
[Block]ing Out Rethinking the Void

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*This book is in loving memory of my
Grandfather:*

Ivan Leonard Gross

*After all of these years you are still my source of
courage and determination. Your memory will never be
forgotten.*



A special thanks to all of those that have helped me through this year pushing my ideas and thesis to new heights. Your encouragement and friendship helped make all of this possible.

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Abstract:

Alleys. A network that we have tried to hide in our urban environments is re-thought. The residual space between structures in urban environments goes largely unnoticed, yet consumes a large area of space. This thesis begins to unravel the nature and future roles of the residual space through investigation and new design. Realizing the depth of alleys reveals a new purpose, one that may begin to fill voids and add a new layer of discovery to our urban landscape. Through further exploration more can be understood about the alley and in turn we can begin to view them as places of destinations and means of travel.

Thesis Paper:

While viewing the urban landscape one will engage themselves in all that surrounds them. Subconsciously the individual sees the city in terms of its macro and micro environments, pondering the connections that link the city together. This thesis will begin studying the link between these two environments and the overall effect that the link has on the environment in which it is located. The link that is referred to is the urban block. An understanding of the urban block has the potential to stitch pieces of the urban landscape through architectural means.

The urban block makes its presence as the morphological unit of the fabric bonded by the streetscapes, alleys and people. The challenges surrounding the urban block stem from the multiple levels of a hierarchy. These levels begin at the city's urban fabric and flows into the positive and negative spaces that have been created. The block is a morphological unit of the city that has the ability to accommodate for the ever changing environment. Not only that, but the urban block has the potential to create change making it a unique study as it relates to the city. The introduction of a new block generates change in an urban setting, like a new prosthesis. To survive, the alternated node must find harmony within the contextual environment. How does the block achieve this harmony in an environment that is in constant change?

The context of the urban block breathes forth its own identity. The linking of multiple blocks can lead to the creation of a community's own identity. The emergence of a nurturing block can be engulfed by its surrounding predecessors becoming quickly lost. The block searches for its place as a vital location or destination in the development of the city as a prosthesis, designed to mend a loss

and repair a function. Through its development the urban block acts as a transforming prosthesis communicating through complex messages conveyed from the positive and negative spaces surrounding.

To begin an understanding of the ways in which this link works defining the subject is critical. The urban block is not a piece of architecture. The block is simply the makeup of plots of land. The block's geometry is molded from the streets of the city. More importantly though, the block creates order within the city. Defined by edges, the edge of the block are related to the street, the edge of the building to the perimeter, the edges of the interior; all components of order on the block are determined by the edge. The city itself is defined by the edges of the block; the "urban edge". Edges set up the boundaries and create order.

Traditional urban planning created order on blocks separating private, semi-private, and public spaces. There were relationships between the exterior and interior spaces within the blocks. It can be said that the block was divided into the edge and interior. On the edge was the public street front. The block's perimeter is directly connected to the street. On these edges there is an understanding of this as being a place for exchange. The design was controlled by a set of rules. These rules pertained to the order of the façade and relationships between the building and street. The interior of the block was at first distant from the street, in most cases hidden. Here there are a loose set of rules setting up a private space for those occupying the block. The interior could be transformed freely, there was little structure in its development. Eventually the block's interior opened up exposing itself to the street. The interior then began to play another role of being molded into semi-private or even public spaces. It is this morphology that makes the block a key link within the city.

The successful design of a block can be measured in the terms of longevity, connectivity, density, identity, public presence and a spark. Longevity, connectivity and density are all forms of quantifiable data that can be used to measure the success of a block. Going back to the constant change of cities, blocks

that are able to withstand the test of time are able to prove varying amounts of success through their own existence. Something that had been designed has been able to be adapted over time to still make its presence in the urban fabric and connection to the city. How well a block is designed affects its connectivity. As previously stated the block is formed by a network of streets, this calls for connections from the street to the block. A primary task of all urban architecture is the physical definition of streets and public spaces. Successful uses of the block provide connectivity from the street to the architecture and its relationship to the block. There are also situations where the success cannot be measured by any sort of statistics. The result of public presence, identity, and a spark cannot be measured by any means. These forms of data unique to that individual block and are the driving forces in it being successful. The spark is what makes that block special, it is undefined; a unique characteristic all its own and it can drive people towards it, pulling them in. This brings up the point of public presence. People give life to a city. We are its oxygen, activating the spaces, bringing it to life. The public presence can reach beyond city borders and state lines.

There is a statement often said, one that we hear often but do not put much thought into. "Yeah, it's just around the block." Whatever "it" is, you have to go around the block to find. What begins to be asked is what about through the block? What about down the alley? Architecture shares a unique relationship to the block. The development, design and layout of the architecture dictates how we engage the block. Too often do we as architects, planners and designers not think about this relationship. In most downtown districts, the architecture is pushed to the edges of the block. There is the notion of a street wall formed by the architectural edge of the block. What this does is limit the use that the block truly is capable of. The architecture blocks out the block. The human interaction on the average block is to walk around it, we do or cannot pass through it. By walking around the block, we are excluding the interior. If there even is an interior that has not already been consumed by building mass, it is kept hidden away from the pedes-

trian. The interior of a block is often an opportunity to create unique public spaces and to use the architecture as an organizing element for that space. With the current mindset of avoiding the interior and developing what is the perimeter it difficult to achieve the true potential of the block and spaces within the city.

The void spaces have a hidden potential. This is where we began to focus in on the negative spaces, which are referred to as voids. Continuing to study these voids it can be concluded that there are two types of voids, intentional and unintentional. Intentional voids can only be described exactly as the title says, intentional. These voids are the service drives to buildings, aka alleys, or developed block interiors, normally gardens, parking, or courtyards to name a few functions of these spaces. The unintentional spaces are defined as the vacant lots left behind after demolitions. These acquire the name unintentional only because at one point there was some form of a mass defining space and for whatever reasons; economical, political, or a time issue, building was old and demolished for various reasons. Whatever the reason may be the mass is gone with a void in its place which was not originally part of the plan of the space.

These voids generally are given a bad reputation to various degrees for whatever reasons. They are unsightly, not generally pleasing and homes to varying amount of trash and activity. The abandoned lots in urban places are normally left alone, turned into parking, or are the sites of future developments. While they are there though they tend to be eyesores due to the lack of appeal in the landscape. The intentional spaces are where most of the bad reputations come from. These spaces, typically the alleys are hit the hardest with bad reputations. In general the alleys are dirty, worn down, in some cases dark, littered with trash and overall very unattractive. The media is one of the largest propagandist there is. Television shows, movies and other forms of media place a majority of crimes happening in the alleys. This is not to say these claims are not true, but alleys in general are primarily meant as service drives to the backs of businesses and other buildings that occupy the alley.

The challenges surrounding the alley to be that of physical and mental challenges. The effects of mass media portray the alley as a crime ridden dump that is to only be used for illegal activities and violence. In essence the alley is made out to be un fit for society. There are also the physical challenges surrounding the alley. Alleys are generally used today as service roads to the backs of buildings. They are also used for graffiti artists to use as a canvas; off street parking, areas for smoke breaks for employees, shortcuts for those willing to travel down them and of course they are used to some forms of illegal activities. However, a case can be made that the alley can be a place where one can feel comfortable to travel through, on foot or in car, and that these can be the new front doors to shops, not just back doors where the trash is taken. Alleys are also a part of today's urban landscape and should be engaged in, not avoided. An average of 25-30% of space within a city is used for streets and sidewalks, this also includes alleys. The alley presents itself as one of the most undeveloped pieces of infrastructure with some of the best potential.

In an effort to define what makes an alley, 50 people took a survey asking questions pertaining to characteristics of alleys and their personal views on alleys. Most defined an alley as an in-between space in an urban environment, enclosed by two buildings and generally used for service. These people were asked in the survey to use one word to describe a characteristic about an alley. Most of the response came back as "dirty", "dark", "narrow" and "dangerous". This is the mindset of the people because that is not only how many alleys are treated but also how society portrays them. An alley is a component of the urban landscape with the purpose of delivering or allowing the passing through of pedestrians or vehicles, much like a road. However, this road, will allow no parking and engage more in the pedestrian as them as the main focus. While most alleys are dirty, there is a belief that these "dark" places are not as dangerous as society would have them portrayed.

From all the investigations of the alley spaces some forms of conclusions could be determined. There exists three types of alleys. These typologies would include: service, pedes-

trian, and a hybrid alley. Traveling through many of these places and documenting them thoroughly these results appeared from the data and images. The service alley is the common one. It is what you and I would see in most North American urban environments. A traditional passage on the backs of buildings used to collect the waste and offer back entrances, these are the stereotypical “dark, dangerous” alleys society refers to. There is also the pedestrian alley. These are atypical as the vast majority of them have some form of development. The development ranges from landscaping, to outdoor patios, main entrances to retail, lighting, benches, in essence these alleys were designed for a person to use. This leads to the creation of a hybrid alley. These are uncommon and could be mistaken for a normal service alley. A combination of the service and pedestrian alley typologies offers the best opportunity to achieve an ideal passageway on the backs of buildings.

It has been the common trend to use the alley spaces primarily for service, which may not always be the best option. But then, who is to change the way an alley must function if the alley as a service lane works? Why change something if it is not broken? I ask, why cannot we take something that works and make it better? Every piece of a block has its purpose and that includes the alleys. Through design more of an emphasis can be given on these voids, providing another layer of information into an already functioning piece of the block. Through design there is a way to convert these “dirty” alleys, service drives, into more appealing hybrid spaces that include the person as an active element within the space.

Referring back to the beginning of this writing, there is a search for that connective piece between block in neighboring environments. The alley can become the desired connective tissue within the city. It is common among city plans to have networks of alleys that offer themselves as service paths to the interiors of blocks and backs of buildings. This network is used consistently yet rarely occupied. Think about the seven days in the week. How many days are these spaces occupied and used? Once, twice a week, maybe? By being used a couple times out of the week allows these

spaces to lie dormant for longer periods of time than what they are actually used. Redeveloping the alley into a walkable network promotes multiple possibilities for future development. Businesses that occupy alley space can move their shops into the alley and street front. The alleys are not formed the same way as a street grid. Rarely do alleys follow any sort of grid at all as their forms are taken from the residual space between buildings. The more organic forms allow for a more natural flow through space within the urban landscape. The options to take shortcuts through a city via alleyways then use the sidewalks when they are more convenient adds to the layers of travel networks and complexity of the city network.

Think about this as an opportunity for the new “front door” to a shop. Street facades typically address a person, encouraging them to walk along the buildings and inviting them in. Why not do the same to the back? Cafes, restaurant and bars all extend patios onto sidewalks to encourage customers to sit outside if they please. Why not do the same in the alley. Most alleys are big enough to accommodate an outdoor patio. These alleys are more personal spaces, tucked in the back, everything being close to everything else. If a few customers would prefer to sit outside and enjoy the weather, but the sidewalk just happens to be too busy for them to enjoy themselves without the people passing by gawking at them, the alley would be a better fit. There is little traffic and the customers could still enjoy the outdoors. This may not be the case for every alley as each one is different, but there are still ways in which architecture can play with these voids, activate and engage them. Each alley in every city presents itself as an opportunity, it just takes a person willing to challenge the norm and make these voids a better part of our society.

Voids:

The concept of the voids came to me from the residual spaces left behind from demolished buildings. Pursuing the idea of these voids it became a goal to understand how they had formed and in some cases why they came to be. My understanding of these spaces led to different conclusions of their formations and current uses and their roles in our society. From the research observations that I have made, I have determined that these voids can be described as intentional and unintentional.

Unintentional Voids:



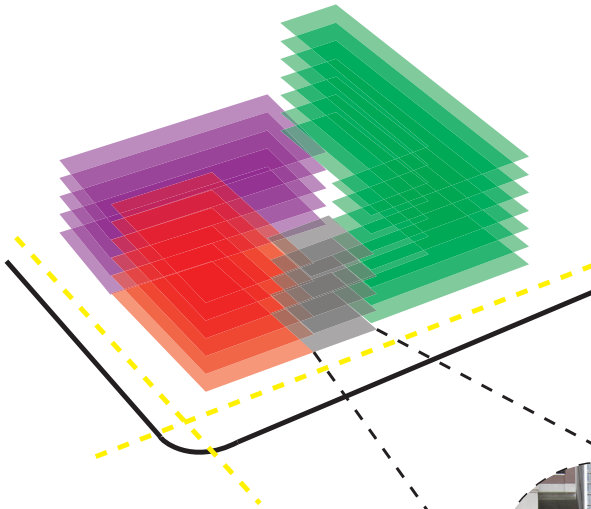
Unintentional voids are exactly as they sound, not intended to be there. These are the spaces that have been brought forward from the destructions of buildings and communities. These places are generally left alone for future development or are taken over to serve another purpose such as parking. Creation of the voids are a results of economical, political and time issues to name a few. Redevelopment of the spaces left behind remain crucial to urban landscapes. Density within cities is a good characteristic and shows signs of life and prosperity. It is through further investigation that the voids when filled can become catalysts spurring new development and at times sparking a new node within the city.



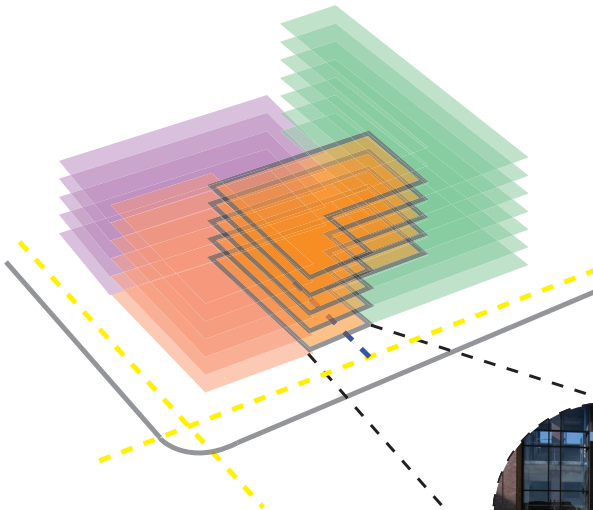
Intentional Voids:

Intentional voids are meant to exist for specific purposes. The more common types of intentional voids are alleys and block interiors such as courtyards. These spaces may or may not be involved in the design process. Most alleys are left under-developed primarily used as service drives to the backs of buildings. Block interiors are more likely to be developed as most of them tend to be some form of courtyard, plaza or parking lot. As mentioned these voids may or may not have been considered in the overall design scheme. It is important that they become involved. Further development of an intentional void promotes a higher level of design and a more complete one at that. Throughout my collegiate career it has been taught to consider every aspect of the site. So why do we not do this during design phases in practice? Is it because of clientele needs? Or monetary reasons? Or is it that we just simply do not pay attention to these residual spaces? Whatever the reason(s) may be, it is time that our attitudes and thoughts change themselves to design more holistically to enhance our urban landscape.





typical uses of voids in the urban fabric consist of alleys that are under-utilized pieces of infrastructure. we see these on a daily basis and for the most part avoid or neglect to see these spaces as viable volumes to occupy.

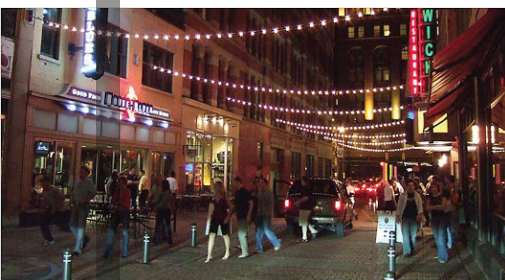


a rethinking of the voids in the urban fabric can act as a catalyst for changing the perception of alleys and interior voids. including these volumes in the overall planning of cities can be beneficial to developers and urban dwellers.

Precedents:



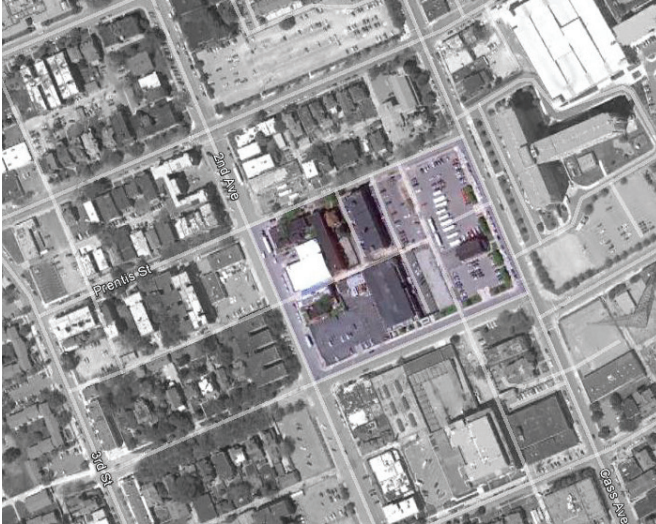
David Winslow



These precedent studies are an investigation into alley space and their effects on the cities in which they are located. In this study of space it can be noticed that with the development of some of these alleys a new node has been introduced into the urban environment that has spurred more development in the surrounding context.

Precendents:

Detroit Green Alley Detroit, MI



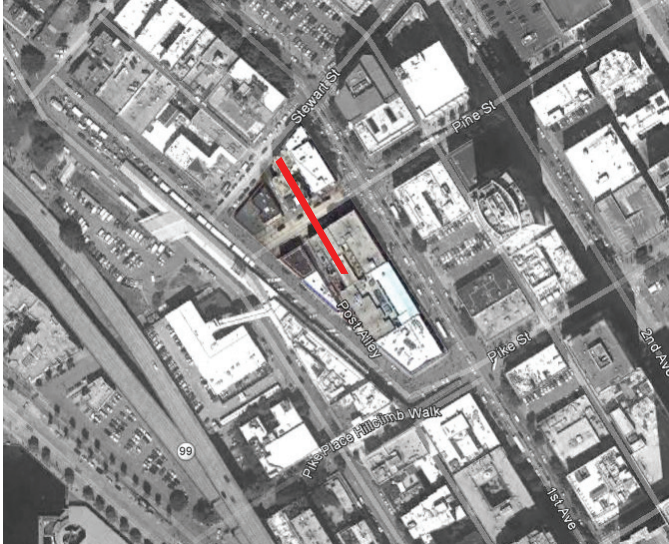
Location: 2nd Ave. Detroit, MI

Detroit's first "Green Alley". The goal is to create a safe and clean thoroughfare for pedestrians so that they might have a safe place to walk and ride bikes. Another goal is to promote others to create more green alleys with other alleys in the Midtown District. The design consists of using permeable materials so that water run-off can reach the soil creating a better environment for the new landscaping. The development of landscaping is used as a tool to break-down the hardscape of the alley creating a more appealing and walkable zone. Currently this is in the beginning phases of a net work of "Green Alleys" that are to be developed around Midtown connecting the entire community.



Precedents:

Post Alley Seattle, WA



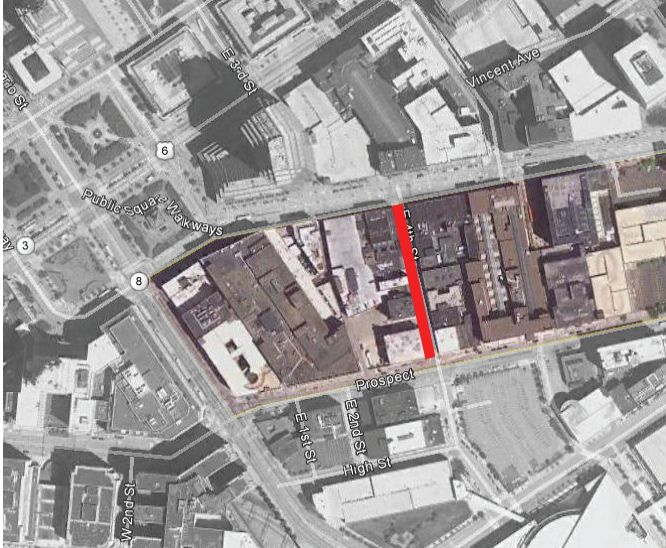
Location: Post Alley Seattle, WA

Post Alley is situated behind Pike Place Market. Surrounding Pike Place Market are numerous small businesses that are run by farmers, craftsmen and merchants. These businesses are all connected to the alley providing a popular tourist location for shopping and eating. The alley development began after the owner of Pike Place Market moved some of their sales into the alley space. This is the catalyst that caused the surrounding businesses to follow suit and move some of their business into the alley space as well. Today Post Alley has not only become a popular place to shop for locals, it has also become one of the many tourist sites in Seattle.



Precendents:

East 4th Street Cleveland, OH



Location: East 4th Street Cleveland, OH

Also known as Corner Alley, East 4th Street has become a well known place to visit as well as live. There is an abundance of clothing and coffee shops as well as bars and restaurants. Located above these businesses are lofts which have become popular due to the popularity of the area. East 4th Street has been in the making for nearly 30 years now. It was once touted as the “liveliest, gayest block in Cleveland” in 1936. Back then East 4th Street had been known as an entertainment district; today that reputation continues to resurrect itself providing life once again to a downtown district that was thought to be once dormant. A redevelopment of the 450 ft. long alley at 42 ft. wide has been proven as a success in creating a new node within the city. Following the redevelopment of East 4th Street has spurred development in the adjacent areas adding to the new-found life in this district.



Precendents:

Campau Promenade Grand Rapids, MI



ocation: Campau Promenade Grand Rapids, MI

In the heart of the Downtown District in Grand Rapids is the Campau Promenade. This passage between the local businesses provides a connecting path to the Grand River and the Grand Rapids Art Museum. This study is different from the previous ones in the fact that it had been considered in the initial development phase of the project. While the landscaping provides a nice gesture to invite people to travel through the space the more important element of lighting is present. Alleys are often associated with being dark so the addition of lighting to counter the negative connotations of dark alleys is a successful tool to change the perception of the space.



Alley Analysis:

To better understand an alley's role in our urban environments rigorous studies were made to gain knowledge of the nature of multiple alleys. Along the way questions such as, "What type of alley is this?", "Is the alley being used or has it been mainly vacant?", "What are the characteristics of the alley?", "Does the alley promote usage for different roles in the city or provide just one function?" These types of questions led to better understanding of these spaces. It is through the understanding of alleys and their nature that we as designers and planners can begin to unlock the full potential of these spaces. It is also through these studies that there can be determined different typologies of the alley. The following pages will describe these typologies and what they mean to us as we investigate the depth of alley space.

Alley Analysis:

Alley Survey

Alleys have long since been an eyesore to most cities. Whether it is because of their lack of aesthetic quality or because of the reputation that have been bestowed upon them the alley has never played a dominant role in our environments. Before the journey through the alleys it became imperative that an understanding of the mind-set a collective group of people had about alleys. The direction of the survey was to promote thinking about what the alley is and what it means to that person. The survey covered opinions from 50 people both in the architecture profession and non-architecture professions. There was no discrimination in age or gender and the feedback was remained anonymous.

The first question that was administered to the group of people was to describe in their own words what an alley is. As a general response over 80% of all participants described an alley as a residual space between to fixed structure that may or may not have foot traffic. Responses also included the word “narrow” as a descriptive term. What is “narrow” though? Yes, allies can be very narrow that a car may not even be able to fit through or that a person might be able squeeze through. It is important to remember that alleys vary in sizes and shapes. Alleys can also be wide enough to fit two lane traffic in them and provide pedestrian space to walk. The mind-set that an alley is narrow is a generalization created be the people who may not have necessarily taken the time to observe the alley.

After asking for a description of an alley based on personal descriptions the follow-up question to describe alleys in one word became useful. In that response there were five common words that had been used: Dark (9), Narrow (9), Scary (5), Dirty (4), Under-Utilized (1). The fifth word under-utilized was chosen

due to the relationship of that word and this thesis. The lack of development in these spaces is astonishing and it is the job of designers and planners to change this attitude towards alleys. The four adjectives of the alley also need to be addressed in this study. It has long been thought that alley space is an unusable space due to the under-utilization and lack of development. It is through design that the negative connotations of the alley can begin to be erased and a new label is added to the word alley.

Towards the end of the survey it was asked if the participants of the survey would ever consider using the alley as a means of travel through an urban environment. From the fifty participants thirty said that they would consider using the alley as another means of travel through urban space. The other twenty participants opted to say they would not use and alley as a means of travel. It is the goal to change these answers to that they would use the alley as a means of travel. They alley space should be used as another means to move about the city. Traveling through these spaces one begins to see parts of the city that are in the shadows and these possibilities are endless. Hidden in the alley network are incubator spaces that can become interior nodes of city blocks to engage public activity and promote new forms of development. The first step to all of this is to change our thinking about alley space, then reinvent it. The studies that follow begin to break down the alley space with an image that begins to unravel the mysteries and depth locked away in the alley.



Alley Analysis:

Service Alley



This is the first typology of alleys that were studied. The service alley. I defined this alley as the traditional alley space that is currently used for service to the buildings, an area to place our trash, means of egress and overall under-utilized. This image was selected from a pool of alleys that had been traveled through from various cities such as, Detroit, Birmingham, Chicago and Grand Rapids. This alley is located in Detroit and is traced over to point out characteristics of the alley space. The point of the overlay is not to pick or point out the most interesting features but to point out any and all features one might find interesting themselves. In the end my analysis included everything that has been highlighted but this is also up to interpretation and others opinions may vary.

Alley Analysis:

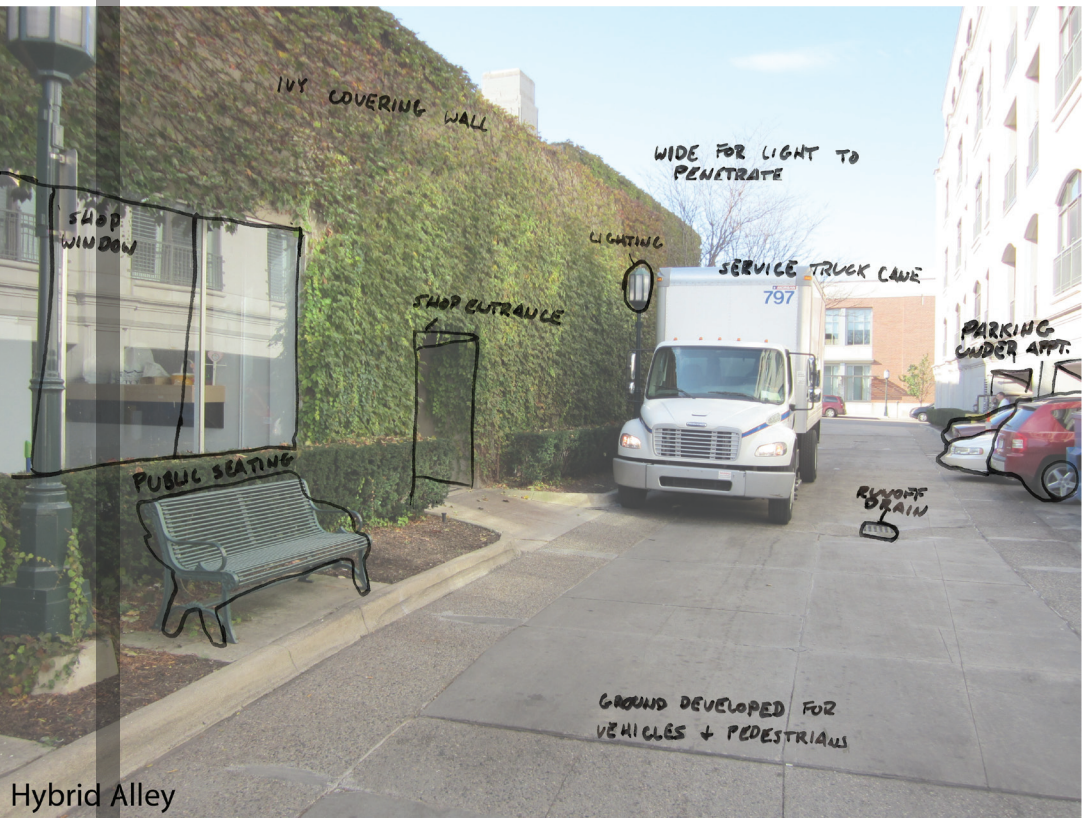
Pedestrian Alley



The second alley for this study is what I have called the Pedestrian Alley. As its name implies this alley has been designed for foot traffic only. The same approach has been taken from the previous study to analyze the space by tracing over and highlighting interesting aspects of the alley. While this alley promotes itself to foot traffic it also completely changes the nature of what an alley is, a service route. There is no problem with form of development and it should be encouraged, but with this design service vehicles are no longer permitted or able to travel down these areas. A new method of service to the buildings must take place somewhere within the urban context. The new method of service may or may not disrupt the flow of traffic circulating outside of the alley, but the factors must be taken into account.

Alley Analysis:

Hybrid Alley



This last alley typology is what I have termed the Hybrid Alley. This is the point in which I believe the design of these spaces becomes most efficient. The alley is designed and thought through enough to allow the alley to retain its original purpose of a service drive and at the same time offer itself to foot traffic. The Hybrid Alley to me is in the beginning stages of design. I have considered for my intent that this alley itself is a prototype to what alleys should begin to gear towards. Not only is the alley appealing to walk through, local businesses create store front in the alley to allow access and appeal themselves to the alley creating the new “street front” in the space. The question then becomes, “How do we push this idea further?”

Alley Analysis:

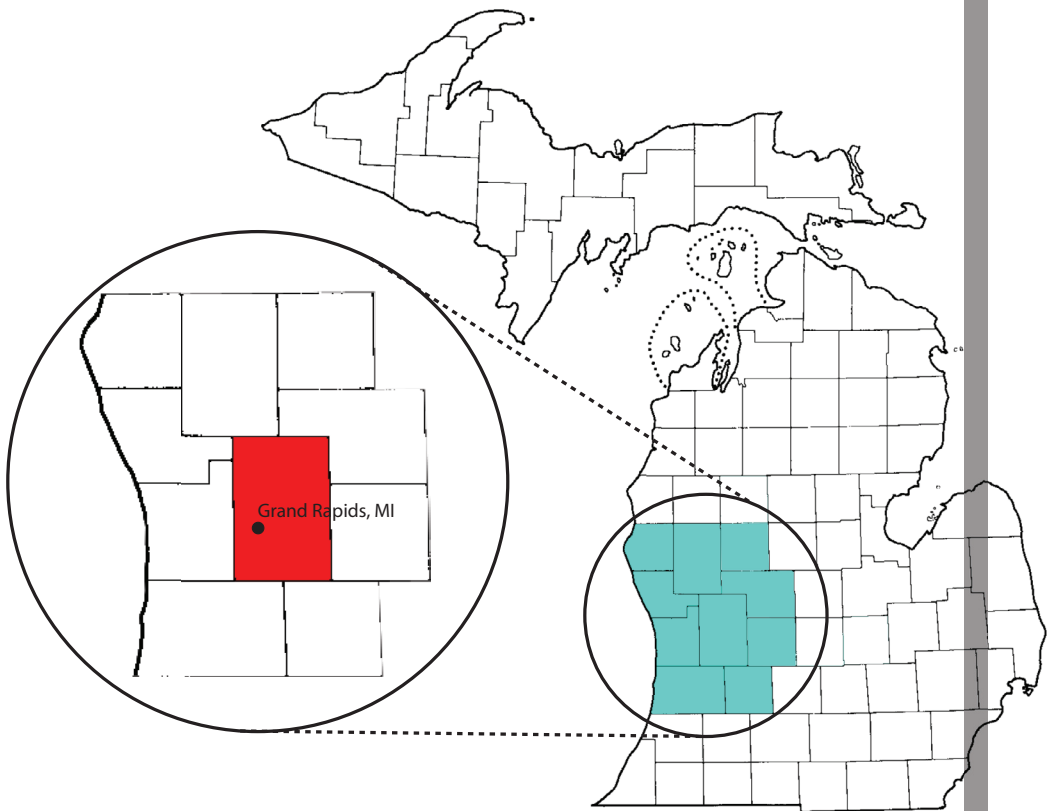
Potential and Depth



Take a good look at the image to the left. Let your mind and imagination wander. What do you see? To me this image says it all. The depth and potential of the alley space can be read clearly to us. As we gaze into the depth of the image there are layers upon layers of information coming at you all at once. Analyzing the image our minds begin to break down the elements we see. A car, dumpster, ivy on the wall, trees, a sidewalk, benches, and store fronts. This image is composed of various alleys that I had traveled through. The image speaks of not what an alley is but what it could be. This became the source of inspiration to drive this project into what can the alley become and evolve into. This goes beyond the nature of the alley.

Site Selection:

Grand Rapids, MI

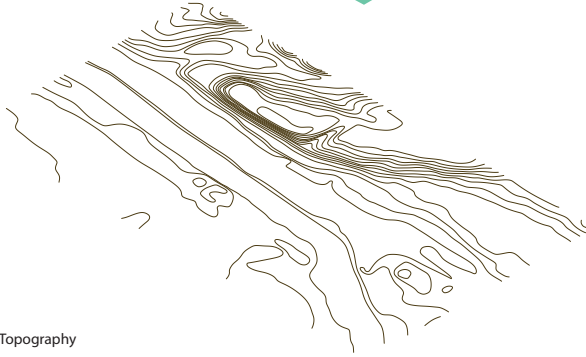


Site Analysis:

Grand Rapids, MI



Green Spaces



Topography

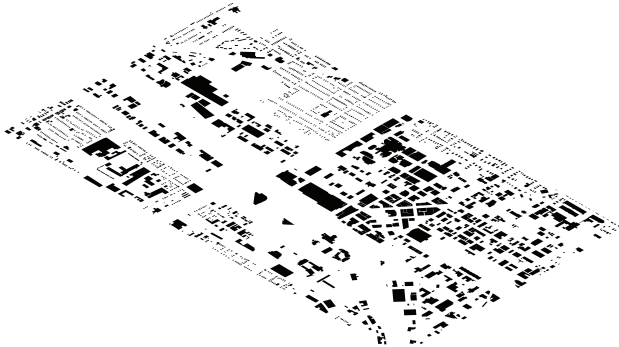
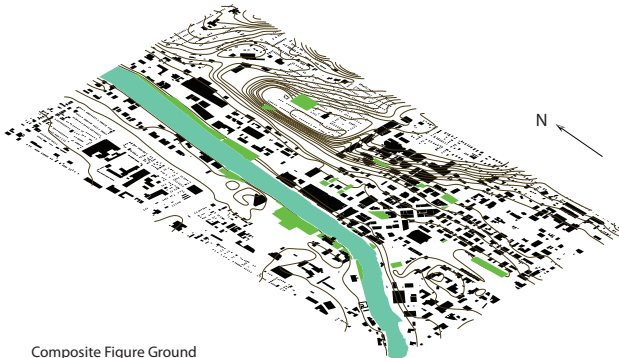


Figure Ground



Composite Figure Ground

I chose to make my site in Grand Rapids, MI. Grand Rapids once had the title of the Furniture Capitol of the World. Today Grand Rapids is a city that thrives on industry. The city itself is located within the Grand River Valley with the Grand River parting the city in half. On the East side of the river lies the downtown and on the West side of the river there are museums and parks, none more famous than the Gerald R. Ford Presidential Museum. The maps located on the left page break down elements of the city from green spaces to typography to the building figure ground.

Today Grand Rapids advertises and promotes itself as a destination for viewing art. Located in the downtown district itself are a handful of museums dedicated to Grand Rapids rich art culture. Such museums include The Grand Rapids Art Museum (GRAM), The Grand Rapids Children's Museum, The Gerald R. Ford Presidential Museum, Grand Rapids Public Museum and the Urban Institute of Contemporary Arts. Along with the museums Grand Rapids hosts the Kendell College of Arts, the Civic Theatre and numerous public displays of art throughout the city itself.

Site Analysis:

Nodes and Networks



The map displayed on the left shows the figure ground of downtown Grand Rapids. In choosing the site to create the catalyst for the design I began to break down key areas within the city. Each highlighted area is a major node within the city. From all of the investigations studied it became apparent to find a new node within the city to be the designated area for an architectural solution. Through this architectural solution a new development of the alley will begin and cause a reaction of other alley development that will ultimately become the new piece of infrastructure within the city. The following pages describe the nodes listed in the map to the left.



1. The image to the right is the sculpture done by Alexander Calder located in the DeVos Plaza in downtown Grand Rapids. This is the most recognizable piece of art located within the city. This piece has over time become the icon of the city.

2. The panorama taken below is the Grand Rapids River Front. It has been developed as a pedestrian path for walks along the river and for the fishermen to enter into the water. A pedestrian bridge links the two sides of the river walk together joining the East and West sides of the city.





3. The image to the right is the Grand Rapids Art Museum (GRAM). This is a new piece of development in the core of downtown. Not only does it offer a rich taste of art and culture a plaza out front accommodates performances during the warmer months and an ice rink during the winter. The GRAM has made its way to become an integral element of Grand Rapids.

4. The Van Andel Arena is one of Grand Rapids venue halls. People flock to this arena for concerts, performances and sporting events. Located on the south end of downtown Grand Rapids the Van Andel Arena provides a large source of entertainment that draws in people from all around.



5. Located on Medical Hill overlooking the city is Crescent Park. One of the smaller parks in Grand Rapids this place provides an ideal spot for the college students of Grand Rapids Community College to relax and enjoy their time. During the warmer months during the school year students take the time to sit out and enjoy the view while studying or just relaxing in between classes.

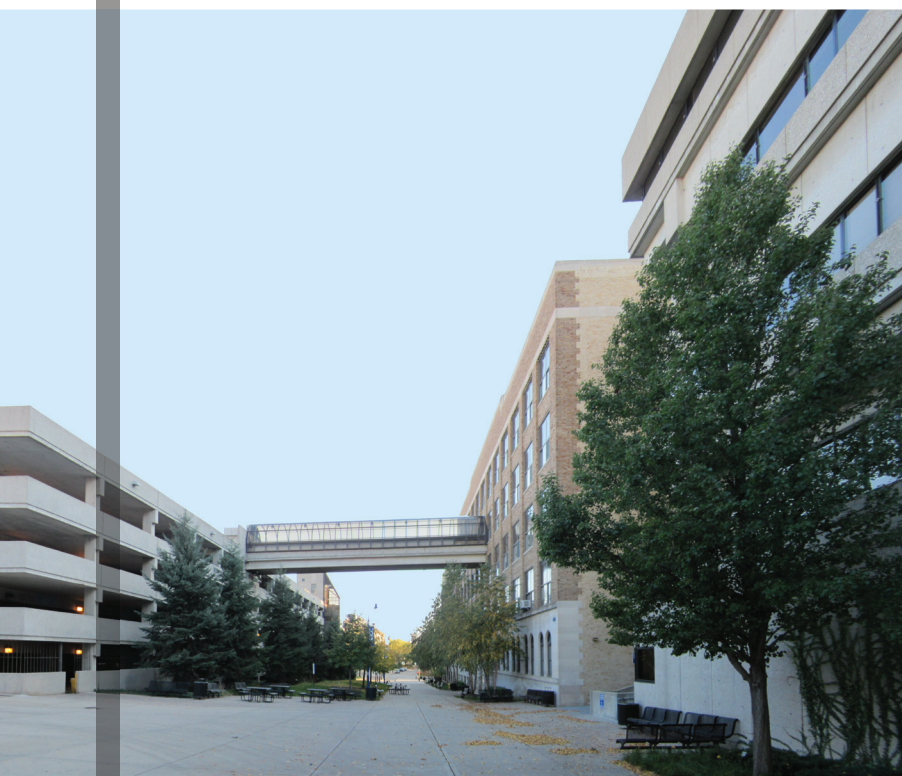


Site Analysis:

The New Node



The map displayed on the left shows the layout of the new node to be created in Grand Rapids. This is also the specific site within the city in which an architectural solution will be placed. The site is a city block surround by Division Avenue to the west, Fountain Street to the North, Library Street to the South and Bostwick Avenue to the East. Before making design decisions an investigation into the immediate surrounding context was made to learn more about this block and area in which it is located.



2. The image on top is the Kendell College of Art. The school is located off the northwest corner of the site and the image shown is the backside of the school itself. The mural painted on the facade is the work of the college students attending. At different intervals the canvas will be painted over and a new mural will be put in its place.

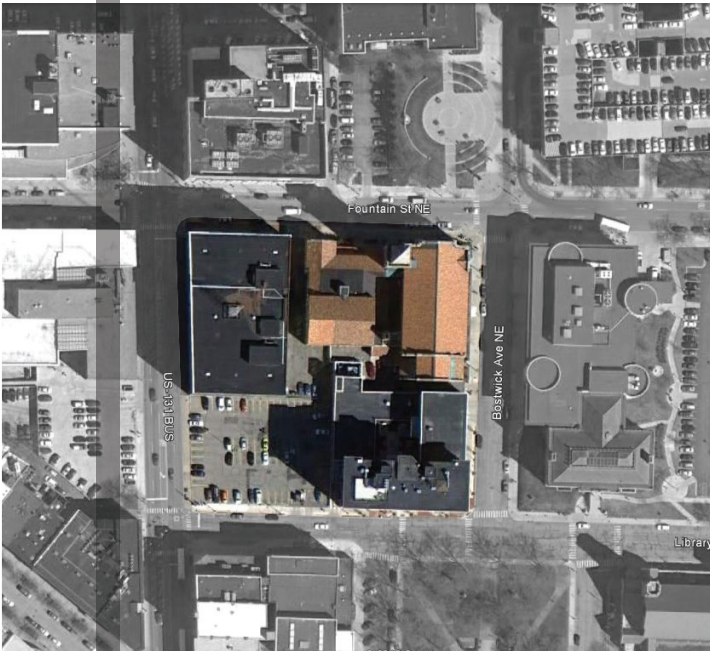
3. The image at the bottom is the main pathway in the heart of Grand Rapids Community College. It is through this path that students walk from their cars to the main offices and student center. This path also serves as a bridge to the Medical Hill and the Entertainment District in which the site is located.



4. The image to the right is the Grand Rapids Public Library. The Library is located on Bostwick Avenue on the East side of the site. Bostwick Avenue can be seen as an extension of the main pathway that connects into Veteran's Park.

5. The building below is the Grand Rapids' Childrens Museum located next to Veteran's Park on the South side of the site. Connected to this building is the Civic Theater that looks over the site. During the warmer months this area is populated by families enjoying the museum and park.



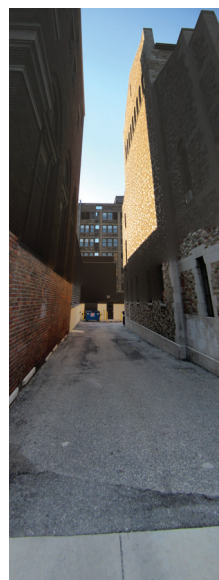
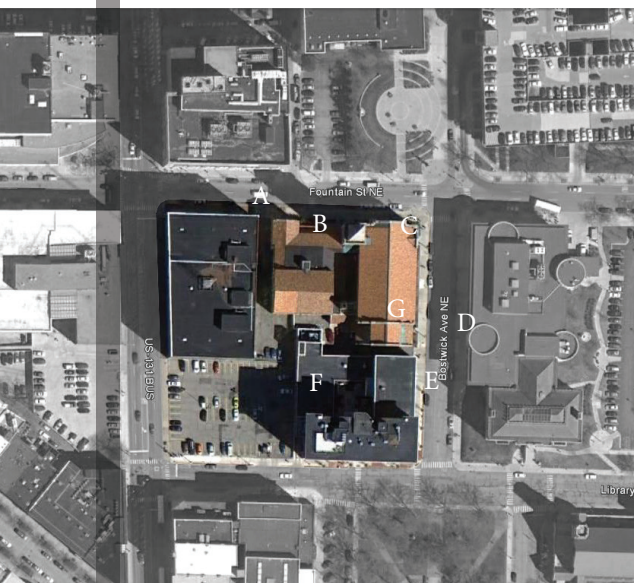


1. After examining the city and the immediate area around the site, design solutions began to form and a direction for the project is achieved. To keep the goal in mind to utilize the alley and create a new node for this district is priority. Even though there is plenty of activity going on in this area they are all confined into their own smaller nodes. It is the objective of the design to create a community node, a highlight mark in this district to join the smaller nodes together and create an larger identity for the Entertainment District.

The final analysis of the site comes from within the site itself. The block is broken down into four sections. Each section contains its own function. The goal is to create the intervention while not disrupting the current functions on the site. The four zones on the block include the Keeler Building on the northwest corner, Fountain Street Church on the northeast corner, The Fitzgerald condominium building on the southeast corner and a public parking lot on the southwest corner. The only building on this site that is unoccupied is the Keeler Building. The Keeler Building has been named a historical building by the city of Grand Rapids. Built in the early 1900's this was the site of the Keeler Brass Company. Today the building stands dormant with the main street facades intact while the facades facing the interior have been stripped down and layered with brick in fill.

What makes this site unique is that two alleys occupy the site. The main alley is located on the North side of the site in between the Keeler Building and Church. As that alley ends and opens up into an incubator space behind the Church the second alley overlooks the main alley by 10 ft. The second alley is formed on the East side of the site between the Church and Fitzgerald.





A. The Keeler Building

B. Main Alley

C. Fountain Street Church

D. Supplementary Alley

E. The Fitzgerald

F. Parking Lot

G. Incubator Space



Architectural Solution:

Preliminary Design

The goal of the architectural solution is to provide the Entertainment District of Downtown Grand Rapids a central node that will promote an active public space. Through this public space the development of the alley will act as a catalyst and model for the surrounding context to develop the alley. In doing so create a process of linking the alleys to become a network of sub-infrastructure that can be fully integrated into the urban fabric. Through this architectural design I begin to question the roles of the alley. The extension and redevelopment of the alley begins to change its overall appearance that begins to question whether or not the alley is an alley at all, or is the alley something more?



The first step in the process was a direct engagement to the alley space between the Keeler Building and Church. Currently the residual space is being used as a parking lane for the employees of the online gaming center located in the South corner of the Keeler Building. The redevelopment of the alley aims to promote curiosity of the public to draw them in, while at the same time allowing the alley to fulfill its true purpose, service to the buildings on the block. The solution that had been investigated is inspired by markets in Thailand. In the images located on the left there is a story of how these markets work.

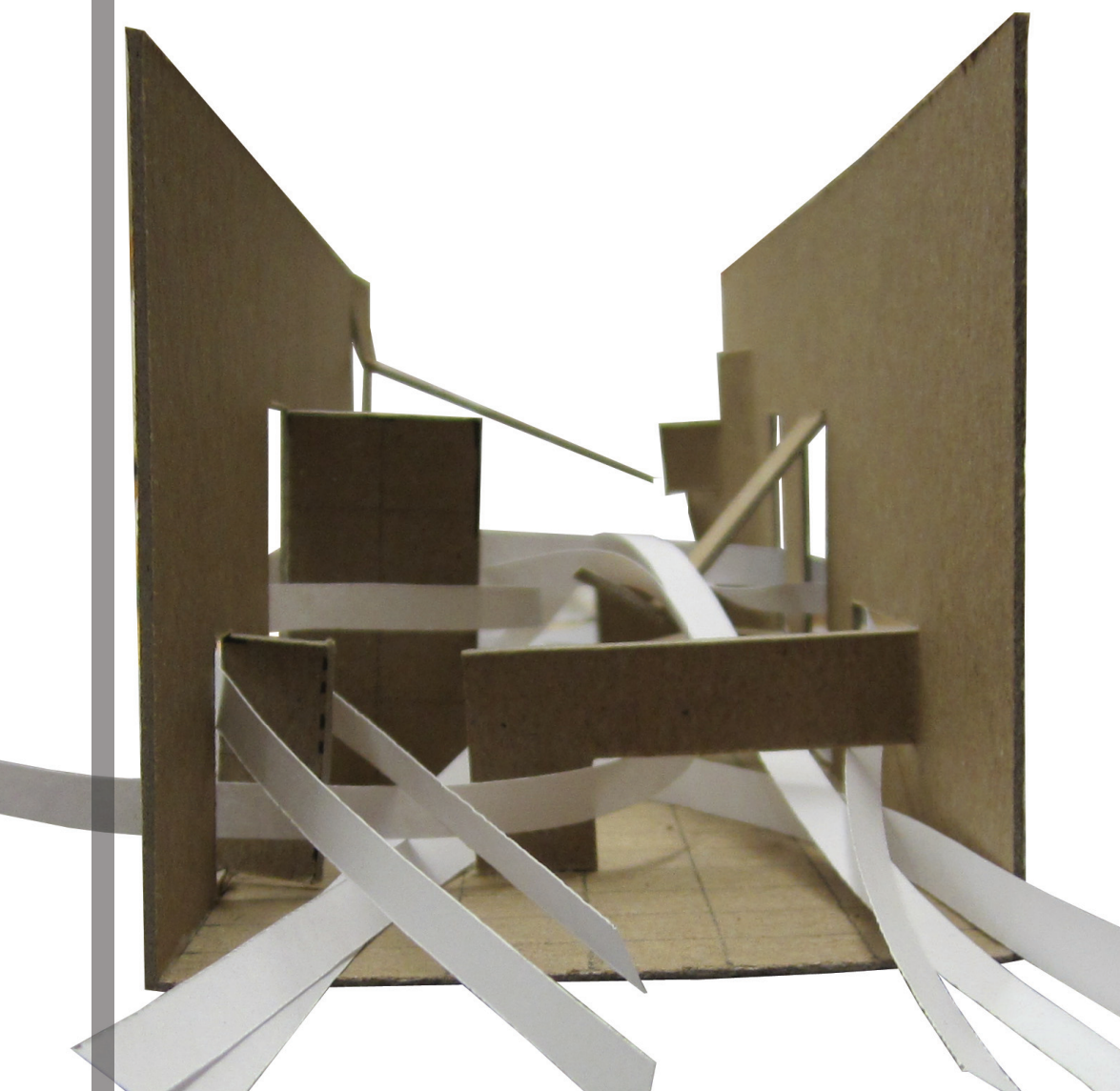
The market is open to merchants and consumers but at the same time serves as a mode of transportation as the existing rail makes its way through the crowded market. As the train begins to approach areas in the market the merchants fold their tents and shops to allow a clear path of travel for the train to move by. Once the train makes its way past the merchants they immediately unfold their shops and once again the market becomes flooded with consumers. The result is a method that provides an area for business while providing a method of travel for the existing rail.

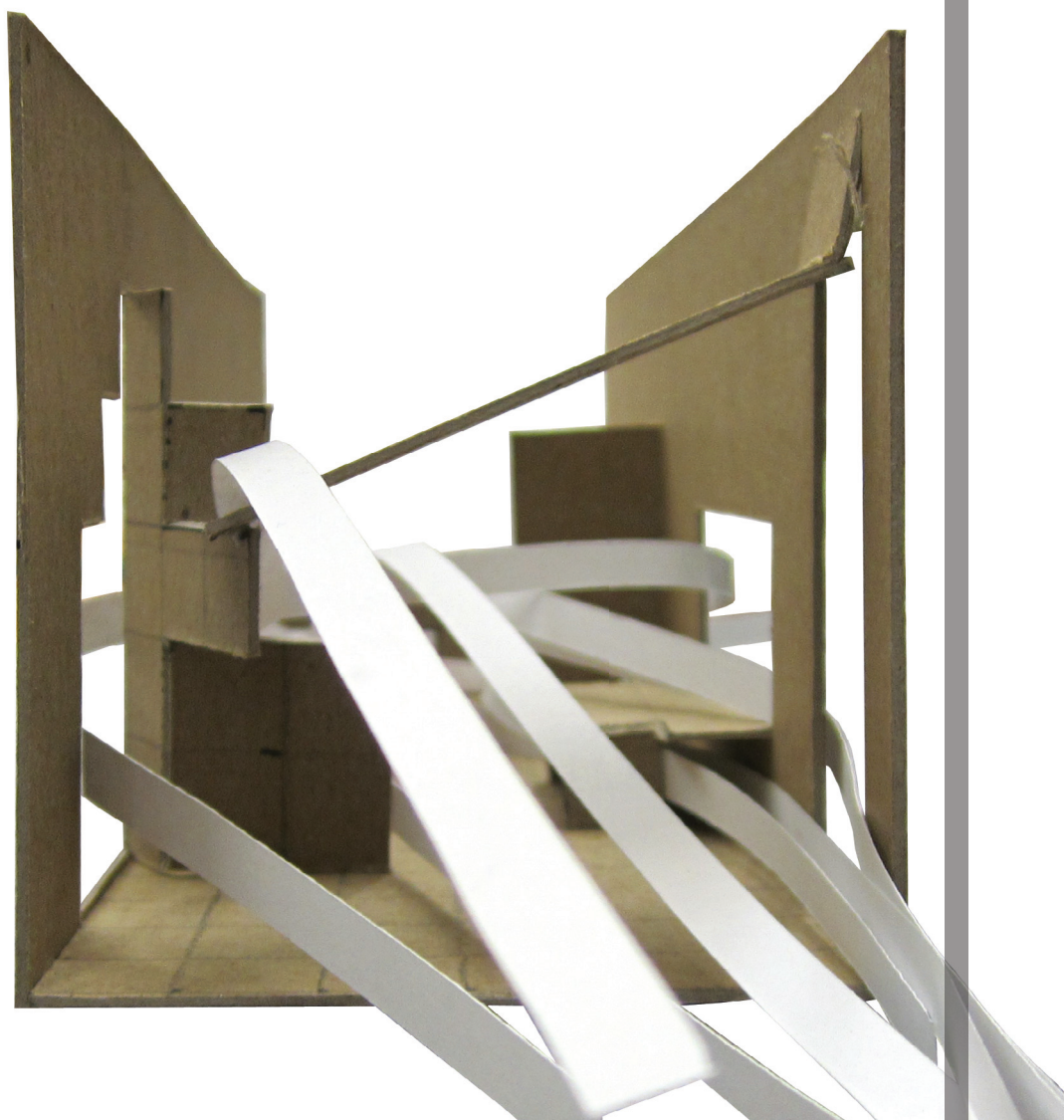
Using the market place as a source of inspiration for design studies where investigated to understand how the idea of folding facades impacted the alley space. The use of the folding facade is a means to interrupt the alley space creating an invention caused by human interaction but at the same time allowing the facades to fold in on themselves in order to allow passage of larger elements such as service vehicles when the time came for the buildings to be serviced.

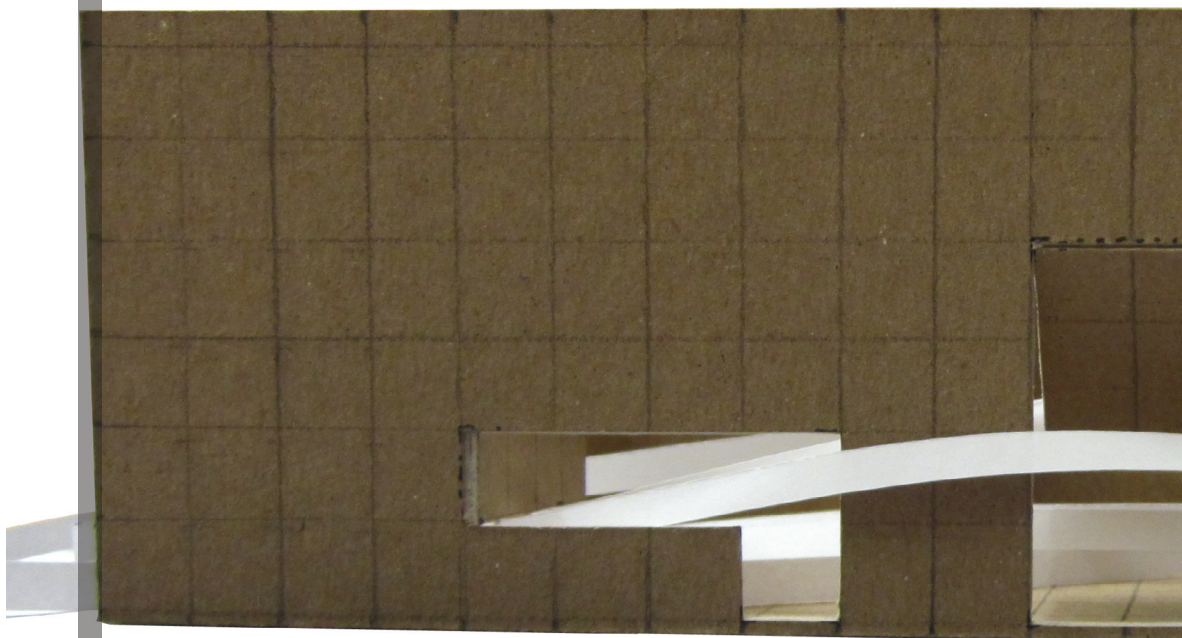
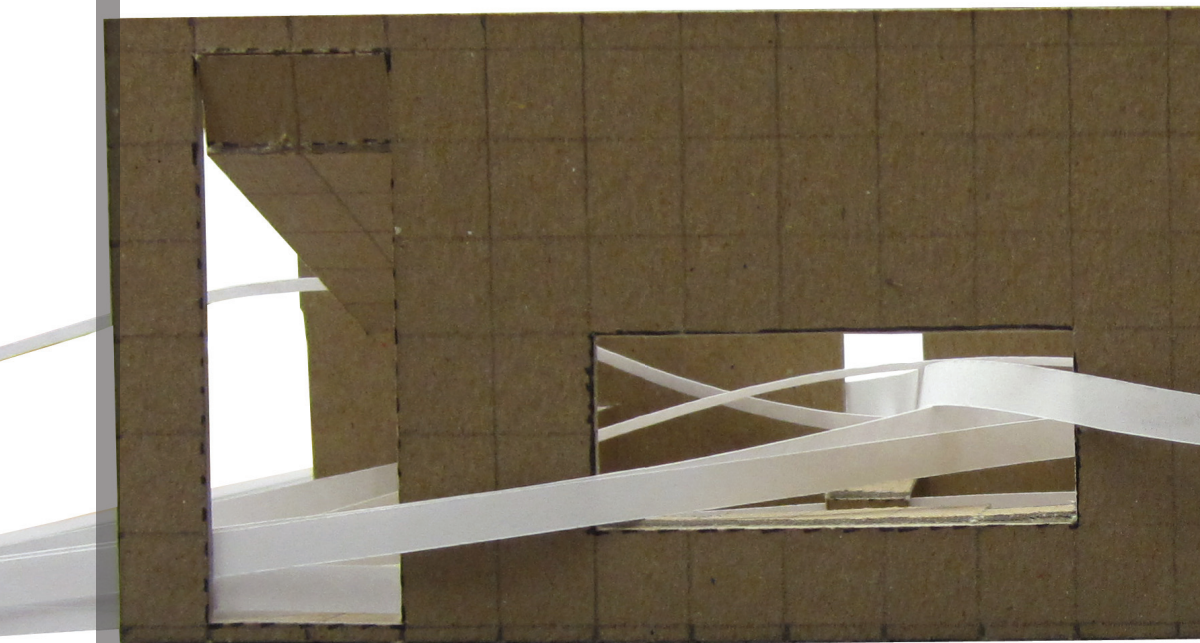


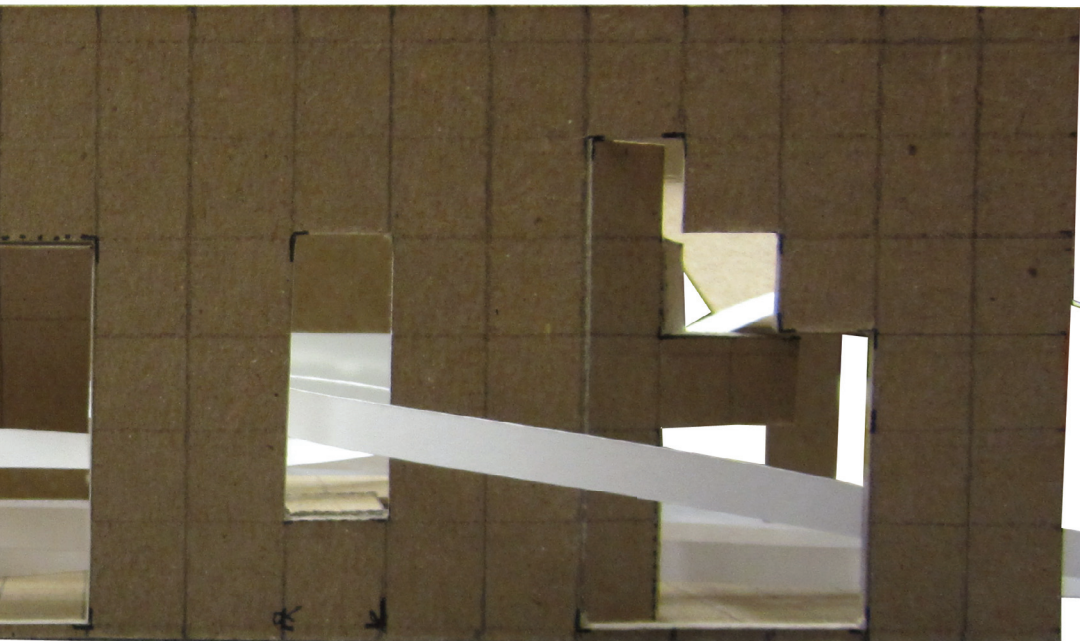


The second phase of understanding the impact of space through this intervention was to weave thin strips of paper through the facades and in or around the elements that had begun to fold out. This study was viable in knowing how the space begins to pinch together and where it is allowed to breathe.



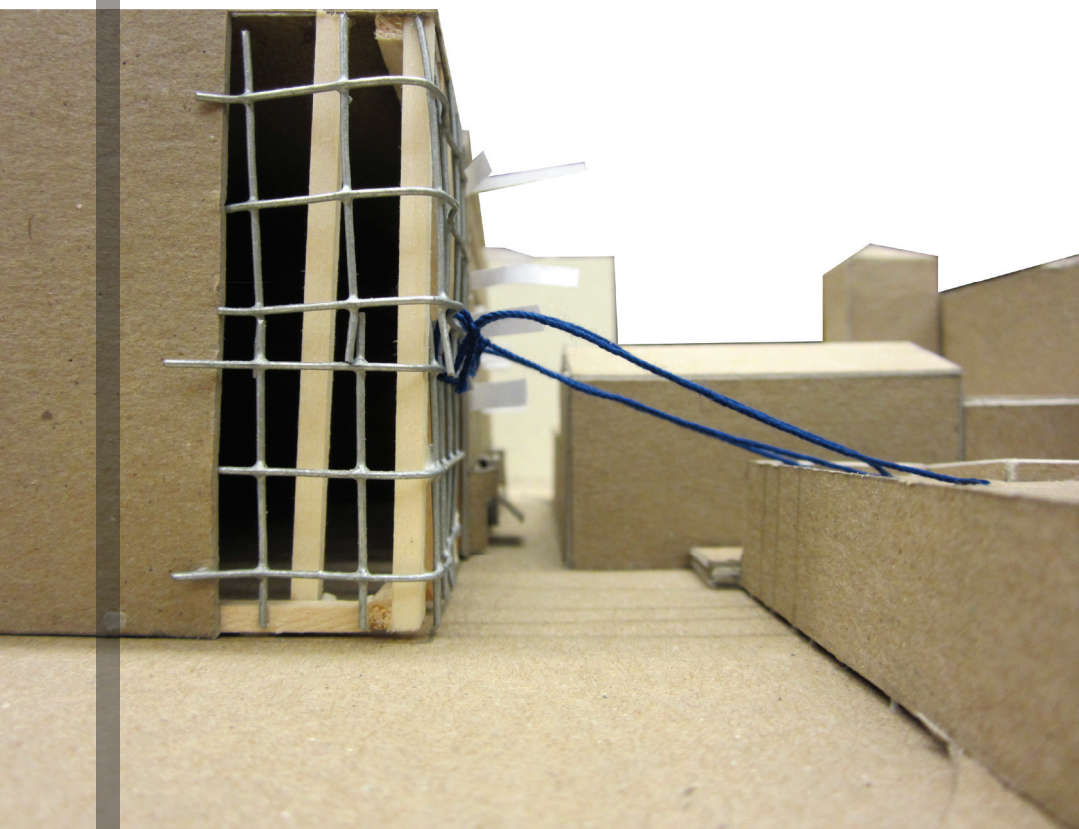




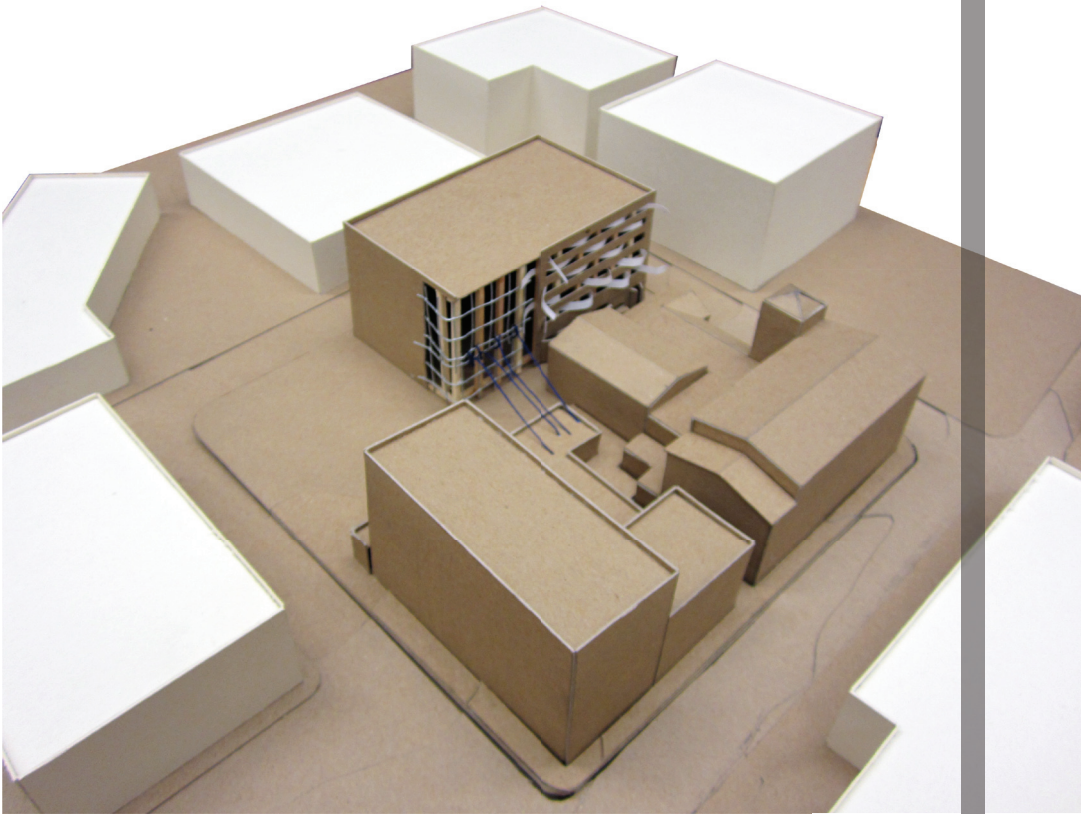


Preliminary Design:

Site Integration



Once the first initial investigation in kinetic architecture was complete I integrated these ideas into the site to begin to see what was working and where there still needed to be answers. The first initial thought was that the entire facade of the Keeler Building on the alley would begin to undulate creating a disruptive path of the alley not only on the ground but on the space above. The folding alley would activate all along the Keeler Building until it reaches the incubator space. Here is where the next phase of design would lead me. The development of the plaza where the existing parking is and focus on the extension of the alley.



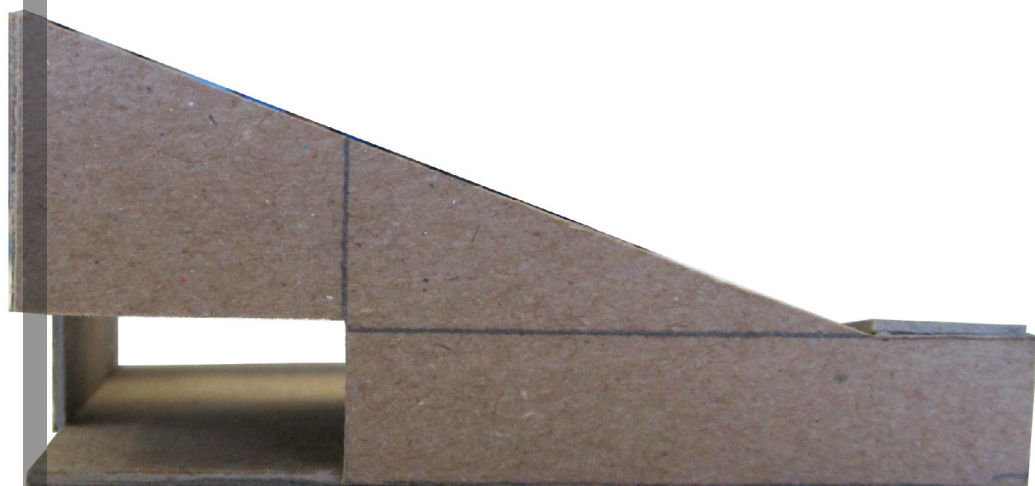
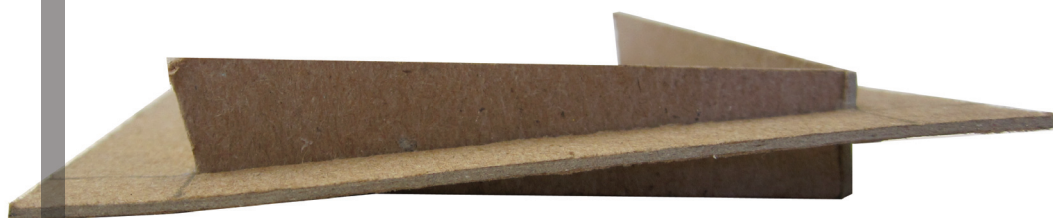
Preliminary Design:

The Southwest Corner



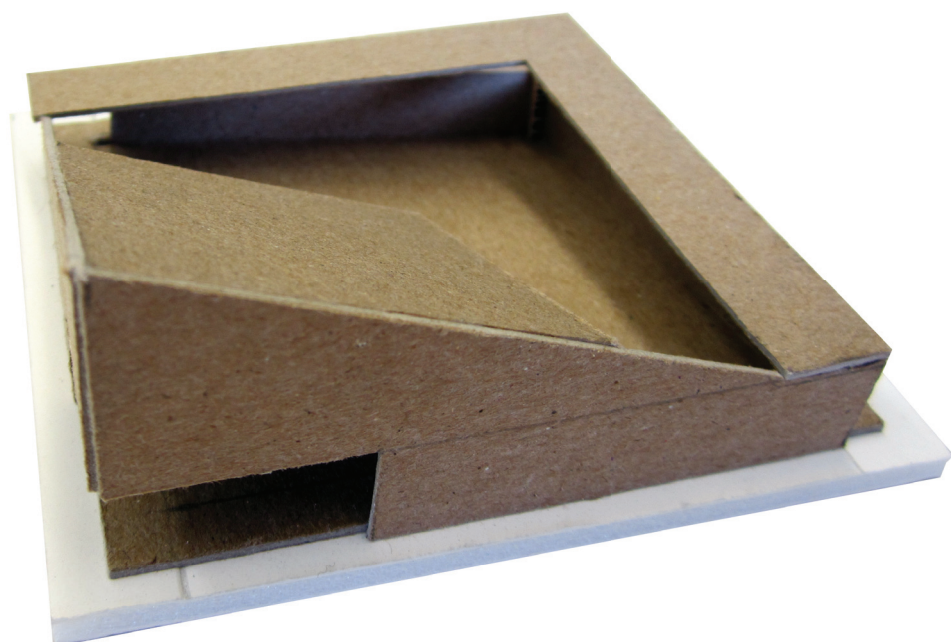
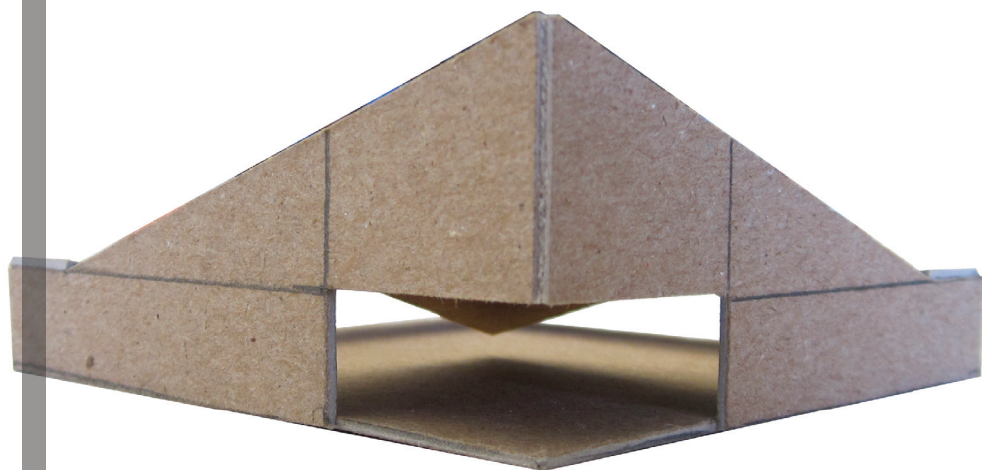
After the first site integration of the alley the next part of the process is to investigate the southwest corner of the block. Existing is a parking lot. This is a critical part of the overall design as this space becomes the node that activates the district. To begin the design studies were investigated to reach a possible solution. The areas that needed to be addressed is the development of the street front, attention addressed to the Civic Theatre, the role of the major and minor alleys on the site, and the integration of the Keeler Building into the overall design.

The current conditions of the parking lot needed to be overhauled in order to create the desired catalyst. Even though parking is not what should have been on this site, it is needed in Grand Rapids. Even with the abundance of parking structures near by and other parking lots there is a small shortage of parking. In an attempt to achieve the desired result of an active public space infused with parking I traveled to Pontiac, MI to visit the Phoenix Center. The Phoenix Center provides the use of a parking structure accompanied by an open plaza of the roof equipped with an amphitheater. After visiting the structure and careful analysis it was decided that this area required something much more active than a large parking structure with an amphitheater.



The integration of a public plaza and amphitheater became a viable solution for the existing parking area. The plaza begins to solve the issue of public space and the amphitheater is a resource to generate activity. The amphitheater/plaza duo fits into the surrounding context as well. Being engulfed in the entertainment district the plaza becomes a public display for the young talent in Grand Rapids. The plaza becomes activated by performances from the Civic Theatre and a public display for the students at the Kendell College of Art.

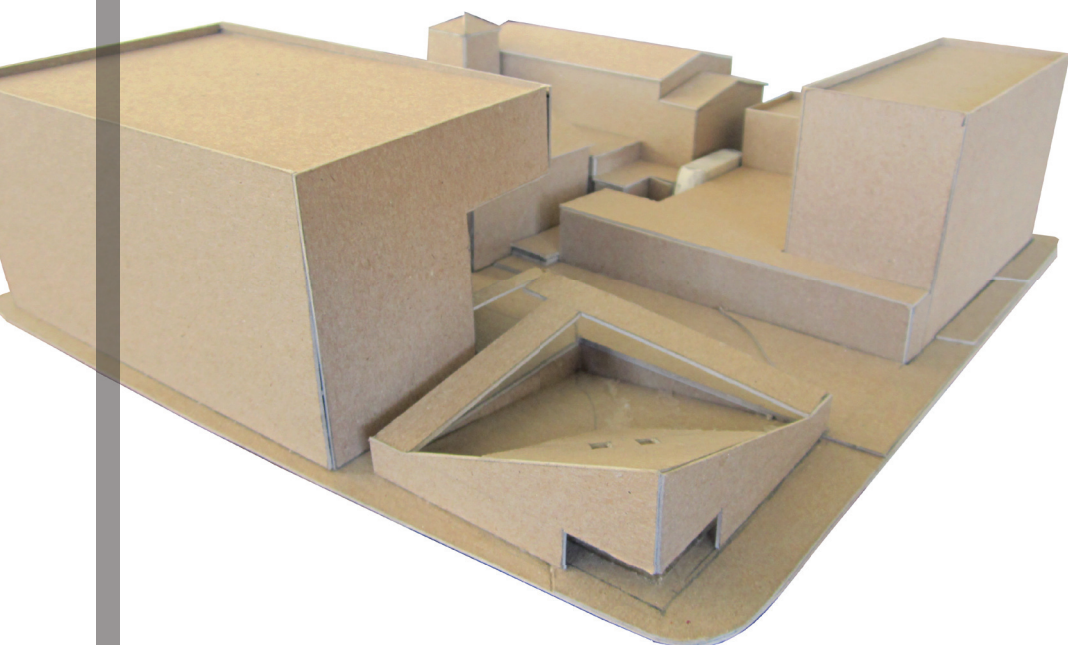
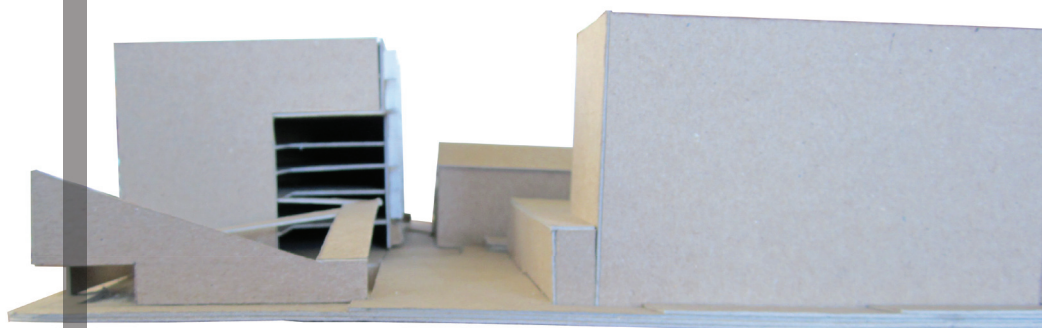
The preliminary design of the amphitheater became anchored on the corner of the block. The initial design was set up to build up the street front, extending the primary alley and creating a second alley between the Keeler Building and new structure. A high peak on the corner with both sides sloping toward the edges provide guidance from the street to the openings on the site to access the amphitheater. The amphitheater includes a higher tier of seating and a lower ground tier. The performance area of the space slides below the existing grade creating overview lanes from the alleys.

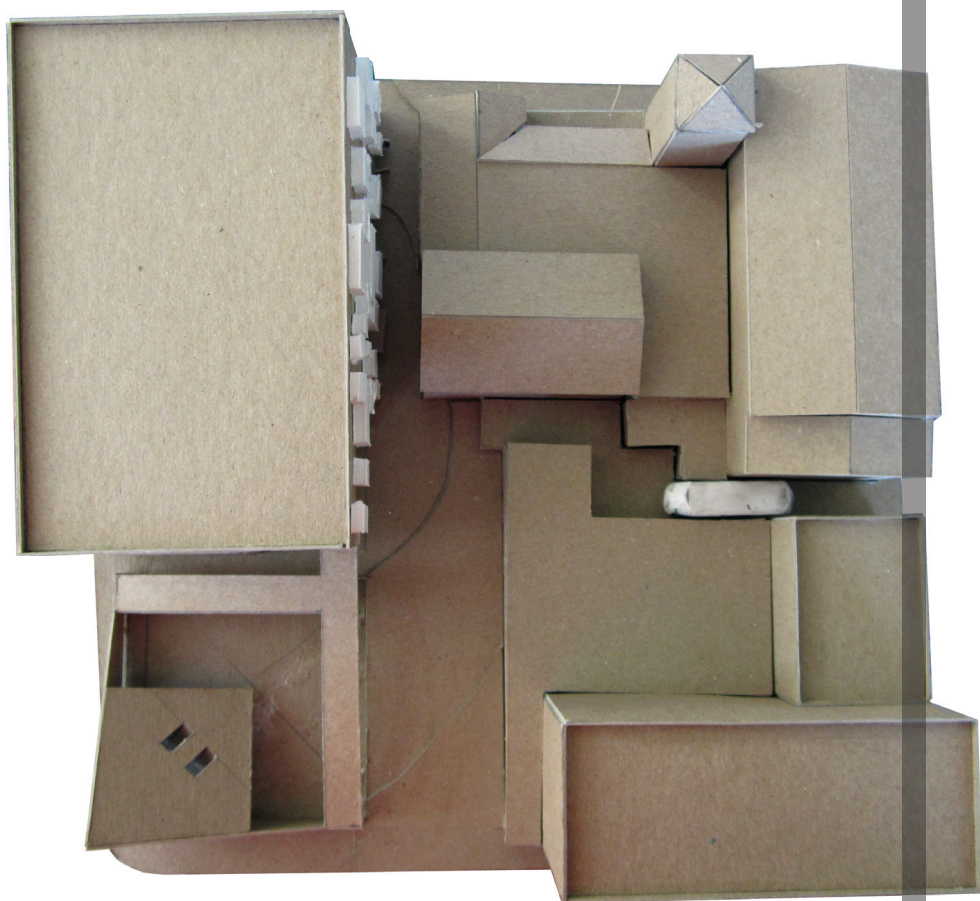


Continuation of study models of the amphitheater

Preliminary Design:

Site Integration II

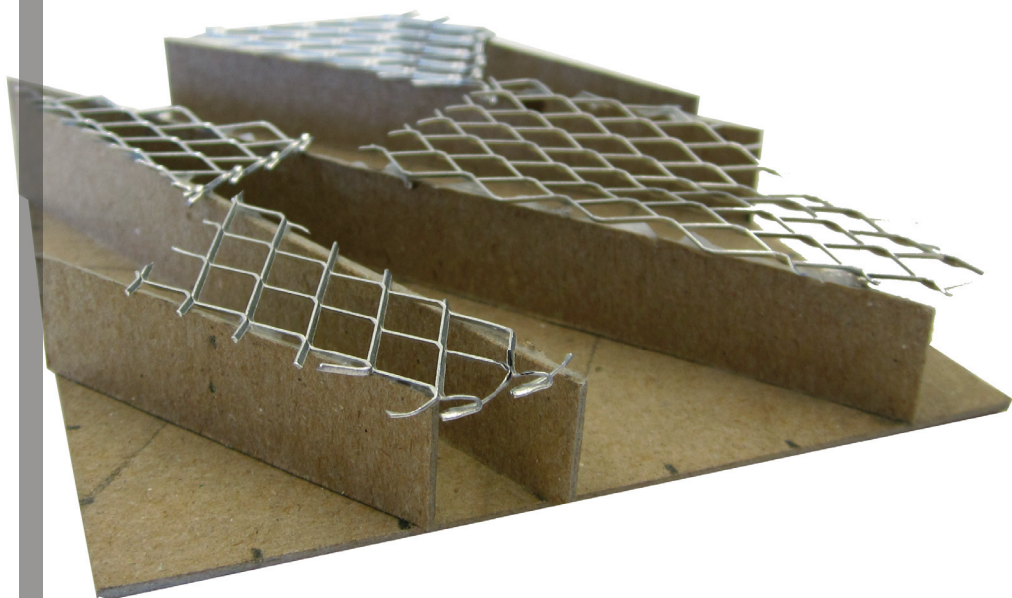
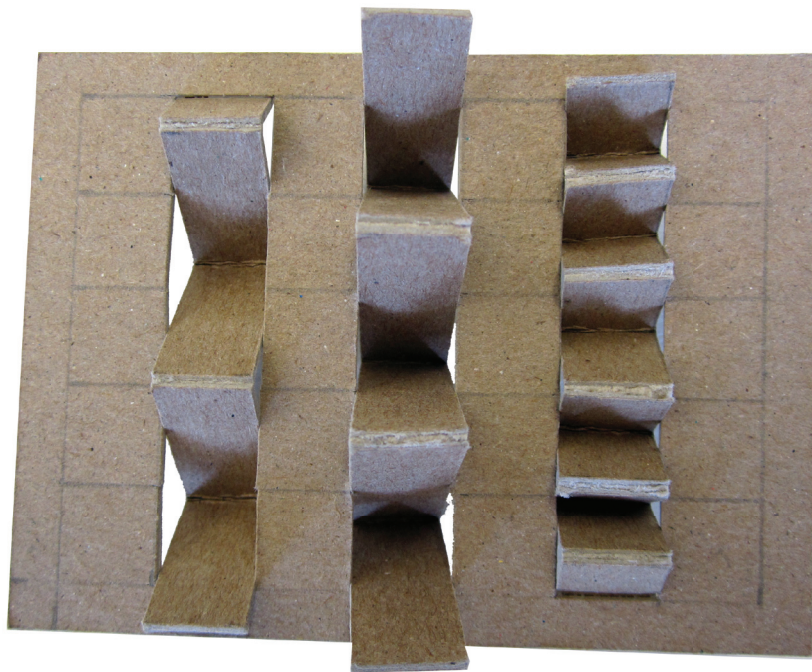




The second integration on the site explored the development of the kinetic architecture in the alley and the development of the amphitheater on the corner. The amphitheater in the initial design is developed with a walkway around the perimeter of the structure floating above the performance area. This walkway is then connected directly into the Keeler Building. This phase brought into consideration what the Keeler Building will become. Focusing on the public space it is envisioned that the Keeler Building will become part of the plaza hosting an interior of public display that opens itself up to the rest of the site. The formation of the amphitheater created a secondary alley in between the Keeler and itself and extended the main alley through the site. After this phase of development there needed to be a way to extend the alley and create an interactive space in the extensions of the alley.

Preliminary Design:

A New Direction

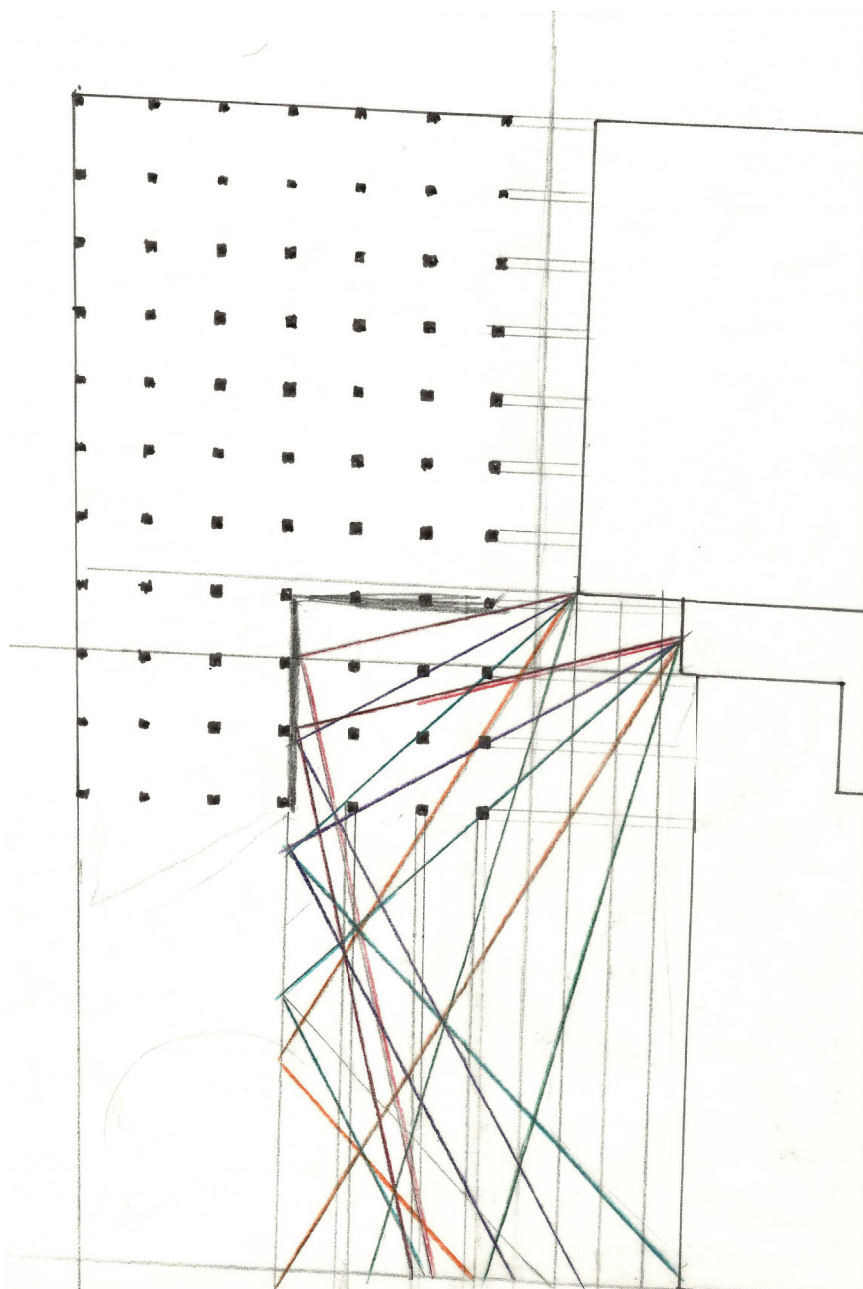


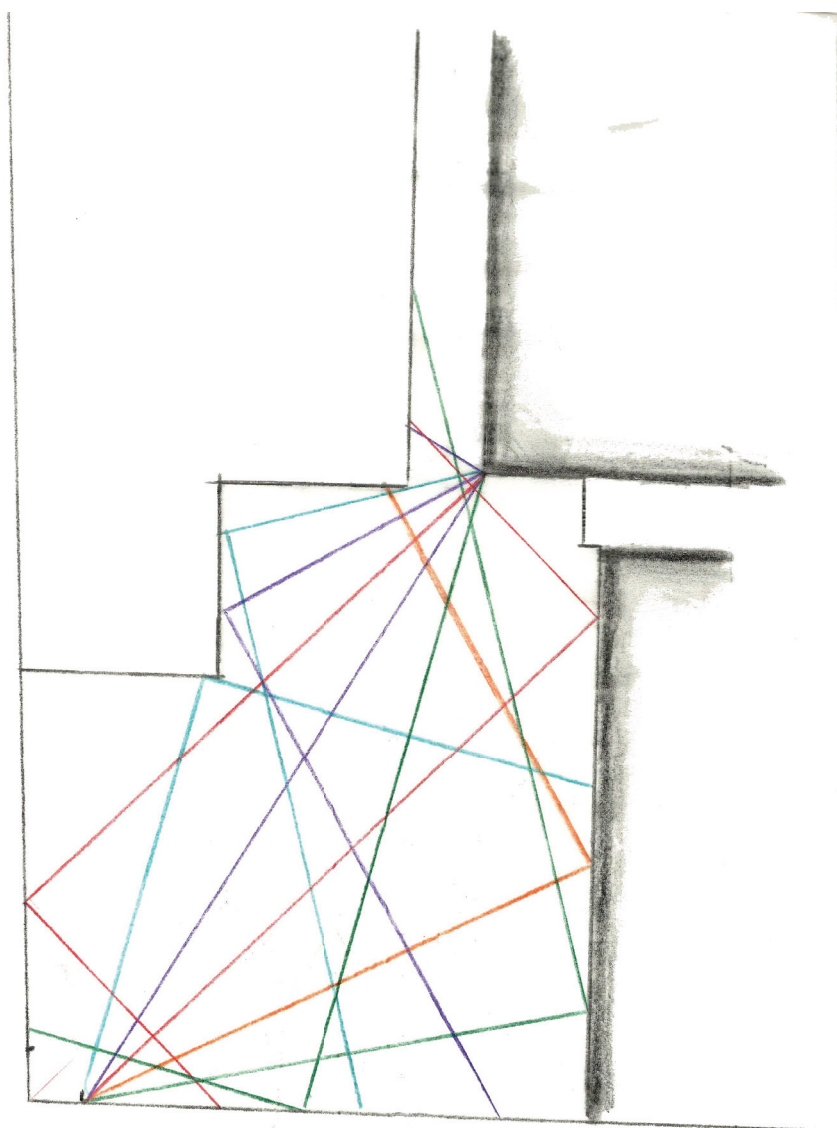
In an attempt to solve the solution of the open space left on the site a required step back from the amphitheater was required and a rethinking of the design strategy took place. These two sketch models are the result of that new process of the space. The image of the sketch model on the bottom is an attempt to break the open space using vertical walls that could be used for graffiti tags by young artists. This would require a removal of the amphitheater and a new direction for the site strategy.

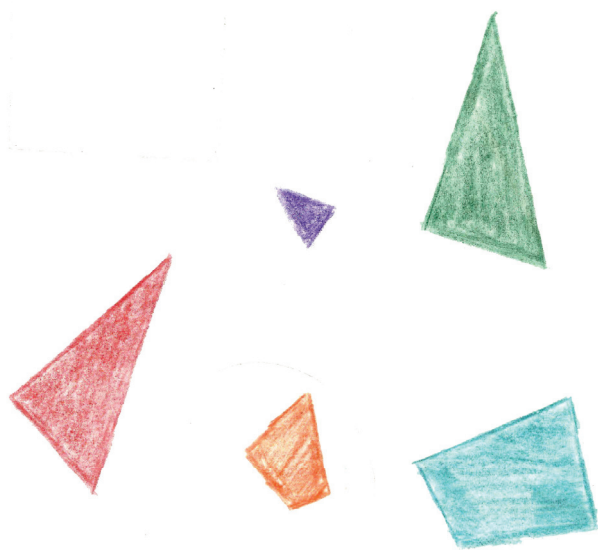
The sketch model on top is another form of exploration into the plaza. The amphitheater design would be able to remain intact with this new design. Pulling from the kinetic architecture from the alley this design is intended to create undulating forms from the ground to break up the large plaza which is the extension of the main alley.

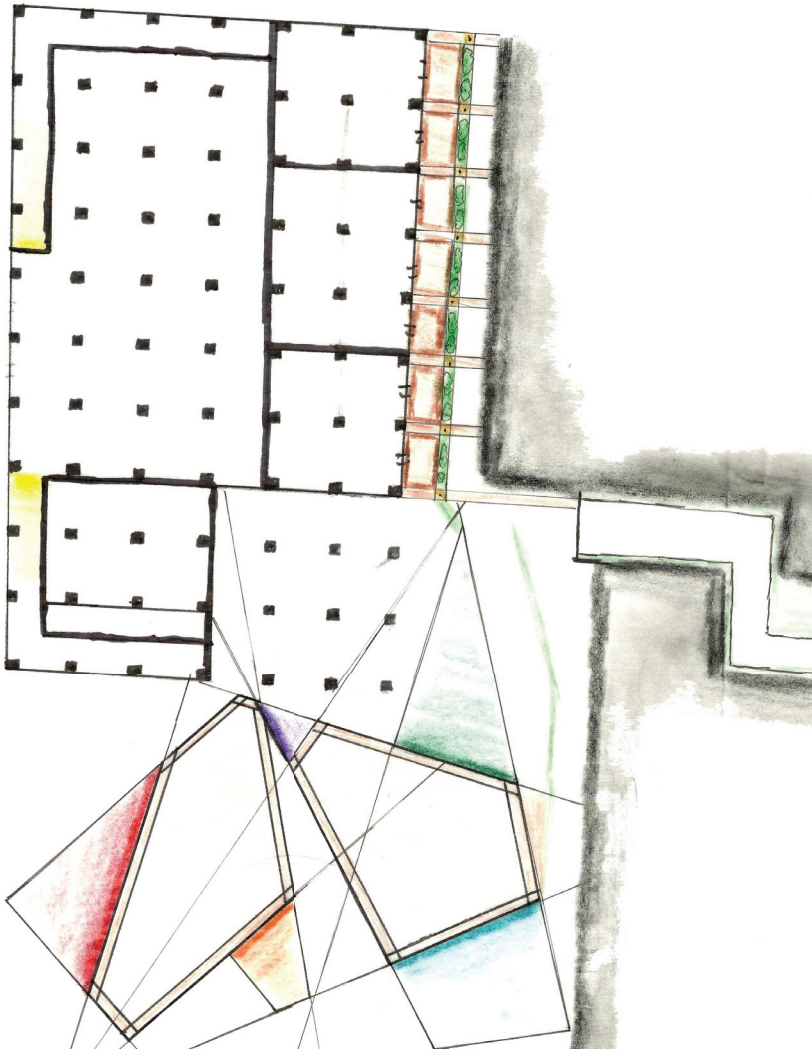


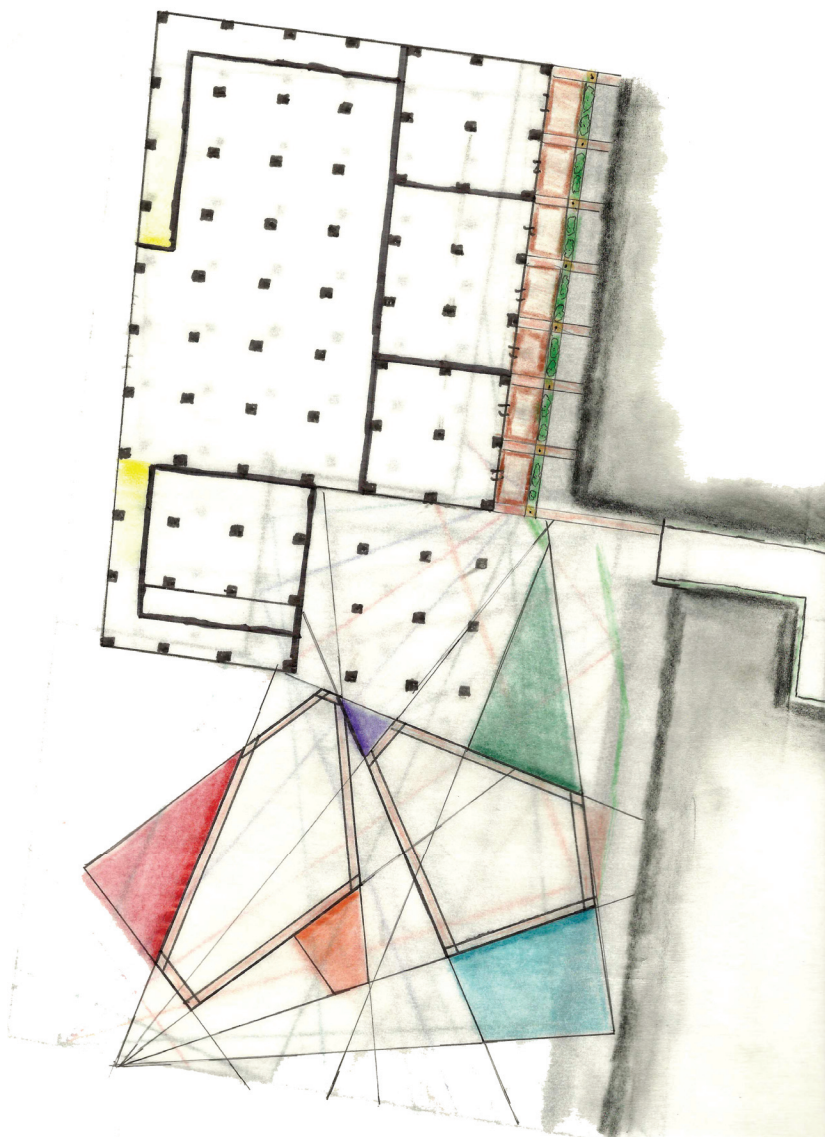
Dynamic. That is the element that is missing from the site strategy. Through the kinetic alley a form of dynamism is achieved. The rest of the site design had been lacking the same type of dynamic energy. The sketch model on the previous page became that solution for the design. When turning the model in your hand there is a dynamic feel and sense to it. It can be seen through the image on the left. Looking at that image there needed to be a translation of that dynamic feel and depth into the site. This is where the design began to take on its final form. One that would bind the alleys, plaza and Keeler Building all together, finally forming the catalyst that is desired. The result of this translation and progression are a series of sketches, one layered on top of the other reaching a product that is the catalyst.







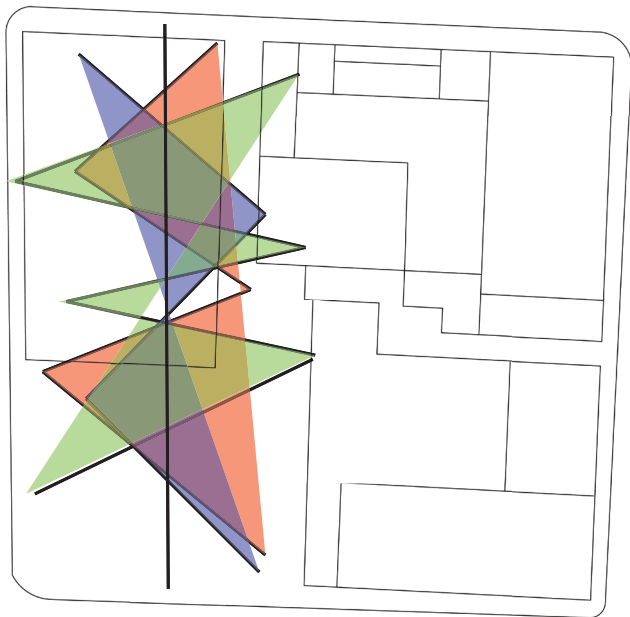
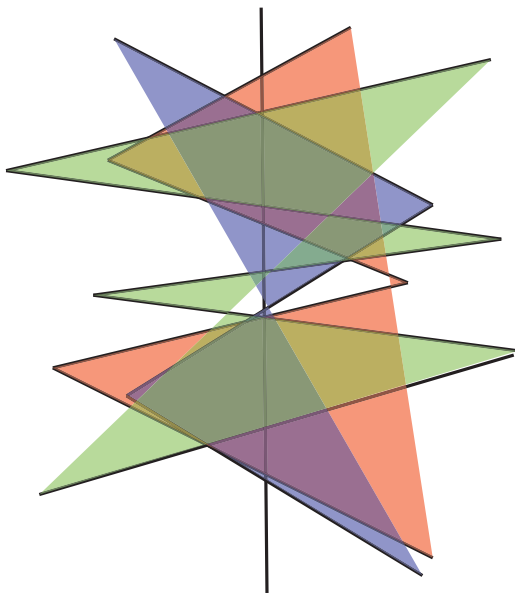
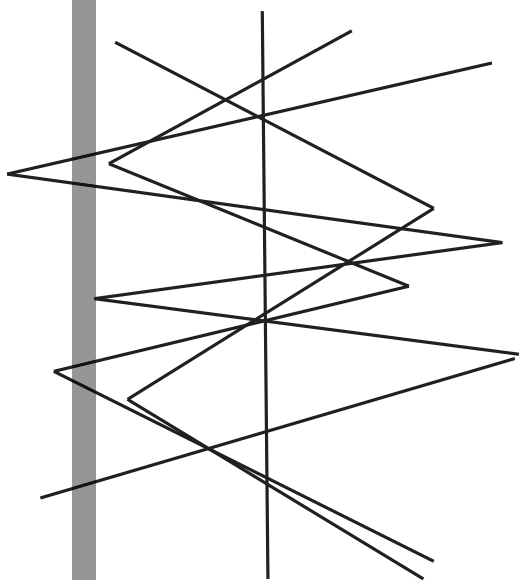




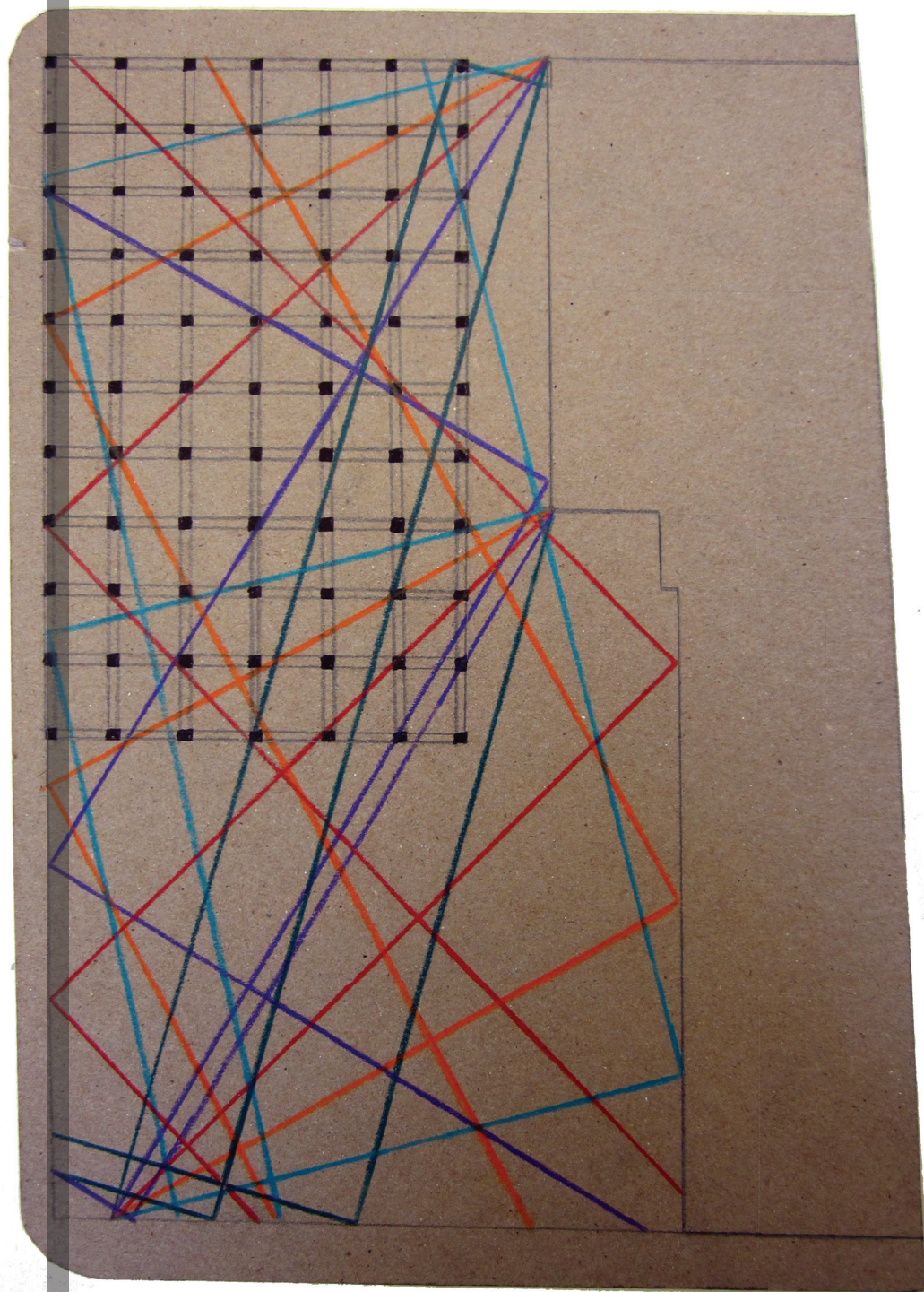
The image to the left is the result of the translation from model to sketch form. To achieve this result the angles from the sketch model were translated on the sketch from the corner of the incubator space on the Church to the corner where the amphitheater once stood. As the lines crossed each other selected areas had been shaded to form key points within the plaza. The translation of lines and walls overlaid the next image, p.97. It was through the shaded areas that the lines became paths and the shaded areas became shifted planes within the plaza to extend and abstract the alley. The interior of the Keeler Building became an exploration of the “interior alley”. I used this term as part of my investigation to explore what happens to the alley as it entered a built form. These images allowed a vision of what the site is to become.

Final Design:

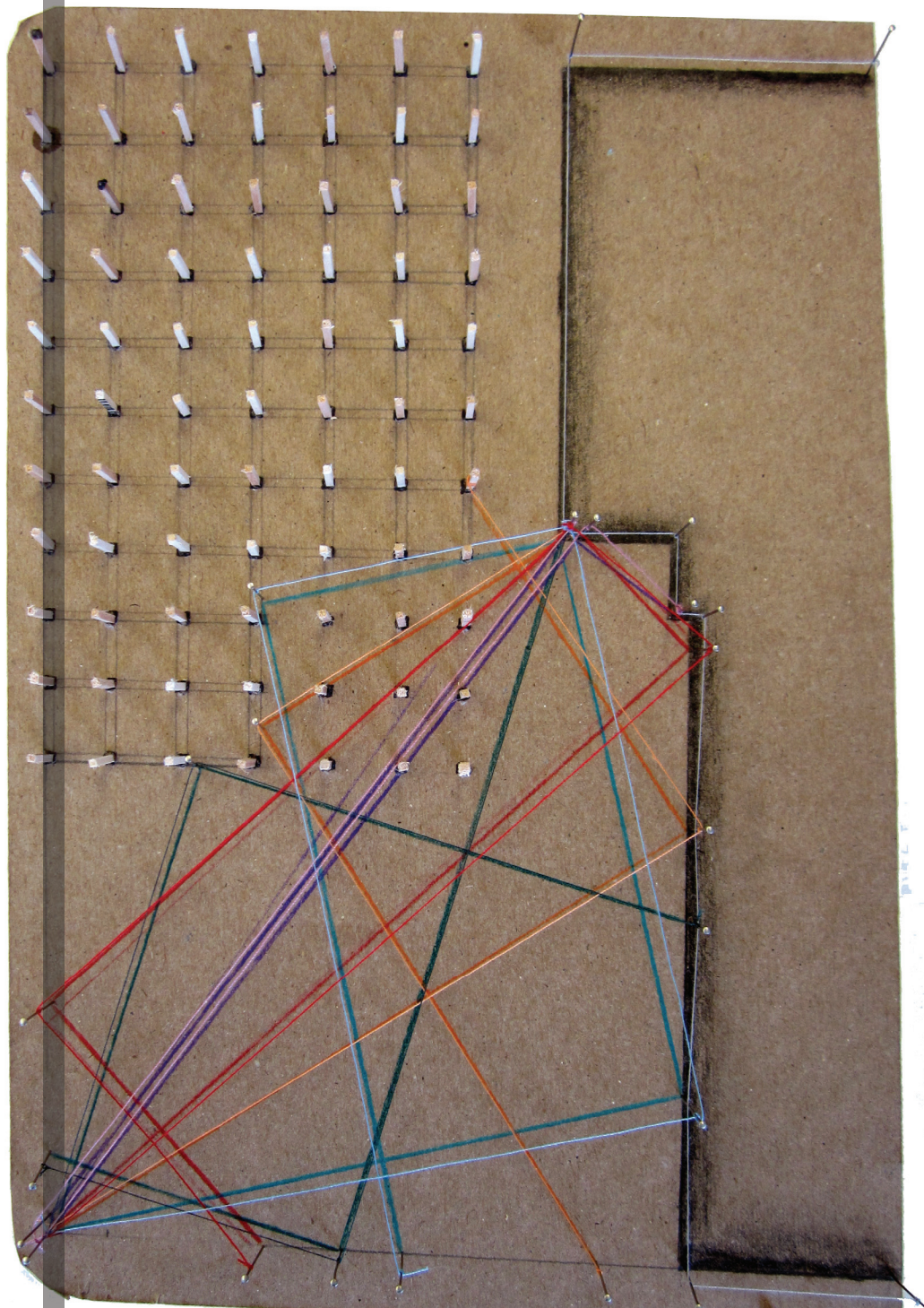
Layers



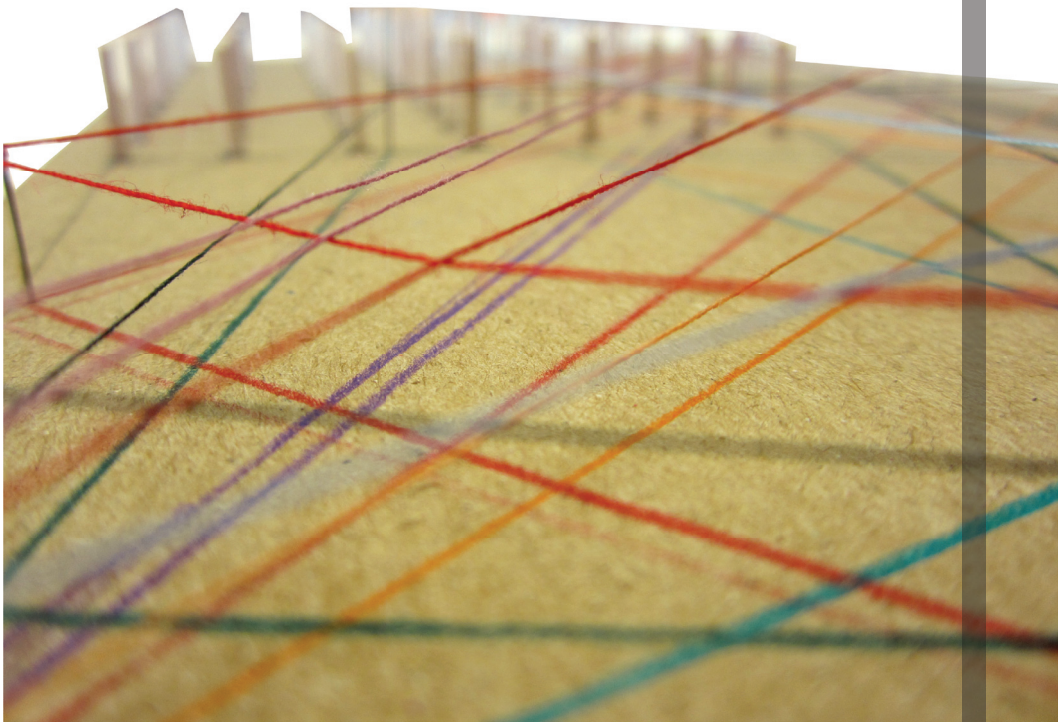
The process has been set up and the key ideas have been set. The final phase of the development was to model the new ideas and continue to explore what could be. The result has become my vision of a catalyst. One that in hope would bring the Entertainment District together in a community node that would create an identity for the area. The following design pieces are my conclusion to an architectural piece and solution for the alley.

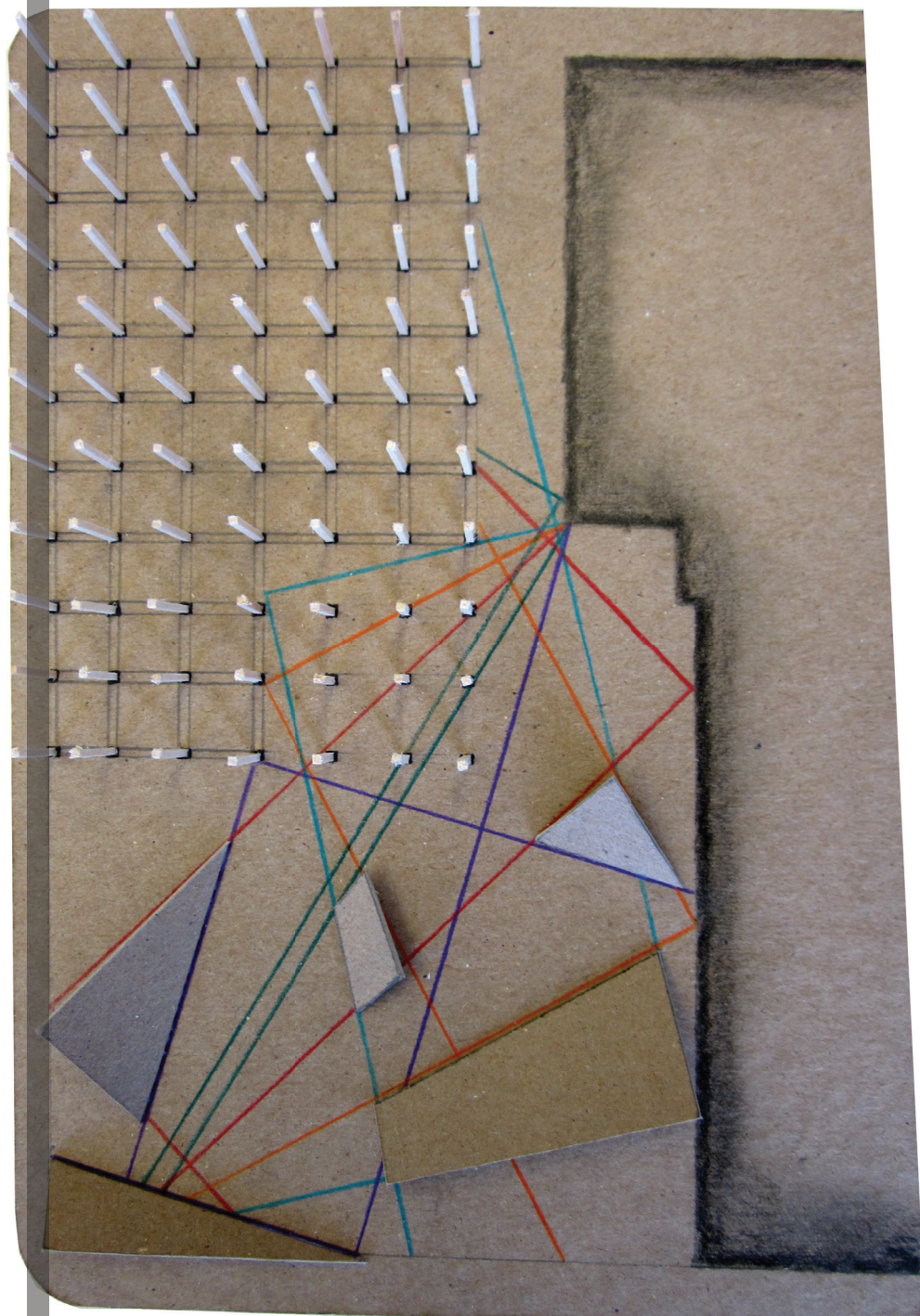


Step one. This phase was intended to layout the structure of the Keeler Building and outline the existing conditions on the site. What had once been lacking in my previous designs was a true integration of the alley into the Keeler Building. During this phase the angles penetrated into the Keeler Building's structure so that it may begin to manifest the entire site.

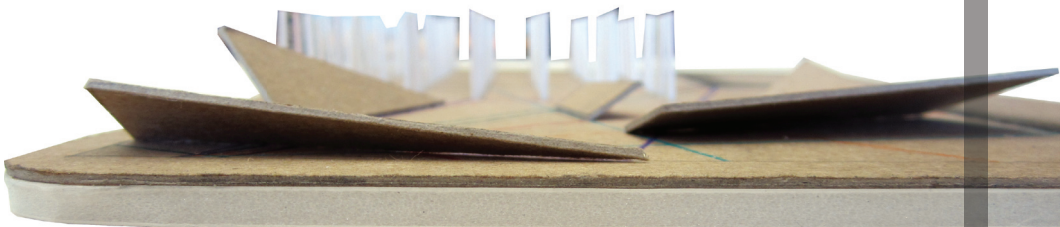


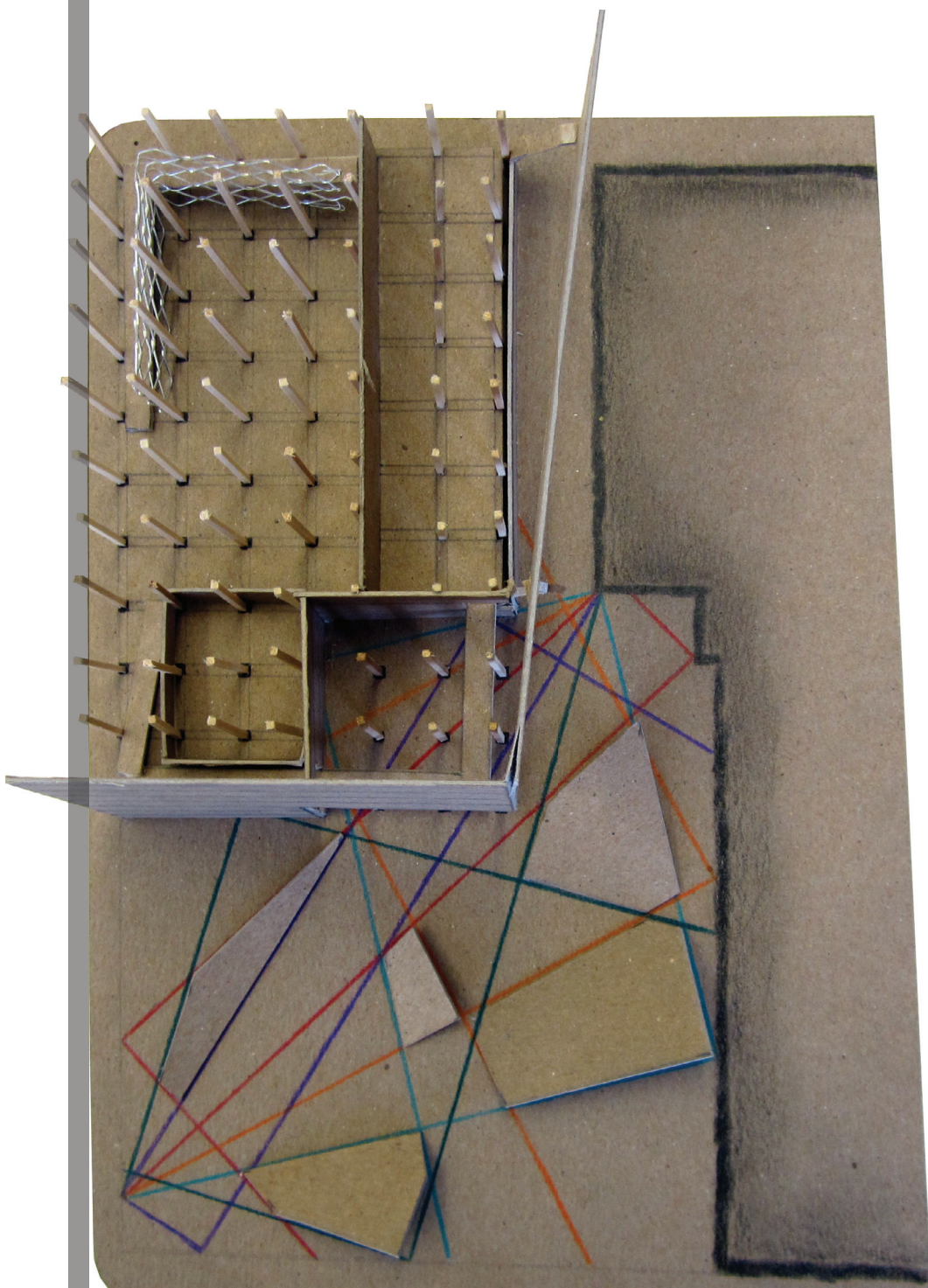
Step two. This phase took the form from 2 dimensional to 3 dimensional. Building up the existing structure and using pins and string I began to extrude the lines creating a small network on paths and zones within the site.



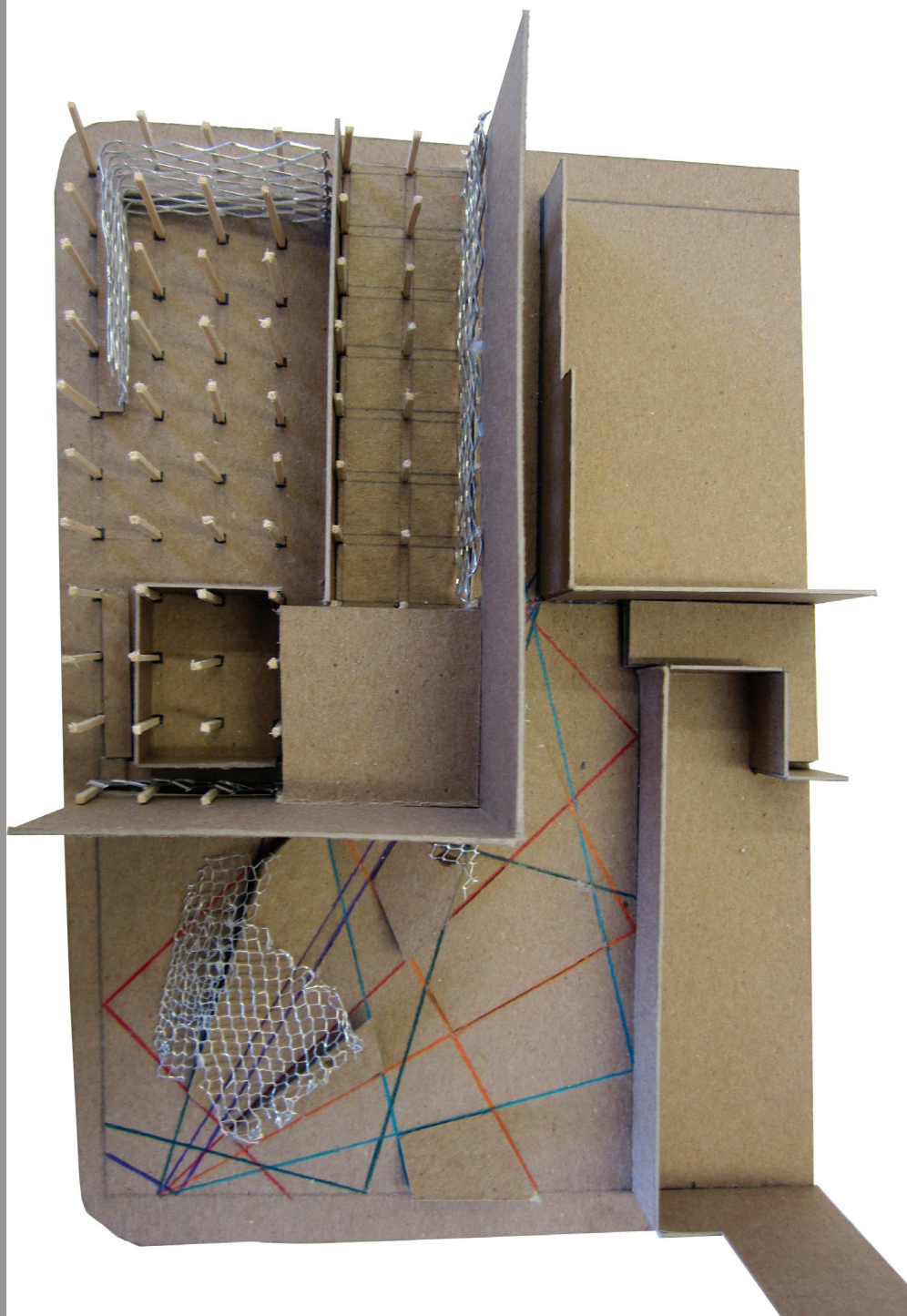


Step three. From the extrusions of the string areas are selected that have been formed by the intersecting pieces. The planes are to become shifts in topography that form the paths throughout the plaza. These shifts in topography are also meant to become seating for performances within the space provided.

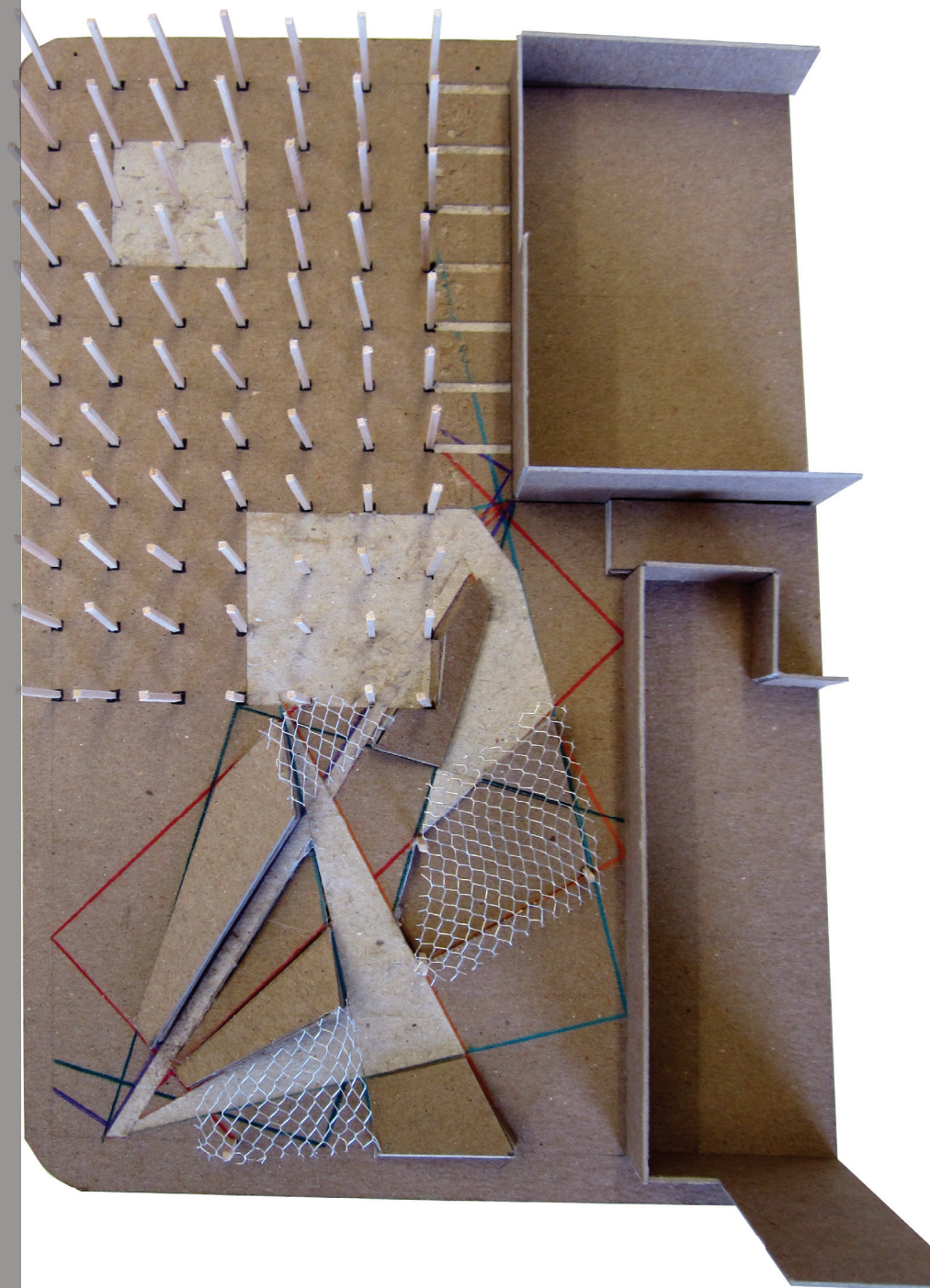




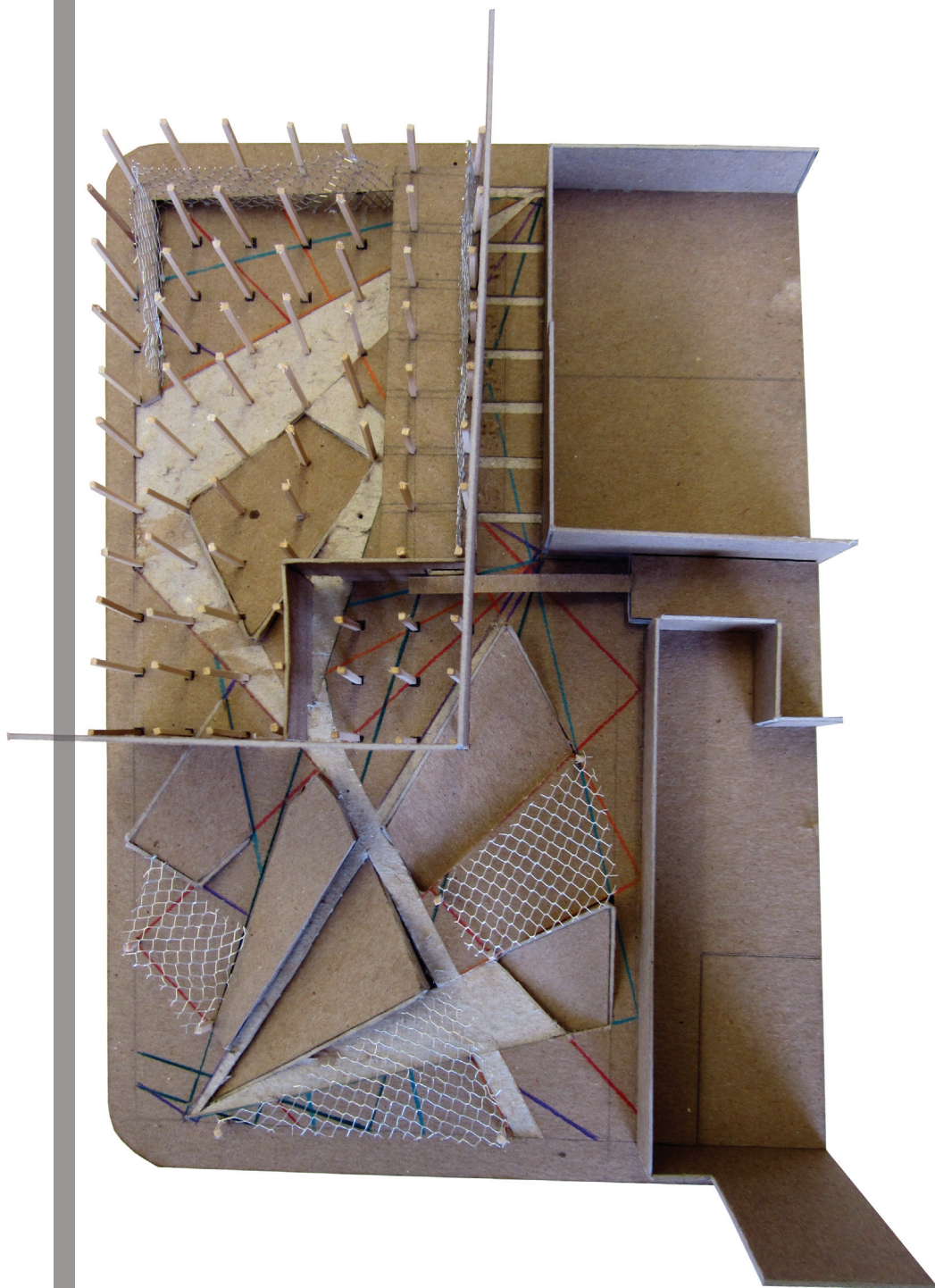
Step four. The development of the Keeler Building became critical as the development of the plaza and alley are underway. The struggle in this design is to find a balance between the alley, plaza and Keeler Building. It became imperative that one was not to overshadow the other.



Step five. The development of the plaza needed to be in more control. As if had stood there were too many individual pockets within the plaza that needed to be addressed. This phase toned down the shifted planes to focus them more on two central nodes within the site.



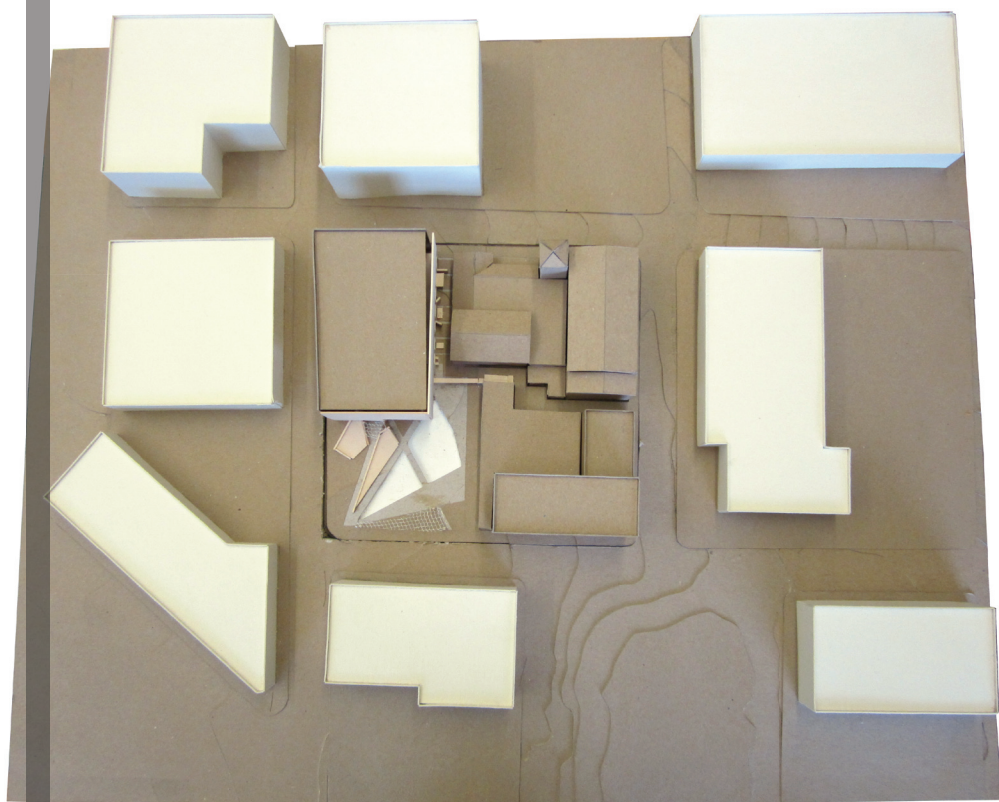
Step six. It was mid-way through this development that the balance I had sought after was lost. There had become too much development of the plaza and not enough of the Keeler Building. There was a feel of two separate projects being meshed together. A slight modification in the design approach was needed to fulfill the gap between these two elements.



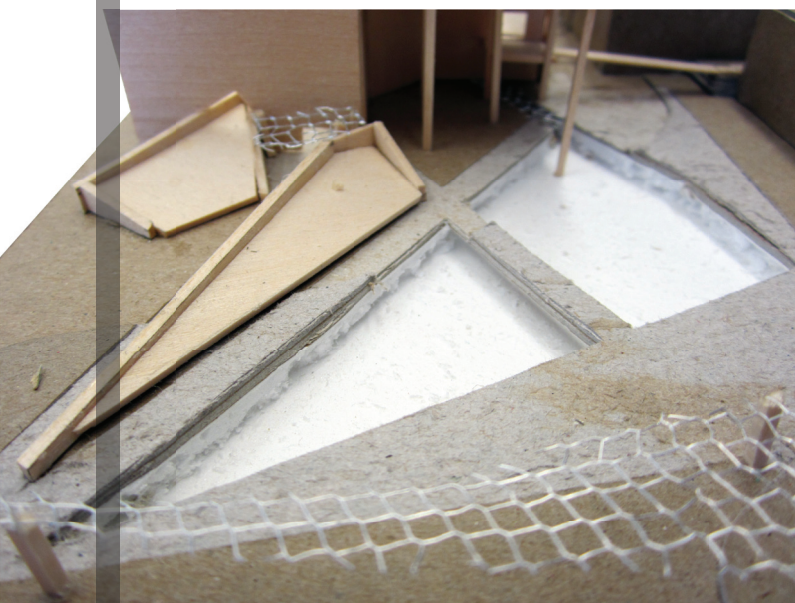
Step seven. The complete integration of the alley into the Keeler and extend into the plaza was achieved through this design. Using lines as they once were, penetrating into the Keeler Building, the network of paths had been created to give the site that dynamic feel it was searching for. The paths weave around each other becoming entangled around key nodes within the space creating a holistic experience as one would venture in the site. The last element is also added. The secondary alley between the Church and Fitzgerald is bridged across the main alley to connect with the Keeler Building adding another layer of travel throughout the site.

Final Design:

Final Model



The final model is when everything fell into place. The balance between the three elements and the site had been achieved and this rendition had the most focus and control.

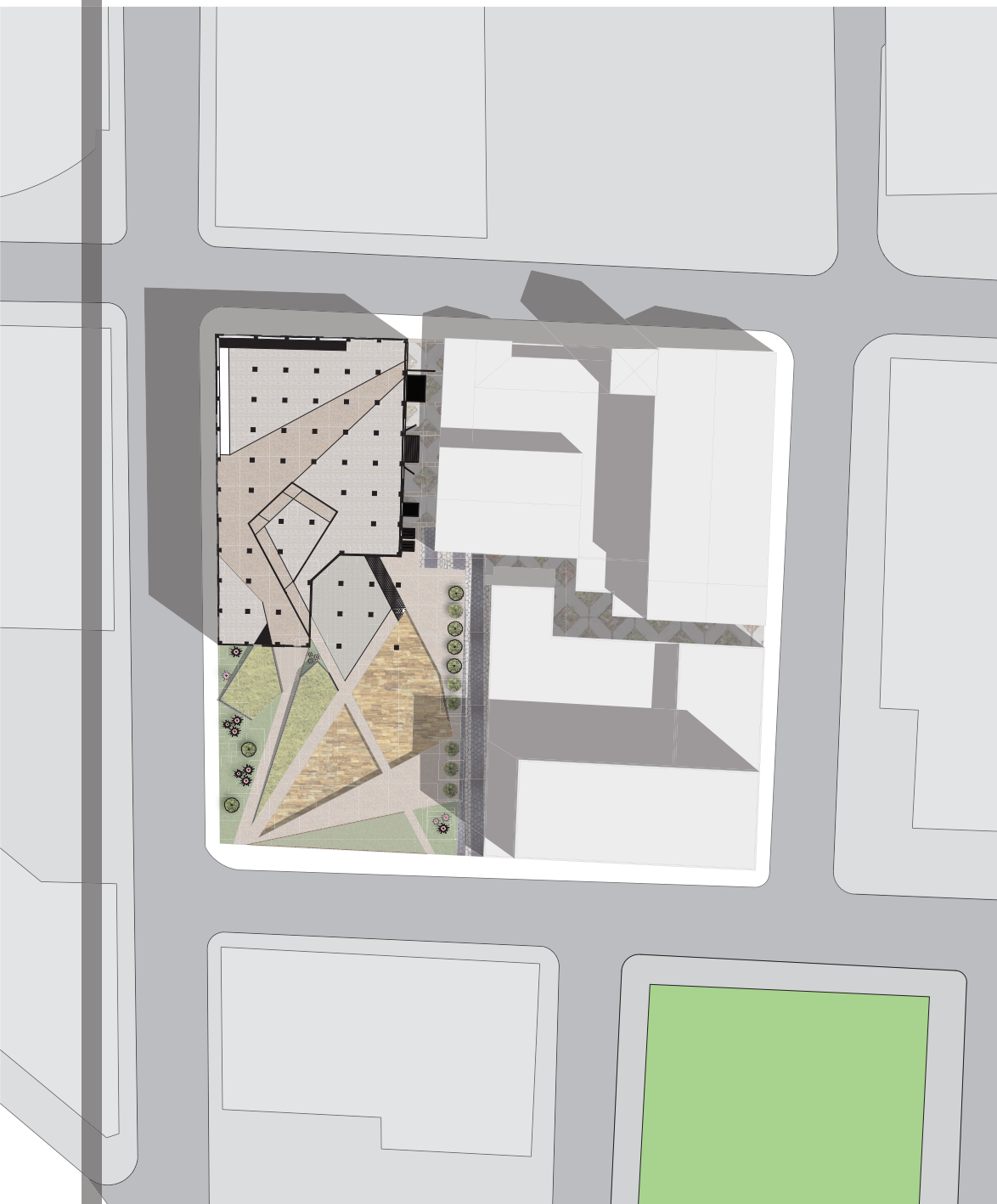


The plaza had been changed from multiple nodes of interest to one focused area split in two layers. The main layer which remained at grade has the paths of circulation throughout the site offering a wandering experience around the plaza and through the alley. The lower plaza is sunk one story into the ground and is only possible to reach through exploration of the site. When one flows that paths on the model only one path leads to the interior of the Keeler and to the entrance of the lifted terrace inside the Keeler Building. The terrace located inside the building house a ramp that leads the users under the layers of the Keeler Building, alley and upper plaza. The users enter from the tunnel into the lower plaza space where exhibitions and performances are held. While in the lower plaza the Keeler Building towers over you. The skin of the building has been peeled back to express the monolithic structure that comes driving down into the plaza.

The alley between the Keeler Building has become fully developed. Between each bay of the existing structure a piece of the facade unravels itself into the alley. The fragmentation of the facade disrupts the alley space creating zones each having their own function. When it comes time to have service vehicles enter the alley the facade folds back into the Keeler Building allowing for traffic to enter. As the traffic approaches the plaza the alley splits into a vehicular travel path and a pedestrian travel path so that each may go their own way without disrupting the function of one another.



Site Plan



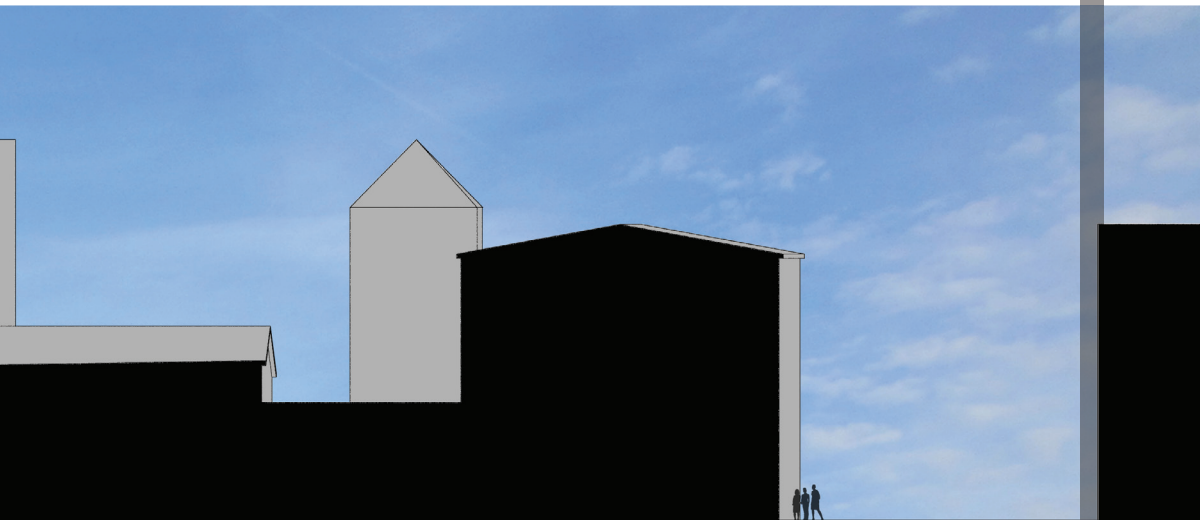
F_{loor} Plan

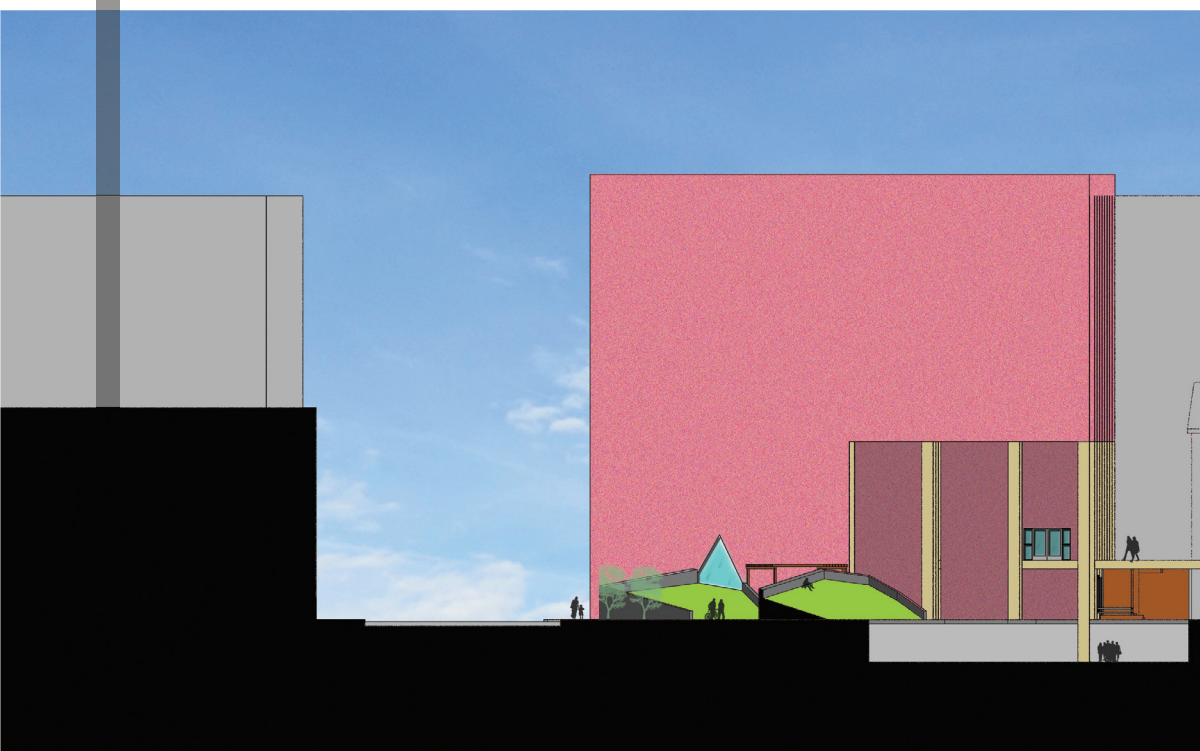


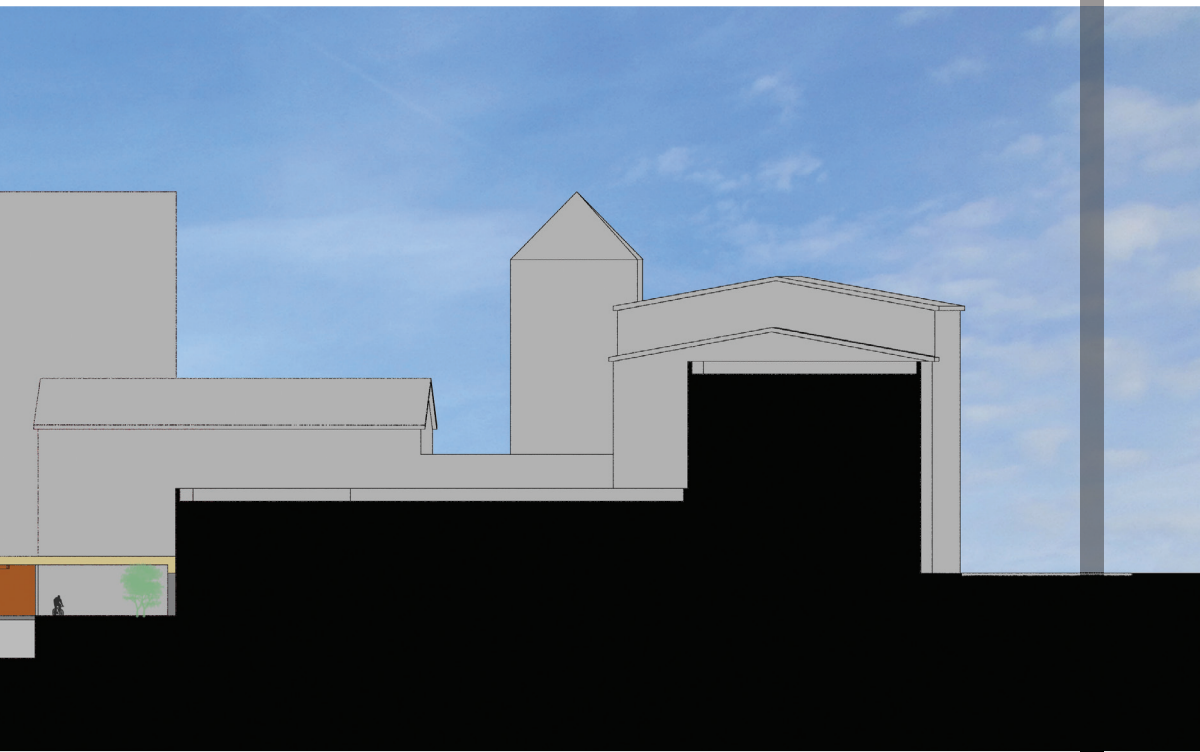


Section A

Section B



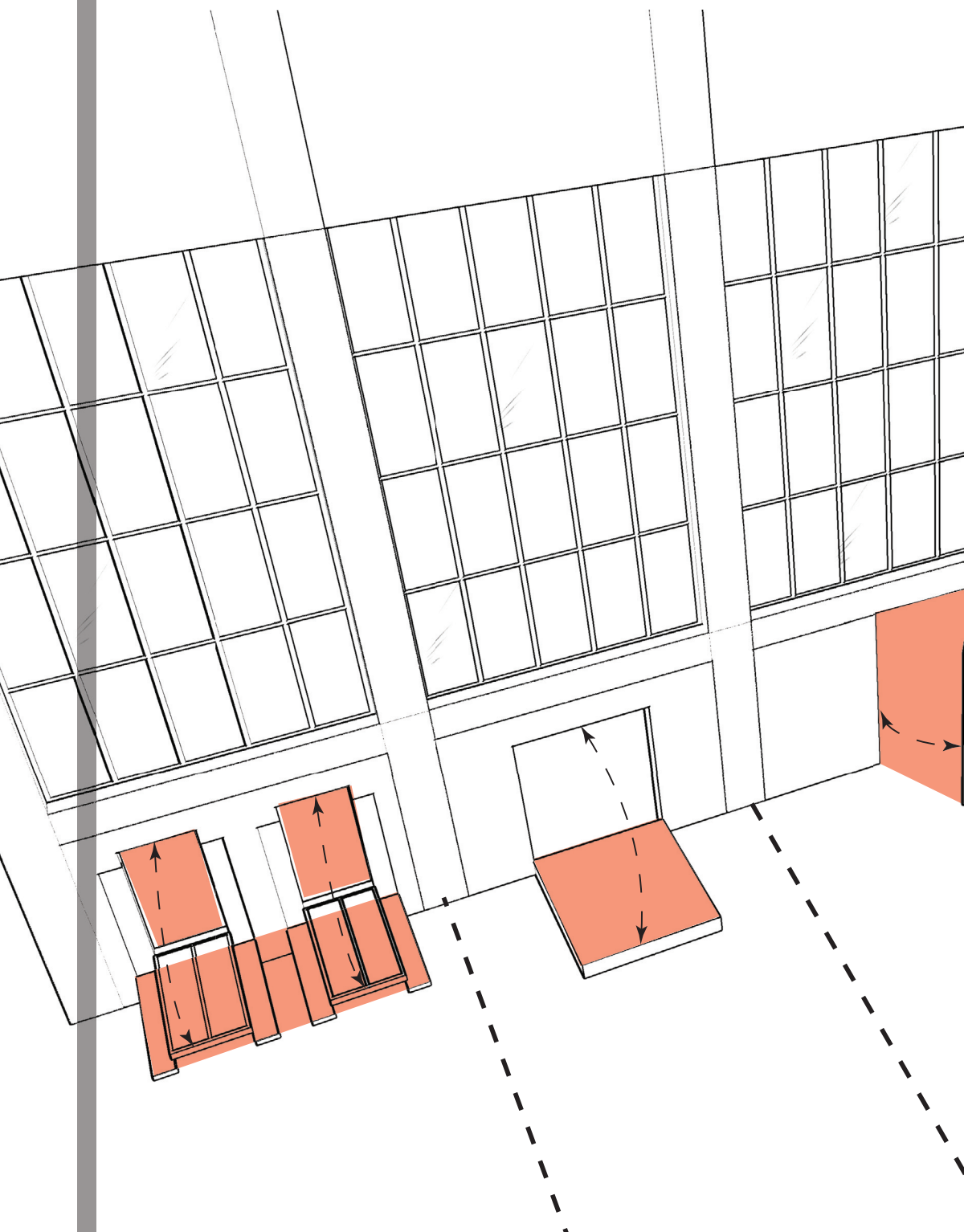




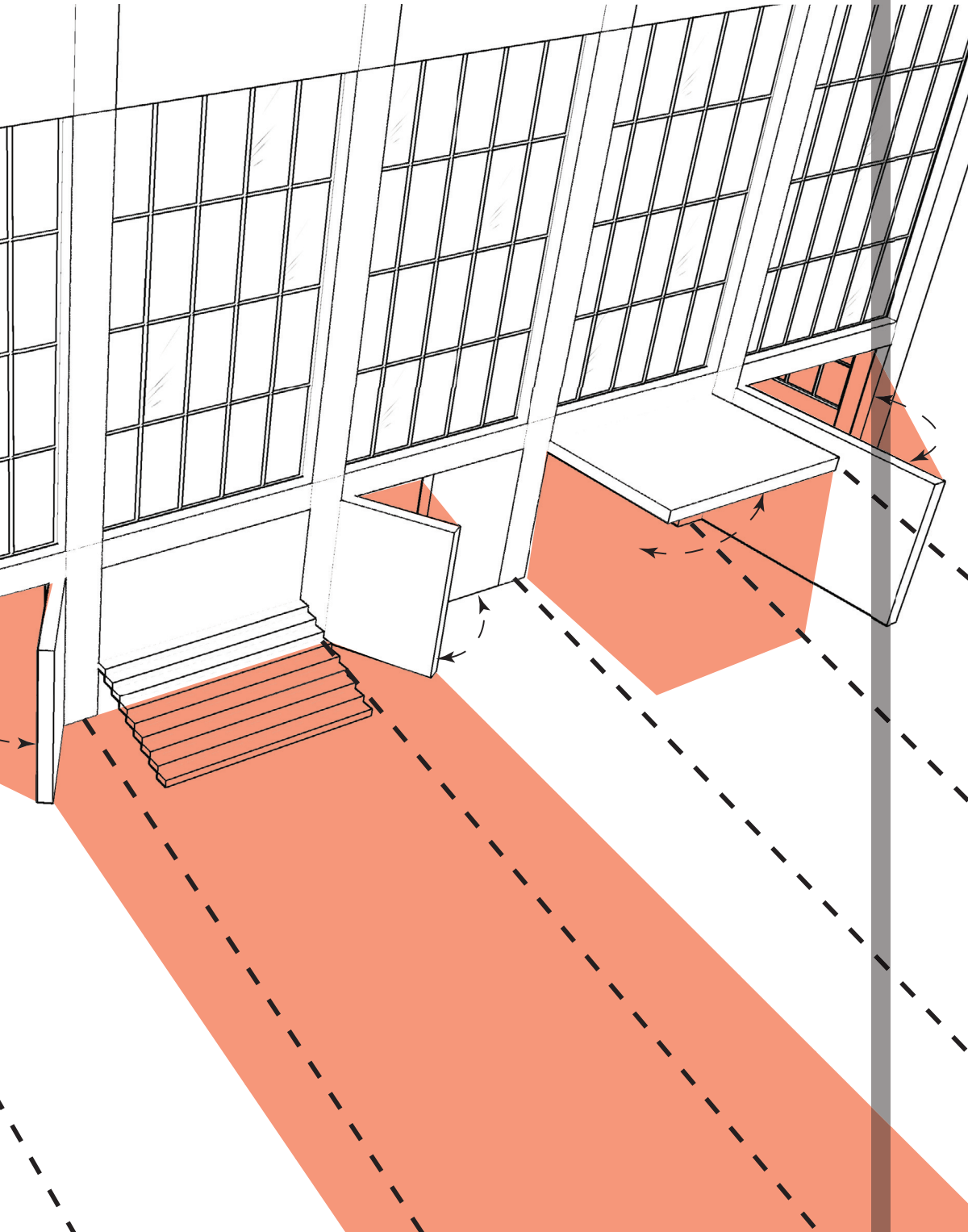
Section C

Section D

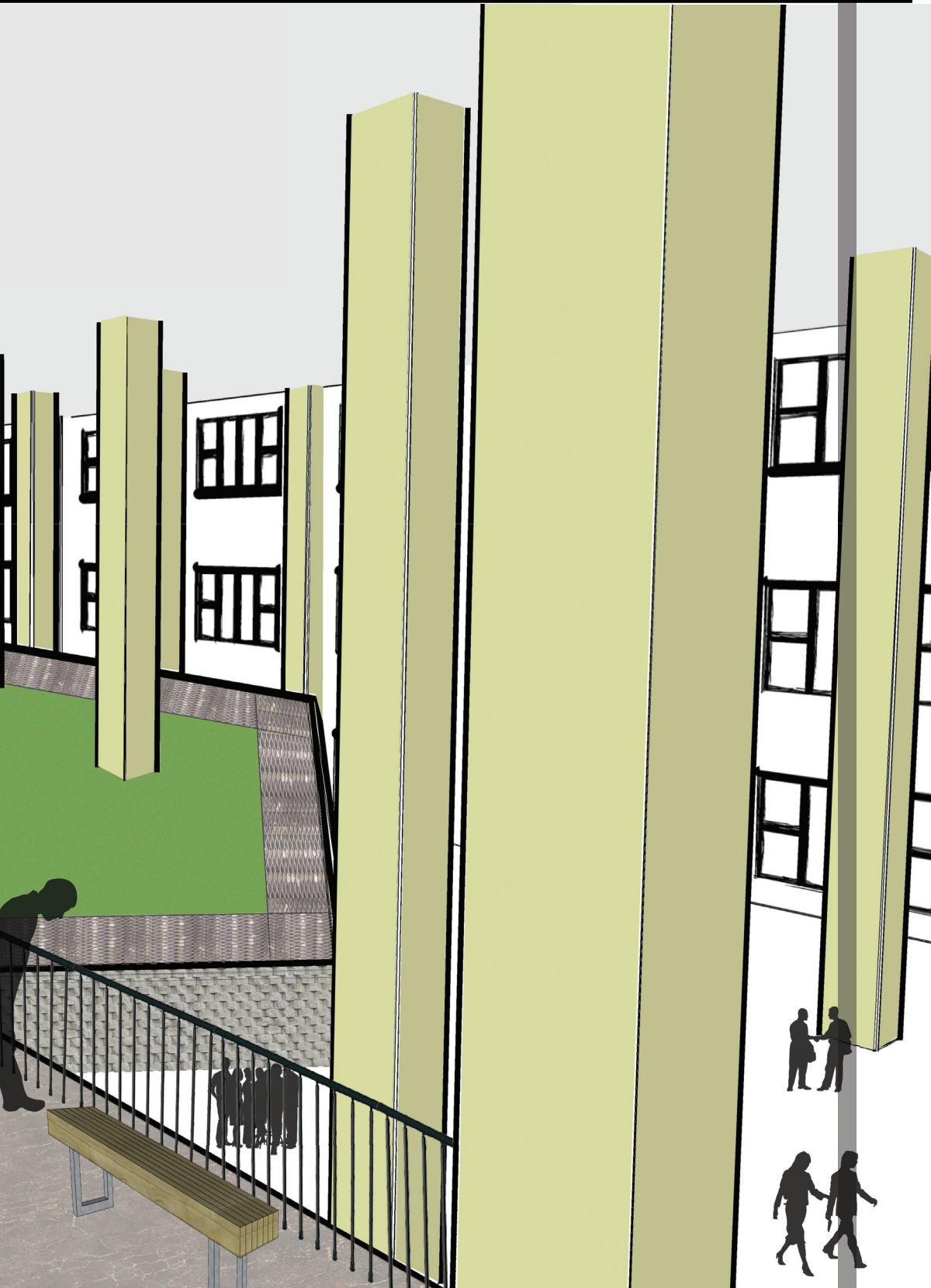


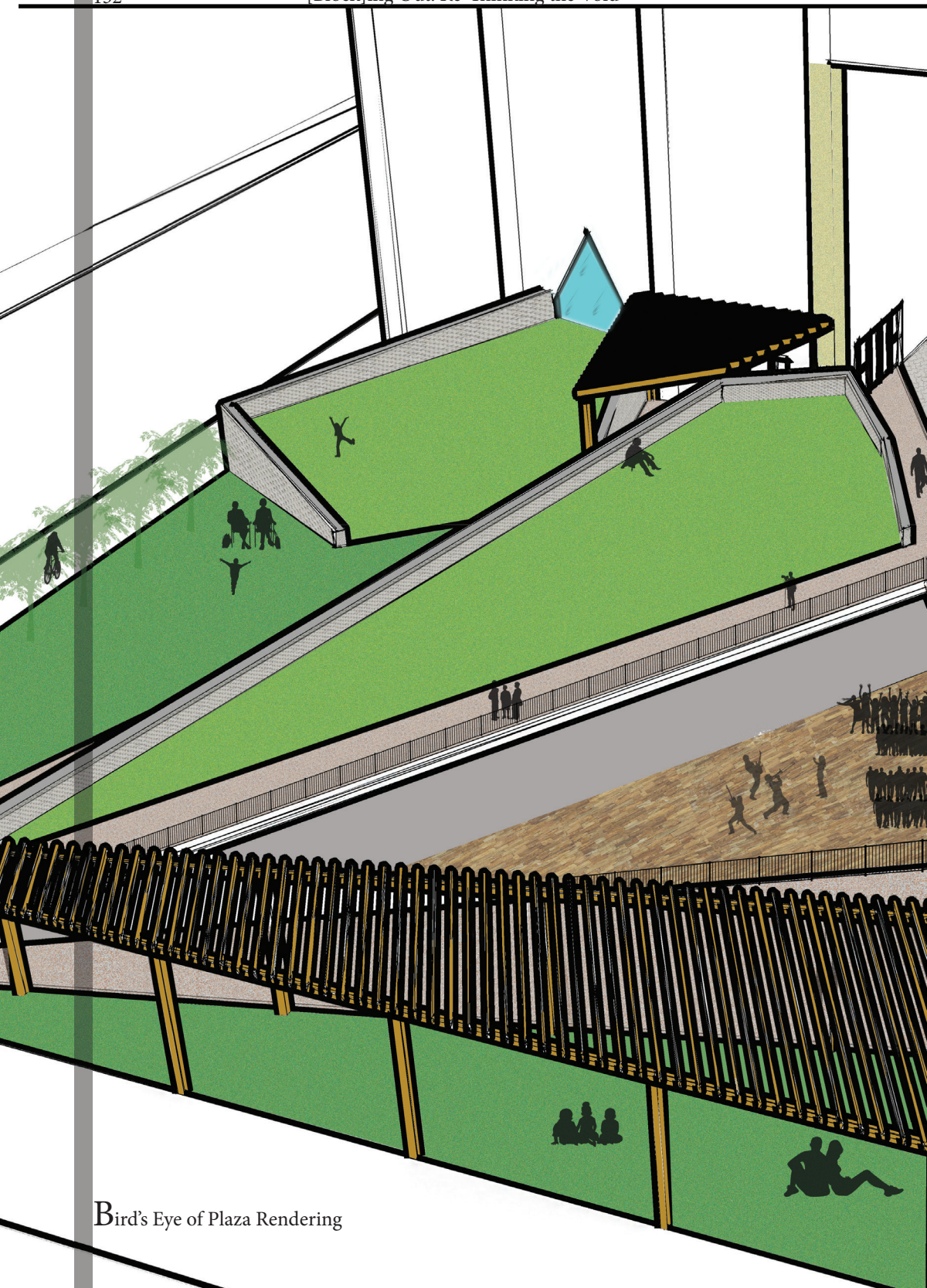


Kinetic Alley: Zones and Functions

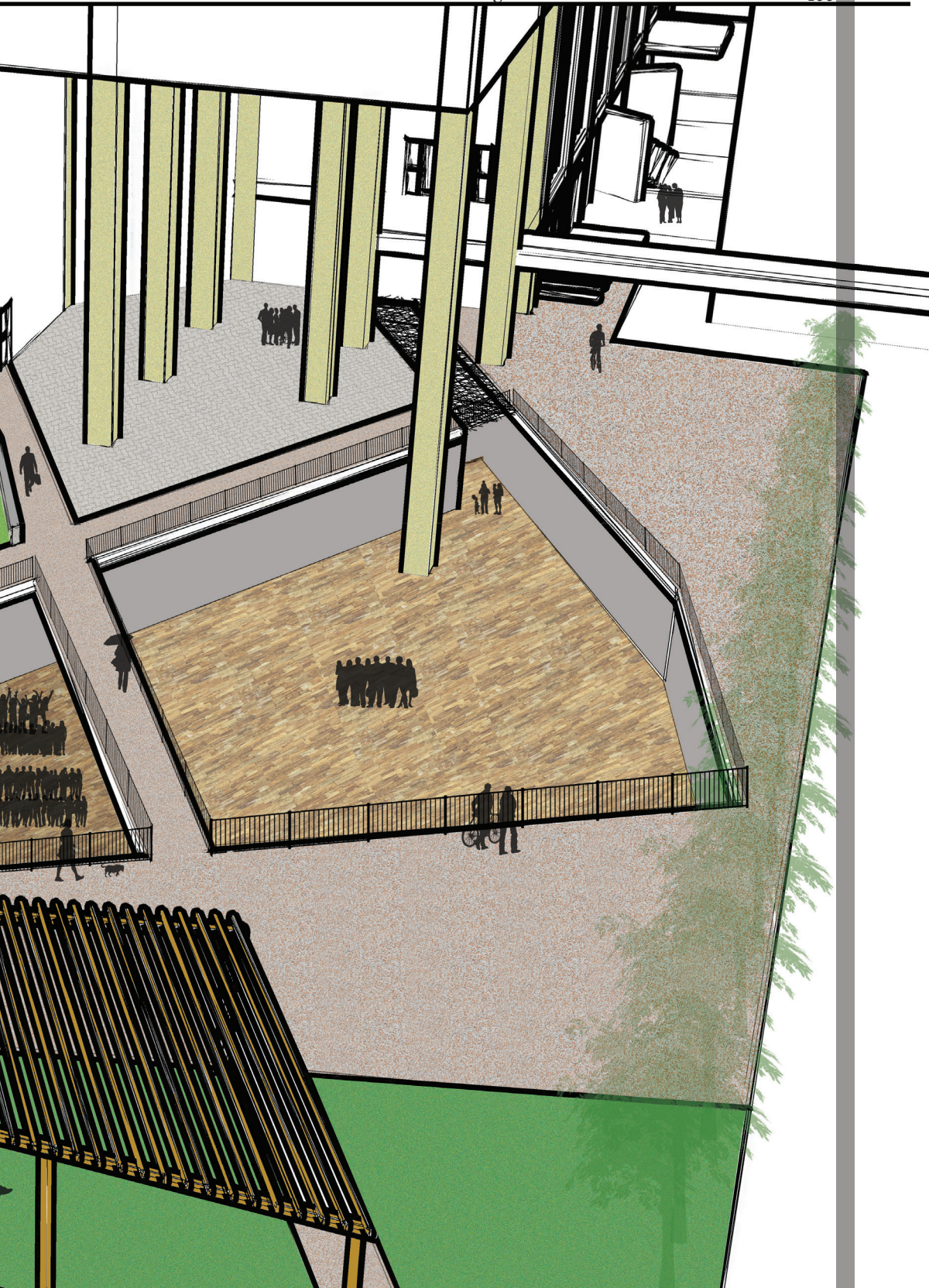


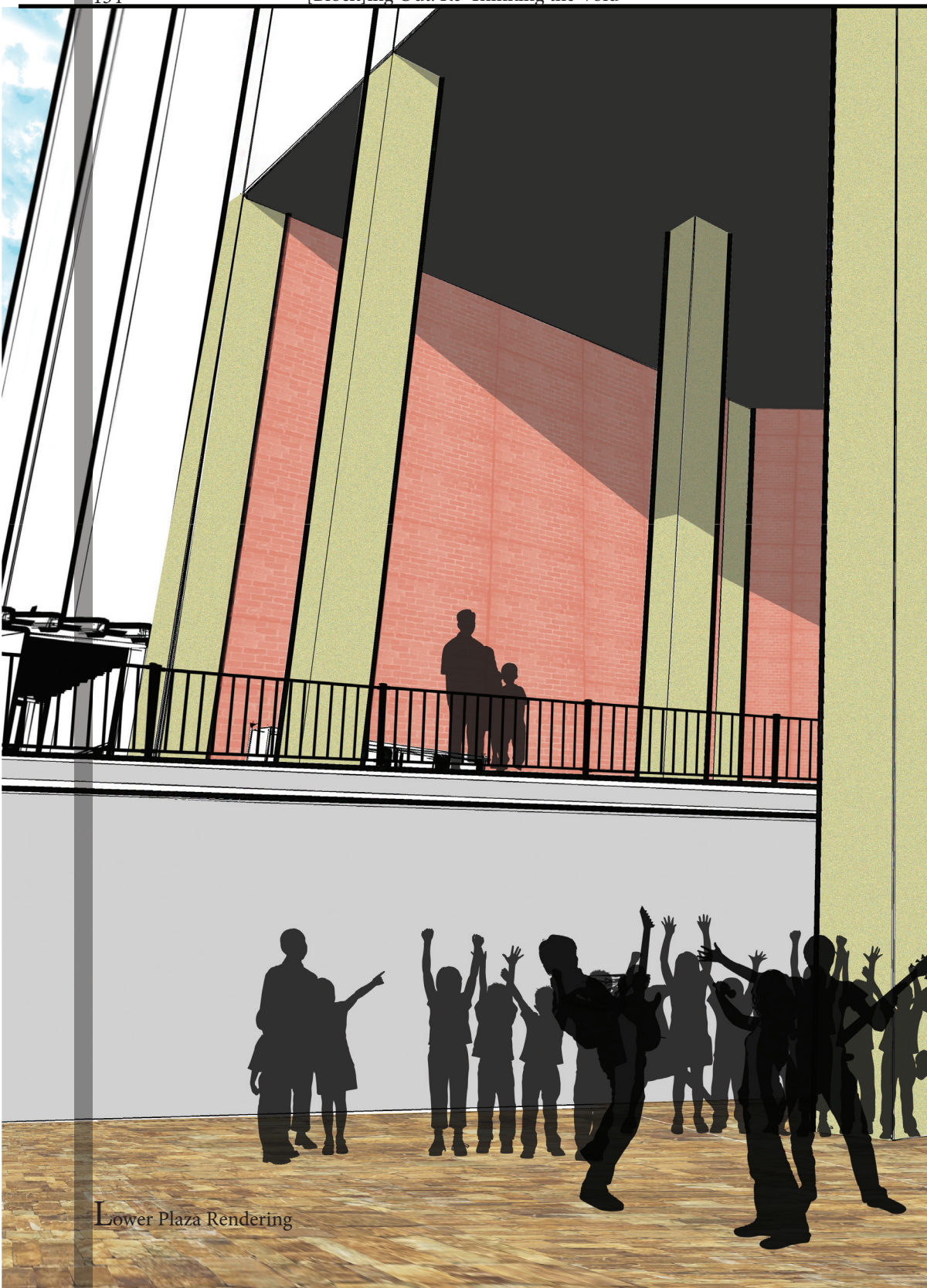




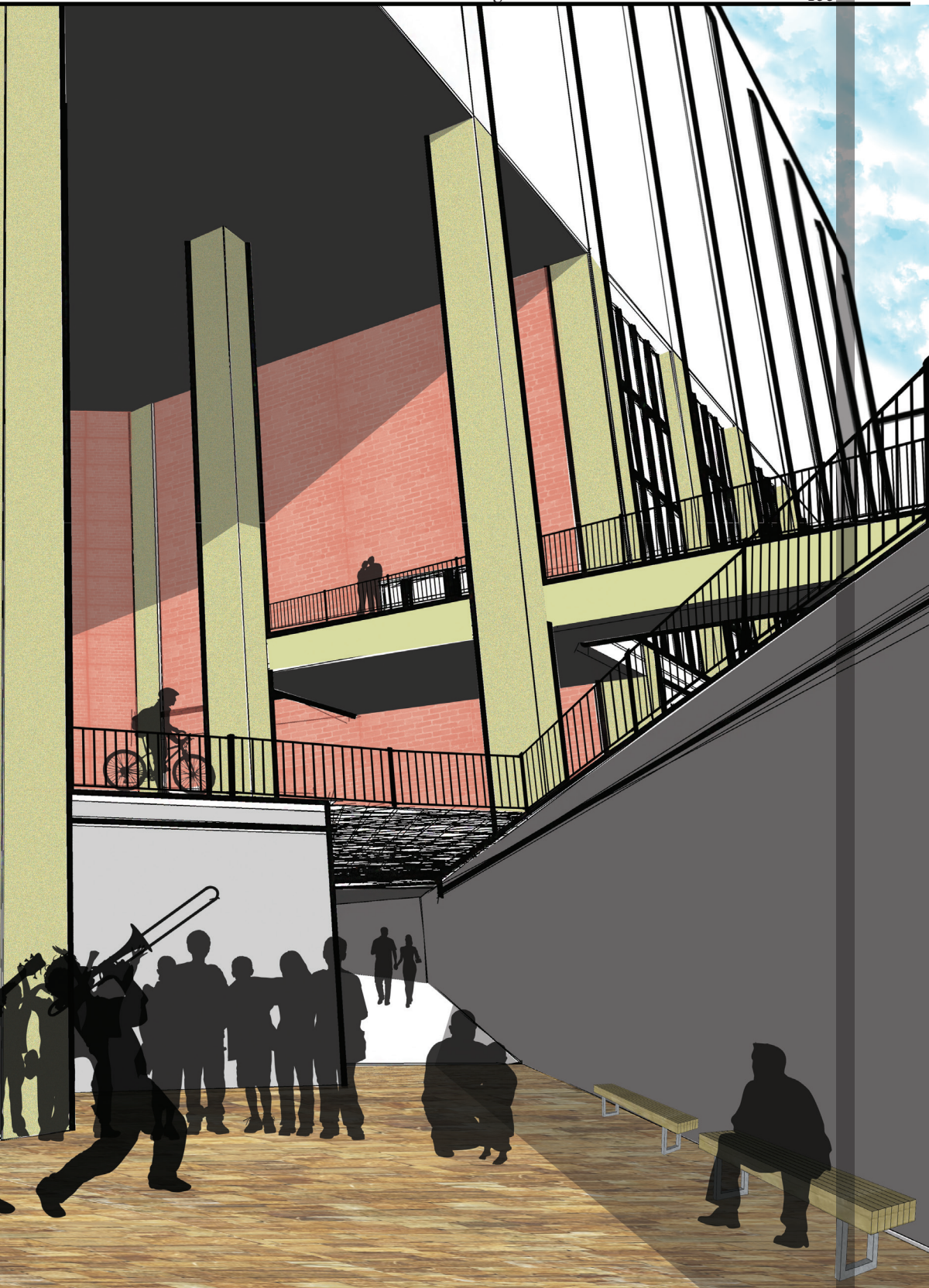


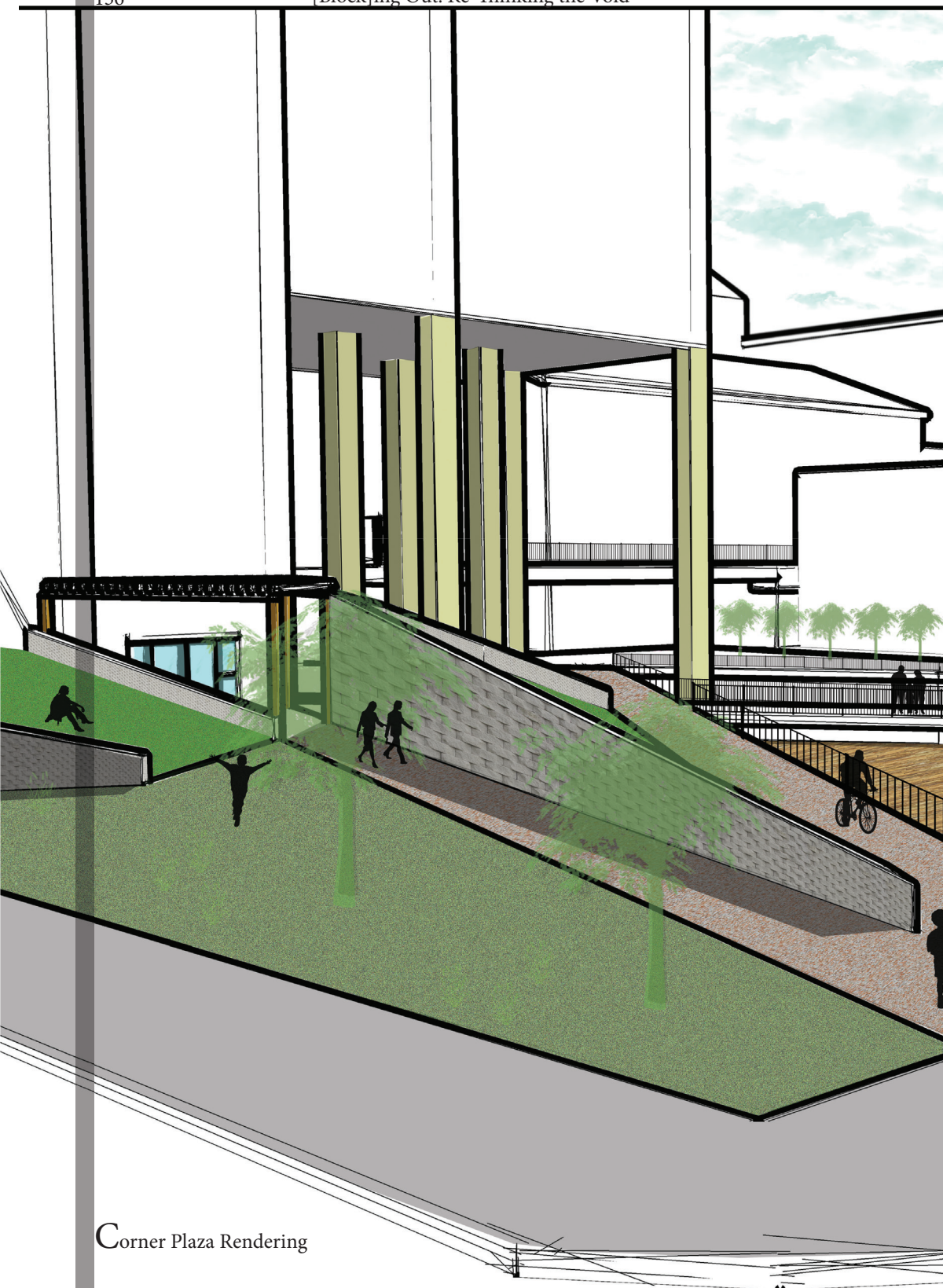
Bird's Eye of Plaza Rendering



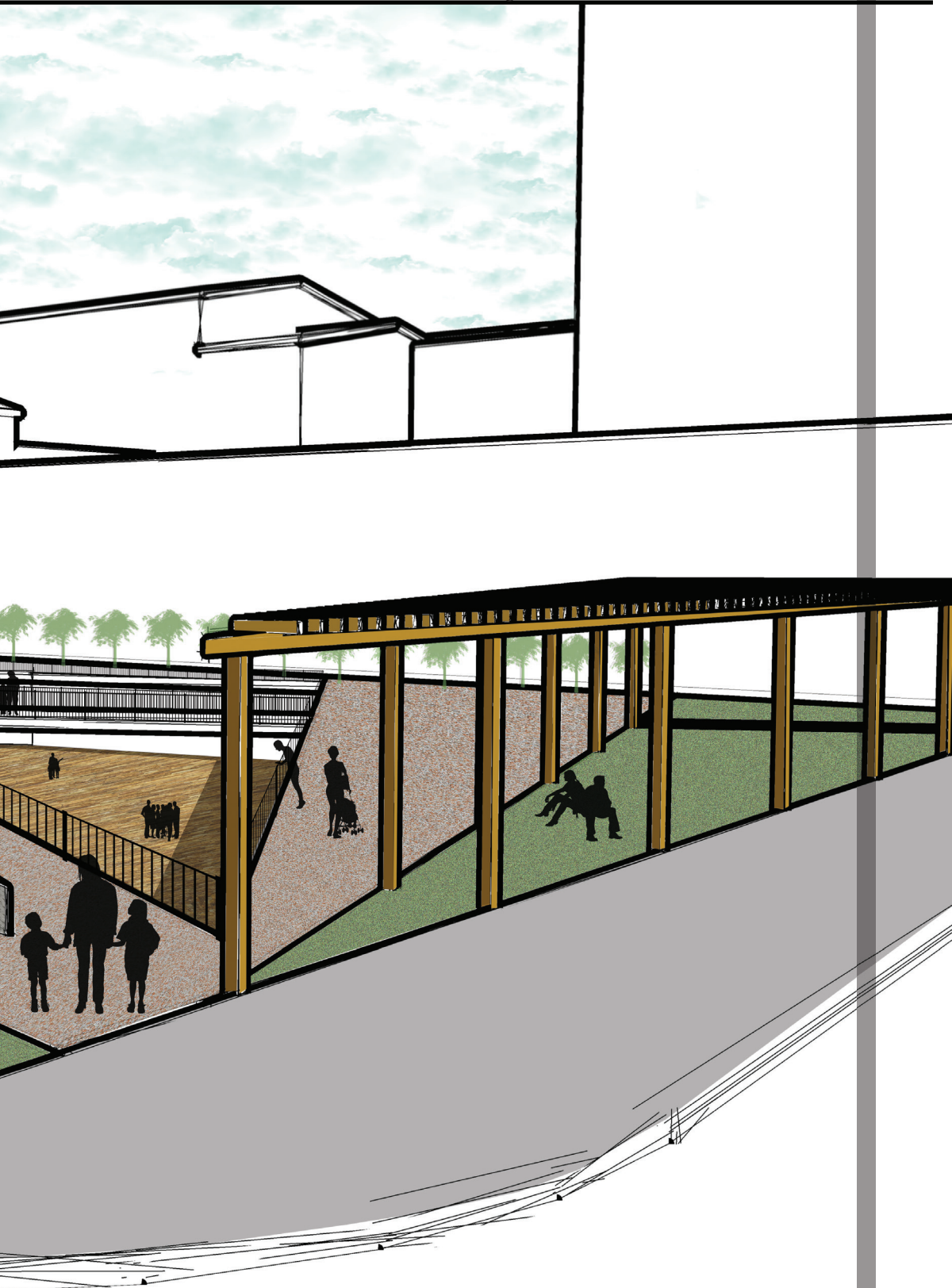


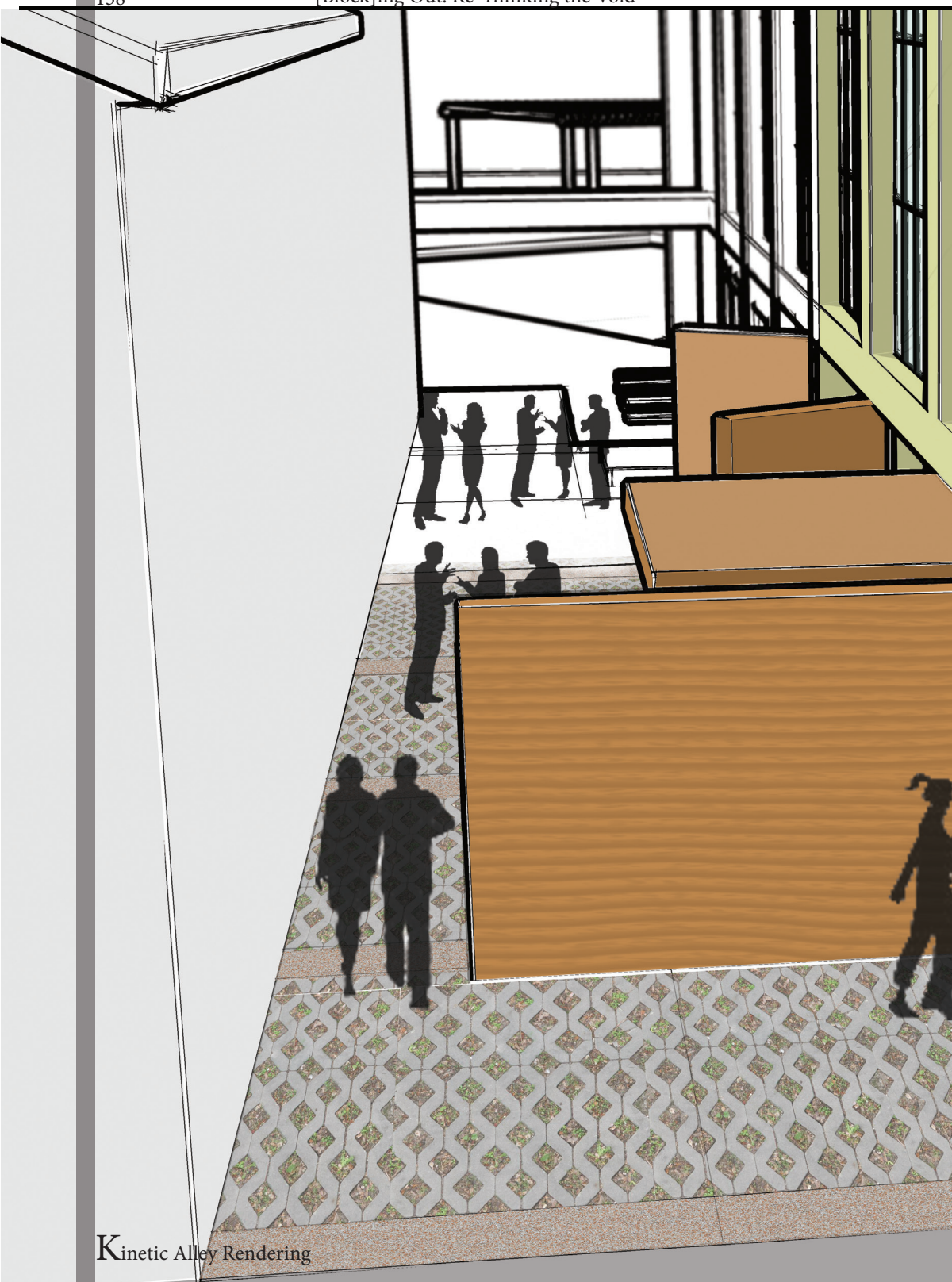
Lower Plaza Rendering





Corner Plaza Rendering







Conclusion:

“Crank”, “Do it”, and “Make it your own”. These become the most commonly used phrases by my thesis advisor John C. Mueller. Every time I had an idea or thought that I would discuss with John these are some of the statements that he would throw at me then walk away. The times got harder as the year raged on, but nothing more than those three statements are all I had ever received. These three statements are some of the best advice that I have ever received. When I was stuck or questioning myself these words said it all.

My thesis had originally set out to be a study of the urban block in the city. After numerous discussions and struggles it came to be the study of the alley. The goal was to look beyond the traditional thoughts and stereotypes that shrouded the alley. Designers and Architects tend to neglect these spaces even though they play very integral roles in our everyday lives. We must respect the role and nature of the alley but at the same time master it and redefine our own conditions of the alley.

I do not see this study ending here with these last few words. My intent is to push this idea further and make a difference in our communities and cities for the greater good and better living environments. There are times when we will all doubt our own abilities and question our own way of thinking. I ask you to remember the three phrases that are mentioned at the beginning of the conclusion. “Crank”, produce work as much as you can, this will guide us through our struggles; let yourself explore new territories and uncover new ideas. “Do it”, do not dwell on an idea. If you have a thought produce it, work it. We will never know until we try and if we do not receive the desired results we at least will learn something out of it. Lastly, “Make it your own”. Whatever you do, remember that you are in control of your own self and decisions.

Bibliography:

- Clay, Grady. *Alleys: A Hidden Resource*. Louisville, KY: G. Clay and, 1978. Print.
- Howard, Ebenezer, and Frederic J. Osborn. *Garden Cities of To-morrow*. Cambridge, MA: M.I.T., 1965. Print.
- Kostof, S. *City Shaped: Urban Patterns and Meanings through History*. Boston: Bulfinch, 1991. Print.
- Kostof, Spiro, Greg Castillo, and Richard Tobias. *The City Assembled: The Elements of Urban Form through History*. Boston [etc.: Little, Brown and, 1992. Print.
- Krier, Léon, Demetri Porphyrios, Richard Economakis, and David Watkin. *Leon Krier: Architecture and Urban Design, 1967-1992*. London: Academy Editions, 1992. Print.
- Lynch, Kevin. *Good City Form*. Cambridge, Mass. [u.a.: MIT, 1984. Print.
- Mavridou, Magda. "Perception of Architectural and Urban Scale in an Immersive Virtual Environment." Web. 22 Nov. 2011.
<<http://www.space.bartlett.ucl.ac.uk/events/sc06/proceedings/mavridou-sssc.pdf>>.
- Panerai, Philippe, Jean Castex, Jean-Charles Depaule, and Ivor Samuels. *Urban Forms: Death and Life of the Urban Block*. Oxford [England: Architectural, 2004. Print.
- Salingaros, Nikos A. "Connecting the Fractal City." "Connecting the Fractal City", by Nikos A. Salingaros. *PLANUM -- The European Journal of Planning On-line*, Mar. 2004. Web. 12 Nov. 2011.
<<http://zeta.math.utsa.edu/~yxk833/connecting.html>>.
- Waters, Wendy. "Alleys: Paths to Urban Revitalization." *All About Cities* Â» *Alleys: Paths to Urban Revitalization*. 31 Oct. 2006. Web. 26 Apr. 2012.
<<http://allaboutcities.ca/alleys-paths-to-urban-revitalization/>>.