Environmental Graphic Design

Changing the Perceptions of Divided Communities

through Cultural and Social Connectivity

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Chapter 01

Problem Overview

Introduction

In almost every city in the world, there is a certain level of geographic segregation between the different cultural groups who occupy it. It’s a natural phenomenon that’s rooted in the history of how cities were first formed. Typically such diversities enhance the overall quality of life for those in a city. Different social groups discover how to operate with each other rather than as individuals and development happens in a more unified way. However in other cases, such diversities can lead to a negative separation between neighborhoods. Invisible barriers are built by the perceived cultural and economic differences between social groups. When these barriers become extreme enough, these groups loose the ability to work together causing their economics to plunge and their neighborhoods to fall into urban decay. Research has shown that the more cross-participation a city has between its communities, the better it will be able to operate both socially and economically (Stern and Seifert, 2008, p.2). So in order for cities to collectively progress into the future, their segregated neighborhoods must find a way to become more engaged with the rest of the city.

To re-connect separated neighborhoods with the greater part of the city a number of development efforts need to happen. Commercial and retail corridors need to be revitalized, crime and violence must be addressed and other infrastructure elements like traffic control and public transportation may need improved. But development alone is not enough. Furthermore, development that merely displaces
residents to another neighborhood does not fix the problem. It simply delays it. What needs to coincide with development is a communication process between the neighborhood’s different social groups and the rest of the city. Both the perceptions of the place and of the cultures that occupy it need to be changed. Development can take care of the environmental elements like architecture and infrastructure, but it cannot change the perceptions of the people who live there. There is an opportunity for design elements to share the culture, history, and elements that make a place unique to the rest of the city. If these qualities can be expressed to the rest of the city then there is a possibility that more people will respect and appreciate the existing place along with the new development.

This thesis will discuss a framework for implementing design elements that promote the cultural, historical, and economical connectivity of a city. It will explore storytelling, interpretive visuals, and placemaking tools as means to give an identity to the diverse citizens of a segregated neighborhood. As part of this exploration, a case study will be performed on a portion of the city of Pittsburgh, a large metropolitan area with a rich industrial history. Pittsburgh currently ranks amongst the top 20 most segregated cities within the United States (United States, 2010). This case study will develop a plan that focuses on understanding how these visual elements can help combat some of the perception issues surrounding segregated neighborhoods. Various artifacts will be explored such as proposals for public art, interpretive signage, murals, placemaking signage, and wayfinding signage. This initiative will put forth techniques for gathering information and optimizing design decisions that can reach local citizens most effectively. Through doing so, it will demonstrate that the perceptions of a
segregated neighborhood can be improved through its increased communication and engagement with the rest of the city. The final goal of this case study is to propose a framework that can be employed throughout the entire city as well as in other segregated cities across the country.

**Segregated Cities**

Segregation in a city is defined as “the tendency of demographic groups to have different distributions across neighborhoods” (Frankel & Volij, 2005, p.1). This difference in distribution can be created by multiple factors such as; economic divide, ethnic and cultural differences, and even the natural topography and the urban design of the city. All cities are separated or segregated in some way and many began that way. Around the turn of the 19th century, many European immigrants migrated to American cities looking for better employment opportunities. Early migrants came by the masses in particular because of the unskilled labor force needed in American industries. From 1880 to 1900, Pittsburgh’s population alone doubled reaching 451,000 (Bodnar et al. 1982, p.20). Large groups of migrants, mainly from Italy, Poland, and the American South, began to assemble some of the cities first clusters of homogeneous neighborhoods. These and many other cultural groups congregated together because their shared traditions made it easier and more comfortable to exist in a new unfamiliar place. As time passed neighborhoods built new foundations of social groups within the city. Typically those in America sent word of opportunity to friends back home, who often came and established their own residence in the same neighborhood. This was not exclusive to Pittsburgh; any city that was largely built on manufacturing experienced
a similar migration and structuring of immigrants. In Pittsburgh workers formed communities near the central business district and the mills and factories along the rivers. These early neighborhoods were crowded, and often times had very poor living conditions with insufficient infrastructure. As social groups dispersed throughout the city, the least desired immigrants often ended up in the least desired land. Interestingly enough, as much as the demographic groups have naturally separated themselves, their economic needs had also aligned them in many of the same neighborhoods during this time period. Pittsburgh, in the early 1900's, was a diverse city with small clusters of highly concentrated demographic groups.

**The Causes of Segregation: Economic & Racial**

Economics have always had an effect on where groups of people locate themselves in a city even as early as the late 1800's. In Pittsburgh, competition for low-income housing heavily influenced the structuring of ethnic distribution across the cityscape. African American workers would often be forced to live in the closest section of the city outside of the major downtown retail areas. Their work required them to be mobile, often looking for additional work, and their best opportunities were within the service industries downtown. These jobs were generally some of the lowest paying in the city and therefore African Americans often had poorer living conditions than most other demographic groups. In the Hill district in Pittsburgh, a predominately black neighborhood, a leader concluded that it contained mostly “good Negros...although the moral tone of the ward is not above reproach” (Bodnar et al. 1982, p.197) Other struggling demographic groups would also need to rely on economic factors when
deciding where to live. Aspects such as proximity to public transportation and lower costs of land value would often integrate Italians and Polish along side of African Americans. Similarly, they were forced to live under very crowded and troubled living conditions. This sort of economic integration would last into the 1930's until racial oppression from the American south began to separate these groups once again.

Through both world wars and into the 1950's and 60's, some notable things started to happen in Pittsburgh that would perpetuate the divide between these demographic groups. European migration dropped off drastically, mostly due to the boom or bust economic activity in the city and the increasingly difficult legislature to deal with before coming to America. African Americans began to experience an increase in racial discrimination and were essentially forced into living in predominantly overcrowded and unstable neighborhoods. More and more, middle class families were enticed to move further away from the downtown corridor of the city, entering the suburbs and forming stronger homogeneous neighborhoods. Racism began to foreshadow some of the later events that would happen in the civil rights era, and as a result, the officials began to disregard certain wards of the city all together. The Hill district was said to have six or more people sharing a bedroom with nearly one-third of all the homes declared either unfit for living or in need of major repair (Bodnar et al. 1982, p.197) With poor economics and unfit living conditions, desperation set in and many neighborhoods became very troubled places. In somewhat of a contrast, areas that were inhabited by Irish, Polish, and Italians, have now had generations of families pass through them and have formed a much stronger unity of people living together. They began to take on a native status, and they used this ideology to separate themselves
further from the African Americans still migrating to the city.

**The Causes of Segregation: Economic and Development Divisions**

One of the more recent arguments to surface supporting the divide in cities today is the shift the economy has taken from a manufacturing base to a creative base. In Richard Florida’s book, *The Rise of the Creative Class*, he defines the creative economy as “the sum of economic activity arising from a highly educated segment of the workforce encompassing a wide variety of creative individuals” (Stern and Seifert, 2008, p.1). In this economy, workers rely on their cognitive based skills and work in jobs that cover a diverse range of fields from the technology industry to the high-end manufacturing and the creative arts. As this overall shift in our output from a manufacturing and production model to an intellectual model is taking hold, the landscape of employment within cities is changing in some drastic ways. “The expansion of both arts occupations specifically and the creative economy overall will create more opportunities for highly skilled workers than for urban residents with modest educational qualifications” (Stern and Seifert, 2008, p.3). When observing a city like Pittsburgh, one founded largely on the production of raw materials and blue-collar work, there is a vast amount of workers finding themselves untrained to perform in the creative economy. A neighborhood that was filled with blue-collar workers and small businesses may now find itself entirely transformed to appeal to a younger and more modernized workforce. Within this transformation, residential and commercial development tends increase the notion of division putting longtime residents at odds with development that appears to be not in their best interest. The Community
Design Collaborative in Philadelphia says that, “Residential housing has to support its local businesses. In other words, the two have to be on the same value” (Miller and Woodward, 2011, p. 46). Simply put, when the two are not in sync, there is an obvious divide between the old and the new.

**The Causes of Segregation: Geographic**

Not all causes of segregation are connected to social issues like race and economics. As noted in the development of Pittsburgh, it’s unique landscape played an important role in forming the divisions of different ethnic groups across the city. In 1960 Kevin Lynch conducted a pivotal study in urban design that set out to prove whether or not the tangible characteristics of a city had any effect on the way its residents perceived it. His study looked at three U.S. cities; Boston, Jersey City, and Los Angeles. Through comparing research findings in all three locations, he discovered that there is a natural order of elements in a city that shape the way a person navigates and perceives their surroundings. Lynch coined the five elements of the city; paths, edges, districts, nodes, and landmarks. Each of these five elements makes up a person’s image of the city and each have positive and negative effects of that image. A well-defined path can serve as a main artery through multiple neighborhoods, often times creating opportunities for businesses to thrive along it. It can also be an integral part in connecting one part of the city to the next. But, areas outside of a prominent path can become forgotten, as paths tend to become comfort zones for travelers. Edges can sometimes be inherent geographic features that offer a non-alarming change in an environment such as a river, or a steep hill. But others can also be defined by harsh
contrasts in architectural or other environmental factors that send a person in the opposite direction. Nodes are essential for adding a core to an experience and also to connect paths through areas that may not have destinations. Districts naturally fall in around the paths and edges of a city, but not all are well connected nor have a positive perception. Landmarks are essential for giving identity to a place, both on a large scale and smaller scale. Without them, a district has a ubiquitous feel and will likely have an un-engaging environment.

The pivotal point to understand in Lynch’s work is that certain districts within cities fall completely off the mental map of residents because either they’re not on the typical paths of the city, or they’re without any landmarks to help distinguish them, or they simply lack any intrigue of exploration. He discusses how if a city doesn’t have a strong visible framework, than it will be much more difficult for residents to be excited to explore new sectors of it. In the case of Pittsburgh, there is a lot working against it, as its framework is somewhat difficult to grasp. Rybcynski cites Pittsburgh as having “the “grid” plan which grows outward and has no regard for the natural typography” (Rybcynski, 2010, p.13). These five elements can also be extreme enough in some cases to expand the perceived quality of one district over another. “Both Jersey City and Boston have shown the exaggerated attention paid to upper-class districts and the resulting magnification of the importance of elements in those areas” (Lynch, 1960, p. 68).

City layout also has a profound impact on influencing where we travel in space. Even the most practical element, distance, plays a significant role in shaping the decisions one makes when setting out to complete a task. Colin Ellard writes that a
person will walk when their goals are less than five minutes away from them (Ellard, 2010, p.212). Five minutes of walking equates to roughly only a quarter of a mile in distance. The average size of an American city is something like 120 square miles so that means for us to explore a city on foot we need a goal or destination every quarter of a mile, which is hard to imagine. Pittsburgh is often described as a sprawling city with rugged terrain where one relies on public transportation or driving to get from point A to point B. This creates another inherent issue when trying to solve segregation problems. The city is simply too spread out to assume people will travel on their own to new neighborhoods, even if there is good reason to visit them. In this sense wayfinding and integrated city signage is crucial not only to help people navigate but also to point out what’s worthwhile along the way.

**Why is Segregation an Important Issue?**

When a neighborhood is segregated a number of things are working against it. First, the perception of those who view it is from the outside in. It’s difficult for anyone to see beyond the blight, the speckled past, the poverty, or whatever other factors are working against it. When a neighborhood becomes closed off, less people are inclined to visit it and there are limited opportunities for new business development. The perpetual cycle of struggle ensues. Its geographic location within the city may make it more challenging to access, and its overall environmental image may struggle due to a poor identity, inefficient landmarks, a misunderstood past, and unfit connections to other thriving neighborhoods. Worse off, when good intentions to revitalize fail, history can become lost as architecture is destroyed and families are displaced, altering a once vibrant and
proud culture of people. A recent study in Pittsburgh found that “75% of respondents indicate that there is no active level of diversity being celebrated in the communities that they reside in.” Further more, 50% of respondents believe that our society is multicultural and that more knowledge about each other will produce better cross-cultural relationships (Unity Consultants, 2001, p.12). These numbers show a direct correlation to the theories on which Stern and Eikfert base their argument of cross-cultural productivity. Simply put, if the ever-diverse population of cities like Pittsburgh can learn and understand more about each other, then cross-cultural relationships have a will better chance of being cultivated and all neighborhoods throughout a city have an opportunity to prosper from a collective engagement.

**Conclusion**

Kevin Lynch said that Environmental Images are a two-way exchange — “the environment suggests distinctions and relations and the viewer with great adaptability selects, organizes and endows with meaning what he sees” (Lynch, 1960, p.6). When considering the vast collection of reasons that a neighborhood becomes segregated; economic despair, ethnic separation, failed revitalization efforts, ultimately it’s the image that each place represents outward to the rest of the city that communicates it’s current state of operation. As discussed earlier, development plays a key role in changing the landscape of a segregated neighborhood and making the environment appeal to a wider audience. But to really bring back a segregated neighborhood, the perceptions of the residents who live there also need to be revitalized. As development starts to attract more outsiders into segregated neighborhoods, communication tools
placed throughout the environment have a unique ability influence their perceptions of the people and the places they are in. These elements can inform and link someone directly to the surrounding experience of a neighborhood in a way that a website or book cannot. They can also work to help encourage further exploration of a neighborhood beyond the revitalized corridors and deeper into the unique historical and cultural offerings it has. If development can be used to entice more people into segregated neighborhoods, than environmental graphic design elements can be used to create appreciation and preservation for what was there, what is there, and what should remain there in the future.
Introduction

Cities are filled with signals, both architectural and other, that help inform communication between the environment and those who interact with it. Signs and maps help to direct people to nearby destinations while address numbers work to identify buildings in a larger urban framework. Public art communicates the unique characteristics of an environment and other pageantry elements pave the way for distinct neighborhood identifications. These visual elements along with many others, make up the field of Environmental Graphic Design. Environmental Graphic Design, or EGD as it is commonly referred to, is a design discipline that concerns itself with three specific components of a place, they are: identification, in order to distinguish it from other places; navigation, so that each place can be found in the context of its surroundings; and interpretation, sharing information about the environment that describes its context in the broader scope of society. Together these components work to enhance the environmental image of a place and evoke a “sense of home” that helps achieve a positive feeling of emotional security (Lynch, 1960, p.4).

Origins and Purpose of EGD

Environmental Graphic Design earned its roots in the beginning of the 20th century. The industrial revolution had taken hold of American society and many developments like public transportation, urban growth, and manufacturing booms led
to a stronger need to communicate information throughout the surrounding world. By this time, graphic design was well on its way to establishing itself as a profession as was architecture and urban planning. So it was through the combination of these three disciplines and the need for basic communication about the environment that Environmental Graphic Design was born. “The boundaries between the two disciplines were clearly delineated until graphic design and architecture began to merge in the mid-twentieth century, with considerable influence from other fields such as industrial design and urban planning. This merger has come to be called environmental graphic design” (Berger, 2005, p.10).

With the exclusion of only a few key figures, environmental graphic designers didn’t become known as specialists until after WWII. “As developments, complexes, transportation systems, and superhighways proliferated, the need for graphic design consultation became apparent” (Berger, 2005, p.15). Cities began to need wayfinding elements to help their residents navigate transportation systems and increasingly dense urban landscapes. Public areas needed murals, sculptures, and graphic identities to give a sense of desire and individuality to a space. In the 1980’s the country experienced another boom of development that would raise the level of the profession to a place it had not yet been. “The urban scene was soon transformed by bustling themed marketplaces and stores, grandiose corporate headquarters, and new or improved zoos, botanical gardens, and museums” (Berger, 2005, p.15). These newly designed civic spaces required an entirely different scale of EGD work, to not only make their spaces functional, but also to add a unique identity to them. During this time environmental graphic design slowly began to garnish the attention that it deserved for bridging the
functional aspects of graphic design communication with the architectural disciplines of
the built world.

The current environmental graphic designer has a wide and considerably
different definition depending on type of work he or she does. However, in a broad
generalization they are concerned with “enhancing a persons relationship and
understanding to the environment they are in” (Moscardo, et al. 2007, p.4). First,
they work to identify a place so that it’s distinguishable from other similar places. This
might be through a monumental sign, a logotype, a series of thematic banners or even
a piece of public art. Second and often the most common task of an environmental
graphic designer is creating directional sign elements that help people to navigate
complex places. Seemingly simple, there are many variables in this task to consider.
Questions like who is the user and what are their potential destinations are just a couple
of the starting points for this assessment. The third and most unique task is to supply
contextual information about the experience along the way. Using interpretive sign
elements, designers are able to provide “information about a place, object, or event
that enhances a visitors appreciation, understanding, and enjoyment” (Moscardo, et
al. 2007, p.3). Items like time-lines, historic markers, and public art, are all examples
of interpretive elements. Together these three areas within the discipline; navigation,
identification, and interpretation, can create a positive connection between the user and
the environment that will result in a more functional and memorable experience.

**Exploring the Components of Environmental Graphic Design**

Navigational sign elements are perhaps the most functional components of
environmental graphic design. Their purpose is to help someone find what they’re looking for; whether it’s the restroom, an office inside a building or a location of a nearby neighborhood. Designers work to understand the physical structure of the space and the objectives of its users in order to determine a navigational plan that points to all destinations. Once the destinations are understood, they create a program of sign types that enable multiple layers of navigation to take place. For instance, when considering an urban environment, a system may be developed to provide navigation on both a vehicular level and a pedestrian level. Vehicular directionals work on a larger scale, and are placed in locations more useful for vehicular traffic patterns. Readability and repetition allow these signs to be quickly understood and keep users headed in the proper direction. Pedestrian directionals work to direct users from their location to nearby destinations on foot. The scale of these signs is smaller and their locations are more integrated into the environment. Both sign types work within one system, but each function for a different type of navigation. Orientation maps are also common signs used to help to break down navigation paths. These signs have the advantage of showing multiple destinations nearby at once. Maps work as descriptive elements that help to communicate additional information about the surrounding area. An area can be enlarged and shown in greater detail to identify destinations that a user may not have realize existed. Often times orientation maps encourage exploration of a place and can establish a sense of security through a creating a comfortable framework. As Kevin Lynch discovered in his research work, “An ordered environment is good as it provides an accessible framework for one to organize activities, beliefs, and knowledge” (Lynch, 1960, p.4).
Identification sign elements often serve as the landmark greeting to a place. They work to communicate the semiotics of a neighborhood identity through multiple elements in their design form. “The anticipation of entry and the fulfillment of arrival, can be among the most dramatic aspects of place interpretation” (Fleming, 2007, p.228). Identification signs help establish these expectations. Their function is to recount a place by portraying all of the qualities that belong to it as well as those that make it different (Mollerup, 2005 p.109). Because of this, identification sign elements have many different forms. In one case, a landmark sign may be used at the gateways of a neighborhood to extend a brief, easy to interpret message. In contrast, a piece of public art, or a system of pageantry elements can be used to provide a more complex and interpretive identification that forces viewers to deliberate and find their own meaning. Sometimes the message can become quite elaborate in its semantic representations. Typographic treatment, materials used for construction, and even the physical form itself can communicate a lot of subconscious characteristics about a place. For instance, the “LOVE” letters in Philadelphia or the “I (heart) NY” logo in New York City are both iconic identifications that allow for various levels of interpretation through their design. The imagery of these identities activates a curiosity about the place and also elicits some sort of an emotional response. To create an effective identity, its necessary to understand the function of the space, the activities that happen within it, the culture of the people who occupy it, and the boundaries it uses to separate itself from other places. It may be appropriate to reference a historical moment in one instance, while other times it might be better to celebrate a current characteristic. It’s only with informed research into the past and present, that careful judgment can be
made to give an appropriate identity to a place.

Interpretive graphics are used to express the story of a place. Their message should provoke thought, create relationships and reveal something new to their viewer. Quite often they take on the role of a tour guide or teacher (Moscardo, et al. 2007, p.3). Similar to identification elements, they take form through many different configurations depending on the information they are communicating. In an urban environment one of their most commons functions is to act as a historic marker. Often they appear as plaques on a building, engravings in a sidewalk, or some other form of didactic communication. This type of interpretation can often be uninteresting and difficult for most engage with. The content may lack a relevance to current society and could also be suffering from little or no supporting visuals. Good interpretation needs to evoke emotion and a personal connection with a place. The core component to an effective interpretive element is creating a memorable narrative that enriches the site. It’s crucial to have a thorough understanding of the site and the users when developing a narrative. Building on the existing knowledge and mental associations of potential users are two tactics that help ensure the content will remain engaging. Interactive components can engage the user in the learning experience by making them active participants in it. Interactivity adds an element of fun and intrigue, and therefore provides a memorable experience back to the user. Presentation of information can also affect the success of an interpretive element. Complex photo-montages and smartly crafted juxtapositions can stir interest and even controversy in a place. An overall theme threaded through multiple elements can create an experience that begins to mimic a museum. Ultimately the goal is to provide a framework that educates viewers enough to
construct their own feelings and beliefs about a place.

**Exploring the Possibilities of Environmental Graphic Design**

As segregated neighborhoods begin to become redeveloped, there are a number of services that environmental graphic design can provide that will help raise the overall perception of the neighborhood. Robert Fleming describes environmental graphics as being capable “of humanizing the essential elements of a cityscape” (Fleming, 2007, p. 21). However in order for this to happen, much care must be given to understanding the specific and unique qualities of a place. Applying a one-size fits all design approach can lead to a blanketed feeling of sameness that dulls an environment with a sense of anonymity. In order to avoid this, extended efforts must be made through research and community engagement to understand the qualities of a place. Ruedi Baur exclaims that, “In a world where everything is tending towards resemblance, the extraordinary — or at least the appropriately different — is acquiring great value. Creating places that are unique, unreplicable, and therefore contextualized could be the great challenge for towns and cities of our times” (Mollerup, 2005, p.304). Recently new strategies have been implemented into design that have enabled designers of all disciplines to take a more human centered approach with their work and focus more on the experiences design can create. Andrew Blauvelt of Design Observer writes that, “Lately, I’ve sensed that we’re in a third phase of modern design, what I sometimes call its ‘ethnographic turn.’ We’ve seen periods of great formal experimentation, exploding the visual vocabulary of modernism. We’ve seen periods focused on the meaning-making of design, its content, symbolism, and narrative potential. For me, this new
phase is preoccupied with designs effects, beyond its status as an object, and beyond the “authorship” or intentions of designers” (Blauvelt, 2007). The notion of research in design commonly refers to a focused investigation that informs the action of design. The investigation tends to be very qualitative focusing on uncovering the ‘why’ behind a design problem. Quite often these research tactics are centered around the strategy of Ethnography. Ethnography is a “research method based on observing people in their natural environment rather than in a formal research setting” (Blauvelt, 2007). Its goal is to understand a phenomenon through the perspective of the actual community being studied. For example, to understand why a neighborhood is highly segregated, a researcher would need to understand the culture of the people who live in the area. Factors such as the physical infrastructure, the beliefs of those who live in it as opposed to those who do not, it’s history and it’s range of citizens, would be just a few of the key elements to realize. This type of research can inform all aspects of the design process; everything from understanding the appropriate construction materials for a sign element to realizing the ability to create effective messages that communicates to the intended audience.

**Conclusion**

The components of environmental graphic design provide an open framework for accessibility. When these tools are combined into a system, they can work together to create a cohesive experience of all of the aspects that make up a place. The audience may be enticed to explore an area through a wisely crafted identification. They can be taught more about a neighborhood’s culture and people through a series of interpretive
graphics. In addition, an easy to use navigation structure can allow them to comfortably explore unknown places. A well designed sign system becomes an integrated part of the environment. It feels just as much a part of the space as the buildings and streets that surround it. Robert Fleming said that, “Trail systems, interpretive panels, and placemaking public art have rarely been connected” (Fleming, 2007, p.222). Furthermore he goes on to state that “when assessing the city, in the various levels of public art, landmarks and other elements that form the characteristics of a place, there’s a missed opportunity to enhance the meaning of these objects through a larger connected story. Many placemakers remain isolated objects in space. Their effect could be more pronounced if architects and urban designers sought to relate them in effect to create a choreography of meanings” (Fleming, 2007, p.10). When looking to segregated cities the idea of creating a system shows potential in two different ways. First, it gives a cohesive feel to a segregated environment, providing a system of information tools that help users to navigate and inform. Secondly and more importantly, a system approach offers the opportunity to be expanded into other neighborhoods across the city. Growing a system into a city wide experience creates a network that can make each place feel cohesive and at the same time promote the characteristics that make them unique.
Chapter 03
Design Case Studies

Introduction

In order to take a closer look at the impact environmental graphic design (EGD) can have on segregated cities, it’s necessary to consider the many examples that currently demonstrate its value for a community. The following case studies represent a small collection of this work and showcase many different lessons that can influence the project portion of this research study. The common topics previously discussed within EGD—navigation, identification, and interpretation—will be used to organize the following case studies. It is important to note that interdisciplinary collaboration has enabled much of this work to exist. Environmental graphic design is a very collaborative profession where many different design disciplines come together to make these projects a reality. Without collaboration, these works would not exist as they do today.

Navigation: Integrated Wayfinding Systems

As discussed, navigational sign elements are the primary functional tools of the environmental graphic designer. Within this category there are two main types of signs that exist; directional signs and orientation signs. Directional signs create the circulation system of a wayfinding program. Their role is to provide the necessary prompts that keep users on a given path towards a specific destination (Gibson, 2009, p.50). They primarily use typography, symbols and arrows to display their messages. While their design should harmonize with the surrounding area, there are also some key
principles that control their ability to be effective.

*The following guidelines are used to provide maximum legibility and communication in directional signage:*

- Signs should have a color contrast of at least 70% between type and background color
- There should be no more than three or four destinations messages per vehicular sign
- Use a limited color palette to differentiate destinations or districts on a sign
- Sign type should increase in size relative to the speed in which vehicles are traveling
- A combination of upper and lower case letters generally presents better readability (Berger, 2005, p.44)

Orientation signs are designed to help acclimate people in space. Their most common form is that of the “you are here” map. Maps, as already discussed, help to provide contextual information about an environment. Designing an effective map is a challenging task. The core idea is to simplify an area down to its most essential elements and provide a basic visual framework that depicts it. An effective map does not show an actual representation of every arc, turn, or shape in an environment. Instead it shows a generalized expression of the environment that can provide a structure easy enough for a user to remember. David Gibson outlines the four main approaches to a wayfinding
strategy as: (figure 1.)

- An overall district approach can be taken that breaks down a large area into sensible districts and then uses those districts to organize specific destinations.
- A landmark strategy directs users to major nodes and builds out more specific prompts to further destinations at these locations.
- A connector strategy uses a main path, or paths as the central point of the wayfinding plan and directs users to destinations off of it.
- A Streets model is more closely related to a neighborhood and uses the names of "streets" to provide a detailed layout of the environment. (Gibson, 2009, p. 37)

**Fig 1.** David Gibson's four strategies for a wayfinding approach:

*Image Source: Gibson, 2009, p.37*
Some rules and principles of orientation maps are:

- Users can only comprehend a geographic area of about 600 sq. ft.
- Directional signs and identity elements should be closely coordinated with orientation maps to provide an integrated wayfinding system.
- Maps should begin with the simplest image of an area possible and add geographic and other details as necessary.
- Providing a “you are here” location along with a sensible orientation to the space is essential for readability. (Berger, 2005, p.22)

A recent example of an effective wayfinding system is the Walk! Philadelphia sign system. Designed by Joel Katz Design Associates, it’s an extensive map system that outlines Philadelphia’s center city district. The system uses an iconic circle shape and bold graphics that create a ‘cartographic’ brand that is easily recognized throughout the city (Berger, 2005, p.33). What makes this system unique is the simplistic way that Katz is able to break down complex environmental information into basic graphic representations. He starts by developing a glyphic map, which is used to represent the navigation plan through a purely symbolic vocabulary. Parks and rivers are basic forms, and city blocks are broken into simple geometric shapes. In doing this, he removes any extraneous information and emphasizes only the factors that a user will need to remember. Katz has also developed the “heads up” theory to reading printed maps. The “heads up” theory claims that by orientating a map to represent the direction it is facing rather than the traditional approach of facing north, it becomes much easier to read and relate to the surrounding environment. The graphic language of the Philadelphia
maps is broken into four basic quadrants with a simple grid of color for each. On the reverse side, there is a more in-depth descriptive map that gives detail to the specific environment within the surrounding area. The colors of the quadrants on the maps also appear on the directional signs within the district. This use of color re-enforces the identity of the neighborhood and visually connects the directional signs to the maps.

**Fig 2. Walk Philadelphia Sign System**

![Image Source: Gibson, 2009, p.37](image-url)

Another important factor to directional elements is how they communicate to a largely diverse audience. No other example shows this better than Lance Wyman’s signage system for the 1968 Olympic games. In this system, Wyman developed a system of basic pictographic symbols that depict each of the activities in the Olympic events. The designs are based on “glyphs” that were inspired by the artwork of Mexican pre-Hispanic cultures. Instead of depicting actual figures doing the different activities of
the Olympics, Wyman used forms that would have a more universal understanding. “The symbols looked to identify activities through elements that would have universal recognition and forms that could be utilized in different ways” (Berger, 2005, p.16). Instead of showing two figures boxing, he simply showed a boxing glove (figure 3). Aside from their ability to communicate universally, the symbolic language was also quite effective in evolving into other forms of design. The icons proved themselves as functional communication tools for ticketing, wayfinding, and creating an overall language of branding.

**Fig 3.** Lance Wyman’s 1968 Olympic Game Symbols

Image Source: Berger, 2005, p.17

The successful merger of symbols into a wayfinding system can be noted in the Downtown Los Angeles Walks program. Conceived by Hunt Design and Corbin Design, it was established to encourage pedestrian exploration of a predominantly
vehicular city. The core element of the system is a network of 13 unique pictographic identities that are used to establish each of the districts in the downtown city area. The pictographic identities play a key role in branding each neighborhood with an individual feel while reinforcing its place in the larger context of the city. The system provides an easily grasped framework through its repetitious use throughout each district. “The system includes 1,300 signs in a 4-sq.-mile area encompassing 350 city blocks, 300 intersections, 50 streets, 30 freeway off-ramps, eight subway stations, and hundreds of bus stops” (SEGD, 2007, p. 75). The pictographs are smartly developed from an understanding of what makes each area unique. They reflect a variety of attributes from landmark architecture to cultural information. By stylizing the symbols to stand as unique identities, they become the dominant design motif for the system. Along with their integrated use of symbols, the system also features “Rolling Maps” that provide an enhanced navigational experience. The rolling map features close up depiction of a nine-block radius while also providing an additional map that illustrates a viewer’s location within the greater downtown corridor (SEGD, 2007, p.75).

**Fig 4.** Signage for the Los Angeles Walks Program
Some of the most remembered identifications are those that require the least interpretation. A good identity should be universally understood and should also be physically and emotionally connected to the place it represents. “It’s not enough to simply mark a place, you must also show or illustrate meaning with your marking” (Fleming, 2007, p.112). An identity builds anticipation for what lies beyond it and is one of the first crucial moments that design can shape a users experience. While there are no governed rules for creating identities, the same basic principles of directional signs are generally followed to provide legibility and coherence with the environment.

The following examples will look at identification signs as both descriptive and non-descriptive markers. Descriptive markers display their meanings through a fairly literal translation. Images, materials, and references to form and architecture are all used to represent formal design elements that help connect these signs to a place. Often
identifications are designed to build the anticipation of a place and set forth initial expectations of the environment. Non-descriptive markers follow a less traditional role and become more of an icon for a place. In this range of signs, the connections typically don’t correspond with a particular, person, place or point in history. Instead their interpretation is much more dynamic, and often connects on an emotional level with the viewer. Both are effective strategies to create an identification and each have an appropriate context for use. The following examples demonstrate the functions and difference between both types.

Perhaps there is no non-descriptive gateway sign more iconic than the Hollywood letters in California (figure 5). Situated on Mount Lee in the Hollywood hills area of Santa Monica, the letters overlook the famed Hollywood district of Los Angeles. The sign itself was originally conceived as a marker for real estate development in 1923. Designed by Thomas Fisk of the Crescent Sign Company, the letters first read “Hollywoodland,” and flashed on and off to draw attention to the potential real estate development opportunities above the city (Hollywood Sign Trust). As time passed, deterioration of the sign caused the greater part of “Land” to fade away leaving just the letters “Hollywood” standing. Through the years the letters began to represent more than just a distant moment in development history. “To movie goers and so many others, the sign represents the earthly home of that otherwise ethereal world of fame, stardom, and celebrity—the goal of American and worldwide aspirations to be in the limelight, to be, like the Hollywood sign itself, instantly recognizable” (Braudy, 2012). Unlike most traditional identifications, the letters depict no human subject or familiar object for anyone to connect with. Instead, they act as an abstract icon that
provides a blank canvas for the many thoughts and associations of this place. In this sense, these letters derive their meaning through the existing notions of “Hollywood.” This phenomenon can only work when the culture of a place precedes it so much that an abstract identity can absorb it, and carry forth the ever-evolving characteristics that define the place.

**Fig 5.** Iconic Hollywood Letters

![Image Source: www.hollywoodsign.org](image)

The “I (heart) NY” logo is another powerful example of how an emotional connection to an identity can effect the perceptions of an entire city. In the 1970’s New York City was experiencing a surge of crime and drug use unlike it had ever seen before. The city was at an all time low, suffering from a rash of terrible publicity and a generally poor perception from both its visitors and residents. In 1977 the New York State’s department for economic development commissioned a revitalization campaign for the city that would boost tourism (Sooke, 2011). Milton Glaser’s logo became the centerpiece of this effort. Originally conceived in the back of a taxicab as a crayon scribble, the simplicity of the logo and the sincere message it embodies created an
instant connection with its viewers (Sooke, 2011). Often the subject of t-shirts, coffee mugs, stickers and many other objects, the identity strikes an emotional cord with all who experience the city. Similar to the Hollywood letters, the “I (heart) NY” logo does not reference a specific time or place. It’s beauty and effectiveness lies in the simple communication of an idea. Its simplified visual language also helps to communicate the message to a wide and vastly different audience. Using the symbol of the heart to represent love and the letters NY for New York City, the message is comprised of three basic visual elements (figure 6). The brilliance in this identification is the ownership it bestows onto anyone who displays it. It simply suggests that even though things might seem bad, (we) still love this place. That basic idea has spilled over, and spawned an entire city to re-imagine it’s future.

**Fig 6.** Milton Glaser’s I (heart) NY Logo

![Milton Glaser’s I (heart) NY Logo](image_source: www.miltonglaser.com)

Not all identity signs need to make such an impactful or emotional connection with the place they are representing. Often times the most successful signs hint at
what’s beyond, with a subtle semantic reference through their physical form, usage of symbols or certain aesthetics communicated through color and typography. In these cases, it’s the anticipation that is built through the sign that makes it effective. In this scenario, it is the responsibility of the designer to research the place the identification is representing. Understanding the culture and history of a place is crucial to creating a successful identity. Along with this, it is important to understand what is significant to the community. An outsider may think that a moment in history, a bit of quirky culture or a reference to a type of architecture is a good idea, but the community may have a completely different feeling about it. Engaging local community members and developers will help to ensure that the right identification is communicated through these signs. An example that demonstrates this is The Cooper Young Bridge in Memphis Tennessee references the architecture of nearby buildings on its façade (figure 7). This visual connection provides a contextual clue to the architecture that one will encounter and therefore may also allow for interpretation or expectations of the culture that exists within it. In another example, the Big Wave is simple representation of a wave situated at the entrance to the city of Santa Monica California (figure 8). Designed by Tony Delap, it is two bent pieces of metal come together at just the right point to form an arch representative of the nearby waves. The wave represents an obvious connection to the beach, but again, the thought of a beach may lead to further interpretations about the people and culture that surround it. In a more traditional sense of an identification sign, the Castro Valley, California and Haleiwa, O’ahu Hawaii signs both name the area that they represent and also use color, materials and cultural references to describe it (figures 9 & 10). The surfer depicted in the sign for Haleiwa paints a representational
clue as to what lies beyond, just as much as the native canoe, coloring and typographic
treatment do on the Castro Valley sign. Examples such as these are plentiful and
although they may feel more literal in their representation, they still allow users the
freedom to build on their own expectations of the place.

**Fig 7.** Cooper Young Bridge

**Fig 8.** The Big Wave, Santa Monica, CA.

**Fig 9.** Castro Valley Identification

**Fig 10.** Haleiwa Hawaii Identification

*Image Source: Fleming, 2005, p.230 - 231*
**Interpretation: Participatory Involvement and Interpretive Elements**

Interpretive signs are the final piece to communicating the culture and history of a place. They take shape through many different forms and are often the elements that celebrate the true distinction to a place. A mural may be used in one location, while a historic marker is used in the next. No matter what the form is, interpretive elements rely on a keenly developed narrative. Some basic principles for developing a successful narrative are:

- Any interpretation that does not somehow relate what is being displayed or described to something within the personality or experience of the visitor will be sterile.
- The chief aim of interpretation is not instruction, but provocation.
- Interpretation should aim to present a whole rather than a part and must address itself to the whole man rather than any phase.
- Interpretation is entertaining, relevant, organized and thematic.
- Interpretation should involve visitors and provide variety
- Interpretation should know and respect audiences
- To connect with a visitor, interpretation should use humor, analogy, metaphor, stories, interaction, application of new knowledge, and questions. (Moscardo, et al. 2007, p.3)

In the following examples, interpretation within urban environments will be broken down into participatory engagement, historical communication, cultural connectivity and political protest. In each of these areas, various tools can be used
to create the intended objectives. However, it is the structure of the narrative that ultimately impacts the success of these elements most.

Community engagement should always be at the forefront of creating a compelling narrative. Design teams must interact with communities to understand their core values and culture, and then translate those ideas back through elements of design. Typically this engagement process works through focus groups or various forms of town hall type meetings, where representatives of a community can come forth and contribute their thoughts. A more unique approach to this idea is to allow the community to be part of the narrative itself. Designers can provide a structured framework for gathering input from a community that in turn can become the actual designed artifact. This level of engagement provides ownership over the outcome that a traditional process cannot. Candy Chang uses this technique often in her work to produce a range of thought-provoking interpretive pieces. One of her most well known works is the “I wish this was...” project. Started in her hometown of New Orleans, the project was inspired by the many vacant store fronts surrounding her neighborhood. From this, the conception of the project was to create a simple vinyl sticker in the recognizable form of a “Hi my name is” sticker, and paste it on the façades of these vacant store fronts. The sticker reads, “I wish this was” and gives an open space beneath it for anyone to write their own thoughts. This simple gesture, along with strategically placed markers, invites anyone who walks by to participate in the project (figure 11). This project produces a narrative on two different levels. On one hand, this narrative represents what the community believes would be better than the current empty building. On the other hand, it represents the larger message of hope for the
community. It shows in a very passive way that the citizens of a community have the potential to imagine a better future.

**Fig 11.** Candy Chang’s “I wish this was” project.
Another example of a community engagement narrative is the Tidy Street Project in London. Here designers and artists created a temporary infographic on Tidy Street that marked each resident’s electrical usage over the course of two months (Urbanized, 2011)(figure 12). Residents became engaged in the process, and their participation in the narrative affected the representation of the graphic each day. By using the temporary format of spray chalk, the designers were able update the infographic each day to reflect the electrical usage of each house. The accountability that it bestowed onto those who participated created a friendly sense of competition to reach the lowest possible energy consumption. The effects of this narrative were two fold. On one hand it made an entire street of people become engaged in how much energy they consume and on the other hand, it created a lasting narrative that spoke out to energy consumption in a much broader context.

**Fig 12.** Tidy Street project.

*Image Source: www.designeyoutrust.com*
Another frequently used strategy in interpretation is communicating the history of a place. While it is common to find historic markers in almost every city across the country, more engaging examples of historic interpretation are less frequent. When creating historical narratives, it is essential to craft an engaging story that creates a memorable experience for its audience. Time-lines, juxtapositions of old and new, and cultural trails are among some of the better tools for this type of engagement. One of the best-known historic trail systems is the Freedom Trail in Boston Massachusetts. The Freedom Trail is a two and a half mile historical loop that directs visitors to 16 historically important sites. Conceived in 1951, the mission of the trail is to tie together the story of the American Revolution thereby making it easy and enjoyable for residents and visitors to experience (The Freedom Trail). A red brick path distinctively marks the trail as it travels throughout the city. Bronze crests are also inlaid to act as trailblazers marking the identification of the path (figure 13). Historic plaques, printed brochures, and

Fig 13. The Freedom Trail in Boston MA.
interactive phone applications all provide explanations of the destinations throughout the walk. The easily-followed path gives visitors a glimpse at connected pieces of history that collectively make up a greater American story. The integrated experience of seeing history firsthand along with reading and listening to a narrative provide an experience that a variety of audiences can engage with. Presently over 3.2 million people visit it each year (The Freedom Trail).

Another recently produced trail system is the Battery point sculpture trail in Hobart, Tasmania. Here the creative use of scale and different materials depict various moments in the city’s history. For instance, one of the sculptures — the floating numbers 313 (figure 14) — is fabricated with modern boat-making materials and floats in the nearby port. The number 313 represents the number of vessels built at Battery Point and launched into the river between 1825 and 1872 (EG, 2012, p.43). Each sculpture in the trail is separated by a different scale and set of materials and is unified through the use of a consistent typeface. They are accompanied by a brief historical marker either as a sign post or embedded into the actual sculpture itself that describes the message of the sculpture. The trail also has brightly colored directional elements that help viewers navigate the path. In this project, the abstract and oddly scaled elements draw intrigue into the story of what they are representing. This unique approach, is another way to engage a viewer in a topic that might otherwise be not as interesting.
The creation of murals has been one of the most storied and variably successful ways to communicate moments in history. Murals have been known to boost the overall tourism and create inspiration for other infrastructure growth. Cities like Philadelphia and Chicago both have a rich tradition of supporting the development of murals. Their effects span beyond just beautifying an environment. One of the most classic examples of a Mural Town is that of Steubenville, Ohio. Steubenville struggled from a gritty steel and coal town reputation with a failing downtown unable to financially progress. Murals were chosen as a vehicle to transform the downtown area into a sort of gallery that could become a tourist destination and begin to change the town's reputation. The murals were also hoped to act as a catalyst to improve other downtown infrastructure repairs and to teach local history and unify the community (Fleming, 2007, p.116). The overall project consists of 25 murals that the community came together to plan and inform (figure 15). Mainly depicting important movements in history, the murals have achieved many of the cities initial expectations. Tourism has increased spawning...
the development of restaurants and shops along with the cities first ever information booth. Capitol investment has improved in the downtown area enabling storefronts to be revitalized and more grants for business development. Historical events depicted in the murals have also been included into history curricula at local schools thereby engaging the community through their shared history. The model for development has been so successful that other rust belt cities have replicated the strategy. Some have had more success than others, and the future fate of mural towns lies uncertain as closely located cities continue to compete for tourism.

**Fig 15.** Mural Town of Steubenville, OH

*Image Source: Fleming, 2007, p.117*

Interpretation is also an effective way to foster engagement between different cultures. The temporary rotating exhibit titled Neighborhoods and Shared Memories, is an excellent example of cultural engagement (figure 16). The project was conceived to help the El Paso museum of history move closer to the people that it serves. The central focus of this exhibit is to make the community the curator. The design team worked with members of the community to collect stories and artifacts directly from
them. They then built those stories into a single narrative that expressed the culture of the place. “We worked with a plurality of voices that do not necessarily build a single narrative, but rather create a web of themes that will carry on for the museum as the project continues, in future iterations, to examine El Paso’s other neighborhoods and districts” (C&G Partners, 2012). The experience they created was meant to feel like a casual visit to a neighborhood where locals approach you and tell you the history from their perspective. “The takeaway for the visitors lies in the broadness and authenticity of the experience, and a less linear, certifiable narrative” (C&G Partners, 2012). The exhibit was set to be on display for 18 months, at which point it’s content would change to reflect a different local neighborhood.

**Fig 16.** Neighborhoods and Shared Memories

*Image Source: www.aiga.org*
Conclusion

These projects have been discussed to show the benefits of navigation, identification and interpretation. In these cases, environmental graphic design demonstrates an ability to keenly connect with its audience and provide a functional and informative framework that enhances the connection to a place. Practical lessons such as ‘heads up’ map orientation and creating a system that is adaptable for various uses can also help to integrate a more effective EGD system. Identification signs can be used to create emotional connections to a place, or simply create anticipation that will entice people to explore a place further. Interpretive elements have an incredible opportunity to inform people of all the various aspects that define a place. If these principles and engagement techniques can be applied to common places, such as segregated cities, there is an opportunity to witness the same level of effectiveness as portrayed in these case studies.
Chapter: 04

The Project Case Study - Research Investigation

Introduction

Robert Fleming said that “Small scale interventions are key to organizing and preparing the community for future implementations.” He also remarked that, “there is so much to be gained by doing hundreds of small experiments” (Fleming, 2007, p.13). This case study will serve as one of those small scale experiments and test the theory that environmental graphics can help people foster a better connection to segregated neighborhoods and improve the overall perception of a place. It will provide accessible channels of information about the favorable qualities of a neighborhood, and furnish a toolkit of communication pieces that will help a person explore an area beyond its preconceived barriers. It is the first step in many that will follow, and in the larger scheme, can become a tool to articulate the value for further explorations.

The Design Research Process

It is important for both the process and the designer to allow for a range of adaptability when conducting research. No two problems are the same, and no technique draws the same results twice. Candy Chang provides the advice “Focus on the things you can control, stay curious, keep an open mind, and try things out” (Chang, 2012). Throughout the course of this investigation, it was crucial to experiment and remain open to new information changing the expectations of this project.
For this case study, The Big 6™ information literacy model was used to guide the process for this research (figure 17). Information literacy models are “structured frameworks that focus on empowering individuals with the skills needed to find, evaluate, analyze and effectively use collected information” (Visocky O’Grady, 2006, p.70). The Big 6™ has a general approachability that breaks down the research process into six basic steps. The steps in the process are:

1. **Identify Information Needed**
   - **1.1 Define the Information Problem**
   - **1.2 Identify Information Needed**

2. **Select the Best Sources**
   - **2.1 Select the Best Sources**
   - **2.2 Determine All Possible Sources**

3. **Find Information Within Sources**
   - **3.1 Locate Sources (intellectually and physically)**
   - **3.2 Find Information Within Sources**

4. **Extract Relevant Information**
   - **4.1 Engage (read, hear, view, touch)**
   - **4.2 Extract Relevant Information**

5. **Present the Information**
   - **5.1 Organize from Multiple Sources**
   - **5.2 Present the Information**

6. **Judge the Process (efficiency)**
   - **6.1 Judge the Product (effectiveness)**
   - **6.2 Judge the Process (efficiency)**
1. Task Definition - Define the information problem and identify the information needed

2. Information Seeking Strategies - Determine all possible sources and select the best

3. Location + Access – Locate sources and find information within sources

4. Use of Information – Engage (e.g. read, hear, view, touch) and extract relevant information

5. Synthesis – Organize from multiple sources and present the information

6. Evaluation – Judge the product (effectiveness) and judge the process (efficiency)

The steps outlined in this model were used to discuss the specific research conducted for this study. In the following paragraphs, each of the six steps will be discussed with an overview of what was done, a highlight of the tactics that were used and the knowledge that was learned, and a summary any specific outcomes that affected the project.

**Step 1. Task Definition - Overview of Process**

This project began with a very basic problem in mind – How can EGD and its power to communicate information in the environment make a difference in a segregated city? The city of Pittsburgh was chosen as an area to explore this idea further. Its status as a working class, rust-belt city, demonstrated it to be the perfect archetype for countless other areas cities across the country. Furthermore, it was ranked as the 15th most segregated city in the United States (United States, 2010). Before beginning any detailed research, multiple city visits were made to explore the different neighborhoods of Pittsburgh. To narrow this study to a manageable scope, a
focus area within the city was established. The focus area was determined by comparing census demographics along with early primary research. The cluster of Bloomfield, Garfield, Friendship, and East Liberty was chosen because of the extreme divisions in both their race and economic structures as well as the significant historical background that influenced the area (figure 18). (For an overview of the focus area demographics, refer to Appendix A: figure 1 on page 99.) Early observations also concluded that the cultural differences within these neighborhoods possessed some of the most noticeable oppositions of all of the initial areas explored.

**Fig 18.** Focus area for case study
**Tactics Used and Knowledge Gained**

An initial literature review was conducted to gain a better understanding of how a segregated city was defined and how that definition translated specifically to Pittsburgh. It was learned that communities form under three different ways: assimilation, where a community integrates and one group conforms to another, segregation, where groups separate and retain their own culture, and multiculturalism, where groups integrate but still retain their own culture (Reich, 2012, p.4). As Pittsburgh was formed, groups of migrants created the city’s first segregated neighborhoods. Although one demographic dominated those early neighborhoods, they tended towards multiculturalism with little tension between different social groups. Later in the mid-19th century, economic separation and racial tension from the south created value for certain demographics over others, sparking the negative divisions between Pittsburgh neighborhoods.

Pittsburgh area blogs fuel the debate about the divided city. “As far as black and white goes though, I really don’t see many black people in Pittsburgh’s ‘nicer’ areas when I bike and walk around, which I do quite a bit,” and “This is true, but I believe this is more of a socio-economical problem. Pittsburgh doesn’t have an extraordinarily high black population, and an even lower black population that could be considered white-collar” (Lexus, 2011). Early research also pointed to East Liberty as an area with a high potential for this study. East Liberty appeared to be a neighborhood with both a rich history and a troubled reputation. Currently in the midst of a revitalization, the opportunity to use the area’s affluent past to affect its struggling present was something noted in moving forward with this investigation.
Initial primary research helped to establish a profile for these four neighborhoods. Field notes and photography were used to capture the details of each environment. Observational note taking was conducted in multiple points throughout each neighborhood. In addition, primary areas were observed and documented through photo documentation (figure 19). Using Kevin Lynch’s five elements of the city, basic maps were constructed that illustrated the physical structure of each place (figure 20) (To view all maps, refer to Appendix A: figures 2-5 on pages 100-103).

**Fig 19.** Overview of Visual landscape of each neighborhood

During this process, two significant discoveries were made. The first was that public art and other cultural attractions provided many enhancements to these neighborhoods (figure 21). The other realization was that not all neighborhoods were meant to be “integrated” together. For instance, Friendship seemed to be quite capable of surviving on its own. It had a dominant residential feel to it, with almost no foot traffic and no commercial areas. It was apparent that residents living there desired those qualities and that urging more integration into this area would disrupt its identity. Similarly, the neighborhood of Garfield was still very debilitated. Although in need of
many improvements, other development efforts needed to happen before urging more integration into this area. The realization soon became evident that this problem was not as clear as initially thought, and the idea that linking together all neighborhoods to solve urban segregation issues might not necessarily be correct.

Fig 20. East Liberty physical structure map
In a case of always being adaptable, the early idea of this problem needed to shift focus. This project was no longer about connecting every neighborhood in a city together through creating public art and interpretive design elements. There was already evidence of that happening. Nor was it necessarily about trying to create something out of nothing and linking every neighborhood together with continuous storytelling elements. Not all neighborhoods were designed for that. Instead, the mission became about helping more people connect to a place in need. In considering the four neighborhoods; Bloomfield, Garfield, Friendship and East Liberty, East Liberty seemed to align with this project the best. It possessed a rich history, cultural attractions, public art and an overall bad reputation, despite it’s recent efforts to improve it. Based on this realization, the refined problem statement for this case study
“Can environmental graphic design elements help to re-connect a segregated neighborhood to the larger population of a city?”

**Step 2. Information Seeking Strategies - Overview of Process**

With a clear project definition in hand, the next step taken was to map out all of the unknown information surrounding it. Listing assumptions helped to realize the general areas that needed further exploration. Specific questions were generated from those assumptions that further directed where the research was headed. For instance, the assumption that East Liberty residents do not have pride in their neighborhood generated the question, “How do the residents of East Liberty feel about their neighborhood?” These research questions were formed into similar groups and used to determine the potential range of strategies capable of extracting the necessary information.

**Tactics Used and Knowledge Gained**

To help determine what research tactics were used, a chart was made that illustrated what information was needed, how it could be learned, and when in the process it should be acquired (figure 22). From this chart, a general outlook of what needed to be accomplished was apparent. The first phase of research was directed towards gaining a general understanding of the environmental profile of East Liberty. The mission was to understand who are the residents were, how the neighborhood was structured and what made it unique. That information was then used to inform a
deeper investigation in second phase of research that focused on understanding more of the beliefs and perceptions of East Liberty from both outside of the neighborhood and from within.

**Fig 22. KWL Chart**

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<thead>
<tr>
<th>What do I need to know?</th>
<th>How will I find it out?</th>
<th>When do I need it?</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the physical environment of these neighborhoods like</td>
<td>Walking/Driving and observing</td>
<td>Field Research I</td>
</tr>
<tr>
<td>What do the residents in these areas do?</td>
<td>Observe residents in multiple environments under different conditions</td>
<td>Field Research I</td>
</tr>
<tr>
<td>Do outsiders/tourists visit these neighborhoods</td>
<td>Ask people present - ask p-burgh city officials</td>
<td>Field Research II</td>
</tr>
<tr>
<td>Do individuals have any sense of their own cultural background</td>
<td>Ask Residents</td>
<td>Field Research II</td>
</tr>
<tr>
<td>Are there artists who live in the area?</td>
<td>Ask arts organizations - residents</td>
<td>Field Research II</td>
</tr>
<tr>
<td>Is there public art in the area</td>
<td>Walking/Driving and observing</td>
<td>Field Research I</td>
</tr>
<tr>
<td>Is there historical site markers in the area</td>
<td>Walking/Driving and observing</td>
<td>Field Research I</td>
</tr>
<tr>
<td>What is culturally significant to the residents</td>
<td>Ask residents/self research into their cultural values</td>
<td>Field Research II &amp; Secondary Research II</td>
</tr>
<tr>
<td>Are residents proud of their neighborhood</td>
<td>Ask Residents</td>
<td>Field Research II</td>
</tr>
<tr>
<td>Understand Economic and Social Segregation</td>
<td>Secondary Research</td>
<td>Secondary Research I</td>
</tr>
<tr>
<td>Understand and Evaluate Design’s role in change</td>
<td>Secondary Research</td>
<td>Secondary Research I</td>
</tr>
<tr>
<td>Develop a plan for working through case-study</td>
<td>Secondary Research</td>
<td>Secondary Research I</td>
</tr>
</tbody>
</table>

The research strategy for this case study was created to include a mix of both primary and secondary tactics. For secondary research, literature reviews showed the most potential to understand Pittsburgh’s history, the number of issues surrounding
segregation, and the precedent for what existing design projects could bring to this problem. For primary research, surveys, interviews and a prototype test were chosen. Each of these tactics offered a different benefit to the research: surveys answered broad questions to overarching project questions, interviews allowed for a deeper engagement where more specific information was learned, and the prototype test provided an outlet for very specific and contextual feedback. In addition, self observation and photo documentation were used for further analysis of the existing environment in East Liberty. Consideration was also made to choose a variety of sources and engage participants with various tactics to ensure as much triangulation to this research as possible (figure 23). (To see complete list of research goals for each phase, refer to Appendix B: figures 1 & 2 on pages 105-106.)

An overall outline was established to create a logical order for all research tactics to be deployed. Each research method was analyzed to determine what was going to be learned from it and how it would affect the next step. For instance, it was important to launch surveys early in the process to allow enough time for the data to return. As surveys were being circulated, other non-relating tactics were performed. This level of planning was essential to coordinate the correct order of the research process. However in the spirit of remaining adaptable, it was impossible to foresee all the variables that came with conducting primary research. Bad weather, difficulty finding participants and delayed responses to surveys, were just a few of the many factors that played a role in shifting the expectations of this plan.
**Fig 23.** Sources Tactics Outcome

<table>
<thead>
<tr>
<th>SOURCES</th>
<th>TACTICS</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents of East Liberty</td>
<td>Questionnaire/Survey</td>
<td>Perceptions of East Liberty</td>
</tr>
<tr>
<td>City Residents</td>
<td>Interviews</td>
<td>Identity of East Liberty</td>
</tr>
<tr>
<td>Suburb Residents</td>
<td>Participatory Engagement</td>
<td></td>
</tr>
<tr>
<td>Development Corporations</td>
<td>Interviews</td>
<td>Process</td>
</tr>
<tr>
<td></td>
<td></td>
<td>City view towards Development of East Liberty</td>
</tr>
<tr>
<td>Designers</td>
<td>Interviews</td>
<td>Design Process and Community Engagement</td>
</tr>
<tr>
<td></td>
<td>Literature Review</td>
<td></td>
</tr>
<tr>
<td>Public Artists</td>
<td>Interviews</td>
<td>Design Process and Narrative Development</td>
</tr>
<tr>
<td></td>
<td>Literature Review</td>
<td></td>
</tr>
<tr>
<td>Exhibit Designer</td>
<td>Interviews</td>
<td>Local Neighborhood History</td>
</tr>
<tr>
<td></td>
<td>Literature Review</td>
<td></td>
</tr>
<tr>
<td>Historian (Pittsburgh Local)</td>
<td>Interview</td>
<td>General Info on segregation, art, civic engagement, design precedent, process...</td>
</tr>
<tr>
<td>Secondary Research</td>
<td>Literature Review - Historical, Design Case Studies, Design Principles and Practice...</td>
<td>Understanding of Segregation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online Social Networking</td>
<td>Secondary Review</td>
<td>Building an Environmental profile for East Liberty</td>
</tr>
<tr>
<td>Physical Environment</td>
<td>Visual Anthropology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Observational Research</td>
<td></td>
</tr>
</tbody>
</table>

**Outcome**

The outcome from this step was a research process plan. (To view the research process plan, refer to Appendix B: figure 3 on pages 107-109.) This plan provided the framework for how each research method would be deployed throughout the case study. It also helped to establish what points of research should be informing the next, and kept a broad look at what should be learned throughout the process. In the most basic sense,
it became the road-map for this research process.

**Step 3. Location and Access**

Locating sources of information proved to be both easy and difficult. Secondary research was fairly obtainable. Books, research articles and city news sources, all proved to be powerful tools for understanding urban segregation in Pittsburgh. Locating primary resources of information was the more difficult process. Generally speaking the residents of East Liberty appeared to be closed off to outsiders. It became apparent that if participants were going to be recruited for any element of primary research, a different approach had to be taken.

**Tactics Used and Knowledge Gained**

In order to broaden the network of research participants for this case study, a network of connections needed to be established. Key individuals, referred to as “connectors,” were crucial in establishing those networks. Connectors were individuals that were native to the area, had a vested interest in the image of the city, and were more than willing share their personal network of contacts with this project.

**Outcome**

The outcome of this step was establishing a working list of contacts. This list was under constant evolution as the research progressed. If a certain source was not able to be connected with, then the next best one was tried. This process continued, until all of the necessary contacts for this research were made.
**Step 4. Use of Information**

Various methods were used to engage with the multitude of information sources for this study. In working through this phase, it was crucial to use the research process plan from step three to keep the process on track. It was also important to refer back to the research questions to determine whether or not they had been answered. A constant evaluation of what had been learned and what was still needed was important to avoid chasing down information that was not necessary for the project goals.

**Tactics Used and Knowledge Learned**

*Secondary Research*

The first and most widely used tactic in this research process was literature reviews. A multitude of secondary sources helped to inform everything from segregation and urban re-development, to design case studies and research processes. These resources proved useful throughout the entire process of this project. In the beginning of they were valuable to help establish a baseline education of all the issues. By the end of the project they helped inform much of the final information used in the design prototypes. The summary below covers the most significant findings of this process. In addition, chapters 1-3 discuss this information in further detail.

*History of East Liberty*

East Liberty has a rather unique and unfortunate story in the history of Pittsburgh. In the golden era of the 1940's and 1950's, East Liberty was a vibrant commercial neighborhood. Often dubbed as Pittsburgh’s second downtown, it hosted
multiple movie houses and department stores, and was backed by a tight-knit affluent community. In the late 1950’s the draw of suburbia began to have a negative impact on this neighborhood. The dream to have a space to call home, with a car, backyard, driveway, and easily accessible amenities began to lure many people away from the city. During that time, East Liberty lost many of its residents and visitors to this migration. The changing landscape in the neighborhood spawned a massive urban renewal project that ultimately lead to East Liberty’s demise (East Liberty Development Inc. Community Plan, 2010, p.6). In an attempt to mimic the landscape of suburban development, community leaders devised a plan that leveled blocks of houses and commercial property to make way for a large access road that circled the entire commercial district. The streets inside ‘Penn Circle’ were closed off to vehicular traffic and converted into a pedestrian mall. More than 1,000 apartment units were placed at the perimeter of the circle, ending a long-standing tradition of home ownership in the area (East Liberty Development Inc. Community Plan, 2010, p.6).

Over the course of the next decade, general disruption brought on from constant construction and the ever-changing landscape of the neighborhood destroyed the retail and commercial culture of the area. The new traffic patterns sent people around the core business district instead of into it, causing businesses to quickly lose customers. The decline of East Liberty was only worsened by the fact that the newly-formed government-subsidized housing fell into decay and spawned the development of a subculture where crime flourished. As the apparent decline of East Liberty was evident to the rest of the city, the neighborhood became a forgotten place and fell into two decades of decay (figure 24).
**Fig 24.** Visual Timeline

1940’s – Bustling Neighborhood
1960’s – Demolition for Renewal Project
1970’s – Retail Areas Converted
1990’s – Demolition of Section 8 Apt.

Present – Public Art
Big Retail Development
Neglect Still Present
Residential Pride

*Current Development in East Liberty*

Since the early 1990’s various efforts have begun to restore East Liberty (figure 25). The commercial district was re-opened to vehicular traffic, crime has been reduced by removing many of the areas of housing that supported it, and business development such as Home Depot and Target have started to interject new life into the neighborhood. East Liberty Development Inc. has led the charge on many of these efforts, forming two crucial community plans to serve as road maps for the neighborhood’s future. Their first community plan in 1999 focused on bringing in large development anchors and creating employment opportunities for locals. Among many improvements, they succeeded in opening the first ever Home Depot to be located
within a city. They have since moved on to an additional community plan in 2010 that highlights their ongoing effort to continue to improve the neighborhood.

**Fig 25.** E.L. Development Photos

*Image Caption:*

However, there are growing concerns about how this development will affect locals. Many East Liberty residents remain concerned for their future as the neighborhood gradually changes to attract more income and value. “We’re more concerned about us not being a part of the community when it’s revitalized and what are they going to bring into this community? We want to be a part of it also... We are
concerned people that live here. Even though we are low income, we are worried about what’s going to happen to us, and where we’re going to go” (Page-Jacobs, 2012). As development proceeds, it will be crucial to create an environment where the old culture of East Liberty can co-exist with the new development.

The outlook is positive for East Liberty and Pittsburgh’s future. The city is currently creating their first ever master plan. Titled Plan PGH, the 25-year-long plan will host a range of improvements for various areas of city infrastructure. The community plan will be created around public participation with it’s central ambition to “find common threads among people and the places they care about” (Plan PGH, 2010). The recognition of design and art as part of the focus areas of this plan draws a great connection to the research in this study and highlights a potential avenue for it to inform the future development within the city.

Primary Research

Primary research helped to discover the basis of perceived barriers that divide East Liberty and fuel its negative perceptions. It also helped to establish a framework for how this project could exist, and what areas of the experience of East Liberty needed improvement the most. The following sections will provide overviews to the tactics conducted and the most significant findings from each.

Observational Note-Taking

Throughout the course of investigating East Liberty, observational note taking was used to record simple perceptions of the neighborhood. Much of the information
learned here provided a context for the many conversations that came later in the process. For instance, it was observed that East Liberty suffers from the lack of an enticing identification. Compared to other neighborhoods, there was little in East Liberty to build a positive image of anticipation to the neighborhood (figure 26). It was also observed that the area was still very much under development, and that newly developed clusters existed directly adjacent to areas of neglect. Signs of history in the architectural details of building facades and street furniture were evident, but mostly appeared neglected, foreshadowed by a lingering sense of struggle. Though the area still expressed many signs of potential, evidence of grief still lingered about on most street corners.

Fig 26. E.L. Identity Comparison

Image Caption:
Left: East Liberty’s Current Identification Sign on it’s main entrance from Penn Avenue
Right: Newly Developed, Lawrenceville’s Identification sign and pageantry elements.
**Visual Anthropology**

Along with note taking, photo documentation was used to record the visual landscape of East Liberty. Multiple visits were dedicated purely to this tactic. During these visits, the neighborhood was documented street by street for any significant observations. Special attention was paid to signals of revitalization and separation. After completing these sessions, the documentation was organized into similar categories in order to better build a more accurate profile of the neighborhood (figure 27). To view the entire visual anthropology summary, refer to Appendix C: figures 1-6 on pages 111-116. This research also helped solidify that East Liberty was a neighborhood with a lot to offer, though it had plenty of intimidating aspects to overcome.

**Fig 27.** Photo summary of different categories
Self-Ethnography

In this process, a number of events throughout Pittsburgh were attended to gain a better perspective on how different community practices bring together people. One of the most interesting events attended was a First Friday art gallery night. For this event, participants were given printed guides which provided navigation participating art galleries and other downtown destinations (figure 28). In addition, the Pittsburgh Office of Public Art offered a public art scavenger hunt (figure 29). This simple act of engagement provided an additional interaction that enhanced the experience. As the event ended, blocks of alleyways were closed off to host a pop-up retail event where various local vendors sold food and other goods (figure 30). The experience of this event provided exposure to the downtown galleries, other area businesses, and local public art. It also illustrated that a diverse range of people could be brought together and experience a neighborhood through a universal connection to art and culture. Overall, this experience, along with others, helped solidify concepts for various forms of engagement bringing diverse people together.

Fig28. Gallery Crawl Document
Survey

A survey was developed to better understand the attitudes and behaviors towards Pittsburgh’s neighborhood divisions. Both city and suburb residents were asked to participate in two nearly identical surveys. Basic questions were developed to understand each group’s experience with the city and opinions towards certain
neighborhoods. The survey was created to avoid questions that were leading in nature, and to provide a logical flow from basic questions to more intense questions. (To view the survey questions, refer to Appendix D: figures 1-2 on pages 118-121). The online application Qualtrics was chosen to build and distribute the surveys. A landing page was made to inform potential participants about the study and allow them to agree to consent before participating. Since the target audience was anyone who lived in the greater Pittsburgh area, the survey was distributed online through email blasts and social media. In total nearly 90 residents participated in the two surveys.

Questioning both groups of residents enabled some interesting comparisons to be made. Each group was asked to express their general opinion of East Liberty as positive, negative or no opinion. Nearly 50% of residents in the suburbs responded as negative, while only 30% of city residents replied negative. The survey also uncovered general facts about how each group interacts with the city. “Convenience to routine” was the top deciding factor for what neighborhood city residents chose to live in. 79% of residents living in the suburbs said that they visit the city primarily for entertainment. Nearly 40% of each group replied that they have felt unwelcome in a Pittsburgh area neighborhood. Overall the survey helped to verify that East Liberty does suffer from a poor perception and that issues of segregation do affect the way people experience the city (To view the survey results, refer to Appendix D: figures 3-8 on pages 122-127).

Interviews

Interviews were conducted in order to probe for more specific information. Residents of East Liberty were spoken with to learn more about their individual
perceptions of segregation and overall attitude towards living in the neighborhood. Residents outside of East Liberty were also interviewed in order to gain a better understanding of their thoughts and behaviors towards this area. For each group, a script was created to guide and direct the interview. Questions were developed to allow the participant to ease into the discussion. In addition, probes were written in case a participant replied with short in descriptive answers. Simple phrases like “tell me more about that” or “I’m not sure I understand,” were used to keep the participant talking and create a comfortable flow for the interview.

Resident Interviews

Interviews with East Liberty residents helped to establish the sense of pride that locals have for their neighborhood. Whether old or young, new or longtime resident, everyone who was interviewed spoke with enthusiasm for where they lived. However there were varying opinions of uncertainty for the future of the neighborhood. Some residents spoke about this uncertainty with pessimism and fear. These residents were concerned that too much development may change the economic landscape of the neighborhood forcing them to leave and into a worse scenario. Other residents approached the future optimism and excitement. These participants had a more positive view on new development. When asked what was important for the future of East Liberty, a participant replied, “I think for us the ongoing development is good, but I do think there’s some gentrification going on. There are some things that we don’t use. Like Wholefoods, it’s not ideal for us to shop there all the time. I think there’s a few restaurants that aren’t ideal for a family to go to but then that’s the whole point
right? There’s different places to attract different kinds of people. I think it’s making
the community beautiful and there’s no reason that people should feel afraid or like
there’s nothing here worth checking out.” When asked, “how do you think the rest of
Pittsburgh views East Liberty,” another participant answered, “I know that they look at
it as a downtrodden section. But they hear a lot of up and coming things about it. My
step-mom is from a small town 45 minutes from here, she knew it as trashy, and the
reason why is that there was a huge section 8 complex. That’s why it was perceived that
way and that’s how she still thinks of it, and the people who don’t experience it day-to-
day, that’s how they still think of it. But you know you can’t judge a neighborhood by
who’s standing at the bus stops when you drive past, and again that’s a huge perception
issue with East Liberty.”

Visitor Interviews

Interviews with suburban residents helped to establish that lack of exposure to
the neighborhood was the primary issue for their negative perceptions. Most of their
notions of East liberty were formed by either word of mouth, or distant judgments
made from very limited experiences. For instance, one participant suggested that “I’ve
always heard it was a bad neighborhood in the city. I’ve never really been to it, but
just based on what I’ve heard, I probably won’t. Not until I hear more positive things
anyway, there’s just no point. There’s plenty of other nice places in the city to visit.”
Another participant noted the negative perception that local news paints of the general
area. “I always see violent crimes on the news happening around there...whether it’s
in East Liberty or not, I don’t really want to risk going into a place to visit a restaurant
or something else if I’m going to get shot.” However not every person outside of East Liberty had a completely negative opinion of it. When one participant was asked to describe their experiences with East Liberty, they replied, “I really don’t have any problem with it. I mean, I go to a bunch of restaurants there often. I get that it’s kind of unsafe, but so are a lot of other places. If you’re smart about what you do, and stay in the areas that feel comfortable, then your fine. But if you make bad decisions, if you walk into the residential area late at night, then maybe something could happen to you. But you know, that’s just common sense, you’re never gonna remove crime and violence completely.”

**Outcome**

The various tactics used to engage with primary and secondary research discovered information that validated many of the assumptions in the early phases of this study. This information also influenced multiple ideas and scenarios that design could be used to impact the perceptions of East Liberty and create a better experience of the area. Overall, the research discovered in this phase illustrated the need for improved interactions between the different neighborhoods and social groups that make up the city of Pittsburgh.

**Step 5. Synthesis**

In this stage, all of the information gathered from the previous tactics was analyzed and distilled into information frameworks that summarized the findings. These frameworks were used to identify design criteria and locate opportunities for
design solutions. They also worked to make the overall findings more accessible. This enabled the research to articulate a concise value for design, that demonstrated it as a viable option to project stakeholders.

**Tactics Used and Knowledge Learned**

**AEIOU Framework**

The AEIOU framework was used to organize all of the positive and negative observations that were made in East Liberty. AEIOU stands for Activities, Environment, Interactions, Objects and Users. This framework was helpful to summarize the observational research data taken from early site visits and apply it to an easy to understand graphic that illustrated its connections. The chart depicts a summary of all the main observations that contributed to the experience of East Liberty. The negative section also highlighted areas of opportunity that environmental graphics may improve (To view the chart, refer to Appendix E: figure 1 on page 129).

**The 5E’s Experience Model**

The 5E’s experience model was used to illustrate what the experience of visiting East Liberty was like. The 5E’s stand for Entice, Enter, Engage, Exit and Extend. The data for this chart was informed by the elements in the AEIOU framework along with notes taken from visitor surveys and interviews. The goal of the 5E’s model was to plot out the existing experience of visiting East Liberty and compare that to the potential change that elements from this study could bring to it. Each stage of the experience is rated for it’s effectiveness on a scale of one through five (figure 31).
### 5E's Experience Model

**Fig 31.**

<table>
<thead>
<tr>
<th>ENTICE</th>
<th>ENTER</th>
<th>ENGAGE</th>
<th>EXIT</th>
<th>EXTEND</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image_url" alt="Diagram" /></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Existing</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local small businesses and restaurants as well as big box retailers: Target, Whole Foods, and Home Depot</td>
<td>Use existing channels of communication to increase the overall positive communication about the environment.</td>
</tr>
<tr>
<td>No visuals or sense of community pride upon entering. Sporadic murals without strong community message</td>
<td>Create a welcoming identity that puts forth the image of the neighborhood and encourages exploration.</td>
</tr>
<tr>
<td>Retail engagement is plentiful, and growing to reach to a broader audience. There’s also the Carnegie Library.</td>
<td>Create a more diverse range of experiences that can engage audiences in meaningful ways and impact their overall feelings of the neighborhood more.</td>
</tr>
<tr>
<td>No sense of exit from neighborhood</td>
<td>Adjacent neighborhoods can create a connected system that is visually related, thus creating more of a universal feeling.</td>
</tr>
<tr>
<td>Lasting memories of neighborhood are negative, either due to the overall feeling of transition in the neighborhood or the boarded up businesses and still troubled landscape. Only lasting impressions made through retail experiences.</td>
<td>Creating a more memorable and engaging experience through interpretive visuals can increase the extended experience of the neighborhood.</td>
</tr>
</tbody>
</table>

Largest Areas of Opportunity
**Personas**

In order to summarize all that was learned from the surveys and the interviews, personas were developed that embodied the various groups who engage with East Liberty. A persona is a fabricated archetype of an end user that identifies their motivations, expectations and goals (Visocky O’Grady, 2006, p.72). Three personas were developed for both visitors and East Liberty residents. Each persona has a small written summary along with a How, Think, Do model (figure 32). The How, Think, Do model was used to show how this persona forms their perceptions of East Liberty, what they think about East Liberty, and what they do in East Liberty. From that chart, basic criteria were developed to try to best meet each of these persona’s needs and work to change their perceptions of the neighborhood. (To view all personas, refer to Appendix E: figures 2-9 on pages 130-137).

Fig 32. Sample Persona

**Beth**

I stay pretty busy with the kids. I love to get them out and involved in as many activities as I can, especially in the summer.

Beth lives in the nearby suburb area of Washington, PA. She is a stay at home mom with a three year old boy and a two year old daughter. During the week she is engaged in many different volunteer activities and in addition takes her children to activity centers and various excursions throughout the city.

<table>
<thead>
<tr>
<th>HOW</th>
<th>THINK</th>
<th>DO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word of Mouth</td>
<td>Believes the neighborhood is unsafe</td>
<td>Currently she has only been to the neigh-</td>
</tr>
<tr>
<td>Local News</td>
<td>Feels unwelcome</td>
<td>bhood to one of their upper class restau-</td>
</tr>
<tr>
<td>Her Husband who works in the city</td>
<td>Interested only because of a few restaurants and retail locations</td>
<td>rants. She has also driven through it on occasion</td>
</tr>
</tbody>
</table>
Outcome

The outcome of the synthesis phase was a summary of all research findings and a list of criteria to guide the design development. The generated criteria for this case study was as follows:

- Engage visitors beyond the typical destinations of restaurants and commercial retail
- Create a narrative that can break down perceptions of inequality—racial, economic, and cultural
- Create a welcoming identity that entices visitors to enter and explore
- Celebrate neighborhood differences while creating a feeling of connection to the rest of the city
- Create a variety of ways for different personalities to form their own attachments through open ended storytelling and a variety of experiences
- Bridge the culture of new to the culture of old
- Be specific to the history of the neighborhood and help inform visitors about where they live and its significance in shaping the city of Pittsburgh

On a secondary level, criteria that was important, but not significant to the overall success of this case study was determined as:

- Involve community members to instill a sense of ownership in the development of their neighborhood
- Honor the different cultures of residents and the old versus new integration happening throughout the area
• Encourage deeper exploration from new residents to the neighborhood

• Create a way for new residents to feel like they too belong in the neighborhood and are more than merely just transplants

• Raise awareness for new residents about the history of the neighborhood and the rich culture instilled upon where they live

**Step 6. Evaluation**

Overall the research conducted for this case study met the requirement of answering most of the necessary questions needed to move forward. A good variety of techniques communicated a well-rounded list of design criteria and design opportunities for the development phase of this project. One area to improve in the future would be establishing contact lists sooner to improve recruiting methods. Ideally, more candidates would have been interviewed to round out the last section of this research. It also took too long to come to a project definition. A large amount of time was spent conducting research on various other neighborhoods that were not ultimately part of this project. Now that the focus mission has been determined, extraneous research tactics should be reduced in the future. Time management should also improve in future iterations since much can be learned from the planning and execution of this process.
Chapter 05

The Project Case Study - Design Process

Introduction

Producing a test that provided a measure of success to the initial problem statement was the most important element of this study. To do this, an experience needed to be created where participants with different backgrounds and viewpoints could engage with East Liberty through the aid of various design elements and validate whether or not those elements had any impact on their experience. If successful, that validation would be integral to articulating the value for further exploration of this concept. If not, questioning the research and design of the experiment could lead to other explorations attempting validation, or it could prove the ineffectiveness of this theory and stop someone else from investing time and resources in it. Either way, testing was crucial to provide closure to this study.

Creating a test that could support this effort provided many challenges. First and foremost, weather was not predictable in early March in Pittsburgh. Snow and temperatures below 30 degrees caused many of the preparations and the first test date to be canceled. Recruiting participants was also challenging. Asking someone to drive into the city or travel across town to participate in a research study for a neighborhood they might be uncomfortable in presented some resistance. In the end, well-crafted communication pieces were crucial to recruiting participants and gaining local support.
**Brainstorming and Concept Rating**

Brainstorming for this project began as a fairly open ended exercise. Despite the fact that this investigation was largely based on environmental graphics, other areas of information communication were considered. Both concept maps and sketching were used for this exploration. Concept maps allowed ideas to be gradually built on and draw inspiration from similarly clustered ideas (figure 33). As concepts began to materialize, loose sketches were made to better inform their relevance to the established criteria. Choosing which directions to move forward with was done by considering a few simple points. First, how effective was the concept in targeting the criteria generated from the research phase. In addition, how feasible was the concept for this study. Some of the technical ideas showed potential, but their practicality was overruled by the need to experiment with simple concepts first before investing large amounts of time developing in-depth solutions.

Three main directions were chosen to move into concept development. First, it was determined that a basic family of signs types could provide orientation and interpretation of the neighborhood. Adding to this, the experiment also needed something more memorable. An element of participation was necessary to entice users to engage with the neighborhood in a more unique way. Finally, both an online and printed element were chosen to provide additional channels of communication about East Liberty before, during, and after the experience.
Prototype Development

It was necessary to develop the design of the individual components into an integrated experience. Mood boards were used to set the creative tone for the designs.
(To view mood boards, refer to Appendix F: figures 1-3 on page 139-141). Early primary research pointed to the divide between the old and new of East Liberty. This division was used as inspiration for the graphic approach in this system. An identity was created to brand the overall experience and create a visual cohesion between design elements. The type and color system also helped establish an aesthetic that blended a sense of the history in the area along with the aesthetics of the modern re-development (figure 34). An analogous palette of blue was used that created a strong visual presence without appearing over dominant in the environment. The overall graphic approach used halftone pattern underlays to provide visual texture and additional reference to old printed qualities.

**Fig 34.** Graphic System

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm
Nn Oo Pp Qq Rr Ss Tt Uu Vv Xx Yy Zz
123456789
-Chapparral Pro Regular

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll
Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Xx
Yy Zz 123456789
-Trade Gothic Medium
Project Identity

An identity was created to tie together the different elements of this project. “Explore PGH” was the name given to the overall experience. “East Liberty” communicates the specific context for this exploration (figure 35). This structure of the identity allows for it to expand into other neighborhoods throughout the city. Designing a mark that could be expanded beyond East Liberty was a crucial component to this project. The abbreviation PGH was used for its double meaning: one, as the abbreviations for Pittsburgh, and another as the abbreviations for people, geography, and history. The modern typography paired with simplistic line elements created a justified block of text that also relates back early printing lock-ups. (To view entire identity system, refer to Appendix F: figure 4 on page 142.)

Fig 35. System Identity

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The Case Study Experience

The concepts for this case-study were developed around the idea of creating a self guided neighborhood walk. A self-guided walk provided an open framework
for various communication tools to be applied to. It also allowed for a comfortable experience for participants to visit the neighborhood. In addition, it created a system that anyone could discover while in East Liberty and use to explore the neighborhood further. The information synthesized through the 5E’s framework in the research phase guided the prototypes to improve three specific areas of the experience of East Liberty (figure 36).

**Fig 36. 5E’s Opportunities for Design**

**Entice** — **Online Application**
1. Share information about the neighborhood
2. Link to East Liberty Facebook page
3. Show map that points out destinations and shows user comments

**Engage** — **Directional and Interpretation**
1. Provide orientation and direction to destinations throughout the neighborhood
2. Engage participants through a variety of interpretive pieces
3. Encourage self exploration

**Extend** — **Participatory Engagement**
1. Create a memorable experience that allows participants to share their feelings and influence the future course of development in E.L.

The overall concept for this case-study test was to bring participants to a central meeting spot in East Liberty where they would fill out a survey about their existing opinions towards the neighborhood. After that, they would be introduced to various
design elements that could assist their engagement with the environment. When they were finished exploring the area, they would return to the start point and fill out another short survey answering whether or not any of the elements of the experience affected their perceptions of East Liberty (figure 37).

**Fig 37.** Test Process Outline

| Group of Participants with different opinions of East Liberty | Set out and explore the neighborhood for 1-2 hours experiencing EGD elements | Record the effectiveness of EGD elements Did their opinion change? |

**Entice**

To entice participants to come to East Liberty, an online website was established. The website created a crucial line of communication between the planning and the research participants. It also became the home base for all important information regarding the study. The website was also a helpful tool to promote with. For instance, the about section pointed out all of the information relevant to the study such as what it was trying to do, and why participation was important. The main blog offered a venue to speak about the interesting qualities of East Liberty through the “you might not have known” posts. Here, various tips about the history and current interests of East Liberty were leaked out prior to the event in order to increase excitement for visiting the neighborhood (figure 38). The Volunteer section provided more specific information about the time and location of the test.
A Wordpress template was used to develop this website. Brief wireframes were created to outline the functionality needed for this tool. The template provided the opportunity to get content online quickly without spending too much time on development. The primary focus was to test the communication value of the website. As long as it was consistent with the design standards, using an existing template was a valuable time saving tool for this process. (To view entire website development, refer to Appendix F: figure 5-7 on pages 143-145.)

**Engage**

Multiple components were created to foster a more memorable engagement with East Liberty. A simple sign family was designed to provide directional orientation and additional interpretive information about the environment. The first step in this design process was to establish the route of the walking tour. The starting point for the
tour was located at the free parking lot attached to Starbucks and Whole Foods. This allowed for the experience to begin in a familiar and comfortable setting. From there, a simple loop was mapped out that traveled throughout the commercial corridor of the neighborhood. The path was pre-tested before the case-study test to ensure it was easy enough to follow (figure 39).

**Fig 39.** Neighborhood Loop with Destinations

To help designate the route of the loop, an overall mapping exercise located all possible locations of interest. Secondary research complimented this effort to learn more about the most significant sites. The decision to feature five primary destinations was made based on their interest and proximity to the downtown corridor. The remaining destinations were identified on the directional signage and wayfinding map.
Directional Signage

A simple orientation sign was developed to provide additional accessibility to the neighborhood (figure 40). Many of the principles evolved by Joel Katz in the Walk Philadelphia sign system were used to develop this map. The design was simplified as much as possible in order to be easily and quickly understood. (To view close up of map, Refer to Appendix F, figure 9 on page 147.) It also utilizes a heads up orientation and a rolling map feature to provide for an optimal user interaction. Later in the project development, this sign was removed from the package because the printed brochure featured the same overall wayfinding map. The map was re-used in a smaller format on the primary interpretive signage. This decision proved to be effective as it simplified the sign family and provided and easier structure to the experience.

Fig 40. Directional Sign
Interpretive Signage

The bulk of this experience relied on an effective system of interpretive sign elements. These elements carried the responsibility of engaging visitors and informing them of the unique and positive character of East Liberty. Extensive planning went into deciding what aspects of the neighborhood these elements highlighted. A system of different markers was designed to point out landmarks and share information about the neighborhood. Secondary research was used to extract the content for these signs. Each element was designed with a similar composition, using the overall brand to reinforce their connection as a system. The primary interpretive marker was created to give site-specific information about a landmark. Its layout featured a contextual photograph that enhanced the main story, along with a sidebar area to provide additional written information. The final design also featured a small directional map at the bottom (figure 41). A second more pictorial sign was developed to provide a quicker interaction. This sign, called the Now and Then sign, was designed to show the historic view of the area where the sign was located. This created a different type of interaction, providing participants with a sense of what the area was like in its golden age (figure 42). The history of East Liberty was shared through a visual timeline. The goal of the timeline was to provide an overview of the incredible changes the neighborhood has gone through in its storied past (figure 43). The last interpretive element was an infographic that served as the identity for the neighborhood. Since there was no visual representation of East Liberty for visitors to connect with, this graphic was made to communicate the positive qualities of the neighborhood and act as an identification sign for this experiment. The final design featured the messages about East Liberty’s
connections, diversity and positive changes (figure 44).

**Fig 41.** Primary Interpretive Sign

![Primary Interpretive Sign](image1.png)

**Fig 42.** Now & Then Interpretive Sign

![Now & Then Interpretive Sign](image2.png)
With sign types designed, the next step was to find mounting locations. Getting city permits would have heavily delayed this experiment and risked modifying it beyond its purpose, so no permission was given to post any of these signs. Locations along the
path were scouted that would allow for easy mounting conditions with either foam sign tape, or plastic zip ties. The sign forms were constructed out of simple foam board which allowed for easy modifications for mounting. Careful consideration was given not to obstruct any official city information and also not to damage any property. (To view the sign location plan, refer to Appendix F: figure 10 on page 148.)

Printed Brochure

A printed brochure was designed for the participants to use during the experience. The brochure featured a overall map of East Liberty with step-by-step instructions to follow the walking tour. In addition, the map highlighted a complete list of local destinations to allow participants set off on their own exploration. It also provided a brief summary to the history of the neighborhood, along with the neighborhood scavenger hunt. The concept for the brochure was to add an additional level of comfort to the experience by providing the users another element to help them navigate the tour and feel more at ease with the area (figure 45).

Fig 45. Printed Brochure
Scavenger Hunt

On the brochure, a scavenger hunt was designed to add another level of engagement to the experience. Upon several visits to the neighborhood, various elements of intrigue were noticed—such as the man posing as a door handle, and the door that leads nowhere (figure 46). The scavenger hunt was designed to add incentive to experience the neighborhood beyond the prescribed tour and also create another element of fun for this test. Seven missions were created and if participants completed the each one, they received a hand printed commemorative poster of East Liberty.

Fig 46. Elements of Intrigue

Business Engagement

A local coffee shop, Zeke’s, agreed to help participate in this study. Adding a business to the walking tour gave visitors a comfortable spot to take a break from the experience and get something warm to drink. Zeke’s became a destination on the tour when they agreed to allow the timeline element to be hung in their shop. Here, users stepped in from outside, had a drink, and found themselves in a comfortable setting to engage with the timeline. Zeke’s also contributed coupons to participants for discounted
coffee and contributed a good bit of neighborhood character to the experience.

**Extend**

After finishing, users were asked to return to the website and view the “What I Love about East Liberty” page. Here participants were urged to share their thoughts about East Liberty and spark the conversation for what the identity of the neighborhood should become. This act allowed for an extension of the experience and also provided a way to help to entice participants to visit East Liberty again (figure 47).

**Fig 47.** What I love about East Liberty

![What I love about East Liberty](image)

**Overview of Test**

The case study test was successfully conducted with a measurable outcome was established. On the testing day, participants arrived at the starting point between 11:00 a.m. and 12:00 p.m. Upon arrival they were given a short survey to fill out and spoken
to briefly about the experience they were participating in. With the printed brochure in hand, participants set out to explore East Liberty through the aid of the various design elements in this project (figure 48).

**Fig 48.** The prototype test
When the participants returned, they were asked to fill out the second portion of their survey discussing any change in their feelings towards the neighborhood. Small discussions about the experience also provided additional information. Most participants were eager to share their varied comments: “I don’t really care about how nice the neighborhood was, if it’s crap now, then I’m not going feel like it’s worthwhile,” “That was fun! It was really interesting to learn about the history of the area, it definitely made me want to come back again.” (To view an overview of the entire design process and testing elements, refer to Appendix G, figure 1-13 pages 150-162.)

**Prototype Test Results**

The test results provided an overall support for the statements in this thesis validating the argument for further exploration of this theory. Overall, 65% of the participants answered that their experience in this study improved their overall perceptions of East Liberty. That statistic became even more significant when observing that nearly 70% of participants rated their overall opinion of East Liberty before this experience to be somewhere between very poor and just OK. In addition, 50% of the participants replied that they would be likely, or very likely to return to East Liberty again. All of the elements in the design concepts were rated valuable to the experience. The interpretive signage received the most support, but many also noted that they enjoyed the opportunity to engage with a local business. Other comments that followed the survey were, “seeing the before and after images helped to influence my opinion on how much potential the area has,” and that “the news gives a negative view of the area, walking around today was great, there are lots of new businesses and things to check
out, I would love to come back more.” (To view complete summary of the results, and
more photos taken of the experience, refer to Appendix H, figures 1-9 pages 164-172.)
Chapter 06
Closing Remarks

The research presented in this paper demonstrated support for the theory that environmental graphic design, along with other visual communication elements, can be used to improve the perceptions of a developing neighborhood. The results in this study depicted a 70% improvement in the perception of East Liberty. Furthermore they articulated the value in pursuing this research further in both East Liberty and other similar neighborhoods across the country. In spite of that, there was a bias to these results. If the label of a “research experiment” was removed from this study, and no participants were actively recruited for testing, would these tools yield the same results? Could they entice random people to go to a neighborhood they thought bad of? How would someone rate the experience if they didn’t know what was being tested? These will be crucial answers to seek in future iterations of this research.

It can be said with certainty, that the prototypes in this project did not achieve success alone. Much of the redevelopment in East Liberty also created a positive impact on this experience. Looking to the future, this development will also play an important role in attracting more people to the neighborhood. As East Liberty continues to re-invent itself, there is a strong opportunity to use these concepts along side other development efforts to continue to improve the perception of the neighborhood.

It also remains to be seen what the long-term effects of improving a neighborhood’s perception will be. It is apparent that it does break down some perceived barriers to a place, thereby making it inherently more integrated with the
rest of the city. But what does that integration lead to? Sern and Seifert argue in their paper, *From Creative Economy to Creative Society*, that an increase in cross-community participation will lead to a more economic and culturally inclusive society. Their research declares that “cultural engagement fosters the collective capacity of people, especially in low-wealth communities” (Stern and Seifert, 2008, p.5). It is also unknown if an improved perception of a place can lead to a better appreciation for its current people and culture. If so, can that impact redevelopment efforts to work harder at preservation and integration over purely replacement?

This test was one small experiment designed to validate further exploration. In the future, it is suggested that the following measures are taken to continue to develop these ideas:

- Design a more integrated communication system, that crafts specific narratives directed to the personas developed in this case-study. Conduct multiple prototype tests that allow these elements to circulate for longer durations of time in order to understand whether or not they can randomly entice individuals to explore the neighborhood further. These tests should feel more natural, removing as much of the previously discussed bias as possible, and embody a larger amount of participants.

- Develop a measurement for how effective these elements are in encouraging deeper exploration of local commercial areas and analyze the positive effects they have on the long-term qualities and development of a neighborhood.

- Develop implementation plans that work to determine what characteristics an
environment should have in order for these tools to be present.

• Design a full neighborhood system that works to connect a larger area of one or more neighborhoods together.

• Produce additional case-studies that continue to communicate the value of this research to other segregated cities.

In conclusion, it is in the opinion of this research that much promise lies ahead in future explorations of this theory. Simple foam-backed paper signs along with a basic walking tour and a cup of coffee, created a 70% improvement in the perception of East Liberty. That alone shows promise for future research. If more time and energy is spent on developing these ideas further, then the results shown here can only be magnified to greater levels in the future iterations of this work.
Appendices
Appendix A:
Preliminary Research Findings
### Appendix A: Preliminary Research Findings

#### BLOOMFIELD

- **Population:** 81.6% White, 8.8% African American, 6.4% Asian
- **Housing:** 89% Occupied, 8,442 Total Residents
- **Income:** $24,014 Median Household

#### EAST LIBERTY

- **Population:** 25% White, 67.7% African American, 3.2% Asian
- **Housing:** 86.8% Occupied, 5,869 Total Residents
- **Income:** $21,485 Median Household

#### GARFIELD

- **Population:** 13.6% White, 80.1% African American, 2.6% Asian
- **Housing:** 76.9% Occupied, 3,675 Total Residents
- **Income:** $23,219 Median Household

#### FRIENDSHIP

- **Population:** 62.7% White, 20.3% African American, 12.7% Asian
- **Housing:** 92.1% Occupied, 1,785 Total Residents
- **Income:** $29,270 Median Household

---

**Figure 1:** Demographic Analysis of four focus area neighborhoods
Appendix A:
Preliminary Research Findings

Figure 2: Mapping exercise conducted for Garfield illustrating the five elements of the city, paths, nodes, edges, landmarks, and districts.
Appendix A:
Preliminary Research Findings

Figure 3: Mapping exercise conducted for East Liberty illustrating the five elements of the city, paths, nodes, edges, landmarks, and districts.
Appendix A:
Preliminary Research Findings

Figure 4: Mapping exercise conducted for Friendship illustrating the five elements of the city, paths, nodes, edges, landmarks, and districts.
Appendix A: Preliminary Research Findings

Figure 5: Mapping exercise conducted for Bloomfield illustrating the five elements of the city, paths, nodes, edges, landmarks, and districts.
Appendix B:
Research Process Materials
Appendix B:
Research Process Materials

Secondary Research Plan

GOALS
- Set the tone for the problems of segregated cities
- Pittsburgh as a segregated city
- Look critically at design disciplines as a way to address these issues
- Discuss the relevance and importance of good research
- Discuss existing projects through process and results
- Analyze all information into a potential plan of action to put in place

ECONOMIC & SOCIAL SEGREGATION
- Definition in cities across America
- Context of segregation through past, present, and future opinions (cause & effect)
- Solutions that have been presented & reason for using environmental art

NEIGHBORHOOD CONTEXT
- History of each neighborhood & general Pittsburgh
- Cultural profile / environmental profile of 3 neighborhoods
- Explanation on the current state of segregation and its evolution

DESIGN ANALYSIS
- Designs potential role in cultural and economic segregation
- Environmental design - defined/audit
- Other discipline audit
- Research techniques and their importance in responsible environmental design
- Process of urban design work

CASE STUDIES
- How multiple disciplines of work can be applied successfully to project
- Impact of known examples successes and failures (mention of lack of system integration)

ANALYSIS
Written analysis
Visualizations - timeline - demographic charts, information diagrams/infographics

OUTCOME
- Explanation of problem and opportunity for design to change it
- Understand context of Pittsburgh and characteristics of neighborhoods
- Understand the role of design and design research in facilitating social change
- Set the tone for the primary research portion of project

Figure 1: General outline of what information was to be learned through secondary research sources
Appendix B:  
Research Process Materials

City Research Plan

PLACE PROFILE  
- Mark up landmarks - businesses - cultural destination - key paths - edges  
- 5 E’s of entering each neighborhood and making your first orientation shift on each key path  
- AEIOU for each neighborhood - through observational notes  
- Visual anthropology - focusing on physical traces, visual characteristics, language of place  
- Business log - note types and possibly characteristics of each  
- Public Art/Design documentation - photo document all public art and design

PEOPLE PROFILE  
- First hand Demographics - log people for set amounts of time at each location - OBS notes  
- Census Demographics - per neighborhood from credible source

VISUALIZATION  
- AEIOU charts for each neighborhood to log observational notes  
- Demographics through infographics  
- Conduct a 5 e’s for each of the neighborhoods & various destinations  
- Photo documentation of physical profiles - show in comparison to look at characteristics  
- Photo collage of each neighborhood to show profile  
- Mind map of neighborhood characteristics

OUTCOME  
- Understand the geography and make up of each neighborhood via physical elements  
- Create a well rounded profile for each neighborhood (present tense)  
- Determine what neighborhoods are destination and what are transition  
- Determine Focus areas for each neighborhood

Figure 2: General outline of what information was to be learned in through primary research tactics.
Appendix B: Research Process Materials

**THESIS RESEARCH LOGIC**

<table>
<thead>
<tr>
<th>Purpose</th>
<th>1. ESTABLISH CONTACTS</th>
<th>2. SECONDARY RESEARCH</th>
<th>3. CASE STUDY ANALYSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>People</strong></td>
<td>To gain the necessary access of primary sources in order to dig deeper and gain knowledge supported by secondary research.</td>
<td>Understand the principles behind urban development and causes of segregated cities. Refresh myself on EGD &amp; Wayfinding principles. Learn about 3 specific Pittsburgh neighborhoods and how their history plays into the cities history. Understand key points in good storytelling &amp; cultural engagement. Explore process's for community/public art work and and their relationship to Design Research.</td>
<td>Review EGD systems, public art, and urban revitalization initiatives that have improved community interconnectedness. Survey the current environment of design in Pittsburgh and related efforts towards helping segregated neighborhoods.</td>
</tr>
<tr>
<td><strong>Needed Contacts</strong></td>
<td>Tom Gates Research Librarian</td>
<td>Case Studies</td>
<td>Case Studies</td>
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<td>Research Books</td>
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<td>Lectures</td>
<td>Scholarly Articles</td>
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<td></td>
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<td>Copywriter (for prototypes)</td>
<td>Have better understanding of how successful EGD systems work, and to understand what methods will be best for engaging different types of community members. In short, to learn from others successes and failures. Working knowledge of Pittsburgh infrastructure improvements</td>
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<td>3 Pittsburgh Neighborhoods</td>
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<td>City Council/Local Gov.</td>
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<td>Penn Avenue Arts Initiative</td>
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<td>Public Artist</td>
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**Figure 3**: Research process model showing each stage of the research phase, the purpose of it, actions to execute it, and expected outcome.
Appendix B: Research Process Materials

**VISUAL ANTHROPOLOGY / OBSERVATIONAL RESEARCH**

To document the landscape of the 3 neighborhoods that will be used in the case study. What do these places look like, and how do the people who occupy them behave. Participate in Pittsburgh city happenings to understand community participation and culture of the city.

- Self observations like writing notes and taking photos
- Physical trace search
- Mapping exercises

Understand the diversities between segregated communities. Start to see patterns of similarities that may serve in later strategies of concept development. Understand the culture of Pittsburgh through the outreach events they conduct.

**QUESTIONNAIRES**

To learn the citizens response and opinion of their own neighborhood as well as the neighborhood’s around them. Understand if segregation related issues are important to residents and possible angles to work within.

- Online and in-person conducted questionnaires administered - hopeful (40) responses from anyone city wide.

To learn what the actual citizens think and believe about the neighborhoods they live in and their place in the city makeup.

**INTERVIEWS**

Learn more first hand information about a variety of issues including perceptions of segregation, community efforts and thoughts towards revitalizations, perspectives of designers on process and story telling to connect residents

- Interview 5 residents, 2-3 designers and thought leaders, community organizations, public artists, City officials

Gain a deeper insight into what makes each place special and unique. Learn information about past, present, and future that was not obtainable from secondary sources.

**PROTOTYPE TEST**

To understand if initial prototypes will help people unfamiliar with and whom may have a negative perception feel more comfortable and respond that they are more likely revisit these neighborhoods due to the prototypes

- Set up a series of prototypes in the city and get at least 10 participants to travel through the experience. Interview for feedback during and after.

Set forth criteria to design permanent pieces based on user feedback. Present a plan that would include larger implementation. (example prototypes). Present a process model for doing the work.

---

**Figure 3 (cont.)**: Research process model showing each stage of the research phase, the purpose of it, actions to execute it, and expected outcome.
## Appendix B: Research Process Materials

### VISUALIZE / ANALYZE RESEARCH

To understand my research in context and realize if I’ve missed anything or need to pursue any additional information. Present process plan for design like this:

- Information Literacy Models
- Cluster Maps (to distill info)
- Personas
- Mental Models
- Experience Models

To Distill my research into visual models that other people can understand. Inform people of the results of my prototype test and give credit to the proposed plan, prototypes, and process model.

### CONCEPTUAL DEVELOPMENT

Come up with concepts for environmental graphics, wayfinding, interpretive graphics and placemaking that incorporate all research to this point:

- Sketching
- Storyboarding / Scenario Experience
- Rapid Prototyping
- Writing Content for Artifacts
- Gathering Images for Artifacts

Move through the creative process and have a refined number of designs that are able and ready to be prototyped.

### SUMMARIZE

To conclude findings from prototype testing in order to continue developing designs, and to move forward into funding efforts for production:

- Visual Documentation
- Written Summaries of prototypes and Revisions
- Plan for future development

Finish the design portion of the project. Move forward to finishing thesis document.

### BULK OF WRITING

To envision where the project will head in future development, how it can impact cities beyond just Pittsburgh. How can it become a framework for other designers to use:

- Funding for construction & implementation
- Plans for how to continue throughout all Pittsburgh
- Documentation and Promotion for project to other cities
- Work Published
- Speaking Engagements
- Enter in SEGD annual competition

### FUTURE DEVELOPMENT

#### OPTIONAL PART OF PROCESS

Figure 3 (cont.): Research process model showing each stage of the research phase, the purpose of it, actions to execute it, and expected outcome.
Appendix C:
Visual Anthropology Summary
Appendix C:
Visual Anthropology Summary

Figure 1: Visual summary of photo documentation capturing the general environment of East Liberty, note the mix of history, decay, residential, and urban environment.
Appendix C: Visual Anthropology Summary

Figure 2: Visual summary of photo documentation capturing the Current Development of East Liberty. Apartment buildings, large retail, and small specialty shops all illustrate new or ongoing development.
**Appendix C:**
Visual Anthropology Summary

**Figure 3:** Visual summary of photo documentation capturing the historic and cultural destinations of East Liberty. Conflict Kitchen and the Waffle Shop have since moved, however the neighborhood still has a large number of destinations
Appendix C:
Visual Anthropology Summary

Figure 4: Visual summary of photo documentation capturing the general retail environment of East Liberty. Note the drastic differences of specialty shops and large scale retailers
Appendix C: Visual Anthropology Summary

Figure 5: Visual summary of photo documentation capturing the urban decay still present in East Liberty.
Appendix C:
Visual Anthropology Summary

Figure 6: Visual summary of photo documentation capturing the public art present in East Liberty, of special note the top left image features the Joy of Life Fountain that was designed to represent unity of all those in the neighborhood.
Appendix D:
Primary Research Materials
Appendix D:
Primary Research: Survey

1. Please indicate the following:
   Male - Female

2. Please indicate your age group:

3. Please state the neighborhood in which you currently live:

4. Which of the following factors most influenced you to move into this neighborhood?
   Close to work/routine
   Familiarity with this area through family and friends
   Affordable living
   Familiar ethnicity of residents
   Entertainment
   None of the above

5. Do you know any history or cultural heritage of this neighborhood?
   Yes - No

6. If you could promote one quality about the neighborhood you live in to others, what would it be?
   Great Entertainment
   Family Friendly
   Friendly Neighbors
   Convenient Location
   Historical Value

7. How are you most likely to find out about events throughout the city?
   Websites
   Newspaper
   Family and Friends
   Social Media
   Posted Advertisements
   Other

8. Do you feel your neighborhood could benefit from a more diverse group of residents?
   Yes - No - Unsure

9. Have you ever participated in a community day or cultural event?
   Yes - No - Unsure

10. Are you interested in learning more about the cultural qualities of Pittsburgh's different neighborhoods?
    Yes - No - Unsure

Figure 1: Survey created for city residents
Appendix D:
Primary Research: Survey

11. Please rate your general opinion of the neighborhoods listed below as either Positive, Negative, or No Opinion at all.

   Positive - Negative - No Opinion ---- East Liberty
   Positive - Negative - No Opinion ---- Garfield
   Positive - Negative - No Opinion ---- Friendship
   Positive - Negative - No Opinion ---- Bloomfield
   Positive - Negative - No Opinion ---- Lawrenceville
   Positive - Negative - No Opinion ---- The Strip

12. Do you believe that public art can help to tell the historic and cultural stories of neighborhoods?

   Yes - No - Unsure

13. Have you ever felt unwelcome in a neighborhood in Pittsburgh?

   Yes - No - Unsure

14. Do you believe that Pittsburgh neighborhoods are only welcoming to a particular demographic of residents?

   Yes - No - Sometimes

Figure 1 (cont.): Survey created for city residents
Appendix D:
Primary Research: Survey

1. Please indicate the following:
   Male - Female

2. Please indicate your age group:

3. Please state the neighborhood in which you currently live:

4. How often did you visit the city during this past summer?
   Never
   1 time
   2-5 times
   6-10 times
   11-15 times
   16 or more times

5. Which reasons below best describe what you do when you visit the city?
   Employment
   Visit Family
   Visit Friends
   Shopping
   Medical
   Entertainment
   Cultural
   Recreation
   Other

6. How are you most likely to find out about events throughout the city?
   Websites
   Newspaper
   Family and Friends
   Social Media
   Posted Advertisements
   Other

7. Have you ever participated in a community day or cultural event?
   Yes - No - Unsure

8. Are you interested in learning more about the cultural qualities of Pittsburgh's different neighborhoods?
   Yes - No - Unsure

Figure 2: Survey created for suburb residents
Appendix D: Primary Research: Survey

9. Please rate your general opinion of the neighborhoods listed below as either Positive, Negative, or No Opinion at all.

   Positive  -  Negative  -  No Opinion  ----  East Liberty
   Positive  -  Negative  -  No Opinion  ----  Garfield
   Positive  -  Negative  -  No Opinion  ----  Friendship
   Positive  -  Negative  -  No Opinion  ----  Bloomfield
   Positive  -  Negative  -  No Opinion  ----  Lawrenceville
   Positive  -  Negative  -  No Opinion  ----  The Strip

10. Have you ever felt unwelcome in a neighborhood in Pittsburgh?
    Yes  -  No  -  Unsure

11. Do you believe that public art can help to tell the historic and cultural stories of neighborhoods?
    Yes  -  No  -  Unsure

12. Do you believe that Pittsburgh neighborhoods are only welcoming to a particular demographic of residents?
    Yes  -  No  -  Sometimes

Figure 2 (cont.): Survey created for suburb residents
Appendix D:
Primary Research: Survey

City Visitors
Q. How are you most likely to find out about events throughout the city?

City Residents
Q. How are you most likely to find out about events throughout the city?

Figure 3: Survey Results
Appendix D: Primary Research: Survey

City Visitors
Q. Do you know any cultural heritage of this neighborhood?

[Figure 4: Survey Results]

City Residents
Q. Do you know any cultural heritage of this neighborhood?

[Figure 4: Survey Results]
Appendix D: Primary Research: Survey

City Residents
Q. Which of the following factors most influenced you to move into this neighborhood?

- Close to work/routine
- Familiarity with area
- Affordable living
- Familiar ethnicity
- Entertainment nearby
- None of the above

City Residents
Q. If you could promote one quality about the neighborhood you live in to others, what would it be?

- Great Entertainment
- Family Friendly
- Friendly Neighbors
- Convenient Location
- Historic Value

Figure 5: Survey Results
Appendix D:
Primary Research: Survey

City Visitors
Q. Please rate your general opinion of the neighborhoods listed below as either Positive, Negative, or No Opinion at all.

City Residents
Q. Please rate your general opinion of the neighborhoods listed below as either Positive, Negative, or No Opinion at all.

Figure 6: Survey Results
Appendix D:
Primary Research: Survey

City Visitors
Q. Have you ever felt unwelcome in a Pittsburgh Neighborhood?

![Survey Results for City Visitors](image)

City Residents
Q. Have you ever felt unwelcome in a Pittsburgh Neighborhood?

![Survey Results for City Residents](image)

Figure 7: Survey Results
Appendix D:
Primary Research: Survey

City Visitors
Q. Do you believe that Pittsburgh neighborhoods are only welcoming to a particular demographic of residents?

Figure 8: Survey Results

City Residents
Q. Do you believe that Pittsburgh neighborhoods are only welcoming to a particular demographic of residents?

Figure 8: Survey Results
Appendix E:
Research Synthesis
Appendix E: Research Synthesis

<table>
<thead>
<tr>
<th>ACTIVITIES</th>
<th>ENVIRONMENT</th>
<th>INTERACTIONS</th>
<th>OBJECTS</th>
<th>USERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTICE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shopping and Dining out</td>
<td>Large Anchor Retail &amp; Good Restaurants</td>
<td>Farmer Markets and summer time markets</td>
<td>Bus Routes through area; Public art and Historic Draw</td>
<td></td>
</tr>
<tr>
<td>Crime, Busy Vehicular Area</td>
<td>Little communication about positive qualities, No Identity</td>
<td>No enticement about witnessing history of the area</td>
<td></td>
<td>Perceived as Segregated Population, African American Dominant</td>
</tr>
<tr>
<td>ENTER</td>
<td>Smell of food from local restaurants</td>
<td>No Identity to set the tone for neighborhood</td>
<td>Weak ID signage and no banners or other pageantry</td>
<td></td>
</tr>
<tr>
<td>ENGAGE</td>
<td>Busy environment, many people present in neighborhood</td>
<td>Public Art, Niche Businesses, Anchor Businesses, Interesting architecture</td>
<td>Welcoming Businesses, friendly individuals, shopping and eating, many people walking</td>
<td>Trees, bus shelters, broad sidewalks, trash cans, art, signage; Young students, Elderly, Professionals, Construction Workers - Diverse</td>
</tr>
<tr>
<td>People waiting for bus, standing on corners, odd activities from vagrant individuals</td>
<td>Poor retail ID signage on Penn, bad graffiti, feeling of neglect in some areas, boarded up businesses</td>
<td>People waiting for bus, standing on corners</td>
<td>Trash, Debris, Chain Link Fence, Limited Street Furniture</td>
<td>Unemployed, Homeless, Number of intimidating people</td>
</tr>
<tr>
<td>EXIT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXTEND</td>
<td>Neighborhood Facebook Page &amp; Local Blogs</td>
<td>East End Historical Society Book</td>
<td>Poor reputation damages extension of experience</td>
<td></td>
</tr>
</tbody>
</table>
Appendix E:
Research Synthesis

Beth lives in the nearby suburb area of Washington, PA. She is a stay at home mom with a three year old boy and a two year old daughter. During the week she is engaged in many different volunteer activities and in addition takes her children to activity centers and various excursions throughout the city.

Beth

<table>
<thead>
<tr>
<th>HOW</th>
<th>THINK</th>
<th>DO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word of Mouth</td>
<td>Believes the neighborhood is unsafe</td>
<td>Currently she has only been to the neighborhood to one of their upper class restaurants.</td>
</tr>
<tr>
<td>Local News</td>
<td>Feels unwelcome</td>
<td></td>
</tr>
<tr>
<td>Her Husband who works in the city</td>
<td>Interested only because of a few restaurants and retail locations</td>
<td></td>
</tr>
<tr>
<td>Personal Opinion: she has driven through it and eaten at one restaurant</td>
<td>Does not believe it has anything to offer her</td>
<td>She has also driven through it on occasion</td>
</tr>
<tr>
<td></td>
<td>Prefers the adjacent neighborhood, Shadyside</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2: East Liberty Visitor Persona
Appendix E:  
Research Synthesis

Mike

I try to get out and experience as much of the life in Pittsburgh as I can.

Mike lives in Shadyside, a neighborhood just adjacent to East Liberty. He's married, but without children. He works downtown and takes the bus to his job. Most of his favorite destinations are throughout the city, and he enjoys eating out and shopping near where he lives. He's social, and has friends throughout the city with whom he and his wife visit frequently on the weekends.

<table>
<thead>
<tr>
<th>HOW</th>
<th>THINK</th>
<th>DO</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Paper</td>
<td>Thinks it's an OK neighborhood but isn't too interested to explore it.</td>
<td>Shops at Target and Whole Foods.</td>
</tr>
<tr>
<td>News - NPR and local television networks</td>
<td>Likes that there's some big retail destinations within the neighborhood</td>
<td>Walks across the pedestrian bridge to Starbucks on occasion</td>
</tr>
<tr>
<td>Friends and Co-workers</td>
<td>Enjoys some of smaller restaurant locations</td>
<td>Visits the Ethiopian restaurant and a few other restaurants, probably once a month.</td>
</tr>
<tr>
<td>His own perceptions - he visits some of the retail locations regularly.</td>
<td>Still considers it to be an up and coming neighborhood and not the most welcoming place in the city.</td>
<td></td>
</tr>
</tbody>
</table>
Appendix E: Research Synthesis

I don’t get out too much, I’m getting older and after work, I’m pretty tired.

Vernon lives in Garfield and works in a nearby auto body shop. He’s lived in Pittsburgh since he was 15 years old. He and his wife have raised a family of three children, two of whom have moved out of the house. In his younger days, Vernon has always been focused on his family, and his lower income has inhibited him from exploring too much of the city.

Vernon

<table>
<thead>
<tr>
<th>HOW</th>
<th>THINK</th>
<th>DO</th>
</tr>
</thead>
<tbody>
<tr>
<td>His own perceptions - he transfers bus lines in the neighborhood every day.</td>
<td>Doesn’t have strong feelings one way or another about the neighborhood</td>
<td>He grabs a bite every once and a while when he has enough time to on his way home from work.</td>
</tr>
<tr>
<td>Old friends and family.</td>
<td>Feels somewhat disappointed by some of the development and how it’s pushing out the old culture of the neighborhood</td>
<td></td>
</tr>
<tr>
<td>He remembers many of the struggles of East Liberty from personal experience. Some friends of his were actually displaced when the last high-rise was taken down.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 4: East Liberty Visitor Persona
Appendix E:  
Research Synthesis

I’ve been around here for quite a while and have seen a lot of change, some good, some not so good.

Lorraine has lived in East Liberty most of her life, having moved there just before the decline of the neighborhood in the early 60’s. She’s seen much of the up and down history of the neighborhood and watched as it’s slowly become a destination once again. She has mixed feelings of security about her place in the neighborhood as it feels to her that parts of it are slipping away.

Lorraine

<table>
<thead>
<tr>
<th>HOW</th>
<th>THINK</th>
<th>DO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal experiences such as interactions with a new range of businesses and residents.</td>
<td>She realizes that the neighborhood needs many improvements but believes that crime and violence are more important than development.</td>
<td>She meets with friends twice a week for coffee</td>
</tr>
<tr>
<td>The news and town hall meetings that help explain development efforts</td>
<td>She feels as though her place in the neighborhood is jeopardized, as a growing number of surroundings are shifting to appeal to a different and more diverse audience</td>
<td>She attends regular meetings with the local development inc. to stay up to date on what’s happening in the neighborhood</td>
</tr>
</tbody>
</table>

**Figure 5**: East Liberty Resident Persona
**Appendix E: Research Synthesis**

East Liberty is my neighborhood, I love this place and believe in it’s future.

Pearson has lived in East Liberty his entire life. He’s currently attending college nearby and chose to remain at home. He’s comfortable in the neighborhood and knows its people and destinations quite well. He doesn’t think there’s anything wrong with it, and doesn’t believe that most of the development is necessary.

### Pearson

<table>
<thead>
<tr>
<th>HOW</th>
<th>THINK</th>
<th>DO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal experiences.</td>
<td>Believes East Liberty is perfect the way it is.</td>
<td>He has a lot of friends throughout the neighborhood</td>
</tr>
<tr>
<td>Friends and family who live in the neighborhood</td>
<td>Has a lot of pride for his neighborhood.</td>
<td>He engages with local restaurants frequently</td>
</tr>
<tr>
<td>Local businesses and social areas throughout the neighborhood</td>
<td>Is weary of the development taking place and scared that it will run out the people who live here and make the neighborhood feel like everywhere else.</td>
<td>He goes to church with his mother and father every week.</td>
</tr>
</tbody>
</table>

**Figure 6: East Liberty Resident Persona**
Appendix E: Research Synthesis

Margot

I really love the diversity here, I wouldn’t want to live anywhere else.

Margot just moved into the neighborhood about a year ago. She lives in artist subsidized housing and raises her two children with her husband. In the past, she’s lived in middle America suburbia, and actively sought out a neighborhood that had a reputation as an up and coming place, and also as a place that celebrates diversity. As a minority in the neighborhood, she still feels safe and welcome throughout the area and respects the history of where she lives.

<table>
<thead>
<tr>
<th>HOW</th>
<th>THINK</th>
<th>DO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal experiences.</td>
<td>Enjoys the diversity of destinations and people in the environment.</td>
<td>Walks her children to parks throughout the neighborhood often.</td>
</tr>
<tr>
<td>Friends who live in the neighborhood.</td>
<td>Believes it’s a safe place, but there’s still many improvements that need to happen.</td>
<td>Runs daily</td>
</tr>
<tr>
<td></td>
<td>Believes that development is good, and enjoys living in an area that has an up and coming status</td>
<td>Participates in Art shows throughout her community.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Visits many of the diverse restaurants</td>
</tr>
</tbody>
</table>

Figure 7: East Liberty Resident Persona
Appendix E:
Research Synthesis

Design Criteria

Engage visitors beyond the typical destinations of restaurants and commercial retail

Create a narrative that can break down perceptions of inequality; racial, economic, and cultural

Create a welcoming identity that entices visitors to enter and explore

Celebrate the neighborhoods differences while create a feeling of comfort and similarity to the rest of the city

Create a variety of ways for different personalities to form their own attachment to the neighborhood

Create connections between various levels of destinations that can lead to the exploration of new places

Figure 8: Summary of design criteria to meet the needs of East Liberty visitors
Appendix E: 
Research Synthesis

Design Criteria

Involve community Members to instill a sense of ownership in the development of their neighborhood

Honor the different cultures of residents and the old vs. new integration happening throughout the neighborhood.

Be specific to the history of the neighborhood and help inform residents about where they live and it's significance in shaping the city of Pittsburgh.

Encourage deeper exploration from new residents to the neighborhood.

Create a way for new residents to feel like they too belong in the neighborhood and are more than merely transplants.

Bridge the culture of new to the culture of old

Figure 9: Summary of design criteria to meet the needs of East Liberty residents.
Appendix F: Design Process Materials
Appendix F:
Design Process Materials

Figure 1: Wayfinding and Identification Mood Board
Figure 2: Wayfinding and Identification Mood Board
Appendix F:  
Design Process Materials

Figure 3: Design Inspiration Mood Board
Appendix F:
Design Process Materials

MAIN IDENTITY

— EXPLORE PGH —
EAST LIBERTY
PEOPLE - GEOGRAPHY - HISTORY

SECONDARY IDENTITIES

— EXPLORE PGH —
NEIGHBORHOOD TIMELINE

— EXPLORE PGH —
EAST LIBERTY IS

— EXPLORE PGH —
PEDESTRIAN BRIDGE

— EXPLORE PGH —
NOW & THEN

Figure 4: Identity System
Appendix F: Design Process Materials

**Home**

A place where bits of information can be released that build anticipation for coming to East Liberty - “You might not have known”

**Volunteer**

Inform potential participants about what is needed to volunteer and about why they should help.

**About**

Tell potential participants about my study and the general overview and focus of its research

**What I love about East Liberty**

A place where participants can extend their experience and be part of creating a new identification for East Liberty

---

**Figure 5:** Website Site Map/Content Outline
Appendix F:
Design Process Materials

Figure 6: Final Website Screen Captures; Top: Main Blog, Bottom: About this Study
Appendix F: Design Process Materials

Figure 7: Final Website Screen Captures; Top: Volunteer Information, Bottom: What I love about East Librty
Appendix F: Design Process Materials

Primary Destinations  
Printed piece & Wayfinding & Interpretive  
(discover - history - art - culture)  
1-Pedestrian Bridge  
2-Motor Square Garden  
3-Cantini Sculpture  
4-Cityscape Mural  
5-Farmer's Market  
6-Building Mural  
7-Alpha Terrace Historic District  
8-East Liberty Presbyterian Church  
9-Kelly-Strayhorn Theater  
10-Green Bus Shelter  
11-First Gas Station Baum and St. Clair  
12-Nabisco Bakery - Bakery Square

Major Commercial -  
Printed Piece & Wayfinding  
1-Carnegie Library  
2-Target  
3-Home Depot/Former location of Sears  
4-Pittsburgh Theological Seminary

Restaurants -  
Printed Piece & Wayfinding  
1-Whole Foods  
2-Starbucks  
3-BRGR  
4-Spoon  
5-Abay Ethiopian  
6-Pizza Sola  
7-Tana Ethiopian  
8-Paris 66 Bistro  
9-Vanilla Pastry Studio  
10-Kazanda’s Cafe  
11-The Shop  
12-Union BBQ  
13-Vento’s Pizza  
14-Station Street Hot-Dogs  
15-Dinette  
16-Plum

Figure 8: Overall Map and Destinations list considered for this case-study
Appendix F: 
Design Process Materials

Figure 9: Wayfinding Map for Directional Signage and Printed Brochure
Appendix F:  
Design Process Materials

Interpretive Sign elements

1-Infographic  6-Now & Then Sign  
2-Pedestrian Bridge  7-Now & Then Sign  
3-Motor Square Garden  8-Strayhorn Theater  
4-Joy of Life Sculpture  9-Now & The  
5-East Liberty Presbyterian Church  10-Now & Then  
                          11-Historic Timeline

Figure 10: Sign Location Plan
Appendix G:
Final Design Prototypes
Appendix G:
Final Design Prototypes

**DIRECTIONAL SIGN**

Wayfinding Map
Rolling Map feature, with detail and overall key
Destinations include retail, commercial, cultural

*Figure 1: Directional Signage Schematic Drawing*
Appendix G:  
Final Design Prototypes

Directional/Wayfinding Map  
Scale: 3”=1’-0”

Construction Specs:  
Digital prints laminated to 1/4” thk. black foam core  
Foam core attached with VHB tape and silicone  
Sign attached to building with VHB tape

Figure 2: Directional Signage Final Drawing
Appendix G: Final Design Prototypes

**PRIMARY INTERPRETIVE SIGN**
Infographic "Who We Are..."

- Graphic depictions of basic census statistics
- Communicate diversity in all aspects
- Build interest in Historic qualities
- Discuss status of changing neighborhood - point out improvements

![Primary Interpretive Sign Infographic]

**Figure 3:** Infographic Schematic Drawing
Appendix G:
Final Design Prototypes

Infographic Interpretive Plaque

Scale: 1 1/2”=1'-0”

Construction Specs:
Digital prints laminated to 1/4” thk. black foam core
Sign attached to building with VHB tape

Figure 4: Infographic Final Drawing
Appendix G:
Final Design Prototypes

PRIMARY INTERPRETIVE SIGN
Timeline

Show evolution of history
Photo and written explanation

Figure 5: Timeline Schematic Drawing
Appendix G:
Final Design Prototypes

Then & Now Interpretive Plaque
Scale: 1'-0"=1'-0"

Construction Specs:
Digital prints laminated to 1/4" thk. black foam core
Sign attached to building with VHB tape

Figure 6: Timeline Final Drawing
Appendix G: Final Design Prototypes

SECONDARY INTERPRETIVE SIGN

- Historic Marker
- Features photos and text explanation
- Sidebar info
- May be paired with directional sign
- Narrative to vary for increased feedback
- Building mounted

Figure 7: Primary Interpretive Marker Schematic Drawing
**Appendix G:**

**Final Design Prototypes**

---

**Secondary Interpretive Plaque**

Scale: 3"=1'-0"

Construction Specs:
- Digital prints laminated to 1/4" thk. black foam core
- Foam core attached with VHB tape and silicone
- Sign attached to building with VHB tape

---

**Figure 8:** Primary Interpretive Marker Final Drawing
Appendix G:
Final Design Prototypes

**Primary Interpretive Sign**
**Now & Then Comparison**

Historic Photograph with Caption
Placed in the environment nearest to the view it depicts
Caption describes photo with minimal additional info

---

**Figure 9**: Secondary Interpretive Marker Schematic Drawing
Appendix G:  
Final Design Prototypes

PENN AVENUE, 1918. Business on the north side of Penn Avenue had grown substantially by the beginning of the 20th century. Prominent is the six-story Liberty Building, which was designed by the noted architect Frederick Osterling and built in 1890. This venerable building still stands, currently housing East Liberty Development and other offices.


**Then & Now Interpretive Plaque**

Scale: 3”=1’-0”

Construction Specs:
Digital prints laminated to 1/4” thk. black foam core
Sign attached to building with VHB tape

**Figure 10**: Secondary Interpretive Marker Final Drawing
Appendix G:
Final Design Prototypes

8 1/2 x 11 Tri Fold

A B C
(front)

D E F
(back)

Overall Form

Content Outline
A - List and Short Description of Primary and Secondary Destinations
B - Overall Wayfinding Map with all destinations labeled
C - List and Short Description of Retail Destinations
D - Historic Summary of East Liberty
E - Scavenger Hunt
F - Cover

Figure 11: Content outline and schematic planning for brochure
Appendix G:
Final Design Prototypes

Figure 12: Final Brochure Design
Appendix G:
Final Design Prototypes

**Figure 13:** Advertisement Flier used to Recruit Participants for Case Study Test
Appendix H:
Prototype Test Results
Appendix H: Prototype Test Results

Before Survey
Q. Please rate your existing opinion of East Liberty:

![Before Survey Opinion Chart](chart1)

After Survey
Q. Please rate your current opinion of East Liberty:

![After Survey Opinion Chart](chart2)

Figure 1: Before and After Results Depicting Increase in Opinion of East Liberty
Appendix H: Prototype Test Results

After Survey
Q. Which part of the experience was most enjoyable?

Descriptive Signage
Scavenger Hunt
Timeline
Local Business

Number of Responses

After Survey
Q. How Likely are you to return to East Liberty for another visit?

Not Likely
Somewhat Likely
Likely
Very Likely

Number of Responses

Figure 2: Survey Results taken after completing the case study experience
Appendix H: Prototype Test Results

Figure 3: The Joy of Life Primary Interpretive Marker
Appendix H: Prototype Test Results

Figure 4: The East Liberty Presbyterian Church Interpretive Marker
Appendix H:
Prototype Test Results

Figure 5: The Historic Timeline located in Zeke’s Coffee Shop
Appendix H:
Prototype Test Results

Figure 6: Various photographs taken during the case study test
Appendix H:
Prototype Test Results

Figure 7: Various photographs taken during the case study test
Appendix H:
Prototype Test Results

Figure 8: Various photographs taken during the case study test
Appendix H: Prototype Test Results

Figure 9: Various photographs taken during the case study test
References


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http://www.thefreedomtrail.org/freedom-trail/

