RE-DESIGNING DEATH

An Expression of the Human Bereavement Process through Crematoria Design

Harold Pham

A Research Project submitted in partial fulfilment of the requirements for the degree of

The Master of Architecture (Prof)

UNITEC INSTITUTE OF TECHNOLOGY

Supervisor: David Chaplin

2014
This paper presents a novice’s reflections on the aftermath of the death of a close one, discussing the process of grieving and mourning, straddling across analytical philosophical treatments and research. This paper shall indulge the reader in few brief psychological models to illustrate how grief is viewed, and how it affects its sufferers. This will be followed with a survey of precedents relevant to this project and an attempt at an analysis and survey of some current thinking among psychologists and philosophers on the enigma of death, and on the associated praxis of grief and mourning. Finally this proposal will test the research and develop a design for a new crematorium complex.

Although cremation did not claim widespread support until the second half of the twentieth century (with currently 70% of deaths cremated in New Zealand); little has been publicized about this architectural form. While this project will address the utilitarian aspects of the crematorium by design, the main challenge is addressing the emotional processing of the bereaved. The funeral process has profound potential to provide an appropriate mood experience to assist in the grief people endure with the loss of another. The design in this research engages with this requirement by using a planning device called an architectural promenade.
# Table of Contents

## Abstract

## Table of Contents

## Acknowledgements

### Chapter 1.0: Introduction

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Research Question</td>
</tr>
<tr>
<td>1.2</td>
<td>Aim and Objectives</td>
</tr>
<tr>
<td>1.3</td>
<td>Outline of Project</td>
</tr>
<tr>
<td>1.4</td>
<td>Scope and Limitations</td>
</tr>
</tbody>
</table>

### Chapter 2.0: Current Thinking

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Grief and Mourning</td>
</tr>
<tr>
<td>2.2</td>
<td>Bereavement Models</td>
</tr>
<tr>
<td>2.2.1</td>
<td>George Engel’s Six Stages of Bereavement</td>
</tr>
<tr>
<td>2.2.2</td>
<td>Sander’s Bereavement Model</td>
</tr>
<tr>
<td>3.3</td>
<td>Early Design Experimentation</td>
</tr>
<tr>
<td>3.3.1</td>
<td>Concept One</td>
</tr>
<tr>
<td>3.3.2</td>
<td>Concept Two</td>
</tr>
<tr>
<td>3.3.3</td>
<td>Concept Three</td>
</tr>
<tr>
<td>3.4</td>
<td>The Architectural Promenade as Guided by the Integrated Bereavement Model</td>
</tr>
<tr>
<td>3.5</td>
<td>Design Developement</td>
</tr>
<tr>
<td>3.5.1</td>
<td>Arrival</td>
</tr>
<tr>
<td>3.5.2</td>
<td>Chapel</td>
</tr>
<tr>
<td>3.5.3</td>
<td>Gondola Station</td>
</tr>
<tr>
<td>3.5.4</td>
<td>Axes of Promenade</td>
</tr>
<tr>
<td>3.5.5</td>
<td>Transition to Te Ahua Pa</td>
</tr>
<tr>
<td>3.5.6</td>
<td>Cremation Ceremony</td>
</tr>
<tr>
<td>3.5.7</td>
<td>Post-Funeral Spaces</td>
</tr>
<tr>
<td>3.5.8</td>
<td>Surface</td>
</tr>
<tr>
<td>3.5.9</td>
<td>Sections</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CHAPTER 4.0</th>
<th>Design Outcome</th>
<th>133</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Final Drawings</td>
<td>137</td>
</tr>
<tr>
<td>4.2</td>
<td>Physical Model</td>
<td>143</td>
</tr>
</tbody>
</table>

CONCLUSION 145

BIBLIOGRAPHY 148
I would like to thank David Chaplin for the unparalleled guidance, much needed encouragement, and criticism over the course of this project. I would also like to thank my family for their support and forbearance while undertaking this project.
Chapter 1.0 | Introduction

1.1 | Research Question
What are the aspects of architecture that can support mourners through the bereavement process?

1.2 | Aim and Objectives
To illustrate the fruitfulness of the design based approach to the study of human bereavement processes
1.3 | Outline of Project

This thesis explores the death phenomena and its expression through an architectural lens. The purpose of this is to address the contemporary issues of coping with death through design testing of a crematorium complex. Anthropologist Douglas Davies states that “The notion of a place for mourning is indirectly linked to the therapeutic view of mourning enshrined in the notion of recovery.”¹ This research challenges that the design of crematoria are not just utilitarian pieces for processing death and disposal, but also a process of consoling the bereaved through architectural promenade. This project suggests, especially in New Zealand, that this is far more important and often less considered. Supporting mourners through this difficult time is vital to their return to meaningful life.

There are two main paths of questioning that will be followed in this research: firstly, what exactly occurs during the bereavement process? Does this process affect the way we should design, and if so, how? Two recent bereavement models are considered in the research which are based on universal conditions with clinically explained processes: George Engel (1964), and Catherine M. Sanders (1980). These models tend to involve a move from a stage of shocking numbness, upon learning of the death, to a stage of recovery or outcome. If the grief is unresolved or becomes fixated at some stage, mental and physical health can be disrupted.² The process of bereavement is not a linear one with concrete boundaries. It is instead a composite of overlapping fluid phases that vary from person to person and situation to situation.³ The phases of bereavement are meant to be general guidelines to allow us to understand the emotional process and physical symptoms endemic to a loss. The inappropriateness of establishing expectations for the nature and duration of grief is argued for. Sanders states, “some individuals can complete the entire process in a month; others may require years.”⁴ As result, the question remains: how can architecture support mourners throughout this extensive process?

² Catherine M. Sanders, Grief: The Mourning After. Dealing with Adult Bereavement, 2nd edition (Wiley & Sons, Chichester 1999), 3-4
³ Ibid., 6
⁴ Ibid., 112
The following research is an attempt to find some possible answers to this question. Firstly, it is important to think of bereavement as multidimensional events as not only just the service and committal on the day, but with a time frame extending beyond the event and rituals itself. From the perspective of the mourners, these events may include the anointing of the sick, initial contact with and presence to the survivors, the visitation period and wake, a funeral including a homily, committal to the earth or to cremation, a post-funeral meal or gathering, a post-funeral (ten-day, thirty-day, or one-year) remembrance ritual, anniversaries, birthdays and so forth. These different parts of the overall funeral address different psychological and spiritual needs throughout the bereavement process. In terms of the architecture, this facility will incorporate a chapel, committal space, crematorium, waiting spaces, columbaria, remembrance and returning gathering spaces, and their corresponding transitory linkages to address as much of the process as feasible. The entire complex is proposed within the physical context of the west coast of Waitakere, which through design selection in this project, has an important role to play in the architectural promenade.
1.4 | Scope and Limitations

This project develops an extended crematorium complex (chapel, committal space, crematorium, waiting spaces, columbaria, remembrance spaces, walkways, linkages etc.) organisation, but focuses primarily on designing the spatial experiences and architectural promenade.

Due to the scale of this research project, it cannot be fully conclusive of supporting total recovery and the return to meaningful life, rather it is an indication of possible directions for future research.
Chapter 2.0 | Current Thinking

This paper considers various notions on the aftermath of the death of a close one, and the processes of grieving and mourning. This section is a conceptual examination of how mourners are affected by the bereavement process and is followed by an analytical survey of current thinking among architects, psychologists, and theorists on the enigma of death, the resulting grieving, and on the associated practice of mourning. The loss of a loved one to death is an inevitable occurrence in one’s life which most people will experience in their lifetime. While dialoguing and engaging in critical reflections on current thinking in this area – notably, with Martin Heidegger, George Engel and Catherine M. Sanders, this paper also hopes to offer a refreshing critique that might develop an alternative to the received wisdom.
2.1 | Grief and Mourning

Grief is the normal process of reacting to the loss. The picture shown by persons in acute grief is remarkably uniform. The following is the description of the more general symptomology of grief as described by Erich Lindemann:

“Common to all is the following syndrome: sensations of somatic distress occurring in waves lasting from 20 minutes to an hour at a time, a feeling of tightness in the throat, choking with shortness of breath, need for sighting, and an intense subjective distress described as tension of mental pain. The patient soon learns that these waves of discomfort can be precipitated by visits, by mention of the deceased, and by receiving sympathy . . . Another strong preoccupation is with feelings of guilt. The bereaved searches the time before the death for evidence of failure to do right by the lost one. He or she accuses themselves of negligence and exaggerates minor omissions. In addition, there is often a disconcerting loss of warmth in relationship to other people, a tendency to respond with irritation and anger, a wish not to be bothered by others at a time when friends and relatives make special effort to keep up friendly relationship. These feelings of hostility, surprising and quite inexplicable to the patients, disturbed them and were again often taken as signs of approaching insanity. Great efforts are made to handle them, and the result is often a formalized, stiff manner of social interaction.”

Both grief and mourning are undergone following the painful loss of a loved one. While grief is the more immediate response, mourning is the process by which people adapt to a loss, whether a state of mind or state of collectivity.

Mourning of which is formalized in modern cultures, seeks to extend the grief to a more shared affliction in the larger community. The role of narration, belief systems and rites of passage in mourning automatically takes us into inter-subjectivity as well. “The logic of grief is entangled with

---

the social structure of mourning".  

Hence there are both personal and collective locations, especially of mourning, if not of grief itself. For cultures that are less individualistic and more socially connected, mourning is a tightly communal and shared experience. Rites of passage are intended to therapeutically confront one’s grief and be consoled that all is not lost and that one could, perhaps, be ready to move on and continue with life.

---

2.2 | Bereavement Models

Bereavement is the period after a loss during which grief is experienced and mourning occurs. While various methods of expressing this interaction with the dead and the symptoms of grief may vary from culture to culture, bereavement and grief itself, is a human universal.\(^3\)

What are the aspects of architecture that can support mourners through the bereavement process? We may begin to answer this question by looking at bereavement models to develop a set of guidelines to help approach design. This section considers the process of grieving the loss of a loved one and some of the individual factors that may account for variability in grief experiences. While these models detail the grief process, the inappropriateness of establishing expectations for the nature and duration of grief is argued for.

Contemporary models are inclined to involve a move from a stage of shocking numbness, upon knowledge of the death, to a stage of recovery or outcome. The process may involve heavy feelings of seemingly endless sadness, despair, loneliness, and diminished or negative self-concept. Two recent models are considered here.

---

2.2.1 | *George Engel’s Six Phases of Bereavement*

George Engel (1964) stresses the biopsychosocial nature of grief where he takes a combination of biological, psychological and social factors to view the concept. The first of his six stages is a shock and disbelief period in which the survivor may respond by a refusal to accept or comprehend the death as if it were a self-defence mechanism. The loss may be recognized on an intellectual level only, where the mourner does not permit any feelings which acknowledge the reality of death, thus protecting the conscious self from experiencing the emotional pain.\(^4\)

The second stage sets in within hours, if not minutes, where the mourner develops awareness of the death.\(^5\) The reality of the death begins to penetrate consciousness in the form of acute emotional responses (anger, crying, and so on).\(^6\)

As the mourners gather for restitution on the third stage, the institutionalization of the mourning experience in terms of the rituals of death help to initialize the recovery process.\(^7\) Support is offered to the mourners, grieving emotions and stories are shared, and aggressive feelings are greatly reduced. “Many of the rituals of the funeral serve the important function of emphasizing clearly and unequivocally the reality of death, the denial of which cannot be allowed to go on if recovery from the loss is to take place.”\(^8\)

As the mourner enters the fourth stage of resolving the loss, the main work of grief goes on intrapsychically.\(^9\) For some time, the mourner’s thoughts are almost exclusively occupied with thoughts of the deceased. The mourner begins to resolve the loss through contemplation. George Engel states that this involves talking about and constant ruminations of the deceased which may be accompanied by great sadness with physical discomfort and a mental and physical withdrawal from others.\(^10\)

---

5 Ibid., 94.
6 Ibid., 95
7 Ibid., 95
8 Ibid., 95
9 Ibid., 95
10 Ibid., 96
The fifth stage is the idealization of the deceased. Thoughts previously based on the personal experience of the loss is now replaced by an emphasis of the person who died. A mental image is formed totally on the basis of the positive characteristics of the deceased and good memories of the relationship. Many months are required for this process, and reminders of the dead person are less intently to evoke feelings of sadness.\textsuperscript{11}

Successful healing is the ability to remember comfortably and realistically both the pleasures and disappointments of the lost relationship.\textsuperscript{12} This is the last phase of outcome and George Engel states it is different for everyone as many factors influence what the eventual outcome will be. Such factors include dependence of the deceased, age, previous losses, preparation and the physical and psychological health of the mourner at the time of the loss.

\textsuperscript{11} Ibid., 96
\textsuperscript{12} Ibid., 96
2.2.2 | Sander’s Bereavement Model

Catherine M. Sanders (1989) has integrated theories of Freud, Otto Fenichel, Harry Sullivan, and George Pollock, into her own five stages of bereavement model resulting in three possible outcomes. Like George Engel’s model, Sanders’s takes into account mediating factors in the mourner’s life at the time of the death.

According to Sanders’s model, bereavement begins with the impact of the death. Sanders states that the interrelationship between the bereaved are affected by internal and external factors of the relationship. Internal factors such as the mourner’s age, gender, physical health, relationship and dependency behaviours towards the deceased. External mediating factors include the mourner’s social support network, type of death (e.g. sudden, anticipated, or the result of long-term illness), socioeconomic status, religiosity, and other personal crises. The outcome is also likely to be different on the type of relationship (e.g. spouse, parent, and child).

Alike Engel’s model, the initial phase is shock and disbelief. Sudden and unexpected loss will generate a greater shock, but even when the death is anticipated, there is still some degree of shock and disbelief. The second phase also follows Engel’s model where the mourner develops an awareness of the loss. The third phase is conservation and withdrawal; a period when the mourner is exhausted from all the psychic events and may limit activities and social relations to preserve energy and emotional resources. The fourth phase of healing occurs when the person begins to accommodate to a new set of circumstances and resume parts of or all of life’s activities. This may involve developing a new identity, relinquishing old roles, assuming new roles in life and most importantly searching for meaning in the death. During renewal, the fifth phase in this model, the person has experienced grieving behaviours

13 Catherine M. Sanders, Surviving Grief… And Learning to Live Again (John Wiley & Sons, 1992), 39
14 Catherine M. Sanders, Grief: The Mourning After. Dealing with Adult Bereavement, 2nd edition (Wiley & Sons, 1999), 159
15 Ibid., 74
16 Ibid., 86-103
and is ready to take on whatever the new reality holds.\textsuperscript{18}

Sanders’s five phases of bereavement — shock and disbelief, awareness of loss, withdrawal, healing, and renewal — take into account the emotional, biological, and social levels of each of the phases. From this process, there are three likely outcomes, there may be no substantial change from the person’s level of functioning before the death occurred, likewise, a person may actually experience psychosocial growth, perhaps a heightened independence or self-concept, as a result of the grief experience or on the flip side, a result may be the worsening of health or mental functioning.\textsuperscript{19}

Sanders’s model is a particularly useful one, for understanding individual differences in the process of mourning a loved one’s death. The two models discussed generally follow the same structure using a few different terms of reference.

\textsuperscript{18} Ibid., 104-18
\textsuperscript{19} Catherine M. Sanders, Grief: The Mourning After. Dealing with Adult Bereavement, 2nd edition (Wiley & Sons, 1999), 159
Before we can possibly extract some meaning from the death, we need to be able to process what the person meant to us and to others so we naturally fill our heads with questions asking “Why?” Why did this person die? Why now? Why this way? What happens after death? And so on. To get to the healing phase in the bereavement process, we must explore these types of questions if we are to become reconciled to our grief. In fact, we must first ask these “why” questions to decide why we should go on living before we can ask ourselves how we will go on living.

This section will now offer some theoretical reflections. Just what happens when one is brushed by death? Heidegger answers that our entity becomes “nothing”, “In the dying of the other we can experience that remarkable phenomenon of being which can be defined as the change-over of an entity from life to no longer alive.”\(^{20}\) We are witnesses of the finitude of one’s being when the casket is being charged into the cremator. There is practical affirmation when our being is reduced to nothing but ashes. When Heidegger speaks of death, it is different from the traditional understanding of it referring to the moment of extinction itself (the term Heidegger uses for this is “demise”); he is referring rather to the process of living itself which is so influenced and structured by finitude that we are already in the process of dying. For Heidegger, being-toward-death is not an orientation that brings life closer to its end, in terms of clinical death, but is rather a way of being.\(^{21}\)

Heidegger’s jargon is original to the task at hand: Dasein is one of the core terms used in ‘Being and Time’; it can be simply defined as an entity that is conscious of the meaning of its own existence. Heidegger also distinguishes two attitudes towards death: the powerlessness we experience in the face of our own finitude (an authentic attitude), and the social attitude governed by etiquette, conventions and fleeing from death; the average, everyday ‘normal’ discussion of death, all this is concealed and frowned upon (an inauthentic attitude).\(^{22}\)

\(^{21}\) Ibid., H.247
\(^{22}\) Ibid., 260-67
Traditionally, death was something to be feared, something too unpleasant to talk about or even to think about. But when the subject arises, it is talked about in an inauthentic manner, passed off as something that occurs at some time but is not yet “present-at-hand” as an actuality, and hides its character as one’s own most possibility, presenting it as belonging to no one in particular. It becomes devalued, redefined as a neutral and mundane aspect of existence that merits no authentic consideration.

In Heidegger’s analysis of Dasein, it is a focus of one’s own death. Dasein is ownmost (it is what makes Dasein individual), it is non-relational (nobody can take one’s death away, or die in one’s place, and it is not to be outstripped). The question that arises then is ‘What about the experience from the death of another?’

Heidegger explores Dasein’s relationship to others, in his ‘Mitsein’ (being with) analysis. As Heidegger distinguishes two attitudes towards one’s own death: an authentic and inauthentic attitude, he only discusses the inauthentic attitude towards the death of another. The possibility of an authentic attitude towards the death of another goes unmentioned. It is undeniably evident during funerals that death greatly impacts mourners and although the death is not one’s own, it still opens the possibility of understanding annihilation and loss. This analysis will address this lack by reconstructing such an attitude.

---

23 Ibid., H.296-7
24 Ibid., H.296-7
2.3.1 | Theoretical Relevance and Critical Analysis

The formal construction is demonstrated by the fact that Heidegger mentions only one relation – that of Mitsein, or being-with – which does not contain any sub-categories within it: the type of relationship (family relation, friend, partner or stranger) and the mode of relating (love, hate, obedience, apathy, alienation, and so forth), are not clearly distinguished within Heidegger’s analysis. Moreover all these types of relationships are all subsumed under the inauthentic attitude and it does not differentiate between the deaths of people who stand in various relations to Dasein. The death of a stranger and the death of a loved one are both subsumed by the inauthentic attitude towards them. When Heidegger describes the inauthentic attitude towards being-with, he only mentions the “they” as neighbour or stranger. There is no mention of the relationship between someone who is close: “In the publicness with which we are with one another in our everyday manner, death is ‘known’ as a mishap which is constantly occurring – as a ‘case of death’. Someone or other ‘dies’, be he neighbour or stranger.”

Freud in his 1916 essay *Mourning and Melancholia* states that the loss of someone dear is a loss of a part of the self. He characterizes the experience of death of another by inner and outer influences, or self and other relationships. Freud states that the inner/outer distinction is not clear when applied to the psyche, and whatever we define as ‘inner’ is nonetheless the product of external influence. A reconstruction of Mitsein is needed here because as humans, we are not atomistic, self-sufficient units, but dependent on and continuous with others.

When a loved one dies, the first-person feelings are mixed up with the loss felt in the dying of the deceased, whose own death becomes the first person’s burden also. Hauntingly, when a loved one dies, there is a reminder impossibly of one’s own impending death. Each funeral we attend serves as a sort of dress rehearsal for our own. It is during the funeral process where this experience is made present as the rituals serve to bring the reality of death firmly into the conscious awareness of the survivors.

26 Ibid., H.296-7
When experiencing the death of a loved one, Dasein does not lose its being; it experiences loss within its existence. We cannot experience their death from their point of view, but we can certainly experience it as a profound experience of mortality and finitude. The second element is the nature of this experience itself. Experiencing the death of a loved one would not be merely an experience within being. It would constitute an actual loss of part of your identity; when the loved one is gone, a part of your life is gone too, and not in a metaphorical sense. It is gone because the shared world is gone, because the meaningfulness of one's life cannot remain the same in the face of such loss. The world must change and your identity must change with it in response to the loss. This is even clearer in the case of sustained mourning, such as in the loss of a child. Such a loss may indeed shatter Dasein’s being until it becomes a mere shadow of the original. As such, the authentic experience of the death of a loved one is an intimation of human finitude and mortality in the strongest sense.
2.4 | Integrated Bereavement Model

Below is a hybrid of the two bereavement models which includes input from the critical analysis of Heidegger’s theory. This hybrid model is formed on the basis of how well the architecture could address and comprehend these phases. This model includes Sander’s detail on what is happening in different personal systems at each stage using internal and external mediating factors. This takes into account why different people have different experiences of grief. No two people losing a loved one have exactly the same experience. For instance, a woman who loses her husband following a lengthy battle with cancer may view his death with a sense of relief (for both partners), while a woman whose husband committed suicide is more likely to experience intense anguish and suffering. This is useful in understanding how and why these experiences differ.

The loss of a loved one to death is an experience that many people will face at least once in their lifetime. The personal struggle at this time is one of learning how to live a life without the physical presence of the departed. In order to do this, it requires what George Engel describes as idealization of the deceased. At this point, shock, awareness of loss and withdrawal are already experienced and most aggressive feelings are already greatly reduced. Instead, these feelings are replaced by a mental image formed totally on positive characteristics of the deceased and good memories of the relationship. The grieving person is thus left in positive state and turns his or her energy back into everyday life and has a renewed interest in daily activities. While idealization involves searching for a positive image of the deceased, the healing phase is an ongoing search for a whole and accurate image of oneself without the deceased. It involves the learning of new personal roles, and the development of a new personal identity as analyzed in the critique of Heidegger’s theory.
2.5 | *Emotions Mapped*

Much has been written about the way architecture can affect people’s emotions. But what if we look at it the other way around? Can we design spaces that are attuned to the concerns of the users?

Emotionally Vague is a research project about the body and emotion that asked how people felt anger, joy, fear, sadness and love? In order to answer this, a simple survey was developed, the results of which were compared and combined to reveal patterns of feeling.  

Each survey contained several questions, one reusable colour swatch board, a red marker pen and a memento card. After the first written questions was a free-form drawing one which led to pages that were more specific, asking for: ‘one spot only’ and just arrows.

Ultimately, 250 men and women from over 35 countries between the ages of 6 and 75 responded. The sample was a mix of friends, their friends, colleagues and strangers.

---

First question from the survey asked participants “What makes you feel each of the emotions?” These results are taken from the survey and presented as word clouds showing highest frequency as larger words to lowest frequency as smaller, excluding single incidences. Although death alone doesn’t fully represent the emotion sadness, it ranked by far as the most frequently used word that made the participants feel this emotion.


The next question asked participants how they felt these emotions in their body? And to draw anything they wished. The answers were overlaid to create an averaging effect. It is interesting to note how people draw around and outside the body and how the method reveals levels of intensity and activations.

Participants were asked where in the body was these emotions activate or where they feel these emotions? This question asked the participants to draw one spot only.\textsuperscript{32}

\textsuperscript{32} Emotionally Vague Results, http://www.emotionallyvague.com/results_03.php (accessed March 15, 2014)
Finally, the participants were asked if these emotions had direction, if so, to draw. 

[fig 2.10] Direction sketches of emotions

---

Another project held by a team of biomedical engineers from Alto University in Finland mapped the bodily reactions to emotions in over 700 individuals in West Europe and East Asia and found that patterns were consistent.\(^{34}\)

The team carried out a series of experiments during which participants were subjected to words, movies, facial expressions and short stories online, carefully selected to induce different basic and complex emotions.\(^{35}\) The participants were then asked to record in the silhouettes the areas of the body where they experienced an activation (in red and yellow) or deactivation (in blue or black). The team was looking for an instantaneous reaction that could be consciously identified by the participant.

Although this experiment and the Emotionally Vague project addressed the participants differently, one can see the similarity of the activity in the human body.


35 Ibid.
2.6 | Monasticism

Monasticism is an institutionalized religious practice or movement whose members attempt to live by a rule that requires works that go beyond those of the spiritual leaders of their religions. Commonly celibate and universally ascetic, the monastic individual separates himself or herself from society either by living as a hermit (hermitage), where they chose a life of solitude in caves far away from the body politic and society with no comforts at all, or by joining a community of others who profess similar intentions (monastery).\(^{36}\) Monasteries were first developed when Christian hermits in Egypt began to coalesce in communal groups.\(^ {37}\)

The monastic house, any monastery, or hermitage is not a place designed to send members forth prepared to act on the world stage. The monastic—the monk, nun, or hermit of our time is called to go apart, to migrate to a place at the margins of social intercourse, to cultivate in silence and solitude an intimate relationship with the divine. The monastery in particular seeks the support and challenge of an organized community as well as the authoritative guidance of experienced practitioners as they travel the path of interior transformation within community.\(^ {38}\)

---


\(^{38}\) Hildegard Magdalen Pleva, “Monastic Architecture: The Household of God”, Cistercian Studies Quarterly 47.3 (2012), 337-8. EBSCOhost
2.6.1 | Meteora Monastery

In the 14th century, Athanasios Koinovitis from Mount Athos brought a group of followers to Metéora.\(^{39}\) He founded the great Meteoron monastery, which were perfect for the monks; they were safe from political upheaval and had complete control of the entry to the monastery. The only means of reaching it was by climbing a long ladder, which was drawn up whenever the monks felt threatened.

At the end of the 14th century, the Byzantine Empire’s 800-year reign over northern Greece was being increasingly threatened by Turkish raiders who wanted control over the fertile plain of Thessaly.\(^{40}\) Meteora was naturally the ideal refuge for hermit monks, seeking a retreat from the expanding Turkish occupation. More than 24 monasteries were built, beginning in the 14th century.\(^{41}\) Meteoron Monastery is only one of six that remains today.

Before the 1920’s, access to the monasteries was originally (and deliberately) difficult which involved long ladders tied together or large nets were used to pull up both goods and people.\(^{42}\) Steps accessible by bridges, cable systems, and stairs cut into the rocks were implemented at a later period.

---

40 Ibid.
41 Ibid.
42 Ibid.
fig 2.14  Meteora panorama
**[fig 2.17]** Byzantine interiors
http://whc.unesco.org/en/list/455/gallery/
2.6.2 | Tiger’s Nest Monastery

Tiger’s Nest Monastery is located on the Cliffside of the upper Paro valley, in Bhutan first built in 1692. The monastery is a prominent Himalayan Buddhist sacred site and temple complex built around the Taktsang Senge Samdup cave where father of the Bhutanese strain of Mahayana Buddhism Guru Rinpoche is said to have meditated.\textsuperscript{43}

The monastery is located 10 kilometers to the north of Paro on a precipitous cliff at 3,120 metres. The rock slopes are almost vertical and the monastery is carved onto the rock face. Though it looks unreachable, the monastery complex has access from several directions. A mule track leading to it passes through pine forest that is colourfully festooned with moss and prayer flags. The hike to the monastery can take up to 3 hours.\textsuperscript{44} On many days, clouds shroud the monastery and give an eerie feeling of remoteness.

\textsuperscript{44} Ibid., 43.
[fig 2.18] Pinus Wallichian Bhutan
http://commons.wikimedia.org/wiki/File:Pinus_wallichiana_Bhutan2.jpg#mediaviewer/File:Pinus_wallichiana_Bhutan2.jpg

[fig 2.19] Sketch of monastery and track by author
Tiger's Nest Monastery

http://www.swimrunfly.com/2013/03/amazing-temples-architecture.html
http://www.bhutanrebirth.com/Pages/holidays/bhutan-festival-paro-tsechu-seven-dzongkhags.htm
2.6.3 | Mt. Huashan

Mt. Huashan is located near the southeast corner of the Ordos Loop section of the Yellow River basin, south of the Wei River valley, at the eastern end of the Qin Mountains, in southern Shaanxi province. It is part of the Qin Mountains, which divides not only northern and southern Shaanxi, but also China.

Mt Huashan consists of 5 summits; north, south, east, west and a central summit. Mount Huashan has historically been a place of retreat for famous hermits such as scholar Chen Tuan (920–989), who spent the last part of his life in hermitage on the west peak.\(^{45}\) Temples around Mt Huashan have been built in honour of the hermits.\(^ {46} \) It is believed Mt Huashan yields many herbal Chinese medicines and powerful drugs which was used for immortality seekers.\(^ {47} \) The inherent danger of many of the exposed, narrow pathways with precipitous drops gave the mountain a deserved reputation for danger. As tourism has boomed and the mountain’s accessibility vastly improved with the construction of the gondola system, friendlier tracks, temples, shrines, shops, restaurants, pavilions and even hotels.

---


Fig. 2.23: Huashan base
http://www.uqpu.net/teahouse/

Fig. 2.24: Gondola base
http://figosfromagio.wordpress.com/2013/05/20/huashan-the-most-wonderful-of-mountains-part-1/

Fig. 2.25: Huashan staircase
[fig 2.26] Sketch of Mt. Huashan gondola by author

[fig 2.27] Towns on Mt. Huashan
http://www.uqpu.net/teahouse/
fig 2.31] Meditation cave of Chen Tuan
http://thewayformankind.com/2013/05/12/dream-trip-to-china/

fig 2.32] Huashan hermit cave
http://www.urbanhikers.com/hiking-hua-shan-mountain/

fig 2.33] Modern hermit on Mt Huashan
http://hahn.zenfolio.com/p714170342/h1853E89Cf1853e89c
[Fig 2.34] Hermit cave at Mt. Huashan
http://ituraadasiam.blogspot.co.nz/2013/09/overnighting-on-huashan.html

[Fig 2.35] Hermit accessories
http://ituraadasiam.blogspot.co.nz/2013/09/overnighting-on-huashan.html

[Fig 2.36] Ancient herbal tea
http://ituraadasiam.blogspot.co.nz/2013/09/overnighting-on-huashan.html
2.6.4 | Relevance of Monasticism

Through the investigation into monasticism, one can conclude that the edifices generally are located in remote settings to allow for separation from the body politic, society and culture. Special attention to the environment in which monasticism is set is very much seen as contributing to the meditative development of the monks or hermits. As mentioned, the setting is almost always remote and has often a wilderness aspect that allows for heightened sensory awareness and felt-sense.

“The sites chosen by the monks for their retreat were usually in wild and inaccessible places… nearly all the most ancient monasteries are to be found in places considered uninhabitable by all except the monks. Gradually forests were cleared and marshes drained, rivers were bridged and roads made; until, almost imperceptibly, the deserted place became a farm or a garden.”

From the very beginning these purposes motivated the creation of highly self-sufficient and self-contained units. However varied in nuance of expression by virtue of spiritual charism and chosen modes of life, the members of all monastic orders pray, work, nourish themselves, and recreate together. For the case of hermits, these duties are carried out independently.

Contemporary research shows that contact with nature allows one to re-establish direction and meaning. It is argued that landscape and nature can become didactic vehicles through which people can express themselves and conceptualize life and death. Encounters with nature increased sensory awareness and felt-sense. Gendlin showed this is closely related to increased mental health and developed a set of therapeutic methods around this focusing.

Direct contact with nature also leads to increased psychological development. Landscape and nature naturally stimulates positive reactions; these include relaxation, restoration, peace, and tranquillity. Reductions of role load, conflict, and ambiguity are also experienced. Other benefits include

49 “John Davis, “The Psychological Benefits of Nature Experiences: An Outline of Research and Theory” (Naropa University and School of Lost Borders, 2004), pg.2
reduction of burnout and tedium, and faster recovery from stress in response to nature stimuli than built settings.\textsuperscript{50}

In summation, traditional monastic meditation draws together several ideas; remoteness, solitude, and the reduction of a social agenda. These, along with other ideas are all seen as contributing to increased mental and spiritual development. These findings are influences that express natural settings as ideal sites for a crematorium as opposed to urban settings.

\textsuperscript{50}John Davis, "The Psychological Benefits of Nature Experiences: An Outline of Research and Theory" (Naropa University and School of Lost Borders, 2004), pg.1
2.7 | Igualada Cemetery

Enric Miralles and Carme Pinos created an atmosphere that confronted certain stages or aspects of mourning and brought them to the forefront of experience. He uses symbols and engagement with the body to create very emotional reactions to space. Igualada is a small town, with 20th century expansions and the cemetery is situated in a former quarry near an industrial zone. The design and construction occurred between 1985 and 1992 and only part of the original scheme was built. The cemetery is a hybrid between architecture and landscape, more precisely as an excavated and reconstructed landscape strongly layered into three zones, corresponding to the columbaria, the chapel, and a reconstituted upper ground. The lower level is shaped like an elongated and downward sloping enclave paved and finished to evoke a gorge ending in an elliptical space giving the impression of a sink hole, or perhaps a waterfall. The columbaria are situated along both lateral walls. The intermediate level comprises of a mortuary, and unfinished triangularly shaped chapel, and an open air walk also flanked by cineraria on one side. The upper level works as a terrace park with sculpturally rendered skylights and covered stair landings.

The emotions that the spaces in the cemetery can elicit come out of a strategic design and intent for each space. When referring to the atmosphere of the chapel, or the emotions of moving through that space, Spanou and Peponis describe:

“To be situated in a dark, seemingly underground chamber in the context of a cemetery is symbolically charged. To recognize, based on very sparse clues that the chamber is intended as a chapel, also becomes symbolically charged. Both chapel and its complement, the roof terrace rendered as ground, seems to function as liminal spaces, between the enclave of columbaria and the surrounding landscape, built or unbuilt. They are situated within a familiar world, but seem to produce unfamiliar orientations towards it. Atmosphere arises as the sense of liminality is charged with a very direct engagement of the body.”

53 Ibid., 146
One can see that Miralles uses the contrast of darkness and light to evoke an emotional response to the space and utilizes this as a threshold. The darkness also helps to create an atmosphere that is conducive toward inward reflection and attention. “The perception of a dark enclosure charges what would otherwise unfold as an exploration of landscape with an intuition of interiority.” It is this self reflection and confrontation with the self through death and space that is desired.

fig 2.39 | Igualada cemetery entrance

Figure 2.40: Igualada cemetery Mausoleum
Modern cremations generally started in Europe during the nineteenth century. It was prompted mainly by a variety of social, philosophical, and technological factors. The major social elements related to massive increases in the population of industrial towns and major cities as the shortage of cemetery space became more acute to cope with the volume and sanitation of the dead.56

“Underlying the sanitary and economic motives for advocacy of this means of disposal was a feeling of intense loathing for the physical remains of the dead… Even within the grave hidden from sight, the corpse was felt liable to give offence to the living.”57 Technology also facilitated the rise in popularity of cremation; in the 1870s the technique was finally invented to cremate human bodies in a most effective and economical way.58 The commonality of death during industrialization and war emerged with a stoic attitude and the idea of it was certainly no longer romanticized as in the Victorian era. “Following the distress of the war years, there was a time of calm, the modernist functionalist criteria for the architecture of death was for it to be sanitized, light and airy.”59

56 Cremation, http://www.britannica.com/EBchecked/topic/142492/cremation/1617/Modern-cremations,

Accessed March 25, 2012


2.8.1 | Woodland Cemetery

A competition for Stockholm South Cemetery was held in 1914. The campaign was to renew attitudes towards life by encouraging a positive outlook on death. In light of cremations hygienic and economic benefits, the campaign recognized the need to develop moral and aesthetic aspects in order to get public acceptance.

The seminal winning entry by Asplund and Lewerentz drew its strength from the landscape. Asplund designed the Woodland Chapel and Crematorium in 1918 and Lewerentz the Resurrection Chapel in 1925. The Woodland Chapel and Crematorium by Asplund alone was completed in 1940 and was the most celebrated European project of its kind. Fundamentally important to the development of the typology as one that predominantly focused around the needs of an industrial society. Asplund’s main purpose for his crematorium design was to reassure the mourners whilst also focusing on function and use.
[fig 2.42] Woodland Cemetery entrance
[fig 2.43] Meditation grove sketch by author
Figure 2.44: Candlelit graves

https://www.flickr.com/photos/pellesten/5152322176/
Fig 2.45: The Woodland Crematorium
https://www.flickr.com/photos/77236727@N04/7372190878/
2.8.2 | Crematorium Baumschulenweg

Completed in 1998 Berlin, Axel Schultes and Charlotte Frank’s scheme was a competition-winning entry that successfully responded to an existing building and surrounding gardens. Axel Schultes believes in an architecture that could last forever. “Schultes champions architecture of permanence and substance. He wants architecture to be emotional and affect the soul, believing it has to strike a balance between freedom and necessity.” Many of his buildings are clearly influenced by ancient architectural forms, buildings that have solidity, a sense of purpose and a clear function. The design of the crematorium is resonant with the formal aesthetics and symmetrical organisation of traditional mausoleums; however it does not impose any association with religiosity as it remains devoid of any symbolic ornamentation allowing the crematorium to be used by people of all faiths.

The crematorium is located within a formal woodland area. The building is reached via a main axis, which immediately connects it with its surrounding landscape, presenting a symmetrical façade on approach. On entering, the sky and woodland can be seen beyond the building. The design of the internal condolence hall suggests an abstraction of the forest as irregularly placed columns appear as a grove of trees, which are enhanced by light streaming in from above. The enclosed columnar hall creates the character for the entire crematorium; it is both monumental and ceremonial, evoking a sense of spirituality through its control of light and space.

The crematorium is conceived as a 50-meter by 70-meter by 20-meter block from which 10 meters extend above ground and 10 meters remain below. On the same level as the condolence hall, there are also three chapels, one seating 250 people and two that seat 50 people. The cremation spaces are in the basement, separated from the mourners, and accessed by a turnaround drive and a ramp in the back. The only hint of the cremation below is three large chimney stacks that rise out on one side.

60 Lorraine Farrelly, “Axel Schultes and Charlotte Frank Baumschulenweg Crematorium,” in Construction + Materiality: Basics Architecture 02, 2009, (AVA publishing SA 2009), 64
Treptow Crematorium arrival sketch by author
[fig 2.36] Treptow Crematorium Chapel

Photograph by Mattias Hamren, http://ad009cdnb.archdaily.net/wp-content/uploads/2013/01/50ee3b7f36c4b67690000008_crematorium-baumschulenweg-shultes-frank-architekten_krematorium-berlin_10_photographer-mattias-hamren.jpg
2.8.3 | Kaze No Oka Crematorium

Kaze-no-Oka Crematorium is situated approximately 5km outside the centre of Nakatsu, Southern Japan towards the mountains on a site that was historically associated with rituals of the dead. The buildings is tucked away in the contours of the site and incorporates an existing cemetery.\(^6^1\)

The different parts of the crematorium are separated spatially and reconnected with linear elements that accommodate movement between the building blocks. The visitor is taken on a predetermined architectural farewell journey. The first formal space is the chapel, a contemplative space reached by moving through the bare concrete entry porch, followed by the crematory hall. The route from the crematory hall passes by an internal courtyard with a reflection pond that invites natural light. The warm materials and soft lines used in the design of the waiting area creates a comforting environment for the mourner with direct light from the windows. The ashes are ceremonially handed over to the mourner in the indirectly lit enshrinement room, thereafter the mourner moves to the funerary hall to offer incense to the dead.

Light, materials and form is used to create an emotion evoking sequence of rooms. Direct and indirect light contrasted with darkness reveals the forms and the simple concrete surfaces. The quality of the light and degree of contact with the outside world has emotional effects on the visitor that ranges from comfort to claustrophobia. The visitor is not told what to do or how to feel, but the intuitive architecture on the other hand reflects the expected journey of emotions that a mourner goes through. Places of solitude and reflection allows the mourner to bid the dead farewell. It challenges the mourner to deal with their loss and make peace with it.


[fig 2.51] Kaze-no-oka Crematorium site plan
[Fig 2.52] Kaze-no-oka Crematorium
Photograph by Dajirou Okada, https://www.flickr.com/photos/arfogram/143383193/in/gallery-43355952@N06-7215762766181320/
[fig 2.53] Kaze-no-oka Crematorium
Photograph by Daijirou Okada, https://www.flickr.com/photos/arfogram/143359928/

[fig 2.54] Kaze-no-oka crematorium chapel sketch by author
2.8.4 | Program analysis

A closer look at the three distinct crematorium precedents reveals divergent expressions of the architectural experience of the cremation process, however it becomes clear that all three projects are guided by a similar series of programmatic elements that serve to define the key moments in the emotional and spiritual journey of the cremation ritual.

The Woodland Crematorium by Gunnar Asplund in Stockholm, Sweden embodies a sense of discovery and procession, differing in its several options for scales of gathering and strong relationship to the landscape. Axel Schultes’ Baumschulenweg Crematorium in Treptow, Germany takes a different organizational approach, adopting a more open scheme with the major program elements opening to a powerful central waiting area. The Kaze-No-Oka Crematorium by Fumihiko Maki in Nakatsu, Japan is a quiet building that reveals itself slowly through the stages of the process, embodying Maki’s assertion that "the cremation ceremony requires a kind of psychological journey, in which neither the destination nor the experiences along the way can be made clear from the beginning." Through the analysis of these programmes in an attempt to identify common design strategies that compose the typological experience, we are able to derive spatial and visual strategies for design that employs this cumulative power of the montage to delineate the story of the bereavement process while still allowing for the multiplicity of personal experience through ritual and continual return.

---

**Arrival**

In all three projects, the arrival to the site is a crucial stage in the transition of the visitor from the body politic to the experiential. This buffer zone is created by a connection to the surrounding landscape.

[fig 2.42] Woodland Cemetery entrance

[fig 2.48] Treptow Crematorium arrival sketch by author

[fig 2.50] Kaze-no-oka Crematorium
Photograph by Daijiro Okada, https://www.flickr.com/photos/ar6ogram/143383193/in/gallery-43559952@N06-7215762766181320/
Entrance

Covered entryways and porte-cocheres provide sheltering space to pause and gather before entering the complex and leaving the world behind. This threshold serves as an important dramatic moment of entry in which the visitor crosses from the outside into the sacred space, beginning the first architectural ritual sequence.
Chapels

The Chapels serves as a primary gathering space for spending final ceremonial moments with the deceased in a communal way and sharing memories together. The use of light and arrangement is controlled to highlight focus on the catafalque or altar. The scale and character of the space significantly varies between the schemes, suggesting multiple ways of understanding the role of ceremony in the cremation process.

[fig 2.58] Woodland crematorium chapel
http://www.mimoa.eu/images/1452_1.jpg

[fig 2.59] Kaze-no-oka crematorium chapel sketch by author

[fig 2.54] Kaze-no-oka crematorium chapel sketch by author
Committal Chamber

The committal chamber marks the important moment of transition in the procession where the body is actually committed to the furnace. The chamber signifies the last point where the bereaved are able to be with the body in its final moments, providing a space for gathering to view the casket enter the cremator.
Waiting room

As cremations can take from an average of ninety minutes to three hours to complete, mourners are released from the solemnity of ceremony into spaces for gathering or private reflection while they wait for the collection of ashes. The schemes seem to present two distinct attitudes towards the character of the waiting space. Either attempting a reconnection with nature or abstracting it as a way of grounding the participant or as a way achieving a sense of peace during this period.
A rite is a prescribed form governing the words or actions of a ceremony. The backdrop for a ritual is architecture and it must support the ritual it envelopes. From the precedent analysis, the following key elements are derived which shows how architecture can support a ritual.

While primarily responsible for space, architecture can also operate with procession, time and threshold to generate a narrative. This is the architectural promenade.

Spatially this begins with a centre and a perimeter and by delineating the sacred and profane. A ritual that is supported by well-designed architectural space can sometimes present aspects of life that are otherwise intangible. This is the sacred dimension.

The character of the space supporting a ritual, singularly or as a sequence of spaces, can assist an emotional response if thoughtfully executed. Architecture that successfully incorporates weight, light and shadow forms an emotive dimension that can assist during this period of bereavement.

Light and darkness are only present with the juxtaposition of each other. Hope appears as the light in the darkness. While darkness is important for the aesthetics of weight and mystery. Light which cuts through darkness can control views, highlight, and focus attention.

Weight is complimented in darkness and earthbound mass. The embodied energy in concrete and stone work for example, far outweigh that which is more typically found in plastic, metal, and glass. Mass links us with something more permanent and timeless. This also affects how sound travels in a space and tells the ear what is solid and what is flimsy.
Chapter 3.0 | Project Development

[fig 3.01] Mercer Bay
Photograph by Simon Smith
https://www.flickr.com/photos/momentocreative/3835609051/
3.1 | Methodology

What design methodologies should be used to “re-design” death? To be driven solely by responses to functional utilitarian requirements is inadequate as it does not address the mourner’s bereavement process. However, as the crematorium itself is a technical facility with some absolutes and spatial responsibilities, a basic knowledge of this will be shown. In the scope of this project, the focus is mainly on the spatial experiences and architectural promenade which will address the bereavement process and most design work will be centred on this.

The architectural promenade is a series of experiences that have been designed to address the phases in the integrated bereavement model. This project takes into account that a large part of healing process occurs intra-psychically (where architecture can only contribute partially) and that nobody’s process is the same. This project does not impose or represent one particular disposition or other, instead it acknowledges the overlapping fluidity of the process, and presents a manifestation of this through a series of architectural experiences. This means for the most part, an architectural intervention will be used to address each phase of the bereavement process (to the extent of what can be feasibly institutionalised). One question that arises is “what if the mourner is not currently in that particular phase, e.g. If the mourner does not currently feel the need for conservation or withdrawal? It is important to understand that by providing the space and experience of withdrawing in the complex, so when the eventual phase is reached, they can recognise this experience as part of the work of grief and how conserving/withdrawing may be helpful for them now. They may also feel a need to return and re-use the facility for this particular matter. This methodology and planning device (architectural promenade) will be adopted for this project and it applies to all phases in the bereavement process.
3.2 | Site Analysis

The site is located in the Auckland region as towns and cities made up the bulk percentage of cremation.\(^1\) The Auckland region is most appropriate as it is the largest city in New Zealand accounting for about one third of the total population.

In light of the research, there are concluding points regarding the natural landscape and its affect on the psyche. Similar to the sites of monasteries discussed in the precedent survey, the site shall be in a remote environment. This is essential to support the cultivation of solitude that is necessary to detach from the inauthenticity of everyday life and to gain existential foothold from connections to natural phenomena. Such a link from the fundaments of the world around offers what Norberg-Schulz refers to as a sense of ‘being in the world’.

---

3.2.1 | Location

The site chosen for the crematorium is Te Ahua pa above Mercer Bay on the coastline of the Waitakere Ranges. Mercer Bay is a remote site located between Piha and Karekare. This site is not accessible by vehicle and can only be accessed via hiking through designated tracks. Vehicle access ends on the north at Log Race road and South on Watchman’s road at Karekare where the walking tracks begin.

Contemporary research shows that contact with nature allows one to re-establish direction and meaning. It is argued that landscape and nature can become didactic vehicles through which people can express themselves and conceptualize life and death. Encounters with nature increased sensory awareness and felt-sense. Gendlin showed this is closely related to increased mental health and developed a set of therapeutic methods around this focusing. 2 Direct contact with nature also leads to increased psychological development. Landscape and nature naturally stimulates positive reactions; these include relaxation, restoration, peace, and tranquillity. Reductions of role load, conflict, and ambiguity are also experienced. Other benefits include reduction of burnout and tedium, and faster recovery from stress in response to nature stimuli than built settings. 3 These findings are influences that express natural settings as ideal sites for a crematorium as opposed to built settings. The positive experiences are not just the result of contemporary research, but have been a long-term tradition of monasteries.

2 “John Davis, “The Psychological Benefits of Nature Experiences: An Outline of Research and Theory” (Naropa University and School of Lost Borders, 2004), pg.2
3 Ibid., pg.1
3.2.2 | Historical Context

The area has a very rich cultural history and tradition. Recent archaeological excavation has shown that this is one of the oldest settled parts of the Waitakere ranges. A Pou carved on the north head of Mercer Bay recognises that this is a special place. From the interpretive plaque:

This carved pou symbolises the manawhenua, or spiritual guardianship of Tē Kawerau a Maki, the local Tangata Whenua. It also recognises that this is a special place, one of the oldest settled parts of the Waitakere Ranges.

This Pou specifically relates to an early Tupuna, Hinerangi, a chiefly young Ngaoho woman named in honour of a renowned Turehu ancestress.

Because of her beauty, skill and descent, many young rangatira sought her as a partner. Eventually Hinerangi chose a young chieftain from Karekare and settled there in his village and lived happily until an aitua or tragic accident.

At the southern end of Tē Unuhanga o Rangitoto or Mercer Bay was a famed fishing spot known as Tē Kawa Rimurapa (reef of the bull kelp). One day Hinerangi’s husband and two others went fishing there and were overwhelmed by a large wave and tragically drowned.

Distraught, Hinerangi climbed to this headland and scanned the seas of Waikarekare, longing for her husband’s return. Inconsolable Hinerangi sat on this headland for days until she too died of a broken heart and set off along Tē Rerenga Wairua (journey of the spirits) to join her beloved.

Her disconsolate face was forever etched into the rock face of the headland on which she sat. It became known as Tē Ahua o Hinerangi (the likeness of Hinerangi) and can still be seen today from the cliffs high above the southern end of Tē Unuhanga o Rangitoto (Mercer Bay)
3.2.3 Physical Context

The site has the highest precipitous cliffs in the Auckland region reaching over 200 meters at its highest point and was formed by volcanic activity millions of years ago. Due to the steep conditions of the site, the closest buildings are located on more level land. Properties are owned on Watchmans road, KareKare road and Te Ahu Ahu road (an extension of Log Race road).

The area at the end of Te Ahu Ahu road was once the location of a World War Two Radar Station, positioned for security purposes because of the very high cliffs. During the 1940s, it was the scene of some very famous experiments where radio stars were identified through the pioneering work of John Bolton and Gordon Stanley. The radar station building still stands on this site as a monument.

The only way down to Mercer Bay is via a vertical descent through bush and rock off the Mercer Bay loop track. There are three knotted ropes securely tied at different levels to assist users at difficult spots.

At the beach of Mercer Bay are the locations of caves which have been formed from natural weathering. The passage eventually ends through an opening where it meets the sea. This exit can only be accessed at low tide. Upon walking outwards from the cave and into open water, an entrance to another cave is accessible following a clockwise U-turn. This cave opening eventually leads to the one hundred meter high vertically eroded chimney.

These caves and the chimney are a hidden piece in the area; a naturally formed and remarkable space to be able to experience. It is a unique characteristic that defines Mercer Bay and Te Ahua pa.

---

5 Ibid.
Afternoon sun
Photo by Sam&Onny
https://www.flickr.com/photos/firemansam/2501454240/
[fig 3.11] Solitude
Photo by Sam&Onny
https://www.flickr.com/photos/firemansam/2498731774/in/photostream/

[fig 3.12] Exploring secret sea caves, Mercer Bay, Waitakere
Photo by Craigms
[fig 3.13] First caves exit

[fig 3.14] Mercer Bay Caves
Photo by Antoine
https://www.flickr.com/photos/79498713@N00/5319555340
Fig. 3.15 Mercer Bay Caves

Photo by Antoine

https://www.flickr.com/photos/79498713@N00/5332130273
3.3 | Early Design Experimentation

Design experiments were carried out during the early phases of this project. These experiments were useful because they revealed design parameters and limitations of the site and how it may affect the design of the crematorium complex. These experiments were conceived before much of the research into the current thinking and precedent study. This was a pre-requisite in this project as it would test the feasibility of the site for such a complex programme. These design experiments were therefore naïve in nature as they are solely formed by pre-conceived notions and previous experiences and no serious research.

As an initial response and from the outset, we know that there are no roads that directly lead to Te Ahua pa. The design will need to address how to practically and conveniently get users to arrive at the site. Designated hiking tracks are currently the only routes to the site and are physically challenging, therefore are not viable as the main route to the crematorium.

Transport of the casket to the site is proposed by hearse and will be offered as a service by the crematorium complex. Lack of roadways and the precipitous nature of the site, means that the vehicular drop off and pick up zone cannot possibly be located on Te Ahua pa. In response, this project seeks an unconventional mode of transportation. The thoroughfare system proposed is a gondola lift that will lead up to Te Ahua pa where the crematorium will be situated. This will transport the deceased and the attendees to the crematorium on Te Ahua pa. The vehicular access point is proposed at McCreadies paddock campground off KareKare Road where existing parking spaces will provide car parking for family and friends attending the funeral.
3.3.1 | Concept One

The first experimental concept tries to test what design type would work on this site? With the absence of any human infrastructure in proximity, could a clean slate or pure conception be possible on this site because of it’s remoteness? These are the kind of questions that this design experiment delved on.

As result, this experiment takes the extreme approach to formulate an absurd design concept. The concept shows little relationship to site with an alienated design form that excessively obliterates human scale. The concept was drawn from the traditional black garments worn during funerals and reciprocated as a curtain-like membrane envelope. Placement on the landscape was not taken into account at this stage. The design is completely senseless and is reflected by how inappropriate the concept feels because of the utter disregard and lack of relation to the site. It is clear from this experiment that the design will need to relate to the site with a more sensitive design strategy.

[fig 3.16] Concept One Site Plan
[fig 3.17] Concept one envelope closed

[fig 3.18] Concept one envelope open
3.3.2 | Concept Two

The second concept tries to be more empathetic with the sensitive landscape. It is now distanced from the public realm as opposed to being placed at McCreadies Campsite directly in public view like in Concept one. The design at this point starts layering with the natural formations of the landscape and frames views at different stages of the journey. Conceptual massing placeholders start to imply spaces for the Chapel and Gondola station.
Concept two reflection pond

Concept two Karekare site plan
Concept two also involved the arrival to Te Ahua Pa via Gondola commute. A simple but incomplete configuration of spaces are shown in this concept. Spaces are arranged around a central Condolence hall directly viewed from the arrival station. Private withdrawal spaces are arranged around the Condolence hall and the Cremator room is situated on the opposite end. This experiment assisted in the design process by allowing a gauge into the scale of spaces and how it may affect the landscape.
[fig 3.29] Concept two 3d plan

[fig 3.30] Concept two superimposed with landscape

[fig 3.31] Concept two cross section
Concept three developed the spaces for the Chapel and Gondola station. This concept tries to develop the idea that the Chapel and Gondola station should be part of site and not separated from it. The use of basalt volcanic rock for walls and tree trunks as columns are used to represent the existing surroundings. But as a whole, the resulting aesthetic resembles a highly fortified structure, similar to those of Medieval castles. As result, the monolithic design does not contextually and aesthetically relate to the site. There needs to be a much more softer and approach that blends more into the landscape.

![fig 3.32] Concept three floor plan
[fig 3.33] Concept three Chapel perspective

[fig 3.34] Concept three Gondola station perspective
[fig 3.35] KareKare forest waterfall
Shock - The design will require spaces and experiences that ease the first phase of shock. Shock can be defined as a sudden and violent disturbance of the mind and usually occurs when one first hears of the news of death. Shock continues through or resurfaces on the day of the funeral, as the immediacy of the rituals stresses the last moments shared with the physical presence of the dead. This will be addressed by isolation from the body politic by retreating to a remote site. Not only will this allow mourners the necessary environment to grieve, it also addresses violent shock experiences by connecting mourners to the calming aspect of nature and the fundamentals of the world, helping with the possibility of regaining an existential foothold. Sander's states that “shock can last anywhere from a few minutes to several weeks. However, it usually passes into the next phase of grief when the funeral is over and the emotions that have been held in too tightly begin to overflow.” The architectural promenade

Awareness of loss – During the first phase of grief, shock provides a temporary buffer against the emotional turmoil of loss. The chapel proposed is used to address this phase as feelings of personal emptiness and increased emotional responses (anger, crying, and so on) are salient at this time. As the mourners gather and the rituals of death are carried out, support is offered to those most affected, grieving emotions are shared, and aggressive feelings are greatly reduced. The rituals serve to bring the death firmly into the conscious awareness of the survivors.

Conservation / Withdrawal - As a result of experiencing shock and the awareness of loss, many people withdraw from their friends and family as they are usually exhausted from feeling so much psychic pain. Here they become preoccupied with thoughts of their lost loved one. For this phase, the gondola experience provides mourners an intimate space to withdraw and reflect. This will transport them to the site of the crematorium. However some people may not feel the need to be alone at this time and can travel as a group. Scenic walks from the chapel and from the crematorium in the surrounding bush to outlooks and distant views with an awareness of the vastness of the sky would also be helpful.
Idealization / Healing - For some, the idealization and renewal phases will take months, while for others the process can last much longer. These final phases are generally intra-psychical events, therefore the architecture can only contribute partially to this. The act of the cremating may have different meanings in different religions, but nevertheless, it signals the transition in the shift of our relationship with the person who died from one of physical presence to one of idealization and memory. The cremation ceremony encourages us to begin this shift, for the finality provides a natural time and place to do this. The ultimate act of cremation is a ritual symbolising the acceptance of death. Although acceptance will not happen immediately after the cremation, it is a symbol for mourners to eventually reach acceptance and to learn to live life without the physical presence of their loved one.

Renewal - On a more fundamental level, the funeral reinforces one central fact of our existence: we will die. Like living, dying is a natural and unavoidable process, but once we return to our everyday lives, we may get lost in its inauthenticity. The role of architecture in post-funeral events is imperative as it reminds us of the meaning in the life and death of the person who died as well as in our own lives and impending deaths. Essentially post-funeral events reminds us to go on living as fully and as healthily in honour of the deceased. Post funeral events where anniversaries, birthdays and other important dates related to the departed are events the architecture will address. A columbarium on site where the ashes of the deceased are stored will cater to this. They will be stored until the next of kin have reached a stage where they can comfortably make a decision on what to do with the ashes. For some, the ashes will be stored permanently at the site because it has embodied symbolic meaning and has become a place marker. For others, they may want to keep the ashes at home. The possibilities are diverse. A popular choice (and has been for many years) is to scatter the ashes. The design will offer families the opportunity to scatter the ashes at Mercer Bay. Some will feel the site is appropriate as well as symbolic.

Addressing Regressed Phases - It is important to remember that there may be periods in which mourners regress to earlier stages of mourning, particularly when they are reminded of their loved ones. The bereavement process is not a linear one; rather it is a series of overlapping fluid phases. This is addressed by allowing mourners the ability to return to the site and address regressed phases. Whether it be shock, awareness of loss or the need to withdrawal, there are several options for returning to the site to address their current state.
The experiences include returning to the site via three existing hiking tracks. However if the mourners do not feel for the physical hike, the gondola lift is also available for ease of access which also offers scenic views. It is recommended that returning mourners take the existing walking tracks to get a better understanding of the site and its features.

For members that return wishing to celebrate anniversaries, hold a memorial service, ritual or other important proceedings, a bookable remembrance space will be situated on the site.
[Fig 3.36] Funeral Procession
[fig 3.37] Returning visitation route
3.5 | Design Development

3.5.1 | Arrival

McCreadies paddock campground is owned by the Auckland city council and is a bookable campsite. The site is accessed via KareKare road which is the intersection of and connects Piha road and Lone Kauri Road. The campground is bordered by the forest of KareKare and properties are owned along the road. Two tributaries are connected on the campsite and the converged stream flows south to a lagoon and outfall to the sea across the beach at KareKare.

McCreadies paddock campground will provide the car parking for attendees, but the entrance to the chapel itself will be approximately 280 meters north of the campsite. The attendees will arrive at this destination by walking through KareKare forest via a cleared track. This will establish distance from the public realm and will take approximately 5-10 minutes.

The destination site is remote, and the journey to it provides a layered and staged series of experiences. For most people it will start from where they reside. Their transport by car ends at a flat and cleared opening in the forest which is presently the campsite. The attendees will then need to prepare themselves for the next phase through Karekare forest by foot.

At approximately the half-way point, there will be a break point where the mourners could stop, rest and absorb the views.

The track essentially follows the stream that flows from the north-west. This track eventually reaches a vertical natural formation where the stream flows over a small waterfall. This waterfall was a chance discovery and was a special feature of the site. The decision was to interact with this natural water feature.
[fig 3.38] McCreadies Campsite, Karekare
[fig 3.40] Site plan of Karekare with proposed route from McCreadies Campsite
3.5.2 Chapel

The Chapel is the first formal building the mourners encounter. It is potentially a powerful space as it is a place of mixing and reunion – the living and the dead are reunited within the chapel. It has the ability to draw people who would otherwise never intermingle and unite them for a moment in time to recount memories, shared experiences and feelings with each other. It is an important part of the crematorium typology which addresses the awareness of loss.

The chapel is located on a small fairly flat recess in the forest. The natural boundary of the hill site surrounding the recess and its isolation provides the necessary feeling of protection and centeredness. This is important as the mourners at this time are extremely sensitive and vulnerable and the chapel provides us with an accepted venue for our painful feelings. It is perhaps the only time and place, in fact, during which we as a society condone such openly outward expression of our sadness.

A result of the character of modernist crematoria was that visitors perceived a sense of being processed. This was aggravated by the compelling presence of efficient routing through the building, which was a dominant feature of crematorium typology. This idea of processing is important to reflect how there is also a processing of emotions in bereavement. The idea in the design of the chapel was to incorporate a one way in and two way out movement. This successfully allows mourners freedom to decide their own paths. The entrance to the chapel involves a descent as if you are walking into the land and not separated from it. This idea further enforces the feeling of protection and centeredness. When the service is complete, mourners that are not specifically close to the deceased person or their family can choose to leave the complex via the same route for the hearse. This parallel road segregates leaving members from new attendees that may be incoming for a new service.

While the service has closed, attendees that decide to progress to the crematorium take the opposite route up the hill to the gondola station. Pallbearers are ceremonially required to carry the casket to the station. In terms of planning, the chapel becomes a central element with 3 routes that either diverge from or off it.

The formal construction of the chapel was inspired by the Emotionally Vague Project. It is clear that the participants in the survey attributed death to the emotion sadness. As result of the visual patterns and bodily expressions, we can design spaces that is attuned to the concern/emotion of the users.

The first exploration involved layering the drawings together from the survey to generate a holistic image of the emotion. From this image, a series of two dimensional spatial explorations are developed. The activations in the body occur in the top half, namely in the head, chest and abdomen area and the forces/arrows suggest there is pressure brought on the body. There is also a suggestion of some cover or top suspended over the body. Architecturally this can be represented by a simple roof line.

Using light as mentioned in the spatial and visual strategies, we can cut the roof plane to suggest light to relieve tension on the body.

The area of effect on the drawing shows forces acting outside of the body, almost as if the body has its own gravitational pull. Using this pressure, the roof planes are pulled/forced downwards towards the person generating undulating curvatures.

By placing this simple roof line on the central area dedicated for the chapel and integrating it with the tri-routed system, we can develop a basic three dimensional roof. By regulating the scale and heights of the roof planes, there is somewhat a sense of place directly beneath.

The next part involves integrating the chapel on the site. We have a floating roof plane which does not yet tie onto the site. The generation of the walls are the next elements that provides a perimeter. This element draws its strengths from the site and uses an abstraction of the forest to generate its own micro environment in the Karekare tract. This allows integration to the site, suggesting the chapel is an extension of the forest, not separated from it.
The walls resemble the formation of trees and by generating iterations of these walls, we can start forming a nested internal environment that also suggests openings.

The aesthetic hierarchy of the external walls however should be secondary to the roof, as it is the defining expression of the mourner’s current emotional state. The external walls are borrowing design elements from the roof to formulate a holistic integrated form.

This roof form opens up in centre and splits in three directions. The three splits are enclosed by roof tracks that simulate large internal flashings while connecting at the top to form a Y-shaped skylight, in the direction of the tri-routed system. The glazed skylight is reinforced by deep rafters/trusses that form a light portal which draws and refracts light into the centre of the space where the catafalque is positioned.
[fig 3.44] Plan of underside of Chapel showing interior and ceiling
[fig 3.45] Roof plan of Chapel
[Fig 3.46] Elevation of Chapel
Fig 3.47 Site plan of Chapel
[fig 3.48] Interior view of Chapel
3.5.3 | Gondola Station

The Chapel’s planning and form was based on a centring or focus point. In contrast, the station’s design is not intended to have a centre, but rather, has a purely horizontal directional focussing. The arrival to the gondola station is the threshold signifying the last moments with the physical presence of the deceased.

The design borrows elements from the chapel so the two buildings correlate not only with each other, but also with the site. The walls are of the same stature as the chapel’s walls, resembling large tree trunks, and the roof of the station resembles or is reminiscent of the forest’s canopy.

On the side elevation, the integration of the walls and roof forms a clear directional expression of a “here and there” feeling. The design stipulates movement and suggests the station is the point of departure.

Pallbearers come up to the station via the designated path and are directly and clearly received by the entrance, waiting room and cable cart. The axis and direction is clear so that the pallbearers are well informed to load the casket into the cart. The cart is received perpendicularly and the loading act. The idea is similar to when a mother hands a new-born to the father to nourish and hold for the first time. Close family members may decide to be with the deceased and can be seated at the rear of the cart. The waiting room opens up to a full height window so that mourners who are waiting can view the cart travel and disappear into the hills.
[fig 3.49] Roof plan of Gondola station
[fig 3.51] Elevation of Gondola station's Entrance
[fig 3.52] Site plan of Gondola station
3.5.4 | Cable Cart

The design of the cart is influenced by a variety of factors. The primary factor is it should be constructed from lightweight, weather resistant, and low maintenance materials. Technically, gondola carts generally lean towards metal and glazing.

The design of the cart is influenced by the form of the chapel and the gondola station. The curvatures reflect that of the chapel. Its composition also reflects the dynamic aesthetic of the gondola station, articulating a directional quality. The journey will take approximately ten to fifteen minutes depending on the amount of drop off and pickups required. The cart is an intimate space that allows the mourners to withdraw for the duration of the trip. The rear of the cart is enclosed so that mourners can retreat and ruminate on the memories of the deceased. This time will allow mourners to reflect and prepare themselves for procession onto the next phase.

A unique feature of the gondola cart is the transportation of the deceased in the casket. The feature that responds to this is the catafalque in the front of the cart. The front catafalque can also be used as seats in its position comfortably seating two whereas the rear seats can comfortably seat four.
[fig 3.55] Front view of gondola cart
[fig 3.56] Rear view of gondola cart
[fig 3.57] Side door elevation of Gondola cart
3.5.5 | *Axes of Promenade*

The next phase of design involves the arrival gondola station, committal space, crematorium, waiting spaces, columbaria, and remembrance spaces. The proposal for these spaces is organised around three axes of promenade generated symbolically by the site and routes of passage.

The first axis is marked by the gondola passage from the chapel to Te Ahua pa. This advancing axis is important to mark the journey of the gondola cart and concurrently, the emotional journey of the mourners. The idea is to reference the point of origin and the acute emotions experienced. This is the ‘grief axis’, where intimate spaces are accessible to address current emotional responses such as allowing mourners to withdrawal.

The second axis of promenade is generated by the natural course of the site. Te Ahua Pa naturally points towards the south-west which is romantically also the position of sun-set. The existing scenic track that leads to a viewing platform is also formed along this axis. The ritualistic enactments such as the committal to cremation and columbaria are aligned along this axis of the ‘dying sun’, suggesting finality or the departure from physical presence and being. This is the ‘committal axis’.

The third axis is directed towards the southern end of Mercer Bay. This axis is particularly symbolic of the Rangatira (Maori chief) legend, whom drowned following a fishing accident. A Pou (carving) depicting Hinerangi (the Maori chief’s wife) sits on site representing her longing and search for her husband on this headland where she eventually passed away from her inconsolable grief. This axis is a marker of remembrance for returning mourners; a ‘remembrance axis’. The carving and its symbolic axis serves as a lesson for mourners; bestowing that if the bereavement process is fixated at a stage of despair, adverse effects can succumb. Hinerangi’s death can be seen as a tribute to the importance of moving forward in the bereavement process.
[fig 3.58] Axes of promenade
3.5.6 | Transition to Te Ahua Pa

The journey to Te Ahua pa through the existing hiking tracks takes approximately thirty minutes and provides strategic and exceptional views of the site features. It is important for the design on Te Ahua pa to not disrupt any of the features that characterize the site. This includes retaining the existing tracks, views and experiences.

Equally as remarkable, are the caves at the base of Te Ahua pa on Mercer Bay. The caves and chimney have unique spatial properties which take the person on a journey of discovery. The top of the blowhole is clearly visible while descending down onto Te Ahua pa from the gondola cart. The arrival station is sunken into the ground to almost reflect and expose the cavernous feature of the site. The cavernous lighting as well as the sunken nature hides the mechanistic presence of the gondola machineries. The roof reconstitutes the excavated vegetation as a green roof, so that the footprint of the station is not visually disturbing.

The next phase involves a threshold, where mourners transition from the chapel service to the committal space. For returning mourners, it is the transition from the KareKare tract to the remembrance spaces and/or columbaria. These thresholds involve changes in axes. When the mourners have landed, ready to exit the cart, the route of passage will be suggested based on the position or parking of the cable cart. For mourners attending the cremation ceremony, the cart is positioned perpendicularly on the ‘grief axis’ so that mourners are well informed of the direction and pathway. When returning members have arrived to the station, the cart is positioned so that when the mourner leaves the cable cart, they are immediately facing the southern gate, perpendicular to the ‘remembrance axis’. While in cremation mode, the gateway to the south is closed off by a large concrete sliding door to avoid ambiguity. This also occurs for remembrance mode, where the gateway to the committal space is closed off also by large concrete sliding doors.
[Fig 3.59] Floor plan showing Gondola station aligned on Grief axis
When mourners have successfully transitioned past the gateway to the committal space. The mourners are greeted by a hybrid of stairs and ramp. The ascendance suggests a hierarchy of spaces, where the committal space is of a higher level of importance. At this point, mourners are still underground, positioned under a reconstituted green roof. The higher level of the committal space is an open air crematorium courtyard. The exposure to the elements is an important reference of the natural processes of life and the return to nature and pure elements after death. This experience is the same for burial and is a refreshing change in the fully institutionalization of modern crematoria design.

The open air committal space involves a linear progression. The casket is shifted from the gondola cart, up the ramp and onto the catafalque. The ceremony occurs once mourners have arrived and are all waiting. The catafalque moves along the ‘committal axis’ on tracks powered by an electronic charger. The process is electronically initiated by the next of kin.

The casket is charged into the vertical cremation chamber. The form symbolically references a large tombstone, which hides the cremators and chimney stacks from view. The casket it passed through an opening shutter and closes once the casket has completely entered the cremation chamber. Once the casket has passed through this threshold, crematory staff in the chamber will prepare to cremate the body.

The committal ceremony is the last moment the mourners get to spend with the physical presence of the body. The large space and openness for this event gives mourner's full control of their actions. They could walk with the casket while it is being charged, or just stand back to watch. For some, this idea will form a response too emotional by the mourners and may not have the mental resources to process this event. If they feel they cannot engage or be present to view this ritual, withdrawal spaces are incorporated in this space. On the north side of axis are four private withdrawal spaces accessed by a right turn and up a set of stairs. The staircase leads the mourner to a private viewing tower aligned on the ‘grief axis’ with a view framed outwards towards the sea and sky isolated from view of the committal space. On the south end of the committal space is a larger and less private viewing area which can be used for viewing the committal, or for an alternate isolated view towards the southern
end of mercer bay. The charging process is important for the awareness and finality of death as it acts as a theatre of reality. The charging process is an important reminder of finitude and mortality finalised in a single event.

While the mourners are waiting on the collection of the ashes, an urn collection/waiting room is situated further along the ‘committal axis’. This room can be accessed on either ends of the committal space. Transition between the committal space and the urn collection room is through covered passageways and down a flight of stairs. The passageway is shadowed and contrasted with the open-air committal space. The urn collection room is a vertically dominant space, and uses a large skylight portal which lights the interior and also refracts light out through the entrance so way finding is clear from the covered passageways. Light and shadow here has be used to focus attention, imply different spaces, and control movement.

Once the cremation is complete and the urn is received, a sliding door opens on the west wall from the urn collection room and the mourners are aligned again with the ‘committal axis’. The mourner’s are led to an atrium with three options of pathways. The chosen path is dependent on what the mourner’s wishes to do with the urn.
[Fig 3.60] Floor plan showing Open Air Committal Space aligned on the Committal axis
Floor plan showing Withdrawal Spaces aligned on the Grief axis
3.5.8 | Post-Funeral Spaces

The two post-funeral events incorporated into the design of the complex involves remembrance rituals and columbaria rituals. The complex incorporates three remembrance spaces for mourners who wish to celebrate important dates related to the deceased. These three spaces can be accessed through the atrium if the mourners return by opting for the existing hiking tracks. They can also access the remembrance spaces via the southern gate if they return by gondola.

The remembrance spaces are aligned along the ‘remembrance axis’ and accessed through a corridor. The three chapels have an outlook focusing towards the southern end of Mercer bay.

The open air space adjacent to the remembrance space on the far west end is a public area where the existing pou (carving) will be relocated to. The relocation is necessary due to the currently incorrect positioning. One can assume the current position was forced due to practical reasons, where it is accessibly placed on the existing track. The pou currently faces the north-west towards the sea. The proposed correct position should face the southern end of Mercer bay on the ‘remembrance axis’ where Hinerangi’s husband tragically died. This is the logical position which amends the locational legend followed on the interpretive plaque. On the new location; the southern side of Te Ahua Pa, there is a problem of exposure. The existing location was placed directly adjacent to the track and is easily accessed. The new position is almost totally blocked by the crematorium complex. To remedy the lack of exposure, A slit in the building along the ‘remembrance axis’ is carved to form a direct sight line where the pou is located. This Pou and sight line is visible following a left turn from the existing location.

There are also two columbaria systems proposed. The first is the typical open air columbarium located on the top of the site and accessed through the atrium and up a flight of stairs. The second system implemented involves a ritualistic shifting of the urn on selected dates (such as anniversaries, birthdays, and other important dates) organised by the mourners.
The concept derives from the idea of bereavement as an ongoing process which can last months or years. The concept involves a three phase ritual procession where the urn can only be advanced to the next columbarium by reaching a specific date. Mourners are ceremonially required to shift the urn to its new space once they have reached this timeframe. This new ongoing post-funeral ritual acknowledges the bereavement process, and provides a new transitional experience that has formerly been static. This ritual is an option, and not obligated to be performed. Individuality and preference is respected with several options offered.

This ritualistic enactment, if undertaken is designed to contribute to the healing process. By returning to the columbaria for the ashes of the deceased, it is a reminder of the meaning in the life and death of the person who died as well as in our own lives. Endurance through these important dates are imperative in the bereavement process. The logic of this concept is to allow mourners to confront their grief so they can get a better understanding of their own bereavement process. The ongoing return and visitation period re-ignites the authentic attitude towards life and death. The remembrance spaces also contribute to this.
Fig 3.62  Floor plan showing Remembrance Spaces aligned on the Remembrance axis
[fig 3.63] Floor plan showing New Ritual Crematoria aligned on the Committal axis
[fig 3.64] Floor plan showing Typical Open Air Crematoria aligned on the Committal axis
3.6 | Surface

[fig 3.65] Plan showing how the Crematorium Complex is settled on the surface of Te Ahua Pa
3.7 | Sections

[fig 3.66] Long Section of Crematorium Complex
[fig 3.67] Cross section through Open Air Committal space, Withdrawal spaces and Remembrance Spaces
[fig 3.68] Cross section through Atrium, Open Air Columbaria and New Public location of Pou
Chapter 4.0 | Design Outcome

4.1 | Final Drawings
Examination drawings
4.2 | Physical Model

[Fig 4.2] Top view of 3d printed model
[Fig 4.3] Bottom view of 3d printed model
[Fig 4.4] Symmetrical view of 3d printed model
[Fig 4.5] Angled view of 3d printed model
Conclusion

People cope with the loss of a loved one in many different ways. For some, the experience may lead to personal growth, even though it is a difficult and trying time. There is no right or wrong way to cope with the passing of a loved one. The way a person grieves depends on the personality of that person and the relationship with the person who has died.

An architecturally grounded interpretation of the bereavement process has been provided. No claim is made that the interpretation is ‘the’ theory; currently, this project is only exploring theoretical possibilities. The phenomenon of death has been discussed, and its relationship to a universal structure. This extends various theories which we have discussed, and draws attention to new architectural research problems, some of which require more detailed design specifications and some more detailed empirical investigations of phenomena involving death and its effects on mourners.

One of the reasons why people are so uncomfortable at a funeral is because they’re not sure about what to do or say. While death may be an extremely uncomfortable topic, the worst thing to do is ignore it when it occurs. This also applies to the design of spaces. By outlining the bereavement process, we have a holistic view and can stipulate how architecture can address this.

The architectural promenade is guided by the integrated bereavement model which informs the designer what can be facilitated through architecture. The only way of achieving a desired result is by allowing mourners to experience grief in its full impact. Vulnerability may be difficult for some, but the bereavement model tells us it is a universal human process. This architectural promenade proposes spatial experiences to transition mourners into a state of authenticity to not only emotionally engage in the funeral, but also to engage with their emotions. Avoiding grief will essentially block the ability to heal and renew in life. It is therefore essential for the architecture to assist mourners to reach this level of authenticity. By accurately and symbolically engaging in life and death on an existential level, the design can effectively tap into the narrative dimension encouraging emotional responses by the mourners.
Underlying spatial strategies from selected precedents have been used to create experiences that can help trigger these responses by the mourners. Through the sequence of rituals in the funeral process, comes a series of architectural interventions that respond to the overlapping fluidity of the bereavement process. The journey involves shifts from light to dark, weight and openness (and vice versa) to reinforce the procession of the architecture experienced on a carefully structured timeframe.

This design project is an attempt on the notion of ‘re-designing death’. It comes from a holistic but general view of death focused around addressing mourners. The general understanding of bereavement involves a long and sustained period which may last months or years. The bereavement model is a useful tool to help designers reconsider conventional design which may be lacking spaces of fluidity to address the bereavement process. The proposal involves an engagement that is ongoing and concurrent with the bereavement process by incorporating remembrance spaces and a new columbaria ritual. These spaces are designed to engage in process, space and time, so that mourners can return to address their grief long after the funeral.

Does architecture alone result in complete healing and renewal of the mourners? No, not necessarily because a large portion of the bereavement process occurs intra-psychically where responsibility lies within the mourners. The architecture therefore is only a representation of the bereavement process used to allow mourners to understand their own process. The crematorium typology is used to test this theory, to force the consideration with a richness and complexity of rituals contained within. It is certainly appropriate for the design based approach to the study of human bereavement processes. The architecture can work in partnership with bereavement, to implicitly expose its process and address emotional requirements.
Bibliography

Books


Engel, George L., “Grief and Grieving”, American Journal of Nursing 64 (1964)


Heathcote, Edwin, “Monument Builders” (John Wiley & Sons, 1999)

Hockey, Jenny, “The View from the West: Reading the Anthropology of Non-Western Death Ritual” in Contemporary Issues in the Sociology of Death, Death, Dying and Disposal (St. Martin's Press, 1996)


Sanders, Catherine M., Surviving Grief… And Learning to Live Again (John Wiley & Sons, 1992)


Journal Articles


Dissertations

Mundell, Rachel, “The Aesthetics of Absence” (MARCH diss., University of Bath, 2008),

Websites


