

EXPLORING THE RELATIONSHIP BETWEEN SACRED SPACE & THE  
MEMORY OF THE DEAD, IN CHRISTIANITY, THROUGH MNEMONICS:

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*A Proposed Interment Complex for Durban*

**A Dissertation Submitted In Partial Fulfilment of the Requirements For the Degree of  
Master of Architecture**

School of Built Environment and Development Studies  
University of KwaZulu-Natal  
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YOUSUF VAJDA  
211517721  
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*'we mortals are but shadows and dust.  
shadows and dust.'*

# DECLARATION

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Submitted in partial fulfillment of the requirements for the degree of Master of Architecture, in the Graduate Programme in Howard College, University of KwaZulu- Natal, South Africa.

I declare, that this dissertation is my own unaided work. All citations, references and borrowed ideas have been duly acknowledged. I confirm that an external editor was not used. It is being submitted for the degree of Master of Architecture in the Faculty of Humanities, Development & Social Sciences, University of KwaZulu- Natal, South Africa. None of the presented work has been submitted previously for any degree or examination in any other university.

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Yousuf Vawda

November 2017

# ACKNOWLEDGEMENTS

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I would like to thank . . . God.

. . . my family.

. . . my supervisor.

That is all.

Selecting a dissertation topic is quite a tiresome and lengthy process, as one must consider a myriad different topics, ideas, personal interests etc. and thereafter narrow it down and generate a workable topic to coincide with that of an architectural thesis and design project. It was imperative that the chosen topic would be of interest to me personally, in order to engage me throughout the year without losing interest.

After much consideration, three main concepts and ideas arose from personal interest. Religious and sacred architecture has always intrigued me, and visiting these spaces, regardless of religion, I have always found to be more meaningful than profane and utilitarian spaces. Memory is another aspect of life that has always fascinated me, and together with its relation to time, has always been an area of interest to me. Lastly, death and the architecture of death historically, as well as its relation to sacred spaces has always been an area of interest to me. These interests and ideas were combined to generate the topic of this dissertation.

## ABSTRACT

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Places of the dead throughout history have played a significant role in shaping the urban fabric and portraying a society's attitude towards their dead. These sacred spaces would be important elements in the landscape for the living to pay respect and remember those that have passed.

The Christian faith has a unique history with regard to their interment spaces, utilising a variety of methods throughout its two thousand year history.

The purpose of this thesis therefore, is to explore the relationship between sacred space and the memory of the dead, in Christianity, through mnemonics. The study investigates the relationship between life and death through sacred and memory evoking architecture through the design of an interment complex for Durban.

The aim of the study was to explore the relationship between sacred space and the memory of the dead, within Christianity, through mnemonics. This was done by investigating important historical methods of interment utilised by the people of the Christian faith. The research subsequently focused on sacred and meaningful architecture, that evoked memories of the dead for the users, as well as investigating peoples' perceptions of sacred space and memories of the dead.

The proposed design was facilitated through the investigation of recent literature, theories and precedents, as well as personally conducted interviews with a religious leader (Priest) and parishioners of a church in Durban. The research will thereafter determine a relevant architectural response and typology which should be responsive and appropriate to its context. The design process becomes a method to generate meaningful and thoughtful architecture.

Through the research conducted, the relationship between sacred space and memory of the dead unfolded, revealing a tight-knit link that included the incorporation and utilisation of different spatial experiences, an intimacy of spaces, symbolism that added meaning and the engagement of the senses.

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# GLOSSARY OF TERMS

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Bury	to dispose of by depositing in or as if in the earth. (Merriam-Webster, 2017a)
Church	a building for public Christian worship. (Dictionary.com, 2017a)
Cubicula	a small room provided in catacombs and constituting a family vault. (Merriam-Webster, 2017d)
Exhume	to dig (something buried, especially a dead body) out of the earth; disinter. (Dictionary.com, 2017b)
Funeral	A ceremony or group of ceremonies held in connection with the burial or cremation of a dead person. (The-Free-Dictionary, 2017)
Inhumation	to bury; inter. (Dictionary.com, 2017c)
Inter	to deposit (a dead body) in the earth or in a tomb. (Merriam-Webster, 2017e)
Loculi	A recess in an ancient catacomb or tomb, where a body or cinerary urn was placed. (Dictionary.com, 2017d)
Mausoleum	A large tomb. (Merriam-Webster, 2017b)
Mortuary	of or relating to the burial of the dead. (Dictionary.com, 2017e)
Niche	a recess in a wall. (Merriam-Webster, 2017f)
Pagan	(no longer in technical use) one of a people or community observing a polytheistic religion, as the ancient Romans and Greeks. (Dictionary.com, 2017f)
Theology	the study of religious faith, practice, and experience; especially: the study of God and of God's relation to the world. (Merriam-Webster, 2017c)



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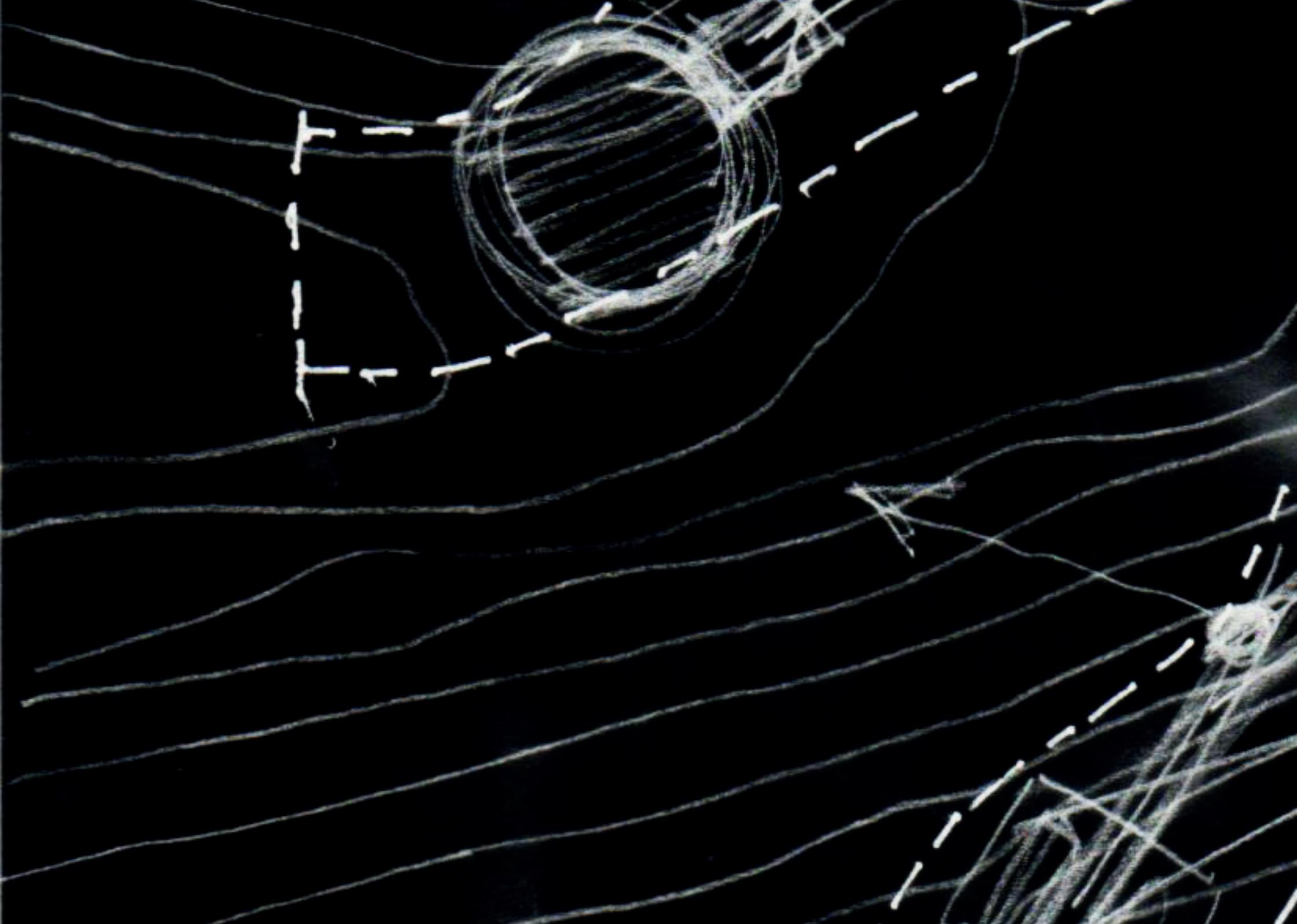
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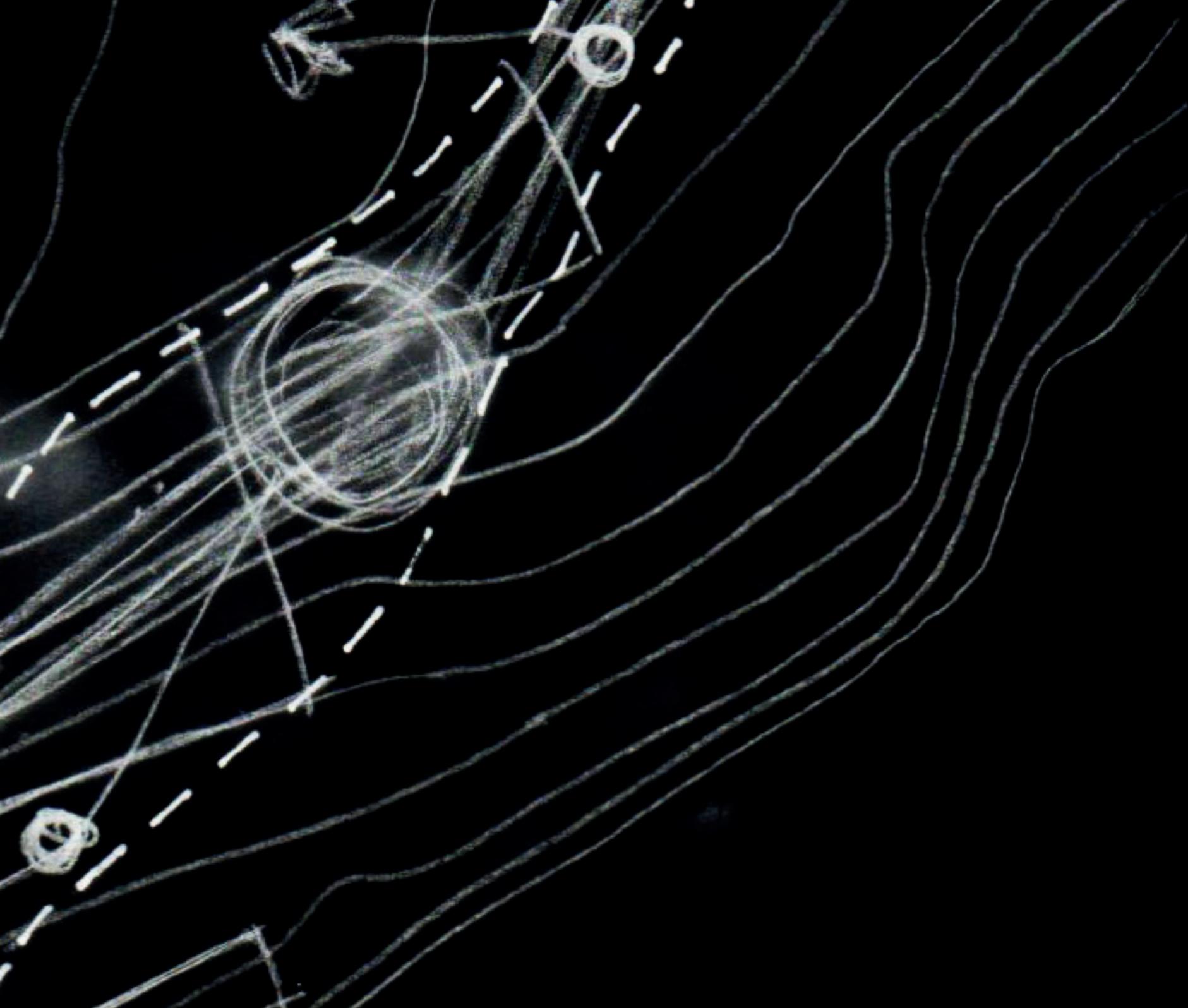
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# PART ONE



### 1.1.1 Background Information

There exists a link between architecture and death, through examining the history of architecture, it is evident that it can almost be reduced to a history of tombs (Harries, 1998: 293). Disposing of the dead has always been a high priority of man, often a sacred priority, resulting in the need to create a resting place to mirror this importance. Throughout history, death and spirituality have been influenced greatly by religion and culture with many sacred spaces designed to become landscapes to provide both physical and mental orientation and civilisation for the living and to serve as sacred spaces for the interment of the dead. These spaces were also integral to the urban fabric of cities and had been utilised as important public spaces over time. Today these places of interment, mainly consisting of cemeteries, have been isolated from urban life and the people around it, leading to the decay of these important civic spaces and resulting in the loss of influence the dead have on the living through a loss of sacred spaces and memory of the deceased. However, if incorporated within an urban context, these sacred spaces could offer more meaning in modern society and could once again be important archival elements in the city as repositories for memory (Curl 1993).

Christianity has always placed great importance in disposing of the dead, through their belief in the resurrection of body and soul, and evident in the sacred interment spaces (Kilde, 2008: 6). Through Christianity's unique interpretation of sacred

space and its relationship between the memory of the dead, its influence on architecture can be investigated to create powerful and meaningful spaces in the present day.

The common practice of burial and cremation in today's society can be seen as unsustainable, not only in terms of the lack of space in the city but the resultant soil and air pollutants of traditional burial and cremation practices. The recent introduction of the interment methods of Promession and Resomation has made it possible environmentally and spatially to dispose of the deceased within the city, and not on the periphery or isolated from human life. This results in the possibility to explore the relationship between sacred space and the memory of the dead within an urban context, and potentially provide the living with the influence the dead once had on the city. This is a result of contemporary cities lacking a "centred quality" (Sheldrake, 2014: 130) as we have built nothing into them that is precious to us (Sheldrake, 2014: 130).

Remembering the dead in a social context can be regarded as a collective social and cultural phenomenon and in many religions, remembering the dead and the past defines the present. The present in turn defines the future (Williams, 2006: 3). This is through attempting to "secure and express their perceived rights, aspirations and identities" (Williams, 2006: 2-3), emphasising that memory is not only individual, but also a social practice.

## 1.1.2 Motivation of the Study

A personal interest in the idea of sacred space -a defined space regarded with reverence and awe (Sheldrake, 2014: 131) and its relationship with memory drives the motivation for this dissertation. Additionally, although I am Muslim, various religions and religious/ sacred architecture has always intrigued me, and visiting sacred spaces, both local and international, I have always found to be more engaging and fulfilling than other typologies. Christianity and its sacred spaces, like that of churches is a clear example of this.

Sacred spaces were integral to urban life in many cultures and civilisations through history. They influenced daily life and were more than just places of worship or places to dispose of the dead. They acted as places of contemplation (as in the case of the ancient Egyptian temples), repositories of memory (for example, Stonehenge), and in some cases, meeting places and places of refuge (Catacombs of Rome).

Today, however, in many cities around the world, these sacred spaces have lost much of their influence on society, as for many people, whether by circumstance or by choice, there has been a deviation of man's priorities from faith to individualism and economy. A shift in focus from the sacred to the profane/ mundane. This mindset originated with the French and American Revolutions which were "founded on principles of individual freedom and personal responsibility" (Jack, 2012: 41). This resulted in a shift in thinking,

where materialism and capitalism is said to “become a common priority and influenced the change in core values as they no longer seem to solely revolve around religious beliefs” (Jack, 2012: 41). According to Sheldrake (2014: 130), the modern city is purely functional.

Memory is intangible and unique to each individual. Many people reminisce about the past, or about people that have passed on, yet these memories slowly fade away or become diluted over time. Memory is bound together with space and time: past, present and future and architecture has the ability to induce memory within individuals and collectives, evoking within oneself that which may have been lost forever.

Christianity has a unique perspective with regard to sacred space and the memory of the dead. Throughout its two-thousand-year history, a number of body disposal methods have been utilised, the most common being burial and cremation, resulting in a more open-minded approach to disposing of the dead within the Christian faith, when compared to the other major world religions.

Jewish law and tradition forbids cremation and favours burial or tombs/mausoleums. Similarly, burial (without embalming and the use of a coffin- the body is placed in the ground covered only with white sheets) in Islam is t

he prescribed method of interment, with cremation or any other form being prohibited. On the contrary, cremation is the prescribed method of interment for Hindus, where the physical act of burning the body is seen as sacred, while burial is rare. Therefore, due to the variety of body disposal methods utilised by Christians over time, it becomes possible to use Christianity as a lens with which to investigate an interment complex incorporating more sustainable methods of body disposal. This can be done in a thoughtful and respected manner through sacred and meaningful architecture.

#### 1.2.1 Definition of Problem

The architecture of ancient civilisations incorporated a strong relationship to that which was sacred to them, and influenced by their unique cultures and beliefs. This resulted in monumental works of architecture that had sacred and mundane functions, providing meaningful spaces for those that used them. Death, and the architecture of the dead was considered sacred in many of these ancient civilisations, and therefore became a prominent feature in the lives of the ancients. Sacred spaces, along with the importance placed on the dead provided an orientation for the living. Stonehenge (3000BC) and the Mortuary Temple of Queen Hatshepsut (1500BC) are clear examples of this (Gillen, 2011: 3). These structures were created with the “culture of the living prevalent in their constructions” (Gillen, 2011: 3). Present architecture lacks this connection to the dead, along with sacred spaces within an urban environment that can provide users with meaningful spaces. Cemeteries and spaces of interment are also isolated from the public realm, taken away from the centre of the city where visitors are few, leading to a loss of place within the city.

The research studies the relationship between sacred space and the memory of the dead. This is understood through the unique lens of Christianity, and is done so through an investigation of the evolution of Christian funeral ritual and architecture from the time of the early Christians in Rome to the present. These sacred spaces of interment are further analysed through the lens of memory, funeral ritual and contextual issues.

The study aims to understand how Christian interment spaces have evolved over two millennia, as well as understanding the components of sacred space and memory evoking spaces. At present, cemeteries and spaces of death have lost their significance within the landscape and lacks meaningful spaces, as well as an isolation from the public realm.

The research intends to question the feelings and emotions people have when visiting sacred spaces and places of the dead, in order to grasp their understanding of these spaces and how sacred spaces can evoke memories of the dead. In essence, the research aims to question what spaces people consider sacred as well as its relation to the memory of the dead in Christianity.

## 1.2.2 Aim

The aim of this research is to explore the relationship between sacred space and the memory of the dead, in Christianity, through mnemonics.

## 1.2.3 Objectives

To understand how architecture can aid the remembrance of the dead through mnemonics.

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To gain a better understanding of the nature of sacred space from a Christian perspective.

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To investigate how spaces that address mortality can capture memory.

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To develop architectural principles in order to inform the design of an interment complex

#### 1.3.1 Delimitation of Research Problem

The research will be specific to the relationship between sacred space and the memory of the dead in Christianity, while using mnemonics as a medium.

The study will focus on Christianity, and its evolution of interment spaces and related rituals and context. The research will therefore be limited to sacred Christian architecture. The research acknowledges other religions but is not researching these.

Furthermore, the study will investigate the evolution of Christian funeral ritual and interment spaces from a broad Christian perspective, and will not divulge into the sectarian aspects of Christianity. The sects may be briefly mentioned, but will not form the focus of the study.

It is understood that there are, within the Christian faith, many denominations that vary with regard to certain beliefs. The research acknowledges these varying denominations but does not focus on one set of beliefs, rather encompasses a broad belief system within Christianity.

It is further understood that cultures and denominations worldwide within Christianity differ with regard to their body disposal practices. The research acknowledges these differences with regard to these differences.

## 1.3.2 Assumptions

The suggested topic is based upon the following assumptions:

- space can be considered sacred for Christians of all/ most denominations within the religion
- Places of the dead are considered sacred amongst most cultures and religions, including that of the Christian faith
- Ancient civilisations placed more importance on spaces of the dead than contemporary societies
- There is a strong relationship between sacred spaces and the remembrance of the dead

## 1.3.3 Key Question

How can the relationship between sacred space and the memory of the dead, in Christianity, be explored through mnemonics?

## 1.3.4 Secondary Questions

How can architecture aid the remembrance of the dead through mnemonics?

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What is the nature of sacred space from a Christian perspective?

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How can spaces that address mortality capture memory?

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What architectural principles can be developed to inform the design of an interment complex?

#### 1.4.1 Introduction

The study is primarily historical in nature focusing on the evolution of Christian funeral ritual, in order to gain valuable information with regard to past societies and the ways in which they disposed of their dead, as well as the accompanying built structures or lack thereof where their dead were interred. "History is not only about a dead past but also about a living present and a possible future" (Sheldrake, 2014: 123). Therefore, the literature review will trace the evolution of relevant periods in the history of Christianity. These periods were selected due to the popularity of the interment methods of the time (majority of Christians utilised the methods), the importance of the built form in relation to the method of interment, as well as any changing attitudes or views within a time period toward a specific form of interment. This was done in order to gain important information that will inform the design of a sacred interment complex in Durban. Four time periods/methods of interment will be included in this study through the lens of memory, mortuary ritual and urban/ rural contextual issues.

There are underlying theories and concepts which will be briefly discussed in this chapter.

The early Christian catacombs of the second to fifth centuries CE comprises the first time period and method of interment discussed in relation to the Christian faith. Worpole (2003) discusses the catacomb origins and influences, as well as spaces designed for common rituals during this period. Milburn (1988) discusses the construction and materials used in building the catacombs, as well as the demographic of people interred within these spaces. This is reinforced by Yasin (2005) who adds to this topic. Osiek (2008) discusses the funeral ritual of the early Christians. With regard to memory of the dead in the catacombs, this is analysed

by Smith (2014) who also discusses the urban and rural contextual issues in constructing the catacombs as well as its location.

Medieval Europe was predominantly Christian, and this impacted their funerary rituals and architecture, as they incorporated tombs within the church, as well as in the designated churchyard. The church would become the centre of urban life, and included both sacred and profane uses (Mumford, 1961: 284). Williams (2003b; 2006) discusses both the memory of the dead within the medieval period as well as their funeral rituals, and is supported by Hayes (2003). The contextual issues of the church and churchyard are discussed by Hayes (2003) and Worpole (2003) as well Ariés (1974), tracing the growth of cities and towns which centred around the church.

The cremation movement of the 19th century, which presented a great shift in funeral architecture and ritual within the Christian faith. Cremation presented a 'new' method of disposing of the dead that was promoted by atheists and Freemasons, and although spatially sustainable, there was a consequential loss of the sacred within the architecture of crematoriums at the beginning of the movement (Davies & Mates, 2005; Jupp, 2006). Davies & Mates (2005); Davies (1999); Jupp (2006) are the primary authors who discuss the cremation movement as well as crematorium architecture and its development over the last century.

The rise of the 'garden' cemetery movement occurred simultaneously as the cremation movement, and presented Christians with a more traditional and sacred way of interring their dead. Many cemeteries that are present in the contemporary landscape are either garden cemeteries or later cemeteries which evolved from this typology. Worpole (2003), Jackson & Vergara (1989), Rugg (2000) and Ariés (2004; 1974) discuss the issues pertaining to memory of the dead, context, and Christian funeral ritual with regard to the 'garden' and contemporary cemetery movements.

In tracing the evolution of Christian funeral ritual and architecture in order to investigate spatial characteristics and contextual issues the Christians dealt with which affected the method of interring their dead, appropriate theories and concepts are needed to ground the research. Since the lens through which the different time periods are investigated is memory, funeral ritual and urban/ rural contextual issues, a corresponding theory of memory was introduced, which will be discussed below, and is supported by the theories of phenomenology and semiotics. Sacred space forms the primary concept incorporated, and is supported by the concept of

*The main theories and concepts incorporated into the research are based around the most fundamental connections and relationships between death, memory, meaning and space making. The theories and concepts discussed have been selected primarily based on their unique characteristics relating to the research topic.*

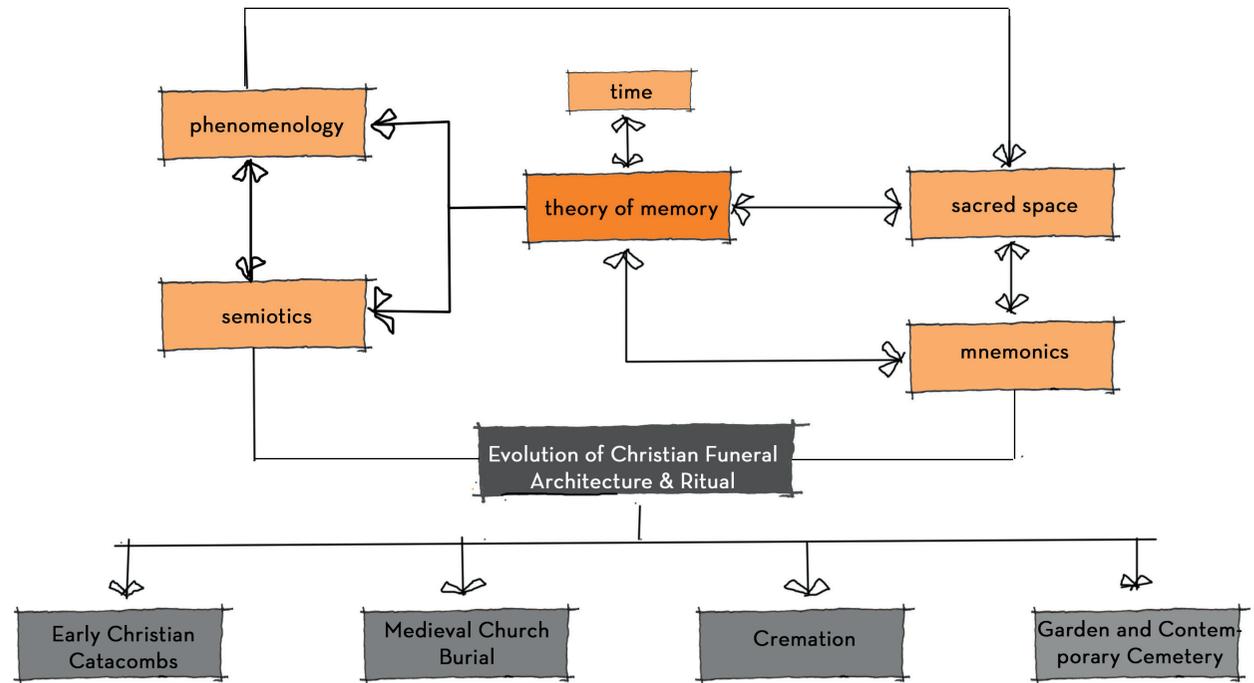


FIGURE 1.1 (AUTHOR, 2017) DIAGRAMMATIC RELATIONSHIP OF THEORETICAL & CONCEPTUAL FRAMEWORK

## 1.4.2 Theory of Memory

Memory, and the art of memory has been present in civilisations for millennia, and has subsequently developed into the modern theory of memory. The ancient Greeks noted the importance of recalling text through the use of memory (Yates, 1999: 4).

“The quest to know and understand how memories are created, how they are coded and retained, and how they shape identity and a sense of self has been at the forefront of Freudian as well as historical and social scientific thought.”

(Jacobs, 2010: xv)

The theory of memory has been incorporated into architectural works in order to evoke strong emotions within individuals or collectives.

### 1.4.2.1 Theory Outline

Memory is defined in its general meaning by the Oxford Dictionary as “the faculty by which the mind stores and remembers information” (Anon, 2017a). Memory can therefore be seen as a method in which to remember past events, feelings, people etc.

On the other hand, Hallam & Hockey (2001) theorise memory as “commonly envisaged as both the facility to remember and as the mental representation or trace of that which is remembered, both of which are crucially mediated by a variety of cultural forms” (Hallam & Hockey, 2001: 3). Additionally, Hallam & Hockey (2001) notes the idea that memories are considered ‘possessions’, where one can preserve them, as if they were “objects in a personal museum” (Hallam & Hockey, 2001: 3). Emotion and identity are therefore bound with memory as emotional experiences can assist in the creation, or loss of memory. This is supported by Halbwachs (1992), who emphasises the importance of emotion during the process of remembering, “in order to remember, one must be capable of reasoning and comparing and of feeling in contact with a human society that can guarantee the integrity of our memory” (Halbwachs, 1992: 41).

Halbwachs (1992) also suggests that memories are anchored in spatial frameworks (Hornstein, 2001: 3). This highlights the importance of space and architecture in the act of remembrance, in evoking memories within individuals

and collectives. Hornstein (2001) quotes John Ruskin on the relationship between architecture and memory, "We may live within [architecture], and worship without her, but we cannot remember without her" (Hornstein, 2001: 1-2). Remembering is easiest, when one experiences an event within a specific space/ place.

Memory is linked to time: past, present and future. Pierre Nora (1989) explains this relationship by stating that memory binds us to the 'eternal present' while history is a representation of the past (Nora, 1989: 8). Nora (1989), added that memory "installs remembrance within the sacred" (Nora, 1989: 9), demonstrating the relationship between memory and sacred space within time.

#### 1.4.2.2 Origin & Primary Advocates

Notably Frances Yates, Maurice Halbwachs, Pierre Nora and Mary Carruthers were main advocates at the forefront of the theory of memory. However, as stated earlier, memory has been a topic of discussion and practice since the time of the ancient Greeks, where it has been notably recorded. For the Greeks, memories consisted of mental images. A technique was therefore required which would improve their recall abilities and thereafter memory itself (Yates, 1999). A mnemonic system was devised in order to improve memory, and was passed on to the Romans when the Greek empire fell. This was one of the earliest recorded evidences of the art and practice of memory.

In the last century, the theory of memory has grown. Frances Yates (1999), has traced the origins of the art of memory as well as mnemonic techniques used by civilisations in the past, primarily Greek and Roman. Maurice Halbwachs (1992) has discussed the idea of collective memory in reconnecting to the past, emphasising the social nature of memory within individuals and collectives.

Mary Carruthers (1990; 2002) and Howard Williams (2006) have also contributed to the study of memory, particularly that of memory during the middle ages. This has been supported further by others such as Hallam & Hockey (2001), who have also focused on memory and its relation to death within medieval and modern society, arguing that memories are like possessions and can be likened to objects in a personal museum (Hallam & Hockey, 2001:3).

Lastly, Sigmund Freud's contribution to the study of memory, particularly in terms of psychoanalysis and the psyche of the human brain have greatly influenced the discipline.

### 1.4.2.3 Supporting Theory: Phenomenology

The term phenomenology can be defined as “the science of phenomena as distinct from that of the nature of being” (Anon, 2017c). In its origin, phenomenology was described by the philosopher Edmund Husserl as the “intuitive appreciation of phenomena as they are immediately perceived, without reference to scientific theory or prior learning” (Anon, 2017c). Architecturally, phenomenology is the way in which the senses perceive structures and spaces. The personal experience of the user in a place or space is what determines and judges that space to be. Pallasmaa (2012) explains this phenomenon:

*“The artistic dimension of a work of art does not lie in the actual physical thing; it exists only in the consciousness of the person experiencing it. Thus analysis of a work of art is at its most genuine introspection by the consciousness subjected to it. Its meaning lies not in the forms, but in the images transmitted by the forms and the emotional force that they carry. Form only affects through what it represents.”*

(Pallasmaa, 1996: 449)

Norberg-Schulz (1980: 8) expands on Heidegger’s (1962) views on phenomenology and argues that phenomenology is a ‘return to things’. Phenomenology, according to Norberg-Schulz (1980: 8) is linked with psychology, ethics and aesthetics and mentions that Place is an integral part of existence that is composed of materials, shapes, textures and colour (Norberg-Schulz, 1980: 6). Norberg-Schulz (1980) further refers to phenomenology as “a person’s ability to connect emotions to a structure from other people that inhabit the space and the experiences they have there, thus the saying ‘making a house into a home’” (van den Berg, 2014: 9).

Pallasmaa (2012) divulges further into the sensory aspect of phenomenology and argues that the interaction of the senses, in this case incorporating movement and action, is vital as one is able to “identify scales, see a direction and enhance perceptions by experiencing” (Luckoo, 2011: 8). He further emphasised the significance of the entire experience of a building instead of concentrating solely on visual perceptions.

Phenomenology is also linked to spaces of memory, as argued by Pallasmaa (2012: 72-74). He argues that people have a capacity for remembering and imagining, which comes to them naturally. According to Pallasmaa, perception, memory and imagination are in constant interaction, “the domain of presence fuses into images of memory and fantasy. We keep constructing an immense city of evocation and remembrance, and all the cities we have visited are precincts in this metropolis of the mind” (Pallasmaa, 2012: 72-74).

#### 1.4.2.4 Supporting Theory: Semiotics

“... all buildings symbolise or at least ‘carry’ meaning... There is no getting away from it; just as Chartres Cathedral carries meaning, so does the meanest garden shed.”

(Broadbent et al., 1980: 474-475)

Semiotics can be defined as the ‘study of signs’ and is “an investigation into how meaning is created and how meaning is communicated. Its origins lie in the academic study of how signs and symbols (visual and linguistic) create meaning” (Lemon, 2013). Semiotics or Semiology intends to take a system of signs to create a sense of meaning and significance (Stevens, 2014: 15).

The theory and its principles were developed by Charles Sanders Peirce and Ferdinand de Saussure initially as an application to language (Ramzy, 2013: 338-339) and was later applied to the study of architecture by various authors, notably Umberto Eco, Charles Jencks, Gerrard Lukken and Mark Searle. The main concept of Peirce and de Saussure’s semiotics theory is the ‘sign’, “which consists of a signifier and a signified” (Ramzy, 2013: 339). Peirce (1935) established that “every symbol is a living thing, in a very strict sense...” (Peirce, 1935; Stevens, 2014: 15)

The theory of semiotics was applied to the field of architecture, and specifically church architecture in the book ‘Semiotics and Church Architecture’ by Lukken & Searle (1993) where architecture is described as the result of a two-fold process; “first there is the process whereby the building comes into existence, and second there is a process whereby the meaning of the building is established through its use” (Troskolanski, 2014:

21). Lukken & Searle (1993) further note that the people who use the space enhances the signification and therefore the user becomes an important aspect in generating meaning within the space (Lukken & Searle, 1993; Trokolanski, 2014: 21)

Semiotics, according to A J Greimas, can be described as 'extensiveness' (Lukken & Searle, 1993; Trokolanski, 2014: 21). The idea of 'extensiveness' is something that is perceived by our senses and is therefore continuous.

'Introducing the human subject into the definition of space in this way makes it necessary to take account, when reflecting on space, of all the ways in which that space may impinge upon the subject's sensorium. In other words, space needs to be considered not only in visual terms, but also in terms of its tactile, thermic, acoustic and aromatic qualities.'

(Lukken & Searle, 1993: 12)

Jencks (1969) stated that "sign processes are involved in everything that we do" (Jencks, 1969: 74). Jencks (1969) believed that any form or sign around us in any given environment, has the ability or potential ability to be motivated or contain meaning for an observer (Jencks, 1969).

"When one sees an architecture, which has been created with equal concern for form, function and technic, this ambiguity creates a multivalent experience where one oscillates from meaning to meaning always finding further justification and depth."

- Charles Jencks

### 1.4.3 Concept of Sacred Space

*Sacred Space* often has varying definitions, depending on understanding and experience. Le Corbusier has called it the 'ineffable', Louis Kahn referred to it as 'immeasurable', while Rudolf Otto has described it as 'numinous' (Bermudez, 2015: 2). In essence, Sacred Space is "a place which invites the contemplation of divine mystery, and encourages an attitude of spiritual openness. A sacred space is not necessarily where answers are grasped or understood. Rather it is where questions are asked, conversations occur, rituals are perpetuated, dances are performed, songs are sung, and silence is heard- all in an attempt to find answers" (Anon, 2009; Stevens, 2014: 18).

#### 1.4.3.1 Concept Outline

Sacred spaces are places where one can escape the profane and ordinary world, to a more meaningful, even divine realm either individually or collectively. Porter (2004) states that "sacred space conveys intense meaning communicated through collective memory to an individual or a group in whom it evokes an emotional response". The physical context is influential to the sacred space (Porter, 2004: 124).

Porter (2004) continues his assessment of sacred space and its characteristics. He argues that sacred spaces are defined by edges and boundaries, "which exhibit surface qualities that stimulate our senses" (Porter, 2004: 124) and are enhanced by the importance of lighting which promotes meaning within sacred spaces through the illumination of specific spaces and plays upon receptive surfaces.

Sacred spaces can be utilised through a variety of forms and elements. This may take the form of paths, which expand contract as they lead the user from one space to the next, even creating spaces of rest which act as focal points in a 'spatial sequence' (Porter, 2004: 124). "Significant transitions, thresholds and entranceways exist along paths and between the spaces connecting them to other spaces or to significant elements existing within the topography or cosmos" (Porter, 2004: 124). These spaces are dependent on orientation within its topography, evident by ancient builders and agreed upon by contemporary architects. Eliade (1961) agrees with the importance of orientation with regard sacred space and states, "nothing can begin, nothing can be done, without a previous orientation" (Eliade, 1961: 22).

Eliade (1961) thereafter identifies sacred space, characterising it by its existential value because any orientation "requires a dependable, permanent source" (Stevens, 2014: 19). It is therefore imperative for the religious man to locate his abode "at the center of the world" (Eliade, 1961: 22).

The importance of encountering sacred space within our everyday lives is stressed by Mario Botta, who argues that "there is a compelling need for sacred space within everyday life, an incontrovertible necessity that has been confirmed over the centuries by sublime examples, and that has now re-emerged decisively, perhaps in an extreme attempt to respond to the incompleteness of the contemporary dimension" (Innes, 2016: 2-3). According to Botta, there needs to be more engagement than a weekly religious ritual/ ceremony, something more frequent and less ceremonial, as these rituals/ ceremonies could eventually become a routine, potentially losing the essence of the religious and sacred influence initially sought after.

Eliade (1961) supports Mario Botta's views when describing sacred space, labelling it as 'wholly other' and a "break within the homogeneity of space" (Eliade, 1961: 21). The homogeneity he refers to is that of profane space, which is 'neutral'. Eliade (1961: 21) also argues that for both the 'religious' and 'non-religious' man,

no space can be considered neutral, however, through identifying the difference between the sacred and profane gives meaning of life to the living.

Rudolf Schwarz (1958) explores Christian worship space in order to understand how one experiences sacred space in the modern day. Schwarz (1958) studies historical evolution of churches, mentioning the influence other building typologies had on Christian religious architecture (Schwarz, 1958: 7-8). He presents six plans which together, form the seventh plan: 'The Cathedral of All Time'.

The First Plan:

Sacred Inwardness: The Ring

The Fourth Plan:

Sacred Journey: The Way

The Second Plan:

Sacred Parting: The Open Ring

The Fifth Plan:

Sacred Cast: The Dark Chalice

The Third Plan:

Sacred Parting: The Chalice of Light

The Sixth Plan:

The Dome of Light

### 1.4.3.2 Origin & Primary Advocates of Sacred Space

In his book *The Sacred and the Profane* (1961), Mircea Eliade introduced us to his philosophical thoughts on the concept of sacred space, and with his profound understanding and knowledge of the subject, makes him the primary advocate for the concept.

It is due to his understanding of religion which forms the basis of his concepts of hierophany and theophany, defining them as “hierophany being the manifestation of the holy and theophany means manifestation of God or the divine into the mundane world” (Eliade, 1961: 22). Hierophany refers to any manifestation of the sacred (sacred tree, stone etc), while theophany refers to the appearance of a deity to a human being. Hierophany is therefore more permanent than that of theophany. Eliade (1961) further refines and explains this concept of hierophany by adding that it “gives structure and orientation to the world, establishing a sacred order” (Eliade, 1961: 20-22).

### 1.4.3.3 Supporting Concept: Mnemonics

*Mnemonics* can be defined as “the study and development of systems for improving and assisting the memory” (Anon, 2017b). Mnemonics are linked directly with memory, as D’Arcy (2010) notes, “mnemonics are a group of memory aids, or mental ‘slights of hand’ that facilitate the quick and easy assimilation of information of all kinds” (D’Arcy, 2010: 3). His description of mnemonics includes that of facts, figures, names, faces and events.

Mnemonics also incorporates the use of the human imagination, together with the individual senses, “in order to transform a dull, dry piece of text into a firm and vibrant memory that is not just easy to remember, but difficult to forget” (D’Arcy, 2010: 3). In relation to the senses, this is where the design of spaces and places can evoke memories within individuals and collectives, through their mnemonic capacity. Hallam & Hockey (2001) add that sight is the primary sensual means by which memories can be generated and maintained (Hallam & Hockey, 2001: 130).

Similarly, emotions have mnemonic capabilities. It was understood in ancient philosophy that all memories involve some sort of emotion, and every individual memory is “physiological, bodily phenomenon” (Carruthers & Ziolkowski, 2002: 8). Furthermore, Carruthers and Ziolkowski state that “there is no such thing as an emotionally detached memory” (Carruthers & Ziolkowski, 2002: 8). The medieval conception of memory regarded ‘things’ that were seen as “extreme

in their emotive capacities” to be the most readily remembered (Hallam & Hockey, 2001: 203).

According to D’Arcy (2010: 4), mnemonics takes advantage of the way the human mind absorbs information, and there are three stages which lead to the formation of a memory:

Observation- events need to be observed for it to be committed to memory. D’Arcy (2010: 3) notes that there is a difference between seeing and observing.

Association- “All memory is based upon association. To remember one piece of information, we invariably associate it with another already committed memory. This is usually done without our conscious awareness” (D’Arcy, 2010: 3).

Visualisation- The stronger the memory, the more visual they are in nature. Events are more easily recalled than text read on a page or screen. Vibrant images add to mnemonic capacity.

### 1.5.1 Introduction

The research involves a phenomenological qualitative approach with the main intention of analysing and documenting relevant information pertaining to the relationship between sacred space and the remembrance of the dead in Christianity, within Durban.

The fundamental intention through this research methodology is to divulge important descriptive data and existing phenomena that would not necessarily be uncovered through a quantitative approach to the study.

The research methodology and approach incorporated in this short dissertation is established within this section, demonstrating a comprehensive understanding of the methodology. It defines the plans for data collection and will also identify and analyse the approach and methods incorporated.

## 1.5.2 Research Materials: Secondary Data

The research materials deal mainly with secondary research and is thereafter followed by the primary research. The secondary data is gathered from other specialists who have written and discussed the issues relating to the research topic. Secondary data consists of two sections; a comprehensive historical literature review together with a study of precedents relevant to the study. The precedent studies will be directly related to the historical literature review.

### 1.5.2.1 Literature Review

It is the purpose of the literature review to examine appropriate text relating to the issues of the relationship between sacred space and the remembrance of the dead in Christianity, through mnemonics, in order to gain an understanding of meaningful architecture of the dead, within Durban. This will be done through the utilisation of a historical literature review, focusing on the evolution of Christian funeral ritual and interment methods. Important time periods in the history of Christianity will be studied, in order to gain an understanding of the sacred spaces of interment, as well as the evolution of mortuary

ritual and body disposal methods. Drawing conclusion from this will further inform the primary research to be conducted. The aspects under focus in the literature review under all time periods will be as follows: memory of the dead, funeral ritual and urban/rural contextual issues. These issues will focus the research in a phenomenological manner and will aid in adding value to the theoretical framework of the research.

The literature review will form the body of the research and assist in forming the argument and drawing relevant conclusions.

The four time periods and typologies under investigation are:

1. Early Christian Catacombs
2. Medieval Church and Churchyard Burial
3. Modern Cremation Movement (19th and 20th century)
4. 19th Century Garden Cemetery Movement and Contemporary Cemetery

### 1.5.2.2 Precedent Studies

Precedents comprise an important section of this research and will be selected according to their typology and their relation to the different time periods being studied in the literature review. They will further be based on the relevance with regard to the research topic. Information will be gathered from relevant sources relating to the field of study and will include books, journals and published web sources. Due to the nature of the historical literature review, the precedents will be based on the time periods and interment methods discussed, narrowing the selection of precedents down to these relevant time periods. Precedents will thereafter be selected which will add the most value to the study, and contains elements which are under specific investigation. These precedents were selected due to the popularity of the interment methods of the time and location (majority of Christians utilised the methods), the importance of the built form in relation to the method of interment, as well as any changing attitudes or views within a time period toward a specific form of interment. This was done in order to gain important information that will inform the design of a sacred interment complex in Durban. These precedents will include the analysis of both the precincts and architectural structures which comprise the sacred and

memory evoking spaces, resulting in the generating meaning through the architecture. Four precedents will be investigated in total, one relevant to each time period.

The following precedents will be studied in this research:

1. St. Callixtus Catacombs, Rome.
2. Old St. Paul's Cathedral and Churchyard, London.
3. Woodland Crematorium (and cemetery), Stockholm.
4. Igualada Cemetery, Barcelona.

### 1.5.3 Research Methods- Primary Data

The primary research conducted incorporates a phenomenological qualitative method for the collection of data. The purpose of this research is to illuminate the specific and to identify an existing phenomena through how they are perceived by the actors in a situation. The primary research will be informed by the secondary research and will not be quantitative in nature. It will include direct data collection in the form of in-depth interviews.

#### 1.5.3.1 In-depth Interviews

As mentioned earlier, the primary research in the form of in-depth interviews forms the phenomenological qualitative segment of the study. This means gathering 'deep' information and perceptions through in this case, in-depth interviews (Lester, 1999: 1). The in-depth interviews will involve the study of experience from the perspective of the individuals being interviewed. Additionally, observing the expressions during the interviews will also be of importance. The research is subjective as it observed in-depth interviews, rather than many quantitative questionnaires. The research is therefore exploratory. Followers of the Christian faith were interviewed in order to gauge their perceptions of sacred/ spiritual space and the memory of the dead. The in-depth interviews involved collecting, analysing and interpreting data by observing what the participants (members of a church in Durban) do or say, studying the experience of the interviewees.

Additionally, an interview with the religious leader (priest) was also conducted regarding certain practices and ideologies relating to Christian sacred space, and mortuary ritual, as well as interment methods. This was done to gain an educated view on religious doctrine to inform the research and design in a local contemporary context.

#### 1.5.3.1.1 SETTING

For the purpose of this study, it was necessary to incorporate a Christian church within the city of Durban which would be the source of interviews and research. The study focuses on the Christian faith and its views regarding interment methods and sacred space. Therefore, the physical context and location of the of this study is at the Our Lady of the Assumption Catholic Church, in Umbilo, Durban. A Catholic church with a relatively large following provides the diversity required for the interviewees. This church is located in close proximity to the selected site of the Stellawood Cemetery (approx. 2min drive).

#### 1.5.3.1.2 PARTICIPANTS

In total, seven participants were chosen for the study. The participants chosen for this study firstly included the priest of the Our Lady of the Assumption Catholic Church, who is directly involved in church affairs and sacred rituals, and is knowledgeable about matters regarding Christianity. There is no language barrier as he speaks English fluently.

The churchgoers involved in this study are members of the Our Lady of the Assumption Catholic Church and are involved directly with the church and its sacred rituals. Approximately six parishioners were included in this study. The participants are fluent English speakers and therefore no language barrier was present.

Participants were chosen for their willingness to participate in the study.

#### 1.5.3.1.3 DATA PRODUCTION

The participants of the interviews were made aware of the research topic, as well as the aims and objectives of the research, so that they could give informed answers during the interviews, as well as add any information they thought relevant that could assist the research.

The nature of the interviews was semi-structured. This was done in order to have a clear direction for the interview, yet allow for informal conversation so that the participants feel comfortable and are able to express their experiences.

#### 1.5.3.1.4 ETHICAL CONSIDERATIONS

It is understood that the topic being researched can be seen as a sensitive issue, as it deals with peoples' perceptions of sacred space and the memory of the dead. A major issue therefore, was regarding the primary research of the in-depth interview, and whether those being interviewed would be willing to discuss their perceptions and experiences relating to sacred space, and remembrance of the dead.

Therefore, the structuring of the interview would need to be carefully considered. Before any questions relating to the dead could be asked, questions relating to sacred space and their perceptions of it would be asked initially, as this did not relate specifically to the sensitivity of death.

Some of the questions asked in the interviews related directly to the research topic and this deals with the memory of the dead. It was therefore important to enquire about spaces related to the memory of the dead that participants have encountered or experienced. These questions may have been stressful or upsetting,

however, there were no questions relating to the cause of death or any traumatic experience before the death of a loved one. The aim was to understand peoples' perceptions of sacred space and the memory of the dead that would be useful to the research.

Ethical clearance was gained from the Human and Social Sciences research ethics committee of a higher educational institution.

The participants interviewed participated at their own discretion and were under no obligation to the researcher. Confidentiality was assured with the participants.

#### 1.5.4 Outline

The research methods and materials will inform a design brief for the researcher. This will be done to determine an appropriate and architectural and design intervention which will address the research problem outlined earlier. Spatial requirements, accommodation schedules, as well as an urban response will be informed by this research.

## REFLECTIONS

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### 1.6

This chapter is used as an outline for the background of the research and research problem, as well as the research aims and objectives. The research methodology is highlighted in this chapter which will be used for this research. In order to formulate a brief, the combined primary and secondary research highlighted in this chapter will aid in deriving appropriate architectural/ urban design interventions, addressing the research problems. The resulting information will assist and inform spatial requirements, typology, accommodation schedule, philosophical stance as well as other architectural requirements for the proposed interment complex.

# THESIS STRUCTURE

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## PART ONE

### 01 INTRODUCTION

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The first chapter is intended to introduce the reader to the research problems. Chapter One further outlines the research questions, aims, and objectives that this thesis is addressing and annotates the manner and sequence in which these will be processed.

### 02 ORIGINS

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Chapter 2 will form the first of two chapters of the literature review. A brief outline in the form of a literature review being conducted (historical literature review), will be provided. The literature review will focus on different forms of interment within the Christian faith, through two time periods historically. These methods will be investigated through the lens of Christian funeral ritual, memory of the dead and the contextual issues of the time.

Additionally, in this chapter relevant precedent studies will be analysed. The purpose of this is to achieve an architectural understanding of the argument discussed throughout the dissertation, and to analyse buildings with similar architectural issues that are relevant to the study being conducted and within the typology and time periods discussed.

### 03 THE SHIFT\_

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The second of the literature review chapters where the discussion will be continued. The literature review will focus on different forms of disposing of the dead within the Christian faith, through two time periods historically. These methods will be investigated through the lens of Christian funeral ritual, memory of the dead and the contextual issues of the time.

In this chapter relevant precedent studies will be analysed. The purpose of this is to achieve an architectural understanding of the argument discussed throughout the dissertation, and to analyse buildings with similar architectural issues that are relevant to the study being conducted and within the typology and time periods discussed.

### 04 ANALYSIS & DISCUSSION

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The penultimate chapter of the research will focus on the analysis of the primary data collection; this being the in-depth interviews and observations. The chapter also outlines the outcomes of the research in regard to the key questions, aims and objectives set out at the beginning of this research. It outlines how these have been achieved.

### 05 CONCLUSIONS & RECOMMENDATIONS

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The final chapter draws conclusions from the research conducted through the literature review, case study, precedent studies, in-depth interviews and observations. This will assist in determining design principles to form a brief for the proposed interment complex. It is the aim of this chapter to provide necessary guidelines and restrictions for the proposed interment complex.

	TIME PERIOD/ YEAR	CONTEXT	FUNCTIONS	MATERIALITY	RELIGIOUS/ SECULAR INFLUENCE	FEEL/ AMBIENCE
ST. CALLIXTUS CATACOMBS	2 <sup>nd</sup> - 4 <sup>th</sup> Century CE	Suburban	<ul style="list-style-type: none"> <li>• Interment complex</li> <li>• Commemorative meals</li> <li>• Prayers</li> <li>• Pilgrimage (for the saints interred there)</li> </ul>	<ul style="list-style-type: none"> <li>• Primarily concrete</li> <li>• Stucco ceilings</li> <li>• Facebrick</li> </ul>	Jewish & Christian Influence	<ul style="list-style-type: none"> <li>• Solemn, potentially depressing</li> <li>• Potentially intimidating</li> <li>• unnerving</li> </ul>
OLD ST. PAUL'S CATHEDRAL	11 <sup>th</sup> - 13 <sup>th</sup> Century CE	Rural to Urban	<ul style="list-style-type: none"> <li>• Interior and exterior burial and interment</li> <li>• Primary religious space</li> <li>• Communal meeting space</li> <li>• Occasional commercial space</li> <li>• Contemplation space</li> </ul>	<ul style="list-style-type: none"> <li>• Stone structure</li> <li>• Stained glass</li> <li>• Timber roof</li> </ul>	Christian Influence	<ul style="list-style-type: none"> <li>• Ethereal</li> <li>• vast</li> <li>• Awe-inspiring</li> </ul>
WOODLAND CREMATORIUM	20 <sup>th</sup> Century (1940)	Rural	<ul style="list-style-type: none"> <li>• Crematorium and cemetery complex</li> <li>• Contemplation spaces (gardens, ponds etc)</li> <li>• columbarium</li> </ul>	<ul style="list-style-type: none"> <li>• Concrete</li> <li>• Marble cladding</li> <li>• Plaster and paint</li> <li>• brick</li> </ul>	Christian & Secular Influence	<ul style="list-style-type: none"> <li>• Serene</li> <li>• Tranquil</li> <li>• Peaceful</li> </ul>
IGUALADA CEMETERY	20 <sup>th</sup> Century (1994)	Rural	<ul style="list-style-type: none"> <li>• Interment complex</li> <li>• Contemplation space</li> <li>• Incomplete chapel/ monastery</li> </ul>	<ul style="list-style-type: none"> <li>• Concrete</li> <li>• Gabion walls</li> <li>• Stone paving</li> <li>• Stone paving</li> <li>• Brick paving</li> <li>• Timber</li> <li>• Stone</li> <li>• Corten steel</li> </ul>	Christian & Secular Influence	<ul style="list-style-type: none"> <li>• Solemn, but not depressing</li> <li>• Tranquil yet potentially intimidating</li> </ul>

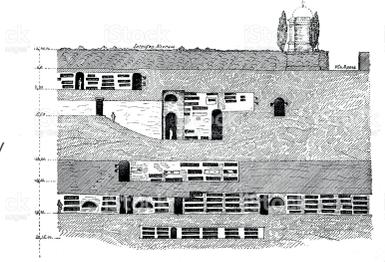
# COMPARATIVE TABLE OF PRECEDENTS

## SPATIAL CHARACTERISTICS

## SEMIOTICS

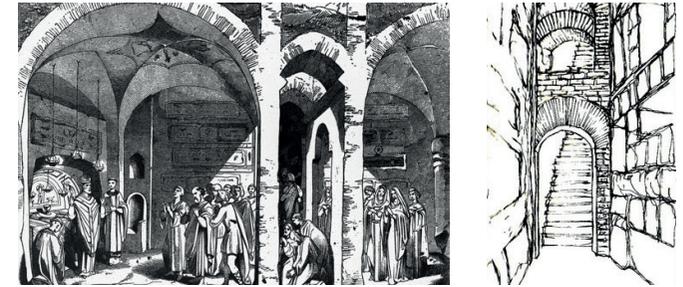
## MEMORY EVOKING CHARACTERISTICS

- Narrow galleries
- Sparse light shafts
- Voluminous chapels/cubicula



- Subterranean-representation of underworld
- Arches- 'bow of the heavens'

- Totally Subterranean: entering a 'city of the dead'/ another realm
- Dark, chilling spaces
- narrow galleries with the dead on either side

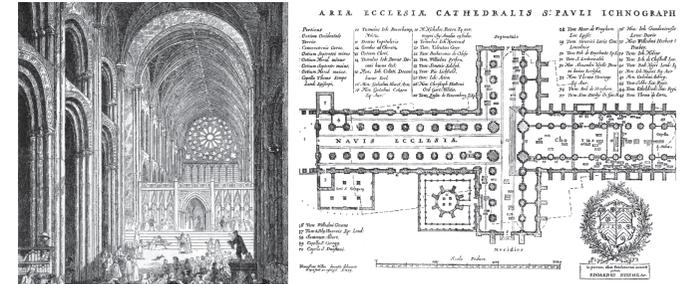


- Vast cathedral space
- Long nave
- Voluminous central spire
- Strong axis and threshold



- Grand entrance- 'divine ruler'
- Pointed arches- 'bow of the heavens'
- Spire- heavens
- Column 'imagery'

- spire volume reminds one of the heavens and God
- peaceful and tranquil churchyard
- 'memento mori'



- Grand entrance portico
- Functional
- Intimate reflection spaces



- Underlying tone of the 'Resurrection' through the journey
- 'Revelation'- compression and expansion
- 'Screening'

- Peaceful, serene environment
- Natural elements evoke memories of the dead (lawns, pools, pathways)
- Granite blocks used to symbolise the ages of life
- Outdoor columbarium

- provides a peaceful space for collective memory of the dead
- Intimate courtyards evoke pleasant memories



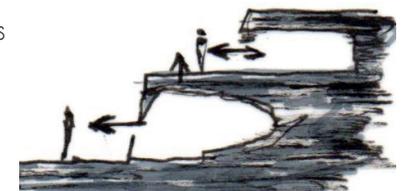
- Partially open to the elements
- Integrated within the landscape
- Tiered landscape design



- Jagged nature of plan- finalisation of death
- Descent- into the underworld
- Entrance- Crosses at Calvary

- Links past, present and future in an experiential manner
- User collects and stores layers of memory through the journey
- Degrading materials reminds the user of temporal nature

- of human life
- Variation in spaces and forms evokes memories within the user
- 'memento mori'





The literature review being conducted will be historical in nature and will investigate the evolution of Christian Burial and body disposal methods, in order to learn from the past, therefore, informing the present. It is also imperative toward understanding the differing situations of the Christians during the respective time periods discussed, which will inform the current situation that is evident at present, as well as methods in which to address the situation. The review will cover important time periods in the history of Christianity, investigating relevant burial and body disposal methods utilised by the people of the time, as well as the changing attitudes toward different body disposal methods apart from inhumation.

Two time periods will be investigated in this chapter of the review. Firstly, the review will take the reader back to the time of the early Christians, between the first and fifth centuries CE (Smith, 2014: 1). This was a time when catacombs were widely utilised as a form of interment by the early Christians, primarily in Europe. The relevance of this time period within the study is highlighted by the fact that the catacombs were one of the first structures in Christianity to house their dead. They were subterranean cities of the dead, not only housing the wealthy or the revered, but the common men, women and children, an inclusive necropolis. Innovation within the catacombs also provided an inspiration for later Christian religious architectural elements. It was therefore an important stage within the history of Christian architecture.

Thereafter, the second time period that will be focused on is that of the Medieval period. This takes place roughly between the seventh and thirteenth centuries CE. The research will specifically investigate a common burial method of the time: the church/ churchyard burial.

Although during the medieval period, there was much variation in disposing of the dead, the most prominent and accepted method used by the Christians throughout Europe was that of the church/ churchyard burial (Sayer, 2013: 155). The church and churchyard burial was the primary interment method in Christian Europe during the middle ages, and became the centre of village and urban life, illustrating the attitude towards

death during that period as well as the incorporation of the dead within the everyday lives of the living.

This chapter includes two time periods within the history of Christianity where the importance of religion played a vital role in the everyday lives of the Christians, influencing both sacred and profane aspects. Attitudes toward death were therefore also influenced greatly by religion and this was evident in their interment methods and practices, where the inclusion of interment spaces within urban and suburban contexts was common.

The methods of burial and interment practice in this literature review will be discussed through the lens of memory (of the dead), Christian burial practice (ritual) and the urban/rural contextual issues of the time. The study is limited in that it focuses primarily on European Christianity, and therefore European architecture. Memory (of the dead) influences the way in which these spaces were designed, where certain aspects, whether tangible or intangible, contributed to the memory evoking characteristics of the interment spaces. These memory evoking spaces enhance the relationship between sacred space and memory of the dead within Christian interment spaces. Christian burial practice is examined within these time periods in order to identify common rituals and practices through Christian ritual over time, and examine how these rituals influenced the design of interment spaces. The urban/ rural contextual issues of each time period and interment space is also a focus of this study. This is included in order to identify the relevant issues the Christians within the respective time periods faced when locating the spaces of interment, in order to learn and compare to the issues faced in a local and contemporary context.

Each burial and interment method has embedded within it a cultural, contextual, political and in modern and contemporary times there are environmental considerations. This research will be addressing the contextual and cultural aspect but acknowledges the political aspects but does not address these in detail, rather they are briefly mentioned where necessary.

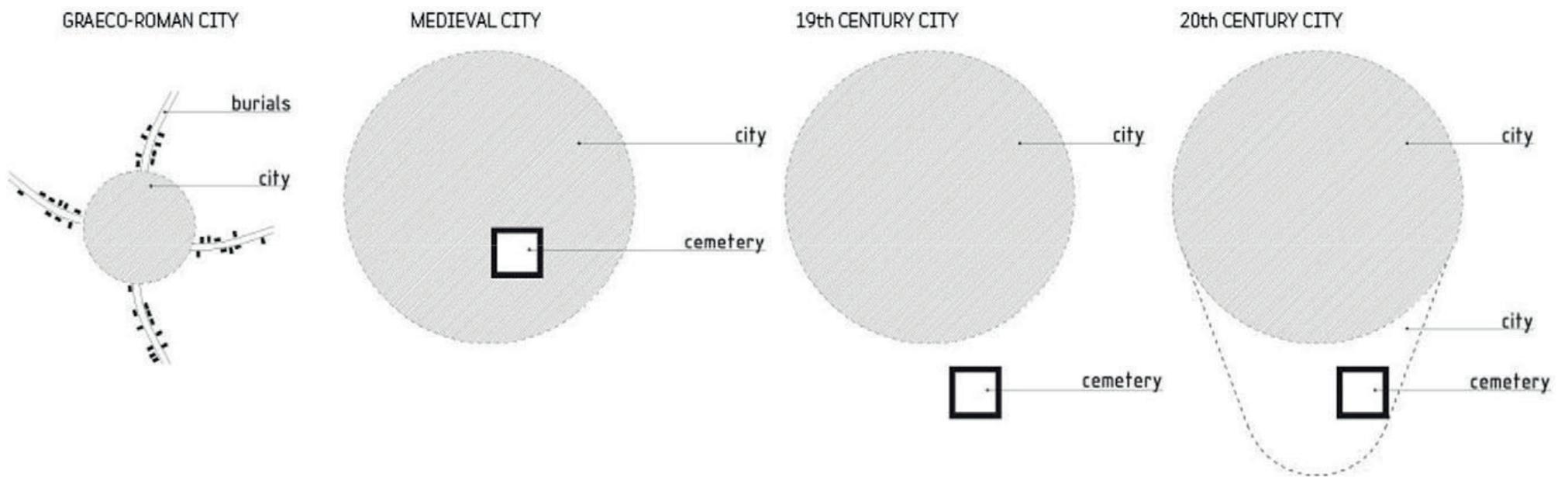


FIGURE 2.1 (BAZARAITE, 2015) EVOLUTION CEMETERY WITHIN CITY CONTEXT

#### 2.2.1 Introduction

Rome, in the first and second centuries CE, was under Pagan rule, and Christianity was still in its infancy. The Christians of the time were a minority in Rome, and although their numbers were steadily increasing, much of the conversions were done in secret so as to escape persecution from the Roman authorities (Milburn, 1988: 19).

The early Christians required a space to dispose of their dead, and as there was no strict ruling within Christianity as to how the dead body should be buried, they rejected the pagan custom of burning their dead for two reasons: firstly, Christians believed in the Resurrection which required their bodies to remain intact and ashes would negate this aspect of Christian belief (the views toward the Resurrection have changed over time), and secondly, burial was a way in which the Christians could separate themselves from the pagans (Milburn, 1988: 19). As a result, the Christians adopted a form of interment utilised by Jews prior to Christian arrival in Rome (Worpole, 2003: 84). The catacombs became the preferred choice of interment for the early Christians of Rome.

The word 'catacomb' comes from the Greek *kata kymbas*, which

means 'by the hollow' (Smith, 2014: 5) and referred to land along the Via Appia in Rome which was hollowed out, resulting in the formation of cavities. The possibility of the catacombs to be constructed in that time period was due to the unique geology of Rome, specifically, as Smith (2014) states, "the deposition of a volcanic rock, called tufa, around the city" (Smith, 2014: 7).

The catacombs were influenced by and were an evolution of the early Etruscan tombs constructed by the pagan romans in the first century BC, and display some of their "architectural and aesthetic interests" (Worpole, 2003: 84). Even though the catacombs were developed by pagan cults as well as Christians and Jews, they were more sectarian and exclusive as burial and its related spaces were considered sacred (Worpole, 2003: 84-85).

The catacombs of Rome served two primary purposes: the provision of burial grounds as well as the furnishing of chapels for Christian worship (Cecil, 1954: 2). Certain forms of these early Christian chapels within the catacombs would later become characteristics of Christian architecture in Europe.

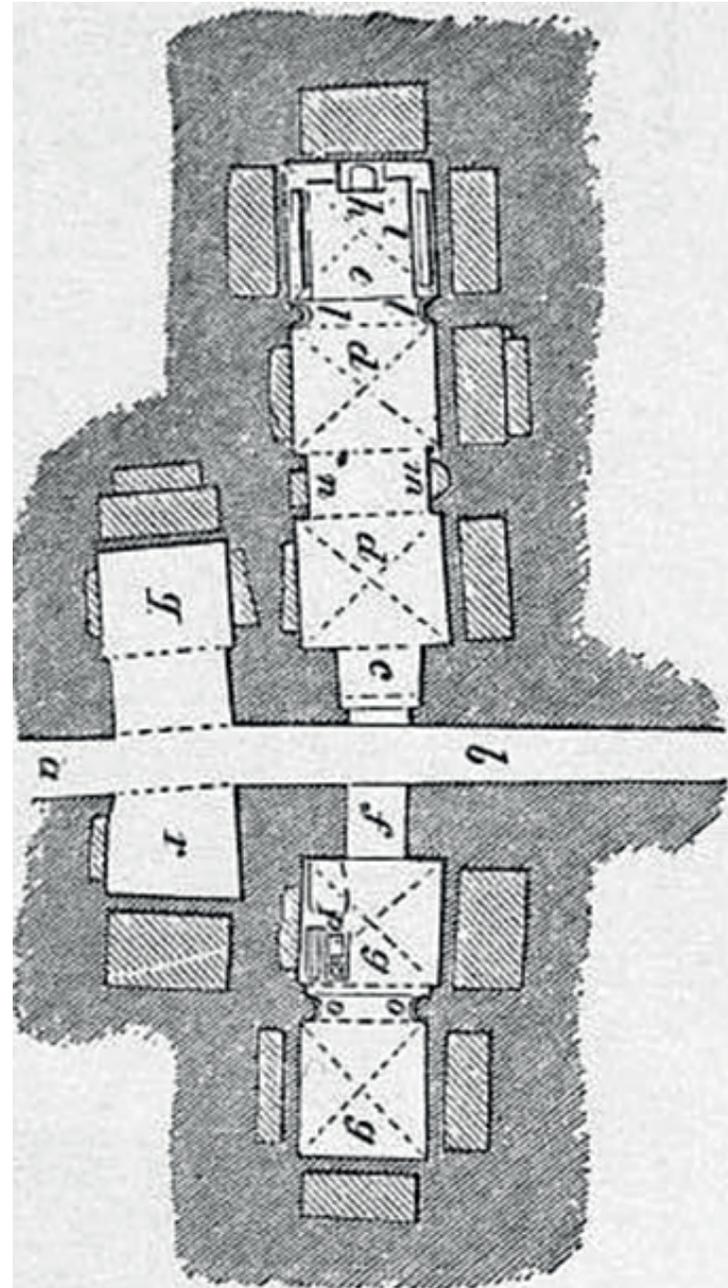


FIGURE 2.2 (WIKIWAND, 2016) PLAN OF ST. AGNESE CATACOMB



FIGURE 2.3 (WIKIWAND, 2016) CATACOMBS OF GENEROSA

## 2.2.2 Memory of the Dead

The catacombs of the early Christians in Rome were of great religious and sacred importance. In the Roman and Christian world death was not taboo. Life spans were considerably shorter to what we know today, and mortality rates were high. Death was to be confronted rather than shunned (Hope & Huskinson, 2011: xi).

For the relatives of the deceased, the catacombs where the dead were interred were repositories of memory. Memory was considered both individual and social and was a “personal mental process” (Hope & Huskinson, 2011: xiv) but could also be a social unifying act. The sacred spaces of the catacombs were unique, in that they were located underground, as if those visiting were entering a realm of spirituality, whereby the temperature fell, and light was scarce. For the early Christians, their collective identity was in part “constructed by the very monument to which they returned” (Yasin, 2005: 239).

For Carruthers (1990: 11), memory of the ancients was an active craft. Memory can be considered social and was embedded within those of the time (Dewey, 2005: 124).

“Instead, it is a crafting of images, as well as a construction of a place for the images to inhabit. Inventio means both the construction of something new (the memory-store) and the storage of what is remembered.”

(Dewey, 2005: 124)



FIGURE 2.4 (UNKNOWN, 2008) - A  
PASSAGE IN THE CATACOMBS

Memory in the time of the early Christians was not simply mimetic: characterised by exhibiting, or of the nature of imitation or mimicry, but was considered to be heuristic: encouraging a person to learn, discover, understand, or solve problems on his or her own, as by experimenting, evaluating possible answers or solutions, or by trial and error. Memory was the ability to construct, and deliver a place for images (Dewey, 2005: 126). The spaces of the catacombs enabled those burying or visiting their deceased to remember and commemorate

their dead, evoking the senses and encouraging the visitor to discover the memories within. The monotony of the loculi (niches) where the bodies were stored would act as a reminder to those making their way through the narrow passageways of the catacombs, where the almost claustrophobic nature of the space would bring the living closer to the dead, not only physically, but also spiritually.

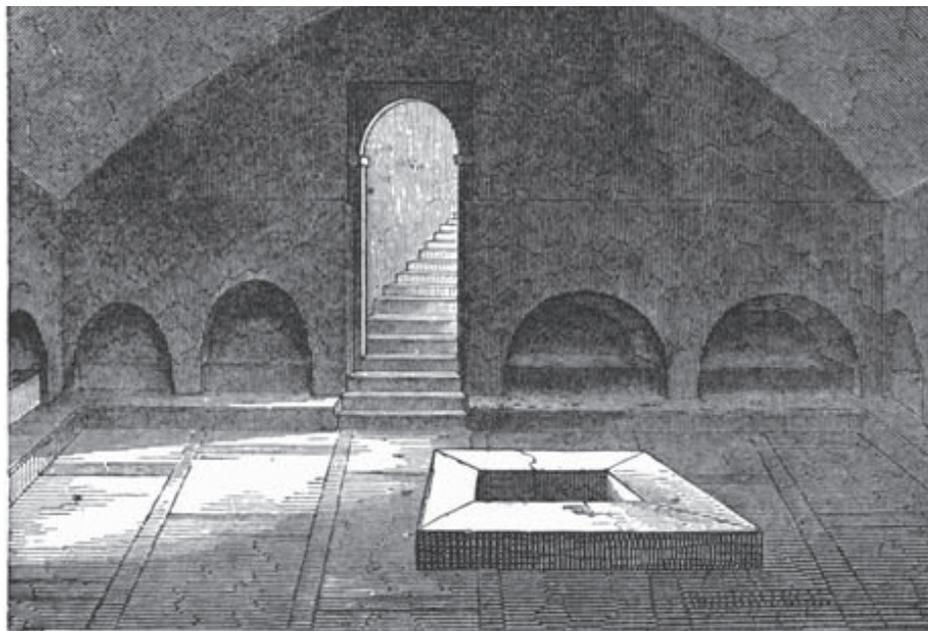


FIGURE 2.5 (WITHROW, 2010) LOCULI WITHIN CATACOMB

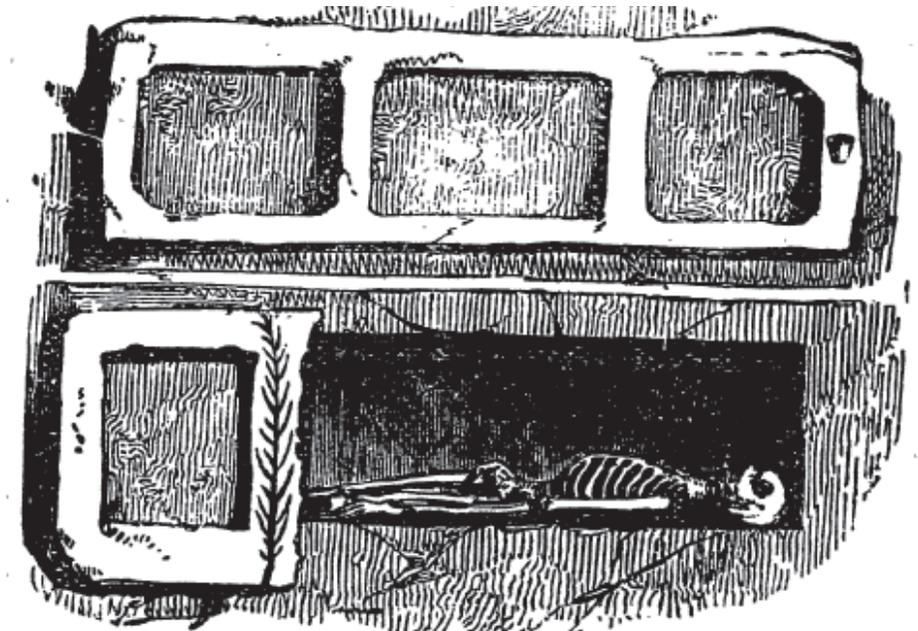


FIGURE 2.6 (UNKNOWN, 2008) CATACOMB NICHE WITH DECOMPOSED BODY



### 2.2.3 Christian Burial Practice/ Funeral Ritual

During the first century C.E., Christianity was in its infancy, and funeral rituals were not set in stone. For the Christians of Rome, they relied on the saints and spiritual leaders for guidance when it came to the mortuary ritual of the deceased.

Milburn (1988) argues that the development of the catacombs “were to some extent conditioned by the needs which they were designed to serve” (Milburn, 1988: 21). This occurred as the Christian population increased exponentially in the second century C.E.

There was a simplicity to the burial of the Christians. The custom of the period was for the corpse to be anointed with oils, and thereafter wrapped in a shroud or sheet, an imitation of Christ (Lewis, 2012; Worpole, 2003: 85). No form of coffin was utilised by the early Christians for either transportation of the corpse or for interment. The wrapping of the body was to be done before entering the catacombs, as for the commoners, their bodies were placed in smaller chambers or in the main networks of loculi (niches) which were of a narrow nature. The body would then be carried by the relatives of the deceased from the home of the deceased toward the catacombs, and would be accompanied by a priest. The congregation would then descend into the darkness of the galleries of the catacombs, where the corpse would be placed

FIGURE 2.7 (ZEBALLOS, 2011) PROCESSION IN THE CATACOMB OF CALLIXTUS

within the loculi, thereafter the niche would be sealed with either a slab of marble, or large clay tiles and fixed with mortar. This was dependent on the wealth of the deceased or their family (Lewis, 2012; Worpole, 2003: 85). The body would then be left to disintegrate, assisted by the damp atmosphere.

The interment of the deceased was generally accompanied by prayers, which the humblest/ poorer members of the early Christians had to be content with. For the wealthier, commemorative meals were regularly held where both family and friends attended. Space for these meals, even in the congested catacombs was possible: "In cases where the money was available, a certain amount of space was asked for and provided" (Milburn, 1988: 21-22). After the prayers, the name of the deceased was either engraved or painted, while small perfume vases and oil lamps were left beside the niches (Lewis, 2012).



FIGURE 2.8 (LAW 2016) EARLY CHRISTIAN FUNERAL DEPICTION

## 2.2.4 Urban/ Rural Contextual Issues

Burial space in ancient Rome was always scarce and was often fought over, long before the birth of Christ. Specifically, it was from around 900 B.C.E., or the beginning of the Iron Age in Italy when spaces to inter the dead were at a premium (Bodel, 2008: 178). This lack of burial space was a reality even though many Romans cremated their dead, and thereafter buried the cremated remains, resulting in smaller burial plots.

This lack of burial space continued for over a millennium, encompassing the era of the early Christians in Rome. Roman law between the first and third centuries C.E. prohibited the interment of the dead within the city, and therefore the only option for those living in the city was to inter the dead on the outskirts of the city. This was done even before the arrival of the Christians to Rome, by the pagans and Jews, either through earth burial or through the construction and subsequent interment of remains within the catacombs (Milburn, 1988: 19).

It is important to note that Rome, during the first and third centuries C.E., had an influx of migrants, as well as the arrival of a new religion in Christianity, and thereafter many inhabitants of Rome converted to the Christian faith (Bodel, 2008: 178-179). The shift from cremation to inhumation (to bury, inter) by the growing number of Christians throughout the western empire changed the urban and suburban landscape of Rome. As a result, land was at a premium, even on the outskirts of the city. The catacombs originated on land





designated as a graveyard which was either privately owned by the Church or a wealthy Christian, or given to the Christians as a gift (Milburn, 1988: 20). Many Christians could not afford to buy or own land for burial, so “they went below ground to solve the problem of finding sufficient burial space for the growing numbers of converts to their faith and community” (Worpole, 2003: 84). The major advantage was that in some cases, the fossore (grave-diggers) were able to excavate underground structures of up to 5 levels, at a depth of approximately 25m (Milburn, 1988: 20). In the case of the catacomb of Callixtus, the number of levels totalled seven.

These sacred spaces of interment were a result of circumstance for the early Christians, in that the underground excavations of burial space were not done purposefully, but as a result of issues they faced at the time. Nevertheless, these spaces were of unique character and added to the sacred nature of burial and interment in the Christian faith.

FIGURE 2.9 (WIKIJAND, 2016) CATACOMB ENTRANCE

Precedent- St. Callixtus Catacombs

2.2.5

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FIGURE 2.10 (AUTHOR, 2017) WORLD MAP- ROME



### 2.2.5.1 Introduction

The selection of this precedent is based on the unique typology of the early Christian catacombs. The catacombs of St. Callixtus is an example of some of the earliest Christian sacred spaces, where their dead were interred.

The catacomb of St. Callixtus exemplifies the characteristics of the sacred architecture of the period, and where the custom of burying the dead underground became familiar for the early Christians. This network of catacombs incorporates both vast and constricted volumes which emphasises the sacred nature of the interment space. A characteristic of the catacomb is the solemn nature which the space possesses.

FIGURE 2.11 (COLLIS, 2015) ST. CALLIXTUS CATACOMB PASSAGELWAY WITH BURIAL NICHES

### 2.2.5.2 General Background of St. Callixtus Catacombs

The Callixtus catacomb is one of over sixty catacombs which were constructed under Rome's suburbs, beyond the city walls. The particular network of the St. Callixtus catacombs can be found on the Appian Way, outside of the city of Rome (Smith, 2014). The catacomb that is now known as the St. Callixtus catacomb was built in the second century CE for the purpose of interring the Christian dead, yet it was a fraction of the size it would end up becoming over the following two centuries. This network of catacombs, at the end of its construction, would encompass 40 acres of space and 12 miles of tunnels (Smith, 2014: 2).

The construction of these catacombs spanned centuries, as new tunnels and galleries were excavated as the population required, and as a result of the price of land, the catacombs would be excavated up to five storeys. In the earliest phase of the catacombs of Callixtus, the structure was designed to "allow subsequent extension underground beyond the confines of the surface cemetery" (Bodel, 2008: 220).

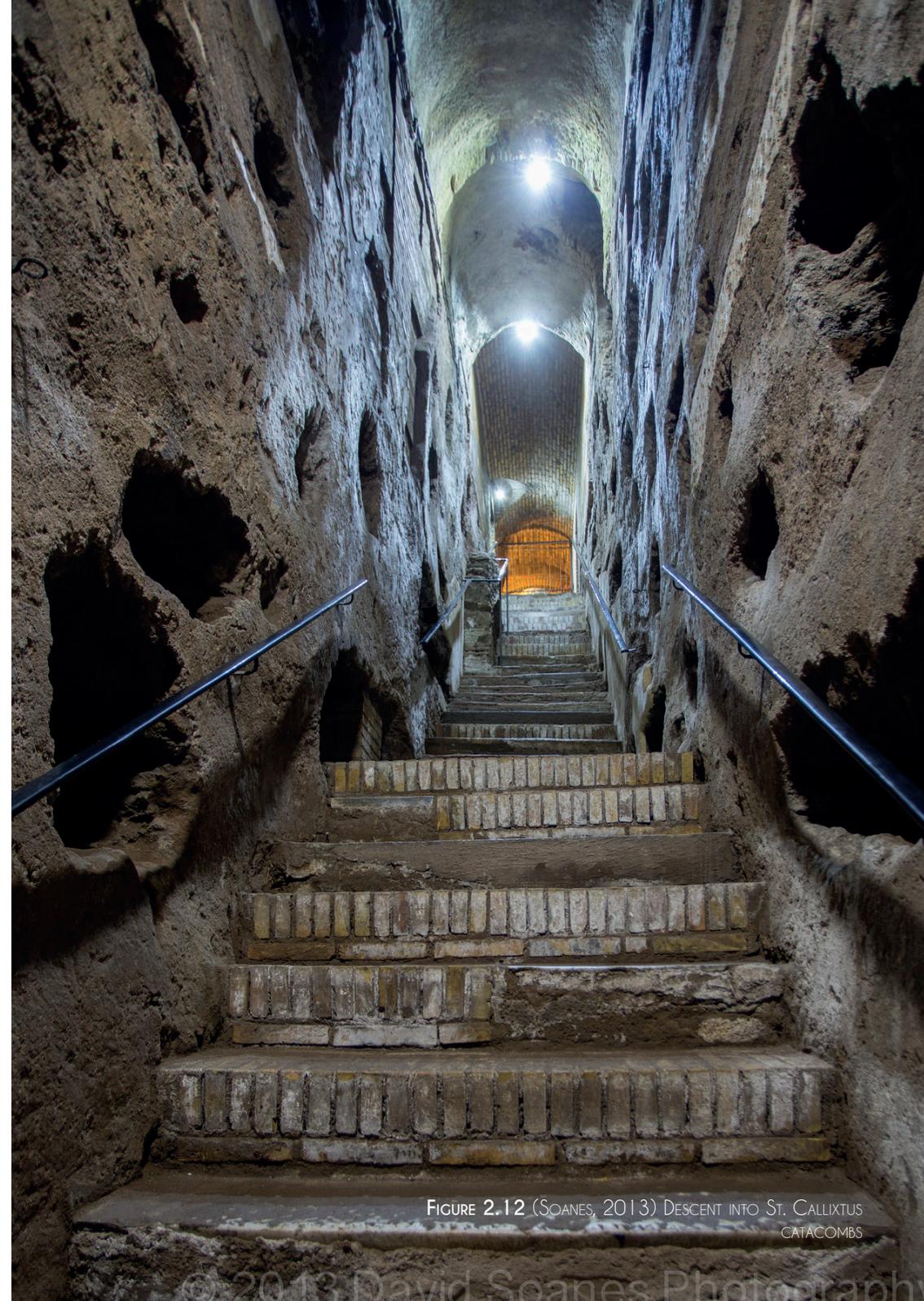


FIGURE 2.12 (SOANES, 2013) DESCENT INTO ST. CALLIXTUS CATACOMBS

### 2.2.5.3 Form & Composition

The Callixtus catacomb is essentially a network of underground tombs for the interment of the dead, and became a city of the dead, but for the living. As one approached the Callixtus catacomb, a user would encounter a staircase cut into the surface of the soft volcanic rock (tufa) which would lead downwards into the subterranean space, a crucial stage of transition from the familiar to unknown, where a number of galleries could be accessed. These would be approximately 2- 2.5 metres high and 1 metre wide, “driven at right angles and then continued in a network of gridiron pattern” (Milburn, 1988: 20). The common burial niches or loculi are arranged in tiers on both sides of these galley spaces, where many of the common folk were interred. When one descended into this subterranean city of the dead, it was as if entering a world in total contrast to that above (Smith, 2014: 3).

Graves of different forms to that of the loculi could be found in the Callixtus catacombs. These include arcuated niches for individual burials (arcosolia), private burial chambers (cubicula), niche tombs for the accommodation of multiple burials in the floor and walls, and even chapels (Bodel, 2008: 224). The cubicula and chapels vary in size and shape and their form would later become characteristic of Western church architecture (Cecil, 1954: 2-3). The catacomb of Callixtus is composed of ten burial chambers and chapels (Wilken, 2012: 48).

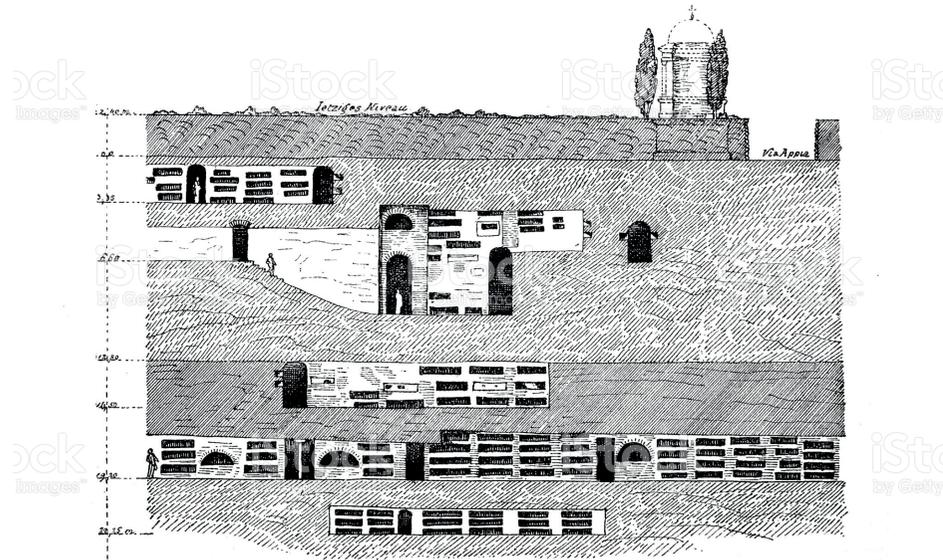


FIGURE 2.13 (ISTOCKPHOTO, 2017) SECTION THROUGH VARIOUS LEVELS

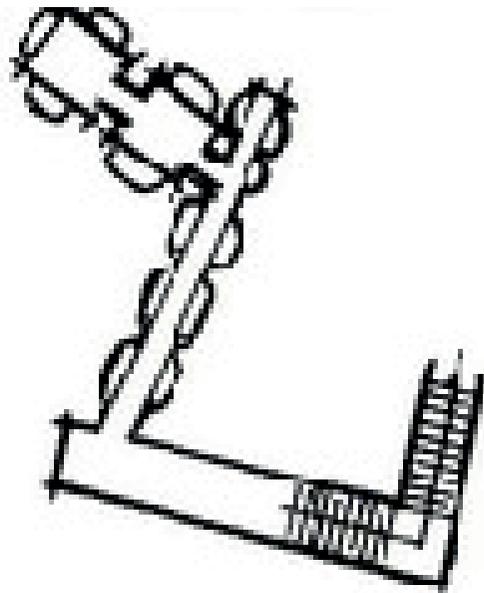


FIGURE 2.14 (AUTHOR, 2017) PLAN OF A PORTION OF THE CALLIXTUS CATACOMBS

New levels would only be excavated once the plot of ground had been fully utilised, and thereafter another flight of stairs would be constructed downwards, and in the case of the Callixtus catacombs, five storeys were eventually excavated.

As is expected, natural light within the catacombs was a problem and therefore lamps were provided which hung from the ceiling or hung on brackets. However, natural light and ventilation, even though it was not adequate for the entire network, was introduced to the Callixtus catacomb through “airshafts driven from ground level, and in the words of poet Prudentius, allowed ‘those beneath the earth to perceive the brightness of the far-off and to enjoy light’” (Milburn, 1988: 22).

The subterranean setting of the Callixtus catacomb provided an ambience “not only appropriate to the world of dead. . . but conducive to the sort of oblique expression of an ideal social order divorced from the compromising realities of life that funerary architecture in antiquity normally aimed to represent” (Bodel, 2008: 222).

Milburn (1988), notes the experience of a young St. Jerome as he descended into the catacombs in the fourth century CE:

“The walls on both sides as you go in are full of bodies and the whole place is so murky that one seems almost to find the fulfilment of those words of the prophet ‘Let them go down alone into Hell’. Here and there a little light coming in is sufficient to give a momentary relief from the horror of darkness; but when you go forward and find yourself once more enveloped in the utter blackness of night, the words of the poet come spontaneously to mind: ‘The very silence fills your soul with dread.’”

(Milburn, 1988: 222)

These spaces, made sacred by the focus placed on it by the early Christians in relation to the dead bodies and regarded with reverence, would often be intimidating for children, yet commemorative meals would often be held within the catacombs. The use of light adds to the total experience and contrast between darkness and light, which would remind the user of their inevitable death, and the narrow gallery spaces would emphasise this before being released into larger, voluminous chambers or chapels.

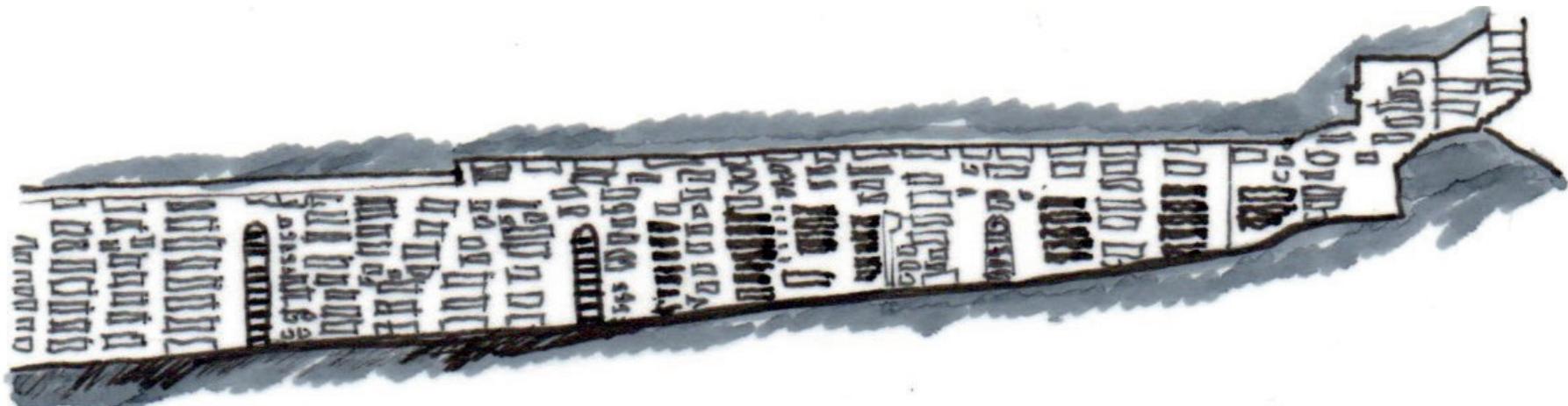
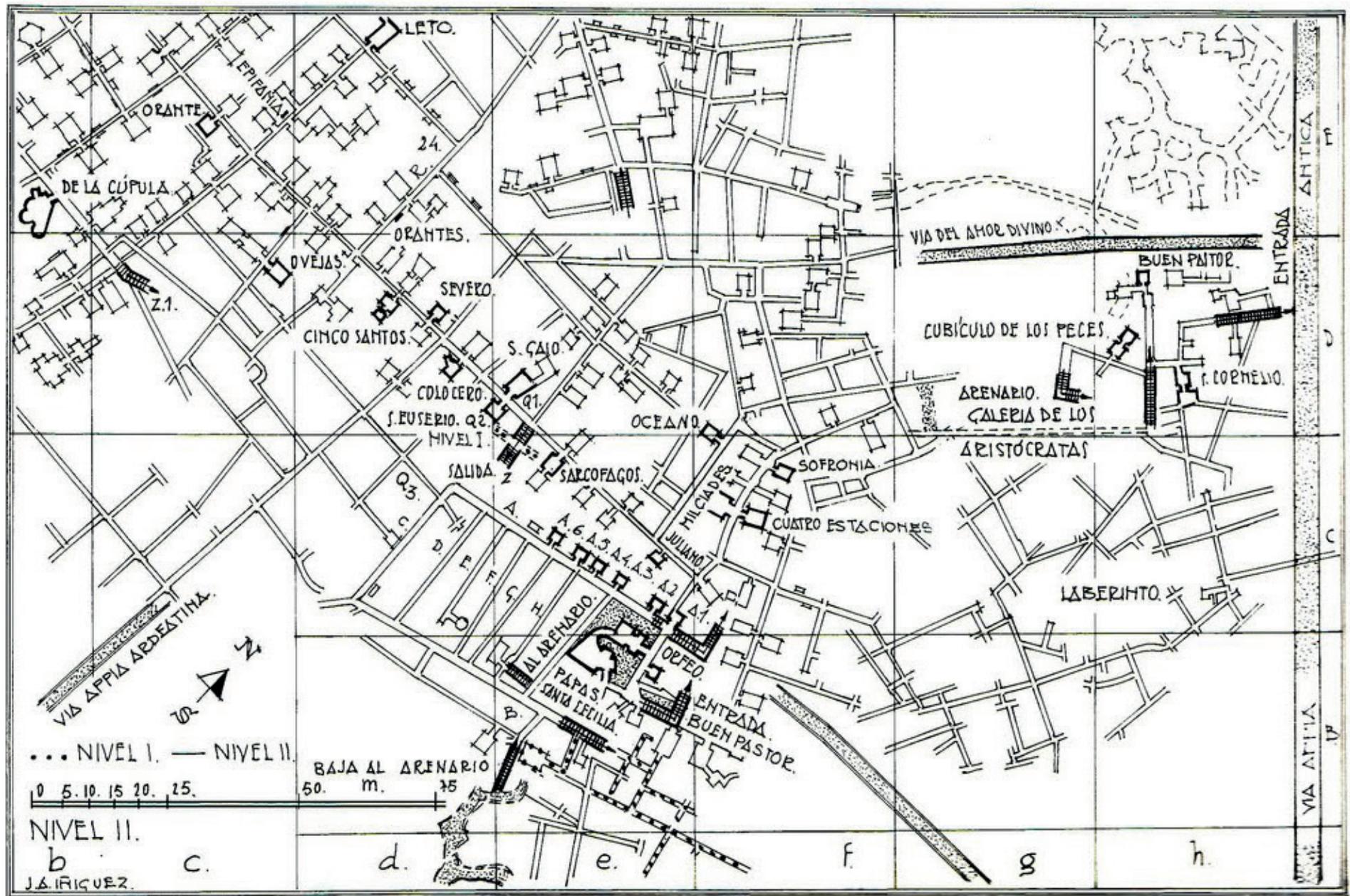


FIGURE 2.15 (AUTHOR, 2017) SECTION- DESCENT & ORGANIC NATURE OF CATACOMB NICHE PLACEMENT



CATACUMBAS. ROMA. SAN CALIXTO

IV-21

FIGURE 2.16 (RESEARCHGATE, 2009) PLAN OF A PORTION OF THE ST. CALLIXTUS CATACOMBS ALONG THE VIA APPIA

#### 2.2.5.4 Materials & Decoration

The St. Callixtus catacomb began construction when the early Christians were yet to be a well-established religious community within Rome, and there were few among the wealthy. This had an effect on the materials utilised as the simplest materials and often cheapest were chosen.

The primary material encountered when entering the Callixtus catacomb would be Roman concrete, as this was used extensively as the material for the catacombs. Thick concrete walls with niches carved into them on either side of narrow galleries would constrict the user, a potentially claustrophobic space where the width and 'heavy' nature of the walls could add to this feeling (Milburn, 1988: 20). These often rough concrete walls would also be used for the cubicula and private chambers and achieves a solemn mood throughout the catacombs, contrasted by the artwork found on the ceilings, which were painted over plastered stucco (Bodel, 2008: 180; Milburn, 1988: 20).

The simplicity of the forms and materials utilised in these subterranean spaces adds to the ambience, a sacred quality, found within them. The contrast between the rough concrete and smooth stucco ceilings detracts from the rather monotonous nature of the catacombs, and adding to the overall composition and sacred significance of the Callixtus catacombs.

The earthly nature of the concrete, coupled with narrow galleries, brings the visitor closer to the dead both physically and spiritually, transforming these spaces into more than just a storage of corpses, but rather a sacred space emphasised by its unique properties (Milburn, 1988:20).

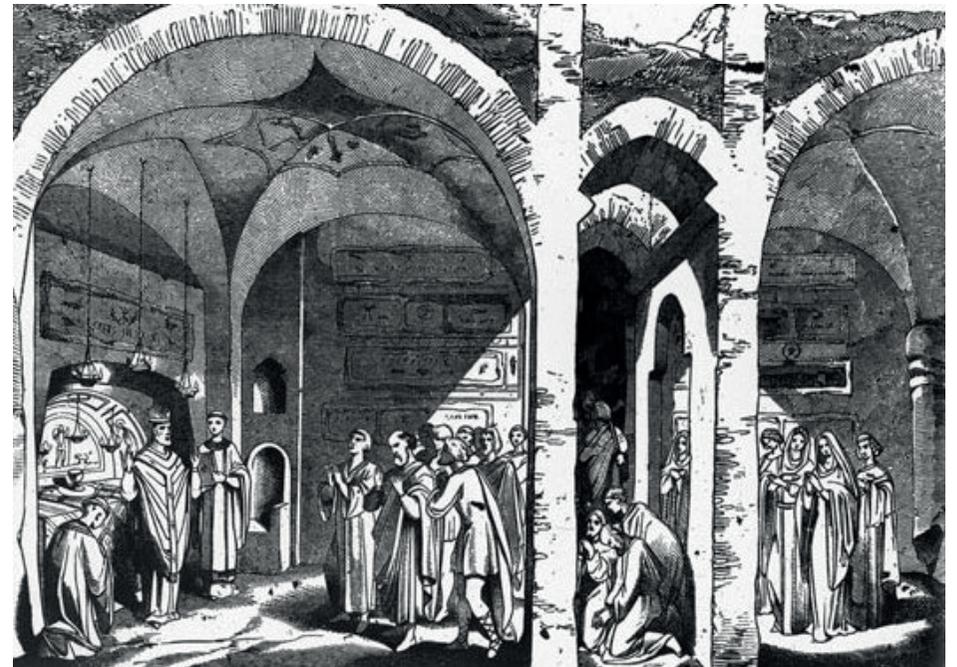


FIGURE 2.17 (ZEBALLOS, 2011) FUNERAL/ MEMORIAL WITHIN THE CALLIXTUS CATACOMB



FIGURE 2.18 (WIKIWAND, 2016) THE CRYPT OF THE POPES, ST. CALLIXTUS CATACOMBS

FIGURE 2.19 (JARVIS, 2015) LOCULI WITHIN CALLIXTUS CATACOMBS



### 2.2.5.5 Semiotics & Memory

During the time of the catacombs, the religion of Christianity was in its infancy, and therefore signs and symbols were still developing. Therefore, the builders of the catacombs did not incorporate much symbolism within the networks of underground burial chambers. There were, however, elements of symbolism incorporated into the catacombs and St. Callixtus Catacombs that provided meaning and evoked memories within the users (early Christian inhabitants of Rome visiting either saints, family, or friends), even if they were incorporated subtly.

Throughout the St. Callixtus Catacombs, there was a wide usage of arches which contributed to the structural stability of the underground city of the dead, however, these arches contained a deeper meaning. The 'arch' for the Christians represents "the bow of the heavens, that rises over the divine ruler, who is lord of all creation" (Thomas, 1994: 58). This in turn had an effect on the remembrance of the dead, as these arches would present the mourner with hope for the afterlife.

The fact that catacombs were located below ground was a symbolic representation in itself. The location forces the user to descend into the world of the dead, a representation of the underworld. This evokes strong and powerful emotions and memories within the user, reminding them of their loved ones and the dead around them. The point of descent, in essence, was a symbolic point which signified the entrance to another 'realm' for the early Christians.

### 2.2.5.6 Reflections

The St. Callixtus catacombs provide one of the earliest examples of sacred interment spaces within Christianity that was constructed initially for the sole purpose of interring their dead. However, commemorative meals were occasionally held in the catacombs, and chapels were often designed and constructed for commemorating the dead (Milburn, 1988: 21-22).

Some of the forms within the catacombs would influence later Christian architecture: this included the nave, chancel and apse, which was used in the design of chapels within the Callixtus catacombs (Cecil, 1954: 2). The Callixtus catacombs enabled the user to remember the dead through the structure and space, which was often intimidating and at times, frightening.

These spaces and volumes also helped remind one of their own temporal life, enabling them to ponder the afterlife, instead of the materiality of the world.

The inclusion of this precedent is relevant in a contemporary context, as well as local context, as it demonstrates the spatial ingenuity of the early Christians and romans. They were able to utilise small portions of land for the interment of many inhabitants over a few centuries, through their subterranean design, encompassing various levels of loculi. This is useful in a contemporary urban context where space is at a premium. Additionally, the St. Callixtus catacombs were an early example of sacred Christian space, unique in its form and composition.

## Conclusion

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### 2.2.6

The catacombs were one of the earliest built forms of interment to be utilised by Christians and they provide a unique space in which corpses were interred, as well as for the use of religious and memorial ceremonies.

Through these sacred interment spaces, made sacred by the focus placed on it by the early Christians in relation to the dead bodies and regarded with reverence by the early Christians, they were able to maximise space by excavating underground, resulting in an almost unnerving and solemn space for its users.

### 2.3.1 Introduction

In contrast to the early Christians of Rome, where the Christians were a growing minority and under pagan rule, medieval Europe was majority Christian, and under Christian rule. This major shift occurred in Rome when Constantine came into power, in 313 CE, and adopted Christianity as the religion of the state (Mumford, 1961). The Christian faith influenced all aspects of daily life. Mumford (1961) notes, "Medieval city in Europe may be described as a collective structure whose main purpose was the living of a Christian life" (Mumford, 1961: 267).

For the early medieval Christians in Europe, death was not to be feared, but act as reminders for the living that their time on this earth was finite, a 'memento mori', or 'remember your death/ remembering to die' (Hallam & Hockey, 2001: 56). It is for this reason that the rural church and churchyard burial grew in prominence, together with the great influence the religion had over these people (Williams, 2006: 3-4). It must be noted that in the early medieval period (sixth to tenth century CE), there were many rural villages, which would later transform into larger towns and cities, and it was around the church and churchyard which these villages were centred (Worpole, 2003: 63).

An intriguing facet of the medieval town according to Hayes (2003) was the "competition between sacred and profane jurisdictions, which reveals attitudes that are very different from modern ones" (Hayes, 2003: xvi). This is in stark contrast to the majority of modern cities where the sacred and profane are separate spheres of life. For the Christians of the medieval period, sacred and profane spaces "coexisted in the world" (Hayes, 2003: xvii). Mircea Eliade (1961) notes that in Christianity, the believers are taught that it is possible to encounter God in the world (Eliade, 1961: 21).



FIGURE 2.20 (ROOKS & LOPES, 2015) FRENCH MEDIEVAL CHURCHYARD

The church was the centre of urban life, even though the dead were situated within and on the exterior of the church walls. As per Yasin (2005), the graves were “fully integrated into the basilica building and therefore ever present before the audience of Christians gathered in the Church” (Yasin, 2005: 442). Worpole (2003) describes the relationship between the church and churchyard as an ‘osmotic’ relationship (Worpole, 2003: 64). The sacred spaces of the church and churchyard gave an order to their world (Eliade, 1961: 22).

The common law of the medieval period stipulated that all inhabitants of a parish had the right to be buried within the church walls, however, it was more typical for the wealthy to be interred within the church when populations increased over time. The village churchyard therefore initially “possessed a significant degree of social universality, even equality” (Worpole, 2003: 64).



FIGURE 2.21 (DAVIES, 2001) COCKERHAM CHURCH & CHURCHYARD, LANCASHIRE

### 2.3.2 Memory of the Dead

The dead were a significant ‘social presence’ in medieval Christian Europe (Gordon & Marshall, 2000: 2) and the relationship between the living and the dead were ingrained in religious culture. Two primary ideas/ beliefs resulted in the prominence of the dead during this time: firstly, the belief that the “majority of the faithful dead did not proceed immediately to the beatific vision” (i.e. heaven) (Gordon & Marshall, 2000: 3). The second, according to Gordon & Marshall (2000) was that the living “had the ability (and the duty) to ease the dead’s sufferings in Purgatory” (Gordon & Marshall, 2000: 3). It was through these ideas and beliefs that the importance of remembering the dead was emphasised.

Williams (2003a: 230) argues that rituals and strategies of remembrance had both sacred and socio-political dimensions. For example, remembering the dead during the medieval period served to “simultaneously situate the living and the dead in relation to the Christian cosmos and history” (Williams, 2003a: 230). Furthermore, it acted as an important method for “legitimising the authority and status of participants and encouraging the constitution of individual and collective identities” (Williams, 2003a: 230). Church and churchyard burial was a strategy for remembering the dead (Williams, 2006: 26).

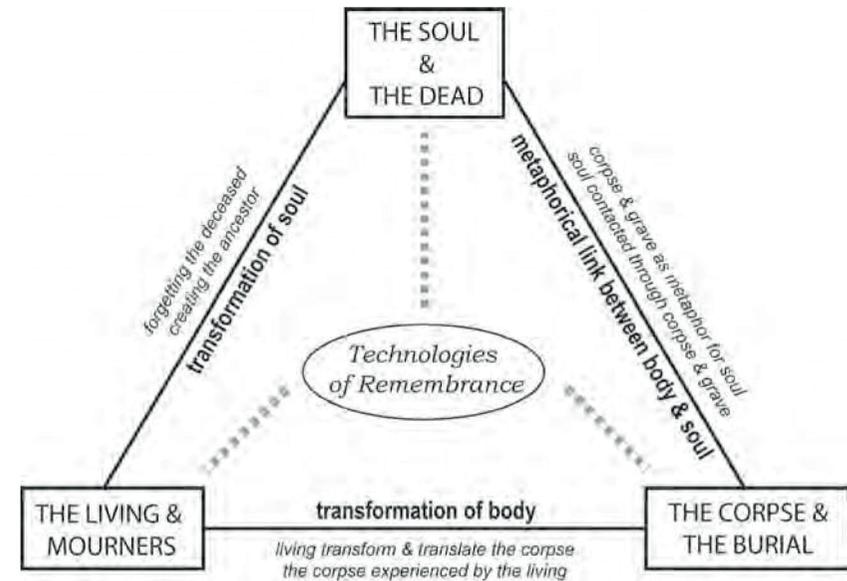


FIGURE 2.22 (WILLIAMS, 2006) A RECONFIGURATION OF HERTZ'S THEORY OF DEATH AS TRANSITION

Carruthers (1990), argues that medieval culture was intrinsically memorial (Carruthers, 1990: 9). A central concept of the memorial culture was that of ‘memento mori’, meaning either ‘remember your death’ or ‘remembering to die’. Hallam & Hockey (2001) notes the role that the notion of memento mori served “as reminders of death for the living and emphasized that the earthly world was ‘but a vanitie’ that fades away” (Hallam & Hockey, 2001: 56). The location of the graves and tombs within the church walls, as well as in the churchyard were intrinsic reminders of death for the living. Medieval people were unable to escape the constant reminder that one’s wealth, youth, power, beauty, and life itself was temporal, and useless in the face of death (Korpiola & Lahtinen, 2015: 9).

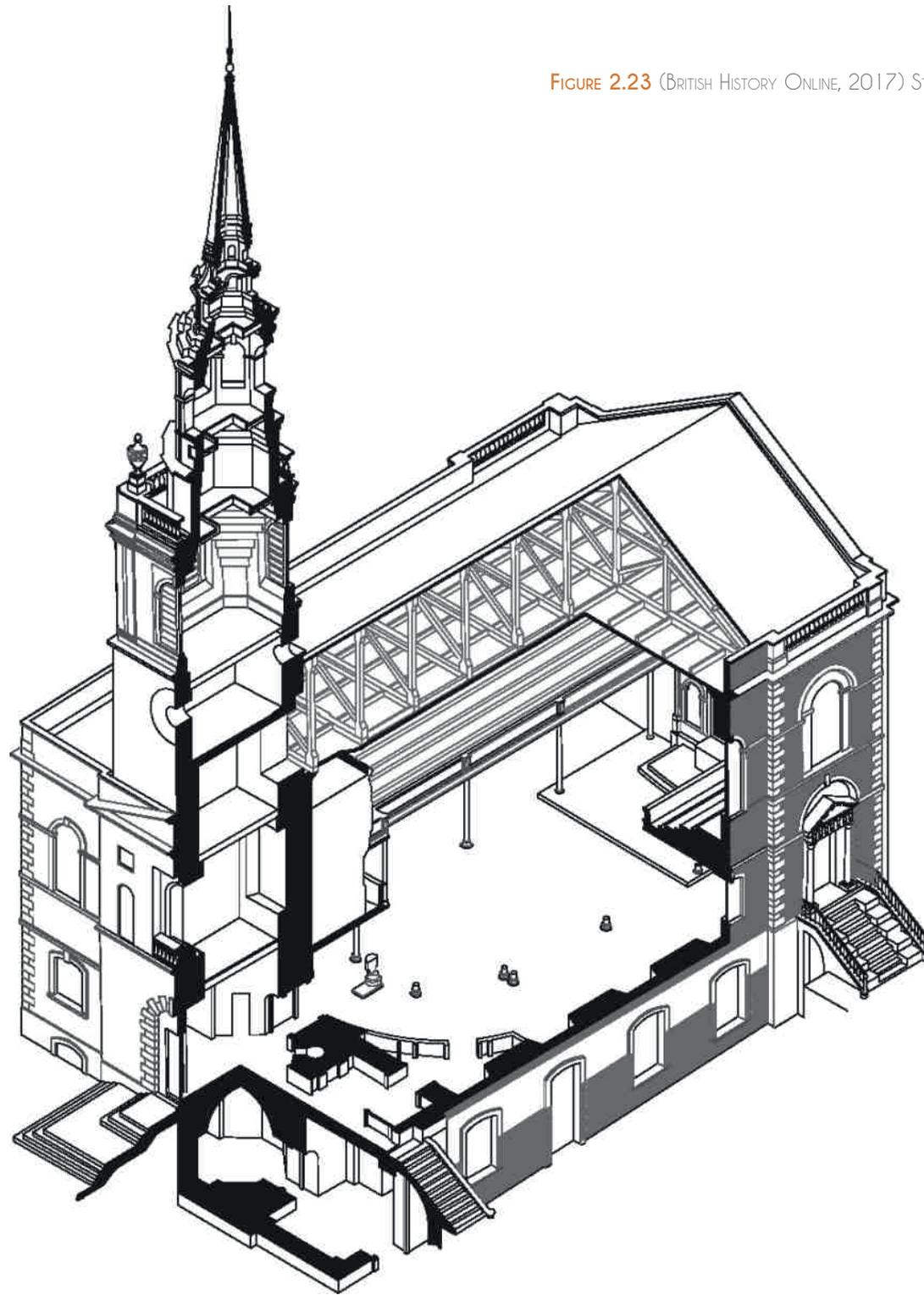
Williams (2003a: 231) observes that many medieval churches were designed and organised to encourage the commemoration of the dead through the structure and space of the church, while the geography of burial also impacted how the dead were remembered. This was done through the choice of church, and whether the church or churchyard was selected for burying the deceased (Daniell, 1997: 79; Williams, 2003a: 231). The walls, floors, rood screens, volumes and chapels served to “materialise complex and evolving strategies of remembrance by individual and group patrons” (Williams, 2003a: 232).

Within the churchyard, where majority of the poor were buried, it was common for the grave markers to be more temporal in nature, in that they would disintegrate rather quickly, and this contributed to the commemoration of the dead within and around the church walls as collective (Williams, 2003a: 232).

Monuments on the contrary, do not rely solely on collective commemoration. Monuments and tombs were commonly found within the church interior, but could also be located in the churchyard and had the ability to commemorate the dead in many ways. There is a common theme however, that “monuments are always about selective remembrance, embodying both remembering and forgetting, and that they connected retrospective pasts with prospective futures” (Williams, 2006: 145). Medieval monuments not only served to commemorate a single dead person, they could also be erected over multiple

graves, or commemorate the collective dead. Monuments also acted as “nodes in complex relationships between different groups among the living, the dead person and the broader concepts of ancestors” (Williams, 2006: 145) The link between past and present is evident with the use of monuments within medieval burial and memorials.

FIGURE 2.23 (BRITISH HISTORY ONLINE, 2017) ST. JAMES CHURCH & STEEPLE AXONOMETRIC



### 2.3.3 Christian Funeral Ritual

A key aspect of medieval Christianity was the belief in life after death and the fate of the individual's soul (Daniell, 1997: 1). "Death was defined as the moment when the immortal soul left the mortal body and joined with an incorruptible, sexless, immortal body." (Daniell, 1997: 1). As a result, the funeral ritual of the deceased played an important role in the fate of the deceased.

It was only in the late ninth century CE that there is evidence of a 'formal' Christian funeral ritual (Davies, 1999: 191). The ritual process of death could not be considered a 'closed system' as it varied across time periods and contexts (Williams, 2006: 21) and therefore the funeral and its related rituals in early medieval Europe were seen as a precedent to either be followed or challenged. The mortuary practices "mirrored the dynamism of societies as they adjusted and reconfigured themselves" (Williams, 2006: 23). However, there are many common aspects of Christian mortuary ritual throughout the early medieval period which lead to the 'formalisation' of Christian funeral ritual at the end of the ninth century CE.

In medieval Christianity, the funeral ritual acted as a form of memory of the deceased, and can be considered both a "practice and structuring principle of mortuary practices" (Williams, 2006: 21). Generally, when a person realised that their death was close, they turned their attention to arranging their soul for the afterlife (Korpiola & Lahtinen, 2015: 12), and this included the funeral.

Funeral rites had a number of function in medieval society. According to Korpiola & Lahtinen (2015), one of the most essential was to "guarantee that the dead are comfortable enough in their dwelling place to leave the living alone and not hinder them in any way" (Korpiola & Lahtinen, 2015: 16). The funeral rites were also

a method in dealing with the loss of the deceased within a family or community.

For those that died on their deathbed within their homes were considered a 'good' death or 'tame' death, and was the most common circumstance from which the funeral rites and procession began (Ariès, 2004: 41). The body would be cleansed in the household, and thereafter would be wrapped in a cloth or shroud, a continuation of the early Christian customs. Throughout this process, member(s) of the clergy as well as family and friends of the deceased would be present in the household where they would perform prayers for the deceased person (Williams, 2003a: 233). Depending on the wealth of the family of the deceased, the corpse would be placed in a wooden coffin or left in the shroud. Some families preferred a simple interment and did not require a coffin (Korpiola & Lahtinen, 2015: 16).

Public funerals were the norm for the medieval Christians. The funeral procession left the house of the deceased and was a visual aspect of the funeral ceremony. The more people attending the ceremony, the better it was. During the procession to the church, the church bells would ring for the recently deceased, and the more it rang, the higher the status was of the individual (Korpiola & Lahtinen, 2015: 18; Worpole, 2003: 65). As the procession reached the church, the corpse, either wrapped in a sewn shroud only or in a shroud and coffin, would be carefully placed at the altar, where the funeral 'wake' or service would take place in front of the body (Ariès, 2004: 43).

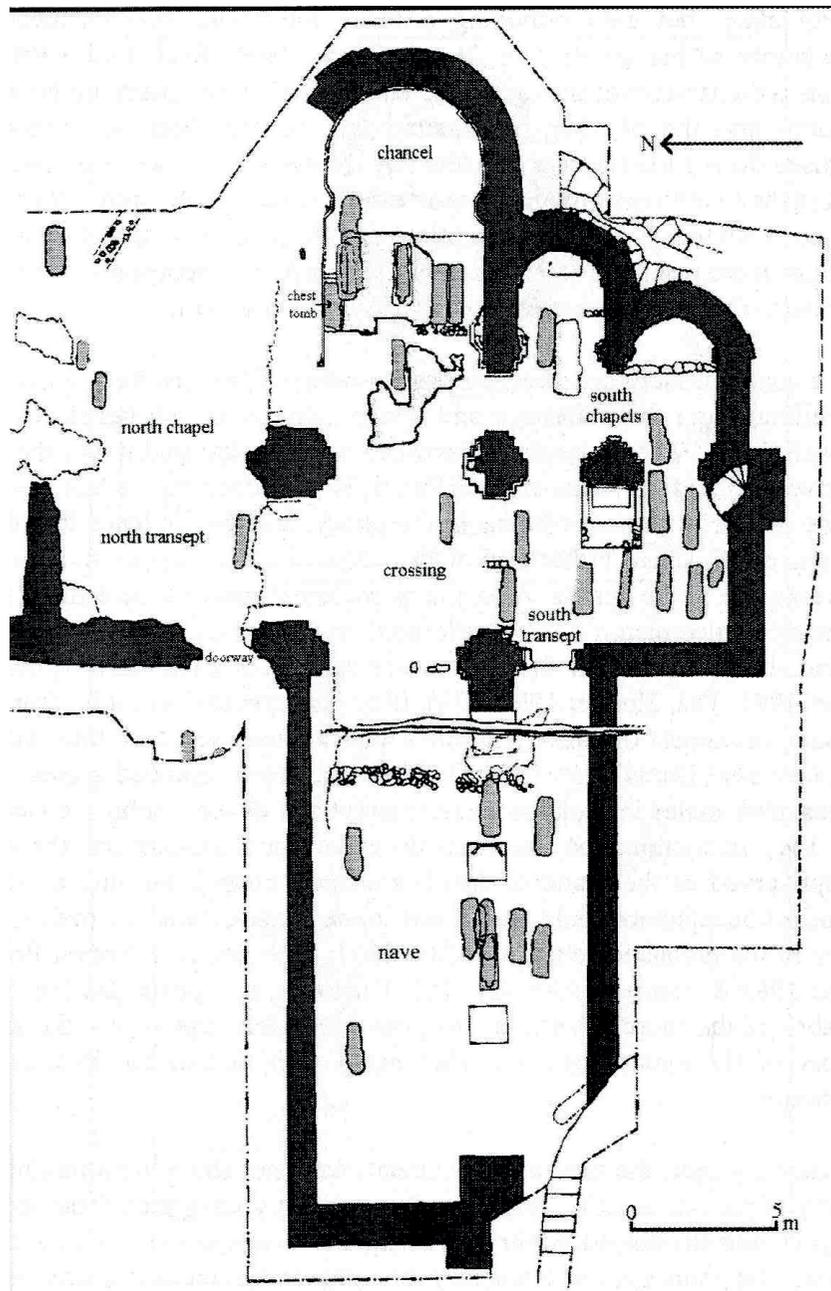


FIGURE 2.24 (WILLIAMS, 2003) EXTENSIVE USE OF BURIAL WITHIN SANDWELL PRIORY CHURCH

Status often determined the final resting place for the deceased. Spaces within the church could be reserved for “clerics and members of the elite” (Korpiola & Lahtinen, 2015: 18), and they would be laid to rest within a tomb or designated grave within the church. For those unable to reserve a place within the church, they would then be taken to the churchyard by the congregation and laid to rest in a recently excavated grave.

The funerary ritual performances “not only reflect and express society and ideology, but also actively transform and reproduce identities and social memories” (Williams, 2006: 27).

The physical setting of the commemorative or funeral ritual became a visual mnemonic, and the sounds heard at the ritual further compounded the mnemonic effect.

### 2.3.4 Urban/ Rural Contextual Issues

Unlike the early Christians in Rome, the majority of early medieval Christians around Europe did not find themselves in populated cities as there were no laws prohibiting them from establishing burial grounds within cities/ villages. Instead, they lived in rather small villages which would eventually increase in population. It was from here that the rural church and churchyard burial grew in popularity, and became centres of urban life (Worpole, 2003: 63). According to Hayes (2003), the major function of medieval sacred space was to “facilitate communication with God” (Hayes, 2003: 17), and this was achieved through the establishment of the church and churchyard.

Neighbourhoods developed around the church and churchyard cemeteries, and became a landmark within the growing city territory (Bazaraitė & Heitor, 2015: 784). According to Philippe (Ariès, 2008) that “if one wished to found a cemetery, one built a church” (Ariès, 2008: 56). The church was necessary for the processing of the funeral rites of the deceased and “for maintaining the sacredness that attracted the faithful to be buried there” (Bazaraitė & Heitor, 2015: 784)

The cemetery and church of the medieval period became the centre of social life. In essence, it replaced the Roman forum. On the contrary, the churchyard also possessed an altogether different function: that of a refuge or sanctuary (Ariès, 2008: 56-57), and some cemeteries were founded for the sole purpose

of the refuge of the living, where no burials occurred. The function of the churchyard as sanctuary allowed for it to be a public meeting place.

Additionally, the churchyard cemetery served as a “public square, and mall, where all members of the parish could stroll, socialise and assemble. Here they conducted their spiritual and temporal business, played their games, and carried on their love affairs” (Ariès, 2008: 67) in the company of the dead.



FIGURE 2.25 (WILLIAMS, 2006) RAUNDS FURNELL CHURCHYARD, NORTHAMPTONSHIRE- OVERALL CHURCHYARD PLAN

*'for death is no more than a turning of us over from time to  
eternity.*

*- william penn*

Precedent- Old St. Paul's Cathedral

2.3.5

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FIGURE 2.26 (AUTHOR, 2017) WORLD MAP- LONDON

### 2.3.5.1 Introduction

The selection of this study is based on the longevity of the church and its characteristics as a medieval church and churchyard.

St. Paul's Cathedral and churchyard, during the middle ages was a focal point for the town and people living within it. This sacred space contributed to the urban fabric of the city and assisted in its growth over time

### 2.3.5.2 General Background

The site where St. Paul's cathedral is located has a long and enduring history. It can be found within the central city of London, atop Ludgate Hill and northeast of Blackfriars (Britannica, 2017). The church has undergone many transformations since it was first established as a Christian church in 604 CE. It had burnt down twice and was destroyed by Viking raiders before being rebuilt in the eleventh century CE as what is now known as Old St. Paul's. After fires destroyed the Old St. Paul's cathedral in the 17th century, Christopher Wren was commissioned to design the new cathedral, which survives to this day (Britannica, 2017).



**FIGURE 2.27** (WORDPRESS 2014)  
VAULTED INTERIOR OF OLD ST. PAUL'S  
CATHEDRAL



According to Harding (2002), the cathedral and its churchyard formed one of the most important 'topographical foci' during the medieval period (Harding, 2002: 86). The cathedral and churchyard were among the elements of society which enabled the town and city to advance and grow into what it is today, as it provided the inhabitants with more than only sacred uses. The double nature of the cathedral and churchyard allowed the space to function as the centre of civic activity (Harding, 2002: 86-87).

"The churchyard had been the meeting place for of the city's early medieval folkmoot or communal assembly, and also allegedly for the muster of armed citizens; the Midsummer Watch collected there before its procession round the city, and royal and civic processions terminated there".

(Harding, 2002: 86)

In terms of context, the cathedral and churchyard have endured 1 400 years of existence, and therefore has witnessed the growth of the urban fabric around it. Therefore, the cathedral began in a more rural setting, yet the city's growth, even during the later middle ages lay within an urban context (Britannica, 2017).

### 2.3.5.3 Form, Space & Composition

The sacred space of the cathedral and churchyard of St. Paul's catered to a variety of uses, and therefore the structure of the building was required to accommodate these functions. The shape of the Old St. Paul's cathedral has been likened to that of a bow and string, where the south side is a bow, and the north a string (Thornbury, 1878), and was initially built in the Romanesque style, but changed to the Gothic architectural style after a fire. The cathedral spanned over 180m in length and took the form of a Latin Cross (Rousseau, 2011: 1). Being primarily a place of worship, the cathedral displayed characteristics of church architecture of the time, while the interment of some corpses was incorporated into the fabric of the cathedral, and the rest were found in the churchyard.

A distinctive feature of the cathedral was its spire, being one of the tallest in England, designed in the gothic style, a tapering conical structure that ascended to the heavens. This was situated in the centre of the cathedral building. The volume of the space within the church as a result of the spire would add to the sacred nature of the space.

The cathedral incorporated an extremely long nave, while a distinctive vaulted ceiling could be found above. These voluminous spaces contributed to the larger form of the cathedral and would be where the pews were located within the cathedral. The entire gothic style was based on sacred space and the ascension to heaven, giving it a 'light' feeling when being within the space. This was emphasised by the use of pointed arches throughout the design, reaching for the sky.

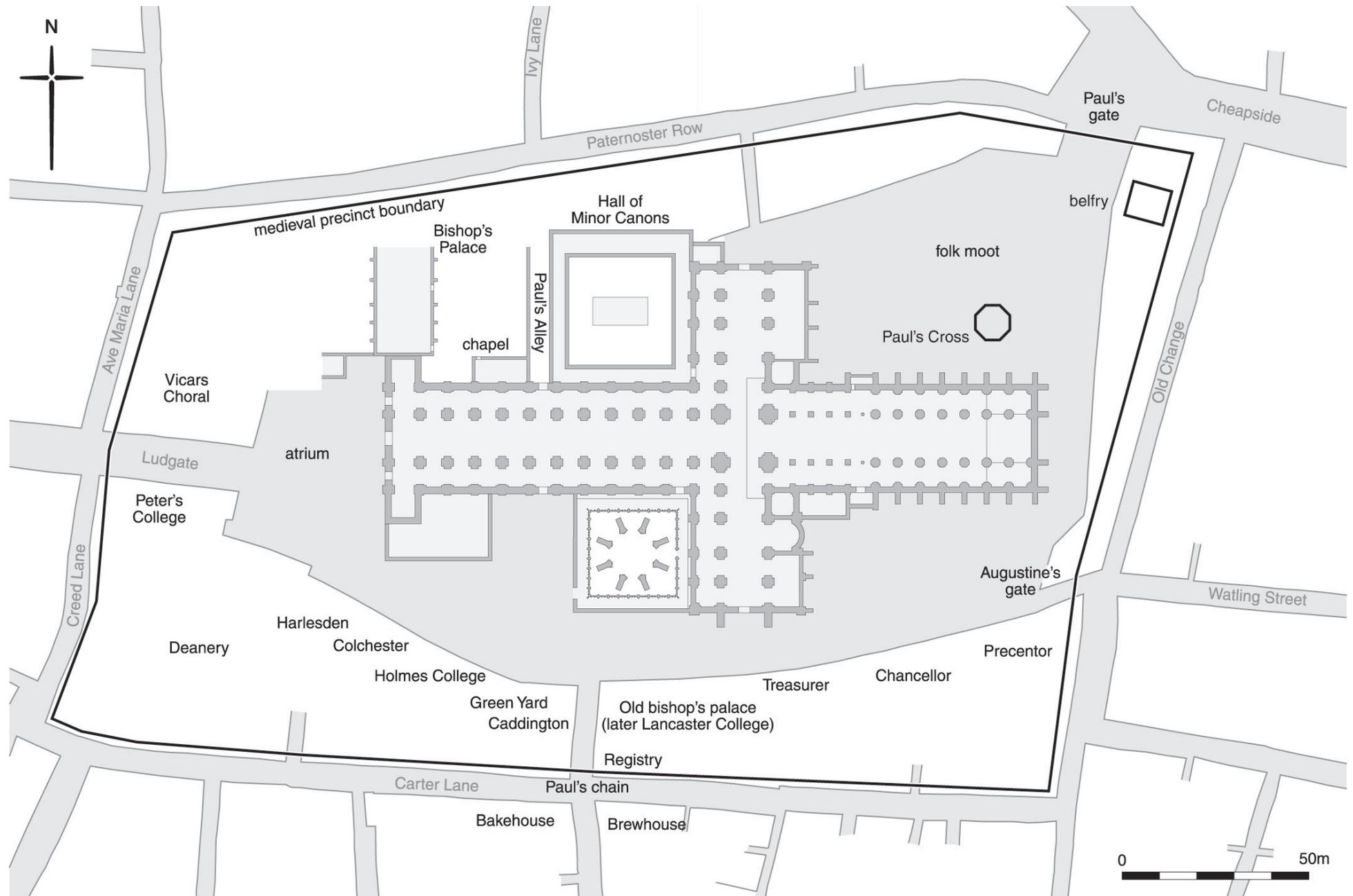


FIGURE 2.28 (NC STATE UNIVERSITY, 2017) OLD ST. PAUL'S CATHEDRAL AND CHURCHYARD, SITE PLAN

### 2.3.5.3.1 THRESHOLD

The cathedral, like most places of worship for Christians, incorporated the element of the 'threshold'. This threshold can have different meanings; both physical and spiritual. Entering the cathedral one crosses a threshold, from the profane world to that of the sacred. A world of sin to a new life for the believer. As one passes through the church itself, there elements of crossing similar thresholds, where the further you progress through the church, the more sacred it becomes.

“For a believer, the church shares in a different space from the street in which it stands. The door that opens on the interior of the church actually signifies a solution of continuity. The threshold that separates the two spaces also indicates the distance between two modes of being, the profane and the religious. The threshold is the limit, the boundary, the frontier that distinguishes and opposes two worlds and at the same time the paradoxical place where those worlds communicate, where passage from the profane to the sacred world becomes possible.”

(Eliade, 1961: 25)

### 2.3.5.3.2 AXIS

The cathedral centres around an East-West axis and North-South axis. This orientates the building and provides an orientation for the parishioners and clergy. The axis passes through the space and terminates in the more sacred spaces of the altar and sanctuary toward the east.



FIGURE 2.29 (CHING, 2007) AXIS/ PATH TERMINATING IN A SPACE

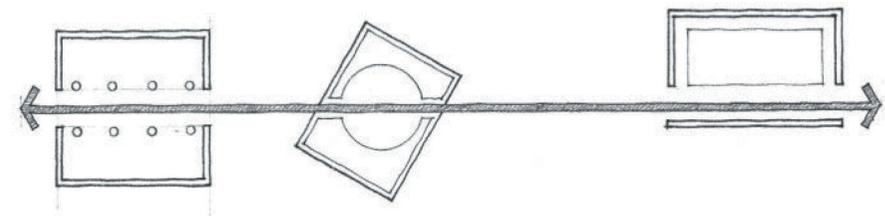


FIGURE 2.30 (CHING, 2007) AXIS/ PATH PASSING THROUGH A SPACE



Rudolf Schwarz (1958) makes note of the effect of the axis and 'sacred way' of the medieval church and cathedral:

"No other structural concept has so glorious a history as the "sacred way." In this connection we usually think of the medieval processional churches which unfold this idea in such magnificence. Rows of pillars and great arches bound and exalt the relative space of the holy pilgrimage. Remote and in- calculable, the surrounding space flows round about it, forcing its way in at the arcades. A darkness rich in mystery rules without. The way is laid from west to east: the space climbs steeply and from above light falls upon the path a rectangular space barely hinted at, an open clearing in God, far down on the chasm floor sacred path through sacred darkness, high overhead sheltered by the shining vault, light its consort. No more than the space of a road, a narrow path through uncertain world, yet of great solemnity and noble proportion."

(Schwarz, 1958: 139)

### 2.3.5.3.3 CATHEDRAL COMPLEX LAYOUT

In the medieval period, the churchyard surrounded the cathedral, however, different parts of the churchyard had different functions: the east was used for the folkmoot assembly while the west had been used for military assemblies. The churchyard occupied the north and north-east of the cathedral where the common folk were interred. There was also a smaller churchyard located west of the cathedral's north transept, which was utilised as a secondary cemetery (Harding, 2002: 86). The churchyards, although sacred, was accessible and permeable. Along with public events being held there, both sacred and profane, the churchyard also had a commercial use. Stationers and booksellers could be found trading in the churchyard (Harding, 2002: 87). Other traders also utilised the churchyard space at times.

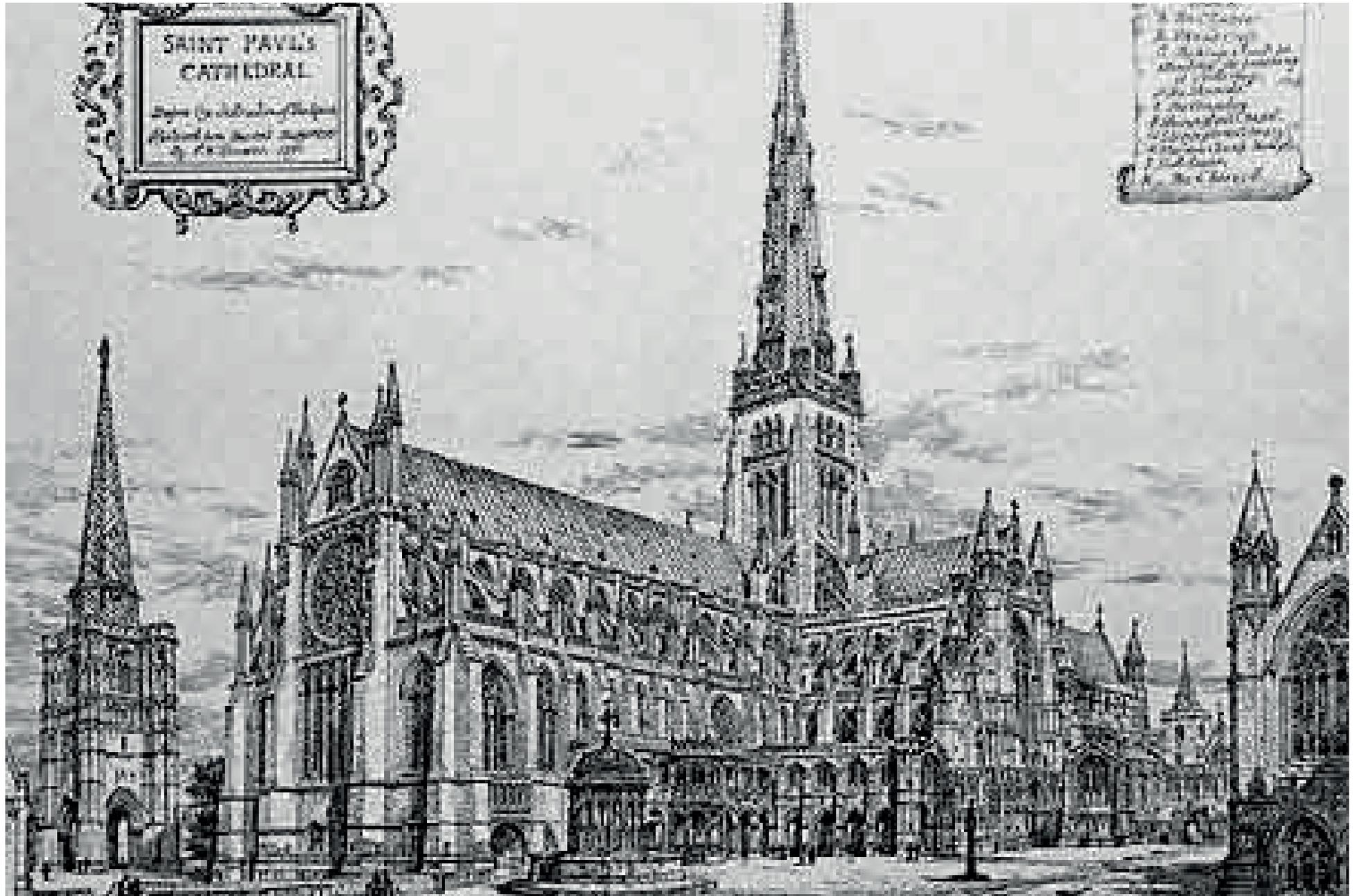
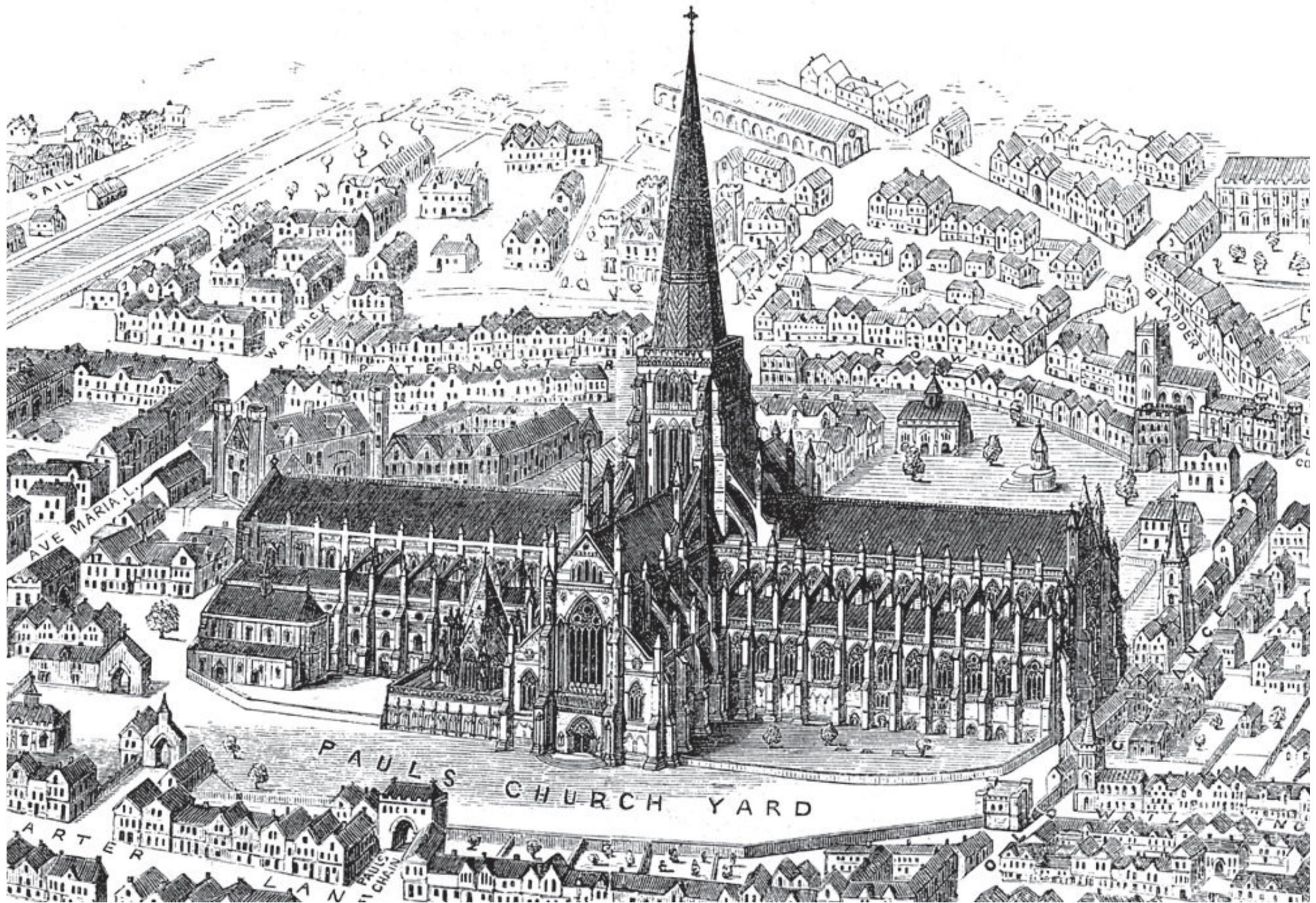


FIGURE 2.32 (THE FREELANCE HISTORY WRITER, 2012) DRAWING OF OLD ST. PAUL'S CATHEDRAL



#### 2.3.5.4 Materiality

As this was a combination of Romanesque and a gothic cathedral, the primary building material incorporated into the design of the building was stone. This was the primary building material for large buildings during this period. The stone added a sense of solidity to the building, grounding it and reinforcing its importance within its context. This was offset by the vast stained glass windows which allowed for ample light to enter the building, and give the spaces within an ethereal feel.

The spire and roof, however, was constructed from timber. This was largely as a cost saving method for the project. The timber of the spire added to the light nature of overall feel within the building, but lacked the structural solidity of the stone.

The interior of St. Paul's was similar to that of the exterior, where the stone was left untouched by any plaster or stucco. The smooth stone details gave the interior its unique character. The tombs within the church were either of stone or marble was used in some cases. Some of the tombs were highly decorated.

The churchyard was in essence very simple in terms of materiality, placing emphasis on the divine and therefore assisting in remembrance of God and the dead. For the majority of the deceased, temporary wooden grave markers were used, while the wealthy may have erected monuments or epitaphs from stone.



FIGURE 2.34 (WIKIPEDIA, 2017) JOHN FRANKLIN'S ILLUSTRATION OF 'PAUL'S WALK'

FIGURE 2.33 (GUDMUNDSSON, 2014) DEPICTION OF OLD ST. PAUL'S CATHEDRAL AND CHURCHYARD WITHIN LONDON, 1087

### 2.3.2.5 Semiotics & Memory

Compared to the period of the early Christians, the middle ages were a time when Christianity flourished in Europe, and as a result, the architecture developed in both technically, and symbolically. The Old St. Paul's Cathedral and Churchyard is no exception.

The grand entrance to the cathedral was not only meant for the parishioners who entered the space, but also for the 'divine ruler' who was Christ. Additionally, the entrance symbolised Christ himself, "for Jesus had said 'I am the Door ( St. John, Ch. 10, v.9)" (Thomas, 1994: 59). Entering the cathedral through its grand arched entrance would evoke a sense of awe and remind the user of Christ. Like the St. Callixtus catacombs, the Old St. Paul's Cathedral incorporated arches as structural, aesthetic and symbolic element. However, the cathedral emphasised the idea of a representation of heaven further, by employing pointed arches throughout the cathedral building, both on the exterior and interior. The heavens and God was continuously present in the cathedral, through its symbolism, reminding the medieval people of the temporal nature of life.

The spire or steeple incorporated into the cathedral is of great significance. According to Baldwin Smith (1956), "... the use of towers and steeples thus has its origins and *raison d'être*, at least partly in the use of architectural forms which could display a message, or argue for an ideological position" (Baldwin

Smith, 1956: 74-79, 186-187; Thomas, 1994: 60-61). Along with this symbolic meaning, the spire found in the Old St. Paul's Cathedral was vast and tall, and again, was a representation of the heavens.

The use of columns in the cathedral was not merely structural, but also symbolic in nature. Places of worship required large spaces for congregations, and therefore the use of columns allowed for this, and much importance was placed on the columns within the Old St. Paul's Cathedral. A reason for this importance given to columns is the "column-imagery found in the New Testament, eg. James, Cephas (Peter) and John being called 'columns' by St. Paul, in Galatians ch. 2, v. 9., and the frequent reference to the apostles as 'foundations' of the Church" (Thomas, 1994: 62). As is evident, groups of twelve columns are used in the design of Old St. Paul's Cathedral, representing the twelve apostles. Additionally, within the set of twelve columns, there may be a 13th column, that is specially designed to represent Jesus Christ. Other. This subtle use of symbolism adds meaning to the cathedral and churchyard, emphasising the sacred qualities and reminding the user of the apostles that came before them.

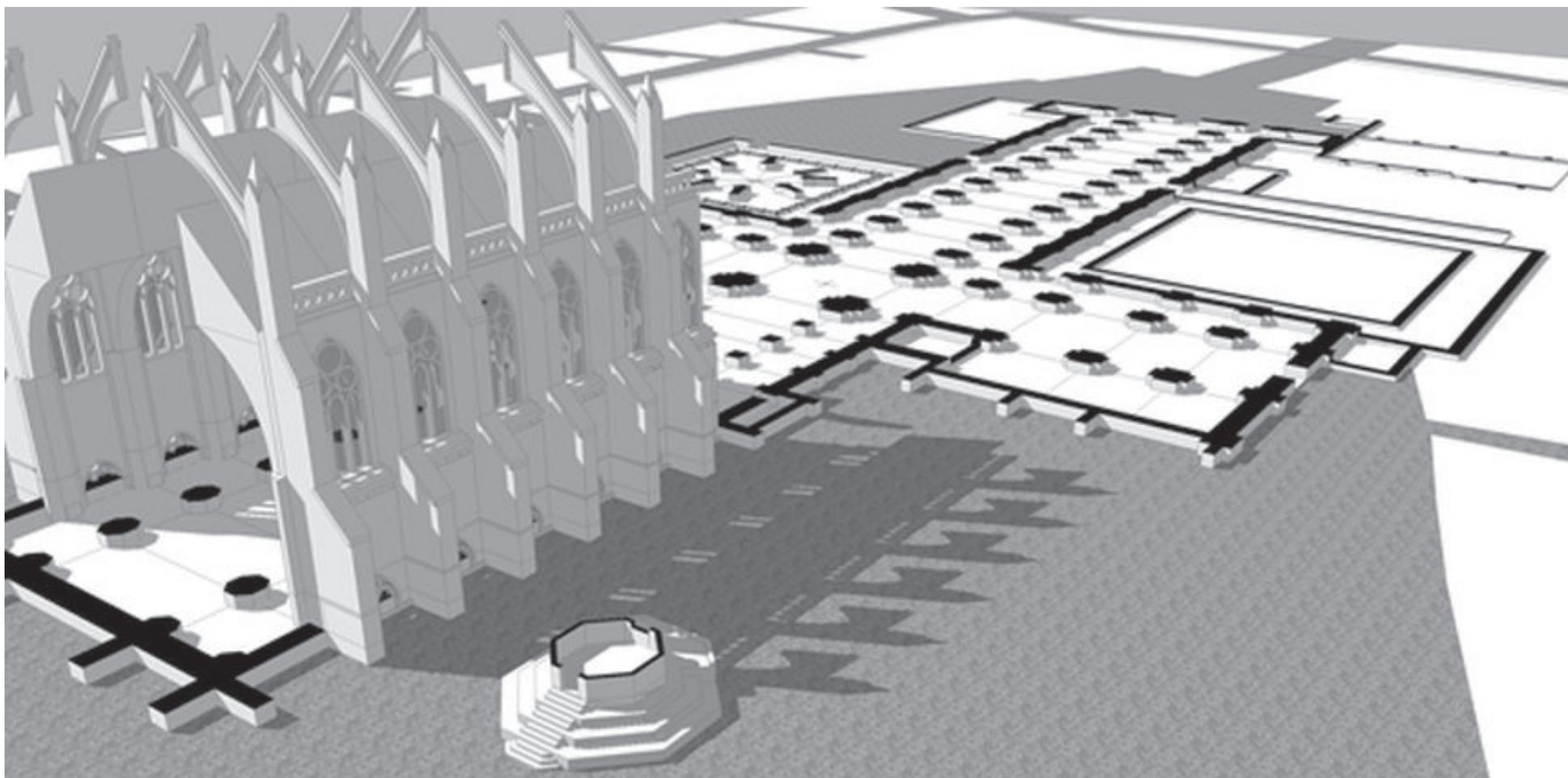


FIGURE 2.35 (STEPHENS, 2017) OLD ST. PAUL'S CHURCHYARD- THE CROSS YARD, SECTIONAL MODEL

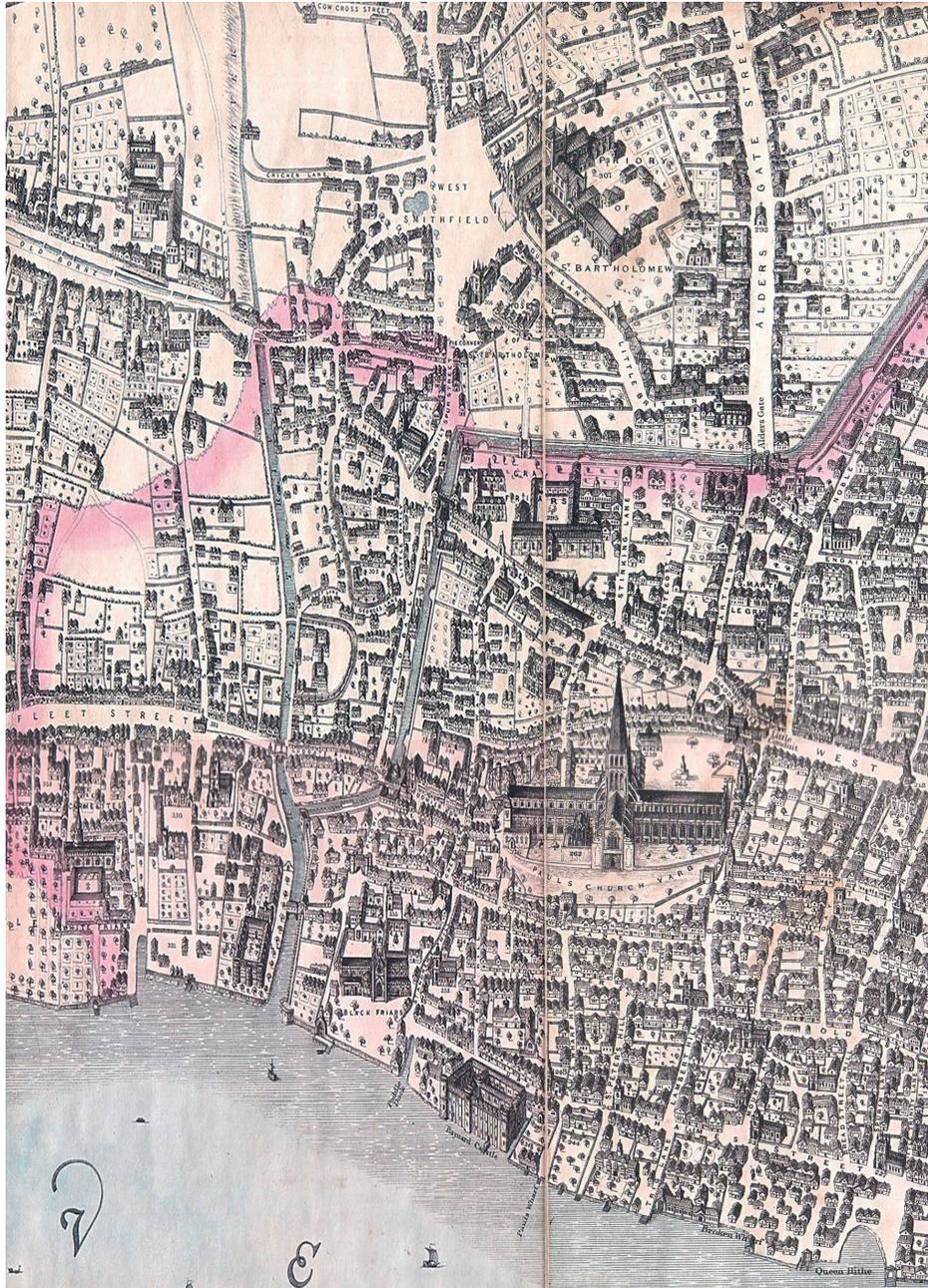


FIGURE 2.36 (KING'S COLLEGE LONDON, 2004) OLD ST. PAUL'S SITE AND CONTEXT IN THE CITY OF LONDON

### 2.3.5.6 Reflections

This kind of interment method, which occurred both in the interior of the cathedral in the form of tombs, epitaphs and monuments, and outside through common burial was an amalgamation of both the sacred and profane worlds in the middle ages. Although the cathedral was in essence a sacred space, it was versatile enough to be used for the mundane in some instances (Harding, 2002: 86-88).

The cathedral provides a way in which sacred and profane can coexist, although the sacred spaces dominate, influencing those that utilised these spaces for worship or mundane practices.

The cathedral and related churchyard was not in the least morbid or frightening, yet the spaces within the cathedral were inspiring and pleasant.

The relevance of the Old St. Paul's cathedral and churchyard within a contemporary South African society and context is that it illustrated the success of the middle ages through merging both the sacred and profane, as well as life and death within the urban fabric, benefitting the inhabitants. St. Paul's cathedral and churchyard also demonstrates the success of merging both sacred and profane, as the city grew around the cathedral and churchyard since its inception.

## Conclusion

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### 2.3.6

The medieval church and churchyard was an altogether different form of burial for the Christians of this time when compared to that of the early Christians in Rome. The spread of Christianity in Europe was the primary reason this method was utilised in many European countries.

The combination of both sacred and profane uses within the church and churchyard, and its resultant success of this combination reinforces the attitudes toward death during this time, and provides an example from which contemporary cities can learn from, in that death should not be denied and pushed away from the city, but rather embraced to form part of the fabric of the city.



The second of the literature review chapters will be a continuation of the historical literature review which began in Chapter 2.

The final two time periods under investigation will be discussed within this chapter. Firstly, the beginning of the modern form of cremation during the mid to late nineteenth century CE and beginning of the twentieth century CE in Europe will be discussed, where a fundamental shift in the form of mortuary ritual took place, from the religious to the secular (Jupp, 2006: ix). The relevance of this time period in the history of Christian interment methods is exemplified by the total change in body disposal, from inhumation to cremation, illustrating the changing attitudes in society.

Finally, the reader will be introduced to the 19th and 20th century cemetery movement, where cemeteries and crematoriums were generally not exclusive to a specific religion, but provisions were made for different religious groups. This movement coincided with the invention of cremation in Europe and America, as there were similar conditions from which both the cemetery and crematorium movements were established. Additionally, this form of interment is still popular today, and still utilised around the world.

This chapter includes two time periods within the history of Christianity where there occurred a shift in attitude and importance of religion in the lives of Christians. Many cities around the world were increasingly influenced by the secular, which replaced religious authority, and this influenced the attitudes toward death when compared to earlier time periods in Christian history. The result was a relocation of cemeteries and places of interment from the urban/ suburban to the more rural.

#### 3.2.1 Introduction

The Encyclopedia of Cremation defines cremation as the practice of intentionally heating a deceased human body to “between 1,400 and 2,100o F to consume . . . the body’s soft tissue and reduce the skeleton to fragments and particles” (Davies & Mates, 2005: 131; Jones, 2010: 35). This results in the formation of ash which is usually stored, buried or scattered. Cremation had been a popular form of body disposal throughout history and cultures, yet practiced very infrequently in the Judeo- Christian faiths (Prothero, 2001: 176).

With the increase in population throughout the medieval period, and with the popularity of the church and churchyard burial, the cemeteries became overcrowded and were hazardous to the health of the inhabitants of the cities. Many European cemeteries in the eighteenth century CE were demolished and new cemeteries were founded on the outskirts of the city (Bazaraitė & Heitor, 2015: 785). The problem of overcrowding would arise once again in the 19th century, while the mechanical form of cremation that we typically associate with today was to be invented in 1873 (Jupp, 2006: 47).

The introduction of the crematory coincided with the rise of a secular Europe and Britain. Brown (2009) notes that “for a thousand years, Christianity penetrated

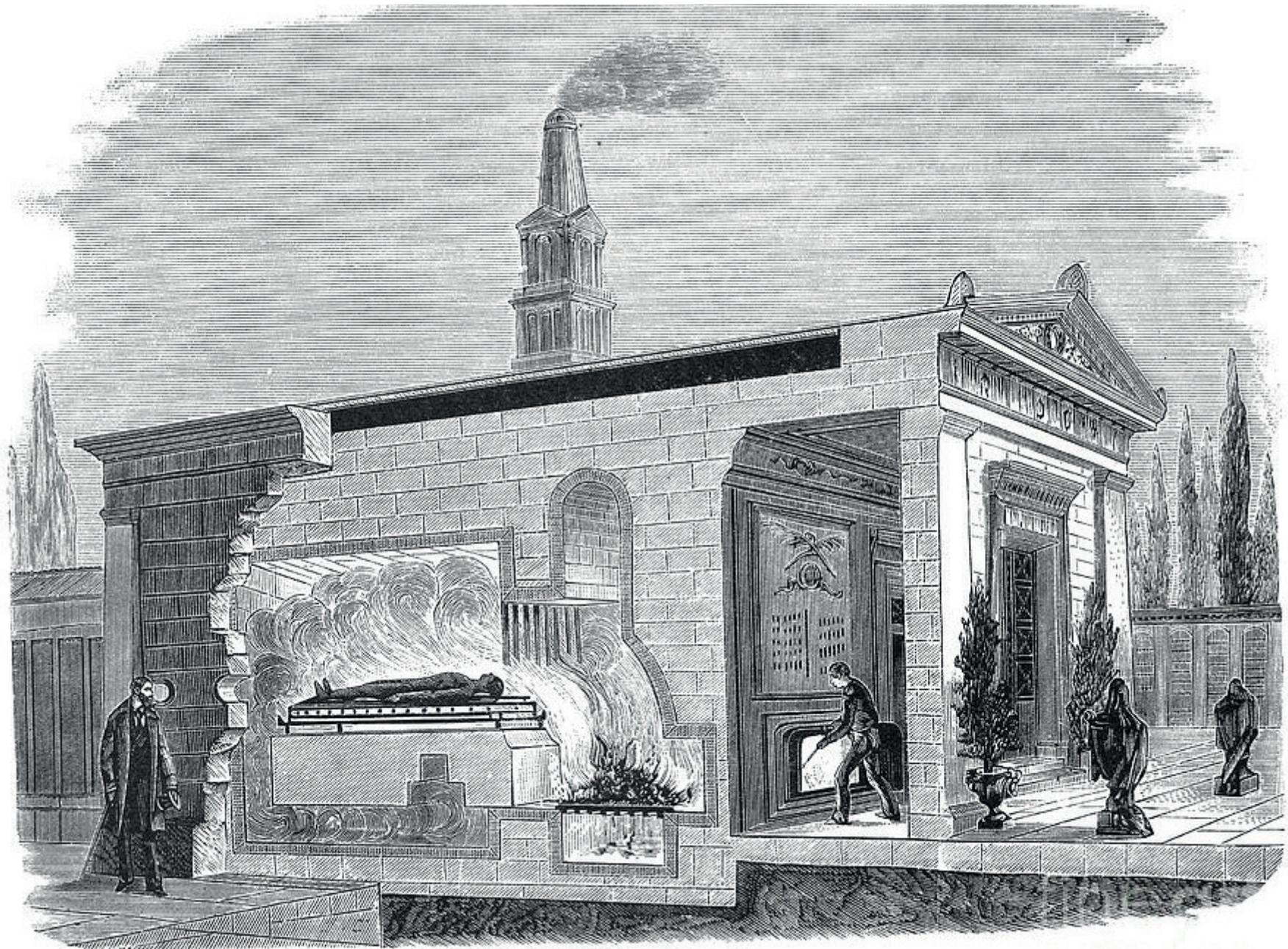


FIGURE 3.1 (WILKINSON, 2016) THE MILAN CREMATION TEMPLE- THE FIRST MODERN CREMATORIUM, 1876

FIGURE 3.2 (BRAUCHLI, 2016) CASKET FED INTO CREMATOR/ INCINERATOR



deeply into the lives of the people, enduring Reformation, Enlightenment and industrial revolution by adapting to each new social and cultural context that arose" (Brown, 2009: 1). Yet the 19th century gave rise to a new movement of atheists and free-thinkers/ freemasons in British and European society which influenced the development of the first crematory/ crematorium, and unlike the followers of Christianity, the atheists and freemasons denied any notion of the spiritual and particularly the belief in the immortality of the soul, the resurrection, and the afterlife (Jupp, 2006: 16). Although many inhabitants in Europe and Britain agreed with this new process of body disposal as it was a more hygienic alternative to burial, as well as a method in conserving land, the Church officially condemned the practice of cremation in 1886 (Jupp, 2006: 16).

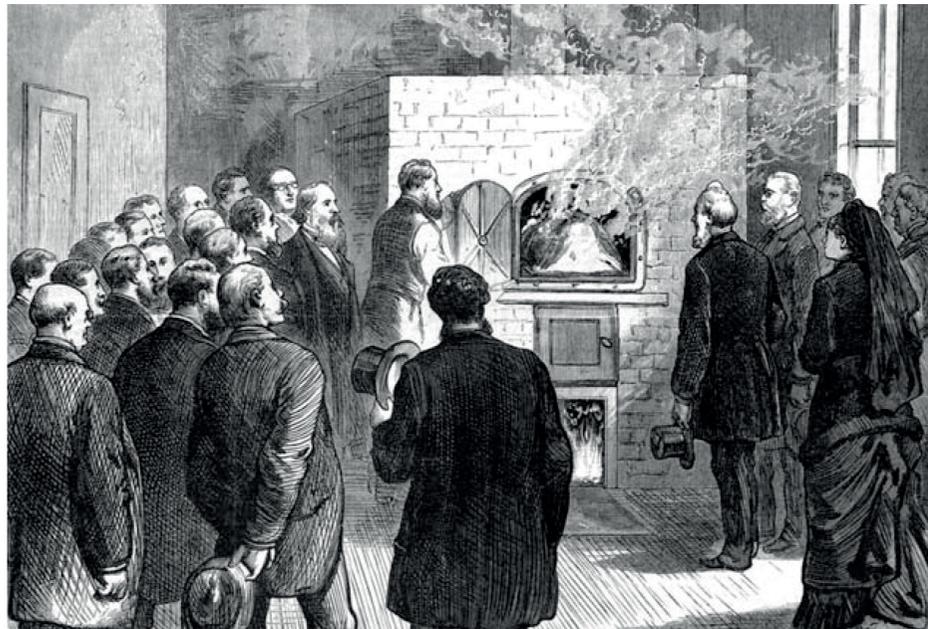


FIGURE 3.3 (GRANGER, 2012) CREMATION IN PENNSYLVANIA, 1886

As the practice of cremation was intertwined with the secular, there was a subsequent loss of the sacred within the early crematoriums as the architecture became utilitarian in nature, and funeral ritual often had no Christian influence. It was only in the 20th century where the need and popularity of cremation within Europe prompted the Christian authorities to formally accept the practice, with the Protestant sect being one of the first. The Church of England followed in 1944 while the Catholic Church approved the practice in the 1960's, provided that "it does not demonstrate a denial of faith in the resurrection of the body" (Davies, 1996: 83).

### 3.2.2 Memory of the Dead

Unlike the previous interment methods discussed, where the spaces of interment and ritual were completely exclusive to Christians in the case of the church and churchyard and later became exclusive in the case of the catacombs, the crematory or crematorium does not share this religious and sacred influence and is not exclusive to Christians (Davies & Mates, 2005: 316). Therefore, the memory of the dead within these spaces lacked religious influence, however, that is not to say that crematoria were void of spiritual spaces or spaces of remembrance. It is true that although the first crematoria were of a profane and utilitarian in nature (Jupp, 2006: 56), there are exceptions regarding the architecture of the crematorium, as it developed in the 20th and 21st centuries, yet there is a “lack of innovation or architectural interest” (Worpole, 2003: 184) in the majority of crematoria.

The process of cremation is highly controlled and often hidden from mourners, as the corpse is cremated in a separate, mechanical and utilitarian chamber (Williams, 2011: 114), however, if requested, the mourners can witness the cremation of the corpse. This, for some, is a form of memory of the dead, which is often hampered by the profane and utilitarian nature of the space.

With the practice of cremation, there is a ‘secondary rite’ that occurs after the body has been cremated (Davies, 1997: 26). This involves the disposal or storage of the cremated remains that act as a form of remembrance. There are several common methods of the memorialisation of the dead with cremated remains: the burial of ashes (similar to that of a corpse), depositing ashes into a memorial garden, the scattering of ashes with no fixed point of memorial, and the storage of ashes privately or collectively i.e. a columbarium (Davies & Mates, 2005: 316). In the Christian faith, it is preferred that the ashes be buried, deposited in a memorial garden, or stored (Davies, 1997: 31).

The columbarium niche, inspired by that of the Romans over two thousand years ago, was introduced as a 'memorial idea' (Prothero, 2001: 48) in the early 20th century. This allowed for the storage of cremated remains within urns to be placed in a collective memorial. The design of the columbarium space can be powerful in evoking memories of the dead.

Although collectively storing the remains of the dead in columbaria or interring the remains in a grave is commonplace, the scattering of ashes or privately storing ashes leads the "living memory in a more individualised fashion" (Hallam & Hockey, 2001: 92).

Traditional Christian liturgy "uses ashes as a kind of substitute corpse, symbolising the body of the deceased in a rather direct way" (Davies, 1997: 31), awaiting resurrection. A different approach is taken by some Christians where the remains symbolise the body in a less direct way, where the ashes are considered 'physical memories' (Davies, 1997: 31). This is where the storing of ashes becomes important for a Christian in remembering the dead.

Gardens of Remembrance in the architecture of some crematoria grounds became a successful element of the design, as they created "symbolic and sacred places in which a balance might be struck between individual commemoration and a more collective response to the shared human experiences of loss and memory" (Davies & Mates, 2005: 214).



### 3.2.3 Christian Funeral Ritual

As cremation in the 19th and 20th centuries was popularised by atheists and free-thinkers in Europe and the West (Jupp, 2006: 19), the practice of cremation remains “without a proper liturgy of its own, or indeed an agreed order of service or processional” (Worpole, 2003: 184).

Robert Hertz’ (2004) study on cremation and its related funeral rites is fundamental in understanding the basic constituents in the practice of cremation as he “drew a distinction between primary and secondary aspects of funeral rites” (Davies & Mates, 2005: 232). These two phases Hertz calls the ‘wet’ and ‘dry’ phase. The first phase deals with “separation events tied to the immediate decay of the flesh of the corpse” (Hadders, 2013: 196). This rite deals with the funeral service, held at a church or crematorium chapel and focuses on the “past life, identity and social status of the deceased” (Davies, 1997: 30). This includes the visible aspect which is the coffin and body where decay is inevitable and involves a change in identity of the dead as they “relinquished their status as a member of the living community” (Davies & Mates, 2005: 232). The ‘dry’ phase is related to the events of the ashes (Hadders, 2013: 196) and deals with the ‘symbolic medium’ of the remains of the corpse after being cremated, giving the dead a new identity as they enter the realm of the afterlife (Davies, 1997: 31; Davies & Mates, 2005: 232; Hertz, 2004).

In Christianity, once a family has opted for the practice of cremation, a funeral mass is performed. This is either done at a church or a chapel within the crematorium grounds, depending on the preference of the family. The corpse, within a coffin, will be placed at the altar for the ceremony. The body is often sprinkled with holy water, and incense is burnt during this process. If the mass is held at a church, the body will be taken to the crematorium chapel, where a short, and more private rite at the chapel will take place (Davies, 1999: 28). Thereafter, the body is taken from the chapel to the cremator, and at this point, the mourners would usually

## THE CREMATION PROCESS

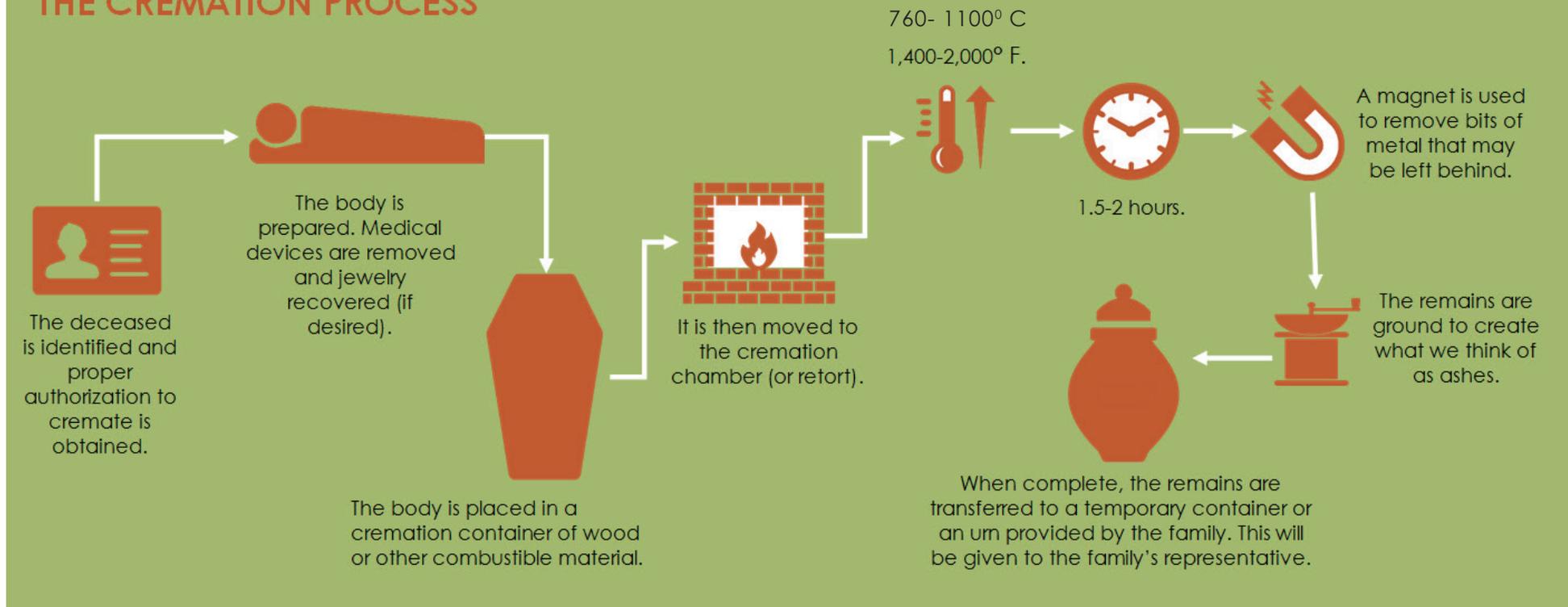


FIGURE 3.5 (FUNERALWISE, 2017) THE TYPICAL CREMATION PROCESS & RITUAL

leave the chapel, as the process of cremation lasts up to three hours (Davies & Mates, 2005: 145). Close family may choose to stay for the incineration of the body.

As most people depart the crematorium before the body is cremated, it is common for Christians to return a day or two later to collect the remains. Some parishioners commission a priest to bury the ashes within a memorial grave, while others choose to store the ashes in a columbarium or scatter in the memorial garden. This may be accompanied by a final service of remembrance (Davies, 1997: 28). It must be noted that the funeral rites may differ slightly according to region and sect.

With regard to the many crematoriums of the 20th century, they can be considered as 'non-places' (Davies & Mates, 2005: 145). These are places which people pass through with no personal significance, yet they are necessary in life. Mundane and utilitarian spaces. For many, the crematorium is a "part of someone's journey but is devoid of particular significance" (Davies & Mates, 2005: 145). Worpole (2003) emphasises this point in relation to the architecture and lack of set ritual practices: ". . . then both architecture and design are without the unifying elements that link ritual, plan, processional and built form in one coherent whole" (Worpole, 2003: 184).

There are, however, noteworthy crematoriums around Europe.

### 3.2.4 Urban/ Rural Contextual Issues

With the introduction of the crematorium in the late 19th century, there was a new challenge presented as to the architectural typology, as well as the location of the crematorium. The practice of incinerating the body at high temperatures inevitably led to the by-product of harmful gases released into the atmosphere, including mercury (Davies & Mates, 2005), although recent incinerators are considered more environmentally friendly. This had an effect on where the crematoriums were generally situated.

Up until the 1960's, the majority of crematoria could be located within existing and well established cemeteries (Davies & Mates, 2005: 118). This was as a result of the aforementioned environmental aspects, as well as the notion of the dead being isolated from human life. The location would be

conforming to the norm of keeping the dead out of the populated urban areas.

From the 1960's onwards, many crematoria were often built on independent sites, due to the private sector. The context of these independent crematoria are less secluded from urban life through technological developments, yet there is a weak connection with building and landscape (Davies & Mates, 2005: 118; Worpole, 2003: 184). These independent crematoria often contain lawns, walkways and gardens of remembrance, yet the surrounding landscape is "often over-decorative, and often without long sightlines or landscapes that stretch to the horizon" (Worpole, 2003: 185). However, there are landscapes and gardens of remembrance with merit.



FIGURE 3.6 (HARWOOD PARK, 2006) HARWOOD PARK CREMATORIUM & MEMORIAL GARDENS

Precedent- Woodland Crematorium

3.2.5

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FIGURE 3.7 (AUTHOR, 2017) WORLD MAP- STOCKHOLM

### 3.2.5.1 Introduction

The selection of this study is based on the successful nature of the crematorium typology in terms of its sacred and spiritual elements, unlike many crematoriums which came before it.

The Woodland crematorium was designed as part of a greater cemetery complex, which was common practice at the time. This crematorium is also influenced by the Christian faith, which is evident by the spaces and symbolism (Claesson, 2017).

### 3.2.5.2 General Background

The Woodland cemetery and crematorium was completed in 1940 in Stockholm, Sweden. The complex is located outside the city of Stockholm, and set within a hundred hectares of pine forest and grassy slopes. The cemetery and landscape was previously a quarry (Atkinson, 2003).

The crematorium was designed and built at time when cremation was gaining an ever increasing popularity within Europe, and more so among the Nordic countries as burning their dead was performed by their ancestors. The Woodland cemetery and crematorium derives its “sepulchral quality from the Nordic forest” and “establishes an eloquent narrative through the landscape where the forest is left intact with only a few paths meandered through the



FIGURE 3.8 (UNESCO, 2017) WOODLAND CREMATORIUM ENTRANCE PORTICO

seemingly random graves” (Sarker, 2016: 48). The cemetery and crematorium are designed to complement one another through landscape and built form.

The crematorium comprises three chapels named: Faith, Hope and the Holy Cross, in reference to the major religion of Christianity in Sweden, even though

during this period there was a secularisation of the state. Catholicism is a minority in the Nordic countries, including Sweden, and cremation had become accepted by the Church in Sweden.



### 3.2.5.3 Form, Space & Composition

Modernism and functionalism were great influencers on the design of this crematorium. The design is flexible, yet thoughtful (Claesson, 2017).

Movement in and through the site of the crematorium is imperative for the overall design of this building. The visitor is required to climb an insignificant hill which temporarily obscures the view of the building, until the great portico catches the eye of the user. The portico provides a gathering space for users before entering the crematorium (Maroussis, 2012: 18; Sarker, 2016: 48).

There is a dramatic entrance point which serves as the threshold of the crematorium design. This is achieved through the use of light in the courtyard, emphasising the relationship between earth and sky.

The crematorium, comprising three chapels, is designed in such a way that three funerals could take place simultaneously, without the disturbance or confusion between the different parties. This was achieved through small gardens and waiting rooms between the chapels, while mourners are able to look out onto the gentle landscape of the surrounding gardens and cemetery. The chapels are designed at different heights, in order to mimic the undulating landscape. The courtyards “intensified light and serenity” (Atkinson, 2003). The coffin is laid on a raised platform during the funeral ceremony, and once mourners have left, the coffin is lowered from this platform to the basement.



FIGURE 3.9 (STUDIO ESINAM, 2017) WOODLAN CEMETERY & CREMATORIUM SITE PLAN

Once completed, “a glass screen slides down into the ground and mourners are greeted by a view of the open landscape, allowing them to focus on this ‘sacred grove’” (Sarker, 2016: 50).

If the mourners wish to wait until the process of cremation is complete, which is a minimum of ninety minutes to three hours, waiting areas are available for both group or private reflection. The mourner is able to connect with nature during this period. After the process of cremation is complete, the mourners are led to an enshrinement room to collect the remains in the form of ashes, concealed within an urn. This space is rather small and represents an intimacy where the focus on the remains is highlighted and marks the end of the cremation ceremony. The remains can then be interred within the columbarium provided, which is the end of the entire ‘journey’ and ritual (Maroussis, 2012: 22).

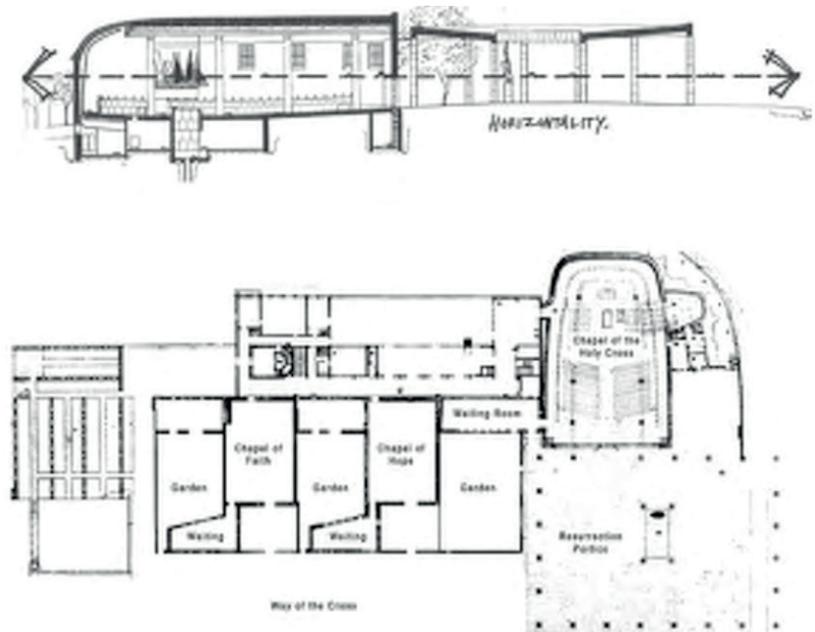


FIGURE 3.10 (GREAT BUILDINGS, 2013) PLAN & SECTION

1. Main entrance
2. Woodland Crematorium and chapels of Holy Cross, Faith and Hope
3. Remembrance garden
4. Woodland Chapel



FIGURE 3.11 (SARKER, 2016) WOODLAND CEMETERY & CREMATORIUM LOCALITY PLAN



FIGURE 3.12 (SHERMAN, 2012) ENTRANCE PORTICO & WATER FEATURE

### 3.2.5.4 Memory of the Dead

The design of the Woodland crematorium enabled the visitors and mourners who experienced the space to remember the dead. This was incorporated through a rather peaceful environment throughout the cemetery and crematorium.

Natural elements in the form of lawns, pools, and well thought out pathways were introduced to the design as elements of serenity and calm, where one could reflect and commemorate those that have passed. Blocks of granite are utilised to symbolise “the ages of life, series of pools and beds of flowers contribute to a universal language of death that spans across cultures and

religious practices” (Sarker, 2016: 50). This contributes to a collective memory of the deceased.

The architecture of the crematorium also serves as a ‘memento mori’, reminding one of the inevitability of death, yet in a more peaceful and accepted medium, so as not to strike fear within the users.



FIGURE 3.13 (MAGGI, 2006) VIEW OF CEMETERY LANDSCAPE FROM PORTICO



FIGURE 3.14 (HALLMANN, 2017) THE CHAPEL OF THE HOLY CROSS

### 3.2.5.5 Semiotics & Memory

Although the Woodland Cemetery and Crematorium incorporates rather obvious symbols within the complex and chapels (cross, paintings etc), there are subtler elements utilised which add meaning to the complex, both from a Christian perspective, and Nordic perspective.

The design of the cemetery and crematorium pays homage to the Nordic forest and landscape blending “landscape and natural vegetation with architectural features to create an environment of tranquillity... A subtle romantic naturalism is key to the impact of the place: the mingling of forest and woodland, buildings and graves” (Mirabelli, 2017).

The cemetery and crematorium can also be viewed as a ‘biblical landscape’ (Kehl, 2013). Throughout the cemetery complex, there is the underlying tone of the ‘resurrection’, emphasised by the journey one takes through the cemetery landscape. Kehl (2013) quotes Mark Treib in emphasising the importance of ‘resurrection’ as symbol throughout the complex:

“The number and variety of Asplund’s studies reveal that he searched for a landscape design that would not only suit the building architecturally but also embody the narrative that would inform the entire cemetery: the theme of resurrection.... that path—from darkness

to light, from death to resurrection—would serve as the conceptual structure for almost every element of the cemetery landscape and its architecture during the quarter century of its design.”

(Kehl, 2013)

This guides a mourner through their grief and attempts to create peace within the mourner, hinting at the ‘resurrection’ as a symbol of hope, evoking memories of the deceased for the user.

Preserving nature was an objective of the design, which has its roots in Christian theology.

“At all scales in Woodland Cemetery, nature and man are intertwined through architecture and landscape, which is not surprising given the fundamental tenet of Christian theology that resurrection entails not only the raising of the human dead but the restoration of all creation, including the earth itself.”

(Kehl, 2013)

Another symbolic element utilised in the Woodland Cemetery and Crematorium

is that of revelation. This is achieved through compression and expansion/ constrict and release. As one enters the cemetery, they experience darkness to light, "grief to hope, life to death" (Kehl, 2013). The heavens are also emphasised by the broad horizon of the funeral landscape, where sky and earth meet, providing the user with symbols of transcendence and the afterlife. These symbols further evoke memories through the contrast between light and dark, earth and sky, life and death, culminating in a sense of revelation.

'Screening' of elements has been utilised as a design strategy to enhance meaning within the cemetery landscape. Elements are purposefully positioned off axis, in order to block the vision of the user temporarily, in the case of the monumental Cross which is erected adjacent the Chapel of the Holy Cross. Other elements are screened purposefully, such as the reflecting pool which lies between the grove and portico of the chapel. This screening element symbolises "the Christian belief in the incompleteness of human vision and understanding until life after death: 'For now we see through a glass, darkly; but then face to face: now I know in part; but then shall I know even as also I am known' (1 Corinthians 13:12, King James Bible)" (Kehl, 2013).

Lastly, the use of water in the 'reflecting pond' symbolises the resurrection, as well as baptism, reminding the mourner of life itself (Thomas, 1994: 63).

### 3.2.5.6 Reflections

The architects of the Woodland cemetery and crematorium used the natural surroundings to their advantage to create a peaceful and tranquil cemetery complex. The crematorium design serves its main function through stripping down the building and its elements to simple and monolithic forms (Sarker, 2016: 50).

The cemetery and crematorium came together harmoniously, complimenting each other amongst the sacred Nordic forest, reflecting the intimacy with place and in respect for their ancestors. Nature is preserved through this cemetery complex. Through the unique experience of the gardens and interior spaces, the visitor is able to peacefully remember and contemplate.

Although crematoriums had a reputation of being mechanical and profane, The Woodland crematorium in Sweden was one of the first to incorporate sacred aspects to the design, while being able to accommodate up to three gatherings at once, therefore the designers did not neglect the utilitarian aspects of the crematorium, but enhanced the overall experience.

The Woodland Crematorium is a relevant addition to this study as it represents the contextual issues of many crematoriums designed in the 20th century, including South Africa, where crematoriums were additions to existing cemeteries or designed within the cemetery landscape. These cemeteries and crematoriums still exist today.



FIGURE 3.15 (ARQUISCOPIO 2012) PATH LEADING TO CREMATORIUM



The cremation movement provided an alternative body disposal method and also mirrored the shift in state authority, from the religious to the secular. For Christians, it took some time before being an accepted method of body disposal, and has grown in popularity in many European countries over the last century.

Crematoriums have in general become isolated from urban life due to changing attitudes toward death in the last two centuries. Although initially denying sacred aspects with regard to crematoriums, due to its secular roots, the architecture developed and some crematoriums were designed with a characteristic Christian influence, as in the case of the Woodland crematorium in Stockholm. Recent crematorium architecture has also begun to embrace the sacred.

*'Even though I walk through the valley of the shadow of death, I will fear no evil, for you are with me; your rod and your staff, they comfort me.'*

*- psalm 23:4*

After almost a thousand years where the church and churchyard cemetery was the dominant method of interment in Europe, fears over hygiene and overcrowding within the churchyards began to take over, and in the 18th century, new locations were being considered for cemeteries outside the city. In 19th century Paris, the Pere-Lachaise-Cemetery was consecrated and Richard Etlin noted that it represents “a turning point in one thousand years of Western History” (Jackson & Vergara, 1989: 16). This ‘garden cemetery’ typology influenced the United States, Europe and many nations around the world.

The ‘garden cemetery’ shares much in common with later developments of the ‘lawn’ cemetery. The change in cemetery typology also coincided with the introduction of cremation, although the first ‘garden’ cemetery in Paris was completed in the early 19th century. What is important to note is that the development of the cemetery was more in line with Christian ideology than cremation (Davies, 1997: 23), and many cemeteries are distinctly Christian, even though Europe and America were becoming more secular. A characteristic of the secularisation of societies evident in the development of cemeteries is the lack of a church linked to the cemetery, which in the medieval period, was rarely the case. This could however, be as a result of the location on the periphery of the urban.



FIGURE 3.16 (TRAVAZZLE, 2014) PERE LACHAISE CEMETERY, PARIS

At the beginning of the 20th century the 'lawn' cemetery was popularised in Southern California which would become a model for many future cemeteries in North America and other nations. This continuation of the 'garden' cemetery was intended to be "... a great park, devoid of misshapen monuments and other customary signs of earthly death, but filled with towering trees, sweeping lawns, splashing fountains, singing birds, beautiful statuary, cheerful flowers, noble memorial architecture with interiors full of light and colour, and redolent of the world's best history and romance" (Jackson & Vergara, 1989: 28). A defining feature was the lack of monuments as the "total effect was more important than the individual monument" (Worpole, 2003: 143).

The 'lawn' cemetery in the 20th century became a perfect typology that fitted the commercialisation of death where bodies became 'commodities' and gave rise to the funeral industry (Jackson & Vergara, 1989: 28; Worpole, 2003: 143). These cemeteries are designed with economy in mind, evident by the lack of monumentality, tombs etc., and as public authorities, rather than the Church, controlled these cemeteries, there was a lack of Christian influence. Consequently, these cemeteries would likely inter the dead of various religions, and therefore these denominations would be separate (Francis et al., 2005: xix).

The cemetery has evolved at an astonishing rate over the last two centuries, when compared to other periods in history. Today, 'garden' cemeteries are still in use, as well as the 'lawn' cemetery, which can be found primarily in America. There are, however, more recent, post- modern and contemporary examples of cemetery typology in Europe which draws from historical precedent, including the 'garden' and 'lawn' cemetery typologies. There exists no defined contemporary typology for cemeteries.



FIGURE 3.17 (FIND A GRAVE, 2017) PERE LACHAISE CEMETERY



### 3.3.2 Memory of the Dead

As a result of the changing demographics within many cities of the world over the last century, where many cities are more ethnically, culturally and religiously diverse, many cemeteries often cater to these different cultures and religions, therefore there is a lack of Christian influence and ideas relating to the memory of the dead as a whole within the cemetery. Materialism and individualism have come to “rival (1) religiosity, as it triumphed in churchyards, and (2) rigid conformity, as it triumphed in grassy memorial parks” (Ziegler, 2015: 649).

Considering these changing attitudes, cemeteries are still considered “reservoirs of history” (Francis et al., 2005: xx). People visit cemeteries to be reminded of a distant past, often of a person within that past that was important to them. Depending on the appearance and structure of the funerary landscape, it will provide “visual and experiential cues” for the users of the cemetery (Francis et al., 2005: 29). These cues both “shape mourners’ actions and emotions and constrain them, as well as convey the meanings of customs and practices in a particular cemetery setting” (Francis et al., 2005: 29) The changing cemetery landscape is as a result of the individual and collective memorial behaviour, where people innovate with regard to remembrance of the dead, being influenced by either the religious, secular, or both (Francis et al., 2005: xix-xx; Ziegler, 2015: 652,656). Sacred and profane often compete “making it possible to arrange cemetery memorials along a religiosity continuum” (Ziegler,

FIGURE 3.18 (FIND A GRAVE, 2017) LANGLEY LAWN CEMETERY, VANCOUVER



FIGURE 3.19 (FIND A GRAVE, 2017) LANGLEY LAWN CEMETERY, VANCOUVER

2015: 656).

Pierre Nora, when referring to cemeteries, claims that memory attaches itself to the site (Kor, 2013: 20). “He accepts cemeteries as natural, concretely experienced sites of memory like museums, archives or memorials” (Kor, 2013: 20). Cemeteries have the ability to memorialise both the individual and collective: a grave could be one of many within the cemetery landscape which the user must locate (Rugg, 2000: 262). This includes interment methods in the form of tombs and monuments. In some cemeteries, remembering the dead is encouraged, and sometimes it can even feel as remembering the dead is being imposed upon the user (Francis et al., 2005: 105). As a result, some people choose not to visit the cemetery often, as they prefer not to be reminded of the dead through an imposed manner.

According to Nora, a central purpose of the sites of memory, in this case the cemetery, is “to stop time, to block the work of forgetting, to establish a state of things, to immortalize death, to materialize the immaterial...” (Kor, 2013; Nora, 1989: 19). Even though cemeteries of recent times may not always have a Christian influence, the issue of memorialising the dead often plays an important role in the design, through landscape, tombs, mausoleums and columbaria. The ‘Lawn’ cemetery, however, avoided reminders of death.



FIGURE 3.20 (GREENFIELD, 2011) MOUNT AUBURN CEMETERY, MASSACHUSETTS



FIGURE 3.21 (COATES, 2012) ROSS BAY CEMETERY, BRITISH COLUMBIA, 1928

### 3.3.3 Christian Funeral Ritual

As previously mentioned, over the last two hundred years or so, there has been a gradual shift in many European and North American countries, from the religious to the more secular, and this has partly affected the location of cemeteries within urban landscapes, as well as the funeral rites of a corpse after death (Ariès, 1974: 27; Brown, 2009: 145). Death has transformed into a business, and has led to a culture of 'denying death' in society, and the funeral rites lack religious and sacred influence (Hallam et al., 2005: 53). Walter (2005: 3), suggests that currently, in Western countries, there are three models in arranging a funeral: the commercial model, municipal model, and religious model (Walter, 2005: 3). This analysis will focus on the religious model of Christian funeral rites but acknowledges the others.

Hertz's (Davies, 1997: 24-30; Hertz, 2004: 197) analysis of death rites involving two phases ('wet' and 'dry' phases) can be applied to that of burial. It is also important to note that in modern society the death bed is often the hospital bed, where there is a 'medicalisation' of the body (Hallam et al., 2005: 53), and many people die within a profane hospital setting, rather than at one's home.

For Christians, the appropriate presence of family and friends is encouraged at the time of death, and in some cases, a member of the clergy may also be present. Prayers are held at the time of death as well as immediately after. The funeral rites begin after the person has left this world. The Christian belief in the afterlife continues to play an important role in that of the funeral (Walter, 2002: 7). After the body is cleaned and prepared for the funeral ritual, it is taken to either the home of the deceased, where an optional funeral 'wake' is held. During this custom of the watching of the dead, attended by friends and family, psalms could be sung for the deceased. Contrary to the medieval period, where the church and churchyard were in close proximity to the homes of the inhabitants, cemeteries in recent times are much further, and therefore the funeral

procession has been split up into two stages: from the home to church/ funeral chapel, and from the church/ funeral chapel to cemetery (Ariès, 2008: 476). It is for this reason that some choose to conduct the funeral within a funeral home and not a church, as it is often closer to the cemetery.

The coffin may arrive at the church or funeral home on the evening before the funeral ceremony or the day of the ceremony. The corpse, within a coffin, will be placed at the altar for the ceremony. The body is often sprinkled with holy water, and incense is burnt during this process. A ceremony and funeral mass takes place where candles are often lit at the church and the body is

thereafter taken to the cemetery. Compared to the middle ages, the funeral procession is a more private affair.

Once at the grave or tomb, which is considered sacred, as well as the cemetery itself, it is then blessed by a member of clergy (priest or pastor), and the coffin may be sprinkled with holy water and incensed. A prayer is performed, and a remembrance may be given by a close family member or friend. Thereafter the coffin is lowered into the grave, and the recently deceased is buried within his/ her coffin (Davies, 1997: 26).



FIGURE 3.22 (CHRISTIAN BURIAL SOCIETY, 2014) VISITING THE DECEASED'S GRAVE

### 3.3.4 Urban/ Rural Contextual Issues

The 'garden' cemetery in the 19th century was a widespread cultural phenomenon (Bhatt, 2016: 16-17) and can also be referred to as a 'rural' cemetery. This was due to the fundamental shift from interring the dead in a church or churchyard within an urban context, to the interment of the dead on the periphery of the urban, often in a rural context (Worpole, 2003: 139). This trend continued with the 'lawn' cemetery during the 20th century and is evident in many recent post-modern and contemporary cemeteries.

As a result of concerns of hygiene and overpopulation within churchyards in the 18th century, as well as the secularisation of Europe and America, another aspect contributing to the relocation of the cemetery is the 'individualisation of death', as Foucault (1997) notes, "it is only from the nineteenth century on that the cemetery began to be shifted to the outskirts of the city. In parallel to this individualization of death and the bourgeois appropriation of the cemetery, an obsession with death as "sickness" has emerged" (Foucault, 1997: 333). The concern that being in close proximity with the dead would spread death to the living was another factor. As cemeteries were removed from the city, "they no longer constituted the sacred and immortal wind of the city" (Foucault, 1997: 334). These sacred spaces were moved to the outskirts or suburbs of cities where they continue to be found today.

According to Rugg (2000), one of the fundamental aspects of defining a cemetery is its location. As the location of cemeteries moved out of the urban fabric, it allowed for cemeteries to be far larger than the medieval churchyards (Rugg, 2000: 261), and therefore landscaping of the cemeteries became increasingly important for these sacred spaces. According to Worpole (2003: 141), cemeteries are able to meet multiple needs of the community, yet this is scarcely the case as they are often secluded from peoples' daily lives.

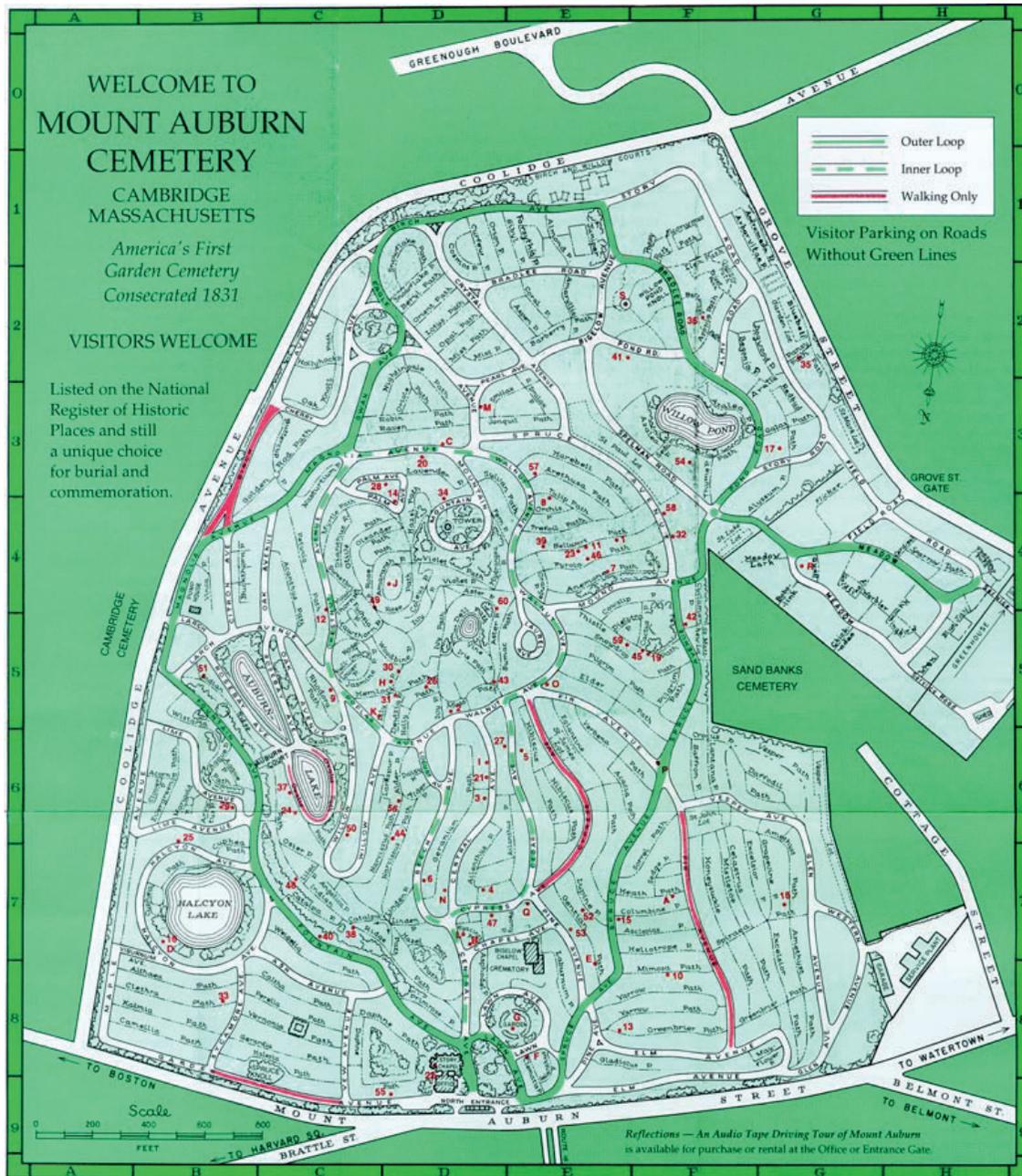


FIGURE 3.23 (WordPress, 2009) Mt. Auburn Cemetery Site Plan

This can often be attributed to the established perimeter of most cemeteries. This is in the form of boundary hedges and trees, and often a more “substantial structure is used: either a high wall, or railings, or a combination of the two” (Rugg, 2000: 261).

Even contemporary cemeteries, like that of the Igualada cemetery, is located on the periphery of the urban fabric.

Precedent- Igualada Cemetery

3.3.5

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FIGURE 3.24 (AUTHOR, 2017) WORLD MAP- BARCELONA

### 3.3.5.1 Introduction

The selection of this study is based on the relevance of the cemetery landscape within a contemporary context, and its significance in terms of sacred space and memory.

The Igualada Cemetery by Enric Miralles and Carme Pinos exemplifies the characteristics of a design which is sensitive to the site and surrounding context. This cemetery sets up a different perspective on cemetery landscape, drawing from historical cemetery typologies and tombs. There is a focus on space, time and memory within the sacred landscape (Quiros et al., 2004). There is a solemnness exemplified within this design, similar to that of the early Christian catacombs in Rome.

### 3.3.5.2 General Background

The cemetery is located between a valley and the industrial part of the town Igualada, which is situated sixty kilometres north of Barcelona. The architects were commissioned with a winning entry to replace an older cemetery within the Catalan landscape. After 10 years of construction, the project was completed in 1994 (Kroll, 2011). The cemetery was envisioned as a landscape to include the families that still remained, and is therefore inclusive of the living as well as the dead.

The Igualada Cemetery is one which challenges the common idea of a cemetery as the architects “conceptualised the poetic ideas of a cemetery for the visitors to begin to understand and accept the cycle of life as a link between the past, present, and future” (Kroll, 2011).

The main area of the cemetery lies beneath its surroundings, and places the user at the same level of the dead, descending “into a buried concrete city, where rows of niches in repeated patterns crowd in from both sides” (Worpole, 2003: 188), a stark contrast to the Woodland Cemetery and Crematorium.

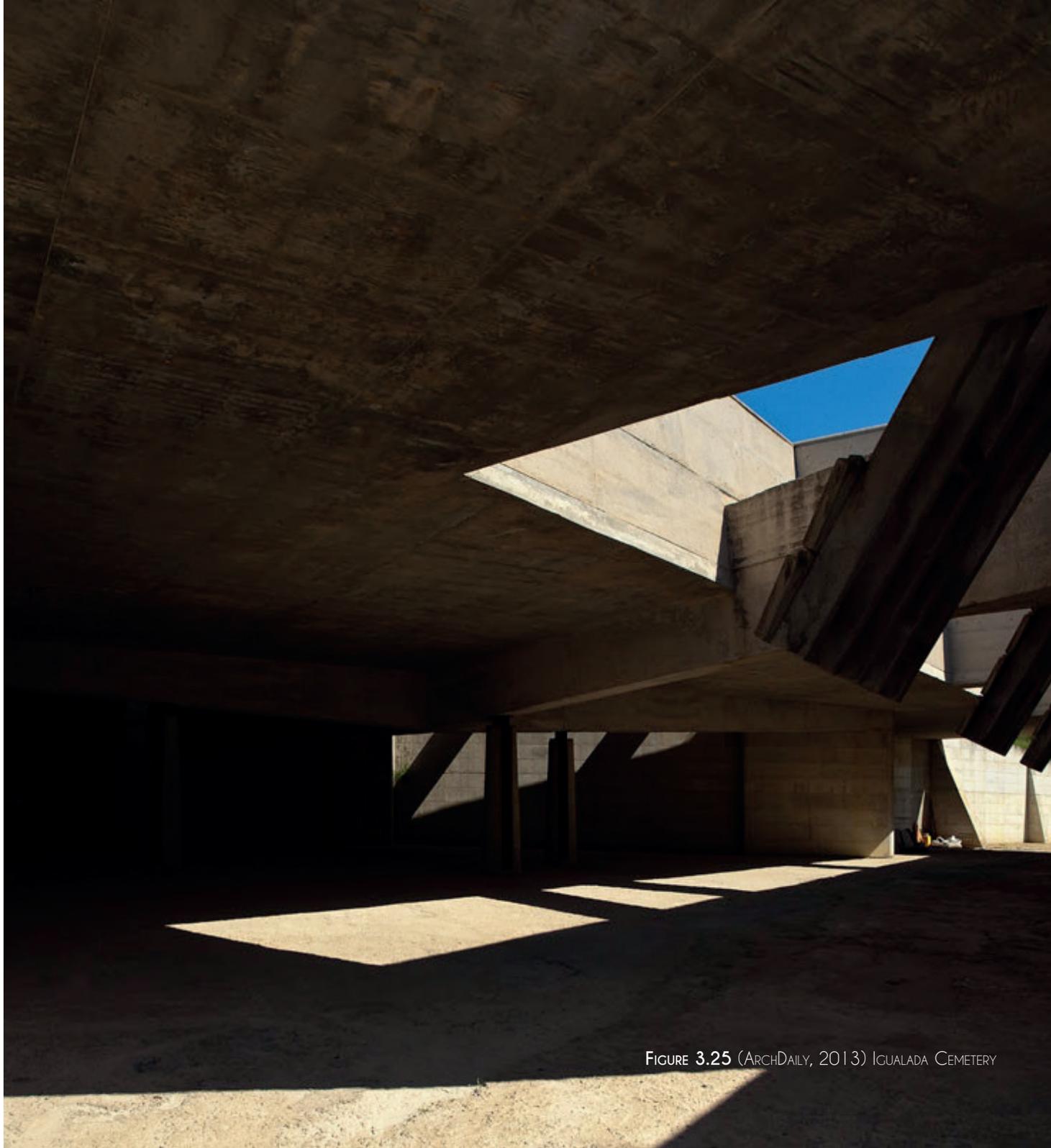


FIGURE 3.25 (ARCHDAILY, 2013) IGUALADA CEMETERY

### 3.3.5.3 Form, Space & Composition

The cemetery was conceived as a journey, allowing the user to partake in the process, and incorporating the hillside landscape to assist in the journey. The cemetery blends into the natural landscape and was designed as a tiered landscape, which unfolds as the visitor progresses through the site (Kroll, 2011). The journey becomes the architecture (Quiros et al., 2004). At the entrance, one finds a gate comprised of corten steel poles that signifies the entrance to the complex. These poles are likened to the crosses at Calvary, discretely symbolising the Christian influence in this area. From here, the user descends a winding pathway which leads to the primary burial area. Along this path are loculi, a clear similarity to that of the catacombs, which wraps around the space from tier to tier. The processional pathway forms the circulation pattern through the site and focuses primarily on experience, rather than the arrangement of burial plots (Bhatt, 2016: 35).

The main interment area is located within the lower excavated section of the cemetery and is enclosed by gabion walls and vertical burial plots. Together, these elements block the user's view of the surrounding context, where the sky is the only available view other than the tomb like structures, emphasising the importance and relevance of the dead (Kroll, 2011).

The second tier of the cemetery, however, contains traditional burial plots, adding a variety of choice for the inhabitants of the town. The second tier also contains a monastery and chapel which was never completed as they lack detail and definition. However, this compliments the overall feeling and sensation of the design with its open and empty spaces, enhancing the experience of solitude and serenity (Kroll, 2011). Additionally, skylights enhance the lighting of the spaces, where there is a contrast between light and dark, which is incorporated subtly.

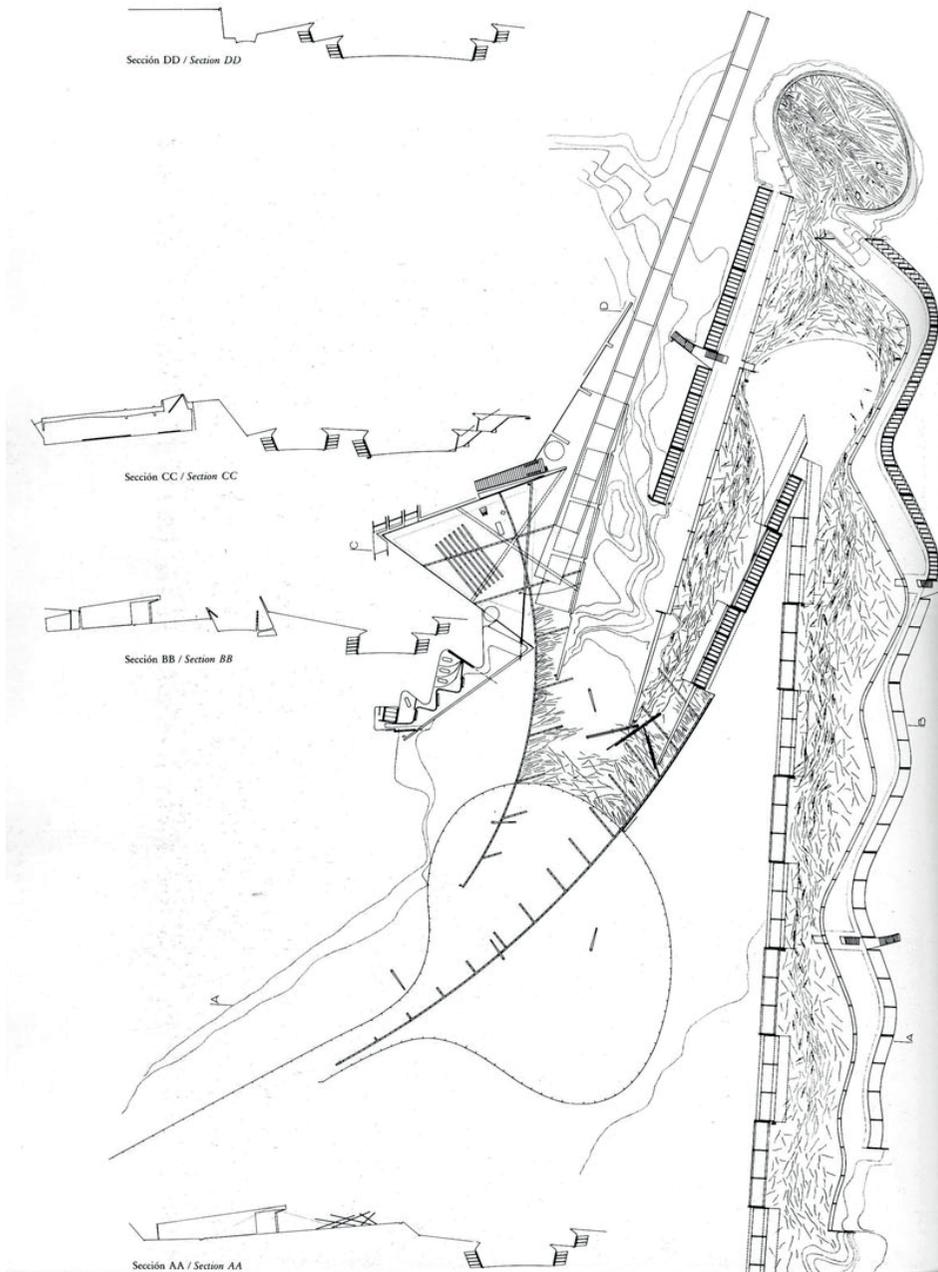


FIGURE 3.26 (ARCHDAILY, 2013) PLAN & SECTIONS



FIGURE 3.27 (ARCHDAILY, 2013) SEATING & CONCRETE FLOOR



FIGURE 3.28 (ARCHDAILY, 2011) BURIAL NICHS WITH NATURAL ELEMENTS

#### 3.3.5.4 Materiality & Structure

The materials incorporated into the design fits seamlessly with the landscape and the industrial nature of the surrounding town in which it is located. Many earthly materials were used in the form of concrete, stone and wood, while the sparse use of corten steel references the man-made context. The materiality of the design also lends to the overall experience and journey of the cemetery.

Concrete is used as the primary structural element and massing, and adds a somewhat 'heavy' feel to the design. However, the concrete is not intimidating due to its clever design and structural forms, which breaks what would be monolithic forms (Audibert, 2015: 71).

Additionally, "the gabion walls, the worn/aged concrete, and the wooden railroad ties embedded in the stone groundscape evoke the

hard and rough landscape of the surrounding hills. The earthy tones of the materials transform the architecture into a natural aesthetic creating the appearance that cemetery has long been part of the site" (Kroll, 2011).

Attention was also given to floor textures throughout the procession. From the entrance, the journey begins and utilises different floor textures: gravel, wood, concrete, and pavers, following a 'natural order' (Quiros et al., 2004), like that of planting and soil in a mountain path. The rough ground enhances the feeling of being eroded by the rain (Quiros et al., 2004).

FIGURE 3.29 (ARCHDAILY, 2011) ROUTE & BURIAL NICHES

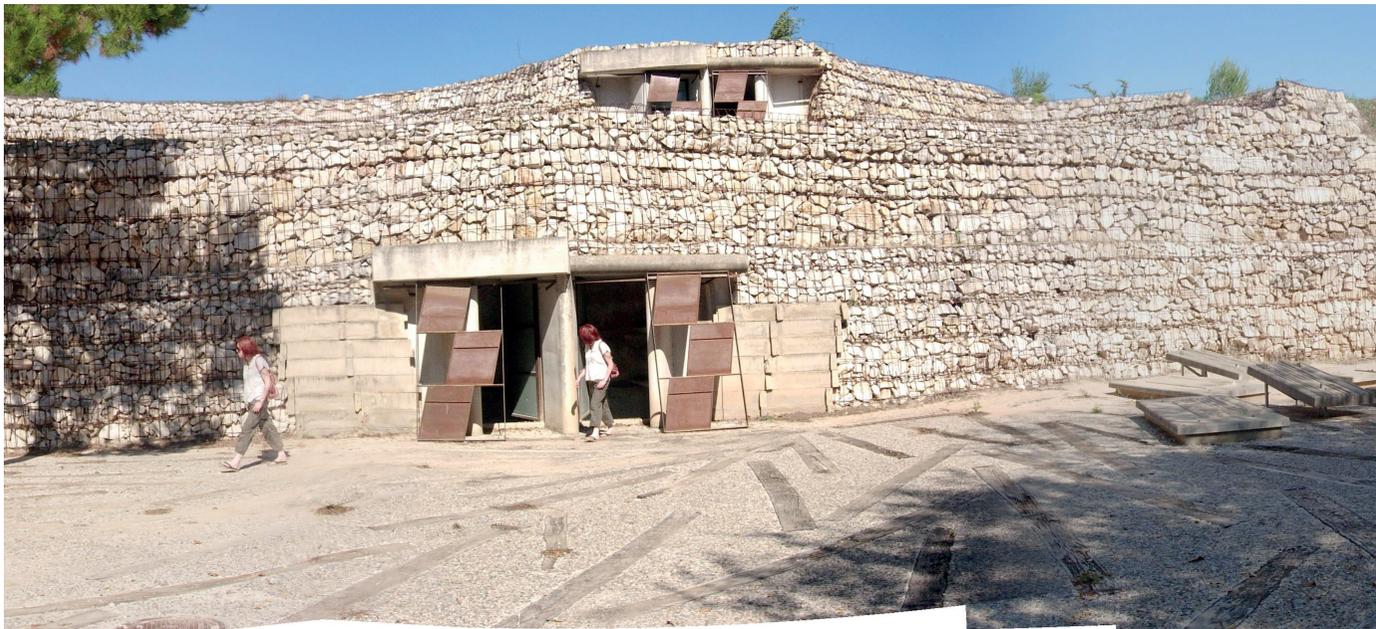


FIGURE 3.30 (ARCHDAILY, 2011) GABION WALLS BUILT INTO LANDSCAPE



FIGURE 3.31 (ARCHDAILY, 2011) CEMETERY ENTRANCE

### 3.3.5.5 Time & Memory

The Igualada cemetery, in the words of Enric Miralles, becomes a “machine to collect time” (Quiros et al., 2004), enforcing the idea that Miralles sought to link past, present and future in an experiential and referential manner. Time is also inextricably linked to memory, leading to the site becoming a repository of memory.

In dealing with the pre-existing conditions of the site, Miralles and Pinos were able to deal with the memories embedded within it. Memories and meaningful places along the journey assist the user in travelling through time, all the while remembering moments of the past and the deceased, while also experiencing the present (Quiros et al., 2004). Miralles believed that the user would collect and store ‘layers of time’ through the journey, while moving through time and space, and evoke memories of those that have passed (Quiros et al., 2004; Struwig, 2015: 182).

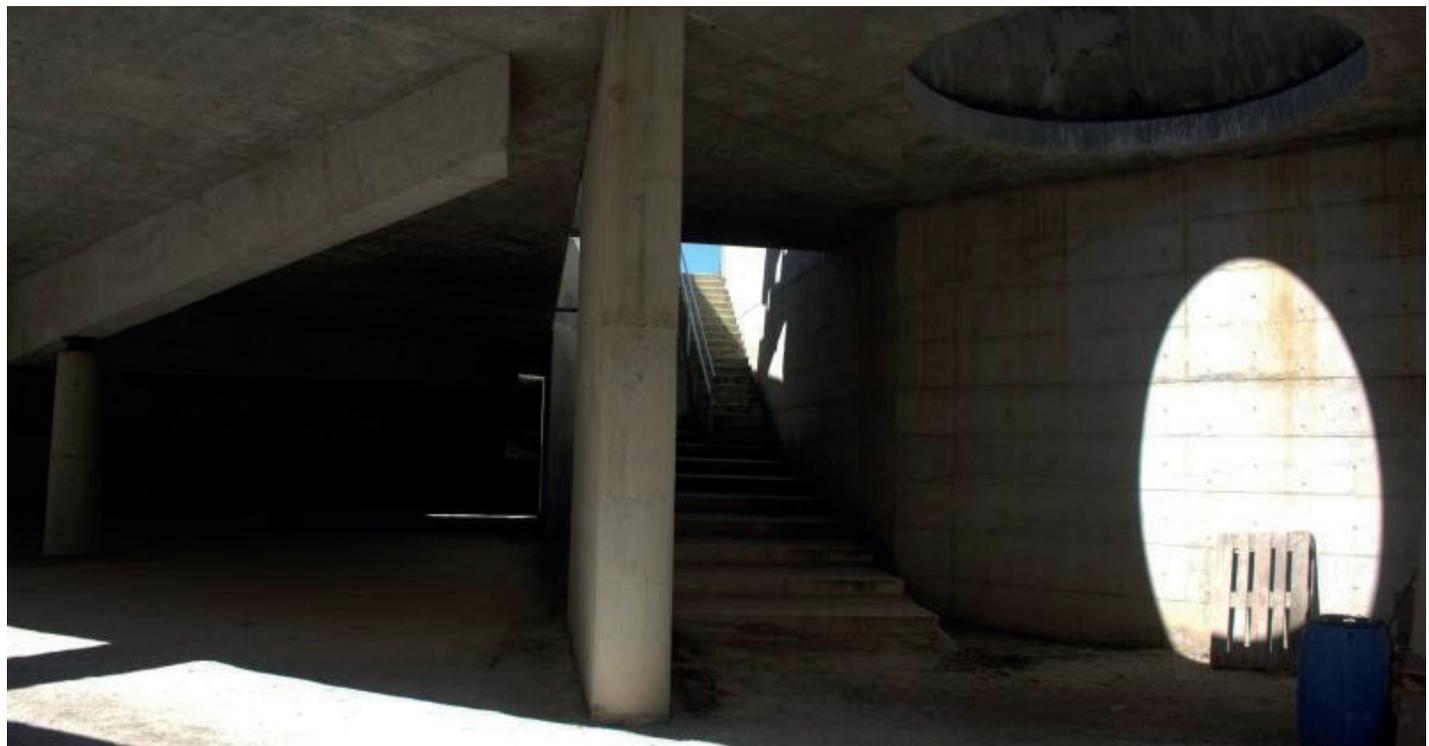
The materials incorporated also reference the passage of time and the effect of deterioration through time on the materials. The degrading of natural rock and staining of elements is evidence of this. The temporality of the materials, as well as its deterioration reminds the user of the temporality of human life. According to Miralles in reference to the cemetery being experienced as a journey, he suggests that the journey is as important as the final result (Quiros et al., 2004). As the user proceeds through the spaces, they collect instances of time. Every moment there are different views, spaces, and forms to be experienced (Quiros et al., 2004; Speranza, 2015: 64). These spaces and experiences enables and evokes memories of the dead and allows the user to contemplate in a serene environment.



FIGURE 3.32 (ARCHDAILY, 2013) REFERENCE TO INDUSTRIAL & RURAL CONTEXT

The cemetery evokes a sense that it has been present for a considerable time, emphasised by the seamless nature in which it merges with the Catalunyan hills, exposing it to time and memory. The trees and vegetation, which are densely planted, are a reminder of “life and renewal of the bereaved” (Bhatt, 2016: 35).

**FIGURE 3.33** (ARCHDAILY, 2013) CEMETERY AS PART OF LANDSCAPE



**FIGURE 3.34** (ARCHDAILY, 2011) USE OF NATURAL LIGHT & EARTHY MATERIALS THAT WEATHER WITH TIME

### 3.3.5.6 Semiotics & Memory

Although not obvious to common visitor, the Igualada Cemetery incorporates subtle symbolism that adds meaning to the building and mourners.

The design of the cemetery is based off ancient symbolism of “ritually breaking objects put into tombs to accompany the dead in the afterlife” (Horn, 2007: 63). This emphasises the ‘finalisation’ of death, making the death real for the mourners. It is for this reason that Miralles and Pinos utilised the “jagged, fragmented nature of the plan” (Horn, 2007: 63). This intensifies emotions and evokes memories within the individual and collective.

Like the St. Callixtus Catacombs, the Igualada Cemetery forces the visitor to descend into another world or realm, however, the Igualada Cemetery is open to the elements, unlike the catacombs. This evokes strong and powerful emotions and memories within the user, reminding them of their loved ones and the dead around them. The point of descent, in essence, is a symbolic point which signified the entrance to another ‘realm’ for Christians.

The entrance to the cemetery is also of importance, as the corten steel ‘gates’ utilised represent the ‘Crosses at Calvary’. In essence, they symbolise the crucifixion of Christ, however, in a subtle manner that will not be noticed by all visitors to the site. This further represents ‘finality’ of this world, as well as “the wonderful plan of salvation” (Anon, 2008). These symbols remind one of the finality of death as well as the afterlife.

The cemetery was designed as a journey for the user, away from the known world of the everyday and mundane. The design utilises ‘moments’ or transition points which provide the user with different experiences throughout the site, encouraging one to question their existence and mortality, linking them to the sacred, and bringing them closer to God.



FIGURE 3.35 (ARCHDAILY, 2011) DESCENT AND CORTEN STEEL GATES

### 3.3.5.7 Reflections

The Igualada Cemetery by Enric Miralles and Carme Pinos can be considered one of the most successful post-modern or contemporary cemeteries. At face value, it is unlike most cemeteries and interment complexes which came before it, but through further investigation, clear influences are evident in the design. The catacombs, for example, have influenced the placing of loculi within the design. A monastery and chapel was to be included, a similarity to the medieval church and churchyard. The concept of the complex being for the living is taken from the 19th century garden cemetery movement.

The Igualada cemetery design was not only for the dead, but was to be a sacred space where the living could reflect in a sense, escape from the mundane nature of society. There is a clear connection with both life and death, and its connection to past, present and future (Kroll, 2011).

Time, space and memory are linked to create an experiential journey for the user, evoking thoughts and memories while one wanders through the windy pathways, encountering death on either side, as well as life in the form of vegetation.

The relevance of the Igualada cemetery within a local context is that the cemetery grounds itself within the landscape, without disrupting the natural landscape around it. Its successful use of earthly materials lends itself to the local south African context. Additionally, the sacred spaces created through vertical burial niches enhances the spatial utilisation of the cemetery. The Igualada cemetery is also not only utilised for burial, but as a sacred space for the inhabitants of the area for contemplation and commemorating the dead.

**FIGURE 3.36** (ARCHDAILY, 2013) CONCRETE STAIR, IGUALADA CEMETERY



## Conclusion

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### 3.3.6

The Garden and Park cemetery movement coincided with the cremation movement, as new burial spaces were sought after hygienic concerns in many European cities, as well as changing attitudes toward death in the 19th century. This resulted in the cemetery being pushed out of the city to the rural, isolated from urban and suburban life.

Contemporary cemeteries have been influenced greatly by the Garden and Park cemetery typologies, yet there is an attempt to provide more inclusive and sacred aspects in the design of the cemeteries, with the Igualada Cemetery providing a meaningful precedent in this aspect.

## KEY FINDINGS

### 3.4

Through the literature review and precedent studies, a number of key aspects can be highlighted and carried through with regard to the design of an interment complex for Durban. These findings will be highlighted under three themes; spatially, mentally/ psychologically and socially across the time periods discussed in the literature.

### 3.4.1 Early Christian Catacombs

The early Christian catacombs are one of the earliest examples of a 'city of the dead' within Christian history. They provided both the poor and wealthy with a space to dispose of their dead within a suburban area just outside the main cities.

#### 3.4.1.1 Spatial Elements

- o Underground nature of catacombs (subterranean)
- o Descent into the catacomb network
- o Vertically stacked burial niches

#### 3.4.1.2 Mental/ Psychological Elements

- o Perceived claustrophobic effect (negative)
- o Potentially depressing
- o 'Descent' alters mental state

#### 3.4.1.3 Social Elements

- o Inclusivity/ equality

## 3.4.2 Medieval Church & Churchyard

The Medieval Church and churchyard originated in Europe at a time when Christianity was the centre of life, where the villages grew around the church and death was part of life.

### 3.4.2.1 Spatial Elements

- *Axis (hierarchy and progression)*
- Vast, grand spaces
- *Reaching out to the heavens through spire and pointed arches*

### 3.4.2.2 Mental/ Psychological Elements

- *Integration between life and death*
- Awe through spatial experience

### 3.4.2.3 Social Elements

- *Inclusive space*
- Urban and social life intertwined with death

## 3.4.3 Cremation

The cremation movement brought about a shift in attitude toward death as well as an alternative to traditional burial. There are noteworthy elements to be carried through to a contemporary interment complex.

### 3.4.3.1 Spatial Elements

- *Spatial sustainability*
- Manipulation of spaces in Woodland Crematorium
- *Incorporation of nature*

### 3.4.3.2 Mental/ Psychological Elements

- *Private reflection spaces allow for individual contemplation and remembrance*
- Places the user in a solemn and serene setting

### 3.4.3.3 Social Elements

- *Isolated from public and urban life*

### 3.4.4 Garden, Park & Contemporary Cemetery

The beginning of the Garden Cemetery movement coincided with that of the Cremation movement, where the cemetery was seen as the more religious and Christian method of disposing of the dead, while cremation was considered to be the preferred method of the atheists and free-thinkers. The Garden Cemetery and its subsequent iterations possess elements which can be carried through in in order to create a meaningful cemetery complex.

#### 3.4.4.1 Spatial Elements

- o Cemetery as 'journey' to mimic the cycle of life
- o Vertically stacked burial
- o Use of light and dark/ inside and outside

#### 3.4.4.2 Mental/ Psychological Elements

- o Solemn atmosphere, yet not depressing
- o Reminders of life through nature
- o Situating the user within time and space makes the site a repository of memory

#### 3.4.4.3 Social Elements

- o Intended to be a public space for mourners and recreational users to reflect and contemplate

## Conclusion

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### 3.4.5

Through the literature review and precedent studies, there were many elements that should be paid careful attention and taken note of. The spatial, psychological and social elements that impacted the precedents studied provide a basis for the design of an interment complex for Durban.



Through the research that has been undertaken for this study, there is a relationship between sacred space and the memory of the dead, in Christianity. This has been explored in previous chapters and will be further expanded on in this chapter.

The following chapter analyses and assesses the outcomes of the primary research in the form of in-depth interviews which were conducted in relation to the research. This is regarding the key research questions, aims and objectives which were set out at the beginning of the research.

For the purpose of this research, where body disposal, memory and sacred space were investigated from a Christian perspective, it was necessary to interview both a member of clergy as well as parishioners of a Christian church, in order to gain a more informed outlook on the topic of the research. For this reason, a church with a large following within Durban was chosen as the site for the research which is in close proximity to an existing cemetery. For this reason, the Our Lady of the Assumption Catholic Church in Umbilo was chosen as it met the criteria necessary for the research.

It was vital for the research to interview a member of clergy as well as parishioners, and therefore the parish priest (Fr. Zibonele Ngubane) was interviewed to better understand the religious views on the subject of the research. Furthermore, six parishioners of the church were also interviewed, to delve further into the views and opinions held by a variety of people. The churchgoers involved in this study are members of the Our Lady of the Assumption Catholic Church and are involved directly with the church and its sacred rituals. The participants are fluent English speakers and therefore no language barrier was present.

Participants were chosen for their willingness to participate in the study.

The interview with the priest gathered the religious views with regard to resomation/ bio-cremation as well as the funeral ritual with regard to cremation and burial within the faith. The importance of remembering the dead within Christianity was also discussed, together with how it related to sacred space. Spaces that would be considered sacred were also discussed to investigate whether an interment complex could be a sacred space.

Gaining the views of parishioners/ churchgoers was another valuable element of the research. It was important to gauge their understanding/ perception of sacred space, both from a religious and personal viewpoint, as well as their thoughts on remembering the dead, and the different methods or spaces in which they would remember the dead. Another important aspect in the interviews with parishioners was their views on resomation/ bio-cremation, in order to gauge whether this could be a viable body disposal method to be incorporated into the design of an interment complex in Durban. It was also of importance to gather information about current cemeteries and whether the interviewees visited cemeteries/ crematoriums, and whether they thought the space was conducive to remembering the dead, as well as if they were pleased with the facilities provided by the cemeteries and crematoriums.

The analysis of interviews will be split up into the different themes discussed throughout the interviews with the priest and parishioners. This will include body disposal methods, sacred space, memory of the dead, funeral ritual and current cemetery and interment spaces.

The information gathered from the interviews were positive and shed light on both the religious views impacting parishioners as well as cultural and personal views. Although religion plays an important role in the lives of the parishioners, it is not only that which dictates their views and opinions regarding sacred space, death and the memory of the dead. This is often supported by their culture/ heritage, as well as their personal views/ experiences and opinions which they may have on the subject.

#### 4.2.1 Body Disposal Methods

With regard to the Christian faith, through the interview with Fr. Ngubane (Interview, 2017) of the Our Lady of the Assumption Catholic Church, it is understood that body disposal can take the form of both burial or cremation, so long as there is no denial of faith (Fr. Ngubane Interview, 2017). Parishioners are free to choose their preferred method of interment, and this is largely due to the lack of burial space within cemeteries. The church does not like to impose a method which may cause problems for the parishioners, and it is the personal choice of the individual.

“Today however, with the rising costs of burial and with a lack of space in cemeteries, many are opting for cremation, and this is permitted in the religion and within this church, as long as it follows a Christian ritual and there is no denial of faith and the Resurrection.”

(Fr. Ngubane Interview, 2017)

The priest also mentioned that there are many parishioners aware that burial is the preferred method within their faith, however, increasing numbers within his church are opting for cremation.

Considering that cremation and burial is permitted within the faith, it was interesting with regard to the interviews with parishioners the different responses when questioned about body disposal methods utilised by them and their families. Cremation was discovered to be frequently utilised as a body disposal method and the notion that churchgoers were free to choose a body disposal method was echoed by the parishioners, "We have a choice now. Originally it was only burial I believe" (Prior, Interview, 2017).

The interviewees were divided when asked if there was a religious influence when selecting a body disposal method for their loved ones, where some interviewees said that there clearly was a religious influence, as in the case of Sprong (Interview, 2017):

*"As a Christian we are to follow the way in which Jesus Christ was buried in a tomb, therefore burying the body of a person who has died. We believe in the resurrection of the body and that there is life for body and soul after death.*

*The church does allow cremation now, and the*

*remains (ashes) must be treated with the same respect as the body would be treated.*

*(Sprong, Interview, 2017)*

For a couple of interviewees, their view was that there was little to no religious influence, and the choice of body disposal was theirs, "As far as I'm aware there are no specifics as to what should be done with the body" (Savy, Interview, 2017). Additionally, culture was also mentioned as being an influence when it came to deciding methods of body disposal. For one parishioner, cremation would not be permitted for both cultural and religious reasons, stating that "It is mainly cultural, but also partially religious as the Church used to only allow burial before" (Mandla, Interview, 2017). Mandla (Interview, 2017) did end the interview with the following, "I hope that more creative ways can be found to bury loved ones in a more traditional way" (Mandla, Interview, 2017).

The subjects interviewed were mostly aware of the lack of burial space within the cemeteries, and some did not see burial as a body disposal method which would be utilised much longer, as they thought cremation would be used much more frequently, "... we're informed that space is a big challenge, so for me I think burial is on its way out" (Prior, Interview, 2017).

#### 4.2.1.1 Resomation/ Bio-cremation & Promession

Before interviewing parishioners, it was vital to the research to gain a liturgical view on the body disposal method of Resomation or Bio-Cremation and Promession. Before conducting the formal interview with Fr. Ngubane, he had requested that he research these body disposal methods as he had never heard of them before, and thereafter would like to contact the head of the Catholic Archdiocese in Durban to get a more informed opinion on these methods. It was only after this that the interview was conducted.

“After doing research into these methods and enquiring with the archdiocese of Durban, as this was totally new to me, it seems there would be no problem with these methods. Because there is no fire involved, like with cremation, there should be fewer objections to it within Catholicism. But you have to be careful as people will take time before they consider these methods, as even cremation is relatively new within Christianity and Catholicism. One thing to remember is that the ritual and storage of the remains must conform to the Christian practice.”

(Fr. Ngubane, Interview, 2017)

The priest did mention that in the case of Promession (where the body is frozen, then vibrated into particles), the remains are often ‘planted’ in a garden for a tree/ plant to grow, there may be some negative connotations for the family of the deceased if the plant/ tree does not grow. Fr. Ngubane (2017) advised against the planting of the remains in this manner.

After the interview with the priest, interviews with parishioners were conducted. Through the advice of Fr.

Ngubane with regard to the negative connotations of the remains from the process of Promession, it was ruled out as a method to be incorporated into the design of an interment complex. Resomation/ bio-cremation was the method brought forward to the parishioners as the remains would be stored.

The response from the interviewees was positive when asked if they would consider the method of Resomation/ bio-cremation for themselves or their family. The process of Resomation was briefly explained before when asking these questions. From the interviews conducted, only one interviewee admitted that he would not consider this body disposal method, citing primarily cultural reasons, but partly religious, "At the moment, I would not consider these methods but maybe in a few generations it might be an option. Our traditions are very strong" (Mandla, Interview, 2017). He was aware of the problems with regard to burial space within Durban, however, his heritage and culture influenced the way in which he and his family disposed of the dead, which is traditionally burial.

The responses from the other parishioners were positive, and said they would consider Bio-cremation/ resomation as an alternative to cremation and burial. They were initially unaware of the method, but once explained the reception was good. Savy (Interview, 2017) was particularly welcoming to the idea, "Absolutely. I have no problem with it. I'm very much in favour of that" (Savy, Interview, 2017). Once the method was explained there was generally a positive outlook on them due to their environmental characteristics when compared to cremation, "Without thinking too deep about its process and accessibility to people, I think I'm a fan... it's great for the environment" (Ntuli, Interview, 2017).

## 4.2.1 Sacred Space

From the interview conducted with the priest, there are varying spaces which are considered sacred within the religion. The Christian place of worship would be considered sacred. This includes churches, as well as monasteries and chapels. The church complex itself is considered sacred to Christians, including any designated places of remembrance (Fr. Ngubane, Interview, 2017).

Fr. Ngubane also explained that the presence of God should be 'felt' in these sacred spaces, noting the large spaces and volumes in some churches add to this, "There must be a connection to a greater presence, and this can be felt in our churches, like the large spaces and volumes, it gives you this feeling of transcendence" (Fr. Ngubane, Interview, 2017).

Cemeteries are also considered sacred spaces, due to the importance placed on the dead within the religion. Crematoriums are often not considered sacred due to their utilitarian function and lack of spiritual spaces, but may be considered sacred if these spaces have a more conducive atmosphere to the remembrance of the dead as well as contain space to store the remains of the deceased.

"Cemeteries are sacred to Christians, even some crematoriums can be considered sacred. Death is an important part of Christianity and the place where the dead are buried or interred are equally as important. The resurrection, whether people believe it is physical or spiritual, and from my understanding, when looking at it from a logical point of view, is more on the lines of the spiritual, the place of interment becomes very important whether buried or cremated."

(Fr. Ngubane, Interview, 2017)

For the parishioners, many echoed the priest in stating that they considered churches and places of worship within Christianity as sacred, "Our church and our sacred areas within the church" (Prior, Interview, 2017).

When it came to cemeteries and crematoriums there were varying opinions among interviewees on whether they are sacred or not. Sprong (Interview, 2017) considers burial sites and memorial gardens to be sacred but "in a different way to the sacred church building... as it has remains of those who have died and as respect to those who have died" (Sprong, Interview, 2017). For Prior (Interview, 2017) thought that cemeteries are spaces to pay respect but were not necessarily sacred. Savy (Interview, 2017) was in agreement that cemeteries are sacred spaces but crematoriums were not as that is "where they process the body, it's not the resting place of the body". He further stated that if there were spaces to store the remains, then that would constitute as sacred space, "If there are spaces to store ashes, and plaques, then that would be considered sacred" (Savy, Interview, 2017).

For many of the interviewees sacred space is not only related to religious space, but can be more personal.

"Sacred space depends how we define it. For some people, a tree could be considered sacred. So it depends on each person or group and can be

anything. Any space where there is a connection to a supernatural being and one feels at peace, where one is almost transformed to another world. Also within one's house. Where someone feels safe, and they can meditate."

(Mandla, Interview, 2017)

Spaces set aside in one's home or somewhere one might visit that has meaning to them were common elements brought up in the interviews. Dunn (Interview, 2017) also that the way in which spaces are treated make them sacred, and therefore for different people there will be a variety of different sacred spaces.

### 4.2.3 Memory of the Dead

The interview with the priest established that remembering the dead within Christianity is an important aspect of the faith. The afterlife was mentioned as being an important reason as to why praying for and remembering the dead is of specific importance to Christians (Fr. Ngubane, 2017), and the month of November being dedicated to the dead and remembering the dead, particularly All Saint's Day (a holy day observed by Christian denominations, not only Catholic). "There are special Requiem Masses held during this month. Many people also visit the cemetery more often during this month, where their loved ones are buried" (Fr. Ngubane, Interview, 2017).

The relationship between sacred space and memory of the dead within Christianity is evident to Fr. Ngubane, as well as the importance of spaces where the dead are interred in order to assist in remembering the dead.

"With the wall of remembrance and names of people on plaques who have died in garden. People come on public holidays and weekends to pray and pay respect. They know that even if they pray for them in the church building it will be valid but praying where the deceased already are, for them it makes a difference. In a sense sacred space, memory of the dead, there is a connection. What I observe from people there is a connection. Even in rural areas they clean graves, remove flowers. The church continually prays for the dead (Eucharist)".

(Fr. Ngubane, Interview, 2017)

The importance of remembering the deceased was echoed by parishioners who were interviewed, but the spaces and methods in which they remembered the dead differed. Some mentioned that visiting a cemetery or place where remains were stored did assist in remembering the dead, yet others provided very different responses, as in the case of Mandla (Interview, 2017) who said that the space in which he remembers the dead is quite personal, like that of his home. Ntuli (Interview, 2017) shared a similar opinion stating that “it could be anywhere. It’s become a very personal thing” (Ntuli, Interview, 2017). For Prior (Interview, 2017) the mind and heart was the place where he remembered the dead. Savy (Interview, 2017) mentioned that the type of space one is in is able to influence the individual in remembering the dead.

From the interviews conducted with parishioners, it is evident that sacred space and remembrance of the dead are often synonymous, with a few key aspects of intimate and personal spaces being mentioned with regard to sacred space and spaces where the dead are remembered.

In order for spaces that address mortality to capture memory, the acknowledgement of the importance of the dead aids this. This helps in setting the atmosphere for the space that can capture memory. Additionally, the spaces need to be designed in such a way that is conducive to this atmosphere, and not be utilitarian in nature.

## 4.2.4 Funeral Ritual

This section will focus on the response from the parish priest only, so as to follow liturgical practices.

“The funeral ritual within Christianity generally consists of three major parts: the vigil for the deceased (also known as the wake or visitation), the funeral mass, and the rite of committal” (Fr. Ngubane, Interview, 2017).

“The wake is the period of time between the death of the person and their funeral mass. They are the social gathering surrounding the funeral” (Fr. Ngubane, Interview, 2017)

The ritual of the deceased body who will undergo bio-cremation will be like that of standard cremation (Fr. Ngubane, Interview 2017). There are often two funeral rituals which take place: cremation preceding the funeral ritual, and cremation after funeral ritual. Each sequence provides for the three main aspects of the Catholic and Christian funeral. Rather than waiting for the completion of the cremation after the funeral, the family would need to return to the facility in order to participate in the rite of committal. There are several important aspects that a modern cremation ritual should take into account. First is the importance of receiving the ashes, as this is the first time in which the family and the remains of the loved one will be reunited (Fr. Ngubane, Interview, 2017).

The important distinction of a Catholic and Christian funeral with cremation is that the committal of the remains should occur in a grave or columbarium and marked if possible. This keeps the reverence involved in burial and addresses the common practices of scattering ashes or keeping them in the home, which are seen as almost disrespectful (Fr. Ngubane, Interview, 2017).

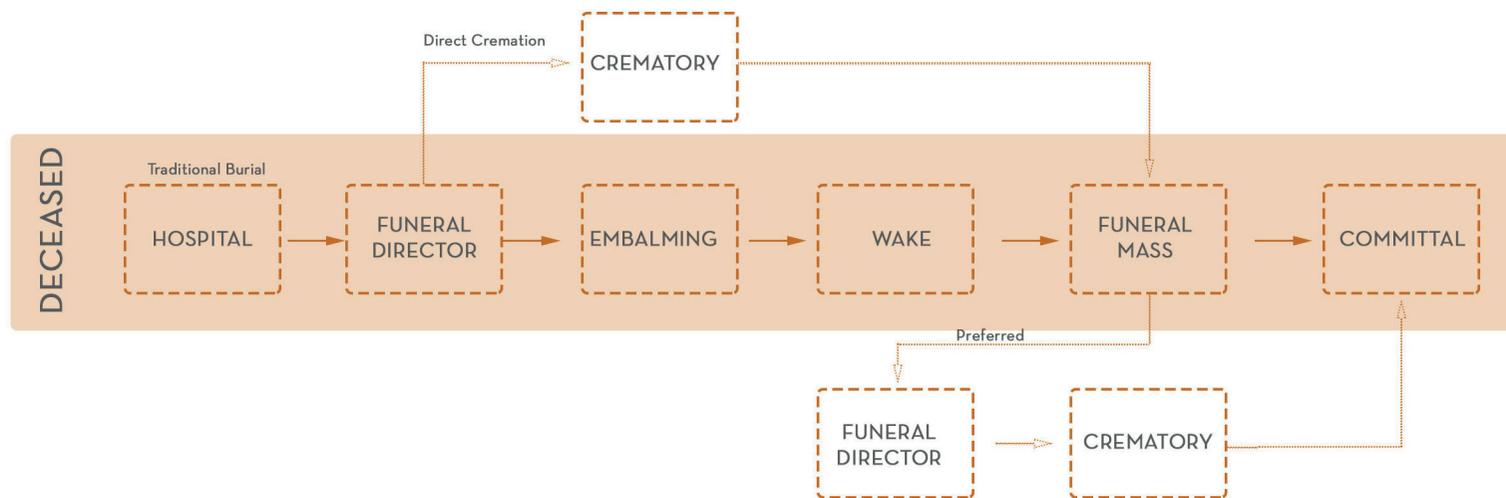


FIGURE 4.1 (AUTHOR, 2017) TYPICAL FUNERAL BURIAL RITUAL

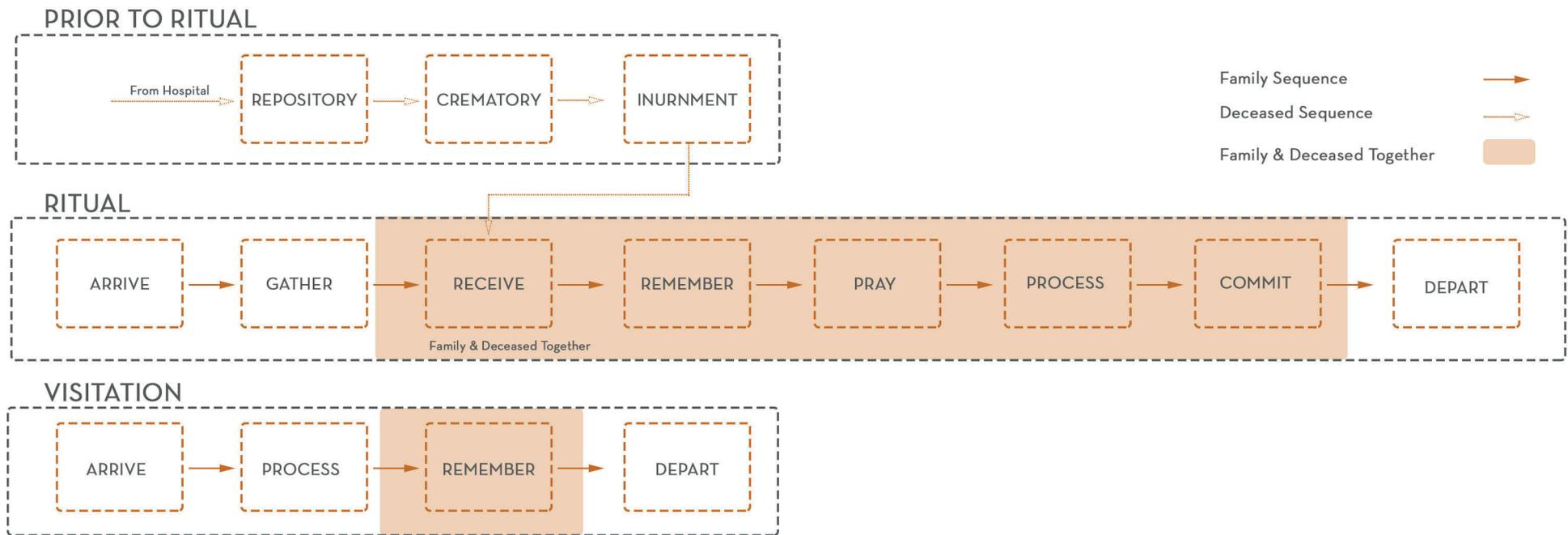


FIGURE 4.2 (AUTHOR, 2017) CREMATION: FUNERAL RITUAL BEFORE CREMATION PROCESS

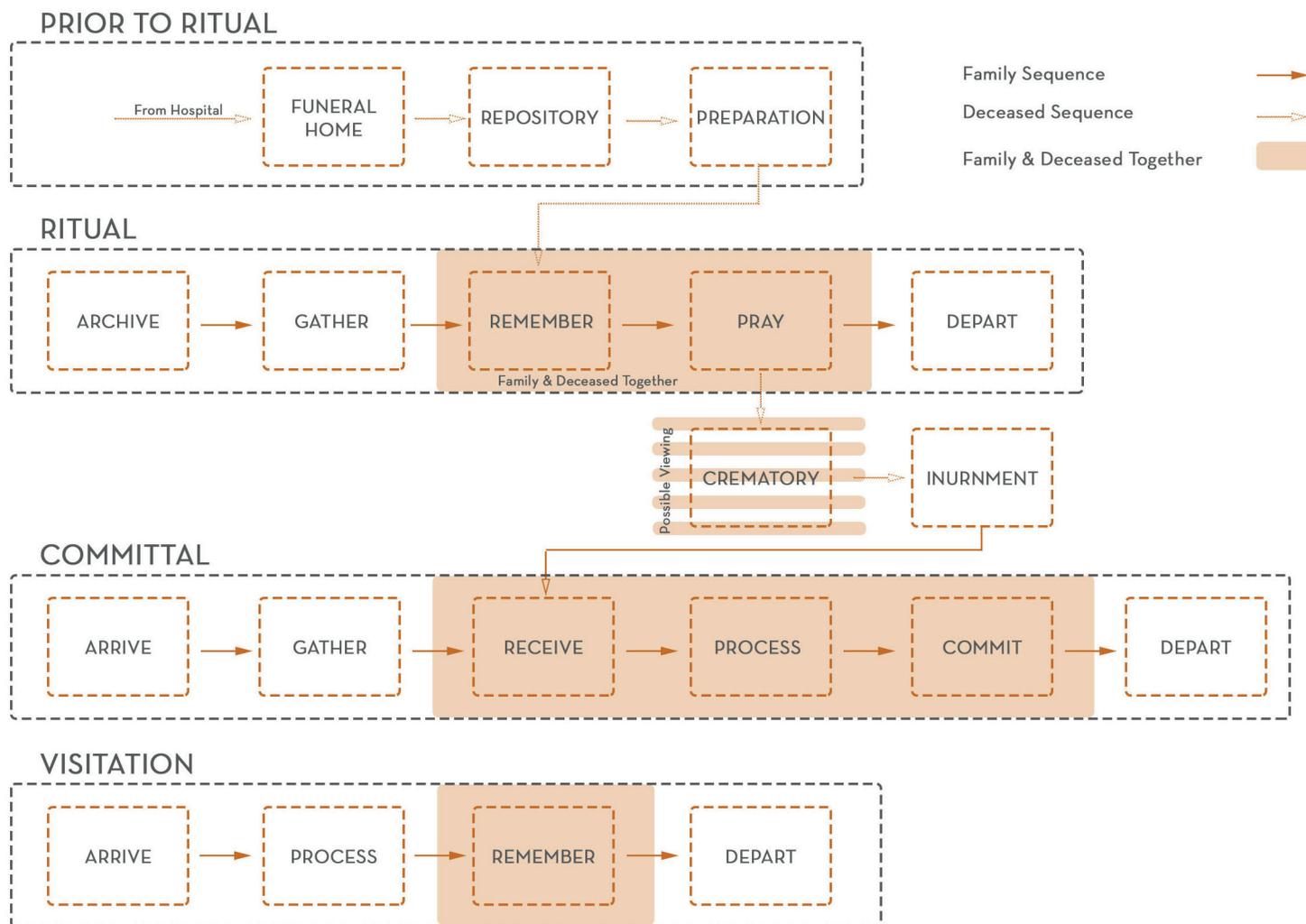


FIGURE 4.3 (AUTHOR, 2017) CREMATION: FUNERAL RITUAL AFTER CREMATION PROCESS

## 4.2.5 Current Cemeteries & Places of Interment

With regard to the interview with the priest, it was important to enquire whether the facilities currently available in existing cemeteries were adequate for burial and interment, and whether there could be general improvements in this regard. The Stellawood Cemetery was discussed in particular, as this was the cemetery closest to the church where the research took place, and the priest (Fr. Ngubane) was most familiar with.

Firstly, the importance of cemeteries and places of interment within society was noted by Fr. Ngubane:

“These spaces are important in society. They should be embraced more and should not be pushed out of the lives of people. They are important spaces which can benefit the living. It is important to remind ourselves occasionally that life is temporary, and spaces for the dead in society can do that”.

(Fr. Ngubane, Interview, 2017)

With regard to facilities available in cemeteries and whether cemeteries are lacking in specific areas, Fr. Ngubane (Interview, 2017) noted when referring

to Stellawood Cemetery that safety was a key issue visitors to the cemetery brought up. “If the cemetery had better security, even two days a week, many more people would visit the space more often” (Fr. Ngubane, Interview, 2017). The issue of safety within the cemetery (Stellawood Cemetery) was a key issue which inhibited people from visiting the cemetery to pay respect and remember their loved ones.

The priest also mentioned that maintenance of the cemetery is important for people to keep coming back to visit their dead, and noted the length of the grass as being important to keep short.

In terms of facilities, the priest thought that current cemeteries, and that of the Stellawood Cemetery were adequate, but did mention that a space where the funeral part could gather was important (Fr. Ngubane, Interview, 2017), “especially after funerals, as there are often commemorative meals held for the dead” (Fr. Ngubane, Interview, 2017).

Another important aspect which needed clarification with the priest was the issue of the placement of bodies within the cemetery. In particular, whether Christians were buried or could be buried next to someone of another faith, as well as whether a person of a particular Christian denomination could be interred next to someone from another denomination. The priest responded with a clear answer to this:

“In public cemeteries there is generally no segregation for Christians. Like in the case of Stellawood, Christians are buried next to non- Christians, and Catholics are buried next to non- Catholics. I know there are some religions which have separate spaces, like the Jewish area and Muslim area, but Christians can be buried next to people of other religions. I think if there was a small cemetery which is part of a church, then that would be for the parishioners of that church”.

(Fr. Ngubane, Interview, 2017)

the Freedom Park in Pretoria”. Savy (Interview, 2017) brought up the idea of the cemetery incorporating more social aspects, like that of a coffee shop, as it “would increase the flow of people and would be a good idea to enjoy the cemetery” (Savy, interview, 2017).

With regard to the interviews with parishioners, the issue of safety within the cemetery were emphasised, and this related primarily to the Stellawood Cemetery, as most people interviewed were familiar with this cemetery. For Sprong (Interview, 2017), a “clean, well-kept and safe environment” (Sprong, Interview, 2017) would make spaces of the dead more inviting and accessible. For Mandla (Interview, 2017) and Ntuli (Interview, 2017) space was an important element mentioned. For Mandla (Interview, 2017), it was space to “express yourself”, and for Ntuli (Interview, 2017) it is a “space that documents and celebrates those buried there, something like what is done at

## CONCLUSION

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### 4.3

Through the interviews with the priest and parishioners, valuable information was gathered within the Catholic and Christian faith which will greatly aid in the design of an interment context.

The interviews were helpful as it shed light on the feelings and perceptions toward sacred space and the memory of the dead for parishioners in a local context.

Lastly, the interview with the member of clergy gave an insight into the liturgical aspects of the religion, making clear the different rituals and processes regarding the funeral in a local, South African context.

05

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CONCLUSION &  
RECOMMENDATIONS

In order to determine whether the outcomes of the research have been achieved, answering the main research questions becomes an important element in concluding the research.

#### 5.1.1 Answering Research Questions & Achieving Aims & Objectives

The supporting questions and objectives are;

*How can architecture aid the memory of the dead through mnemonics?*

*To understand how architecture can aid the memory of the dead through mnemonics.*

It is possible for architecture to aid the memory of the dead through mnemonics. Mnemonics are system which aids in remembrance, and this can be achieved through architecture.

Remembering the dead within Christianity is seen as an important aspect of the religion, as praying for the dead can assist in their salvation. The dead also provide a reference from which to learn from.

Through the literature review and precedent studies discussed in the research, there are various architectural methods that can be used to aid in remembering the dead, which act as mnemonic systems.

Firstly, the materiality of spaces can act as mnemonic devices to aid in remembering the dead. Different textures and materials used throughout the building and landscape has the ability to aid in remembering

the dead, primarily evident in the early Christian Catacombs (St. Callixtus Catacombs in particular) and the Igualada Cemetery. The texture and sombre nature of the concrete incorporated into the design of these buildings provides the user with a space which is conducive in remembering the dead. The utilisation of various other materials and textures throughout the design also aids in remembering the dead and acts as mnemonic devices. The tactile nature of materials through the design provides the user with space to contemplate and remember the dead.

It is not only materiality which aids the memory of the dead. The composition of spaces has the ability to act as mnemonic devices. The progression of spaces further acts as mnemonic devices. This is evident through the precedents discussed, where there is a clear progression of space which the user navigates. The Old St. Paul's Cathedral, in the form of a Latin Cross, incorporated a procession of space, and an increase in holy spaces as the one moved through the cathedral, aiding in memory. The St. Callixtus Catacombs also incorporated this progression of spaces. Long and narrow passageways with side chambers for more private burial and memorial space.

The progression of spaces is more prominent in the two most recent precedents discussed; The Woodland Cemetery and Crematorium and the Igualada Cemetery. The Woodland Cemetery and Crematorium includes this progression of spaces by looking at the cemetery complex as a whole, where the path leading to crematorium is a progression in itself, as well as the progression of spaces within the crematorium building. Each space differs as the users make their way through the spaces, in relation to the formal funeral procession. These differing spaces and progression aids in the memory of the dead, and act as mnemonic devices. The Igualada Cemetery takes the progression aspect a step further and the design is comprised of architectural 'moments' for the user to experience, where the cemetery is experienced as a journey. These 'moments' act as mnemonic devices which fuse time and memory.

*What is the nature of sacred space from a Christian perspective?*

*To gain a better understanding of the nature of sacred space from a Christian perspective.*

Through both the primary and secondary research, it became evident that sacred space, when viewed under the lens of Christianity, can have different interpretations. From the interviews with parishioners it is evident that individuals have their specific views and opinions on what sacred space means to them, in addition to places of worship (the church) and places where the dead are stored (cemeteries). Sacred space can often be something personal and intimate, a room set aside in one's home, or outdoors in the natural environment. A place of solace and contemplation.

According to Eliade (1961), sacred space "possesses existential value for religious man" (Eliade, 1961: 22). This leads to an orientation and a 'fixed point' which centres man.

Furthermore, sacred space from a Christian perspective is dynamic, being able to do far more than "simply provide the setting within which ritual takes place. They contribute in important ways to the very meaning of ritual practices and to the shape and content of religious systems themselves" (Kilde, 2008: 3). Sacred space in Christianity also "mediates the relationship between the

individual and God" (Kilde, 2008: 3).

Although places of worship are inherently sacred for Christians, the way in which people treat certain spaces places upon it sacred characteristics. Cemeteries take on these characteristics within Christianity (Kilde, 2008: 7), as they command respect and in turn possess sacred qualities. The behaviour of people within these spaces adds to the sacredness of the spaces.

Throughout history, Christians utilised various styles and spaces to construct their sacred spaces such as churches, monasteries, tombs, cathedrals etc., leading to a diverse collection of buildings, reminding us that there is no "single Christian architecture" (Kilde, 2008: 14). Connecting to the divine was, and still is a key aspect of Christian sacred space, and this was achieved through enabling the remembrance of the divine (Kilde, 2008: 32).

*How can spaces that address mortality capture memory?*

*To investigate how spaces that address mortality can capture memory*

Both the primary and secondary research were informative when it came to spaces that capture memory. The design of an interment complex requires spaces that capture memory, as the memory of the dead is an important aspect of peoples' lives both generally and within Christianity.

Through the interviews conducted it was evident that there was a link between sacred space and memory of the dead for many of the interviewees. This similarity between spaces of intimacy and privacy assist in capturing memory in an individual manner, while also containing elements of sacred space.

The literature review and precedent studies provided more methods in which spaces that address mortality can capture memory. Materiality has been mentioned previously, and is also applicable in this case. The textural and phenomenological qualities of materials have the ability to capture memory and transcend time, as is evident in the Igualada cemetery.

Memory can be seen as a method in which to remember past events, feelings, people etc. The use of natural light and shadow within the design will assist in capturing memory in these spaces that address mortality, as it will evoke

certain feelings within an individual or collective.

Memory is easiest when one experiences an event in a specific space/place, and therefore the inclusion of 'moments' where one would be able to experience different spaces can aid in capturing memory.

*What architectural principles can be developed to inform the design of an interment complex?*

*To develop architectural principles in order to inform the design of an interment complex*

This question and its corresponding objective will be addressed in the following section, where the main architectural principles that will inform the design of an interment complex will be discussed

The key research question and aim is;

How can the relationship between sacred space and the memory of the dead, in Christianity, be explored through mnemonics?

To explore the relationship between sacred space and the memory of the dead, in Christianity, through mnemonics.

Through the research conducted it is evident that there is a relationship between sacred space and the memory of the dead in Christianity, and this can be explored through mnemonics.

“Mnemonics gain their power by making use of the way our minds absorb information” (D’Arcy, 2010: 3). Observation, association and visualisation are three events that must occur for one to remember. Mnemonic systems can be used architecturally to assist an individual or collective in remembering the dead. Incorporating the senses; sight, hearing, touch, smell and/or taste can assist in the remembrance of the dead and add to the sacred nature of the building.

Linking memories can be another form of mnemonics utilised in order to explore the relationship between sacred space and the memory of the dead. Elements of familiarity can be used to associate and recall certain memories of the dead. The utilisation of a variety of experiences can therefore act as

mnemonic devices in order to explore the relationship between sacred space and the memory of the dead within Christianity.

As stated previously, materiality and texture can be utilised to engage the senses, in particular touch. Through the use of varying materials and textures that promote an individual to use their tactile sense can assist in exploring this relationship between sacred space and the memory of the dead within Christianity.

#### 5.2.1 Context & Environment

The research has proposed a typology which is located within the context of the city of Durban. The location of an urban/ suburban setting is crucial to the typology of the building in order to integrate the building with the living. However, the building deals with an emotive subject, being death, and therefore a great deal of sensitivity must be displayed when approaching the design of this building.

There are certain characteristics which must be displayed in a site chosen for the typology of an interment complex. The environment should lend itself to the proposed typology.

The resulting environmental characteristics are as follows;

- A space considered sacred or one that has sacred qualities that are already attached to it
- A space that is in need of revitalisation or in need of intervention
- A space where there is an existing Christian community
- A place where the typology of an interment complex would not feel foreign or out of place
- A place conducive to remembrance (of the dead) and contemplation

## 5.2.2 Facilities

The facilities required for an interment complex within the city of Durban are that similar to a cemetery and crematorium typology. However, the body disposal methods should be more sustainable than typical burial and cremation, and be in line with the Christian faith.

Furthermore, other activities need to be included into the design of the interment complex in order to attract more people into the space, other than interment of the dead. These can be recreational, retail or eating facilities

### 5.2.3 Principles of Building Design

As stated previously, the question;

*What architectural principles can be developed to inform the design of an interment complex?*

And the corresponding objective;

*To develop architectural principles in order to inform the design of an interment complex.  
Will be addressed in this section.*

The principles of the building design have been derived from the literature review, precedent studies and interviews conducted with clergy and parishioners. The principles derived from the research should be taken seriously when designing a sensitive space like that of an interment complex within the city of Durban.

The principles are as follows:

- **Axis and Ordering principles**

The incorporation of the 'axis' within the design is a powerful method in which to define spaces, pass through spaces or terminate a space. The axis has been utilised throughout history in many sacred spaces, including that of many Christian religious buildings, where the Old St. Paul's Cathedral discussed in the research is a prime example.

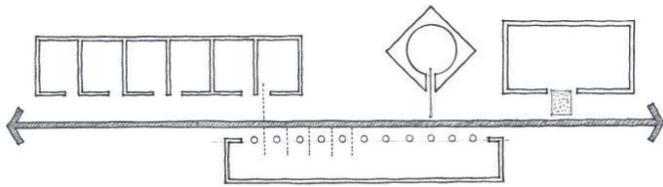


FIGURE 5.1 (CHING, 2007) AXIS/ PATH PASSING BY SPACES

The axis can be used to link, highlight or define spaces. Powerful forms are often termination points of axes or important spatial uses occur where the axis terminates (Ching, 2007: 278). The axis can also be used as a guide for the user, along a journey. The Old St. Paul's Cathedral incorporates a primary East- West axis which is important for the orientation of churches and places of worship within Christianity.

Axes can be used both vertically and horizontally to create powerful and meaningful spaces.



FIGURE 5.2 (CHING, 2007) AXIS/ PATH TERMINATING IN SPACE

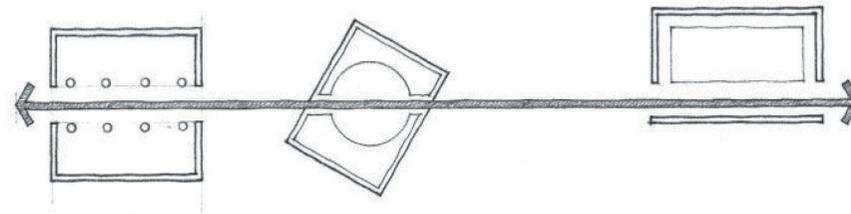


FIGURE 5.3 (CHING, 2007) AXIS/ PATH PASSING THROUGH SPACE

### o Hierarchy

Hierarchy forms one of the primary principles of many sacred and religious spaces, including Christian spaces. Hierarchy will therefore be utilised as an important element of the building design.

### o Constrict & Release

This is a design principle that when used effectively can form meaningful and powerful spaces to emphasise hierarchy and evoke feelings and sensations within individuals and the collective.

There is also the relation to the spiritual aspect of heaven within the release, and underground

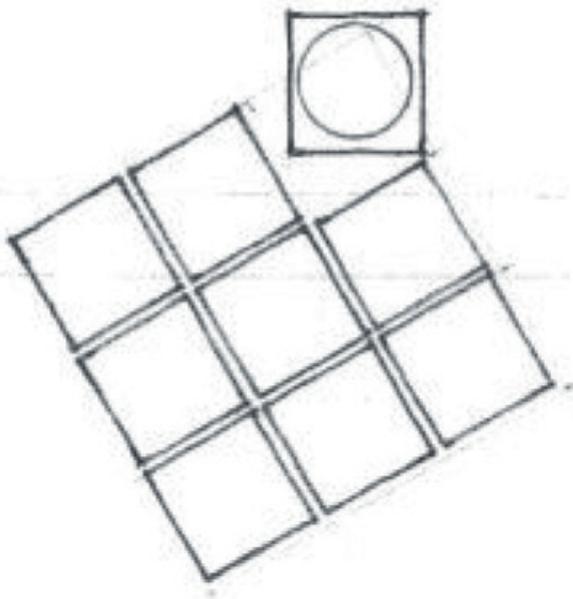


FIGURE 5.4 (CHING, 2007) HIERARCHY

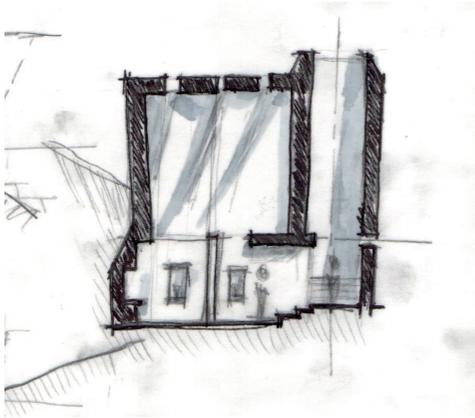


FIGURE 5.5 (AUTHOR, 2017) LIGHT & DARK/ SHADOW

burial with the constriction of spaces,

- Heavy/ dark and Light

This is an important principle used through various Christian sacred spaces, including churches, monasteries and places of interment. Heavy/ dark and light can be utilised to create meaningful and emotive spaces that enhance the overall experience for the user. The 'heavy' nature of burial can be seen in contrast with the 'light' or the heavenly influence and afterlife after the Resurrection.

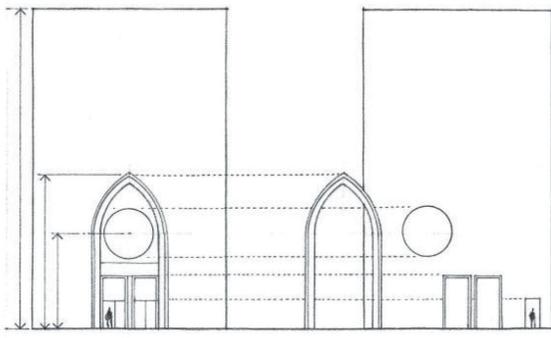


FIGURE 5.6 (CHING, 2007) PROPORTION & HUMAN SCALE

- Proportion

Proportion is an important aspect in design, and more so in the case of sacred architecture, as it has the ability to sub-consciously affect the experience of the user.

- Sensory Engagement

The use of sensory engagement in the design of an interment complex can drastically change the memory evoking characteristics of spaces. Sight, touch and sound can be utilised to enhance the overall experience of the building for the user.

As phenomenology has been used as a supporting theory to memory, the sensory engagement needs to be emphasised, even though individuals will experience the spaces differently.

### o Incorporation of Nature/ Natural Elements

The incorporation of nature and natural elements within the design is of importance due to its relation to death and the Christian faith. Natural elements have been used to break up the somewhat harsh nature of man made elements in building, providing a sense of peace and tranquillity, and in a religious sense, a closer connection to God.

Water has been incorporated effectively into the design of the Woodland Cemetery and crematorium, where one overlooks a pond when in and around the crematorium building itself. Water adds a calm and serene feel to the cemetery and has deeper meaning within Christianity, where it signifies salvation and eternal life.

Other natural elements, like vegetation has been incorporated effectively in the Woodland Cemetery and Crematorium, as well as the Igualada Cemetery, where although sparingly used, breaks the 'hard' nature of the built cemetery.

Additionally, there are more specific principles derived from the research that would inform the design of an interment complex for Durban.

### o Integration with Landscape

It is important for the building to be integrated with the landscape, as it forms part of the overall funeral landscape. The relationship between building and site should be intertwined. Building should become landscape and landscape should become building. This relationship emphasises the symbiotic relationship with the earth, as a place traditionally used for burial. By making 'incisions' into the earth, it becomes a 'city of the dead' that is accessible to the living.



FIGURE 5.7 (AUTHOR, 2017) INTEGRATION BETWEEN BUILDING & LANDSCAPE

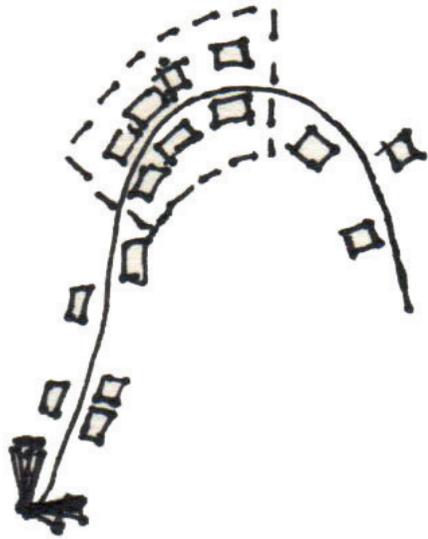


FIGURE 5.8 (AUTHOR, 2017) STRUCTURE AS ROUTE/ JOURNEY

### o Structure as Route/ Journey

The idea of the building acting as a route or journey allows the user to move through a predetermined route and provides the user with different spatial experiences and a build up of activity. These different experiences and 'moments' will potentially provide a mnemonic system in order to evoke memories of the dead, as well as provide spaces for contemplation.

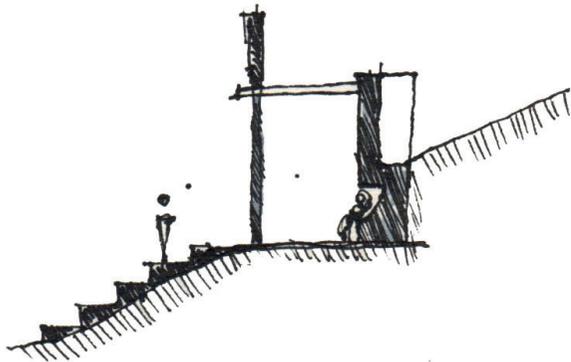


FIGURE 5.9 (AUTHOR, 2017) WEATHERING OF MATERIALS SET INTO LANDSCAPE

### o Weathering

This principle is in relation to primarily the materials incorporated into the building. The use of materials to emphasise weathering, and allow the structure to age, without the need for continual maintenance. In essence, these are 'raw' and earthy materials that require little maintenance, but are allowed to age, without compromising the structural stability of the building. This principle allows for the building to form a relationship with its landscape, enhancing the memory evoking characteristics and emphasising the element of time, thus it situates the user and building within time and space, and therefore allows the building to become a metaphor of life and death.

## o Spatial Contrasts

In order to engage with the users on an emotional, as well as spiritual level, the building requires contrasts in spatial experiences. These spaces should evoke emotions and memories within the user through the spaces in which they pass through. From awe-inspiring spaces with large volumes to smaller, more intimate and private space, the user is able to experience these contrasts.

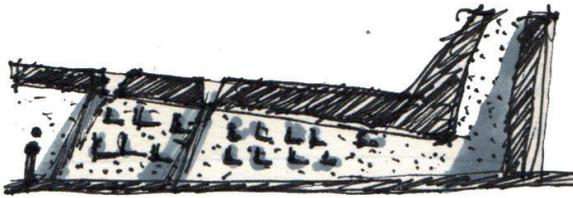


FIGURE 5.10 (AUTHOR, 2017) CONTRAST BETWEEN SPACES

## o Wayfinding

Critical to the design of an interment complex, and following the previous design principle of the route or journey, wayfinding becomes an important principle to consider. This aids the user in navigating through the building or series of buildings, making the experience a more comfortable one, especially for the mourner. This can be achieved through textures, sound and designated paths. The use of various textures and sounds additionally assists in evoking memories within individuals.

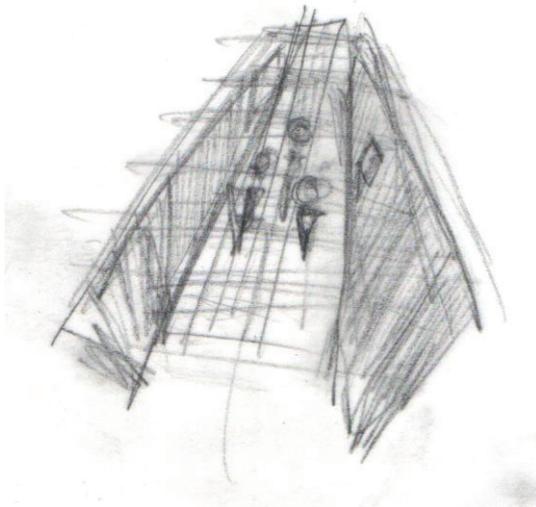


FIGURE 5.11 (AUTHOR, 2017) WAYFINDING

## o Spatial Relationships

One of the primary functions of the interment complex would of course be the funeral ritual and interment of the body. Therefore, the relationship between the components required for ritual are of great importance. The research aided in establishing the basic components necessary for an interment complex, specifically the interview with a member of clergy regarding the Christian funeral ritual.

Service areas where the corpse is handled by the staff are usually hidden from the public, while the ceremony spaces and chapels are usually more celebrated.

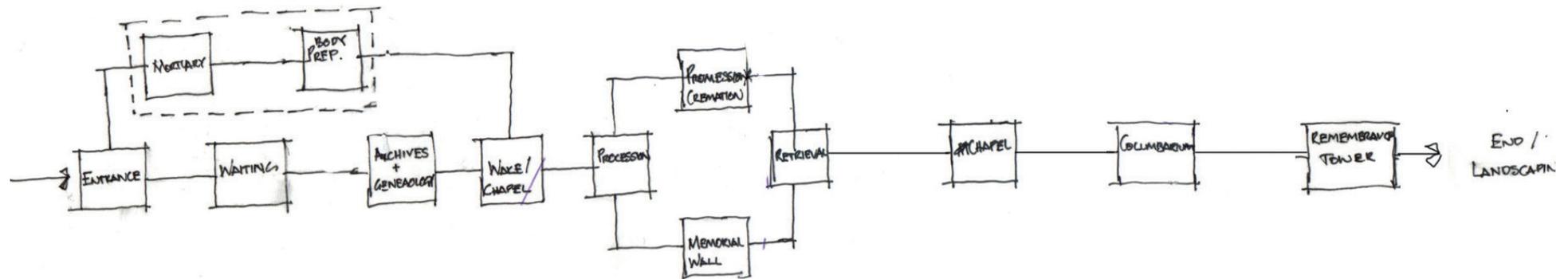


FIGURE 5.12 (AUTHOR, 2017) SPATIAL RELATIONSHIPS OF MAJOR COMPONENTS

The differing options of the funeral ritual, either before or after cremation, or both, forces a relationship between the chapels or ceremony spaces with the cremation/ bio crematorium. The spaces of rest or contemplation between the major components also becomes important.

The act of committal/ interment of the remains is the final stage before the living and dead are separated, and therefore the space where storage of remains becomes important. A memorial tower, has the potential to complete this process, and provide relief and comfort, as well as a pleasant and uplifting emotions to the mourner. The space acts as a culmination of ritual and emotion.

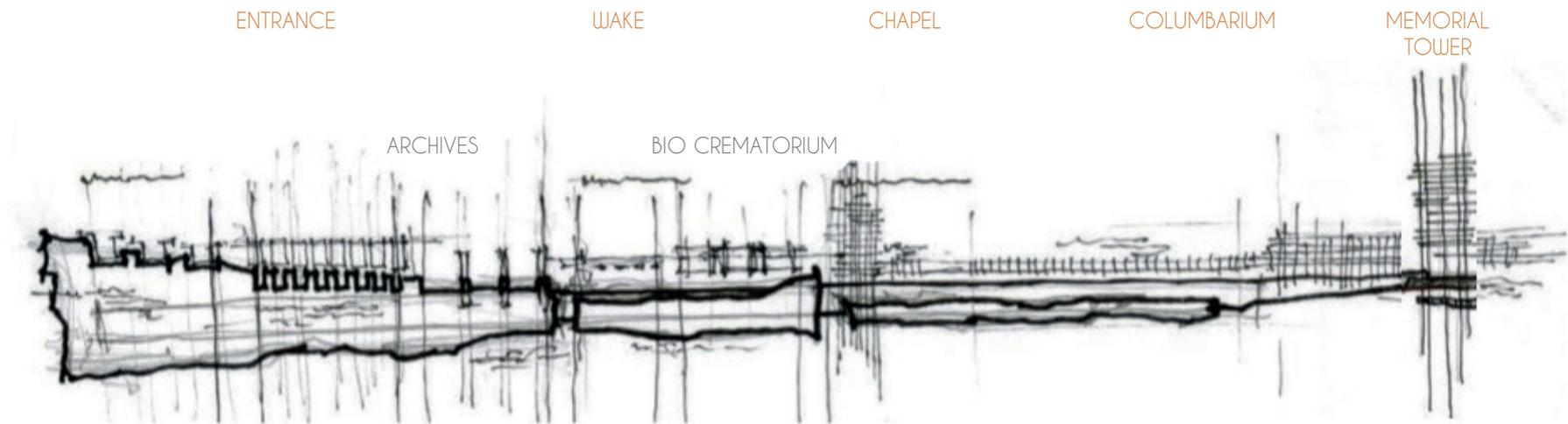


FIGURE 5.13 (AUTHOR, 2017) CONCEPT SKETCH ELEVATION OF MAJOR ELEMENTS

*'For as by a man came death, by a man has  
come also the resurrection of the dead.'*

*- corinthians 15:21*

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## LIST OF APPENDICES

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APPENDIX A (AUTHOR, 2017) SAMPLE INTERVIEW SCHEDULE: CLERGY

APPENDIX B (AUTHOR, 2017) SAMPLE INTERVIEW SCHEDULE: PARISHIONERS



## **COLLEGE OF HUMANITIES**

### **MASTERS RESEARCH INTERVIEW 1: CLERGY**

**Title of Study:**

**EXPLORING THE RELATIONSHIP BETWEEN SACRED SPACE AND  
THE MEMORY OF THE DEAD IN CHRISTIANITY THROUGH  
MNEMONICS:**

A Proposed Interment Complex for Durban

NOTE: To be completed together with the official informed consent form.

Firstly, I would just like to thank you for your time and willingness to participate in this discussion.

As a part of my Masters Research dissertation at UKZN, this interview is focused on understanding the Christian views on sacred space and the memory of the dead, as well as the different types of disposal of the dead.

I have a few questions to ask but if you have anything you feel is relevant to this discussion, please feel free to say so at any point, as I am particularly interested in what you feel is important.

I would really like to treat this as more of a discussion, and get as much out of your experience as possible.

If it is acceptable to you I would like to record this interview so that I can analyse it properly later on. I will not share this recording with anyone and I will ensure that it is kept safe. I may quote some of what you say in my research project.

Audio-record interview:                      Yes/ No

Is it acceptable if I use your first name to quote this or would you prefer to suggest a pseudonym now?

Can use first name:                              Yes/ No

Rather use fake name  
instead:    \_\_\_\_\_

**Questions:**

1. For how long have you been the priest/ minister of this church?
  - a. What does your job entail?
  - b. Are there days or times when the church is particularly busy?
2. In the Christian faith, what would be considered sacred space?
  - a. Are there characteristics which specify a space as sacred?
  - b. Are cemeteries and crematoriums sacred? Why/ Why not?
3. I'm aware that in Christianity the modern method of cremation was not initially accepted, but was gradually accepted by Christian sects during the 20<sup>th</sup> century and that burial is still preferred. What are the views which your church/ sect holds regarding cremation?
  - a. Why do they hold these views?
  - b. Are you aware of the environmental effects of traditional burial and cremation?

- c. Would your religion/ sect consider other methods of disposing of the deceased other than burial or cremation? Why or why not?

Explain the different methods of Resomation and Promession.

- d. How much does your religion/ church influence the decision of its followers regarding burial/ cremation?
4. Can you please explain the funeral ritual regarding burial?
    - a. How long does the ritual last?
    - b. What are the main spaces required for a typical funeral ritual?
  5. Can you please explain the funeral ritual regarding cremation?
    - a. How long does the ritual last?
    - b. What are the main spaces required for a typical cremation?
    - c. What happens to the remains of the body once cremated?
  6. What are the religious views on the remembrance of the dead?
    - a. Is it encouraged or discouraged?

- b. Is it important to remember the dead in Christianity?  
Why/ Why not?
  - c. Is there a relationship between sacred space and the memory of the dead? If so, what is the relationship?
7. What do you think the role of cemeteries/ spaces for the dead have in today's society?
- a. If there was an interment complex in close proximity to the church or place of residence, would this benefit the people in the area?
  - b. What facilities do you think current cemeteries and crematoriums are lacking in Durban?
  - c. What would make spaces for the dead more accessible and inviting for you or others that would be permissible within the religion?

Any closing thoughts that you would like to add?

Thank you.



## **COLLEGE OF HUMANITIES**

### **MASTERS RESEARCH INTERVIEW 2: PARISHIONERS**

**Title of Study:**

**EXPLORING THE RELATIONSHIP BETWEEN SACRED SPACE AND  
THE MEMORY OF THE DEAD IN CHRISTIANITY THROUGH  
MNEMONICS:**

A Proposed Interment Complex for Durban

NOTE: To be completed together with the official informed consent form.

Firstly, I would just like to thank you for your time and willingness to participate in this discussion.

As a part of my Masters Research dissertation at UKZN, this interview is focused on understanding the Christian views on sacred space and the memory of the dead, as well as the different types of disposal of the dead.

I have a few questions to ask but if you have anything you feel is relevant to this discussion, please feel free to say so at any point, as I am particularly interested in what you feel is important.

I would really like to treat this as more of a discussion, and get as much out of your experience as possible.

If it is acceptable to you I would like to record this interview so that I can analyse it properly later on. I will not share this recording with anyone and I will ensure that it is kept safe. I may quote some of what you say in my research project.

Audio-record interview:                      Yes/ No

Is it acceptable if I use your first name to quote this or would you prefer to suggest a pseudonym now?

Can use first name:                              Yes/ No

Rather use fake name  
instead: \_\_\_\_\_

**Questions:**

1. For how long have you been attending this church?

---

a. Are there any specific reasons you've chosen this church to attend?

---

---

---

b. How often do you visit the church?

---

2. As a Christian, what, in your opinion, would you consider as sacred space?

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a. Is sacred space related to religious buildings or can it be something else?

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b. Do you consider the church building to be sacred?

---

c. Do you think a cemetery or crematorium is sacred?

---

d. If so, why?

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---

3. What sort of interment methods (burial or cremation) have been utilised by you/your family to lay a loved one to rest?

---

---

---

a. Is there a religious influence when interring the deceased?

---

---

---

b. Would you consider other methods of disposing of the deceased besides burial and cremation? Why or why not? (Resomation/ bio cremation)

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*Resomation or Bio-cremation is a similar method of disposing of the dead compared to cremation, however it does not utilise fire, but a water and alkaline based solution to dissolve the body, making it a more environmentally friendly method of body disposal. It is basically an accelerated method of natural decomposition. The remains of this method are ashes, very similar to cremated remains.*

*It is being used increasingly in Europe and America.*

4. Has there been anyone close to you that has passed on? If so, who was it?

---

a. How long ago did this happen?

---

b. Was he/she buried or cremated?

---

- If buried, do you visit the cemetery? And how often do you visit?

---

- Approximately how much time do you spend there?

---

- Do you visit alone or do you go with others?

---

- If cremated, were the remains stored or scattered? And where is it kept if stored?

---

---

- c. Does visiting a cemetery help in remembering the person or is it just a means of paying respect to your loved one?

---

---

---

5. How do you remember the deceased?

- a. Is it influenced by the space that you're in? Like a cemetery/ place where ashes are stored/ specific space he/she liked to visit/ church space etc.

---

---

---

- b. Can you describe this space?

---

---

---

---

- c. What role do you think your religion (Christianity) has in remembering the dead?

---

---

---

---

---

d. Do you think remembering the dead is important and why?

---

---

---

---

e. How does visiting a cemetery make you feel? Is it a good experience or bad? Why?

---

---

---

---

6. Where is your loved one buried/ where was he/she cremated?

---

---

a. Is this far for you to visit?

---

b. If there was an interment complex in close proximity to the church or place of residence, would you visit your loved ones more often?

---

---

c. Would you be comfortable with an interment complex in an urban environment? Why/ Why not?

---

---

d. What facilities do you think current cemeteries and crematoriums are lacking in Durban?

---

---

Thank you.

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e. What would make spaces for the dead more accessible and inviting for you or others?

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Any closing thoughts that you would like to add?

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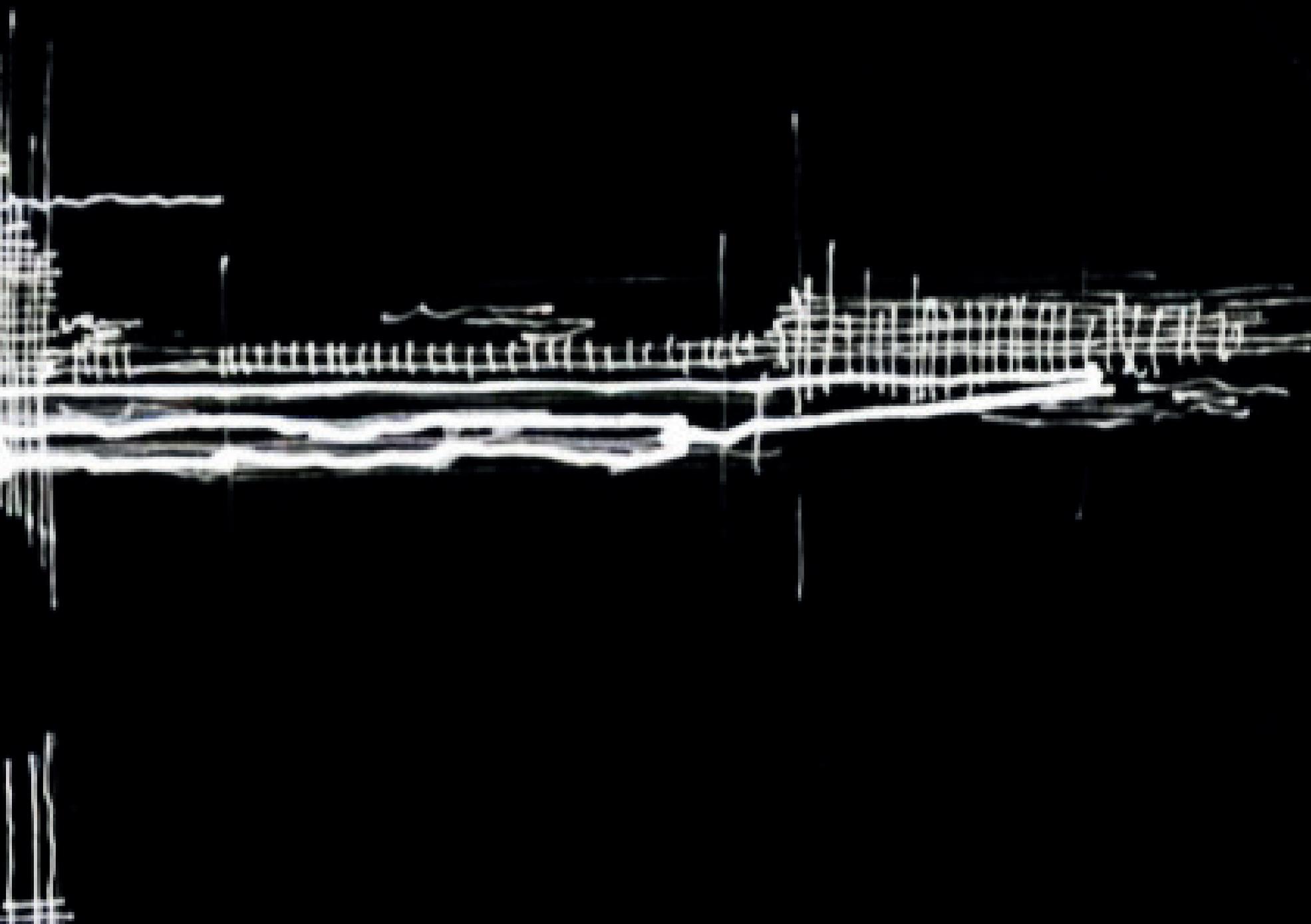
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design report



# PART TWO

# THESIS STRUCTURE

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## PART TWO

### 01 BRIEF DERIVATION\_

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The first chapter outlines the brief that was derived through the primary and secondary research conducted. The client(s) are identified that would provide objectives for the design and brief, as well to identify users of the space.

Thereafter the building requirements are outlined as well and the proposed schedule of accommodation is derived.

### 02 SITE SELECTION & ANALYSIS\_

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Chapter 2 will form the site selection and analysis chapter. In this chapter, the selected site for the design proposal will be outlined and analysed to form a strong basis and justification for the design proposal.

The historical background of the selected site will also be discussed briefly.

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## INTRODUCTION

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### 1.1

The project came about as a result of the research conducted. What follows in this section is the approach taken towards an architectural design that would adequately respond to the needs and proposals made through the research contained within this dissertation.

### 1.1.1 Project Description

In essence, the project investigates and explores the relationship between sacred space and the memory of the dead, within Christianity. The project therefore has a direct relation to death, and so exploring body disposal methods became important.

This resulted in determining the project typology: An interment or cemetery complex in Durban. A sacred space where people can respectfully dispose and store their dead within the urban and suburban environment of Durban, and where the building and complex aids in the remembrance of the dead.

The project would be influenced greatly by the Christian faith and its unique history of interment methods and spaces which have been utilised throughout history.

The cemetery would also require additional services that better enhance operations of the site and serve the community.

#### 1.2.1 Proposal of Client

The proposal of a client had two considerations: firstly, the selected site chosen (Stellawood Cemetery) is owned, supported and run by the eThekweni Municipality Parks, Recreation and Culture. The project would therefore be best supported by this department and would benefit them and its users. The proposed building would aid in preserving the cemetery for the future through its functions as well as generating income in order to maintain the cemetery as a whole and therefore preventing the cemetery from becoming a place of ruin, but rather a place for the community to utilise.

The second client proposed is directed more to the religious and sacred aspects of the building and typology. As the project is influenced by the Christian faith, the South African Council of Churches and the KZN Council of Churches would form the second client. These organisations are inter-denominational forums that unite Christian denominations within the faith. The KZN Council of Churches is a part of the South African Council of Churches. As the project intends not only to serve a specific denomination within Christianity, the Council of Churches is an obvious choice of client for the project.



## 1.2.2 Users (Who)

With regard to the users of the facility and whom the design will impact, there are three users which the design is intended for, apart from it being a resting place for the deceased. Firstly, this is a place primarily intended as a body disposal and interment complex, and therefore the 'mourner' will comprise one of the most important users. Secondly, the site will serve as a place of remembrance of the dead and therefore the 'visitor' will comprise another group of users of the space. 'Visitors' will often visit the interment complex to pay respect to the deceased, but would not comprise the funeral ritual. Lastly, the 'wanderer' or recreational user who would visit the site for some of the facilities provided as well as to visit the site as a place of contemplation.

The facilities should also cater to the existing surrounding community of the cemetery

## 1.2.3 Why?

To provide a sacred space for the Christian community of Durban to dispose of their dead, as well as a site to remember their dead and contemplate life. The project is also a response to the lack of sustainable body disposal methods currently available in Durban and as a response to the over-crowded cemeteries and lack of burial space.

#### 1.3.1 Social Requirements

One of the primary social requirements for the proposed building and interment complex is that the building and its elements should be inclusive to all people. Although the complex is influenced by the Christian faith, there should be no exclusion as to who can visit the space, as there will be facilities that address the surrounding community as a whole.

The Stellawood Cemetery is also a public cemetery, and therefore does not exclude any particular person or group.

#### 1.3.2 Economic Requirements

The facilities included in the interment complex should also be of benefit to the surrounding community and site. It is for this reason that there should be facilities or amenities that would generate income for and serve the existing community. The income generated can also be used for the maintenance of the selected site.

### 1.3.3 Environmental Requirements

Due to the ever increasing strain placed on the environment by man, it is necessary for the proposed building to be considerate toward its surrounding context and environment. Therefore, sustainable strategies should be incorporated in order to minimise the effect of that the building has on its environment.

A supporting aim of the building and its facilities was always looking toward sustainability. As the typology is an interment complex, body disposal methods are of great importance. It is for this reason that a more sustainable method of body disposal was chosen as opposed to burial or cremation.

Apart from the body disposal method, passive design strategies should be incorporated into the design of the building.

#### 1.3.3.1 Resomation/ Bio-Cremation

Bio-Cremation was developed as an alternative method of cremation that, “instead of destroying or capturing harmful emissions, seeks to prevent the creation of emissions altogether. It was first developed in 1998 at the University of Florida and was known as the first ‘institutional’ human system” (Anon, 2017). The world’s first bio-cremation centre was established in 2009 in St. Pete, Florida, USA.

The process, which is also known as Resomation or Alkaline Hydrolysis, utilises a “mixture of water (H<sub>2</sub>O) and Potassium Hydroxide (KOH) to break down organic human tissue. Approximately 400 litres of water is mixed into a concentrated solution of KOH which is determined by the weight of the body. The bio-cremator itself is used to weigh the body as well as mix the correct amounts of H<sub>2</sub>O and KOH. After the body has been weighed and the H<sub>2</sub>O and KOH have been mixed, the remains are heated to 140°C” (Struwig, 2016: 279). This process of heating is achieved through a strong exothermic reaction between H<sub>2</sub>O and KOH. Similar to traditional flame cremation, bio cremation “reduces the body to its basic elements of bone fragments and ash” (Struwig, 2016: 279). After the process, which takes between 2-3 hours (similar to flame cremation) has been completed, a sterile liquid is released which can be discarded in a normal drainage system or put through a UV filtration process which kills off any excess bacteria not destroyed by KOH” (Struwig, 2016: 279).

This process, which is closer to the natural decomposition of the body, is used to “accelerate natural decomposition” (Anon, 2017).

In traditional earth burial, the body on average takes between 5 to 20 years to decompose. “The speed of this natural process is determined by the manner in which the body was prepared, the material type of the casket, the type of vault in which the body is buried, and the soil type. Just as KOH is the main catalyst for the decomposition of the body in bio cremation, soil and microorganisms or O<sub>2</sub> are the catalysts for earth decomposition” (Struwig, 2016: 279).

The process of bio cremation retains 20-30% more bone fragments, uses less energy, is recyclable, creates neither air nor mercury emissions, and the need for surgery to remove medical implants that may be recycled, is diminished.

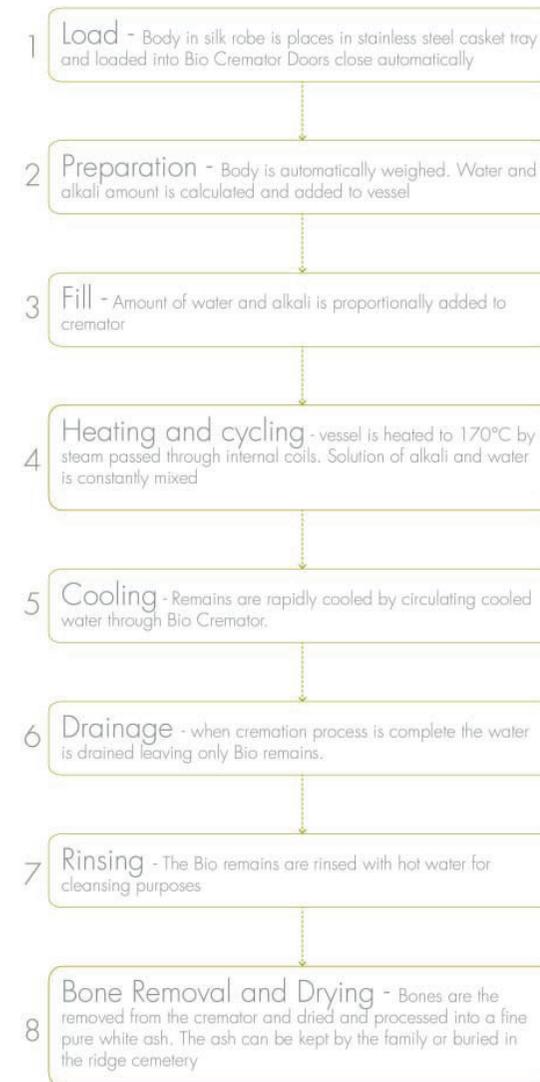


FIGURE 1.1 (STRUWIG, 2016) BIO-CREMATION PROCESS

## ACCOMMODATION SCHEDULE

1.4

DESCRIPTION	QTY.	AREA
ENTRANCE		
Reception Area	1	25
Waiting Room	1	75
Toilets	1	40
Office	1	20
Genealogical Records/ Archive	1	50
Control Room	1	20
		230
CHAPEL		
Large Chapel	1	375
Small Chapel	1	125
Body Viewing Room	1	75
Maintenance	1	45
Toilets	1	60
		680
RESOMATION/ BIO CREMATION		
Cold Storage	1	60
Dry Storage	1	60
Resomator	3	75
Body Prep (pre)	1	25

DESCRIPTION	QTY.	AREA	DESCRIPTION	QTY.	AREA
Body Prep (post)	1	25	Coffee Shop	1	55
Office	2	40	Restaurant	1	120
Storage	1	25	Toilets	2	110
Maintenance	1	20	Retail	2	150
Water Storage Facilities	1	50	Storage & Maintenance	1	250
Staff Facilities	1	250	Funeral Admin Offices	1	75
		630	Circulation	1	150
INTERMENT SPACES					910
Columbaria	5000	1500			
Memorial Tower	1	100			
Private Reflection Chambers	4	120			
Wall of Remembrance	1				
Circulation	1	1500			
Parking	30 to 50				
		3220			
COMMUNITY & RETAIL					
Event Space	2	500			
Florist	1	35	<b>TOTAL</b>		<b>6205</b>



## INTRODUCTION

---

### 2.1

The process of selecting a site for the proposed building can be rather tricky, due to the importance and impact a site can have on a particular building, and vice versa.

As the building typology is one that disposes of the dead, selecting a site becomes rather sensitive, and therefore the options were few.

#### 2.2.1 Relation to Research Site

As mentioned previously, the importance of selecting a site, especially when the dead are involved, can be very delicate and sensitive.

As the research site (Our Lady of the Assumption Parish) depended on the site for the proposed design and vice versa, the two sites were considered and chosen simultaneously. This was done as the research site was required to be in close proximity to the design proposal site, as this would encompass a community that would potentially utilise the proposed building.

## 2.2.2 Site Selection Criteria

In order to select a site, there were of course, certain criteria which were considered, apart from the relation to the research site mentioned earlier.

The site selection criteria are as follows:

- A space considered sacred or one that has sacred qualities that are already attached to it
- A space that is in need of revitalisation or in need of intervention
- A space where there is an existing Christian community
- A place where the typology of an interment complex would not feel foreign or out of place
- A place conducive to remembrance (of the dead) and contemplation
- A space with a rich history





FIGURE 2.1 (AUTHOR, 2017) WORLD MAP- DURBAN

### 2.2.3.1 Introduction

Taking into consideration the aforementioned site selection criteria and relation to the research site, the site options were narrowed down further.

As a result, the Stellawood Cemetery in Umbilo fulfilled all of the site selection criteria, and was selected as the site for the design proposal.

The Stellawood Cemetery in Umbilo is the largest cemetery in Durban, comprising 105 acres of land, and therefore will require a further selection within the cemetery.

The cemetery is located approximately 1km from the Research site (Our Lady of the Assumption Parish).

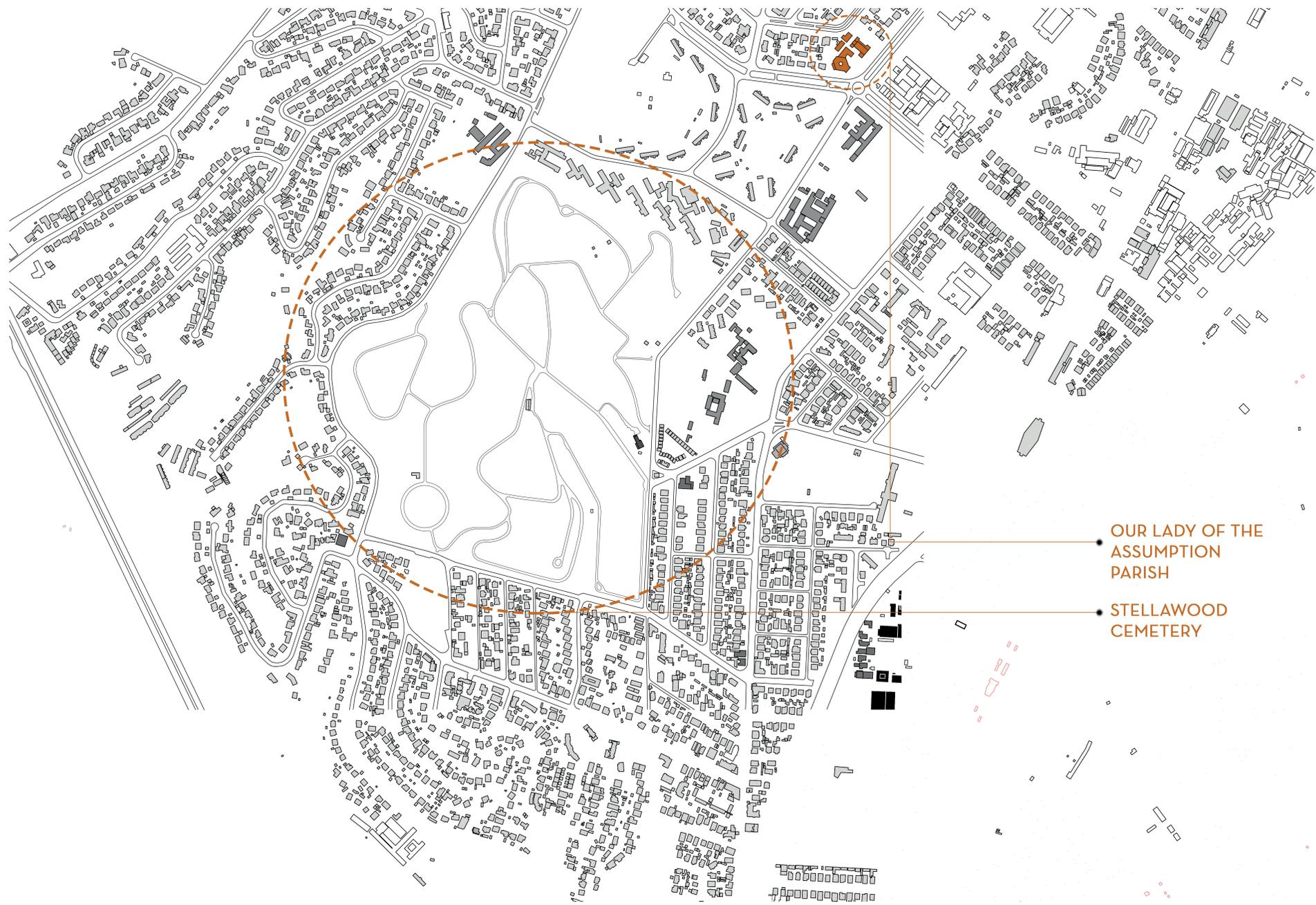


FIGURE 2.2 (AUTHOR, 2017) DRAWING SHOWING CLOSE PROXIMITY BETWEEN RESEARCH AND PROPOSED DESIGN SITE- NTS

### 2.2.3.2 Site Background

Stellawood Cemetery was designed in the early 20th century as a green space within the industrial context, as well as a space to dispose of the dead. The cemetery originated as a result of the casualties during the First World War, and was at first only utilised as a military cemetery. Casualties of the World War 2 were also buried in this cemetery. Today, however, it is a mixed religious cemetery (Audibert, 2015: 46). A crematorium was added to the cemetery later in the 20th century.

The cemetery is located in a large suburban region within the city of Durban, South Africa. It can be found approximately 5km from the main city centre. It is situated within the area of Umbilo and close to the harbour and industrial areas servicing the harbour. The cemetery is surrounded by primarily residential areas, including old age homes and subsidised housing. Amidst the primarily residential area are schools, and places of worship (Audibert, 2015: 48).

The cemetery has the ability to service the community in that it comprises large amounts of green public space, which is under-utilised. This is as a result of the overcrowding of burial space and the perceived lack of safety within the cemetery.

The cemetery was designed as a 'Garden' or 'rural' type cemetery, and therefore natural elements were designed into the landscape. The cemetery was intended to be a place of recreation for the inhabitants of the surrounding context, to become a public park, however, due to changing attitudes toward death this was rarely the case. The cemetery consists of hills, paths, roads which has the ability to serve the community in more ways than only a place of burial. The cemetery has the ability to provide a natural green public space for the use of the surrounding community.

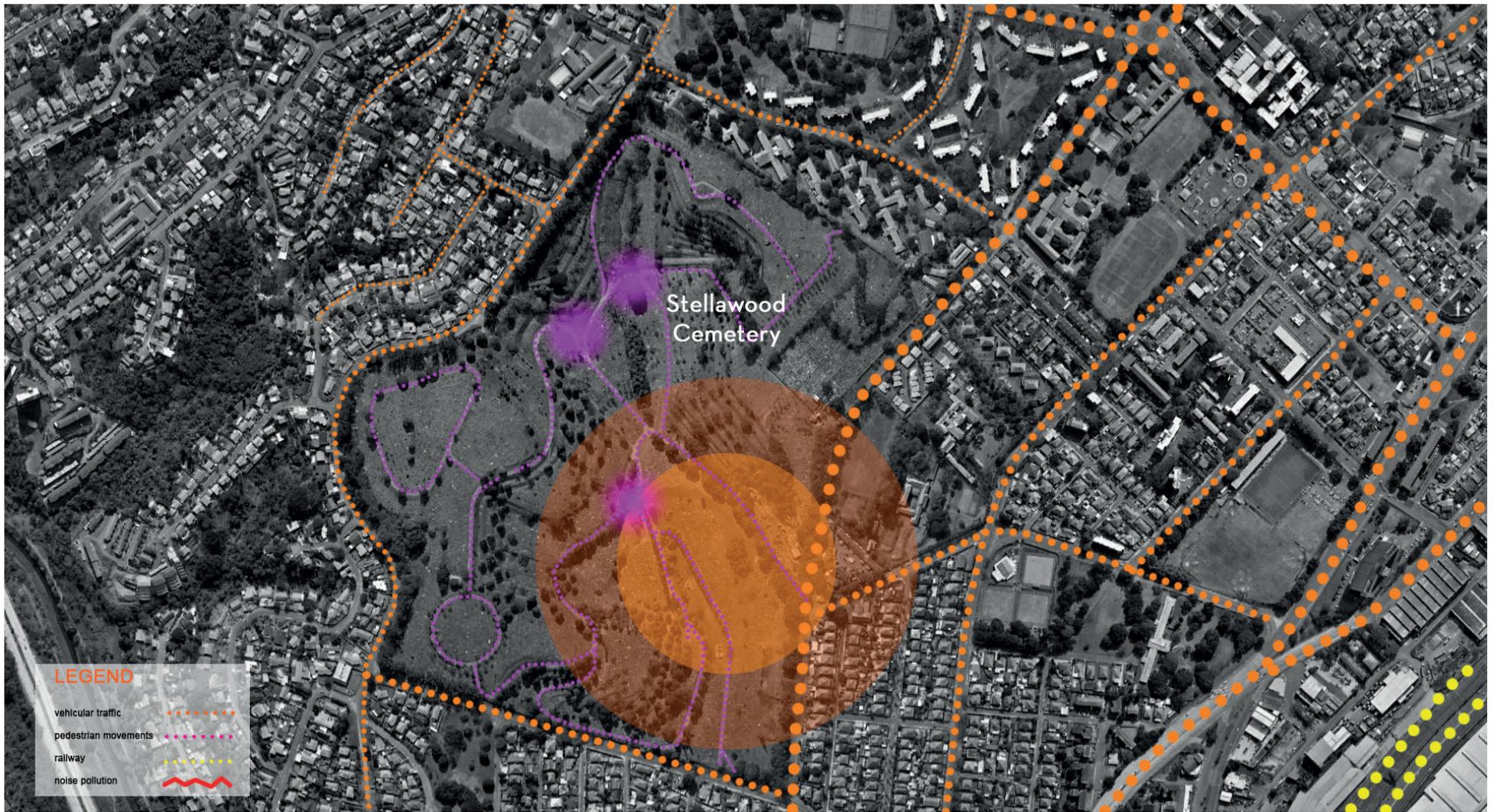


FIGURE 2.3 (AUTHOR, 2017) MACRO ANALYSIS- NTS

### 2.2.3.3 Selected Site Within Stellawood Cemetery

As the cemetery is nearing full capacity, the choice of placing the building within the cemetery becomes limited. In respect of the existing graves within the cemetery, it was the aim of the design to avoid disturbing any existing graves, and therefore the vacant or 'leftover' space that has not been utilised for burial was investigated.

After close inspection of the cemetery, a sliver of land was identified which had been untouched, which had the potential to accommodate the proposed building. These spaces have not been utilised for burial due to the apparent slope and issues with drainage, and the fact that a portion of the space forms the lowest part or 'basin' of the site and therefore collects water.

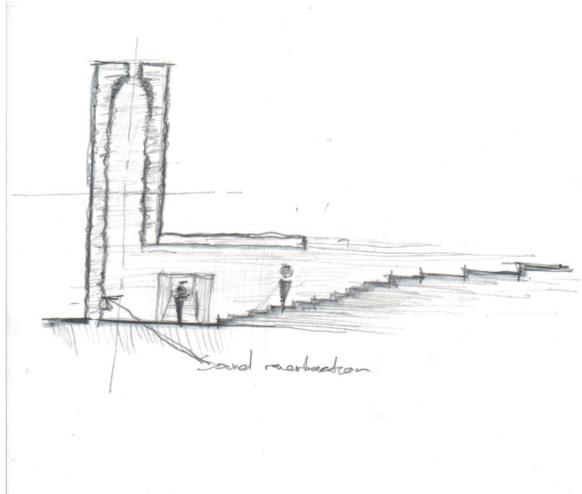
In order for there to be a connection to its context, and to activate the street edges, the site stretched to the main entrance on Selborne Road.

The selected site within the cemetery therefore encompasses a region from the main entrance, through the burial site and ends in the lowest portion of the cemetery, forming an approximately 12 000m<sup>2</sup> site.

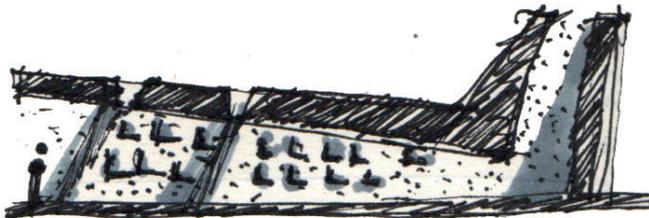


FIGURE 2.4 (AUTHOR, 2017) MICRO ANALYSIS- NTS

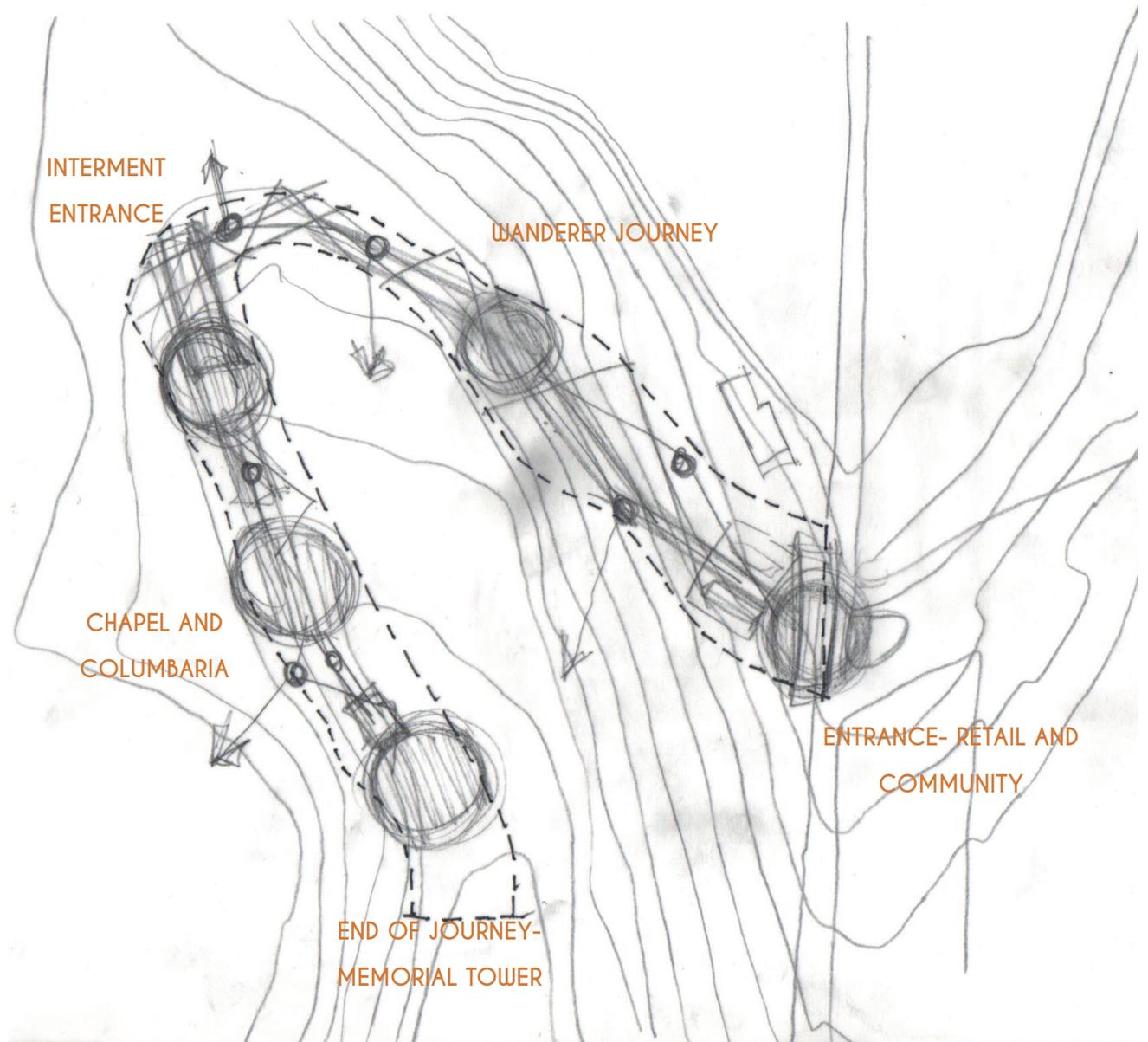
The site selection process is a rather difficult one, as it presents a way forward for the proposed design and therefore has a great impact on the resultant design response. Through research and site selection criteria the Stellawood Cemetery presented itself as the most viable option for the design of an interment or cemetery complex, especially when taking into consideration the sensitive nature of the typology.



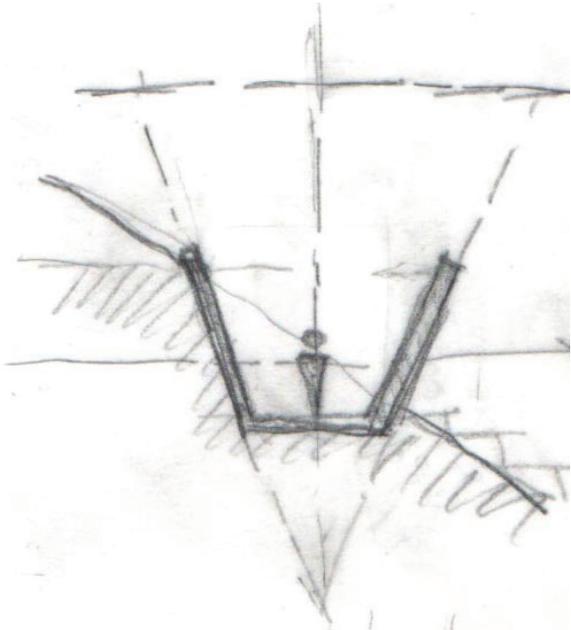
TOWER CONCEPT SKETCH



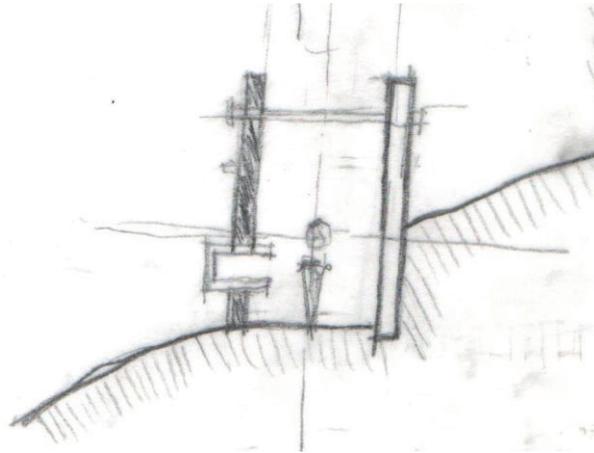
COLUMBARIA CONCEPT SKETCH



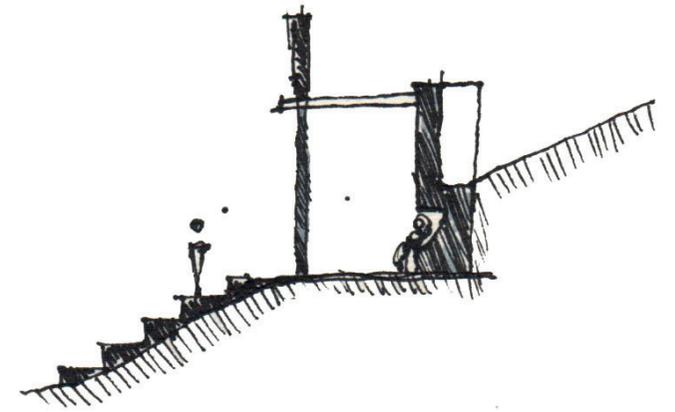
'JOURNEY' THROUGH CEMETERY THROUGH MOMENTS



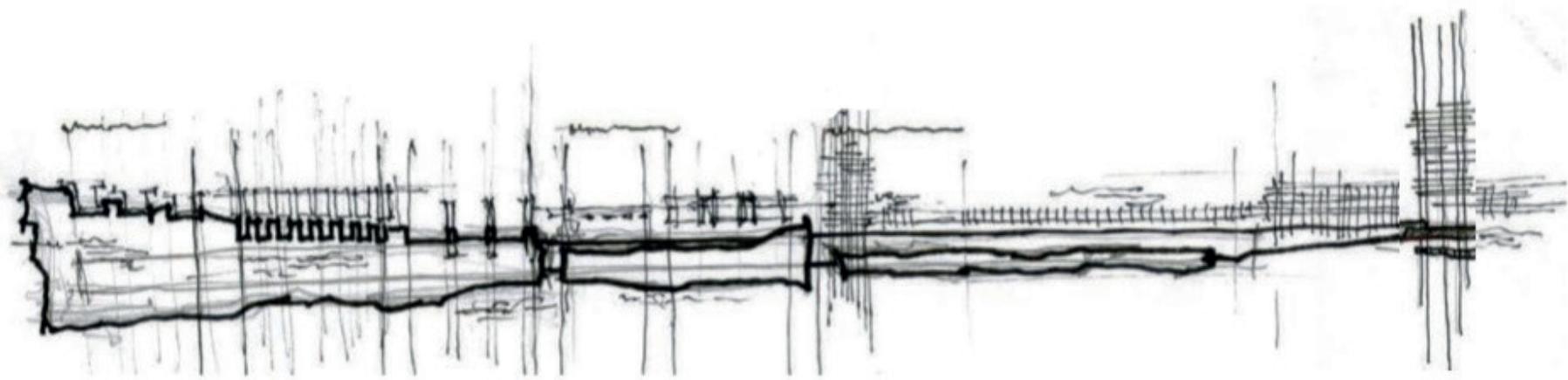
ROUTE SUBMERGED IN LANDSCAPE



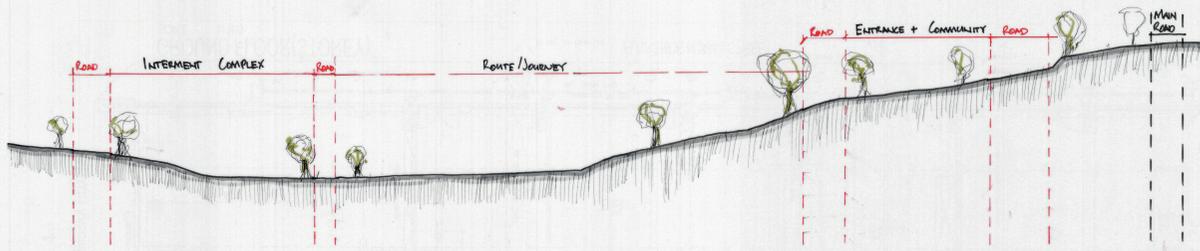
SEATING ALONG JOURNEY



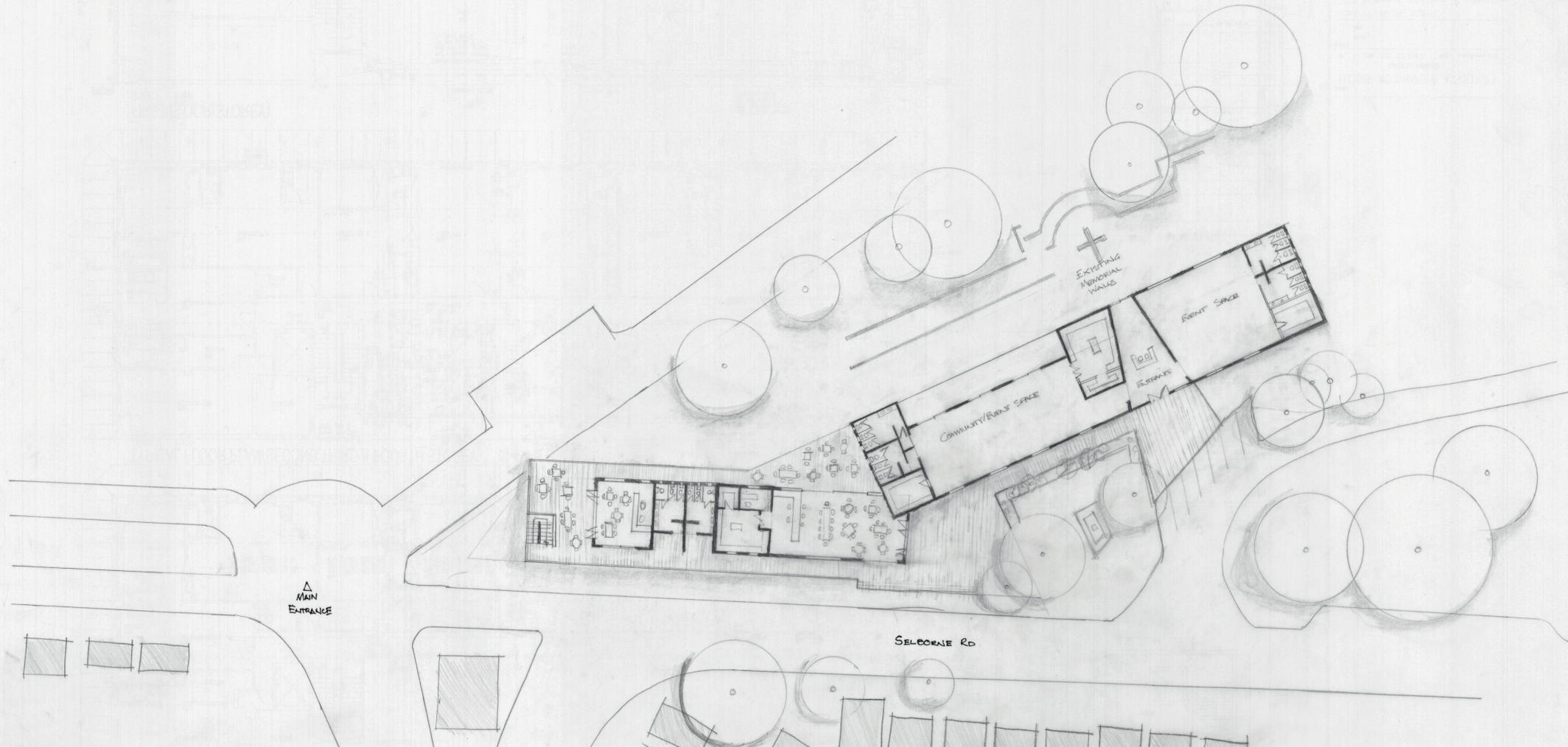
SEATING ALONG ROUTE



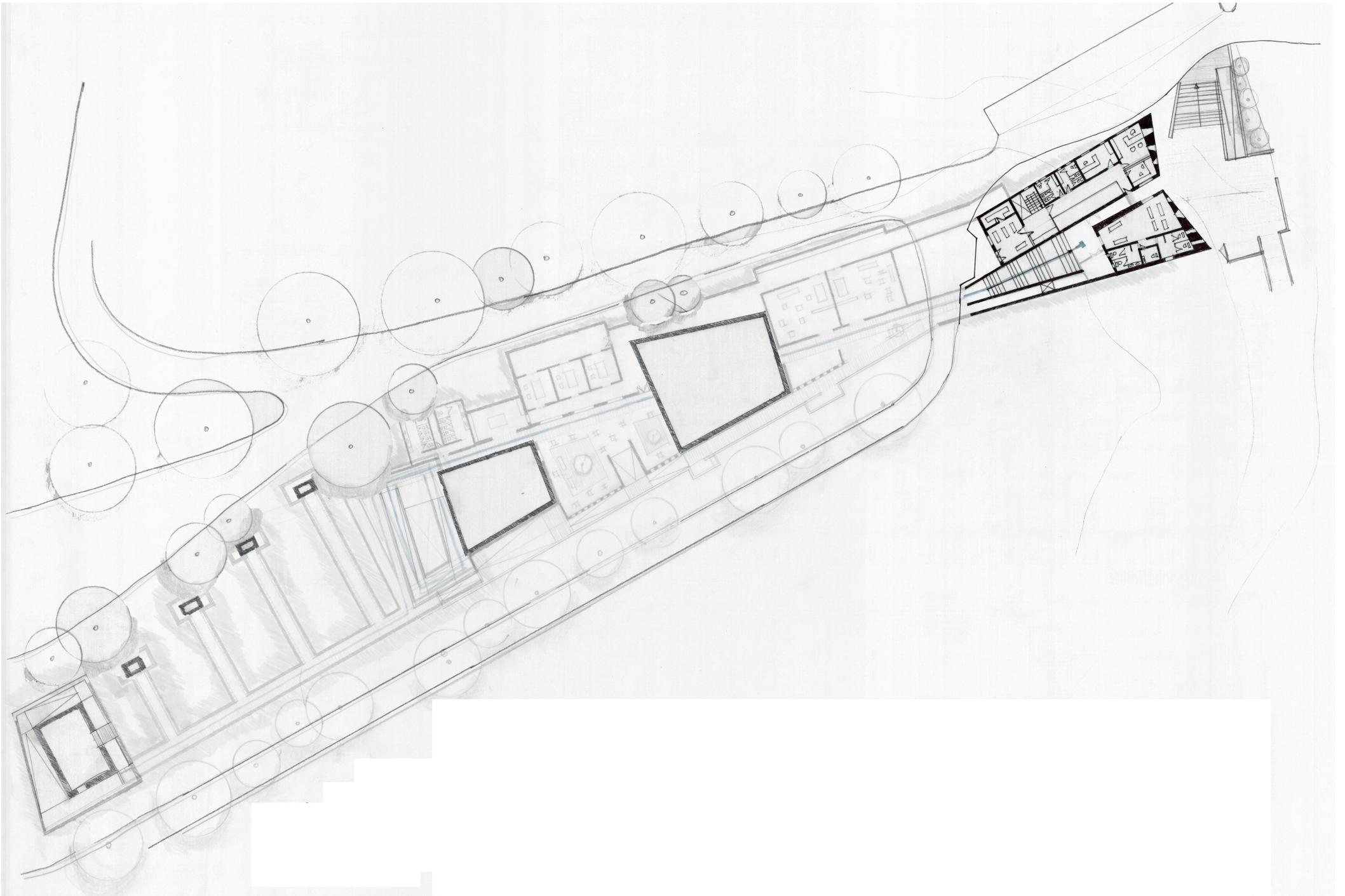
CONCEPT BUILDING ELEVATION



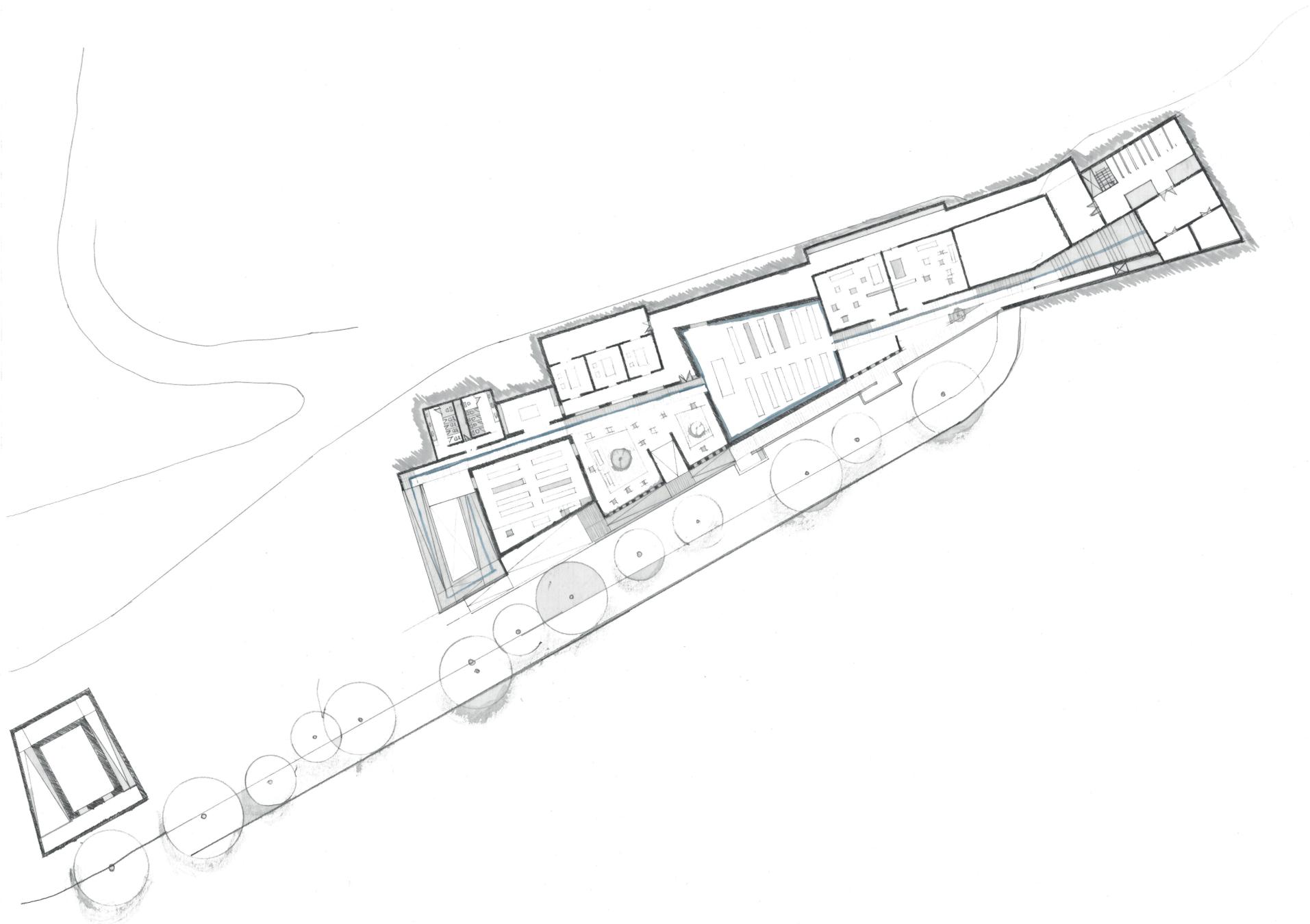
SITE SECTION - NTS



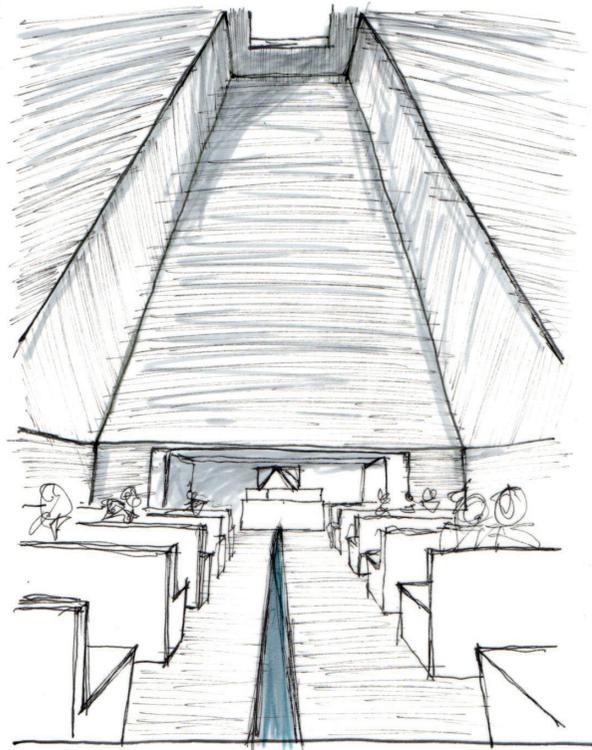
CEMETERY ENTRANCE- RETAIL & EVENT SPACE PLAN - NTS



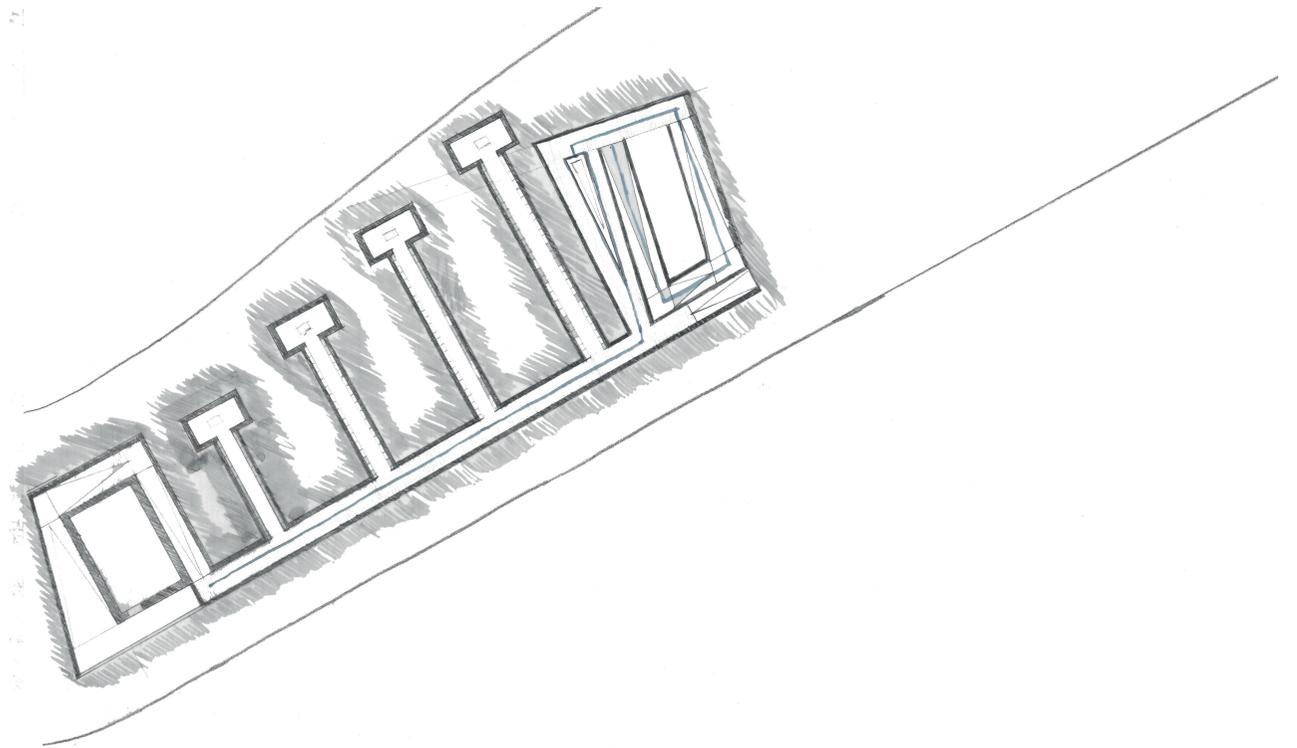
INTERMENT SPACE- GROUND PLAN - NTS



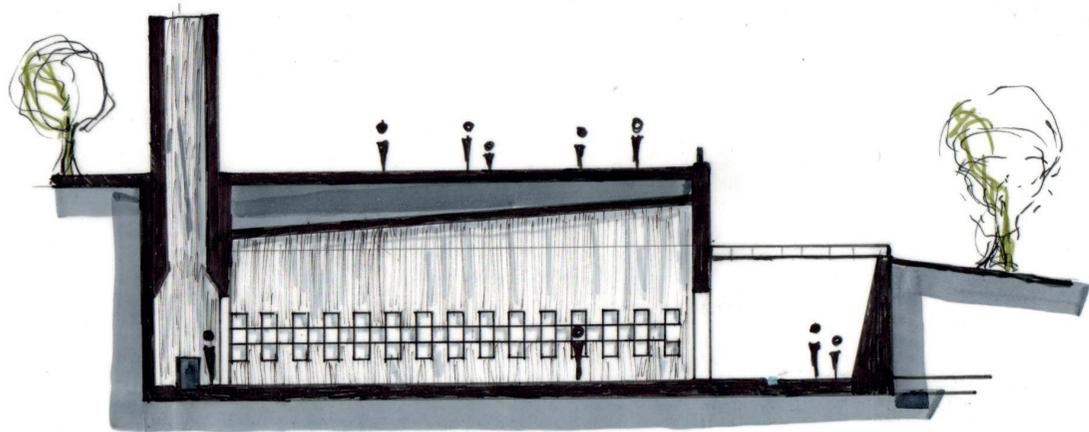
INTERMENT SPACE- LOWER GROUND PLAN - NTS



INTERMENT SPACE- CHAPEL CONCEPT SKETCH - NTS



INTERMENT SPACE- GROUND -2 PLAN - NTS



INTERMENT SPACE- COLUMBARIUM CONCEPT SECTION - NTS

*'death is the road to awe'*