TRICKLE DOWN LANDSCAPE ARCHITECTURE:

HOW HARNESSING THE INFLUENCE OF AN ELITE DEMOGRAPHIC CAN FACILITATE A CHANGE IN THE PERCEPTION OF NATURALISTIC LANDSCAPES WITHIN THE GENERAL PUBLIC

by

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(Under the Direction of Brad Davis)

This thesis highlights case studies that describes groups that visit “naturalistic” and eco-revelatory spaces designed by landscape architects. The results point to a demographic that is more educated and wealthy than the general public, leading to the conclusion that landscape architecture, while a discipline that focuses on the greater good, is inextricably bound to the upper class. Whether through private work or funding for public parks, the two actors have strong influence upon each other. The influence of landscape architects upon the elite is examined, with the assertion that practitioners can be the root origin of environmental ethics for this class. This influence can be harnessed to create a new landscape of wealth, power and influence that is based around holistic, systemic designs. This new landscape can result in cultural change, with the general public aspiring to join the upper classes in making environmentally responsible decisions.

INDEX WORDS: Landscape Architecture, Landscape Urbanism, Eco-Revelatory Landscapes, Elitism, Culture Change, Perception Shifts, Urban Meadows, Turf Grass

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CHAPTER 1

INTRODUCTION

In January 2013 I traveled to New York City to visit the Highline as a thesis study site. I hoped to show how landscape architecture could make an impact on society by changing public perception of native, system-based plantings. By encouraging more parks like the Highline and introducing more people to native plantings such as meadowscapes, I hoped to demonstrate how this profession could change the public's perception of native alternatives to turf at a residential scale. However, I quickly saw a flaw in my hypothesis when I arrived at the Highline: nearly everyone I spoke with was already well versed with the ideas I was espousing. Visitors to the park were speaking to me about native plants and invasive species, about the beauty of dead grasses and the seasonality of this landscape. They talked in terms of architecture and color theory, and openly discussed the mental benefits they received from being in such a peaceful setting in an urban area. I even spoke to a number of people who have begun meadow plantings in their own lawns. In short, this park was not raising awareness as I hoped it would; it was preaching to the choir.

The experience marked a new beginning for this thesis examination, a process which questioned how landscape architects design parks, and what demographic is attracted to those spaces. The profession of landscape architecture has been undergoing a change for the past few decades where ecologically based landscapes are becoming more prevalent. Schools and professional publications are emphasizing

designs that function as part of a greater ecosystem while teaching the public about our place within the environment. However, are these acclaimed spaces built for use by the masses, or are they designed for a specific visitor: the educated, higher-income population of our society? Landscape architects are concerned with changing environmental attitudes, but who is receiving the message conveyed through the built environment? Is the eco-revelatory work of the field making an impact on the lives of everyday citizens, and are the designs influencing the way Americans connect with nature on a smaller scale? Or are these naturalistic landscapes ignored by a general population that prefers a more manicured landscape of turf on which to recreate? If this is the case, how can practitioners better focus efforts to impact public change?

The questions above, when paired with results of field surveys from this thesis and others like it, form a new question about how landscape architects can shape change in a society. It is apparent that many of the spaces landscape architects design have some connection to elitism. This connection might be direct, as in a high-end residential project or an arboretum or botanical garden, or it might be more nuanced, as in a public project with private funding. Whichever the case, the elite class' impact on landscape architecture is difficult to deny. But is this necessarily a bad thing? Can landscape architects harness the influence of an educated, wealthy class to bring about change that will ripple throughout society? Could fostering change in the upper tiers of society be a more effective way to bring about sweeping environmental change throughout all social strata?

Reappropriating “Trickle Down”

The idea of “trickle-down” is associated with a conservative economic policy that purposefully provides economic benefits to the wealthy with the hope that their influence will improve the economy as a whole, thus benefiting everyone. It is a controversial policy that stirs emotions throughout the country. This study looks to change the meaning and context of the term “trickle down” in relation to landscape architecture. The concepts presented here are meant to show how environmental ideas, values, and ultimately actions can be passed through different classes. This study will not only look at how these concepts are passed from the upper classes to the general public, but it will also examine the role that landscape architects have in starting the conversation with the upper class in the first place. The thesis will examine how ideas of man’s place within the landscape have to trickle down to the elite classes before they can trickle down through the rest of society.

Encouraging Holistic Natural Plantings

This examination originated with the question of how landscape architects can impact a movement away from human-dominated landscapes that require large inputs of resources to more holistic, systemic plantings that contribute to a greater environment. In other words, how can landscape architects facilitate a change away from vast stretches of turf in favor of more native plantings. This theme will continue to drive the thesis, but only as a microcosm of the larger picture of what the proposed ideas can accomplish. There is a much larger conversation about moving our society toward an understanding that we are an integral part of a greater system, that our actions impact the environment around us, and that we should therefore act responsibly.

There are many applications of these ideas, and this thesis will focus on one of them. Americans' obsession with turf provides a good starting point to examine how environmental change can occur on a social level because it is so central to so many Americans' views of nature even though it is a landscape that is very disconnected from nature itself.

This will be a central consideration within this thesis, and the focus will be on how landscape architects can utilize or harness the elite upper classes to begin a movement away from turf-dominated landscapes. This thesis will first review the ways in which landscape architecture has worked to change social attitudes, both historically and in a contemporary context. From there it will examine the ways in which different scales of environmental change have happened in the past, and what role the elite class has played in those shifts of cultural perception. Landscape architecture is then brought back into the discussion, with a look at its ties to the elite class and the opportunity for influence therein. The thesis will examine whether that influence can be a catalyst for change within a larger society. The conclusion will offer suggestions on how to build engagement with the elite class in the private and public arena, and discuss ways to encourage naturalistic plantings within each context.

CHAPTER 2

LITERATURE REVIEW

Landscape Architecture and Cultural Change

The overarching purpose of this examination is to determine the best way for landscape architects to be an agent of cultural change, particularly based around naturalistic plantings verses turf grass. But is it the job of landscape architects to worry about changing a societies' perception of a landscape such as turf? Also, why should this profession be concerned this bringing about cultural change?

It is common knowledge among those in the field that turf grass is not a beneficial landscape ecologically speaking. It is a monoculture that offers little biodiversity for wildlife, a landscape that actually contributes to a loss of biodiversity through pesticides that kill insects, a basic food source for many species (Tallamy 21-25). It is an input-intensive landscape with a large carbon footprint: it requires constant watering, fertilizers, pesticides and other resources such as time, money, manpower, and gasoline for mowers. These inputs that it requires pose a harm to both wildlife and humans by introducing toxins to groundwater, streams, and homes (Robbins and Sharp, 428-29). An estimated 49 million households in the United States purchased fertilizers for their lawn in 1999, coupled with 37 million who purchased pesticides (Robbins and Sharp, 427). This is a staggering amount of chemicals that Americans are releasing into the environment around their homes, and a small amount of change in landscaping habits would make a large difference in the impact of lawns: by convincing homeowners to install meadowscapes in just one third of their lawn, environmental

conditions would improve dramatically and homeowners could save upwards of five hundred dollars per year in maintenance costs[1] (Zimmerman 22-23).

With all this said, turf is a landscape that Americans love. It accounts for nearly one quarter of land cover in urban and suburban areas in this country (Robbins and Sharp 426), and it speaks about our culture, communicating whether a person is a good neighbor, a hard worker, and has pride in their home (Nassauer 162). Additionally, a lawn provides areas for people to play and recreate, and acts as a conduit for Americans to interact with a natural world from which they are often disconnected. It is not something that Americans want to give up, so why should a profession try to force new ideas on an uninterested public? If the lawn has come to signify the disconnect between our cultural concept of nature and the ecological, functional concept that is scientifically based, as Nassauer states (161), is it the job of landscape architects to change those perceptions?

This point gets to the heart of a major question facing the profession of landscape architecture. Is this a service industry, or do landscape architects work to foster a greater purpose? Or, in relation to this topic, should practitioners continue to give the public what it wants in terms of open lawns in private and public settings, or should they push back and insist on an option that is more environmentally and economically responsible while retaining aesthetic appeal? The Council for Landscape Architectural Registration Boards (CLARB) has weighed in on this question by detailing the importance of public welfare and education in landscape architecture. Of the major impacts that landscape architects can have on the public domain, CLARB lists

[1] Savings based upon a 1/3 acre site, 1/3 of which is meadows maintained by the homeowner, over a ten year period.

landscape awareness and stewardship, and environmental and economic sustainability as some of the most important goals to achieve (Spears et al. 15-16). Landscape architects should strive to teach people about their landscapes through designs, and help cultivate a stronger bond between people and the land they occupy. This ideal works jointly with the goal of environmental sustainability by encouraging a teaching landscape that functions as part of a larger system, one that contributes environmental services in a holistic manner to make cities function better while teaching citizens how to implement ideas at their own scale. These ideals point to an ethical call for landscape architects to not only design artistic landscapes, but to design them responsibly with the intent to teach and foster landscape stewardship. This call to stewardship fits perfectly with the goal to institute a widespread change of how Americans think about their yards and their relationship to a larger landscape.

This idea of ushering in a cultural change is not new to the field, and was not first proposed by CLARB. Landscape architecture has a long history of acting as an agent of social change to bring about positive differences in the ways we think about and interact with our environments. Frederick Law Olmsted, the father of the profession, was one of the first to push social causes through his work. He worked with colleagues such as Andrew Jackson Downing to provide green spaces for people living in dense urban areas. Projects such as Central Park and the Emerald Necklace were created by Olmsted to help urbanites escape the evils of dense cities by getting outside and re-forming a connection to the natural world (Beveridge 46-47). His belief that “beautiful landscapes yield responsible citizens” played a central role in the work he did (Taylor, Klingle par.10).

Olmsted rarely took on private commissions, instead opting for public projects that would impact the lives of everyday Americans. When he did agree to do private works, he incorporated his desire to impact the larger social structure. His most famous private work was the Biltmore Estate for the Vanderbilt family in Asheville, North Carolina. When Vanderbilt first spoke to Olmsted, he dreamed of a private estate landscaped in a European fashion of manicured gardens. Olmsted designed the formal gardens that Vanderbilt wanted, but he also knew the potential for the greater good his influence with Vanderbilt could have. He pushed for a more encompassing landscape, recommending the creation of the first forestry school in the United States to be built on the property with a goal of teaching local Appalachians how to better understand their environment (Beveridge 225-228). This school went on to hire foresters from Europe, including Gifford Pinchot, to teach Americans how to manage our land. The National Forest Service grew out of this effort, and it still impacts the way we interact with natural systems today, over 130 years later.

Olmsteds' legacy of public awareness and social change has been passed down through generations of landscape architects, from the work of Jens Jensen, who designed sweeping naturalistic vistas for viewers to contemplate, to Ian McHarg, who's seminal *Design With Nature* still holds influence in the field nearly 50 years after publication. This book began an "environmental evangelism" within landscape architecture where a focus on advocacy took precedence over aesthetic design (Nadenicek, Hastings 143-144). The evangelical ideals of these landscape architects evolved and were manifested in the 1990s with an increase in "eco-revelatory" work within the field, in which ecology and aesthetic design are blended together. This design

movement takes the ecological workings of a site and reveals them for the public to see and understand (Brown, Harkness & Johnson 10). The goal of this revelation is to teach the public how landscapes operate and how our culture interacts with them, with the hope that once a person sees and understands environmental systems they will better appreciate and care for them. This is largely based upon E.O. Wilson's theory of biophilia, which discusses an innate urge for humans to connect with nature. Once they have formed the connection, they will have a greater opportunity to care about the natural world, and will be more likely to act responsibly to change harmful patterns (Tallamy 124).

The theory of Ecological Urbanism has recently emerged out of the eco-revelatory movement, and takes advocacy and education one step further. Revealing natural processes to the public is still important, but the added goal of functionality is added to these landscapes. The realization that our society is an actor in a larger context and that our cities are part of an ecosystem is key to ecological urbanism. Landscapes should contribute to the overall ecosystem and should encourage "productive ecologies" where cultural and natural landscapes work collaboratively together (Lister). Fresh Kills in New York is an excellent example of this school of thought. It is a landscape that was once a landfill, but has been turned into a 2,200 acre preserve that allows citizen participation through trail networks, recreation areas and parklands while simultaneously functioning as a productive wetland that filters stormwater and provides habitat for wildlife. The designer of this park, James Corner, has stated that "a city is an ecology, an ecology of money, an ecology of infrastructure, an ecology of people...there are so many systems" (Sullivan par. 10). His design

merges human and natural ecosystems together to form a mutually beneficial landscape.

The examples listed above show that there is a long tradition of landscape architects working to educate the general public and foster stewardship of our land. This is an effort that evolves as time goes by. New ideas are introduced and new landscape paradigms emerge. Ideas evolve from these landscapes to impact future generations of landscape architects, and these designers think of new ways to involve the public in the learning process. While the message itself may change over time, the important thing to consider is that there is an established history of practitioners working to reveal the inner workings of nature through their designs. The message that was once conveyed through a manicured green space such as Central Park has evolved to encompass massive wetland areas that function as part of an ecosystem. There is an effort to cultivate a knowledge transfer that empowers people to make an environmental difference at their own scale. At their best, landscape architects design spaces that can cause a society to rethink its relationship with nature and how its actions impact the natural world.

Governing bodies such as the ASLA and CLARB call on practitioners to continue the path of advocacy that landscape architects have historically pursued. If the field of landscape architecture follows their recommendations and historic precedents, then education and stewardship will continue to be a central tenant of this profession. There will be instances when byproducts of this increased education, awareness, and public perception will cause cultural changes. Constructing a pathway for Americans to wean

themselves off of a landscape based around turf is one such instance, and opportunities to begin this change will be further examined in this thesis.

An Examination of Cultural Change

If one of the goals of landscape architecture is to foster a reexamination of our relationship with the environment and to bring about cultural change, a beneficial exercise would be to examine different methods in which this change is enacted and what groups have influence over the changes.

In order to relate this examination to the discussion of naturalistic landscapes, a distinction first needs to be made between social movements and cultural change. Within a social movement there must be a conscious organization working together in a collective effort to bring about direct change in relation to some grievance. There is a strategic, rational, and organized character to these movements, often including a change of governance as a final goal (Snow 1-2). Social movements include diverse constituents, often using protest to achieve their goal. What Olmsted began, and what landscape architects have attempted to continue with eco-revelatory landscapes, is more of a value shift, or a change in which a society perceives its place in nature. While there is a collective effort among practitioners of this profession, there is not a mass movement among the population calling for reform or change. This is more about a shift of perception, and the work is achieved over a long period, slowly changing the ways that our culture thinks, behaves, and acts.

To be sure, there are environmental movements that can be identified as a social movement. For example, the movement in the United States after Rachel Carson's Silent Spring was published would be classified as a social movement. There was a call

to arms in this country fueled by national news stories about the burning Cuyahoga River in Cleveland and oil spills in California. This mobilized a large number of citizens, and grass-roots organizations sprung up to fight for environmental change and better stewardship. This work resulted in the establishment of the Environmental Protection Agency and the creation of the Endangered Species Act (Taylor, Klingle par.14). There was a massive call from the public in retaliation to environmental harm that resulted in political change for a better future.

However, there are no burning rivers or massive oil spills that draw attention to the fight to incorporate native plants into our landscapes. There is not a serious call to legislate people into moving away from lawns. It is not a glamorous cause or an exciting headline, so the chances of creating a large, all inclusive movement around meadowscapes is slim. Even with some in the field drawing attention to changing climate trends, droughts, and the possibility of water scarcity in the future, the general public retains their attachment to lawns. The water shortages have not happened on a widespread level, so the need for action has not been cast into the public eye. There are negative opinions about the appropriateness of meadowscapes in suburban settings, with many neighborhood associations prohibiting these kinds of plantings in place of lawns. This makes a grass roots organization for alternative lawns unlikely. Strategies more subtle than staging a large-scale movement must be employed to raise awareness of the meadow verses turf argument, and other precedents must be studied.

The precedent this thesis is concerned with is the influence of an educated, wealthy class upon social change or cultural perception shifts. While this demographic group will at times be referred to as an elite class in this thesis, the terminology does not

necessarily refer to a small group with control of a disproportionate amount of wealth or political power. “Elite” will be used to refer to an educated group that has enough disposable income to invest in efforts to alleviate social concerns. This is an important group to study because their impact on sociological shifts has become more pronounced in recent decades (Duffy, Binder, Skrentny 51). There is a documented record of the impact these elite actors can have upon cultural perception shifts and even social movements. Theories about how this group can affect social change range from the ideal that they are the proactive conscience of our society (Haines 34-35) to the assertion that they can channel funds through elite foundations to build social movements (Bartley 229-55). Examples of each of these theories will be explored here, with associated environmental impacts being a main concern. The examples presented can be used to guide an alternate course for landscape architects to utilize in future efforts to shape cultural perceptions.

Perhaps the most appropriate case to start with concerns lawns themselves, and how they became so popular in the United States. According to *Redesigning the American Lawn*, this is a landscape that is relatively young in a historic sense, less than 200 years old (Bormann, Balmori and Geballe 12). This is an important point because the lawn was not a culturally significant landscape that has been passed on from generation to generation. It began recently and was adopted by an entire society, and its emergence has direct ties to a privileged class whose acts defined the way a society interpreted nature.

The lawn arose in eighteenth century Europe as a way for aristocrats to demonstrate control over nature. It began in France, as evidenced in palaces such as

Versailles and Vaux le Vicomte, but it was mastered and utilized to a much higher degree by the elite in England. Much like its predecessor in France, the English lawn symbolized both natural order and political and cultural power. The elite escaped the pollution of cities to live in the country, with the lawn as a central part of their landscape (Bormann, Balmori and Geballe 14-16). The lawn was used as a buffer between houses and wilderness areas, smoothing the transition between the two and creating the feeling of a continuous stretch of nature from the house outward. Devices such as a haha were used to create an illusion that vast areas of land extended away from a country estate, signifying the wealth of the land owner. This was the political landscape of power of its time.

The landscape was adapted to the United States, where endless land was available for cultivation. Wealthy landholders such as Jefferson and Washington worked the pastoral image of a lawn into their own homes, and Jefferson incorporated it into his design of the University of Virginia. “The Lawn” was built into a central space between buildings looking out on rolling hills, mimicking the earlier use of lawns in Europe. For Jefferson, the lawn was a distinct statement about man’s control over nature and an overt statement about political order (Kostof 22). The lawn retained the symbol of wealth and power in its new context in the United States.

Later, in the mid 1800s, the suburb began to take form as wealthy Americans left cities to live outside of urban areas. Bormann, Balmori and Geballe tells us, “the lawn, carrying the English connotations of nature with it, became a symbol of prestige in the 19th century suburbs” (16-22). Cost kept the lawn out of the reach of typical Americans

though, and it was not until the invention of the lawn mower that a homeowner could afford to keep a lawn without hiring a gardener for help.

A large catalyst in the acceptance of lawns within the general public was the writings of the gardener and nurseryman Andrew Jackson Downing (the term landscape architect had not yet been adopted). His book *Treatise on The Theory and Practice of Landscape Gardening, Adapted to North America*, was a turning point which urged Americans to integrate a lawn into their home and bring nature into their lives. It was based upon European ideals and offered examples of rural English estates for American homeowners to aspire to, with a goal of refining the taste of Americans and increasing their appreciation of beauty in the landscape (Rogers 326). The centerpiece of the rural landscape he encouraged was the lawn, which could create a kind of “barrier” between the house and the surrounding neighborhoods and city. (Barmann, Balmori and Geballe 22). The appearance of the landscape was of the utmost importance, with the utilitarian purpose of land completely divorced from the concept. Downing referred to this space as “smiling lawns”, with no gardens allowed, and “refined by a patient mower”, “not grown into meadows” (Kostof 26). The book was highly popular in the United States and transformed the way people perceived the land surrounding their homes.

There are several lessons that can be taken from this. First, there was a definite link between the way society interacted with its environment and the actions of a wealthy upper class. A landscape that conveyed a higher standard of living, wealth, and power was adapted and mimicked by others throughout the country, and ideals of man’s place in the environment were passed between disparate classes. Secondly, a man whom many would consider a landscape architect played a central role in crafting a

message that a country adopted. Perhaps lawns would have come about in America without Downing's influence, but his book most certainly helped put lawns on the map, and he was instrumental in the spread of this landscape. His vision of a manicured, well tended lawn shaped the way a country interacted with land.

More recently, modern environmental stewardship and the green movement itself have been strongly impacted by an educated upper class. The grass-roots movement in the mid 20th century in the United States, which became a greater social movement to change the way our country interacted with its environment, was ushered in by an educated demographic. According to Taylor and Klingle (par. 15), the movement that began after the publication of Silent Spring was initially taken up by an educated, white, upper-middle class, with poor and minorities generally on the fringes of the fight. Environmental groups such as the Sierra Club were formed and backed by wealthy individuals and foundations, helping to enact change on a large scale (Duffy, Binder, and Skrentny 51). Many environmental causes are still dominated by this class, which has both the time and money to spend working on a cause that might not hold as much appeal to someone more concerned with everyday expenses. In fact, the overall environmental movement can be seen as a "luxury good", a cause predisposed to people of wealth and leisure, something we place more value on as we get richer (Wheelen 6-7). Maslow's hierarchy of needs can substantiate the point that economically distressed groups are concerned with more fundamental matters of day-to-day living, while the higher classes are free to pursue more self-actualizing activities, including environmental stewardship.

Another point to consider is that the participation of this elite group is particularly important in the success of green movements. When analyzed through the lens of resource mobilization theory, an idea that states time, money, facilities and legitimacy are all necessary in the adoption of social change, the involvement of elite groups becomes particularly apparent (Duffy, Binder, Skrentny 58). These groups lend not only monetary support to movements, but their participation also provides a certain amount of legitimacy. Because people look up to these classes and often aspire to join that class, when a cause is taken up by them it seems more bona fide.

The environmental stewardship examples above demonstrate how political and social movements can be impacted by an elite class. More nuanced changes in the ways that the public perceives environmental issues can also be impacted by this class. An example of one such change in perception can be seen in the transition toward a more “green” society. An excellent example of this influence is seen in the ways that we buy produce today. Whole Foods and other natural food stores have been providing high-quality foods to customers for years. These stores have historically been housed in urban areas, in higher-income districts, catering to a more educated, trendy clientele. Whole Foods prides itself in providing high-quality, natural, organic produce and meat to consumers while supporting a landscape ethic rooted in environmentalism and sustainability. This product comes at a premium cost though, with a core customer spending nearly three times more than new customers according to the Wall Street Journal (Gasparro par.6). Does this added expense say something about the customers that shop at Whole Foods? Some have likened the products offered at these stores as a “private school for food”, with accusations that shopping at Whole Foods

and its equivalents conveys membership of a certain upper class (Brisman 359). It is a product that has not been accessible to most of society: chain grocery stores have not historically carried these products because of the cost point, and the vast majority of Americans simply do not have the means to buy the organic label, even if they might prefer that product. People without the necessary resources who wanted fresh produce in the past have had to rely on farmers markets when available or growing food themselves if they are lucky enough to have the property and time.

However, this trend has recently begun to change. The core values and beliefs that have for years been relegated to a mostly educated demographic with higher income has begun to spread to the rest of society. People are slowly changing their perceptions of the food they eat, and demanding more locally grown, fresh, healthy meats and vegetables. Recently, chain grocery stores such as Kroger and Safeway have added "natural" sections that offer consumers healthy fresh alternatives to the food that has traditionally stocked the shelves (Gasparro par.7). The demand for better food has caused a lower entry point in cost, making it more available for all to access. The Atlantic recently ran an article about the surprising shift Walmart has made in order to provide local, healthy vegetables to all of their customers (Kummer). Charles Fishman, the author of *The Wal-Mart Effect*, states in this article that Walmart made the decision to carry local produce in response to the options pioneered by Whole Foods and other high-end grocery stores like it. In other words, the ideals and attitudes of customers at Whole Foods have influenced other national retailers that have not traditionally ventured into the health-food arena. The trend of eating local, organic, healthy food is growing

and impacting the larger society as a whole, and it began with a more educated, economically advantaged demographic.

The same phenomenon can be seen in the automobile industry's push for more environmentally friendly products. When Toyota introduced the Prius worldwide in 2000, it needed spokespeople to make this environmentally friendly product chic and desirable. It was an expensive product that was seen as untested in the marketplace, considered by many to be wimpy cars for tree-huggers (Gross). Toyota turned to Hollywood, and asked the acting elite to lend support to a car that could help champion the message of energy conservation and global warming. Toyota chose the 2003 Oscars as a platform to advertise their message of environmental action. Top stars who were nominated for the prestigious award decided to be chauffeured to the ceremony in a Prius rather than the usual limousine. Toyota repeated the publicity the following year, using the awards show to build awareness with a national audience. Stars drove the cars to the Oscars and in their everyday lives, stressing the importance of responsible environmental actions. The campaign appears to have had some impact. According to Toyota,only 5,600 Prius were sold in the United States in 2000. By 2003 it was up to 24,000 per year and in 2004 the number more than doubled to 54,000. In 2011 Toyota sold over 128,000 hybrid Prius models and most other automobile companies offer most cars (including SUVs) in hybrid form. It is difficult to link the increase in hybrid automobiles sales to a direct impact that stars from Hollywood had, but it is undeniable that these stars helped usher in the technology. Avi Brisman addresses this impact in his article *It Takes Green to be Green*, saying that these cars became a fashion statement, a declaration about one's care for the environment, about their intelligence,

their wealth level, and the fact that he or she is “part of a club that includes Leonardo DiCaprio, Cameron Diaz, and former CIA director James Woolsey” (353). The hybrid cars were once expensive and mostly purchased by the upper class, and they have now been accepted by the American society as a whole. In this case, a very elite class made up of premier Hollywood actors decided to be the proactive conscience that Haines mentioned.

These case studies highlight an alternative strategy that can be employed to facilitate a shift in cultural perceptions and thought in relation to the environment. The educated and wealthy segments of our society are able to be leaders in areas that are too expensive for the normal consumer to invest in, or in ideas that might be ahead of their time. They have the time and money to invest in movements that might shape the way society interacts with an environment. Sometimes this change is an organic result of their everyday choices, as evidenced in the spread of healthy foods or the manicured lawn, and sometimes the change is the result of a deliberate effort to spread a message as with the Prius. The participation of an elite class can result in negative consequences, such as the spread of a human-dominated, environmentally damaging landscape, or it can have a profoundly positive affect, as happened with the wider availability of local food or an automobile that uses fewer resources and depletes less ozone. There is a precedent to show that if a case can be made to these groups about some form of change, their influence can be harnessed and used for a greater social good. The general public often sees the actions of the elite class as something to aspire to, as an emblem of a higher standard of living, wealth, and power. There is a large

opportunity for landscape architects to impact this class to build public perception for native landscapes, if a connection can be formed with them.

Elitist Connections in Landscape Architecture

It has been established that there has been an elitist seed in environmental movements, and that the beginnings of some environmental causes were begun by actors from the upper class. The question now remains about the efficacy of this class of people working with landscape architects to impact a social change in the way our society looks at meadowscapes. Do landscape architects have an established connection with the elite class, and if so, how are they currently impacting actions and decisions? Do landscape architects need to reevaluate their connection with an elite class in order to achieve their goals of cultural shift?

The question of how connected landscape architecture is to the elite classes, or whether or not landscape architecture is an elitist discipline itself, is difficult to quantify. It is a profession that prides itself as working for the greater good, and puts cultural goals above personal gain. With a mean income of $78,600 in 2011, it is certainly not a group made up of wealthy elites (ASLA.org). In all reality, there is not much written that forms a direct connection between landscape architecture and the elite. But there are ancillary connections that can be examined, and inferences can be made from several lines of thought.

One of the most straightforward ways to analyze landscape architecture as a profession is to look at the sociology behind lines of work in general. Pavalko (15-29) discusses the differences between professions and occupations, with professions having a higher degree of dignity, respect, and prestige than occupations. An

“occupation-profession continuum” measures this degree of prestige, based upon an evaluation of activities and processes within a field. Eight characteristics are defined to differentiate the extent to which a trade is a profession or an occupation. This model does not strictly define any line of work as an occupation or profession, as any activity can exhibit varying degrees of each characteristic. However, it does provide a framework to analyze the social standing of landscape architecture as a field.

Dimensions	Occupation		Profession
1. Theory, intellectual technique	Absent	↔	Present
2. Relevance to social values	Not relevant	↔	Relevant
3. Training period			
A	Short	↔	Long
B	Non-specialized	↔	Specialized
C	Involves things	↔	Involves symbols
D	Subculture unimportant	↔	Subculture important
4. Motivation	Self-interest	↔	Service
5. Autonomy	Absent	↔	Present
6. Commitment	Short-term	↔	Long-term
7. Sense of community	Low	↔	High
8. Code of ethics	Undeveloped	↔	Developed

Fig. 1: Occupational-Professional Model (Pavalko 1971)

Of the eight characteristics listed in the model, landscape architecture tends to the “profession” end of the spectrum in most categories. It is a field that controls a knowledge base through accredited educational programs and a self-regulated professional society. The education programs are longer than most, with a 5-year undergraduate or 2-3 year graduate degree required along with professional experience before registration can be attained. The field is very attuned to social values such as

preservation of land, environmental and economic sustainability, and public education (ASLA.org). In line with this, the field is primarily focused upon the ideal of public service, complete with a code of ethics issued by a registration board.

The degree to which landscape architecture veers in each category of the continuum can be argued, but it is certainly nearer to 'profession' than it is to an 'occupation' on most spectrums. While this is not an exact science, the continuum does paint a picture of landscape architecture as a respected line of work, one that is educated and demands an amount of prestige. With this said, an educated and respected field is not necessarily an elite field, so further connections must be drawn.

Landscape architecture derives from other elitist professions such as the high arts and architecture (Deming, Swaffield 18). These ties still exist, as evidenced with architecture being the first "related organization" listed on the ASLA.org website and some eco-revelatory landscapes being described as sophisticated art with abstract concepts, symbolism, and representation being main tools of the trade (Brown, Harkness and Johnson 1). This thesis will not concern itself with whether or not those concepts are accessible to the general public; only the associations with elitism are important in this instance. Architecture has been plagued by claims of elitism, with notable comments by Andres Duany and Philip Johnson about class associations, income level, and building design. Duany has criticized the field for being more interested in style than substance (James), and Johnson has stated that he himself had no interest in buildings other than for their artistic merits, and referred to himself as a "whore" who would work for the class that could pay him the most (Goldberger par. 7).

Historic derivatives are not the only connections that landscape architecture has to an elite class. For example, many of the current movements that landscape architecture associates itself with are viewed as elitist. As already discussed in this thesis, the green movement has strong ties to an educated wealthy demographic. It is perhaps one of the largest influences on the profession of landscape architecture, and is highly connected to an educated, white demographic (Doyle 25-26). In fact, it has been referred to as the "white green movement", with the modal member being a college educated white, with an above average income, unrepresentative of the general population (Brisman 343-344). Duncan and Duncan state that there is a certain social status attained when one of privilege works to preserve and enhance natural beauty (3-8). They go on to state that this desire for natural protection can be a mechanism for class identity which can lead to a focus on aesthetics over social justice, which is certainly an elitist pursuit.

Similarly, the U.S. Council for Green Building's LEED program has been cast in an elitist vein in the past. Because of the added cost of constructing a LEED building, there is an inherent Impact Elitism, with a limited availability to certain classes of people. The benefits achieved by green building are distributed to a higher class while the least privileged continue using older, less efficient technologies (Morrison & Dunlap).

The discussion of elitism can be furthered by bringing race into the picture. Landscape architects have been accused of focusing on elitist spaces constructed for whites, such as upper-class suburbs, corporate office parks, gated communities, or upscale urban spaces (Harris 3). These places have an inherent elitism built into them through form vocabularies and plant choices, with immaculately maintained lawns,

mature trees, and manicured landscapes. The form vocabularies of these landscapes are often more concerned with presenting an air of power and prestige than they are with connecting with any natural order, and there is an exclusionist statement that might tell minorities they are not welcome (Lipsitz 15). Harris goes on to point out that the field of landscape architecture predominantly employs an educated white class, and asserts that this group designs for a public of similar demographics. To bolster this final point, she asks the reader to consider for whom most public parks are designed, where they are located, what access issues these locations present, who funds the parks, and how exclusion is manifested through these questions. These points are made more concrete when one considers how projects can sometimes displace impoverished communities and disseminate neighbors to disparate reaches of a city (Lipsitz 11).

However, are these associations enough to place landscape architecture, as an entire discipline, in an elitist light? After all, it is a profession that strives to serve the public good and create green spaces for all to use. Swaffield (183) asserts that social standing and influence is a catalyst for elitism, and that landscape architecture does not have enough of either to be placed into this category. His argument bypasses Pavalko's continuum and simply says that a profession's regard is defined by the way a society views its output, and simply put, people do not hold the work of landscape architects in high enough regard for the profession to be considered elitist.

This claim can be challenged, though. An examination of the clients with whom landscape architects work shows that there is a direct connection to the elite class. The body of work associated with landscape architecture lends itself to a group of people who have the means to afford the ideals and practices that are associated with this

profession. According to the American Society of Landscape Architects (ASLA), the largest market sector for landscape architects is high-end residential design. Private-home owners are the largest client group, followed by architects and cities or municipalities. Home owners who pay for the services of landscape architects must have enough disposable income to pay for design and implementation of leisure landscapes, typically at a high premium. In other words, the rich or elite classes; most landscape architects do not work on typical suburban homes. This point is bolstered by the assertions by Harris that landscape architects focus on elite landscapes of power: gated communities of high-end residences, corporate office parks, botanical gardens and arboretums, and upscale urban spaces. The common man does not have the means to employ a landscape architect, and there is a basic disconnect between the work the profession does and the general public. In consideration of these points, Swaffield's claim that landscape architecture might not be held in high enough regard could be true on an overall scale within our society, but the fact that the work is focused on and paid for by elite classes shows that there is a segment of our society that does value the work. The educated and wealthy classes have shown that they appreciate landscape architecture and are willing to pay the premium for the service. The social standing and influence exists within the upper classes of our society.

Conclusions can be drawn that landscape architecture is an educated, respected field. It is associated with other, perhaps more well known, fields that have had elitist tinges to them, and it aligns itself with causes that are typically taken up by an educated middle-to-upper class. Many of the projects that landscape architects work on are funded by wealthy landowners, and design considerations have been accused of having

exclusive elements. With all of this said, the field has a strong set of ethics and a moral call to work for the betterment of all elements of society. Many landscape architects focus on the greater good, hoping to create a built environment that teaches the general public about ecological function while forming a beautiful backdrop to everyday life.

It is difficult to draw conclusions about how entrenched elitism is in landscape architecture because of the duality of purposes listed above. It is a profession with many different facets, and it walks a tight line between elitism and the common good. These points get to the heart of this examination. Landscape architecture is concerned with changing the public perception of our culture's place in nature in order to form a more sustainable society. It has worked to form social change in the past and continues to make impacts on our culture today. At the same time, it retains a strong connection to an educated, wealthy class that is able to influence the ways that the greater society thinks and functions. Perhaps it is time to join those two facets of the profession, and combine the elitist connections of the field with the quest to serve the common good. Landscape architects are in a unique position to enact social change because of their value set and their influence over the elite class. The question remains as to how landscape architecture can utilize its ties to an elite class to further the causes that it champions.

These are the questions that will be addressed in the following pages. The eco-revelatory work that is being done in the field will be analyzed to see who it impacts and who takes away the environmental messages. The ideas proposed about landscape stewardship in the profession and the elitist connections inherent in the field will be merged to propose a new strategy to facilitate cultural impact, and suggestions will be

made about how to create a new landscape of privilege, wealth, and power to which others may aspire. A new landscape for the 21st century will be proposed, one in which ecological function is a consideration and natural systems are integrated into our everyday life.

CHAPTER 3

METHODOLOGY

Problem Statement:

Some basic premises about landscape architecture have been laid out thus far in this thesis. The first major concept is the tenant that landscape architecture is a field which strives to impact the ways that a general public interacts with and understands the environment around them. Landscape architects design landscapes that are not only beautiful, but teach environmental processes and ideally encourage the public to push for advocacy toward sustainable environments. The thesis then goes on to question if this message is reaching the general public, and if not, should landscape architects tailor their approach to find a more accepting audience. A major factor in this is the question about whether or not the audience landscape architects is reaching is more educated and sustains a higher level of wealth than the representative public. This question is the focus of the field research that was conducted, and leads directly to the research question of this thesis: “Can landscape architects affect cultural perception of naturalistic plants by focusing efforts on changing the actions of an elite class?”.

Study Sites:

To test these ideas, it was necessary to visit naturalistic, eco-revelatory landscapes and witness how the public was interacting with the land. The research questionnaire, “Urban Design And Its Affect On Meadow Grass Perception” (Appendix 1) was created to understand three main points: who visits these parks, what their

perceptions are about the landscape palette within the park, and how these visitors feel about the advocacy of these landscapes outside of the park boundaries, i.e. “would these plants and techniques be appropriate in other settings?”. The questions from these surveys were derived from previous surveys conducted by professionals in the field. Two locations were chosen to visit and present questionnaires to park visitors. Two additional case studies were used to provide additional information, and the National Park System provided information from a nation-wide study.

Fig. 2: Locations of Sites and Case Studies

High Line Park, Manhattan, New York

The first park chosen was The High Line in Manhattan, New York. This is a meadowscape that has been planted on an abandoned train track elevated above the

streets of New York City, and it is one of the most famous eco-revelatory landscapes in the country. It was designed by the landscape architectural firm James Corner Field Operations, and it forms a linear stretch throughout the city that is planted with native grasses and woody shrubs. These plants are well maintained but present a very natural feel, “reminiscent of the quiet contemplative nature of the self-seeded landscape and wild plantings that once grew on the unused High Line” (www.highline.org). It has high visitor levels of both locals and tourists throughout the year, making it possible to speak with urbanites, suburbanites, and rural citizens all in one park. This park was visited in January 2013, from Saturday the 12th to Tuesday the 15th, with a table set up at the 14th Street Passage, shown below. Visitors were questioned as they strolled by the table, and as soon as one survey was complete, the next person to walk by was asked to participate.

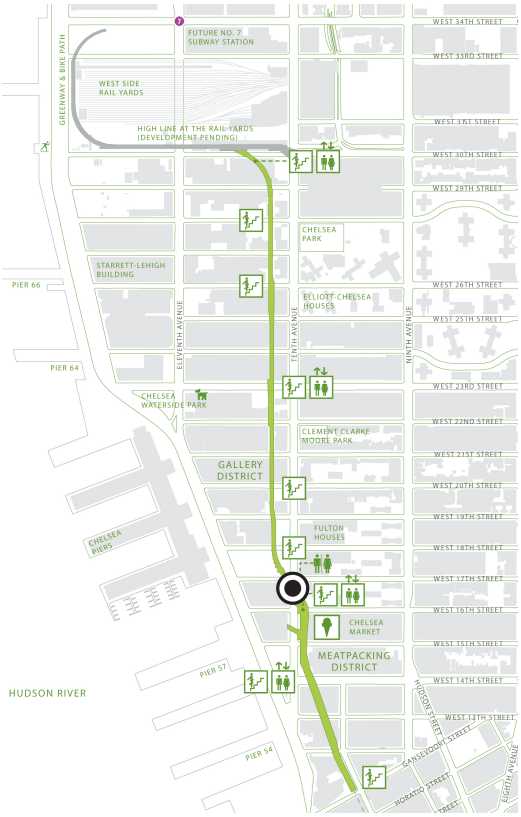

Fig. 3,4: Grasses on High Line, Location of High Line Survey. Map courtesy of www.highline.org

Historic Fourth Ward Park, Atlanta, Georgia

The second park was the Historic Fourth Ward Park, an ecological urbanist park in the midst of downtown Atlanta. This one year-old park was designed by the landscape architectural firm Wood+Partners, and is a functional stormwater detention basin planted with aquatic grasses, native shrubs, and a wildflower garden. It is sited on post-industrial land in the middle of a gentrifying neighborhood. Water is a central idea in this park, with “streams” forming in sidewalks above the pond and channeling down the walls to reach the detention basin itself. There are markers on walls denoting 100-year and 500-year flood levels, and signs describing the native plants used in the park. The surveys in this park were administered to all users present at the times of visitation. There were less people available at this park, so this was an easier task than at the High Line.

FIg. 5: Historic Fourth Ward Park

While both parks are designed around native plants, display eco-revelatory ideals, and utilize abandoned infrastructures, they are very different parks in multiple ways. The High Line is in the midst of Manhattan, one of the most affluent areas in the country with a per capita income over $90,000 (2010 U.S. Census). This could have some skew on the

FIg. 6: Location of HFWP. Map courtesy of www.h4wp.com

demographics of visitors to the park, but it should be pointed out that Alphabet City, a neighborhood with large proportions of public housing, is less than three miles away with easy access by foot, bike, or public transit. The High Line is also in the middle of a tourist district, which encourages users from all over the world to visit it.

The Historic Fourth Ward, in comparison, is in a neighborhood of Atlanta that is undergoing a large transformation. Ten years ago the area was predominately African American, with 80% black compared to 16% white residents. Today the demographics have shifted dramatically, with a 56% to 35% makeup, respectively. The median income for the area is below the city average of $47,464, with a median of $29,397 (2010 U.S. Census). Gentrification is slowly affecting the area, with the Atlanta Beltline newly constructed to straddle one edge of the park. At this time it is not a world famous park that attracts tourists, and most of the visitors come from close-by areas or arrive on foot or bike from the Beltline. It is safe to assume that each park will be frequented by different demographic groups, and the differences in these demographics should help to cast a light on who visits eco-revelatory parks and what messages they take away with them.

Limitations and Delimitations

One delimitation in this thesis is that there were only a certain number of landscapes that could be chosen for study. The High Line in New York is one of the most famous examples of a naturalistic park in the country, so it was chosen. The Historic Fourth Ward Park in Atlanta is a newer park in close proximity to the researcher, so it was chosen. There are many other parks available for study throughout the

country, but a limited amount of resources and time makes it difficult to examine them as well.

Times that the parks were visited is also a delimitation. The timeline for this thesis necessitated visiting these parks only during winter months when plants were dead and at their least attractive. There were only four days available for visit in New York, and only two days in Atlanta. This certainly affected the responses that were given in relation to plant aesthetics, as well as the amount of respondents available to speak with.

A limitation in relation to these surveys is that they both consist of relatively small sample sizes. There were 61 people interviewed on the High Line over a four day period, and only 14 people were interviewed at the Historic Fourth Ward over two different visits. The lack of people in the Historic Fourth Ward might be attributed to the fact that it is still a young park. It was opened only one year prior to the visits, and is still waiting for the final phase of construction to officially connect it to the Belt Line. The majority of the users live in close proximity to this park, and visitor levels will surely increase when there is a more direct connection to the Belt Line. Another factor that affected the number of respondents is that many of the current users were joggers who had no opportunity for contact. Due to the low numbers collected, this is not a statistically significant survey and not intended to be studied scientifically, but rather viewed as an indicator. It points to a larger phenomenon that can be further researched in the future, and provides a basis for examination within this study.

Case Studies

For a more holistic study, an analysis will also be performed on demographic data from other “naturalistic” sites that are influenced or designed by landscape architects. The Crosby Arboretum in Picayune, MS is a native plant conservancy 30 minutes outside of New Orleans. According to its website, it offers “environmental, cultural, scientific, and recreational programs”, with a mission statement to educate the public about their environment. Data published about user demographics will be used for this thesis. The Atlanta Botanical Garden is a manicured landscape in the heart of Atlanta, Georgia with a mission to display plant collections and educate the public. They provided demographic information from their 2012 Audience Study. Also, the National Park System will be analyzed. The NPS is comprised of over 400 parks across the country, with a mission of preserving history, celebrating heritage, and encouraging citizens to participate in nature. The ‘Use of Public Parks and Demographics’ study from 2011 is analyzed here for a look at the users of national parks.

All of the analyzed parks can be seen as different views of how landscape architects present the natural environment to the public. The High Line is an eco-revelatory landscape that shows users how native plants can grow in an urban ecosystem. The Historic Fourth Ward Park is similar, but adds functionality to its purpose: it is a rainwater catchment system that filters stormwater from the surrounding neighborhoods. The Atlanta Botanical Garden is a manicured park in the middle of the city. Its explicit function is not so much to contribute to an ecosystem, but to present plants from around the world for educational and recreational purposes. The Crosby Arboretum provides a more natural take on a landscape, with vast stretches of native

landscape intertwined with trails. The user walks through the park, sits and looks out to reflect upon nature. Lastly, the National Park Service takes the Crosby Arboretum philosophy to the next step, immersing people in their visit and encouraging long stays in nature.

The information gathered from these parks, when analyzed together, will lead to a greater understanding of what audience landscape architects have an impact upon. After reviewing who is visiting these landscapes, it will be possible to draw conclusions about who is impacted by eco-revelatory landscapes, and recommendations can be made about how to achieve a greater success rate in future efforts to change perceptions of native plants, among other things.

CHAPTER 4

RESULTS

High Line, NYC:

On the weekend of January 12th and 13th, 2013 researchers visited the Highline in Manhattan to understand who visits the park and how they interact with it. Users in the park were asked about their experience on the Highline, and their attitudes toward the plants used in the park. The questionnaires were administered on site in a narrow stretch that channeled visitors near a table with two researchers. Once a survey was completed, the next person to walk by was asked to participate. Some of the surveys were not completely finished, as some participants were in a rush and only gave a few moments to talk. Only the most important points in the surveys were asked to those people: why they visit the park, what they think about the plant choices, and if they think the meadowscapes could be applied in different situations (suburban lawns and parks were provided as examples). Some surveys were completed by people on their own while the researchers were busy with other respondents, but the majority were administered with oral questions. An attempt was made to survey only one person at a time, but some groups necessitated having two to four people talking at one time.

Over a four day span, 61 people were spoken to. Questionnaires were administered at differing times, with some from 10:00 am to 1 pm, and others from 3:00 pm to 6:00 pm. Temperatures were hovering in the low 30s.

	Where Are You From?
New York	33
New York State	8
Chicago, IL	1
Austin, TX	1
California	3
Massachusetts	2
Colorado	2
Florida	2
Vermont	1
Uruguay	1
Ireland	2
Argentina	2
France	2
Nigeria	1
	61

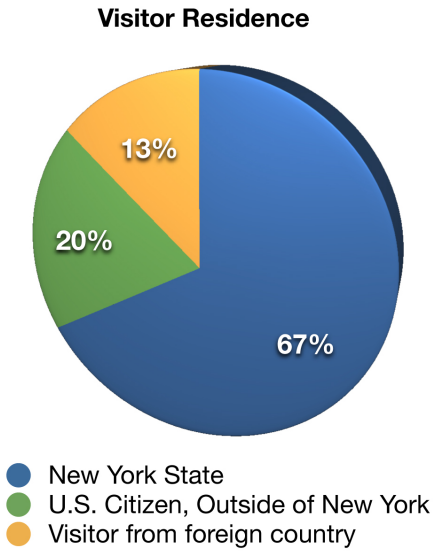

Table 1: Residence of Participants of High Line Survey

Usage:

Most people are pulled to the park because of the unique way in which the infrastructure was repurposed. The elevation level between the ground and sky rise is a large draw. When asked how the plantings affected their visit, most said that they added to the experience and make them more likely to visit the park. Locals who used the park overwhelmingly visited on a monthly or seasonal basis, returning to see changes in color and texture of plants. The majority of tourists were on their first visit to the park, many of which were accompanied by friends who live in the city. There were some tourists who were on return trips to the park because they enjoyed the space. While in the park, the vast majority of users strolled through the linear system enjoying the views of plants and architecture.

Activities Done at High Line:	
Walk/Stroll	42
Sit/People Watch	19
Alternative Transportation	8
Photography	6
Eat	4
Look at Plants	2
Think	1

Notes: Participants were able to describe their activities in their own words. Some respondents gave more than one answer.

Table 2: Activities done at High Line

Some said they felt as though this is a contemplative environment that encourages a slow walk or a moment to sit and think. A smaller group say that they use this space as a transitory tool: they can get from one part of the city to another without stopping for traffic or worrying about crowds.

Most of the locals use other parks in the area, with the main parks being the Hudson River Corridor and Central Park. One of the main reasons people choose to use the Highline over other parks is because of the unique architecture and siting of the park on an abandoned rail line. However, there were other factors that went into a persons decision to use the Highline as well. Usage was a main difference that respondents discussed when comparing the Highline to other parks. They mentioned that you cannot actively recreate at the Highline; it is much better suited to passive recreation. When someone wants to run, play sports, or even sit down for a picnic, they choose other places than the Highline to visit. But for a leisurely stroll or a thoughtful break, the Highline is the park of choice. One user stated that she felt safer at the Highline because she was not around active recreation such as bikers and runners, and another stated that she wished she could run on the Highline. The plantings of the Highline also differentiate it from other parks, with users saying that it seems more natural and peaceful than surrounding parks. Many respondents state that they come back specifically to see the plantings change with the seasons.

Plant Perception:

When asked to describe the planting schemes of the park, the overwhelming response is that it is a natural landscape. Native is another adjective used to describe the meadowscapes in the park, along with associated feelings of serenity, peacefulness, and simplicity. A majority of the users thought the native plants were aesthetically pleasing during the winter months, with only 6 people failing to see the beauty in the winter plants. Many respondents stated that they appreciate the fact that there are dead plants in the landscape, because that is how nature works. For these people, the

How Would You Describe the Landscape?	
Natural	34
Beautiful	23
Native	9
Disorderly	5
Unique/Innovative	2
Other	5
Total Responses:	78

Other: Deliberate/Polished/Centered, Linear, Romantic, Relaxing, Sustainable, Scary

Notes: Participants were able to describe the landscape in their own words. Some respondents gave more than one answer.

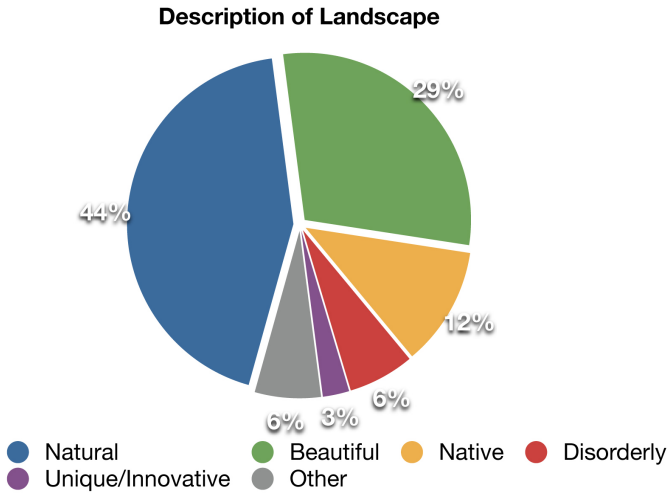

Table 3: Description of Landscape

landscape reminded them of natural cycles, changing seasons, and that life and death are intertwined. Many discussed the colors in positive terms, commenting on how the tones compliment the buildings during winter. One user thought the meadowscapes were beautiful in their simplicity, but was averse to Phase 2 of the park, which contains more woody shrubs and is more “landscaped”. This area was too dominated by landscape architecture, in his view. Of the minority who did not appreciate the winter landscape, a few stated that they were uncomfortable with the dead plants, saying that the landscape is “scary and dead...sad and depressing”. Others thought the colors were

too drab and needed to have something to liven the area during winter. Christmas lights were suggested, as well as other non-organic decorations or possibly winter plants with colorful blooms. Another thought the plantings were too chaotic. Only two visitors, the security guards on detail, thought that the naturalistic plantings were inappropriate at the High LIne. They felt the plantings get in the way of physical activity, look unkempt, and serve no purpose.

This leads to another point: some people do not perceive the Highline as a park at all, because there is no ability for active recreation. Four different respondents stated that a park needs to have turf areas to play on, and that the plant palette here makes this a different kind of landscape, one that is not a park at all. One respondent referred to it as a “promenade”.

Are the Grasses Attractive During Winter?	
Yes	55
No	6

Are the Grasses Appropriate in this Setting?	
Yes	57
No	2

Is the Landscape Natural?	
Yes	29
No	24
In time it will be	4

Does the Park Appear Well Maintained and Attractive?	
Yes	61
No	0

Table 4: Plant Aesthetics at High Line

There was a strong divide on whether or not the High Line is “natural”. Of the respondents, 29 people felt it is a natural environment, but 24 said that it is not. Those who felt it is not natural said that the landscape is too manicured to be considered natural. People also felt it could not be a natural place when it is situated in the middle

of such a developed urban area. Three people said it has the potential to become a natural place as it grows and plants become more established. Most people have not seen wildlife in the park, with a few birds and one squirrel reported among respondents.

The final section on plant perception asked participants four questions about whether or not urban parks should strive to be environmentally friendly and if the High Line itself is beneficial. It also asks if the participants enjoy natural parks akin to the High Line, and if they would like to see more parks like it in the future.

Rate each of the following questions on a scale from 1–5, with 1 stating that you strongly disagree and 5 stating that you strongly agree.

It is important for an urban park to serve an environmental purpose.	1	2	3	4	5
The Highline is a landscape that provides environmental benefits.	1	2	3	4	5
I enjoy parks that are planted in a "natural" way.	1	2	3	4	5
I would like to see more parks landscaped like the Highline.	1	2	3	4	5

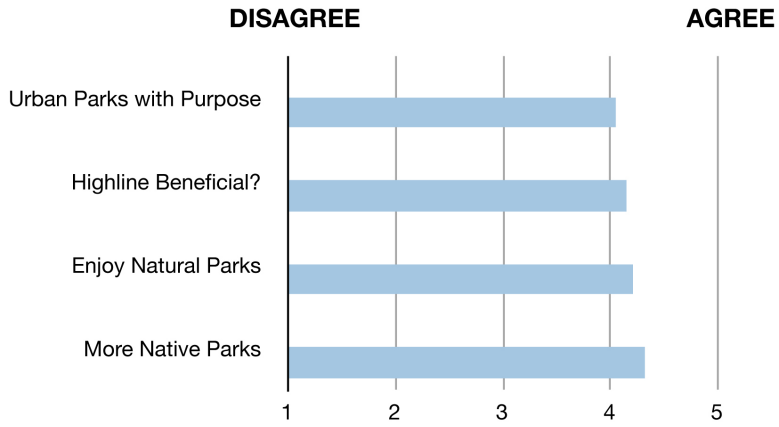

Table 5: High Line Questionnaire Results

Appropriate in Other Settings

It is important to note that even though not all of the respondents like the meadowscape in winter, all but two thought the plants were well maintained and that they were an appropriate choice for this setting. Many of the respondents were aware that the plants used at the High Line were supposed to mimic the natural plants that were growing on the abandoned rail-line, and were especially enthusiastic about those

choices made by landscape architects. Others speculated on the positive affect the park might have on stormwater in the city.

All but two of the visitors thought there was some place in surrounding landscapes to adapt the plantings in the future. Those surveyed felt that meadowscapes could be appropriate in residential settings, and many would like to see more meadowscapes in the future. Three of those surveyed have already implemented meadowscapes at their houses in some way. Most agreed that the context is very important when choosing where to place meadow plantings, and that there will always be a place for turf in landscapes. A recurring theme was that a front yard could be planted with meadowscapes while the backyard was left as turf for family activities. Obstacles encountered for suburban applications were the perception that a house could look unkempt or that the meadows could attract ticks or other bugs that would bother pets and children.

Would the Grasses be Appropriate in Other Contexts?	
Yes	42
No	2
Maybe	17

Table 6: Appropriateness of Context

Demographics

The majority of the users were in two age groups: 26-35 and 55+. Most surveyed were white, lived in an urban center, and have a professional career. All but two of those surveyed had college degrees, with 56% earning a bachelor degree, 32% with a masters and 7% with a doctorate. 7% of respondents did not attend college.

Race	
Caucasian	47
African American	6
Hispanic	5
Asian	3

Education Level	
High School	4
Bachelors Degree	34
Masters Degree	19
Doctorate	4

Table 7: Demographics at High Line

Historic Fourth Ward Park, Atlanta

The Historic Fourth Ward Park (HFWP) was visited on two separate occasions, on Saturday January 19th, and on Friday February 15th. Both days were sunny with temperatures in the 60s, translating to good days for people to be outside. One researcher visited the park on the 19th from 12:00 to 3:00 pm and again on the 15th from 3:00 to 6:00 p.m. Some of the park users simply used the loop to jog through, and were unavailable to speak with. Every other person that attended the park in the time frame of the visits were spoken to. While most people were open to answering the questions posed, there were three who were in a rush and only answered the most important questions, again pertaining to what drew them to the park, what they think of the plantings, and if they think the plantings would be appropriate in other settings. Demographic information for these users was collected as well.

Figure 7: Grasses at Historic Fourth Ward Park

Usage

Most of the users of the HFWP were drawn to it because of proximity to other resources: they either lived nearby or were visiting the playground on the edge of the park. All but two of the respondents live in the general vicinity of the park. One of the others lives in Charlotte, N.C. and was visiting a sibling who lived in the building adjacent to the park, and the other was an art student from North Atlanta who visits the park weekly. All of the respondents apart from the out of town visitor have visited the park already, and the majority visit it multiple times a week. The predominant activities at the park are centered around the loop pathway: the users were unanimous in the fact that their main activity was to walk the loop. Three of those surveyed stated that they enjoyed sitting to watch the movement of the water and birds in the plants.

All of the users of the park use other parks in the area as well, with Piedmont Park being the most popular alternative and Candler Park also mentioned. The HFWP was discussed as being smaller, more intimate, and more interesting/unique than the others, with the architecture of the park discussed by two respondents. Three people mentioned the moving water as a draw to this park, and one respondent stated that they would be more likely to visit Piedmont if they wanted to have a picnic or play with their dog. Two of the respondents also listed lack of crowds as a major factor in their decision to visit the HFWP over other nearby parks.

Plant Perception

Similar to the respondents in New York, the Atlanta visitors had a fairly consistent outlook on the general feel of the park. When asked to describe the park, similar adjectives were used, with “tranquil, quiet, secluded, scenic, pretty, interesting, and architectural” being repeated. There was not such an agreement on the opinion of the

native plants used to landscape the park, though. When asked about the native grasses within the park, only four thought they were attractive in the winter with ten disagreeing. Three respondents thought the plant choice was too dull and bland, and three described the grasses simply as “dead”. One person referred to them as “weeds”, and another described the landscape as “swampish”. Three of these people suggested more colorful winter plants in the landscape to brighten the feel. Three of the four who liked the plants described their appearance as “seasonal”, one said they were “functional”, and two stated that it was good to see plants look like they are supposed to in winter time.

Are the Grasses Attractive During Winter?	
Yes	4
No	10

Are the Grasses Appropriate in this Setting?	
Yes	14
No	0

Is this landscape natural?	
Yes	8
No	6

Does the Park Appear Well Maintained and Attractive?	
Yes	14
No	0

Table 8: Plant Perception at HFWP

There was a similar division in whether or not the park is a “natural” place. Eight of the respondents stated that it was natural, and six said it was not. Those who thought it was natural thought so because of wildlife such as ducks, geese, and birds present and because the plants looked natural to them. Those who did not see it as natural said that it was too manicured and in the middle of an urban area.

Even with these differences in opinion, there was a unanimous decision in whether the landscape and the plants were well maintained and attractive. All fourteen of the respondents agreed that the landscape was well maintained and that the overall landscaping was attractive. There was also agreement on whether or not the plantings

are appropriate: all of the respondents thought the plants were appropriate, with four volunteering that there seemed to be some purpose for the plants. This is an interesting point since a large percentage of visitors did not think the plants were attractive in winter. It seemed as though the visitors understood that there was a point to the plants in this setting, and that attractiveness and appropriateness do not necessarily go hand in hand.

When asked to rate the four questions about environmental purpose in parks and preference for “natural” parks, results again mimicked what was seen in New York, with a majority of respondents agreeing that parks should play a role in helping an urban environment. One person stated that the “environmentalism” of a park should be balanced with its need to provide usable space for occupants.

Question (23 participants)	Average Answer
Important for urban park to serve an environmental purpose?	3.7
The High Line is a landscape that provides environmental benefits.	3.9
I enjoy parks that are planted in a “natural” way.	4.3
I would like to see more parks landscaped like the High Line.	4.5

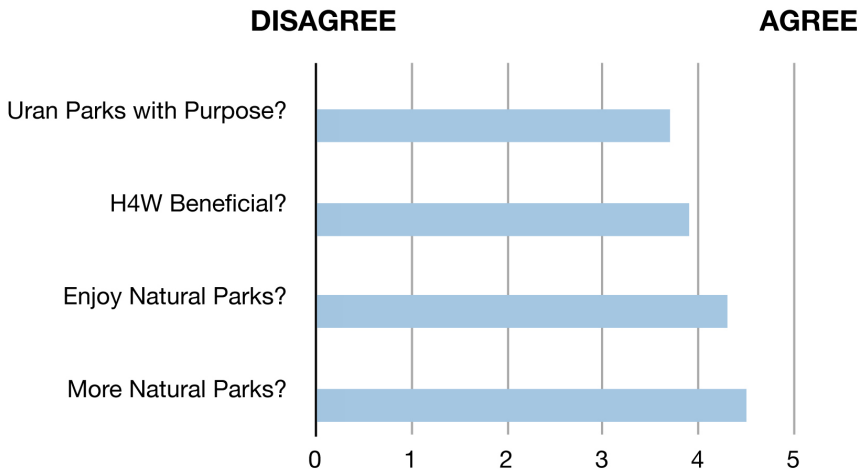

Table 9: HFWP Questionnaire Results

Appropriate in Other Settings

The division in opinions returned when asked if the native plants would be appropriate in other situations. Again, suburban or urban yards were used as an example for the respondents. Eight of those surveyed said the grasses would have some place in the landscape, with three saying no and three saying possibly, depending on how they were worked into the greater landscape. As with the respondents in New York, context seems to be important here. Two who said yes to grasses in other locations said they would be appropriate in a backyard but not a front yard, so it would not appear messy to neighbors. The three who said "possibly" were concerned with how natural plants would fit aesthetically with a greater neighborhood. One of the "no" responses said the native shrubs would look good in a yard but the grasses would not.

Would the Grasses be Appropriate in Other Contexts?	
Yes	8
No	3
Maybe	3

Table 10: HFWP Appropriateness of Context

Demographics

All of the users surveyed at the HFWP were in the 26-35 age group. This could be due to the fact that many of them visited the park before or after a visit to the adjacent playground. White visitors made up 57% of the visitors spoken to with eight of fourteen respondents. There were three african americans, two hispanic visitors, and one asian. Of the fourteen visitors, six have a bachelors degree and three were students working toward their degree. Three had a masters degree and two had a high school education.

RACE	
White	8
Black	3
Asian	1
Hispanic	2

Education	
High School	1
Some College	1
Bachelors	9
Masters	3

Table 11: HFWP Demographics

Case Studies

Because of the limited sample sizes in the two surveys completed in this study, outside sources will also be consulted to determine the demographics of users of other landscapes built around ecologic function. This section will focus on arboretums, botanical gardens, and National Parks, all of which are impacted by landscape architects. The Atlanta Botanical Garden has provided information on 2012 visitors, and the Crosby Arboretum in Picayune, MS has information available from 2005. Finally, the National Park Services' Comprehensive Survey of the American Public from 2008-2009 will be considered.

The Atlanta Botanical Gardens' Attendance Study of 2012 is based upon individuals on the garden's email database. Individuals on the database were sent an email requesting participation in a survey, with a total of 1,432 surveys completed and a 95% degree of confidence in their results. Out of the total of their respondents, 97% identified themselves as caucasian, 2% as black/african american, and 2% as hispanic. The visitors to the park are a very educated group, with 41% of respondents having a bachelors degree and 50% having a graduate degree. The average annual income of those who filled out questionnaires was $127,693, with 55% earning over $100,000 per year (Babbage 2012). This is in relation to an average household income of $45,171 for Atlantans according to 2010 U.S. Census numbers.

The Crosby Arboretum reports similar results in a study completed in 2005 (Brzuszek and Clark). Brzuszek and Clark administered surveys to visitors as they were leaving the arboretum during a peak visitation period in the spring, with 63 visitors speaking to the researchers. Their results showed a mostly white, educated populace visiting the arboretum. The sample size was 90% white, with 24% having attended some college, 22% completing a degree, and 22% completing graduate education. Half reported making over $50,000 a year. This study also analyzed respondents perceptions of the landscape they visited, with the result that “visitors to landscapes designed according to ecological systems and patterns do generally understand the visual vocabulary and design intent of these landscapes”.

Finally, the National Park System (NPS) completed the Comprehensive Survey of the American Public to determine who was visiting their parks. Data collected consisted of a nationwide telephone survey of randomly selected participants. 4,103 respondents took part in the survey, which determined if the interviewees could name a unit of the NPS they had visited in the past two years, among other subjects relevant to their service. In terms of demographics, their results mirror the studies listed above, with 78% of all visitors in 2008-2009 being white. The survey does not address income or education level, but the race of visitors is relevant to this study.

CHAPTER 5

DISCUSSION

Analysis

The focus of building ecologically-based landscapes has become more and more prevalent within the field of landscape architecture. There is a distinct goal among those in the profession to help others connect with nature, to teach the public about the workings of the natural environment, and to build an awareness and foster a sense of advocacy toward the environment. This thesis has been concerned with how this focus can help transition the yard of choice in America from turf grass to a mixture of turf and meadowscape. Part of the problem around this change involves the question of which demographic group receives the message that our built landscapes present, and if the advocacy landscape architects hope to create is taking hold. The preceding studies will help to determine who is visiting the landscapes and what ideas they are taking with them when they leave.

Five different ecologically-based landscapes have been presented to help understand these questions. Two urban parks based around native grasses, a botanical garden, an arboretum and the National Park System as a whole are looked at in terms of the demographic makeup of visitors. Race, income level, and education are the main factors of concern in this thesis. Three of these parks, the two studied in this thesis along with the Crosby Arboretum, also present an analysis of the perceptions that users

take away after visiting an ecologically-based landscape. This information, when viewed together, will present a better understanding of what impact landscape architects are making with the built environment, and will provide a jumping off point to discuss future work toward changing cultural perceptions with the built environment.

Who is Visiting?

The first step in this examination is to determine who the main audience is for the "natural" spaces landscape architects design. There are some major similarities found when comparing results of the five landscapes presented here. First, both of the parks studied in this thesis were comprised of an educated, white demographic. On the High Line, 94% of those surveyed had a college degree while 85% of visitors to the Historic Fourth Ward Park had completed a degree. In addition, 21% of the HFWP visitors had a graduate degree while 38% of those at the High Line had an equivalent education. There was a majority of white visitors at both the High Line and the HFWP (77% and 57%, respectively). These results are strongly backed by the results presented by the Crosby Arboretum, the Atlanta Botanic Garden, and the National Park Service. The Crosby Arboretum study showed a 90% white demographic, the Atlanta Botanic Garden had a 97% response rate that was white, and the National Park Service study reported that 78% of their visitors were white. In addition to this, the Crosby Arboretum showed that 68% of their users surveyed had some form of college education while the Atlanta Botanical Garden had a response of 91% college graduates (50% of total surveyed had a masters degree). The NPS does not present education level in their findings.

Income levels were difficult to substantiate in the High Line and HFWP studies, as respondents were hesitant to give out that information. Inferences can be drawn from

the list of professions given by users, though. Both parks were frequented by people who worked in professional positions. The High Line was visited by a nationally known author, multiple attorneys, architects, professors, consultants, and an economist. Similar results were listed at the HFWP, with respondents consisting of a nurse, a doctor, an architect, an attorney, a banker and an engineer. There were also many students at each park. It is difficult to paint a picture of all users of these parks based off of these results, but it does point to a higher than average income bracket. The Crosby Arboretum results are also somewhat limited because the survey only asked if the respondent made above or below $50,000 per year. Half of their respondents did choose the higher amount in this survey, echoing the assumptions made in this study. With the Atlanta Botanical Garden, the average annual income of respondents was listed as $127,693 which is nearly triple the median household income for the city of Atlanta. The NPS survey did not include income. These results seem to conclude that the average visitor to these parks sustains, at worst, an above average income level.

This presents a strong correlation between all of the studies, showing that the parks are more frequented by an affluent, educated, white visitor. This is in line with assertions other authors have made which state this demographic is the most likely to be involved in environmental causes. It is not being insinuated that this demographic is representative of all users of parks or spaces designed by landscape architects; rather, the suggestion is that people who visit naturalistic, ecologically-based landscapes tend to be members of a more educated, economically advantaged class. This is of note because these are the landscapes that are more often designed to reveal the workings of nature, and to teach the public about environmental awareness. These are the parks

that are going to expose new generations to ideas of society's place in a greater ecological context and inspire advocacy. It is important to know who uses these spaces so that they can be better engaged to facilitate the transfer of knowledge.

Plant Perception Among Viewers

As mentioned already, these naturalistic parks are often associated with the eco-revelatory ideals that have been discussed in this thesis. They try to teach something about natural systems and mans place within them. At the most idealistic, these parks build a sense of engagement within the viewer and create a desire for the visitor to amend their own actions to be more environmentally friendly. The next group of questions in the surveys addresses this engagement, and tries to measure the impact to determine if these parks are being successful with their mission.

Simple exercises such as having participants describe the landscape can go a long way in telling about the general perception of the landscape. In New York, 57% of respondents described the High Line as either "natural" or "beautiful", with another 12% calling it "native". Only 6% of respondents used negative terms such as "messy", "disorderly", or "dead". Visitors to the HFWP in Atlanta used similar terms to describe the native-grass filled wetland park. Tranquil, scenic, quiet, secluded, and pretty were all terms used at this park. Only one visitor, or 7% of the total sample, referred to the overall character of the park negatively, calling it "barren". These results show a general acceptance among visitors about the overall feel of this park. The natural landscape is appreciated in an urban setting, and even sought out.

These results are supported when respondents are asked to compare the park they visited to other parks in the area. The overwhelming responses were similar for the

High Line and the HFWP, with visitors calling them more interesting, more natural, and more realistic. It seems as though the visitors who frequent these parks are drawn to the “natural” feel of the park and appreciate that aesthetic over the manicured aesthetic of larger parks such as Piedmont Park. Users repeated the theme that they are seeking out a more reflective, calm, peaceful, and natural environment to spend time in. Many of them avoid larger parks filled with large turf areas due to crowds, activity levels, and a perceived disconnect from nature.

Visitors to these landscapes also agree that urban parks have a purpose in furthering a city’s ecological function. On the question of “It is important for an urban park to serve an environmental purpose”, respondents in Atlanta scored a 3.75 out of 5.0 while New York visitors gave a 4.05 out of 5.0. They also seemed to recognize the ecological benefit of the park they were visiting, with Atlantans giving the HFWP a 3.96 out of 5.0 and visitors to the High Line scoring a 4.15 out of 5.0. These results mirror the findings of Brzuszek and Clark (104), who state that visitors to these kinds of landscapes generally understand the ecological intent of designers. They go on to state that this understanding might stem from the pool of people who are attracted to a naturalistic park, and that it might not be representative of the overall public.

This is an important point that should be explored further. This thesis has discussed several themes related to this line of thought: first, that the American public has a general attachment to large stretches of lawn and might be averse to change. This was witnessed at the High Line with the two security guards who thought the meadows were out of place and ugly. These two guards were not part of the demographic that usually visits these parks, and in fact would probably not have been at

the High Line if it were not for their job. They had a difficult time accepting the landscape as an alternative form of urban space, going so far as to question if the High Line was a park at all. This backs the point that not everyone is open to the form vocabularies and plant communities of these “natural” spaces. The many reasons that go into this acceptance will not be delved into here, but neatness, orderliness, and the open spaces created by lawns are qualities that the general public still values. These qualities are generally less apparent, if not completely missing, in designs of ecologically-based landscapes. This suggests that the designs of these natural spaces are not inclusive and that not everyone feels welcome in these naturalistic parks.

It then fits to reason that there is a certain demographic who is attracted to these “natural” parks, and who is targeted by designers, whether intentionally or unintentionally. As demonstrated by the studies listed above, this class typically consists of an educated and affluent group. As a whole, they have a better understanding of the ecological workings of these parks and see the benefit of a functional urban park. This is the group that Brzuszek and Clark are referring to when they state there is a certain “pool” of users who frequent parks built around ecological principles.

It has been demonstrated that the majority of visitors to these parks are, more often than not, part of a social class that has the financial means, time, and ability to act as a social conscience to advocate for ideals they believe in. The actions of this community can be adopted by society as a whole, as people often aspire to mimic the social actions of this group. This pivotal point must be recognized by practitioners of landscape architecture if the built environment is going to be a tool of dissemination for environmental ideals. There is a public that is visiting these parks and taking away ideas

about how we interact with nature. This public is disproportionately educated and affluent, and can be seen as a group that others aspire to join. By visiting the ecologically-based parks, they show that they are receptive to the message that landscape architects are delivering.

These points lead to the question of what this group does with the message that landscapes are communicating. When they leave the public space and go home to their private one, do they translate the message to their own personal scale? The surveys suggest that this demographic group is open to the idea of adapting the plant palette to their home scale, with 69% of users at the High Line saying meadows would be unquestionably appropriate in a suburban or urban setting and 57% at the HFWP agreeing. In addition there is a smaller group of 26% at the High Line and 21% at the HFWP who think native plantings might be appropriate depending on context. This is a high proportion of these visitors who are receptive to adapting native plants to their home landscaping. So how has this actually impacted their actions on the ground level?

One only needs to drive down a street in an affluent neighborhood in almost any part of the country to witness to what extent ecologically based plantings have taken hold. The lots are a continuous stretch of green, manicured turf. Trimmed hedges and fertilized flower beds abound. Very rarely does one see a landscape of native plants and grasses, and it is obvious that the landscape of wealth and privilege continues to be the lawn. But this does not need to be the case: the results above suggest there is an opportunity to change this concept. The educated and wealthy class has shown that they are open to accepting of the idea of systemic, ecologically-based plantings. If this

openness can be harnessed and utilized by landscape architects, an opportunity exists to create a larger social change that can trickle throughout the rest of society.

Trickle Down Landscape Architecture

The idea of “trickle down landscape architecture” has been briefly hinted at thus far in this thesis. Academic concepts about how societies adapt ideas from the upper classes have been discussed, and different ways in which the elite classes affect social change have been presented. A demonstrable connection between the elite class in the United States and the profession of landscape architecture has been presented, and studies show that the educated and elite class have an understanding for and appreciation of the lessons landscape architects teach. All of this forms the basis for the idea of trickle down landscape architecture, where ideas and actions about our built environment are adopted by an educated and affluent group, eventually leading to a larger impact on our overall society.

The groundwork has been laid for the discussion of this theory, but it should first be stated that trickle down, in relation to landscape architecture, is a multi-faceted concept. Thus far the only angle that has been discussed is how people aspire to be part of a privileged class and how the actions of that class tend to be mimicked by a greater society. This can lead to a societal change based upon the decisions of the elite class. However, as a concept, trickle down is not only about an elite class adopting and disseminating ideas about environmentally sound landscapes. While this shift in cultural perception is the end goal of many landscape architects and environmentalists, it is not the whole picture; trickle down is about a much more systemic process where thoughts and ethics are passed between generations, from built environments to people and from

one person to another. It is a transfer of ecological knowledge that can be framed as a gestalt philosophy, with the whole being greater than the sum of the parts. Ideas and thoughts are trickling down from multiple sources and impacting multiple groups. Landscape architects are affected by it, as are the landscapes they design. The elite classes are also affected as much as the classes that mimic them. It is important to realize that the source origin of an environmental ethic is larger than the elite class itself. Those values are instilled in the elite class, and the values themselves change over time as new understandings and thoughts trickle down in an ever evolving process.

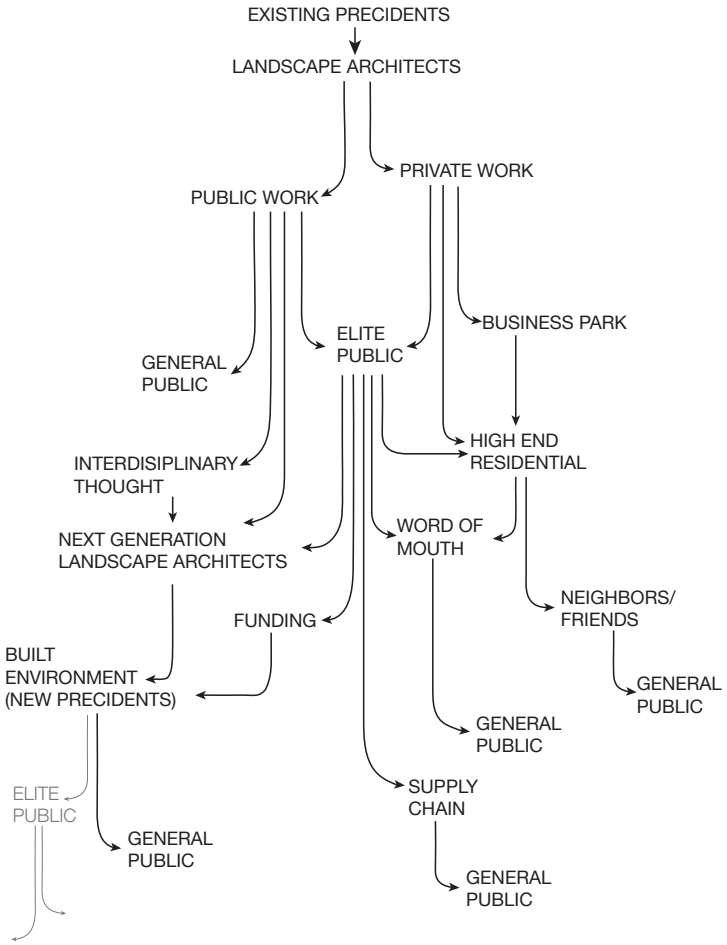

Figure 8: Trickle Down Landscape Architecture

Landscape architects play a large role in disseminating these values to the elite class, and in guiding their actions. Very often, especially in urban settings, the built environment is the only connection that people have to nature. Future generations form their own land ethic while playing in parks and the yards of parents, grandparents, and friends. Adults look to parks or their own yard to experience some form of nature, and the influence of the landscape architect is ever

present. This presence and influence cannot be underestimated, as design can communicate messages about how we think about and shape the natural and built environments. Landscape architects can harness this influence to shape a new landscape of personal scale, a landscape which requires less resources to maintain, functions in a greater context, and is more in tune with the natural environment.

It is worth noting here that this strategy can begin to affect a cultural perception shift in multiple ways. The focus in this thesis is a “trickle down” affect, but as mentioned above, future generations will be impacted by the designs presented. Children will see more naturalistic plantings at their parents landscapes and in public parks. This impact can begin to form a “trickle-up” movement in the future, with these children being more likely to plant naturalistic designs in their own landscapes. In this way, the trickle down effect if working to change social perceptions from multiple directions.

Creating a New Landscape of Wealth

For the past 200 years, the lawn has signified social status in the United States. How someone tends their yard has strong sociological ties, with large manicured areas communicating wealth, prestige and power while at the same time telling about values such as hard work, neatness, and neighborliness. This is a land ethic that is strongly engrained in this country, and it will take time to change. However, change is possible and the elite classes will play a large role in ushering it in. As this thesis has suggested, the landscape architect should be integral in starting the move toward alternative lawn strategies within the upper classes.

How does this movement begin? With so much value placed upon a lawn, how does a landscape architect begin to enact change? Answers to this question lie within

the precedents and results found within this thesis. It has been demonstrated that social change can happen when affluent groups adopt a way of thought and others strive to mimic their actions. Toyota purposefully harnessed this power of elite groups when they pushed to make the Prius more mainstream. Social change happened similarly but in a more organic fashion when people began demanding higher quality food, adopting the food ethic of a more affluent group. Both of these strategies can be adopted in the fight to adopt meadowscapes over turf.

The strategy employed by Toyota is a good starting point. Toyota turned the idea of the automobile on its head by making the Prius seem smart, chic, and responsible while painting existing cars as wasteful and passé. They partly accomplished this by creating an image of how a certain elite class acted. They positioned Hollywood actors as an environmentally conscious group who decided to act in a responsible way. There was an implicit suggestion about a Prius owners' intelligence, wealth, and environmental ethic. Others throughout society strove to join this class, and the hybrid car eventually became mainstream. This strategy can be adapted to fit the homeowner who chooses to install meadowscapes in place of turf.

Affluent homeowners who start to move away from landscapes dominated by turf can be cast as cutting-edge: as environmentalists who are intelligent enough to care about how their personal space contributes to a larger system, and as people who have enough resources to make a difference. Tallamy (122) sees this as an opportunity for a greater spread of ideas, with those homeowners "proselytizing" the benefits and ideals of their new yards to their friends. In "Bringing Nature Home", he describes a story of a neighbor visiting his yard and hesitatingly viewing his native meadow. After discussion

about the benefits of the meadow, the neighbor surprised the author by installing his own meadow the following season. This goes back to the idea presented by Duncan and Duncan that the celebration and preservation of the natural environment is an ideology that builds social esteem and inclusiveness by building groups of like-minded people who are working for a greater cause. Meadowscapes could become a badge of honor, something to be talked about at cocktail parties to show how “green” someone is.

Robbins and Sharp discuss this point in a different light, talking about how environmental values are shared by neighborhoods and residents. They point out that intensive lawn care clusters in certain neighborhoods (which are usually affluent), and as one neighbor takes on a landscape practice, their immediate community typically takes up the same practices (441). This phenomenon has worked to create a cohesive neighborhood aesthetic, a certain amount of pride, and to maintain property values when applied to turf management, but why can it not also apply to alternative turf practices? As friends and neighbors become more exposed to alternative landscapes and environmental ideas, perceptions would slowly change about the nature of our yards. Large expanses of green, fertilized turf could be seen as wasteful and antiquated while native grasses and shrubs are more chic and responsible. As knowledge transfers from one household to another, the landscape of suburbs could change. Nassauer states that our personal landscapes are used as communication tools. This movement could shift the message that is currently presented by lawns from, “look at how wealthy I am”, to its antithesis, “look at how prudent, sustainable, and educated I am”.

As people in affluent neighborhoods begin to adopt these principles and change their actions, the image of turf as the landscape of wealth and privilege could begin to

shift. This shift would be evidenced in multiple ways. Not only would the landscape of affluent neighborhoods begin to change, but homeowners who live in those neighborhoods who donate to environmental causes would be sure to support the cause of more naturalistic landscapes. More parks would incorporate naturalistic areas, thus creating more opportunities for interaction with the general public. As demand rises, supply would need to keep up and nurseries would begin carrying more native plants. As the movement reaches a critical mass, the landscape to aspire to will become one that functions in an ecological way while adding aesthetic beauty to a home landscape. Just as Toyota shifted perceptions about cars with the Prius, landscape architects could change the way Americans perceive their yards with naturalistic plantings.

This process begins with education, with teaching people about how the built environment fits into nature and how humans interact with a greater system. Landscape architects are already working toward this educational role in the public realm. Ecological urbanism is the current movement in which landscape architects create landscapes that teach the public while acting as functional ecosystems. As evidenced in the results of this thesis, the elite classes are open to these landscapes and the lessons they present. The next step is for landscape architects to take the lessons that have been presented at these public spaces and apply them in the private realm, to encourage landowners to use the principles and plant palettes that are used in ecologically-based parks at a smaller scale. A perceptual shift is necessary to create an awareness in people that their homes and their yards are all part of a larger system, and that the cumulative effect of turf in cities is harmful to the surrounding environment. This

adopts principles of ecological urbanism to a smaller scale, perhaps creating a movement of “ecological suburbanism”, where small scale landscapes cumulatively function to aid a larger urban ecosystem. Ecological suburbanism is applicable at different scales, with aggregates of ecologically based plantings benefiting individual neighborhoods, neighborhoods benefiting the larger cities, and cities benefiting regional ecosystems and watersheds.

Landscape architects are in a unique position to communicate this new ideal. They are being hired by affluent homeowners for a reason. The homeowner has an option to simply hire a landscaping company to place shrubs around their house. But there is a value seen in the landscape architect, in the education that the profession possesses and the design aesthetic that they present. This respect level, when paired with the assumption that the elite class is more open to ideas of a “naturalistic” environment, creates a position of power which the landscape architect can utilize. It is up to landscape architects to educate their clientele about the costs, benefits, and options available when working on a private estate. Just as important, landscape architects need to rethink their position in this relationship as an advocate. Not only is it their job to educate the public, but they also need to suggest change and help guide the decision making process. Landscape architects can follow in the footsteps of Olmsted’s work with Vanderbilt by proposing alternative ideas, giving reasons why those ideas make sense, and presenting aesthetically pleasing images of what the alternatives could look like. If Olmsted was able to shift the way an entire country thought about its forests, why can’t landscape architects change the way that a country thinks about the landscape surrounding their homes?

What Will It Look Like?

There are multiple books written on changing the aesthetic of the American lawn, and this thesis does not strive to re-evaluate that topic. It is, however, an important topic that must be discussed if change is a realistic goal. An alternative lawn cannot only be functional and environmentally friendly, but it must also be aesthetically pleasing, neat, and attractive to passersby if it is to stand a chance of larger societal adoption. As stated in *Redesigning the American Lawn*, ecological reasons and data are good starting points, but if design principles and aesthetic beauty is overlooked, few people will want to change their current practices (91). With this in mind, some of the strategies that have been presented in other writings to encourage the adoption of meadows and native platings in a private setting will be summarized here.

Perhaps the most important work about plant perceptions and values is Joan Nassauer's *Messy Ecosystems, Orderly Frames*. In this article, Nassauer stresses the importance of framing ecological function within recognizable design forms and systems. She goes on to state that in the United States, this design system is based around neatness and order, communicating the intention of a person to tend an area (162). This point is stressed in most other writings about alternative lawns. Neatly placed plants and strips of turf around naturalistic areas can act as "cues to care", as Nassauer states, providing evidence that the area is tended and intentional. With this said, meadowscapes or other naturalistic plantings should be placed within a context of a neatly manicured lawn, with strips of turf nearby to communicate that the area is purposefully designed.

Another consideration is how much lawn should be converted to naturalistic plantings. Turf is not going to disappear from the American landscape. There is too great of an attachment to turf, and it does serve useful recreational purposes. The question of how much change is appropriate will be dependent on multiple factors. Borman, Balmori, and Geballe suggest starting the process by addressing the needs of each individual homeowner (92-93). Recreational uses, climate, neighborhood standards, and homeowner willingness should all be considered when deciding where and how much meadowscapes or native plantings should be used. When working on this analysis, the landscape architect could analyze little used spaces in the yard, such as steep slopes, shaded areas or out-of the way corners to convert to turf alternatives.

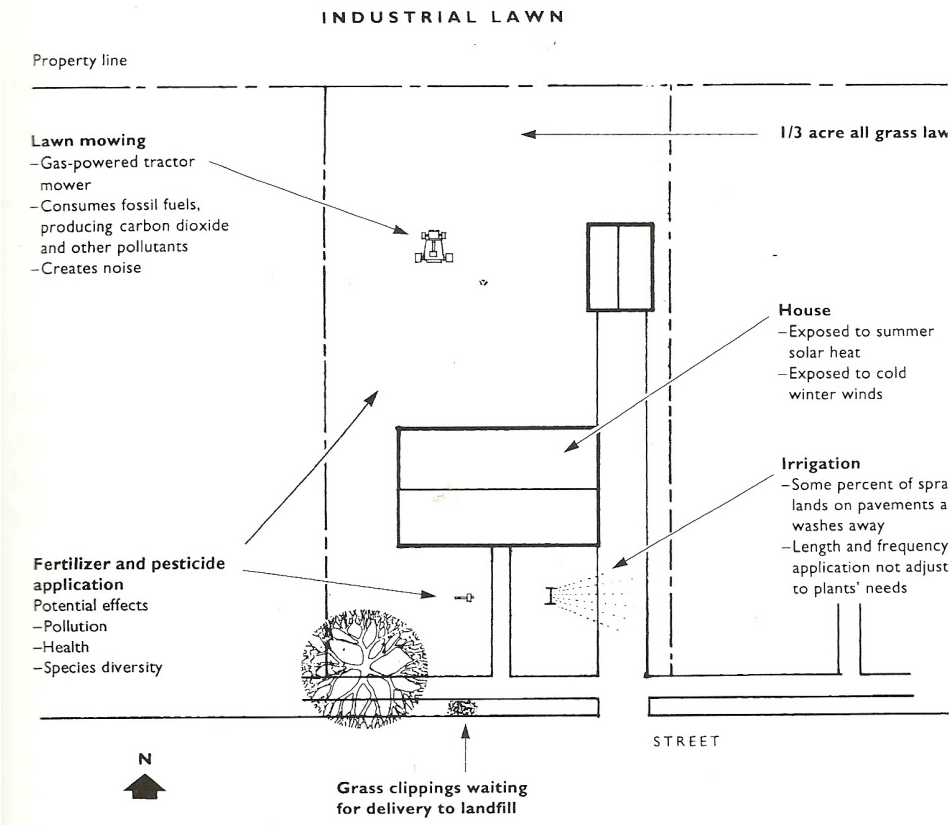

Figure 9: Traditional lawn (Borman, Balmori, and Geballe 95, 105)

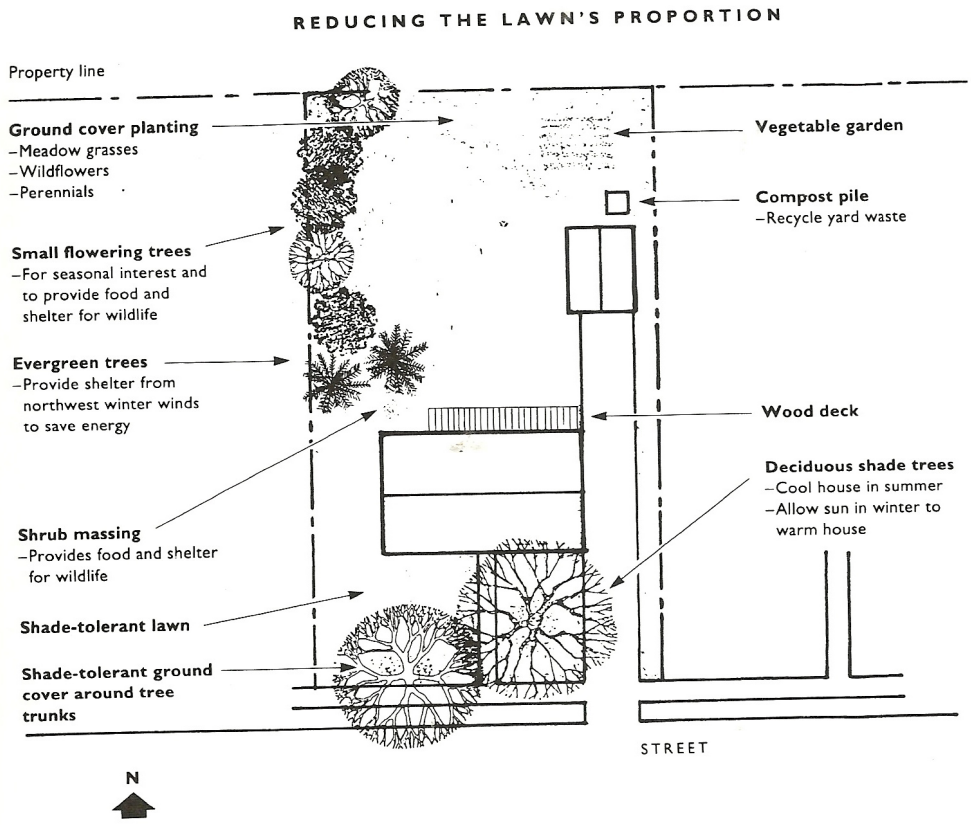

Figure 10: Transition of lawn to a naturalistic landscape (Borman, Balmori, and Geballe 95, 105)

Figures 9 and 10 show suggestions for how to accomplish this. Placing native plants around the house provide structure while a meadowscape toward the back of the yard provides wildlife habitat and valuable naturalistic space for water infiltration and low-impact plantings.

Lastly, the context of meadowscapes is an important consideration. As Nassauer stated, the naturalistic plantings need to be worked into the greater landscape to show thought and care. But where exactly do they belong? One result in the surveys of this thesis shows that context is very important when it comes to these plantings. Of the High Line visitors, 26% felt context was important, compared to 21% of Historic Fourth Ward viewers. Many felt the front yard is not a good place to have these landscapes

because of neatness connotations, but the backyard would be appropriate. This could be a solution that allows homeowners to explore alternatives to turf without causing too large of an issue with their neighbors. As homeowners learn about this alternative landscape, they could expand the area that has been converted and eventually begin to change the landscape of the front yard if desired. One other benefit of placing these landscapes on the edges of the back yard would be an organic, cumulative build toward more wildlife corridors in cities. As more homeowners converted the edges of their yards to naturalistic settings, there would be more abutting wild land for birds, insects, and other wildlife to use as they move through cities.

Other Considerations

Some final thoughts in this process need to be addressed. As discussed already, changing cultural perceptions is a long process, and there are many factors that will play into a greater societal acceptance. The importance of aesthetic appeal has already been discussed, and suggestions have been summarized on how to incorporate naturalistic meadowscapes into existing lawns. Continuing education and setting realistic expectations with the owners of meadowscapes is crucial as well.

Education was discussed earlier in terms of gaining buy-in from consumers in terms of meadowscapes. Once the homeowner agrees to change, the educational element needs to continue. Landscape architects have to set realistic expectations around the process of owning a meadowscape. First, it is important to let clients know that ecological processes do not happen quickly. A meadowscape takes three to five years to fully establish itself and come into its full sense of beauty. Planning for this time frame by planting native shrubs or other ornamentals in the landscapes can help

customers cope with some of the “messy” overtones of these plants in their first few years. Also, it is important to let these people know that “low maintenance” does not mean “no maintenance”. The first few years of the meadow are crucial to ensuring the plants thrive and weeds do not take over. Annual cutting back or burning of the grasses are important to ensure the plants have a healthy beginning. The landscape architect should continue to have a role in the garden after installation, acting as a consultant to ensure the landscape retains its aesthetic beauty and ensuring client satisfaction.

A landscape architect at a prominent firm (who wished to remain anonymous to protect client relations) testified to this point in a March 2013 interview. The firm installed an expansive meadowscape at a hospice center in southern Georgia. The conceptual idea was sold to the clients and completely installed, but before the grand opening a stakeholder decided the meadowscape was not appropriate, had it removed and planted sod in its place. The meadow did not look finished to the stakeholders’ eyes, and expectations were not met. This underlies how important it is to temper expectations with clients and allow them to understand the process of establishing natural plant communities. Education has to be present throughout the entire process, from conceptual ideas to installation to future maintenance practices.

Supply is another issue that might come up at the beginning of this process. Not all nurseries carry large amounts of native plants, so relationships will need to be forged in new places and pressure placed on existing suppliers to increase the availability. Increasing native plants at local suppliers would have multiple effects on acceptance of naturalistic landscapes: it provides more plant choices for the landscape architect to

use, raising awareness. At the same time, it places more plants in view of the general public shopping at these nurseries, further raising awareness.

A closely related topic to this is the influence of the lawn-care industry. Lawn care companies spend millions of dollars each year in advertising to convince homeowners to buy pesticides, herbicides, and fertilizers for their yards. This advertising usually focuses on creating a connection between lawns and community values such as family, nature, and a greater good (Robbins and Sharp 438). Manicured lawns are the ideal, with pests and weeds associated with poor maintenance by the homeowner. Surprisingly these companies are able to align their product with environmentalism, showing the lawn as a way for people to reconnect with nature and exercise their "green thumb" (Robbins and Sharp 438-39). The message these companies craft is contrary to the goal of establishing naturalistic areas in lawns, with the natural look eschewed and manicured, input-intensive landscapes valued. Perhaps one solution is to look at these companies as an ally rather than a force that needs to be countered. If companies such as Scotts can see the benefit of meadows, maybe they could expand their product line to include seeds for wildflowers and natural grasses. They could become part of the solution by becoming a supplier of meadowscapes to homeowners. Gaining commitment from these companies would also begin to shift the dialog about naturalistic plantings in lawns on a national level.

Suggestions For Future Research

More research needs to be done to solidify the claim that naturalistic parks are visited disproportionately by an elite demographic. The studies presented here were not made up of large sample sizes, and gathering information on income levels proved

difficult. A larger study that incorporates income levels needs to be done to validate the ideas put forth here. Another route to go with this discussion, once that demographic has been confirmed, is to ask why all people do not feel comfortable at these parks. Why is it that an educated and affluent group visits naturalistic parks more than the general public? What can be done to make these parks more accessible to all?

Along the same lines, if an affluent and educated public is visiting the naturalistic parks, it is very important to understand which parks the general public is visiting and how they are using those spaces. How could these parks incorporate more naturalistic plantings into their designs to educate and expose visitors? How can the concepts discussed in this thesis apply to parks that are dominated by recreational activities and turf fields?

Also, the idea that educated and affluent classes are more accepting of "naturalistic" landscapes is an interesting one to contemplate. Is there a level of "messiness" that people are comfortable with before the aesthetic of a natural landscape becomes too much? Perhaps a neatness continuum exists that can be correlated with education and socioeconomic levels. Nassauer gets at this point with some of her work when she showed images of neat landscapes and messy landscapes to people. Her results showed that a middle ground was acceptable to most people. This study could be incorporated with more socioeconomic factors to see how income, race, and education play into acceptance.

CHAPTER 6

CONCLUSION

The over-riding theme of this thesis has dealt with the best manner for landscape architects to enact change in the way a society perceives its place in nature. The field has, since its origins with Olmsted, worked hard to make a strong impact on the larger society. This impact has changed in form and message over generations, from Central Park's open spaces that introduced green areas to urban citizens, to the Biltmore's goal of teaching a population how to better manage their land, to the modern Fresh Kills Park, a functional wetland that strives to teach people about the inner workings of nature while contributing ecological services back to a greater ecosystem. Despite the differing forms and messages each of those landscapes offer, they all have the unifying theme of working for the common good and trying to teach the general public something about the natural world. This is a message that is central to the profession of landscape architecture.

The recent trend in the profession focuses on creating parks similar to Fresh Kills, which teach the public about natural systems while adding ecosystem services back to the surroundings. This is a strategy that makes cities function in an ecological way while providing natural areas for the population to gather and recreate. The question central to the profession concerns the success of these parks and if they are having their intended impact: who is visiting these spaces, and what messages are they taking away with them? Research presented here shows that these spaces are visited

by a highly educated and affluent group that is disproportionate to the general public. Two ecological urbanist parks, the High Line in New York City and the Historic Fourth Ward in Atlanta, were visited and visitors were spoken to regarding perception of plant communities and demographics. The results in both parks pointed to constituents of an educated group comprised of professional workers. Studies conducted in other nature-based parks that landscape architects impact seem to mirror this conclusion. The Atlanta Botanical Garden, the Crosby Arboretum, and the National Park Service all show high numbers of educated and wealthy visitors. These statistics seem to show that the general public is not visiting these parks in high numbers, and that the message that is being presented is not reaching the average American.

The message is, however, being successfully transferred to the public that is visiting these parks. Both of the surveys presented here seem to show that visitors to these spaces have an understanding that these parks contribute in an ecological way to the surrounding systems and that the parks are beneficial and necessary. There is also evidence to show that these parks are building an awareness and even an advocacy level within these groups, with large proportions of them agreeing that they would like to see more “naturalistic” landscapes that contribute to natural systems. These results are backed by the work done at the Crosby Arboretum, which suggest that visitors to naturalistic landscapes generally understand the ecological workings of them.

This pool of people visiting naturalistic parks is part of a larger demographic that contains a certain amount of wealth, respect, and influence within the larger society. There is a prestige bestowed upon this class, and others often look to mimic their actions and thoughts. It has been demonstrated that when these actions and thoughts

are harnessed correctly, this group has the ability to influence the way that a society thinks and acts. Examples as far ranging as the acceptance of the lawn in America to the adoption of green technology such as a hybrid car have been provided to show how the ideals of these groups can be co-opted by a society that strives to achieve a certain social status.

These two points combine to create the concept of “trickle down landscape architecture”. There is a demographic that has an established history of impacting the social structure of our country. They are thought of as a “moral compass” because they have the time and education to learn about and take on certain causes, along with the financial means to back them. As evidenced in the studies conducted at urban parks, this demographic is also the one that disproportionately visits ecologically based, naturalistic landscapes. They understand the importance of these landscapes and are open to the idea of applying the principles learned therein to alternative spaces, such as residential neighborhoods. This provides an opportunity for power within the profession of landscape architecture. Landscape architects work with this group to design the spaces that make up elite neighborhoods, and can harness the willingness of this group to change the way that these neighborhoods think about nature on a personal scale. This could lead to an overall aesthetic change in the way that these neighborhoods look.

These elite neighborhoods have historically been dominated by monocultures of turf, which are resource-intensive and lacking in any real connection to the natural world. They provide little habitat for wildlife and the food chain upon which they depend. The manicured landscape is expensive to keep up, and has become synonymous with

wealth, power, and prestige. If landscape architects take advantage of the willingness of these landowners to incorporate naturalistic landscapes within their yards, the perception of this land could begin to change. The human-dominated turf lawn could become passé, with overtones of indulgence and wastefulness attached to it while native plantings such as meadowscapes could communicate someone's dedication to the environment and how prudent they are. Over time, the landscape of wealth and power could shift to a more natural landscape that contributes environmental services to a larger ecosystem.

This development would ripple throughout society. People would see the new landscape and work to mimic it at their own scale. Philanthropists who donate money to parks and gardens would ensure their donations help create new parks with naturalistic aspects, and nurseries would begin carrying more native species to keep up with demand. The actions of an elite class could trickle throughout the rest of society to create a new perception of naturalistic landscapes. This could lead to a new paradigm for the American lawn, creating a landscape of small spaces working cumulatively together to create habitat and ecological function: an Ecological Suburbanism. And, as already stated, the source of this action and thought originates with the landscape architect. Whether through the designed landscape of an urban park that teaches about nature, or through personal influence at a residential level, the landscape architect is instrumental in guiding the choices that an elite public makes in relation to their personal spaces.

This circles back to the theme of how landscape architects can best enact social change. There are many different avenues to approach when trying to change the way a

society thinks about and acts toward a subject. When a subject like the turf lawn, which is engrained in the national psyche, is brought up, change has to be carefully calculated. There has to be a level of legitimacy within the change, and there has to be a group that believes in the cause and is willing to shift trends to further it. While the general public is attached to the concept of a lawn, surveys show that there is a group of people within the elite class who understand the functionality of landscapes and are open to adapting meadowscapes and other native plantings to uses around residential areas. This is the group that should be focused on first to help enact a shift in cultural perceptions.

The ideas presented here echo the words of noted landscape architect and expert on meadows Darrel Morrison: “People will change. They just need to see it on the ground and believe it”. The concept of trickle down landscape architecture provides a vehicle to present functional landscapes at personal scales to the general public. This public does not visit eco-revelatory landscapes in high numbers, instead opting for open parks of turf on which to recreate. The message of naturalistic landscapes has to reach them in some other way, and changing the landscape of the elite neighborhoods is perhaps an effective way to accomplish this goal. This thesis has laid out a strategy in which to harness the power and influence of a demographic that already believes in the appropriateness of naturalistic landscapes. If landscape architects take advantage of the position of influence they have over this group, the way our society perceives native plant communities has a greater chance to change in a positive manner.

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APPENDIX A:

URBAN DESIGN AND ITS AFFECT ON MEADOW GRASS PERCEPTION

How often do you visit this park?
Daily Weekly Monthly
Why do you come?
How long do you stay? 5min-15 min 15min-30min 30min-1hr 1hr+
What activities do you do here?
Do you frequent other parks in the area?
How do you feel this park compares to other parks you visit? Why?
What do you like best about the landscaping here? Least?
How would you describe the way this park is landscaped?
What is your opinion of the grasses in the landscape?
Do you think this landscape is attractive during the winter months? Why?
Would you say that this park is well maintained and attractive? If not, why not?
Do you feel this landscaping is appropriate? Explain.
Do you read informational signs at parks?
How do they impact your experience?
Would meadow plantings work in place of turf in: urban parks, suburban yards, civic landscapes

Have you spent much time in natural meadows or other wilderness-type areas? Explain.
Have you visited other parks that are planted with meadows? Where?
Do you see this as a natural place? Why?
Have you observed wildlife in this park? What kinds?

Rate each of the following questions on a scale from 1-5, with 1 stating that you strongly agree and 5 stating that you strongly disagree.

It is important for an urban park to serve an environmental purpose.	1	2	3	4	5
The Highline is a park that provides environmental benefits.	1	2	3	4	5
I enjoy parks that are planted in a "natural" way.	1	2	3	4	5
I would like to see more parks landscaped like the Highline.	1	2	3	4	5

SEX:
Male Female
Age:
18-25 26-35 36-45 46-55 56+
Race:
African American Asian/Pacific Islander Hispanic White Native American Other
Household income:
$0-$25K $25K-50K $50K-100K $100K+
Highest level of education?

Some High School High School/GED Some College Bachelors Degree Masters Doctoral

What is your profession?

How would you describe where you grew up? urban suburban rural explain_____

How would you describe where you currently live? urban suburban rural explain

APPENDIX B:

QUESTIONNAIRE RESULTS: HIGHLINE PARK

	Where Are You From?
New York	33
New York State	8
Chicago, IL	1
Austin, TX	1
California	3
Massachusetts	2
Colorado	2
Florida	2
Vermont	1
Uruguay	1
Ireland	2
Argentina	2
France	2
Nigeria	1
	61

Activities Done at High Line:	
Walk/Stroll	42
Sit/People Watch	19
Alternative Transportation	8
Photography	6
Eat	4
Look at Plants	2
Think	1

How Would You Describe the Landscape?	
Natural	34
Beautiful	23
Native	9
Disorderly	5
Unique/Innovative	2
Other	5

How does this compare to other parks you visit?	
More Natural	38
More interesting-elevation level	34
More interesting architecturally	12
More linear	4

Is the Landscape Natural?	
Yes	29
No	24
In time it will be	4

Are the Grasses Attractive During Winter?	
Yes	55
No	6

Are the Grasses Appropriate in this Setting?	
Yes	57
No	2

Would the Grasses be Appropriate in Other Contexts?	
Yes	42
No	2
Maybe	17

Does the Park Appear Well Maintained and Attractive?	
Yes	61
No	0

Question (23 participants)	Average Answer
Important for urban park to serve an environmental purpose?	4.05
The High Line is a landscape that provides environmental benefits.	4.15
I enjoy parks that are planted in a “natural” way.	4.21
I would like to see more parks landscaped like the High Line.	4.32

Race	
Caucasian	47
African American	6
Hispanic	5
Asian	3

Education Level	
High School	4
Bachelors Degree	34
Masters Degree	19
Doctorate	4

APPENDIX C:

QUESTIONNAIRE RESULTS: HISTORIC FOURTH WARD PARK

	Where Are You From?
Atlanta	13
Charlotte, NC	1
	14

Activities Done at Historic Fourth Ward Park	
Walk/Stroll	13
Let children explore	3
Photography	2
Sit/Picnic	2
Park-Core (Exercise)	1

How Would You Describe the Landscape?	
Natural	10
Tranquil	1
Architectural	1
Quiet/Secluded	4
Beautiful	9
Swampish	1

How does this compare to other parks you visit?	
More Natural	5
Water Feature	3
More interesting architecture	2
Smaller	2
More unique	1

Is this landscape natural?	
Yes	8
No	6

Are the Grasses Attractive During Winter?	
Yes	4
No	10

Are the Grasses Appropriate in this Setting?	
Yes	14
No	0

Would the Grasses be Appropriate in Other Contexts?	
Yes	8
No	3
Maybe	3

Does the Park Appear Well Maintained and Attractive?	
Yes	14
No	0

Question (23 participants)	Average Answer
Important for urban park to serve an environmental purpose?	3.7
The High Line is a landscape that provides environmental benefits.	3.9
I enjoy parks that are planted in a “natural” way.	4.3
I would like to see more parks landscaped like the High Line.	4.5

RACE	
White	8
Black	3
Asian	1
Hispanic	2

Education	
High School	1
Some College	1
Bachelors	9
Masters	3