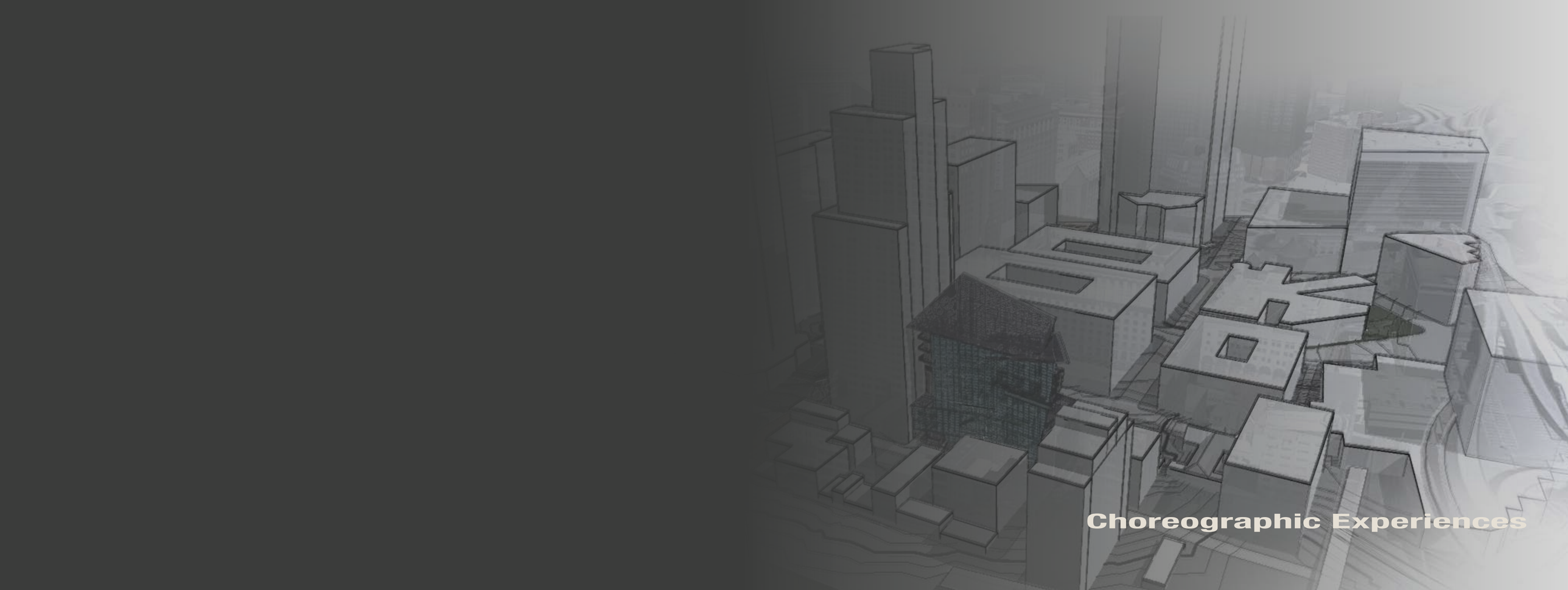
Choreographic Experiences

Choreographic Experiences

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Acknowledgements

I wish to thank my family for all of their love and support through these last five years of my academic career.

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Abstract

The relationship between human beings and the built environment is a complex web of personal perceptions and interpretations resulting in ones unique experiences of space. Ones individual chemical makeup offers a unique measurement of how ones perception of space can be interpreted into differing moods and feelings directly related to that space. The use of spacial archtypes; the form of the space, placement of walls, height of the ceiling, etc, can all alter how one experiences the space and can begin to guide the user, whether physically or psychologically. The materiality and colors of the space greatly affect the individuals interpretation of the overall space, conjuring different moods that may alter ones spatial experiences. By moving through the space, interacting with it, the user and the architecture begin to dance with the architecture leading the user. The user lets cues from the space begin to guide him, pushing him along walls, following paths and ascending up stairs. Making him feel welcome and safe in large, bright, tall rooms and uncomfortable in small, low dark rooms. This thesis is an investigation between the relationship of progressive and spatial experiences in relation to human perception, interpretation, sensation and mood

Thesis Paper

"Our individual perception of space and time are intimately linked and cannot be treated as separate entities. Movement inherently occupies both space and time, as does music, visual arts and architecture, particularly when related to the perception of an individual."

– Yolande Harris[1]

"Our surroundings influence not only the way we think but our intellectual development."[2] *– Salingaros*

Why is it that certain built environments brings about feelings of peace, calmness and ease? While other environments inspire awe and admiration? While still others conjure feelings of boredom, anxiety and emptiness? Basic architectural elements, such as spatial layout, materiality and color alter the perception and interpretation and of architectural space from the users and ultimately alter the users pace of progression and experience. By understanding how these elements affect the individual architects can design with psychological implications. How one moves through spaces, the path one takes and pace of progression, can affect the spatial experience and in turn the mood one feels.

Time

Architecture only exists in time. Much like musical notes become a symphony only when they are performed, a building becomes architecture only when one moves through or about it.[3] The only way one can experience the three-dimensionality of architectural space is through the movement of ones body through space, sequence and time. Time is a concept that organizes movement encompassing tempo, rhythm and duration; where tempo is the speed of a movement (fast, moderate or slow,) rhythm is the structure of movement patterns and duration is the length of time it takes to do the movement.

Tempo is generally used as a musical terminology for the speed or pace of a given musical piece generally indicated in beats per minute (BPM). The greater the tempo the larger the number of beats that must be played in a minute and therefore the faster a musical piece.[4] Related to movement, especially dance, tempo is generally measured in measures per minute (MPM), or the number of measures in one minute. It is commonly used in ballroom where the dancer would count 1, 2, 3, 1, 2, 3 in his/her head. Every movement has a tempo or speed. On an average day one might walk at a normal pace. When running late the tempo changes as the individuals pace quickens. When just strolling through the park an individual might walk at a slower pace.

The word rhythm comes from the Greek word rhythmos meaning “any regular recurring motion, symmetry.”[5] With rhythm a sequence is usually repeated having a frequency of anything from microseconds to millions of years. Again using the example of music and dance,

rhythm is the timing of events on a human scale. In many musical songs there is a constant beat or pattern throughout the whole piece. This main rhythm keeps the whole piece flowing together, the beat that the listeners tap their foot to while they enjoy the music. The rhythm becomes so much of a part of the song it almost vanishes in the background and becomes hardly noticeable. Only by error, when the song skips a beat, does one even notice it. Every organism has their own personal rhythms, human beings are no exception. There is a natural rhythm for human motor functions, the way one walks and talks, and even ones interior, bodily functions; ones heartbeat, etc. The rhythm of walking is different than skipping, hopping or dancing or a combination of the patterns. Rhythm is intrinsic to our everyday lives. When working on repeating, mundane tasks, such as manual labor or working on an assembly line the most effective, efficient and more timely way of working is to obtain a rhythm about the work. Once a rhythm is achieved almost anything is done easier and more quickly.

Duration is the length of time something continues or exists. In music the duration could be used to describe the length of many different aspects from the length of the entire musical piece to the length of the individual notes. Duration, depending on what it is measuring, could be milliseconds or millenniums. The duration of a persons lifetime, for example could be seventy years while the duration of that same persons single heartbeat could be less than half of a second. In relation to movement, duration could measure the length of time of a stride, reach, grab, etc.

Movement Analysis

Rudolf Laban created a system and language for interpreting, describing, visualizing and notating all ways of human movement called the Laban Movement Analysis.[6] Laban Movement Analysis (LMA) is an outgrowth of Laban's theories that comprises four main categories: body, effort, shape, and space. Laban's Effort category is a system for understanding the more subtle characteristics about the way the movement is done with respect to ones inner intention. Effort is the dynamic quality of the movement, the feeling, tone, and texture and how the energy is being used. It is generally associated with change of mood or emotion. The difference between punching someone in anger and reaching for a glass is slight in terms of body organization since they both rely on the extension of the arm. However, it is the attention to the strength, control and timing of the movement that makes the two actions very different. Effort can be broken down into four categories, each of which has two opposite polarities: space (direct/indirect), weight (strong/light), time (quick/sustained) and flow (bound/free). In LMA the Effort Factor of Time has to do with ones inner attitude towards time, not necessarily how long it takes to do the movement. Time can be broken up into quick and sustained time intervals. Quick is breaking up time or needing to speed time up with a sense of urgency and staccato while sustained is continuous time, lingering, gradual and prolonging.

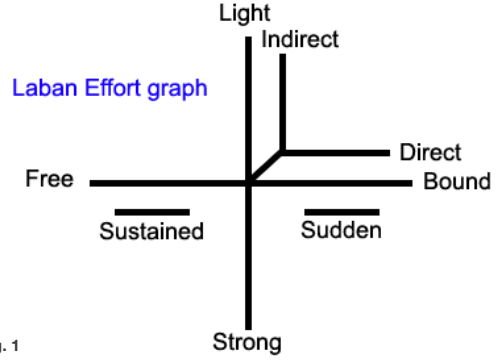


Fig. 1

Dance

"The very specific dynamic flow of a dance, the very specific qualitative organization of force, makes the dance in and of itself 'gloomy' or 'joyful'…"[7]
-- Maxine Sheets-Johnstone

"Dance appears primary among aesthetic forms and the instrument of dance, the human body, contributes to other forms which use its spatial, temporal and kinetic elements. Such dance dynamics persevere in the broad spectrum of non-dance aesthetic phenomena." [8]
--Judith Lynne Hanna

A dancer uses the human body as an instrument for expression. In the early 1900's modern dance started as a rebellion against the rigid constraints of classical ballet. Instead it focused on creative self-expression where choreographers use emotions and moods to design their steps instead of pure technique. As Judith Hanna states "Dance movement elements are those basics generally accepted by movement analysts as intrinsic to motion: space, rhythm (time) and dynamics (force, effort and quality). It is implicit that dance exists in time and space and is affected by its physical environment (light, precipitation, heat, topography etc) as are other motor phenomena."[9] The body can be used to portray propositional and non-propositional movements to create meaning. Combined both propositional and non-propositional movements create concepts and story lines that in turn express, evoke and transform emotion while affecting observers' memories and emotions. Propositional movements focus on the relation of signs and symbols to what they signify such as metaphors, concretization, stylization, icon and metonymy. For example a

Fig. 2

Fig. 3

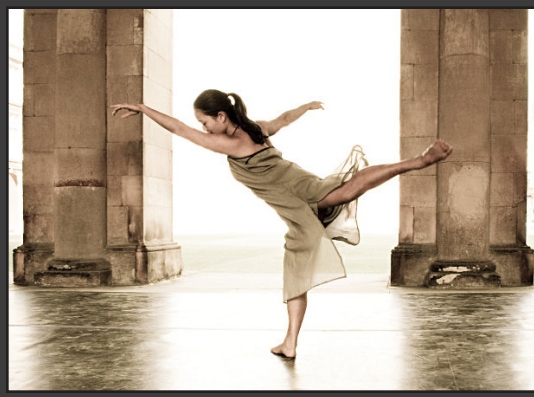


Fig. 4

Anger

-Short duration of time
-Frequent tempo changes
-Short stops between changes
-Movement reaching out from the body center
-Dynamic and high tension in the movement
-Tension builds up and then ‘explodes’

Joy

-Frequent tempo changes
-Longer stops between changes
-Movements reaching out from body center
-Dynamic tension in movements
-Changes between high and low tension

Sorrow

-Long duration of time
-Few tempo changes
-’Smooth tempo’
-Continuous low tension in the movements

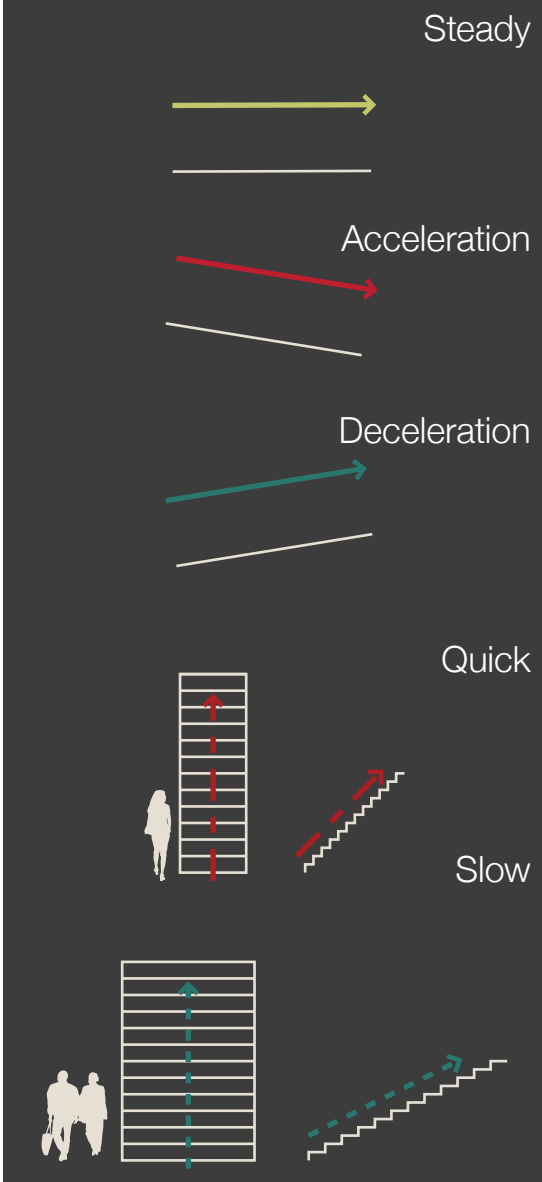
metaphor propositional movement expresses one thought, experience or phenomenon in place of another, which resembles the former to suggest an analogy between the two such as dancing the role of a leopard to denote the power of death. Or the movement may be as simple as a symbolic gesture such as a raised hand to indicate stop.

Non-propositional movements are movements embodied in the direct and natural emotional expression of body movement based on fundamental elements such as tempo, time (duration), force, weight and rhythm (flow). These movements do not rely on specific movements, but build on the quality of movements, how a movement is carried out.[10] Dancers use non-propositional movements to express different emotions. For example the expression of anger could be produced by having short durational movements, frequent tempo changes, short stops between changes, dynamic and high tension in the movements and having the tension build up and then ‘explode’. While the expression of grief could be produced by having long, slow movements in duration of time, few tempo changes, ‘smooth tempo’, and continuous low tension in the movements. The beauty of this expression is that a simple movement can have such power and expressive quality by just changing *how* the movement is carried out. The true emotion of the dance is not *what* the movement is but *how* the movement is performed.

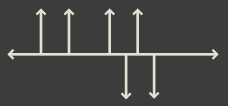
Pace of Progression

"We believe that the most essential and memorable sense of three-dimensionality originates in the body experience and that this sense may constitute a basis for understanding spatial feeling in our experience of buildings." [11]

Architectural space can affect how one experiences, perceives and interprets the space and can alter ones mood and pace in affect. Like a dancer who uses time (tempo, rhythm and duration) to express a type of mood or feeling during performing the pace of progression through architectural space can also be analyzed as a mood marker. Ones mood and pace can be altered by how one interprets and perceives space. Thiis-Evensen's theory of "we wish to be what a volume does," describes how we wish to be the spaces we are in.[12] Therefore one walks swiftly in a corridor and slowly and ceremoniously in a broad space. However, ones past experiences and immediate perceptions can negate these feelings because one doesn't walk swiftly in the corridors surrounding courtrooms or religious buildings nor does one wish to linger in hospital waiting rooms because of ones preconceived perception of those spaces. Being aware that humans are influenced by their immediate surroundings, Architects can guide the users of buildings to favor one path over another, walk slowly, then quicker, etc which could create a different, more unique experience of the building, which can alter the users mood. A disorienting circulation space, or labyrinth, that is constantly changing direction may make us angry and frustrated conjuring feelings of incompetence. Much like the tempo and rhythm tools dancers use to create the feeling of anger in a dance the user of the building walks quickly and sporadically, darting to and fro trying to orient himself. While a circulation path that

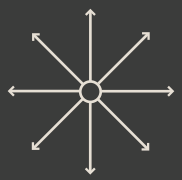


Linear



Grid

Radiant



Network

Spiral

is open, long and winding may give the user a sense of peace as they slowly and rhythmically meander through the space.

Path

A path is a theoretical ribbon that links the interior spaces of a building along with linking the interior and exterior spaces. Walls, columns or differentiating patterns, materials or colors can delineate the directionality of a path. As Malcolm Quantrill states, “The path, the way forward and backwards, is a basic property of consciousness. A path gives us continuity in space and time.”[13] It links specific places or nodes together to form a coherent system. Architecture has traditionally concerned itself with spatial ordering, formal expression, and construction techniques; as a result, the role of the pathways have received little attention.[14] The focus has always been more on points of arrival where the “means of getting there is often ignored both in the planning process and in the discussion of spatial and formal order.” The transitional elements seldom are thought of anything more than functional components that connect significant spaces. And yet they are critical in forming a sensory experience of space essential to movement through space. The form of circulation can guide the pace of movement. A narrow, enclosed circulation space naturally enforces forward motion, focusing the eye forward, while widening the path encourages natural pauses, resting and viewing sections. Within a large space the path can be random with guidance only from placement of the activities or furnishings within the space. The pathway allows us to experience the space in relation to where we have been and to anticipate where we are going.

Archtypes

"We move in relation to a dynamic reference which is defined by gravity and which therefore represents a vast range of characteristics for us: we sit, lie, stand, run, bend and twist. Day and night provides experiences differentiated by light and dark. Tactile experiences teach us about the differences of soft and hard. These experiences form a complex net of references which are the basis for our reactions when we move in relationship to objects in space." [15]
–Thomas Thiis-Evensen

We move in relation to our surroundings. We walk on, through, along, and ascend something. But the manner in which we do so differs if that something is steep, slack, board or narrow. The basic archtypes that combine in architecture are the floor, walls and roof.[16] All of these archtypes have symbolic and psychological affects on human beings pertaining to how they perceive the spaces they are in.

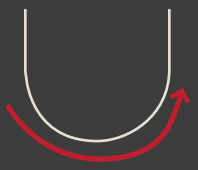
The floor directs us form one place to another. It provides a sound footing, supporting us as we walk upon it while delimitating one space from another. The directional theme or form of the floor can emphasize certain motions. The direction can be illustrated by surface patterns, differentiating materials or raised vertical paths. The users pace of movement can be accelerated by slanting the horizontal floor plane downwards while slanting the horizontal plane upwards can decelerate the users pace by providing for a slower, restrained movement. Shifting the horizontal plane slightly in undulating angles brings awareness to the user as they begin to notice a shift in balance by slightly lowering their gaze from straight ahead to 30º down towards the floor. A simple act of creating a path through the use of differentiating patters, colors or materials can create a sense of usage to the user. They will, almost


Pattern/
Material


Columns

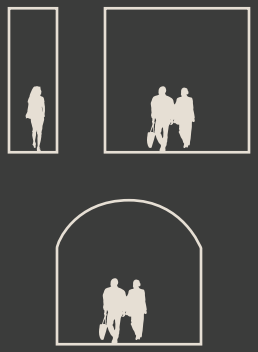

Narrow/
Constricting


Open/
Free Movement


Convex


Concave

Enclosed



Thickness/
Weight

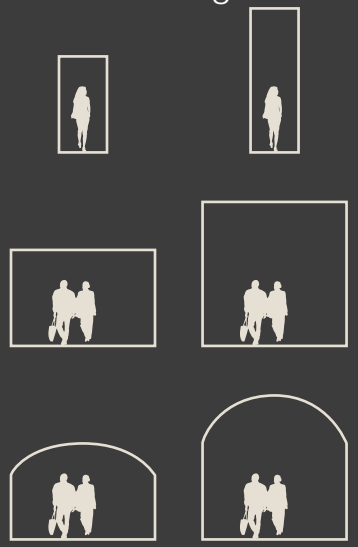
Open

subconsciously, walk along that predetermined path rather than forge their own path. The vertical nature of the floor can be seen in stairs and ramps. The pace of movement can be determined in how steep the stairs and ramps are. A wide, grand stair with a shorter rise to a longer run will reduce the speed of accent or decent allowing for a slow, ceremonious grand entrance, which are conductive to a calm and comfortable pace. While narrow stairways invite quick movements such as running up the stairs in a more active and demanding demeanor. However, having too steep and shallow of steps seems to resist our accent and push us downward.

The wall delimits one space from another by providing a physical blockade. The properties of the wall itself, its height, weight and length, can alter our experience of the space. A low wall brings feeling of heaviness and a bounding sensation, pushing downward symbolizing an absorption or compression into the ground and earth. A high wall brings feelings of lightening and freeness opening upward symbolizing a reaching quality towards the sky. The weight or width or the wall can greatly affect its experiential quality. A heavy wall may feel more enclosed than a light wall and may make the space feel narrower than it really is. A wall that is slanting at an angle can make the user feel insecure, tense and threatened because of the unnatural nature and the users fear of the wall falling down on them. The placement of a wall can also delineate directionality within a space. A horizontally long wall guides the user to walk along its edge while horizontally short walls chop up the rhythm and flow of the space.

The roof provides closure to an interior space. A dome with low walls will convey a close and protected feeling almost like a security one would feel when wrapped in the arms of a mother. Contrary to a low dome, a dome with high walls will give a rising, uplifting feeling. The height of the roof in relation to the floor can greatly alter the feeling and experience of that space. A low roof will give off a threatening feeling while just raising the roof a few feet can eliminate that feeling and create comfort and ease and raising the roof a few more feet can bring forth a light and airy feeling.

Enclosed High
“Light and Free”



Enclosed Low
“Heavy and Bound”

Public [promenade]

Private [hallway]

Public/Private

People naturally seek out places where they will feel competent, confident, comfort or enjoyment.[17] Too large of a space can make a single person feel overwhelmed and vulnerable while too limiting of a physical environment could constrict movement for more than one person. Architectural elements can play an advantageous role in distinguishing between public and private spaces. Architects can use these elements as signifiers of accessible public space and restricting private spaces. A public space is accessible to everyone at all times. An example of a public space would be a shopping mall, library or restaurant. A private space is an area where accessibility is determined by one person or a small group. An example would be a residential house, backstage of a theater or executive offices. The width and height of the space should be proportional with the type and amount of movement it must handle. A distinction in scale should be established between public and private spaces. A wider space can fit more people comfortably, which speaks as a more public space. The widening of space gives us the sense that something will happen here and we are drawn to it. The narrower the space the more confining the space becomes for multiple people and discourages entrance for those who do not belong symbolizing a private space. A differentiation of public and private space is needed in almost every architectural space to aid the user to where they belong by subconsciously making them feel comfortable in public spaces and uncomfortable in private spaces.

Architecturally public spaces tend to be wide, open spaces with high ceilings that are much larger than most private spaces to be able to

accompany larger groups of people at one time. The staircases usually are wide and open with a longer run on each step to give it a grand affect. The doors and windows tend to be wider and larger to let more people inside at one time and also to let more people view inside the public space from outside. The high transparency of the walls and windows give the space a public feel since other pedestrians can see everything that aspires inside that space giving the users of the building as a sense of publicity.

Spaces which want to limit entry to the general public tend to be narrow, enclosed spaces which prohibit groups of people from gathering comfortably. A narrow corridor with low ceilings is typically a good indicator of a private space, which leads to more private spaces. The general public will most likely not feel comfortable or welcome entering that corridor without good reason because they will feel as though they are trespassing in spaces they do not belong in. Staircases inside of private spaces or leading to private spaces tend to be narrow and steep warding off passerby's. Public spaces typically have smaller doors and openings to allow access to only one person at a time. The doors tend to be heavier and opaque and the windows, although transparent, typically have shades or curtains to bar unwanted eyes from gazing inside.

For example the main doors of a bank are typically large double doors to allow for double occupancy at one time as people come and go. The doors may be transparent to allow pedestrians from outside to see inside the building at the business being held beyond the doors.

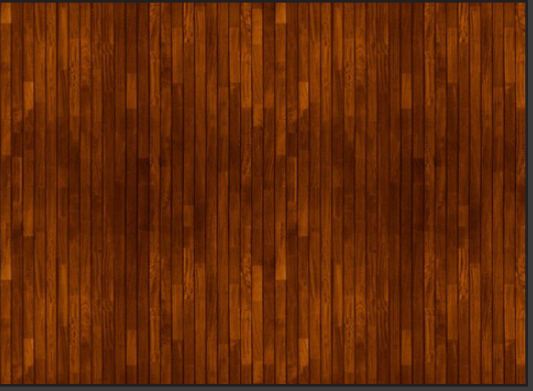


Fig. 5

Fig. 6

Fig. 7

Having some kind of visual connection from outside to inside the building allows the user to feel more comfortable entering the space, making the building more accessible. The main lobby of the bank is typically a large open space with high, sometimes even vaulted ceilings, where pedestrians gather to do their banking. The general public feels welcome and secure inside the large space designated just for them. Narrower hallways with lower ceilings lead off to smaller offices and bank vaults from the back and sides of the lobby. The general public does not generally venture down those hallways because the space is no longer welcoming. Employees of the bank walk those same halls frequently without any halt because they feel welcome and have full authority to access that space. The only time the general public does venture down those halls is when guided by an employee to a dark door into a small private office to have a private meeting with another employee. The door closes and private business is taken care of outside of the grasp of the general public.

Materiality

"Changes of texture often signal special events and can trigger a slowing or quickening of ones pace. It would be possible to generate a whole choreography of movements through the composition of texture changes alone." – Kent Bloomer[18]

Architectural elements of a space can psychologically lead one to the spaces one feels comfortable occupying, alter how one moves about in those spaces, the tempo one chooses to walk, etc. Architectural form is only the surface of elements that has a great affect on how one experience and perceive space. Material and color selection has just as much, if not more, of an affect on ones psychological mood inside that space than the layout of the space itself.

A space that uses concrete walls can be perceived as brutal, cold, hard or modern while that same space with wood walls could be perceived as warm, inviting, timeless and cozy. The perception of these materials can be determined by the materials properties as well as their memory. Wood and stone are usually preferred to steel because their memories are more naturally engraved while steel is a relatively new and artificial material. However, all of this is highly dependent on the users own perception and interpretation of the material. Each material decision in a space should be very well thought out since each material can conjure different emotions and experiences from the users of that space. Each material itself has multiple selection options, whether to keep the material rough, sand it down, paint it, stain it, expose it, etc.

Fig. 8

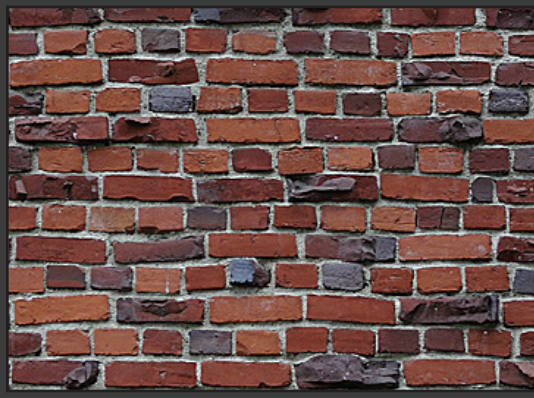


Fig. 9

Fig. 10

Color

"Physical and behavioral effects between people and their physical environments became quite complex when elements of light and color (shade or tint, warm or cool), texture (materials and surfaces), acoustical characteristics (noise) are taken into account." – W. Bro. Victor[19]

Color has been scientifically proven to alter our moods. In architecture color is also very important. [20] We, possibly unknowingly or with little thought, chose hundreds of colors for each and every space or building. The determination of those colors could lead to altered states of moods or feeling while inside of those space that were or were not asked for by the user. A yellow room will feel completely different than a blue room. While the yellow room will feel cheerful, radiant and exciting the blue room will feel calm, relaxing and distant. Each primary color can be altered in a shade or a tint. A shade can be made by adding black to a color making it darker, while adding white to a color is a tint and makes the color lighter.

Colors also have a very strong symbolic nature. Cultural symbolism varies depending on the culture or country. In western societies (Europe and North America) the color red symbolizes danger, love, passion, excitement and stop. While in Eastern societies, such as Asia, red symbolizes celebration, happiness and good luck. Yet in Africa red symbolizes death and mourning. [21] Color can begin to communicate symbolically when used in architectural spaces. To make a space seem more rich and wealthy the colors of gold and deep purple should be used. For a space such as a nursery, children's hospital or preschool room, which deals with children the color of blue

to symbolize calm and harmony and the color of yellow to symbolize joy and happiness, could be used.

The placement of colors can also affect the perception of those colors. By placing a green color on the floor it gives off the impression of natural, safe and sure-footedness while placing the same color green on the walls gives off the impression of expansion while placing the same color on the ceiling gives off the impression of closing and oppression. Combination of colors can greatly add to the affect the architect wishes his space to portray.

The combinations of the different colors on differencing architectural elements such as the walls, floor and ceiling can also play a role in altered perspectives. By adding a darker color on the back wall and floor the back wall will look nearer to the user while having a lighter color on the back wall and ceiling will make the back wall look farther away. By altering the perspective of the room the architect can make the room seem larger, smaller, narrower or larger than it really is.

The experiential quality of architectural space can be affected by a multitude of factors. The affects of color and materiality become more than just aesthetic to the user. They are symbols which can be interpreted and perceived in a singular fashion. Multiple symbols combine to become the users perception of that space which directly affects that users experiential quality inside that space. Spacial archtypes can begin to distinguish public from private space as well as also give off perceptions based on placement of the architectural elements of wall, floor and roof. Combined with materials and color choices architectural space can be interpreted as a whole.

Dance Case Study

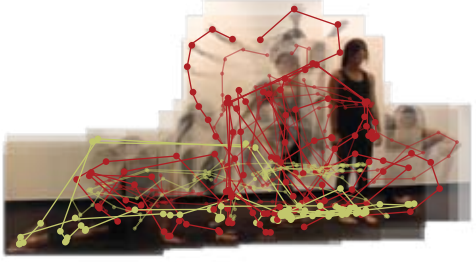
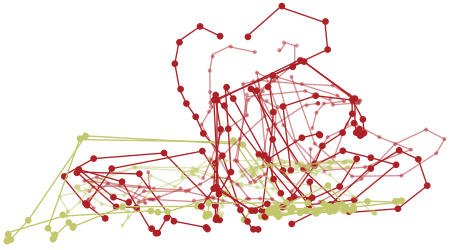
A case study involving a dance student[22] from Wayne State University was conducted in which she was asked to choreograph a dance sequence with a neutral emotional structure. She was then asked to repeat the same dance sequence in three different emotional connotations (anger, sorrow and joy) changing only the non-propositional style of movements. Her movements were video recorded and then mapped in ten frame increments to see the correlated between each phrase or dance sequence. The study shows a correlation between the emotional connotation and the time (tempo, rhythm and duration) she chose to portray that emotion. The portrayal of anger was the shortest sequence with dynamic, quick movements while the portrayal of sorrow was the longest sequence with slow, smooth movements and tempo changes with joy being in the middle with quicker movements than sorrow but not as dynamic movements as anger. This study showed a direct relationship with Antiono Camurri's predicatory cues associated for each emotional category. [23]

Neutral

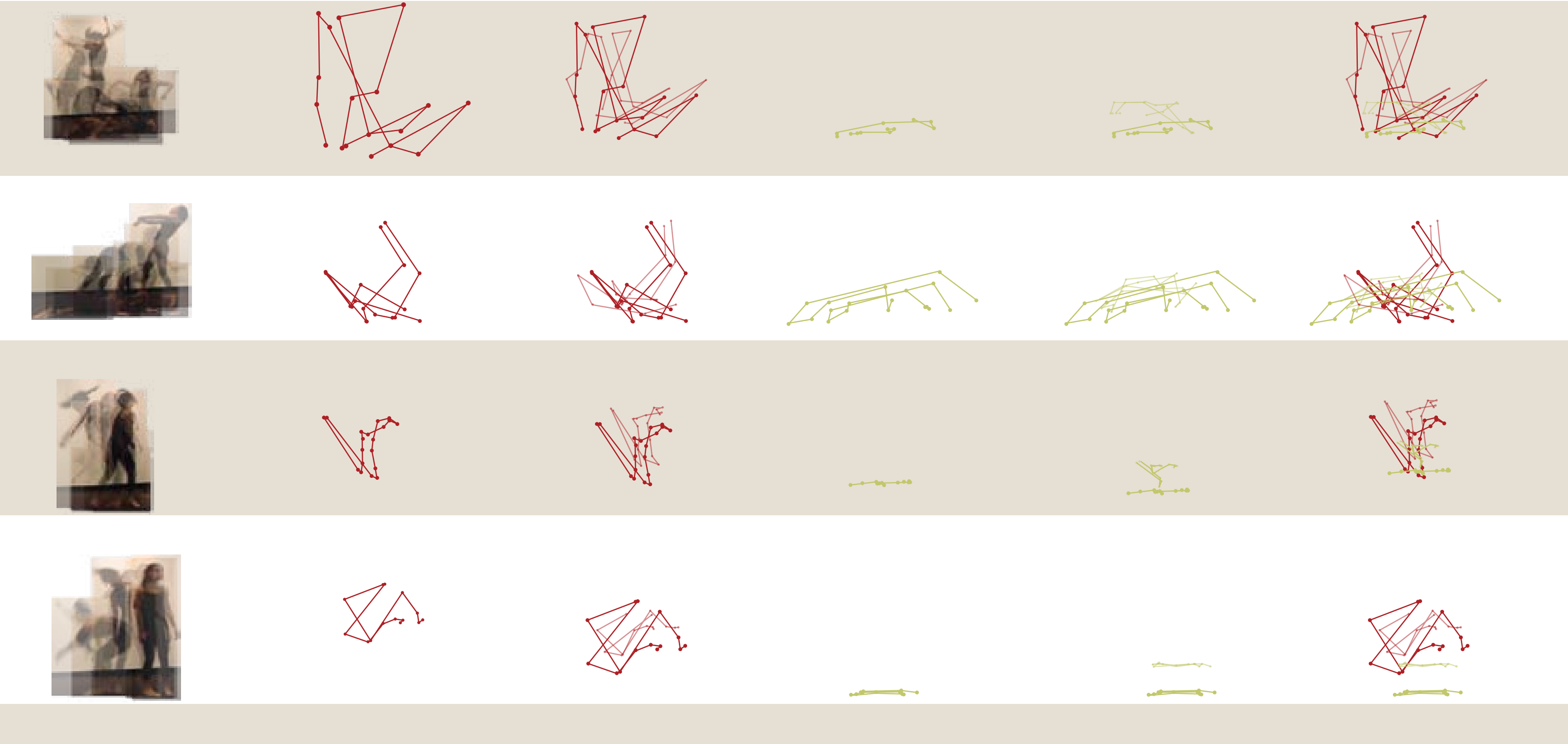


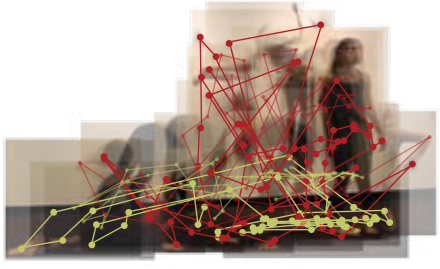


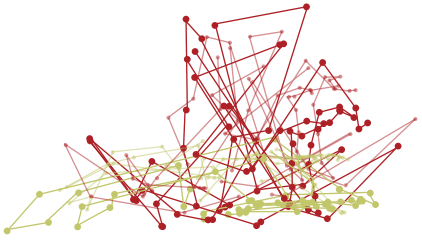


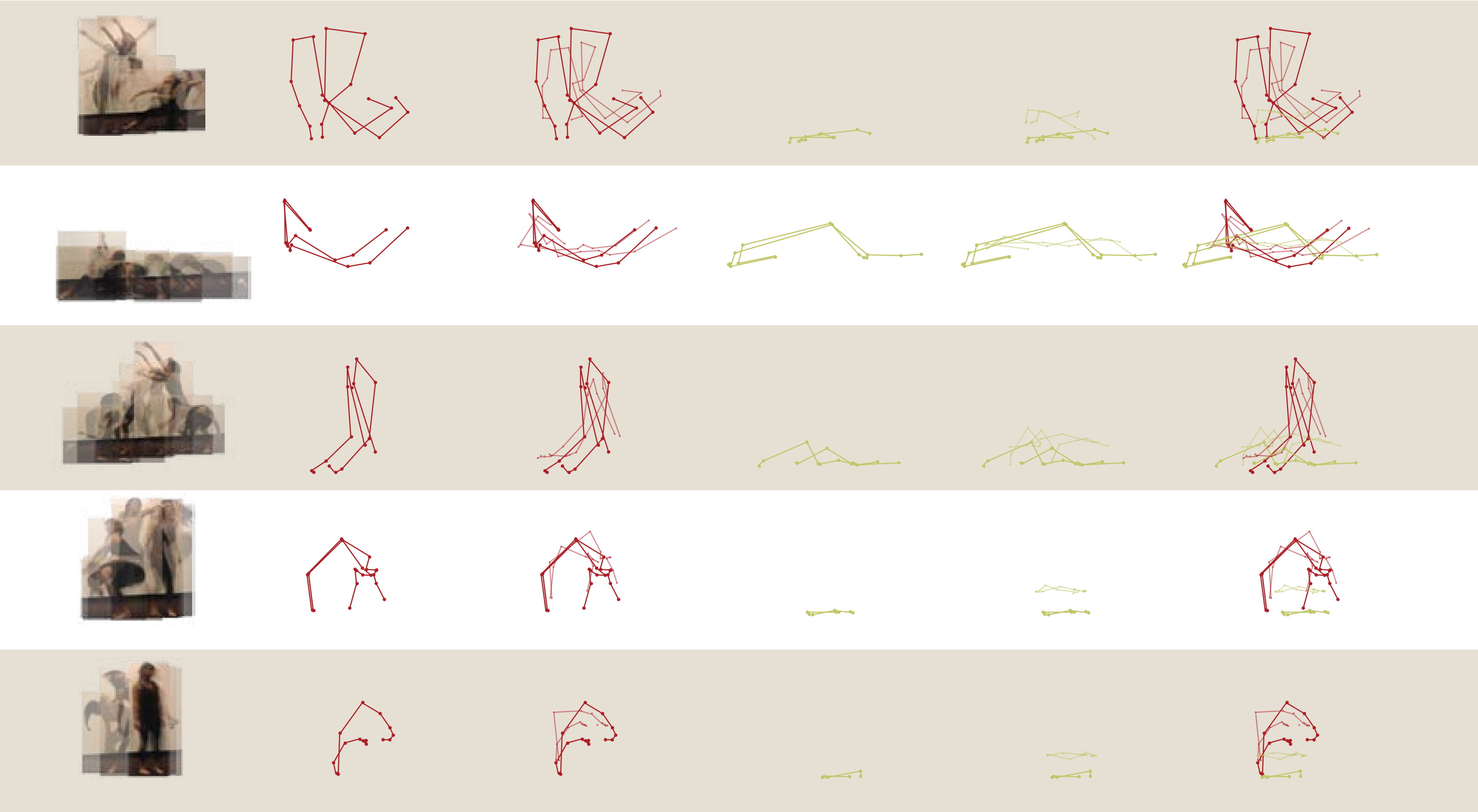
Anger

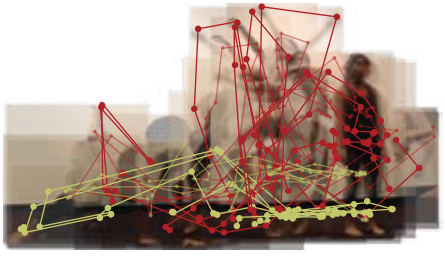


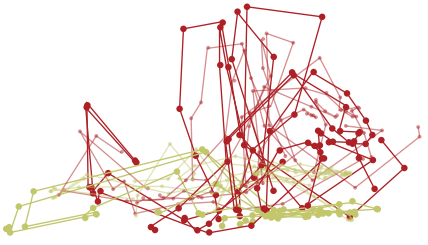




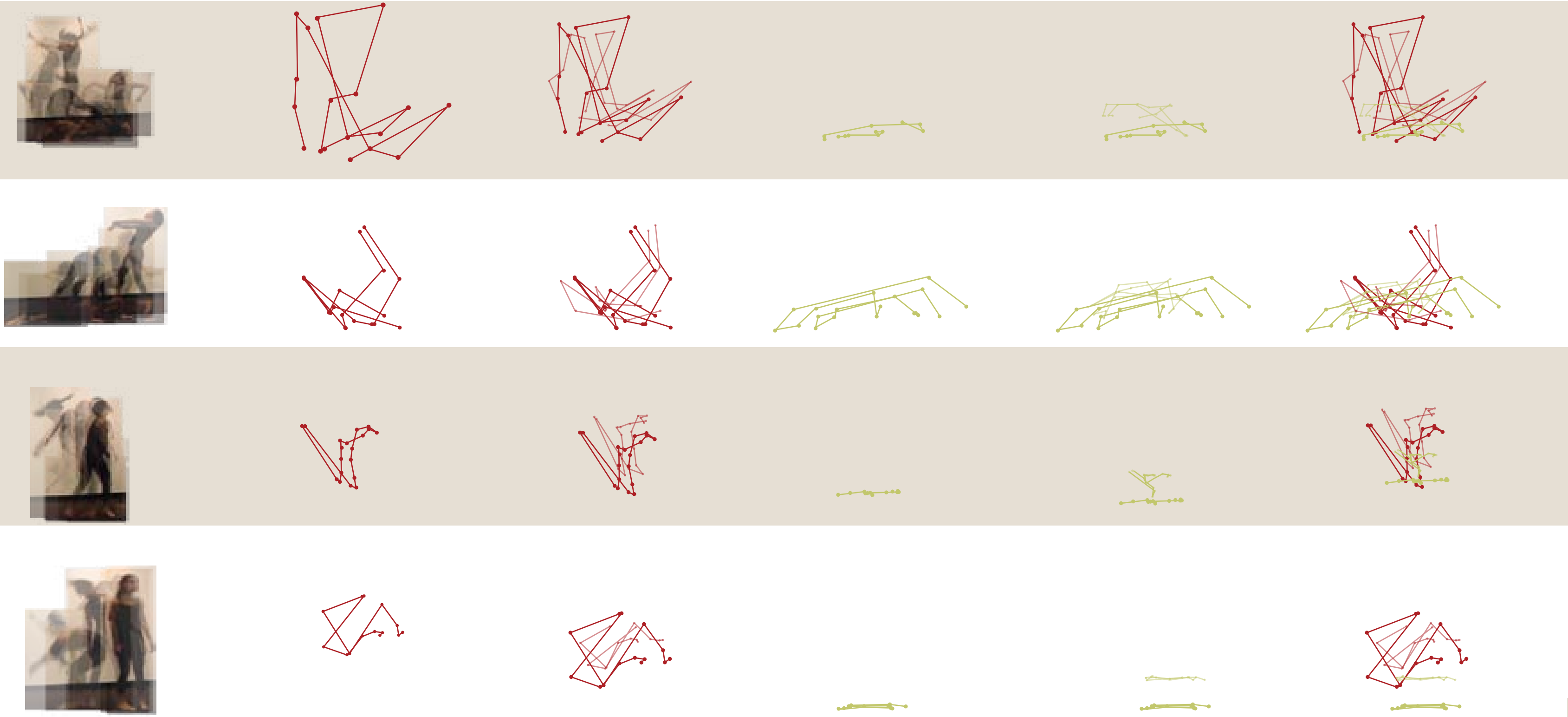
Joy

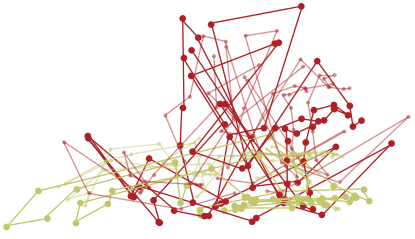


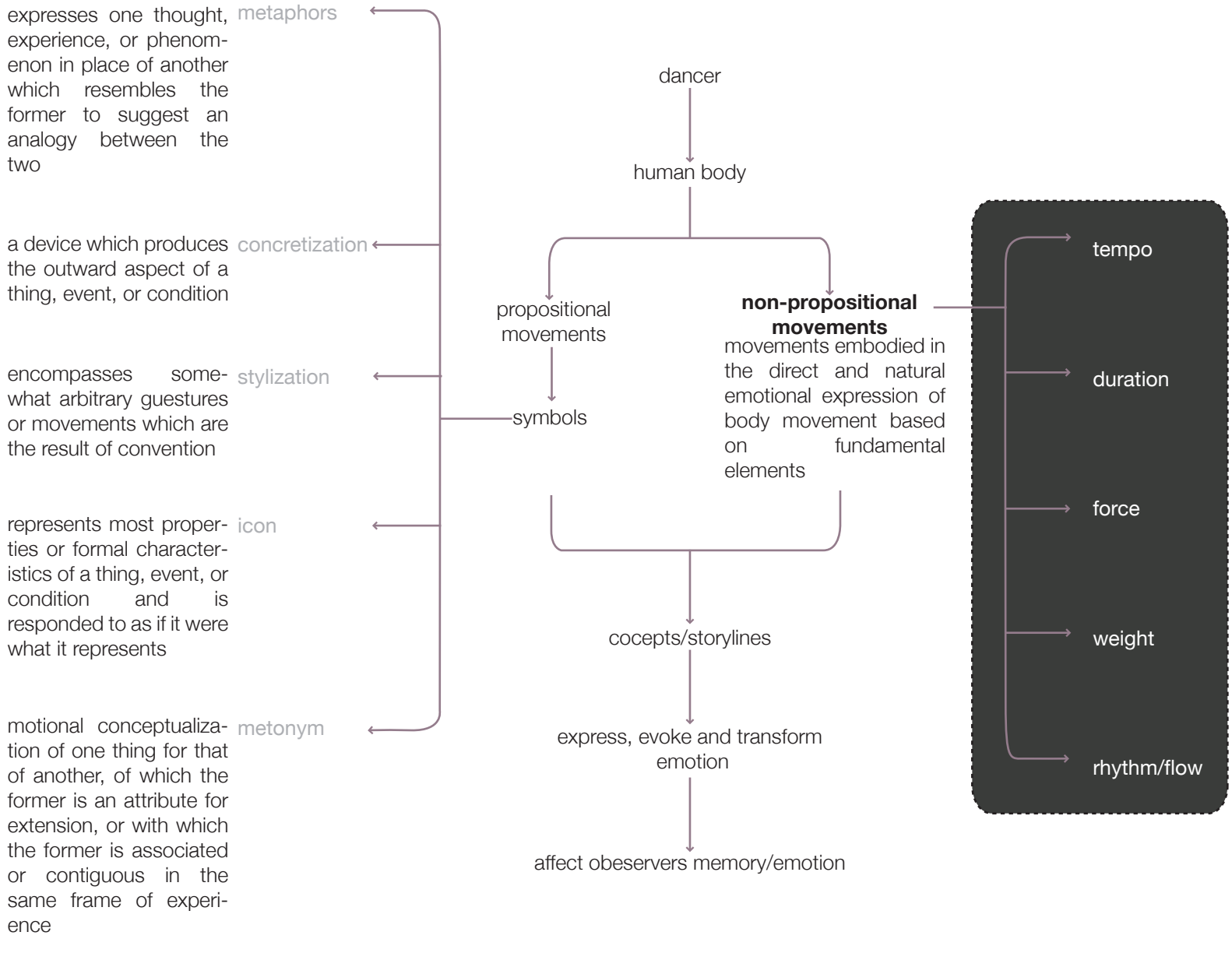




Sorrow





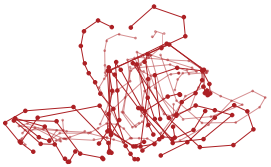
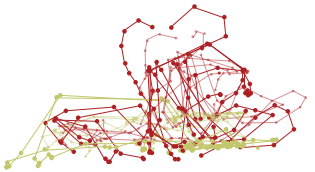

expresses one thought, experience, or phenomenon in place of another which resembles the former to suggest an analogy between the two
metaphors
a device which produces the outward aspect of a thing, event, or condition
concretization
encompasses somewhat arbitrary guestures or movements which are the result of convention
stylization
represents most properties or formal characteristics of a thing, event, or condition and is responded to as if it were what it represents
icon
motional conceptualization of one thing for that of another, of which the former is an attribute for extension, or with which the former is associated or contiguous in the same frame of experience
metonym
dancer
human body
propositional movements
symbols
non-propositional movements
movements embodied in the direct and natural emotional expression of body movement based on fundamental elements
tempo
duration
force
weight
rhythm/flow
cocepts/storylines
express, evoke and transform emotion
affect obeservers memory/emotion

Case Study Comparison

Time/Tempo/Rhythm

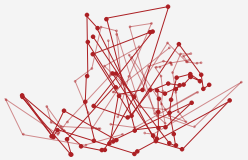
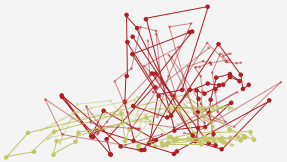
Neutral Structure



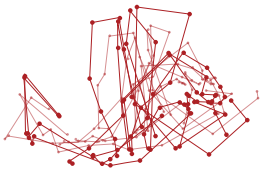
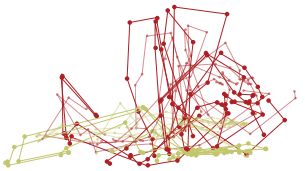
Anger



Joy



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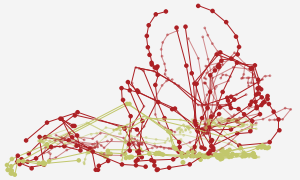


Material Study

To begin to really understand materiality a chart was made to plot out the basic material characteristics of different basic materials. This chart is not a full out inclusive chart however just a beginning look into the differences between material categories. Those materials were then sorted based on architectural placement and charted based on pricing. Next a study was made using the basic architectural form of an interior box to test placements of materials on side and back walls as well as the floor and ceiling as well as certain materials adjacent to other materials.

Material Characteristics

	hard	soft	smooth	rough	matte	glossy	reflective	warm
wood	X		X	X	X			X
stone	X		X	X	X	X		
concrete	X		X	X	X			
glass	X		X			X	X	
metal	X		X		X	X	X	
masonry	X			X	X			X
fabric		X	X		X			X
carpet		X	X		X			X
plastic	X		X		X	X		

X sometimes

X always

cold	elastic	opaque	transparent	ductile	strong	weak	heavy	light
		X			X			X
X		X			X		X	
X		X			X		X	
X			X			X		X
X	X	X		X	X		X	
		X			X		X	
	X	X				X		X
		X				X		X
X	X	X		X	X	X		X

Floor

$ ----------→ $$$$


Vinyl


Bamboo


Linoleum

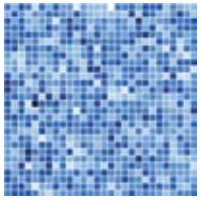

Wood


Terrazzo

Glass


Metal

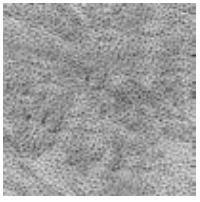

Composite Floor Tiles


Ceramic Tile


Cork


Brick


Rubber


Leather


Stone


Concrete


Carpet

Walls

$ ⟶ $$$$


Bead Board

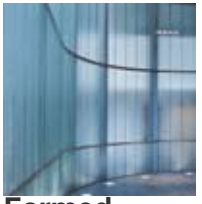

Compressed Earth

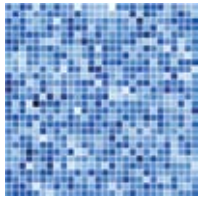

Brick Masonry


Fabric-wrapped panels


Textile Wall-covering


Metal


Formed Glass


Ceramic Tile


Gypsum


Concrete


Plaster


Wood


Decorative Paint Finishes


Stone


Vinyl Wall-covering

Paint

Glass


Plastics


Concrete Fiberboard


Rubber

Ceiling

$ ----------> $$$$$


ACT

Paint

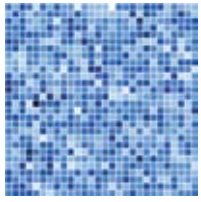
Glass


Plaster


Wood


Concrete


Stone


Ceramic Tile


Brick Masonry


Fabric


Plastics


Rubber


Metal


Gypsum

Millwork

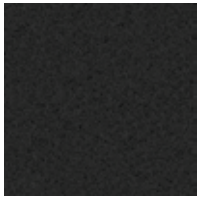
$ ----------→ $$$$$

Paint


Plaster

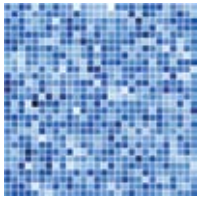

Linoleum


Wood


Rubber


Agglomerates

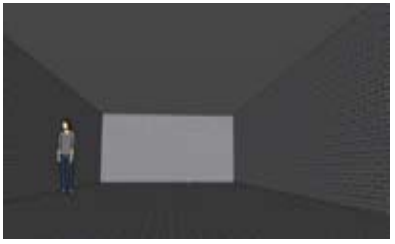
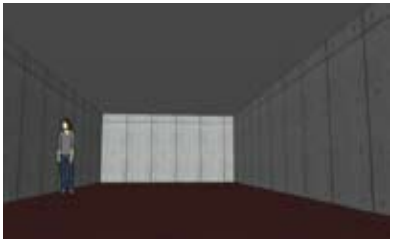
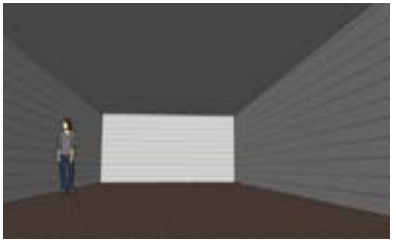

Stone

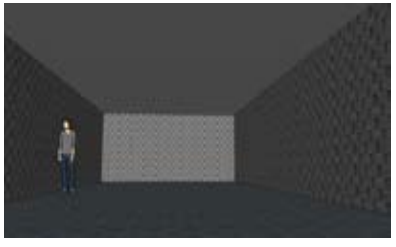

Ceramic Tile

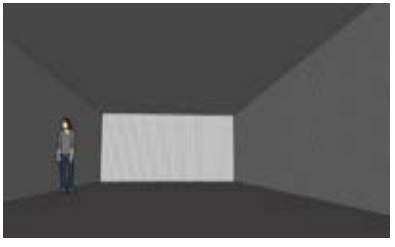
Glass

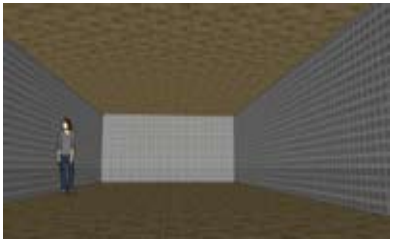

Concrete

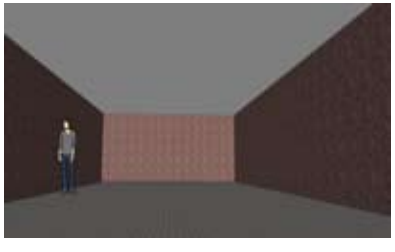
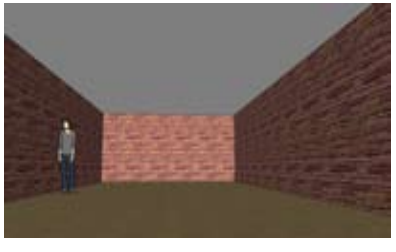
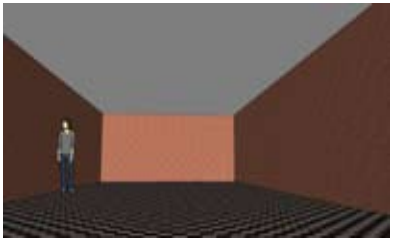

Metal

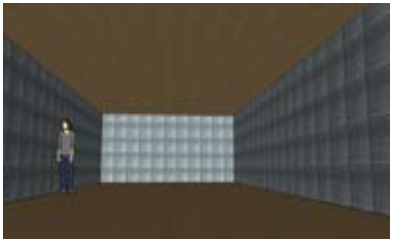
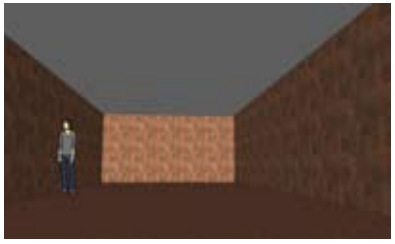
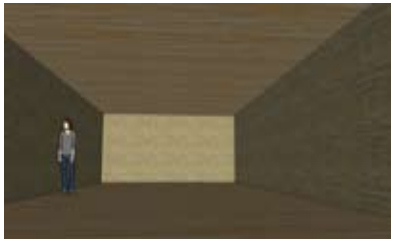
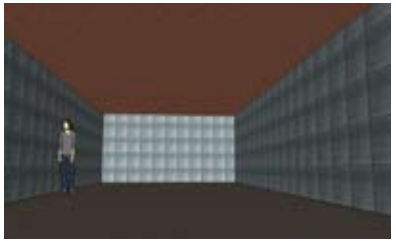





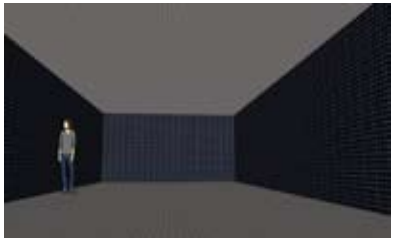
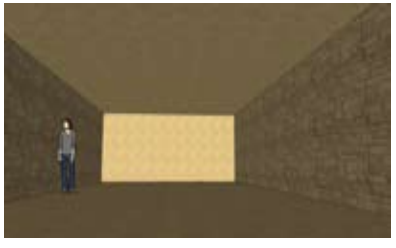


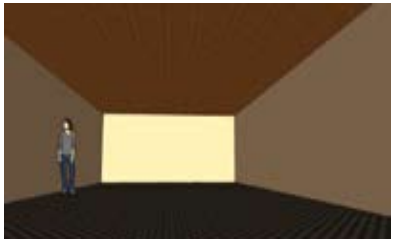



Color Study

Colors were organized in ascending order based on prime and secondary colors and that colors tint and shade. For each color impressions of that color was assigned as well as the resulting message of that impression. The affects and impression of that color based on architectural placement was also documented. This study was based on a similar chart by G. Meerwein.[20] The placement of colors on elements such as walls, floor and ceiling also begin to affect the visual perspective of the space. Similar to the material study, the next study used an architectural box to test color placement on architectural elements.

Colors [perception and interpretation]

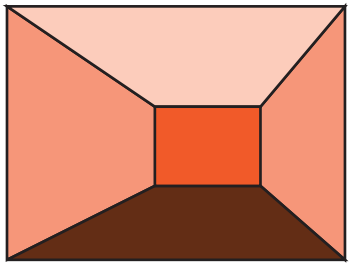
	Impression	Messages
	soft, embracing, sunny	gentleness, brightness, coziness
	cheerful, radiant, exciting	communication, openness, activity
	muddy, moist, earthy	tiredness, perishability
	soft, warm, fruity	excitement, comfort
	loud, obstructive, superficial, heated	restlessness, excessive demands, speed
	stabilizing, natural, resonant	security, tradition, rootedness
	aromatic, fruity, appetizing	desire, excitement
	provocative, fiery, lively	passion, dynamics, aggression
	stabilizing, natural, resonant	security, tradition, rootedness
	flowery, elderly	artificial, temporality
	exclusive/valuable, heavy, solemn	mysticism, contemplation, extravagance
	dignified, noble, pompous	ritual, power, splendor

Floor	Wall	Ceiling
sandy, light,	warming, expanding	light, closing
not resonant, motorically arousing	arousing to irritating	shining
resonant, earthy, sure-footed	oppressive, restrictive	burdensome
powdery, light, soft	warming, stimulating	light, closing
arousing to irritating, provocative, garish	shining, warming to heated, aggressive	exciting, irritating
supportive, secure, familiar	stifling, restrictive	enclosing, oppressive to burdensome
foreign, delicate, charming	delicately scented, flowery	oppressive, warm
festive, majestic	dominant	obscuring, burdensome
noble, enhancing, valuable	decisive	bombastic, international
bottomless, charming	fragrant, flowery	delicate, scented
valuable, majestic	mystical, artificial	mysterious
luxurious	magical, mysterious	reserved

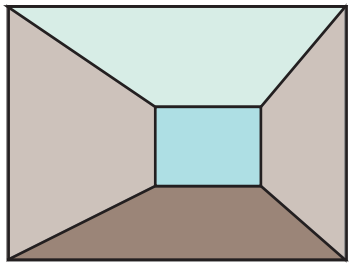
	Impression	Messages
	relaxing, quite, reserved, cool, light	calm, balance, distance, opening, expansion
	calm, deep, concentrated, relaxing, distant	gathering, calm, security, concentration
	deep, distancing, untouchable, bottomless	instability, noble, depth, seriousness
	fresh, light, swelling	opening, revival, cooling
	balancing, natural, calming	balance, simplicity, security, liveliness
	concealing, natural	tradition, stability
	open, vast, light, neutral, sterile	purity, freedom, emptiness, indecisiveness
	heavy, hard, dominating, noble	immovability, distinction, burden
	noble, cool, distinguished, technical, still	distance, elegance, clarity, status, caution

Perspective

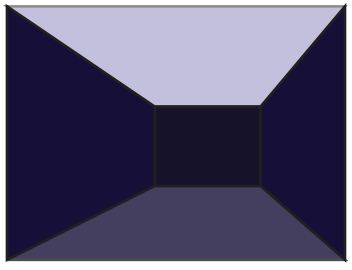
Near



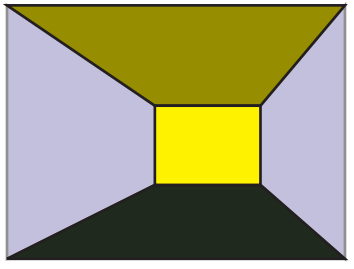
Far



Narrow

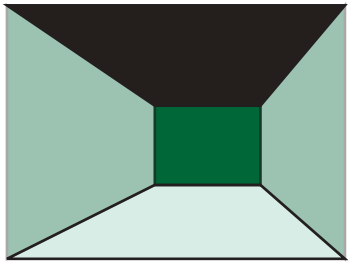


Wide

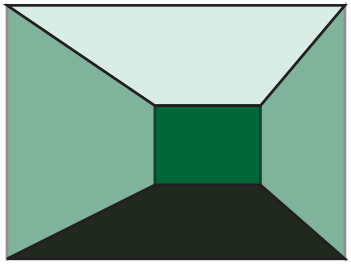


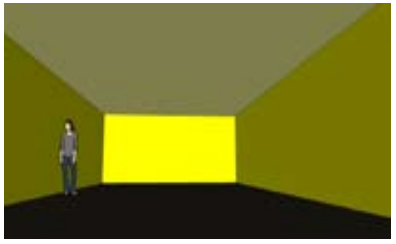
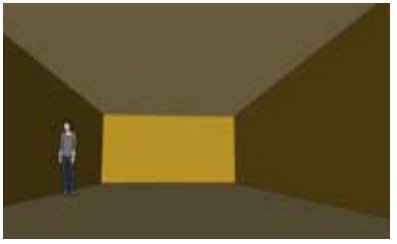
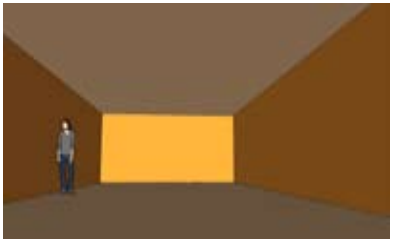
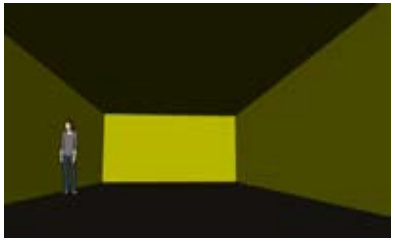
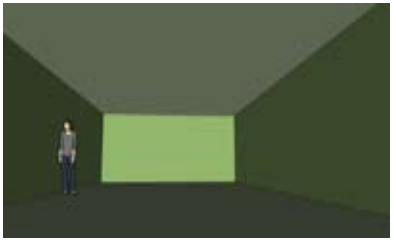
Floor	Wall	Ceiling
floating, icy	cool, retreating, calming	sky-like, cool to airy
retreating, watery	cold, foreign, distanced	heavy, cramped
deepening, bottomless	claustrophobic, distanced	cooling, burdensome, powerful
floating	expanding	neutral, closing
natural, safe	circumscribing	closing, oppressive
sure-footed, solid	decisive	oppressive
bottomless, foreign, empty	neutral, free	open, wide, light
deepening, abstract	restrictive	oppressive, burdensome
sure-footed, neutral, solid	claustrophobic, massive	covering, oppressive

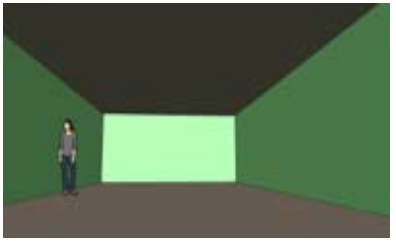
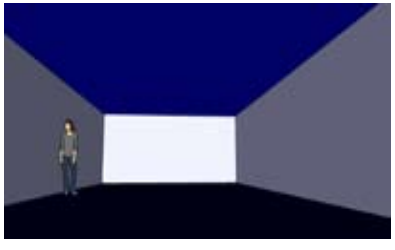
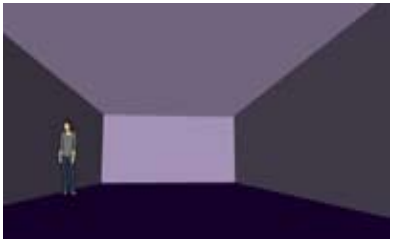
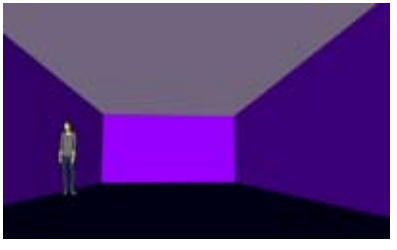
High



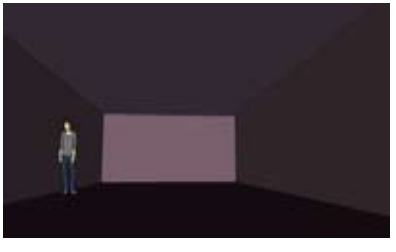
Low

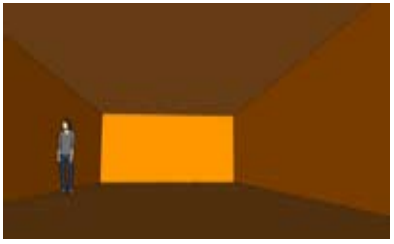
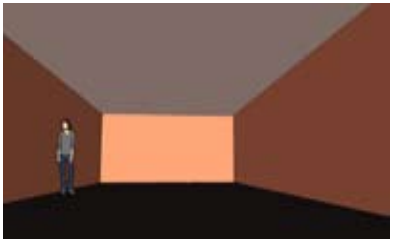
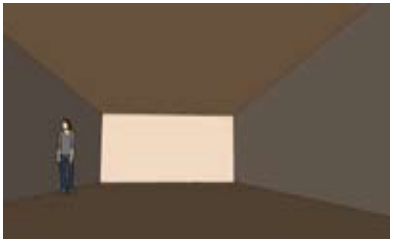
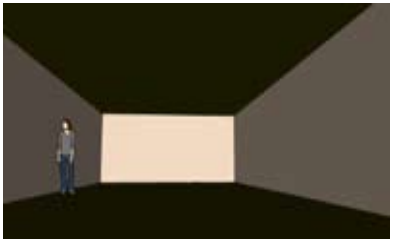
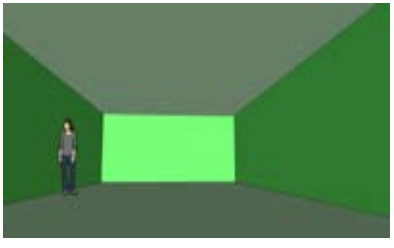
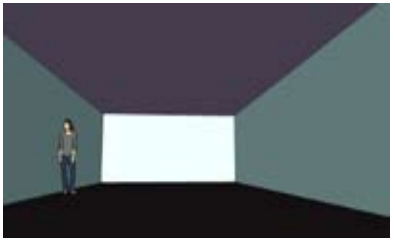
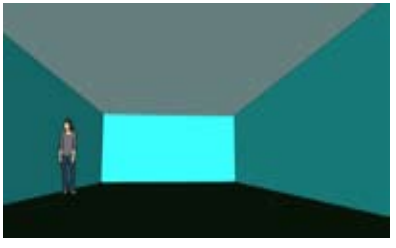


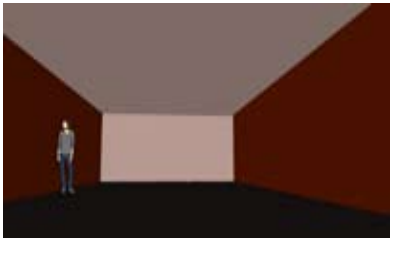


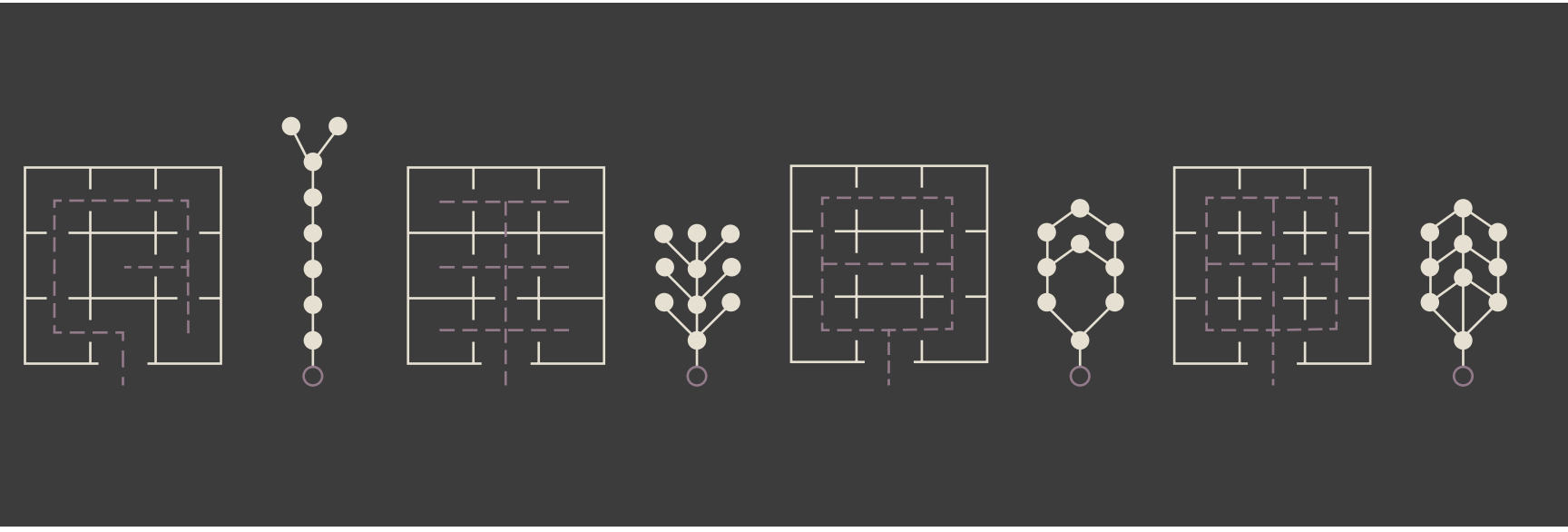






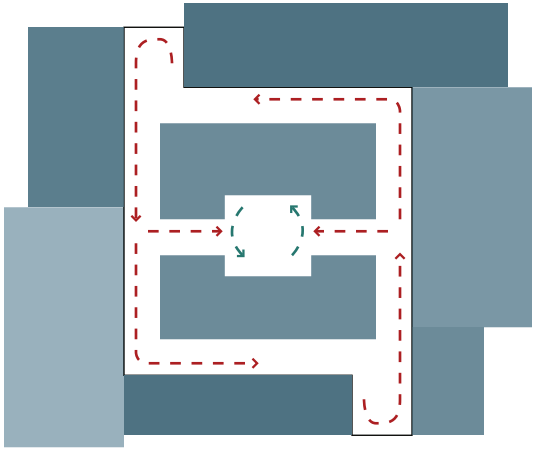

Circulation Analysis

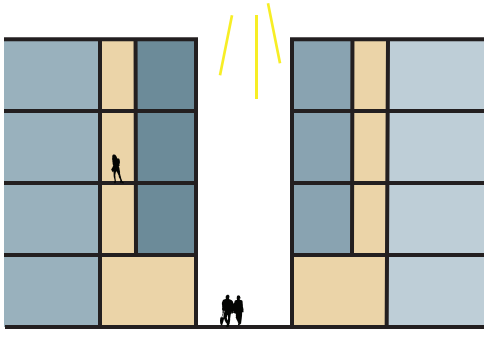
Layout of spaces can affect the circulation through a building. The design of the circulation should be altered based on program and can be used as a design tool. Movement through a building can be used in the design as the basis for a clear coherence between spatiality and functionality. The circulation path can begin to determine public space and private space. The circulation space that is right for public space may not necessarily be right for a private space. Public space may have more connected spaces, which allow for more fluid motion throughout the building. Private space may have more dead end rooms, which restricts the flow of motion from one room to another. A study based on four programs (office, retail, multi-family residential and auditorium) began to break down the spatial qualities and more specifically the circulation design of each space.

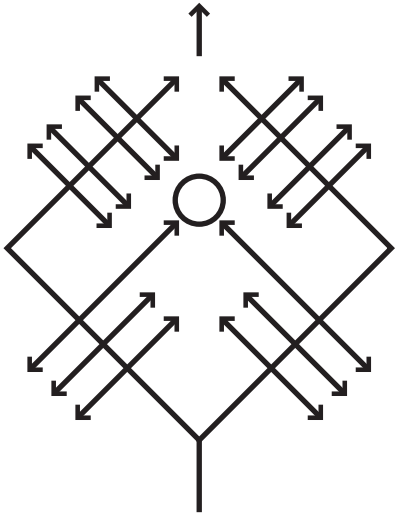


The path can be documented and graphed linearly. A straight path, which goes from one space to another, creates a straight, linear pattern. When two or more path options exist from one space the path graph branches out, connecting the spaces. While a dead end space connects only to the space it came from.

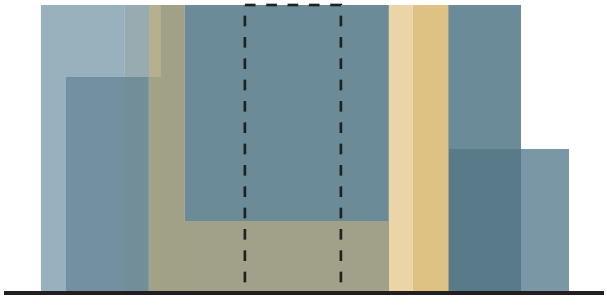
Program Analysis [Office]





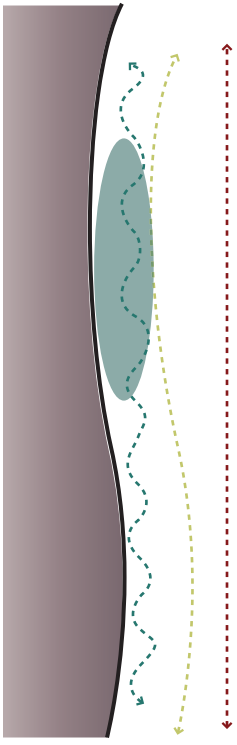


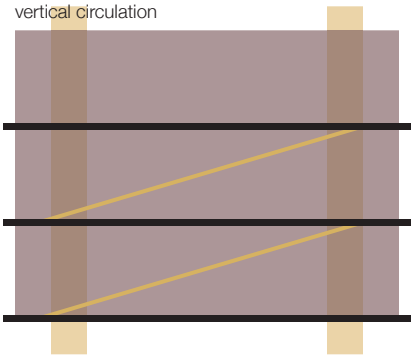
movement analysis

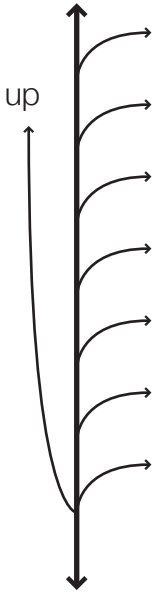


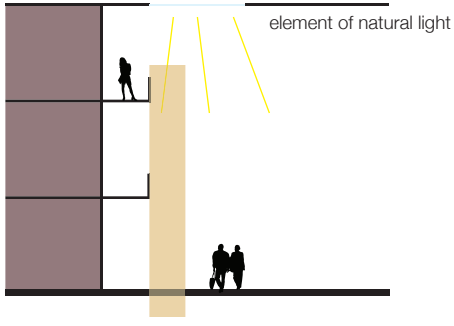
This is a representation of rentable space for small businesses. A semiprivate space where the general public only inhabits when they need to access one of the businesses. This type of space could also be used for artist studio spaces with artists or tenants living above. A possible central courtyard for sunlight, ventilation and green space could be in the center.

Program Analysis [Retail]



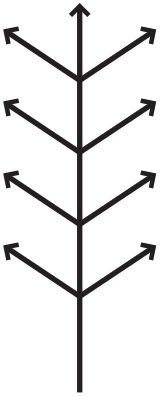




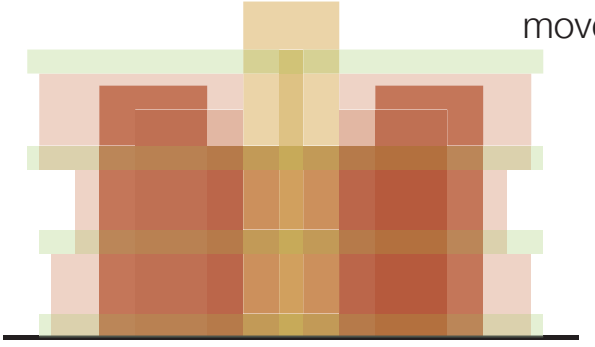


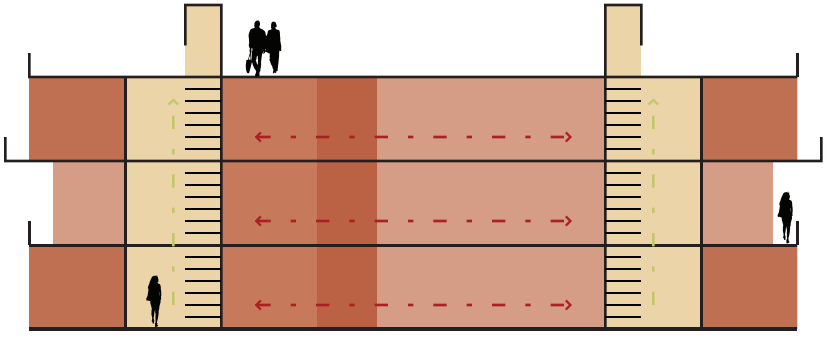
This is a representation of a retail space which exists on the street level. The public space will encourage meandering, and differentiating paces where pedestrians can shop, gather and walk through to other destinations. Undulating spaces will leave pockets for public gathering, sitting and resting

Program Analysis [Multi-Family Residential]



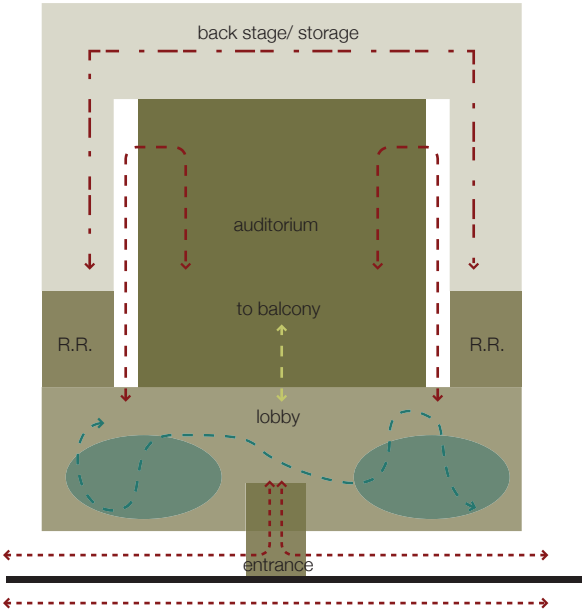
movement analysis

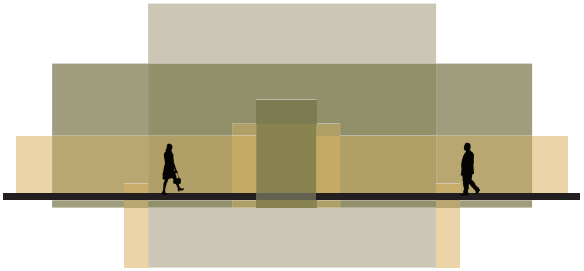


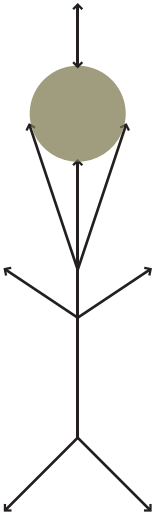


The most private of spaces are residential spaces. Although apartments are not the most private because of the shared hallway it is still the most private spaces within a city. Smaller hallways create a more private feeling and hinder the general public from feeling welcome without an invitation. A semi-public green roof is located on top where residents can gather in an outdoors space.

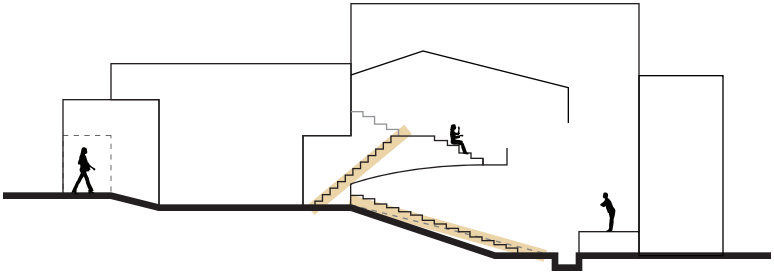
Program Analysis [Theater]







movement analysis



A small auditorium space is inhabited by both public and private users at the same time, the crew and viewers of the speech, play, or concert. The public could enter through a small hallway which leads them into a larger and larger space accentuating the grandness of the theater. The crew, or private users enter the auditorium through the backstage hallways with a multitude of rooms connecting off from it.

Precedent Studies

The four precedent studies show different movement and circulation methods. The first two show contracting movement styles. The last two are both theaters also showing differing movement styles. A linear movement path line begins to show the relationship between the public and private users of the space.

GUGGENHEIM MUSEUM [New York, NY]


Fig. 11


Fig. 12


Fig. 13

From an urbanistic point of view it contradicts the usual chess board type of building, typical of New York, the outside of which presents strong links to the past with flower boxes at street level and the possibility of seating, the large curved overhang of the first floor underlining an invitation to the loggia underneath, the bridge being a link between the two bodies of the Museum acting as a kind of middle road between the outside and the inside. The inside space is a continual upwards movement using a six-floor spiral with galleries which spread out from the first ramp indicated by a large water fountain in the central room on the ground floor. The diameter of the spiral as it curves upwards allows for the entrance of light at each level installing in the visitor a sense of luminosity and tranquility. The overlaps correspond to the expanding ramps visible from below culminating in a transparent dome covering the central area. In “the cathedral of art”, observes Zevi, “Wright proposes a stroll through art, a road similar to a super-garage extending that of the city, enclosing it in an open spiral to re-converge with the urban context.”

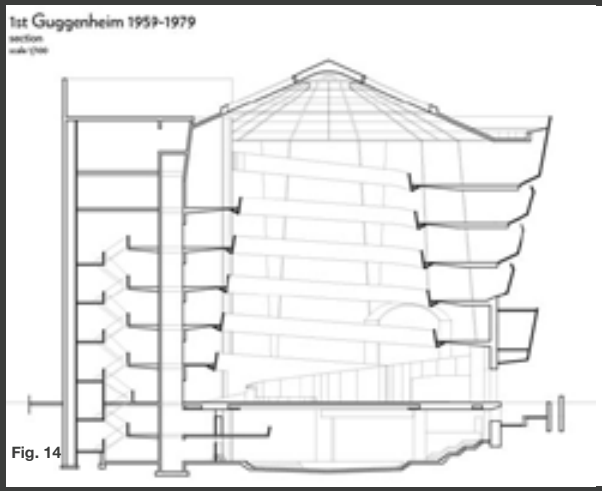


Fig. 14

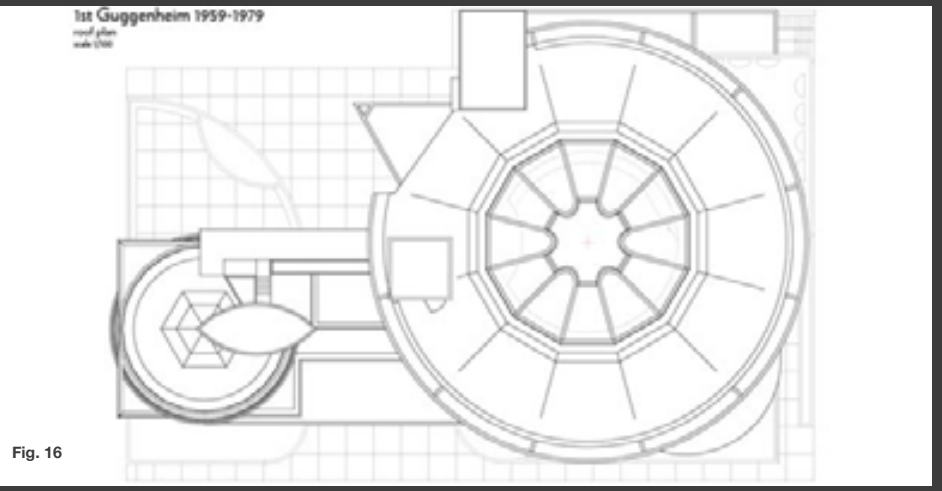


Fig. 16

Continuous Motion

"Thinking of form as something which grows and, as it does, space becomes its life giving force, its construction in a dimension"

Frank Lloyd Wright

Headquarters for the European Central Bank in Frankfurt am Main Miguel Loos in collaboration with Danielle Huls and Dick van Gameren

EUROPEAN CENTRAL BANK [Frankfurth, Germany]

Fig. 17

Fig. 18

"The European Central Bank is a hub in a growing international financial network and the building reflects this. It is conceived not as an autonomous object but as an open, non-hierachical system that forms part of a network. No fixed patterns of movement or communication have been laid down in the building. Instead, it offers room for a free and changing flow of people, data and material.... the main traffic flows inside and outside the building are directed by vegetation."

Dick van Gameren

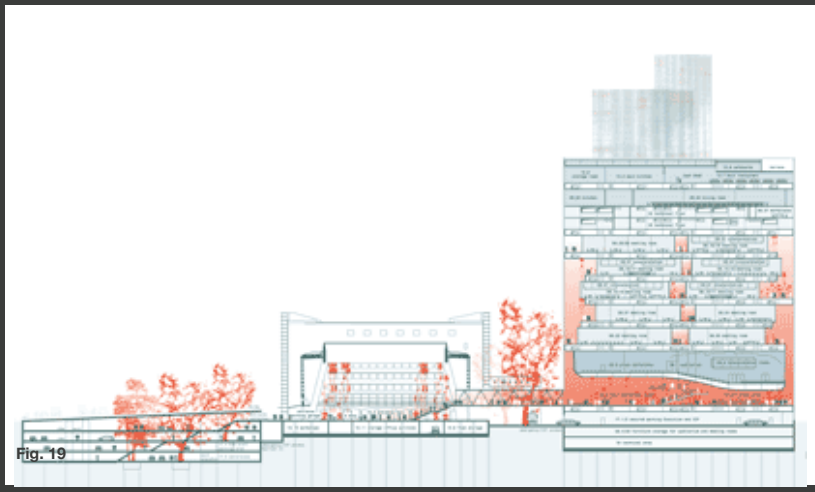


Fig. 19

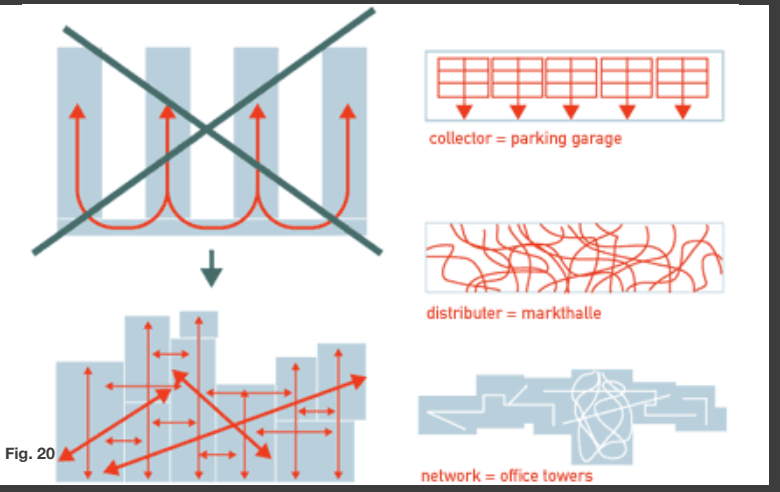


Fig. 20

Free Flow

"The bank then invited a range of international offices to develop a design for its new head office, incorporating the market hall. The building is treated as an open network structure without hierarchies. It facilitates a free and clear stream of data, material and people. Within this stream, new connections can develop constantly."

Fig. 21

Fig. 22

Fig. 23

Oslo Opera House

Much like the Guggenheim museum the core circulation system inside of the Oslo Opera House is a series of circular ramps which lead the guests up and around the main theater area. To better understand the path of this space, linear pathlines were created with regard to materiality and color symbolism.

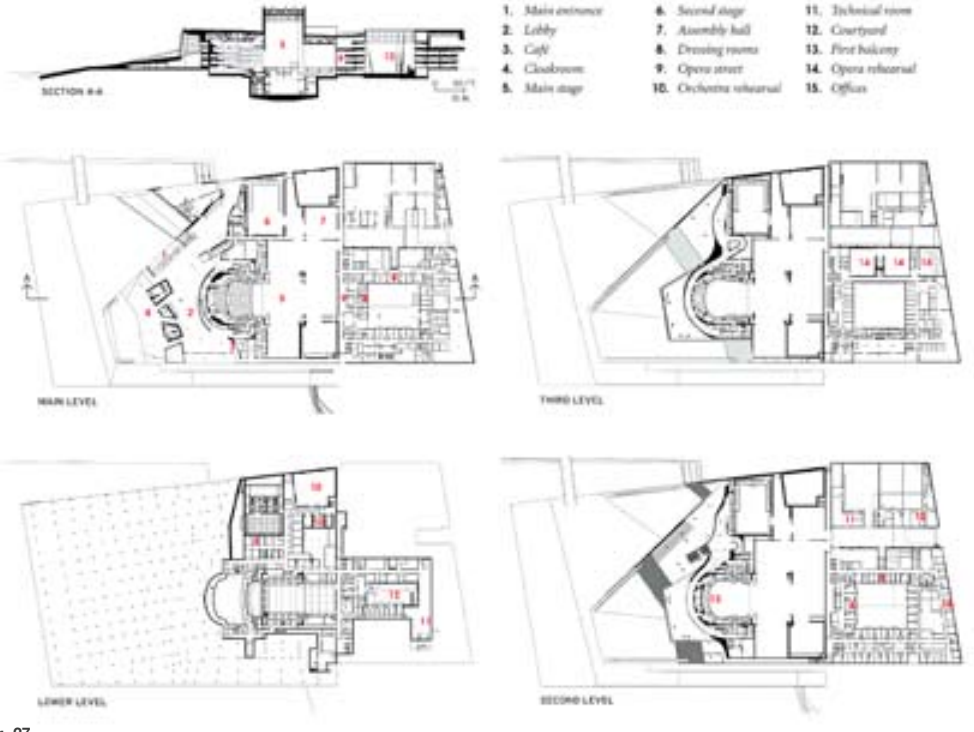
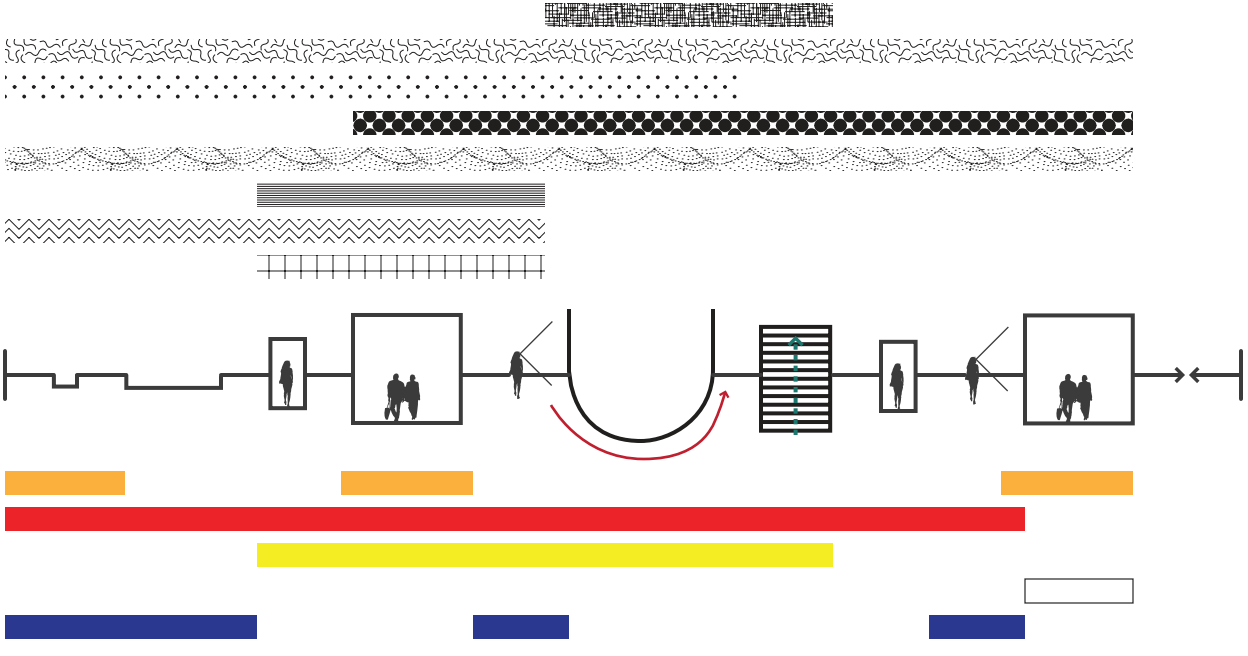


Fig. 27

Fig. 24

Fig. 25

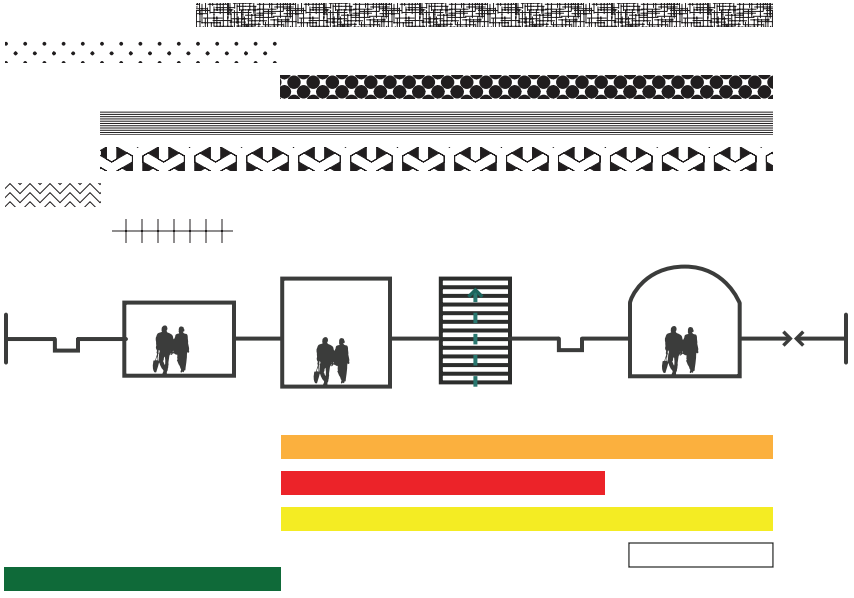
Fig. 26

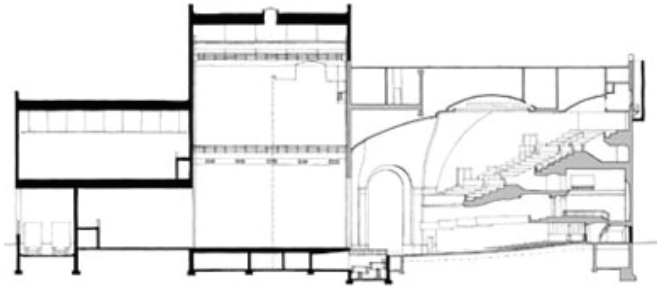


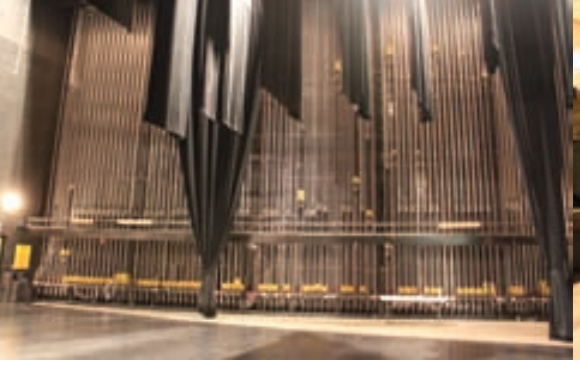
Michigan Opera House

Similarly to the Oslo Opera House the Detroit Opera House was used as a local comparative analogy. Pathlines of both the guests of the Front of House and the workers in the Back of House were graphed linearly, also with regard to materiality and color symbolism.

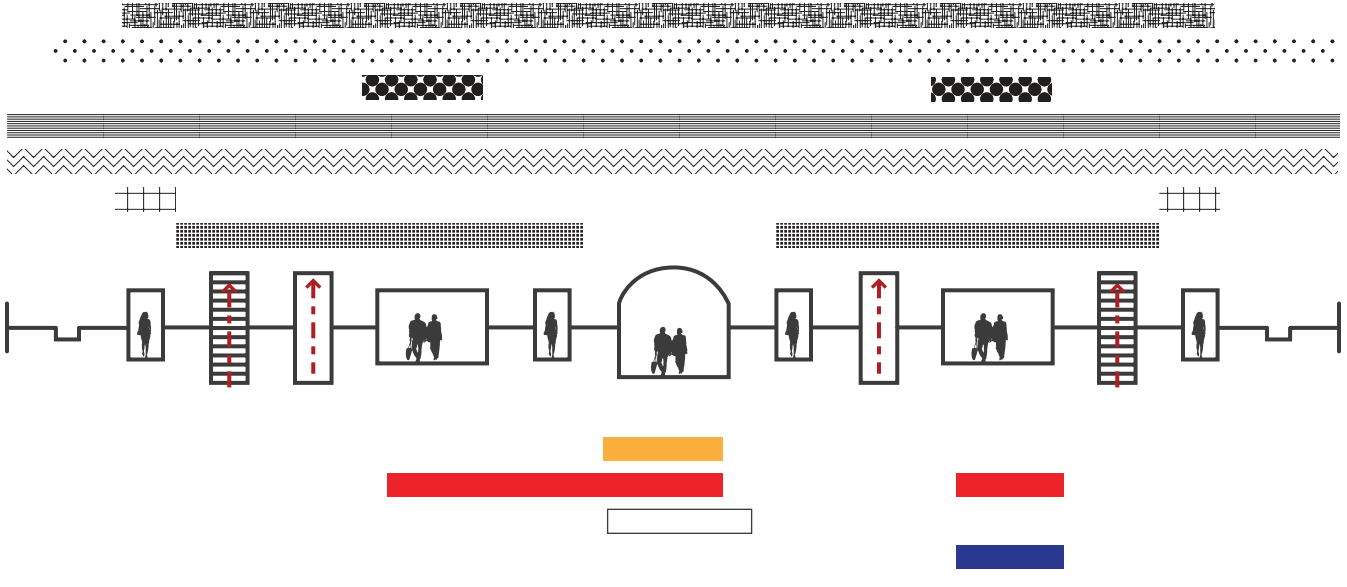
Front of House Pathlines







Back of House Pathlines



Site Selection

In order to begin an architectural study of this thesis investigation a site must be selected. Although the selection of the site is not particularly important, because of the nature of this thesis, a few criteria and specifications were made clear to further narrow down the site selection process. For example one such criteria was to have a site location near a water element, such as a like, river or ocean. Another criteria was to have a site in an urban location, more specifically in the downtown portion of the city. The specific site will be in a vacant location.

The site selected is in the central business district of downtown Pittsburgh, PA. Pittsburgh was chosen because it fit all the main criteria set forth for site selection. Pittsburgh is the second largest city in Pennsylvania with a population of 305,704 in 2010. The downtown area has a unique form, shaped by the Allegheny and Monongahela rivers, which form the Ohio River. The specific site location was chosen based on a wish-list of potential redevelopable sites from the Urban Redevelopment Authority of Pittsburgh. The site is on the corner of Third Avenue and Ross Street, which shares a lot with the Grant Building. The Grant Building is a 37 floor, 485 foot office building.

Urban Redevelopment Authority

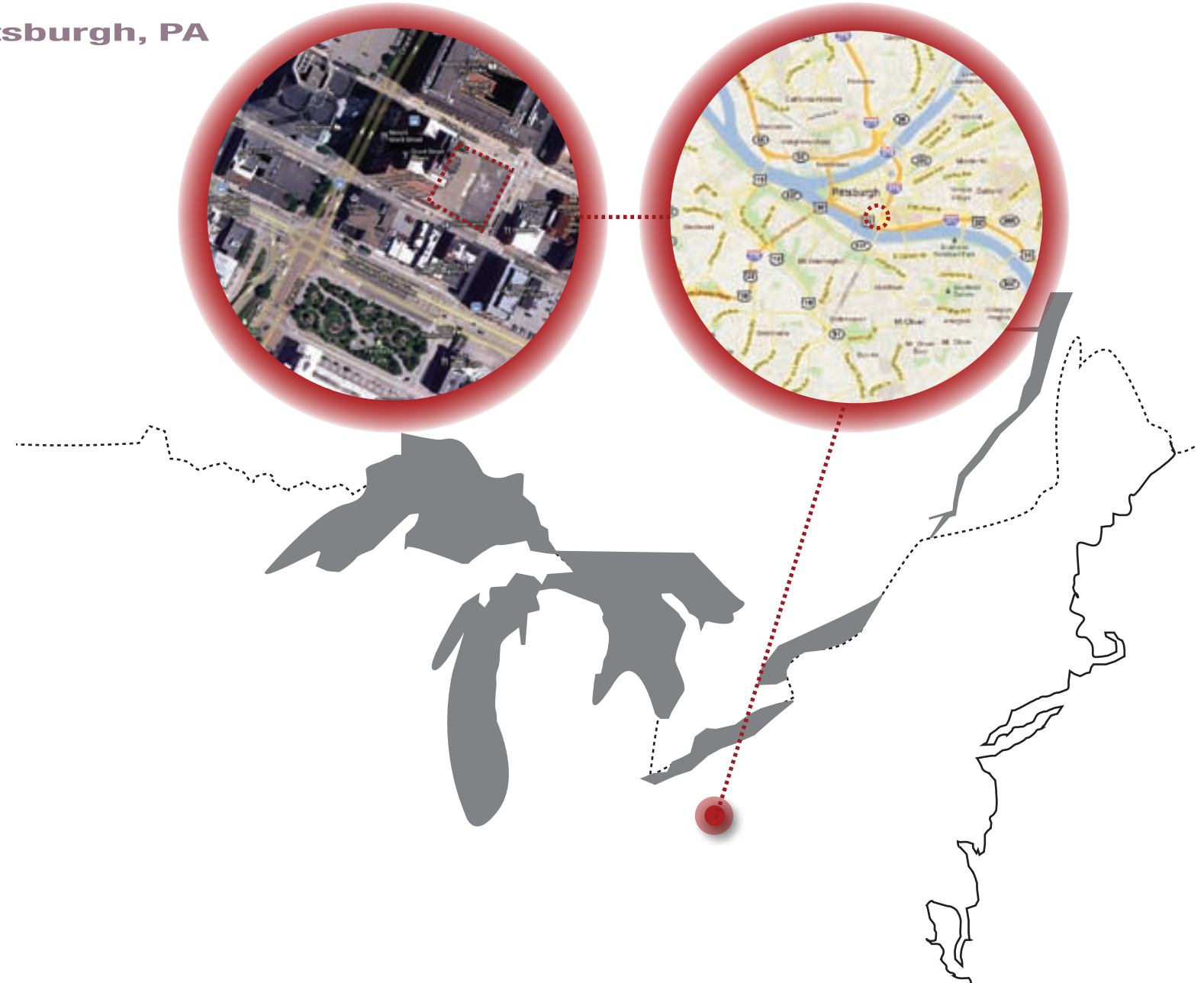
URA- Urban Redevelopment Authority Of Pittsburgh [23]

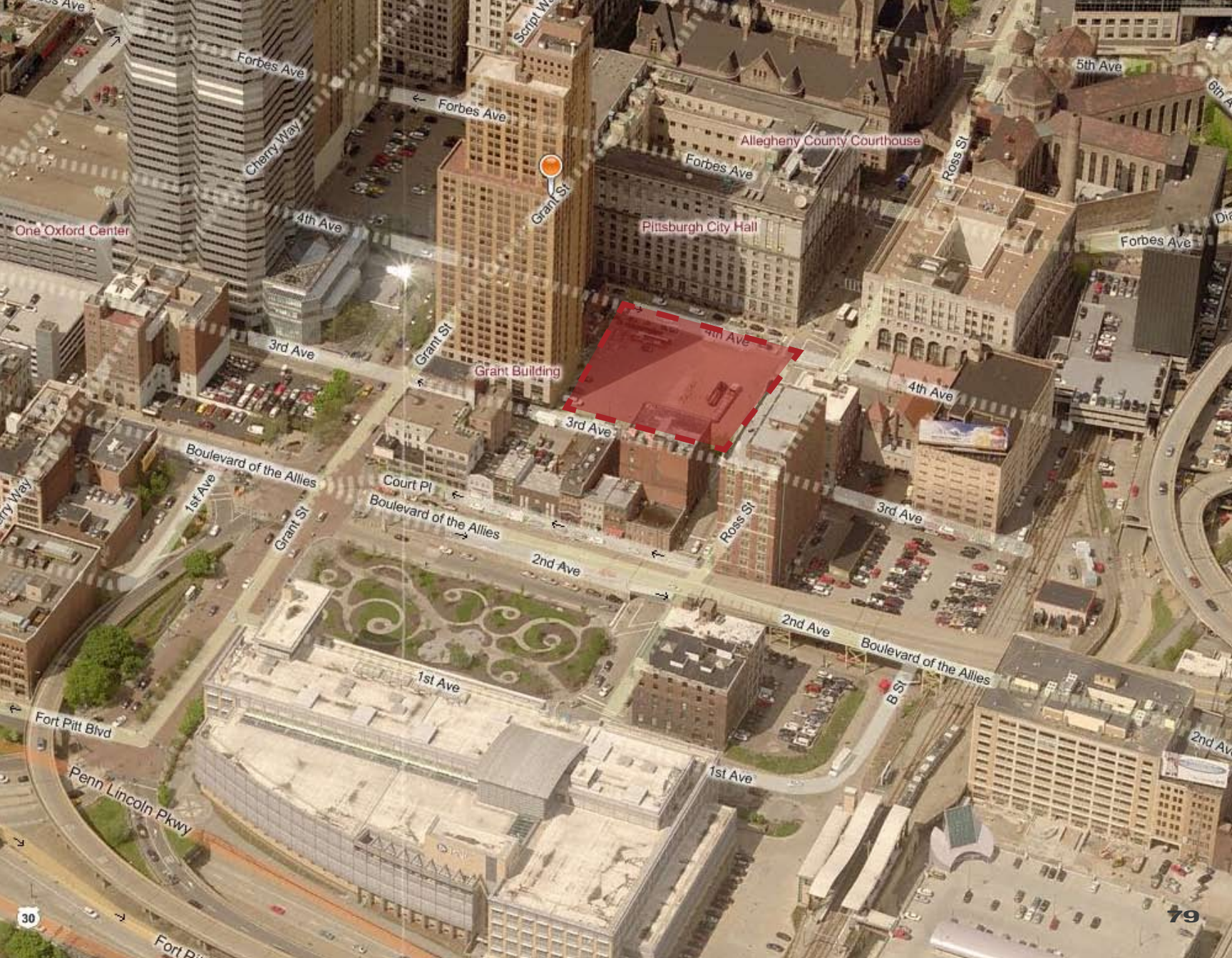
The Urban Redevelopment Authority of Pittsburgh (URA) is the City of Pittsburgh's economic development agency, committed to creating jobs, expanding the City's tax base and improving the vitality of businesses and neighborhoods. The URA achieves this mission by assembling, preparing and conveying sites for major mixed-use developments; and by providing a portfolio of programs that include financing for business location, relocation and expansion, housing construction and rehabilitation, and home purchases and improvements.

BUILDING PITTSBURGH WITH URA


GOLD
304 Fifth
wntown Living
Won't you be our neighbor?

Pittsburgh, PA




Forbes Ave
Cherry Way
Forbes Ave
Script Way
5th Ave
Allegheny County Courthouse
Forbes Ave
Ross St
Grant St
One Oxford Center
4th Ave
Pittsburgh City Hall
Forbes Ave
3rd Ave
Grant St
Grant Building
4th Ave
3rd Ave
4th Ave
Boulevard of the Allies
1st Ave
Court Pl
Boulevard of the Allies
Grant St
Ross St
3rd Ave
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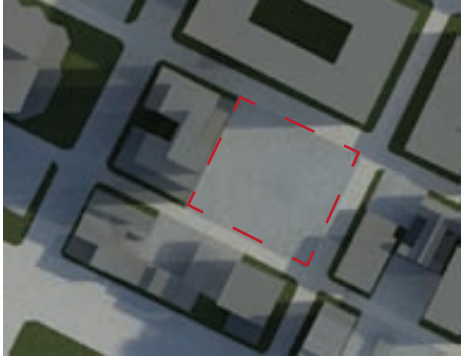
B St
Fort Pitt Blvd
Penn Lincoln Pkwy
1st Ave
2nd Ave
30

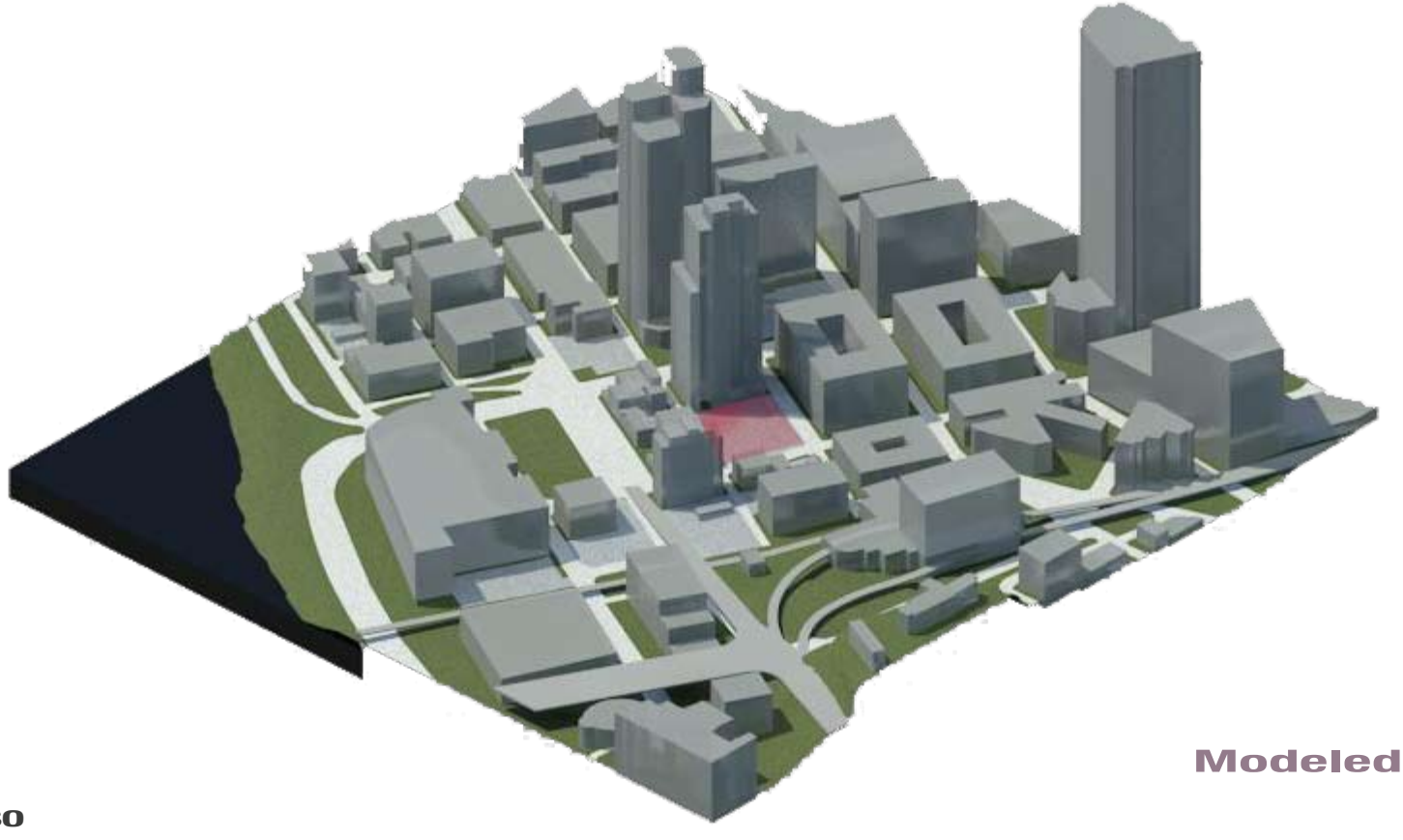
Sun Study



8 a.m.

10 a.m.

12 p.m.



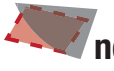
Modeled Site

2 p.m.

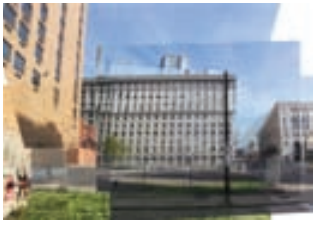
4 p.m.

6 p.m.

north



north east



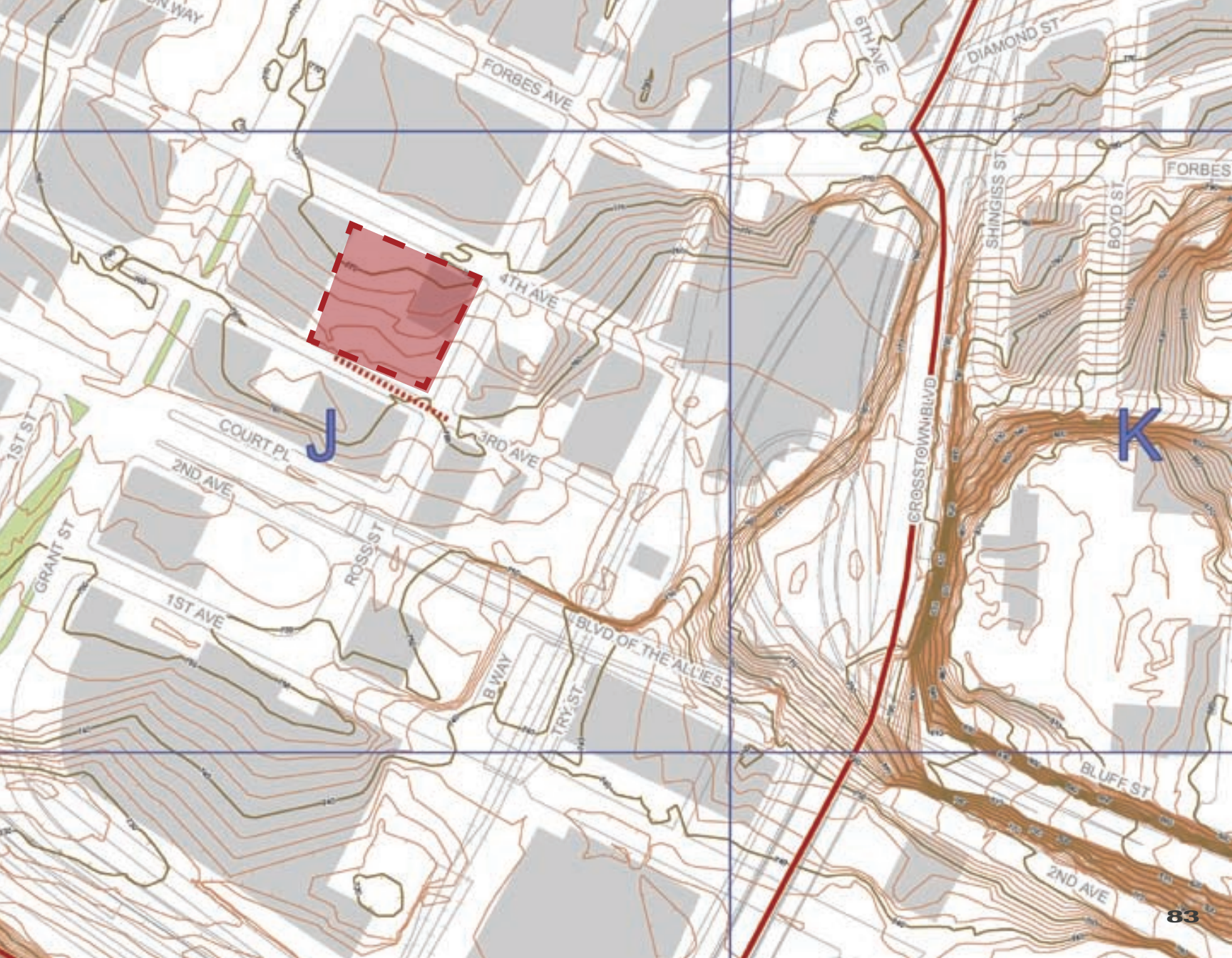
south

south east

As shown on the left, the site is a vacant parking lot adjacent to the Grant Building. Governmental buildings are to the North and small multi-use buildings are to the South as well as to the East. A Church is also situated on the block to the east of the site. This site also marks the nearing of the end of the Central Business District and Downtown area. Third and Fourth Avenue dead ends one block East of the site as a steep hill breaks up the surface planes, with an elevated express way jutting through. An University is perched up on that hill. A sun study was done to check the amount of sun exposure to the site, especially being next to such a tall building. As shown above, adequate sunlight still hits the site until late afternoon.

Topography

The undulating topology of the greater Pittsburgh area creates a very dynamic site typology. Slopes rise to the South (South Slopes) and East of the site. The topography of the site selection itself lowers ten feet from North to South.


FORBES AVE
6TH AVE
DIAMOND ST
SHINGISS ST
BOYD ST
FORBES
4TH AVE
3RD AVE
COURT PL
2ND AVE
1ST AVE
1ST ST
GRANT ST
ROSS ST
BLVD OF THE ALLIES
B WAY
TRY ST
CROSSTOWN BLVD
BLUFF ST
2ND AVE
J
K

City Zoning

- Metro Stops
- Bus Stops
- Zoning UNC - Commerical
- Zoning EMI - Educational
- Zoning H - Hillside
- Zoning SP-3
- Zoning UI - Urban Industrial
- Zoning GT-A - Golden Triangle Subdistrict A
- Zoning GT-B - Golden Triangle Subdistrict B
- Zoning GT-C - Golden Triangle Subdistrict C
- Zoning GT-E - Golden Triangle Subdistrict E


Smithfield St
Fifth Ave
Grant St
Forbes Ave
Ross Ave
Fourth Ave
Third Ave
Boulevard of the Allies
Crosstown Blvd
Locust St
McAnulty
First Ave
Second Ave
Penn Lincoln Pkwy
85

Building Typology

Public

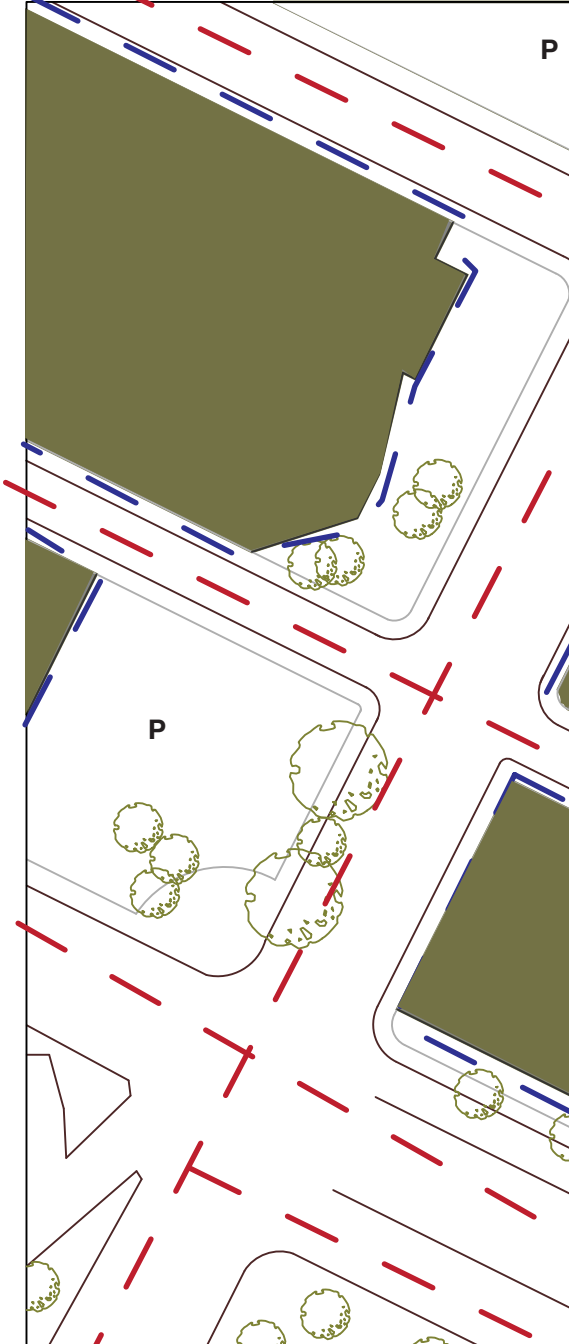
Semi-Public

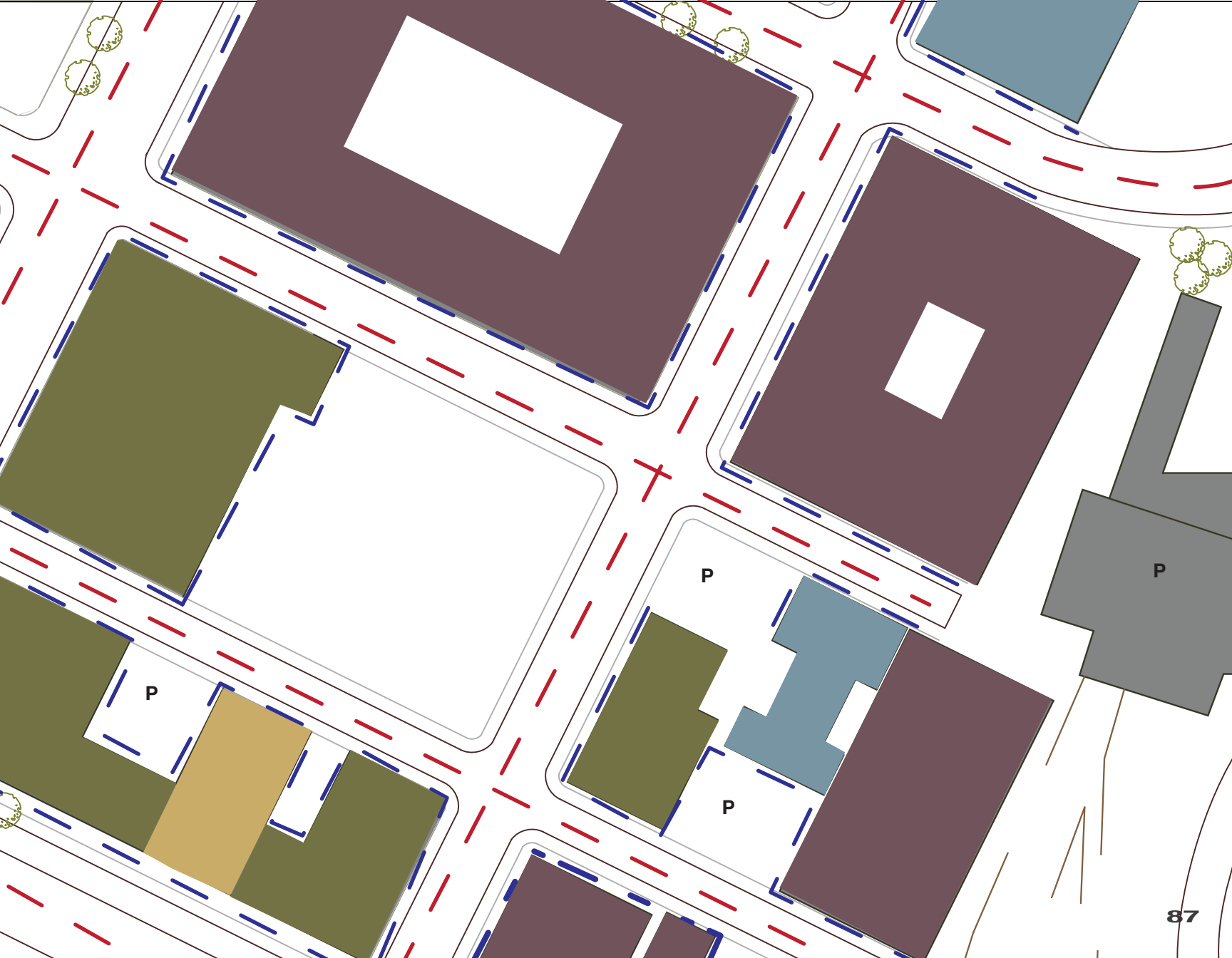
Government

Restaurant

Religious

Office/Retail



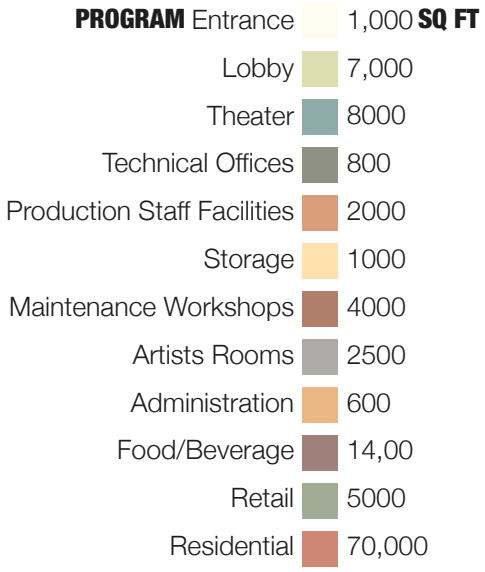

P
P
P
P
87

Program

The final program selection for the site is a Roadhouse Theater. The theater does not have it's own theater company, however, acts more as a temporary home for traveling theater companies to set up shop, run their show and leave when a new act comes in. A theater in general was chosen because their is a unique distinction between public and private space. Although both public and private users can occupy and use the building at the same time their paths never cross. Only through the actors connection in the auditorium itself does the two worlds connect. It is very interesting to begin to design spaces for two very different and distinct situations and user types. Also with idea of psychological implications and in affect emotional connotations of space, it is interesting to be up with the challenge of designing an auditorium space that is devoid of all emotional connections to allow for the emotion of the actor and piece to shine through.

Keys

These keys will be shown in various drawings throughout the rest of the thesis book. The program identifier will be shown in the final plans and sections to tie together and simplify the overall complexity of the building as a whole. The program was broken up into larger categories of rooms and spaces that all coincide with a similar program typology. The color symbolism key and the materiality key are shown in the detailed floor plans of specific spaces that were designed in a greater detail. These are merely a beginning analysis of what types of elements could possibly be inside those spaces and how those elements could be perceived and interpreted by the user of that space. The path key shows the different public, semi-public and private spaces and circulation through the building. This shows how one type of user uses the building in a complete different way than another. They can both be near one another but never actually occupy the same spaces. The color of those user typologies is related to the spatial archtypes and the pace of progression through the building.



MATERIALITY


rough


smooth


cold


warm


natural


non-natural


soft


hard


light


heavy

PATH

public

semi-public

private

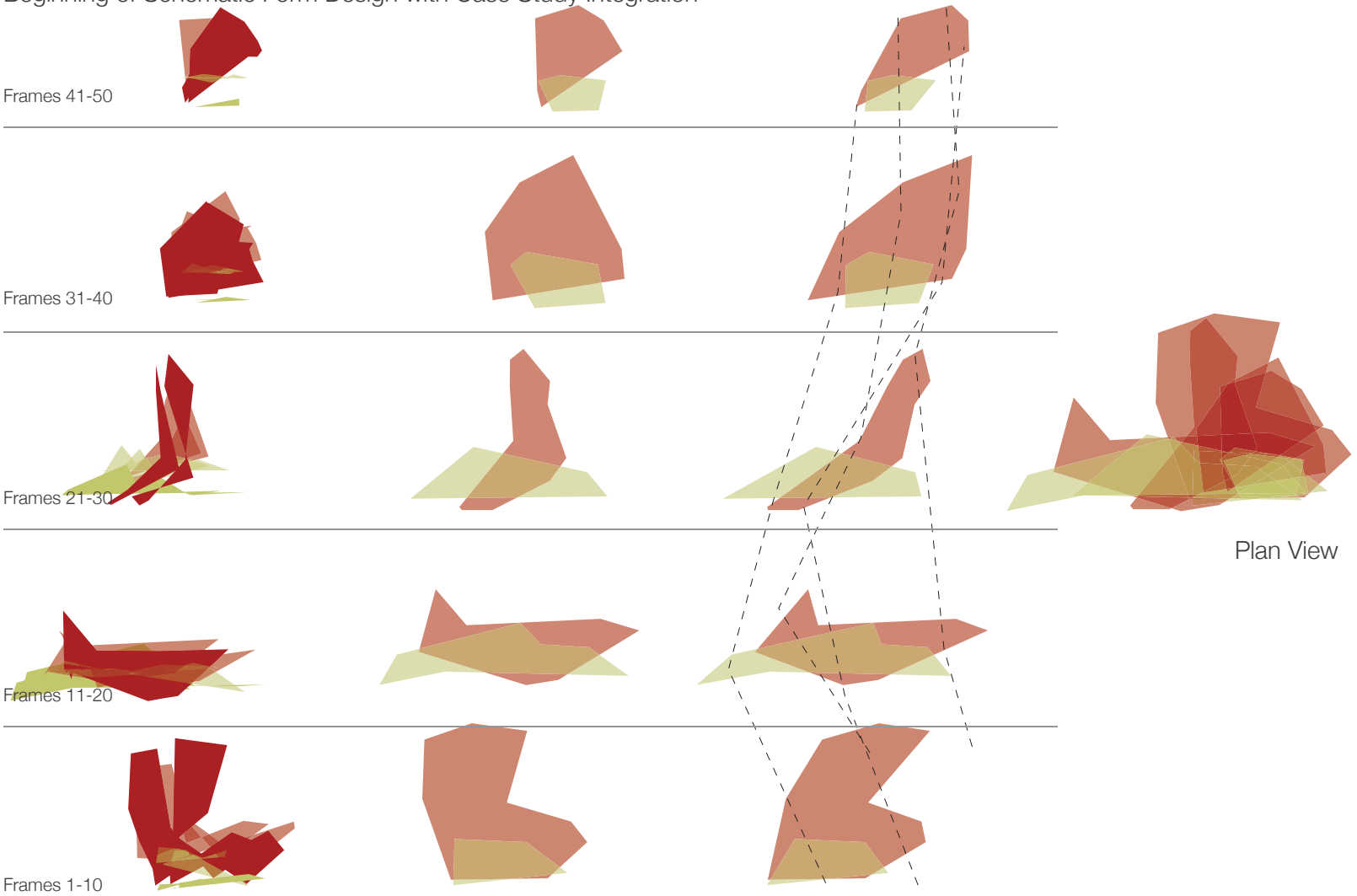
fast

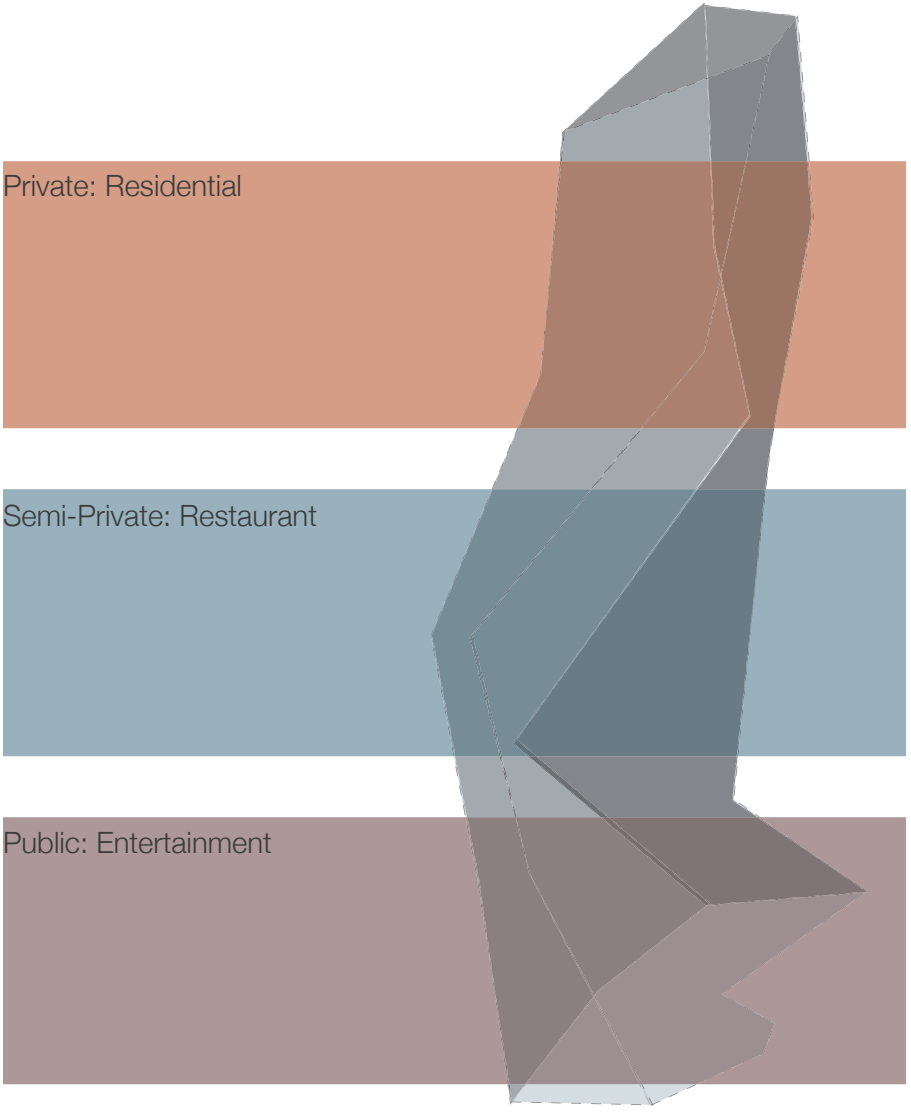
medium

slow

Phrase “Joy”

Beginning of Schematic Form Design with Case Study Integration





To begin schematic design for the overall form of the building inspiration was taken from the dance case study graphs. Simplifications of those graphs were made to create “floor plan” types and then stacked on top of each other to begin to resemble a building form. This was the starting point for the next study of the form, which is on the next page. Clay was used as a medium to begin to mold and further abstract or simplify the forms form the dance emotions from the dance case study. The layers of the frames per second of the dance fused together to create one singular abstraction of that emotional connotation related to how the dancer portrayed that emotion. These clay abstractions were used as a starting point to really begin to mold and design the exterior form of the building.

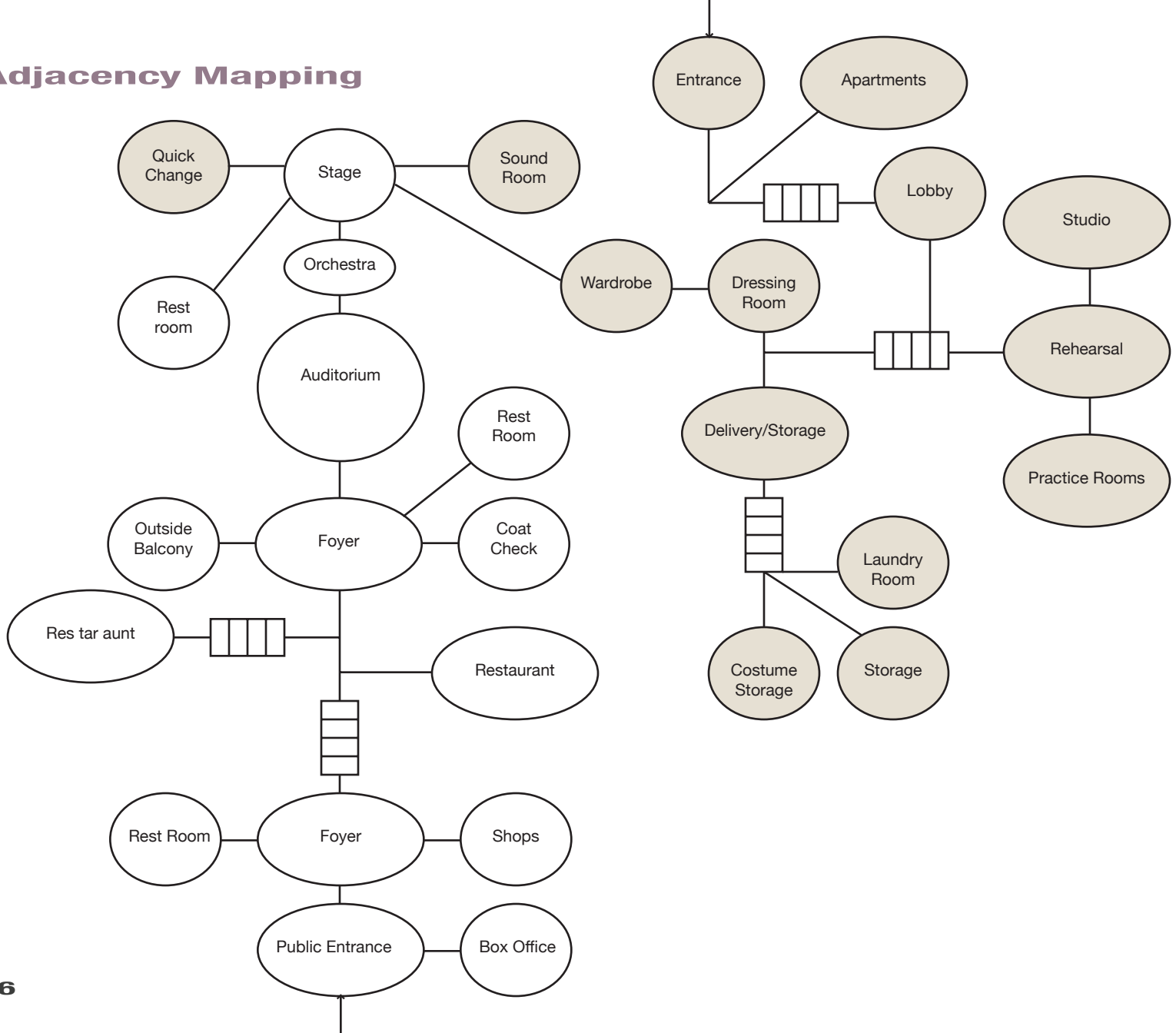
Phrase “Joy”

Clay Abstractions

Phrase “Sorrow”

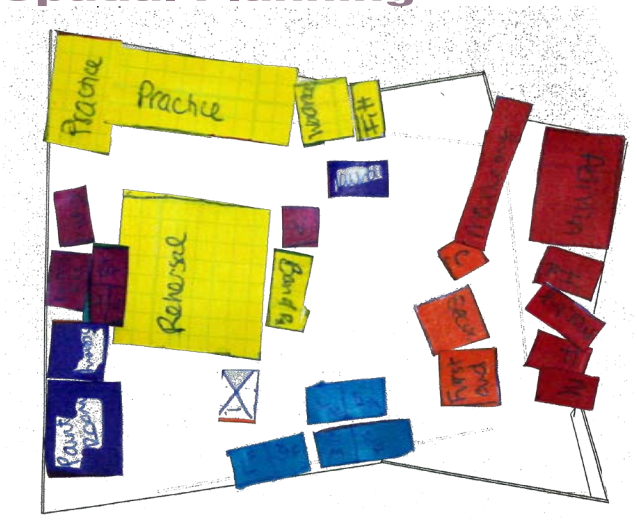
Clay Abstraction

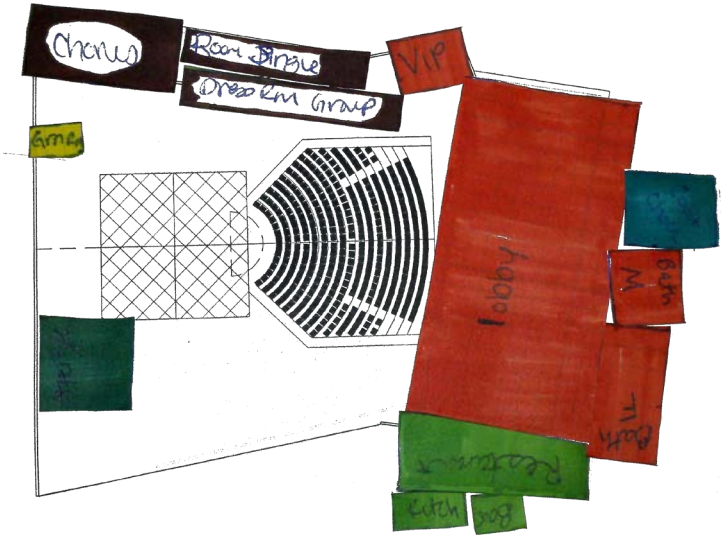
Adjacency Mapping



Spatial Planning

To begin figuring out the layout of the space, adjacency mapping was used to begin to relate and connect different spaces to one another. This method proved a valuable tool with a complex program such as a theater where the layout of spaces can really hinder or help the production of the performance. The adjacency map on the left is a map that was done without any relation to the building form. The white circles symbolize public space or F.O.H. (Front of House) spaces while the colored circles symbolize the private spaces or B.O.H. (Back of House) spaces. The stage is the medium between the two. The two diagrams on the right is the beginning of laying out those spaces necessary for the program of the building inside of the actual building form. Many iterations of these were done before the final spatial layout was complete.





"Our bodies and our movements are in constant dialog with our buildings. How we experience the three-dimensionality of a building is basically through movement of our bodies through time, sequence and space."

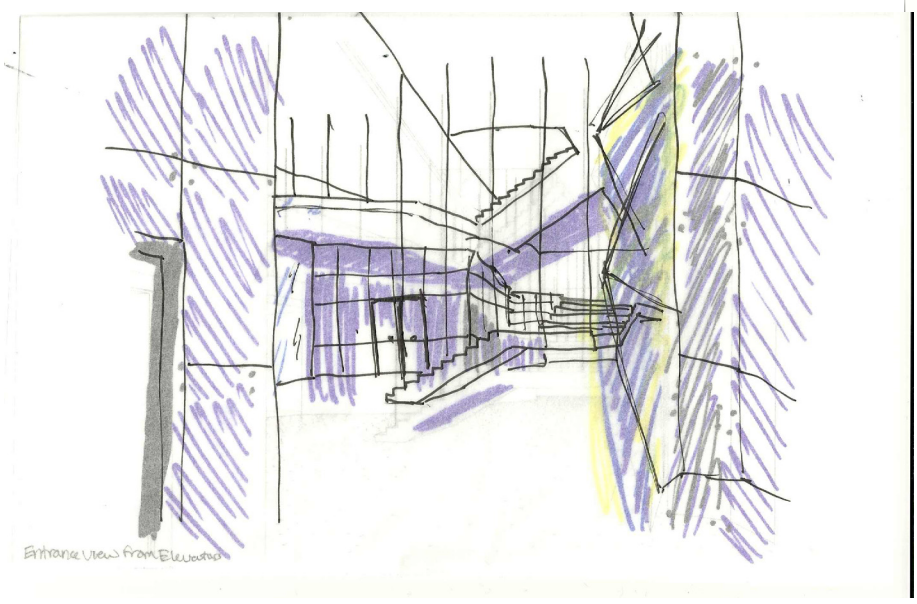
-Kent C. Bloomer

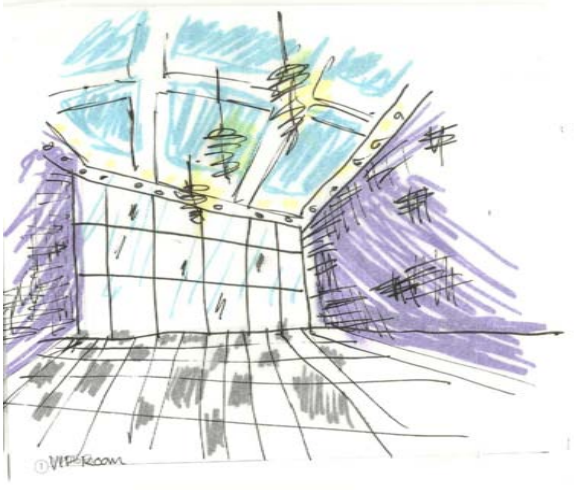
Section Model

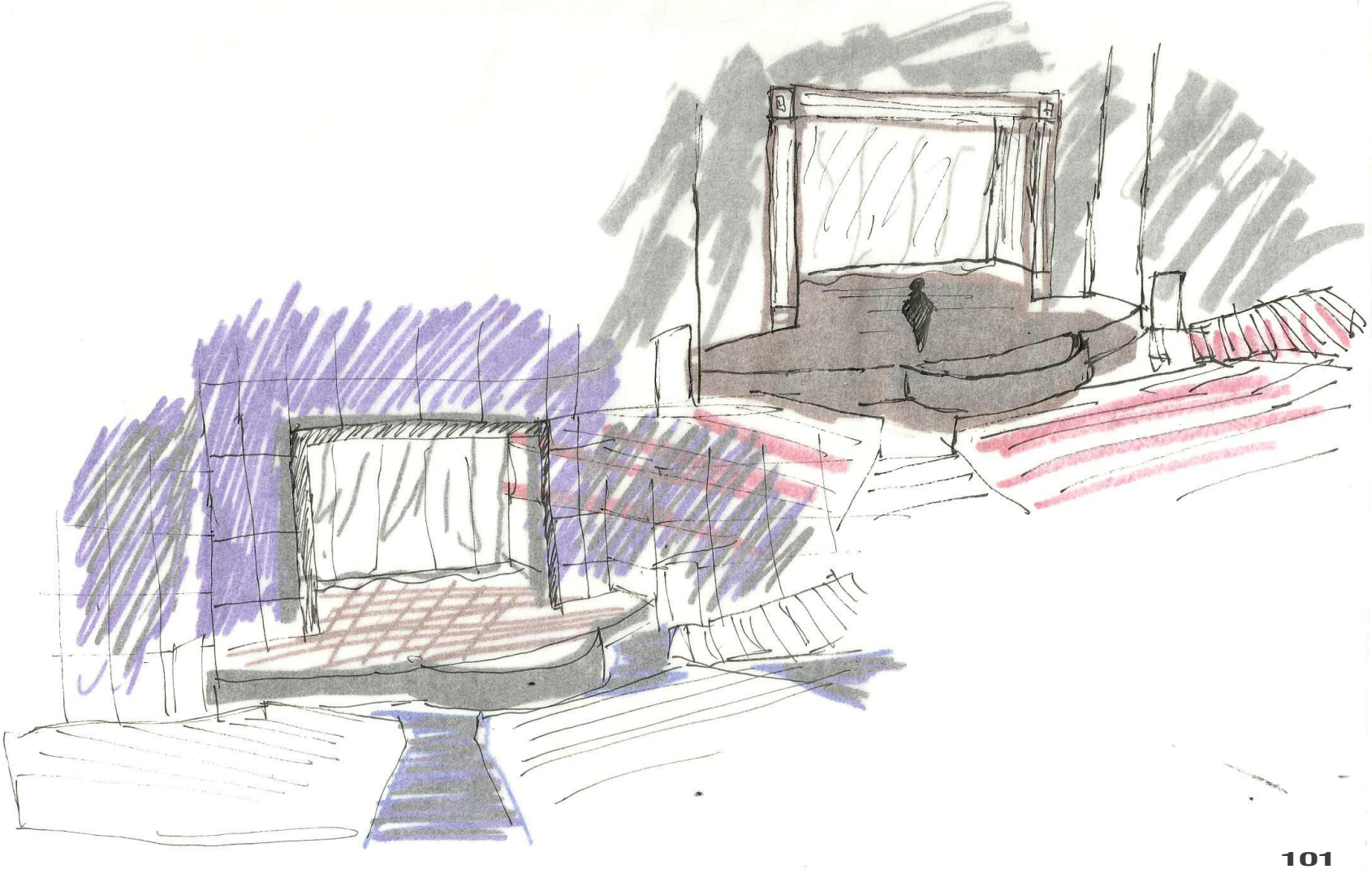
To further understand the dynamic quality and spatial relationships a study section model was made. The study model showed a lot of the buildings weaknesses and also some of the great layering qualities of the spaces. The section cuts through the center of the building (running E/W) through the main auditorium, backstage hallway and production rooms as well as through the locker rooms and rehearsal rooms tucked underneath the rising steps of the auditorium. On the other side of a singular wall is the entrance ramps that travel up to the lobby area. The graphical section model in the lower left hand corner of this page blocks out the programing of those spaces the section was cut through.

Interior Sketches

Once the shell of the building was in place as well as the interior spaces aliened and in place sketches were made of the interior aspects of the building in which greater detail and design was necessary. These quick sketches helped to break the very rigid box of walls, floor and ceiling that enclosed each room and began to break down the box into smaller details and elements that compose those spaces.







Final Design

The final design of the Roadhouse Theater situated on the site adjacent to the grant building was designed with the acknowledgement that architectural space, and the elements related to that, can alter the impression and perception of that space to the users. The shape of the building, which was abstracted from the dance graphs and clay models, brings a dynamic quality to the downtown area where most other buildings are rectilinear in nature. The breaking of the box allows the building to angle away from the street and creates a larger sidewalk and plaza area for groups to enjoy before or after a performance or during any time during the day. Since there are many large office buildings and a few restaurants near by this would be a great place to sit and eat lunch during the work week. The programing of a theater space also brings more people into the downtown area on off hour times and weekends. This helps to revitalize the economy and keep the downtown area vital.

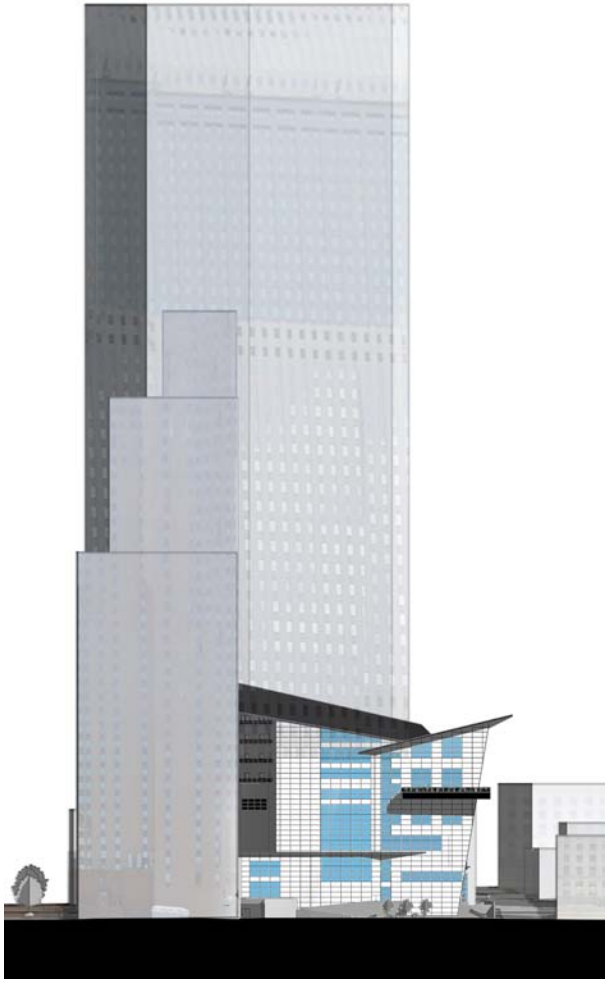
Site plans

N

Scale: 1/64” = 1’-0”

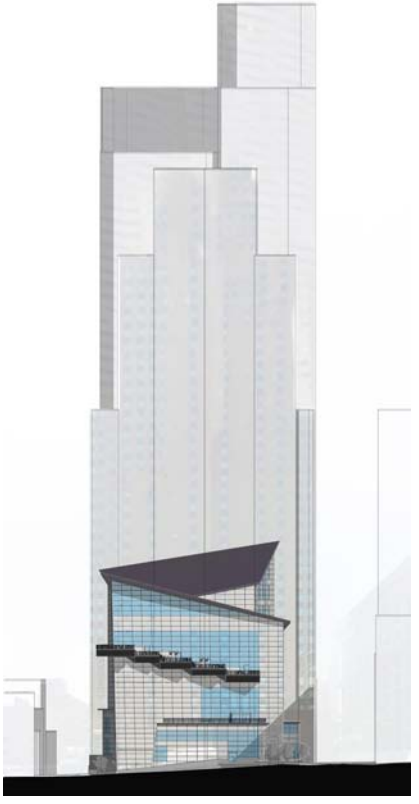
Scale: 1” = 100’-0”

Elevations

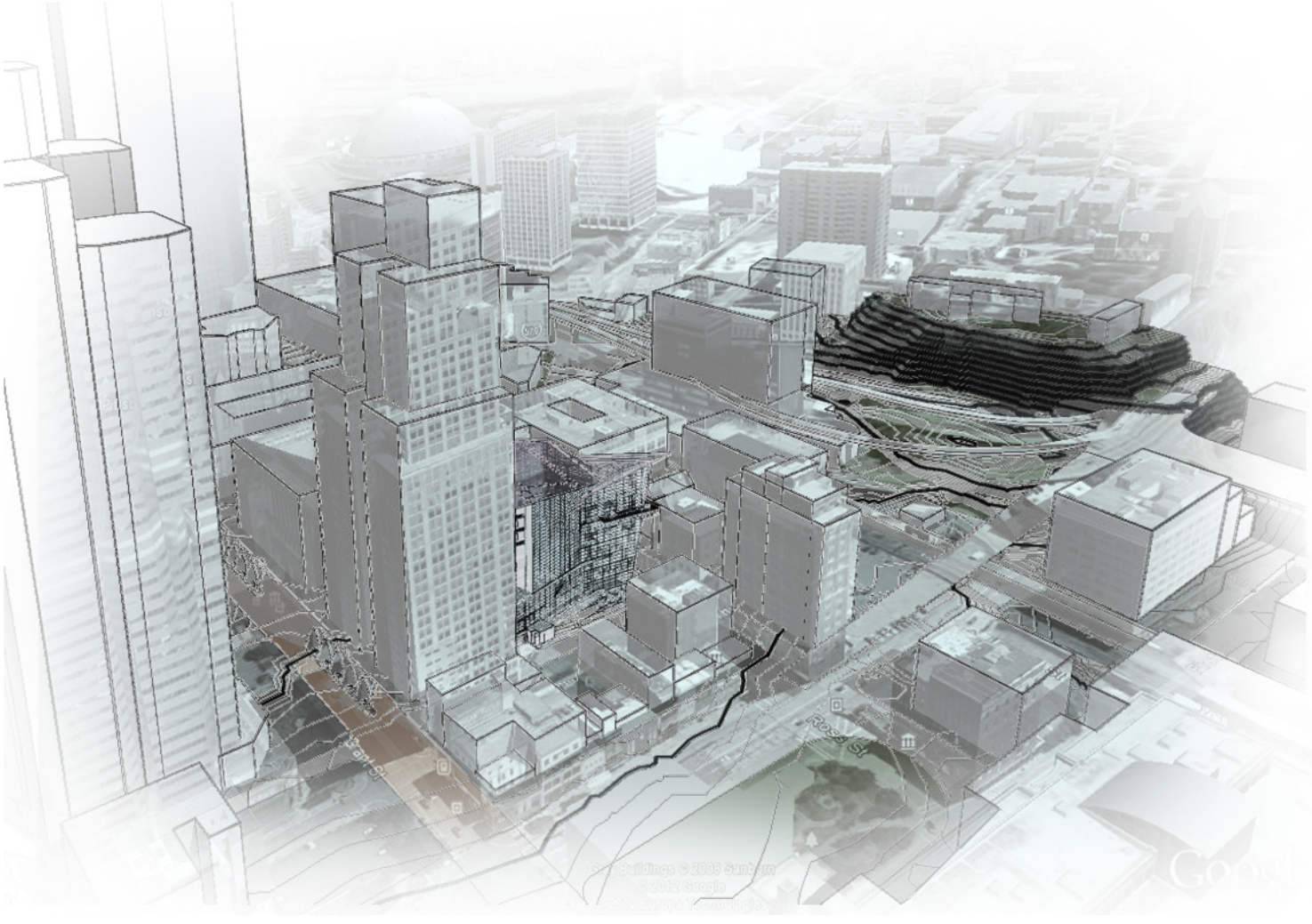


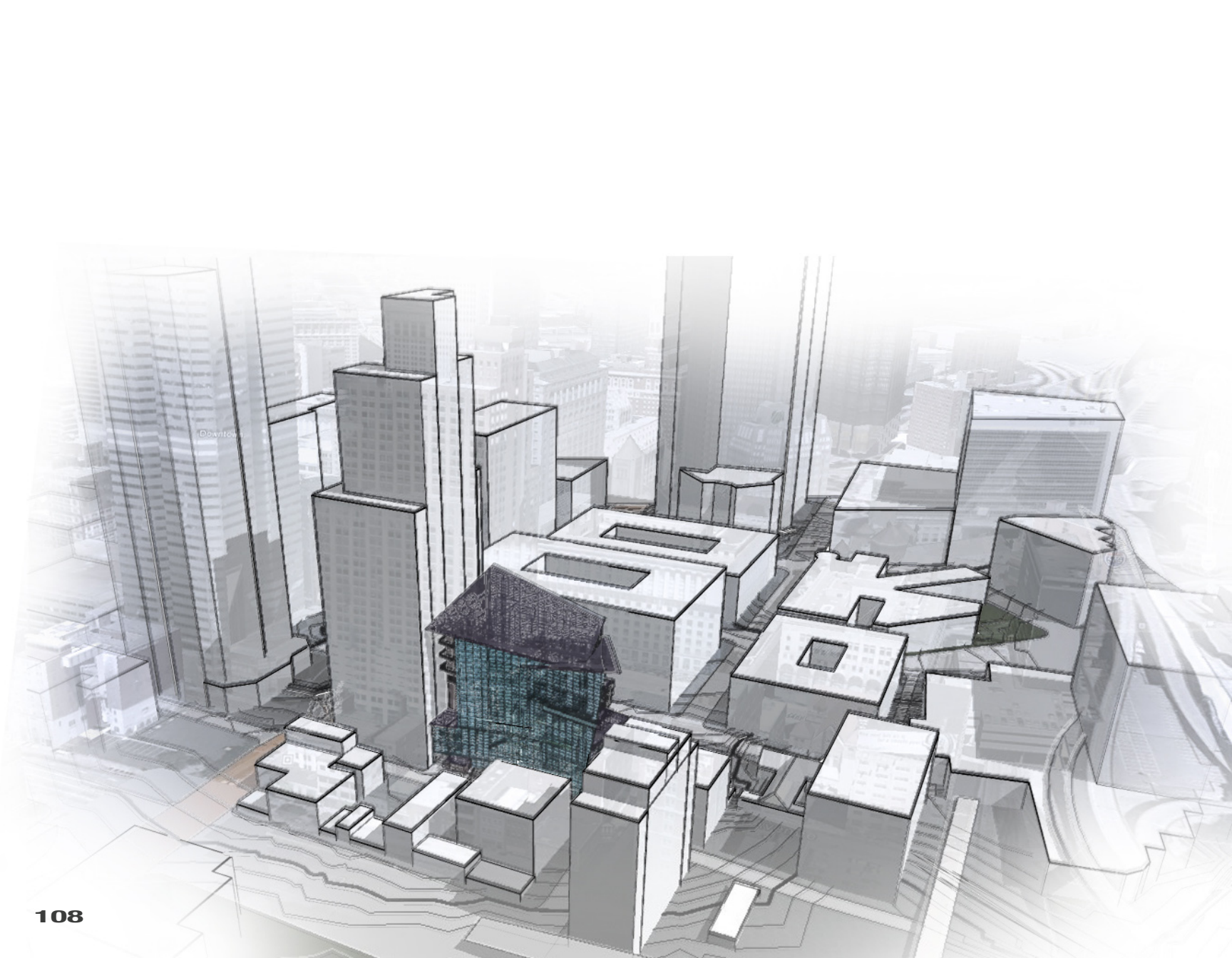
South-West Elevation
Scale: 1/64” = 1’-0”

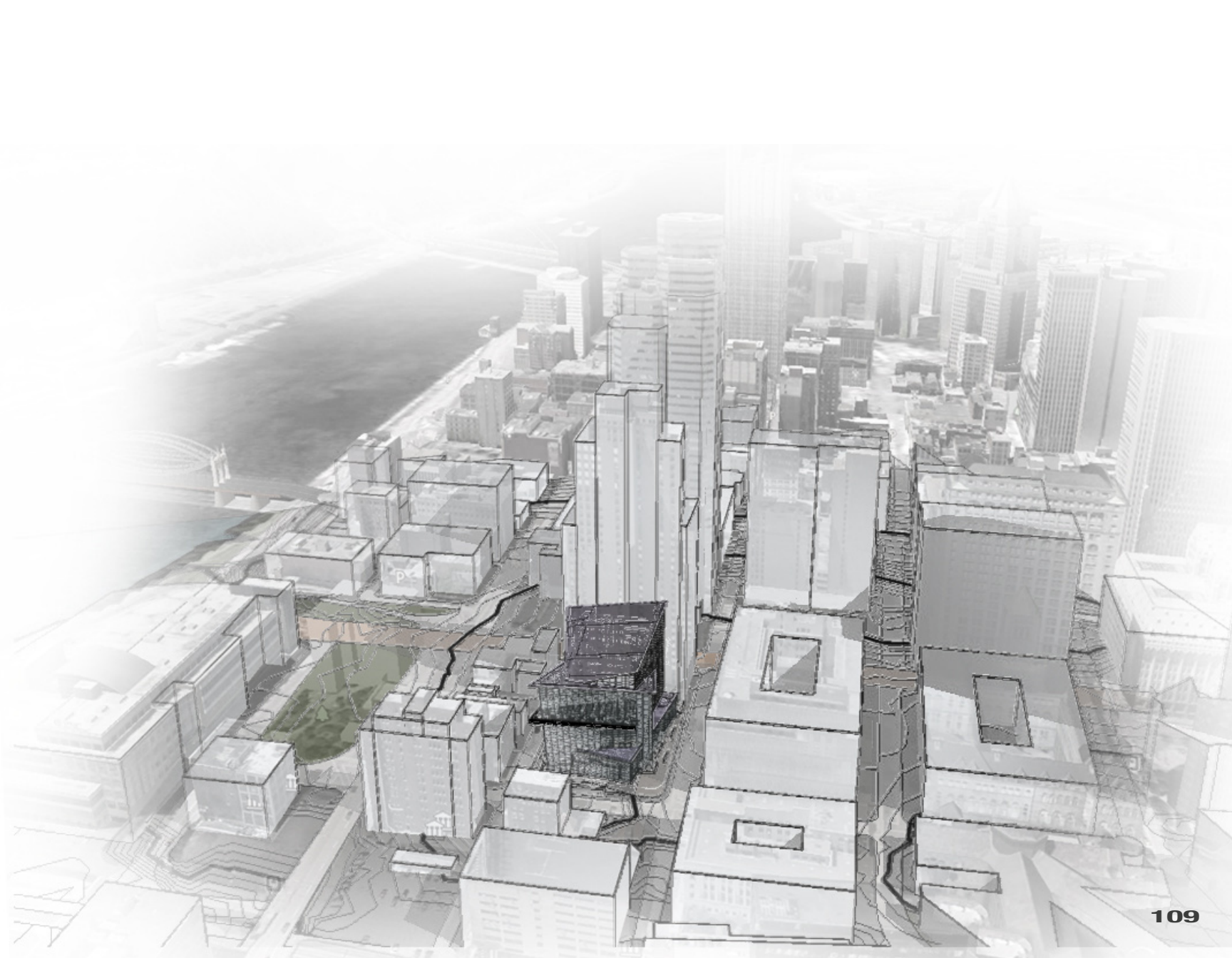
North-East Elevation
Scale: 1/64” = 1’-0”



South-East Elevation
Scale: 1/64” = 1’-0”


Rose St



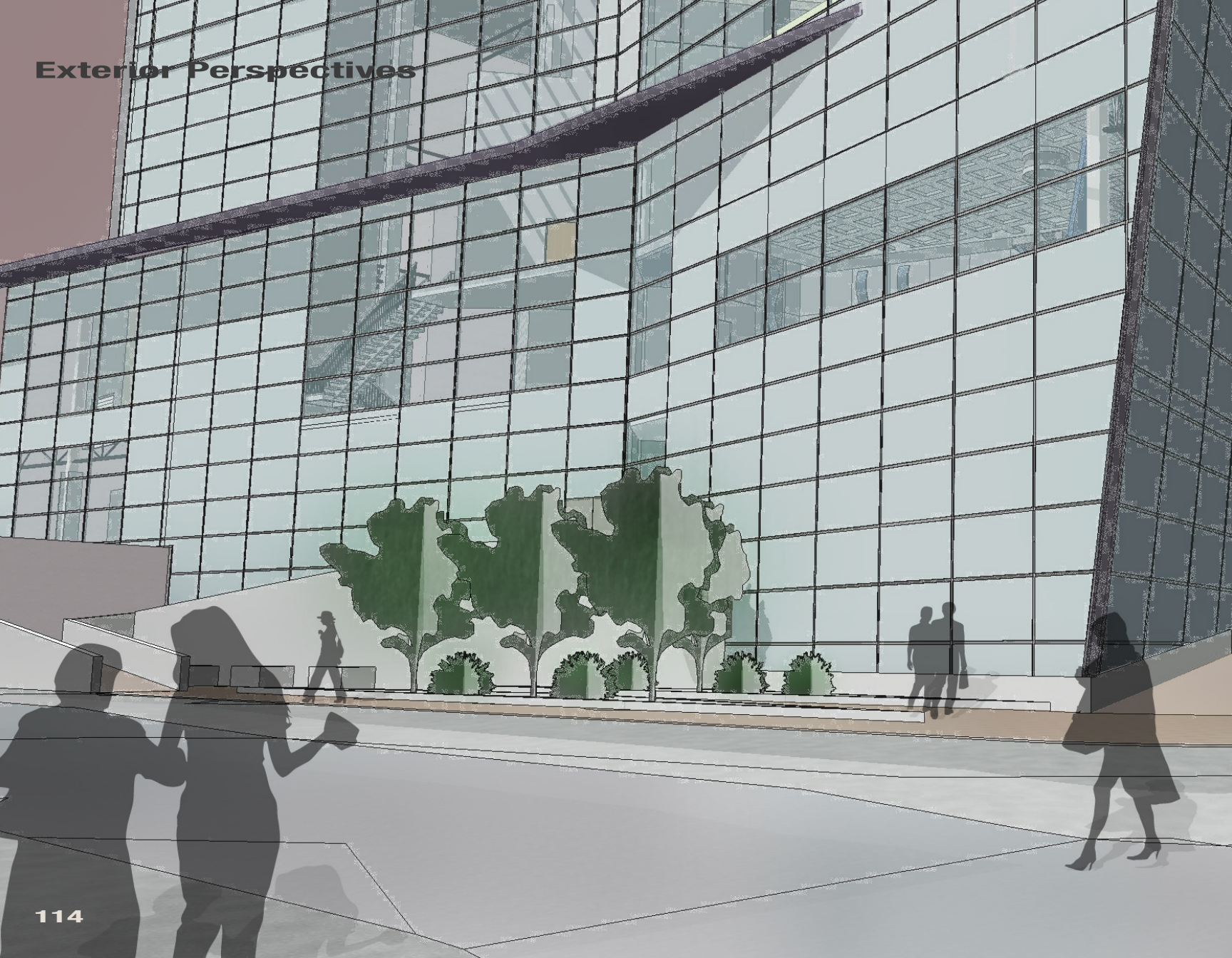


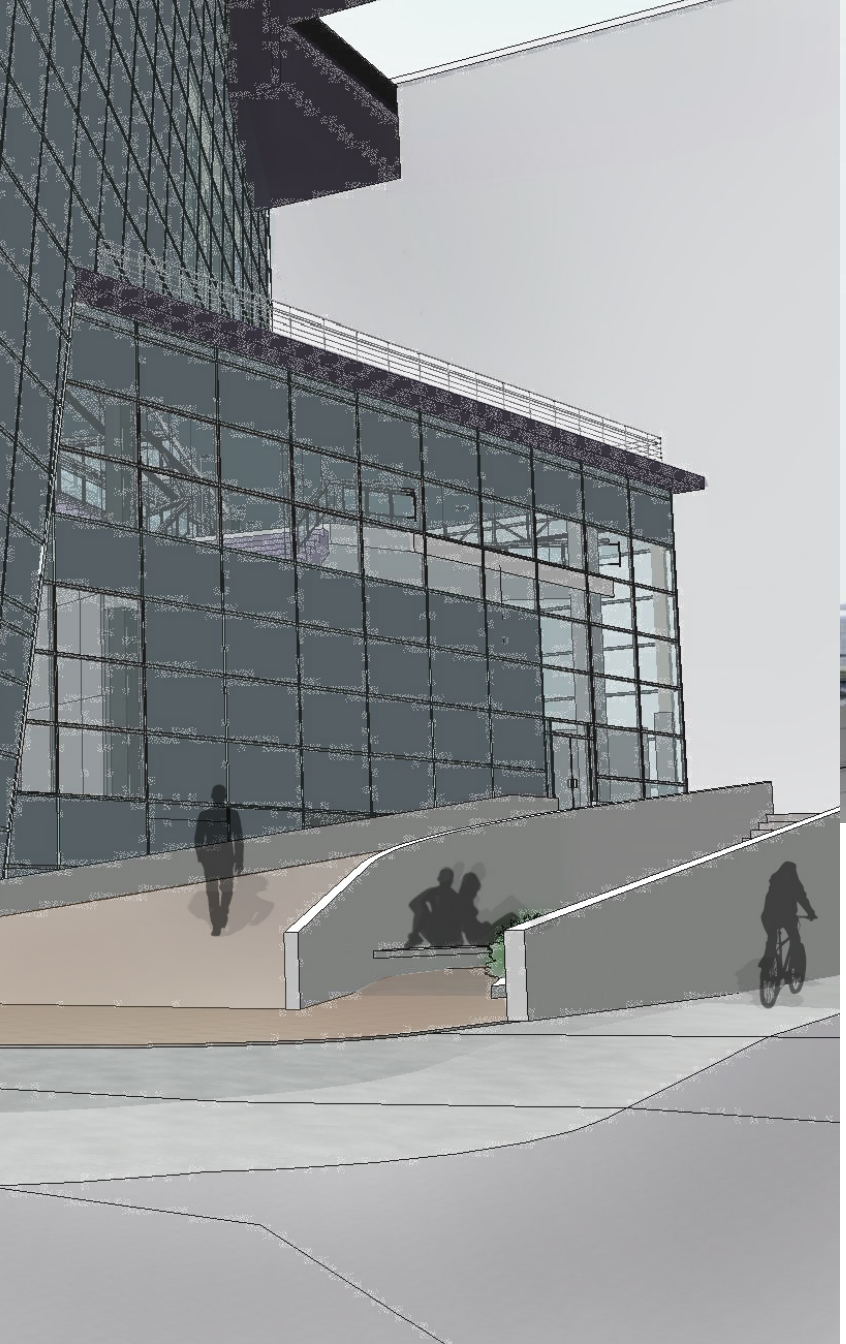
Site Section 01

Scale: 1” = 160’-0”

Site Section 02

Scale: 1” = 160’-0”





These exterior perspectives show how the user would view the building on the street. Since there is a ten foot topological slope on the site the entrance from the South is ten feet below the entrance on the North. This allows for ramps and stairs to begin to carve out the landscape and create pockets for sitting and gathering. The exterior stepping balcony of the restaurant above the Auditorium is exposed here, signifying that something different is in that space.

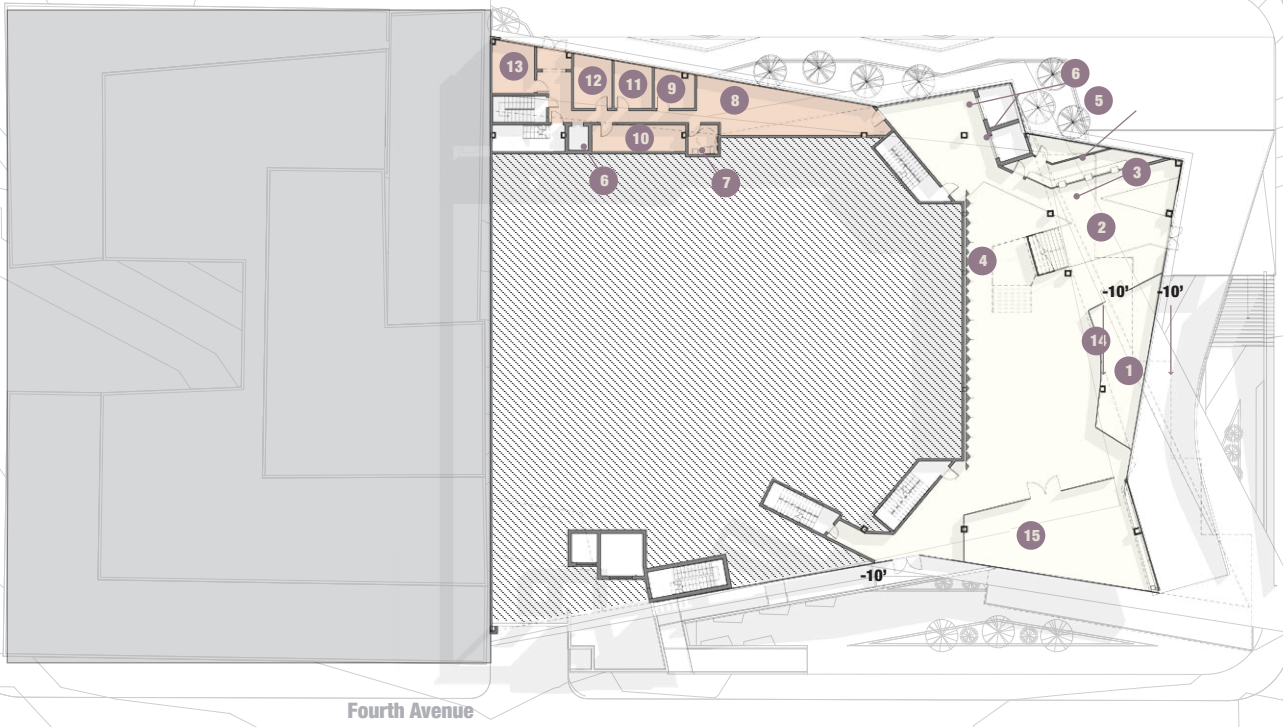
Level 01 [-10']

Scale: 1/32" = 1'-0"

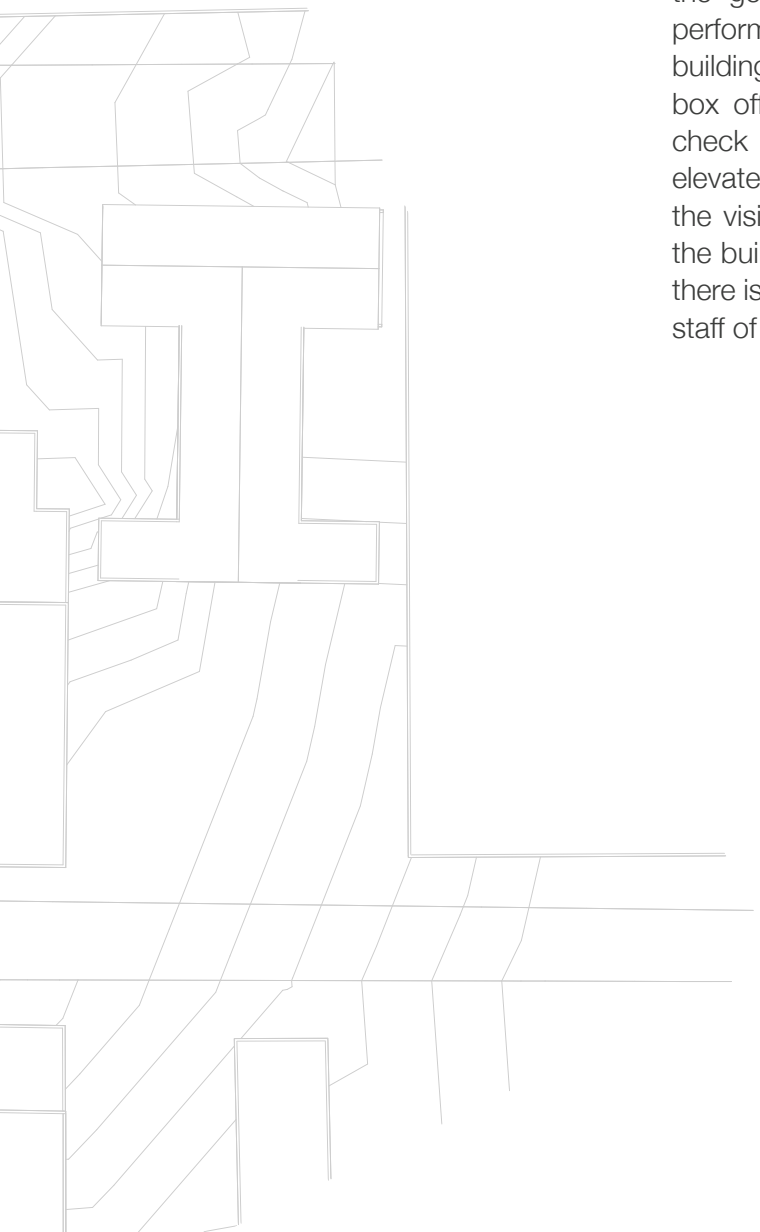
The first level of the Theater is flush with the South topography. A small Company entrance is in place for the private users of the building, such as the traveling theater company's cast and crew. An opening for semi-trucks and large vehicles to drop off large stage props and equipment is next to the entrance. The Lift is next to the freight elevator which aids the movers loading all of the pieces of props that are too large to fit in a freight elevator. This lift goes all the way up to the stage level where props can be either stored in a prop-lock-up until needed or placed directly on stage. A ramp lowers down into a one story underground parking structure which holds about 60 cars for the cast and crew only.

10 Elevator
9 Mechanical/Equipment Room
8 Down to Lower Level Parking
7 Semi-Truck Parking/Unloading
6 Lift
5 Elevator
4 Freight Elevator
3 Company Entrance
2 Security Office
1 Ramp to Level 02

Level 02 [0’]



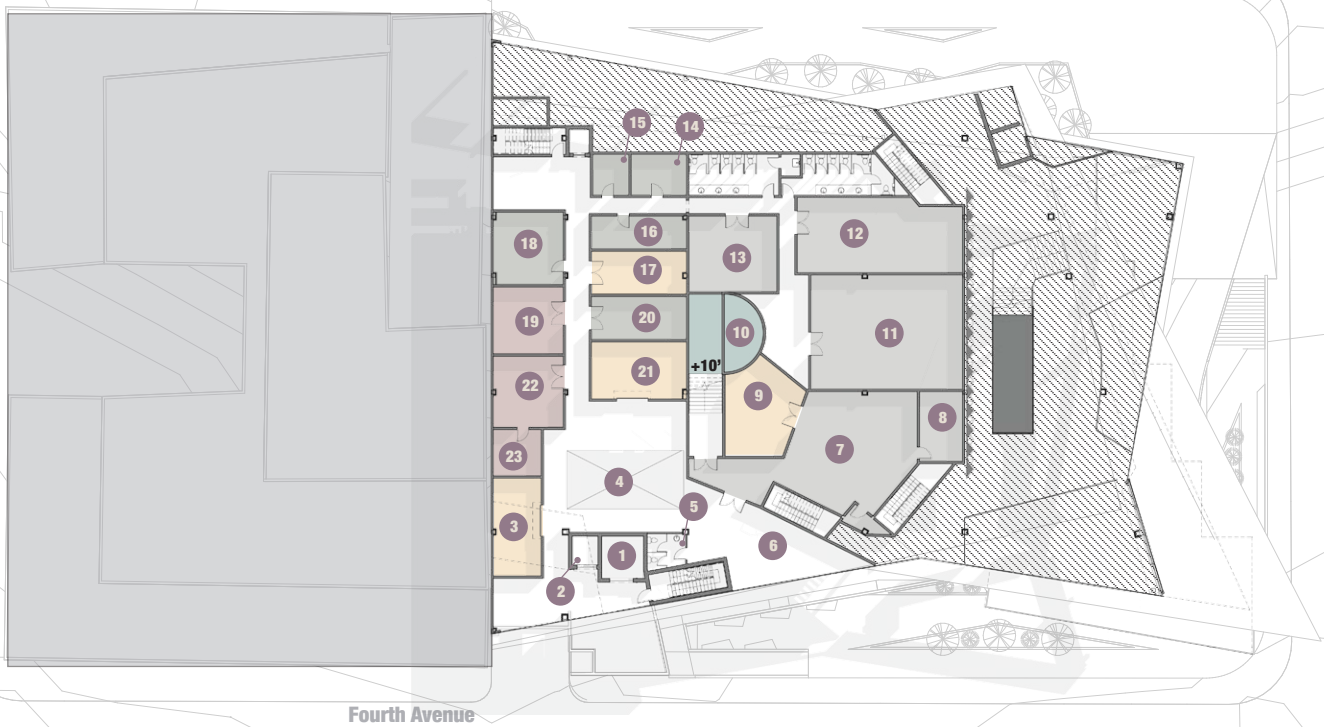
Scale: 1/32” = 1’-0”



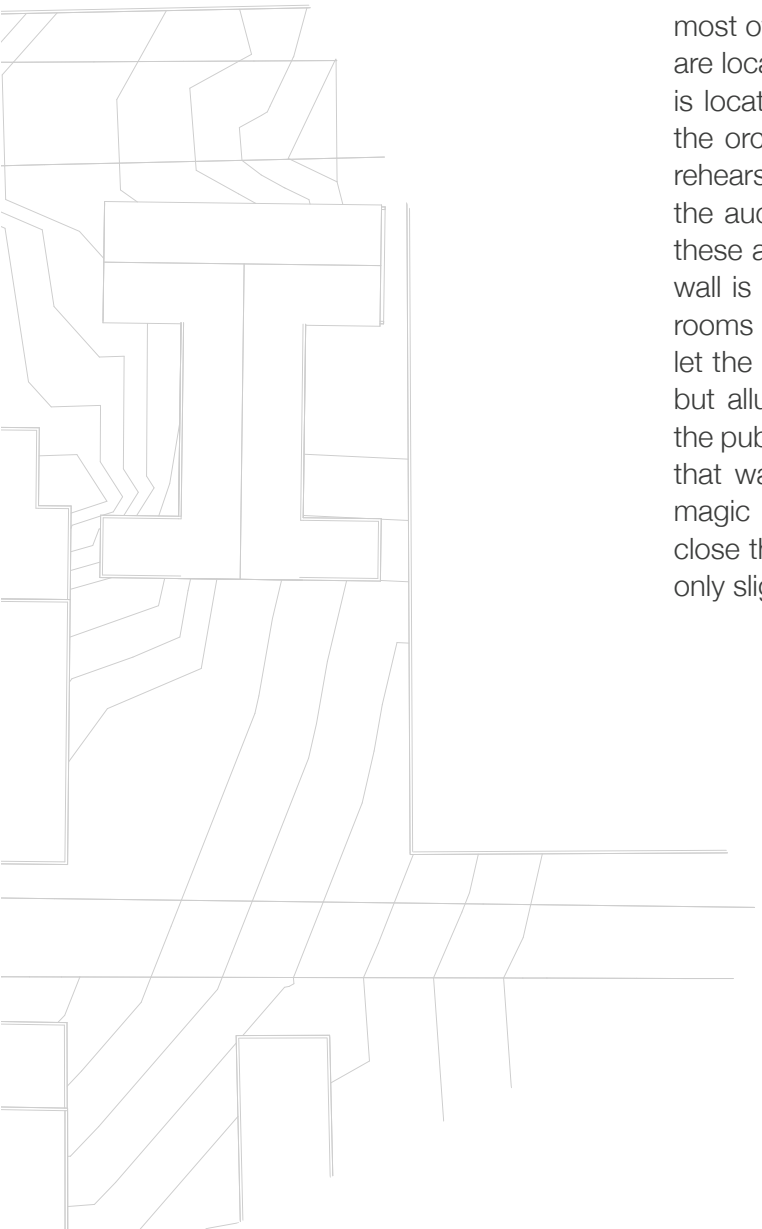
The second level is the main entrance for the general public and the viewers of the performance. In the entrance section of the building the guests can get their tickets at the box office, check their coats in at the coat check and shop in the small retail store. An elevated walkway, connected by stairs, takes the visitor along a journey of a path through the building. On the North end of the building there is also an entrance for the administrative staff of the building.

Retail 15
Coat Check 14
Meeting Room 13
Office - HR 12
Office - Finances 11
Office - Marketing 10
Office - Administration 9
Office Lounge 8
Private Bathroom 7
Elevators 6
Box Office 5
Stairs to Level 03 4
Performance Display/Kiosk 3
Entrance 2
Stair/Ramp to Level 01 1

Level 03 [+15’]



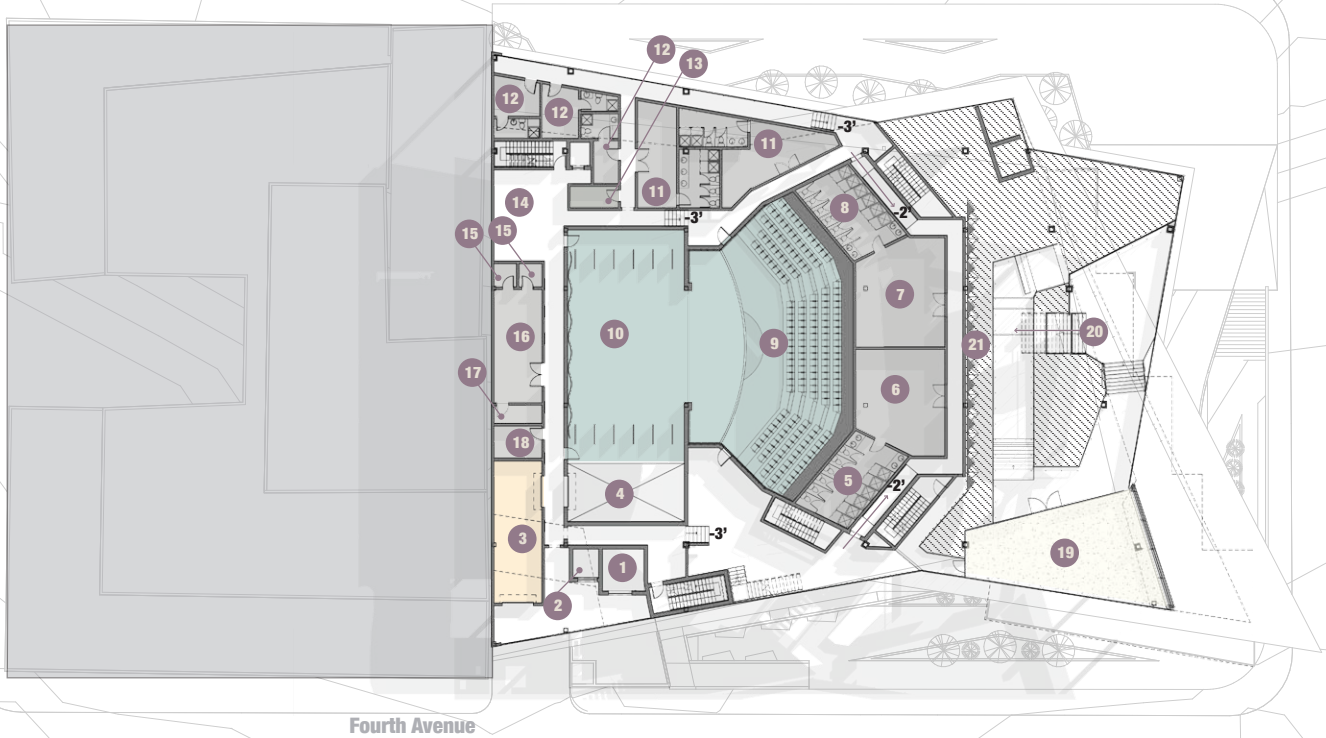
Scale: 1/32” = 1’-0”



The third level is purely used for the cast and crew. This is the pre-backstage area where most of the technical offices and repair rooms are located. This is also where the band room is located and where the band steps up into the orchestra pit. Two studios and one large rehearsal room is also located underneath the auditorium. A special light wall separates these areas from the entrance area. This light wall is made of glass and lights up when the rooms behind it are in use. The wall does not let the public actually view the private spaces but alludes to what is happening by alerting the public that something is happening behind that wall. The general idea was to keep the magic of the unknown alive but also try to close the gap between the two user groups if only slightly.

Slop Room 23
Paint Room 22
Prop Lock-up 21
Control Room 20
Scenery Repair 19
Technical Office - Stage 18
Lighting Storage 17
Company Management 16
Visitors 15
Stage Management 14
Studio 13
Studio 12
Rehearsal 11
Orchestra Pit 10
Instrument Storage 9
Band Green Room 8
Band Room 7
Crew Lounge 6
Rest room 5
Lift 4
Prop Lock-up 3
Elevator 2
Freight Elevator 1

Level 04 [+25’]

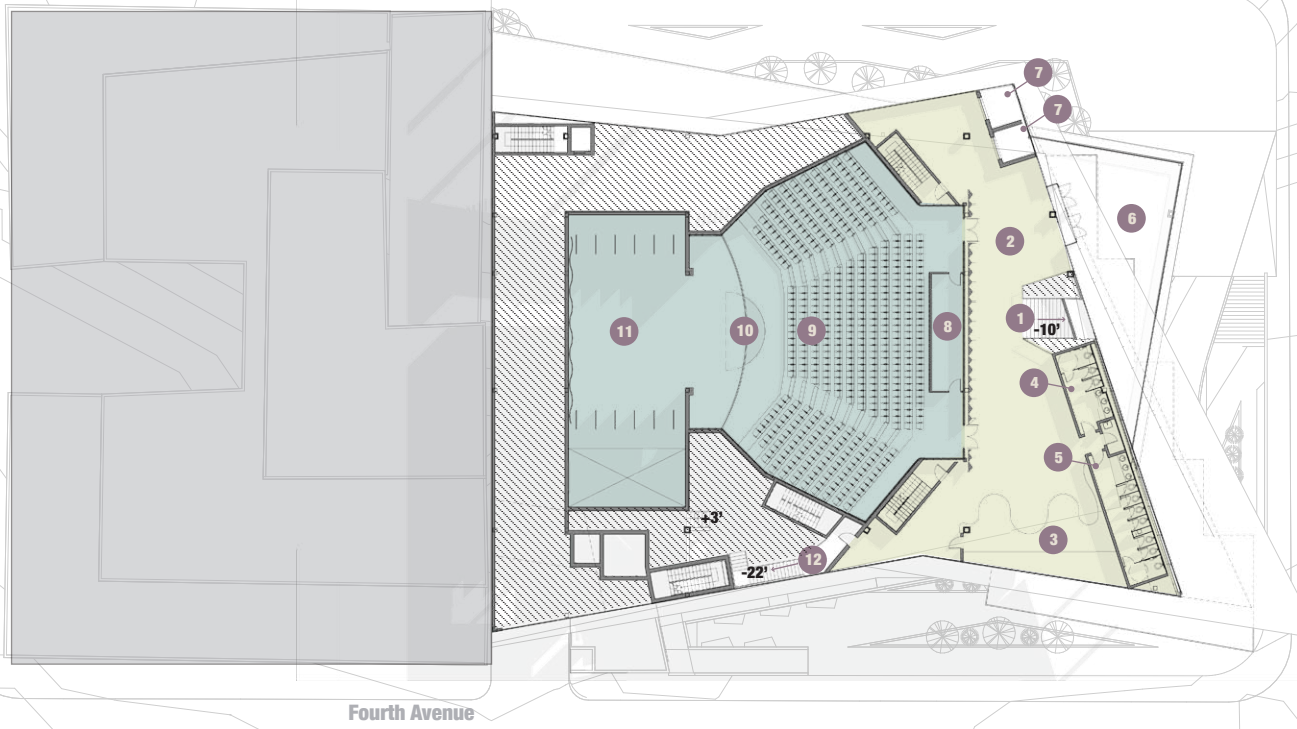


Scale: 1/32” = 1’-0”

This is the stage level of the building. Most of the artist rooms are backstage which allow for fast changing in between scenes and keeping all of the cast on one floor instead of sprawled out on multiple floors. Tucked underneath the auditorium seating is the chorus room and locker rooms for both men and women. These rooms also act as the connection between public and private space via the light wall. In the entry way the suspended walkway brings the users to a VIP room in which certain members can receive semi-public bar and lounge service.

Interactive Light Wall 21
Up to Lobby 20
VIP Lounge 19
Wig Room 18
Laundry 17
Wardrobe 16
Fitting Room 15
Green Room 14
Rest and Treatment 13
Principle Dressing Room 12
Group Dressing Room 11
Stage 10
Auditorium 9
Women's Rest Room/Showers 8
Women's Locker Room 7
Men's Locker Room 6
Men's Rest Room/Showers 5
Lift 4
Prop Storage 3
Elevator 2
Freight Elevator 1

Level 05 [+40’]



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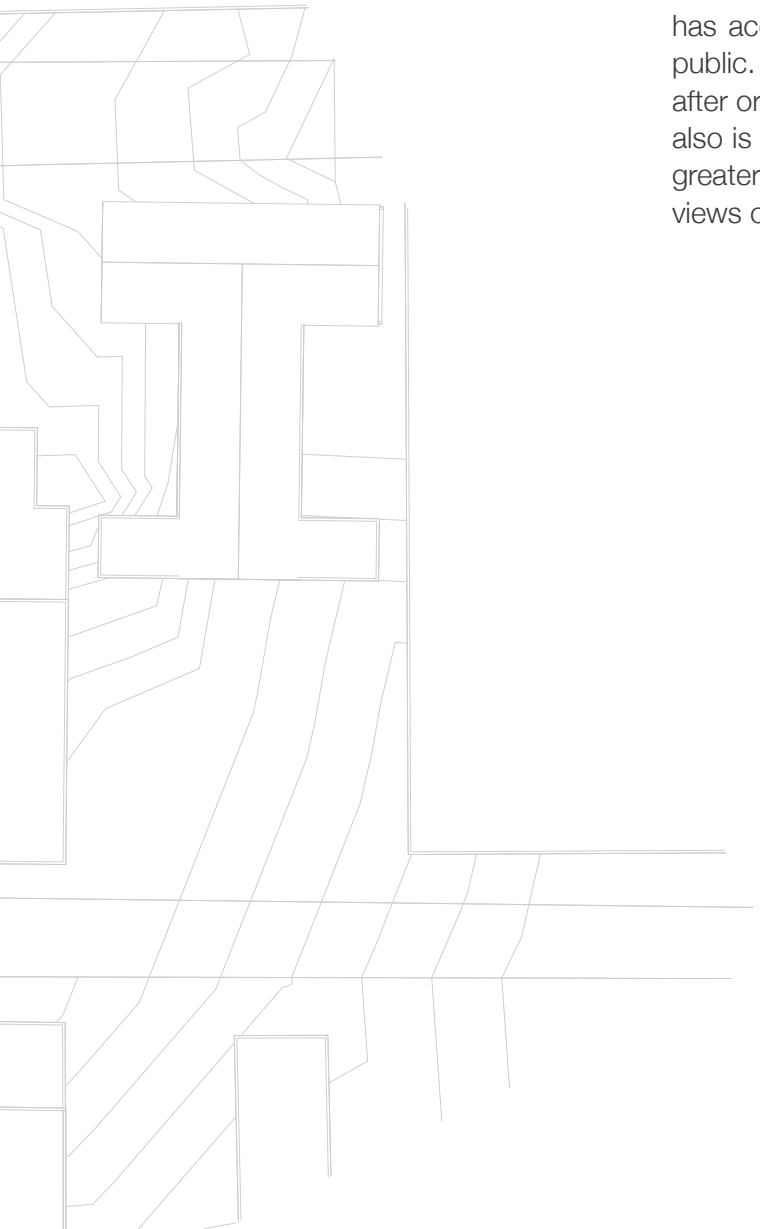
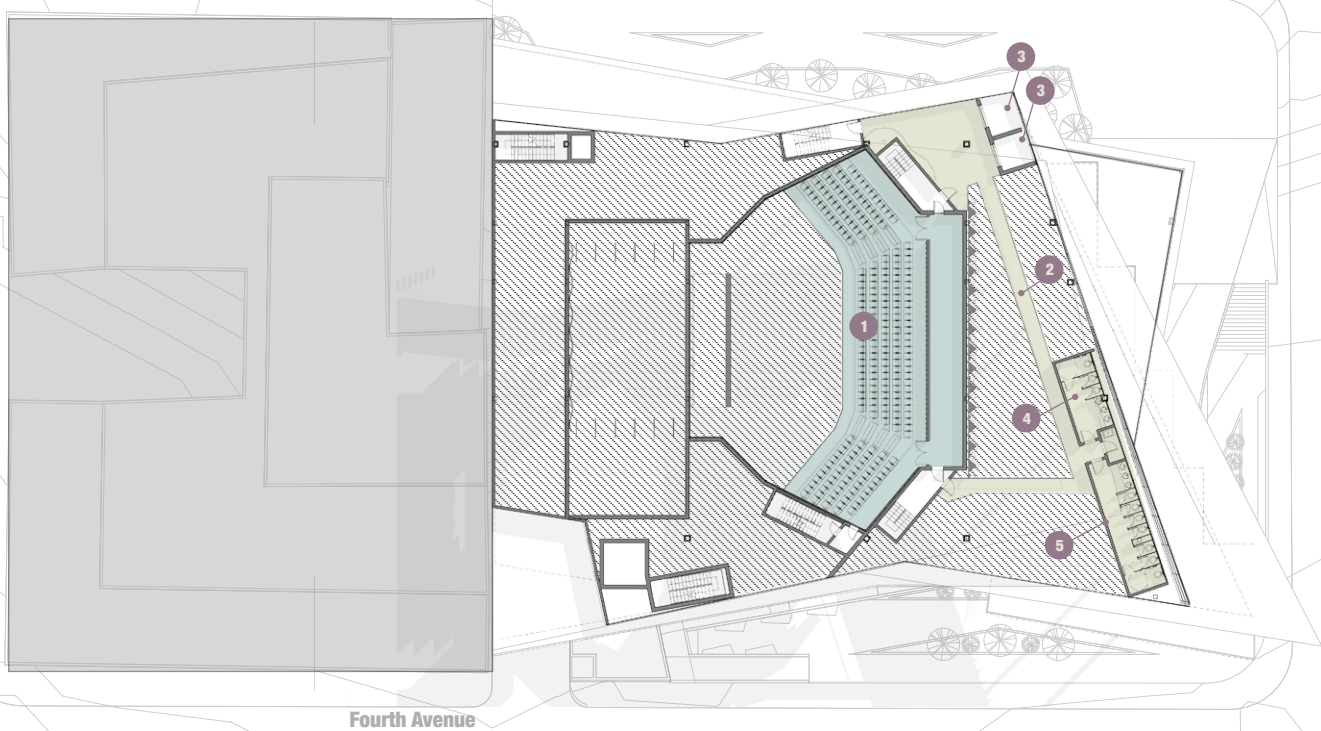


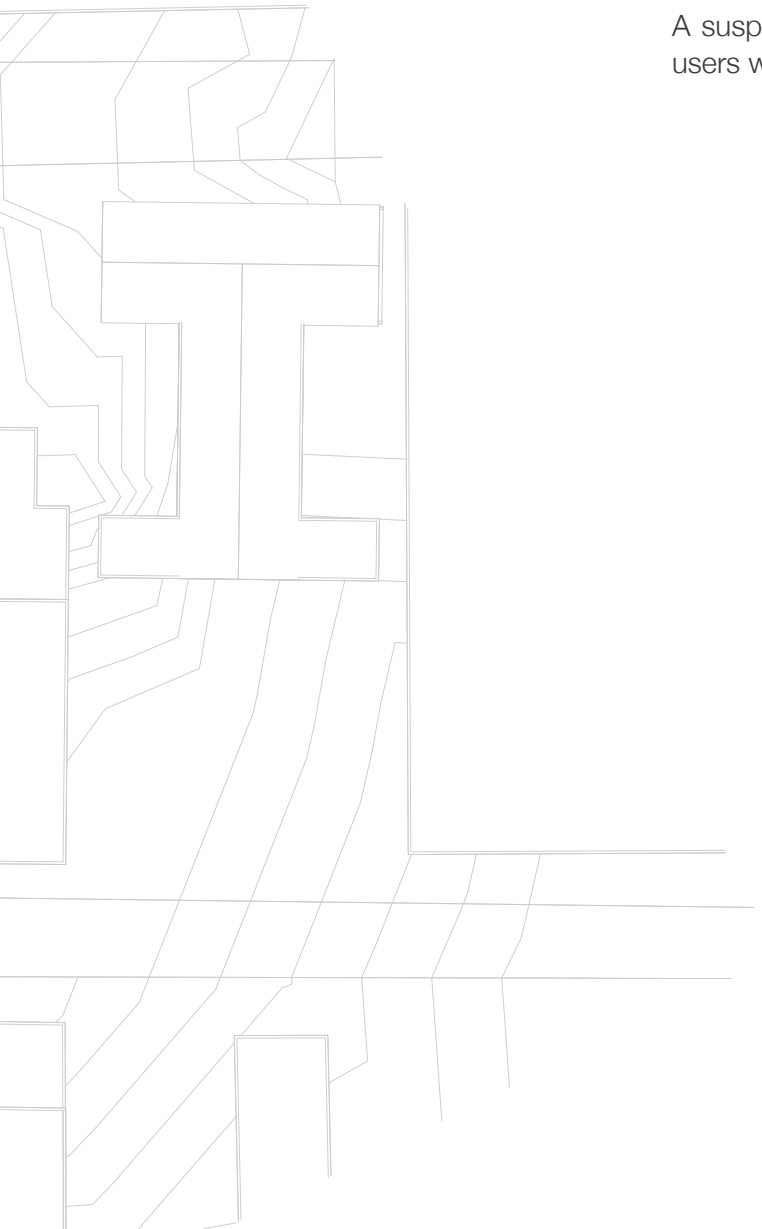
The suspended walkways in the entrance ends at the lobby on the fifth floor. The lobby has access to the auditorium for the general public. A public bar is implemented for before, after or during intermission. A rooftop balcony also is open to the general public allowing for greater group gathering and also wonderful views out into the city and South Slopes.

Down to Level 04 12
Stage 11
Orchestra Pit 10
Auditorium 9
Projection/ Lighting/ Sound Room 8
Elevators 7
Rooftop Terrace 6
Women's Rest Room 5
Men's Rest Room 4
Bar 3
Lobby 2
Down to Level 04 1

Level 06 [+54’]



Scale: 1/32” = 1’-0”

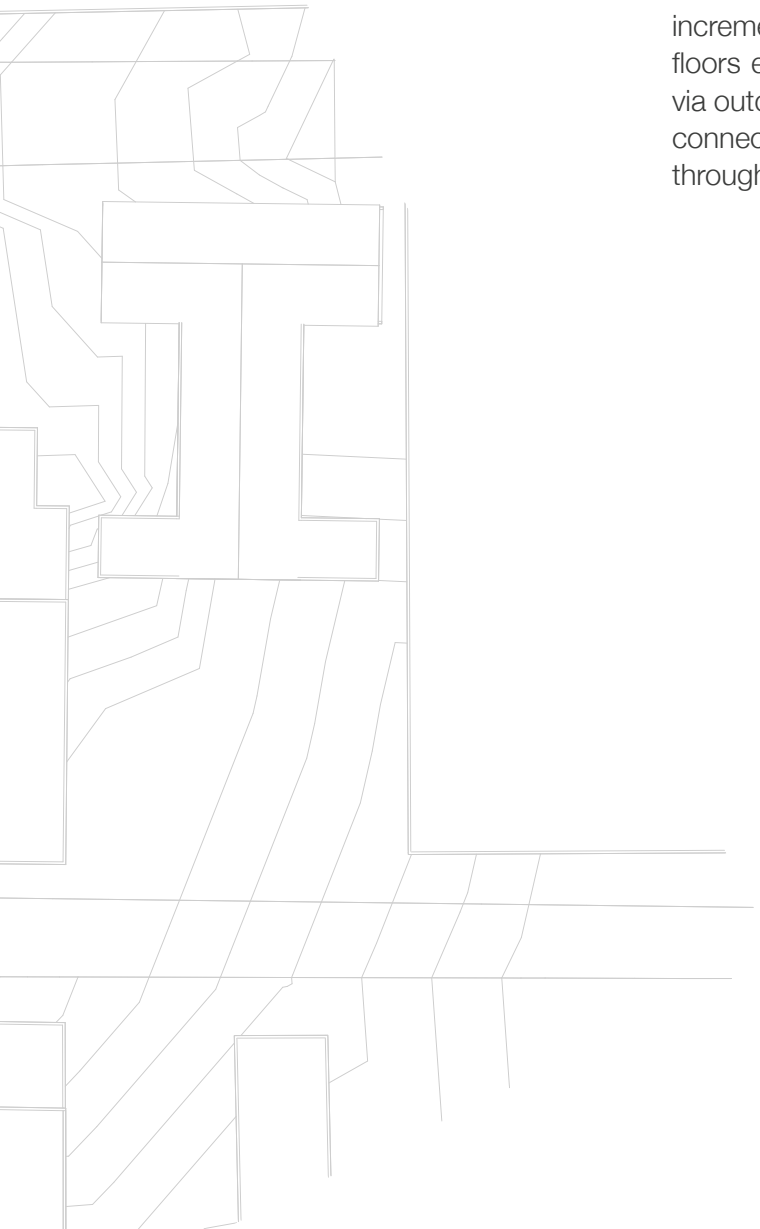


The balcony can be accessed by their stair on either side of the auditorium or by elevator. A suspended walkway connects the balcony users with a double stacked bathroom.

Women's Rest Room 5
Men's Rest Room 4
Elevators 3
Raised Walkway 2
Upper Balcony [196 seats] 1

Level 07 [+98’]

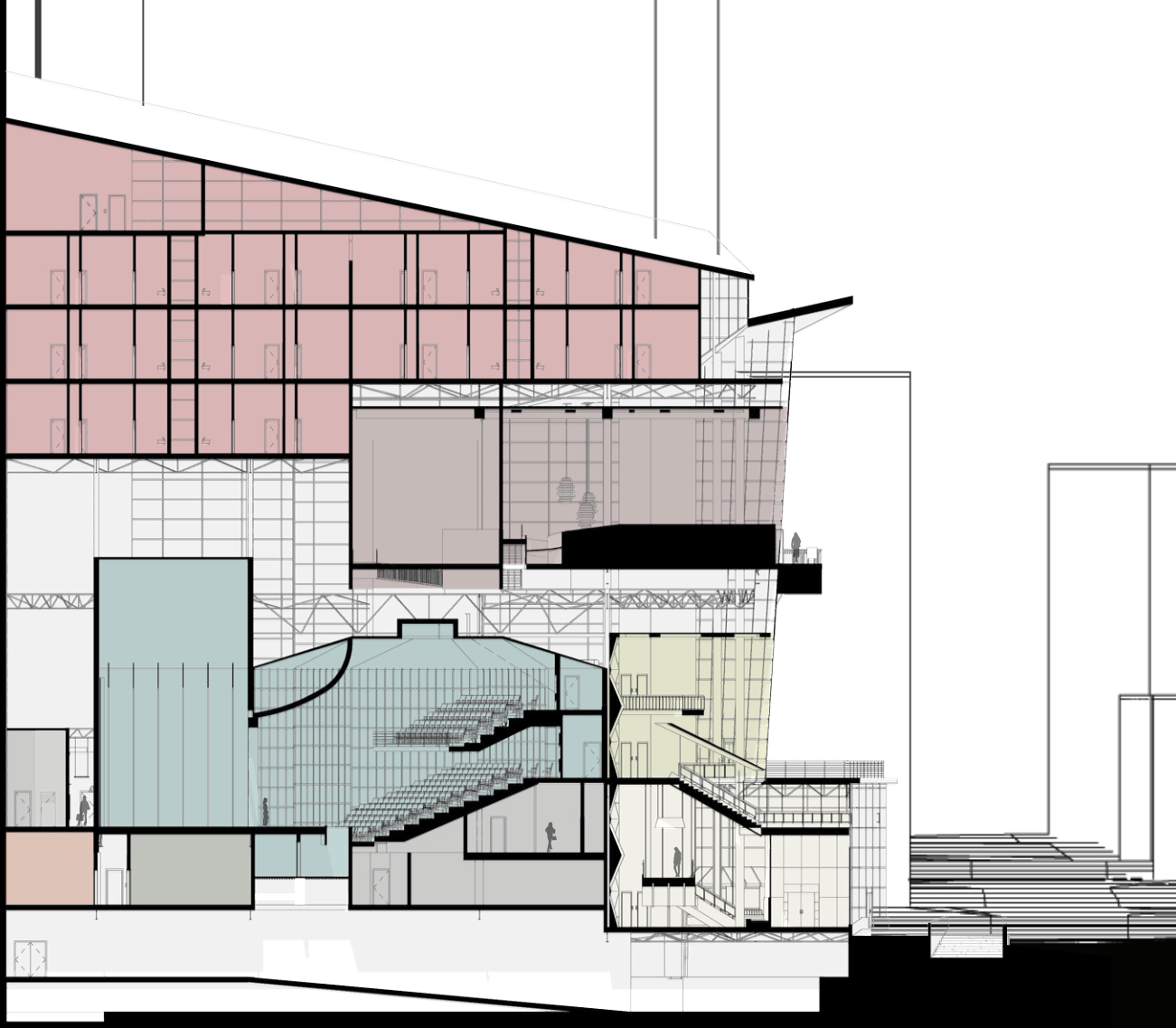
Scale: 1/32” = 1’-0”

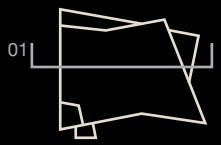


A restaurant is implemented about the theater space. The space is tiered in five foot increments, connected by curved ramps. The floors extrude from the interior to the exterior via outdoor seating patios. The patios are also connected by stairs to allow for fluid movement throughout the space.

Ramp up +5' Typ. 8
Flytower Below 7
Rooftop Seating Typ. 6
Walk-in Cooler & Storage 5
Kitchen 4
Elevators 3
Restaraunt 2
Rest Rooms 1

Section 1





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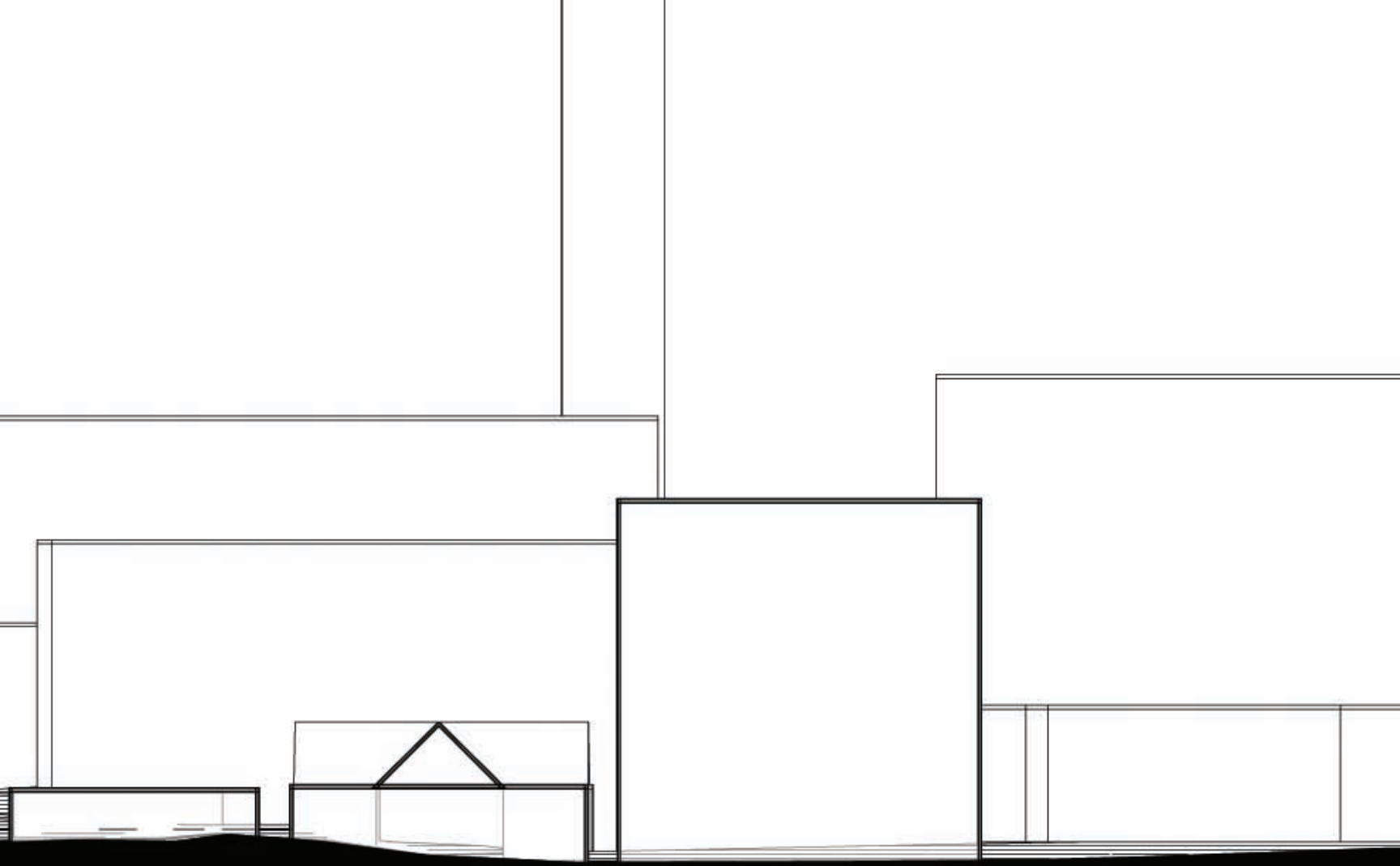
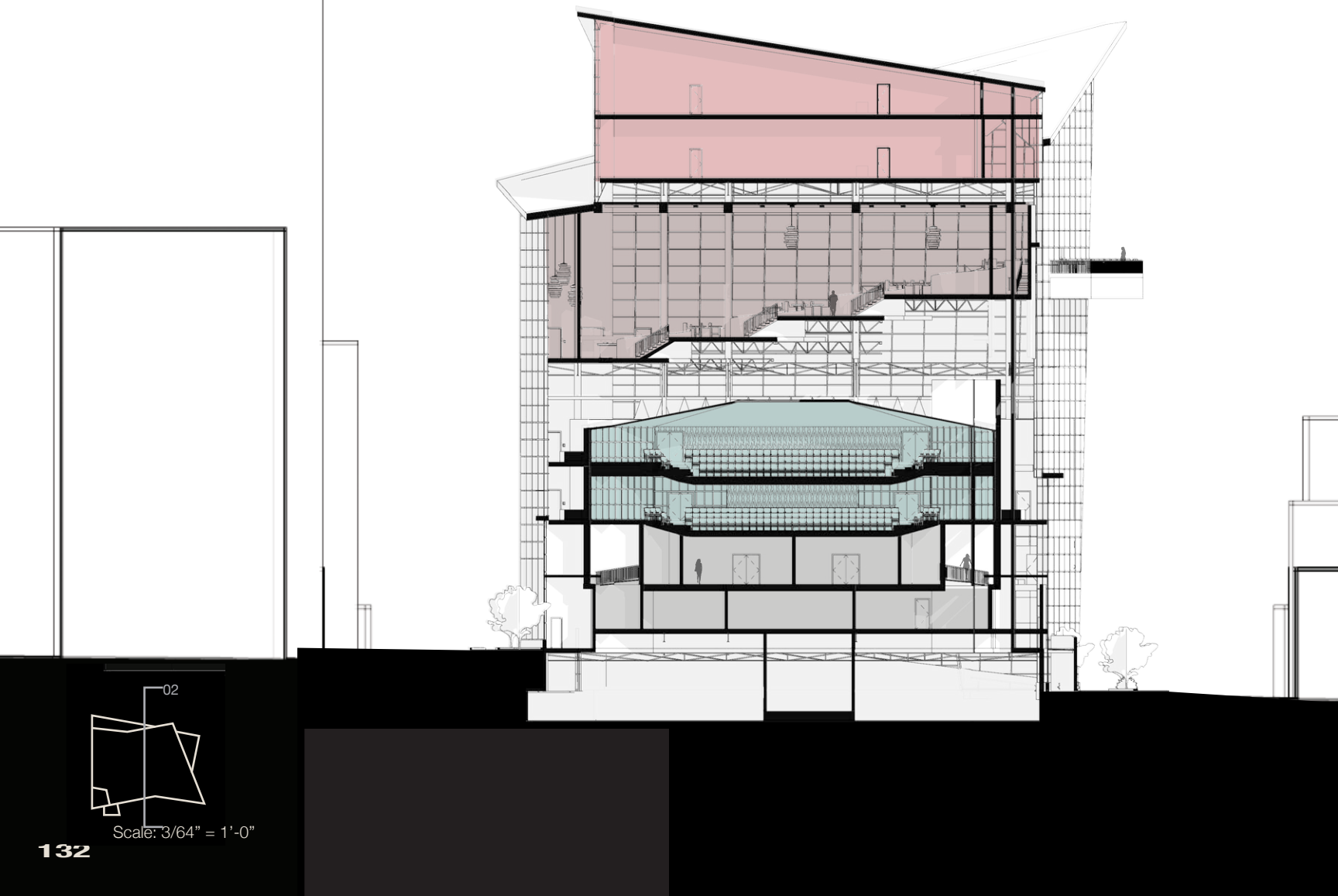


Section 2



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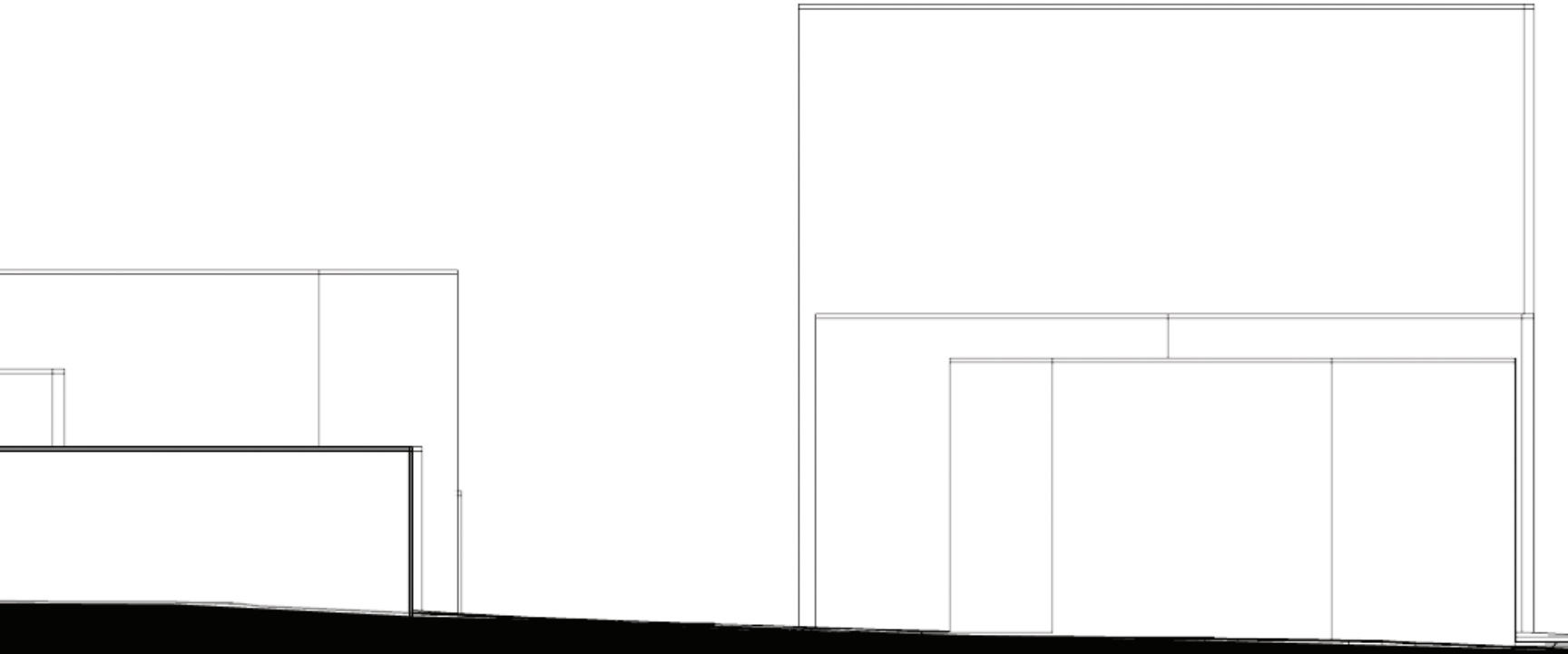
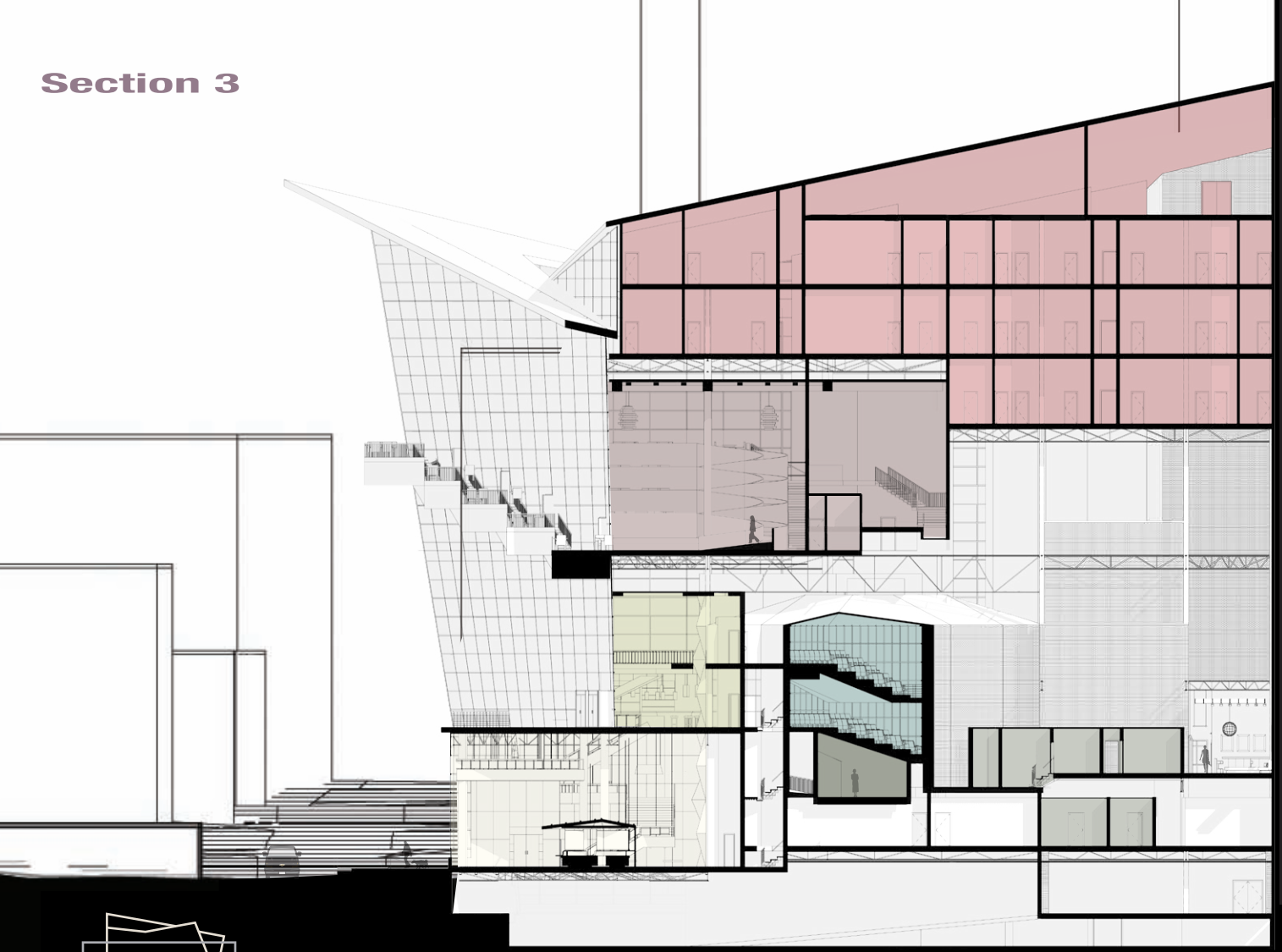
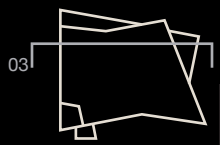


Section 3





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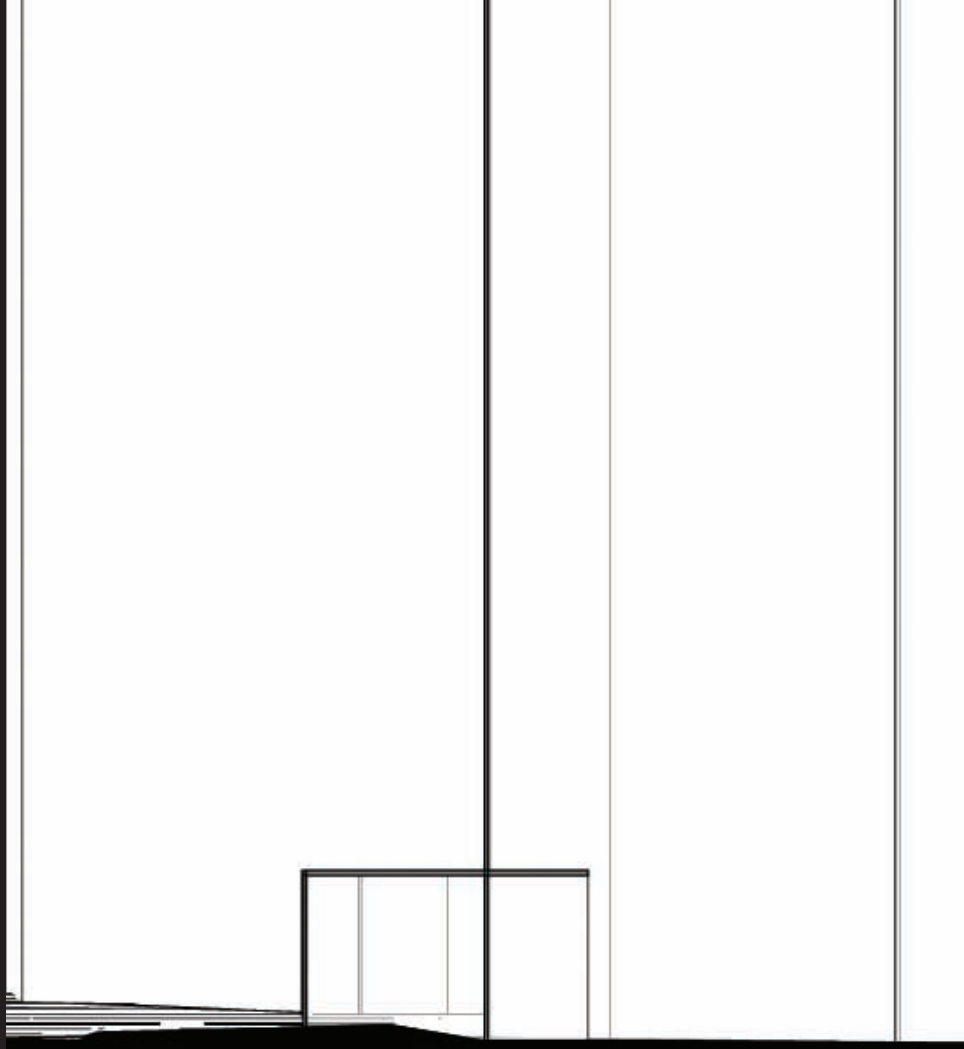
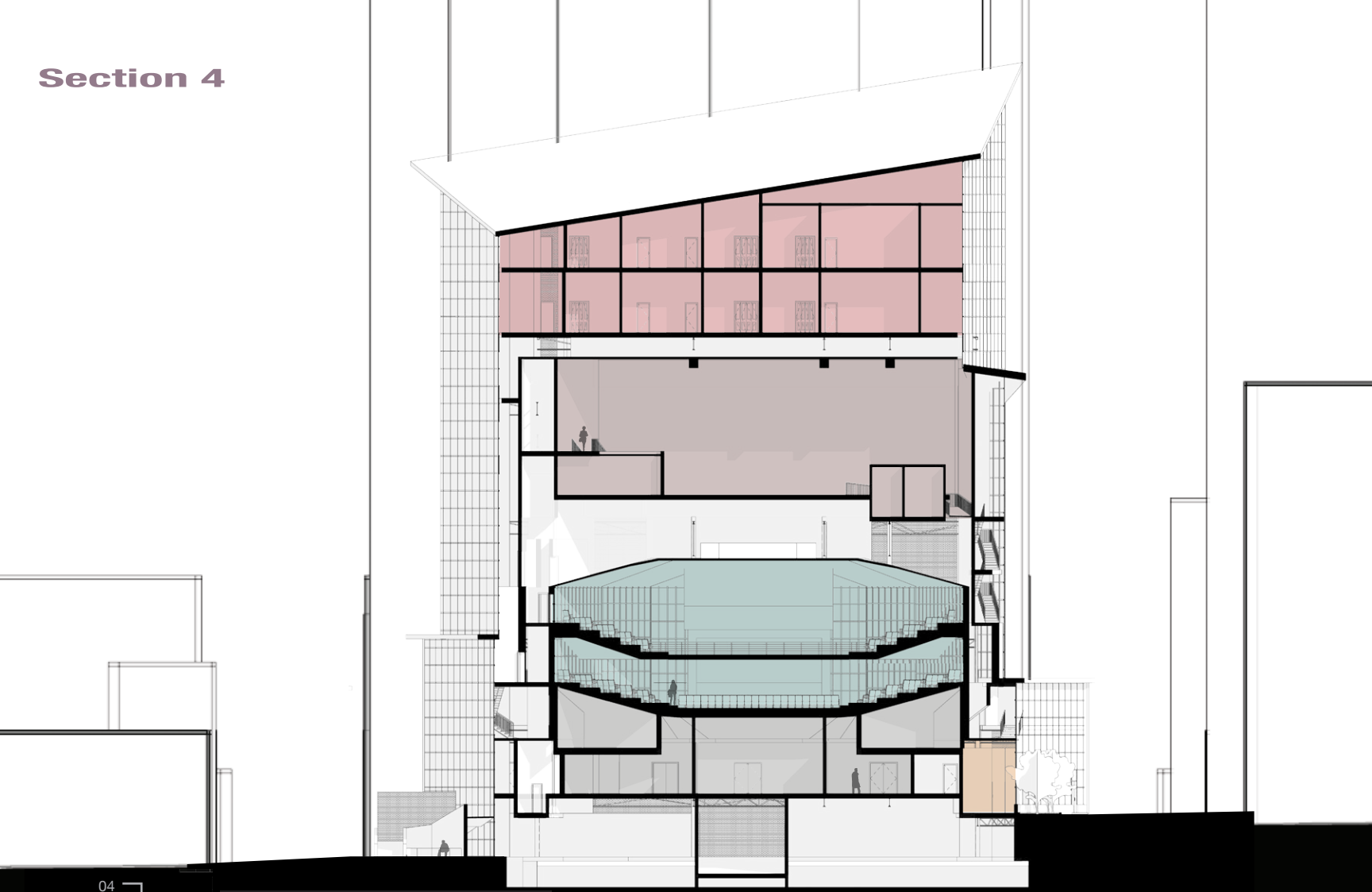
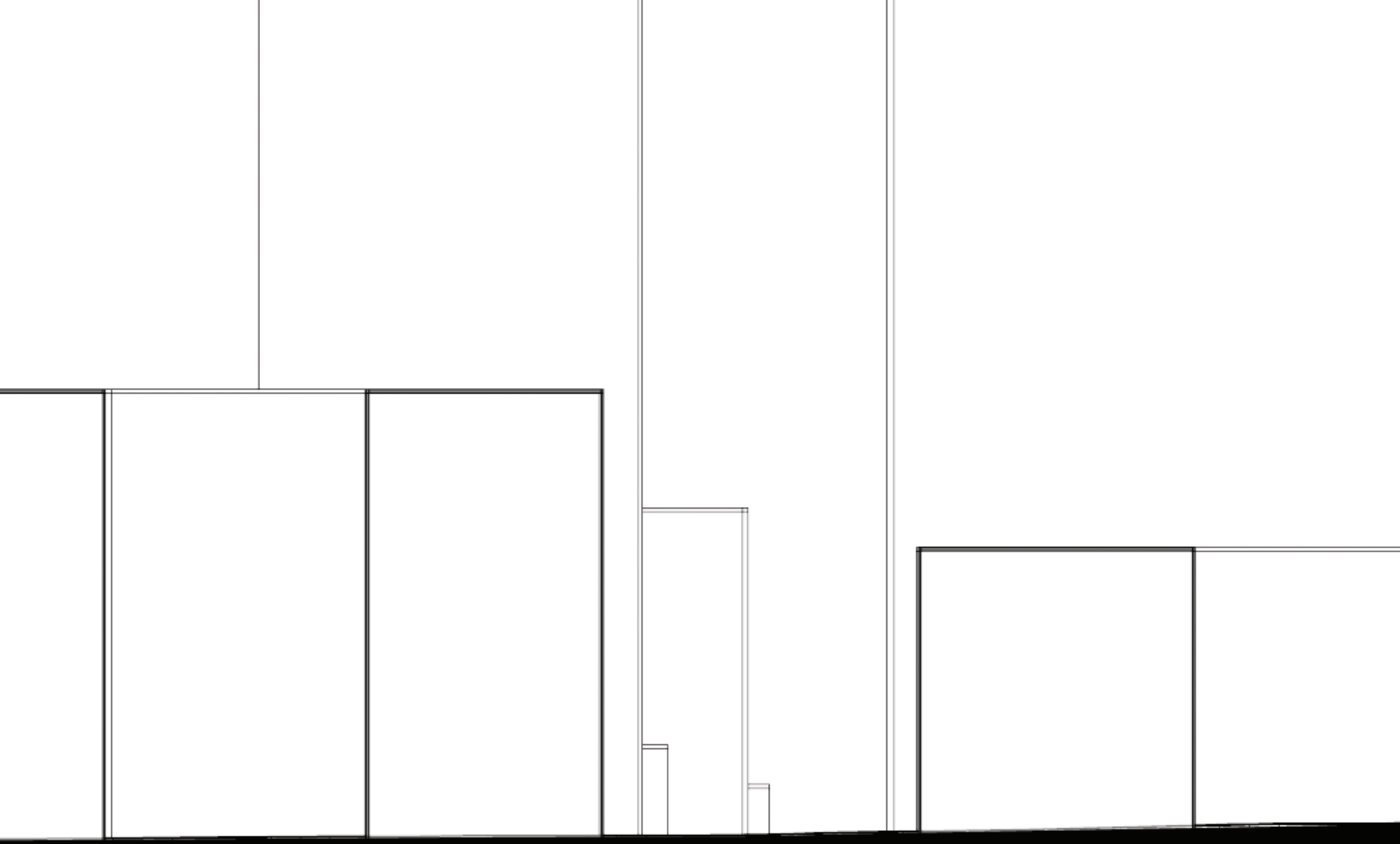


Section 4

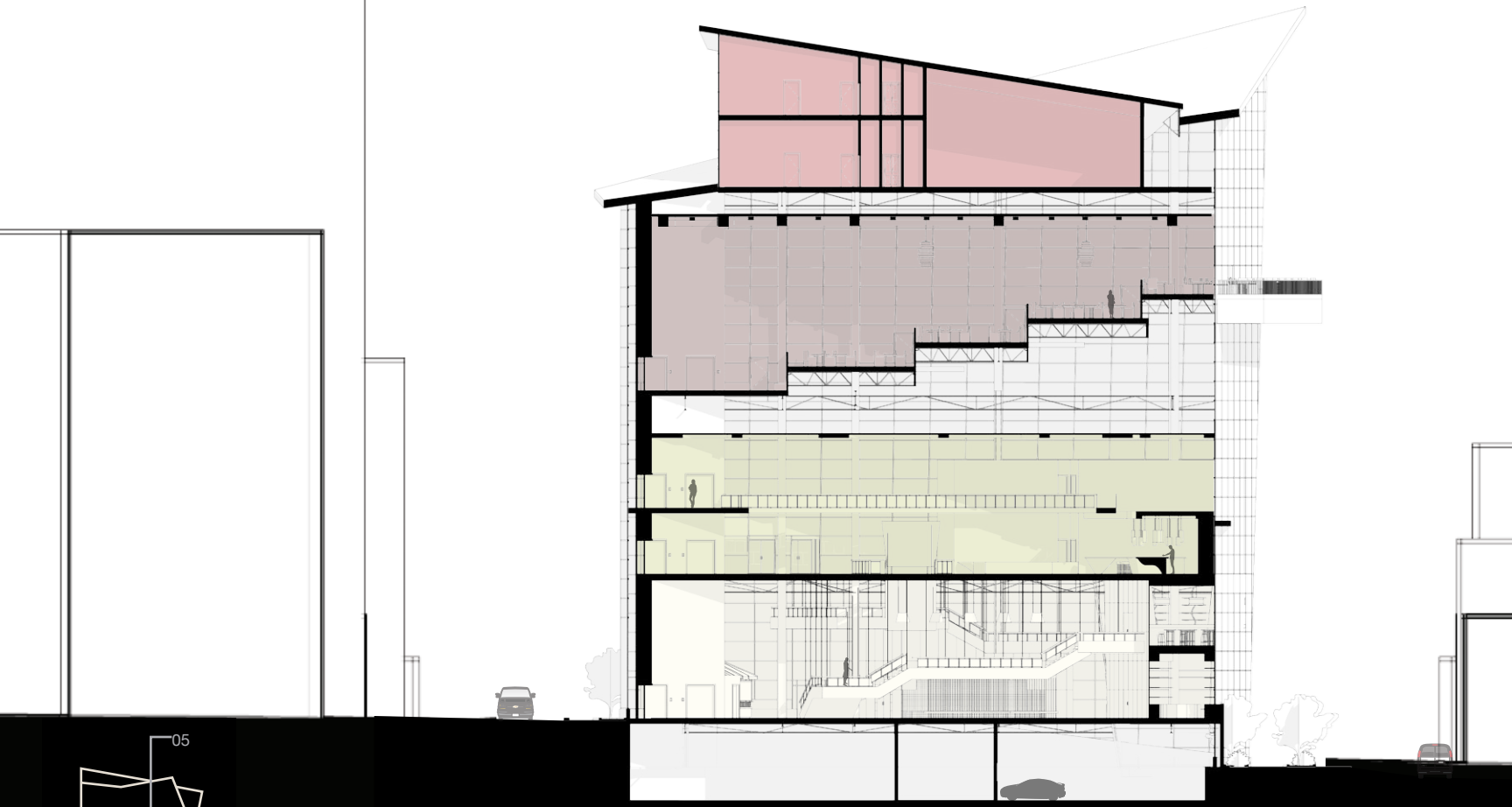


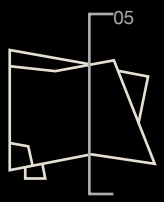
04

Scale: 3/64” = 1’-0”

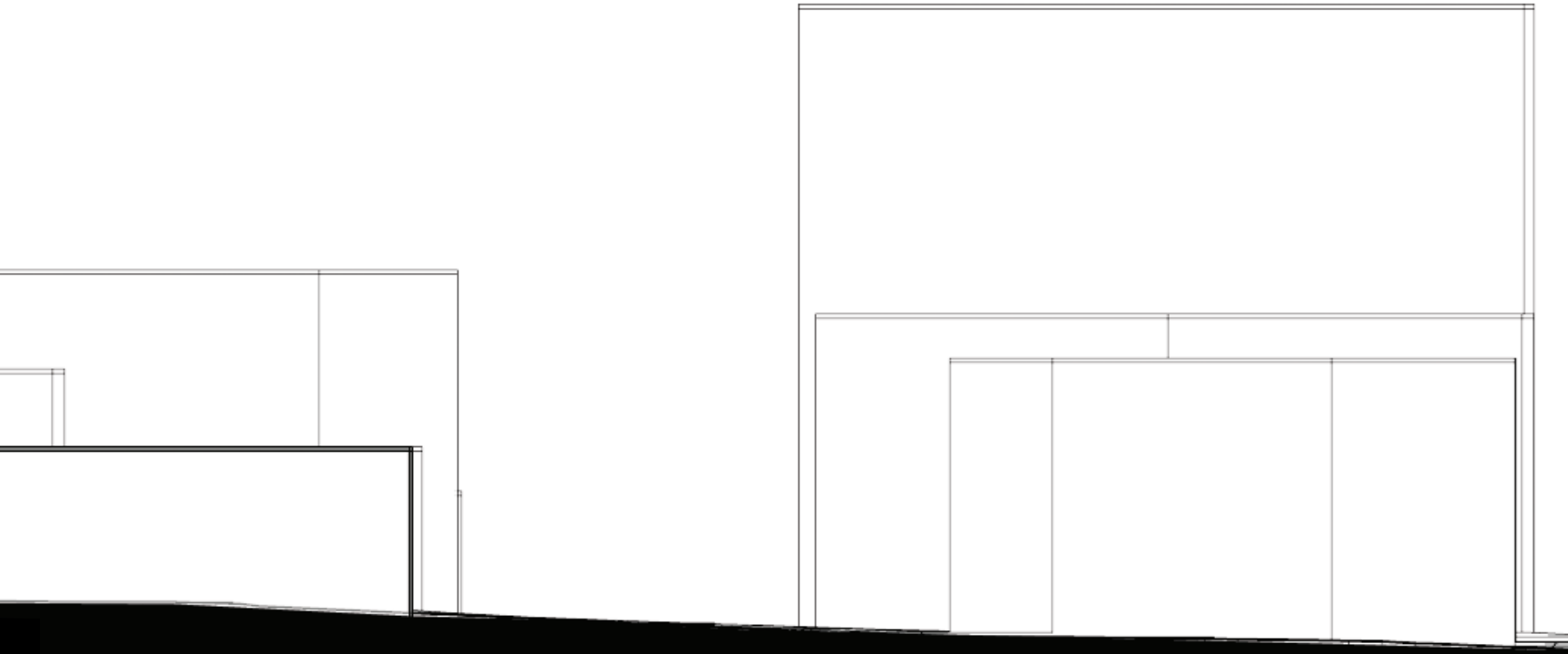


Section 5

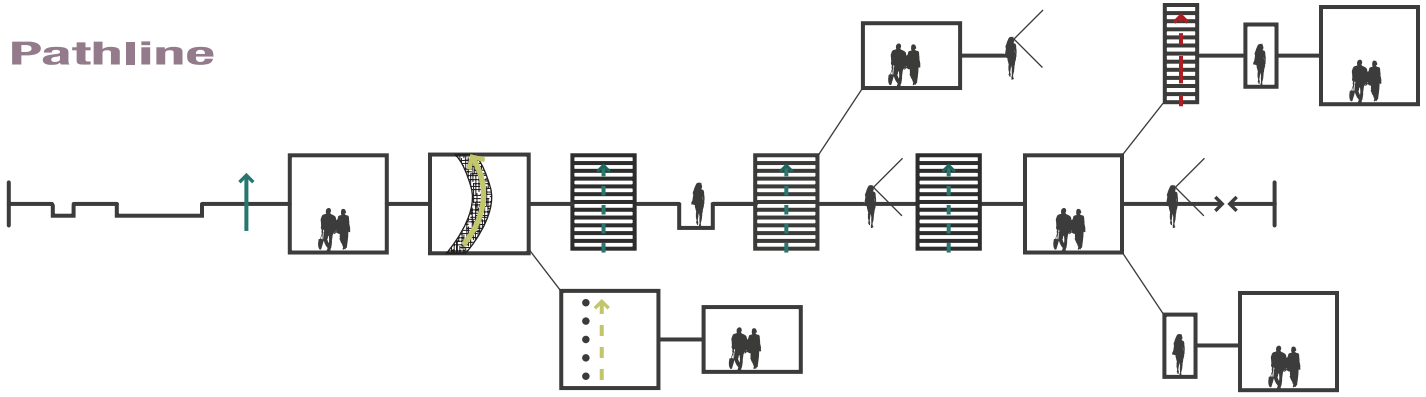




Scale: 3/64” = 1’-0”

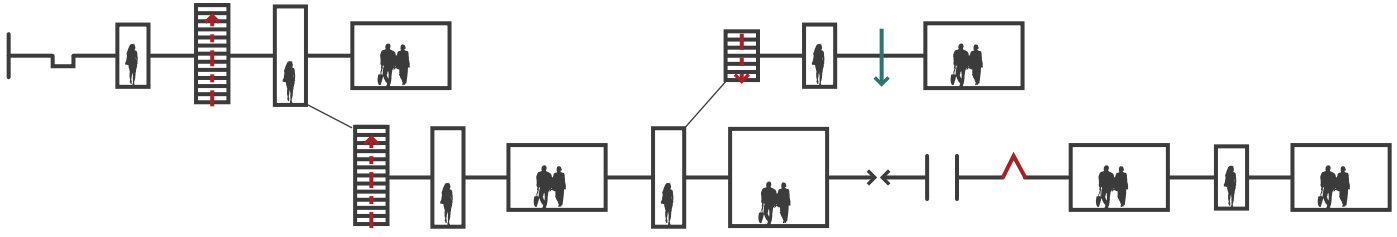


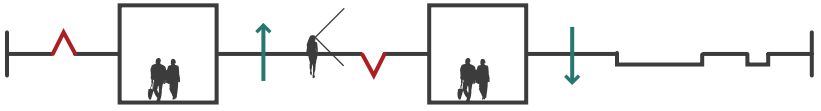
Public Pathline



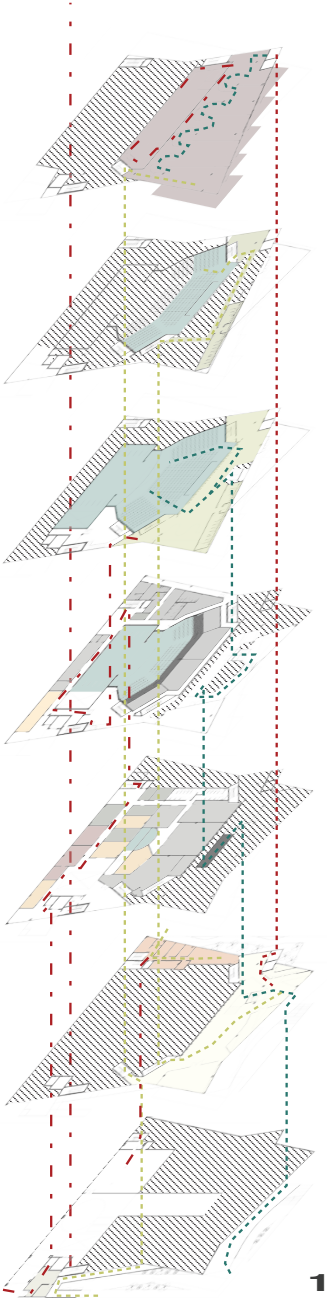
In order to understand the spatial experience of the path throughout the building and the difference between the path the public use and the path the private users use two different pathlines were created.

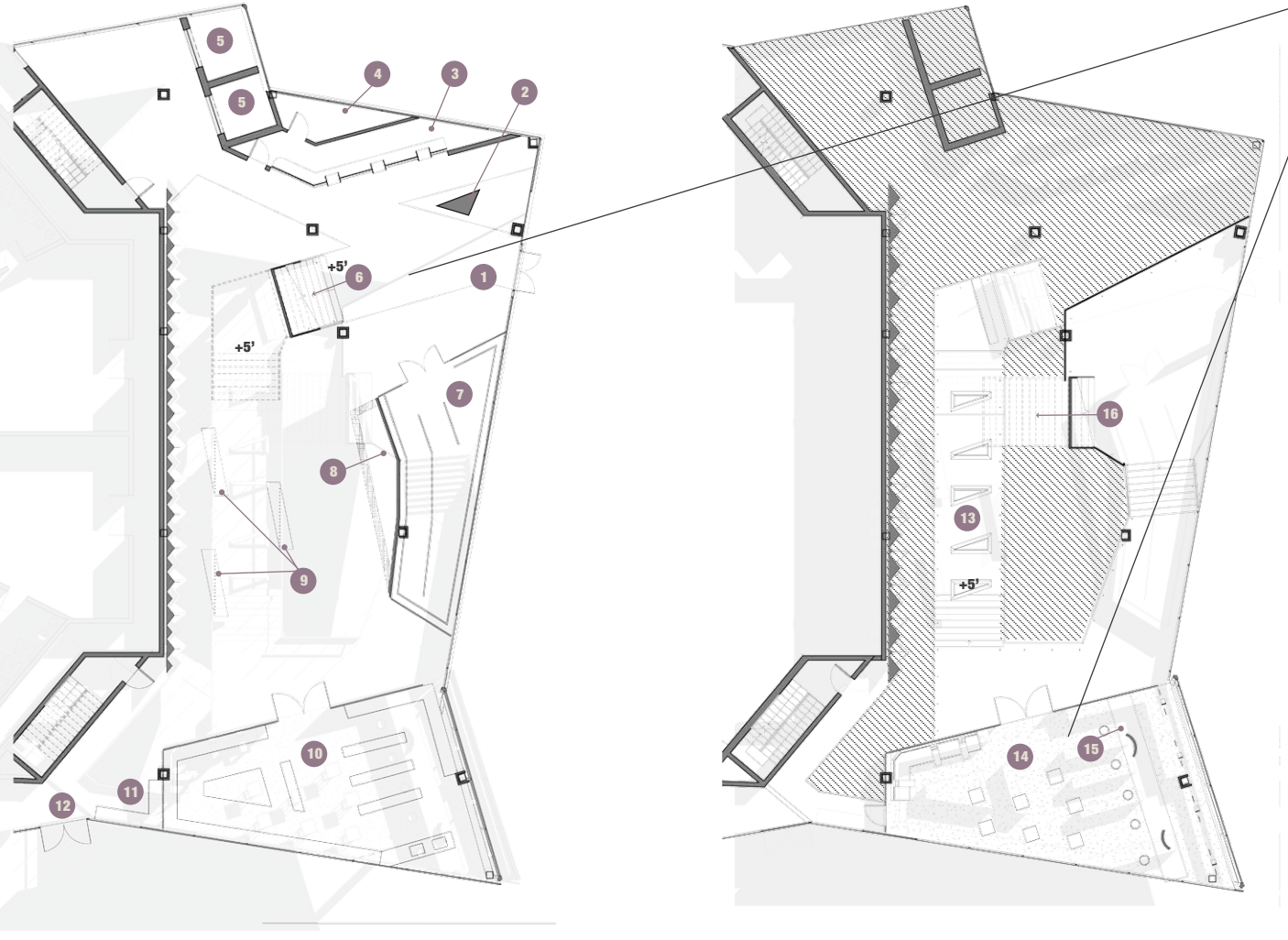
Private Pathline





To understand the connection between floors an extruded floor plan diagram was created. This shows the pace of progression throughout the building as well as the pace of the vertical movement.




5
5
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+5'
6
1
+5'
7
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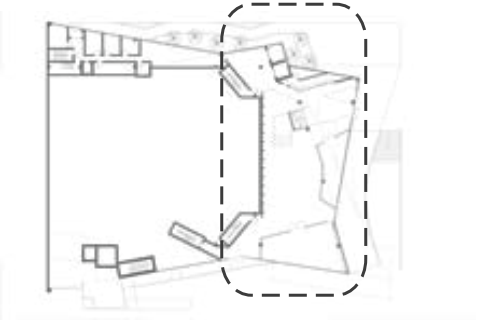
9
10
11
12
16
13
+5'
14
15

Entrance



Up to Lobby 16

+5' Bar 15

VIP Room 14

Suspended Walkway 13

Exit 12

Bench 11

Retail 10

Hanging Bench 9

Water Fountain 8

Coat Check 7

Up to Suspended Walkway 6

Elevators 5

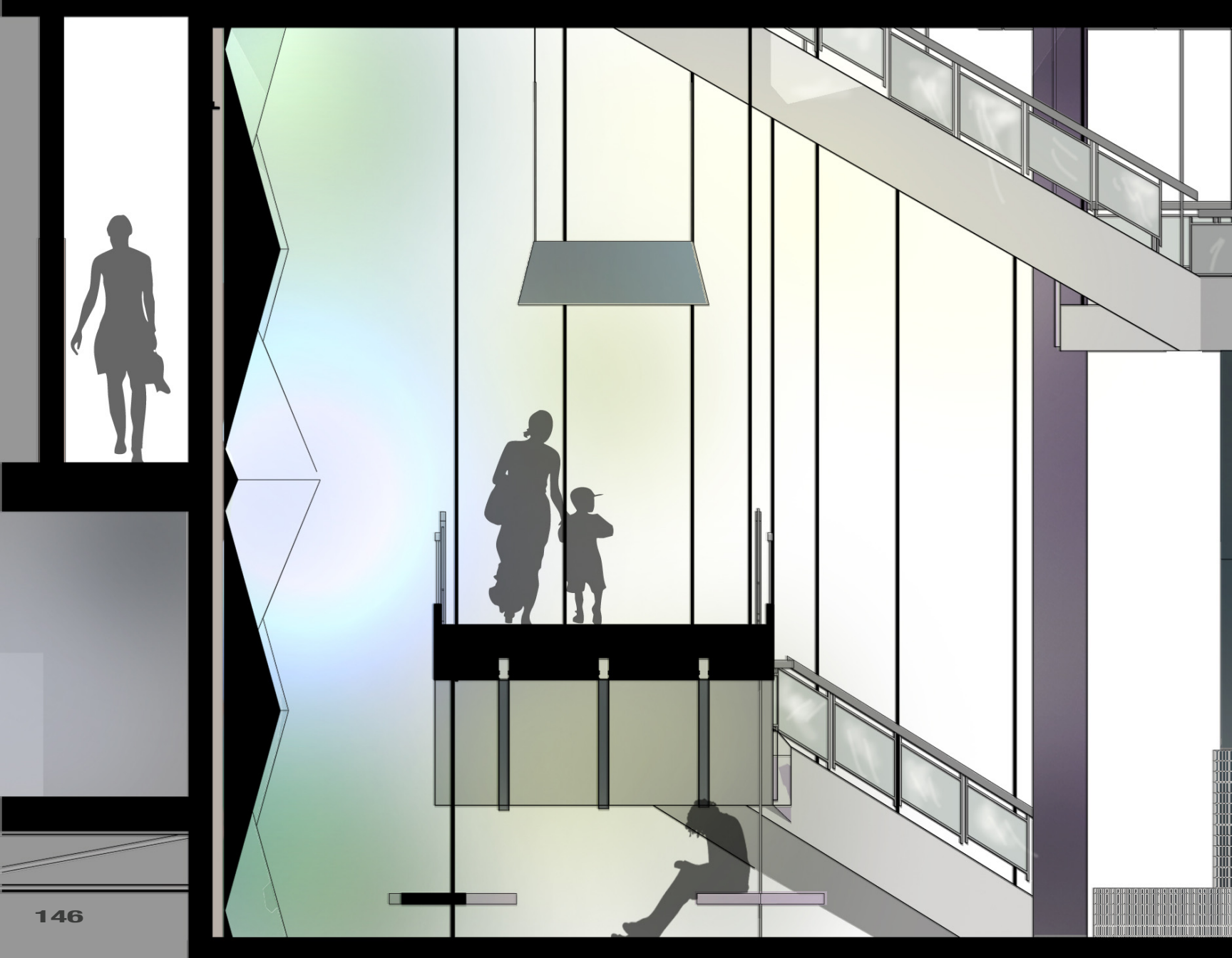
Box Office Manager 4

Box Office 3

Performance Display/Kiosk 2

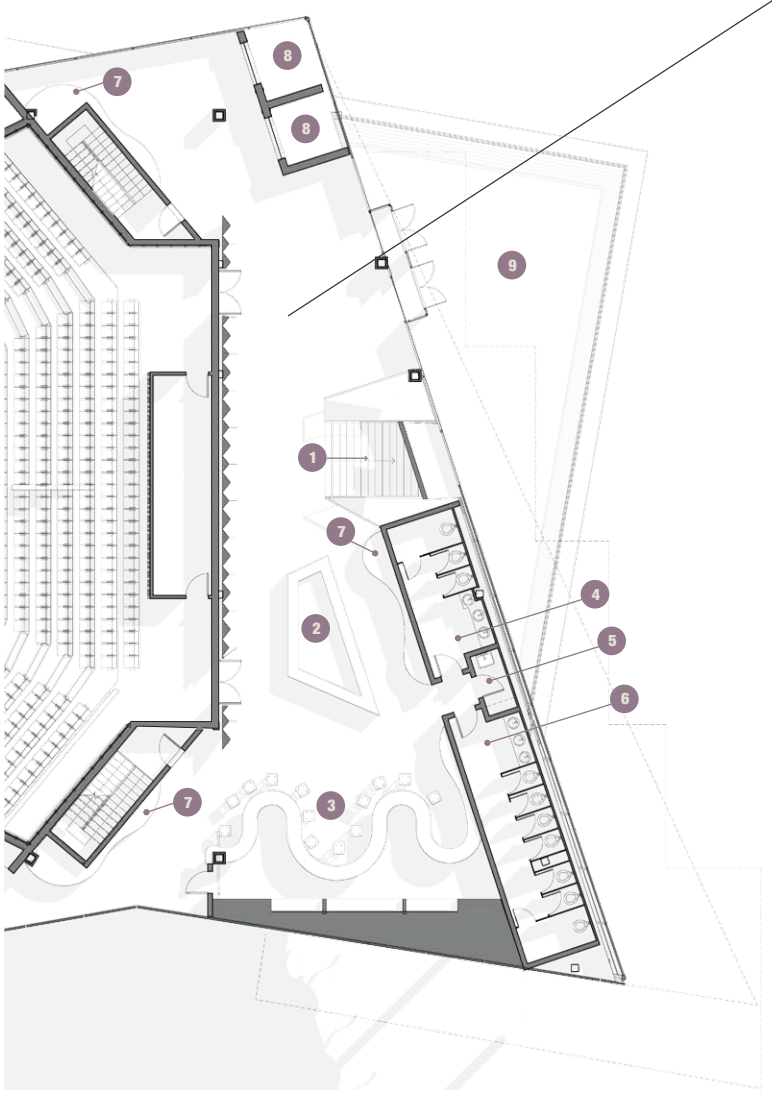
Entrance 1

Box Office Perspective



Box Office Section

VIP Room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8
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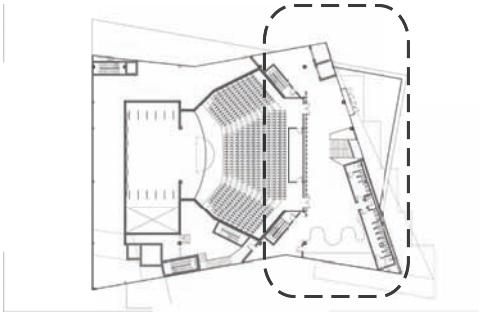
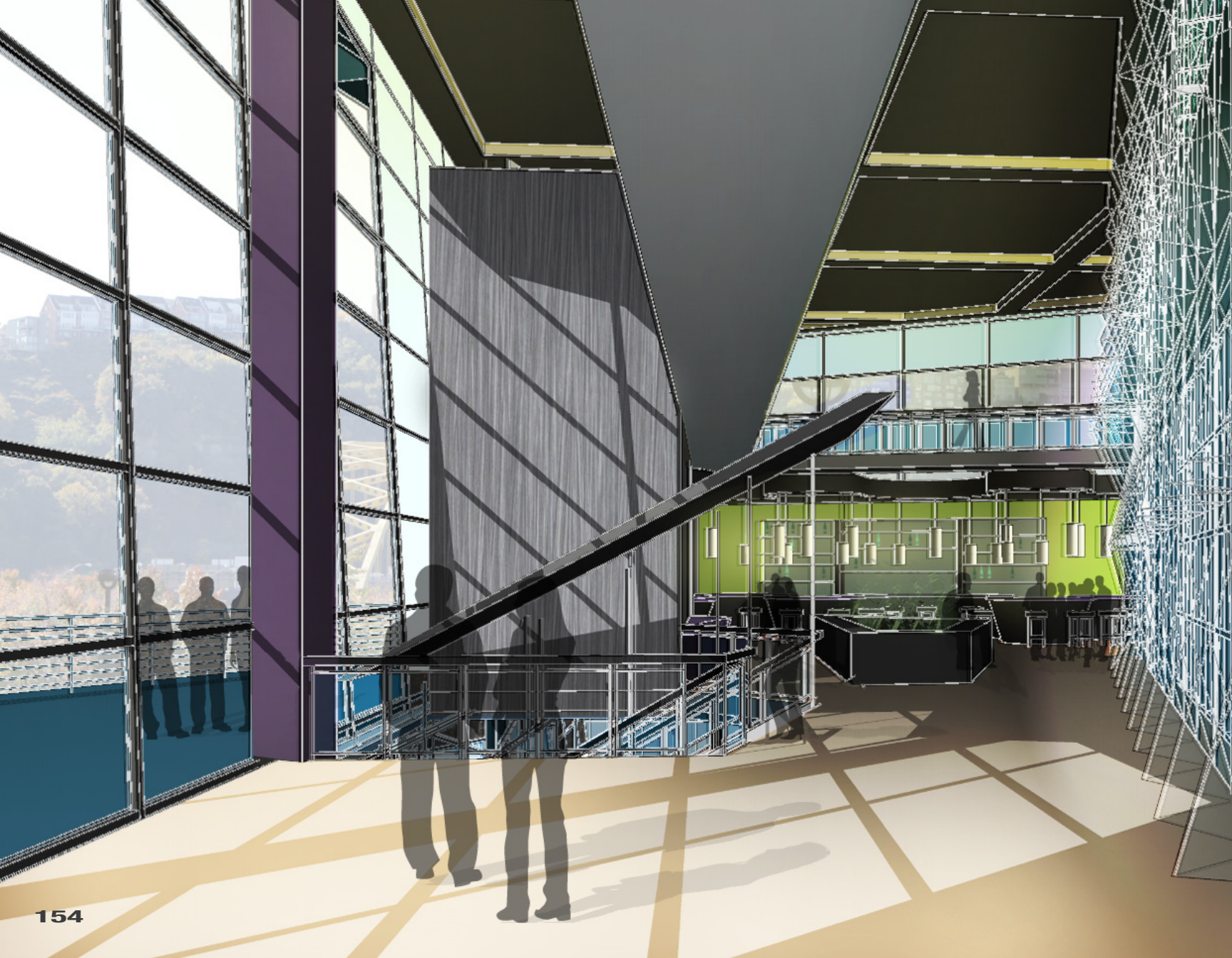
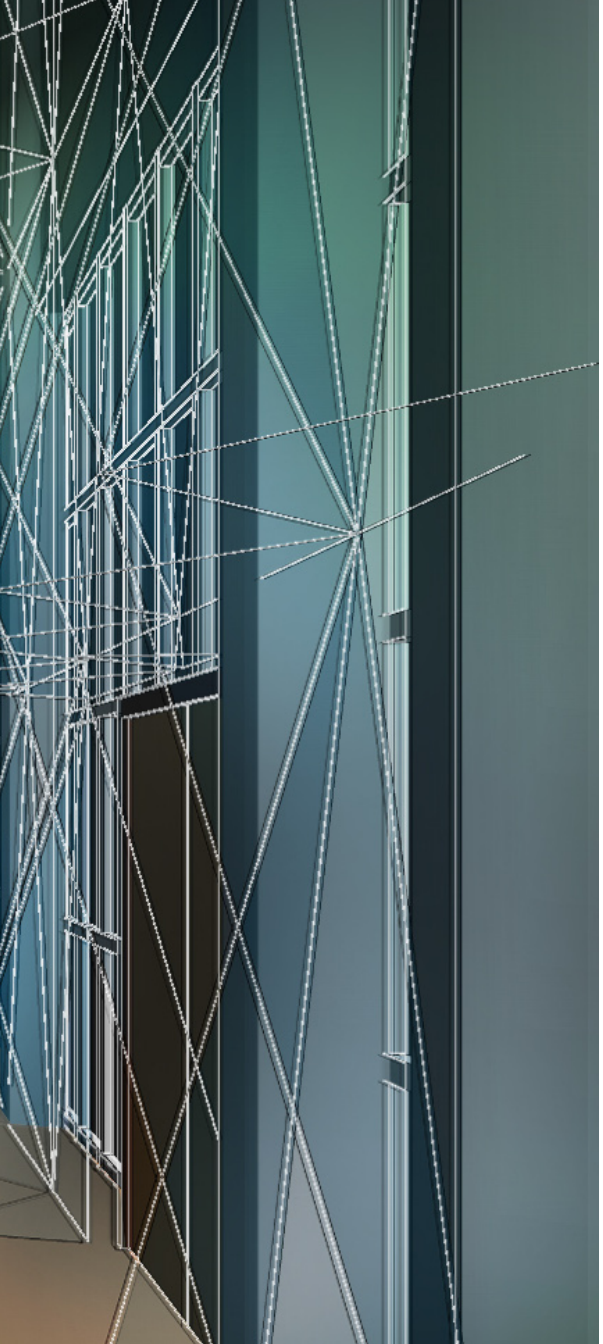
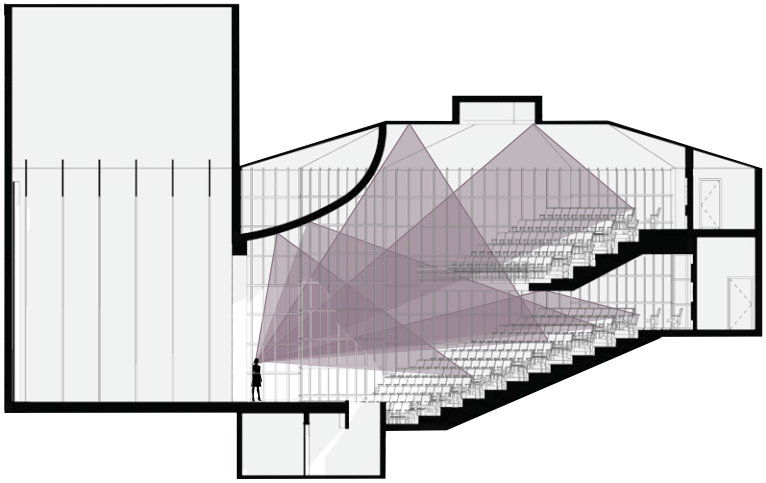


Lobby

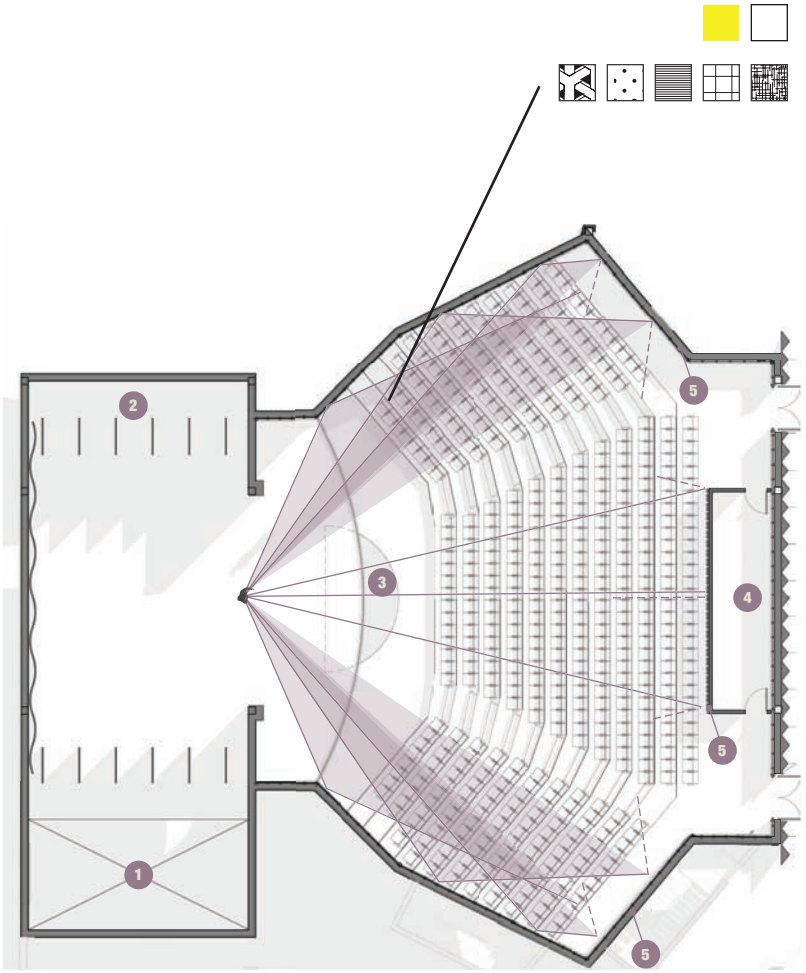
9 Outdoor Patio
8 Elevator
7 Bench
6 Women's Rest Room
5 Housekeeping
4 Men's Rest Room
3 Bar
2 Planter/Bench
1 Down to Entrance



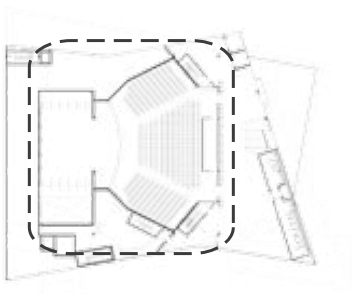




Scale: 1/16” = 1’-0”



Scale: 1/32” = 1’-0”



Theater

The Theater space was designed for dance and musical theater. The space can hold 557 seats in the main auditorium and 196 seats in the balcony. Acoustical calculations and diagrams were made to insure that proper acoustical reverberation times were in place for the type of theater. The space is enclosed in panels, with acoustical panels on the back wall.

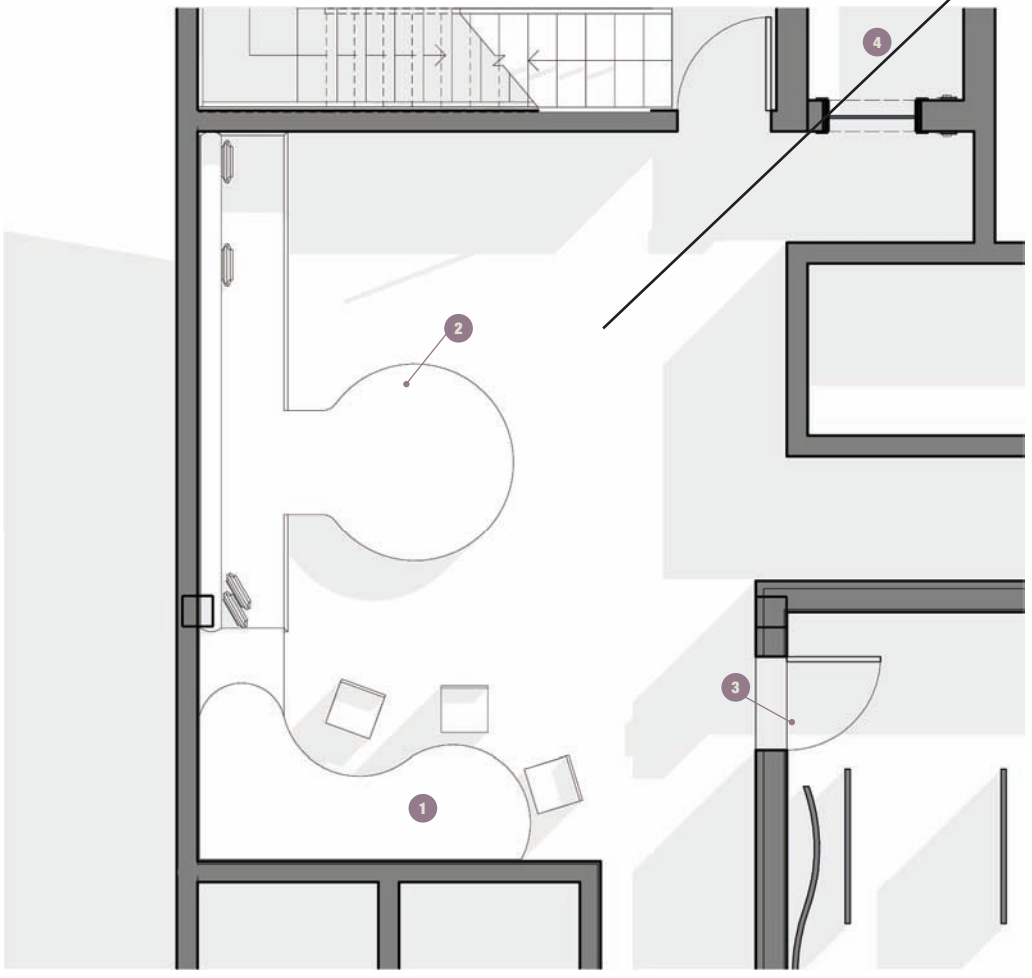
Sound Absorbing Material 5

Sound/Lighting/Projection Room 4

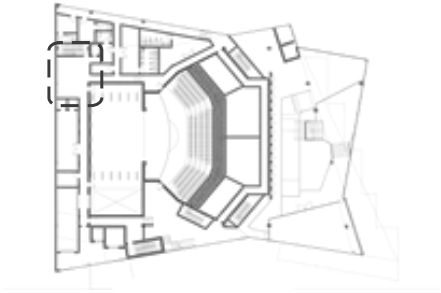
Orchestra Pit 3

Stage/backstage 2

Lift 1



Scale: 1/4” = 1’-0”



Green Room

The green room is the backstage lounge for the cast and crew. This is the area where they go to relax and hang out when not working or acting.

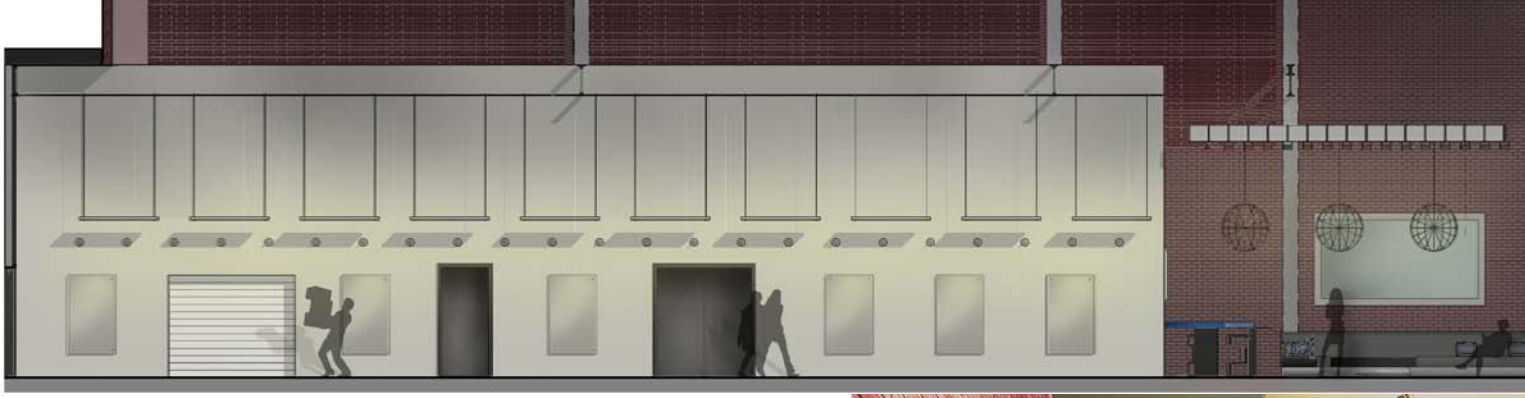
Elevator 4

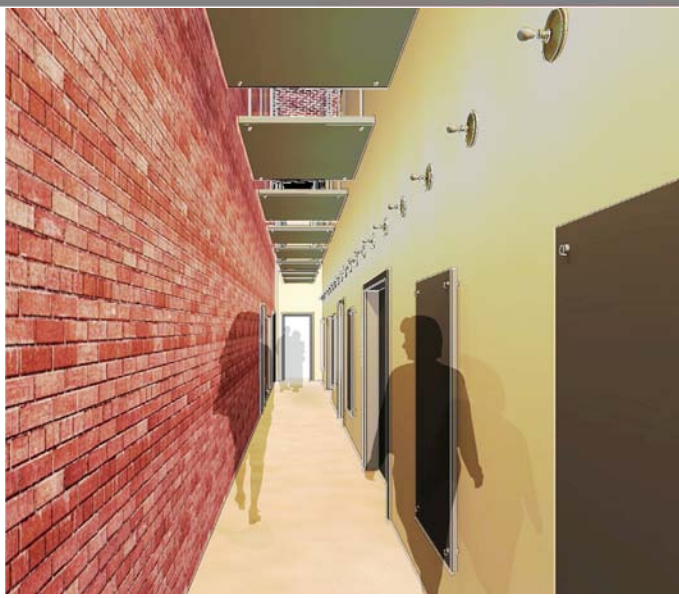
Door to Backstage 3

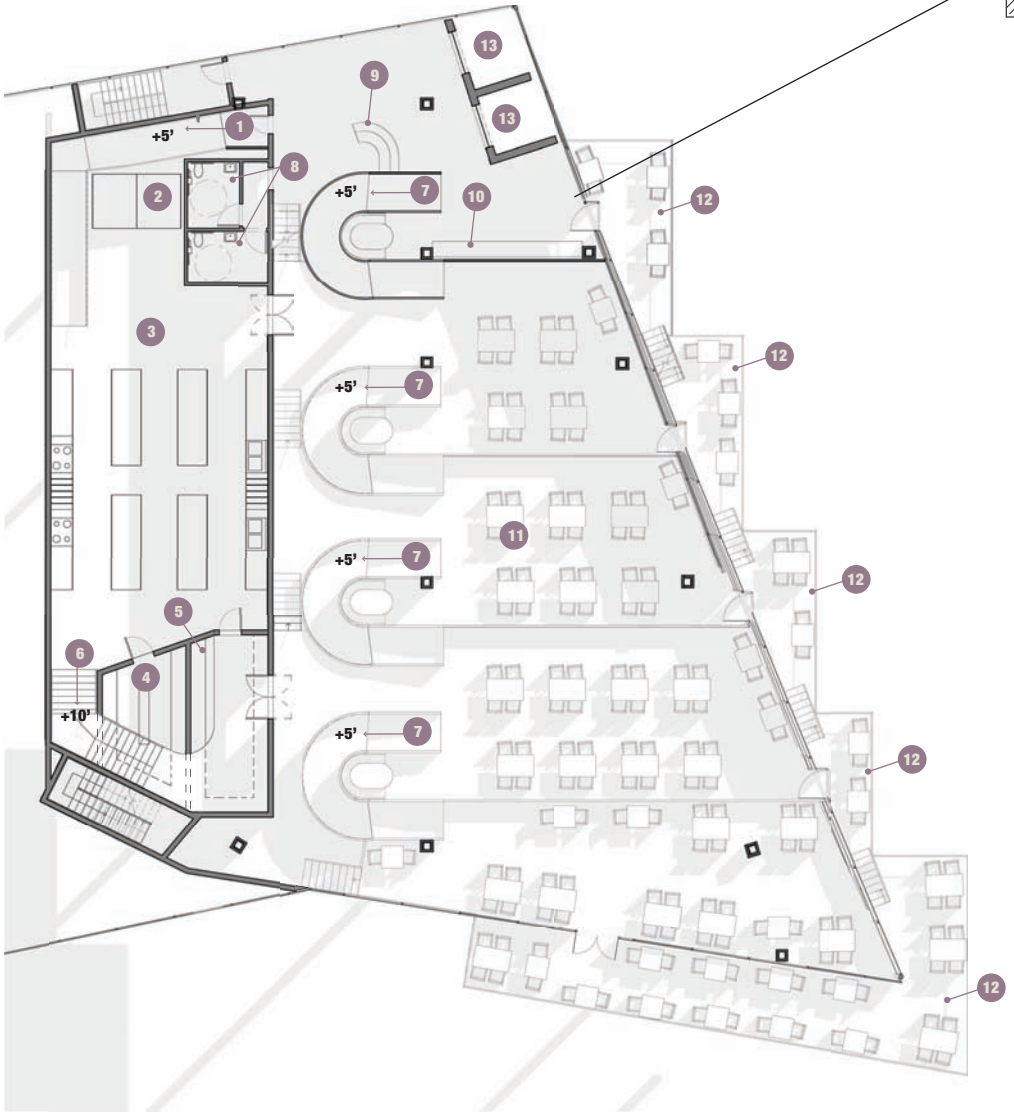
Couch/Bench 2

Table 1

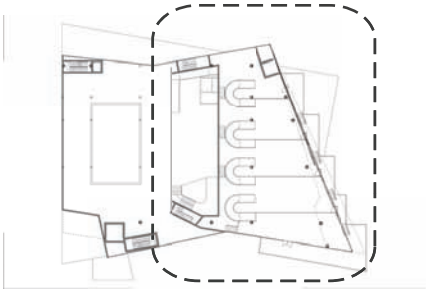

Geo. M. Cohan's
WHISPERING
FRIENDS







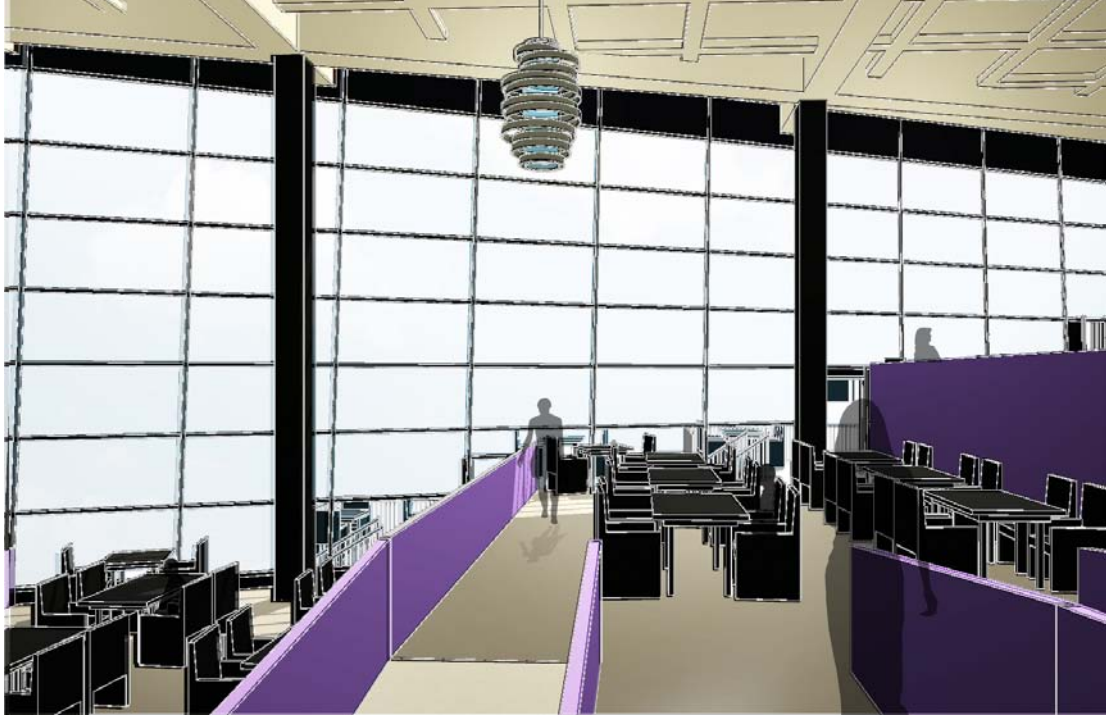
Scale: 1/16" = 1'-0"

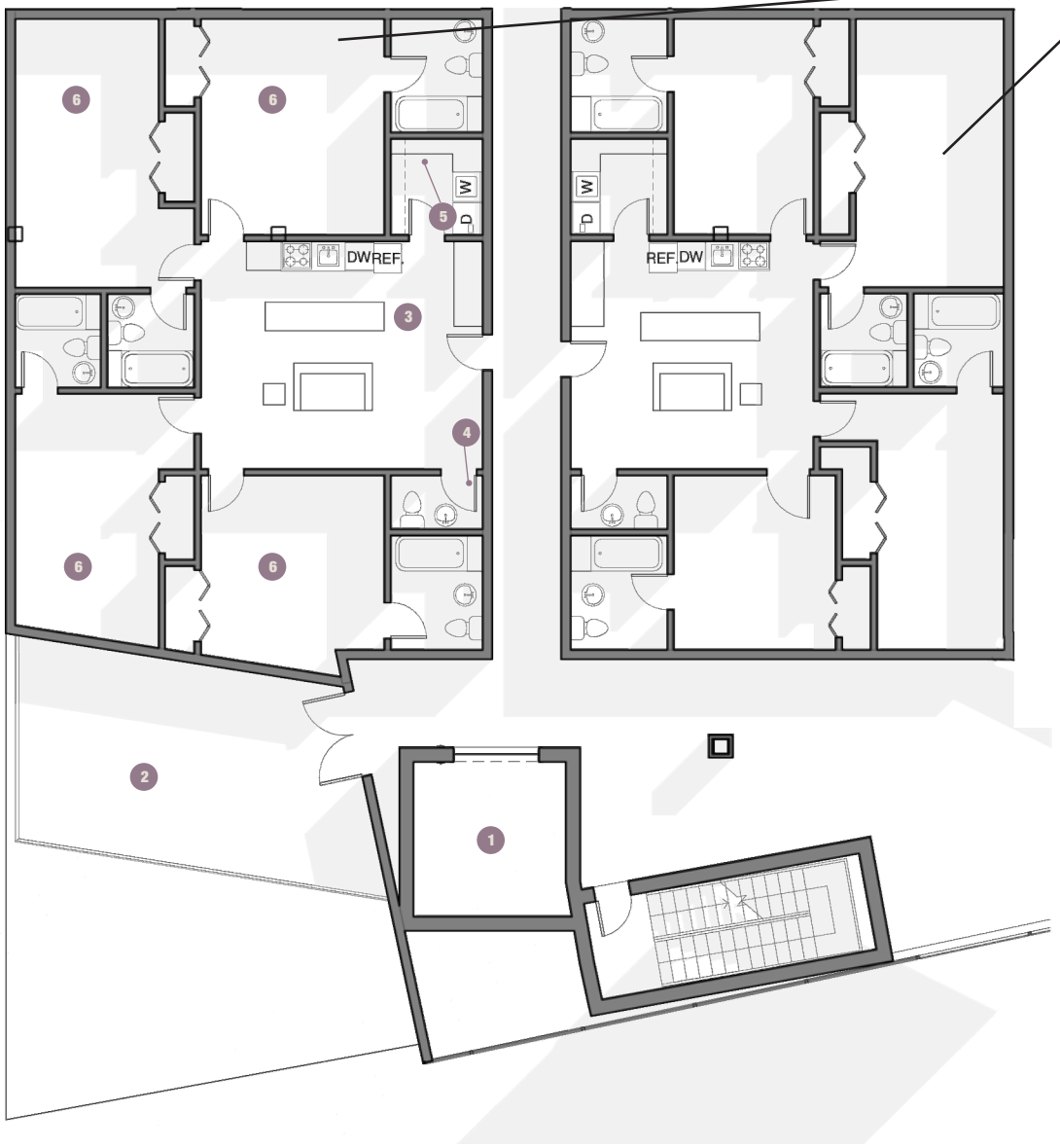


Restaurant

The restaurant can hold 150 people inside and outside on the balconies. Special seating in the middle of the circular ramp allows for the best usage of space. The kitchen behind has a food storage center and walk in freezer as well as places for recycling.

13 Elevator
12 Outdoor Seating
11 Indoor Seating
10 Waiting Booth
9 Reception Desk
8 Rest Room
7 Ramp up to next Level
6 Up to 3rd Level Seating
5 Walk-in Cooler
4 Food Storage
3 Kitchen
2 Recycling Storage
1 Up to Kitchen





Scale: 1/8” = 1’-0”

Apartments

Above the theater and restaurant temporary housing for the cast and crew of the traveling theater company is implemented. A typical living apartment is in four bedroom units where four people share a living room and kitchen but have their own private bathrooms.

Private Bedroom with Private Bath 6

Laundry Room 5

Half Bath 4

Entrance/Living Room/Kitchen 3

Community Balcony 2

Elevator 1

End Notes

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[10] Antonio Camurri, et al., “Recognizing emotion from dance movement: Comparison of spectator recognition and automated techniques.” International Journal of Human-Computer Studies 59.1-2 (2003): 213-225.

[11] Kent C. Bloomer, et al. Body, Memory, and Architecture (New Haven: Yale University Press, 1977)

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Images

Fig.1 Laban_Effort. Digital image. Liwei Zhao and Laban Movement Analysis. A Nice Gesture. Web. 9 Jan. 2012. <http://jeroenarendsen.nl/2007/01/liwei-zhao-and-laban-movement-analysis/>.

Fig. 2 Schneider, Claude. Dance_12. Digital image. Claude Schneider Photography. Web. 9 Jan. 2012. <http://www.claude-schneider.com/photography/#portfolio&p=dance&i=12>.

Fig. 3 Schneider, Claude. Dance_15. Digital image. Claude Schneider Photography. Web. 9 Jan. 2012. <http://www.claude-schneider.com/photography/#portfolio&p=dance&i=15>.

Fig. 4 Schneider, Claude. Dance_4. Digital image. Claude Schneider Photography. Web. 9 Jan. 2012. <http://www.claude-schneider.com/photography/#portfolio&p=dance&i=4>.

Fig. 5 Dark_wood_floor_by_chubbylesbian. Digital Image. Integrity Finishes. Web. 11 Jan. 2012. < http://integrityfinishes.net/?attachment_id=256>

Fig. 6 17-neat-concrete-texture17. Digital Image. Web. 11 Jan. 2012. <http://blueblots.com/wp-content/uploads/2010/05/17-neat-concrete-texture17.jpg>

Fig. 7 Soap_stone. Digital Image. Bellinzoni. Web. 11 Jan. 2012. <http://www.bellinzoni.eu/en/other-stones-slate-sandstone-

flagstone-travertine-onyx>

Fig. 8 Carpet-in-ventura. Digital Image. Flooring Ventura. Web. <http://www.flooringventura.com/carpet-ventura/>

Fig. 9 Bricks1. Digital Image. Web. <http://www.edmasonry.com/images/bricks1.jpeg>

Fig. 10 Steel-metal-texture-titanium_369610. Digital Image. Photi. Freepik. Web. <http://www.freepik.com/free-photo/steel-metal-texture-titanium_232788.htm>

Fig. 11 Wright,%20Guggenheim%20Museum,%20interior. Digital Image. Anthony Carmen. Web. 6 Nov. 2011. <http://www.anthonycarmendesigns.com/2011/08/guggenheim-dress.html>

Fig. 12 Guggenheim_ny. Digital Image. Anthony Carmen. Web. 6 Nov. 2011. <http://www.anthonycarmendesigns.com/2011/08/guggenheim-dress.html>

Fig. 13

Fig. 14

Fig. 15

Fig. 16

Fig. 17

Fig. 18

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