

maintenance *reimagined*

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# abstract

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Landscape maintenance plays a vital role in how designed landscapes perform over time. The current approach is to suppress landscapes by repeating the same techniques through the seasons and years. The dynamic living qualities are constantly hidden and results are static landscapes. By acknowledging the living qualities of the landscape and how they change through time landscape architects can engage in how those processes evolve and unfold. The potentials of how a site changes through time are endless, and it is time that landscape architects have a bigger role in the management of designed landscapes. Walking away from a site without a plan to how it responds to time surrenders too much of the design decisions to be made by the management team. Great opportunities exists for designers to create a plan for how the space functions and the aesthetics of the place through the use of maintenance. Maintenance today has lost its meaning in making a place great and having value. Past examples of landscape craft are helpful in understanding how we can bring back pride and lost practices to landscape maintenance. High-quality landscapes can be established when thinking about the care of them after they are built. When maintenance and care are placed as a high importance, the idea of craft is woven into the landscape. It is human nature to value things that are made great, and maintenance is the potential key to establishing that concept within designed landscapes.





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# chapter 1

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# introduction

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research question

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brief & goals

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## research question

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What novel spatial, aesthetic, and ecological conditions can landscape architects achieve if landscape *maintenance* is the *primary component* of design?





## brief of exploration and goals

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The separation between landscape design and management is becoming increasingly evident today. The typical landscape is provided the least amount of care possible while still accumulating hours of work resulting in the same static landscape. The same spatial, aesthetic and ecological functions are repeated through the years and the only exhibit of time in the landscape is seasonal color and the allowed growth of trees. The landscape maintenance industry today is tightly guided by ideas of efficiency. There are major missed opportunities because of the current design and management relationship. The management of landscapes over time comes with potentials of working with the dynamic processes of landscape. Landscape architects are missing out on designing how the site can unfold and emerge over time.

Design a place that highlights the powerful potentials of how maintenance can be used in a creative way to enhance the qualities of a site and experience

Research examples of craft in landscape and create modern example of craft that can be valued and included in maintenance strategies

Use craft and maintenance to design novel conditions that emerge over the course of time

Use maintenance as a strategy to inform spatial, ecological, aesthetic, and social function

## chapter 2

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# essential maintenance

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current discourse

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missed opportunities

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investigation lens

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time

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maintenance

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landscape craft

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## current discourse

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The current practice of landscape architecture is to design first and implement a maintenance plan after installation. This is seen with the mow, blow, and go approach with landscape maintenance. Landscape architect Michael Van Valkenburgh agrees there is a problem with this practice, “The mow, blow, and go approach, designed to require the least possible care. I have never seen a beautiful example of it.” (Van Valkenburgh, 2013). Although the total time per site visit is viewed as being low, the accumulative time of total maintenance spent on the site through the seasons is greater than expected. The amount of time spent mowing your lawn once or twice a week for 5 months of the year starts to add up. Take line edging for example, the industry standard is to edge hard lines (concrete meeting grass) one week and soft lines (grass meeting mulch bed line) for the following week. Think about how many man-hours it takes to complete those tasks, and you can see how time really starts to add up. All of that effort is the result of the management scheme to be kept the same, “Once a landscape planting is installed, the subsequent management has traditionally had the effect of ‘freezing’ the composition, minimizing change over time.” (Dunnett, 2004). When the landscape is frozen in time, it is inherent that living qualities of the landscape are suppressed.



The suppression model of landscape maintenance results in high use of energy resources such as fuel, chemical, and labor. There is roughly 1 billion gallons of fuel used per year in maintaining landscapes in the United States. With all the time and resources that are invested, the landscape hardly gains value over time. There is a missed opportunity in utilizing that time and energy into making a place that gains value with the years. With our society gaining a better understanding of human's relationship to natural resources, landscape maintenance has the opportunity to be a method of limiting our carbon footprint on our environment. Our current perception of landscape maintenance is viewed as keeping a landscape in the same shape. The current definition of maintenance is, "The work of keeping something in proper condition" and should be shifted to, "maintain's etymological roots is manus, or hand, and tenere, to hold: to hold in one's hand." (Dunnett, 2008). The maintenance paradigm is in need of a shift and designers have the powerful potential to make that happen once they understand the different approach to landscape maintenance.



# missed opportunities

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The quick approach to landscape maintenance is limiting to how designers plan a site over time. Landscape architects are overlooking how critical management and maintenance can play into the design of landscapes. Designed landscapes have the opportunity to evolve and change over time from factors such as plant succession, climate change, change in physical surroundings, weather events, and social events. By directing the site over time through varying management strategies, designers will discover the potentials of how a site can exhibit dynamic living qualities that makes the place feel alive. Using plant succession to have evolving form on a site so that the design capitalizes on low maintenance technique and evolving form. A form schedule for specific plants allows the site to have an intended spatial composition for all moments in time. By utilizing landscape “waste” such as leaf litter, clippings from pruning, and clippings from turf or meadows. Maintenance can produce novel aesthetics through the use of plant juxtaposition, non-tradition maintenance strategies of timing schedule directing the plant palette, and harnessing the beautiful qualities of how plants display change in texture, color, and form over time. The landscape architecture profession is missing out on all these potentials and a shift in the discourse will be beneficial to designers, the environment, and to those who use these landscapes.



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**envisioning landscapes differently**

A new light needs to be shed on the profession of landscape architecture. Maintenance offers opportunities that acknowledge time and change and designers should start taking advantage of the potentials.

# investigation lens

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## time

For this thesis exploration, the landscape will be viewed through lens of time, maintenance, and craft. Landscapes are often viewed as one point in time, and we forget to think about their history and how they develop through the years on large temporal scale. Landscapes are in constant flux and because of that, they have a way of telling time. Landscape architects have an important role in determining how landscapes perform after they are implemented, “the need for designers involvement over time arises because ever-changing plants are the discipline’s primary medium, if not its soul.”(Van Valkenburgh, 2013). It is critical for the purposes of this thesis to show how a design works and changes over time. Choreographing a site over the decades is challenging but in the long haul results in a place that feels alive. Time should not only be view in the long term, but the design should show the small ephemeral moments that are intrinsic to landscape. It is interesting to think about how the long-term design of a landscape directly informs the ephemeral moments. There will always some ephemerality within a landscape, but designing long term offers different moments to emerge and dissipate over time. There is a richness ingrained with designing different moments to come and go with the long-term design. It is a strong combination that really allows the landscape to show off it dynamic capabilities.

## maintenance

If thinking about landscapes over time is a priority, then it automatically follows that the management and maintenance will play a vital role. To achieve the spatial form and aesthetics wanted in long-term design, human intervention becomes a priority in how the site is cared for and directed. Maintenance should be viewed as a tool to design, as way of shaping place over time. This type of approach acknowledges landscape as living entities and transforms the idea of maintenance keeping something the same. It is exciting to think about the management as way of making a place over time. The users of the surrounding communities can gain value in experiencing a place that literally and figuratively grows on them. The amount of time and energy that is spent on maintenance today should be shifted so that the site gains value through management.





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### **cyclical nature**

The photograph was taken to show cyclical nature of life and death. Landscapes tell time, so why should we suppress to the point where they seem stuck in time.

## Landscape craft

Maintenance is not limited to the techniques that we see are common in the landscape today. The approach of maintenance today is the result of our cultural need for instant gratification. We have lost the value of investing time and energy into something meaningful and representative of care. The idea of investing time, energy, and care is becoming forgotten in contemporary landscape. Landscape craft is an idea that values the investment of time, energy, and care of a place. Craft across all professions are easily recognizable. Craft is the outcome of the basic human impulse to do a job well. Techniques of landscape craft can still be seen today. Traditional landscape craft is commonly the training of shrubs and trees into intended form. Techniques like espalier, coppicing, pollarding and hedgelaying all have historical ties to agricultural function and are regarded as a craft that requires a specific knowledge and skill set to the activity.

Some practices require years of work that require patience with a read and respond relationship with the plant. Unfortunately these craft techniques are becoming lost “There is a definite lack of knowledge and craft when it comes to the art of pruning in the contemporary landscape.” (Smith, 2016). One of the few landscape architects in the profession that shares similar experiences in research and design is Ken Smith. There are still examples landscape craft existing, but the knowledge to do so is becoming lost and it is rarely designed into new landscapes. If it is being designed into landscapes, the plants are coming from specialized nurseries that already have mature forms of pleached trees and espaliered trees. Part of the beauty of craft is watching it happen. The knowledge has become pushed to a very small population.



## Landscape craft

Craft has a powerful way of understanding an activity “it is a process of making that consciously conceptualizes the relationship between necessity, purpose, function, form, material, and technique.” (Risatti,2007). Crafted subjects also have a way of standing out to those subjects not crafted. There is a certain aesthetic quality that people notice and value when something is considered crafted. In some ways it is ineffable, but the viewer still knows, understands, and appreciates. Our society is starting to witness the shift from instant gratification to things that take time and care to make. Take the culinary industry for example; small-scale high quality productions of food and beer have recently taken off in popularity.

Humans appreciate things that are made to their best potential and do not have a difficult time in recognizing that. The same effect can be seen in the landscape. If we truly value and care about a landscape it should reflect that type of craftsmanship. If a landscape is crafted, people will inherently value the place for the care and effort that is visible to the eye. Craft is a window of opportunity for making maintenance important. The two should not be separated but view as a whole.





## chapter 3

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# design strategies

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test preface

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timed design

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old and new craft

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ephemeral

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long lived

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creative management

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## test preface

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The design tests for this thesis is grouped into categories that resemble the lens of investigation. While time and maintenance have always been a common thread, the idea of craft was explored later in the thesis research. Time is usually tested by looking at the long term design and what moves are required to reach that point in spatial form. The designs under the time test focus on the larger spatial moves that are choreographed on the site. Exploration of management techniques is a major part of this section. Here it is played out how different techniques should be performed at certain times of the year, constantly varying by intensities. By categorizing typologies of landscape, the investigation is able to explore how they can be managed by the season and also the long term goals for the specified zone on site. Craft is then examined by looking at two precedent studies and a pass is taken at a contemporary example of what craft can be in landscape architecture. The traditional methods have been slowly lost in the landscape and so it is important to understand their value as well as the contemporary idea of what craft is in the 21st century. It is important to test both temporal scales to realize the potentials of craft from the ephemeral everyday type work to the long term achievement of planted form.

## designed time

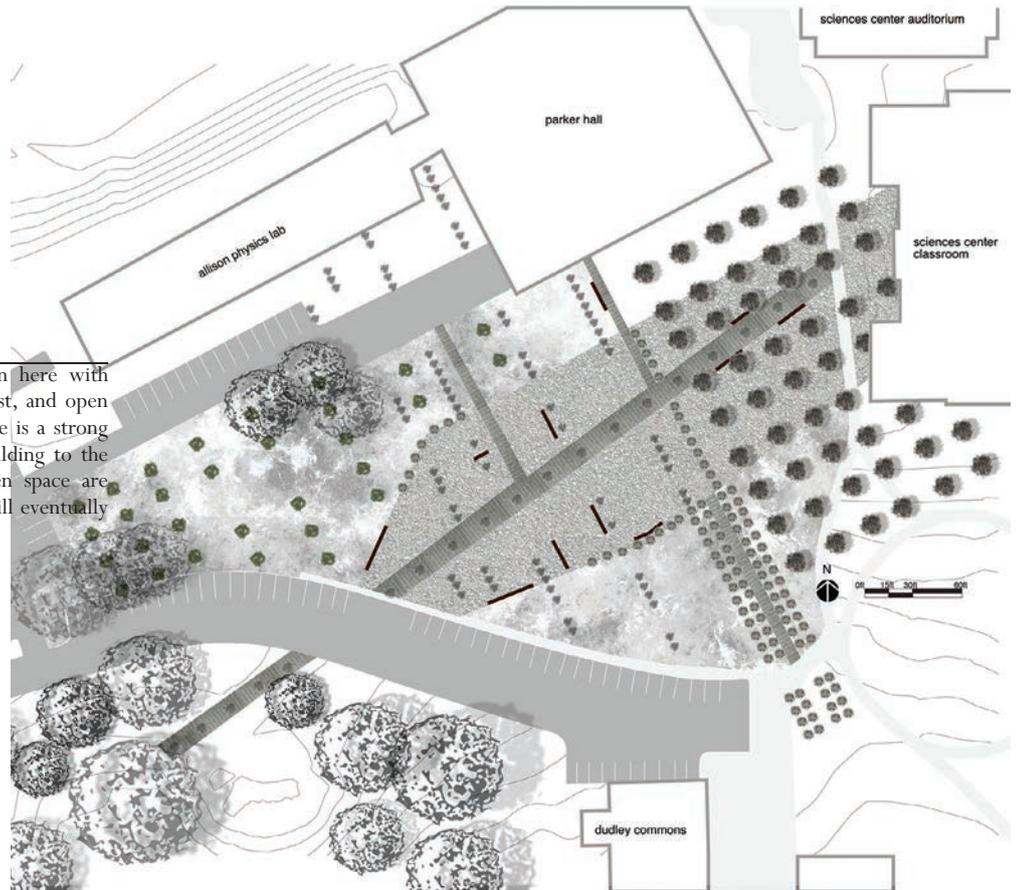
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The spatial composition of a landscape through the years is what sparked curiosity for how critical management can be. Site scale and form are the priority for this test. Time is tested at both a small residential scale as well as on larger areas of five acres. It was found that fewer components of spatial change could be focused at the small scale. Elements such as hedges, tree groves, and ground plane plants are altered through time to change how the site advances spatially over time. For example a pleached hedge acts as a curtain rising when the lower limbs are removed. For the early years, it acts as a separator of spaces or rooms. Then when the lower limbs are removed, it suddenly combines the spaces on each side into visually one grand space. At a larger scale, the site resembles as a series of shifting rooms. While one space feels open when first installed, decades later it will have a different spatial composition of feeling more enclosed and intimate. The opposite example would be spaces that are more intimate and eventually open up over time. Designs revealed that juxtaposition of the same species could be achieved. One species could achieve different intended spatial quality and function while being right next to one another. Example being an american beech tree, while its natural form is a large deciduous tree, it can be pruned to achieve multiple forms such as hedge, pollard, coppice, or a pleached hedge. It is only through thoughtful interventions with knowledge of plant physiology will the correct cuttings make place.

Main findings from these explorations are the lack of social function. Some designs invested too much shifting of spaces. The landscape performed more like a demonstration of techniques rather than a place. The location of the site also played a role in lack of social function.

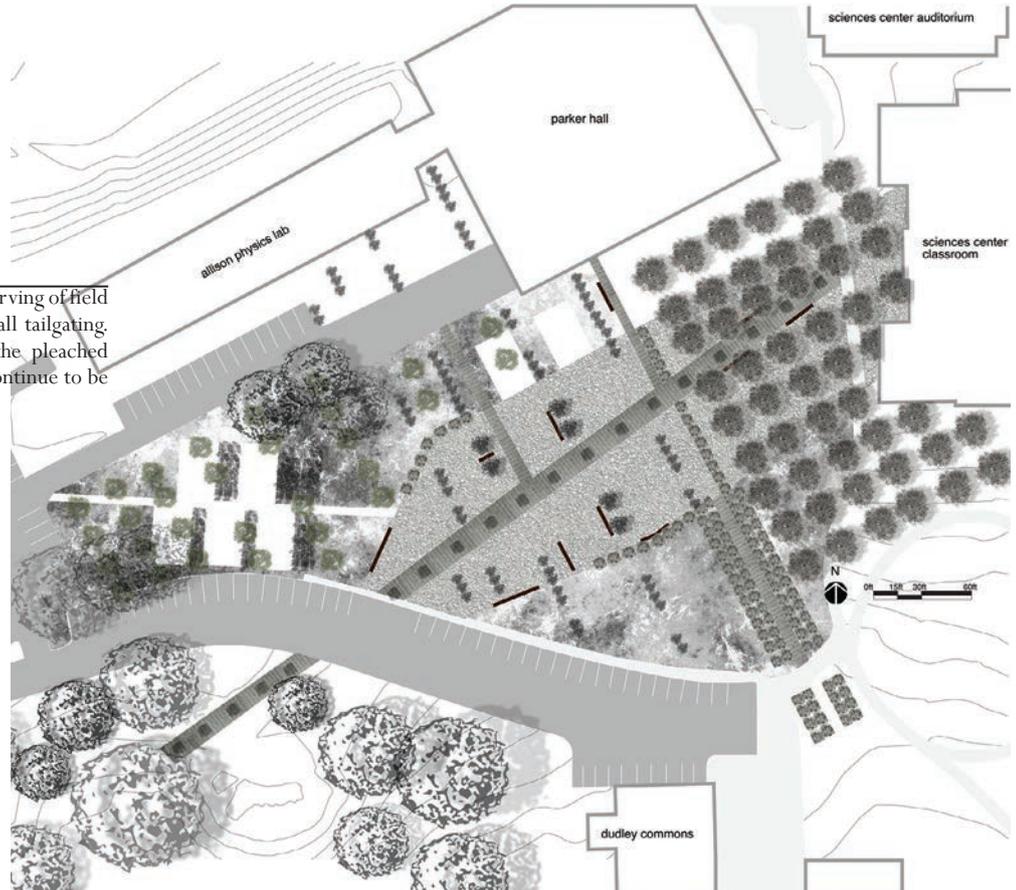
**year 1**

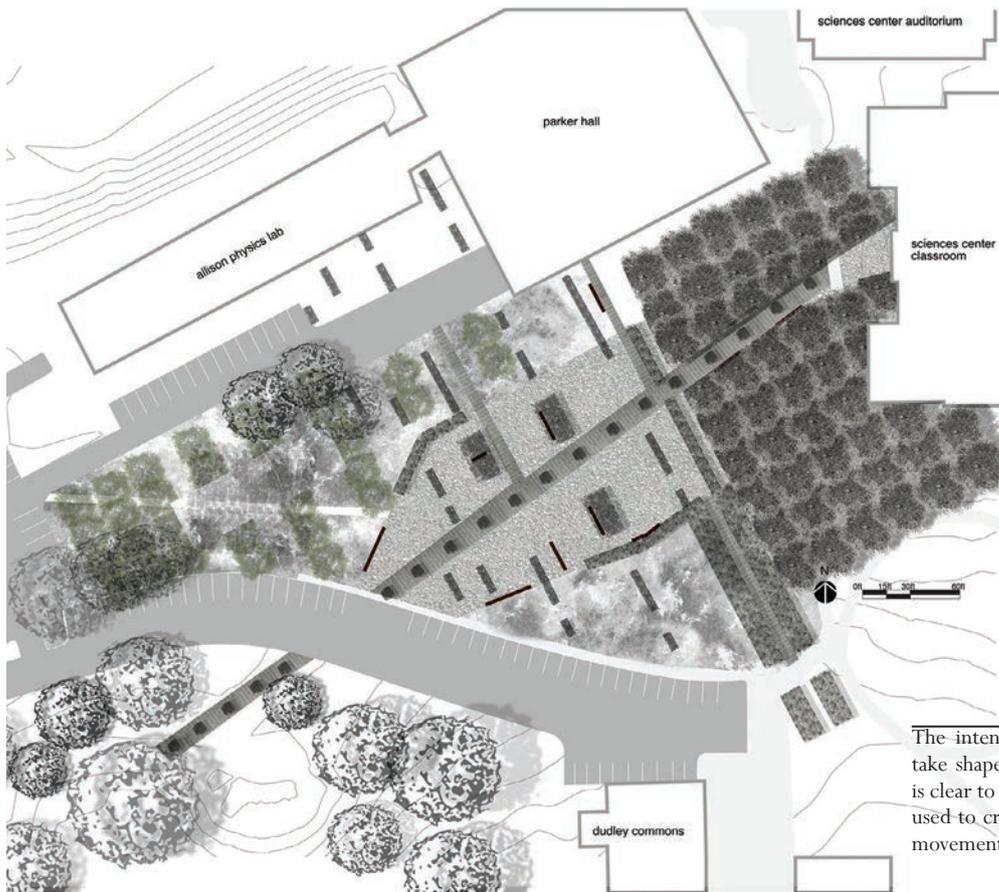
The basic layout of the site is seen here with a grove to the east, pines to the west, and open space in the middle of the site. There is a strong axis that connects the chemistry building to the amphitheater. The axis and the open space are planted with the same species and will eventually possess different form.



**year 5**

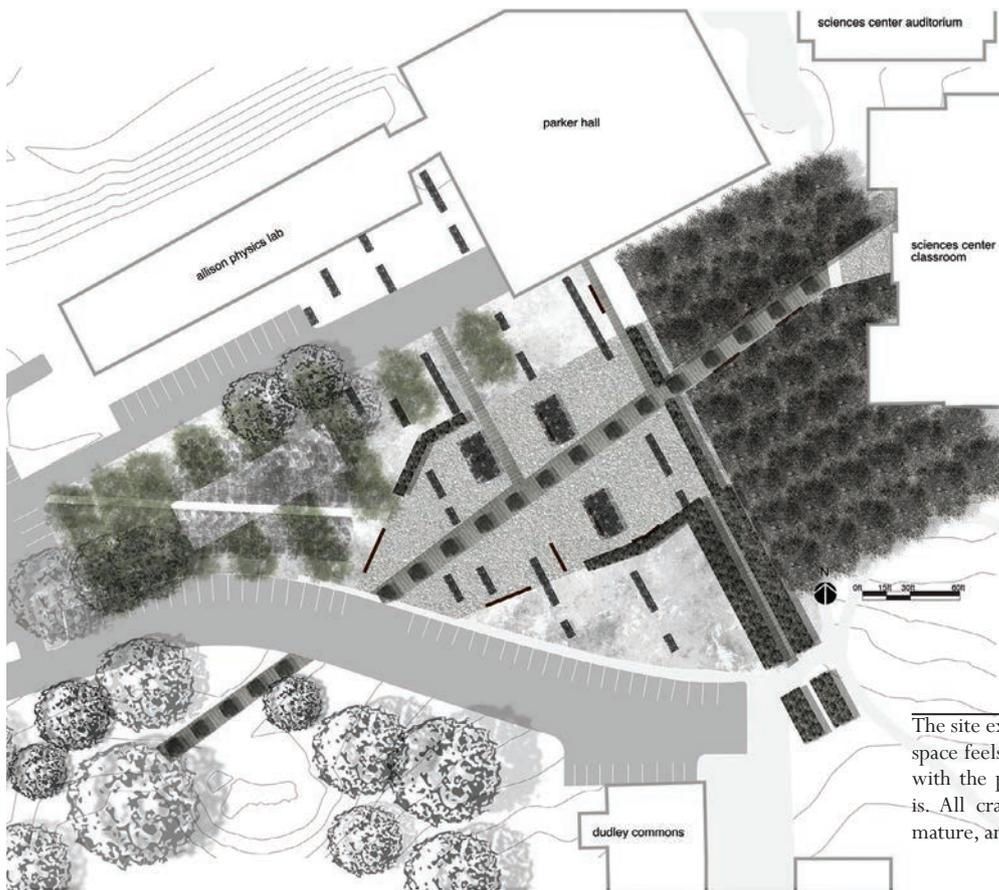
The most notable change here is the carving of field condition to accommodate for football tailgating. Meanwhile the intended forms of the pleached hedge, roof form trees, and hedges continue to be properly trained and cared for.





**year 20**

The intended plant forms are really starting to take shape. A clear juxtaposition of species form is clear to the average user of the space. Mowing is used to creating different paths for site flows and movement.

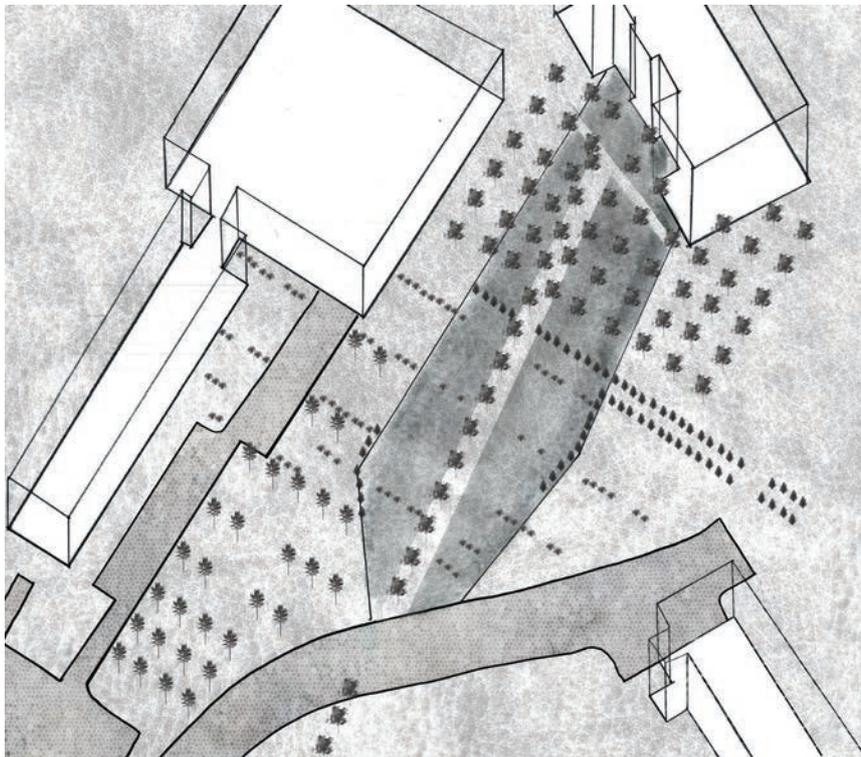


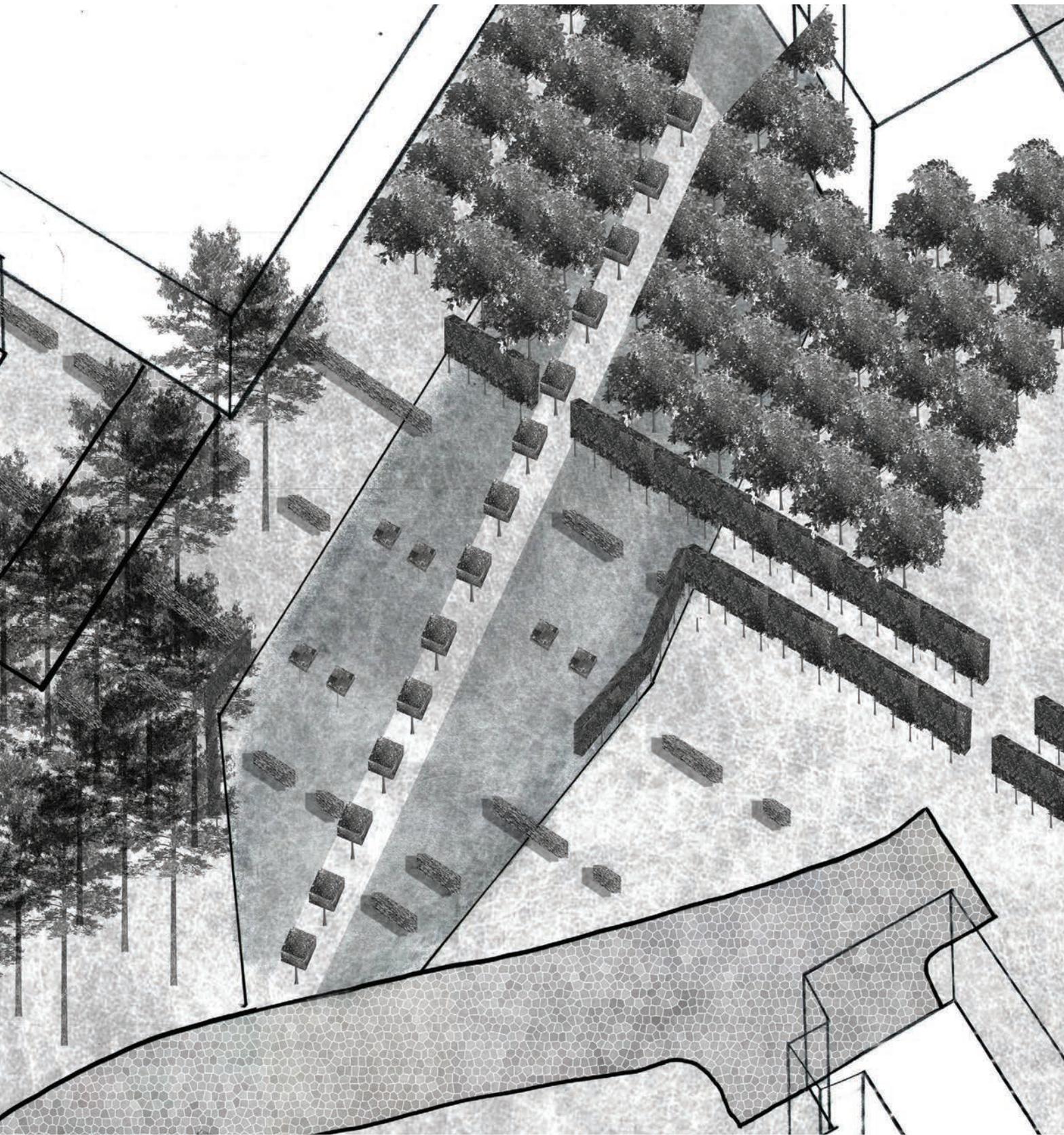
**year 40**

The site exhibits strong forms that dictate how the space feels and is used. The grove canopy is dense with the pollarding taking affect where the path is. All crafted plant forms have become dense, mature, and apparent of long time craft and care.

## shifting rooms

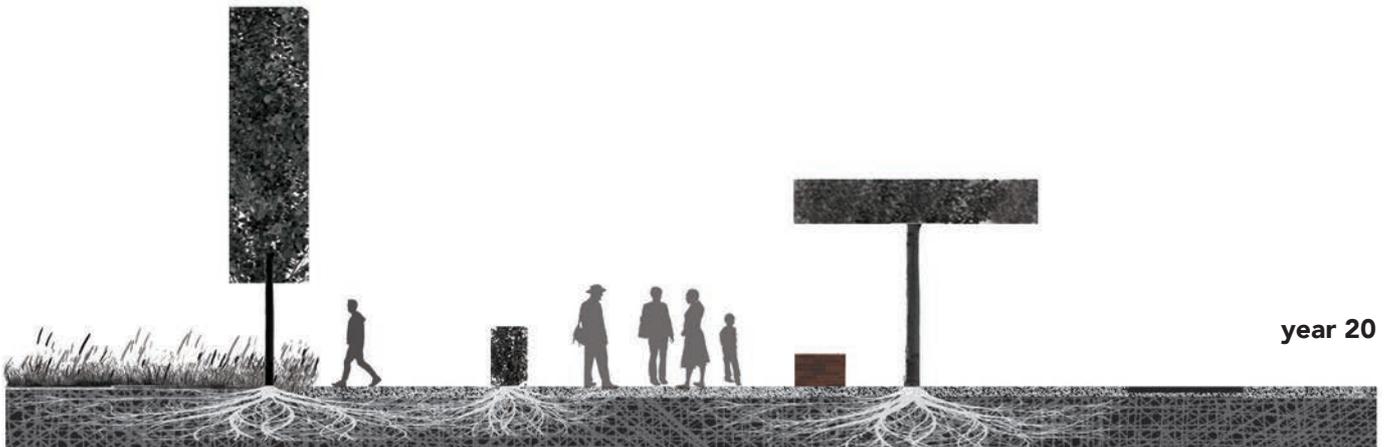
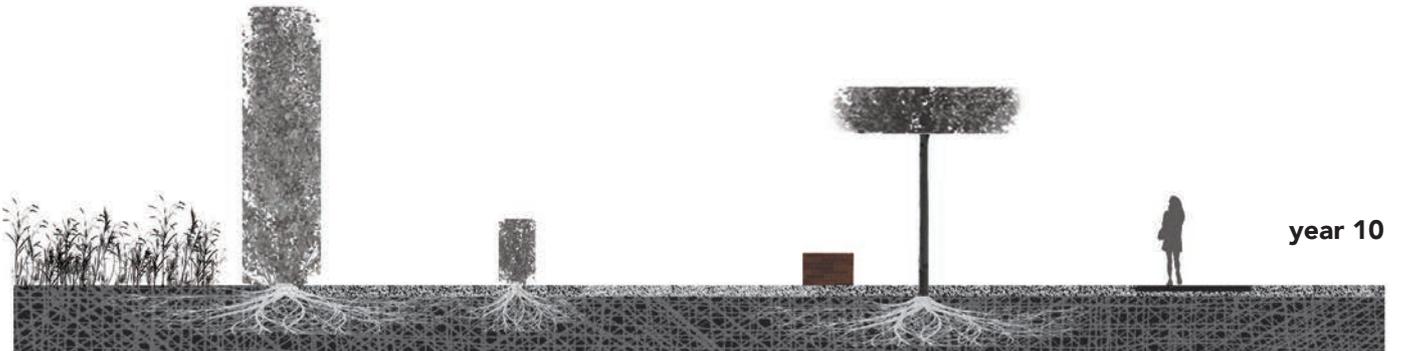
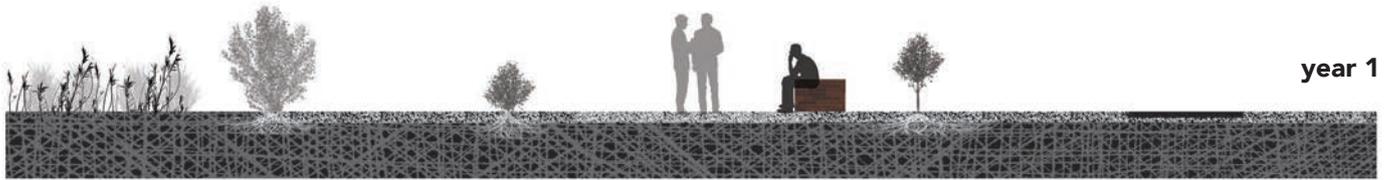
The axon shows the spacing at installation and 40 years later. The grove of trees has filled in while being pollarded to create a hard line that follows the walking path. The pleached allee leads you down into what is considered an open room. The pleached hedge acts as a curtain that separated the grove from the open space. The open spaces is separated in to hedges that dictate flow and gathering spaces on the site. The pine trees have really taken of in their native soil and an oculus is cut on the interior of the planting. The site acts as a series of shifting rooms through time as there are different spatial conditions that are intentionally designed.

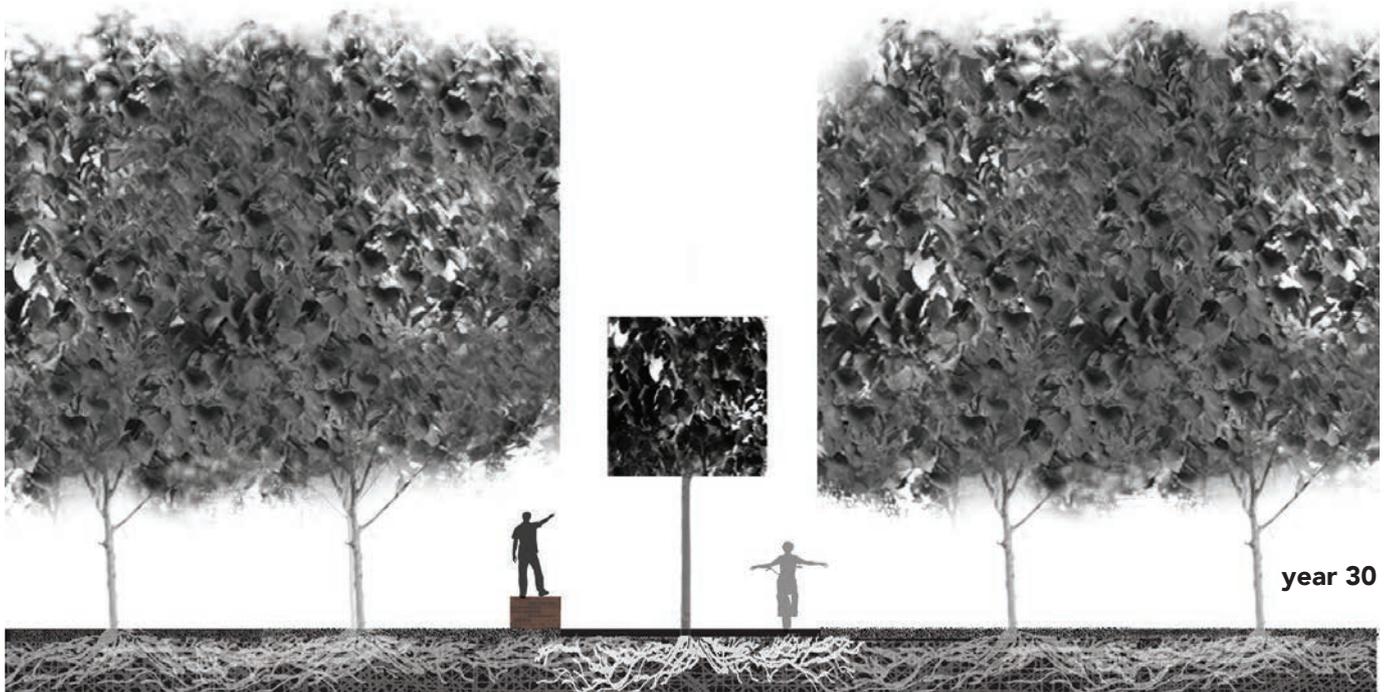
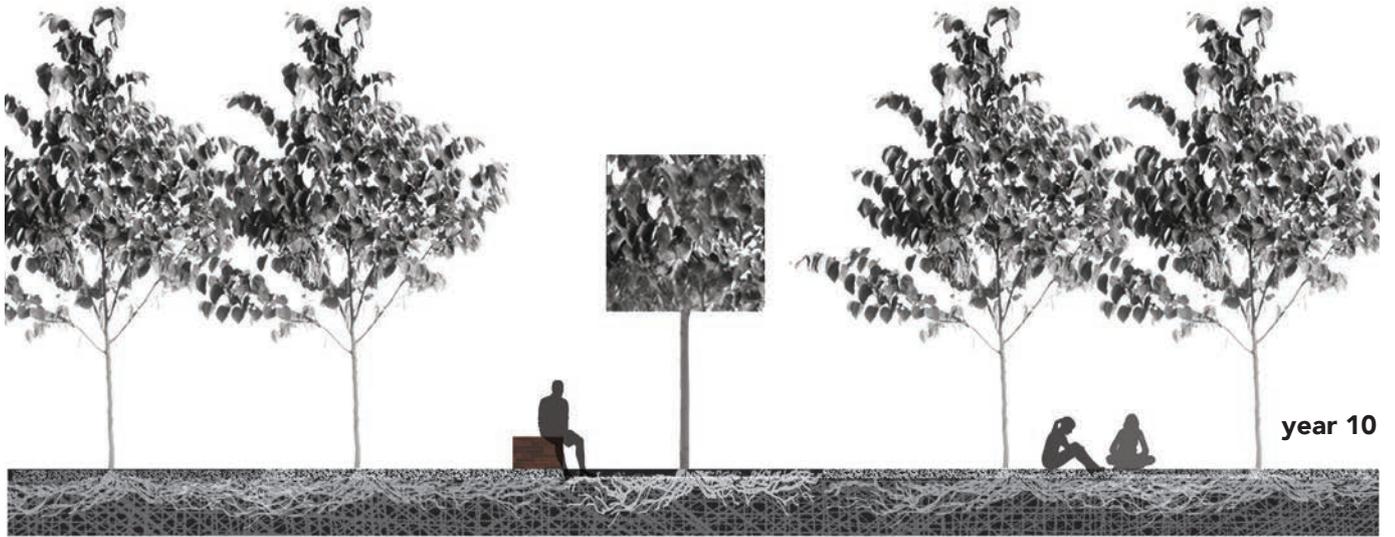




## shifting rooms

The sections help show the change in spatial conditions due to maintenance over time. Sight lines are constantly changing and the juxtaposition of form makes for an interesting aesthetic.





# old + new craft

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While craft in the landscape has become less prominent in the landscape today, there are still places around the world where it takes place. It is critical for this thesis to find and analyze those examples so it is understood why people still place an importance and value on the activity. These activities are traditions that have been passed down generations and create a strong identity for a culture. Craft is a mechanism of reflecting cultural values and perceptions. Studying different regions and their landscape craft help as a precedent for design. The goal of this exploration is to combine the spirit of old craft with the modern ideas and needs. Landscape craft has witnessed lack of evolution for an expanded period of time. An opportunity here to discover a modern landscape craft exist.

## ephemeral

A landscape craft that is often overlooked is the activity of raking a Zen garden. These dry rock gardens are built as meditation spaces for Buddhist monks. It resembles a miniaturized landscape with the ocean as gravel and islands of moss with boulders emerging representing mountains. The raking of the gravel creates different lines to represent the ever-changing tides and waves of the ocean. At first glance Zen gardens appear to be static, but the Buddhist principal of impermanence is engraved into the landscape on a daily basis. The Buddhist principal of impermanence follows that all that is in existence is in constant flux, always coming and going. With that being known, all things should be performed to their best. They used high quality as an inspirational way to live, “any ordinary activity- whether simple or complex, can be approach as an art.” (Purser, 2013). Everyday an individual of acknowledged skill level rakes the gravel. The act of raking the gravel makes takes a ordinarily mundane task and turns it into an art form. It requires sharp focus and a keen eye for detail, which results into beautiful forms made by the rake.

Through this idea of everyday raking, the potentials of ephemerality being achieved with maintenance became evident. The experience short powerful moments provides a great experience for a view. Maintenance has the potential to do just that.





## new ephemeral craft

Raking of the Zen garden lead to research of ephemerality through maintenance. The intent is to design a craft strategy that shows time on a small scale. The ground plane is the main component of the landscape that changes in the Zen garden. So the investigation begins with thinking about the vertical layers of a landscape such as canopy, understory, shrub, and ground plane. Out of all the layers, the ground plane is the one most attributed to change. The impact of leaves on the ground is something that is temporary in our landscape that is not taken advantage of. The common practice is to remove the all leaves from the ground and sometimes even off the premises.

They offer the perfect opportunity to create ephemeral forms on the ground plane. The design test explores leaves as a field condition with the ephemerality being a path that is shaped and eventually disappearing with the winds and passing of people. This example gives the worker the opportunity to play with variations of the path system and even address the social function of the site depending on the day. This is a type of craft that accepts the end result of the work disappearing and that propels the work to be its best when given the next chance. The follows the spirit of making something to your best ability even if it may not last long. The result is one that creates a powerful experience for the user if they are lucky enough to experience the form while it is still visible. The monoculture planting of ginkgo creates a stunning yellow ground plane.

The second design test is the inverse of the field. Instead of the ground plane being dominated by leaves, the ground plane consists of linear piles of leaves. In that specific test, the location of the leaves affects the timing of the daffodil bloom. Where there are areas of leaves the bloom arrives later because lack of sunlight hitting the ground where underground perennial bulb are planted. Areas with no leaves receive more sunlight and trigger a quicker growth response. These examples show how the aesthetic of a place can be directed with simple ephemeral maintenance.



## long-term

An example of craft with long-term function is hedgelaying. It is a centuries old technique originated in the United Kingdom and Ireland. Hedgelaying is the process of making a living fence. It has strong functional features of dividing spaces and keeping livestock contained. After a period of 15-20 years the hedge is relayed by the craft of cutting and weaving living branches into an aesthetically conscious way that forms a barrier. It is unique in that regionally there are different styles of hedgelaying. They vary widely in terms of livestock use, species selection, species eradication, use of topography, and the style of weaving pattern. The hedgerow also provides important ecological component of the designed landscape. The living nature of the fence allows for plant communities to emerge and attracts wildlife. Hedgerows are considered as way of increasing the biodiversity of place. It is a recognized example of cultural values tied into a craft activity. It may be the only example where there is an accreditation process to become a craftsman in landscape. The National Hedgelaying Society is the main promoter of the craft and is the society that grants applicants the term 'craftsman'. Applicants must either lay 50 meters of hedge in a specific style and are evaluated privately or there is a regional competition day in which you must lay 7 meters in 5 hours while maintaining high quality of work for the given style. The craft of hedgelaying runs deep the cultural roots of the United Kingdom and is exciting to see the conservation of craft in landscapes. Takeaways here are the thought of using growth as a way to craft a place. A long-term craft approach is in need of a modern twist.





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**midland bullock style**

The top weave is a visually strong element for this style. There are multiple species being laid in this which increases the biodiversity of this hedge.



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**devon style**

The addition of an earth bank is required for this style. There is only one species of tree that is being laid in this example. No wooden stakes are used as a vertical placeholder.



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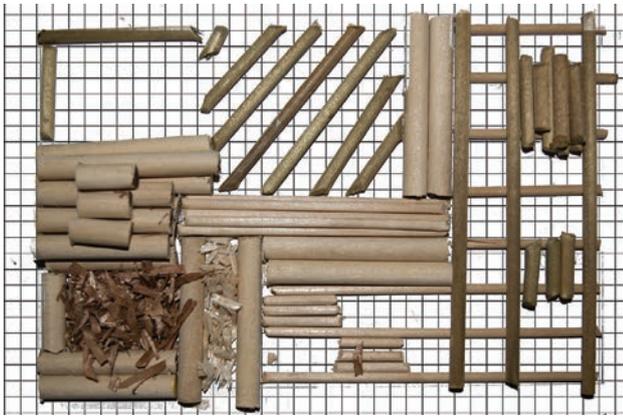
**derbyshire style**

The absence of the top weave is evident in this style. Wooden stakes act as a vertical placeholder.

## compost garden

Techniques of pruning result in an excess of clippings that are typically removed from the site. After learning to utilize plant growth to induce spatial, aesthetic, and ecological function with hedgelaying, the idea of utilizing the growth and waste from plants arose. Landscape craft techniques known today have been tested and proved for decades and even centuries. Designing a contemporary landscape craft is the objective for this investigation. A modern example can be utilizing the outputs of a landscape and inputting those back into the landscape. Recycling the “waste” of a landscape is hardly utilized and has potential to be a technique that can be described as craft. The standard today is to remove all waste from landscape. Those outputs should not be considered waste because they contain nitrogen and carbon, the requirement for plant life. The idea here is to utilize all the outputs of landscape into a system of composting. The model shows how specific sizes of clipping, sticks, and branches are organized and placed in a way that creates a compost garden. It shows intentional form and acts a way to harness outputs and process them into an input.

The compost garden will be crafted in a way that is aesthetically pleasing, ecologically driven, and a spatial component of the landscape. While there are not many landscape crafts associated with the southeastern United States or even the United States, the idea of crafting a compost garden would be novel to the region. Composting is a common practice but is often regarded as an eye sore and is purely based on the function of making rich composted soil. Adding the quality and attention to detail could be beneficial not only ecologically but also spatially and aesthetically. Naturally, plant succession will start to develop in areas of the garden that have decomposed the quickest. The designer will have a hand in designing flora within the garden. The compost area does not just have to be clippings and leaves. Removing the compost and redistributing back into landscape is the goal here, there is an attention to quality that exploits the outputs of a landscape and converting them into an input. A new landscape craft is born.



### layout

Clippings and branches are arranged by size and form. Different spaces are configured for different functions. Bigger spaces hold leaves and require rotation. Smaller spaces are used to introduce perennial species.



### filling out

After the first season, designated spaces will fill with spontaneous vegetation that has taken place. The garden is designed so that different speeds of decomposition takes place. Thus creating different micro-climates within the garden.



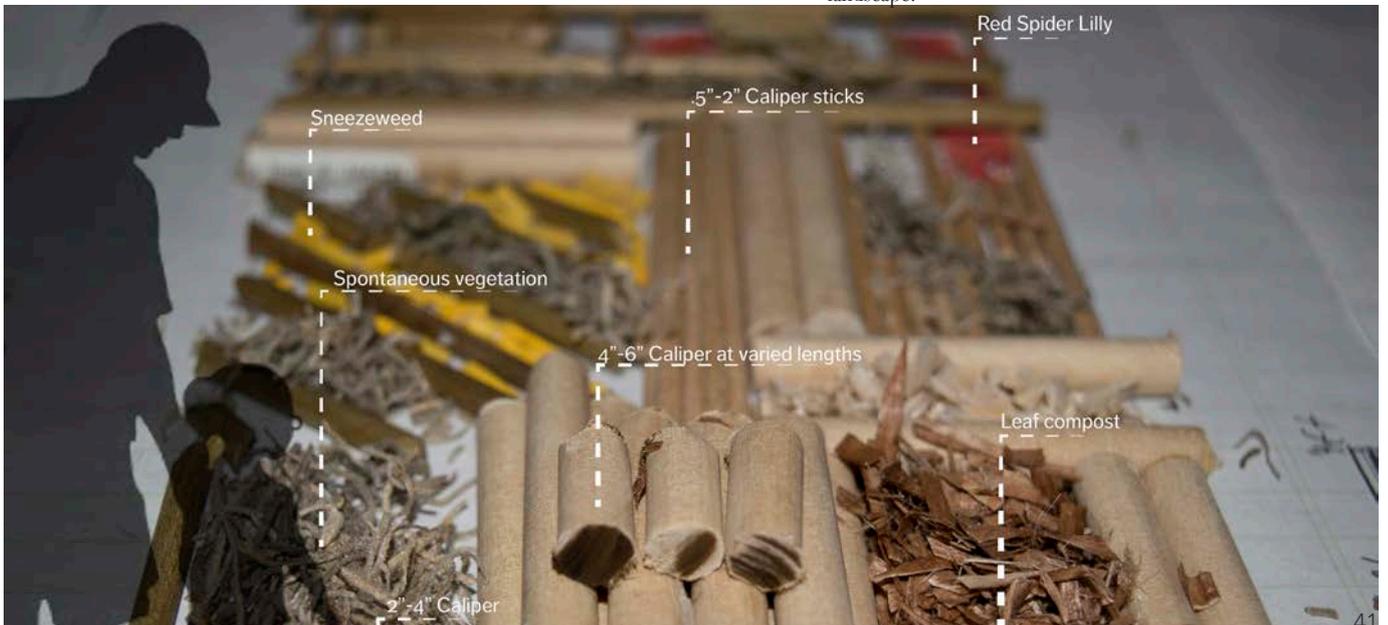
### processes + addition

The process of compost building over time has resulted in a richer soil condition. Plant species are introduced that require the soil condition that has been made.



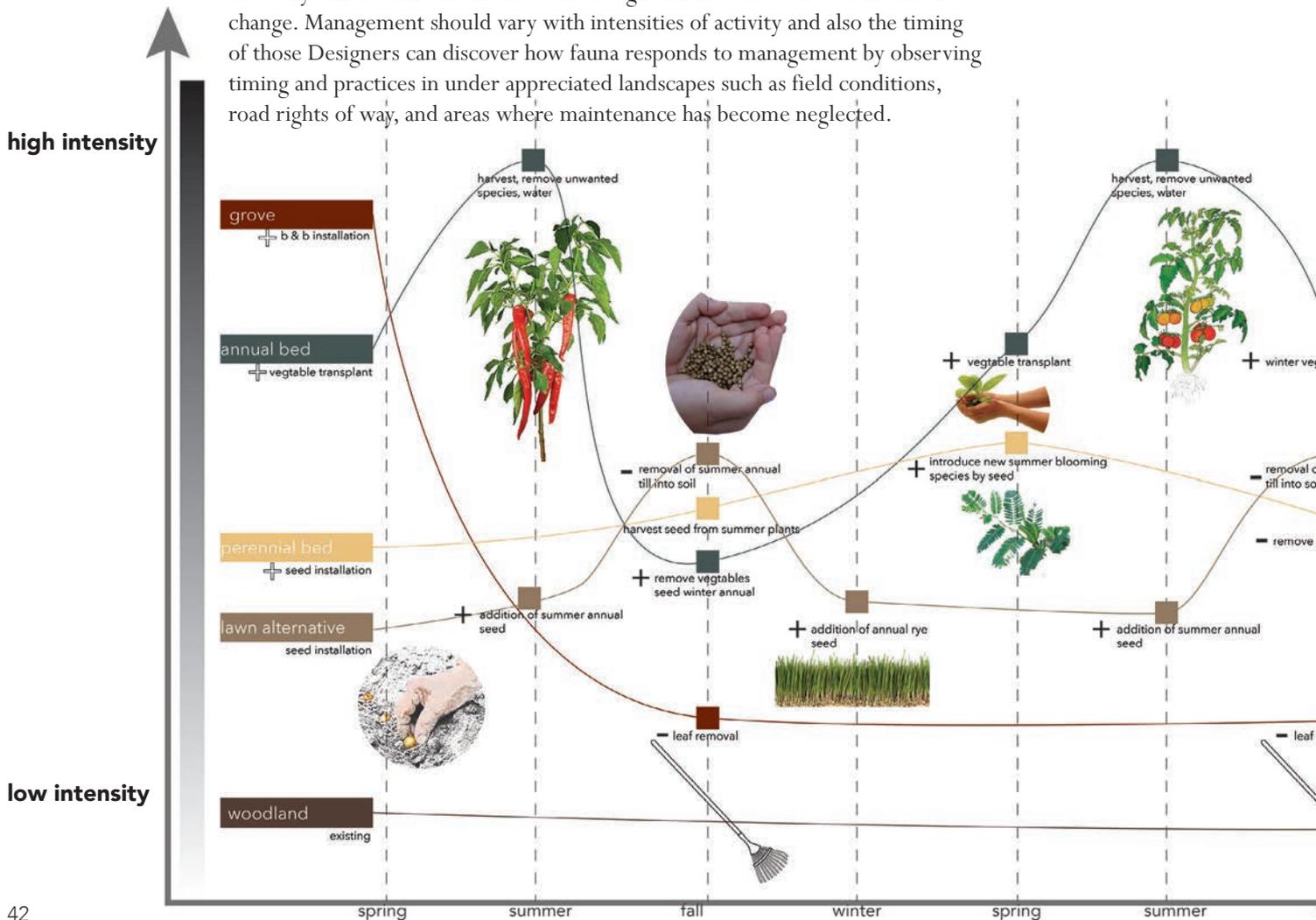
### max capacity

At this point the compost garden is full, the plan here is to then expand the form. As the biomass of the landscape builds, the compost garden will grow in length. Resulting in a spatial change in the landscape.

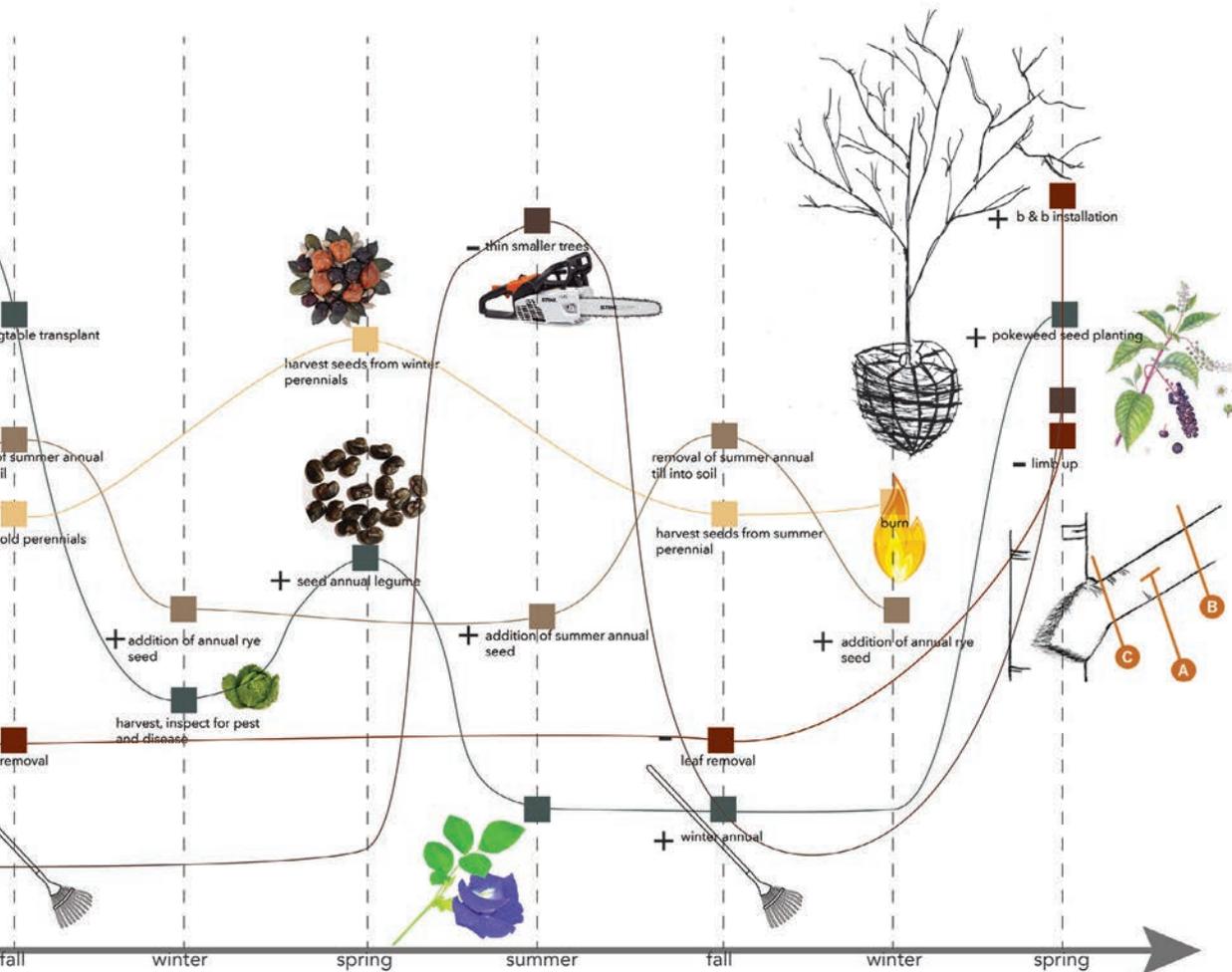


# creative management

The management approach to landscape today rarely changes. It consists of the same timing of activities through the seasons and the years resulting in static form and practice. There needs to be more creativity in how we design the management plan for the site, "it should be clear that management is a very creative, indeed a part of the design process." (Kingsbury, 2004). By creating a management plan that acknowledges growth and change in the landscape, the design of the place will be reflective of those strategies in terms of spatial composition and aesthetics of the place. Landscape management can be treated as zone gardening. There are specific plant communities within a design and each has a specific intention about care through both short and long term scales of time. Being creative with the management process requires a management team that fully understands the intent of the design and how that canvas is intended to change. Management should vary with intensities of activity and also the timing of those. Designers can discover how fauna responds to management by observing timing and practices in under appreciated landscapes such as field conditions, road rights of way, and areas where maintenance has become neglected.



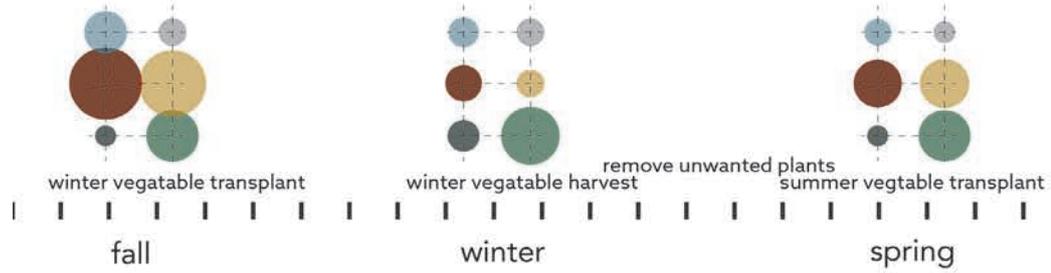
Often these conditions are rich in biodiversity and offer native and non-native plants that have excellent color, texture, and seasonal appearance. Those conditions are the result of management timing and techniques. There is a lesson to be learned about these landscapes and how we can incorporate their management practice in contemporary landscape, “learning how to manage vegetation with sensitivity requires a fair amount of experience and skill.”(Del Tridici, 2014). Understanding how plants change with time and how human intervention affects those is an exciting way of creating management plans. Maintenance plans typically include the introduction of annuals to a site and then removal of those when they are finished. Allowing annuals and perennials to propagate naturally eliminates the need for that practice. Being creative with a mowing plan that reflects when plants are seeding is an interesting idea. The mowing is then shaped around specific plant species and their phenology.





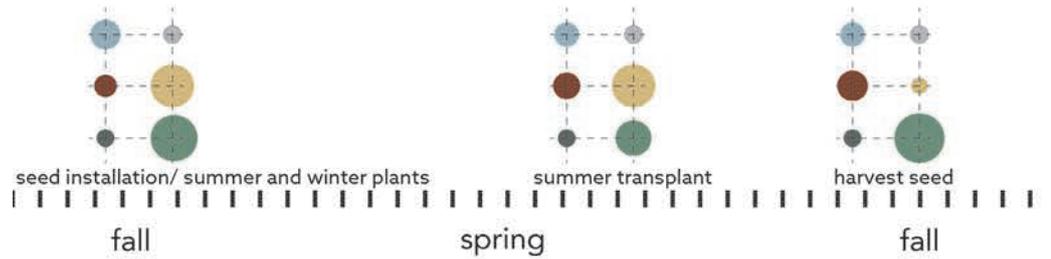
conventional maintenance

annual bed



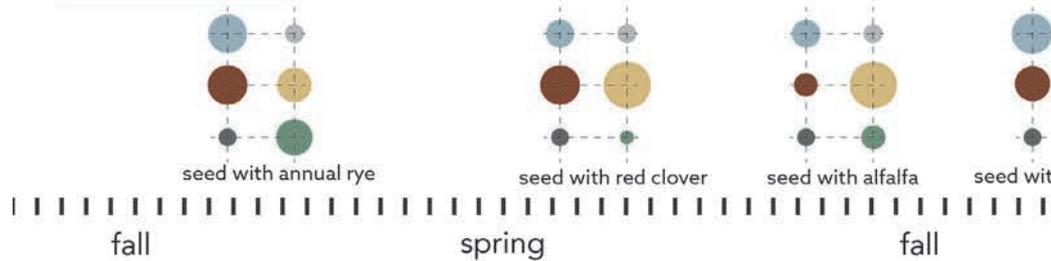
waste removal

perennial bed



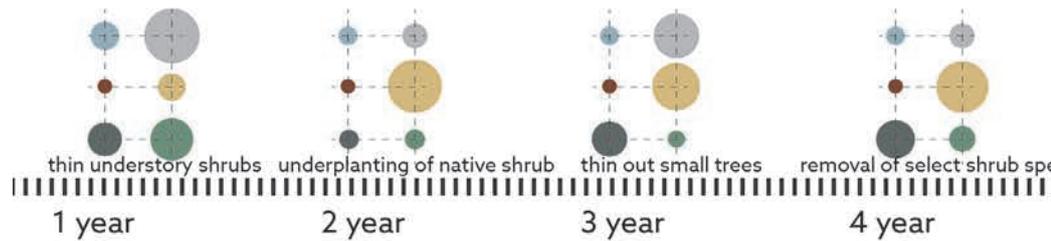
plant addition/removal

lawn alternative



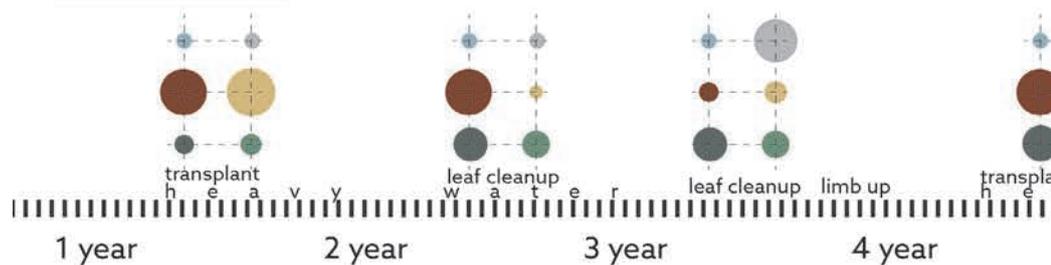
conventional maintenance

woodland

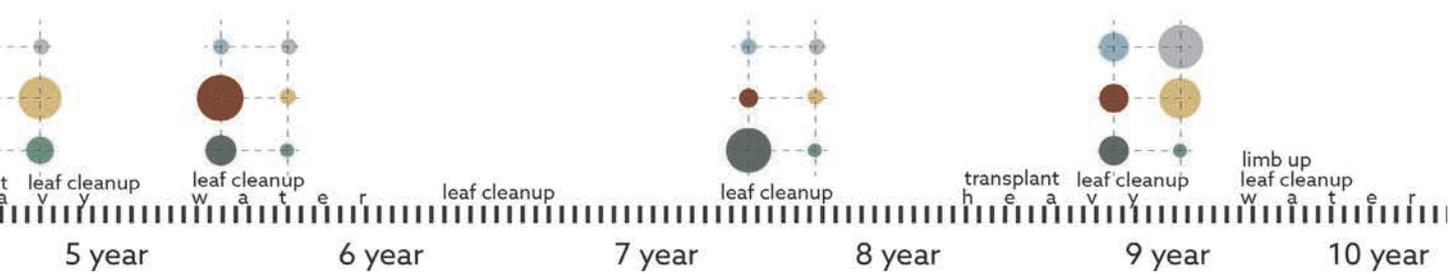
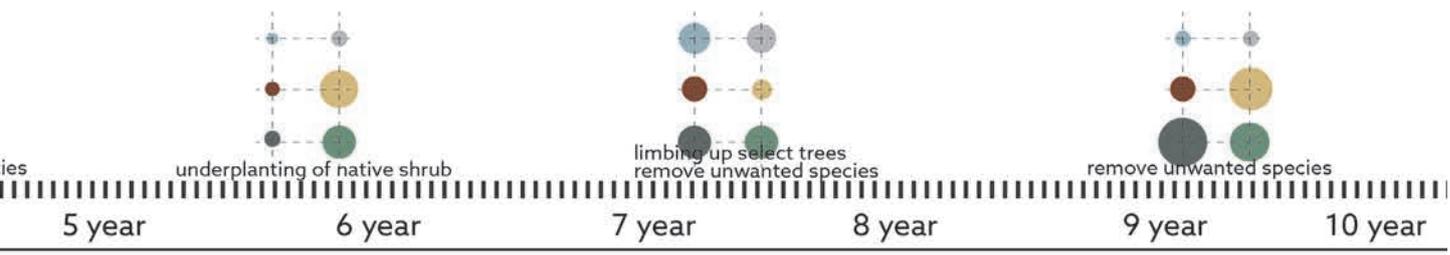
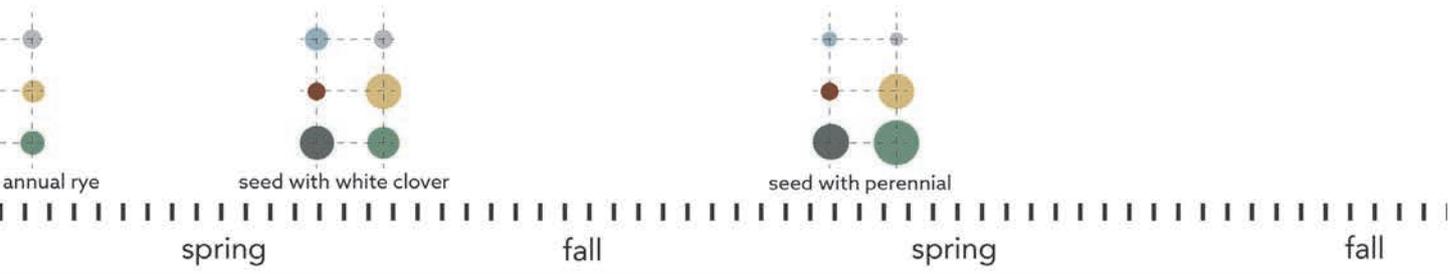
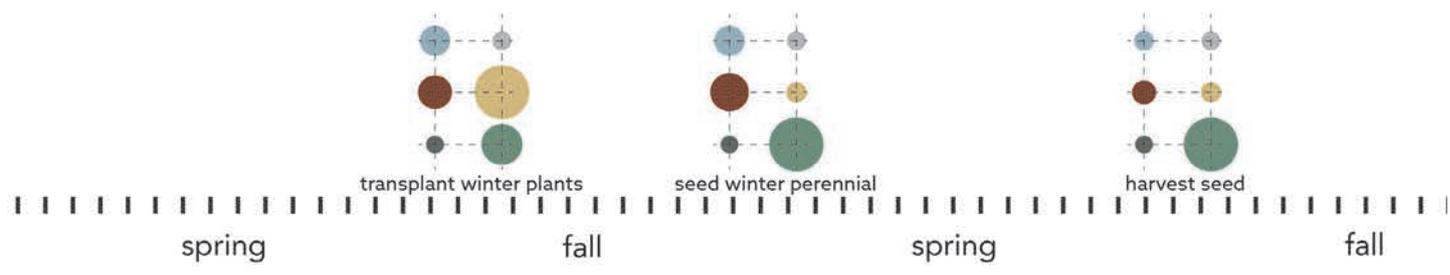
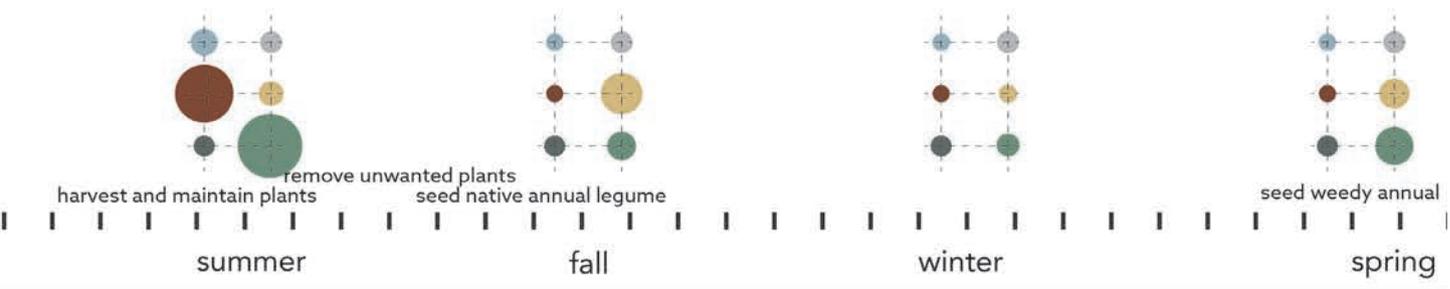


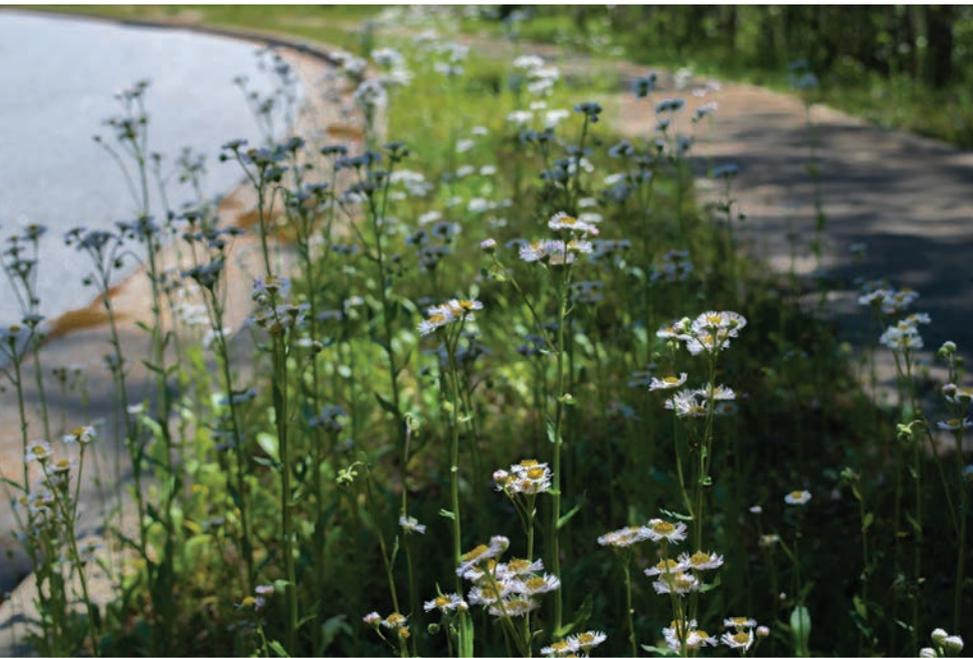
hand craft

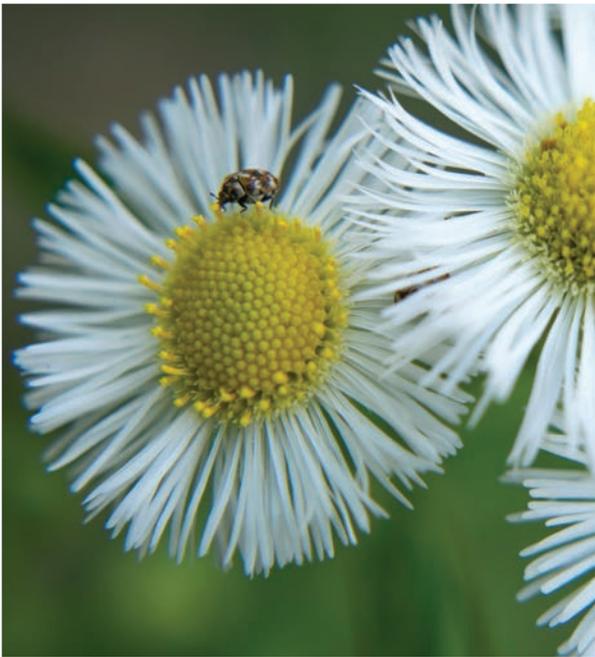
grove



resources







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### **observing conditions**

Understanding the different types of management and the vegetation that emerges is an important part of research. The level of human intervention causes existence of these plants. Mowing frequencies and the plant communities that inhabits those areas illuminate the opportunities for landscape design.

## chapter 4

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# auburn university campus

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context

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history

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values

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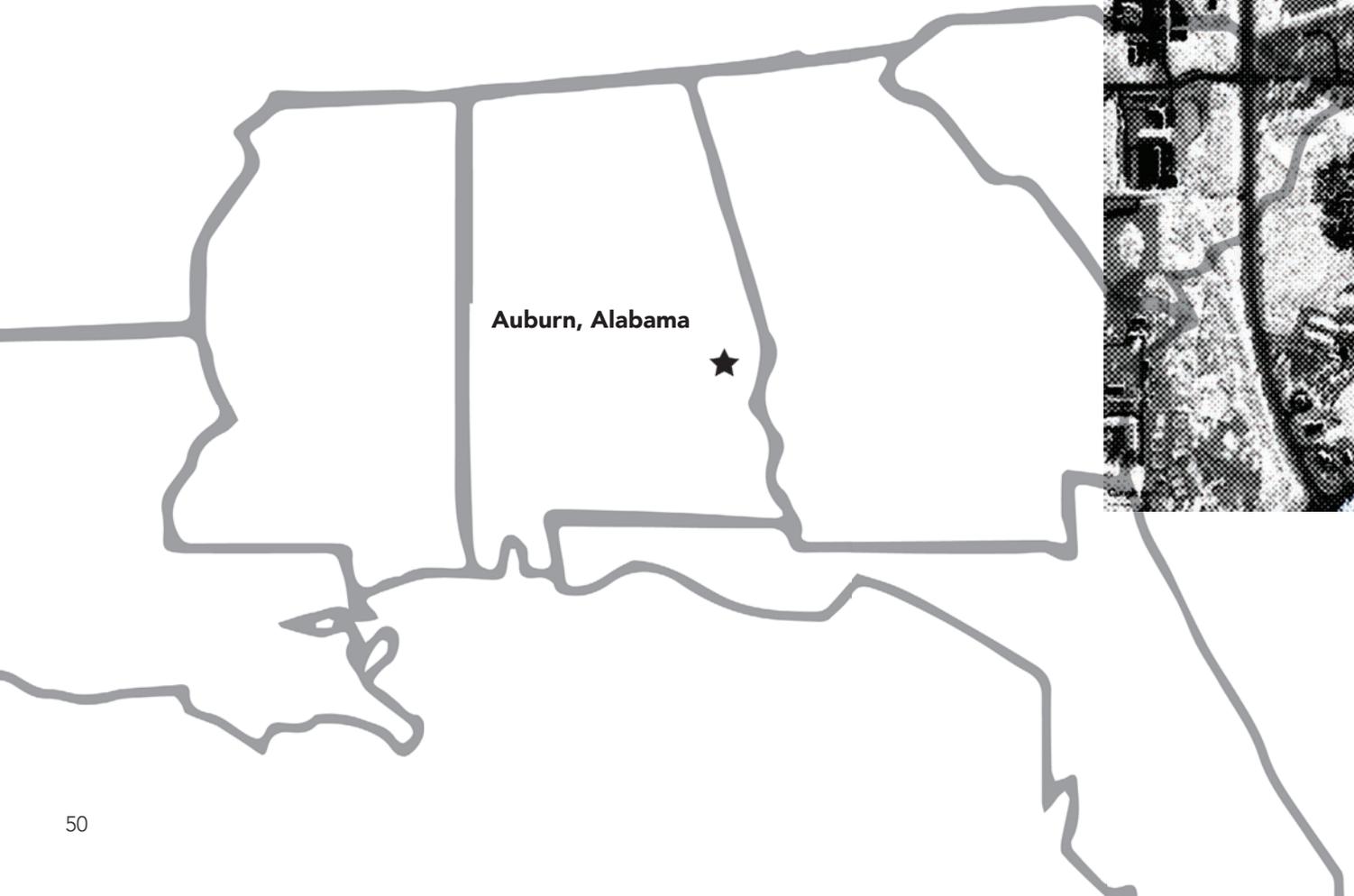
lower quad

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## context

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The Auburn University campus is the location for the thesis design. Auburn University is located in the southeastern United States in Auburn, Alabama. The University is a land grant school which is set up to perform research and outreach in the fields of agriculture, military tactics, and mechanical arts. The current student population is roughly 27,000.





**the loveliest village on the plains**

The Auburn University campus is highlighted in blue and continues to expand to the east and to the south.

# history of working landscape

There is strong heritage of a working landscape on Auburn University's campus as landscape research was conducted in the heart of campus adjacent to the academic buildings. The landscape performed as a living outdoor classroom. Many disciplines such as horticulture, entomology, agronomy, and agricultural engineering used the landscape to link what was being taught in class to the realities of that knowledge on the ground. It provided a great opportunity for students and instructors to get in the field and test the techniques and theories that are taught in class. Research was also a part of the goals for the land grant university. New practices were allowed to be tested and proven and really put meaning into a working landscape. That type of hands on activity made for low hanging fruit when considering the goals of this thesis. The spirit of craft and working with the landscape once dominated the campus, but now it is a place devoid of meaning with large expanses of turf and non-native ornamental foundation plantings. Luckily the university has keep most of the heritage trees on campus. All of the landscape and research has been restricted to academic buildings and pushed to the outskirts of campus

## **field study**

It is necessary for in-field experience to show proper pruning techniques. Only so much can be theorized in the classroom. The pruning of these peach trees illustrates a professor teaching his students the proper placement for cuts.

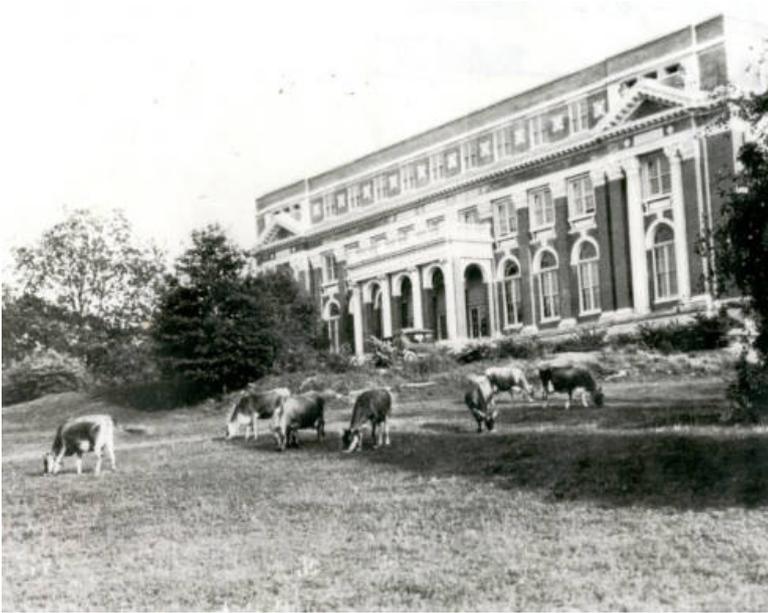




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### **building and landscape relations**

Horticultural research is in full effect in this photograph. Agricultural row crops are primary study for this area on Auburn University's campus.



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### **ag hill**

Comer hall is the agricultural building located on "ag hill". This photo shows landscape with livestock grazing area as the function. Students in agricultural school have a short walk from what they learn in the class room and applying that knowledge in field.



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### **garden club**

The photograph shows students actively participating in the garden club on campus. Open for those who are not in horticulture or any other associated field.





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**outdoor labratory**

This photograph demonstrates the spirit of a working landscape. Students cadets are actively learning proper techniques for training and pruning fruit trees. The picture is taken in the current location of the Comer Hall parking lot on ag hill.

## Campus Landscape Materials

- \_the campus has done a good job of preserving the native landscape and minimizing the invasion of exotic species
- \_the continued preservation of and expansion of native plant species across the Auburn campus is encouraged
- \_campus also contains many non-native species

### Standards

#### Four Landscape Types

- \_natural landscape
- \_informal landscape
- \_formal landscape
- \_field lab landscape

## Turfgrass

- \_requires much higher maintenance than less manicured, natural landscape
- \_the campus should seek to reduce the amount of highly manicured turfgrass areas

## Recycled or Composted Mulch

- \_maintenance in the way of mowing grass, raking/blowing leaves, and pruning trees produces incredible amounts of landscape waste
- \_waste should not be hauled off, but stockpiled, properly treated, and later reused across campus**

## Auburn Campus Master Plan

### Mission Success

- \_to provide a campus environment which supports the instructional, research, and outreach mission through **the creation of varied, living outdoor classroom, laboratory, and demonstration environments**

### Student Success

- \_to provide outdoor learning environments across campus and provide **complimentary landscapes adjacent to academic buildings that facilitate learning and interaction**

### Campus and Community Life

- \_to provide a beautiful, welcoming, safe, comfortable, usable, bio-diverse, and inspirational outdoor environment that complements and enhances the campus quality of life for all users

### Campus Landscape Image and Character

- \_the land grant heritage plays a significant role in defining the campus landscape
- \_combination of influences should be celebrated, embraced, and relaimed by appropriate preservation adaptive re-use and in select cases, focused efforts to **REINSTATE "LOST" LANDSCAPES** where appropriate
- \_an increased emphasis on urban ecology should be an essential part of the evolution of Auburn's campus landscape"

## Defining the Auburn Image and Character

### Landscape Zones Represent Specific Geographic Areas the Campus

#### Academic, Housing, Research, Athletics, and Health Science Sector

- \_maximize opportunities for providing shade to enhance the pedestrian experience
- \_provide ample outdoor seating and gathering opportunities
- \_**provide the highest levels of landscape maintenance**
- \_utilize hardy, primarily ingenious plant materials that provide seasonal interest, texture, color, size, and habitat value

#### Field Lab

- \_implment sustainable operations and maintenance strategies that support the needs of these landscapes
- \_plan the landscape to maximize function in support of the field lab's associated education and research needs
- \_Preserve native meadowlands and expand where possible

## Landscape Zones

### **auburn university campus masterplan**

In March 2016, the university released an campus master plan which show the goals for the future landscape. There is a heavy emphasis on having the landscape reflect its lost heritage of land grant research. Many values are shared with what this thesis is advocating for. This thesis will provide a design for what the university claims to stand for.

## Campus Landscape Goals

### Make Landscapes Expressive of Auburn

- \_respect the history, traditions, image and character of the Auburn Campus
- \_invest in high quality, comfortable, sustainable, long-term landscapes

### **Make Landscapes That Celebrate the University's Land Grant Legacy**

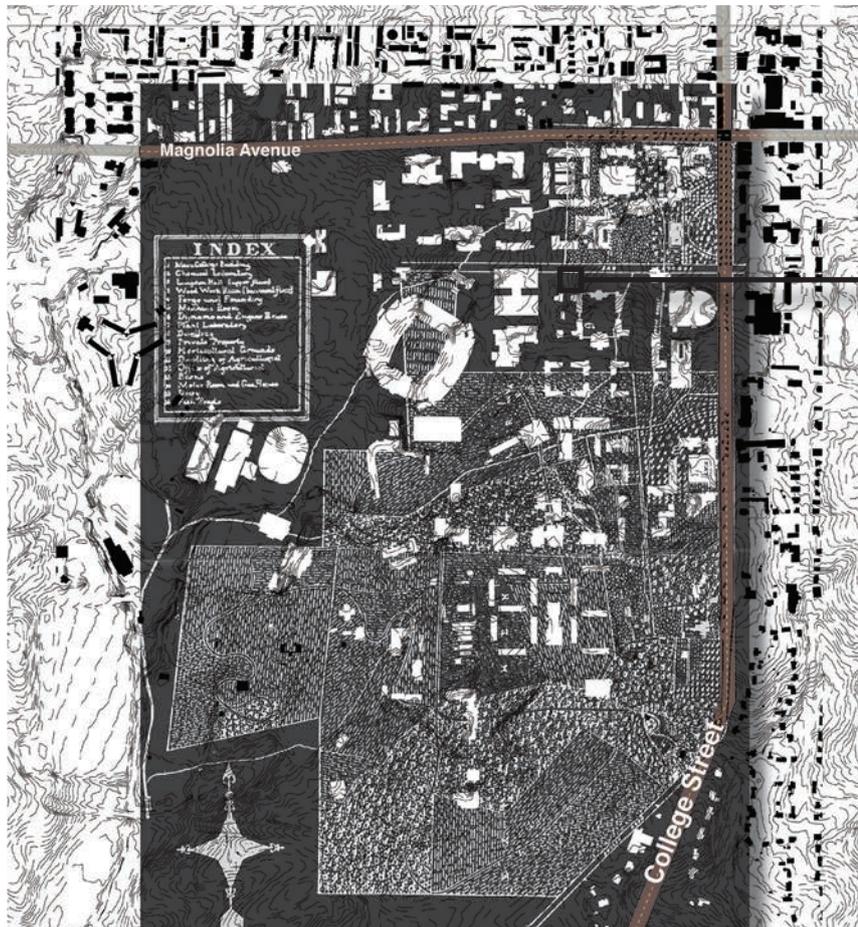
- \_allow the designed landscape to reflect Auburn's leadership in RESEARCH, EDUCATION, and OUTREACH
- \_make landscapes useful; utilize space and land effciently to best support student success and foster collaboration between staff and faculty
- \_creating landscapes that integrate research, education, and outreach
- \_developing landscapes that encourage and facilitate active engagement with the University COMMUNITY

### Make Landscapes Sustainable

- \_make landscapes that support urban ecology
- \_minimize turf areas and the associated use of potable water for irrigation
- \_minimize the use of chemical pesticides and herbicides in campus landscape maintenance

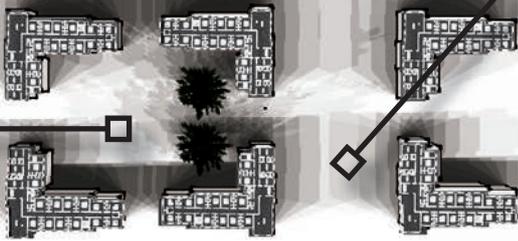
# lower quad

The lower quad dormitories are located in central campus is the landing spot to design. Previous struggles relating to social function led to an area on campus with dormitories. The lower quad dormitories act as a central location for students who need housing. The current condition consists of large open areas with turf and ornamental plantings that cover the facade of the building. There are a number of large oak species that are assets to the landscape. There is a lack of social activity despite the fact of all the students living in close quarters. The landscape hardly acts as an area for gathering due to its design. Two cafes are in the bottom of Lupton Hall. There is very little seating and also sparse shade, creating poor conditions for socializing and eating, especially in the Alabama summer. The shade and light study has helped to identify which areas need canopy the most and understanding where users might be on site through the seasons. The lower quad offers an excellent opportunity for redesign for social program and also acts as central area of campus that brings back the tradition of a working landscape.

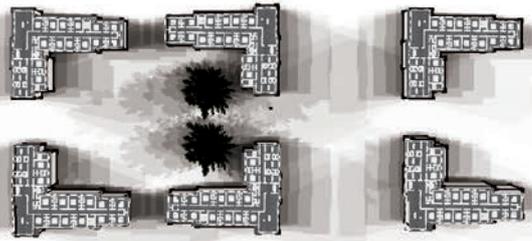




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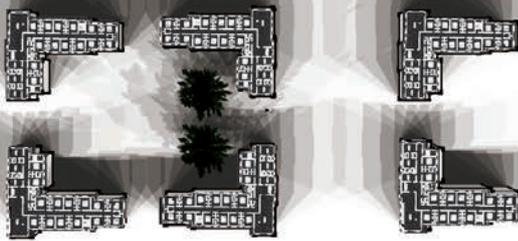


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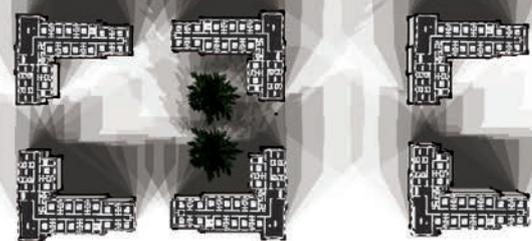


**light and shade study**

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**existing site photos**

The site is dominated by open space that is rarely used for gathering. The seating for the cafe is insufficient. Expanses of turf and ornamental plantings creates maintenance plan that requires lots of work with little to show for. The beautiful mature oaks act as excellent shade elements and wildlife habitats.

## chapter 5

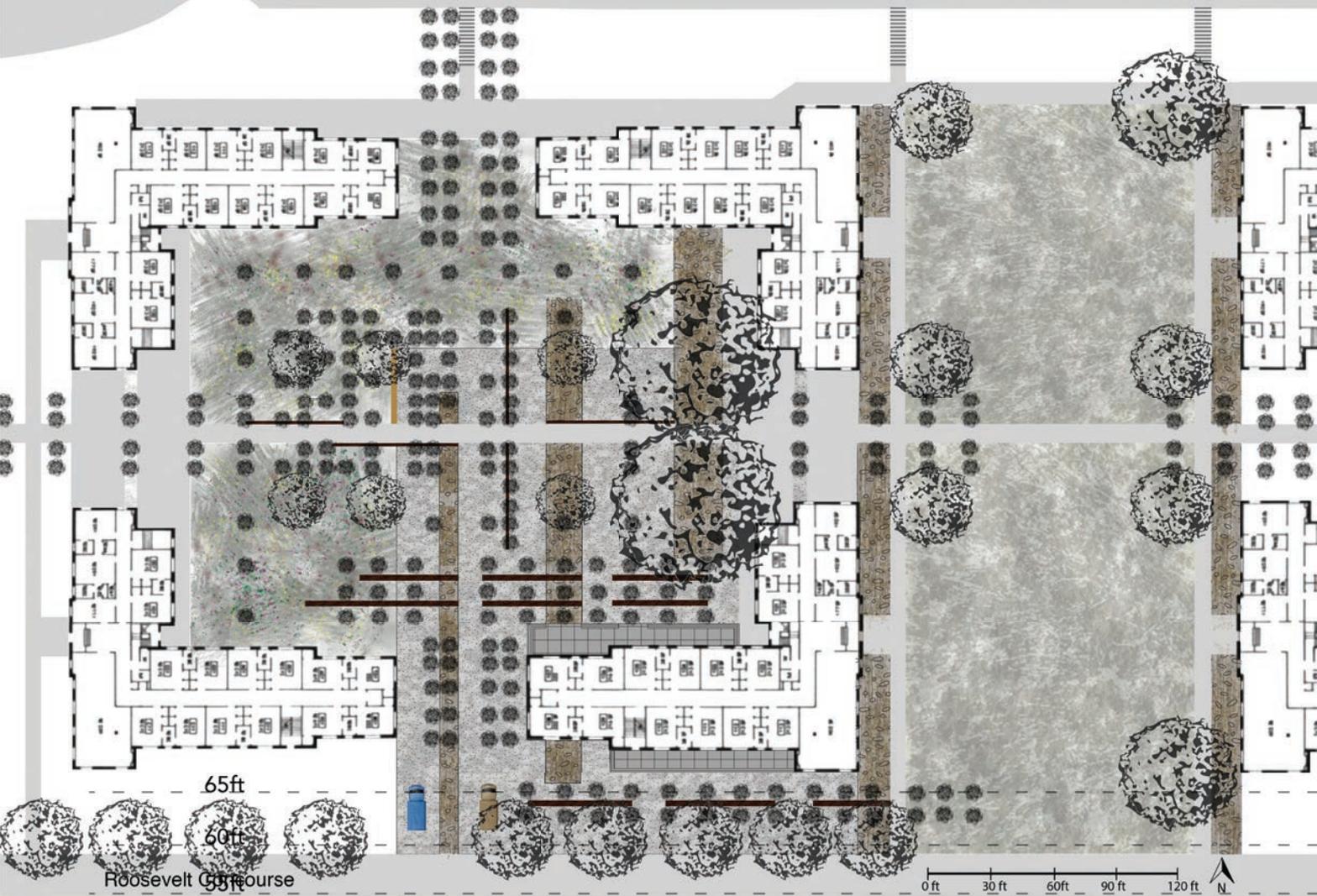
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# lower quad dormitory

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maintenance reimagined

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65ft

60ft

Roosevelt Course

0 ft 30 ft 60 ft 90 ft 120 ft N

50ft

45ft

40ft

35ft

30ft

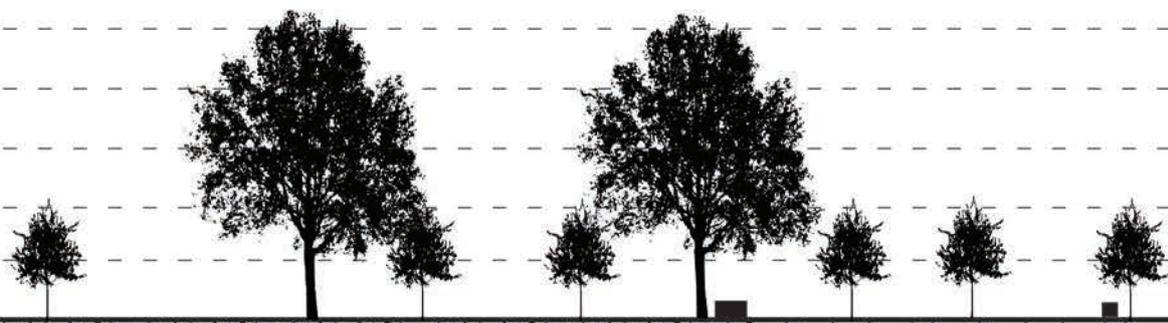
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20ft

15ft

10ft

5ft



concrete

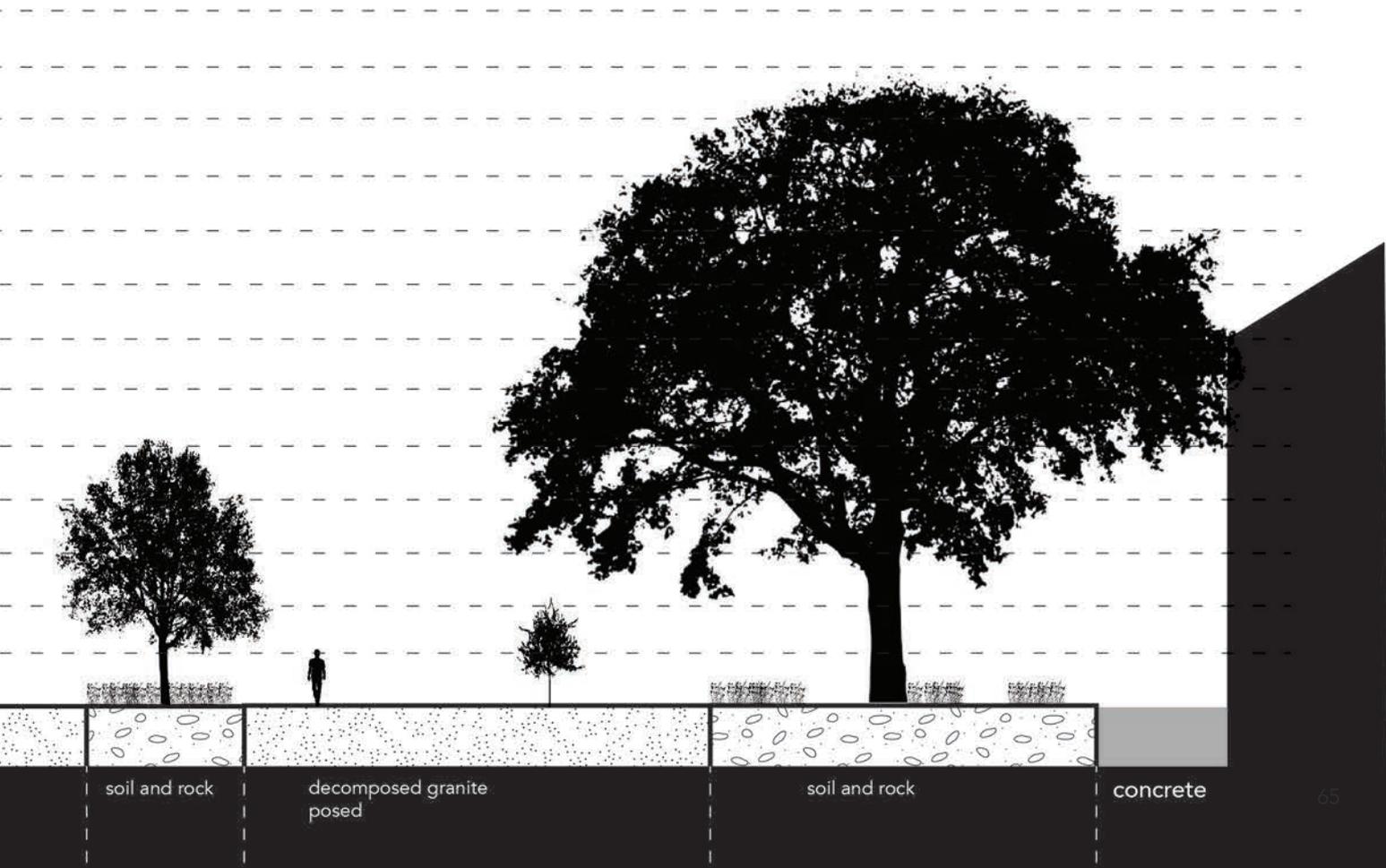
soil

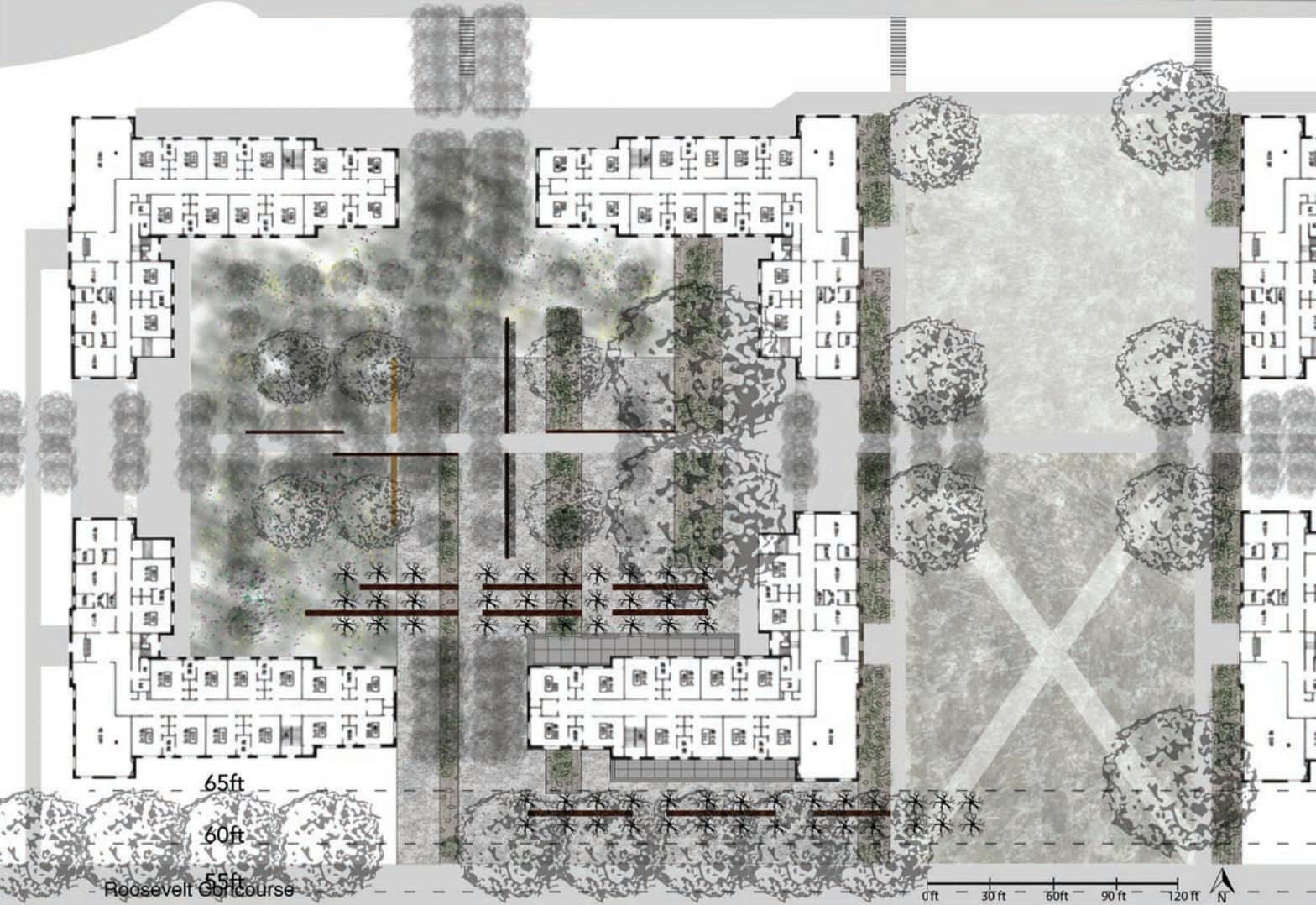
decomposed granite posed

## year one

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The design relies on the orthogonal characteristics of the dormitories and is complemented with a language of striations. The site acknowledges the need for more seating and gathering spaces where the cafe and the food trucks are located. The trees have been placed in a grid that condenses in the middle of the quad where the most shade is needed. The same species is located through the site with the intention of different form depending on the placement. The open spaces are seeded with a mixture of annuals and perennials found locally. The existing trees are important to the site and placement of those are seen in section. The space is designed so that it is effective from installation. The layout of the site has been dictated by how the site will unfold with management over time.





65ft

60ft

55ft

Roosevelt Concourse

0ft 30ft 60ft 90ft 120ft N

50ft

45ft

40ft

35ft

30ft

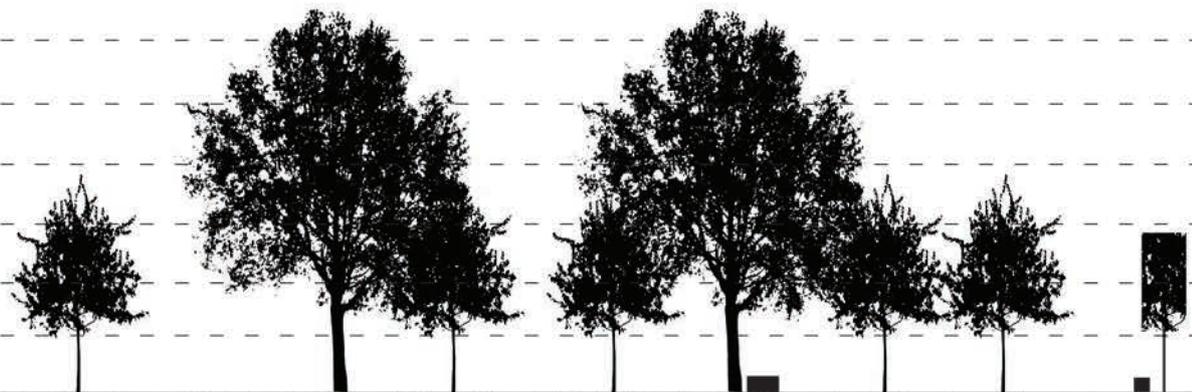
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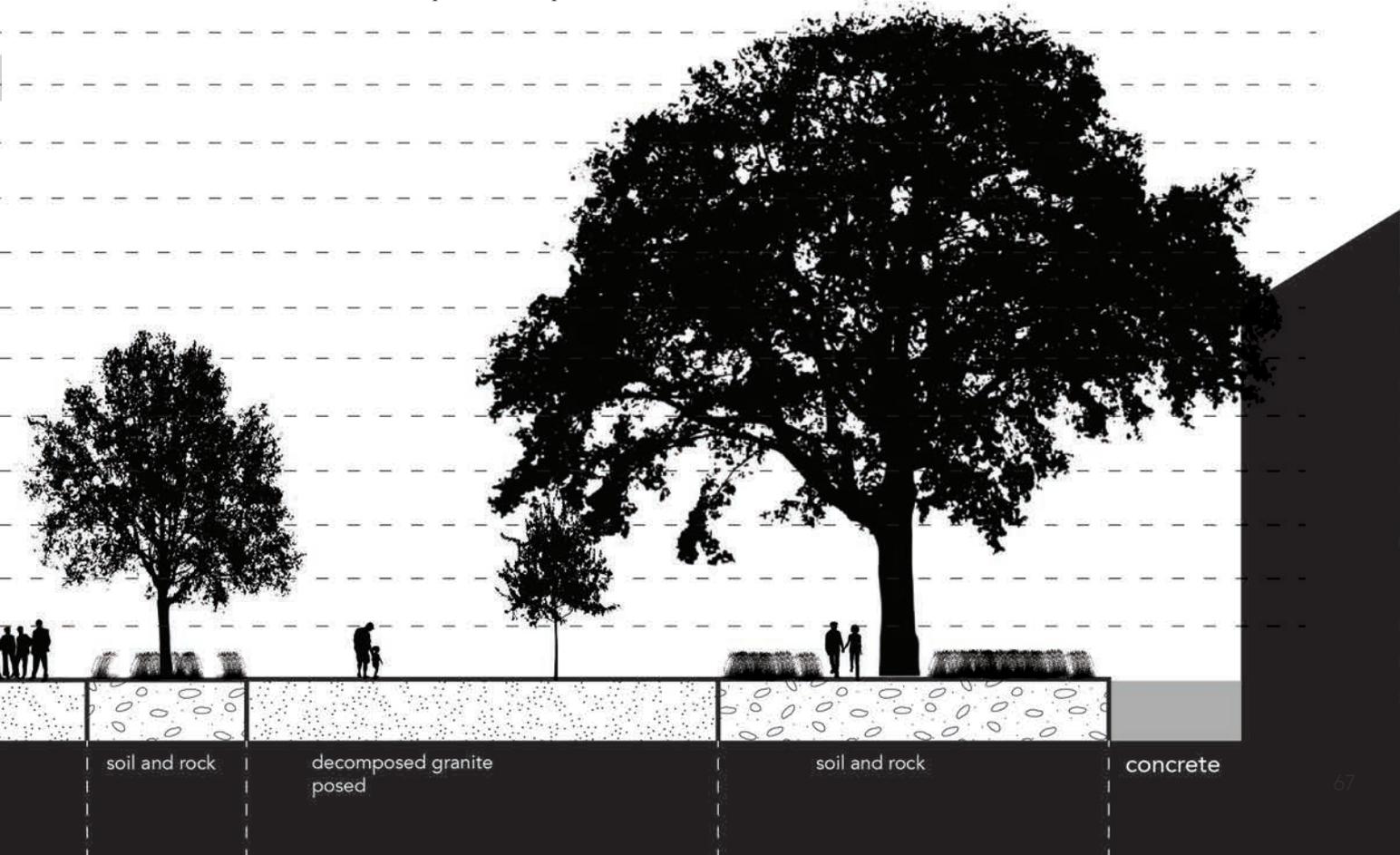
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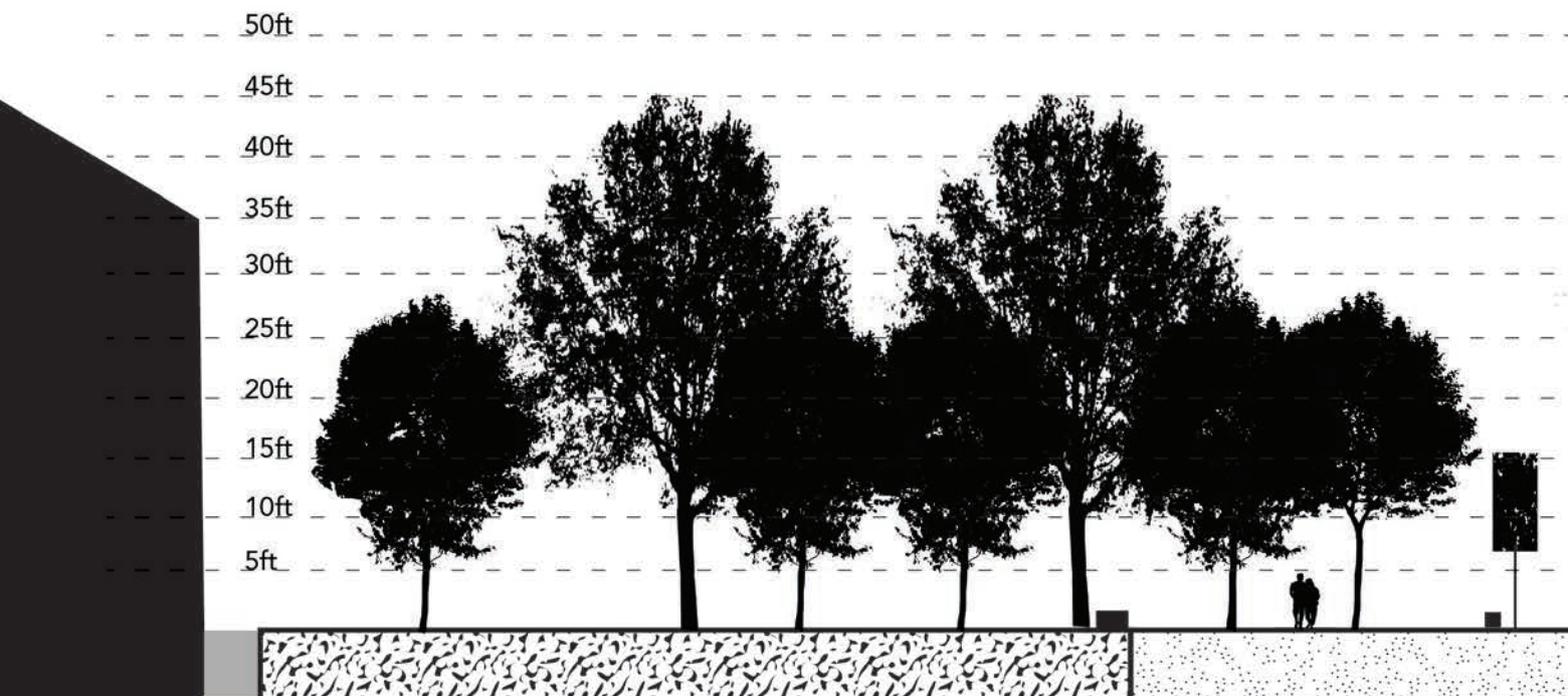
soil

decomposed granite posed

## year twenty

The juxtaposition of form is established with the hop horn beam trees being crafted into pleached hedges and pollards with the dining areas. The vegetation in the strips of soil has been changed after the process of composting has changed the soil conditions. Young cherry trees will be planting in this area. Which changes the spatial arrangement of the site into areas with more intimate settings. The process of collecting leaves and clippings has caused the composting garden to grow in a linear form that also acts as a space divider. The annual and perennial open space in the squad has changed in plant composition as a result of the canopy shading out species that require more sunlight. Species are introduced that thrive in the new condition. The change of species increased the biodiversity on the site and allows students to study and understand the different flora and fauna that comes with the change. The field in the eastern part of the site has been allowed to grow to knee height with mown paths for transient users. The place is really starting to feel alive due to the maintenance and thoughtful interventions on the site. The user experiences effects of craft and the changes of spaces. The aesthetic qualities of craft have become ingrained into the place at this point in time.





concrete

soil

decomposed granite posed

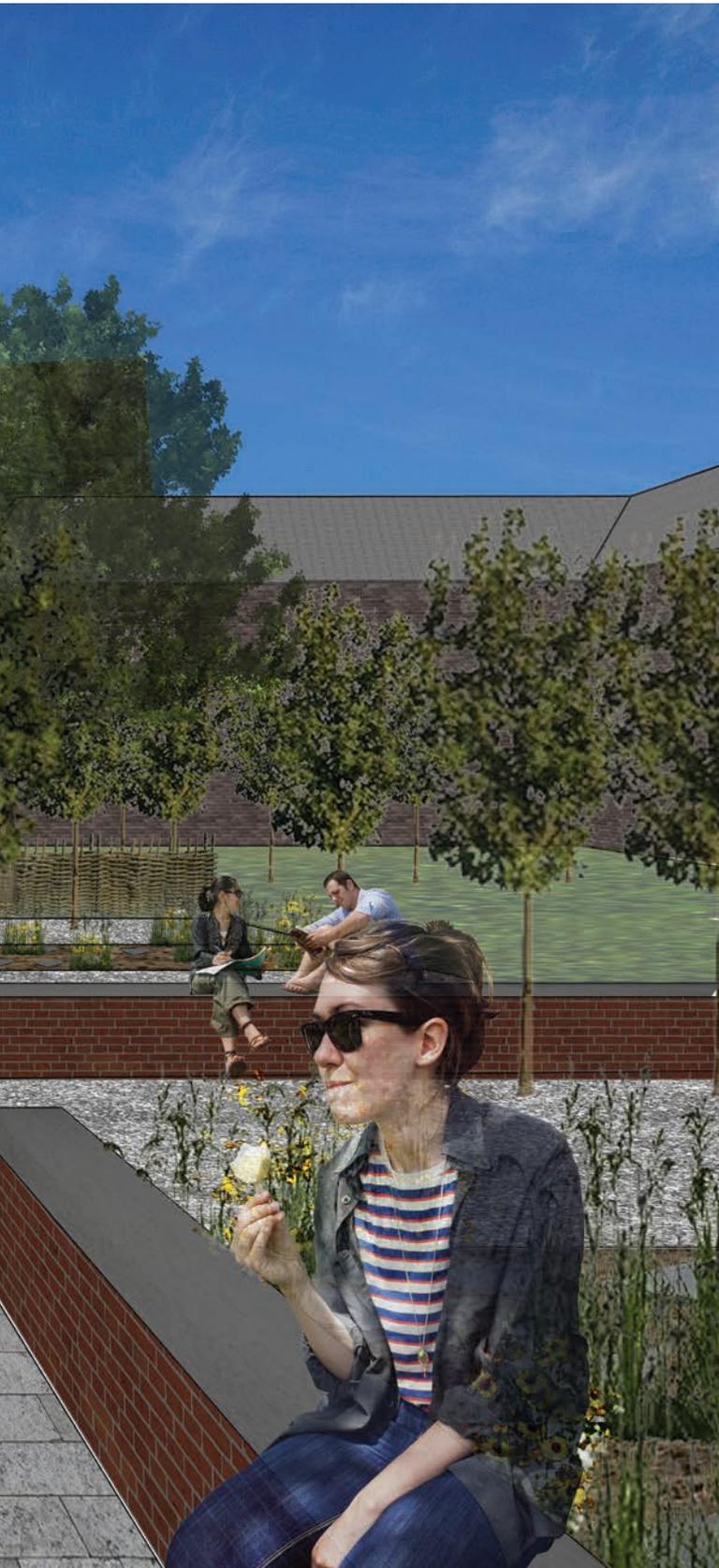
## year forty

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The tree canopy has risen and the understory of the cherries are starting to make the space feel like a woodland rich in vegetation and fauna. The pollards and pleached hedge have become an identifier for craft over time. The pollards have connected creating a lush vegetated ceiling for the dining areas. The composting process has allowed the soils condition to become rich enough so that little fertilization is needed. The place exemplifies what is achievable when maintenance is placed as high priority and considered at the start of the design process. Multiple generations of visitors love visiting the place to witness its care and development over time. The working landscape is in full force and its central location acts as the identity of the land grant university campus. The quality of craft is apparent with the aesthetics of care worked into the site. The place is representative of a research and outreach institution for developing 21st century craft techniques in landscape. The place is truly valued by Auburn University and its users. The lower quad acts as a poster child for how landscape architects can achieve novel spatial, aesthetic, and ecological conditions over time.







### **year one\_summer**

The bones of the design are seen in year one. The vegetation closest to the prospective has been chosen with species that can handle the sunny and poor soil conditions that currently exist, with the goal of those being removed once they have run their successional course. The professor and students enjoy using the landscape as an outdoor classroom with the instructional lesson today being focused on recognizing important pest and the species they effect.





### **year twenty\_fall**

By this time the placed hedge has been crafted over the years and acts a visual space divider. You can see the juxtaposition in form from the pleached hedge to the natural form of the hop horn beam in the grid planting behind. The students from the horticulture department are planting wild cherry whips from their creative management class. The site is a central location for land grant research and outreach. The result of composting on the soil has produced rich enough conditions so that the cherry trees thrive in their native found condition as an understory tree in a woodland plant community. The space is exemplary of what a place that value maintenance looks and feels like. Visitors, faculty, and students enjoying spending time in the place that is deemed valuable by the Auburn University and its management team.





### year forty\_spring

The pleached hedge continues to tighten with years of care and craft. The density of the branches is the result of thoughtful pruning over the years and allows deciduous tree to hold its leaves through the winter. The natural form trees in the back ground drop their leaves creating an interesting visual composition with the same tree. Students are actively placing the compost to help distribute nutrients back into the landscape. This craft has allowed the cherries to perform well and allowed the introduction of perennial daffodil bulbs to establish and colonize. Management will keep a careful on the spreading process so the lines do no fade and become lost. The landscape has a novel aesthetic that comes with quality maintenance over time.

## chapter 6

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# Reflections

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thesis reflections

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cites & sources

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acknowledgements

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## thesis reflections

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There are a few areas that I want to further investigate. Being more specific about annual and perennial plants would help me better understand how a mowing schedule can be coordinated with the phenology of the plant. It sounds great in theory but is one area in the thesis that lacked data. Local plant species are the primary interest and takes time just to go in the field and identify those. More times than not, these species that are not traditionally used in the landscape have little data on their phenology characteristic. Since there is little data, I have to collect information in the field over a year for each species to understand its cyclical patterns. Once those properties are understood, a better idea on how to plan a maintenance strategy will arise. This interest for my thesis research will likely be an ongoing study for my career as it is something that requires time.

More explorations of contemporary craft would be beneficial to my research. This was one of the more challenging aspects of the thesis. Creating a novel idea about what modern landscape craft is fascinating and will likely be one of those aspects that follows my career interest.

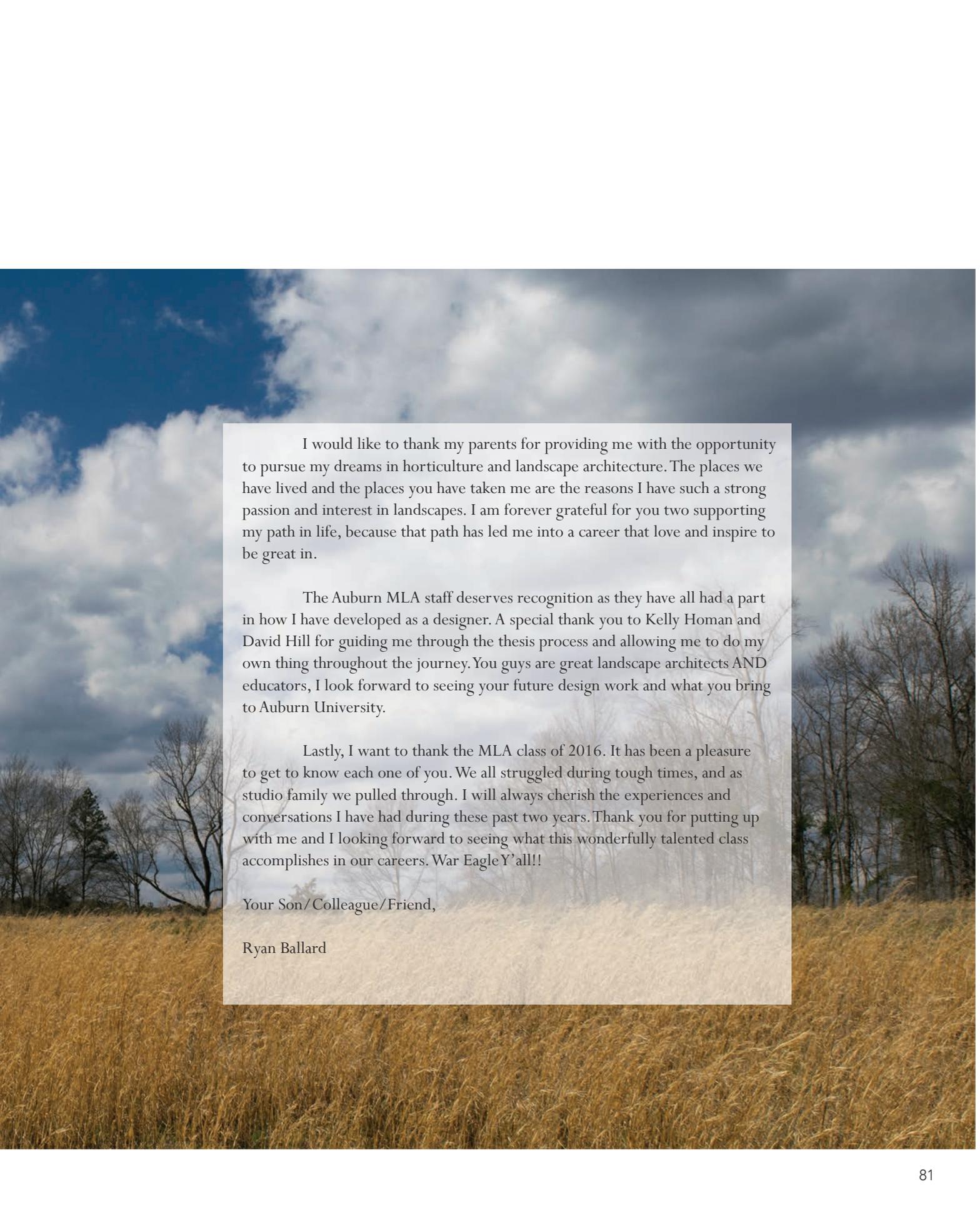
A comparison of current maintenance on the lower quad and the amount of man hours it takes would strengthen my argument. Critique I received was about the amount of time it takes to do craft techniques. Calculating the amount of time and money spent on the current site would be really revealing to how much time we invest into landscapes with little in return. It would strengthen the argument that maintenance is worth investing in and something the public and landscape architects should value.

To summarize, the way I discovered landscape architecture was through landscape maintenance. I was always asking myself why am I doing this? Usually it was because I was repeating the same activities with nothing to show for in the long run. It seemed like a waste of time to me. I questioned what could be achievable when that time was spent trying to make something better, not the same. Thesis has been a way for me to come full circle with horticulture and design. That link is certainly missing today. This exploration was one of personal and academic interest. Thesis was only supposed to last a year, but I have a feeling it will be hard to design without maintenance first in mind. I look forward to continuing the exploration and taking the idea of designed maintenance into my professional career.

# acknowledgements

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I would like to thank my parents for providing me with the opportunity to pursue my dreams in horticulture and landscape architecture. The places we have lived and the places you have taken me are the reasons I have such a strong passion and interest in landscapes. I am forever grateful for you two supporting my path in life, because that path has led me into a career that love and inspire to be great in.

The Auburn MLA staff deserves recognition as they have all had a part in how I have developed as a designer. A special thank you to Kelly Homan and David Hill for guiding me through the thesis process and allowing me to do my own thing throughout the journey. You guys are great landscape architects AND educators, I look forward to seeing your future design work and what you bring to Auburn University.

Lastly, I want to thank the MLA class of 2016. It has been a pleasure to get to know each one of you. We all struggled during tough times, and as studio family we pulled through. I will always cherish the experiences and conversations I have had during these past two years. Thank you for putting up with me and I looking forward to seeing what this wonderfully talented class accomplishes in our careers. War Eagle Y'all!!

Your Son/Colleague/Friend,

Ryan Ballard

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pg52 "API Student Activities: Pruning Peach Trees, 1926." :: Alabama Cooperative Extension Service Photographs. N.p., n.d. Web. 02 May 2016.

pg53 (top) [http://studioapla.auburn.edu/sites/g/files/g703406/f/styles/media\\_gallery\\_large/public/201312/](http://studioapla.auburn.edu/sites/g/files/g703406/f/styles/media_gallery_large/public/201312/)

pg53(middle) Simms, Jack. 1924: Comer Hall with Grazing Cattle. Digital image.LoveliestVillage. Web. 1 May 2016

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