



In Time:

Relationships Between People, Place, Emotion, and Memory

Acknowledgements

I would like to thank everyone who believed in me and pushed me to become who I am today. Without my friends, family, and professors there is no way that I would have been able to accomplish everything that I have done to this point.

I would like to give special thanks to my parents, Ken and Judi Frost, for never letting me give up no matter what it is that I'm doing. I would also like to thank my brother and sister, Aaron and Kristina, for being supportive and understanding over the years. My family is the most important aspect of my life and nothing that I say can ever fully show the love and gratitude that I have for them.

Thank You,

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Masters of Architecture

University of Detroit Mercy: School of Architecture_Advisor Karen Swanson_Fall 2011-Winter 2012

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Abstract

A person's emotional response to the experiences they have play a role in how they perceive the spaces around them and shape who they are. An understanding of these relationships is sought through studying how and why people perceive their surroundings and effective ways of designing the environments people occupy to promote a positive experience. Understanding how a place changes over time and the affect that various changes have on people can provide us with the knowledge required to design cities that better fit the needs of people moving forward. Too often in our past, development was undertaken without regard for what previously existed. People were forgotten in the design process and decisions were made based solely on what would be easiest to accomplish. The freeway system is a perfect example of this as thousands of people were displaced in order to construct the multiple freeways that run through the City of Detroit. This way of thinking has begun to change recently, but the negative perceptions that came with many developments in the past still weigh heavy on people and on the urban context. People have a genuine distrust for large scale development. Architecture has an opportunity to address the faults of the past and become a facilitator for new development in an urban context. The question becomes what role can the architect play in revitalizing communities that have been cut off and neglected over time because of careless development? This thesis looks to explore the relationships between people and the physical environments they live in and the experiences they have in them to develop a space that is rich in vitality and returns connections that were forcibly taken away in the past.

Memories reside within everyone. They are what we retain from events, experiences, place, and any of a multitude of things that we experience during our lifetimes. Memory can be found at every level of a person's life. Each of us has personal memories that correlate to things that happen to us individually, there are also events or experiences that happen at a much larger level and resonate with a large number of people. Memories provide us as humans with a thread that tie us together through the experiences that we have throughout our lifetimes. This thesis looks to understand how memory can influence ones perception of the physical space around them and conversely how physical space can influence ones memory.

The roots of our memories lie within each of us through our emotional responses to the events and experiences that we have. Our emotional responses to events and experiences lay the framework for how we will remember the various aspects of our lives. When the event occurred, where we were when it occurred, and how we responded to the event all go into shaping how we perceive the world around us. Let's take time for example, our perception of similar experiences changes over time. Place is another key indicator as the built environment around us is constantly changing. This reflects the idea of time as well, something that was around the first time you experienced it may not be there at a later date. How we respond to the events that we encounter throughout our lives is also a key factor that relates to our memory. Our responses to events come from the experiences we have throughout our lives. Emotions play an important role in how we respond to events as it is our emotive response that shapes our response to an event.

Ekman and Friesen (1989) state that there are a small number of emotions that have inter-translatable names and universally recognizable expressions. These emotions are happiness, sadness, fear, and anger. Though these emotions are very broad and have more specific emotional responses within each, these emotions evoke a common response from people around the world. The more specific an emotion is, the smaller the number of people that will be able to distinguish it due to differences in language, culture, expression, and dialect. Aldo Rossi states in his discussion of building typology that, *"A particular type was associated with a form and a way of life, although its specific shape varied widely from society to society."* This speaks to the fact that there are cities and collections of people all around the world. There are a small set of emotions that are recognizable around the world, but when it comes to more intimate emotive responses one's locale plays a large role. Because people live all around the world, we approach things in very different ways.

Aldo Rossi, Architecture of the City. p.40.

Relating emotion to other aspects of our lives also help us to decipher the world around us. Take color for example. At its simplest level, colors such as yellow, blue, red, and black can be associated to emotions like happiness, sadness, anger, and fear respectively. When you talk about the correlation between emotion and color you must also understand that colors are vindictive of multiple meanings and are often representative of several emotions. As we move towards architecture color takes on more meaning as architects use color to convey emotions, feelings, and affect people's perceptions. An example of this is the use of light colored paint in a small room to make the room feel larger than it is. Color also plays a role in materiality as every material used in a project is thought about and the affect it will have on the users of the building or space. As designers, we must take the next step and look at how each material and color will change over time.

Time is a very interesting perspective to look at when talking about memory. As we grow older, we accumulate more memories as we experience more things. Ronald de Sousa proposes that emotions are learned by association with "paradigm scenarios". This is meant to say that as young children we simply observe how the people around us act and react to the various things they encounter in their everyday lives. As we grow those lessons are applied in our own lives and through experience we build upon that knowledge. Through the experiences that we have our perception of emotive response to an event changes over time. An example of this is that our response to an event that occurred when we were 10 may require a completely different response when we are 50, even if the event is ostensibly the same. This is due to the fact that as we experience more things throughout our lives, how we respond to various events or experiences evolve. Aldo Rossi takes this idea one step further in saying, "*people orient themselves within the city, the evolution and formation of their sense of space.*" Just as the physical space around us changes, so does how we respond to the things we interact with. Although we may go to say a baseball game, our feelings of the team or the game itself may be different throughout one's life.

Paradigm scenarios themselves involve two aspects according to de Sousa. The first is a situation type providing the characteristic objects of the specific emotion-type. The second aspect is a set of characteristic or "normal" responses to the situation. This is to say that there are instances in which there is a common set of emotive responses that people have. Examples of this would be churches, cemeteries, and weddings. These responses vary based on where you are though as cultural and biological factors play a role in how we perceive events and experiences. Cultural differences and personal expression are not limited to one's nationality, although that is one level, but they can be confined to the region, area, town, and family that you

are a part of. Yael Reisner views that, *“Personal expression is a reflection of our culture,”* and that, *“It is culture from which architectural poetics evolve.”*

This leads us to the impact of place on memory. No matter what the event or experience is it can be linked to the place you were in when it occurred. While there are collective emotive responses, in most cases the emotive response varies from person to person. Our interaction with the physical spaces that we inhabit and encounter determines our perception of that space. Aldo Rossi states, *“We are subjected to different experiences, different impressions. There are people who do not like a place because it is associated with some ominous moment in their lives.”* Here Rossi is referring to one’s individual experience in a place. What happens when we are in a specific place holds bearing on our perception of that particular space. The experiential quality of our time in a space/ place bears on how we perceive the same or similar place in the future. This goes back to how we perceive time. For example, if someone had a traumatic experience as a child, that person would in most cases attempt to avoid being in that situation again in the future.

Another factor that goes into our perception of place is our association with the place. Our familiarity with a place can have an impact on our perception of events that occur while we are in a particular place or situation. Katie Elizabeth makes the point that, *“Picture a person who has absolutely no experience with architectural design or theory, only the knowledge of buildings in which they have entered; what they liked and what they did not. What will this hypothetical person envision? Not a building, but memories of experiences that they have had in the past; the emotions that they have experienced in the former incidences.”* Elizabeth goes on to state, *“Therefore, emotion deemed itself the fourth dimension of architecture.”* What Elizabeth is trying to say is that people associate the places they have been with the experiences that they had in a particular place. The emotions that are evoked in various places throughout our lives are what lead to what Elizabeth has labeled as the fourth dimension of architecture.

When it comes to the physical spaces that we inhabit there is a common notion of that space. We typically occupy structures that were built in the past. Collective memory is acquired over time and is where, through time that communities gain their individual identity. When it comes to the physical spaces that we inhabit there is a common notion of that space. A sense of permanence comes to us through the buildings that surround us. In many cases the physical environment around us lasts longer than we live. Maurice Halbwachs stated that, *“Years of routine have flowed through a framework so uniform as to make it difficult to distinguish*

—Yael Reisner, Beauty.
Contribution to 2010 Venice
Architecture Biennale.

—Aldo Rossi, Architecture
of the City. p.29.

—Katie Elizabeth, Emotion as a
4th Dimension in Architecture.

—Maurice Halbwachs,
The Collective Memory. p.1-2.

one year after another. We doubt that so much time has passed and that we have changed so much. The group not only transforms the space into which it has been inserted, but also yields and adapts to its physical surroundings." This suggests that we have an impact on the physical space that we inhabit, but that the same time space also has an impact on us. It is difficult to change structures that already exist around us, therefore we must adapt to them. When change does occur, such as a building being demolished, burning down, or simply falling apart; people come and go. As these changes occur within our communities, so does the nature of the memories that we have.

Corktown is known as the oldest community in Detroit. Within this community you will find the Michigan Central Depot, the old Tiger Stadium site, and old houses that have been there for over a century. Over time, many homes and businesses were destroyed for various reasons, Tiger Stadium was recently demolished, and the Michigan Central Depot stands vacant. Despite the things that have changed in this community, there is a sense of place that resonates within the people who live there. People use Michigan Central Depot and Tiger Stadium to look back to a time when the community was livelier. There are constant reminders of the past in this community. The gathering places, homes, and monuments (Michigan Central Station and Tiger Stadium) all provide a link for the people who live there now to the past. The people have changed over time, but by living, working, or associating one's self with this place, the history of this community continues to live on.

The physical changes that occur in a community do so over a long period of time whereas people are continually coming and going. The physical spaces that surround us do not care if we change them, they are objects placed by people at one time or another, but the people who live and interact with those spaces do care. Halbwachs says, "*The designs made by the original people were embodied in the material structure.*" Therefore it is through the physical environment that surrounds us that provides us with a direct link to the past. It is this link to the past that is held within the surrounding physical environment that people strive to maintain. Over time, changes are made to that original design that influences the direction of the place. These changes are often met with resistance from the people who live there. People live where they do because there is some level of attachment to that place. People will often attempt to keep their surroundings as they are for the purpose of memory. When things change, buildings being demolished, they take with them the direct link to the past in that place that existed when the building was there. Suffice to say, our surroundings now are different than they were in the past, and they will be different in the future. These changes have affected, do affect, and will affect a person's perception of a place.

People remember the major events that occur during their lifetimes. Whether those events are personal or collective, we remember the major events. However, time alters our perspective of the events we experience. Arthur Neal said, *“In telling and retelling the stories of our past, the events in question become stereotyped and selectively distorted as they become embedded in our collective memory.”* We cannot remember every detail about every event that we experience throughout our lives, so as a mechanism we filter out minor details of events in order to remember the major aspects of selected events. According to Neal, there is also a generational component to our collective memories. This relates to a person’s attachment to the events that occur during their life and the stage in their life when an event occurred. Take for example the attack on Pearl Harbor in comparison to the attacks on 9/11. Both events were severe tragedies and will be remembered for as long as any of us shall live, but they hold different levels of importance within us. People alive now who can remember the 9/11 attacks and/or were close to someone who was affected by those attacks have a much deeper feeling about that than they do about Pearl Harbor. Our association with events helps to play a role in how we remember things. This association can be explained by the philosophy of Henri Berson. Berson believed that there are two types of memory, intentional and spontaneous. Spontaneous memory he says is formed as a byproduct of an event; that it is qualitative. People present for either Pearl Harbor or 9/11 had a spontaneous reaction to those events and those reactions will forever reside within their memories. Intentional memories, Berson says are quantitative memories that can be acquired by anyone. Today we are taught about Pearl Harbor and what it meant but, we do not have the personal association with it. Berson says that, *“Collective memory’s significance lies in the meaning more than the details.”* It is the memory of the event or experience that means more to us as people than knowing and remembering precise details.

One can tie collective memory back to emotion as well. This is because within the context of a community there is a shared feeling of that place. Relationships are developed between the people who live, work, and frequent a place. When people gather, there is typically a reason associated with it, be it for reasons of happiness, sorrow, protest, etc. There are feelings that people associate with the places around them. These feelings change over time as the people and the physical space itself change. This really speaks to the perception of our surroundings over time. Going back to an earlier statement, people perceive their surroundings differently at different periods of their lives.

This perception can also be traced back to one’s familiarity with a place. We have talked extensively about people’s connection with space, specifically community, about how people are always coming and going, and

—Arthur Neal, *Collective Memory*. www.uic.edu

—Henri Berson, *Collective Memory*. www.uic.edu

how visitors perceive their surroundings. A person's familiarity with a place can lead to how they perceive it emotionally. Take Detroit for example, the perception that it receives from people who live there and those who have never visited it are completely different. People who live in Detroit know about the problems that exist, but they are not limited by those problems. People who live in Detroit have a never say quit attitude that they carry with them; they will proudly tell others that they are from Detroit like a badge of honor. The people themselves are for the most part willing to go out of their way to help others. The physical city itself has a lot to offer people, but because of the outside perception of the city only the people who live in and around the city know about the amenities it has to offer. Someone from outside the city, a visitor, sees Detroit in a much different light. The news, both local and national, portrays Detroit as a very dangerous city. This perception often leads to people trying to avoid the city at all costs. The thing about that though is that once people have spent some time in the city, more often than not they fall in love with what the city has to offer.

Another way to look at it could also be that people who have become familiar with their surroundings simply go through the motions. James Corner states, *"To the degree that everyday inhabitants experience landscape, they do so in a general state of distraction, and more through habit and use than through vision alone."* He goes on to say, *"By contrast, the outsider – the tourist, the spectator, the state, the administrative authority, the designer, and planner – views landscape as an object, a thing to behold, and not only scenically but instrumentally and ideologically."* Despite the fact that the inhabitants of a city may be familiar with it, there does come a point when many people develop a set routine and simply go through the motions. According to Corner this occurs with most inhabitants of the city; the visitor on the other hand doesn't have the first-hand experience in the city and is typically open to trying new things. This openness comes from the unadulterated and unbiased notion the person has towards the city. Yes, there may be some preconceived notions of the city, Detroit for example, but once a person experiences the city those notions are put to the test, proven true or false, and the person continues on with their experience.

James Corner, *Eidetic Operations and New Landscapes*. p.155.

Aldo Rossi stated that, *"This overlapping of the individual and the collective memory, together with the invention that takes place within the time of the city, has led me to the concept of analogy."* Here Rossi is talking about the similarities and comparisons that can be made between the physical space and the people that inhabit it. Upon further dissection one could conclude that there is a symbiotic relationship between people and their physical environments. People started out living in caves, and as society progressed, humans moved from caves into man-made dwellings. These dwellings were built in proximity to one another and therefore formed

Aldo Rossi, *Architecture of the City*. p.18.

cities. Since this time, people have looked for ways to perfect the city. For human society to thrive it requires us to live in relative proximity to one another even in today's technological age. For the city to exist, it needs people to inhabit it because without people there really is no purpose for the city. The city is simply a collection of physical spaces that can be inhabited. The people who inhabit the city help to shape the space into what is needed, and thus create a situation in which memories can be made by those who interact with that space. Therefore over time both the city and the people inhabiting it have an impact on each other. To this point Maurice Halbwachs states, "*place and group have each received the imprint of the other.*" The city itself takes on the characteristics of the people who live within its boundaries, just as the people living in the city take on characteristics that are associated with the city. Dennis Cosgrove takes the approach that, "The composition of their landscape is much more integrated and inclusive with the diurnal course of life's events – with birth, death, festival, tragedy – all occurrences that lock together human time and place." The position that Cosgrove takes is one that ties back to the idea of a symbiotic relationship between the person and the city. An example of this concept is the association that people who live in Detroit have with the city.

As time passes people use the city to the best of their ability in order to do whatever it is that they need to do. Rossi says, "*With time, the city grows upon itself; it acquires a consciousness and memory.*" This is to say that there was a framework that was laid down when the city was first formed, and from that point come modifications to that framework over time. Continuing to use Detroit as an example, the city was first organized using the ribbon farms of the French farmers who first settled here. Since that time a radial and grid plan have been overlaid on top of that initial plan. These modifications have had a great impact on the city and its inhabitants. It has shaped how the communities that surround the city center developed, how development within the city center expanded, how people traversed the city, among other things. When all is said and done, modifications to the physical spaces around us are made to better suit the needs of the current times.

What this thesis poses is a question of how we can successfully link the memory of place while looking into the future instead of neglecting the existing and preceding conditions of a place? We cannot change the things that have already been done and the impact that those changes have had on a place. What we can do is be sensitive of the past while we look forward to the future. People have deep rooted emotions to the places that they inhabit, in many cases they are resistant to change. The key to successful architectural design is to be conscious of what has been in that space and what is there now so as to not destroy it with something new. We must be able to tie emotion into the architecture. To understand this one must look at what previously existed

Maurice Halbwachs,
The Collective Memory. p.1-2.

Aldo Rossi, Architecture
of the City. p.21.

and how it evolved over time to become what it currently is. As Rossi states, "*It depends on being a complicated entity which has developed in both space and time.*" This resonates with the fact that the spaces that we inhabit are interacted with both spatially, and through time as that space and the people inhabiting it changes.

In the future we must strive to integrate the past into our future so as to make it possible for our history to be remembered. Gilles Deleuze explains that, "*The multiple is not only what has many parts, but what is folded in many ways.*" This goes back to the knowledge that our cities have gone through multiple modifications throughout their histories. Corner approaches this idea by saying, "*Emphasize the experiential intimacies of engagement, participation, and use over time.*" So as to not forget that history we must be able to integrate our designs into the fabric of our past. The integration of our past and present into the future will allow people to experience the city while remembering the past. The way we have approached design and construction has strayed from this ideology. The methodology that we currently employ has left us with cities that have forgotten about their past, and have thus lost part of their identity. We must bring in this notion that we must respect what has already been done. This is not to say that we cannot destroy existing physical conditions, but that we must do so in a conscious manner. The city will continually evolve; it is our jobs as architects to facilitate the changes that will occur in a thoughtful manner.

Aldo Rossi, *Architecture of the City*. p.29.

Gilles Deleuze, *Constructions*. p.14.

James Corner, *Eidetic Operations and New Landscapes*. p.159.



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As defined by Merriam-Webster

-A conscious mental reaction subjectively experienced as strong feeling usually directed toward a specific object and typically accompanied by physiological and behavioral changes in the body.

As defined by Dictionary.com

-an affective state of consciousness in which joy, sorrow, fear, hate, or the like, is experienced, as distinguished from cognitive and volitional states of consciousness

-any strong agitation of the feelings actuated by experiencing love, hate, fear, etc., and usually accompanied by certain physiological changes, as increased heartbeat or respiration, and often overt manifestation, as crying or shaking



Emotion plays an integral part in our lives. We all express emotion in response to events and experiences that occur throughout our lives. Ekman and Friesen have labeled four universally understandable emotions; happiness, sadness, anger, and fear. These emotions are very broad in the spectrum that they cover which is why there are more specific emotions that we express. The more specific the emotion that you express, the more intimate it is; meaning that fewer people will understand what you are expressing. For the purpose of this thesis I will work with the universal emotions of happiness, sadness, anger, and fear.

These emotions will be represented through color as a way of graphically representing the emotion types. The colors that are used are yellow (happiness), blue (sadness), red (anger), and black (fear). These colors were chosen because of their perceived relationship to the emotion that they are representing as represented in the study of color as defined by the College of Fine Arts at the University of Nebraska at Omaha. If one looks into the relationship of color and emotion, one can see that the colors begin to overlap the four emotions which allow one to break the emotions down more specifically. An example of this would be the color red which can be representative of both anger and love. For the purpose of the studies in this project, a concerted attempt has been made to keep the emotive meaning of the colors as simplistic as possible.



Emotion is also based on memory. Our memories play a vital role in shaping who we are and who we become. Memories relate to the events and experiences that we have throughout our lives. This relationship to event and experience offers a clear correlation between emotion and memory. Without a significant emotive response we will not remember what happened at a specific place and time, therefore there will not be a memory of that time. It is through an interweaving of emotion and memory that we remember certain things and know how to respond to events and experiences in the future.

Our perception of our memories can and does change over time. How we respond to events and experiences also changes over time. As young children we simply observe how the people around us react to things and attempt to mirror those responses ourselves. In his book *The Rationality of Emotion* Robert de Sousa calls this concept of learned response through association paradigm scenarios. De Sousa states that we learn “*first from a daily life as small children and later reinforced by the stories, art, and culture to which we are exposed*”. This is to say that we are continually learning how to respond to events or experiences but how we respond changes as we experience more things and have different reactions to various events. This creates the correlation between emotion and memory again. More experienced responses alter how we remember various events and experiences through time.

This correlation between emotion and memory occurs at multiple levels within us and can range to something very deep and, but can also be as big as an event that affected a larger group as a whole.

Just as we associate memory with emotion, we also relate emotionally to our physical environment. Our interaction with physical space is directly affected by our emotive response to our individual sense of place. In an article titled *Emotion as a 4th Dimension in Architecture* Katie Elizabeth stated, “*Picture a person who has absolutely no experience with architectural design or theory, only the knowledge of buildings in which they have entered; what they liked and what they did not. What will this hypothetical person envision? Not a building, but memories of experiences that they have had in the past; the emotions that they have experienced in the former incidences. Therefore, emotion has deemed itself the fourth dimension of architecture.*” As designers, architects perceive their surroundings differently than most people; we look at the building and see a specific style, how the building is orientated, its scale with relation to the person and the city, texture, materiality, etc. Most people look at a building and decide whether they like it or not based on its aesthetic qualities; they are not concerned with the technical aspects of the building. Where the viewpoint of everyone comes together though is how we feel in the physical places which we inhabit. Our responses vary from person to person based on our personal interactions, but each of us has direct responses about the places/spaces around us.

Robert de Sousa’s first criteria explains the more specific and individual responses as he says, “*A situation type providing the characteristic objects of the specific emotion-type.*” As a child we typically don’t go off on our own to explore our surroundings. This means that we observe the people around us to understand how they act and react to places and situations. As we grow older we take what we had observed as children and begin to apply those actions and reactions ourselves. We develop our own set of criteria as to how to act in certain places and situations. If we have had a negative experience in a certain place it is unlikely that we will willingly put ourselves in a similar position in the future, whereas if we had a positive experience in a place it is highly likely that we will return to that place again.

Katie Elizabeth, *Emotion as a 4th Dimension in Architecture*.

Ronald de Sousa, *Emotion: Stanford Encyclopedia of Philosophy*

There are some similarities in how people act individually and as a group in the physical environment. There are places which evoke a similar feeling and set of emotions within us all. Places such as churches, cemeteries, sporting venues, etc. tend to evoke a common set of emotions among people. To this Ronald de Sousa's second criteria of paradigm scenarios comes into play reading, *"A set of characteristic or "normal" responses to the situation, where normality is determined by a complex and controversial mix of biological and cultural factors."* However, there may be a common emotive response to certain places amongst a group of people, within each person there is a deeper, more personal emotive response to the place.



Ronald de Sousa, Emotion:
Stanford Encyclopedia of
Philosophy

Collective memory exists at the level of a group of people that have a common experience of a place or event. Let's take place for example. Without inhabitants the city would not exist. For this reason the people who inhabit the city have a stake in how the city forms over time. We have the ability to destroy, build, and alter the physical surroundings that we inhabit. These changes over time have the effect of shaping the perspective of a larger context of people of their surroundings. People shape the city just as the city shapes the people who inhabit it.

It is through the places that we inhabit that we find the more intimate emotions that reside within each of us. How we relate to our homes varies and is dependent on the cultures we live in, how long we've been there, and the traditions that exist.

Take for example how people will tell you where they are from. In the case of people from large cities, they will say they are from New York, Boston, Chicago, Los Angeles, Detroit, etc. This is a general term describing the area they are from. In most cases what they do not tell you though is the community which they truly call home.

The actual community within the city that they are from holds a deeper meaning to people, something personal. There is an attachment to the place which a person is from; people tend to want to protect the things closest to them, their home included. The community is a group of people living in close proximity to one another who in most cases have a common set of ideals. Within the context of the community there are traditions and views about how the community should be.

The physical places around us help to shape us as people; they are there for as long as we are. What exists in that space may change over time as a building may be destroyed, a new building built, or some other change to the physical landscape, but for the most part the places that we inhabit remain. We relate to the physical environment for purposes ranging from acting as landmarks, housing us, providing entertainment, etc. It is through our interaction and experience with our environment that helps us to shape the memories.

This leads us to our experience of place. People are drawn together naturally. Therefore when there is something that has an impact on a large faction of people, people as a whole generally come together. Take for example the effect that natural disasters have. During times of tragedy people put away their differences to come together for the common good. It is in our nature to help those in need.

Other examples would be events such as 9/11 and Pearl Harbor. These events have had a profound effect on those directly involved as well as those who have seen the effects that the event had through the media. Henri Berson described the difference in memory as being intentional and spontaneous. According to Berson intentional memories are quantitative and can be acquired by anyone. These memories Berson says, “*Fade with time as more relevant memories replaces them.*” Spontaneous memories, in contrast, are qualitative and intuitive. These memories, according to Berson, “*Will be in the background waiting for a trigger for the rest of your life.*”

This distinction between intentional and spontaneous memory is directly related to the concept of time and place. Spontaneous memory requires that we be present when the event occurred. People who directly experienced either 9/11 or Pearl Harbor have very different feelings about those events than people who have learned about them from the media or through conversation. The people who were not immediately present remember the event through intentional memory. Intentional memory is acquired, meaning that there is not a direct correlation to the event.

As we move forward we must all realize that we will not be here forever. There is a temporality to all of our existences. The same holds true for the physical spaces around us. Just as we have altered what was done before us, future generations will alter what we do. We design things to best fit our current needs, however the needs of people are ever changing. That being said, we must design our cities today so that they can be adaptable for the future without destroying the existing fabric of the communities we live in. Most cities predate the people who inhabit them now; therefore we are living in the physical space of previous generations. The people may be gone, but the physical impact of those people remains. It is the physical space that we must be conscious of as we continue to improve our cities and communities. Although the people inhabiting the space are constantly changing, the history of the place lives on in the physical environment.



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The High Line was originally built in 1931 as an elevated railway as the demands for movement on the lower west side of Manhattan grew in the 1920's. This part of the city was known as the Meatpacking District. In this area population rose as there were over 250 slaughterhouses and meat packing plants. The rail line served the city until 1980 when it was closed. Although the High Line served only as a spur line that transported goods in the area, it was influential in how it was built. The rail line was built 30 feet above the street and meandered along and through existing buildings. This was done to mitigate negative pedestrian perspectives of having an elevated highway on a main thoroughfare. After the rail line was closed in 1980, it sat vacant for nearly twenty years. The area surrounding the High Line also experienced a downturn during the 1980's as housing stocks dropped when the Meatpacking Plants moved out of the area.



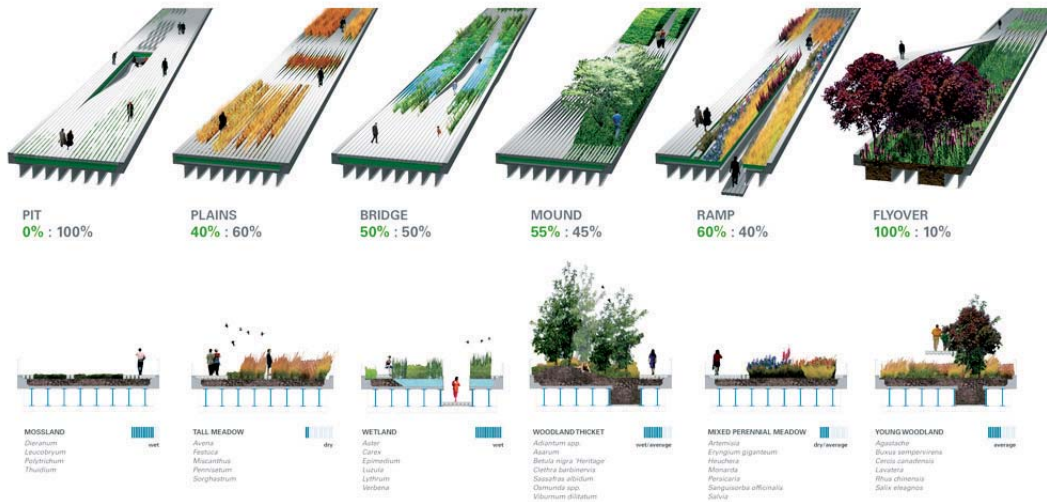
In the 1990's, development efforts were started in the Meatpacking District along the riverfront. Out went what industry had remained, and in came arts professions. Repopulation of the area along with the developments that were under construction made the Meatpacking District a viable community. During this time the High Line itself remained untouched. In 1999 initiatives were put into action to redevelop the High Line when demolition of the line was talked about.

Since the turn of the century the High Line has undergone a complete transformation. It was photographed by Joel Sternfeld in 2000 which revealed an overgrown wilderness. This "wilderness" located just above the busy streets below and displayed what Sternfeld described as a "beautiful decay" of the massive infrastructural element." Through fundraising, Sternfeld's photographs, and strong public support the High Line preservation took hold in 2005 with the help of new policies coming from New York City Hall.

Joel Sternfeld, *The High Line Park + Standard Hotel*, p.16.







The winning design sought to work with the natural conditions that existed and had thrived over the previous 20 years. This was achieved through a concept that the architects Field Operations & Diller Scofidio + Renfro called “*Agri-ecture*”. Their plan proposed to work with existing conditions to create a diverse set of spatial conditions. Their proposal worked with the idea of using a varied mixture of natural and artificial surfaces. This brought about the idea of spaces referred to as Pit, Plains, Bridge, Mound, Ramp, and Flyover. Each of these spaces would consist of different amounts of natural and artificial space as well as to create a set of unique ecosystems within each space. Each space according to the architects would create, “*Unique ecosystems having their own plant combinations with specific soil conditions, ranging from wet to dry.*” This mixture of how the line would be developed would create a linear park design which would captivate those who visit by providing a unique experience.

Field Operations & Diller Scofidio + Renfro, The High Line Park + Standard Hotel. p.29.



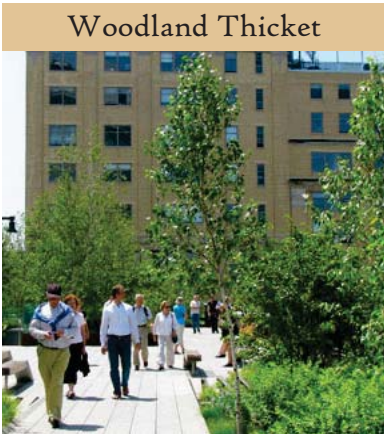
Mossland



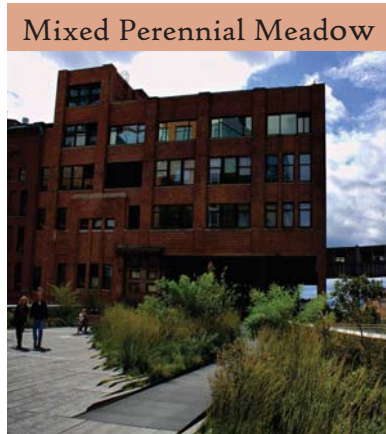
Tall Meadow



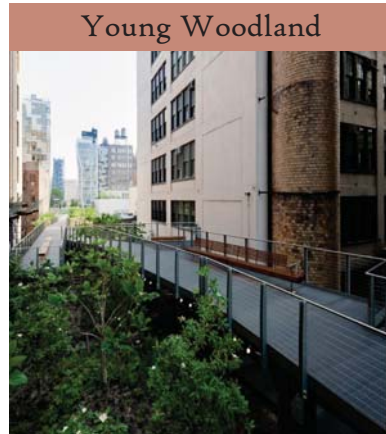
Wetland



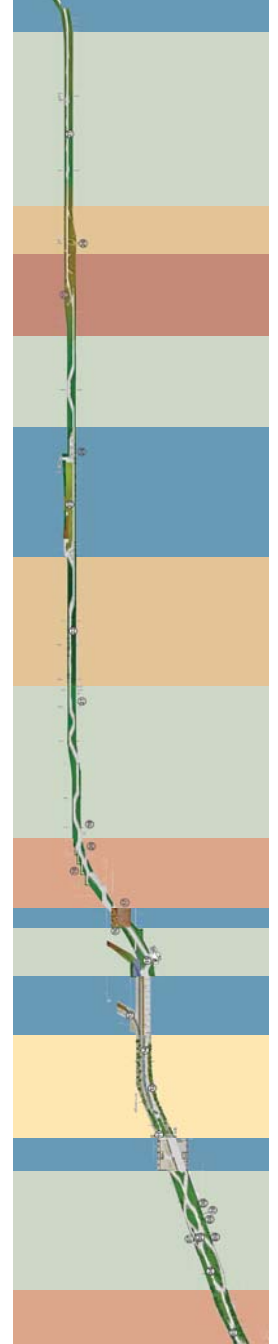
Woodland Thicket



Mixed Perennial Meadow



Young Woodland



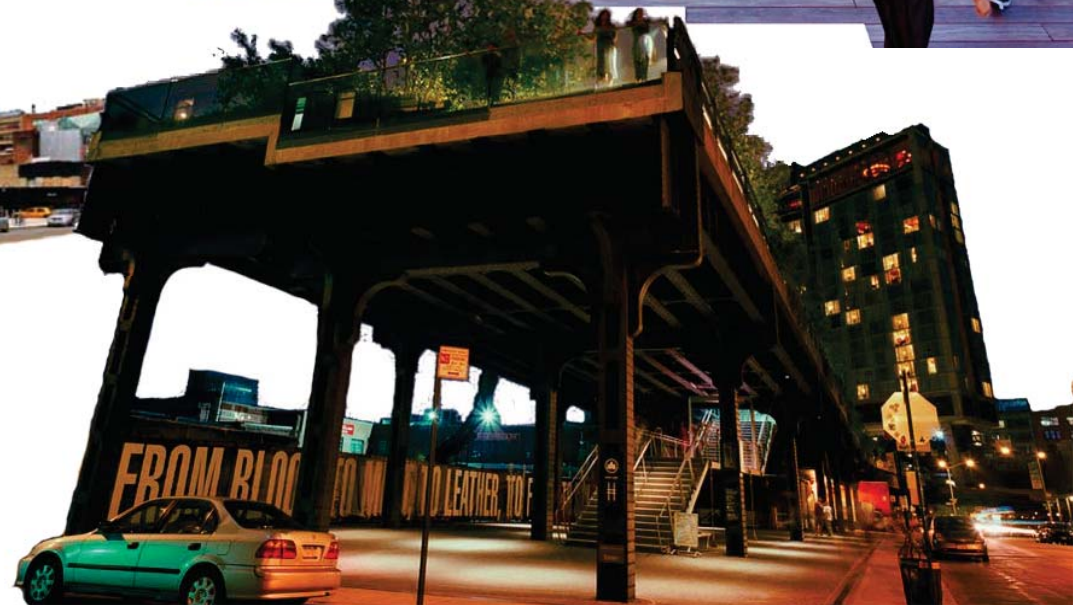


The redevelopment of the High Line included gutting it to its structural components. Once at this level, they stripped the existing paint and made repairs to the structure as necessary. After all of the repairs were done workers could begin building up the surface that would be planted. New paved areas juxtaposed the areas where soil was left for planting along with the original rail lines that were incorporated into the design. This allowed for the plants to be placed along the line in a manner that went along with the preexisting conditions and the plans lay out by the architects. This combination of the paved areas, the rail lines, and the planting helped form the different ecosystems that the architects had strived for.



The intention of this project was to connect the various communities that run along the High Line despite being disconnected from the street. Being elevated 30 feet above the street, the High Line provides people with a unique perspective of the city. They are removed from the normal hustle and bustle of the street and given a perspective that focuses on the elevation of the buildings that the line interacts with, the roofs of shorter buildings, a connection to the Hudson River, and nature within the concrete jungle that is New York City. Through the planning of the architects, nature can be experienced year round as many of the plants would be found there naturally and require very little maintenance. Through the planning there is also something growing nearly year round to provide for a unique experience throughout the year.

Overall this project takes something, in this case the High Line, and turns it into something that can be experienced by an entirely new generation and set of people. By reusing an existing piece of infrastructure the project doesn't really alter the physical identity of the area, but the perception of the space itself. Through the redevelopment the High Line connects people in a way that had never been done before thereby creating new relationships between the communities it runs through and the people who utilize it.



Another major influence on this project was Millennium Park in Chicago. This project was influential because of its relationship to the downtown of Chicago and how it could be related to Corktown's relationship to downtown Detroit. The wide array of programs that are offered at Millennium Park make it a destination for a wide variety of people to get away from the city to relax. The variety given at Millennium Park provides this thesis with a multitude of options that could be undertaken. The element that is most closely looked at is the Lurie Gardens.

The plan for the Lurie Gardens called for it to be constructed on top of a parking garage and rail line. The gardens themselves contain a wide variety of plants that work to make the space intriguing throughout the year. The situation of the gardens on the site allows it to frame the architectural work of both Frank Gehry and Renzo Piano. Through the design process the architects, Gustafson Guthrie Nichol Ltd. (GGN), portrayed what the garden would look like throughout the year. The experience that the gardens offer throughout the year makes it an amenity that was felt would work well as part of the Corktown redevelopment.

Lurie Garden: Spring



Lurie Garden: Summer/Fall



Lurie Garden: Winter





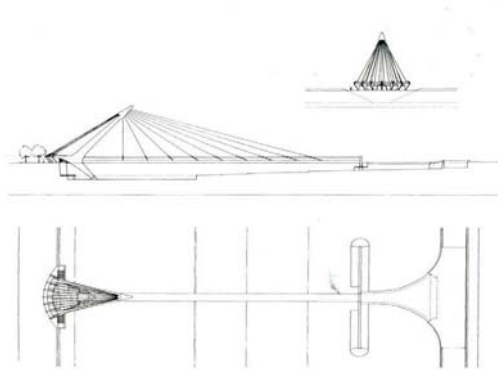
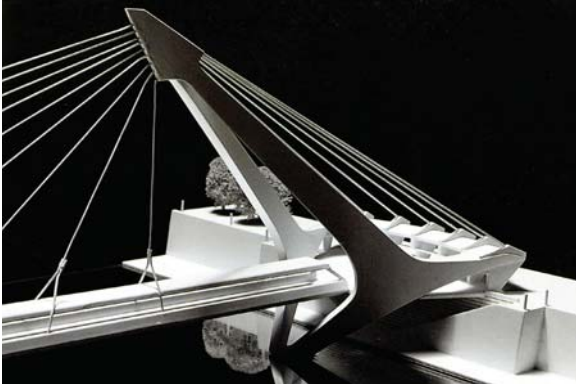




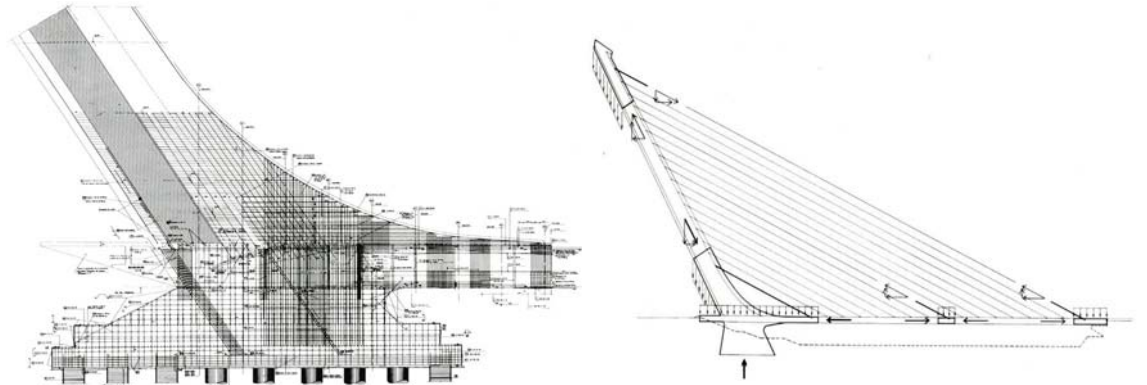
Santiago Calatrava has always been an influence on me as a designer. The way in which he pushes the boundaries of bridge design while still making the bridges fit into their context is intriguing. The functional qualities of these bridges is possibly the most interesting aspect of his designs as the bridges take on very different characteristics than what is typically seen in bridge design, specifically cable-stayed bridge design.

“Calatrava has long maintained that bridges, as design objects, could combine technological intelligence with poetry to enhance the sense of identity and cultural significance of a particular place.” This sentence from the book *Santiago Calatrava: The Bridges* sums up how the bridges in this project sought to be viewed. Merging the technology and structure that goes in to creating a bridge with the human scale and the local culture were important factors in the design process. *“In addition to being a structure and a conduit that connects two or more locations to provide passage over a natural or artificial gap, a bridge is a physical object that has a presence in the human-made environment.”* This quote speaks to the need to fully understand the relationships of scale, specifically the relationship between the bridge and the human.

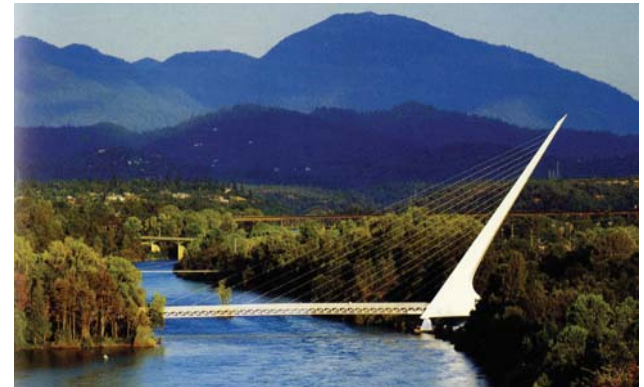
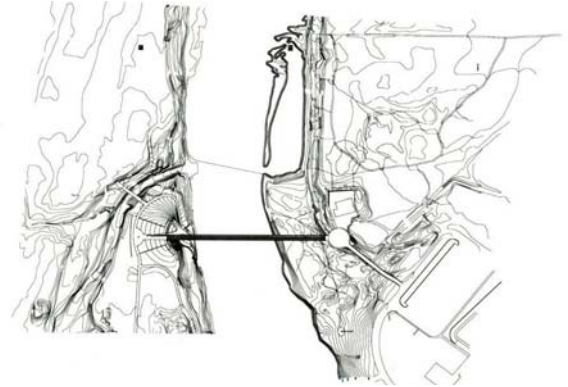
As part of the research for this thesis several of Calatrava’s bridges were looked at. These bridges included but were not limited to the Caballeros Footbridge, Alamillo Bridge, Trinity Footbridge, Serreria Bridge, and Sundial Bridge. These bridges were looked at as this project required spanning 500’ while keeping the structure as minimal as possible.



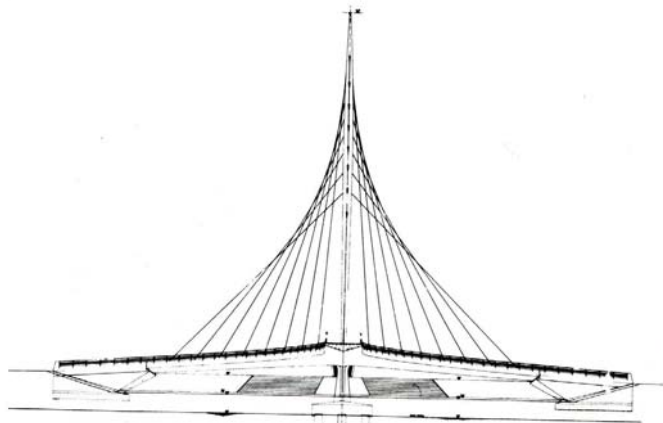
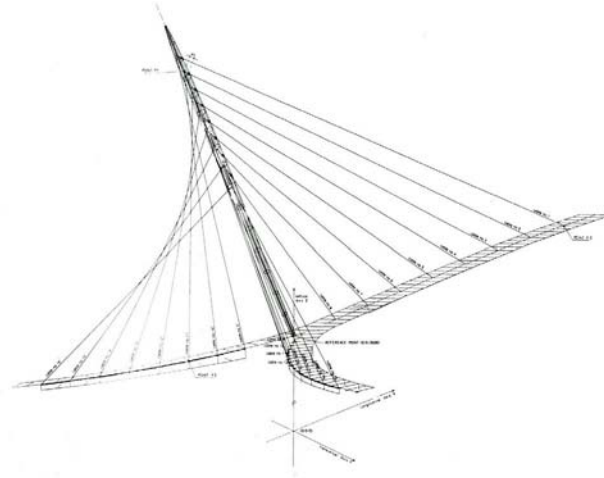
Caballeros Footbridge
Lerida, Spain 1985



Alamillo Bridge
Seville, Spain 1987-1992



Sundial Bridge
Redding, California 1996-2004



Trinity Footbridge
Salford, England 1993-95

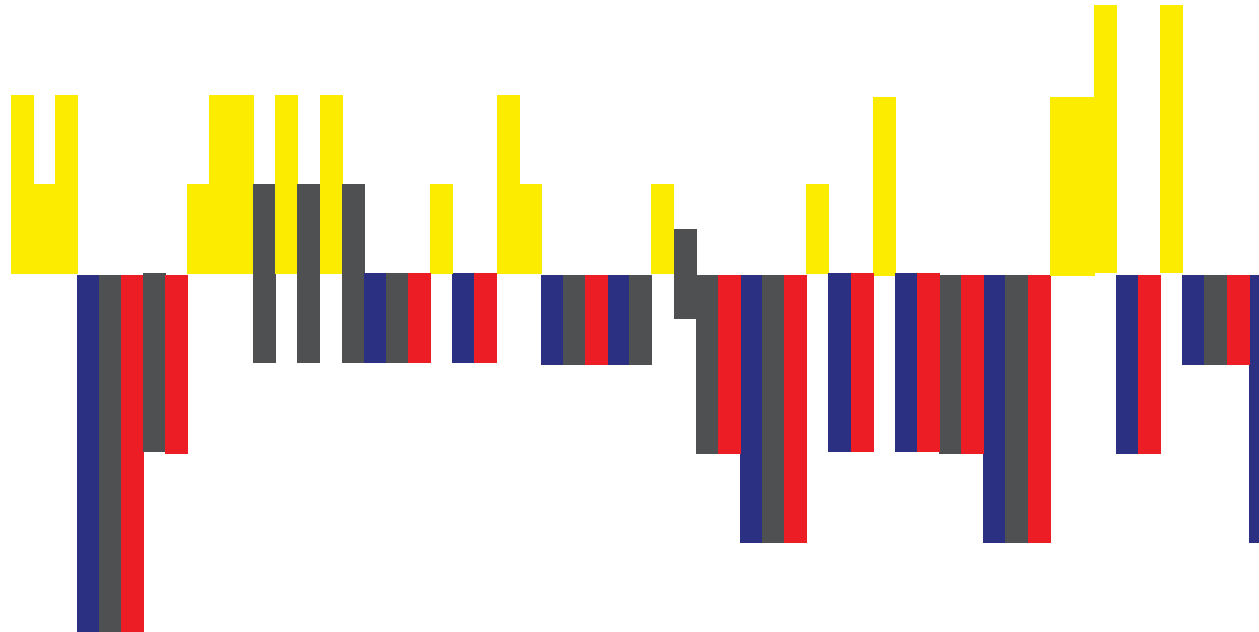
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My exploration of how emotion, memory, and place are interconnected began with an analysis of my own life. To do this I looked back at the past nine years of my life, what happened, where it happened, and the effect that the event or experience had on me. Through doing this study I was able to gain a level of understanding as to why I am the way I am now and the affects that the events that have occurred in my life have had.

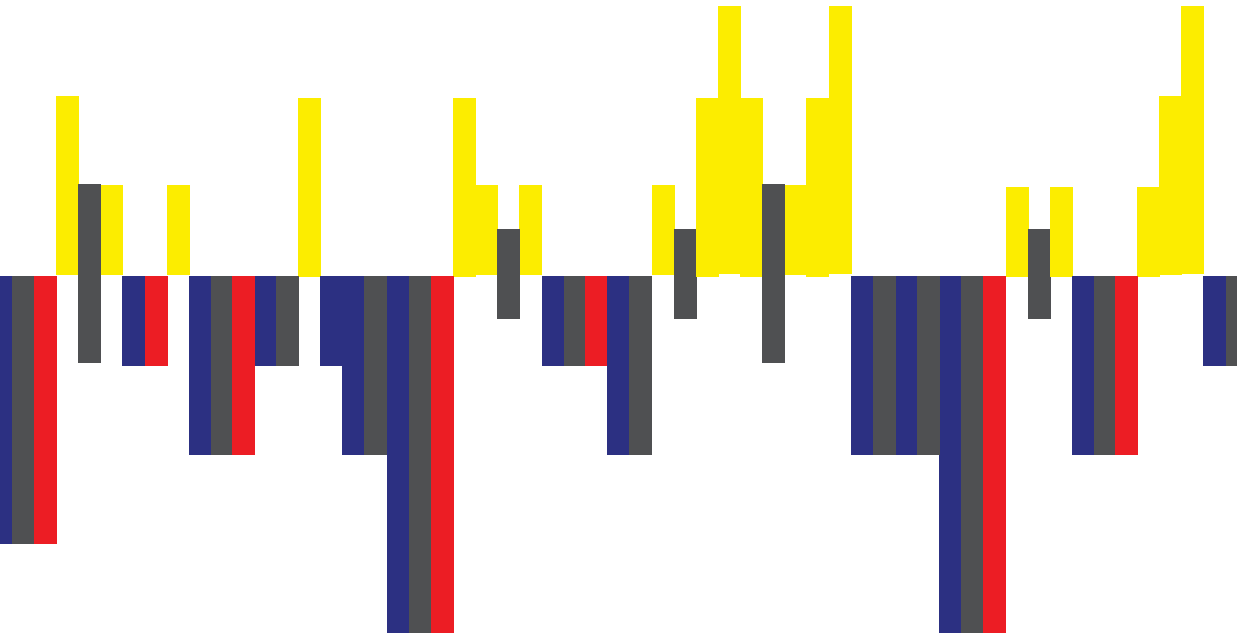




This study mapped out the major events that have occurred in my life since 2003. To each event I attached an emotion to the event or experience which allowed for a connection between experience (memory) and emotion. For the purpose of simplicity I used only the four universally understandable emotions; happiness, sadness, anger, and fear. These emotions can be broken down into more specific emotions or feelings, but for others to understand exactly what I was feeling would become far too confusing for both myself and for the reader. In many cases there were multiple emotions that I was able to attach to individual events. This showed me that in most cases you feel a wide range of emotions when you experience something, and that those emotions don't always align under just one of the four universal emotions. Knowing this would help me in later studies as the results didn't always come back the way that I had originally expected.



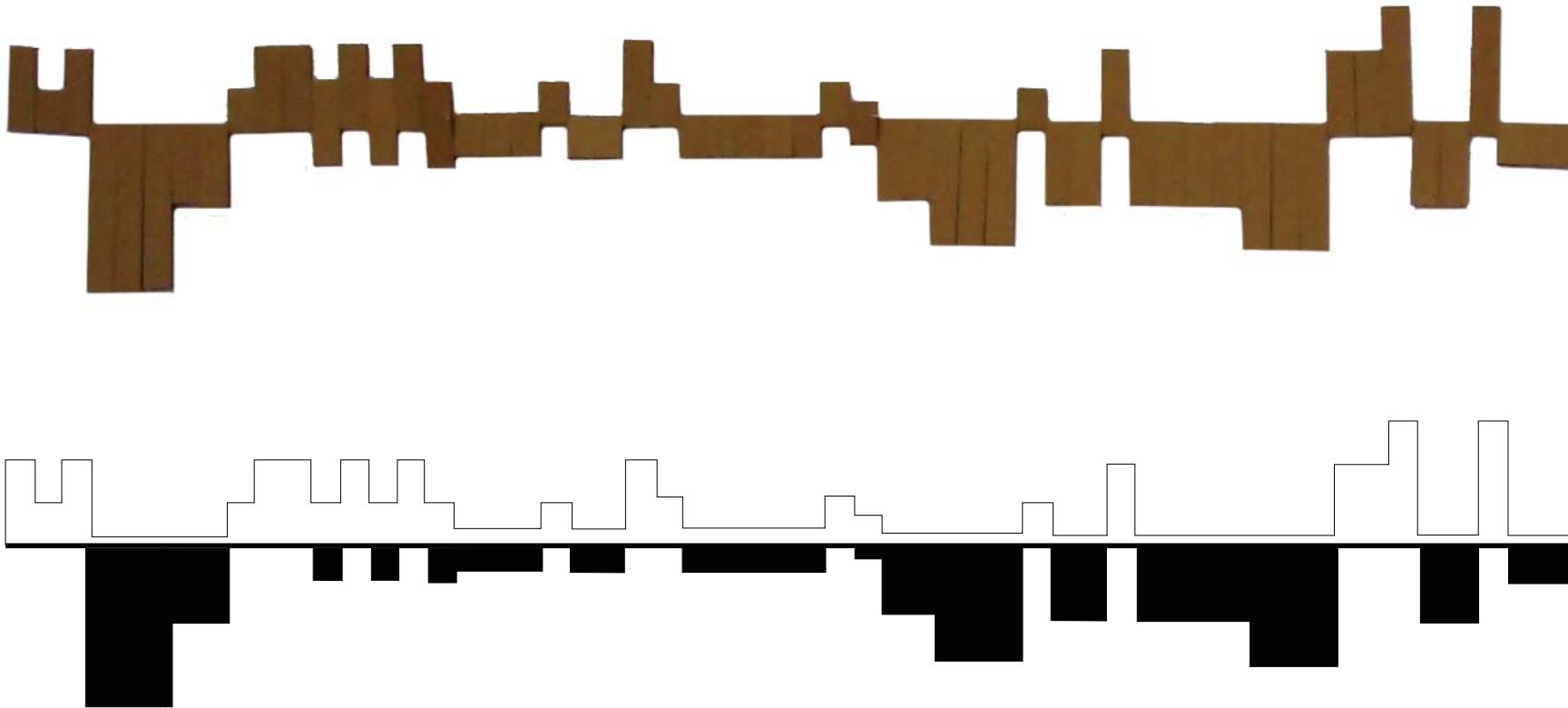
During this process I also mapped out the importance that the event or experience had or still has on me. There are some things that have had a deeper impact on me than others, just as is the case for everyone; this study simply focuses on me for a personal study. Mapping out the importance of an event or experience leaves room for subjectivity as my own memory comes into play. Very few people in this world can remember everything about their lives, and I am not one of them. This therefore leaves room for some events to be forgotten and left off of the list that was compiled. It also makes it seem as though events that occurred more recently to feel as though they have more of an impact than an event from the past. One's memory plays a huge role in this as we cannot remember every detail about everything that we have experienced.



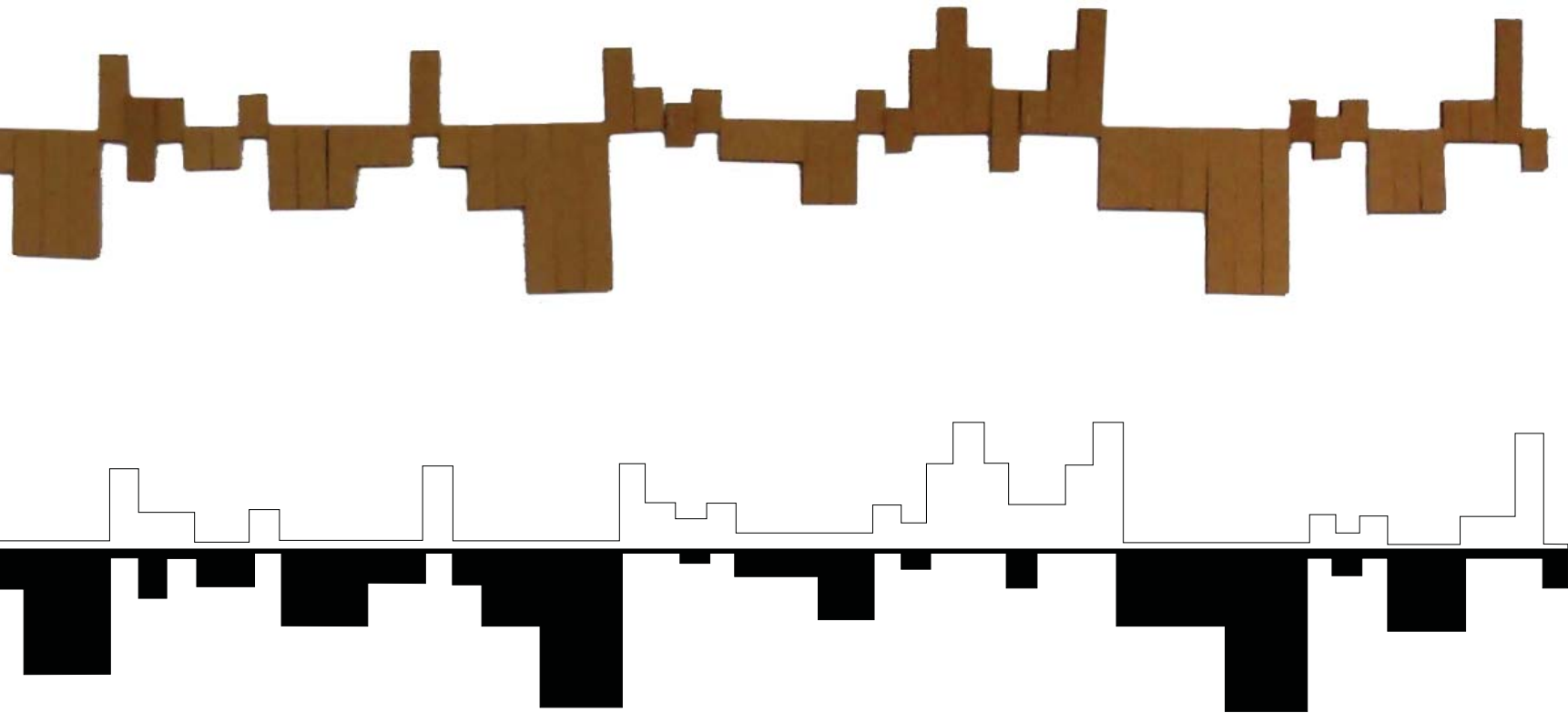
Once the events were mapped out and attached to an emotional reaction, I was able to create a timeline of the past nine years. At this point I shifted my focus to graphically representing the information that I had gathered. To do this I created a baseline neutral emotional reaction that I could work off of. From here each event was given a level of importance. When doing this I tried to step back and apply importance based on each event and the impact that it has had on me.



At the same time, I also attempted to relate the events on the timeline to the physical space that I was in when the event occurred. Understanding where I was when something happened gives me an idea of why I feel a certain way when I am in certain places. During this process I noticed that there were a lot of recurring events of a similar nature during the time period that I looked at. The timeline that was created became an abstraction of my emotional response as there was no baseline used and the images simply conveyed an overall emotional reaction of each event. The overall composition gives me an understanding of how place affects ones perception and emotional reactions.



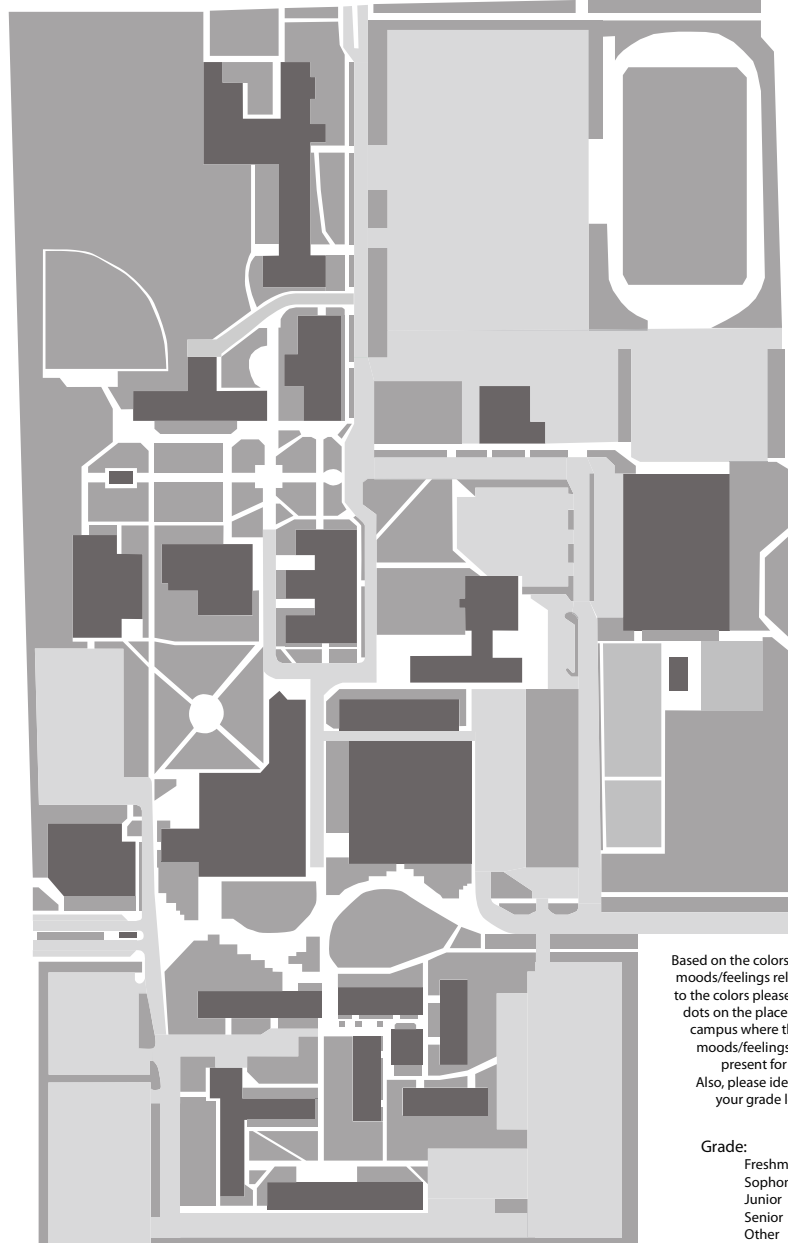
Lastly, I took what I had learned from the physical place timeline and attempted to bring it back to the original timeline. To do this I created a model of the original timeline and began to abstract it. The model was manipulated so that it could be viewed both in plan and section. This brought my research back to the physical aspect that I was striving to do. It also allowed me to abstract my view of my past. In plan, I see the timeline as the path that I have taken over the past nine years to get to where I am now. In section, I see a cityscape that functions both above and below ground with the baseline acting as the ground plane.



This study allowed me to understand how the events in my life and my emotional reaction to them have influenced who I have become and how I view the world around me. The abstracted timeline allowed me to draw a correlation between my personal experiences and those that are present at a larger context and scale. Finally, I understand that as I grow older and experience new things my perspective will evolve and change, but there will always be certain events that I will remember for the rest of my life.

Top: Timeline Sketch Model

Bottom: Abstract Timeline
Section



Survey Map

Based on the colors and moods/feelings related to the colors please put dots on the places on campus where those moods/feelings are present for you. Also, please identify your grade level.

Grade:
 Freshmen
 Sophomore
 Junior
 Senior
 Other



Fear
 Power
 Mystery



Anger
 Agression
 Excitement



Sadness
 Depression
 Cold



Healthy
 Renewal
 Calm



Happiness
 Optimism
 Imagination

The next step in the process was to apply information from the personal analysis to a larger scale. In order to ensure that the scale of this study was manageable I created a map of the McNichols Campus of the University of Detroit Mercy. Along with the map was a list of five emotions, which were happiness, sadness, anger, fear, and health. Health was added in this study as it became clear that three of the four emotions that were used in the previous study had a negative connotation associated to them. By adding health to the list, it offered another positive emotion that people who took the survey could relate to.

This survey targeted 100 students at the University of Detroit Mercy. The survey was given to 50 architecture students and 50 non-architecture students on campus. So as to get a roughly even number of responses from students in each grade, the survey was given to 12 or 13 students from each grade; freshmen, sophomore, junior, and senior. By breaking down the participants in this fashion I was able to see how architecture students perceive the spaces around them differently than other students as well as to see how people who have different levels of association with the campus perceive their surroundings.

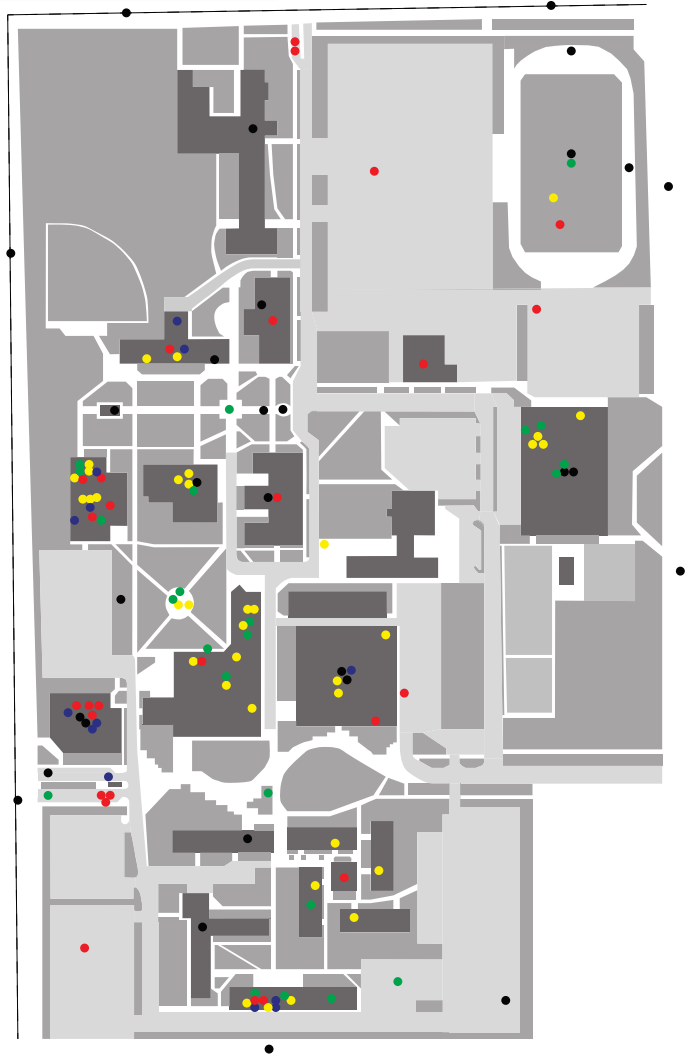
I asked the students who participated to simply place dots on the map of the University of Detroit Mercy McNichols Campus that was provided. The places where the dots were placed on the map correlated with how each student felt in the place where the dot was put. Included on the survey was a list of emotions which correlated to the colors that were found to be associated to the emotion through research of color symbolism. This was done to make the responses more personal as students would know if a deeper emotion about a certain place related to the emotions that were listed.

Page 52
Freshmen Architect Map (left)
Sophomore Architect Map
(right)

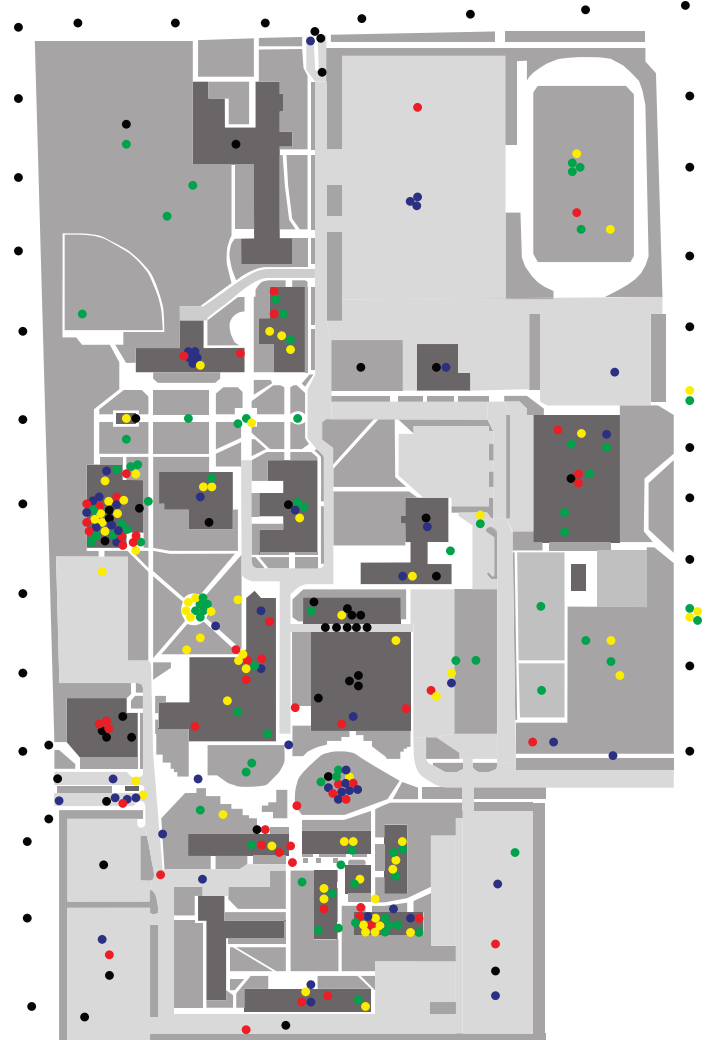
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Junior Architect Map (left)
Senior Architect Map (right)

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Freshmen Non-Architect Map
(left)
Sophomore Non-Architect Map
(right)

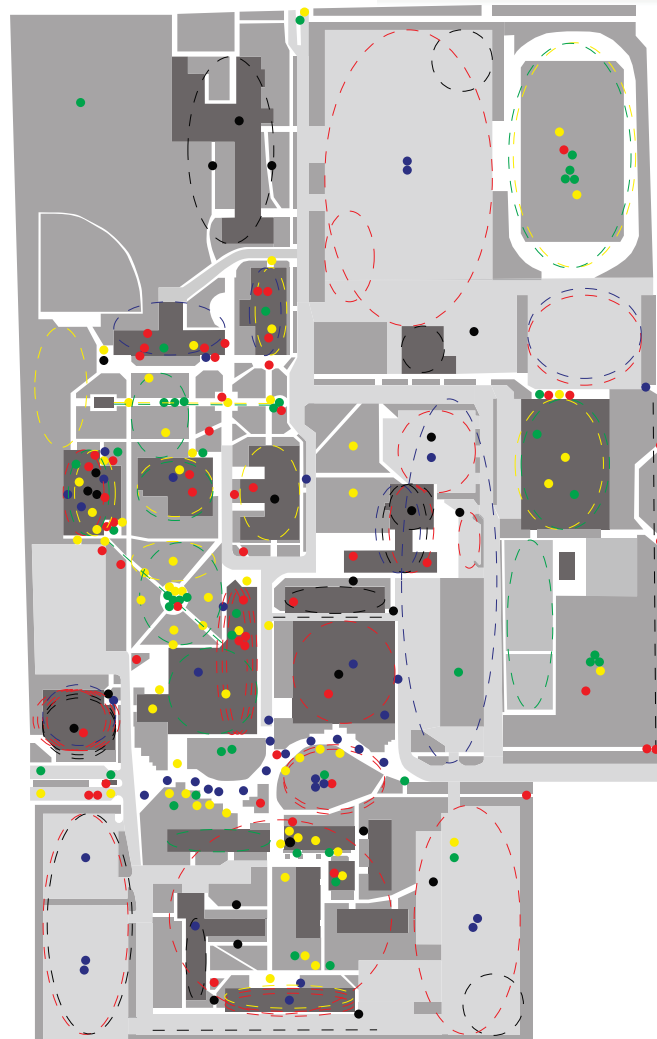
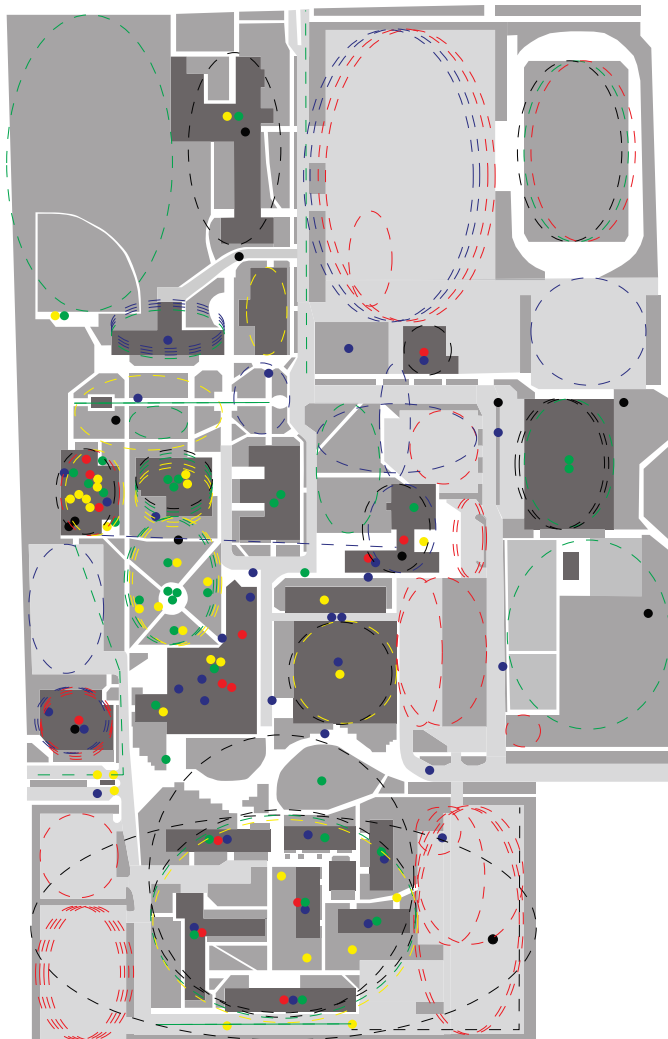
Page 55
Junior Non-Architect Map
(left)
Senior Non-Architect Map
(right)



Freshmen Analysis: Architecture Students

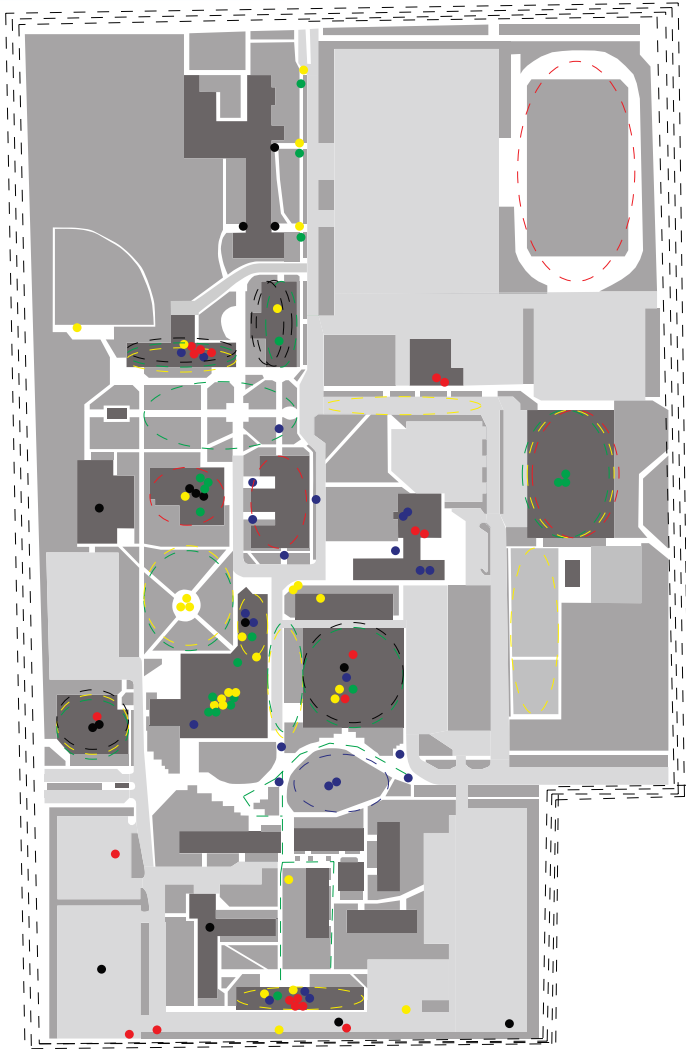


Sophomore Analysis: Architecture Students

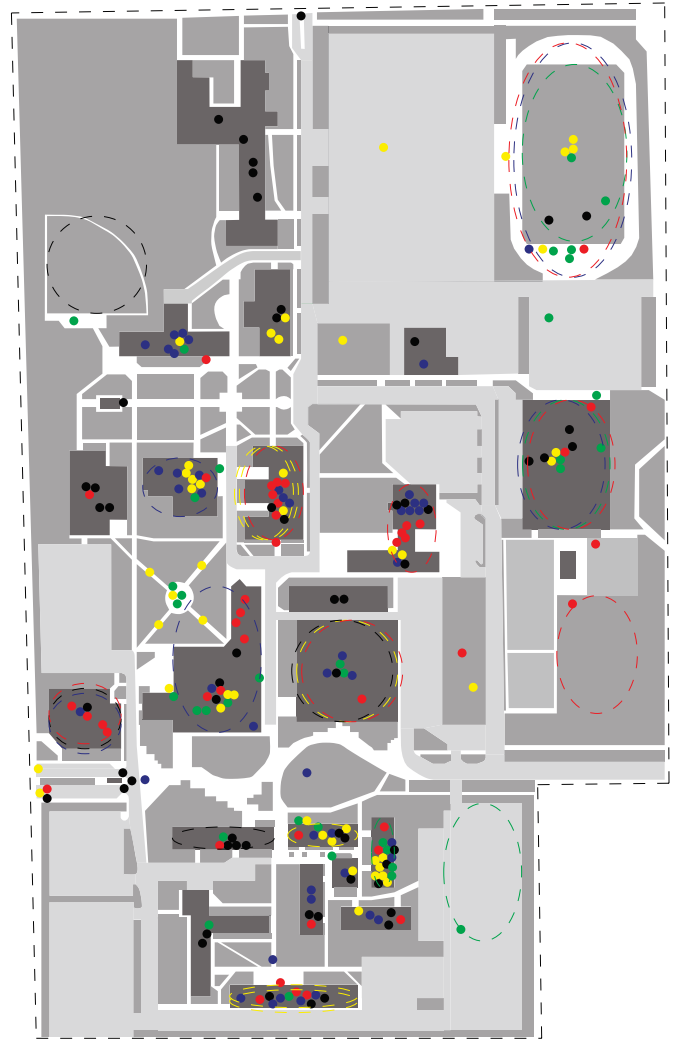


Junior Analysis: Architecture Students

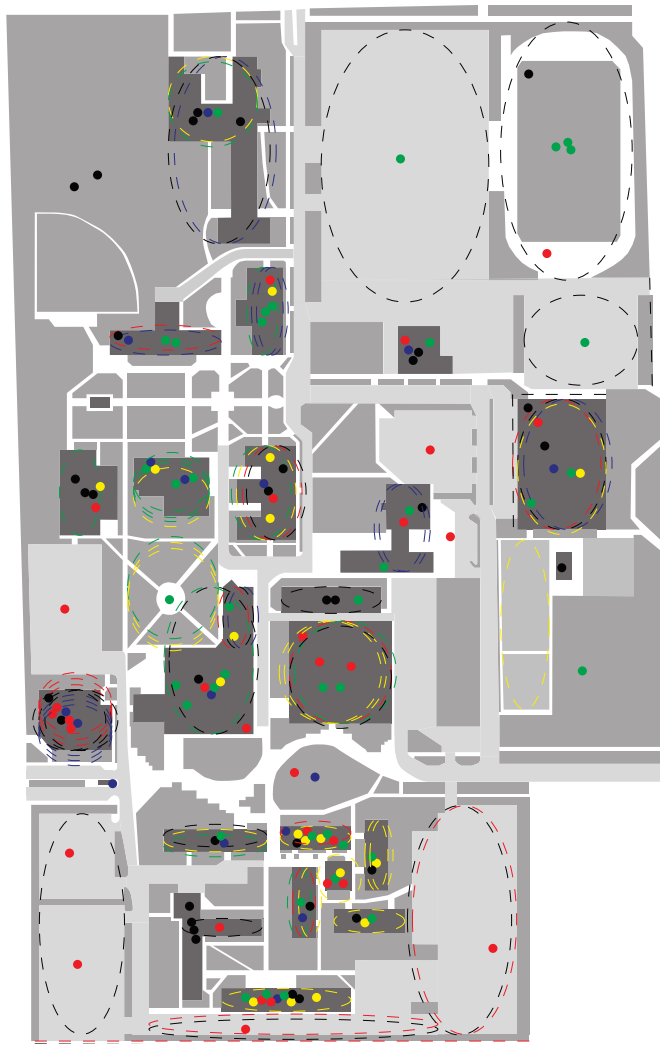
Senior Analysis: Architecture Students



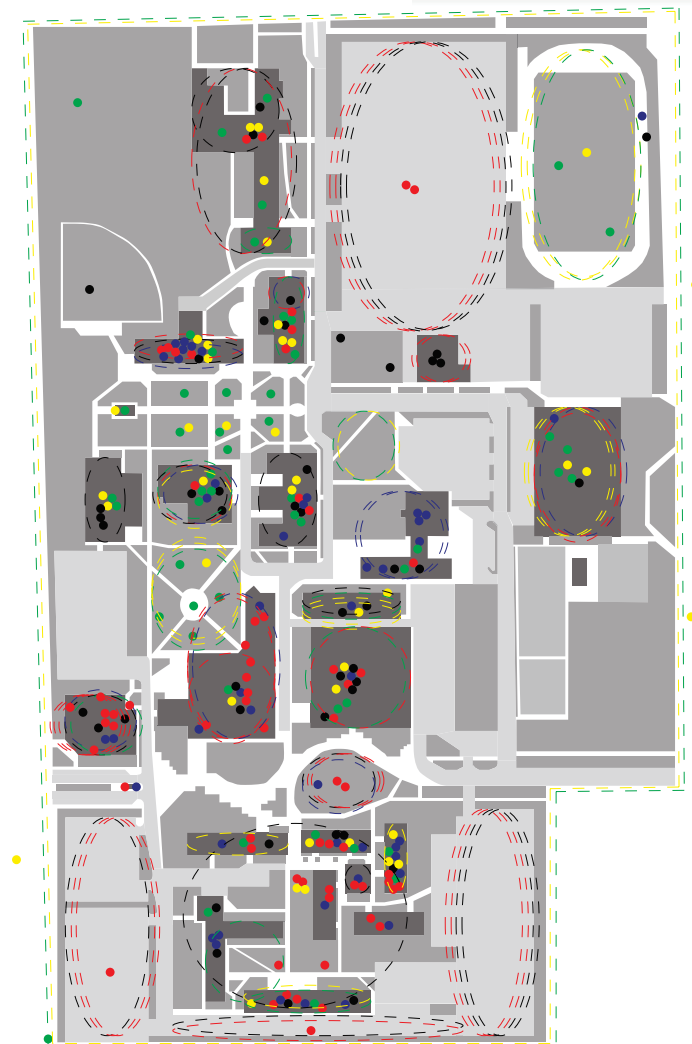
Freshmen Analysis: Non-Architecture Students



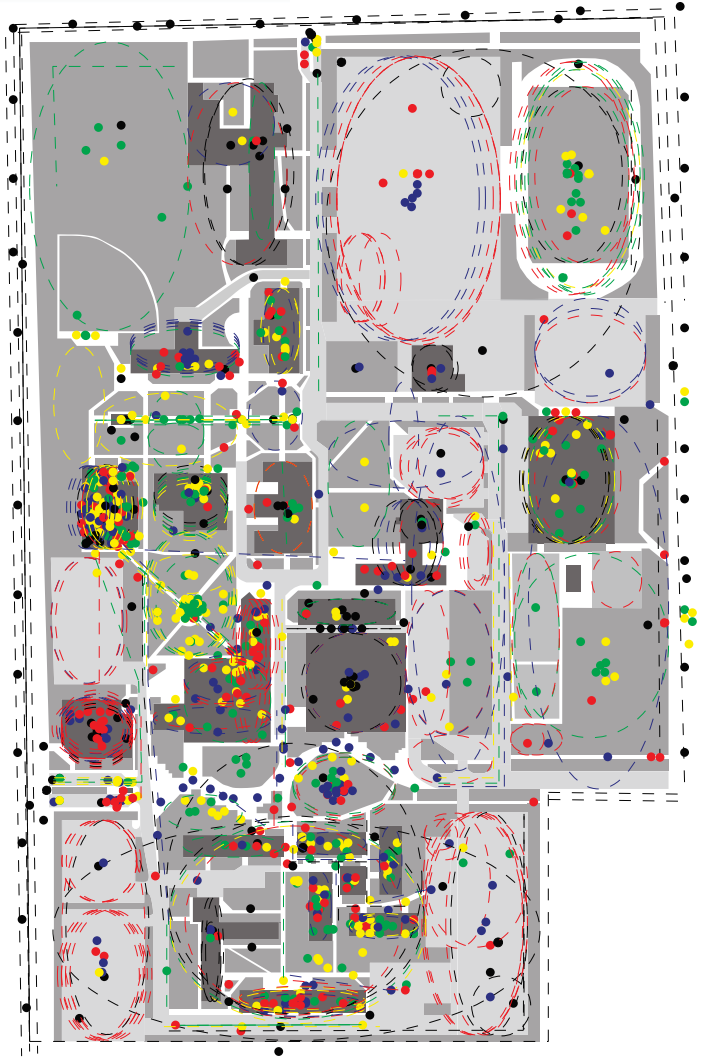
Sophomore Analysis: Non-Architecture Students



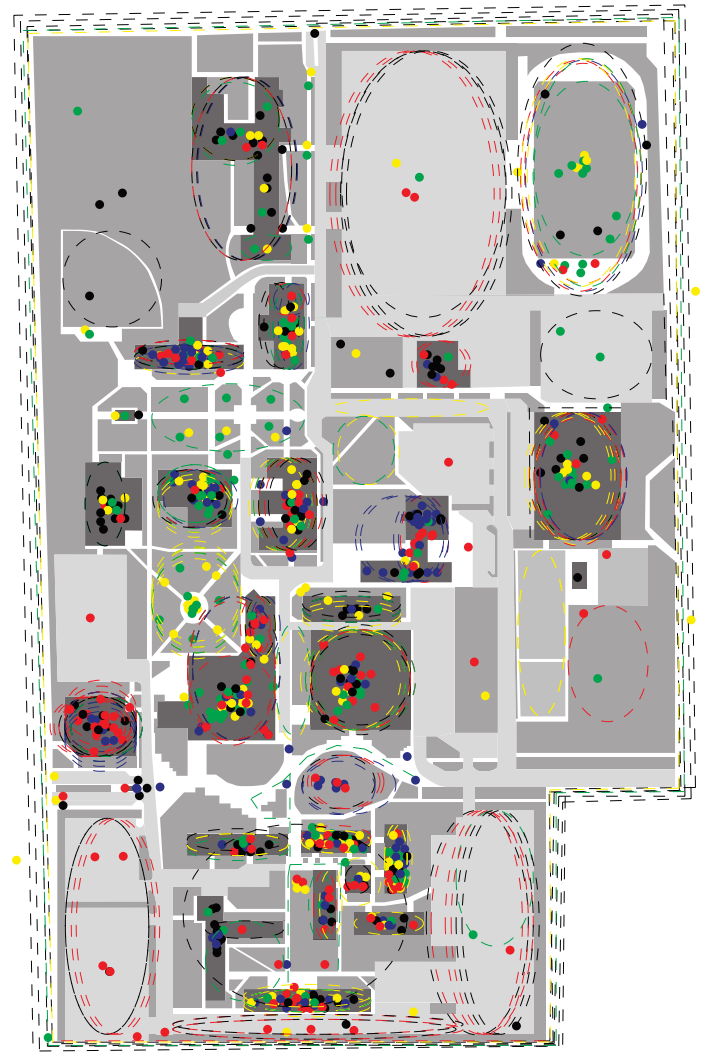
Junior Analysis: Non-Architecture Students



Senior Analysis: Non-Architecture Students



Composite Analysis: Architecture Students



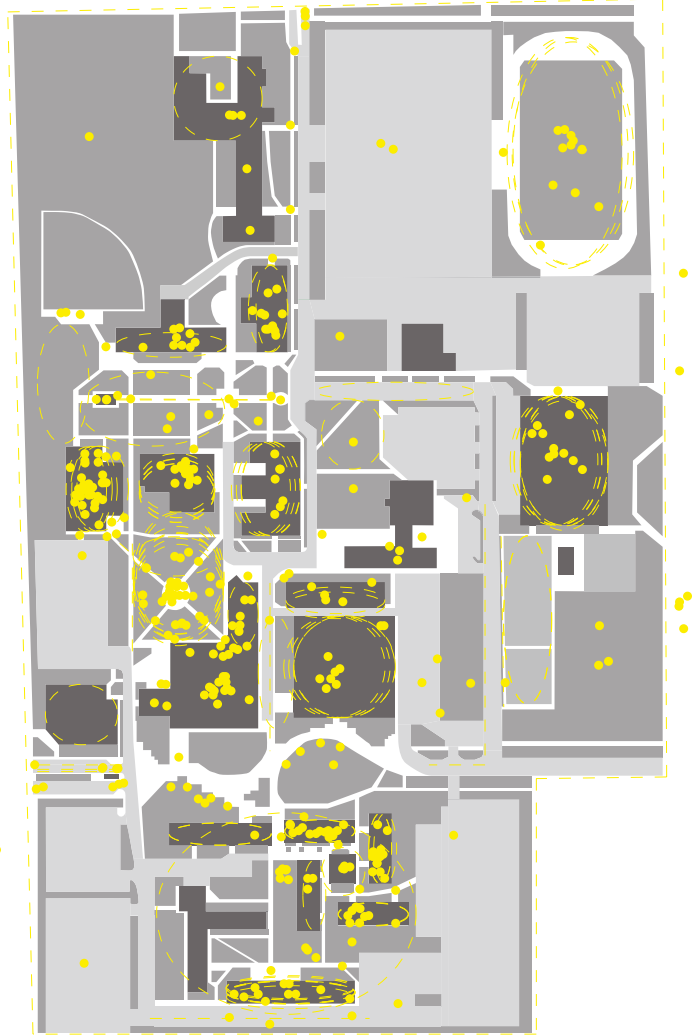
Composite Analysis: Non-Architecture Students

I chose to single out architects because I am an architecture student and know how I perceive the campus, but I wanted to see if other architecture students had the same or similar perspective of the campus. As architecture students we are exposed to a different way of thinking about the spaces around us than students from other majors. We are taught to think of the functionality of the space, technical aspects, aesthetics, materiality, texture, etc. Most students outside of architecture perceive the spaces around them in the light of the aesthetics and the experiences they have in those spaces. Though the responses that were received by breaking down the gathered information in this manner provided honest responses of how students feel and perceive the campus, the responses from architecture students were much more technical and comprehensive.

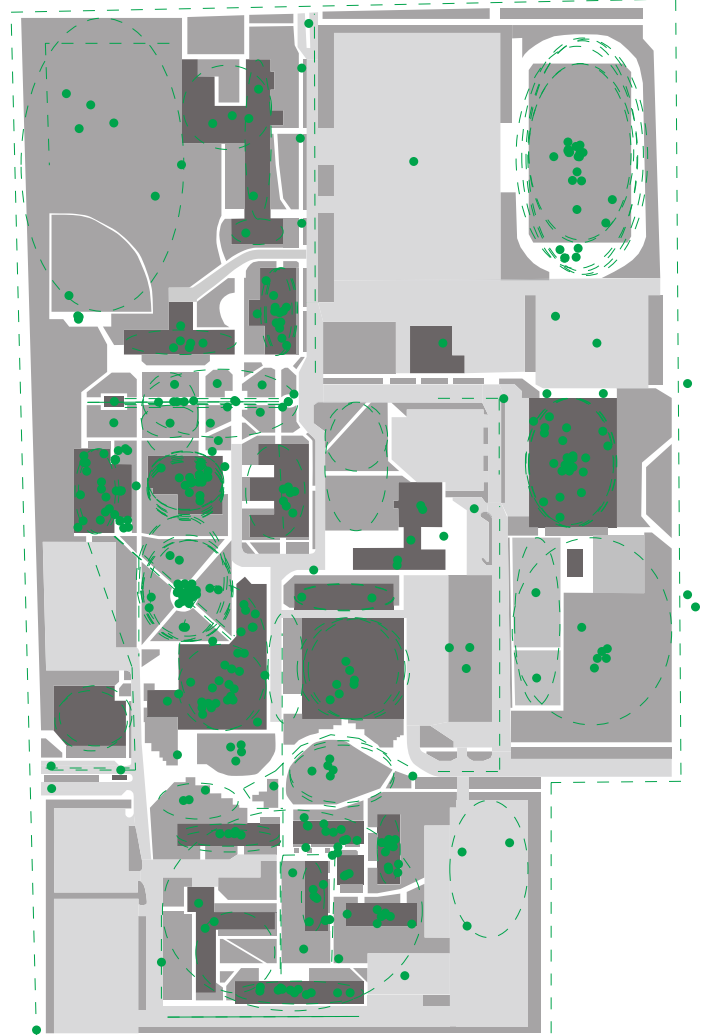
Next, the information was broken down by grade level. This was done to understand how people perceive their surroundings differently based on their level of association. Since the survey couldn't be given to the same people over their time on campus it was given to an equal number of students from each grade. In all, roughly 25 students from each class, freshmen, sophomore, junior, and senior were given the survey. Along with breaking the information between architects and non-architects, gave a comprehensive look as to how students from each grade perceive their surroundings. When the data was gathered it became clear that as students had more interaction with their surroundings their reactions and feelings were greater. This means that a senior would have more to say about their surroundings than say a freshman would have.

As another layer of analysis the data that was gathered was broken up based on each emotive response. By breaking down each emotion individually it could more easily read where each emotion was most prevalent.

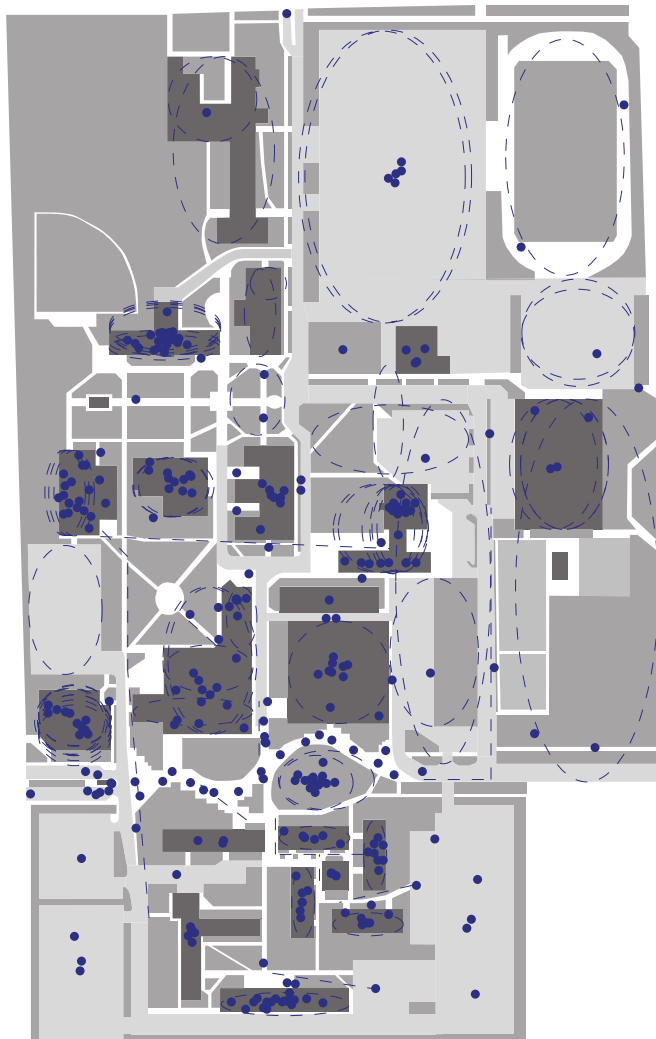
Previous Page
Architect Composite Map
(left)
Non-Architect Composite Map
(right)



Happiness, Optimism, Imagination



Healthy, Renewed, Calm



Sadness, Depression, Cold



Anger, Aggression, Displeasure

Page 58
Happiness Map (left)
Healthy Map (right)

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Sadness Map (left)
Anger Map (right)

Page 60
Fear Map

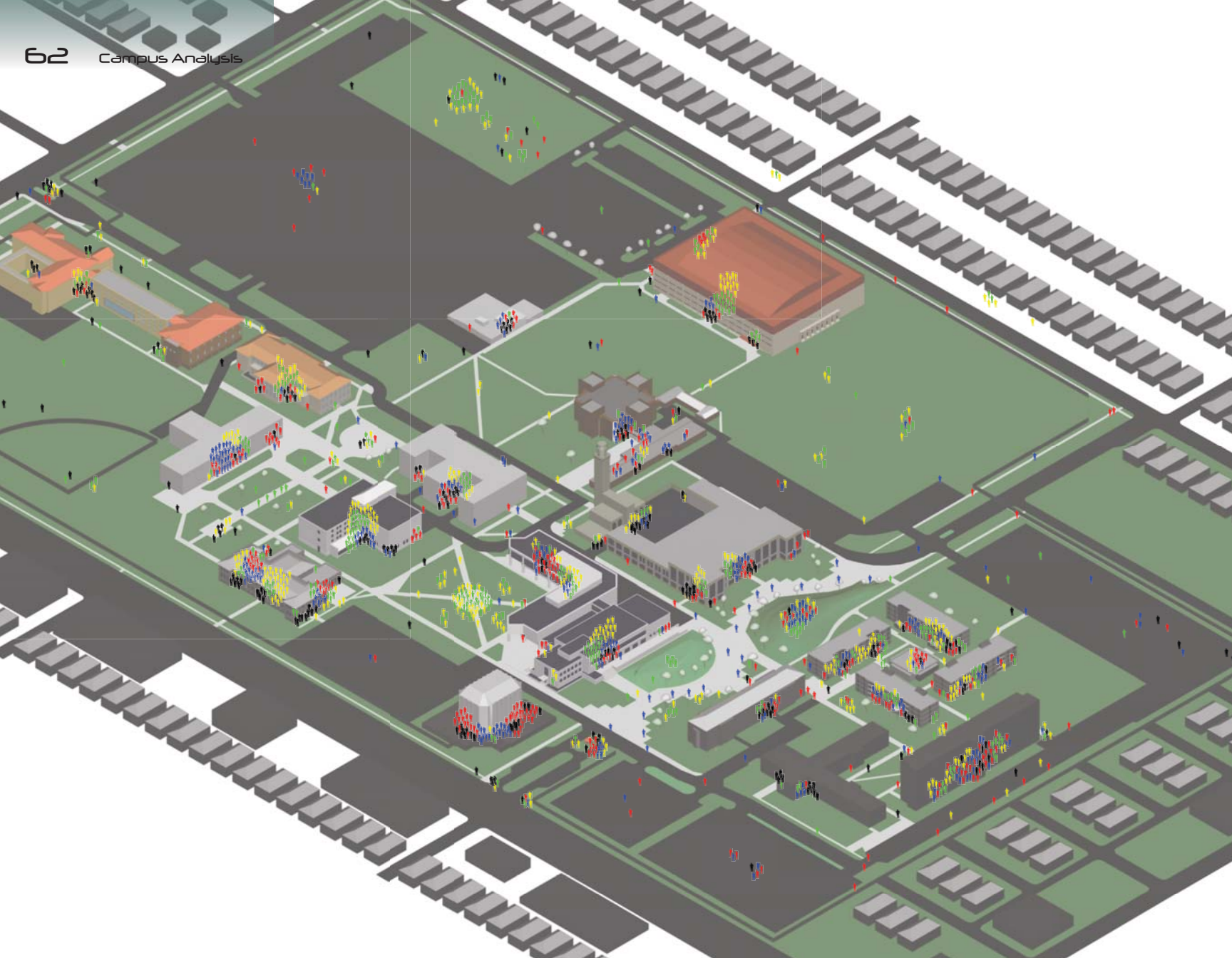


Fear, Mystery, Power

One thing that was not taken into account was the fact that there are a great number of commuters who attend the University. By not preparing for that this study could not truly know who was a commuter or not, but based on how certain maps were marked it could be generally assumed which participants were commuters.

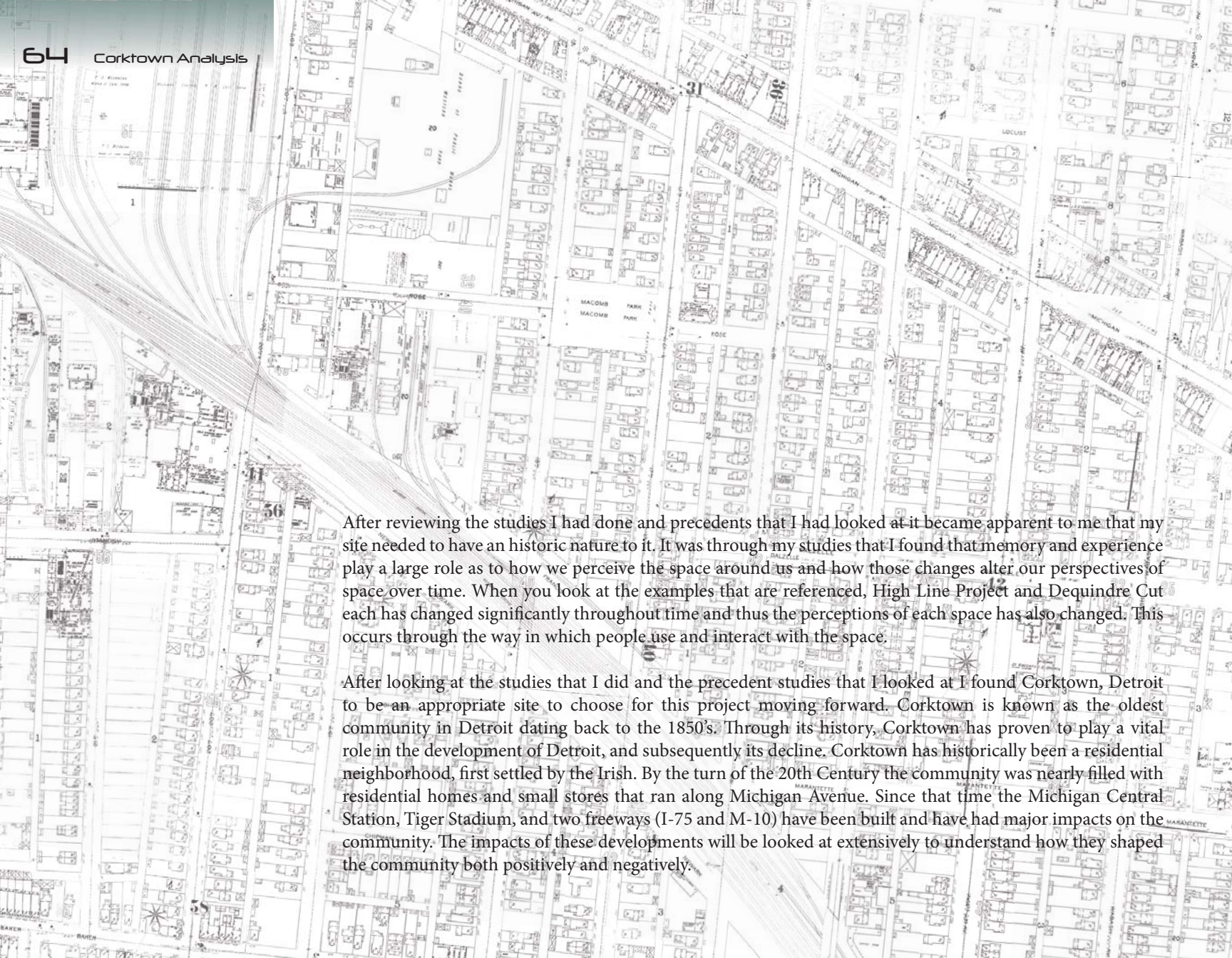
Once the data was collected and broken down patterns began to reveal themselves. In general, as expected students marked the areas that they were familiar with. For the most part students marked the buildings in which they spend most of their time. What wasn't anticipated though was the wide array of emotions that were displayed in several areas when the surveys were overlaid. In most cases, every area that was marked by a large number of students had a significant number of responses for each emotion.

Most of the students who were surveyed live on campus or have in the past. By knowing this one can understand why such a wide array of emotions were felt in so many places on campus. People who live on campus live here, work here, study here, go to class, interact with one another and many other things without really leaving. This means that they need to find places to release their feelings, and there are only so many places where you can do so in a campus environment. One's personal life is for the most part represented by their interaction in the dormitories, and their scholastic life is represented in the different college buildings: Engineering, Chemistry, Life Science, Health Professions, Liberal Arts, Architecture, Library, Student Union, and the Fisher Building. Students are studying in the colleges they are in because they enjoy what they are doing now, and what they will be doing in the future. However, there are times when we have different feelings about our majors. It is for these reasons that such a wide array of emotions were displayed in so many different parts of campus



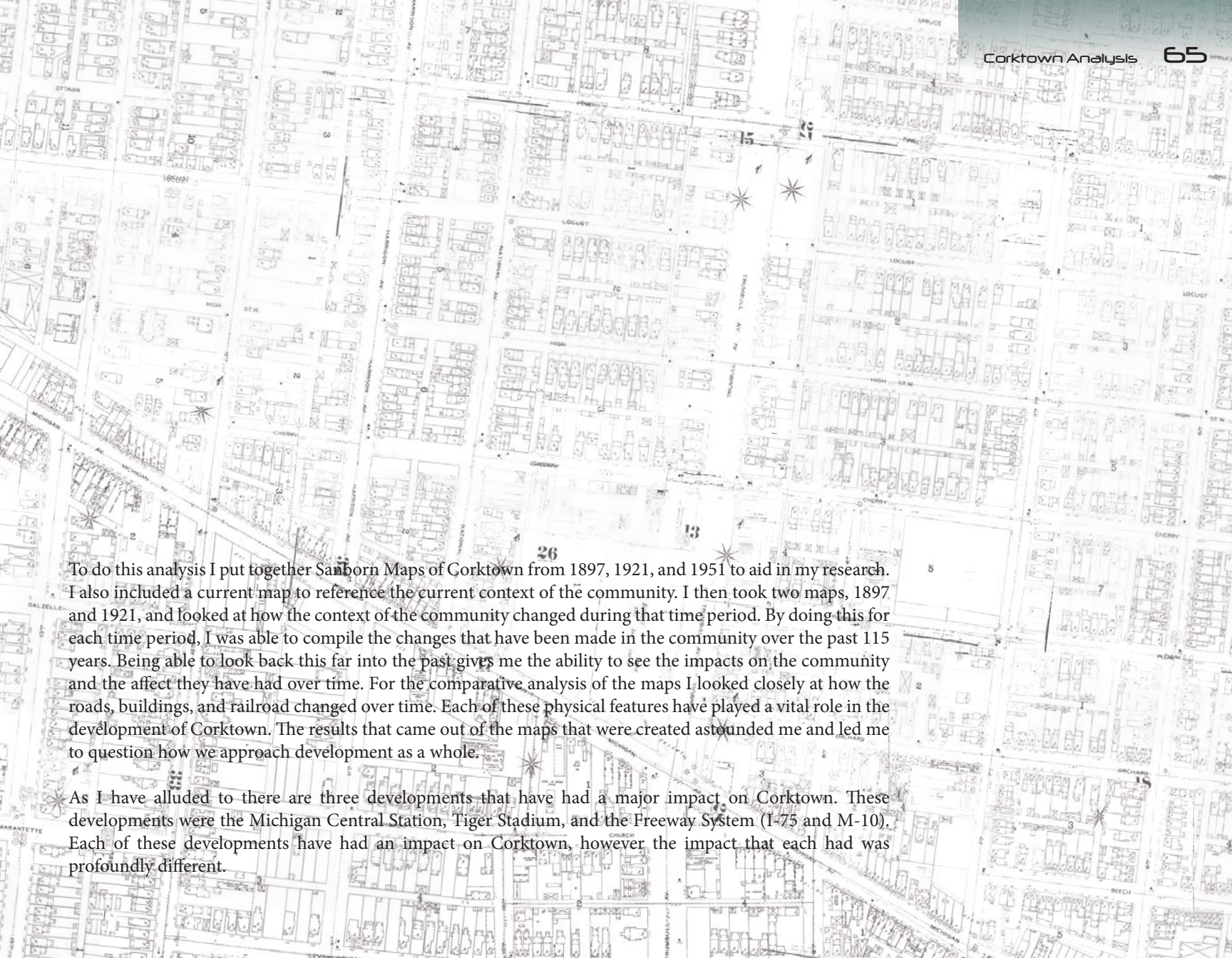
There were only a handful of areas on the map where the responses were for the most part the same. Those areas were the Fisher Building (the university administration building), the Titan Dining Room portion of the Student Center Building, and the Fountain Plaza. The Fisher Building and the TDR were met with overwhelming responses of anger; sadness and fear were also present in these locations. The Fountain Plaza received very positive responses from students as most labeled that area as either a place of happiness or health on their maps.

Although this study didn't give the types of responses that were initially expected, it did provide valuable information as to how people perceive their surroundings and how that perception changes over time. It also provided an idea of the types of spaces that people do and don't enjoy, at least those within the context of a college campus. By finding out how differently students perceive their surroundings after just four years provides some context that can be related back to my personal analysis. It reiterates to me that we all change because of the experiences that we have, and that my time in college has played a large role in shaping who I have become.



After reviewing the studies I had done and precedents that I had looked at it became apparent to me that my site needed to have an historic nature to it. It was through my studies that I found that memory and experience play a large role as to how we perceive the space around us and how those changes alter our perspectives of space over time. When you look at the examples that are referenced, High Line Project and Dequindre Cut each has changed significantly throughout time and thus the perceptions of each space has also changed. This occurs through the way in which people use and interact with the space.

After looking at the studies that I did and the precedent studies that I looked at I found Corktown, Detroit to be an appropriate site to choose for this project moving forward. Corktown is known as the oldest community in Detroit dating back to the 1850's. Through its history, Corktown has proven to play a vital role in the development of Detroit, and subsequently its decline. Corktown has historically been a residential neighborhood, first settled by the Irish. By the turn of the 20th Century the community was nearly filled with residential homes and small stores that ran along Michigan Avenue. Since that time the Michigan Central Station, Tiger Stadium, and two freeways (I-75 and M-10) have been built and have had major impacts on the community. The impacts of these developments will be looked at extensively to understand how they shaped the community both positively and negatively.



To do this analysis I put together Sanborn Maps of Corktown from 1897, 1921, and 1951 to aid in my research. I also included a current map to reference the current context of the community. I then took two maps, 1897 and 1921, and looked at how the context of the community changed during that time period. By doing this for each time period, I was able to compile the changes that have been made in the community over the past 115 years. Being able to look back this far into the past gives me the ability to see the impacts on the community and the affect they have had over time. For the comparative analysis of the maps I looked closely at how the roads, buildings, and railroad changed over time. Each of these physical features have played a vital role in the development of Corktown. The results that came out of the maps that were created astounded me and led me to question how we approach development as a whole.

As I have alluded to there are three developments that have had a major impact on Corktown. These developments were the Michigan Central Station, Tiger Stadium, and the Freeway System (I-75 and M-10). Each of these developments have had an impact on Corktown, however the impact that each had was profoundly different.



Michigan Central Station was built during 1912 and 1913 to replace the existing passenger station that was located at the corner of 3rd Street and Jefferson Avenue. It was thrust into use while still under construction in December 1913 because the original station burned down. The initial reason for building a new train station was a combination of increasing ridership and the fact that the original station was on a spur line, whereas the new station was on the main line of the railroad system that ran through Detroit. Having the train station located on the main line made it easier for maintaining a train schedule and accommodating for the increased ridership. The new Michigan Central Station was built between 14th Street and 19th Street in the east-west direction and Michigan Avenue and Bagley Street in the north-south direction. The immense amount of space required for the station meant that several blocks of residential homes needed to be destroyed and its inhabitants moved. In addition to the space needed for the station and park located in front of it, space also needed to be made for the additional rail lines that were needed for the station. What resulted from the construction of Michigan Central Station were several roads being terminated, a new road system immediately surrounding the station, the removal of older unneeded rail lines, new rail lines built to accommodate the needs of the new station, and the destruction of hundreds of buildings. In all, the development of the Michigan Central Station resulted in much of the western portion of my target area being significantly altered.



Between 1921 and 1951 minor changes were made to the context surrounding the station. These changes included the addition of a new road and the removal of some smaller alleys. Also as time passed, many of the buildings/homes that were located adjacent to the station were destroyed and or became vacant.

Since 1951, much of the area around the train station has changed. There are two primary reasons for the changes. The first is the construction of I-75, a freeway that runs through Corktown splitting it, creating a new boundary for the community. The rail yard that was developed became part of the path for the freeway, and was removed along with the rail lines that led to the yard. The second reason for the changes was the fact that the station closed its doors for the last time in January 1988. After World War 2, the freeway system was opened and passenger railroad ridership began to decline sharply. As a result, the train station was used less and less. Many of the residential homes were also destroyed during this time and replaced by industrial buildings.



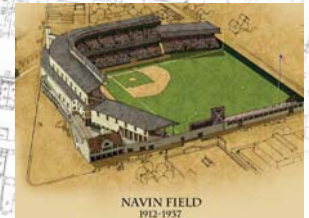
Tiger Stadium, as most people know or remember it, did not exist until 1938. The first stadium that existed in Corktown was called Bennett Field. It held baseball games from 1896 to 1911 when it was torn down in favor of a new stadium. Between the 1911 and 1912 baseball seasons Navin Field was constructed, marking the beginnings of what would become known as Tiger Stadium in later years. Between 1911 and 1938, Navin Field would undergo several expansions before it was finished in 1938. At this point the stadium was renamed Briggs Stadium after the owner of the Detroit Tigers. In 1960 Briggs Stadium was renamed Tiger Stadium, a name it had until its demolition in the summers of 2008 and 2009. The stadium officially closed after the 1999 season at which point the Tigers moved to a new ballpark in downtown called Comerica Park.

Throughout the time periods that I looked at, Tiger Stadium had a relatively small impact on the context that surrounds it. Part of this has to do with the fact that baseball was being played at the site, located at Michigan Avenue and Trumbull Avenue since 1896. The physical impact that the stadium had on its surroundings was for the most part limited to the times the stadium itself was expanded. Through all of the expansions, the stadium displaced one block of residences to the west when Navin Field was constructed in 1911, and one block to the north when the final expansion was completed in 1938.

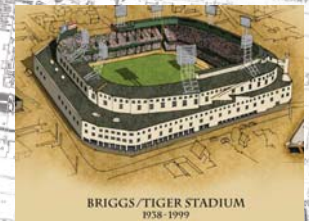
Later, I-75 would have an impact on Tiger Stadium as it ran adjacent to the north side of the stadium. The freeway as was stated earlier and will be expanded on later would end up having a profound impact on Tiger Stadium. Due to the freeway, a large part of the community was displaced and the homes destroyed. This severely hurt the community atmosphere that had existed around the site during the previous 60 years.



BENNETT PARK
1896-1911



NAVIN FIELD
1912-1937



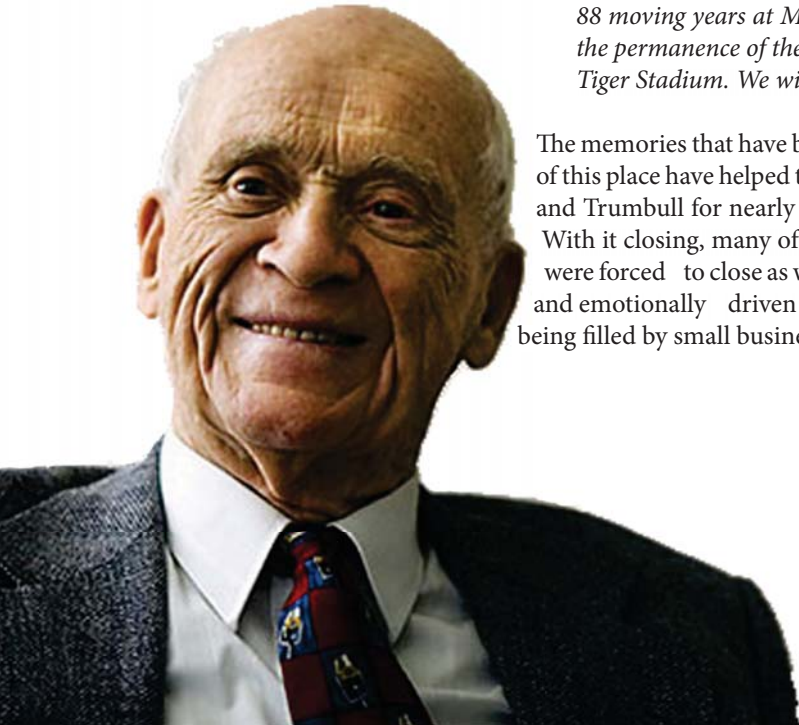
BRIGGS/TIGER STADIUM
1938-1999



When Tiger Stadium closed after the 1999 season it left a hole in the community that has yet to be filled. This is epitomized in the farewell speech given by Ernie Harwell on September 27, 1999.

“Ladies and gentlemen, less than six months ago, we began a warm season of farewells, and with each passing day we came a little bit closer to this historic occasion. The Lions, Joe Louis and Nelson Mandela. Six-thousand eight-hundred and seventy-three regular-season games, 35 postseason contents and a trio of spectacular All-Star Games, Tiger Stadium has been home to this great game of baseball. But more than anything, it has been a cherished home to our memories. Will you remember that last base hit? The last out? How about that last pitch? Or maybe it’s the first time as a child when you saw that green, green grass that will forever be etched into your mind and soul. Tonight, we say good-bye. But we will not forget. Open your eyes, look around and take a mental picture. Moments like this shall live on forever. It’s been 88 moving years at Michigan and Trumbull. The tradition built here shall endure along with the permanence of the Olde English D. But tonight we must say good-bye. Farewell, old friend Tiger Stadium. We will remember.”

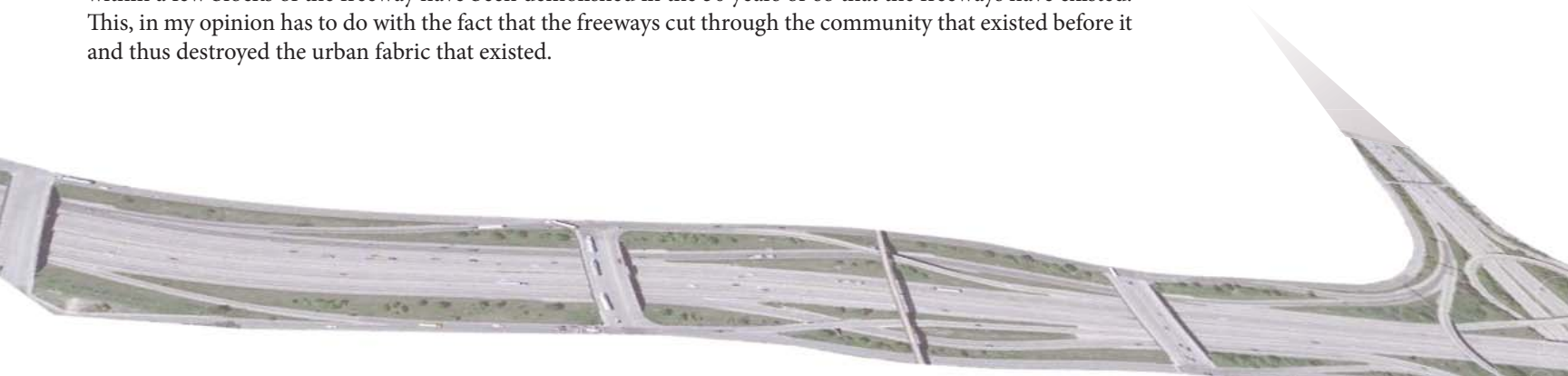
The memories that have been engrained into people’s minds from the individual and collective memories of this place have helped to shape the identity of Corktown. Baseball was played at the corner of Michigan and Trumbull for nearly a hundred years, and had a profound impact on the surrounding community. With it closing, many of the establishments that had relied on the revenue that was created by baseball were forced to close as well. Therefore, the impact that Tiger Stadium had was much more economically and emotionally driven than physically. The void left by its closing and subsequent demolition is slowly being filled by small businesses, but its shoes, in my opinion, will never be filled.



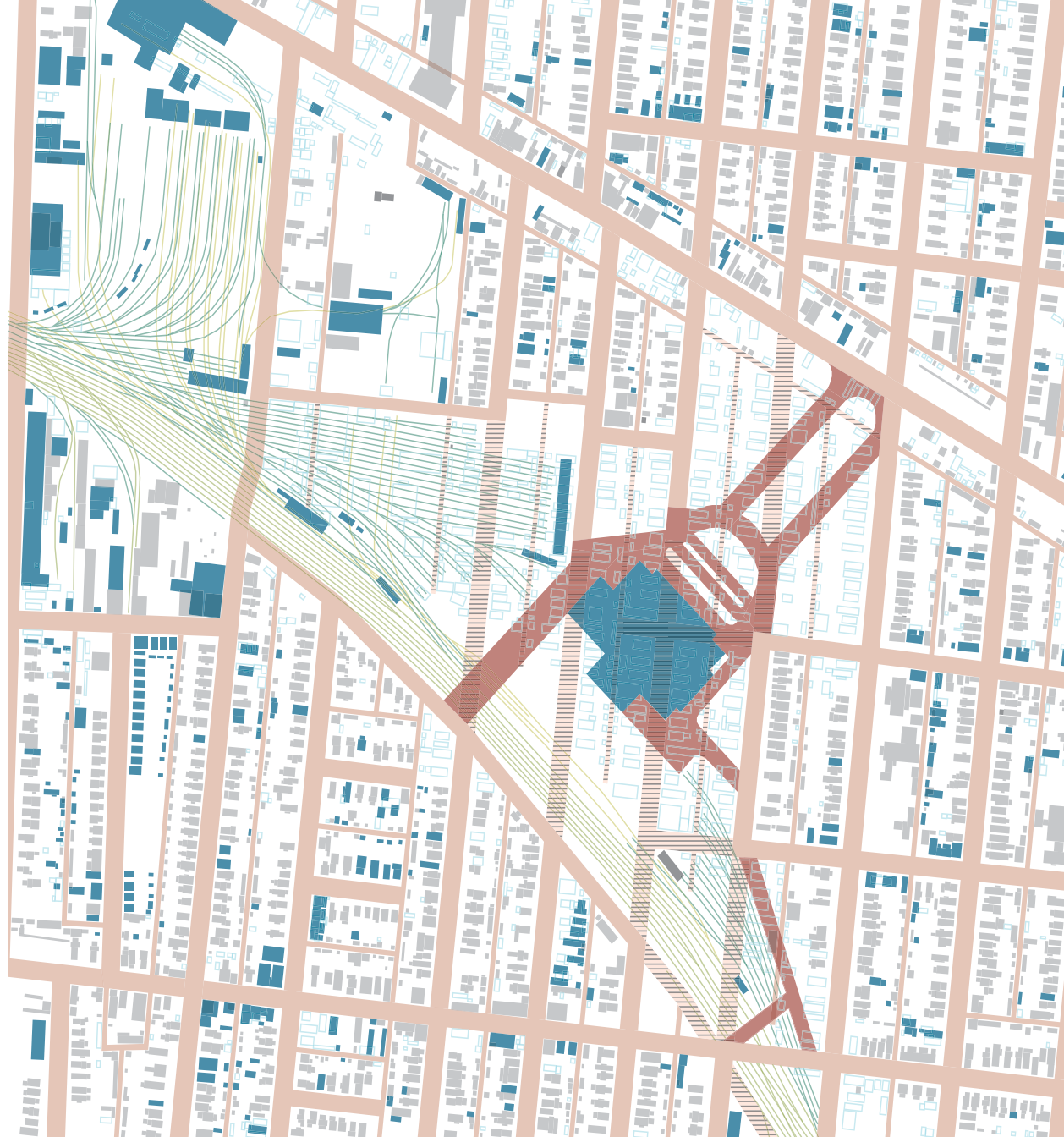
The final major development that occurred in Corktown was the construction of the freeways. Along the eastern border of Corktown is M-10 (the Lodge), and along the north and west boundaries is I-75 (Fisher Freeway). The construction of these freeways essentially put Corktown on an island as they cut it off from the surrounding communities. Granted there are still bridges that allow for access across the freeways, but the effect that they have had on people has effectively broken the ties people had before the freeways existed. The purpose of the freeways is to facilitate movement of a large number of vehicles at a high speed. While the freeways succeed at this, the impact felt on the adjacent communities is largely negative as residents must deal with noise, light, high speeds, and any of a number of other affects that freeways have, especially in an urban setting.

As they pass through Corktown, both I-75 and M-10 are recessed into the ground so as to deaden some of the noise that comes with traffic, but these recesses are up to 500 feet wide in places. When talking about those types of distances it is comparable to two city blocks. This does not include the service drives that act as a transition zone between the freeway and the surface streets. When you look at the interchange between I-75 and M-10 at the eastern boundary of my target area, you can see the impact of multiple freeway systems that run through an urban setting. On the map I created you can only see 2/3 of the interchange, but the area that it actually covers is immense. To give some perspective, that interchange alone is roughly the same size as the entire footprint of the area that Michigan Central Station took up when it was built!

The effect that the freeways have had on the community is immense. One only needs to look at the land that is adjacent to the freeway to see what it has done to this community. The majority of homes and buildings within a few blocks of the freeway have been demolished in the 50 years or so that the freeways have existed. This, in my opinion has to do with the fact that the freeways cut through the community that existed before it and thus destroyed the urban fabric that existed.



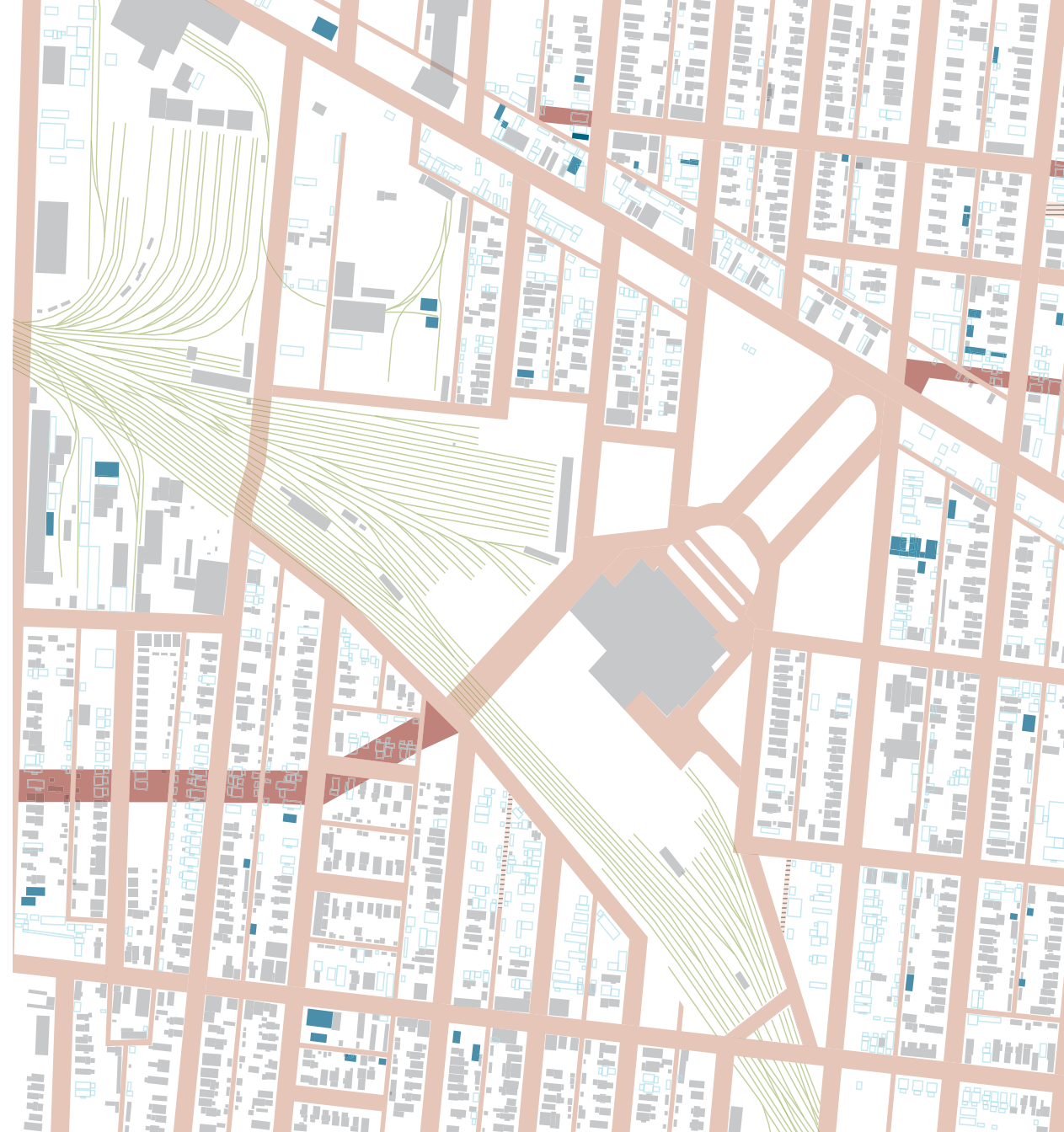
- Buildings
- Buildings Added
- Buildings Removed
- Roads
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- Roads Removed
- Railroads
- Railroads Added
- Railroads Removed





Corktown Development
1897-1921

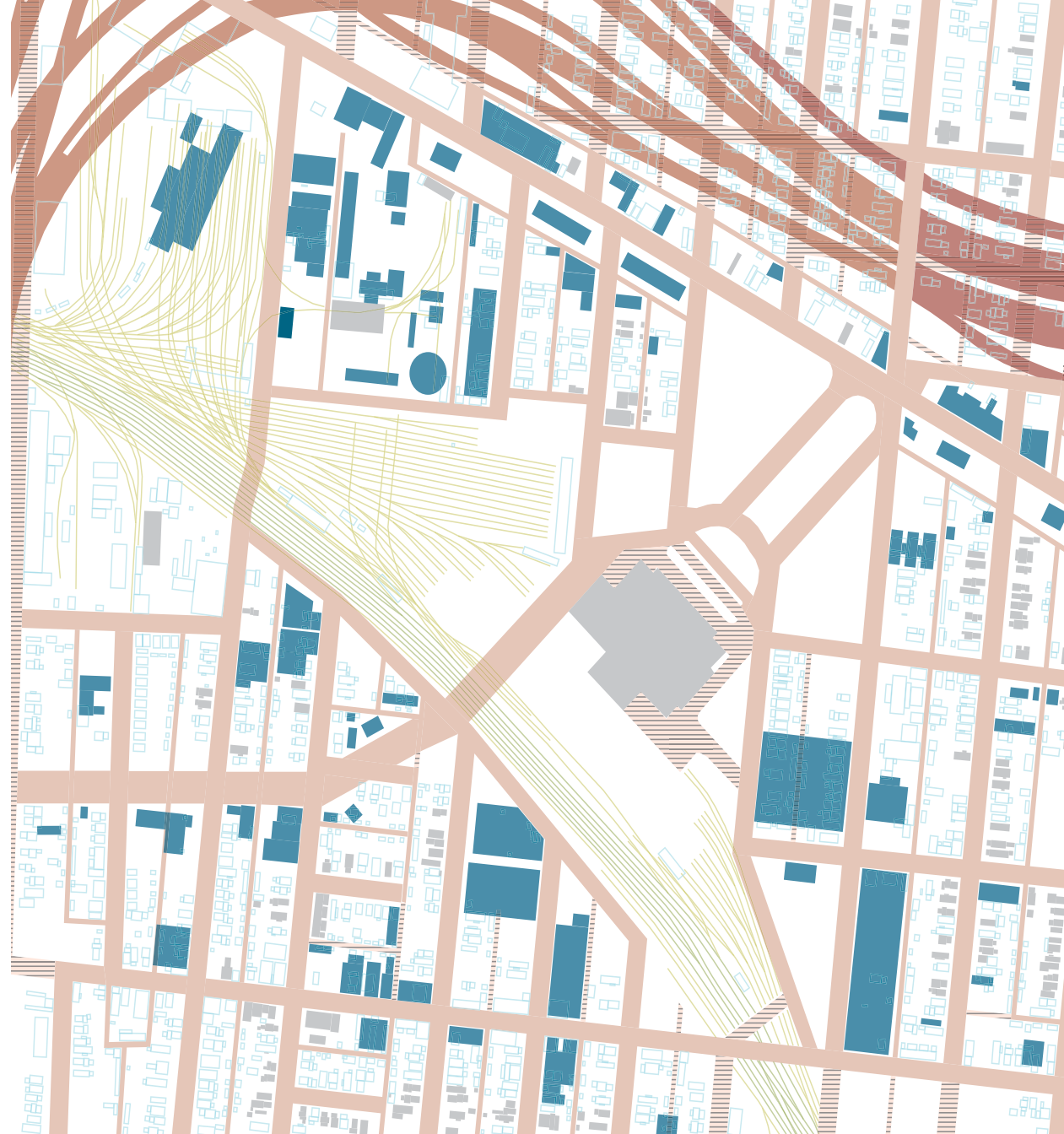
- Buildings
- Buildings Added
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- Roads
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- Railroads
- Railroads Added
- Railroads Removed





Corktown Development
1921-1951

- Buildings
- Buildings Added
- Buildings Removed
- Roads
- Roads Added
- Roads Removed
- Railroads
- Railroads Added
- Railroads Removed





Corktown Development
1951-2011



The impact of these three developments has shaped what Corktown was, is, and will be in the future. At one time the community was nearly entirely residential. At the turn of the 20th Century, two institutions that would have a profound impact on the community were built, Michigan Central Station and Navin Field. These two institutions would become the anchors of the community throughout the 20th Century. Michigan Central Station would close in 1988 when Amtrak moved their services to New Center. It has sat vacant ever since that time, becoming a ruin that sits as a reminder of better times for the community. Tiger Stadium closed in 1999, and was subsequently demolished in 2008 and 2009. The land it stood on remains vacant and fenced off from the public. The freeways were developed in the 1950's and 60's and continue to run strong. The demands and use of the automobile mean that the freeways will continue to have an impact on Corktown, as well as every other community in every city that has a freeway running through it for the foreseeable future.



Michigan Avenue 2011



Site Analysis

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Once Corktown had been chosen as the site for this project, more detailed analysis had to be done to fully gain an understanding as to how and why the community had developed to where it currently is. The maps that were derived from the Sanborn Maps gave a glimpse in to how the community has changed over the past 120 years, but more information was required.

To begin this process simply overlaying the current conditions on top of the conditions found in 1897, the beginning date of the study, allowed one to understand how drastic the changes that have occurred over the past 120 years were. One does not truly understand this significance until the two maps are overlaid on top of one another. When this is done it gives one a true understanding of the physical impact of the freeway system, Michigan Central Station, and just general redevelopment of space over time. In 1897, when this study began to look at Corktown, the community was set up on an orthogonal street grid and consisted of primarily residential homes. By the current time, 2012, this community has morphed into something completely different. There are several businesses and industrial properties, the remnants of Michigan Central Station and Tiger Stadium, a freeway that divides a once unified community into two individual communities, and a fraction of the residential housing that existed at the beginning of this study.



Current Corktown condition overlaid with 1897 conditions



Current Corktown conditions

The physical change of this community can also be seen in how the boundaries of Corktown have changed, most notably since the construction to the freeways. The original boundary began at 3rd Street to the East, Rosa Parks Boulevard to the West, the Detroit River on the South, and Grand River Avenue on the North. Since the freeways have been built the neighborhood boundaries have shifted greatly. What used to be Corktown now consists of multiple communities. North Corktown has boundaries of M-10 Lodge Freeway on the East, I-96 Jeffries Freeway on the West, I-75 Fisher Freeway on the South, and Martin Luther King Boulevard on the North. Corktown has boundaries of M-10 Lodge Freeway on the East, 14th Street on the West, Bagley Street on the South, and I-75 Fisher Freeway on the North. As you can see, the freeways have become an integral part of the urban fabric and how our communities are shaped. The site chosen for this thesis bridges across I-75 in an attempt to reconnect North Corktown to Corktown, reuniting two communities that were severed physically when this particular freeway was constructed in the early 1960's. This bridging will occur along one of the primary North-South roads that exist in the community, Rosa Parks Boulevard. This road was chosen because of its central relationship between the communities, although traffic patterns must be changed to accommodate two-way traffic across the existing bridge and to the North of the freeway.



Historic Corktown Boundaries

- North: Grand River Avenue
- South: Detroit River
- East: 3rd Street
- West: 12th Street



Corktown Boundaries

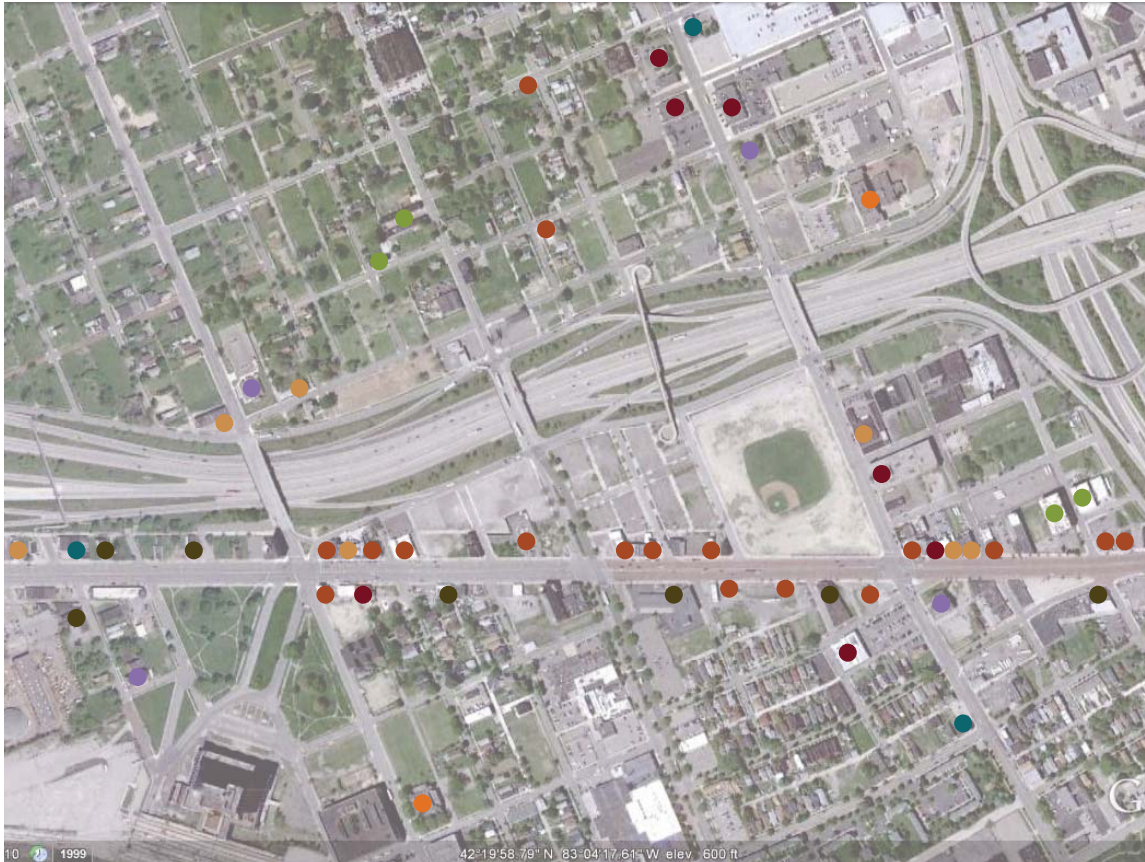
North: I-75 (Fisher Freeway)
South: Bagley Street
East: M-10 (Lodge Freeway)
West: 14th Street

North Corktown Boundaries

North: Martin Luther King Blvd
South: I-75 (Fisher Freeway)
East: M-10 (Lodge Freeway)
West: I-96 (Jeffries Freeway)

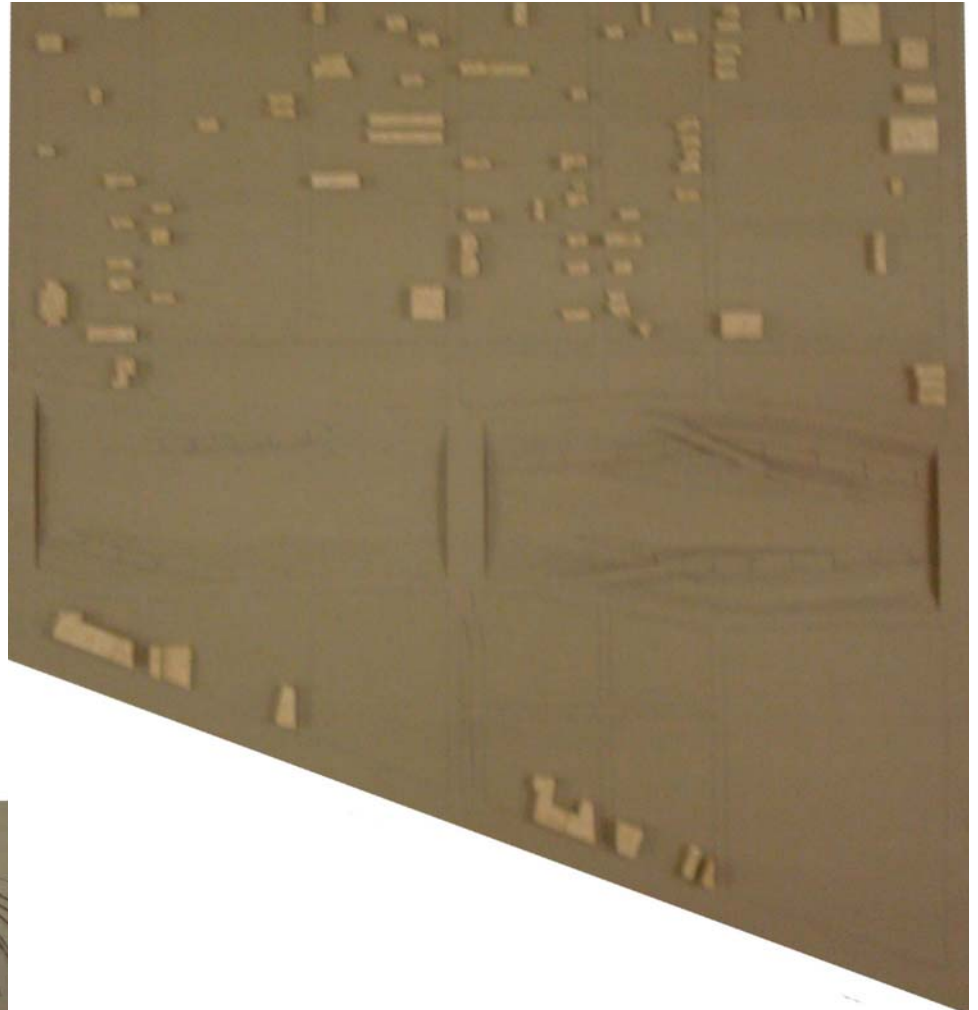
Before more development ideas could be made, an understanding of the existing conditions in the area needed to be done. This meant that an asset map needed to be created to understand what the community could or would need as part of the redevelopment process. The map that was created revealed that there were definite deficiencies in the community. There was no defined place for community meetings to take place, according to community meeting minutes that were found online, most community meetings took place in one of several local bars or restaurants. If there is one thing that remains a prominent part of Corktown, it is the large number of bars and restaurants that exist primarily along Michigan Avenue near the former site of Tiger Stadium. Also along Michigan Avenue you can find several other small commercial establishments. Large commercial and industrial properties have replaced historically residential tracts of land. There are four religious institutions in the target area for this project and two small markets. There are no educational facilities in this target area, although there is a school located a couple of blocks north of the target area which ends at Temple Street.

Understanding and knowing what currently exists in Corktown helped to give direction as to what could be done through redevelopment efforts that would benefit the community the most. The current asset map revealed that there is a need for a community center, recreation/learning center, entertainment facilities (Corktown is considered to be at the forefront of the electronic dance/music front in Detroit), and a grassroots initiative that could serve not only community members but also the restaurants along Michigan Avenue and people from surrounding communities. These are the most prominent needs that were noticed when the asset map was completed, but other needs such as densification of the community, new residential development, and mixed-use development being implemented into the community were also factors that was felt needed to be addressed.



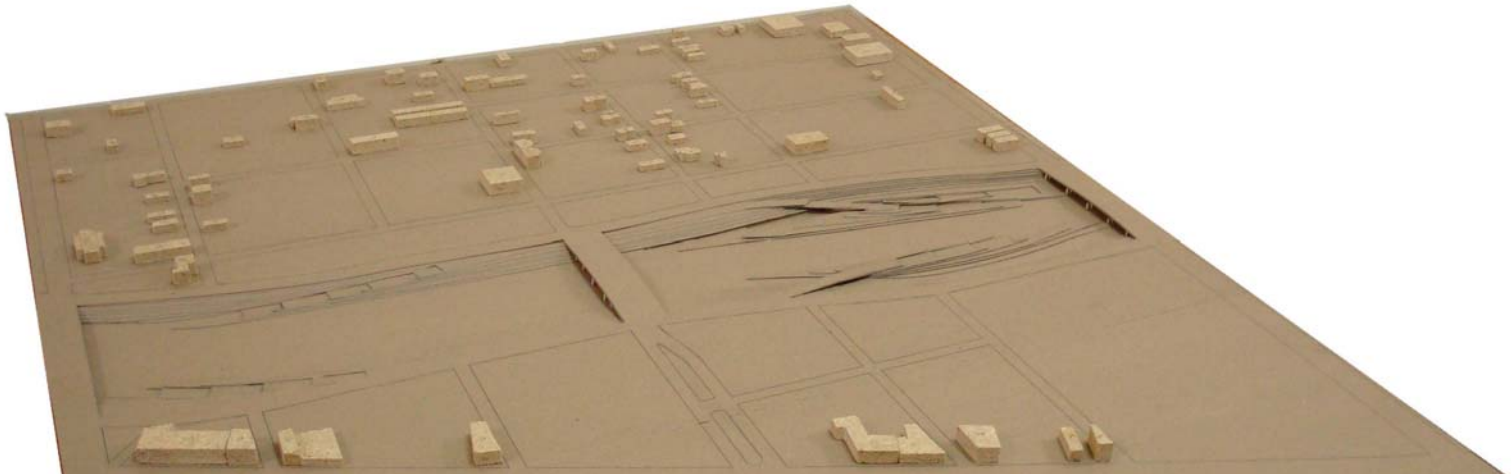
Corktown Asset Map

- Bars/Restaurants
- Shops
- Local Institutions
- Religious Institutions
- Food Markets
- Service Shops
- Education
- Multi-Family Housing



To understand the site in a more holistic manner the need for a physical model became apparent. By building a physical model, understanding the impact of the freeway and the topographical changes it creates come to the forefront of the design considerations. The model showed how the on and off ramps to the freeway relate to both the freeway and street grid. Knowing this relationship and being able to see that in the physical model allowed for decisions to be made pertaining to where the bridges could be built across the freeway without impeding. The model also provided a sense of scale of the existing context. Being able to determine the height of the existing buildings and the spacing between the buildings helped determine how the new development would be sited.

Between the model and asset map, an understanding of how the site could be redeveloped revealed itself. These studies showed what currently exists in the community, where these establishments are, and the spatial relationships between them. It also revealed how much vacant land exists in the community. Because of the amount of vacant land that exists on the site, a decision was made not to destroy any existing buildings. This decision was also made because of the additional land that would be created with the construction of the new bridges.



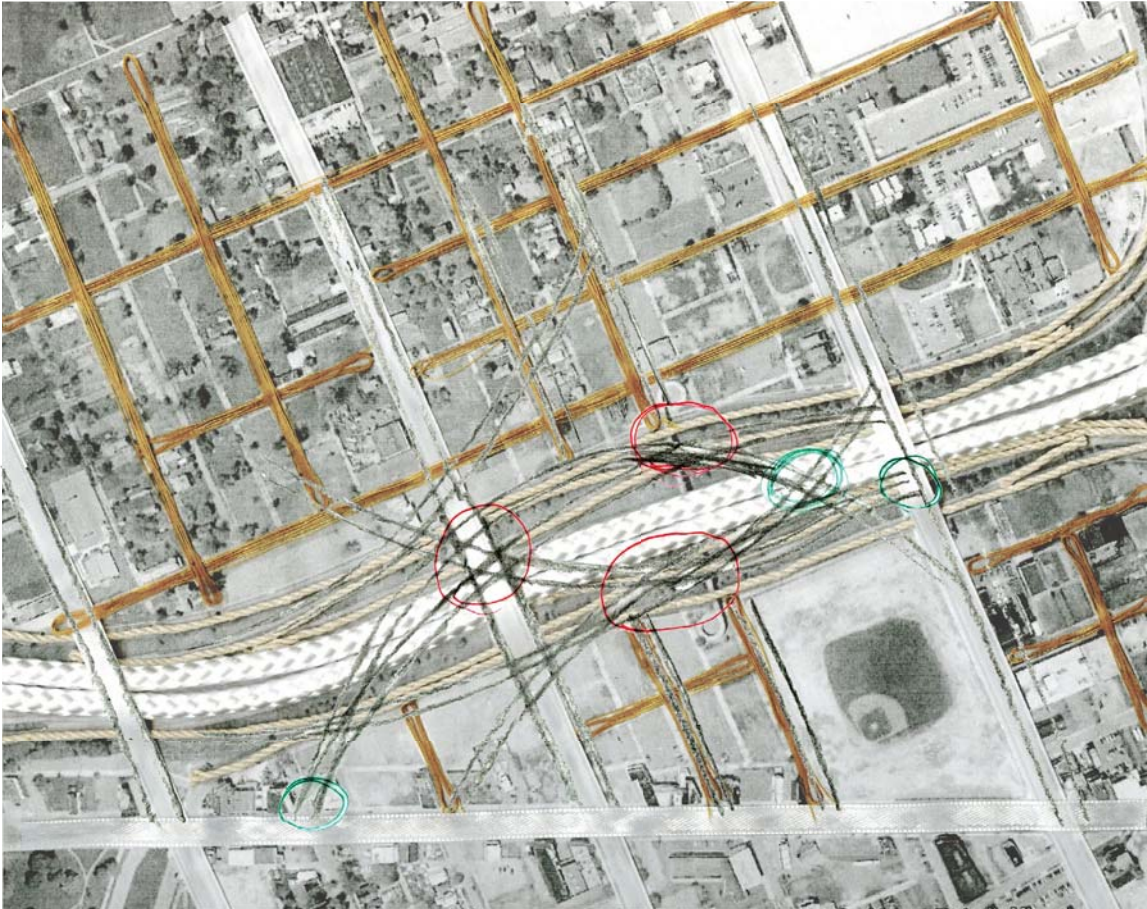


Preliminary Design

93	Preliminary Design
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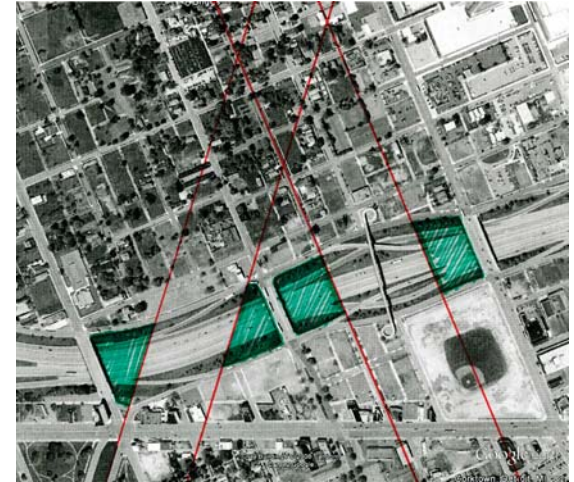
The next phase of development included taking what was learned from earlier studies and the existing context to put together a preliminary redevelopment plan. This included looking at the asset map and the physical model to identify the deficiencies that exist within the community and putting together a plan that addressed those needs. These plans worked to incorporate the existing anchor points in the community which were identified as Michigan Central Station and Tiger Stadium. Although these two institutions are closed and in the case of Tiger Stadium, demolished, the impact that each still has on the community cannot be ignored. At this point in time, the plans included a possible phasing program to the development process as the scope of the project covered roughly a half mile stretch of land running along and over the freeway. Parts of the phasing included plans which were discussed earlier along with the possibility of future development and a high speed rail system that would run on the inner-most lanes of the freeway in both the Northbound and Southbound directions. This system would later transfer into a street level light rail system further north of this site.



Preliminary Sketch Model
with sketch overlay

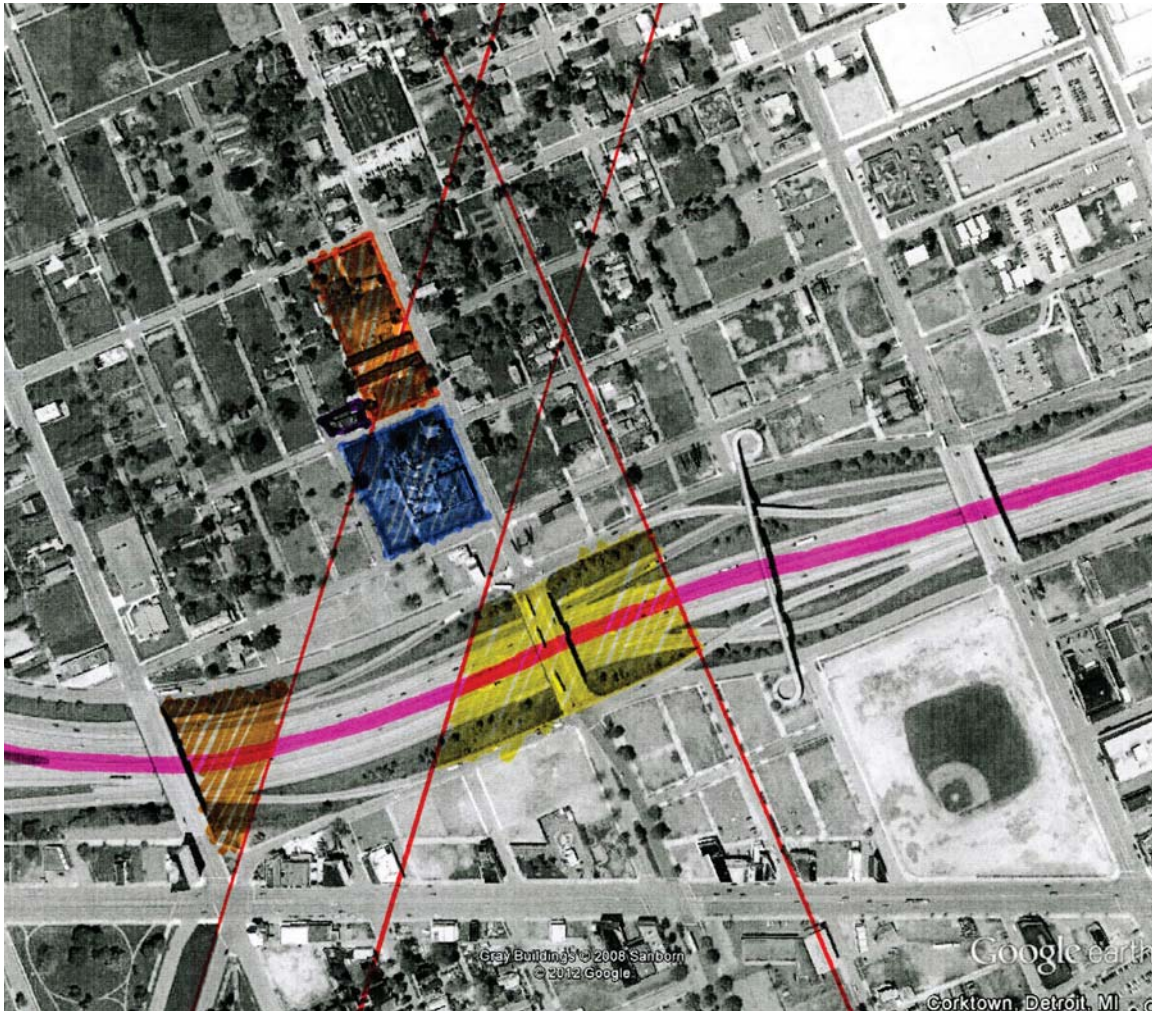


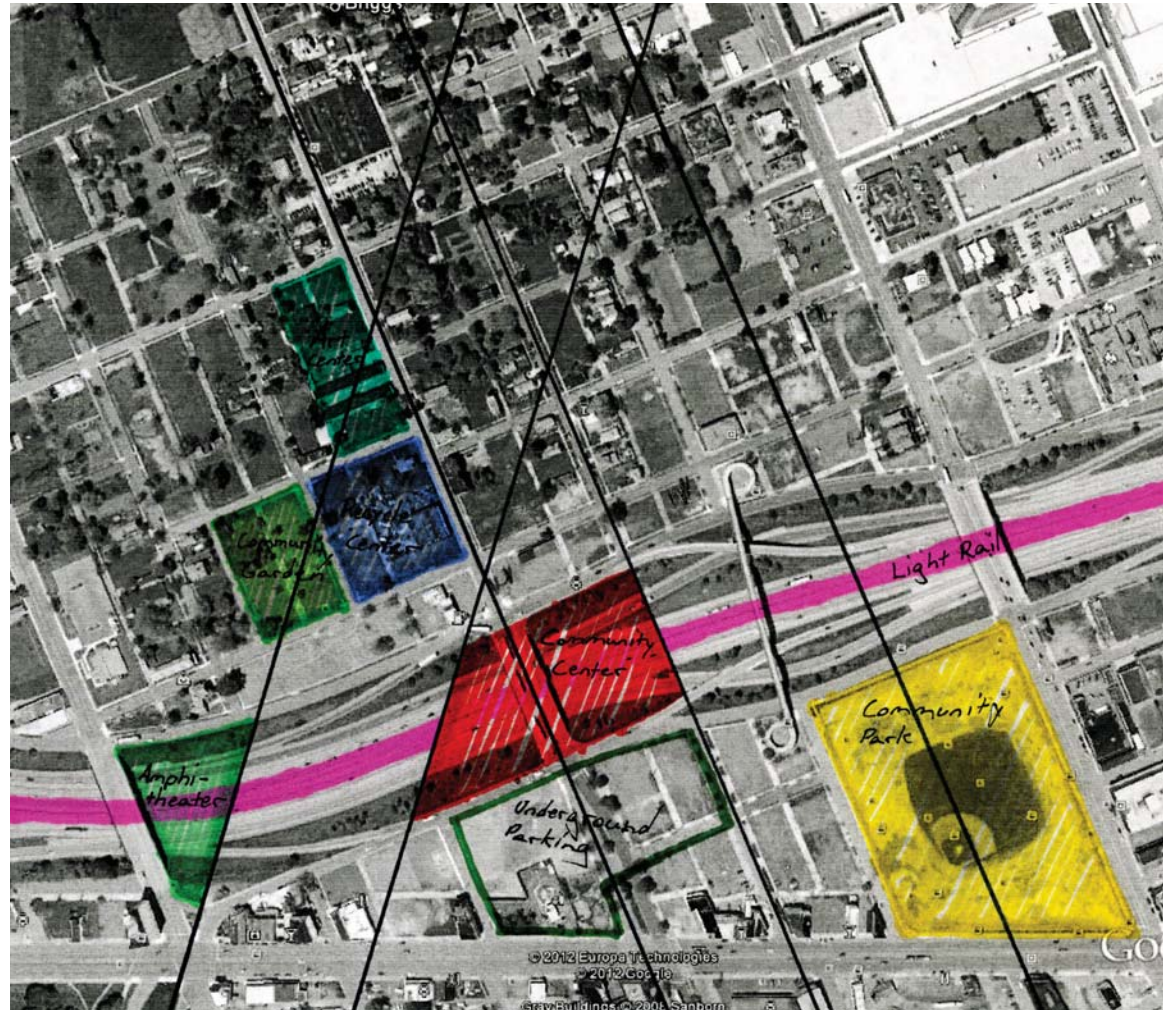
Possible Greenspace Layout
(left)

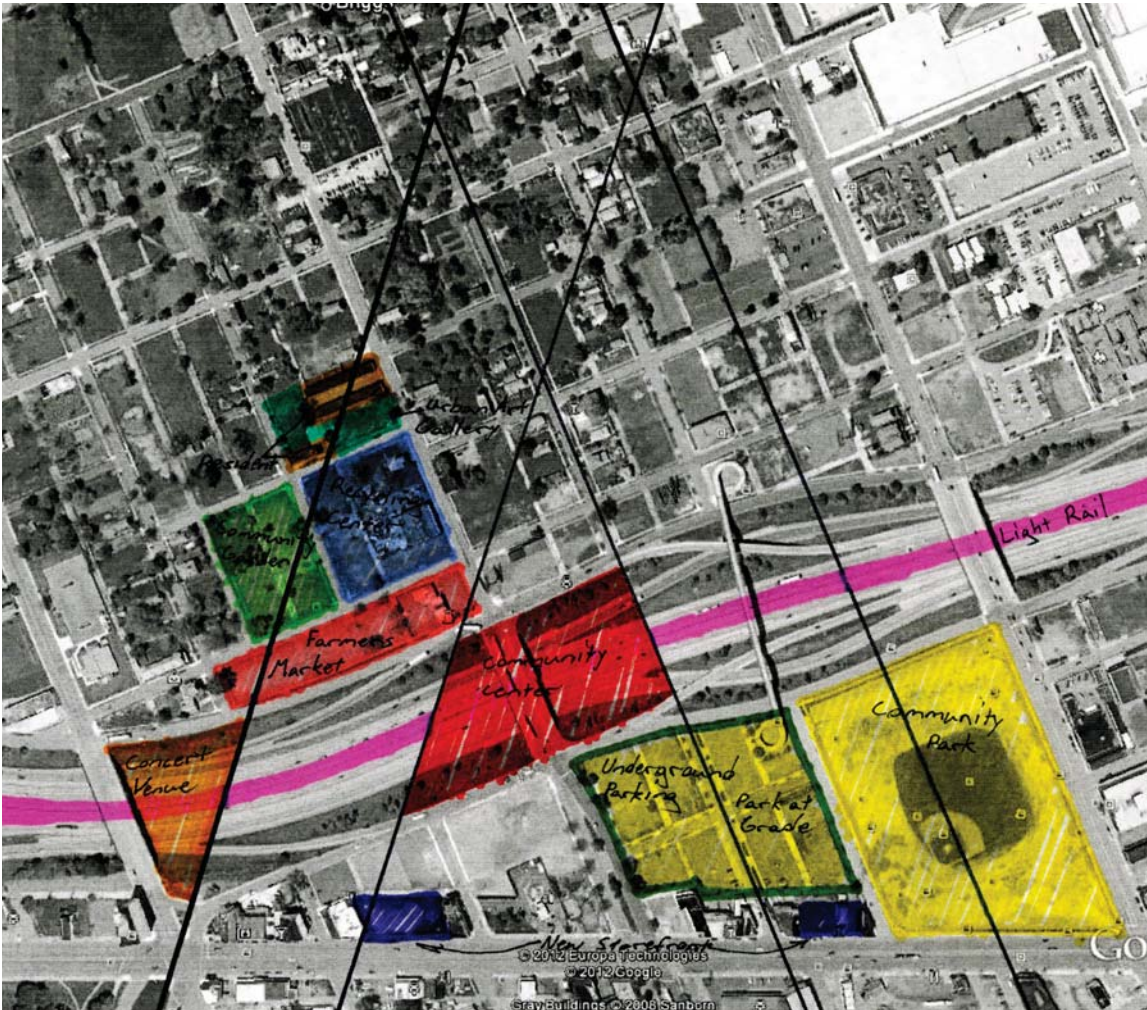


Possible Bridging Areas (right)

With these initial development plans, how to site the various programs that were part of the project needed to be considered. These considerations again led to looking at the existing context of the community and how the redevelopment could best fit into the existing context. Questions that were asked included the following. How can the train station promenade be connected to the north side of the freeway? What type of development should occur along the new axis across the freeway at Rosa Parks Boulevard, and how extensive should that new development be? How can the Tiger Stadium site be connected and integrated into the rest of the design? What should be done with the Tiger Stadium site? How and where can a grass roots initiative be integrated into the site? What other possibilities are there for the vacant land that exists on the target area? These questions opened up a wide variety of possibilities that needed to be addressed as the project moved forward. Some of the possibilities were investigated more deeply than others, but possibilities to each question were thought of throughout the process.





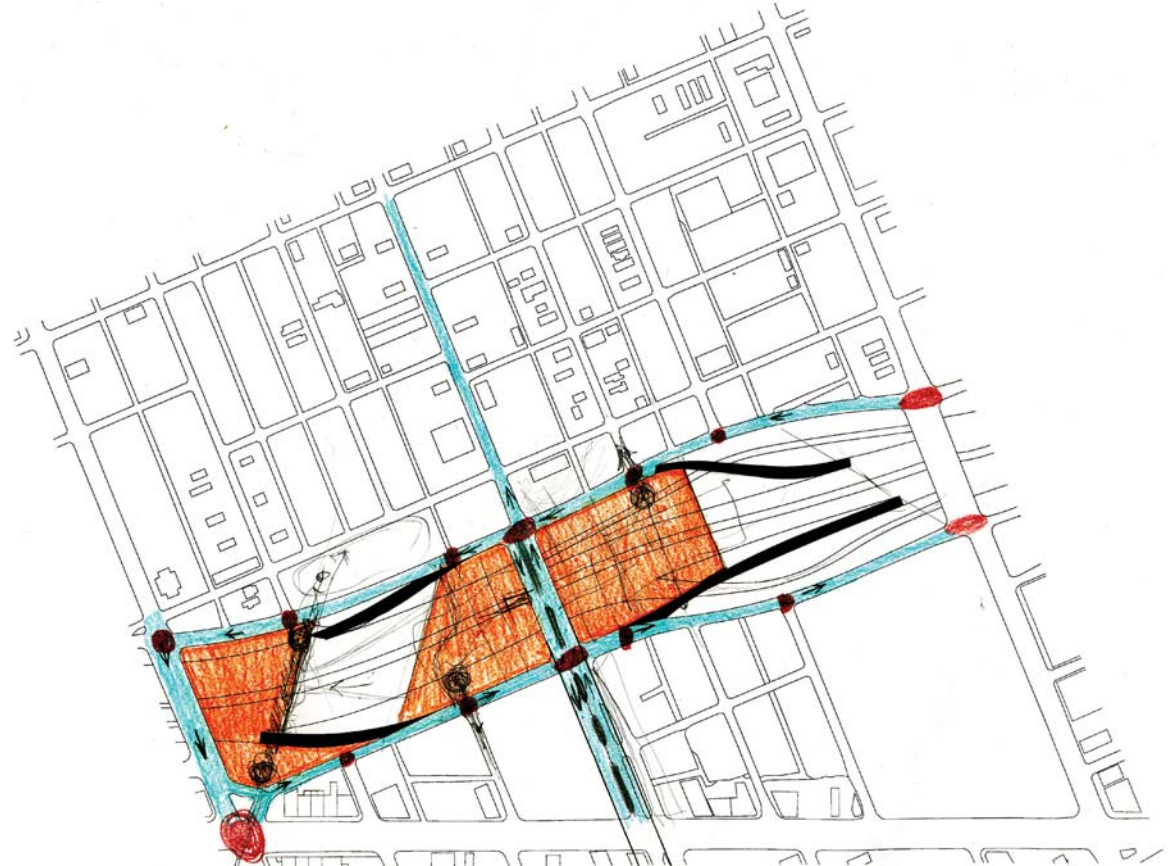




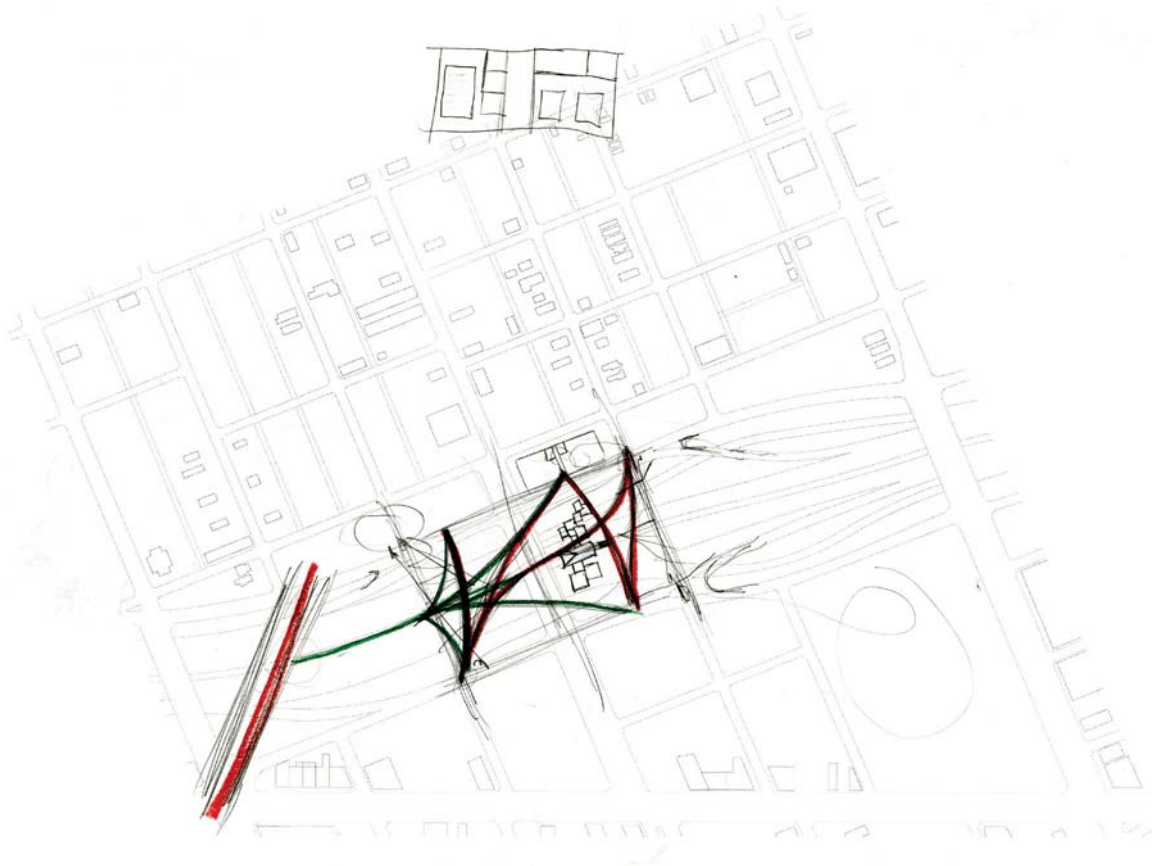
Preliminary Design 4

At this point, how to design the bridges that would connect the two sides of the freeway needed to be considered. Several different ideas came up as a series of questions were posed. How should the bridges be shaped? How expansive should the bridges be? Should the bridges be connected to each other or should they be independent of one another? How will these bridges be supported structurally?

These questions helped to determine how the bridges would take shape moving forward. Working off of the street grid and freeway also helped to make determinations as to the shape of the bridges. Because of the model that was made, an understanding of the relationship of the on-ramps and off-ramps to the site played a role in where the new bridges could be constructed because of height clearances that would be required for traffic. The studies and sketches that were done using the above questions as guidelines to design played with the ideas of various shapes to the bridges, connecting all of the bridges, and how to place buildings on and around the bridges. Through these studies, a need became apparent as the street grid was not being thought of in the initial studies, and needed to be addressed and related to moving forward.

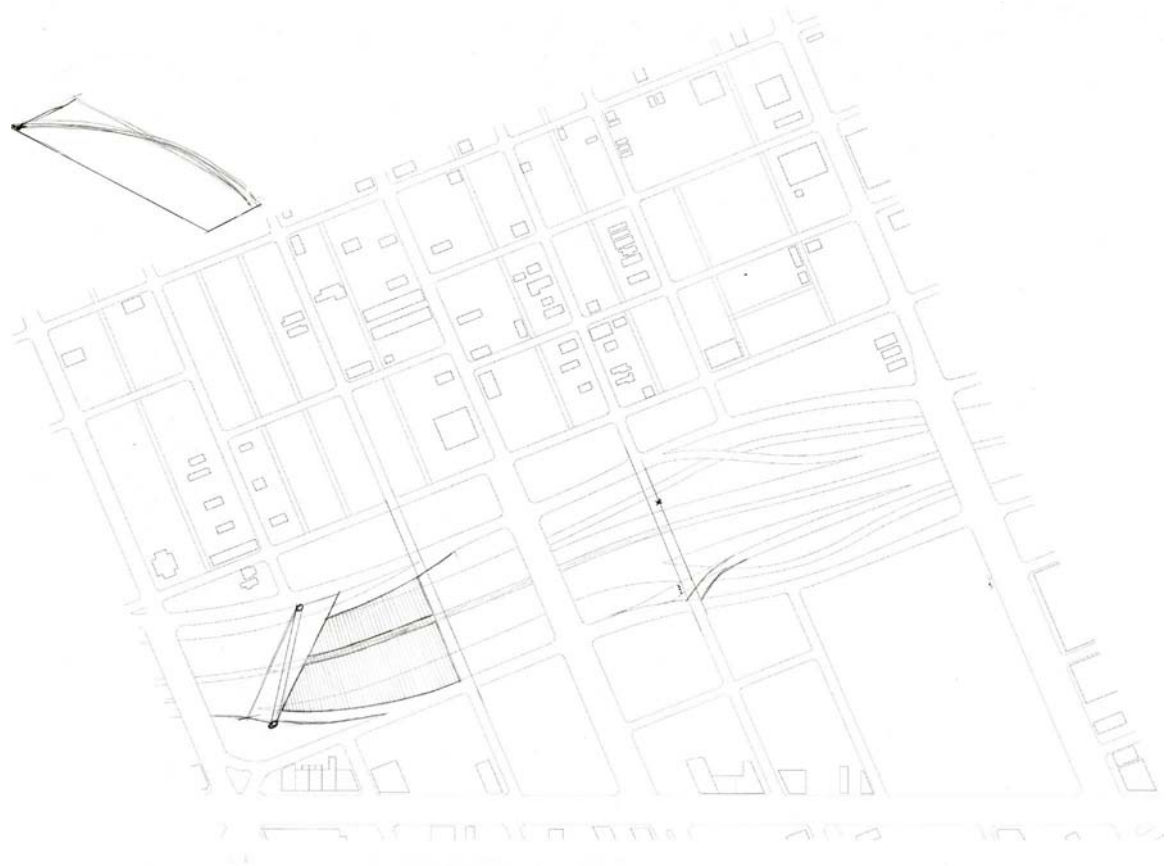


Bridging Concept 1

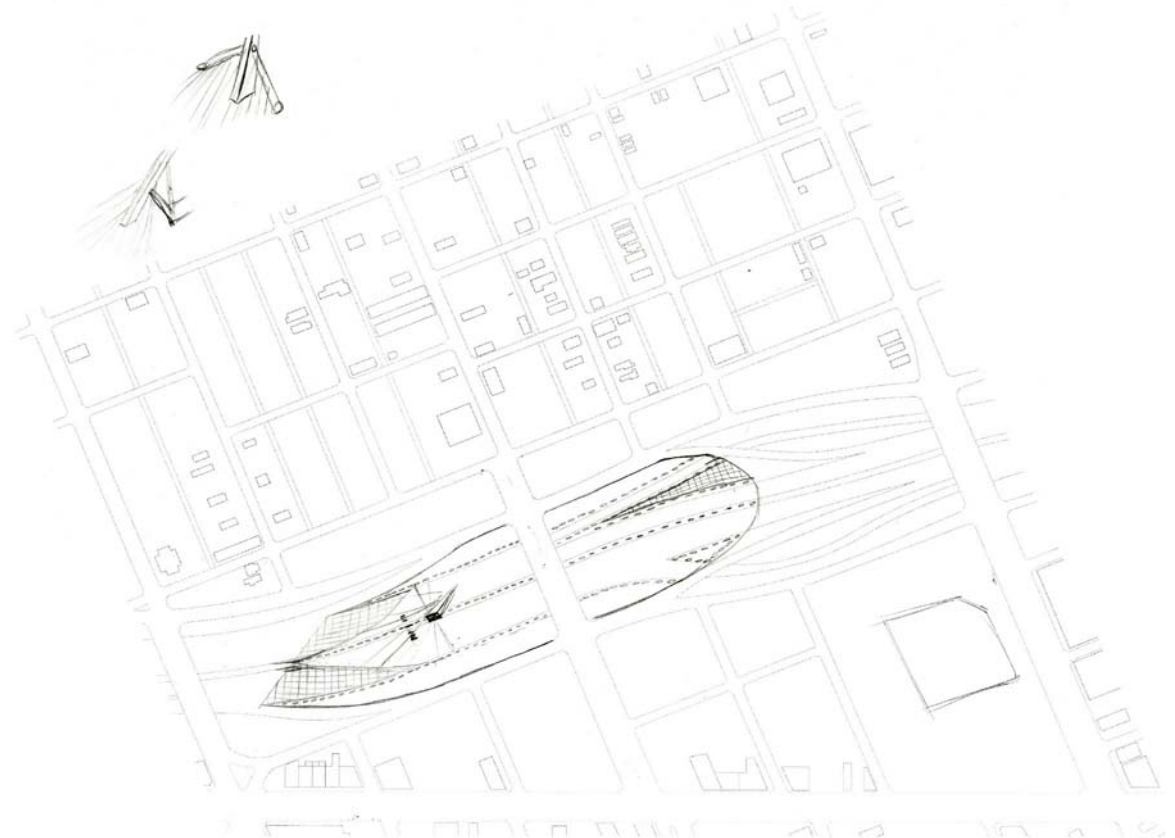




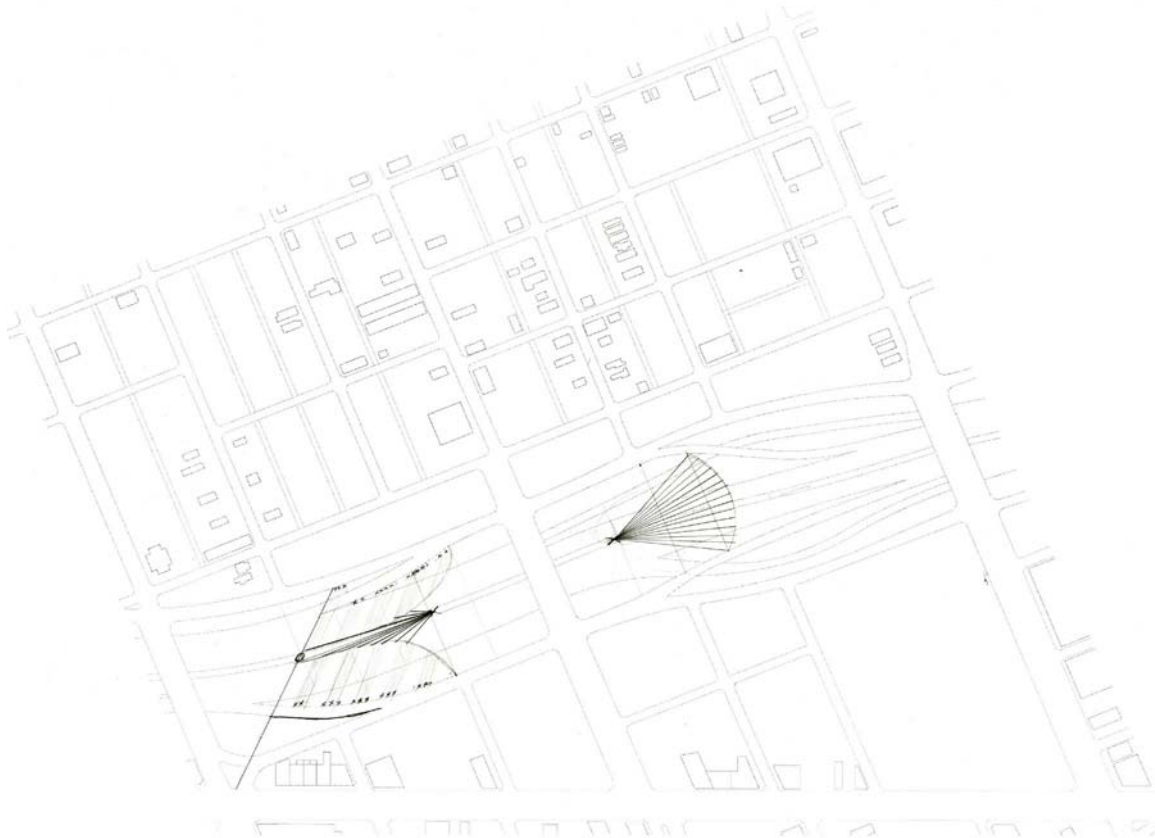
Bridging Concept 3



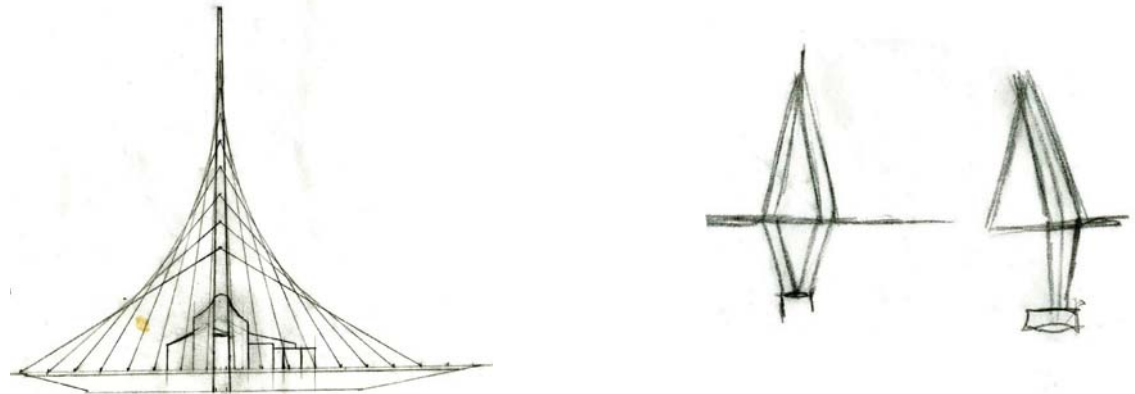
Bridging Concept 4



Bridging Concept 5

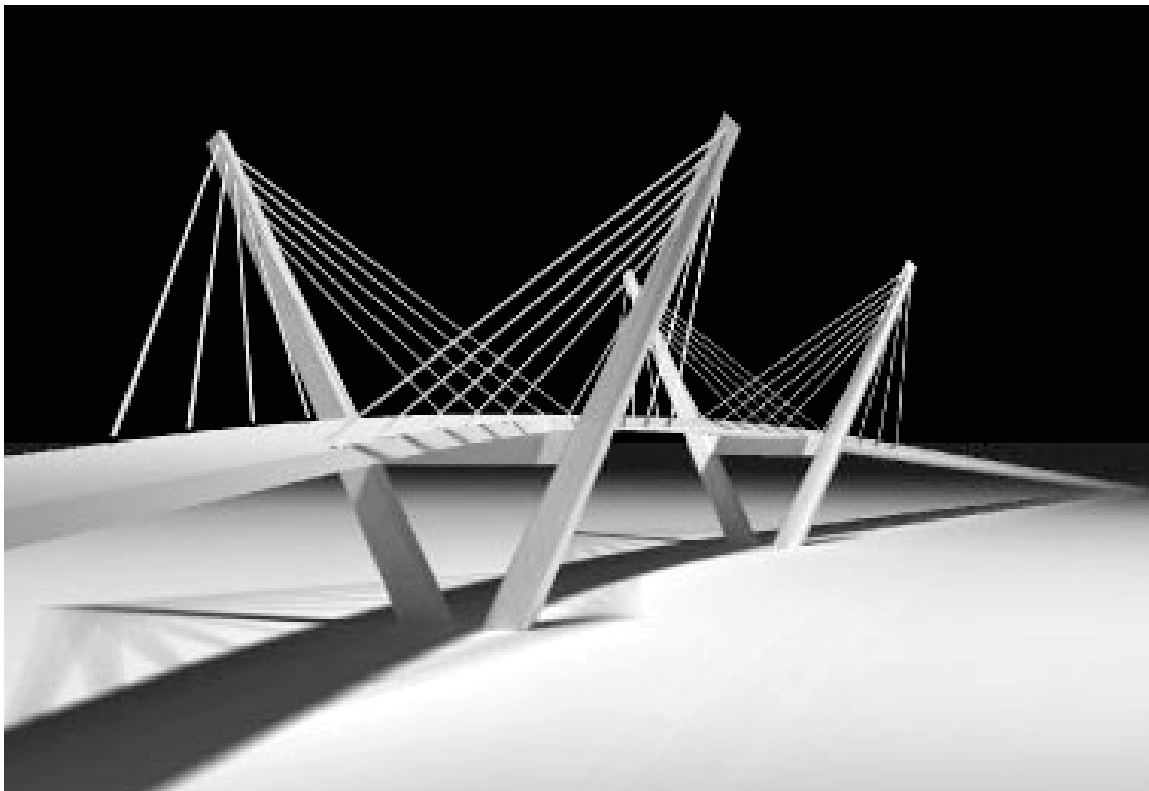


Bridging Concept 6



It was at this time that a way to make the bridges feel lighter came into view. Because the new bridges on either side of Rosa Parks Boulevard along with the Rosa Parks Boulevard Bridge covered roughly a quarter mile stretch of the freeway, it was felt that people driving on the freeway would feel imposed by the apparent weight of the new bridges. This was thought because of the fact that by this time, buildings were being proposed to be built on the new bridges. These considerations led to structure becoming an integral part of the design as ways to lighten the structure needed to be found, not only for aesthetic purposes but also functional reasons. The standard method of using wide-flanged steel beams across the span would not be functional because of the weights that were being considered. A new, innovative method needed to be thought of to support the 500' span of the freeway that could only be supported by columns at three concrete barriers that separated traffic and at the edge of the freeway on both sides. After consideration of several possible methods of construction, Santiago Calatrava and his innovative cable-stayed bridges came to mind.

The cable-stayed bridge was thought of because of the elegance that comes with most cable-stayed designs and the ability to be innovative with the design of these bridges. The thing that needed to be thought of most with this design consideration was how to integrate the cable-stayed bridge into the existing fabric. To do this a few things needed to be decided. 1) What would be the purpose of the bridge? 2) How much of the overall bridge would the cable-stayed tower and cables need to support? 3) How could the bridge be integrated into other design considerations and vice versa?



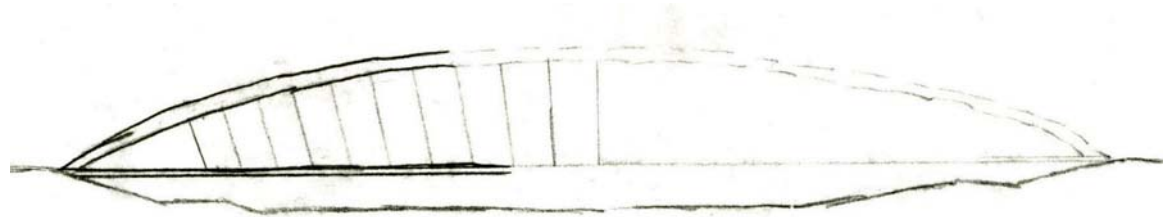
Nanning Bridge Concept



Royal Haskoning Bridge

Once these questions were laid out, a few bridges were then identified that would correlate to what was needed for the site chosen in this project. All of the bridges that were looked at were designed with a single tower that is set at one end of the bridge with cables that extend out to support the cantilevered end of the bridge. As the overall design of the site and bridges developed however, it was recognized that the way in which the examples looked at support their decks could not be done at the Corktown site. What was needed was a tower that could be centrally located on the bridge so that it could be anchored at the median between the Northbound and Southbound lanes of the freeway. The cables then needed to fan across the span of the freeway cut. This formation concept was found in a design competition for the Nanning Bridge in China. The concept came from a coalition of Lin Tung Yen & OPAC Consulting Engineers. Although this design concept was not chosen as the final design, it proved useful for the purpose of this thesis as it showed that the concept needed for this design could be done. Another example of this concept was found in the Royal Haskoning Bridge in Dubai. Here, the bridge uses a tower on each side of the bridge with cables fanning out from each tower to support the length of the deck.

Once it was determined that a cable-stayed bridge could be centrally located with the cables fanning out it was decided that the bridge tower needed to be designed specifically for the Corktown site. The decision was made to treat this tower as an anchor point for the development of the site as the tower would be visible to both people driving on the freeway and to people moving about at street level. For this reason, the height of the tower is 231'. This height was chosen because it matched the height of the existing Michigan Central Station. This correlation was made as the train station is the tallest building in the community, and with it being closed since 1988 no longer serves as an anchoring institution within Corktown. Because of the absence of the train station as an anchoring institution and the cable-stayed bridge being designed to be an anchor point of the new development it was felt that the height of this new anchor point could relate to the institution that had anchored the community throughout a large part of its history.



As another part of connecting this design to the existing fabric in Corktown an axis was created that aligned with the Vernor Highway promenade that leads up to Michigan Central Station. This bridge would connect the promenade to the north side of the freeway. Because of its relationship to the rest of the design, this bridge had the opportunity to act as a gateway into the design and downtown area. To do this, the cable-stayed bridge again came into view. Further research ensued because it was felt that this bridge shouldn't be built with a tower, this would have taken away from the prominence of the tower that had already been designed. It was also felt that again the cable-stayed bridge design would best suit the conditions present as it would be a presence felt, but wouldn't overpower the surrounding context either. The research led to the Juscelino Kubitschek (JK) Bridge in Brazil. This bridge, designed by Alexandre Chan and Mario Vila Verde has three arches that span nearly 4,000 ft. with cables coming down from the arches to support the bridge deck.

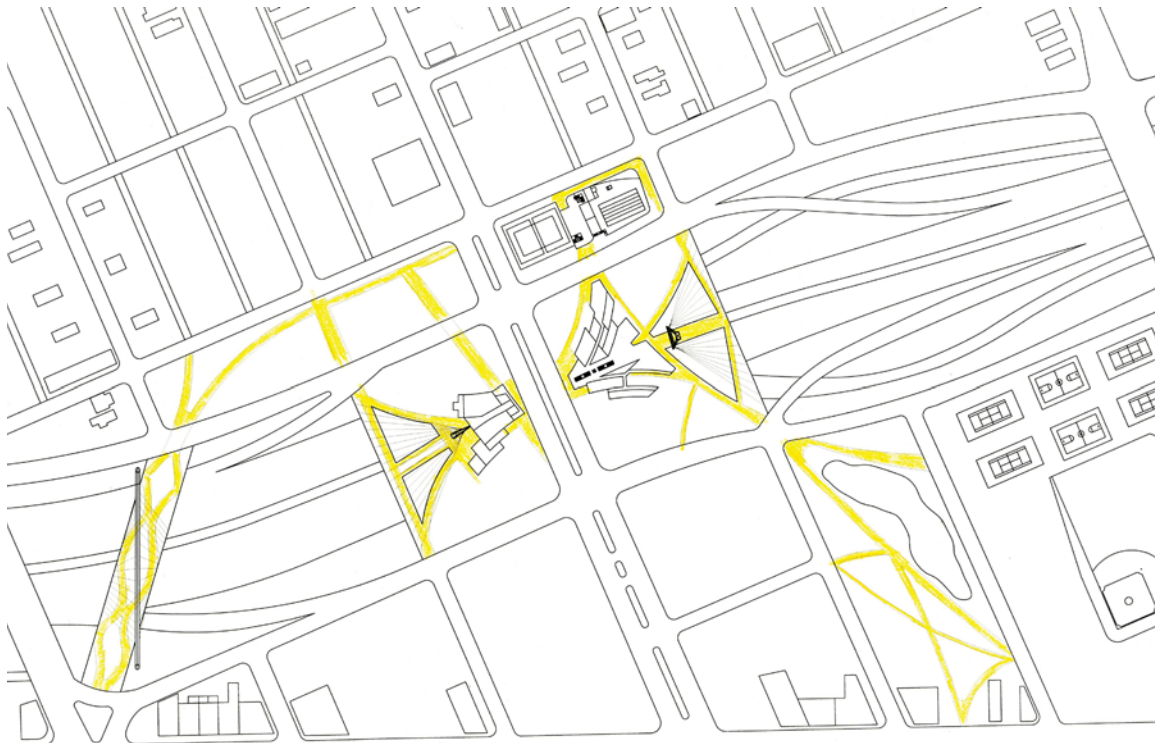
The JK Bridge became pivotal in the design of this project as it provided a method in which a bridge that could be seen as a gateway into the downtown part of Detroit could be designed without detracting from the cable-stayed tower that had already been conceived. The bridge that was designed is an arched cable-stayed design that serves as a pedestrian connection from the Michigan Central Station and Roosevelt Park to the north side of the freeway where community gardens, a farmers market, and recreation activities would take place as part of the design. Design cues for the deck of this bridge were taken from the High Line project in New York for landscaping purposes to help create an engaging experience for people crossing the bridge in either direction.



JK Bridge

Once the cable-stayed bridges were designed, a move back to how the north and south sides of the freeway would be connected was made. The relationship between the street grid and the freeway is of great interest to this project. The street grid is organized in an orthogonal method that roughly runs in the north-south and east-west directions. The freeway however moves through this site in a very fluid manner. How these two systems are formed can be derived back to Kevin Lynch's Organic and Machine City models. For the development of the new bridges, it was decided that an attempt to merge these two ideologies would be undertaken. The goal of the paths was to reconnect the streets that were cut off because of the freeway. These paths, located at street level, would not be used for vehicular purposes, but for pedestrian use. Because the paths were designated for pedestrian use, they needed to connect the various programs that were being designed on the site.

At the same time as the paths were being developed, the buildings on site were being considered. The buildings that were deemed to be needed in the community included a Community Center, Recreation Center, and to lesser degrees, a Farmers market with community gardens, and an Entertainment Center. These new developments were sited with relationship to the street grid or the paths that were being designed. In addition to being sited with relation to the grid and the paths, the buildings also had to relate to one another. This meant understanding how people would move through the site and the relationship of the program of adjacent buildings.



Proposed Pedestrian Paths



Schematic Design

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Siting the buildings became an important, yet difficult part of the design as was stated above. The determination needed to be made what the most important building would be based on the needs of the community. As was stated earlier, community members felt that they need to meet in a place other than the local bars and restaurants. This information was derived from looking at several community meetings minutes that were found online. Knowing this, it was decided that the Community Center would serve as the focal point on the site. From this determination the Community Center would be sited on the east side of Rosa Park Boulevard on the new bridge over the freeway. This location also put the Community Center at the base of the cable-stayed bridge tower. Because the cable-stayed bridge tower was located at the median between the northbound and southbound lanes, the Community Center was also centrally positioned along this axis. This would also help serve the proposed rail system that would run along the freeway as people could access the rail station that would serve this site from the Community Center.

Before development could continue, it needed to be decided how extensive the program of the Community Center would be. At this point a rough program of the community center was laid out. It laid out office and conference space to be located on the south side of the atrium that ran along the median between northbound and southbound lanes. On the north side, it was decided that the center would transition into a gathering space for community members with areas programed for people of various ages. This would then transition to the Recreation Center that would be on the opposite side of the service drive via a cross-bridge.

This allowed for the development of the Recreation Center. This center would include basketball courts, a fitness center, and a natatorium for community use. These facilities could be used year-round, but a goal of this project in a recreational sense was to provide a wide variety of activities that community members could partake in. For this reason, a determination was made to convert the Tiger Stadium site into an outdoor recreation facility/park. Due to the physical relationship between the Recreation Center and the Tiger Stadium site, a path connecting the two needed to be created. This path would become influential as it would help create part of the form of the community center.



St. Anthony Catholic School
Tigard, Oregon



South Tacoma
Community Center
Miller Hull Partnership LLP

Due to the large amount of vacant land to the west of Rosa Parks Boulevard on the north side of the freeway it was felt that this would be an ideal place to site the community gardens. This location would also put it in relation to the train station promenade that was discussed earlier. Being located along this axis would draw people visiting Michigan Central Station and Roosevelt Park, as well as being connected to several of the local bars and restaurants. This idea would include the bars and restaurants using the produce grown on site as part of their menus making the area more sustainable in that sense.

With the community gardens being located here, it made sense to place the Farmers Market adjacently. The Farmers Market therefore was sited across Rosa Parks Boulevard from the Recreation Center. This location became ideal as it would serve as a pivot point to connect to the community gardens, the arch pedestrian bridge that aligned with the train station promenade, and also to the entertainment center which would be sited on the new bridge on the west side of Rosa Parks Boulevard. Due to the climate in Michigan, the growing period only runs from May-September. For this reason the Farmers Market was designed to be slightly oversized and orientated in a way where it could serve as a greenhouse during the winter months. This would allow the local bars and restaurants, as well as the community to have access to fresh produce year-round.

With the other programs sited, it made sense to site the Entertainment Center on the bridge on the west side of Rosa Parks Boulevard. Similar to the Community Center, it was decided that the atrium of the Entertainment Center would be situated centrally over the freeway. As was mentioned earlier, Corktown is the home to the electronic dance/music front in Detroit. The only facility that was found in the target area during the asset mapping was an establishment called The Works. This establishment has a capacity of 400 people and is located at the corner of Michigan Avenue and Rosa Parks Boulevard. It was felt that because of the community's rich history and its current position in music that this could be expanded upon. Therefore the entertainment center was designed to have two auditorium/theater spaces that would flank the atrium.

As the design progressed, a way to connect the northwest and southeast parts of the new bridge, as well as the northeast and southwest parts became a goal. This goal went back to wanting to create a circulation pattern that worked with the organic and machine models laid out by Lynch in his book *Good City Form*. The bridges as designed are roughly a quarter mile long, but only 500' feet wide. Because the site was being designed with pedestrian circulation in mind, a way to traverse the site needed to be thought of. This brought forth the idea to reconnect the street grid, but to do so in a new way. No longer would the streets on either side of the freeway connect exclusively to each other, but streets on each end of the new bridges would connect to the streets on the opposite ends of the bridge. This mode of connection would create a series of fluid paths throughout the site on the bridges that would in turn help shape the form of both the Community Center and the Entertainment Center.

Once the buildings had been sited and the paths lay out on the bridges, the buildings could then take form. Because they were located on existing land the Farmers Market and Recreation center were designed in a more orthogonal manner to match with the surrounding context. The Farmers Market, as has been mentioned previously, was designed in a way as to maximize its exposure to the sun so that it could serve as a greenhouse during the winter months. The Recreation Center was designed in a way that pays homage to both the automobile and the nearby Motor City Casino in its exterior development. The Community Center and Entertainment Center were greatly influenced by the paths that had been created. Because they were built on new land the decision was made that these two buildings should be designed by the primary influence for the bridges themselves. The primary purpose of this design was to facilitate pedestrian movement, gathering, and enjoyment throughout the parts of the community that were being redeveloped.

To create the form of the Community Center the paths that had been defined earlier in the design process were simply offset to create the spaces needed in the building. To do this the program of the building needed to be defined. This was covered earlier and at this point will be passed over. The space requirements for the programs that were defined were then overlaid to determine the amount of space each would take up, and if multiple floors were necessary. The goal at this point was to alter the profile of the different parts of the building so as to avoid the Community Center being viewed as this massive block. Although the footprint of the Community Center is quite large in area, breaking up the heights allowed the building to relate back to the buildings that line Michigan Avenue in that they are connected, but retain individuality through their height and materiality. This project did not get to a point of working with the materiality of the exterior as it strove to find a way to connect the site as a whole.

The Entertainment Center developed in a similar fashion as the Community Center in that the building form was based off of the paths that had previously been defined. The primary difference between this building and the Community Center though was the interactivity that was sought after. Due to this building being the Entertainment Center, it was felt that the building itself should become an interactive part of the experience. For this reason, ways of creating this interactivity were explored. On the exterior two walls were left blank to allow for activities or events to take place while the main entrance aligned with the entrance to the Community Center as well as the axis that leads to the Farmers Market. The main entrance also lay on a path that connects it to the Recreation Center and leads out into a sculpture garden for local artists that overlooks the freeway.

At this point, the buildings roughly had the shape that they would retain for the final. The paths connecting the buildings and connecting the new bridges to the existing context had also been laid out for the most part.

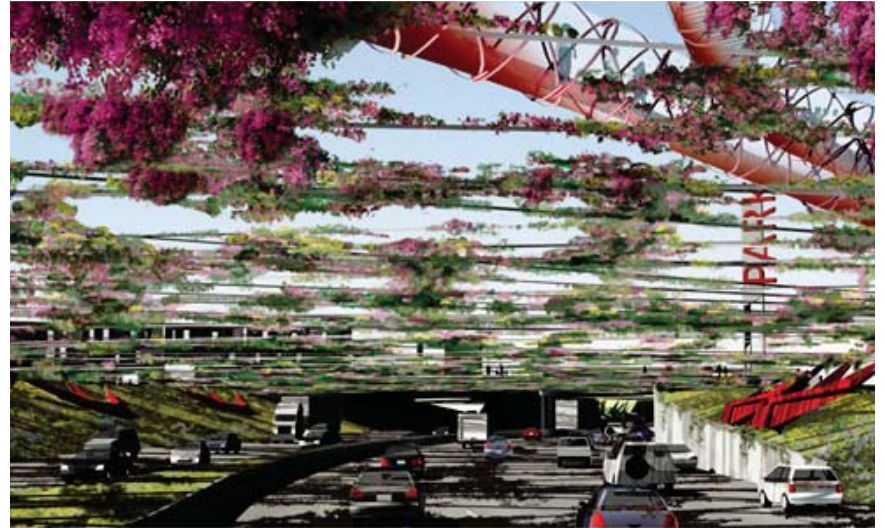


Site Development

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As site development began several questions needed to be answered. How would the Tiger Stadium site connect to the Recreation Center? What would happen along this path? What would be developed in the open spaces surrounding both the Community Center and the Entertainment Center? How would the paths connecting the Farmers Market and community gardens to the pedestrian bridge be developed? These were questions that were faced at this point of the site development.

Several alternatives were explored to find a way in which each program could thrive without taking away from the other programs that would exist. The first concept that was worked out went back to trying to create a lighter feeling of the bridge primarily to people driving on the freeway. This was done through using a concept of creating a web of steel cables that would then support vines. This web would let light down to the freeway while at the same time removing a large amount of structure that would have otherwise been needed. This also provides people walking on the bridge with an interesting perspective of being able to see the traffic directly below them.



Another concept worked to connect the east and west side of Rosa Parks Boulevard and therefore connect the Community Center and Entertainment Center through landscape design. This was done through the creation of a walking garden that echoes the Laurie Garden at Millennium Park in Chicago. This garden is located adjacent to the Community Center. Adjacent to the Entertainment Center along the same axis as the walking garden is a tiered lawn that serves as amphitheater seating oriented towards the south wall of the Entertainment Center. On this wall it is proposed that outdoor events could take place. These events could range from small concerts and theater performances to movies projected onto the wall. Along the back side of the tiered lawn would be a pavilion that would act to direct pedestrian movement.



As was mentioned earlier, the pedestrian arch bridge was to be designed in a similar manner to that of the High Line Project in New York City. The purpose of this was to provide pedestrians with unique perspectives and viewpoints of the freeway below and of the bridge that serves as the site of the Entertainment Center. At the same time the landscaping was meant to create intimate spaces for people crossing the bridge and to frame views of both the community gardens and Michigan Central Station depending on which direction the person is walking.



Developing the space that leads to the Tiger Stadium site led to the concept of creating a large open space surrounding a man-made pond that would create a quaint space that would remove people from the activity of the street condition along Michigan Avenue. This would be achieved by creating a buffer through mounding dirt excavated to make the pond and planting it densely to create a buffer zone. The paths that run through this area would relate to those that begin at the Recreation Center, and connect to the Tiger Stadium Site. The Tiger Stadium site was left open for people to move about the different activities that are offered in the redevelopment. Most notably in this design proposal is the use of the original Tiger Stadium field as a baseball field again.



Final Design

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In the final design, the conditions and programs described above were included in addition to a plethora of other design intentions. Together, the design put forth works to connect the site targeted in this project in the east-west direction, but more notably in the north-south direction by spanning the freeway and programming for people to want to cross the freeway to partake in the various activities and programs that are offered through the redevelopment plan. Programs that were designed as part of the redevelopment include but are not limited to a community center with offices, meeting spaces, gathering spaces, a recreation center that houses indoor basketball courts, a fitness center, and natatorium with an outdoor facility with baseball, basketball, and tennis. Other programs include an entertainment center with theater and auditorium spaces, an outdoor amphitheater, sculpture garden, and an art garden, a farmers market, recycling center, and community gardens. Each of these programs will be expanded upon as this book proceeds forward.





The final design continues the intentions that were explored in both the building development and in site development. The goal of the final design was to refine the design intentions and creatively display the spaces as they would look when completed, and the plantings fully grown. The final design also sought to present the possibility of and placement of future construction and how it would relate to the design put forth through this design process.

The final design begins with the development on the Tiger Stadium site. As was stated earlier baseball, basketball, and tennis are activities that would take place here. In addition, new, mixed-use development would be constructed along Michigan Avenue to serve as a buffer from the street in the future. There would also be a pavilion that would serve as a shelter in case of rain and as a concession stand. This would then transition into an open, relatively unplanned park that would surround the pond mentioned earlier. This space could be used for a wide variety of activities. Such activities could include picnics, relaxation along the water, small gatherings, etc. This would all be protected from a large amount of street noise by the berms and trees that would be situated between the park and Michigan Avenue.

Tiger Stadium Baseball Field
(left)

Tiger Stadium Athletic
Pavilion (right)



Park-Pond Development



As one moves through the site they walk between the walking gardens and vine trellis that hover above the freeway. The paths take people between the cable-stayed bridge tower and the Community Center. At this point the freeway is framed by the cable-stayed bridge tower and the landscaping that flank it along where the cables support the bridge. As a person enters the Community Center, they are met by a linear atrium that runs the length of the building which also serves as a connection point for the future rail station that will run along the innermost lanes of the freeway in both directions. Looking one way one will find the administrative offices and meeting spaces. Looking in the other direction, one moves into the learning center portion of the building where after school programs and group activities take place. Also in this wing of the building is a food court that would be capable of serving large events that would be held in the entertainment center. As one continues through the building they would come to the end of the north wing. Here people would have the option of going outside to the lawns or going upstairs. If they choose to go upstairs they will find group activity areas and a cross-bridge that would take them to the Recreation Center. Once in the Recreation Center people would have the option of utilizing the basketball courts, fitness center, or natatorium.

Cross-path to Community
Center (left)

Walking Gardens (right)



Community Center Perspective



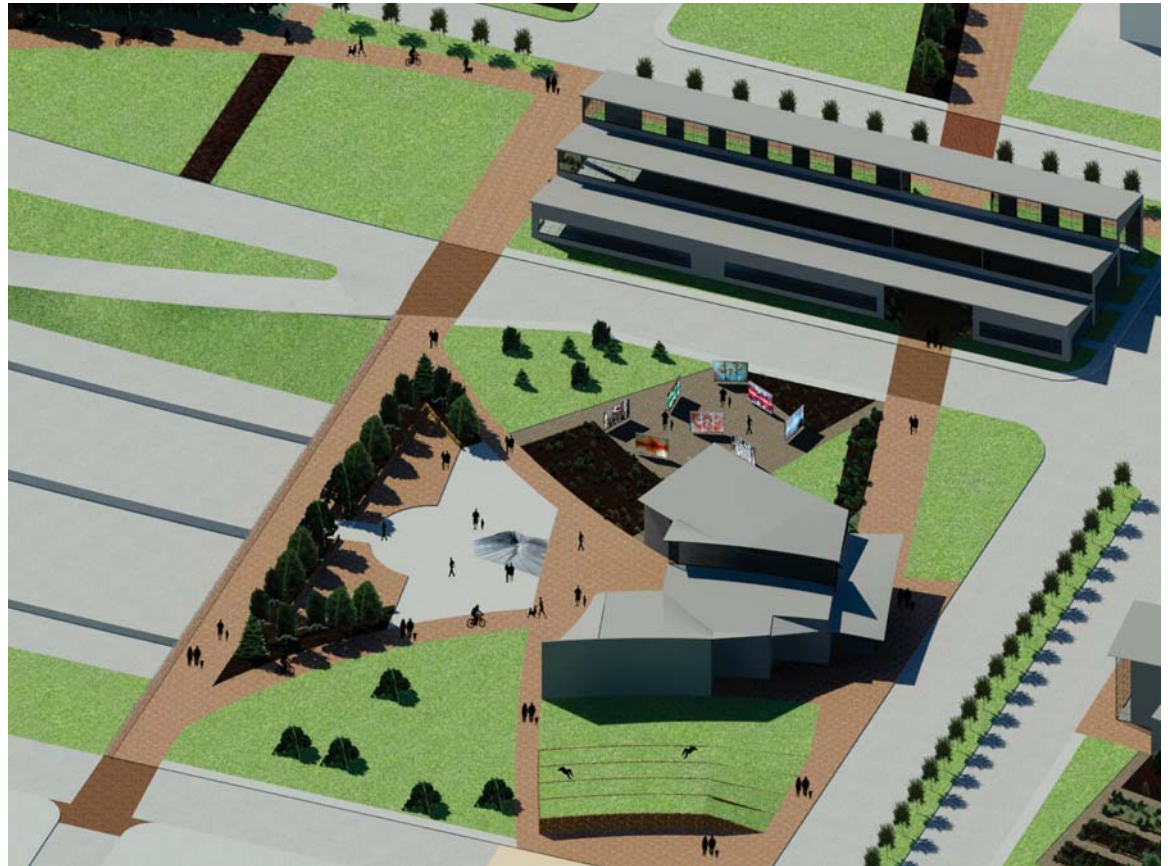
Community Center



When one approaches the Entertainment Center Bridge from the south along Rosa Parks Boulevard they are met by a small, walled pavilion that sits at the back of the tiered amphitheater lawn. This pavilion provides people with the choice of continuing along Rosa Parks Boulevard or to progress toward the sculpture garden. As a person walks along Rosa Parks Boulevard they come upon the Entertainment Center entrance after passing by the amphitheater. Once inside, there are two theater/auditorium spaces that hold activities, concerts, performances, etc. One auditorium has fixed seating; the other has no fixed seating to promote its use for a variety of activities. As a person walks along the corridor between the two theater/auditorium spaces they come up to the west entrance of the Entertainment Center. As they exit the building, they walk out to the sculpture garden where local artists are encouraged to display their sculptural work. Turning right and moving toward the Farmers Market people walk through the art garden where local artists can paint, draw, or do graffiti pieces on rotating panels that are on site. The ultimate goal of artists is to get commissioned to do the artwork on the north exterior wall of the Entertainment Center.

Recreation Center (left)

Entertainment Center from
south (right)



Entertainment Center
Perspective



Art Garden



Entertainment Center
Sculpture Garden



As people continue past the art garden they cross the service drive and come upon the Farmers market. As has been stated before, the building is sited and designed to allow as much sun as possible into the building so that during the winter months the building can serve as a greenhouse. The building is split by the path that connects the recycling and parking area back to the Entertainment Center. The building is also split into thirds lengthwise. This is done to create a series of clearstories to allow the maximum amount of sun into the building. The roofs of the building are pitched in a way so that rain water or melting snow can be collected and used to water any plants or produce that is inside the building. By continuing along the path that bisects the Framers Market people then come to a recycling center that has been retrofitted from its previous use. Adjacent to this is ample parking for people using the recycling center, community gardens, and coming to the farmers market. The parking differs from most lots in that it is covered in grass that grows through the site paving. This creates a sustainable situation because there is no runoff from the site as rain water can percolate through the gaps in the site paving where the grass grows through.

Water Collection and Distribution Concept (left)

Farmers Market (right)



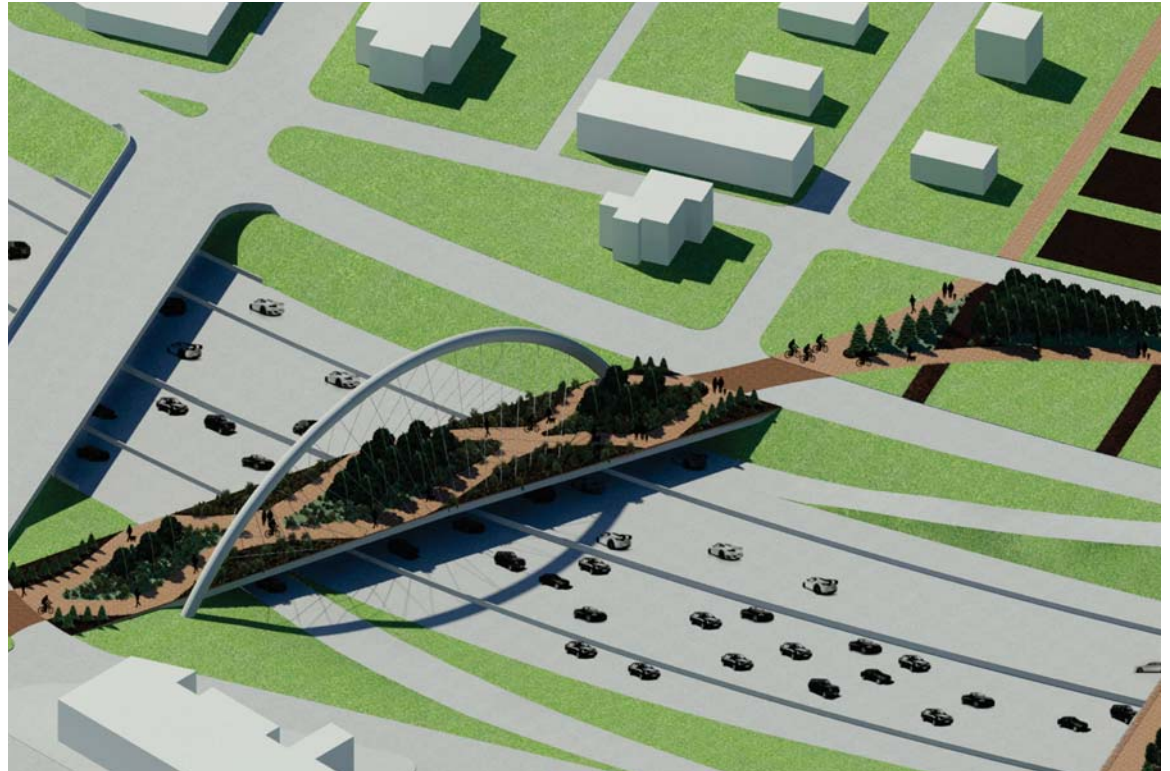
Farmers Market Approach



Adjacent to the parking are the community gardens. The gardens consist of an area one block wide and one block in length; translating to an area of 250' by 350'. The gardens can be used by any member of the community so long as they maintain what they plant. The gardens are also utilized by local bars and restaurants as a means of having fresh produce for their menus. The food grown on the site would also be sold at the Farmers Market. This concept of the local population growing their own produce as well as the local bars and restaurants using the produce would help make a name for Corktown as being one of the most sustainable communities in the city of Detroit.

Community Gardens (left)

Community Garden-Farmers
Market Path (right)



Arch Pedestrian Bridge
Perspective

The progression through the site concludes by crossing the pedestrian arch bridge. This bridge is constructed along the promenade leading up to Michigan Central Station. As one crosses this bridge they are raised up eight feet above the street by the natural arch of the bridge deck which provides a unique exterior view of the area. The landscaping on the bridge also works to create a unique experience as people cross.



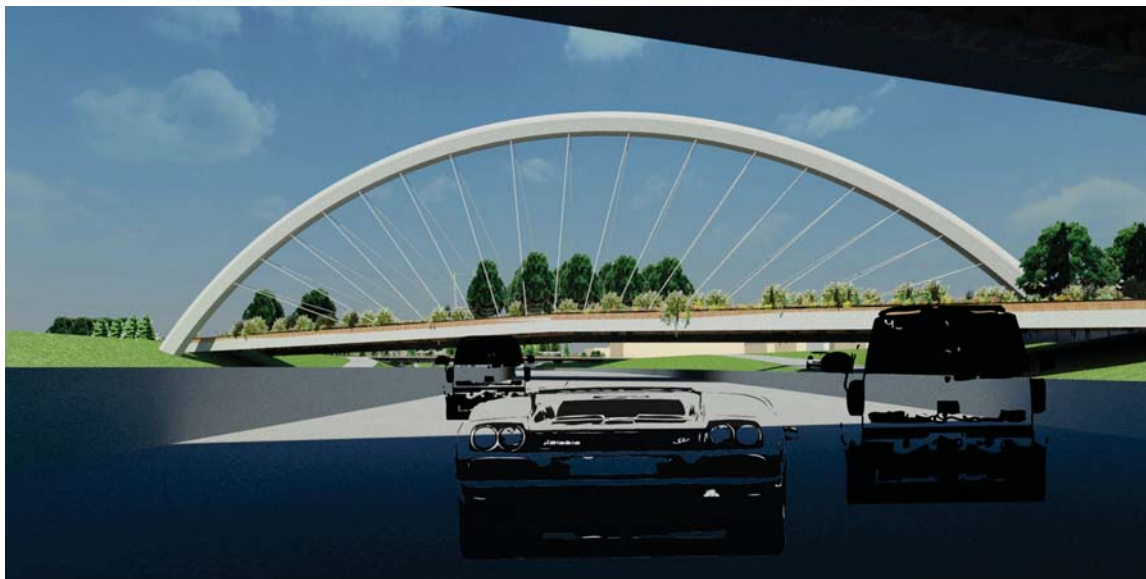
Arch Bridge Approach



Arch Bridge Path (left)



Perspective of Michigan
Central Station from Arch
Bridge (right)



NB I-75 looking toward Arch Pedestrin Bridge



SB I-75 looking toward
Community Center



SB I-75 looking toward
Community Center

Site Programming

Future Construction



Sitework



Pedestrian Paths



Vehicular Paths

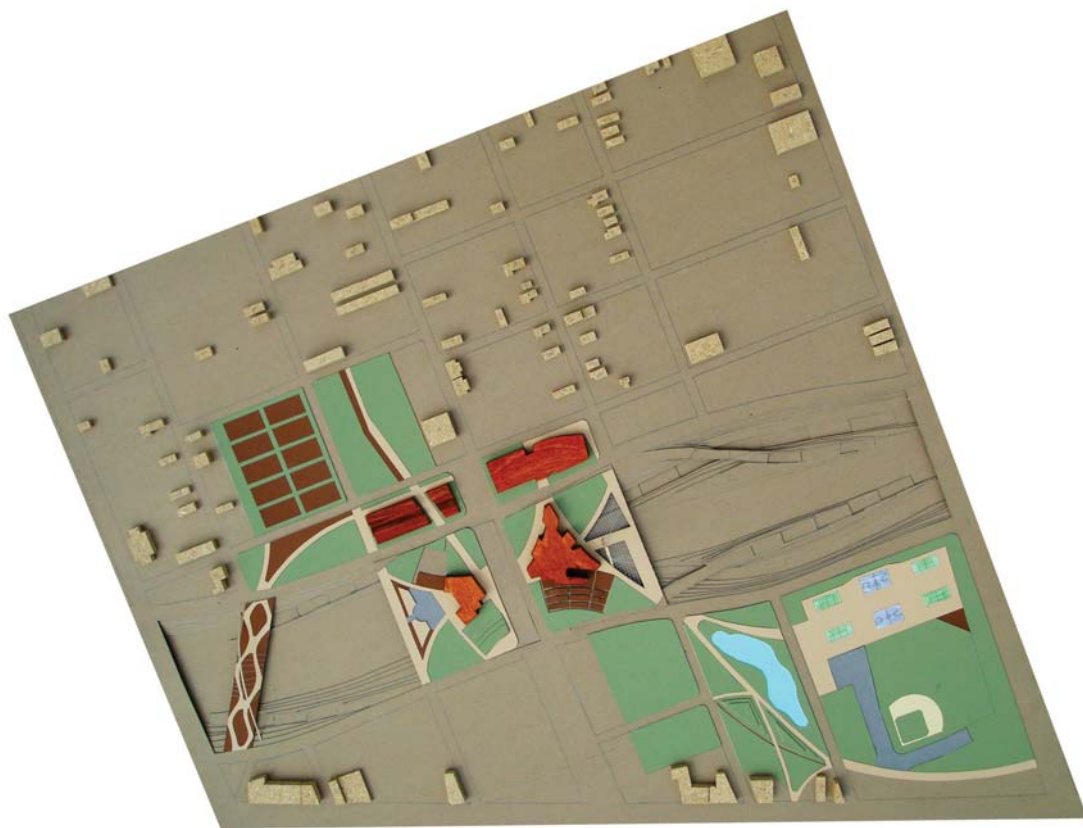


New Construction

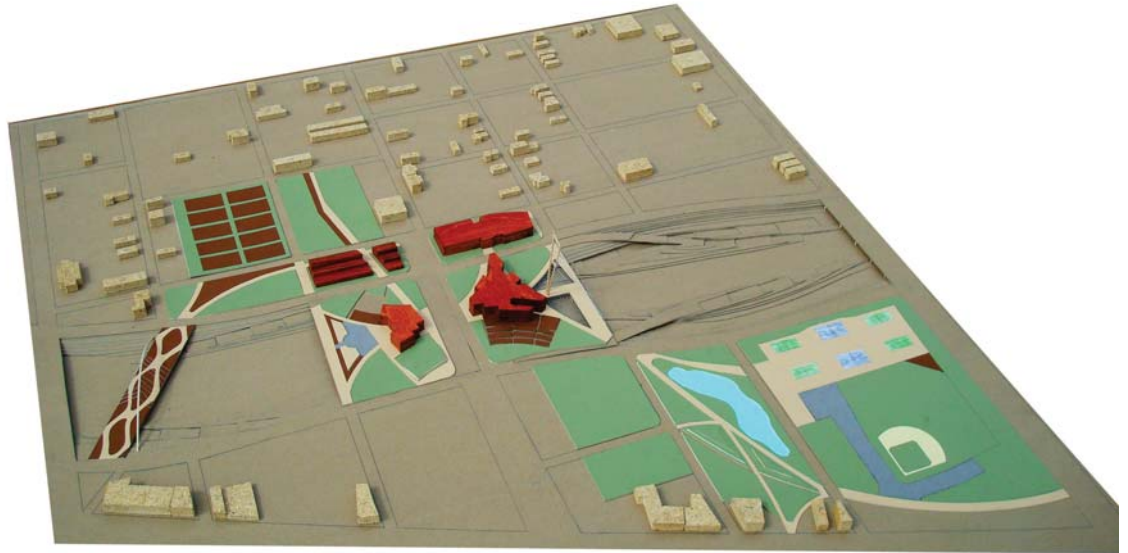


Existing Conditions





Physical Site Model



Site Programming



Physical Site Model

This thesis explored the impact that the physical environment has on people and the various emotive responses that people have toward their experiences. Understanding the relationship that exist between people and the places they inhabit plays a critical role that must be considered throughout the design process. Questions such as what kind of impact will development have on the existing context? Or, what kind of impact does development have on the people in the community? These questions, as well as a multitude of others must be asked throughout the design process as we move forward. It is not enough to design simply because funds are available. The people and context that will be affected must be thought of and not be considered a bystander. We all have a say in how our cities and communities are shaped, we must embrace this ideology and stand up when development threatens to destroy the urban fabric without consideration for what is already there.

This thesis exploration is by no means finished as there are a multitude of avenues that can be taken from here. The exploration of trying to find a way to remedy poor design and neglect of urban areas is a never ending process. Corktown and Detroit for that matter are but a single instance of poor design methods with respect to the freeway system. Freeways cut communities off from one another all across the country in urban environments and it will be the job of architects moving forward to fix what has been done.

Books, Journals, Articles

Abrams, Janet, and Peter Hall. *Else/where: Mapping New Cartographies of Networks and Territories*. Minneapolis: University of Minnesota Design Institute, 2006. Print.

Rossi, Aldo, Peter Eisenman, Diane Ghirardo, and Joan Ockman. *The Architecture of the City*. Cambridge, MA: MIT, 1992. Print.

Rajchman, John. *Constructions*. Cambridge, MA: MIT, 1998. Print.

Reisner, Yael. "To really connect with people, architecture needs to get back in touch with its emotions." *Architectural Review* 228.1363 (2010): 33-34 Avery Index to Architectural Periodicals. EBSCO. Web. 26 Sept. 2011.

de Sousa, Ronald, "Emotion", *The Stanford Encyclopedia of Philosophy* (Spring 2010 Edition), Edward N. Zalta (ed.), URL = <<http://plato.stanford.edu/archives/spr2010/entries/emotion/>>.

Corner, James. "Eidetic Operations and New Landscapes." *Recovering Landscape: Essays in Contemporary Landscape Architecture* (New York: Princeton Architectural Press, 1999)

Elizabeth, Katie. "Emotion as a 4th Dimension in Architecture - by Katie Elizabeth. - Helium." *Helium - Where Knowledge Rules*. 17 July 2007. Web. 14 Dec. 2011. URL=<<http://www.helium.com/items/463149-emotion-as-a-4th-dimension-in-architecture>>.

"Collective Memory." University of Illinois at Chicago – UIC. Wbe. 14 Dec. 2011.

URL=http://www.uic.edu/classes/comm/comm200am/teamprojects/MemoryTechnologies/Collective_Memory.htm.

Lynch, Kevin. *Good City Form*. Cambridge, MA: MIT, 1984. Print.

Tzonis, Alexander, and Rebeca Caso. Donadei. Santiago Calatrava: The Bridges. New York: Universe Pub., 2005. Print.

Gilfoyle, Timothy J. "Chapter 17 The Lurie Garden." Millennium Park: Creating a Chicago Landmark. Chicago: University of Chicago, 2006. Print.

Nick Axel, Christine Eromenok, Sarah Rosenblatt. The High Line Park + Standard Hotel. Rensselaer Polytechnic Institute. Fall 2009

Image Citations

Luas Bridge Design

http://dublin.iwai.ie/images/LUAS_bridge_over_Royal_2.jpg

CA-Group pedestrian bridge Shanghai

<http://www.treehugger.com/sustainable-product-design/beautiful-chinese-pedestrian-bridge.html>

Octavio Frias de Oliveira Bridge

http://www.constructiondigital.com/architectural_design/The%20Octavio%20Frias%20de%20Oliveira%20Bridge%20lights%20up%20the%20Brazilian%20skyline.jpg

I-630 landscape bridge plan

<http://architecture.uark.edu/628.php>

Colorado Wildlife Bridges

<http://www.studiogblog.com/travel/exhibitions-conferences/wildlife-bridges-colorado-pride/>

Urban Landscape Architecture

http://1.bp.blogspot.com/_RcgXG2wj27o/THwt8Ece3BI/AAAAAAAAABy0/JY1OdE1oZts/s1600/Dallas+X.jpg

Columbus Center

http://affordablehousinginstitute.org/blogs/us/wp-content/uploads/columbus_20center_20design_231_small.jpg

Olympic Sculpture Pavilion

<http://www.archdaily.com/101836/olympic-sculpture-park-weissmanfredi/bb-opening-day/>

Connecting Cleveland

<http://www.archdaily.com/101836/olympic-sculpture-park-weissmanfredi/bb-opening-day/>

Nanning Bridge Competition

<http://www.opacengineers.com/features/Nanning>

Curved Cable Stayed Bridge

<http://www.ce.berkeley.edu/~astaneh/Ast-Blk-Bridge/Ast-Blk-Bridge-Index.htm>

Providence, RI Pedestrian Bridge

<http://www.pbn.com/I-195-pedestrian-bridge-design-winner-selected-will-put-caf-at-water-level,54366>

Palm Jebel Ali

<http://bridgeworld.net/royal-haskonings-bridge-in-dubai/>

Damaged Urban Landscape

<http://archibyte.deviantart.com/art/DP-Damaged-Urban-Landscape-77910834>

Flannery, Urban Landscape Design

http://excitinglandscape.blogspot.com/2010/05/landscape-design-architecture_13.html

Nanjing Project

<http://www.namju.info/blog/?cat=9>

