48.2 Visible Language

Visible Language

48.2 Design Research Journal

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Finding Our Way Through Environmental Communication

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Before there was reading there was seeing. Visible Language has been concerned with ideas that help define the unique role and properties of visual communication. A basic premise of the journal has been that created visual form is an autonomous system of expression that must be defined and explored on its own terms. Today more than ever people navigate the world and probe life's meaning through visual language. This journal is devoted to enhancing people's experience through the advancement of research and practice of visual communication.

If you are involved in creating or understanding visual communication in any field, we invite your participation in *Visible Language*. While our scope is broad, our disciplinary application is primarily design. Because sensory experience is foundational in design, research in design is often research in the experience of visual form: how it is made, why it is beautiful, how it functions to help people form meaning. Research from many disciplines sheds light on this experience: neuroscience, cognition, perception, psychology, education, communication, informatics, computer science, library science, linguistics. We welcome articles from these disciplines and more.

Published continuously since 1967, *Visible Language* maintains its policy of having no formal editorial affiliation with any professional organization – this requires the continuing, active cooperation of key investigators and practitioners in all of the disciplines that impinge on the journal's mission as stated above.

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— EXPLORE PGH —

THE JOY OF LIFE

The Joy of Life

By Gary Rotstein
Pittsburgh Post-Gazette

Virgil D. Cantini once said he didn't believe art should be reserved for Sunday afternoon museum visits. Instead, Dr. Cantini spent the 1950s to 1980s creating some of the best-known public art in Pittsburgh. His metal sculptures are highly visible in Oakland, East Liberty, Downtown and elsewhere, whether on the outside of buildings or inside skyscrapers and churches. And yet, his work is also inside museums. One of the region's most-acclaimed artists of the middle 20th century, Dr. Cantini was also a longtime professor at the University of Pittsburgh. He taught there for 38 years and helped create the Department of Studio Arts, for which he served as chairman.

These men with their arms locked together [represent] the strong and the weak, the affluent and the poor, the educated and the underprivileged; this is one society, one community. It's made out of Cor-Ten steel that rusts to form a protective layer – it's the same material that the USX tower is made of.

Source:
http://www.post-gazette.com/stories/local/obituaries/virgil-d-cantini-acclaimed-artist-longtime-pitt-professor-340704/#ixzz2Ly79EAsa

http://pghsculpture.com/cap/virgil-cantini/

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Valley

Rebuilding Perceptions:

Using Experiential Graphic Design to Reconnect Neighborhoods to the Greater City Population

Andrew T. Schwanbeck

This project explores the value that environmental graphic design elements can create to help promote and improve the perceptions of a neighborhood within a segregated urban landscape. Urban segregation occurs when a city's diversities create perceived barriers around concentrated clusters of social groups. When these divisions are extreme enough, communities become shut off from the rest of the city and often fall into a perpetual cycle struggle and degradation. Research has shown that the success of a neighborhood relies in its ability to connect with other neighborhoods and economies throughout a city. It also demonstrates that cross-participation enhances the overall capacity of a community to operate both socially and economically. In a segregated city, there is an opportunity to use environmental graphic design elements to help improve the perceptions of a divided neighborhood and reconnect it back to the greater city population. During this research, a case-study project was developed with the neighborhood East Liberty, located in Pittsburgh, Pennsylvania. Historically a thriving neighborhood, East Liberty has been plagued by over two decades of neglect and failed renewal efforts. Despite recent development efforts, many locals still avoid this area. This case study uses a combination of research tactics and design prototypes to produce elements that attempt to improve the experience of East Liberty and create more positive perceptions surrounding this area.

When we set out to explore a new place, we encounter a range of emotions from excitement and curiosity to anxiety and apprehensiveness. The ability to experience these emotions and form our own judgments based on them allows us to create preference over one place to the next. Certainly some spaces will relate to us better than others, and this study does not intend on convincing the reader that he or she must be willing to appreciate and participate in every public space that exists. Instead, this research begins the conversation about how preconceived perceptions, especially negative ones, can give us a faulty bias when we consider how we feel toward a new place.

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 our cities were first formed. Normally, such diversity enhances the overall quality of life for those living in a city. Different social groups discover how to operate together rather than independently, leading to a more celebrated and diverse urban identity. However in other cases, such diversity can lead to a negative separation between neighborhoods. Invisible barriers are built by the perceived cultural and economic differences between different social groups. When these barriers become extreme enough, these groups lose the ability to function as part of the urban community; their economics start to plunge, and their neighborhoods begin to 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). This suggests that in order for cities to collectively progress into the future, their segregated neighborhoods must find ways to become reengaged with the rest of the city.

There are many factors to consider as potential solutions for this problem. Infrastructure improvements are likely top on the list. However, changing the way a place looks does not cure the problem entirely, nor is it a good thing to displace the existing group of residents in order to bring in a different group with different commercialization that is deemed more acceptable to the greater city population. Somewhere in the process, the perceptions of a place must be addressed. This study examines the beneficial effects that experiential graphic design can provide to such a place. The discipline of experiential graphic design defines the act of implementing signs, orientation maps, information panels, or any other visual element that helps describe or identify a physical space. Elements such as these greatly affect the accessibility and "sense of place" given to a public location. The goal of this inquiry is focused on understanding what happens because of this improved accessibility. Do the perceptions of a place change when it has been given a

comfortable structure to navigate? In his book, The Art of Placemaking, Robert Fleming describes environmental graphics as being capable "of humanizing the essential elements of a cityscape" (2007, p. 21). This concept of humanizing expresses the great potential in experiential graphic design to influence the feeling, image, and perception that a place portrays to its viewer.

This research constructs a case study that includes a framework for producing design elements which attempt to promote the cultural, historical, and economical connectivity of such a neighborhood. It explores storytelling, interpretive visuals, and placemaking tools as means to give a purposeful identity to a neighborhood. Along with physical objects, it also considers how digital design components can be connected to the experience of a place. It asks if a place becomes more comfortable and if visitors can connect it to a time when it was special and begin to form new ideas about it, will that spark a unified revitalization?

This research is based on a portion of the city of Pittsburgh. Pittsburgh currently ranks amongst the top twenty most segregated cities within the United States (United States, 2010). It possesses conditions similar to many other cities that face similar revitalization and segregation issues. The intent of the case study is to prove validation for a deeper investigation into not only Pittsburgh city neighborhoods, but also other cities facing these same important issues.

EXPERIENTIAL GRAPHIC DESIGN: DIRECTS, INTERPRETS, IDENTIFIES

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 and storefronts work to identify buildings in a larger urban framework. Public art communicates the unique characteristics of a place, and other pageantry elements pave the way for distinct neighborhood identifications. These visuals, along with many others, make up the field of Experiential Graphic Design. Experiential Graphic Design, or EGD as it is commonly referred to, concerns itself with three specific components of a place: *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* to share information about the environment that describes its context in the broader scope of society. These components work together 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).

In order to convey a "sense of home" to a place, much care must be given to understanding the specific and unique qualities it possesses. All too often a one-size-fits-all design approach is considered when planning a revitalization effort. This approach can create a blanketed feeling of anonymity. Instead of this, well planned design components have the potential to celebrate what makes a place different and communicate that back to an audience in a way that is comfortable, exciting, and engaging. In order for this to happen, extended efforts must be made throughout the design process to research and engage with the community. Ruedi Baur exclaims, "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). But designers cannot do this sitting alone in their office or simply looking at past examples of success. They must understand the place which they are designing from a deeper ethnographic point of view.

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. Instead of looking at the product of design, the focus has shifted to understanding the experiences that the product provides. Andrew Blauvelt of Design Observer writes,

→ *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.* (2007).

The notion of ethnography in design refers to a "research method based on observing people in their natural environment rather than in a formal research setting" (Blauvelt, 2007). The objective is to understand a phenomenon through the perspective of the actual community being studied. This type of research tends to be qualitative and encourages the researcher to build empathy for the community being studied. The core objective therefore is not to quantify data as market research does but more so to discover the reasons why a problem exists. For example, to understand why a neighborhood has become segregated from the rest of the city, 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, its history and its range of citizens, would be just a few of the key elements to realize. The information then gathered

from this type of investigation 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 systems of communication to solve more than just navigational problems.

PROJECT CASE STUDY: RESEARCH STRATEGY

To assume that Pittsburgh is a segregated city and that this segregation is hurting its neighborhoods and therefore the city overall, would have been a very poor way to begin this study. Beginning any design process by way of uninformed assumptions is the first step in producing irrelevant design solutions. In order to properly begin this project, some simple first hand observations needed to be made.

To begin, initial visits were made to various areas throughout Pittsburgh. Neighborhoods were selected based on the highly concentrated segments of the city that census data identified as either racially or economically divided. Six neighborhoods overall in two main clusters were observed. Because neighborhood characteristics may possibly change depending on time and day, three separate visits were made to each: one during a weekday, one at night, and one on a weekend. Simple field notes were taken to capture the details of these places. Through this process, primary areas of interest were determined based on neighborhood characteristics. Some areas were dismissed for being too residential, with little enticements to offer an outsider. Other areas were underdeveloped, lacking infrastructure that would support an increased amount of outsiders. In contrast, other neighborhood areas showed signs of potential: whether it was via street art, diverse retail, historically significant architecture, or simple neighborhood charm. Those areas of interest were highlighted, re-visited and further observed through photo documentation (*figure 1*). Photo documentation served as a way to visually record differences between these neighborhoods while also providing record of the structure of each place. Using Kevin Lynch's five elements of the city (path, node, landmark, edge, district), maps were constructed to diagram physical structure and environmental characteristics of these neighborhoods (*figure 2*, next page). This initial research was used to identify neighborhoods whose qualities validated signs of segregation.
It also helped to establish areas of interest that outside pedestrians may be drawn into.

Figure 1
Overview of the visual characteristics of interest neighborhoods in Pittsburgh

Friendship | Bloomfield | East Liberty | Garfield

Figure 2
East Liberty map featuring main paths, nodes, edges, landmarks and districts

Another early step in the research process was to distribute a survey throughout the greater Pittsburgh area. The content for this survey was developed to validate the assumption that Pittsburghers feel disconnected with certain areas of the city. An online survey making tool called Qualtrics was used to construct and circulate the survey digitally via email blasts. Survey content was developed to first learn basic demographic information from a participant, then probe deeper for information like how often they visited certain areas of the city and for what reasons. An additional question asked participants to rank in order neighborhoods that they felt most positive towards. Two different demographics were questioned with separate surveys, city residents and suburban residents. Having two distinct survey populations provided a valuable platform to compare and contrast answers from both groups and realize if living location had any influence on the populations perceptions (*figure 3*). From a total of 150 surveys sent, 43 city residents and 41 suburban residents responded. When reviewing the responses, one neighborhood emerged as having a poor reputation with more than two thirds of respondents from both groups. Interestingly, this realization showed some conflict with the early research done in this neighborhood. East Liberty appeared on the surface to be a typical segregated

neighborhood in Pittsburgh. There was evidence of a concentrated population of a single race, vacant storefronts, and signs of decay such as graffiti and damaged property. But with closer analysis, research highlighted small areas of racial diversity, evidence of history in its architecture, grandeur in its avenues and broad sidewalks, culture with a theater and small eateries, and even current revitalization efforts beautifying sections of the area. This conflict seemed to validate the issue of negative perceptions and that East Liberty was in need of an improved perception throughout the majority of area residents. Therefore East Liberty became the focus of the project case study.

Figure 3
Early survey results from both city residents and suburb residents

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 area. 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 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.

Since the early 1990's various efforts have begun to restore East Liberty. The commercial district was reopened 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. The first community plan in 1999 focused on bringing in large development anchors and creating employment opportunities for locals. Among many improvements, it succeeded in opening the first ever Home Depot to be located within a city. East Liberty Development Inc. have since moved on to an additional community plan in 2010 that highlights its ongoing effort to continue to improve the neighborhood.

There are growing concerns amount how this development will affect locals. Many East Liberty residents remain pessimistic 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.

To expand on the understanding of history and current conditions in East Liberty, the research strategy for this case study was created to include a mix of both primary and secondary research techniques (*figure 4*). Procedures were chosen based on a general understanding of the outcomes (or type of information) they typically produce. For instance, a literature review demonstrated the most potential to understand more about Pittsburgh's history, the number of issues surrounding segregation, and the precedent for what existing design projects could bring to this problem. The study also needed

more direct information about why the existing perceptions of East Liberty were very negative. Two techniques were considered to get this information. First, another survey featuring more targeted questions was developed to probe deeper into the perceptions and opinions of this neighborhood. However the problem with a survey is that it can be difficult to gain qualitative information from a survey responses. Also, it typically takes at least a month to distribute and then receive replies. The second technique discussed was to conduct a number of interviews with residents within and outside of East Liberty. Interviewing has more potential to get the level of information needed to begin to understand how and why people may feel they way they do. An interview can allow participants to build on their thoughts and also elaborate and explain much more than selecting a predetermined survey answer. In addition, self-observation and photo documentation were used for further analysis of the existing environment in East Liberty (*figure 5*, next page). Careful consideration was given to choose a variety of sources and engage participants with various tactics to ensure as much triangulation to the research as possible.

Figure 4
Research strategy, sources of information, tactics used to get information, and expected outcomes

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

Figure 5
Summary of findings made through environmental observations in East Liberty

1 Landscape
2 Current Development
3 Retail
4 Public Art
5 Urban Decay
6 Cultural


1


2


3


4


5


6

Setting up interviews requires a certain amount of trust and resources from the group being researched. For a small study such as this, it was difficult to find participants. Approaching residents at random (be it on the street or in local businesses, asking them to sign a wavier, and talk about where they live) yielded very little success. Residents of East Liberty are reluctant to speak to others. Over the years of failed revitalization efforts, insiders have become weary of people wanting to "help" their neighborhood. The best success came from working with trusted community organizations. East Liberty Development Inc. had many great stories to share about its personal development efforts within the neighborhood. It helped to solidify the local culture and pride that residents have for where they live. Area churches were also contacted and shepherded many successful connections with residents who were willing to participate in an interview. Memorable interview findings were as follows:

→ When asked, "How do you think the rest of Pittsburgh views East Liberty," the 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 thats 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."*

→ *"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."*

→ *"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 you're 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."*

The findings of the research phase were then synthesized through a few different information frameworks. Information frameworks helped to distill the large and complex amount of information into concise actionable points. Personas were created for residents both within and outside the neighborhood. They worked to summarize and build educated assumptions about the thoughts and actions of the diverse population being studied. For instance, if the persona Beth were introduced to a map, she may feel more comfortable to walk beyond the main avenue area. The 5 E's experience model, developed by Conifer Research, broke down the experience of interacting with the neighborhood into five stages: entice, enter, engage, exit, and extend. These subcategories helped to define the successes and weaknesses of the neighborhood as it is experienced by an outsider. (*figure 6*, next page). Upon analyzing trends in the information gathered, a list of ideas was created to help define the project and guide the design process. The generated criteria from the research were 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 diverse range of experiences

→ Bridge the culture of old to the culture of new

→ Specify the history of the neighborhood and help inform visitors about where they live and its significance in shaping the city of Pittsburgh

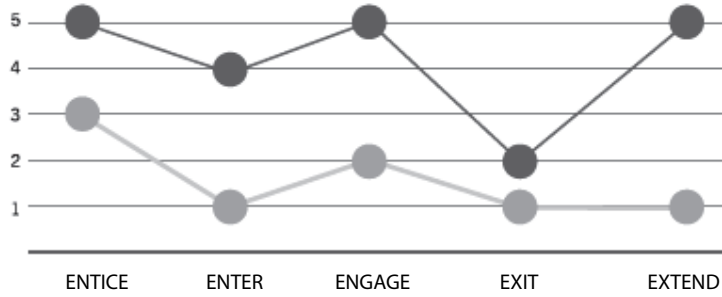


Figure 6
5E's assessment of East Liberty, highlighting largest areas of opportunity

	Existing	Potential
ENTICE	Local small businesses and restaurants as well as big box retailers: Target, Whole Foods, and Home Depot	Use existing channels of communication to increase the overall positive communication about the environment
ENTER	No visuals or sense of community pride upon entering. Sporadic murals without strong community message	Create a welcoming identity that puts forth the image of the neighborhood and encourages exploration
ENGAGE	Retail engagement is plentiful and growing to reach a broader audience. There's also a carnegie library	Create a more diverse range of experiences that can engage audiences in meaningful ways and impact their overall feelings of the neighborhood more
EXIT	No sense of exit from neighborhood	Adjacent neighborhoods can create a connected system that is visually related thus creating more of a universal feeling
EXTEND	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	Creating a more memorable and engaging experience through interpretive visuals can increase the extended experience of the neighborhood

Largest Areas of Opportunity

The prototype test for this research was developed to provide a way to measure and demonstrate success. In order to do this, an experience was created where participants with different backgrounds and viewpoints could engage with East Liberty through the aid of various design elements, and then respond whether or not those elements, had any impact on their perceptions. If successful, validation would be integral to articulating the need for further exploration of this theory. If not, questioning the research and design of the experiment could also 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, this testing was crucial to provide closure to this study.

The test for this project was framed around the idea of a self-guided neighborhood walk. A self-guided walk was speculated as the best method for this because it provided an open framework for various communication tools to be integrated into. A city walk or tour is also a common experience in an urban environment that was determined to yield the most unbiased results.

Participants were able to visit the neighborhood and feel free to experience it in any way that felt natural for them. The idea was to build a sense of familiarity with the neighborhood and allow people to be comfortable enough to want to discover more on their own (*figure 7*). Various design elements were created for the neighborhood walk. Using the 5E's experience model, entice, experience, and extend were addressed in small ways for this first exploration. Enter and exit were left out because they depend highly on having a prominent neighborhood identity to describe these steps. Due to the large amount of time and energy needed to create an identity, this stage of development was pushed out of the scope of this project.

Figure 7
Project Identity and Walking Tour Path with Destinations and Landmarks (detail).

EXPLORE PGH
EAST LIBERTY
PEOPLE - GEOGRAPHY - HISTORY

ENTICE PROTOTYPES

A website was established to help entice potential participants to come to East Liberty. Urban dwellers often communicate and become informed about events, businesses, and general information about a city through the online digital world. 63% of the people surveyed in the research phase of this study confirmed this. So using a form of digital communication became an important tool in breaking down some of the early misconceptions about the neighborhood and attracting research participants. The website also became a helpful tool to speak more about this study. The About Section pointed out information relevant to the research, 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 bits 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 and begin to break down some of the negative perceptions facing this place (*figure 8*).

Figure 8
Project Website - "You might not have known" facts about East Liberty

ENGAGE PROTOTYPES

Multiple components were created to foster a more memorable engagement with East Liberty. A basic sign family was designed to provide directional orientation and additional interpretive information about the environment. These signs helped to establish the route of the walking tour and provide a sense of accessibility that would hopefully encourage further exploration. Careful planning and consideration were given to the walking loop path. The path visited multiple historical and cultural destinations while also showcasing some of the current businesses that might appeal to a broad audience. The commercial corridor of East Liberty still has many examples of its former success, and so showcasing these signals became an important goal of this project.

The decision to feature five primary destinations with additional interpretive markers was made based on their interest and proximity to the downtown corridor. The remaining destinations were identified on the directional signage and wayfinding map. An orientation sign provided the primary way-finding for participants (*figure 9*, page 104). 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. It also utilizes a heads-up orientation and a rolling map feature to provide for an optimal user interaction. These signs were placed at decision making points and throughout the loop to provide the necessary navigation.

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. 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. The primary interpretive marker was designed to give site-specific information about five specific landmarks. Its layout features 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 to reinforce the walking route (*figure 10*, page 104). A second more pictorial sign was also 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 11*, page 105). The history of East Liberty was shared through a timeline graphic. The purpose of the timeline was to provide an overview of the incredible changes the neighborhood has gone through in its storied past (*figure 12*, page 104). The timeline was located in a local coffee shop to allow participants to engage with the information for a longer period of time. The last interpretive element designed was an infographic. This sign served as the identity for the neighborhood. Because 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 13*, page 105).

Figure 9—13
See pages 104—105

A printed brochure was made 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 to set off on their

own exploration. It also provided a brief summary of 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. The scavenger hunt gave visitors another way to discover East Liberty and to form a more unique memory of the neighborhood (*figure 14*).

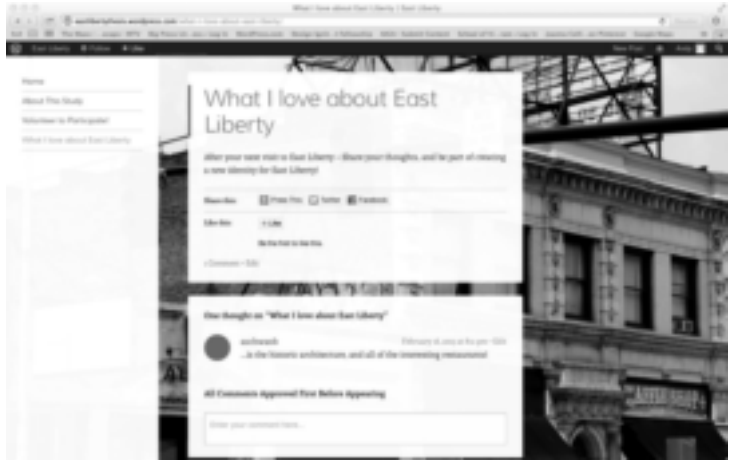
Figure 14
Scavenger Hunt, participants noticing the "man posing as a door handle."

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 the tour, users were asked to return to the project website and add a response to the "What I Love about East Liberty" page. This section was designed to encourage participants of the experiment to say something positive about East Liberty (*figure 15*). Having this element online was crucial. It allowed for an extended amount of time for the participants to reflect on their experience and share it. It also offered a great platform to share that information with people throughout the city and surrounding area. Having this online database of positivity helped entice new people to visit the neighborhood and might have helped recruit further participants for future research. A secondary benefit of this information collected is that it began to spark ideas about how people viewed the neighborhood through a positive lens. As a neighborhood with hardly any identity left, these comments showed great potential to begin the conversation about how insiders and outsiders view East Liberty and potentially fuel the creation of a new neighborhood identity.

Figure 15
Project Website
Extension of East Liberty
"What I Love"



TEST RESULTS: VALIDATION FOR FURTHER RESEARCH

When the participants returned, they were asked to fill out the second portion of their survey discussing any change in their feelings toward the neighborhood. Small conversations about the experience also provided additional insights. 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," and "That was fun! It was really interesting to learn about the history of the area. It definitely made me want to come back again." The test results provided an overall support for the statements in this study validating the argument for further exploration. Overall, 65% of the participants answered that their experience in the project 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 "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."

The research presented in this paper demonstrated support for the theory that experiential 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 65% 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 viewed as bad? 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.

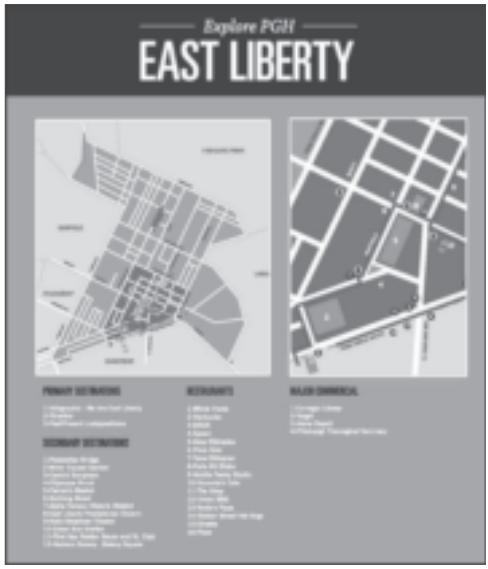
It can be said with certainty that the prototypes in this project did not achieve success alone. Much of the redevelopment in East Liberty also created a positive impact on this experience. Looking to the future, this development will also play an important role in attracting more people to the neighborhood. As East Liberty continues to reinvent 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 remains to be seen what the long-term effects of improving a neighborhood's perception will be. The design solutions presented in this study have shown the potential to break down perceived barriers to a place, thereby making the neighborhood inherently more integrated with the rest of the city. But where 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" (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.
- → Consider neighborhood identities along with the vast array of digital solutions such as apps, mapping devices, and so on that could help entice more people to think differently.
- → 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 65% improvement in the perception of East Liberty. That alone shows promise for future research. Additional tests must be developed to remove some of the previously noted bias and help to support this theory further. It is the belief of the researcher that if this study is continued to be explored, the positive change demonstrated here will be amplified and supported even more with additional research.



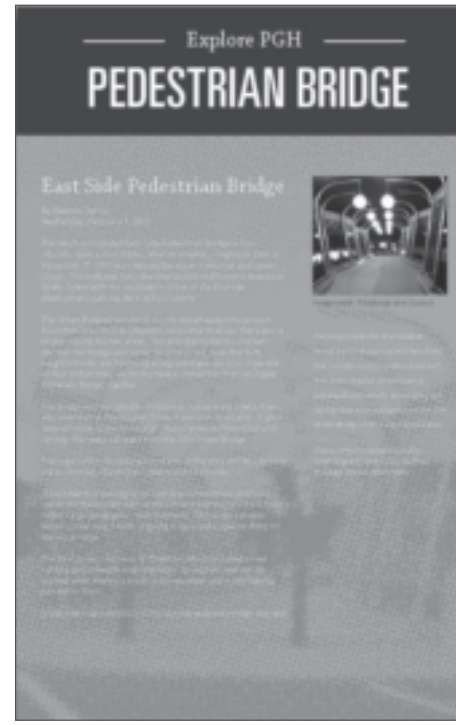


Figure 9 *top left*
Orientation map

Figure 10 *top lright*
Primary Interpretive Marker

Figure 12 *below*
Easy Liberty Timeline

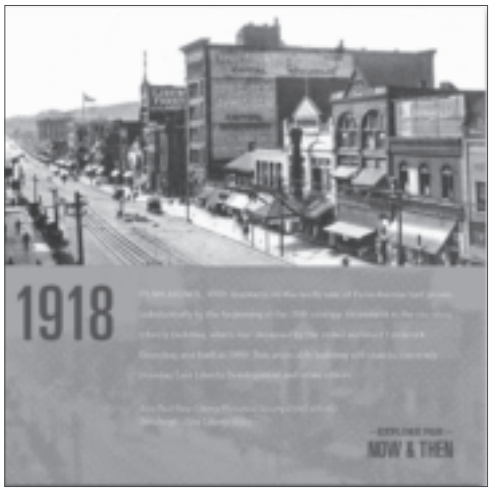


Figure 11 *top left*
Secondary Interpretive Marker (Now & Then)'

Figure 13 *top right*
Infographic/Identity for East Liberty

Figure 16 *below*
Various sign elements being viewed by research participants during the case study experiment

AUTHOR BIO

Andy Schwanbeck's wide-ranging education background has enabled him to have a diverse career in design. In his ten-year career he has worked in a variety of design disciplines. Upon earning his degree in industrial design, he began his professional experience as a product designer for a small firm in Lyon, France. His ongoing interest in graphic design led him to his career in environmental graphic design. Most recently, he earned his MFA in Visual Communication Design from Kent State University. His current work has taken on a strategic research-based approach where he explores the role of design to solve various social issues.

Andy has served as an adjunct faculty member for American University and Kent State University. Currently he teaches as an Assistant Professor of Media Art + Design at Westminster College near Pittsburgh, PA.

In addition, Andy also enjoys success as a co-owner of a small letterpress printing business, Big Press Little Press. He is a member of SEGD and AIGA. Outside of his professional practice, he also enjoys pin-striping and hand-lettering.

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Overview:
Visual theorist and design historian Johanna Drucker, in *SpecLab: Digital Aesthetics and Projects in Speculative Computing*, defines the digital humanities as "the study of ways of thinking differently about how we know what we know and how the interpretative task of the humanist is redefined in these changed conditions"[1]. Design and the digital humanities connect through critical making practices, centering on human experience and advancing the prevailing expectations of their respective disciplines.

At the convergence of conceptual and material practices[2], the ongoing development of a framework for critical making offers a means to understand complex relationships between research, scholarship and production. In design, emphasis is placed on innovative notions of what criticism or authorship can be within the context of design-making; in the digital humanities, focus is on innovative notions of what "making" can be as a form of interpretation within the context of conventional scholarly dissemination. The intersection of these two areas presents opportunities to bring form and content together in ways that are practical and theoretical, rhetorical and physical.

Critical making in design is aligned with practices that facilitate innovation and exploration related to technology, materiality and communities. In graphic design — a discipline, a medium, a practice and a tool[3] — "critical practice" has been used to describe a range of activities that position the designer as author, producer, scholar, curator or programmer[4]. These endeavors, whether individual or collaborative, may involve humanistic or scientific inquiry, and move beyond the traditional structure of client-based relationships. From a pedagogical perspective, key components of critical making include "hands-on practice, the processing of enhanced seeing and perception, and contextualized understanding"[5].

In the digital humanities, critical making distinguishes its practices from traditional forms of humanities scholarship. With an emphasis on tool building, information visualization and digital archiving, the digital humanities merge two seemingly opposing modes of scholarship: reading and making. Critical making dichotomies of thinking/making, knowing/doing and cognition/embodiment permeate current digital humanities discourse[6] and projects demonstrate a desired interest in building through existing design and development processes. *The Critical Making Zine*[7] uses physical production to publish and distribute a series of essays on technology, society and DIY culture. *Speaking in Code*, an NEH-funded symposium hosted at the Scholar's Lab in 2013, addressed questions related to "DH code-craft": tacit knowledge as it relates to the design and development of digital humanities projects[8].

Perspectives:
This special issue of Visible Language investigates critical making at the intersection of design and the digital humanities, which is a site for expanding the role(s) of divergent scholarly and creative work. We invite submissions that address one or more of the following questions:

- What are the theoretical or pragmatic ways to frame critical making in design and/or the digital humanities? Where are the similarities, differences and challenges? How are these advantageous?
- In what ways might design authors and producers connect with the digital humanities? Where or how are digital humanists' experiences of critical making intersecting with designers? How do these crossover 'ways of seeing' impact our scholarly and creative work — and future hybrid practices?
- How might forms of understanding such as speculative design, prototyping or hacking play a role in critical making, and in what ways are these influencing the scope of work in both areas?
- In what ways might design and the digital humanities collaboration be fostered in the studio or classroom? What are some examples of pedagogical approaches to teaching critical making?
- What are the forms these arguments might take as part of this special issue?

Visible Language is a journal that invites evidence-based research. For this issue, we encourage exploratory, creative works that incorporate evidence-based research through critical commentary, traditional analysis, audience responses or participant feedback.

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[2] Mark Ratto, "Critical Making" in Open Design Now: Why Design Cannot Remain Exclusive, Bas van Abel et al. (The Netherlands: BIS Publishers, 2011), 202.

Proposal due: January 15, 2015
Abstract **acceptance/rejection:** March 15, 2015
Full papers / works due: June 15, 2015
Review period: June 15 – August 1, 2015
Review feedback: August 1, 2015
Final paper submission: September 15, 2015
Anticipated publication: October 2015

Submissions:
In keeping with the theme of merging form and content, the traditional printed journal will be expanded to include a corresponding online space for interactive and digital work. We invite dialogue on what defines scholarly works in regard to non-traditional forms of writing and disciplinary crossovers. Submissions may include, but are not limited to, case studies, interactive reading experiences, audial and visual works.

Proposals should include a 300-word written abstract and a brief outline to show the structure of your argument. A corresponding visual abstract is strongly encouraged. For digital work, please include a URL or screenshots. Final articles can range from approximately 3–5,000 words.

Please send proposals through January 15, 2015 to Jessica Barness, jbarness@kent.edu

Open Peer-Review Process:
Submissions will be reviewed through an open peer-review process. An open peer-review process makes available the submission author's name to the peer-reviewer. Reviewer names and reviews will be published on the Visible Language journal website. Proposals will undergo review; a selection will be shortlisted for development into full-length papers / works and these will also be peer-reviewed prior to publication.

Interested in serving as a peer-reviewer?

Peer-reviewers will be responsible for providing feedback about abstracts and/ or final submissions between January – August 2015. If you are interested in serving as a peer-reviewer, please get in touch.

Guest Editors:
Jessica Barness is an Assistant Professor in the School of Visual Communication Design at Kent State University, where she teaches graphic and interaction design. She holds an MFA in Design from the University of Minnesota with a minor in Writing Studies, and an MA and a BA in Art from the University of Northern Iowa. Barness' research through design investigates theories in social issues, language and interactive technologies. Her work has been exhibited at venues such as Hebei Normal Museum, China and FILE Electronic Language Festival, Brazil, and published in Communication & Place and Currents in Electronic Literacy. She has also presented research at the International Committee for Design History and Design Studies Conference (2014), SEGD Academic Summit (2014), AIGA Design Educators Conference (2013) and HASTAC (2013), among others.

Amy Papaelias is an Assistant Professor in the Graphic Design program at SUNY New Paltz, teaching courses in web and interaction design, as well as 2D design and visual communication. She holds an MFA in Intermedia Design from SUNY New Paltz and a BA in Cultural Studies from McGill University. Her creative research lies at the intersection of design, culture and technology with specific interests in interactive typography and the digital humanities. She has presented her design work and pedagogy at Theorizing the Web 2014, AIGA Design Educators Conference (2007, 2013), TypeCon (2005, 2007, 2012), UCDA Education Summit (2011) among others. In 2013, she was selected to participate in One Week One Tool, an NEH-funded Institute for Advanced Topics in the Digital Humanities, hosted at the Center for History and New Media at George Mason University and co-authored a long paper on the experience that was presented at Digital Humanities 2014.

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Design for Information: An Introduction to the Histories, Theories, & Best Practices Behind Effective Information Visualizations

Isabel Meirelles

Beverly, MA: Rockport Publishers, 2013.

For a complementary perspective of this book, please refer to the review written by Aaron Marcus in the *Information Design Journal* 20(3), 296–297

The book is a thorough representation of both the field of information visualization and the research interests of the author, whose focus is on "the theoretical and experimental examination of the fundamentals underlying how information is structured, represented and communicated in different media."

Beginning by the "big picture," the book includes an amazing collection of examples, the most thorough I have seen to date in a volume. The author organizes the content according to several categories represented by the titles of the chapters: 1) Hierarchical structures: trees; 2) Relational structures: networks; 3) Temporal structures: timelines and flows; 4) Spatial structures: maps; 5) Spatio-temporal structures; and 6) Textual structures. An appendix, notes, bibliography, contributors list, and index, complete the apparatus of the book.

Design for information is an extensive taxonomy of data visualization types, and is "a must" for anybody interested in the work done in the area. Each one of the hundreds of examples is explained and discussed, forming a kind of encyclopedia on the subject. It seems that nothing escaped from the through gathering of examples that Meirelles got involved in. The discussions and explanations normally focus on what information is represented and how it is represented.

It is interesting to see as well how many different professional fields use today diagrams to organize and represent information: basic science, applied science, education, engineering, medicine, technologies, etc. The value of the book is centered on the inclusion of examples of how many different problems are today being confronted by data visualizations, how many historical efforts preceded whatsoever is done today, and how the advent of the computers have allowed the field to explode, handling large data sets as well as dynamic representations.

At the end of the examination of the 224-page volume one becomes curious as to how might these diagrams have performed with the users they were intended for in terms of ease of comprehension; what conclusions could one arrive at from an evaluation of the examples included regarding perceptual and cognitive human factors; or how could a complementary book contribute to the development of best practices. I would not expect that one volume could be so extensive as this one and also cover the field critically. One, however, has to wonder how the super-complex visualizations permitted by computer programs today would perform regarding comprehension, memorization, and use of the information presented. The discussion on perception and cognition is very brief, and it might leave some readers wondering about the assertions made: they are proposed as principles without them being discussed. This topic, as well as Gestalt theory, are not considered during the description of examples. The size of some reproductions is too small to assess their quality as data visualizations, they appear as samples of problems dealt with but not as information in themselves. To compensate for this, the book includes valuable URLs for people interested in seeing in better detail many of the diagrams shown.

While the above could be perceived as a weakness, the strength of the book is its truly amazing array of examples and the rare historical diagrams it offers. It also displays an uncommon erudition, and includes an extensive and useful bibliography. One does not know how long Meirelles took to complete the manuscript, but it feels like a life-time project. These assets, coupled by an excellent production, make it an indispensable publication for whoever can be interested in information visualization.

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