

Hochschule Neubrandenburg
University of Applied Sciences

**THE CIRCLE OF LIFE: AN
ECOLOGICAL CONCEPTUAL DESIGN
PROPOSAL OF THE
NEUBRANDENBURG FRIEDHOF**

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BY

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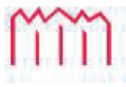
A thesis submitted in partial fulfillment of the requirements for the degree of

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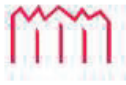
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DECLARATION OF ACADEMIC INTEGRITY

I hereby confirm that the present master thesis / *Ich bestätige hiermit, dass die vorliegende Masterarbeit*

THE CIRCLE OF LIFE:

AN ECOLOGICAL CONCEPTUAL DESIGN PROPOSAL

OF THE NEUBRANDENBURG FRIEDHOF

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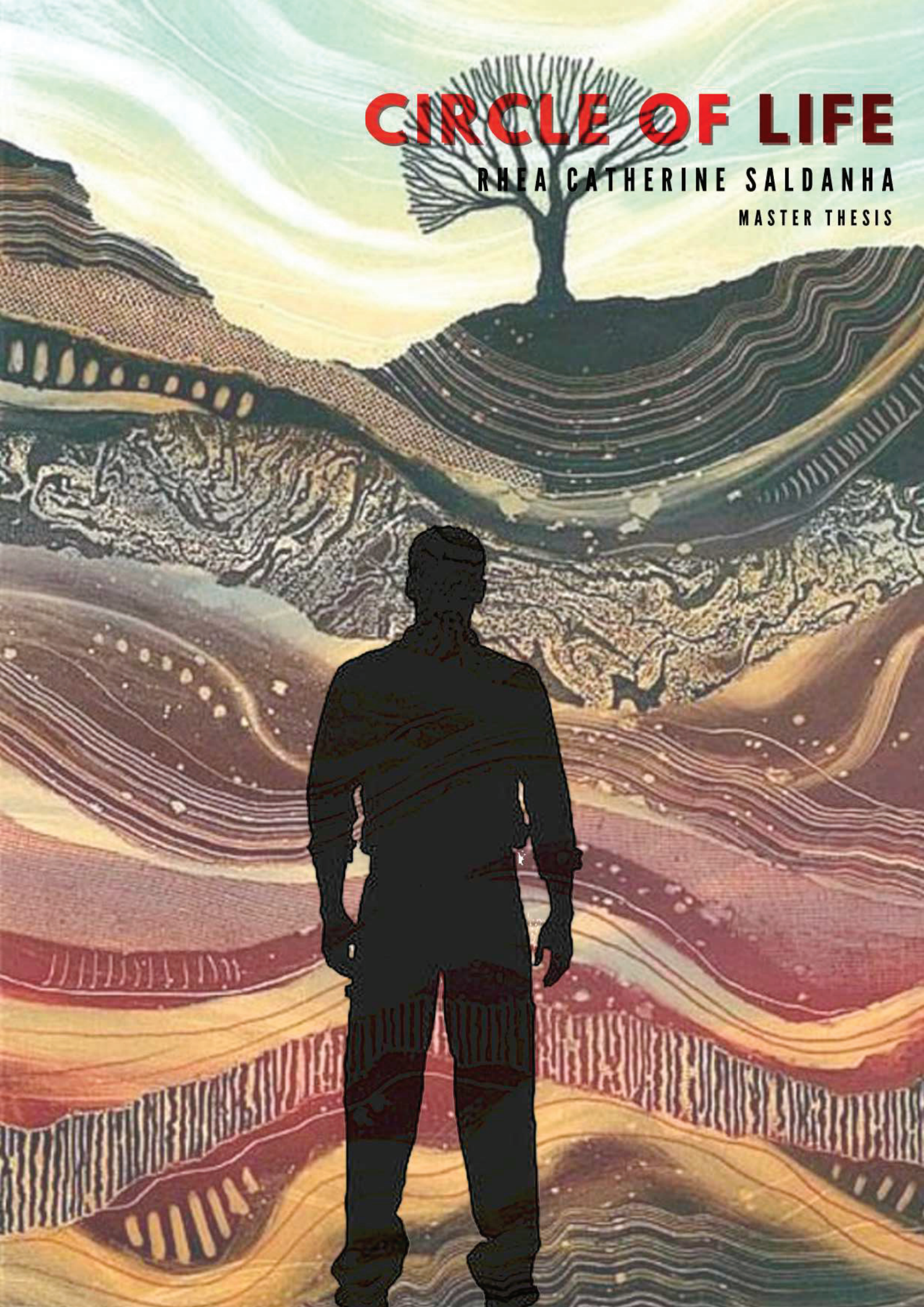
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CIRCLE OF LIFE

RHEA CATHERINE SALDANHA

MASTER THESIS



‘

Death leaves a heartache no one can heal;
love leaves a memory no one can steal.

’

- Anonymous

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Abstract

Human beings have always been fascinated by the subject of life and death. Cemeteries, or last resting places for humans, are the most common kind of funeral architecture. Cemeteries are a significant cultural feature in the landscape and urban fabric with a lengthy history that has played an important part in our society's continual change and evolution. Multiculturalism has introduced a variety of death rituals and mourning traditions as a result of globalization. The scarcity of burial space in contemporary cemeteries is a serious problem. The acute lack of permanent burial places, along with the exorbitant expense of rental ash holding agencies, burial systems, coffin and crematorium expenses etc, has dealt a near fatal blow to cemetery growth in the modern era. Future cemeteries, in a nutshell, have three options: to adapt, diminish, or disappear.

The need to take care of the dead in a dignified and proper manner while causing little to no environmental harm, and therefore assisting in the protection of Neubrandenburg's natural resources, habitat, and ecology will be analyzed. While a potential design precedent has materialized, the potential function of cemeteries in healing and the subsequent shift in attitude toward cemeteries will also be examined.

Abstrakt

Das Thema Leben und Tod hat die Menschen seit jeher fasziniert. Friedhöfe, also letzte Ruhestätten für Menschen, sind die häufigste Form der Bestattungsarchitektur. Friedhöfe sind ein bedeutendes kulturelles Merkmal in der Landschaft und im städtischen Gefüge mit einer langen Geschichte, die eine wichtige Rolle im ständigen Wandel und der Entwicklung unserer Gesellschaft gespielt hat. Der Multikulturalismus hat im Zuge der Globalisierung eine Vielzahl von Todesritualen und Trauertraditionen eingeführt. Die Knappheit an Bestattungsplätzen auf den heutigen Friedhöfen ist ein ernstes Problem. Der akute Mangel an Dauerbestattungsplätzen sowie die exorbitanten Kosten für die Anmietung von Ascheplätzen, Bestattungssysteme, Sarg- und Krematoriumskosten usw. haben dem Wachstum der Friedhöfe in der heutigen Zeit fast den Todesstoß versetzt. Die Friedhöfe der Zukunft haben, kurz gesagt, drei Möglichkeiten: sich anzupassen, zu schrumpfen oder zu verschwinden.

Die Notwendigkeit, die Toten auf würdige und angemessene Weise zu bestatten und dabei die Umwelt so wenig wie möglich zu schädigen und somit zum Schutz der natürlichen Ressourcen, des Lebensraums und der Ökologie Neubrandenburgs beizutragen, wird analysiert. Während ein potenzieller gestalterischer Präzedenzfall geschaffen wurde, wird auch die potenzielle Funktion von Friedhöfen bei der Heilung und die sich daraus ergebende veränderte Haltung gegenüber Friedhöfen untersucht.

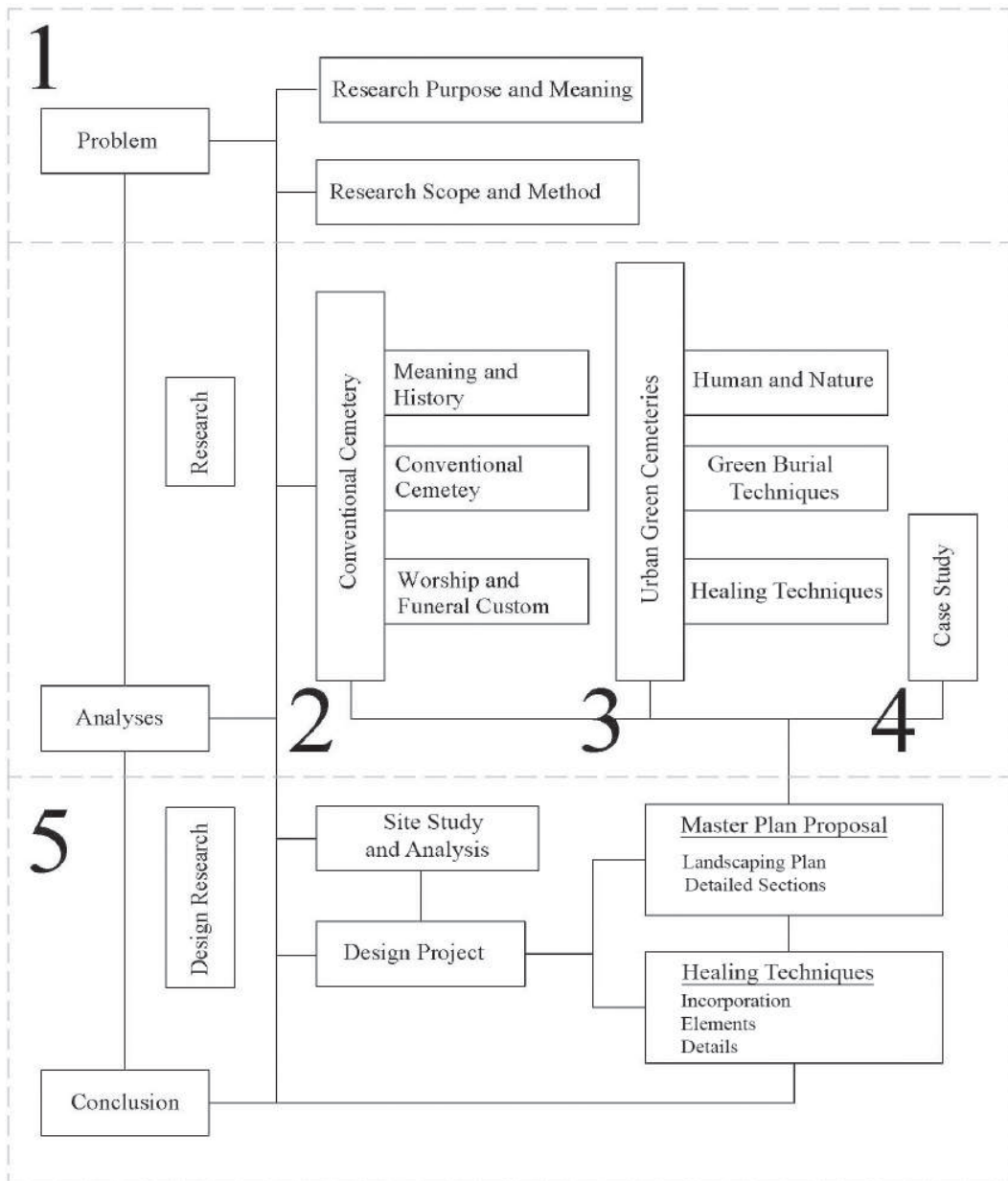
1. INTRODUCTION

*“Death – the last sleep?
No, it is the final awakening.”*

1.1 RESEARCH QUESTIONS

1. How can a cemetery be 'environmentally friendly'?
2. How can a cemetery be a place of 'healing' rather than 'intimidation'?

1.2 RESEARCH STRATEGY



1.3 HYPOTHESIS

My aim for this research design proposal is to design a cemetery that not only serves its purpose, but also acts as a healing landscape for bereaved individuals – regardless of culture, religion or burial practices, and serves as a location that promotes sustainable and ecological cemetery practices.

1.4 METHODOLOGY

The following research streams are part of the methodology:

A quick comparison: The key design criteria of today's cemetery are summarized through a case comparison analysis. Understanding the core of each instance through a comparative approach will provide a solid research foundation that will aid in identifying the common threads in urban cemetery design.

Field research: Field research is also used in this dissertation, which ensures that the study is reliable and authentic. This thesis' field study primarily focuses on contemporary cemeteries in Germany as well as not so contemporary numerous instances from across the world that clearly demonstrate the differences in design characteristics between contemporary and non-contemporary cemetery alternatives.

Case study: Several case studies devoted to comprehending important historical and contemporary projects, as well as current theory, in order to unravel the previous design discipline and lay a strong foundation for future research. This primarily focuses on contemporary cemeteries in Germany as well as not so contemporary numerous instances from across the world that clearly demonstrate the differences in design characteristics between contemporary and non-contemporary cemetery alternatives.

1.5 PROJECT OUTLINE

First, the history and evolution of cemeteries in the German and international contexts were studied, as well as the methods and techniques used in historical landscape design. Elements and practices were examined and recorded.

Following that, Germany was examined with regard to diverse cultural and religious traditions. This was done so that the similarities and variations in culture and funeral processes could be examined in more depth. Given that death is a taboo or very delicate issue, a cultural reflection allows for an inquiry into how each community's requirements may be handled completely and with respect. After all, the fundamental goal is to eliminate the stigma or fear associated with cemeteries or funeral sites.

Following that, a comprehensive research of Green/ Ecological Cemeteries was conducted. Understanding the requirements and features of green burial systems, the many kinds of green graves, and the ecological alternatives that can and will be used in the macro and micro site context are all part of this.

Cemeteries' function in healing has also been extensively researched. The research includes a breakdown of the phases of grieving as well as how therapeutic surroundings may aid in the healing of those who have lost a loved one. The significance of cemeteries in promoting recovery will be discussed as part of the therapeutic environment debate.

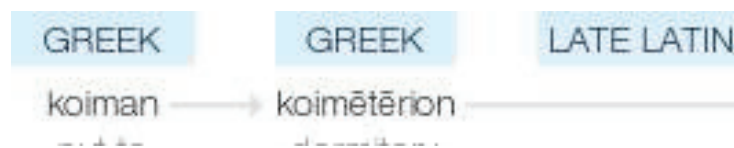
Precedent studies of existing projects and proposals in the International Context such as Acacia Remembrance Sanctuary – in Sydney, Australia, Ashes and Water – Mexico, Memorial Parque – Sao Paulo, Brazil and I am a TREE – Italy; and a project in the local context particularly the existing contemporary cemeteries in Germany such as the Weißensee Jewish Cemetery – Berlin ; were analyzed in detail.

2. THEORETHICAL RESEARCH

*"When someone you love becomes a memory,
the memory becomes a treasure." ~ Unknown*

2.1 ETYMOLOGY

A cemetery, burial ground, gravesite, or graveyard is a location where people's ashes or corpse are buried, interred or otherwise placed. The term cemetery, is of Greek origin κοιμητήριον, meaning *sleeping place*, refers to land that has been designated as a burial site.



Although the terms 'graveyard' and 'cemetery' are sometimes used interchangeably, a graveyard refers to a burial place within a churchyard. A graveyard, also known as a churchyard, was a location where the dead were buried in mass graves around the church in the seventh century. In the early nineteenth century, entirely new burial grounds were built outside of the city core. This saw a change in the notion of cemetery styles, particularly being defined as a "large landscaped burial ground, specially laid out for the deceased to be buried or interred, and is not attached to the churchyard a place of worship" (Bhatt, 2016)

Philippe Ariès (1982), a French medievalist and historian, described the cemetery as a "sacred dormitory of the dead." He goes on to say that a cemetery is like a home for the dead, to which we all return (as cited in Bhatt, 2016)

2.2 DEATH CULTURE

Because it includes a judgment on life as well, no subject in philosophy is more fundamental to metaphysical debates than the philosophical judgement on death. Many thinkers from many times have contributed to guiding people's thinking and views on life and death, laying the various foundations for funeral culture. Plato, a famous philosopher and Socrates' pupil, thought that death is not an endless sleep, but rather the time when the soul is completely freed from the body (its earthly prison). Plato uses

an argument to show the soul's immortality: the soul is incapable of death since death is decomposition (in which the dying subject is dissolved), but the soul cannot disintegrate. This philosophy is thought to have had a significant impact on western funeral customs.

Death is the "muse of philosophy," according to German philosopher Arthur Schopenhauer, who believes that "all religious and philosophical systems are mainly geared toward consoling us concerning death and are hence primarily antidotes to the dreadful inevitability of death." Everyone has a distinct perspective on death. The way we live will be influenced by our perceptions about death. What kind of life would you prefer? And how do you want to go? These inquiries pique one's interest.

On top of the dying culture's growth, human civilisation is forming. Animism, the belief that the soul never dies, and all worship ideologies are the foundations of funerary architecture. Humans, on the other hand, have a mental weight toward death, which has slowed the development of funeral architecture. Due to a lack of land and other economic factors, two forms of funeral architecture, urban leisure place and urban landmark, will be used in the future. Building funeral architecture in the heart of the city is a method of honoring the departed while also educating and inspiring the living. The evolution of funeral architecture will vary over time, as will the perception of death.

2.3 HISTORY AND EVOLUTION

History

Cemeteries have existed since prehistoric times, when they were referred to as burial fields since they lacked structures and grave markers. European funerals in the 7th century took place in graveyards adjacent or inside local churches. Death became a part of people's daily life as the church was becoming a central gathering place and social institution. However, due to fast population expansion in the early nineteenth century, continuing outbreaks of infectious illnesses - particularly plagues such as the Black

Plague - and a shortage of room for new interments, graveyards were relegated to the outskirts of towns.

European burials took place solely on consecrated land under the supervision of the Church throughout the Early Christian era (Bhatt, 2016). Death was glorified in the early Christian society. They revered those who gave their lives for their beliefs. Bodies were commonly buried in mass graves and left to decompose, although methods varied. Although burial customs varied, corpses were generally buried in a mass grave until they decayed (Bhatt, 2016)

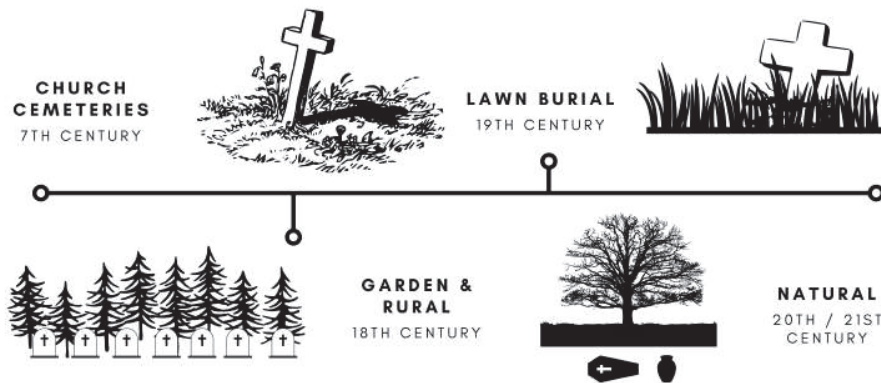
The fast development of cemeteries and individual burial customs during the nineteenth century resulted in space issues. As a result, cities' cemeteries were relocated to the periphery. The concentric structure of the Church was encircled by the gridded city, and the architectural layouts of graves changed. However, the democratization of burial did not eliminate social stratification, as there were many examples of cemeteries that were created for the wealthy and socially prominent. Individual graves and monuments were popular in these cemeteries, and they were later seen in other parts of the world (Bhatt, 2016)

At the same time, other cemeteries worldwide seen influence through the Rural Cemetery Movement, which in turn was influenced by the architectural styles of the English Garden. This would allow conventional cemeteries to be transformed into well detailed gardens, cultivating nature into a setting in which the dead can be memorialized.

Evolution

Throughout history, people have set aside space to remember their loved ones. Ancient settlers had small burial fields adorned with flowers for their loved ones some 300,000 years ago. To memorialize their deceased, ancient Egyptians and Romans constructed magnificent tombs. Our last resting places transformed as cultures progressed. From

churchyards to rural cemeteries to modern memorial parks, the evolution has been quite significant.



Church Cemeteries/ Monumental cemeteries

Monumental cemeteries are a classic design. Angels, obelisks, and other symbols adorn elaborate granite monuments and headstones that mark burial places. These massive slabs of concrete and granite can occasionally completely engulf the deceased's grave. Personal fences and mausoleums surround the burial place in some cemeteries. Because the design is one of the oldest in the world, the magnificent cemetery has become a symbol of the city. The emblems on these monuments vary by culture, but they are generally Christian motifs. Because most cemeteries have historically been owned and maintained by churches, this is the case. As a result, they are frequently referred to as "*Church Cemeteries*."

Garden and Rural Cemeteries

Cemeteries and burial sites began to change as cities grew. This occurred as a result of two primary factors. One reason was that towns were running out of room for burials. The other was that having decomposing remains in cities was a health risk. As a result, people began burying their dead in rural and open regions. Because of the open area they offered, some garden cemetery even became the first public parks. 'A rural

cemetery was a large landscaped park like burial ground also known as a garden cemetery (Bhatt, 2016) The layout of existing natural elements was preserved in this designed public area, which included mutually created roadways and walkways that followed natural contours, as well as native and exotic tree (Bhatt, 2016). In the developing urban culture, rural cemeteries were created for recreation and to build a link with nature.

Lawn Cemeteries

Lawn cemeteries are what we think of nowadays when we think of cemeteries. They consist of large open lawns with rows of square headstones that are all the same size.

Adolph Strauch created the grass cemetery design in Cincinnati in 1855. Lawn cemeteries are easier to manage than garden and monument cemeteries, which is one of the reasons for their popularity. The lawn cemetery is still one of the most popular cemetery designs in the United States and many other countries today. Lawn cemeteries are classified into two types, Traditional and Lawn Beam.

Traditional Lawn Cemeteries

“A grass lawn cemetery where no headstones project above the ground” is what a conventional lawn cemetery is classified as. Plaques of a standard size and design can be horizontally placed on the ground in a traditional lawn cemetery. On the one hand, the cemetery's clean appearance draws visitors, yet activities like planting artificial flowers, vases, toys, and other objects generated a new type of clutter. Another issue is that the grass may grow over the plaques, making it difficult for the bereaved to find their gravesites. (Bhatt, 2016)

Lawn Beam Cemeteries

The lawn beam cemetery is a recent innovation that aims to address the prior difficulties connected with lawn cemeteries. A headstone or plaque is placed atop a low

raised concrete beam that runs the length of the burial site. Even if the grass is overgrown, the beam makes it simpler for the grieving to locate the burial place. The headstones and plaques may be mowed with a lawn mower without causing any damages. (Bhatt, 2016)

Natural Cemeteries

A natural cemetery is one where people can be buried in a natural or environmentally friendly and ecological manner. This technique was reintroduced in the 21st century amongst environmental concerns and awareness. Natural burials were used for thousands of years until being phased out when contemporary methods such as vaults, mausoleums, embalming, and other practices were adopted, all of which delayed the decomposition process.

Natural burial is a method of allowing the body to decay naturally. The body is buried in a grave with a depth cover of at least 800mm, which is the soil's active layer. People are exclusively buried in shrouds or biodegradable coffins because embalming is prohibited. A native tree or shrub is planted in the burial site to serve as a permanent marker. The aforementioned components aid in the natural decomposition process and allow the soil and plants absorb bodily nutrients without causing environmental disruption. This cemetery is also known as '**Green Cemetery**'.

Columbarium Walls

Since cremation became more popular and widespread, several cemeteries have built a columbarium wall. Cremation allows families to preserve a portion of the deceased in an urn or disperse them in various locations, which may have additional memorial significance. The fundamental benefit of a columbaria wall is its high space efficiency, as each niche is only big enough for a person's cremains. In comparison to other forms of burial plots, a columbarium wall is a less expensive option.

The niches that reach near to the ground level are not popular since they are difficult to read, especially for senior persons who are unable to bend down extremely low. The most popular niches are those that are eye leveled. Another added advantage is its low maintenance, making it an extremely popular option.

2.4 CULTURAL REFLECTION

Given that Germany is a melting pot of cultures, with a diverse group of communities and religions/ beliefs. Almost every religion has its own set of rituals and practices that cater to death culture. The following is a summary of how various cultures perceive death and the afterlife.

Buddhism

Life and death are merely various points on an eternally rotating wheel, a continual cycle of life and rebirth (the samsara). Buddhists believe in reincarnation and believe that after they die, they will be reawakened. The acts of a person in this life - their karma – will define their next state of existence. The ultimate goal is to break free from the cycle of death and rebirth and achieve nirvana, or perfect existence (Bhatt, 2016).

Approaching death

When it comes to death, Buddhists have a very peaceful and accepting attitude.

Preparing for the funeral

Family members bathe the corpse in scented water and wrap it in a white shroud or dress it in their nicest clothing at home or at a temple.

Cremation and Funerals

Buddhists prefer cremation, and in Buddhist nations, corpses are burned in the open air. When someone dies by accident or suicide, burial is recommended.

After death

Following the funeral, mourners congregate at a temple or a family member's house. The ashes are collected from the Crematory the next day. As a lasting remembrance, families may plant a tree or hang a lamp outside the temple.

Christianity

Life, Catholics believe, is a gift from God, who supports everyone on their journey through life and welcomes us home at the end (Bhatt, 2016). For Christians, a funeral is a time of joy, despite the obvious sadness, in certain ways because they believe that after they die, they will be with God in heaven.

Approaching death

As the end-of-life approaches, it's critical to respond to the spiritual and emotional needs of those who are ill, as well as their suffering and physical symptoms. The presence of suitable relatives and friends is welcomed, as is reconciliation and relationship repair when necessary.

The moment of death

The moment a person dies is regarded sacred since it is at this point that he or she goes fully into life with God. After a person has died, prayers are said, and funeral rituals are performed as a mark of respect for the deceased.

Funeral service

Catholics choose both cremation and burial for their funeral ritual or service, however for religious reasons prefer the option of burial.

Hinduism

The Hindu society is highly varied, with distinct sects, castes, and locations of origin having different rituals and beliefs (Bhatt, 2016). Life and death are considered a part of the world (samsara) by Hindus, who strive to be free of desire and achieve freedom (moksha). Brahma is the holy power and ultimate truth that, after moksha is reached, takes the soul into it.

Approaching death

Hinduism teaches acceptance in the face of death (Bhatt, 2016). Reincarnation depends on karma, the force of life, which dictates how many times and in what form an individual spirit is reincarnated in the next life. Hindus recite the name of God and say prayers from their sacred scripture, the Bhagavadgita.

Preparing for the funeral

The close members of the family are involved in washing and clothing the body. A Brahman (Hindu priest) is invited to the home of the deceased to read verses from the Bhagavadgita.

Funeral services and cremation

According to Hindu beliefs, cremation should be performed as soon as possible to allow the substance of material existence to return to the elements. Funerals for Hindus are never held at temples. The ashes are either thrown in a river or at sea, or carried to India's sacred river Ganges.

Beyond death

Rituals are performed until the twelfth day after death. On the thirteenth day, a ritual known as the Sraddha takes place, which is a time for mourning, healing, and consolation (Bhatt, 2016)

Islam

Depending on whether they are Shi'ite or Sunni, Muslims' beliefs and practices may differ somewhat. Muslims believe that death is a natural part of God's design and that it is only a short separation between people before they are reunited in the hereafter.

Approaching death

When death approaches, family and friends gather around the dying individual to help them focus on the hereafter; everyone recites verses from the Koran.

Preparing for the funeral

Either in the hospital or at a funeral home, the deceased's body is tenderly and discreetly prepared. The body is dressed in a plain white shroud after being cleansed, perfumed, and dressed.

Burying the dead

Because cremation is forbidden in Islam, Muslims must always be buried. A Muslim considers it an honor and pleasure to attend a funeral. Before the burial, mourners say a funeral prayer, or *salatul janaza*, in which they pray to God for the deceased's happiness in the hereafter.

Beyond death

Mourners assemble at the family home after the funeral, where the imam speaks about the meaning of death. The fundamental goal of grieving is to remember the deceased, pray for the departed soul, and ponder on the truth of death (Bhatt, 2016).

Judaism

Whether a Jewish individual is Orthodox or Liberal, the Jewish community's beliefs may differ (the latter is also known as a progressive or Reform Jew).

Approaching death

The limitless value of a human being is a basic principle of Judaism. The loved one's family is present, and this soothing presence aids the soul's departure from the body.

Preparing the body

After death, fellow Jews shut the deceased's eyelids, straighten their limbs, and cover the body in a white sheet. The body is completely cleaned and clothed in a plain cotton gown, implying that in death, all are one.

Burying the dead

Orthodox Jews favor burial, but progressive or non-practicing Jews may prefer cremation.

2.5 THE RELATION BETWEEN HUMANS, NATURE AND THE URBAN FABRIC

As cities grow, the metropolis may find that traditional burial is becoming a luxury. Due to a lack of space and exorbitant costs, the city has been compelled to use unique burial methods. When all of the city's cemeteries are filled, cemeteries have three options: adapt, diminish, or disappear. In a nutshell, increasing population expansion has resulted in a graveyard scarcity in cities. As cremation grew more common across the world, the columbaria wall and vertical cemetery served to alleviate space constraints. Tree burial, space burial, eco burial, and a high-tech columbarium are just a few of the inventive methods that might help the cemetery become more urban resilient.

These design methods should tackle the present challenges and problems in a significant way and be simple to implement. The problems are to make room for burial while also making it more functionally useful, ecologically friendly, and culturally important.

2.6 GREEN CEMETERIES

Expanding on the topic of natural cemeteries, as discussed in the typologies and evolution of cemeteries, a green cemetery is an option that is becoming increasingly popular due to ecological and sustainable awareness and modern death culture.

While the thought of what happens after death might be frightening, many individuals take solace in knowing that their bodies naturally return to the soil. Green funerals were common in ancient times. Putting a loved one to rest used to be as easy as this, before the days of elaborate caskets and embalming. Today, a return to these simpler times is being advocated as a means of protecting the environment and causing less harm. The body returns to the earth organically when buried in a green cemetery. (GREEN BURIAL COUNCIL, n.d.)

A green burial is a “natural” burial in which the body is neither burned or embalmed before being laid to rest in the ground. There isn't a conventional coffin. To guarantee that the body returns to nature, a biodegradable coffin or shroud is utilized instead. This perfectly encapsulates the adage "ashes to ashes, dust to dust" when it comes to death. Green burials are a natural choice for those concerned about the impact of their death because they are a low-cost, sustainable option.

Those who want a basic, natural, and unpretentious funeral arrangement would appreciate the notion of covering the body in a shroud or placing it in a plain, unadorned coffin. Green burials are a cost-effective alternative to traditional funerals since they do not require embalming, expensive caskets, or concrete vaults. The expense might be substantially lowered if the family provides their own shroud or coffin.

The ability to avoid the embalming process, which involves formaldehyde, a respiratory irritant and proven carcinogen, is appealing to some, as forgoing it promotes worker health awareness.

The desire for “eternal rest” in a forever-wild meadow or forest, as well as a love of nature, are often claimed reasons for choosing green burial. The burial places help to restore or conserve a natural environment with native trees, shrubs, and wildflowers, as well as providing food and shelter for birds and other species. Fertilizer, pesticides, and herbicides are not used in the most environmentally conscious green cemetery. A green cemetery may play a crucial role in the acquisition and preservation of natural ecosystems. (GREEN BURIAL COUNCIL, n.d.)

Green Burial Ground Criteria

1. Caring for the deceased with minimum environmental effect and a focus on natural resource conservation
2. Carbon emissions reduction
3. Protection of worker health
4. Habitat restoration and/or preservation

Green Burial Cemetery Characteristics

1. Avoids the use of hazardous embalming fluids.
2. Vaults are no longer used.
3. Biodegradable containers, caskets, shrouds, and urns are chosen.
4. Herbicides, pesticides, and fertilizers are no longer used.
5. Encourages long-term management strategies.
6. To designate cemetery locations, GPS devices or non-native stone markers may be used.
7. Land conservation initiatives may be aided.

Types of Green Burials

There are numerous varieties to choose from:

Hybrid Burial Ground: The simplest and most popular option is to bury a hybrid in an existing conventional cemetery. Green burials are permitted in many traditional cemeteries, either in a designated portion or within the current cemetery. Because both traditional and green burials are permitted, this is a hybrid burial place.

Natural Burial Ground: No burial containers or chemicals are permitted in a natural burial ground cemetery. Natural-material containers are the only ones that are allowed. Pesticides are also not used to maintain the vegetation at these sorts of establishments.

Conservational Burial Ground: Conservation Burial Ground must satisfy the standards for a Natural Burial Ground and be managed by a government agency or non-profit organization. The governing body will have long-term access to the burial sites in this manner. (GREEN BURIAL COUNCIL, n.d.)

Recomposition facility: Recomposition facilities are an emerging option for green burials. This natural process “gently converts human remains into soil, so that we can nourish new life after we die.”

2.7 SUSTAINABLE BURIAL OPTIONS

It is extremely difficult to bury a loved one. Death has long intrigued and saddened people throughout history. Different civilizations bury their dead in various ways, and as technology improves, new techniques and methods of burying the dead become available. In one culture, what is common and appropriate may be completely different in another. The following are some of the most prevalent and recently adapted methods that people have been buried over the ages or recently.

Green Coffins

Eco-friendly or green coffins are composed of biodegradable, natural materials. They will not affect the environment as they disintegrate since no pollutants will be

discharged into the atmosphere. Wood (pine is an excellent alternative), wicker, banana leaves, cardboard, or basically any other renewable and biodegradable material that can support the corpse can be used to make an eco-friendly coffin.

Burial Shrouds

Burial shrouds, which have been used for generations, are another biodegradable alternative. A shroud is a piece of cloth (simple or decorative) used to cover the body (such as cotton, muslin, linen, silk, felted wool, or bamboo). The shrouds, which are composed of cotton, linen, or wool, are used in traditional religious burials. They may also be personalized with a specific design and utilized on their own or in tandem with a coffin.

Biodegradable Urns

Biodegradable urns can be buried in the ground or in water, but they must be composed of particular materials that degrade properly. A biodegradable urn is a box, cylinder, or other container that stores cremated ashes and dissolves in a matter of minutes to years. Cremation urns made of biodegradable materials are meant to decompose naturally in the environment without leaving a carbon imprint. Bamboo, Planting Material, Wood, or Paper are the most common materials used.

Proposed Biodegradable Options – Capsula Mundi

Capsula Mundi is a cultural and multi-disciplinary initiative that envisions a new way of thinking about death. It's an egg-shaped pod made of biodegradable material, an old and ideal form, where our deceased loved ones are laid to rest. Ashes will be kept in tiny egg-shaped biodegradable urns, while corpses will be placed in bigger pods in a fetal position. The Capsula will then be planted in the ground as a seed. On top of it, a tree chosen by the dead in life will be planted, serving as a monument for the

deceased as well as a legacy for posterity and the future of our world. The tree will be cared for by family and friends as it grows.

2.8 ROLE OF THE CEMETERY IN HEALING

Therapeutic environments may be found in a variety of settings, including medical and residential settings. They are specifically tailored to meet people's academic, environmental, civic, and spiritual requirements. Matthew Berry, a landscape architect, looked at the cemetery as a therapeutic setting and found three essential features, which are listed below (GREEN BURIAL COUNCIL, n.d.)

Physical Environments

The objects in a setting; places such as the cemetery entrance, administrative buildings, monumental and lawn areas; natural features such as forests and lakes; relationships between places created by barriers, paths, vegetation, views, and qualities such as the setting, light, and sound; and natural features such as forests and lakes are all examples of *physical environments*.

Administrative Environments

These are the formal regulations that control things like contractual agreements for usage and procedures for accessing the property, as well as the informal rules that govern things like what is suitable conduct.

Behavioral Environments

The qualities of individuals, their activities, and social interactions/relationships between people make up behavioral environments. Cemeteries have constructed a therapeutic environment and selected numerous therapeutic models for investigation, including the *prosthetic*, *normalization*, and *enhancement* models.

Prosthetic Model

This operates on the idea that, much as a hearing aid compensates for lost abilities, people can compensate for a lack of experience. Similarly, in the grieving process, the individual cemetery and memorial serves as a prosthetic device. It becomes a stand-in for the departed, serving as a point of contact for the bereaved individual. This aids the bereaved in their recovery, allowing them to eventually let go and accept death's truth. One of the most distinguishing characteristics of monuments is their indestructibility and long-term stability. The ability of a memory to physically endure time, or its seeming imperviousness to time's effects, is compared to the consistency of live memory.

Normalization Model

The theory that creating a surrounding environment will assist a person revitalize by establishing a link to the "normal" environment was debunked. The fact that the cemetery is by definition unlike more expansively encompassing natural landscapes makes it difficult to consider it 'ordinary.' A woodland cemetery creates an atmosphere in which death is seen as part of broader natural life cycles. This combination of natural and manmade environments aids in the healing of the bereaved. For the bereaved in mourning, the natural scenery of a forest cemetery provides a normalized healing setting.

Enhancement Model

This is Berry's last therapeutic paradigm, in which the environment is improved to give hope and regeneration, making it more fascinating than a typical location. Within the city, an open space that resembles a natural graveyard serves as a haven.

These captivating natural surroundings provide consolation to those grieving the loss of a loved one, as well as the wider community.

Analyzing the information and research so far collected, as well as the multiple options presented, the next step to understanding design implementation in the practical sense, is to examine consciously, the existing contemporary projects in Germany and the projects and proposals related to the use of Green /Ecological cemeteries around the world.

3. CASE STUDIES

“To live in hearts we leave behind, is not to die.”

~ Thomas Campbell



3.1 ACACIA REMEMBRANCE SANCTUARY

Architects

McGregor Coxall

Project Category

Landscape Architecture - Constructed

Expertise

Landscape Master Plan, Public Institution and Water Sensitive Urban Design

Location and Size

Bringelly, Western Sydney, Australia , 1 ha

Year

2014 -2016

The project comprises of a natural burial and ash interment cemetery on a 1 acre plot of land. The Master Plan suggested market-leading design and management techniques for the Plain Woodland site's long-term protection. Limiting automobile circulation through the site, locating a walled garden and facilities center on the previously deteriorated portion of the site, and using natural burial methods to preserve the current surrounding woods are all strategies for achieving this.



Key Features

1. In this cemetery sans headstones, the bereaved will be able to locate their loved ones' graves using GPS.
2. The walled garden's buildings are 6-green star rated, and the property satisfies its own electricity and water needs with renewable energy and grey and black water recycling. The design and management concepts reflect evolving social expectations for death care, positioning it as a distinctive model for future cemeteries.

3. Visitors are drawn through the wooded property by a meandering elevated walkway that leads to a walled garden surrounded by towering gabion walls with trailing vegetation. The entrance to the site, which runs between the stone-filled cages, was created to provide visitors with a "dignified" transition to the cemetery.
4. A semi-enclosed pavilion called the Gathering Place, located in the center of the property, allows guests to conduct funeral rites and meet with friends and family in a café adjacent to a private garden. The ceremonial hall and café are separated by a colonnade and are connected by rectilinear spaces. The 400-square-metre building and grounds were intended to run off the grid and include a number of sustainability efforts to reduce environmental impact.

Project Impact

At the annual WAN architectural awards, the Acacia Remembrance Sanctuary received the 2016 Future Projects Commercial Award.

3.2 ASHES AND WATER

Architects

Balan Il

Project Category

Landscape Architecture - Concept

Expertise

Funerary Design Concept (Landscape Architecture)

Location and Size

Mexico

Year

2013

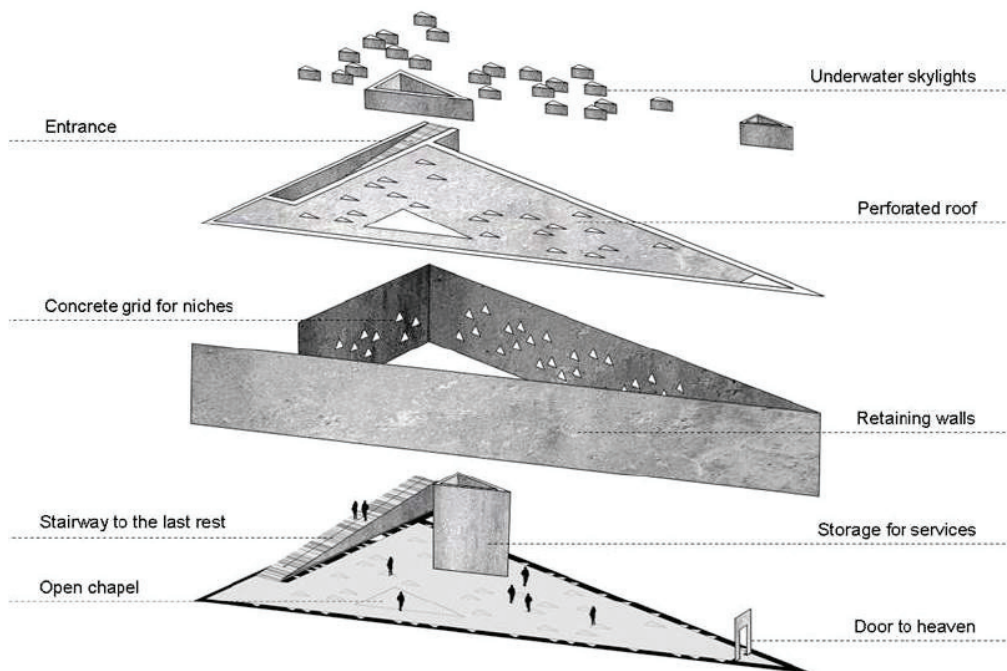
Until the early twenty-first century, cemeteries were constructed in a horizontal manner, increasing their footprint with time and creating "Cities for the Dead," which are typically viewed as faraway locations for "rest" where people remember their loved ones. The grieving process begins far away from normal life with the burial, which leaves relatives and friends at home feeling as lifeless as the corpse they just buried. With this in mind, the architect proposed installing an underwater columbarium in public places such as pond parks to bridge the gap between "cities of the dead" and everyday life.



When a loved one dies, the architect feels that if people are more familiar with death and its effects, they will be able to grieve more naturally and effectively. The two sides of the same coin are life and death.

Key Features

1. Sand, gravel, cement, water, air, and the deceased's ashes are combined to make a memory block that their loved one's place in a wall with triangular niches after funeral rituals, following the standard concrete building procedure. This concrete block will be included into the columbarium.
2. It provides individuals with a fresh sense of recollection and consciousness about death, cremation rites, and the start of the mourning process. The weight of the memory block is comparable to that of a baby, closing the circle of life and death.
3. Only the deceased's name and year of birth are included in the blocks.



4. A normal park pond has been emptied. The pond is replenished when the columbarium is completed. The columbarium is now a public venue for death and bereavement understanding. The columbarium's triangle form gives visitors the impression of walking along a lengthy hallway (the trip of life). In death, human ashes become part of the structure: two sides of the same coin.

3.3 MEMORIAL CEMETERY PARQUE DAS CEREJEIRAS

Architects

Crisa Santos Arquitectos

Project Category

Landscape Architecture - Constructed

Expertise

Landscape Master Plan and Urban Design, Revitalization

Location and Size

Sao Paulo, Brazil, 30 ha

Year

2018

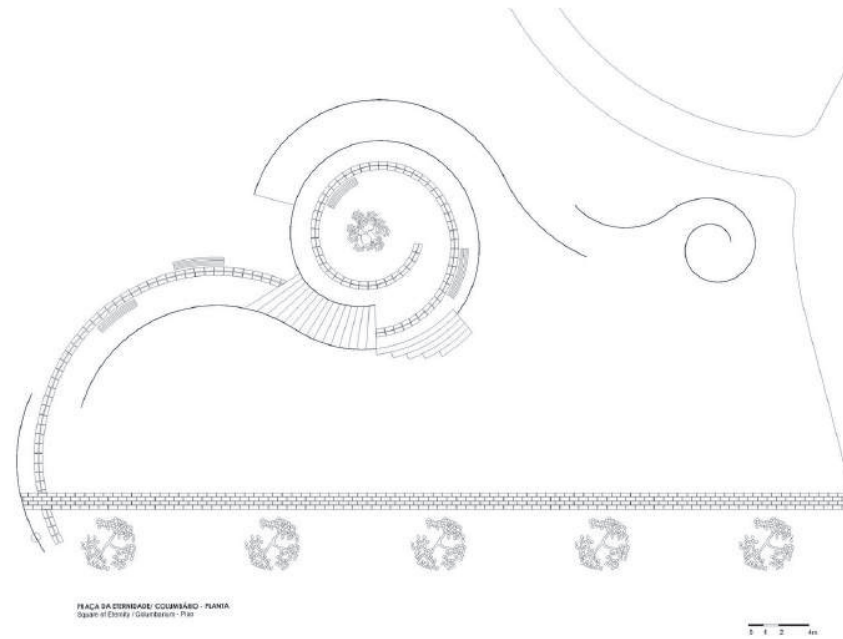
This project's concept is neuroarchitecture, which attempts to raise awareness and knowledge of the effects of architecture on the brain and human behavior by utilizing science to produce sensations and perceptions that cause emotions in users. The architect's vision was for structures to be engulfed by nature in a perfect synergy, redefining human interaction with their most basic feelings in order to restore grief in a more natural way via the practice of biophilia.



Key Features

1. The Architect created settings for individuals to grieve fully and as softly as possible, and he utilized positive influences to make them feel alive, even while they were in agony.
2. The usage of built-in wood, as well as the parametric construction, reference to a flight to a sacred location; grass mounds hint to the rising soul, an ascent to the sky; and this ordinance promotes the visitor's and the surrounding community's freedom to come and leave.
3. Eternity is the most symbolic aspect. The square is produced by a spiral movement of numerous parts with steel plates, creating a story that alludes to all

stages of life: birth, adolescence, adulthood, generation of offspring, maturity, and passage. The plates' curves reflect the chapters of this story.



3.4 I AM A TREE

Architects

A3P DESIGNSTUDIO

Project Category

Landscape Architecture - Concept

Expertise

Funerary Design (Landscape Architecture)

Location and Size

Italy, 60 ha

Year

2017 – On going

The park's general design is dominated by its circular form. The circle implies something that has no beginning or end; it is the ideal depiction of time, the year, day and night, the perpetual return, and so eternity. The project's goal was to connect a 3 km length of bike route through the park to the GRAB cycle path, which would connect the Serenissima station to the Prenestina station in a completely ecological setting. After the Serenissima station, the two cycling routes connect in the south along a roof garden over the railway line, which lowers to the same level as the park at the eastern border of the region.



Key Features

1. The sacredness of the site, as indicated by the presence of the necropolis, is symbolized by seven large hills crossed by a spiral-shaped road that ends at the top; they represent the “sacred” part of the park, which is the location of the commemorative trees and the dispersal of the ashes in nature. They are a homage

to Rome as well as a statement of a completed number, such as the circle of life after death or the number of creations.

2. The path's spiral represents the meaning of every man's inner journey, which must begin from the outside and end in the most intimate, profound, and spiritual aspect of himself.



3. The seven hills, while wishing to separate themselves from the earth by virtue of what they represent, coexist in harmony with the park's most important features, including the archaeological museum, cycle paths, vegetable gardens, and a vineyard, one of which emerges from the lake's waters and is only accessible by boat.
4. More naturalistic hills were created along the north side, following the topography of the land and to provide acoustic barriers against the freeway, in order to drive all park activities towards the center section, compensate for the aesthetic effect, and promote the drainage of runoff waters.

5. The burial of the current, which is now conveyed on very intrusive pylons, was envisioned for an aesthetic question and to decrease the influence of electromagnetic waves, for the aim of a greater and healthier usage of the park.
6. The park's general design may be divided into two distinct portions that are connected by the Viale della Serenissima but are separated by the Viale della Serenissima.
7. A huge lake has been built to the west, which is morphologically more articulated and hence more realistic, and is spanned by a bike and pedestrian route. It is the heart of the park and all of its links, as well as the location of one of the park's seven hills. The archaeological museum, a skate park, and a playground, all on the same side, round out the park's offerings.
8. For a more harmonious and minimal visual impact insertion, the archaeological museum is built on a lower level than the park level.



3.5 JEWISH WEISEENSEE CEMETERY

Architects

Hugo Licht

Project Category

Landscape Architecture – Constructed

Expertise

Funerary Design (Landscape Architecture)

Memorial Architecture

Contemporary Cemetery

Location and Size

Berlin, Germany ; 42 ha

Year

1880



The Weißensee Cemetery is a Jewish cemetery in Berlin, Germany, in the Weißensee district. It is Europe's second-largest Jewish cemetery. The cemetery is around 42 hectares (100 acres) in size and includes over 115,000 graves. In 1880, it was consecrated. Hugo Licht, a prominent German architect, built Weißensee Cemetery in the Italian Neorenaissance style.

The graves are laid out in 120 grid-shaped burial fields of various strictly geometric shapes such as rectangles, triangles, and trapezoids. From A1 at the main gate to P5 on the southern boundary, the fields are designated alphabetically and numerically. The cemetery's grounds are mostly covered in trees. Several burial fields are covered with ivy, which should not be removed, especially on the right side of the cemetery from the main walk. Only a few regions are free of inhabited departments.

Key Features

1. There are 120 various portions to the cemetery sites, each with its own geometric shape. The more well-to-do people and families interred here opted to decorate their mausoleums with the newest art nouveau styles, which is instantly visible.
2. The cemetery's edge is primarily designated for the upper and middle classes, while the center is primarily populated by the lower strata in regions that are more difficult to access and frequently overrun by greenery.
3. There is also an urn field in the cemetery where the ashes of those who perished in the concentration camps are interred. Gravestones serve as memorials for those who do not have a grave. Behind it is a memorial to Jewish soldiers who died during World War I. Herbert Baum and his anti-Fascist resistance warriors are commemorated with a plaque beside the honorary graves.
4. A memorial in the courtyard, just below the main entrance, honors the victims of the Holocaust.

In recent years, restoration work on the property has begun.



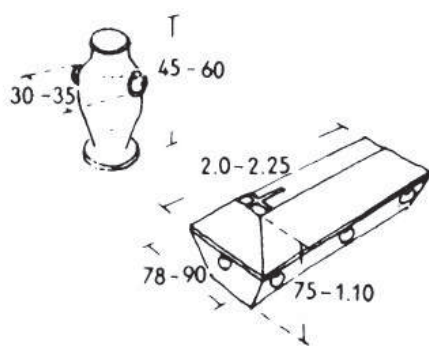
4. DESIGN CONSIDERATIONS

“To live in hearts we leave behind, is not to die.”

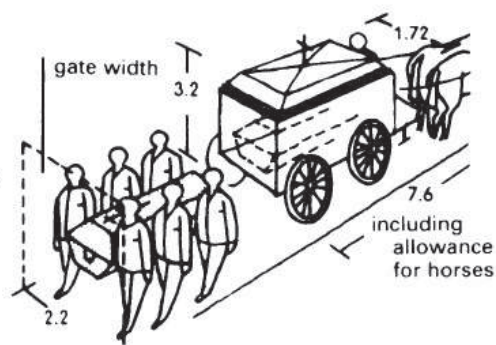
4.1 CEMETARIES AND CREMATORIA

Urns and Columbaria

Cemetery laws frequently limit the size of urns and coffins. When a person is cremated, the ashes are gathered in an iron box and then transferred to an urn. Wall niches in columbaria are typically 38-40 cm broad and deep, with a height of 50-60 cm. In ecological cemeteries, urns and niches must be biodegradable and ecologically



① **Urn and coffin: usual dimensions**

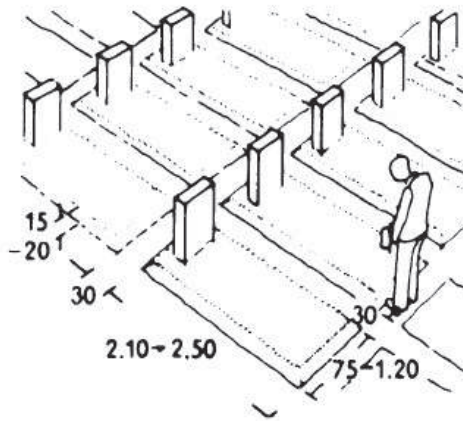


② **Transporting the coffin: dimensions of hearse and min width required by bearers**

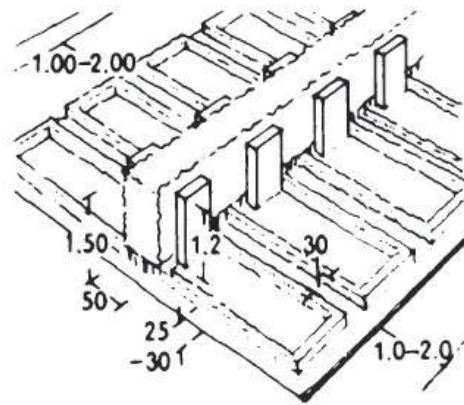
beneficial.

SITE REQUIREMENTS

The location should have easy-to-dig soil (clay or sandy) that is well-drained and has a ground water level of 22.50-3.00 m. Drainage should be supplied if necessary. The space required per 100,000 people is roughly 40 hectares, including pathways and open areas.



① **Grave arrangement head to foot in sections of 200–300 graves**



② **Head to head arrangement in narrow cemetery; separated by hedges; sunken path**

4.2 PARAMETERS FOR DESIGN

Location and Access

Location is the most important design parameter in architecture. The first stage is to comprehend the context of the site's location and its ties to the city. The function and type of cemetery to be built are influenced by the location. Because of the scarcity of space in urban areas, urn storage appears to be a smart and practical solution. The availability of additional land in the suburbs allows for more options, such as ground burial and tree burial. (SONG, 2017)

Emotion and Architectural Vibe of the Space

The architectural space efficiency of contemporary cemeteries is achieved through diversity. Space diversification allows the building to accommodate different functions and provide more services.

Emotions must be allowed to flow freely in funerary architecture. Providing areas for visitors to express their feelings while resonating with the space or with other visitors is a critical design aspect. Emotional and spiritual fulfillment is achieved when the aura of space and human emotions reach a particular level of harmony. The cemetery then transforms into a spiritual haven for the heart and soul. It would be an unforgivable error to overlook this mental component of funeral design. The majority of cemetery design is based on good energy and a sense of calm, which leads to a happy experience and a positive mood. (SONG, 2017)

Evoking the senses in Cemetery Architecture

Sense and sensitivity transmit physical sensations to the brain, resulting in a variety of ideas and emotions. Designing sense in architecture is a difficult, if not impossible, endeavor. Accommodation and integration are the most important aspects of this job. All of the senses are extensions of the tactile sense, and every sensory experience is linked to it. Because they are more intuitive, vision and touch are the primary senses in architectural design. Our perceptions through our senses are the source of our experiences. The senses that are going to be targeted in this thesis are highlighted below.

1. Sight / Vision
2. Hearing / Audition
3. Smell / Olfaction
4. Touch / Somatosensation

Economic Affordability

Nowadays, the last human abode is costly, and some are not permanent. Despite all of the difficulties with land scarcity and fast population expansion, the funeral industry is a low-profile, high-profit sector. The funeral industry's high profit margins are due to a lack of knowledge about death. Furthermore, the emotion of dealing with

the death of a loved one renders them unaware and defenseless, creating an ideal commercial opportunity. The year of possession is also a significant problem. The cemetery, being a human being's final resting place, should be a permanent resting place for the dead. (SONG, 2017)

4.3 ADDITIONAL PARAMETERS

The Value of Having a Master Plan

When planning a cemetery, the master plan is the first and most important stage. A targeted aim should be cohesive planning, maximizing land usage, and long-term sustainability that improves the overall aesthetics of a fragile place.

Proposing suitable landscaping

To answer to a project of this magnitude, a landscape that harmonizes with the current setting while also being distinctive must be built. The perception of ornamental elements, varying shades of green that will give the area its character throughout time, and different types of blooming trees must all be taken into account. Hardscapes should be proportionate to softscapes. Outdoor lighting, memorial furniture designs, and unique water elements that complement the overall plan are all tiny details that contribute to the overall picture.

Signages

There are several types of signage and wayfinding systems. Directional Signage is the kind that helps visitors find their way around the facility. Signage with Information, of course as the name suggests. Temporary Signage are those that are movable and can be repositioned. Monumental and plaque signs are examples of miscellaneous signage. The distribution of these indicators must adhere to certain guidelines and be as efficient as possible.

Grave design concepts that are Ecologically responsive

It's critical to consider the proper grave size when determining the cemetery's burial capacity, and doing so poorly can have an impact on the space's future expansion. Planting a tree as a burial covering should be advocated today as the need of the hour, rather than a non-sustainable stone grave. The adoption of biodegradable urns and caskets would also give the Earth a fresh lease on life.

Grading and Drainage Design are Critical

Designing a drainage system for a cemetery is a complicated process that takes into account physical, environmental, and practical restrictions. However, it must be done in such a way that no leaks occur and that the decomposing parts of the bodies do not enter the groundwater supply system. Some drainage designs that have shown to be efficient include subsoil drains, reed bed construction, surface water, and catch-all drainage systems.

Green Infrastructure Encouragement

Due to the current lack of open land, cemeteries are being pushed to serve various purposes, such as providing public open spaces and parks, or establishing forestry alongside burial grounds. Some ways of treating a cemetery as a more publicly utilized space within a city include harboring the lands to avoid water runoff, retrofitting impervious surfaces with water-retaining green infrastructures such as grass, flowerbeds, shrubs, and trees, and constructing patios, tennis courts, driveways, swimming pools, parking lots, and so on.

Stacking of Coffins

Due to the extreme concern of hurting feelings, some nations, although not all, have adopted vertical burial instead of horizontal burial, sharing coffins, and stacking coffins. However, if alternatives to burying bodies are not pursued, we will eventually run out of land to build dwellings for people to live in.

Influence of culture

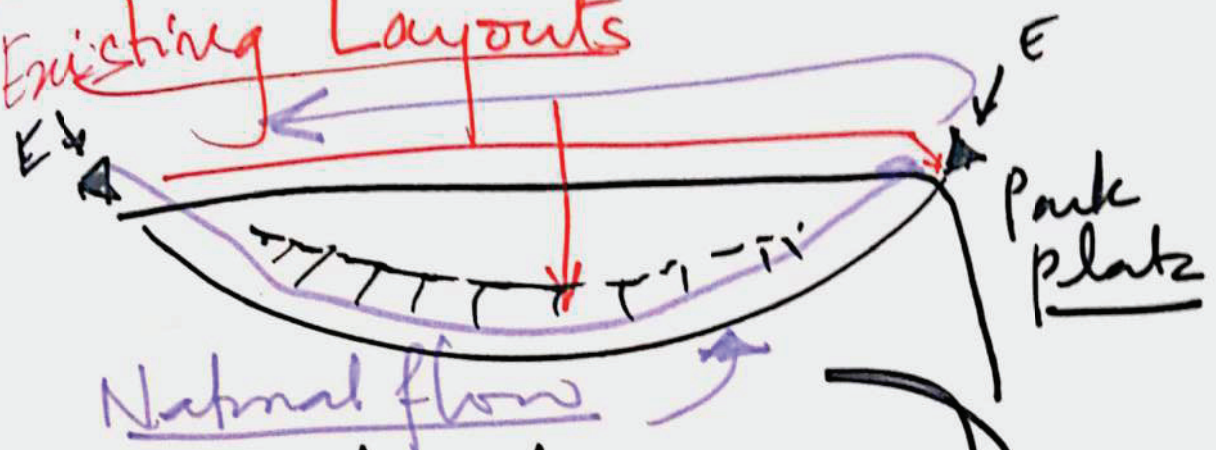
A cemetery is a location where people go to commemorate and mourn their loved ones, and it should be heavily affected by cultural meanings. There will be no identity without the existence of cultural idiosyncrasy and cultural connotation. Different burial customs and styles of cemeteries reflect a country's cultural diversity. Their cemetery architecture reflects the distinctiveness of their cultural features. In most cultures, it is widely accepted that the departed should be treated with respect by the living.

5. SITE ANALYSIS

“The hands want to see; the eyes want to caress.”

– *GOETHE, J.W.*

Existing Layouts



E = point of entry

- No direct access
 - parking too far from access points.
- Parkup?

Existing wind flow



→ opportunity for wind channeling

Rain → Can be reused on site
→ Garden.

Hearing

- less traffic
- chirping of birds,
- quiet humming
- leaves rustling

feeling

- Calm at some points
- intimidated in areas not maintained or manicured
- nostalgic?
- mostly peaceful.

What is missing?

General direction

Signage

Seeing

- Greenery
- Private spaces
- Serenity
- Views.

Smelling

- Rain
- Soaked earth
- fragrance of flowers
- earthy musk

→ Water elements (Blue)

→ Pathways

6. KEY FINDINGS

'I answer the heroic question 'Death, where is thy sting?'
with 'It is here in my heart and mind and memories'

~ Maya Angelou

6.1 THEORETICAL RESEARCH FINDINGS

For those in grief, better healing environments

People's opinions of cemeteries might be modified and they would visit more regularly if the cemetery was constructed expressly to be a healing environment, according to a study of cemeteries that serve as healing environments. The natural surroundings and elements of the place must be carefully considered while creating a therapeutic environment. It is necessary to develop a link between locations and the bereaved in order for them to feel connected to that space. These areas will inspire individuals to engage and communicate with one another, as well as provide restricted places to commemorate. (SONG, 2017)

A secular multicultural cemetery

According to the report, Germany has witnessed and continues to see migration from all over the world. However, throughout time, individuals have begun to adopt a secular mindset. An examination of the funeral rituals of many civilizations found that they are essentially the same, with slight differences.

Land shortage and pressure on burial spaces

The growing strain on burial space is a serious concern, according to research into burial and cemetery typologies throughout the world. In order to be more land efficient and environmentally sound, a study of ancient and modern burial customs, as well as their layout requirements, was required to tackle this challenge. Architectural requirements have also been taken into account.

6.2 CONCENTRATED KEY WORDS

The design was aided by elements discovered during the typological research included in this thesis. They are as follows:

1. Cemetery and Green Cemetery
2. Ecological Engineering
3. Symbolism
4. Healing Gardens
5. Future Developments
6. Immortality
7. Sustainability
8. Comfort
9. Sensory Architecture
10. Eco Burials
11. Memorial Architecture
12. Conceptual Design
13. Landscape Architecture
14. Curves and Curvilinear Architecture

6.3 SITE FINDINGS– SWOT ANALYSIS

SITE ANALYSIS

SWOT ANALYSIS

SITE LOCATION

SITE LOCATION: NEUBRANDENBURG FRIEDHOF

SITE SCALE: LARGE, 49 ACRES
OR 195449 SQ M

STRENGTHS

HISTORICAL ASPECTS ARE A PLENTY
-GERMAN AND RUSSIAN MEMORIALS
DATING BACK TO WWII

AISLES - LANDSCAPE ELEMENT WELL IMPLEMENTED

THE VIEWS AND VISTAS OF THE SITE

FLORA AND FAUNA ARE IN ABUNDANCE



OPPORTUNITIES

WIND CHANNELLING

NATURAL COOLING

LOCALLY / EU SOURCED MATERIALS

TREES THAT ARE ENDEMIC

AND THAT CAN BE TRANSPLANTED

GREY WATER THERAPY

BIO SWALES

ECO BURIALS

WEAKNESSES

NOT BARRIER FREE - NO RAMPS
OR ACCESS FOR THOSE IN A
WHEEL CHAIR

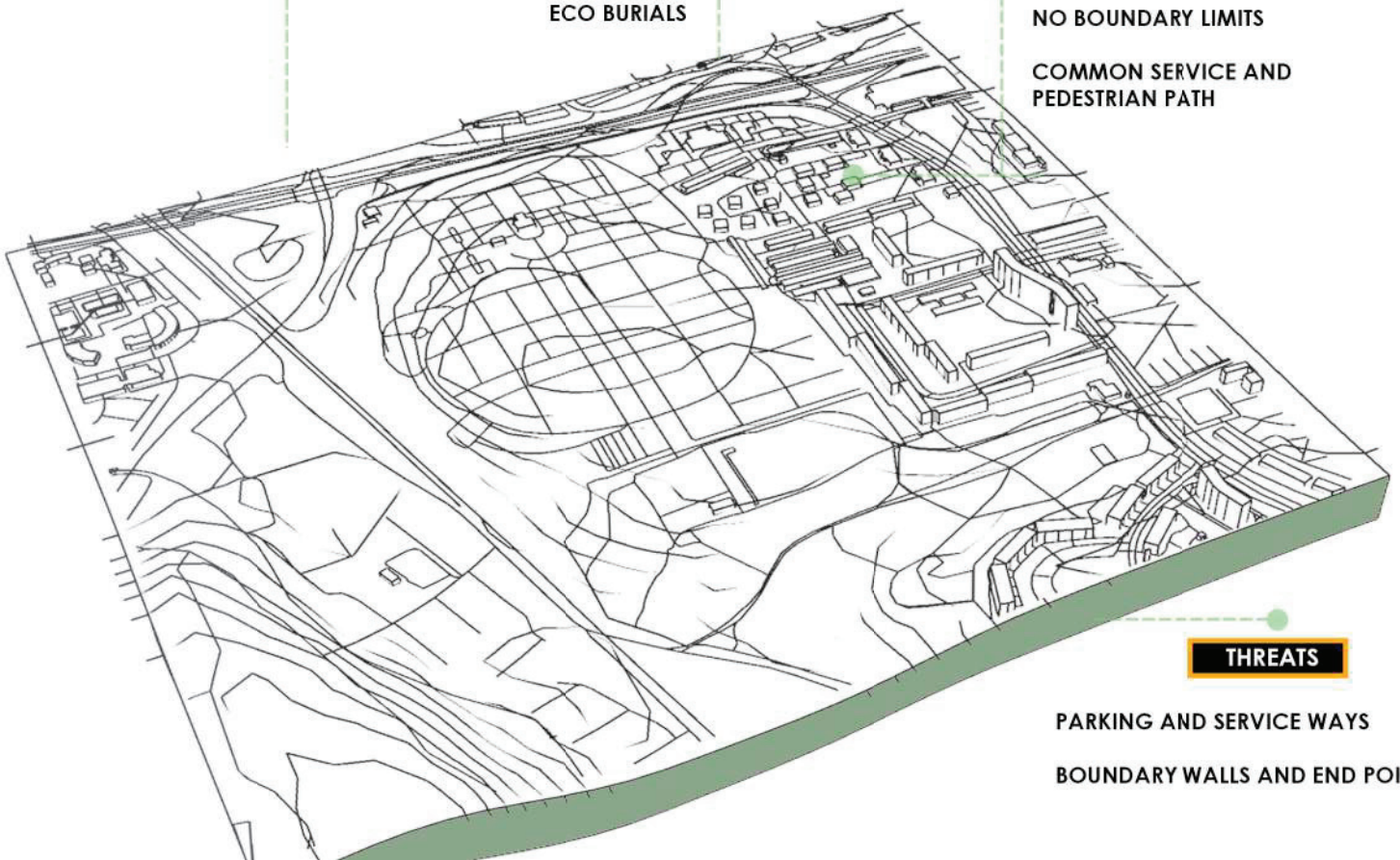
NO DECENT LIGHTING

CANNOT MAKE OUT THE ENTRY
OF THE SITE

NO BURIAL PATTERN, SIGNAGES

NO BOUNDARY LIMITS

COMMON SERVICE AND
PEDESTRIAN PATH



THREATS

PARKING AND SERVICE WAYS

BOUNDARY WALLS AND END POINTS

6.4 SUMMARY

Death is a moment of upheaval linked with a sense of loss and transition in every culture and in everyone's life. Understanding the many functions that cemeteries play in the community will aid in the design of a cemetery that will aid the bereaved in their grieving process. Any style of cemetery provides a therapeutic atmosphere for the bereaved, regardless of the greatest option for a healing environment. However, the study finds that a natural cemetery overcomes many of the drawbacks associated with standard cemeteries. This implies that natural cemeteries will be preferred as last resting places for loved ones. (SONG, 2017)

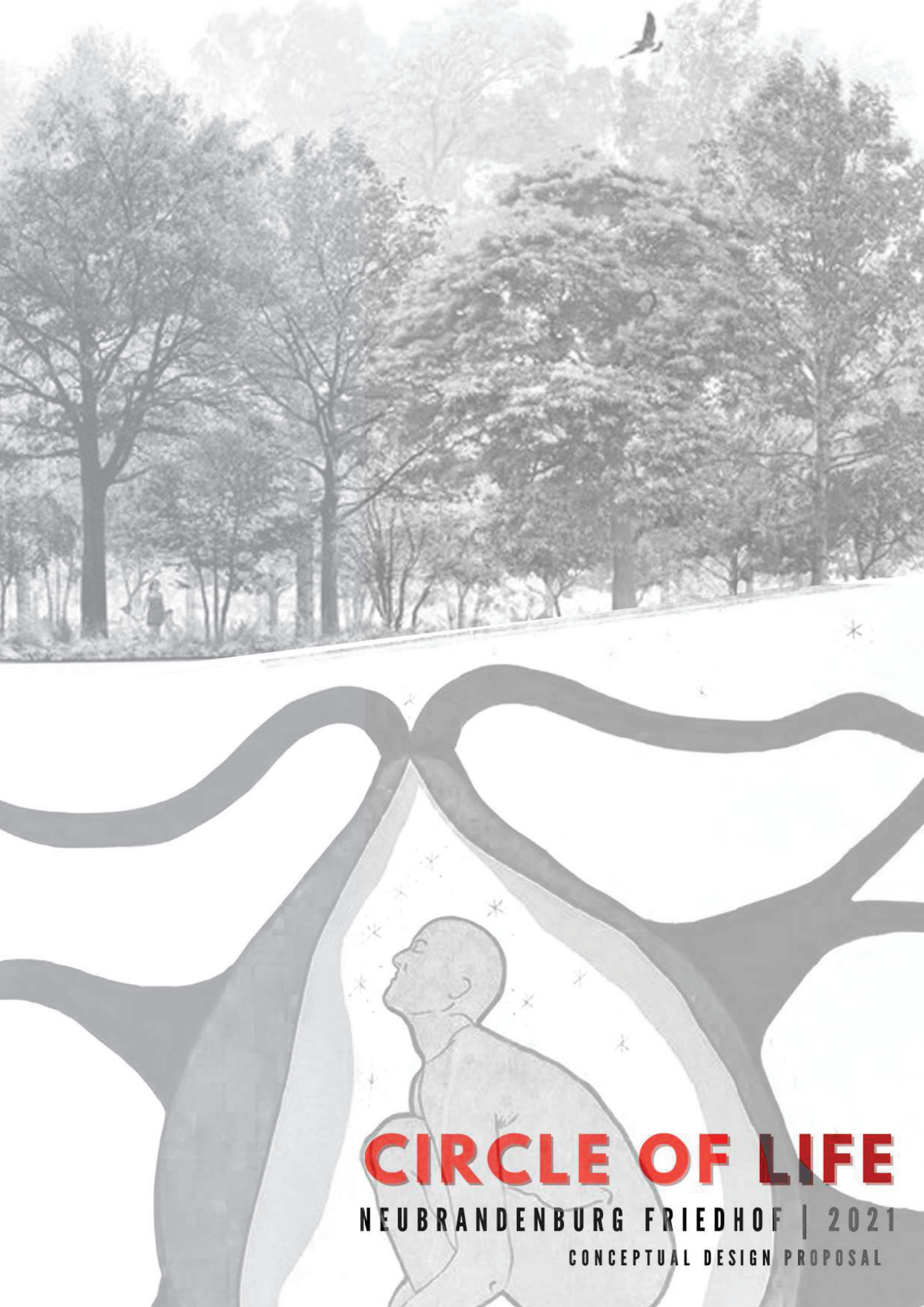
The examination of five distinct cultures' death rituals reveals that each culture has its own history, beliefs, and rituals. However, as a result of globalization, these beliefs and practices have evolved dramatically throughout time. The fundamental idea of death, mourning, and honoring the deceased is nearly universal throughout cultures, although the method rituals are done varies. The study attempts to comprehend the distinctions and similarities of death rites, revealing that the only significant difference is whether to be buried or cremated, and that accommodations must be made for both, which the study's design aims to solve.

As previously stated, different religions have distinct needs for the funeral ceremony. This design project, on the other hand, tries to adopt a secular perspective to cemetery architecture. The emotional impact of death and dying on the living, as well as the importance of the funeral process, are evident through an examination of the ceremonial rite. The tools and techniques used to deal with the reality of life and death are culture, religion, faith, beliefs, and upbringing.

7. CONCEPT AND DETAILED DESIGN

*'Coming Home, never more to roam; Open up thine arms of love,
Lord I'm Coming home'*

~ Church Hymn

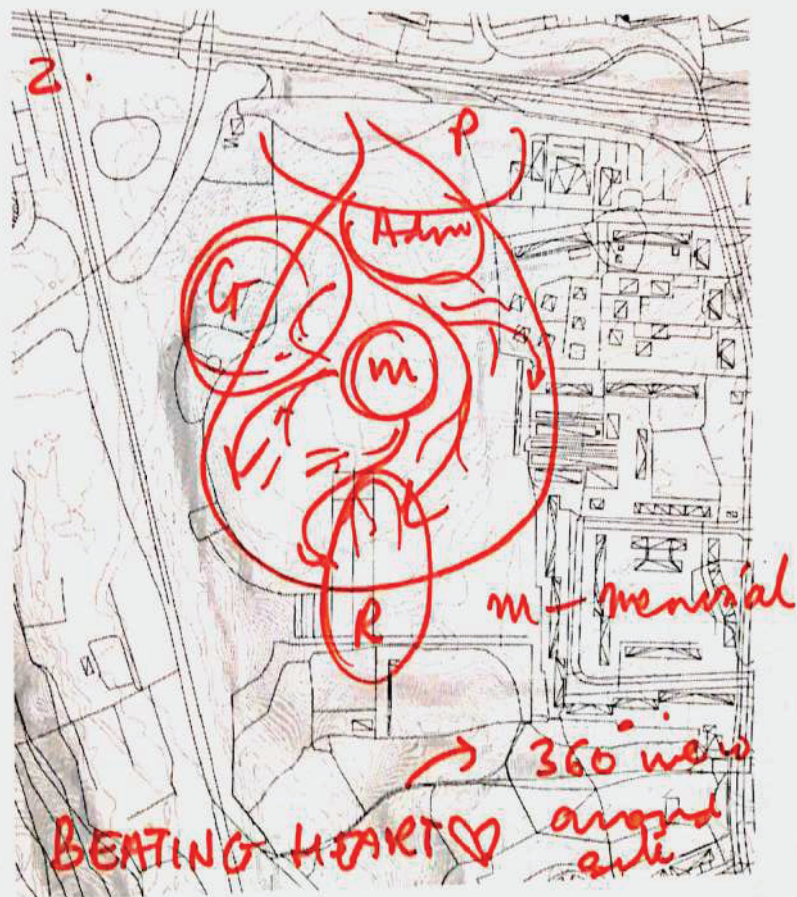
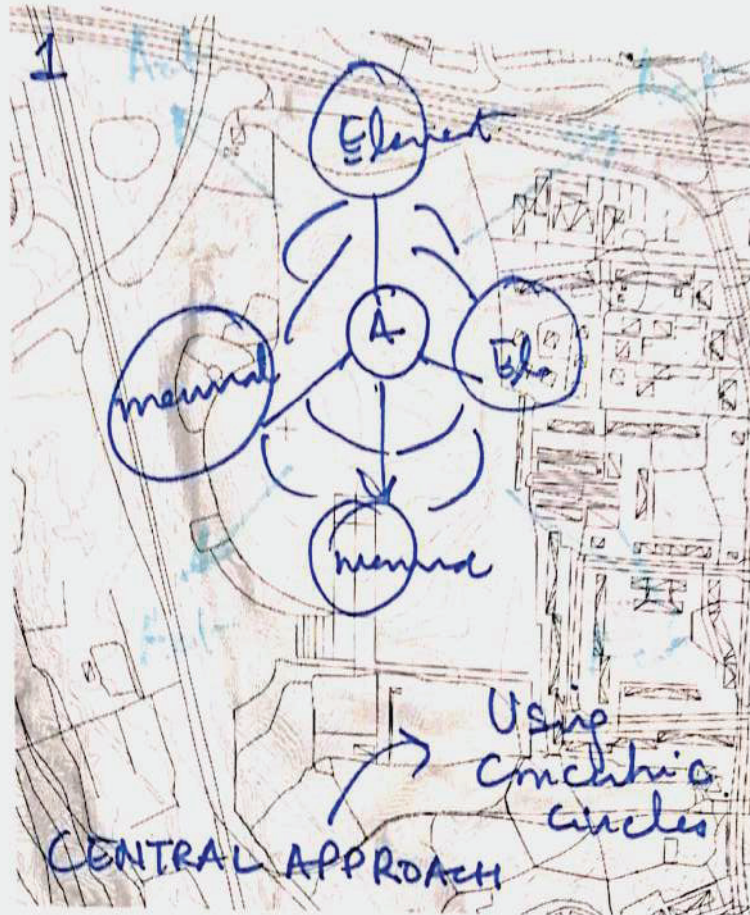


CIRCLE OF LIFE

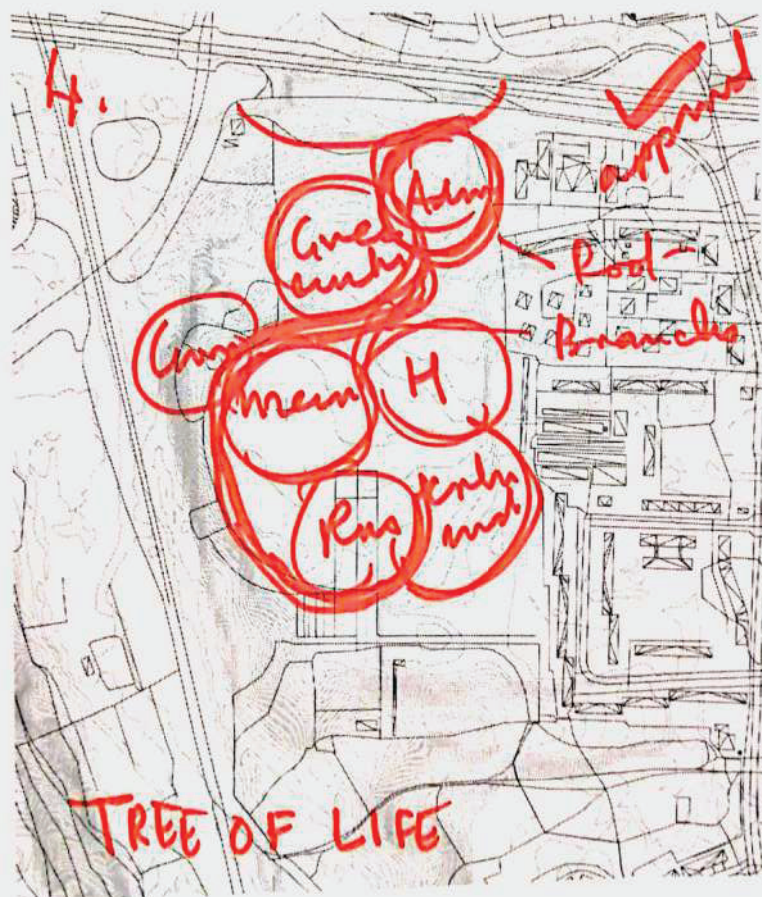
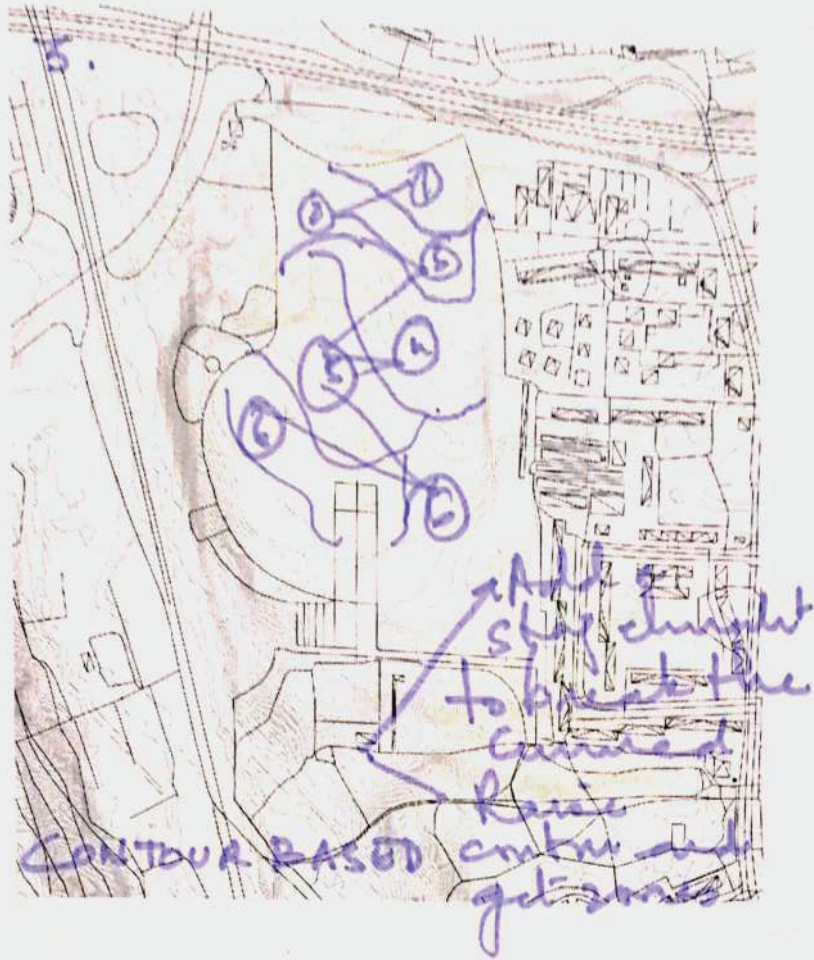
NEUBRANDENBURG FRIEDHOF | 2021

CONCEPTUAL DESIGN PROPOSAL

SITE ZONING



SITE ZONING



CONCEPT

↳ 'Everlasting tree of life'
↳ has no end

- elevated path

- continual

- Biosphere /
Raw garden

'green
Jungle'
Capsula Healthy
multi garden

BRANCH

ADMIN
↓

Ground root
BARK

Common
memorial

Raw garden
memorial
+ lumber
Journey

BRANCH

BRANCH

Branches
↓

Russian

HG

green
Jungle

MASTERPLAN

PLANTING CATALOGUE



Gardenia
Scarbella



Hydrangea
Macrophylla



Lobelia
Siphilitica



Rosemarinus
Officialis



Petunia
Hybrid



Lantana
Montevidensis



Cosmos
Bipinnatus



Catharanthus
Roseus



Angelonia
Biflora



Zephyranthes
Rosa



Lantana
Camara



Dianthus
Caryophyllus



Begonia
Cultivars



Catharanthus
Hybrid



Rondeletia
Ordata



Celosia
Argentea



Cosmos
Sulphureus



Ixora Dwarf
Orange



Birch



Beech



Juniper



Elm



Daisy



Azelea



Willow



Ivy



Edelweiss



Cherry
Blossom



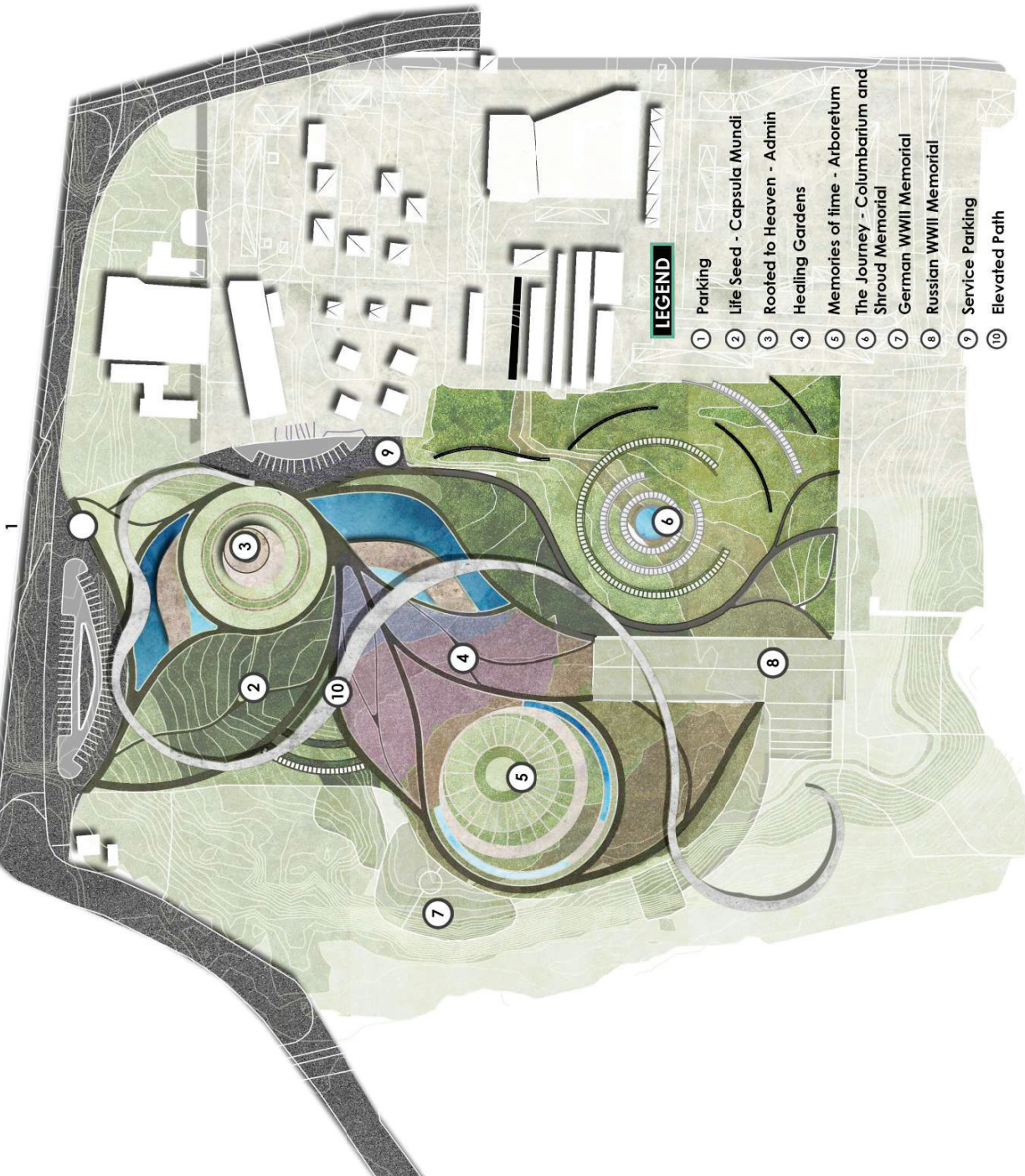
Maple



Norway
Spruce



Oak



LEGEND

- 1 Parking
- 2 Life Seed - Capsula Mundi
- 3 Rooted to Heaven - Admin
- 4 Healing Gardens
- 5 Memories of time - Arboretum
- 6 The Journey - Columbarium and Shroud Memorial
- 7 German WWII Memorial
- 8 Russian WWII Memorial
- 9 Service Parking
- 10 Elevated Path

MASTER PLAN



Juniper



Elm



Daisy



Azelea



Willow



Ivy



Edelweiss



Cherry
Blossom



Maple



Norway
Spruce



Oak



LIFESEED

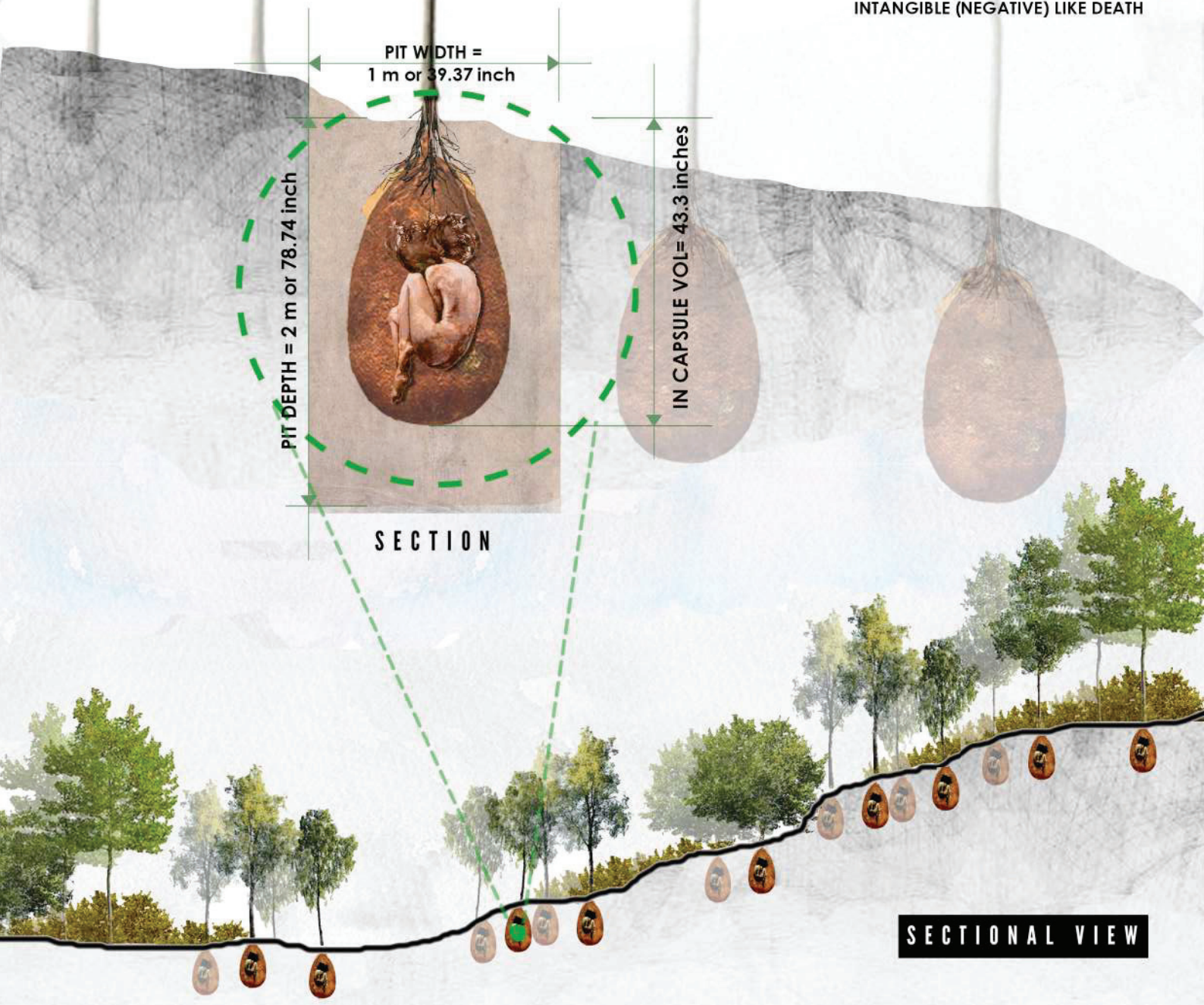
CAPSULA MUNDI SECTION

THE USE OF ECOLOGICAL BURIAL OPTIONS HELPS UNDERSTAND THE IDEA OF 'NATURE TO NURTURE'

A REGULAR CEMETERY IS TRANSFORMED INTO AN URBAN FOREST, CONTRIBUTING TO THE URBAN ECOLOGY AND BECOMING A GATEWAY FOR A CALM AND PEACEFUL MOURNING PLACE FOR THE BEREAVED

THE CONCEPT SATISFIES THE PURPOSE OF BOTH THE LIVING (IN THE FORM OF TREE - ECOLOGICAL BENEFITS) AND THE DEAD (A BURIAL PLACE THAT WAS CONSCIOUSLY CHOSEN TO GIVE BACK TO NATURE)

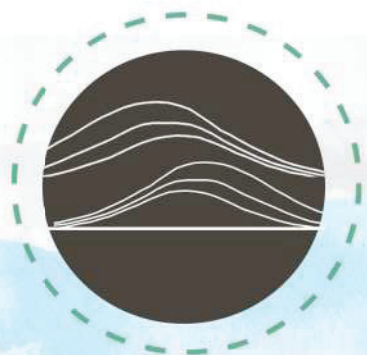
THE TREE BECOMES TANGIBLE - SOMETHING THAT CAN BE FELT OR TOUCHED, EVEN THOUGH DEATH MAKES SOMETHING OR SOMEONE UNTANGIBLE. THE USE OF CAPSULA MUNDI ENABLES US TO CREATE SOMETHING TANGIBLE (POSITIVE) OUT OF SOMETHING INTANGIBLE (NEGATIVE) LIKE DEATH



MEMORIES OF LIFE

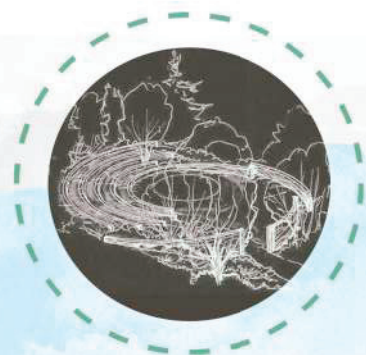
MEMORY ARBORETUM

THE DESIGN DRAWS ATTENTION TO CONCEPT OF RESURRECTION AND REGROWTH AS WELL AS TO THE IDEA THAT EVEN IN DEATH, A CONNECTION IS STILL MAINTAINED WITH THE COMMUNITY



GREEN MOUND

CURVES REPRESENT A TWO WAY CONNECTION BETWEEN THE LIVING AND THE DEAD - A WARM EMBRACE



RAMPED SEATING

IN TERMS OF USER ACTIVITY, THE SPACE IS BARRIER FREE AND PRACTICAL



OAK TREE

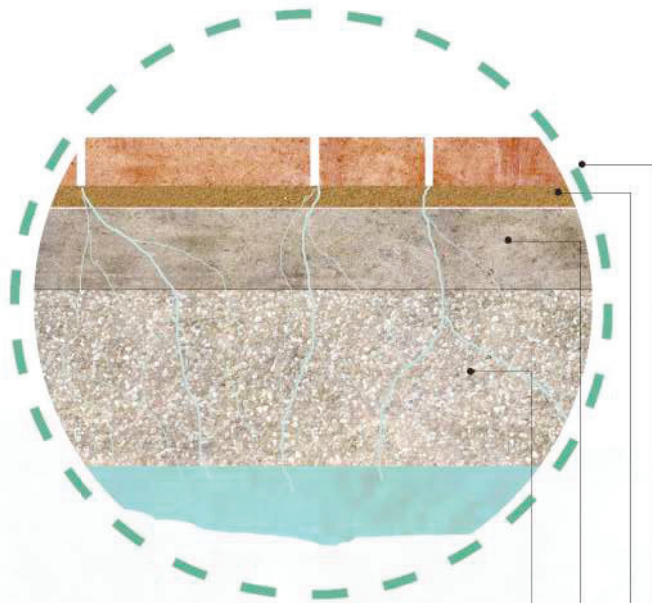
SYMBOL OF GROWTH, RESURRECTION AND ENDURANCE - INSPIRED BY THE EXISTING GERMAN MEMORIAL



SECTIONAL VIEW

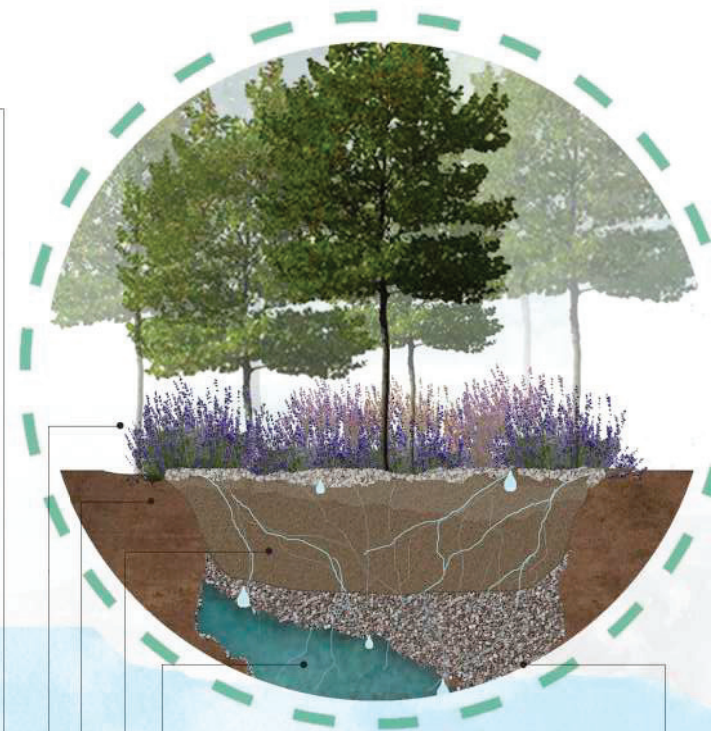
MEMORIES OF LIFE

SITE DETAIL



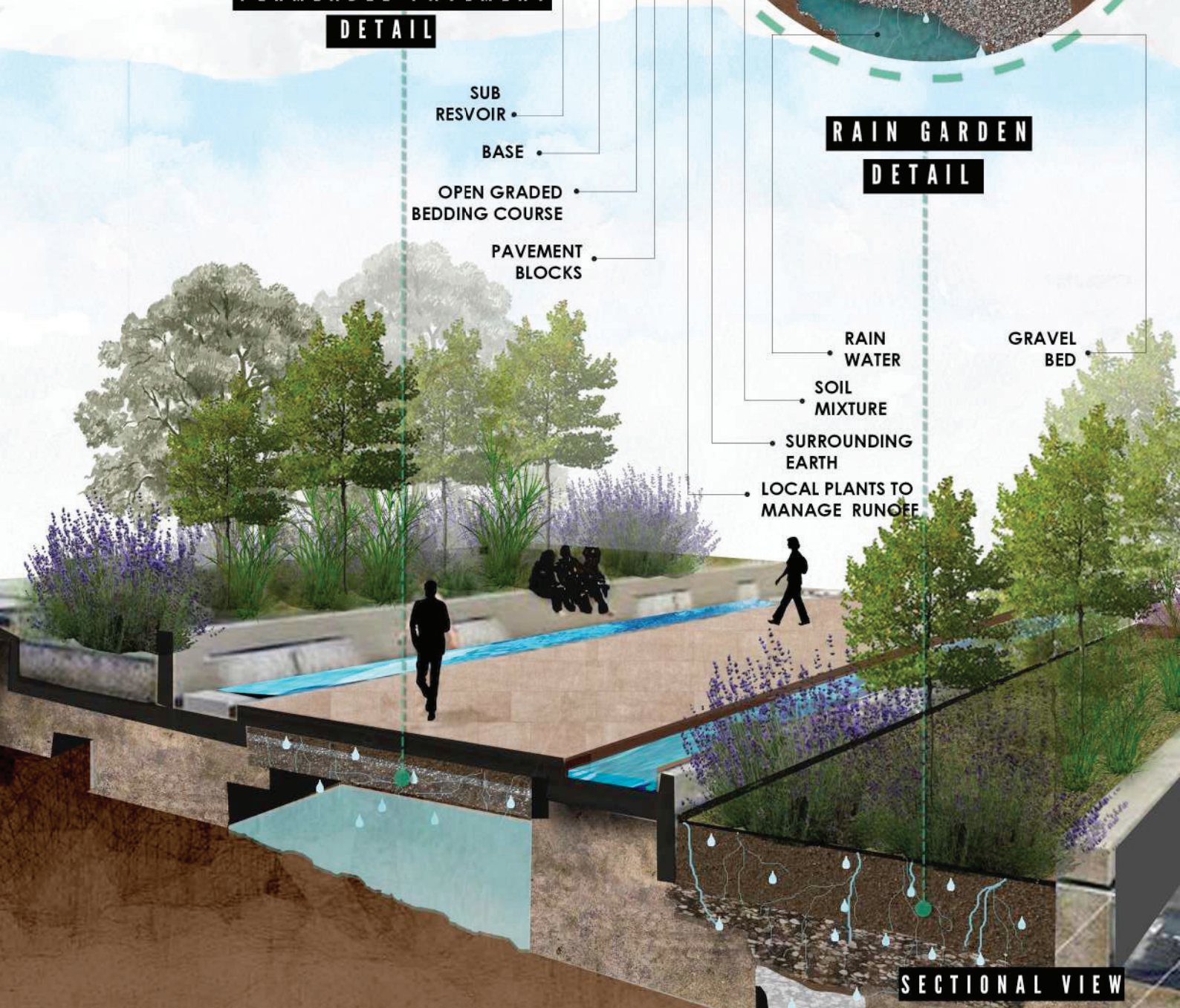
**PERMEABLE PAVEMENT
DETAIL**

- SUB RESVOIR
- BASE
- OPEN GRADED BEDDING COURSE
- PAVEMENT BLOCKS



**RAIN GARDEN
DETAIL**

- RAIN WATER
- SOIL MIXTURE
- SURROUNDING EARTH
- LOCAL PLANTS TO MANAGE RUNOFF
- GRAVEL BED

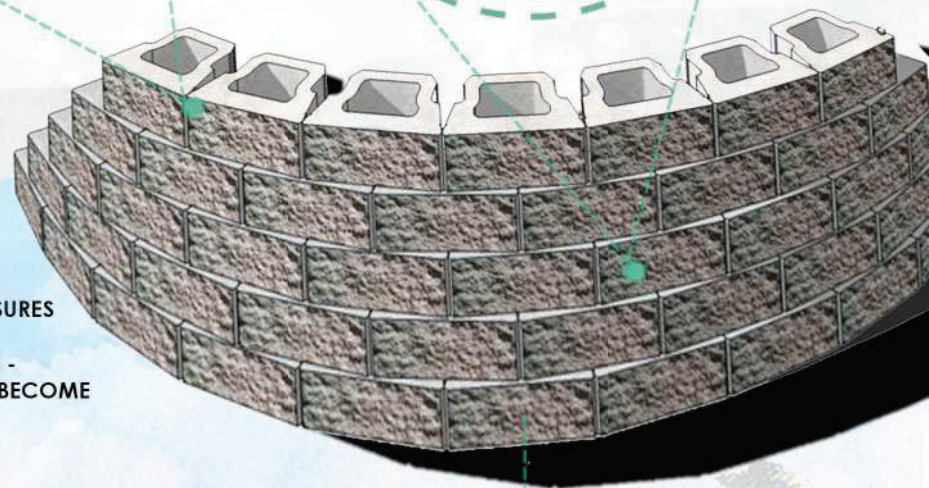


SECTIONAL VIEW

THE JOURNEY

COLUMBARIUM SECTION

'TRANSFORMATION' - VEGETATION GROWS THROUGH THE COLUMBARIUM WALL AND IS NURTURED BY THE ASHES



THE GABION WALL COLUMBARIUM ENSURES INTEGRATION OF THE WALL STRUCTURE WITH THE SITE'S NATURAL TOPOGRAPHY - THE DECEASED INTERRED IN THE WALL BECOME THE BUILDERS OF NATURE

SECTIONAL VIEW

THE UNITS ARE PILED ONE OVER THE OTHER, AND THE HOLLOW SLOT IN THE CENTRE IS ACCESSED BY THE TERRACOTTA DOOR/MEMORIAL SLAB



THE JOURNEY

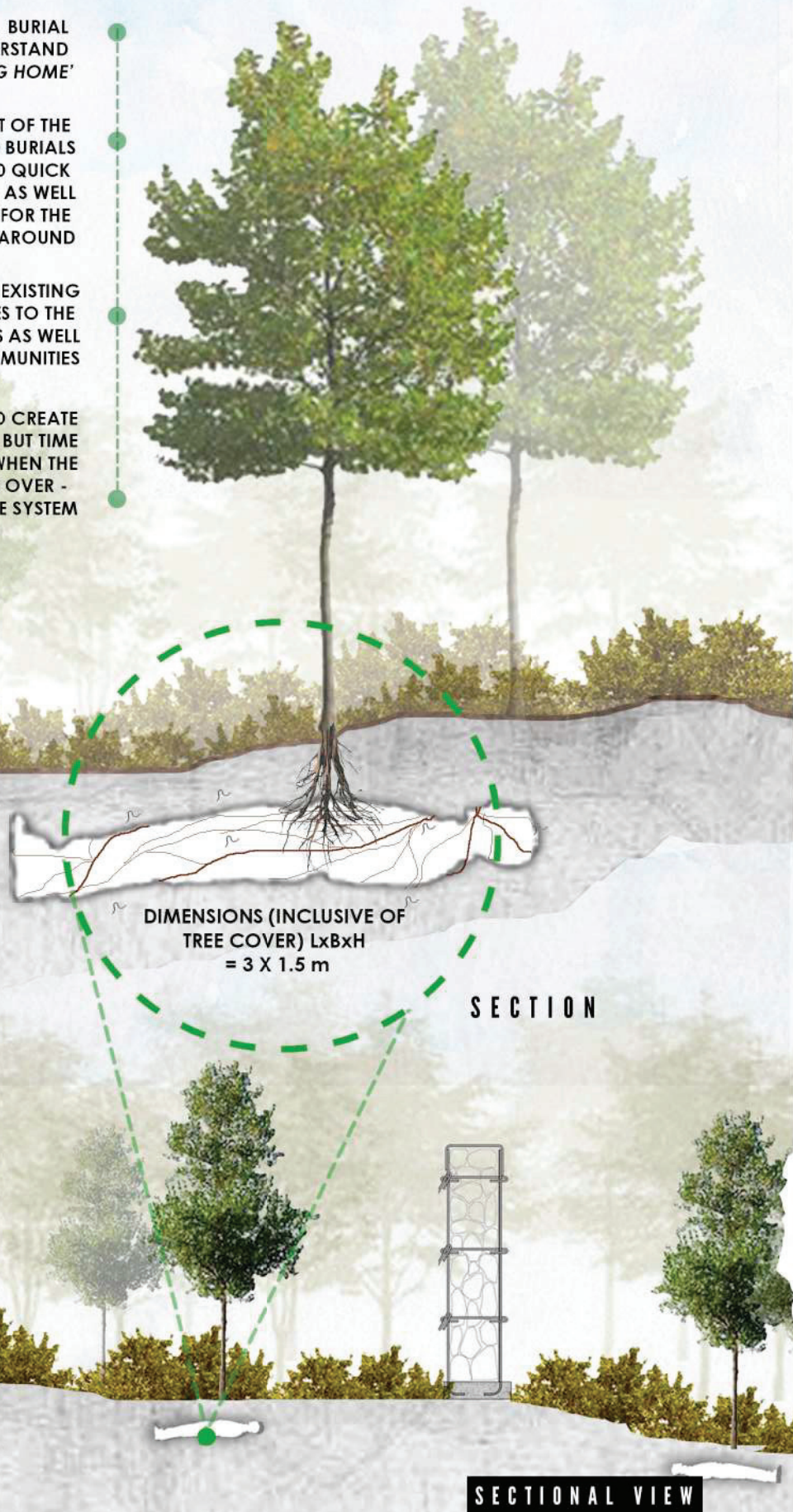
SHROUD BURIAL

THE USE OF THIS ECOLOGICAL BURIAL OPTION HELPS UNDERSTAND THE IDEA OF 'BEING HOME'

CLUBBED WITH THE CONCEPT OF THE COLUMBARIUM, THE USE OF SHROUD BURIALS ALLOWS FOR NATURAL AND QUICK DECOMPOSITION OF THE BODY, AS WELL AS EASY NUTRITION FOR THE VEGETATION AROUND

THIS SYSTEM, WHILE SIMILAR TO THE EXISTING SYSTEM OF BURIAL, ADHERES TO THE ECOLOGICAL REQUIREMENTS AS WELL AS TO THE NEEDS OF STRICTER COMMUNITIES

A LAWN CEMETERY IS IN PLACE TO CREATE EASY ACCESS TO PATH WAYS, BUT TIME AND EVOLUTION, WHEN THE VEGETATION TAKES OVER - EVEN THE DEAD ARE A PART OF THE SYSTEM



7.1 PLEASE REFER TO THE ATTACHED SHEETS

7.2 MATERIAL SELECTION

Gabion Walls



Advantages

Sustainability: Gabion walls have no negative environmental impact because they are not built of concrete or a comparable substance. In fact, allowing plants to grow on and around the gabion barriers can actually enhance the environmental impact. When

compared to a concrete retaining wall of the same height, carbon footprint calculations show that using a gabion solution can cut CO2 emissions by up to 80%. Vegetation can establish itself within a gabion wall if allowed to develop, contributing to the solution's carbon sequestration.

Disadvantages

Habitat value is low. Gabions are more costly than riprap or vegetated slopes. Wire abrasion caused by bedload movement in streams with high velocity flow can cause significant wear and tear on gabion wire baskets. Installation is difficult and requires a lot of equipment.

Corten Steel



Advantages

Corten is a long-lasting option since it requires minimal maintenance and creates a consistent rust-like look. Allowing the steel to rust results in the rust forming a protective layer that prevents further corrosion. It can be recycled or reused at the end of a product's life cycle if it is built from bio-based composites.

Disadvantages

If handled incorrectly, cor-ten can be difficult to work with and potentially harmful to the environment. Rust bleeding or discharge from the steel surface can discolor the paint, stucco, stone, or concrete in the surrounding area. If staining is a concern, avoid using this material.

8. CONCLUSION

*‘Though like a wanderer, the sun falls down, darkness be over me, the death reposed
Yet in my dreams, I’ll be, Nearer my God to Thee’*

~ Church Hymn

CONCLUSION

To summarize, cemeteries are multi-faceted environments that include a wide range of components such as burial areas, vegetation, architecture, and spatial aspects. Because cemeteries serve several purposes and are an important component of the cultural landscape, their development should be prioritized. As a result, a balance must be struck between human effort (architects, landscape architects, and so on) and the natural environment. The Neubrandenburg cemetery may become a regularly frequented area and a gathering point for families by adopting ecological burial methods and establishing a natural forest from these graves.

The Neubrandenburg cemetery may become a multi-faceted place by using diverse spatial layouts, distinguishing burial areas, using plants, water, and flowers, composting biodegradable trash, and using waste water and rain water. As a result of the research conducted, it is possible to infer that cemeteries complement the urban natural system and may eventually be seen as a public garden, given the declining number and quality of green areas in cities. By focusing more on plant cover and different flora, cemeteries may be transformed into ecologically friendly environments, accomplishing the goal of making cemeteries more environmentally friendly.

Furthermore, cemeteries are a major cause for concern for both local governments and local communities, which include citizens, associations, family members, and visitors. All of these folks would like to see the cemetery transform into a place of healing and sustainability rather than a source of intimidation.

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LIST OF ATTACHED DOCUMENTS

1. Site Plan
2. Two Cover Sheets
3. Site Strategy
4. Zoning
5. Conceptual Sketches
6. Site Analysis
7. SWOT Analysis
8. Detailed Drawings

ACKNOWLEDGMENTS

First and foremost, I would like to praise and thank God, for His countless blessings, knowledge, and opportunities that he has bestowed on me.

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