

material | craft | embodiment

lisa patusky




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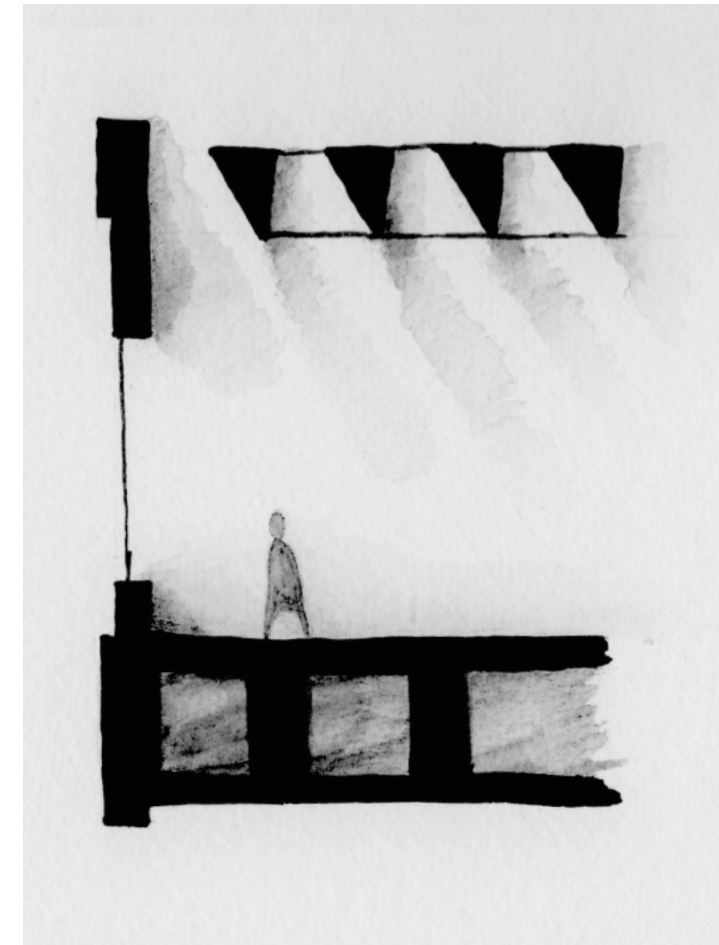


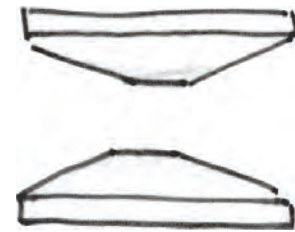
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"We know not through our intellect but through our experience"

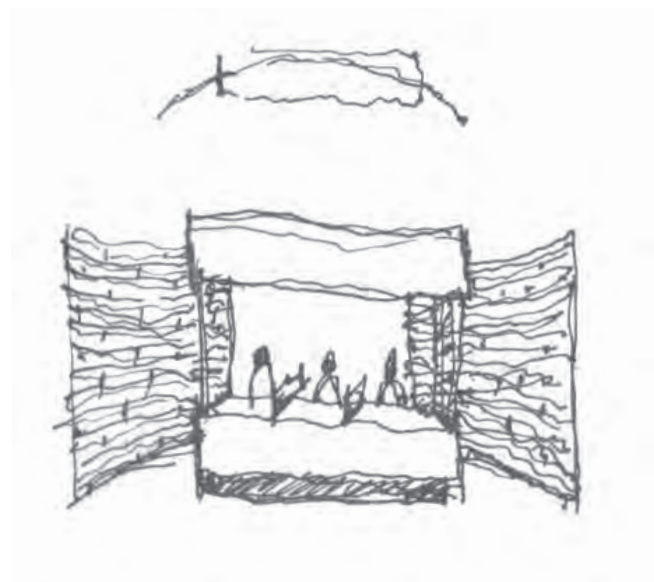
-Maurice Merleau-Ponty
Phenomenology of Perception





1 introduction

literature review
& precedents



introduction

This thesis examines the relationship of material, craft, and embodiment within the interior of a post office. At the core of the design is a concern for how body and mind are influenced by tectonic and material articulation. My research focused on details, fabrication, and methods of representation, particularly video. This body of work grapples with how qualities of embodiment and hand-crafted experience can be combined with media such as video and animation in an increasingly digital climate.

material craft & embodiment

“Architecture is not a mere aestheticized object, but a staging and forming of life”

Juhani Pallasmaa, *The Thinking Hand*

Introduction

This literature review will discuss the intersection of material, craft, and the embodiment in relation to the built interior environment with particular consideration of the work of architects Juhani Pallasmaa and Peter Zumthor. The search for authenticity is at the core of their respective work and will be considered as a theme that ties together the literature. Juhani Pallasmaa is the foremost author on these subjects within the architectural discourse and anyone engaging with these topics needs to consider his work. Peter Zumthor’s contribution to the literature is also of note, but more importantly his buildings have an authority of their own to be considered. I will begin by explaining the context that Pallasmaa has posited and then I will step through each of the three topics, first by defining them and then highlighting key points in the relevant literature.

Material, craft, and embodiment are often intertwined

and are all concerned with authenticity. Pallasmaa does not strictly define authenticity but consistently relates it to having resonance with embodiment and the human condition.¹ A number of authors, including John Ruskin and William Morris, have noted how mass production and technology have fundamentally changed the way we interact with the world—and how authenticity is degraded—through changes in work and consumption.² Pallasmaa argues that modernity and consumerism have separated the mind-body connection and subjected our bodies and senses to an onslaught of ‘commercial manipulation and exploitation’.³ The resulting ocularcentrism⁴ has degraded the authenticity of architecture and our experiences.

Since the invention of the photograph, the authenticity, or “aura” of an object, has had to compete with the multiplication of its reproduction. German

philosopher Walter Benjamin argues that a reproduction, no matter how technically similar, does not have the same authorship or context as the original and therefore lacks “aura”. The disintegration of authenticity is at stake with the accumulation of images. Society has grown to desire the proximity and readiness of a reproduction at the cost of “overcoming the uniqueness of every reality”.⁵ A society that no longer desires authenticity and authorship is in crisis; the real is replaced by the consumable and “As a consequence, in today’s society of spectacle, architecture is increasingly a product of sensationalism”.⁶

Pallasmaa writes with the mission of a defender of culture, the human condition, and the existential space.⁷ He believes that architecture has the power to articulate and enliven the relationship between body and mind, and the thin boundary between self and world.⁸ Architecture is a social art and has the responsibility to shape the life that occurs within it.⁹ As a discipline, architecture needs to be “grounded on a trinity of conceptual analysis, the making of architecture, and experiencing - or encountering - it in its full mental, sensory and emotional scope”.¹⁰ In reaction to the current cultural favoring of technology and consumption, Pallasmaa argues that as computer aided drafting (CAD) and other digital technologies have entered the realm of architectural practice and academic pedagogy, there has been a shift from architecture as constructed three-dimensional space, to architecture as dazzling two-dimensional renderings.¹¹ The authenticity of architecture has been whisked away by the tide of euphoric consumer-culture by appealing to the desire of novelty, the commodification of buildings, and the dominance of the marketable image.¹² “Profound architecture” on the other hand, “turns our attention away from itself to the world and our own life”.¹³ In a culture obsessed with speed, architecture should encourage the slowing down of pace and recognize the individual experience. It is the ethical task of architecture to defend the sensualness of embodied life and the human existential condition.¹⁴

Craft

In this review, I am using Peter Buchanan’s definition of craft as a quality of workmanship set apart by skill and intuitive knowledge acquired through accumulated practice.¹⁵ Buchanan ties craft to a mastery over the qualities of a material whether they are physical or intangible.¹⁶ It is applied to both the micro and macro aspects of architecture from the minutiae of the work of a maker’s hand to the compositional whole of a building.¹⁷ Craft is important because it links architecture to a particular cultural context through the work of its designers and builders.¹⁸ Pallasmaa and Buchanan share the belief that craft fulfills our innate need of connecting to time and place by connecting the observer with the process of the maker.¹⁹

Richard Sennett states in his influential book, *The Craftsman*, that a craftsman is set apart as having a quality of engagement²⁰ and integrity embedded in their work; “craftsmanship names an enduring, basic human impulse, the desire to do a job well for its own sake”.²¹ Sennett argues along similar lines to Buchanan that through patient and mindful repetition of their skill, the craftsman forms an intuitive knowledge and demonstrates the subtle but deep connection between hand and intellect.²² The persistent honing of craft creates a material consciousness combined with integrity that is fundamental in shaping a more humane world.²³

The societal and cultural role of craft is taken into consideration in Matthew Crawford’s book, *Shop Class as Soulcraft*. Crawford asserts a perspective that is echoed by Pallasmaa and Sennett, in which digital-based work and the information economy have distanced us from our physical reality.²⁴ Sennett believes that crucial aspects of understanding a building, such as scale and material, are lost when one only ‘draws’ on a computer.²⁵ Pallasmaa’s position towards craft is similarly situated in reaction to a post-modern shift in economy and culture however he uses the term “artistic authenticity” instead of craft.²⁶ The

major concern of *Shop Class as Soulcraft* is what is lost when we are no longer conversant with craft and the way our things work.²⁷ Crawford aims to restore the virtue and value of the trades, or blue-collar work,²⁸ whereas Pallasmaa and Sennett write about craft in a loftier sense. Pallasmaa embraces a humanist mission²⁹ and wishes for the architecture to once again “embody high-minded cultural and collective values” through craft.³⁰

Material

From the literature I have defined *material* as encompassing the physical matter that buildings and interiors are constructed of, but more specifically, the elements of the earth that have been extracted and utilized since the first man-made structure was built, i.e. stone, wood, and clay (masonry).³¹ In *A Way of Looking at Things*, Peter Zumthor formulates the importance of material as being able to absorb the life of its inhabitants: “I am convinced that a good building must be capable of absorbing the traces of human life and thus of taking on a specific richness.”³² Likewise, architectural historian and theorist David Leatherbarrow emphasizes a material’s ability to accumulate sedimentations of time and actions.³³ In *Material and Mind*, Christopher Bardt suggests that material derives meaning from its ability to hold time³⁴ and be transformed.³⁵

Contemporary construction materials,³⁶ in contrast to earth materials, were designed to be impervious to wear and therefore reflect, rather than absorb, human life. Contemporary elements have a different temporal lifetime than traditional materials, and tend to negate or distance people from embodiment and connection to place.³⁷

A material’s richness relies on its capability of sedimentation, which means that a building is never fully formed, but continually metamorphosing. The continual formation of a material by its deterioration, is what Leatherbarrow has coined as *weathering*.³⁸ The perspective that the continual breaking down of material

due to the elements or human use is additive rather than subtractive is resonant to Zumthor’s absorption of the “traces of human life”.³⁹

Making another point about material quality, Leatherbarrow compares and contrasts the use of material in the work of Peter Zumthor and Jean Nouvel. He argues that materials create specific meanings, not because of a particular truth about any individual material, but through the hands that craft it or the architect that knows how to give it shape.⁴⁰ Nouvel uses glass with the intent of reducing the separation between people and nature to as little as possible, but he views material as a barrier. Zumthor proposes an alternative view—that nature and building exist in fluid connectivity—as demonstrated in his Therme Vals project.⁴¹

Embodiment

Embodiment is a term that expresses an accumulation of meanings from a variety of disciplines. It first calls upon *phenomenology*, or the philosophical study of consciousness and the objects of direct experience, notably the work of Merleau-Ponty.⁴² In psychology, *haptic perception* is used to describe “a holistic way of understanding three-dimensional space. The word *haptic*, from a Greek term meaning to *lay hold of*, is used to describe the various sensibilities of the body to its position in the physical environment and its own condition.”⁴³ Another relevant term is *simultaneous perception*, which is the integration of many senses, such as touch, positional awareness, balance, sound, movement, and the memory of previous experience.⁴⁴ Lastly, *embodied* describes the way the body itself is receptive to, frames, and is a vehicle for perception.⁴⁵

Through close study of a ranching community, Maire O’Neill details the ways people perceive and move through space in “Corporeal Experience: A Haptic Way of Knowing.” Spatial experience is created through sound, smell, memory, balance, touch, movement, and work.⁴⁶

O’Neill’s work begins with a reference to *Body, Memory, and Architecture*,⁴⁷ which similarly argues that the full range of bodily sensation is often unacknowledged in contemporary design education where vision is primary and architecture as seen as an object. However, there is multidisciplinary research demonstrating that place experience is formulated by the entire body—with memory, and senses as an integrated whole. The body is able to simultaneously register its relation to itself,⁴⁸ its movements,⁴⁹ and any sensory inputs.⁵⁰ “Through unselfconscious knowledge registered in the physical body and in memory,” she writes, “we evolve a deep understanding of the identity of places and strengthen our emotional connections with them”.⁵¹

Tony Hiss introduces simultaneous perception in his book, *The Experience of Place*, which as defined above, suggests the connection between systems of perception. Simultaneous perception is a brain-body system that formulates the experience of space through a vast system of interconnectedness between our senses, thoughts, feelings and sensations of touch and balance.⁵² This system is continuously active but not always perceptible to our consciousness.⁵³ Ordinary perception is single focused and allows us to separate oneself from our surroundings, whereas simultaneous perception broadens our focus and links us to the agency and movements of the people and things in our environment.⁵⁴ Hiss analyzes the movements of the crowds of people within Grand Central Terminal in New York City to demonstrate the inner-workings of simultaneous perception. The choreography of the crowd flowing harmoniously without colliding or communicating is what Hiss defines as simultaneous perception responding to multisensory patterns.⁵⁵ The moment-to-moment adjustment of one’s motion in relation to the movements of others demonstrates a coordination or cooperation between the simultaneous perception of a group of people and has also been called fluid body boundary by Dr. Arthur Deikman, a research psychologist.⁵⁶ With simultaneous perception

and multisensory perception we feel less separate from our environments and more connected to the people and community around us.⁵⁷

Throughout all of his writings, Pallasmaa’s major concern is embodiment and the human condition. “Retinal art”⁵⁸ has degraded haptic and human-centered design. We understand the world through our bodies, which are central to our experience and self-awareness: “The human body is a knowing entity. Our entire being in the world is a sensuous and embodied mode of being, and this very sense of being is the ground of existential knowledge”.⁵⁹ The more we rely on our eyes and intellects the more dissociated we become from our bodies, the people around us, our physicality, and our reality.⁶⁰

In *Material and Mind* Christopher Bardt poses an argument against Cartesian duality similar to Pallasmaa, in which material influences thought and action.⁶¹ He goes so far to say that thought and action are formed and influenced by material surroundings and that we think through our material bodies.⁶² In contrast to Pallasmaa’s poetic and personal writing style, Bardt directly engages with the work of other disciplines such as philosophy and cognitive science. However, they both argue on behalf of a similar belief; that the richness and authenticity of experience lies inherently in our ability to perceive and value the physical and material reality of our world and bodies.

Conclusions

Authentic architecture expands our consciousness and gives us a language to understand social, cultural and constructed space.⁶³ Material and craft, as defined by the literature, are two key elements of that language that shape our perception and participation in the physical environment. Authenticity describes a presence; an authority of the real and material. It activates an engagement of the self in multiple capacities; the emotional, social, psychological, physical, and

intellectual. Lastly, it affects the perception of self in that it grants a greater context in which to project the evaluation of meaning and history.

Material, craft, and embodiment are at the heart of authenticity. *Material* speaks to all the generations of people who have felt, seen, worked with and left traces on stone, wood, clay, and textile. It resists⁶⁴ and absorbs daily use. *Craft* speaks to the tradition of a group of people and reflects their values.⁶⁵ The two tie the temporal depth of material to the present expression of the patient rendering of form through one's hands. *Embodiment* in a well-crafted material space creates a deep sense of place and weaves an inhabitant into the cultural narrative of past and present creating an aura of authenticity. The feeling is both intimate and greater than the sense of self.

In my thesis I wish to explore how material and craft shape our experience of interior space and create a sense of authenticity. I am also interested in the converse: how our embodied experience affects our valuation and relation to craft and material. I am interested in phenomenological experience of interior environments that Pallasmaa writes about, but Pallasmaa is not clear about how to design full-bodied experiences of place. Zumthor's work is exemplary of the experiences I wish to create, but he likewise is opaque about the design process. As the literature has shown, there are as many questions raised as there are answered in respect to the creation of authenticity in constructed space. However, I believe it is important to continue the query in order to understand its current cultural role and application. Ultimately my goal is that my exploration of how craft and material create a particular perspective and experience of the world will lead to a better understanding of authenticity in the built environment.

Notes:

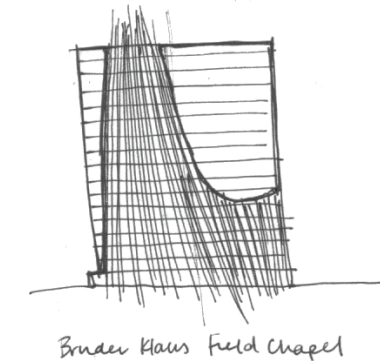
1. Pallasmaa uses Walter Benjamin's definition of aura to express authenticity. "The sense of 'aura', the authority of presence, that Walter Benjamin regards as a necessary quality of an authentic piece of art, has been lost". *The Eyes of the Skin: Architecture and the Senses*, 2012, p. 20.
2. The Arts and Crafts movement arose from a criticism of the changing nature of work and quality of consumer goods during the Industrial Revolution. In particular, Ruskin's essay, 'The Nature of the Gothic' in the second volume of *The Stones of Venice*, is a sharp criticism of the division of labor and its effects on the laborer, "we manufacture everything there except men; we blanch cotton and strengthen steel...but to brighten, to strengthen, to refine, or to form a single living spirit, never enters into our estimate of advantages...And all the evil to which that cry is urging our myriads can be met only in one way:... by a right understanding, on the part of all classes, of what kinds of labour are good for men, raising them, and making them happy; by a determined sacrifice of such convenience, or beauty, or cheapness as is to be got only by the degradation of the workman; and by equally determined demand for the products and results of healthy and ennobling labour." p 162-163.
3. Pallasmaa, *The Thinking Hand : Existential and Embodied Wisdom in Architecture*, 2009, p 13.
4. Vision as the most universal sense and fundamental way in which we interpret the world. Pallasmaa's critique of this tradition has also been expressed by philosophers such as Descartes, Nietzsche, and Merleau-Ponty.
5. Benjamin, Walter. "Art in the Age of Mechanical Reproduction." In *Illuminations: Essays and Reflections*. Ed. Walter Benjamin. New York, 1969, p. 222.
6. McCarter, Robert, and Juhani Pallasmaa. *Understanding Architecture: a Primer on Architecture as Experience*, 2012, p. 187.
7. Others that have written about this topic include, Yi-Fu Tuan's *Space and Place*, Christopher Bardt in *Material and Mind*, Jun-Ichiro Tanizacki "In Praise of Shadows"
8. Pallasmaa, *The Thinking Hand*, p. 148.

9. Buchanan, "Construction and Composition, Concept Versus Craft", in *Local Architecture: Building Place, Craft, and Community*, 2014, p. 187.
10. Buchanan states the range of material spans from wood, to poetry, to light and the choreography of circulation. *Ibid.*, p. 187.
11. Pallasmaa, "Toward an Architecture of Humility: On the Value of Experience" 2012.
12. Pallasmaa, *The Thinking Hand*, p.146.
13. Pallasmaa, "An Architecture of the Seven Senses." Reprinted in *Toward a New Interior*, Weinthal, ed. 1994. pp. 40-49.
14. Pallasmaa, "Toward an Architecture of Humility", p. 97.
15. McCarter and Pallasmaa, *Understanding Architecture*, p. 187.
16. *Ibid.*, p. 148.
17. Buchanan, "Construction and Composition, Concept Versus Craft", p. 189.
18. *Ibid.*, p. 185.
19. Buchanan, "Construction and Composition, Concept Versus Craft" and McCarter & Pallasmaa, *Understanding Architecture*.
20. "The craftsman represents the special human condition of being engaged". Sennett, *The Craftsman*, p. 20.
21. Sennett, *The Craftsman*, p. 9.
22. *Ibid.*, p.9.
23. *Ibid.*, p. 8.
24. Crawford, Matthew. *Shop Class as Soulcraft: An Inquiry Into the Value of Work*. 2009, p. 11.
25. Sennett, *The Craftsman*, p. 41.
26. Pallasmaa, "Toward an Architecture of Humility", p. 97.
27. Crawford, *Shop Class as Soulcraft*, p. 2.
28. *Ibid.*, p. 8.
29. "Architectural design, ... should acknowledge the need

for civic responsibility. Architecture should strengthen the reliability and comprehensibility of the world." Pallasmaa, "Toward an Architecture of Humility: On the Value of Experience." p. 100-101.

30. *Ibid.*, p. 96.
31. "Natural materials-stone, brick and wood-allow the gaze to penetrate their surfaces and they enable us to become convinced of the veracity of the matter." Pallasmaa, "An Architecture of the Seven Senses." p. 41.
32. Zumthor, Peter, Maureen Oberli-Turner, and Catherine Schelbert. *Thinking Architecture*. Birkhäuser, Basel;Boston, 2006, p. 24.
33. Leatherbarrow, David. *Architecture Oriented Otherwise*, New York, NY, 2012;2008; p. 16.
34. Bardt describes two examples in which materials "hold time". The first is the formation of granite over "geological deep time". The second was the re-use of crumbled concrete after WWII in the creation of new sidewalks in Warsaw, Poland. Christopher Bardt, *Material and Mind*, 2019, p. 7.
35. Bardt, Christopher, *Material and Mind*, 2019, p. 7.
36. Such as glass, steel, and synthetic materials.
37. "But the materials of today-sheets of glass, enameled metal and synthetic materials-present their unyielding surfaces to the eye without conveying anything of their material essence or age". Pallasmaa, "An Architecture of the Seven Senses." p.41
38. In his book *On Weathering*, Leatherbarrow defines weathering as "the gradual destruction of buildings by nature in time" p.6. The term "weathering" originally denoted a part of a building that cast off water in order to prevent the erosion of its surface and has led to the current terms of weatherproofing both of which are of the mind that a material's deterioration is a subtractive rather than additive effect.
39. Zumthor, "A Way of Looking at Things" in *Thinking Architecture*.

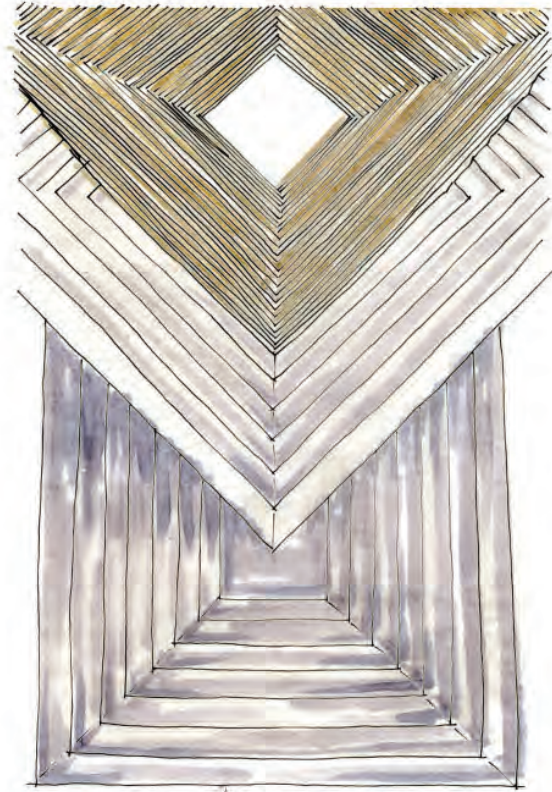
40. Leatherbarrow, *Architecture Oriented Otherwise*, p. 91. This idea is also shared by Christopher Bardt, in *Material and Mind*.
41. “The building takes the form of a large, grass-covered stone object set deep into the mountain and dovetailed into its flank...Mountain, stone, water, building in stone, building with stone, building into the mountain, building out of the mountain, being inside the mountain-our attempts to give this chain of words an architectural interpretation...guided our design for the building and step by step gave it form.” Zumthor in “Stone and Water” p 9-10, as cited by Leatherbarrow, *Architecture Oriented Otherwise*. p. 76.
42. See Maurice Merleau-Ponty’s *Phenomenology of Perception*.
43. Piaget and Inhelder, 1956, as cited in O’Neill, Máire E. “Corporeal Experience: A Haptic Way of Knowing.” *Journal of Architectural Education*, vol. 55, no. 1, 2001, pp. 3-12.
44. Hiss, Tony, “Simultaneous Perception” in *The Experience of Place*, 1991, p.3.
45. This definition is derived from the accumulated literature.
46. O’Neill, “Corporeal Experience: A Haptic Way of Knowing”, p. 4.
47. Moore, Charles Willard, et al. *Body, Memory, and Architecture*. United Kingdom, 1977.
48. Somasthesis as defined by psychologist Edwin Boring as the sensibility of the body to itself. O’Neill, p.4
49. Kinesthesis is defined by O’Neill as the sensibility of the body’s movement.
50. O’Neill, “Corporeal Experience: A Haptic Way of Knowing”, p. 4.
51. *Ibid.*, p. 4.
52. Hiss, “Simultaneous Perception”, p.3.
53. *Ibid.*, p. 9.
54. *Ibid.*, p. 3.
55. *Ibid.*, p. 8.
56. Fluid Body boundary is “a point at which we equally divide our attention between ourselves and things outside ourselves. The diminished differentiation makes it easier to move in concert with other people” *Ibid.*, p. 20.
57. *Ibid.*, p. 21-22.
58. Pallasmaa, “An Architecture of the Seven Senses.” p. 41
59. Pallasmaa, *The Thinking Hand*, p 13.
60. Pallasmaa, *The Eyes of the Skin*, p. 20.
61. “Our mind and thoughts are continuously formed and influenced by the physical material with which we work and by which we are surrounded...material will resist a little, demand a degree of participation and forbearance, proceed in a nonlinear fashion.” Bardt, *Material and Mind*, p. 9.
62. *Ibid.*, p. 19.
63. Tuan, Yi-Fu. *Space and Place: The Perspective of Experience*, 1989, p. 107.
64. “All materials, ...meet our actions, resist them, transform them, and reflect new possibilities back at us, and in doing so bring our volition into a process of imagination and creativity.” Bardt, p.19.
65. Bardt, *Material and Mind*, p. 200.



brion tomb carlo scarpa

san vito d'altivole | 1969-1997

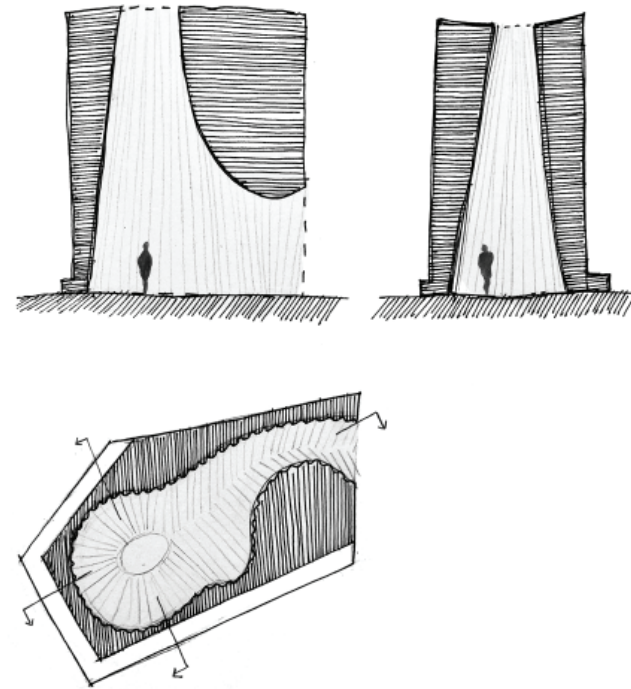
Robert McCarter has described Carlo Scarpa's addition to the municipal cemetery in San Vito d'Altivole as a place that has succeeded in making the spiritual explicit. Themes such as the cycle of life, water and unity run throughout the board-formed concrete and timber structures accompanied by a watercourse and reflection pool. Scarpa expressed his ideas through delicate layering of material and detailing. He employed a combination of textured and reflective materials, which alternate the sensations of weightiness and lightness. These feelings are echoed with deep shadows and angled light that lilt into the space through the stepped concrete masses and carefully carved out apertures. The cemetery elicits reflection, but also was a space where Scarpa imagined the joyful call of children's voices playing on the lawn to coexist harmoniously.

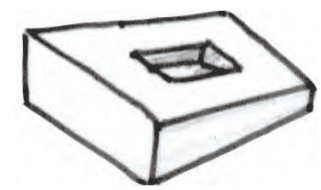


bruder klaus field chapel peter zumthor

merchernich, germany | 2007

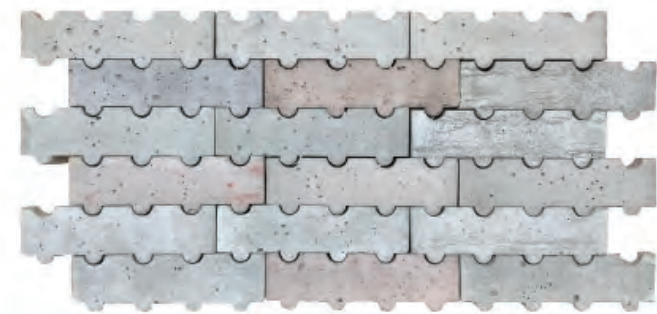
The monolithic chapel outside of Cologne by Peter Zumthor is as much sensorial as it is spiritual. The minimal structure consists of roughly 20 layers of rammed yellow concrete measuring 40 feet high with a hollowed out interior created by the burning out of over one hundred logs that made up the formwork for the concrete. The result is a smooth geometric exterior and a contrastingly highly tactile interior made by the negative of each tree. The cave-like chapel gradually opens up to an oculus that floods the darkened space with daylight. The materials and techniques arouse embodiment.





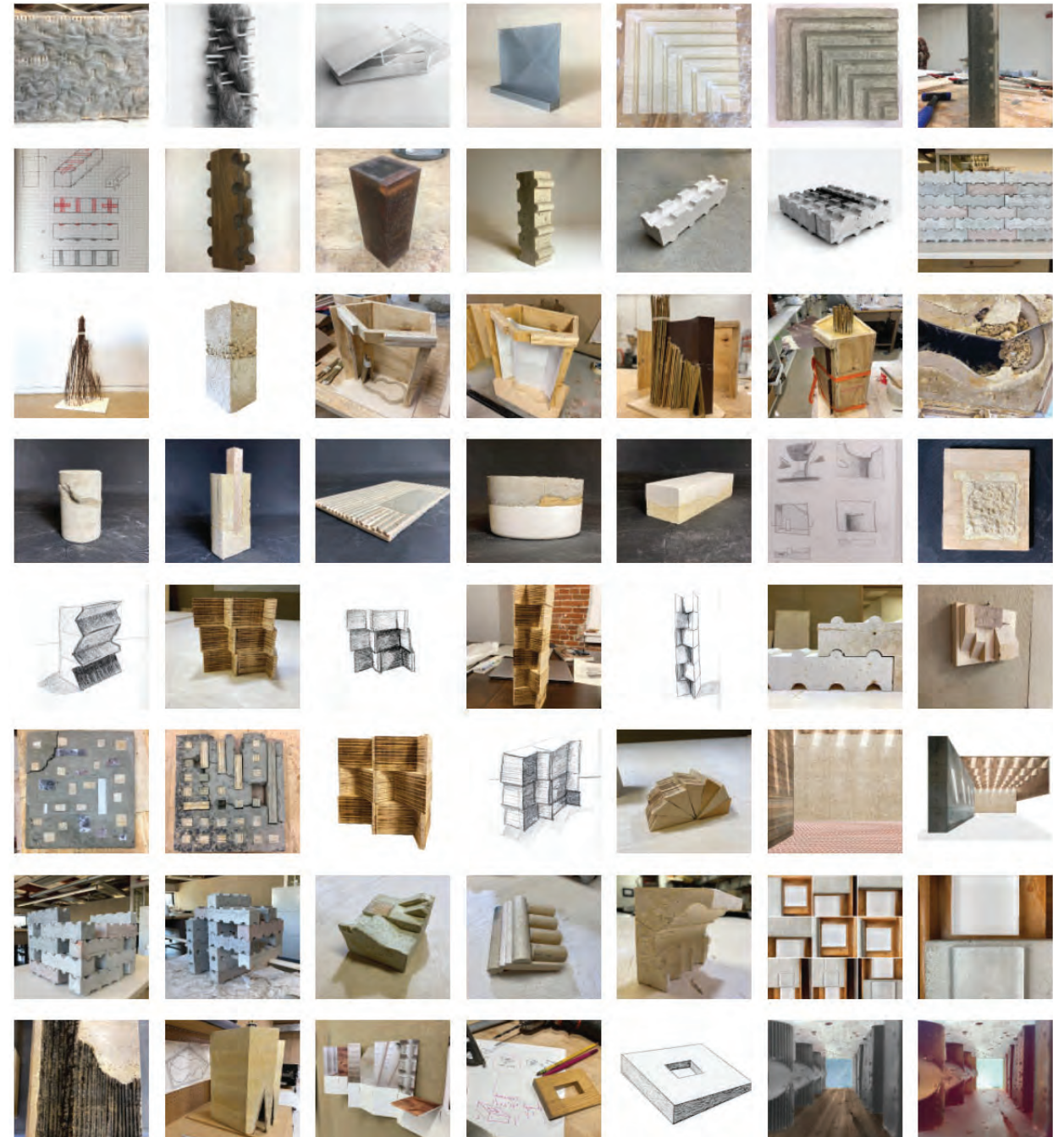
2 material

concept
& research



material experiments

My background as a ceramic artist and maker influence my interest in materials and tectonics. Throughout my graduate studies I was invested in better understanding material qualities—both the aesthetics and performance. This page shows the material experiments that influenced my thesis design decisions. Concrete and wood were two major materials and make up the primary palette in the post office. There are two projects here of particular importance: a concrete masonry unit and the model of Peter Zumthor's Bruder Klaus Field Chapel.



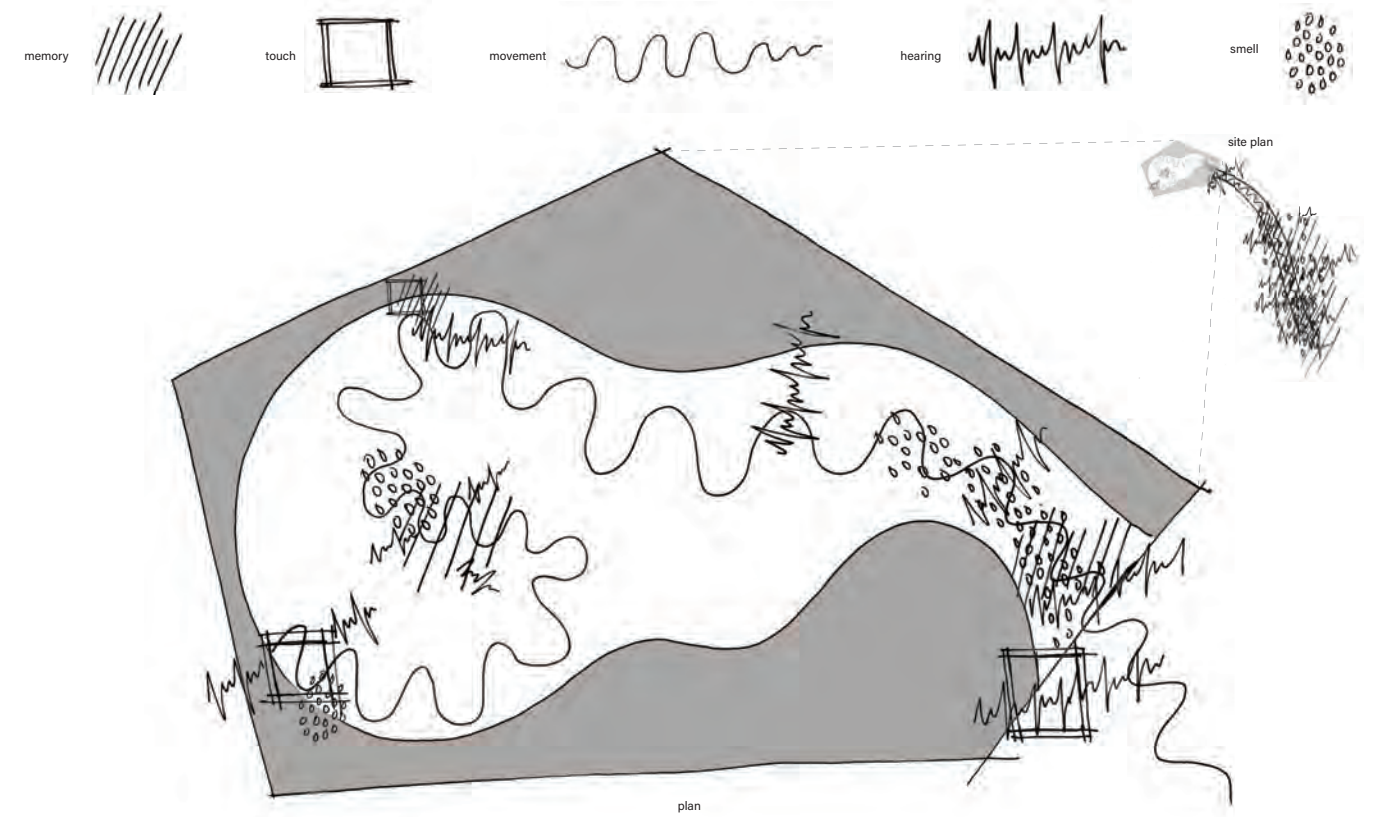


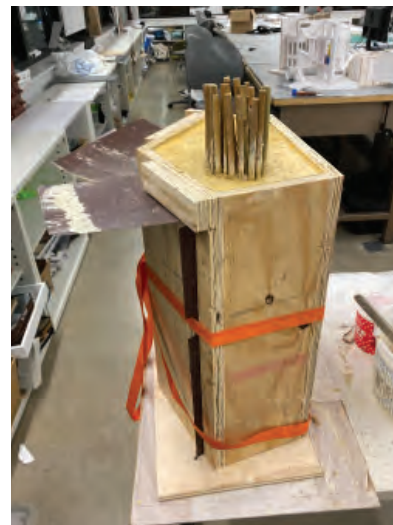
bruder klaus

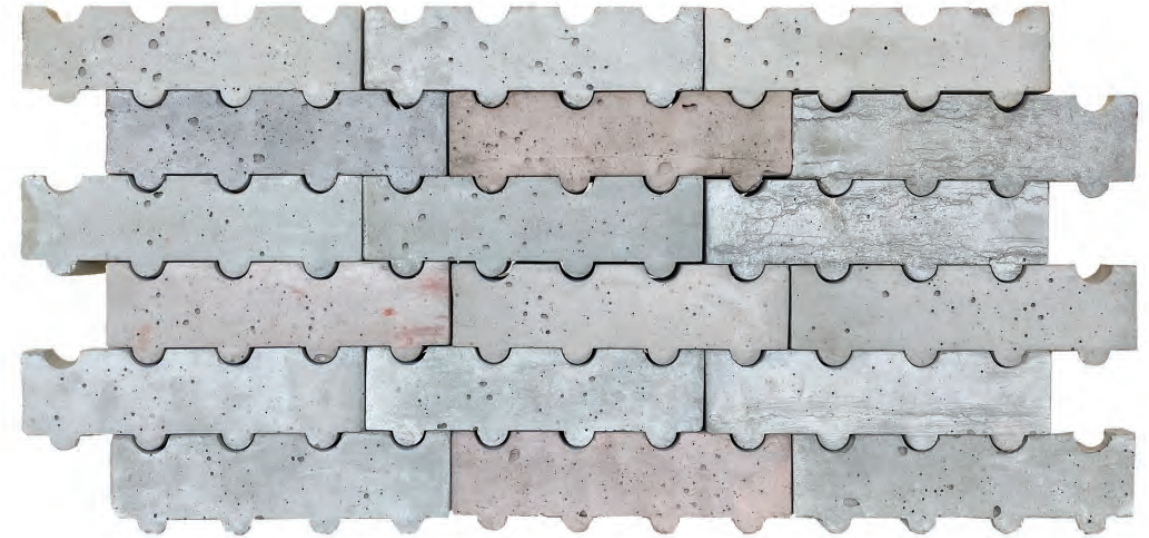
Peter Zumthor's Bruder Klaus Field Chapel was an important precedent. The building demonstrated the connection between material and embodiment that I wanted to pursue in my design. To better understand it, I started by mapping out the embodied moments I imagined to happen within. In the plan I marked out where memory, touch, smell, and movement occur.

Next, I built a 1/2" scale model to better understand the material and techniques that

created the embodied experience. I replicated Zumthor's method of rammed concrete and created a custom mix of concrete with white portland cement, yellow ochre pigment, and smaller aggregate. I poured the concrete over the course of three days, ramming down a new layer every one to two hours. The model is complete with a lead floor, blackened interior, and section cut to reveal the chapel's interior.





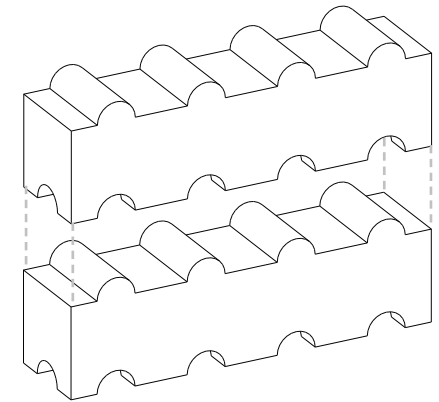


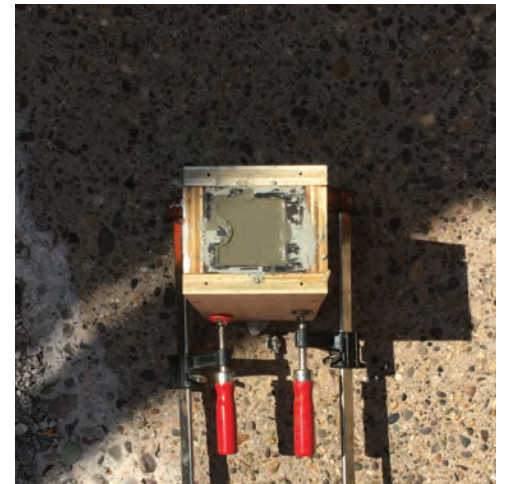
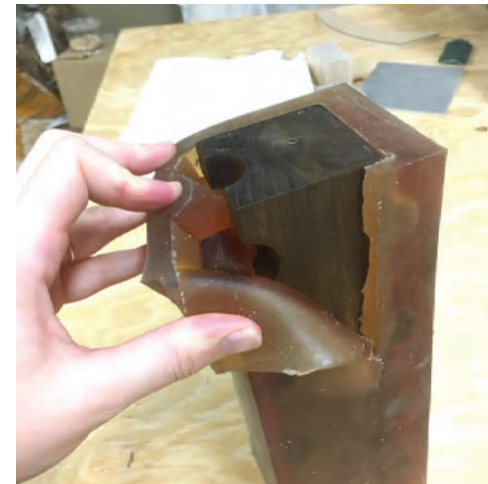
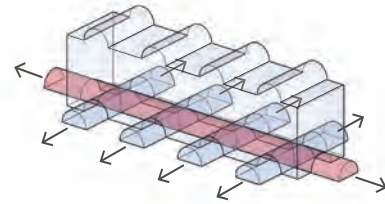
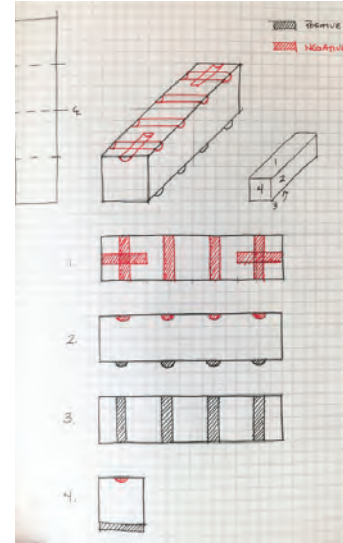
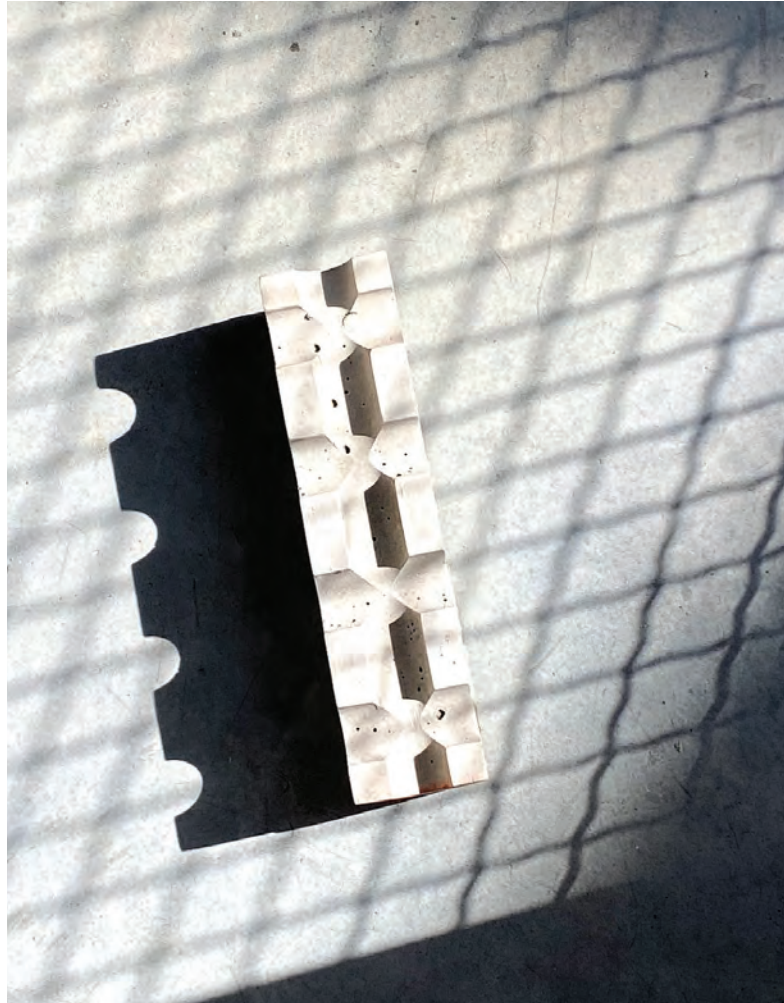
interlocking concrete masonry

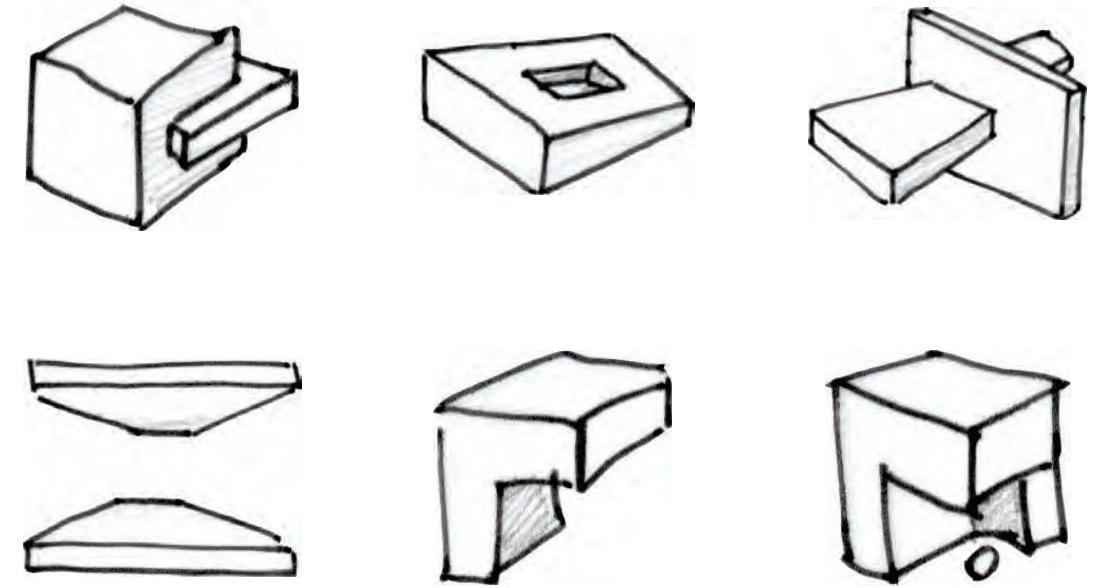
This novel masonry unit was designed with the idea of using the connection of modules to be used as a design element. The design features corresponding positive and negative parts that interlock vertically and can turn a 90 degree angle. The contours of the re-imagined brick required the plasticity of concrete cast in a rubber mold. Since each brick is produced by hand, color can be customized to enhance the rhythmic profile, making the brick highly configurable and continually visually interesting.

Currently being explored are methods for increasing production, as well as potential applications including exterior facing, interior partitions, furniture, and custom elements.

In order to cast the form in concrete a positive needed to be made out of wood. Because of the number of undercuts in the design a flexible mold was created out of rubber using the wooden positive. The rubber mold is easily maintained and can cast a brick every 24 hours. Production is scalable in relation to the number of molds.







juxtapositions

Following the example of the Bruder Klaus, which contrasts the smooth and geometric exterior with its rough and organic interior, I concluded that embodiment is drawn out in juxtapositions. Ultimately, I wanted to create a sense of expanse and intimacy in my design to reflect the ideas of self and community as well as public and private that play out within the post office. To do so, I focused on following juxtapositions:

weightiness		weightlessness
light		shadow
horizon		intimacy
transparency		opacity

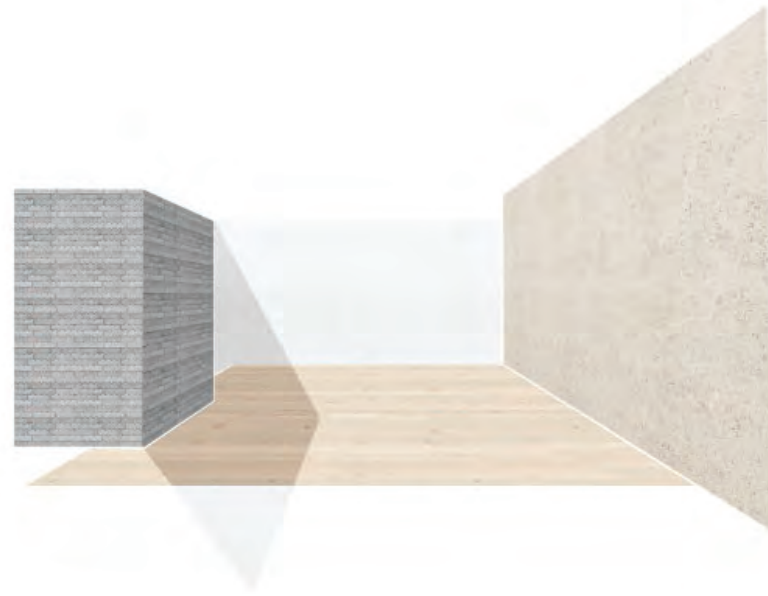
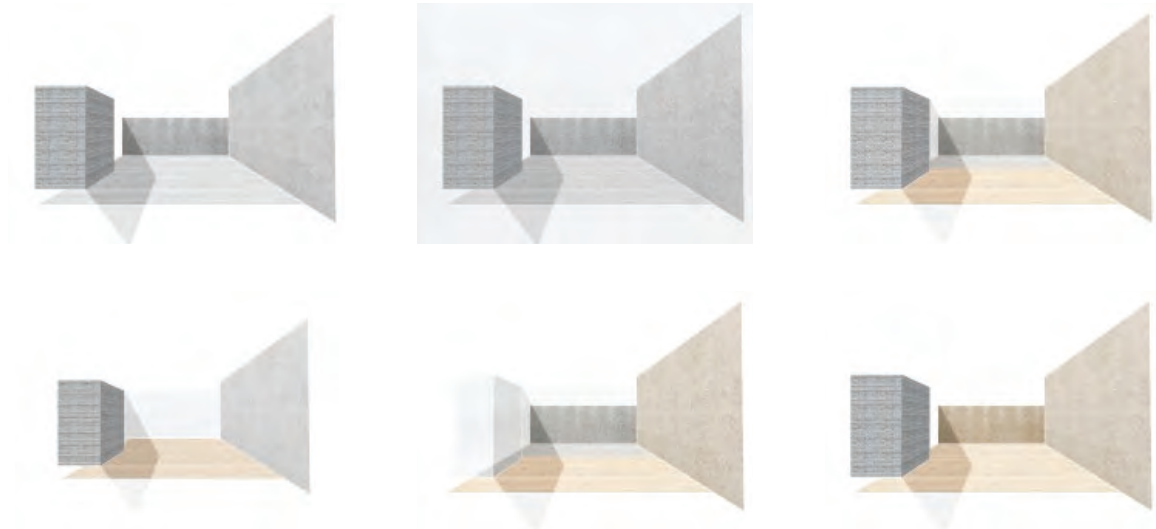
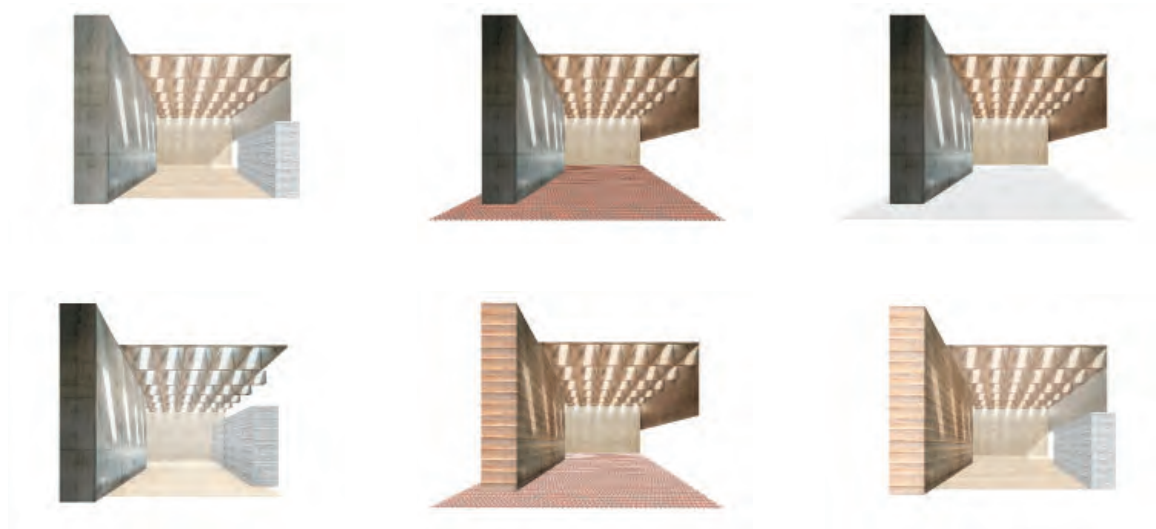


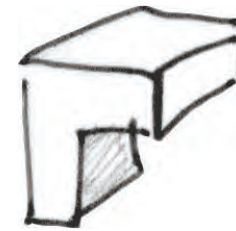
concept

In my research I found that the significance of a material rests in how it is crafted. The following collages look at how one space can be transformed by different material strategies.

"Neither stone nor glass possesses any essence or 'truth,' nor is one or the other singularly apposite to our time. The whole matter rests on the ways the materials are shaped and transformed, the ways they become what they had not been before, the ways they exceed themselves." - David Leatherbarrow

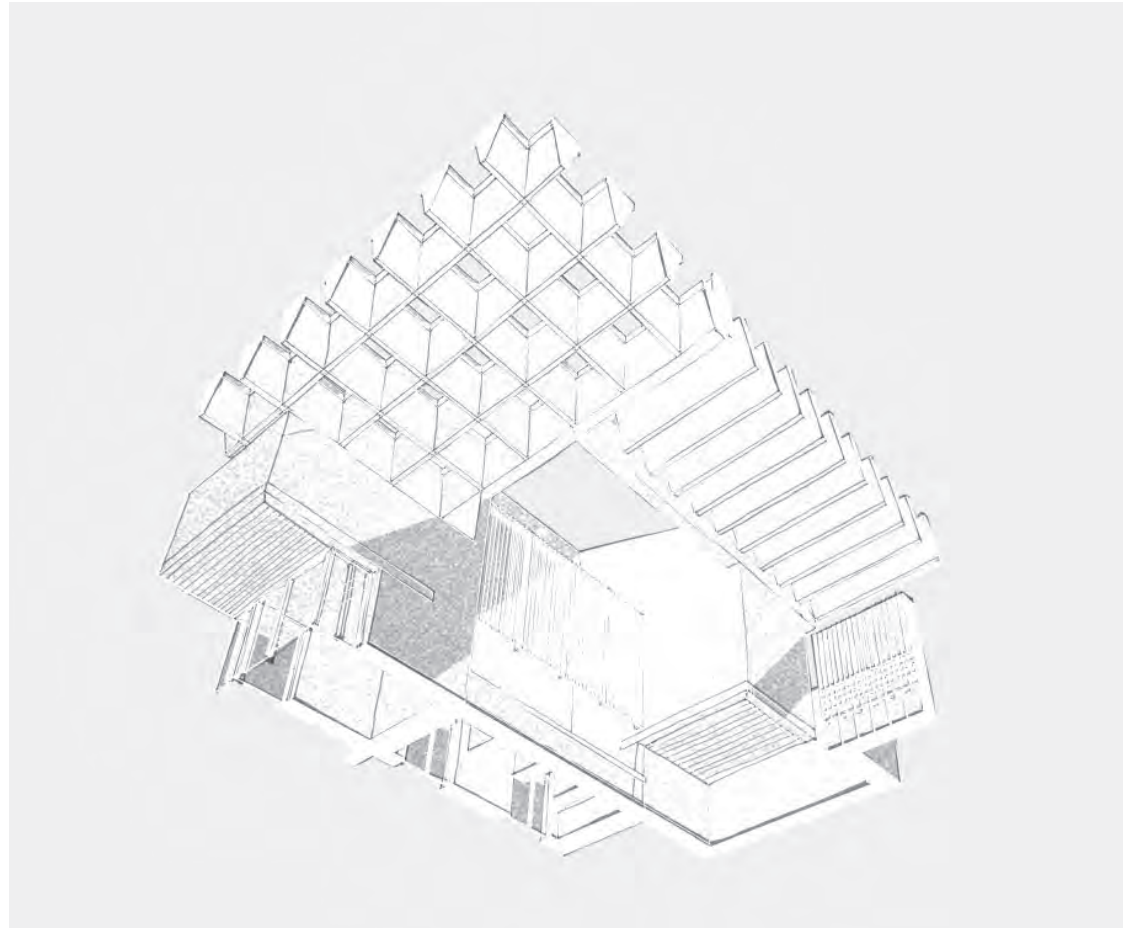






3 **craft**

the post office
material strategy
& details



a question

At the center of this thesis is a question. The design methodology and program soon to be described were attempts to explore it from multiple vantage points. The question of this thesis wonders how a material strategy can affect embodiment. Material environments are often perceived without notice, but have the potential to shape the body's interactions. Following the question was a concern for how to represent embodiment and I grappled with the disconnect between intellect and body and how it might be reconciled.



the post office

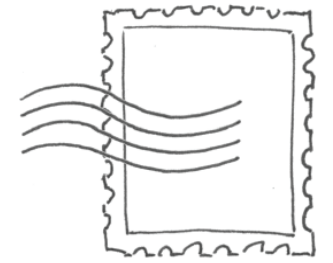
The role of the post office has shifted from time to time as societal needs emerged and faded away. In the late 18th century, post offices were small hubs within multi-use buildings serving as intermittent destinations to link the growing nation. Getting information and news from here to there was vital to democracy. Then in the 19th century, post offices became stand-alone buildings and were classical in style to reflect their link to the federal government or took on the aesthetic of their surrounding communities. Later in the 20th century, too much mail arrived at single location to be sorted. The

large building dispersed into smaller branches that collected the mail and then passed it along to the regional distribution center to be processed. Today, it is mostly the same with the branch offices at their smallest size yet.

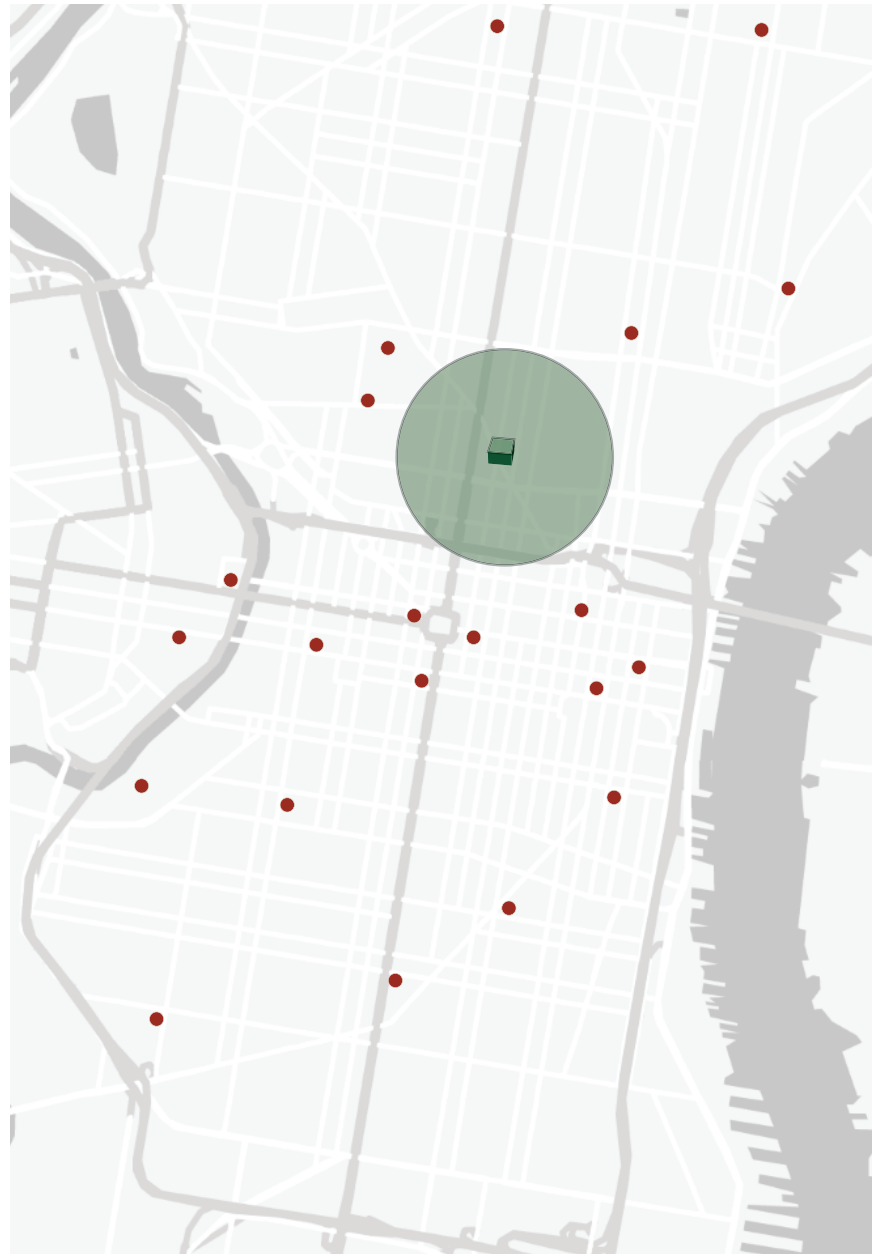
The relevance of the post office is hotly debated with the rise of Amazon and other industry competitors such as UPS and FedEx. However, the same competitors give the USPS a large portion of its revenue. The advantage of the national service is its pledge to deliver to any address no matter how rural or secluded it may be while the others will not. The USPS continues to serve its

civic service by connecting isolated citizens with necessary goods and services.

The program selection of the post office is to act as a template of accessibility and daily life for the purpose of arguing for the prioritizing of the body and materials to be applied to all modes of architecture and design. This program reimagines the branch post office by including a small business hub. Located in Philadelphia's Spring Arts District, entrepreneurs can utilize meeting rooms, packing and printing stations, rentable lockers, and a dedicated drop-off counter. This specialized branch addresses how the post office might stay relevant.



site ●
 USPS locations ●

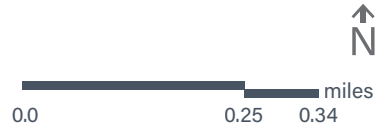


site

The Spring Arts District in Philadelphia is a growing neighborhood that a diverse group of artists and entrepreneurs call home. A site was selected for its proximity to Center City and lack of USPS locations in the area.



0.25 mile = 5 min walk
 0.5 mile = 10 min walk



accessibility

10 bus and subway routes have stops within a 5 minute walk

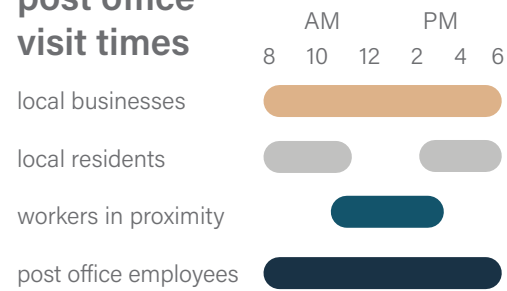
daily use

Following Jane Jacob's theory that neighborhoods with a variety of building types foster better public spaces these diagrams identify patterns of use and the community the post office would serve.

neighborhood building types

- residential
- restaurants & corner stores
- religious
- arts & culture
- education
- business & retail

post office visit times



parking and traffic

- street direction
- residential permit parking: 2 hour parking
- p school parking lot for weekend use
- loading dock for post office

5 min walk range

611 N 13th St.

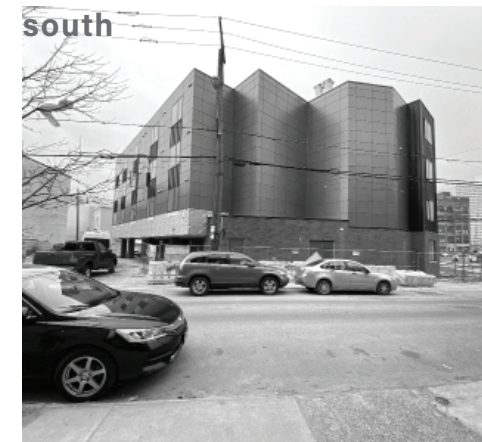
philadelphia | spring arts district



site considerations

- residential and commercial area
- single story
- 20th century masonry construction
- near public transportation and major roads
- southern & western sun exposure
- proximity to center city

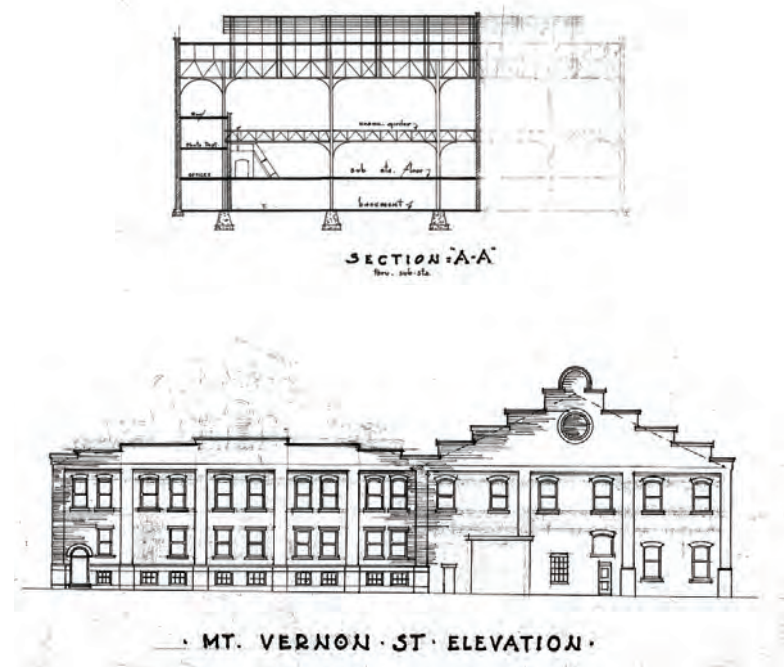
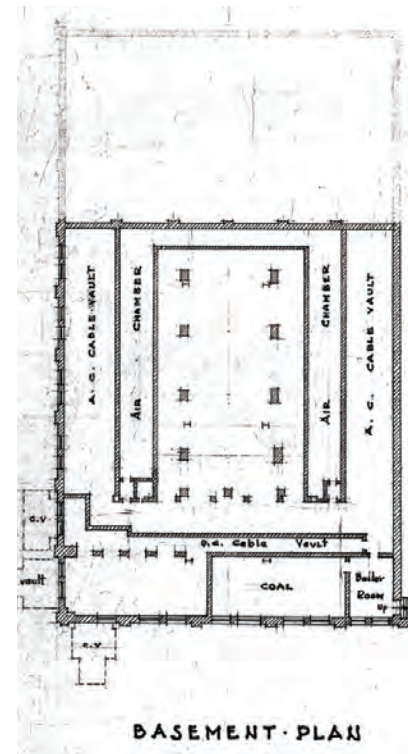
→ looking for a “blank slate”



views from building



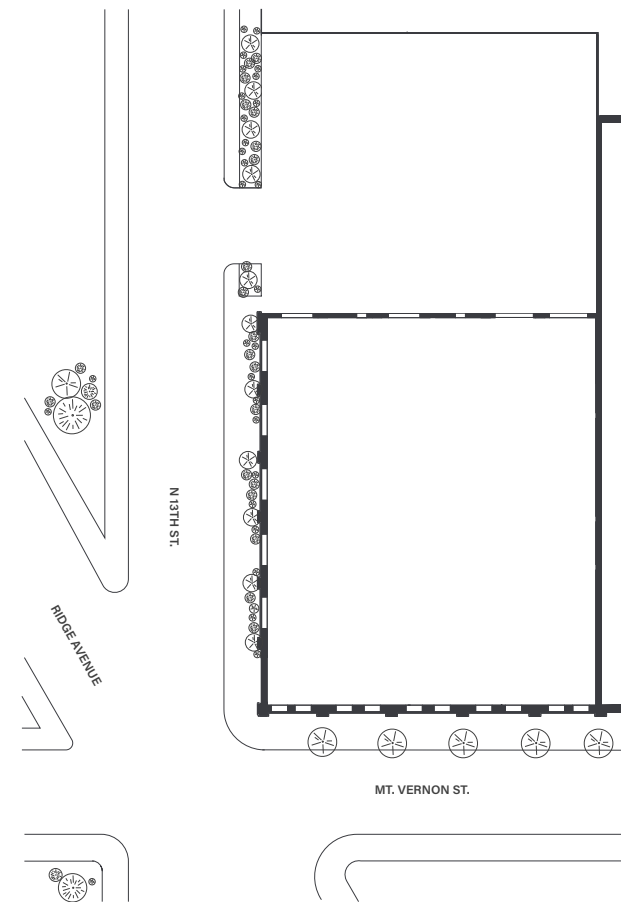
constructed in 1925 as a trolley repair warehouse



after renovations in the 1950s, the facade and footprint were reduced



today the building is a SEPTA substation



site

Constructed as a trolley repair warehouse, the first material was provided and is the 25 inch thick masonry shell. The building is now a SEPTA Substation and I wanted to preserve the substantiality and history of the building by minimally modifying and touching the shell.

parti

The site provided clues to the programmatic organization. The diagonal corresponds to Ridge Avenue and also provides a strategy to minimally intersect exterior walls with new partitions honoring the relationship between old and new.

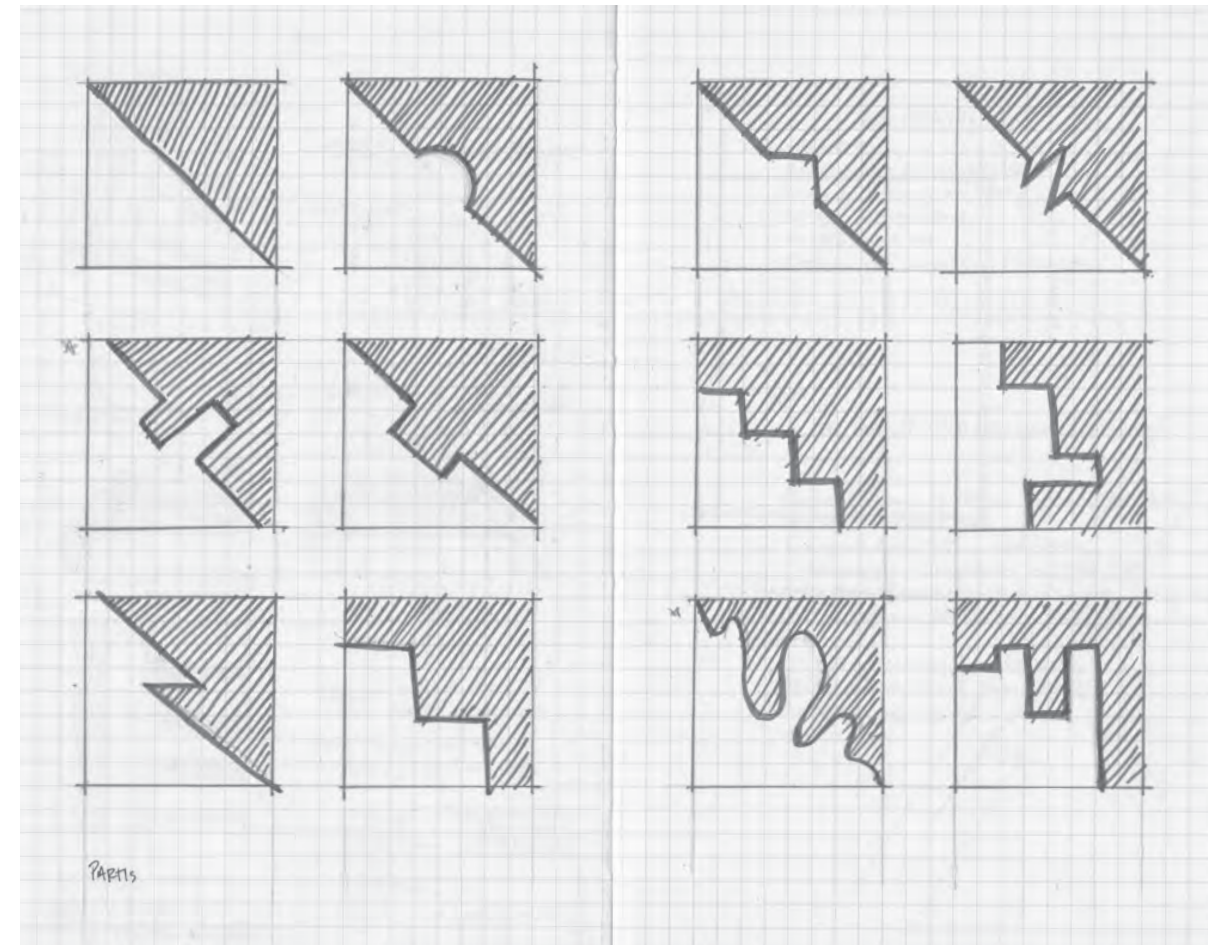
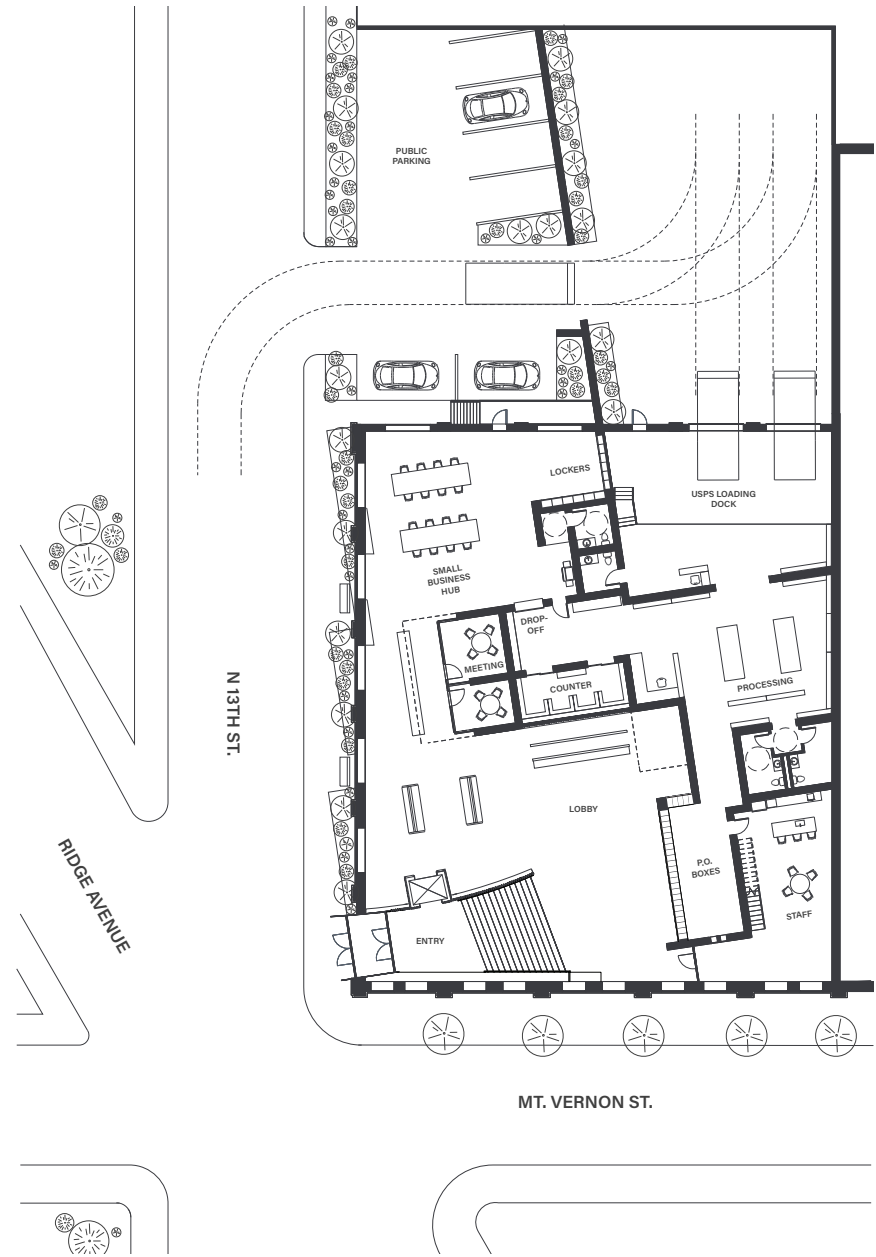
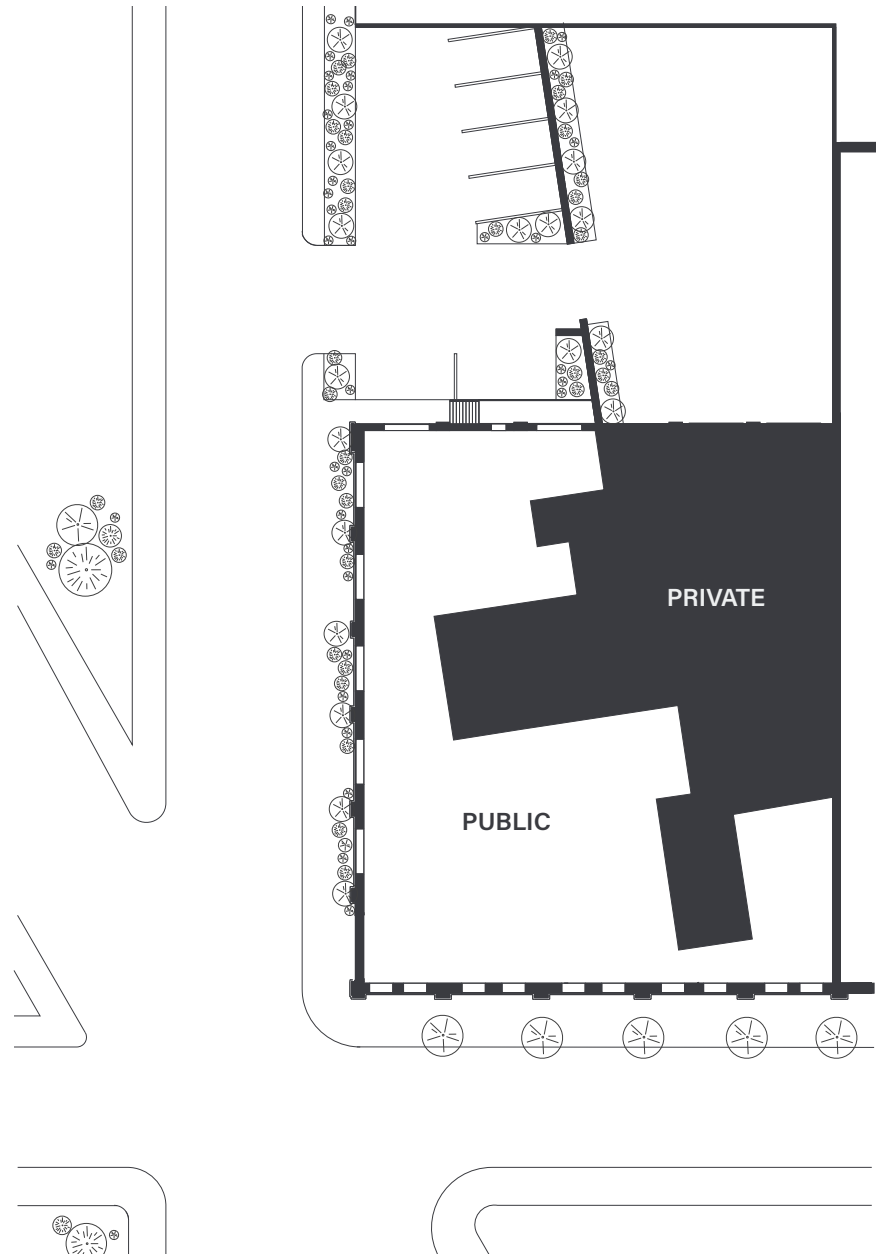


figure ground

Everything in the new construction is infill and organizes the figure ground diagram. This diagram reinforces the attitude of old versus new while also addressing the programmatic needs separating public from private.



material strategy

1. primary structure

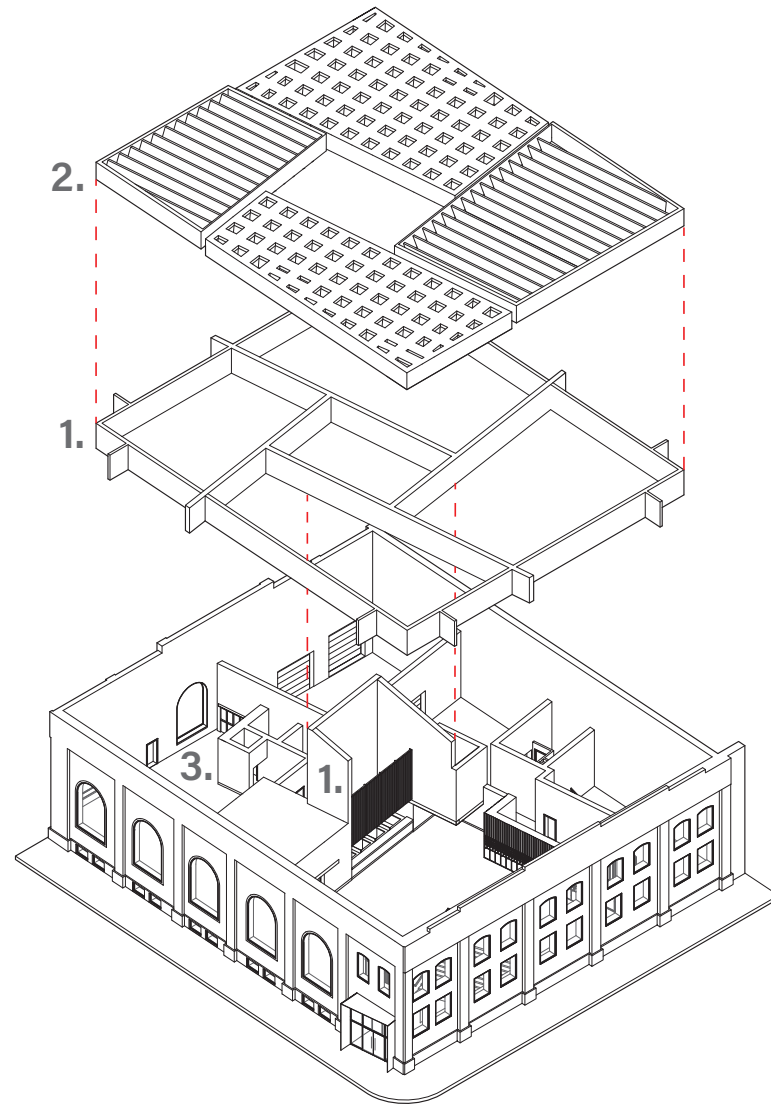
- cast-in-place concrete ceiling structure and occlus

2. secondary structure

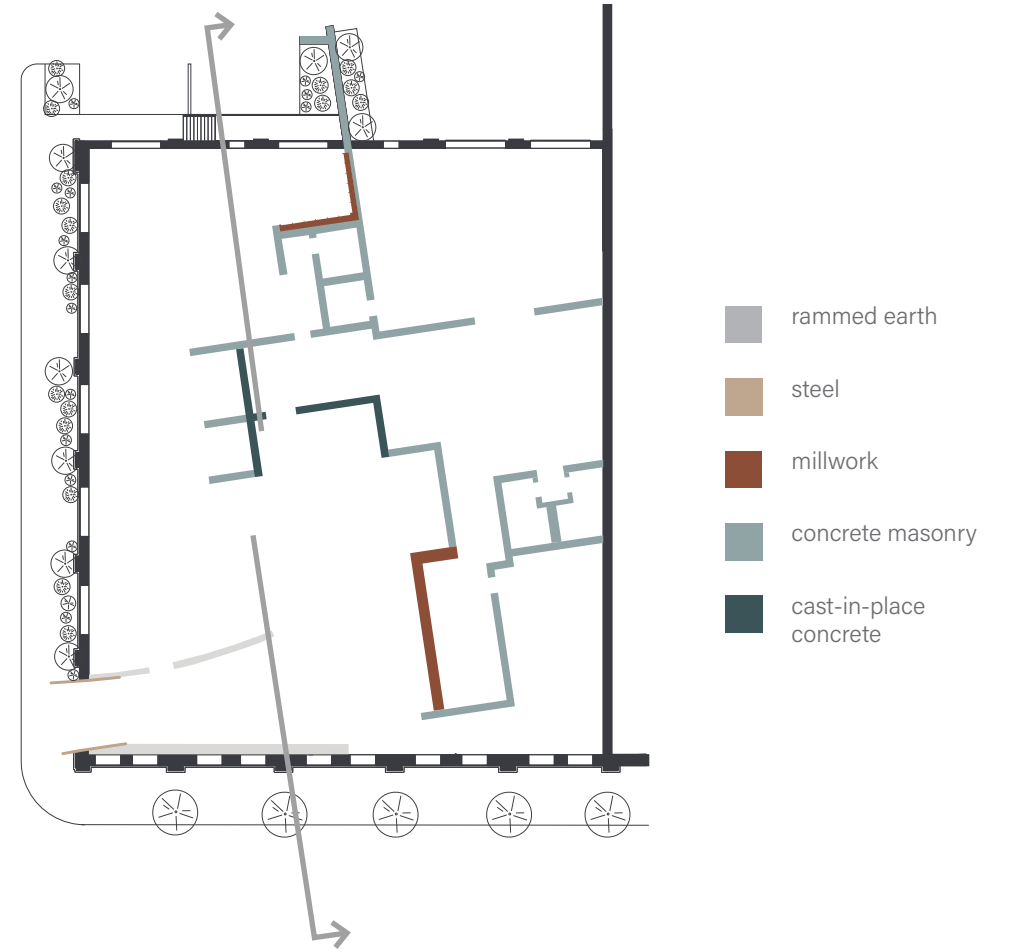
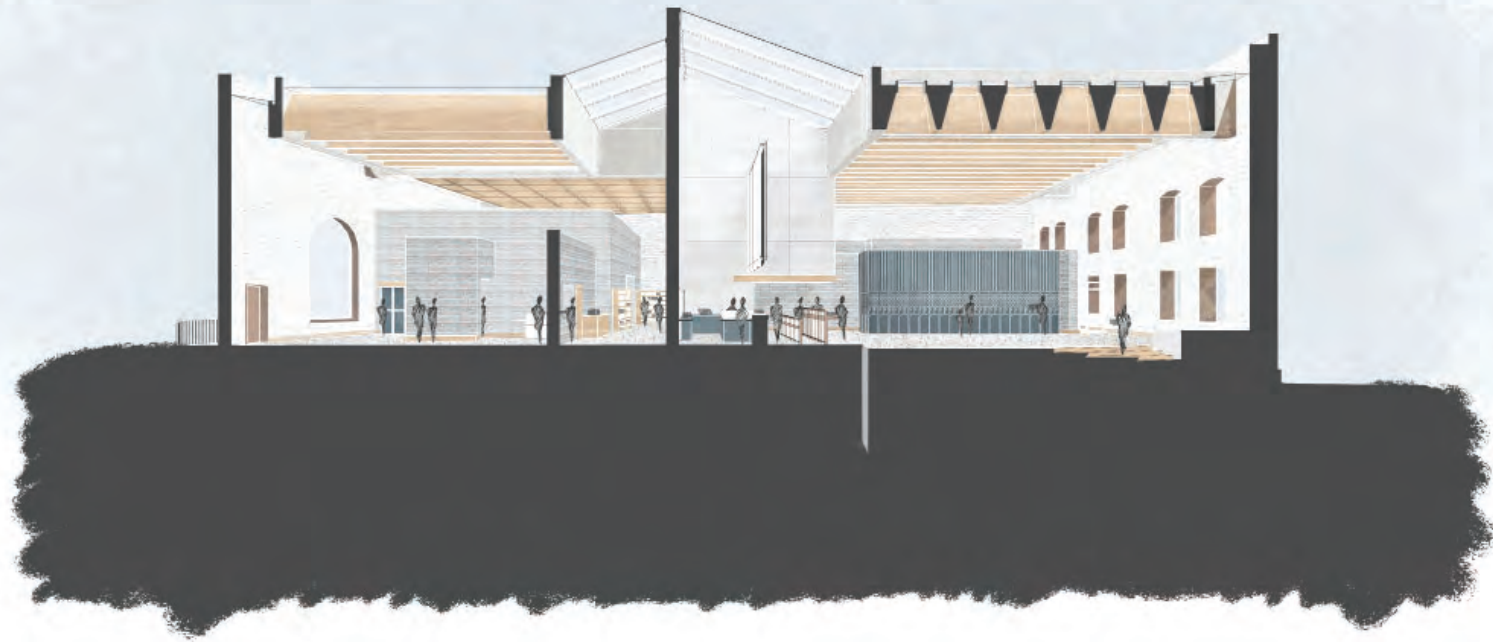
- cross-laminated timber louver and waffle ceiling system

3. non-bearing partitions

- rammed concrete entry partitions
- concrete masonry infill



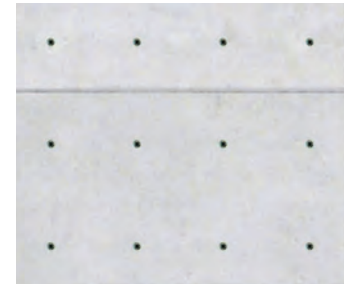
conceptual collage



cast-in-place



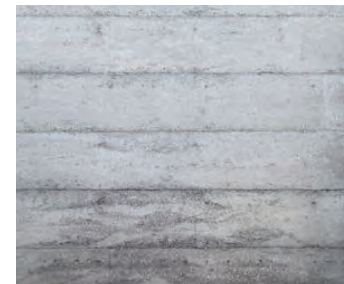
application



masonry



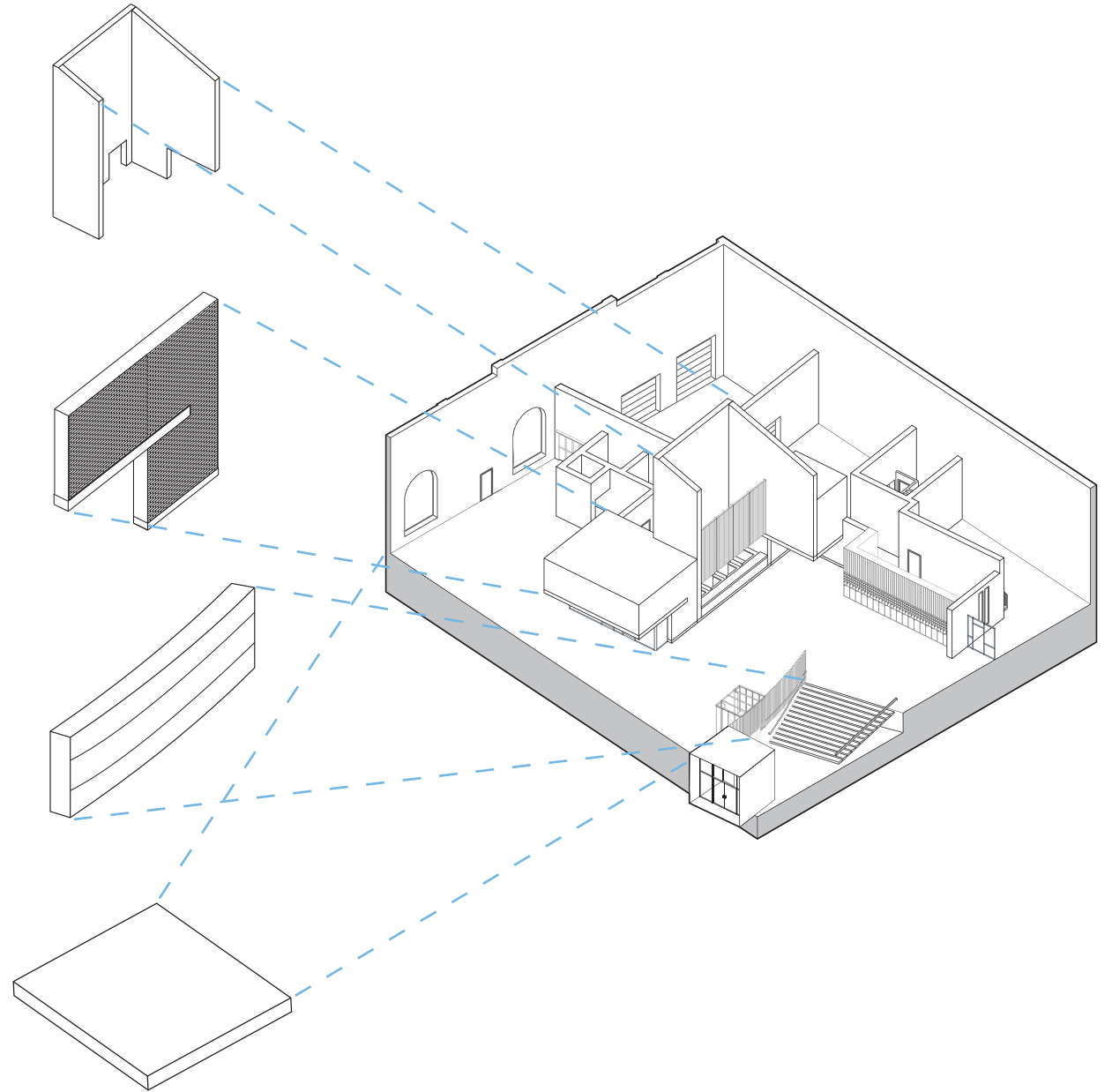
rammed



exposed aggregate



element



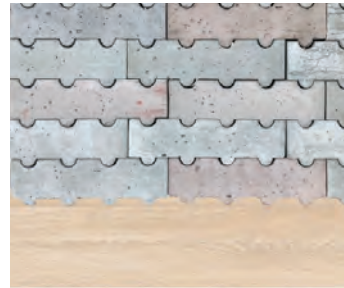
experiment

application

millwork



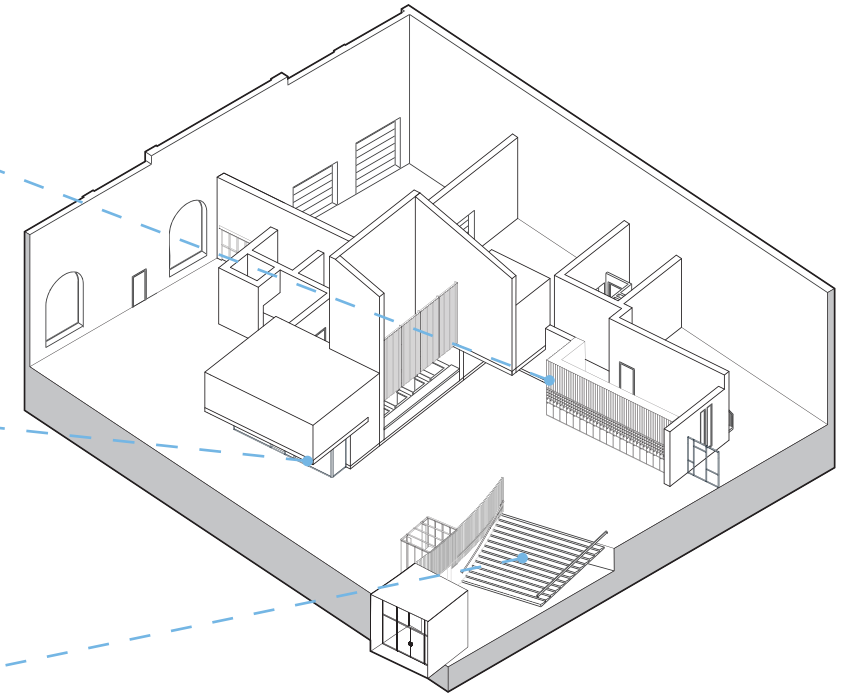
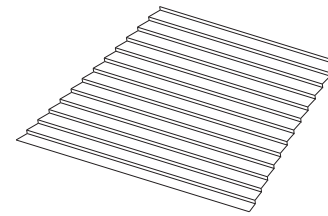
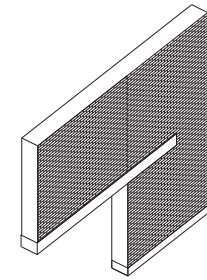
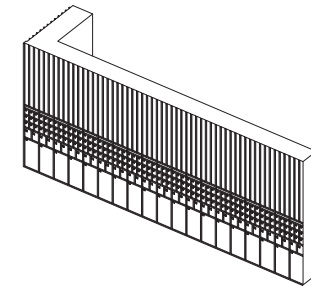
lintel

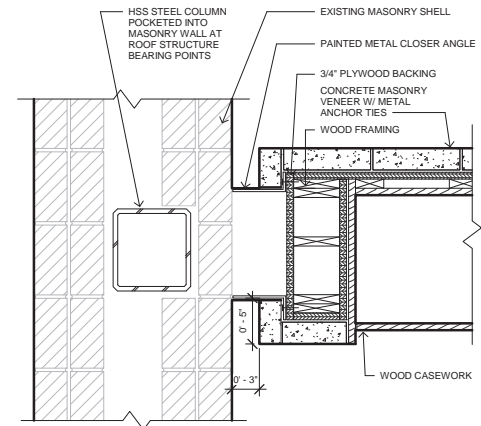


cross
laminated
timber

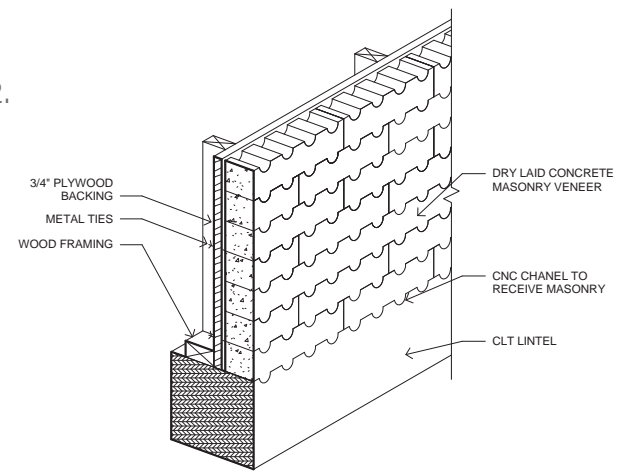


element

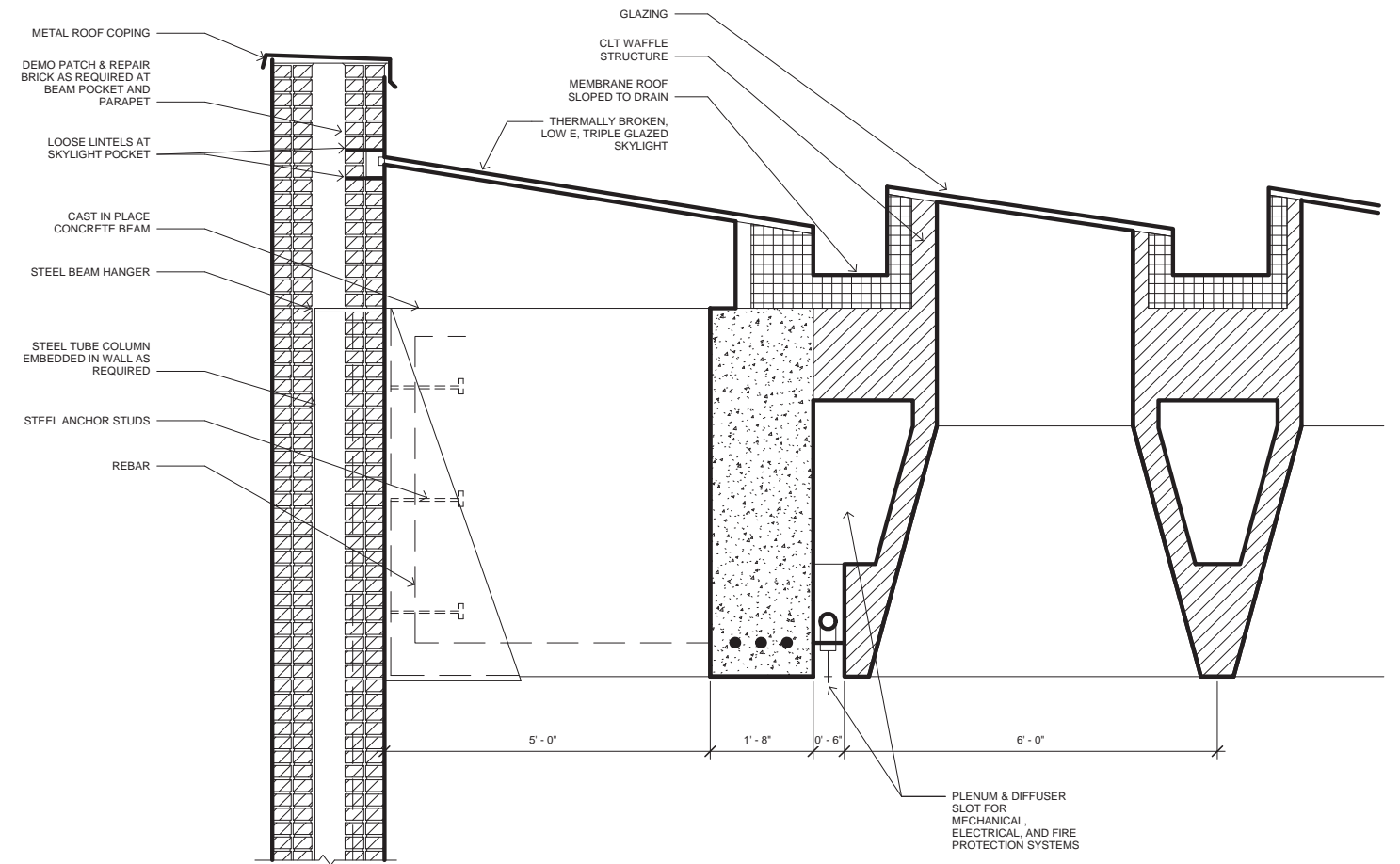




1. PLAN DETAIL AT NEW TO EXISTING MASONRY

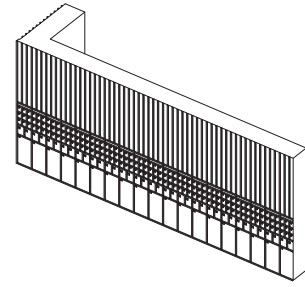
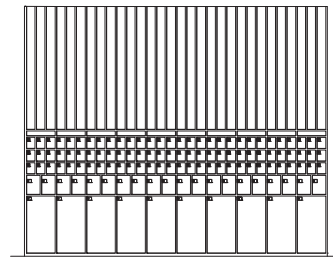


2. SECTION DETAIL AT CLT LINTEL TO MASONRY

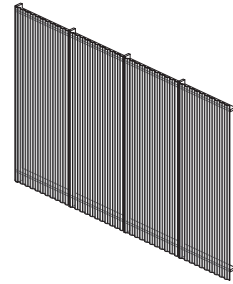
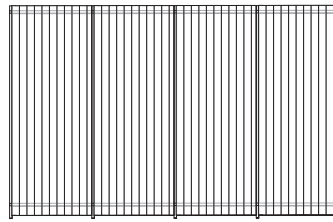


3. SECTION DETAIL OF ROOF & SKYLINE AT PARAPET

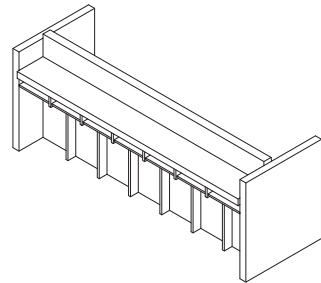
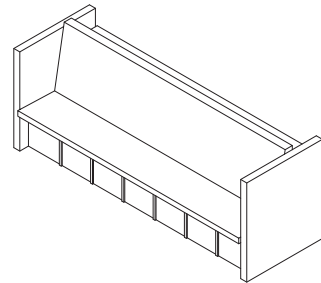
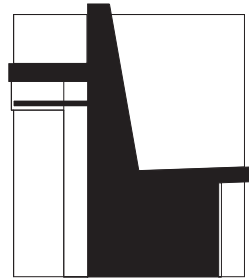
p.o. boxes



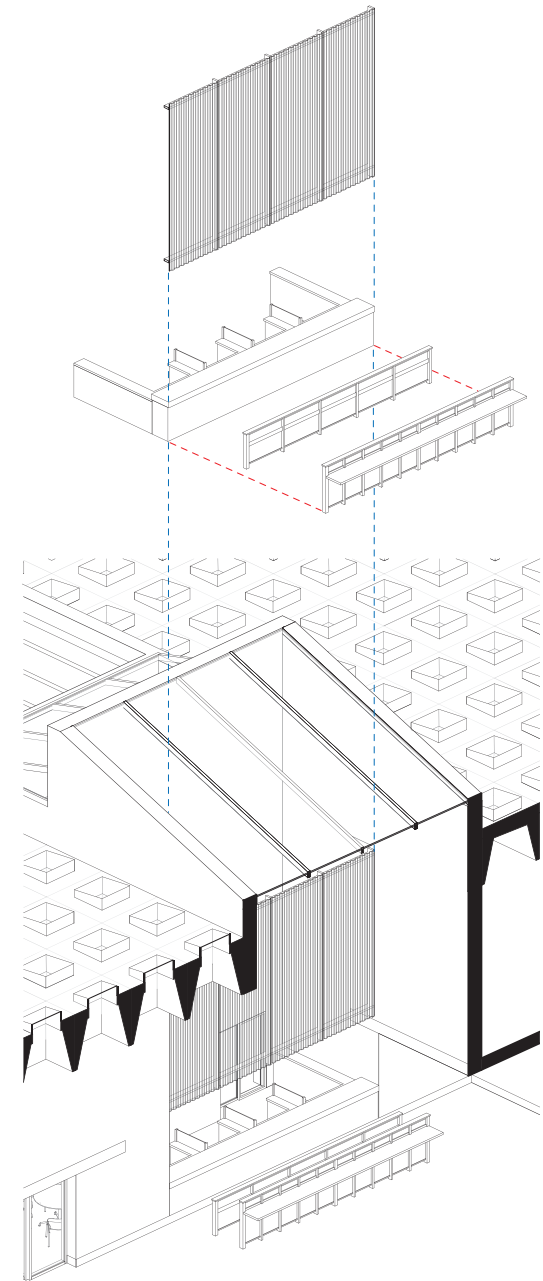
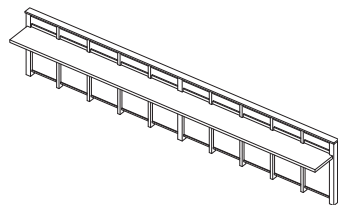
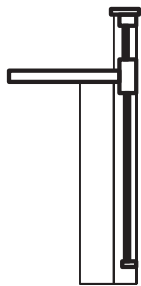
screen

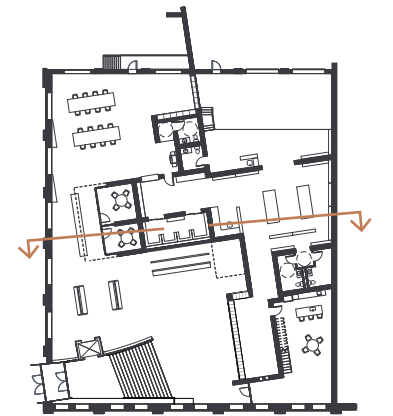
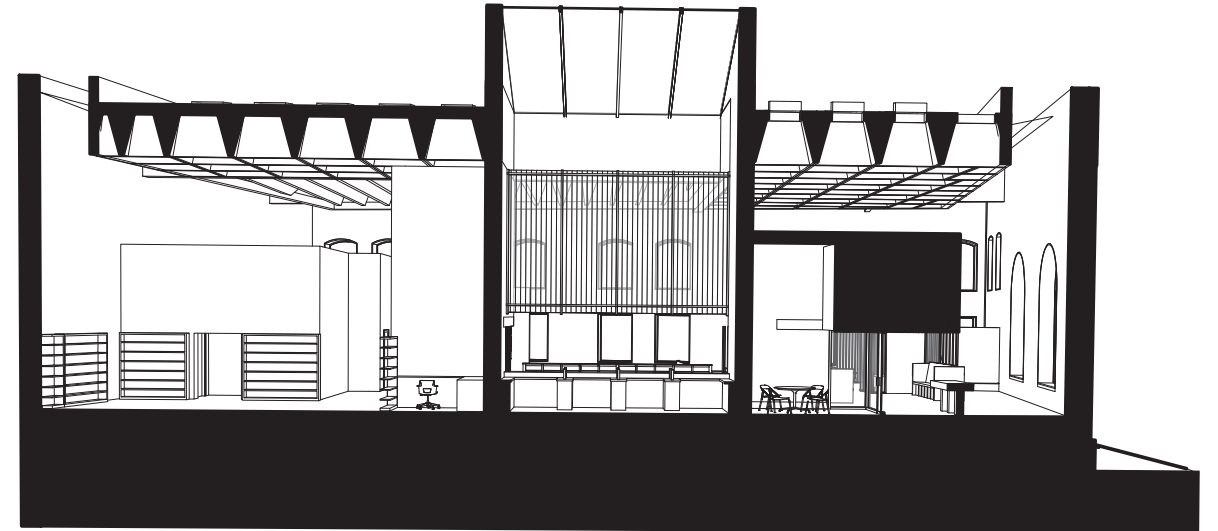
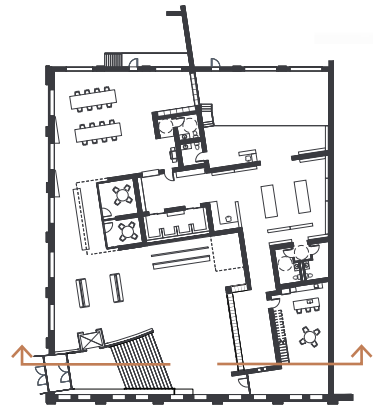
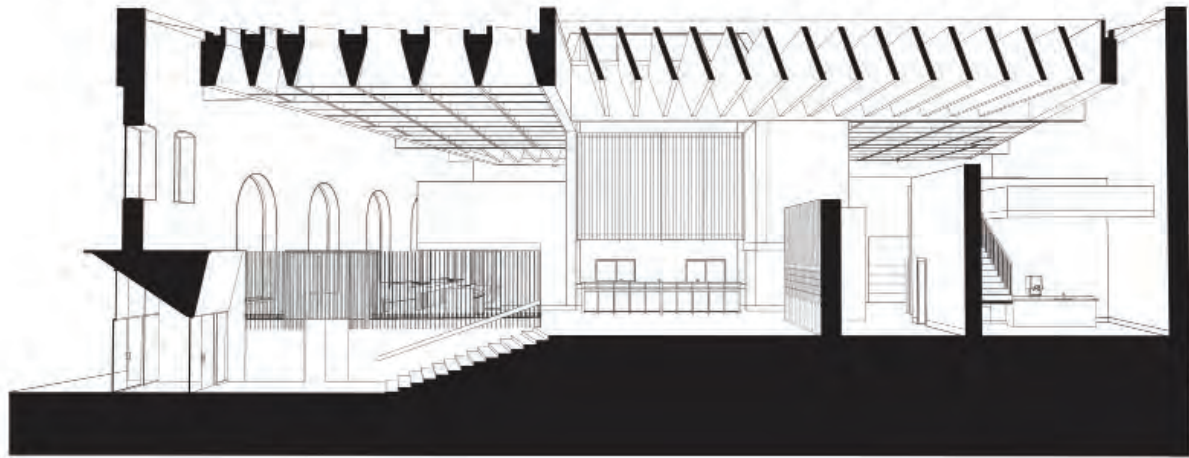


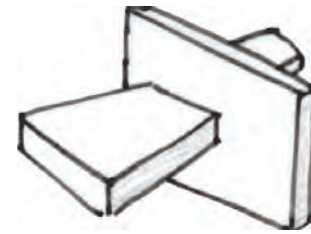
benches



counter





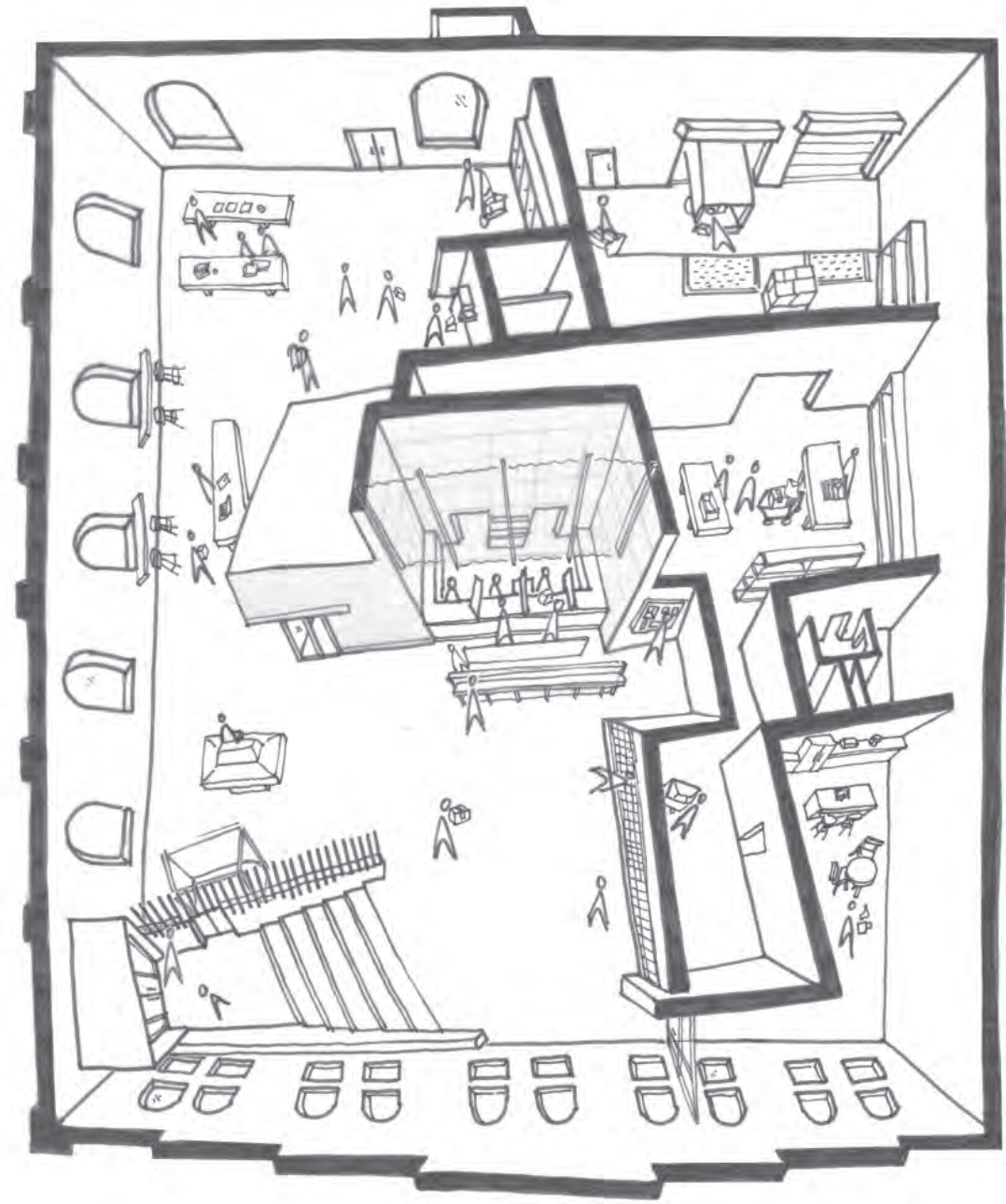


4 embodiment

experience path

embodiment

Embodiment is made up of movement, memory, balance, touch, and smell, sight, work, and more. As I designed the space, I considered the different moments of interaction, movement, and sensation and considered how I might illustrate and bring to life those moments in the design.



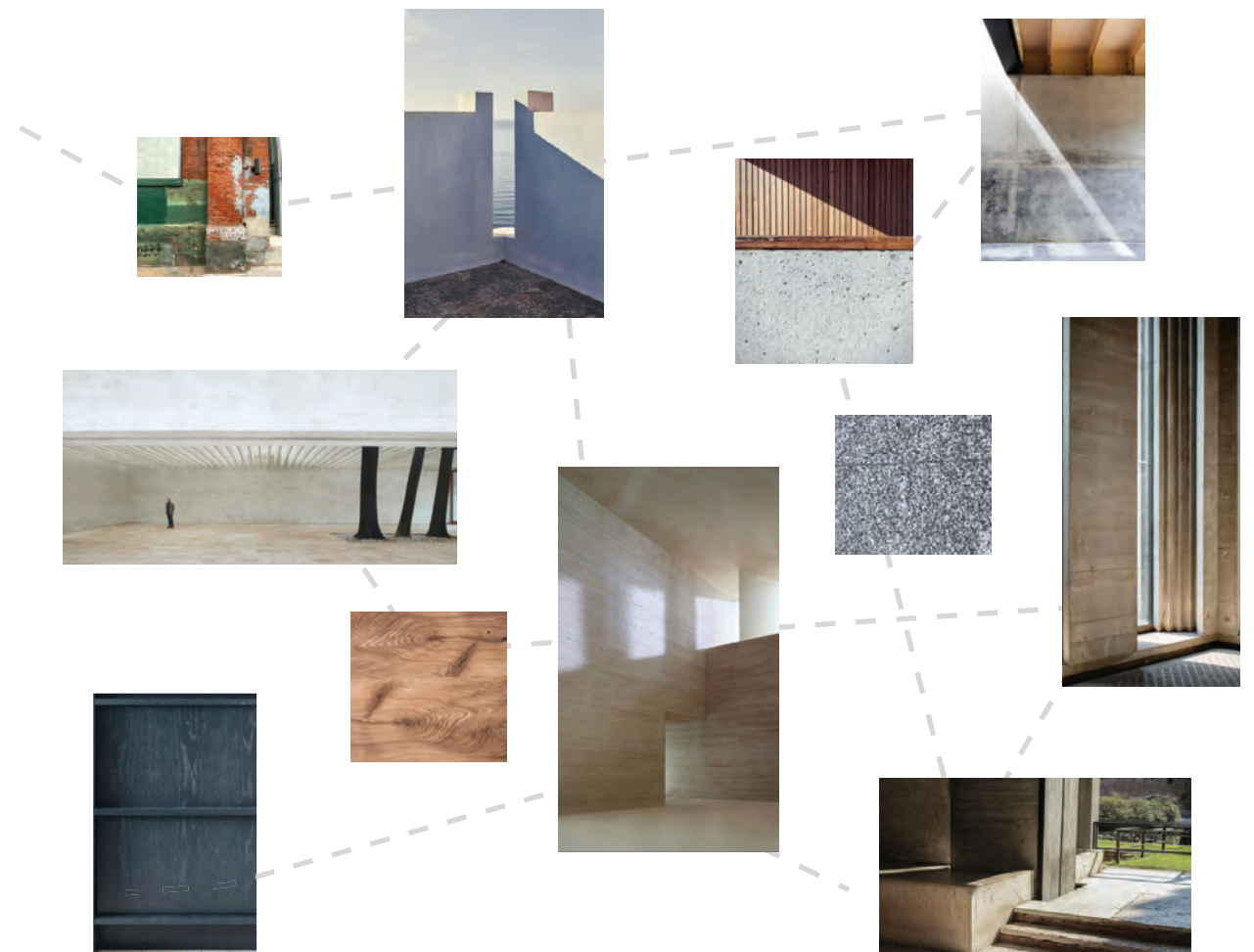


mapping

I started by mapping out a series of movements from encountering the building to moving up the entry stairs, visiting the p.o. boxes and then finally ending at the counter.

experience path

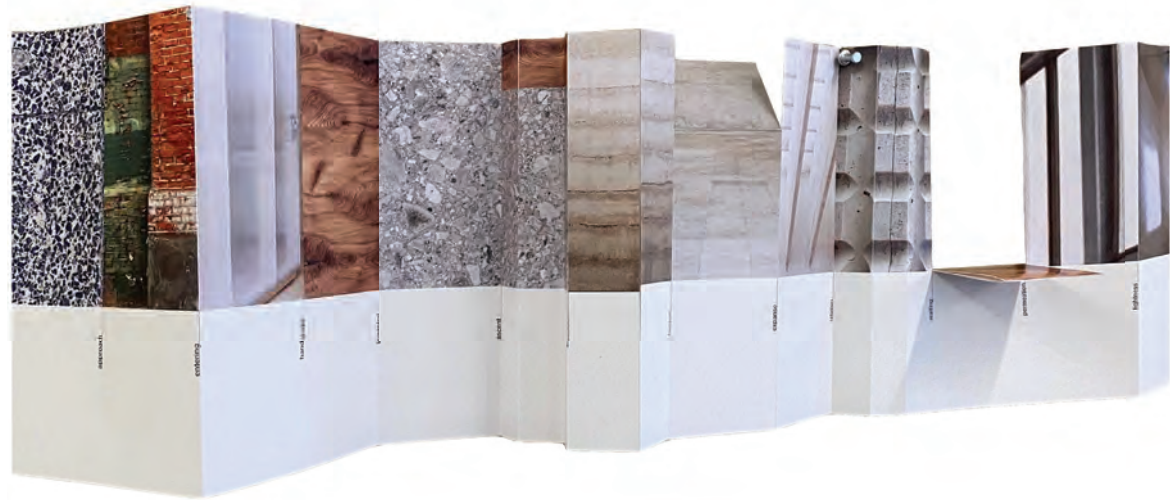
In the mapping process I considered the different feelings I wanted to evoke. Looking back on the ideas of juxtapositions of mass, texture, and light, I collected images of materials and spaces that conveyed these ideas. The resulting collection became **the experience path**.



experience path

(n.) embodiment distilled into a sequence of spatial, sensorial, & material expressions

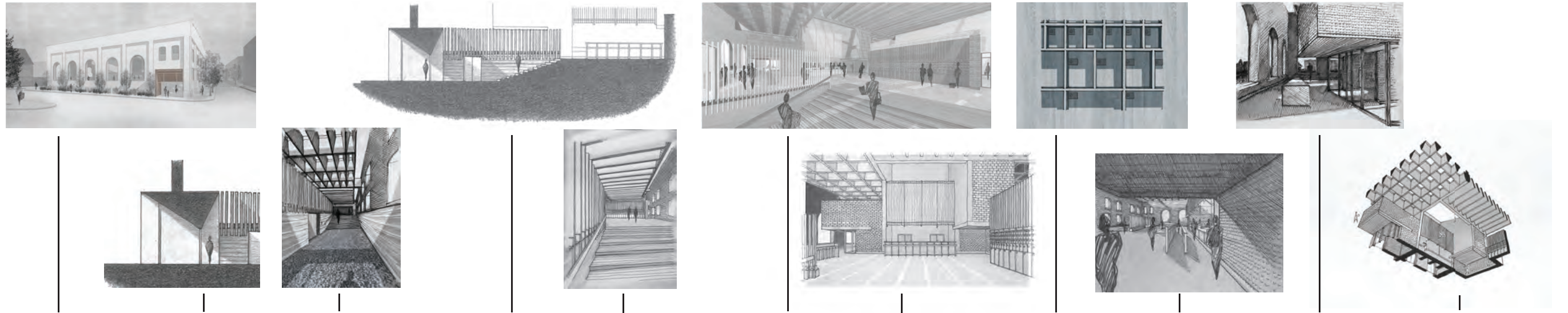




translation

My original intention of this project was to have physical mock ups to better understand the space and its experience better. However, as the circumstances changed I considered how I might communicate these ideas of material and intangible sensations digitally. I turned to the idea of animating the sequences of the experience path.





animation

For each of the sequence moments I created an animation that sought to express the movements, changes in light, or material qualities specific to it. This diagram shows the experience path and the relating animations.

encounter

portal

grounded

excavation

ascent

expense

permeation

relation

weightiness

horizon

lightness



encounter

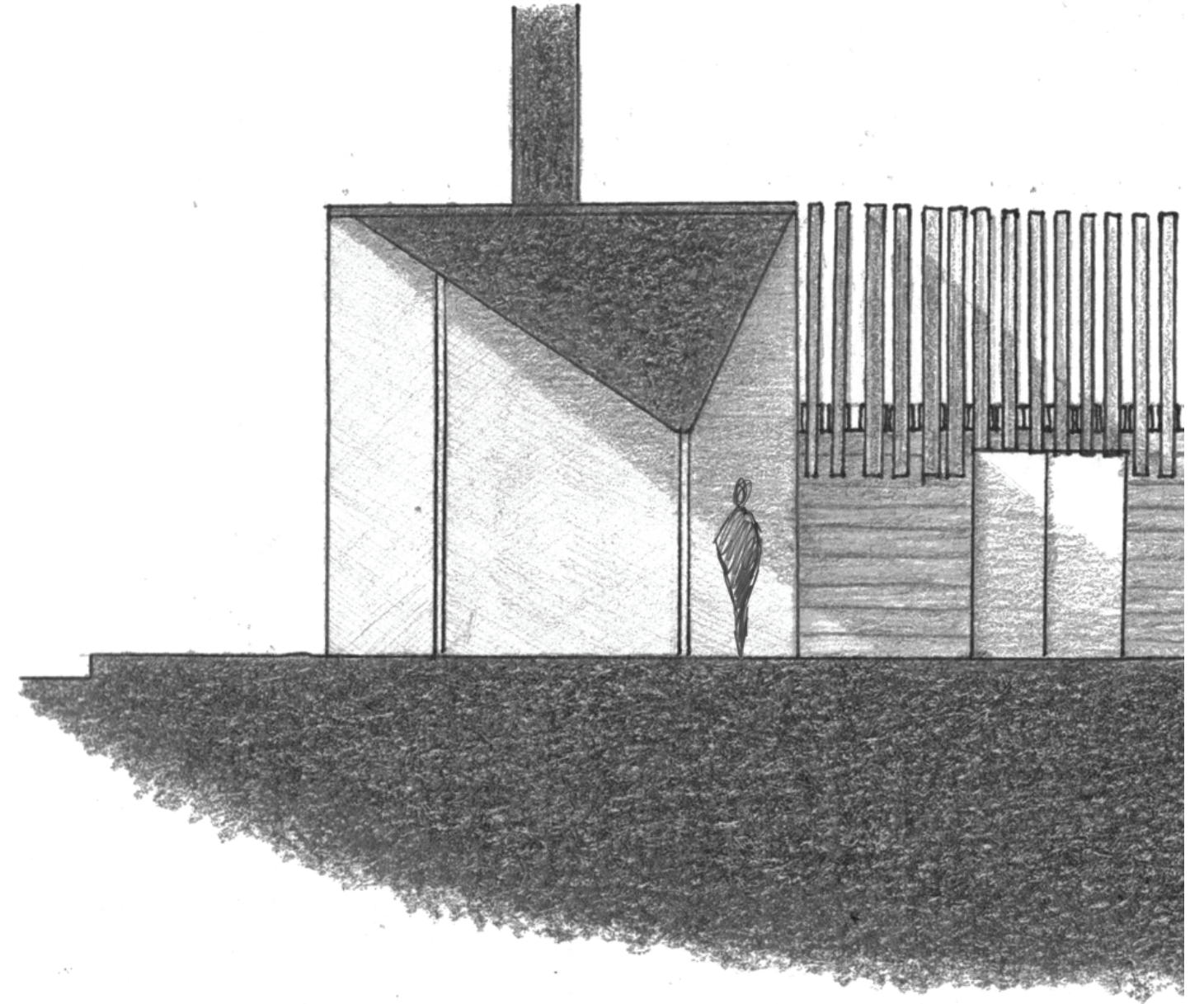
As one encounters the post office, there is an understanding of a harmonious relation between old and new. The texture of the massive century-old masonry walls combines with the thin oxidized steel entrance.

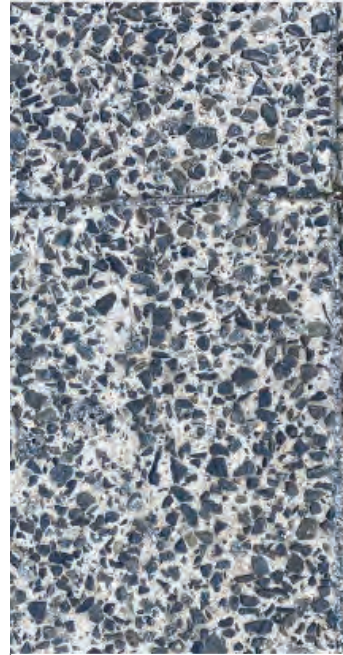




portal

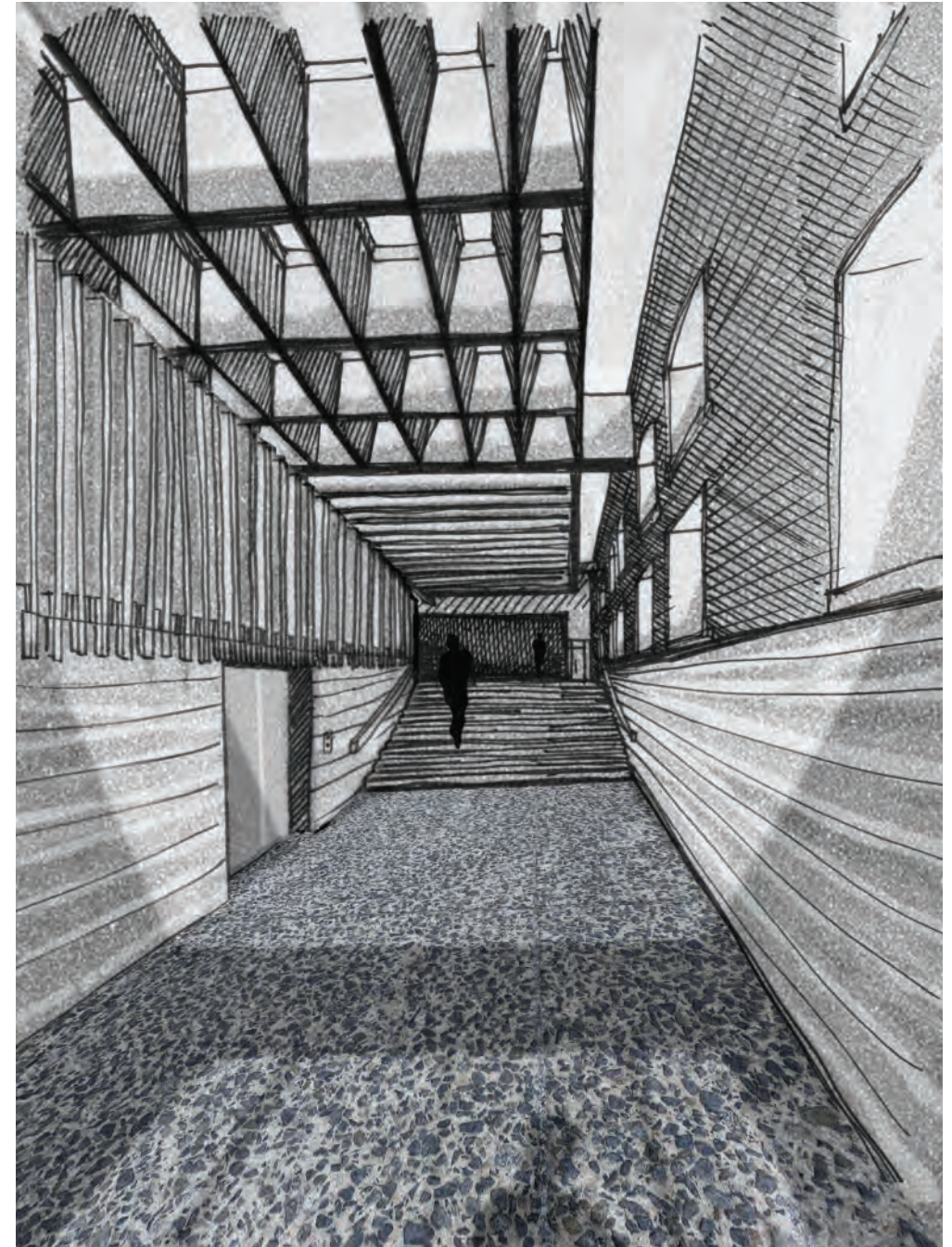
Transitioning from the openness of the street to the interior is a moment of compression. A steel descendo ushers visitors inward.

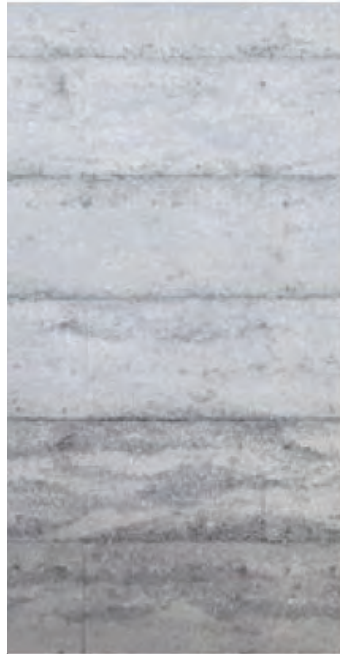




grounded

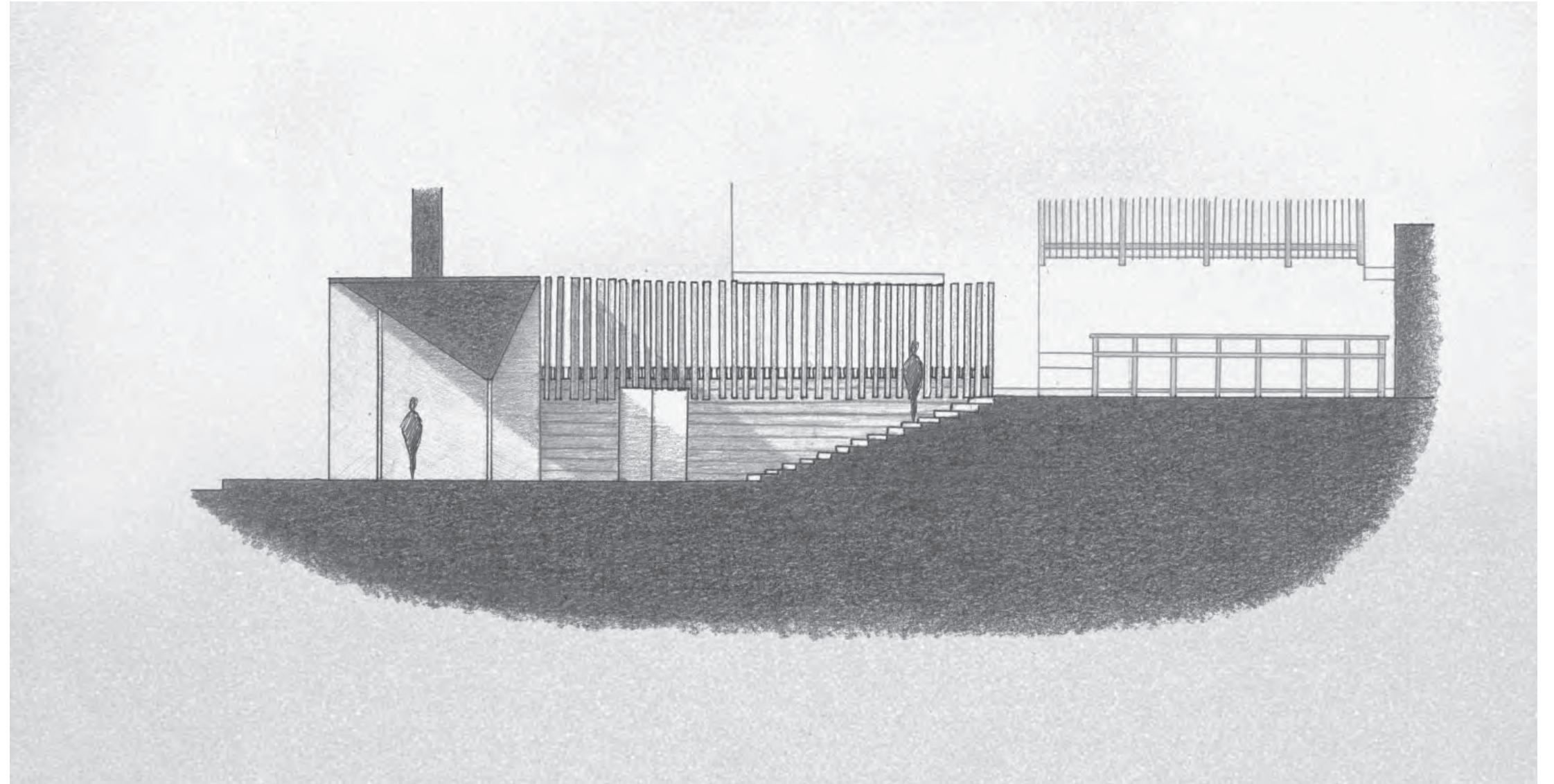
The exposed aggregate concrete extends from the sidewalk through the entrance. On either side, rammed concrete walls accentuate the ground plane and create a sense of gravity as the ceiling floats high above.





excavation

Horizontal banding in the flanking rammed concrete walls guides one forward while also suggesting an unearthing of the layers of history of the building.

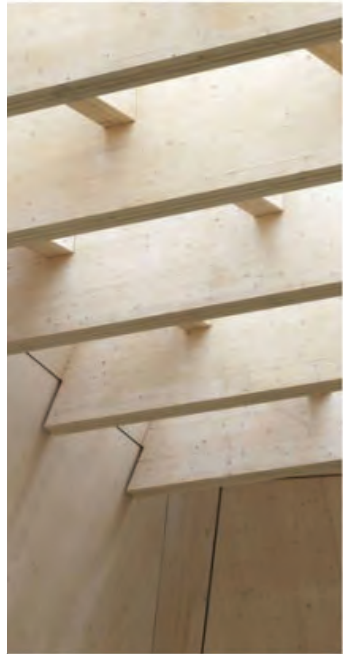




ascent

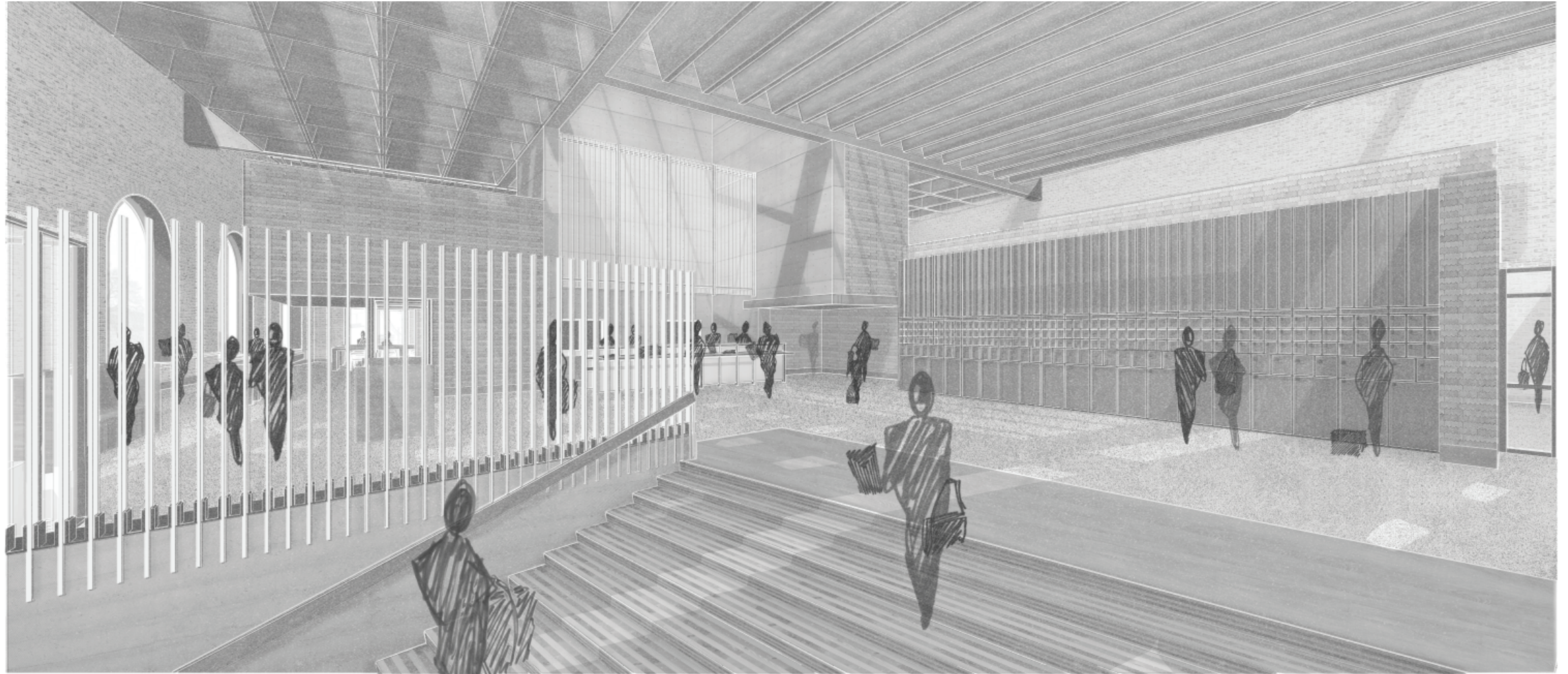
The ascent of the elongated stairs gradually reveals the expanse of the building. The movement is exaggerated by shortening the rise and lengthening the tread of each stair. Visually layered cross-laminated timber highlights the compression of each step taken.

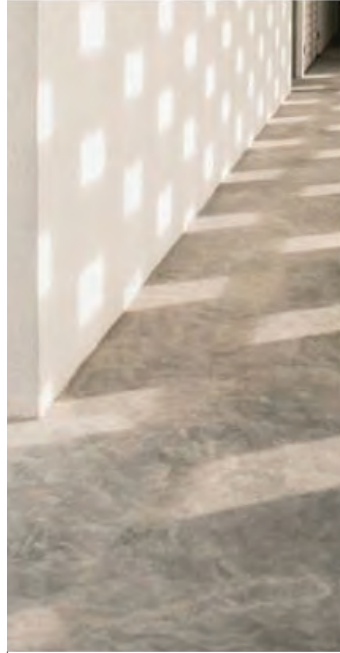




expanse

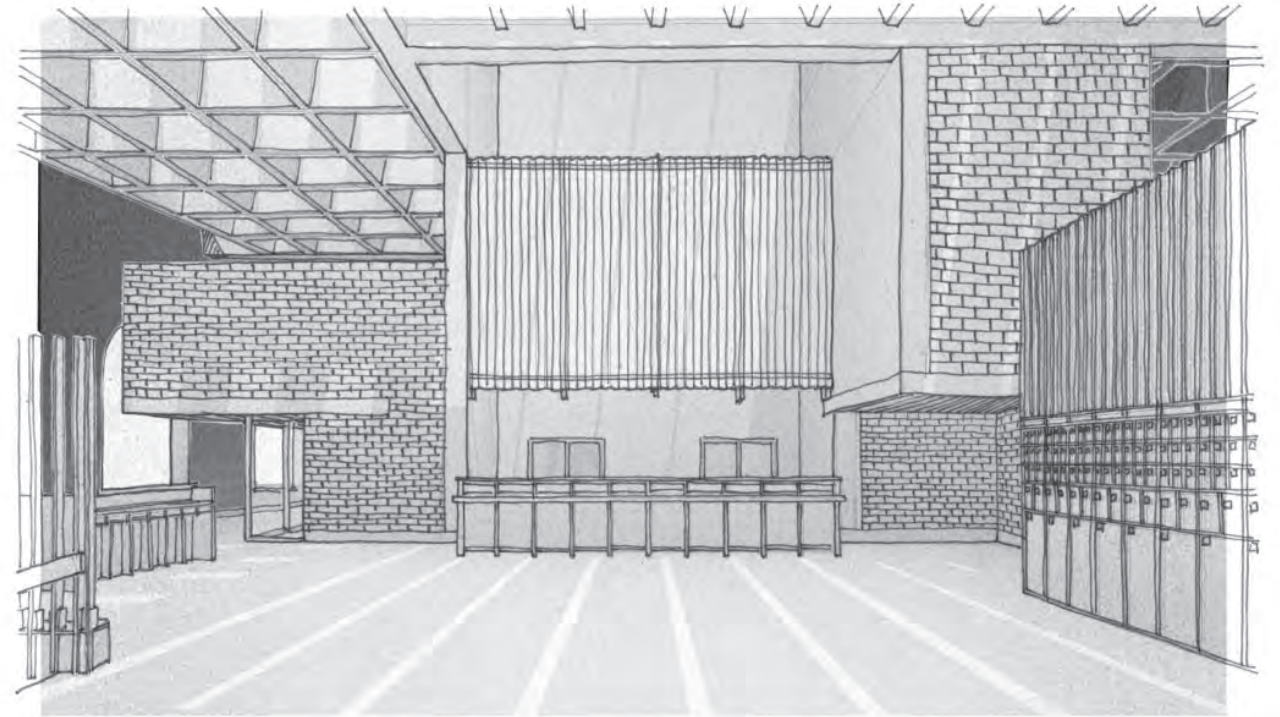
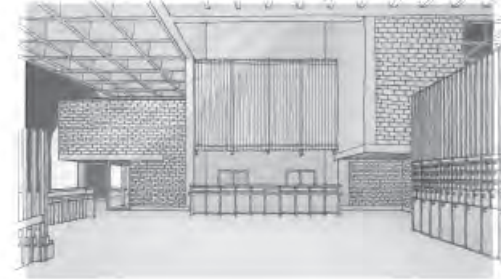
Upon arrival to the elevated main floor, one encounters the expanse of the space with views of the extents of the building. The waffle ceiling plane floats above and dapples the room with a play of light and shadow throughout the day.

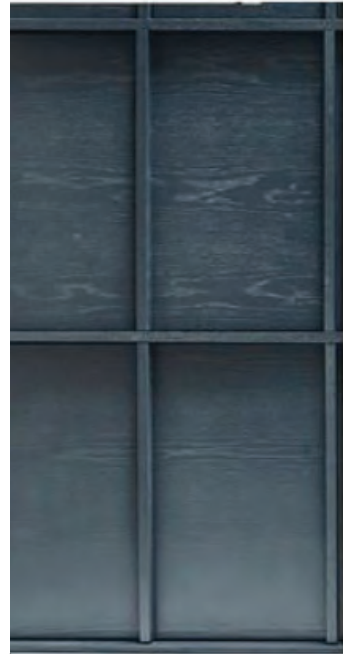




permeation

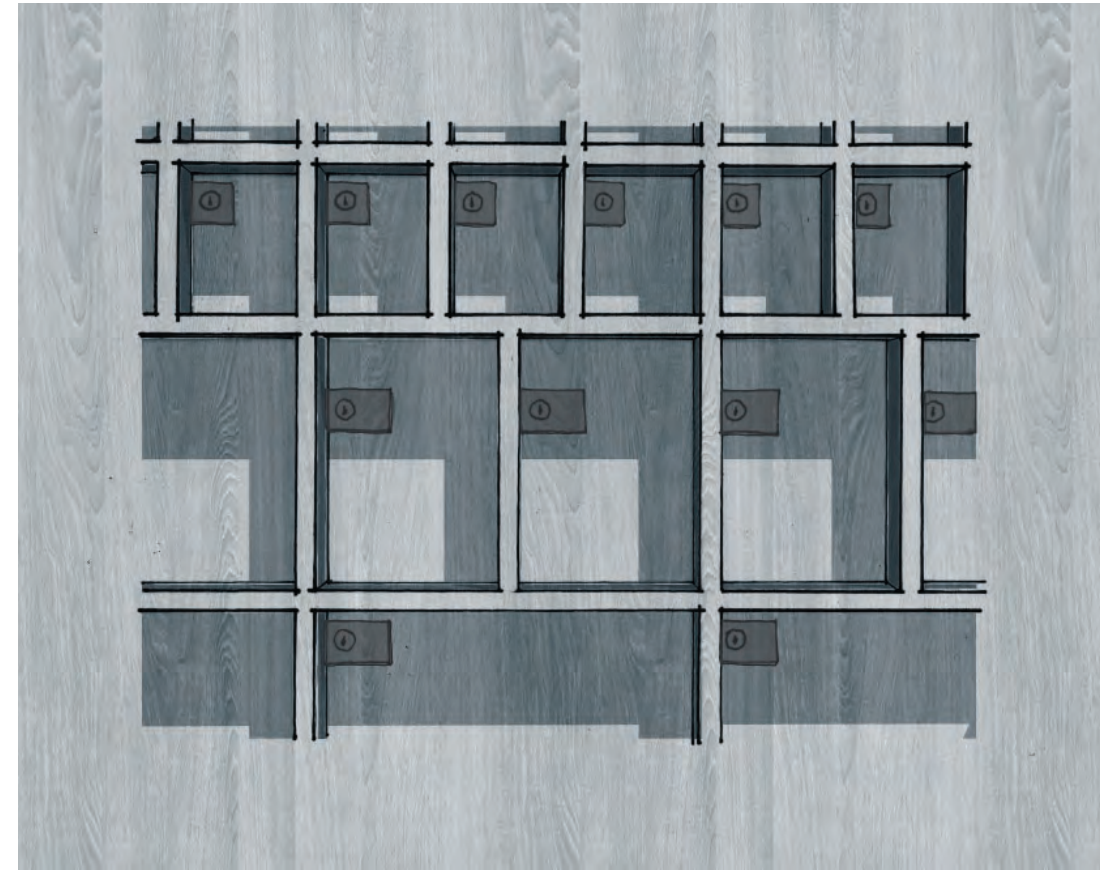
Shifting shapes of light permeate the space and become an activated material. Permeation of external light transforms the interior into a pavilion-like experience as one feels in sync with the interior and exterior environments alike.





relation

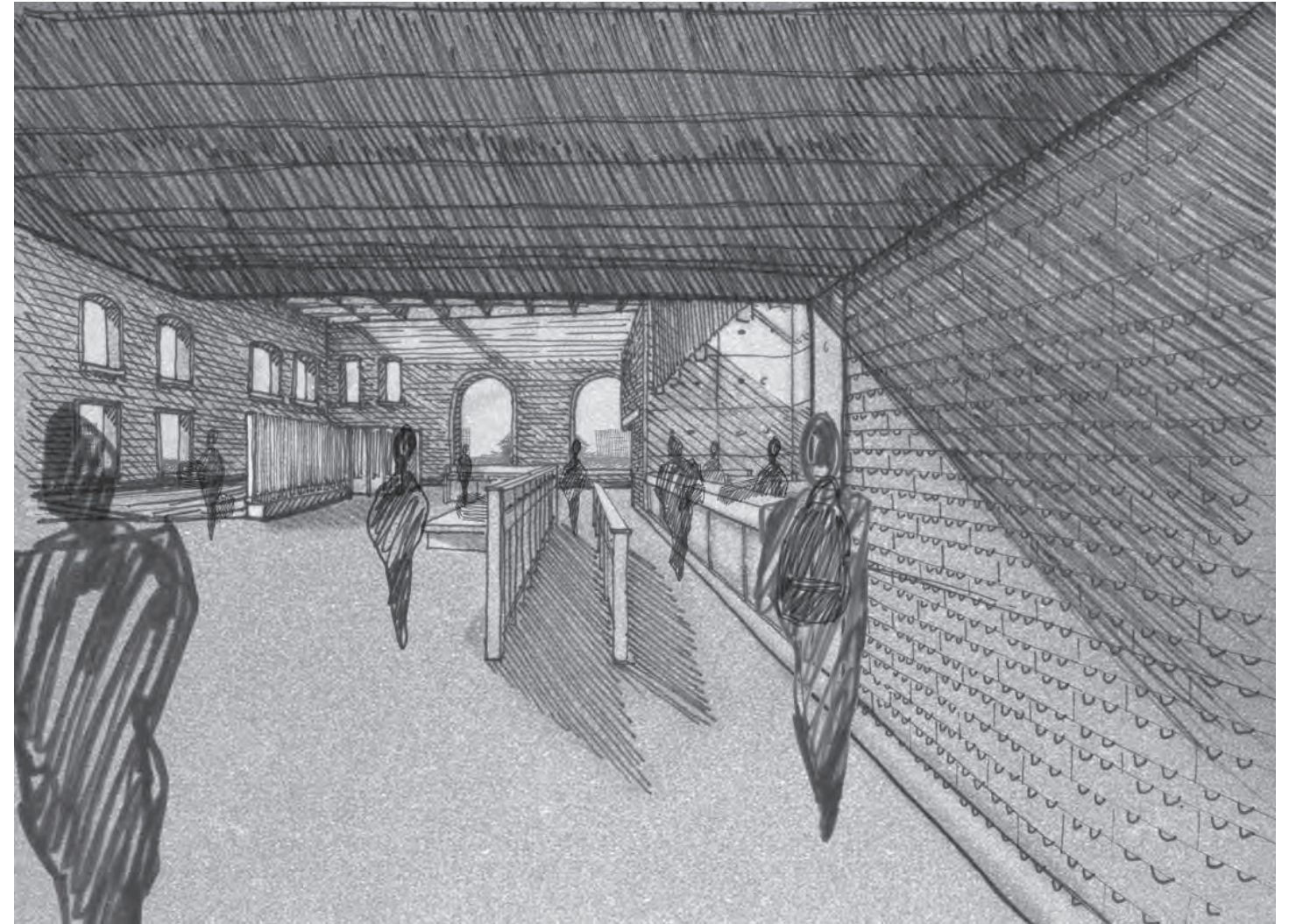
The body finds its relation within the context of expanse through the intimacy of the scale of material patterns and textures. The moments when one can touch are of particular importance. The p.o. boxes open and create an opportunity for exchange at the scale of the body.

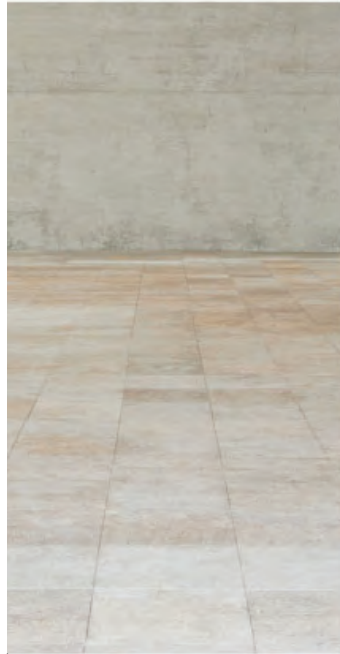




weightiness

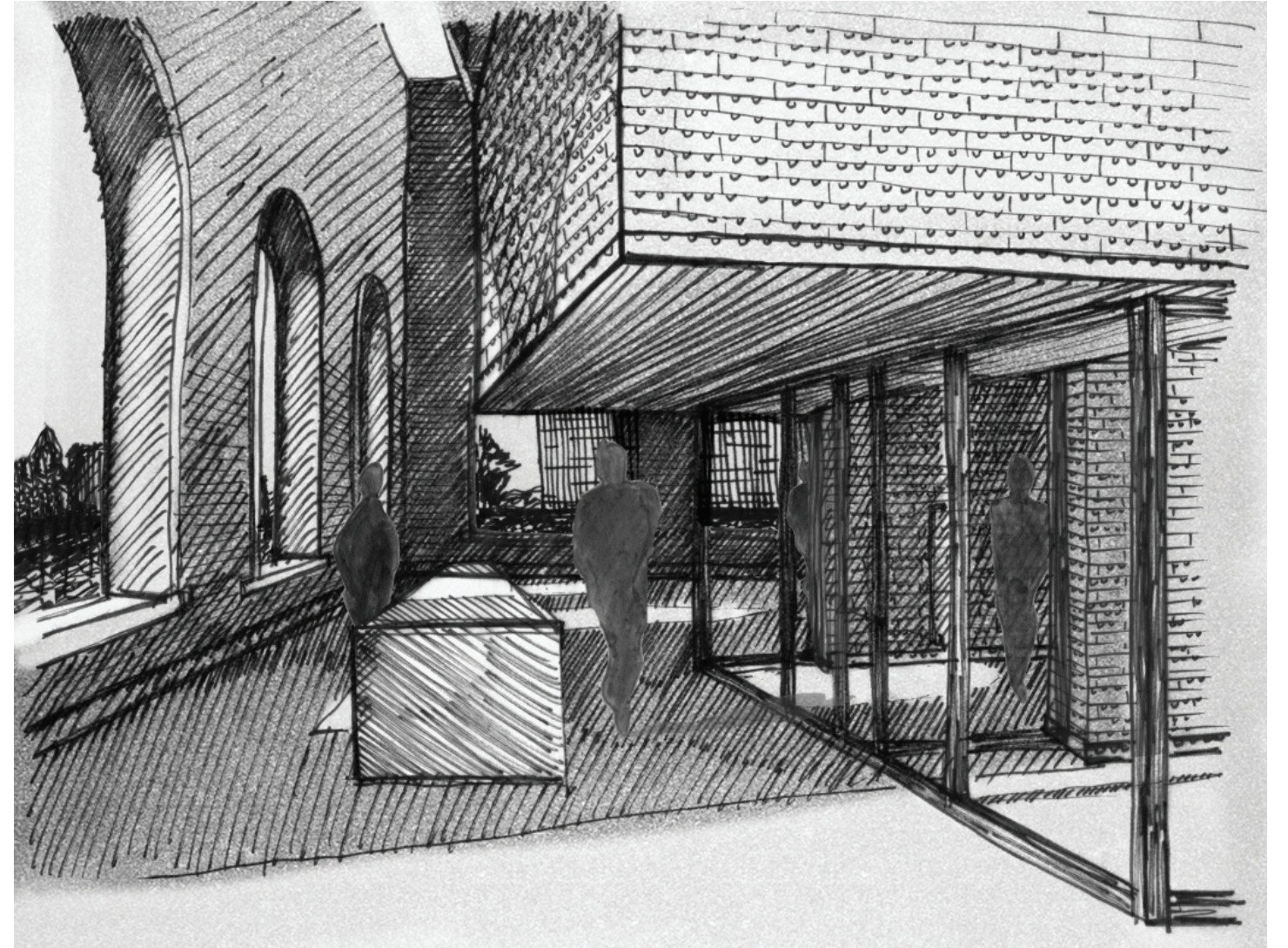
Contrasting the weightlessness of the open ceiling framework overhead are massings of cantlevered concrete masonry. The weightiness of the lowered ceiling provides momentary refuge while also heightening the awareness of one's own weightiness and connection to the ground.





horizon

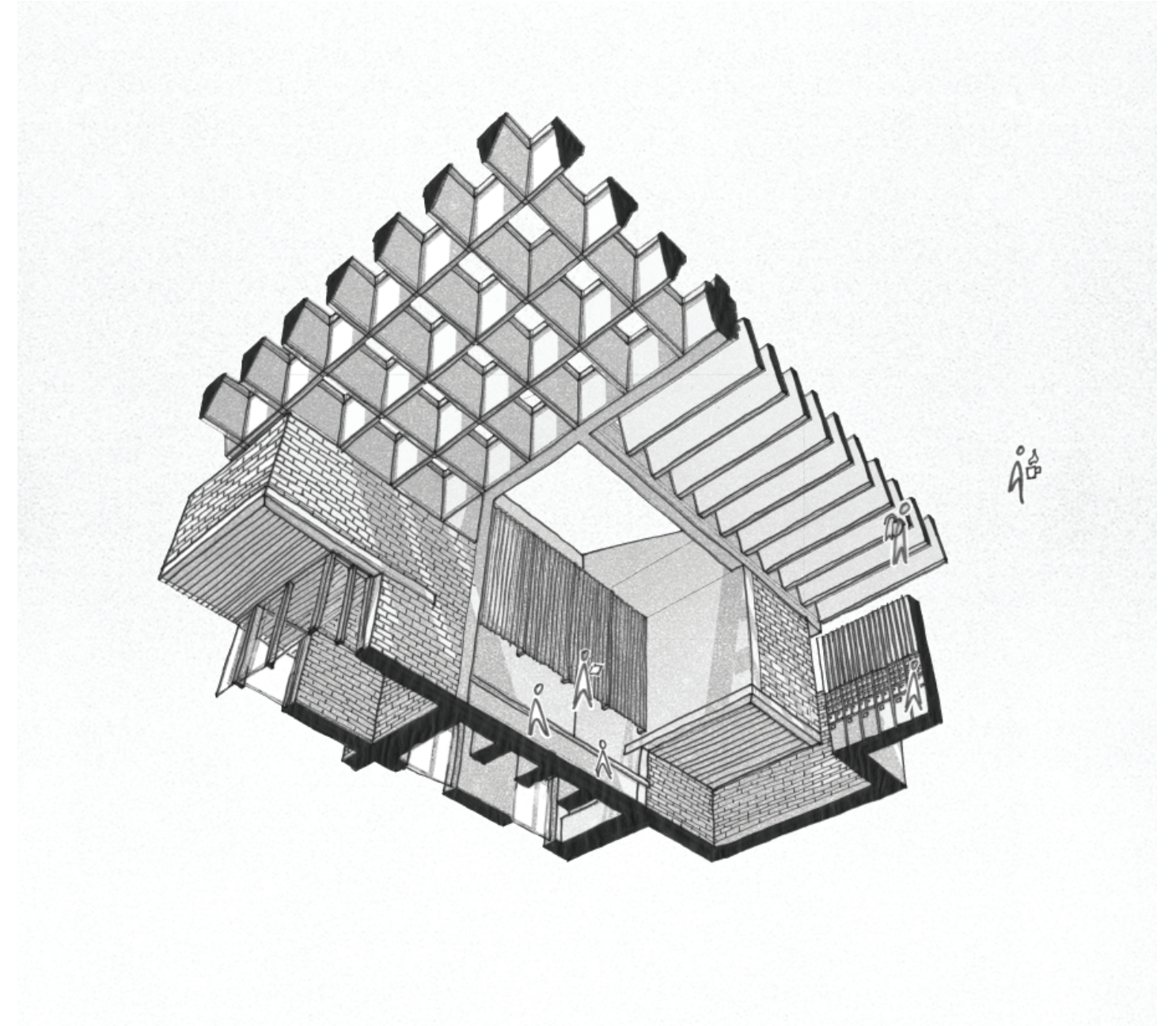
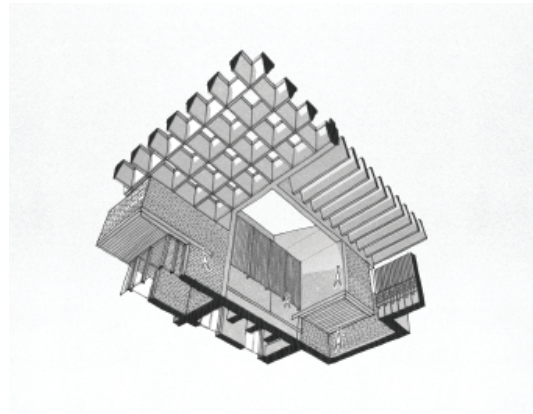
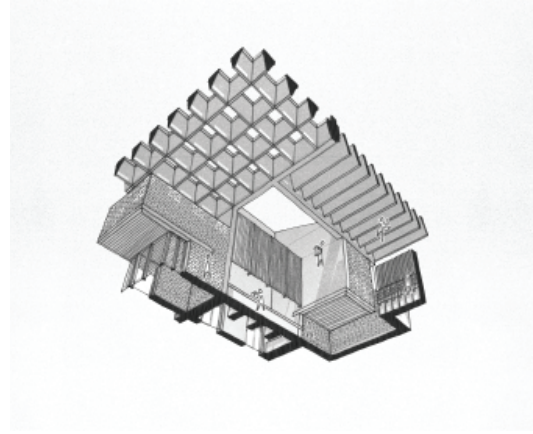
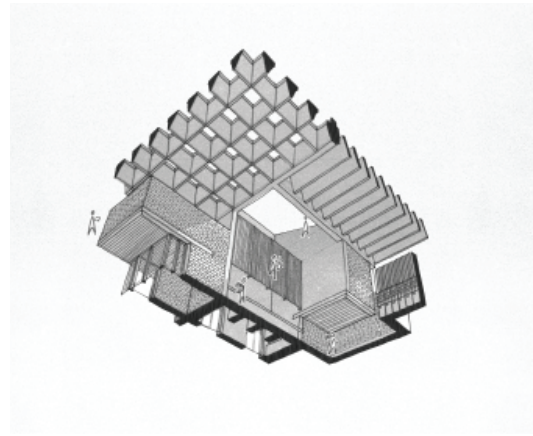
The masonry outcroppings focus the view towards the horizon, effectively extending the feeling of expanse laterally. The prospect of horizon inspires movement through the space.

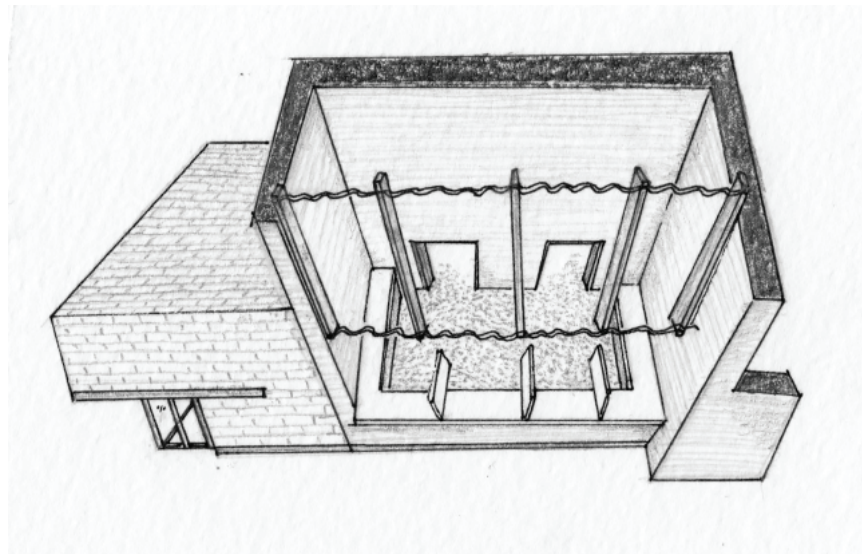




lightness

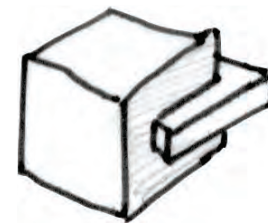
The central oculus is inviting and one feels lightness created by the opening to the sky. The destination of all preceding activity is met with a sense of calm that pervades from the smoothness of material and verticality of the structure.





conclusion

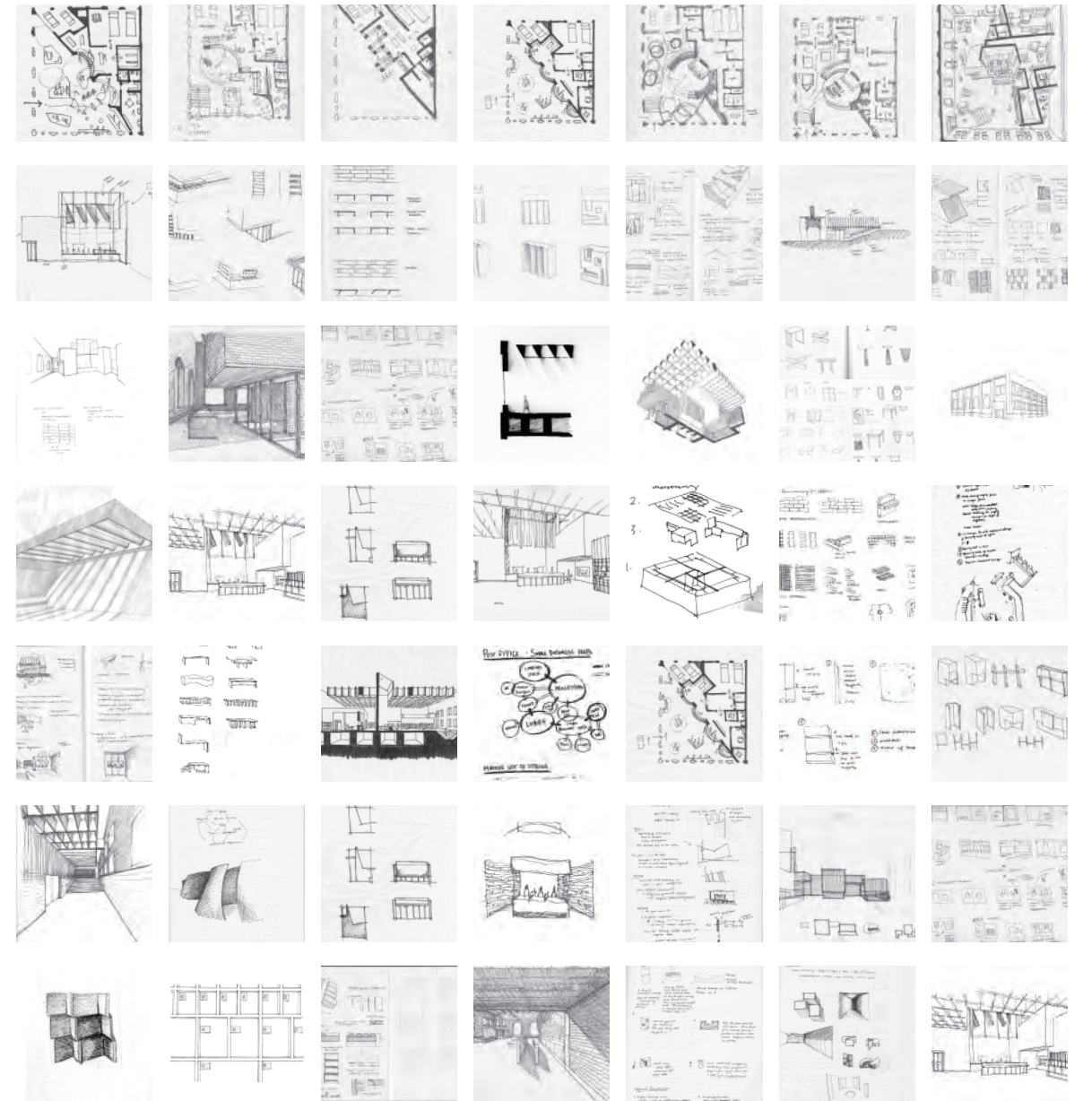
The methodology of this thesis adapted to the shifting demands of the design industry. What began with hands-on prototyping and materials research shifted to combine with animation to explore the issues at stake. The creation of the animation affected my design process just as much as my material experiments. It forced me to look closely at how embodiment took root in things such as changes of light and accentuation of mass or textures. It is my hope that I leave you with an idea about how material can influence our perception and experience of space and how it might be portrayed.

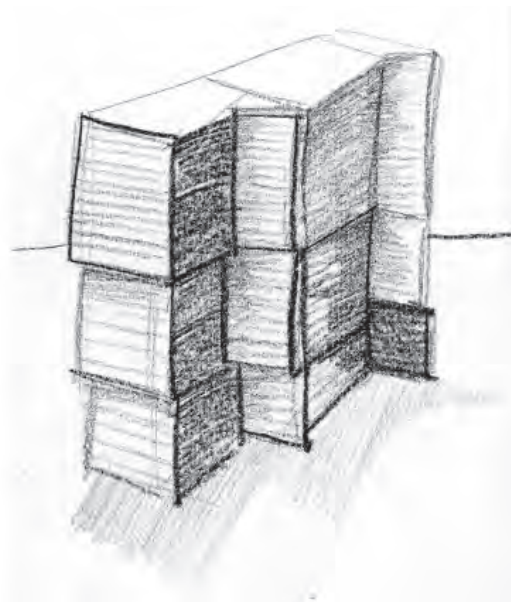
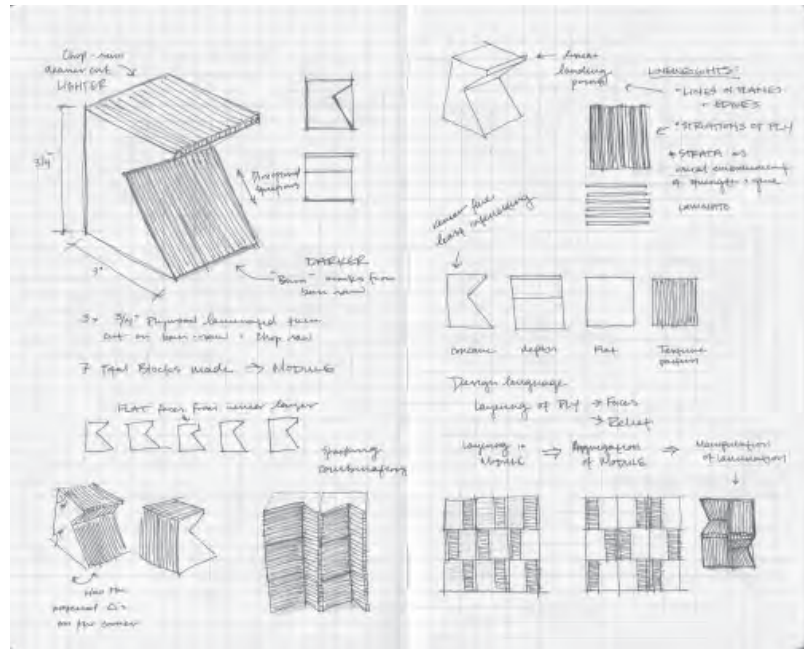


5 appendix I
sketchbook

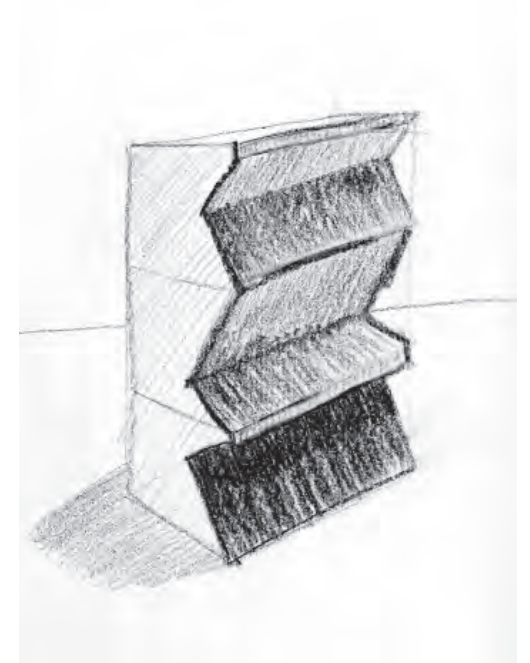
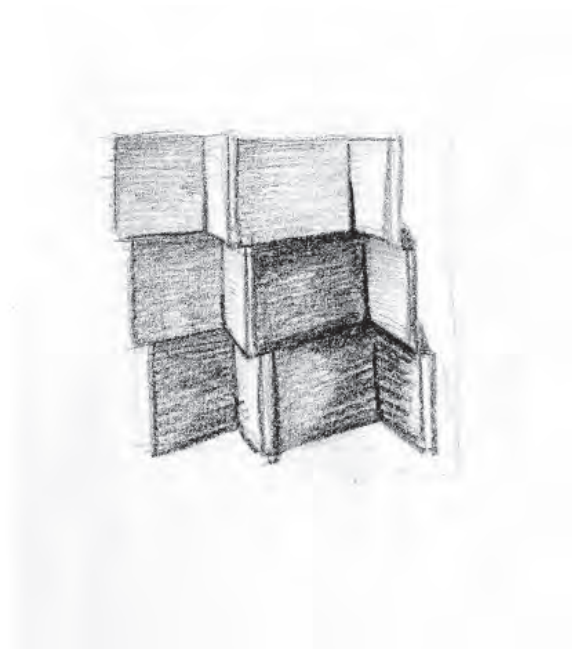
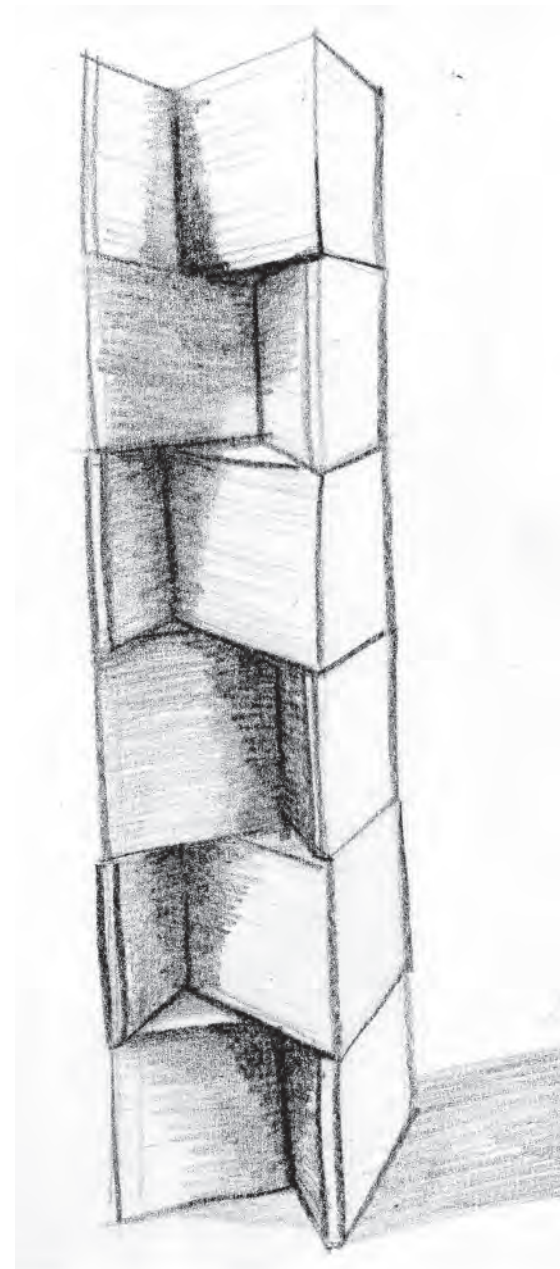
process

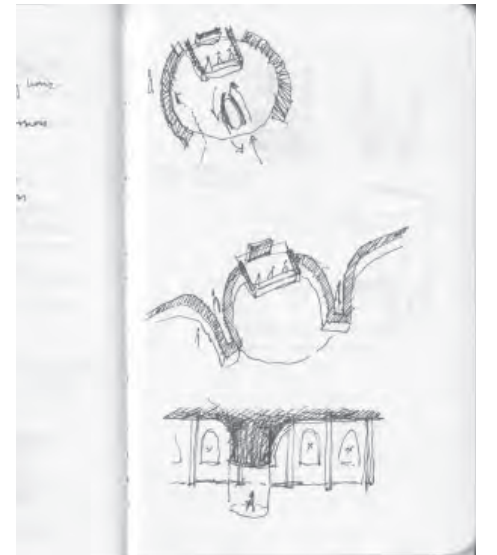
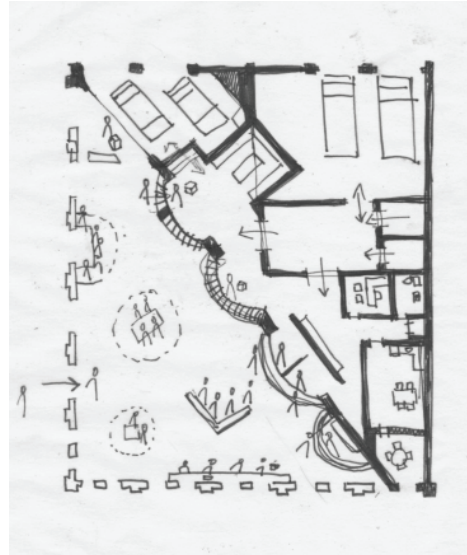
The methodology of this thesis was integral to the design. Material experiments informed the aesthetics and performance of the material strategy. Similarly, the process of drawing out everything from concepts to sections led to a thoughtfully crafted space. The following pages are a sample of the sketchbook that led to the final design.



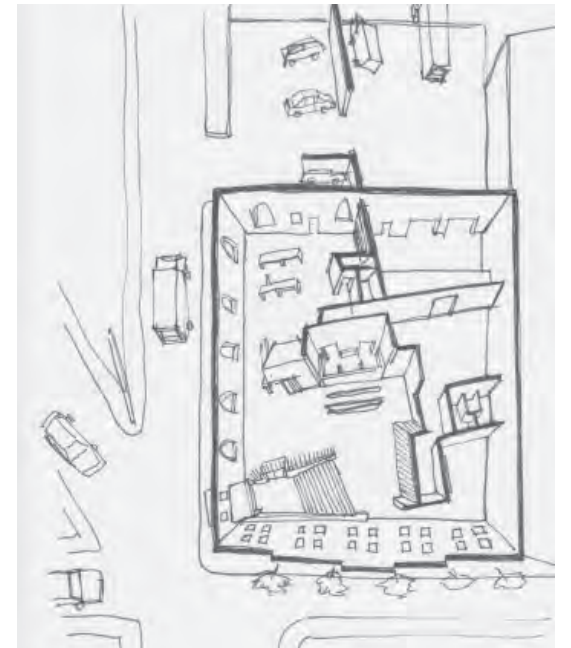
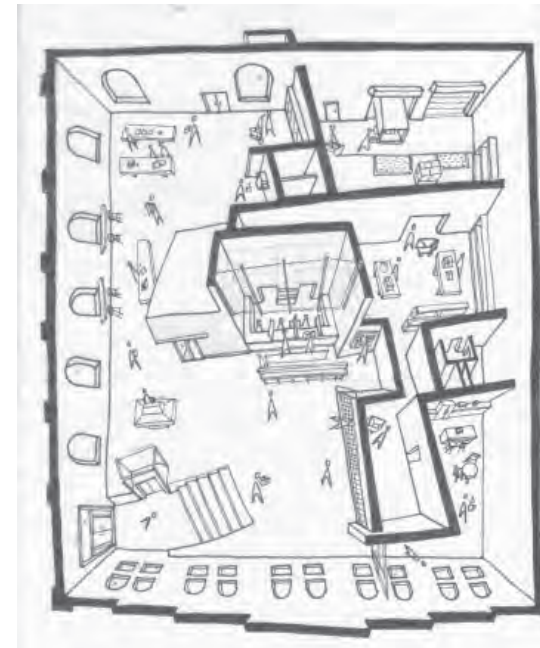
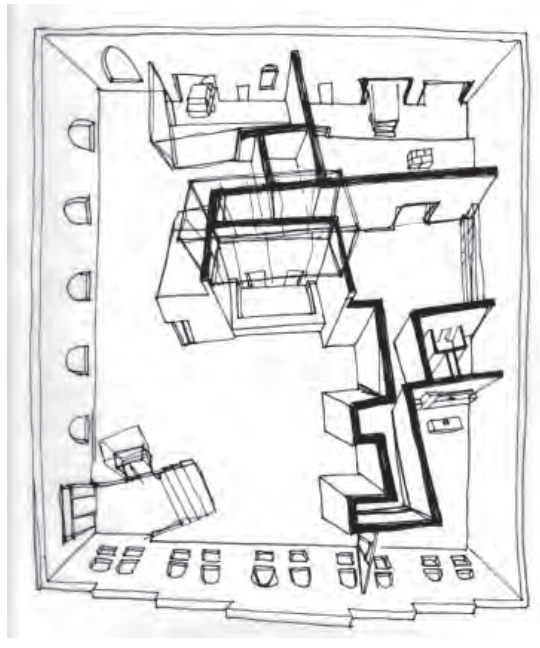
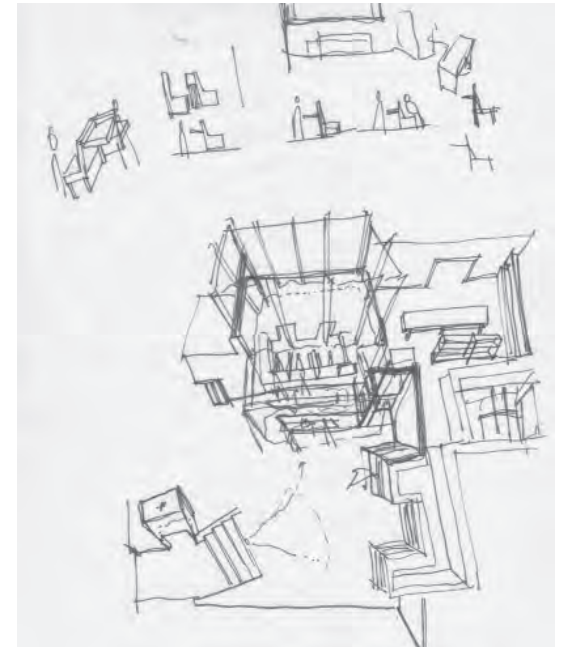
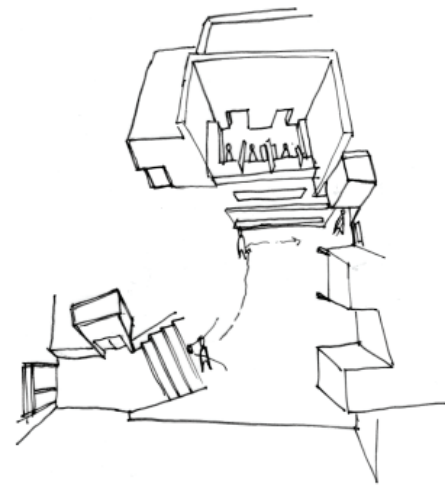
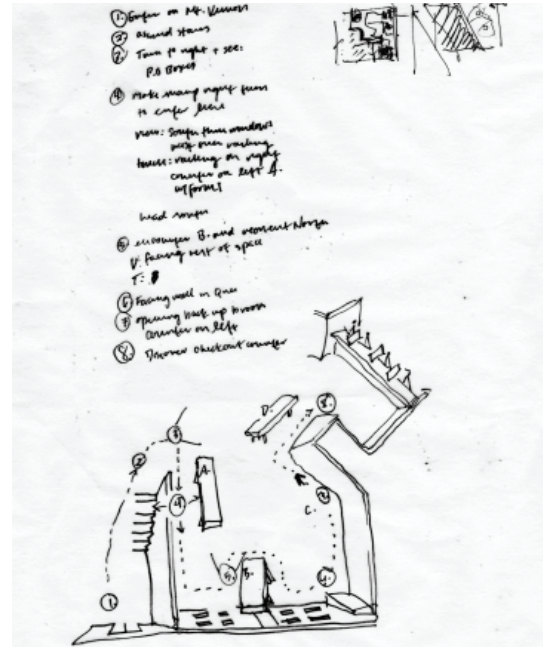


materials research

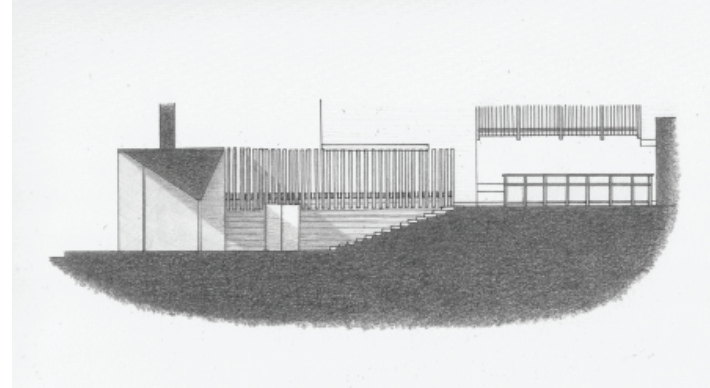
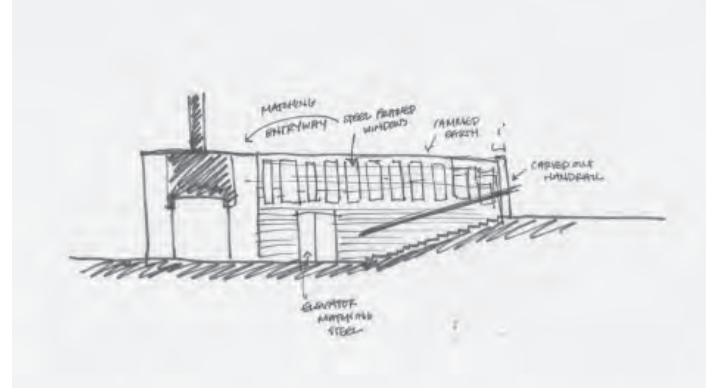
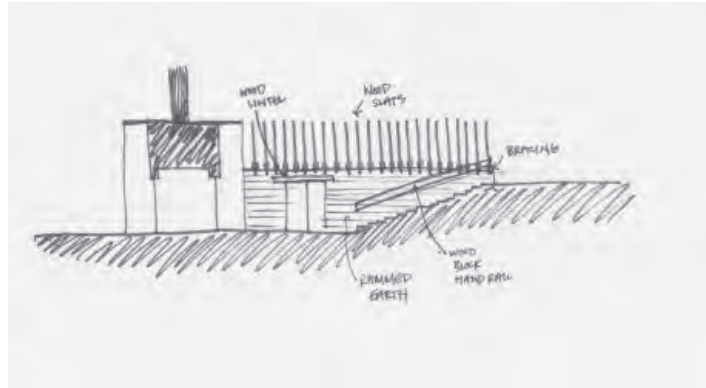
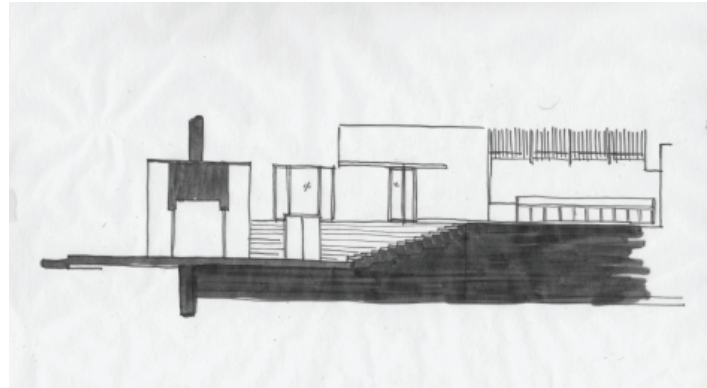
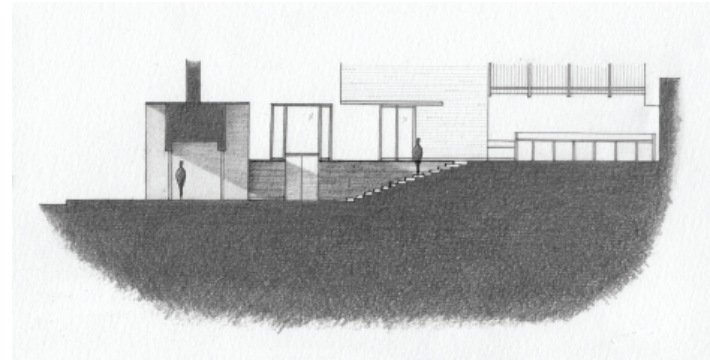
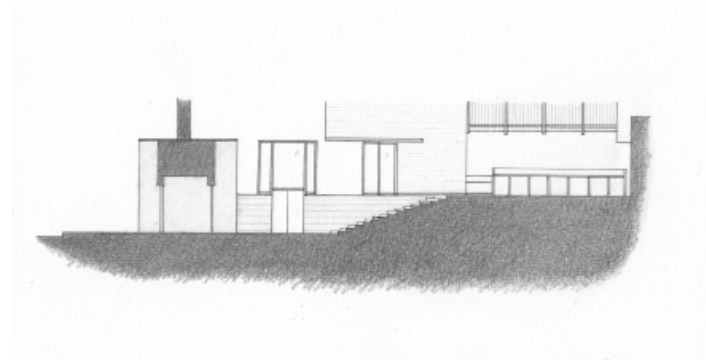
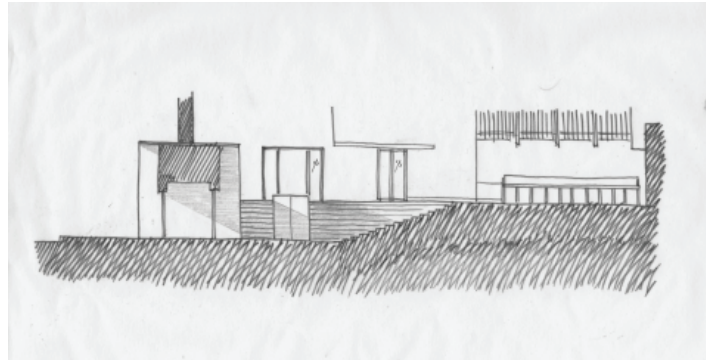
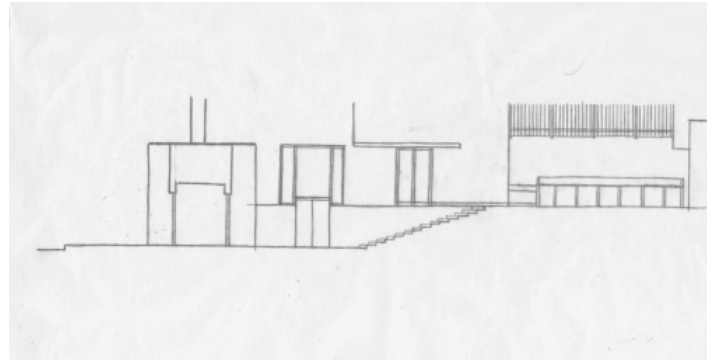




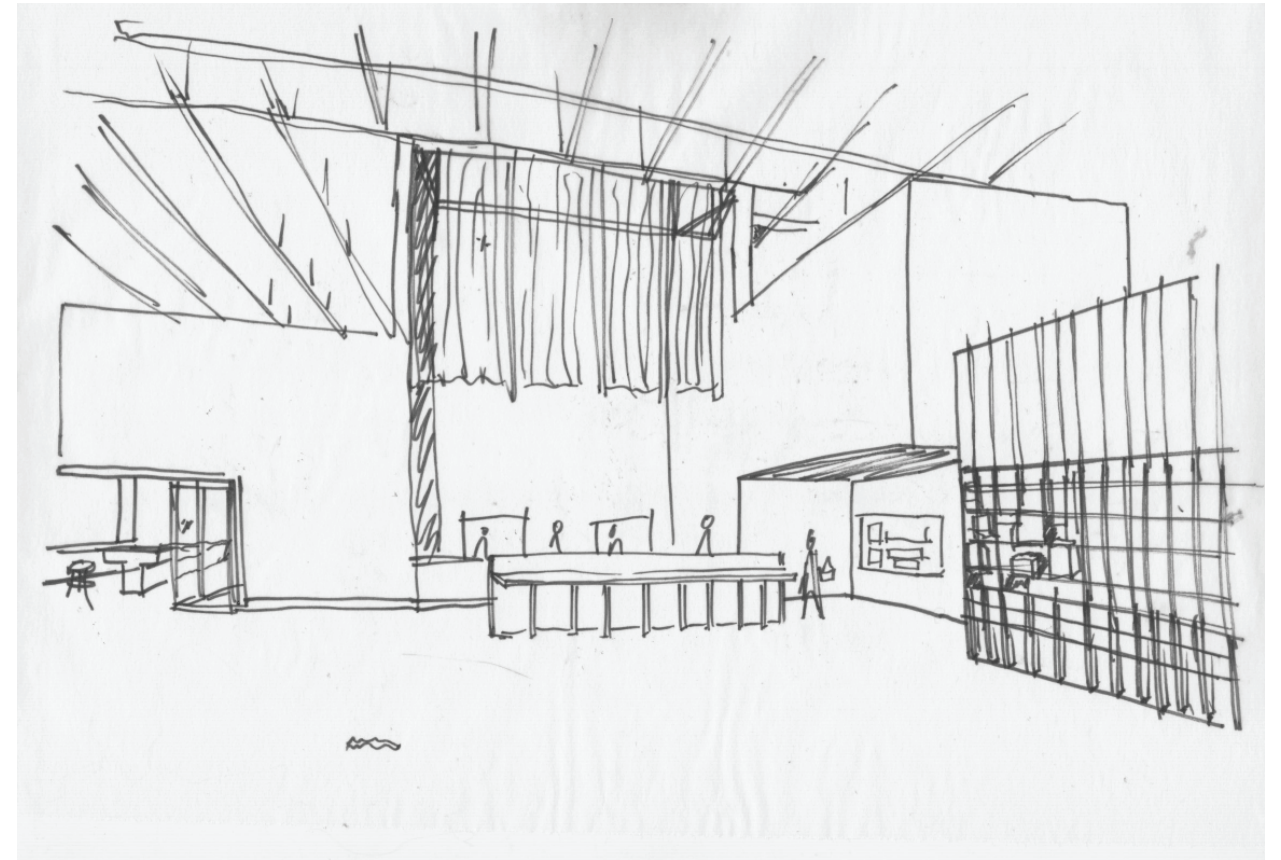
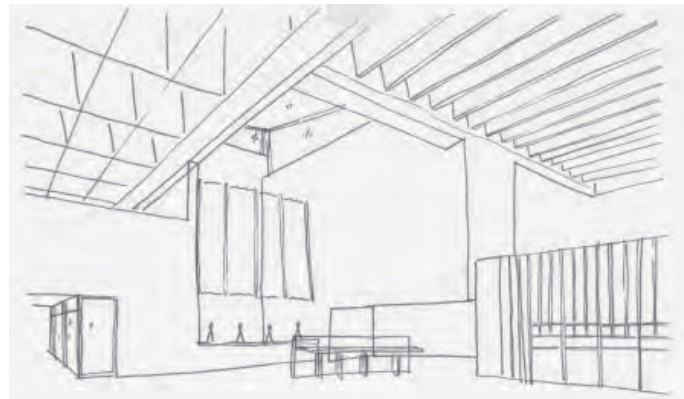
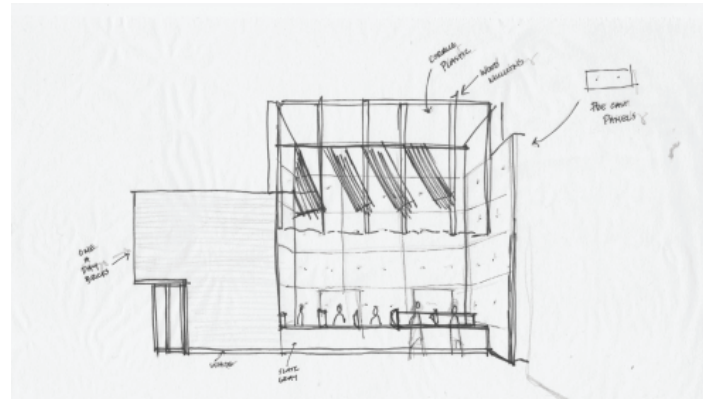
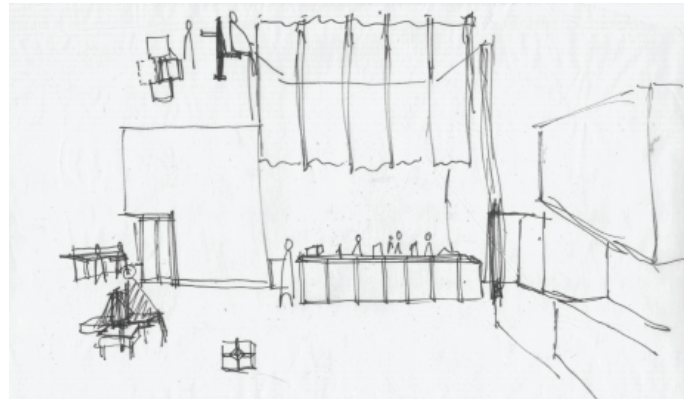
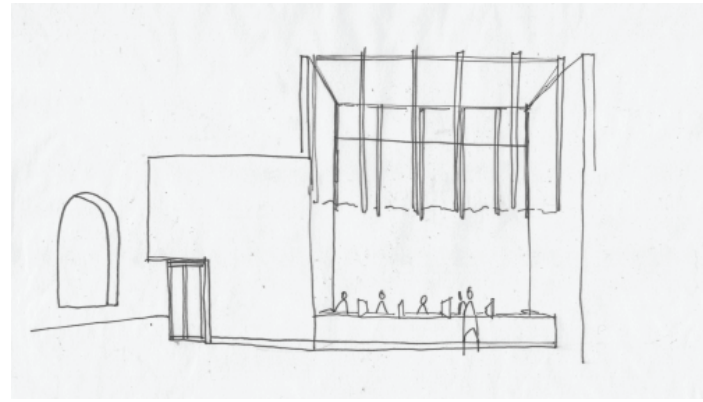
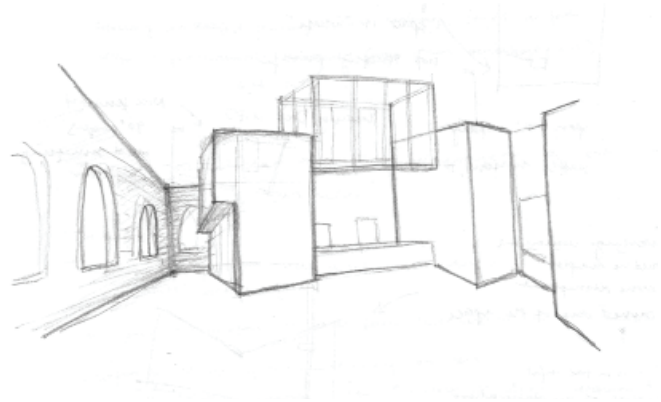
planning

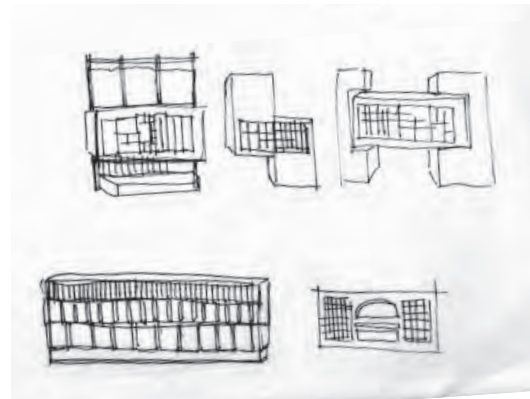
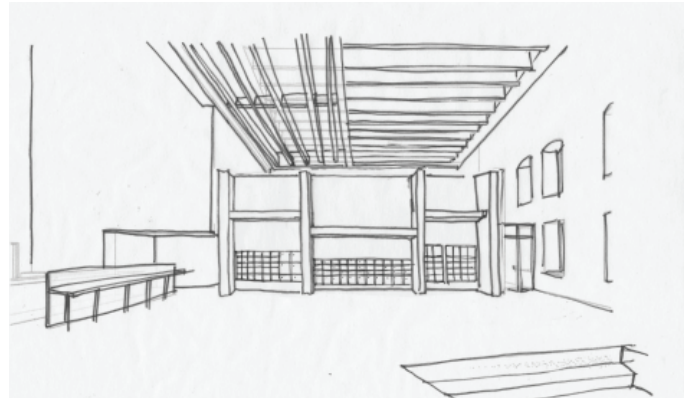
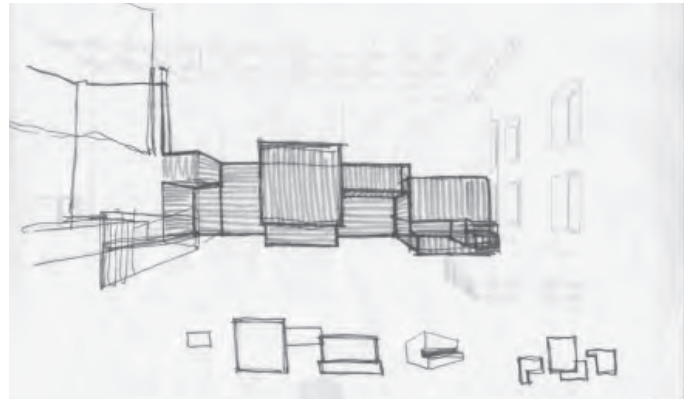


plan perspectives



entry





wood framed concrete

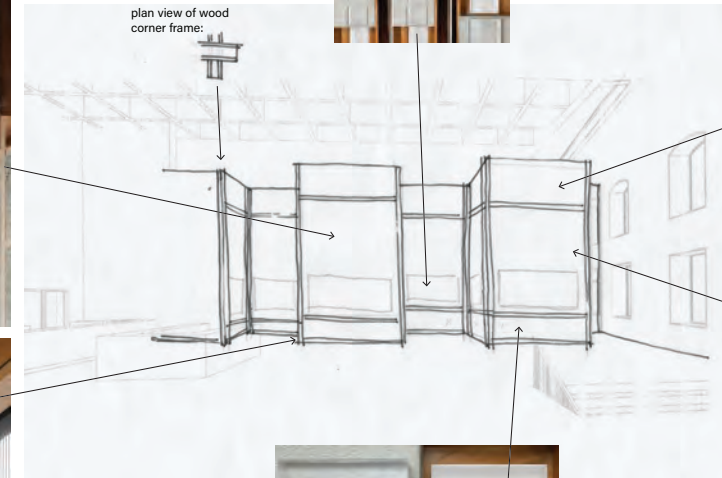
grid concept for po boxes



semi or opaque resin panels above & below



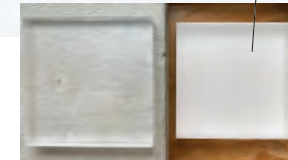
plan view of wood corner frame:



pale board-formed concrete infill



floating the concrete

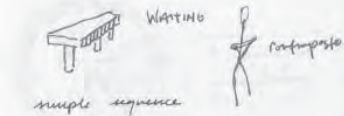
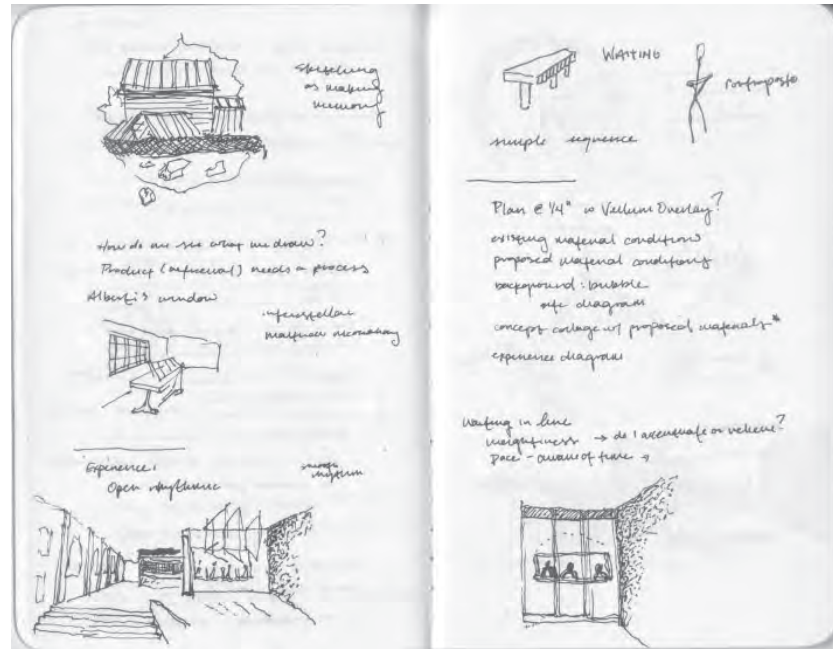


matte dark gray floors (concrete?)



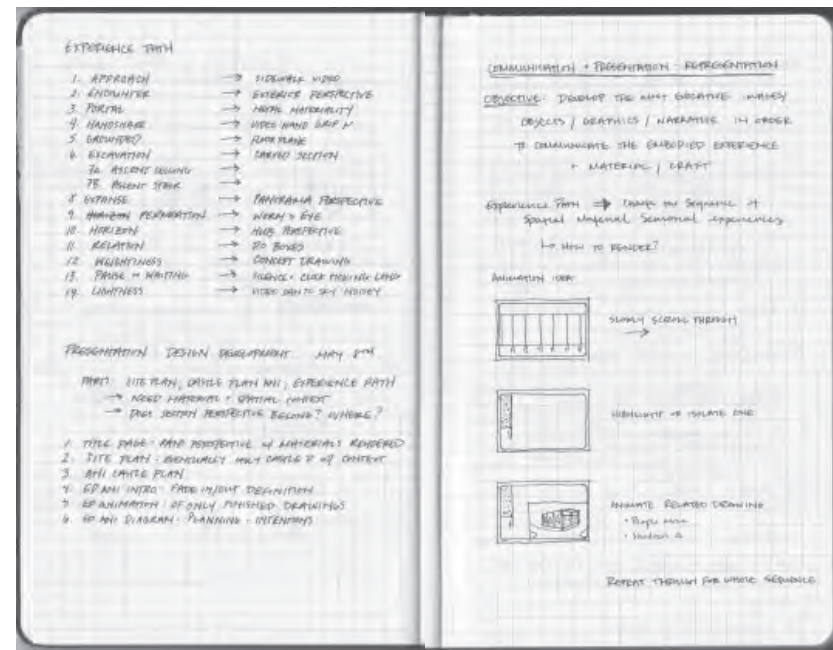
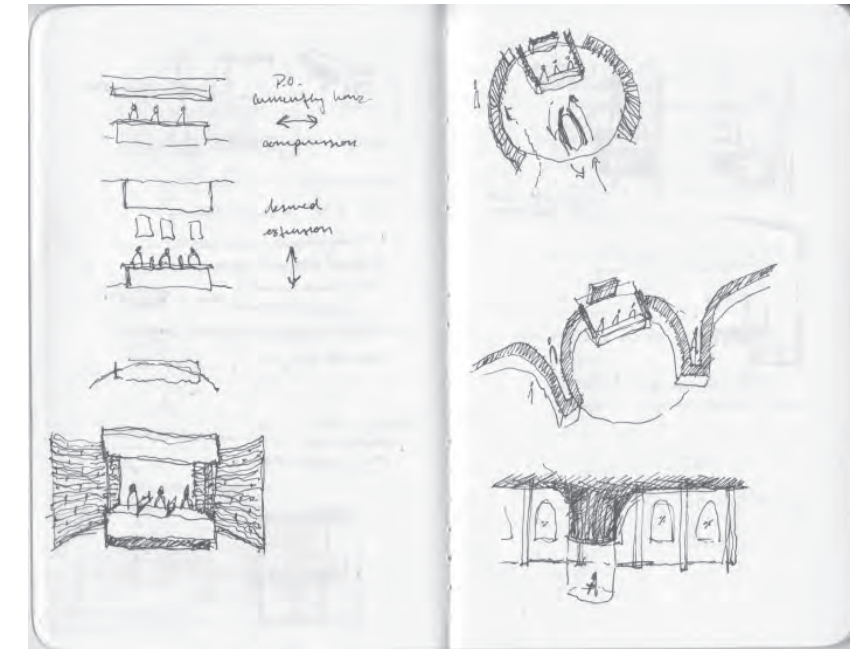
po boxes concept

p.o. boxes

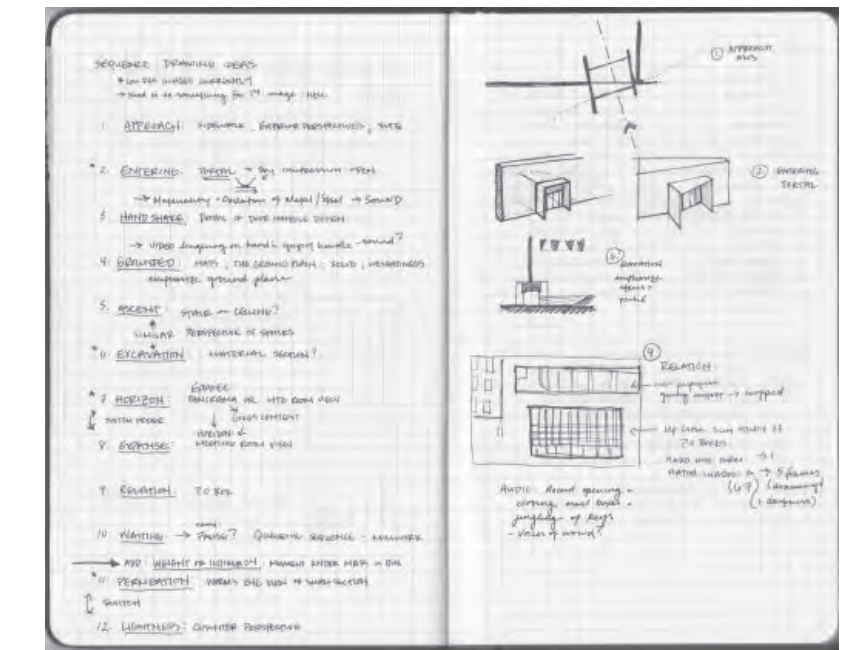


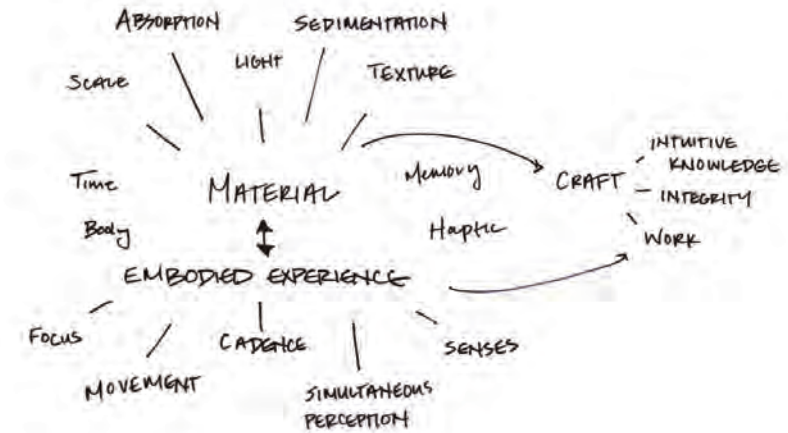
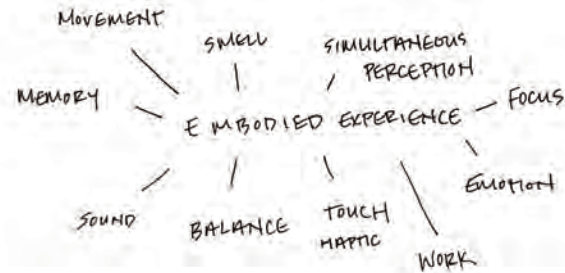
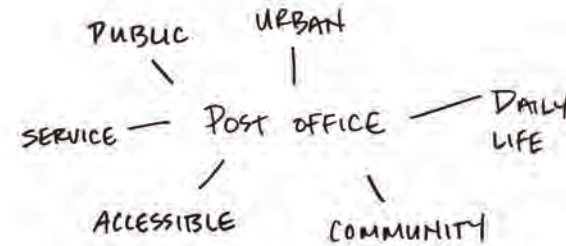
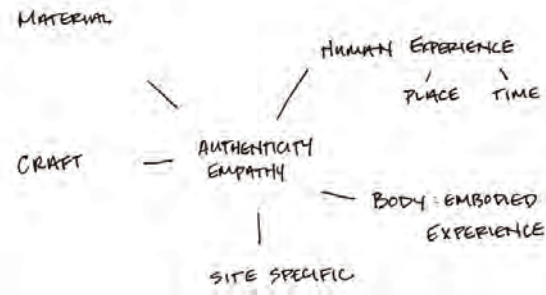
Plan @ 1/4" in Volume Overlay?
existing material conditions
proposed material conditions
background: bubble site diagrams
concept collage of proposed materiality
experience diagrams

Waiting in line
visibility - do I see what I see?
pace - amount of time

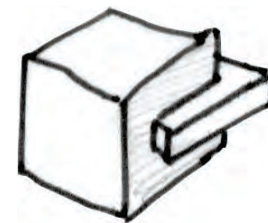


experience path

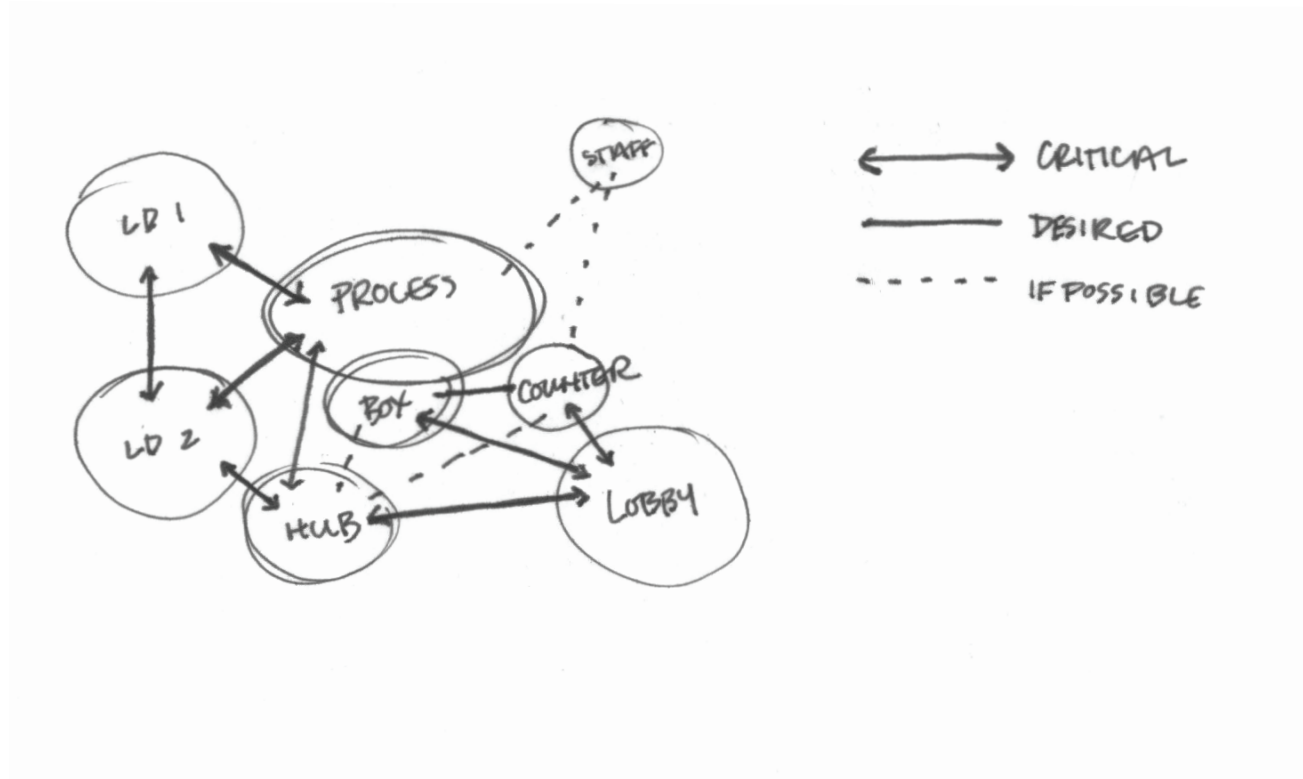




mind mapping



5 **appendix II**
additional drawings



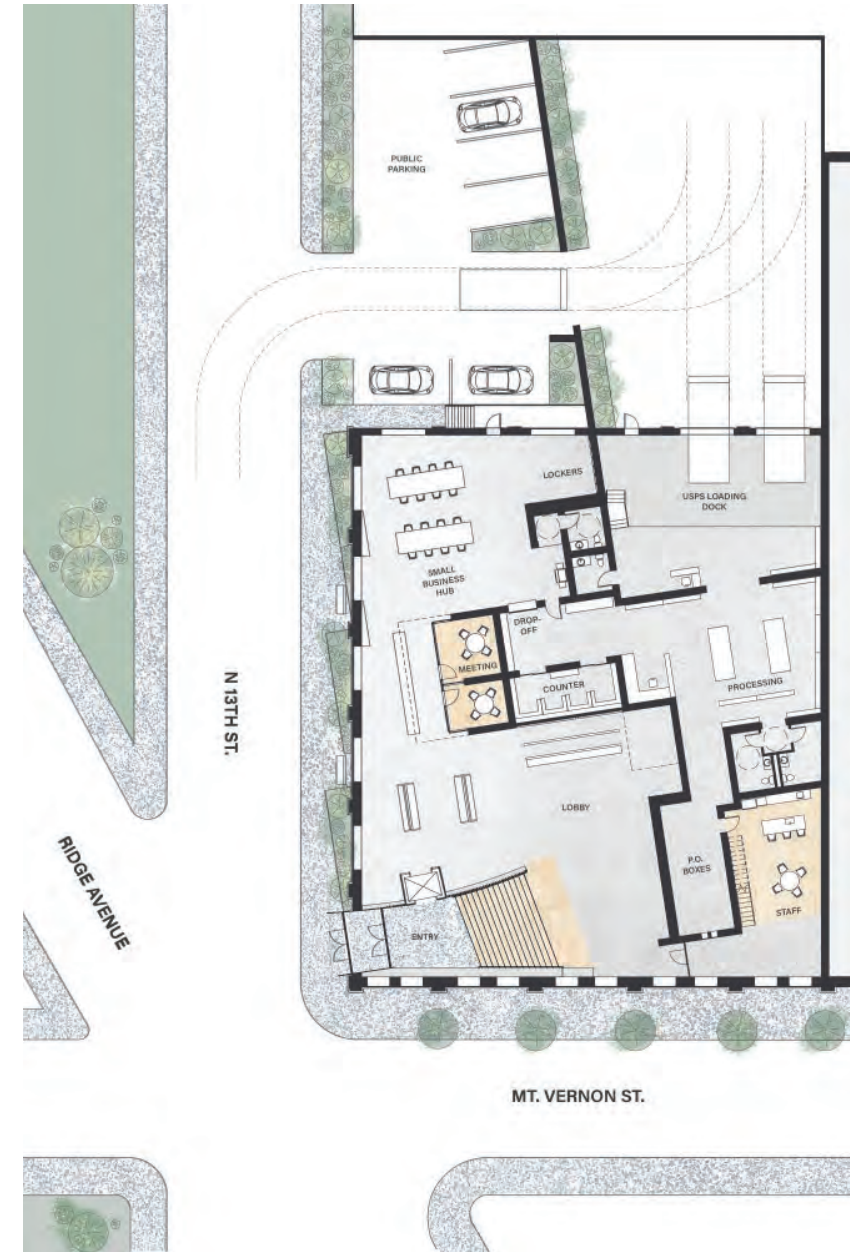
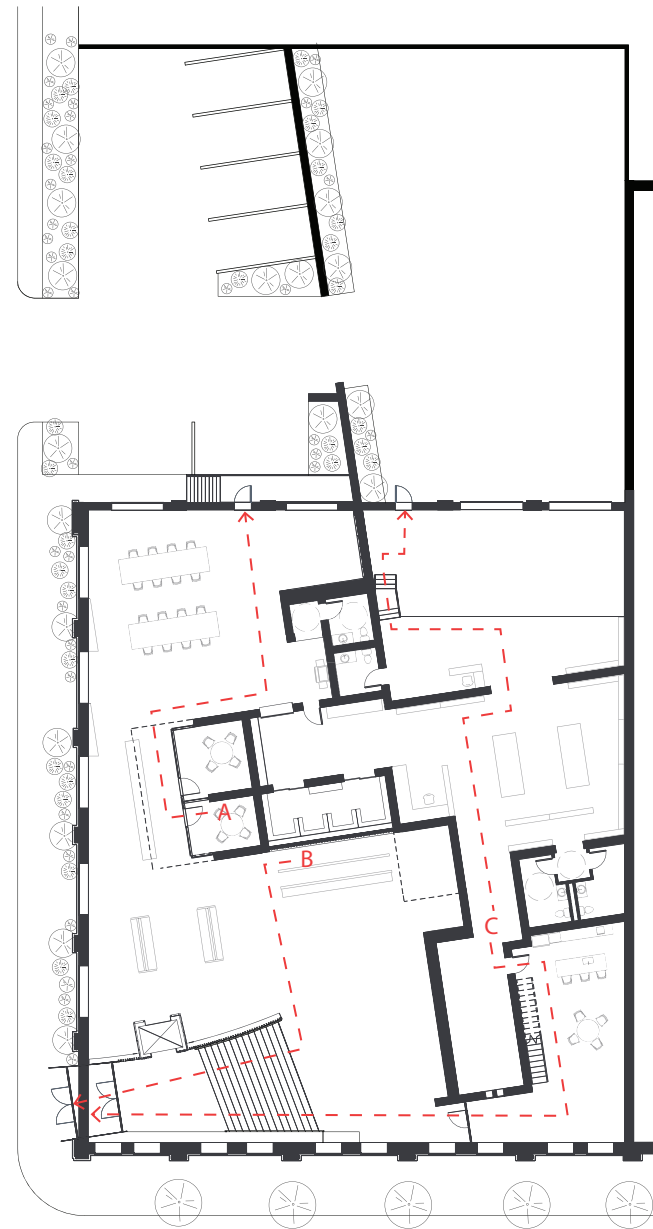
post office
& small business hub

master list of spaces

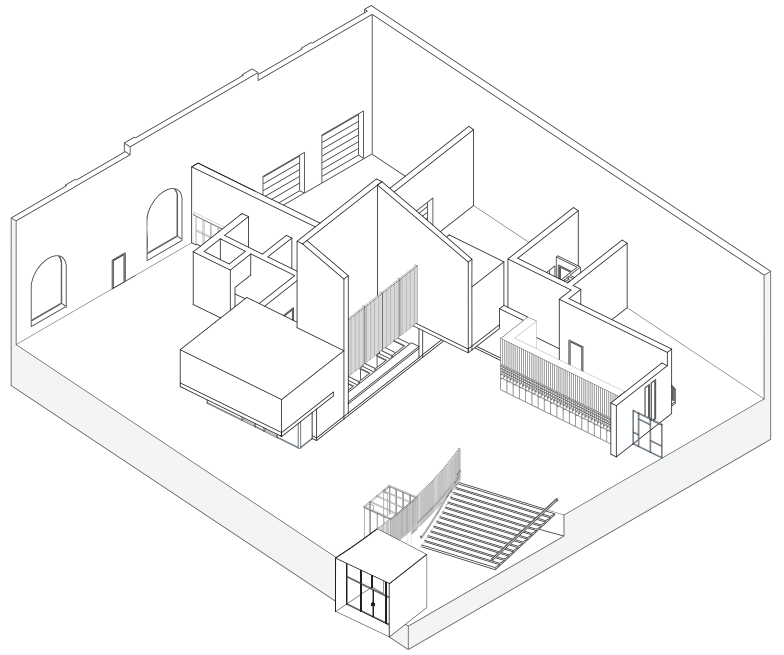
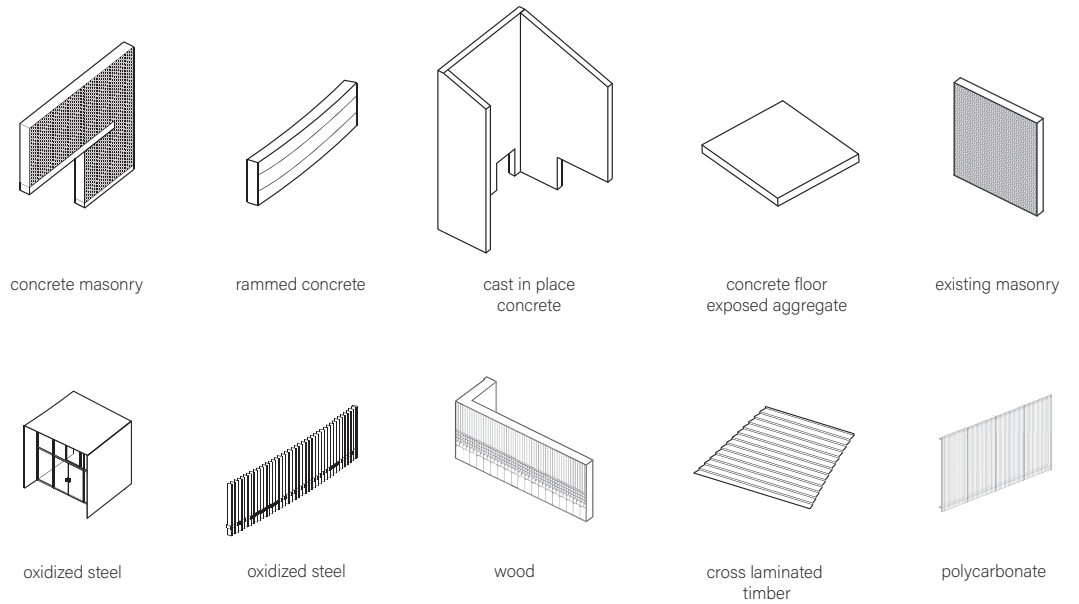
Lobby	3,020
Entry	585
Counter	250
P.O. Boxes	300
Staff Lounge	788
WC Staff	240
Loading Dock USPS	1,405
Processing	1,124
Small Business Hub	1,788
Drop-Off Counter	300
Meeting Rooms	325
Lockers	233
WC Public	70
Total SF	10,428
Building SF	10,950

CODE SUMMARY - IBC 2018

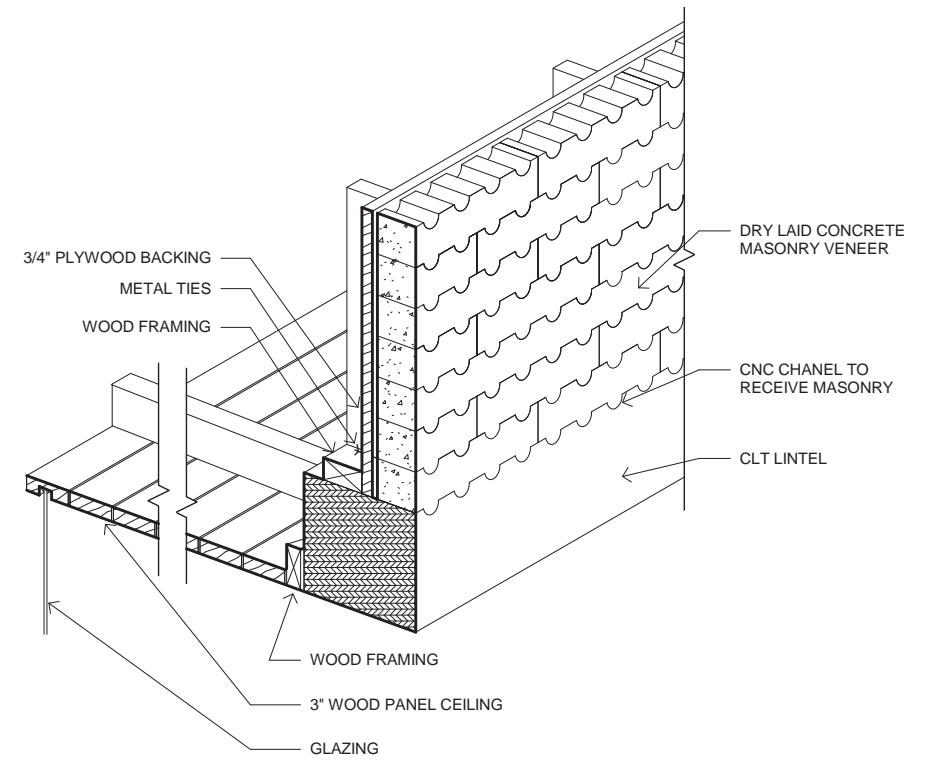
USE GROUP:	B (BUSINESS)
CONSTRUCTION TYPE:	VB
NUMBER OF EXITS:	3
FULLY SPRINKLERED:	YES
EXIT DOOR WIDTH:	36" CLEAR
OCCUPANCY LOAD:	73
TRAVEL DISTANCE:	LESS THAN 300 FT
COMMON TRAVEL PATH:	LESS THAN 100 FT
	A.) 82' - 8"
	B.) 94' - 6"
	C.) 82' - 7"
	97' - 8"
PLUMBING	
FIXTURES REQUIRED:	2
LAVATORIES REQUIRED:	1



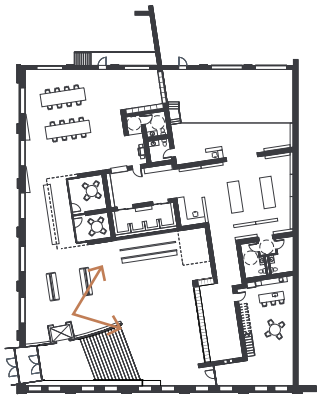
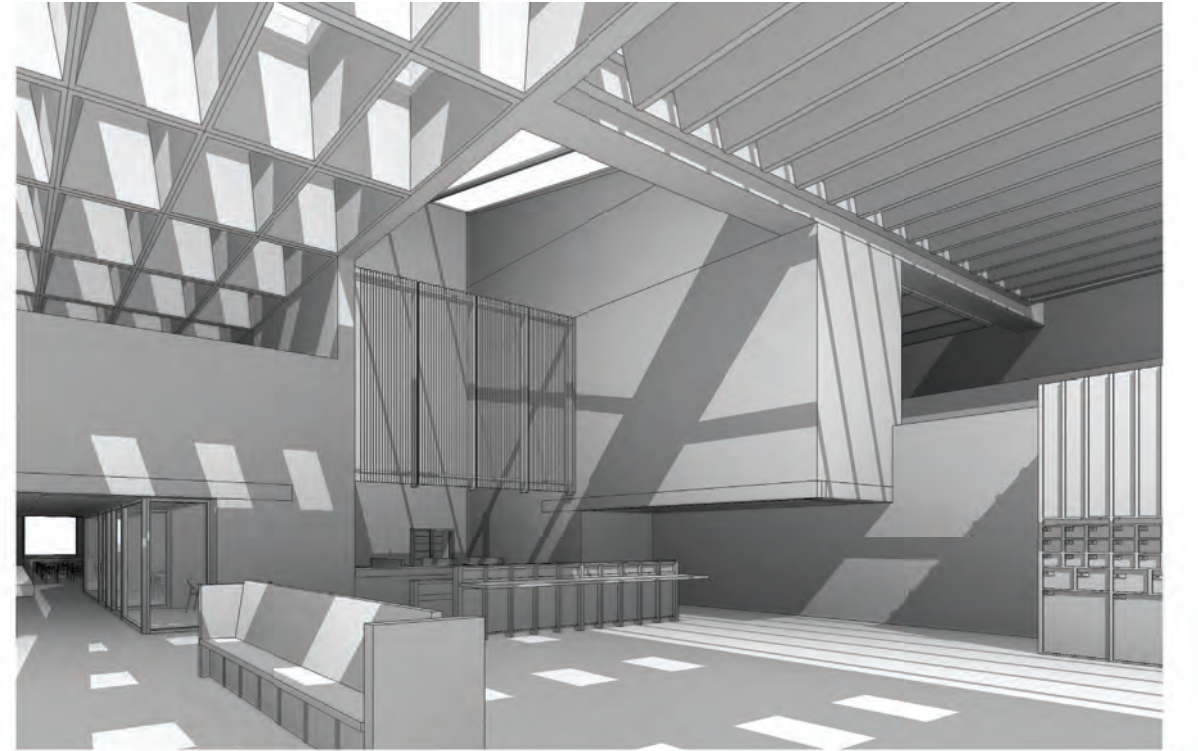
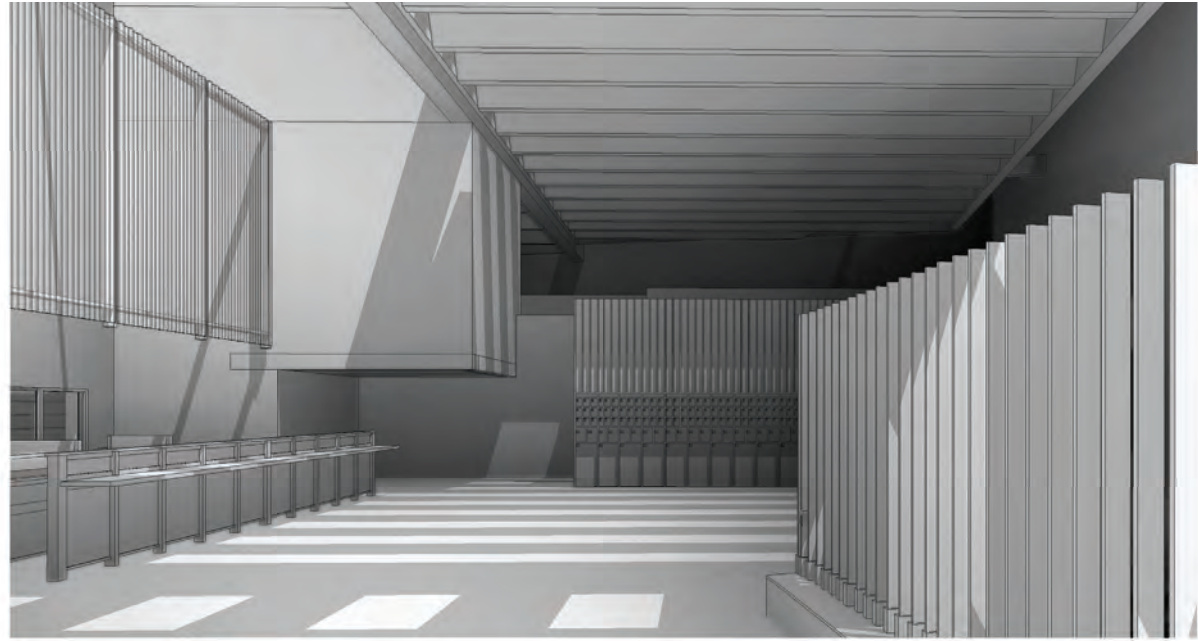
rendered floor plan



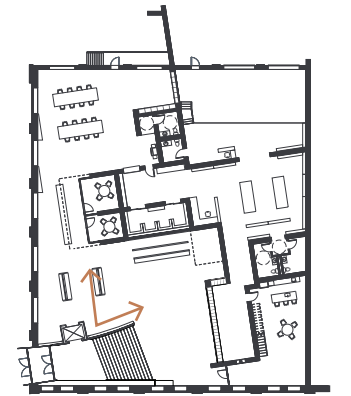
material elements



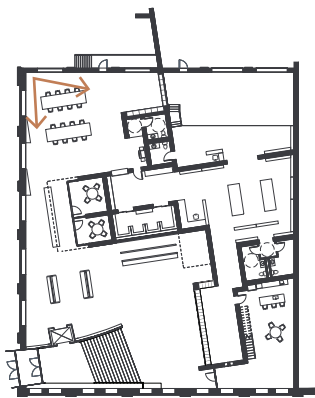
SECTION DETAIL AT CLT LINTEL TO MASONRY



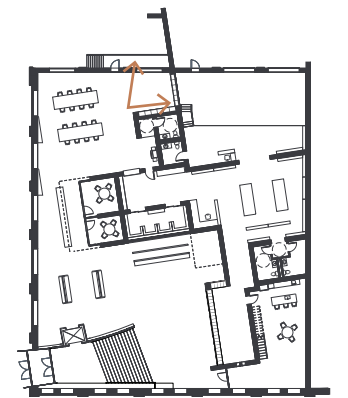
lobby



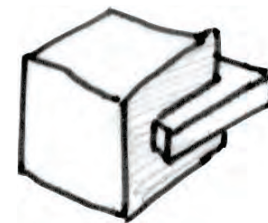
lobby



business hub



business hub lockers



5 **appendix III**
research

experience

design probe interview

formative experiences

date: january 3rd, 2020

interviewee: ted maust, public historian & director of elfreth's alley

1. What are the most memorable places you've been, and why?

Pena Palace in Portugal, 2008 for a family vacation. It was very formative and is possibly one of the reasons why he is doing what he is right now. It was so over the top that he couldn't imagine who lived there and how they lived there. This inspired a sense of wonder and imagination.

His grandmother's house has many memories for him. After she passed away about two years ago it has been gutted and seeing that transformation of all of the furniture

being removed and the rooms being repainted made the house empty, done, and dead. However, the emptiness evoked more memories and made him more aware of the space and how it evolved through time.

2. Where do you spend your time at home? Do you use all of the rooms or just a few? Why are you drawn to those particular rooms?

Most of his time is spent at his partner's home, but he hasn't moved in yet. This has made him more aware of his belongings and the fact that they don't belong there.

He lives in a West Philly home shared by 3 other people that he does not know very well. When he is there he mostly spends time in his own bedroom. The other rooms are messy and no one has taken ownership over their care. The main living space is also very open and you are forced to interact with others as they enter or move throughout the space.

3. What do you notice in a space? Light, material, noise, arrangement?

Family photos, storage, what is displayed versus what is hidden. He has noticed that people his age tend to have more open storage because of a lack of space, whereas the older generations are more intentional about what is on display because they have the option of space.

- He does not notice materials because he can't identify them.
- Windows and their views
- Curious about the use of space and how its defined. Interested in function and social etiquette

4. If you had to choose between function and form, which would you choose, or prioritize?

Function

5. When an object or something tangible interests you, do you try to understand it better by smelling/touching/lifting/tapping/associate it to a memory?

- Touch, or a new visual perspective. If it appears to be

fragile he would engage with it differently

- Only smells things like food and flowers - "organic" tings
- Ownership changes his perspective of something

6. What are your thoughts about material and craft? Do they impact your life?

Yes, but not directly; secondary contact with others that are makers. Otherwise it seems outside of his scope.

Assembling exhibits for the museum has made him more aware of craft and the long lasting effects it can have.

His father is a potter and he grew up using the "cast-offs", or seconds, of his dad's work. It instilled in him the mindset that the pieces were disposable, because if they didn't use them in the house, they would have been smashed and discarded. However, pieces that he or his family has gotten on their travels have been more precious. Also, somehow the china his parents had that were mass produced were more special than the pieces his dad made.

7. Describe your morning routine and commute to work

- Wake up, makes himself get out of bed
- Rarely has breakfast
- Walks about 5 blocks to MFL
- Stands on the train until the 15th street crowds leave and then sits until 2nd street stop
- Crosses under the street and walks the 3 blocks up here (to Elfreth's Alley)
- Takes personal time (checking email etc.) for the first 30mins-1hour before he begins work

8. What does your workplace look like? What would you change about it?

His workplace is chaos and any order would be good. One issue is storage and if they pack anything away, they often forget they have it and buy more leading to needing even more space. It would be ideal to limit storage but create a system that is easy for staff to find things they

need. Finding an order that is useful

9. How does your work and knowledge of history inform your perception of space?

His thesis was on the authenticity in historical houses and this specific engagement has framed his comfort with activity within the museum. A space that is used is more authentic than one that lays empty.

He is interested in what the use means to the house. If an event is held there, how does it affect the use and repair of the space?

Has come up against some issues of the house being used without intentionality

10. What were your favorite places when you were a kid? Now?

Aunt and Uncle's House: it is associated with vacation, cousins, and fun. However, his association with the space has changed over the years. When he was a teenager and in college his comfort was the least considered and often he had to sleep in a public place on a couch. This meant he didn't much sleep and felt like a loose end.

Freedom and lack of responsibilities however that has changed now that he brings his partner. Considering her level of comfort and seeing things in her perspective makes the visits more stressful.

The upstairs tv room was special and they would spend every night there. It has a sliding glass door that used to open up to a small balcony that had no handrail. Recently the balcony has been extended into a system of catwalks and decks that flow around the perimeter of the house.

The house has been a big project to his aunt and uncle and they have renovated, expanded or customized the space continuously throughout the years. Those changes are memorable to Ted. He also stated that renovations are a way of investing yourself in a space

experience

These collages were inspired by the following story relayed by the interviewee.

While in a house museum with his class, the professor asked,

“What’s the most important thing in this room?”

“... the period furniture?”

“...the owner’s personal belongings?”

“It’s the velvet rope, which tells you what you can and cannot do or touch...”



case study

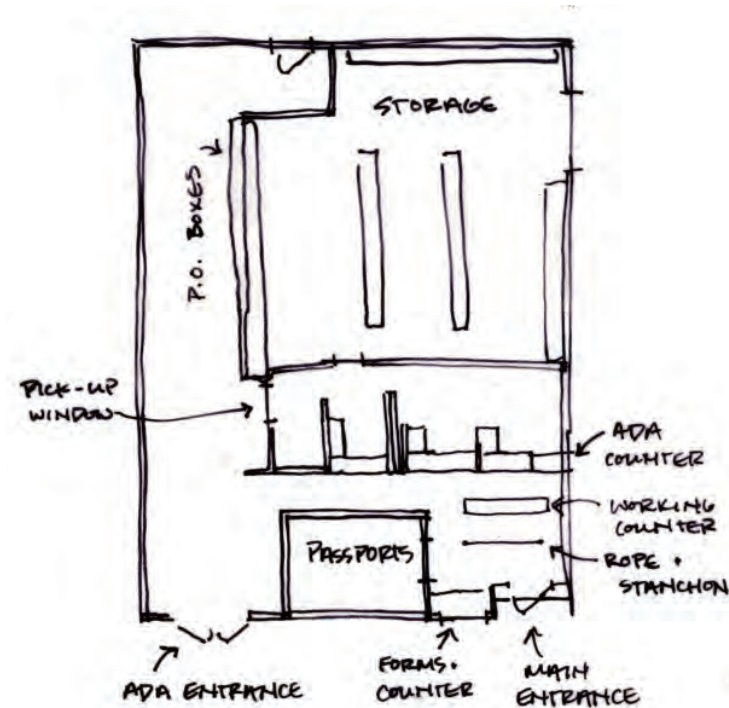
key informant interview

william penn post office retail store

720 Arch St. Philadelphia, PA 19105

date: january 25th, 2020

interviewee: employee; male approximately 60 years old; preferred to be anonymous



1) What is the square footage of your facility and how many occupants does that accommodate?

Employee unsure, but estimated that the back facilities were about 3x the lobby footprint. I approximated 3,000 SF for the total facility based off the employee's suggestion.

2) Is that size/ratio ideal?

Overall the space felt adequate. However, the break room was not separate from the package processing area and felt cramped to the employee. Also, the lobby could be larger to accommodate longer lines.

3) How does the design of your facility differ from other similar facilities? How is it the same?

This retail store also offers passport services, in which customers can schedule appointments to have passport photos taken and get additional help with their forms. I also noticed that there was a special window next to the PO Boxes in which what I presumed was small business owners picking up carts of packages. This post office also has a great deal of sunlight compared to others.

4) Who are the types of people that come to this facility?

A variety of users come to this post office especially because of the passport services. There were patrons speaking Spanish and Chinese while I was observing. The location is near federal, office, commercial, and residential buildings and so the patronage is not limited to just one group.

5) Does the facility accommodate differently abled persons?

Yes, and although the main entrance is not ADA accessible, there is an alternate entrance that leads straight to the PO Boxes and side counter so although it is

not the main entrance - it does not feel entirely out of the way. There is also an ADA height counter. The working counter along the waiting line was about the same height as the accessible counter and it had no under-counter barriers.

7) How many staff work at a time?

3-4 people on average are working at a given time

8) What type of work spaces does the staff require?

A break room, or "swing space" as the employee called it, for breaks and lunch. The supervisor has their own office in the back. The interviewee also expressed the staff's need of storage for personal belongings.

10) Are there any special safety or security issues?

Because of the nature of security of mail postal guards come through a few times a day. Otherwise the only concern was making sure that the older doors to the building were secure at night.

13) What would you change about the facility?

Increase the size of the break room and make it a separate room. Provide public restrooms especially for the passport patrons. Oftentimes families are coming in and the children need access to facilities. The second employee also chipped in saying how frustrating the sloped floor was near the PO Boxes and ADA entrance. My guess is that the floor had to be sloped in order to accommodate the accessible entrance because the post office lives in an older building.

observations

saturday morning 9:00 - 9:30am

employees

- 1 & 2 patrons at the counter
- 3 waiting in line
- 4 getting & filling out forms

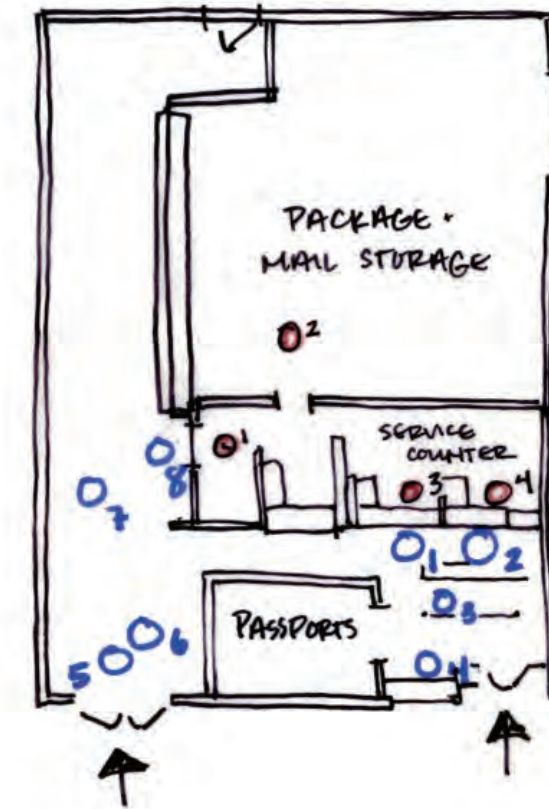
- 5 & 6 utilizing accessible entrance

- 7 & 8 picking up multiple packages with a handtruck

visitors

- 1 assisting patrons with multiple packages
- 2 retrieving packages from storage

- 3 & 4 helping patrons at service counter



case study

key informant interview

independence public library

18 S 7th St. Philadelphia, PA 19106

date: december 31st, 2019

interviewee: t. kim robinson, adult/teen librarian

1) What is the square footage of your facility and how many occupants does that accommodate?

Total sf. = 8520, Rentable meeting room= 768 sf. About 100 occupants

2) Is that size/ratio ideal?

No, the branch could use more space, particularly another large meeting room. There is a need for quiet rooms for small meetings of approximately 5 or fewer people. Another space problem is that there is no room

for separation between the adult section and children's section, which poses a security issue. Staff does not have a dedicated work space in the back, but will often share. They could use more table space as well in the public area.

3) How does the design of your facility differ from other similar facilities? How is it the same?

This branch is unique in that it has no ramp or stairs to the main entrance and makes it easily accessible to differently abled persons. The space has a few alcoves that make it difficult to see and keep watch over. There are no separate quiet rooms, the space is just one large room. The main branch has many different rooms and even some of the other branches have separate areas.

4) Who are the types of people that come to this facility?

The population is very diverse. Toddlers to retirees and native English speakers to non-native English speakers use this library branch. There are a few volunteer translators and a few employees who can translate Chinese for patrons. This branch includes special LGBTQ and Chinese collections. The branch is located in center city so draws from all parts of the Philadelphia population.

5) What is the average age/ability range of the occupants?

The age range greatly varied with equal numbers of families with small children, to teenagers, to older adults and retirees.

7) Number of staff? How many at facility at a time? (List of job titles)

4 staff minimum on the floor at a time. Roughly 30 employed people at the branch, some part-time. They also receive help from volunteers. Head Librarian/branch manager, Adult/Teen Librarian, Children's Librarian, staff. Project Home had two volunteers watching the bathrooms for security

8) What type of work spaces does the staff require?

There was a staff lounge/kitchen, and three

storage spaces for crafts, hold books, and general storage. There was also an office for all staff to share with 8 desktop computers and storage and one separate small office for the branch manager. The librarians on the floor had a desk and computer to sit at and help patrons.

9) What activities take place in the public areas? What works? What doesn't?

The public area is for browsing of books/magazines/newspapers/DVDs, working on the computer, working/reading/meeting at a table, there is a children's area with toys and crafts and storytime. Performances and events also happen in the public area.

10) Are there any special safety or security issues?

Safety and security were a primary concern for the librarians. There is not enough staff to have oversight over all patrons. The opioid crisis and homeless population is of particular concern and it would be ideal to have a greater separation between the children's section and the main area. There have been incidents in different library bathrooms around the city and now the branch has volunteers from Project Home manage access to the bathrooms. Security cameras are throughout the space but don't cover all areas. The alcoves are of one concern because of lack of visibility.

11) Is there any special attention to acoustics?

This branch is not as quiet as others because it is one open space. The ceilings are very high-approximately 16' around the perimeter and 20' in the middle. The alcoves have ACT and that helped dampen the noise. The children's area had a lowered feature ACT ceiling. The flooring was carpet tile and in general the books absorb sound. The main problem is that there is no separation of noisier and quieter areas.

12) Should the environment be like (another type of facility)?

The library should have a separate children's section and offer more natural daylight. The librarian mentioned making the space more parklike to create a

serene atmosphere would be great for the patrons.

13) If money were no object, what would this facility be like?

This facility would acquire more technology capabilities. This would include power outlets at every table, many more computers, and a gadget table with ipads, tablets, etc. This space could also use more daylight and windows, parking spaces for strollers, small quiet rooms, a separate children's area, another rentable meeting room, more staff space in the back, have updated paint and furniture, more security cameras, and individual bathrooms. The building is currently being rented so there is limited authority over what can be done to the space.

14) What are the spaces required to efficiently run this facility?

Main library area with stacks of books and other publications, a children's area, tables for patrons, computer desks, desks for the librarians and staff, checkout counter, storage, staff office, meeting room, staff kitchen/break room, restrooms, loading dock.

15) How does this facility compare to other similar facilities (in a specific aspect)?

This branch is smaller than other facilities and has limited public seating. It offers a rentable meeting room, but no private or quiet areas. The furniture and fixtures were comparable to other branches. This location has no elevation to the entrance and is one of the most accessible branches.

16) What is an obstacle keeping the library from functioning to its full potential?

The library is currently renting the space and therefore has limited authority over the space and is hesitant to invest in major changes because of cost. Adequate funding and staffing are the main obstacles. There is a Friends group that helps support the library financially and with programming, but it's still not enough. Not having

separate space for the children's area is also a main issue.

17) What are your busiest times?

There isn't a particular time that is busiest. The website listed school breaks as being busier for libraries.

18) Do groups use the space? How often and for what activities?

The meeting rooms is consistently rented out and used for a variety of events including literacy programs and ESL classes.

19) Would updated furnishings/technology increase patronage? Or other changes?

Yes, providing more workspaces, seats, and computers would be beneficial for patrons. The space quickly became full and there were limited options. The space was in need of new paint, carpet, and materials that are easily cleanable.

20) What is the best part about the library?

The location is in center city and along major bus routes and just two blocks away from the 8th street MFL stop. Many patrons complemented the children's area for its collection, librarian, and dedicated space for toys and play. The librarian said that the mix of the patrons and the collection is the most successful part of this branch.

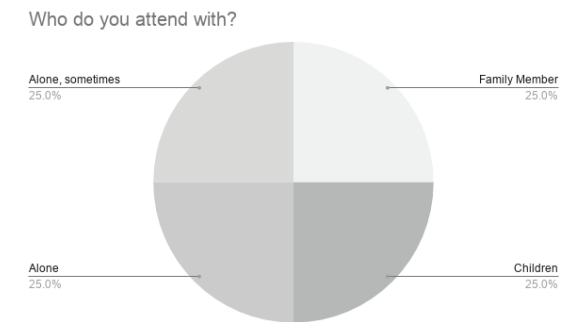
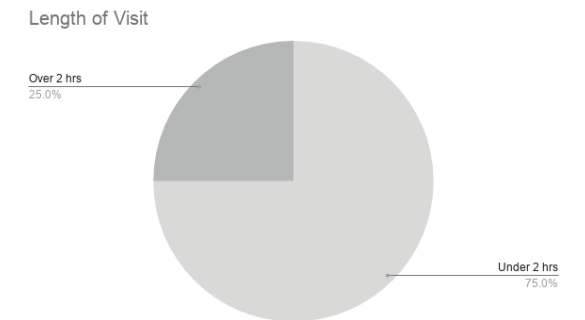
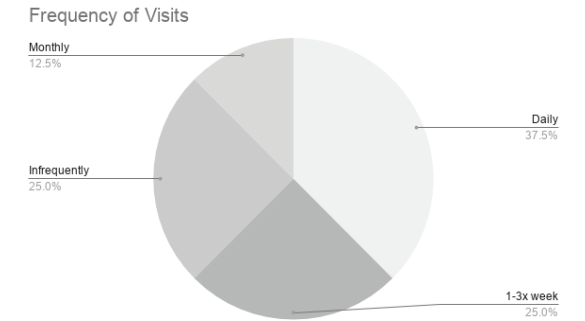
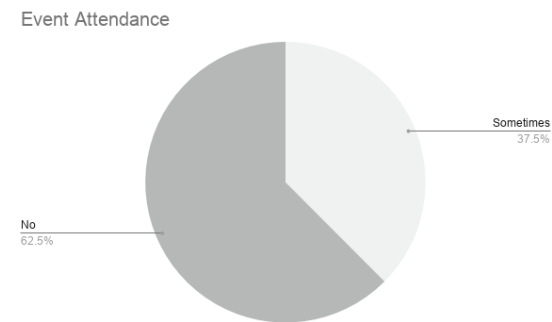
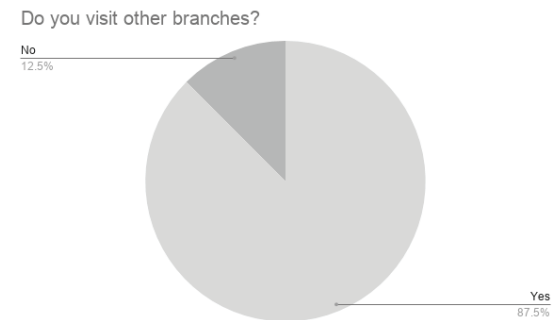
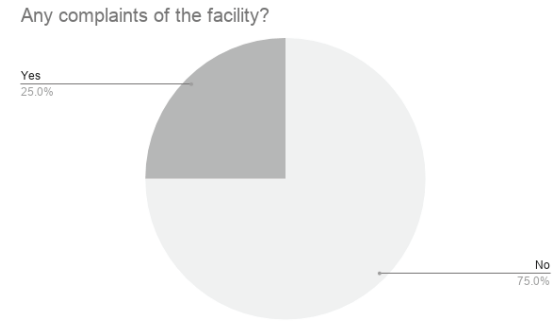
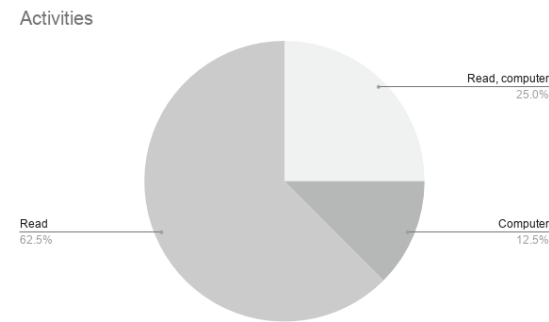
user survey

The Independence Library branch serves the center city neighborhoods of Philadelphia including Old City, Queen Village, Society Hill, Chinatown and Washington Square West. The branch was visited on Tuesday December 31st, 2019 between 10am and 12pm. The weather was overcast and cold.

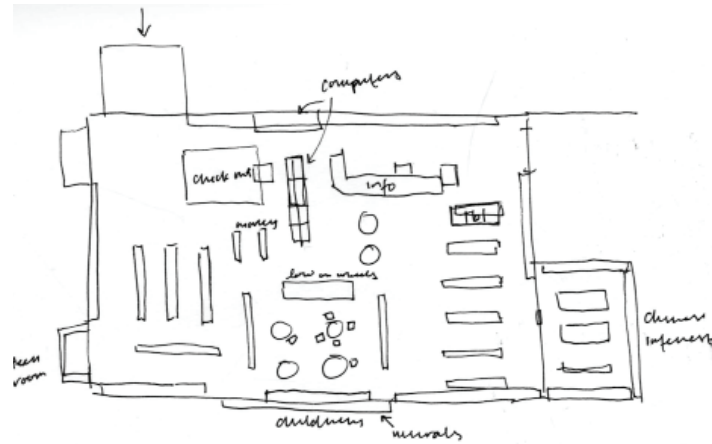
The library had approximately 15 visitors after

its opening and it slowly grew to about 35 patrons by noon. A variety of patrons were given a short interview of 7 questions. The patrons interviewed include Chinese, African American, and Caucasian women and men, teenagers, families with young children, retirees, and the elderly.

The survey showed that the majority of patrons visit multiple times a week and stayed for at least one hour. The two primary activities were reading and using the computer. It was interesting to find out that several patrons came to this library even though they had a branch closer to their homes. The biggest complaints about the space were that it was not quiet enough, did not have enough computers, and not enough quiet reading areas.



independence public library
observations

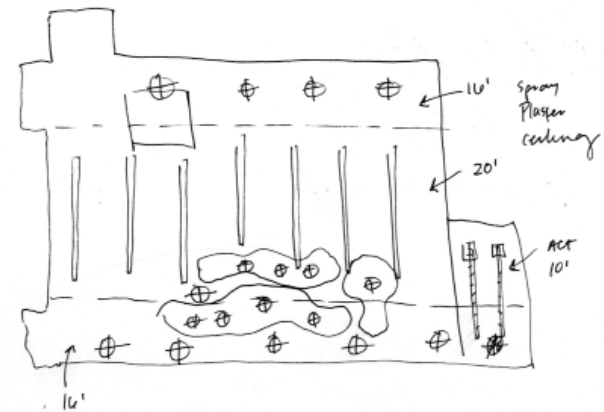


10:30 am Tuesday Dec. 31 ^{warm} cold

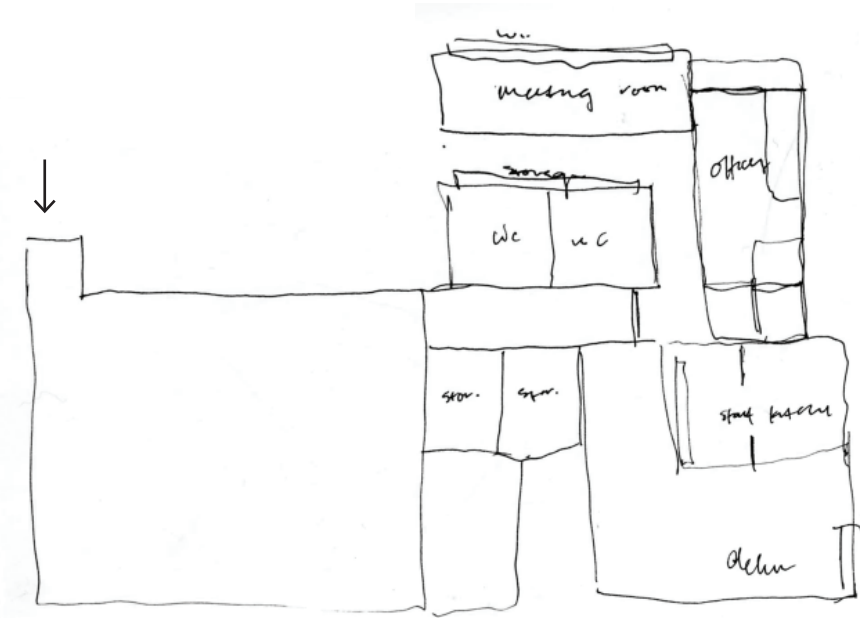
17 people 3 workers
 4 on computers
 3 children + 3 caregivers
 4 people browsing
 3-5 reading/working at tables
 conversations in children's area

Signage in English + Chinese

Story time at 10:45 in children's area
 4-8 people - children's librarian



plan & RCP sketches



back of house facilities

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experience path animation

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