ABSTRACT

Title of Document: Revitalizing the Urban Cemetery:
The Waters at Holy Rood

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The American urban cemetery is an anachronism both as a typology and as an ideal. Between the decay of the physical cemetery infrastructure and that of the ideal of the American cemetery the typology is ripe for revitalization. The potential exists to take the site of the urban cemetery and reanimate it with people and activity while creating a place of reverence and respect.

Water proves to be a powerful element with which to create a series of experiential spaces that can frame the site and prepare the visitor for the reinvigorated cemetery beyond. A procession that leads the visitor through a series of spaces, culminating in a contemporary bath building, creates both a physical and emotional transformation in the visitor. Once prepared, the visitor enters the cemetery space with a renewed appreciation for the memory inherent to the site.

By invigorating the site with new meaning, one can simultaneously repair a blighted urban space, the memories of the forgotten souls therein.

REVITALIZING THE URBAN CEMETERY:
THE WATERS AT HOLY ROOD

By

Stephen D. Correll

Thesis submitted to the Faculty of the Graduate School of the
University of Maryland, College Park, in partial fulfillment
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Brief History of the American Cemetery

It is useful to discuss the American Cemetery as a typology in order to understand its changing role in the urban landscape. As so much of American culture tends to be, the ideals of cemetery design were imported from European precedents.

The European cemetery changed dramatically in the Eighteenth century when the cemetery evolved from a predominantly Christian theologically based paradigm towards one that Richard A. Etlin describes as "a pre-Romantic concept of human mortality."[1] The important change, from an architectural standpoint, was that cemeteries became pieces of the design landscape. Rather than remaining a place for collecting bodies they became memorials and parks. The Christian stigma associated with death was dissolving as architects began to create public monuments to the dead [Figures 1.1, 1.2].

These monuments typically served as historical allusions to previous cultures. Egyptian and Greek precedents were favorites of contemporary architects owing to the growing field of archaeology and the geometric simplicity of those designs. The Egyptian designs relied on pure geometric forms, like the pyramid, that demonstrated Platonic ideals of heavenly form. The Egyptians were also a culture consumed with death, from the cult of the Dead to the strong association of material goods and the afterlife. The reliance on ancient cultures as precedent spoke to a memory of these silent cultures which one then associated with the memory of the recent dead.

[1] Richard A. Etlin, *The Architecture of Death* (Cambridge MA: MIT Press, 1984) ix.

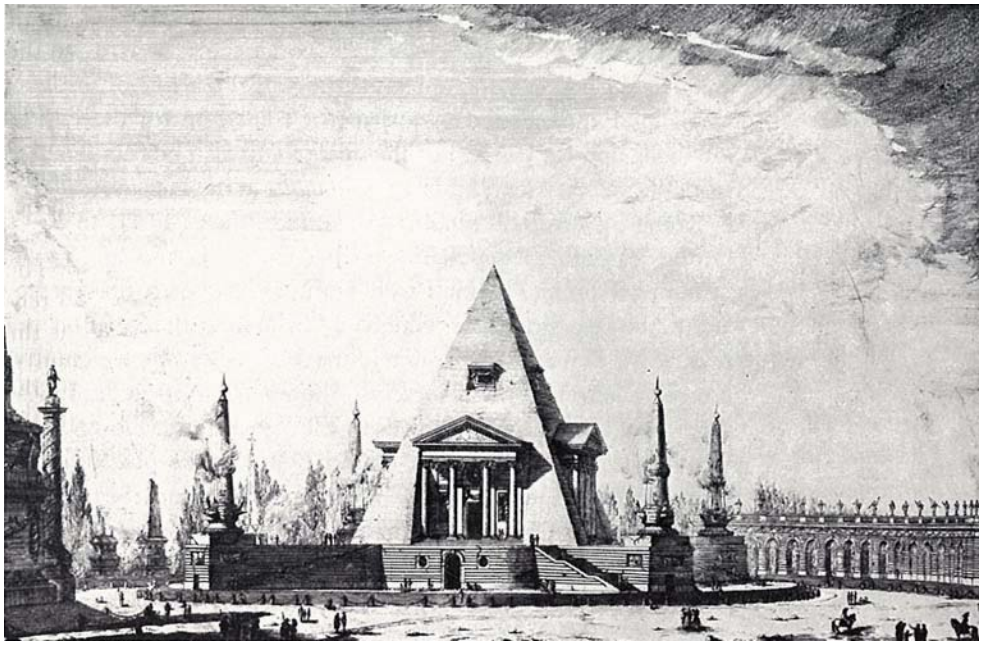

Figure 1.1: Nicholas-Henri Jardin, Square with Sepulchral Chapel, Rome, 1747
Image Courtesy of Etlin, Richard A. , *The Architecture of Death* (Cambridge MA: MIT Press, 1984) 64.

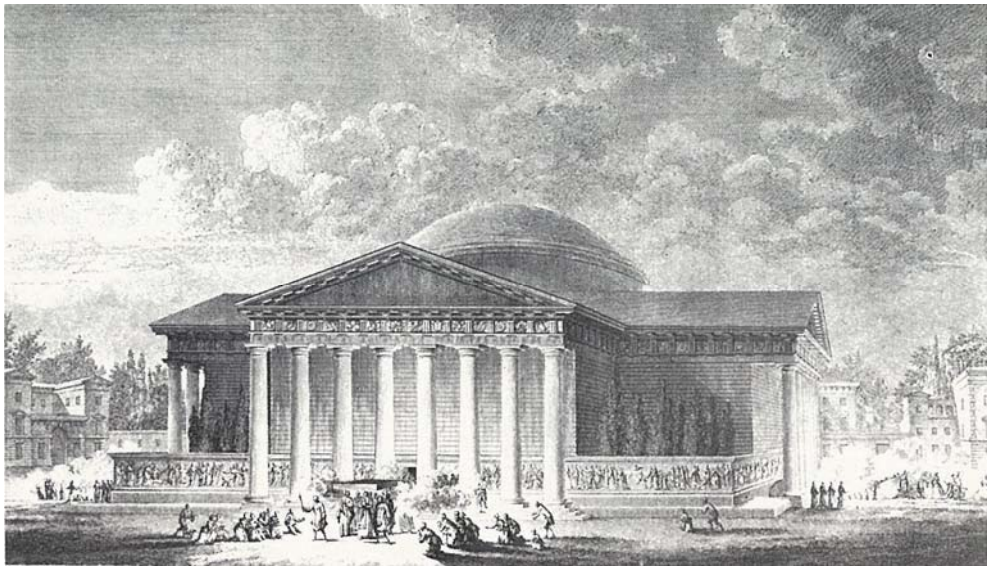

Figure 1.2: Claude-Nicolas Ledoux, Church with Cemetery for Chaux, 1785
Image Courtesy of Etlin, Richard A. , *The Architecture of Death* (Cambridge MA: MIT Press, 1984) 20.

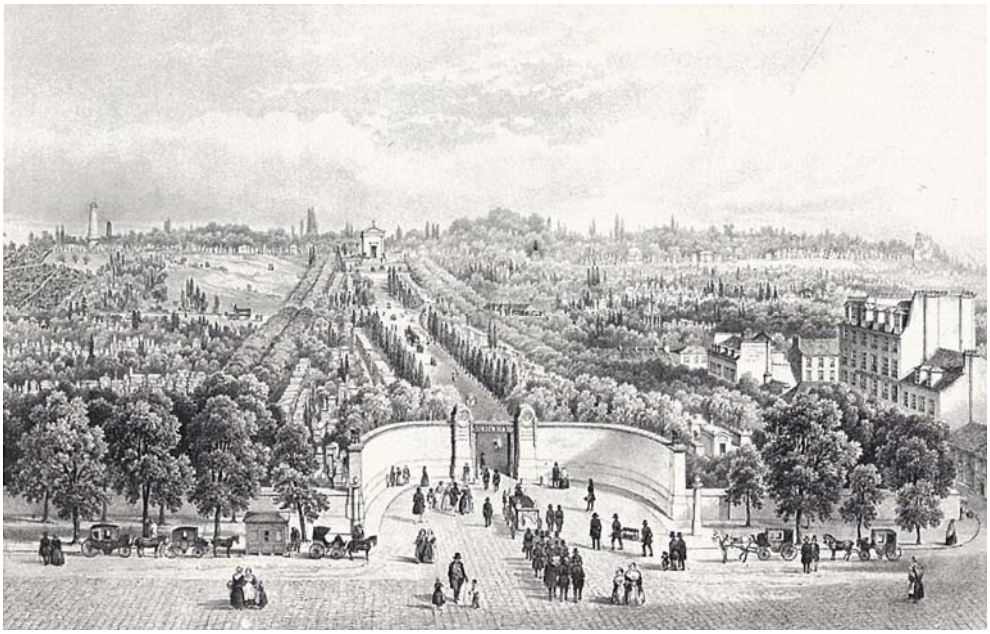

Figure 1.3: Cemetery of Père Lachaise, Paris, 1848
Image Courtesy of Etlin, Richard A. , *The Architecture of Death* (Cambridge MA: MIT Press, 1984) 330.

The cemetery would change on the broader scale as well. Changing attitudes towards germs and disease increased the public consciousness of the design and placement of cemeteries. The overcrowded churchyards and urban cemeteries became unpleasant and dangerous areas of the city. Christian anxiety over interaction with the dead was replaced by sanitary concerns.

The solution was to infuse these congested zones with light and air. Cemeteries could no longer be simply depots for cadavers. Instead they would become parklands that brought green space and light into the world of the dead. Paris' Père Lachaise Cemetery [Figure 1.3] provided the paradigm for this garden cemetery; a place where tourists would walk amongst the monuments in an idealized, green setting. The urban cemetery was now a factor in promoting the health of its citizens, exposing them to light and air within the urban setting.

Americans immediately adopted the cemetery-as-park paradigm for their own urban cemeteries. Mt Auburn Cemetery in Boston [Figure 1.4] and Philadelphia's Laurel Hill Cemetery [Figure 1.5] are early examples of this garden cemetery ideal. These were parks on a grand scale, often encompassing many acres at the edge of the city. Smaller versions of these cemeteries were dispersed throughout the cities and smaller towns across the country in the first half of the nineteenth century. The height of the American urban cemetery was during this phase of the nation's development.

In the coming decades urban green space would be transferred to dedicated parks that removed the cemetery function entirely. People would eventually come to visit cemeteries to visit the deceased, not as a means of getting light and air. As such

the state of these sites began to deteriorate and they became less and less desirable places to visit.

Figure 1.4: Mt. Auburn Cemetery, Cambridge MA, 1831
Image Courtesy of the University of Pennsylvania Fine Arts Library Image Collection

Figure 1.5: Laurel Hill Cemetery, Philadelphia PA, 1836
Image Courtesy of the University of Pennsylvania Fine Arts Library Image Collection

State of the Contemporary American Urban Cemetery

The American urban cemetery is an anachronism both as a typology and as an ideal. The decaying plots of land, given for eternity to the interred souls beneath the ground, are testaments to a time when a young nation saw unlimited potential in its soil. There was a sense that what was to come would surpass what had been, and those who would come would look back with reverence to those who had built the country for them. Large urban plots were devoted to the early nineteenth century men and women who would live forever through the monuments that marked their graves.

Two centuries later these plots have, with few notable exceptions, become overgrown and forgotten, as have their inhabitants. As cemeteries became filled the owners of the yards could no longer sustain them. Private companies went out of business, church parishes would close and what remained was the land, littered with monuments that, over time, began to crumble and recede into the overgrowth. These plots, once on the outskirts of small American towns, became enmeshed within growing cities. In some cases these became green spaces; breaks in the urban landscape where city residents could enjoy the ersatz parkland. In many cases, however, the cemeteries became holes in urban fabric - forgotten pieces where vandalism and neglect created spaces unfit to serve either the living or the dead.

These typological failings can be attributed, in large part, to the distance between the contemporary city dweller and his predecessor. Barring an emotional connection (family member, celebrity) an urban inhabitant has no reason to revere or respect the memory of someone who died a century before he was born. It then

becomes easy for that person to neglect the memory of that person interred. Aside from this sociological dilemma this poses, there is also the physical impact of such neglect to the cemetery and the city that surrounds it. The cemeteries become desolate and undesirable pieces of the neighborhood. At best they are forgotten; at worst they dissolve communities.

There is another element to the decline of the urban cemetery that is tied to its ideal of an eternal resting place. The idea of endowing a plot of land to someone in perpetuity displays the naïveté of a young country whose land seemed boundless. Whereas some European cemeteries at that point had buried multiple generations in graves and in catacombs, the American cemetery evolved into a standard, personal burial plot.

However, as the world population continues to grow exponentially and world's resources grow taxed to support them it seems irresponsible to remove resources from the public good. The idea of an eternal anything is far removed from our current circumstances.

Between the decay of the physical cemetery infrastructure and that of the ideal of the American cemetery the typology is ripe for revitalization. The potential exists to take the site of the urban cemetery and reanimate it with people and activity while creating a place of reverence and respect. By invigorating the site with new meaning, one can simultaneously repair a blighted urban space and the memories of the forgotten souls therein.

Brief History of Bathing Traditions

Human beings have always had a connection to water. Whether it represented a divine element that was capable both of sustenance and of washing away disease or a terrifying element that housed untold monsters and apparitions, cultures have always accounted for this essential element. It was common trait across cultures to create traditions based around their contact with water. As historian Alev Croutier wrote:

> While most societies developed different ways of creating physical contact with water, incorporating the philosophy and temperament of their people and their environment, they always seemed to have the same elements in common – spiritual, hygienic, therapeutic, and social.[2]

What Croutier was describing was a bathing tradition that spanned thousands of years and across the globe.

While many cultures celebrated springs and streams as sources of fertility and sustenance, the first culture to devote buildings to this endeavor were the Greeks around the fifth century BC. The baths were initially a functional means of cleaning sweat and dirt from athletes who exercised in the attached gymnasia. The baths were a therapeutic counterpoint to the physical exertion of the gymnasium and were part of an established routine that started with the workout in the palaestra (gymnasium), continued to a circular bathing pool and ended in philosophical discussion in the exedrae (discussion halls). Thus the Greeks viewed the baths as a part of an ideal education that spanned the physical as well as the philosophical and spiritual endeavors of its occupants.

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[2] Alev Lytle Croutier, *Taking the Waters: Spirit, Art, Sensuality* (New York: Abbeville Press, 1992) 77.

The Romans elevated this societal necessity to an art[3]. The Romans adopted the Greek ideals of bathing and in the warm Roman climate the *thermae* (from the Greek *thermos* or hot) were a welcome social pleasure. In 33 BC the Roman soldier and statesman Agrippa built the Julia aqueduct in Rome, a massive feat of engineering that provided Rome with the necessary flow of water to, among other things, supply free public bathhouses. These bathhouses included hot, tepid and cold baths as well as massage rooms. By 100 AD Rome had 13 aqueducts providing 750 million liters a day that fed 1,352 public fountains, 11 imperial *thermae*, and 926 public baths. Baths became the means for public benefactors to demonstrate their largesse, with notable bath buildings like the Baths of Diocletian (298 AD) and of Caracalla (212 AD) covering areas over 30 acres and accommodating as many as 6,000 bathers.

Though the sizes of these complexes varied, there was a standard bathing ritual throughout the empire:

> The intricate architectural layout of the *thermae* gave birth to an elaborate bathing ritual … The baths opened to the public at 1pm, at which time an attendant would ring a bell signifying the water was hot. After exercising, the bathers would first go to the *apodyterium* to undress and get a bathing sheet. They would then enter the *tepidarium* to acclimate their bodies to the heat before moving on to the *caldarium* to take a hot water bath. They were now ready for the *laconium*, an extremely hot chamber, above a furnace, that made one sweat as much as possible. Afterward they would be oiled, massaged, and scraped with a strigil, and the treatment would end with a quick plunge in the *frigidarium*, which closed the pores and revitalized the bathers. The alternative was a cold swim in the *natatorium* (pool), which served essentially the same purpose.[4]

[3] Croutier, 81.
[4] Croutier, 85.

This bathing process was directly tied to the architecture of the bathhouses that provided for each step of the ritual and all other aspects, be they social or hygienic.

The Jewish ritual of *mikvah* (from the Hebrew *mikwá* meaning a collection of waters) was a ritual cleansing of both the body and the spirit that dates back to the period of urbanization under King David in 1055 BC. Baths were a part of this urbanization effort, gaining its authority from the Talmudic reference, "A Jew May not live in a city where there is no public bath."[5] This need for cleanliness was at least as much about spiritual rebirth as it was hygiene. Peter Zumthor summarizes the spiritual importance of the *mikvah*:

> The mikvah differentiates between clean in a physical and a ritual sense: in its ritual sense it is close to life, every living thing dies and yet isn't dead and will be born again, it is a process that continually repeats itself, death is integrated into this cycle and anticipated on specific occasions in order to become new life …[6]

The *mikvah* represented such an important part of the Jewish faith that according to Jewish law the erection of a ritual immersion bath took precedence over that of a community center or a synagogue.[7]

The Middle Ages saw a decline in the bathing culture of Western society. Early Christians viewed the Roman tradition of bathing as unnecessary and indulgent. The aesthetic Christian sects viewed dirt as a sign of humility and holiness (Saint Benedict considered an unwashed body a temple of piety). This, coupled with the Christian views on modesty and the body, caused a several-hundred-year lapse in Western bathing culture.

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[5] Talmud as quoted by Croutier, 87.
[6] Peter Zumthor, *Therme Vals* (Zurich: Verlag Scheidegger & Spiess, 2007) 126.
[7] Zumthor, *Therme Vals*, 127.

During this time Islamic cultures spread across the Middle East and Northern Africa appropriated the Roman bathhouses they found, though many of the ideals of communal bathing were eschewed for a place of soltitude and spirituality. Historian Alev Croutier explains:

> In Islamic culture, rejuvenation was a spiritual process requiring repose and solitude. Although the hamam retained the sequence of hot and cold rooms, it discarded the other elements (gymnasium, exedrae, and library) of the Roman baths. Athletic activity was replaced by massage; intellectual discourse, by music and contemplation. The hamam was a place of non-activity and withdrawal, where even a slightly energetic movement could disturb the psycho spiritual climate. It was a place to go in order to get away from the asphyxia of city life and leave one's daily existence behind.[8]

By turning away from the city, the Islamic baths turned inward. This, coupled with the decline of bathing culture in the West led a movement towards private bathing in one's homes – an ideal that, for the most part, has percolated into the American sensibilities regarding bathing.

Design Goals

In his book, *Therme Vals*, Peter Zumthor pointed out that, "in some places in Europe and the United States there is little about the mikvah to remind us of the traditional purpose of the original bath of immersion, which, having mutated into a wellness center, now advertises the religious ceremony as a feel-good experience. No sooner does a ritual become obsolete, than its replacement clamors for attention."[9] Whereas Zumthor was writing about a particular bathing tradition being usurped by contemporary and material concerns, the same could be applied to the American

[8] Croutier, 93.
[9] Zumthor, *Therme Vals*, 128.

urban cemetery; what was once a sacred space devoted to the memory of the city's dead has become a run down urban space.

This thesis is meant rectify the growing issue of the decaying urban cemetery – both the physical and the sociological aspects of the cemetery. At present the cemetery is a difficult site because it is imbued with a sense of place through the permanent placement of bodies on that space. As such there is the sense that these places cannot serve as anything but what they were designed to be – permanent resting places for the dead. This ideal is proving to be, and will increasingly prove to be, unsustainable, particularly in urban settings, as land becomes more and more valuable and as increasing human populations contribute to the problem of where to house these bodies.

A solution exists in changing attitudes towards burial. This has already taken form as green burials and cremations have become more popular as people look towards other options than interment. This will help alleviate the pressure to build new cemeteries, but it does little to accommodate the existing cemeteries.

Existing urban cemeteries form a problem that is solved with varying levels of sensitivity. The basest solution is to simply remove the corpses from the ground and to build anew on the site. This solution is effective – it reuses the site – though it gives no thought to the memory of the place.

Another solution is to condense the memorial section of the cemetery to a fraction of the total site and to reuse the rest of the site for another purpose. This solution is taking place in Iran where urban cemeteries, which were originally on the outskirts of towns, are now being swallowed in urban sprawl. City planners

determine the important monuments of the cemetery to preserve and reuse the rest of the site as parkland. This is a practical solution that displays more sensitivity to memory of the site.

I propose a third solution in which one takes the cemetery as a given site and, through manipulation of the visitor's path through the site and by establishing a strong threshold that effectively transitions the visitor from the urban environment to the re-asserted spiritual realm of the cemetery. This threshold would take advantage of the spiritual qualities of water and the bathing tradition.

These are, admittedly, somewhat contradictory ideas – the sanctity of a final resting place and the profanity of a daily existence. Can the daily ebb and flow of a city coexist with immortal memory? Can architecture blend these two worlds to a satisfactory solution? The goal of this thesis is to resolve these questions in the affirmative.

Chapter 2: Site Selection and Analysis

Site Requirements

There were several prerequisites that went into choosing a site. The first was that it met the criterion of an urban cemetery. I defined an urban cemetery somewhat subjectively as a site with multiple burials within a vibrant urban context. Street life and surrounding buildings were necessary in order to qualify as urban. This removed the rural graveyards and cemeteries from consideration, as the need to continue the urban fabric was crucial to my thesis.

Another criterion was that the cemetery maintained a state of disrepair. There are few urban cemeteries that remain viable pieces of the urban condition because they are maintained by their governing body (Christ Church cemetery in Philadelphia is an example of such a cemetery). These continue to operate without the need for intervention, so they were discounted.

Finally I considered scale. Several urban cemeteries met the previous criteria but proved too large for a single, coherent architectural intervention. While it would be possible to create a neighborhood-scale intervention on a site, that seemed too large for the purposes of this thesis.

Ultimately I chose to explore the Holy Rood Cemetery in Washington DC, located on 35th Street and Wisconsin Ave.

Site History

The Holy Rood Cemetery site dates to 1832 when Holy Trinity Church, a church associated with Georgetown College (now University), established the third graveyard for its parish atop the hill on Wisconsin Ave. The title to the church and cemetery belonged to Georgetown College whose Jesuit fathers founded the Holy Trinity Parish. Originally called the Upper Grave Yard, the cemetery changed its name to Holy Rood in 1866. The cemetery was founded to serve the local parish which consisted mostly of Irish immigrants and freed slaves who lived in the Georgetown area. Several gravestones identify veterans of the Revolutionary and Civil wars.

From its founding the maintenance of the cemetery has been a difficult issue. The Holy Trinity Catholic Church defrayed these costs by selling burial plots, the last of which sold in 1915.[10] With the last of these plots sold there were no remaining sources of income for the cemetery and the University began pursuing a transfer of the cemetery to the Archdiocese of Washington. The archdiocese declined in 1933, with Archbishop Curley delivering a perceptive response suggesting the future of the urban cemetery:

> You are aware of course that many Cemeteries, particularly old ones become horrible eye sores, and in fact a disgrace to the Church. We have some of them here, no longer in use within City limits, and no one can be found to take the slightest interest in them until a proposition is made to sell them to the City or to remove the remains, then a thousand silent friends of the dead become vocal ... I think it would be better to keep the title of the Holy Rood

[10] Fletcher, Carlton, "Holy Rood Cemetery I," Glover Park Website, Accessed May 17, 2011, http://www.gloverpark.org/holy_rood_cemetery_i.html.

> Cemetery just where it is. It might be of some use to the University a hundred years from now.[11]

The archbishop's response displayed a keen awareness of the problems surrounding the upkeep of urban cemeteries, and a particularly prescient reading of Holy Rood's fate.

In 1942 Georgetown University transferred the Holy Trinity Church to the Archdiocese of Washington DC but maintained responsibility for the cemetery. The University considered the cemetery to be a financial burden and moved to develop the property in 1972.

In order for Holy Rood to be developed, its graves would have to be transferred to an archdiocesan cemetery. This would prove to be a difficult task but one the archdiocese was willing to consider. They proposed charging the University two million dollars (of which 80 percent would be profit) - a proposal that Georgetown mulled for nine years before the archdiocese withdrew from the negotiations.[12]

The University made further motions towards developing the site in 1984 when Charles Meng, vice president for administration and facilities, notified the remaining holders of burial rights that the cemetery would be closed to future burials. The University abandoned their position after public outcry, particularly from the holders of the burial rights, complained that the archdiocese had never granted permission for the cemetery to close, creating both a canonical and potential legal

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[11] Michael J. Curley to Coleman Nevils (January 10, 1933), Georgetown University Archives.

[12] "Holy Rood Cemetery," *Newsletter of the Catholic Historical Society of Washington*, Volume X, Number 3, July-September 2002.

responsibility on the part of the University towards the aggrieved. The courts agreed with the complainants, obligating the University to honor the outstanding burial contracts in the 1984 case *Kolb et al vs. President and Trustees of Georgetown University*, CA 14338-84.

Though the case halted the University's plans to develop the property at the time, it could not maintain the site for perpetuity. In fact, while Georgetown agreed to allow the cemetery to remain open to the burials to the remaining lot holders, it kept plans to develop the site once those burials were complete. University President Maurice T. Fox summarized this plan in 1984, saying: "The University takes the position that someday, somehow, the University must be allowed to convert this property from cemetery property to some other use."[13]

Site Analysis

The site is located in the Glover Park neighborhood of Washington DC, at 38° 55′ 3.36″ N Latitude, 77° 4′ 13.44″ W Longitude. Washington DC is located in the humid subtropical climate with temperatures ranging from an average daily high of 86.3˚F in August to an average daily low of 27.3˚F in January. [Fig 2.1 - 2.4]

The neighboring neighborhood is zoned R3 which the Washington DC Office of Zoning defines as:

> Permits matter-of-right development of single-family residential uses (including detached, semi-detached, and row dwellings), churches and public schools with a minimum lot width of 20 feet and a minimum lot area of 2,000 square feet for row dwellings, 30 feet and 3,000 square feet for single-family semi-detached dwellings, 40 feet and 4,000 square feet for all other structures

[13] Fletcher, Carlton, "Holy Rood Cemetery III," Glover Park Website, Accessed May 17, 2011, http://www.gloverpark.org/holy_rood_cemetery_iii.html.

> and 120 feet and 9,000 square feet for schools, a maximum lot occupancy of 60% for row dwellings, churches and schools, 20% for public recreation and community centers, and 40% for all other structures, and a maximum height of three (3) stories/forty (40) feet (60 feet for churches and schools and 45 feet for public recreation and community centers). Rear yard requirement is twenty (20) feet. [14]

The site is also adjacent to the special zoning district NO for the Naval Observatory which is located about a block Northeast of the cemetery.

The site is located between a busy commercial road (Wisconsin Ave) to the east and a small residential road (Tunlaw Rd) to the west. [Fig. 2.5-2.6] The majority of the surrounding neighborhood consists of row homes and small detached single family houses, zoned R3. The exception is along Wisconsin Ave where there is light commercial buildings, restricted to 40 feet in height by the NO Special Zoning District, with limited on street retail.

The most striking feature of the site is the topography [Fig. 2.7]. The site sits higher than the street which falls from an elevation of -5 ft (from the ground plane of the cemetery) at the Northeast corner to approximately -15 ft at the Southeast corner. The site rises another 15ft to a peak in the center of the site and slopes down gradually to the west. The effect is a local high point of the neighborhood, and one of the highest points in the city, affording views of the city and Capitol dome to the Southeast and the National Cathedral to the Northeast.

[14] Washington DC Office of Zoning, Accessed on May 17, 2011, http://dcoz.dc.gov/info/districts.shtm

Sociological Importance of Site

Perhaps more important to this project than the physical characteristics of the site - its humidity and predominant winds - is its position amidst contrasting ideologies. At a small scale the cemetery serves as a buffer between the urban, commercial development along Wisconsin Ave and the smaller scale, residential development to the west. At a larger scale the site sits near the boundary between Washington DC and suburban Montgomery County MD. At an even larger scale the site is within Washington DC which itself serves (via the political importance of the city) as the threshold between the nation and the international world.

The site's role as a threshold develops even more importance when one considers the cemetery's function: both to house the dead and to transmit their memory to the living. The cemetery is literally the threshold between life and death, and so the site's broader position between other opposing factors makes it a key spot for an investigation of such issues.

Grave Distribution

compelling element of this site - that which separates it from an empty lot atop which we are adding our program - is the placement of graves and gravestones across the ground plane. The negotiation of this ground plane and the placement of these graves will prove to be a major component this project's design.

The ground plane is almost entirely covered by a uniform distribution of graves. They begin approximately 25 feet from Wisconsin Ave and continue across

the site, interrupted only by the winding path that allows access to the center of the cemetery. A large portion of the cemetery to the Northwest appears to be vacant, but in fact holds the remains of hundreds of freed slaves who were buried in graves with inexpensive, wooden grave markers which have disintegrated over time.

The graves that remain visible are marked by stone grave markers that are mixed between horizontal and vertical orientations. The horizontal stones usually sit several inches above the ground plane and cover the grave entirely. The vertical elements are typically 6-8 feet in height and mark the center of a family plot. These are sometimes surrounded by a gate, but are more typically interspersed with the horizontal gravestones in the grass.

The key in negotiating this site will prove to be determining the extent to which one wishes to alter the existing landscape. A project that proposes to alter the placement of the graves would have a vastly different results than one that attempted to build around the graves.

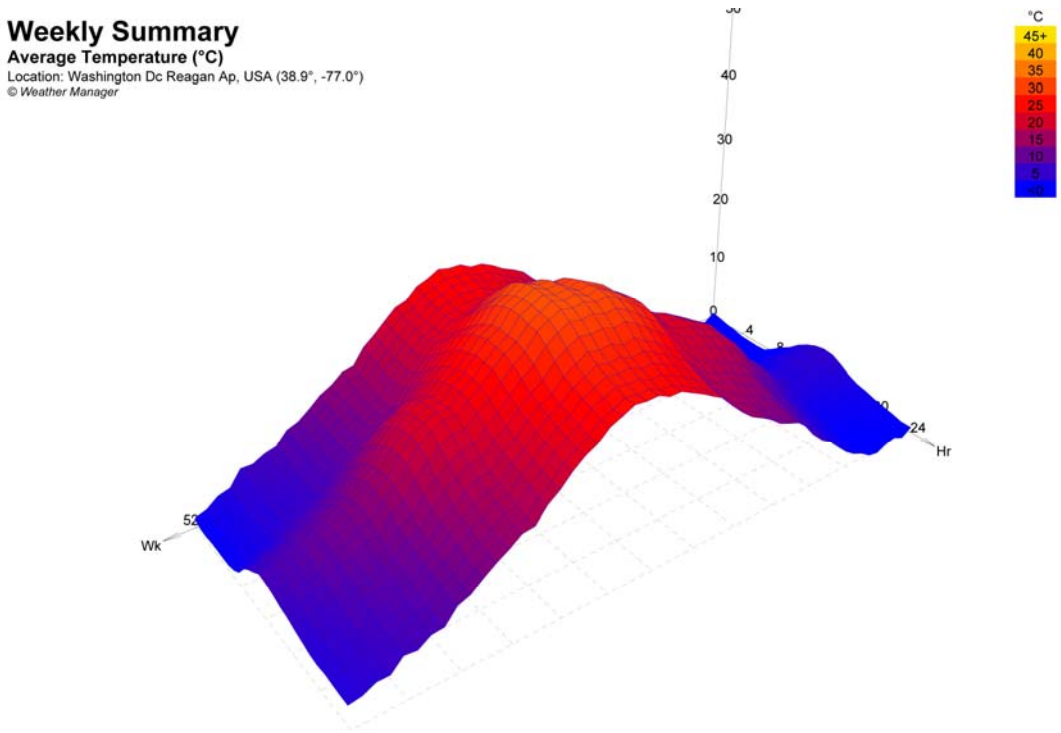

Figure 2.1: Weekly Average Temperature (Washington DC)
Image Courtesy AutoDesk Weather Manager

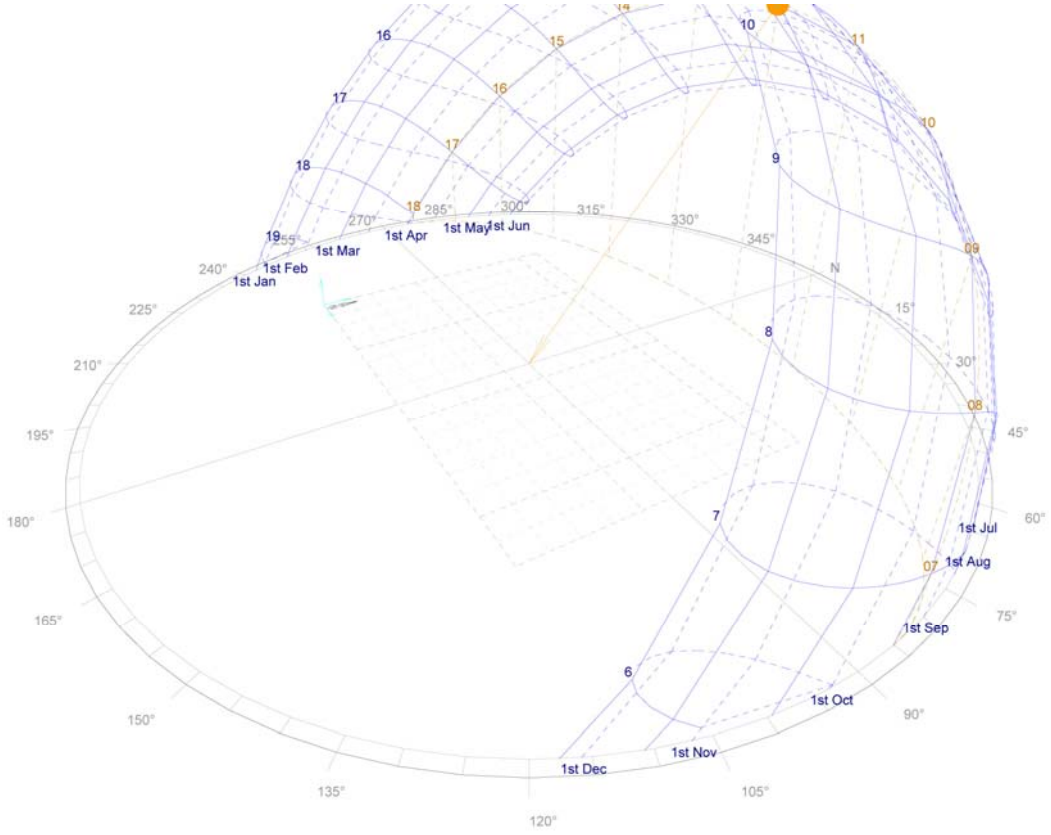

Figure 2.2: Sun Path Diagram (Washington DC)
Image Courtesy AutoDesk Weather Manager

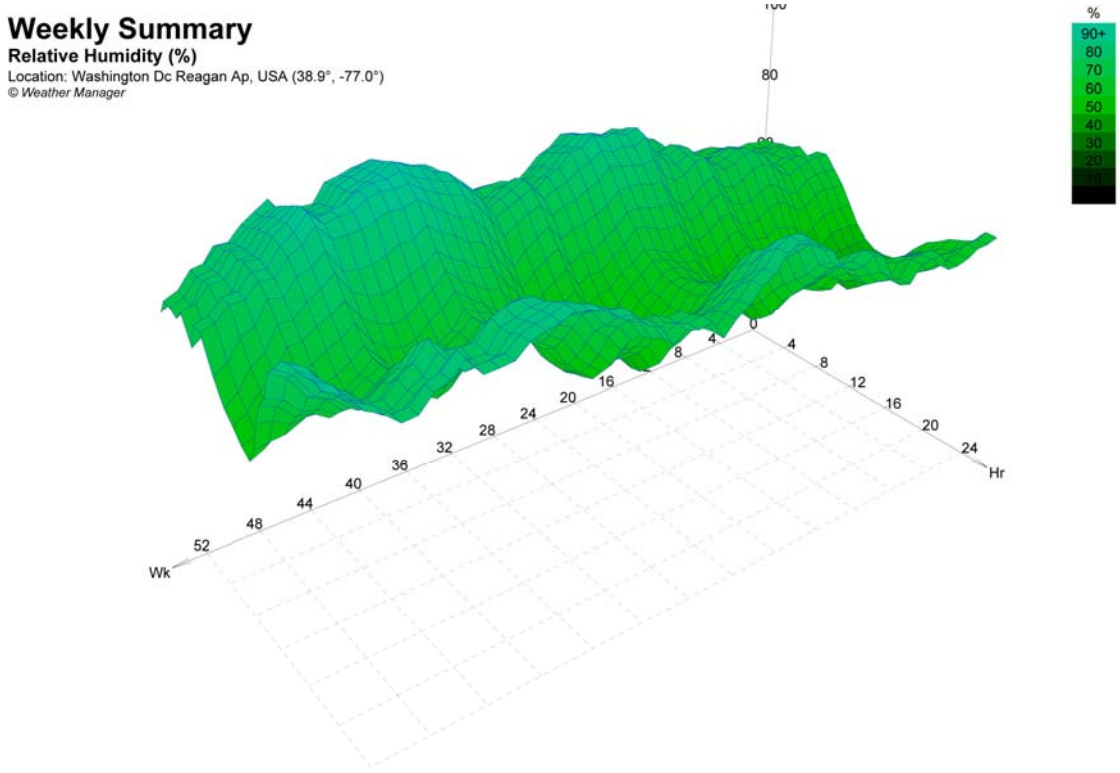

Figure 2.3: Weekly Relative Humidity (Washington DC)
Image Courtesy AutoDesk Weather Manager

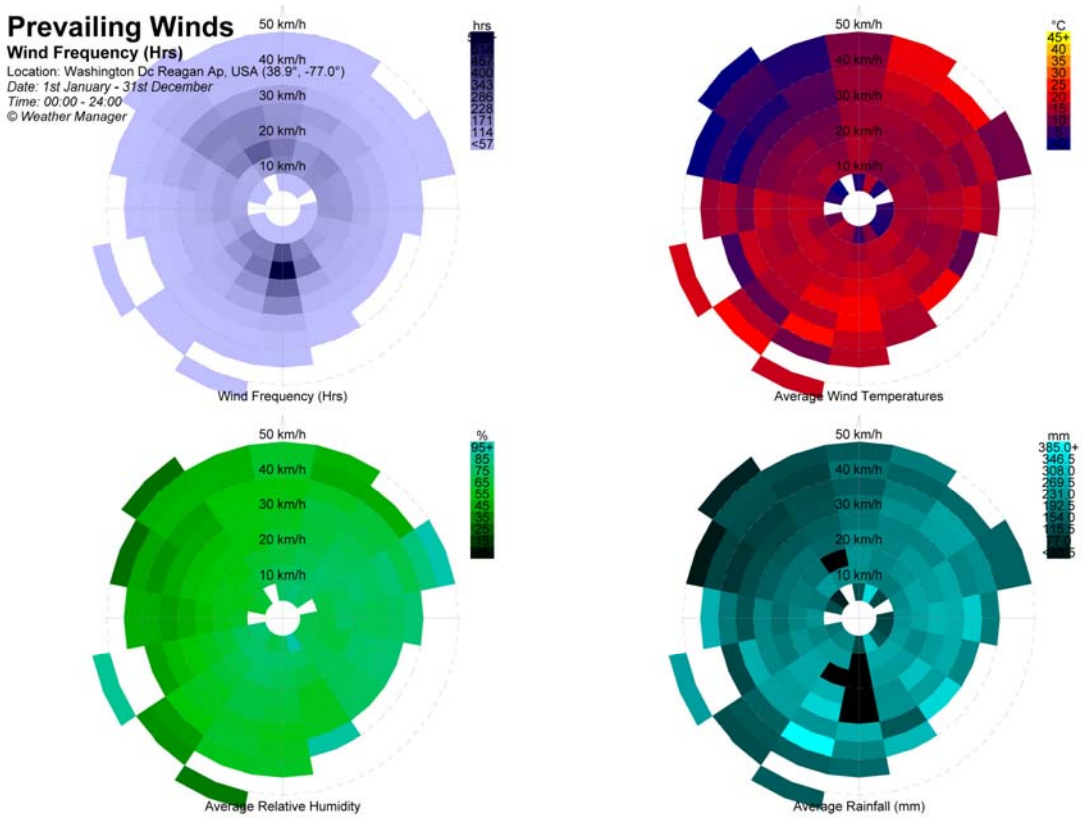

Figure 2.4: Prevailing Wind (Washington DC)
Image Courtesy AutoDesk Weather Manager

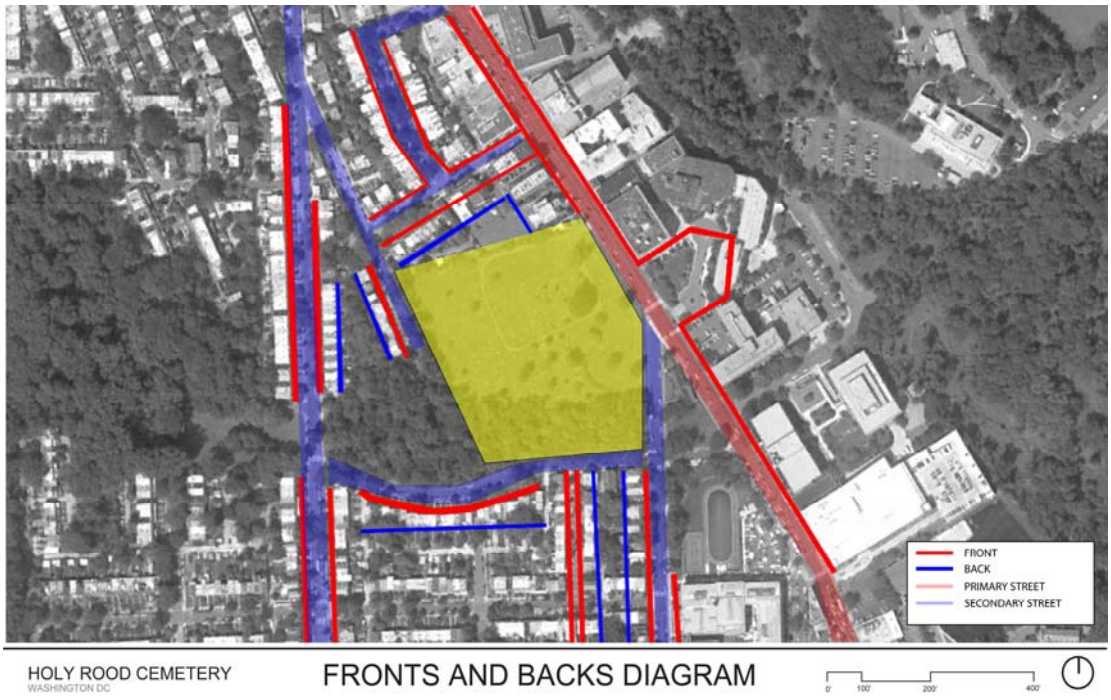

Figure 2.5: Primary and Secondary Streets Diagram

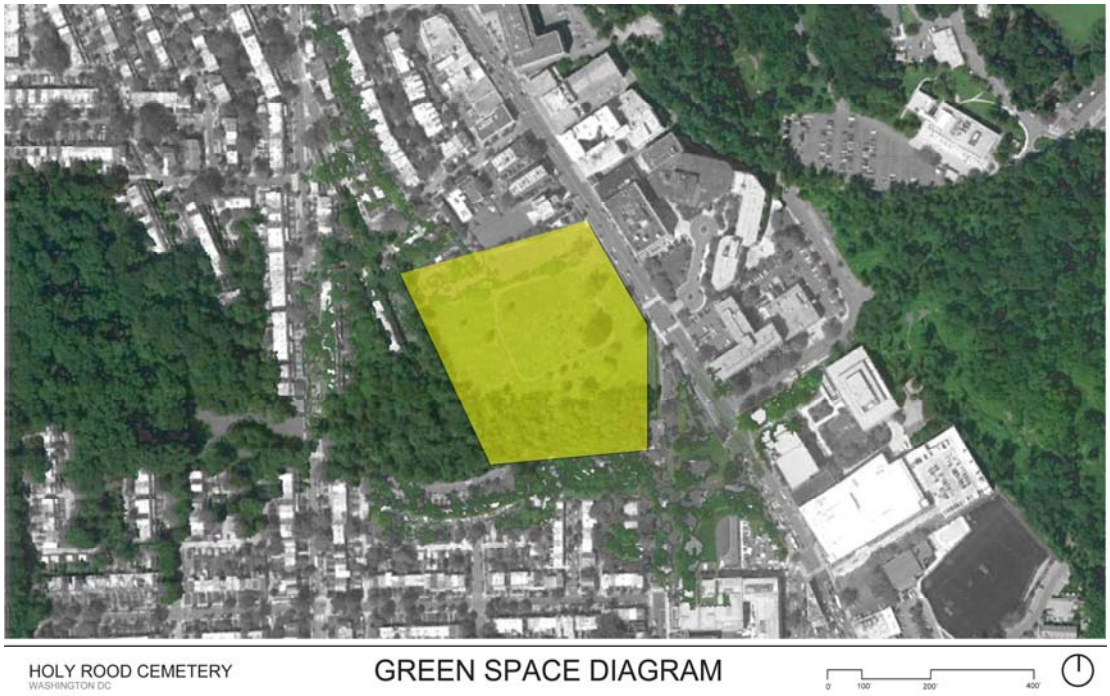

Figure 2.6: Green Space Diagram

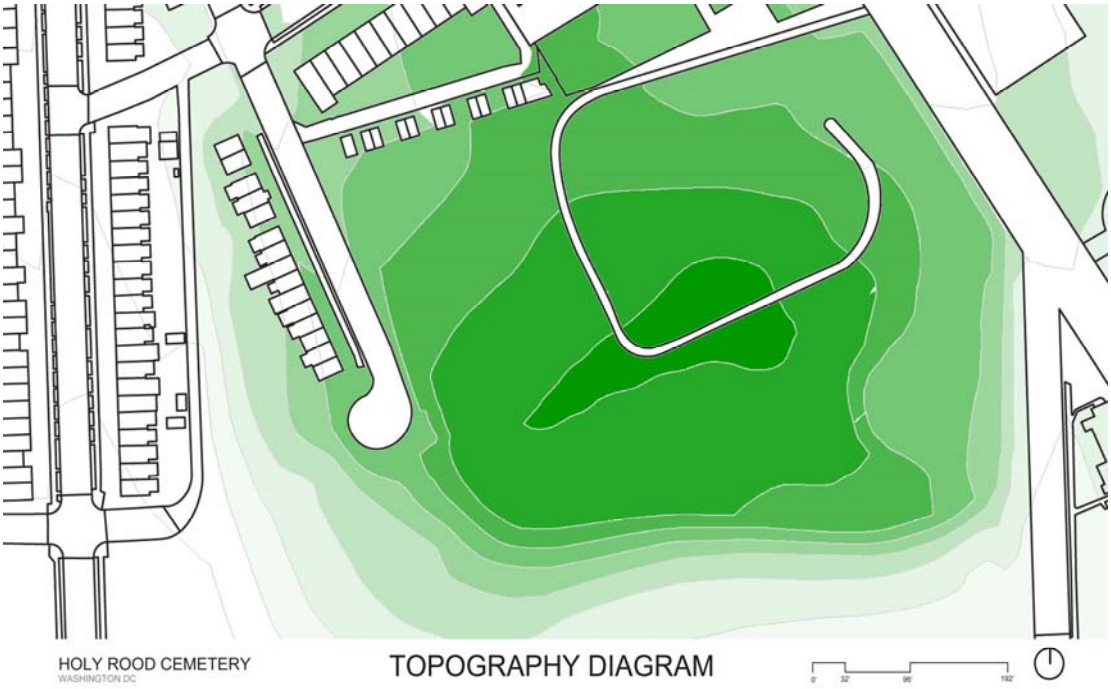

Figure 2.7: Topography Diagram

Chapter 3: Program Philosophy

Threshold

In looking at this cemetery both as a typology and as a specific site one is irrevocably drawn to the notion of threshold. All cemeteries possess this quality to some degree as the mediators between the living and the dead. In most cases one gains the sense of crossing into a place of memory the instant one passes the gates that surround the urban cemetery.

This notion of threshold suggests a correlating procession on the part of the visitor. In the case of the Holy Rood Cemetery this procession takes several forms: the passage from the urban environment along Wisconsin Avenue to the green space to the west; the passage from the ground plane towards the sky as one moves up along the mound at Holy Rood; and most importantly the passage from the world of the living to the world of the dead. The Holy Rood site sits along the boundaries of these opposing phenomena and the program that I propose to add to the site would need to fit into this idea of passage and threshold.

The Ground Plane

The most important aspect of the cemetery site both in its present condition and including the program is the role of the ground plane in the design. The ground plane is the divider between the realm of the dead that exists beneath the surface and the land of the living that exists above. How one negotiates this ground plane is an essential piece of the design.

I propose that keeping the defined realms of the visitor and the interred inhabitant is essential in maintaining the dramatic tension between the visitor and the site - a tension that could then be resolved by the passage through the threshold building on the site. If the building were to exist wholly underground, for example, then it would sway the balance in favor of the underground or dead realm. In the same vein, were the building able to float above the surface with no relation to the ground below, then the balance would be swayed in the other direction.

The building must be a delicate balance of the two zones that straddle the ground plane. Obviously a building needs foundations, and as such it must meet and intrude into the ground plane, but the extent to which one limits those intrusions and details the separation between the effected zones is one that will lead to the ultimate success of this project.

Water and the Baths

The Bath represents a compelling building typology to combine with a cemetery because of its essential ties to water, an entity that maintains a strong metaphorical link with death. This link derives from water's journey from within the earth to the surface where it will sit until it absorbs back into the soil. It is not hard to make the comparison between this and the Biblical passage describing the path of human existence, " for dust thou art, and unto dust shalt thou return."[15]

Water in its elemental state has compelled various cultures to imagine spirits in its essence, from the ancients who saw ghosts in evaporating steam to James Joyce

[15] Genesis 3:19

who saw the falling snow as departed souls in his short story *The Dead*. Indeed the capacity for water to assume different forms lends to its almost ghostly quality.

The act of washing, too, serves as a cross-cultural sign of reverence and respect. The idea that the bath could be used as a vessel to prepare the visitor to continue on into the cemetery represents an intriguing opportunity and process: the visitor approaches from the city, washes away the everyday dirt and grime, and emerges on the other side ready to occupy a sacred space. This mirrors the Muslim process of ablution before prayer or the Christian sacrament of baptism. The bath has the potential to act as the mediator between the profane world of the urban environment and the sacred space of the cemetery; essentially water provides the means not only to cleanse, but to change

In addition to the metaphorical associations of cleaning the body before entering the sacred space of the cemetery, the daily function of the bath's water treatments serves to bring people together. Many cultures view the bath as a meeting place and a place of health and vitality and in the procession from the hot baths (the heat for which rises from below the ground) to the cold baths people are drawn towards the end result together. These factors create an interesting dynamic with the cemetery space that tends to isolate people with their thoughts of mortality. By integrating a space of health and community with the cemetery space one can create a threshold that infuses a place of death with life.

The Memorial

An important aspect of this project is to retain the sense of place and meaning of the cemetery before the intervention. A major factor in choosing this site is that it was, and still is, a cemetery - a place of interment and memory. This aspect is what makes any development on the site compelling because it provides the sacred plane that must be negotiated. There have been many projects including the proposed projects on this very site that repurposed the cemetery entirely - removing the graves and replacing them with program. This strategy, while effective in its simplicity, removes what I view to be the most compelling characteristic of this thesis: the relationship between the architecture of the living and the dead. Indeed, the thesis demands the site retain the memory of the dead - a memory that is strengthened by the retention of the physical remains.

This retention and remembrance of those interred demands a certain percentage of the program be dedicated to celebrating the dead with a memorial structure. This memorial, in keeping with the project's attitudes towards not disturbing the existing graves, would help to serve the memory of those who were buried without permanent headstones (in the case of Holy Rood Cemetery this includes a large portion of freed slaves buried on the northwestern section of the cemetery). Furthermore the memorial piece, as a designed structure, could, and should, be integrated into the architecture of the programmatic pieces on the rest of the site, creating a unity of design that spoke to the overall theme of life and death and the meeting of the two.

The memorial in this project serves both as a piece of the overall design, keeping with the theme of water movement through the site, and as a physical reminder of a forgotten population of the Holy Rood Cemetery.

Conclusions

The cemetery as site has several compelling issues attached to it. Firstly is the notion of threshold and passage - a key factor in determining and developing the program. Along with that is the importance of breaching the ground plane only when necessary to maintain a heightened awareness of the separation and eventual integration of the realms of the living and the dead. This eventual integration will be attained through the viewer's passage through a series of pavilions dedicated to the sustained metaphor of water as a threshold element and through the bath building which, through the water treatments and careful exposure to the cemetery outside, will sensitize the visitor to the memorials beyond.

Chapter 4: Precedents

One of the challenges in designing this hybrid building typology is the lack of clear precedent to inform design decisions. My goal in pursuing this project was to create a design that was simultaneously concerned with the living and the dead – that combined contemporary urban needs and the memories of the departed. Is this an architecture of death whose precedents abound in cemetery and memorial design or is it a contemporary design project whose precedents are entirely different? The answer is, probably, both.

Cemeteries and Memorials

As was described in an earlier chapter, the architectural expression of cemeteries has centuries of precedents behind it. The historic cemeteries explored earlier demonstrated a concern with emulating past civilizations as part of their architecture. More contemporary examples of Cemetery design have attempted to create a more elemental understanding of death through architecture.

The San Cataldo Cemetery [Fig. 4.1 and 4.2] by Aldo Rossi uses platonic forms to create a distinctive form to house a columbarium. Rossi used a rectangular brick volume with regular punched openings that reads from the exterior as hollow. The empty volume inside and the shadows create a sense of uneasiness and a space that belongs more to the deceased than the living. The empty shell is a powerful metaphor for the corpse whose soul has departed the earthly vessel.

Figure 4.1: Aldo Rossi, San Cataldo Cemetery, Modena Italy, 1978
Image Courtesy of Home Vaganza, http://www.homevaganza.com/

Figure 4.1: Aldo Rossi, San Cataldo Cemetery, Modena Italy, 1978
Image Courtesy of Home Vaganza, http://www.homevaganza.com/

The Brion Cemetery [Fig 4.3] by Carlo Scarpa uses water as an element to divide the worlds of the living and the dead. Scarpa winds a path of water around the entire complex as a means of sensitizing the visitor to the different realms of existence in the cemetery. This is a particularly effective device as water has ancient associations with life and death and by creating a divide between the viewer and the viewed Scarpa is able to create a tangible curiosity and interest in the subject – the dead.

The Woodland Cemetery by Gunnar Asplund uses paths and paving patterns to make the visitor aware of his surroundings and intensifying his interest in the occupants of the cemetery. By using a distinctive paving pattern [Fig. 4.4] to differentiate between the zones intended to be occupied by the living and those by the dead Asplund creates a sense of place – making the visitor aware of his place in the burial procedure. Asplund also sinks a pathway [Fig. 4.5] several feet below the ground plane thus placing the visitor at the same elevation as the dead presumably placed beneath the gravestones. It is a subtle reminder of the relationship between the living and the dead.

The World Trade Center Memorial by Michael Arad and Peter Walker [Fig 4.6, 4,7] explores the potential for negative space as a memorial. From the ground plane the memorial appears to be a hole filled with water and waterfalls. The water serves to drown the noises of the city and to emphasize that the viewer cannot occupy the space below. This represents both the building footprint and a metaphorical grave that can only be occupied by those memorialized.

Figure 4.3: Carlo Scarpa, Brion Cemetery, San Vito d'Altivole Italy, 1970
Image Courtesy of Abby Mckinley,
http://www.travelpod.com/travelphoto/abbymckinley/1/1266830051/5_carlo-scarpa-brion-cemetery.jpg/tpod.html

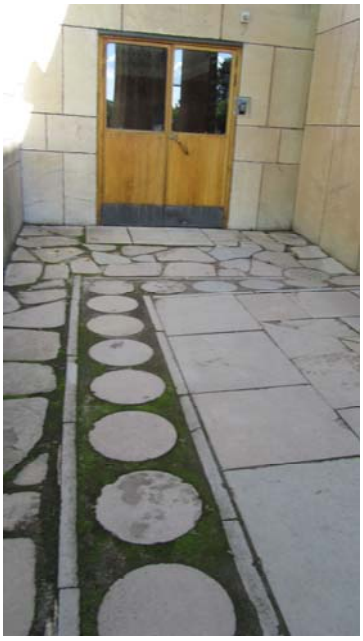

Figure 4.4: Gunnar Asplund, Woodland Cemetery, Enskededalen Sweden, 1917
Photograph courtesy of Nooni Reatig

Figure 4.5: Gunnar Asplund, Woodland Cemetery, Enskededalen Sweden, 1917
Photograph courtesy of Nooni Reatig

Figure 4.6, 4.7: World Trade Center Memorial, Michael Arad and Peter Walker, New York City, 2011
Image Courtesy of 911 Memorial, http://www.national911memorial.org/

Baths

There is a rich history of the bath building type spanning from ancient Greece and Rome to modern day. Something that each of these precedents shares is the importance of water, and the procession through the building.

The bath building was a staple of the Roman empire. As Peter Zumthor summarized, "(The building of a bath facility by Agrippa in 25 BC) was only the beginning of a trend that was to continue for centuries and produce ever larger, more monumental baths, which were not just erected in the capital but in every city of the empire including the conquered provinces."[16] While earlier bath complexes surrounded natural springs, later paradigms required extensive engineering to bring water to bath complexes. Zumthor summarized, "The great technical accomplishments in water supply and disposal were also developed during this time: canals, aqueducts, dams, cisterns. The reservoirs were constructed as independent building units located near the bath complex ..."[17].

The ancient examples had a standard progression of spaces from cold to heated rooms that was consistent across the empire. The standard Roman bath building brought people in through a controlled entrance, past a changing room, into the palaestra or gymnasium, through sequence of pools from cold to warm, and finally a sauna space [Fig 4.8, 4.9].

Zumthor's Thermal Vals is a modern interpretation on the ancient bath complex. His highly praised design borrows from the ancient examples in that there is a circuitous path through the changing areas into pools of different temperatures

[16] Zumthor, *Therme Vals*, 153.
[17] Zumthor, *Therme Vals*, 153.

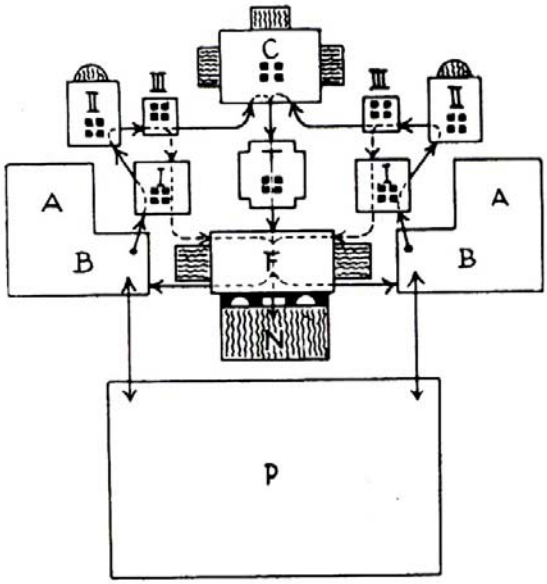

Figure 4.8: Imperial Bath Procession Diagram

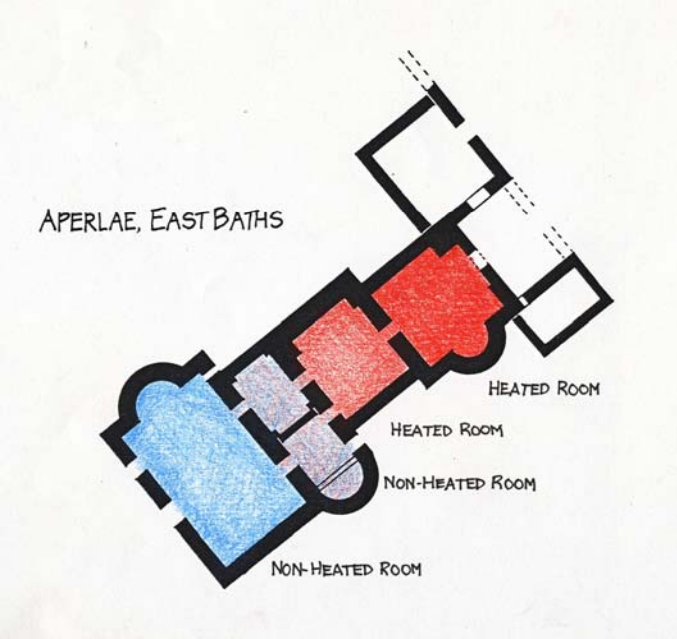

Figure 4.9: East Bath of Aperlae Diagram showing progression of cool to heated rooms

where the visitor could congregate with others. This creates a social environment more on par with ancient examples than with modern health salons.

Zumthor's bath building at Vals [Fig 4.10 - 4.11] is carved from the mountain atop an ancient natural spring. The spa area revolves around two large irregular-shaped pools, one that occupies the center of the built complex and the other that spills to the exterior. Visitors can move from one pool to the other without leaving the water. Sprinkled around these large pools are smaller alcoves with differently heated pools that seem almost cut from the large stone supports which mimic the mountain surroundings. Zumthor's use of views and light to draw visitors through the space with a view of the mountainous surroundings available from the outdoor pool.

Conclusions

There is a rich history of architecture of memory and though my project is not designed entirely as a memorial, it should display sensitivity to the interaction of the living and the dead who inhabit the site. In each of these precedents there was a clear path and procession through the site that acclimated the visitor to the world he was entering. This is an important aspect as the visitor in an urban setting will be traveling from a busy street scene into the more serene setting of respect and memory.

Water is another common aspect in memorial architecture. Water has ancient associations with the dead dating back to the Greeks and the River Styx that flowed through the land of the dead. Water can be viewed as a metaphor for the body as it springs from the earth, occupies the earth for a while before returning into the soil. Waters ability to exist in several visible states is also important as one can draw

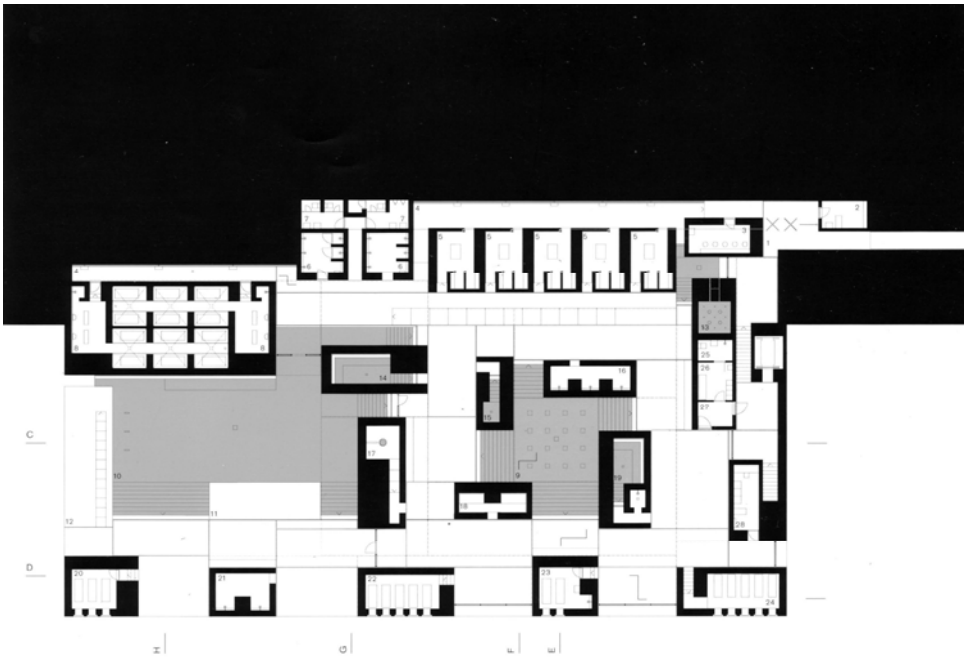

Figure 4.10: Thermal Vals, Peter Zumthor, Vals Switzerland, 1996
Image Courtesy of Peter Zumthor, *Works: Buildings and Projects 1979-1997* (Baden: Lars Muller Publishers, 1998) 163.

Figure 4.11: Thermal Vals, Peter Zumthor, Vals Switzerland, 1996
Image Courtesy of Peter Zumthor, *Works: Buildings and Projects 1979-1997* (Baden: Lars Muller Publishers, 1998) 150.

comparisons to the steam escaping a body of water to the soul escaping the body. Water's gentle, unrelenting procession through a site can create soothing background noise to drown out the urban noise, thus helping to remove the visitor from his previous world and place him in the new memorial world.

Many of the memorial precedents confronted the visitor with a zone he could see but not reach. This is a powerful metaphor for death, which all men can see but none can know until it is their time. Whether it was Scarpa's island in Brion Cemetery or Rossi's high, unreachable walls, the idea that the realm of the dead is there but just out of reach is a rich design tactic that can focus the visitor's attention on a piece, perhaps the memorial piece, while keeping them at a respectful distance.

The bath precedents picked up on the ideas of progression and water to allow visitors to congregate in a space whose focus was eliciting a quasi-spiritual transcendence from its users. The progression through the waters suggests a shedding of the old self towards a newer self towards the end. More than a simple act of physical cleaning, the bath complex, particularly Zumthor's, looked towards a spiritual cleansing that was highlighted by modulation of light and dark and by hot and cold.

Chapter 5: Building Program

The Holy Rood site will contain three inter-related programs: the bath building that would occupy the Wisconsin Ave. street edge, a path with spatial nodes at appropriate intervals, and the existing cemetery site with its headstones and green space.

Path of Procession

The project's approach towards the cemetery space is one of reverence and respect - essentially creating a sacred space of the cemetery grounds. As such it makes sense, especially in conjunction with the ritual procession through the ancient bath, to create a path of procession [Figure 5.1] around the cemetery space, thus framing and respecting the space within. Various points [Figure 5.2] along this path have been selected as places for rest and reflection with little program aside from a place to sit and gather. Three spaces will have programming as outlined below.

The Old Ground Memorial

The Old Ground Memorial takes advantage of the space on the northwest corner of the site where there are a series of unmarked slave burials. Here the program will include a space dedicated to the memory of these people - a memory made ambiguous by impermanent grave makers. The space will capture the sense of memory while acknowledging the fact that the burials here were treated differently than the burials in the larger cemetery space. Also, its placement near the neighborhood edge makes this an excellent opportunity to create a community gathering space with benches and ramps to connect the neighborhood and cemetery.

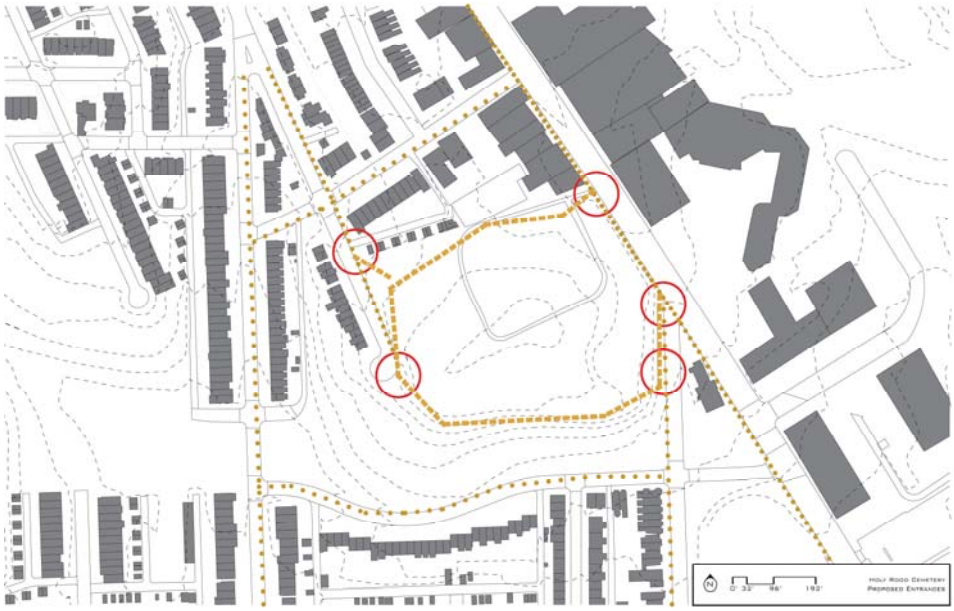

Figure 5.1: Path with Connections to Surroundings

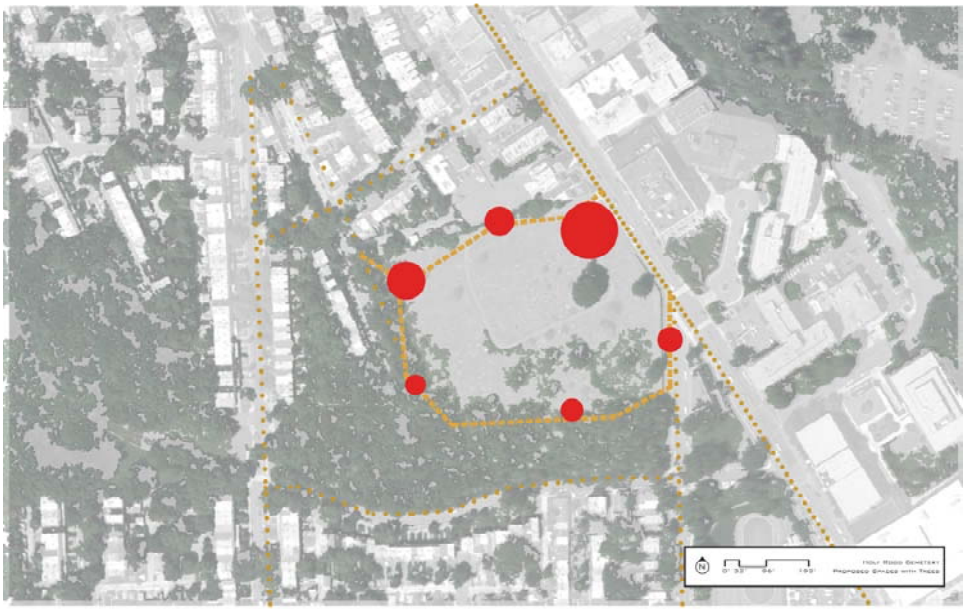

Figure 5.2: Spaces along Procession Path Diagram

Bath Program

The Bath Program must accommodate visitors and provide them with the water treatment options outlined in previous chapters. A key to this space will be the connection between the indoor space of the living and the outdoor cemetery space - a connection that will metaphorically link the living and the dead and beget a sense of renewal in visitors to the bath.

Entry	**Square Footage/Quantity**
Check-in & Waiting Area	400 sf
Administration/Offices	200 sf
Staff Restroom	150 sf
Staff Lounge	300 sf
	Total: 1,050 sf

Changing Rooms	**Square Footage/Quantity**
Lockers/Changing Area	750 sf (5 @ 150)
Make-Up Area	144 sf
Showers	332 sf (2 @ 166)
Washroom/Toilet	400 sf (2 @ 200)
Service Storeroom	40 sf
Laundry	100 sf
	Total: 1,766 sf

Baths	**Square Footage/Quantity**
Warm Pool 86°	800 sf
Cold Bath 53°	100 sf
Hot Bath 107°	100 sf
Sauna 190°	150 sf
Inhalation Sauna 120°	75 sf
Foot & Back Water Jet Pool	225 sf
Treatment Rooms	400 sf (5 @ 80)
	Total: 1850 sf

Building Service	Square Footage/Quantity
Electricity Plant	60 sf
Sanitation Plant	625 sf
Freshwater Tank	800 sf
Wastewater Tank	1600 sf
Ozone Treatment	625 sf
Air Conditioning Plant	625 sf
Chemicals	300 sf
Loading	100 sf
	Total: 4735 sf

NSF: Approx. 9,400 sf
.50 Circulation Factor: 4,700 sf

Total GSF: Approx. 14,000 sf

Greenhouse

A final piece along the path works in conjunction with the bath building proper. The logical service space for the site is along the northern edge where an existing parking lot abuts the cemetery. Capturing a piece of this to create a service building represents a great opportunity. Furthermore, this service building could become more than a simple utilitarian building, it could draw on its placement along the path to welcome people and show innovative means of water treatment, through natural means.

Chapter 6: Design

The Bath building at Holy Rood Cemetery and the surrounding site plan were designed as a dialectic between the metaphorical ideals of renewal and water and the realities of the cemetery site. The project benefited immensely from the interplay between a compelling cemetery site and the rich metaphorical qualities of water and the cemetery site conditions.

The resulting path with six nodes was the result of careful study and testing. The path connects the site to the southeastern edge - an important point in the urban fabric due to its visibility from Wisconsin Avenue and its pedestrian traffic. The processional route then follows the existing path of the nature trail along the southern edge and then serves as a connector to the western neighborhoods that were previously cut off from the site. The northern edge provides a memorial spot for an important group of forgotten people - slaves buried on site - as well as a spot for the treatment of water on the site. The path then concludes with the bath building which is the key piece of the procession as it is where the visitor is treated to views of the cemetery and access to water, leading to the spiritual renewal that the thesis strives to create.

The design of the bath building responds to both the specific site conditions and the urban context. The building's footprint is directly related to the placement of the graves on the northeast corner of the site. The building is able to hold the pre-determined program within the space that formally held the caretaker's house, and thus did not contain any grave sites. The building's massing is a response the 40 foot height limit in the area and the surrounding buildings. The choice of stone is meant

to serve as a continuation of the stone retaining wall that was a found piece of the cemetery, and for many years was the only connection between the cemetery and the surrounding urban context.

The experience of movement through this building is also a direct relation to the site. The lower floor is intentionally claustrophobic and cave-like. The lowered ceiling and heavy walls are meant to recall the darkness of the forest part of the path as well as draw a connection to the ground in which people are buried just outside the walls. As one moves through the changing room hallway, and then through the several changing rooms (meant to be smaller and more intimate than large locker-room type spaces) one moves towards larger spaces, including the main stairway where one finally moves up to the pool level. Once there the mood changes and the large open space is meant to be filled with light and life. The openness of this space extends through the large glass windows to the cemetery space and the viewer is meant to see that space and become aware of its meaning. Finally one moves into the waters of the various pools where they maintain the views of the cemetery and the water serves a dual role of physically washing while spiritually cleansing the visitor.

Another element of the design was the sustainable treatment of the large volume of water the bath building would use. One way was through treating the water in the greenhouse service building, using natural methods to filter and treat the water before cycling it back into the bath building. Another means was a more localized natural treatment that had only recently been implemented in indoor pools. This method involves filtering the pool water, running it through a small bioreactor, in this case located in the seven foot plenum in my design, then running the water

through an aerobic process in a planting bed and back into the pool. This process has been proven effective in Europe and is the most sustainable means of cleaning the water on site. This gives the project an element of not only metaphorical renewal, but that of physical renewal of water as well.

Figure 6.1: Site Map Showing Path and Places in Urban Context

Figure 6.2: Elevation along Wisconsin Ave and 35th St.

Figure 6.3: Site Section

Figure 6.4: Ramp at Southeast Corner of Site, 35th St. and Wisconsin Ave

Figure 6.5: Existing Condition of 35th St. and Wisconsin Ave.

Figure 6.6: Space along Southern Edge

Figure 6.7: Existing Condition of Southern Edge

Figure 6.8: Space at Southwestern Corner of Site with Connection to Neighborhood

Figure 6.9: Existing Condition of Southwest Corner

Figure 6.10: Old Ground Memorial, Northwestern corner of site

Figure 6.11: Existing Condition of Northwest Corner

Figure 6.12: Greenhouse along Northern Edge

Figure 6.13: Existing Condition of Northern Edge

Figure 6.14: Bath Building with Entrance to Cemetery

Figure 6.15: Existing Condition of Northeast Corner

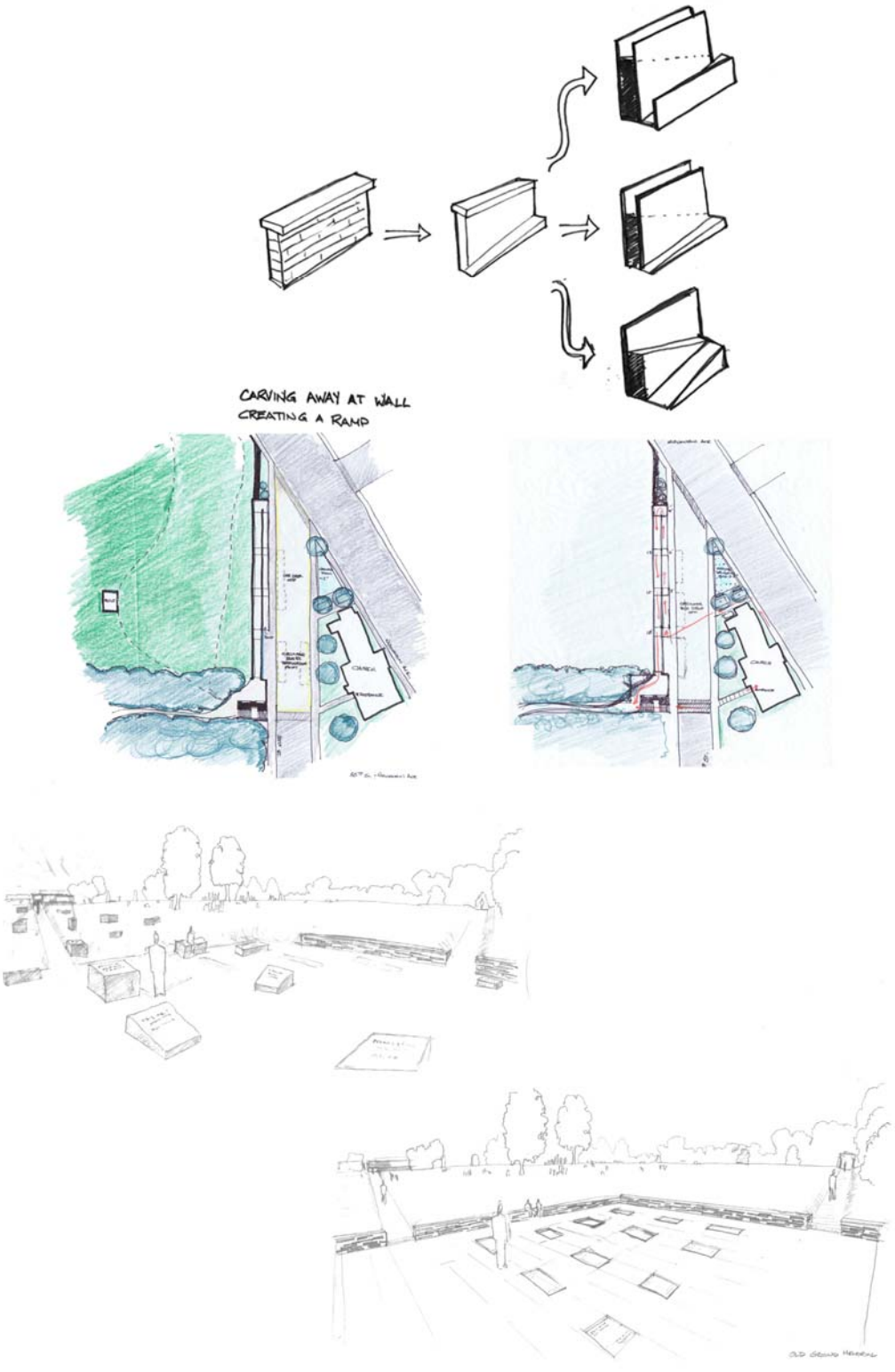

Figure 6.16: Path Process Drawings

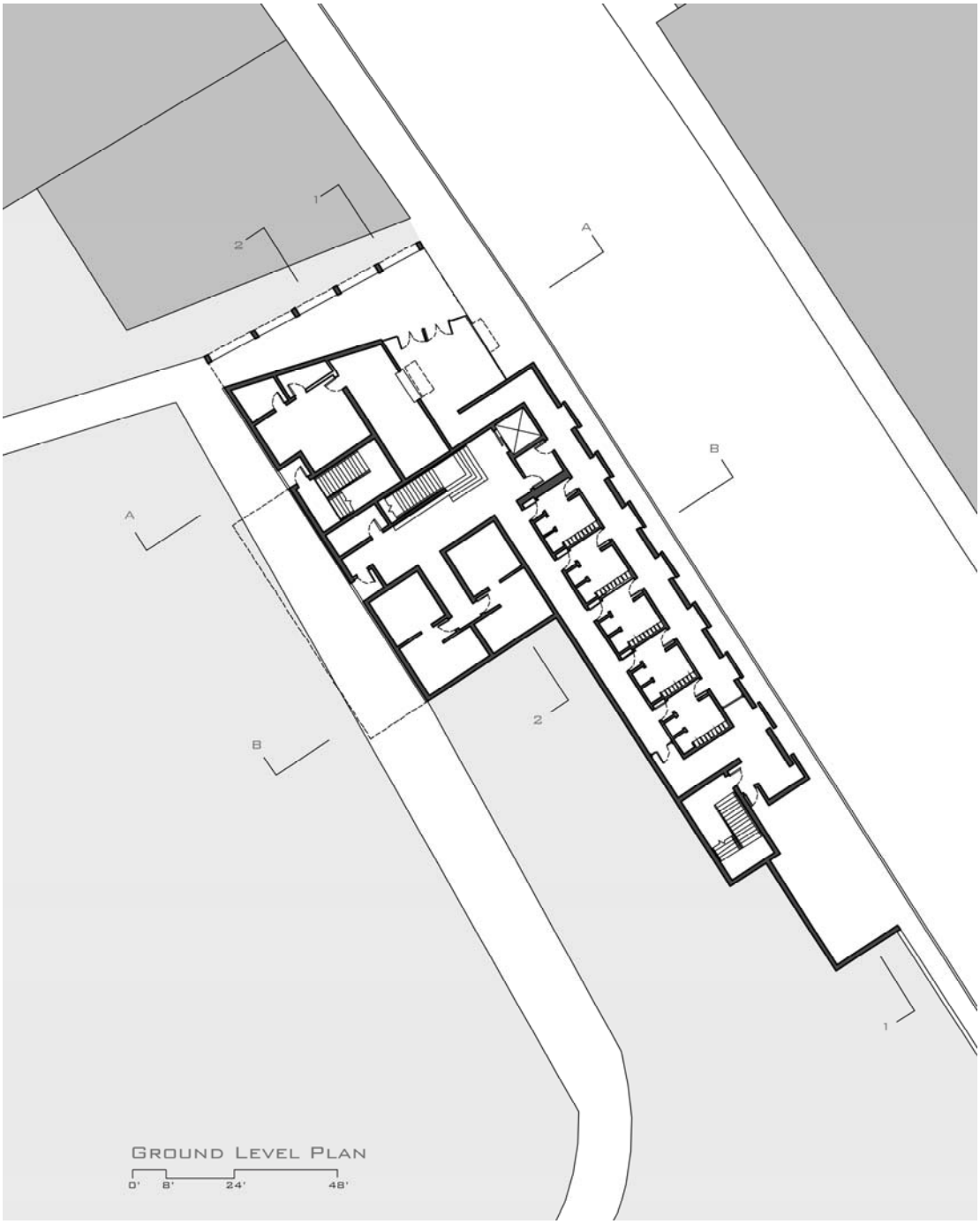

Figure 6.17: Ground Level Plan

Figure 6.18: Ground Level Process Drawings

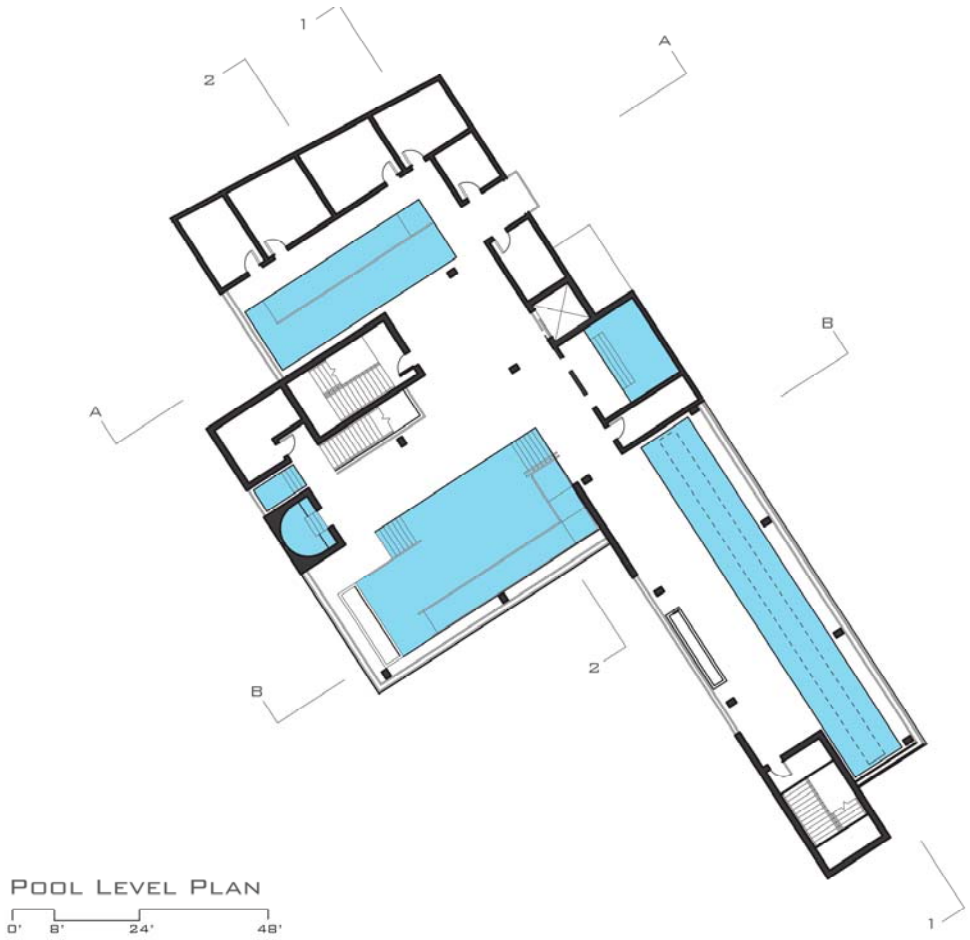

Figure 6.19: Pool Level Plan

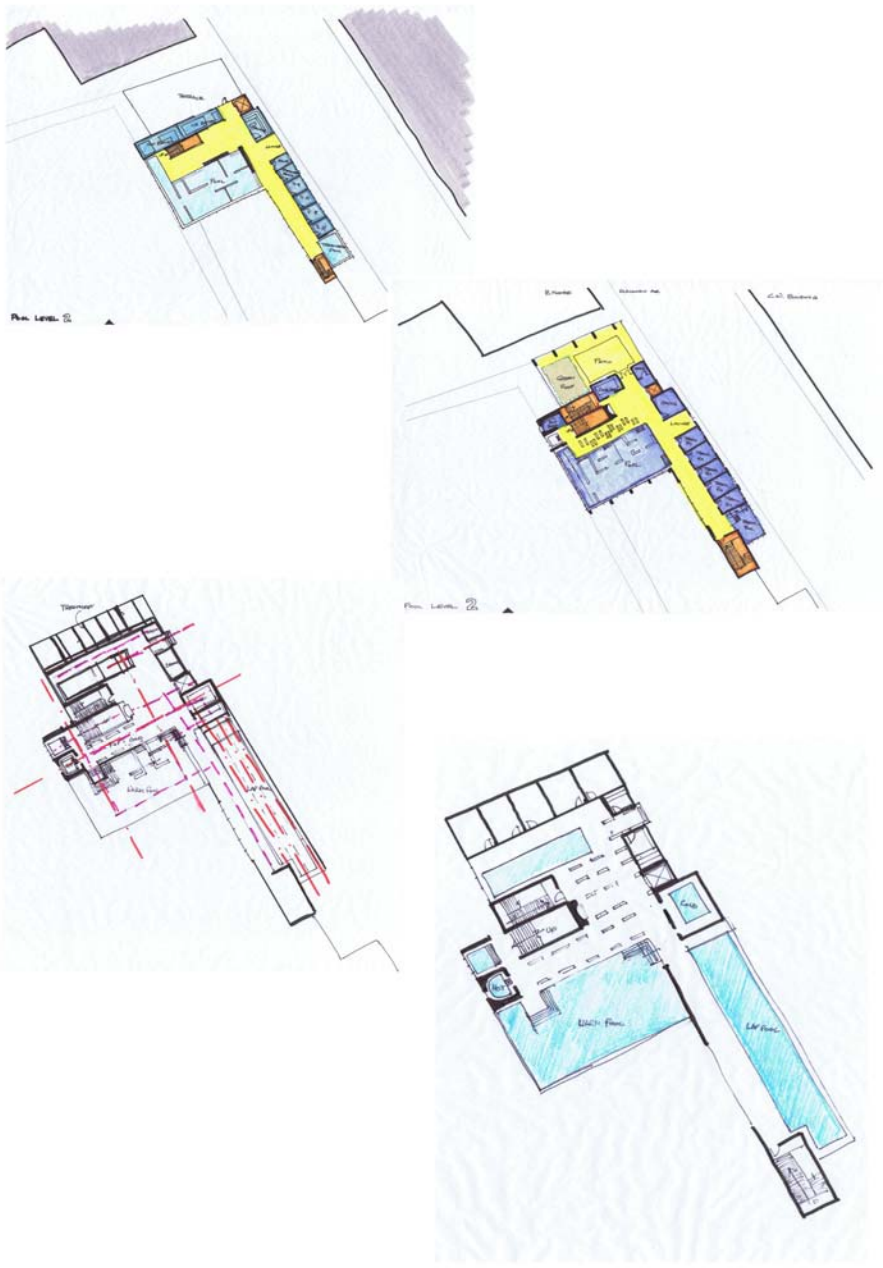

Figure 6.20: Pool Level Process Drawings

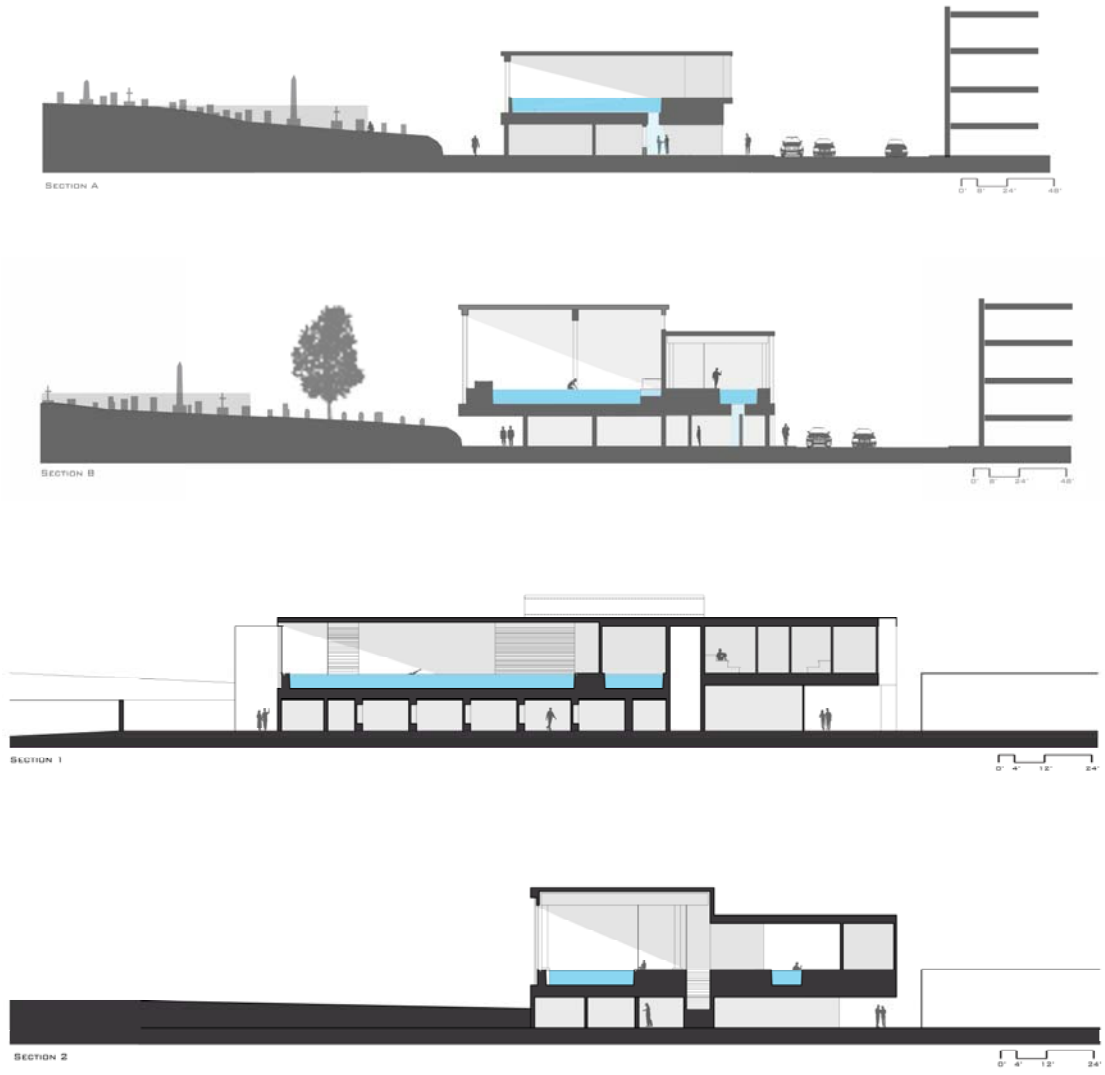

Figure 6.21: Building Sections

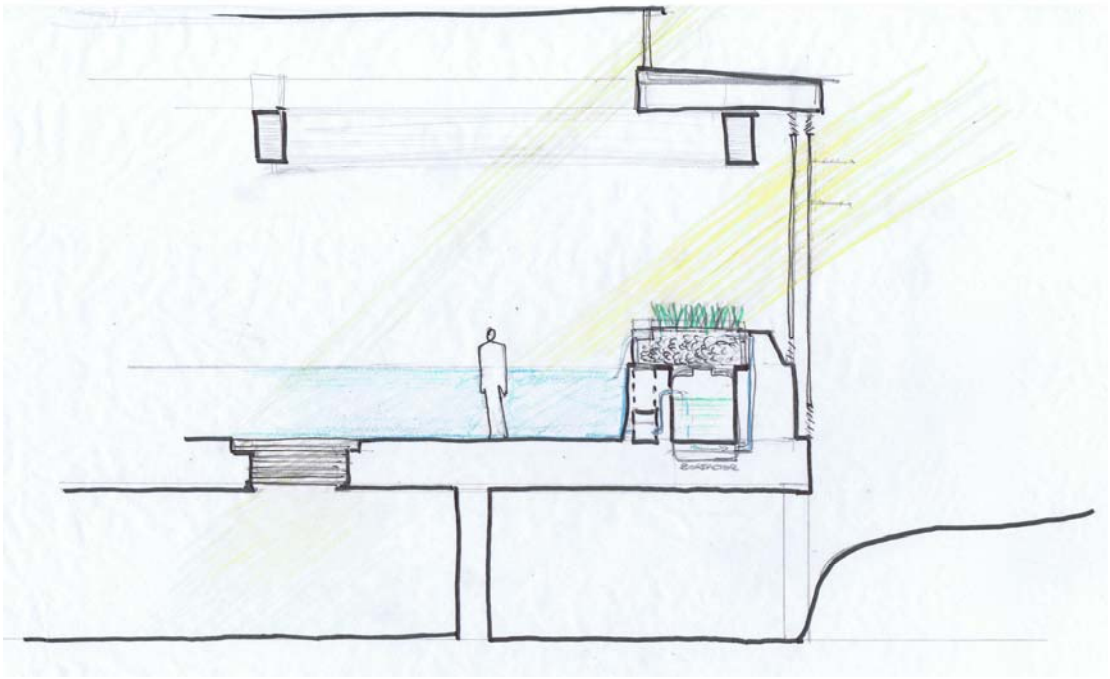

Figure 6.22: Section Sketch showing Light and Ground-Floor Skylight

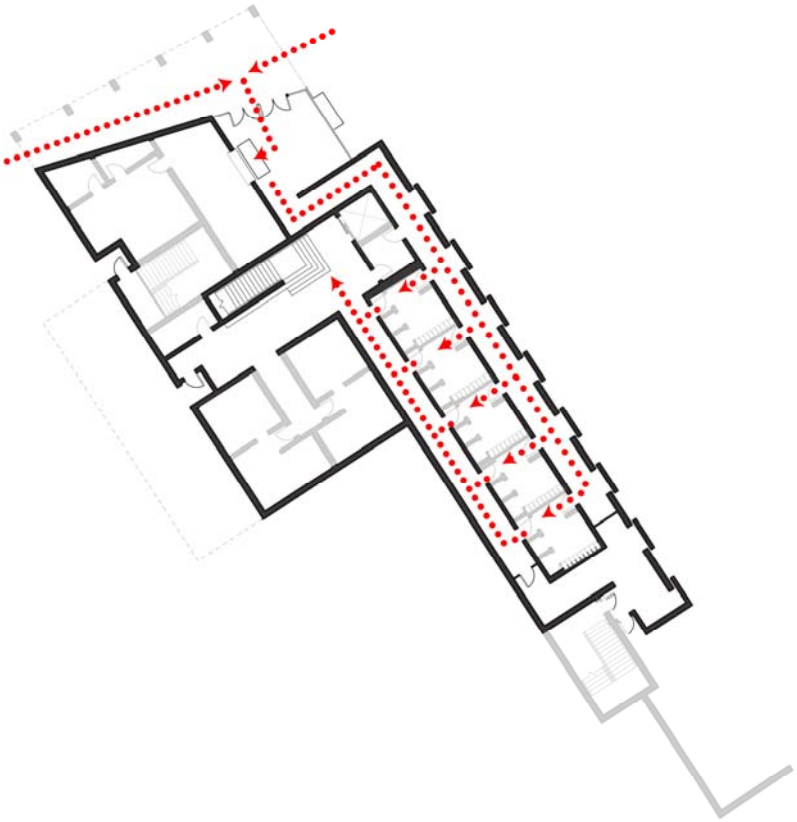

Figure 6.23: Circulation Diagram

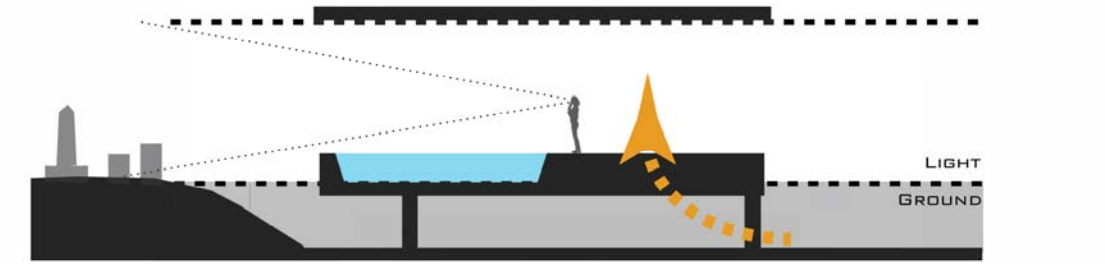

Figure 6.24: Dark to Light Diagram

Figure 6.25: Entrance Perspective

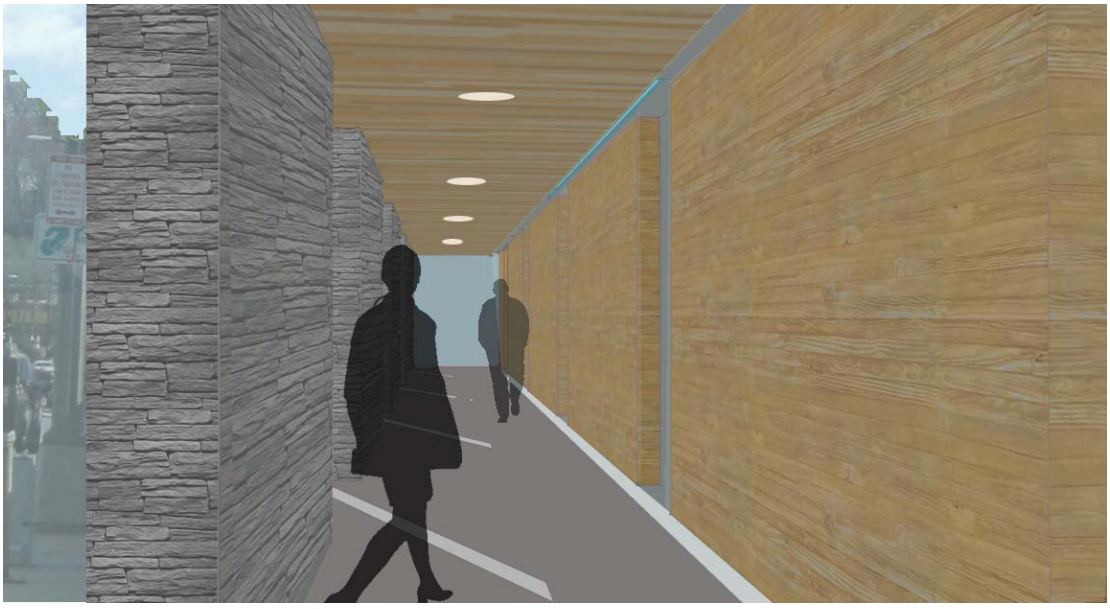

Figure 6.26: Changing Room Hall Perspective

Figure 6.27: Lap Pool Perspective

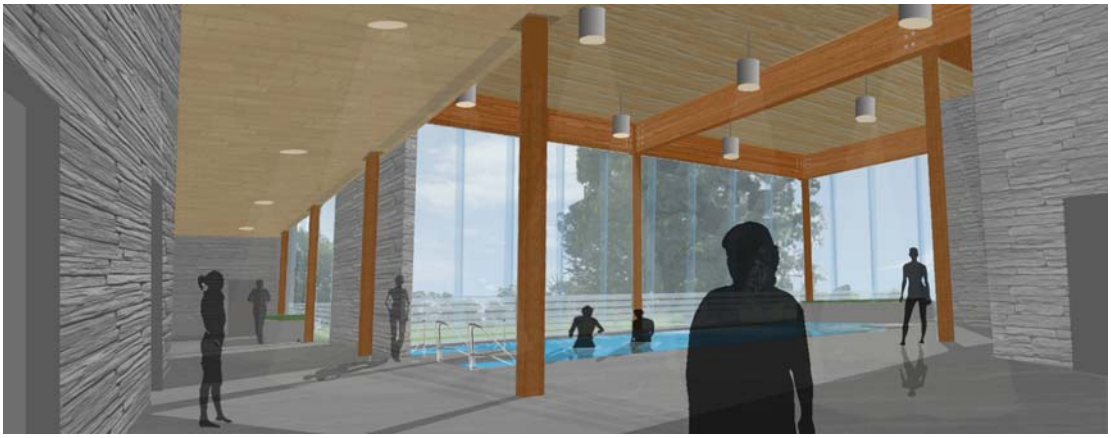

Figure 6.28: Main Pool Perspective

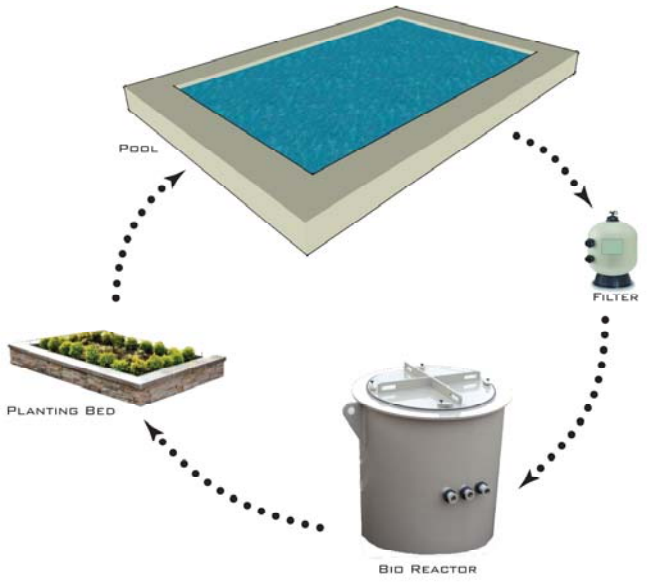

Figure 6.29: Natural Pool Diagram

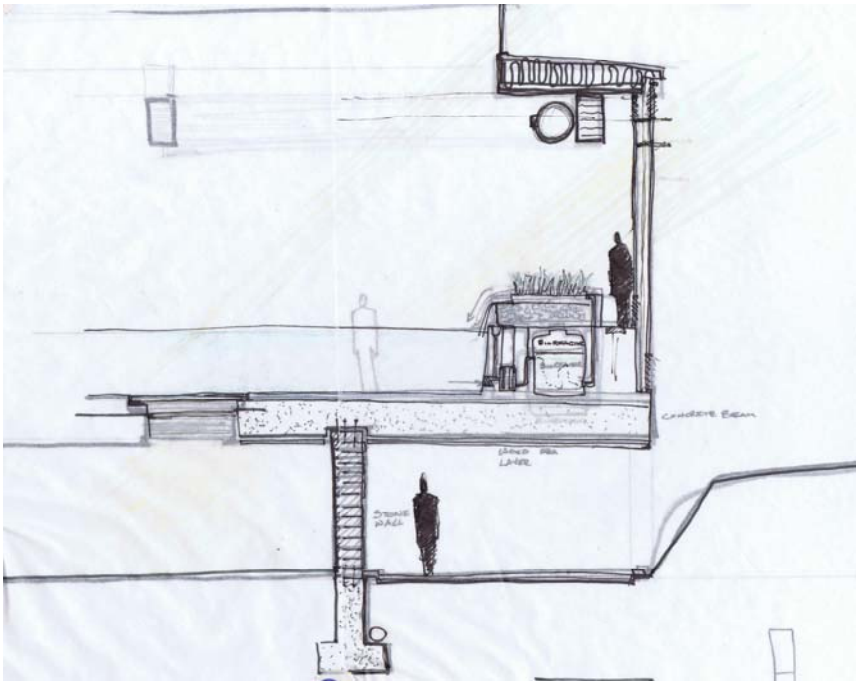

Figure 6.30: Building Section Sketch Showing Natural Pool Elements

Chapter 7: Conclusions

This project is a study in renewal. What originally was a somewhat open ended idea about studying the possible means of re-integrating an urban cemetery into the urban fabric became a focused study on the renewal of a space and the people who could visit that space.

Using the ancient bathing ritual as a driver, the project took on a new life with metaphorical allusions to the life cycle and spiritual cleansing. The inclusion of water into the program also allowed for a third level of renewal (aside from urban and spiritual) - that of the physical renewal of the water itself. By incorporating new techniques for water management, the project bridged the gap between the ancient practices of bathing to contemporary concerns over sustainability.

This project was always about negotiating the promise of an eternal resting place with the contemporary knowledge that nothing on this earth can truly be eternal. The project's success can be measured by how the design successfully negotiated the important memory of the site with the practical concerns of the city. By creating two aspects to the project - that of a procession around the cemetery and the bath building that is integrated into that process, the project became less about the cemetery ground itself (which wasn't part of the design footprint) and more about the interaction between the designed frame and the internal, honored space.

This dynamic was a point of concern amongst some of the jurors in my final project. They correctly identified that the path and the bath have pieces of the cemetery in them (the literal stone construction and the metaphorical associations) but that they seem to hold only tenuous connections to the site they inhabit. Jurors

suggested perhaps creating a few designed pieces within the cemetery space to connect the designed elements and ground them in the space they currently surround. This is certainly a pursuit worth exploring, though the design and placement of these elements within the cemetery space would certainly be delicate as great attention was paid to not disturbing the existing graves and honoring the ground plane that separates the living occupants of the cemetery from the dead.

A final point was made in the review about this being a project about a bath building that wasn't quite a bath, and a cemetery that wasn't quite a cemetery. The juror was making a point about how he felt the bath building didn't quite offer the services he'd expect from a modern spa and the cemetery was no longer a viable cemetery. I think that his statement holds a wider meaning with regards to my project, though, in that it summarizes my intentions in creating a dialectic between site and design. The bath building was never meant to be a spa (hence the semantic attention paid to referring to it as a bath, keeping with the ancient precedents and less the modern connotations of weekend spa getaways) and the cemetery was not meant to be viewed as an operating cemetery - rather as an intriguing site imbued with memory. The project's attention to both these elements as a means to inform the other was it's strength and while neither fits with our contemporary expectations of a cemetery or spa, that was somewhat the point. Our expectations, as well as the urban site, the water used on the site, and the spiritual understanding of the visitors have been renewed.

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