DEAD AMONG THE LIVING:

BURNING BODIES IN INNER

CITY WELLINGTON

BY

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A B S T R A C T

The architecture of cremation has struggled to embrace an identity; it has remained ambiguous in its architectural typology and religious association since it was first introduced into western society. Additionally, the absence of a ritual place for death in urban life is one manifestation of the contemporary idea that death does not belong in the modern living city. Death is seen as having no place in a society obsessed with youth and vigour; it has become an architectural taboo. The increased reluctance to physically address death as the inevitable consequence to life has resulted in death associated architecture eroding to the point where it has become absent in our everyday lives.

With the expansion of Wellington during the 1800's, cemeteries formerly on the outskirts (Mount and Bolton Streets) became engulfed by the sprawling city. Overflowing with corpses by the 1900's, these sites now remain dormant, eliminating any opportunity for the public to 'see' death daily. Situating a crematorium within a Wellington urban context will not only address this issue, but also successfully meet the demand for more burial spaces, as Makara Cemetery is nearing capacity, and Karori Cemetery is already full. A site located in the 'dead centre' of Wellington's central business district becomes the testing ground for a new urban crematorium – one that aims to reduce the anxiety around death by inclusion of it within people's everyday lives. It aims to provide mourners with a more meaningful experience, and the general public a cosmopolitan necropolis. The presence of an urban crematorium and columbarium provides continual opportunities for people to reflect on their own mortality, honour and remember the dead, and be reminded to live while they can.

A methodological approach of testing architectural sequences in relation to pattern language theory will allow for a thematic progression for mourners from sorrow to acceptance through the use of light, shadow, and sectional arrangements. This investigation into the meaningfulness of relationships between people and buildings, life and death, translates into spaces ready to be further invested with meaning by mourners.

D E D I C A T I O N

Dedicated to my distracting studio neighbours,
Katie-Rose, Jessica, and Amelia, who were no help in writing this book.

ACKNOWLEDGEMENTS

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CHAPTER ONE:

INTRODUCTION

P R O B L E M   S T A T E M E N T

The architecture of cremation has struggled to embrace an identity. It has remained ambiguous in its architectural typology and religious association. Historically unprecedented, crematoria became susceptible to the influences of religious architecture that came before them and, due to the heavy burden of assuaging pain caused by the loss of a loved one, exhibited an unwillingness to confront the realities of death (Grainger Death Redesigned 25).

The notion of death has largely been neglected by the architectural discipline. Architects have struggled to provide mourners with a reassuring space to remember the dead (Heathcote 36). As society has moved away from religion to a more secular focus, many churches have been reconditioned as crematoria. While, in some cases, this has provided mourners with reassurance as they congregate in familiar surroundings, others have found it less so, especially when religion has not played a major role in the deceased's life (Davies 144).

IMAGE REDACTED

Fig 1.01. Looking east over Wellington city and
harbour from Mount Street Cemetery.

Historically, new-build crematoria hid their functions, disguising the chimney flues in purpose built 'bell towers' that once again resembled churches, following that which had been set down as the 'right' way to farewell the dead for centuries (Grainger Death Redesigned 11). Crematoria were customarily built outside urban areas, like country parishes, perched in the no-man's land between bustling city life and rural paddocks (see fig 1.01). Banishing the dead from the city to just beyond or amongst the urban sprawl has now sadly become the custom for many modern cemeteries and crematoria, and has arguably lead to a dissociation of death from the urban fabric (Heathcote 15).

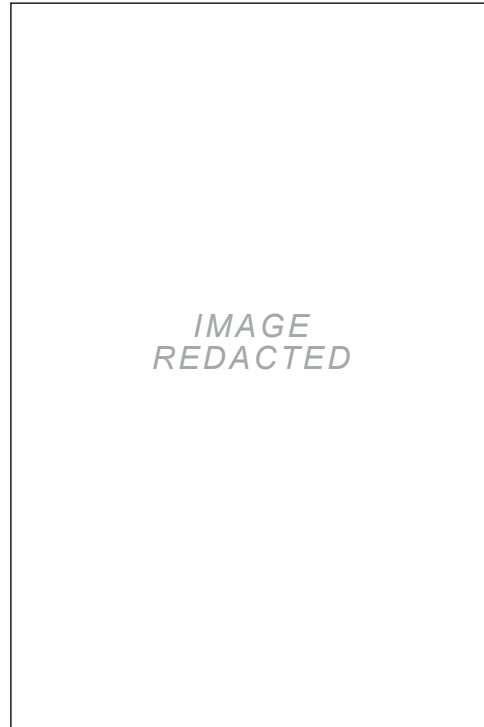Fig 1.02. Karori Cemetery, circa 1890.

Fig 1.03. Makara Cemetery.

Fig 1.04. Lychgate funeral home in Aro Valley, Wellington.

In Wellington during the 1800's, before cremation became popular, Mount Street and Bolton Street cemeteries were situated on (what was then) the outskirts of town, and were already overflowing with bodies. After the Karori cemetery reached capacity in 1965 (see fig 1.02), Makara cemetery was established - a 30-minute drive from Wellington's central business district (see fig 1.3). As of today, Makara has already reached a third of its capacity (Greig et al. 5).

The only close approximation to an urban crematorium in the Wellington region is operated by Lychgate Funerals, and is located in the central city's, largely residential, Aro Valley. It is disguised as a suburban house, with blacked-out sash windows hiding the cremator, and the smallest chimney peeking out of the tiled gabled roof (fig. 1.04). If it weren't for the hearses parked in the driveway, this crematorium would blend seamlessly into the banal suburban surroundings, with those walking past blissfully unaware of the burning bodies inside. This seamlessness is obviously deliberate. The building undoubtedly hides from its function, concealing its true identity, clearly as a means to provide comfort to users by giving the impression mourners are visiting a friend's home rather than a crematorium; and perhaps, also, as a means to assuage the concerns of neighbours.

m e m e n t o   m o r i
//
r e m e m b e r   t h a t
y o u   m u s t   d i e .

After a guided tour of the building by Funeral Director Keith Newell, I began to wonder if there was a way for an urban crematorium to be true to itself; not to conceal or hide its purpose, but simultaneously provide a place for both mourners and everyday people to be able to contemplate life and death; to see the building's presence as a symbol of absence and death in a city that encourages its people to live. This then leads me to the research question:

P R O P O S I T I O N

W h a t   i f   t h e   a r c h i t e c t u r e   o f   c r e m a t i o n   s o u g h t   t o
p r o v i d e   m o u r n e r s   w i t h   a   u r b a n   n e c r o p o l i s   s o
t h a t   t h e   p r e s e n c e   o f   t h e   d e a d   c a n   b e   i n t e g r a t e d
a m o n g   t h e   l i v i n g   a s   a   d a i l y   f a c t   i n   a   s o c i e t y
t h a t   e n c o u r a g e s   i t s   p e o p l e   t o   r e m e m b e r   t h e
d e a d ,   r e f l e c t   o n   t h e i r   o w n   m o r t a l i t y   a n d   b e
r e m i n d e d   t o   l i v e   w h i l e   t h e y   c a n ?

The aim of this research is two-fold. Firstly, I wish to explore what it means for mourners to have an interior experience that initially lessens the adverse emotions surrounding death, then provides comfort and grace in the final moments of a farewell. Secondly, I aim to design a building that is true to its function while also becoming ingrained into the everyday lives of Wellingtonians; a building that is prominent, recognisable, memorable, and functional, while also participatory in the context of an enjoyable urban experience.

My objective is to use Christopher Alexander's 'Pattern Language' theory as a tool to foster a design process that develops, through design, a series of emotional spaces for a sequential progression experience for mourners. In order to achieve the aim that the crematorium be participatory in the context of an urban experience, the site must be centrally located and intertwined into public spaces to encourage use.

I have selected the disposal method of cremation over others, as it is currently the most popular form of disposal, and requires the least amount of space,

create a space that is ready to be **<u>invested with meaning</u>** by the mourners.

_A I M S   &   O B J E C T I V E S_

which makes it the preferred choice within urban environments. Alexander's theory of pattern language has been used as a tool to foster a vigorous design process. Because Alexander has limited patterns for death or emotionally responsive design, however, I have sought to provide my own patterns in order to construct a network arrangement suitable for a sequential crematorium experience (Alexander xi).

The design methods focus on a process that is strongly driven by separating programmes or rituals, designing for each separately, then combining them together (see fig. 1.05). This approach is appropriate for crematoria design because the emotions or experiences in each space are going to differ vastly from one another,
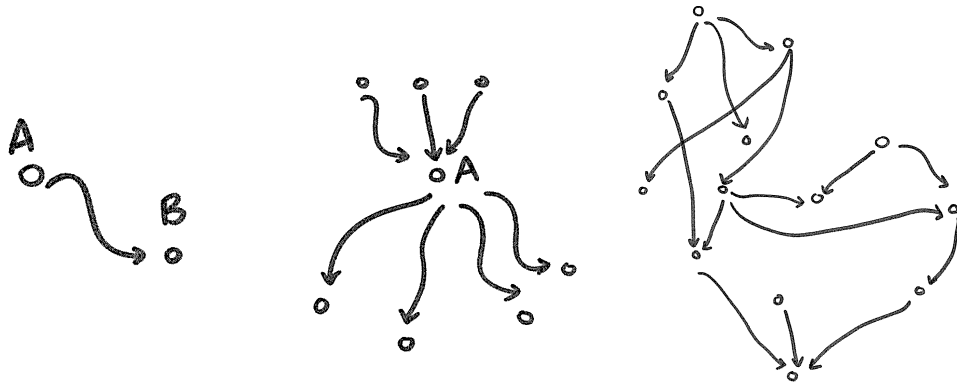
Fig 1.05. Individual patterns form a network
arrangement that makes up the language.

so each space needs to be able to communicate its own character without the influence of surrounding spaces. For example, the office spaces for staff must be removed from the reflection and ceremonial spaces, so that the staff are able to come into work each day without encountering emotionally heavy and sombre atmospheres.

Additionally, the sequencing of these spaces is highly important to the user's journey from the moment their car pulls into the car park, or from the moment they step onto the grounds of the site. It is for this reason that the iterative process of

selecting parts to make a whole is important, and that it follow a linear sequencing of spaces leading mourners from beginning to end of the funeral service, in order to provide a seamless and graceful experience leaving mourners with a sense of peace in a time of emotional turmoil.

I geometrically and critically analysed several crematoria and death-related buildings known for successfully providing mourners with a sacred space to farewell their loved ones. Erik Gunnar Asplund's Woodland Chapel and Crematorium focused on and

"It is not necessary for the design of a crematorium to carry all this heavy burden of relieving pain, or giving meaning. It is the mourners who do the work, who bring such meaning. The design of the building is [...] hopeless in the face of what has happened, but **ready to be invested with meaning** by the mourners."

Alan Crawford

manipulated the mourner's experience through the use of architectural sequences based on the thematic progression from dark to light, representing the progression from sorrow to acceptance (Constant 55, 58).

I have chosen design methods that echo Asplund's progression through architectural spaces, where there is a very deliberate isolation between spaces strung together in a sequence.

Fig 1.06. Archway at the Brion Cemetery.

Another case study that draws users through a series of spaces is Carlo Scarpa's Brion Cemetery (see fig.1.06). Built as a place for two lovers to rest together, it emphasised the tensions between opposites, the three edges of the cemetery pulling against each other (Crippa 62). Much like Asplund's Chapel and Crematorium, the treatment and integration of the surrounding landscape are keystones in the narrative of life and death.

Additionally, the Kaze No Oka Crematorium by Fumihiko Maki, The Cemetery of San Cataldo by Aldo Rossi, and The Forest of the Tombs by Tadao Ando will be analysed for their geometric and spatial qualities. It is my aim to translate the geometric alignments and qualities found in both plan and section of these case studies into the design in plan and section for this crematorium.

Outside the scope of this research are religious implications and adaptability. This project will not focus on a particular religion, and will remain secular while allowing for religious denominations to freely adapt the ceremony spaces to best suit their own needs. With more than 40% of the population reporting they had 'no-religion', it is clear there is an ever-growing 'non-religious' trend in New Zealand, particularly among younger people(Statistics New Zealand 2013). A 'non-religious' space should, therefore, be provided for the people of Wellington (Schwass Last Words 140). The cost of this building will also remain with the 'client', being the Wellington City Council, and is, for the purposes of this work, limitless. Additionally, the structural integrity of the building will be touched on, but there will be no structural analysis or working drawings to reflect the workings of this. Finally, this research will focus on body disposal by means of cremation only. This research acknowledges other known sustainable methods of disposal, however the increase in popularity for cremation, particularly in urban areas, is likely to remain a constant in the foreseeable future.

This research will follow the framework, set out in figure 1.07, that highlights how, by design, the outcomes of this research relate to relevant literature reviews and case studies. The way this research is structured focuses first on an in-depth investigation into the problematic nature of current crematoria, and how this has historically been addressed or, in some cases, avoided. Secondly, the rituals that surround death and cremation will be addressed before, thirdly, an investigation of historical and contemporary case studies and theory. The site and initial design experiments will then be described and critiqued, before arriving at final design outcomes and conclusions.
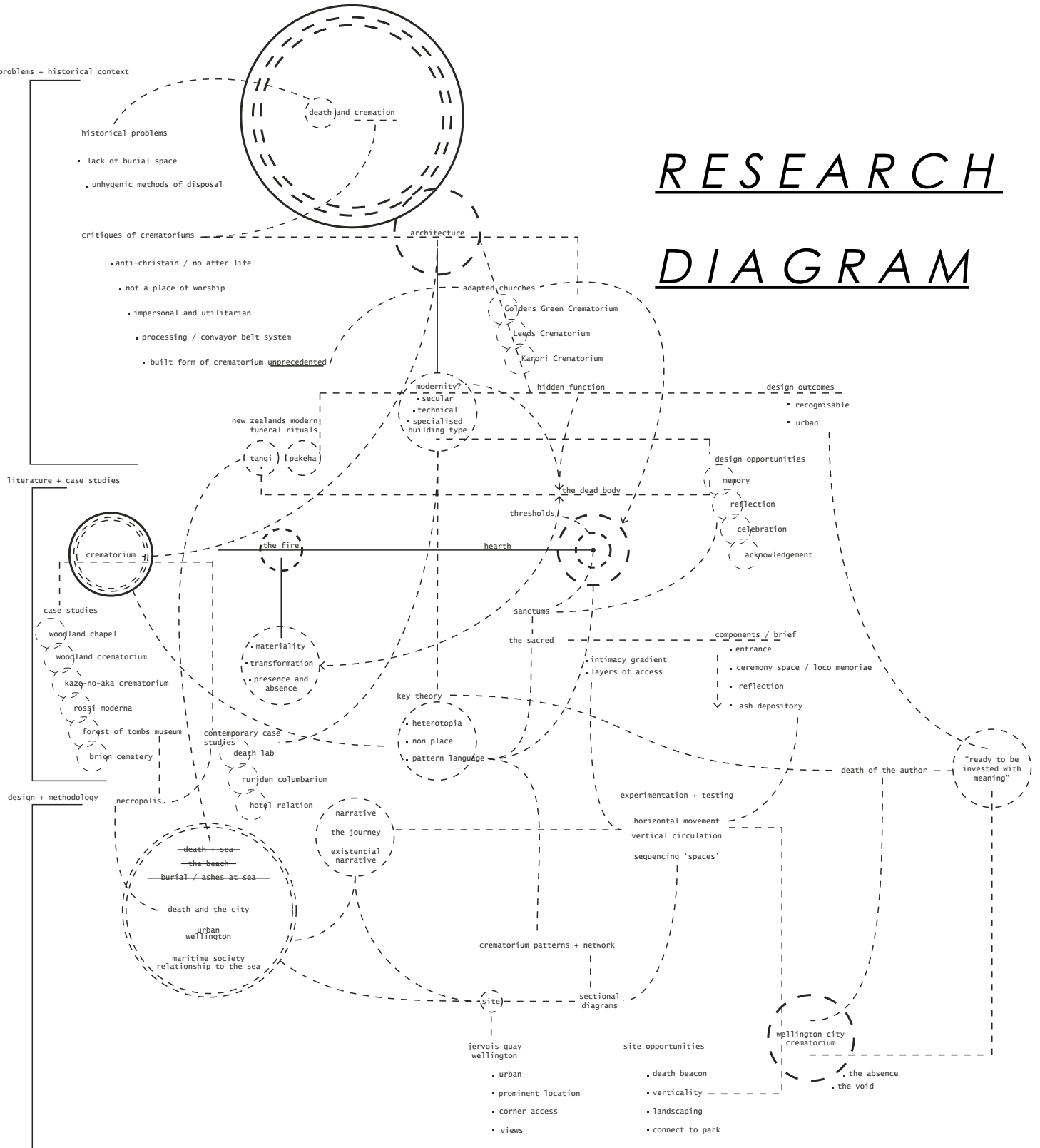
R E S E A R C H

D I A G R A M

the problems + historical context

historical problems
- lack of burial space
- unhygenic methods of disposal

death and cremation

critiques of crematoriums

architecture

- anti-christain / no after life
- not a place of worship
- impersonal and utilitarian
- processing / convayor belt system
- built form of crematorium unprecedented

adapted churches

Golders Green Crematorium

Leeds Crematorium

Karori Crematorium

modernity?
- secular
- technical
- specialised
building type

hidden function

design outcomes
- recognisable
- urban

new zealands modern
funeral rituals

design opportunities
memory

tangi   pakeha

the dead body

reflection

thresholds

celebration

literature + case studies

acknowledgement

crematorium

the fire

hearth

case studies

sanctums

woodland chapel

the sacred

components / brief
- entrance

woodland crematorium

- materiality

intimacy gradient
layers of access

- ceremony space / loco memoriae

kaze-no-aka crematorium

- transformation

- reflection

rossi moderna

- presence and
absence

- ash depository

forest of tombs museum

key theory

brion cemetery

contemporary case
studies
death lab

- heterotopia

- non place

death of the author

"ready to be
invested with
meaning"

design + methodology

necropolis

rurjden columbarium

- pattern language

experimentation + testing

hotel relation

narrative

horizontal movement
vertical circulation

the journey

sequencing 'spaces'

~~death + sea~~
~~the beach~~
~~burial / ashes at sea~~

existential
narrative

death and the city

urban
wellington

maritime society
relationship to the sea

crematorium patterns + network

sectional
diagrams

site

wellington city
crematorium

jervois quay
wellington
- urban
- prominent location
- corner access
- views

site opportunities
- death beacon
- verticality
- landscaping
- connect to park

- the absence
- the void

Fig 1.07. Connections between research

CHAPTER TWO:

HISTORY

DEATH &

THE CITY

An increased reluctance to address death as the inevitable consequence to life in a society obsessed with youth, beauty, and vitality has resulted in the movement of cemeteries and crematoria out of the city to the extent that the physical place of death in society is absent (Heathcote 6). This has arguably led to dissociation between the city of the living and the city of the dead (see fig. 2.01). The necropolis as a classical archetype has been forgotten, and the spirits of the dead are no longer able to participate in everyday activities of city life (Heathcote 12, 17).

As death became 'out of sight' and therefore 'out of mind', the architecture of expressing death suffered deeply. Crematoria, due to its association with death did not, and does not, attempt to address the gravity of its theme, or

"Death has been torn out of the city and a significant part of the city has died as a result."

Edwin Heathcote
Monument
Builders

MAKARA CEMETERY
1965- Present

Fig 2.01. Death sites in Wellington city.

Future Timeline

BOLTON STREET CEMETERY
1842-1891

KARORI CEMETERY
1891-1965

MOUNT STREET CEMETERY
1842-1891

Historical Timeline

IMAGE REDACTED
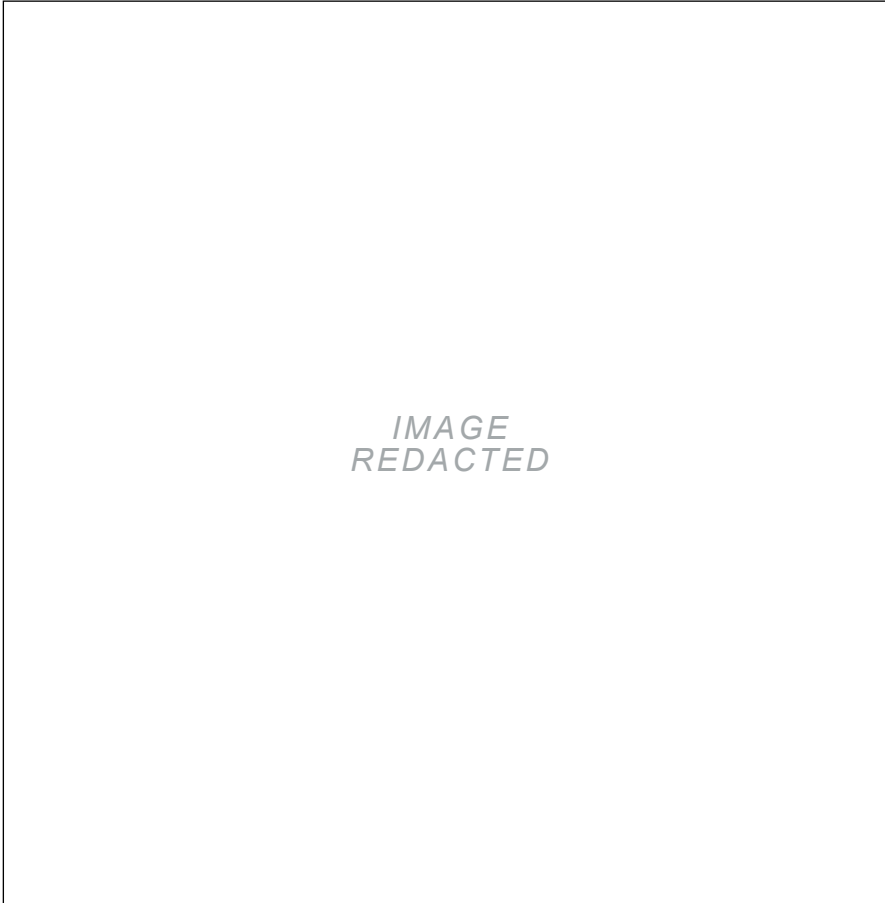
Fig 2.02. Bolton Street graves.

IMAGE REDACTED

Fig 2.03. Mount Street Cemetery,
looking out towards
Mount Victoria.

the existential questioning and emotions which death can prompt. This apparent unwillingness to confront the reality of death resulted in crematoria that disguise their purpose, and lack a recognisable typology. They therefore materialise as either poorly adapted churches, or seemingly banal and anonymous structures hidden from the world, despite the fact that they are essentially modern buildings: complex in their technology, primarily secular, and part of the proliferation of specialised building types belonging with post offices, railway stations, and public libraries (Heathcote 36, 12; Grainger,
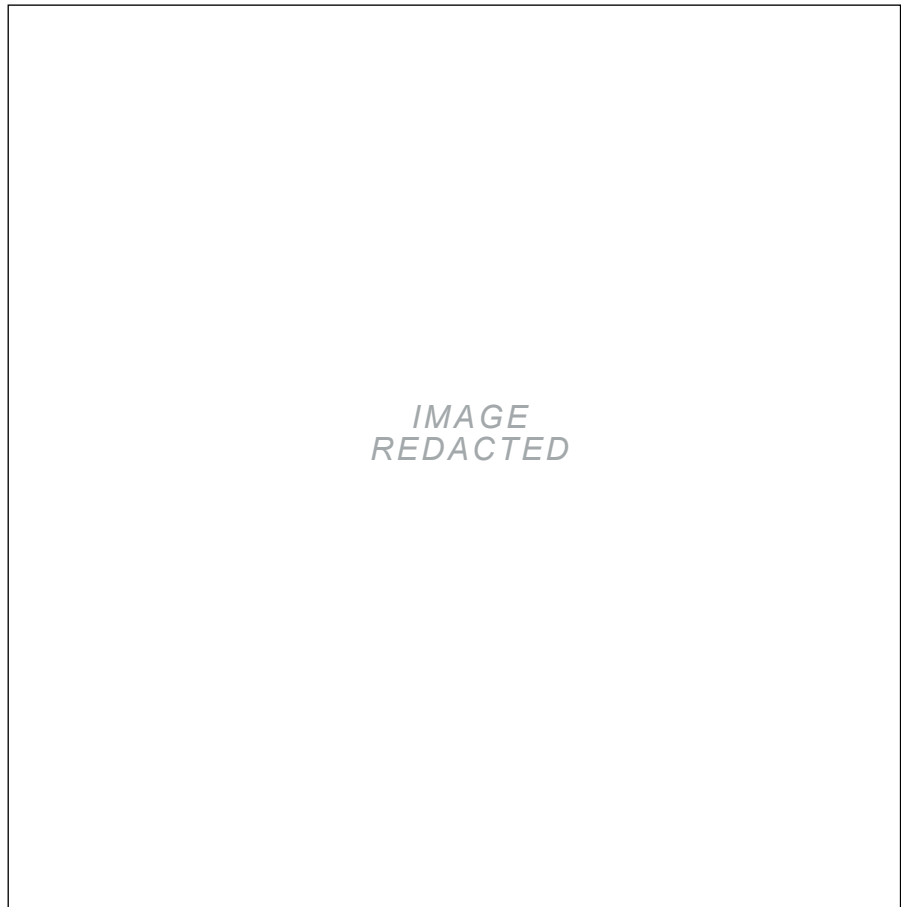
Fig 2.04. Bolton Street Cemetery,
looking out towards
Thorndon.

"Death Redesigned" 11, 16). In other Western countries, cremation became popular during the nineteenth century as a means of solving both the spatial and sanitary issues that occurred as a result of overloaded urban cemeteries. The arguments advocates used to encourage cremation echoed these concerns (Curl 300). In Wellington, cremationists wished to see burial completely displaced by cremation, believing it offered both the perfect solution to the sanitary dangers of burial, and the economic advantages of saving space and reducing funeral expenses (Cleaver 106,107).

THE RISE OF CREMATION

In Wellington, both the Bolton Street and Mount Street cemeteries, established in 1842, were hopelessly overcrowded by the 1880's (see fig. 2.02 - 2.05). This resulted in great public concern and fear of disease, particularly as both cemeteries were within close proximity to the population, and built on land that had poor drainage and sloped down towards the city centre (Greig et al. 12).

The Wellington City Council, conscious of public fears about these overcrowded cemeteries, began investigating new sites for burials, and ultimately opened the Karori Cemetery in 1891. This new cemetery grew very rapidly, and after 40 years it had reached its envisioned capacity (Greig et al. 5).

It was at Karori Cemetery where Wellington's first crematorium was built in 1909, with the Wellington City Council being the first local authority in New Zealand to respond to the public demand for crematoria. The cremation movement in Wellington received favourable coverage in a number of local newspapers,

IMAGE REDACTED

Fig 2.05. Relocation of gravestones alongside the Wellington Urban Motorway,1979.

especially the New Zealand Mail, and cremation gradually gained public and political acceptance as an alternative to burial throughout the twentieth century (Hammond 48; Cleaver 105).

_A R C H I T E C T U R A L_

_E X P R E S S I O N_

As the physical act of cremation demanded a place where bodies could be burned indoors, buildings were obviously required, and that also meant a new building type, one for which there was no architectural precedent (Grainger, "Death Redesigned" 28, 16). Crematoria had the opportunity to architecturally represent the outward physical and symbolic expression of a movement that sought to provide a radical alternative to burial. Despite the modern cremation movement being historically

IMAGE
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Fig 2.06. Karori Cemetery.
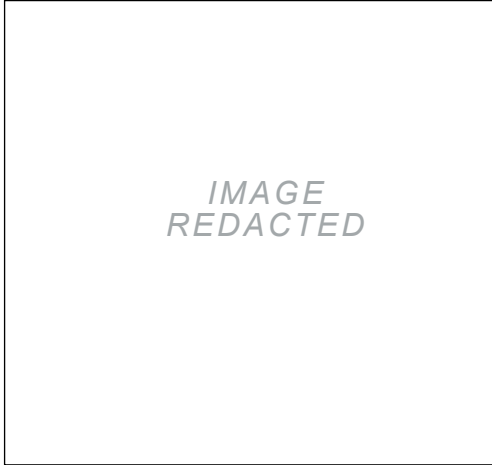
Fig 2.07. The Headingly Crematorium in Leeds is an excellent example of a Gothic style chapel used as a means of reassurance. Designed in 1903 by Architect Walter Samuel Braithwaite, the crematorium is a conversion of the existing Gothic style non-conformist chapel in the grounds of the Lawnswood Cemetery (Grainger Death Redesigned 90).

secular, functional, hygienic, and even anti-ecclesiastical, religious aspects were applied to cremation ceremonies and their architecture. As a result, new crematoria were modelled on churches, or built or adapted from existing cemetery chapels.

This was partly due to crematoria being located very close to existing cemeteries, but also as a result of architects who chose to align themselves with tradition through architectural association. This was likely an attempt to provide comfort and reassurance to those sceptical of cremation (Davies, "The Sacred Crematorium" 83; Grainger, "Death Redesigned" 39). The models for early crematoria were predominantly Gothic-style chapels, as the Gothic style was predominant in church architecture (see fig. 2.07). The Gothic style, therefore, had both emotional and associative appeal; for a movement that was seeking official and public approval, this reassurance was of crucial importance (Grainger "Golders Green Crematorium" 53, 61-62). Not a lot has changed in terms of typology or architectural expression from those early

crematorium models, particularly in Wellington city (fig. 2.08). As society has moved away from religion to a more secular focus, however, the desire for crematoria to reflect a church experience has decreased. Church-like buildings no longer provide the same reassurance they once did, especially when religion has not played a major role in the deceased's life. This leaves an opportunity for crematoria to be re-imagined in a prominent, recognisable, memorable, and functional way.

A SECULAR CHURCH

In addition to crematoria being traditionally modelled on churches, the presence of explicit religious elements further enhances the church's involvement with cremation, even though crematoria are typically owned by local authorities or private companies, and are not technically considered places of worship (Davies, "Crematorium" 144; "The Sacred Crematorium" 89). In modern society, crematoria must accommodate both the secular and the religious in one building. Immobile religious symbols, therefore, such as stained glass windows, organs, and altars, are a burden to crematoria, as they cannot be removed for secular services.

Other religious symbols, however, such as crosses, candles, and explicitly religious pews, are now likely to be removable according to the nature of the service, as is the

placement of the catafalque (a temporary structure upon which the coffin is placed for the service); having it central accords with traditional funeral services, while placing it off-centre removes the coffin from the centre of attention (Grainger Death Redesigned 31). This very plasticity of decoration and arrangement, along with the dichotomy between religious and secular needs, may explain why most crematoria suffer from a crisis of identity. The crematorium remains ambiguous as a physical representation of both religious and secular, utilitarian and symbolic (Davies "Crematorium" 145; Grainger, 'Death Redesigned' 25).

The disguise of crematoria's central purpose and function is further facilitated by the concealment of chimneys in the 'bell towers' of the 'chapels'. This was a popular attempt to provide further reassurance to mourners: it is difficult

"While reassurance was important, so was grandeur and dignity; it was a delicate balance. While committed supporters of cremation looked for a dignified but glorious departure, sceptics might look for reassurance" (Grainger, "Golders Green Crematorium" 63).
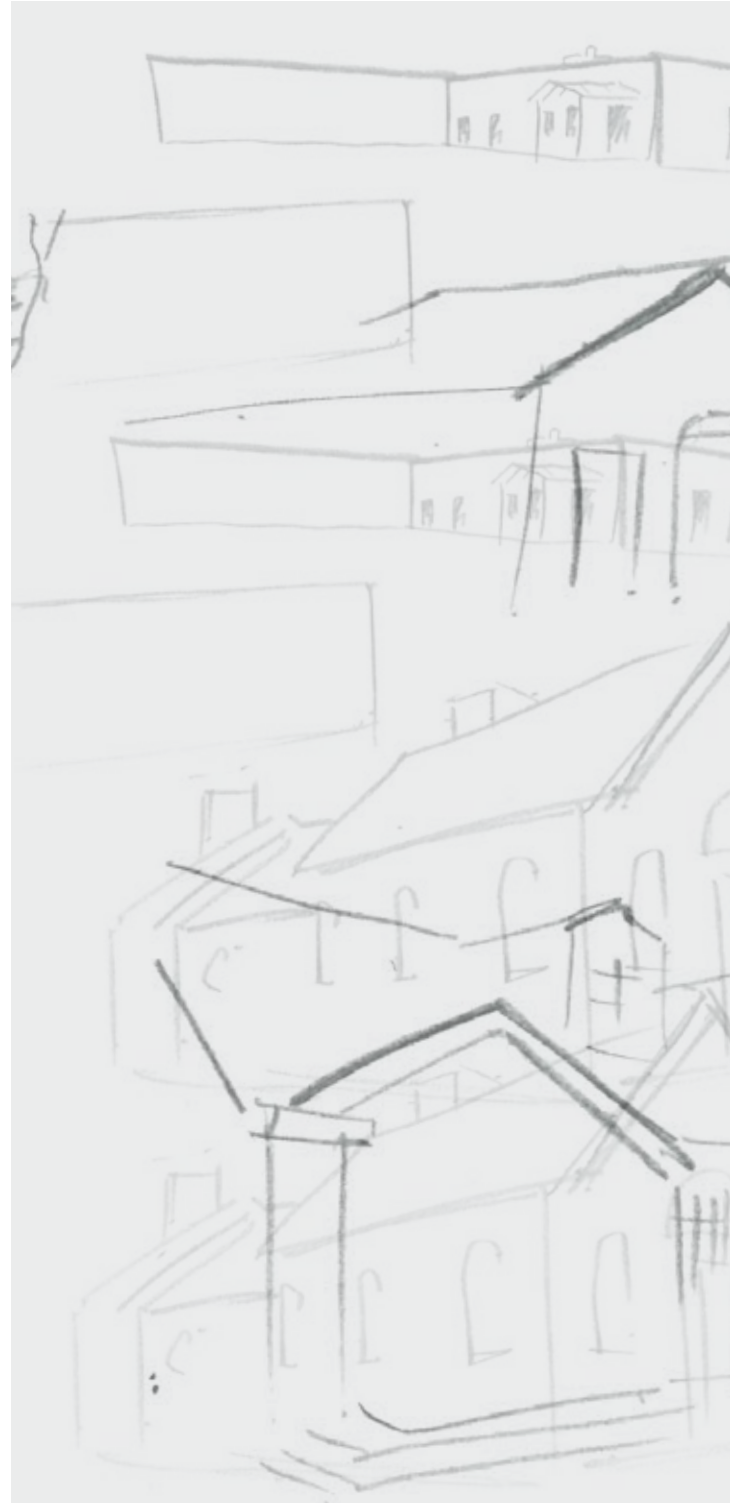
Fig 2.08. Analysis of crematoria typologies in New Zealand

emotionally seeing a tall chimney as you approach a crematorium building; to avoid the innate psychological revulsion associated with chimneys, smoke, and burning bodies. The necessary furnace shaft therefore demands thoughtful design (Grainger, "Death Redesigned" 11; 'Furnace Shaft' 212).
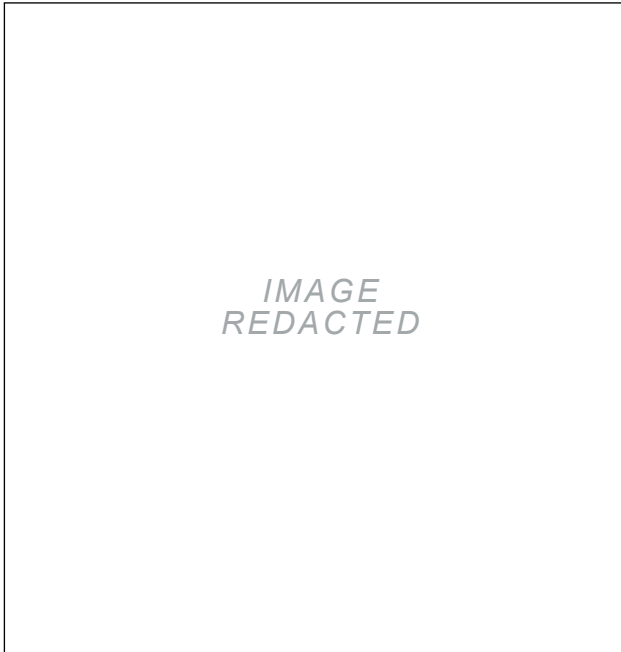
Fig 2.09. The Headingly Crematorium in Leeds.
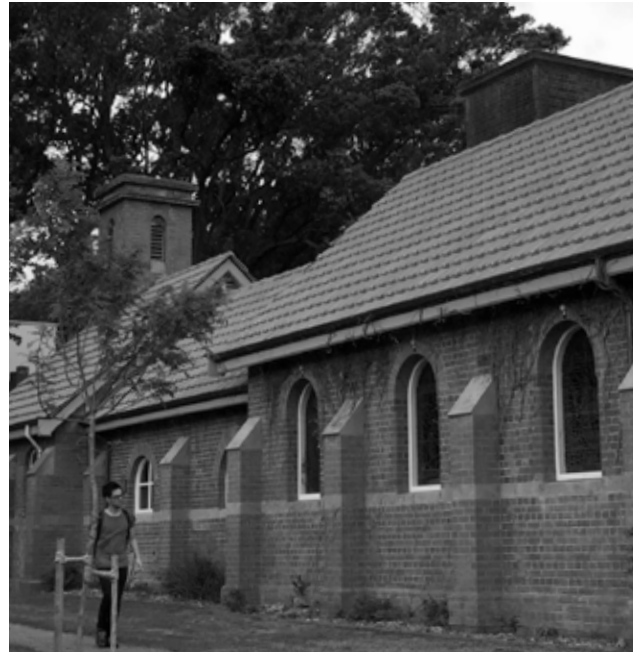
Fig 2.10. Karori Crematorium.

T H E   F U R N A C E   S H A F T

Such 'bell towers' are evident in the Headingly Crematorium (fig. 2.09). The 20-metre chimney is enclosed within what appears to be a disproportionately tall ecclesiastical-looking bell-tower, placed in the right angle formed by the chapel and the incinerating chamber (Grainger, 'Death Redesigned' 91). The Karori Crematorium's chimney appears like a short bell tower (fig. 2.10). The original large chimney base partially projects from the south-eastern side of the building near the furnace end (Grainger, "Furnace Shaft Architecture" 212; Mew and Wagstaff).

M I S T A K E N

R I T U A L
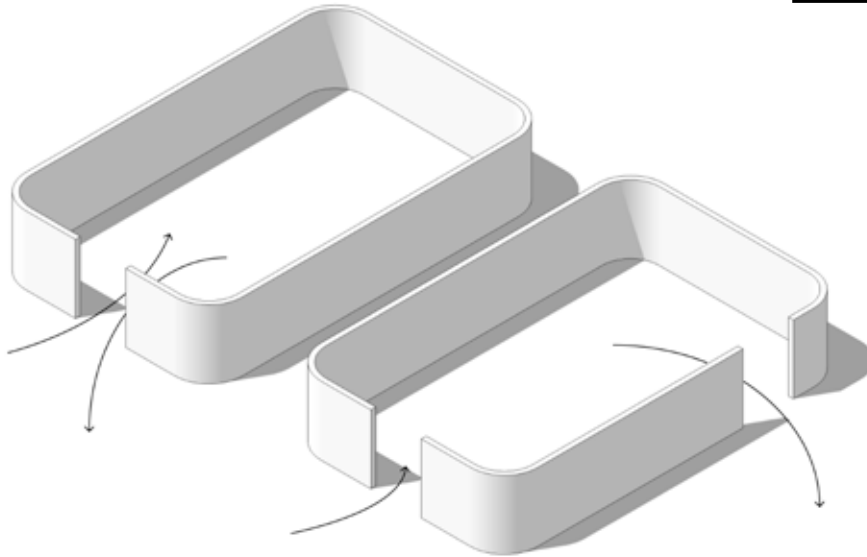
Fig 2.11. Ritual changes from in and out the
same entrance to in one entrance

Unsurprisingly, as crematoria were disguised to look like churches, there was confusion surrounding the rituals associated with death and funeral services in these spaces. The main confusion was due to a shift in ritual practice concerning the mode of entry and exit of people into the crematorium chapel itself. Historically and traditionally, the British ritual practice was to enter and leave the ritual arena of the church by the same door. Crematoria, on the other hand, adopted a design feature that involved using one door to enter and another to exit the crematorium chapel. This was employed to speed up the flow of congregations through the chapel, so that mourners of other congregations would not cross paths (see fig. 2.11). This shift in ritual practice deeply influenced the widespread idea that cremation involved a processing and impersonal 'conveyor-belt' form of herding people (Davies, "Crematorium" 85).
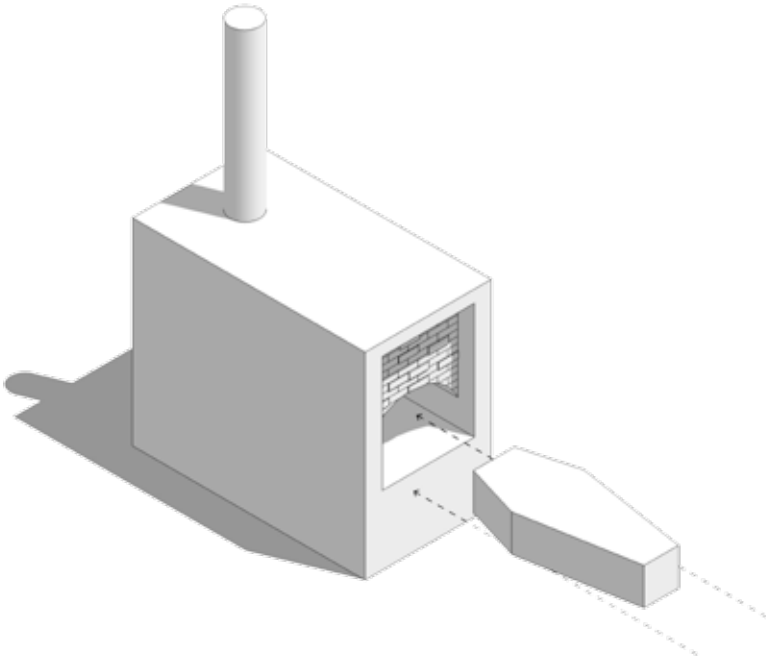
A N T I - C L I M A C T I C

C O M M I T T A L

One of the main challenges for Architects designing crematoria is providing a physical context that allows for emotional fulfilment. One of the most difficult aspects relates to the committal of the body. Traditionally, the words of committal are spoken at the point where the coffin is lowered into the grave. Witnessing this is profoundly moving, inspiring an emotional response and necessary closure that remains with the individual long after the funeral is over (Curl 311).
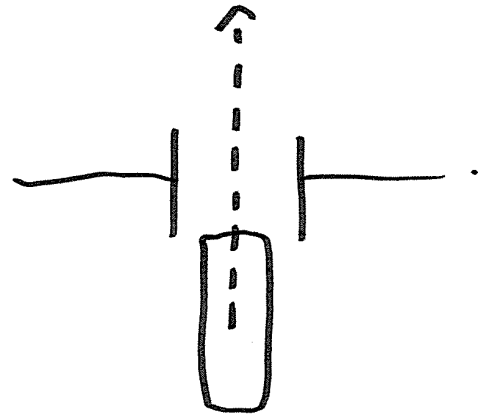
Fig 2.12. Commital of the coffin into the cremator.

In the case of cremation, however, the ultimate point of departure and separation, the entry of the coffin into the cremator, is distanced both physically and emotionally (see fig. 2.12). This ought to be the emotional climax of the service, however it is often where the greatest uncertainty arises. The words of committal are spoken to accompany the closing of curtains, or sometimes the lowering of the coffin through the floor, being trundled horizontally through a door, or the removal of the coffin altogether from the catafalque. In some cases, the coffin remains until the mourners have departed. Whatever method is used, the service has ended and the coffin (in most cases) has vanished, but there has been no sight of an obvious ending. A true and direct committal would be one said as the coffin entered the flames, and only then can the profound emotional experience of an ending and farewell be felt (Curl 312). Failure to see what happens to the coffin leaves mourners uncertain, with a sense of having left their loved one in the lurch, and there is a certain emotional disconnection and lack of finality as the mourners watch the coffin disappear as spectators, remaining passive observers rather than active participants in the ceremony (Curl 311-312).

It is at this point that the coffin often moves into an intermediate zone between the chapel and the furnace, and it is these spaces of transition that facilitate the emotional emptiness surrounding an unsatisfactory committal. These committal chambers are included as a means to prevent the mourners from seeing the entrance into the furnace; unsurprisingly, views differ violently on whether or not mourners should see the coffin entering the interior of the chamber (Curl 311). There is no denying, however, that the committal of the body to the flames is the real conclusion to the ceremony, and the most certain way to face the finality of death is to witness the cremation. For example, in Indian practice witnessing the coffin being cremated is the equivalent of witnessing the coffin being lowered into the ground and buried (Huniewicz). Also, the ritual of throwing a handful of dirt or a flower onto the coffin once it is in the grave still gives that sense of unfinished business as mourners do not see the "end" of the body. The committal could become an act in which the mourners would participate more fully, however painful and emotional it may be; it is valuable to the grieving process and should be faced (Curl 312; Grainger, 'Death Redesigned' 33).

CHAPTER THREE:

CASE STUDIES

Erik Gunnar Asplund's "concern for the psychological dimensions of funerary rites" (Constant 55) gave rise to the notion of a processional sequence "based on the thematic progression from dark to light, earth to sky, sorrow to acceptance" (Heathcote 76). The pines surrounding the Woodland Chapel contribute to this processional sequence, which is evident in the progression from the chapel yard to the interior. Mourners approach the chapel through the trees via a woodland path. They gather and wait in a 12-pillared portico in the shadows of the forest (Constant 55). The mourners then move from the dark exterior to the bright interior, the notion of dark to light, of

sorrow to acceptance, is enhanced in this transition (fig. 3.01). The bright interior space contrasts dramatically with the dark exterior: it is a light cubic volume lit by a domical vault supported by a colonnade of stunted wooden Doric columns, little taller than a man, echoing those on the porch. These columns, along with the rustic paving stones, provide the only continuity between exterior and interior (Constant 59).

The character of a traditional vernacular form is enhanced by the construction of white stucco facades, and a high black pyramidal roof, with overhanging dark shingles and a log ridgepole added to

WOODLAND CHAPEL
ERIK GUNNER ASPLUND

heighten its primitive Nordic character. The Classical trimmings are used sparingly and deliberately out of context, amplifying the effect of Nordic mystique, and initiating a dialogue between tradition and modernity in the chapel (Constant 63; Forsyth 101).

There are strong geometric relationships between the chapel's plan and section. Evident at first glance are the circles in the same location and size in both section and plan (fig. 3.02). Connecting the columns in plan through a gridded system, we can see that the centre of the circle directly aligns with the centre point of all the columns, as expected. From the centre of the interior circle, lines drawn out on diagonals slice the circle into equal quarters. The circle then divides again when the lines of the entrance way extend back into the interior to meet at the centre of the circle(fig. x).

Fig 3.01.   Woodland Chapel set amongst the woodland forest.
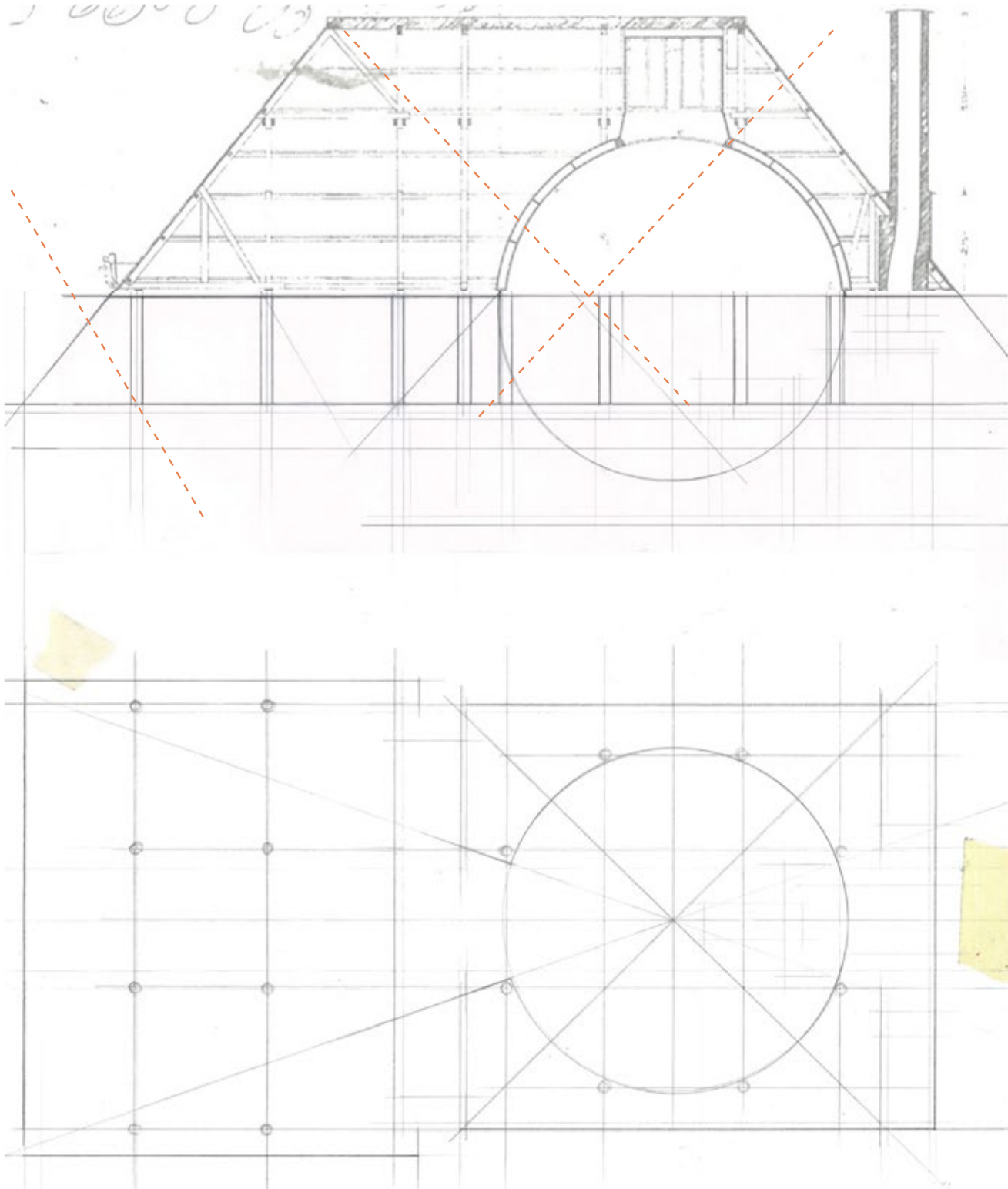
Fig 3.02.   Geometric analysis of the Chapels plan and section.

In section, the overbearing and dominant roof structure is obvious, and has strong relationships with other connecting elements of the design. For example, the lines of the roof angle extend down to the ground. Before reaching the ground, the line makes an interesting intersection with the exact edge of the portico – this is not an accident. This intersection can also be seen in plan, and is related to a line at the same angle running from the interior circle. Furthermore, the section shows suggestions of structural elements, such as truss form work in the roof. Interestingly, Asplund only included two members in this drawing. The first member, which can be seen in the top left corner of the roof, sits at an angle and, when that line is extended down towards the ground, it intersects with the centre line of the circle; the centre of the interior space. Drawing the same angle downwards from the opposite side of the roof makes intersections with the edge of the dome and top of the first interior column, then again at the bottom centre of the third row of columns of the exterior. Confusingly though, the intersection of these two "triangles' poses nothing interesting at all, making no other intersections with anything else in the drawing. The geometric alignment of the second, and last, structural member is not as harmonious, and I therefore conclude that this was the intention of the Architect: to make the most important structural elements align and correspond strongly to other geometry in the building, while the secondary structure, although not completely neglected geometrically, has weaker connections to the other elements.

In plan, there are two squares that sit on the edges of the plan. It is evident that the entire shape of the building, and its portico, is arranged around these two squares. Adding a third square to sit between, and overlapping, these other squares shows that this is where the beginnings of the plan took form, and it is almost possible to retrace the process that Asplund took while designing this chapel. We can see that his intention of moving mourners from dark to light, from sorrow to acceptance, is not only evident in the actual presence of darkness and light, but also in the geometrical layout of the plan and section: from the predominantly linear, gridded structure of the columns on the exterior portico to the soft, round, and circular arrangement of the columns on the interior. The columns remain consistent throughout, reassuring the mourners, while also elevating and enhancing the transition from exterior to interior.

*IMAGE
REDACTED*

Fig 3.03.   Woodland Crematorium great portico.

WOODLAND CREMATORIUM
ERIK GUNNER ASPLUND

The building that became synonymous with the architecture of death, and with modern architecture, is Erik Gunnar Asplund's Woodland Crematorium. Asplund's concerns for the scale of the entry landscape and the emotional effects of bereavement continued to motivate his planning of the Woodland Crematorium, as they had in the design of the Woodland Chapel. As a result, the Woodland Crematorium is a remarkable synthesis of Modernism and Classicism, made up of a sequence of funeral chapels connected to a crematorium and columbarium (public storage of urns), and ending with a larger chapel whose sizeable, open portico is the focal point of the slowly ascending processional route.

Asplund understood that the landscape's character and proportions would not tolerate a large and compact building volume, so he segmented the structure at the eastern edge of the clearing to diminish its visual impact on the site. He clarified the hierarchical relationship of the chapels by providing a protruding fore-hall (the portico) in front of the main chapel (Constant 90), and broke up the rest of the building by recessing the two small chapels, placing waiting rooms for mourners between the

IMAGE REDACTED
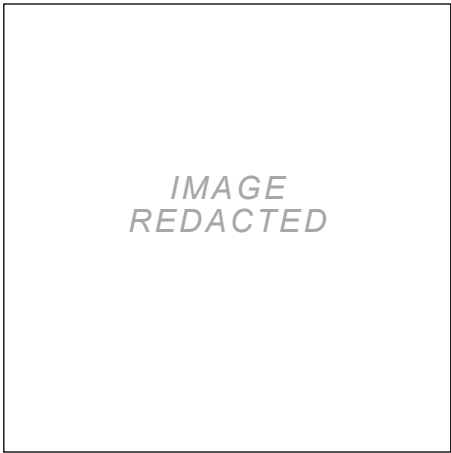
Fig 3.04.   Journey of the living diagram.

IMAGE REDACTED
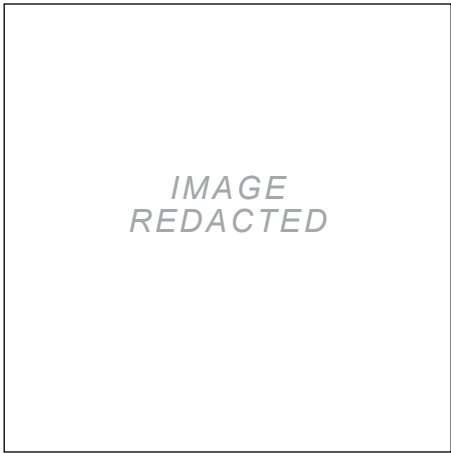
Fig 3.05.   Journey of the living diagram.

IMAGE REDACTED
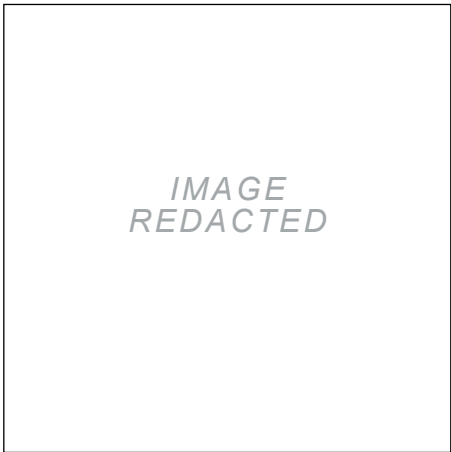
Fig 3.06.   Journey of the living diagram.

chapels, and forming a boundary wall. This wall allowed for small courtyards, while also separating congregations from contact with other mourners in the chapel next door (103-104). This satisfied the Cemetery Authority's brief requesting one large chapel and two small that did not disturb each other in terms of circulation or noise (Forsyth 101).

Legend:
- Urn and Ash Collection / Depository
- Chapels
- Courtyard Reflection
- Movement / Journey
- Waiting / Gathering Space

Processional Way up the Hill

Mourners Gather

The Service

Reflection + Rememberance

Exit

Re-Arrival

Urn Collection
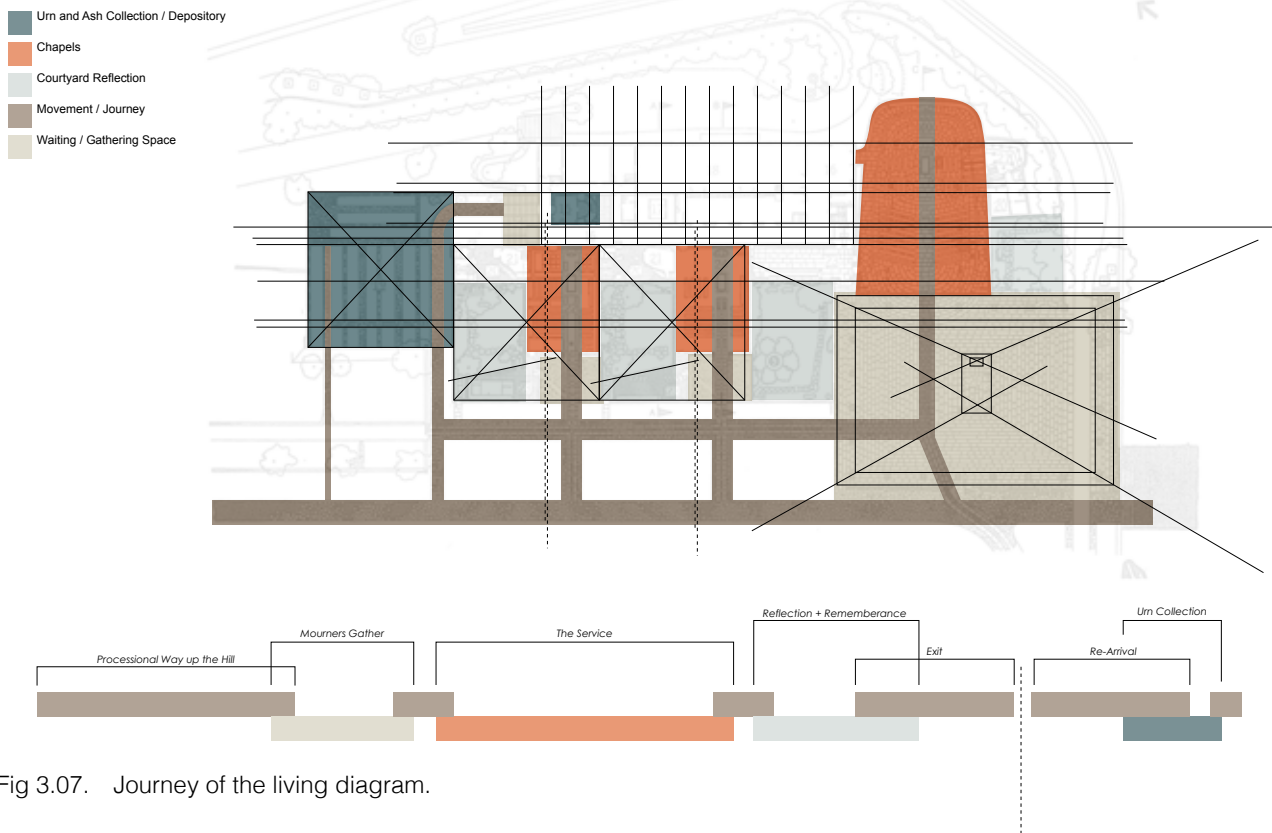
Fig 3.07.   Journey of the living diagram.

The crematorium is composed with a narrative language; the routes all planned out and deliberate, each stage as carefully considered as the next (Heathcote 78). For the mourners, the ritual journey begins as they ascend the path, powerfully drawn to the protruding portico and chapels all along the east side of the hill. Alongside the pedestrian approach is the columbarium, a series of low walls beginning near the cemetery entrance and increasing in height and density toward the chapels, effectively transitioning landscape into architecture (Constant 90). The Portico acts as an entrance to the crematorium building. It is the commanding element of the composition as pedestrians approach the building, dominating the scene in both position and form (Constant 107-108). In terms of circulation, the portico is an open-sided roofed space where mourners can collect

*IMAGE
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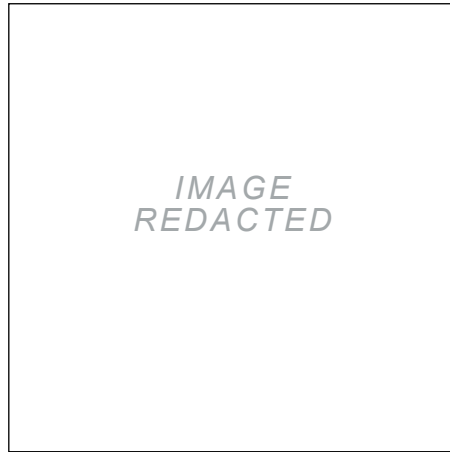
Fig 3.08.   John Lundqvist's
resurrection sculpture.
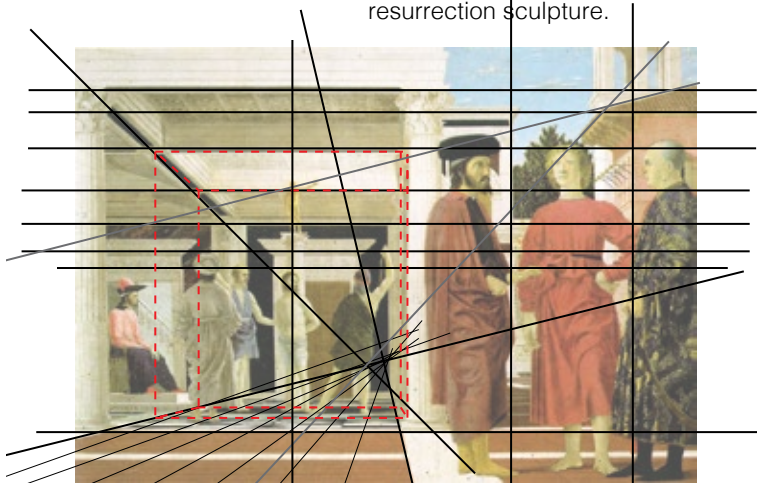
Fig 3.09.   Piero della Francesca
analysis.
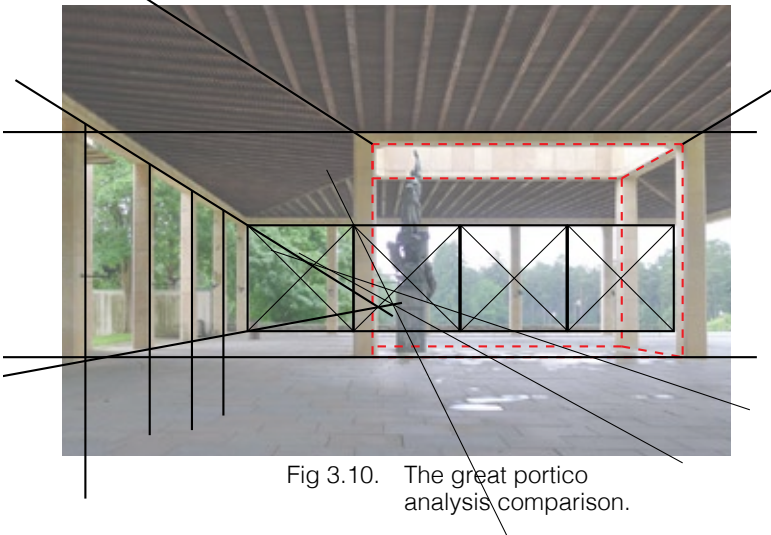
Fig 3.10.   The great portico
analysis comparison.

before going into the chapels. It has, however, a second and far more important function: to provide uplift and solemnity. It is large enough to be considerably darker than the surrounding landscape, but this comparative gloom is broken in the middle by an opening in the roof (see fig. 3.08) which bathes John Lundqvist's powerful upward-reaching Resurrection in light (Constant 108).

The portico is strikingly reminiscent of Piero della Francesca's Renaissance painting The Flagellation of Christ, which was celebrated for its perspective and geometric proportions, in its statues situation in the portico, compositional elements, and influence on the viewer. This geometric comparison analysis reinforces the notion that Asplund was working within the restraints of a classical design, echoing those in the Woodland Chapel (see fig. 3.09 and 3.10).

The ritual journey of the corpse begins when the hearse arrives on the low-level service roads on the east side. The site slopes down, making it possible to have services easily accessible on the ground floor below the chapels themselves (Constant 103).
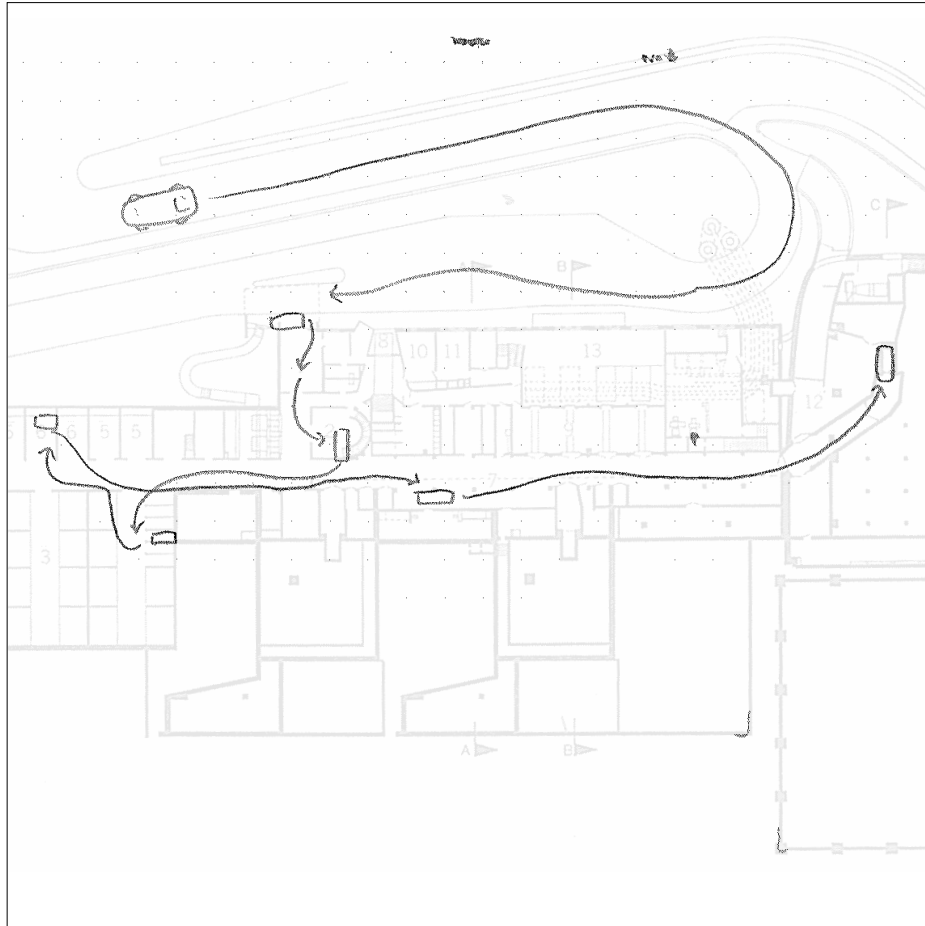
Fig 3.11.   Journey of the
            corpse diagram.

The coffins are then carried into the 'mortuary chapel' to be placed on trollies, on which they remain through their progress through the crematorium, eliminating the need for carrying. They are then kept in refrigerated mortuaries, not open to the public (103, 106). On the morning of the service, the coffin is decorated in one of the decorating rooms, then is placed behind curtains in the main corridor to await transport up to the appropriate chapel where it becomes the design centrepiece (104). The mourners congregate as closely as possible around the coffin. As the service comes to a close, instead of disappearing theatrically (by
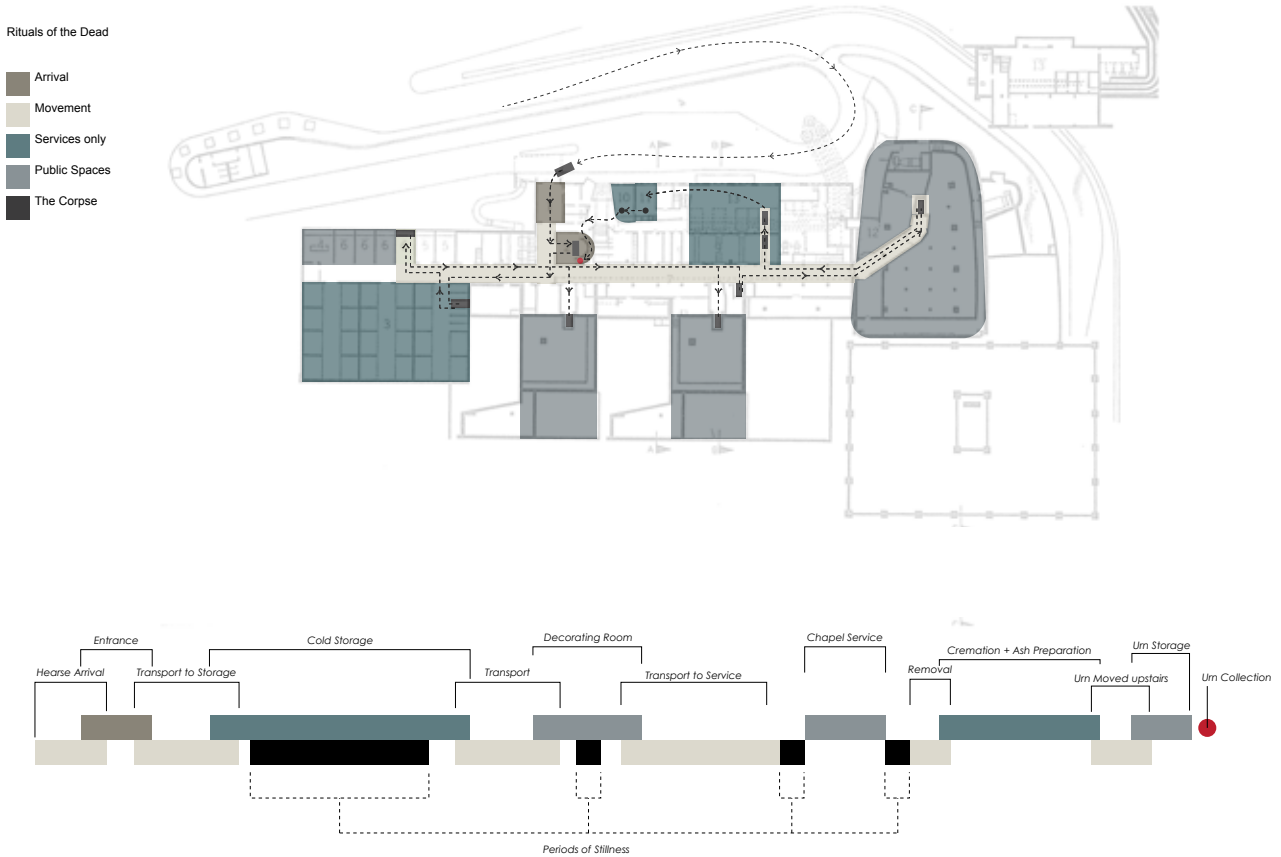
Fig 3.12.   Journey of the corpse at Woodland
            Crematorium diagram.

being lowered into flames or disappearing behind curtains) the coffin remains as the central feature of the chapel until all the mourners have left, after which it is quietly removed. The coffin is lowered to the main corridor of the service floor, which provides common facilities for the three chapels. This removes the risk of any cross-over on the public routes to and from the chapels (see fig. 3.11).

Once the coffin arrives on the service floor, its floral decorations are removed, and it is stored to await cremation. Before being placed into a furnace, the coffin sits in an intermediate zone, known as the 'charging zone', which is decorated with tiles, giving the space a sense of dignity – and therefore less of a 'workshop' feel (Davies The Sacred Crematorium 84-85).

After the cremation, the ashes are removed on trays to the urn preparation and ashes cleaning room. The filled urn is taken from the service floor up to the public floor, where it is kept in a cupboard to await collection by relatives (see fig.3.12) (Constant 106).

Analysis of the plan (fig. 3.13) shows that the interior space sits within the parameters of two circles, the larger of which originates from the curved layout of the tiles. This circle draws upon the exact moment where the tiles transition from
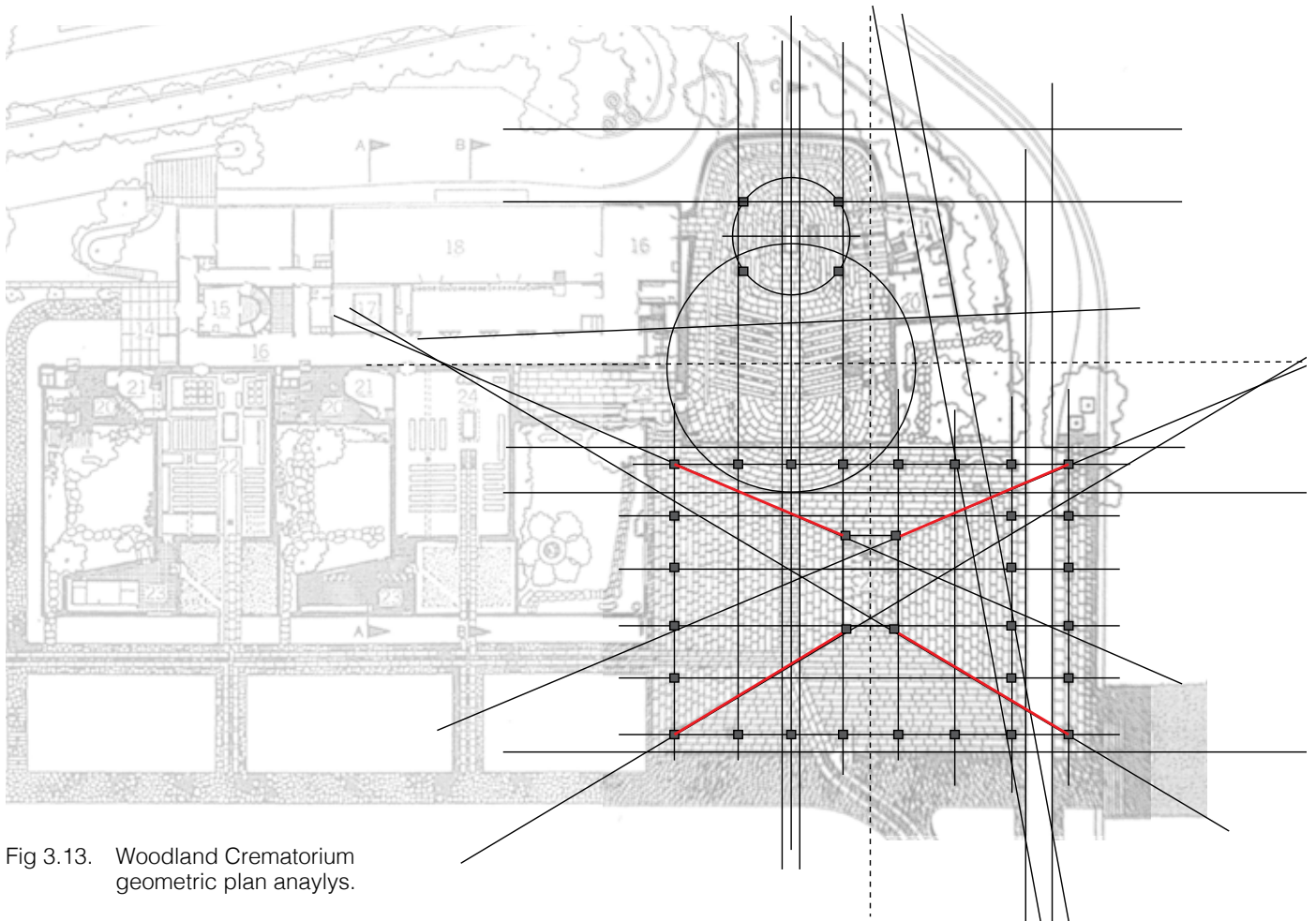
Fig 3.13.   Woodland Crematorium
              geometric plan anaylys.

a linear alignment to a curved one. The circle extends all the way around the chapel, and intersects exactly with the placement of the coffin, where the head of the body would be. The centre of this circle is of significance also: if we extend the line of it outwards horizontally, it connects with the extended rooflines of the portico. Extend the centre line of the circle outwards vertically, and it runs directly through the coffin, and down through a line

of columns in the portico. The second, smaller, circle aligns with the four interior columns, the centre of it aligning with the very centre of the coffin. All four of the roof ridges arrive at the corners of the portico's skylight, and spread outwards to each corner of the portico, intersecting with each corner column. Intersections of these lines lead to the centre line of the opening, where the statue has been placed. An additional intersection is located at the

very edge of the passage into the chapel, suggested by a tiled/paved walkway shown here in plan.

As we have seen, the main chapel and portico of the crematorium has a similar exterior-to-interior relationship as the Woodland Chapel, particularly in the distinct transformation from a strict and vigorous linear portico to a rounded edged, soft, chapel interior.

BRION CEMETERY
CARLO SCARPA

IMAGE REDACTED
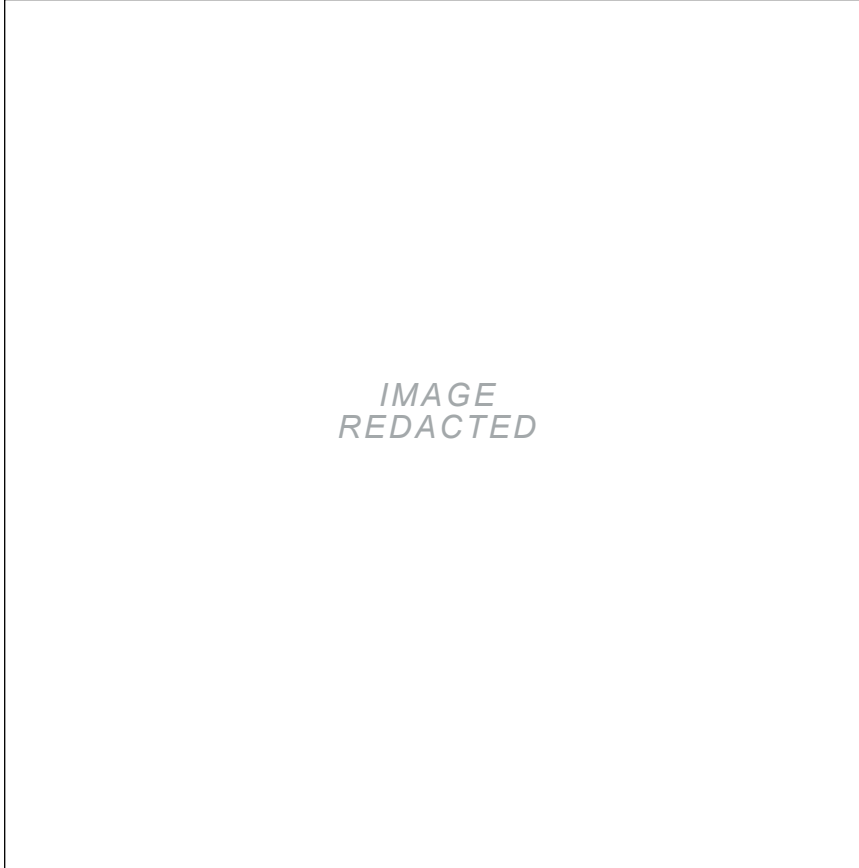
Fig 3.14.   Brion Cemetery entrance.

Carlo Scarpa chose to express inner depth, dreams, and nostalgia with the Brion-Vega family tomb located at the edge of a small country cemetery in San Vito d'Altivole, Italy (fig. 3.14). The site is an L-shape along two sides of the existing cemetery. An inward-leaning boundary wall (see fig. 3.15) encloses the site with its three centres: the chapel, the arch at the corner of the L, and the pool around the pavilion (Crippa 61). The church is set apart, and is visually isolated. It does not have any perspectival relationship to a central point, but is instead open to the surrounding countryside, whose

Fig 3.15.   Chapel exterior from
             the garden side.

horizon forms a natural boundary. The arch of the tomb is a section of a
circle cut into parallel strips, suggesting volumetric complexity. Underneath
are the two cradles whose closeness is reminiscent of the symbol of the
intersecting rings at the entrance way (see fig. 3.14). On a sheet of water,
on the opposite side of the cemetery, stands the pavilion; a large wooden
parallelepiped supported by slender beams, a closed box that hints at
a mystifyingly active and invisible presence (Crippa 62; Los and Frahm
131).
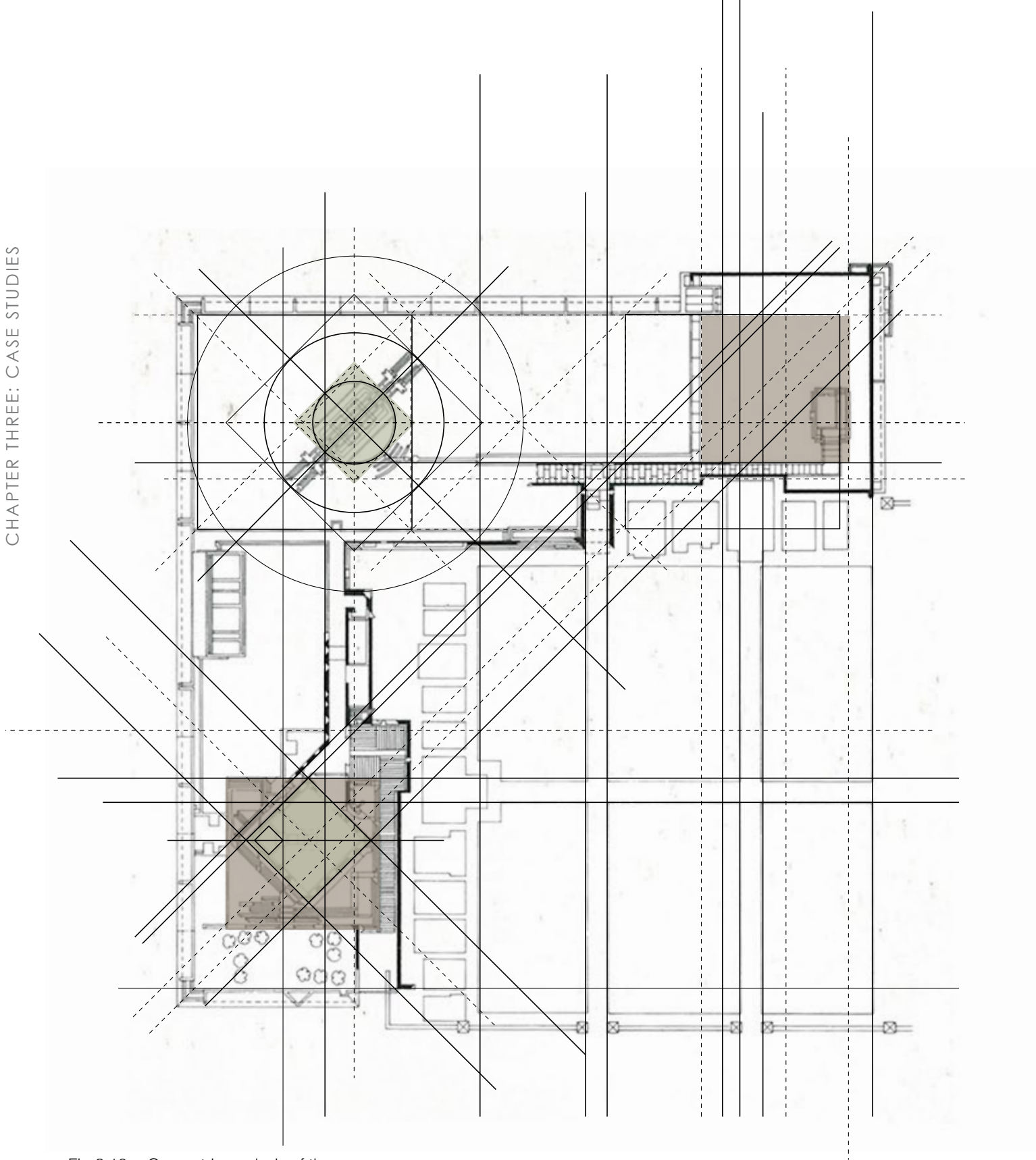
Fig 3.16.   Geometric analysis of the
            Brion Cemetery's plan.

The structural plan of the entire complex emphasises polarities and tensions between opposites, the three elements of the cemetery pulling against each other. The L shape of the building fits within a perfect square. In the centre is the grassed area, the buildings are grouped at the edges, and the perimeter is defined by a wall, partly tilting and partly perpendicular, and interrupted at the corners (see fig. 3.16). Volumes have no meeting points in perspective or in plan. The axis of the arch covering the tomb, and the rectangular pool of the pavilion on the water, form a 45° angle, and in doing so are completely autonomous entities. In my analysis we can see these separate entities are evident, however they do not exist entirely without regard for one another.

Although undoubtedly drawn to a grid, the plan has several inconsistencies and unusual placements that seem strange given the strong L shape of the building and the use of the 45° angle, which is the most important element of this geometric analysis. Scarpa rotates both the chapel and the tomb/arch on this angle. Highlighted in fig in green are the proportions of the chapel in comparison to the tombs and space occupied by the arch. These proportions are exactly the same, both a perfect square. The circle surrounding the arch measures the same in diameter as the interior square of the chapel. A larger perfect square is also replicated in the building, in both corners of each 'wing' (highlighted in brown). The diagram also shows the arch, encapsulated by a circle drawn around the outermost edges of the arch in plan, then a square drawn over that, intersecting with the edges of the circle. What's interesting about this square is that, at each of its points, there is a significant intersection. The top point aligns with the edge of the garden and the edge of the sliding door, where the materials change. The points on both the sides align exactly with the edges of the building on either side. The bottom point aligns with the wall of the chapel further down the end of the wing. Although some areas are thoughtfully geometrically aligned as their own entities, there seems to be little relationship to any other parts of the building. Small relationships between the chapel and the arch occur briefly, but it doesn't translate as very purposeful, or as the intension of the Architect. Although Scarpa's design may not express the same geometric qualities as the Woodland Chapel, it has an excellent way of filling the space with narrative. In contrast to the silence induced by the cemetery Scarpa opens up the dialogue. The subtle balance of the use of colour against the harsh grey concrete, the Japanese geometries of the panels, the narrow canals resembling those in Islamic gardens where water flows slowly, are prominent features of this narrative (Crippa 63). The careful consideration of an 'immediate' material such as reinforced concrete provided Scarpa with a building that would represent a mixture of order and disorder, the informal and the geometric, verging on the banal and the brutal, upsetting the formal order.

KAZE-NO-OKA

CREMATORIUM

FUMIHIKO MAKI
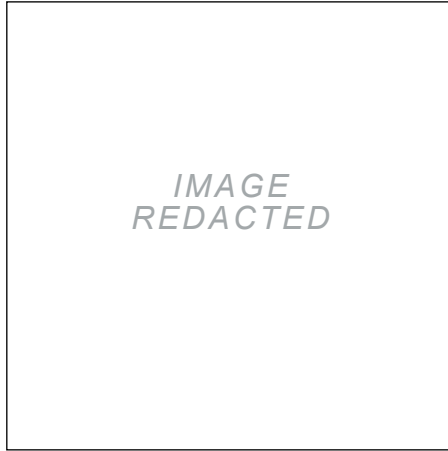
Fig 3.17. Kaze-No-Oka Crematorium embedded in the landscape.
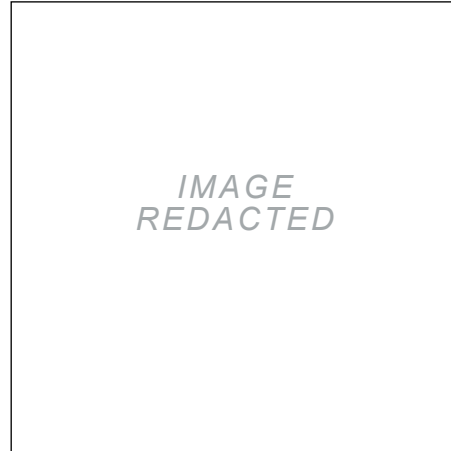
Fig 3.18. Light and dark contrast at the Kaze-No-Oka Crematorium.

In Japan, the nationwide cremation rate is nearly 100% (Bernstein 279), and it is for this reason that I selected a Japanese crematorium to analyse. Designed by Fumihiko Maki, the Kaze-no-Oka (literally 'Hill of the Winds') crematorium sits on a hilly site on the outskirts of Nakatsu. It was the Architect's intention to respect and enhance the scenic character of the environment, and somehow blend the building with the timeless landscape, so the buildings were seen as emerging from the earth. The crematorium was not to be seen as merely a facility for processing the remains of the dead; it also has a very public function in providing a place for the bereaved to take leave of their loved ones, to mourn, and to reflect.

Maki sought to manipulate the sense of time passing by paying attention to architectural elements such as space, light, scale, proportion, and texture – providing users with a flowing arrangement of spaces that made the user indirectly unaware of where they were to move next. In these transitions, however, there was a certain psychological dimension as the sequence followed a traditional progression: entrance hall, oratory, crematorium, waiting space, and enshrinement room (Maki et al. 169). The in-between circulation spaces have been laid out in such a way that they enhance the ritual meaning of the individual spaces, creating a change in atmosphere, view, and light in each transition between the stages of the journey (Keizer 282; Maki et al. 168).
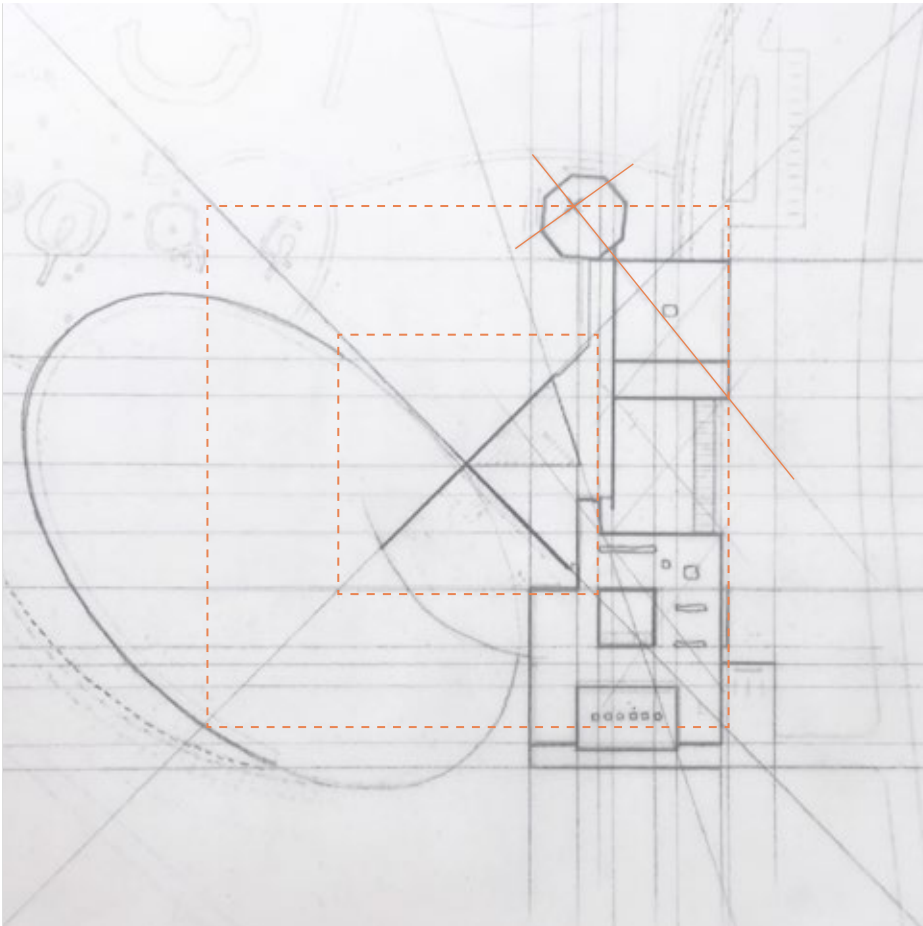
Fig 3.19. Geometric analysis of the Kaze-No-Oka Crematorium's plan.

Fig 3.20. Maki's thoughtful use of light and texture in transitional space.

The plan geometric analysis (see fig. 3.19) shows how the alignment of the octagon fits with the adjacent buildings. The centre of the octagon aligns with the diagonal line through the adjacent building, tying together these two seemingly distant and dissimilar buildings. The building alignment then shifts from a diagonal relationship to a vertical and horizontal grid throughout the rest of the building complex. The angled exterior wall, placed centrally in the site plan, sets up a very strong square that has further alignments with other elements in the plan. For example, the outer square sets up relationships with the altar set inside the octagon, follows the boundary of the exterior walls of the plan, and then also sets up an alignment with the cremators. A smaller inner square aligns with a horizontal exterior wall, and its corner touches the corner of the internal square. This small internal square serves as the central element of the horizontal and vertical grid system.

I selected the Kaze No Oka Crematorium as an example of how seemingly unrelated buildings can be aligned and arranged to help provide reassurance to mourners during transitional moments of their journey through a crematorium (see fig. 3.20).

SAN CATALDO CEMETERY
ALDO ROSSI

The cemetery of San Cataldo at Moderna, set in an existing cemetery complex, is among a few of Aldo Rossi's realised buildings that integrate his critique of abstraction with his interest in typology, analogy, and scale (Eisenman 180). Rossi uses the symbol of the house to transpose themes of life and death. The columbaria block, for example, maintains the formal conditions of a house through the use of a pitched roof and windows, however the windows are stripped bare of frames, mullions, and glass – all that signifies occupation (see fig. 3.21). Left bare as empty openings, the windows of the columbaria instead suggest an absence. Rossi uses iconic forms, and then strips them of their iconicity through the use of repetition – a technique that challenges the uniqueness of architectural elements. The use of repetition has been used as way to critique the narrative – the repeated series lacks beginning, middle, and end – and also as a critique of origin – the starting unit is lost among the other identical units (Eisenman 183). Through his drawings of the San Cataldo Cemetery, Rossi also critiques contextualism with the dislocation of place using the repetition of typological elements and with the introduction of domestic objects into the urban environment – the disillusion of scale (fig. 3.22 and 3.23). Rossi envisioned typology as standard elements that were scaleless, and only meaningful when understood in a particular context. The architecture of San Cataldo articulates the urban scale of the city on one side, and the domestic scale of the house on the other.

The windows function as both the inside and outside of urban scale, and are read very differently from inside versus outside (see fig. 3.24). From inside the windows have a slightly smaller frame, and it is the wall
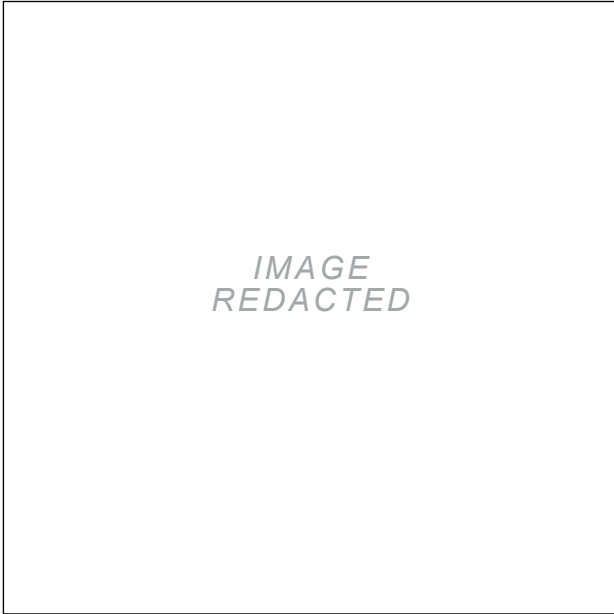
Fig 3.21. Stripped back modular
windows emphasize
an absence.
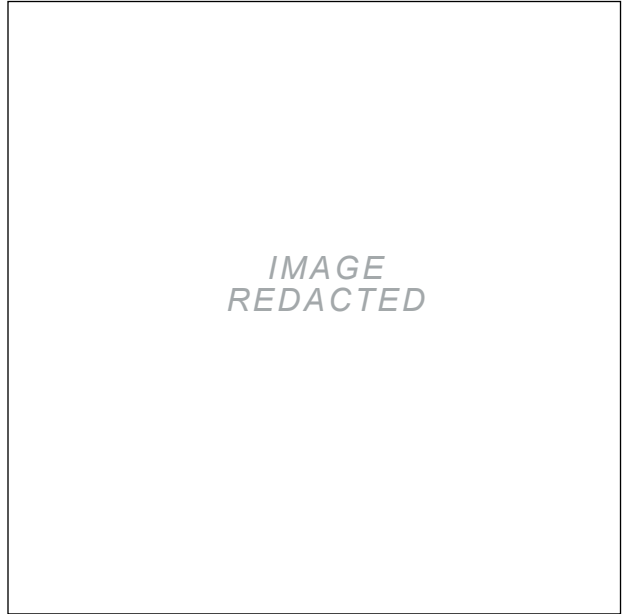
Fig 3.23. Rossi's drawing of
domestic architecture
with monuments, 1974.

Fig 3.22. Rossi's drawing of the
entire cemtery complex.

thickness that houses the square slots for urns. The dimensions of these square spaces reflect that of a traditional window – again reinforcing the domestic themes strongly evident in this project (Eisenman 187).

There is a strong impression of symmetry about the centre of the Jewish cemetery, located on the right in fig. x. this symmetry is repeated in the symmetry of the Rossi scheme, which has a central axis with square, pyramid, and conical structures in its centre. The cemetery of San Cataldo is aligned along the top and bottom with the Jewish cemetery, yet not with the dimensions of the top and bottom of the Costa cemetery. The dominant cross-axial circulation of the plans aligns through the Jewish cemetery with the major cross axis of the Rossi project, an axis not located in the centre of the interior space of the Rossi project, but which runs across the bottom third of the internal divisions. The plan

IMAGE
REDACTED

Fig 3.24.   Interior of collumbarium
                  shows the deep reveals
                  of the windows.

appears to be a rectilinear enclosure; specifically it is articulated as a flattened three-sided shape with a top element distinguished from the U shape with small gaps between the building blocks. This exterior U shape is then repeated in the interior of the space, organising each of the symbolic elements along the central axis. This repetition of the U shape maintains a tension between elements (Eisenman 186, 191).
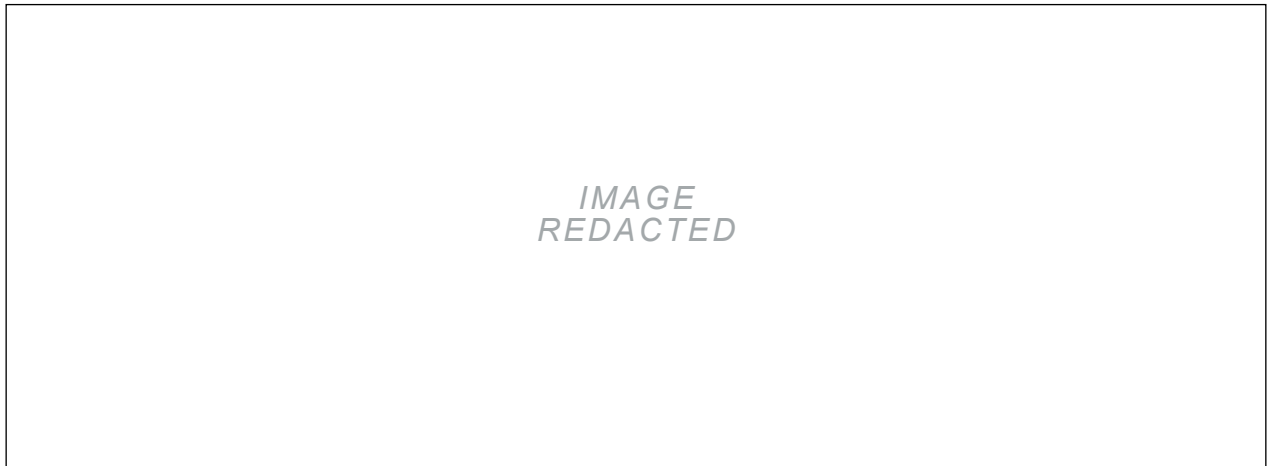
Fig 3.25.   Alignment of the Rossi scheme in relation to the Jewish cemetery and the Costa cemetery (far right).
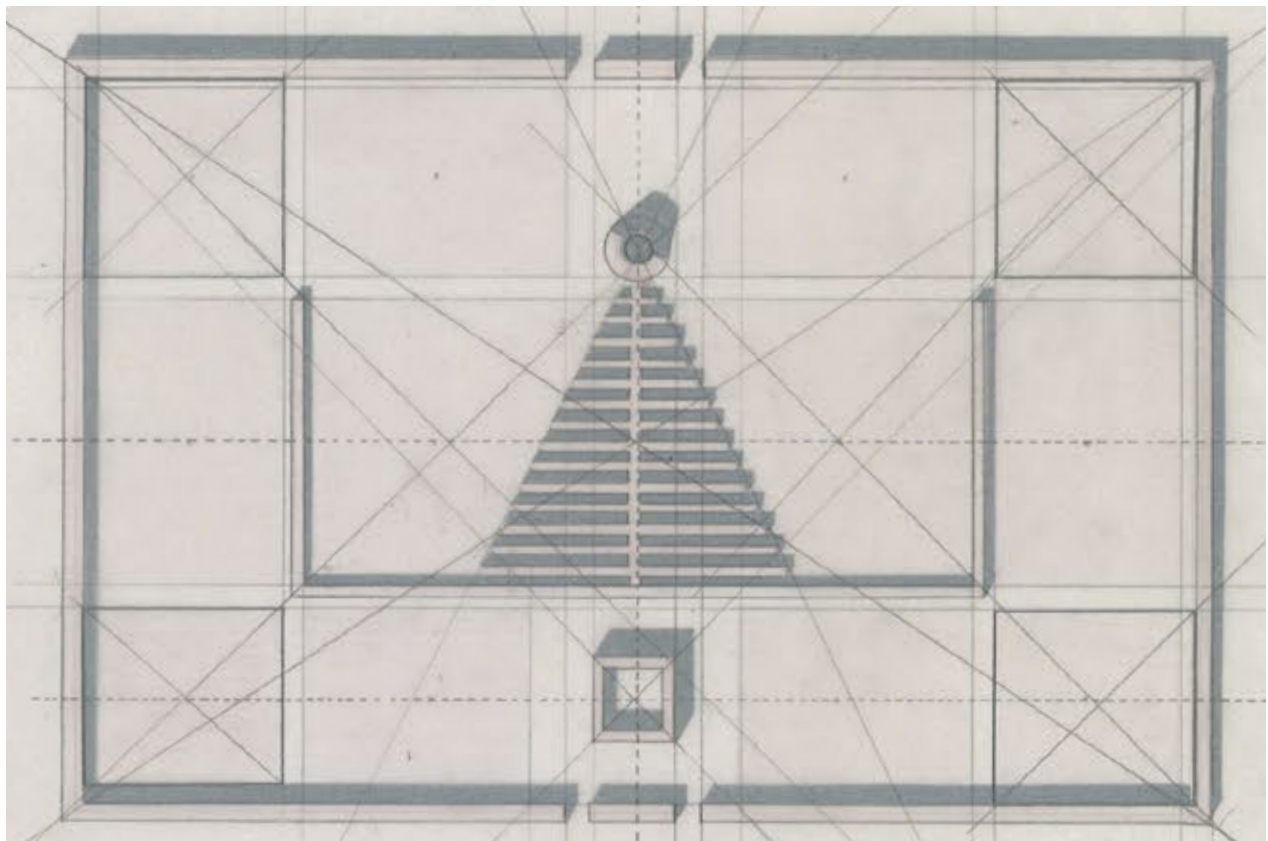
Fig 3.26.   Cemetery San Cataldo's geometric analysis of the plan.

Fig 3.27.   Mr. Iguchi's body arriving at Hotel Relation.

Fig 3.28.   Yumiko Nakajima is picking out
her future resting place.

Fig 3.29.   Render of 'Constellation Park' by Death Lab.

C O N T E M P O R A R Y   C A S E   S T U D I E S

What these historical case studies did not provide, however, were insights into how to tackle a crematorium set within the urban fabric of a metropolitan city. Further research led to examples where architecture was addressing death in contemporary ways: 'Hotel Relation'(see fig. 3.27), for example, has been designed with rooms for both the living and the dead in order to simultaneously solve the escalating problems in Japan of body storage and expensive ceremonies (Rich). In response to modern demands for ash storage, a columbarium at Ruriden Temple (see fig. 3.28) uses swipe card technology to access the ash storage, and LED's to light up the remains of the loved one whom mourners come to visit (Jozuka). Columbia University has a team of designers and researchers, known as 'Death Lab', that focuses on creating spaces of remembrance amidst everyday life, perfectly and incidentally aligning with the aims of this research. One project in particular, titled 'Constellation Park', looks at using under-utilised city spaces for landscape installations that bring death to life (see fig. 3.29).

CHAPTER FOUR:

THEORY PART I

CRITQUES OF CURRENT CREMATORIA

Fig 4.01.   The depressing politeness of crematoria becomes staggeringly banal when attempts are made to brighten up chapels with light woods and pastel colours (Grainger "Death Redesigned" 16).

NON-PLACE

It is possible to describe the current crematorium model (see fig. 4.01) in terms of what anthropologist Marc Augé called 'non-places'. Non-places are meaningless transitional spaces that carry no personal meaning, as individuals remain anonymous in the space. These places are often very important in the sense that we cannot do without them, they are necessary to contemporary life, but somehow lack depth of meaning (Davies, "Crematorium" 145). Augé argues that if a place can be defined as relational, historical, and concerned with identity, then a space which cannot be defined as relational, or historical, or concerned with identity will be a non-place (78).

A non-place is a result of super modernity, and does not integrate with earlier places. It is everywhere and nowhere; relations are restored and resumed in it. Such places include hospitals, supermarkets, motorways, and airports. In comparison, places have a principle of meaning for the people living in them, and also a principle of intelligibility for the people observing them. These places have been invested with meaning over time; this meaning is endorsed and confirmed by every new circuit and every ritual reiteration (Augé 52). Crematoria are necessary as part of someone's 'journey', but are devoid of particular significance; they are not concerned with identity nor are they social, therefore they embody the non-place. The reason why crematoria lack significance may be explained in Douglas J. Davies' article on what constitutes a 'Sacred Crematorium'. Davies argues that crematoria are, in fact, places of significance, verging on the sacred, but only for those individuals who are likely to have their loved ones' ashes buried or scattered on the grounds, or for those who have attended cremations before, as "the

sediments of earlier experiences prime the individual for further deposits within their symbolic memory" (86). Furthermore, Davies believes that there is an immediacy of association between people and building in the case of crematoria: those individuals who have had a church experience to serve as the basis for the symbolically similar space of the cremation chapel invest them with a sacred status, as opposed to those people lacking church and/or crematoria experience who tend to deem them utilitarian until they gain some personal experience of them. Only then do they tend to invest them with the sacred – as something personally significant. It is also important to recognise that the place of deposition of ashes is more likely to have a developed sense of the sacred, and a sense of personal significance, rather than the crematorium itself. It is, therefore, reasonable to assume that the crematorium, in many cases, is a means to an end rather than an end itself, further enhancing the crematorium's non-place status (D.J.

HETEROTOPIA

Davies "The Sacred Crematorium" 92-93). The crematorium as a non-place also lends itself to the concept of heterotopia; a term coined by philosopher Michel Foucault in his work 'Of Other Spaces'. Foucault describes heterotopia in reference to utopia, a place where everything is good, an imaginary society in its perfected form. Heterotopia,

as its etymology suggests, is a 'place of otherness'. Heterotopias are non-imaginary, real places that almost delete themselves from public consciousness. Insignificant sites in awareness, yet inevitable and vital to the construction of space. They are very similar in that sense to non-places.

There are several characteristics that make up a heterotopia, the first of which is that the norms of behaviour are suspended, and actions outside the norm can be exercised. These can either be categorised into heterotopias of crisis (such as a boarding schools for adolescents, or segregated areas for the elderly), or heterotopias of deviation (prisons or elderly care homes). Secondly, heterotopias have a precise and determined function, and are reflective of the society in which they exist. Foucault uses the example of the Western cemetery. The third characteristic is that heterotopias juxtapose several real spaces simultaneously – several sites that are in themselves incompatible. A good example of this is a garden where plants native to several different countries are convened in one collective place. Heterotopias are also linked to spaces in time, and generally work when people are given a break from their ordinary, traditional time. Time can accumulate, like a museum, or be transitory, like a temporary fairground. A heterotopia will always have a system of opening and closing that requires some sort of permission to enter, such as a ticket, invitation, or ritual. The last trait of heterotopias is that they must have some sort of relation to other

spaces that exist; their role is either to create a space of illusion that exposes every real space, or to create a space of compensation, one that is another real space (Foucault and Miskowiec 25-27).

The Crematorium is undoubtedly a heterotopia. As a building responsible for burning the dead remains of its community, it is a space in which actions outside the norm can be exercised, and is a clear reflection of the society in which it exists. Crematoria also juxtapose several real spaces, acting as both an industrialised factory and church or sacred place. While it is isolated it is also penetrable, yet not freely accessible to the public. A crematorium provides a space where people are given a break from their traditional time, and it also adapts the urn collection columbaria as a way to accumulate, display, and store time. Crematoria have a function in relation to other spaces that exist, and this function unfolds as a space of compensation, creating another real space that is "perfect", "meticulous", and "well-arranged" (Foucault and Miskowiec 27). The functional requirement of the building is reinforced by the cremation ritual; the service must be dignified and serene; nothing must go wrong (Forsyth 106).

The notions of 'non-place' and 'heterotopia' fit the current crematorium model of a space in which morbid undertakings outside the norm

(burning bodies, mourning) are exercised, causing it to be removed from society, and carrying no personal significance to those who have no emotional connection with the site. It is for these people that the experience of a crematorium must be improved upon (Davies, "The Sacred Crematorium" 86). Thus, it is important that I design not only a crematorium for those sceptical of a positive, individual experience, but also a space to house the ashes that remain, in order to both elevate the sacred appeal of the site and make that columbarium easily accessible to both mourners and the public. As it is the personal experience with the space that makes it sacred, siting it within an urban landscape, within semi-public spaces where people can easily and often interact with the architecture and landscape, is vital.

CHAPTER FIVE:

THE SITE
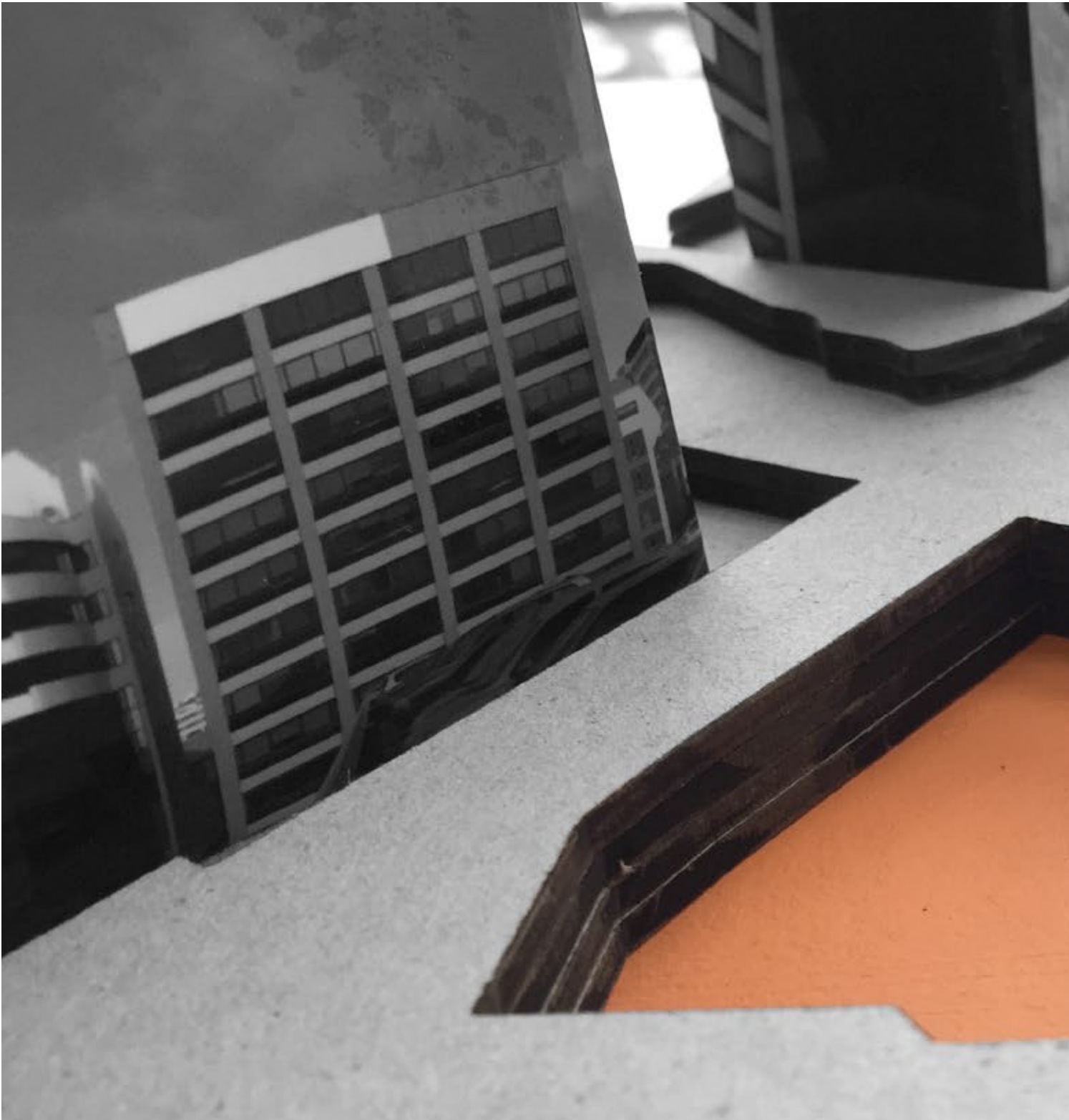
Fig 5.01. Site location sketch model.

SITE SELECTION

Fig 5.02. Driving south on Jervois Quay.
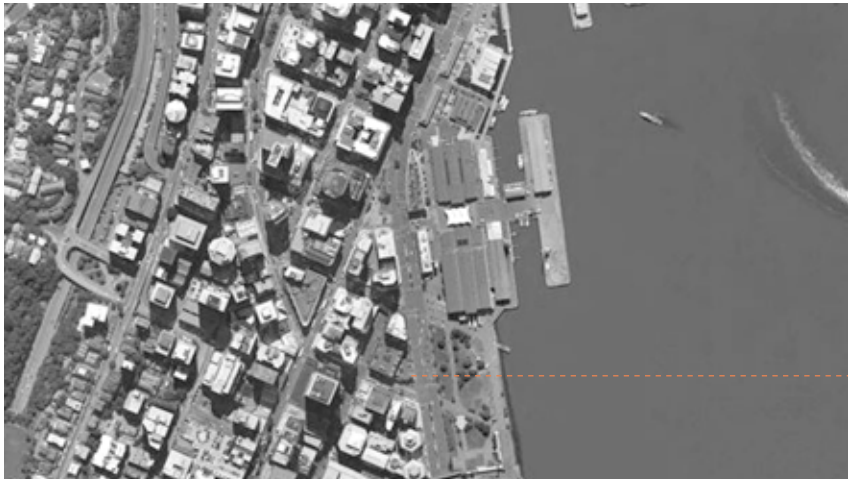
Fig 5.03. Site location from aerial view, Wellington.

Site Location

In order to restore a physical place of death to the city, and ultimately reverse the notion that death must be kept on the outskirts or 'under wraps,' the site has to be centrally located. Situated in the centre of Wellington's central business district, on the corner of Jervois Quay and Willeston Street, the building will become a prominent beacon for both death and

life in the city (fig 5.01). As one approaches Wellington city south-bound by car, the site peeks out behind a curtain of glazed high-rise buildings, revealing small fragments of itself between trees as they flash by, obscuring the existing car park building on the site (fig. 5.02). The towering surrounding buildings that enclose the north, west, and south sides dwarf the site, forming a U-shaped barricade. The east side is left completely open and exposed across Jervois Quay towards the harbour to the Roseneath and Mount Victoria hills. It is this openness, juxtaposed against the strength of the city behind, that drew me to this site (fig. 5.03). After experiencing the death of a loved one, some mourners may want to grieve in a space that allows them to breathe and feel open. Others may want a space that will make them feel embraced and safe. The existing natural and man-made surrounding landscape of this site allows for both of these environments to be created and enhanced through architecture.

The Wellington City Council has plans to revitalise the out-dated Frank Kitts Park, which sits opposite the site on the waterfront, with new landscaping and the introduction of a Chinese Garden. The aim is to remove the high retaining walls used as a barricade

Fig 5.04. Artist's impression of the view across the park promenade to the coastal garden and harbour lawn.

and viewing platform for the waterfront street races. The higher parts of the park will be lowered, so views from the site will be expanded and accessible from lower heights, creating a stronger relationship between the site and Frank Kitts Park at the landscape/ street level (see fig. 5.04). This revitalisation is integral to the crematorium having a strong connection to the park, as it will enhance the perception that the dead can be integrated into everyday activities.

Bolton Street Cemetery

Wakefield Street Carpark
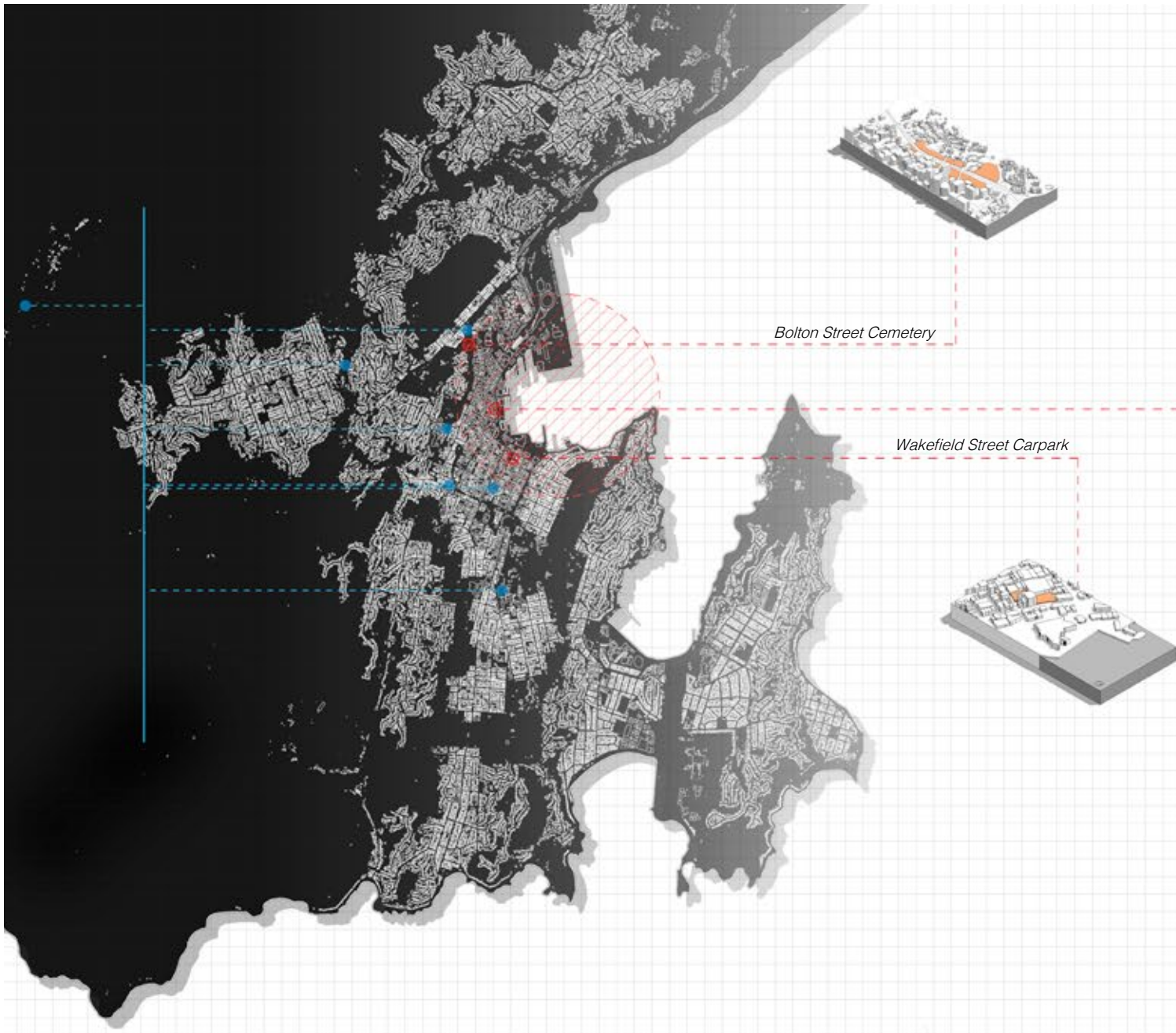
Fig 5.05. Death mapping in Wellington and site selection.

I went through a process of site selection based upon site requirements
I had obtained following an informal interview with Lychgate Funeral
Director Keith Newell, and after research on the buildings of Woodland
Cemetery by Erik Gunnar Asplund. These requirements were necessary
to accommodate the scope of the project, both practically and emotionally.

SITE REQUIREMENTS

Jervois Quay Carpark

The requirements were as follows:

views to nature;
a prominent visual location;
opportunities for multiple areas of access;
a relationship to water or the sea;
opportunities for landscaping elements; and
verticality to reflect the urban environment.

I had originally selected the Bolton Street Cemetery highway overbridge and underpass as the site for the crematorium, as it seemed fitting to restore the old cemetery and make use of the abandoned and empty underpass site that was being used as a car park. This site faced criticism following the first review, as it was essentially a site hidden from the public and would, therefore, enhance the notion that death must be hidden – the opposite of my thesis statement. I also considered the site of the earthquake-damaged Reading Cinema car park on Wakefield Street, but decided against it as it is slightly removed from the CBD, and commuters would be less likely to encounter the building, let alone use the landscape for recreation (fig. 5.05).

Fig 5.06. Design intention and further
death site explorations.

These explorations into other site options and current 'death sites' in Wellington led to an emotive drawing for site research that became my site location map and design intention drawing (fig. 5.06). Several death sites in Wellington are noted on this map, and have been placed in geographic relation to each other and the selected site. Several death sites worth mentioning include the Karori Cemetery, the Mount Street and Bolton Street Cemeteries, and the Makara Cemetery where a large number of Wellingtonians are buried annually. I have made particular reference to the Wellington Regional Hospital in Newtown (fig. 5.07), which is undoubtedly a popular death site as more than 65% of New Zealanders currently die in hospitals, hospices, or other institutions (Schwass "Facing Death" 14). This is particularly difficult for families, as there has been an increased desire to spend time with the body, or have more involvement with funeral proceedings, preparation of graves, and the burial itself (Hammond 10). It is now often the 'professionals' who are dealing with every aspect of the dying process, not loved ones (Amadei 1).

This drawing also visually expresses the way in which death has been kept on the outskirts of cities; the gridded clusters represent the uniformity of suburban life, and the banal environment in which most crematoria exist. These have been compositionally placed on the edges of the image in order to emphasise this issue. The selected site, Jervois Quay, and Wellington Harbour remain central to the image, with clean white space symbolising the
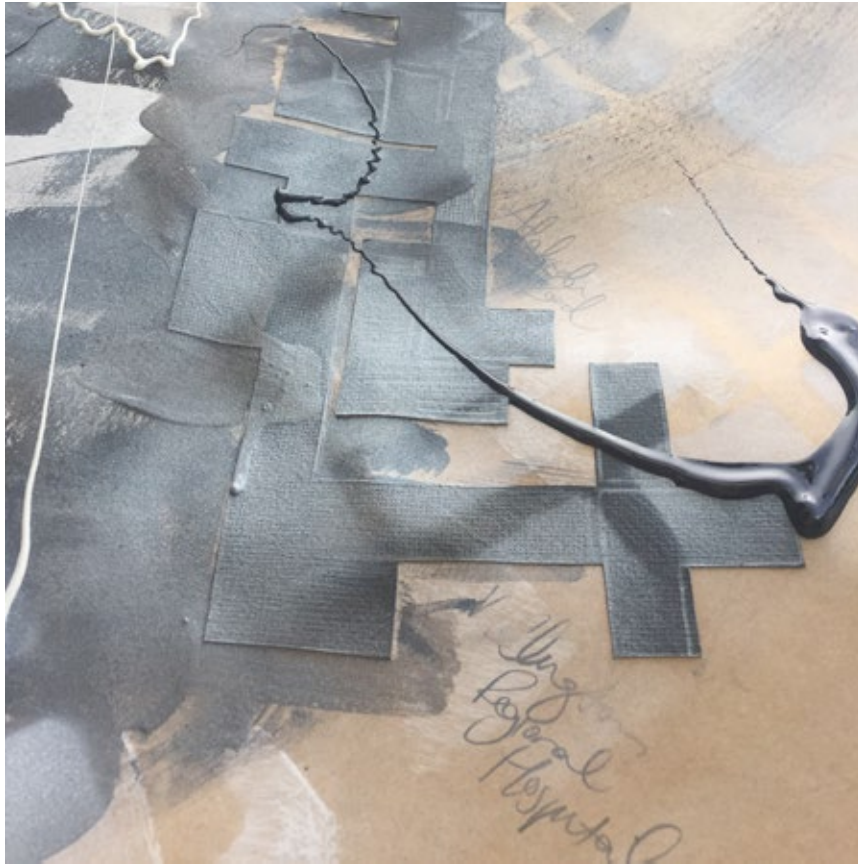
Fig 5.07. Representation of Wellington Regional
Hospital on the outskirts of town.

'fresh start' or literal 'blank canvas' that the site poses for me personally as a designer. Additionally, the surrounding buildings' footprints have been stamped onto the drawing, some with historical photographs highlighting the absence of what previously existed on the nearby land (fig. 5.08). This drawing featured at the start of my final critique, acting as the beginning of my project's narrative.

Fig 5.08. Historical photographs of the building that occupied
the site before it was demolished in 1978.

Fig 5.09. Fragmented historical site elements.
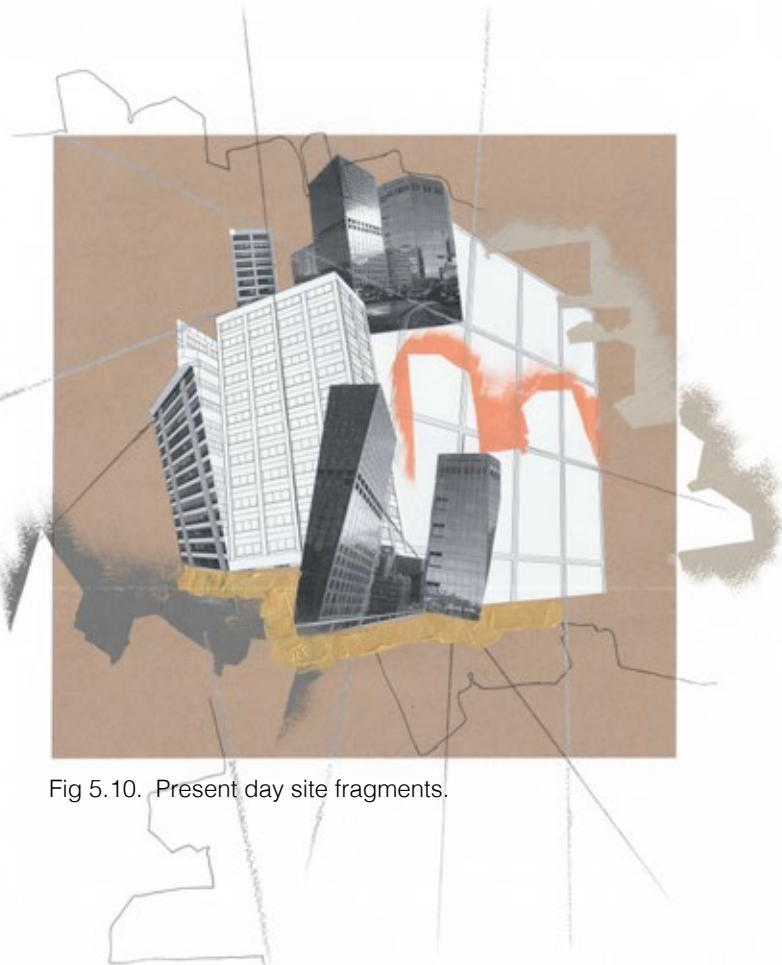
Fig 5.10. Present day site fragments.

After exploring these death sites on a regional scale, I wanted to focus on the site on a much smaller scale. I built up a visual data collection of the Jervois Quay site using fragments of surrounding building facades, historical photographs, and its surrounding context (fig. 5.09). This helped to distil a sense of place for this particular site, highlighting elements of importance that users of the building would either walk past when approaching the site, or experience through purposeful penetrations once inside the building. These images combined showcase the surrounding built and past environments, and reflect the significance of the site's external makeup (fig. 5.10).

My approach to researching the site's history started off with visual data

only. I searched through Archives New Zealand, looking through many historical photographs, before I began researching the written history of the site. The images I initially gathered are featured in the fragmented drawings of the site (fig. 5.11), and the death sites map (fig. 5.06). The images provided more insight and clues into the site's former lives than any written information I could find.

The site was vacant land until 1896, when a warehouse was built by Bendix Hallenstein for the New Zealand pharmaceutical company Kempthorne Prosser and Co Ltd (Wilson 69). In March 1904 the warehouse was completely destroyed in a spectacular fire (74), but was completely rebuilt, and continued to be occupied

Fig 5.11. Imagined perspective with fragmented historical site images.

by Kempthorne Prosser and Co Ltd until the mid-1970's, when the company was bought by Farmers Fertilisers Group (117) (139). The warehouse was demolished in 1978 as part of Wellington City Council's requirement for all older buildings in that area to meet certain earthquake-resistant standards (Wellington City Council). In its place, Wellington City Council built a car park building on the site, which remains today (Wikipedia contributors) (fig. 5.12). Part of Wellington's 'golden mile', the carpark occupies valuable land with spectacular views, yet remains unused by people except for the few short

minutes when users drop off or pick up their cars on week days (Wellington City Council) (fig. 5.13).

What fascinated me about the site's history was the accidental fireworks show as a result of chemical explosions during the 1904 fire. This unintended light display got me thinking about the use of lights as a way to visually represent death in an urban environment. This idea had already been explored by Death Lab's Constellation Park, with lights representing souls (fig. 5.14). While playing with this idea of showcasing the dead through lights, I initially contemplated one light representing one departed person. I was, however, also interested in the notion of a photograph as a "token of absence" (Sontag 17).

Prior to the critiques on photography by Susan Sontag, who also described photographs as "melancholgy objects", Roland Barthes, in 'Camera Lucida', likened photographs to death, and described the ultimate effect of 'punctum' as the intimation of death. 'Punctum' is defined as the feeling of having a direct and personal relationship to a photograph, where the viewer is fixated on touching detail, as opposed to 'studium', which refers to the political, historical, or socio-cultural meanings of a photograph (97).

IMAGE REDACTED

Fig 5.12. Wellington City Council carpark on site.

Fig 5.13. The site located on Wellingtons 'golden mile' remains mostly empty.

IMAGE REDACTED

Fig 5.14. Death Lab's "Constellation Park", imagined in New York.
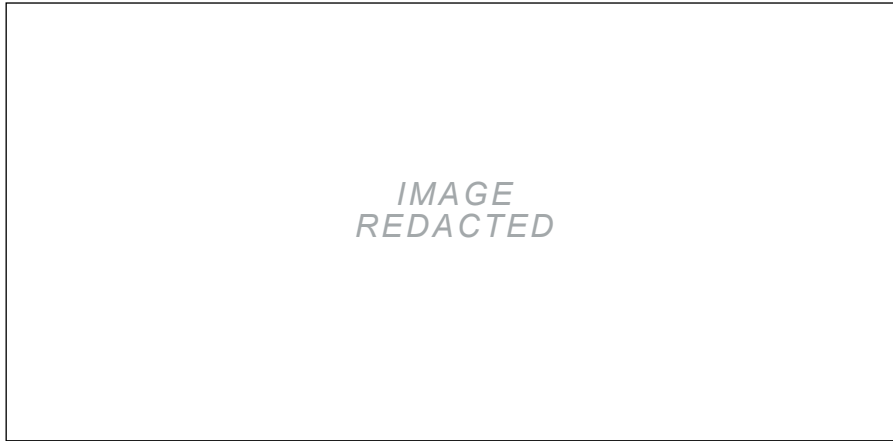
Fig 5.15. Projected images of the deceased are commonplace in funeral services.

The 'punctum' is what interested me most, as it points to those features of a photograph that may not have any symbolic significance, yet their meaning is unique to the individual viewer. Barthes goes on to talk about these interpretations, or 'viewings', being different within different social situations. He suggests that looking at a photograph alone is acceptable, while in a small group it becomes uncomfortable; in larger groups, however, it becomes tolerable again, as individuals become autonomous and the reading is again reflected inward. Ultimately, Barthes arrives at the conclusion that every photograph is a representation of death – it is a 'has been' moment in time.

This led me to the idea that, instead of photographs of the deceased only being visible from the privatised interior ceremony spaces, like the traditional 'power-point' slideshow, (fig. 5.15), what if portraits of the departed were integrated into the façade of the building, and projected outward for the public to see exactly whose funeral was being held at that time? This approach may seem quite literal and almost crude, creating a sense of a Times Square atmosphere – very much unavoidable, even festive. Yet this would not be anathema to the urban crematorium's objective of retuning death to the heart of society rather than banishing it to the outskirts, and as a place to celebrate life as much as mourn death. How humbling, also, for the passer-by to see a photograph of someone in a place

Fig 5.16. Experiementing with a projected image of the deceased on the facade of the proposed crematorium.

and time that the viewer knows can never happen again, that the person is effectively imprisoned in that image, they are a melancholy object. – a 'memento mori' that is without a foreseeable future (Sontag 70). Viewers could reflect on their unique 'puncta', experiencing a moment of lone contemplation while in the midst of the crowd able to reflect on the nature of ones own mortality, while also feeling encouraging to live while they have the opportunity (fig. 5.16).

It was crucial to understand the views from the site, out across the harbour

in the east and towards the city in the west. Capturing and isolating these views was imperative for the interior experience, in order for users to both feel more connected to the city and, even in grief, have a sense of belonging to something greater than themselves, and to be reminded that life does go on. The isolated views are highlighted in fig. 5.17 from three points along the centreline of the site. The photographs of the views were taken from the top of the existing car-park building. This is roughly the height at which the crematorium's highest floor will sit. It is clear in this diagram that the majority of the "good" views are to the west. The views to the north are scarcely worth capturing.

Next, I expanded the diagramming to accommodate a variety of analyses
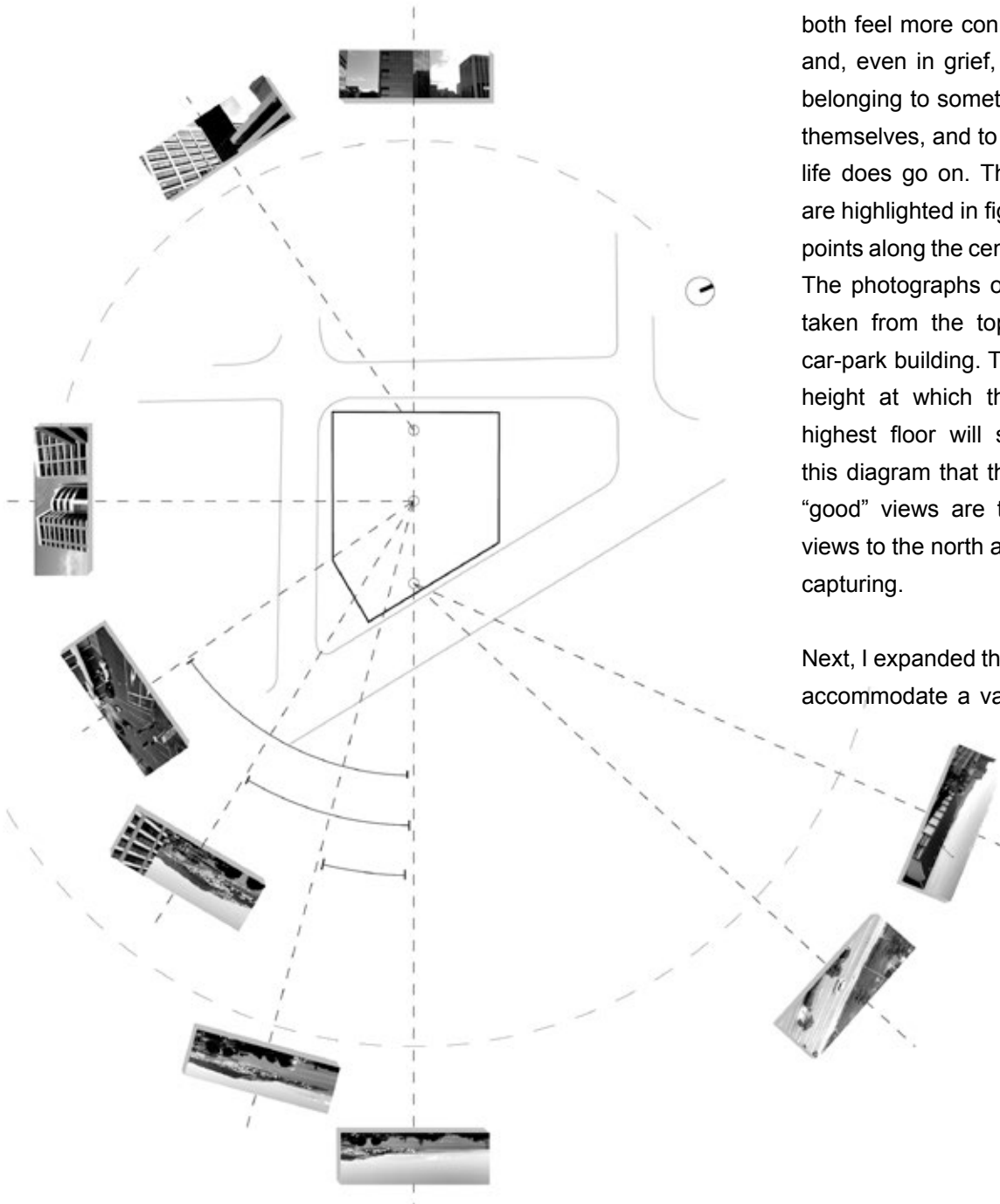
Fig 5.17. Diagram highlighting the views out from the site.

SITE

DIAGRAMS

Access

Boundary

Pedestrian Traffic

Building Entrances

Views Out

Streets

Vehicle Traffic

Open vs. Enclosed

Flat Site

Vertical Site

People Density

Views on to Site

(see fig. 5.18). This involved looking at how pedestrians and vehicles moved in, out, and about the site. Jervois Quay is an extremely busy route, contrasting with the two surrounding streets, which are both one-way and low-use. This information was integral to decisions around the entry and exit routes of both hearses and to mourners' vehicles. A SWOT analysis (strengths, weaknesses,
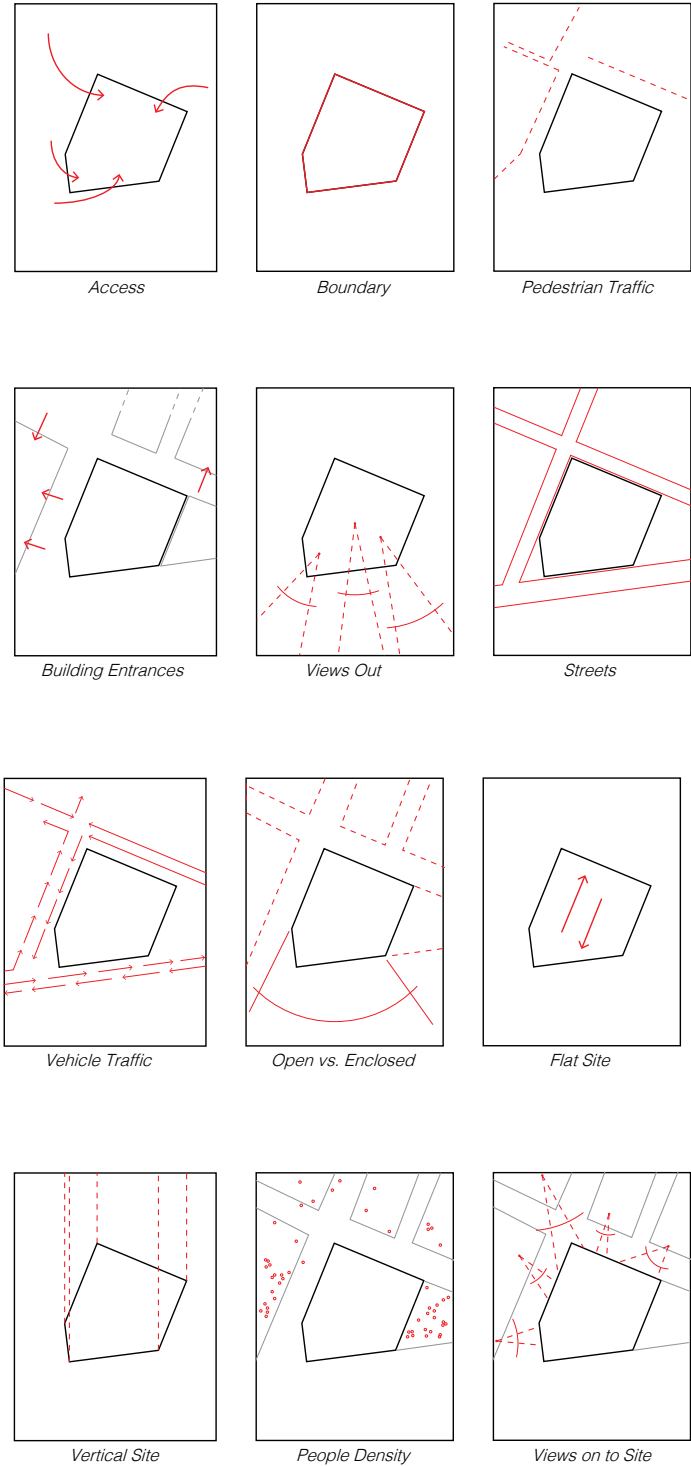
Fig 5.18. Site analysis diagrams.

opportunities, and threats) revealed several other opportunities, including the potential to use the verticality of the site (fig. 5.19). The views onto the site from the surrounding buildings were important to acknowledge, so the roof's design and aesthetic treatment was approached thoughtfully.
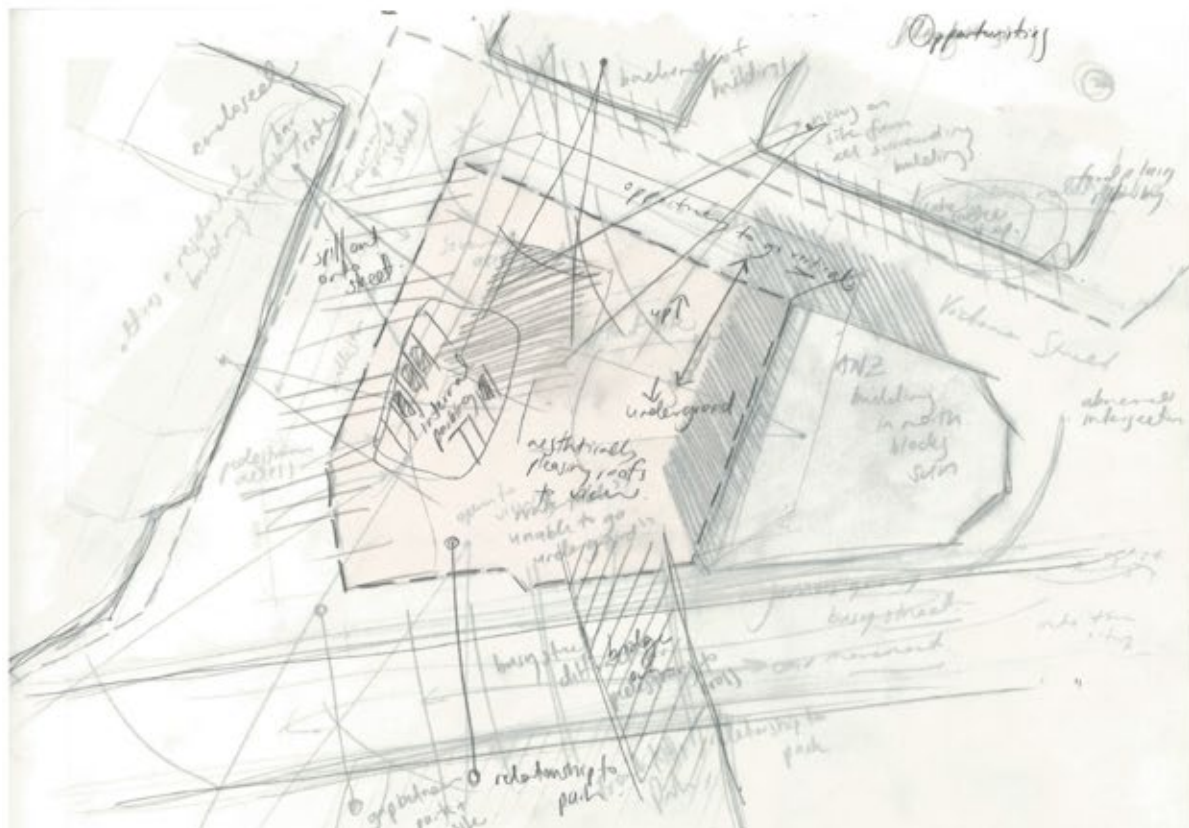
Fig 5.19. SWOT analysis layered sketch.

Weaknesses include the lack of sunlight and daylight due to the deep shadow cast by the ANZ building to the north. A large proportion of the site being in shadow for much of the day underpins design decisions. Morning and late afternoon services will need to be carefully considered, due to the impact on users of low-angle direct sunlight. Being on a triangulated site, grids on the site line up according to the adjacent streets and the view of the harbour (fig. 5.20). These grids will be used to orient the structure, helping to draw the surrounding context into the building. Several other elements of analysis included access; connection to the harbour and waterfront, and the relationship to the sea; views onto the site from surrounding high-rises; pedestrian movement; and surrounding building entrances (fig. 5.18).

Pattern Language is an architectural theory by Christopher Alexander that outlines a

Jervois + Waterfront axis

Victoria Street axis

Building edge + Willeston Street axis
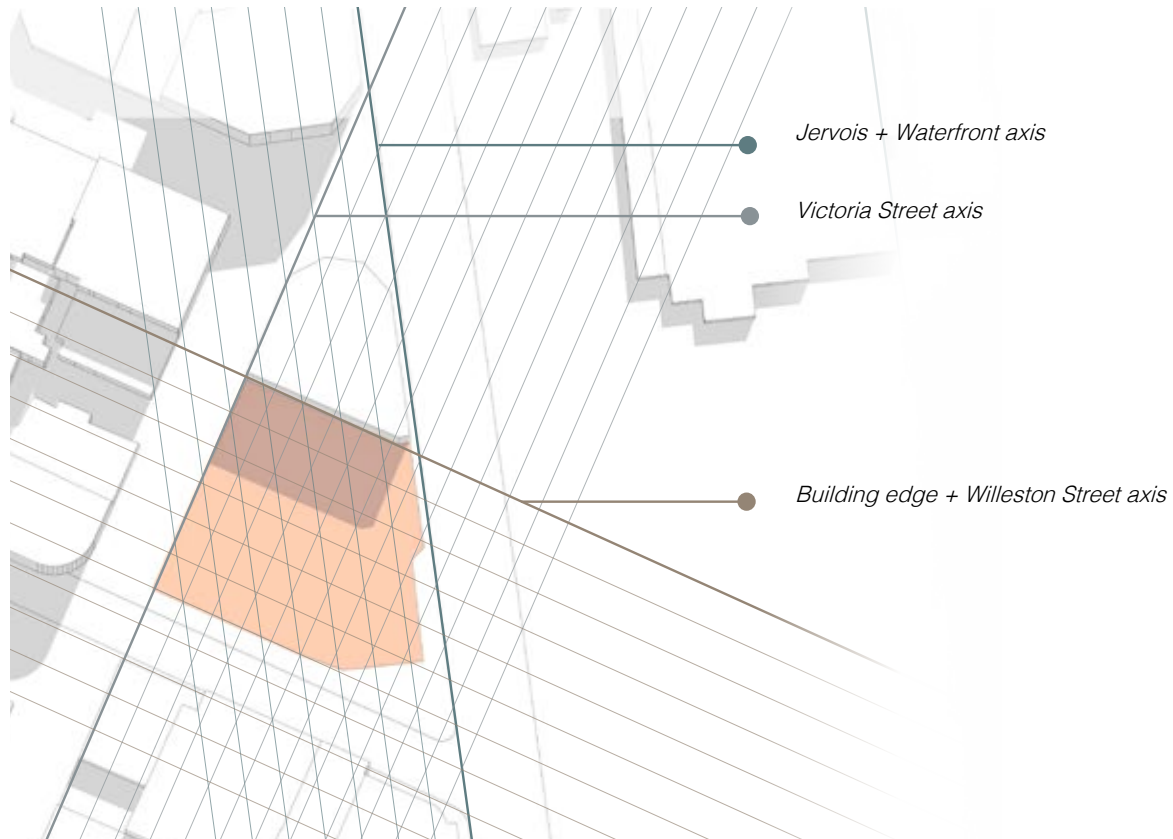
Fig 5.20. Grids on site aligning to the surrounding
           streets and views towards the harbour.

CHAPTER SIX:

THEORY PART II

" A simple process by which people generate a living building, simply by walking it out, waving their arms, thinking together, placing stakes in the ground, will always touch them deeply."
(Alexander 453)

PROBLEM

PATTERN NAME

SOLUTION

Images

Diagrams

Consequences
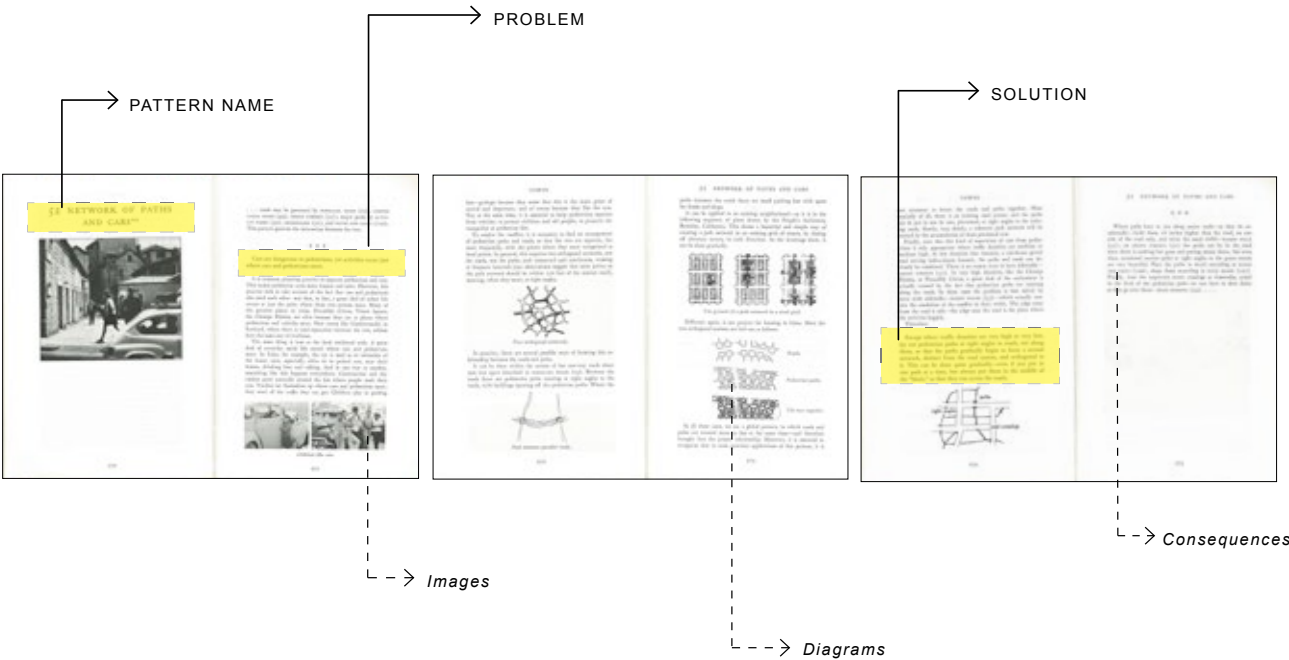
Fig 6.01. Analysis of the structure of patterns in 'A Pattern Language".

PATTERN LANGUAGE

THEORY

radically different perceptual framework for designing and constructing architecture. Pattern language relies on the understanding and configuration of design patterns in order to give power to the people of a community to design and create an infinite variety of new and unique buildings, just as ordinary language gives them the power to create an infinite variety of sentences (Alexander xi).

A pattern is essentially an element of architectural design. All the patterns are ordered

PATTERNS

from the largest (regions and towns) working down to details of construction. Each pattern describes a problem that occurs repeatedly in our environment, and then describes the core solution to that problem (fig. 6.01). No pattern is an isolated entity. They must be connected in some way, and these connections form a network between patterns that creates the language, forming a whole (Alexander xii; Alexander et al. xv). Patterns outlined by Alexander that are relevant or have meaning to death-related architecture include the Life Cycle, Holy Ground, and Grave Sites.

Life Cycle

Alexander describes the life cycle pattern as a definite psychological reality. He believes it consists of discrete stages, each one fraught with its own difficulties and special advantages. Growth from one stage to another is not inevitable, and, in fact, it will not happen unless the community contains a balanced life cycle; one that can sustain and include the full range of settings needed for all these stages of life. (Alexander, Ishikawa and Silverstein 145).

Holy Ground
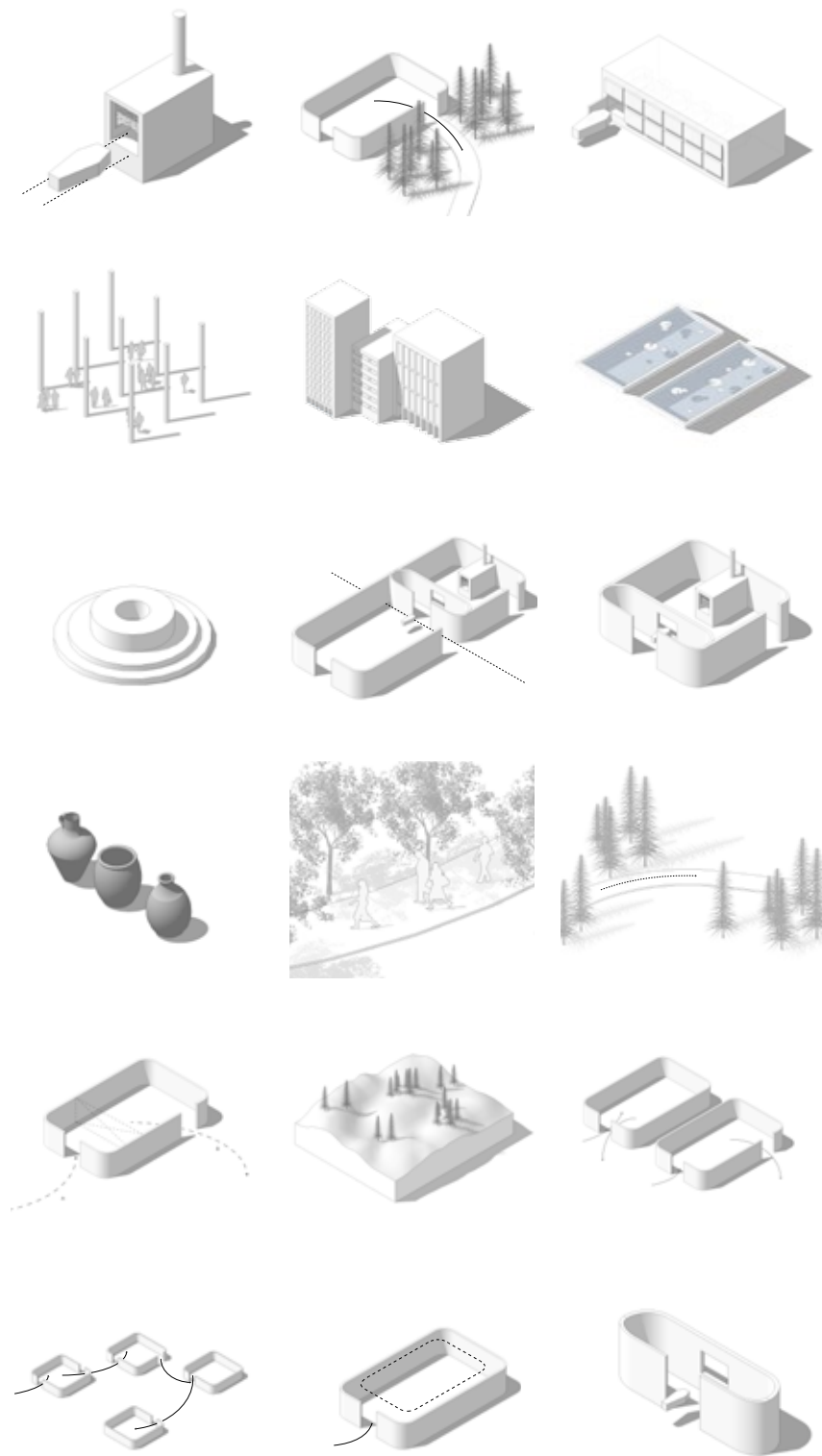
Fig 6.02. Patterns for Crematoria.

Alexander recognises that each community identifies some places as 'sacred sites' or 'holy ground'. All cultures acknowledge that a space is only holy ground if there is a series of nested precincts, each marked by a gateway, each one progressively more private and sacred than the last, the innermost being a final sanctum that can only be reached through layers of access, waiting, levels of approach, a gradual unpeeling, and passage through a series of thresholds (Alexander, Ishikawa and Silverstein 332-34).

Grave Sites

The final, and probably most important, pattern relating to death is that of 'grave sites'. Alexander believes that the presence of the dead among the living will be a daily fact in any society which encourages its people to live. He goes on to say that cities should never build massive cemeteries, but instead allocate pieces of land throughout the community as grave sites – corners of parks, sections of paths, gardens, beside gateways – where memorials to people who have died can be ritually placed (Alexander, Ishikawa and Silverstein 356-57).

Although these patterns give reference and guidance on how to approach and design some sacred spaces, the options Alexander provides are limited to death or emotionally responsive patterns. Therefore, I have sought to provide my own patterns in order to construct a network arrangement suitable for a crematorium experience.

M E T H O D O L O G Y

I started to gather data and information on what elements of a crematorium experience were distillable into 'patterns'. After diagramming the processional sequencing of mourners through Asplund's Woodland Crematorium, I began to understand how architecture impacted the users' experiences, and began breaking those key moments down into these patterns (fig. 6.02). I then constructed a network arrangement of the patterns suitable for a crematorium experience (fig. 6.03). This successfully helped me to understand connections between patterns and identify: which patterns had more connections to others, and could therefore be deemed as more important, and which may have only had one or two connections, making them

Ash Collection

Departure

Release into nature

Commital Moment

Integrated with landscape

Journey

Cremator

Ceremony

Gathering

Ritual Sequence

Disconnecting Congregations
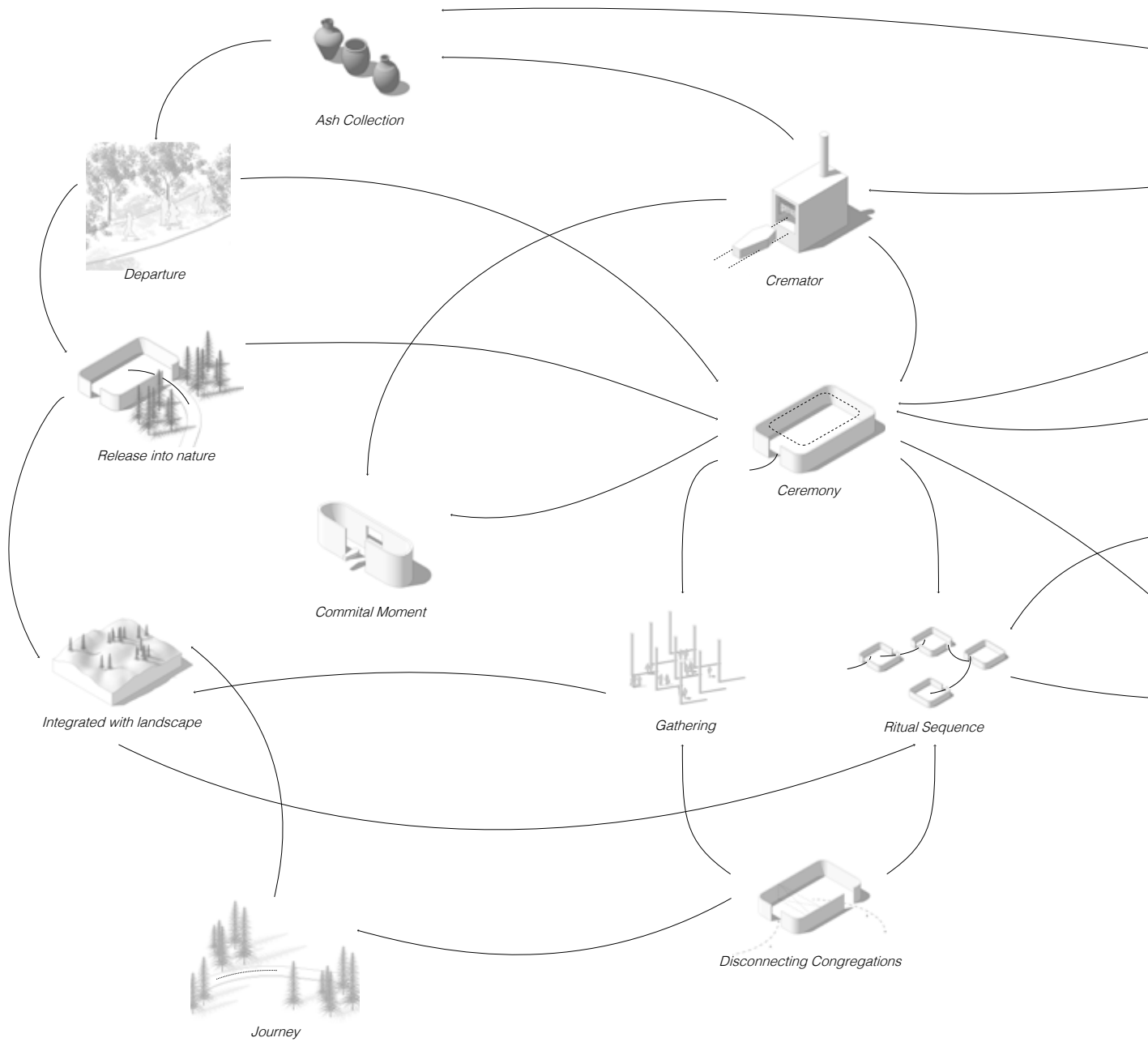
Fig 6.03.   Network diagram for patterns of a
crematorium experience.

Hidden Services

Transitional Threshold   *Cold Storage*

Hearth   *Pools of Water*

Secular Space

Urban Relationship

play a less valuable or vital role in the assembly of this crematorium's planning.

Often with pattern language network diagrams, the diagram can be translated directly into a floor plan of a building. I did not wish to take this route, as I felt like it would neglect the vertical opportunities of the site, and I felt that there was more information in these patterns individually that could be drawn out through visual experimentation, rather than diagram planning.

In response to my own pattern language (practical) additions, I wanted to also address the emotive qualities of a space that pattern language tends to neglect. My approach to this was to explore texture and movement through a series of collages that represent emotions mourners tend to experience when going through the grieving process at a crematorium. Unlike Alexander's patterns, these elements are not limited to their "signifier", or written explanation, for example "zen view" or "deep reveals", but instead are explored visually and "signified" through both collaged perspectives and sections (Alexander xi). Considering the interior environment, and how these collages might be arranged, produced a sequence of spaces throughout a building journey.
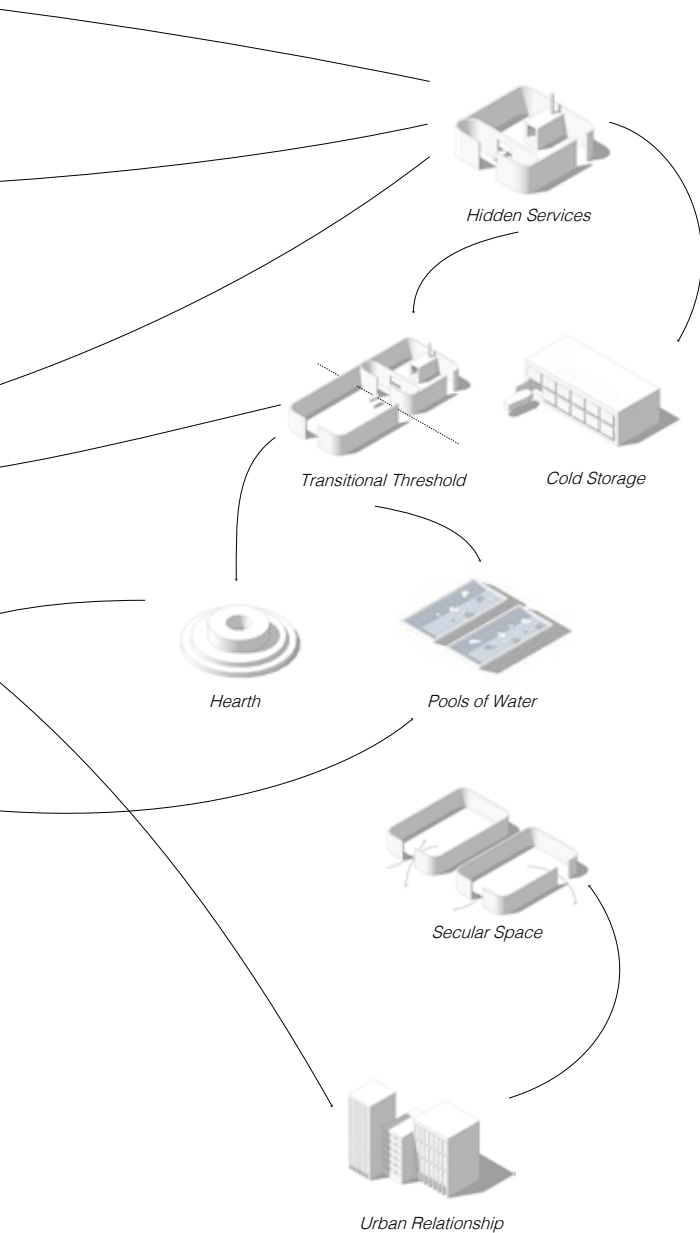
CHAPTER SEVEN:

DESIGN PHASE I

THE PATTERNS

e n t r a n c e

c e r e m o n y

r e f l e c t i o n

a s h   d e p o s i t o r y

Fig 7.01. Perspective collages to test interior
atmopheres of four key spaces.

The four spaces considered are:

Entrance way/gathering space

Ceremony space

Reflection space

Ash deposition space/exit
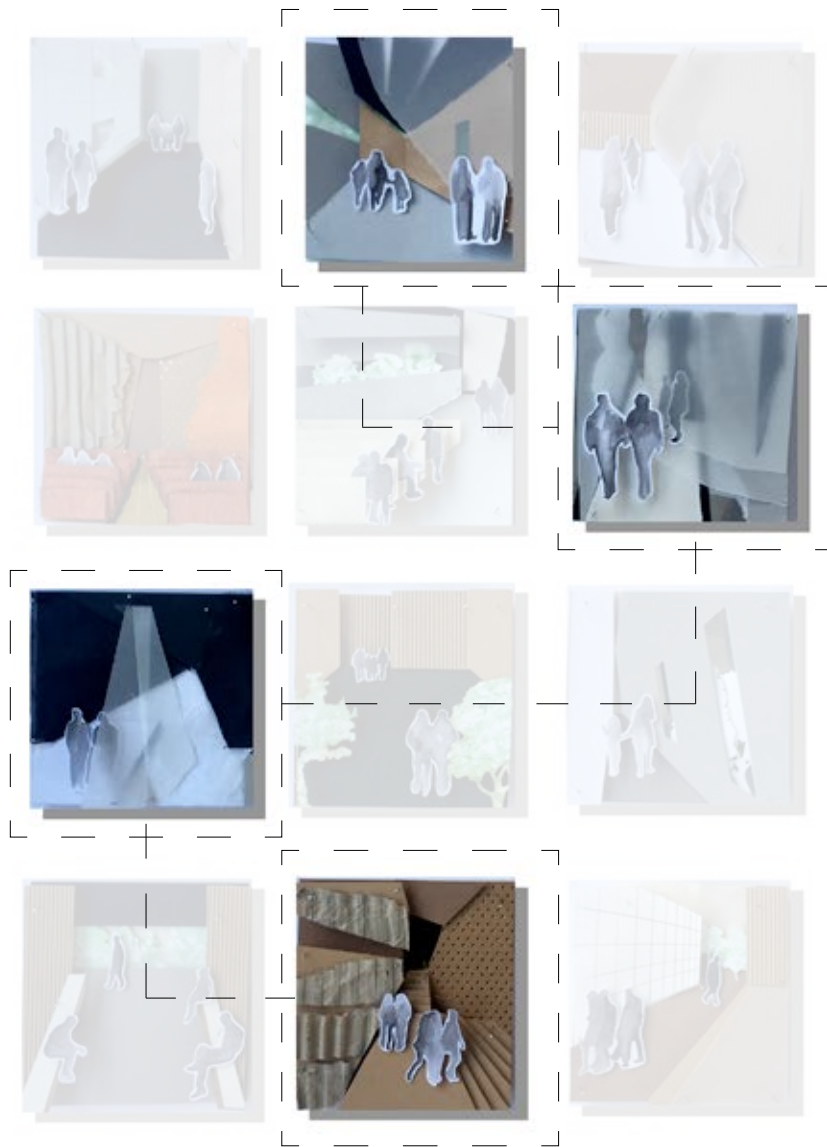
Fig 7.02. Sequencing the collaged 'patterns'.

I designed three iterations of each space through perspective collages (fig. 7.01). Each touched on a different visually-expressed emotion, representing a feeling or spatial experience of the user. Key words like 'celebrate' or 'acknowledge' were used to help direct the mood of the collage (see fig. 7.03). After isolating these individual key moments, networks were then arranged so that certain 'elements' were connected to form a pattern language for crematoria. Each individual collage can be placed alongside another collage to create a sequence that represents the user's journey through these key spaces (see fig. 7.02).

These perspective collages aimed to be emotive, but something was lacking. I decided that the missing element was light. I attempted to produce and replicate diffused or direct light through the transparent paper, but this wasn't communicating the desired emotions. In order to address light and movement, I needed to look at translating this idea into sections.

Fig 7.03. Emotive words were
assigned to each collage
to direct the mood
and atmosphere.

PERSEPCTIVE &

SECTION

I designed 12 sectional 'patterns' that sit alongside each perspective (fig. 7.04), and have been created to showcase light, movement, and texture. These sections are diagrammatic, and do not represent actual physical space, but a spatial quality. Most sections have been designed to capture and tunnel light in particular ways to further enhance the emotive qualities 'assigned' to that particular space (fig. 7.05). Again, there is opportunity here to select and arrange a series of 'sectional patterns' (fig. 7.06) to suggest a linear journey through the building. The arrangements do not need to be limited vertically, and can sit above or below each other to make up a sequence of spaces that, in turn, can translate into a larger building section (fig. 7.07). Several iterations were produced using this methodology of selecting and rearranging components (fig. 7.08). The most successful iterations were determined by their relationship with the site (fig. 7.07). Those that had several underground

Fig 7.04. Perspective and section pair for 'elevate'.

anger
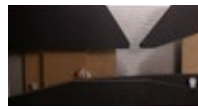
denial

supress

absence

acknowledge

reflect
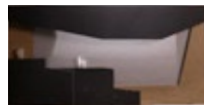
laughter

memory

celebrate

experience
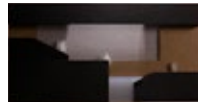
acceptance

elevate

Fig 7.05.   All section collages with
proposed light conditions.

DENIAL

REFLECT

LAUGHTER

EXPERIENCE
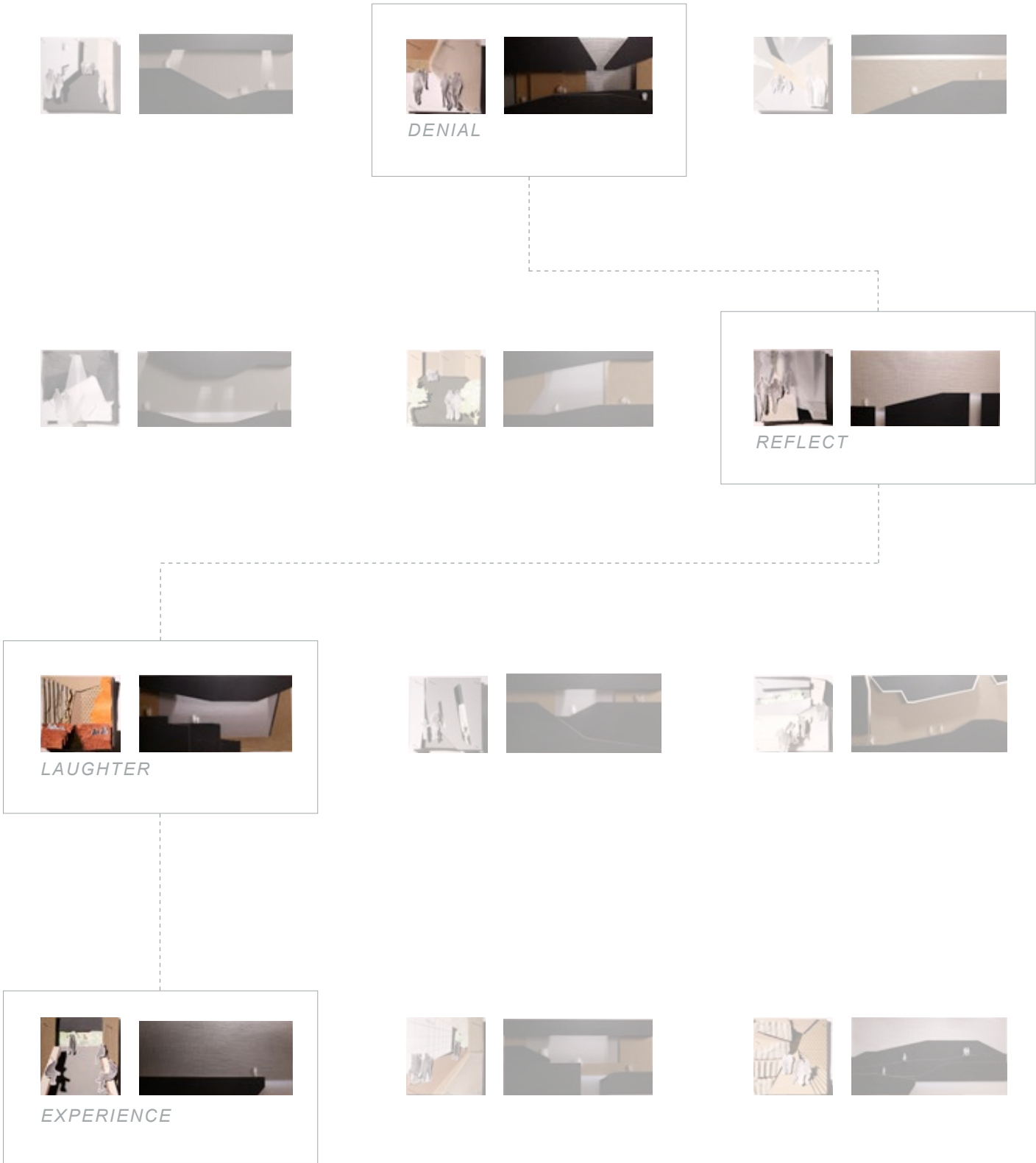
Fig 7.06.   Possible sequence
selection for
crematorium journey.

Fig 7.07. Arranging iterations of individual sections
         to create an entire building section.

elements in addition to allowing for openings to the east (harbour side) were diagrammed. These diagrams extracted the floor heights, transitional spaces, circulation, entries, and exits (fig. 7.08). It was from here that a singular iteration was developed into a full building (fig. 7.09). This arrangement had more information added to it through a layering process of drawing over, alongside elevational and perspectival sketches (fig. 7.10).

Several experiments trial with vertical and horizontal space so that, when combined, an overall building whole is created that is relational in scale, and has a specific relationship to the site in which it sits. These tests also aimed to explore several sequenced

Iteration one
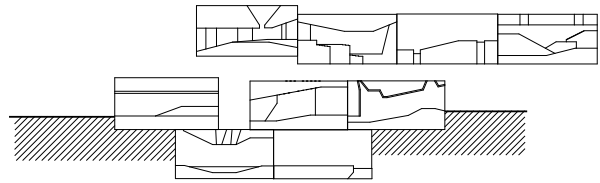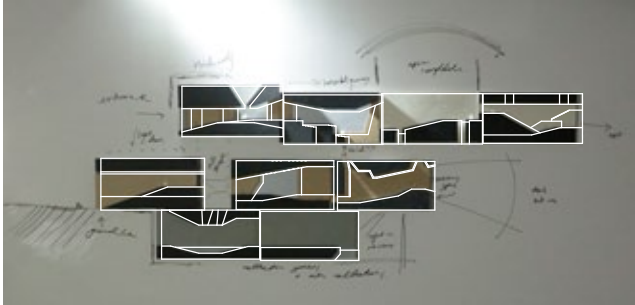
Iteration two
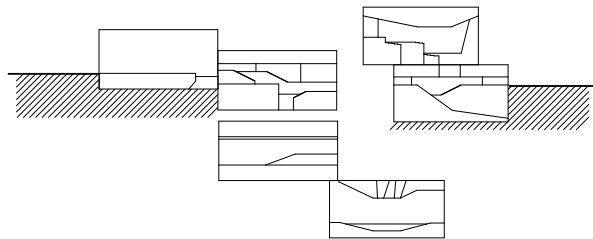
Iteration three
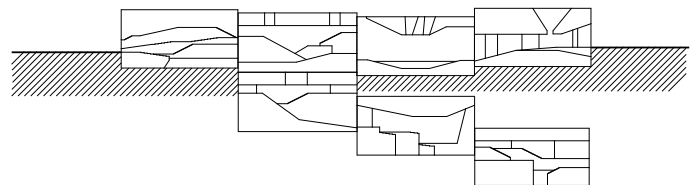
Fig 7.08. Whole building
sectional arrangement
iteration diagrams.
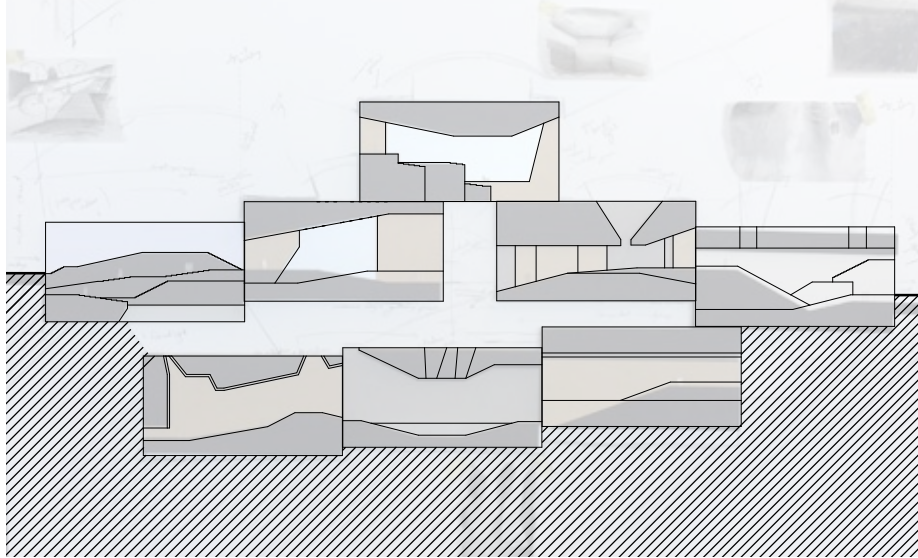
Fig 7.09.   Selected iteration to explore
            further through drawing.
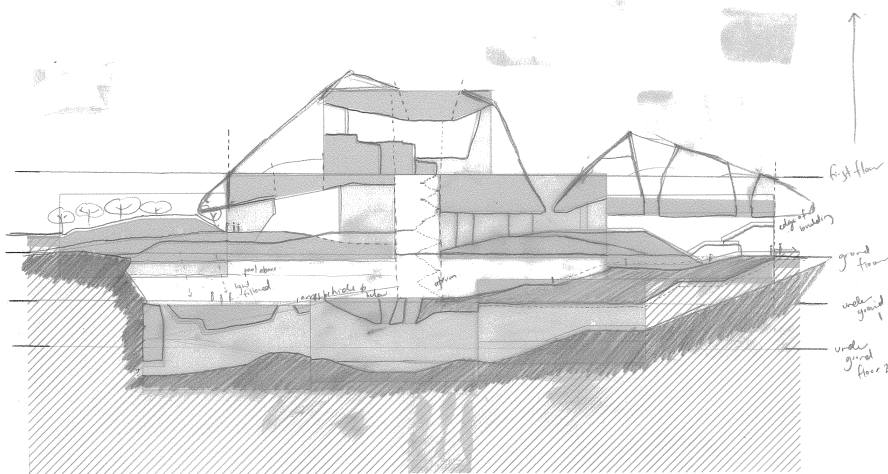
Fig 7.10.   Additional information is layered onto the sectional
            composition to translate the diagram into a building section.

iterations in order to find, through architecturally represented collages, a processional sequence that encourages a positive experience for mourners at both an individual and congregational scale. Applying these pattern networks to pragmatic requirement diagrams allows for further rearrangements that address both the pragmatic and emotive requirements of the user (fig. 7.11).

street access

staff carpark

visitors carpark   staff offices

reception

funeral planning   meeting room

garage   decorating rooms

mortuary   cold storage

ceremony space

committal space

cremator

cremulator   reflection space

ash collection

ash deposition

street access

landscape
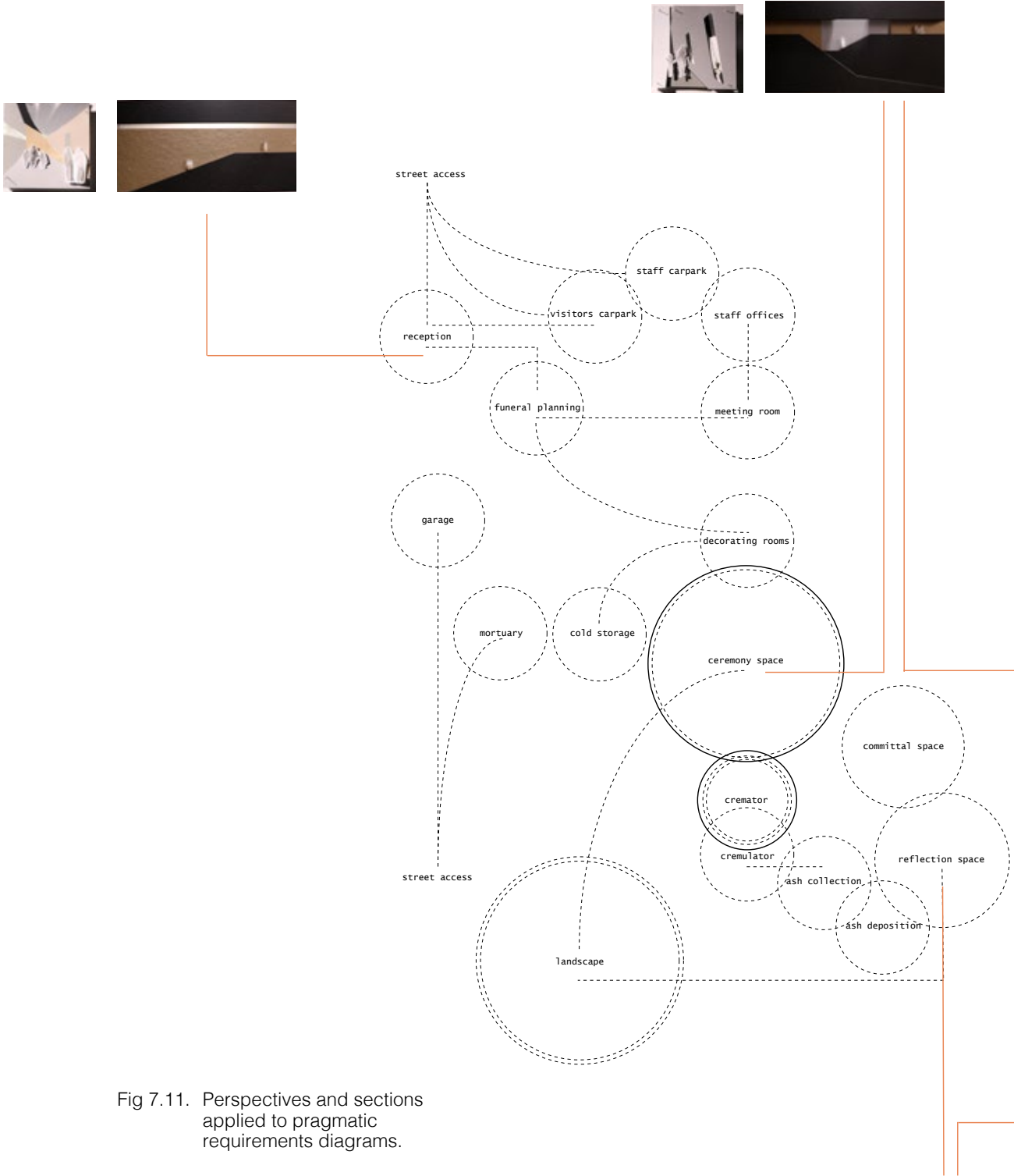
Fig 7.11. Perspectives and sections
           applied to pragmatic
           requirements diagrams.

public

street access

driveway

walkway   carparking

gathering

personal gallery

ceremony space

catering / cafe   reflection space

public gallery?

ash retrieval

placement of ashes

ceremony spaces

reflection spaces

exit

entry
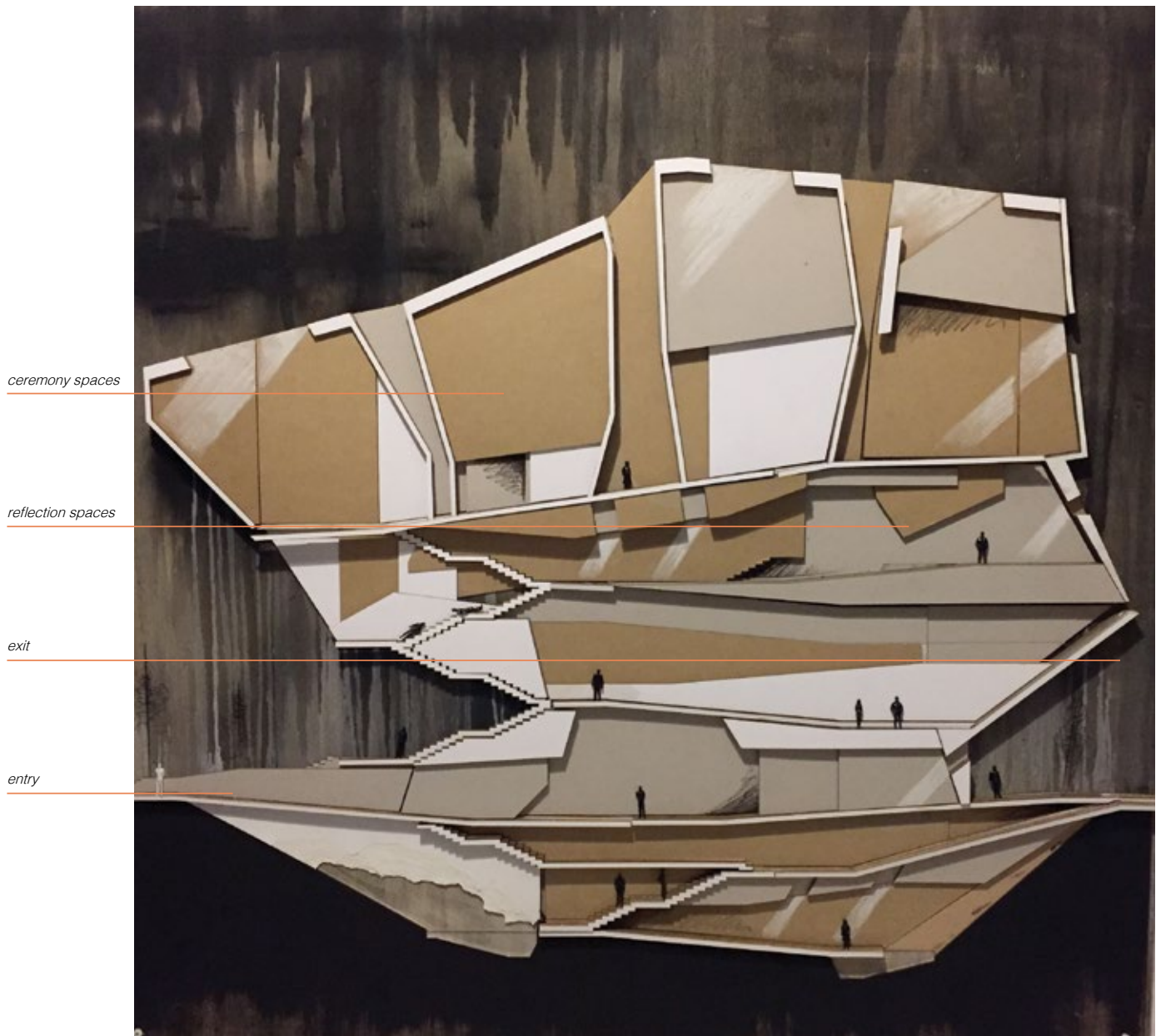
Fig 7.12.   Final building section cut parallel
             to Willeston Street. .
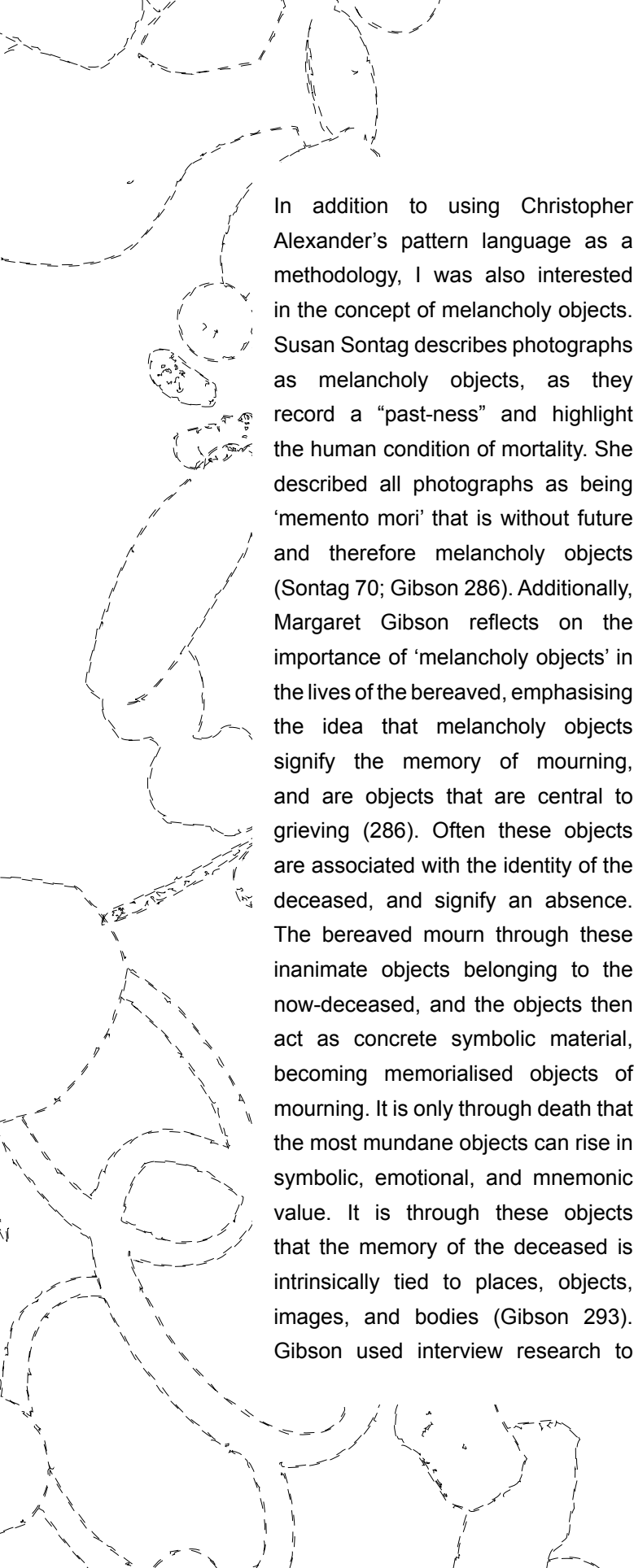
Ultimately, these design experiments arrived at a final section for the overall building, which was used as a keystone to influence the conception of the floor plans and form of the final building. This section (fig. 7.12) again plays with a layering technique to define light, shadow, and movement through the building. Light shafts emphasise thresholds where users that be encouraged to cross, and thick heavy walls allow for deep reveals, evoking a secure and safe interior atmosphere. This section aimed to showcase the verticality of the site, while simultaneously highlighting the circulation and routes of users.

CHAPTER EIGHT:
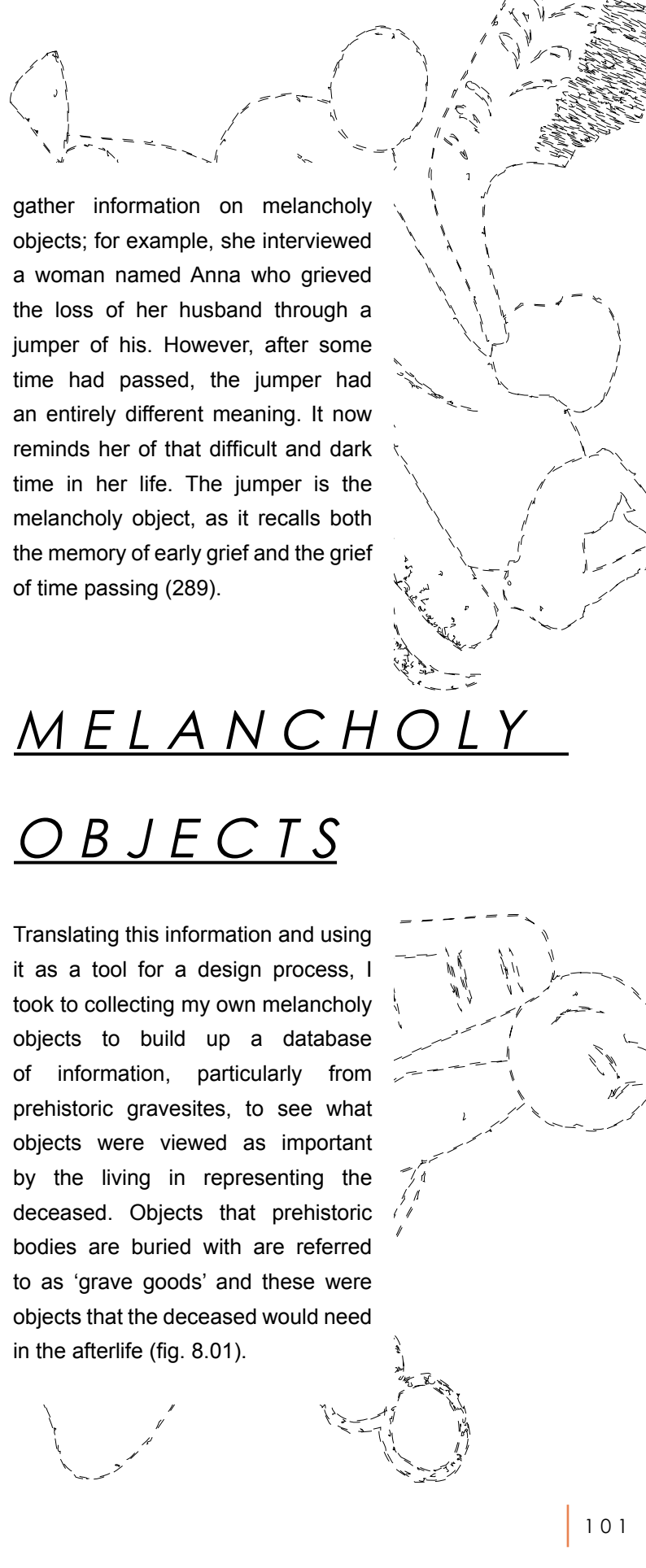
DESIGN PHASE II

Fig 8.01. Grave goods
form isolated.

In addition to using Christopher Alexander's pattern language as a methodology, I was also interested in the concept of melancholy objects. Susan Sontag describes photographs as melancholy objects, as they record a "past-ness" and highlight the human condition of mortality. She described all photographs as being 'memento mori' that is without future and therefore melancholy objects (Sontag 70; Gibson 286). Additionally, Margaret Gibson reflects on the importance of 'melancholy objects' in the lives of the bereaved, emphasising the idea that melancholy objects signify the memory of mourning, and are objects that are central to grieving (286). Often these objects are associated with the identity of the deceased, and signify an absence. The bereaved mourn through these inanimate objects belonging to the now-deceased, and the objects then act as concrete symbolic material, becoming memorialised objects of mourning. It is only through death that the most mundane objects can rise in symbolic, emotional, and mnemonic value. It is through these objects that the memory of the deceased is intrinsically tied to places, objects, images, and bodies (Gibson 293). Gibson used interview research to gather information on melancholy objects; for example, she interviewed a woman named Anna who grieved the loss of her husband through a jumper of his. However, after some time had passed, the jumper had an entirely different meaning. It now reminds her of that difficult and dark time in her life. The jumper is the melancholy object, as it recalls both the memory of early grief and the grief of time passing (289).

MELANCHOLY OBJECTS

Translating this information and using it as a tool for a design process, I took to collecting my own melancholy objects to build up a database of information, particularly from prehistoric gravesites, to see what objects were viewed as important by the living in representing the deceased. Objects that prehistoric bodies are buried with are referred to as 'grave goods' and these were objects that the deceased would need in the afterlife (fig. 8.01).

Fig 8.02.   Grave good images from prehistoric
graves, printed and cut out.

Fig 8.03.   Grave good cut-outs arranged
and composed together.

It was the duty of those who buried the deceased to insure the correct objects were buried. They lost their status as melancholy objects as soon as the grace was closed and therefore only remained significant to the deceased. The relationship between these objects and the mourners is very strong. Clearly these differ from contemporary melancholy objects in the fact that these are buried with the deceased and were therefore well preserved. Contemporary melancholy objects tend to stay with family or friends as mementos or heirlooms.

I trawled through museum websites looking for photographs of items that humans have been buried with. I gathered a large collection of objects together including jewellery, tools and pottery (fig. 8.02), and created a series of arrangements of
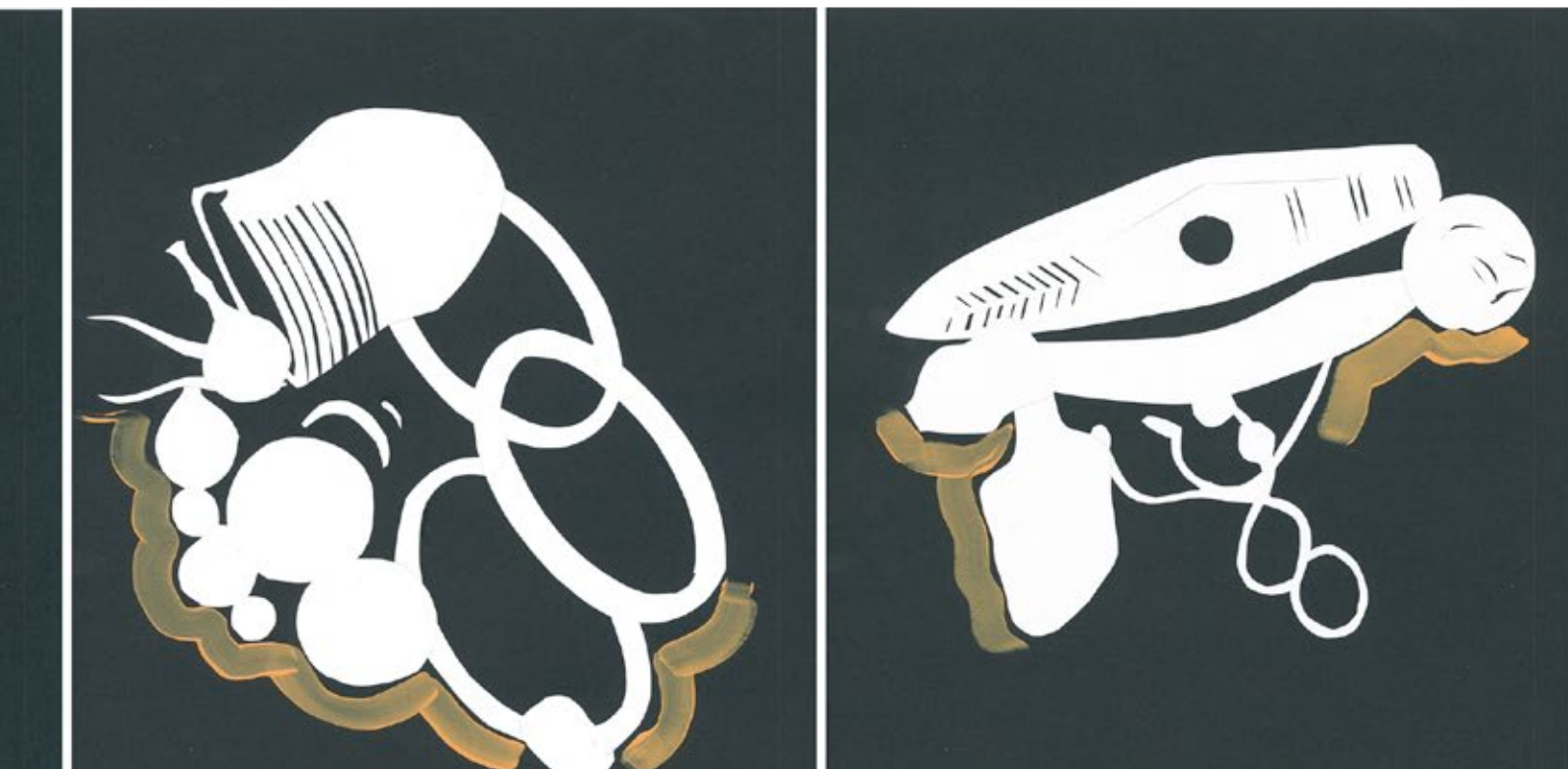
these objects by cutting out the forms of each grave good and composing them on a page (fig. 8.03). However, what was lost in this experiment was the richness of these grave goods; the details in etchings and textures, the exhaustive nature of time captured on the decayed objects and, in some cases, restored, for example on the repaired vases. All this information was lost when focusing on the forms of the grave goods instead of the imperfections and colouration, and unfortunately those elements were crucial to understanding the significance of these items. Selecting just the forms, therefore, proved to be an unhelpful exercise, and the shapes that arose were starting to become 'blob' architecture, and something I wanted to steer away from. However, to fully exhaust this experiment, I translated the 'blobs' into building plans (fig. 8.04), to see if any arrangements could be successful. While several were, overall the experiment failed. When the 'blobs' were simplified into angular forms, they lost all the original forms from the grave goods. These representations had a similar aesthetic to the massing digital models that came about from the site and brief requirement experiments that are explicitly outlined in the section after next.

Internal courtyard

Curved Revealed Car Entry
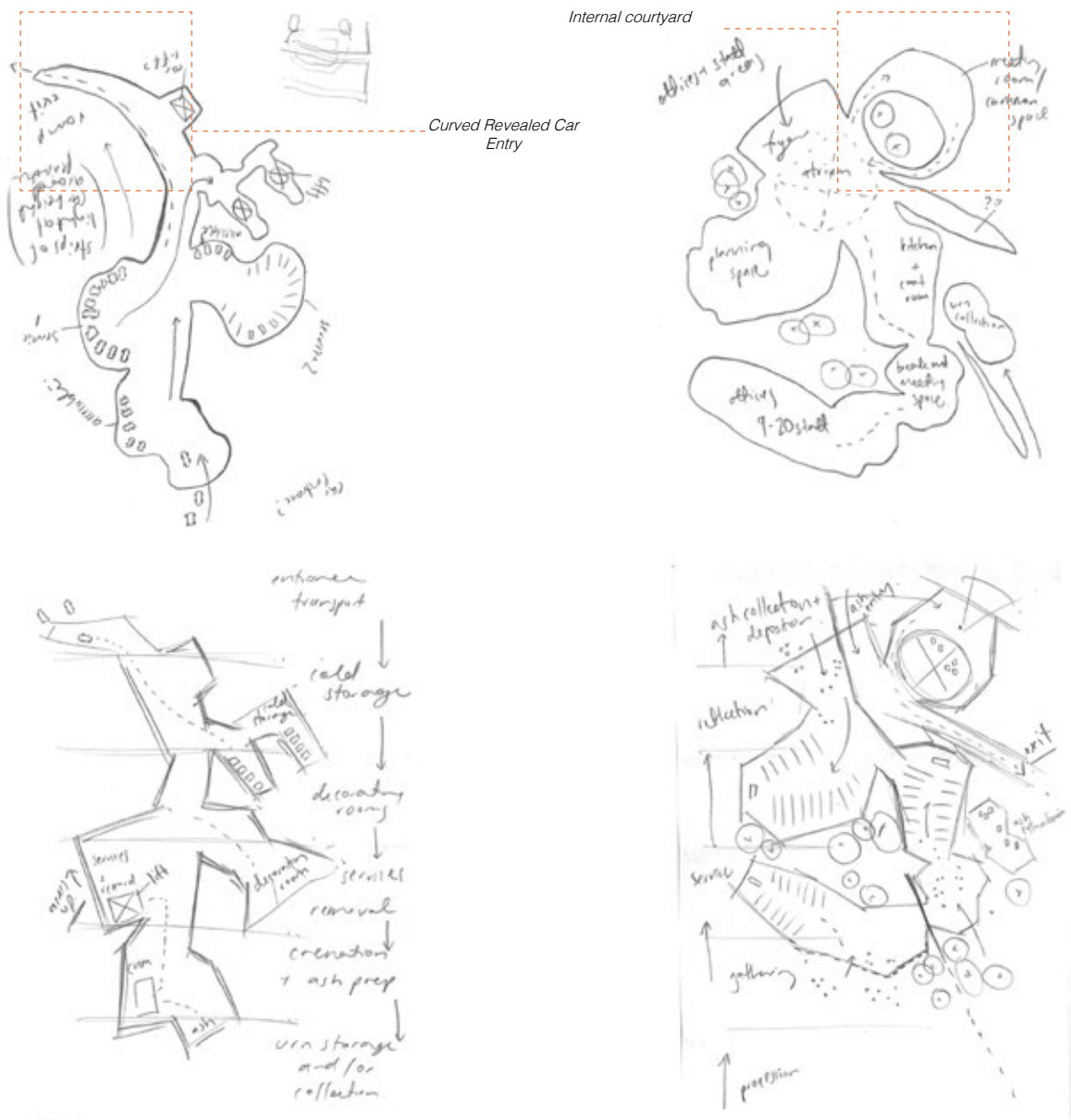
Fig 8.04. Grave good compositions translated into building plans. Successful elements are highlighted here.

F O R M   T E S T I N G

S K E T C H I N G
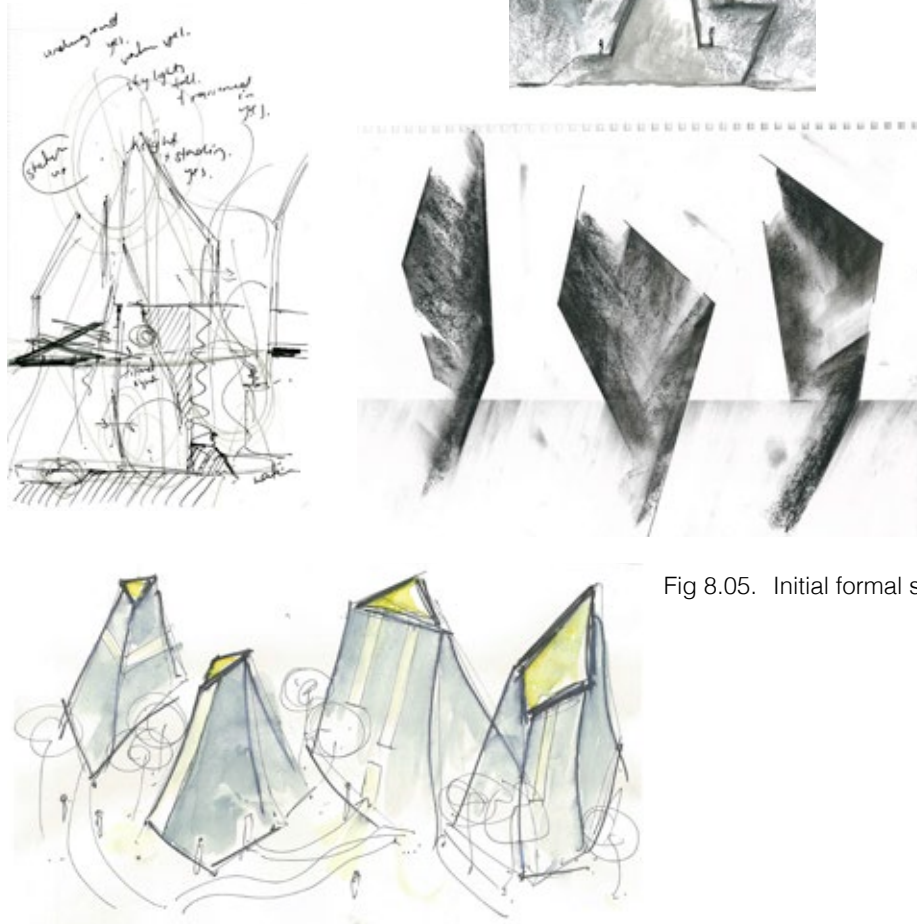
Fig 8.05.   Initial formal sketches.

After reflecting on this failure, I explored intuitive testing through drawing. After assessing these drawings (fig. 8.05), it was clear that I was instinctively drawn to working in section and producing fragmented buildings, each separated by ground floor space. These were often towering buildings with light penetrating from the top down into under-earth compartments drawn with dark, moody colours and textured media such as charcoal and ink. After evaluating these drawings, I selected the most successful sketch and placed it onto the site in section (fig. 8.06) to see how the scale of the drawing would work against the surrounding buildings and roads. To get a further understanding of these forms in three-dimensional space, I modelled a series of iterations physically in card (fig. 8.07). I sketched on the models, and then on the photographs of them, adding more layers of information before placing these models back onto the site (fig. 8.08), and adding more detail after translating the models into sectional drawings.

INITIAL FORM MODELS
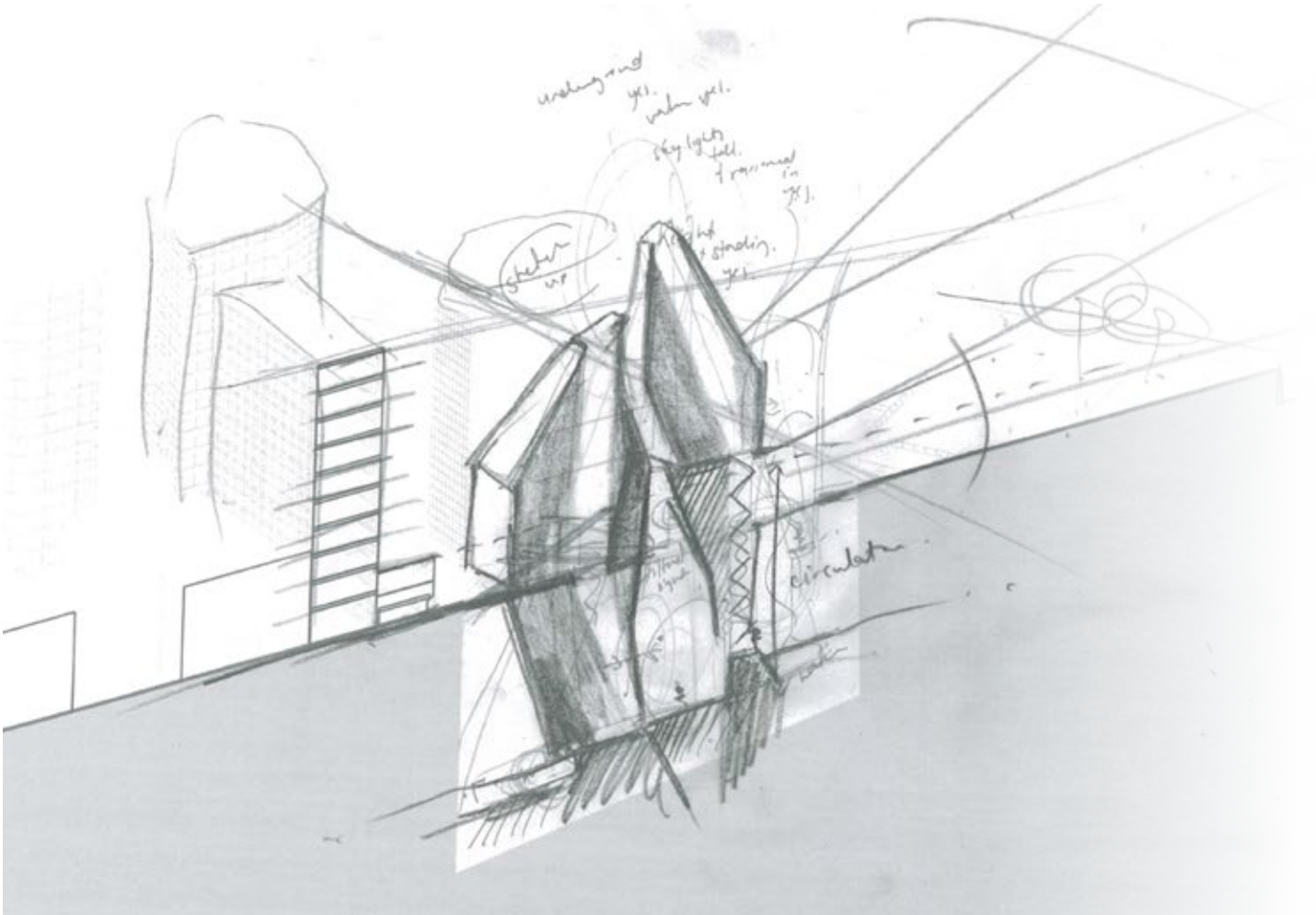
Fig 8.06. Hand sketch of section
digitally applied to three
dimensional model.

Fig 8.07. Cardboard models translated
from hand drawn sketches.

Fig 8.08. Models sketched on
and applied to site with
reference to views.

D I G I T A L   F O R M   M A K I N G

I took to the digital realm in order to test and play with different form options (fig. 8.09). From the previous experiments of intuitive sketching and then modelling, I knew that the building should be in three distinctive parts, and this is reflected in the initial and final formal studies (fig. 8.10). This process was also carefully documented in order to reflect on the methodological approach of going from drawing to model, model to drawing, and drawing to digital model. From here, the final formal model was designed (fig. 8.11) and constructed (fig. 8.12 - 8.15). Several material options were explored, and the final model showcased the scale of the building and its surrounding landscape. It was also successful at showing the access from the bridge, and operation, of the columbarium (fig. 8.16).

Fig 8.09. Adjusting three dimensional space to fit within site restraints and formal requirements

square

shrink

collapse

fir

long

rotate
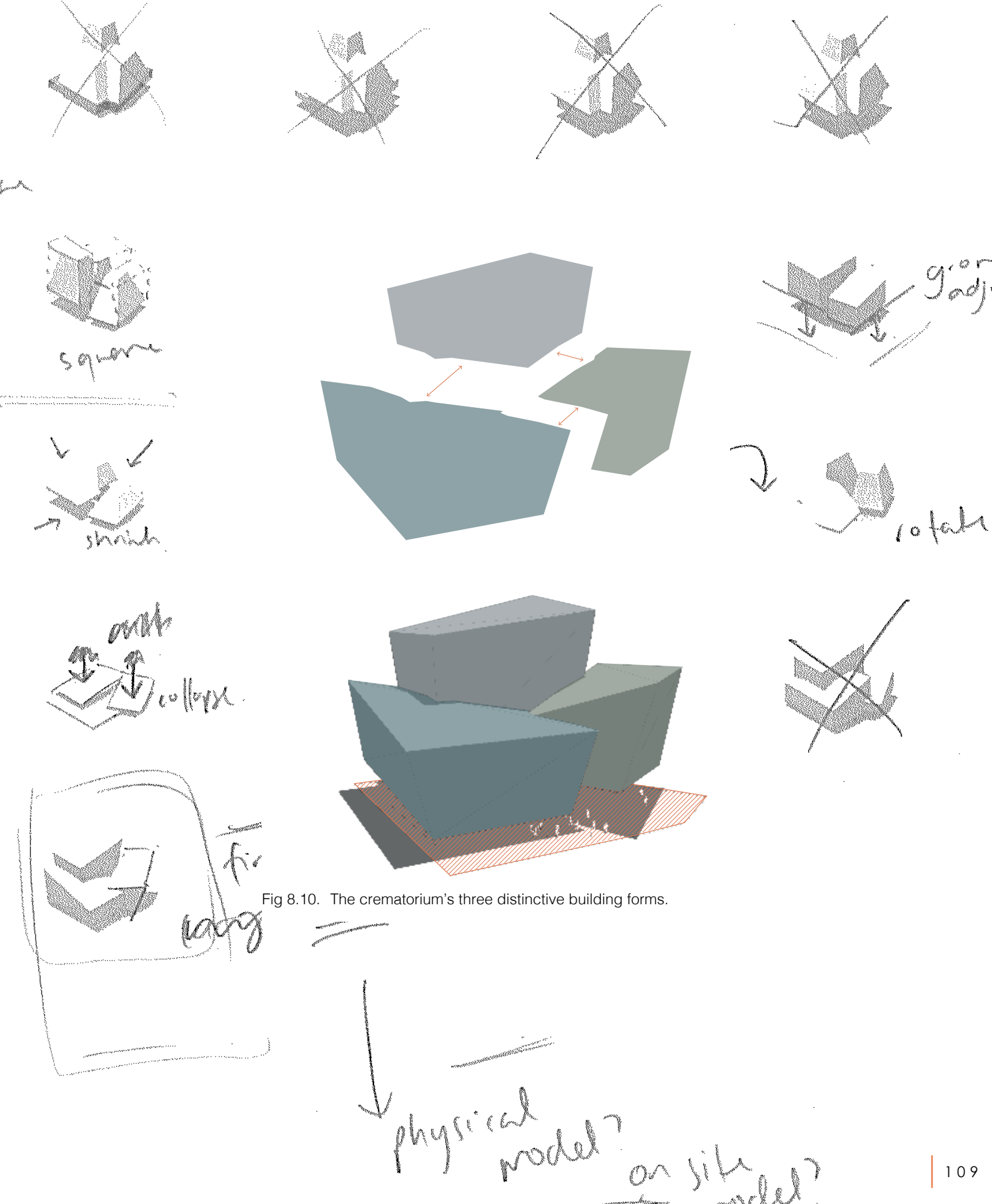
Fig 8.10.   The crematorium's three distinctive building forms.

physical model?

on site model?
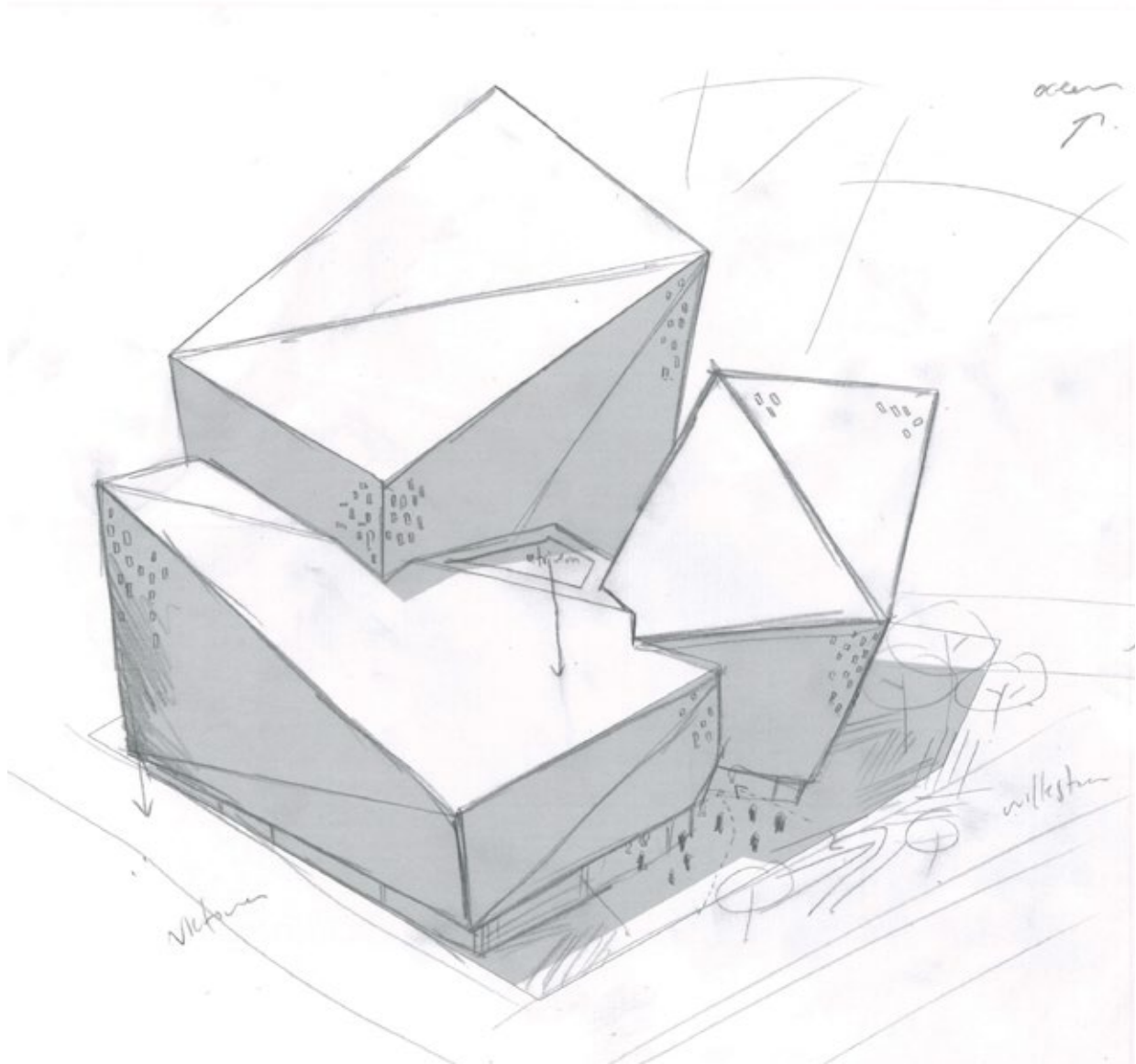
Fig 8.11.   Building form realised.

CREMATORIUM

MODEL

Fig 8.12. Mourner's proceed from exterior to interior.
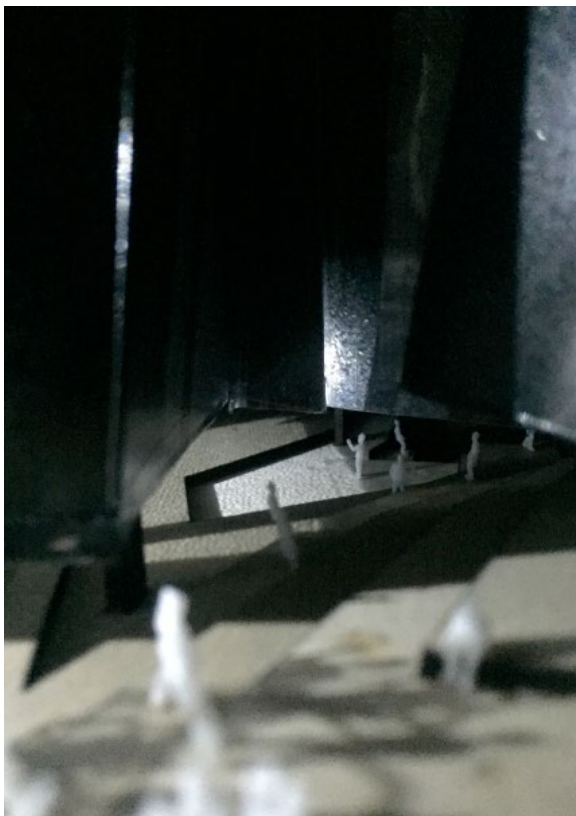
Fig 8.13. Mourner's congreate on
the tiered landscape

Fig 8.14. On the corner of Jervois Quay and
Willeston Street, the building becomes
a prominent beacon for both life
and death in Wellington City.

Fig 8.15. East Elevation in shadow projection.
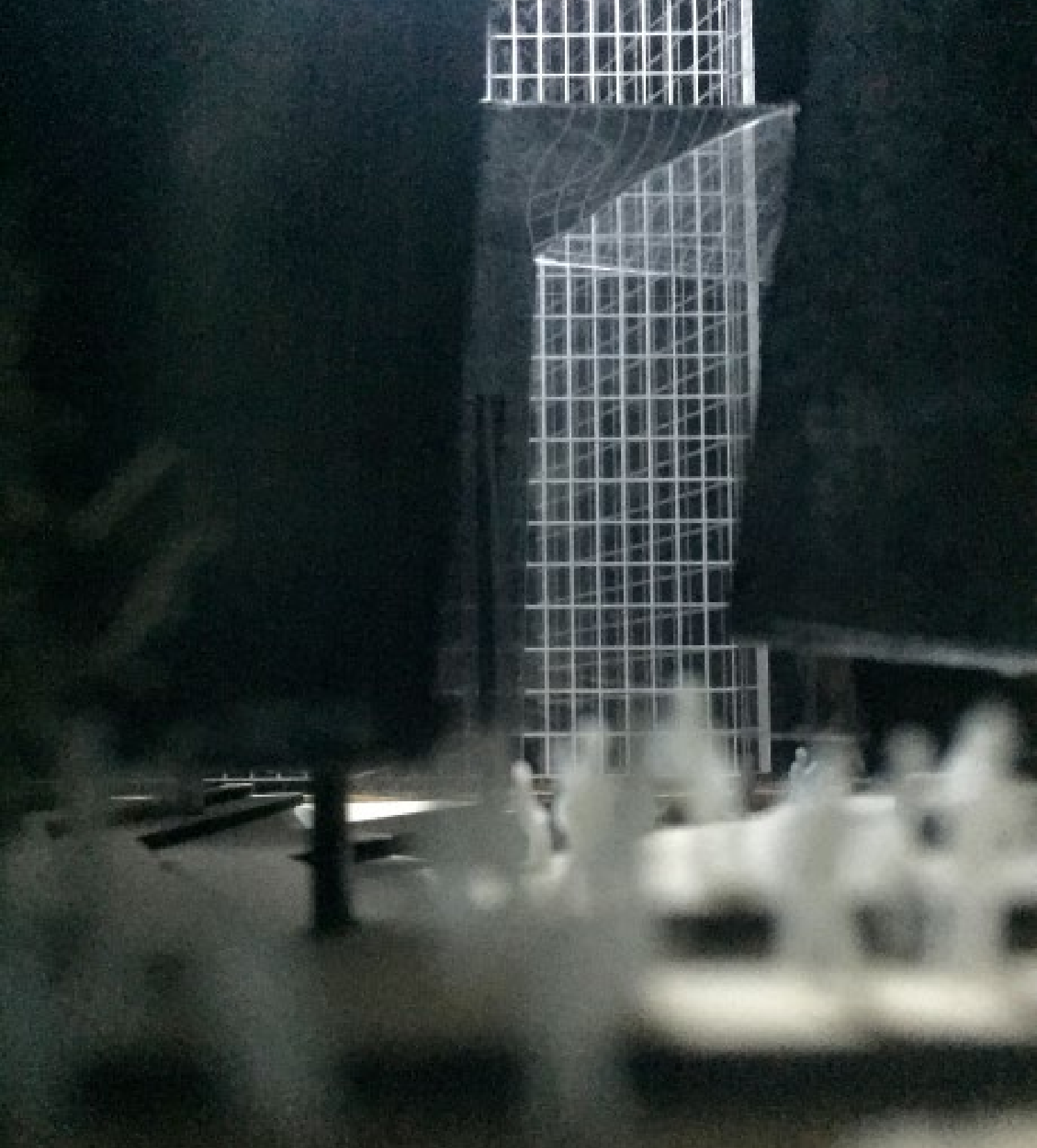
Fig 8.16. On looking the entrance atrium.

CHAPTER NINE:

DESIGN PHASE III

P R O G R A M M A T I C

A N A L Y S I S

The brief for this project came about after talking to Lychgate Funeral Director Keith Newell about the requirements of an urban crematorium. He emphasised the need for a user-friendly environment, where it was clear which direction users needed to head for either a service or for meetings with his staff. Newell discussed the problems he had with the current crematorium situated in Aro Valley. These included the limited car parking, no garage for the hearses, and only one entrance for mourners, staff, and those planning a funeral. He wanted greater separation for these different groups of people. He also spoke about the catering space, and how it should be removed from the service space so that there is some type of threshold users pass through to acknowledge that the service is now over and a more relaxed interaction can take place between mourners.

The brief was then broken down into five main parts: the entry, the landscape, offices and staff areas, hidden services, and the ceremony spaces. From this, several initial diagrams were drawn up on site (fig. 9.01). These diagrams were then given three-dimensional space and extruded as mass forms in order to address the verticality of the site. This approach was quite limiting in terms of form, as the 'blocks' have a tendency to stay fixed for a period of time throughout the design process, and therefore the final outcome can often remain very similar to these initial mass models (see fig. 9.02), limiting further explorations of form. This experiment was, however, successful at compartmentalising spaces by use, which is ideal when segregation is important in a design. It was also beneficial to get a sense spatially for how practical requirements of the site occupy space both horizontally and vertically.

Overall, it was not a successful exploration, but it opened up opportunities to play with vertical space, and allowed me to understand that I want to keep the building lower than the surrounding buildings so that there is an opportunity for people in those to look down onto the site rather than 'through it'. After this initial brief was curated, a larger list of practical and programmatic requirements was developed and refined (fig. 9.03) in order to specify what was needed for an urban crematorium in Wellington city.
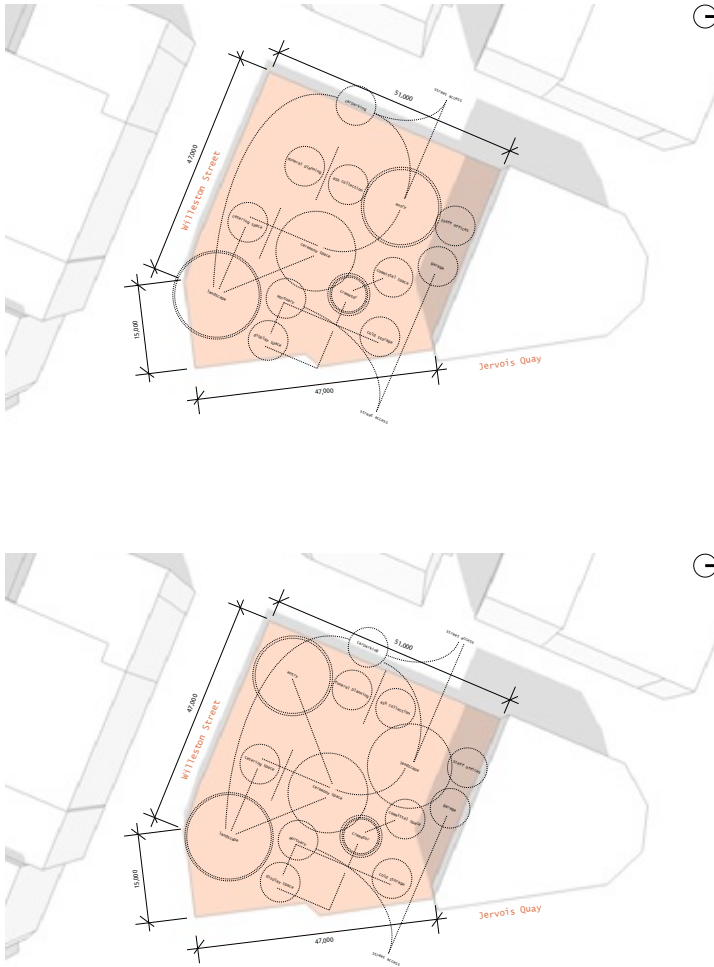
Fig 9.01. Diagramming the practical
requirements of the site; their
relationships to one another and
approximate size requirements.

Entry

Landscape

Offices and Staff

Hidden Services

Ceremony
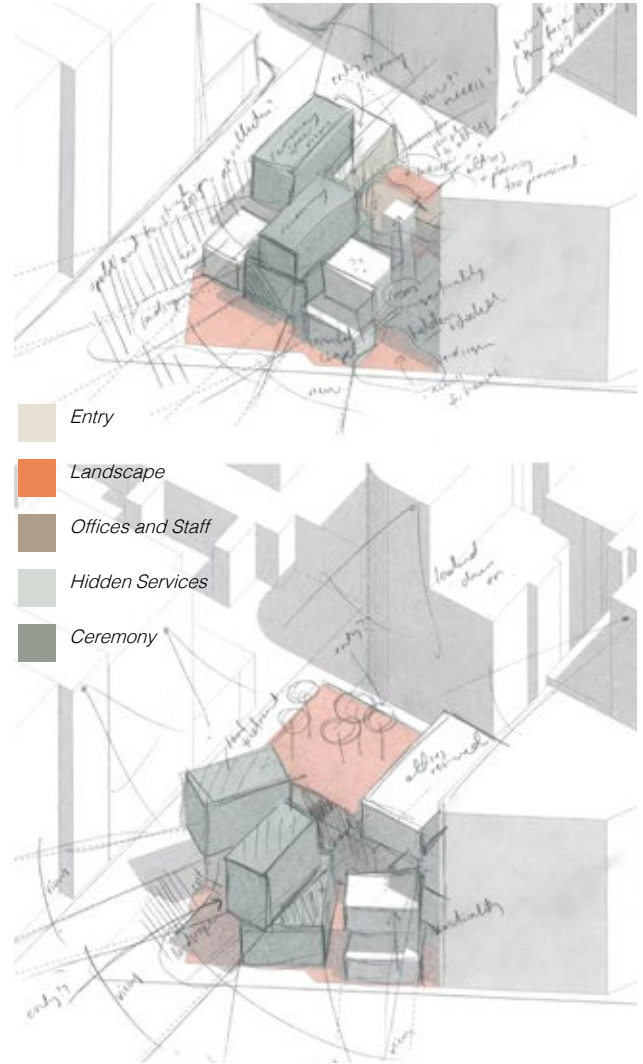
Fig 9.02. Extruded as mass forms in order to
address the verticality of the site.

117
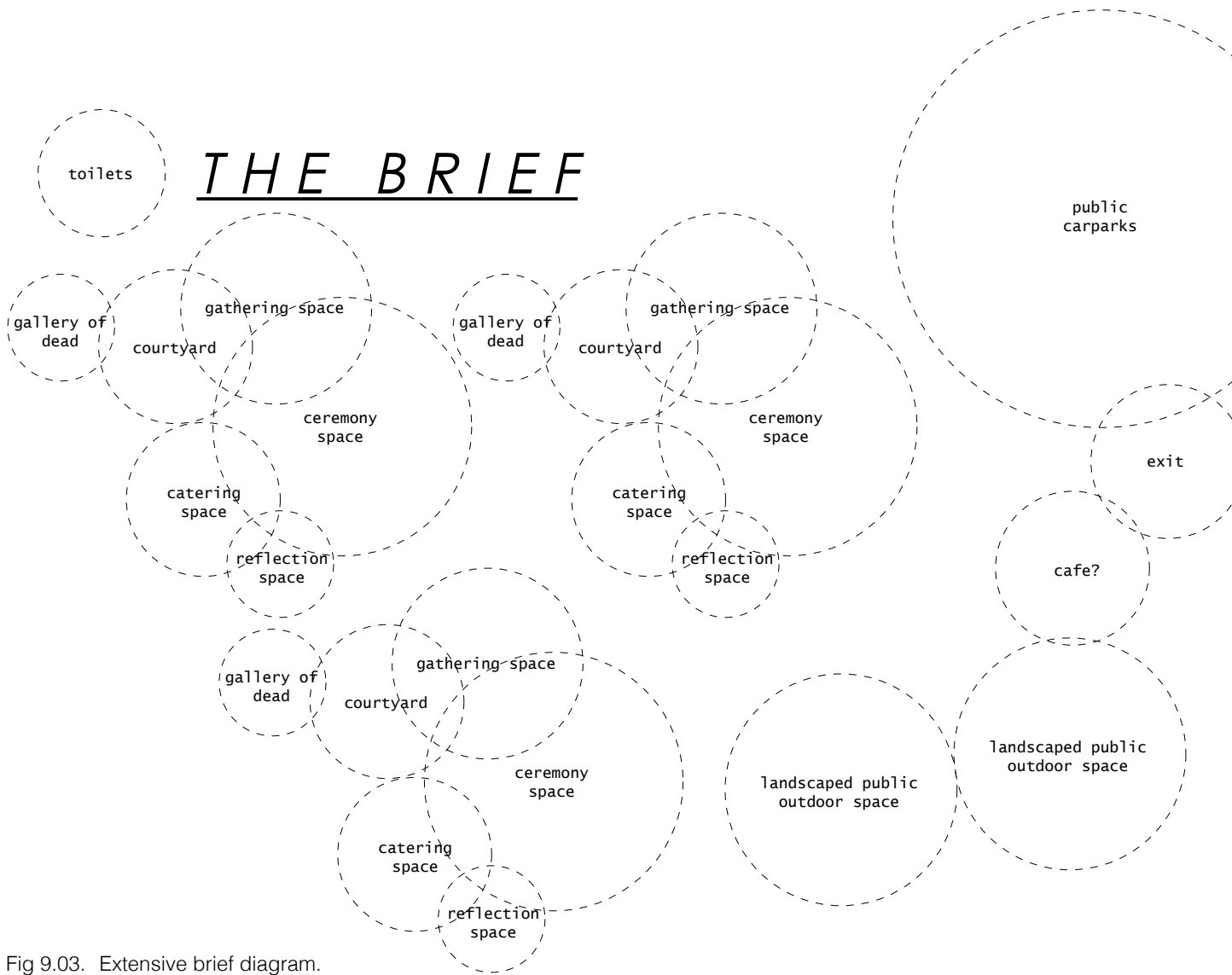
THE BRIEF

Fig 9.03. Extensive brief diagram.

The requirements are as follows:

The entry needed to be visible from the street, to provide both a sheltered public and private space that blended seamlessly into the surrounding landscape. It must have some element of interior public space – places to sit alone, gather with friends and family, and act as a space to gather before the service commences.

The landscaped environment was required to offer the public a place to gather and socialise, while seamlessly blending into the interior atrium space. This was to allow the public a greater interaction with the architecture, and therefore a greater interaction with death in the city. The landscape, much like the atrium, needed to include spaces where users could sit alone or in groups while also providing

office office office office office office office office office office office

office office office office office office office office office office office

reception

meeting room

meeting room

waiting area
(planners)

waiting area
(mourners)

kitchenette
+
common space

funeral
planning

mortuary

coffin workshop

garage

ash
collection

ash
storage

ash desposition

commital
chapel

decoration
room

decoration
room

staff
carparks

decoration
room

decoration
room

cold storage

cremator

cremator

greenery, visible from the ceremony spaces, sufficient to connect the spaces.

The offices and meeting rooms were to be on the far west side of the building, accessible from the car park below, to reduce the likelihood of families planning a funeral mingling with mourners or members of the general public.

The service areas were to be located centrally in the building for easy access, but impeccably hidden from all user,s including the office staff.

The ceremony spaces were to feature as the climax of the crematorium journey and, as such, they were required to be the most special in terms of location and aesthetic treatment.

Fig 9.04. Fitting the requirements of the brief to
site and layering each floor by program
needs and pragmmatic demands
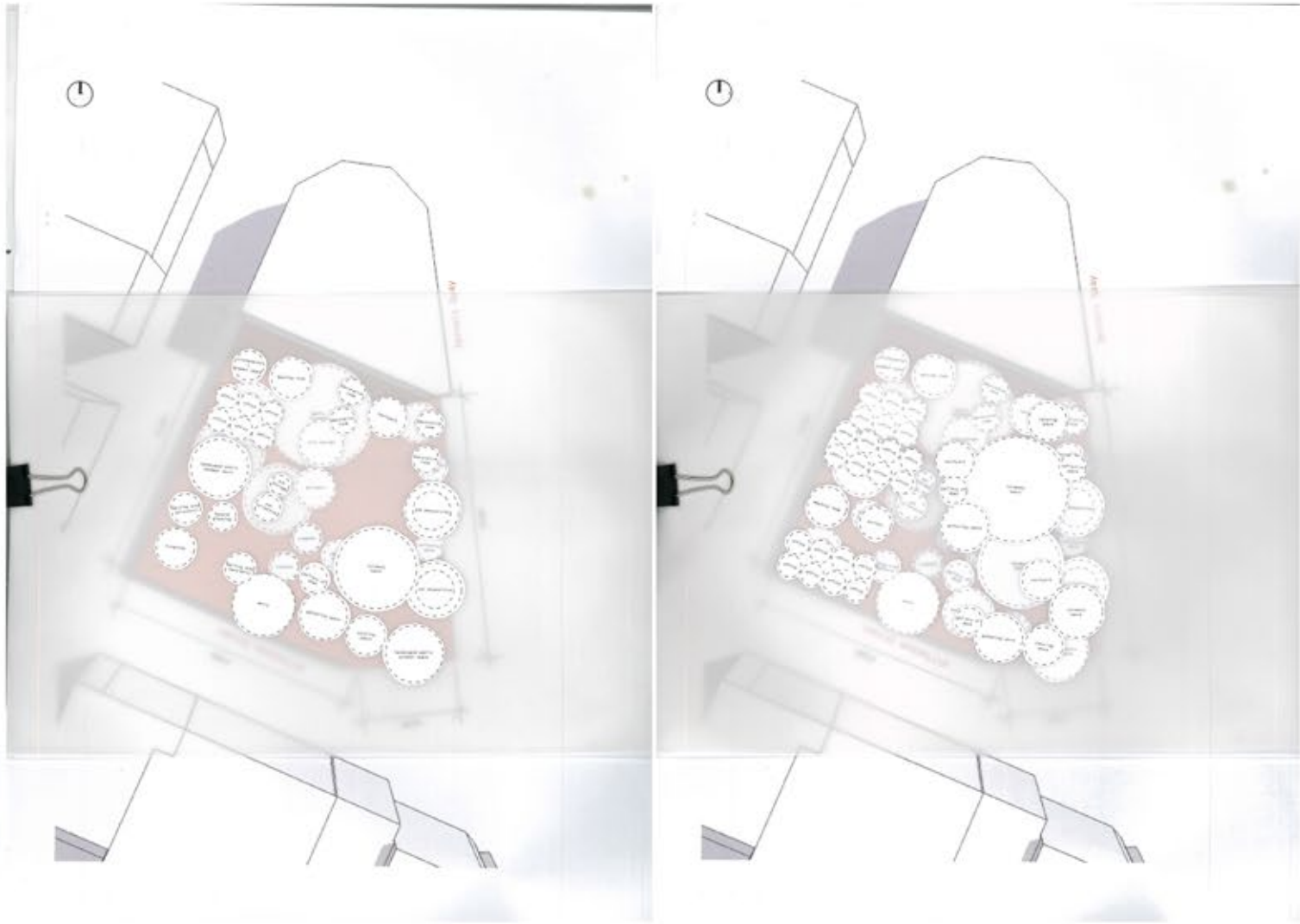
These practical requirements were diagrammed on the site, and their relationships to one another and approximate size requirements were explored (fig. 9.04). The programmes were isolated by floor level, and layered on top of one another to get an idea of how the floor plans could be arranged. These acted as the base for the sketch floor plans (fig. 9.05) that later translated into the final floor plans for the building (fig. 9.06). The final plan (fig. 9.07) shows one level of the building, the ground floor, and is printed on timber to give the drawing a sense of materiality and imagined atmosphere.

SKETCH PLANS
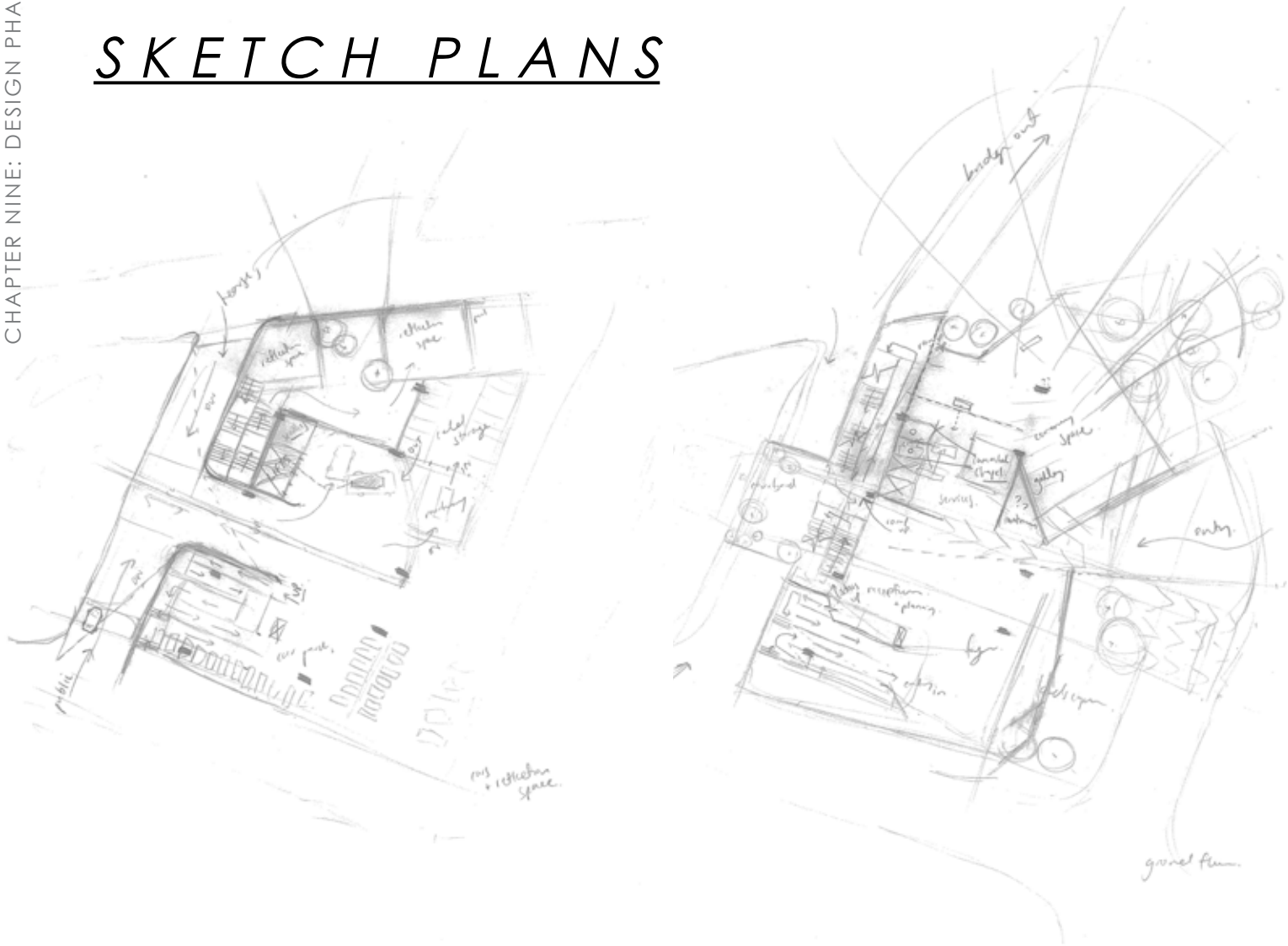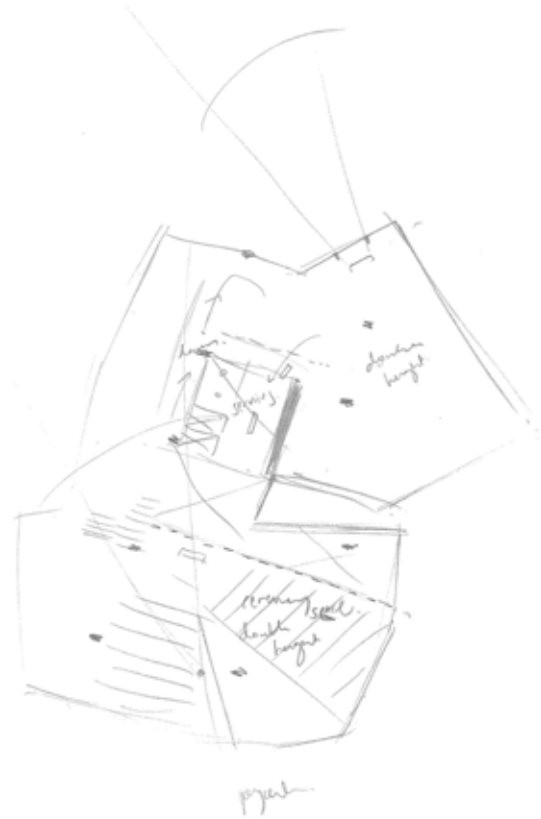
Fig 9.05. Compartmentalising program
and defining interior walls

Fig 9.06.   Ground Floor Plan. Main building
            and bridge transition.

GROUND FLOOR PLAN
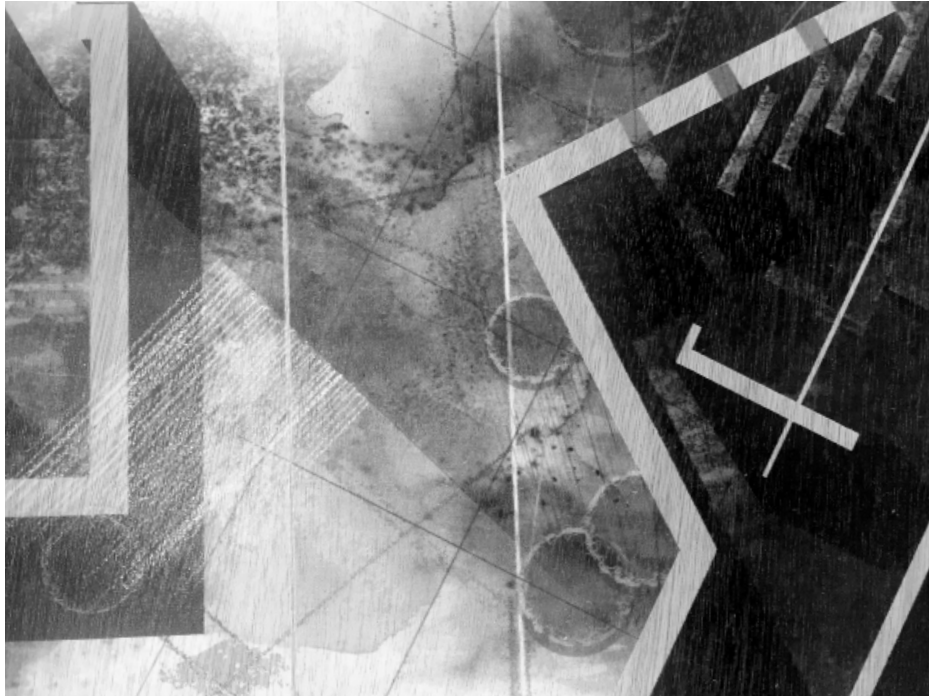
Fig 9.07.   Ground Floor Plan, entrance atrium in detail.

Fig 9.08.   Ground Floor Plan, cremator facilites.

Fig 9.09.   Ground Floor Plan and Site Plan (bottom left).

Entry Atrium

Fig 9.10. Half public half private, the crematorium entrance seamlessly blends into the landscape providing the public an internal space while mourners move vertically through the building.

Ceremony Space

Fig 9.11. Open to the sky, the ceremony space is airy and bright giving the mourners room to move and interact or be alone in stillness before and after the service.

Columbarium

Fig 9.13. In Frank Kitts Park sits the crematoriums columbarium (ash storage) building and monument. Open to the public, the columbarium allows the ashes of a loved one to be stored and displayed.

I N T E R I O R S

Fig 9.12.   Conceptual sketch to illustrate how the gallery space will operate.

The final interior moments were captured in watercolour on these panels (see pg. 128), and directly respond to the requirements of the brief as previously mentioned. Each image sits in sequential order from top to bottom. The first depicts the atrium space (fig. 9.10), and the second illustrates one of the three ceremony spaces. These include a small intimate space to accommodate around 25 people, a mid-scale space to accommodate 75 or more, and the largest (fig. 9.11) to accommodate over 300. The three ceremony spaces each have a space to gather before the service, a courtyard, and a gallery space to provide a sequencing of events and rituals as the mourners move through the funeral service. The gathering begins in the public/private foyers located directly off the atrium, which are open and blend into the gallery space. The gallery space will display several items of personal significance to the deceased for friends and family to observe and reminisce over before heading into the ceremony space (see fig. 9.12). This gallery idea arose from research on melancholy objects, particularly those that Margaret Gibson speaks of as physical objects of absence (Gibson 11). Objects in this gallery could include a favourite chair of the deceased, a collection of jewellery, a pair of glasses, or some items of clothing for instance, beautifully curated in a gallery space for users to engage with before and after the service. The ceremony spaces themselves are traditional to provide a space of familiarity for the mourners: pews facing towards a central stage where the coffin will sit, with a strong central axis guiding mourners' eyes and bodies towards the coffin and speaker at the front of the room. The high ceilings create both space and a sense of uplift, as well as openness to the sky above for mourners to feel connected to the nearby buildings and nature that surround the site. The final image of the series communicates how the columbarium will operate: the columbarium building itself sits in Frank Kitts Park, and is connected to the main crematorium via a pedestrian bridge over Jervois Quay (fig. 9.13). The columbarium stores ashes in rectangular boxes stacked on top of one another, which slot into towering cylindrical compartments. As new urns are added at the top, the older twist down an oversized coil and become buried in the earth (fig. 9.14). Depending on the uptake of use of the columbarium, burial is envisaged to occur after about 30 years.
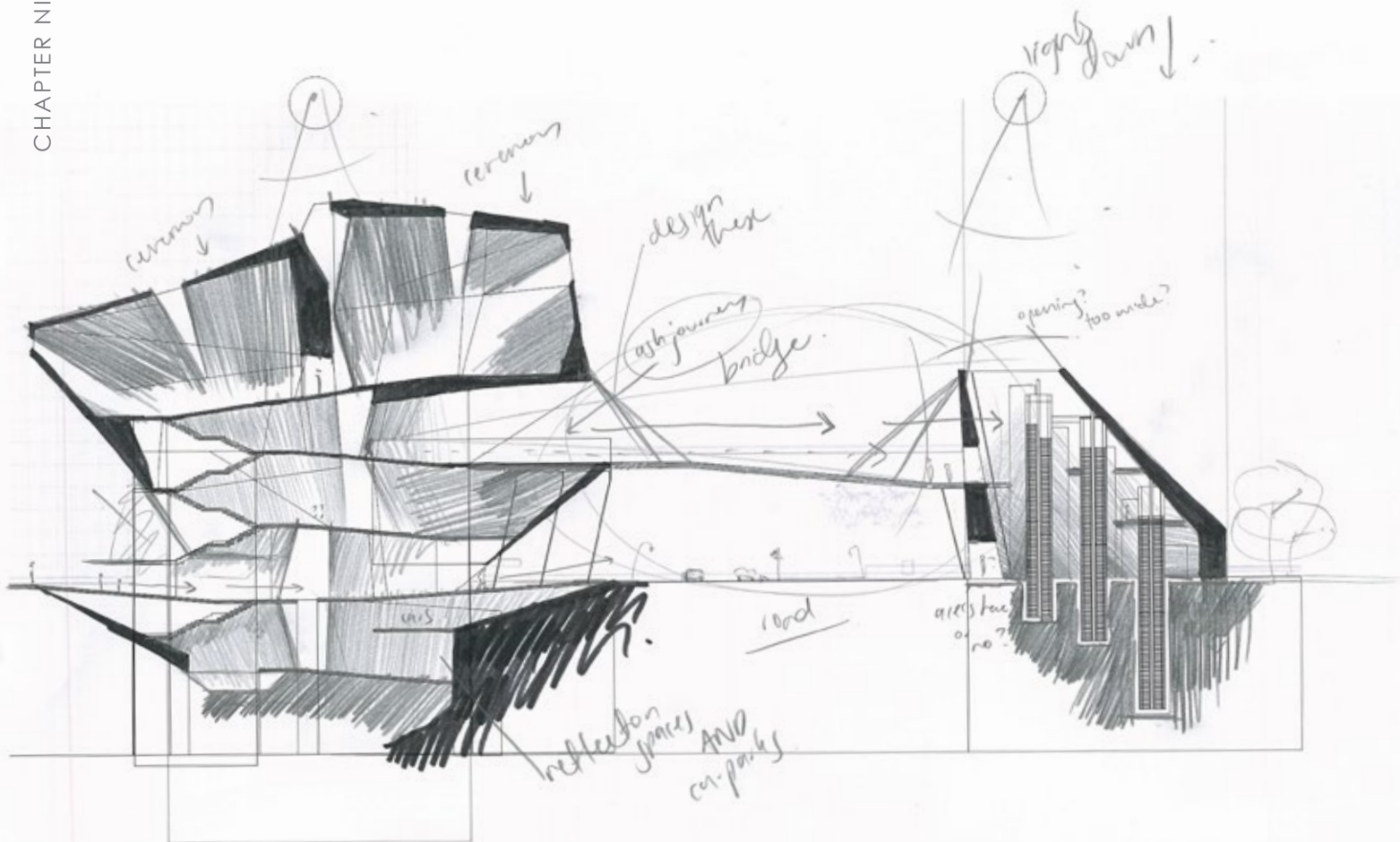
Fig 9.14. Columbarium cylinders (on right) twist into the
earth as new ashes are added to the collection.

CHAPTER TEN:

CONCLUSION

Fig 10.01.   Public interior atrium.

This research initially aimed to design an urban crematorium that brought death back into the city, was a visible and prominent physical space among the other buildings within the central business district, and with which the people of Wellington could interact on a daily basis. The site selected fully satisfied this brief, being located on a busy street overlooking Wellington harbour, and having a landscape design that integrated it with Frank Kitts Park on the waterfront. The crematorium was also to be enjoyable within the context of an urban experience, which was achieved with the inclusion of public interior spaces (fig. 10.01), fully integrated publicly-accessible landscapes, bridge, and columbarium.

Elevated and respectful final moments of farewell will be possible through the mourners making a celebratory procession across the bridge to actively take part in the deposition of their loved one's ashes in the columbarium. The columbarium itself also addressed the space requirements of body disposal in an urban area, as it takes up much less space than

both a traditional burial cemetery and a current columbarium, with the verticality of the site being used to stack ashes, and subsequently bury them after they have been above ground for over 30 years (fig. 10.02).

There were, however, some areas in which the final design did not achieve the finer points of my intentions. Firstly, I painstakingly researched the anti-climactic nature of the committal, and drew firm conclusions about ways to improve that experience, yet those notions were not translated into the operation of the final building.

Secondly, the religious ambiguity of contemporary and historical crematoria was not reconciled in the architectural response of the ceremonial spaces, as they remained very traditional and, arguably, 'religious' to some extent, with the excessively high ceilings and ordered pews. In a way this argues that a somewhat 'religious' feel is integral to the mourning experience. While religious regalia may prove uncomfortable for some, in general the church-like design is not only practical, but also comforting, even for those not actively religious, due to both personal and cultural experience. Besides, churches were originally designed to provide a feeling of awe, of uplift, a place to not only glorify God, but also to reflect on human mortality.

Thirdly, while the intended use of Christopher Alexander's patterns was not applied here, I adapted the concept of pattern language and the consequential network arrangements to provide a more visual and dynamic approach to patterns in a crematorium experience. Initially, the first collages and sections were successful in arranging combinations, however they were essentially just elevated two-dimensional drawings, and offered little toward a rendering of three-dimensional space. This lack of success at this stage of the design process made the next stage challenging, as it was difficult to translate the flat, sectional building diagrams into a final building form.

Ideally, the sectional arrangements should have been translated into physical three-dimensional models, much like the initial drawings were, per the conclusions of the August review. My own reflection indicated that I should use the sectional combinations as 'bases' for design, and then add detail through another application in order to translate the information into three-dimensional forms. My failure to follow this process resulted in form being explored in isolation to these experiments; it therefore became the weakest part of the final design outcome.
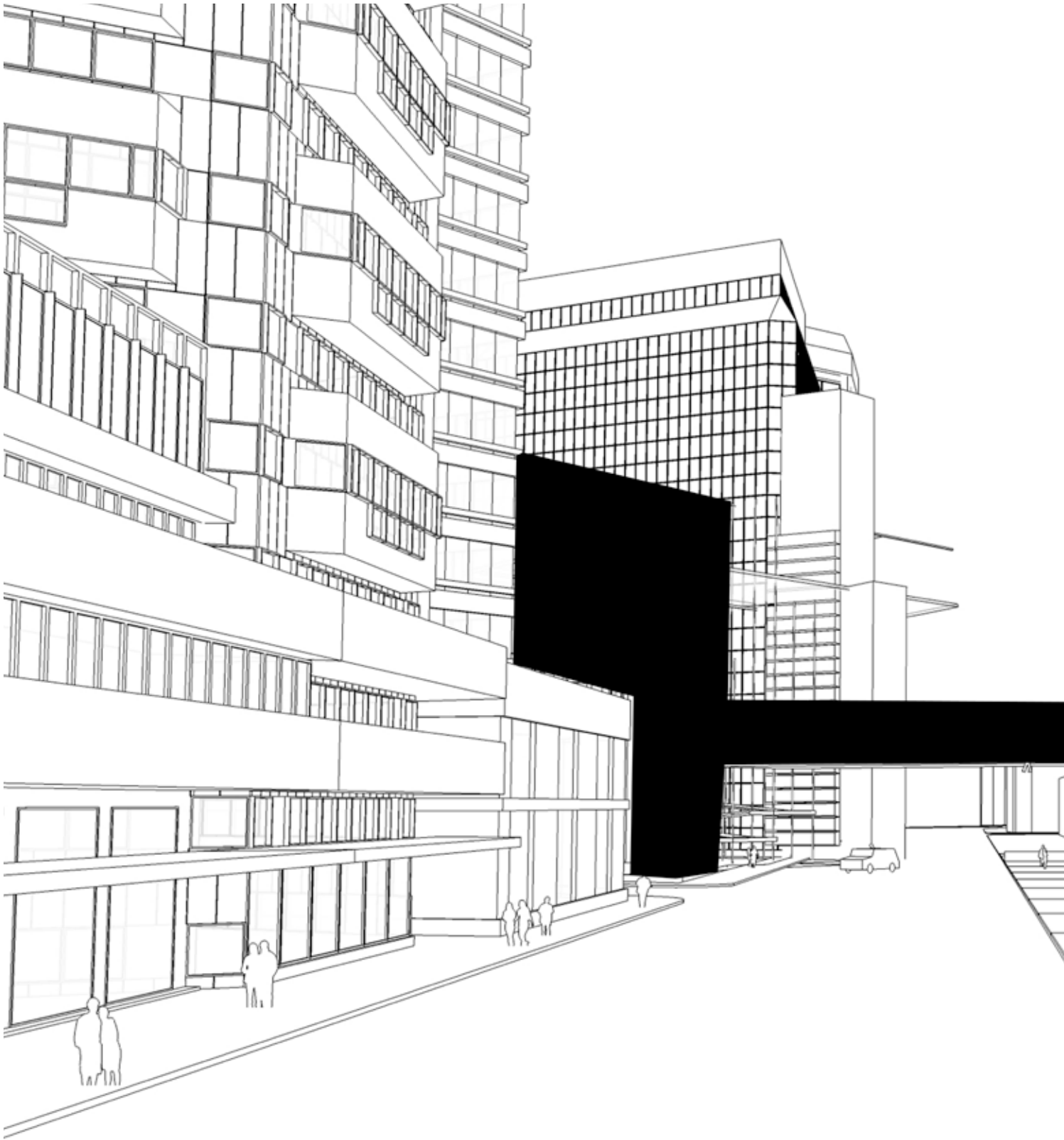
Fig 10.02.   Looking down Jervois Quay, conceptual
                   interpretation of the crematorium in site.

Additionally, if I had created moments of three-dimensional 'patterns', or an overall entire three-dimensional physical model, I would have been able to focus on the interior experience of the user more thoroughly. This would have also allowed for more manipulation and experiments before reaching the final outcome, which was necessary in order to properly address materiality, circulation, and scale.

Overall, the outcomes of this research were unique in both aesthetic and delivery. Although some conclusions reached through my research were not translated directly into the final design of the building, they remained in the back of my mind throughout the design process, and consequently subconsciously entered into the construction of all the design ideas and design decisions.

During the final critique of this work, I considered Roland Barthes', particularly apt, concept of 'the death of the author' (147) as a way to distance the author from her own work, and leave readers to view and interpret it in relation to their own backgrounds, personal experiences, and tastes. With this notion in mind, I leave behind my final piece of academic work (along with Victoria University's School of Architecture and the building in which it sits), ready to be invested with meaning and interpretations by many, dissociated from its author's identity, gender, religious affiliation, and political views.

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