



Landscapes of Compassion: A Guatemalan Experience

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LANDSCAPES OF COMPASSION:
A Guatemalan Experience

A Master's Thesis Presented

by

TRAVIS WILLIAM SHULTZ

Submitted to the Graduate School of the
University of Massachusetts Amherst in fulfillment
of the requirement for the degree of

MASTER OF LANDSCAPE ARCHITECTURE

May 2011

Landscape Architecture and Regional Planning Department

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DEDICATION

To my patient and loving Savior, Jesus Christ.

ACKNOWLEDGMENTS

I would like to thank my committee chair and good friend, Peter Kumble, PhD, for his years of thoughtful, patient guidance and support. Peter showed a willingness to lead me through the process of writing this uncharacteristic thesis, a heart to see myself and my peers grow as people and students of the profession, and risk-taking strength to take a group of students to another country. This will forever speak volumes of his excellence as a professor, as well as the ability of the Landscape Architecture and Regional Planning program at UMass, Amherst. This thesis, and the NGO that developed from it, would not have been possible if not for the flexibility, passion, and leadership of Professor Kumble.

Thanks are also due to Professor Patricia McGirr and Lyne J. Kendall. Together their wisdom, encouragement and excitement helped me develop and focus the thesis.

I will never be able to adequately thank all of the students that participated in the LA 291g: Field Studies in Guatemala class. Each one of them selflessly participated in the \$1300 service trip to Guatemala, sacrificing their spring breaks, to make the class, the AbonOrgánico project, and this thesis possible. Thank you: Seth Morrow, Jason Dell'Orfano, Brian Giggey, Tamzeena Hutchinson, Adam Monroy, Megan Reagon, and Dan Shaw.

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Finally, I would like to thank all of the friends and family whose support throughout the thesis-writing process and belief in the project guided me to stay focused over the past years. With their help, this thesis has led to the realization of the NGO that was once a dream. Today, seven adolescents and adults from an impoverished community in Guatemala City are able to put food on their tables and attend school because of the collaborative efforts of so many.

ABSTRACT

LANDSCAPES OF COMPASSION: A GUATEMALAN EXPERIENCE

MAY 2011

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If landscape architecture can intertwine with the practice of social justice, how should academic training provide an atmosphere where this correlation is developed? In a professional degree program, such as landscape architecture, there are a plethora of skills among students that can be utilized not only in their future careers, but during their academic experience. By learning the tools while implementing them, there is a profound educational opportunity to be taken advantage of. An even greater opportunity can be capitalized if the tools are implemented in a context where the deliverables make positive impacts on impoverished communities.

The goal of this thesis is to demonstrate how a landscape architect can contribute to humanitarian efforts; and the opportunity for this contribution should begin within the walls of academia. To support this argument, the author reviews literature and clarifies the vision and targets of this style of learning.

The most convincing part of this thesis was the implementation of a graduate level class, LA 591g: Applied Field Studies in Guatemala, where eight students, a professional, and a professor combined their scholastic, professional, and life experiences in a community service learning atmosphere. Their work led to the start-up of AbonOrgánico, a non-for-profit company located in Guatemala City whose mission is: To supply necessary jobs to at-risk youth from impoverished communities within Guatemala City by taking organic waste from the Central Market in Guatemala City and producing high-quality compost. Students participated in a 9-day spring break trip to Guatemala City, 11 journal entries, 2 questionnaires, 5 group reflection meetings, a 145-slide department-wide presentation, and a 12-chapter manual including a site design, construction details, operational guidelines, and a business plan. In the pages of the thesis, the reader will see how this class set out to make a difference with the tools they had, and they did, but the most profound difference was made by this community on them.

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CHAPTER I

INTRODUCTION

I. **Thesis Question, Goal, and Organization**_____

If landscape architecture can intertwine with the practice of social justice in community planning projects, how should academic training through hands-on experience shape this area of thought? The following text describes research and practical exercises that aim to answer this question. The proposal of this thesis is that each student should be given the opportunity to discover where the passions of the heart, the needs of the world, and the skills acquired thus far intersect (Figure 3.3). The goal of this work is to demonstrate how a landscape architect can contribute to humanitarian efforts; and the opportunity for this contribution should begin within the walls of academia. The following chapters are organized to broaden the reader and their perspective on this subject. Chapter 2: the Literature Review, references numerous authors who support the ideas behind this project. Chapter 3: Vision and Target Clarification, explains the importance for providing an atmosphere where a student can discover the intersection of the passions of the heart, the needs of the world, and the skills that he or she has learned thus far. The different means in which this experience is actually achieved is described in Chapter 4: Theory Articulation. Chapter 5:

Action Implementation and Data Collection, describes the detailed manner in which the class at UMASS (which is the case study for this thesis), LA 591g: Applied Field Studies in Guatemala, was conducted. The reflections of this class are presented in Chapter 6: Data Reflection. Chapter 7: In Conclusion - An Informed Action Plan, applies this information to the field of Community Service Learning (CSL) and specifically to the potential LA 591g of 2011. The organization of these chapters have been influenced by Richard Sagor's book, *Action Research Guidebook: A Four-Step Process for Educators and School Teams* (2005). Upon completion of this reading, one should be informed regarding the need for an academic focus on social justice and CSL, particularly within the field of landscape architecture. The reader should also understand the progression from a realization that this goal should be pursued, to how it should be pursued, to what can be learned from this pursuit. By the end of this work, the hope is that the reader will realize the need for empowering students and landscape architects with the knowledge that they are capable of utilizing their skills to impact their less fortunate neighbors and be impacted in the process.

II. Landscape Architecture and Social Justice_____

Landscape architecture and social justice: To many who are unfamiliar with the profession of landscape architecture, these two subjects might seem to be unrelated. Landscape architects are responsible for producing the designs for residential settings, public spaces, and streetscapes, but not typically for meeting

the needs of marginalized or underprivileged populations. The following proposal will describe a project that aims to prove that this work is a significant genre within the field of landscape architecture. The context of this argument is based in academia. Many students in the Landscape Architecture and Regional Planning Department are passionate about social justice, but believe that they must work diligently in school and become employed at a successful firm for many years before this area of the profession can ever be addressed. However, it is the decisions and activities that students participate in today that will shape their futures. For example, a pupil who is consistently taught residential design for three or four years is likely to become successful at a firm that focuses on residential design.

However, if students are given the opportunity to learn about the significant improvements they can make to the quality of life of an individual or a whole community living in poverty, the student will be better equipped to incorporate this benevolent work ethic in, or let it define, their professional careers. The minimal effect a service learning opportunity can make is that students are exposed to a different aspect of landscape architecture. On the other hand, it is possible that the Landscape Architecture and Regional Planning Department at the University of Massachusetts, Amherst (UMASS, Amherst) could be producing future professionals who are passionate about working at multiple scales to change their community and the world. Through a community service learning trip to Guatemala, in March of 2009, each student's

skills were utilized to aid marginalized communities in this developing country. Exposure to, and involvement with, this disenfranchised group of people could help direct the path, or even determine the course, for many who spend countless hours in the classroom setting pursuing more mainstream career options. The goal of linking the subjects of landscape architecture and social justice in a manner that will teach students to make a positive impact in the world may appear optimistic, however the purpose of this project is to make this dream a reality.

III. Guate...What?



Figure 1.1 Guatemala is located south of Mexico, east of Belize and Honduras, and north of El Salvador. It is bordered by the Pacific and Atlantic Oceans on either side and is known for its intense volcanic activity. The capital, Guatemala City, is located in the south central portion of the country (U.S. Central Intelligence Agency 2009).



Figure 1.2 Guatemala City is extremely congested (595 percent more people per square mile than Boston), and triples in population during the working hours (Univ. of Mass, Amherst, LA 591g: Spring 2009).

Guatemala is located south of Mexico, east of Belize and Honduras, and north of El Salvador (Figure 1.1). It is bordered by the Pacific and Atlantic Oceans on either side and is known for its intense volcanic activity. Guatemala is classified as a tropical climate, with average temperatures ranging from 52 to 84 degrees Fahrenheit. During the rainy season, which occurs from late May to October, the country receives an average of 10.6 inches of rainfall per month, as compared to the 3.8 inches of rain during April in Massachusetts (Climatetemp.info 2009). The capital, Guatemala City, is located in the southern central portion of the country and is 4,888 feet above sea level (Amherst, MA is

312 feet above sea level) (Encyclopedia Britannica 2009, Amherst Planning Department 2002). Guatemala City is the largest city in Central America and houses over 1.5 million residents in its 115 square miles, 595 percent more people per square mile than Boston (Wendell Cox Consultancy 2009) (Figure 1.2). Unlike cities in the United States, the wealthy live within the city, and many of the people in poverty travel in to the city on buses everyday to work their low-income jobs. The number of commuters has increased heavily, as coffee prices have dropped and the farmers have retreated to the city in search of work. The need for many of these “unskilled” laborers to find sustainable employment has been unsuccessful; many have joined the poorest of the poor in digging through trash at El Basurero (Guatemala City Municipal Landfill) (Ishiyama, Leslie, 2006).

IV. The Situation in Zone 3

For this project the dream begins in Guatemala City’s Zone 3. Life revolves around El Basurero, Central America’s largest landfill (Figure 1.3). It is here where families are trapped in an on-going cycle of poverty, where they rummage through the city’s trash in search of items that may be sold for recycling or to street vendors. These transactions earn the “guajeros” (literally, scavengers) \$1.90 to \$6.25 per day depending on the season (Ishiyama, Leslie, 2006). Both the tangible and less visible dangers of the job are overwhelming (Figure 1.4). The Basurero is situated in a forty-acre ravine and receives over one-third of the country's daily waste. Almost all of the estimated 4,000 guajeros

who sort through this waste also live in areas of the landfill that have reached such a height that trash can no longer be piled upon (Figures 1.5 & 1.6). Although government authorities continue to claim that the Basurero has reached its capacity and needs to be shut down, the waste continues to arrive daily. During the five-month rainy season, this unstable land frequently collapses, engulfing many of the city's poor every year. During rescue efforts, many of the trapped are not found; only parts of others are located because of the natural composting process that results from the organic waste within the trash. This organic waste also produces methane gas of outstanding proportions, enough to become flammable as seen in a horrific fire in 2005. This greenhouse gas can also lead to cancer and tumors among the workers, who have little access to basic health care (Ishiyama, Leslie, 2006).



Figure 1.3 The Guatemala City Basurero (Landfill) was set to reach full capacity in 2008 (Univ. of Mass, Amherst, LA 591g: Spring 2009).



Figure 1.4 The Basurero receives over one-third of the country's trash (Univ. of Mass, Amherst, LA 591g: Spring 2009).



Figure 1.5 Zone 3 contains whole communities of shanty houses (Univ. of Mass, Amherst, LA 591g: Spring 2009).



Figure 1.6 These communities have been built upon thin layers of waste and soil that used to be part of the Basurero (Univ. of Mass, Amherst, LA 591g: Spring 2009).

V. Composting and Hope

This is where the dream of this project materializes. Rather than the environment-damaging, stench-causing, and death-resulting process of fear, the natural composting process can be used in support of good. Compost can be a soil-amending, economy-stimulating, and job-creating Figure of hope and renewal for one of Central America's most horrific locations. Through the creation of a sustainable industrial composting facility, this project hopes to provide livable-wage paying jobs for the unemployed and disadvantaged youth in the most impoverished areas in Guatemala City. Why should this effort focus on the youth? Because only 69.1 percent of Guatemala can read, making it the

most illiterate nation in Central America; because today over 80 percent of the Guatemalan population never graduate high school, not a result of laziness, but of a need for contribution to the family income; and because sustainable jobs are limited and inaccessible for this demographic, so students are leaving their short-lived scholastic careers to inherit their position in the cycle of poverty (Knoth 2009).

Amidst the waste and suffering there is hope. Chepe Verde (Brady Greene) works as the Guatemala City area director for Vida Joven (Young Life), an international, faith-based, youth-mentoring organization. It was Mr. Verde who first conceived the idea of this project while observing teens and young adults forced to cut their educations short to provide food for their families. This project began to further develop with the leadership and passion of Susana Asensio, Architect, Director of the Department of Urban Construction, and former Director of Social Affairs. Ms. Asensio's passion for social justice has resulted in many tangible improvements within Guatemala City. Her position has allowed the students at UMASS, Amherst and Vida Joven to coordinate with Rosario Burgos, Environmental Coordinator, Antonio Peña, Director of Nurseries, and Lazaro Zamora, Director of the CENMA (Central Wholesale Market). CENMA, Guatemala City's largest fruit and vegetable market, produces 150 cubic yards of organic waste every day, which is transported to the Basurero (Figure 1.7). On the 105-acre (42.5-hectare) site is an office building and 20 galpones (long buildings that house the produce) (Figure 1.8). The galpones at

CENMA mainly house fruits and vegetables (Figure 1.9), but also contain restaurants, convenient stores, hardware stores, and barber shops (Figure 1.10).

Although other entrepreneurs have desired to capitalize on this situation in the past, the Municipality in Guatemala City chose to work with students from UMASS and Vida Joven because of the social justice component of this project. With the permission to use 1.2 acres on site at CENMA and a plethora of organic material to begin this composting facility, this project represents a worthy investment in the future prosperity of the youth of Zone 3. Another aspect that qualifies this project is the economic market. The Municipality spends between \$200,000 and \$300,000 US dollars annually on poor quality soil, soil that could be amended with compost (Asensio 2009). With a fifty-fifty ratio of compost added to the soil, there is the ability to sell the compost for approximately \$100,000 and reduce spending on municipal soil by fifty-percent. According to Chepe Verde and other municipal officials, there also exists a market for farmers, private landscape contractors, and homeowners.

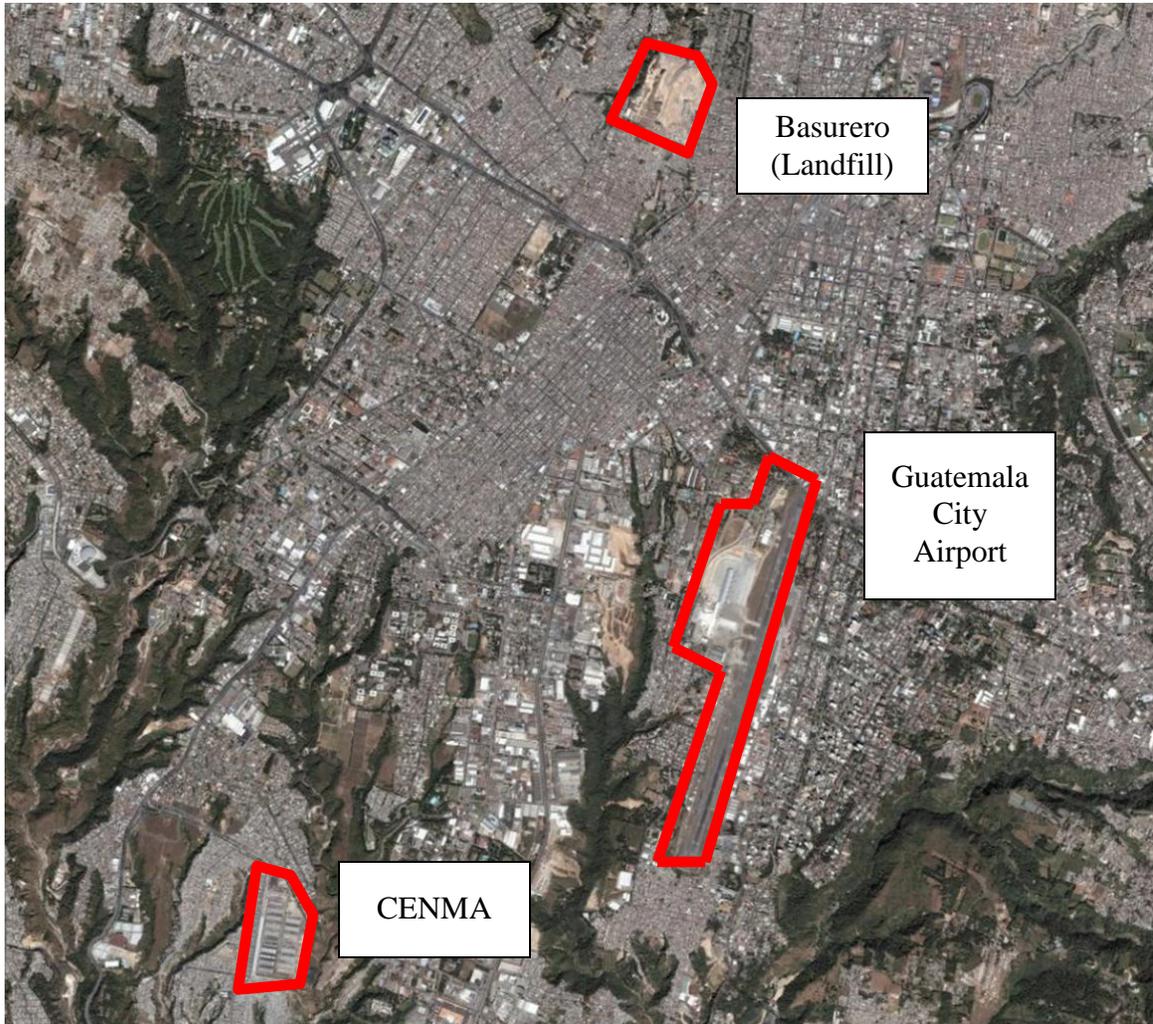


Figure 1.7 The Guatemala City Basurero (landfill) is located 4.5 miles from the Central Wholesale Market (CENMA) and 2.5 miles from the Guatemala City Airport. The City is extremely congested and triples in population during the working hours (Google Earth 2008).



Figure 1.8 CENMA is the Municipal farmer's market in Guatemala City. On the 105-acre (42.5 hectares) site is an office building, expansion space and 20 galpones (Google Earth 2008).



Figure 1.9 The galpones at CENMA mainly house fruits and vegetables, but also contain restaurants, convenient stores, hardware stores, and barber shops (Univ. of Mass, Amherst, LA 591g: Spring 2009).



Figure 1.10 Galpon 10 consists of about 15 small restaurants.

VI. Our Role

Although the idea for producing compost and providing jobs to adolescents may appear simple, the momentum needed to begin this project is more than one individual could generate. This initial step began with a UMASS course, Landscape Architecture 591g: Applied Field Studies in Guatemala. This community service learning class asked the question “How can we, as aspiring landscape architects and planners, connect the passions of our hearts, the skills we have acquired thus far in our educational career, and the needs of the world?” The focus of the class was on the research, design and application of a specific project: the start-up of an industrial composting facility in Guatemala City. The students met once a week (and visited the site during the March 2009 spring break) to learn about community service learning, Guatemala City, and the process of composting (including a field trip to a Massachusetts commercial composting site).

The class produced an operational guide in October of 2009. This manual includes: compost research, site design, construction documents, an operation and management manual, financial data (including a business plan, spreadsheets and grant opportunities) for phased stages, a marketing plan, and educational goals and objectives, all of which need to be developed and prepared before this project can be seen as viable. A great amount of information was learned before the spring break trip, however, it was not until arriving in Guatemala City that the work could be focused. The class met with locals and municipal officials to

gather the information needed to advance the financial data, site design, and operational information. During this trip, daily journals and group meetings ensured communal learning and unforgotten memories.

Upon returning to UMASS, the class continued its weekly meetings to finalize the documents, especially the operational guide, which conveys the information necessary to begin and sustain a successful industrial composting site in Guatemala City. During the final weeks of the semester, class discussions focused on expressing and analyzing experiences and how they relate to educational and professional careers in landscape architecture and regional planning. Finally, these experiences were summarized for a department-wide presentation.

If working with marginalized communities is introduced as a focus within the field of landscape architecture during a student's academic career, professional implementation soon can soon become a recognized genre. With the broad range of skills one has acquired within their chosen field, the ability to aid and be aided by the underprivileged is limited only by one's passions. Parks designed for the homeless; beautification of impoverished neighborhoods (without gentrification); environmental education through the park experience and outdoor classroom instruction; environmental justice; and, job creation are some of the professional venues for the positive implementation of the tools of

future landscape architects. Helping and being helped by those in need is not a subject divorced from our profession, but a genre within our profession that must be taught, learned, and explored.

CHAPTER II

LITERATURE REVIEW

Landscape justice is the use of the landscape environment as a catalyst to promote social justice (Agyeman, Bullard, Evan 2002). The following articles have encouraged the author to believe that the idea of landscape justice is not just an idealistic concept, but that others in the field are implementing these ideals in their practices. The reviewed literature has paralleled the increased focus of this master's thesis, and sources have been removed and added accordingly. References with a foci on community participation, the design/build process, community service in the academic setting, and primary educational research, as well as an article about the Guatemala project completed by University of Washington's Landscape Architecture Department, have been included. Due to the breadth of this work, the following sources are divided into five categories: General Council, Examples, Process (Community Participation), Community Service Learning, and Action Research.

I. General Council: Wisdom for Reality_____

Over the past two decades, many works have been published on social and environmental justice. Many authors, critics, and practitioners have noted

the lack of equity among the economic classes, especially in respect to the landscape that they live in. Landfills adjacent to trailer parks, power lines hovering over low income housing, and industrial zoning abutting rundown apartments are some of the common trends that many have documented, but few have set out to change. The following authors offer general council to those who choose to not just complain about these very real issues within our culture, but aim to actively reverse the inequities around them.

Jillian Agyeman, Robert D. Bullard, and Bob Evan's (2002) research in the area of landscape architecture and social justice discusses the varying approaches to environmental justice. For many years, the strategy has been framed as a reactive response to existing conditions. Although this is necessary, as we must clean up what we have spilt, a more progressive approach must also be considered. According to the authors, we must realize that the most successful implementation of sustainability has been achieved by Non-Governmental Organizations (NGOs), academics, and local community organizations. The federal, state, and local governments need to learn from these groups, as well as recognize the importance of placing sustainability in the context of social justice, equity, and human rights.

Robert W. Williams (1999) states that poor Americans, especially those of color, are the citizens that usually bear the negative environmental byproducts of our society, such as proximity to hazardous sites. Many grassroots organizations and public-interest groups have formed to reverse this trend of environmental

injustice. However, opponents of these groups claim that the problems are not interconnected, that is to say that each injustice is independently the responsibility of the specific community. This argument of scale can exclude state and federal cohesiveness and therefore immobilize a national and even international environmental justice movement.

Steven C. Bourassa (1992) claims that aesthetics are not just a desirable amenity at a site or in a community, but rather a vital characteristic that keeps an area active and alive. Landscape aesthetics, therefore, need to become a seriously considered concern of the local and state government if an area is expected to thrive, or even just survive. Aesthetic inefficiencies are apparent when there is an unequal distribution of resources. It is in these instances that the role of the government should include improving the landscape aesthetics of the suffering community.

Following the same line of thought as Bourassa, Don Mitchell (2003) emphasizes the importance of landscapes, not as an aesthetic amenity, but as a catalyst of cultural progression. Symbols and metaphors have significant value, but only as a window into the physical and material landscape that “make[s] up the substance of women’s and men’s lives.” The landscape must be about things other than itself, including the commitment to antiracism and economic equity. The landscape must not only be the evidence of a progressive culture, but an active part of it.

II. Examples of Hope

Although the above information may appear idealistic and incapable of reversing observed trends in environmental injustice, there are examples in the field of those who have chosen to implement these philosophies successfully. The following examples have been chosen because of their relevance to the project in Guatemala City. The perspective of Gardner, a former Master of Landscape Architecture student at the University of Massachusetts, Amherst, on housing and youth, as well as the model of Winterbottom, Landscape Architecture professor at the University of Washington, of working with the marginalized both domestically and abroad, heavily influenced the actions described in the following chapters.

In her thesis, *Affordable Housing and Landscape Architecture*, Gardner (1998) aimed to demonstrate how landscape architects can have significant impacts in the affordable housing movement, specifically in the South Holyoke community in Massachusetts. Her study included collaboration with Habitat for Humanity International and Nueva Esperanza, a non-profit organization that works to improve the quality of life among Holyoke citizens (ranging from housing opportunities to youth programs). Through her work, Gardner proved that landscape justice does exist, and can play an active role in (and even lead) the movement toward equality (Gardner 1998).

Winterbottom has taught and practiced landscape architecture in many of the most marginalized communities, including war-ravaged areas, prisons,

orphanages, AIDS facilities, and garbage dumps. In his article published in *Landscape Architecture Magazine*, *Working in the Margins* (2007), Winterbottom discusses his work in creating a much needed playground in a women's prison. This playground was designed for mothers in prison whose lives and relationships are set in atmospheres of constant stress and neglect. Winterbottom and his students at the University of Washington designed a garden in the midst of the turmoil that included a wood bridge, seating rocks, benches, an amphitheatre, quiet contemplative spaces, young play areas, older play areas, and a basketball court.

In an additional article, *In Guatemala, Building Landscapes of Hope* (2008), Winterbottom shares his experiences and design ideas that were implemented in an impoverished neighborhood, Zona 3, in Guatemala City. This area, dependant on the adjacent landfill (the largest in Central America), was in dire need of some connection to nature, especially for the children. A school was already being built on an area of land donated to Safe Passage, a non-profit group that aims to use education to lift the poor out of their situation, and there was a need for outdoor space for the children (and their mothers). Winterbottom brought students to Guatemala during the fall semester of 2007, where they spent the first three weeks designing, and the next five weeks constructing what became an oasis of hope set in an atmosphere of trash.

III. The Process: Community Participation _____

A common practice within the field is to repeat successful ideas. Tried and tested methods are useful for informing a community of what has been successful in other situations, but it can never be assumed that the approach used in one community will be appropriate at a different location. The following paragraphs illustrate the history of, and need for, community participation within the field of landscape architecture. Also discussed is advice for how to involve and design with the public.

With respect to community participation, the profession of planning has a much more extensive history of use and ethical framework. This can be seen in the AICP Planning Code of Ethics clearly which states, in Section A.1.f, that “[w]e shall seek social justice by working to expand choice and opportunity for all persons, recognizing a special responsibility to plan for the needs of the disadvantaged and to promote racial and economic integration” (American Planning Association 2005). The American Society of Landscape Architects (ASLA) Code only mildly references the need for a sense of responsibility in aiding the marginalized. The preamble claims a “dedication to the public health, safety and welfare,” but the sections and articles that follow focus on what a Landscape Architect should *not* do:

R1.103 Members shall not give, lend or promise anything of value to any public official...to influence the judgment or actions in the letting of contract, of that official or representative of a prospective client.

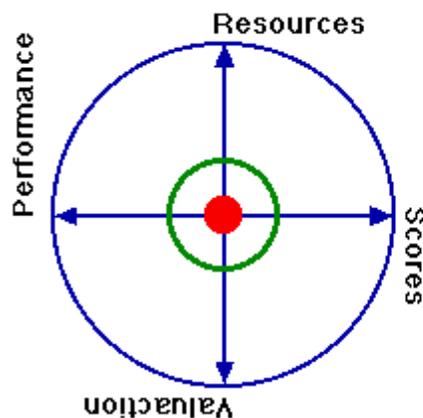
R1.110 Members shall neither copy nor reproduce the copyrighted

works of other landscape architects or design professionals without prior written approval of the author.

R1.106 Members shall not mislead...clients about the result that can be achieved through the use of the member's services... (American Society of Landscape Architects 1999)

With this emphasis on what landscape architects should not do, there is little promotion of aiding the underprivileged as seen in the Planning Code of Ethics. This issue can be applied to the fabric of the landscape architect profession. It is difficult for a landscape architecture educational program to promote what the code of ethics does not cite as a foundation of the profession. How can the profession offer what its students and ethical code does not address?

Although there are many stumbling blocks in the road of social justice in landscape architecture, there are landscape architects who have managed to edify the oppressed through community participation. As early as 1969, Halprin wrote a book, *RSVP Cycles: Creative Processes in the Human Environment*, to describe the organic processes of community participation. He explained that resources, score, valuation, and performance are the four inputs to the design process. He describes valuation “as an integral part of the process, people’s feelings and belief systems, as well as community needs” and he continues by saying “desires must be integrated with a decision-making process that respects, acknowledges and incorporates these values.” According to Halprin, these four characteristics are necessary for the design process (Figure 2.1). It is of interest that forty years ago valuation, or community participation, was seen as vital to achieve the desired result (Halprin 1969).



Resources are what you have to work with. These include human and physical resources and their motivation.

Scores described the process leading to the performance.

Valuation analyzes the results of action and possible selectivity and decisions. The term "valuation" is one coined to suggest the action-oriented as well as the decision-oriented aspects of the Y-cycle

Performance is the resultant of scores and is the "style" of the process.

Figure 2.1 The RSVP Cycle illustrates the process for using community participation to design and solve problems (Halprin 1969).

In his article titled *Community Participation in the Planning and Management of Cultural Landscapes*, Paul Selman states that local stakeholders are invaluable participants in the protection and maintenance of cultural landscapes. Grassroots organizations, interest groups, central and local governments, non-governmental organizations, and the wider public can collaborate in the purchase, planning, design, and maintenance of communal landscapes (Selman 2004). In Glasmeier and Farrigan's article, they discuss the practical obstacles to sustainable development in America's most environmentally challenged communities. Simple and logical practices are not always the most practical, and designers and planners should not always assume that a governmental program to clean up streams and roadways where it is needed in a poverty-stricken area will be successful or even desired in the community. This was seen in their seminal work with an Appalachian community, where Glasmeier and Farrigan realized

the need of knowing the client. During town meetings and other forums, their Native American clients did express a desire typical solutions that Glassmeier and Farrigan had assumed would work. In an effort apply community participation principles, the authors began to realize that people are not statistical numbers, but rather individuals who have differing, practical needs (Glasmeier and Farrigan 2003).

Winterbottom fits landscape architecture into this wisdom of community participation. In his article, *In Guatemala, Building Landscapes of Hope*, Winterbottom (2008) reviews some practical tips for working with impoverished communities: design to solve community needs (rather than to express yourself), take advantage of low-tech systems and green technologies, and clearly articulate and agree on the roles and responsibilities of the clients, the community, and the design team. The application of this community participation led to a work that satisfied many stakeholders, including the members of the community, site owners, designers, overseers, construction workers, and users. This is the model of participation that landscape architects should take note of and mold to fit the specific community for which they are working.

IV. Community Service Learning: Developmental Models of Collective Consciousness

Community Service Learning (CSL) is an academic model for merging education and social justice. With this, students benefit from the tangible

applications of their academic experience and the community benefits from the free service offered by motivated students. Although there are many obstacles to overcome as with any public service venture, the result almost always outweighs the initial efforts invested in the experience. It is in these academic settings that landscape architects and regional planners are given the opportunity to apply concepts of social equity and community participation described in the previous two sections. This CSL atmosphere becomes a safe place for students to test their designs and plans which are motivated by a desire for helping in a selfless manner.

Brown and Jennings discuss the need for CSL in their article, *Social Consciousness in Landscape Architecture Education: Toward a Conceptual Framework* (2003). Brown, a professor in the Department of Landscape Architecture at Cal Poly Pomona, and Jennings, a professor in the Department of Educational Psychology and Counseling at California State University, state that nearly all academic curriculums focus on the technical tools needed in the profession of landscape architecture. In a keyword search conducted by Brown in 2002, 73 accredited landscape architecture programs within the United States were analyzed. The disappointing results showed that only five of the 73 programs offered courses that included "ethics" in the title. Similarly, only two included "values" and one included "equity." This would be acceptable if education and professional behavior were unrelated, however "education influences the moral development of individuals, and there is evidence that this development

continues well past childhood, suggesting that professional education can play a role in the development of principled thinking” (Brown and Jennings 2003, p. 103). It is in the classroom and studio setting that students can begin to develop a collective conscious that fosters a sense of purpose within the profession of landscape architect (Brown and Jennings 2003).

A collaboration of skills and passions is required when community service learning studios challenge students to work in real communities. Larry May (Brown and Jennings 2003) states that:

“When a person feels that he or she should conform to a social role, that person takes on a set of beliefs that are clearly felt in the individual self. But the moral authority conveyed by the social role is based on what we might call a ‘we-belief.’ Here the social force of an individual’s feeling of obligation comes from a complex set of beliefs, for instance, believing that he or she is a member of a particular group, believing that the members of a group have agreed that a certain type of conduct is required for continued group membership, and believing that one wants to remain a member of that group” (p. 101).

Essentially, this suggests that when a group is unified with a common purpose, each member’s ideals become focused through the lens of the group’s beliefs. Some students in the Landscape Architecture and Regional Planning Department at the University of Massachusetts, Amherst (LARP) are especially passionate about site design, and others about community involvement, and still others about construction and the design-build process. Under the umbrella of social justice, individual skills can be utilized for a purpose that drives each group member.

Although this concept may seem simple, few professors apply CSL to a studio setting. Faculty workloads are increased before, during, and after the studios because of the need to “establish long term contacts within the community, work out contracts, write grants, double-check the quality of data collection and writing done by students, and finish up loose ends once the studio is over, which [can] include drawings and reports” (Forsyth, et al. 1999, p. 177). Also, faculty within the landscape architecture program have specific expertise that focus on aspects of landscape design that are considered essential to the profession. Site planning, garden design, and cultural preservation are the focuses within the field that warrant value and attention. It is nearly impossible for a professor in LARP to maintain a full-time focus on community service learning, as it encompasses all other focuses within and outside the class curriculums. As a result, the educational objectives within the CSL atmosphere often differ from specific faculty expertise (Forsyth, et al. 2000, p. 237). With a more optimistic perspective of this issue, one realizes that within the context of social justice, professors are forced to step out of their comfort zones and become more well-rounded teachers as well as participants in society. All become humbled when they encounter the presence of the disadvantaged, and those that do not are at least moved by the experience (Forsyth, et al. 2000).

Challenges to the CSL module exist from the perspective of the student of landscape architecture as well. Many studios incorporate the involvement of the community, whether it is city officials, residential homeowners or the users of

the space that will be designed; community participation is often a highlight within the student presentations. Therefore, the benefit of interacting with the community is often overlooked in the conversation of CSL because this is already done in the normal studio setting (Forsyth, et al. 2000, p. 244). However, this argument overlooks the innate purpose of community service learning: to connect the passions of the heart with the needs of the world using the skills that have been acquired thus far in one's educational career (Forsyth, et al. 2000).

There is also confusion concerning when to introduce the CSL class during a three to four year professional degree curriculum. During the first years within the program, some students have a greater capacity for change, that is to say that their ideas about the professional atmosphere and where they fit in it are not yet fully developed. At this point, students can idealistically dream about their post-graduate lives, and it is from these dreams that their future decisions grow. However, if ideas about social justice and its intersection with landscape architecture are not seeded into more junior students' minds, their upperclassmen personas may be too formed to accept this non-traditional mindset. On the other hand, sending a first-year student into the already complicated structures of impoverished communities may be very unwise without close mentoring and guidance. He or she may have not yet acquired the skills needed to properly aid the community in need (Forsyth, et al. 2000, p. 246).

The groups of people who accept the aid are not simply a demographic to be studied, but rather a dynamic mixture of cultures often different from those of

the class. Students must clearly understand that these individuals have significant (and often fascinating) cultural histories, economic backgrounds, political alignments, and visual preferences different than our own. This raises the issue of the false hope provided to the client, especially in the promise (or assumed promise) of built structures and implemented plans. This can have the opposite affect of citizens who feel used, possibly resulting in indifference toward future community planning because of the lies that they have been told. Another issue with working with this genre of the community, as with any genre, is that there is a certain expectation of quality that the students might not have to offer. This potential misleading can be reversed with a simple conversation between the faculty and the key players within the community (Forsyth, et al. 2000).

By the end of their article, Forsyth, et al. ask, "Is Service Learning Worth It?", and conclude that CSL "has the potential to provide the kinds of skills and approaches that are essential for the professions, particularly the design professions, if they are to retain their relevance" (2000). If faculty, students, and the community are informed beforehand of the challenges concerning the process, many foreseen and unforeseen issues can be more easily pacified as they arise. An important but often overlooked aspect of CSL is the reflection throughout the process. Simple journaling, surveying and discussing one's experiences can be the difference between a good class and a semester that challenges beliefs, reforms ideals and redirects lives. With much of this information, Forsyth, Lu and McGirr (2000) applied the previously discussed principles to the studio setting and analyzed the academic success with student surveys. Results showed that students "learned about interacting with the community

(residents and city officials), understanding cultural differences and similarities, and...urban design and urban issues" (174).

In a study conducted by Westheimer and Kahne, students who had completed a CSL class, "expressed excitement at the prospect of getting involved in ways they did not know were available to them before their experience...The curriculum also developed students' desire to participate in civic affairs and gave them a sense that they could make a difference in the lives of others" (Westheimer and Kahne 2004, p. 250). In this article, Westheimer and Kahne categorize three types of citizens (see Table 2.1), the personally responsible citizen, the participatory citizen, and the justice-oriented citizen. Differing educational structures within the context of CSL inherently focus on one of these three attributes.

Kinds of Citizens

Personally responsible citizen	Participatory citizen	Justice-oriented citizen
<i>Description</i>		
Acts responsibly in his/her community Works and pays taxes Obeys laws Recycles, gives blood Volunteers to lend a hand in times of crisis	Active member of community organizations and/or improvement efforts Organizes community efforts to care for those in need, promote economic development, or clean up environment Knows how government agencies work Knows strategies for accomplishing collective tasks	Critically assesses social, political, and economic structures to see beyond surface causes Seeks out and addresses areas of injustice Knows about democratic social movements and how to effect systemic change
<i>Sample action</i>		
Contributes food to a food drive	Helps to organize a food drive	Explores why people are hungry and acts to solve root causes
<i>Core assumptions</i>		
To solve social problems and improve society, citizens must have good character; they must be honest, responsible, and law-abiding members of the community.	To solve social problems and improve society, citizens must actively participate and take leadership positions within established systems and community structures.	To solve social problems and improve society, citizens must question, debate, and change established systems and structures that reproduce patterns of injustice over time.

Table 2.1 The personally responsible citizen, participatory citizen, and justice-oriented citizen each aim to better their surroundings, yet their objectives for accomplishing and therefore their results differ greatly (Westheimer and Kahne 2004, p. 240).

During the fall semester of 2008, the University of Massachusetts, Amherst offered a CSL class focused on personally responsible citizenship. This class was entitled Latin-American Studies 698: Practicum in the Department of Latin-American Studies. As a student in this class, I was required to spend at least six hours a week working with underprivileged students at the Boys and Girls Club of Greater Holyoke, as well as keep a weekly journal and write a research paper. This purpose of this class was to generate personally responsible citizens in that the students participated in a justice-oriented cause already in existence. As students in this class, we realized our ability to make a difference by joining the work started by others. "Boys & Girls Clubs of America had its beginnings in 1860 with several women in Hartford, Conn. Believing that boys who roamed the streets should have a positive alternative, they organized the first Club. A cause was born" (Boys and Girls Clubs of America 2009). Without the hardworking staff and volunteers like us, the positive impact on young people through this organization would not be possible. The temporary volunteer work contributed by our class can be understood as an important contribution to our foundation as a personally responsible citizen, as it was in this mindset that we "did our part" to build a better community (Westheimer and Kahne 2004).

The step of moving from that of a personally responsible citizen to that of a participatory citizen demands a sense of leadership from the individual. Rather than volunteering at a Boys and Girls Club, a participatory citizen would be an employee of the organization, or even be involved with the start-up of a

new Club in a needed area. He or she would focus on bringing the mission of the Boys and Girls Club to students or locations where it has not yet reached. During the past few years, I have had several opportunities to organize food drives of small proportions. Collecting food to be cooked and stocked in soup kitchens was a task that required the help of many, and consistently resulted in the communal sense of gratitude and well-being. The times that have impacted us more, however, are when we have had the opportunity to bring the food, drinks, and clothing to the streets, meeting people where they were, rather than expecting them to come to us. Although simple and relatively quick, these experiences have done more to change the way my friends and I think politically, socially and personally when discussing and interacting with people who are in poverty.

Both types of citizen, personally responsible and participatory, focus on the problem at hand in that they see the problem and determine how to solve it. The justice-oriented citizen, however, aims to remove him/herself from the situation with enough distance to ask the deeper questions of "why?" but does not separate him/herself far enough to lose relevance to the community in need. A justice-oriented citizen must both look at systematic issues as well as take actions toward solving these issues. The University of Massachusetts, Amherst, offers a class entitled Communications 497BH - ST- Media Literacy and Community Media which I took in the fall semester of 2008. Students in this class study the sources and effects of racism within the media. We then taught

this information to predominantly Hispanic sixth grade students in Holyoke, Massachusetts over six weekly class sessions. The final product, along with our journal entries and papers throughout the semester, was a short public service announcement organized and acted out by the sixth grade students informing their community of the causes, affects and possible solutions of racism. Through this project, the middle school students, as well as the orchestrating UMass students, became justice-oriented citizens by developing and utilizing the tools to analyze the media and responding with action in the form of their own public service announcements.

Although the separation and analysis of these three genres of citizens is a healthy exercise that encourages depth of purpose, Westheimer and Kahne describe these groups in a linear method. Almost as if it is a three-step process in which the goal is the justice-oriented citizen, the authors support the claim that “the emphasis placed on individual character and behavior obscures the need for collective and public sector initiatives; that this emphasis distracts attention from analysis of the causes of social problems and from systemic solutions; that volunteerism and kindness are put forward as ways of avoiding politics and policy” (Westheimer and Kahne 2004, pg. 243). A more holistic view might describe these three groups not a 3-step process, but an organic community of motivated people working together with the skill set they have. Yes, the justice-oriented citizen focuses on the deeper causes of the issues affecting marginalized populations, but it is the participatory and personally responsible citizens who

refuse to ignore the fact that, although an issue might be systemic, their neighbors cannot be ignored in the midst of political debate.

V. **Action Research: “Social Research for Social Change”** _____

Action Research is a powerful term among educators, yet its definition is unclear among many in practice. Ideas surrounding the subject include: “a validation of field research,” “a collection of primary research,” or “research in which the research question follows the initial findings” (Tomal 2003, pg. vii). All of these statements are true, but a deeper definition is needed to understand why “action research is one of the most practical and efficient methods of conducting research by educators” (Tomal 2003, pg. vii). In Tomal’s book, *Action Research for Educators*, he begins by explaining what action research is not. Action research is not quantitative research in that it is not formatted as a solely scientific approach that requires elaborate statistical analysis, nor is it qualitative, demanding a naturalistic and emergent approach to enquiry that calls for lengthy narrative explanations. “Action research is a systematic process of solving... problems and making improvements” (Tomal 2003, pg. 5).

Greenwood and Levin define action research as “social research carried out by a team encompassing an action researcher and members of an organization or community seeking to improve their situation” in their book, *Introduction to Action Research: Social Research for Social Change* (Greenwood and Levin 1998, pg. 4). Through this process, the authors make a powerful statement

that social research generating results void of action is “counter-intuitive,” and claim that “action is the only sensible way to generate and test knowledge,” (Greenwood and Levin 1998, pg. 6). The intent of this generating and testing is to bridge theory and practice in such a way as to involve a diversity of groups, each contributing their skills to increase the sustainability of communities and organizations (Greenwood and Levin 1998).

Sagor proposes that action research is “a disciplined process of inquiry conducted by and for those taking the action” (Sagor 2000, pg. 3). He very clearly states that the purpose of action research is to adjust future action based on the results. Two methods exist, according to Sagor, by which the researcher conducts his or her research. The first can be described as descriptive research, as the purpose is to understand what is occurring via the testing of the operative system or approach that is currently in place. The primary concern of the second method, quasi-experimental research, is to test a hypothesis. “Quasi” explains that it is ethically and practically impossible to implement classical experimental design since this would require a control group. The stages necessary to accomplish the goals of both these methods are outlined in Table 2.2 (Sagor 2005). Because of the applicability of this four-staged process to goal of this thesis, Sagor’s format has been used to structure chapters III to VI of this document.

Stage	Key Question
1. Clarifying Vision and Targets	What do I want to accomplish?
2. Articulating Theory	What do I believe is the approach with the greatest potential for achieving my goals?
3. Implementing Action and Collecting Data	What data will I need to collect to understand the efficacy and workings of my theory of action?
4. Reflecting on the Data and Planning Informed Action	Based on this data, how should I adjust future actions (teaching)?

Table 2.2 The four-step process to conducting action research aims to focus the researcher on a specific target and carry this vision throughout the process, finalizing the work with tangible results that affect future action (Sagor 2005, pg. 5-6).

VI. Summary

Throughout this journey of literature exploration, it can be observed that it is possible for landscape architects to apply their valuable and vast knowledge to meet the needs of the world, especially when looking through the lens of CSL. Agyeman, Bullard, and Evan's (2002) research documenting the importance of grassroots organizations, and Selman's work concerning the value of local stakeholders to protect and maintain spaces, have provided much inspiration and encouragement to develop a working relationship with the members of the community that I have come to know in Guatemala. One of these citizens, Susana Asensio, agrees that that landscape aesthetics are not just an amenity, but a vital characteristic that keeps a community alive (Bourassa 1992). It is these aesthetics that are often not planned in proximity to impoverished

neighborhoods (Williams 1999), but can be used as a catalyst for cultural progression (Mitchell 2003). Amidst this desire to help, we need to be sure that our work does not impose our American ideals on our Guatemalan neighbors (Glasmeier 2003), as assumptions on how things should be can lead to failure. Rather, we need to follow Winterbottom's example and become knowledgeable of and learn from the community in Guatemala City (specifically, Zone 3) before we design their spaces. The result of this CSL experience aims to be beneficial to the community in Guatemala, the students and faculty in the LARP at the University of Massachusetts, Amherst, the department as a whole, and the profession of landscape architecture (Brown and Jennings 2003; Forsyth, et al. 1999).

Potential contributions to each of these communities will be the result of a focus on the educational experience. Educators can choose to develop the personally responsible citizen, the participatory citizen, or the justice-oriented citizen, depending on the professor's goals and objectives. The quality of this development is then systematically analyzed to solve educational problems and make improvements through the lens of action research (Tomal 2003). This lens is also an intersection of participation, action and research in which theory and practice meet (Greenwood and Levin 1998). This meeting is not arbitrary, but rather is a process through which a researcher focuses a vision, creates a theory, tests the theory via action and data collection, and then reflects on the information to plan for future action (Sagor 2005). It is these steps that outline

the methods used in this thesis project. Each of the following chapters describes the methods and results of these stages in relation to Landscapes of Compassion: A Guatemala Experience.

CHAPTER III

VISION AND TARGET CLARIFICATION

I. Introduction: Unanswered Questions_____

Chapter 1 claims that Community Service Learning (CSL) aims to ask the question, “How can we, as aspiring landscape architects and planners, connect the passions of our hearts, the skills we have acquired thus far in our educational career, and the needs of the world?” In the following section, it states that the purpose of answering this question is for each of us to find our “further call”. Although this may sound good, what does it really mean? What are the passions of our hearts? How do we qualify the skills we have acquired thus far? How can the needs of the world even be described or condensed into a topic that can be addressed? And what defines a “further call”? It is these questions that are answered in Stage 1, Clarifying Vision and Targets.

II. A Further Call_____

In his Biblical letter to the Ephesians, Paul “urge[s] you to live a life worthy of the calling you have received” (Zondervan Corporation 2009). This usage of the word “calling” was originally translated from the Greek word *klēsis*, which is translated interchangeably with the word “vocation” (Blue Letter Bible

2009). The Greek language communicates the idea that our calling and our vocation should intertwine to such a degree that one represents the other. Each of us has a deep yearning to pursue that calling which is worthy of the dedication of our lives, yet most of us admittedly fall short of that calling. The details of the day blur our holistic perception and, over time, the call we once heard, or once desired to hear, becomes referred to as a youthful and idealistic fantasy.

Education should represent the pursuit of the passion once held as an ideal. Students are inherently in search of or following their further call. Selection of a major and field of study represent the decisions of an individual to determine his or her vocational purpose. Yet academia, especially in professional programs, often becomes a setting of skill acquirement, a natural switch that appears harmless. However, as this harmless attitude of skill acquirement sets in, classes gradually become about grades and credits, and graduation represents a diploma. Graduating students step out into the professional world and become swept away in the sea of salaries and promotions and titles. Alumni realize that their basic human needs must be met to live, and for these needs to be met, jobs need to be worked, and for these jobs to be worked, basic needs must be met. If money begins to accumulate, basic needs become materialistic desires, and dreams become muddled in mediocrity (see Figure 3.1). Life quickly becomes a cycle of meeting needs and desires, yet the

heart inside each person will always beat with the same blood that inspired him or her to dream so long ago.

What if the academic experience moved beyond skill acquirement, and the focus became the discovery and pursuit of a further call? What if graduation represented more than a diploma, but a gateway toward one's actual vocation? And what if this vocation met world needs, leading towards a satisfaction that one was living out his or her true passions (Figure 3.2)? Education is driven towards this goal, as it is the reasoning behind many students' choice of a specific academic path. The question then becomes what might an education look like that is aimed at encouraging students to discover and pursue their calling?

III. Focus Identification

The opening quote to this chapter read, "Where our deep gladness and the world's deep hunger meet, we hear a further call". The proposal of this thesis is that each student should be given the opportunity to discover where the passions of the heart, the needs of the world, and the skills acquired thus far intersect (Figure 3.3). Each of these intersecting criteria are general enough to apply to all students, but specific enough to have guiding principles.

"The unique passions of one's heart". These can be identified through the analysis of life experiences, or desired life experiences. When contemplating the passions of one's heart, it is important to consider this phrase in the context

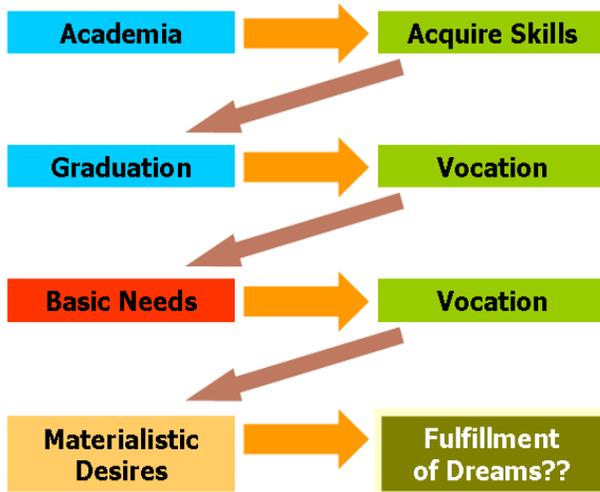


Figure 3.1 When the focus of academia becomes skill acquirement, the end result is often unfulfilled dreams.

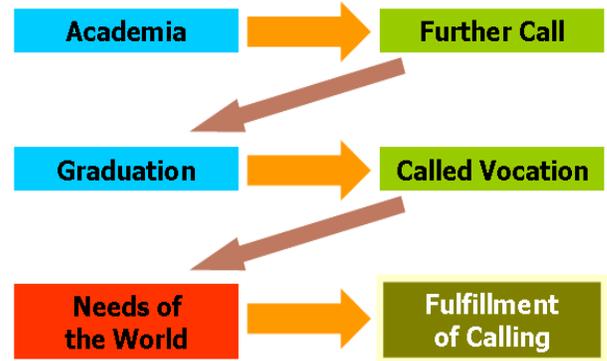


Figure 3.2 When the focus of academia becomes the search for a further call, the end result is often the fulfillment of that calling.

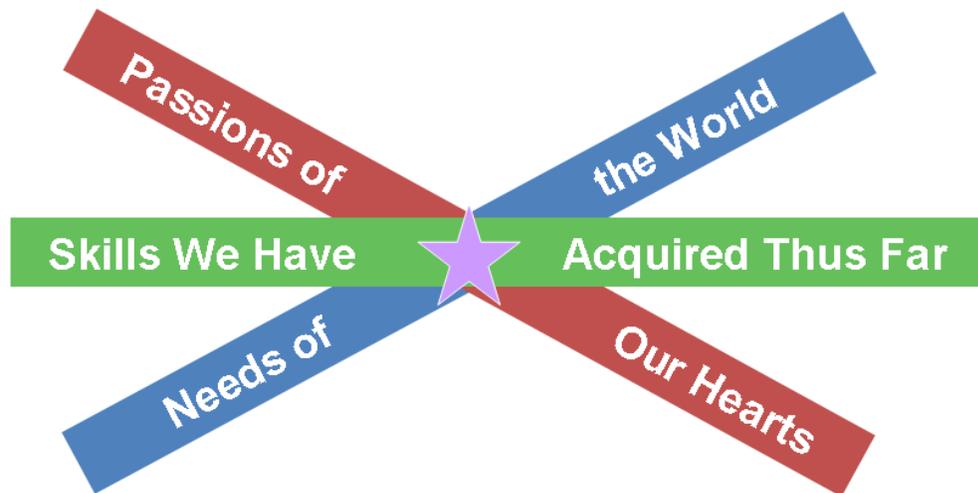


Figure 3.3 Crossroads of a Further Calling: where the passions of our heart, the needs of the world, and the skills we have acquired thus far intersect, we find direction and purpose.

of the first centuries of the Common Era, when the heart was seen as the center of the body which all other parts depended upon for life. "In the fourth century B.C., the Greek philosopher, Aristotle, identified the heart as the most important organ of the body, the first to form according to his observations of chick embryos. It was the seat of intelligence, motion, and sensation -- a hot, dry organ" (Bence Findlen 2001). "Heart in the Bible is the inner life that one lives before God and himself, a life that is unknown to others because it is hidden from them...the most fully developed, most far-reaching and most dynamic concept of the non-material man" (Adams 1979, p. 115). The heart was literally considered the core of the person, and today we are in the process of discovering the passions that exist there.

Both extracurricular and academic experiences contribute to the shaping of one's heart. When subjects are mentioned in class that move a student to enthusiastically express opinions or voluntarily conduct further research because of interest, a heart begins to develop that connects the emotional responses to intellectual truths. The teachers of one's youth, the exposure to the sciences, the extra-curricular activities of one's high school, and the political atmosphere in the collegiate setting are a few examples of the birthing locations of heart passions. Although a conversation about this aspect of life may seem generic and irrelevant, the realization is that these qualities, regardless of their stage of development, must play a role in one's further call. For me to disregard my heart for the poor would result in an unsatisfied vocational career. For Brian

Giggey (a graduate student enrolled in LA 591g: Applied Field Studies in Guatemala Spring 2009) to ignore his passion for music would be a great disservice to the music industry and Brian's further call. For Peter Kumble (professor of LA 591g) to repress his fervor for ecotourism would result in continued mediocrity within the world of tourism. These passions shape who we are, and unless they are provided space to develop, will fade into the standardized modern-world goals of security and comfort.

The needs of the world. These are food, water, shelter, a consistent income, education, community, spirituality, and the list continues. As active participants in society, each of us has a responsibility to seek out and contribute to these communal needs. Yet how can we contribute to what we do not know about? World, national, and local disparities are reviewed in the news, used by Hollywood as plot themes for motion pictures, and on occasion, are discussed over coffee. "This is what a million people looks like. At the moment the second largest refugee camp in Africa. You might catch a minute of this on CNN, somewhere between sports and weather" Jennifer Connelly, as Maddy Bowen, says in the movie *Blood Diamond* (Masterpiece-Movie-Lines.com 2009). *Blood Diamond*, *Hotel Rwanda*, and *Slumdog Millionaire* move viewers to consider the pain that is in the world for a moment, but when the movie credits begin to roll, the American attention reverts back to default mode and begins to consider important matters such as "How long do I need to warm my car up for?", "When can I leave?", and "I wonder where my coat is?" Often short jokes will be made

to smooth the transition from a social justice-oriented plotline to “real life,” but what if these motion pictures inspired us to move, to try to make a difference, to act on what we have seen, even if it requires something of ourselves?

I do not believe that movies should be the main catalyst for a call to action, but I am writing this thesis because I believe that the scholastic setting should provide an atmosphere where one can hear his or her call to these disparities. If a two hour film can touch our hearts, can't a 16-year academic career (from first grade to a bachelor's degree) change our lives? A movie can initiate an emotional response, but an education has the ability to provide a foundation for a focused, learned, action-oriented individual that has the brains and the heart to make a difference in his or her community. These qualities are not limited to such overwhelming issues as world peace, which is what makes the Crossroads of a Further Calling model (Figure 3.3) so powerful. The “needs of the world” is an intentionally broad term that encourages each individual to search the need that touches his or her heart. I hope that in no way does this thesis project diminish the incredible works that are accomplished in the United States everyday. The heart of professors as they teach their students, the care social workers give to their clients, and the passion with which the staff at the Boys and Girls Club love the children that pass through their doors is proof that this calling can be discovered and lived out in many venues. I would like to take this idea of subjectivity one step further, and claim that teachers guiding students into a deeper understanding of academic subjects and further pursuit of their

dreams, contractors using their hands to create what they enjoy, and even McDonald's employees serving food with a smile on their faces have discovered the intersection of the passions of their heart, the needs of the world, and the skills they have acquired thus far. The focus of this intersection is on the purpose of one's actions, not the action itself. No one person can handle the problems of the world, it would be arrogant to assume so, yet if each of us truly search to identify this fulcrum of heart, world, and knowledge, our contribution will be complete.

The skills acquired thus far. Graduating high school seniors have accumulated over 15,000 hours of schooling, and collegiate seniors have clocked in over 16,000 hours of classroom time in 16 years, not including out of class work (based on seven hours-per-day, 180 days-per-year school year before college and an hour-per-week-per-credit collegiate career). Social studies, language arts, physical education, mathematics, the sciences, art, music, and other subjects have been communicated in numerous styles and frequencies. College students have acquired incredible amounts of knowledge, especially in the Department of Landscape Architecture and Regional Planning. Within the studio and classroom setting, students have spent sleepless nights, presented countless projects, and researched an unquantifiable number of subjects for the purpose of furthering their education. By the end of their scholastic career, students have sufficient knowledge to enter professions in environmental design, plants, ecological patterns and processes, graphics, site planning, site engineering,

and cultural landscapes. This list represents an incredible amount of knowledge, using limitless ways to communicate this knowledge. If knowledge is truly power, then the collegiate setting is indeed, very powerful.

IV. Achievement Targets and Assessment Criteria_____

While the above text invites readers to dream, it is important to create a learning environment where change can be realized. For this thesis, this takes the form of a CSL class focused on connecting the passions of our hearts, the needs of the world, and the skills acquired thus far. More detail concerning the formation of this class and its execution appear in the following chapter, but before details can be addressed, the achievement targets must be discussed. According to Sagor's Action Research Guidebook, the second component of Stage 1, Clarifying Vision and Targets, involves identifying target sub-elements, or traits, that can be rated for assessment (Sagor 2005). The Target Scale Chart (Table 3.1) utilizes Sagor's three criteria (performance, process, and program), to measure target achievement and includes another which is more specific to our project (products). In Chapter 6 this chart will be completed and analyzed, with a special focus on the journals, photographs, and deliverables completed for the class.

Target Scale Chart					
Trait	1	2	3	4	5
■ Performance (of Students)					
Student discovery of the passions of his or her heart					
Student interest in world needs					
Student desire to utilize skills acquired in academia					
■ Process (of Teaching)					
Ability to accomplish class objectives					
Student sense of value to project					
Student general opinion of teaching					
■ Program (of Syllabus)					
Preference of elective over required course					
Logic of syllabus order					
Items in syllabus					
Student general opinion of syllabus					
■ Production (of Materials)					
Journals					
Photographs					
Deliverables: Site Design					
Manual Construction / Operational					
Funding Opportunities					
Business Data					
Marketing / Educational Information					

Table 3.1 The Target Scale Chart quantitatively rates the tangible targets of the project (Sagor 2005).

- | | |
|---------------------------------------|--|
| 1 - poor; did not meet expectations | 4 - great; slightly exceeded expectations |
| 2 - okay; slightly below expectations | 5 - incredible; far surpassed expectations |
| 3 - good; met expectations | |

V. Conclusion: Answered Questions? _____

The questions proposed at the beginning of this chapter are questions that I have been asked many times over the past months. Much of the repeated questioning is a result of the fact that the answers are personal and subjective.

The passions of one individual's heart will be inherently different from another's, and the same is true for the skills acquired and that person's perspective on the needs of the world. However, if one chooses to get lost in defining the questions, he or she will never discover the further calling that is desired to be found. One must accept the challenge of being flexible enough to move forward, but focused enough to stay on path. The truth is that the discovery of each of these answers may be a journey that encompasses one's whole life. The vision is that each student be given the opportunity to embark on this journey: to discover where the passions of the heart, the needs of the world, and the skills acquired thus far intersect (Figure 3.3) within the scholastic setting. For the purpose of this thesis, the above targets have been established (performance of students, process of teaching, program of the syllabus, and production of materials) to determine if this process is focused enough to stay on path. This path will be further defined and tested in the following chapters, so that the reader may be convinced that this adventure of discovering one's further call should include, and even be born out of one's academic experience.

CHAPTER IV

THEORY ARTICULATION

Intelligence plus character - that is the goal of true education.
- Dr. Martin Luther King, Jr.

I. Introduction: The Opportunity_____

In the United States, most academic achievements are typically represented in the form of diplomas and awards. Therefore, an opportunity exists to utilize one's education for good in the world during the academic process rather than after the 16 or 19 years of schooling. Community service learning (CSL) provides the correct atmosphere to allow for both the utilization of these skills and intense learning not for the purpose of increasing the knowledge in one's mental bank, but for the immediate goal of aiding those in need.

There are approximately 76 classes required for a bachelors degree within Department of Landscape Architecture and Regional Planning at the University of Massachusetts, Amherst (LARP). The author proposes that the department offer a class that teaches and implements the skills listed above in a CSL format to enhance and materialize this excellent educational program. The degree

requirements allot 27 undergraduate and 15 graduate credits for elective opportunities. Perhaps some of these credits could be used to design, plan, or build a project focused on enhancing the quality of life of those marginalized by society or living in countries where self-improvement is limited by social class. For example, for the case study course of this thesis, LA 591g: Applied Field Studies in Guatemala, three key deliverables were listed within the syllabus: 1) a plan that responds to both the site and the requirements for developing an industrial / commercial composting operation; 2) preparing schematic illustrated design development plans; and 3) write an operational guide for use by the client. Behind these deliverables are real needs of people who will benefit from the work of the students in LA 591g. Regardless of the specific needs of the client, landscape architect students have much to offer those in poverty, and much to learn from this process.

Using Sagor's four-stage process (2005) of achieving this goal of providing an opportunity for landscape architects to contribute to humanitarian efforts within the walls of academia, one must ask, "What do we believe is the approach with the greatest potential for achieving our goal?" "It is in Stage 2 [Theory Articulation] that action researchers engage in a deliberate planning process that involves examining and incorporating all of the dynamic relationships between the relevant factors or variables that might influence success in realizing the vision or targets identified in Stage 1 [Chapter 3: Vision and Target Clarification]" (Sagor 2005, p. 6). This chapter is dedicated to articulating the

best approach toward this effort. In his book, *The Action Research Guidebook*, Richard Sagor describes the Theory Articulation phase as a four step process: 1) brainstorming the critical independent variables, 2) summarizing the independent variables, 3) conducting and intuitive regression analysis, and 4) graphically displaying the emerging theory (Sagor 2005). For the purpose of this thesis project, steps 1 and 2 have been merged to provide the reader with a more concise collection of information (Sagor 2005).

II. Step 1: Determining Independent Variables_____

Independent variables are those traits which are determined by the action researcher that one “believe[s] have the greatest potential for producing the desired changes” that achieve the previously determined goal (Sagor 2005, p. 54). They are determined to be independent because the researcher has the flexibility to identify and adjust these attributes according to research and experience. The independent variables identified in this thesis required for step 1 (brainstorming the critical independent variables) derives from key traits of the Target Scale Chart in Chapter 3 (Table 3.1) and are categorized by Performance, Process, Program, and Production. The Teaching and Student Target - Action Charts (Tables 4.1 and 4.2) connect these objectives to the actions that accomplish them. The Teaching Target - Action Chart (Table 4.1) aims to communicate clear and applicable actions that directly result in the trait (independent variable) desired. To foster an environment for students to develop an interest in world needs, it

was necessary to provide information to communicate the impoverished situation in Zone 3 of Guatemala City. With respect to the process of teaching, Professor Kumble and the author sought to encourage the students' sense of value of the project by specifically identifying and encouraging each student in his or her ability to advance the project. Another consideration of the program was whether or not the course would be an elective or required course. To determine this, the aim was to identify the correlation between volunteerism and the success of the project in comparison with the necessity of all students to have this experience. Simply put, would it be worth requiring all students to take this class even if it meant that obligated students were not as enthused and therefore the quality of the deliverables produced was reduced? These same correlations are seen in the Student Target - Action Chart (Table 4.2). Having students spend time interacting with the poorest members of the community and focusing specifically on discovering individual passions may seem like obvious ways to achieve student discovery of the passions of his or her heart, but nonetheless these actions are required to achieve the traits, or independent variables, desired. Although many of these associations may seem overly simple, there is a necessity to think through and write out their clear connections or their completion may be neglected or forgotten.

Teaching Target - Action Chart	
Trait	Action
■ Performance (of Students)	
Student discovery of the passions of his or her heart	<ul style="list-style-type: none"> - Schedule time for students to have direct interaction with the poorest members of the community - Balance the flexibility and structure in the schedule to encourage students to discover their individual passions
Student interest in world needs	<ul style="list-style-type: none"> - Provide information to communicate the impoverished situation in Zone 3, Guatemala City
Student desire to utilize skills acquired in academia	<ul style="list-style-type: none"> - Require students to make significant contributions to the project via the products listed below
■ Process (of Teaching)	
Ability to accomplish class objectives	<ul style="list-style-type: none"> - Create flexibly and also adhere to syllabus
Student sense of value to project	<ul style="list-style-type: none"> - Specifically identify and encourage each student in his or her ability to advance this project
Student's general opinion of teaching	<ul style="list-style-type: none"> - Prepare in advance teaching plans and scheduled events that directly relate to the project - Remain humble and attentive to student needs throughout the semester
■ Program (of Syllabus)	
Preference of elective over required course	<ul style="list-style-type: none"> - Determine the correlation between volunteerism and the success of the project, in comparison with the necessity of all students to have this experience
Logic of syllabus order	<ul style="list-style-type: none"> - Reflect with and survey students during the final classes
Items in syllabus	<ul style="list-style-type: none"> - Reflect with and survey students during the final classes
Student general opinion of syllabus	<ul style="list-style-type: none"> - Reflect with and survey students during the final classes

■ Production (of Materials)	<ul style="list-style-type: none"> - Oversee the compilation of a document encompassing all materials - Organize an April/May department presentation of all materials
Journals	<ul style="list-style-type: none"> - Require journal entries before, during, and after the trip
Photographs	<ul style="list-style-type: none"> - Organize the collection of photographs to communicate class goals, progress, and products
Site Design	<ul style="list-style-type: none"> - Organize the collection of site data and a drawn site design
Construction / Operational Manual	<ul style="list-style-type: none"> - Organize the production of a manual to communicate to the client the details of constructing and operating an industrial composting facility
Funding Opportunities	<ul style="list-style-type: none"> - Organize the research and application of as many grants as time allows
Business Data	<ul style="list-style-type: none"> - Organize the writing of a business plan
Marketing / Educational Information	<ul style="list-style-type: none"> - Organize the writing of a document that communicates the knowns and unknowns concerning the market and needs for education, and what the appropriate response is to this information

Table 4.1 The Teaching Target - Action Table connects the Community Service Learning (CSL) traits to the educating actions that accomplish them (based on Sagor 2005).

Student Target - Action Chart	
Trait	Action
■ Performance (of Students)	
Student discovery of the passions of his or her family	<ul style="list-style-type: none"> - Spend time interacting with the poorest members of the community
Student interest in world needs	<ul style="list-style-type: none"> - Understand the impoverished situation in Zone 3, Guatemala City
Student desire to utilize skills acquired in school	<ul style="list-style-type: none"> - Connect education and experiences to needs seen in Guatemala
■ Production (of Materials)	
Journals	<ul style="list-style-type: none"> - Complete journal entries before, during, and after the trip

Photographs	- Organize photographs to communicate class goals, progress, and products
Site Design	- Collect site data and develop a site design
Construction / Operational Manual	- Produce a manual to communicate to the client the details of constructing and
Funding Opportunities	- Research potential grants and apply for
Business Data	- Write a business plan
Marketing / Educational Information	- Write a document that communicates the knowns and unknowns concerning the market and needs for education, and

Table 4.2 The Student Target - Action Table connects the Community Service Learning (CSL) traits to the actions that students take to accomplish them (based on Sagor 2005).

III. Step 2: Intuitive Regression Analysis_____

Intuitive Regression Analysis determines the amount of emphasis that should be invested into each action and trait. For the LA 591g class, only two classroom hours were available per week, allowing only 28 hours of learning within the classroom walls, and many of these hours needed to be focused on producing the required deliverables. The ten days in Guatemala were some of the students' first days spent abroad. Each of the students made a great monetary investment to embark on this journey, many of whom struggled to come up with \$1250 for air travel, lodging, food, ground transportation, and project costs. If the promises made in the syllabus to the students about the learning and experiential opportunities were to be kept, then these precious times in the classroom and abroad needed to be treated with very high value.

To ensure this class delivered what was promised, the Intuitive Regression Analysis was developed. Based on the literature review, past experiences and current application, the relative importance of each of the preceding traits and actions (seen in Tables 4.1 and 4.2) have been scaled and given a rating to signify the time and energy that is needed for each item. In order to analyze the components of Community Service Learning, and specifically the Applied Field Studies in Guatemala CSL class, it is necessary to rank each of the action items listed in Teaching and Student Target - Action Charts (Tables 4.1 and 4.2) according to the goal of the action research and this thesis (Table 4.3). Although independently determined by the author, much researched and experiential consideration is hidden behind each of the rating numbers, as the reader will see in the following explanations.

The “performance of students” category was identified as the most crucial element of the CSL class because of the special focus inherent in service learning. Many classes are offered in the Department of Landscape Architecture and Regional Planning for the purpose of teaching students to understand the analytical design process and produce professional drawings and documents; few are offered that have this special focus of the holistic development of the student in the context of community service. This is not to say that core skills should be disregarded, as a professional degree program must prepare its students for the field. Nor does it ignore the fact that other classes do not develop deep characteristics in a student, or that CSL classes do not produce

magnificent products, but there is a foundational shift when the purpose of a class is to develop the heart, world view, and contributing skills of a student rather than focusing on traditional academic genres. Within the performance category, student discovery of the passions of his or her heart (#1) was chosen as the most important trait because it is this aspect that is unique to the service learning atmosphere. In almost no other form of education can a student embrace the impoverished children that his or her designs may one day affect, or replace the leaky roof of the impoverished community leader whose neighbors' quality of life may be enhanced by the work of the student. It is in this context that the student desire to utilize skills acquired in academia (#2) can grow. Student interest in world needs (#3) is a natural result of the opportunities provided by CSL, and can only be thwarted by a purposeful decision to ignore the tangible hardship exposed to the service learning student. This was listed third because it is possible to gain a deep understanding, although not as tangibly, through a traditional classroom setting, a newspaper article or documentary.

However, knowledge of these world issues alone will do little to contribute to the solution. The materials produced (#4 and #5) are contributions to the solution, regardless of size or impact. The manual produced during the spring of 2009 by the LA 591g class includes a site design, construction/operational manual, funding opportunities, business data, and marketing and education information as the capital research for AbonOrgániCo,

the composting company created to provide live-able wages to Guatemala City's at-risk youth. Throughout the process of producing these documents, students were given the opportunity to connect passions and skills to world needs. Without the success of the teaching process, however, the opportunity for holistic learning can be easily missed. An educator has the ability to communicate the value of each student to the overall outcome of the project (#6), as well as teach with preparedness and organization, relevance to the project, humility, and authority. Additionally, the educator needs to be attentive to student needs throughout the semester (#7). Although these attributes are not directly unique to the CSL process, they are imperative to the educational experience of the student, as well as the accomplishment of the class objectives (#8).

Fourth on the list is the Program. Decisions of the availability of CSL classes as electives versus required courses versus including CSL in required courses will need to be discussed if the continuation of service learning is to survive (#9). Details such as the items in the syllabus (#10) and the logic of the syllabus order (#12) need to be carefully considered if the same class structure is to be repeated the following year. The general student opinion of the syllabus is to be highly valued (#11), as the class' purpose is to encourage students to find their further call. The issues of the program were located fourth on the list of importance because these details can change as often as annually, so long as the foci of performance, general production, and process of teaching continue move

in a similar direction. For example, the Applied Field Studies in Guatemala class could change its focus from composting to urban renewal and still keep the focus of discovering where the passions of the heart, the needs of the world, and the skills brought to the table intersect.

Action Ranking	
Trait	Rating
<input type="checkbox"/> Performance (of Students)	#1
Student discovery of the passions of his or her heart	1
Student desire to utilize skills acquired in academia	2
Student interest in world needs	3
<input type="checkbox"/> Production (of Materials)	#2
Manual	4
Department Presentation	5
<input type="checkbox"/> Process (of Teaching)	#3
Student sense of value to project	6
Student general opinion of teaching	7
Ability to accomplish class objectives	8
<input type="checkbox"/> Program (of Syllabus)	#4
Preference of elective over required course	9
Items in syllabus	10
Student general opinion of syllabus	11
Logic of syllabus order	12

Table 4.3 It is necessary to rank each of the action items listed in Teaching and Student Target - Action Charts (Tables 4.1 and 4.2) in order to analyze the components of Community Service Learning, and specifically the Applied Field Studies in Guatemala CSL class.

IV. Step 3: Emerging Theory _____

At this point in the theoretical process, many ideas are still qualitative and abstract, although with the Action Ranking Table (Table 4.3), the information is beginning to become more synthesized. It is at this juncture that the step from

qualitative to quantitative must be made. To do this, the actions listed in the Teaching/Student Target Action Tables were assigned a specific value (Tables 4.1 and 4.2). The determination of these values is based upon the Action Ranking Table (Table 4.3), research, and experience. The values are represented in the form of percentages of educator and student emphasis, or time and energy, throughout the semester. For example, the actions that relate to the performance of the student category were assigned higher percentages, as they rank 1, 2 and 3 on the Action Ranking Table. These performance actions weigh heavily on the scale of achieving the CSL goal of aiding the student in the discovery of the intersection of the passions of his or her heart, the needs of the world, and the skills the student brings to the classroom. Despite the blatancy of this correlation, it is imperative to not overlook the seemingly obvious connections between the goal and what is needed to accomplish that goal.

There exists a tendency for educators to emphasize the production of presentations and operational manuals; but Chart 4.1 highlights the need to focus on the larger issue: student performance. Although a 35 percent focus on student performance in Chart 4.2 may seem low for these passionate pupils, this number is higher than the norm. Any more than a 25 percent focus of time and energy on internal improvement and the class begins to be threatened by a focus on a solely spiritual or academic exercise rather than a tangible project. Classes with a

curriculum centered on internal improvement are valid and necessary, but this genre of class would miss the targeted mark of the service learning discussed for this project.

To clarify issues of generality, Charts 4.3 and 4.4 describe in more detail what focusing on students performance looks like. Under this umbrella of CSL, educators should focus time and energy on (in descending order): allowing room for and encouraging the development of the passions of their students' hearts, application of student skills, confirmation of student value to project, materials produced (i.e. a manual and department presentation), exposure to the needs of the world, teaching preparation and style, and adherence to class objectives. If educators can keep a mindset of this hierarchy throughout the semester, the target will likely be reached, or at least aimed at correctly.

While teachers and professors are maintaining an attitude of purpose amidst the chaos of the semester, it is the students' responsibility both to themselves, their professors, the academic system, and society to contribute significant material to the public, such as a manual and presentation. When educators approach this genre of CSL, appropriately 25 percent of the student time and energy during the semester should be allotted for the sincere search and development of the passions of his or her heart, leaving 10 percent of the academic emphasis for student exposure to the needs of the world. Although these may appear to be large segments of time, the emphasis does not need to be an internal and spiritual experience. A student may unveil a piece of the

passions of his or her heart while researching case studies for the wastewater treatment in developing countries, for example, or the health impact of bike systems within a region of traditionally overweight citizens. Heart searching rarely happens in a vacuum, and therefore should not be dismissed as a singular activity. On the contrary, this discussion concerning the passions of the heart should encourage educators to push students out of their academic comfort zones and prepare them to embrace this discovery as it emerges amidst the challenges.

Educator Emphasis Overview

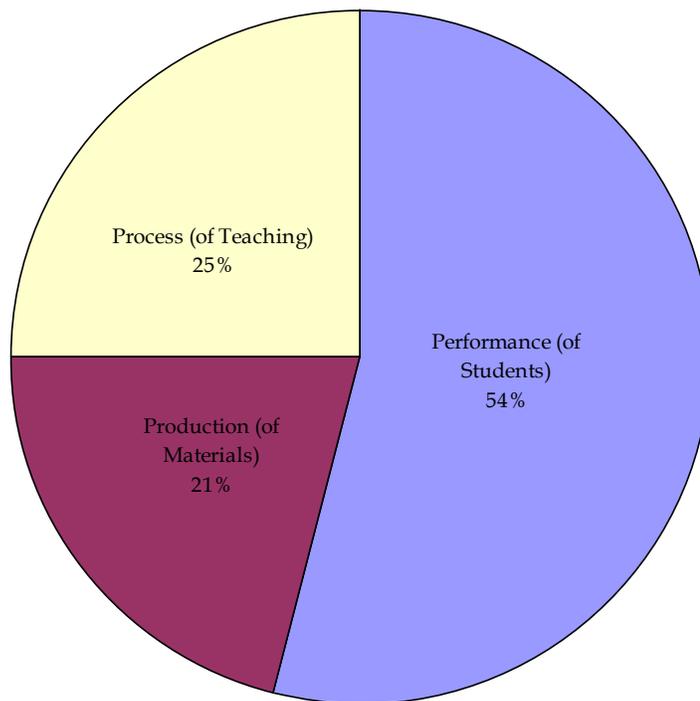


Chart 4.1 According to this chart, educator emphasis should focus on student performance, while still addressing the process of teaching and the production of materials.

Student Emphasis Overview

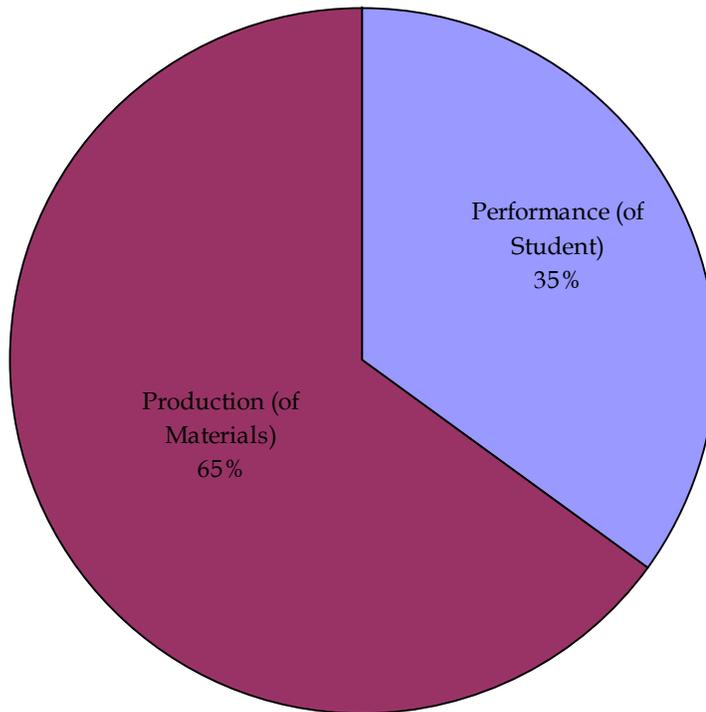


Chart 4.2 Although student emphasis should focus on the materials being produced, significant attention should be paid to the performance of the student. A higher percentage is given to the Production (of Materials) under the Student Emphasis than the Educator Emphasis (Chart 4.1) because it is assumed that through the production, the student will grow in performance as well.

Educator Emphasis Detail

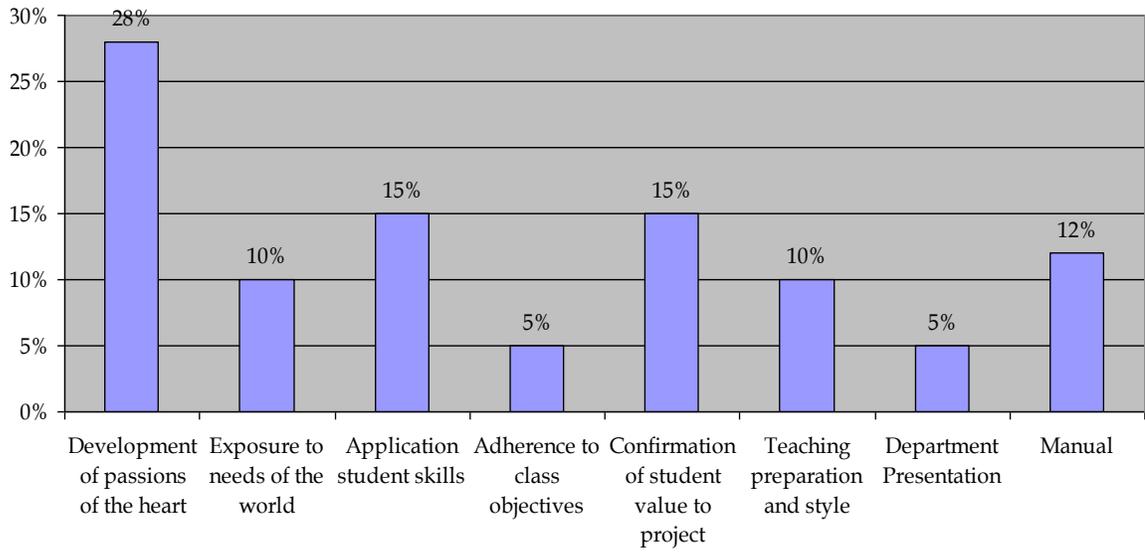


Chart 4.3 For CSL, noticeable emphasis is placed on the educator’s focus on the development of the passions of the student heart because there is a lack of this in most other genres of education.

Student Emphasis Detail

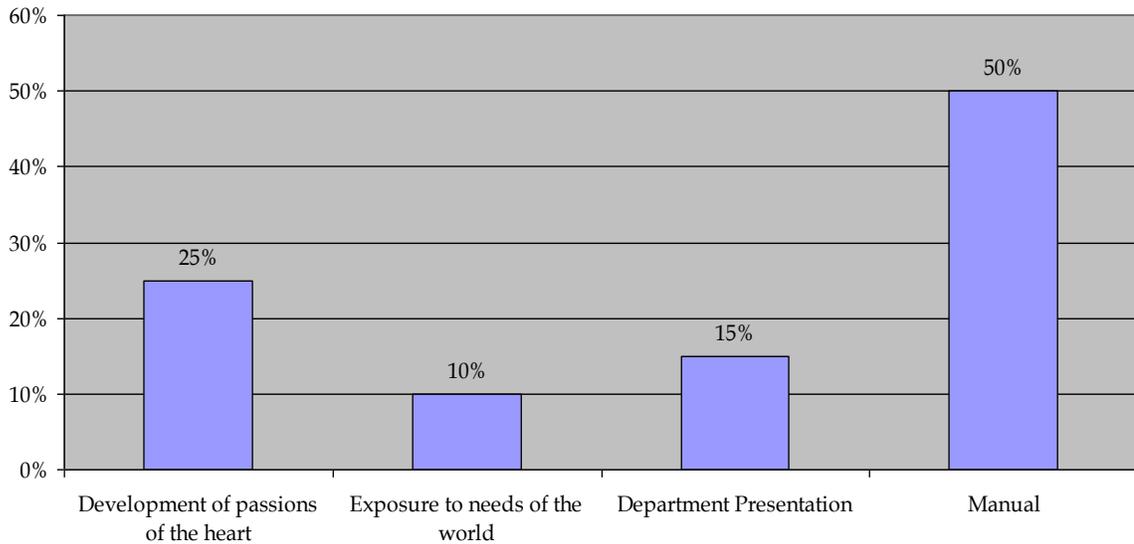


Chart 4.4 Similar to the pie chart, this graph keeps a realistic focus on the products, but also emphasizes the development of the passions of the heart.

V. Conclusion: What Was Learned _____

Through the process of articulating the theory that academia is the appropriate setting for students to begin the search of, and pursue, their further call, several discoveries can be identified. Through Step 1, Determining Independent Variables, the process of identifying the research goal, vision, targets, and actions is seen as a necessary progression that forces the educator to think through and clearly communicate realistic steps to achieve the desired result. Intuitive Analysis, Step 2, clarified that, for this particular project, more emphasis needed to be placed on the performance of the student than in the usually classroom setting. The tables, charts, and graphs from the beginning of the chapter were examined in Step 3, Emerging Theory. From this data, it was identified that educator and student emphasis on performance did not need to absorb an overwhelming amount of time (54 percent for the educator and 22 percent for the student, as seen in Charts 4.1 and 4.2). This is because the process of teaching and the production of materials needed significant focus to organize and produce the deliverables required for the CSL experience. However, this allotted attention paid to student development is significantly more than in most other classes offered in the Department of Landscape Architecture and Regional Planning, and therefore aims to achieve the goal of this course and promise to its students.

CHAPTER V

ACTION IMPLEMENTATION AND DATA COLLECTION

How can we, as aspiring landscape architects and regional planners, apply the skills we have acquired thus far in our educational careers to the needs of underprivileged communities?

I. Introduction: What We Have and Where We Go From Here_____

On the subject of landscape justice in the arena of academia, this thesis has conducted extensive literature review and application in the previous chapters. Established is the premise that landscape architecture and social justice can intertwine; in Guatemala City these ideas can take form. Examples, such as Daniel Winterbottom's, have been reviewed, and insight sought out. The rationale to include the community during all phases of the design process, the benefits and drawbacks of CSL, and methods of action research are discussed in-depth in Chapter 2: Literature Review. In Chapter 3, the Crossroads of a Further Calling model was explained, the vision was developed, and targets identified. The preceding chapter sought to flesh-out the goal of this project by attributing tangible actions and qualifying and quantifying those actions.

Now is the moment in this thesis journey where all of the ideas become reality and theories are tested. Can as much as 25 percent of a student's course work be dedicated to the development of the passions of his or her heart? Is it possible for an educator to spend 15 percent of his or her efforts on confirming the students' value to project? Can a group of eight students spend a semester utilizing their skills to take a business idea, composting, and turn it into a reality? Can a group of ten students, one professor, and one professional travel to one of the most dangerous cities in the world, accomplish pre-determined goals, and return to present their work to peers at their university? Prior to February 2, 2009, these questions remained unanswered.

II. LA 591g: Applied Field Studies in Guatemala Spring 2009_____

The purpose of this class was to help answer the following question through a series of *Community Service Learning* (CSL) experiences in Guatemala City, Central America. "How can we, as aspiring landscape architects and regional planners, apply the skills we have acquired thus far in our educational careers to the needs of underprivileged communities?" The purpose for this class would be to focus on the research, design and application of a specific project: the start-up of an industrial composting facility in Guatemala City. The class met once a week to learn about the principles community service learning, discussed the assigned readings, and developed a working knowledge on the process of composting (including field trips to local commercial and private

composting sites). The students also prepared preliminary design plans for the project site in Guatemala City.

Course learning objectives included:

- 1) to learn how to work and communicate with government officials and local people in a developing country such as Guatemala; and
- 2) to learn how to plan, design and manage an industrial composting facility;
- 3) to learn how an industrial composting facility - which takes organic waste and converts it into usable compost - can directly improve the quality of life for the people of Guatemala City;
- 4) To connect the passions of our hearts and the skills we have acquired thus far in our educational career with the health, safety and welfare needs of underprivileged communities;
- 5) to learn through the hands-on experience of a community service learning project.

Students taking this class were responsible for producing three deliverables for the client in Guatemala:

- 1) a **plan** that responds to both the site and the requirements for developing an industrial composting facility;
- 2) **schematic construction documents** to guide the construction; and
- 3) a site-specific **operational guide** for the industrial composting facility for use by our client.

These plans were prepared in the weeks leading up to the nine-day trip in March of 2009. The students refined the plans based on further examination of the site while in Guatemala City. They met with local experts and municipal officials to gather the information needed to finalize the grading plan and schematic construction documents, as well as adjust the operational guide. Each student kept a daily journal while in Guatemala.

After the nine-day field trip, the students continued their weekly class meetings in order to finalize the documents, especially the operational guide. This was critical as the operational guide or “manual” provided the important information necessary to manage and run a successful industrial composting facility in Guatemala City. During these final weeks of the semester, the class also discussed and analyzed their experiences and reflected on how they relate to their educational and professional careers in landscape architecture and regional planning. The experiences were summarized in a department-wide presentation during the end of the semester. (See Appendix A: LA 591g Syllabus for the complete syllabus for this class.)

III. Data Collection

Sagor describes the key question for this phase of the project as “What data will I need to collect to understand the efficacy and workings of my theory of action” (Sagor 2005, pg. 6)? As stated in Chapter 2, Tomal begins his book, *Action Research for Educators*, by explaining what action research is not: action research is not quantitative research in that it is not formatted as a solely scientific approach that requires elaborate statistical analysis, nor is it qualitative, demanding a naturalistic and emergent approach to enquiry that calls for lengthy narrative explanations. “Action research is a systematic process of solving...problems and making improvements” (Tomal 2003, pg. 5). The “problem” in this situation is the absence of attention within academia, and

specifically in the landscape architecture departments, to creating learning scenarios or environments that encourage the student to identify his or her calling as a profession. The variables in this case consist of the heart, needs, and skills identified throughout the course of the class, as well as the direction of the student's life. Several data collection "items" were gathered and conducted over the semester, including:

- A. 11 journal entries
- B. 2 questionnaires
- C. 5 group reflection meetings
- D. over 17 gigabytes of photographs
- E. a 145-slide presentation
- F. a 12-chapter manual including a site design, construction details, operational guidelines, and a business plan.

Each of these pieces contributes to the evidence that calls for the continuation of CSL classes in our department, classes that focus specifically on the connection of the desires of the heart, the needs of the world, and the skills acquired thus far.

CHAPTER VI

DATA REFLECTION

"The tools I've learned about site assessment, spatial organization, shaping land, profitability, composting, diverting green waste, managing diverse interest groups/ clients - applying these tools to meaningful causes inspires me.

This is an important lesson for my career."

- Student of LA 591g: Applied Field Studies in Guatemala

I. **Journal Entries**_____

In analyzing study data, each member of the class gave consent to use his or her journal entries for the purpose of this thesis, including: Jason Dell'Orfano, Kevin Gervais (professional), Brian Giggey, Tamzeena Hutchinson, Peter Kumble, PhD (professor), Adam Monroy, Seth Morrow, Megan Reagon, and Daniel Shaw. The honor of reading and analyzing these writings has reinforced all of the theory and implementation described in Chapters 1 to 5. The opportunity to read about how this class affected my peers has given worth to every hour of effort that the department, my committee, and I have given with the intention of providing these seven students with a chance to connect to this project. Looking at Meg's face as she explored Pedro's "house" in Zone 3; seeing Brian's excitement spending time with the kids and his consequent work ethic to

design for them; hearing Peter explain his frustration with broken Guatemalan promises and his solutions to immediate problems; watching Seth's reaction to the general poverty; experiencing Adam's leadership on site and willingness to be deeply changed by this class; talking with Dan as his desire for landscape architecture to help people was met; being there when Jason's abilities shined; letting Zeena's consistent commitment to the project in the heat of the moment affect all of us; and seeing my dreams realized was an experience that I hope to never consider lightly. These past weeks and months have altered, or at least affected, the courses of our lives. We all fell in love with the people of Guatemala that our designs intend to aid, an invaluable attribute that I hope will be modified and repeated in our department for years to come.

Fell in love? Before reading the following data this statement might be perceived as an overemphasis of a good experience. However, in analyzing the journal entries, questionnaires, group reflection meetings, products produced and photographs, one quickly realizes the passion that founded each student's work. The journal entries are the clearest evidence of this. The first required entry topic asked students to discuss their expectations of themselves and of the class before the first class meeting, and to disclose how those expectations were fulfilled, or not. Also, students wrote about what they had learned about themselves and about the class material a month into the semester. The second entry completed before the expedition to Guatemala covered student expectations for the upcoming trip.

Once we meet these people we will all be that much more motivated and driven to make this project succeed.

I expect to help a community of young people through what I have learned over the past two and a half years, I expect to give my knowledge wherever it is needed. Grading? Design? Research capabilities?

Students were also required to journal their activities, emotions, experiences, self-realizations, etcetera each day in Guatemala. The results of this exercise are the evidence for the need for courses like this in our department. Through the following excerpts, one can comprehend the deep desire of landscape architecture and regional planning students to utilize their skills to aid those in need. The irony is that in the midst of this American help, the people of Guatemala taught us how to live.

The dirt and rocks were for his house. It was hard to see he was so young. He was off on his own, trying to carve out a living. I know that I don't have it in me what he has.

[Pedro] (18) and his sister (20 or 21ish) live in this one bedroom house where the sink is outside, and I have no idea where the shower is. Pedro was replacing a wall that held land from falling on his living area. The young man had character, a hard work ethic, and a smile.

Richard Sagor, in *The Action Research Guidebook*, comments that the action researcher needs to understand “the relationship between actions taken and any changes in performance on the targets” (Sagor 2005, p. 124). In Chapter 4, theories were articulated that concern the most effective methods of moving

students toward their further calling. According to the projected Student Emphasis Detail (Chart 4.3 on page 69), contributing skills accounted for 65 percent of the student focus throughout the semester because of the product requirements demanded of each student (Chart 6.1). Note that this 65 percent is a summation of the 15 percent of department presentation emphasis and 50 percent emphasis on the manual. Participation in the production of site design, business data, and construction and operation information are some of the inputs needed for the operating manual that factors into the “Contributing Skills” genre, and therefore the theory was that student focus on providing deliverables would require 65 percent of their semester’s emphasis.

The next step was to compare the targeted student emphasis (Fig. 3.3) with what really happened. How is it possible to quantify these qualitative results? One avenue is through the hundreds of pages of journal entries. In reading each student and professor entry, I was able to separate those entries that exemplified a growth or realization of the passions of the individuals’ hearts, the individuals’ knowledge of the needs of the world, and skills he or she had to contribute. Of the 153 journal excerpts, 54 focused on the passions of the heart, 36 focused on the needs of the world, and 63 referred to the skills of the students involved, as seen in the Actual Emphasis Chart (Chart 6.2). Below are examples from each of these categories (complete listings of all excerpts, categorized into the three genres, can be found in Appendix B: Journal Entries):

The Passions of the Heart

Building community through landscape could be my focus as a landscape architect professional. What I am in love with is people, and their health and well being, especially young people...probably because they are so innocent and vulnerable.

I am very excited to go help less fortunate people out in Central America. I have known for a while that I want to work in developing countries helping people better manage their resources and become more economically independent and efficient, but now I am actually thinking about helping people. I am realizing that helping people better manage their resources is all about helping them increase their quality of life, and I hope I can really make a difference both in Guatemala and in the future.

In taking this class I hoped for an experience in applying landscape architectural skills toward helping people out, not just making "nice places" for lucky people in rich towns to enjoy.

So much of this stuff should be dealt with in different ways that it actually made me sick to my stomach to have that bird's eye view and feel completely useless. And the people who pick recyclables out of the dump to sell them and even use them for their own sustenance are the same people who live in that community in Zone 3.

...my purpose here. It isn't to help make this composting thing work out solely. It has more to do with my future. Embracing the night side of life [that is to say the difficult realities of life]

Our CENMA compost thing won't save the world, but I love its broad perspective and the way it holds hands with reality, dealing with money and financial concerns and employing people and making something and using a sketchy-ass site that has all kinds of considerations.

And this project has a very real chance for success. That in itself is profound, not for me or the students from an ego centric perspective, but for people who simply need a boost up, or a hand up; they will carry the rest on their own. Our vision for a municipal composting operation will provide jobs for kids and some adults who have little to look forward to other than a life of hard awful work in the landfill. It is something that will provide education and training for these hard working individuals here. It is something that will foster recycling of waste, so it hits the big S (sustainability). It is something that can save the government some

money, however nominal. And it is something that can be repeated elsewhere. So, like, how cool is that?

...I brought passion to the table, composting/ developing country/ community development all excite me. Everyone brought passion.

I want to take this experience and use it. Let it change me. Not just forget it, or let it fade away. I'm so happy I get 7 more weeks of working with this group.

The Needs of the World

There are people like this all over the world.

The living conditions were more than poor. Rows and rows on top of more rows, on top of trash, on top of more trash.

Anyway it was the most poverty I've ever seen probably in my life. There were all of these stray dogs and trash and dog shit in the "streets" (alleys between dense ramshackle buildings).

The place looked straight out of Slum Dog Millionaire. [Movie with frequent scenes displaying severely impoverished urban conditions in India]

I couldn't have imagined the poverty that these people in Zone 3 lived in until I saw it today. We take so many simple luxuries for granted without even thinking twice. The experience of going there and lending them a hand and seeing how grateful they were for our assistance was really meaningful to me.

Guatemala has very real and extremely pressing problems, and today truly opened all of our eyes to that.

There is a lot of violence, drug abuse, and other unimaginable things that are the norm for the people who live in Zone 3.

We had a chance to meet the girl whose mother has been beating her. Broke her arm with a pipe. Still beating her.

The Skills Acquired Thus Far

I expect to help a community of young people through what I have learned over the past 2 and a half years, I expect to give my knowledge wherever it is needed. Grading? Design? Research capabilities?

But now I can see how small things accomplished this week can be taken home and developed, then proposed. This will be very exciting and good for me.

The business team was cranking out their stuff and Dan and I were working on the design - it all just became so real. We work on these sites in school, but nothing ever comes of it and site visits are cut short. So to be down here on the site, creating the design, and knowing that all this is happening is just unbelievable.

It is cool how multi-disciplinary our total team is - everyone's good at something necessary and diverse.

Thinking about the day, it was amazing how everyone was doing their part...We did things so quickly that day that would have taken us 3 days minimal to do at home.

I have to say how amazingly energized and focused we continued to be day after day of work.

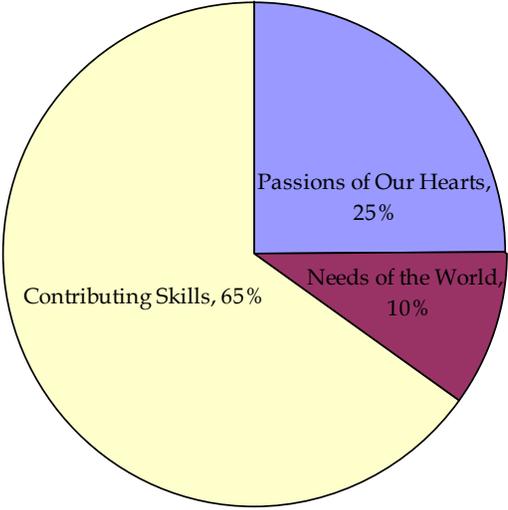
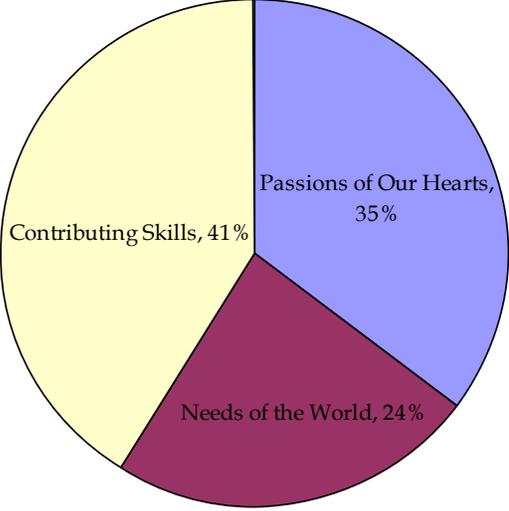
She [Susana Asensio, Director of Urban Construction] was impressed with all the work we had gotten done up until now. I guess all those studio overnights paid off!

...after constructing those cells, taking a step back and taking it all in, I was so proud to have done this with all these guys.

The work produced tonight will go down in the books for sure. It is a huge honor to be working with these people.

The tools I've learned about site assessment, spatial organization, shaping land, profitability, composting, diverting green waste, managing diverse interest groups/ clients - applying these tools to meaningful causes inspires me. That is an important lesson for my career.

Of the 153 journal excerpts, 54 focused on the passions of the heart, 36 focused on the needs of the world, and 63 referred to the skills of the students involved. The entries show that this emphasis on student skill set was actually 24 percent less, increasing the foci on the “Passions of Our Hearts” and “Needs of the World” 10 and 14 percent, respectively (Chart 6.2). This difference is considered an improvement because it provides a more balanced education of the three class goals. The affect of exposure to world needs influenced the students more than expected, which proved influential in that the time and energy focused on the discovery and consideration of the passions of their heart accounted for 35 percent (as apposed to the forecasted 25 percent) of the total class emphasis. Although the exact numbers and percentages of these results may not perfectly represent the qualitative information, the basic conclusion that one can draw is that the class goal was accomplished and even surpassed by theorized predictions.

Targeted Emphasis	Actual Emphasis
 <p>A pie chart titled 'Targeted Emphasis' showing three segments: a large yellow segment for 'Contributing Skills' at 65%, a blue segment for 'Passions of Our Hearts' at 25%, and a small maroon segment for 'Needs of the World' at 10%.</p>	 <p>A pie chart titled 'Actual Emphasis' showing three segments: a yellow segment for 'Contributing Skills' at 41%, a blue segment for 'Passions of Our Hearts' at 35%, and a maroon segment for 'Needs of the World' at 24%.</p>
<p>Chart 6.1 This chart is a summary of Chart 4.4, where the theory was to keep a realistic focus on the products, but strongly emphasize the development of the passions of the heart. Note: “Contributing Skills” includes foci on the work done before, during and after the trip, including the department presentation and the operational manual.</p>	<p>Chart 6.2 This chart quantitatively displays the journal entry information. Of the 153 journal excerpts, 54 focused on the passions of the heart, 36 focused on the needs of the world, and 63 referred to the skills of the students involved.</p>

II. Questionnaires

The Target Scale Questionnaire seen in Chapter 3 (Table 3.1) was given to each student within the final weeks of the class. The goal of this survey was to determine the success of set objectives within the genres of student performance (passions, needs, and skills), teaching process (class objectives, student value to project, and student opinion of teaching), syllabus program (choice of elective, logic and items in syllabus, and student general opinion of syllabus), and

production of materials (journals, photographs, site design, construction/operational manual, funding opportunities, business data, and marketing/educational information). Chart 6.3 displays the averaged results of the questionnaire. Although most answers did not vary from the 3.5 to 4.5 range, there were some irregularities of note. Student general opinion of the syllabus, the lowest items on the list (at 3.6), was most likely unappreciated because much of the syllabus was extremely flexible, as this is the first year of LA 591g and the AbonOrgániCo (the composting company in Guatemala) project. Logic of the syllabus, at 3.8 was rated lower as well for the same reasons, and Marketing/Educational Information had the same rating due to the fact that much of the work in this area still needed to be completed at the time of the survey. Business Data, at 5.0, was rated so highly because none of the students expected the need and possibilities within this genre before embarking on this project. To the credit of Jason Dell'Orfano, these needs were successfully identified and appropriately met. Sense of Value to the Project received the second highest rating (4.8), which is extremely encouraging because this signifies that, in an atmosphere of discovering the passions of their hearts (4.5), developing a deeper interest in world needs (4.4), and utilizing their skills (4.1), each student realized their worth to the group's contribution to AbonOrgániCo. When individuals realize their specific importance to a larger purpose, that purpose becomes reachable. This is a valuable lesson for these students as students, family members, employees, and citizens of society.

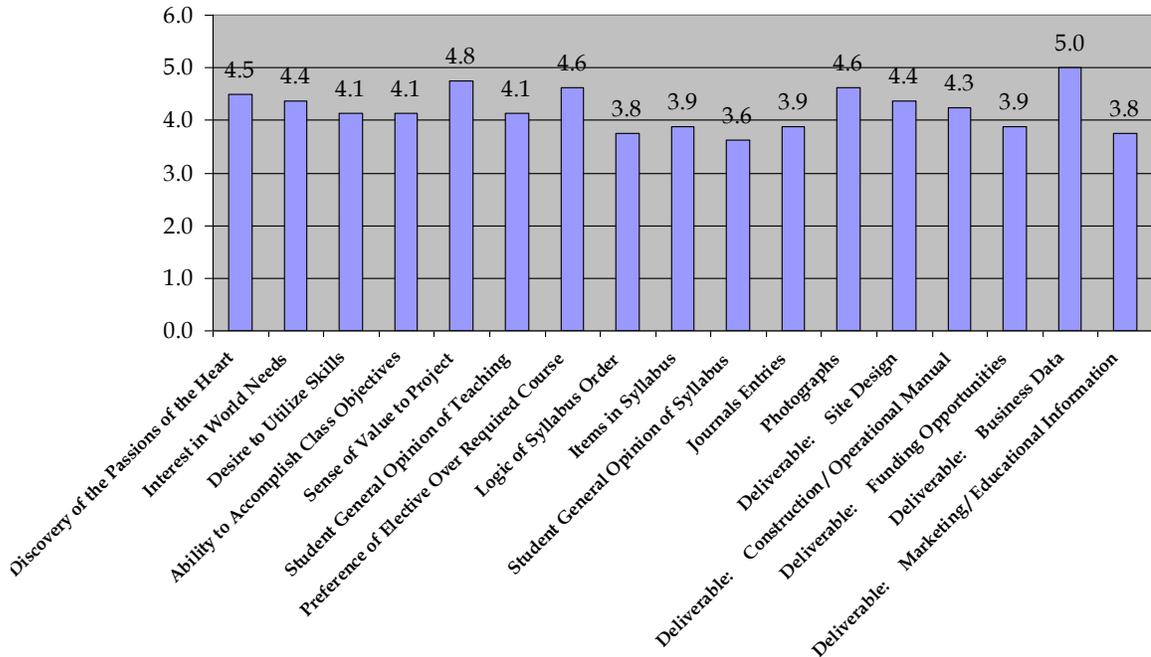


Chart 6.3 Student results to target scale questionnaire seen in Table 3.1.
 1 – poor; did not meet expectations expectations
 2 – okay; slightly below expectation expectations
 3 – good; met expectation
 4 – great; slightly exceeded
 5 – incredible; far surpassed

The second questionnaire involved more descriptive answers. It asked questions that aimed to have students draw conclusions out of their experiences. The first question on the survey read “How has this class changed your life?”, and the sixth and seventh were similar, asking “What was the most impactful part of this class while in the States/while in Guatemala?” The survey finished by encouraging students to connect this experience to their academic and vocational careers “How has this class affected you academically/vocationally?” Example responses are listed below, and a complete list of the questions and answers are located in Appendix C: Questionnaire Results.

1. What impact has this class had on your life?

This class has help[ed] me realize what I really want to do when I graduate and gave me the steps I need to go through to do it. The relationships formed. I love my new friends.

This class demonstrated that the skills associated with being a landscape architect are useful in a multitude of different applications.

This class has affected my life by reaffirming what I want to do with my life, proving that I can do it, and showing me that there is a whole world out there where I can do it.

7. What was the most impactful part of the trip while in Guatemala?

Learning how to use my skills in a realistic and constructive manner.

Seeing the dump and Zone 3 as the backdrop for our work's significance.

The way we worked as a group. Our finished products (while there). The fact that all this may be installed (unlike other studios).

8. If you were to advertise this class to future students, what would you say?

If you want to see a real project come to life, to help real people, and get a taste of how landscape architecture can make lives as well as earth beautiful, it's for you.

Sustainability's the word in landscape architecture right now, and if you want to really grapple with it head on in the most intense way possible within this program, take this class.

A meaningful experience that will change you, take you out of your comfort zone, get you dirty and grow your heart.

14. How has this class affected you vocationally?

It only reinforced my determination not to use my landscape architecture superpowers to make rich people's lives cushier just cause "that's where the money is" - there's way more meaningful and adventurous and helpful/ important things to be done.

It has strengthened my desire to work in developing countries to help people better manage their resources.

The class has affected me vocationally by reaffirming what I want to do in life. I want to be "a voice for the voiceless". Because of this class I also wrote my first grant! Grant-writing is a useful skill.

III. Group Reflection Meetings

Other opportunities for reflection were provided through five group discussion and reflection times on the trip. These meetings began with each member of the team quickly explaining his or her most indelible or memorable moment of the day and ended with a student giving a five to ten (and sometimes thirty!) minute explanation of their life experiences and how they have come to where they are today. Although this may appear to be merely a "feel-good" exercise, the opportunity to unify the group far outweighs the difficulties and awkwardness of organizing these interactions. The first meetings were very challenging to begin, as student agendas at the hotel were to clean up, sleep, work, and eat. However, it was these times that contributed greatly to the unification and ultimate usefulness of our group as a whole. Encouraging students to recall their most memorable moments of the day enables a more lasting impact, as spoken words affirm experiences (Forsyth, et al. 2000). Opportunities for people to express themselves without interruption rarely

present themselves, and many even struggle with communicating their own life story, as American culture does not allow time for interactions such as these. However, each student can now say that they truly know each other, not superficially or for the purpose of putting a document together, but because there is now a shared atmosphere of interest and concern for each other as people within a community. This cohesiveness could be seen in our group presentations, our group productions (from test compost piles to financial information), and will be evident in our final operational manual.

IV. Products Produced

Documents, such as journal entries, the operational manual, and physical works, such as site cleanup and construction of the test compost cells, are telling of the passion and emotion expressed in the journal excerpts above (for a more complete list of entries, see Appendix B: Journal Entries). The semester began with presentations on composting methods, technology, case studies, private and public funding, business planning, site design, and environmental impacts. This information influenced the rest of the semester's work. While in Guatemala, in-depth financial and business information was gathered, calculated and proposed to governmental officials. A ten-foot-long drawing of the preliminary site design was prepared, multiple perspectives of the site were sketched in the field and at the hotel, and test compost piles were constructed using a system of six-foot by four-foot cells constructed from wood pallets. Late nights, early mornings and

hard days characterized our time in Guatemala City. Once back at school, a 145-slide PowerPoint presentation was made to a crowd of 50 in the Department of Landscape Architecture and Regional Planning, after which many commented on the passion, purpose, and strength of both our work and the mission of AbonOrgániCo. Our final document is *AbonOrgániCo: A Guide to Commercial Composting in Guatemala City, Central America*, is a 72-page manual including a site design, construction details, operational guidelines, and a business plan. The hope is that any group of individuals with similar circumstances (significant economic hardship, compromised educational opportunities, poor soil quality, and excessive organic waste) will be able to apply this manual to other locations. The following is the Cover Page and Table of Contents for the manual:

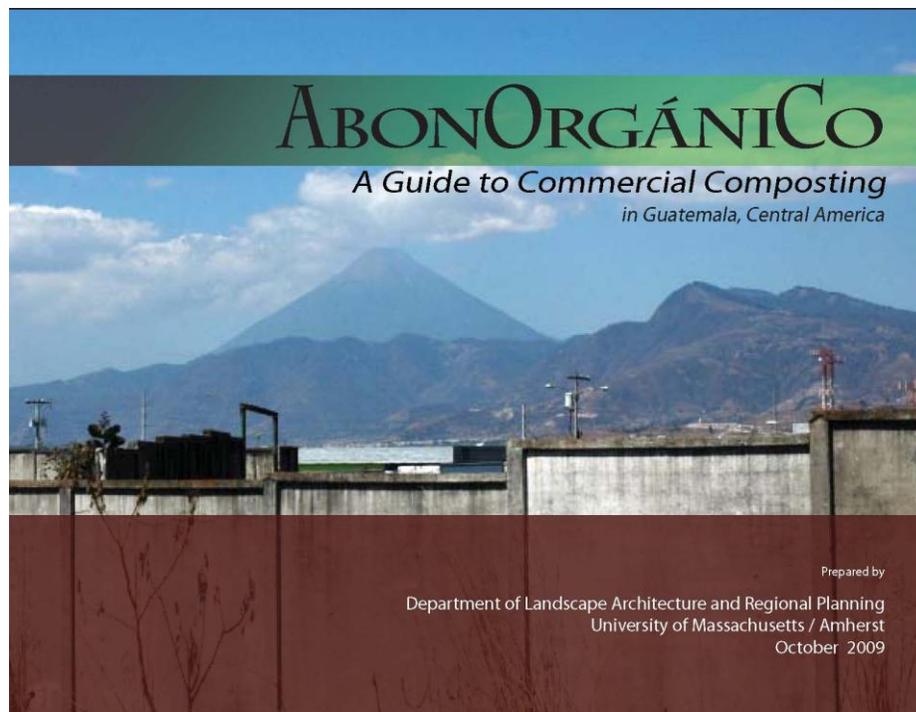


Figure 6.1 The front cover to the AbonOrgániCo Operational Manual includes the wall between the compost site and CENMA, as well as skyline behind it.

INTRODUCTION

The Situation in Guatemala City
Composting and Hope
Our Role

PART 1 - COMMERCIAL COMPOSTING

CHAPTER I: COMPOST

What It Is
How It Works
Managing the Compost Process
Compost or Fertilizer

CHAPTER II: COMPOSTING METHODS

Time Frame
Mixing
In-Cell or Windrow Methods
Monitoring
Turning the Piles
Oxygen
Water
Screening
Storage

CHAPTER III: EDUCATION

Waste Separation
Compost and Usage

CHAPTER IV: MARKETING GUIDELINES

Overview
Marketing Environment
Competition and Pricing
Product and Market
Promotional Strategy

PART 2 - AbonOrgániCo

CHAPTER V: SITE DESIGN

Current Site
Current Site Plan
Phase II and III Site Possibilities

CHAPTER VI: CONSTRUCTION

Site Preparation
Vegetation Removal
Grading the Site
Drainage Options for Problem Areas
Cell Construction
Other Types of Cell Construction

CHAPTER VII: OPERATION AND MANAGEMENT

Identify Brown Source
Mixing Cup
A:B:C Cell Method
Combining Cells
Supervisor
Labor
Bobcat

CHAPTER VIII: FINANCIAL BUSINESS PLAN

Executive Summary
Legal Structure
Products and Services
Location
Human Resources
Marketing Plan
Start-Up Expenses
12-Month Profit and Loss Projection
4-Year Profit and Loss Projection
The Search for Funding
Applying for Grants

CONCLUSION

V. Photographs

The professor and students in LA 591g captured over 17 gigabytes of photographs and movie clips obtained while in Guatemala. These photographs are evidence that students, impacted by the class experience, desired to capture almost every moment for future recollection. The hope is that the ability to refer back to these images in the years to come will inspire alumni to recall the passions of their hearts, the needs of the world, and the skills that they once contributed to a project bigger than themselves. Below is a sampling of the images that were taken throughout the process.



Figure 6.2 The UMASS team (left to right): Daniel Shaw, Travis Shultz, Brian Giggey, Seth Morrow, Adam Monroy, Tamzeena Hutchinson, Megan Reagon, Jason Dell’Orfano, and Kevin Gervais, and Peter Kumble (not shown).



Figure 6.3 Brian Giggey, embraced by the ones his design aims to aid.



Figure 6.4 Zone 3 neighborhood built on layers of trash that was once the older section of the landfill (Univ. of Mass, Amherst, LA 591g: Spring 2009).



Figures 6.5 The Basurero receives over one-third of the countries trash (Univ. of Mass, Amherst, LA 591g: Spring 2009).



Figures 6.6 The Basurero, Central America's largest dump, is located in a forty-acre ravine (Univ. of Mass, Amherst, LA 591g: Spring 2009).



Figures 6.7 The design team paced the site, observed the landform, and considered the context.



Figures 6.8 Realizing the project needs, the design team drew a 10-foot plan of what will one day be phase I of AbonOrgániCo.



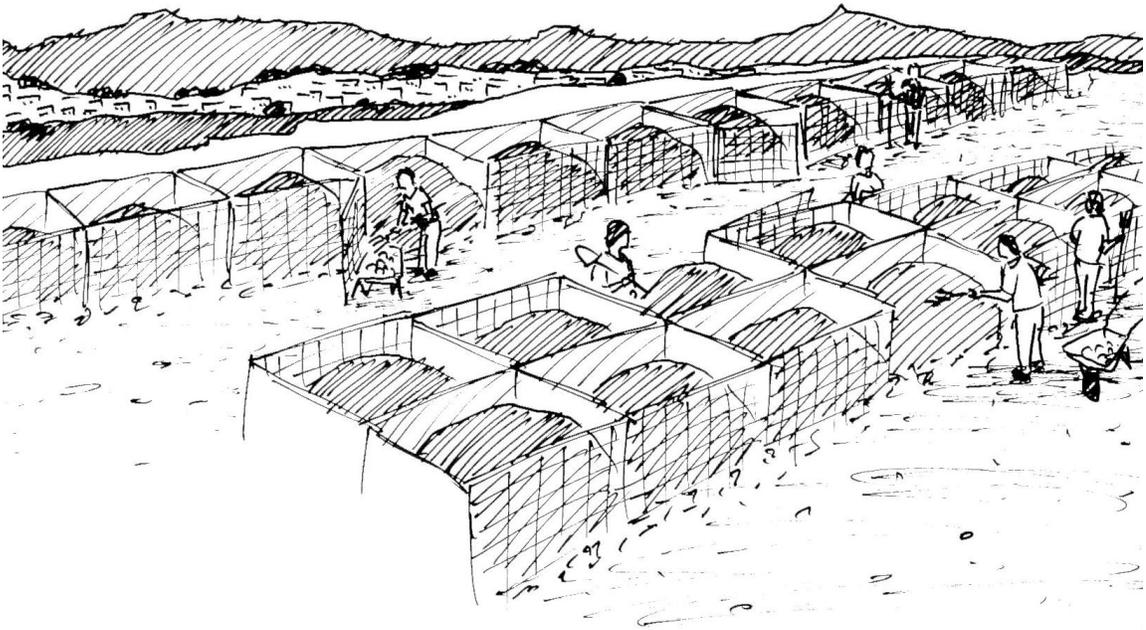
Figures 6.9 The business team worked day and night calculating valuable information derived from the numbers provided by the design team.



Figures 6.10 The information was then used to propose various business structures and phasing plans to the Municipality.



Figures 6.11 The graphics produced were draw on site and modified at the hotel in Guatemala.



Figures 6.12 These images helped municipal officials realize the potential of AbonOrgániCo.



Figures 6.13 Construction of test piles on site educated the team as to the compost cell ingredient and structure necessities and availabilities.



Figures 6.14 These piles were managed and recorded to inform the team of the reduction rate, temperature, odor, and the humidity of the piles, information that will prove vital in future planning.



Figure 6.15 Each member's contribution weighed heavily on the overall production of necessary materials that will be used start AbonOrgániCo. The group passion, unification, and work ethic are the components that made this experience a true success.

CHAPTER VII

IN CONCLUSION: AN INFORMED ACTION PLAN

I. **Researched Action** _____

The preceding text reviews literature concerning social justice and landscape architecture, the process of community participation, community service learning (CSL), and the action research methods used to legitimize this work. Richard Sagor's *Action Research Guidebook* led the organization of this master's thesis. My preliminary vision began with an acknowledgement of the collegiate search for a further call, which can be found at the intersection of student passions, world needs, and contributing personal skills. These "targets", as described in Chapter 3: Vision and Target Clarification, were then extracted into more accessible terms. Student performance, teaching process, syllabus development and program, and produced materials became the lens through which I was able to identify and evaluate the success of the CSL class, LA 591g. These steps led to the articulation of a theory seen in Chapter 4, where Action Charts (Tables 4.1 and 4.2) were developed for both the educator and the students, providing basic instructions that led toward the accomplishment of finding the described intersection. Once this foundation was laid, action followed through steps identified in the syllabus of LA 591g. Student journal

entries, questionnaires, group reflection times, the products produced and the photographs taken all contributed to the evidence that supports the call for this genre of CSL.

II. Community Service Learning_____

The previous data points to a need for community service learning as a part of the educational curriculum of landscape architecture and regional planning. Providing this elective opportunity to students offers them a chance to participate in an academic and vocational experience which can influence their professional and life goals. Removing students from their comfort zone and placing them in the midst of poverty, language barriers, and the unfamiliar surroundings of a foreign country tests their character, resulting in students with a greater level of self-confidence. It is in this context where the student realizes the application of his or her education, as the subjects taught in the classroom are then directly employed in the field. LA 591g proved these theories true, and should be adapted, modified and repeated in the future, both in this department and in landscape architecture programs elsewhere. After the departmental presentation, one of the students within the department commented, "Finally, it's about time our department started doing stuff like this. I don't know why it wasn't being done before, but I am glad that it is being done now." The Department of Landscape Architecture and Regional Planning at UMass Amherst has an incredible curriculum, producing students who are well-

prepared for a professional career. Students within the program have the opportunity to engage in countless genres of projects in the studio setting, and this idea of CSL is one of the very few subjects missing from our scholastic schedule. There are many obstacles to this type of teaching and learning, but as discussed in Chapter 2: Literature Review and proven through this thesis project, the benefits far outweigh the challenges.

III. Spring 2011 LA 591g: Applied Field Studies in Guatemala_____

According to Sagor, “inquiry...justifiably fits under the action research umbrella” when the researcher is “empowered to adjust future action based on the results” (Sagor 2005, pg. 4-5). The main goal of my research was to determine how to provide an atmosphere where students could live out the passions of their hearts while being exposed to the needs of the world and realizing the value of their skills. My hope is that the lasting evidence of this work will be realized in the continuation of LA 591g. For this class to be offered on a regular basis, several factors would need to align: a qualified professor, interested students, and a project that fits within the goals of the class. In talking with Professor Kumble, the educator that proved incredibly capable of handling the many issues associated with teaching a CSL class and leading an international trip, the probability of LA 591g in Spring 2011 is encouraging. There is a need to wait one year (2010), as the composting project will not be ready to utilize landscape architecture skills until 2011. During informal

conversations with students throughout the department, many have expressed a desire to enroll in the class if it was repeated, including three of the eight students who participated this year (this number would be greater, but four of them are graduating).

With a qualified professor and interested students, the next step is to identify an appropriate project. Many options could foster similar results. By the spring of 2011, AbonOrgániCo will hopefully be fully operating at the phase I site. If this is the case, much work will still need to be done to re-grade the land, perfect the composting methods, and evaluate and change the business progress. A better use of student skills, as well as a more important contribution to the future of AbonOrgániCo, would be in the design and planning of the phase II and eventual phase III sites. These areas will be about 3.95 and 14.27 acres, respectively, and each presents many of the on-site challenges commonly addressed by landscape architects in the field. LA 591g could work with another organization, but working with AbonOrgániCo would allow for a natural contact with an alumnus of the department and the class.

Regardless of the specific work LA 591g sets to accomplish in 2011, the three components needed for repeated success; a professor, students, and a project, are available and, with the effort inherent in CSL learning, have the potential to make this quality of scholastic endeavor the norm for this University's Department of Landscape Architecture and Regional Planning.

IV. The Honor of Participation ---

Landscape architecture; social justice; community service learning; Central America; removal of comfort zones; group unity; a vacation of working with and for the poor; grant development; preparing business plans; producing site designs; developing construction documents; writing operational manuals; having fun; fostering close friends; helping the marginalized; working with local governments; meeting the influential; networking with grassroots organizations; working on a real project with real people; and the word associations continue for the adjectives, nouns and verbs that can not quite adequately describe our Applied Field Studies in Guatemala. It is impossible to quantify the hours, or the dollars, contributed to make this experience an option for the eight students who chose to add this elective class to their schedules. Yet, the impact that this class will have on a select group of poor in Guatemala City, the students, the faculty, the LARP department, and hopefully the profession of landscape architecture far outweighs the initial efforts required. Just a dream a year ago, this class has proven the flexibility of the LARP department, the passion of the faculty, the commitment of the students, and the potential of the profession. Through this class, the passions of students' hearts, their exposure to the needs of the world, and the realization that their academic skills are valuable enough to aid the poor percolated and bloomed to an extent that I never imagined possible. These realizations resulted in the students' contribution to the start-up of AbonOrgániCo, a project that would not be where it is today

without the help of LA 591g. I have been a student of the University of Massachusetts for six years, and I have never been more proud to call myself a member of this community.

APPENDIX A

LA 591G: APPLIED FIELD STUDIES IN GUATEMALA

LA 591g: Applied Field Studies in Guatemala



Figure A.1 Images of the landfill, farmers, compost, and venders (top left to bottom right) capture the essence of what the class focused on during the semester.

Spring 2009 – 3 Credits
Hills North 301
Thursdays 9 am – 11 am

Instructor: Peter Kumble, ASLA
pkumble@larp.umass.edu
209 Hills North

How can we, as aspiring landscape architects and planners, apply the skills we have acquired thus far in our educational career with and the needs of underprivileged communities? The purpose of this class is to help answer this question through a series of *Community Service Learning* (CSL) experiences in Guatemala City, Central America. This class will focus on the research, design and application of a specific project; the start-up of an industrial composting facility in Guatemala City. The class will meet once a week to learn about the principles community service learning, discuss the assigned readings, and develop a working knowledge on the process of composting (including field

trips to local commercial and private composting sites). We will also prepare preliminary design plans for the project site in Guatemala City.

Students taking this class will be responsible for producing three deliverables for our client in Guatemala:

- 1) a **plan** that responds to both the site and the requirements for developing an industrial composting facility;
- 2) **schematic construction documents** to guide the construction; and
- 3) a site-specific **operational guide** for the industrial composting facility for use by our client.

We will prepare these plans in the weeks leading up to the nine-day trip during spring break. While in Guatemala City, we will refine our plans based on further examination of the site. We will meet with local experts and municipal officials to gather the information needed to finalize the grading plan and schematic construction documents, as well as adjust the operational guide. Daily journals will be kept while in Guatemala.

After the nine-day field trip, we will continue our weekly class meetings in order to finalize the documents, especially the operational guide. This is critical as the operational guide or “manual” will provide the important information necessary to manage and run a successful industrial composting facility in Guatemala City. During these final weeks of the semester, we will also discuss and analyze our experiences and reflect on how they relate to our educational and professional careers in landscape architecture and regional planning. Our experiences will be summarized in a department-wide presentation during the last week of April (TBD).

Course Learning Objectives:

- ✓ To connect the passions of our hearts and the skills we have acquired thus far in our educational career with the health, safety and welfare needs of underprivileged communities;
- ✓ To learn how to plan, design and manage an industrial composting facility;
- ✓ To learn how an industrial composting facility – which takes organic waste and converts it into usable compost – can directly improve the quality of life for the people of Guatemala City;

- ✓ To learn how to work and communicate with government officials and local people in a developing country such as Guatemala; and
- ✓ To learn through the hands-on experience of a community service learning project.

CLASS SCHEDULE

Prior To The Field Studies Trip To Guatemala

Thurs. Feb. 5 - Introduction and course overview, CSL, the site in Guatemala, and the need for a municipal composting facility.

I. Introduction.

- 1) Purpose for this class
- 2) Community Service Learning (CSL)
- 3) Guatemala, Central America
- 4) Need for and importance of composting
- 5) CEMA site in Guatemala City as a case study and focus for the class and field studies trip

II. Introduction to the basics of composting and the science on how this organic process takes place.

III. Assign research project.

Required Readings:

On-Farm Composting Handbook, Chapters 1, 2, and 4
Natural Resource, Agriculture and Engineering Service NRAES-54, 184 pp. ISBN: 0-935817-19-0

Suggested Readings:

Cornell Composting: Cornell Institute of Waste Management

<http://www.css.cornell.edu/compost>

US Composting Council Publications:

An Assessment to Health and Safety Risks

Compost Facility Planning Guide

<http://www.compostingcouncil.org/education/publications.php>

Other articles will be pulled from scholarly journals and publications such as Compost Science and Biocycle

Thurs. Feb. 12 - Tour of composting facility in Greenfield, MA.

I. Reiteration of basic concepts.

II. Site design and engineering considerations

Thurs. Feb. 19 - Research Report and Presentations.

Research Project Due: Research report and class presentation on one of the following aspects of a large-scale food waste composting:

- 1) Methods
- 2) Costs
- 3) Technology
- 4) Site Design
- 5) Environmental Impact
- 6) On-Going Management
- 7) Available grants
- 8) Business of it all (profits, etc.)
- 9) Examples
 - a. Other social justice oriented businesses
 - b. Other industrial composting businesses

Research report should consist of five double-spaced pages including images and diagrams. Proper citation or literature sources cited are critical; sloppy and/or incomplete work will not be accepted. Information contained in the reports will be used to develop the overall plan, schematic construction documents, and operational guide. Class presentation should be clear and convey the pertinent points of your research. (PowerPoint format or oral presentations are acceptable).

Thurs. Feb. 26 - Group work. Invite composting guest.

- I. Groups apply research to our site.
Begin:
 - 1) Site design
 - 2) Schematic construction documents
 - 3) Operational guide
 - 4) Start-up and operational estimates
 - 5) Application process for grants
 - 6) Identify phases of the project

Thurs. March 5 - Group work. Guatemala preparation.

Out of Class Work Due: Based on Feb. 26th critiques, update conceptual draft plan/schematic construction documents/operational guide for site. Prepare and print materials to take with us to Guatemala.

Guatemalan Field Studies Trip During Spring Break 2009

- Fri. March 13** Travel to Guatemala
- Sat. March 14** Conduct and lead a community service project (i.e. pouring a concrete floor for a family, church, or school location)
- Sun. March 15** Hike volcano and tour Antigua region.
- Mon. March 16** Meet with Brady Greene, managers at CENMA, and Guatemala City municipal officials to present our draft plan for the site. Visit CENMA and municipal nursery. Conduct site analysis and assessments.
- Tues. March 17** Revise and grading plans, schematic construction documents, and operational guides.
- Wed. March 18** Set up test compost pile at selected site. Direct site grading.
- Thurs. March 19** Set up test compost pile at selected site. Direct site grading.
- Fri. March 20** Explore more of Guatemala - Travel to Flores, Peten, meet with archaeology students at the university there, and tour Mayan ruins at Tikal.
- Sat. March 21** Explore more of Guatemala - Travel to Flores, Peten, meet with archaeology students at the university there, and tour Mayan ruins at Tikal. Return to Guatemala City.
- Sun. March 22** Return travel to US

Post Guatemala Field Trip

- Thurs. March 26 -** Debriefing and reflection.
Reading: Winterbottom, Daniel. 2008. In Guatemala, building landscapes of hope. *Landscape Architecture* 98, (2): 60,62-64,66,68,70.
- Thurs. April 2 -** Revise grading plan and schematic construction documents based on observations and site investigations made during field studies trip to Guatemala. Develop operational guide.
Reading: Winterbottom, Daniel. 2007. Working in the margins: A nontraditional approach to the practice of landscape architecture creates a much-needed playground in a women's prison. *Landscape Architecture* 97, (12): 38-47.
- Thurs. April 9 -** Revise grading plan and schematic construction documents based on observations and site investigations made during field studies trip to Guatemala. Develop operational guide.
Reading: TBD. Sample operational guide for industrial composting site.
- Thurs. April 16 -** Develop operational guide. Prepare department presentation.
Reading: TBD.
- Thurs. April 23 -** Develop operational guide. Prepare department presentation.
Out of Class Work Due: LARP Department PowerPoint presentation.
- Thurs. April 30 -** Finalize operational guide. Connect experience to educational and potential professional careers.
Out of Class Work Due: Operational guide.
- TBD -** Department-wide presentation of project.

APPENDIX B

JOURNAL QUOTATIONS

This trip has been realistic, it's been no fantasy, and I think there's a lot to learn from it. It was good and dirty. It was not a clean polished vacation. It wasn't relaxing. It will keep my momentum going. It has taught me about sustainability through firsthand experience. It's shown me lessons so big I can't understand them all.- Student of LA 591g: Applied Field Studies in Guatemala

V. The Passions of Their Hearts _____

<u>Date</u>	<u>Quote</u>
2/5/2009	Building community through landscape could be my focus as a landscape architect professional.
2/5/2009	What I am in love with is people, and their health and well being, especially young people...probably because they are so innocent and vulnerable.
2/5/2009	How the people recording the 10 year old boy's story didn't take him home with them, I'm not sure? This is when I fought back the tears the hardest.
2/5/2009	Wow, this is really happening!!! This is so exciting!
3/3/2009	Seeing the video 'Recycled Life' along with visiting the city and seeing their culture first hand made me a little sad at first, but now it's nothing but pure excitement. To see this project come to life, along with the joy it brings Trav is so great.
3/4/2009	After my trip to Honduras with Trav things have really changed my life...The things we did, the lives we touched, and the things I saw changed me forever.
3/4/2009	I can't wait for studio to be over and be in Guatemala implementing this business and helping the community
3/4/2009	I am very excited to go help less fortunate people out in Central America. I have known for a while that I want to work in developing countries helping people better manage their resources and become more economically independent and

	efficient, but now I am actually thinking about helping people. I am realizing that helping people better manage their resources is all about helping them increase their quality of life, and I hope I can really make a difference both in Guatemala and in the future.
3/5/2009	In taking this class I hoped for an experience in applying landscape architectural skills toward helping people out, not just making "nice places" for lucky people in rich towns to enjoy.
3/5/2009	I'm excited to be involved in a project that aims to reduce waste and give people jobs.
3/7/2009	I now have more images to go along with all my prayers. And the strength of my prayers will grow. And motivation and purpose in my life become more focused.
3/7/2009	...But this time it hit me that the kind of work that I will hopefully be involved in is going to require a lot of outside funding.
3/9/2009	I have thought a lot about what we will accomplish while we are down there, and I am very excited.
3/9/2009	We will also be meeting and interacting with the local people whom this project will provide much-needed part-time work for. This is an essential step for all of us to really connect a strong purpose to this project. Once we meet these people we will all be that much more motivated and driven to make this project succeed.
3/13/2009	I really do love what I do in the LA program, but I just know my heart is with music.
3/13/2009	I can't wait to go into Zona 3 tomorrow and see all the little kids, meet Brady and help out some of these families
3/13/2009	We're kicking off our week by working on a community service project. I think that it's a good way to start our week because we will really see the importance of our project and its purpose, to help at-risk kids in Zone 3.
3/13/2009	Up until this point I assumed that my work and my desire to be with the poor were very separate issues. The news that this was untrue made my heart beat.
3/13/2009	To watch the documentary and know that our work might help the people whose horrible situation [that] was described was monumental. Too many times I've watched Blood Diamond or Hotel Rwanda and been moved to act but not had the ability to. This time was different.
3/13/2009	Now its time to learn for the purpose of love.
3/14/2009	It's so amazing how these children's spirits are not hindered by their living conditions.

3/14/2009	This morning was very exciting as it was the day I was looking forward to the most... We were going to Zona 3, the poorest place in all of Guatemala City, to install two new roofs for some residents.
3/14/2009	Then he [a boy from Zona 3] spent the last half of the time opening up different canisters, taking out the play doh, putting it back in, and then capping it. They were all such simple interactions, but we both thoroughly enjoyed it together.
3/14/2009	Zone 3... a real heart breaker of a place. This is where the poorest of the poor live.
3/14/2009	They overcome huge odds, but don't seem to labor in personal strife.
3/14/2009	The students connected with the country and the people, which was the objective.
3/14/2009	Cans, plastic, bottles, glass, toys, eatable food. This is their life.
3/14/2009	So much of this stuff should be dealt with in different ways that it actually made me sick to my stomach to have that birds eye view and feel completely useless. And the people who pick recyclables out of the dump to sell them and even use them for their own sustenance are the same people who live in that community in Zone 3.
3/14/2009	I think it was a perfect start to our trip in that this humbling experience has removed any possible doubt that the composting project we are embarking on is absolutely essential.
3/14/2009	What we did was a good deed for people that need it and deserve it.
3/14/2009	...a man [was] lying on the ground as if dead. He was probably drugged up or drunk or maybe just suffering from laziness, be there he was on the ground. I never want to become numb to this type of situation. I just fear that some of the kids we were playing with will be in that man's position one day. I hope that the work we are doing with the compost company will help prevent that for at least one kid.
3/16/2009	We didn't want our goal - employing kids to help them stay in school - to become a gigantic, cold business.
3/17/2009	He could tell I was a sensitive person, sensitive to the situation there. He told me that having this sensitivity could lead to having a very deep life.
3/17/2009	Without feeling the pain, you can't feel the love.

3/17/2009	These three brothers came over from the market - their family must work there. The smallest one must be about 4 or 5 and his pants keep on falling down! His brothers really take care of him. Can I take him home with me?
3/17/2009	...and had a "moment" and decided I'd be stupid if I didn't take some time to take music making seriously priority #1 for awhile. I'd be stupid not to explore where I could take that.
3/18/2009	...my purpose here. It isn't to help make this composting thing work out solely. It has more to do with my future. Embracing the night side of life.
3/18/2009	I go over to the market and buy a cheap soccer ball to play with them. They are only really interested in doing this if WE play with them. They are starving for companionship and attention.
3/18/2009	Our CENMA compost thing won't save the world, but I love its broad perspective and the way it holds hands with reality, dealing with money and financial concerns and employing people and making something and using a sketchy-ass site that has all kinds of considerations.
3/18/2009	It would be a crime to true to be optimistic about this place and say some bullshit like "oh but the people" or "The wonderful weather" or "food" or somehow offset the negatives. It's a seriously messed up place and its issues should not be ignored. Especially when it's home to this many gazillion people. They all call this shithole home. And it's sort of like Brady was saying, it would be stupid to pretend that treating the "symptoms" to feel good is going to really affect anything. This stuff is so big.
3/18/2009	Seeing that poverty again wasn't any less of a shock than the first time.
3/18/2009	These kids get almost no attention from their families and is shows when they grow up and do drugs, join gangs, and get pregnant.
3/21/2009	The guide talked about the temple for a little and the[n] ended it by clapping. We were standing about 100' from the temple and the clap echoed throughout. My jaw dropped and I saw my master's thesis appear right before my eyes...[which is] the design of landscape media and how it affects the acoustics of spaces.
3/22/2009	Here, we come to not just be tourists, per se, but to do the "good" work of community improvement, self-growth, and skill development.
3/22/2009	We are planting the seed for future changes, albeit small changes in a very large busy country, but change nonetheless.

3/22/2009	<p>And this project has a very real chance for success. That in itself is profound, not for me or the students from an ego centric perspective, but for people who simply need a boost up, or a hand up; they will carry the rest on their own. Our vision for a municipal composting operation will provide jobs for kids and some adults who have little to look forward to other than a life of hard awful work in the landfill. It is something that will provide education and training for these hard working individuals here. It is something that will foster recycling of waste, so it hits the big S (sustainability). It is something that can save the government some money, however nominal. And it is something that can be repeated elsewhere. So, like, how cool is that?</p>
3/22/2009	<p>This trip has been realistic, it's been no fantasy, and I think there's a lot to learn from it. It was good and dirty. It was not a clean polished vacation. It wasn't relaxing. It will keep my momentum going. It has taught me about sustainability through firsthand experience. It's shown me lessons so big I can't understand them all.</p>
3/22/2009	<p>I like to talk about not liking to talk about stuff, but I'm also ending up appreciating the use of reflecting while things are still fresh.</p>
3/22/2009	<p>Personally, I didn't feel any MORE compassion than I every normally do when I do a project, be it in Springfield, Holyoke, Amherst, or Guatemala City. Doing the best job I can do for other people's interests is what should be at the heart of <u>all</u> landscape architecture projects.</p>
3/26/2009	<p>...I brought passion to the table, composting/ developing country/ community development all excite me. Everyone brought passion.</p>
3/26/2009	<p>I want to take this experience and use it. Let it change me. Not just forget it, or let it fade away. Im so happy I get 7 more weeks of working with this group.</p>
3/26/2009	<p>I want to reach my potential as a student. I want to use this trip to inspire change.</p>

3/26/2009	Before the trip I was overwhelmed with all the unknowns, all the stuff up in the air. Peter mentioned being comfortable with...that disorder. I was stressed out the whole time on site about materials and construction. Now that I'm through it all, now that the project is done I better understand what Peter meant. Though I didn't achieve it while there, I made strides. These lessons I am very directly applying to...studio during our initial site assessment.
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VI. The Needs of the World _____

<u>Date</u>	<u>Quote</u>
2/5/2009	...But this time it hit me that the kind of work that I will hopefully be involved in is going to require a lot of outside funding.
3/3/2009	Seeing the video 'Recycled Life' along with visiting the city and seeing their culture first hand made me a little sad at first, but now it's nothing but pure excitement. To see this project come to life, along with the joy it brings Trav is so great.
3/7/2009	There are people like this all over the world.
3/13/2009	The three bullet holes in the gate and door were disheartening, but they informed me that they were made by a drunk one night, not to fear.
3/14/2009	What a blessing to be able to give them what everyone deserves, love and help.
3/14/2009	The living conditions were more than poor. Rows and rows on top of more rows, on top of trash, on top of more trash.
3/14/2009	The housing in Zona 3 was so sad - all packed in around a small alleyway. All houses, or should I say shacks, faced the central alleyway with all the kids running around playing.
3/14/2009	Seeing the lines upon lines of trucks [at the dump], all the workers, and the vast expanse of the site were all very overwhelming. This is a lifestyle for these people! They work from 6am to 10pm and sell/keep their findings throughout the day - when it's all said and done they make about \$8 - so sad to see.
3/14/2009	Severe poverty, little if any sanitation, very high density, no sewer from what I could tell.
3/14/2009	But here I am in Guatemala City, in the poorest neighborhood, and everyone around me is smiling because they see their house being repaired by someone who is supposedly confident in what they are doing.

3/14/2009	There is a steady line of trucks filled with trash backed up as far as the eye can see. People gather around the rear of the trucks as the[y] back up, trying not to get run over, although this does happen on occasion. When they open the doors to dump, people wait like it is Christmas, anticipating being the first to snag items of value.
3/14/2009	Anyway it was the most poverty I've ever seen probably in my life. There were all of these stray dogs and trash and dog shit in the "streets" (alleys between dense ramshackle buildings).
3/14/2009	Anyway today I saw lots of things that I had no basis of experience to relate to, totally new and homogenous things...
3/14/2009	There are armed guards everywhere and the tool of choice is the shotgun.
3/14/2009	...cars and buses belch out smoke and fumes [in Guatemala City]. It is annoying to me that plants can grow in these conditions.
3/14/2009	The place looked straight out of Slum Dog Millionaire. [Movie with frequent scenes displaying severely impoverished urban conditions in India]
3/14/2009	The house was about 100' square feet with a bathroom[,] kitchen[,] open air[,] two double bunk beds and a small front room/shop.
3/14/2009	I couldn't have imagined the poverty that these people in Zone 3 lived in until I saw it today. We take so many simple luxuries for granted without even thinking twice. The experience of going there and lending them a hand and seeing how grateful they were for our assistance was really meaningful to me.
3/14/2009	When we went to the cemetery overlooking the dump, I was shocked beyond belief.
3/14/2009	So much of this stuff should be dealt with in different ways that it actually made me sick to my stomach to have that birds eye view and feel completely useless. And the people who pick recyclables out of the dump to sell them and even use them for their own sustenance are the same people who live in that community in Zone 3.
3/14/2009	Guatemala has very real and extremely pressing problems, and today truly opened all of our eyes to that.
3/14/2009	There is a lot of violence, drug abuse, and other unimaginable things that are the norm for the people who live in Zone 3.
3/14/2009	I saw a man in a blue shirt that was standing in the pathway. He was leaning forward, he had a blank look on his face, and he was drooling. I think that's when the reality of Zone 3 really hit me.

3/14/2009	The dirt and rocks were for his house. It was hard to see he was so young. He was off on his own, trying to carve out a living. I know that I don't have it in me what he has.
3/14/2009	It is hard to see so many hungry dogs here and I thought it would be even harder but there are so many people themselves living off of scrapes.
3/14/2009	...a man [was] lying on the ground as if dead. He was probably drugged up or drunk or maybe just suffering from laziness, be there he was on the ground. I never want to become numb to this type of situation. I just fear that some of the kids we were playing with will be in that man's position one day. I hope that the work we are doing with the compost company will help prevent that for at least one kid.
3/14/2009	[Pedro] (18) and his sister (20 or 21ish) live in this one bedroom house where the sink is outside, and I have no idea where the shower is. Pedro was replacing a wall that held land from falling on his living area. The young man had character, a hard work ethic, and a smile.
3/17/2009	We had a chance to meet the girl whose mother has been beating her. Broke her arm with a pipe. Still beating her.
3/17/2009	Without feeling the pain, you can't feel the love.
3/18/2009	He talked about the night side of life and turning into it...I think Brady said it all perfectly and reinforced my feelings of wanting to come back.
3/18/2009	Man Guatemala city sure has a lot of pavement, cheesy dumb cement everything, and razor wire, and air that always smells like car exhaust, and insane drivers, and a nutty road layout, and gaurds with shotguns, and poverty and concrete houses and the same billboard of "Palau" and his 2 friends grinning at you four times on every block.
3/18/2009	...this is a very shitty city, the shittiest city I think I've ever seen, so much damn pollution and poverty and danger...
3/18/2009	It would be a crime to true to be optimistic about this place and say some bullshit like "oh but the people" or "The wonderful weather" or "food" or somehow offset the negatives. It's a seriously messed up place and its issues should not be ignored. Especially when it's home to this many gazillion people. They all call this shithole home. And it's sort of like Brady was saying, it would be stupid to pretend that treating the "symptoms" to feel good is going to really affect anything. This stuff is so big.
3/18/2009	These kids get almost no attention from their families and is shows when they grow up and do drugs, join gangs, and get pregnant.

3/18/2009	he learned that he couldn't solve everything. And after seeing what he's seen and doing what he's done - working out of his comfort zone, working with the poor, embracing the night life - something else, someone else is there.
3/22/2009	And this project has a very real chance for success. That in itself is profound, not for me or the students from an ego centric perspective, but for people who simply need a boost up, or a hand up; they will carry the rest on their own. Our vision for a municipal composting operation will provide jobs for kids and some adults who have little to look forward to other than a life of hard awful work in the landfill. It is something that will provide education and training for these hard working individuals here. It is something that will foster recycling of waste, so it hits the big S (sustainability). It is something that can save the government some money, however nominal. And it is something that can be repeated elsewhere. So, like, how cool is that?

VII. The Skills Contributed _____

<u>Date</u>	<u>Quote</u>
2/5/2009	I expect to help a community of young people through what I have learned over the past 2 and a half years, I expect to give my knowledge wherever it is needed. Grading? Design? Research capabilities?
3/4/2009	...we will actually be starting this project ourselves (with the help of a few key people on our side in Guatemala).
3/4/2009	I expected to bring some knowledge of finance and business in general to the table, but did not picture the extent to which I am currently working on building a viable business plan.
3/4/2009	So in addition to the things I have learned about the process of composting, I have actually learned more about business through doing research and starting a real business plan (however primitive it might be at the moment).
3/4/2009	I got excited about going, I thought my previous work experience with hispanics, my compost knowledge, and my physical capabilities could all be valuable to the cause.
3/4/2009	I have never worked this directly with funding, grants, community, developing countries. But I know enough to contribute something, and it's very exciting to be involved in what could happen.

3/4/2009	But now I can see how small things accomplished this week can be taken home and developed, then proposed. This will be very exciting and good for me.
3/4/2009	My hope is that we can come up with a work plan so we can get a lot of money/ funds to make the project get up and going.
3/5/2009	In taking this class I hoped for an experience in applying landscape architectural skills toward helping people out, not just making "nice places" for lucky people in rich towns to enjoy.
3/5/2009	...landscape architects [have] skills to address human needs, not just luxuries.
3/5/2009	In taking this class I hoped for an experience in applying landscape architectural skills toward helping people out, not just making "nice places" for lucky people in rich towns to enjoy.
3/7/2009	I am able to offer previously learned or new knowledge
3/13/2009	...these women began nicely asking me simple questions in Spanish which coaxed the language out of me.
3/13/2009	...these women began nicely asking me simple questions in Spanish which coaxed the language out of me.
3/14/2009	What a blessing to be able to give them what everyone deserves, love and help.
3/14/2009	It just occurred to me how each person fell into the right spot. Peter and Seth had it out with the way they think things NEED to be and the way things ARE. Jason fought the language barrier by showing a young guy how to help with the roof. Meg felt welcomed to use a bathroom she probably never thought she would find herself in. Adam was able to man it out carrying some massive bags of rocks down many stairs. Brian was able to hang out with the kids. And we all knew where Travis would be the whole day. We have a great group. Everyone was chosen well.
3/14/2009	In only six weeks, I have really learned a lot about composting and the process of it all.
3/14/2009	I can't wait for studio to be over and be in Guatemala implementing this business and helping the community
3/14/2009	We got right to work and started ripping off the roof panels and pulling down some rotten boards that needed to be replaced.
3/14/2009	We started shoveling stone into large sacks and huffin them downstairs to a small home that was building a foundation. About 10 - 15 people were helping in this process including a lot of children.

3/14/2009	I am actually happy about this, as it will allow me to use more of my construction skills.
3/14/2009	Seth and I really dove into it; we are both pretty comfortable with renovation/ construction.
3/14/2009	We put the roof on and wired up the house.
3/14/2009	What we did was a geed deed for people that need it and deserve it.
3/14/2009	...a man [was] lying on the ground as if dead. He was probably drugged up or drunk or maybe just suffering from laziness, be there he was on the ground. I never want to become numb to this type of situation. I just fear that some of the kids we were playing with will be in that man's position one day. I hope that the work we are doing with the compost company will help prevent that for at least one kid.
3/16/2009	Everyone of us contributes their own unique aspect to the process and [I] can see us being very deliberate and efficient.
3/16/2009	So, how else to construct them... Ah! Wooden shipping pallets...I first built a compost bin in the middle early 1990s that way, why not down here.
3/17/2009	Throughout the day Dan was off on his own sketching perspectives of the site while we worked. He has this really cool process of how he goes about his drawing... I am very excited to see what he produces and it'll be great to show the mayor and Lazaro some of our ideas graphically.
3/17/2009	The end of our night consisted of talking about the business, design ideas, and number crunching.
3/17/2009	So for "work" today I drew and played with little Guatemalan children.
3/17/2009	So for "work" today I drew and played with little Guatemalan children.
3/18/2009	The drawings and the site design are coming along so good.
3/18/2009	When we got back it was straight to work. Dan started to draw perspectives of the site...Brian was bustin out a plan 8' long or so. Meg, Trav, Jason and I started at the computer.
3/18/2009	It was great! I eventually broke off and started to work through employee tasks and hours compared to their wages

3/18/2009	We organized the cells in an efficient, organized design to maximize them - we came up with 400 cells. We also designed spaces for sifting and storing of materials, as well as a space on site for water catchment. It was a lot of fun doing the design with Dan and really trying to figure out cell placement and circulation on the site.
3/18/2009	The business team was cranking out their stuff and Dan and I were working on the design - it all just became so real. We work on these sites in school, but nothing ever comes of it and site visits are cut short. So to be down here on the site, creating the design, and knowing that all this is happening is just unbelievable.
3/18/2009	I'm so confident in this project as we have a strong team assembled to tackle all the problems.
3/18/2009	We got back to pick up the card board and every one sort of stands there going, "gee, it won't fit into the van." Sure it will! I start folding it just so and in it goes.
3/18/2009	During most of the day I worked with Brian Giggey, pacing the site and taking notations, then in the CENMA office we plotted it all out on trace and designed rows of cells on it. The plan's 10 feet long.
3/18/2009	It is cool how multi-disciplinary our total team is - everyone's good at something necessary and diverse.
3/18/2009	Stuff seems like it is definitely feasible, but there are still a lot of problems to work out.
3/18/2009	We stayed up till about 2am crunching numbers, trying to make things seem feasible and reinterpreting mine and Brady's spreadsheets into more workable numbers about land area and production.
3/18/2009	The guys came back from site to CENMA office with a huge scale drawing of the site all measures out and everything. It was AMAZING!!!
3/18/2009	In about 45 minutes Brian and Dan came up with a layout of cells for the site that was remarkably well thought out and realistic.
3/18/2009	Thinking about the day, it was amazing how everyone was doing their part...We did things so quickly that day that would have taken us 3 days minimal to do at home.
3/18/2009	We worked out that the land would essentially be given to us and that the kids would be city employees, paid by the city in exchange for compost.

3/18/2009	The business team set up all the worksheets for the 3 scenarios and what land needs, organic input, compost output, and municipal savings would be for each of them.
3/18/2009	Brian finished, with title block included, the first draft of the site design, and Dan completed 4 drawings...
3/19/2009	We get all the material we need and the product [we produce] is impressive.
3/19/2009	I have to say how amazingly energized and focused we continued to be day after day of work.
3/19/2009	She was impressed with all the work we had gotten done up until now. I guess all those studio overnights paid off!
3/19/2009	...after constructing those cells, taking a step back and taking it all in, I was so proud to have done this with all these guys.
3/19/2009	This site was more complicated b/c we were dealing with an actual size of land, actual projected production and labor necessities, while also trying to get the business structure...to work.
3/19/2009	The work produced tonight will go down in the books for sure. It is a huge honor to be working with these people.
3/22/2009	Everyone had their own niche and contributed in their own way. Be it graphics, number crunching, site design, or playing guitar at night - everyone contributed greatly in their own way.
3/22/2009	We are planting the seed for future changes, albeit small changes in a very large busy country, but change nonetheless.
3/22/2009	And this project has a very real chance for success. That in itself is profound, not for me or the students from an ego centric perspective, but for people who simply need a boost up, or a hand up; they will carry the rest on their own. Our vision for a municipal composting operation will provide jobs for kids and some adults who have little to look forward to other than a life of hard awful work in the landfill. It is something that will provide education and training for these hard working individuals here. It is something that will foster recycling of waste, so it hits the big S (sustainability). It is something that can save the government some money, however nominal. And it is something that can be repeated elsewhere. So, like, how cool is that?
3/26/2009	...I brought passion to the table, composting/...community development all excite me. Everyone brought passion.

3/26/2009	I think I played an important part down there. I saw so much work being done down there. Travis worked around the clock. Jason was so sharp with the business plan. Dan's DRAWS were amazing. I did a good job managing the site. If felt so natural and drew from all my experience...And my Spanish came back!
3/26/2009	I so greatly enjoyed employing the LA tools I'm learning to a scenario like this.
3/26/2009	The tools I've learned about site assessment, spatial organization, shaping land, profitability, composting, diverting green waste, managing diverse interest groups/ clients - applying these tools to meaningful causes inspires me. Than is an important lesson for my career.

APPENDIX C

QUESTIONNAIRE RESULTS

April 23, 2009

*A meaningful experience that will change you, take you out of your comfort zone,
get you dirty and grow your heart.*

- Student of LA 591g: Applied Field Studies in Guatemala

1. What affect has this class had in your life?
This class has help[ed] me realize what I really want to do when I graduate and gave me the steps I need to go through to do it. The relationships formed. I love my new friends.
A huge impact. Some really close friends in the LARP department, community service learning projects always blow my mind and our project is affecting so many people in so many ways. I can't believe I was a part of this whole thing - the things we did and saw will always be with me.
My interest in doing work/ research in Guatemala has grown significantly. My understanding of the culture down there has grown tremendously. My teaching and participating style has grown/ changed.
Made me realize first hand how unfairly we consume resources in our country. How there are gazillions of people who do a whole lot more with a whole lot less (out of necessity). How the work we do in landscape architecture should be mixed with other disciplines and used to help people, not just to decorate, which I knew anyway but this reinforced it and way more than I can explain.
This class demonstrated that the skills associated with being a landscape architect are useful in a multitude of different applications.
It has allowed me to put my knowledge into action. I have developed as an individual and as a student. I got to see Mayan ruins, a place I have been intrigued by my whole life. And I made some great friends.
Met great people. All positive, many positive ways. Better person.
This class has affected my life by reaffirming what I want to do with my life, proving that I can do it, and showing me that there is a whole world out there where I can do it.

<p>This class has made me realize that dreams are accomplishable, and that my peers have potential (incredible) contributions that can change lives.</p>
<p>2. At what level do you believe that your participation made a difference?</p>
<p>Not as much as others, but I recognize the importance of each individual. And spiritually I felt completely needed.</p>
<p>I believe that my participation made a difference on site when pacing things off and also in the design. I feel like I contributed a lot and that everyone together completed the whole. Hopefully I held up my end when it came to group work and work back at UMass.</p>
<p>All levels - from how to solve detail, logistical, process and political problems in Guatemala</p>
<p>I helped everyone visualize the ideas by drawing them and helped design the site and find out how productive it can be, and am helping find was of dealing with the site's negative peculiarities through design (wind, slope, water, etc.).</p>
<p>My participation offered unique blend of problem solving skills that stemmed from previous projects.</p>
<p>I believe my input was very helpful for the class. The knowledge of finance and operations management that I have from Isenberg comes through in our results.</p>
<p>For this to have happened the way it did, we all contributed on the highest level. I think I gave it my all.</p>
<p>I think that my participation made a difference because I was able to be the "keeper" of our first grant and that helped out my classmates. My classmates had classes and other commitments at different times during the day on that Monday. While Trav, Zeena, and I contributed to the grant, I think it was a stress relief for them for me to be able to work on the grant the whole day. We turned in the best grant!</p>
<p>I was able to connect people. I believe that my involvement, like everyone else's, made this project possible.</p>
<p>3. How would you have changed the syllabus?</p>
<p>Meet twice a week?</p>
<p>Nothing really comes to mind. I feel the class was structured well.</p>
<p>Perhaps more deadlines for products to avail the late semester crunch.</p>
<p>I'm not sure I would have.</p>
<p>Get rid of it and write as you go. Not that it was bad, but with a project like this, things can change frequently.</p>
<p>Added some more readings of case studies and spend a class period talking about entrepreneurial projects similar to this, how they succeeded or failed, and what lessons we can take from these cases.</p>

If I were to change the syllabus I think I would just make the deadlines more concrete. This is my last semester and I have some senioritis going on.
I would have made the requirements more strict. I realize my weakness in helping to lead/ organize the class is my "niceness," which has led to my lack of ability to retain structure.
4. What do you wish was different about the class?
I wish I became such good friends with all these people before the trip. Maybe get together over the break or more often for fun before the actual trip.
More people :) - I know it's hard to travel with that many people, and we probably wouldn't have had work for everyone, but I just would like more LARP kids to experience/ share in this trip.
That we could have spent more time in Guatemala further developing the project. Perhaps having more indepth reading/ research required prior to travel would have helped too. Also - everyone uses Rosetta Stone language tapes.
Not much.
Nothing really.
Nothing.
Nothing. It lasted longer.
I wish that we had more time in Guatemala!
I wish we would have done more right after the trip. This is also a result of the "niceness."
5. If you could tell yourself something in January what would it be?
You're about to have the time of your life! These people are awesome! Get to know them now.
Get to know everyone right now so we don't waste anytime. (At the same point, it was fun to bond in Guatemala).
Learn more about Guatemala, learn Spanish. To involve Lyn Kendal to a greater degree.
Be very careful about what you eat and drink on Friday, March 20th.
Get moving now! Don't wait until the week before going to Guatemala.
Make it a priority not to miss class.
Go on the trip.
I would tell myself in January that this class experience would blow my mind. It would exceed any of my expectations and hopes. (I'm not sure I would even want to tell myself this though.)
This experience will change your life. Take more pictures before the trip.
6. What was the most impactful part of this class while in the States?
Watching the video on day one.

The ZUBE lecture series by far. It was great to put it all together and present it to the community/ fellow students. I got so many comments/ phone calls saying how impressed they were at what and how much that we actually did down there.
Getting to know each of the students - their strengths and interests - and of course leaning more about composting.
The presentation we did to the LARP department, which made me feel really good.
Developing an idea for a site you have never seen.
Going to Martin Farms to see a real composting operation in action. It was essential to see what exactly we would be producing and how it was produced before going down.
Contributing my compost knowledge.
The part of this class while in the States that has had the most impact is when we came home from Guatemala. We knew what we had to do. For me it was putting a grant together and helping to put our Zube presentation together.
Watching my classmates watch Recycled Life [the documentary on life in Zone 3].
7. What was the most impactful part of this class while in the Guatemala?
The living conditions of beautiful people. The relationships formed. The intensiveness of the 4 days on site. The physical experience hiking the volcano. Running around Tikal.
The most impactful part of the trip for me was Saturday, seeing Zone 3, loving on the children, seeing how the[y] love and the going to the dump and seeing really how they live.
Learning how to use my skills in a realistic and constructive manner, and learning how to step back and let others "do" it themselves.
Seeing the dump and Zone 3 as the backdrop for our work's significance, I think.
Learning to change your progress expectation to [accommodate] cultural habits.
Seeing the neighborhood in Zone 3 and the dump those people have to work in everyday.
The way we worked as a group. Our finished products (while there). The fact that all this may be installed (unlike other studios).
The part of this class while in Guatemala that has had the most impact is everything - the dynamic of our group, seeing our project become a reality, and working together to make it a reality.
The night we presented all of our material to Susy [Director of the Department of Urban Construction].

8. If you were to advertise this class to future students, what would you say?
If you want to see a real project come to life, to help real people, and get a taste of how landscape architecture can make lives as well as earth beautiful, it's for you.
They have to take it! Not only do you learn an interesting topic, they travel to a country that is absolutely beautiful and you really get to bond with LARP kids that you see in the building, but never had an opportunity to talk to/ get to know.
I would build on the three phrases that T used, finding the intersection of the passions of our being with the skills of LA with needs of developing nations.
Sustainability's the word in landscape architecture right now, and if you want to really grapple with it head on in the most intense way possible within this program, take this class.
Be flexible, create lots of different ideas and get ready to possibly use none of them.
If your want to take part in a real, tangible, hands-on business start-up, while also helping others and adventuring in Central America, TAKE THIS CLASS!!!
A meaningful experience that will change you, take you out of your comfort zone, get you dirty and grow your heart.
I would advertise this class to future students by telling them my answer to question 5 and that it is a chance to see the world differently and to try to do something about it in a positive way, to see your place in the world differently.
This class has the potential to change your academic and vocational career, and at the very least it will be an incredible experience.
9. Will you participate in this class again next year?
No, I won't be here. :(Or maybe I'll come back as a grad student and lead it.
Most likely, I would love to go back and help out in any way possible. The class work would have to really catch my interest though.
Yes.
No, I'll have graduated.
Maybe I will participate in the planning but will likely travel/ work on a different project for variety.
I definitely will if I can financially and I have space in my schedule because it was one of my best experiences to date and I really want to see AbonorganiCo to succeed.
If it is a follow up/ further develop this project I very well might. The group won't be as cool.
Hopefully this time next year I will be employed but I do want to visit Trav.

Yes, I want to host this class trip in Guate because I want everyone to find where the passions of their hearts, the needs of the world, and the skills [they have acquired thus far]. Plus we need help down there!
10. What is the most intriguing part of this class for you?
9 hour bus ride to Tikal :)
How really everything is - the site, the business aspect, everything! We've spent the las couple years doing very in depth studios, but nothing really comes of it. So it's exciting to put in more effort cause you know it will be implemented.
The positive group dynamic and letting the students find ways to make things come to fruition because <u>they</u> wanted to and not because it was a course requirement.
Working towards more sustainability at a community scale, seeing how it can happen in real life and not just be an idea, basically actually HELPING people with landscape architecture.
The process of developing an idea from the ground up.
Not only the fact that we dealt with a real upcoming business, but also the amount of interaction we had with the government.
How did we work together so well? What outside force brought this to be? Brought us together?
The most intriguing part of the class has been meeting people in Guatemala, especially the young kids that we want to be part of our project.
Watching my peers give 110%.
11. What is the duller part of this class for you (besides the journal entries :))?
Nothing really
Nothing really jumps to mind. Maybe some of the lectures in the beginning.
Can't think of any.
I dunno, that damn all night bus ride maybe, that counts doesn't it? I feel like even the calm/ "dull" moments in class all had their use.
The long layover in Miami.
Nothing.
The bus ride in Guate. I wouldn't describe any part of it as "dull."
The duller (probably the wrong word) part of the class was searching for grants the first time I did it. It just seemed like such a daunting task. But now that we've applied to one, it's like "let's go! Keep them coming!"
I really cannot think of any dull parts. This class has been a rollercoaster of fun and excitement and fear and risk-taking.

12. What is your proposed thesis/project topic, or what will/would it be?
How important landscape architecture is in other countries and the impact small projects can make.
The Soundscape Planning of Mountain Park in Holyoke, MA.
Building on my research into eco tourism, how projects such as this one essentially volunteer tourism.
My capstone (honor's project) is this class along with Jack Ahern's Green Urbanism, to learn about urban sustainability as much as possible basically through research and practice, just cause I feel I hadn't gotten any of that up till now. These two classes sure did the trick.
Bioremediation through landscape architecture.
The idea that you can generate profit by solving multiple problems: supply part-time jobs, treat waste, supply demanded compost.
I don't know. Social justice. Marginal space. Meaningful landscape architecture.
My thesis/project topic is on the preservation of public housing and project-based section 8 housing in gentrifying neighborhoods.
This class!
13. How has this class affected you academically?
The grant application process and meeting with city officials are very real parts of a project that are not dealt with in fictional studio projects.
It really showed me how much I like what I do in landscape architecture. Really caring about the wind, water, sun, etc. since this is happening. Before, it's not a big deal to flatten a site or not meet grade or fell trees cause it wasn't real.
N/A
Given me some more real-life basis for things that used to be purely academic.
As a fifth class it was a bit much and I am looking forward to a nap in May.
It has given me a chance to put the skill I have learned thus far into action, and I feel more confident about using what I have learned in college in the real world.
Made me want to grow up and reach my potential as a student (more focus).
The class has affected me academically by continuing to ask myself why things are the way things are and having a good understanding of why things are why they are so that I can do things that will help solve the problem.
It has enabled me to get a master's degree, but more, it has proved to me that academia can meet real needs and as a result teach students more than they would ever learn in a classroom.

14. How has this class affected you vocationally?
It has made me realize the real possibility of doing a project on my own (with a team).
Even though I wasn't on the business team, I took a lot from that. I'm gonna be doing lots of number crunching/ business work this summer and it will hopefully turn into a career.
My knowledge of composting and small business development has grown.
It only reinforced my determination not to use my landscape architecture superpowers to make rich people's lives cushier just cause "that's where the money it" - there's way more meaningful and adventurous and helpful/ important things to be done.
As a future landscape architect I plan to devote 10% of a project load to development type projects.
It has strengthened my desire to work in developing countries to help people better manage their resources.
There were aspects of this project that I will seek to have throughout my career.
The class has affected me vocationally by reaffirming what I want to do in life. I want to be "a voice for the voiceless" (thanks for the quote Trav!). Because of this class I also wrote my first grant! Grant-writing is a useful skill.
It has made my dream job a reality: managing Abonorganico.
15. What are your vocational plans?
This is the kind of stuff I could do after I graduate.
Maybe something with landscape architecture, most likely something with the tunes.
N/A
Landscape architect without borders, design wise and location wise.
To work for international non-governmental organization that focuses on resource management and sustainable economic development in poor nations.
Still thinking.
I plan to work in a medium to big size city. I want to work in the inner city and work on providing safe, affordable, and equitable housing. Recently I have become more interested in economic development strategies in inner cities. Maybe I'll work at a community development corporation.
To manage Abonorganico.

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