



DEPARTURE
a new urban cemetery

To my Mom, the most amazing woman in my life.

To Shaun, who called me Warcol.

Many thanks to Professor David Hill, Kelly Homan, and Charlene Lebleu
words can't quantify how grateful I am for your guidance throughout this entire
year.

To my sisters, you really are incredible.



ABSTRACT

Cemeteries can offer tremendous value as a landscape that unites us to our humanity. Yet, the once popular American cemetery has become alienated from the living. These sacred landscapes have become obscure spaces embedded with the uncomfortable reality of death. The static nature of these sites place unseen pressures on communities creating tension within the landscape. There is an opportunity to reshape the current discourse surrounding these sites that has social, cultural, environmental effects. Re-envisioning these landscapes and drawing upon connections from our social ties, the memorial landscape can foster our mental and physical health. Through design research this project explores the unique relationships we have with the cemetery landscape and seeks to find a balance between the need to create bonds with others while allowing individual expression. By fostering these new interactions a perceptual shift can begin to take hold and bring life, hope, and meaning back to these places.

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HOW WE GOT HERE..

While there is nothing more certain than death, it is rare that we discuss it or plan for it. People perceive death and dialogues involving the topic as if it was somehow contagious. William Gladstone, a former English Prime Minister, said "Show me the manner in which a nation cares for its dead and I will measure with mathematical exactness the tender mercies of its people, their respect for the laws of the land, and their loyalty to high ideals." Written nearly 122 years ago, Gladstone made clear that funerary traditions and practices, whatever their nature, are indicative of the respect a community has for life.

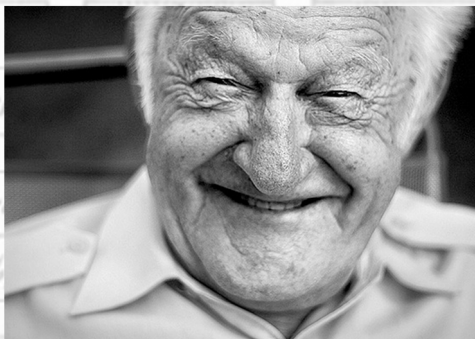
More recently, landscape architect Aaron Odland echoed a parallel sentiment "A community is bound by living and by death, and it is the later connection that is often diminished or even willfully ignored." Cemeteries today serve a functional role, a place to bury our dead with little regard of the emotional or relationships that maybe cultivated in these places. There are a range of needs associated with these landscapes coupled with urban growth, planning for and / or allowing a diversity of use in an urban resting place can be a delicate balance between creating space for the respect and remembrance of the dead and other use opportunities for the visitors to the space (Odland 45).

Judith Wasserman, Director of the School of Design and Community Development at West Virginia University, notes memorials offer a physical experience with our past that can inform our thoughts, teach us, and enlighten our future (Wasserman 43). There has been a dearth of new thinking amongst landscape architects and designers about urban cemeteries. These sites play a unique role within landscape architecture. Because they sit at the juncture of social, cultural, and increasingly environmental design.

As environmental design takes root, the urban realm presents an opportunity to reengage how citizens perceive the role of cemeteries and their function in our modern landscape. By re-conceptualizing and designing these sites, it's possible to push this conversation along and help further alter perceptions of the cemetery landscape. The goal should be one that encourages an integrated approach for our mental and physical health, as well as our social needs - in essence, creating ties and relationships to places and people.

Alexandria

INFRASTRUCTURE & SOCIAL INFRASTRUCTURE



The little with better lines are the very little.

Potomac River

THE BUILT AND THE INTANGIBLE

Cities and towns comprise, at a basic level, road networks, transportation systems, buildings, and equipment. It's what the Merriam-Webster Dictionary refers to as infrastructure (Merriam-Webster) - the basic foundation that enables these places to function properly. Yet, often when we think of places it's rarely the built-in environment we recall. Instead we remember the intangible qualities that, arguably, shape our understanding of urban environments. The strongest memories are those with an emotional tie, such as historical events or vacation memories - things that shape our experiences.

Equally important but less visible is what is known as social infrastructure. This includes the activities, organizations, and facilities that support a community's need to form and maintain social interactions and relationships - often the heart of a community. (Baron, Field and Schuller 1).

Social Capital is what comes about from inter-relationships among members of that network. In times of trouble such as illness, job loss, or in times of transition such as a marriage, a new baby, or the loss of loved one, people often turn to those around them for help. These informal systems of support are built on relationships of trust and reciprocity and represent a potentially important resource for people in every society. It is the "wealth" of the community in which people feel connected to one another and place (Occhipint 105).

Our social infrastructure and social capital plays critical role during sensitive times. Yet communities often give little thought to how they can design a cemetery landscape to encourage an integrated approach for our health and social needs. Our cemeteries are repositories of memories both old and new. They can offer us a place to retreat, remember, reflect, and observe. These are places where new memories and relationships can be forged.

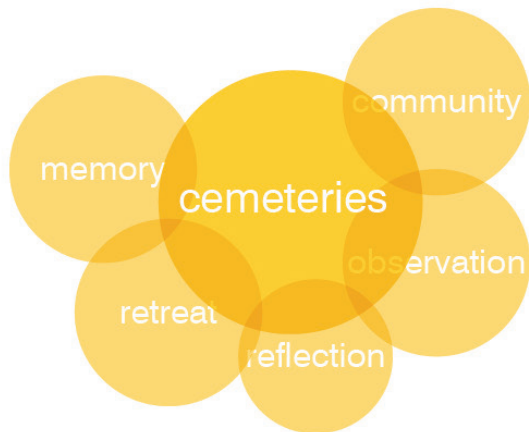
social infrastruc

cemete



Structure + Cemeteries

Schools, hospital, and universities are places where community members build relationships. Cemeteries can also function in the same manner while respecting the needs of others.



RESEARCH QUESTION

In the hopes of creating a more robust social infrastructure, how will the cemetery landscape need to shift to become a landscape for the living?





Image: 1


urban fabric woven into the

urban fabric

OUTSIDECITY

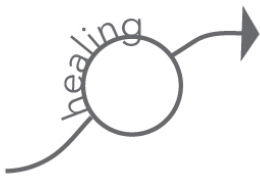







geographic displacement
unfamiliar
lack of community ties



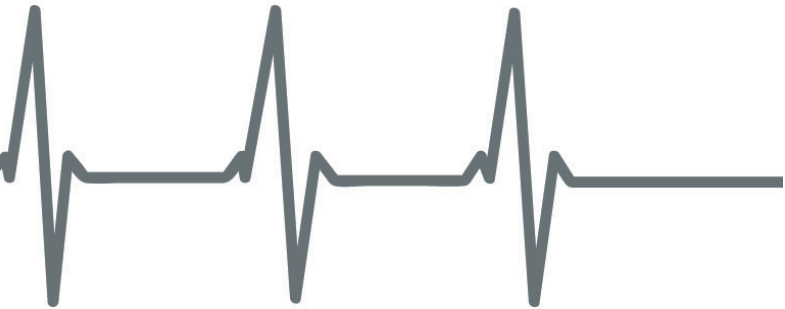
A dashed-line box containing text and a car icon. The text lists 'geographic displacement', 'unfamiliar', and 'lack of community ties'. Below the text is a simple icon of a car. A dashed arrow points from the skyline to this box.

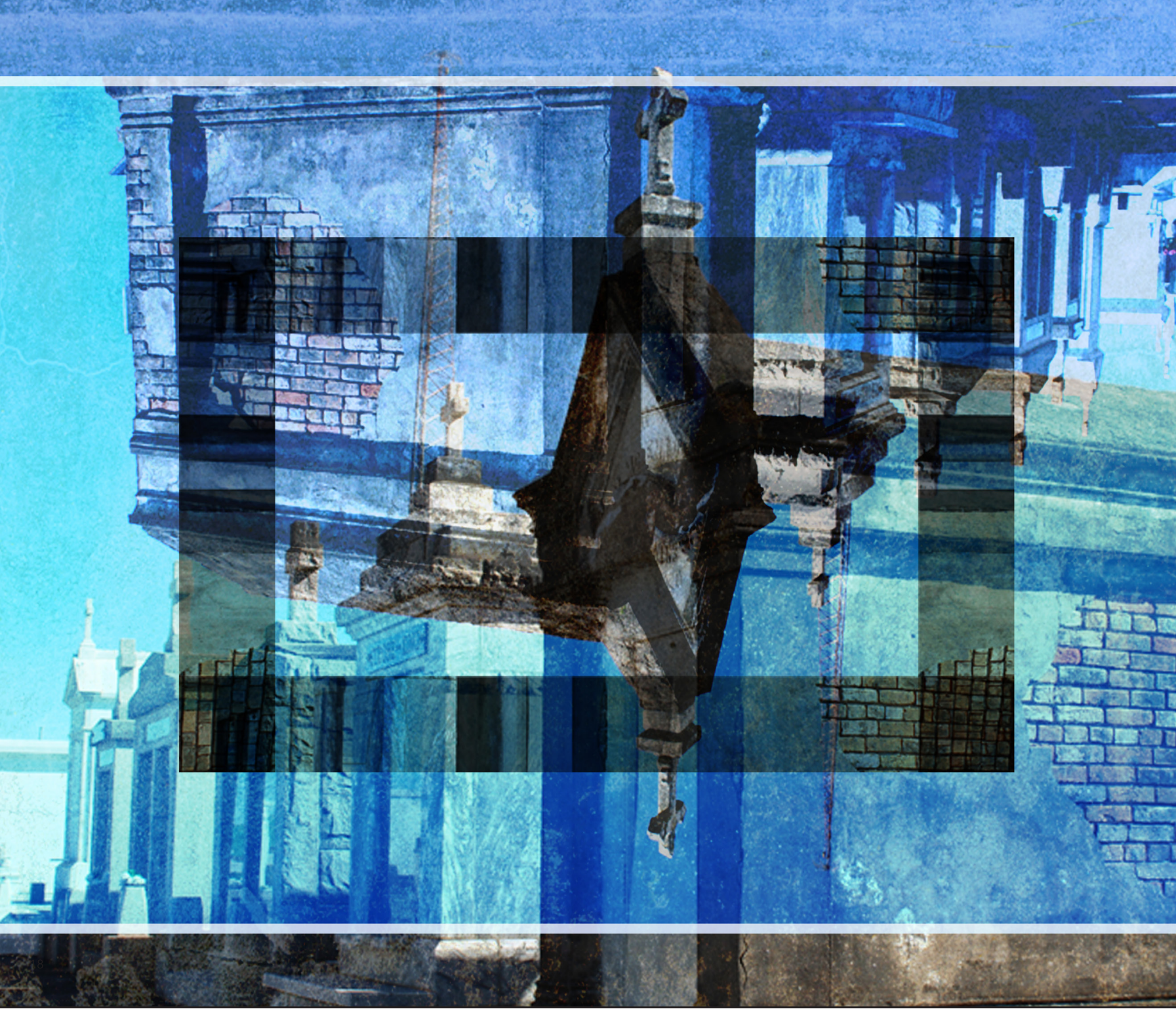
INSIDECITY



A red dashed-line box containing a city skyline silhouette and several icons: a tree, an open book, a group of three people, a walking person, and a circular icon with the word 'healing' and an arrow pointing right.

Often when cemeteries are located outside the city these landscapes are unfamiliar and are disconnected from our lives. Opportunities exist to create ties within the community and place.





PERCEPTION

Today cemeteries have been lost in our modern landscape. These places are often thought of as taboo and off-limits. They are disconnected and forgotten only serving a functional purpose. Increasingly, cemeteries' role as sources of histories and memories is fading within local communities.

Our relationship with these places has varied through the decades. Death, dying, and grieving, at one time, were important parts of everyday cultural practices. Dying and grieving was not a singular expression - rather, it was communal. Although there is not one remarkable event that led to our current perception, it is a result of many factors such as medical advancements, new technologies, the creation of medical institutions and nursing homes, and the privatization of cemeteries. While this is not an exhaustive list, these elements have played, to varying degrees, a part in our current discourse. David Sloan writes that, by the 20th century, an aversion to dealing with death had made cemeteries places that people "went out of their way not to go to (Sloan)."

TOponomy

Toponymy, is the study of place names, or a kind of storytelling. A lot is in a name, it could signify an idea or tell a story of a place. Take for example the name "United States." It is a statement about many diverse people yet they are united. Examine the names of a map, it is an atlas of emotions, a link to our past, and provides clues to our relationships with places. One example of this varied relationship can be seen through our naming convention of the cemetery landscape. These places are no longer called cemeteries. In the past referenced as burial grounds and graveyards to memorial parks today. Each term carrying its own mental image of a different type of landscape. These vast homogeneous landscapes lack connectedness to our communities. Often set apart and confined both physically and socially these landscapes can play an important role in our healing process after a loss of a loved one and incorporate different uses for our community.





Longitude from Washington

UNITED STATES.

Longitude West from Greenwich 77

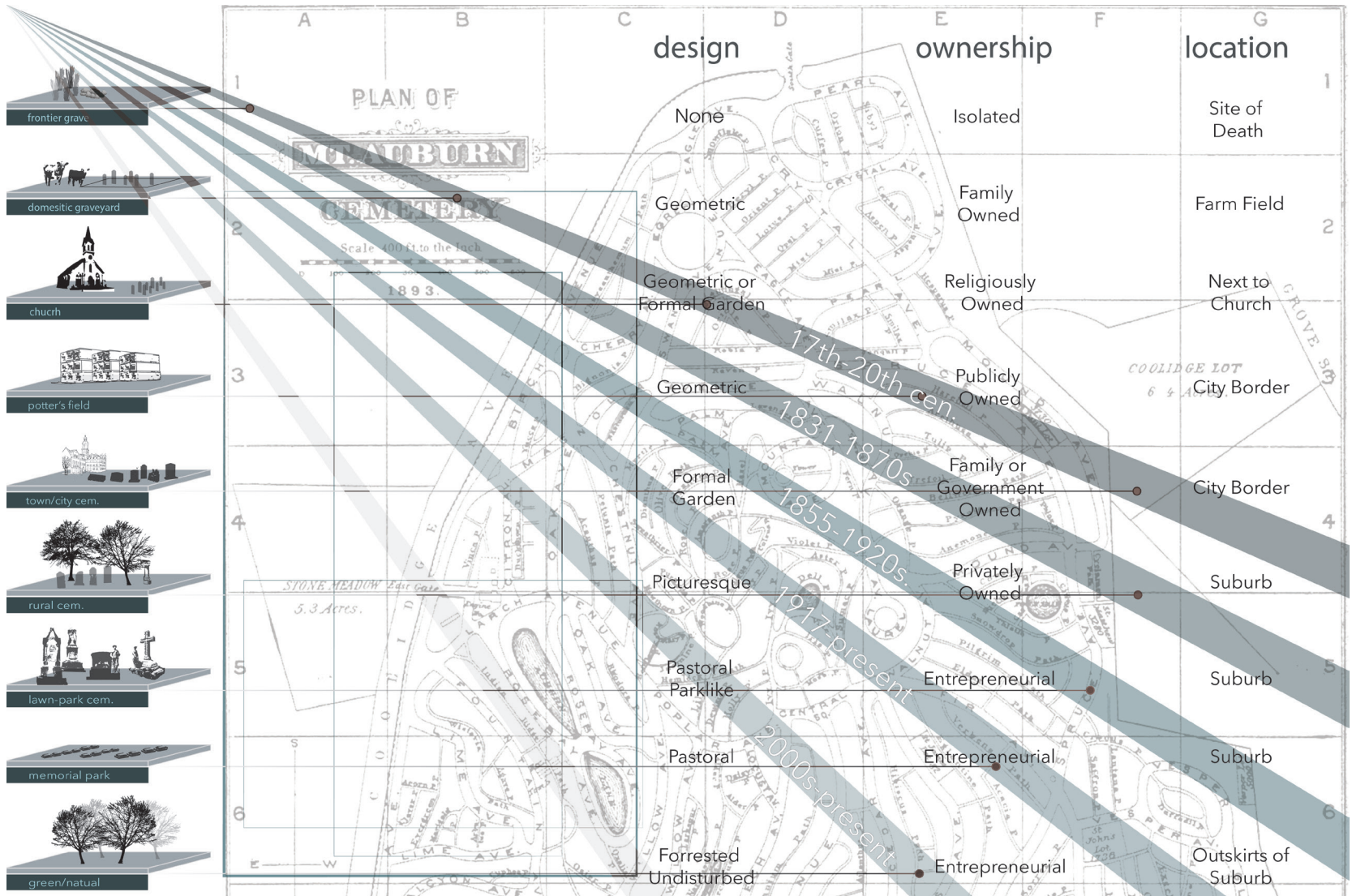
A LOOK INTO THE PAST

Cemeteries were our nation's first public parks. These once celebrated landscapes included a diverse set of social interaction among its patrons. When created, these new landscapes represented an emerging national culture that represented an optimistic view between this life and the next. These landscapes were much greater than burial place.

David Sloan, author of the "The Last Great Necessity" states the cemetery landscape was at one time considered an integral part of a community. '...the development and the promotion of the cemetery was an answer to the confusion and complexity of urban life.' These places served as environments which aided in our mental well-being (a rebalancing) and served as places where our social infrastructure was cultivated and cared for.

Today there are very few landscapes that invoke emotions of delight and fear or feelings of the sublime. Yet, as culture we have increasingly distanced ourselves from these landscapes. They are often relegated to the edges of our culture, urban fringes, and beyond. Our altered perception of these landscapes negatively impacted their use as a "life space."

CEMETERY EVOLUTION







PICTURESQUE CEMETERY

Up until the creation of the Père Lachaise, Parisians, except for royalty, most people buried their dead in rented shallow graves. For the first time, the French bourgeois could use the cemetery as a permanent site for family plots that illustrated their fortunes in a new manner (Sloan 49). Père Lachaise marked the making of a modern necropolis, drawing on ideas and practices of landscape design theory that was a triad of the sublime, picturesque, and beauty. A mixture of wilderness, man's manipulation of nature, and art (Sloan 49).

RURAL CEMETERY

The creation and the development of the rural cemetery (1831-1870s) was a response to the rapid urbanization of cities. In Boston, founders of Mount Auburn cemetery, located six miles from the heart of downtown, near the banks of the Charles River, partnered with the Massachusetts Horticultural Society to create a new cemetery - one that elevated the garden and combined the cemetery. The founders of the cemetery highly encouraged the lot-holders to plant vegetation, erect a variety of monuments, or rely on nature to act as their monument. This was a significant shift in Americans' cultural relationship with death. It was no longer grotesque; rather, it was now remodeled and beautified. (Sloan 50). Upon the arrival of this rural cemetery, city dwellers used the landscapes extensively. "Cemeteries here are all the 'rage,'" wrote the young Englishman Henry Arthur Bright, "people lounge in them and use them (as their tastes are inclined) for walking, making love, weeping, sentimentalizing, and everything in short. (Sloan 56). The rural cemetery was a sequence of sensory experiences that provoked a sense of reflection and wonder. The passive use and social engagements occurring within the park evoked cultural and community ties which integrated it positively into the city. Mount Auburn represented nature in contrast to an increasingly urban setting. It was idealized and sought out; designed to provide sanctuary, solitude, quiet, adornment, and beauty (Finney).



**“THE DEVELOPMENT AND THE
PROMOTION OF THE RURAL CEMETERY WAS AN
ANSWER TO THE CONFUSION AND
COMPLEXITY OF URBAN LIFE.”**

- DAVID SLOAN

LAWN PARK CEMETERY

Twenty-four years after the creation of the rural cemetery Adolf Strauch, a German born and English trained horticulturalist, pioneered the design of the Lawn Park Cemetery, (1855- 1920s) especially like Spring Grove Cemetery in Cincinnati, Ohio. Previously, Strauch's design work focused heavily in the suburban realm. Favoring large expanses of lawn, Strauch simplified the landscape with expansive vistas. It was during this period that he first ushered in a substantial disengagement from the typical cemetery landscape, favoring a pastoral, park-like or lawn setting but smaller in scale compared to the rural cemetery (Farrell 113).

These Lawn-Park cemeteries were Adolph Strauch's response to the rural cemetery. The movement required lot-holders to relinquish the individual authority they once enjoyed during the rural cemetery movement, as it was given to a cemetery overseer. In doing so, Strauch restricted individual expression in the cemetery. He also blocked the view of the landscape from passersby, segregating the landscape and visually disconnected it from the public realm. He convinced lot-holders to keep individual lot markers to less than 6 inches in height. The new markers could become a "spectacular artistic addition to a unified landscape (Sloan 101)". Additionally, standardized, industrialized granite cutting achieved new designs and assemblages of tombstones, all creating a more homogenous, less sculpted look in cemeteries. While this uniformity eased caring maintenance obligations for grounds staff, it had deep implications. It represented a cultural shift in the way Americans viewed death. Slowly, by way of new technology, medical advancement, and hospitals, death represented a new balance of formalism within nature.

MEMORIAL PARK CEMETERY

In Glendale, California, Hubert Eaton further reconstructed the American cemetery. In 1913 Eaton expanded the lawn-park cemetery design. Here, headstones are flush with the ground; no three dimensional headstones are used. Eaton removed most traces of death from the landscape. The cemetery became a sprawling green only disrupted intermittently with plantings. He eliminated the lot-holder's individuality, restructured the ground to a sweeping lawn, and essentially commercialized the death industry. The Lawn Park and Memorial Park cemetery movements shifted the American perception of death and its landscape.



Image: 4

WOODLAND CEMETERY

Yet, a few short years after Eaton's memorial park design, in Europe the Woodland Cemetery movement was developing, first pioneered by Hans Grässer in Munich, Germany, in 1907. He carved out a space beneath the canopy of a large forest and created Waldfriedhof Cemetery. It wasn't until 1915 in Stockholm, Sweden, that the woodland cemetery become popular. There, two Swedish architects, Gunnar Asplund and Sigurd Lewerentz, designed the new South Cemetery. The design focused on the healing power drawn from nature. Large sculptural headstones were restricted. The designers rejected the traditional picturesque landscape and opted rather for a wilder, more marginal landscape. Thorbjörn Andersson, a Swedish landscape architect, writes of these spaces "there are feelings of different sorts, hope and happiness, sorrow and despair, and death and resurrection" (Last Landscapes 148).

GREEN/NATURAL CEMETERY

Green/Natural burial practices have dated back to the beginning of mankind, but it wasn't until early 1998 that the practice officially arrived in the U.S. at the Ramsey Creek Preserve in South Carolina. Advocates of this form of burial rely heavily on the uncultivated non-formulated landscape. Those interred in these landscape are commonly cremated or returned to the earth without embalming fluids and are placed in a biodegradable casket or shroud. Small stones, if any markers at all, are used to identify placement of the deceased, though other forms of recording placement may be used (Green Burial Council).

Cemetery Design

19th-20th century

Movements

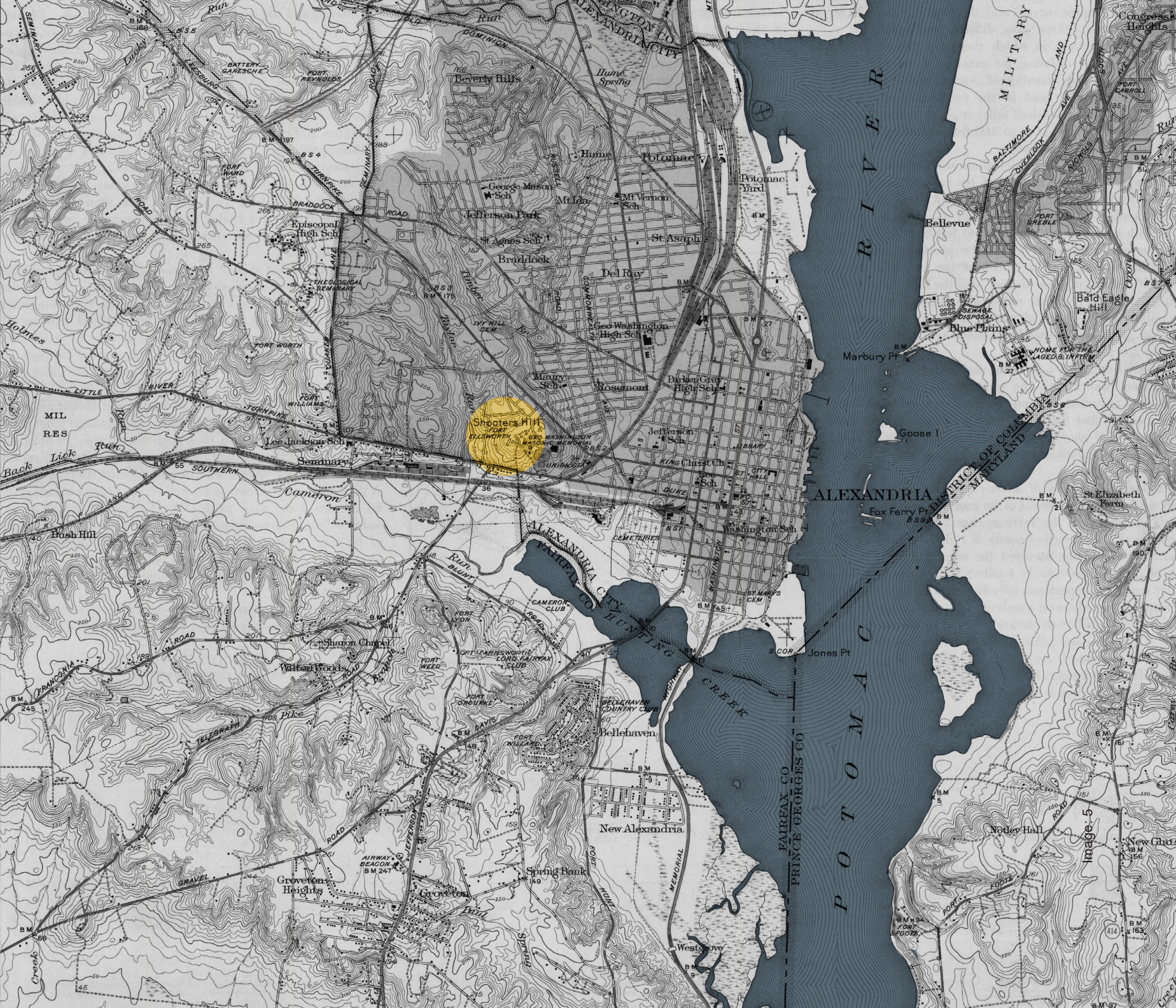


valued landscape

	SUSTAINABILITY				SOCIAL			
	maintenance	sustainable interment	public park	inclusion of activities	flexiable space	perception of death	procession	ritual
	o	o	o	o	o	o	o	o
PICTURESQUE	+		+	+	+	+	+	+
RURAL			+	+	+	+	+	+
LAWN PARK							+	+
MEMEORIAL PARK							+	+
WOODLAND			+	+	+	+	+	+
GREEN/NATURAL	+	+		+	+	+	+	+

HEALING			URBAN			
presence of nature	reflection	seclusion	multi burial type	individual expression	location to city	access
o	o	o	o	o	o	o
+	+		+	+	+	+
+	+	+	+	+	+	+
+			+	+		
+			+			
+	+	+	+	+	+	+
+	+	+	+			

The major cemetery design movements have affected our ideals of these places and the roles they have in our lives. The landscapes that sprawled out of these movements, in turn, influence our social living landscape. In summary, the major design movements uncover three major noticeable qualities: participation in the landscape, presence of nature, and sustainable design.



Shooter's Hill
FORT BELSWORTH

ALEXANDRIA

POTOMAC RIVER

MILITARY ROAD

Image 5

SITE & SURROUNDINGS

SITE DESCRIPTION

The site for this thesis exploration is located in Alexandria, VA. One of the largest and most notable adjacent landmarks is the George Washington Masonic Temple to the southeast. On the northwest boundary of the site both single and multi-family homes. Within the site boundaries the topography rises 20 feet in elevation. The site encompasses nearly 11 acres that comprises of a regularly mown lawn with little existing vegetation. From the center of the site visitors can gaze upon of the George Washington Masonic Temple and enjoy glimpses of the city.

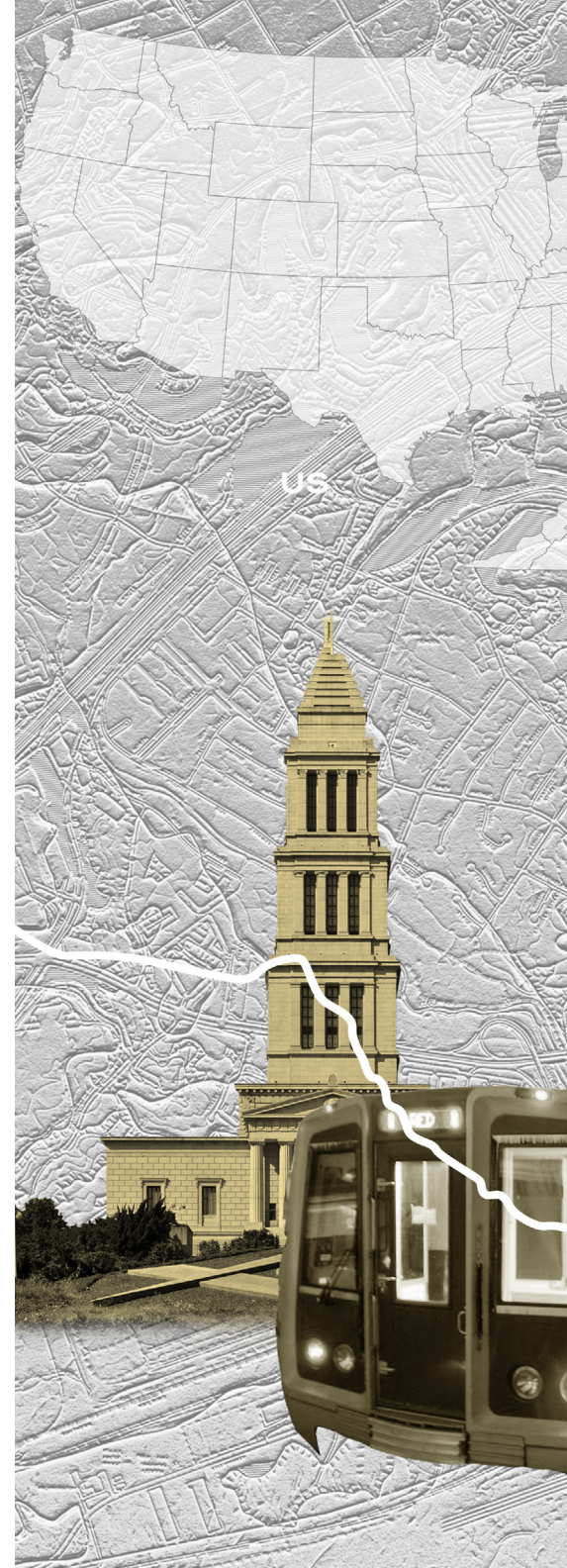
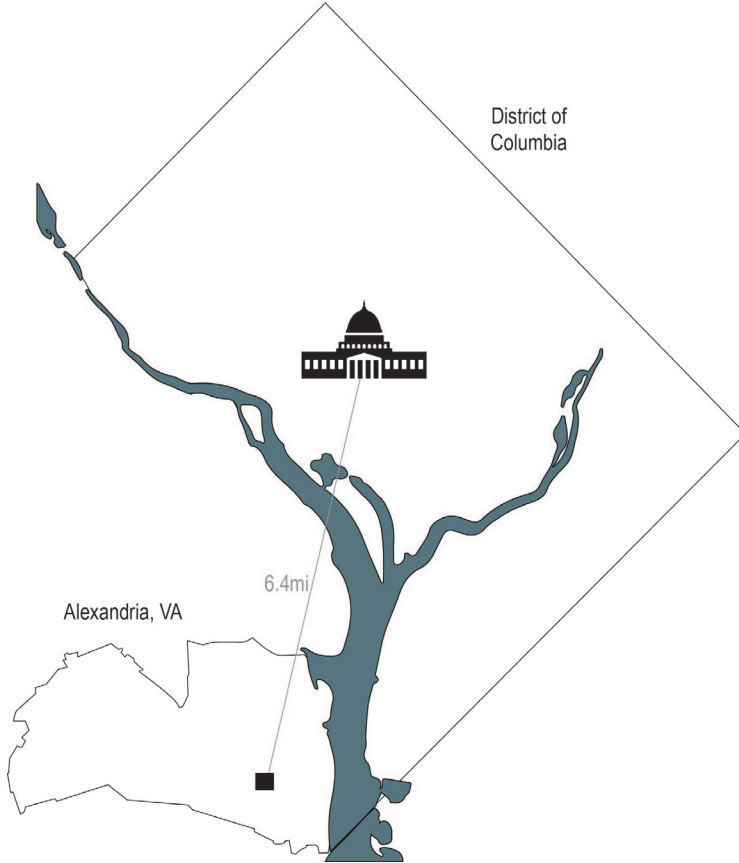
HISTORY OF ALEXANDRIA

Alexandria, Virginia has had a long interesting history. It has been a tobacco trading post, one of the ten busiest ports in America, a part of the District of Columbia, home to both the largest slave-trading firm in the country and a large free-black community, and a Civil War supply center for Union troops. Founded in 1749, much of the present day Alexandria was included in 6,000 acre land grant from Sir William Berkeley, one of Virginia's early governors (City of Alexandria).

SITE HISTORY

During the Civil War the site was home to Fort Ellsworth, a Union camp, built in 1861 and demolished in 1865. Today the sites is adjacent to the George Washington Masonic Temple. The groundbreaking ceremony for the memorial to place in 1922 followed by the cornerstone dedication in 1923. Alexandria Masonic lodge members were determined not to borrow money for the construction of the building. Over the course of many decade lodge members raised sufficient funds to construct the temple. Construction was finally complete in 1970 (The George Washington Masonic National Museum).

SITE CONTEXT





virginia

alexandria

site





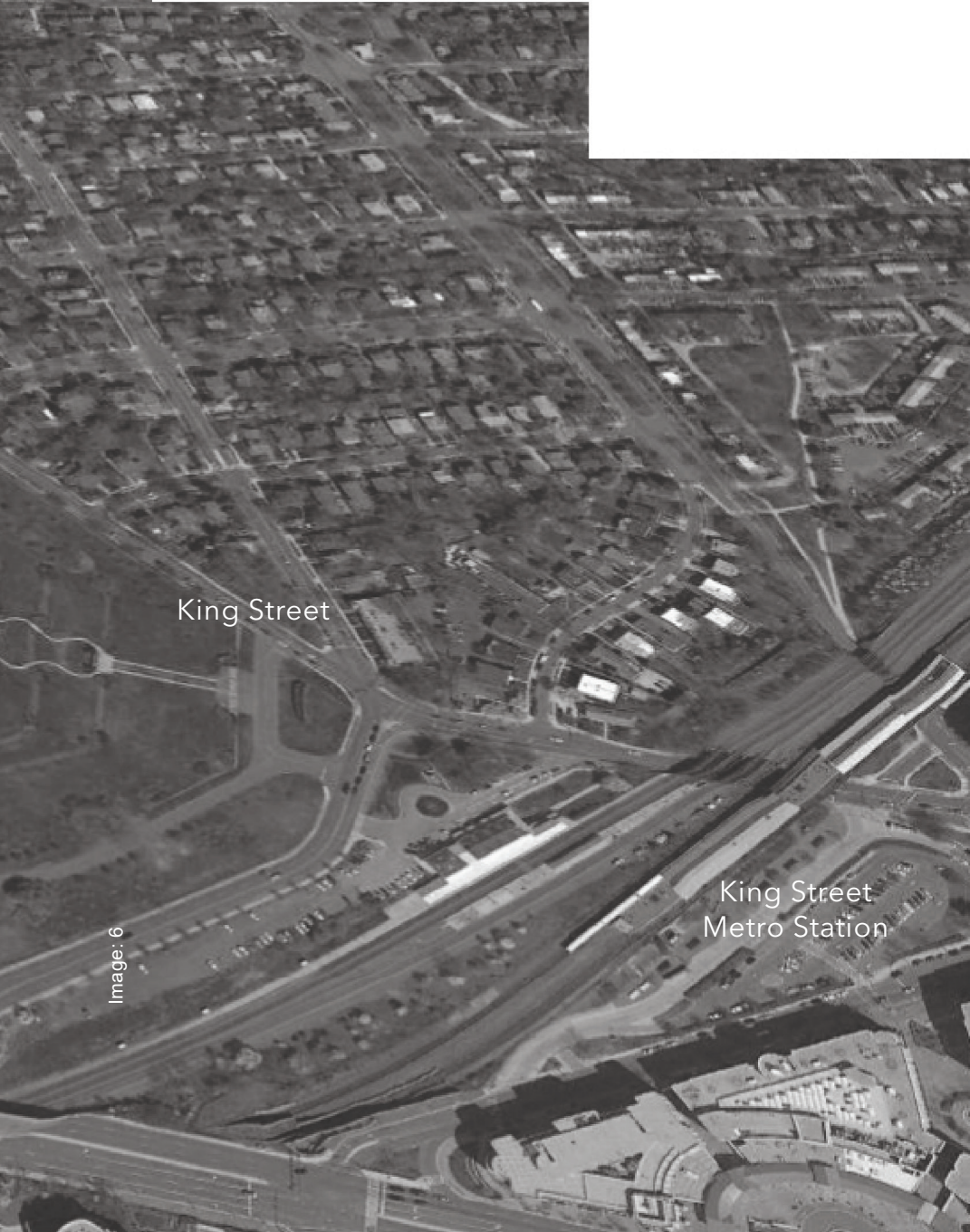
Site

George Washington
Masonic Temple

City of Alexandria's
Former Water
Detention Pond

Duke Street

EXISTING CONDITIONS



King Street

King Street
Metro Station

Image: 6

A view looking the southeast towards the George Washington Masonic Temple







Adjacent neighbors surround the northwest corner of the site





RE-ENVISIONING THE LANDSCAPE

3 APPROACHES

A key tenant throughout this exploration is the belief that human beings are innately social creatures. Through research, a concept has emerged the cemetery landscape can function as a place that can provide solace as well as redefine current perceptual ideas. Historical analysis of cemetery design and meaning has significantly impacted the idea of how these places have and can once again affirm a vital position within our culture for both personal and community use.

The search for a main strategy was discovered through ongoing iterative design process, during which some were discarded while others introduced and furthered explored. These studies addressed possible design concepts that looked at participation within the landscape, presence of nature, and sustainable internment typologies. Re-envisioning these landscapes as a "living landscape" through design explorations examined the unique relationships within this landscape typology. Through the overlaying of activities these sites can begin to foster a more diverse community engagement and social infrastructure. It is my belief that if a re-embracing of cemeteries does not occur, these landscapes will completely fade away.

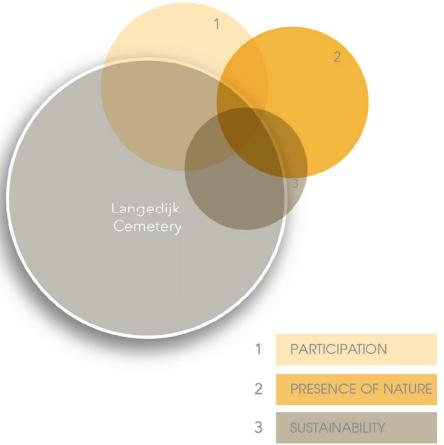
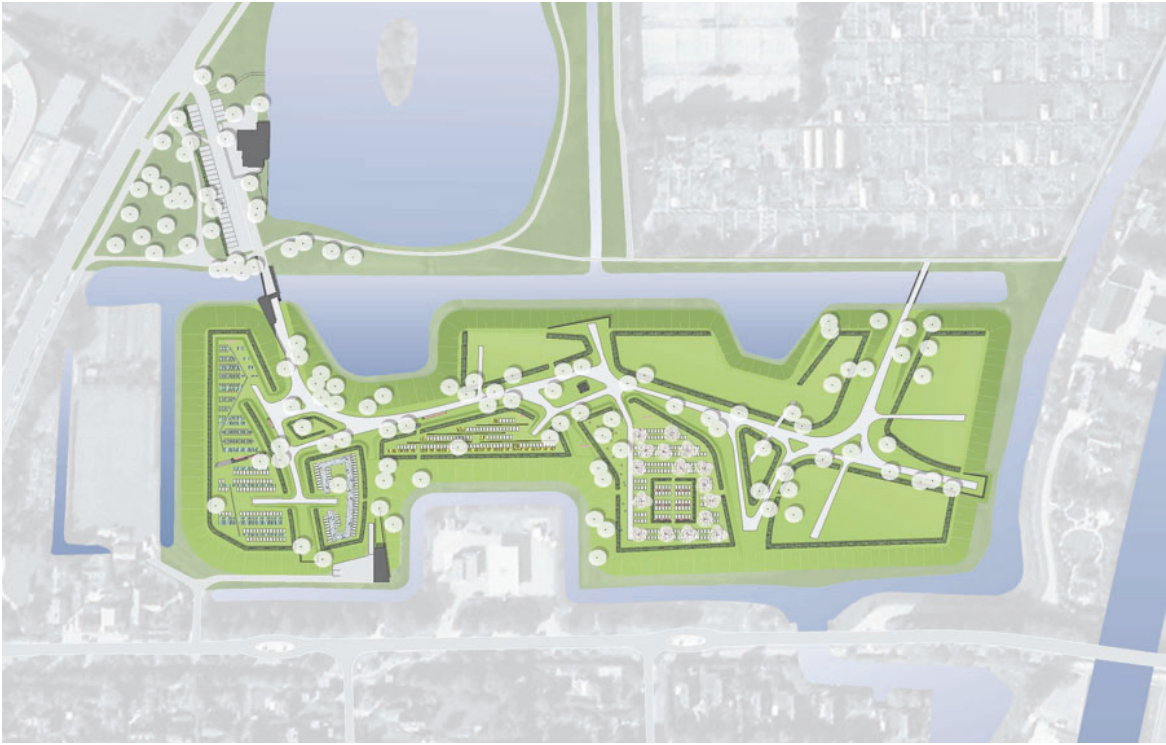
CASE STUDY LANGEDIJK CEMETERY

Unlike most cemeteries, Langedijk, in Noord-Scharwoude, Netherlands, is woven into a green recreational network that connects it to other sites within the city. Langedijk has integrated a complex set of relationships into the site. The site is a mix of everyday use, as well as, a burial and healing place.

Major takeaways:

Although the cemetery is tied into a major recreational trail, the design respects the need for solemnness and reflection space. The cemetery used multiple methods of interment and designed innovative urn niches that respect the surrounding landscape. There is a certain social factor that is evident, one that ties people to this place by overlaying different recreational activities into a set of social interactions.





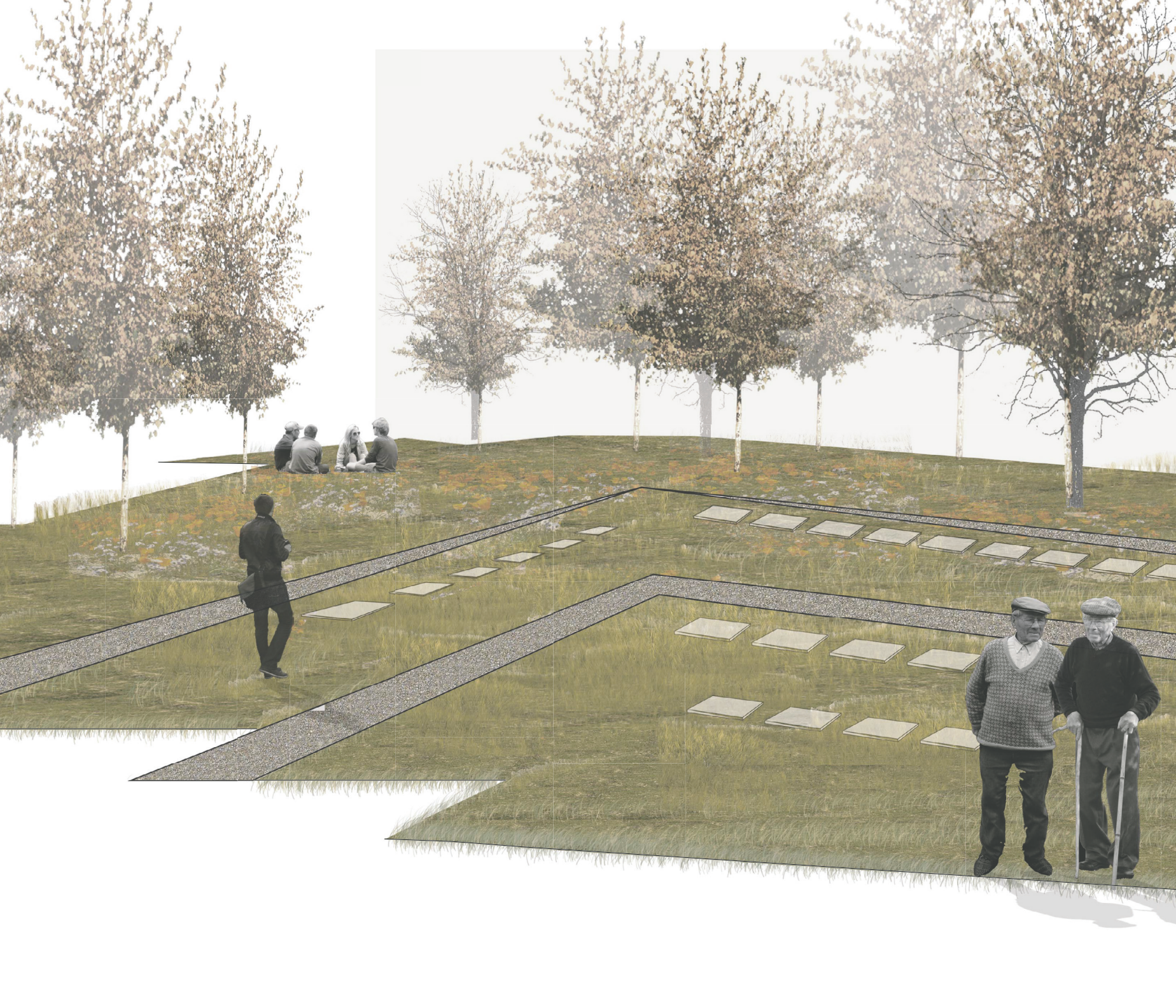


DESIGN INVESTIGATION

The aim of this investigation was to find a strategy that reveals new perceptions, new uses, and a way to engage people within the site. In addition, the aim was to create an interactive space where visitors may interact within one another in different ways.

One enters the site from the southeast while ascending upwards across the topography, passing through a threshold of deciduous trees. Here, on either side of the path, traditional grave plots are separated into smaller intimate rooms set apart by dogwood trees. These rooms provide visitors a space to meditate and reflect. Once past the dogwood trees, the path forks, leading into a much bigger green space where columbarium walls hug the landscape. Users can gather in larger groups for different activities or events, such as meeting friends or family for a packed lunch or a local Audubon roundup for bird watching and discussion. The path wraps around the site where, at the northwest corner, additional space is provided for traditional interment. Further down, turning towards the entrance, a scattering ground for ashes is also a meadow of native perennial plants that blooms late spring through summer, revealing brilliant colors before dying back in fall and winter months. Adjacent to the scattering grounds are added columbariums which lead back to the entrance.







While there is no barometer to determine what may be deemed as appropriate activities within cemeteries, it is through events at a cemetery such as this that may help to re-image them as more than a place for ceremony and burial, a place for community.



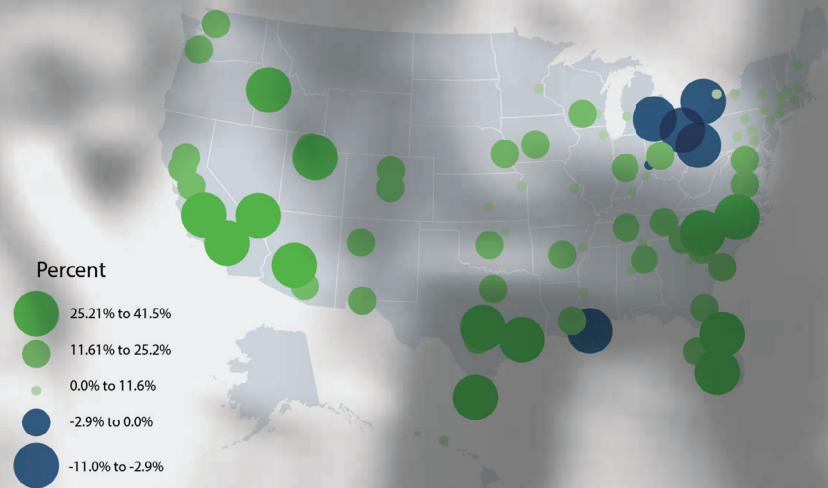


URBAN PLANNERS

Urban planners Carlton Basmajian and Christopher Coutts and authors of "Planning for the Disposal of the Dead" discussed the need to reimagine the cemetery landscape, how we intern the deceased, and the incorporation of cemeteries into our community life. In the U.S., relocation to urban areas is the trend, and with it comes an increased need for land. Author Linden-Ward states that in the future, cemeteries could be redesigned to accommodate different uses, especially in communities where space is limited. (qtd.in Basmajian and Coutts 312). Other authors Barrett and Barrett note there is an opportunity during the development of cemeteries and once they become established they can support and increase biotic diversity (qtd.in Basmajian and Coutts 314).

Studies performed by both the Brookings Institute and the U.S. Census Bureau indicate population growth is trending to metropolitan areas. If trends continue, many cities and metropolitan areas will need to consider non-traditional interment practices.

Change in population since 2000 to 2010



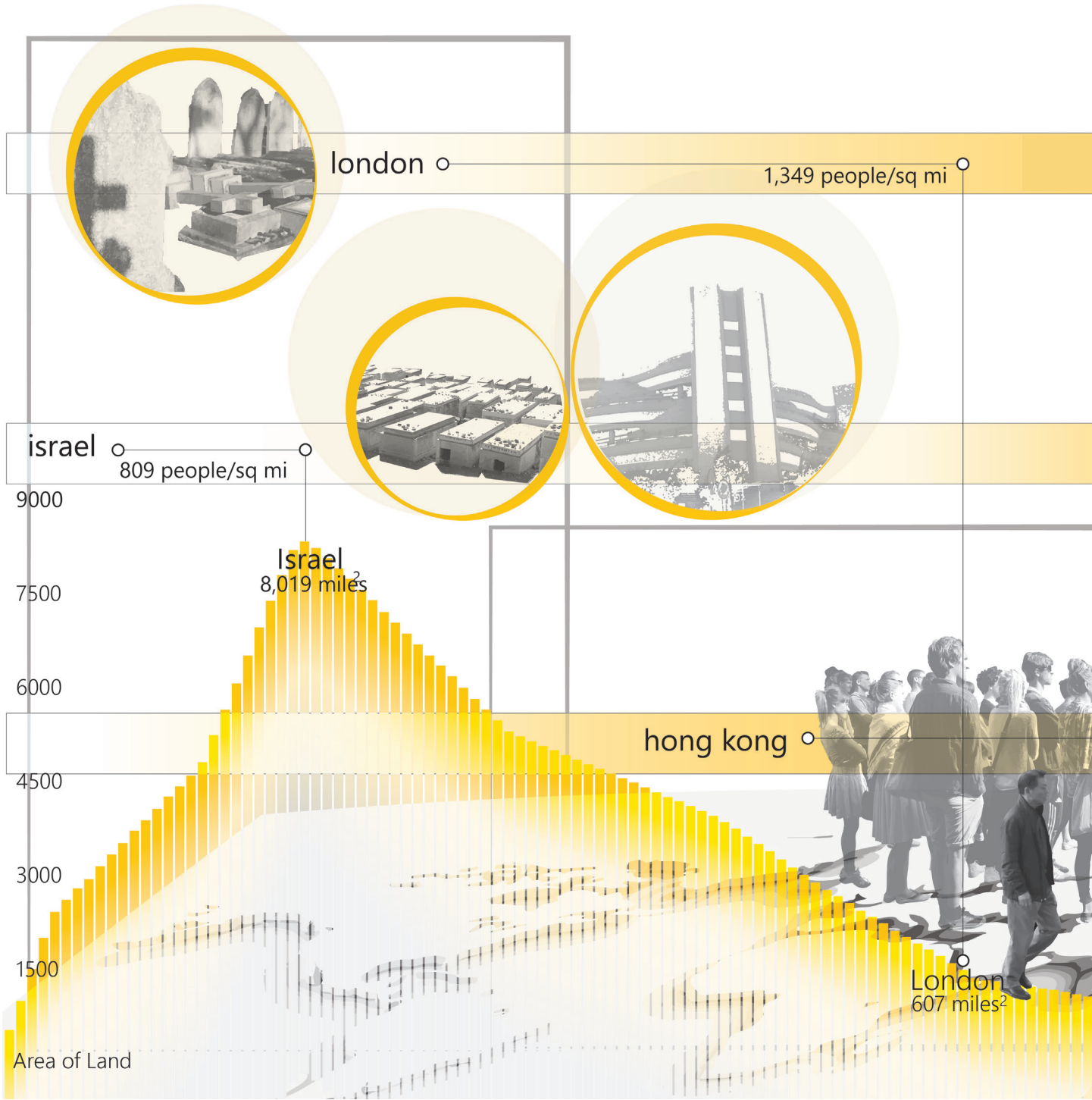
Source: Brookings Institute, State of Metropolitan America Indicator Map

Increase in U.S. Metropolitan Population



Source: U.S. Census Bureau, decennial census of population, 1910 to 2000

Figure 1-2



terry Cultural Shifts

& recycling

building up

waiting in line

18,176 people/sq mi

Hong Kong
426 miles²

THE NEED FOR SPACE

The study of both western and non-western cultures has provided insight on their relationships with death and its physical and emotional landscape. In many metropolitan areas space is simply running out. London's cemeteries will be completely full within the next 20-30 years. Here, quietly, they have recently begun reusing some graves older than 75 years old. However even this will only temporarily address long term needs(Sousa). In Israel, rabbis have given approval to the creation of a series of high-rise cemeteries to alleviate the country's grave yard crisis. Architects proposed that multi-story 'artificial caves' that would stay within the spirit of Jewish law while also allowing them to maximize space in such a heavily populated country (Boyle). Finally, in one of the most densely populated places on earth, Hong Kong, is feeling the pressure of need for space. Here cremation is the norm however, in many cases there is a five year waiting list to receive an urn niche (Sousa).

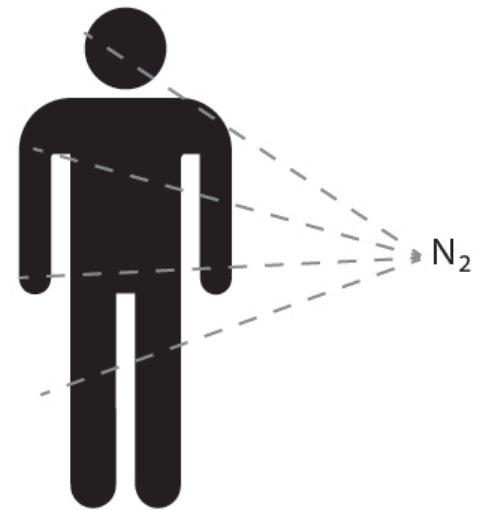
PROMESION

Promession, what is being coined the eco-friendly alternative to cremation, was developed in Sweden by biologist Susanne Wiigh-Mäsa. The body is initially cooled to 0 degrees Fahrenheit, then frozen to a negative 320 degrees Fahrenheit by using liquid nitrogen. The body becomes very brittle and under goes gentle vibration reducing it to a powder in a matter of minutes. Here only fillings and other items such as prosthetic appendages remain. The odorless and ashes can now be placed in an eco-friendly coffin (Funky Social Media). This new internment typology may ease the pressure in some densely populated areas and reflect a growing concern for our environment. Some way want to pass on a "green-legacy."

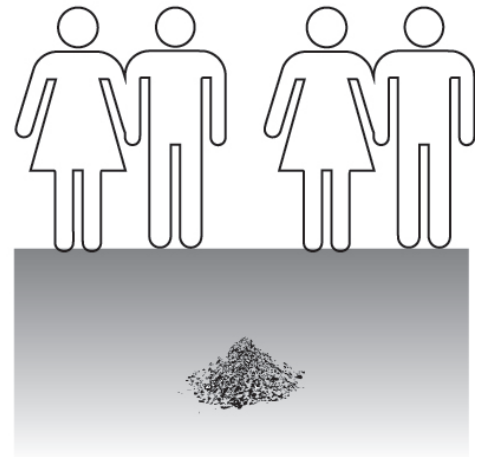
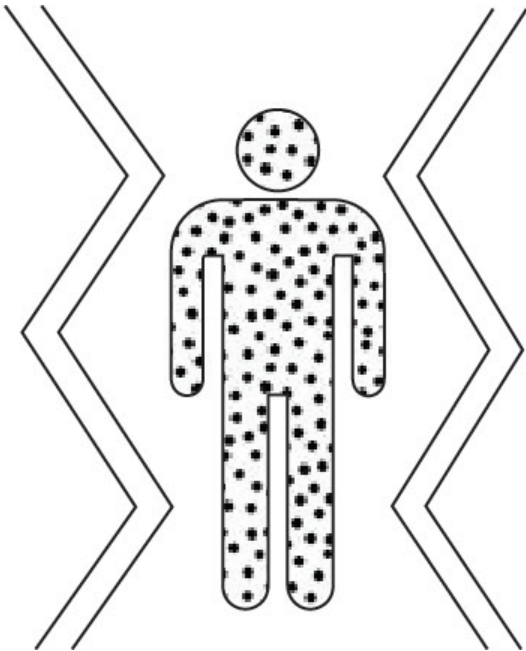
Deceased




Liquid Nitrogen



Vibration





CASE STUDY HONEY CREEK WOODLANDS

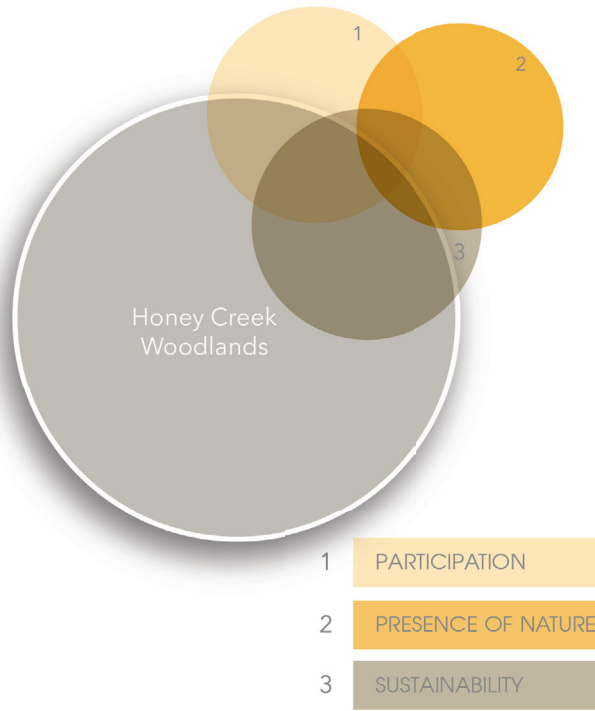
Located in Conyers, Georgia, Honey Creek Woodlands is approximately 25 miles outside of the city of Atlanta. It is a memorial nature preserve located in the woods of the Monastery of the Holy Spirit. The monastery's land comprises 2200 acres, of those acres almost 1000 acres are under permanent protection. It is within those protected acres that you will find, the green (natural) burial grounds. Honey Creek Woodlands is part of a larger 8000 acre conservation effort called the Arabia Mountain Heritage Corridor along the South River (Honey Creek Woodlands).

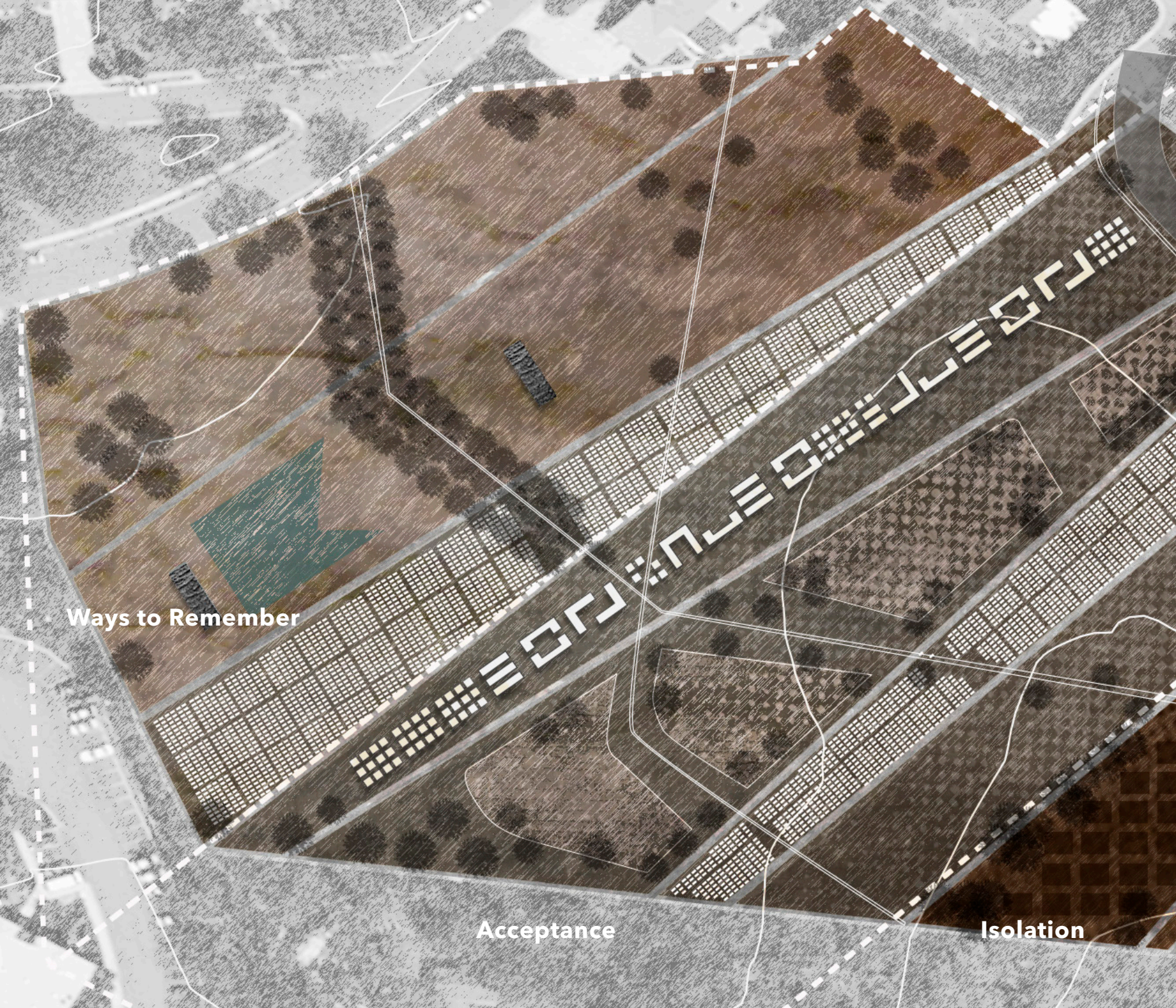
Major takeaways:

Honey Creek Woodlands is truly a nature preserve. Site emphasis is placed upon maintaining the existing wildlife, flora, and fauna. The burials that occur here ensure the ground remains as natural as possible with little disturbance. This interment method is accomplished by using a bio-degradable casket, shroud, or a favorite blanket, no embalming fluids or concrete vaults are used (Green Burial Council). In addition, cremation and procession remains are allowed to be buried within the site's boundaries. However, because there is such importance of maintaining the site as nature preserve, outside visitors are unable to access the site, only those who have loved ones buried here are able to enter the site.



Image: 14-17

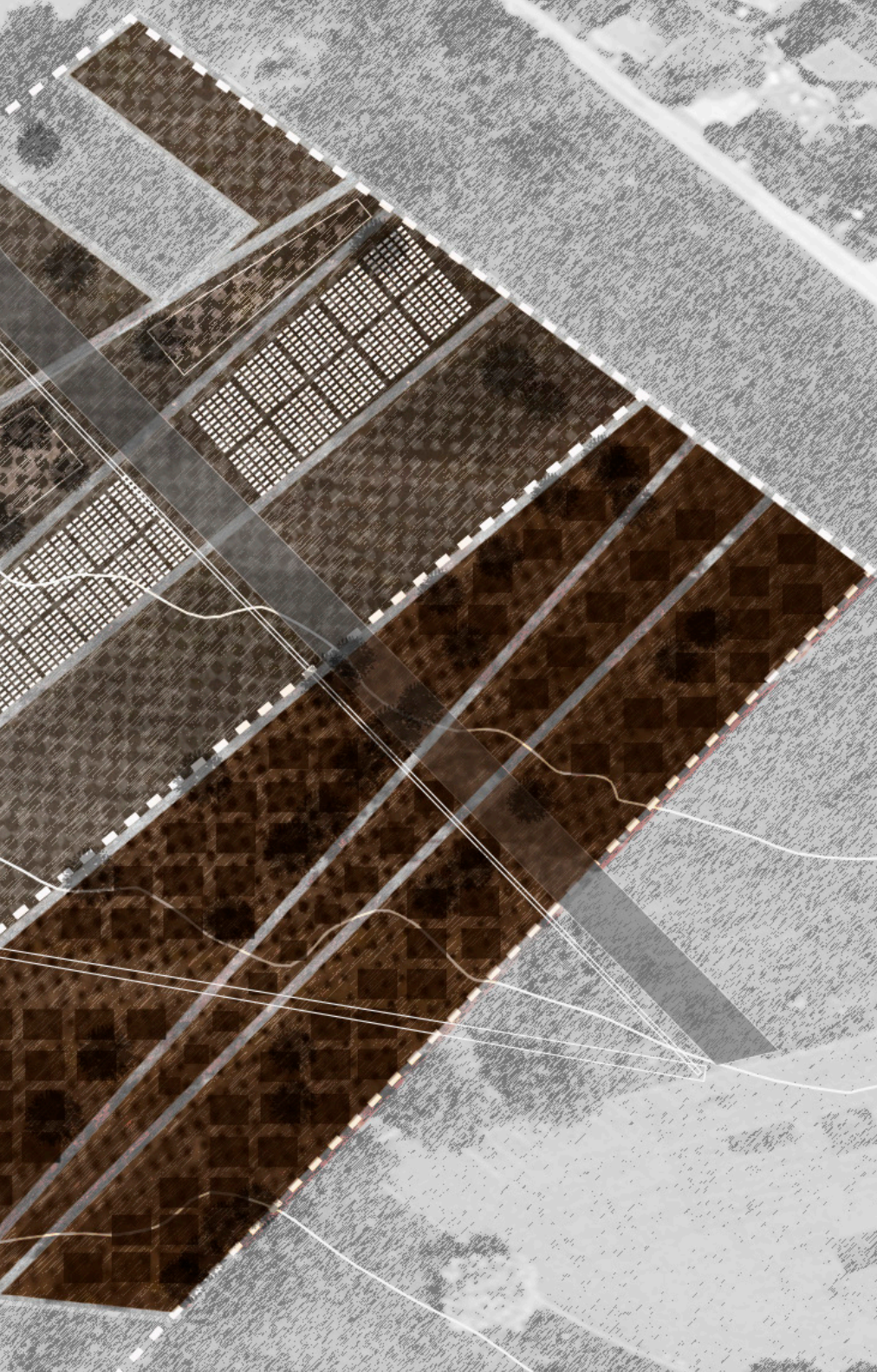




Ways to Remember

Acceptance

Isolation



DESIGN INVESTIGATION

The five stages of grief are commonly understood to be: denial, anger, bargaining, depression, and acceptance. This design explored the form of the site as it relates to the five stages of grief and how those stages physically manifested themselves throughout the landscape. The stages of grief were interpreted into 3 categories: isolation, acceptance, and ways to remember. These categories were loosely based upon writing letters to express emotions and the three folds or creases of a letter, each category carrying with it a different set of social and physical conditions.

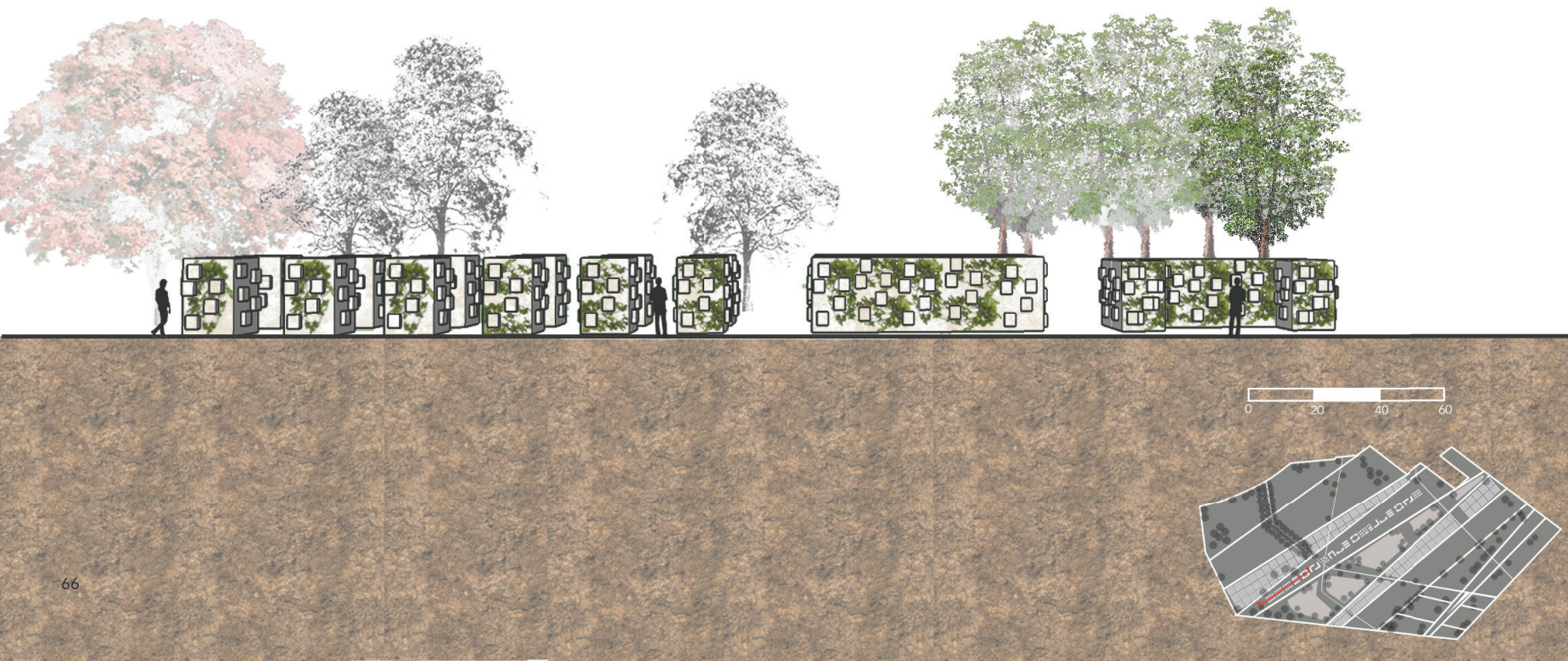
Beginning from the southeast entrance of the site, this space has been carved out to form secluded, private spaces, and moments of solitude. These individual spaces are visually connected while other more isolated areas, within the site, must be sought out and found. The path flows into a diagonal striation of columbariums. Here, one is able to observe or meet others in small and large gathering areas. Once past the columbariums the pathways transition into an allée of trees. The canopy spans the width of the route and leaves vibrate delicately in the wind and their shadows dance along the footpath. The path slowly narrows only wide enough for one person to walk upon it, then increases in size as it turns to the north. Under the canopy, through the trunks of the allée, one can see a vast field of open green space for recreational activities. Within this space is a reflecting pool and pavilions where patrons can write letters to their loved ones and recall memories.



Walking along the path towards the Masonic temple towards the southeast entrance, visitors pass through a series of rooms both large and small where they can sit in isolation or mingle with others.



This columbarium design tested the physical relationship one has while visiting a loved one. Visitors can move in between each singular structure, or step into one for a more individual reflective experience.

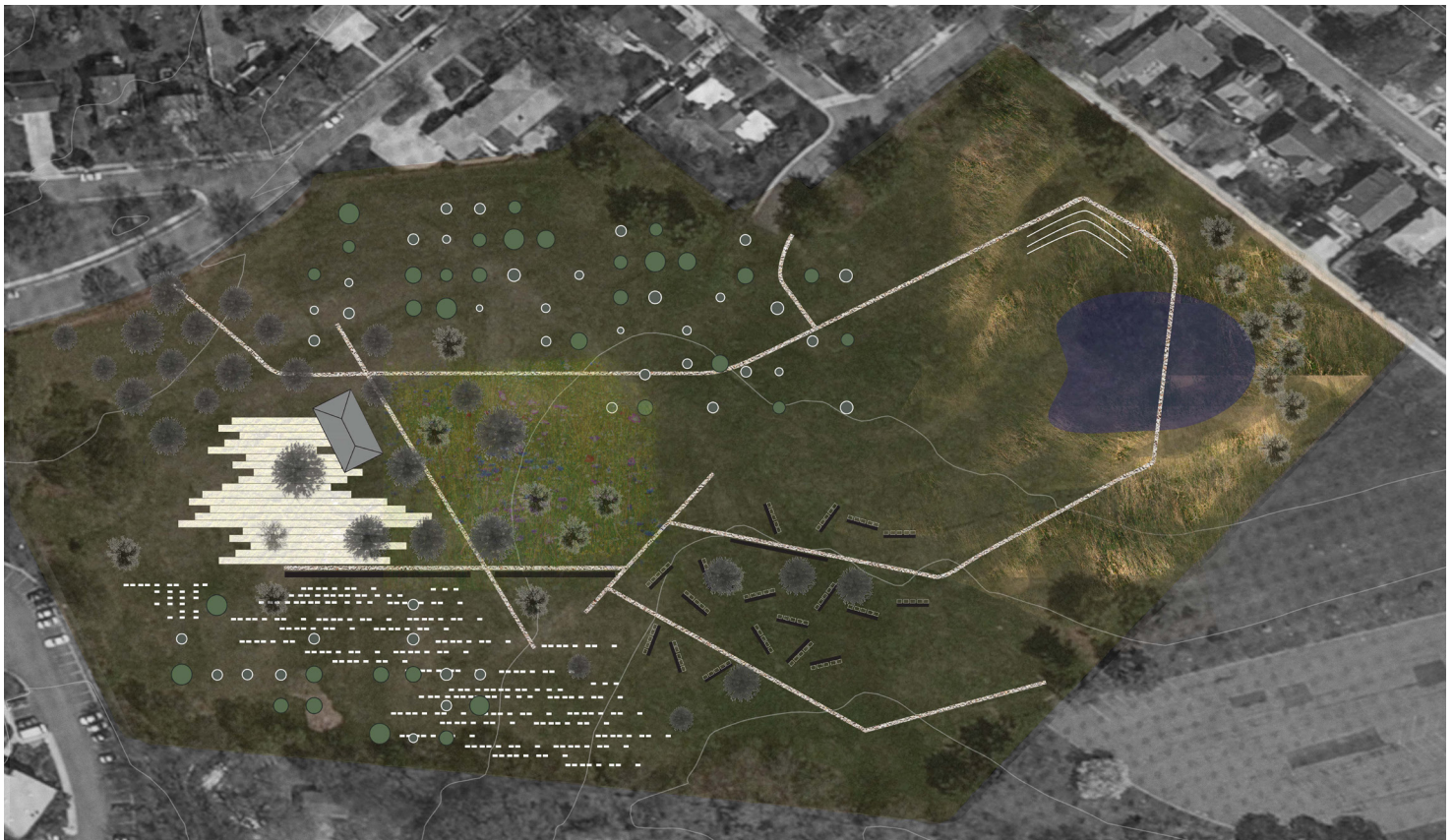
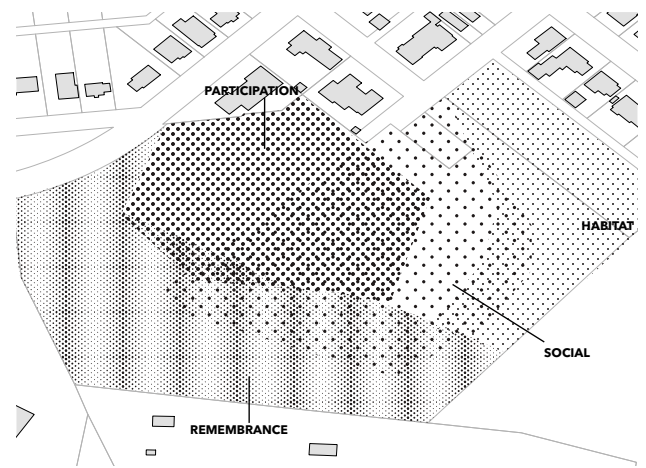


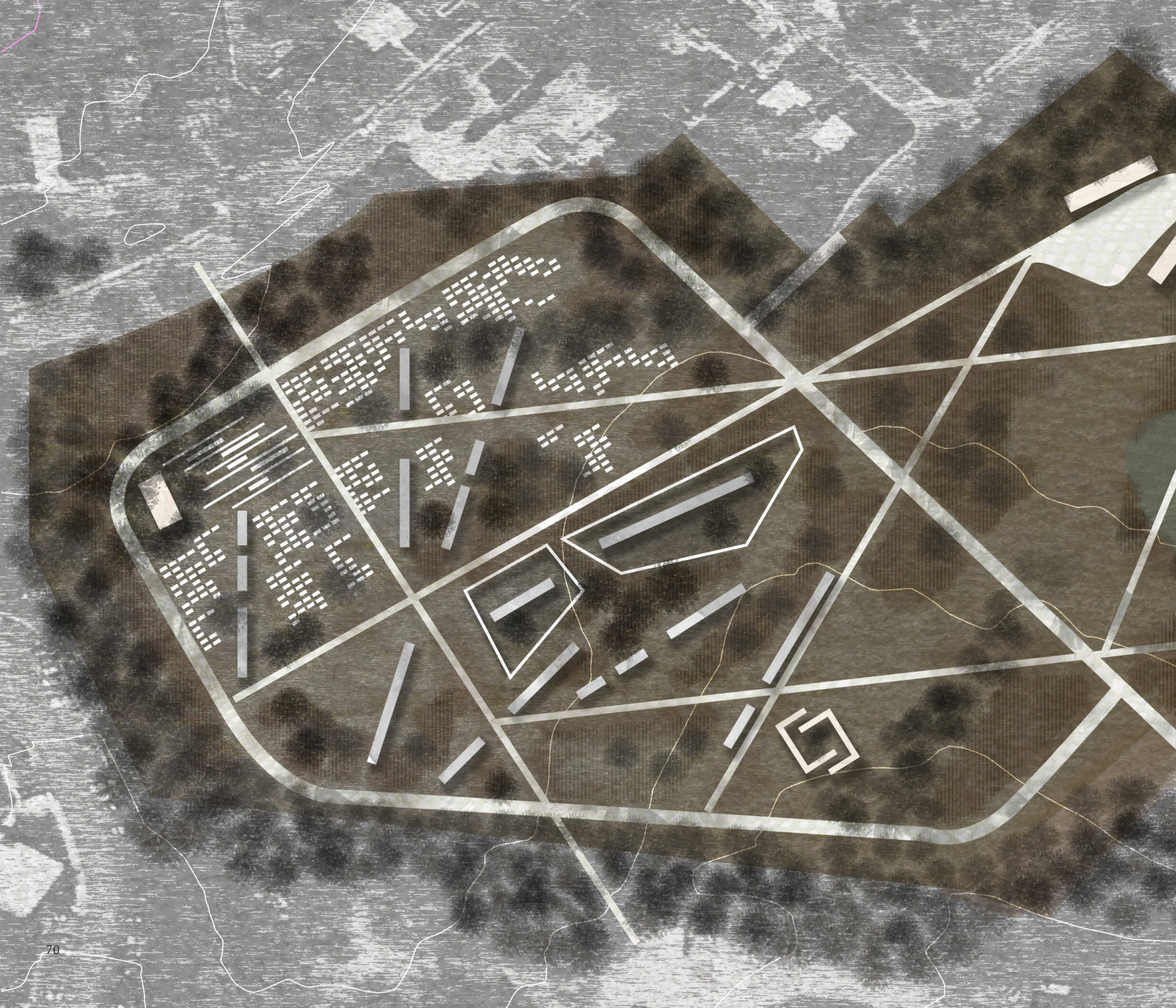


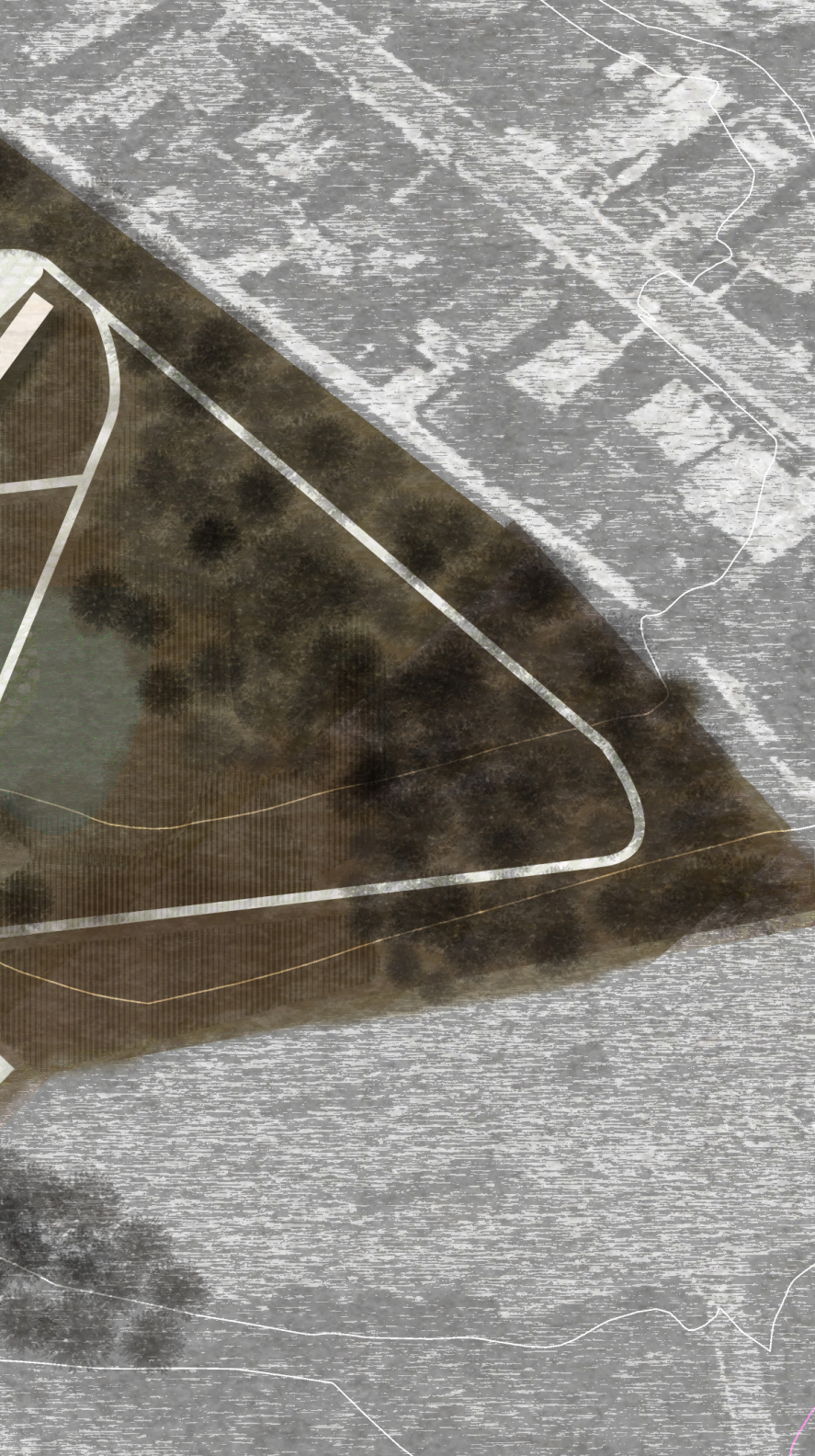
DESIGN INVESTIGATION

The third investigation centers heavily on sustainable interment and participation in the landscape through the act of planting memorial trees. The planting of trees, over time, will create and increase a more diverse and biotic habitat.

The memorial forest is located on the north end of the site. Within this area, bio urns are filled with the ashes of the deceased along with nutrients that help sustain tree growth. Finally, the ashes and nutrients are encased in a biodegradable shell. A Quick Response Code (QR code), or 2D scannable barcode, is used to identify the tree and determine the exact location. Towards the west end of the site, tall grasses and perennials are used to create a thick and lush ground plane. A small earthen amphitheater is nested at the northeast corner for performances. A reflecting pool is used to attract wildlife, with a pedestrian bridge marking the east end of the site. Past the water's edge, columbarium walls punctuate the landscape. Beside each wall, family and friends are invited to plant small perennial gardens. Here lies an opportunity for community members to engage with one another and with the site. Heading towards the east lies a traditional burial ground intermixed with memorial trees. Near the center of the site, ample space encourages social activities. The west side of the site is used for a formal scattering garden.







DESIGN PROPOSAL

Upon reflections of the previous design investigations, it became clear that it was necessary to push toward a hybridized approach that addressed all three strategies: participation within the landscape, presence of nature, and sustainable interment. Through the lens of social infrastructure and social capital, this design proposal reinvestigated how the surrounding community, as well as friends and family members of the deceased, could take on a much more engaging role yet also address the other two strategies.

The idea of social infrastructure echoes clearly. It is through this lens communities will have a greater connection to the cemetery landscape; new relationships will unfold within these sites to function as an integral element of the urban fabric and aid in the healing process.

In this design proposal an emphasis is placed upon sustainable interment typologies. Cremated and promession remains will be placed in memorial and columbarium walls, urn niches, or a formal scattering garden. These will form a majority of burial spaces within the site. A connecting northwest-southeast pedestrian path will connect surrounding residential communities, this path crosses its way throughout the site and intersects a candle-lit memorial wall as well as an urban forest and natural habitat area.

CREATING TIES
WITH
PEOPLE & PLACE



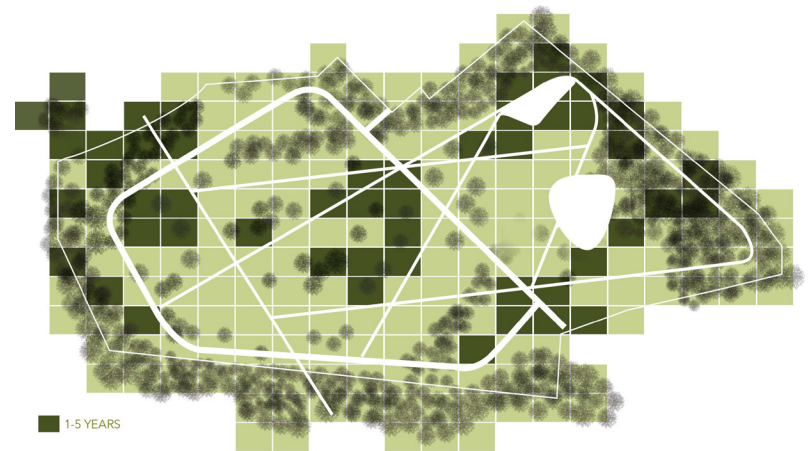
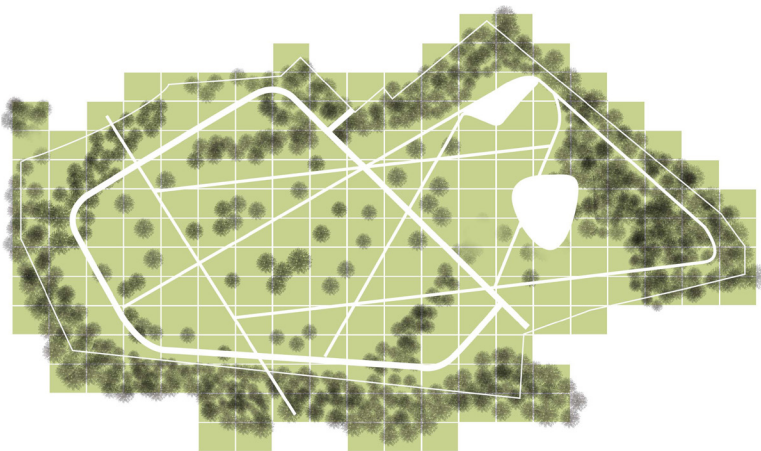
COMMUNITY PLANTING

Community planting is a site-wide planting strategy where community members are invited to participate annually to plant and create a “living landscape” and watch it transform. These events can tie into pre-existing celebrations such as Earth Day and Arbor Day. The goal is to build upon and strengthen Alexandria’s social capital. This form of participation is the driver to spur new relationships between place, individual, and group.

Often after a loss of a loved one, simple tasks, even outings, seem challenging. Those who have lost someone can use this exercise in planting, in their own way, as a form of occupational therapy. It builds in flexibility for them to grieve in private or with others at their choosing. Volunteer planting or grief counseling groups can also meet regularly to strengthen their bond and heal in their own time.

CHANGING LANDSCAPE

The planting strategy will take shape over the course of 30 years. In the first phase (1-5 years) targeted areas will concentrate near vehicular and pedestrian entrances, as well as build the foundation for the urban forest and natural habitat areas. The second phase (6-15 years) will continue building off the initial planting phase and establish plants within the interior of the site. The final phase (16-30 years) will infill the remaining site and replace plant species as needed.



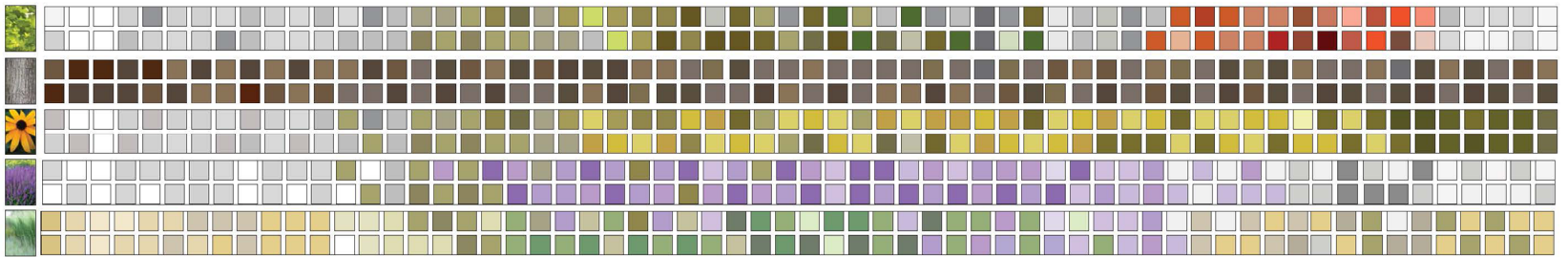


Winter

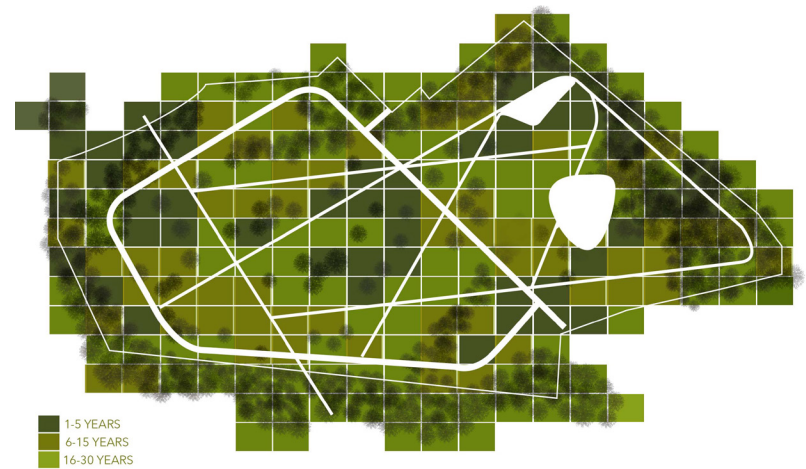
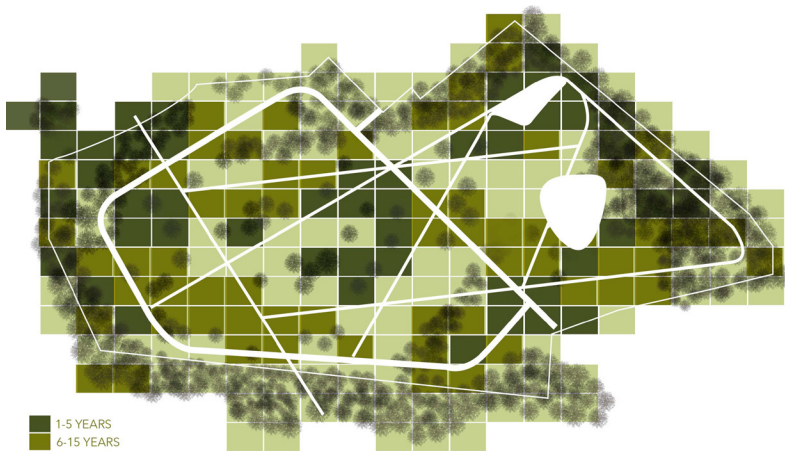
Spring

Summer

Fall



This graphic depicts the ephemeral seasonal qualities of the site.



the process begins

community members
establish plant community
develop connections

continued engagement
within the site

0y

5y

15y



connection
&
diversity



Creating ties to people and place overtime.

30y



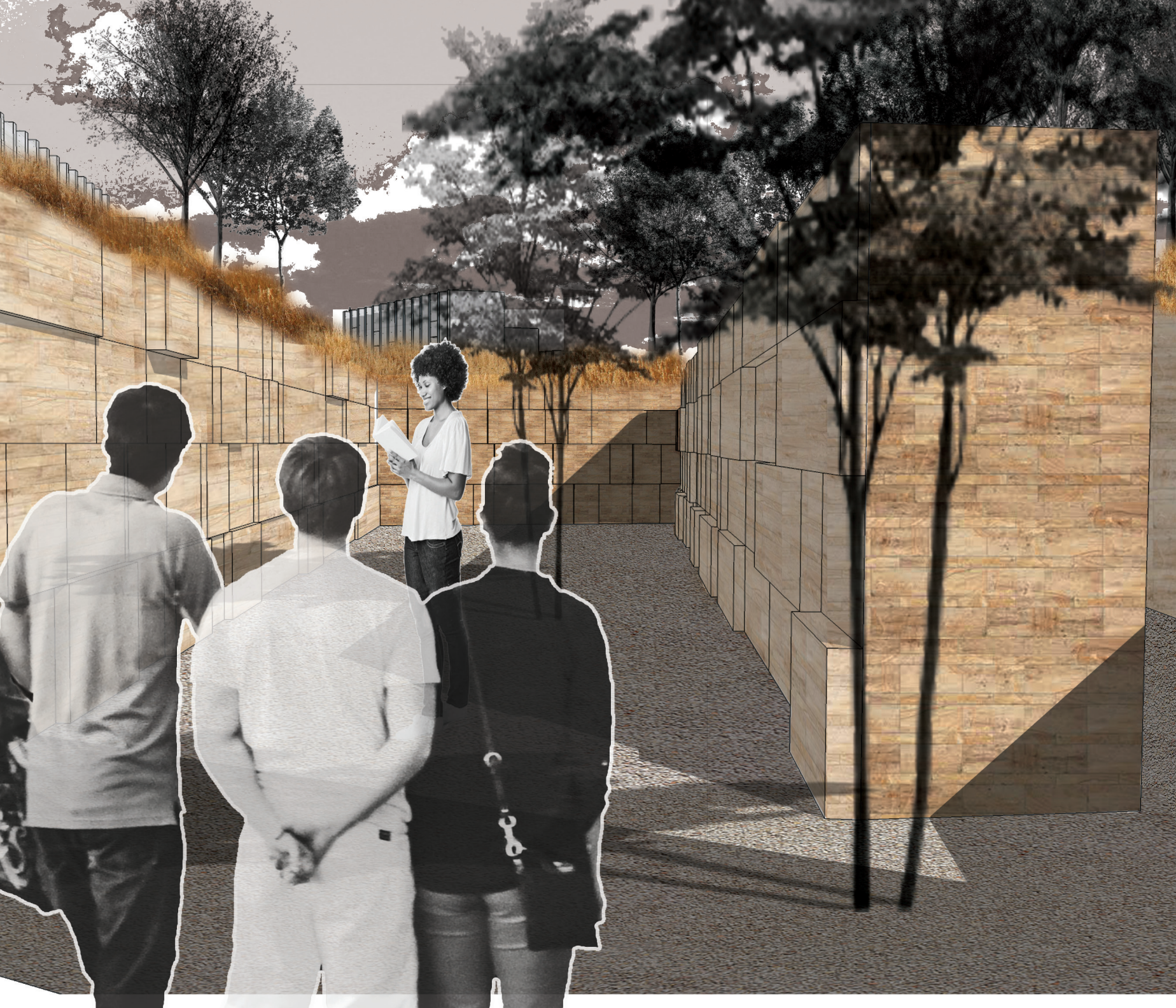




Carved out from the ground, visitors descend into the niche area through a stairwell. As they make their approach, the stone cladding used in the stairwell and on the niche faces echo words spoken, making visitors realize their own presence within the landscape. Meant for small groups, this a reflective space.

The niche area can also serve as a small venue for poetry reading to express emotion and sentiment.

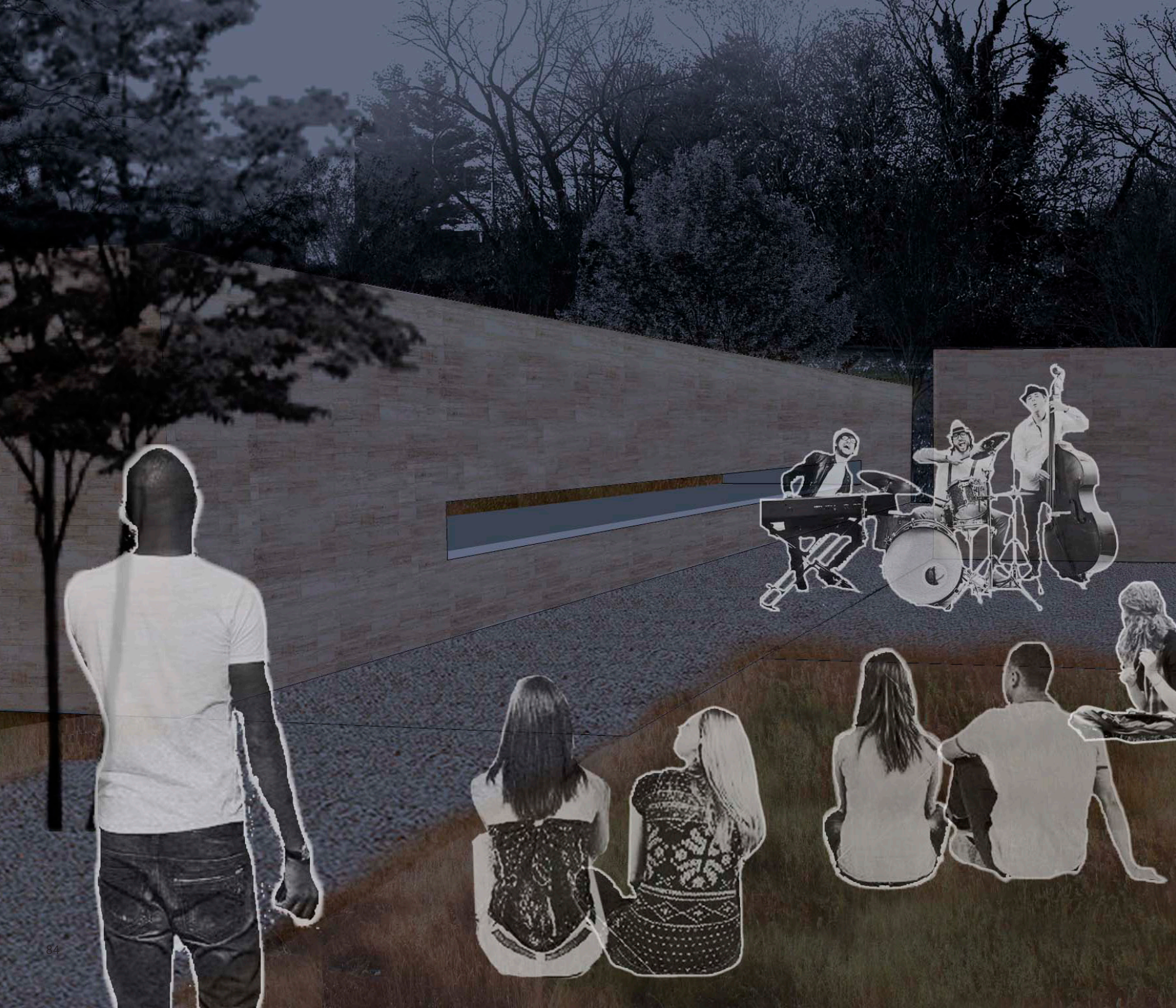






Set against the backdrop of the forest, where ashes may be scattered, this candle wall acts as a temporary memorial for loved ones.





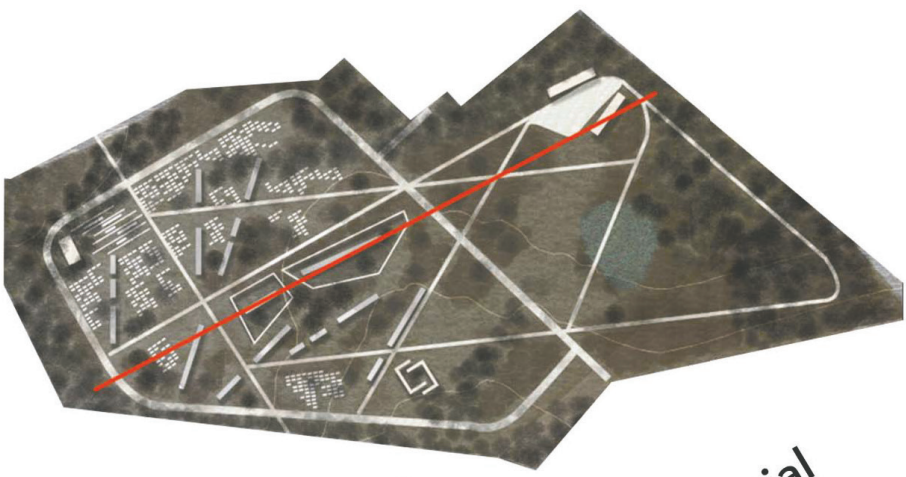


The memorial wall area hosts a benefit concert in memory of someone where community members can gather and recall memories.

Promession ashes are mixed with soil and placed in the columbarium wall where plants are grown in a dedicated plot. Caretakers and others physically and visually experience firsthand the cycle of life.







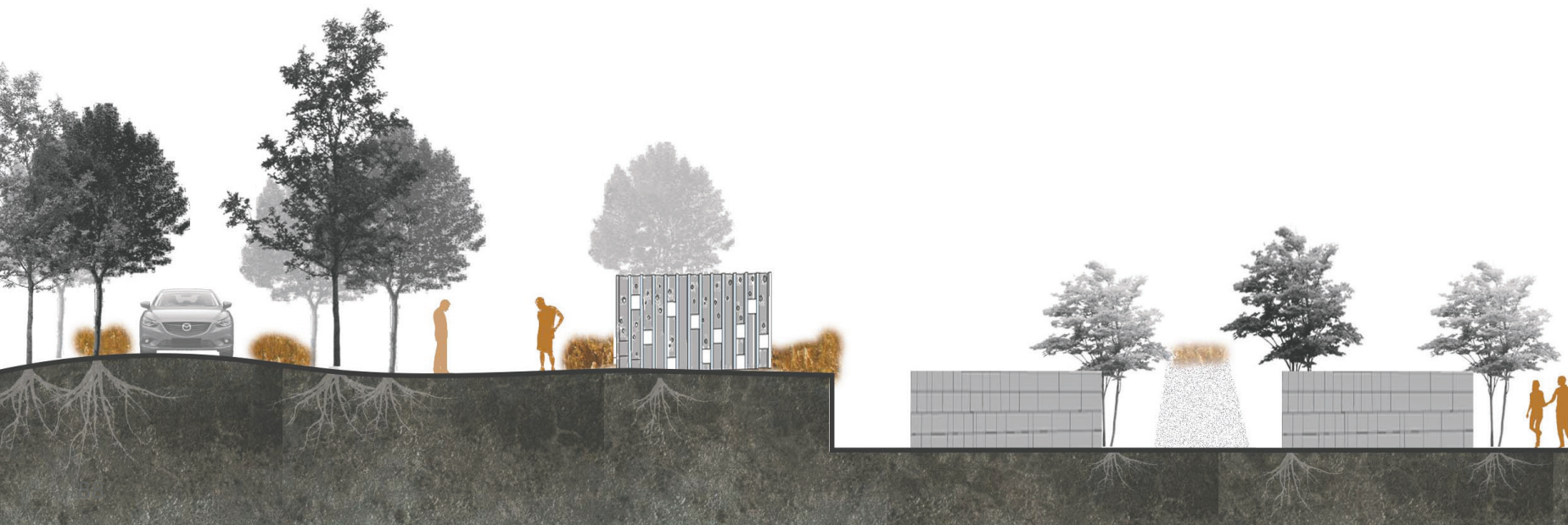
vehicular path

traditional burial

columbaria I

columbaria II

ground level path

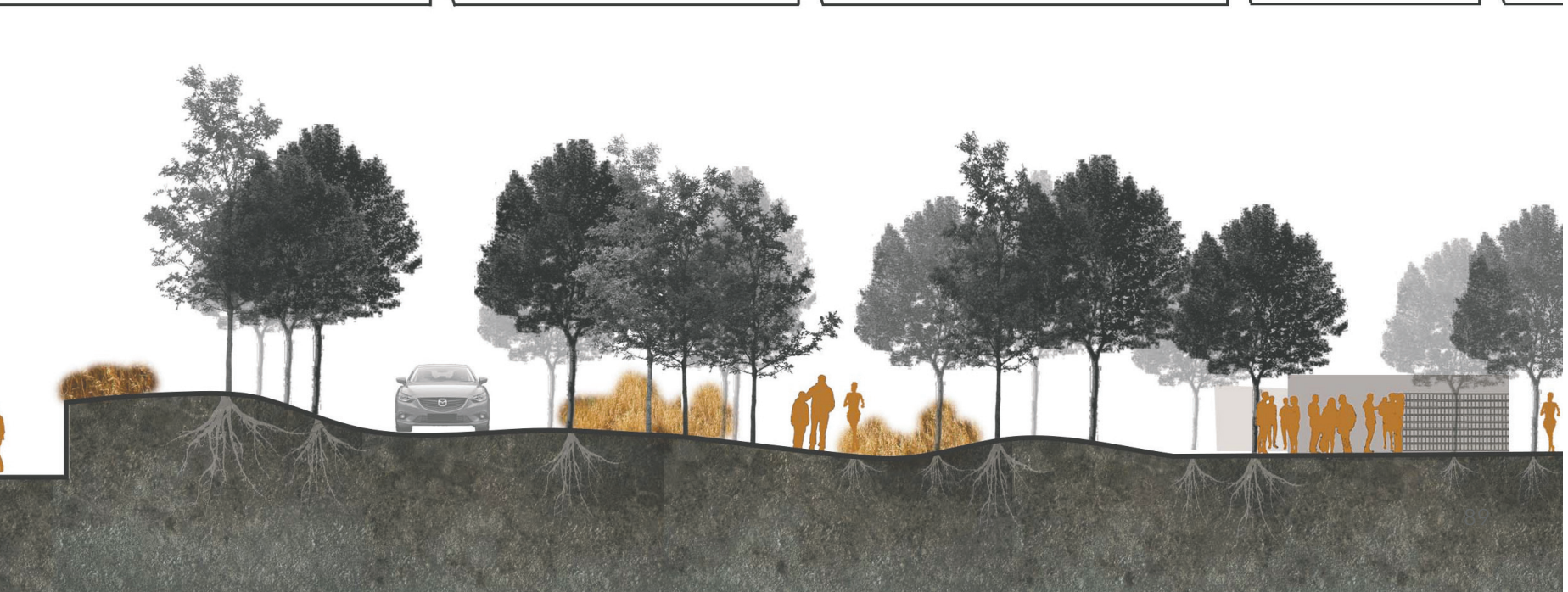


vehicular path

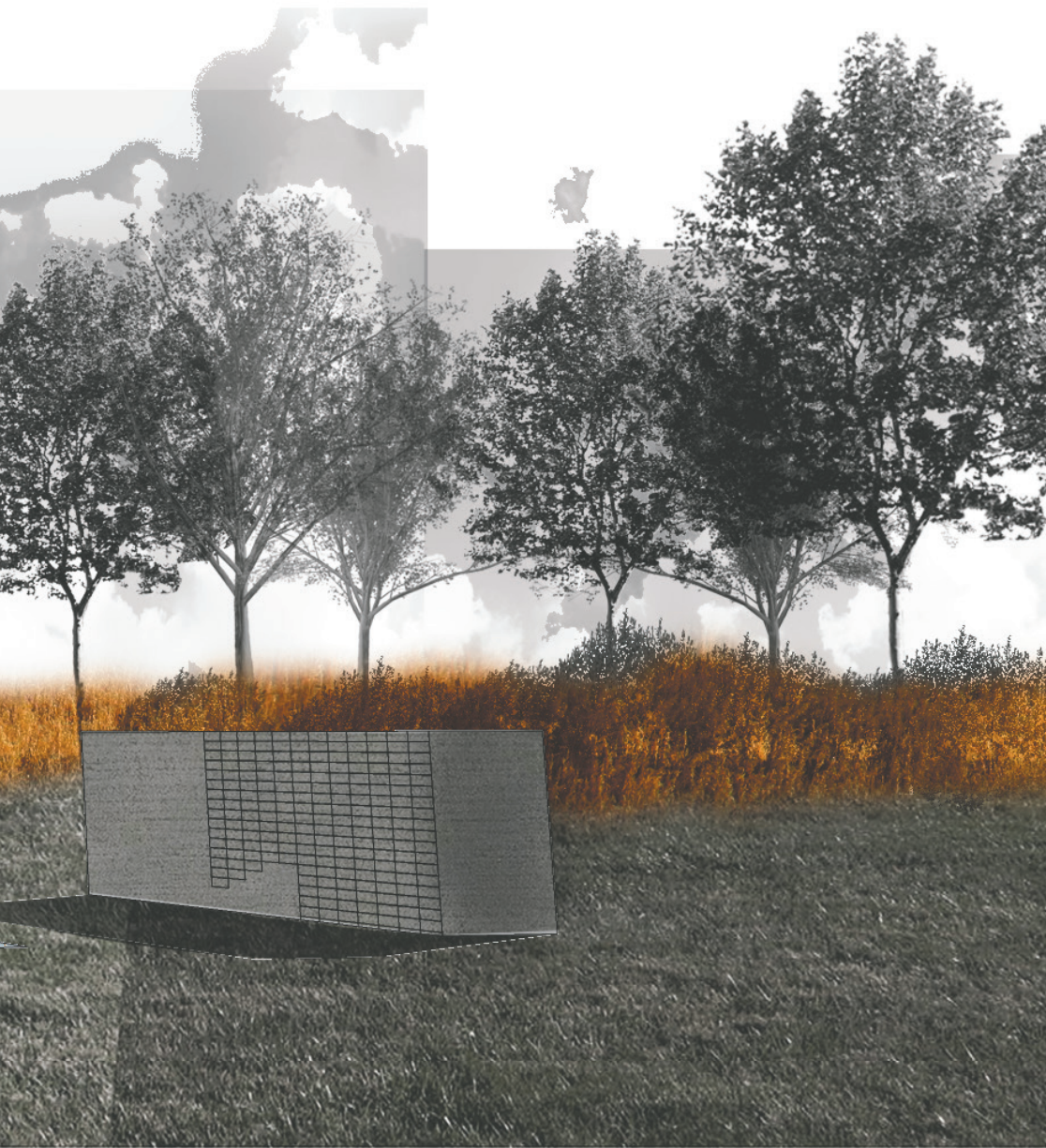
pedestrian path

memorial wall

ped. path







Overlooking the columbarium wall the formal scattering garden is a combination multiple espalier screens of fig trees.

CONCLUSIONS & REFLECTIONS

This thesis pushes into new territory to what is considered social infrastructure and how the cemetery landscape can make a more robust social network and add to our social capital.

Departure, is not confined to the urban realm, yet it is likely more densely populated areas will consider alternative interment typologies and the overlaying of activities and functions prior to their rural counterpart due to physical constraints within the urban landscape.

Our relationship with the landscape of grief is challenging. The social stigma of addressing these emotions in a public manner is often expressed as mild inconvenience when it is frequently the opposite. Departure looks for opportunities within the landscape where peace may be found, relationships formed, while adding richness into the land. These encounters within the landscape are to some degree orchestrated collisions. They provide us moments to reframe our thoughts and feelings regarding these landscapes and allow us to re-evaluate their role.

In the field of design research, the design investigations and proposal begins to address how complex and nuanced these sites are. In response to my research question, "In the hopes of creating a more robust social infrastructure, how will the cemetery landscape need shift to become a landscape for the living?" it suggests it is possible through the lens of social infrastructure for this landscape typology to overcome current perceptual stigmas.

A missed opportunity for this research project was the absence of connecting it to other landscapes within the city that would incorporate it in a larger network of sites. A major challenge in this project was how to decipher what type of social engagement would benefit the community, which would also aid in perceptual change.

It is of the belief we all yearn to be remembered and when we are able to bring back life into these landscape we bring back a sense of hope.

REFERENCES

- Baron, Stephen, John Field and Tom Schuller. *Social Capital Critical Perspectives*. New York: Oxford University Press, 2000.
- Barrett, G. and T. Barrett. "Cemeteries as repositories of natural and cultural diversity." *Conservation Biology* (2001): 1820-1824.
- Basmajian, Carlton and Christopher Coutts. "Planning for the Disposal of the Dead." *Journal of the American Planning Association* (Summer 2010, Vol. 76, No. 3): 305-317.
- Bastea, Eleni. *Memory and Architecture*. Albuquerque: University of New Mexico Press, 2004.
- Baughner, Sherene and Richard F. Veit. *The Archaeology Of American Cemeteries and Gravemarkers*. Gainesville: University of Florida, 2014.
- Boyle, Darren. *Daily Mail*. 17 October 2014. September 2015.
- Brookings Institute. *State of Metropolitan America Indicator Map*. 09 May 2010. Website. 08 September 2015.
- City of Alexandria. *City of Alexandria*. 13 January 2016. September 2015. <<https://www.alexandriava.gov/historic/info/default.aspx?id=28112>>.
- Constant, C. *The Woodland Cemetery: toward a spiritual landscape*. Stockholm: Byggforlaget, 1994.
- Crosby, Betsy. "To Hell and Back." *Preservation: the magazine of the National Trust for Historic Preservation* Jan-Feb 2012: 28-33.
- Farrell, James J. *Inventing The American way of Death 1830-1920*. Philadelphia: Temple University Press, 1980.
- Finney, Patricia J. *Center for Research Libraries*. October 2015. <<https://www.crl.edu/>>.
- Funky Social Media. *Promessa How It Works*. 17 December 2012. April 2016.
- Green Burial Council. *The Green Burial Council*. 2015. 22 September 2015. <<http://greenburialcouncil.org/>>.
- Harnik, Peter. *Urban green: Innovative parks for resurgent cities*. Washington, DC: Island Press, 2010.
- Harris, Dianne and D. Fairchild Ruggles. *Sites Unseen Landscape and Vision*. Pittsburgh: University of Pittsburgh Press, 2007.
- Harrison, Robert Pogue. *The Dominion of The Dead*. Chicago : The University of Chicago Press, 2003.
- Hobbs, Frank and Nicole Stoops. *U.S. Census Bureau, Census 2000 Special, Demographic Trends, Census 2000 Special Reports, Series CENSR-4*,. Washington, DC,: U.S. Government Printing Office, 2002.

Honey Creek Woodlands. About Honey Creek Woodlands. October 2015. <www.honeycreekwoodlands.com>.

Jackson, Jackson B. *The Necessity For Ruins and Other Topics*. Amherst: University of Massachusetts Press, 1980.

Johansson, O.H. *Tallum Gunnar Asplund's & Sigurd Lewerentz's Woodland Cemetery in Stockholm*. Byggförlaget: Stockholm, 1996.

Linden-Ward, B. *Silent city on a hill: Landscape of memory and Boston's Mount Auburn Cemetery*. Columbus, OH: Ohio State University Press, 1989.

McManus, John. BBC News. 13 March 2015. September 2015.

Merriam-Webster. Infrastructure. 2016. 18 March 2016.

Occhipint, Laurie A. *Making a Difference in a Globalized World: Short-term Missions that Work*. Lanham: Rowman & Littlefield, 2014.

Odland, Aaron. "Landscape Architecture Magazine." *Reconnecting With the Urban Dead* June 2010: 40-49.

Schuller, T., S. Baron and J. Field. *Social capital : critical perspectives* . New York, NY: Oxford University Press, 2000. Print.

Sloan, David Charles. *The Last Great Necessity*. Baltimore and London: The Johns Hopkins University Press, 1991.

Sousa, Ana Naomi de. The Guardian. 21 January 2015. September 2015.

The Associated Press. New York Daily News. 29 October 2009. September 2015.

The Cultural Landscape Foundation. 2015. <<http://tclf.org>>.

The George Washington Masonic National Museum. *Our History*, The George Washington Masonic National Museum. 2014. 10 January 2016.

Warner, W. Lloyd. "The living and the dead: a study of the symbolic life of Americans." (Yankee City Series, vol 5). 1959.

Wasserman, Judith. "To Trace the Shifting Sands: Community, Ritual, and the Memorial Landscape." *Landscape Journal* (1998): 42-61.

Woodlands, Honey Creek. "Winter at HCW." 20 February 2012. Facebook. 21 April 2016.

Worpole, Ken. *Last Landscapes The Architecture of the Cemetery in the West*. London: Reaktion Books, 2003.

IMAGES

Image 1: Woodlands, Honey Creek. "Winter at HCW." 20 February 2012. Facebook. 21 April 2016.

Image 2: Morse, Jededia. Alexandria, VA, 1820. Digital image. www.old-maps.com. Atlas to Jededia Morse School of Geography Rumsey Collection, 11 Feb. 2005. Web. 26 Apr. 2016.

Image 3: De Hogues, Bruno. Pere Lachaise Cemetery. Digital image. MSN Lifestyle. Getty Images, 19 Sept. 2009. Web. 3 Oct. 2015.

Image 4: Ott, Sherry. Skogskyrkogården Cemetery in Stockholm. Digital image. <http://www.ottsworld.com>. Honey Creek Woodlands, 2 July 2013. Web. 24 Apr. 2016.

Image 5: ALEXANDRIA, VA-DC-MD HISTORICAL MAP GEOPDF 7.5X7.5 GRID 31680-SCALE 1945. Digital image. USGS Store. USGS, 1945. Web. 21 Apr. 2016

Image 6: Alexandria, VA. Digital image. Google Earth. Google Earth, 11 Apr. 2015. Web. 1 May 2016.

Image 7: Strewer, Oliver. Waverly Cemetery. Digital image. MSN Lifestyle. Getty Images, 19 Sept. 2009. Web. 3 Oct. 2015.

Image 8-13: Langedijk Cemetery. Digital image. Landzine. Karres+brands, 11 Jan. 2011. Web. 18 Mar. 2016.

Image 14-18: Honey Creek Flora. Digital image. Honey Creek Woodlands. Honey Creek Woodlands, July 2014. Web. 26 Apr. 2016.

FIGURES

Figure 1: Brookings Institute. State of Metropolitan America Indicator Map. 09 May 2010. Website. 08 September 2015.

Image 2: Hobbs, Frank and Nicole Stoops. U.S. Census Bureau, Census 2000 Special, Demographic Trends, Census 2000 Special Reports, Series CENSR-4,. Washington, DC,: U.S. Government Printing Office, 2002.

