1. Introduction

Life has many seasons. Nature functions according to these seasons. Seasons bring change, not only the change in the weather, but also physical change. The cycle of life is analogous to a tree: it grows and withers and the cycle of life repeats itself with death, never achieving finality. Death becomes an event in the cycle of life, contributing to it.

The cycle of life refers to a developmental process, to generations that transcend the single lifetime of one individual (O'Rand & Krecker, 1990: 241). Bachelard (1994) explains *life*, with reference to human life, in the light of Minkowski's "Vers une Cosmologie", that the essence of life is not a "feeling of being, of existence," but a feeling of participation, necessarily expressed in terms of time and secondarily expressed in terms of space. It can be understood that the *cycle of life* or the very sense of life is quite different from the temporality or participation of *human life* (McNeill, 2006: 2).

The distinction between human life and the cycle of life is evident when exploring the physical world we live in. Our cities were established centuries ago and are still functioning. Since 2007 urban environments have provided sustenance to more than half the world population (Burdett & Judjic, 2007: 8).

Unfortunately, death and life do not receive the same level of acknowledgement in our urban environments. To protect ourselves, we have removed death from our everyday life by relegating it to mass horizontal cemeteries on the periphery of our manmade landscapes (Harries, 1998: 294). The hurt and suffering brought on by the loss of life has been shunned from our everyday life (Kubler-Ross, 1981: 11). We try to run from the basic truth: death forms part of the cycle of life (Staudacher, 1995: 11).

This thesis explores the meta-physical *betweenness* (Heidegger, 1996: 55) - life and death, and verticality and spirituality - through the physical manifestation of the whole cycle of life in the urban environment.

The spatial *between* found in the vertical urban environment will house the physical manifestation of a necropolis. As time passes, these urban necropoli as places of remembrance, will foster an awareness of the relationship between life and death in urban life.

As time passes, the buildings around these vertical places of remembrance will come to the end of their life-span and will be demolished. They will become the form givers and regulators of the new built form. In this way over time, the dead will have a physical impact on the nature and structure of the ongoing community of the city (Harries, 1998: 264). Ultimately the vertical places of remembrance will establish a relationship between the present, past and future conditions of the city. This in itself will become a form of respect for and honour of those who have gone before (Harries, 1998: 295).

These places of remembrance are created for the urban dweller - the person who experiences the urban landscape as home.

Background

A link exists between architecture and death. When one examines the history of architecture it can almost be reduced to a history of tombs (Harries, 1998: 293). The historic monuments of funerary architecture would appear to have fulfilled the need to help mark the betweenness separating the realm of the living from the realm of the dead (Harries, 1998: *ibid.*). This chapter will give an illustrated background of the development of funerary architecture and explain the concepts behind it.

Evidence exists of monumental tombs dating form 4000 to 3000 BC (Colvin, 1991: 1). Termed "tumuli", they are characterized by huge pieces of stone set vertically and covered by horizontal slabs to form the roof. Some stones weigh more than 20 tons, and as a result these structures have been termed megaliths (Colvin, 1991: *ibid.*). Tumuli were generally covered with earth to form a prominent mound in the landscape (Colvin, 1991: *ibid.*). These mounds are evident across Brittany, Western Europe and some parts of Italy. It has been argued that the reason for the creation of these monuments has been to house the dead, but they also to stand as visual symbols of stature (Colvin, 1991: 3).

In Egyptian architecture the pyramids were representational of mountains and gave Egyptians a sense of existential identity and security (Norberg-Schulz, 1983: 7). Tombs and mortuary temples are seen as "houses of eternity", demonstrating the continuation of life after death (Norberg-Schulz, 1983: 9).

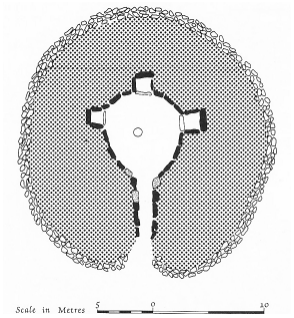


Fig. 2: An ancient tumulus, showing the enclosure covered with earth (Colvin, 1991: 4).

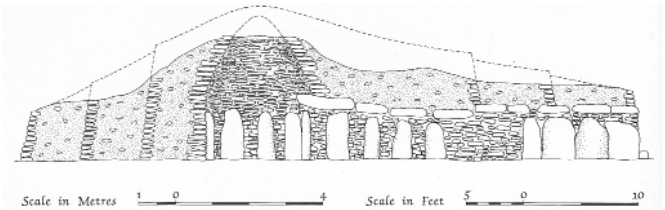
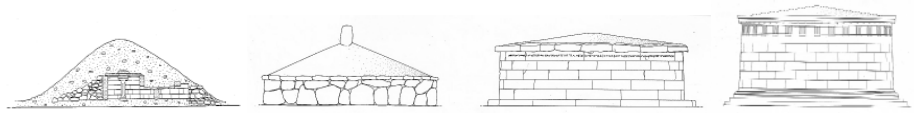


Fig. 3: A section through a tumulus showing the extent of the labour that was needed to build the structure (Colvin, 1991: 10).



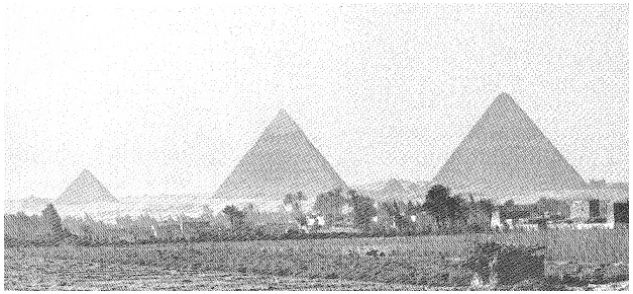


Fig. 4: The development of the tumulus over 3000 years into the stone tomb and later the mausoleum (Colvin, 1991: 14&24).

Fig. 5: The pyramids of Giza (2500 BC), representing mountains (Norgerg-Schulz, 1983: 6).

During the first millennium BC the modest mound evolved from the tumulus to a very decorative stone sculpture called a mausoleum (Colvin, 1991: 15). As time passed, various Roman Emperors undertook the building of huge mausolea (Colvin, 1991: 43). These, like the tumulus, originated from a form of stature, power and influence (Colvin, 1991: 45). Figure 6 shows the Hadrian mausoleum which dates from the second century AD (Colvin, 1991: 49).

The images show the development of the mausoleum from a circular-based plan to a form referring to the formal layout of ancient Greek temples. Complete with an entrance lined with Corinthian columns, the mausoleum stood within a large arcaded enclosure (stoa) to give it prominence (Colvin, 1991: 54).

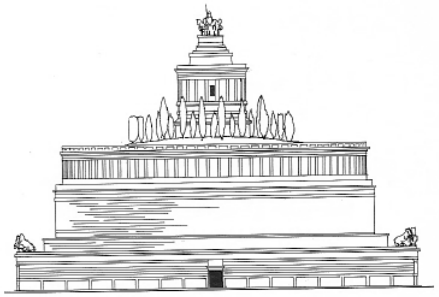


Fig. 6: The mausoleum of the Emperor Hadrian. Second century AD (Colvin, 1991: 49).

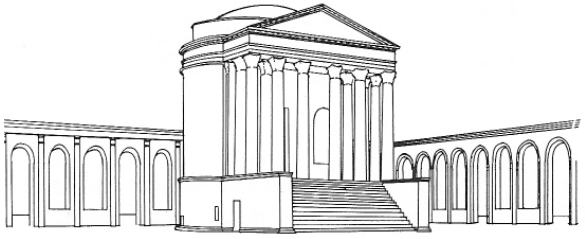


Fig. 7: The mausoleum of the Emperor Maxentius. The image shows the association between temple architecture and that of mausoleums in the third century AD (Colvin, 1991: 53).

The tower tomb was less prevalent in western architecture, but has reference to the Persian Empire. The most prestigious form of monument was the tower (Colvin, 1991: 1), and these sometimes rose to as many as 6 storeys high, accommodating 200 tombs per tower (Colvin, 1991: 78).

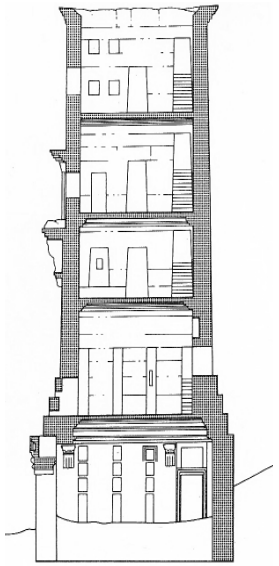


Fig. 8: Section of the Palmyra, a tower tomb. Second century AD (Colvin, 1991: 78).

Christianity became more influential in the western world during the first and second century AD. Christian burial did not differ markedly from pagan burial (Colvin, 1991: 102), but rather borrowed from it. The images below show a Christian mausoleum (right) compared with a pagan mausoleum (left), both dating from the fourth century AD.

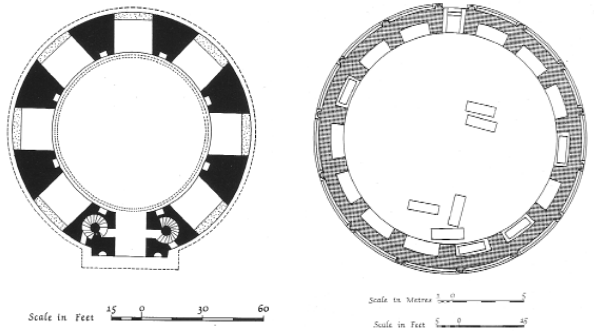


Fig. 9: The layout of a pagan mausoleum in Greece (left), compared to the Christian mausoleum in Algeria (right) (Colvin, 1991: 52&103).

Christians worship only one God. However, the tortured bodies of martyred saints were given proper burial after the threat of persecution was lifted in the early fourth century AD. For Roman Catholic Christians this gave rise to a substitute way of connecting with God.

The tomb of a martyr was nearly always a point of religious gathering and growth. The desire for access to the burial place of a martyr grew (Colvin, 1991: 105). As a result of the growth of this new concept, martyr tombs became not only places for religious gathering but also for the burial of ordinary people, in the hope that the closer they were to a martyr, the better their opportunities would be to connect with God (Colvin, 1991: 110). As a result, martyriums grew and expanded, as shown in Figure 10 below.

As churches are places to connect with God, they became preferred places for burial (Colvin, 1991: 111). Only the elite – kings, queens and priests – were initially allowed to have their coffins or caskets housed in the confines of the church. The intention was evidently to place the sarcophagi of those worthy of honour inside the church.

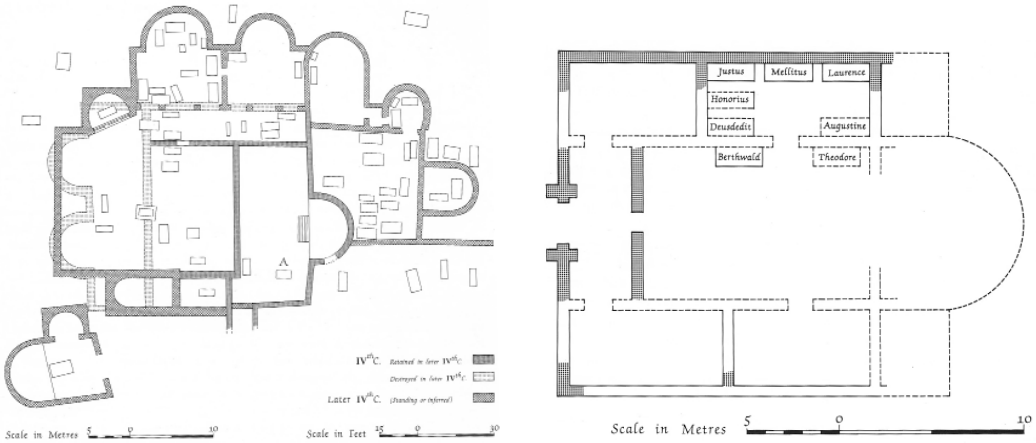
Over the course of time, many side chapels and tombs have been added to or placed in the existing church structure. Figure 12 shows evidence of the early stages of the Christian faith and the impact it had on the built form of the Old St Peter's in Rome (as recorded in the 17th century AD) (Etlin, 1984).

Figure 13 shows to what extent many churches in Europe have been added to.

Traditionally church and cemetery were seen as integrally related (Etlin, 1984: 10). This then implies that to be buried in the church burial ground was to rest within the consecrated precinct of the church and of God (Etlin, 1984: *ibid.*).

Fig. 10: A Martyrium. Early Christian churches grew around the tomb of a martyr saint. Early fifth century AD (Colvin, 1991: 109).

Fig. 11: The development of burial within the confines of a church from the seventh century AD onwards (Colvin, 1991: 126).



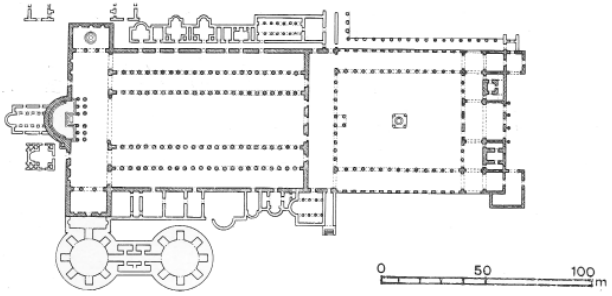


Fig. 12: Old St Peter's, Rome. Mausoleums and small burial spaces were connected to the interior of the church (Colvin, 1991: 116).

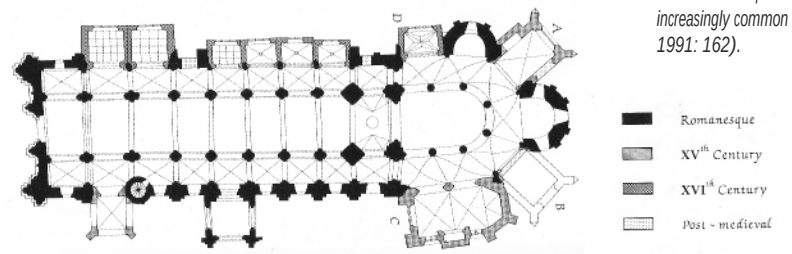


Fig. 13: Poitiers, France, Notre-Dame la Grande. By the fifteenth and the sixteenth centuries the additions of chapels had become increasingly common (Colvin, 1991: 162).

In the late fourteenth and early fifteenth centuries cemeteries entered the public domain of the city (Etlin, 1984: 3). Arcades were constructed along the boundary walls of these cemeteries. Each bay within this arcade could potentially be closed off to form a private chapel. Many wealthy members of the community furnished these spaces with ornaments and "beautiful" structures so as to secure a distinguished place of burial for themselves (Etlin, 1984: *ibid.*).

Unfortunately these cemeteries became over populated and resulted in various health risks, resulting in the removal of many remains to cemeteries on the outskirts of towns and cities. In the latter half of the 17th century several laws was put in place accross Europe to govern the placement of cemeteries (Curl, 1993: 135).

During the Enlightenment, the concept of creating an Elysian field outside the city became a driving force. Large landscaped burial sites gave rise to new thoughts on how to actually take on this new challenge (Etlin, 1984: 26).
As a result of removing the cemetery from the city, the dead could no longer be carried form the church to the grave. All the participants in the ceremony would not be able to take part in the final rites (Etlin, 1984: 24).

All these new restrictions as a result of the Enlightenment gave rise to new thoughts on burial and the meaning of the loss of life. One such train of thought that emerged at this time is the concept of the sublime. Boullée (Etlin, 1984: 101) explained the sublime as the extraordinary and marvellous quality in a discourse which enraptures and transports the participant. This meta-physical transportation is done through the production of the strongest emotion which the heart is capable of feeling (Etlin, 1984: *ibid.*).

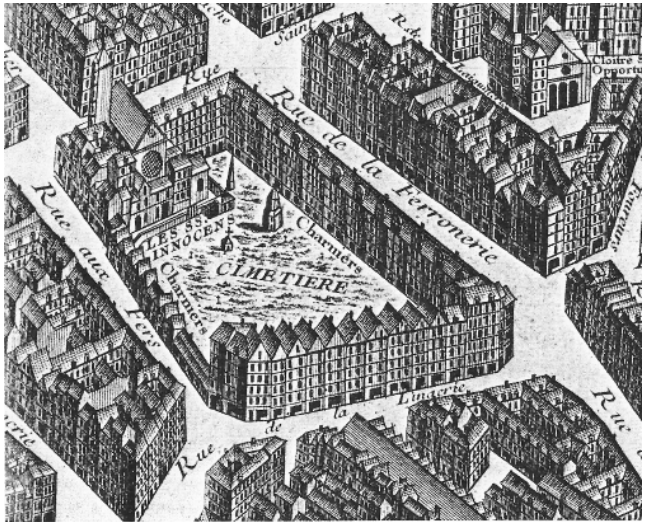


Fig. 14: The Cemetery of the Holy Innocents was established in the fourteenth century within the confines of Paris (Etlin, 1984: 25).

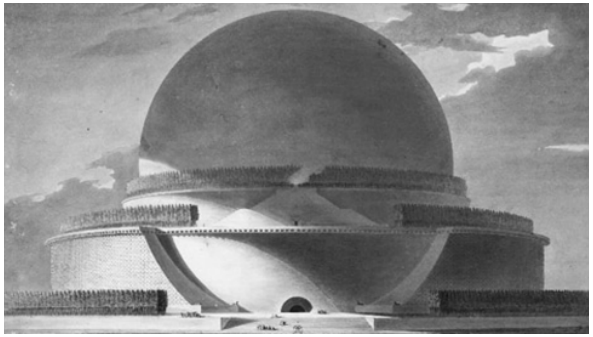


Fig. 15: The Cenotaph for Newton, by Ettienne-Louis Boullée, 1784 (Etlin, 1984: 132).

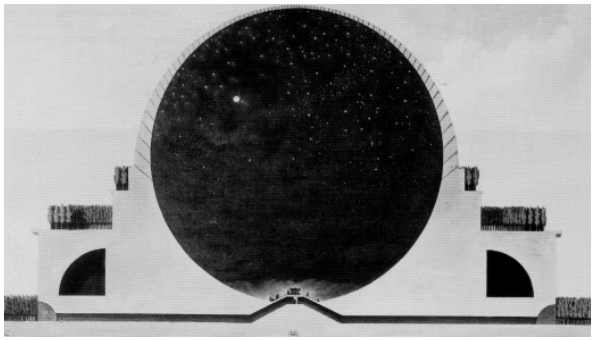


Fig. 16: A section through the Cenotaph for Newton by Boullée. An example of the expression of the sublime (Etlin, 1984: 133).

The reformers were interested in placing death in what was seen as its proper place (Etlin, 1984: 26). Unfortunately, the triumph of the cemetery as Elysian field was short-lived. As time passed, death was no longer an event to be celebrated, nor marked by architectural or sculptural monuments (Colvin, 1991: 374). The graveyard had changed from a place forming part of the community, intertwined in everyday life, to one given only peripheral importance, physically and meta-physically.

An understanding of the history of funerary architecture clarifies the current condition of the cemetery. It shows the extent that people would go to to honour the dead. It also shows how easily the dead can be forgotten when set apart from the collective.

The 20th century has brought remarkable change in terms of technology and the start of the redefining of the cultural landscapes surrounding us. In the 21st century more than half the world population find themselves in *vertically growing urban environments* and in close proximity to amenities.

It is the intent of this project to build on the history of funerary architecture, making use of technological advancements to create a funerary architecture that not only continues as part of the existing history, but which also forms part of the future built and social environments of urban landscapes.

Fig. 17: Church grave yard in the centre of Oxford. Current city conditions of housing and public amenities surround the site (Auhtor, 2009).

Fig. 18: Rebecca Street Cemetery in Pretoria. Established in 1904, the cemetery has almost reached full capacity (Author, 2010).

Burial forms

Most of the cities in South Africa were established during the last two centuries. All cemeteries were planned on the periphery of the towns that have grown into cities over the course of time. These cemeteries have grown and new ones have been established on the new periphery of the city, far from the city centre. As a result, the distance between cemeteries and the active urban environment is constantly growing. Current cemeteries have lost the quality of being representative of a "field of rest" or a sanctuary that conveys sacredness. Instead, they have become mass burial sites for the convenient disposal of the dead, out of reach and out of sight (Alexander *et al*, 1977: 356).

The manifestation of a place of remembrance in the urban environment is made possible through the use of an alternative form of disposing of bodily remains. To support the conclusion of why an alternative is needed, current forms of disposal are presented.

Earth burials

Earth burial is considered to be the most common form of disposing of bodily remains. For the sake of hygiene, Napoleon issued a decree which required every city and town to establish a cemetery at a specific distance outside the city boundaries (Harries, 1998: 295). The decomposing bodies posed health and environmental problems by contaminating the ground and the ground water (Passornsiri, 2008: 16).

Earth burial still poses the same threat of contamination. However, today the main reason for placing cemeteries on the outskirts of towns and cities is to alleviate the traffic congestion resulting from funerary processions (Van Coppenhagen, 2010).

Cremation

Cremation became re-established in Western society during the 1870s. Only after a hundred years was cremation seen as socially acceptable (Monaghan, 2009: 1033). It is however becoming the preferred way of disposing of bodily remains in western cultures.

The coffin is placed in an incineration chamber heated to 800°C by means of flammable gas. The body is reduced to bone fragments, ash and non-combustible materials like prostheses, coffin handles and hinges (Monaghan, 2009: 1034). The non-combustible materials are removed, and the rest of the remains are transferred to a cremulator which processes the remains to a uniform texture for inurnment. The whole process takes about two hours depending on the size of the body (Passornsiri, 2008: 143).

Over the past two decades, cremation has been under scrutiny from environmental legislators. Pollutants such as hydrogen chloride, carbon monoxide and mercury are emitted through the process of cremation. In many developed countries like Finland and the United Kingdom, crematoria are the biggest contributors to mercury emissions (Monaghan, 2009: 1034). Even though cremains (ash left after cremation) use much less space than a grave (see addendum) the environmental effect is still not desirable.

Promession

Promession is a process making use of cryogenic technology. Though freeze-drying (with N_2 - liquid nitrogen) and vibration the bodily remains are turned into a powder, similar to cremains (Passornsiri, 2008: 22). The powder can be put into a biodegradable coffin and buried in a small, shallow grave. Over a period of 6 to 12 months the remains become mulch which can be used to act as nourishment for vegetation/seeds planted above the remains (Passornsiri, 2008: 22). In this way, we are reintegrated into the natural environment that we originated from.

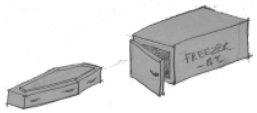
This alternative form of disposing of bodily remains has several advantages, the resolution of which presents many opportunities. The summary below indicates the effects each form of burial has on natural resources:

Effects on natural resources:	Casket funeral	Cremation	Promession
General environ-mental effect	Negative	Negative	Positive
Energy consumption	Small	High, equivalent to 23 litres of fuel oil and half a kilogram of activated carbon for each cremation	High, "green energy" can be used
Air	None	Flue gases, mercury*, carbon dioxin(green house effect)	None
Drainage water	Yes	Yes	None
Ground water	Yes	Yes	None
Drinking water	Yes	Yes	None
Soil	Yes	None	Positive effects***
Burial ground (area)	Large areas. High demands on preparation, drainage and sewerage treatment	Small areas	Small to medium sized areas

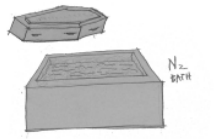
Table 1: A comparison between three different forms of burial.

[Nitrogen (N_2) is a natural gas forming 78% of the air we breathe. Other than fossil fuels used in cremation that cause mercury and greenhouse gas emissions, any cases of spillage of N_2 (liquid nitrogen) poses no environmental threat, due to its swift evaporation back into the atmosphere (Monaghan, 2009: 1038).]

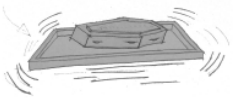
The process of promession



In the first step in the process of promession, the coffin with the body is frozen to -18°C in a normal mechanical freezer. Once the body is cooled to the appropriate temperature, it is placed into the promator (a sealed unit of 6m x 2.6m x 2.5m).



The process consists of 5 stages:



- The body is weighed to determine how much liquid nitrogen (N_2) will be required to freeze it. This works on a basis of 1kg of N_2 for every 1kg of body weight. The body is then frozen to a temperature of -196°C while the N_2 evaporates into the atmosphere. This stage takes roughly 2 hours.

- Once the body has been frozen to a temperature of -196°C it is transported onto a belt vibrating at a certain frequency. This disintegrates the remains into a frozen powder.

- The powder then moves into a vacuum chamber where the water evaporates and is dispersed into the atmosphere as natural steam.

- The dry powder passes through an electrical current, which extracts any metals that may be present. The metals are placed in a container to be recycled.

- The dry powder is placed in a container within the sealed unit that can then

Fig. 19: Illustrations showing the process of promession. The whole process takes place in a closed container (Author, 2010).

be given to relatives to be buried or disposed of as they see fit.
It is recommended that the remains be placed in a biodegradable coffin that is then buried at a depth of approximately half a metre. In approximately 6 to 12 months the remains and the coffin will have become part of the life-giving nutrients of the soil. It is suggested that a plant or tree be planted on the grave to become a symbol of the deceased person and a representation of new life.

(www.cheshireeast.gov.uk).

Conclusion

Promession is chosen as a viable alternative to the traditional forms of earth burial and cremation. Even though promession has not been established or used in South Africa, several municipalities are looking into using promession in the future (Van Copenhagen, 2010). By making use of a renewable resource with no emissions during the promession process, and an end product to use as vegetation nourishment, opportunities are created for planting and creating *park-like environments* within the urban environment.

With these advantages presented, a new form of urban burial place can be developed for the urban collective, one which would facilitate the inter-relationship between life and death in the cycle of life.

Definitions

Promession: An alternative burial method making use of cryogenic technology to freeze-dry remains and reduce them to a powder.

Promess: The act of promession.

Promains: The bodily remains after the act of promession.

Promator: An enclosed machine (6m x 2.5m x 2.6m) in which the body is promessed.

(Monaghan, 2009: 1038)

Place of Remembrance: Vertical necropolis with various levels used for planting and the housing of remains – acting as a vertical park within the city. Also referred to as a *vertical park of remembrance* later on in the document.

Necropolis: A cemetery, especially a large one belonging to an ancient city. Origin form Greek: *nekras*: "dead person" + *polis* "city" (Pearsal, 2001: 1239).

Research Questions

The study focuses on the design of a place of remembrance within an urban environment.

The questions that will be investigated are the following:

Can an architectural expression of consciousness and respect for those that have passed, overcome cultural norms and ultimately change our perceptions of what a city and urban environment could be?

What significance lies in appropriating the *between* – physically and meta-physically?

Given the opportunities presented by promession and the urban dweller as user, how will these aspects influence the physicality of the place of remembrance?

These questions will be explored by investigating the concepts of the cycle of life; function; the *between*; collective dwelling; and site.

Problem Statement

Burial structures have a long history as places of significance and have played an integral part in the development of man and his perceptions (Colvin, 1991: 1). Even though these horizontal cemeteries have been placed and planned on the periphery of urban centres for centuries, the city of the dead still plays an integral part in the life of the city. Unfortunately, over the last three centuries, cemeteries have lost their importance in the happenings of the city (Alexander *et al*, 1977: 354).

During the past ten years an alternative way of disposing of bodily remains has been developed. Promession provides the opportunity to integrate those that have passed on into the urban fabric. Rather than creating a monument to memorialize the dead in our urban environments, an architectural expression of consciousness and respect for those that have passed is the aim.

Through sensitively appropriating the *between*, the cycle of life represented by the memorial can ultimately change perceptions of what a city and urban environment should be.

Delimitations

The purpose of this thesis is not to create a facility for a particular religion or belief system. It is also understood that not all religions and beliefs can be accommodated in the facility provided. As the process has some relation to cremation it is assumed the facility will attract like-minded people looking for an environmentally friendly alternative to earth burial or cremation (Monaghan, 2009: 1038).

As the intention of this document is to address the appropriate use of space through alternative methods of burial, the place of remembrance will not house coffins, but only promains or cremains. The facility will also accommodate those who wish to be cremated at another facility and still make use of the place of remembrance as a permanent housing facility for the remains.

Assumptions

It is understood that the promatorium and place of remembrance provided would be new to many. Historical evidence suggests that cremation was accepted over time (Monaghan, 2009: 1033); it is assumed that promession would take a similar route towards acceptance.

The facility will not be for a specific denomination or group of people. The place of remembrance hopes to attract people who see themselves as urban dwellers and would like to further their existential stay in the urban environment.

The promatorium proposed is not intended to serve the whole City of Tshwane, but rather those that are in close proximity to the facilities. As demand grows, more promatoriums will be provided in other parts of the greater City of Tshwane, followed by many more vertical places of remembrance.

The site chosen will not consist of one parcel of land, but will rather belong to several different owners, accumulating the collective space between buildings.

It is assumed that the Department of Cemeteries of the City of Tshwane Metropolitan Municipality will, as with all other official burial spaces in the greater City of Tshwane, run and manage the new facilities provided.

2. Literature review

In "Being and Time", Heidegger explains *life* as being embedded in our historical and social context (Davis, 2010: 2).

This document addresses the integration of a necropolis into the existing urban fabric by exploring the cycle of life. Through appropriating the *between* that exists physically (spatially) and meta-physically, the project aims to create a meaningful environment that forms a necessary and essential part of our existence (Norberg-Schulz, 1983: 227). The theoretical background is divided into three parts: the *cycle of life* as an encapsulating concept; defining the *between* and its significance in the broader whole; and the existential meaning of *collective dwelling*.

The cycle of life

Human existence in its basic make-up is temporal, with reference to the moment of presence in the greater whole (McNeill, 2006: 2). This means that a human exists only momentarily, which causes *being* (human existence) to be caught up

in time. Heidegger explains this phenomenon of life as the relation between the finite being of human life and the happening of the world (McNeill, 2006: 2). The concept of "world" denotes a human being's entire dwelling (McNeill, 2006: *ibid.*), as does "being in the world" (McNeill, 2006: 48).

The concept of life has been defined in many ways. Life is sometimes seen as purely part of a biological process of birth, decay and rebirth into some other form of life (McLennan, 2004: 64). Various philosophers like Dilthey, Scheler and Nietszche conceived life as metaphysical and historical (Inwood, 1991: 118), explaining how life embraces our mental states, conscious and unconscious, and the expressive and creative acts which constitute our history. The concept of life entails both physical and meta-physical aspects.

The *cycle of life* is a commonly used concept – especially in philosophy and social science (O'Rand & Krecker, 1990: 241). For this reason an attempt will be made to explain the cycle of life in the context of life, and the meta-physical philosophy behind this concept, with reference to the proposed thesis project.

Human life, in being temporary, constitutes beginning and end – birth and death – life span (O'Rand & Krecker, 1990: 242). Even though a human life has a life span, the course of life is what makes *being* part of *happening* during our temporary existence. This life course refers to the social process of maturation (O'Rand & Krecker, 1990: 244).

Both these concepts – life span and life course – have no reference to the *transcendence* of a single human life, only to the stages of a human life (O'Rand & Krecker, 1990: 241). The concept "cycle of life" does refer to the whole process of developmental phenomena and also the *transcendence* of a single life (O'Rand & Krecker, 1990: *ibid.*), placing human life within a larger cycle of life.

The cycle of life is evident in our urban environments: People come and go. The physical make-up of the city changes and goes through various processes. Jane Jacobs (1961: 448) describes good urban environments as lively, diverse and intense cities which contain the seeds of their own regeneration, with enough energy to carry over for problems and needs outside of the urban dwellers themselves. But without human existence urban life would not be able to sustain itself, nor would it exist at all. Human life not only brings an essential part of the cycle of life into the urban environment, but also creates meaning within the urban environment. Norberg-Schulz (1983: 5) explains that since remote times physical manifestations have helped man to give meaning to his existence. This meaning refers to both the expression of meaning and the participation in constructing meaning through the ordering of spaces and social relationships (Psarra, 2009: 2).

Urban life would not exist without human existence. Human existence is part of the cycle of life and so is urban life. But do urban environments include the whole cycle of life?

The between

The *between-ness* of this study in itself lies in the middle of various *betweens*. It will be explored as the spatial relationship between two objects which do not physically exist, yet can be defined. Another *between* that this thesis tries to explain is the relationship between the physical and meta-physical being – thought, consciousness and sub-consciousness. The last *between* that is defined for all practical matters in relation to the subject of this thesis is the relationship between the physical and the spiritual.

Heidegger always explains *being* as "being in the world" (Heidegger, 1996: 50). Being in the world is an encapsulating concept of worldliness (Heidegger, 1996: *ibid.*). "Being in" then constitutes an in-ness, or as being in something (Heidegger, 1996: *ibid.*). The "in-ness" is explained as a relationship between two beings – or things – extended in space. Like water and glass – the water

in the glass; or closet and dress – the dress in the closet. These categorical relationships are explained as objective presence in something objectively present (Heidegger, 1996: 50).

The space between two objects is a physical manifestation of the relationship of the *in-ness* between objects.

In its very basic sense, a living being is generally understood as an organism that has various organs (McNeill, 2006: 3). The idea of the whole being equal to the sum of the parts originated in mechanistic thought. An arm is still an arm even if it isn't attached to the body. Socrates raised the question of the relation between the unity of a living being and its various sense organs (McNeill, 2006: *ibid.*), specifically with respect to the human being. Socrates explains this question by analysing each sensual organ with its function. By asking the question "if each sensual organ functions separately from others, what will the outcome be?" (McNeill, 2006: ibid.). What will the effect of someone who could see and hear and smell and taste, all at the same time, be without a *unifying element?* (McNeill, 2006: 3).

There needs to be a unifying element or activity between the senses where they could belong together and be all at one at the same time (McNeill, 2006: 3). Socrates names this togetherness the result of the soul (McNeill, 2006: *ibid.*). Heidegger defines the soul as the "being seen" of a man (McNeill, 2006: 4). The apprehension of the unity between the senses and their objects is not simply an apprehending that occurs by way of the sense organs conceived as instruments. This apprehension stretches throughout the various channels of sense perception, relates them to one another and holds them together in their unity (McNeill: 3). This *being* not only unites that which actively does the perceiving, but also creates perception.

Being is encapsulated in Heidegger's concept of *Dasein* (Inwood, 1991: 42). *Dasein* directly translated from German means "being there", which Heidegger explains later as more than just "being there" but "there where being dwells" (Inwood, 1991: *ibid.*). It is this concept of Dasein that separates us from other organisms with organs – organisms which also entail a kind of being, but a different kind of being (McNeill, 2006: 5).

Dasein (*there where being dwells*) constitutes the "between" – *between* the physical and the meta-physical which is enveloped within a human being.

The last form of *between* can be explained as the consciousness man has of an afterlife (Thompson, 1998: 276). This consciousness of an afterlife can be traced back to early times to the realization of the supreme crisis of death (Colvin, 1991). This consciousness can also be traced to the builders of the pyramids (Harries, 1998: 293), who believed in the soul's immortality, and the relationship mortals have with the immortals of the afterlife. The *in-between* meta-physical space has long been expressed though the physical manifestation of funerary architecture. Funerary architecture has helped man to mark the boundary separating the realm of the living and the realm of the dead (Harries, 1998: 293). Funerary architecture can then be seen as a physical expression of the meta-physical *between.*

Collective dwelling

The word "dwelling" means more than having a roof over one's head and a certain number of square meters at one's disposal. Firstly it means to meet others for the exchange of products, ideas and feelings; that is, to experience *life as a multitude of possibilities* (Norberg-Schulz, 1985: 7). Finally it means to be oneself, in the sense of having a small world of one's own. These modes of dwelling can be called collective, public and private (Norberg-Schulz, 1985: *ibid.*). Collective means "the gathering or the accumulation of..." (Alswang *et al*, 1995: 145). Collective dwelling could potentially mean *the gathering or meeting of a number of people in the same place*. It also has the potential meaning of *a group of people that have the same convictions and cultural norms*

– creating a collective way of life.

The urban space: a place of discovery, a milieu of possibilities. Norberg-Schulz (1985: 13) explains how man collectively dwells in urban space to experience the richness of the world. It is in this richness of urban space and in the milieu of possibilities presented to the collective, that through collective dwelling the possibility arises for exploration to overcome conventional cultural norms, creating instead a rich potential for meaning and establishing a new culture (Prassa, 2009: 3).

Conclusion

This thesis investigates the role of a programme that no place can be without. No matter where we go or what we do, death is part of life. No matter how much we try to avoid it we will be confronted by death. The cycle of life includes both life and death, but more importantly it also includes collective dwelling. Collective dwelling becomes the connection, the "in-ness" between life and death. It is this "in-ness" or relationship that is the unifying element which Heidegger explains as part of Being. It is this part of Being that makes it possible to create new meaning – meaning which enhances and *celebrates life*. In doing so, this new meaning can lead to a new form of urban life and ultimately change perceptions and norms over the course of time.

The finality of loss can also come through the shared experience of the collective. Sharing with others, even though they are unknown to the mourner, brings comfort to the mourner and acknowledges the loss of life.

In the book "South African Architecture: 10 years + 100 buildings", Prof. Pattabi Raman discusses various narratives in his article: "Change and continuity in contemporary South African architecture and urbanism". He goes on to refer to Lyotard's call for design gestures (narratives) forming part of the environment, rather than having grand symbolic narratives (Joubert, 2009).

It is imperative that these narratives or design gestures bring meaning to the environment that they are placed in, enhancing collective dwelling within that particular environment.

With the introduction of a necropolis in an urban environment, one has the potential to create new meaning and a culture of urban life within the urban environment. Ultimately, these goals will probably take several generations to achieve. It is however necessary to realize and understand that there is a need for the incorporation of the whole cycle of life into our collective urban environments.

3. The client

The client is the City of Tshwane Metropolitan Municipality. The city council is in the process of upgrading the existing crematorium to adhere to current environmental legislation aimed at minimising emissions (Van Coppenhagen). Pretoria has only one crematorium, and the city council is in the process of expanding their facilities to accommodate the high demand.

The cost of replacing and upgrading an existing incinerator is comparable to the cost of a promator (Monaghan, 2009: 1038). The council is considering alternatives for future expansions (Van Copenhagen, 2010).

The Department of Cemeteries of the City of Tshwane Metropolitan Municipality will be in charge of the facility.