

Urban Crematoria | Reinventing the Architecture of Death

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Abstract

Urban Crematoria:
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Currently, the environment of death in the United States that support the infrastructures of cremation remain disjointed from the urban landscape. Cremation and its associated spaces serve both utilitarian and spiritual means, but suffer from a lack recognizable spatial characteristics that allow for a wide variety of funerary rites to be performed within them. Taking inspiration from different global funerary customs and rituals, this thesis posits that there is a fundamental social need to reintroduce ceremony and urban vitality to cremation spaces. The thesis reevaluates the prevailing trend of separating the living and the dead, and instead argues for bringing cremation to the forefront of urban space, merging landscapes of committal and contemplation. Eschewing a traditional design approach, different elements such as urban and visually prominent vertical columbaria are proposed to allow death to be more readily contemplated and recognized throughout the urban landscape. The aim of the new typology of crematorium design aims to begin a positive dialogue on death across cultures in the urban environment of Seattle.

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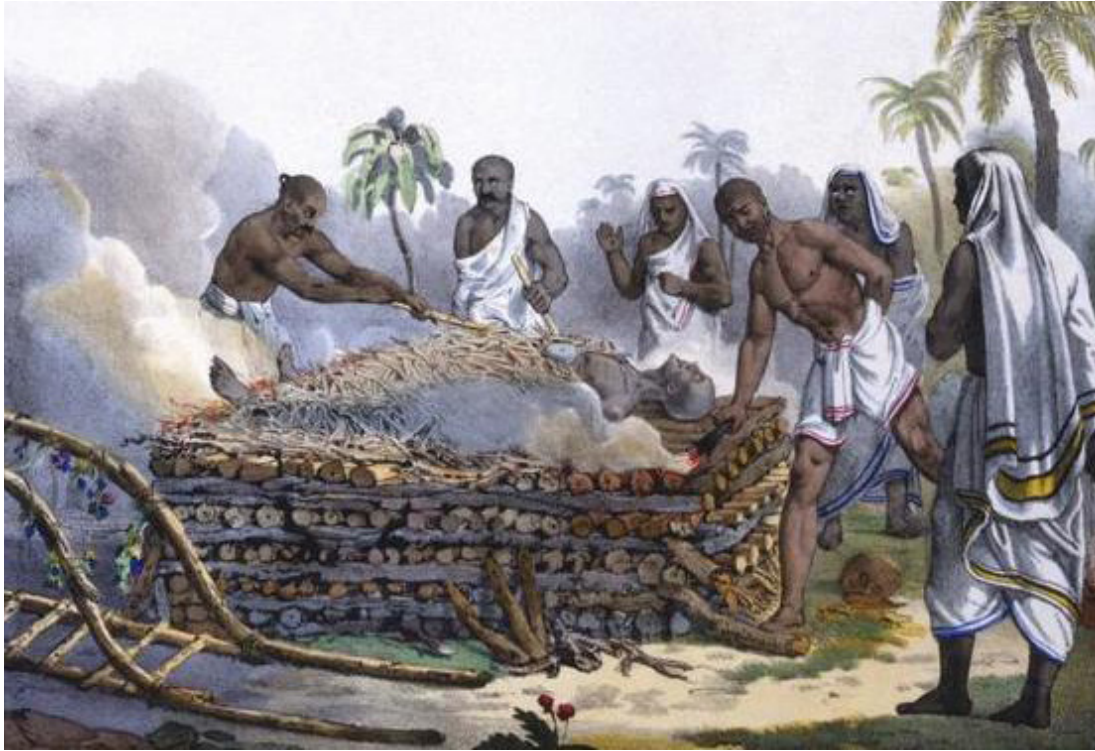


FIG. 1 | Depiction of Hindu Cremation

PREFACE

The Poetry of Death

My personal notions of death evoke the imagery of Bollywood films, recalling the funerary traditions of the Hindu religion and Bengali culture. In these cinematic renditions, the rituals of death often involve scenes of cremations held atop mountaintops with mournful songs being sung by white garbed mourners surrounding the pyre, set against the vibrant color of a vast sunset lit landscape (Fig 1). This colorful imagery offers a stark contrast with the traditions of death in Western cultures, both in their visual character and physical conception.

These filmic portrayals conveyed the sobriety of funerary rituals in a very different way than the somber, black-tie funeral functions depicted in American culture. The contrast between Eastern and Western traditions lies in the inherent differences between the cultural rituals of cremation and burial but also in how it is expressed spatially through the contrast of public and private and open and closed settings. The argument here is not that eastern traditions of cremation should be wholly embraced in western practices. Rituals of death are deeply rooted in the unique traditions of these distinct cultures. Additionally, practical issues influence the distinctive rituals including the high costs of resources consumed during open air cremations and the amount of emissions produced by burning. But undeniably, beyond economic and public health concerns there lies a fundamental social need for a re-examination of the “ceremony” of death, in the Western tradition in terms of its designated locations and built spaces. The manner in which American society disposes of the dead is too significant a matter to be defined on the “basis of reason or utility alone,” as noted by Stephen Prothero.¹ One way or another, the physical body is returned to the earth in a process that society has deemed to be highly significant both socially and spatially. In a major city with a diverse population like Seattle, a variety of options should exist for various cultures to mourn their dead in their own unique way. With cremation rates on the rise, the future landscape of death needs to be a public space integrated into the urban condition that can both “dispose” of the dead with grace and dignity, and offer a contemplative environment that allows for all cultures and philosophies to mourn and celebrate their dead. This thesis aims to explore the manner in which ceremony can be reintroduced to the process and rituals of cremation through the design of an urban crematorium in Seattle.

INTRODUCTION

Death in America

"If I take death into my life, acknowledge it, and face it squarely, I will free myself from the anxiety of death and the pettiness of life and only then will I be free to become myself." - Martin Heidegger, "Being and Time"

In the United States, we live in a "death-denying" culture. Death in America is typically a taboo topic, a reminder of our inescapable mortality, too otherworldly, too obscure and too inexplicable for everyday contemplation. This sense of denial manifests itself in a lack of both an architectural and urban identity of the spaces set aside for both the disposal of our dead and the rituals associated with remembering them. Death occurs no longer in the home but in the professional environments of hospitals and nursing homes, away from the comforts of family and domestic settings. The physical landscape of death in America is furthermore characterized by a network of privately gated cemeteries (Fig. 2), the peculiarly domesticized funeral home, and the sterile facilities, typically abutting a cemetery, that are currently available for cremation. The rituals of death and the spaces where they take place are fragmented and affect how modern society disposes of, grieves, and memorializes the dead. Death, a universal inevitability, has become an issue skillfully avoided until one is faced with it out of necessity. This tendency towards evading the notion of mortality in our everyday lives and spaces persists even if, fundamentally, society and "cultural identity" are defined according to Jessica Mitford, "not only by the decrees in which we live, but those by which we die."² In order to reconstruct the approach to death and its varying rituals, the spaces of death must address an ever expanding and diverse population and accommodate a range of ceremonies from the traditional to the alternative.



FIG. 2 | Calvary Cemetery, Ravenna, Seattle



FIG. 3 | The Universality of Death

CHAPTER 1

Attitudes toward Death

Attitudes toward death are rooted in the specific cultural traditions of a society and continuously shift across time and place. Typically in Eastern cultures, death is approached meditatively, seen as a process of transforming the corpse and its corporeal energies back into the natural cycle. In Hindu and Buddhist tradition, death is not seen as a disruption or separation from life, but as part of a natural process of being where the spiritual essence of the individual enters a resting and recuperation period before continuing onto a new earthly journey.³ In these South Asian traditions, outdoor cremation is the prescribed method of disposal as it returns all of the elements that compose the human form back into the natural cycle of the earth.



FIG. 4 | Tibetan Sky Burial



FIG. 5 | Tana Toraja Funeral Procession



FIG. 6 | Jazz Funeral Procession



FIG. 7 | Day of the Dead Festival

Certain sects of Buddhism, specifically in Tibet and Taiwan, practice sky burials, where bodies are left to decompose on a mountaintop aided by carrion birds, serving utilitarian necessities of disposal and ceremonial custom (Fig 4). Sky burials are performed where the natural environment is typically not conducive to burial or cremation due to permafrost and lack of wood. Tibetans are encouraged to witness the ritual to confront death, serving as a reminder of the impermanence of life. In Tana Toraja, family members live with the dead within their home until they have saved enough funds for an appropriately grand funerary ceremony (Fig 5). The death of a family member is not seen as the end of a familial relationship. Instead of a somber occasion, Kelli Swayze notes that the family and the community unite to organize, “big, raucous funerals [that] form the very center of social life.” The bereaved have the entire support of the community when dealing with the loss of a loved one.⁴ But similar riotous funerary occasions can also be found in western traditions. For example, the raucous of the street affair of a jazz funeral in New Orleans promotes an urban procession that encourages all bystanders to join in the celebration of life (Fig 6). In Mexican tradition, the relationship to ancestors during the Day of the Dead ceremonies encourages everyone from children to grandparents to remember their heritage and help their loved ones make their spiritual journey (Fig 7).

But despite a few exceptions, the typical attitude of death in North America varies greatly from the raucous affairs of its global counterparts. Scholars have argued that twentieth century advancements in health care have contributed to the western philosophy of death. Increased life expectancy and declining infant mortality rates have resulted in people being less intimate with the dying process, affecting socially restructured relationships and family bonds. The dramatic increase of hospitals in the twentieth century and their increasing jurisdiction over the health of the nation has contributed to the segregation of death from everyday life.⁵ The “medicalization of death” has meant that doctors remained the professional figures burdened with the dying process, which, as Gary Laderman argues, has ultimately shaped “public attitudes about the meaning of death.”⁶ With the growth of medical institutions and the availability of health care, death has become viewed as a defeat rather than an inevitable outcome. Death in the institutionalized setting of the hospital is seen as requiring less presence of family and community, and more intervention from science and technology. Additionally, the desire to view the dead in funerary ceremonies as a means to deal with the grief of loss has meant a return to utilizing foreign chemicals to embalm and preserve the body as if still living, a central practice in the funeral industry today. The spaces designated for death have similarly sought to sanitize the reality of death by removing the decomposition factor of the body, while attempting to shield the grief of mourners.

Landscapes of Death

The Cemetery

One of the most familiar landscapes of death within the city is the cemetery (Fig 8). The notion of the necropolis, or city of the dead, famously adopted by ancient Egyptians, Grecians and Romans remains prevalent today with the physical site of burial typically pushed to the periphery of contemporary city centers. During the medieval ages however, the cemetery alternated between both a centrally located urban nucleus and a marginalized, peripherally located necropolis. Currently, cemeteries typically consist of open green space separated from the city by the restrictive boundaries of fences which prohibit cemetery inhabitants and urban citizens from crossing paths. Cemeteries, along with the structures contained within them, offer a physical record of the city, an archive of past residents of that particular urban center. The removal of the cemetery from the city center creates a fragmented urban condition, where the spaces of the dead are physically and perceptually separated from those who mourn them. According to James Steven Curl, this complete separation of the spaces for the dead and the living has made it increasingly apparent that society treats “the disposal of the dead in much the same way [they] rid [their] towns and cities of waste products.”⁷ Curl also argues that contemporary North American cemeteries, though important archival elements in the city as repositories for memory, lack the “profound and indelible” impact of European funerary architecture, that produced grandiose forms aimed at depicting proper reverence for the afterlife.⁸ In today’s American cities, cemeteries have increasingly become privately owned unkempt burial plots rarely visited by the families of those housed there as succeeding generations move away from their place of birth.



FIG 8 | Calvary Cemetery, Queens, NY

Unlike the cemeteries of European cities, many of those in North America have lost their original role as a prominent center of urban life, becoming plots of land that have little interaction with their urban counterparts. According to Michel Ragon, from the fourteenth to the eighteenth centuries, the cemeteries of Europe were a place where people were only minimally concerned with death. Rather they often served as the premier public space of a town, and a center of communal life, where markets, fairs, and pilgrimages were held. Ragon notes that the open spaces of cemeteries frequently attracted mimes, musicians, idlers, booksellers, writers, and haberdashers.⁹ The range of activities present in the public realm within the cemetery highlights both the social and economic significance of cemeteries of the past that is nonexistent today.

The Funeral Home

The funeral home is another prevalent space of death in the U.S. Gary Laderman observes that by the turn of the twentieth century, the “estranged relationship” between the living and dead was established in large part by changes in demographic patterns, the rise of hospitals as places of dying, and the expansion of the modern funeral home.¹⁰ The removal of the dead from the home was also influenced by a series of institutional and structural shifts in the ways of living. For example, many nineteenth century U.S. homes featured a family parlor that was ultimately the location where families would enact the significant rites of a funeral. As the parlor disappeared the family home could no longer accommodate funeral practices; thus, the funeral “home” emerged as a new typology of space to specifically accommodate the rituals related to death. Even today, funeral homes attempt to recreate the parlor feel, offering a simulation of domesticity in order to create a comforting and familiar environment for families to mourn (Fig 9 & 10). However, as Laderman argues, this approach falsely fabricates and homogenizes the domestic needs of every family into a generic space that may not be universally relevant.



Fig 9 | Butterworth Funeral Home Photo Essay, Queen Anne, Seattle



The Crematorium

Finally, the crematorium remains a definitive enigma when discussing funerary architecture. It remains an institution that is less familiar than a cemetery and funeral home. Specifically, a crematorium is a “facility that houses a cremator having a cremation chamber” where the body of the deceased is incinerated and reduced to skeletal and bone fragments.¹¹ A crematorium can be found in conjunction with a cemetery, funeral home, chapel or as a stand alone structure. A cremator comprises a cremation chamber, typically enclosed by two firebrick lined spaces with a secondary space used for the circulation of gases (Fig 14). During a cremation, the temperature of the secondary space is set to 1600 degrees Fahrenheit, so that the body of the deceased can be exposed to column-like flames and vaporized by the intense heat. After incineration, metal objects are removed with a magnet from the interior while the cremated remains are further pulverized into a uniform fine powder and then transferred into a container or cremation urn.¹² This facility may also accommodate the viewing of this process if the relatives and witnesses desire it (Fig 13). But like the current structure of a cemetery and funeral home, in American cities the crematorium is not widely accepted as an institution that serves the needs of the mourners and the community.



Fig 11 | Currently non-functioning historic furnace situated in the below grade columbarium at Butterworth Funeral Home, Queen Anne, Seattle



Fig 12 | Example of reflection space within the columbarium. Butterworth Funeral Home, Queen Anne, Seattle



Fig 13 | Viewing chamber adjacent to cremation facility, Butterworth Funeral Home, Queen Anne, Seattle

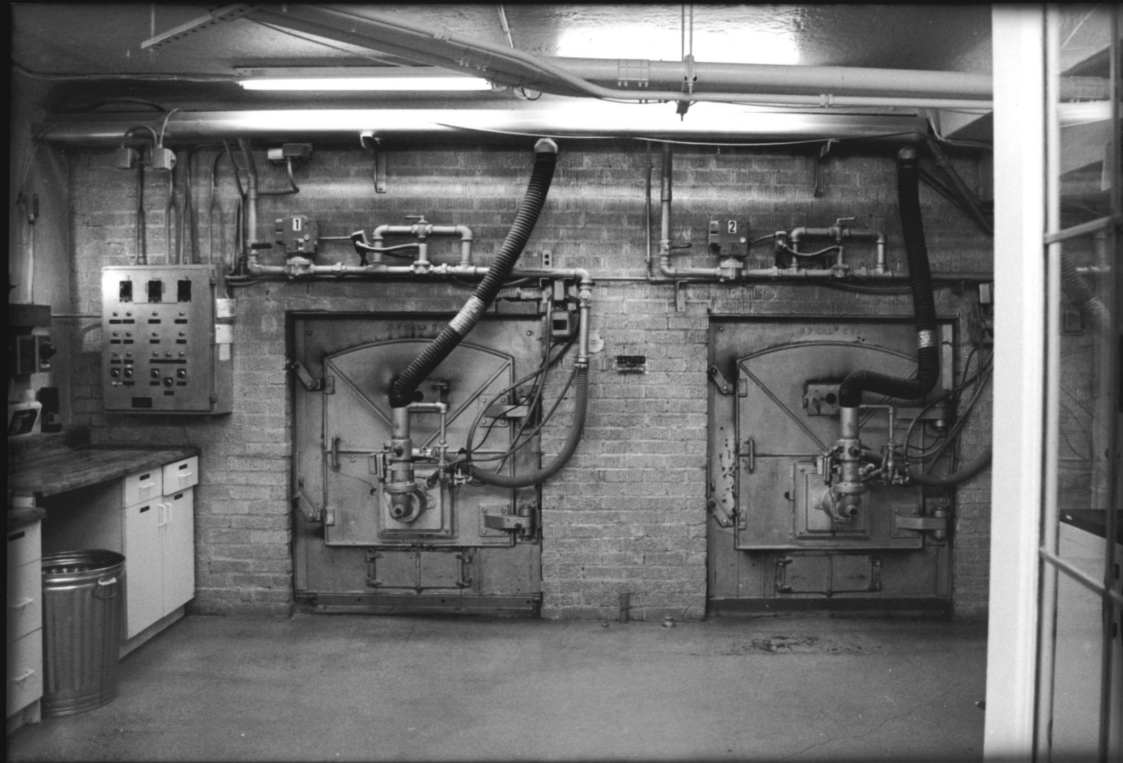


Fig 14 | Crematory facility with two functioning furnaces, Butterworth Funeral Home, Queen Anne, Seattle

Trends toward Cremation

To “cremate” is to physically reduce a deceased body to ashes by fire, principally as a funeral rite. The facilities devoted to this process, crematoria, are newer establishments in the U.S. in comparison to their British counterparts. The movement gained only widespread support in the latter half of the twentieth century. Though the rate of cremation in the U.S. is on the rise, crematoriums still seldom are design with the intention of architecturally significant monuments. Crematoria belong to a category of specialized building types which developed in the second half of the nineteenth century. According to the Cremation Resource, the crematorium type can be cataloged alongside other civic and commercial buildings like post offices, rail stations, public libraries, and department stores (Fig 17), that contribute to functioning urban spaces by fueling “the engines of the city’s growth and life.”¹³ But while the latter spaces are all recognized as urban institutions of significance by scholars and the general public, structures dedicated to cremation continue to be overlooked. In comparison to sites of traditional burials, crematoria have a primary function that is more like a factory in containing complex technologies for the processing of remains. In Western culture, the specifics of this process have been hidden, resulting in an ambiguous space that is caught between utility and ritual. The modern crematorium seems to be characterized by a lack of identity in both its interior and exterior qualities, which fail to express the meaning of the significance of final funerary rites and ultimately, the mourning process.



Suzzallo Library, University of Washington, Seattle, WA



The Mall of America, Bloomington, MN



King's Cross Station, London, UK



Crematorium

Fig 15 | Compilation of 19th century industrialized building types with which people are familiar, minus the crematorium

Although cremation is practiced in many different religious beliefs, the distinct structure of a crematorium in western culture, as noted by Hilary Grainger, is that of a secular institution, operating under the aegis of local authority and generally independent of matters of belief.¹⁴ In addition, as the American funeral industry has itself become a lucrative business aimed at the unsavory “selling” of funerals, cremation has become the economic choice for many families regardless of personal beliefs and traditionally practiced rituals. Funeral rites have therefore often become subjugated by the business of death rather than the ceremony, with exploitive exorbitant costs being the main result of the process rather than the conduct of funerary rites.

With trends leaning toward millennials adopting a more secular world view, and additional factors like continual population growth, lack of space for new cemeteries, and the overall cost of a traditional funeral, the number of people opting for burial has steadily decreased. According to the National Funeral Directors Association, nearly half of the population in the U.S. will choose cremation as the preferred method within the next 25 years (Fig 17), with Washington State ranking among the top three states to embody this trend.¹⁵ Seattle’s cremation rate alone is at 65% and rising. Additionally, in today’s globalized world where opportunity spans beyond global boundaries, people increasingly find themselves to be more mobile reducing the need for a permanent space for burial, as transporting an urn provides an easier option.

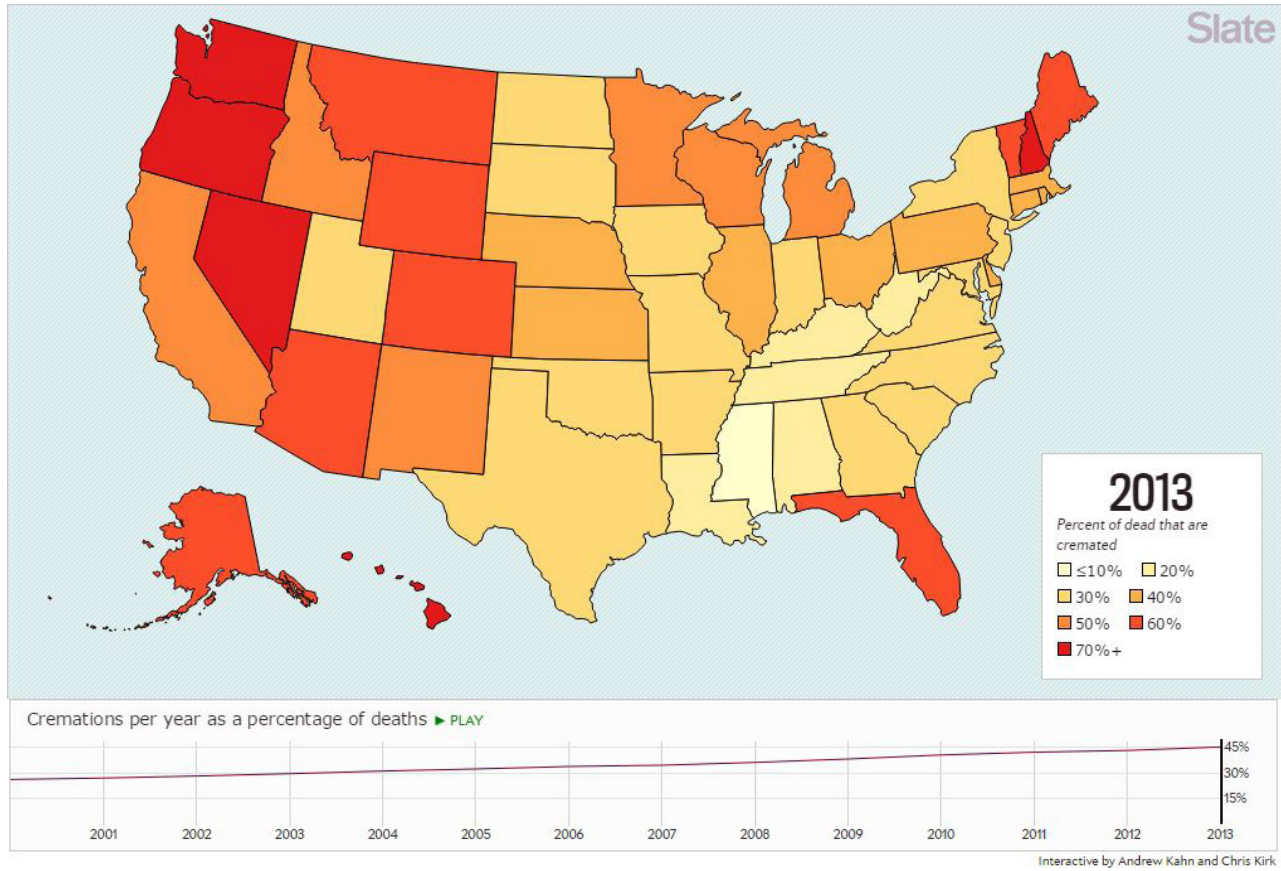


Fig 16 | National Cremation Rates in the United States

| | 2005 | 2010 | 2013 | 2014 | 2015 | 2020 | 2030 |
|------------------|--------------|--------------|--------------|------------------|------------------|------------------|------------------|
| | <i>final</i> | <i>final</i> | <i>final</i> | <i>projected</i> | <i>projected</i> | <i>projected</i> | <i>projected</i> |
| Cremation | 32.3% | 40.4% | 45.4% | 46.7% | 48.5% | 56.2% | 71.0% |
| Burial | 61.4% | 53.3% | 48.7% | 47.3% | 45.6% | 37.9% | 23.2% |

Fig 17 | Historic Rates of Cremation and Burial with Future Projections

Thesis Statement

This thesis posits that there is a pressing need for the reintroduction of ceremony to the process of cremation that challenges the operational and spatial organizations that currently exist in American cities. This will be explored through the design of a multi-use crematorium for Seattle in a prominent urban area. The aim of the design proposal is to foster both the reintroduction of ceremony and a renewed urban vitality to cremation spaces that acknowledges cremation as both spiritual and utilitarian. The intent is to challenge the role of a crematorium within the city and transform the current architectural forms that serve death in North America so that they become places of collective cultural healing. The thesis reevaluates the prevailing trend of separating the living and the dead, and instead argues for bringing cremation to the forefront of urban space, merging landscapes of committal and contemplation. Rather than seeing the landscapes of death as a realm that exists outside of the corporeal, the boundaries would be considered more fluid and intertwining. The aim is to establish a more open urban condition for life and death to intersect on a more frequent basis to create a unified urban landscape of acceptance and acknowledgment. These spaces should be integrated into both the natural and built environment so that death may be contemplated, collectively accepted and embedded into the urban landscape. This design proposal is intended to help improve current attitudes toward death, allowing society to utilize urban crematoria as means to understand that, as Curl writes, “life without the contemplation of death is in a sense a denial of life.”¹⁸

CHAPTER 2

History of Cremation as Social Practice

“Cremation is not an end in itself, but the process which prepares the human remains for inurnment in a beautiful and everlasting memorial.” –Cremation Association of North America

In the ancient world, cremation served as the standard practice of death for centuries and today is still the predominant method of removal of the dead worldwide. Cremation is commonly practiced in India where early texts such as the Upanishads established cremation as a purification process in which the burning of the body cleanses the soul and prepares it for rebirth.²⁰ Ancient cremation techniques still in use today in eastern cultures can often be characterized as public events; whereas the modern version practiced in North America, is typically housed indoors in private rooms where witnesses are spared the sights, sounds, and smells of the procedure. The dominant practice of cremation among native peoples in the west came to an end during the arrival of Christianity. Though the rise of Christianity enabled the dominance of burials for at least 1500 years, it is evident from current Funeral Association data that the trends are once again shifting. Today contemporary issues of cost-value, religion, and environmentalism are shaping American views on death, resulting in a reemergence of cremation as a dominant practice.

Anthropologists, like Stephen Prothero, argue that funeral rites express both an attraction and a revulsion to death, noting that the burial and embalming regime is a direct expression of this conflicted perception.²¹ The procedure of injecting chemicals into a corpse to maintain the body for the final viewing, expresses the human desire defy the natural order of decay that returns matter back into nature. Distinct from embalming, cremation confronts the fear of death by shielding mourners from the decay of the corpse by hastening its annihilation. Historically, as Prothero observes, the elite classes preferred the method of cremation, as they were motivated by a desire for a more sanitary and spiritual America, but also for a more homogeneous society unifying native born citizens and American immigrants under this new tradition.²²

During the late nineteenth century, the International Congress of Medical Experts in England denounced burial as unhygienic, and propagated cremation as the new norm for the sake of public health and civilization, contrasting the two notions and finding cremation to have more rational and ideal characteristics. In 1874, Sir Henry Thompson, Queen Victoria's personal surgeon, wrote "Cremation: The Treatment of the Body after Death" a strongly pro-cremation work that had a strong influence on current thinking about death practices, causing a transatlantic renaissance of cremation.²³ Although in North America, cremation had been a common Native American practice for centuries. Fear of decay, pollution, and contamination encouraged disposal of bodies by fire by professionals in a controlled crematorium setting. Today, death is still primarily handled by professionals who promise to ensure the proper disposal of the dead but permit less participation, further removing those directly impacted by the death in the process.

The World According to Genteel Cremationists ²²

| Burial | Cremation |
|---------------|------------------|
| Pollution | Purity |
| Dirt | Cleanliness |
| Body | Soul |
| Medieval | Modern |
| Tradition | Innovation |
| Past | Future |
| West | East |
| Parochial | Cosmopolitan |
| “unwashed” | “washed” |
| Black | White |
| Darkness | Light |
| Low | High |
| Below | Above |
| Wet | Dry |
| Slow | Fast |
| Earth | Fire |
| Cold | Warm |
| Low tech | High tech |
| Expensive | Economical |

Fig 18 | The World According to Cremationists: Burial vs Cremation, *Purified by Fire*

Cremation through an International Lens

A comparison of the processes of burial and cremation by Prothero describes contrasting characteristics of the two differing methods (Fig 18). He uses a chart to demonstrate that Eastern cultures consider cremation a deeply rooted spiritual process involved in the purification of the soul. In contrast, Western practices suggest that disposal by cremation is hygienic and pragmatic in nature, offering a practical solution to the overflowing burial plots in cemeteries. Cremation, the most popular traditional practice in Asia, has persisted until the present day as the most widespread funerary practice in the world.²⁵ But if this general process of incinerating the physical body is universal, the practices for mourning and commemorating the deceased still vary widely across different cultures.

The Manikarnika Ghat in Varanasi, India, along the Ganges River is an example of a significant open air scale communal cremation space. The ghats, or steps leading to the water, are connected to other cremation sites along the river through a network of “gallis” or alleyways (Fig 19).²⁶ The connection to the holy river of the Ganges is significant as the deceased are purified by the water before being released by the fire. The open nature of the cremation space reflects the acceptance of the dead where city dwellers and tourists alike can come and bear witness to the cremations. Additionally, it is important to note that the shops and businesses along these alleys get consistent foot traffic and are economically stimulated by the procession of death through the city.²⁷ This commercial and spiritual relationship with the deceased continues after the physical cremation. On the anniversary of the death of a loved one, it is traditional to eat vegetarian dishes as a sign of reverence for living creatures, while creating small altars within the home with photos of the deceased adorned with floral garlands.

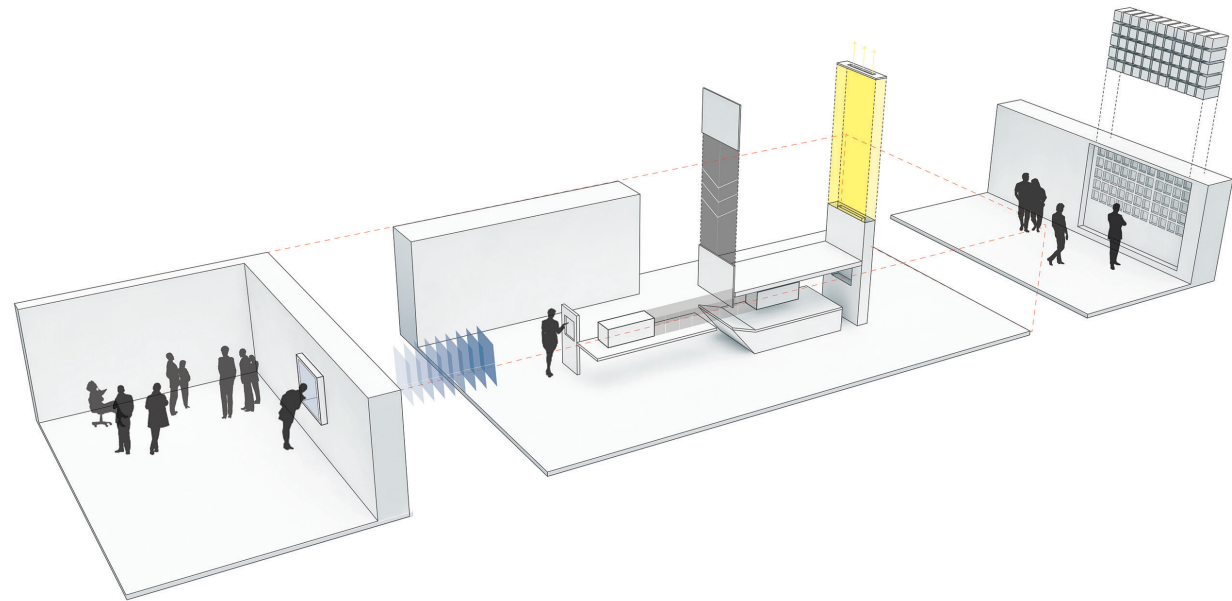
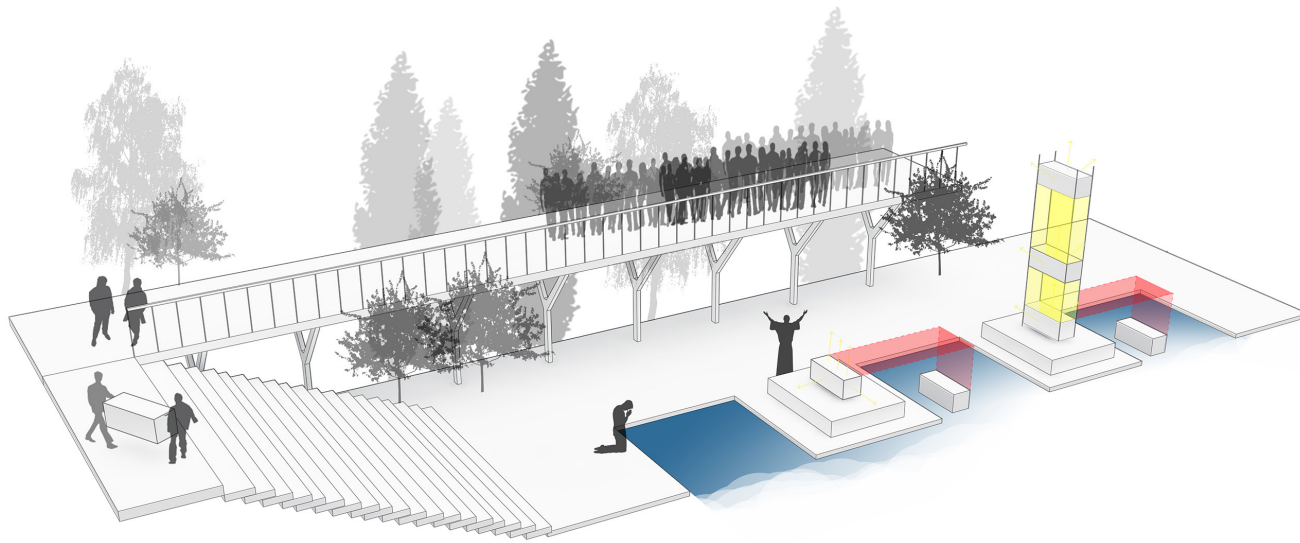


Fig 19 | Diagram of Manikarnika Ghat spatial and social organization, open air and public
 Fig 20 | Diagram of Western crematory spatial organization, internalized and private



Fig 21 | Balinese Funerary Procession



Fig 22 | Typical North American Funerary Procession

The physical washing of the body for family members and its conveyance by water in the final rite enables direct physical contact with the deceased that continues with transporting the body to the cremation site. For Hindu families living outside of India or their respective countries, it is possible to arrange for bodies of the deceased to be transported outside of the U.S. with a local family member performing the services at the site.²⁸ Because the standards of cremation in the U.S. do not offer the option for the process and ceremony of eastern traditions, families often resort to sending their loved ones back to their country of origin.

"The backdrop for a ritual is architecture and architecture must support the ritual it envelops... Spatially this begins with the careful study of the character of spaces supporting a ritual, singularly or a sequence of spaces which assist an emotional response." -Gregory Scott Hirschmann, Filled with Absence (2006)

Even more elaborate rituals of death include the Balinese Hindu ceremonies where holy songs and offerings characterize the funeral customs. These ceremonies are considered joyous occasions for mourners releasing their loved ones from the material world.²⁹ Distinct from Indian cremation, the bodies are typically first buried at the sea and then cremated upon community consensus in elaborately ornate towers or sarcophagi that resemble buffalo and are made of papier-mâché and wood.³⁰ Children are not shielded from the event and even close the generational loop by participating and carrying the sarcophagi to their final procession (Fig 23). The ashes go through several purification stages and are finally floated out to sea. The belief is that once the soul has been purified by fire, it must be purified by water so that it may return to the energies of celestial beings and thus begin the process of reincarnation.³¹

As Michel Ragon notes, cremation held significance for ancient cultures in the west as well. Ancient Scandinavians saw the sky as an emblem of fire, and believed the pyre helped the

soul return to the celestial incandescence of the sun.³² Fire is seen as a form of purification, equally significant to the dead as it is a source of life for the living. In China, Vietnam and Korea, for example, commemorative votive objects made of paper and stretched on bamboo frames, are destroyed by fire to commemorate the deceased. One year after the death, paper gifts that contain a letter documenting the inventory of offerings are burned so that the deceased may check that these gifts reached them in the beyond.³³

Architecture and Ritual

“Although all that remains of man is a small pile of calcium...a certain consciousness of the consciousness of man’s central nervous system tells him that something must survive, cannot totally disappear, something which is not physical, which does not see, which one guessed or postulated beyond immediate experience, and which has been called the soul, a sort of immaterial...transphysical beauty.”³⁰

Peter Bernard Bond, author of *A Celebration of Death*, suggests that the perfunctory design of modern crematoria stems from the unresolved design of the intermediate chamber where coffins await transfer into the furnace.³⁵ This intermediate chamber functions to shield the mourner from witnessing the physical body touching the flames. Bond advocates abandoning the committal chamber in favor of creating a place to allow more prayer and meditation. In this way, after the service the minister and mourners would accompany the coffin as it moves from the chapel to the place of “committal.” Bond deems the entire crematory procession as significant as the transition between spaces would be

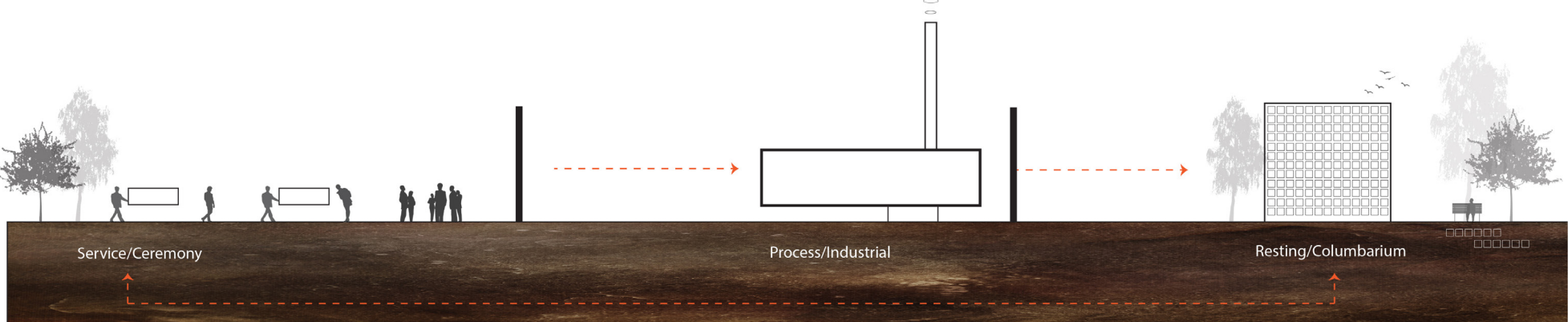


Fig 23 | Typical Order of North American Funeral Procession

marked by a change in environment that makes use of landscape and water. He argues that the contentious issue of whether mourners should see the coffin entering into the chamber could be addressed by including a baffle chamber that accommodates the differing wishes of those involved. Cremators are typically placed in basements of funerary buildings, that include offices and large halls to accommodate families and friends during funerary ceremonies. The noise of the cremator is typically concealed with transmitted music if the family chooses to be present for the physical cremation. Though some find it painful to bear witness to the committal of the body, the western approach of obscuring the nature of a crematorium, as Curl observes, does not allow for the committal to become an “act of dignity” in which the mourners fully participate.³⁶

While the crematorium functions as the space where the actual incineration of the body occurs, the columbarium serves as the place for the final resting of the ashes. The process of scattering, and storage of ashes in a columbarium can add personal meaning to the ceremony, by signifying the end of the material relationship to the body. For example, crematoria in Sweden and Scandinavia provide intensely moving experiences with landscaped settings of parks or woods where mourners can return their loved ones back to the natural environment. Both fire and water are juxtaposed against each other to create an ethereal quality to the experience. As Curl observes, a vast majority of crematoria do not provide the

appropriate surroundings to create a solemn atmosphere for the purpose of housing ashes.³⁷ A cremation space must manage the emotional needs of the bereaved along with the industrial process of disposal but with an acute sensitivity that elevates this difficult experience beyond mere functionalism. The movement of the physical coffin into the incineration space by remote control deprives the individual of direct contact and the potential of a sense of closure.

As Curl writes, the act of cremation is also deeply connected to the attitudes toward the human body. In the past, the physical body has been treated as an organic entity whereas the current industrial civilization compares the body to a worn out machine; the parts of which may be replaced, and which one day will become obsolete.³⁸ As soon as the danger of death is imminent, sick individuals are taken away from their home and relocated to a hospital ward or another sterile environment lacking all the comforts of the home.³⁹ This conflicted attitude toward the dying body is further evidenced by the manner in which people handle grief. In North America, thanatologists, or those study the science of death in terms of psychological and social aspects, are charged with removing or concealing the fears of dying, while psychiatrists specialize in the suppression of mourning. In this way, the pathology of mourning and its associated actions become something that must be resolved rather than something that should be embraced.⁴⁰

While past practices of cremation were able to serve practical issues of hygiene and protection as well as symbolic meanings of worship, cremation today continues to be tied largely to functionalism. The deceased are seen as objects that have ceased to function in the everyday world, but their bodies continue to take up space, occupying a considerable area of ground that could otherwise be usefully managed. The desire to conserve the use of ground space has been the primary concern for city planners and architects from the beginning of the industrial revolution as evidenced by Le Corbusier and his vertical garden-city plan.⁴¹ Michel Ragon observes that proposals for space saving vertical cemeteries, high rise accommodations for the dead, are not typically feasible as they do not address the basic inequities between burial and cremation, where 108 square feet of surface area to house four dead can contain two hundred funerary urns,⁴² since a typical urn is typically only 11 inches wide by 11 inches high and 19 inches long (Fig 24). Just as the vertical habitat has replaced the house in contemporary urban conditions, tombs are being replaced by multi-occupant columbaria. In this way, the habitat of the living and the habitat of the dead continue to exhibit parallel development in their spatial design and location .



Fig 24 | Niches for ashes at Butterworth Funeral Home, Queen Anne, Seattle

Memorializing the Dead

Despite its reputation as a mere utilitarian process in the western tradition, cremation does allow for a certain level of customization for the interment of remains to reflect the spiritual desires of the deceased and the emotional needs of those mourning the deceased. After the ashes are prepared in an urn, they may be placed in a compartment of a columbarium or family vault, interred in a burial plot, or even taken home to a personal residence. A traditional columbarium offers a tangible memorial site for loved ones to visit and bereave the dead (Fig 25). Families can choose to memorialize their dead by displaying the remains in transportable urns, opting to inter the remains, or scattering them ceremoniously in a personally significant space. The significance lies in the journey to grieve in a place of symbolic permanence where the physical ashes remain. Cremated remains have been sunk into coral reefs, “exploded as fireworks, used as paint in artwork, stored inside jewelry, unloaded from shotgun shells [and] pressed into vinyl records,” not to mention housed in countless customizable urns.⁴³ These modern informal rites do not rely on a cleric or undertaker to achieve meaning; rather, they are meant to celebrate the deceased and provoke deeper spiritual meaning for those involved in the ceremony.



Fig 25 | Current columbarium with multiple niches that house ashes and smaller memorabilia, Butterworth Funeral Home, Queen Anne, Seattle

Columbaria function as places that commemorate a “collective memory” and call attention to that which is no longer present. A memorial also offers a physical site of respite, consolation, and recollection for the living who are attempting to overcome varying states of grief by seeking proximity to their loved ones remains. In this sense, the gravestones, mausoleum vaults, and columbaria at cemeteries become examples of memorials for the dead. In passing a cemetery, Ragon observes that an individual is able to experience the “spatial framework that contributes to a public sense of understanding.”⁴⁴ The spatial framework enables individuals to recognize that death is inevitable, is an omnipresent part of the city, and serves as a reminder of the motivation to live.

Columbaria as spatial structures thus can become a memorial to the dead. As noted by Erika Doss, memorializing has become a popular trend in North American culture. From permanent national fixtures to urban altars that act as temporary shrines erected at sites of violence or car accidents, “contemporary kinds of commemoration include plaques, parks, cairns, quilts, trees and websites.”⁴⁵ Modern small scale memorials such as Ghost Bikes, bikes painted in white with an accompanying plaque to commemorate the death of a biker, are scattered throughout cities globally allowing for wide scale continual public interaction (Fig 26). Today’s “obsession with memory” and memorials are grounded in the ever expanding U.S. demographic with emphasis on heightened expectations of rights and representation among the increasingly diverse publics.⁴⁶ These grassroots movements successfully monumentalize death across the urban condition at different scales and allow a multitude of types of individuals to interact with and contribute to the differing memories of space.



Fig 26 | Examples of Urban Altars and the Ghost Bike Movement

City dwellers find themselves interacting with these types of memorials to the deceased on a more regular basis, offering more opportunities for contemplation of mortality across an urban environment. These memorials play a role in the urban narrative of a city far more than a traditional cemetery in terms of their visibility, collective action, and public interaction. By crossing the boundaries of public urban form and private mourning sites, they raise awareness on a particular social and ethical issue. A memorial, like the columbaria, does not need to remain a stagnant reminder of our impending mortality, but rather can take on a variety of societal counterpoints. As noted by Doss,

"its aim [is] to not console but to provoke, not to remain fixed but change, not to be everlasting but to disappear, not to be ignored by passerby but to demand interaction, not to remain pristine but to invite its own violation and de-sanctification, not to accept graciously the burden of memory but to throw it back at the town's feet."¹⁴⁷

Precedent Studies

Woodland Cemetery and Crematorium | Gunnar Asplund

“When we find a mound in the woods, six feet long and three feet wide, raised to a pyramidal form by means of a spade, we become serious and something in us says: someone was buried here. That is architecture.” -Adolf Loos, “Architecture”

Gunnar Asplund’s Woodland Crematorium, finished in 1940 near Stockholm is a premier example of a crematorium that serves its primary function in a way that is stripped down to its simple and symbolic monolithic forms. Just as ancient Greeks placed their most significant temples among the most sacred landscapes, the Woodland cemetery derives its sepulchral quality from the Nordic forest. The design of the project establishes an eloquent narrative through the landscape where the forest is left intact with only a few paths meandered through the seemingly random graves.

The main crematorium building within the Woodland’s cemetery became synonymous with the architecture of death in Sweden as it was realized under the cusp of a huge social program during a period of burial reform. The building evokes a narrative language with each stage of movement through the site. The great portico of the crematorium looms into view as one takes the pilgrimage uphill from the landscape (Fig 27). Mourners can move from the great

Fig 27 | Portico at Woodlands Crematorium, Enskede, Sweden
Fig 28 | Views to Landscape and Cemetery from Portico



portico into a small chapel or ceremonial hall that focuses on the central platform. The coffin rests on the catafalque, or raised platform, and is lowered into the basement for cremation under a proscenium arch once mourners have left. Upon completion, a glass screen slides down into the ground and mourners are greeted by a view of the open landscape, allowing them to focus on this “sacred grove.”⁴⁸ Spatially, the main chapel is connected to a smaller secondary ones connected by technical facilities at the rear and on the lower floor. According to Asplund, “the monumental quality” of the spaces is essential to the meaning of the ceremony and highlights the difficulty in the moment of parting. The Woodland Cemetery attempts to shape a new ritual, by creating an architecture that, as Edwin Heathcote notes, “foster the development of new forms of celebration and commemoration.”⁴⁹

The integration of the built form into the natural landscape is a consistent approach among influential funerary designers. Alvar Aalto published two unexecuted funerary projects, the chapel of Malm Cemetery in Helsinki, and Lyngby Cemetery in Denmark. Access from the chapels to the committal spaces were arranged in a way so that no procession could meet another on the way to the primary crematorium. The merging of natural elements like the open lawn, pools of water, and choreographed paths produced an appropriately peaceful environment.⁵⁰ Blocks of granite symbolizing the ages of life, series of pools and beds of flowers contribute to a universal language of death that spans across cultures and religious practices. The architecture itself functions as a “memento mori” or silent reminder of our death, conveying that death is a state of change, a migration rather than the termination of a life.



Fig 29 | Kaze no Oka Crematorium, Nakatsu, Japan. Approach to crematorium and relationship to the landscape

Kaze-no-Oka | Fumihiko Maki

Another example of a crematorium sensitive to the design of the users' spatial needs is Fumihiko Maki's Kaze-no-Oka crematorium, completed in 1997 in the southern city of Nakatsu, Japan. Set within an existing cemetery, this structure embodies the physical landscape in which it resides, the name translating to "hill of the winds."⁵¹ The approach to the crematorium creates the impression of the visitor being swallowed by the surrounding land (Fig 29). The



Fig 30 | Kaze no Oka Interior
Fig 31 | Kaze no Oka Interior



complex consists of three loosely connected but separate structures partially buried and embedded into the surrounding park. Each fragment has a distinct character in its use of form, materials, and natural light. The specific program consists of a funeral hall, which accommodates funerals services, the crematorium, the fundamental ritual space of the actual cremation and its specific rites, and finally a waiting area.⁵² Between these primary programmatic elements lie the ancillary service spaces, which are located in a way that enhances the stages of the ritual of the funeral procession.

Maki pays close attention to elements such as earth, air, water and light when establishing the design of the crematorium. As the procession filters into the crematory hall, one side opens out into a courtyard containing a pool, which captures the motion of the clouds above and creates a kinetic environment in a subtle manner (Fig 31). During the actual incineration of the body, mourners may walk through a corridor overlooking the gardens allowing them to reconnect with nature from an interior space. According to Edwin Heathcote's description, the symmetry of the space coupled with the asymmetry of the light metaphorically suggests the ascent of the spirit to the heavens, while the lack of conventional windows reinforces the perception of the building as an abstract sculpture within the landscape. The emphasis on the design of the procession and its varying moods of light creates an ethereal quality reflecting how the architecture as a whole explores death in a profound way.⁵³

CHAPTER 3

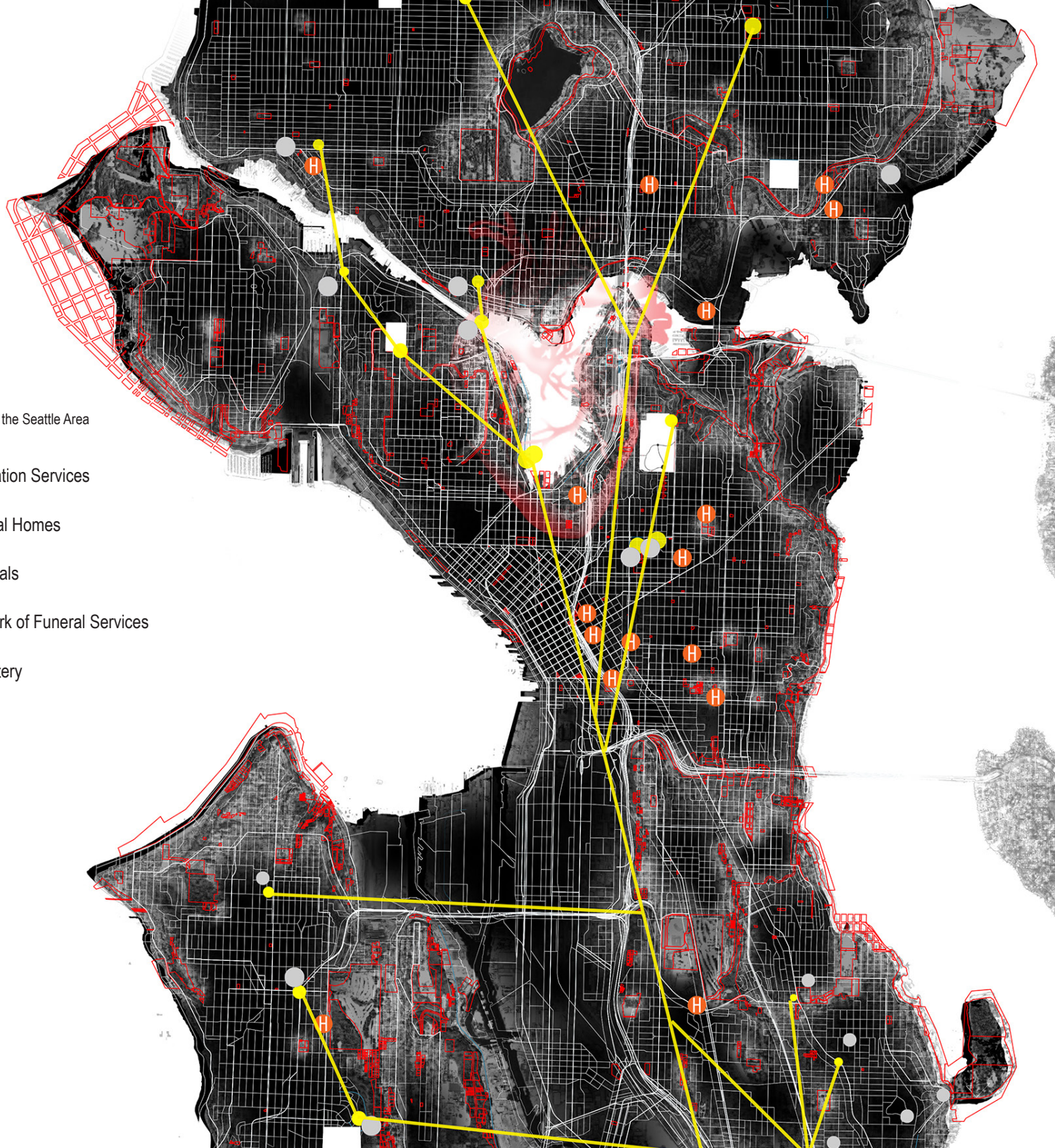
Mapping Death

Site Selection

The city of Seattle can be read in relation to the various landscapes of death (Fig 32). The networks of spaces and nodes dedicated to death include cemeteries, funeral homes, and crematoriums. The mapping of these spaces in the urban fabric of Seattle reveal the linkage between these institutions that show how the spaces function in relation to each other and highlight the disparity between spaces for the living and dead. In determining the site for the project, it was crucial that the addition of a cremation space would increase the urban potential of the site so that it remained a visible component in the city, that also integrated with the natural landscape. The map highlights established peripheral zones of green space and recreation areas that currently exist in Seattle, an important aspect to consider when establishing prominent public space dealing with funeral rites within the construct of the city.

Fig 32 | Mapping Death in the Seattle Area

- Cremation Services
- Funeral Homes
- Ⓜ Hospitals
- Network of Funeral Services
- Cemetery



The goal of the design is to build upon these public amenities and create a new communal experience that highlights the rituals of death in a way that promotes public healing. The site will be able to accommodate a convergence of existing memorials and festivals unique to different cultures, such as Obon and Dia de los Muertos, in a visible and accessible landscape. At the same time, this proposed crematorium will be adaptable enough to facilitate the opportunity to conceive of new ways in which death can be celebrated across religious and cultural norms.

As well as being visually prominent within the city and flexible enough to host a wide range of urban activity, the site has a direct relationship to the water. Through examining several options of sites with proximity to water and open green space, the parking lot north of South Lake Union Park was chosen (Fig 35). It is currently an underutilized waterfront space that has the potential to function as a prominent amenity for the city. Located along the primary thoroughfare of Westlake Avenue, intersecting the continuous Cheshiahud Lake Union Loop, and visible from I-5, the site becomes a conspicuous area for the designation of death. The proximity to several existing cremation service facilities grounds the proposal and reinforces the existing presence of death in this area. As is visible from the seaplanes taking off adjacent to the site, the boundary of the waters edge seems to swell into Lake Union, in a gesture connecting the waterfront to the park and the Cheshiahud Loop Trail (Fig 33, 34). The proximity to Seattle’s urban downtown core, the multitude of recreational activities occurring on the water, and the accessibility to convenient transportation routes makes it a prominent area for both locals and tourists to converge on both foot and bike.



Fig 33 | Existing structures within site, office building with retail and Kenmore Air



Fig 34 | South Lake Union Park and MOHAI
Fig 35 | Existing site parking lot



Site History

Lake Union Park is a 12 acre park on the south end of Lake Union in the South Lake Union neighborhood. Previously underutilized since its origin, the park was redesigned in 2010. Today, Lake Union Park with the addition of its recent major institution of the Museum of History and Industry (MOHAI) in 2012, functions as a repository for Seattle's history and memory. The MOHAI maintains a collection of nearly four million artifacts, photographs and archives, primarily of the history of the Puget Sound area. The massive building, formerly the Naval Reserve Armory, displays only a fraction of the artifacts the museum own. In addition to hosting exhibits, the institution is the site of regular public events with varying community organizations from the neighborhood and beyond. The existing Kenmore Air docks sit centrally in the site, with seaplanes in constant motion adjacent to the shoreline in addition to boats and ongoing kayaks (Fig 33). Gas Works Park is also situated to the north across the water. The continued development of South Lake Union offers unique opportunities to establish a new program in this consistently changing environment. The neighborhood is also the site of major tech hubs such as the Amazon campus, as well as being home to a wide array of centers for biomedical research and life sciences.

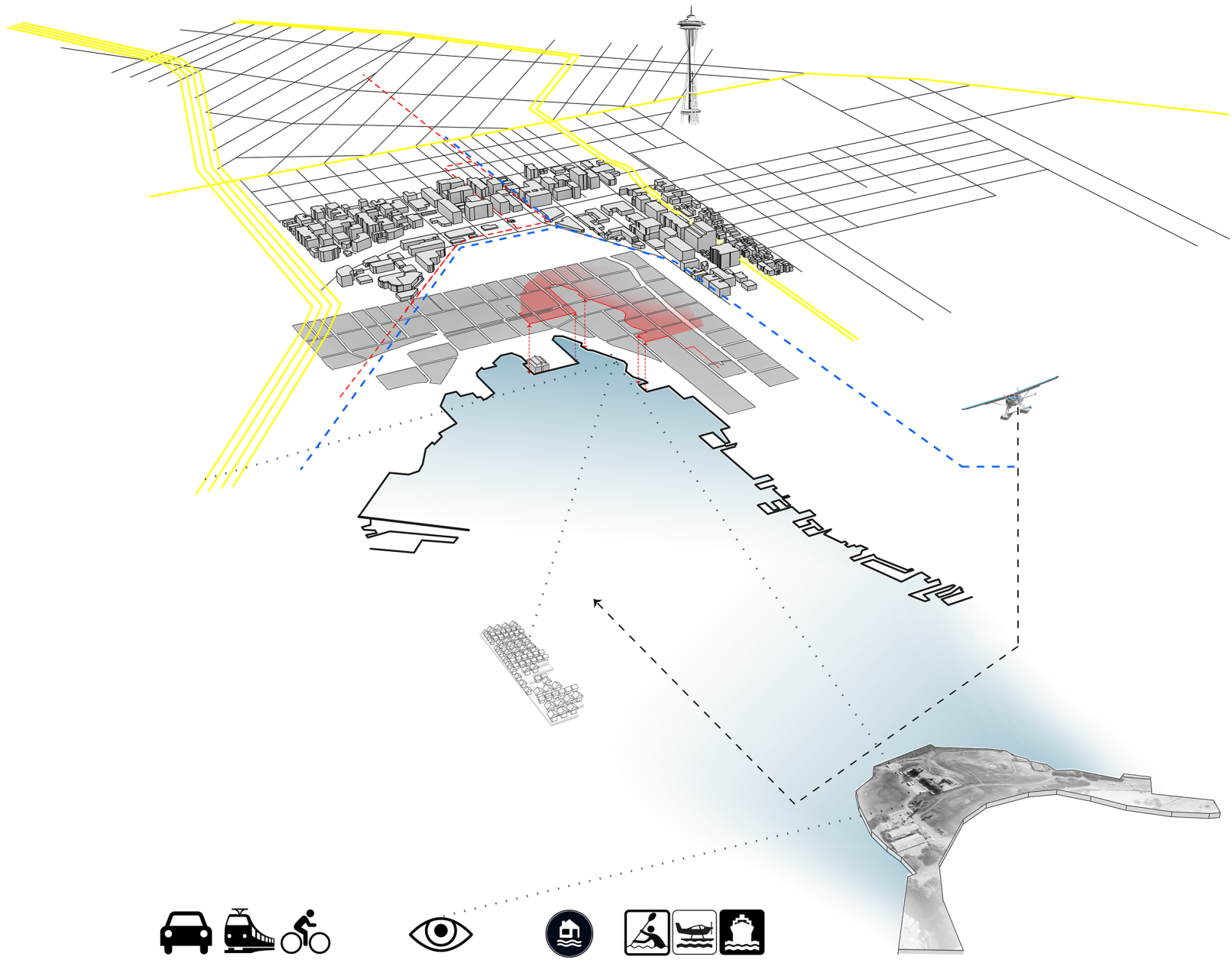


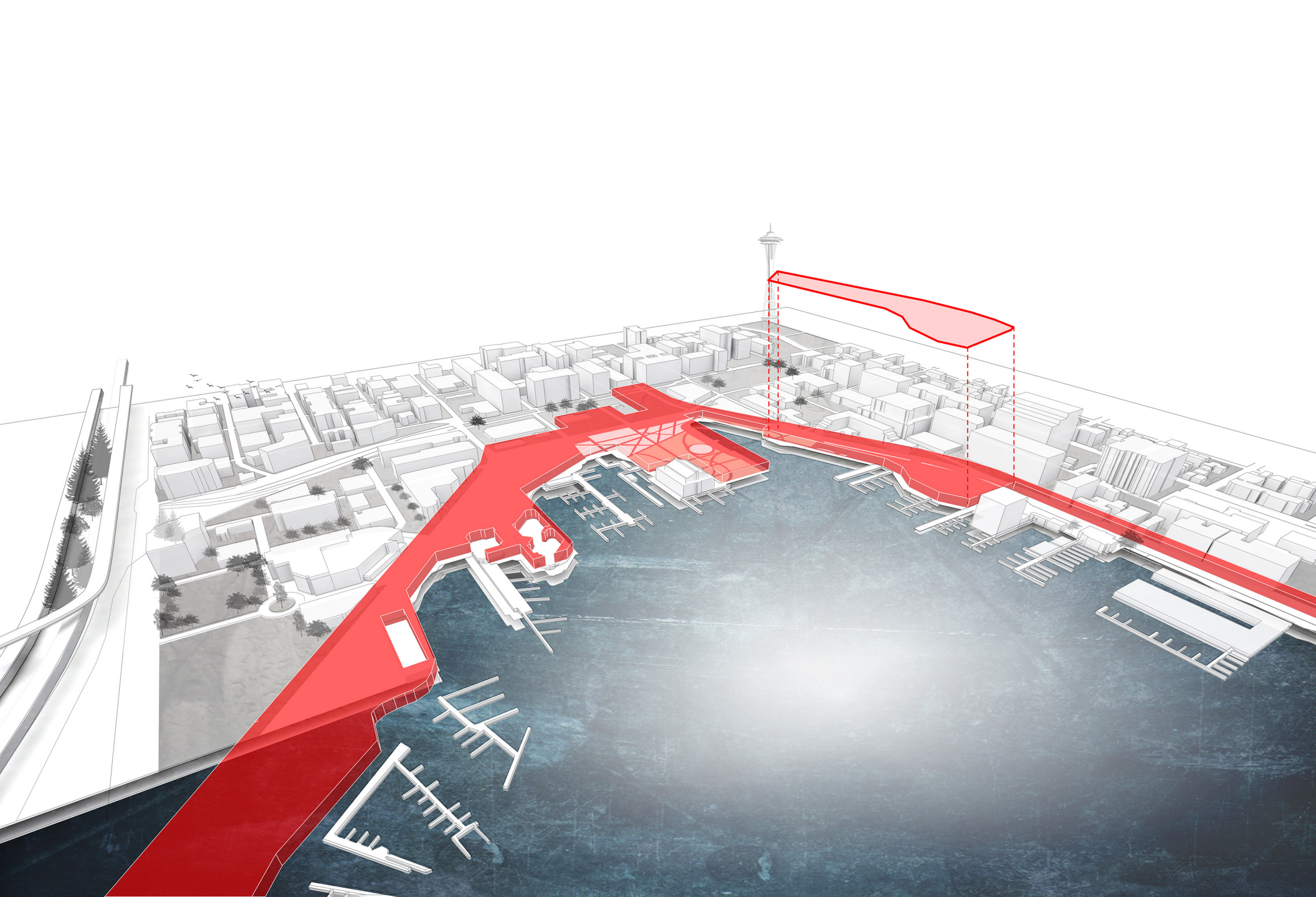
Fig 36 | Axon diagram of site within the larger context of the city

Site Analysis

The site at South Lake Union Park can be read in terms of how it functions as a landscape for the dead as well as the living. Even though death is present in this site due to the existing cremation facilities in the vicinity, its presence is not highly visible. Additionally, the parking lot situated on waterfront property currently sits as unproductive space that could otherwise be better utilized. The site, with its connections to major transit to the northwest and southwest edges, and connection to water and sky elements has shifting boundaries that are fluid and dynamically influence the character of the space. The threshold between water and land, and between life and death, are all embedded in the site, and have the potential to be reactivated by the proposal of new program. The goal of the program intervention is to revitalize the waterfront in terms of public life and capitalize on views to the Lake and urban core to the south. Additionally, the Cheshiahud Loop allows convenient access around the entirety of the lake, connecting Gasworks and Lake Union Parks, pocket parks, streets and waterways that ring the lake, improving access from adjacent neighborhoods and downtown.



Fig 37 | Diagram of existing site conditions and boundaries



CHAPTER 4

“The funeral service profession exists only because it has received the approval of the public...Present methods, facilities, and merchandise exist because the public has found in them values it has been willing to pay for in spite of the necessary sacrifice of other things...Are these values real?...Do they lift and inspire?...Are they worth what they cost? If the public accepts these things...the answer is in the affirmative.”—Edward A. Martin, B.A., Mortician, Psychology of Funeral Service⁶⁴

Context

The design intervention builds upon the history and practice of cremation and the analysis of the precedents to accommodate a wider range of public activities. The site is large enough that there can be multiple events occurring at once in the various plazas, bringing the nature of death to the forefront of urban space. The open nature of the design makes it possible for the site to host many festivals celebrating death including, Obon, a Japanese-Buddhist tradition of honoring the dead, which currently takes place in the Central District of Seattle, and the Mexican tradition of Dia de Los Muertos, or the Day of the Dead. The site can organically develop as a public amenity by offering a space where individuals from different backgrounds and cultures can converge and continue a dialogue on death in a positive way. The site itself is prominently visible from the highway and to passersby on the arterials of Westlake Avenue and Eastlake Avenue. The visual connection of the site to the city and its urban dwellers is meant to establish a consistent reminder of the centrality of death in life. It is important to note that people could be arriving to the site from all directions, and so the paths of intersection, though only denoted through two primary axes, are numerous. The Kenmore Air site is contained within the past and offers options for spreading ashes elsewhere via seaplane, allowing visitors to engage in the adjacent programs without disrupting the service, thus becoming a true intersection of life and death.

Program

The program of the proposed intervention considers the users of the site and the range of activities related to the rituals of cremation that could occur within the landscape. The projected users of the site include the mourners, the deceased and the general public. The site connects to the existing green space from South Lake Union Park and is meant to integrate into the landscape with a new language juxtaposing the MOHAI. The primary programmatic elements can be broken down into exterior gathering spaces, the committal space and the contemplation spaces. The exterior spaces encompass a combination of soft and hardscapes, including open plazas intended for large scale gatherings and a stronger connection to the water's edge (Fig 39). The ceremonial, committal and contemplation spaces are connected spatially in plan and visually by views to the water and the city. The procession through these spaces ultimately leads to a vertical repository where individuals may reflect upon and release their grief.



Fig 39 | Zoomed out plan connecting site with South Lake Union Park

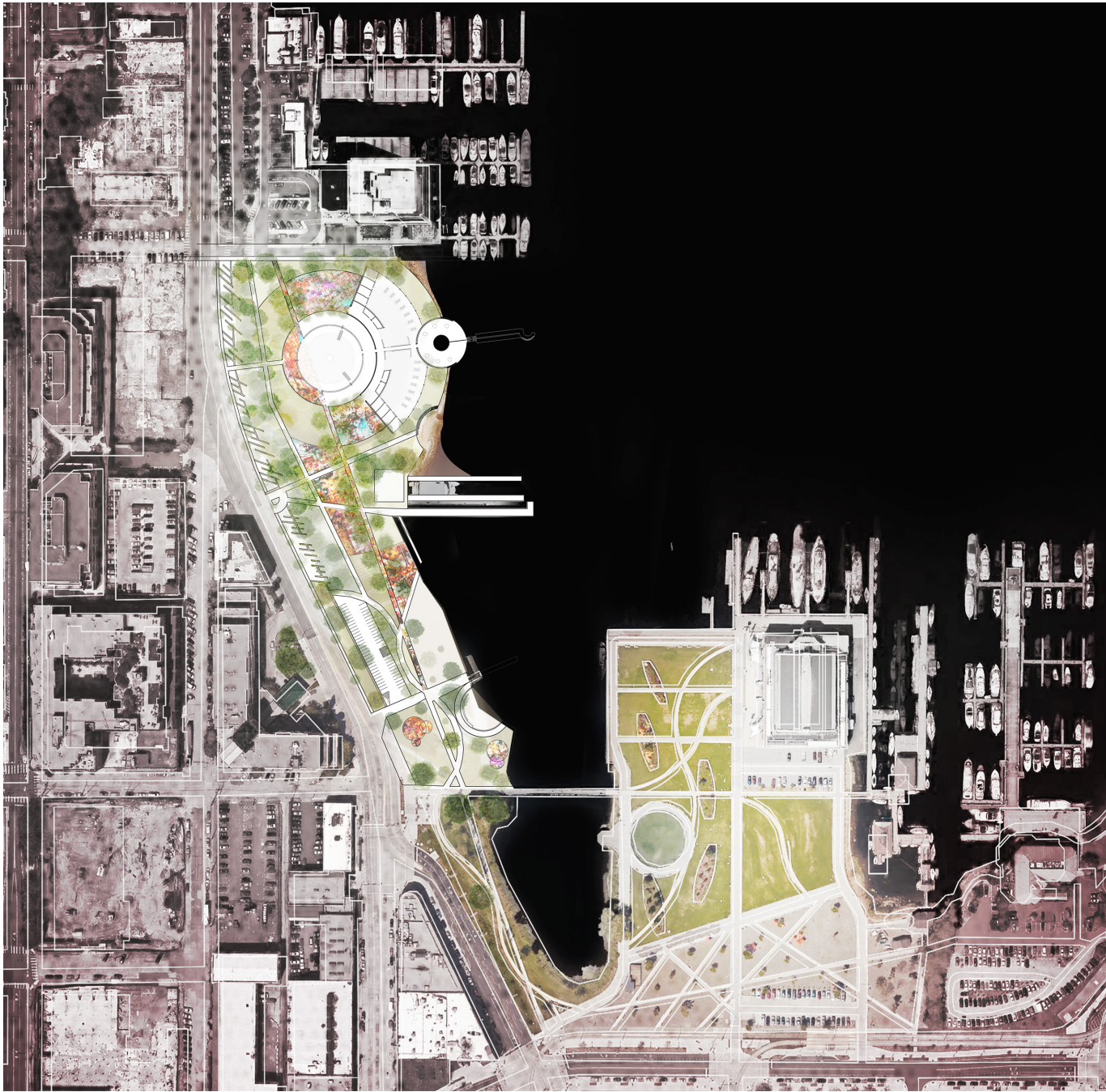


Fig 40 | Site Plan

Design Proposal

The program of the site expressed as a series of containers of activities including: the wall, the plaza, the chamber, and the tower. The visitor to the site is first greeted with the gesture of the rammed earth wall situated parallel to Westlake Avenue (Fig 41). Due to high traffic patterns on Westlake Avenue and the flow of traffic of both bikers and pedestrians along the Cheshiahud Loop, it is important to establish a semi permeable boundary to the west of the site while still acknowledging death as the primary program within the site. Due to its proximity to the street, the wall is offset and punctuated by axial recesses where families have the ability to gather together and then physically carve out a memorial to their loved ones. The wall, constructed of rammed earth, represents the layered accumulation of memory and physical materiality of the city. At the same time it is a malleable structure that can be customized to act as a memorial columbarium, where people can create altars to the deceased and inter their remains. This urban element would change in form over time as more individuals alter their memorials. This structure incorporates the physical activity of memorializing the deceased to supplement the act of cremation. The wall also creates a dynamic landscape which the citizens of the urban environment can physically alter, thus activating the space associated with death. The site thereby can become more ingrained in the process of mourning and create a new memory together with the living that can help with the coping process of grief. The perforated boundary wall allows access into the site from many points, and becomes a visually prominent repository for urns and makeshift memorials. By creating the option of interring cremated remains within a rammed earth wall, the concept of “burial” paradoxically becomes a communal and vertical action that takes place above ground. The notion that a passerby is able to place a memento on any memorial creates a unified landscape of mourning and establishes the ritual of death as a collective experience of healing.



Fig 41 | Memorial wall along Westlake Avenue



Fig 42 | Concept drawings of wall defining the landscape

The journey from the wall to the water follows a series of vertically defined zones of landscape (Fig 42). The wall leads to wooded areas that juxtapose the open lawn spaces on South Lake Union Park. As one enters the site from the existing park, the progression leads from open lawns to more private wooded pockets of space. The primary processional boulevard leads from a diagonal axis from the park and intersects with the ceremony space on the ground floor below the tower. The open spaces from the wall to the water's edge consists of denser wooded areas, primary plazas, green lawns for storm-water management, and then finally a reclaimed shoreline garden. Throughout the park, plantings direct, collect, and cleanse storm water as it moves through the site before being discharged into South Lake Union. These spaces work together to merge industry with ceremony and serve the community by offering a hybrid of both open and closed spaces that connect and allow direct access to the water.

Fig 44 | Abstracted collage and plaza spaces in plan



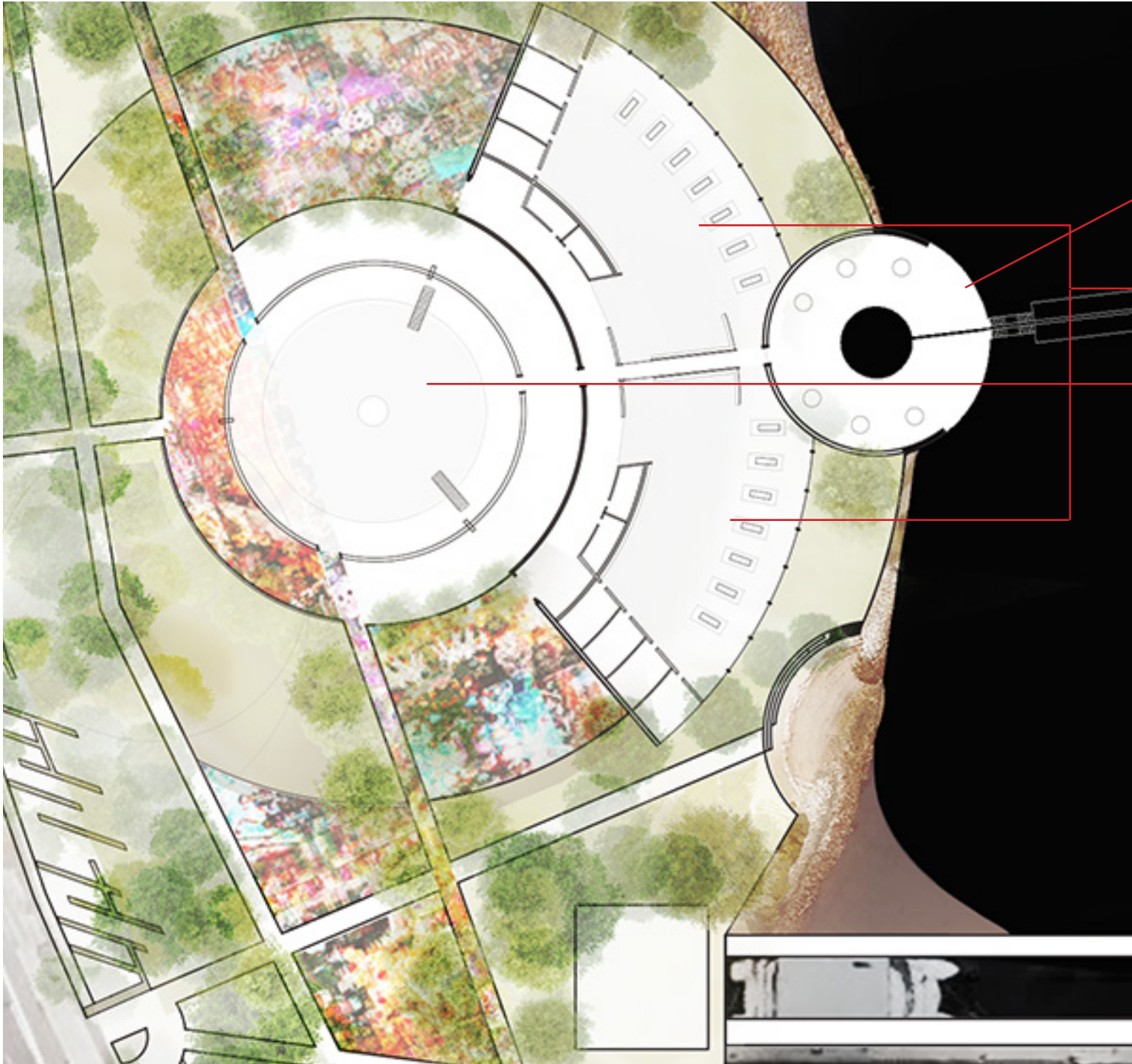


Fig 45 | Plan

Reflection

Committal

Ceremony



Fig 46 | Main processional boulevard and view to tower

Traveling North from the continued gestures of Lake Union park along the primary processional path adjacent to the Cheshiahud Loop trail, the tree lined path reveals the plazas in conjunction with a tower columbarium in the centralized zone. The distinctive geometries of the tower disrupt the path as the procession enters the primary ceremony space located beneath the structure of the spiral. In contrast to the open structure above, the walls remain opaque, lined with charred wood. With the internalized focus created by the circular geometries of the room, death becomes centralized allowing loved ones to surround the dead (Fig 47). The source of light for the ceremony space is the pool above that reflects the sky and creates a wavering balance between being embedded in the earth while still making a celestial reference. During the ceremony the weight of the water symbolically impedes the process of mourning, and not until one releases the weight in the committal space can they move forward from their grief.

The Procession

From the ceremonial space, the procession transitions into the cremation spaces and committal. The path leads to a roofed hall with no walls that leads into two axially situated and symmetrical cremation spaces. The transition from the solely internalized space to a covered but open, exterior one is significant as it reunites the mourner with the natural environment. The redesign of the materials of this mechanism for disposal allows the space to be more inviting, thus eliminating the need for an auxiliary viewing space (Fig 48). The ability to construct a glass furnace allows the physical contact with the body during incineration, an element that is significant in many cultures. A streamlined exterior box has the ability to move up and down the mechanism to cater to different views of levels of contact with the burning body. If one did not wish to be in the committal room they can bypass these space and head straight to the water where a series of individual mourning spaces are situated in a final chamber with an open edge to the city and water.



Fig 47 | Interior ceremony space



Fig 48 | Crematory space with views to the water

The “Moiré tower” or the columbarium re-imagined, houses the final remains of the deceased and anchors the ground and the sky together as one. It represents the culmination of the transitional passage of mourning that began at the wall where participants can actively express their grief in a therapeutic way. The physical container of ashes then shift from the transient memorials of the wall to the more permanent structure of the tower. Instead of being interred, the ashes are elevated so that the tower becomes the visual cue across the urban landscape of Seattle as the reminder of death in everyday life. The walls serve as an earthly reminder with the tangible ability to carve and alter. The tower is a skeletal structure inspired by the spiral incense burned in temples as a figurative emblem of burning a ceremonial flame for the dead while housing the dead (Fig 50). The tower structure stands in correlation and in direct opposition to MOHAI as a similar container of memory and reflection. One is a solid white container whereas the other is a perforated black shell. The void of the tower becomes an occupied space through a double helix staircase gesture that metaphorically represents the release of grief through ascension, and the release of the physical form through cremation (Fig 52). The movement through void space bridges together the living and dead in the embodiment of absence. The tower becomes the house of those remembered.

The journey of the water through the site is also considered an important component. Water symbolically juxtaposes the fire of cremation, and offers a canvas for physical reflection mirroring that of a mourner. In addition to storm water traveling through the open spaces, the use of controlled water features allows for different atmospheres in the intervention. Within the tower a water bowl scaled to the height of an average person, trickles water down into the larger scale pool that captures the reflection of the sky above the ceremony space (Fig 53).

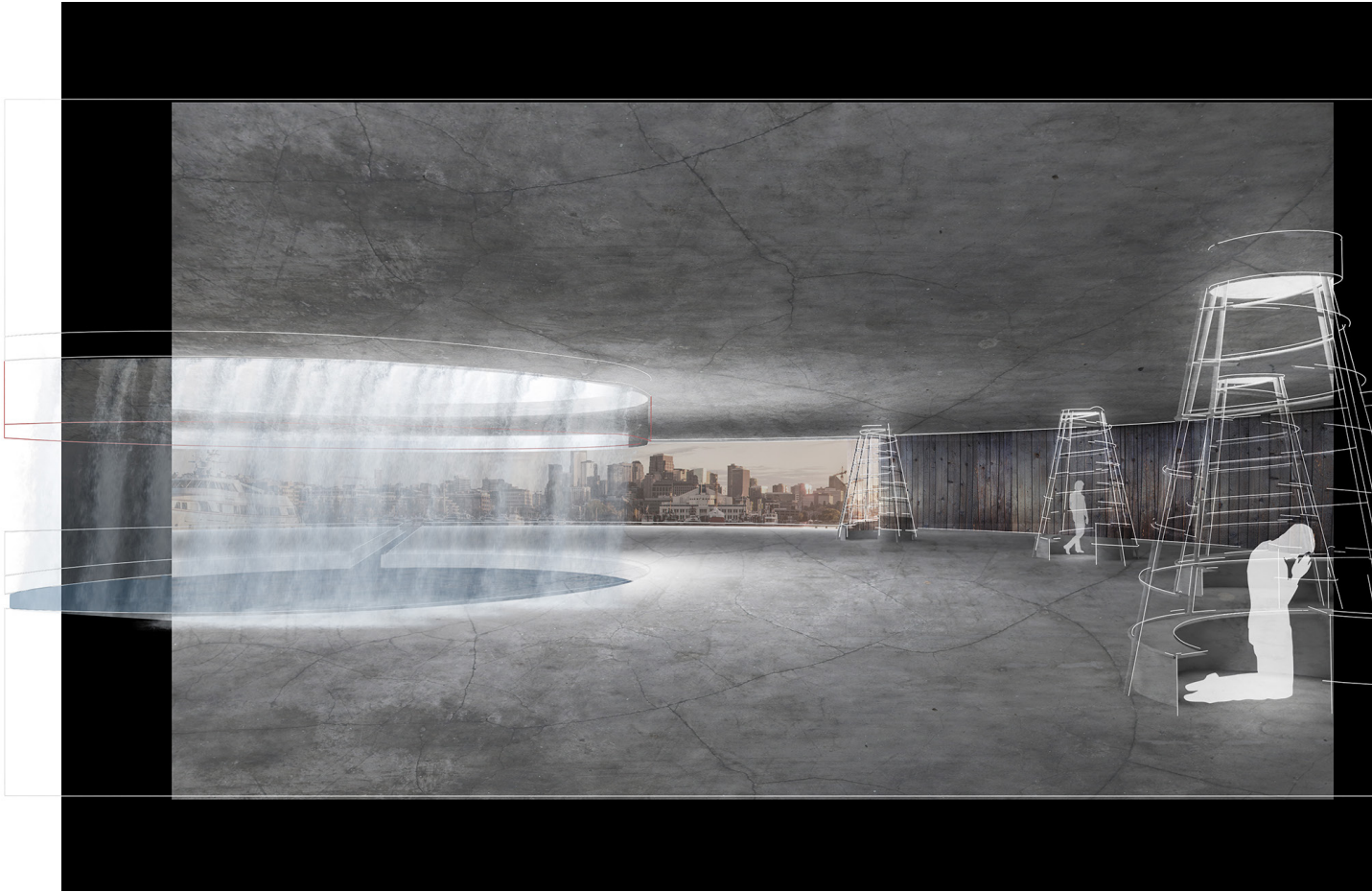


Fig 49 | Personal reflection space



Fig 50 | Spiral incense inspiration

Moire Tower [Columbarium] | Hanging Steel Structure

Double Helix Ascension

Multiple Entry

Water Movement

Ceremony Hall

Committal Chamber

Reflection Hall

Semipermeable Columbaria Wall

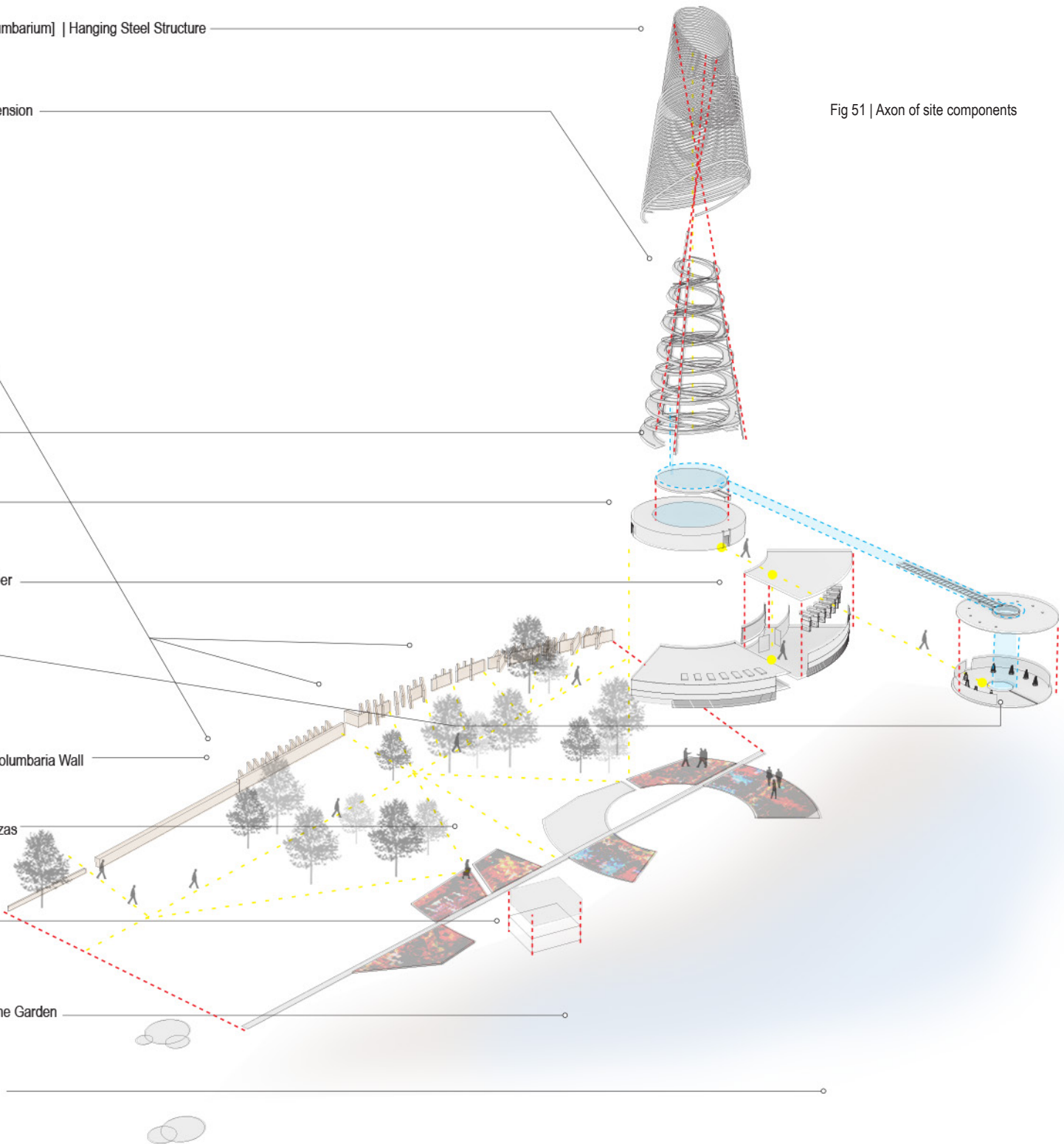
Public Mosaic Plazas

Kenmore Air

Reclaimed Shoreline Garden

South Lake Union

Fig 51 | Axon of site components



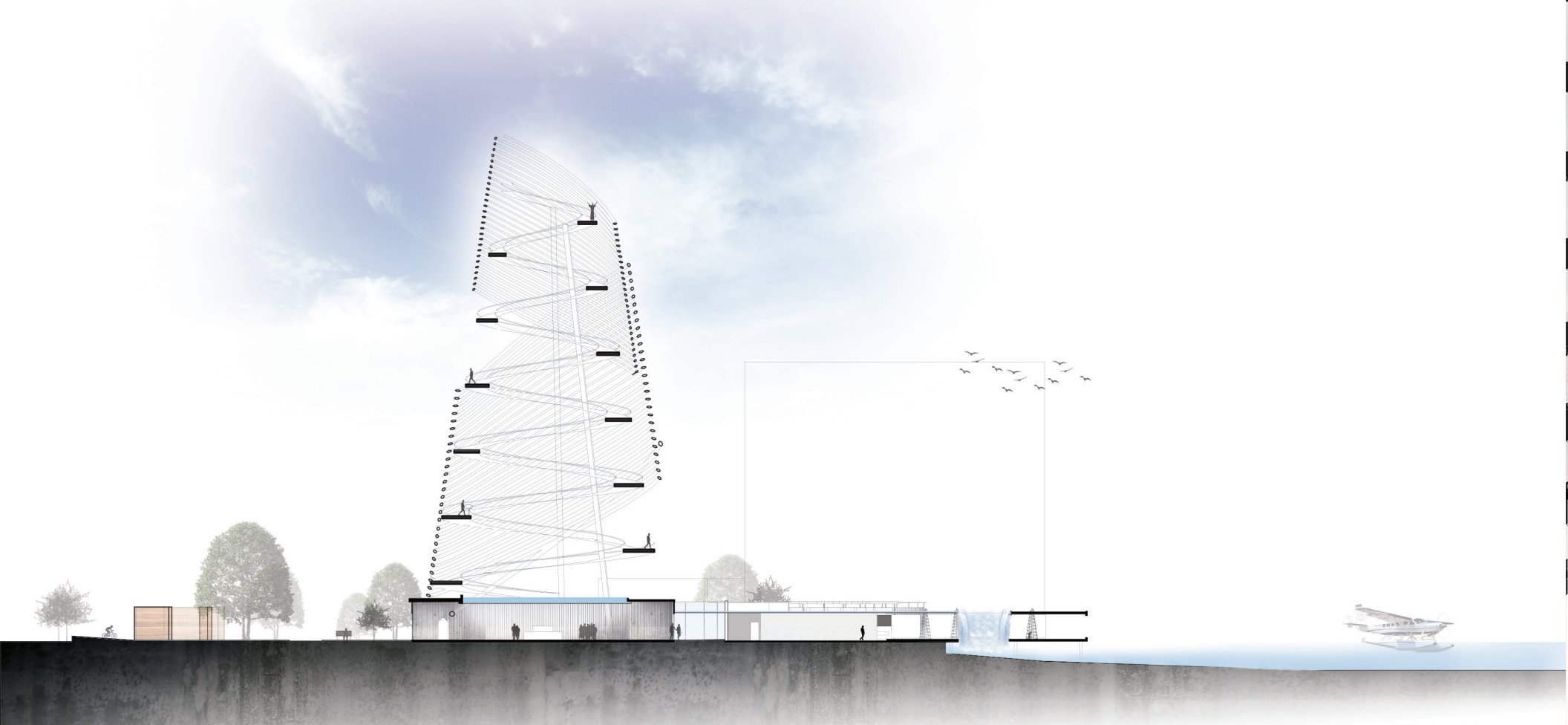


Fig 52 | Longitudinal section facing North

This pool sits in scaled relation to the pool of water on Lake Union Park and travels further across the remainder of the program spaces. The water moves from the pool in the tower across the circulation space and culminates in the reflection in a central void that opens to the lake below (Fig 52). The waterfall element in the reflection space helps to create an internalized ambiance of movement and noise separate from the city while still being fully open to the urban environment. The path of the water bridges all of the primary programmatic elements on the site to create a meaningful experience within the landscape.



Fig 53 | Tower interior and water feature view



Fig 54 | Top of tower



THE THIRD SCALE

Fig 55 | Spiral incense photography



CHAPTER 5

The Third Scale

The design of the columbarium complex evokes the form of the spiral at several scales. The “spiral” is host to a variety of symbolic meanings. Globally, the spiral form and in this instance, the spiral incense, is predominantly seen in Southeast Asian religious and cultural ceremonies. Spirals utilized in religious artifacts and artworks have maintained historical significance beyond the boundaries of Southeast Asia. Ancient Egyptian and Celtic cultures, Indians, Chinese and the Japanese. Different cultures have transformed and imbued different meanings, customs and purposes to the shape. The spiral form can: be a metaphor for our spinning universe; represent both zero and infinity, both nothing and everything; be seen as the geometric symbol for life cycles and change. The spiral, therefore, serves as the prime form to explore within a crematorium aiming to redefine the rituals of death in a setting that hosts a variety of cultural backgrounds.

Fig 56 | Various scales of spiral incense in China. Hong Kong: Man Mo Temple, Tian Tan Buddha, Street Temple, miscellaneous alley temple | Macau: Na Tcha Temple by Ruins of St. Paul



The thesis began with a preface describing the author's visions of death in the eastern culture as I had experienced through cinematic portrayals. In reality, cremation as a process, practice and place were entirely foreign to me. Incense on the other hand is something I know quite well. In my home, it is religiously significant to burn a stick of incense every evening at sundown marking what is known as "shon-dah bati." The incense purifies the home and wards off the evils that lurk once darkness sets, carrying good wishes up with the smoke and flame. In this way, incense serves as a marker of time, indicating when an important transition in the day occurs. The spiral form as a timekeeper is predominant in Japan where incremental knots in the incense would indicate a specific interval of time. The spiral as a marker of time held symbolic relevance to the project as it attempts to calculate the immeasurable. The relationship between time and death is explored as in the: the time it takes to burn a corpse, the time one has on this planet, the amount of time it will take to grieve a loved one, "give it time."

As the proposal distinguished the spaces serving ceremonies of death, the spiral stitched the project pieces together as a common denominator in the design execution. The spiral served as both the structure for the visibly predominant tower housing the ashes of the dead, symbolizing the journey of the living to gain acceptance of their grief, and the individual prayer mantles, where people mourn in a more intimate space, against the open views to the public waterfront. Both the spiral three dimensional forms woven with the circular planar forms create an integrated landscape of mourning along different scales in South Lake Union. The lantern aims to complete the investigation of the spiral as a form that has significant symbolic implications and has the power to transform the quality of a space.

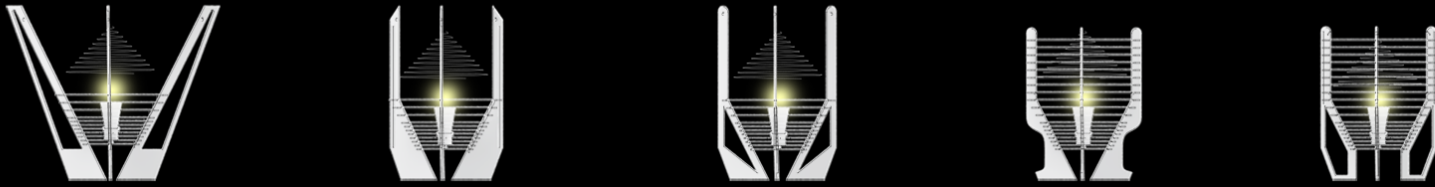
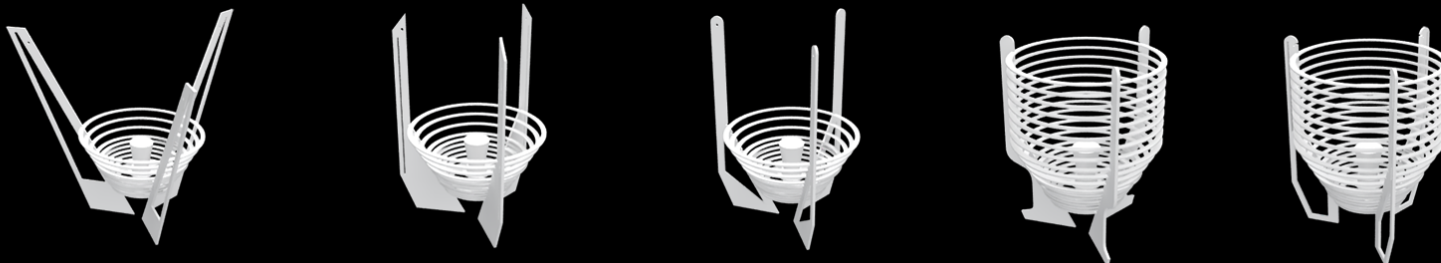
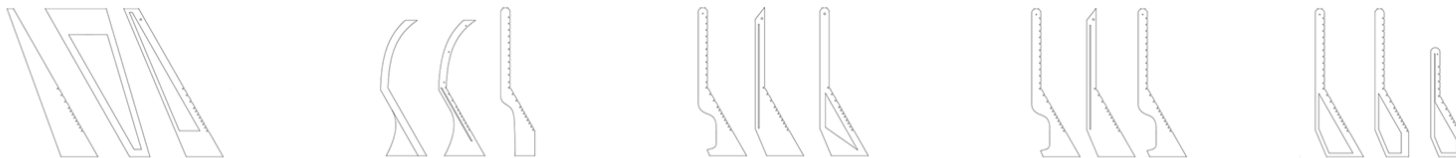


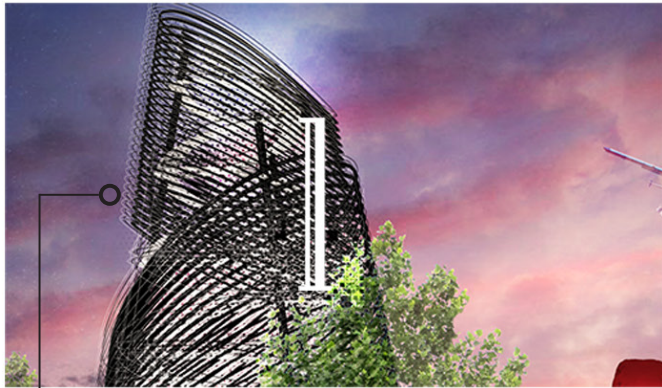
Fig 57 | Three dimensional and two dimensional explorations of form



The Methodology

The primary form of the lantern located in the personal reflection spaces, derives from the structural tripod of the Moiré Tower. The goal was to fit this ritual object into the established aesthetic of the existing tower and mourning spaces. The place of mourning in the crematorium should be one where a person is made aware of the destructive and nurturing powers of the flame. The form derives from varying attempts at recreating cradled hands to establishing the correct proportions to achieve structural stability and visual cohesiveness. As the coiled incense constantly evolves, slowly dwindling from a wider base inwardly, it felt appropriate for the form to shift midway from where the bulb sits to create an altering effect. Additionally, when attempting to create the structure with an inverted cascading incense in mind, the top became ungainly wide and thus would have been difficult to balance the structure of the lantern.

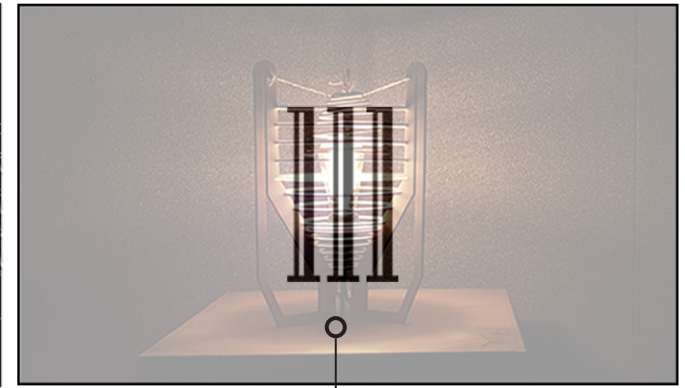




The Moire Tower



The Reflection Altar



The Lantern

Fig 58 | Three scales of space inspired by the spiral incense

The Design

The detail of the design was driven by the metaphor of burning. The ability to see the bulb reflects the larger aim in the thesis of making cremation more transparent. The actual incense is infused into the lantern in order to give it a dual purpose of serving the visual and olfactory sense. The tripod meets at the top with tied pieces of jute to create a loose structure capable of threading coiled incense and also acts as the point where one could carry the lantern. The strings where the incense hangs are representative of the strings typically strung together with larger scale incense so that they may coil without springing up. The lamp can be hung from a post or carried by hand by the legs or by the jute strings where the incense loosely hangs in the center hovering slightly above the bulb, which glows a warm amber to contrast the darker setting. The frosted acrylic acts as a transition piece from where the angle of the leg begins to ascend straight to the sky. This thicker piece acts as a basin for the burning incense above and straddles the light bulb at the halfway point, softening the effect of the exposed bulb. Like the tower and the prayer spaces, the lantern utilizes difference scales of the form with the combination of the incense and the structure, in an attempt to achieve a moiré pattern.



Fig 59 | Process models

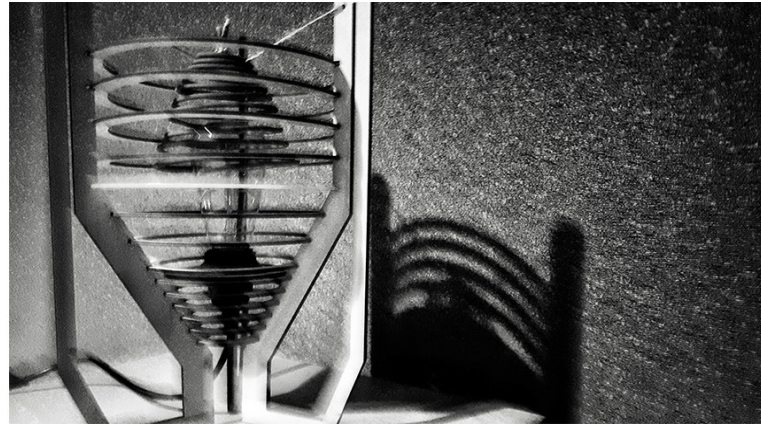
The burning of the incense itself acts as a metaphor for the path of life. As the incense burns it transitions from a solid, to liquid oils, which produce the aromas, and then finally smoke that is burnt off into the atmosphere. The process documents a true transformation of elements and is a nod to the transformation of a body as it is burned and returned to its cosmic form. As the flame makes its journey upward and more incense is extinguished, the bulb beneath burns bright, representing the ongoing presence of the departed and engaging the dialogue of life beyond death. The lantern becomes utilitarian in its form for housing the incense while still creating an aesthetically appropriate environment. The lantern then becomes a sensory pleasure: one sees the form, smells the herbs, and feels the remedy.



○ Cardboard Prototype with LED Bulb
○ Bulb too Bright & Proportions slightly off



○ Changed from 60W LED to 40 W
○ Traditional bulb elongated the structure



○ finished product against harsh light to display shadows when turned off

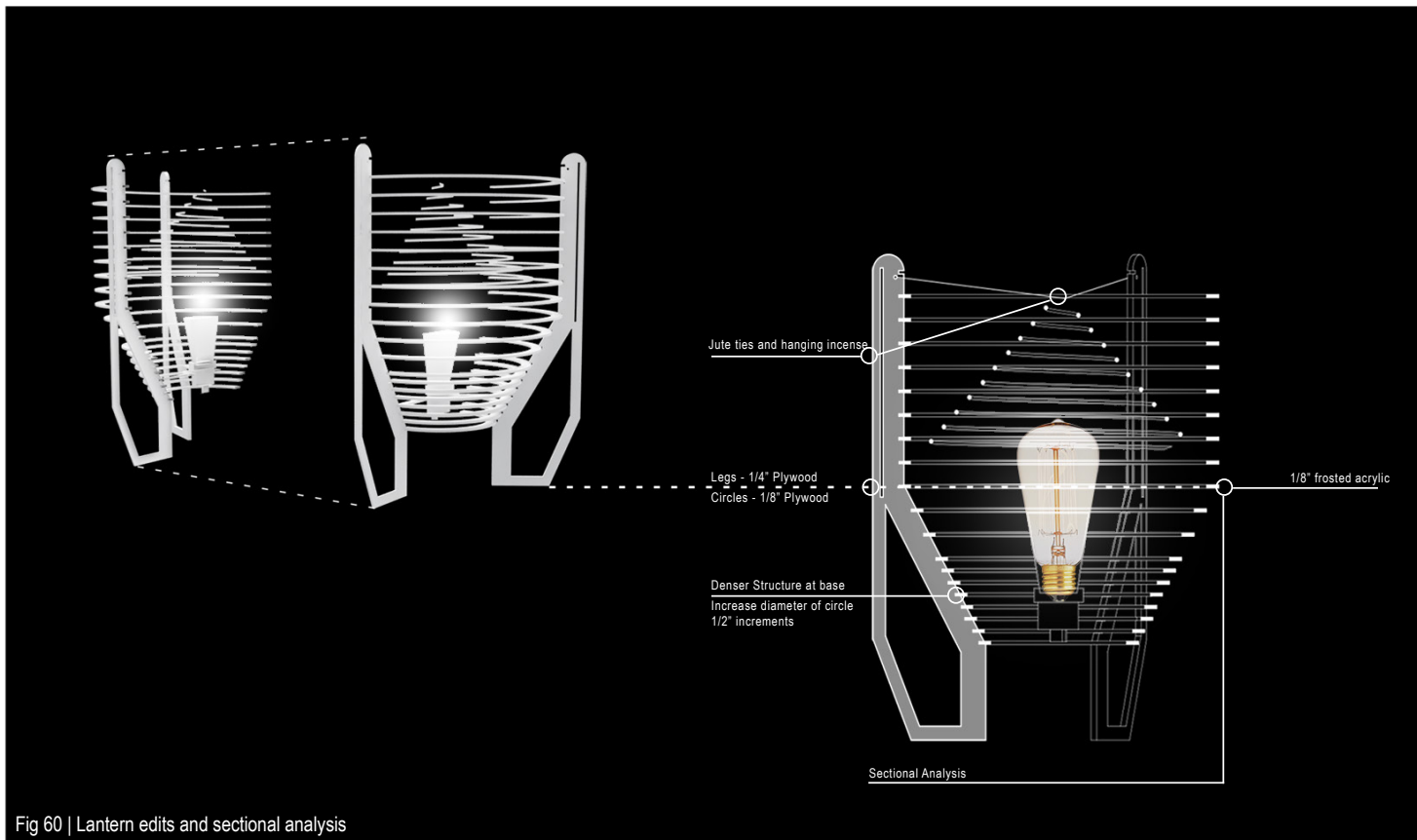
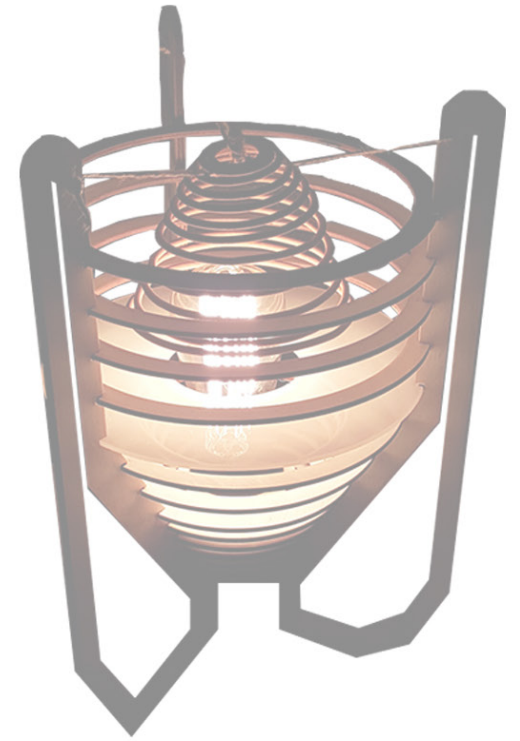


Fig 60 | Lantern edits and sectional analysis



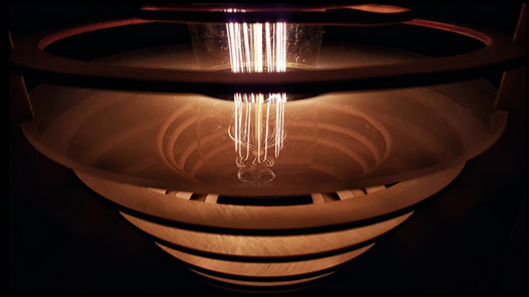
Fig 61 | Lanterns inserted into personal reflection perspective





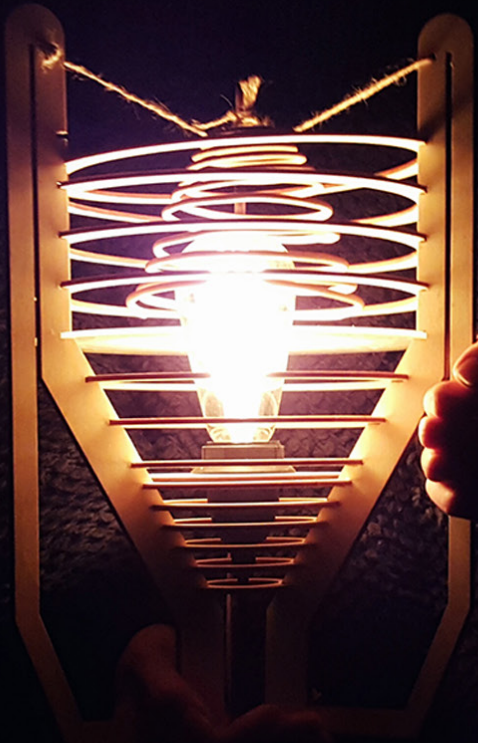
The Lantern

Fig 62 | Lantern overall photo



The Details

Fig 63 | Lantern details



The People

Fig 64 | Lantern photos

CONCLUSION

The modern crematorium has typically been seen as an industrial building typology, synonymous with post offices, department stores and other forms of 19th century urban institutions; however, the typical citizen cannot easily identify or visualize an example. They represent a lack of attention in modern architectural practice to the manner in which ceremonies for the dead are approached. If the mere function of corpse removal were the subject at hand then cremation would be the ideal method of disposing of the dead, but human nature, tradition and cultural norms interfere with the ability to rationalize death as merely a functional aspect of humankind.

This thesis began as an investigation of different cultural ceremonies of death into how funerary architecture in the U.S. can be designed to encompass a wide array of mourning through the contemporary lens of cremation. Rather than perpetuating a stagnant building typology, the goal was to bring death to the forefront of urban space while shaping a landscape where individual and collective healing could occur. The goal of the design was to approach death in the public realm in a positive way that brings people together in a unified landscape that is conducive to contemporary and global methods of mourning. It is fundamental to consider a deeper conceptualization of spaces related to death in architecture as Arora notes, “perception of self, attitudes toward the body, historical views, styles of rituals, and beliefs in religion and the afterlife” are shaped by the manner in which we celebrate the dead. The proposal has sought to create a dialogue of death across the city, to evoke curiosity, openness and compassion, while offering urban utility and contributing to the overall health of the city and the people.

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