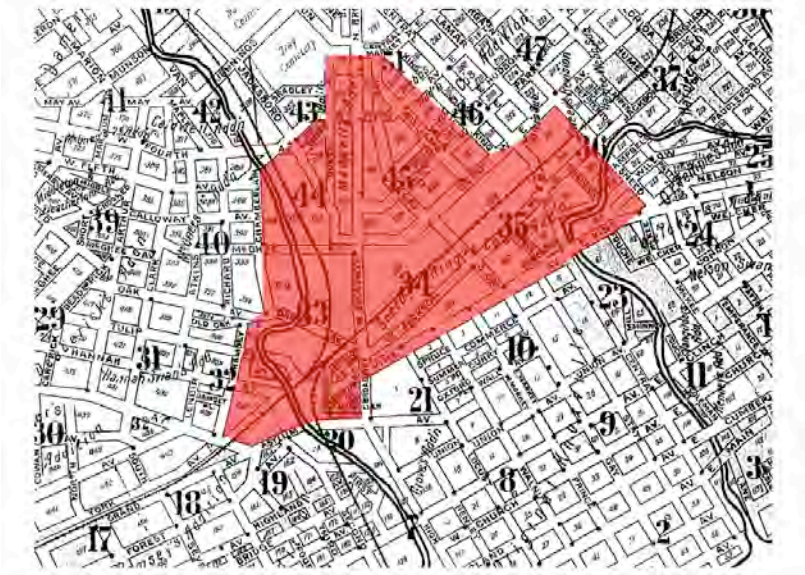

Figure 7. Heterotopia

The site is an obvious interruption in the urban fabric, one that flows seamlessly from the Tennessee River to Fourth and Gill neighborhood. The rhythm breaks over the block, and then resumes in all directions. This pattern of disconnection is one of the few constants of the urban history of Knoxville; since the first Sanborn maps of 1884, this interruption is evident.

The site sits within a low point (topographically) in the city, and is bordered by the rail yard. The railroad follows a natural topographic crease to the north of the site, and is still highly active (see Figures 9 and 10).

Figure 8. Contours of Downtown Knoxville

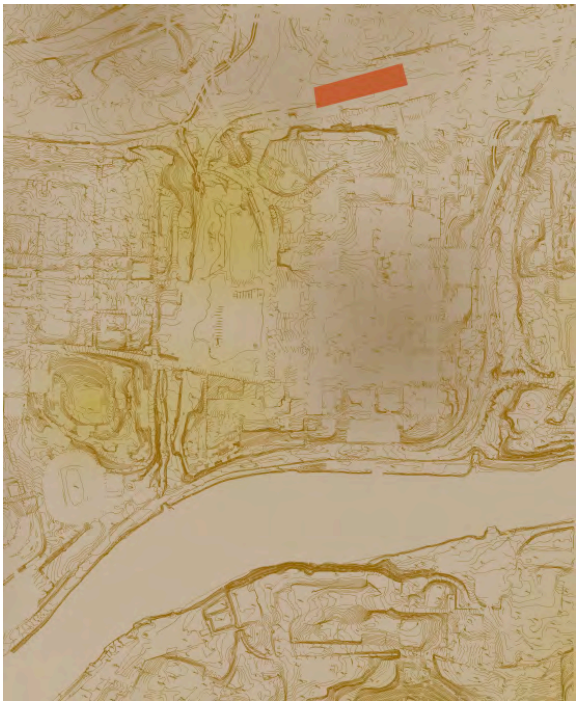

Figure 9. Conceptual Diagram of Topography

The site forms a western corner to the downtown area, and could provide much needed green space in the vicinity (see Figure 11).

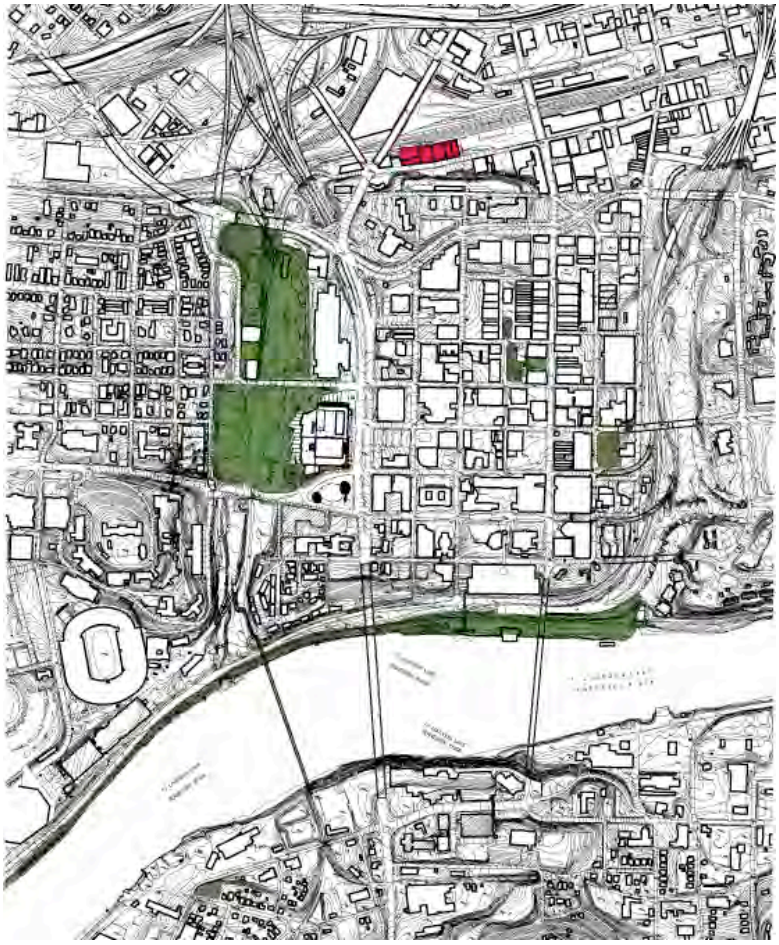

Figure 10. Green Spaces in Downtown Knoxville

The site is also in close proximity to the Old City and Market Square, the two entertainment zones of the downtown area (see Figure 12).

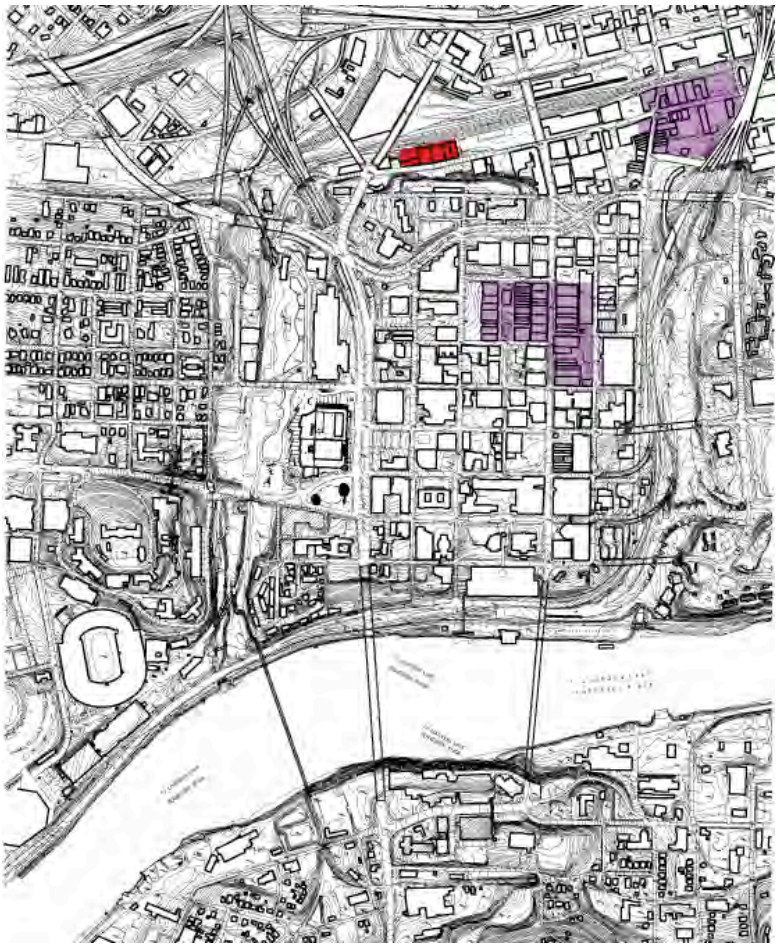

Figure 11. Diagram Showing the Entertainment Zones of Downtown Knoxville

In addition, the site is also a potential connection between gaps in the trail of galleries that participate in Knoxville's First Friday: the first Friday of every month, over fifteen galleries from World's Fair Park to the Old City have special late night exhibits and gatherings. Currently, there is no connection between the Candy Factory and the KMA and the Old City/Market Square areas (see Figure 13). Similarly, there is also no real connection between the center of downtown and the galleries off of Broadway and Depot, and so these galleries get less traffic each First Friday.

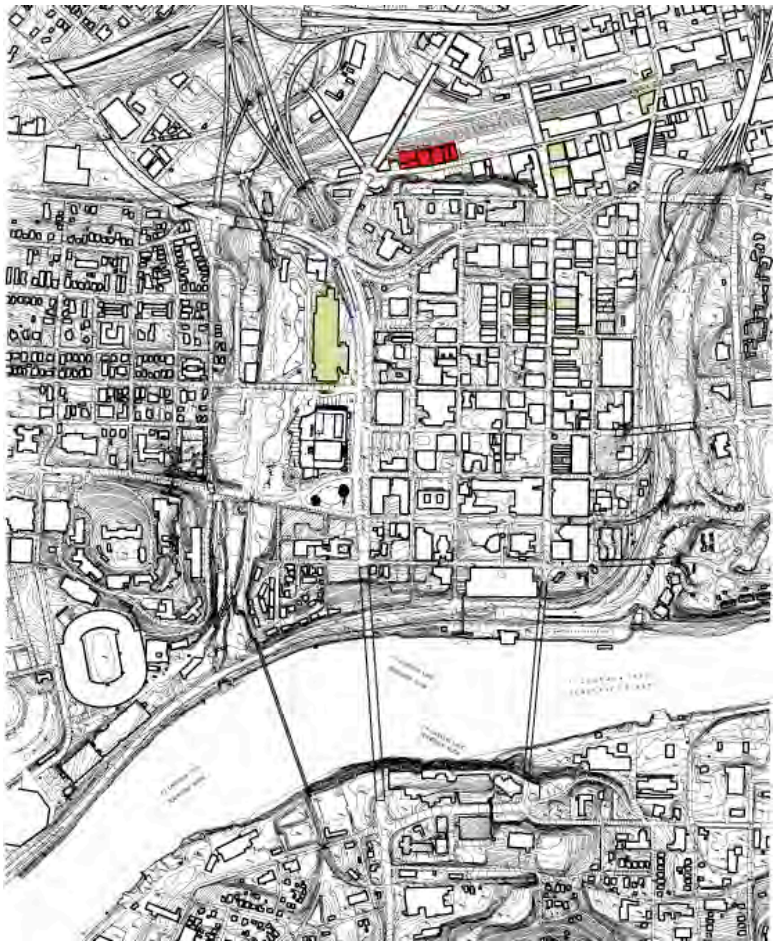

Figure 12. Galleries of Downtown Knoxville

Historically, the site is tied to associations with industry and production, and serves as a monument to Knoxville's more industrial past. The site is still connected to theses zones, which primarily occupy the eastern borders of the Old City. While such industry is largely part of Knoxville's history, the presence of events such as First Friday, and the proliferation of galleries and studios in the downtown area point to a new industry in Knoxville: the production of art and experience (see Figure 14).

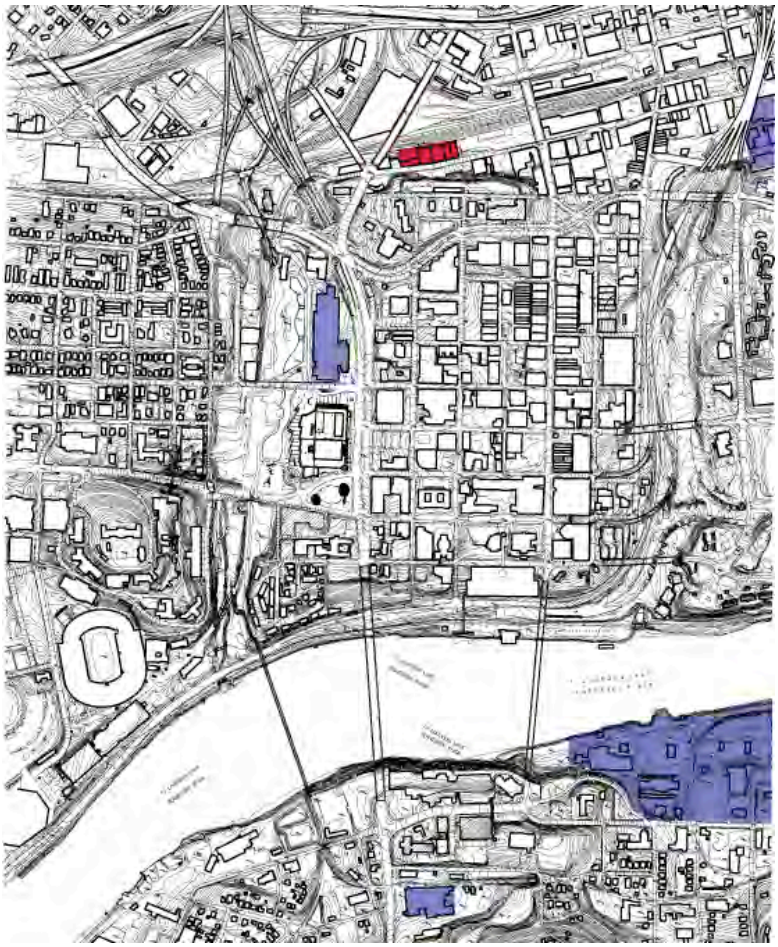

Figure 13. Areas of Production, Both Artistic and Industrial

Currently, the site is symbolic of many things: industry, production, abandonment, and incineration. It also serves as a site of disconnection within the urban fabric. The site is rich with possibilities for mixed-use and cross-programming, a program that generates connection and reclamation, as the industrial site is in sore need of remediation within the urban context. The site, with its visible details, fragments, and ruins, is a symbol of the city itself, and presents a unique urban palimpsest with which to intervene.

CHAPTER 2: DISCONNECTIONS IN SPACE AND THE ZONES INBETWEEN

Connections involve linkages, and join objects, people, and experiences together. The architecture of the city, and the evidence of an urban meaning indicates a collective. The trace of the previous occupations anchor memory, individual and collective. Visual markings refer, not just to a specific time or place, but also to experience, whether it is the experience of a culture or a community. Without a connection to place, memories cannot be formed, because they are not rooted in contextuality.

The process of memory is one that moves through a progression of symbol and the search for associations, the formal stage of anamnesis (recollection: the formal cognizance and apprehension of a thing), and then to reflective memory, which involves the relationship of the souvenir (the memory) to the collective and then to the self. (Ricoeur, 93- 110) Ultimately, memory is impossible without the intervention of imagination, and an understanding of possible connections. It is a process of selection. (Ricoeur, 5)

The course that Paul Ricoeur describes as “epistemological” is the historigraphical operation: that of witnessing or exposure, and then the stages involved in its investigation, explanation, and interpretation. Exposure to either the event or the evidence of the event, results in the need to explore its wider connections in order to contextualize it, and finally explain it, make it fit within a given worldview. (Ricoeur, 119-132) This approach allows for a process of documentation through site and archive; Ricoeur’s progression dictates the method in which the site must be investigated and

apprehended, in addition to providing a means for understanding. Furthermore, Ricoeur divides the compiling and comprehension into two parts: time and space.

Within this pursuit is the idea of time and space. The actual event exists in both, the memory doesn't completely inhabit either. Ricoeur asserts that corporeal and environmental spatiality are inherent "to the evocation of memory". (Ricoeur, 148) Because of this, memory is always linked to the association of space. Paramount within both of these progressions is also the process of forgetting. It is here that memory intersects with architecture. Architecture is the space that allows for notions of place to collide with personal corporeality. It personalizes what Ricoeur refers to as "geometric space", and creates a correlation between being and making. Architecture creates a middle ground: a place that is both a lived space and a more flat, geometrical understanding of space and time simultaneously. Architecture is the place of construction. "Whether it be fixed space or space for dwelling, or space to be traversed, constructed space consists in a system of site for the major interactions of life". (Ricoeur, 150) Innovation and repetition, intertextuality and layers: these make up narrative, be it textually or spatially.

The concept of urban palimpsest, or the reading of layers on a substrate (a substrate that is repetitively used because of its inherent value), becomes central as a vehicle for collective memory. The city is understood as layered, and apprehended almost as if it is visually sedimented. It is a place where things happen and have happened. It is this simultaneity that Ricoeur finds so rich in built space and finds so integral to the process of both the production of memory, its preservation, reinterpretation, and even its

disappearance. (Ricoeur, 147-151) Clearly, site, and a reading of the past is key in both preservation and the forging of new memories.

CHAPTER 3: DEFAMILIARIZATION: THE TRANSFORMATION OF MEANING THROUGH EXCHANGE

Joseph Cornell's shadowboxes and collages represent an important lens, or methodology for creating memory, because of the ways in which Cornell creates symbols, or references, to meanings both within and without his boxes. Cornell presents meaning and experience, and then transforms these organizations into richer works that demonstrate the power of culture, meaning, depth, and shadow. Cornell's boxes are architectural the way they approach elements of time and space. Cornell shifts scale, disintegrates objects, and makes organizational changes in order to communicate meaning to the viewer. Moreover, his projects generate meaning on multiple levels, by manipulating space with a variety of strategies. His works transmit meaning through reconstruction and reconnection.

Joseph Cornell's method of process was one of appropriation and abstraction. Taking found objects, and arranging, first in collages, and then later in shadowboxes, becomes a method of estrangement: the object is appropriated and used in an unfamiliar context, in order to free it from its previous connotations and denotations, and then redefine it, within a new context. This estrangement involves narrative: one narrative is arranged in order to become a new one. The previous narrative is not discarded, rather its elements are exchanged. Often, these found and arranged objects became abstractions in order to become symbols for concepts such as the cosmos, war, and childhood.

Cornell's shadowboxes utilize strategies of unexpected juxtaposition in order to convey meaning. This meaning is expressed by techniques of relationships between solid

and void, connections between inferences of groups and individuals, and explorations of depth and inferred movement.

Cornell's shadowbox, *Soap Bubble Set, 1947- 8* (see Figure 14), is Cornell's first soap bubble exploration, and symbolizes Cornell's "deeply reverential view of the universe as a mirror of mysterious truths". (Waldeman, 28) In this work, Cornell creates a divided set, with varying levels, upon which he sets glass 'bubbles' (large, blue marbles) under hanging cork spheres.

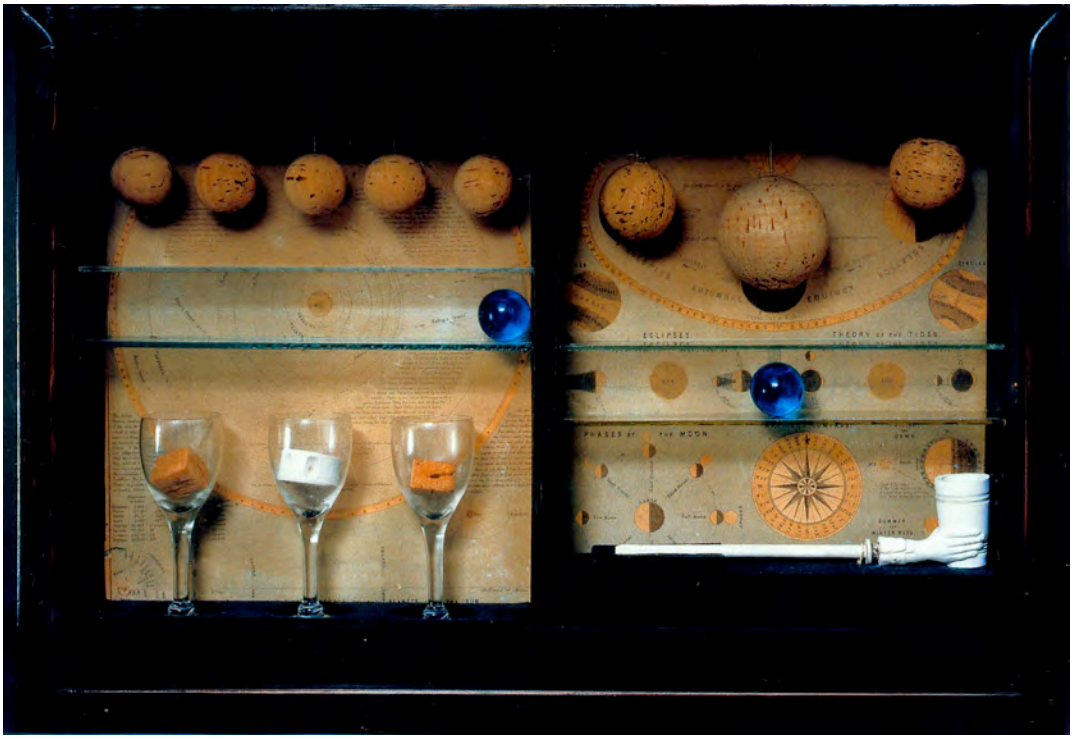

Figure 14. Soap Bubble Set, 1947-8

The bubbles 'float' under two scenes: on the right cordial glasses hold pieces of cracked and molded material (plastic and cork pieces) and on the left a clay pipe lays directly under the scene (see Figure 15 for detail).

Figure 15. Detail of Features

The foreground is established with a covering of deep blue velvet; this creates a sort of proscenium for the box. (Waldeman 28) The background is collaged with scenes of the cosmos from Medieval illuminated manuscripts.

The ideas here that are abstracted are significant: the cosmos, forces of nature, and the realm of experience. (Hopps, 77) Cornell sets up a general relationship between these concepts, and then rearranges them, giving them a hierarchical relationship,

vertically and horizontally. The manuscript background is a symbol for not only the cosmos in general, but also a symbol for the pre-modern body of knowledge (see Figures 16-18).

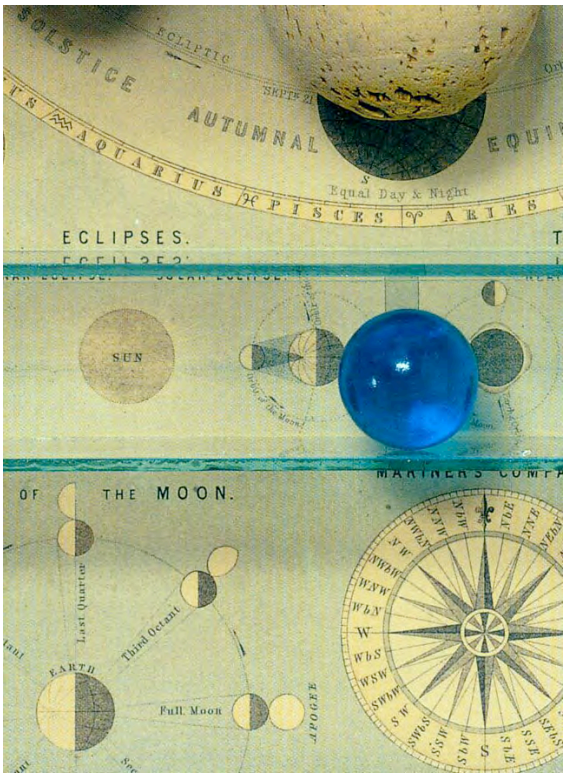

Figure 16. Detail of Soap Bubble Set, 1947-8

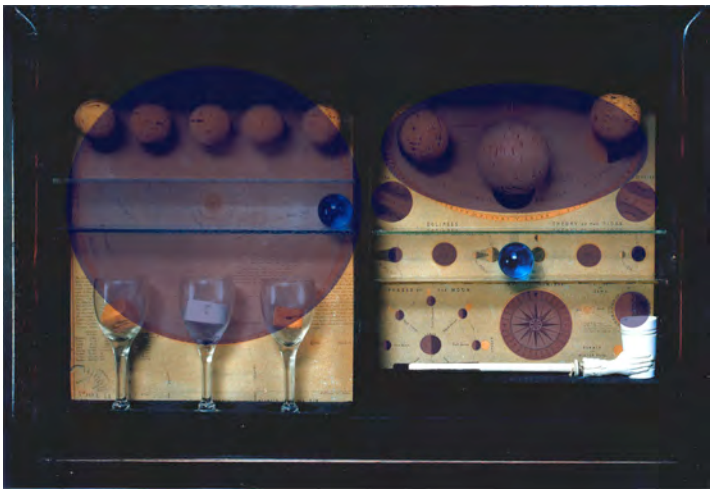

Figure 17. Disintegration of Central Object, From One Frame to the Next

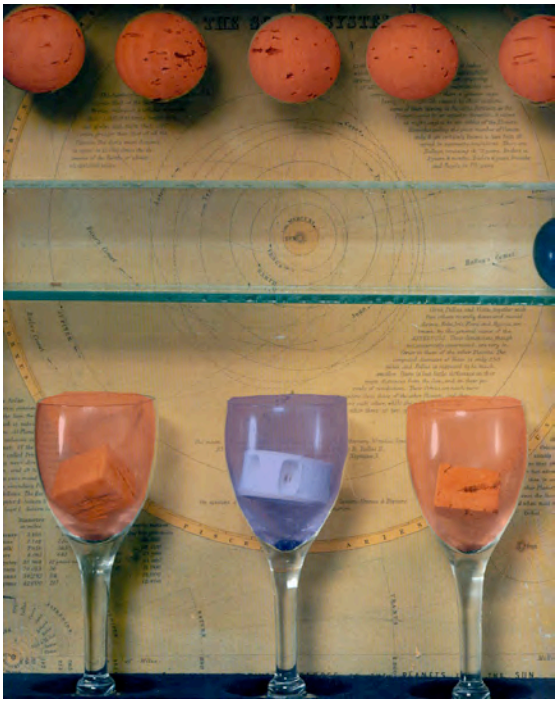

Figure 18. Repetition

By layering these abstractions, Cornell also creates a hierarchy and a set of relationships through depth, as well (see Figures 19 and 20).

Figure 19. Diagram of Depth and Weight, Via Shadow

Figure 20. Diagram of Emphasis Through Materiality

Another transformation occurs via materiality: everyday, mundane objects, mostly from childhood, seemingly serve to explain the universe.

The soap bubble sets were Cornell's first attempt to group disconnected objects into a coherent whole, and he achieves this not only through the spatial relationships of the objects, but also through the framing. The box frames a subject as enormous as the universe in a bounded orthogonal box. The use of compression creates a collapse of time and space, until you arrive at a tiny cosmos, complete but in miniature form, that invites the viewer to peer closer, in order to more clearly understand the depth. This compression of space, emphasized by the blue velvet and the shadows cast by the cork, are juxtaposed by the transparency of the cordial glasses that seem to almost protrude from the work, thereby deepening the sense of depth within the box (see Figures 21-30).

Figure 21. Detail of Soap Bubble Set, 1947-8

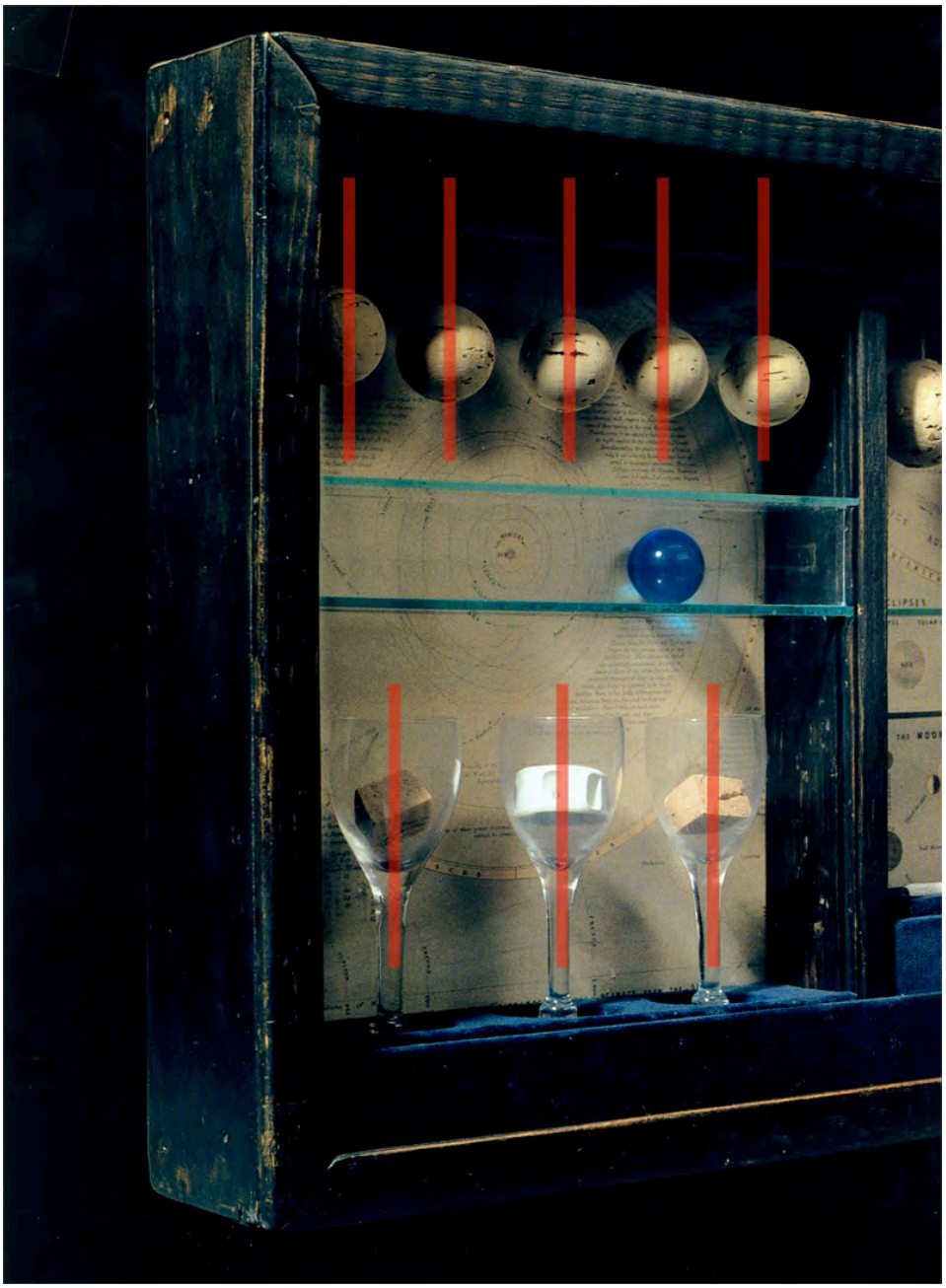

Figure 22. Order

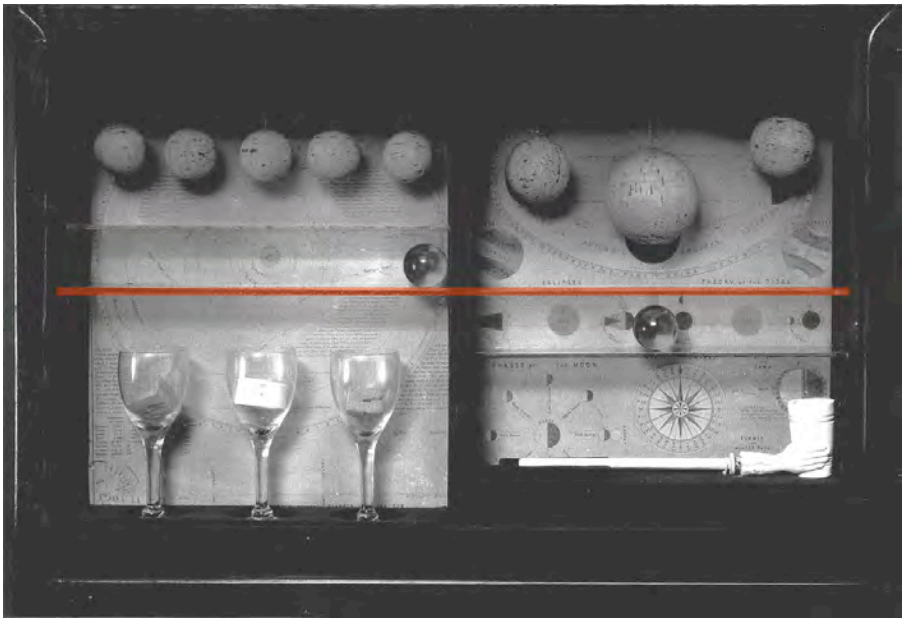

Figure 23. Horizontal Axis

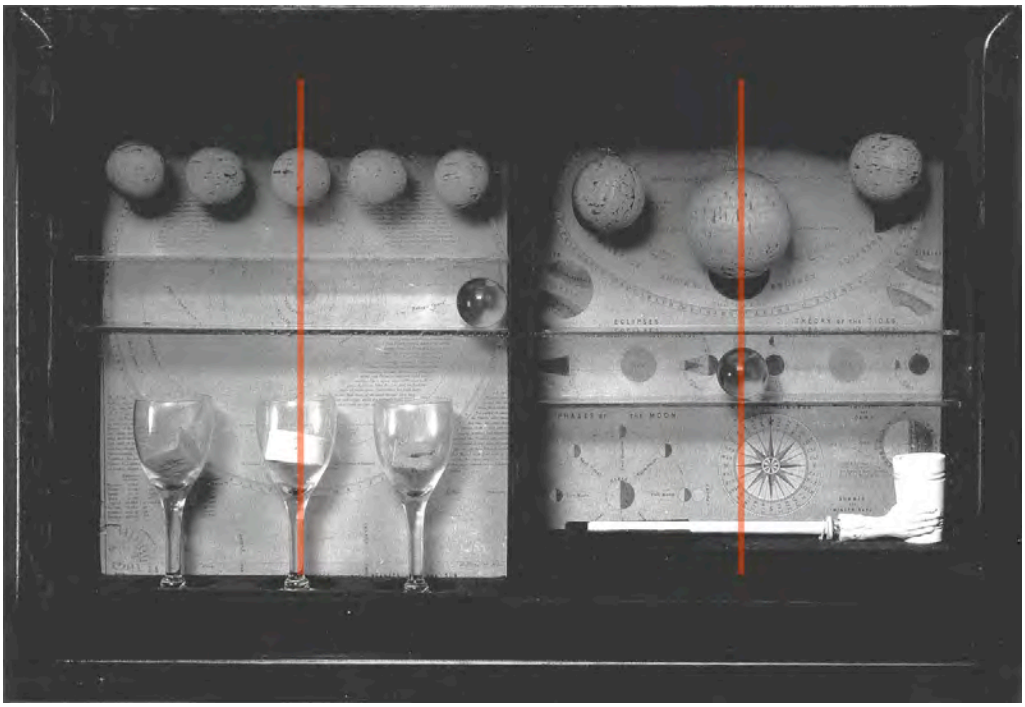

Figure 24. Vertical Axis

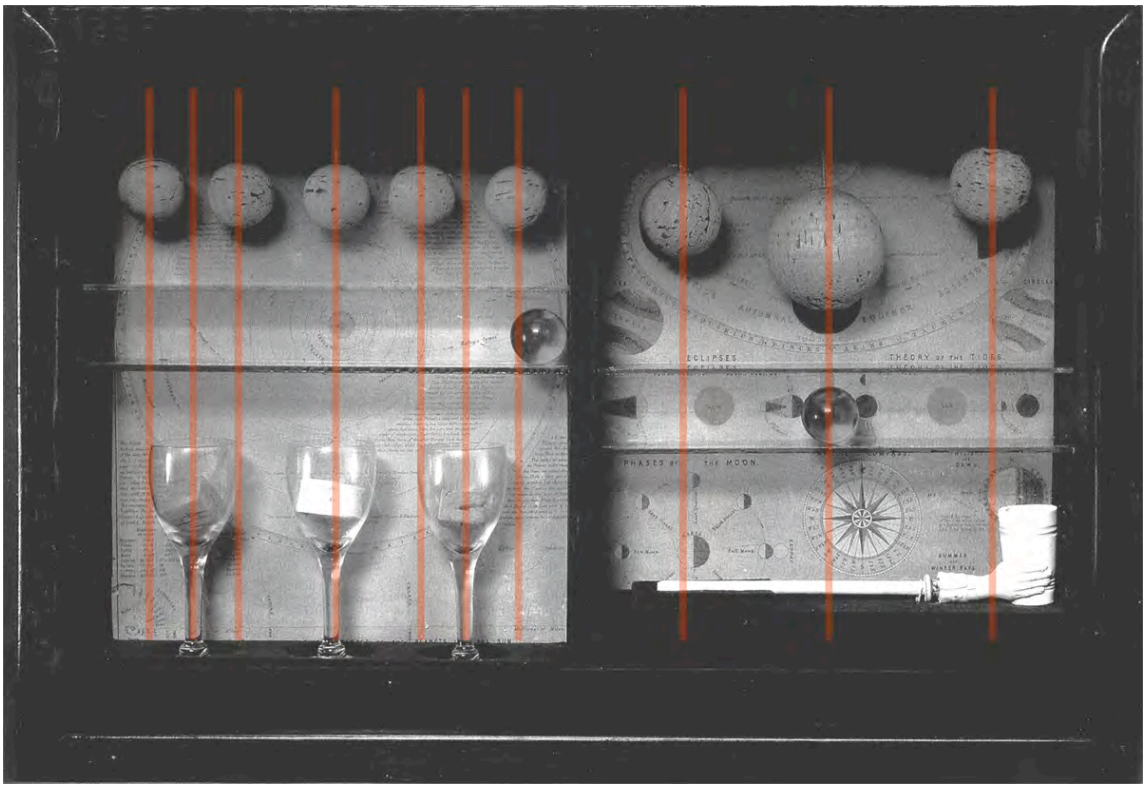

Figure 25. Diagram of Compression, Expansion, and Emphasis

Figure 26. Diagram of Central Emphasis

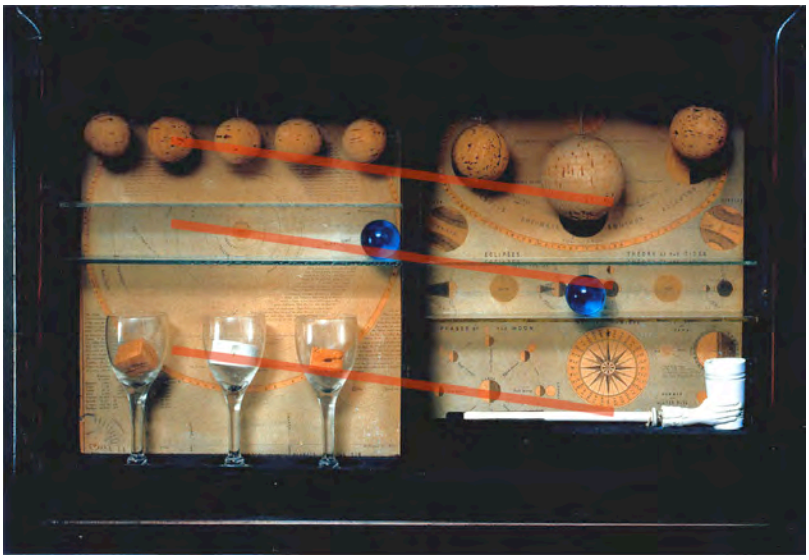

Figure 27. Trajectory of Emphasis

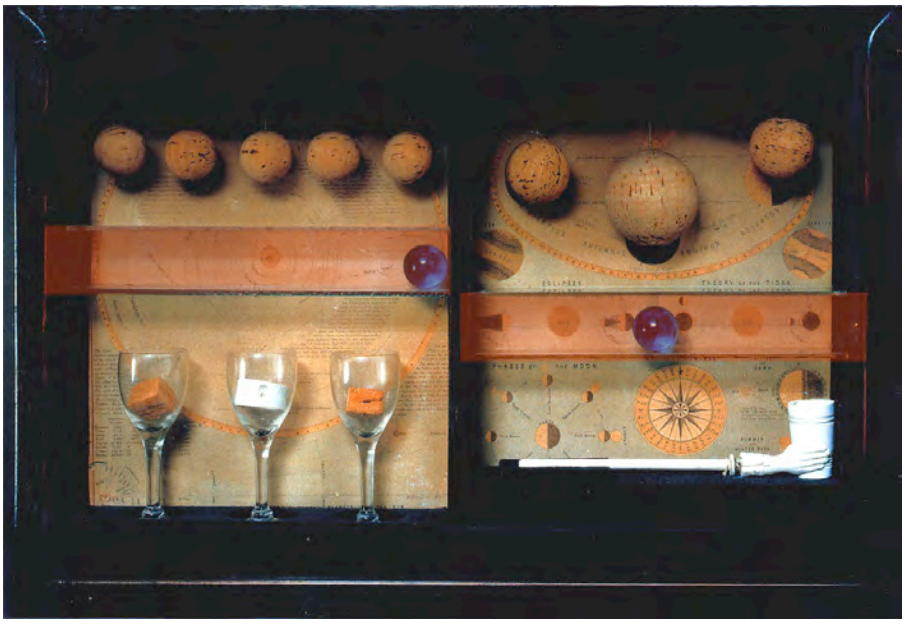

Figure 28. Diagram of Shift

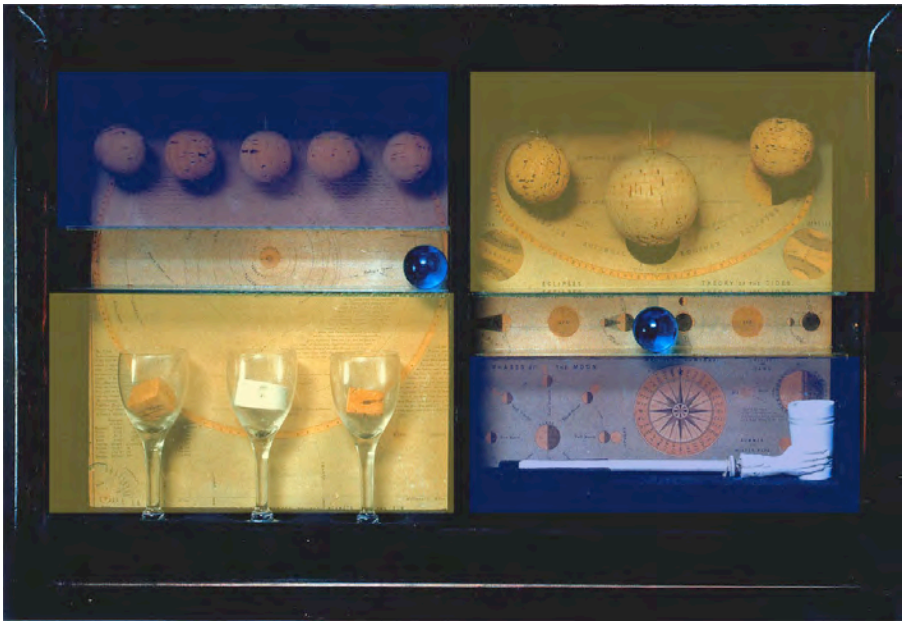

Figure 29. Diagram of Proportional Shifts

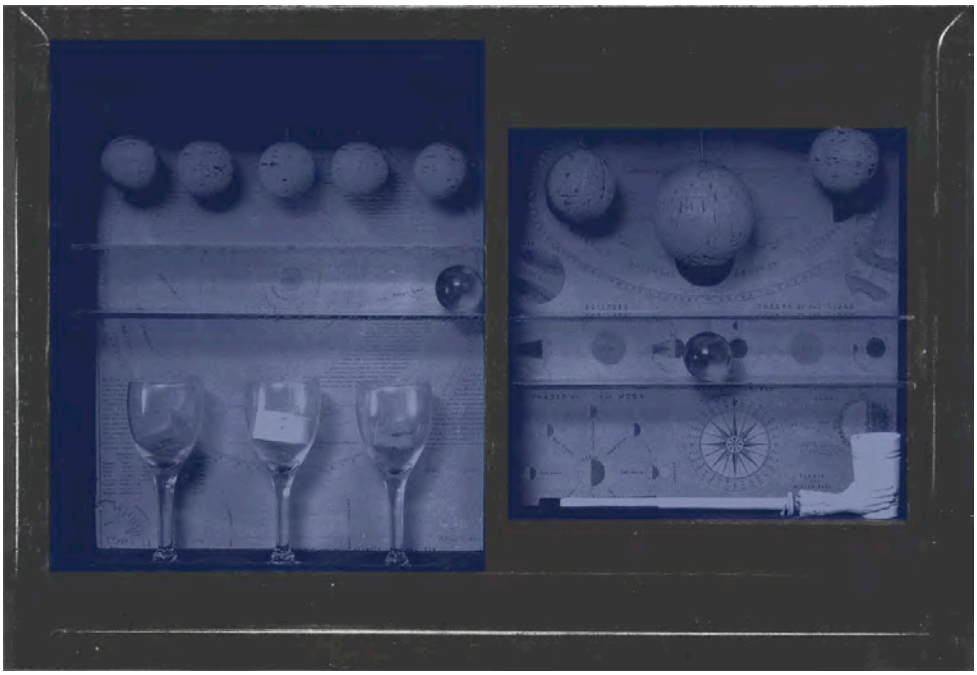

Figure 30. Detail and Fragment: The Result of Scale

Cornell's process of assemblage investigates both time and space: space through depth and relationships within, and time through potential movement and shadow.

CHAPTER 4: DEFAMILIARIZATION: THE TRANFORMATION OF MEANING THROUGH ESTRANGEMENT

In the previous chapter, techniques of deconstruction and assemblage, are discussed as methods for communicating and altering meaning. Using objects that themselves trigger memory, artist Joseph Cornell created nostalgia, and remembrance, within new woks of art that examined the shadows, or ghosts, of culture, memory, and meaning. Cornell used methods such as movement, trajectory, layering, and insertion to make relationships and connections to memory and awareness. Gordon Matta-Clark, an artist that created his work through photography, collage, and installation employs negation, and removal, in order to craft memory.

Gordon Matta-Clark, an artist who practiced from about 1968 until his death in 1978, was a trained architect who chose to examine the relationships between inside and outside, urban decline and material deterioration, and effected transformations of space that exposed new possibilities in abandoned physical infrastructure and architecture. His work consisted of what would later be catalogued by the Whitney Museum as " large-scale architectural interventions, installations, and ideas". (Sussman, 7)

Gordon Matta-Clark's work, *Splitting*, is perhaps one of his most famous ones because of its multiplicity of meaning. Taking an abandoned house, 322 Humphrey Street, that was donated to him, Matta-Clark proceeds to document both its interior and exterior as it was left, and then commences a series of interventions that demonstrate the complicated relationships of spatiality and materiality that exists in the once unremarkable house.

Matta-Clark begins with a one-inch incision, through the center of the house; the cut passes through all structural surfaces, and introduces new light into the revealed spaces, as well as creating a new perforation through which to investigate the space (see Figure 31).

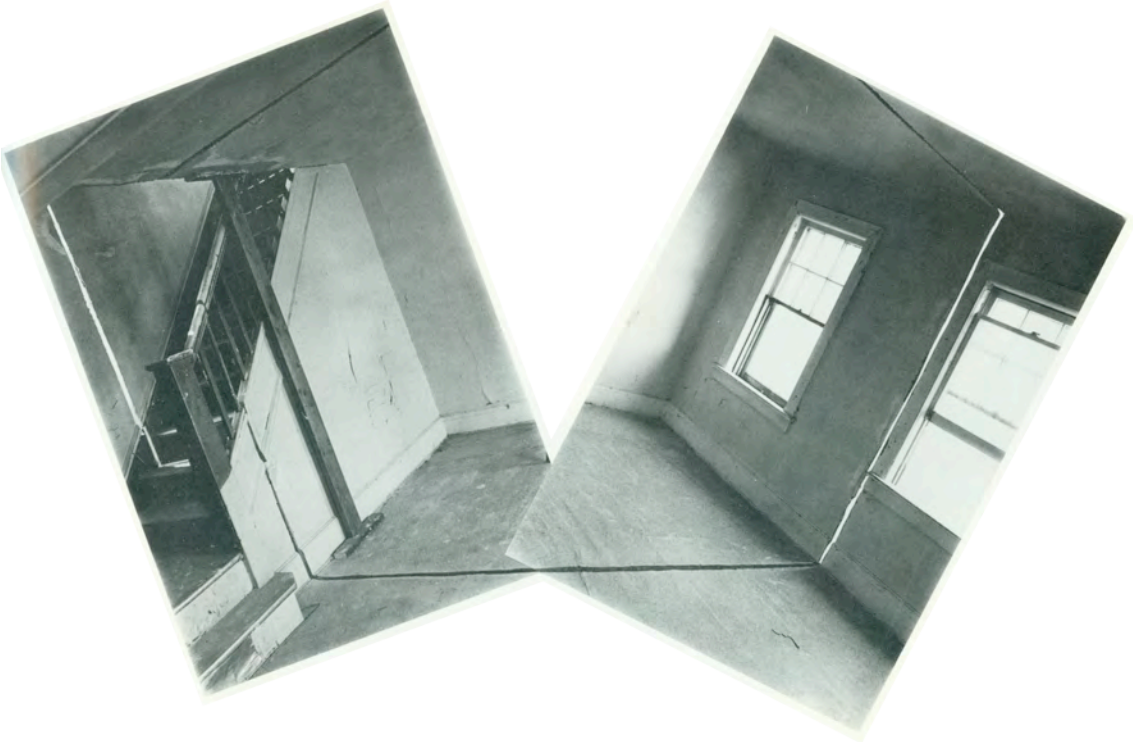

Figure 31. Splitting: Detail 1

(Matta-Clark, 1-14) The house begins to enjoy a much richer, and complicated relationship with both its interior and its exterior. Following this cut, Matta-Clark then bevels down forty lineal feet of cinder blocks, seting half of the building back on its foundations (see Figure 32). (Matta-Clark, 15)

Figure 32. Splitting: The Major Division

On the exterior, this creates a visual pulling away, a peeling back of the house, to further reveal it contents, and changes the structure's relationship with its context. The interior is similarly transformed, and new relationships emerge between the divided pieces, changing the way one apprehends the concept of window, door, wall, and room: the boundaries have been transformed. The beveling affects the idea of surface, as well, in

that the cuts begin to affect the directionality of focus. One begins to follow the cut, which has asserted itself as a dynamic new feature of the building (see Figure 33). This creates a movement within the house that creates a new composition within the previous spaces.

Figure 33. Splitting: Detail 2

Matta-Clark then removes the four corner, at the eaves, and documents the changes that occur as a result of their removal. (Matta-Clark, 23) The removed corners reveal new frames, new windows, that illuminate the changed spaces, and frame the outside from fresh vantage points. Lines of sight, and relationships between interior massing and external context, are exposed (see Figure 34).

Figure 34. Splitting: Detail 3

The final documentation is of the September 1974 demolition and removal: one half is filmed alone. (Matta-Clark, 30) The spaces are changed, and are removed from their context of familiarity of residence, home, or house. This challenges the viewer to attribute new meaning to the edifice (see Figure 35).

Figure 35. Splitting: Section

Such explorations demonstrate the provocations and significance of process and the concept of the manufactured ruin. Gordon Matta-Clark saw these interventions as transformations that were instruments of change: to the structure themselves, the participants (because the process was always implied as an extension of the extant narrative—Matta-Clark became a marker in within the temporal narrative of his works), and the onlooker.

Matta-Clark's interventions are precise cuts that expose the structure, and the connections between inside and outside. Moreover, his modifications expose the beauty of suburban ruins, and the 'aura' of habitation—the shadows of the structure, as it were. In his provocative, austere methods of representation (photos and photocollage from silver gelatin plates) show the house as it was, and then shows the bones of the house, and new connections within the interior, as well as examining the relationship between interior and exterior. His methods constitute a radical reframing, of both the inside and outside, and demonstrates the ephemeral nature of enclosure and its meaning. Matta-Clark redefines the space and its meaning, and creates multiple landscapes: the actual site, the filmic landscape, and the created collage.

Gordon Matta-Clark's works, in the forms of 'cuttings', collages, and films represent not so much a gesture of violence or a commentary on culture, but rather, a dialogue between conditions of context. (Chi, 8) His explorations create conversations between program, space, and material, as well as between interiorality and exteriorality. "Matta-Clark saw these [photos, films, etc] not as documentation, but as parallel vehicles for exploring the thematic and phenomenal consequences of the projects." (Chi, 8)

Matta-Clark creates sterile landscapes that approach space in a removed and inpersonal fashion. In doing so, Matta-Clark actually crafts meaning through memory via absence. His houses are lonely, shadowing, austerely beautiful in their singularity. The emptiness of his subject, a house, references what is missing. By using a symbol such as the house, Matta-Clark's work is rescued of being merely clever or provocative, and instead evokes shadows of its former use and associations. Matta-Clark's house becomes a cemetery, a repository for recollection and symbol.

Rachel Whiteread, an artist working mostly in New York and London today, shares some of Gordon Matta-Clark's aims and objectives, but investigates spatial relationships and their meanings in a radically different fashion. Whiteread, who is best known for her casts of negative space, using concrete, resin, wax, and wood (among other materials) explores space through an understanding of temporality, culture, and urbanity in connection with ideas of compression and the concept of the memento mori of an object. Like Sverre Fehn, she attributes an idea of phenomenology, and ontology, to an object. In contrast, the object that Whiteread gives narrative and voice to is space. By objectifying space and giving it physical volume, Whiteread imbues her sculptures, or casts, with mystery, ambiguity, and removes them from their familiar environment. Not only does she turn the traditional notion of space on its head, but her exhibits, which vary in location, challenge traditional connections of everyday existence.

Whiteread's work, *Ghost*, is a plaster cast of a living-room that is hung on a steel frame. Choosing to cast a room from a Victorian home similar to the one she was raised in, she felt that the dimensions, proportions, scale, and moldings would signify a general characteristic of 'room' or 'house', and convey notions of residence or habitation. Basing

the panel proportions on scale and proportional studies of the paintings of Piero della Francesca, Whiteread cast the room *in situ*, and then reassembled the pieces on the frame in her studio (see Figure 36). (Mullins, 23)

Figure 36. Ghost

Ghost recreates the living room at 486 Archway Road, but in reverse. The skirting and moldings become friezes, the fireplace is a recess, and the textures of materiality are inverted. Upon looking at the inversion of the light switch-plate, the viewer is struck by the realization that they are the wall, and that the form before them is an entombed space. Reminders of the mundanity and rituals of everyday life such as ashes from the fireplace, chips in the walls and moldings, and fragments of paint and debris are left in the work, leaving a visual reading of the lives lived there (see Figure 37). (Mullins, 23)

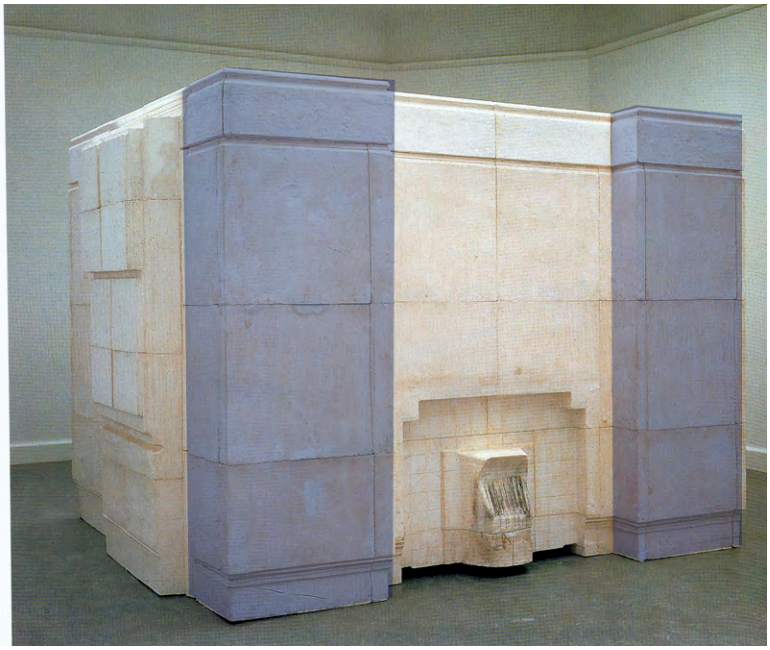

Figure 37. Diagram of Inversion: Eaves Read as Columns

In this manner, Whiteread's project becomes a small-scale palimpsest, revealing the layers of its use and conveying temporality through a reading of its history. As Charlotte Mullins explains, "the work is a spectral negative, an after-image of a room that no longer exists, a record that had been bleached of color like an old photograph left out in the light". (Mullins, 23) In this way, the room is both a record of what it was, but also something else entirely.

The form and materiality of *Ghost* both deny and reaffirm its existence as a room. From a distance, the monumentality of the object is staggering, but upon closer inspection, the lightness of the sculpture is revealed. Up close the framing is visible through the plaster, there is no ceiling, and the integrity of the plaster is compromised by

small tearings and perforations, leaving no viewer in doubt that this is merely a façade. Such materiality leads to a split between notions of absence and presence. Moreover, its very method of creation conjures up impressions of mass production, the quotidian. However, it also simultaneously evokes familiarity, even as its reversal defamiliarizes it, displaces it, and transforms the viewer's apprehension of it. (Townsend, 10) *Ghost* works at the level of both the personal and the formal. Its immediate connection, through form, with the idea of 'room' personalizes it: "as an invocation of the room's inhabitant's whose traces had seeped into its walls and been dissipated in its atmosphere". (Townsend, 17) Its materiality both renders the work recognizable and abstract.

Finally, both the method and the subject of Whiteread's *Ghost* render the work as corporeal, with an aspect of the *memento mori* that becomes highly personal. Corporeality is the result of scale, and the remnants of texture and color that imply the room's previous inhabitation. The sculpture itself leaves the human traces of its construction: the module of the panels, and the tripartite banding references the human hand and scale (see Figures 38 and 39). The traces of inhabitation that are visible, along with the emptiness that is conveyed through the room's abstraction convey an impression of death. The work subtly references a mausoleum, and becomes common and individual at the same time. (Townsend, 40-41)

Figure 38. Module

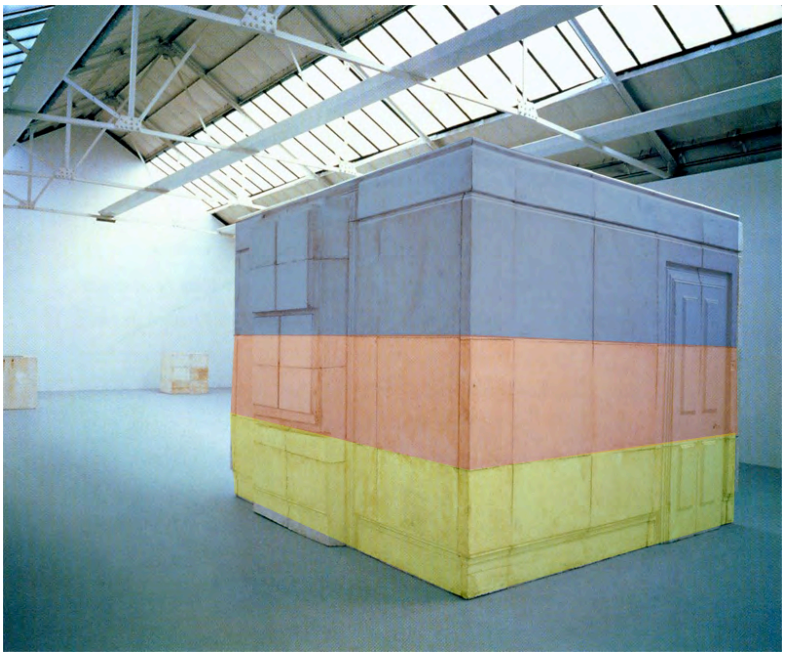

Figure 39. Division

CHAPTER 5: PRECEDENT/PROCESS AND METHOD

At Castelvecchio the builders of olden times had tackled the problem of the formal identity of a series of dwellings and their connection…. I wanted to preserve the originality, the character of every room,….This is the visual logic I wanted to use as a frame of reference [so] I thought it would be more interesting to take the profiles and make a composition out of them. The new joints reveal the structure of the element and the new functions. (Olsberg, 67)

In 1956, Carlo Scarpa began a twenty-year job to transform the Museo di Castelvecchio in Verona, Italy. A fourteenth-century fortification and castle, it had served as a military barracks during the occupation of Napoleon, and been converted to a museum only thirty years before. Scarpa had before him the enormous task of sifting through the historical layers of the site and building, and assessing how to reference the existing structure while reorganizing and transforming the whole via a new intervention. The site Scarpa had consisted of two original facades: an ancient, almost solid wall that opened towards the river, and a more recent, lighter, apertured wall that favored the garden.

The key for Scarpa was to maintain the repetition of the series of divisions of the former castle, while creating a new assemblage of the volumes and organization (see Figure 40).

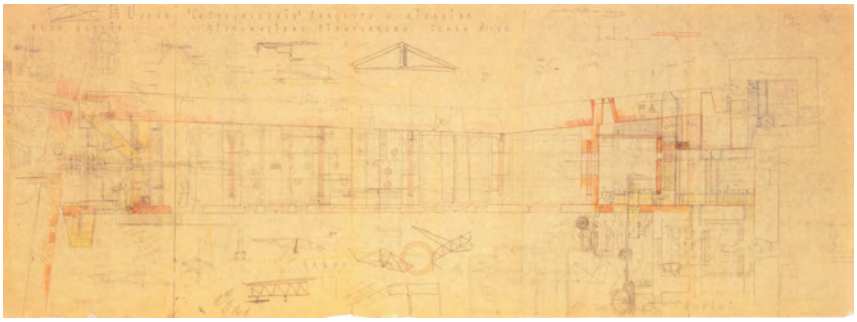

Figure 40. Castelvecchio: Process Drawing

Following the concept of progression was the treatment of the layers themselves: each epoch or moment was seen in its context with the others, creating both a suspension of time and a compression of time, alternately reminding the user of both the enormity of the ages, and the timelessness of the space. George Ranalli describes Scarpa's architectural task as that of the curator: "in deciding how to treat each fragment of the existing structure, he removed some elements, restored others, and interspersed new ones". (Olsberg, 70) Scarpa creates, in the Castelvecchio, a dialog or conversation between the elements, and illuminates the conversation between old and new (see Figure 41).

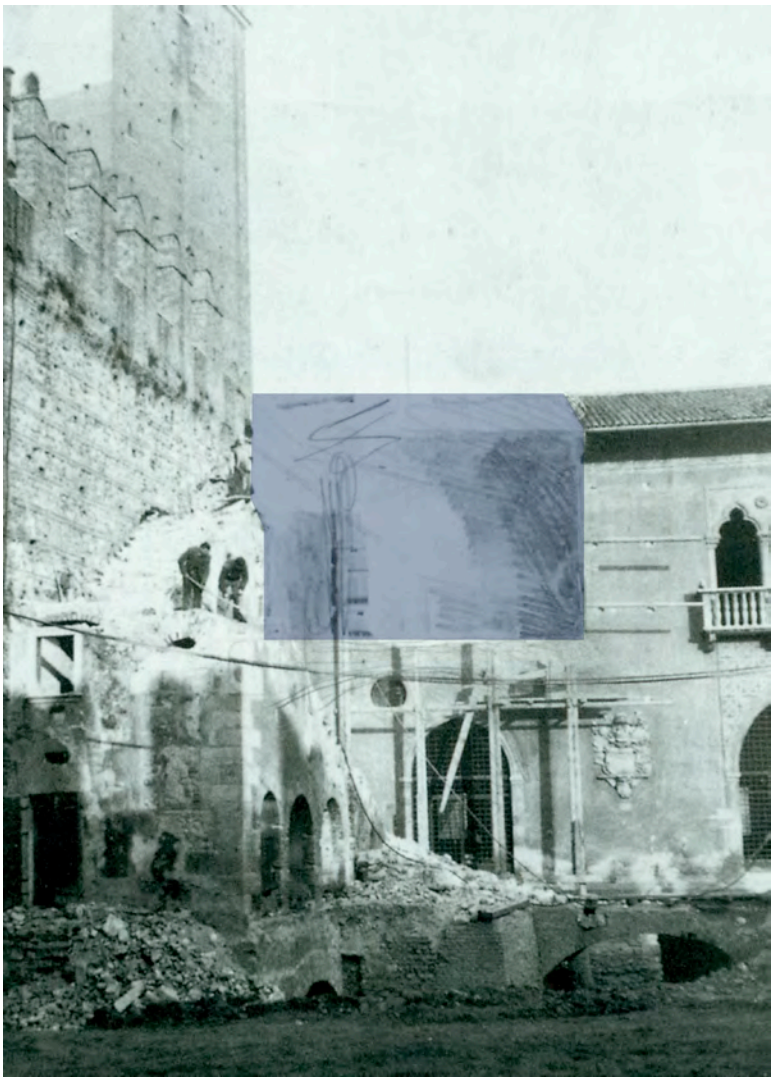

Figure 41. Diagram of Dialog

Scarpa is primarily interested in relationships: relationships between the existing structures, and relationships between structure, program, and the objects of exhibition themselves. In fact, the placement of the equestrian statue of Cangrande della Scala becomes pivotal. This nexus between art object, historical object, and the frame that Scarpa creates for it is ordered by the existing structure, and in turn, orders the organization of the new elements. This selection, of both the object, and its cut, is critical.

Such a method of framing and ordering reveals the archeological layers of the site and structure, and allows the visible strata of time visible within the project. This makes what Ranelli terms an “articulate seam” between many movements in time. (Olsberg, 70) The act of placing the statue where it is, and ordering circulation and organization around it is an act of separation that unites its elements conceptually, rather than throwing them into sharp, dissonant relief (see Figures 42 and 43).

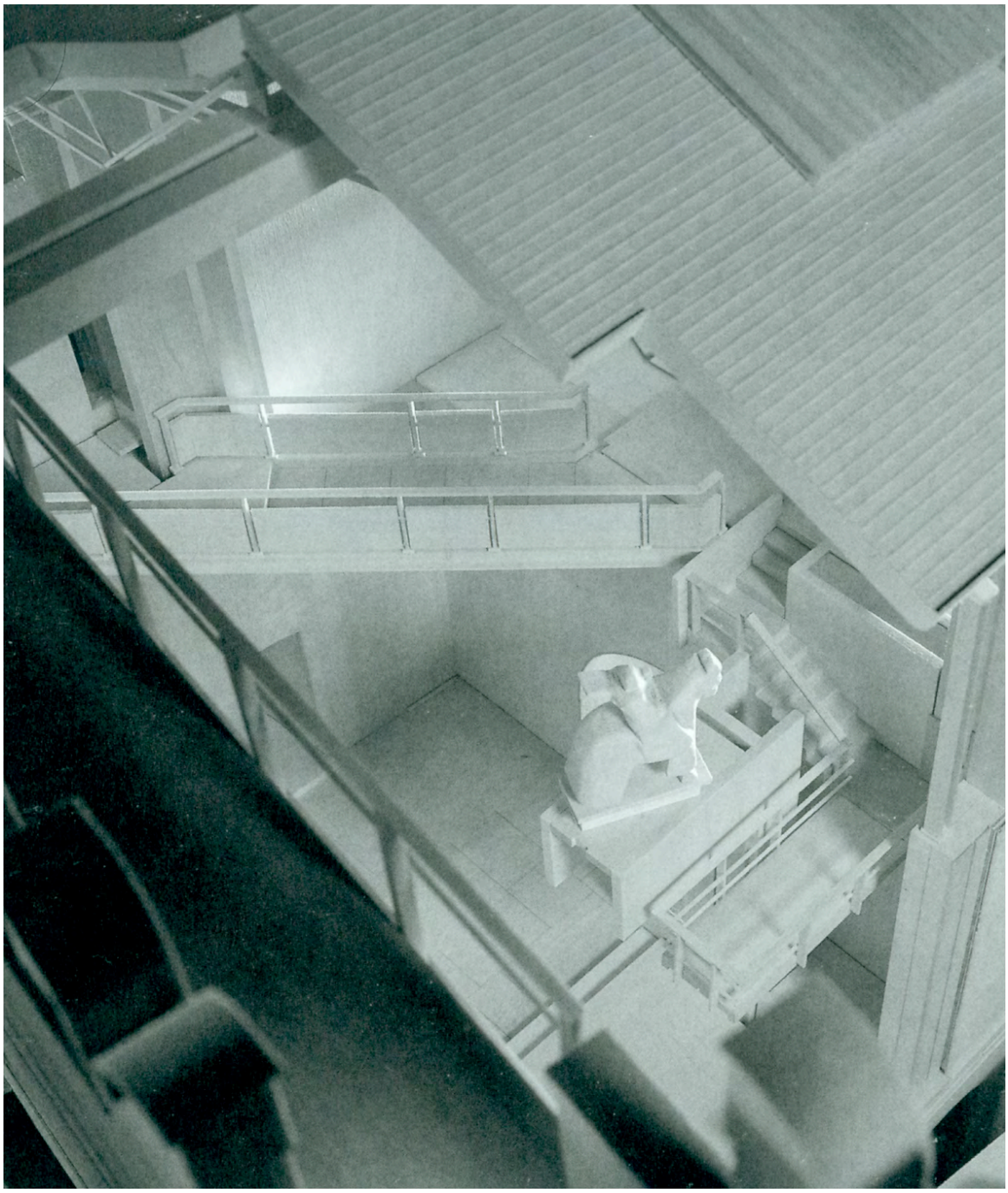

Figure 42. Castelvecchio

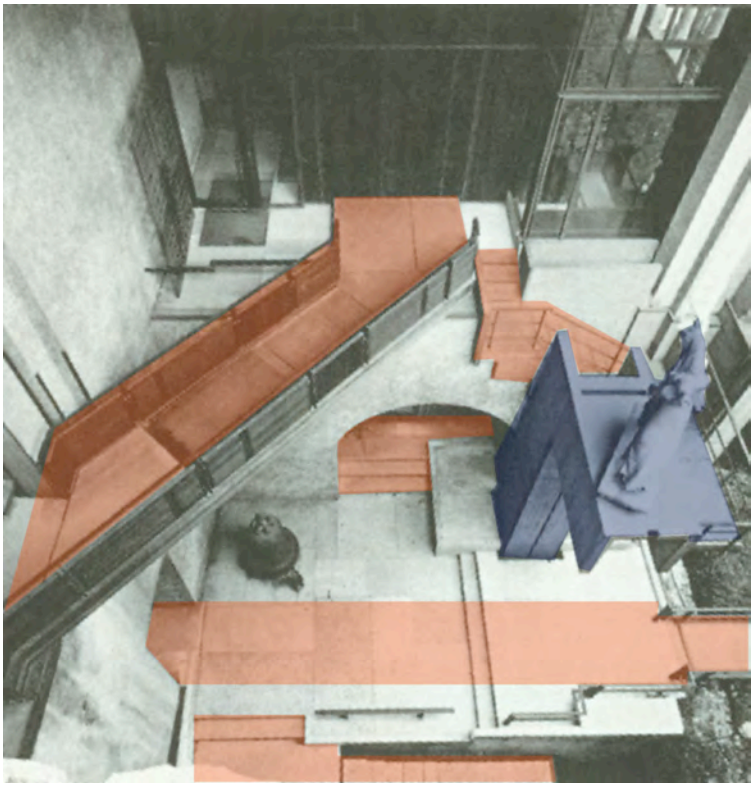

Figure 43. Diagram of Organization and Circulation

The statue's position as a center of movement represents both a method of ordering and a symbolic use of the sculpture. Staircases and bridges, paths and walkways all branch off from the statue's placement, making the art both a literal and figurative bridge. Scarpa also uses this as an opportunity to connect through an ordering of perforations: the original idea was to fray the façade's roof connection. Instead, the perforations are made through the interplay between the original Gothic tracery and Scarpa's insertion of newly framed openings. These openings, made with iron and wood echo the simplicity of materials while their newly framed views stress the relationship between the function of

the old structure alongside the demands of the new exhibition program (see Figures 44 and 45). (Olsberg, 70-76)

Figure 44. Castelvecchio: Fenestration Overlay

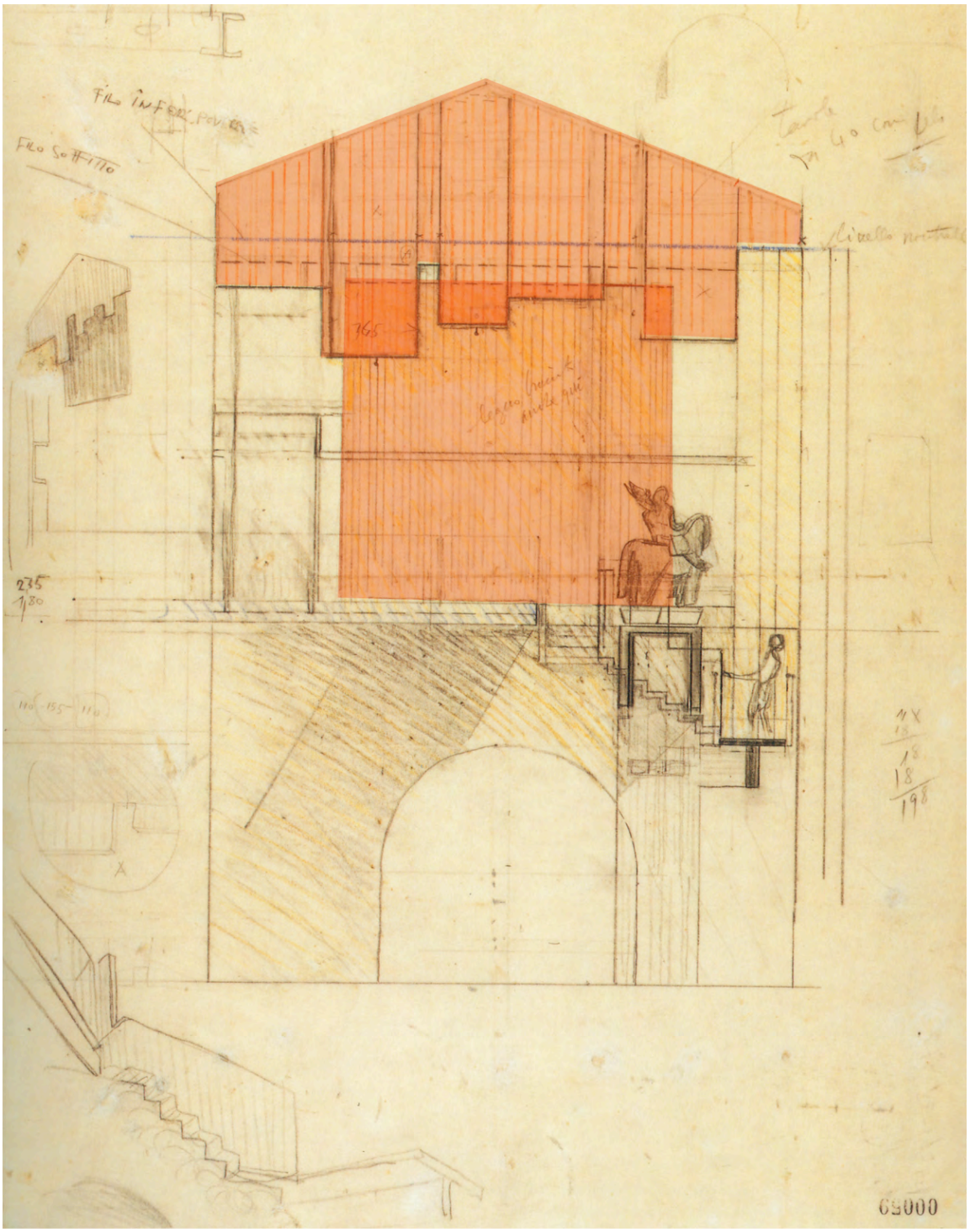

Figure 45. Diagram of Fenestration

Such asymmetry was a response to the artworks that the space would house, thereby completing the visual connection between old and new.

Another intervention of intersection that Scarpa undertakes is with the façade of the Napoleonic barracks. Scarpa adds a sacello, and a tesserae pattern that emphasizes movement and scale in the wall, and moves the entrance by adding a new screening wall that is set back from the existing masonry skin. This skin is composed of Gothic arches, now interrupted by the screen that serves to both let light in while diving the composition. In this way, the facade is transformed: it is reformed through an process of interruption and asymmetry, and conceived as a new whole. In a sense, this movement is symbolic for all of Scarpa's larger undertaking. By redivision, insertion, and assemblage, Scarpa assigns a new meaning to the Castelvecchio (see Figure 46).

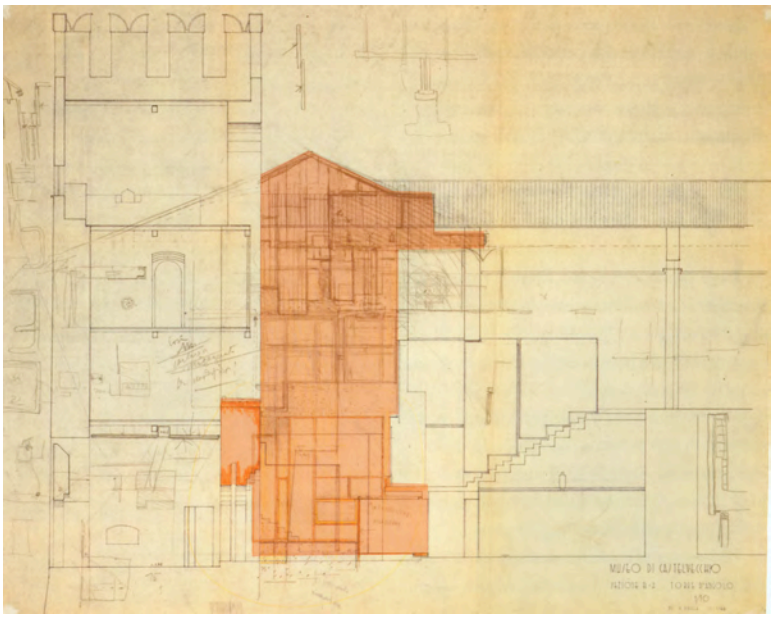

Figure 46. Diagram of Insertion

Sverre Fehn, in his project for the Hamar Bispegard Museum in Hamar, Norway faced a similar task of preservation and reinvention. A fourteenth-century bishop's manor house, the idea was to create a museum that respected the original site, ruins, and artifacts, while also becoming a museum for folk art, medieval pieces, and traveling exhibitions. Completed in 1970, Fehn's work is a project about the trajectory of history, the ontology of objects, and the monumental presence of the earth. Per Olaf Fjeld explains that Fehn's design "gives the earth back to the visitor". (Fjeld, 133) The existing structure consisted of a medieval fortress from the fourteenth century that was the lower section and foundation for a nineteenth century farmhouse. Fehn treated these ruins as a both a solid enclosure and an ephemeral sheath that cradled an enormous concrete ramp, terraces, and a sloping auditorium (see Figures 47 and 48).

Figure 47. Hamar Bispegard Museum: Exterior View

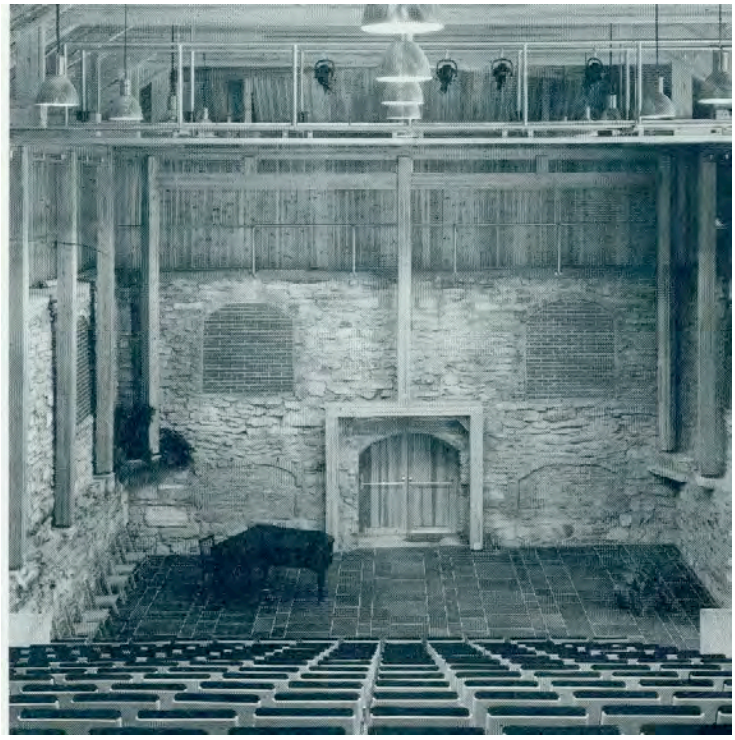

Figure 48. Hamar Bispegard Museum: Auditorium

These pieces, which sit atop and within the monumental Medieval remains, run like a river through the structure, and emphasize the old though the movement of the new (see Figure 49). The force of the addition is mainly felt through the roof, which is held up by the past, symbolically, and also through the contrasting movement of the circulation that snakes through the museum, and even perforates it, seamlessly joining the exterior within the courtyard. (Norberg-Schulz, 129)

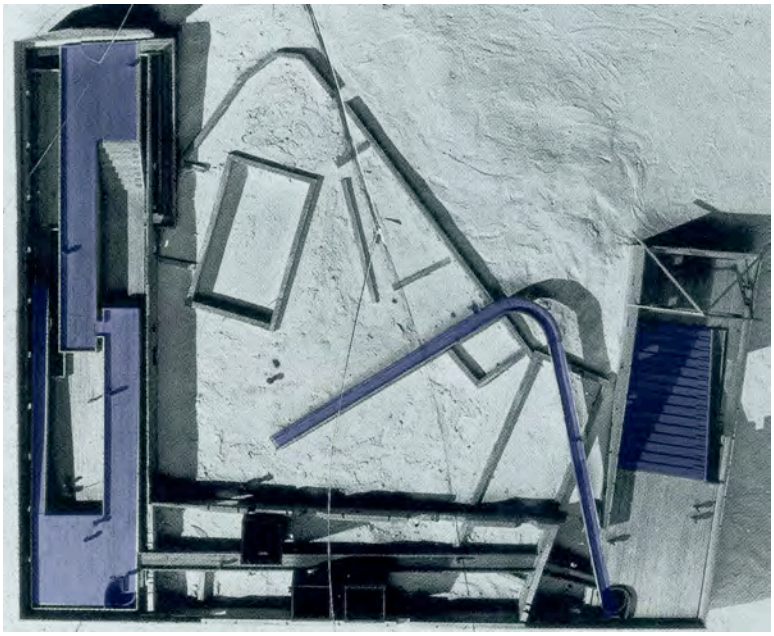

Figure 49. Diagram of New Elements

Unlike Scarpa, whose Castelvecchio is a new composition of old with new, Fehn's work reads as two parts: a passive, historical underpinning that supports the new pieces. In such an arrangement, the trajectory of history is immediately understood as an integral

part of the design: the sense of the past serves as the foundation for the present (see Figures 50-52).

Figure 50. Urban Palimpsest: Materiality

Figure 51. Urban Palimpsest: Spatial Division

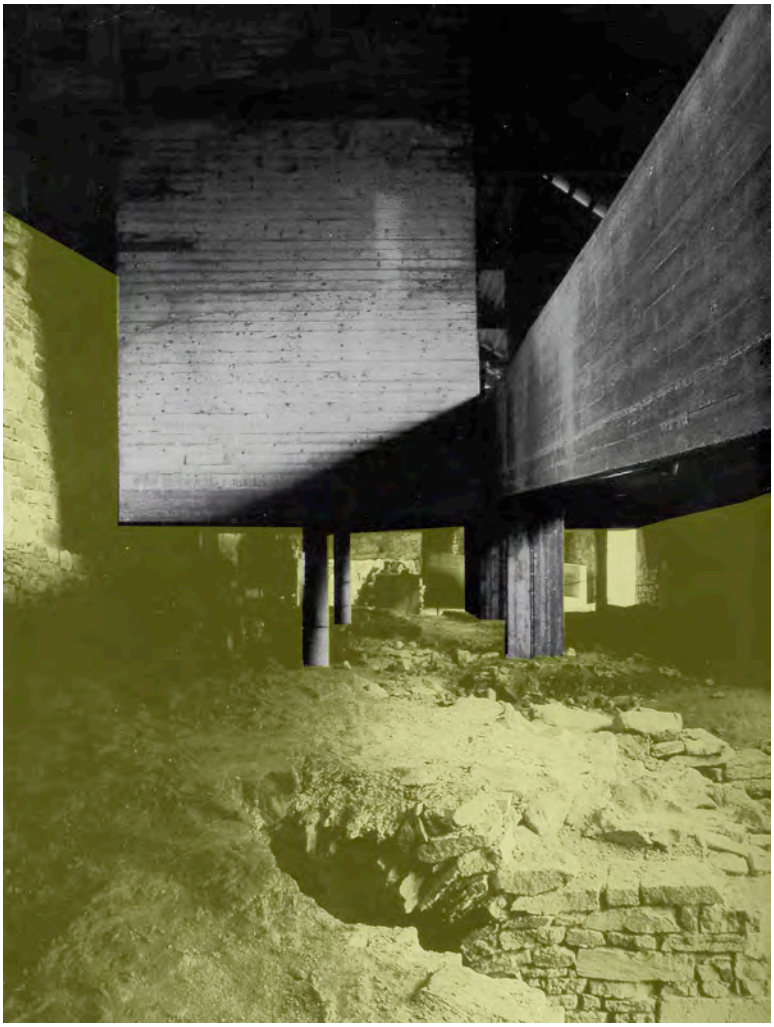

Figure 52. Urban Palimpsest: Insertion

In addition, a primary element is the dialog between inside and outside. The monumentality of the fortress walls stresses the presence of the earth, while the perforations in the roof mimic those that are indicative of the deterioration. The materiality stresses the difference between exterior and interior, and the enclosure

symbolized by the very earth itself, while the ordering and light emphasizes the continuity between the two elements. (Fjeld, 129-140)

Trajectory and time are also important elements of sequence for Fehn's design. The circulation unfolds, and is linked by a series of terraces and resting places (see Figure 53).

Figure 53. Hamar Bispegard Museum: Circulation/Punctuation

Such punctuations underscore that a progression, or a narrative, is being followed. The sequence is echoed in the exhibit layouts themselves, which tell a story, through order, as well. The ways the exhibits are designed demonstrate the autonomy that Fehn obviously attribute to them. Each object has its own ontology, which while it may fit within the

larger narrative of the fortress itself, is also a tiny, complete universe of its own. It is through this interplay, between the trajectory of the ruins and the story of the objects that the strength of each element is felt. Fehn treats each division as an element of continuity, as a unifier. Fjeld explains that “the new structure comes from above. The earth is invited to rise to the surface. The points where they touch are a recognition of trust.” (Fjeld, 133) Fehn allows the layers of history to float, rather than to interlock or penetrate each other. This condition symbolizes the process of thought and memory: a central trail or feature is detected and followed, but undercurrents, symbolized by recessed reveals of the Medieval foundations, the irregularity of the lines of connection, and the way the barn punches back into the open (see Figure 54), are also observed and understood, albeit somewhat hazily.

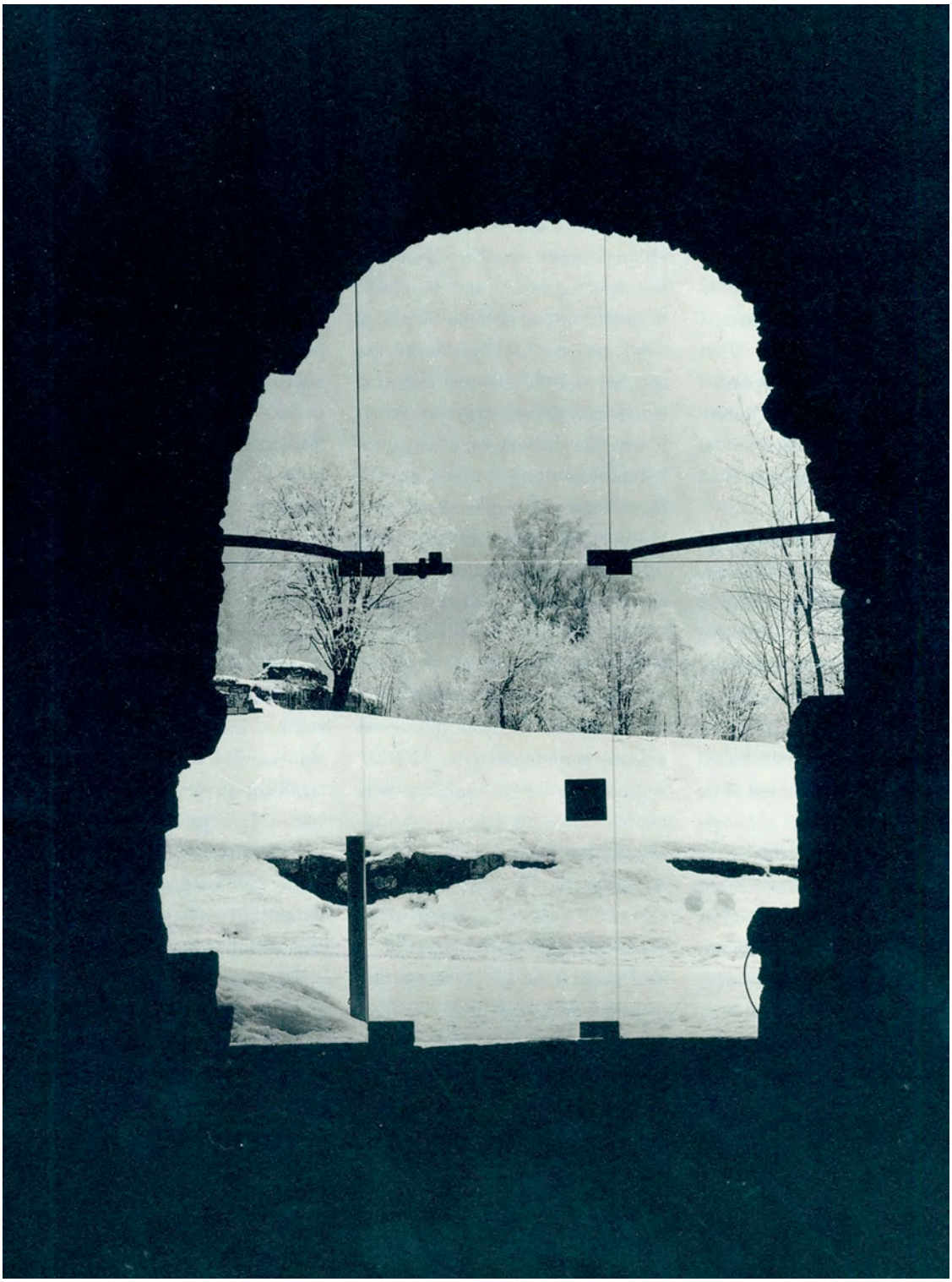

Figure 54. Hamar Bispegard Museum: Entrance

CHAPTER 6:PRECEDENT/ SCOPE, AND APPROACH

Eric Owen Moss defines his work as a construction of the tension between object and “pre/post object”. (Collins, 9) Moss is concerned with movement and motion: he sees history as a dynamic continuum, a narrative that is constantly in a state of telling or unfolding. His aim is to illustrate that motion, and reveal what lies between typology, cognizance, and the recognition that history is a dynamic process, rather than an unmoving monolith. It is with this in mind that Moss approaches projects such as the plan for Culver City and 3535 Hayden.

Starting in 1988, the plan for Culver City has been an evolving one, a master plan that is premised on the idea of constant change. Consequently, the plan is one less of specifics and more of one that concentrates on “changing notions of purpose” and fluidity. The three (large) sites include forty-three buildings in the manufacturing and industrial center of downtown. The sites are largely deteriorated, and are symbolic of the industrial past of Culver City and Los Angeles, which has a distinct history of production that locates it roots within the Second World War and the military-industrial complex. Projects are never defined as single sites or buildings, but rather as large-scale decisions and strategies. Moss’ intent is not to raze buildings and clear sites, but rather to selectively insert, renovate, and reconstitute. Moss asserts that this discriminate process of addition and subtraction helps to maintain the character of the area. (Collins, 11-13)

3535 Hayden (Culver City, 1994-1997) was a series of manufacturing and warehousing structures, built sometime around the 1930s (see Figure 55).

Figure 55. Previous Building at 3535 Hayden

Moss removes the existing buildings except for a single brick wall and a system of double bowstring wooden trusses. Much like Carlo Scarpa in his search for the original order, Moss maintains this structural repetition while constructing his design over it, sheathing the past with the present. As Moss explains, “the old locates the new”. (Collins, 124) Moss uses steel, modeled on the series of the truss to structure his new building, and allows the original trussing system to puncture the new design at regular intervals, thus showing the bones of the old through the new skin of the building (see Figure 56).

Figure 56. 3535 Hayden

A new, floating design rides on top of and within the old structure, and creates a bridge between the old (the brick wall, the trusses) and the new (see Figure 57).

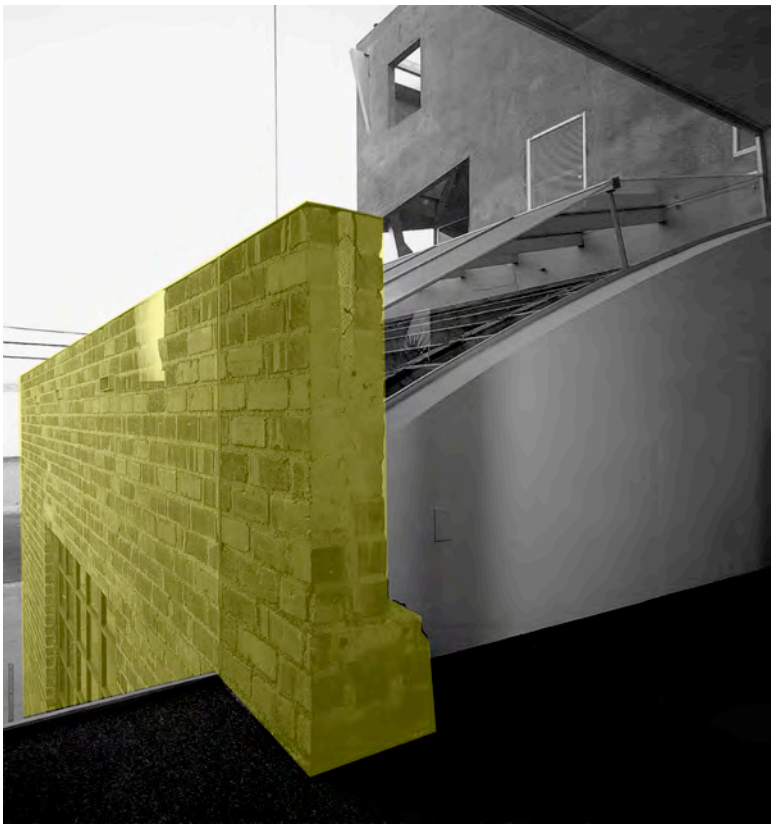

Figure 57. Old Puncturing New

The concept engulfs the existing ruins, and by doing so creates a bridge from nowhere to anywhere: here is where Moss' techniques of narrative are unique. Moss unites the past with the present by representing them as engulfed by the same sea of placelessness (see Figure 58).

Figure 58. Dialog Between Structural Elements

By designing a place that is situated within a space of anonymity, Moss emphasizes the special qualities of both the history of the site and the demands of contemporary Culver City. This method of manipulation corresponds to Surrealist ideas of representation: Moss illustrates the essence of place and site by surrounding it with a faceless exterior, thereby throwing the remnants of the old that punctuate into sharp relief. The interior is where Moss unites the elements of past and present. The lobby, a central interior space is

pulled askew, revealing an uncut truss that marks the entrance. In elevation, another truss, bolstered by the new steel structural system, exposes the combination of the elements, thereby creating a visual framing of a new space, created from the dissonant elements of temporality. (Collins, 124) It is through methods such as these that Moss recreates a narrative of progression, within the interiors of his spaces. This tension, between exterior and interior simultaneously defines each element, and then reconstitutes and combines them, making their relationship plain only through the experience of the whole. Moss's approach is twofold, but is really the same dual approach on two scales: the scale of the city, and the specific building mirror each other.

In contrast, Julie Bargmann, of D.I.R.T. (Design Investigations Reclaiming Terrain Studio) is one of seamless integration, that blends temporal elements into a wholly new space, one that is premised on the past but is remediation of it that becomes an experience that entirely new. In her project "Testing the Waters" Bargmann transforms a forming mining site in Vintondale, Pennsylvania, into a park that both rescues the site (environmentally) and converts it to a park that commemorates the site's unique past while educating the public about contemporary techniques of brownfield remediation (see Figure 59). (Haag, 73-75)

Figure 59. Transformation of Acid Mine Drainage

Bargmann's project celebrates the treatment and cleansing of acid mine drainage in Appalachia. The landscape's mining history is recalled through native plantings in the form of former mine building footprints, slabs that symbolize coke ovens, and a sequence that recalls the process of extraction. Her 'litmus garden', a garden that runs alongside her filtration sequence, is colored in parallel to the shifting colors of the water. As acidic water moves through the sequential ponds and wetlands, its decreasing acidity is reflected in its changing color—from red to orange, to green to blue (see Figures 60 and 61).

Figure 60. Testing the Waters

Figure 61. Sequence Diagram, Litmus Garden

This innovation both treats and cleans the water, but also tells the story of its own process, and dramatizes the water treatment itself. Bargmann creates an ontology of object within the site: the site, and its intervention, is treated as the narrative of itself through time. (Haag, 73)

The concept of teaching through visual symbolism is the major force behind Bargmann's remediation project. Much of the history of the site is preserved though the techniques and sequences of the regeneration itself. This project instructs through demonstration; via such a process, much is learned about the site, and the larger concept of culture, at the same time. Furthermore, remediation through such means not only results in real stewardship of a brownfield site, but also creates a new temporal dimension on the site: the future.

In creating a sequence as solution, Julie Bargmann accomplishes much more than a singular transformation. Bargmann produces a progression, and a narrative, that says as much about the past as it does the present and future. In addition her large-scale technique of symbolism (the litmus garden, the sequencing, and even her methods of representation on the site) allows for deep meaning to be transmitted via subtle techniques of intervention. Such use of the site makes the space a crucial one for the center of Vintondale.

Julie Bargmann's a strategy is similar to Eric Owen Moss', in that each deal with both the scale of the city and the scale of the site, but Bargmann's is more integrated. While Moss tends to define through difference, Julie Bargmann creates a fabric that interlocks with its edges, and provides a feeling of continuity. Both architects are

concerned with surface as a defining feature, but while Moss creates ambiguity with his treatments, Bargmann makes connections with her surfaces. Bargmann alleviates pollution, and mitigates the existence of a “gangrenous pus stream of mine wastes”, while proposing a solution that represents a healing of a wound within the earth. (Haag, 73) Such symbolism cannot be achieved without referencing the history of the site, and so the story conveyed is one of a cycle of regeneration and amelioration.

CHAPTER 7: PROCESS, LANDSCAPE, AND DESIGN

The process for the design began with an exercise of collage. By collaging possible uses right on the existing rubble, I was able to begin envisioning the realities of the design. The collages address both the foundations of the warehouses, the actual footprint of the building, and the location as well (refer to Figures 62-72).

Figure 62 . Photocollage of McClung Warehouses

Figure 63. Photocollage of Extant Ruins

Figure 64. Photocollage of Warehouse With Gallery Underlaid

Figure 65. Photocollage of New Viaduct Use

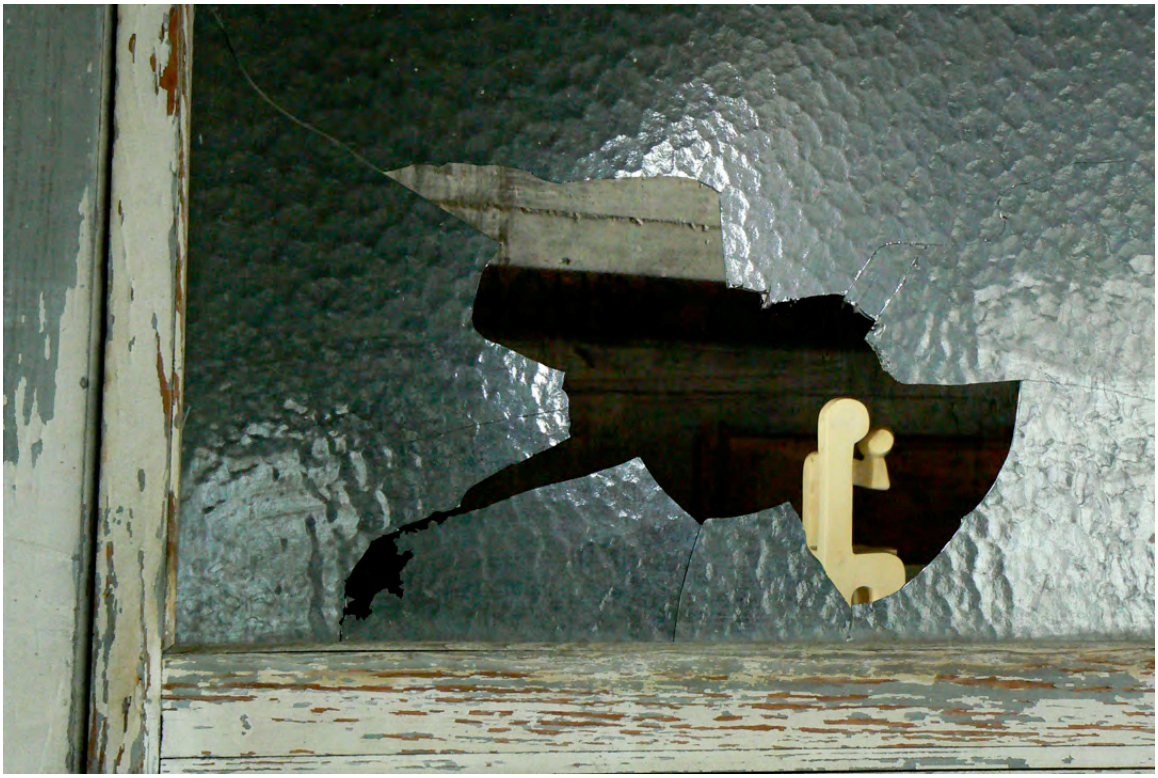

Figure 66. Photocollage Through Extant Window Into Proposed Studio Space

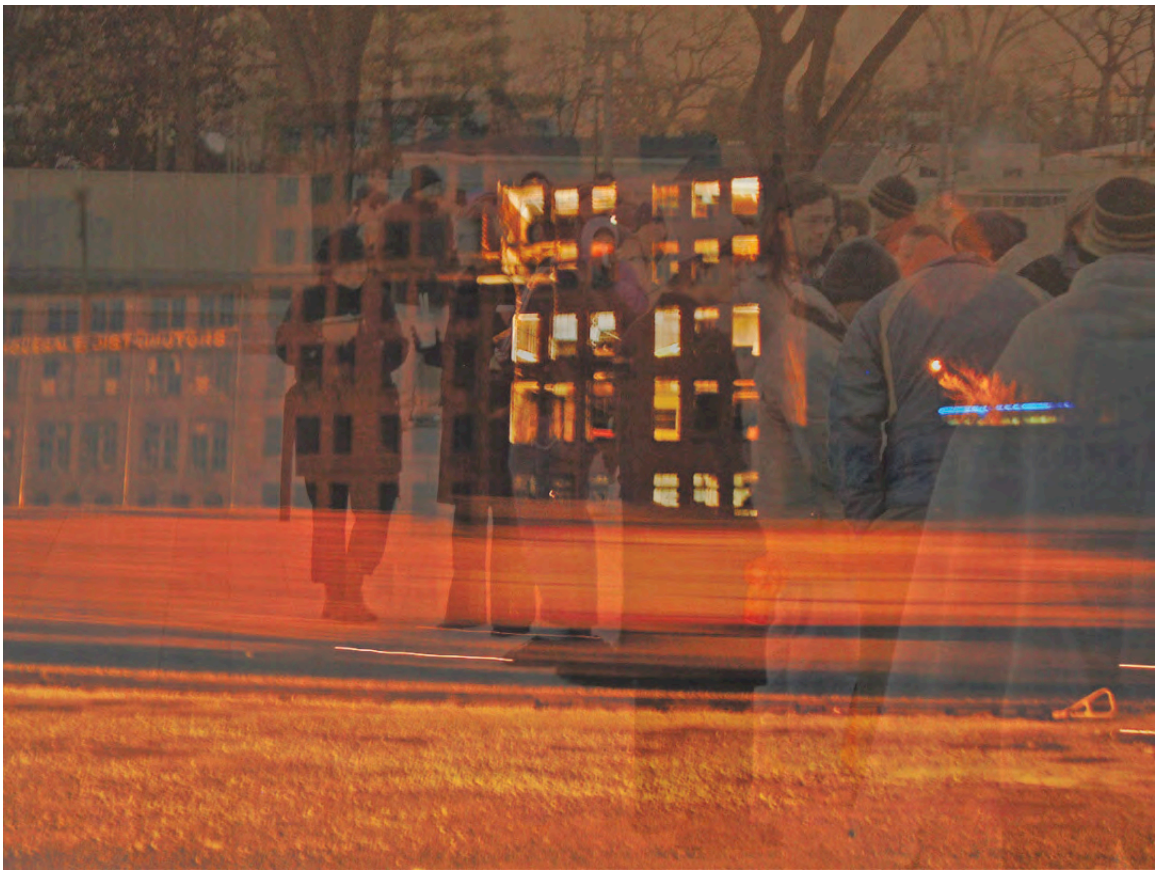

Figure 67. Photocollage Of North Elevation

Figure 68. Photocollage of Exterior Gallery

Figure 69. New Usage Collaged Onto Extant Remains

Figure 70. New Usage Collaged Onto Extant Remains

Figure 71. Photocollaged View Through Elevator Shaft

Figure 72. Photocollage of New North Elevation

The residual spaces of the site: the spaces under the viaduct, the bridges themselves, the railroad tracks, and the landscape itself all became features of the design. The initial collages center primarily around the fate of the building while later ones, mostly of installations, focus on the site and landscape (refer to Figures 73-76).

Figure 73. Sectional Collage of Viaduct: Proposed Light Installations

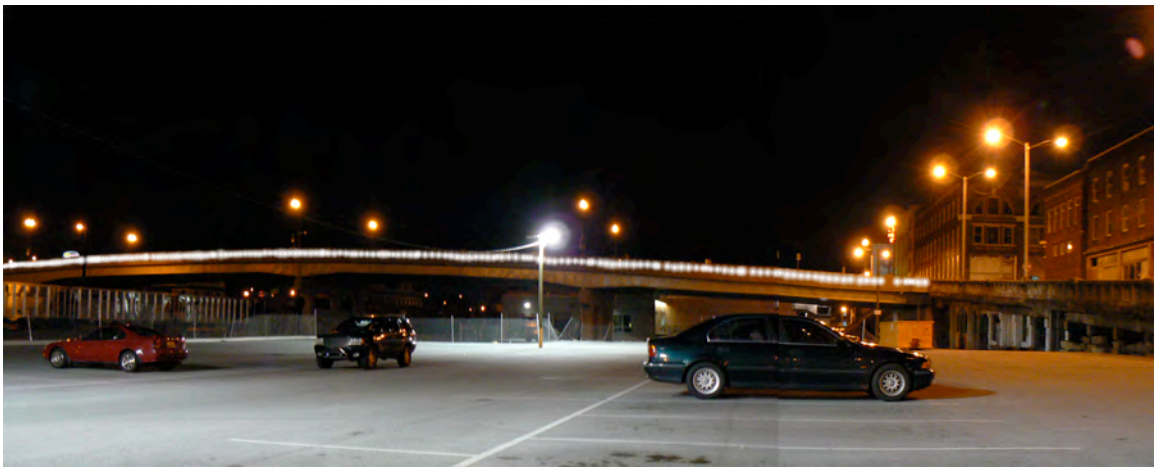

Figure 74. Collage of Gay Street Light Installation, View From Site

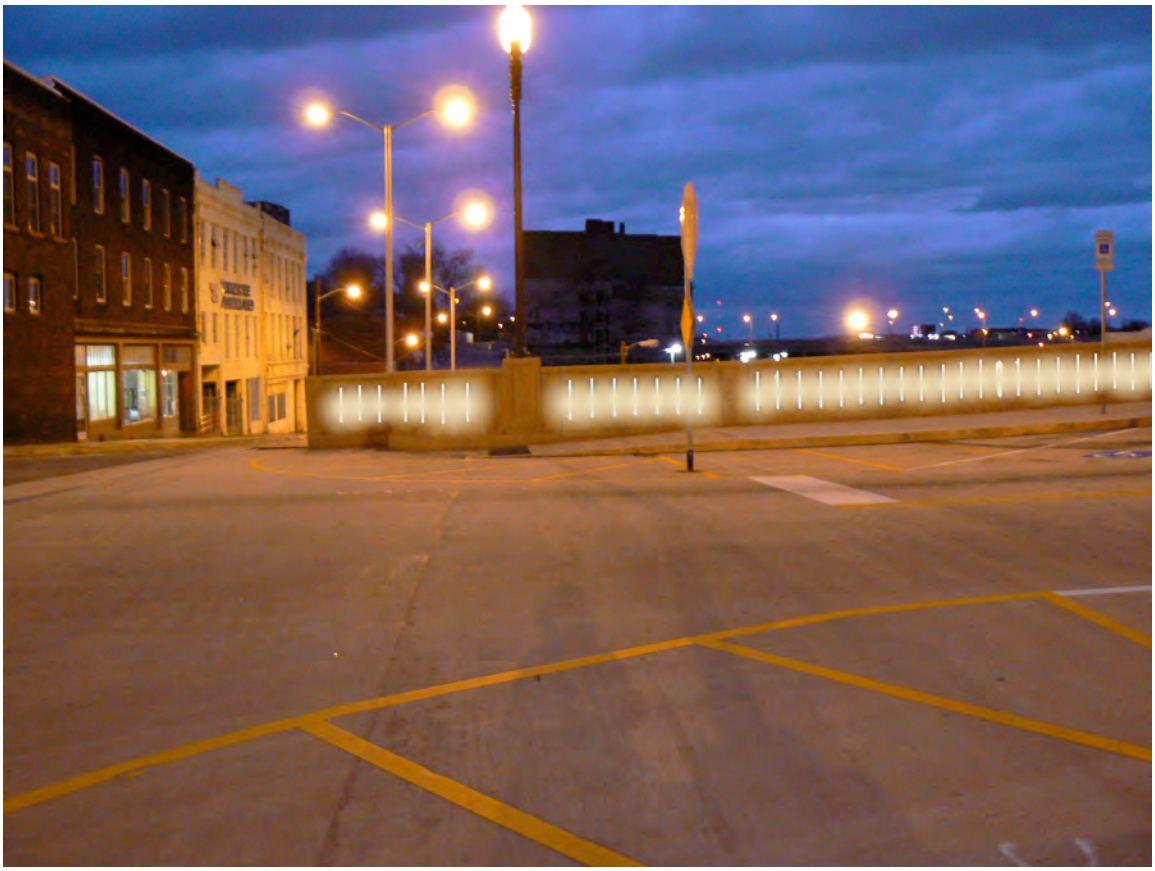

Figure 75. Collage of Gay Street Light Installation, View From Bridge

Figure 76. Collage of Gay Street Light Installation, View From Below Bridge

While the process of collage was invaluable for creating use, parti, and visualization, the element of landscape became the key for the design. The use of collage, and the designing of the landscape, were the central methods of defamiliarization and investigation for the site. While past studies of the techniques of practitioners such as Joseph Cornell, Gordon Matta-Clark, and Rachel Whitread certainly influenced the design by the use of collage, and explorations of space, the biggest influence were repeated visits to the site and the considerations, both practical and aesthetic, of the landscape.

The landscape was an abandoned brownfield. I needed to design a landscape that cleaned up the pollution that was left from both the site's past of industrial use and the toxins deposited as a result of the fire. The design also needed to either derive from the design of the buildings themselves or conversely, the landscape would inform the rest of the project. The design of the landscape guided the intervention that took place on the McClung foundations, and acted as both a remediating element and one that expressed the temporal experience of the site.

The landscape design was conceived, practically, as a device for phytoremediation. Phytoremediation is the term used to describe environmental cleanup through the use of plants. The plants take up heavy metal from the soil through their roots (phytoextraction), and render them inert (phytotransformation). The plants were chosen according to three criteria: what metals they removed most effectively, what was indigenous, or at least what had already been introduced into the southeastern planting zone, and what grew rapidly. Considerations of seasonal growth were also important; I

chose plants that would grow at different times so that the site would take on specific seasonal characteristics (see Plate 1, for the plant materials board, in Appendix D).

I used the landscape as a way to create zone of access, as well as zones of differing phases of remediation. The first zone, comprised of velvet bentgrass, was the only zone that allowed foot traffic. The other zones, a planting zone that fed into a network of ponds created two zones that could only be accessed via an aluminum catwalk ramp that not only expressed what the landscape was doing, or performing, but also as a result, referenced its industrial past.

The landscape divisions influenced the McClung design divisions, as well. The path of the pond is pulled through the building, by the presence of a diagonal wall that partitions the outdoor common space, and creates landscapes within the built project. One space is an entirely exterior gallery that is punctuated by empty glass installation enclosures. The views in this area are heavily controlled, and create a symbolic reference to temporal experience: the landscape is the only view, the changes in the environment are the only phenomenon. These enclosures, present in other aspects of the design as installation spaces for each studio, are kept empty in order to reference the site, building, and environment. They set up the experience, and control the access, path, and the views (see Figures 77-95).

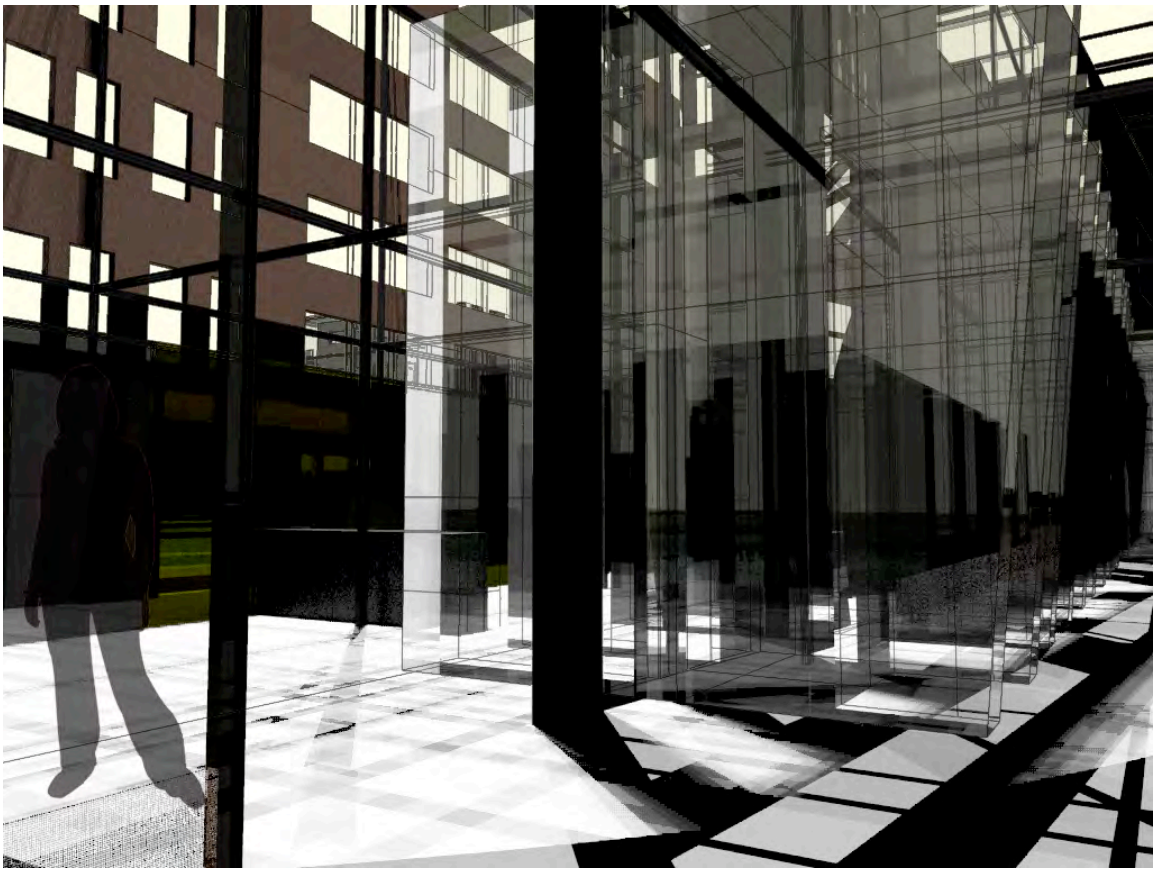

Figure 77. Perspective From Ramp Entrance, Looking at Both Exterior Galleries

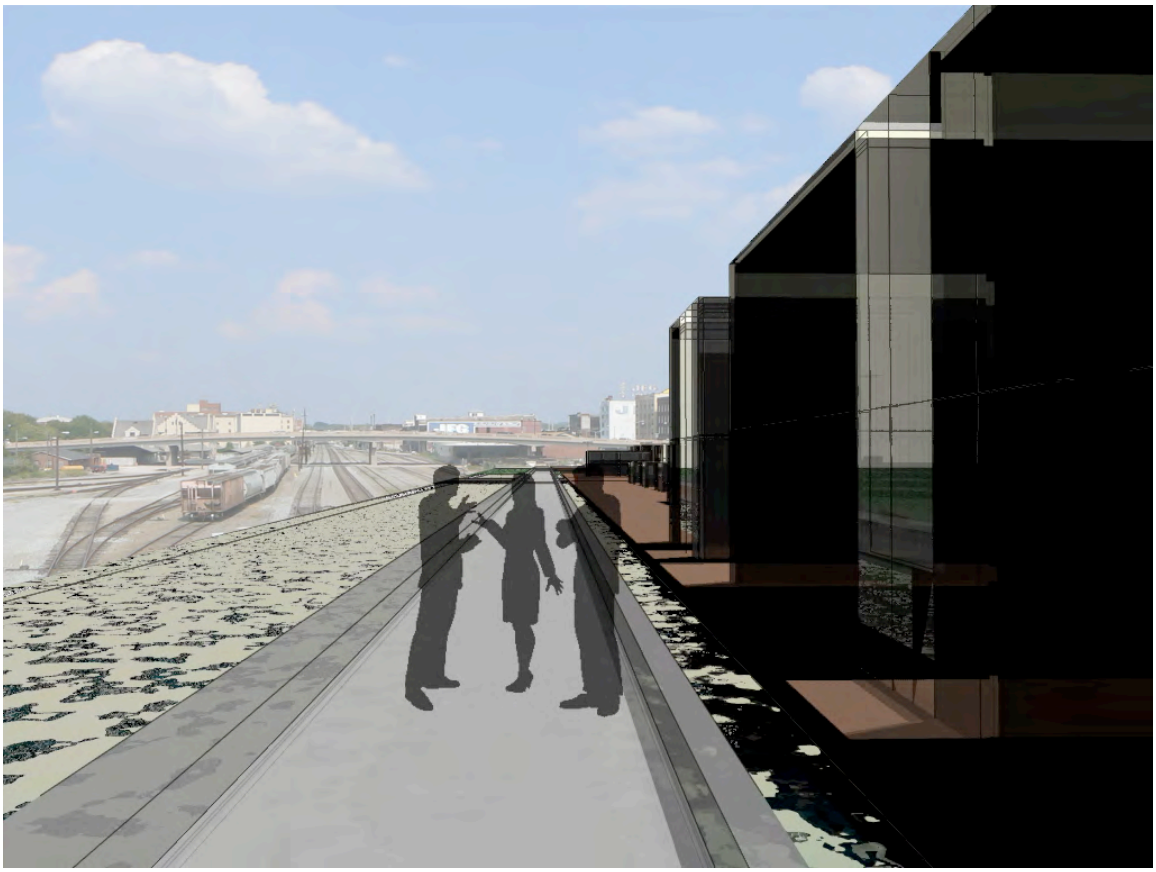

Figure 78. Perspective From Ramp, Looking Towards Old City

Figure 79. Darkened View Through Installation Spaces

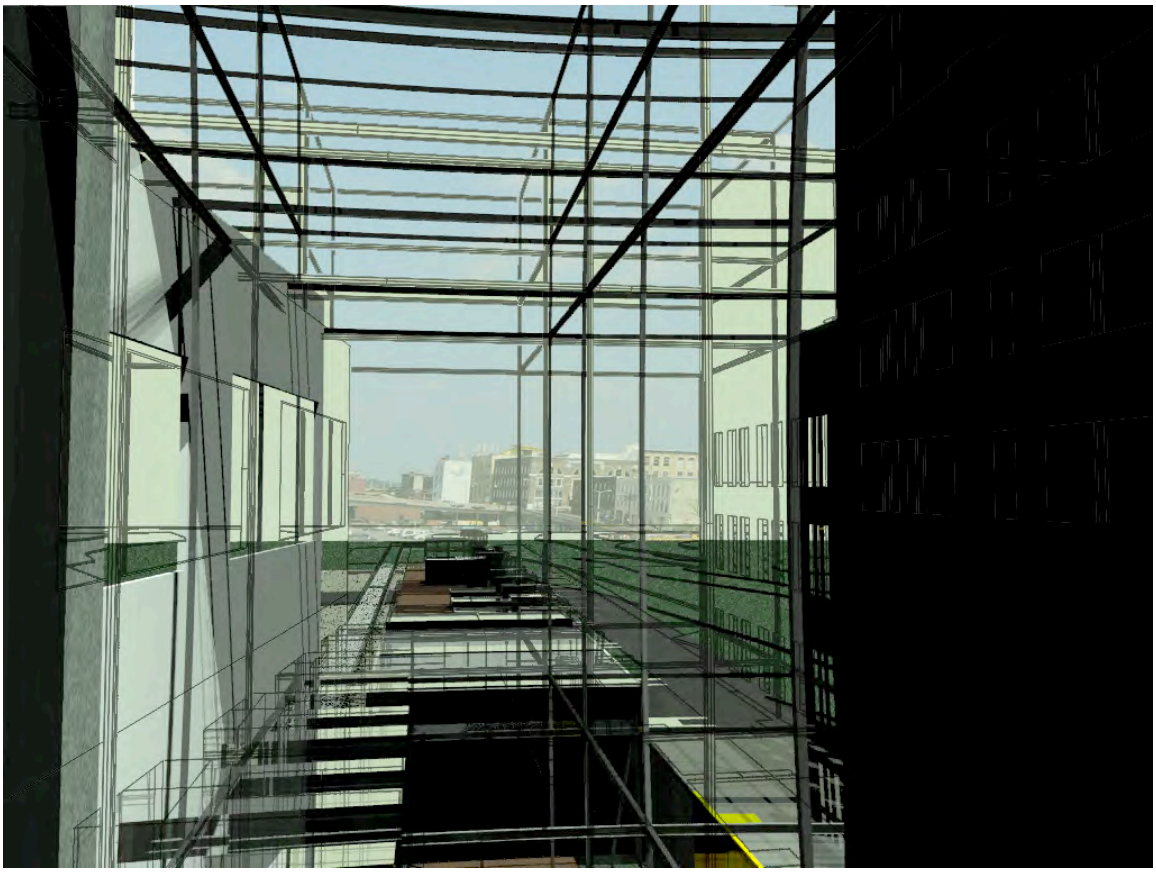

Figure 80. View Through Elevator, Second Floor, Towards Gay Street

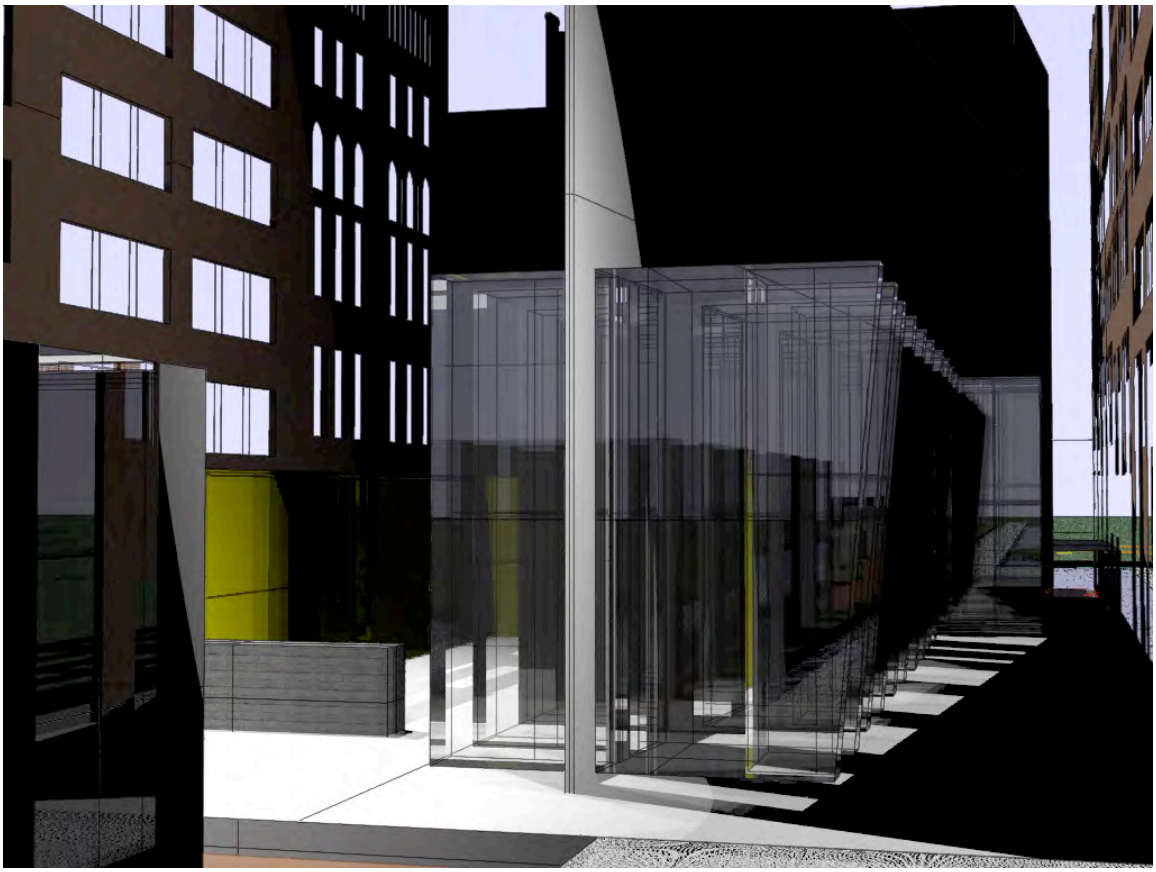

Figure 81. View From Ramp, At Outdoor Spaces of McClung Design

Figure 82. View From Residential Courtyard, At Gallery

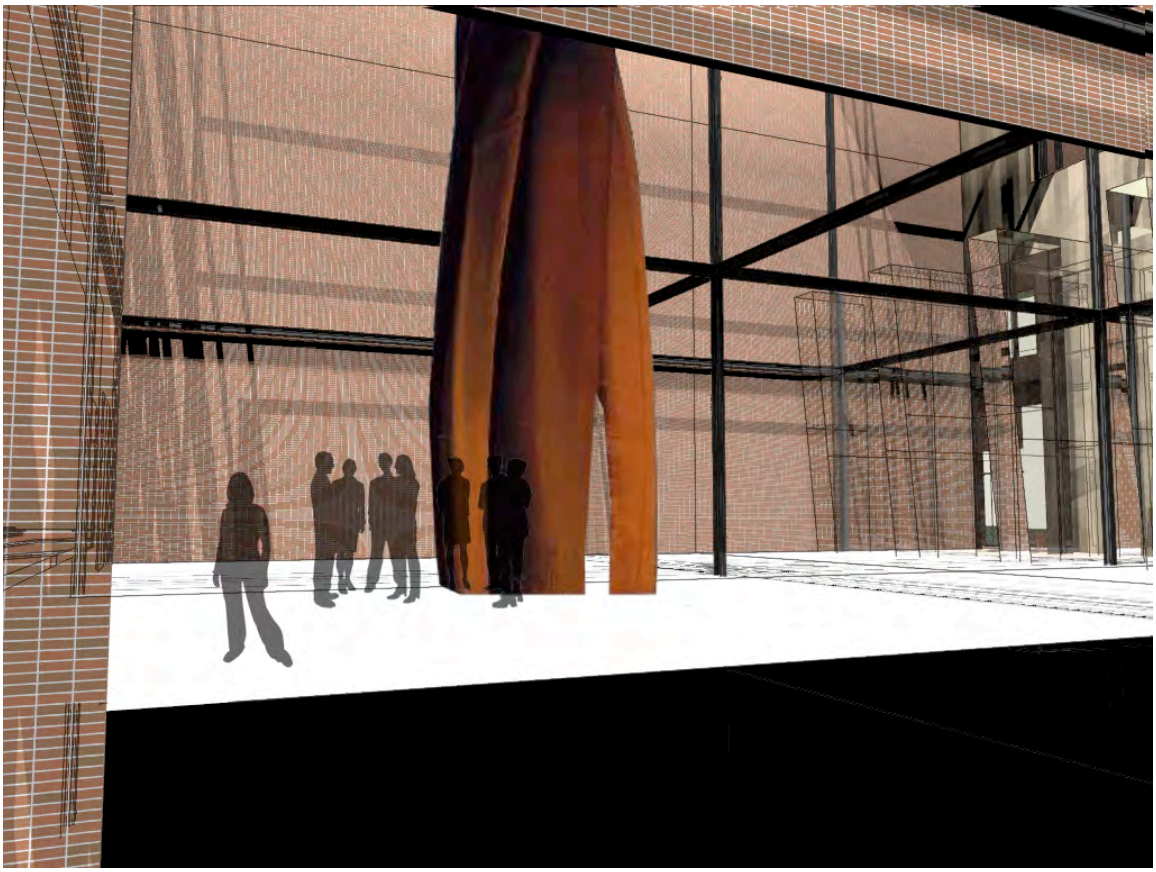

Figure 83. Within First Floor Gallery Space (Interior)

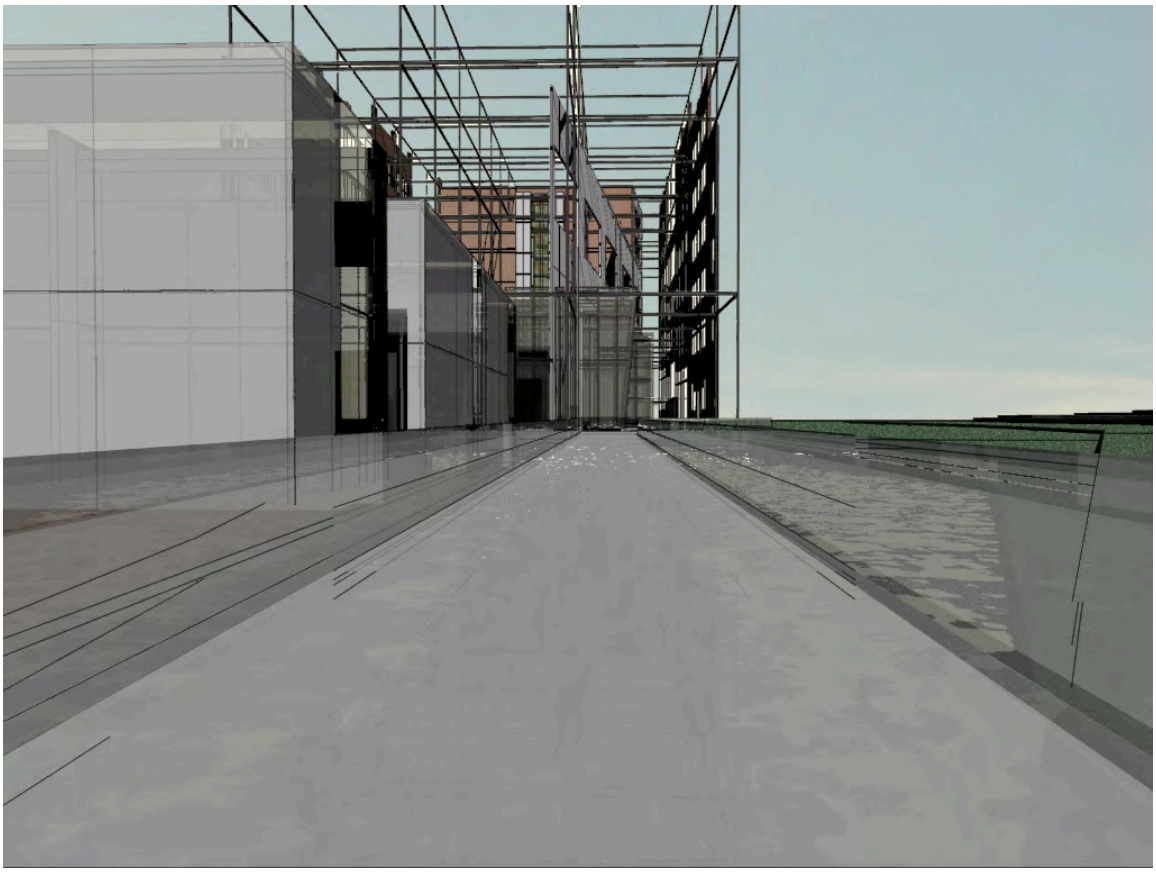

Figure 84. View From Ramp, Midway Through Studio Sequence

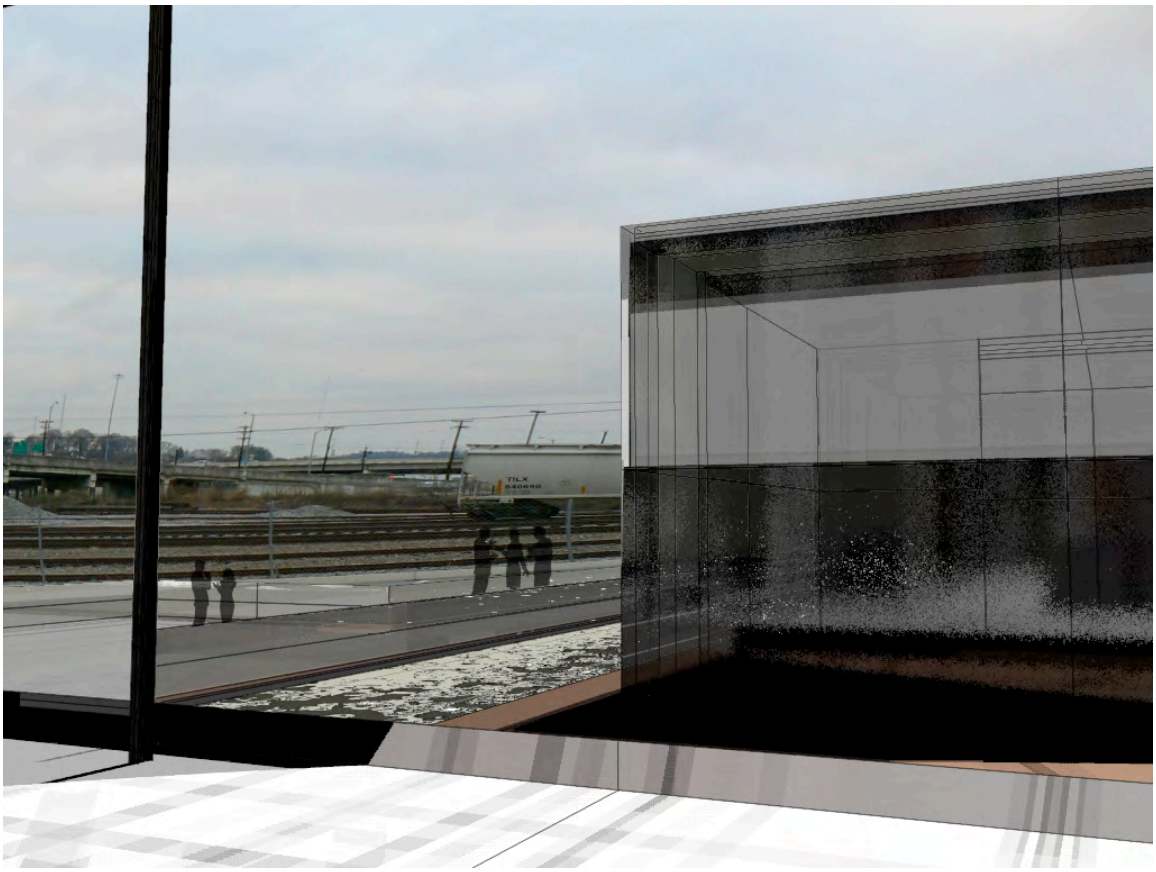

Figure 85. View From Lobby, Looking at Ramp and Studio

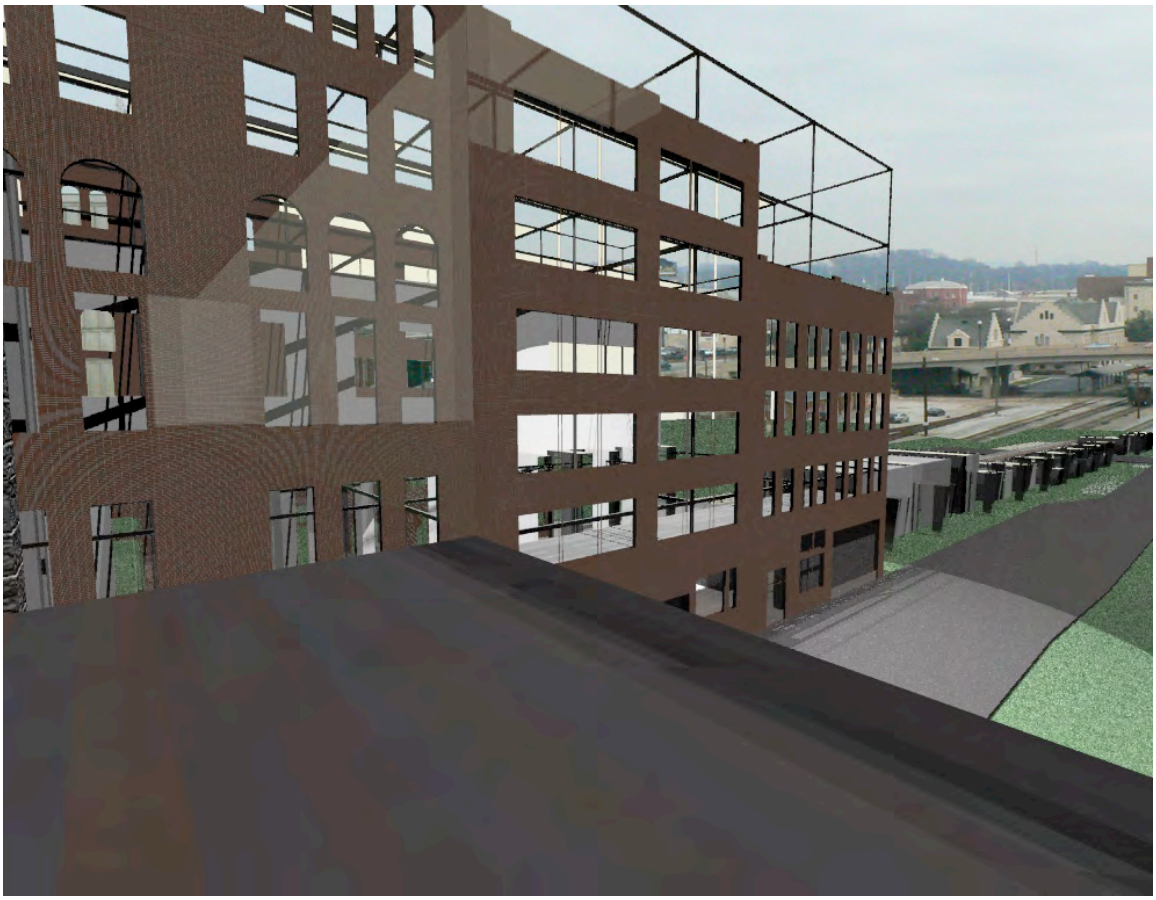

Figure 86. View From Residential Roof Terrace

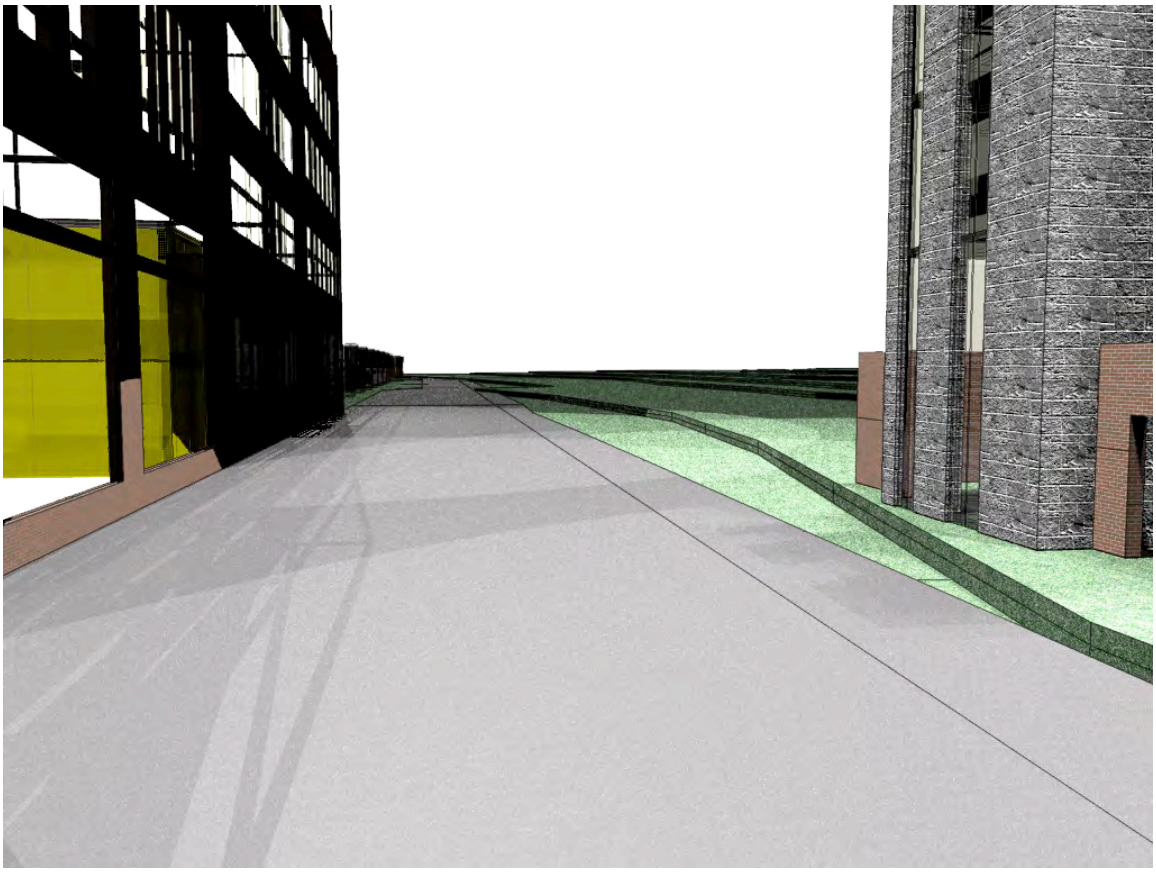

Figure 87. Between the Two Elements, on Jackson Avenue

Figure 88. Second Story Gallery, Exhibition Space

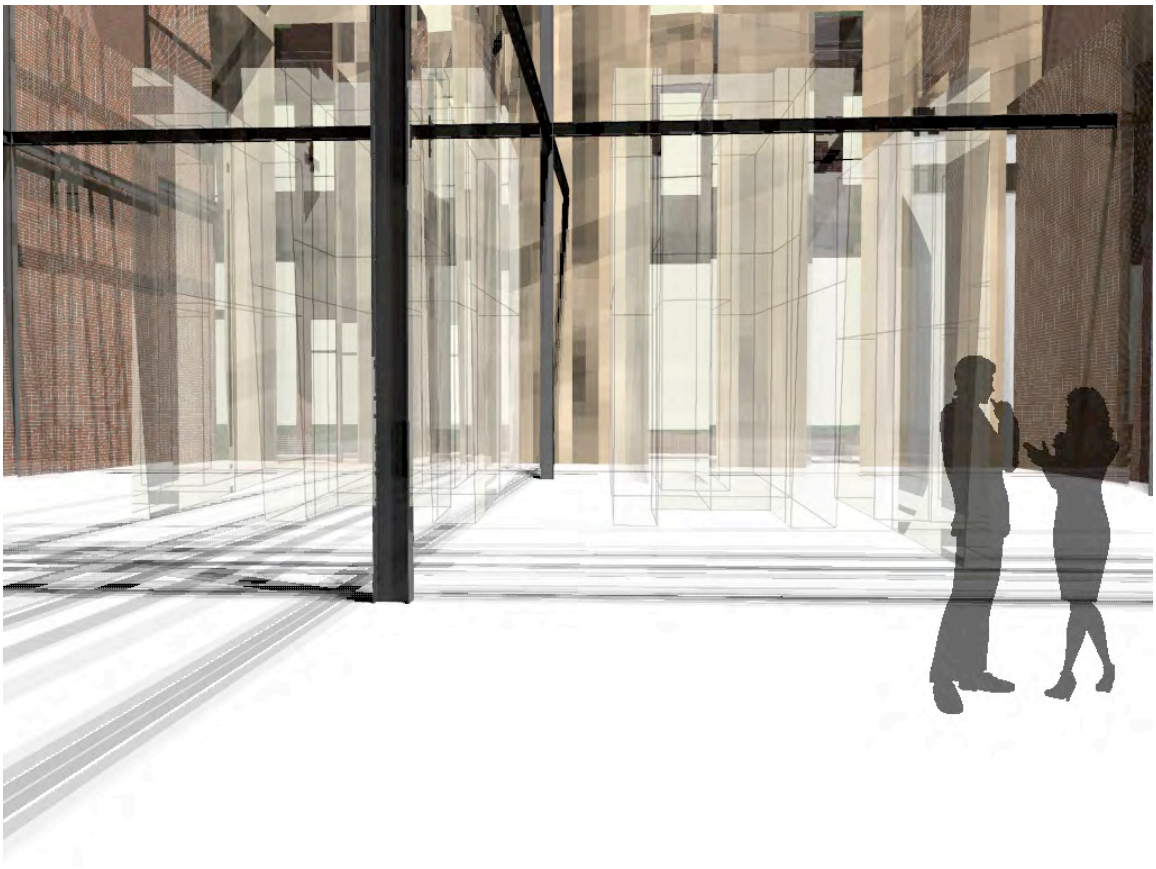

Figure 89. Looking Towards Installation Spaces, First Floor Gallery

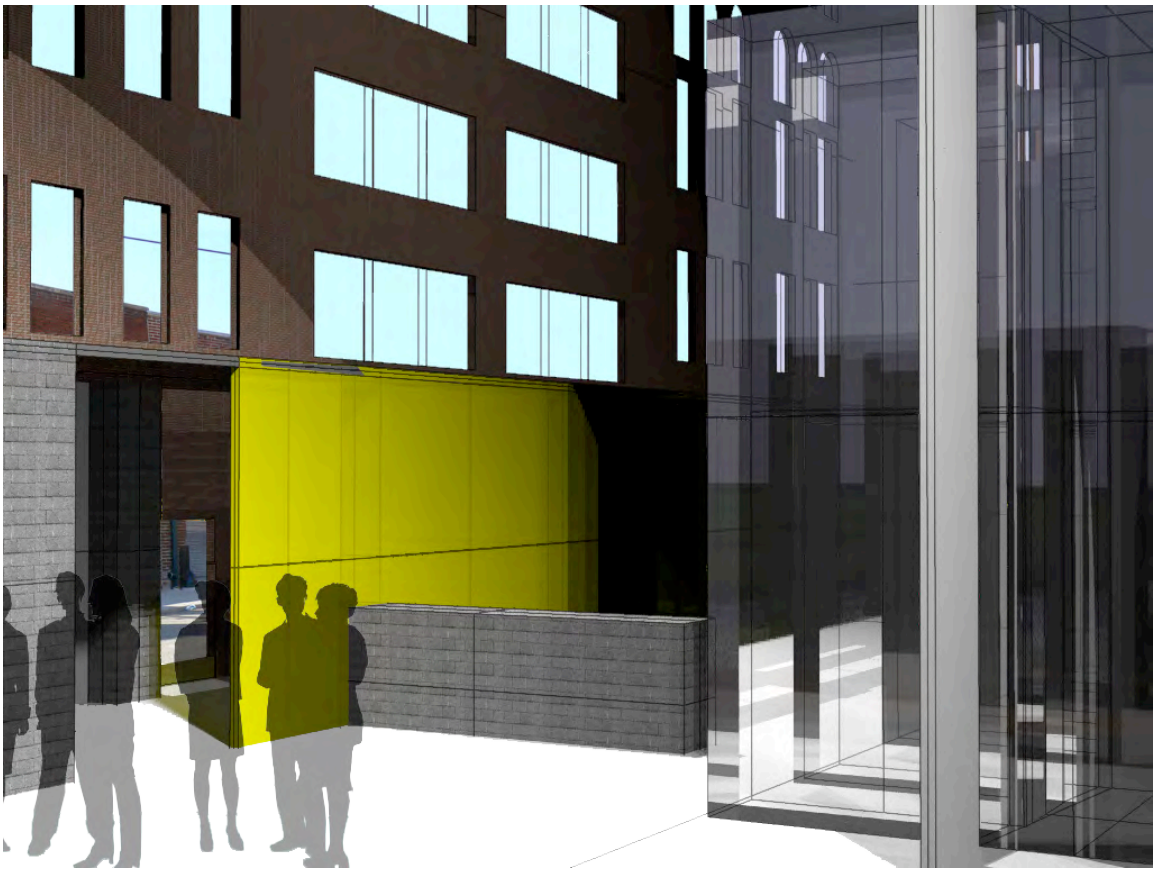

Figure 90. View of Lobby and Curator Space, From Entrance

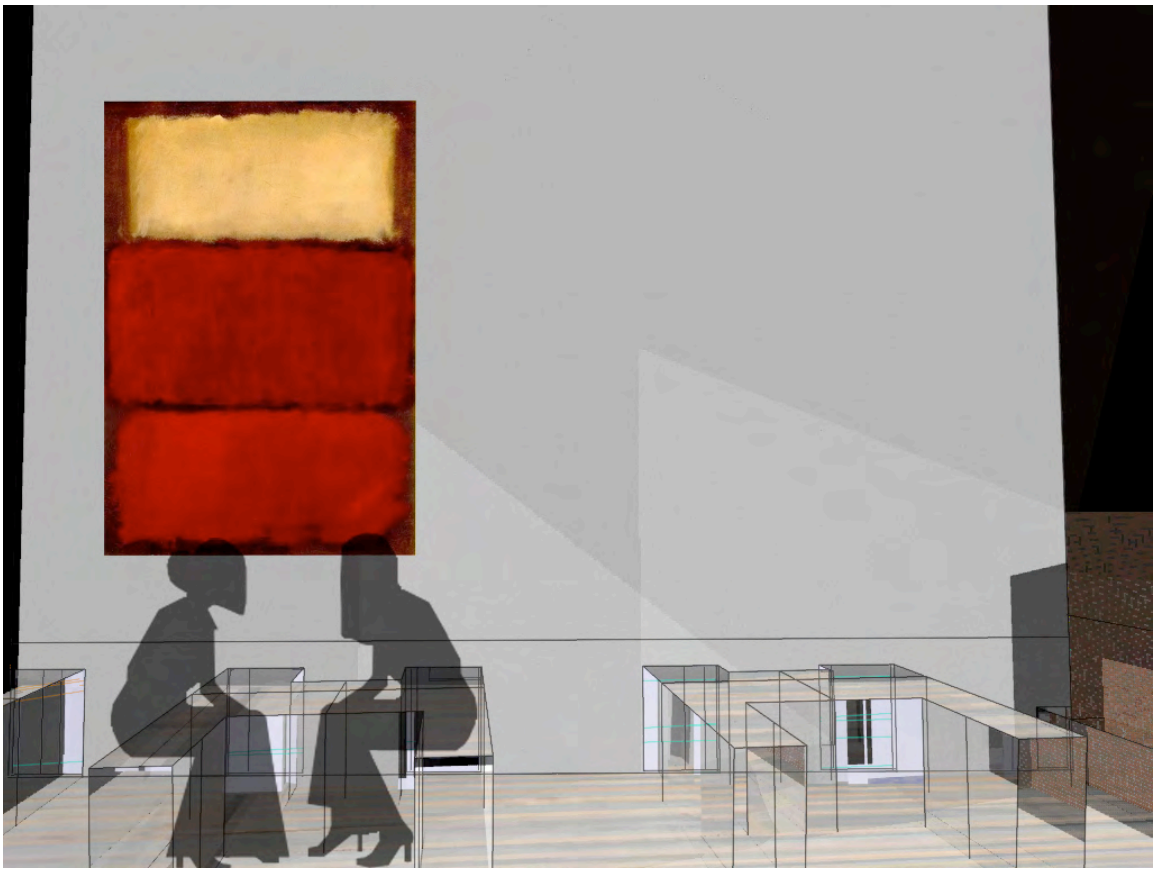

Figure 91. Second Floor Gallery Space

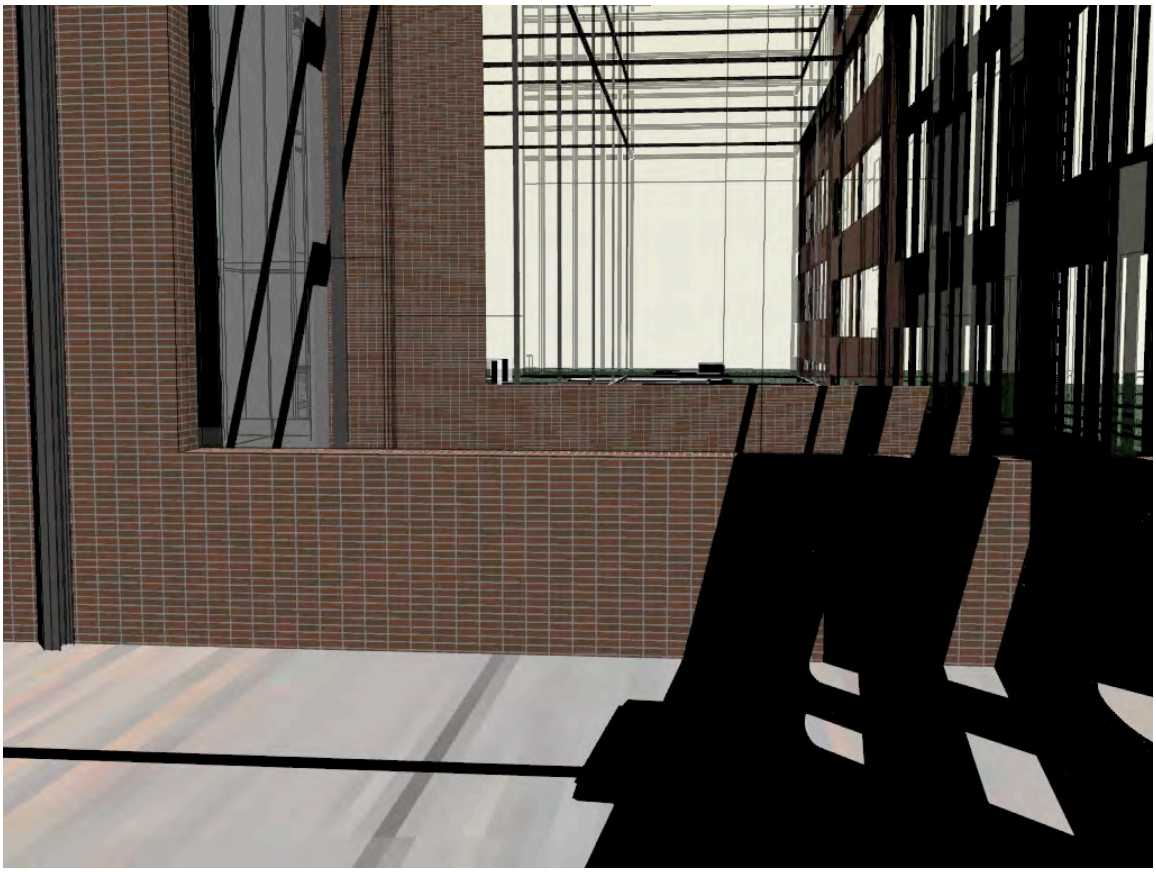

Figure 92. Through Second Floor Punctures, Looking East

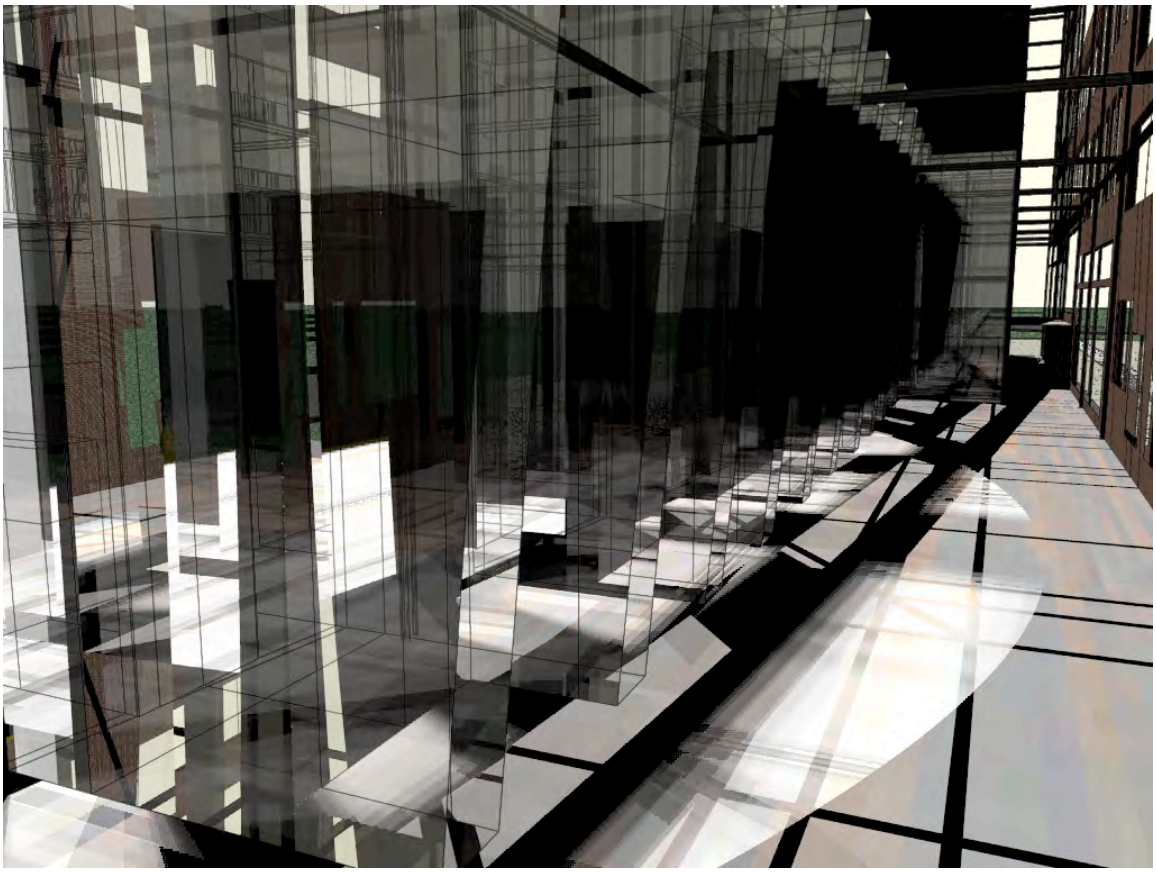

Figure 93. View Through Exterior Gallery Sequence

They also set up a connection to the formal spaces of the project, and serve as visual bridges to the landscape from the interior. The other outside gallery leads into the formal interior gallery space.

The other structures, studio spaces for a variety of disciplines (a metal shop, foundry, woodshop, a lab for prototyping, photography, printmaking, and ceramics, a glass studio, and fiber room), comprise the sequence that connects with the residual spaces of the viaduct, and leads the user in from the urban area proper. These spaces also set up zones of access, and activate the landscape and the overall project as a whole: the studios are where the production occurs, and is where informal connection between city and site is most apparent. This is an overlap space for the community and the gallery.

The residential element, formally separated from the center by Jackson Avenue, is the most private: the entrance is located around an exterior courtyard, and rises up across the street. The roof garden is a visual link to both the designed landscape and the topographic seam that rises steeply up behind the complex (please refer to Plates 2-15, in Appendix D, for the design boards of the project).

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SOURCES CONSULTED

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APPENDICES

APPENDIX A: ADDITIONAL SITE ANALYSIS

Additional Site Diagrams

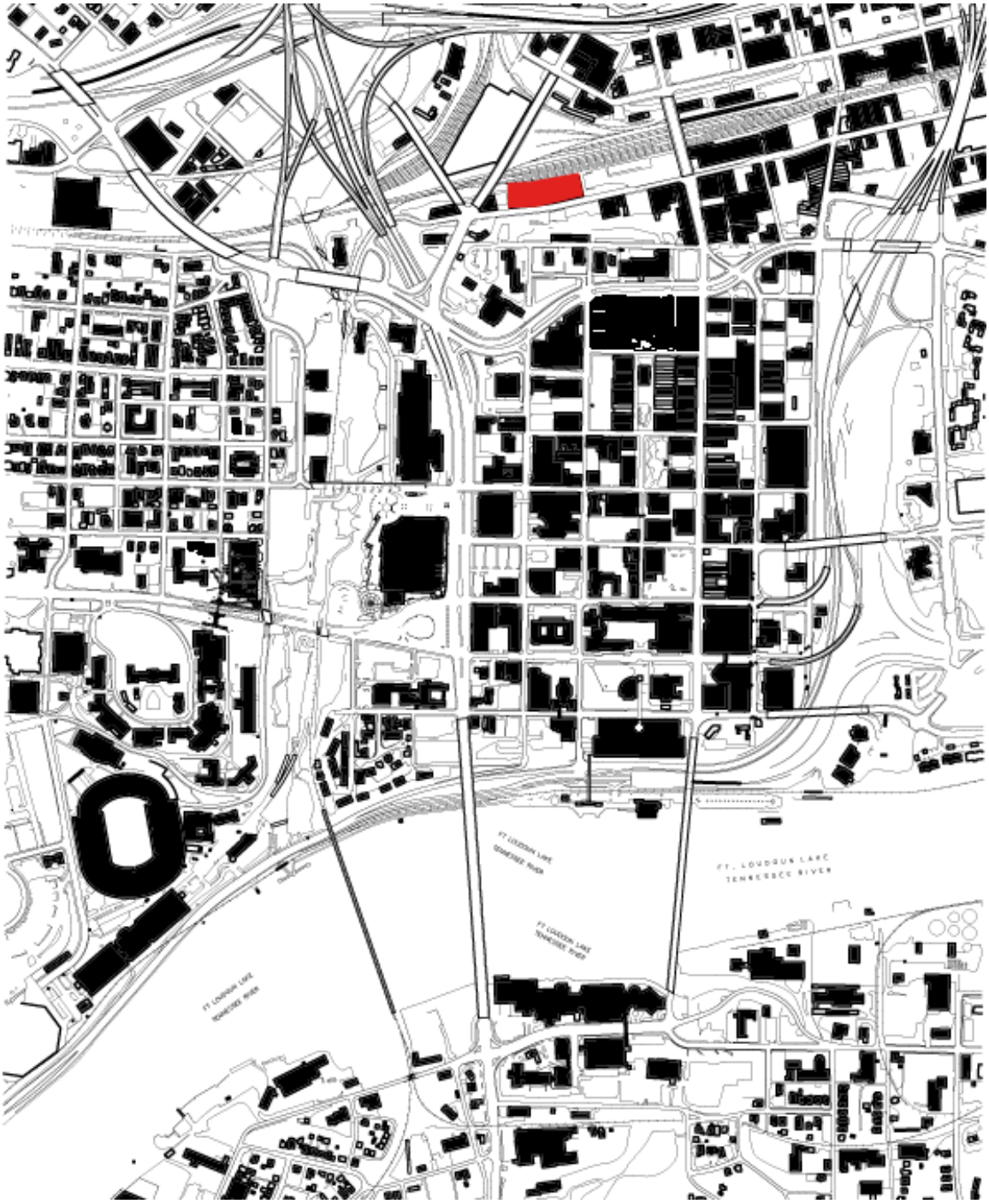


Figure 94. Figure/Ground

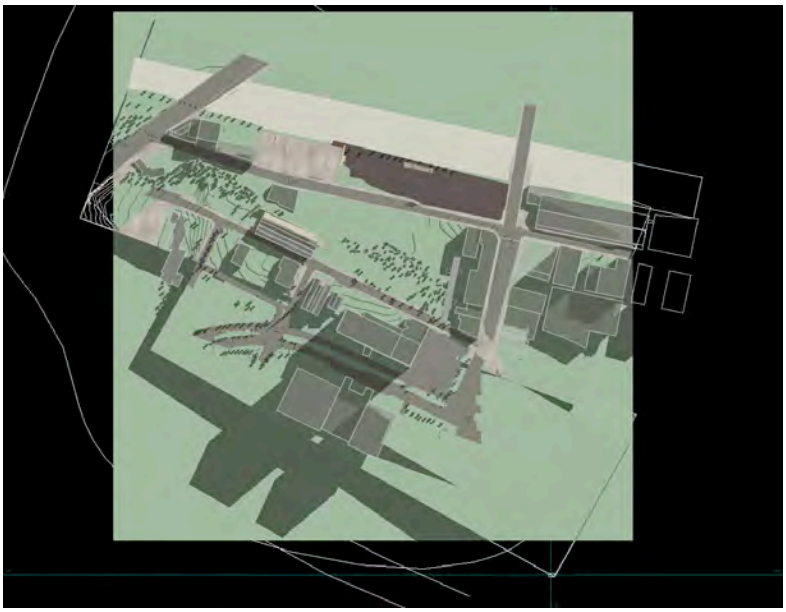


Figure 95. Rendered Plan of Site

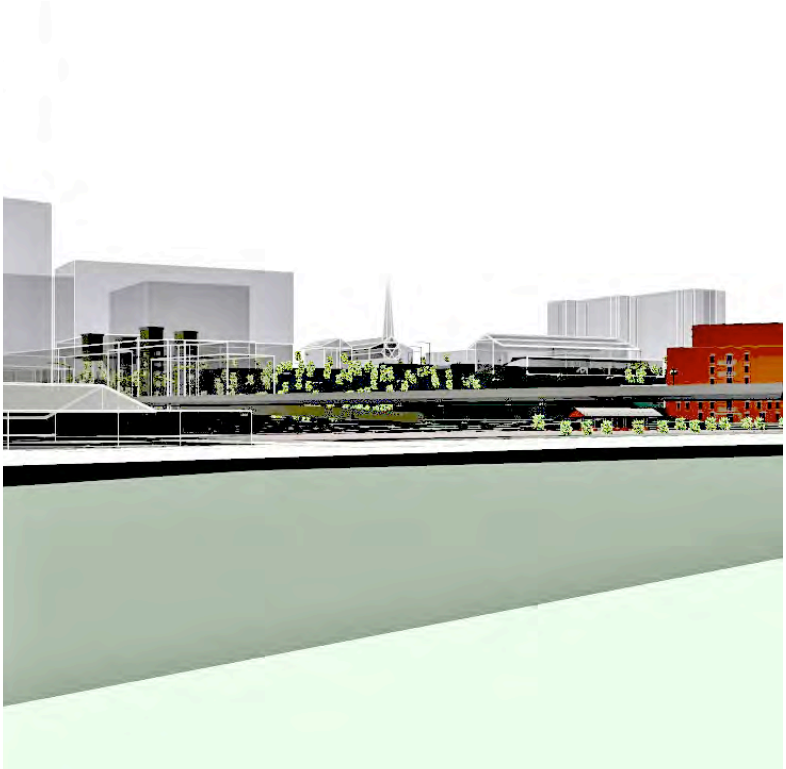


Figure 96. Perspective View from Behind Rail Station

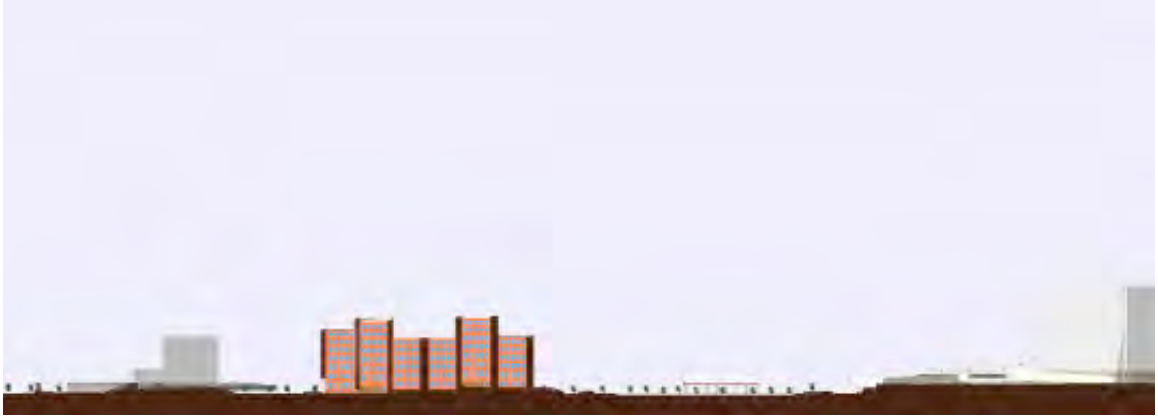


Figure 97. North Section of Site

Figure 98. South Section of Site

Figure 99. West Section of Site

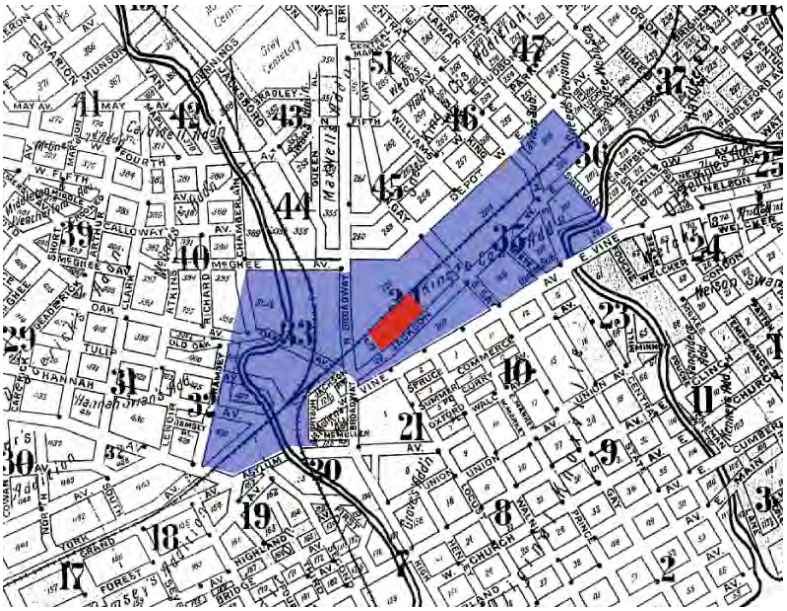


Figure 100. Civitas Interruptus, 1903

Figure 101. Diagram of Street Networks

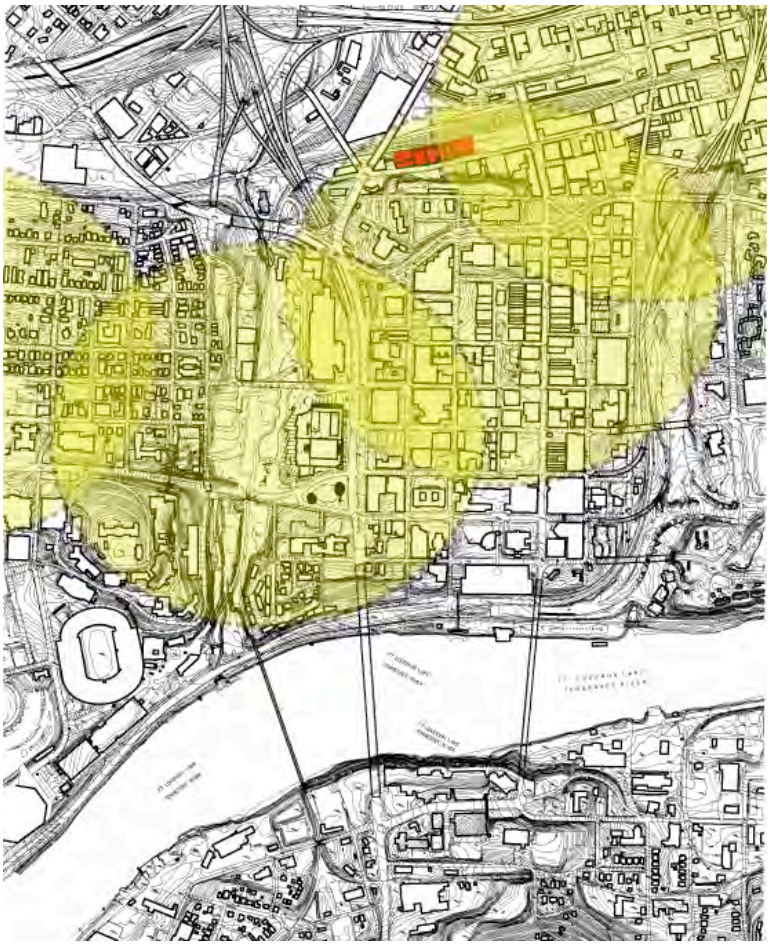


Figure 102. Five Minute Walk (1/4 Mile) Radii

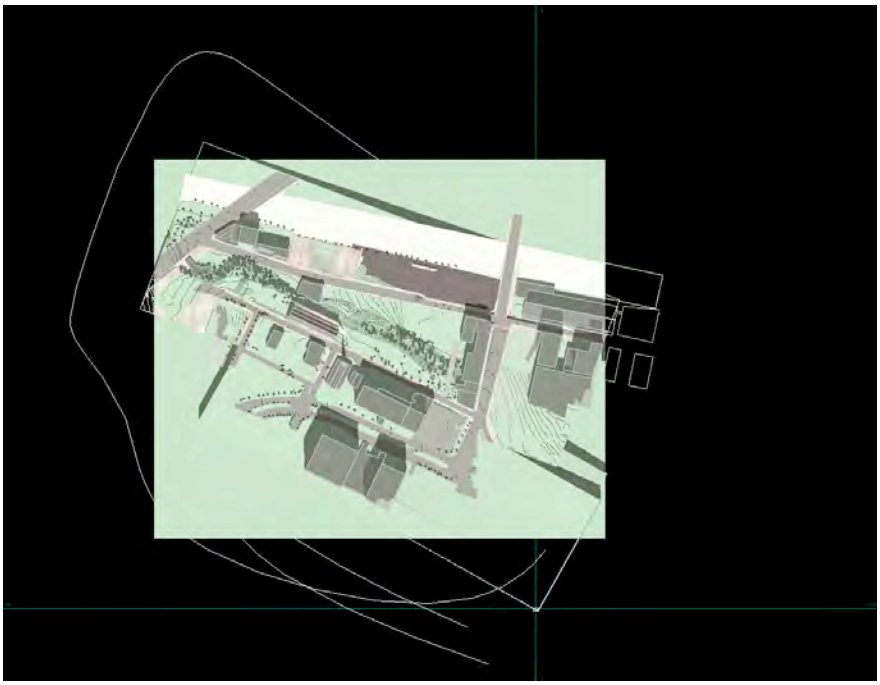


Figure 103. Vernal Equinox: Plan

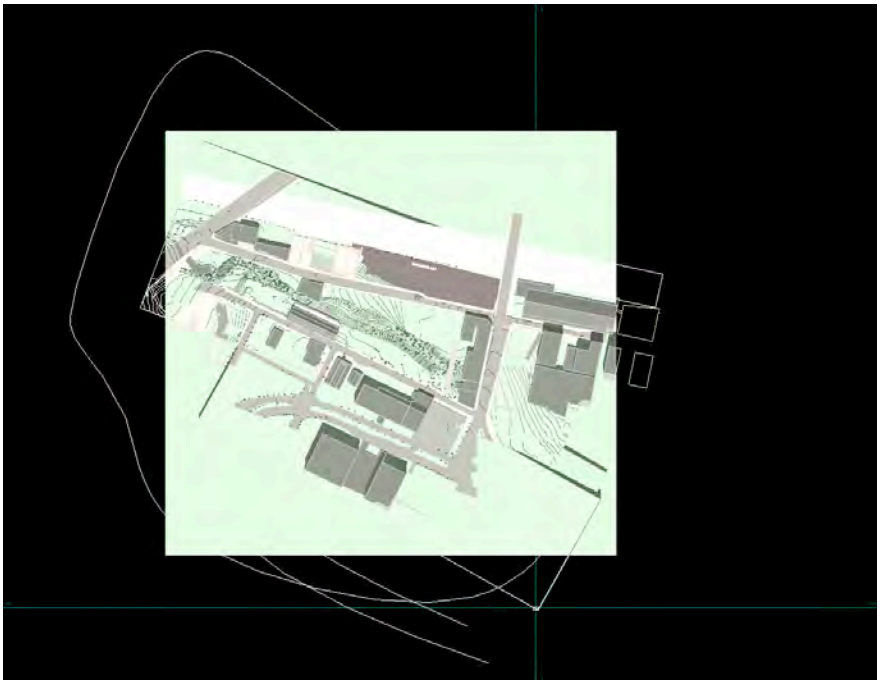


Figure 104. Summer Solstice: Plan

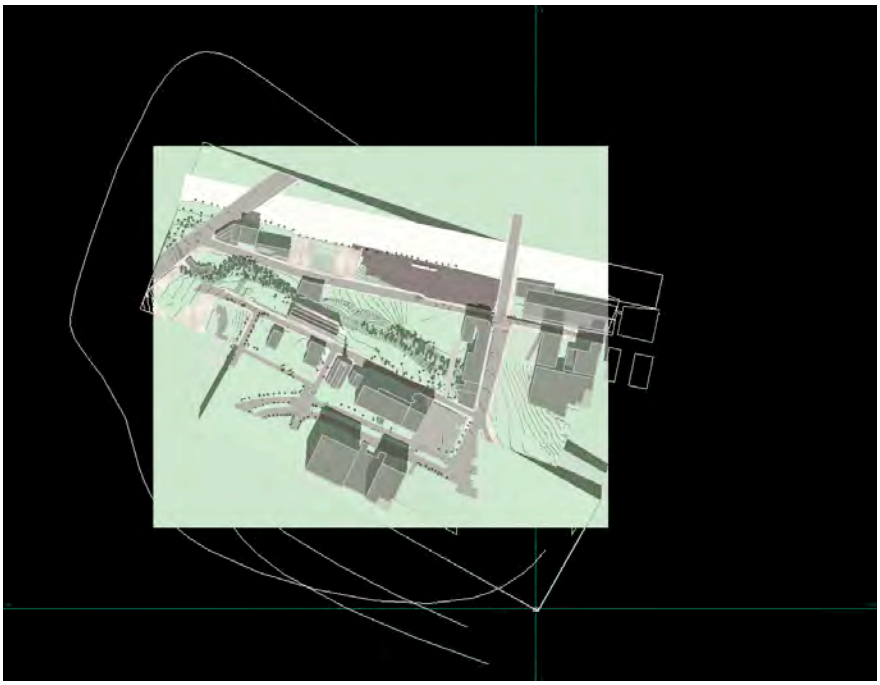


Figure 105. Autumnal Equinox: Plan

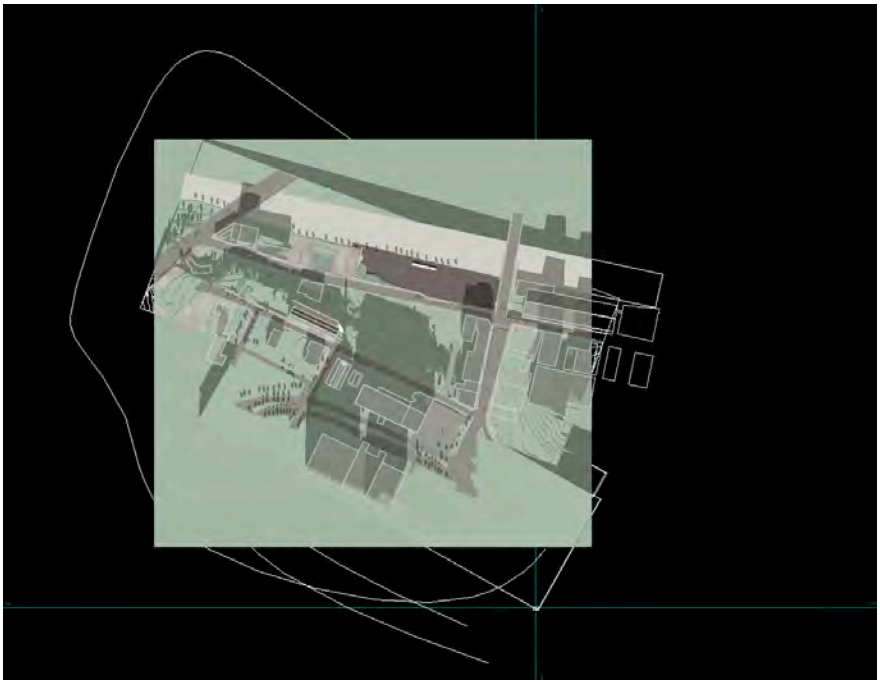


Figure 106. Winter Solstice: Plan

Photographs of Site

Figure 107. Installation With Train

Figure 108. Installabulous

Figure 109. Interior View 1, Warehouse 3, 2006

Figure 110. Interior View 2, Warehouse 3, 2006

Figure 111. Interior View 3, Warehouse 3, 2006

Figure 112. Exterior View 1, Warehouse 2, Current

Figure 113. Exterior View 2, Warehouse 2, Current

Figure 114. Exterior View 3, Current

Figure 115. View From Broadway, Current

Figure 116. View From Broadway, Current

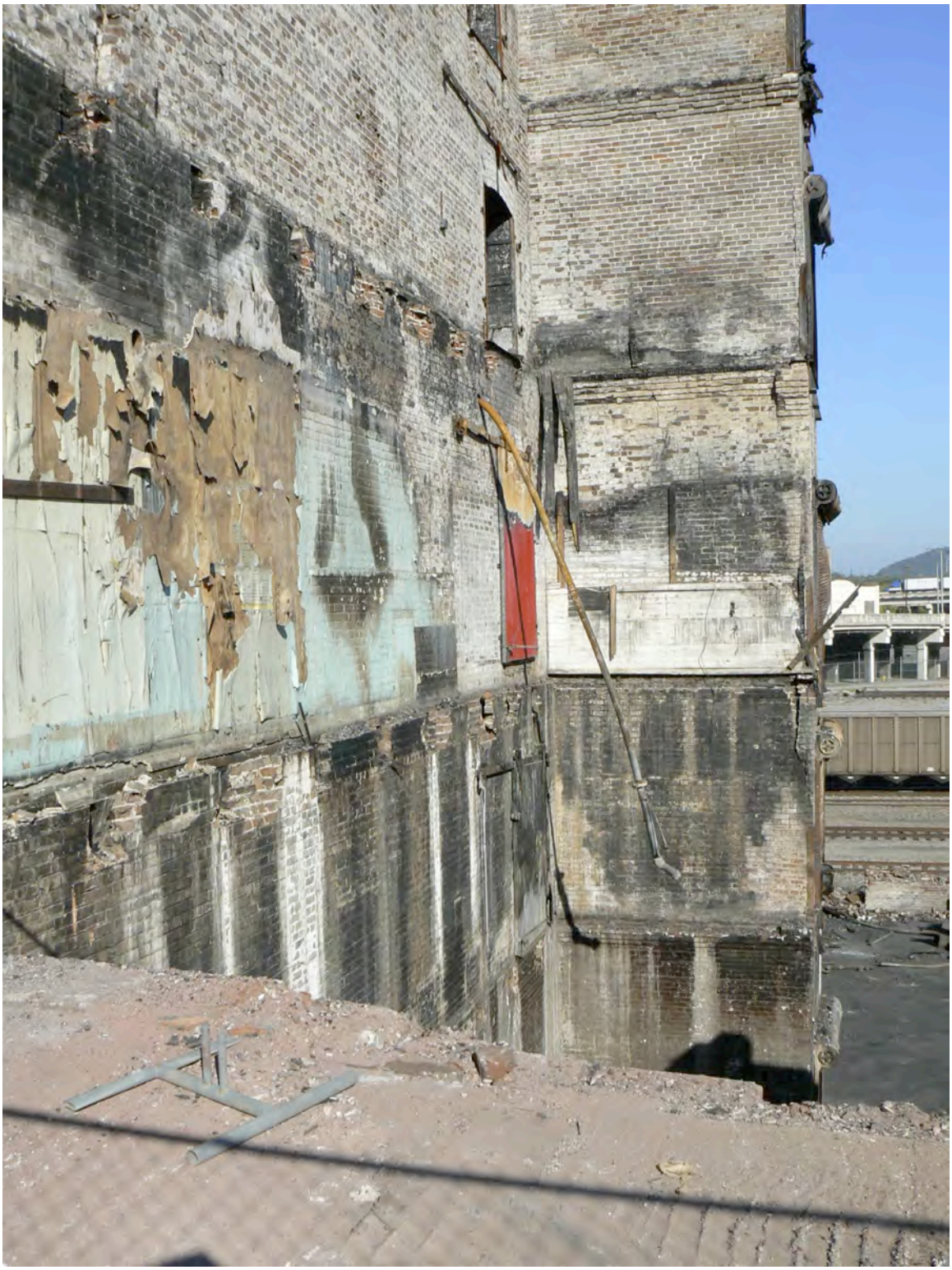


Figure 117. Detail of Circulation Remnant (Warehouse 2)

Figure 118. Remnants of Incinerated Warehouses, Current

Figure 119. Remnants of Frontage, Current

APPENDIX B: PROGRAM

Production

Production is the most important aspect of the center, therefore the spaces that allow for artistic production are the most significant. The primary art spaces must have access to loading docks and storage, and may even surround a central exhibit space that features a gantry crane. The production spaces must be visually connected to the gathering and public spaces, in order to emphasize the work that takes place there. Rather than one large place, the spaces should be scattered throughout the complex in order to organize the exhibitions spaces and also to continually remind the public of the creative nodes within the structure.

Metal Fabrication

2550 sf; occupancy of 15 (150sf per person)

Because of its spatial requirements, the metal shop is the largest, and also needs a great deal of height. Light filtration around the room is essential as well, because of the radiance emitted by welders and plasma cutters. The space requires many large-scale pieces of equipment: drill presses, press brakes, shears, rollers, and numerous metal tables. Moveable partitions are needed to shield individuals from each other while working with much of the equipment. MIG, TIG, arc welders, plasma cutters, and saws require easy, ready access to electric outlets (overhead), compressors, and gas canisters.

The Shop will also need significant access to the outdoors, preferably situated adjacent to the fabrication space.

Foundry

600 sf; occupancy of 6 (100sf per person)

The foundry will handle aluminum and bronze, as well as the process and molding of resin, wax, and fiberglass. The processes require a kiln, crucible, furnace, a sandpit, and a crane. Storage for base material and tools will be located around the perimeter, because the center must be kept open because of the nature of the metal pours. Clearly, the space must be well ventilated, adjacent to the outdoors, and connected to the fabrication shop.

Wood Shop

2550 sf; occupancy of 15 (150 sf per person)

The Wood Shop needs as much space as the metal shop because of similar equipment and project parameters. Tools such as table saws, reciprocating saws, planers, sanders (belt and disc), band saws, dremels, and grinders, as well as a range of pneumatic tools, shall be operated there. There should also be space for hand tools, and many tables and rollers.

Ceramics Studio

1200 sf; occupancy of 10 (120 sf per person)

Situated closely, if not connected to the foundry, is the ceramics lab. Two to three kilns, and storage space, are the most crucial requirements of the ceramics studio. Ample

space that is climate controlled is needed for the storage of clays, kaolins, glazes, and slip. Also, both tables and throwing spaces should be part of this design.

Prototyping Studio

720 sf; occupancy of 6 (120 sf per person)

The prototyping lab requires a CNC mill router, a three-dimensional printer, and several multi-strength laser cutters in order to accommodate a variety of materials and methods. A vacuum mold, and a steaming device (for bending plywood) should also be part of this studio.

Digital Studio

400 sf; occupancy of 8 (50 sf per person)

The digital workspace primarily houses computers, with space dedicated to large format printer, scanners, and copiers as well. The studio is for use in both filmic and graphic applications.

Printmaking Lab

1875 sf; occupancy of 15 (125 sf per person)

The printmaking lab shall hold equipment for lithography, screen printing, embossing, papermaking, and the like. It should also have a small digital workstation with a large format printer. Several presses are needed, and separate space for acid immersion and rinsing wells is essential.

Photography Lab

500sf; occupancy of 5 (100 sf per person)

The photography lab is darkroom accommodations for both color and black and white film processing. Both darkrooms shall include multiple enlargers and processors. In addition, the spaces shall share a small studio space for documentation.

Fiber Studio

1200sf; occupancy of 12 (100 sf per person)

The fiber studio will include at least one loom, a water station for felting, and space for the dying of fabric (batik, etc.). Several large tables, and wall-to-ceiling cubbies for the storage of materials are also necessities.

Theater

2000sf; occupancy of 100 (10 sf per person, with 1000sf for support and production requirements.

The theater should be fairly small, and able to accommodate musical acts as well as experimental theater. The stage itself shall be surrounded on all sides, and perhaps have access to the outdoors. The theater, especially the experimental theater is a slight presence in Knoxville, and the majority of it is not downtown; such an inclusion would enrich the cultural life of the city while rounding out the production curriculum of the center.

Studios (Private)

3200 sf; occupancy: one to each studio (400sf per person, eight studios)

Large Workspaces

3000 sf; occupancy of 10 (100 sf per person, three workspaces)

Small Workspaces

1000 sf; occupancy of 5 (100 sf per person, 2 workspaces)

Support

600sf; occupancy of 10 (60 sf per person)

Production, net square footage: 21,395 sf

Production, gross square footage: 28,883 sf

Public Space, for Gathering

Outdoor Entry/Space

800 sf; occupancy n/a

The outdoor lobby works as both an entrance to the interior and a formal entrance to the grounds of the center, which are an integral part of the programmed space of the project. The outdoor lobby is a transition from the city to the formal exterior space of the museum. Futhermore, it is a threshold to public outside space, and some facilities and exhibit space.

Lobby (Interior)

800 sf; occupancy of 200 (4 sf per person)

The indoor lobby is the public entrance to the center. As such it much feature an information space, and provide transition to the more public spaces such as the interior exhibit space, the theater, the café, and store. Natural light should flood this space, and create a clear sequence of exhibit and experience to the user.

Classrooms

800 sf; occupancy of 30 (two classrooms of 15 each: approx. 27 sf per person)

Classrooms are to be used for instructions, workshops, seminars, and the like. Seating should be unfixed, with conference tables and chairs, rather than traditional institutional educational furniture.

Support

700 sf; occupancy of 12 (350 sf each: one men's restroom, one women's)

Bathrooms shall be located within the indoor lobby.

Public Space, net square footage: 3,100 sf

Public space, gross square footage: 4,185 sf

Exhibition

Exterior Gallery

4000sf, occupancy of 250

Includes an exterior Installation/Brownfield intervention that depicts a shadowbox, or dig-like setting, of detritus of Knoxville's building history (relics, remnants, fragments, and the like). It will be weaved within outdoor complexes such as the foundry, metal lab, glass, and ceramic studios, encompassing the production galleries for those disciplines.

Interior Gallery

4000sf, occupancy of 250

The formal exhibition space, that is connected visually to the experimental theater, and gives views to at least some of the working spaces as well.

Production Galleries

600 sf, occupancy of 25

Set within close proximity to each production node, these galleries will feature works-in-progress, process ephemera, and the like.

Support

1000 sf

Exhibition, net square footage: 11,000 sf

Exhibition, gross square footage: 14,850 sf

Staff/Support

Residences

7600sf; occupancy of 9 (9 separate residences: 800sf each, for 8 artist residences, 1200sf for a curator residence)

Curator: Office, Support Staff Spaces

1000sf; occupancy of 3 (curator's office: 300 sf; assistant space: 2 @150sf; archival space: 300sf)

This designation includes an office for the curator, plus space for an archive and two assistants.

Café

400sf

There is a need for access to food, for both the patrons and the practitioners. Ideally, it should open up to, or at least visually connect to, the outdoor space, with some seating outside for informal dining.

Museum Store

400sf

The store should be located within the gallery, and feature work from both visiting artists and the permanent collection. Some items for sale, such as furniture, or large scale pieces, can be sold from the studio it was created in.

Receiving/Loading Dock

500 sf

Staff/Support, net square footage: 9,900 sf

Staff/Support, gross square footage: 13,365 sf

Total, net square footage: 45, 395 sf

Total, gross square footage: 61, 283 sf

APPENDIX C: INTERNATIONAL BUILDING CODES

Information concerning the International Building Code comes from *The Architect's Studio Companion: Rule of Thumb for Preliminary Design*, by Edward Allen and Joseph Iano. Though the project is mixed-use, and involves the use of four types of occupancy (discussed under Table I), Assembly is the strictest code, and is therefore adopted for the entire project, except where exceptions are noted (see Table IV: Additional Requirements, Emergency Exterior Door or Window Egress).

IBC: Occupancy Groups

Occupancy Group A-3: Assembly uses include social, recreational, and civic gatherings of 50 or more persons. A-3 includes recreational, amusement, and worship uses not specifically falling under other Assembly groups, including, for example, galleries, auditoriums, churches, community halls, courtrooms, dance halls, gymnasiums, lecture halls, libraries, museums, passenger station waiting areas, and the like.

Occupancy Group F-2: Factory group 2 includes low-hazard manufacturing processes and materials, such as those involving brick and masonry, ceramincs, glass, gypsum, ice and metal fabrication.

Occupancy Group M: Mercantile uses include the display and sale of retail and wholesale merchandise and the related stocking of such goods.

Occupancy Group R-2: Residential uses include facilities where people live and sleep when not in a supervised setting that would be classified as an Institutional use. R-2 includes primarily permanent residential occupancies that contain three or more dwelling units, such as apartment houses, dormitories, fraternities, sororities, and the like.

IBC: Construction Types

Construction Type: Non-Combustible

3 –Hour (Type I-A): 3-Hour Noncombustible construction requires a fire-resistance rating of 2 hours for floor construction and 3 hours for columns and bearing walls.

This construction type has unlimited height, and unlimited floor area, for sprinklered construction.

2-Hour (Type I-B): 2-Hour Noncombustible construction requires a fire-resistance rating of 2 hours for floor construction, columns, and bearing walls.

This construction type has unlimited height and floor area for sprinklered construction.

1-Hour (Type II-A): 1-Hour Noncombustible construction requires a fire-resistance rating of 1 hour for floor construction, columns, and bearing walls.

This type of construction has a maximum height of 85 feet, and a maximum floor area of 62,000 square feet, for sprinklered construction.

IBC: Egress Design for Occupancy Groups

Maximum Travel Distance from Most Remote Point to Nearest Exit Enclsure

Unsprinklered: 200 feet; for open-air seating, 400feet for combustible construction, or unlimited for noncombustible construction.

Sprinklered: 250 feet

Maximum Travel Distance to Two Independent Egress Paths

75 feet

Largest Room That May Only Have One Door

50 occupants

Maximum Length of Dead-End Corridor

20 feet

Minimum Clear Corridor Width

44 inches for more than 50 occupants, 36 inches for 50 or fewer occupants

Minimum Net Clear Egress Door Width

32 inches

Minimum Stair Width

44 inches for more than 50 occupants and 36 inches for 50 or fewer occupants.

IBC: Additional Requirements

Egress Design for Assembly Seating

Maximum Row Length

For a row with egress at both ends: 100 seats; for a row with egress at one end only: 30 feet to an aisle that offers a choice of two paths of egress (one choice may be across an additional row of not more than 24 seats.

Row Spacing

For a row with egress at both ends: 12 feet clear plus 0.3 inches for every seat above 14. For a row with egress at one end only: 12 feet clear plus 0.6 inches for every seat above 7. Maximum required clear spacing is 22inches.

Minimum Aisle Length

36 inches for aisles serving seating on one side or not more than 50 on two sides. 42 inches for aisles serving more than 50 seats on two sides.

Longest Dead-End Aisle

20 feet unless seats served by dead-end aisle are within no more than 24 seats of another aisle with row spacing 12 inches plus 0.6 inches for every seat above 7.

Cross-Aisle Width

Same as for aisles, sized for the combined capacity of the converging aisles.

Maximum Slope of Aisle

1:8

Stairs in Aisle

Tread depth 11 inches minimum. Riser height 8 inches maximum and 4 inches minimum. Risers up to 9 inches are permitted where necessitated by slope of adjacent seating.

Minimum Stair Width

36 inches for stairs serving seating on one side or not more than 50 seats on two sides.

Required Stair Width

Add to the minimum stair width from the previous standard: 0.3 inches per person for risers 7 inches or less, plus 0.005 inches per person for each additional 0.1 inches of riser height greater than 7 inches.

Handrails

Handrails are required at stairs and at aisles with a slope exceeding 1:15. Aisles or stairs subdivided by handrails must have a minimum width of 23 inches between the handrail and adjacent seating.

Maximum Travel to Exit

200 feet, unsprinklered; 250 feet sprinklered

Wheelchair Seating Capacity

For capacity between 51-100, 3 wheelchair places are required.

Minimum Number of Wheelchair Space Clusters

For capacity up to 300, only one is required.

Emergency Exterior Door or Window Egress

In R-2 Occupancy, basements and each sleeping room below the fourth story must have an exterior door or window for emergency escape and rescue. Escape windows must have a sill height of not more than 44 inches minimum clear opening dimension of 24 inches high by 20 inches wide, and a minimum clear opening area of at least 5.7 sq ft. Emergency escape windows and doors are permitted to open onto interior atrium balconies, provided that a second access that does not pass through the atrium is also available.

APPENDIX D: DESIGN BOARD PLATES

phytoremediation: hyperaccumulators for phytotransformation

tape grass

water hyacinth

water hyssop

bamboo

seapink thrift

rapeseed

white clover

indian mustard

switchgrass

barley

hairy goldenrod

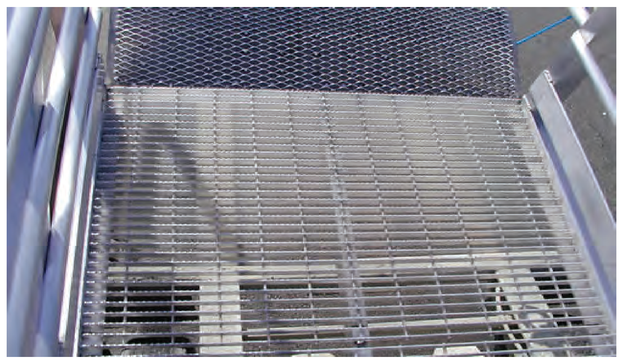
red clover

maple

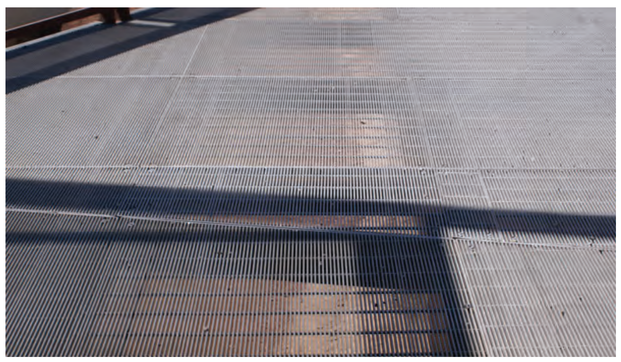
tree of heaven

juniper

velvet bentgrass

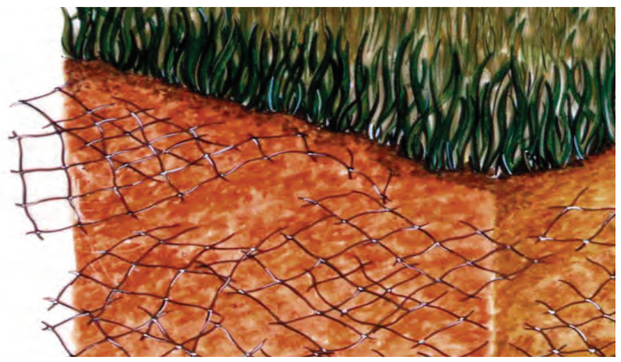


aluminum grating



steel grating

phytoponds



compression fabric

Plate 1. Plants and Materials Board

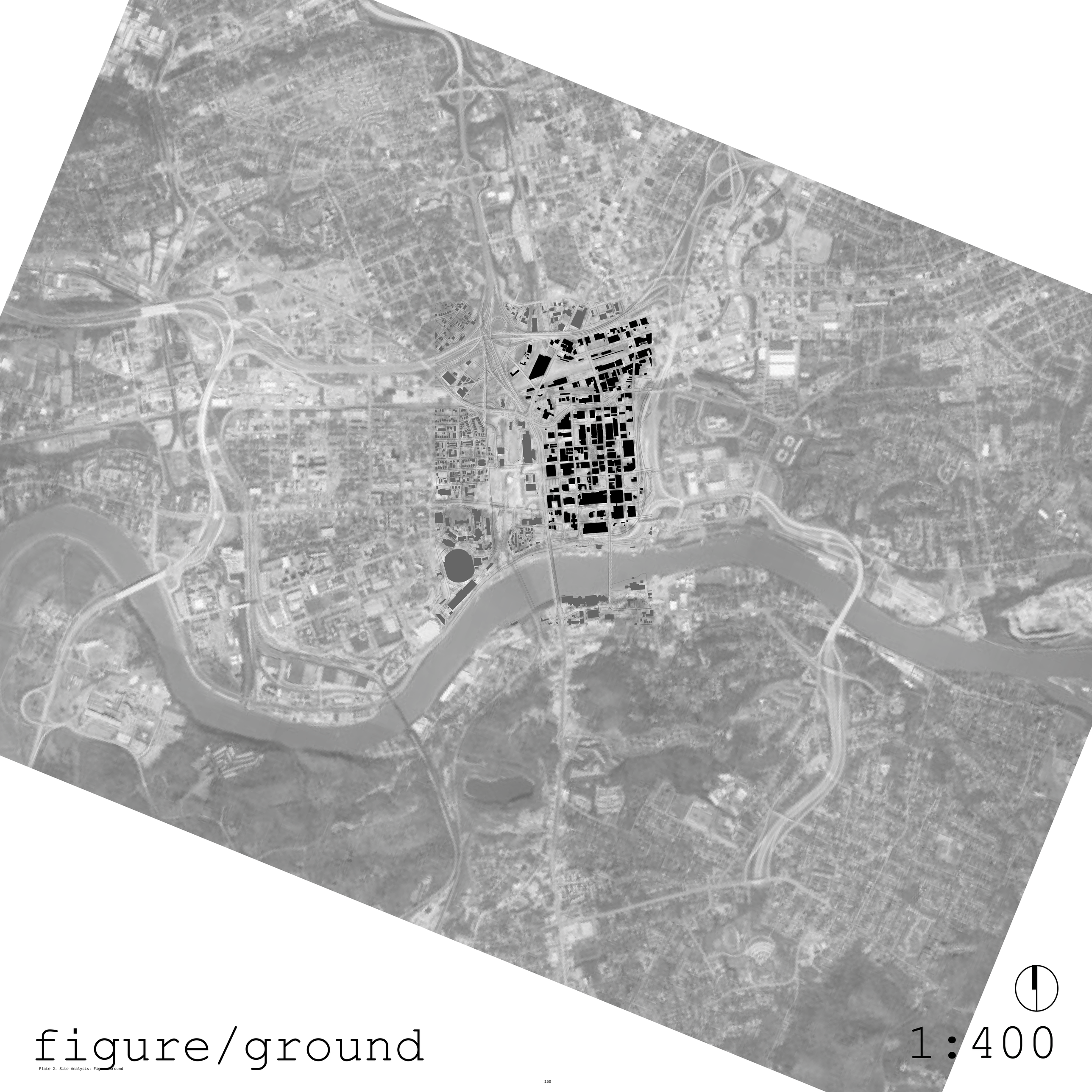
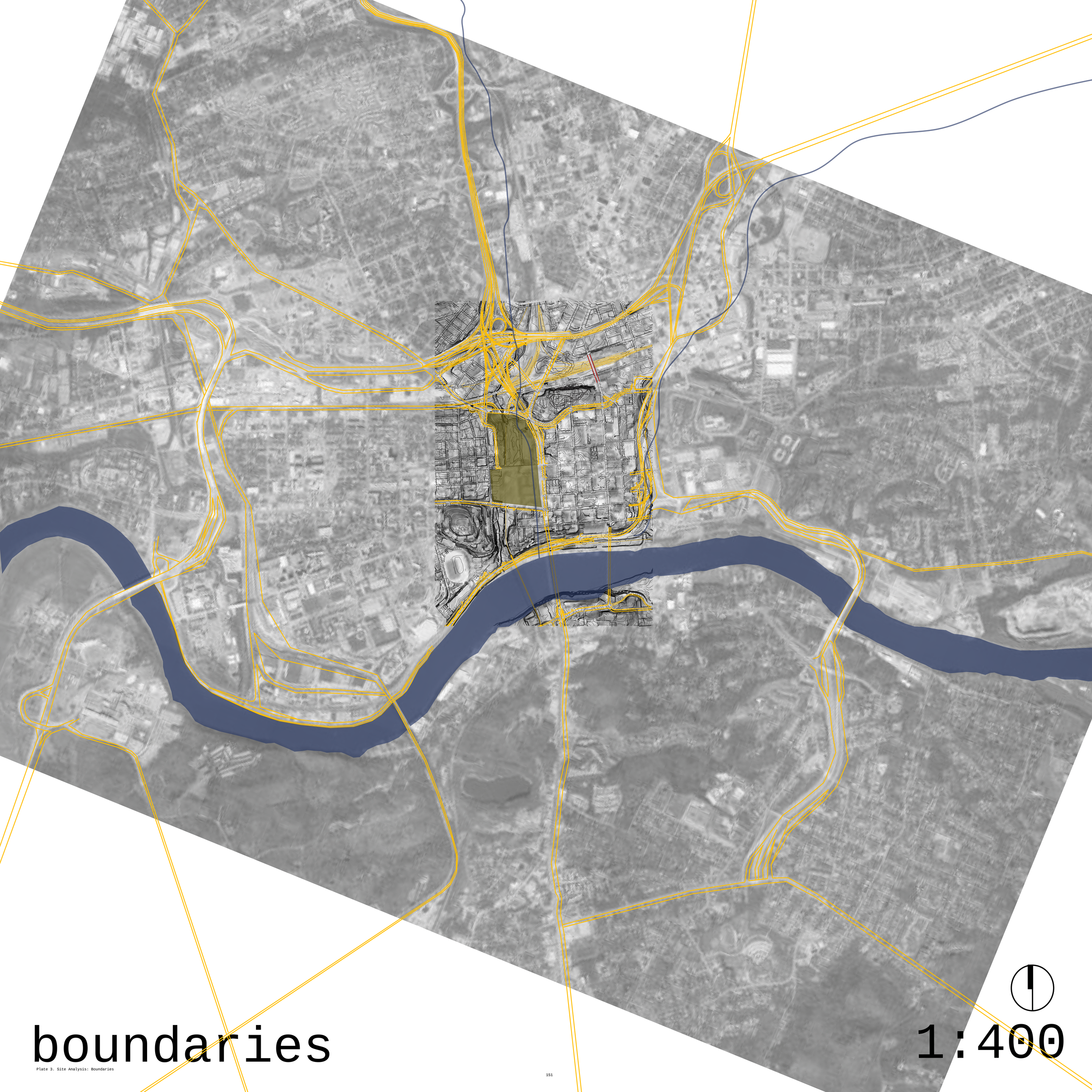


Plate 2. Site Analysis: Figure/Ground



boundaries

1:400

Plate 3. Site Analysis: Boundaries

wholesale

office

mixed use: res/commercial

residential

commercial

light industrial

public: parks

public: rec structures

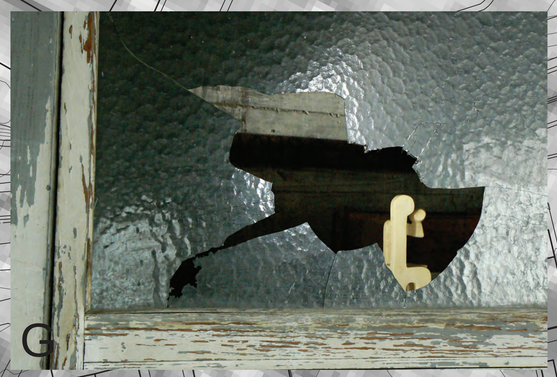
public: secular

public: religious

existing use

1:200

Plate 4. Site Analysis: Existing Use



D, E
F
K
C
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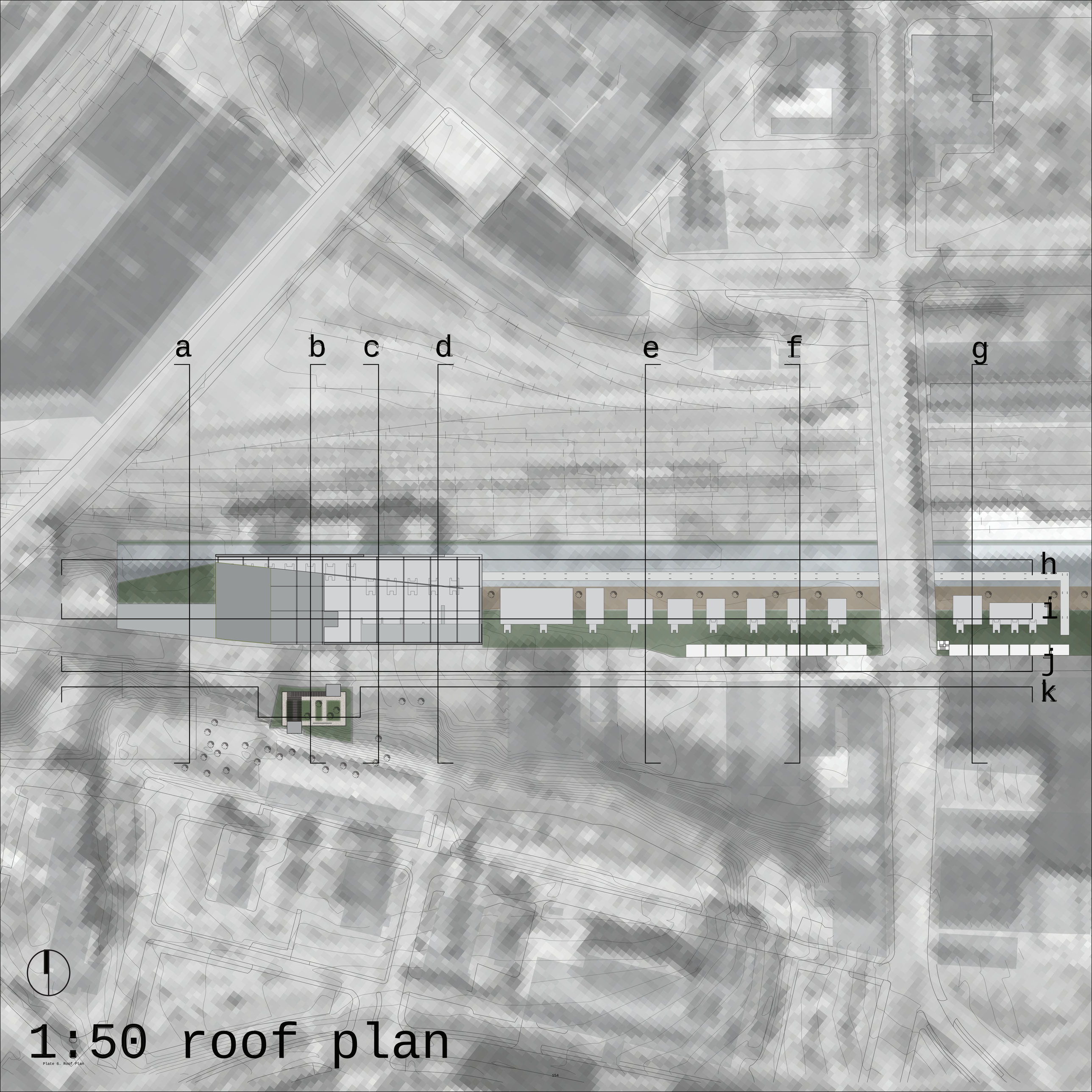
A
I
J

collages

1:100

Plate 5. Site Analysis: Views and Collages



1:50 roof plan

Plate 6. Roof Plan

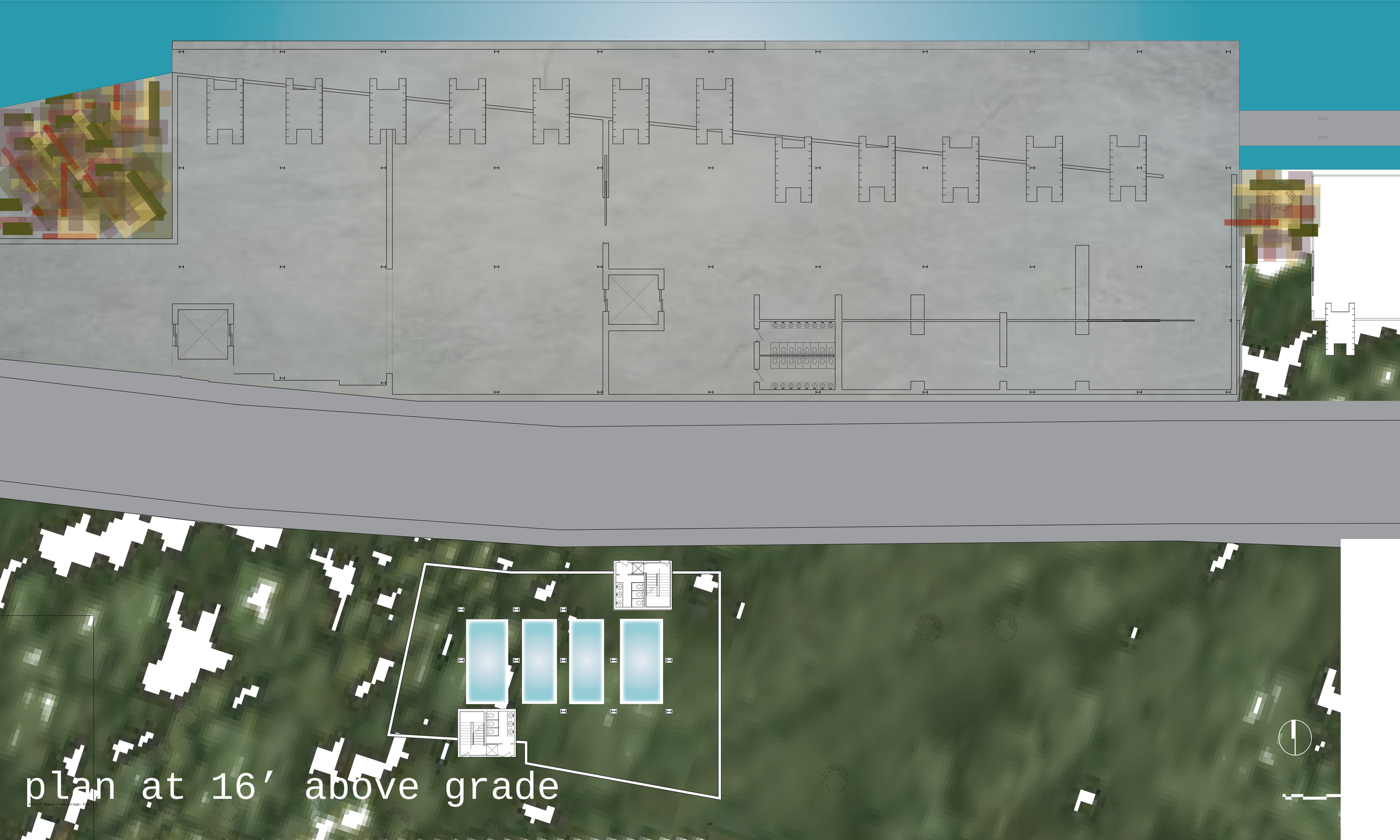
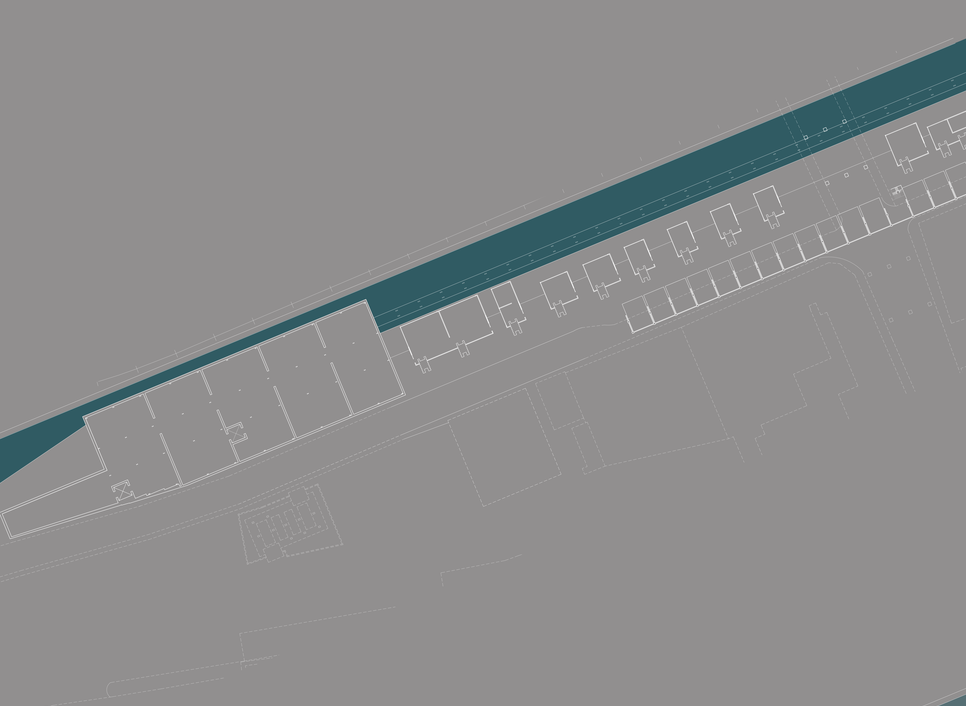


Plate 7. Eighth-Scale Collage: Pl

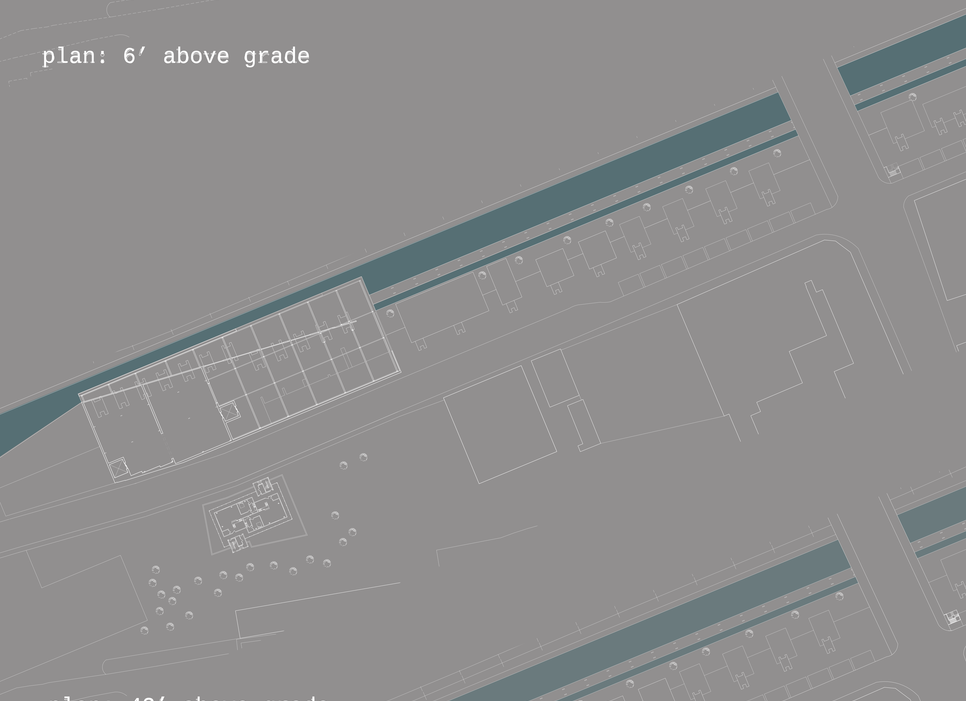
155

plans at 16’above grade

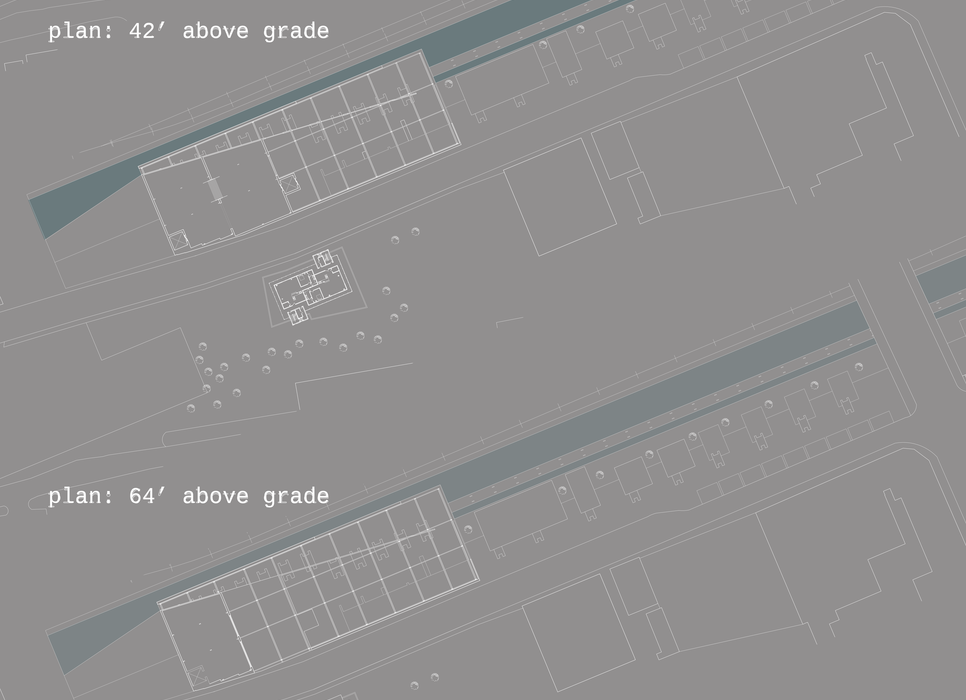
Plate 8. Plan: 16’ Above Grade



plan: 6′ above grade



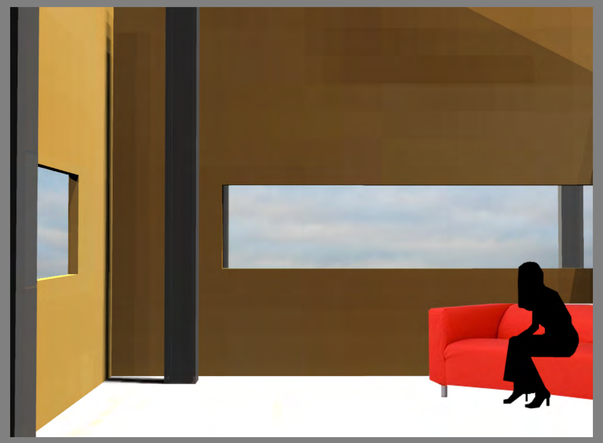
plan: 42′ above grade



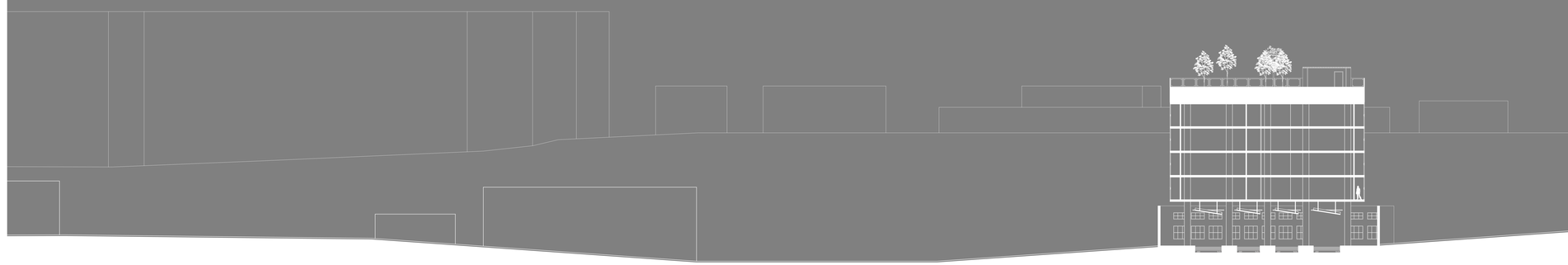
plan: 64′ above grade

plan: 96′ above grade

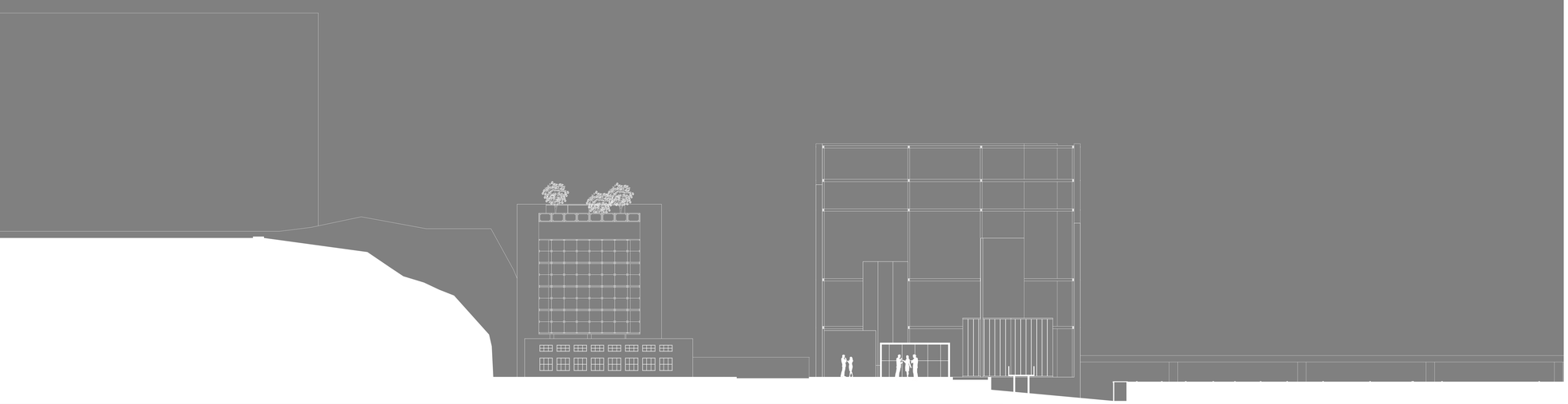
additional plans



perspective of living room



section k:k



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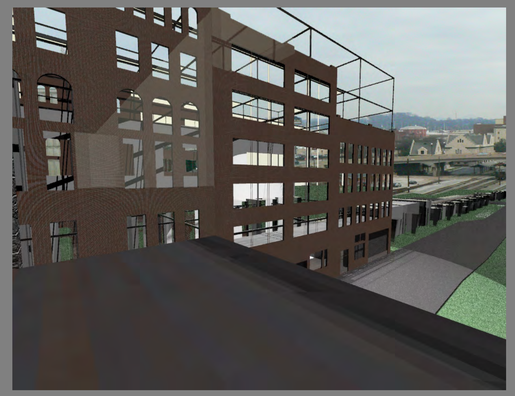
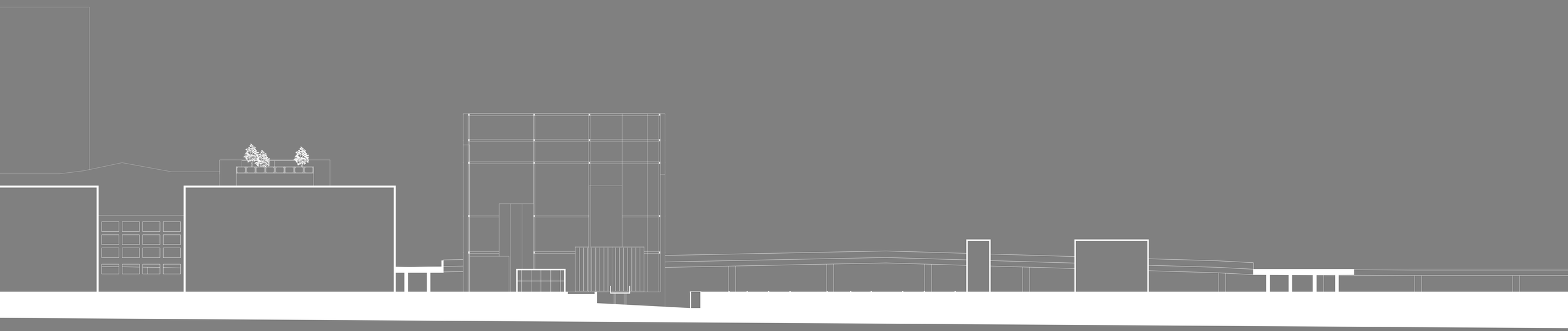


perspective from roof garden

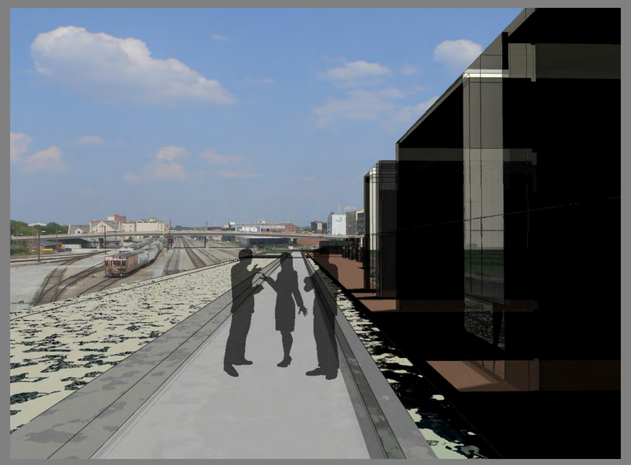
Plate 10. Section Board 1



section f:f

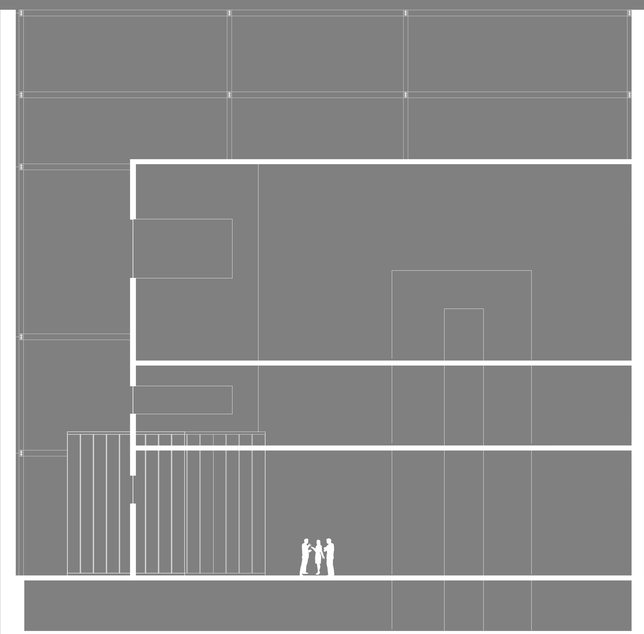
section b:b

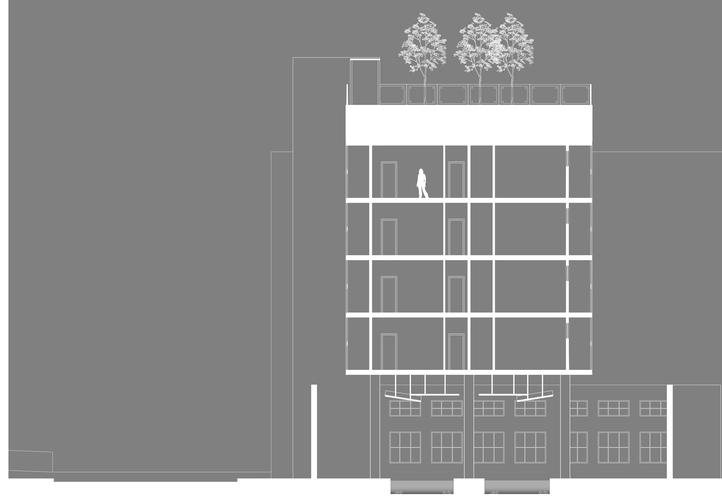
Plate 11. Section Board 2



perspective from ramp, looking towards gay st.

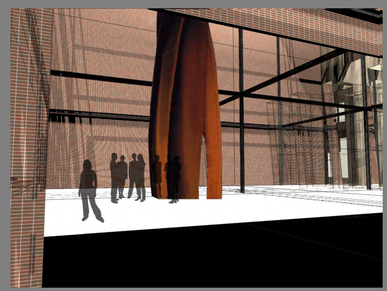
section g:g





eighth scale section b

Plate 12. Section Board 3

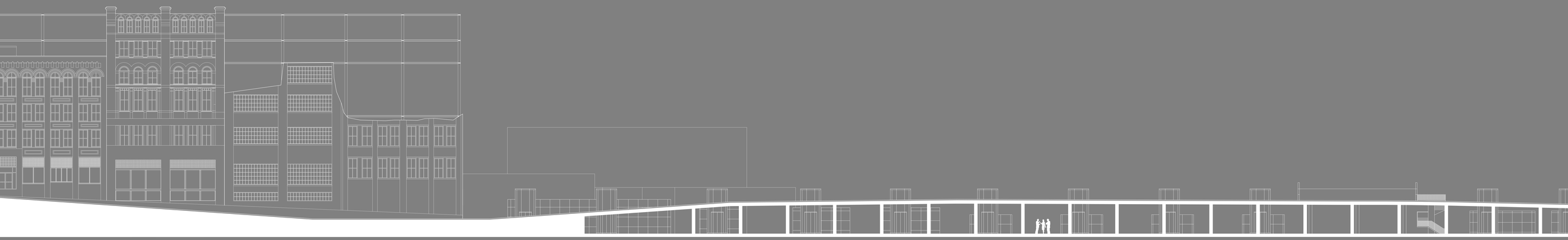


perspective of gallery

section d:d

section a:a

Plate 13. Section Board 4



section j:j

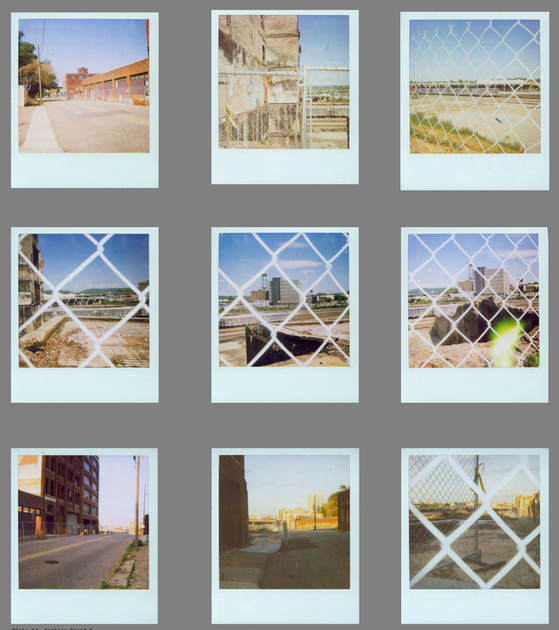
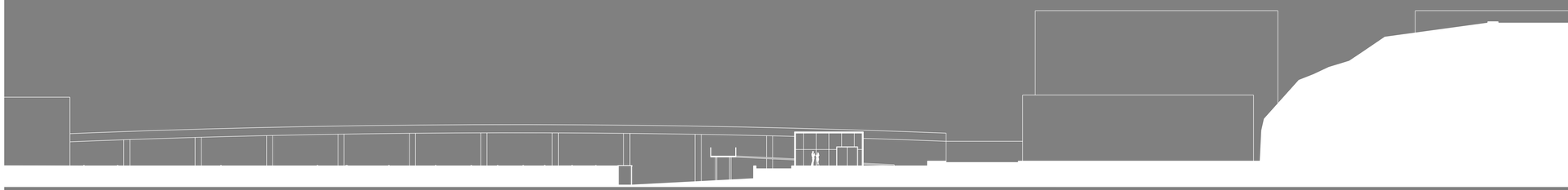
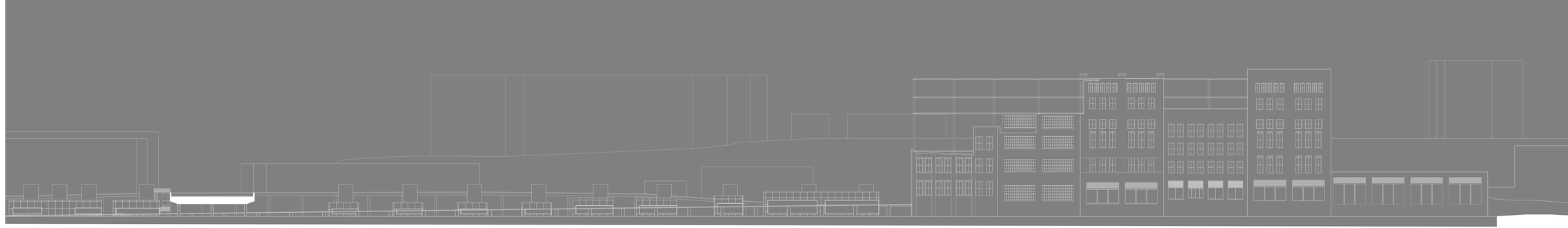


Plate 14. Section Board 5

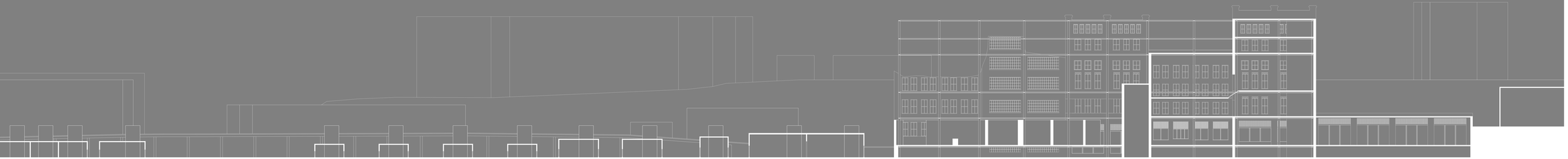


section e:e

perspective from residential court

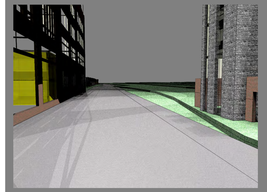


section h:h



section i:i

Plate 25. Section Board 6



perspective from jackson ave.

VITA

Jennifer Martillie Bradley was born in Nashville, Tennessee in 1978. She graduated from Beech Senior High School in 1996, and began undergraduate work at Maryville College, in Maryville, Tennessee, later that fall. She graduated from Maryville College with a Bachelor of Arts, in history, in 2000. From 2001 to 2003 Jennifer attended the University of Tennessee, graduating with a Master of Arts, in history, with an emphasis in 20th-century American urban and environmental history, in 2003. In 2004 she presented a paper on city identity at the Conference for the Environmental History Association. She returned to the University of Tennessee in 2005, and completed her Master of Architecture in the spring of 2008.