12-2012

Community by [DESIGN] by Community: Product & Process

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COMMUNITY BY [DESIGN] BY COMMUNITY
PRODUCT & PROCESS

A thesis presented to the Graduate School of Clemson University in
partial fulfillment of the requirements for the degree Master of Science in
Architecture.

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ABSTRACT

In his seminal work De Architectura (The Ten Books on Architecture), the Roman architect Vitruvius proposed a definition that became a lasting benchmark for the elements of [DESIGN]—Firmness, Commodity, and Delight. While this three-part definition provided a common lens through which to view [DESIGN], it also created a divide between the trained “specialists” who create [DESIGN] and the Community who experience and interact with it. For Vitruvius, [DESIGN] provided a physical demarcation of place and created a shared association that was collectively understood as a Community. As the idea of Community has become increasingly dissociated with place in the physical world, it has become more strongly identified as the collective experience shared by a group of people and the resulting values they hold. The relationship between the Product and Process of [DESIGN] is a critical component of the relationship between [DESIGN] and Community. Product and Process should not be considered as disparate entities but understood as mutually beneficial and influential components of both [DESIGN] and Community. When [DESIGN] and Community embrace a Process of mutualistic interaction it creates a Product that converges the intrinsic values and components of both.
ABSTRACT (Continued)

The traditional model of [DESIGN] engaging communities involves a top-down, Product centric approach identified and discussed as [Community by DESIGN]. At the other end of the spectrum, many Communities have self organized and worked from the bottom-up in a Process oriented approach categorized as [DESIGN by Community]. This thesis begins with a critical examination of each of these methodologies within the context of the Vitruvian Triad as a framework for understanding the existing divide between [DESIGN] and Community. It will then close with a critical examination of how the convergence of these concepts yields constructs that are both Product & Process based. For the purpose of this Thesis, these critical points are demonstrated by examining a fabrication project executed by the author that embodies the assertion of the thesis. By actively seeking the convergence of [DESIGN] and Community, each is able to achieve a level of actualization beyond that which is possible in isolation. This convergence is understood as [Community by DESIGN by Community].
DEDICATION

To my wife Claire
for her unwavering support
& commitment to Team Bowman
ACKNOWLEDGEMENTS

I would like to offer a heartfelt and sincere thank you to Dan Harding for agreeing to serve as my major advisor, friend, and mentor for this thesis. This has been an extraordinarily involved and life-changing process for me personally and I sincerely appreciate Dan offering me the opportunity to work with him over the past year and a half. I would like to thank my committee for their invaluable insight, perspective, and continued support in my research and manuscript development. I would also like to express my gratitude to AIA Greenville and the Architecture Month Committee for allowing me to develop an intervention for the AM12 Headquarters and for their understanding that [DESIGN] is an iterative Process.
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1. INTRODUCTION

1.1 Assertion

In his seminal work De Architectura (The Ten Books on Architecture), the Roman architect Vitruvius proposed a definition that became a lasting benchmark for the components of [DESIGN] – Firmness, Commodity, and Delight (Wotton, 1685). While this three-part definition provided a common lens through which to view [DESIGN], it also created a divide between the trained “specialists” who create [DESIGN] and the Community who experience and interact with it. For Vitruvius, [DESIGN] provided a physical demarcation of place and created a shared association that was collectively understood as a Community. As the idea of Community has become increasingly dissociated with place in the physical world, it has become more strongly identified as the collective experience shared by a group of people and the resulting values they hold. The relationship between the Product & Process of [DESIGN] is a critical component of the relationship between [DESIGN] and Community. Product & Process should not be considered as disparate entities but understood as mutually beneficial and influential components of both [DESIGN] and Community. When [DESIGN] and Community embrace a Process of mutualistic interaction it creates a Product that converges the intrinsic values and components of both.
1. INTRODUCTION

1.1 Assertion (Continued)

The traditional model of [DESIGN] engaging communities involves a top-down, Product centric approach. This typically involves licensed professionals, civic authorities, and regulatory agencies controlling the Process and working with Communities to develop Products. For the purpose of this thesis, this model is identified and discussed as [Community by DESIGN]. At the other end of the spectrum, many Communities have self organized and worked from the bottom-up in a Process oriented approach categorized as [DESIGN by Community]. [DESIGN by Community] is often a Product of frustration on the part of the Community and operates in spite of, or in opposition to, proposals developed by [DESIGN] professionals. This thesis will begin with a critical examination of each of these methodologies within the context of the Vitruvian Triad as a framework for understanding the existing divide between [DESIGN] and Community. We will then close with a critical examination of how the convergence of these concepts yields constructs that are both Product & Process based. For the purpose of this Thesis I will demonstrate these critical points by examining a fabrication of my own making that embodies my assertion.
1. INTRODUCTION

1.2 Polemic

The impetus for this research is rooted in my personal experience of the polemic that exists between [DESIGN] and Community. One does not have to look very far to find extensive writings discussing the value of [DESIGN] and the gap in appreciation that exists between the profession and the public.¹ I am very interested in this polemic and trying to understand why the public does not perceive the profession as a positive contributor and asset to communities. Whether the general public realizes it or not, [DESIGN] does play a central role in Communities. During the recent economic downturn, the slow economy and the lack of job opportunities has forced the profession to a higher level of introspection than previously seen in recent years. In an essay titled “The Divisions That Bind Us,” author Guy Horton examines the self-deprecating and self-defeating attitude held by many architects. In the article, he writes,

“If one has to go through the rigors of architecture school in order to ‘understand’ the importance of architecture, then we are faced with a significant problem.”
1. INTRODUCTION

1.2 Polemic (Continued)

This excerpt from the article discusses a critical issue relative to the “divide” that binds [DESIGN] and Communities: if [DESIGN] requires a level of indoctrination in order to comprehend or create, then it will remain inaccessible to the Community it is intending to reach. Many have argued that the profession’s adoption of technical jargon (Rybczynski 2012) and an object-centric mindset (Timberg, 2012) have increased the divide between [DESIGN] and Community. As the profession recedes and becomes more internally focused, communities continue to grow and develop. The divergent interests of [DESIGN] and Community reinforces the polemic and furthers the gap between the two.
My definition of Community is rooted in the idea of a shared, collective experience: A Community is created when people convene, in a manner that is either physical or virtual, and share the experience of an event. As the idea of Community becomes increasingly dissociated with place in the physical world, it becomes more strongly identified as the collective experience shared by a group of people and the values engendered by the experience. In our contemporary culture, “friend” is understood as both a noun and a verb and social Media platforms allow for virtual interaction at global scale in real time. For those raised in the digital age, online communities provide the social structure and interaction previously available only in the physical world. This is not to say that virtual communities have “replaced” physical communities, rather that they have become an integral part of our culture and how we interact. Conversations posted on online message boards and social media platforms offer the opportunity for interaction and connection between individuals across the globe.
1. INTRODUCTION

1.3 Community: Definition (Continued)

By detaching the idea of Community from a physical place, we see that the experience of an event is what creates the social bond understood as Community. A Community is also not bound to those who experience an event simultaneously, only to those who share the experience. The alumni of Clemson University did not all attend during the same time period, yet the shared experience creates a bond across the time and distance.
Process is more important than Product.”

- Bruce Mau

[DESIGN] is both a noun and a verb and it is understood as both Product and Process, Object and Action. In his Incomplete Manifesto for Growth, Designer Bruce Mau states that Process is more important than Product (Mau, 2011). When discussing Mau’s statement, it is important to understand the context in which it is presented. The Incomplete Manifesto for Growth was created by Mau to explain and catalog the Process by which his firm operates (See Figure 3). His emphasis on Process should not be taken as a license to simply disregard the implications or responsibilities of the Product. The Product is critical because it is the lasting artifact that is given to the Community. As much as designers may concern themselves with the Process of how they work, it is the Product of that ultimately embodies the Process of its creation.
1. INTRODUCTION

1.5 Design as Action

*There is no Architecture*

*without PROGRAM*

*without ACTION*

*without EVENT*

-Bernard Tschumi

When we understand Community as the Product of a shared experience, and [DESIGN] as the Product of a shared Process, we begin to understand the intrinsic relationship between [DESIGN] and Community. Architect Bernard Tschumi described this relationship in terms of Program, Action, and Event (Tschumi, 1976). Within this Triad, [DESIGN] and Architecture are realized through Action as the link between the need of the Program and the Event of the Community. The Action is understood not only as the Process of [DESIGN], but also as the Process of [DESIGN] engaging and facilitating the event of the Community. The interaction of [DESIGN] and Community creates opportunities that support and enhance both components. In order to understand how [DESIGN] and Community interact, we will begin with a discussion of their initial separation.
There are three essential components to \( \text{DESIGN} \):

\( \text{Firmness, Commodity,} \)

\&

\( \text{Delight.} \)

-Vitruvius

Marcus Vitruvius Pollio was a Roman architect in the 1st Century BC who wrote the earliest surviving treatise on Western Architecture (See Figure 6). In his seminal work, The 10 Books on Architecture, Vitruvius established a lasting benchmark for the components of \( \text{DESIGN} \) – Firmness, Commodity, and Delight (Wotton, 1685). While this three-part definition provided a common lens through which to view \( \text{DESIGN} \), it also created a divide between the trained “specialists” who create \( \text{DESIGN} \) and the Community who experience and interact with it.
2. [COMMUNITY BY DESIGN]: PRODUCT

2.1 Firmness (Continued)

The Vitruvian element of Firmness is understood as strength, structure and durability. There is a clear link conceptually and linguistically to the profession of Architecture. Architecture “Firms” consist of licensed, trained professionals who are charged with protecting the Health, Safety, and Welfare of the General Public in the built environment. The key distinction between the [DESIGN] professional and the Community is the specialized training and knowledge of the Designer. The [DESIGN] professional’s involvement assures compliance with regulations and a standard of care. This emphasis on Firmness breeds a mindset of codification and standardization in order to ensure that [DESIGN] is a positively contributing and beneficial component of communities. The Designer must ensure that the [DESIGN] Product provides Firmness. This desire to control the Product skews the focus of the profession. As a result, the Community is viewed either as consumers of Products or as a Product to be designed.
The American Institute of Architects is a professional membership association who’s stated goal is to “[serve] as the voice of the architecture profession and the resource for [their] members in service to society” (About the AIA, 2012). According to the National Council of Architecture Registration Boards (NCARB, 2012), there are roughly 105,000 licensed architects in the United States and more than 79,000 of them are AIA members (About the AIA, 2012). The AIA is strongly associated with the Practice of Architecture in the United States and the organization produces a wide range of resources to assist professionals. The AIA’s Handbook of Professional Practice contains a series of articles and guidelines that describe and explain virtually all aspects of The Professional Practice of Architecture (See Figure 7). Even among those who are not AIA Members the Handbook is regarded as the definitive source of information on, and is almost universally accepted as a defining standard for, the Practice of Architecture in the United States. The Handbook includes a section on “How to Design a Firm” that presents a framework of various firm “personalities” based on the Jungian archetypes (Reigle, 2008).
The framework ranges from the Innovators on one end of the spectrum to the Cost and Quality Leaders at the other. Within the six, there is one designated as the “Community Leader” firm (See Figure 8). The article suggests that by following the operating principles and adopting the defining characteristics presented, one could easily structure a firm to be a successful “Community Leader.”

<table>
<thead>
<tr>
<th><strong>THE COMMUNITY LEADERS</strong></th>
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<tr>
<td><strong>Client agenda</strong></td>
<td>Needs access and service</td>
</tr>
<tr>
<td><strong>Client value</strong></td>
<td>Mutual commitment to community</td>
</tr>
<tr>
<td><strong>Getting work</strong></td>
<td><em>Geography:</em> Community-based</td>
</tr>
<tr>
<td><strong>Known for contribution to the community</strong></td>
<td><em>Sells:</em> Access, service, connectedness</td>
</tr>
<tr>
<td><strong>Doing work</strong></td>
<td><em>Promotes:</em> Community events, PR, network</td>
</tr>
<tr>
<td><strong>Range of types, moderate complexity</strong></td>
<td><em>Fees:</em> Improved when “wired in”</td>
</tr>
<tr>
<td><strong>Organizing work</strong></td>
<td><em>Deep expertise:</em> Local relationships, issues</td>
</tr>
<tr>
<td><strong>Organized around local leaders to optimize connectivity</strong></td>
<td><em>Staff:</em> Multidisciplinary groups</td>
</tr>
<tr>
<td></td>
<td><em>Project management:</em> Combined project management/discipline</td>
</tr>
<tr>
<td></td>
<td><em>Learning:</em> Networking locally, professionally</td>
</tr>
<tr>
<td></td>
<td><em>Invests in:</em> Local visibility, niche partners, new offices</td>
</tr>
<tr>
<td></td>
<td><em>Owned by:</em> Broad group, may be employee stock ownership plan</td>
</tr>
<tr>
<td></td>
<td><em>Info systems:</em> Performance by local office</td>
</tr>
<tr>
<td></td>
<td><em>Office:</em> One or multiple, for local access</td>
</tr>
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</table>

Figure 8. Table, “The Community Leader” Firm
2. [COMMUNITY BY DESIGN]: PRODUCT

2.2.1 The Profession (Continued)

The AIA also has several initiatives and Knowledge Communities that offer resources to its members. One of the AIA’s largest initiatives is, in fact, called “Communities by Design” (AIA: Communities by Design, 2012). This initiative provides resources in the form of posters, flyers, best practices, and design guidelines for working with communities. One of its best-known publications is the AIA’s 10 Principles for Livable Communities, which offers a 10 Step approach to “Designing a Livable Community” (See Figure 9). Through these examples from the AIA, we can begin to see a pattern forming of the profession using a desired end Product to drive the Process of [DESIGN].
2. [COMMUNITY BY DESIGN]: PRODUCT

2.2.1 The Profession (Continued)

Figure 9. Poster, “The AIA’s 10 Principles for Livable Communities”
In the broader context of the [DESIGN] industry, corporations such as IDEO have recently taken a strong interest in [DESIGN] applied to Social Issues.² IDEO is a [DESIGN] and Consulting Firm perhaps best known for developing the mouse and the first laptop. In 2011, they created a non-profit corporation, IDEO dot org, to allow for focused research and development specifically targeted at complex social issues (See Figure 10). This new corporation sponsors a yearly fellowship program where fellows are chosen to research and develop Products that address issues within one of six designated categories: Water & Sanitation, Agriculture, Health, Finance, Gender, and Community (IDEO.org: About Us, 2011). IDEO has developed and published a Guidebook for Social Impact Design and a Workbook for Designers interested in pursuing Social Impact Design Projects. All of this is in addition to the Social Innovation Products developed through the Fellowship Program (See Figures 11, 12, 13). The Guidebook outlines methods for choosing clients, locating funding, and structuring a project for success. Similar to the materials produced by the AIA, IDEO’s guides focus primarily on how to structure a Process that leads to the intended Product.
2. [COMMUNITY BY DESIGN]: PRODUCT

2.2.2 The [DESIGN] Industry (Continued)

Figure 11. d.Light Lantern Prototype

Figure 12. Cover, Design for Social Impact Guide

Figure 13. Cover, Design for Social Impact Workbook
In recent months, there has been a tremendous increase in media coverage of a growing movement known as Public Interest Design (PID). Public Interest Design positions itself as the next frontier of the Sustainability movement that develops Products to improve the quality of life of all people through a focus on Social, Economic, and Environmental issues (See Figure 14). The Public Interest Design movement can be traced back through the development and evolution of the Social Economic and Environmental Design (SEED) network (See Figure 15). An architect named Bryan Bell cofounded the SEED network to promote a “triple bottom line” approach and encourage Architects to consider the Social Implications of [DESIGN]. As a corecipient of the AIA Latrobe Prize, Bell founded the Public Interest Design Institute to travel around the country and teach SEED Principles and best practices through the Public Interest Design Institute.
2. [COMMUNITY BY DESIGN]: PRODUCT

2.2.3. [DESIGN] as Service (Continued)

The Public Interest Design movement has also benefitted from a strong online and social media presence. In early 2012, Public Interest Design dot org partnered with the University of Minnesota College of Design and ArchDaily, the web’s most popular architecture blog, to create an infographic outlining the history and defining characteristics of Public Interest Design (Cary, HISTORY, 2012). Within hours of its initial posting on ArchDaily, the infographic began traveling the Internet through various blogs and social media outlets. It has since been revised and updated and was recently expanded to full installation in the gallery at the headquarters of the international software company AutoDesk in San Francisco (Jett, 2012) (See Figures 16, 17, 18, 19).
2. [COMMUNITY BY DESIGN]: PRODUCT

2.2.3. [DESIGN] as Service (Continued)

---

**HISTORICAL HIGHLIGHTS OF PUBLIC INTEREST DESIGN**

**HISTORICAL HIGHLIGHTS OF PUBLIC INTEREST DESIGN**

**KEY**

- Organization / Study / Project
- Educational Program
- Foundation / Grant / Fellowship
- Award
- Conference / Summit

**1964**

- The Architects’ Roundtable Committee of Marmon, from which the first permanent design center, is co-founded by C. Richard Hartshorne.

**1977**

- The Association for Community Design is founded, initially to fight for the social and economic concerns of community design centers.

**1981**

- Architects / Designers / Planners for Social Responsibility (ASPR) is founded, initially to fight for social and economic concerns of community design centers.

**1983**

- The Richard M. Helmsley Foundation is established, seeking to become a leader in social and economic concerns of community design centers.

**1991**

- The Community Design Collaborative is established by a group of young architects, focusing on the intersection of design with non-profit organizations and public service.

**1994**

- The Stanford 6-school, officially known as the Nancy D. 6-Masters Program, is founded by David Kelley.

**2004**

- Public Architecture launches the 6-school program, allowing architects to design a minimum of one percent of their billable hours to pro bono service.

**2005**

- Public Architecture launches the 6-school program, allowing architects to design a minimum of one percent of their billable hours to pro bono service.

**2006**

- The Gulf Coast Community Design Center (GCCDC) is founded as a part of the University of Mississippi 6-Masters Program.

**2008**

- Design for America (DFA) is founded at the University of Illinois at Urbana-Champaign.

**2009**

- Section 1 of the High Line opens in the public.

**2010**

- IDEO.org is launched to bring human-centered design to the people who need it most—those facing poverty, violence, or discrimination.

**2011**

- The Brescia Hospital, by IAIID Design Group, is completed, opening its doors in Romania.

---

**Figure 16. Detail, Public Interest Design Infographic**
2. [COMMUNITY BY DESIGN]: PRODUCT

2.2.3. [DESIGN] as Service (Continued)

Figure 17. Alternate Public Interest Design Infographic
Everybody deserves good design. And yet, in many places, design remains a luxury of a few, rather than accessible to all. That reality is slowly, but surely, shifting. Public interest design is transforming our world through Products, Places, and Processes designed or redesigned for maximum social impact. This special Autodesk Gallery exhibition is an invitation to get involved in this new movement where what is possible is nothing less than a better world.
2. [COMMUNITY BY DESIGN]: PRODUCT

2.2.3. [DESIGN] as Service (Continued)
2. [COMMUNITY BY DESIGN]: PRODUCT

2.2.3. [DESIGN] as Service (Continued)

Featured prominently at the beginning of the infographic were a series of icons representing Public Interest Design, including the d.light Solar Lantern by IDEO and the Butaro Hospital in Rwanda, by MASS Design Group (See Figure 20). In January of 2012, GOOD magazine published a feature article on its blog about how this Rwandan hospital had become the “symbol” of Public Interest Design (Cary, Rwandan Hospital, 2012) (See Figure 21).

Figure 20. Detail, Public Interest Design Infographic
2. [COMMUNITY BY DESIGN]: PRODUCT

2.2.3. [DESIGN] as Service (Continued)

The article goes on to describe the importance and innovation of the completed Product as a “symbol” of the movement. The emphasis on the aesthetic aspects of the [DESIGN] presents itself as a kind of style that can be achieved through form or materials alone. In this context, Public Interest Design looses its connection and relevance to Communities by shifting the focus of the discussion to the completed object, rather than it’s impact on the local Community.
2. [COMMUNITY BY DESIGN]: PRODUCT

2.2.3. [DESIGN] as Service (Continued)

Each of these case studies illustrates the Product centric focus of the Profession and the Industry. While each of these organizations and initiatives are all intended to benefit and even protect the Community, the issues they are addressing are discussed indirectly or abstractly, in a very objective manner. The Process has been truncated and is presented as a standardized methodology designed to produce a very specific, pre-determined Product. For a Designer, the standardization and objectivity offer a more direct path to ensuring Firmness and creating a Product that performs as intended. For a Community, this detachment is often perceived as a lack of empathy or understanding of their needs. When Communities feel that they have no voice, they will often organize and develop a response internally. When the profession fails to meet the needs of Communities, Communities will take control of the [DESIGN] Process and do it themselves.
3. [DESIGN BY COMMUNITY]: PROCESS

3.1 Commodity

The second component of the Vitruvian Triad is Commodity. Commodity is the concept of value and usefulness, especially in relation to need and deprivation. Communities can suffer from a variety of issues or challenges that create need and opportunities for [DESIGN] interventions. [DESIGN by Community] is defined by a mindset of collective effort to address these needs internally. Because Community is created through values engendered by shared experience, the Process by which that experience occurs overshadows the Product it creates.

Figure 4. Cover, “On Architecture”
[DESIGN by Community] utilizes the concept of Asset Based Design and Development as a guiding principle and strategy. Asset Based Design is a concept within the social sector that was developed by John McKnight and Jody Kretzmann of the School of Education and Social Policy at Northwestern University. Northwestern is home to the Asset Based Community Development Institute (See Figure 22), where McKnight and Kretzman continue their work and research with communities around the country (Kretzman and McKnight, 1996). Asset Based Design is distinguished from other approaches, such as a Community Needs assessment, by its emphasis on the existing positive attributes of Community rather than the missing elements or problems within the Community. The Process of Asset Based Design involves Community members collectively identifying assets and leveraging those assets to create change. The assets may take the form of economic or natural resources, historic buildings, or even individuals who are leaders within the Community. This collective effort builds Social Capital, in the form of Relationships, which strengthens and grows the Community.
3. [DESIGN BY COMMUNITY]: PROCESS

3.2.1. Asset Building (Continued)

Social Capital exists in the form of Bonding Capital or Bridging Capital (Green and Haines, 2012, p.143-157). Bonding Capital describes in-group bonding between Community members. Typically this is the first step in the Community organizing Process, as the group must coalesce to effectively move forward. Bridging Capital represents connections to resources outside the Community. Bridging Capital is a critical component of Asset Based Design because it represents access to specialized skills, training, and resources that do not exist within the Community. By developing relationships both internally and externally, communities are able to overcome inertia and begin a Process of change.
3. [DESIGN BY COMMUNITY]: PROCESS

3.2.2. Collective Action

[DESIGN by Community] is rooted in the idea of Community empowerment and Community based action. It is important for Designers to remember that the absence of trained professionals does not necessarily equal the absence of creativity or skill. It certainly does not equal the absence of initiative. The DIY ethic of American culture has spread to the realm of [DESIGN] and Community Development. There is a growing trend of experimental Community events that are collectively categorized as Tactical Urbanism. A research group known as the Street Plans Collaborative first proposed and defined the term in a compendium of projects titled Tactical Urbanism: Short Term Action | Long Term Change (Lydon et al, 2011). This collection featured a series of projects from around the country that illustrated the potential of communities using [DESIGN] in a “Tactical” Process to address local issues. The publication is available online for free and a sequel was recently published (See Figure 23).
The success of the initial publication offered the Street Plans Collaborative the opportunity to expand their reach to a national audience. Rather than publishing a set of guidelines or hosting instructional seminars, they host what they call Tactical Urbanism Salons in various cities around the country (See Figure 24). At these salons they convene like-minded local citizens who are interested in creating change locally, in their Community. They then collectively identify an opportunity and complete a short-term intervention to address the issue. There is no standardization and no expectation beyond action and participation. The emphasis on collective effort and empowerment of the Community naturally focuses on the Process of interaction and collaboration (See Figure 25).
Tactical Urbanism

The Tactical Urbanism survey includes several strategies employed by individuals, local community groups, and municipalities. However, it's by no means exhaustive. The Tactical Urbanism Project is only going to get better through reader contributions. If you or someone you know has an addition to make, please email info@streetplans.org with a write-up that includes all the pertinent information included in each description, as well as any/all images, citations, and credits.

CONCLUSION

Short-term livability improvements demonstrate that improving the built environment is possible, and sometimes, only requires proactive policies and a little gumption. When executed well, such efforts help generate demand for even more substantial livability improvements.

In the case of mobile vending or food carts, the municipality only needs to allow such activity to take place. In others, like the Better Block project, the identification and activation of local social capital is the only “investment” needed. But whether top-down, bottom-up, or both, tactical urbanism is just another way we urbanists can help make a more pleasant, varied, and dynamic human habitat.

3. [DESIGN BY COMMUNITY]: PROCESS

3.2.2. Collective Action (Continued)

Figure 25, Guerilla Crosswalk Painting
3. [DESIGN BY COMMUNITY]: PROCESS

3.2.3. Collective Visioning

Because it is focused on Process, Tactical Urbanism will manifest in a variety of forms. In post Katrina New Orleans, artist Candy Chang developed a project know as “I Wish This Was.” The project involves a series of stickers, roughly the size of a standard name tag, that are arranged in large groupings on abandoned storefronts throughout the city (Chang, 2005). Instead of “My Name Is,” these stickers contain the text “I Wish This Was” with a large blank space. The Community is then invited to write in what they would like to see in place of the abandoned building (See Figure 26, 27). The concept of the project is to allow the Community members to collaborate in shaping a vision for future redevelopment of the city. As people begin to fill in the stickers, new ideas are generated based on other suggestions. Those is favor of a particular suggestion often leave additional notes on the stickers.

Figure 26, Collage, “I Wish This Was”
3. [DESIGN BY COMMUNITY]: PROCESS

3.2.3. Collective Visioning (Continued)

Figure 27, “I Wish This Was” Responses
3. [DESIGN BY COMMUNITY]: PROCESS

3.2.3. Collective Visioning (Continued)

This project was a reaction against the numerous architects and planners who descended on New Orleans after Katrina and presented countless Master Plans to the Community for feedback, but rarely for input (Hustwit, 2011. As a counterpoint, the stickers allowed everyone in the Community the opportunity to provide input in a very direct and engaged way as part of the everyday life of the Community. As the stickers appeared around town, it became a sign of collective investment in and hope for the future. The project was featured in the documentary *Urbanized* and a series of high profile exhibits in local art galleries. The project’s momentum garnered an Urban Innovation Fellowship from Tulane University and funding from the Rockefeller Foundation that allowed the Process to evolve into an online platform known as Neighborland (Chang, 2005).
Neighborland is an online platform that serves as a tool for individuals across the country to generate discussion about designing the future of their Community. Neighborland works in a similar manner to the original stickers (See Figure 28). Community members log on to the website and post suggestions and ideas of change they would like to see in their Community. All ideas are given equal opportunity to be heard and discussed; other members can offer suggestions, support, or alternatives to the ideas posted online. All of the interaction is coordinated by location to build social connections within communities between like-minded individuals. Once these connections are made, the individuals can then begin acting on the idea.
3. [DESIGN BY COMMUNITY]: PROCESS

3.2.4. Occupying Public Space

[DESIGN by Community] may also assume a more proactive and experimental mindset through Tactical Urbanism projects. In San Francisco, a series of artists and activists known as Rebar have developed a Process for short term change and occupation of Community space. The project, known as PARK(ing) Day, was designed to generate discussion about the lack of green space in the city. The idea of the project began to take shape when the members of Rebar realized that 70% of the outdoor space in downtown San Francisco is dedicated to automobiles (Rebar, 2005). The argument against open green space was that it was a bad investment –the land was too valuable as commercial property. After considering this argument, Rebar realized that, ironically, for roughly $1.50 you could rent almost 200 square feet of this valuable real estate for 2 hours at a time. The concept behind PARK(ing) Day is to stage an intervention within the boundaries of an individual parking spot and create a mini-park where people can gather, relax, and socialize.
The first PARK(ing) Day was held on November 16, 2007. It was a very small-scale intervention that was conceived as an ephemeral event in a fairly inconspicuous corner of San Francisco (See Figure 29). In fact, when Rebar first described the project, they called it a small-scale experiment in absurdity. After 2 hours, when the meter was up, they packed everything up, swept the site, and left. The next day, Rebar published a photo and a description of the project on their blog and other social media outlets.

Figure 29, First PARK(ing) Day in San Francisco
Within hours, the image and story went viral (Rebar 2005). The concept of temporarily radically repurposing public space in the Community connected with people in a very powerful way. Rebar began to receive numerous requests to stage similar events all around the country. They decided instead to empower others to find ways to stage events in their Community. Rebar developed a Manifesto (See Figure 30) and an online platform to serve as a guide promoting the concept and helping local communities organize their own event. PARK(ing) Day is now an annual event with interventions staged all across the globe. The website serves as a clearinghouse for ideas and a connection point for individuals interested in developing a local event (See Figure 31).
3. [DESIGN BY COMMUNITY]: PROCESS

3.2.4. Occupying Public Space (Continued)

Figure 31, Homepage, PARK(ing)Day.org
Both “Parking Day” and “I wish this was” illustrate the importance of Process to Community organizing for [DESIGN by Community]. When a Community achieves a high level of organization and a significant reserve of social capital, they are able to leverage these assets for significant control over development within the Community. This level of organization and empowerment is most clearly illustrated in a case study from Boston, Massachusetts. The Dudley Street Neighborhood Initiative (DSNI) is a Community based non-profit in the Dudley/ Roxbury neighborhood of Boston that is widely regarded as a model for Community organizing to effect change (Green and Haines, 2012, p.10-11) (See Figure 32). The DSNI was formed to internally address issues within the Community that civic authorities were unable or unwilling to address. The Dudley/ Roxbury Neighborhood is an extremely poor immigrant Community located near Boston’s city center. In the early 1980’s, the neighborhood was suffering from high crime, drug activity, illegal waste dumping operations, and extensive arson.
City officials were unable to effectively address these issues, so a coalition of stakeholders began going door to door passing out flyers and organizing meetings (See Figure 33). These meetings were key to strengthening the internal bonds of the Community and establishing a collective for change. The emphasis of the DSNI is always on inclusion. In an effort to ensure that no one is excluded from participation, the DSNI holds all of its meetings in four languages simultaneously. Eventually, their collective voice became strong enough that they were able to push back against the city and gain influence over and control of development within the neighborhood. Today they have a 34 seat Board of Directors that includes representatives from the four major ethnic groups in the Community, local churches, non-profits, and the youth in the Community.
The DSNI has developed a Process of Community engagement that is so effective the city of Boston granted them the power of eminent domain within the neighborhood (Dudley Street Neighborhood Initiative, 2012.). This allows them to control land use and ensure housing affordability for residents. This level of control and influence is important because Dudley/ Roxbury Neighborhood remains one of the poorest neighborhoods in Boston and it is under constant development pressure from outside interests. The strength of their collective voice and their Process allows them to have a significant amount of influence on development and ensure that it aligns with the interests of the Community. There are still schools, housing, Community gardens, and even a Salvation Army Kroc Center that are being developed in the neighborhood, but it is all directed and controlled by the Community through the DSNI.
3. [DESIGN BY COMMUNITY]: PROCESS

3.2.5. Empowering Communities (Continued)

In each of these examples we’ve seen how [DESIGN by Community] seeks a collective Process of engagement to build a stronger Community. In each case the Community is focused on the Process, but that’s not to say that they do not care about the Product. The desire for control of the Process stems from a deeper desire for control and influence over the Product. The Community is willing to accept a temporary solution as part of the Process of developing a more effective and “personalized” Product.
4. CONVERGENCE OF [PRODUCT & PROCESS]

4.1 Delight

The final component of the Vitruvian Triad is Delight. Delight is understood as surprise, happiness, joy, and beauty. It is joy that is created, sustained, and embodied in [DESIGN]. Each of the elements, Firmness, Commodity and Delight—are components that are part of a Triad. Within this framework, Delight exists only in combination with Firmness and Commodity. While they may be present individually, within the Vitruvian definition all three must be present in order to fully realize [DESIGN]. By extension, [DESIGN] and Community must also be considered to exist in combination and partnership rather than isolation. Returning to Tschumi’s definition of Architecture as the combination of Program, Action, and Event, we also see the combination of [DESIGN] and Community and Product and Process. The Action of the Designer will not occur without the Community’s need of the Program. The Event will not occur out the Action of the Designer. The reciprocal relationship between [DESIGN] and Community does not yield a linear Process of Product development. Instead, the Process is one of cyclical and iterative interaction where [DESIGN] influences Community and Community influences [DESIGN].
Within this framework, [DESIGN] and Community are understood as mutually interacting elements. Mutualism is a biological concept that describes how two organisms of different species interact in a relationship where each derives a benefit (Mutualism, 2012). It is a form of symbiosis and is contrasted with Parasitism, where two species interact and one receives a benefit to the detriment of the other. Pollination is a classic example of mutualism in action (See Figure 34). Pollinators, such as bees, are attracted to flowers that produce nectar. In exchange for the nectar, the bees transfer pollen grains to other flowers to aid the plants in reproduction. This interaction occurs naturally and does not require any additional effort on the part of either organism. What is fascinating is that over time, each interacting organism will evolve to strengthen the relationship, increase the interaction, and increase the mutual benefit. They will intentionally become more compatible and more receptive to their counterpart as their separate identities begin to converge.

Figure 34, Pollination
We began with a discussion of the AIA, whose consistent mantra is that “Design Matters.” In the “10 Principles for Livable Communities” produced by the AIA’s Communities by Design, “Design Matters” is principle number 10 (See Figure 35). It goes on to state that, “Design excellence is the foundation of successful healthy communities” (Lee, 2008). There is clearly an indelible motivation on the part of Designers to design Products and to design for Communities. However, there is also a desire within the Community to have ownership and control of the Process and influence over the Products.

Figure 35, Detail, “The AIA’s 10 Principles for Livable Communities”
The documentary Objectified provides an in-depth look at “our complex relationship with manufactured objects and, by extension, the people who design them” (Hustwit, 2009) (See Figure 36). The film includes an interview with Dieter Rams, whose nearly 40 year career at Braun yielded some of the most popular and successful Products of all time. In this interview, Rams states that the most successful [DESIGN] company operating in the world today is Apple. This statement sets up a series of discussions on Apple’s success and an interview with Jonathan Ive, Director of Industrial Design and recently named Director of Human Interface Design at Apple. In the interview, Ive states that Apple’s biggest challenge is “getting [DESIGN] out of the way to make Products better.” According Ive, within Apple’s framework and approach, the [DESIGN] “defaults to the user.” This statement is not to say that [DESIGN] doesn’t matter or that users dictate [DESIGN]. Instead it should be understood that [DESIGN] enables users to interact and facilitates the experience of interaction and Community.
4. CONVERGENCE OF [PRODUCT & PROCESS]

4.3. Innate Desires of [DESIGN] & Community (Continued)

The documentary Urbanized features an in-depth look at the issues and strategies employed in the design of cities (Hustwit, 2011) (See Figure 37). The film features an interview with Amanda Burden, who is Director of the New York City Department of Planning and also serves as Chair of the City Planning Commission. In the interview she discusses how people occupy public space and specifically discusses the critical importance of movable seating. The New York City Department of Planning has found that people like to be able to control where they sit, whether inside or out. If given the ability, people will angle or shift a chair ever so slightly to “make it their own.” Despite the Designer’s intent and idea of how someone will sit in or on a seat, people will still shift and move to make the seat conform to their own needs. Given this tendency and innate desire, there is a significant opportunity to examine the convergence of [Community by DESIGN] and [DESIGN by Community] as embodied in the physical construct of a bench developed for the venue of a Community event.
5. MANIFESTATION

5.1.1. Collaboration of Product & Process

The Mutualistic Interaction of [DESIGN] and Community is expressed through the collaboration of Product and Process. Just as individuals cannot define Community, the physical construct of the bench cannot be understood without examining all of the elements in combination. (See Figure 38) There are no permanent connections between the components, so each must be present and fully engaged to complete the assembly.
In order to achieve Firmness and completion of the structure, the user must directly interact with its elements. This requirement addresses the innate desire of communities to customize and influence [DESIGN]. The assembled bench construct is moveable, but not by an individual; it requires the collaborative effort of two people. (See Figure 39) This collaboration allows the user to experience a direct connection to the structural elements defining the [DESIGN]. When a user moves the bench, the legs disengage in a dynamic manner. (See Figure 40)

Both users must jointly, manually reset the legs for the bench to function in its new setting. Through this interaction, the Community has a direct connection to the Action of [DESIGN] and a greater appreciation and understanding of how [DESIGN] helps the Community meet its needs while serving its own.
5. MANIFESTATION

5.1.2. Ensuring Firmness

It is critical that this interactive Process meets the needs of [DESIGN] and the Profession in addition to those of the Community. The [DESIGN] should not be considered inherently successful simply because it was properly executed or completed; it must successfully engage the Community and address the Community’s needs. When [DESIGN] fails to meet its own needs and fails to provide Firmness, it cannot address Commodity. The initial prototype of the bench support was adequate for its initial use and context, but eventually failed (See Figure 41). In fact a series of the benches failed quite spectacularly during a Community event that they were intended to facilitate. (See Figure 42).

Figure 41, Failed Support
5. MANIFESTATION

5.1.2. Ensuring Firmness (Continued)

Figure 42, Bench Failure During Community Event
When [DESIGN] fails to adequately provide for Community, the need does not disappear. If anything it becomes more pronounced and [DESIGN] loses credibility for its effectiveness to provide for the needs of the Community. (See Figure 43)

Figure 43, Community Event After Support Failure
5. MANIFESTATION

5.1.3. [DESIGN] Evolution

In a Process of Mutualistic Interaction, The [DESIGN] Product must evolve relative to input from the Community Process. The failure of the support leg illustrated that the conceptual underpinning of the bench was stronger than its physical manifestation. The idea of collaboration and interaction relative to the Community event was still valid, but the [DESIGN] of the support needed to evolve in relation to the reality of how it was being used by the Community. To address the structural issues, the existing support legs were augmented with an additional brace of the same material to create a tripod and thus, a more stable support. (See Figure 44) This Process of [DESIGN] evolution reinforced the physical and conceptual construct of the supports.

Figure 44, DESIGN: Process, Support Augmentation
The second prototype of the support leg did not abandon the original concept or materials used. As the [DESIGN] evolved, consideration was given to the structural and conceptual implications of the augmentation of the support leg. The brace that was added does not actually extend to the ground, but hovers slightly above (See Figure 45). When one person engages the bench, the legs will flex and the bench will lower slightly (See Figure 46).
5. MANIFESTATION

5.1.3. [DESIGN] Evolution (Continued)

Only with the addition of another person will the legs flex enough for the supports to engage the earth beneath it and become fully stabilized (See Figure 47). Only through collaboration and interaction does the [DESIGN] realize its full potential. For [DESIGN] to reach this level of actualization, it must continually engage Community and evolve relative to the Community’s needs. Even without a formalized feedback loop or structured information gathering Process, [DESIGN] can learn from Community and evolve to produce a more effective Product.

Figure 47, DESIGN: Product, Final Prototype + Two Users
5. MANIFESTATION

5.1.3. [DESIGN] Evolution (Continued)

A critical component of [DESIGN] evolution is ensuring that craft and fabrication are adequate to support the need for Firmness. Despite the success of the augmented bench support, the continued strain of use caused some of the augmented supports to fail. (See Figure 48) The secondary failure was a result of inadequate welds between the existing support and the brace. On a conceptual level, this failure illustrates the critical importance of a successful integration and execution of [DESIGN]. In order to continually meet the needs of the Community, Design requires execution at a high level of precision and sophistication.

Figure 48, DESIGn: Product, Failed Augmented Support
The ability of [DESIGN] to evolve relative to Community input is critical because the manifestation of [DESIGN] as Product is an Action that seeks to intentionally effect change in Communities. Throughout this Process of Action, it essential that the memory and experience of the Community that precipitates the change is not lost or over looked. When the braces were added to the existing supports, they were refinished and raised to a higher level of workmanship. The supports were repainted white, but the ends of the braces were marked with bright red paint (See Figure 49).
5. MANIFESTATION

5.1.4. [DESIGN] as Record (Continued)

When the Community members who witnessed the initial failure of the legs saw the augmented version, there was an immediate association and understanding of the color scheme and its relationship with the history of the [DESIGN]. However, for the uninformed the red marking serves as a kind of warning signal, highlighting the brace’s structural peculiarity. Even without a lengthy explanation of the story of the [DESIGN]’s development, the user can infer a base level of information from the Process of engaging the Product. This illustrates that [DESIGN] is capable of a direct transfer of knowledge, but also embraces the oral tradition of interpersonal communication to relay Community history. The story that is told does not necessarily make the [DESIGN] better, but it creates an association and relationship that does make the Community stronger.
5. MANIFESTATION

5.1.4. [DESIGN] as Record (Continued)

Whether it occurs directly or indirectly, the transfer of knowledge and history is vital in order for Communities to embrace [DESIGN] as a contributing component of the Process of change. As users reposition and engage the structure of the bench, the steel of the support creates a permanent mark in the soft redwood of the bench slab (See Figure 50). Over time this Process of use will continually alter the surface of the bench. While this could potentially be viewed as a negative impact on the aesthetic and finish of the piece, for the Community these markings serve as a timeline of use and a confirmation that this Product has been used before and can support the user. Despite the minimal nature of the bench support legs, the indentations in the wood show that they are capable of withstanding the load. For the Community, [DESIGN] becomes a mechanism for recording not only its own development, but also the history of the Community event.

Figure 50, DESIGN: Product, Wood Slab Patina
5. MANIFESTATION

5.1.5. Revealing Community Assets

Over time, as [DESIGN] develops the patina of age and use, the memory of significant Community events may become obscured and lost in the layers. As discussed earlier, the concept of Asset Based Design is defined by embracing existing assets and playing to the strengths of a Community. The Mutualistic Interaction of [DESIGN] and Community allows [DESIGN] to reveal assets within a Community that may have been obscured or forgotten over time. The wood of the bench slabs was salvaged from the demolition and renovation of Lee Hall, the historic building housing the School of Architecture on Clemson University’s campus. (See Figure 51) After 30 years on the south elevation of the building, the wood was not considered to be of any value and was slated for disposal. The wood was salvaged by individuals who saw an opportunity to reuse and repurpose the material in some fashion at a future date.

Figure 51, Lee Hall Rails, Prior to Renovation
Despite the Community’s initial perception of these materials as waste, they became the defining components of the [DESIGN]. Once the effort was invested in fabrication and refinishing, the aesthetic and cultural value of the materials increased significantly (See Figure 52). The wood became a tremendous asset through the Community’s collective memory of its previous existence. As the Community interacted with the bench, the wood became a point of mutual reference and discussion; alumni from multiple generations began to discuss their experience of studying architecture and their memories of Clemson and Lee Hall.

Figure 52, DESIGN: Process, Milling of Wood Slabs
The benches now reside in the new addition of Lee Hall, directly adjacent to their former exterior location (See Figure 53). In this context, the wood becomes a link between communities across generations. By repurposing and reimagining what was once considered “waste,” [DESIGN] is able to celebrate the history and culture of the Community. The emotional connection of Community to [DESIGN] becomes stronger as they continually coevolve and converge (See Figure 54).

Figure 53, DESIGN: Product, Benches in Current Context
5. MANIFESTATION

5.1.5. Revealing Community Assets (Continued)
The coevolution of [DESIGN] and Community addresses what is perhaps the most complex component of their relationship and interaction: the dual concepts of authorship and ownership of [DESIGN]. The lasting identity of [DESIGN] is often not what is assigned by the Designer, but what is given by the Community. The name given to the physical construct discussed in this thesis is the Joggling Bench. Typically, Products are named by the Designer in a manner that somehow conveys an essential characteristic or aspiration of the [DESIGN]. The Joggling Bench, however, was named by the Community through an interactive Process of use and association. The flexible and bouncy nature of the supports created an experience for the users that triggered an almost immediate association with the Joggling Boards that are found on the Piazzas of the Low Country of South Carolina (See Figure 55, 56).
During the [DESIGN]'s development, Joggling Boards were never intentionally studied as a precedent for the [DESIGN]. However, once the association was made, it informed how the Community interpreted and interacted with the bench. The expectations and requirements of the Community shifted when it became a Joggling Board and not just a Bench at a Community event. The bounce and flex of the support legs was not perceived as a flaw but a defining component of the [DESIGN]. Even the aesthetic of the supports and the wood slabs seemed inevitable because of the historical and cultural association by the Community. Had this project been executed elsewhere in the country, it is highly possible that the final Product would have evolved quite differently. In an urban setting such as Manhattan, perhaps the Community would have had a stronger association with Police Barricades (See Figure 56, 57).

Figure 56, Joggling Bench

Figure 57, Police Barricade
6. CONCLUSION

6.1. [Community By DESIGN By Community]

The naming of the construct by the Community marked another key milestone in the development of the [DESIGN]: it marked the transition of [DESIGN] ownership to the Community. The mutualistic interaction of [DESIGN] and Community requires a level of convergence and coevolution to achieve a mutual benefit. Coevolution does not require Designers to surrender authorship or control of [DESIGN], but the Process does require a physical and conceptual transfer of ownership from the Designer to the Community. The adoption of the final Product by the Community represents the [DESIGN] Product's integration into the Community and the opportunity for the next phase of the [DESIGN]'s evolution.
6. CONCLUSION

6.1. [Community By DESIGN By Community] (Continued)

I began with the assertion that the relationship between the Product and Process of [DESIGN] is a critical component of the relationship between [DESIGN] and Community. Product and Process should not be considered as disparate entities but understood as mutually beneficial, and influential components of this relationship. When Product and Process have a mutually influential relationship, the established boundaries between [DESIGN] and Community begin to blur. When [DESIGN] embraces a Process of mutualistic interaction, the Product becomes a reflection of the shared values and experience of the Community. Because of these intrinsic associations and values, the Product becomes a mechanism for [DESIGN] to influence the Process of Community Action. Through this mutualistic interaction and influence, [DESIGN] and Community are placed on a path of convergence. The convergence of these seemingly conflicting ideologies yields constructs that are both Product and Process based. These constructs allow [DESIGN] to achieve a level of actualization that cannot be reached independent of Community.
6. CONCLUSION

6.1. [Community By DESIGN By Community] (Continued)

As the relationship and interaction between [DESIGN] and Community become stronger, they will continue on a path of convergence for mutual benefit. Shifting the focus to [DESIGN] over Community or Process over Product eliminates the possibility for each to respond and interact with the other. This mindset precludes the possibility of [DESIGN] successfully engaging Community by separating the two into opposing elements and furthering the divisions between them. In order for [DESIGN] to become an asset for Community, it must do more than bridge the divide that currently exists; it must actively seek to close it. Through a Process of Mutual Interaction, we can actively seek [Community by DESIGN by Community].
6. CONCLUSION

6.1. [Community By DESIGN By Community]

Figure 58, DESIGN: Product in Process
APPENDICES
APPENDIX A

MS Arch Curriculum Development

The work presented in this thesis is the culmination of a year and a half long Process. I entered into this Process having already completed a Master of Architecture degree. I had spent a little over seven years working in various offices and I was nearly complete with the licensing exams. The Master of Science in Architecture represented an opportunity for focused research in an area of my choosing, with virtually no course requirements. There were courses associated with the Thesis development and research, but otherwise I was given the opportunity to craft my own curriculum. Working with Dan Harding as my major advisor, we crafted a curriculum and a course of study that would provide an opportunity for a broad survey of what Clemson had to offer. The intent was to focus on Social, Economic, and Environmental issues related to Design and Community. Rather than hear these ideas internally, from the School of Architecture, I chose to move into other Departments and Colleges in a very systematic way. A course in Applied Economics and Rural Sociology was paired with a course in Asset-Based Design and Community Development Theory. A course on the History and Theory of Parks and Preserved Spaces was paired with a Creative Inquiry Course actively working in the Clemson Experimental Forest.
APPENDIX A

MS Arch Curriculum Development

Throughout the year, I was also afforded the opportunity to apply my thoughts and research in various projects. I helped facilitate a “Your Town” charrette that was funded by the National Endowment for the Arts. I participated in multiple Design and Visioning workshops for Clemson. I helped teach a summer Design+Build Studio. I worked for the Clemson Community Research+Design Center. I coauthored a session topic and papers for academic conferences and generally tried as hard as I could to thoroughly and completely blur the lines between professional/ student/ faculty. This broad brush approach carried over into the research and development of the thesis manuscript. Rather than focusing solely on journal articles or academic sources, the research discussed includes blogs, magazine articles, social media discussions, film, as well as traditional sources such as journals and books. Social Media proved to be a valuable asset in locating practitioners and publications that were not necessarily represented in traditional media outlets.
APPENDIX A

MS Arch Curriculum Development

The committee chosen to assist with the development of the thesis was also very diverse, including faculty from Landscape Architecture, Civil Engineering, and Applied Ecology in addition to faculty from the School of Architecture. At times, the Process was overwhelming and seemingly moving in multiple directions. However, the discussions with Dan and the committee continually provided new insight and topics to explore. As a result, the experience of the Process lead to a Product that is accessible beyond the profession of Architecture, yet deeply rooted within it. I did not begin this Process with a clearly defined question that could be easily, objectively researched. At times, the Process was overwhelming and seemingly moving in multiple directions. However, the discussions with Dan and the committee continually provided new insight and topics to explore. As a result, the experience of the Process lead to a Product that is accessible beyond the profession of Architecture, yet deeply rooted within it.
APPENDIX A

MS Arch Curriculum Development

One of the most significant moments in the Process occurred during the Spring semester when I decided to intentionally delay finishing in order to pursue a fabrication project and apply my thesis research. The construct developed in that project became the centerpiece of my thesis manuscript and the manifestation of my research. The intentionality of fabricating the piece was a critical component of how I processed the experience in order to distill it into a manuscript. While this all officially occurred “outside” of my course work, the experience was an absolutely essential component of my curriculum. By pursuing the fabrication project, I was able to push my ideas to the point of failure and then continue to refine them. I was able to experience the Mutualistic Interaction of DESIGN and Community in a very tangible and personal way. I finally understand that this was never about the search for answers or objectivity. It was always about the search for questions.
APPENDIX A

MS Arch Curriculum Development

The School of Architecture at Clemson is currently developing a certificate program to be called “Architecture+CommunityBUILD” that will offer opportunities for study in the area of DESIGN and Community. This certificate is specifically targeted at students pursuing a graduate degree in Architecture and will include both Master of Architecture and Master of Science in Architecture students. The curriculum presented on the following page could potentially serve as a starting point for future discussion of relevant courses for interested students. The curriculum was intended to span (2) semesters for a total of (30) hours. Future students may consider opting for a (3) semester Master of Science curriculum to allow time for fabrication projects and development of the manuscript after completion. The option of engaging additional Centers within the Fluid Campus of Clemson also presents opportunities for Design at different scales and within varying contexts. While this curriculum represents a personalized course of study, it is recommended that the foundation components of Social, Economic, and Environmental Design issues remain central to the curriculum.
APPENDIX A

MS Arch Curriculum Development

CURRICULUM

ARCHITECTURE:

Architectural Research Methods        ARCH 821
Thesis Project        ARCH 891
Thesis Manuscript        ARCH 859

SOCIAL:

Community Development Theory        FCS 830

ECONOMIC:

Human Ecology/ Social Impact Assessment        RS 601

ENVIRONMENTAL:

Sustainable Construction (Civil Engineering)        CE 636
World Geography of Parks        PRTM 630

DESIGN:

Creative Inquiry: Student Organic Farm        ARCH 801
Community 1:1 Clemson Experimental Forest        ARCH 699
APPENDIX B

ACSA Session Topic Abstract

The following pages contain the full text from an abstract submitted as a session topic to the Association of Collegiate Schools of Architecture (ACSA) 101 Conference to be held in March of 2013. The theme of the conference is “New Constellations/ New Ecologies.” The abstract provides a framework for discussing the current state of Architectural Praxis and the interaction of Architecture and Communities within the context of shifting cultural and economic landscapes. The session is intended to facilitate a discussion of the social implications of practice and the role of the Architect in partnership or opposition to this social process. This framework is proposed as a “Guerilla Ecology,” that exists at critical intersections within systems and work tactically to address complex social issues.

This abstract was coauthored with three other faculty members from the School of Architecture at Clemson University. The abstract was accepted and the session is currently under development.
APPENDIX B

ACSA Session Topic Abstract

GUERILLA ECOLOGIES:
Sustainable & Disruptive Innovation In Architectural Praxis
Ulrike Heine, Dan Harding, Bernhard Sill, Aaron Bowman

Recent research data and media coverage reports that while the profession of architecture continues to maintain a high level of prestige, the practice of architecture has been fundamentally disrupted from its social and ethical responsibilities. Architecture is a social process that simultaneously creates, defines, and supports communities. Shifting cultural landscapes, both physical and virtual, are redefining how communities are created and sustained. The rapid pace of technological innovation and obsolescence suggests a culture that is searching for a new ecology that can maintain this rapid pace within the contemporary landscape. Global population estimates surpass 7 billion people with over half of the world’s population now living in urban areas. Development and resource consumption is occurring faster than our communities can adapt. Struggling economies and political instability have created a culture of semi-permanence where Time Magazine’s person of the year is The Protestor.
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Rather than searching for a singular vision to “solve” these problems, Architects and Designers are proactively and systemically collaborating to rapidly reinvent, redefine, and redesign their communities in response. It is within this framework that we propose a new definition for this system of interaction: Guerilla Ecologies. The word “Guerilla” is both a noun and an adjective; it is used to define and describe. Guerilla Ecologies exist at critical intersections within systems: the physical and virtual, the built and natural, the individual and collective. Inherently diverse and multi-dimensional, Guerilla Ecologies incorporate a proactive and experimental methodology with a focus on Social, Economic, and Environmental issues. By working “bottom-up” in a collaborative process, Architects and Designers are leveraging existing assets within communities to serve as catalysts for social change and actively challenging the notion that Architecture and Design are luxuries for the wealthy. Re-imagining the call to “Think Globally, Act Locally,” Guerilla Ecologies work small and think big, acting tactically to addresses broader social issues through targeted interventions in communities.
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ACSA Session Topic Abstract

- What are the mechanisms within guerilla activism? In sustainable or disruptive innovations?
- How can this collective energy be used to raise the awareness for public space? Asset based design?
- Can guerilla activism activate citizens, interact with the community, rethink urbanism and design interventions? What to do with existing building inventory?
- Which are the responsibilities within guerilla activism and where do the virtues of architecture shift with this new paradigm?
- How can architectural teaching and practice embrace guerilla activism? Are we teaching individuals to follow or create a program?
- Which are the responses of architecture: Democratic grass root activism to rejuvenate and sustain communities? Open-source, cloud strategies for shared design development? Responsive, interactive and reconfigurable environments?
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This session invites papers that examine the potential of design interventions within the framework of Guerilla Ecology and question the role of architects in the process. From political propaganda to informal settlements, design is being leveraged as a tool for social change and a praxis shift. Favoring strategic discourse and realized demonstrations, this peer review team will identify and organize a session that poignantly demonstrate economic, environmental, sustainable, and culturally significant design-centric research.
APPENDIX C

Greening the Campus: Paper Submittal

The following abstract and paper were submitted and accepted to the “Greening the Campus” conference held at Ball State University in March of 2012. The paper discusses the work of studioSOUTH and the Community Research+Design Center in Clemson’s School of Architecture as a critical component of “Sustaining the Clemson Experience” as realized through a series of “Tactical Interventions” in support of the Green Crescent Project. These Tactical Interventions are intended to serve as grassroots advocacy tools for sustainable culture that create opportunities for students to engage in applied research through Design and Fabrication. Through a “gray collar” approach to practice the CR+DC works in a collaborative, bottom-up process of community engagement and architectural advocacy.
Appendix C

Greening the Campus: Paper Submittal

TACTICAL INTERVENTIONS:
Sustaining Campus Through Fixtures Of Collaboration
Dan Harding, Aaron Bowman

Abstract
This paper presents a series of tactical interventions and design+build initiatives completed and in process by the Community Research and Design Center (CRDC) and studioSOUTH, both of Clemson University. Advancing initiatives that categorically “sustain the Clemson experience” is the intent of these projects. It is the opportunity of tactical design+building to play a poignant role in sustainable advocacy. Although large scale and top-down planning+design efforts have a place in contemporary community enhancement, they often leave the ideas and initiatives trapped in a “white collar” vacuum. Performing strategic and poignant “blue collar” design+build actions can institute cultural change initiated by a community; these design+build projects commonly strike where improvement is truly needed and typically involve significant community input and participation. Through what can be defined as a “gray collar” practice,
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the work of studioSOUTH and the CRDC engages these kinds of intelligent design+build projects, thus blurring and redefining the models that typically define how individuals can impact their community and sustainable culture.

The Green Crescent project is a specific initiative conceived by the CRDC to embrace and enhance sustainable infrastructure and community connectivity through the development of green space coupled with a pedestrian and bike system. With an emphasis placed on orientation, safety, and mixed-use, the built aspects of this project are fixtures of multidiscipline collaboration that enrich the students’ experience of the University’s outdoor recreational venues. By engaging campus and community members in a reciprocal exchange for the purpose of identifying appropriate target areas, the results are meaningful contributions to the community fabric and context. Seen through the lens of sustainability, to impact a community’s culture from the ground up is to also impart the importance of ownership, authorship, and personal commitment. It is the objective of the studioSOUTH, the design+build tactical unit within Clemson University’s School of Architecture, and the CRDC to cultivate
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sustainable culture through architectural advocacy. The following images will present multiple design+build projects that highlight active community service, planning and design initiatives, as well as creative processes that successfully engage communities from their grass root origins.

PROFESSION AND PRACTICE

The Value of an Architect

In January of 2011, the Economix blog of the New York Times published an article titled, “Want a Job? Go to College and Don’t Major in Architecture.” The article presented information from a recent report showing that among recent college graduates, unemployment levels were highest among those who studied architecture (Rampell 2012). Ensuing articles continued the deluge with titles such as “The Architecture Meltdown”(Timberg 2012). It would seem that while the profession of architecture continues to maintain a high level of prestige, the practice of architecture has been fundamentally disrupted from its social and ethical position. The financial crisis of the late 2000’s
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decimated the profession and left many architects, both recent graduates and experienced professionals, unemployed with little or no options. Within the profession, response to the Economix article has been mixed; some see it as a validation of long standing complaints of elitism within the profession (Horton 2012, Fisher 2012). Others chose to focus on the fact that architects with a graduate degree are fairing better than those with only a bachelor’s degree (Cilento 2012). Much of the dialogue has concerned the role of architects in the process of design and construction and the need to promote and establish the value of design and the value of an architect. As a multi-disciplinary center within a University, the Community Research+Design Center is charged with educating students and equipping them with the tools and skills necessary to survive in today’s economic climate. As the building industry continues to struggle, fewer construction projects will continue to equate with fewer job opportunities unless architects embrace an expanded definition of practice.
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Architecture is a social process that simultaneously creates, defines, and supports communities. Shifting cultural landscapes, both physical and virtual, are redefining how communities are created and sustained. The rapid pace of technological innovation and obsolescence suggests a culture that is searching for a new ecology that can maintain this rapid pace within the contemporary landscape. Global population estimates surpass 7 billion people with over half of the world’s population now living in urban areas. Development and resource consumption is occurring faster than our communities can adapt. Struggling economies and political instability have created a culture of semi-permanence where Time Magazine’s person of the year is The Protestor. Informal settlements and squatter camps continue to develop on the fringes of urban areas, self-organizing independent of regulations and creating health concerns. It is within this context that contemporary practice exists and the CRDC operates.

The Role of the Profession

Rather than searching for a singular vision to “solve” these social issues, the CRDC engages stakeholders in a process of proactive and systematic...
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collaboration to rapidly reinvent, redefine, and redesign their communities. The products of this collaborative process are Tactical Interventions; rejecting and preconceived outcomes or definitions, Tactical Interventions are developed through an intense collaborative process that leverages existing assets within a community, builds social capital, and serves as a catalyst for positive social impacts. Tactical Interventions operate within and target critical intersections within systems: the physical and virtual, the built and natural, the individual and collective. Inherently diverse and multi-dimensional, Tactical Interventions incorporate a proactive and experimental methodology with a focus on Social, Economic, and Environmental issues. By embracing duality, working “bottom-up” and “top-down” in a collaborative process, the CRDC leverages existing assets within communities to serve as catalysts for social change and actively challenges the notion that Architecture and Design are luxuries for the wealthy. Re-imagining the call to “Think Globally, Act Locally,” as “Work Small, Think Big,” the CRDC proactively engages communities in a collaborative process to address issues of sustainability through targeted, Tactical Interventions in the university and community context.
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**THE GREEN CRESCENT**

**Tactical Interventions**

During the summer of 2011, studioSOUTH, the design+build tactical unit within Clemson University’s School of Architecture, installed a series of trailhead fixtures in the North Forest of Clemson University. These trailhead structures, conceived as fixtures of collaboration, are the result of work begun months earlier by a multi-disciplinary team of individuals from various university departments. Both the process and product of the Green Crescent project are representative of studioSOUTH’s approach to creating meaningful contributions to the community fabric and context through Sustainable Advocacy. Framed as “Tactical Interventions,” these seemingly simple and minor interventions seek greater relevance and impact by serving as catalysts for a cultural shift within the local community to promote Sustainable Programming within the university and advocate for alternative transportation and sustainability within the greater community.
Community Context

In 1888 Thomas Green Clemson established Clemson University, originally Clemson Agricultural College of South Carolina, as a land grant institution intended to focus not only on agriculture research and technology education, but also to train officers to serve in the US Military. As with many other rural southern towns, Clemson’s development was strongly linked to the railroad. Clemson and the nearby town of Central, South Carolina, are both located along a historic Southern Railway route known as the “Crescent.” This route took riders on a scenic trip through the southern United States from New York to New Orleans, the Big Apple to the Big Easy. Though its popularity has waned, the Crescent line is still operated by Amtrak today. Historically, cadets would arrive at Clemson by train. The town’s central location along the rail route also created opportunities for tourism and development. Over time, the town of Clemson grew from the rail station towards and around the university, which continues to serve as a hub and cultural center within the community.
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Today, Clemson’s campus consists of nearly 18,000 acres of land, including agricultural fields and protected forest areas. The University’s core campus is roughly 1,000 acres, bordered to the west and south by Lake Hartwell and the town of Clemson to the North and East. Clemson’s remaining land holdings include nearly 17,000 acres known collectively as the Clemson Experimental Forest (CEF). The CEF is split in two areas known as the North Forest and South Forest, which surround the town and university. The North Forest includes Lake Issaqueena, a man-made lake, and borders Lake Hartwell, a nearly 56,000 acre constructed reservoir that borders Georgia and South Carolina. The North Forest is a popular recreation area for hiking, mountain biking and equestrian riding. The South Forest also shares a border with Lake Hartwell and includes Outdoor Labs, recreation areas, and other Public Service activities tied to Clemson’s land grant mission.

The original agreement by which Clemson acquired the land that is now the Clemson Experimental Forest placed restrictions on what types of activities would be permissible. From the University’s perspective, the CEF exists as a
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resource, “…dedicated to education, research and demonstration in order to better understand and manage forest resources for the benefit of society. These essential resources include clean air, clean water, pleasing aesthetic qualities, abundant wildlife, protection of species and habitat diversity, recreation opportunities, along with commodity products from the forest” (Clemson Experimental Forest 2012). Although recreational areas have historically been part of the forest, the University has never considered recreation as an integral component. When the land was acquired, it was in a state of severe degradation from over-farming; erosion, waterway sedimentation, and poor soil quality made the land unusable. Over the years, Silvicultural practices (the planting, thinning, and harvesting of trees) have restored habitats and improved water quality and provided opportunities for research and outreach in accordance with Clemson’s land grant mission (History of the Clemson Experimental Forest 2012). The yearly timber harvesting operation provides the funding to sustain operations within the forest, but much of the work creating and maintaining trails is done through various university classes and volunteer groups within the community. The university does not have the resources,
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financial or otherwise, to actively manage the forest as a recreation area and there are growing concerns that recreational use is incompatible or antithetical with the original agreement. In recent years, the forest management began to document a decline in the health of the forest; many trail areas began to experience significant erosion and a decline in water quality that was affecting habitat and species diversity. It appeared that recreational users were an increasing threat to the health of the forest.

A 17,000 acre campus

Clemson’s core campus is centrally located with respect to the north and south forests. It is less than 4 miles in either direction to the most popular trail areas. However, much of the University’s students, faculty, and staff are unaware of its existence. As part of an Earth Day message in 2011, Clemson President James Barker challenged Clemson to consider our “17,000 acre campus” as an asset to attract students and faculty, increase opportunities for research, and help Clemson become a leader in environmental stewardship. It was within this context that studioSOUTH and the Community Research+Design
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Center (CRDC) recognized the potential for a targeted design intervention that promoted alternative transportation, developed community assets, and advocated for sustainable issues.

The Green Crescent is proposed as a comprehensive network of urban and rural trails that would create a physical and cultural connection between the forest, the university, and the surrounding community. The name was chosen as an homage to the influence and the importance of the Crescent line to the development of Clemson. Each of these areas also form a rough crescent shape if a line is drawn North-South from the Issaqueena Trails in the North Forest, to downtown Clemson, through the University, and into the South Forest. The project began investigating opportunities for sinuous public space to create linkages that supported alternative forms of transportation and promoted pedestrian friendly environments. Seeking to address broader social issues, the CRDC and studioSOUTH actively work to not only “Think Global, Act Local,” but also “Work Small, Think Big.” By aligning the research with the University’s Emphasis areas of Advanced Materials, Automotive and
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Transportation Technology, Biotechnology and Biomedical Sciences, General Education, Family and Community Living, Information and Communication Technology, Leadership and Entrepreneurship, and Sustainable Environment, the potential developed for this project to not only support the larger mission of the university, but also create meaningful and purposeful impact on the local community. Integral to Clemson’s goal of becoming a top 20 public university is a commitment to continuing the tradition of supporting the community and advancing knowledge through outreach initiatives.

GRAY COLLAR PRACTICE

Work Small, Think Big

As a small center within the School of Architecture, the Community Research+Design Center faces significant challenges when undertaking community-based projects. Not only is the CRDC subject to the typical difficulties of a university program: the limited timeframe of an academic calendar, the inexperience of students, and funding challenges, the CRDC also faces the challenges associated with an actual project in a community
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context: community division, politics, and issues of social justice. Architectural projects, both within the academy and the profession typically involve a “white collar,” top-down approach to planning and implementation. Large-scale community planning projects often incorporate some aspect of community engagement through design workshops, community forums, or presentations. However, these sessions typically occur towards the later stages of project development and design. Individuals within communities are often placed in a situation where they are asked to react to a proposal that is shown to them; this often creates conflict as individual groups began to argue for their desires and interests to be considered or dominate. Disagreement among community groups can stall or delay projects for years and breed distrust among residents of the community. The complexities of these projects present significant challenges for an academic program, but are representative of the reality of working as a professional. By contrast, small scale, “blue collar” projects offer an opportunity to directly engage a smaller section of a community and create a targeted impact within a focused area. Typically these projects are defined by design and implementation from the bottom-up with a very specific focus
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in a very short timeframe. The CRDC seeks to blur the distinction between these two models to create a “gray collar” approach that capitalizes on the strengths of both. Working simultaneously to address needs of individuals and communities, from the top-down and the bottom-up, continuously balancing and adapting, this approach maintains a focus on leveraging existing assets to achieve mutually beneficial impacts. The CRDC utilizes a collaborative process that actively recruits students and faculty from other departments and institutes in the university as well as individuals and organizations within the community. To identify, develop, and implement projects. The “gray collar” approach of the CRDC manifests itself in the Tactical Interventions performed by studioSOUTH.

studioSOUTH is the design+build tactical unit with the School of Architecture at Clemson University. Design+Build programs within architecture schools typically operate as programs that produce large structures, such as houses, or smaller installations such as public art or interior design (Corser 2009). A growing number of academic programs and design professionals are seeking
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to expand the role of architects and take a more proactive stance in addressing social issues within communities. Defining their work in terms such as “urban acupuncture,” “insurgent architecture,” “guerilla urbanism,” or “tactical urbanism,” these projects are the product of design professionals and students working with community members on small scale projects intended to address the immediate needs of a small group within a community. studioSOUTH has chosen to frame their work as Tactical Interventions. By operating at multiple scales, the immediate context and the greater community, micro and macro, these Design Interventions are specifically devised to serve a purpose beyond that of the immediate, obvious need. Building on the concept of Acupuncture, these design interventions seek to focus impact on a strategic site to correct imbalances within the broader community. The concept of Tactical Interventions is differentiated from other approaches by its emphasis on working at multiple scales. While “DIY” and “Guerilla” projects may address needs and present creative solutions to issues, they ultimately seek immediate results and will not necessarily create sustained impact within a community.
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Identify Opportunities

The Green Crescent project incorporates a diverse mix of stakeholders from the university and surrounding community. The university has multiple programs, student organizations, departmental initiatives, and projects that are promoting various sustainable concepts. The town has several initiatives and committees related to sustainability, and several community groups are working to promote various initiatives. Rather than creating redundant programs or seeking to redo work that has already been done by other groups, studioSOUTH began discussions among the various stakeholder groups to identify “pressure points” within the community that would offer the most significant impact. Working with and through the town of Clemson represented the most time intensive and long-term approach due to the complexities of working with a community through the local government. Working on campus presents nearly identical challenges in that projects must be coordinated with the administration, similar to local the government, and the students and faculty, similar to community members. The forest, however, is managed specifically within one college by a relatively small group of individuals. By working with the forest management
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the CRDC was able to address the needs and concerns of the university administration and facilitate a dialogue between the various user groups in the university and the community who actively and frequently use the forest. The process was able to meaningfully engage stakeholders from the top-down and bottom-up, creating a sense of shared investment in the project.

Leverage Assets

In the summer of 2011, studioSOUTH was invited to develop a series of Tactical Interventions to address the growing concerns over the health of the North Forest. Over the course of 6 weeks, a group of students with representatives from architecture, civil engineering, and business, began working with stakeholders to identify a series of assets and opportunities, develop design concepts, fabricate them, and install them. After meetings with the forest manager, faculty members who work in the forest, and various community members who use the forest for recreation, it became apparent that many of the issues in the forest were due to conflicts between user groups and misuse or abuse of the forest. The North Forest contains trails used by hikers, mountain bikers,
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and equestrian riders, however the trails were not all designed to support all user groups. One of the most significant concerns is the impact of equestrian riders as they represent the greatest environmental impact to the trails that were not designed to support them. The presence of equestrian riders also creates safety concern on trails where a fast approaching cyclist may scare a horse, creating a potential hazard for all users. As the university has historically not managed the forest as a recreational area, the few existing trailheads and parking areas were not clearly designated. Trails in the forest consist primarily of logging roads or single-track trails that were created by students through the university and various community volunteers. Many of these trails were in a state of disrepair due to poor construction and misuse. As the trails began to erode, users would often create a new path, further contributing to the overall degradation of the area. Lack of signage identifying the presence of trails led to redundant paths, increased erosion, and safety concerns. Without trail markers, users could easily become lost. In the event of an emergency, it was extremely difficult to accurately convey one’s location to emergency personnel. The design product of this phase, the physical manifestation of the
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work, was a series of Tactical Interventions which address concerns of safety, orientation, and mixed-use through collaborative, multipurpose fixtures.

Build Change

The North Forest is located within a few miles of the university, but still presents significant challenges to executing a design+build project. To minimize environmental impacts in the forest, all fabrication was performed off site and delivered, ready to install. Due to the remote location of the sites, the final design product needed to be flexible enough to adapt to unknown conditions in the field and simple enough to install without extensive tools or machines. To address the mixed-use nature of the forest, directional signage was installed to help eliminate conflicting streams of traffic and direct users to the appropriate trails. Clearly designating parking areas and trail entries discourages users from creating their own trails, which addresses concerns of erosion and degradation. Providing trail maps and markers addresses concerns of safety and helps prevent users from getting lost or disoriented. The signage also clearly demarcates the forest and trails and helps attract additional users.
Historically, signs placed within the forest have been largely ignored or used as target practice. Because of this, the university was interested in pursuing fixtures that would provide more than “just a sign.” Bike racks, exercise structures, and benches were all identified as desirable amenities for the forest by all parties. After several design iterations, the students proposed a “kit of parts” that could meet the demands of off-site fabrication and serve the overall needs of the project. All of the trailhead fixtures were developed with stock steel components, powder-coated white for contrast against the green of the forest. A series of vertical elements were fabricated as abstract tree forms to serve as supports for signage. Large pieces of steel hold trial maps that can be removed, replaced, and updated as the trail system grows and expands. Supports were installed in the field with strategically located connections that serve as bike racks, pull-up bars, and informal seating. Additional steel sections hold lost and found items or signage displaying the rules of the forest and trail etiquette. This highly flexible and adaptive system was fabricated and
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installed in a matter weeks.

One of the most prominent fixtures is a series of benches fabricated from steel bar stock. Drawing formal inspiration from the southern tradition of white wicker furniture on front porches, these benches are strategically placed within “eddies” along the trail. Within these eddies, trail signage and additional fixtures allow for informal interaction among various users. Experienced riders can help first time users identify routes. Individuals can stretch or relax after exercising. Groups can meet away from the danger of automobile traffic in the parking areas. Concentrating the fixtures within a specific area, also subtly reinforces that area as a significant point in the trail. Previously there was no clear designation of where users should enter the forest and what constituted the actual trailhead. For infrequent or first time users, it was nearly impossible to determine where the trails began. By providing a site and a mechanism for interaction, a fixture for collaboration, social networking and interaction can occur informally among community members.
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Analyze Impact

The tactical interventions within the North Forest have generated both positive and negative feedback within the community. While studioSOUTH sought input from a variety of sources, it was not feasible to expect that all opinions and user groups could be represented. A group of cyclists, organized through a private group on a social networking site, took exception to the work being done in the forest and became an outspoken critic of the project. Vocalizing their discontent, they soon began contacting the university to complain about the “metallic junk” that was “littering their forest.” Additional complaints regarding the fixtures have ironically centered on a major design requirement of the university: many users have complained that the white steel “sticks out” in the forest. Though intended as a critique, these comments would indicate achievement of the university’s goal of highly visible and prominent signage. Long time users have challenged the posting of rules and regulations, many of which contradict current practices within the forest despite having been in effect for years. The fixtures have also generated some negative feedback by raising the profile of the forest within the university and the surrounding
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...community; usage appears to be increasing and it is no longer a resource known and enjoyed by a select few. Continued involvement of student groups also helps promote the forest as a resource for the university and a recreational amenity for the community.

Tactical Interventions incorporate diverse user groups in a collaborative process that ultimately produces a physical manifestation of a design proposal. The duality of the process allows for a small-scale intervention within one context to support a larger end goal. While the trail fixtures may have directly impacted a limited area within the North Forest, the project allowed an investigation and discussion of issues within the broader context of the university and the surrounding community. When discussing the concept of “Sustaining the Clemson Experience,” the Green Crescent is not merely concerned with Environmental issues. Social, Cultural, and Economic concerns are critical components of the dialogue on Sustainability. Signage promotes safety and orientation, but also allows for a discussion of individual impacts on the environment and the implications of environmental abuse through trail misuse.
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Focusing on recreational use within the forest allowed a dialogue to develop within the university regarding how Clemson could support and promote cycling as a viable form of alternative transportation and not simply recreation.

**Identify Opportunities**

The Green Crescent continues to evolve. The university is currently in the early phases of implementing a capital improvement project to provide additional bike infrastructure within the core campus. The CAT bus, a free bus system within the Clemson community, has added bike racks to its buses and is currently studying how to extend existing routes to support education and recreation in the Forest. The town of Clemson is currently reworking sidewalks and roads to provide bike lanes and additional pedestrian infrastructure. Student groups within the CRDC continue researching and developing large and small-scale design proposals to support alternative transportation. The CRDC has facilitated additional discussions between stakeholders to develop a vision for the future direction of development in the North Forest. studioSouth is currently working in the North Forest installing trail markers to clearly identify
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intended users and help promote orientation and safety. While significant effort
remains to fully implement a comprehensive network of urban and rural trails,
the Tactical Interventions by stuioSOUTH in the North Forest have played a
pivotal role in advancing discussions of sustainability within the context of the
university and the broader community of Clemson.

COMMUNITY SUPERHEROES

Community Bat-Signals

It has been suggested that communities need an “Architectural Bat Signal” to
call for help in times of crisis (Wilson 2008). Some feel that that post-Katrina
New Orleans and present day Detroit are the signals the profession has been
waiting for; others see the signal shining above abandoned storefronts in
downtowns across America. Rather than waiting for night to fall, waiting for
the need to arise, waiting for the community to realize that they are in trouble,
Tactical Interventions create an opportunity to intercede proactively and create
positive social impacts. Batman doesn’t wait for the signal to shine to go to
work; he sees the signal while he’s out on patrol.
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The profession of architecture is at critical impasse; some feel the profession will rebound and the “starchitect” culture of the 1990’s and early 2000’s will continue to reinforce the profession as a luxury for the wealthy. Others hope that the creativity and innovative spirit of architects and designers will support a shift to a more socially conscious and relevant role in the making of communities. Expanding beyond conceptual plans that envision finalized “solutions,” architectural practice must evolve to respond at the speed of culture. By incorporating design+build methodology as a tool for implementation, studioSOUTH creates opportunities for designers to physically engage and shape communities and creates shared ownership and investment between all parties. Research has shown that civic engagement is a key element of successful democracy and personal happiness and fulfillment (Putnam 1995). Fixtures of collaboration support community building and the development of social capital among seemingly disassociated and divergent interests within communities. Tactical Interventions strategically targeted at critical intersections within community systems offer opportunities to expand the role of architects, proactively address social challenges, and advocate for sustainable issues.
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APPENDIX D

Asset-Based Community Development Paper

The following paper was developed as a final research project for an Asset Based Community Development Theory course. The paper presents an analysis of an existing neighborhood in Greenville, South Carolina and a proposal for catalyzing change within the community. This course, and this proposal, represent a significant milestone in my understanding of Asset Based Design, Social Capital and the process of Community organizing and creating change. In developing this proposal, I interviewed community members and a key stakeholder within the community: Maxim Williams. Though he works for a local hospital system, Maxim serves as a major advocate for Sterling within the greater community of Greenville. The proposal incorporates the concept of “Design Activism” and working from the bottom-up with community members in a collaborative process based in the principles of the SEED Network and Public Interest Design.

Course:

FCS 830 Community Development Theory

Instructor:

Robin Kimbrough-Melton, JD
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Asset-Based Community Development Paper

Building Change:
Asset-Based Community Development Strategies for the Sterling Community in Greenville, South Carolina

Sterling is a historic African American community located southwest of downtown Greenville, along on the western edge of Greenville County, South Carolina (see figure 1). The history of Sterling is intricately tied to the history of Greenville and its African American community. It was home to the first black high school in the county that in many ways served as the center of physical, spiritual, and educational life for the community (Sterling Community Master Plan 2010). Today, Sterling is facing significant challenges in the form of poverty, drugs, crime, and poor health. Many of the residents live in substandard housing and face significant challenges in their daily lives. Development pressure is leading to gentrification and the continued displacement of long time residents. The loss of Sterling High School is generally identified as the beginning of the decline of the Sterling community. The title of this paper is both a nod to the loss of this vital community asset and the lens through which I view the
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challenges within the community. As an architect, much of my professional training has dealt with understanding the impacts of the built environment on the health and well being of communities. This paper will begin with an overview of the history of the Sterling community and the perceived roots of the issues facing the community today. The second section will discuss the current challenges facing the community and the third section will discuss existing assets within the community. The final section of the paper will present a series of opportunities for interventions through “Design Activism” that could leverage existing assets within the community to act as catalysts for building change and revitalizing this historic community.

STERLING: Yesterday

In the early 1890s, the Reverend Dr. Daniel Melton Minus came to Greenville to serve at John Wesley Church (see figure 2). He was born and raised in Colleton County, South Carolina by former slaves (Butler 2011). He was reportedly brought to Greenville to accomplish two things: build a new brick building for the church and establish a high school for the children in the community.
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In 1896, the Greenville Academy began as a one room school at the church (see figure 3). Within a few years, enrollment had grown considerably and the school relocated to a two story building on Falls Street in Greenville. As the school continued to grow, the trustees decided to sell their property to relocate and build a larger facility to accommodate the growing demand for space. The new facility was located outside the city limits in Greenville County and reopened as Sterling Industrial College in 1902 (see figure 4). The new facility was designed and built by Mr. W. R. Sewell, one of Greenville’s leading black contractors. It was later remodeled and renovated with additions. The school was named Sterling Industrial College in honor of Mrs. E.R. Sterling of Poughkeepsie, N.Y., woman who paid for Rev. Minus’s college education at Claflin University in Orangeburg, South Carolina. She was also involved with the Underground Railroad during the Civil War (Butler 2011). The school was a model of racial cooperation from the start: the financing of the school was provided by several prominent white businessmen from the surrounding community. Mr. Thomas F. Parker of Monaghan Mills and the founder of the Parker School District was the primary financier of the school building itself.
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He also was the developer of the first streets in the neighborhood, which were named in honor of school trustees – Sterling, Middleton, Minus, Malloy and Valentine (Sterling Community Master Plan 2010). The land surrounding the school was subdivided and properties were sold only to African Americans. Purchasers were given 5-10 years to pay for the properties (Butler 2011). Through this development, Sterling became a thriving African American community that literally grew up “around” the school.

In 1929, the Greenville County School District purchased the building and reopened it as Sterling High School, the first African American public high school in the county. The school curriculum was expanded to include not only basic educational courses, but also technical training in various trades such as masonry, carpentry, tailoring, upholstery, cosmetology, auto mechanics, homemaking, and cooking. Small businesses grew around the school to serve the neighborhood. Sterling High School became an educational and social anchor for the neighborhood and for Greenville’s African-American population due to its central location. The strong social ties and bonding within the
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community were undoubtedly a factor in the success of many Sterling alumni. Members of the Tuskegee Airmen, Civil Rights leader Reverend Jesse Jackson, and many local and state level government officials all came from Sterling (Butler 2011).

In 1967, tragedy struck the community when Sterling High School suspiciously burned down during a homecoming dance (Butler 2011); only the gymnasium remained (see figure 5). Despite the objections of the community, the school district decided not to rebuild the school. The building was sold to the Greenville County Recreation District and reopened as a community center three years later. It still stands today as a reminder of the vibrant community Sterling once was and seeks to become again. The loss of the school can be singularly identified as the catalyst to the decline of the community. Without the school, residents began to disperse to other areas in the city. Local businesses began to close and crime, drugs, and poverty began to take cover.
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Sterling: Today

The Sterling neighborhood continues to face many challenges despite significant efforts on the part of the city, county, and local community organizations. One of Sterling's greatest challenges is its location. Originally located outside the city limits, the Sterling community is currently bisected by the city/county limit line. The northern “half” of the community lies within the city of Greenville and includes residential and commercial areas (see figure 1). The central section of the community includes the former site of the high school and is surrounded by primarily residential development. The southern “half” of the community lies in Greenville County as is primarily single family residential development. A large section of the northwestern area of the community is occupied by the Bon Secours St. Francis Hospital System. Despite the community’s relative proximity to downtown Greenville, there is a lack of significant connections to other areas of the city. Part of this is due to its status occupying two different municipalities. It is a part of both, but fully claimed by neither. The members of the community are unsure who is responsible and who is willing to provide necessary services. When there is a crime or other incident, there is confusion
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as to whether they should call the city police or the county sheriff’s department. Similar issues arise with traffic collection, road maintenance, and other basic municipal services. Generally, the northern section within the city limits receives more maintenance and has a higher level of infrastructure in place, creating tension and conflict within the community.

The residents of the Sterling community are also challenged by low levels of homeownership (see figure 6). As with many low-income neighborhoods, there are high levels of poverty and low levels of education in Sterling. Much of the housing, particularly within the southern area, is in a state of severe disrepair. Many houses that appear vacant and condemned are currently occupied. Mapping efforts in support of a community master plan produced a series of surprising findings. The overwhelming majority of the residential property within the Sterling community is renter occupied single family housing. There are currently over eighteen different churches and community organizations which own property within Sterling; many of these organizations operate charity housing programs and transitional housing programs for those dealing with
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issues of homelessness and poverty. However, the transient and transitional nature of the residents creates problems within the community. The long term residents of the community do not know their neighbors and do not feel safe. Many of the rental properties are suspected to be centers of crime, gang, and drug activity. Occupants of the rental properties are typically part of a recovery program or dealing with other issues. They typically are relocated from other areas of the city or county in an attempt to remove them from negative influences and situations. There is a perception among the residents of Sterling that many of these newcomers are bringing drugs and other negative elements into the community. There is significant tension and distrust among residents. There are also nonprofit organizations that provide affordable and charity housing in Sterling. The housing is built to high standards of quality and provides a home for a family in need (see figure 7). However, after a minimum number of years, many of the occupants choose to relocate to other areas once they are financially able to do so. This creates disparity in the community; many of the newer homes are vacant while the older homes remain occupied by long time residents.
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The northeastern edge of the community is currently experiencing development pressures in the form of new multifamily housing. These new developments are targeted at higher income brackets and are slowly encroaching upon the community. While a typical house in Sterling may be valued at $50-60,000, the new developments are valued around $150-250,000. The branding and identity of these developments present another challenge to Sterling. The developers have chosen names which align with other, more affluent sections of the city. Even though these new residential areas fall within the boundaries of the Sterling community, the residents do not consider themselves a part of Sterling and they do not want to be associated with Sterling. The current slow economy has benefited Sterling by slowing or stalling several additional housing developments. In an effort to address or control some of these issues, the residents of Sterling have formed a land trust, the first in South Carolina (Sterling Community Land Trust 2011). There stated goals include, “Acquir[ing] land to pursue property management activities and programming for affordable housing, transitional housing, and commercial development in keeping with the character, history, and potential of the neighborhood.” The land trust provides
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a means for the residents of Sterling to begin influencing development within their community, but it is still in the early stages of organization.

Visibility and connectivity are key issues for the Sterling Community. Given the prominent role that Sterling has played in the history of Greenville and the success of the alumni, one would assume that the success and revitalization of the neighborhood would be a high priority within the greater community of Greenville. There are elements within the city that acknowledge and relate the history of Sterling, but they don’t reference the present conditions of the community. There is a historical marker located at the intersection of Calhoun Street and Pendelton Street on the northern edge of the Sterling neighborhood (see figure 8). The marker briefly describes the history of Sterling High School and references its destruction by fire in 1967. It does not, however, mention that the building still stands and is active as a community center. The marker is also located nearly four blocks north of the actual site of the school, on the corner of a busy intersection that has no crosswalks. It is nearly impossible for someone to “discover” this marker due to its relative invisibility within context.
Similarly, in the heart of downtown Greenville, there is a fairly large plaza dedicated to the history of Sterling. (see figure 9) Known as Sterling Plaza, it features two bronze statues of idealized graduates of Sterling. The sculpture is surrounded by a masonry enclosure referencing the vocational training programs once available at the school. The plaza’s location at the corner of Main Street and Washington Street is one of prominence and importance; it was formerly the site of a Woolworth’s department store that served as a location for many civil rights demonstrations (Sterling Square Dedication 2011). The statues are located in an area where many Sterling graduates were formerly not allowed to go. The plaza and statues honor the ongoing success of many Sterling alumni, but the dialogue is occurring in a place significantly removed from the daily lives of current Sterling residents. Due to lack of transportation and lack of infrastructure such as sidewalks and crosswalks, many residents of Sterling have no way to travel downtown and see the sculpture. Like the historical marker, the plaza and statue were intended to speak more about the history of the community than the present or future. The current conditions are challenging and significantly different from those in more affluent areas of the
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city such as Main Street.

Despite these significant challenges, there are several assets within the community that offer hope for positive social change. In recent history, the Sterling Community’s most significant asset and advocate has become the Bon Secours St. Francis Hospital system. Beginning in 2008 Maxim Williams, the hospital’s Community Relations Director, began to work intensely with the community from a grassroots, bottom-up perspective (Co-Creating a Healthier Future 2011). Rather than a focus on developing programs, they focused on developing social capital and building community. A primary emphasis was placed on developing relationships within the community and between the community and outside resources. The work began at a very small scale and involved several meetings with residents to understand their concerns, needs, and perspective. Williams was able to coordinate meetings between all of the churches, civic and community organizations, and residents to create a transparent and inclusive dialogue about the future of Sterling. This diverse group of stakeholders formed the Sterling Phoenix League and held a
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community summit in 2008 to develop a strategic plan and a vision for the future of Sterling. Eight teams were created to work collaboratively in addressing areas of concern within the community: health and wellness, going green/healthy environment, prosperity/economic development, housing and land use, peace and safety, senior advocacy, youth engagement, and community spirit. These teams strive to work holistic and systemically to pursue various community issues, identify priority community improvements, and engage residents and partners in implementing changes to make a difference. St. Francis hospital has been an indispensable asset to the community and remains committed to improving the lives and health of the residents in Sterling.

In 2009, the members of the Sterling Phoenix League and Bon Secours St. Francis approached the Greenville County Redevelopment Authority and the City of Greenville for funding to create a comprehensive Master Plan (see figure 10). Each of the parties agreed to partner and work collaboratively and help fund the plan. The resulting document is the result of a year and a half long process that involved countless hours of roundtable discussions, community
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workshops, presentations, and dedicated, thoughtful analysis by a multitude of professionals, stakeholders, and community members (Sterling Community Master Plan 2010). The plan has now been approved and adopted as part of the City’s Comprehensive Plan by the Planning Commission and the City Council (Neighborhood Master Plans 2011). The plan includes comprehensive Design Guidelines which are intended to ensure that substantial rehabilitation and new construction is consistent with the existing character and desired qualities within the neighborhood. The Design Guidelines contain requirements for color and material selections, suggested locations for infill development, recommendations for architectural features such as porches, and setback and height restrictions. There is a comprehensive analysis of existing infrastructure along with recommendations for upgrades. There are recommendations for branding and improving the community’s identity through the demarcation and celebration of the community at key thresholds identified as “gateways” to Sterling. The Master Plan is an extremely valuable resource that was developed through a collaborative process that leveraged existing social capital within the Sterling Community and created additional relationships with
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other political and community leaders.

There are many physical locations which serves as key nodes within the Sterling Community. The Sterling Hope Center was originally established by Christ Church Episcopal in Greenville. Today, the Hope Center is home to several after school programs for children in the area and operates in partnership with the Sterling Community Center (see figure 11). The Sterling Community Center is located in the remaining portions of the former Sterling High School. The current facility has undergone renovations to provide additional classroom space and outdoor playground space (see figure 12). The Sterling Community Center continues to serves as a major hub within the community due to its central location. There are multiple after school and summer programs for children as well as programs for adults (Greenville County Recreation District 2011). The Seniors On The Go program meets daily at the Community Center, providing opportunities for elderly residents to remain active in the community. The Sterling Neighborhood Association’s monthly meetings are also held in the Community Center. The Seniors within the Sterling Community were
also instrumental in the creation of a community garden. The Odessa Street Community Garden is located on a small plot of land owned by Peggy Baxter (see figure 13). Ms. Baxter is an alumnus of Sterling who moved back to her childhood home after retiring. She was extremely saddened by the present condition of Sterling and decided to take action. The Odessa Street garden is located on land that she owns, but is managed through a multiyear agreement with the Greenville County Recreation District and supported by donations from Trees Greenville and other community groups (Greenville County Recreation District 2011). The garden is almost exclusively used and maintained by the senior residents within the community, but provides opportunities for multiple generations of Sterling residents to gather and interact. Sterling and the western side of Greenville have been recognized as a “food desert” due to a lack of access to healthy foods and grocery stores. The garden represents a first step towards a larger initiative aimed at improving health within the community by promoting local food and urban farming. There has been discussion about the possibility of creating multiple small farming sites on currently vacant land within the neighborhood. The produce could then be sold through a food
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cooporative which benefits the residents. This would provide jobs for those working at the farms and the market or store, and would actively promote health within the community by improving access to healthy food. However, as with many of the initiatives currently proposed for Sterling, a lack of funding is creating additional challenges.

**Sterling: Tomorrow**

Having thoroughly researched the history and existing conditions within the Sterling community, I began to consider how my architectural training could be used to work with the residents of Sterling and help them leverage their assets to continue to build upon their recent success. Within the profession of architecture, there is a growing movement of young designers actively seeking a practice and a career of greater social relevance. The recent economic downturn has left many architects out of work and created barriers of entry to the profession for many recent graduates. Faced with the harsh, new realities of the profession, many architects have chosen to expand their role beyond that typically expected of a designer. Architects are engaging in Design
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Activism, using their training and creativity to identify and address complex social problems creatively and collaboratively in their communities. Schools of Architecture around the country are actively pursuing projects and developing programs to support the evolving role of the architect in society. Clemson University’s School of Architecture contains a program known as Studio South, which provides opportunities for community based design initiatives through a collaborative, asset based design process. Studio South is also unique at Clemson, in that it is a Design+Build course. Students are tasked with designing and building a project, typically intending to highlight or address issues within a community. In order to provide a framework for addressing these issues through Design, Studio South has adopted the principles of the SEED Network (see figure 14). The Social Economic and Environmental Design (SEED) Network is a “principle-based network of individuals and organizations dedicated to building and supporting a culture of civic responsibility and engagement in the built environment and the public realm” (About the SEED Network 2011). Members of the SEED network share a common belief that design matters, and can be leveraged as a tool to create positive social change. Rather than a
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prescriptive, one-size-fits-all approach to solving social issues, the members of the SEED network operate under a series of guiding principles:

SEED Principle 1: Advocate with those who have a limited voice in public life.

SEED Principle 2: Build structures for inclusion that engage stakeholders and allow communities to make decisions.

SEED Principle 3: Promote social equality through discourse that reflects a range of values and social identities.

SEED Principle 4: Generate ideas that grow from place and build local capacity.

SEED Principle 5: Design to help conserve resources and minimize waste.

These principles offer a framework for ensuring that design solutions are successful on multiple levels: at the project level, each intervention must resolve specified programmatic and functional needs and exhibit high levels of design innovation. The designs must also be developed from and rooted within the place where they are located in order to create positive social impact. My proposal for building change in the Sterling Community is to create a
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partnership between the residents in Sterling and the School of Architecture at Clemson to pursue a series of small scale projects which could act as catalysts for change. By engaging students in Studio South through a series of service learning projects, the stakeholders within the community will be able to build upon the existing social capital as they continue working to revitalize Sterling. Much of the foundational work has already been completed; projects have been identified and solutions proposed. The community is ready for someone to help them implement their ideas.

One of the simplest opportunities to create connections to the greater Greenville community would be to focus on improving the existing infrastructure. The Master Plan document contains detailed analysis of the infrastructure, and lack there of, within the Sterling Community. Mapping exercises revealed that the northern, heavily commercial section of the community primarily contains roads with sidewalks and curb and gutter (see figure 15). Within the southern, residential sections of the community, many of the streets do not have sidewalks and do not have curbs and gutters. Dunbar Street is a major traffic artery that
runs through the center of Sterling. It is a five lane road with a roughly 100 foot right-of-way. The road is heavily trafficked with cars moving at a high speeds. Dunbar serves as a physical and figurative barrier to many Sterling residents. As a pedestrian, moving within the southern section of the neighborhood is difficult, due to the lack of sidewalks. However, it is nearly impossible to safely cross Dunbar and move into the city. There are no crosswalks at any intersections. There are no pedestrian crossing signals. Along its western end, Dunbar runs directly south of St. Francis Hospital. There are many residents within the community who suffer from mobility impairments yet still need to journey to the hospital on a regular basis. Without access to an automobile, they are forced to risk their lives attempting to cross a high traffic road without any signage or infrastructure to protect them.

Until significant funding can be allocated for the significant task of reworking the street system within the community, temporary measures can be taken to calm traffic along the roads. Signage can be installed to alert motorists to the presence of pedestrians. At major intersections, even without a pedestrian
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signal coordinated with the traffic signals, crosswalks can be painted on the ground. While it is important to recognize and respect the requirements of the SC Department of Transportation and local municipalities, spray paint is readily available at home improvement stores. A group of motivated citizens, or young design activists, could easily delineate a series of designated crossing points for pedestrians (see figure 16-17). By working with residents, the designers can identify how people currently move in and around the community to ensure that they are supporting existing pedestrian systems. Studies have shown that the presence of markings on the roads will cause motorists to lower their speed, creating a safer traffic environment. Design proposals could also be developed to leverage future humanitarian projects within Sterling. Leadership Greenville, Hands on Greenville, and other community service organizations have generously donated thousands of dollars and countless hours towards projects aimed at improving Sterling. If resources could be leveraged to encourage civic leaders to reduce the road width, provide additional sidewalk space, provide bike lanes, and create medians for plantings, then future community service projects could help subsidize the cost of minor improvements and provide
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labor for the installation of components such as street trees.

Within neighborhoods where there is no sidewalk and limited area to create one, additional creative measures could be explored to support the development of a pedestrian friendly environment and neighborhood identity within the Sterling Community. The Design Corps is a nonprofit 501(c)3 organization that is headquartered in Raleigh, North Carolina. The Design Corps was instrumental in the development of the SEED Network and now operates a program known as the Public Interest Design Institute, where participants are trained and certified in the SEED system. For several years, they have conducted a summer design+build studio for undergraduate and graduate architecture students. The most recent summer studio occurred in Austin, Texas over a five week period. Several of the projects completed offer relevant case studies for potential efforts within the Sterling Community. One of the student teams worked with residents in a low-income, minority neighborhood to install a series of interventions designed to address issues of safety and security in the alleys behind their house. The students were introduced to
residents and were able to orchestrate a series of discussions involving all of the residents on the street, many of whom did not know each other. Through an open dialogue, the students were able to identify a series of specific issues that could be addressed to promote feelings of safety and security within the adjoining alley space (see figure 18). With an extremely modest budget, the students were dependent on inexpensive, donated, and found materials for their design proposals. The students developed a prototype enclosure to contain the trash and recycling bins for each home. The enclosures featured large house numbers with a solar powered light, to clearly designate each house and address concerns of emergency personal having difficulty correctly identifying houses at night. They also installed landscaping buffers to clearly define edges and establish zones for pedestrians and automobiles. Finally, the students developed a series of graphics that were spray painted on the roads to mark entrances to the alley and individual properties. These graphics serve as thresholds and traffic calming measures within the neighborhood. Similar projects could be explored with residents in the Sterling Community to determine ways to encourage socialization within the community and pride
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in the neighborhood. Foundational research exists within the Sterling Master Plan and could easily be expanded and developed.

One of the largest challenges facing the residents of Sterling and those working to improve conditions in the neighborhood is lack of financial resources. Many residents are also challenged by unemployment, but not by lack of marketable skills. There are many artists and craftsmen within the community. They enjoy activities such as gardening or farming and some offer instruction in musical instruments to their fellow residents. However, they do not have the resources or training to turn what they perceive as a hobby into a vocation and reliable source of income. The Sterling Master Plan recommends the formation of a micro-business incubator to recreate the mixed-use environment that once thrived within the community. Another SEED case study offers insight into one possible method of implementation. Cafe 524 is a projected by the Carnegie Melon School of Architecture in partnership with residents and stakeholders in Pittsburgh’s Homewood community (Cafe 524 2011). Through a collaborative, multiyear process the students worked with a diverse and collaborative group
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in a comprehensive planning process similar to what has occurred in Sterling. The students developed design guidelines and recommendations for housing, infrastructure, & economic improvements. One of their proposals involved the creation of a business incubation center known as Cafe 524 in an existing vacant building within the community (see figure 19). The concept for the building program was developed through discussions with the community about existing assets and desired improvements. The proposal involved the creation of an urban farming program which would provide produce that could be served in a cafe, located on the first floor of the building. The upper level would house the business incubation center, providing training, support services for business creation, and rental space for offices (Homewood-UDBS 2011).

There are multiple buildings within the Sterling Community that could easily be renovated to serve a similar function. The existing Community Garden and other farming initiatives are already in place and seeking additional funding. The retail opportunities can also be marketed to those outside the community who are interested in supporting local food. The business incubation center would help residents develop businesses and market their skills to others within the
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greater Greenville community. One active Sterling resident is well known in the community as a tailor. He currently offers his services for free to his friends and neighbors, but could easily establish a small business and generate a reliable source of income with minimal training and support. Development of these types of initiatives will further enhance connections between Sterling and other residents of Greenville and offer leverage for increased infrastructure supporting these connections, such as sidewalks and bus stops.

One final case study was also produced by the Design Corps summer design+build studio in Austin. Another student project team worked with the owner and operator of a local farming initiative called 5 Mile Farms. His mission is to promote access to healthy foods and his vision is a community where everyone lives within 5 Miles of local produce. The students worked with the owner to create a series of mobile sales stands that could be easily transported and rapidly set up to sell produce (see figure 20). Each of the prototypes is designed to be transported by bike and was built out of standard materials available at any home improvement store. The concept of a mobile
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food market provides interesting opportunities for the Sterling Community and the existing gardening and farming initiatives. The students in Studio South at Clemson have recently been involved in an initiative promoting a more sustainable approach to tailgating at Clemson during home football games. The students designed and built a prototype unit to support bike tailgating that incorporated many of the same concepts necessary for a mobile display stand. The units could be further developed to support income generation for additional farming initiatives or this could offer a prototype project for the new business incubation center in the community. The students from the Design Corps were able to prototype and develop multiple stand concepts over the course of three weeks at a cost of roughly $300.
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Summary
The Sterling Community in Greenville is currently challenged by a series of issues that do not offer easy solutions. However, Sterling is a community in transition; there is a dedicated group of stakeholders including residents, civic and community leaders, and local professionals who are working hard to ensure that the legacy of Sterling is that of a vibrant, healthy community that residents are proud to call home. Much of the groundwork has been laid to identify assets and opportunities within the community. Extensive work has been done to empower residents and include them as a critical part of the process of change. By exploring additional relationships with local design professionals and the School of Architecture at Clemson, additional opportunities for Design Activism could be leveraged to catalyze social change within the community. A critical component to the success of the current initiatives has been the inclusion of the community as the driving force behind all initiatives and decisions. Moving forward it will be critical to maintain a high level of community involvement and interaction to ensure that any projects pursued are grounded in, and developed from, the desires of the community. Design Activism represents a significant
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opportunity to educate the next generation of architects in the process of using their professional skills in service of communities while providing meaningful services to a community struggling to build positive social change.
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Figure 1: Google Earth Image digitally modified to highlight Sterling Community
Bowman, Aaron. 2011.

Figure 2: Portrait of Reverend Dr. Daniel Melton Minus
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Figure 3: Image of Greenville Academy

Figure 4: Image of Sterling High School
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Figure 5: Image of Sterling High School destroyed by fire

Figure 6: Map of Sterling Community showing neighborhood homeownership
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Figure 7: Image of typical infill affordable housing
Bowman, Aaron. 2011.

Figure 8: Image of High School Historical Marker
Bowman, Aaron. 2011.
Figure 9: Image of Sterling Square
Bowman, Aaron. 2011.
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Figure 10: Sample Image from Sterling Community Master Plan Document
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Figure 11: Image of Sterling Hope Center
Bowman, Aaron. 2011

Figure 12: Image of Sterling Community Center
Bowman, Aaron. 2011
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Figure 13: Image of Odessa Street Community Garden
Bowman, Aaron. 2011.

Figure 14: Image of SEED Network Homepage
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Figure 16: Image of typical intersection in Sterling Community. Bowman, Aaron, 2011
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Figure 17: Digital Rendering of proposed intersection modifications
Bowman, Aaron. 2011.

Figure 18: Image of design interventions in alley
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Figure 19: Digital Rendering of Cafe and business incubator layout
Carnegie Mellon University, Homewood-UDBS. http://www.cmu.edu/architecture/udbs/Homewood/
index.html (accessed December 12, 2011)

Figure 20: Image of Pop-up sales stand
Wilson, Barbara Brown, Conner Bryan, and Jane Winslow, eds. 2011. Public Interest Design, Summer Course
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Social Impact Design Research Poster

The following poster was developed during the initial phases of research in support of this thesis. The poster was developed for a Research Methods course and investigated a series of Academic and Professional Social Impact Design Programs. The poster compared a series of metrics from each program and identified a series of “themes” common to each type of program at both the project level and the organizational level. This research formed a foundation for understanding and developing the concept of [Community by DESIGN] as presented in this thesis. These programs in particular all strive to work in a collaborative Process with Communities and achieve varying degrees of success.

Course:

    Architectural Research Methods

Instructor:

    Dr. Dina Battisto
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Social Impact Design Research Poster

ABSTRACT

During the recent economic downtown many architects began to re-examine their careers & seek out opportunities for projects with greater social relevance. This growing interest in the social aspects of design has impacted educational programs in schools of architecture & led to the growth of independent programs. This study seeks to identify common themes in the educational concepts, program structures, & project typologies that exist within these varying programs. A case study methodology was used to gather comparable data for each program & common themes were identified within the data. The study showed that despite significant variation in program design & structure, there are common elements. At the project level there is an emphasis on a discovery based process for the students, extensive interaction with the clients or community, & small scale projects. At the program level there is a need for a subsidy to cover operational & project costs, a desire for a diverse student population, & group based project teams. While these programs vary in size & structure, the themes identified are key components which support the mission of teaching design with an emphasis on creating positive social impacts.

Figure: Poster Abstract

Figure: Overall Poster
### Social Impact Design Research Poster

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<table>
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<tr>
<th>ACADEMIC &amp; UNIVERSITY AFFILIATED PROGRAMS</th>
<th>RURAL STUDIO</th>
<th>STUDIO 804</th>
<th>DETROIT COLLABORATIVE DESIGN CENTER</th>
</tr>
</thead>
<tbody>
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<td>5+</td>
<td>3</td>
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<td>4-8</td>
</tr>
<tr>
<td><strong>Full time employees who serve as Program Director</strong></td>
<td>1</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td><strong>Weeks are scheduled to design &amp; build a fully accessible house</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hours of credit are earned in the pre-requisite courses in the Fall semester.</strong></td>
<td>9</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td><strong>Approximate yearly budget for the program including all salaries, operating expenses, &amp; project costs. (Clients cover all material &amp; site costs)</strong></td>
<td>$400,000</td>
<td>$80,000</td>
<td>$300,000</td>
</tr>
<tr>
<td><strong>Hours of credit are earned in the Spring Design+Build semester.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Seminars or the Structures for Inclusion Conference projects vary as they are selected by students each year.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Approximately 50% of the yearly budget is provided by the university in the form of faculty salaries. The remaining costs are provided by clients, monetary gifts, donations of professional services, &amp; material donations. Students are responsible for obtaining project funding through grants or other means.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Each year, Studio 804 works with a local non-profit affordable housing provider to select a project site. Tenants to Homeowners then coordinates the family selection &amp; ownership transfer of the completed house.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Approximately yearly budget including all salaries of employees, consultants, &amp; student employees. Clients are charged reduced rate fees which vary by project.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Projects are typically initiated by outside organizations &amp; community groups who contact the DCDC for assistance. Recently the design studios within the University have been used for foundational research to initiate projects.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**The Rural Studio** is a fully independent student-run organization devoted to teaching design with an emphasis on creating positive social impacts. Support the mission of teaching design with an emphasis on fabricating social impact projects. The Rural Studio's unique structure is sustainable, diverse, & small scale projects within the community.

**The Studio 804** community is designed for students to work in small, multi-disciplinary groups. In order to complete projects, they are working & experimenting. The founders of Archeworks have a deep commitment to improving people's lives. The Prescott Passive House, pictured top left, & the Modular 1 project are typical of the Pre fab houses designed & built each year. Studio 804 has created a framework that is reusable each year. The projects are all pre-fabricated & shipped to the site, eliminating many of the typical concerns with construction. However, the students do not work with the future occupants or design for any specific community or user group. Studio 804 seeks to create social impact by leveraging market forces. By designing houses that are extremely energy efficient, they are able to provide housing that is cheaper to operate over the life of the building. Occupants then have additional income available for health care, education, & other needs. Studio 804 projects have been critiqued for not reflecting or responding to the needs of the communities where they are located. The design aesthetic for each project is often a product of student desires or donated materials. Most projects require in-kind donations of professional services & materials to stay within budget.

**The Detroit Collaborative Design Center** is a non-profit corporation that employs university students. It is apparent that there are similarities in approach & structures, & project typologies that exist within these targeted at professionals. This study seeks to identify in-depth analysis of a small number of case studies, the independent unaccredited organizations. The DCDC offers the greatest variety of programs such as the St. Joseph's Rebuild Center in New Orleans, pictured top left, & the Recovery Park in Detroit illustrate the impact at the smaller scale of a project & within the profession at the levels of economic disparity that exist in our communities. The Prescot Passave House, pictured top left, & the Modular 1 project are typical of the Pre fab houses designed & built each year. Studio 804 has created a framework that is reusable each year. The projects are all pre-fabricated & shipped to the site, eliminating many of the typical concerns with construction. However, the students do not work with the future occupants or design for any specific community or user group. Studio 804 seeks to create social impact by leveraging market forces. By designing houses that are extremely energy efficient, they are able to provide housing that is cheaper to operate over the life of the building. Occupants then have additional income available for health care, education, & other needs. Studio 804 projects have been critiqued for not reflecting or responding to the needs of the communities where they are located. The design aesthetic for each project is often a product of student desires or donated materials. Most projects require in-kind donations of professional services & materials to stay within budget.

**Figure: Detail, Poster**
### APPENDIX E

#### Social Impact Design Research Poster

<table>
<thead>
<tr>
<th>Archeworks</th>
<th>Austin Center for Design</th>
<th>Design Corps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicago, Illinois</td>
<td>Austin, Texas</td>
<td>Raleigh, North Carolina</td>
</tr>
<tr>
<td>Independent Non-profit 501(c)3 Alternative Design School</td>
<td>Founded in 2010 by Jon Kolko</td>
<td>Founded in 1991 by Bryan Bell</td>
</tr>
<tr>
<td>Independent Non-profit 501(c)3 Alternative Design School</td>
<td></td>
<td>Independent Non-profit 501(c)3 Design Firm</td>
</tr>
</tbody>
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<tr>
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<tbody>
<tr>
<td>24: Students: 8 architects, 8 designers, &amp; 8 from other disciplines</td>
<td>6-10: Participants including young designers &amp; mid-career professionals</td>
<td>100+: Participants between all programs offered</td>
</tr>
<tr>
<td>2: Projects are pre-selected each year for student teams to work on.</td>
<td>6: The number of projects varies but each student or team designs a business plan</td>
<td>6+: Projects yearly: (1) Conference, (4-5) SEED Training Seminars, (1) Design-Build Studio</td>
</tr>
<tr>
<td>4: Administrative Staff members for the program plus 4-5 rotating faculty members.</td>
<td>4: Full-time employees including 1 Program Director &amp; 3 faculty members</td>
<td>5: Full-time employees including 1 Program Director &amp; 3 faculty members &amp; 1 Design Fellow</td>
</tr>
<tr>
<td>1: Academic year is scheduled for the completion of all projects. Classes meet on nights &amp; weekends.</td>
<td>1: Academic year is scheduled for the completion of all projects. Classes meet on nights &amp; weekends.</td>
<td>8: Weeks is scheduled for the Design-Build studio. The training &amp; conference last 2 days each.</td>
</tr>
<tr>
<td>0: Hours of credit are available to program participants as Archeworks is unaccredited. Upon completion of the program students are awarded a Post Professional Certificate in Sustainable Urban Design, which may or may not transfer to other universities for academic credit.</td>
<td>0: Hours of credit are currently available to program participants. The ACAD is actively seeking accreditation for future development &amp; expansion. Students do not receive any formal certificate, but instead graduate with a fully developed business model ready for implementation.</td>
<td>9: Hours of credit are currently available to students in the Summer Design-Build program. IDP credit or Continuation Education Credit is available for working professionals who attend the SEED Training Seminars or the Structures for Inclusion Conference</td>
</tr>
<tr>
<td>$6,200: Cost of tuition for students to attend the one year program at Archeworks. The 1st semester involves research &amp; project identification; the 2nd semester consists of fabrication &amp; project implementation.</td>
<td>$12,000: Cost of tuition for students to attend the 32 week program. The program is divided into quarters with classes that meet on nights &amp; weekends.</td>
<td>$4,000: Approximate cost of tuition for the Design-Build Studio. The Seed Training Seminars cost between $350-450. The Conference costs $25 for students &amp; $100 for professionals to attend</td>
</tr>
<tr>
<td>Partners vary from project to project, but generally include civic &amp; community organizations, municipal entities, &amp; other non-profit organizations who work with underserved populations.</td>
<td>Many of the first round projects involved students creating novel business concepts to address “wicked” social problems. All projects were generated by students in response to issues identified during the research phase.</td>
<td>Project partners vary, but typically include organizations such as other non-profit community design centers. Design-Build Studio projects are identified by students &amp; community members through a collaborative process.</td>
</tr>
</tbody>
</table>

**Archeworks** has long been recognized for embracing an alternative method of design practice & education. Projects such as the Mobile Food Collective benefit from the unique structure of the program. The program is structured in two parts: the first part includes research, a lecture series, & discussions with the clients & user groups to determine the direction projects will take. The second half of the year is devoted to design development, prototyping, fabrication, & implementation of the design concepts. Archeworks creates social impact through the implementation of projects each year. They also are impacting the profession through alternative education that emphasizes a collaborative, multidisciplinary design process. By firmly embedding students within the culture & community of Chicago, they are able to continuously work within the same topical area, such as promoting access to local food, with a variety of partners & innovative design solutions. The founders of Archeworks have intentionally left the curriculum unstructured to allow for a maximum amount of flexibility.

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APPENDIX E

Social Impact Design Research Poster

CONCLUSIONS
After an analysis of the findings presented above, themes were identified within the data to determine how these programs taught Social Impact Design. During the interview process, it became clear that the most successful programs seek to create Social Impact at two levels: within communities at the smaller scale of a project & within the profession at the larger scale of a program. At the project scale, there was consistent emphasis on a process which required the students to interact extensively with the community members who serve as clients. The most successful projects were initiated through a participatory process where the students identified assets within a community & then leveraged these assets to address broader issues. The projects are generally small scale interventions that can be completed within a very short period of time with limited budget & limited fabrication knowledge on the part of the designers. Project implementation & fabrication is also critical to achieving positive social impact as community members generally do not have the resources necessary to implement these ideas. At the larger scale, each of these programs sees an opportunity to impact the profession by training a new generation of designers to consider the Social Impacts of their work. All of the programs depend on a subsidy to cover operational & project costs. The programs generally seek a diverse student population & require students to work in small, multi-disciplinary groups. In order to complete projects successfully, participants are required to dedicate their time & focus to the program & project. All educational activities occur within the program & are part of the curriculum; there is “no room” for additional classes or projects. The programs also train participants in roles beyond that of the typical design professional to ensure project completion.

PROJECT LEVEL THEMES
• Creating social impacts through design interventions
• Creating interaction between community & students
• Identifying projects through a participatory process
• Basing projects on community assets
• Limiting the scale, budget, & time frame of projects
• Emphasizing fabrication & prototyping of designs

PROGRAM LEVEL THEMES
• Promoting Social Impact Design within the profession
• Subsidizing project & operational costs
• Recruiting a diverse student population
• Grouping students into small project teams
• Providing a “complete” curriculum
• Training in location of funding sources for projects & project implementation strategies

Figure: Detail, Poster
APPENDIX F

Social Impact Assessment Research Poster

The following posters contain research done in support of a Social Impact Assessment of Graniteville, SC that were initially prepared for a course entitled Human Ecology: Social Impact Analysis. Our team focused on Demographics and a Population profile of Graniteville and the Horse Creek Valley. Graniteville was the site of a major environmental disaster that led to the closing of Avondale Mill, the town’s major employer. The closing of the Mill began a rapid process of decline that has deeply affected Graniteville and the surrounding communities. Our research focused on the potential impacts of a significant expansion to an existing manufacturing plant being developed by Bridgestone. The initial poster developed for the course was reformatted and accepted for display at the EPA South East Regional Conference on Environmental Justice in Atlanta during the summer of 2012.

Course:

Applied Economics/Rural Sociology: Human Ecology

Instructor:

Dr. Kenneth Robinson
APPENDIX F

Social Impact Assessment Research Poster

Graniteville & The Horse Creek Valley
A Social Impact Analysis & Demographic Profile

Figure: Overall Poster

Graniteville & The Horse Creek Valley
A Social Impact Analysis & Demographic Profile

Figure: Enlarged Detail of Poster

APPENDIX F

Research Team:
Aaron Bowman
Jordan Ford
Ben Myers
Tess Phinney
Ronesha Strozier
Josh Van Abel
Kate Watson
APPENDIX F

Social Impact Assessment Research Poster

Poster Revisions:
Aaron Bowman
Ronesha Strozier

Figure: Revised Poster
NOTES

1. 2012 began with a particularly searing article in the NY Times Economix Blog encouraging prospective college students NOT to major in Architecture. Unsurprisingly, this sparked several weeks of rebuttals and discussion among various media outlets. For this article and additional resources please see the Bibliography section on the State of the Architecture Profession.

2. The primary skill of the Designer is the ability to innovate and creatively address problems. There has been extensive research correlating [DESIGN] with the theory of Disruptive Innovation and the potential for [DESIGN] to create radical, “Disruptive” change. For additional resources on the potential of [DESIGN] to effect change and the process of Innovation, see the Bibliography section on Disruptive Innovation.

3. There is no commonly accepted term to describe the current work of Designers addressing complex social issues. Within the Profession of Architecture, the term Public Interest Design has been widely adopted. However, within the broader industry, Social Impact Design is also very common. For additional resources, please see the Bibliography section on Social Impact Design / Public Interest Design.

4. A key factor in the success of the Public Interest Design Movement’s success is its appeal to Generation X and Millennials. During the past 20+ years, there has been a major increase in Design+Build programs in Collegiate Schools of Architecture. Many of these programs engage in Community Based profits in resource deprived areas. For additional information, please see the Bibliography section and Appendix F.

5. Social Impact Assessments are a critical part of many development projects, but do not allow for a direct engagement and empowerment of the community. See Appendix D and the Bibliography for additional information on Asset-Based Design and Appendix E for additional information on Social Impact Assessments.
IMAGE CREDITS


11. IDEO, “d.light Solar Lantern Prototype” 2008


15. Design Corps, “SEED Network Logo.” http://network.aia.org/hkc/Events/EventDescription/?CalendarEventKey=c4d60a65-e022-4084-962a-6b8e2758e81f
IMAGE CREDITS


22. Asset Based Community Development Institute, “Logo.” http://www.abcdinstitute.org
IMAGE CREDITS

   http://issuu.com/streetplanscollaborative/docs/tactical_urbanism_vol_2_final
   https://neighborland.com/ideas/mem-an-open-forum-to-discuss
26. Candy Chang, “I Wish This Was” Collage. 2010. http://candychang.com/i-wish-this-was/
27. Candy Chang, “I Wish This Was” Responses. 2010. http://candychang.com/i-wish-this-was/
IMAGE CREDITS

35. Benjamin Lee, “Detail, AIA Communities by Design’s 10 Principles for Livable Communities.” 2008 http://www.aia.org/about/initiatives/AIAS075369
42. Aaron Bowman, “Bench Failure During Community Event,” 2012.
IMAGE CREDITS

IMAGE CREDITS


BIBLIOGRAPHY

Architecture


BIBLIOGRAPHY

Architecture (Continued)


BIBLIOGRAPHY

Design


BIBLIOGRAPHY

Academic Design+Build Programs


BIBLIOGRAPHY

Academic Design+Build Programs (Continued)


Lasala, H., et. al., 2005. “Accelerated Fabrication: A Catalytic Agent Within a Community of Caring,” Journal of Architectural Education. v. 58 no. 4: 12-17

BIBLIOGRAPHY

Participatory Design & Collaboration


BIBLIOGRAPHY

Asset Based Design


BIBLIOGRAPHY

Asset Based Design (Continued)


BIBLIOGRAPHY

Social Impact Design & Public Interest Design


BIBLIOGRAPHY

Social Impact Design & Public Interest Design (Continued)


Bell, Bryan, et. al., 2004. “Do-Good Design: Bryan Bell and Design Corps Spread the Gospel of Good Design for Good Causes,” Metropolis v. 23 no. 6; 28, 30,42

BIBLIOGRAPHY

Social Impact Design & Public Interest Design (Continued)


BIBLIOGRAPHY

Social Impact Design & Public Interest Design (Continued)


BIBLIOGRAPHY

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BIBLIOGRAPHY

State of Architecture Profession


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State of Architecture Profession (Continued)


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State of Architecture Profession (Continued)


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BIBLIOGRAPHY

Disruptive Innovation


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Disruptive Innovation


BIBLIOGRAPHY

Tactical / Guerilla Urbanism and Design

Chang, Candy. 2010. I Wish This Was. Projects | I Wish This Was | Candy Chang. Webpage. http://candychang.com/i-wish-this-was/ (accessed November 26, 2012)


BIBLIOGRAPHY

Tactical / Guerilla Urbanism and Design (Continued)


BIBLIOGRAPHY

Organization Websites

AIA Communities by Design:
   http://www.aia.org/about/initiatives/AIAS075265

ArchDaily:
   http://www.archdaily.com

Archeworks:
   http://www.archeworks.org

Architecture for Humanity:
   http://architectureforhumanity.org

Asset Based Community Development Institute:
   http://www.abcdinstitute.org

Design Corps:
   http://www.designcorps.org

Dudley Street Neighborhood Initiative:
   http://www.dsni.org

Ideo:
   https://www.ideo.org
BIBLIOGRAPHY

Organization Websites (Continued)

Neighborland:
   https://neighborland.com

PARK(ing) Day:
   http://parkingday.org

Public Interest Design Institute:
   http://www.publicinterestdesign.com

Public Interest Design:
   http://www.publicinterestdesign.org

Rural Studio:

SEED Network:
   http://seednetwork.org

Studio 804:
   http://www.studio804.com

Studio H:
   http://www.studio-h.org