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I, Zachary L Romer-Jordan, hereby submit this original work as part of the requirements for the degree of:

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The Threshold of Experience: A Journey Toward Inward Reflection

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The Threshold of Experience:  
A Journey Toward Inward Reflection

A thesis submitted to the Graduate School of the University of Cincinnati 
In partial fulfillment of the requirements for the degree of Master of Architecture 
In the department of Design, Architecture, Art, and Planning

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There are specific programs where the goal of creating space is to elicit a heightened state of consciousness, a separation from the everyday that enriches the lives of those within. In rituals, this is achieved through a prescribed order or specific series of events that builds up to a higher or otherworldly experience. There is a moment in this transition from the mundane to the sublime that is described as the liminal threshold. Similarly with the built environment, the progression through space can lead to a liminal threshold, or shift of experience. In this thesis, this shift of experience is referred to simply as “threshold.” But threshold here needs to be understood from the most literal interpretation to the most conceptual. Threshold has the physical presence of literally transitioning from one space to another through movement, but it is also the shift of materials, light, and atmosphere. It is through these thresholds that the ultimate goal of transitioning to a heightened state of consciousness can be achieved.

A crematorium is one of these programs that inherently promotes a heightened state of consciousness because the building itself can be seen as threshold and as journey. A crematorium can be seen as threshold because it houses the final threshold, the shift from life to death, from body to ashes, from presence to memory. A crematorium is intended for and experienced by the mourner, and so the focus of the design is the thresholds that that mourner will cross through or experience during the grieving process. Death here can be seen as a catalyst towards personal reflection. So for the user, the final and more abstract of thresholds is shifting from loss to acceptance, and housing a space that allows that cyclical ritual to occur.
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- "Section/ Elevation" Reed, Peter Shedd. Groundswell: constructing the contemporary landscape. 2005.

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- "Site Plan" Google Earth <http://maps.google.com/maps?hl=en&source=hp&um=1&ie=UTF-8&q=kiehholzstrasse+222,+berlin,+germany&fb=1&gws_rd=ssl&ei=rIt8S4HbkWb8AdB1ZTwBQ&sa=X&ved=0CAAsQwAA>.  

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In recent decades a new architectural imagery has emerged, which employs reflection, gradations of transparency, overlay and juxtaposition to create subtle and changing sensations of space, movement and light. This new sensability promises an architecture that can turn the relative immateriality and weightlessness of recent technological construction into a positive experience of place and meaning.

Juhani Pallasmaa
Eyes of the Skin - Page 21

01. Introduction

Text, images, and drawings can begin to describe and explain built space; however, to truly understand a work of architecture one must experience it. Architecture is experienced through movement – the body’s interaction with form, space, material, and light – called embodied experience. It is through this embodied experience that one begins to understand and feel the atmosphere of certain pieces of architecture. One can look at ritual and the sequence of events in rituals as a metaphor for the movement through space. Liminality is the transition in a ritual from one level of consciousness to another and can be interpreted in spatial terms as the manipulation of one’s perception of time through a space. This liminal period can be reached through strictly scripted rituals, such as the Japanese Tea Ceremony, through loosely scripted rituals, explained in the Igualada Cemetery, or through non-scripted rituals, examined in the use of the Kresge Chapel. These projects will be used as case studies and analyzed later in this thesis.

Spatially, the manipulation of one’s perception of time in space is created through the integration of pause and movement. This integration creates moments, which will be described as threshold. In this thesis, threshold defines the literal passage from one space to another, but also describes the shift of materials, light, atmosphere, and emotions. These moments, or thresholds, can be associated with the events, or steps, in a ritual. Just as the perception of time can be manipulated in a ritual, both pause and movement have the ability to extend or contract one’s perception of time. Architecturally, this is achieved through the use of the wall, the stair, and the ramp. The creation of thresholds through the use of these architectural elements can lead to a liminal period and ultimately shifting to a heightened state of consciousness.
A crematorium was chosen to illustrate the ideas of this thesis because it is a program that is inherently emotional, personal, and reflective. The design intent in this project focuses on the state of the mourner at each moment in the building. Mourning unfolds as a very personal act. In this thesis, death is seen as a catalyst toward inward reflection. Because of this, the development of thresholds can lead to transcendence through self-reflection and self-realization.

The site chosen to explore these concepts is located in the Mount Adams neighborhood in Cincinnati, Ohio. It is a steeply graded site open to the south and to the Ohio River. The site allows for an investigation of thresholds both in section and in plan, while the grade change allows for a play of thresholds into and out of the earth. The integration of natural light, material, and form allows for an understanding of the body within the built environment as well as the natural environment. The neighborhood allows for a culture and diversity of people and nearby program.
"Architecture is not an experience that words translate later. Like the poem itself, it is its figure as presence, which constitutes the means and end of the experience."

Alberto Perez-Gomez

02. Journey: Ritual and Liminality

One cannot appreciate or experience architecture, or built form, in a snapshot or through a photograph. To truly understand and thus appreciate a space, one must move throughout the space and feel the space upon the body. It is this series of events or a sequence of movement that is referred to as the embodied experience. It creates a connection between space and user that can be used to elicit a contemplative experience. Ioanna Sanou and John Peponis explain that, "the power to evoke associated feelings is a direct function of the creation of embodied experience." Embodied experience is seen as a journey in space. Here, a shift from the ordinary to a heightened state of consciousness is desired through journey. One can look at ritual as a specific journey that leads to a liminal shift from the mundane to the sublime. Ritual then can be used as a metaphor for the journey through space in an attempt to bring about an enlightened mental state. The process of grieving can be understood as a ritual that mourners must go through in order to accept death and loss. Death forces one to be removed from the day to day and contemplate life, death, and oneself. Through death and this ritual, the mourner can begin to look deeper within him or herself to reflect and find strength, resulting in a heightened, stronger, state of consciousness. A description of how the process of ritual and the journey or embodies experience of space are comparable and valid metaphors is to follow.

Ritual is a series of specified events, or steps, that lead to a separation from the everyday, from the mundane, to a heightened state of consciousness, the sublime. From this state, one is returned to the everyday, to the social structure, in a more enlightened, or higher, state. Victor Turner describes the ritual process as: "The first phase, separation, comprises symbolic behavior signifying the detachment of the individual or group from either an earlier fixed point in the social structure or from an established set of cultural conditions (a 'state'). During the intervening liminal period, the state of the ritual subject..."

(the 'passenger,' or 'liminar,') becomes ambiguous, neither here nor there, betwixt and between all fixed points of classification; he passes through a symbolic domain that has few or none of the attributes of this past or coming state. In the third phase, the passage is consummated and the ritual subject, the neophyte or initiand reenters the social structure, often, but not always at a higher status level. In anthropological terms, this shift from the conscious to a heightened state, or the shift from the mundane to the sublime, is termed liminality, or the liminal period. "Liminality represents the midpoint of transition in a status-sequence between two positions."

Turner also describes ritual by explaining that, "Practically all rituals of any length and complexity represents a passage from one position, constellation, or domain of structure to another. In this regard they may be said to possess 'temporal structure' and to be dominated by the notion of time." In this liminal period, time is skewed. Because there is a separation from the everyday, the liminal period can be experienced suspended from time. Liminality has the ability to enable a moment to be perceived much longer. This is possibly due to a struggle or the exertion of great effort to reach this liminal period. This could also be because of the accelerated shift in this period that allows it to be perceived as taking a longer time. This could be equated to the clichéd phrase, "in one sweeping moment, my entire life passed before my eyes." When stepping out of the realm of reality, time is of no consequence. Liminality, however, also has the ability to have a long period of time perceived as happening very quickly. Many people who meditate experience this. When in a heightened state of consciousness, one can easily lose track of time, lost in his or her inner reflection, and find that once returned to consciousness, more time has passed than realized. This is an example of the clichéd phrase, "time flies when you’re having fun." Fun, a form of play, has a similar response as a heightened state of consciousness that allows time to simply not be pertinent. Turner affirms this stating, "In passing from structure to structure, many

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rituals pass through communitas. Communitas is almost always thought of or portrayed by actors as a timeless condition, an eternal now, as "a moment in and out of time," or as a state to which the structural view of time is not applicable.5 The role of time in the ritual and liminal period refers to the journey of moving through space.

To follow is three case studies to help illustrate and diagram these ideas of liminality and journey. The first two studies will be cases strictly tied to rituals, while the third will examine a space devoid of a specific ritual process. The first of which looks at a tightly scripted ritual, the Japanese Tea Ceremony and the tea house. To follow is a case study of an unscripted ritual, the Igualada Cemetery by Enric Miralles, from an essay entitled, Architectural Atmosphere and the Spatially Situated Body, researched and written by Ioanna Spanou of the National Technical University of Athens, Greece, and John Peponis of the Georgia Institute of Technology. The last case study will look at the Kresge Chapel by Eero Saarinen. Though this space is devoid of a specific ritual process, it is very alive with the principles needed to reach liminal thresholds and to elicit a heightened state of consciousness.

1. The Japanese Tea Ceremony

A study of the Japanese Tea Ceremony will help to describe a scripted ritual and exemplify very precise, ordered events that lead to a sacred and harmonizing state of mind. The Japanese Tea Ceremony, or Chanoyu, is a very prescribed ritual that sets up a specific rhythm of activities and procedures. As with most rituals that are so ordered, it elicits a very peaceful, meditative response. The ceremony itself is strongly symbolic and has numerous elements that can suggest spatial architectural implications. The tea masters devote a lifetime to the study of Teaism and the philosophy, art, architecture, and spirituality associated with tea and the ceremony. "The Japanese tea ceremony placed more emphasis on the spiritual than on the stylistic aspects..."5

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The description of the process and activities of the ceremony has been informed by a series of sources such as: the videorecording “The Japanese Tea Ceremony” produced by A Film for the Humanities, The Japanese Tea Ceremony: An Interpretation for Occidentals by Julia V. Nakamura, Rediscovering Rikyu and the Beginnings of the Japanese Tea Ceremony by Herbert Plutschow, and The Book of Tea by Kakuzo Okakura. The Japanese Tea Ceremony begins with the host, a master in the tea ceremony and the study of Teaism, extending an invitation for the ceremony. Reasons for the ceremony range from birthdays, graduations, and anniversaries to political, diplomatic, and social gatherings. The ceremony is typically for two to five people with a guest of honor. This guest of honor may be man or woman, young or old. Once the guest of honor has been established – if the ceremony is given for a birthday, the guest of honor would be the person whose birthday it is – the remaining guests are then arranged as guest number two, guest number three, and so on. This is one of the few occasions where social status is of no consequence; hierarchy derives simply from the assigned order. The guest of honor is then the leader or “spokesperson” for the ceremony and will be seated closest to the host with the remaining guest following in order.

The guests reply to the host’s invitation and will typically call the host the day before the ceremony to thank the guest in advance for the upcoming event. The guests will then arrive to the site fifteen minutes prior to the beginning of the ceremony. They do this “in order to admire the garden, to meditate in an effort to shed the cares of the ‘outside’ world before entering the tea room.”

The guests then change their clothing in the changing room that is a sheltered waiting harbor in the garden. Meditation begins here, in the first step of the
ceremony. Once the guests have changed and are waiting in the garden, the host emerges from behind the teahouse and approaches the middle entrance, a wall and entryway that divides the site into the inside garden and the outside garden. Here, he greets the guests in silence. As the guests hear the footsteps of the host, they stand up and approach the middle entrance. The host bows and greets the guests without a word, as the guests bow in return. The host closes the small middle entrance door and then returns to the teahouse.

The guests then cross through the middle entrance and enter the inner garden. The guests follow the stepping stones, which have been sprinkled by water by the host to give the garden life and to look more refreshing, in a single file line according to their order in the ceremony. A wash basin is available for guests to stoop and wash their hands and wash out their mouths. The host pours fresh water into the basin prior to the ceremony. The guests then remove their straw sandals and enter the teahouse through a small 70 square centimeter door. This door forces guests to crouch and enter the tearoom on their knees, symbolizing humility. The last guest to enter shuts the door to the teahouse with a noise to signal to the host that all of the guests have entered and are now in the tea room.

The tea rooms are typically four and a half tatami mats in size. A tatami mat, a standard architectural unit in Japan, is seventy-two by thirty-six inches, or the smallest area in which an adult can sit, work, and sleep. The smaller teahouses, such as the Taian – the teahouse designed by Sen no Rikyu, the leading voice of the tea ceremony in the sixteenth century and most influential in the Japanese tea ceremony – are only two and a half tatami mats, though a screen may be opened to an anteroom for larger ceremonies. The small room is based on the Buddhist "theory of the non-existence of space to the truly enlightened." A sunken hearth is located in the center of the tea room where the water will be heated for the serving of tea. The teahouse is meticulously

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cleaned on a regular basis, as well as just prior to the arrival of the guests. “With their emphasis on purity, art and peace, tea-huts and rooms correspond to ritual ‘sacred’ space, a special space outside the ordinary, everyday space. The individual participant must be transported into an ideal space in which idealized sensory experience can assume a reality.”

Once the host hears the shutting of the guest entrance door, the host enters from the host entrance after giving the guests enough time to admire the scroll and utensils set out for the ceremony. The host then exchanges verbal greetings for the first time. Next, the host begins to prepare the heating of water for the tea. The host first dusts the edges of the hearth with a crane’s feather. The host then adds ash to the hearth, a special ash that has been mixed with ordinary Japanese green tea from the season previous. The tea gradually evaporates from the ash and is ready to be sifted and used in the ceremony. The host then arranges fresh charcoal that had been cleaned prior to the ceremony. The arrangement of the ash and charcoal is an art and done in a very specific way. Once the ash and charcoal have been arranged, the host adds incense from an incense container to the fire. The host then puts the incense container out in the guests’ view for them to admire. Next, the host puts the kettle of water into the hearth as the guests watch the host’s every move.

Next, a meal will be served. This portion of the ceremony is called kaiseki. Assistants are in the back room preparing the meal, which is to be a small meal that barely satisfies the hunger. This meal typically involves a soup and three small dishes. The meal is just enough to take the mind off of hunger, but not large enough to fill and to interrupt the serving and taking of tea. Sake is then served along with the meal. The serving dishes are considered art and are admired by the guests. Sweet cakes are then typically served to finish off the meal. When the meal is completely finished, the host asks the guests to return to the garden while the host prepares for the next stage of the ceremony, the

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serving of tea. The guests admire the scroll and sunken hearth once more and then return to the garden, which is considered the intermission. The guests have light conversation in the garden while the host sweeps the tea room once again and opens the skylight wider. The change of the lighting conditions is to represent the dark to the light, the ying to the yang. The scroll is removed and replaced with flowers. The host then changes his or her outfit to be refreshed and purified for the main focus of the ceremony, the serving of tea.

When the intermission is over and the guests are to return to the tea room, the host strikes a gong seven times, with each strike a distinctly different volume. While the sound of the gong fills the air, each of the guests kneel and listen. The guests are silent at this moment. It is in very bad taste to speak while the gong is sounding and the guests are to act as if they are in the presence of nobleman while it is sounding. Once the gong has sounded seven times, the guest return to the tea room, once again crouching to enter through the entrance, and they notice the change in atmosphere – the differing light conditions and the flowers that have now replaced the scroll. The utensils for the serving and taking of tea have been set out during the intermission as well, and the guests admire these. It is now time for the main event of the day, the serving of thick tea.

Koicha, or thick tea, begins by the host adding a large amount of the jade green powder to a bowl of hot water. This creates a paste like consistency once it has been whipped with a bamboo whisk. The dipper is filled once more and one-third of the water is placed into the bowl of thick tea paste. It is once again whisked and then ready to serve. The bowl is turned so that the best side of the bowl is facing the guest and presented to the guest of honor with a bow. The guest then bows in acceptance and picks up the bowl and gives it three turns so as not to drink from the best side of the bowl. The guest then wipes the rim where his or her lips touched and turns the bowl and passes it on down the line of guests with a bow of offering and acceptance. All of the guests drink from the same bowl of tea and rotate the bowl as they...
pass. The thick tea mixes with the taste left by the sweet cakes. Dried sweet cakes are then offered before the serving of usucha, or weak tea.

The same procedure for making thick tea is then used for weak tea, however less tea powder is added. The tea powder of weak tea is also that of a lesser grade than thick tea. The weak tea is still mixed with a bamboo whisk and then served to the guests, who follow in the same manner they did for thick tea. The guests finish the weak tea and thank the host. The serving of weak tea signals the end of the Japanese tea ceremony.

The guests once again thank the host for the ceremony and bid him a good-bye while still in the tea room. The host then leaves the room and allows the guests to leave through the entrance from which they entered. Once the guests have exited the tea room, they shut the door behind them. Hearing this, the host reenters the tea room and opens the guest door. The host then bows in silence to see his guests off and the guests bow once more in appreciation for the ceremony. The guests then leave concluding the Japanese tea ceremony, though the etiquette for the ceremony is not yet finished. The guests then call on the host the following day to once again extend their gratitude for the previous day’s events. The traditional ceremony has then been finished.

There are many similarities between the Japanese Tea Ceremony and other religious and ancient ceremonies, such as Catholic Mass, communion, and various tribal rituals. All of these rituals have a long building to the liminal period and then a quick resolution, or conclusion. In the case of the Japanese Tea Ceremony, the ritual builds to the serving of Koicha, or thick tea. Every step and action that has happened prior to this has been leading to this moment. These steps and actions take hours, typically over three hours to get to the serving of thick, and then weak, tea. The steps taken to get here are seen as cleansing the body and the mind, preparing the individual for the moment the thick tea touches his or her palette. Even the serving of food and sweets are done as to enhance the experience and flavor of the tea. It is only through
experiencing the ritual, going through every step, and waiting over three hours
that the drinking of thick tea can truly be appreciated. Though the drinking
of thick tea, and then weak tea, is a very short activity, especially when com-
pared to the entirety of the ceremony, it is the height of the experience, the
moment that is remembered and celebrated, and seems as a longer experi-
ence to the drinker. Time seems to pause as the drinker holds the cup of thick
tea to his or her mouth and breathes in the aroma and then takes the thick tea
into his or her mouth, holding it there, tasting the depth and essence of the
tea leaves. The flavor encompasses the earth, the history, the care, and the
soul of the individual and the process to get to this moment. One can quan-
tify the ceremony and measure the care and time taken to each step, but it
does not begin to describe the importance and the meaning of that one sip of
thick tea, the experience of shifting from anticipation to complete repose and
tranquility. This shift is the liminal threshold. It is the moment beyond time and
beyond reality that when returned, elevates the drinker to a more enlightened
state. From here, the drinker returns to reality and finishes the final steps that
bring the ritual to a close.

One can begin to understand ritual as a journey, whether this is a journey
through time, activities, or space. Though the Japanese Tea Ceremony
focuses greatly on the activities and time taken to do these activities, the
space in which it is done is also of incredible importance, for example Herbert
Plutschow states: "Tea architecture reflects the properties of ritual space. Rit-
ual tends to create a physical space that is structurally and ontically separate
from the ordinary." 10 This also begins to hint back to a fundamental aspect
of ritual, which is the separation from the ordinary, or the mundane, Kak-
zo Okakura describes the space in which the ceremony takes place in The
Book of Tea as: "The tea-room was an oasis in the dreary waste of existence
where the weary traveler could meet to drink from the common spring of art
appreciated." 11 The Japanese tea hut can be seen as housing the journey of

10 Plutschow, Herbert. Rediscovering Rikyu and the Beginnings of the Japanese Tea
Ceremony. Page 43.
participating in the ritual. Just as one moves through the steps of the ritual, one moves through the spaces of the tea hut. It is a journey through physical space based on, or coordinated with, the journey through the ceremony. Here, one can begin to understand the use of ritual as a metaphor for the journey through built, physical space.

2. Igualada Cemetery: Enric Miralles

Unlike the very prescribed and calculated steps of the Japanese Tea Ceremony, the ritual of grieving is an unscripted ritual that varies greatly from person to person and through differing cultures. Although not precisely scripted, this process has a series of thresholds of which may take longer or shorter to transition through, yet always experienced. There are five stages of grief: denial, anger, bargaining, depression, and acceptance. Many people experience and deal with these stages very differently and throughout varying amounts of time. Because of this, designing for or with these stages in mind is a very daunting and challenging task. It is this ritual that Enric Miralles was designing for with the Igualada Cemetery near Barcelona, Spain. Miralles created an atmosphere that confronted certain stages or aspects of mourning and brought them to the forefront of experience. He uses symbols and engagement with the body to create very emotional reactions to space. Next will be a brief description of the Igualada Cemetery. The following text is taken from an essay entitled, Architectural Atmosphere and the Spatially Situated Body, by Ioanna Spanou and John Peponis.

“Igualada is a small town, with 20th century expansions and an industrial zone. The cemetery is situated in a natural gorge at the outskirts of town, and very near that zone. While design and construction occurred between 1985 and 1994, some parts of the complex still appear unfinished and the chapel is not regularly used. The cemetery is a hybrid between architecture and landscape, more precisely as an excavated and reconstructed landscape strongly layered into three zones, corresponding to the cinerarium, the chapel, and a
reconstituted upper ground. The lower level is shaped like an elongated and downward sloping enclave paved and finished to evoke an arroyo ending in a rounded space giving the impression of a sink hole, or perhaps a waterfall. The cineraria are situated along both lateral walls. The intermediate level comprises a mortuary, and triangularly shaped chapel, and an open air walk also flanked by cineraria on one side. The upper level works as a terrace park with sculpturally rendered skylights and covered stair landings. The main enclave, as well as the intermediate level walk converge towards an entrance area that presently extends into a larger parking area. The terrace at the top cannot be seen, nor its presence inferred, from that area. As visitors walk around, the levels remain strongly separated visually and once they start walking down the enclave or along the intermediate walkway, no other connection between them is available other than a transverse, narrow and gently curvilinear stair, three fifths of the way down the enclave."\(^{13}\)

The emotions that the spaces in the cemetery can elicit come out of a strategic design and intent for each space. When referring to the atmosphere of the chapel, or the emotions of moving through that space, Spanou and Peponis describe that, "to be situated in a dark, seemingly underground chamber in the context of a cemetery is symbolically charged. To recognize, based on very sparse clues, that the chamber is intended as a chapel, also becomes symbolically charged. Both chapel and its complement, the roof terrace rendered as ground, seem to function as liminal spaces, between the enclave of cineraria and the surrounding landscape, built or unbuilt. They are situated within a familiar world, but seem to produce unfamiliar orientations towards it. Atmosphere arises as the sense of liminality is charged with a very direct engagement of the body."\(^ {12}\) One can see that Miralles uses the contrast of darkness to evoke an emotional response to the space and utilizes this as a liminal threshold. The darkness also helps to create an atmosphere that is


conduces toward inward reflection and attention. "The perception of a dark enclosure charges what would otherwise unfold as an exploration of landscape with an intuition of interiority." It is this self reflection and confrontation with the self through death and space that is desired. To help exemplify these intentions, the journey through the chapel will be discussed, once again utilizing the words of Spanou and Peponis.

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The Journey

“To yield and be drawn downstream should seem natural — but you should hold such as inclination back. Take the first path. How can cineraria be of interest anyway when you are not possessed by the knowledge that the remains of one you loved are there? You could project yourself into one of these boxes but such memorials that time comes to an end are rarely pleasing. Nothing invited you onto the first path, you determine to explore not knowing exactly what you are looking for; no obvious inscriptions, no great entrance, only an oversized metal sliding door in the background of your circling trajectory. You don’t know why, but you sense that door is not meant for you. You follow the wooden planks — and just as you are almost tangential with the retaining wall, you see darkness pouring through a vertical crack. Enter. There must be something in this design that you can see from the inside, while still among the living. You find the chapel, you are in the
chapel now. You forget the chapel, your expectations prove false: a mass of darkness pierced by forces of light. Nothing visible past the heavy boundary. At their open incisions light trickles and reflections bounce higher up; light reaches you as if by echoes. From here you cannot look it in the eye. You are pulled towards the left corner — recesses always hold a mystery — it is the altar. Three curvilinear openings on the wall to the right, one holds a statue. There is not much you can do there, you turn around upon yourself and leave; you get a sense this is no place for you, that under different circumstances you would not even have been allowed in. You look around and think that this could not possibly have happened in the instant that you looked away; fragments of broken concrete frames lean downward from the ceiling. You reach towards them and confirm, it can be no coincidence, there are the same structural mesh and square infill panels you saw in elevation outside. Their reappearance must be intended to mean something, you cannot yet pin it down. You know nothing can happen but you take a
safe distance; you do not want to allow yourself to imagine that they might fall on you, but you cannot control your imagination. It seldom asks for permission before setting off to project experience. You are aware that it is meant to protect you but cannot bear it at times. Light comes in on both sides, open space available, escape routes, you came in one way – you might take the opposite way out. You take a turn. On your left there is more light, steps that take you towards a conclusion, as if parts of an argument. Calvino likened dialogues to stairs but did not specify whether you are supposed to take them moving up or down. On this occasion you start down below. The light suggests a complement to darkness. To which you now ascend, no door blocks your way, your eyes, having adjusted to dimness almost hurt. You arrive, you exit. Nothing. A level surface with dirt, almost abandoned, in the distance you can clearly see the factories, the 'canons a lumiere' dispersed around you in a pattern that now seem haphazard…"  

3. Kresge Chapel: Eero Saarinen

Here, the concept of journey will be discussed further through the spatial dimension. In the book *Atmospheres*, the world-renowned architect Peter Zumthor explains that, “architecture is a spatial art... but architecture is also a temporal art. My experience is it is not limited to a single second.” A look at the Kresge Chapel on MIT’s campus in Cambridge, Massachusetts, by Eero Saarinen will help illustrate the importance of understanding time through a journey about space. First, a brief description and analysis of the Kresge Chapel will be explained.

Reminiscent of the moonlit sky and the glowing horizon in a mountain village in Sparta of Saarinen’s youthful travels, the Chapel combines direct and indirect light to create a space for individual contemplation and prayer, suspending the user’s perception of time. The chapel is a cylinder that rises out of what has been called a “moat” with a single attached hallway that leads into the cylinder on one side and points to Bexley Hall on the other. Atop the cylinder is a bell tower which was originally design by Saarinen and then finished and created by sculptor Theodore Roszak. Saarinen had these thoughts of the matter: “I believe that the architect has to determine the basic form and mass and scale of such elements. But since such a spire was really something halfway between architecture and sculpture, we felt that a sculptor who would be sympathetic to the architectural problem as we saw it could bring to the spire a special sensitivity.”

This simple cylinder and the rectangular connecting hallway allows for attention to be drawn inward towards the atmosphere of the interior space instead of focusing on overly intricate and demanding forms. The form is broken down even further in the interior as the wall undulates “to give the space a lack of sharp definition and an increased sense of turning inward.” The simple form also stands in contrast to the dense surrounding buildings “which were essentially boxes with holes pierced in them.”

17 Saarinen, Eero. Eero Saarinen on his Work. Page 42.
The cylinder is essentially a brick building, contrasting from the auditorium that it shares the open square with and relating to the brick dormitories surrounding. The exterior brick is "set on a series of concrete arches, of uneven length, which rise out of a water-filled pool." The arches allow for indirect light to reflect off of the surrounding "moat" and shimmer up into the interior space washing the undulating interior wall and casting varied shadows from the rough brick. The interior undulation adds to the atmosphere and has the functional quality of dispersing undesired concentrations of sound. The play of darkness and light from the shadows created by the brick and its texture create an interior space that changes and moves throughout the day and the year.

Other than the undemanding form, the simple program and plan minimize distraction and allow for reflection in this secluded space. There is no reason or need for intricate nooks for this program, instead Saarinen leaves the program to a single hallway for entry and a solitary, open space for contemplation. Saarinen explained that "this circular shape also seemed right in plan – for this was basically a chapel where the individual could come and pray and he would be in intimate contact with the altar." This straightforward design and formal representation allows the user to read this intent and utilize the space as desired.

The main light source comes from an off center obelisk above the altar that allows direct natural light to enter the space. A metal screen created by sculptor Harry Bertoia is suspended below the light source reflecting and shimmering as light enters through the skylight. This main lighting source and the secondary source of light reflecting off of the pools and up into the space speak to a night that Saarinen spent in a mountain village in Sparta, where the night

sky was lit by a bright moonlight and a soft, hushed horizon glow. He believed “that sort of bilateral lighting seemed best to achieve this other-worldly sense.” To complete this metaphor and help give this space a spiritual yet non-denomination mood, the interior space is dark with no windows to separate it from the outside world. This interior atmosphere was “derived… from basic spiritual feelings.” These feelings are sparked and expressed through the use of dynamic lighting to help make a connection with the beyond.

The use of dynamic natural lighting allows for this inwardly focused interior space to change throughout the day and throughout the year. This allows for the space to have a spirit or presence of its own. The space never feels or appears the same, the lighting conditions are always changing, casting shadows across the rough brick and shimmering majestically from the metal screen and the fluctuating water of the “moat.” This allows the building to be personified and perceived as comforting and humane, rather than a cold, static pile of material.

The space is also typically fairly dark which allows for the light that does enter the space to be of great importance. This allows for different levels and types of light, such as direct and indirect, to be read and distinguished more readily. This dark and intimate atmosphere encourages the user to begin to look within him or herself just as one looks within the space. The darkness encompasses the user, touches the user, and comforts the user. One is embraced within the space, within the darkness, and then revealed through the light. “A dark interior seemed right – an interior completely separated from the outside world,” thought Saarinen. By creating a separation between interior and exterior, and by creating such an intimate space, Saarinen allows the user to leave the worries of the world at the door and enter the space as simply an individual, as one, with nothing but contemplation and to leave the chapel with a connection to the space and possibly more.
One cannot truly understand a space or experience a space through a photograph, or a snapshot. It is not in the still life, in the picturesque view, that one truly experiences architecture, but rather is experienced by moving through the space, through the sequence of thresholds, by taking that journey through the architecture. Spanou and Peponis explain that, “Atmosphere is defined as the objective properties of environment that metaphorically exemplify structures of feeling through the creation of embodied experience.” It is through this journey, or embodied experience, that one can feel the atmosphere that a space creates. This atmosphere is what helps separate this unique space from typical, mundane spaces we experience from day to day, and helps elicit a heightened state of consciousness. Peter Zumthor speaks to atmosphere stating that, “we perceive atmosphere through our emotional sensibility – a form of perception that works incredibly quick.” Atmosphere helps to create an environment where one can approach liminality and shift consciousness. Here, a journey through the Kresge Chapel will be described, helping to illustrate atmosphere.

The Journey

The use of light and darkness, expansion and contraction, and thresholds allows Saarinen to create a shift in the way you perceive the space, time, and yourself in the space. The simplicity of form and the isolation from other buildings allows for your easy recognition of the entry through the bisecting hallway. You slow and pause as you grasp the door and open it. Stepping through the threshold, you are immediately changed from your previous environment. The hallway is tight and low, much more confining than the open plaza outside. The space is darker, but still fairly well lit. Light enters the hall from the two, short sides. You turn and see the doors to the chapel closed and begin to step towards them, but you pause. You look back outside through the glass wall to the world outside. You’re immediately intrigued by the sight in
front of you. The panes of glass from which you’re staring are broken up in sections of different opacities and textures. It skewers your perception of where you just were and how you saw that space prior. This begins to hint to you that your perception of space and experience are about to be challenged. You regain your attention and head for the chapel door. You grasp the handle and pull the heavy door open.

You're immediately surprised by the darkness and the light shimmering in the back. As you step through the door, the space opens with the ceiling high and walls wide, although you are immersed in the darkness. There are a few other people in the space, but surprisingly they do not bother you; you can barely hear them although the chapel is all one space. With a low light emanating up from the outer undulating wall, you start to step down the center aisle toward the strong light pouring down on the altar and shimmering off of the screen behind. It's
as if a waterfall of light is cascading down from the obelisk and falling through the space, breaking the darkness. You stop and step to your right and sit on the chair that is along the center aisle. You stop and take a breath, taking in the space as much as the air. You feel relaxed and safe in the dimly lit space. You spend the next few minutes sitting in silence, relaxed and at ease before you decide to stand and continue on your journey through the space.

You once again are drawn toward the light pouring in from the obelisk above the altar. The way the light glistens off of the metal screen behind the altar catches your eye and grabs your attention. You slowly approach the altar, the brightest space in the chapel, and become aware of the stone underneath your feet and the stone on the steps leading to the podium at the altar. You begin to move around the altar.
and come up right to the metal screen. Admiring its detail up close as well as its beauty from far away, you feel the desire to reach out and touch it, but restrain yourself. It is here that you begin to feel caught truly within the space and in between time. You could stay in this place for hours and experience the same delight. It is here that you begin to feel different, connected with the space, and connected with yourself.

After a few moments at the altar, or at least that is how long you think or it felt like you were standing there, you decide to turn and begin heading back toward the entrance, but this time you choose to go around the outside aisle rather than down the center.

As soon as you turn around, you are caught by surprise. You notice the organs sitting high above the doors entering the chapel. You're surprised that you had not noticed them earlier, standing tall and flanking the back side of the curved wall. After your initial shock of this new ele-
ment in the space, you begin to walk around the outside ring of the chapel. You realize that the light emanating up from below and casting light across the undulating wall is actually light reflecting off of the “moat” that encircled the cylinder on the exterior. You begin to follow the light up across the wall. The wall has such character, each brick seems special and to speak to you. Each brick is individual, different than the ones it touches. Some are somewhat flush, while others are rough, and others stick out much further than the rest. The shadows of each brick seem to be as important as the brick itself, defining the brick, giving it texture, allowing the brick to be read amongst the others.

The sight before you is no longer a brick wall, but rather a play of light and shadow, of texture that you can feel before you even touch it. But you want to touch it. Your fingers beg to validate what your eyes are telling them. Your hand wants to feel the presence of light and the depth of the darkness. Your hand wants to interrupt the field with its own light and shadow, its own texture and movement, becoming
part of the visual delight in front of you.

From here, you begin moving toward the chapel doors, moving further into the darkness along the undulating wall. You reach the doors and turn back around to get a last gaze at the space that you have become so intimately aware. You once again feel the calming response the space elicits and push the wooden door back out into the hallway. Moving back toward the exit and the outdoors, you look through the broken glass and reminisce about your newly changed perspective. Appreciating your skewed view, you open the doors and step back out into reality thankful for this "brief" reprieve.
Looking at this journey through the building as a series of events or steps in a ritual, it begins to be apparent that the chapel is designed in such a way as to have a long building to the moment at the altar, in the light, and then a shorter release back out into the world. One approaches the building and enters the space slowly, pausing at moments, or thresholds, that affect one's body and mind. These thresholds can be a view back outside through the broken panes of glass, opening the chapel doors into the dark space, views of the shimmering metal screen, or even the stopping and resting in the chairs absorbing the space. With every threshold, one becomes more connected to the space, more mindful of him or herself in the space, and more focused on the approach. All of these thresholds begin to build to the moment at the altar, stopping the body and then moving it on in anticipation. It is this pausing and moving that suspends or prolongs the user's interpretation of time, leading to the liminal threshold where one exists in and out of time. In the case of the Kresge Chapel, it is these steps that lead to the "moment" at the altar where one shifts experience from the ordinary to the inspiring, from reality to inner reflection.

Once one has passed through this liminal period, the resolution happens quite quickly, although moments, or thresholds, still exist. For the Kresge Chapel, these thresholds can be the view of the organs, the moment at the undulating wall, or moving through the door exiting the space. It should be noticed that this latter half of the journey, the release to the world is accelerated; yet moments can still be intimate with the user. The beginning of the journey, can be seen as stretching the space, taking longer to move through, while the latter can be seen as constricting the space, taking much less time to move through. One can stretch and constrict the plan and section of the Kresge Chapel, an otherwise very simple plan and section, to begin to understand this concept, to understand the effect of time and journey on space. It becomes apparent that the journey through the chapel shares a similar conceptual structure to that of rituals, producing a comparable experience.
Pause Movement

Wall / Ramp

03_Threshold: Pause and Movement

Rapid movement, slow movement, or a pause allows for the extension and contraction of time while one is moving through a space, which by manipulating one’s perception of time and oneself within a space can lead to the liminal threshold and a heightened state of consciousness. This is apparent in both case studies examined previously: the Igualada Cemetery and the Kresge Chapel. Both of these actions, pause and movement, have the ability to each extend and contract time. For example, a pause can extend one’s perception of time by creating a barrier that blocks a pathway and forces the pedestrian to pause, choose a new direction or path, and then make one’s way around the barrier. Though in the end, not much progress is necessarily made, the journey and time taken to get from one step to another has been increased. On the other hand, a pause can also contract one’s perception of time. If the pause, manifested in a barrier, for example, has some type of feature or quality that entices an individual to stop and contemplate, or possibly interact with the barrier, then it is understandable that one could lose track of time. One could become absorbed and connected with the barrier, contemplating its meaning and use and subsequently perceive a longer period of time at the barrier as happening rather quickly. Architecturally, this barrier, whether extending or contracting the perception of time, is often manifested as a wall or a change in elevation.

Similarly, movement can extend or contract the perception of time on the journey. Movement can extend one’s perception of time by prolonging the amount of time and distance needed to travel to a specific location. A path can meander and weave throughout a space, extending the experience of moving through that space although the space or destination is not that far away. Extending the time it takes to get from one location to another can actually be perceived as taking so long that it is equated with a pause or stop. Often, this can be seen happening in the use of the ramp. Movement can also contract one’s perception of time when moving through a space. By shortening the distance traveled or increasing the speed that one moves through a space, the perception of time is contracted.
space, by use of the stair for instance, one can perceive what would typically take a long time has happening quicker. If a path is easily understood and directional, defined by a wall for example, it can encourage pedestrians to move rather quickly through a space through which it would typically take longer to travel.

Both pause and movement are forms of thresholds, or shifts of experience, depending upon the manner in which they are treated and executed. It is through the use of pause and movement that embodied experience is created, which leads to a series of thresholds that build to the shift to a heightened state of consciousness. Because of this, it becomes the moments in a space where a pause in movement or a distinct change in movement occurs due to a conscious design decision that thresholds of experience exists. This building of thresholds leads to the ultimate goal of such spaces, an atmosphere conducive to promoting self-reflection and a higher conscious understanding. The ability to create a choreographic moving experience that organizes pause, and thus manipulate one’s perception of time and creates thresholds, will be explored spatially through the use of the wall and the use of the stair and ramp.

1. The Wall

“Walls regulate movement and bring order to our lives. Walls guide us, impede us and govern our relationships. Walls command us, divide us, unite us, and bear responsibility and power over human relations.” 1 Here, Masao Furuyama describes the importance and use of walls in the work of Tadao Ando in the book Tadao Ando: The Geometry of Human Space. Not only does Furuyama describe the importance of walls, but he also describes the versatility and many functions that walls can posses. By commanding us, dividing us, uniting us, and bearing power of us, walls have the ability to manipulate our bodies, our perspective of space, and our perception of time. Because of this,

walls have the ability to both create a pause and create movement becoming the steps or events in the journey through a space, which leads to the liminal threshold.

The most obvious ability of the wall is to create a barrier. Walls stand tall and unmoving, blocking the path that leads to them, forcing the pedestrian to pause and redirect his or herself onto another path. Occasionally, these walls allow one to actually penetrate them, to pass through them so that one can experience all parts of the wall. Yet even here, the wall creates a pause, a hesitation of the body before continuing through. Louis Kahn brought the notion of penetrating a wall and experiencing the journey through that wall and its components to an extreme in the First Unitarian Church in Rochester, NY. Here, Kahn had a two-layer wall, the first wood framed and the second CMU block. Between these two, he left a space or void so that when passing through the wall, one actually sees and feels the depth of the barrier. One experiences inhabiting the wall and the journey through it. It is the moment between one space and another, the moment in the wall that stands out, the moment that grabs one’s attention. It is here that one pauses and removes oneself from the activities of the day and feels the presence of the space. It is here that time seems to suspend.

Rather than creating a barrier through, or around, which one must pass resulting in a pause, walls can also help to promote movement. A wall can be used to distinguish a path, providing a barrier from which to follow along and direct one through a space. The wall can provide protection, direction, and reference. Tadao Ando utilizes both of these examples in the Water Temple Hormoku-ji in Tsuna, Hyogo. Furuyama describes the use of the walls in this project stating that, “we see a straight wall. This wall clearly divides the blue sea and the sky and provides a form of reference for the landscape. Once we are past this wall, a gently curving wall leads us deeper into the space.”

Another great example of a wall both acting as a barrier and creating movement is the Vietnam Veterans Memorial by Maya Lin in Washington D.C. A further look into this project follows.

The simple, sleek, and abstract design for the Vietnam Veterans Memorial by Maya Ying Lin in Washington D.C. epitomizes the capabilities of a wall to create a barrier and to create movement allowing one to reflect upon oneself, death, and the lives of others. This project has become so popular and effective that it is often referred to simply as the “Wall.” Kristin Hass describes the Vietnam Veterans Memorial in the book *Carried to the Wall*. In it, she states that, “Her [Maya Lin’s] design lists the names of the men and women killed in Vietnam in the order in which they were killed. The names are carved into black granite panels that form a large V at a 125-degree angle and suggest the pages of an open book. The first panel cuts only a few inches into the gently sloping hillside, but each panel is longer than the last and cuts more deeply into the ground, so that you walk down hill toward the apex, at which point the black panels tower three or four feet above your head. At the center you are half buried in a mass of names; pulled toward the black granite, you see yourself and the open lawns of the mall behind you reflected in the memorial. The center of the monument is a strangely private, buffered public space. Literally six feet into the hillside you are confronted simultaneously with the names and with yourself. The black granite is so highly reflective that even at night visitors see their own faces as they look at the Wall. The Wall manages to capture the unlikely simultaneous experience of reflection and burial. This brilliant element of the design asks for a personal, thoughtful response. As you exit, the panels diminish in size, releasing you back into the daylight… The names are carved out of polished granite from Bangalore, India. The carving invites tangible interaction. Each name has a physical presence. It asks to be touched. Lin wanted visitors to be able to take something of the Wall away with them – a rubbing of a name.”

The gently sloping ground and the gradual change of size of the granite panels of the wall begin to direct one along the wall, which acts as a barrier to

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the earth and creates a directional path for which to take. This path promotes movement along the wall and leading down to the bend in the wall, or the bottom point of the V. This can be seen as a metaphor to burial, lowering deeper in to the ground until you reach six feet, the depth at which a body is buried, and then capped or adorned with a granite headstone. The path on which one walks along the wall also hints back to death and the grave yard or cemetery for it is paved with granite panels resembling gravestones that are set within brick-like stone pavers. There is no way to experience the memorial without walking on the granite panels, or metaphorically walking on the grave stones of the dead. Although the form and the act of containing earth on one side promotes movement along the wall in a very deliberate and purposeful way, the Wall also has the ability to create a pause, acting as a barrier. The engraving of the names and dates on the wall is a very direct way to create a pause as visitors stop to read the names or are possibly even searching for a specific name. Another more abstract approach is utilizing the properties and qualities of the material. When polished, the granite becomes an incredibly reflective surface. This allows the visitor to see him or herself within the image of the rows of names as well as the reflection of others and the surrounding landscape of the mall. This small gesture creates an intense reaction and response. Visitors find themselves entranced by the reflections and the ability to see so clearly what is happening in front of the wall. This deals with issues of identity. The identity of the dead is represented through the names engraved directly on the wall, while the faces of the visitors reflected on the panels represent the identity of the living. On a deeper level, this reflection allows the visitor to begin to ponder the issues and reasons associated with the memorial; it physically manifests the dichotomies of life through death and oneself through many.

Along with the inherent emotions associated with war and memorials to the dead, the Vietnam Veterans Memorial utilizes the wall to create pause and movement through the use of form, technology, material treatment, and metaphor. It is a tremendously strong project that has found a place in the hearts of many Americans and employs the techniques and strategies of pause and
movement through the use of the wall to help create journey and threshold that lead to an atmosphere conducive to inward reflection. Maya Lin even explains in her project statement for the design: "For death is in the end a personal and private matter and the area containing this within the memorial is a quiet place, meant for personal reflection and private reckoning."
The Journey

It's cold and it's been raining, but you're determined to get to the Wall to at least walk once along its granite walls. You just passed the Washington Monument and are continuing your journey, heading toward the Lincoln Memorial because you know the Wall is just short of it. As you walk along the reflection pool at the base of the Washington Monument on your left and a mound of built up land that limits your view to the north on your right, you become aware of how long you've been walking as the cold air begins to set in. The maps of the Mall make this journey seem much quicker and easier, but you know that it will be worth it when you finally get there. Eventually, you are confronted by the Lincoln Memorial and you turn toward the north, the site at which the Wall sits. You enter the cover of trees as the path bends around between them. The first thing you see is the Three Servicemen, a cast bronze sculpture of three men equipped with war gear and gazing in the direction of the apex of the Wall. You now realize you've made it to the site and you walk...
around the front of the Wall still under the trees so as you can approach the Wall from the north.

You reach the beginning of the wall, the granite begins to slowly grow out of the ground as the paving under your feet gradually slopes downward and the panels appear to gently slope upward. You pause for a moment, looking over the top edge of the north wall as it rises up and then eventually turns. No names are visible here, no identity, just those walking along the Wall and the strong, simple form. You notice others doing one of two actions, either staring steadily and intently at the Wall — possibly with a tear, a stern, sombering expression, or an arm outstretched touching the stone — or they are walking along its path, possibly arm around a companion or holding the hand of a little child. You find yourself doing the same thing. You walk for a bit, drawn in by the power and the form of the giant wall, before stopping to stare at the wall. The names are anonymous to you, none sound familiar, yet you know that each one holds something special for someone. The rain has washed down the walls and crawled into the engravings darkening the appearance of the
inscription, though not all of them. What is left is a single letter or group of letters from multiple names that are still dry and appear much lighter. It’s as if these letters can come together to create something larger, drawing from the number of individual names, uniting the names on the panels.

Despite the cold, you remove your glove and reach out to touch the panel, to feel its smooth finish and the depth and texture of the engraving. You know no one specifically that was in this war, but the message and the emotions are just as strong. You begin to look past the names and see yourself in the wall. It’s your reflection and the reflection of others behind you and the trees and landscape of the mall. It is here that the wall takes on yet another dimension. You now begin to see the context of life through death. Nameless faces through the faceless names. You stare at your reflection and for a moment put yourself in the shoes of the names on the wall. You imagine your name added to the list of names that you walked past on the panels prior.
You continue walking, each step upon a granite panel laid within the ground as if gravestones upon which you are stepping. You reach the apex of the memorial, standing deep under the large panels that stand much further above your head, as if buried beneath them. The names engraved marking the spot from which you lay. The gravity of the war and the large number of names that are placed on the granite panels becomes drastically apparent. You turn your head to the left and see a double vision, the site of those walking down the path towards you and their reflection, mimicking every move they make. You begin to continue on your way, the panels slowly lower as you crawl up the slope. You stop and turn back, caught by a sight you weren't expecting, though should have been. You see a large man standing, staring at the wall with his wife on one side and his son on the other. He is looking at the wall, unblinking and unmoving. He appears as if on the verge of tears, holding them back, as his wife holds his arm in support. It is at this moment that you begin to realize the strength that this piece has, not only as a beautiful piece of art and landscape, or as a sign for a country to remember its citizens who fell in battle, but also as a single, personal tribute to each individual name on the wall and reaching out and touching each person that has a connection with a name. As you completely emerge from the sloped path and turn once more to see the entire piece, you finally understand the strength of this simple, elegant wall cut deeply into the landscape.
b. Te Tuhirangi Contour: Richard Serra

A large portion of the abstract artist and sculptor Richard Serra’s work deals a lot with pause and movement and the interaction between an individual’s body and the barrier. One such project that creates pause and movement within a landscape is the Te Tuhirangi Contour on a farm on the Kaipara harbour in North Island, New Zealand. “The sculpture is located on one continuous contour, at a length of 257m (843’2”).” It is constructed of weatherproof steel that is 6 meters (19’-8”) tall and 5 centimeters (2”) thick that stands alone, curving and following the contour of the rolling site. The sculpture is set in an open grass pasture where the curving steel is leaning 11 degrees, which is perpendicular to the slope of the ground.

This piece both acts as a barrier and creates movement. Standing alone in the grassy pasture, the wall stands as an icon drawing the viewer towards it along any number of paths over the grass and to the curving giant. One cannot help but stop just in front of the steel and ponder its existence. Although the lean of the steel makes viewers a bit uncomfortable, one is so intrigued by its construction, material, and placement that turning one’s back is not an option. The sheer size, its height and stretch, puts human scale and the body into question. Richard Serra confessed in an interview with Kynaston McShine that, “I was interested in the elevation of the landscape and in my body’s relationship to the plane of the landscape.”

The shape and curving nature of the sculpture initiates movement as well. One can only truly understand this work by walking along its expanse and experiencing the wall within the landscape. The long meandering steel creates a barrier from which to begin moving; it creates a path for the viewer to travel. One easily gets lost in the size and space created by the Te Tuhirangi Contour, lost in the unchanging weatherproof steel set against the ever-changing land-

scape. Time is forgotten while walking along the barrier, pausing at moments to take in the piece. Instead, attention falls to one’s body compared to the massive wall, the body among nature and steel. One begins to question one’s own existence as well as the sculpture’s existence. Richard Serra uses the piece to question, “How do you deal with movement in relation to a defined boundary, and how do you define a boundary in a given expanse? How do I move through the landscape in relation to its undulation? How do I measure space? What is the role of time?” It is here, visiting this piece that one can easily step out of the everyday reality and shift experience to a higher state of consciousness.

c. Sagrada Familia: Antoni Gaudi

The wall, or rather doors, entering Sagrada Familia in Barcelona, Spain, is a barrier that creates a pause mostly due to the treatment of the wall. Although the path and movement into the church is through this wall, the movement is less important than the pause and than the wall itself. This path entering Sagrada Familia is through large wooden doors and a transom with carvings that create words. These words however are not simply carved and etched into the wood, but rather the wood is carved and removed so that the words protrude from the door. These protrusions are not all of the same depth; some extend out much farther than the others while some seem to recess back into the doors. These protrusions are not all of the same depth; some extend out much farther than the others while some seem to recess back into the doors. This creates shadows and reflections that allow one to read the texture and nature of the wood. These shadows move throughout the day allowing the wooden wall to constantly have a different reading, another dimension. Once close, one can begin to see the craftsmanship and the work that has gone into the carving and working of the wood. The embossed words entice one to stop and touch the words, ponder their meaning, their existence, and their history.

It is here that one gets lost in the work, the detail of the wall and begins to exit.

reality and enter a place where time and the everyday is of no importance, a place where intrigue and reflection take precedence. The consciousness is in control now, not the task-oriented mind. The consciousness dictates what is to be touched next, and how to experience the moment. It is through the treatment of the wall, the attention to detail and meaning, that one contracts time and steps toward the liminal stage.

d. Thermal Baths: Peter Zumthor

Another example of detailing in a wall that provokes intrigue and demands more attention is the construction of the walls in the Thermal Baths by Peter Zumthor in Vals, Switzerland. The walls are constructed by stacking a stone that was mined locally. It is constructed of a “continuous series of natural stone strata – layer upon layer of Vals gneiss, quarried 1,000 metres further up the valley, transported to site, and built back into the same slope.” Each stone is stacked slightly off from the stone laid previously; creating depth and a texture to the wall that at first glance appears flush and smooth. Zumthor then introduces slits of light that wash down the face of the wall originating at reveals in the roof. The roof slabs are cantilevered from piers within the floor plan of the building, Zumthor's concept of 'blocks and tables,' and stop just short of one another creating narrow gaps where light can penetrate through.

The light leads one's eye to the wall and then highlights the tolerance in the stacked stone creating shadows that describe and present the quality of the stone. As the light changes throughout the day and the year, so do the shadows, and in turn so do the walls and the atmosphere in the building. One cannot help but reach out and touch the stone trying to better understand all that the wall has to offer. It is here, paused before the wall, feeling the stone, the temperature, the texture, that one experiences the space.

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Thermal Baths

The slivers of light that enter into the bath house also help to create movement about the project. The light casts across the walls and the floors creating a directional gesture as to where one might continue next. The beams of light seem to capture the eye and body of an individual and pull one through the building, from one space to another. It is through this use of directional light and containing walls that Zumthor promotes the movement through a series of thresholds. Zumthor explains, "...then something would be drawing me round the corner – it was the way the light falls, over here, over there; and so I saunter on – and I must say I find that a great source of pleasure."9

The walls act as thresholds to different spaces as well as full spaces in themselves. To reach a number of the varying pools, one must puncture through these stacked stone walls and into the piers. The openings in the walls are small and tight, ensuring that the user can feel the thickness and weight of the walls and experiencing the threshold when entering a pier. These walls then house a number of different pools and the threshold and experience of entering the water, feeling its temperature, and being completely surrounded and submerged by the water and space. Once again, the user must return through the narrow opening in the wall, creating a moment and connection with the space, activity, and materials.

e. Tugendhat House: Mies van der Rohe

One can see a study of walls through the work of Mies van der Rohe. There is a progression of use with the wall, and ultimately culminating in the dissolution of the wall into the column, that is carried throughout Mies's projects. In the Brick Country House, designed in 1923, "space is defined and plan is organized by independent walls... the extension of the wall reaches the perceptual domain where a load-bearing mass could be seen as a free-standing plane. One might read these radiating walls as an act integrating the building with its

site, or infusing the interior and the exterior.”10 The ability to utilize the wall as simply a partitioning plane rather than a load-bearing structure opened up a world of possibility for Mies.

He began to push the idea of wall as partition in the Barcelona Pavilion, designed in 1928, and the Tugendhat House, which was designed in 1930. Hartoonian explains that, “we might assert that Mies’s major intention was to dissociate the wall from all its figurative and connotative dimensions until the wall signifies only its matter-of-factness.”11 Mies is very acute to the interaction between wall and the body as well as one’s perception of space through the wall. He plays with the material, orientation, and reflectivity of the wall and the column to achieve various interactions and reactions to space. In many of his projects, but especially the Tugendhat House, “one thing is consistent and worthy of attention, and that is the wall, which gives character and defines the place of the column... direction is initiated by the wall.”12 Mies uses the wall as a means for directing one through the space and creating movement. These walls create barriers or partitions of space, but more importantly, the walls promote movement from one space to another.

f. The Contemporary Art Center: Zaha Hadid

Some walls are also used to organize vertical movement, both visually and physically, rather than creating pause through the use as a barrier. Such a wall is present at the Contemporary Art Center in Cincinnati, Ohio, by Zaha Hadid. This wall is a physical manifestation of what Hadid termed the “urban carpet.” She wanted the lobby of the art center to be like a public square and so she wanted the life and activities of the city to be carried into the building. She did

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this by trying to create transparency with the glazed walls to the street and by constructing a concrete wall that rolls up from the ground and runs up unobstructed the entire side of the building. This carpet floor plane literally pulls up to become, or create, the wall.

All of the floor plates are pulled off of the wall and the stair is organized along this wall. Standing at the bottom, one can visually follow the wall as it rolls up from the floor and directs one vertically to begin one’s journey through the building. Here, the wall organizes the flow throughout the building. There is no doubt as to where one should go to begin discovering this art center thanks to the concrete wall that initiates and continually directs one’s movement about the building.
The stair and the ramp have the ability to manipulate the distance and time needed to move vertically throughout a building or space as well as one’s perception of how long it takes to move through that space. When considering vertical movement, one can look at the elevator as the epitome of efficiency. The amount of vertical movement traveled is equal to the amount of total distance traveled. However, the perception in an enclosed elevator is that no distance has been traveled, for the doors close in one space and then reopen in another without effort by the user. On the other hand, when traveling on a stair, the journey and the effort to make that journey is experienced by the user. The stair is still fairly efficient in its vertical movement. Due to the ratio of the tread to the riser, the total distance traveled on a stair is slightly greater than the vertical distance. Interestingly however, the perceived distance is almost double the total distance traveled. This is because an individual must slow down and pay attention to his or her footing when approaching and moving up or down a stair. Therefore, the stair is a rather quick way of moving vertically even though one does not move on a stair at the same speed as flat ground.

The ramp however, pushes the extreme of extending the time and distance needed to travel vertically. The ramp drastically increases the total distance needed to travel a specific vertical distance drawing out one’s approach or journey from one space to another. Because the slope of a ramp is so slight when compared to a stair, the perceived distance is comparable to the total distance. This allows for a ramp to create movement that is completely comprehended by the user. However, this movement can be so drawn out on a ramp that it can actually be perceived as a pause because of the little vertical ground traveled compared to the amount of time taken. The stair and the ramp therefore become very powerful tools of design when choreographing one’s movement through a building or space and the perception of that journey and time. To follow will be two examples of employing these concepts with the consideration of vertical movement through space.
The Guggenheim Museum in New York City by Frank Lloyd Wright is synonymous with the image of a ramp; even the exterior expresses the ramp through its form. “The circular shape of its galleries and gently sloping ramp which winds its way around the building have become the symbols of a new era in the display of art,” states Harry T. Guggenheim. The design of the Guggenheim in New York City was imagined as a giant spiraling ramp that allows the visitor to view the art in a fluid motion moving from one space to another without a break in floor levels. Frank Lloyd Wright explained the building, “one floor flowing into another instead of the usual superimposition of stratified layers cutting and butting into each other by way of post and beam construction.” Wright designed the building with the idea that visitors would take the elevator to the top of the spiral ramp, not perceiving the true distance traveled, and then slowly walk down the ramp where along the wall the art was displayed.

It is this ramp that allows the visitor to saunter through the museum, drifting from one exhibit to another. Here, the entire visit to the museum becomes a journey, slowly moving down the ramp, extending one’s vertical movement and experience of space and art. It is this gentle sloping that comforts the visitor and allows a calming journey as one moves down the ramp. Wright explained that, “the gentle upward, or downward, sweep of the main spiral-ramp itself serves to make visitors more comfortable by their very descent along the spiral, viewing the various exhibits: The elevator is doing the lifting, the visitor the drifting from alcove to alcove.” Here, the vertical movement is extended to the fullest along with the experience of moving through the space. Wright was able to truly prolong one’s movement through the building and one’s perception of the space through the extensive use of the ramp.

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b. The Contemporary Art Center: Zaha Hadid

The CAC in Cincinnati utilizes a stair to prolong or extend the experience of moving vertically throughout the art center. As discussed earlier, the stair is organized along the sweeping concrete wall. This stair is placed within a black steel case that actually acts as a giant beam to support the stair, which allows the stair to appear as if it is floating along the concrete wall. This was done in an attempt to follow Hadid’s metaphor of the stair as a black ribbon that weaves and floats throughout the building.

In this building, Hadid wished to prolong the journey of moving from one level to another, extending the experience of movement and building anticipation for the level and art to come. The treatment of the stair acts more like a ramp in the ability to manipulate one’s movement vertically. As a result, Hadid extended the length of the treads on the stair, creating a greater total distance that is needed to travel the vertical distance. Not only does this extension of the length of the tread increase the total distance traveled, but it also slows the visitor down when walking on the stair because it is outside of the standard proportions of tread to riser. Visitors must slow down and pay more attention to their footing and step, ensuring that the experience of the stair will be extended and remembered. By doing this, Hadid begins to manipulate one’s perception of time and experience on the stair and builds anticipation for what is to come next.
Walking through downtown Cincinnati, it is obvious where your destination is; you are heading to the most contemporary building in the city, one that looks more like a sculpture than a building. You spot it from a distance. It feels guarded, protected. You see concrete box-like forms jutting out in the air over the street with one black box piercing along with them. The building feels like a barrier. You continue to walk towards the building. As you approach, the guarded, barrier-like facade begins to become more transparent and inviting. You wait for the crosswalk and cross the street stepping up onto the curb. The lower level allows the lobby to seem transparent with glass lining the wall. It is difficult to find the entrance, but once you walk a bit deeper in, the sliding glass doors open up automatically for you. You step inside of the building and are immediately drawn toward the back wall where concrete turns up in one sweeping motion and becomes the wall. With this as the backdrop, you see a black band crossing up the side and vanishing above the ciel-
You reach out to hold on to the railing as you walk up the stairs. You're confronted by cold steel, what you before considered the black band. You realize that this is just the structure and that the handrail is set inside of this, accented by tube lighting. You reach your hand onto the aluminium rail and find that it is in an awkward position for your arm and so you decide to instead just run your hand along the top of the black steel container. You are immediately surprised by your first two steps. This step is unlike any stair you've walked on prior. Your steps are long and shallow. You must look down at first to comprehend what is happening. You realize that the risers of the stair is much shorter than you are use to, gaining much less elevation with each step. In addition, the tread is larger than you are accustomed to and so you must step further and longer than you are use to just to make each step.
You are strangely moving much slower than expected. You contemplate taking two steps at a time, and you try, but are uncomfortable by the stretch and distance you must step to reach the second tread, and so you resume your slow pace one step at a time. You once again notice the cold steel against your hand as you begin to rise through the space. You slowly approach a wall of glazing where you are able to see activity on the street and people in the business across the street. You slowly approach until you’ve reached the landing and can look completely outside. After a moment of pause at this view, you turn to head up the second portion of the stair. You once again pause as you reach out and touch the concrete wall as the stair gets close to it. As you begin your second rise, you look up and are amazed by your view. You can see the black band of the stair crisscross as it rises past the levels above, the spaces that you will eventually inhabit. Partially up the stair you step once more and lean to the edge to look over the side at the stair that you so slowly climbed. You can imagine doing this once again on the stairs above and looking at the journey that you had taken. A few people begin to climb the stair and you notice...
their surprise as they experience this untypical stair for the first time. One of the individuals turns to his friends and says, “It takes so long to walk up these stairs.” You assume this will not be the last time you hear a similar comment pertaining to the stair. You turn and once again continue on your trek up the stair slowly, with anticipation for the art and architecture that you are about to encounter. Finally, you reach the glass door, hoping that what is to come can match the journey and experience you just had.
By use of the wall and the stair and ramp, one can consciously choreograph the journey – the movement, or pause, through a building – creating thresholds that manipulate one’s perception of time and experience shifting to the liminal and providing moments for self reflection and a heightened state of consciousness. The preceding examples and case studies have shown some possibilities and executions of these ideas. Next this thesis will look at the crematorium and utilizing these concepts when associated with death and movement through the cremation process.
The Crematorium

A crematorium is a program that is inherently emotional, personal, and reflective. On the surface, a crematorium is a house for which to cremate and bring physical closure to an individual’s life. It would be easy to assume then that the spaces and activities of the crematorium should be designed solely with the body of the deceased in mind. However, the crematorium is seen here as a house for which to mourn the passing of a friend or loved one. The deceased has already passed and so no longer has a stake or concern with what happens with the body. Rather, the services and care of the body are done as to comfort the family and friends of the deceased. The cremation process and rituals associated are done to help those still living deal with the mourning process. To properly mourn and accept the passing of a loved one, one must look within him or herself to find the strength to come to grips with the death and move beyond it. Because of this, the mourning process is a highly individual activity, although an important portion of it is comfort by others going through the same emotions, but is also a highly reflective activity. With this, one can understand death as a catalyst towards inward reflection. As a result, the discussion of a crematorium can begin by looking at the individuals who go there to mourn and to house a space that promotes self-reflection. The focus of the design of a crematorium is then shifted from the body of the deceased to the movement, body, and emotions of the mourner.

Swiss born psychologist, Elisabeth Kubler-Ross, discussed her experience with terminally ill patients in her book, *On Death and Dying*. In this book, Kubler-Ross introduces the five stages of grief: denial, anger, bargaining, depression, and acceptance. She explains that, “When the first stage of denial cannot be maintained any longer, it is replaced with by feelings of anger, rage, envy, and resentment.” She continues, “The third stage, the stage of bargaining, is less well known but equally helpful... If we have been unable to face the sad facts in the first period and have been angry at people and God in the second phase, maybe we can succeed in entering into some sort of

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1 Kubler-Ross, Elisabeth. *On Death and Dying*. Page 44.
The crematorium will focus on the emotions or stages that the mourner will encounter to reach the last and final stage, the ultimate goal in the grieving process, acceptance. These emotions begin with grief for the passing of a friend or loved one. The mourner must then confront the realities that that person has passed. Following this confrontation is a need to be consoled, whether this is by a community, a close-knit group, or another individual. The mourner can then reflect upon, and celebrate, the life of the deceased. It is through this, that the mourner may reach acceptance of the loss. Acceptance is a highly individual act. Each individual must accept the passing of a loved one at his or her own pace and through a variety of different emotions. The crematorium should allow for spaces that evoke a wide range of emotions.

1. Denial
2. Anger
3. Bargaining
4. Depression
5. Acceptance

and interpretations so that the individual may come to accept death through the journey through the building. The crematorium should provide a general journey based on these basic human emotions and rituals of death that can then be interpreted and taken at an individual’s own pace, whether this means repeating or skipping activities or spaces, with this journey ultimately ending in acceptance through self-reflection, self-realization, and a heightened state of consciousness.

Next, a study and analysis of contemporary crematoriums will help to illuminate strategies towards design, attitudes toward movement and journey, and helping to develop the program.
The Rennes Metropolis Crematorium in Rennes Metropole, France, was designed by PLAN 01 Architects. The design is set in an open clearing surrounded by a forest of trees. Small car parks are set within the wooded areas to help separate the visitor from the automobile and daily life and bring them into a scene devoted solely to mourning and cremation. “By leaving their cars in those special areas, mourners can detach themselves from the outside world and enter a place entirely dedicated to ceremony and meditation.”

The floor plan uses a series of overlapping circles to help distinguish program, use, and to direct traffic. “The circle is repeated throughout the spatial configuration and its many declinations shape both the landscape and the building. From the clearing to the shape of the rooms, the circle is a recurrent theme. This spatial layout referred to life circle, constellation, but also to Stonehenge or Land Art works. Above all, it can be interpreted in many philosophical, religious or cultural ways. Completely non-denominational and easily accessible to all, the crematorium rises up, solemn and imposing. The references to daily life vanish, creating a singular experience where orthogonality does not rule any more.”

The building is seen as an open floor plan where visitors enter from any number of open entries, allowing the user to move throughout the space freely as they choose. “Thus, the various pathways encourage a gradual progress from the external environment towards internal intimacy, from outer noise to inner silence.” These differing pathways are then consolidated entering an anteroom that leads to one of the two chapel spaces. From here, the body is moved to a cremation space and then the ashes can be given to the family of the deceased.
2. Treptow Crematorium: Schultes Frank Architekten

“‘People die and they are not happy’ – architecture can’t change that. A place of rest, a space for silence: that is something it still manages to provide, despite the fact that not even stones are as heavy as they were in more solid epochs with firmer beliefs in the eternal, as in Saqqara, as in Giza, for example.” Axel Schultes had these remarks when referring to the Treptow Crematorium in Berlin, Germany. The crematorium is conceived as a 50-meter by 70-meter by 20-meter block from which 10 meters extend above ground and 10 meters remain below. The actually cremation spaces are in the basement, separated from the mourners, and accessed by a turn-around drive and a ramp in the back. The only hint of the cremation below is three large chimney stacks that rise out on one side.

The upper level is centered around a square condolence hall where three chapels connect, one seating 250 people and two that seat 50 people. The condolence hall houses a small circular reflective pool in the center with 29 columns set irregularly and sporadically throughout the space. The columns, however, are held off of the roof where there is an opening allowing for light to enter giving the columns the appearance of ‘light capitals.’ The building is cut with two long slits in the roof that allow light to penetrate the space and wash the interior walls of the condolence hall. Flores Zanchi comments that, “Axel Schultes and Charlotte Frank’s Crematorium offers an example of good architecture, a severe building which makes skilful use of full and empty volumes molded by light to fulfill its purpose with respect while inspiring a feeling of calm and serenity.”

3. Ashwinikumar Crematorium: Matharoo Associates

Rebuilding the city after riots and floods spanning from 1992-1996, a competition opened in Surat India for the design and construction of a new crematorium. The winning design was the Ashwinikumar Crematorium by Matharoo Associates. The crematorium sits on the banks of the Tapi River in an area rich in Hindu mythology. The design is simple, directing the focus inwardly and towards the river, away from the urban setting it sits just outside. There is a main entry with an angled wall that funnels and leads visitors back toward the cremation area and in the direction of the river. The building then opens to where five furnace chambers sit, secluding each family from one another during the cremation process. The building then leads to a large pavilion that then ramps down and to the river where family members may step into the water. Although a secular building and open to all religions, the building is designed around the rituals of cremation in Hinduism. Matharoo Associates explain, "On completion of a ceremony, the relatives and friends leave the grounds not by returning along the entrance, but by climbing down the ramp on the riverside, sometimes taking a dip in the river, and climbing back on to the road from the bank before returning homewards, thereby traversing the cycle symbolic of life. This is also the place where one sees the building for the first time – so far the building has always formed the 'backdrop' of the events it holds and can therefore only be experienced, never 'seen.'"

“The Entrance: Blind wall with a narrow slit opening. - Nothing of the inside is visible, stressing the unknown. - A tree accentuated by the shafts of light punctuates one’s arrival. - Reciprocating Life, the light on the wall narrates the changing nature of the day. - Nothing else is revealed; the known becomes acutely limited.

Meditation Plane: Suspended between the Known and the Unknown. - Folding out from the earth, it produces a level of reason cutting through the realm of chaos. - Upon each level, the understood shatters under the pressure of the yet unknown; how much is the traversed, and how much remains? - A solitary existence awaits those insulated in the extended gallery; a position in space, floating and yet well grounded.

The Furnace Chambers: A row of crescent-like walls enclose the furnaces, secluding the family from the world outside. - Each day, a strip of natural light penetrates every alcove; a bright line slowly creeps down the curved walls towards the earth. - Approaching sublime contact. - Glimpses out on to the river, and the contact flow of the running breeze convey an as yet unknown future: a life beyond.

The Pavilion: River meets ground; the waters carry on their infinite cycle of ebb and flow. - The compressed plane of repose, being elevated high above the channel of the river, turns the initial perception upside down. - Against the closed backdrop of that which is left lies the vast openness of future, unrevealed, unreachable, and yet a constant influence. - The frame, the seat, the backdrop all disappear, leaving only the river of life and the edge. - The edge of introspection and choice for the mourners.

The Ramp: - A narrowing ramp exaggerates the perspectives. - That which seems longer overlaps time, space, one exits from the building passes slowly with the comprehension of change. - In front, a narrow slit, void and intuitive.

- Looking back, tower, thick and massive.”

4. Program | Crematorium

The crematorium is comprised of four main buildings connected through movement. These buildings are centered around a major programmatic activity and an associated verb or feeling. Although each building suggests a slightly different emotion or feeling, all spaces are capable and appropriate in housing any emotion related to any stage in Kubler-Ross’s five stages of grieving and the emotions felt by the mourner.

This journey begins as one grieves the passing of a friend or loved one. The first main building is the parking, where one sheds the weight of everyday life and separates him or herself from that outside world, focusing on what is within. It is here that one confronts the issues of death, life, and oneself. One then moves into the condolence hall. It is here that one will extend his or her condolences to the family of the deceased. Once this has happened, many will gather in small groups of familiar friends and family to console one another and reminisce of the deceased. The next building is the chapel. The funeral service will commence here. This is a time to reflect on the life and death of the deceased as one large group in a more public, formal setting. Finally, the body is cremated in the incineration chamber. Also in this building are the reflection rooms. It is here that the body transitions from physical form to intangible memory. It is this last destination where one looks within him or herself reaching a heightened state of consciousness and accepts the passing of a loved one.
a. Journey/ Activities of User Groups

There are three main user groups for a crematorium: the first is the visitors or the mourners, the second is the employees, and the third and final could often be overlooked, but is the body of the deceased. The focus of the design and journey through the building is on the first group, the mourners, which is accompanied by the body. The path of the mourners and body move alongside one another, crossing paths at certain thresholds throughout the entire journey until the final separation, the dissolution of the physical body through fire, and the creation of the metaphysical spirit through memory.

The Mourner/ Visitor
- park
- ramp to condolence hall
- enter indoor area
- stand in line to greet family of deceased
- converse with smaller groups of friends and family
- refreshments
- allow for removal of body
- cremate the body
- wait for cremation of body
- retrieve ashes
- separate for individual reflection
- say goodbye to mourners
- exit the building
- journey back to parking

The Body
- delivery of body
- ramp to condolence hall
- enter indoor area
- preparation for funeral service
- on display for funeral service
- move to cremation
- enter the fire
- separate ashes
- prepare ashes
- enter urn
- delivery to family

The Employee
- park/ get off of bus
- small staff meetings
- meet family of deceased
- organize funeral service
- greet visitors
- accept service leader
- accept body
- prepare body
- move body to chapel
- move body to incineration chamber
- sort ash
- deliver urn to family
b. Space Derivation

Garage - 30 Parking Spaces | 10,000 SF

Activities include: parking | delivery of body | accept body | exit the building

The garage needs to allot for 30 parking spaces needed for this building's occupancy. An elevator will take visitors to the rest of the building. There also needs to be an area for dropping off the body of the deceased. A separate elevator will take the body to be prepared for the service.

Surface parking requires about 300 square feet of land per space (about 124 spaces per acre).”

[http://ecenter.colorado.edu/greening_cu/2002/page3.html]

| Uses of public assembly, including auditoriums, exhibition halls, community centers, and private clubs | Minimum of 1 space for every 100 square-feet of assembly area. To ensure parking adequacy for each proposal, the Director may consider the following: a. A parking study or documentation paid for by the applicant and administered by the City regarding the actual parking demand for the proposed use, or b. Evidence in available planning and technical studies relating to the proposed use. |
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<td>1.5 for each staff member</td>
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<tr>
<td>High schools</td>
<td>1 for each staff member plus 2 for every 5 students or visitors</td>
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<td>Convalescent/nursing/rest homes</td>
<td>1 for every 4 beds with a minimum of 10 stalls</td>
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<td>Churches, mortuaries and funeral homes</td>
<td>1 for every 4 persons based on occupancy load</td>
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Activities include: enter indoor area | stand in line to greet family of deceased | converse with smaller groups of friends and family | greet visitors | accept service leader

The condolence hall will be the main indoor meeting space. Here, the mourners will extend their condolences to the family of the deceased and mingle in conversation with other those for the service. There will be smaller break out spaces for more intimate conversation. This will also be the gathering/organization space for moving into the chapel for the funeral service. This space needs to have spaces for resting and waiting for others to attend. There will be a series of small, comfortable chairs and couches here and in the smaller break out spaces. There can also be a series of benches that allows for temporary pause.

Condolence Hall - 10,000 SF

Activities include: enter indoor area | stand in line to greet family of deceased | converse with smaller groups of friends and family | greet visitors | accept service leader

The condolence hall will be the main indoor meeting space. Here, the mourners will extend their condolences to the family of the deceased and mingle in conversation with other those for the service. There will be smaller break out spaces for more intimate conversation. This will also be the gathering/organization space for moving into the chapel for the funeral service. This space needs to have spaces for resting and waiting for others to attend. There will be a series of small, comfortable chairs and couches here and in the smaller break out spaces. There can also be a series of benches that allows for temporary pause.

Large Chapel - 4,000 SF

Activities include: assemble for funeral service | on display for funeral service | move body to chapel

This space is the larger of the two chapels. The chapel will be the setting for the funeral service, no matter the religious affiliation. The chapel will have wooden, non-moveable pews with a central axis down the center. All of the pews will be facing the same direction, toward the front where the body will be on display and words are spoken about the deceased. This chapel will rely on acoustical design and materials, rather than audio equipment, for its acoustics.
Small Chapel _ 2,000 SF

Activities include: assemble for funeral service | on display for funeral service | move body to chapel

This space is the larger of the two chapels. The chapel will be the setting for the funeral service, no matter the religious affiliation. The chapel will have wooden, non-moveable pews with a central axis down the center. All of the pews will be facing the same direction, toward the front where the body will be on display and words are spoken about the deceased. This chapel will rely on acoustical design and materials, rather than audio equipment, for its acoustics.

Reflection Room _ 250 SF

Activities include: separate for individual reflection

The reflection rooms will be small spaces intended for one to three people. They will be very bare with only a single built in bench for resting. The spaces will have a skylight from high above that brings in light down into the space. There will be one entry and exit.

Incineration Chamber _ 900 SF

Activities include: cremate the body | move to cremation | enter the fire | move body to incineration chamber

This will be the space for actually cremating the deceased body. It will be fairly small and include seating for the viewing of the cremation, a furnace for the burning of the body, a sliding mechanism for pushing the body into the flames, and a chimney for releasing the smoke of the fire.
Rennes Crematorium
Rennes, France

Ash Preparation Room  -  500 SF
Activities include: separate ashes | prepare ashes | enter urn | sort ash

Here, the employees will separate and sort the ash and put it into the urn for the family. The family of the deceased will not see this process and so the space will need to be able to be completely shut off. The room will house the mechanisms necessary for preparing the ash.

Preparation Room  -  1,000 SF
Activities include: preparation for funeral service | prepare body

Once the body is delivered, it will be placed in the preparation room where it can be prepared for the service and then once again prepared for the cremation process. Only employees will be allowed in this space and it will be separated from the visitor's journey through the building.

Incineration Chamber
Incineration of the body
45' x 20' = 900 SF

Ash Preparation Room
Preparation of ash from cremated body
10' x 40' = 400 SF

Ash/ Urn Pick-Up  -  1,000 SF
Activities include: retrieve ashes | say goodbye to rest of mourners | delivery to family | deliver urn to family

This will be another open space that allows for the delivery and acceptance of the urn and ashes. This will also be the last space in the journey through the cremation process. Here, the final of the family members will say their good byes and move on into the garage to exit the building.

Prep Room
45' x 30' = 1,350 SF

Ash/ Urn Pick-Up
Delivery of ashes/ urn to family
50' x 20' = 1,000 SF

Preparation Room
Prepare the body for the funeral service
45' x 30' = 1,350 SF

Rennes Crematorium
Rennes, France

Treptow Crematorium
Berlin, Germany
Office/ Administration - 1,500 SF

Activities include: small staff meetings | meet family of deceased | organize funeral service

The offices will house the work space for the employees, as well as a space for the families to meet with the crematorium officials to organize and execute the funeral service and cremation. The space will require a desk, three to four chairs, filing cabinets, wifi, and other computer requirements.

Large Restrooms - 600 SF

The large restrooms will be associated with the main lobby space allowing for the visitors to utilize them as needed, as well as the employees.

Assembly: 10,000 SF

10,000 SF / 200 = 50 Occupants (25 men & 25 women)

Men: 2 water closets, 1 urinal, 1 lavatory
Women: 3 water closets, 1 lavatory

Small Restrooms - 200 SF

The small restrooms will be associated with those levels that are not shared with the large restrooms. This allows for use as needed by visitors and employees, but on levels where use is less typical or appropriate. These are also more private restrooms.

Assembly: 4,000 SF

6,000 SF / 200 = 30 Occupants (15 men & 15 women)

Men: 1 water closet, 1 urinal, 1 lavatory
Women: 1 water closet, 1 lavatory

[2007 California Plumbing Code, Chapter 4, Section 412]
Kitchen - 200 SF

The kitchen will be accessible by the employees and the use of the kitchen will be shared with the visitors for storing goods needed for the refreshments. Use of this will be fairly low. A simple counter top, sink, refrigerator, and microwave will suffice.

Storage - 2,000 SF

Here, storage for the crematorium will exist. Archives of information from the services and employees will be stored here, as well as panels for the accent wall system. Other storage needed throughout the building will use this space.

- a space derived by examining a similar facility

Mechanical Room - 2,800 SF

Mechanical equipment, furnace equipment, and HVAC will be in this space. This space will also only be utilized by employees of the crematorium.

- a space derived by examining a similar facility

Storage

Storage space for facility

25’ x 80’ = 2,000 SF

Mechanical Room

HVAC systems

35’ x 80’ = 2,800 SF
05. Design Solution

The site for this crematorium is on a steeply graded plot of land in the Mt. Adams neighborhood of Cincinnati, Ohio. This site was chosen for its land configuration, grade change, access to popular streets, surrounding density, and culture of the surrounding area. “Mt Adams is Cincinnati’s unique Neighborhood on the Hill. With sweeping views of both downtown and the Ohio River, Mt Adams boasts some of Cincinnati’s best restaurants, nightclubs and taverns. It is home to a diverse community, including young professionals, families and empty-nesters. Anchored by Eden Park and some of Cincinnati’s finest cultural venues, Mt Adams has much to offer both locals and visitors, whether your interest is to live here, work here, dine here or play here.”

The site is bound by Pavilion Street and Hill Street, which run east and west and slopes in the same direction. It also slopes quite steeply to the south revealing expansive views to the Ohio River, Kentucky, and glances of downtown Cincinnati. A mix of cultural, commercial, residential, and mixed-use properties border the northern edge of the site. The southern edge is bordered by rows of small single family, or multi-family houses.

A loved one has recently passed away and you are going to the funeral service and cremation of that person. You feel a great sense of loss with the passing of this person and are emotionally quite fragile. You find yourself in your car, dressed in your best black attire, an outfit you don’t find yourself wearing very often, and heading to the crematorium in Mt. Adams. The sun is shining as if bright and cheery, though you don’t share the same sentiment. All you feel is grief. You approach from the bottom of Hill Street, heading up the road with a thick wooded hill to your right and rows of small homes to your left. As you climb the hill in your car, you notice the trees beginning to clear to the right and a series of large walls staggered throughout the hillside and remaining trees. The walls are of two types. The closest are large, thick wooden walls, varying in treatment as they climb the hill, first solid and thick and slowly breaking down, becoming more transparent as they progress until the final wall which is rough and appears to be broken down by the earth around it. The second of the walls are large, tall black walls that emerge from higher on the hill, appearing as to hold back the earth below, allowing for life in front of them.

You see the drive and pull in to your right, driving on a wooden plank bridge that allows you to pass over the reflecting pond in front of the first wall and the stream of water that trickles over the front of the site. Though small, passing over the water signifies your entrance to the site; you understand that to reach your destination, you must come to this side of the water. You then move up the drive and come to the first large wooden wall. This wall is solid and massive. There is a large opening in which you can drive and so you pull through. You then truly understand the thickness of the wall as you pass, moving from the brightly lit outdoors into the dimness of the parking garage. You pull into a parking spot and shut off your car. You sit here for a moment. You think about the journey you are about to embark on and the reasons for why you are here.
Death, or is it life? Since you passed through the thick wooden wall, you have entered a new world, a world devoted simply to your friend who is no longer with you. You shed the worries of the world, the stress of life and work, and exit your car with an open mind and a wounded heart.

You begin to walk back toward the thick wall where it begins to get brighter, as you emerge from deep within the hill. You walk towards the wall from which you once penetrated, but are greeted by another wall sticking into the space. It is one of the thick black walls. You turn and look to see a ramp for which you will begin to travel. At the end of the ramp is an opening to a building once hidden by the second thick wooden wall. It is here that you are confronted with what lies beyond the glass doors, the truth of the loss of a loved one. You look down and see a three-foot wide strip of reddish, umber colored granite in the concrete that travels beside your path. You are not quite sure why it’s there, but are certain it is there by no mistake.

You step out of the garage and onto the ramp, emerging into the light. You are immediately attracted to the large black wall on your right. This is your first encounter with the black walls in the landscape and for some reason you find yourself stopping at the foot of it. You realize the black is polished granite, like that of many headstones you have seen before. In its surface you can see your reflection and the reflection of the trees and sky to your left. You look down its length and see the reflection of those walking in front of you as they travel along side it. Their shadows cast against the wall along with their reflections as if their souls, vulnerable, are moving with their physical bodies. You step onto the reddish granite paving, reach out and touch the smooth, hot surface.

You turn and continue your journey towards the entrance doors only to be stopped once more. Within this blank, flat wall are two openings. You pass the first one glancing inside only to find another wall immediately behind with light gently emerging from the side. You continue to the second and choose to walk in. As you step in you feel the depth of the walls, standing within the...
black granite wall, your body completely encompassed in its threshold. You step into the chamber space greeted once again by an immediate wall. You step to your left and around that wall. The space is tight and tall. The walls are irregular and rough. There is an opening in the back where the only light enters the space. You see a wooden bench, just large enough for one, in the corner. You choose to step within the small opening and find yourself in a space that is barely large enough for your body. It is difficult for you to even turn around. You feel a bit uneasy with the rough, jagged walls, but you also feel somewhat connected with the space at the same time. You realize that no one else could be in this space with you, that it is just you and the space, alone. You look up and find an opening high above your head with the one source of light. The light seems to be flickering and moving above you. You close your eyes and watch as the light dances behind your eyelids. With a deep breath, you open your eyes and step back out of the opening and move back around the wall and out of the chamber, back onto the path.

This walk seems to last longer than it should. Maybe it is the ramp you must climb, or your stop within the small chamber, or the fact that you continue to pause beside the wall and check your reflection, the reflection of others, and the reflection of the blackened world beyond, comparing it to the world you see when you look left through no distorted lens. Finally, you reach the glass entry doors full of thoughts and questions.

The first thing that you notice is that the entry is split into two doors; the first is large and tall. It fills the width of your path and is obviously made for you to pass through. The second is the width of the red granite paving. It is much thinner than the first and you get the sense that that door is not for you. You pull open the large door and step inside with your head hung. Staring at the ground, you see the red granite paving lead across the floor and to a stone wall immediately in front of you. The wall splits at the granite paving and allows the path to continue beyond. Your eye follows the opening up the wall and you begin to look around the space. Your view to the right partially is blocked by the large black granite wall that has continued beyond the ramp and into
the space. You see horizontal slits of light entering the space in the reflection and you turn to your left. Here, you see a few folks standing in a small group speaking quietly to one another. Behind them, you see the large wooden wall. This one is very similar to the first, although between the stacked wood are gaps where strips of light are entering the space and moving across the floor. At the base of the wall is the familiar black granite, holding the wood up away from the earth. You hear the sound of people speaking quietly on the other side of the stone wall and so you begin to move towards it. You approach the dividing wall and realize the stone is similar to a CMU block, but about double its size. You reach out and touch the somewhat rough, staggered stone. You imagine the worker who put up this wall, the strength and effort it would take to pick up the stone block and place it above the next.

As you turn the corner, you see a large opening cut into the large wooden wall lit by the sunlight pouring in. You realize that this is an exit so that you can leave at anytime along this journey. You now have come to the other side of the stone wall and find familiar faces. Behind them, the glass wall is replaced with a concrete wall following the slope of the ground outside, forcing the height of the sill of the glass to rise until only the concrete wall is left. Through the glass, you see color, life on the other side. There is the green of grass and three single trees, standing strong and stepping up the sloping earth. After this moment of peace, turn and see the immediate family of the deceased and the casket set up next to the wall. Light is coming in from above washing the wall and illuminating the texture of the stone. The light reaffirms what your hand told you of the material earlier. You find the family and casket gently aglow with light as they shake hands of other visitors. They are standing on the red granite paving in front of the wall along with the casket. You make your way to the family and extend your condolences in a warm embrace and a sturdy handshake. You then see the casket. Open, the casket and yourself. You slowly walk over to it and see your loved one peacefully resting. This is the first time you've seen the deceased since you heard of the passing. You feel a well of emotions beginning to rise in your body. You slowly step back closing your eyes, overwhelmed with emotions, until you feel the touch of
a hand upon your back. You open your eyes and turn your head to find a familiar face staring back at you. You blink a few times and manage a smile. Shaking hands with your friend, you are welcomed into a small group of similar expressions.

It is here that you see the same emotions written across their faces as what must be engraved in your own. You are oddly comforted by their similar state. It is comforting to find others feeling the same way as you and knowing that you are not alone in this grieving process. It is here in the small group that you begin to console one another, encircled in their friendship, their love, and their similar position.

Soon, it becomes time for the funeral service. The casket is closed and taken along the red granite path toward the back of the space where another large black wall is entering the space, deeper into the ground and further away from the light. It is here that you realize the meaning and purpose of the red granite paving. It is the path that the deceased body takes throughout the process. You think back to the times you stepped on that paving and the connection that you and the body now have, the times when your journey was one with that of the deceased. You look up and immediately find that this black wall is slightly different than the one previous. As light hits the face of the wall from high above, your eyes begin to read a new roughness to the black granite. The granite is no longer reflective and smooth, but rather textured and highlighted by shadow.

You follow the body and other mourners back along this wall and are faced with another ramp. This ramp however, is unlike the first. Yes, they are both marked by the granite wall along them, but the feeling of this ramp is different. It is much darker here than before, with the only light coming in by a reveal in the ceiling along the granite wall, allowing a slat of light to penetrate the space and wash the granite wall. This space is also much tighter. There is a concrete wall on the left of the path here, and although you know the path is the same width as before, you feel like it is thinner. As you step onto the ramp, you feel
the space much more than you did on the ramp prior. You run your hand along the concrete wall as you walk at a quicker pace through the smaller space. You reach out at one moment and extend your hand out towards the granite wall and place it into the light, finding your shadow casting upon the red granite paving of the body's path. Here, you cannot see the destination of this path; instead, you see another stone wall breaking into the space and blocking your path, allowing only the path of the body to continue. Before you know it, you reach this wall; you realize that there is an opening on either side. To your right, cut into the black granite wall once again is an opening to an individual reflection chamber, barely lit by the single light within. To your left is an opening filled with light. It is here that you see the silhouette of those in front of you stepping through the opening and into the light. It is the entrance to the chapel.

You enter the chapel along the stone wall that once impeded your path. The space is much different than that of the ramp prior. It is filled with light. You see the pews to your left, set in rows facing the front wall. There are slits of light, or maybe slits of shadow, that are cast about the room, first bisecting the horizontally oriented concrete walls and then running along the width of the floor. The play of shadow and light create a dynamic about the room, a sense of movement and intrigue. The light is entering through the large wooden wall, although it seems lighter than the heavy wooden walls from the spaces before. The wall is a series of wooden slats and louvers that allow light to penetrate in and the formation of equal shadows. This is the most transparent of the large wooden walls in the landscape.

You look down and follow the red path of the body with your eye as it runs along the stone wall and turns at the back wall. Your eye follows the path until it meets the casket sitting in front of the pews. You turn and take a seat in the pew, along with the small group of friends that you met in the condolence hall. A friend of the deceased is standing next to the casket, by the altar, ready to speak once everyone is settled. Surprisingly, you are able to see the speaker quite well, though light is coming in from the wall. You realize it is because im-
mediately behind him, and the casket, is a black granite base to the wooden wall just like the other wall. Here, however, the granite base is much taller, above the height of the speaker, allowing for you to see his facial expressions and body language as he delivers the service.

Here you are, together no longer as an individual, or as a small group of friends, but as a community. It is in this chapel, during the words of the service that you begin to reflect upon the life of the deceased. You reflect upon the deceased's accomplishments, the interaction with others, with the community, touching each and every life of the people within this space. You undoubtedly begin to reflect on your own life, and your own impact on the community and the people around and close to you. You begin to question who will come to reflect on your life upon your passing. How will you be remembered? What will they have to say about you while standing in the light next to your body?

The service ends and you stand as the body is taken back along the red granite path and out of the chapel. People begin to congregate into small groups. You see a few people step out of the chapel through the stone wall into a smaller chapel-like space. Once here, they choose to exit the building through the opening in the large wooden wall. Others go to speak with the immediate family of the deceased and then leave the chapel through the opening from which you entered. A woman from the group of friends you are with decides to step out of the chapel into the darkened path and crosses into the reflection chamber. The community of people begins to file out of the chapel and you stay towards the back with the immediate family.

You turn towards the exit of the chapel with the light at your back and walk along the stone wall watching as bodies disappear through the opening. You step back into the much darker pathway, deeper into the hillside, still along the stone wall until passing through the opening of that wall. You are immediately greeted by another stone wall protruding into the space, with a small opening cut in it through which you pass. On the other side, you find to your right another entrance to an individual reflection chamber. To your left, light is pouring out of another opening, this time the entrance to the small chapel.
Standing here, just beyond the stone wall opening, you can finally see what is at the end of the ramp, or so you think. You look forward as lines of couples and groups move throughout the tight space. At the end of the ramp there is a decision to be made. The path that you have been walking along turns to a stair that quickly raises you to a level above that from which you are currently on. You can see a flood of soft light coming in from the left side. The space is much brighter there, as if symbolizing your climb out from underground and returning to the world above. The red granite path continues on however, beside the stair and into darkness. While you slowly walk through the narrow space, you watch as the people begin to ascend the stairs, seemingly struggling with each step. You can see the effort and force needed to make this finally elevation change. They can feel it as well. Nowhere else has the journey from one level to another taken so much effort, yet come so quickly once they reached this moment, just as their final struggle to accept the passing of a friend and push above it and move on with acceptance. Your journey will be different however; you will not make that climb yet. You are not ready. And so, with your close friends and family, you step onto the red granite and continue on into the darkness.

The space is even more narrow now, just the width of the granite path; room enough only for you to walk through alone. The ceiling has dropped down and you have lost the slit of light that use to wash the granite wall to your right. The only light in the tight space now is coming in through translucent glass from above. There is dim light ahead at the end at an opening. Holding on to the wall as you emerge from the darkness, you are overcome by the space, the incineration chamber. In front of you is a large copper furnace, the culmination of the red granite path, in front of which sits the casket. From the furnace is a chimney that stretches up to the ceiling and out of the roof. The space is tall. As your eye follow the chimney up to the ceiling, you see light pouring into the space from around the chimney, as if a single light is coming down, directly to the body. The ceiling has openings all around that shimmer like stars in a midnight sky. You realize that the movement and shimmer of light is from light passing through a shallow pool of water on the roof. You
think back to the shimmer and movement of light within the reflection chambers and realize that water must have been above those areas as well. Water, though concealed, has been with you during your entire journey through the building.

To your right is the third and final large black granite wall. There is a wooden bench along this wall from which you walk over and sit down. As you sit, you touch the granite wall. This wall is now rougher than any of the others. You can feel its texture and warmth, as if you are still in the cavern from where it was found. The space is much warmer than those before. The furnace, which has been lit this entire time, has warmed the entire space, even the stone walls and wooden bench. You feel the heat as it begins to warm your entire body. The rest of your friends and family sit down beside you. The oldest son of the deceased stands up and says a few words. You feel the emotions building once more through your body. The furnace door opens with the rush of heat and flickering light into the space. The person to your right takes your hand and squeezes tightly as the body is pushed into the flame. You feel a warm tear drop as it fills your eye and slowly trickles down your cheek. You look up as the light punctures the space from above, as if a single light reaching down to accept the soul, released from the body from which it was caged. Freedom. Release. Acceptance.

There is a deep moment of silence. The furnace door is closed and you close your eyes. This is the final threshold of the body’s journey. The final destination, the transition from body to ash; from physical presence to intangible memory; from grief to acceptance. You slowly open your eyes to the flicker of stars above, to questions unanswered, yet resolved. This moment is frozen in your mind, in your memory. The space, the atmosphere, the emotions, all captured within this moment. This unique space is unlike any other you’ve encountered and will forever hold the emotions and feelings within its walls. You stand and make your way along the black granite wall, touching the rough, jagged surface as you walk. You reach the single opening in the wall and step through into the final individual reflection chamber.
You once again pause, completely contained within the threshold, the thickness, of the granite wall, and then continue past the impeding wall and into the tight space. Unlike the first reflection chamber, the walls here are crisp and clean, perfectly rectilinear. You enter the tight space and look once again at the smooth walls. You are surprised to see your faint reflection in these polished walls. You have not seen yourself since the first granite wall outside. You look different. Slightly changed. It’s not just the tracks from the tears that have slowly dried on your face, but you feel a change emerging from within. It is in this moment that you begin to see yourself differently. You’ve been down and distraught, but are beginning to overcome and grow. You feel stronger now. The deceased has left this physical world, but is now within you. You find that in this reflection you are not just seeing yourself, but within yourself. In this dark, tight, small space, you are able to look inward. Here, you are able to see your growth and better understand yourself. You close your eyes once again and breathe in the strength and acceptance you are beginning to find.

You step back out and join the small group. Together, you cross the red granite path, separating from the body that was and begin to climb the stair out of the space. This stair is long and low. The treads are easy to step, but drawn out, extending your journey to the top. Here, you once again reflect on the journey that you have taken as you raise yourself from the ground below and begin to ascend towards the light ahead, away from the heat of the furnace. Once you reach the top, you are presented with the view to a pristine setting outside the glass wall. A series of trees stand tall in the sunlight. A few familiar faces of those who could not bear to watch the cremation stand waiting for you. You join their presence and embrace. It is here, still sheltered by the crematorium, that the immediate family receives the ashes. After some light conversation and many hugs, the small group heads towards the exit. You find water washing down the final wooden wall, smoothing and eroding the wood behind. You realize this water is coming from the roof and was the reason for the flickering and dancing of light in the openings prior. The water washes down the wall and out of the building, in the same direction you are about to take. You open the glass door and follow others out into the sunlight.
You can hear as each person steps out of the crematorium ahead of you and onto the tightly packed gravel path. You step onto the gravel and feel the crunch underneath of your foot. You look down and see black granite pieces grumbled up and mixed into the gravel path, reminiscent of the black granite walls that had guided you through the interior of the building. You hear the sound of trickling water. To your left, the ground slopes up, encompassing the building, which is emerging out from the earth, and planted here is the pristine setting you viewed from inside the crematorium. To your right is a berm, with trees lining the top, screening you from the harsh outside world. As soon as you step outside, you begin to faintly hear the sounds of the city and of the everyday. On the inside of this berm is the water that was once on the roof of the crematorium and then trickled down the last wooden wall is moving in a stream, following gravity down along your return journey. You follow the group along the gravel path sloping downward towards a reflecting pool.

You reach the pool, which is laid out in front of the large wooden wall that once screened the chapel from the city. You can see the reflection of the wall within the pool. To your right, the berm is beginning to lessen and the trees are beginning to become less dense, allowing for more views and sounds to and from the city. The reflecting pool empties into the stream with the sound of water emptying into itself on the right as the water continues to trickle down the site. The path continues above the reflecting pool. Here, the gravel has turned into wooden slates, similar to those in the wooden wall beside you. The slates are spaced wide enough apart that you can see and hear the water moving between them, but close enough that you can easily walk on top of them. Looking down, you are able to see your reflection in the water as you step over the wooden slats. You come to the opening in the wooden wall, where some were able to leave the chapel without continuing on the journey through the building. You rest here for a moment, contemplating what you would have lost had you stopped here and not continued on the journey. After the brief pause, you continue on your way. You step off of the wooden slats and back onto the gravel. The sounds of foot steps upon the gravel once again reminds you of all those who had come to say goodbye to the deceased.
You glance over to your left briefly and see the three single trees that you had viewed from inside the condolence hall. You quickly approach another reflecting pool. This one is laid out just in front of the second large wooden wall, which housed the condolence hall. Similar to the first reflecting pool, the path turns to wooden slats above the water, however the slats here are like the wall that it accompanies. The slats are closer together with random slits of openings where you can see the water moving under, just like the light that entered the condolence hall through the slits in the wall. You again reach a resting spot where the opening in the wooden wall meets the reflecting pond. You continue past this, looking right as you’re lowered through the site.

You are now approaching the height of the street and the berm is beginning to lower and the trees are becoming more sporadic. The reflecting pool once again empties into the stream that flows down in front of you. You see that the stream ends into the last reflection pool, the pool that you drove across when entering the site. You think about your emotional state when you crossed the water the first time and how much you’ve changed throughout this experience. Walking on the gravel path once again, you can really begin to hear the sound of cars along the street and the city beyond. You look to your right and see the cars that are making the noise. Your path shifts to the left, weaving between trees and you follow it. The path is not taking you to the final reflecting pond, but rather cuts back behind the first large wooden wall that you passed through. The path bends towards the first large granite wall and then sneaks into the parking garage along the back side of the wooden wall, your journey seeming to continue back into this space.

You then step back inside the parking garage, a space that seems different, yet familiar. There are only a few cars left in the garage now. You say your last goodbyes to your friends and family. Strangely, there is a feeling of relief and gratitude throughout the final embraces. Alone now, you walk back into the darkness of the garage and approach your car. Unlocking it and sitting down inside, you once again reminisce over your journey and the way you were the last time you sat in the this driver’s seat. You start your car and begin to emerge from the darkness, passing through the first, or final, wooden wall, reentering into the everyday. You cross the reflecting pool, now once again on the opposite side of the water, in your mind officially off the site of the crematorium. You pull back onto the street and drive away feeling stronger and higher than you ever thought this experience could allow. Your outlook has changed, you understand yourself much better, and you view the same old world with brand new eyes. You enter the world reborn.
The Design

The design of this crematorium is focused around the journey of the mourner and body through space. As the mourner moves forward throughout the journey, he or she moves deeper into the hillside and further into the earth, even though the journey moves one vertically along ramps and stairs. There is an understanding of one’s interaction with the earth through the strategic use of natural daylight. As one travels further into the earth and away from light, one begins to look within oneself and truly contemplate the individual and the essence of life.

The journey of this design utilizes ritual as a metaphor and allows for moments of a strictly scripted journey, a loosely scripted journey, and an unscripted journey. The design as a whole is a fairly strictly scripted path, moving from one building to another and back along the exterior. However, along this single path are multiple possibilities for divergence. At every major space within the design is the option to end the journey and exit the building returning to the beginning. There is also the freedom to stay within a space and moving on later or to skip a space entirely depending on the needs of the ceremony or individual. All of the spaces along the path are open to the path and so can be revisited by the mourner as well if desired. The most freedom happens within the major spaces where one completely leaves the path, or the path dissolves, allowing the user to move about the space freely and at the desired leisure. Because this design utilizes multiple metaphors for the journey, it allows for a legible and understandable organization while accommodating the individualistic and intimate nature of such a program.

Formally, the design is a series of layers laid throughout the landscape, distinguishing zones of the city, the community, and the individual. These layers do a number of things, ranging from protecting the mourner from the outside world to digging in and holding back the earth. The first of these layers begins with the landscape. The berm that is created by the building up of the landscape begins the separation from the city, or everyday, to the crematorium,
or ritual. This berm is also the barrier for the stream, which symbolizes life, reflection, cycle, and movement.

The large, thick wooden walls are the second layer in this system. These walls create the physical barrier from indoors to out, from city to community. These walls provide privacy and protection. Where the berm created the first screen on the site level, the wooden walls create the first screen on the building level. The walls are thick and foreign to the site, allowing them to stand out and be felt as a major threshold for both the arrival in car and the passage of the body.

The next layer is the series of stone walls within the interior of the crematorium. These provide separation and privacy on the community level. They allow for a differentiation and organization of space. These stone walls are a threshold from one interior space to another and can be penetrated by the body.

The fourth layer within the design is the large, black granite walls. These walls act in three major ways: retain, separate, and guide. The most functional of these duties is the retaining of the earth from the hillside. The black granite walls dig into the hillside and hold back the earth, allowing activities and the building to exist on the opposite side. Similar to the wooden walls that separated the community from the city, these walls also separate the individual zone from the community. Punctured through the granite walls are the individual reflection chambers. These are the most private and intimate of the spaces within the crematorium. These are the spaces for truly looking inward and focusing on the individual, and are so distinguished by the black granite walls. The walls also guide movement and organize the path throughout the crematorium. It is along these walls that one travels from one major space to another and that the ramps and stairs are organized. These walls help to guide the overall movement of the site.

The last of these layers, and most abstract, is the earth. Beyond the granite walls are feet and feet of earth creating solidity and constancy. The earth is the final and deepest layer on the site, providing protection and stability from this side.
Process

The early stages of the design began with an investigation of the wall. There were many studies of wall treatment and orientation to elicit pause and movement that associated with specific spaces or emotions. Once the program was established, an associated verb or feeling was connected that described the major emotion or mood of that particular space. The treatment of the wall on each particular level coincided with the feeling of the space.
The spaces were then separated and the connection from one space to another was studied. Once again associated with the function or mood of the space, the approach to each major space was decided. The use of the stair and the ramp, and their treatment — i.e., length of tread, height of rise, open air, open to one side, completely enclosed, etc. — was established in an attempt to prolong the perception of the journey from one space to another, or quicken one’s perception of how long the journey has taken. Each of these major spaces was at a different elevation, ensuring the need for some type of elevation change and a recognizable spatial separation.

As the design evolved, the treatment of the wall simplified. Instead of changing throughout the journey and with each individual space, the walls developed into a series of varying wall types, each different depending on their function and meaning. These walls then remained fairly constant throughout the journey, varying only in texture or transparency. The movement from one space to another also simplified. This journey became more scripted in the connection of space, with the ability to stop or pull off of the path, and then opening up to a non-scripted narrative within each major building. The mood or atmosphere was then heightened by the use of dynamic natural lighting and its play with the texture of the material palette.
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