

02

Theory discussion

2.1 Introduction

This thesis aims to design a burial site, which practices sustainable corpse disposal, prevents placelessness through locally grounding, and focuses on the experience of the living user. This theory chapter is divided into two sections:

1. Sustainable corpse disposal
2. Placelessness and user experience

In the first section current corpse disposal methods as well as the influence of culture on selecting how to dispose of a loved one's corpse is discussed. Following this, sustainable and appropriate corpse disposal methods for this thesis is selected and explained.

Section two is a theoretical discussion on the loss of identity and increased placelessness of cemeteries, as well as how the experience of the user can be made meaningful through a narrated landscape.

Section I: Sustainable corpse disposal

2.2 Unsustainable burial practice

Johannesburg's Cemeteries are quickly filling up and the city is rapidly running out of burial space (SAPA 2010). This calls for a change in the long established custom of traditional burial. A less land intensive and more sustainable corpse disposal method is required. Cremation and traditional burial are the only legal body disposal methods in South Africa, however many other methods are used internationally; Figure 7 illustrates some of these methods.

2.3 Corpse disposal methods

1. Traditional burial

Despite a range of inexpensive alternatives, traditional burial remains the preferred method of corpse disposal in South Africa. The cost of a grave in a governmentally owned cemetery is R1900. Traditional burial, also referred to as

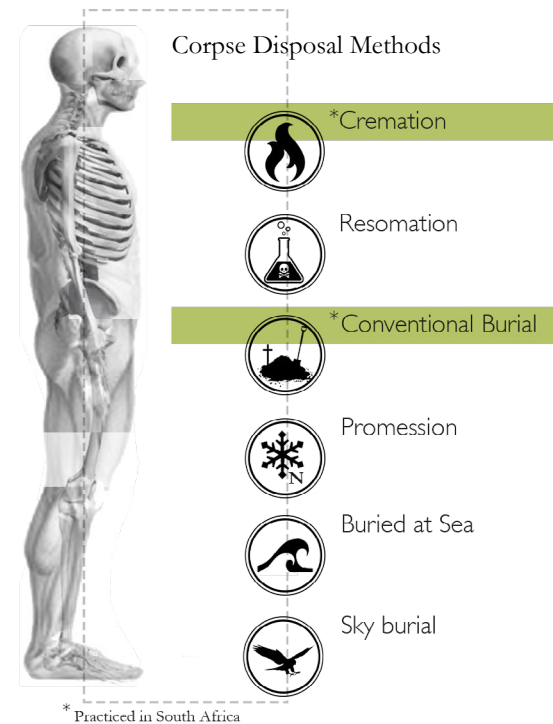


Figure 7. Current corpse disposal methods (Author 2015).

conventional burial, is the placing of a corpse underground in a casket or coffin (Leuta & Green 2011). The grave is traditionally marked with a tombstone to commemorate the deceased.

The coffin is lowered two meter into the soil and covered with the backfill soil. Decomposition is extremely slow, and often delayed with more than a century, for two main reasons: first the coffin is buried below the active soil layer, thus very little micro organisms and macro organisms are present to enable decomposition. Secondly, the casket or coffin is made from robust material, which hinder and decreases the speed of decomposition (Leuta & Green 2011).

With space for corpse burial being limited, traditional burial is not a viable option, nor a sustainable one.



Figure 8. Cremation process. From left to right: cremation chamber, hopper removing ashes and the rotary blade processor (Schultz, J et al 2001).



Figure 9. Resomator used for resomation of a corpse (Davies & Rumble 2012).



Figure 10. Examples of famous mausoleums: the Taj Mahal in India, the Panthéon in France, and the Pantheon in Italy (Wakely 2008).



Figure 11. Sky burial: rogyapas disassemble the corpse and leave it for the vultures (Batt 2001).

2. Cremation

Cremation is practiced in South Africa, however only about 6% of the population is cremated. Cremation is a two-step taphonomic process, which consists of the combustion, vaporisation, and oxidation of corpses to basic chemical compounds. Step one consists of the corpse being placed in a cremation casket and slid into a fire resistant cremation chamber, Figure 8. The process of incinerating the corpse is started with the ignition of the burner. The chamber is fueled by either propane or natural gas to reach temperatures between 900°C - 1100°C. After approximately two hours, the corpse is reduced to bone fragments. During step two the bone fragments are reduced to ashes. The bone fragments are removed from the cremation chamber with a wire brush and placed in a rotary blade processor, Figure 8, which grinds the fragments into a homogenous fine ash (Schultz, J et al 2001). Following the cremation, the ashes are returned to the family of the deceased to either be scattered, or placed in a memorial wall.

Although cremation is space saving, it is not an environmentally friendly method to dispose of a corpse; during the combustion of the corpse, the body is broken down into basic chemical compounds, which include gasses such as carbon dioxide, carbon monoxide, nitrogen oxide, sulphur dioxide, hydrogen chloride gas, hydrogen fluoride and mercury vapour (Schultz, J et al 2001). It has been calculated that a male adult corpse releases 50 kilograms of CO₂ when cremated (Wakely 2008)

3. Resomation

Resomation is an environmentally friendly alternative to cremation and traditional burial. Instead of using fire, resomation uses water and alkali in a process called alkaline hydrolysis to chemically break down the corpse. When the corpse is placed in the resomator, Figure 9, with the water and alkaline solution, the body decomposes at an accelerated rate: proteins break down into peptides and individual amino acids, while fats are converted to fatty acids and glycerol. The alkaline hydrolysis reduces the corpse to a brownish liquid of amino acids, peptides, fatty acids, sugar, and salt. The consistency of the liquid is oily with suspended pieces of skeleton (Davies & Rumble 2012).

Resomation takes three hours and the end-result is a sterile liquid with bone ashes. Similar to cremation, the ashes can be returned to the family or used as fertilizer. Although resomation is a fast and sustainable method to dispose of corpse, it is not a financially feasible solution in South Africa, due to a single resomator costing around R6 500 000 (Davies & Rumble 2012).

4. Promession

Another environmentally friendly alternative to cremation is promession. The process reduces corpses to a substance that can be used to feed earth and plants. In the process of promession, the corpse is submerged in liquid nitrogen at a temperature of -196°C , this is known as freeze-drying and makes the corpse extremely brittle and easy to shatter. The chamber is mechanically vibrated, causing the corpse to shatter into ashes (Wakely 2008).

The human body consists of 65% water, all of which is removed through promession. The corpse is reduced to a granulated, organic, and odorless material. Unlike cremation, no nutrients are lost during the process, making the promession ash excellent fertilizer (Davies & Rumble 2012).

5. Immurement

Immurement refers to the permanent storage of a corpse in an aboveground tomb or mausoleum. Mausoleums are external freestanding buildings constructed as a monument enclosing the entombment space or burial chamber of a deceased person or people. In the presence of oxygen the corpse rots immediately, leaving a foul smell and causing health risks, thus in the case of an aboveground burial, the corpse is placed in an airtight coffin, which is also sealed. This build up of moisture, pressure, and heat can cause the corpse and coffin to explode (Wakely 2008).

Immurement is an extremely unsustainable method of corpse disposal and is land intensive like traditional burial. Some of the most famous mausoleums include the Taj Mahal in India, the Panthéon in France, and the Pantheon in Italy, Figure 10.

6. Sky burial

Sky burial is an environmentally friendly method of corpse disposal; it is a form of excarnation. The term excarnation, commonly known as defleshing, refers to the corpse disposal practice where flesh and organs are removed from the body, leaving only the bones. Sky burial is where a corpse is placed on a mountaintop on stone structures called Dakhmas to decompose while exposed to the elements and birds of prey (Batt 2001).

In preparation for sky burial, rogyapas, more commonly known as body-breakers, disassemble the corpse and leave it for the vultures, Figure 11. When only the skeleton remains, it is crushed with mallets and mixed with barley flour. This mixture is given to the crows and hawks that have waited for the vultures to depart (Batt 2001).

From these examples, it is clear that multiple space saving and environmentally friendly alternative corpse disposal methods are available. It seems rather easy to select the most sustainable process and implement it in South Africa. However, corpse disposal is not only a scientific process as discussed above. Two crucial aspects have been intentionally excluded from the methods: culture and religion.

2.4 Corpse follows culture

People select corpse disposal methods according to their cultural beliefs, rather than sustainability and affordability. Moodley (2007) make the bold statement that the high number of passive cemeteries in Johannesburg, as well as those nearing its capacity suggests the need for cultural change and acceptance of cremation or other means as an alternative to burial. The Author disagrees with this statement: communities should not be forced to adapt to corpse disposal methods that contradict their beliefs. According to Alan Buff (Johannesburg City Parks 2008), the manner in which human remains are laid to rest is not only a reflection of the living community, but also their religion and culture.

2.5 Vajrayana Buddhists of Tibet

An example of burial that reflects the living community's culture and beliefs is the sky burial practiced in the autonomous regions of Tibet, Sichuan, Mongolia, Bhutan, Nepal and Qinghai. People living in these areas, especially Tibet and Mongolia, still adhere to the Vajrayana Buddhist traditions (Faison 1999). Vajrayana Buddhism believes in the transmigration of spirits, thus, there is no need to preserve corpses, as they become empty vessels after physical death. Further, according to Vajrayana Buddhism, the corpse should be disposed of in the most generous way possible. Sky burial is considered an act of generosity from the deceased; his corpse will feed the living and continue the circle of life. Generosity and compassion are two fundamental pillars of Buddhism. It is also believed that sky burial unites the deceased with the sky, a sacred realm, while Tibetan Buddhists also see sky burial as a temple of instructional teaching on the temporality of life on earth (Batt 2001).

Sky burial is not only religiously driven, but also considers the environment. The Tibet mountains are rocky, thus even if someone wanted to bury their dead, they would not be able to dig a grave in the hard and rocky soil. Cremation, the

preferred Buddhist practice, is also not performed, due to the scarcity of fuel and timber. Vajrayana Buddhists were able to respect and adhere to religious beliefs whilst adapting to the needs of their landscape.

The Author believes that a similar process will have to be followed in South Africa. Culture, beliefs, and the landscape environment should be acknowledged, understood, and respected to come up with an appropriate and sustainable solution.

2.6 Selected community focus

According to Wilkins (2011), black African communities in South Africa have shown the most resistance towards cremation, as well as any other alternative to conventional burial. With 76.4% of the South Africa population being from the black African community (Census 2011), it is vital to change the manner in which they dispose of their dead, while retaining the cultural and religious aspects. Before a new and appropriate alternative to traditional burial can be created, the culture and beliefs of the black African community need to be understood.

2.7 Black Africans: burial culture and believes

Conventional burial in South Africa is heavily influenced by Christian and traditional African religions. In African societies, pre and post burial rituals, as well as corpse disposal, is meticulously followed, to avoid offending the departed or other ancestors (Mbiti 1975). African societies believe in the continuation of life after death. Death is merely a transformative process from living human to eventual ancestor (Ilhagale 2000). Deceased community members are buried to separate the dead from the living (Setsiba 2012). Failure to complete the appropriate funeral rituals or disposing of the corpse incorrectly results in the deceased's spirit to either wonder amongst the living or cause them an undesirable afterlife (Wiredu 1995). An example of failure to bury the corpse is to have it cremated; the fire used is associated with hell, thus the deceased will not be able to return to the community as an ancestor. This is the main reason for the low cremation rate in South Africa.

Following the death of a community member, the deceased is collected from the morgue and brought back into their home for an overnight wake known as

moletelo (Bopape 1995). The function of this is to provide the community with the opportunity to say their last goodbyes to the deceased. During this, a killing ritual takes place; a beast is slaughtered as a sacrifice to the ancestors, as well as to provide food for the community members attending the moletelo (Ilhagale 2000).

At the break of dawn, the morning after the moletelo, before the burial, the final viewing of the corps takes place (Selepe & Edwards 2008). After this, the corpse is removed from the house and taken to the cemetery. Once at the cemetery, the eulogy is read as a means to honour the deceased. After the eulogy has been read, close family accompany the coffin containing the corpse to the grave and watch as it is lowered into the soil. The deceased is returned to the soil upon which they lived. African societies believe that once you have died, your body should be made one with the African soil (Bopape, 1995). Before contemporary cemeteries, community members were buried in a lesaka; a circular structure commonly found in southern African villages where generation upon generation was buried (Freedom Park Trust 2004). After the burial, the family of the deceased is cleansed through rituals, as they have been contaminated from the contact with the dead. To prevent sudden deaths, the cleansing needs to happen before they return to the community (Ngubane 1977). Following the burial and cleansing, there is a after-tears-party; an event where instead of mourning a loved one's death, they celebrate their life (Setsiba 2012). Exactly a year after death, the deceased person returns too the community as an ancestor, to celebrate this, the tombstone is unveiled (Leuta & Green 2011). Ancestors are believed to be the mediators between God and the living (Hogan 1999), they protect and take care of the living (Mbiti 1975).

In conclusion: African societies believe that the body should be dealt with in a dignified and respectful manner. The corpse needs to be returned to the earth to decompose and become one with the soil. The physical lowering of the intact body is important and connected to various rituals. Lastly, the unveiling of the deceased's name a year after the burial is significant.

2.8 Appropriate sustainable corpse disposal in South Africa

From the analysis of the traditional African culture, it is clear that none of the corpse disposal methods discussed in 2.3 adheres to the cultural beliefs. New corpse disposal methods will have to be invented to cater for the African culture. Three types of corpse disposal methods are proposed for a burial site: green burial, human composting, and promession foresting.

2.8.1 Promession foresting

The process and benefits of promession has already been discussed in 2.3.4. Ash from the promession process is nutrient rich, making it a great fertilizer for plants. This provides the opportunity to use the ash in a bio-urn to grow trees and scrubs. A bio-urn consists of two compartments; in the top compartment, the tree seed and compost it placed, while the ash is placed in the second compartment, Figure 12.



Figure 12. Bio-urns: seeds and compost are placed in the top compartment, while the ash remains are placed in the bottom compartment (Fletcher 2015).

The seed will germinate and grow in the top compartment, and as the roots become established, they will grow through to the ash compartment, Figure 13. The rich ashes will nourish the tree and enable it to flourish (Fletcher 2015). Through this process each corpse that is reduced to ashes via promession, will in essence be turned in a tree. Thus not only is this process environmentally friendly, it gives back to the environment.

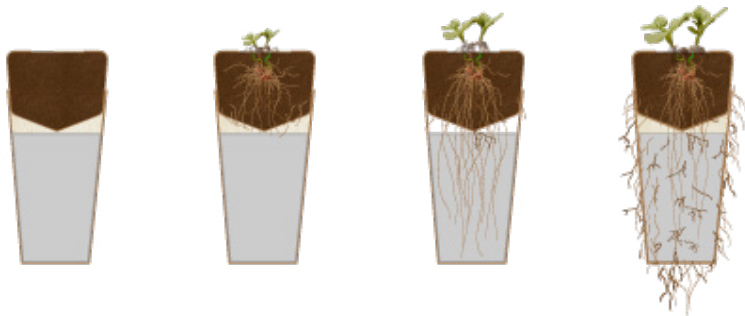


Figure 13. Bio-urns: once the seed has germinated, the roots grow through the compost into the bottom chamber containing the ashes (Fletcher 2015).

Promession foresting is suggested in the design, to make the burial site not only accessible to people from the African culture, but to anyone who prefers reducing their deceased loved one to ashes.

2.8.2 Green burial

Although green burial may seem like a new concept, is epitomizes the saying: what is old is new again. Until the late 1800's, all burials were green, after this, embalming came into fashion and the funeral industry kept growing (Sullivan 2011). Today traditional burial includes embalming and an expensive casket complete with metal adornments and interior cushions and drapes. This prevents and slows down the decomposition of a corpse. According the Green Burial Council, green burial is a way of caring for the dead with minimal environmental impact (Sullivan 2011). The function of a green burial, is to have a corpse decompose as fast as possible, to achieve this goal the corpse may not be treated with formaldehyde embalming fluid or be placed in a casket that is not biodegradable. Acceptable caskets are plant derived, such as a woven wicker casket. Corpses may also be wrapped in cotton linen. Instead of digging, the grave 2 000mm deep like with a traditional grave, the green grave is dug only 600mm deep, Figure 14.

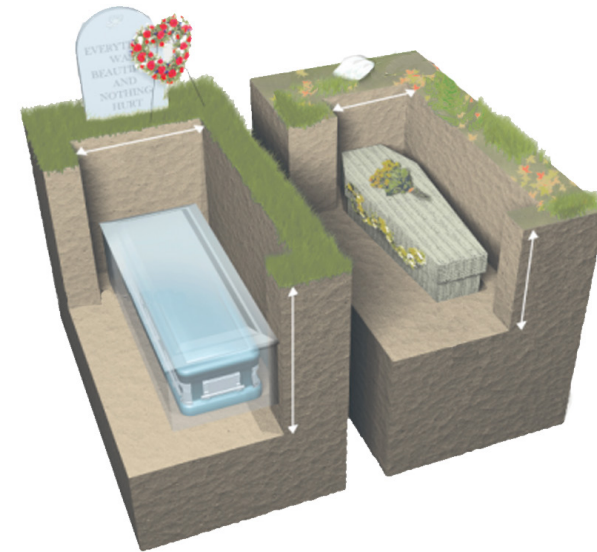


Figure 14. Traditional burial versus green burial. The grave for green burial is shallow compared to the depth of a traditional grave. A wicker coffin is used and no permanent tombstone is placed (Sullivan 2011).

This ensures that the corpse is close to the active soil layer, where decomposition can take place (Sullivan 2011). Graves remain unmarked, as they are re-used after 10 years, once the corpse has decomposed completely.

Although green burial still takes up space, the fact that new corpses can be buried in the same grave after 10-15 years, makes it much more sustainable. African communities can use Green Burial, the reveal of the tombstone will not take place, but the names can be engraved on a memorial wall onsite.

2.8.3 Human composting

Although Green burial is more sustainable than traditional burial, it still requires a rather large land portion. The quickest way to return any organic matter to the soil as a useable substance is through composting. Human composting is not practiced anywhere in the world, however, farmer often compost deceased pigs and cows and use the compost for crops. The Author proposes working with the basic principles of composting and turning it into a sophisticated and dignified system to dispose of corpses. The Author believes that it can be designed in such a way that the corpse can be dropped into the composting chamber, retaining the idea of lowering the corpse into the ground. The outcome of the composting will be humus, organic matter, which can be immediately returned to the soil and used to nourish vegetation. This lines up with the African culture's belief that a human body should be made one with the earth/soil.

The system, process, and detailing of the composting chambers is discussed in chapter 7: Technification.

2.9 Conclusion

Appropriate corpse disposal is where sustainability and cultural acceptance unite. The goal is to design a burial site that provides a range of corpse disposal methods to cater to as many culture and religious groups as possible. Three acceptable and sustainable corpse disposal methods were selected: green burial, human composting, and promession foresting.

Emphasis was place on the African culture since no existing sustainable corpse disposal method is available to them. This has been resolved via proposing green burial and human composting, no further reference will be made to any ethnic group, as it is not the intention to design a burial site for a specific cultural or religious group.



Section 2: Placelessness and user experience

2.10 Archetypal cemeteries

“When I think of a cemetery, I involuntarily envision arrays of tombstones, crosses, weeping angels, boulevards of evergreen trees, and rolling green lawns lavished with colourful flowerbeds.” (Author 2015)

Cemeteries have become typical. The lack of geographic and cultural consideration has left us with repetitive cemeteries. Furthermore, cemeteries are no longer emblematic. The discussion surrounding emblematic landscapes dates back to the 18th century. According to Hunt (1971), an emblematic landscape requires ‘reading’. It must be examined, compared, and explained before the design can be understood as a whole.

William Kent’s garden at Rousham, Oxfordshire, England is a worthy example of an emblematic garden. It has spaces of specific meaning and significance, as well as iconography in the form of writing and statues. The garden has many interpretations. The most simplistic interpretation is that the garden pays homage to ancient Rome and the Imperial games. A deeper level of interpretation can be made when, for example, studying the Sheermaker’s statue, Figure 16, of a fatally wounded gladiator, in his final moments before death. The gladiator can first be seen for what he is: a gladiator dying due to injuries sustained during the games. This is a simple reference to ancient Rome. Considering a deeper meaning, it may be argued that the gladiator represents General James Dormer, the owner of Rousham. He personally commissioned Kent in 1738. Dormer was wounded at

the battle of Blenheim and the dying gladiator most likely symbolized the General (Hunt 1971). This is but merely one example of how symbols are used to create this emblematic landscape.

Similar to Rousham, the tradition of cemeteries were also emblematic and filled with meaningful iconography. An angel depicted a guardian guiding the deceased



Figure 16. Wounded Gladiator at Rousham (Hunt 1971).

to heaven, doves symbolized peace, a star meant that death could never overpower light, and an urn represented immortality (Reid 2000). However, according to Reid (2000), many tombstone and cemetery symbols have lost their meaning. In the funeral industry, statues in the form of angels, small animals, and crosses are mass-produced and catalogued. People simply have to select a coffin, tombstone, picture frames, and ornamental statue, based on price and aesthetic value.



Figure 15. Collage of Johannesburg cemeteries (Johannesburg City Parks 2008).

Due to the commercial nature of the funeral industry, catalogue iconography is contributing to the increased placelessness of many contemporary cemeteries.

Augé (1995) defined the notion of place and non-place within the urban environment. He stated that place can be defined as relational, concerned with identity, and individuality, while non-place cannot. Non-place or placelessness is described as desolate and predictable spaces. The spaces offer no mystery, uncertainty, or adventure. Michel de Certeau strengthens the idea of non-place, stating that it is a negative quality of place, as well as an absence of the place from itself (Augé 1995). According to Jacky Bowring the loss of place is due to rapid globalisation and the taking for granted of familiarity of landscape. Jala Makhzoumi supports this notion by stating ‘because it is “everywhere”, the landscape is ironically invisible’ (Bowring et al 2013). Due to globalisation, landscapes are morphing into one another and becoming indistinguishable regardless of geographical location or culture. In accordance with Marc Augé description of non-place many cemeteries within the boundaries of Johannesburg can be classified as non-place, as they are indistinguishable from each other and have been designed without any regard for unique geographical location.

There is a need to reconsider how cemeteries are designed. In order to revolutionise cemetery design, their essence and function have to be abstracted, this can be done by deconstructing cemeteries.

2.11 Deconstructing cemeteries

What makes a cemetery a cemetery? Is a cemetery a static evergreen landscape consisting of a lawned garden with precisely plotted graves and tombstones? A

deserted space reserved for the dead?

According to Curl (1999) a cemetery is a burial ground, a large landscaped park or ground which has been laid out expressly for the deposition or interment of the dead. Whilst Kolbuszewski (1995), states that cemeteries have two essential connected aims: to be a priori formulated resolution, and to facilitate burial, which is carried out in an appropriately ritualised way. Meyer (1997) argues that the defining feature of a cemetery is grave markers; it acknowledges deceased person’s life. He believes that the site carries the purpose of commemorating the departed.

Considering the abovementioned definitions, the essence of a cemetery can be deconstructed into four characteristics: a place to lay someone to rest, a commemorative space, a contemplative space a landscaped garden space.



2.11.1. Laying a deceased loved one to rest

Cemeteries, as per the Greek origin, *κοιμητήριον*, literally means “sleeping place”. Thus, the first characteristic of a cemetery is laying to rest the bodily remains, a corpse or ashes, of departed loved ones in a dignified and safe manner. According to Hunt (2001:20), “there is a desire for the protected preservation of human remains”.

2.11.2. Identity commemoration

The second characteristic, is the acknowledgment and commemoration of an individual in the form of an inscription (Meyer 1997).

Inscriptions in cemeteries become very meaningful and significant. They influence the living visitor; by becoming a voice from beyond, the grave. The theoretical term for this phenomenon is ‘prosopopeia’, it is a method, which allows an absent figure to speak. This voice can either be of a deceased person or of the *genus loci* of the place (Hunt 2001:22).

According to Wolschke-Bulmahn (2001:3), “identity”, and “commemoration” are two terms that refer to humanity’s fundamental concerns. Consciously or unconsciously, everyone is occupied with identity: who he or she is, where they fit in, as well as the urge to belong.

Death plays a significant role in the process of establishing identity. Places that commemorate the dead are important in society. The commemoration of death and the designed environments for the departed help to establish identity (Wolschke-Bulmahn 2001:3). Gardens and landscapes have played commemorative roles in the process of identity formation at different times and for different cultures. Cemeteries as places of commemoration have developed over the past centuries and are today an important part of public space (Hunt 2001).

2.11.3. Grief and remembrance

The third characteristic is the provision of contemplative, grief, and remembrance spaces. Mourners require a safe space to express and process feelings regarding their departed loved ones.

2.11.4. Landscape for the loved one

The final characteristic is the nature of cemeteries. Cemeteries are outdoor landscaped garden spaces. It is said that the relationship between tombs and gardens dates back centuries (Wolschke-Bulmahn 2001). According to Etlin (1984), the tombstone was as much part of the landscape garden as the meandering path. Hunt (2001:10) states that the garden is poised between life and death, it is a compassionate and healing world. It becomes an intermediate zone between the dreadful past and the projected happy future.

From this discussion, it is clear that the essence of a cemetery does not lay in the archetypical image we have of it. Perhaps we should avoid using the term “cemetery”, because of the typical image connected to it. Instead, we should rather refer to these landscapes where we lay our loved ones to rest and commemorate them, as burial sites.

Places of burial are not scary or creepy hollow memorials. They rather possess the power to be moving, rich and provocative places, with real powerful and positive meanings (Eggenger 2010).

2.12 The leftover humans

In the previous section, the four main characteristics of an typical contemporary cemetery were discussed. Interestingly enough, three of the four characteristics; focus on the living visitor and not on the deceased. Who do we design commemorative landscapes for?

...my one saving grace is distraction. It keeps me sane. Still it's possible you might be asking, what does he need a distraction from?

Which brings me to my next point.

It's the leftover humans.

The survivors.

They're the ones I can't stand to look at, although on many occasions I still fail. I deliberately seek out the colors to keep my mind off them, but now and then, I witness the ones who are left behind, crumbling among the jigsaw puzzle of realization, despair, and surprise. They have punctured hearts. They have beaten lungs.

Prologue, narrated by Death, *The Book Thief* (Zusak 2007)

In the *Book Thief*, Figure 17, a novel by Markus Zusak, Death, the narrator, addresses inevitable demise. He states that mortality makes all humans equal. He urges the reader to not be fearful or despair, for he is gentle and always fair. Regrettably, the people who are left behind make his job exceptionally difficult. He tries to avoid them, but ever so often, he catches a glimpse. They are heartbroken and overcome with emotions, not only of grief, but also the realisation of their own inescapable death. It is not about the deceased, but about the living.

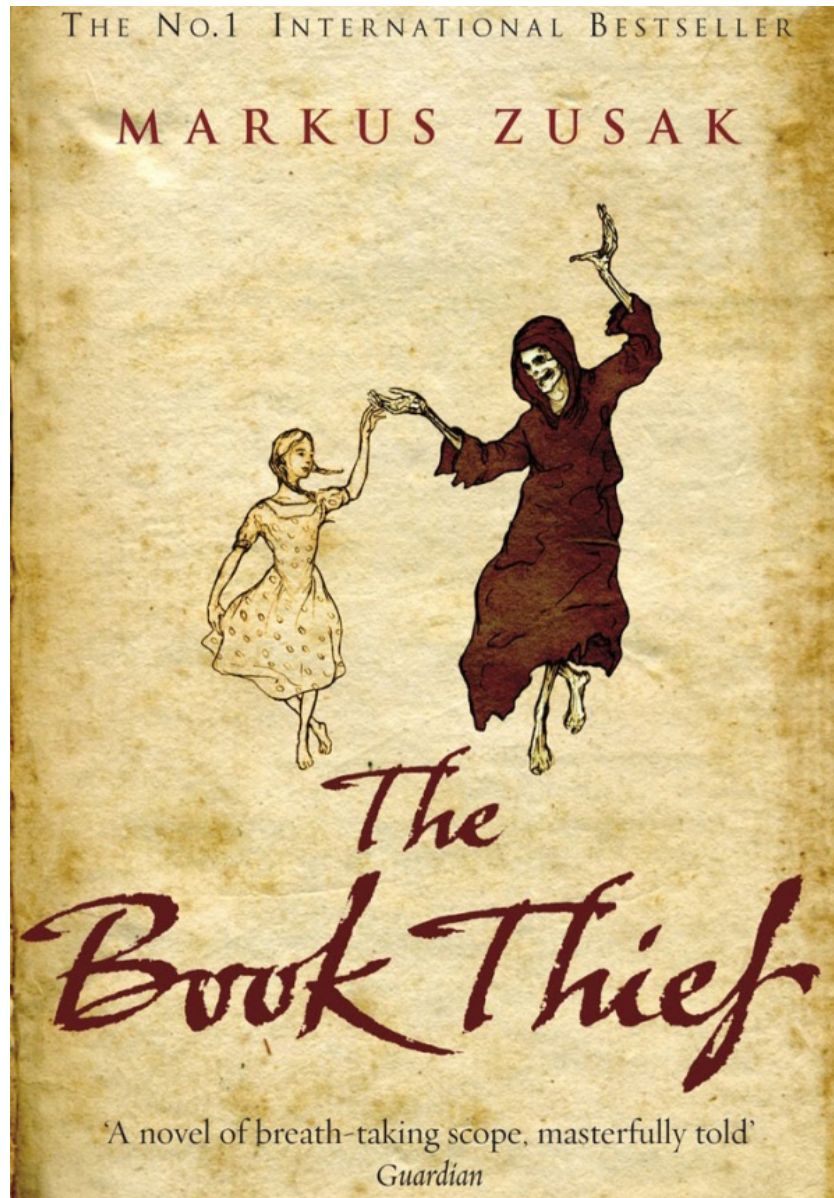


Figure 17. The Book Thief cover art by Judy White (2005)

Hunt (2001:13) stated that the commemoration of a departed loved one is to make it bearable for the living, not the dead. A burial ground becomes a place to remember the dead. Commemoration lies with those who remember, not those who are remembered. The notion of commemoration implies the presence of some idea of the past, which is preserved in the present as a conscious thought (Treib 2001). Treib (2001) and Hunt (2001) places emphasis on the people who are left behind once someone has departed. Commemoration requires the essential activity of memory, without it, there would be no need to design burial grounds.

Considering this, when designing a burial site, the emphasis should be on the user. This notion leads to the question: How do we design a commemorative landscape?

2.13 Types of commemorative landscapes

Commemorative landscapes are designed for the living user, the people who have someone to remember. Eaton suggests in (Treib 2001) that in these commemorative spaces, we should depict life, not death. Landscape architects should design safe places for our treasured departed and places for the living to respectfully enjoy.

According to Treib (2001), there are four types of commemorative landscapes. They vary in method, as well as the degree of explicit communication.

Type 1: Reordering the elements in the landscape to establish a human presence or convey a notion.

Rocks for example: granite boulders deposited onto a coast demonstrates a natural order, due to glacial sediments and environmental forces. One can indicate human presence simply by rearranging these stones. Pure geometric figures, as seen in the rows of stones at Carnac in Brittany or the stone circles at Stennes in the Orkney Islands, Figure 18, are deliberately used to contrast the natural context. The geometry establishes spatial zones.

The elements are natural and unworked; it is only the form, which is artificial. The focus is on the relationship between the elements. In addition, the elements may be reformed.

Type 2: Visual iconography and verbal inscription overlay and reinforce the intention embodied by natural elements, which have been reconfigured



Figure 18. Example of type 1: Standing stones, Carnac France (Prima 2010; Schneider 2002) and Stone circles, Stennes, Orkney Islands (Gorman, 2011; Handoll 2015).



Figure 19. Example of type 2: Kongenshus Mindepark, Sweden (Sorensen 2007) and Kring van Kennis, Johannesburg (Hamblin 2000).

Figure 20. Example of type 3: Woodland cemetery, Sweden (Jiranek 2011, Telling 2011).



in a unnatural order. Kongenshus Mindepark, Sweden and Kring van Kennis, Johannesburg, Figure 19, are examples of this type.

Type 3: Instead of relying on symbols the landscape modulates compartments. The recovery of memories rely on the individual and their associations. A deep, directly perceptual program engages the individual, through experience rather than explicit reference. The main form of communication is through the landscape design. Example: Woodland cemetery, Enskede, Sweden, Figure 20.

Type 4: The balance between the tangible experience of architecture and landscape is diminished. The emphasis is completely on visual cues and verbal captions. Words and symbols prevail, by buying into eternity. It attempts to stop the clock in such a way that our moment is continually eternal.

These four types provide guidelines on how to design commemorative space, however, designing a burial site requires more than the ordering of elements. By default, burial sites are significant; they are landscapes containing deceased loved ones. The manner in which we design these spaces will influence how meaningful the space becomes to the mourner. How do we design a meaningful landscape?

2.14 Making landscape mean

The notion of instilling significance, designing spaces of deliberate meaning, and narrative landscapes is nothing new. Meaning and significance has been enriching landscape designs for centuries. In 1995 Marc Treib asked a simple question: Must Landscape Mean? In this controversial article, he questioned whether it is possible to add a semantic layer into landscape architecture. Could we as designers communicate our intended meaning to the user? And should we?

It is daunting to define meaning or significance; Olin (1988) argues that it can be accumulated through use and ritual, while Treib (1995) is hesitant to define meaning and considers it to consist of ethics, values, history, and affect. He states that landscape architects usually apply one of five approaches to landscape significance: the neoarchaic, the genius of the place, the zeitgeist, the vernacular landscape, or the didactic (Treib 1995):

In the neoarchaic approach designers try to retrieve something that has been lost

by reviving elements from earlier periods, such as the Neolithic. This approach attempts to reclaim meaning from historical points in time and displays it in a contemporary design, believing that it will have the same meaning now as it did at a specific point in time (Treib 1995).

Genius loci literally means spirit of place, thus in the genius of the place approach, designers focus on the pre-existing characteristics of the specific place or site. Within this approach, it is believed that emphasizing or reflecting these unique conditions, a meaningful design is produced for the users (Treib 1995).

Moving away from the spirit of the place, the zeitgeist approach is about spirit of the times. Many artists' work reflects the period they are created in, and thus become meaningful. In this approach, it is argued that the same is true for landscape architecture. It becomes part of the ethos on the era and thus becomes significant (Treib 1995).

In the vernacular landscape, the approach includes sourcing materials and forms from a place's rich vernacular. Unfortunately, in the process of reframing vernacular elements in contemporary projects, they have semantically nearly nothing in common with their original sources (Treib 1995).

The final approach is didactic; it dictates that forms should communicate the natural workings of a place. Through revealing them, they become meaningful (Treib 1995).

Are these approaches enough to establish meaning. Are they not just good design principles? When designing any landscape, the architect should consider the spirit of the place and the existing site conditions, just like the design should be contemporary and appropriately placed within the zeitgeist. Vernacular design should be studied regardless, for it reveals information regarding locally available materials, artisanship, and even climatic conditions. The above-mentioned approach aids landscape architects to design enriched and appropriate landscapes, however they do not instantaneously make a place significant or meaningful.

The question whether or not is it possible to imbue a place with meaning from the outset remains. Treib (1995) suggests considering the value of the Zen garden. The uninitiated user of a Zen garden has no knowledge of Japanese culture and could not appreciate the meaning of the embodiment of religious belief in the

garden. They could however appreciate the framing of the space, the arrangement of materials, and the quality of rocks. The manner in which the space is designed reveals the function and spirit of intention. Although the user does not understand the meaning behind the garden, the experience and function is not lost. Treib states that the garden, through its design, stimulates individual contemplation; the garden itself becomes a vehicle for understanding the self rather than the place (Treib 1995).

This notion implies that meaning and significance in landscape design cannot solely rely on the designer. According to Treib (1995), meaning occurs at the intersection of people and place, Figure 21.

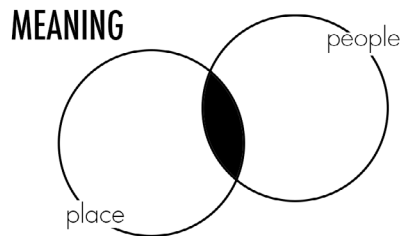


Figure 21. Meaning can only occur where people and place intersect (Author 2015)

Treib believes that significance lies with the beholder, not alone in place. The design of a space translates what the designer intended into what the user experienced. Reid (2007) suggests the following ideas when designing to evoke significance from a user.

Themes: Have a unifying topic, select something that can be pulled through into each aspect, such as form giving, detailing, and planting.

Symbols: Elements or forms that represent something else by association can be empowering and enrich the design.

Metaphors: Objects or ideas used to describe dissimilar objects or ideas in order to suggest comparison makes for an intriguing design.

“I do believe that we can circumscribe the range of possible reactions to a designed place. We cannot make a place mean, but we can, I hope, instigate reactions to the place that fall within the desired confines of happiness, gloom, joy, contemplation, or delight.”
(Treib 1995:100)

In conclusion: a designer can aid in creating a significant or meaningful place for a user through creating the required landscape experiences. Significance cannot be designed into a place, however, designing landscape experiences that will evoke predetermined emotions, Figure 22, can create a meaningful commemorative burial site for the living visitor. Dealing with the loss of a loved one is by default an extremely emotional and spiritual experience. Designing the journey of the mourner into the commemorative landscape could potentially result in a powerful expressive landscape, which will evoke emotion and thus become meaningful. The notion of a journey can be conveyed through a narrated landscape.



Figure 22. Landscape architects can create spaces that evoke predetermined emotions (Author 2015)

2.15 Narrative landscape

Meaning evolves around the place and the user’s interaction with the landscape. The experiences that stimulate meaning can be grounded in a narrative landscape.

According to Potteiger & Purinton (1998) narratives can aid in the establishment of significant spaces in the landscape. The relationship between place and expression is the narrative. Landscape narratives are inspired by a variety of different elements; including culture, myths, events, rituals, the site, or even literature.

The landscape narrative is described as the chemistry and mutualism that develops between landscape and narrative. Storytelling plays a critical role in place making. Rakatansky (1992) states that instead of grafting an explicit disassociated storyline onto the site as if the site is tabula rasa, the function of the site, in this thesis case a burial site, and the cultural practices of the area, can start to give an idea of what the landscape narrative will entail. The purpose of the landscape architect is to conceptualize the narrative and give form to it (Cohan & Shires 1988). A story embedded in landscape takes shape through practices of naming, sequencing,

revealing/concealing, erasing, gathering, and opening (Potteiger & Purinton 1998).

Naming

Naming something is as creative as giving form to it; it bestows identity, and aims to illuminate the essence of the place, as well as the projected hopes and aspirations. In literature, characters are given names to identify them. In landscape architecture, place names assist in situating a place within its larger cultural identity (Potteiger & Purinton 1998). Names can start to reveal a character or genius loci of a place. An example of a place name, which reveals the spirit of the space, is Isivivane, located in Freedom Park, Salvokop. Isivivane, Figure 23, literally refers to a cairn of stones, while the deeper meaning is monument, memorial, and testimonial (Ngubane 2003). As expected from the name, Isivivane is a sanctuary, a place of pilgrimage, renewal, and inspiration. At the core of this contemplative space, stones are arranged in a circular form, it represents isivivane and makes an African cultural reference to a lesaka, a circular space where people from the community are buried (Ngubane 2003).



Figure 23. Isivivane, Freedom Park, Salvokop (Ngubane 2003).

Sequencing

In a story, a sequence is made up of any two or more events, Figure 24. The first event refers to the existing condition, while events after the first is a modification. This modification can be contrasting, cataclysmic, or it can be a barely subtle shift in routine.

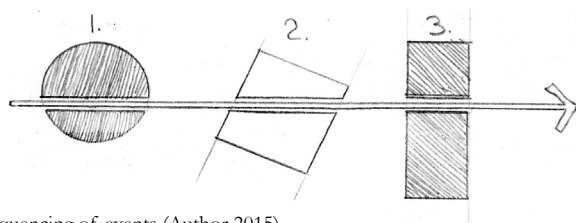


Figure 24. Sequencing of events (Author 2015).

In a landscape narrative, sequencing involves the user through a series of juxtapositions; this includes bringing the old into direct contrast with the new, or placing a glade in a forest to emphasize the dissimilarity.

Maya Lin's Vietnam Veterans Memorial, Figure 25, in Washington, D.C represents a cyclical, open-ended sequencing. Instead, on starting at the beginning of a memorial wall to tell the story of the war, Lin's memorial wall starts in the middle of the war. In the middle of the wall, the beginning and end of the war collide at the vertex of the chevron. The confusing collision poses questions of why and how the war began. The achronological nature of the wall forces visitors to walk along the wall, they metaphorically descend back and forth in time. The sequencing of this space communicates a strong narrative. (Potteiger & Purinton 1998)



Figure 25. Maya Lin's Vietnam Veterans Memorial (Betsy 2002).

Revealing/Concealing

An important characteristic of a novelist is the ability to engage their readers by building suspense and intensifying ambiguities through plot and character development. A landscape architect can use similar techniques to engage users in narratives. Revealing and concealing elements create a feeling of discovery and suspense (Reid 2007), as seen in Figure 26.

Three ways of doing so includes:

- Revealing the concealed details of a place
- Challenging convention with regard to the status quo of similar spaces
- Masking and unmasking knowledge and meanings with the aim of encouraging user engagement and inquisition from the visitor's perspective (Potteiger & Purinton 1998)

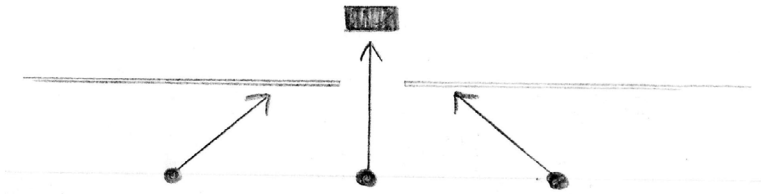


Figure 26. Revealing and concealing can create suspense (Author 2015)

Erasing

The notion of erasing, or subtracting for the landscape is discussed by Treib(1987) in his article entitled; The Presence of Absence: Places by Extraction. He states that every act is some form of disturbance, however, sometimes disturbance can improve the existing condition or contribute to the design. One can think of absence as omission or as abstraction. Instead of adding onto the landscape, one can create negative space to form expressive spaces. Psychologically speaking we perceive contrast first: before we notice the texture or colour of a leaf, we notice the shape due to the contrast between the leaf and the background. The same is true for a user experiencing a landscape; the contrast between positive and negative will draw the most attention. An example of such a space is Mormon Mesa, Figure 27, in Nevada; the sculpture is created solely by removal and displacement (Treib 1987).

The notion of Presence of Absence seems rather fitting considering this thesis evolves around designing a burial site, a place where users are already experiencing the presence of absence of their loved one.

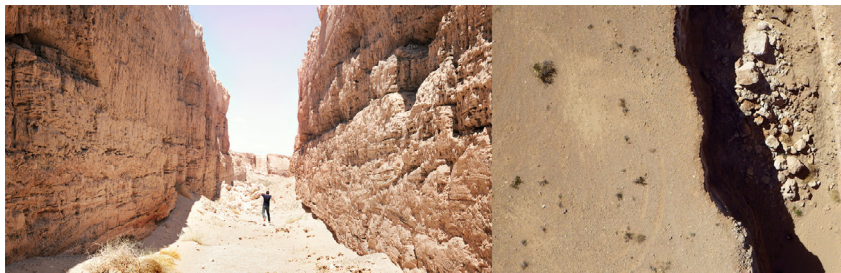


Figure 27. Mormon Mesa, Nevada, Eforcing the concept of the double negative (Treib 1987).

Gathering

Just like stories in literature have structure: a beginning, body, and end, narrative comprises of the same structure, with the optional addition of returns and cycles. No narrative is merely a series of scattered random events. The notion of gathering refers to the clear spatial connection between the events of the narrative, Figure 28. (Potteiger & Purinton 1998).

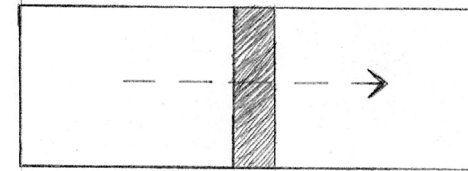


Figure 28. Diagrammatic representation of gathering (Author 2015).

Opening

Having an open narrative, one open to interpretation, instead of a closed narrative, holds great potential for users to interpret and to be open to the voices, stories, and cultures that shaped that particular environment. A closed narrative is controlling and restrictive, it silences diverse voices (Potteiger & Purinton 1998).

2.16 Conclusion

In order to locally grounded the design of the burial site, the local geography and culture will be studied, while the experience of the user will be emphasized through an expressive and narrated landscape design.

We should reconsider how we design cemeteries. In order to revolutionise cemetery design, the essence and function have to be abstracted, this will be done by deconstructing cemeteries.

