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The rising cemetery project

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THE RISING CEMETERY PROJECT

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for the living

RISING CEMETERY

Greg Ralph

PROBLEM:

Tangible Space (n.): The result of environmental stimuli whose impact on the inhabitant causes both mental and physical reactions. Therefore, the inhabitant becomes (sub)consciously aware of the an 'external force' impacting their state of being.

Antonym: Intangible Space (n.).

The problem architecture with contemporary the misuse emotionally deficient buildings. tangible space, creating Users move through space with no identifiable sense of its presence, unable feel the powerful impact architecture have. can

The problem of vapid space is not only present in the built environment, but the unbuilt world as well. In other words, where architecture is absent, stimulating space is near impossible. How, then, does one work to architecturalize the unbuilt environment to become a clear, tangible space?

Thus, the efficacious goal tangible space create which positively impacts the controlled in manner. users a



INTRODUCTION:

A clear relationship must be orchestrated between the user and their environment to achieve tangible space. As defined, tangible space affects the mental and physical condition of the user. Mentally, space influences mood through various stimuli including color, light, air and provocation of memory. Physically, the human body reacts to all stimuli, including light, sound, smell, and touch, each of which activate physiological functions.

Architecture has found its influence in almost every program on earth except for a rare few. Two prime examples are the landscape cemetery, and the agricultural farm. The latter has recently been architecturalized in a number of "Vertical Farm" projects. Why then, must a cemetery remain a landscape program. The emotionally charged nature of the program lends itself perfectly to the influence tangible space has on the body and mind.

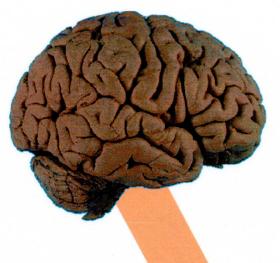
NG CEMETERY

CONCEPTUAL IDEA:

Space is defined as "the unlimited or incalculably great three-dimensional realm or expanse in which all material objects are located and all events occur - Dictionary. com." In other words, space is overwhelmingly everywhere and acts as a stage for our daily activities. It follows that our only means of connection with our environment is through our body. An important author in the study of body and architecture is Neal Leach, specifically his book Camouflage. In the chapter "Sensuous Correspondence", discussion is focused on the way in which humans identify with space. Leach uses Theodor Adorno's "Functionalism Today" to reinforce the ideas of body, mind, and space. Leach states that "through the concept of Adorno, we might therefore begin to understand the mechanism for inscribing ourselves into the world", in reference to the role of architecture in human perception. The concept of 'inscribing oneself in the world' is a rich one in relation to mimesis. Once a mimetic relationship is entered between two objects, they become extremely receptive to influence by the opposite. In other words, once a mimetic relationships is begun, the ability to accept stimuli, and in turn understand tangible space, is heightened dramatically. In terms of design, inciting these relationships is critical to the success of the project.

Adorno also wrote that the human body acts as a mediator between the human mind and space. "Mimesis imitates the environment...for mimesis the outside world is a model which the inner world must try to conform to: the alien must become familiar." This is accomplished through the interaction of our bodies with space, physicality with architecture. The blending zone is where architecture impacts emotions, the inner being; the cemetery must acknowledge a method of user familiarization with the spaces.

The relationship between architecture and space should be mentioned; while space exists independently of architecture, the latter is entirely dependent on the prior. Therefore, architecture is not creating anything that was not already there, architecture acts to redefine space. The path to understanding design should be as follows: space is molded by architecture, facilitating bodily experience, leading to efficacious tangible space.



PROVOCATION OF MEMORY INTERPERSONAL INTERACTIONS COLOR ATMOSPHERE

ARCHITECTURE



Architecture as filtering space and its effects on the mind and body.









PROJECT STATEMENT:

The cemetery will act as a synthesis of emotional design and tangible space. Land is becoming a precious commodity in America as suburban sprawl claims more land yearly. A relocation of the population into urban centers is an expected shift over the next 30 years. This shift will necessitate a reorganization of landscape features throughout the city, from parks to cemeteries. By providing a cemetery within a high rise, the architecture reacts to the city while remaining sympathetic to the amount of ground area common to such landscape cemeteries. The high-rise will also maintain the character of a common cemetery which has become widely accepted in our culture, while simultaneously challenging the way cemeteries function. One of the largest challenges is the successful social integration of the cemetery into the city. In other words, moves will be made to ensure the negative connotation of cemetery is not carried into the architecture due to the program.

PROGRAM INTRODUCTION:

Architecture is the design of space and the mediator for emotions. Due to the individuality of each user, an environment must be created that allows for personal relation and in turn differing emotional reactions. The receptive nature of this architecture to person relationship is important in fostering a mimetic relationship with the cemetery. The space must not appear foreign or hostile; it must provide recognizable qualities and evoke familiar emotions. Identifiable space, then, has many uses in the realm of programming. The success of the mimetic relationship affecting emotions depends on the user's comfort level in the space. Attention must be paid to those programmatic elements which have lacked architectural innovation in the past.

The most important reason for choosing a cemetery as program is its inherent emotional nature. Most user's come to a cemetery to visit loved ones, emotionally charged, perhaps looking for an outlet. The architecture, then, could provide a source of internal rest to those inhabiting the space. Additionally, cemeteries are devoid of almost all architectural influence, reduced to a sprawled, horizontal plane. This horizontal landscape acts as an incoherent 'architecture', connecting

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family space and property by adjacency alone. The landscape must be used in a more cohesive manner, signifying programmatic zones by design. In fact, adding verticality to the landscape will provide better spatial definition, and in turn a more tangible space.

What if spatial design could be introduced into the cemetery?

As cemetery director Richard Ralph said, "people who suffer loss enter a state of emotional hypersensitivity, and even the smallest moves can provide peace." This theory would be the driving force behind the design, providing spaces with emotional values for the users to identify with. Through identification the user may become emotionally involved with the space, in turn inciting internal comfort.

The notion of social interaction is intriguing with respect to cemetery design. Not only is identification with space necessary for healing, but entering into a mimetic relationship with other mourners can also act as an outlet. Sharing emotions with another human partly relieves the burden of mourning alone, as emotions are passed between people. Therefore, connectivity between plots (and more generally, programs), is necessary to nurture such positive interaction.

A tertiary condition of the cemetery would be the programmatic inclusion of the general public into the building. Bringing park space through the ground floor of the building is one basic method of introducing the public realm of the city into the more private realm of cemetery. Also, by creating a dynamic space with multiple functions, the interior space of the cemetery will never be left abandoned, a danger faced by overfilled cemeteries.

"Boy, when you're dead, they really fix you up. I hope to hell when I do die somebody has sense enough to just dump me in the river or something. Anything except sticking me in a goddam cemetery. People coming and putting a bunch of flowers on your stomach on Sunday, and all that crap. Who wants flowers when you're dead? Nobody." ~J.D. Salinger, The Catcher in the Rye, 1945

Gre

QUALITATIVE PROGRAM:

and tangible space, this cemetery will revolutionize the way architecture of the this viewed time, as the contemplation spaces are open to anyone. By creating a more identifiable, personal become an icon in the city, creating an interior landscape on the water's edge to visit during free that heals while maintaining reverence for those whose lives have been lost. The cemetery will 65,000 burial sites, whereas a traditional landscape cemetery can only hold 435 – at best – wit introduces a new means of densification into the industry. A one acre footprint will account for The following program describes a high-tech, high-rise, architecturalized cemetery that e amount of land. The experience of visitation will be like none other, creating a space

experienced, and used

CEMETERY

Greg Ralph

ENTRY/LOBBY AREA:

This space will facilitate the transition from the city realm into the cemetery realm, encouraging a change of mood and a hint of reverence. The space will feel warm and inviting, while at the same time characterized by a sense of the unknown, even uncanny. A lapse in identification with the lobby will allow for a greater bond while moving through the building.

A man's dying is more the survivors' affair than his own.

~Thomas Mann, The Magic Mountain

Gravesite Locator

Visitors with no family in the cemetery will be encouraged to enter the grounds as it will open their mind to a new way of dealing with death and burial. Therefore, the entry must be welcoming above all. The Hudson Yards Master Plan will aid in this effort as a park space will be directly adjacent to the East, allowing wanderers to enter the building. The lobby area will most likely include a new technology emerging in cemeteries: the "kiosk". Family information may be put into a computer (if such information is left public) and the location will be displayed along with a brief biography. These "kiosks" allow for the architecture to foster a sense of personality; the bodies become more than inanimate objects as their life story is retold.

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EMETERY

OFFICE/RECEPTION AREA:

This space would function as a normal business during office hours, selling plots to new clients and attending to the needs of existing ones. The office area could be thought of as the true public face in the community. Spatially, this area would have to accommodate mourning families as this is the first space they would become intimate with in the grieving process. The space will be designed with sensitivity towards a range of age groups and their psychological needs.

"The only cure for grief is action." - George Henry Lewes

The office would be set up in such a way to create a sense of relief, a step in the healing process. At Fairview Cemetery there is a small cupboard with pamphlets on how to deal with grief; this method of healing should be respected yet revolutionized. The architecture of the office should be able to do what the pamphlets are attempting to do emotionally.

Greg Ralph

CEMETERY

"INNER-LANDSCAPE":

This hybrid space mixes the natural land scape with architectural support and envelope creating pseudo-nature. Technologically this space will take lessons from the Vertical Farm, a project devoted to interior agriculture. Methods of growing various plant-life on the interior will be studied as they will bring the traditional cemetery landscape into the high-rise building.

Programmatically this project is similar to the average cemetery, while architecturally it is articulated in a completely new way. To compensate for the shock of such drastic change it will be necessary to maintain a sense of the exterior on the interior. The space will be dynamic, encouraging constant motion which allows for reflection without becoming stagnant. The ideas of Enric Miralles will influence the design of this landscape piece. Intertwining past and present through acknowledgement of temporality will occur in this space.

It is intended that this land will be used as salable land for family plots, preserving the traditional method of burying a loved one in the ground.

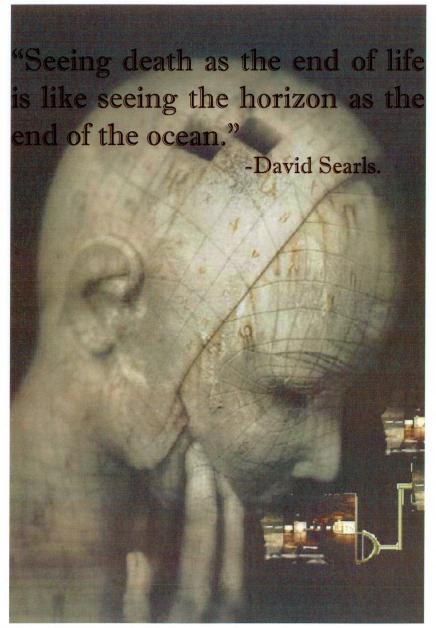
"WALL" CRYPTS:

These will house bodies in a similar fashion to the way that a public mausoleum does. The crypts will occur in various "walls" (the word wall used loosely) throughout the project allowing for different crypt qualities. Varying the spacing and location of the crypts will vary the value of them, providing different financial options for families. Some of the crypts will be in a space with a view, while others will be held in a contemplation wall tucked inside the building.

The wall crypts will work to simultaneously provide a sense of security and connection with the lost, while allowing for the opportunity to interact with others. Spatially these areas would be open with some architectural signification of space. These areas would feel like a continuum of the outside entering the building.

"Life is pleasant. Death is peaceful. It's the transition that's troublesome."

-Isaac Asimov



CONTEMPLATION SPACES:

Being that this high rise will have stunning views available, the architecture will capitalize on them through contemplation spaces. Some of these spaces will remain introverted, concentrating heavily on the idea of emotional healing through selfexamination. Otherspaces will provide views out for the more extroverted personalities, fostering the healing process through a social contemplation. These spaces will be free of religious denomination and family identity. They will accommodate a more general public, providing spaces to rethink one's own life as well as lives of those lost. Once again, the idea of temporality meshing with history becomes important in this space.

CEMETERY

CIRCULATION:

Circulation will not be independent of the other programmatic elements. A major element of the overall architecture is the experience of passing through the diverse burials, experiencing an edgelss condition. Much like Igualada Cemetery near Barcelona, circulation will be flanked by, and in this case pass over, family plots. The experience will be much different from that of a traditional cemetery which is subdivided by minor roadways and walking paths. Programs will bleed together and the points of synthesis will provide the most intriguing options for travel. A person in the circulation zone will feel the space of the surrounding programs pressing inward on their body, aware of their presence in relation to the space.

The best way to think of the structuring of space is a folding of the ground plane over itself to create layers reaching heights of up to 150' among which the visitors meander perpetually skyward.

"For life in the present there is no death. Death is not an event in life. It is not a fact in the world."

-Wittgenstein

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CEMETERY

QUANTITATIVE PROGRAM:

Site Area:

Overall Impacted Site: 1 acre: 43560 s.f.

Overall Floor Area: 16 Floors @ 1 acre = 16 acres: 696,960 s.f.

Average 1 Burial Site per 10 s.f.

Anticipated Burial Sites: 65, 340

Burial Sites:

Family Monuments: 3' x 10' Typ. = 30 s.f. = 13,068 Burial Sites Landscape will be overlaid with Wall Crypts and Niches

"Wall" Crypts: 4 acres

Crypt: 2.5' x 2.5' x 8' = 20 s.f. = 8,712 Crypts

Cremation Niches: 1 acre

Niche: $1' \times 1' \times 1' = 1$ s.f. = 43,560 Niches

Program Spaces:

Entry/Lobby Area: 5000 s.f.

Wall of History: 1000 s.f.

Kiosk Area: 1000 s.f.

Site Development/Entry Points: 2000 s.f.

Lobby: 1000 s.f.

Office/Reception Area: 2000 s.f.

Lobby/Reception area: 500 s.f.

Offices (4): 150 s.f. ea.

Conference Room: 500 s.f.

Bathrooms (2): 50 s.f. ea.

Filing: 200 s.f.

Records: 100 s.f.

Maintenance Facility: 5300 s.f.

Access Points to each Level: 3000 s.f.

Tool Shop: 700 s.f.

Storage: 500 s.f.

Lunch Room: 200 s.f.

Bathroom/Washroom: 100 s.f.

Repair Shop: 800 s.f.

Inner-Landscape: 9 acres

Reflection Spaces:

Contemplation: 5000 s.f.

Contemplation Rooms: 500-1000 s.f.

Logistics:

Circulation: $20\% \times 15 \text{ acres} = 3 \text{ acres}$: 130680 s.f.

Overlaid circulation on burial area = 2.75 acres: 119790 s.f.

Egress/Elevators = .25 acres: 10890 s.f.

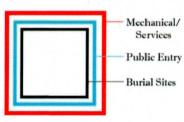
Parking: 20000 s.f.

Parking for 75 cars

Receiving Vault: 500 s.f.

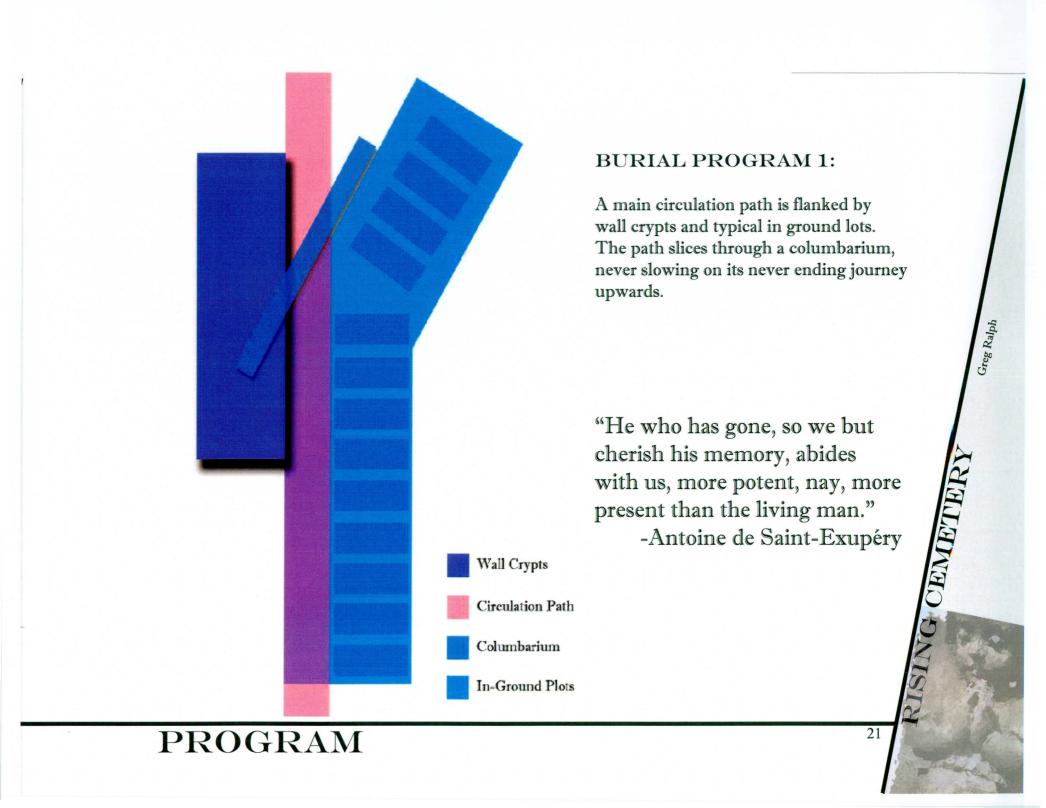
Allowance for Extended Site Development (Beyond Immediate Lot): +/- 40000 s.f.

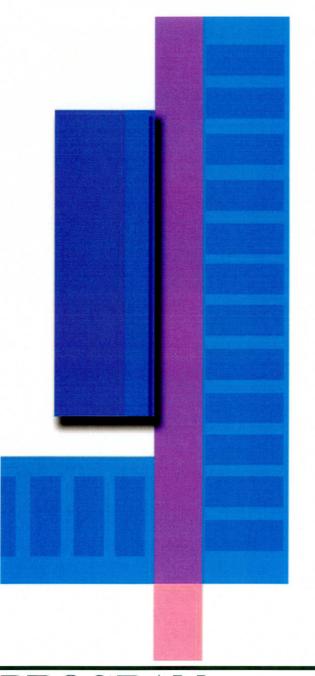




Diagrammatic Plan







BURIAL PROGRAM 2:

The circulation path crosses a family lot to once again merge with a set of wall crypts. A columbarium has been embedded into the wall crypts in an unexpected manner, requiring a second glance. The path continues past the crypts and continues into a large opening, surrounded by in ground plots.

"The boundaries between life and death are at best shadowy and vague. Who shall say where one ends and where the other begins?" -Edgar Allen Poe

- Wall Crypts
- Circulation Path
- Columbarium
- In-Ground Plots

PROGRAM

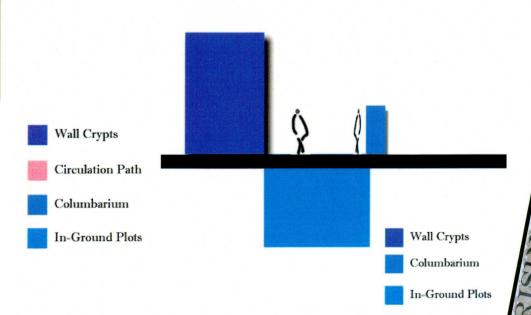
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CEMETERY

BURIAL PROGRAM 3:

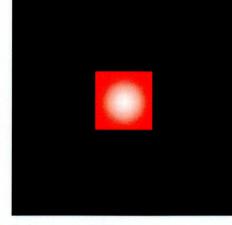
The path ends, leaving off between another set of wall crypts and a lower wall of niches. A slow realization occurs that under one's feet are the plots of someone elses loved ones. Where does one stand? The journey must continue as the in-ground plots become path, challenging the necessity of 'designated' circulation.

"It is worth dying to find out what life is."
-T.S. Eliot

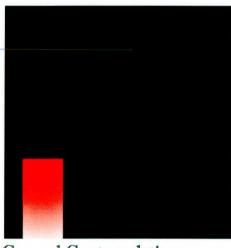


PROGRAM

Extroverted Room



Introverted Room



General Contemplation

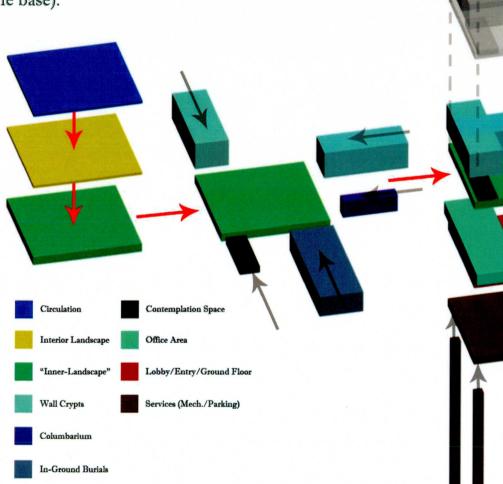


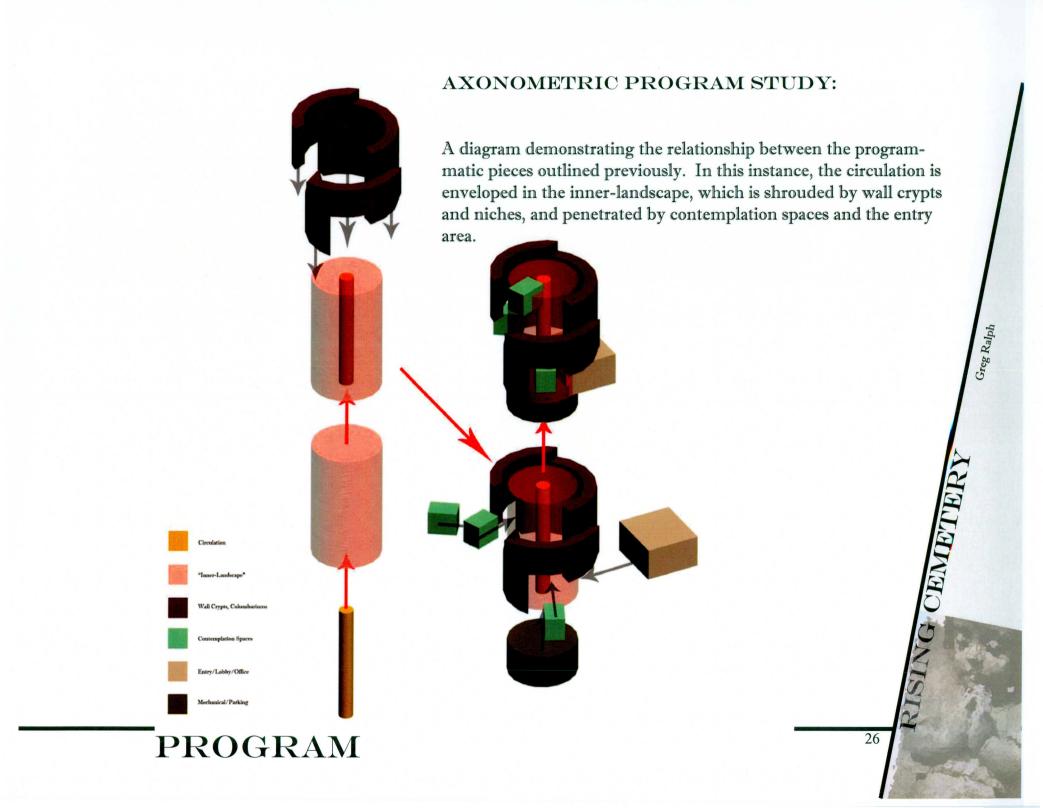
CONTEMPLATION ROOMS:

Diagram of the contemplation rooms that would be scattered throughout the building, affording different opportunities along the journey. As is indicated, some rooms would be intended for internal reflection, while others would be about outward criticism. The variety is an attempt to reinforce the temporal nature of mankind.

AXONOMETRIC PROGRAM STUDY:

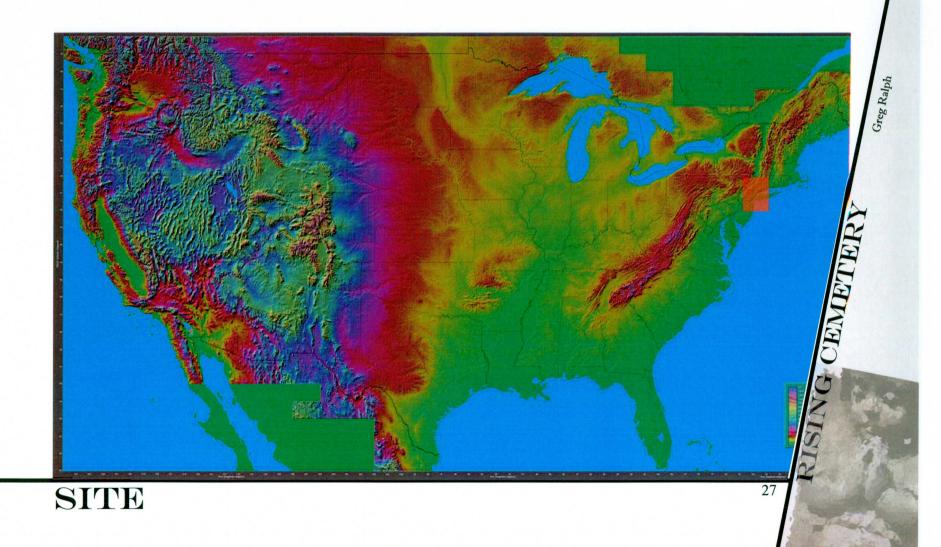
A diagram demonstrating the relationship between the programmatic pieces outlined previously. This diagram also explores the idea of layering, and the sectional relationship between programs (i.e. services at the base).





GREATER SITE:

Northeastern United States: One of the most dense and diverse areas in the country.



GENERAL INFORMATION:

Intersection of 34th St. and Route 9A.

Site Footprint 44000 s.f.: +, 1 acre

Existing Conditions: Parking lot for surrounding

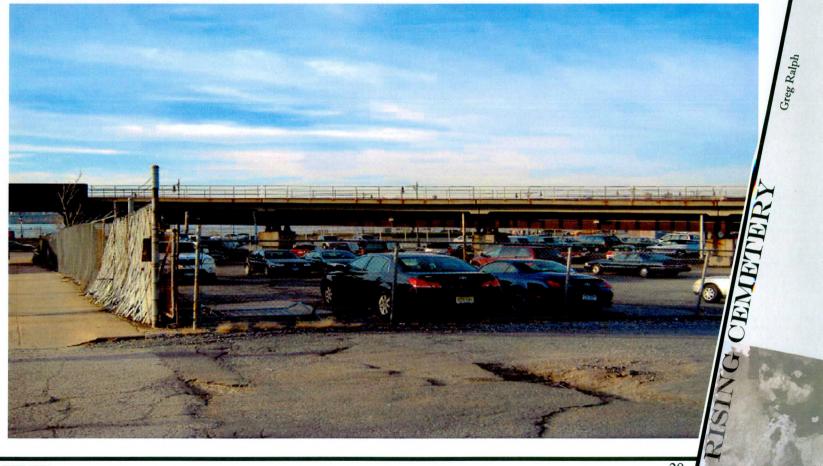
a bidding process for a new building. The Jac Javitx Convention Center lies South and are subject to

directly North of the site and is host to innumerable public events.

appropriately to encourage public usage of the waterway. This area was part of the Municipal Considerations: The government of NYC is open to rezoning the area Yards sector of the city. Hudson Yards Master Plan beginning in 2000, a project to revitalize the Hudson

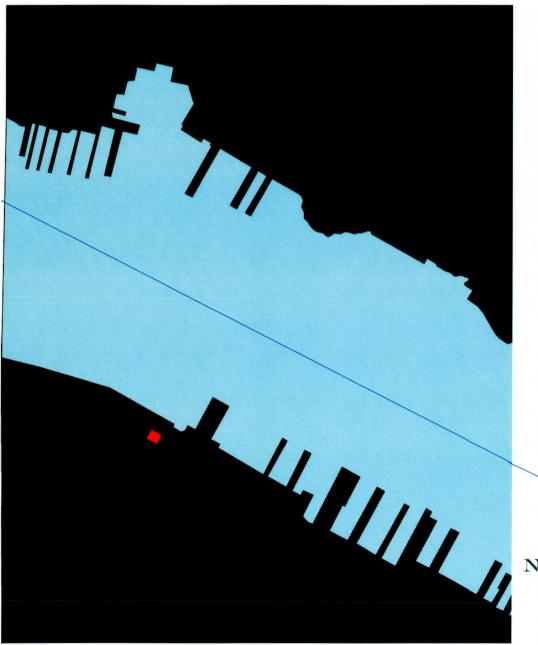
SITE DECISION:

This particular site was chose specifically with foresight for the way the architectural world will be in 50 years. According to the proponents of the Vertical Farm project, 80% of the population will reside in urban centers by 2050. If this projection is realized, the traditional landscape cemetery will become obsolete. For this reason, the cemetery needs to be reconceptualized in the heart of an existing urban center. The Rising Cemetery will act as an experiment of the interaction between cemetery and city life, and the integration into an existing city culture.



SITE LOCATING DIAGRAM





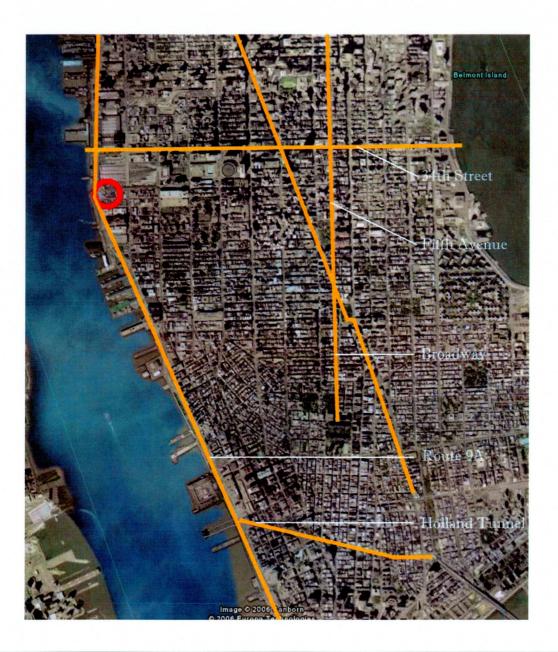
HUDSON RIVER DIAGRAM

The Hudson River and New Jersey skyline must be factors in the design of the cemetery as they share immediate proximity with the site.

NEW JERSEY

NEW YORK

Greg

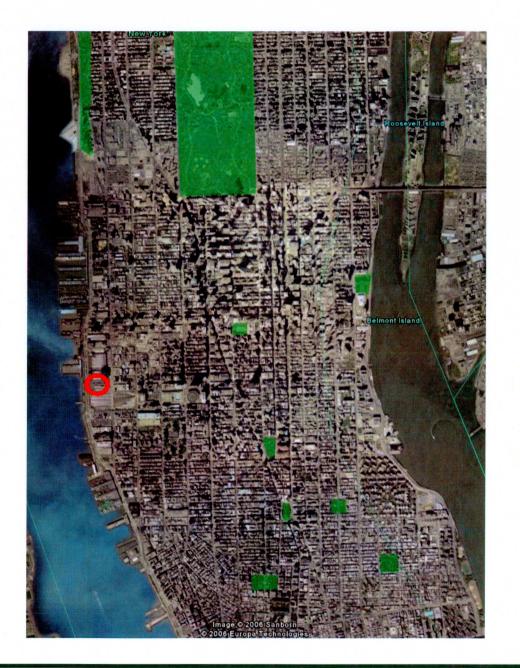


MAJOR ROADWAYS

The site is connected to the greater NYC area by 34th Street and Route 9 A. Both of these roads function as integral transportation arteries within the city. Notably, Broadway and Fifth Ave have direct access to the site via the popular 34th Street.

Greg Ral

CEMETERY



MAJOR PUBLIC SPACES

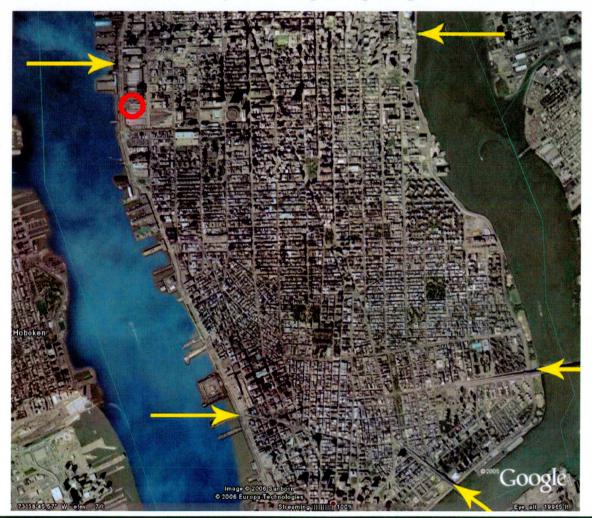
Central Park is a dominating feature in the NYC landscape, while other, smaller scale parks introduce a greenscape into the highly developed city. However, as the diagram shows, waterfront areas are not taken advantage of when planning new public spaces into the city. The cemetery will act secondarily as a new public space in New York City.

Greg Raln

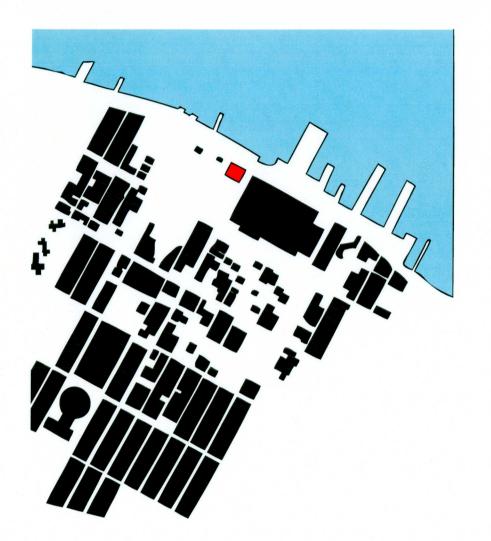
G CEMETERY

ISLAND ACCESS

The site is located in close proximity to one of the few means of entry into Manhattan, increasing the odds of a chance encounter with the cemetery. Not only is the cemetery for residents of NYC, it should impact the way Americans view the cemetery typology. Impacting visitors is one of the most effective ways of accomplishing this goal.



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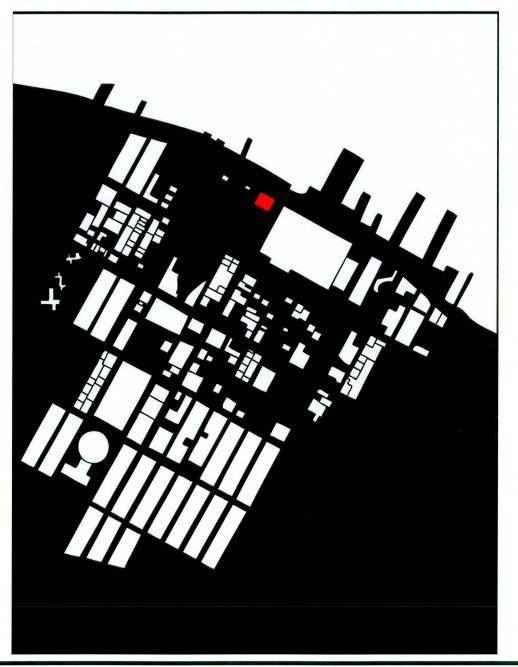


PROJECT AREA MASSING

The South side of the site is comprised of low scale buildings and empty lots, allowing for the cemetery to become a noticeable shift in scale for the area.

Greg Ralpi

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CITYSCAPE

Although not always apparent in a city such as New York, space moves effortlessly between buildings, enveloping the city. This diagram is an attempt to explain the connectivity between the city and the site, despite visual obstruction.

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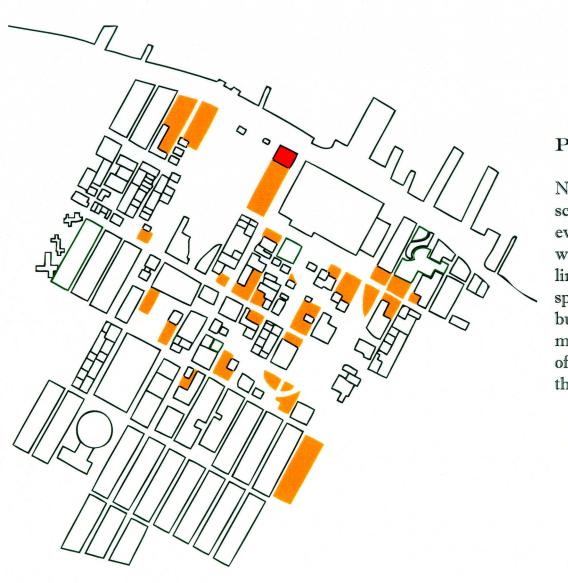


MINOR OPEN SPACES

Whether incorporated into residential development or sprouting through unkempt lots, these green spaces add character to the immediate area. The cemetery must be sympathetic to the existence of these open areas.

Greg Ralph

GEMETERY



PARKING

NYC is comprised of scattered parking lots, filling every available empty lot with cars. Although a limited number of parking spots will be provided in the building, careful attention must be paid to the location of additional parking to aid the visitation process.

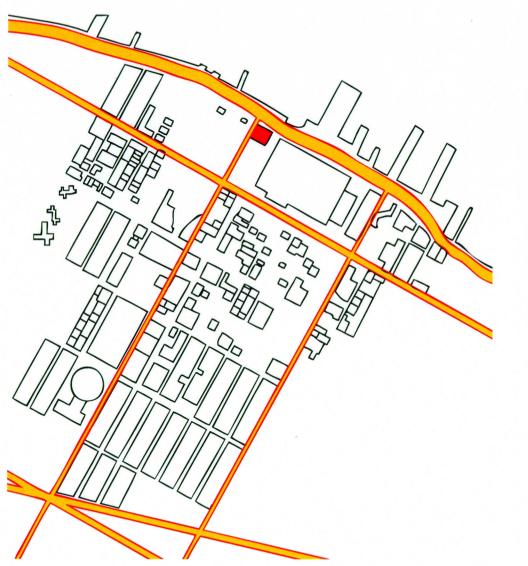
Greg Ralpi

CEMETERY.



BUILDING TYPOLOGY

Reinforcing the mixed use nature of New York City, residential, commercial, and manufacturing collide over the span of 3 blocks. The cemetery will be a response to all building typologies, not in style, rather in the method of site design and the orchestration of movement through the site.

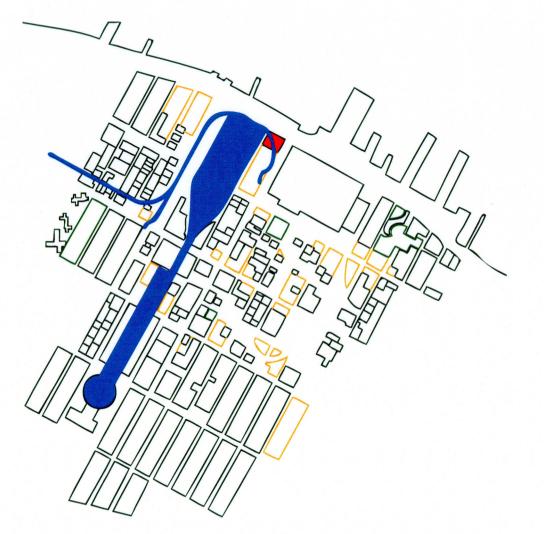


MAJOR ROADWAYS

Once again, this diagram demonstrates the relationship between a few of the most well-known roads in NYC, including Fifth Ave, Broadway, and 34th Street (along which the project is located).

Greg Ralph

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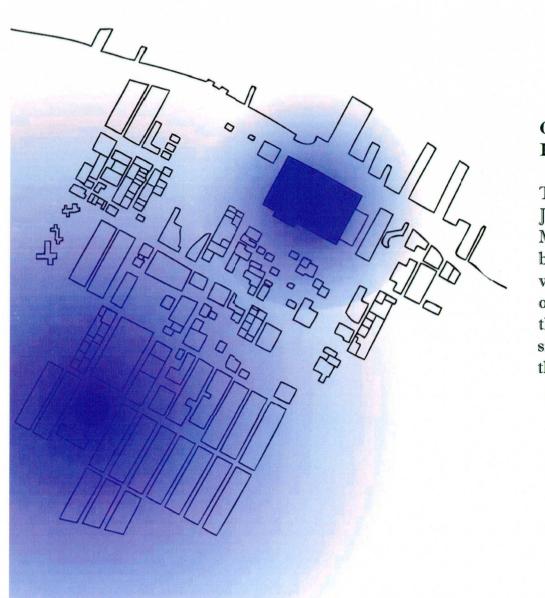


TRANSIT

The proximity of the site to Penn Station aids in its accessibility to everyone in the city. A short 10 minute walk separates Penn Station from the waterfront. The diagram also includes the MTA Railyard, and a set of abandoned rail tracks that could be refurbished as a means of pedestrian travel from the city into the site.

Greg Ral

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CULTURAL INFLUENCES

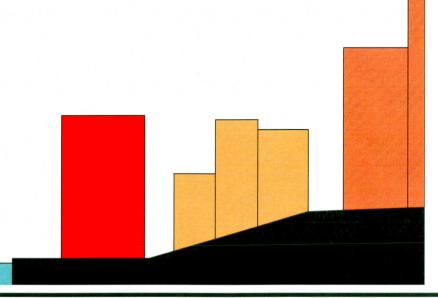
The site is adjacent to the Jacob Javits center and Madison Square Gardens, both renowned cultural venues in the city. The draw of their influence will impact the amount of visitors to the site as attention is brought to this end of the city.

Greg Ra

CEMETERY

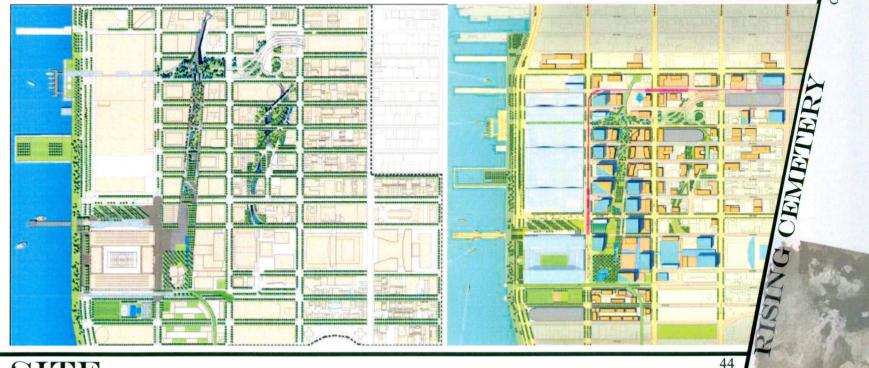
SECTION DIAGRAM

Building heights progress in three stages as they move away from the waterfront into the heart of the city. There are low-rise, medium-rise and high-rise. What would happen, then, if the cemetery were a high-rise architecture introduced into a low-scale area. This diagram explores the sectional quality of such a move.



SITE

NYC has imposed a master plan on the immediate area called the "Hudson Yards Master Plan" which is currently being developed. Key goals include creating visual continuity with the water, supplying open space, and revitalizing the Waterfront Area.

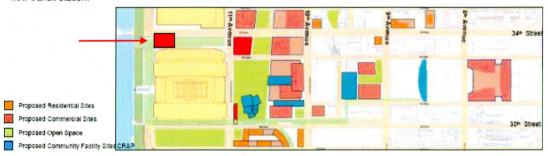


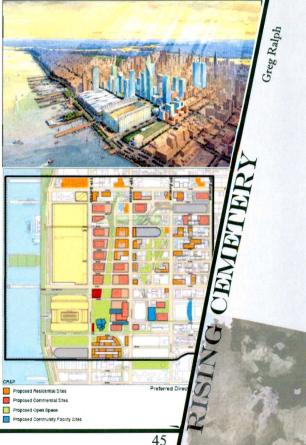
Below is an excerpt from the Hudson Yards Master Plan discussing the 34th street corridor where my site is. The culmination of the proposed green space will be my architecturalized cemetery facility, welcoming people off the street and inviting them in to experience a cemetery in a whole new way.

34th Street Corridor

This corridor extends from the existing Pennsylvania Station and Madison Square Garden west to the Javits Convention Center and Route 9A, generally between West 30th and West 34th streets. It includes, east of 10th Avenue and along 34th Street, existing high-density residential buildings. It presents one of the greatest opportunities for large-scale development due to its central location and the presence of the large sites created by the superblocks and the MTA rail yards. The plan proposes this as a high-density corridor which would link major transportation hubs and existing residential buildings on West 34th Street with large scale development, including large floor plate office buildings, hotels, a multi-use exhibition and sports/entertainment facility, and regional open space. The corner of 34th and 11th Avenue is also envisioned as the location for the new transit station.





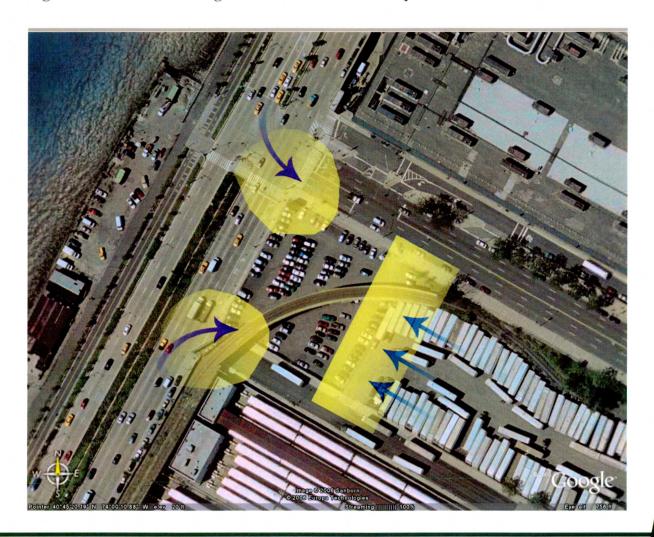


SITE

Proposed Open Space

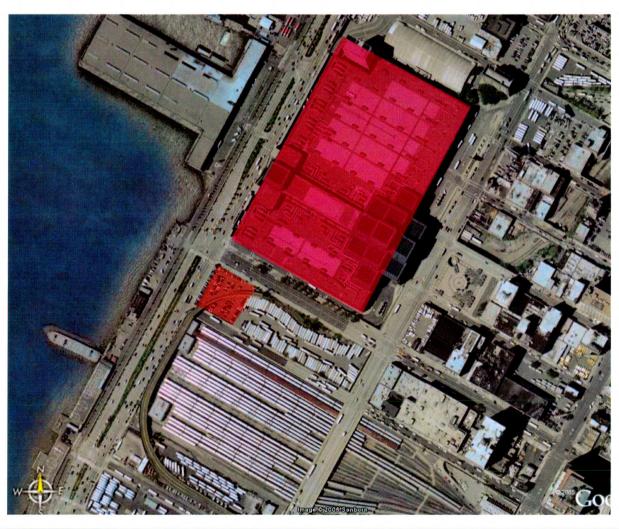
SITE ACCESS POINTS

Access to the site will be directly off of Route 9A for vehicular traffic, as most visitors will be using this as a means of arriving at the site. A pedestrian entry will be designed for the East side of the lot as most people travelling on foot will be coming from the heart of the city.



ADJACENCY DIAGRAM

The Jacob Javits Center is a national conference center that draws thousands of tourists to NYC yearly. Adjacency with this building will prove invaluable as it exposes outsiders to the idea of an urban, architectural cemetery.



SIS

ABANDONED RAIL DIAGRAM

An existing unused railway cuts through the site, connecting it with Penn Station, the Javits Center, and the Hudson River. This railway must be explored as a possible means of pedestrian transportation for inner-city connection. The railway may either be maintained, rebuilt, or demolished.



Greg Ral.

ISING CEMETERY

SITE DEVELOPMENT

Site development will extend beyond the immediate site, allowing for the proposed park to enter the building on the east side. Development should be considered across the highway as this acts as a link between the cemetery and the water.



SITE PARKING

The cemetery will be replacing a parking lot and truck storage. The yellow denotes existing parking to be removed, while the orange suggests potential relocation sites. Additionally, cars will be accounted for underneath the ground level of the cemetery.

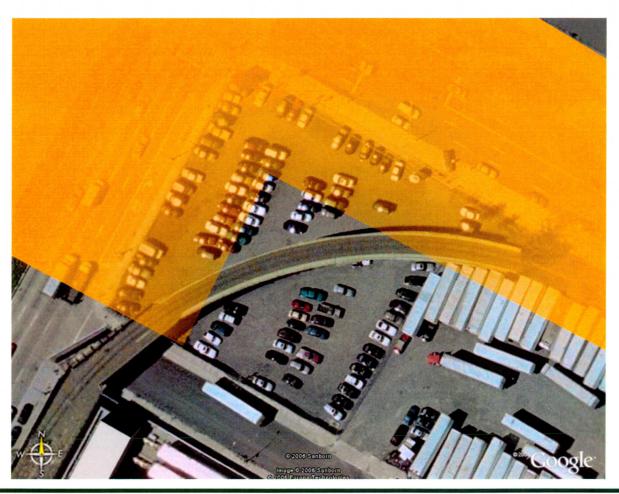


Greg Ralph

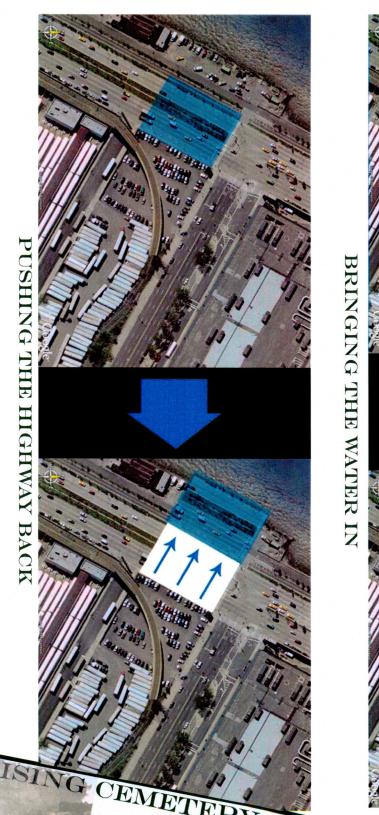
G CEMETERY

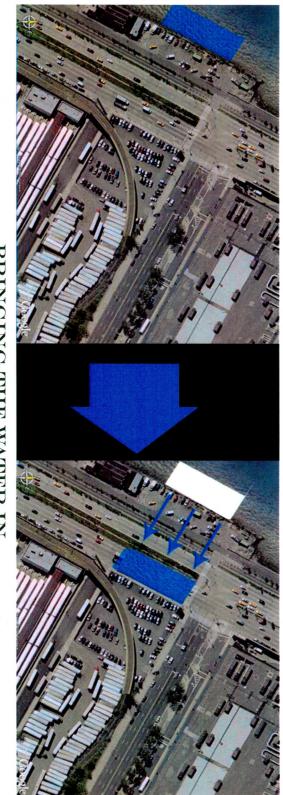
NOISE INFILTRATION

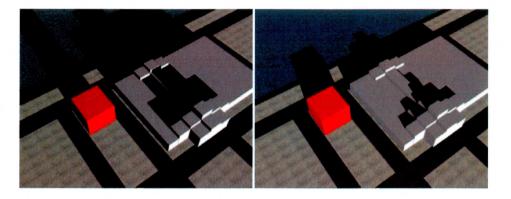
The proximity with main roads creates a zone of noise infiltration, where street sounds will be able to permeate the building. This diagram will be helpful when locating program with sound sensitive implications.

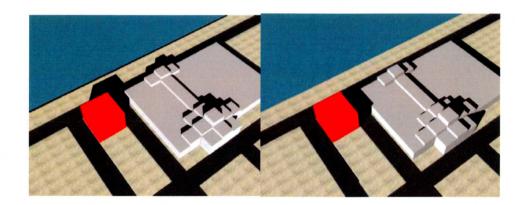


Greg Rales



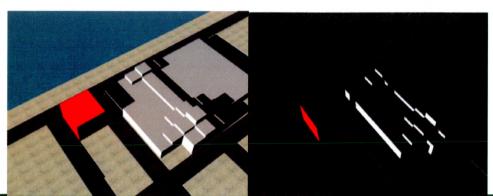






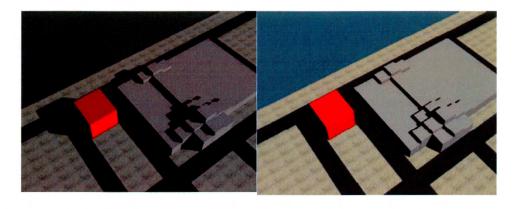
WINTER SOLSTICE

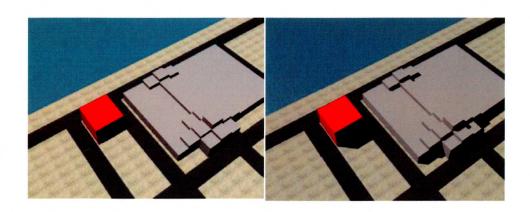
The result of an exploration of how shadows would cast from the high-rise cemetery onto the Jacob Javits Center, and vice versa.



SINGOL

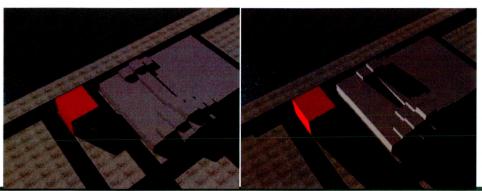
SITE





SUMMER SOLSTICE

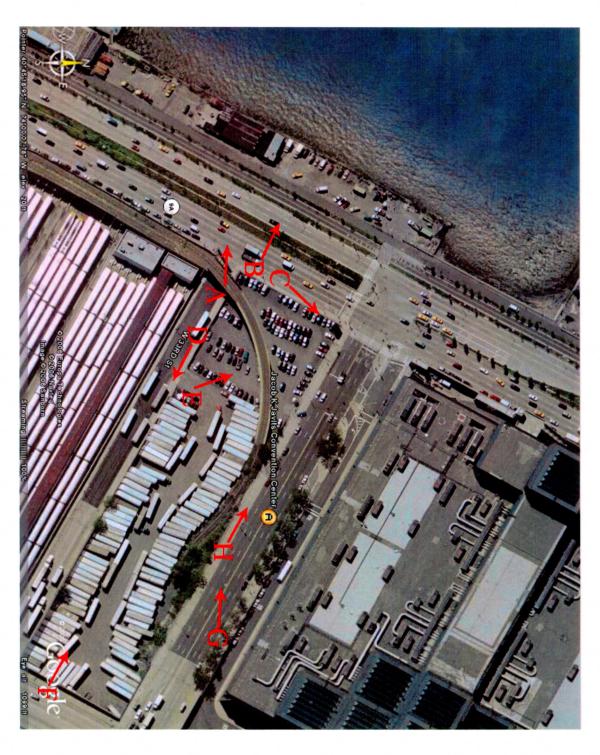
Same as previous diagram, only during June instead of December.



SITE



SITE PHOTOGRAPHS



55

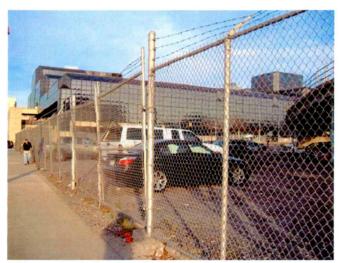
CEMETERY

Greg Ralph



Photograph A: View Towards NJ

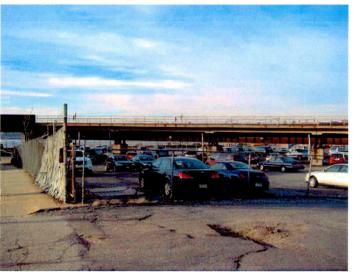




Photograph C: View Towards Javits Center



Photograph D: View Towards NYC



Photograph E: View From East



Photograph G: View Towards Existing Rail Line



Photograph F: View From 11th Ave



Photograph H: View Down 34th St

CODES ANALYSIS FROM IBC:

Use Group Classification: The gathering spaces and circulation of the cemetery building will be considered Assembly A-3 for "places of religious worship, community halls, and funeral parlors". The office area and lobby shall be considered Business Group B for their "service-type transactions".

Construction Type/Fire Resistance: Type I Construction:

Structural Frame – 2 Hours

Exterior Bearing Walls - 2 Hours

Interior Bearing Walls – 2 Hours

Nonbearing walls and partitions – 0 Hours

Floor Construction - 2 Hours

Roof Construction - 1 Hour

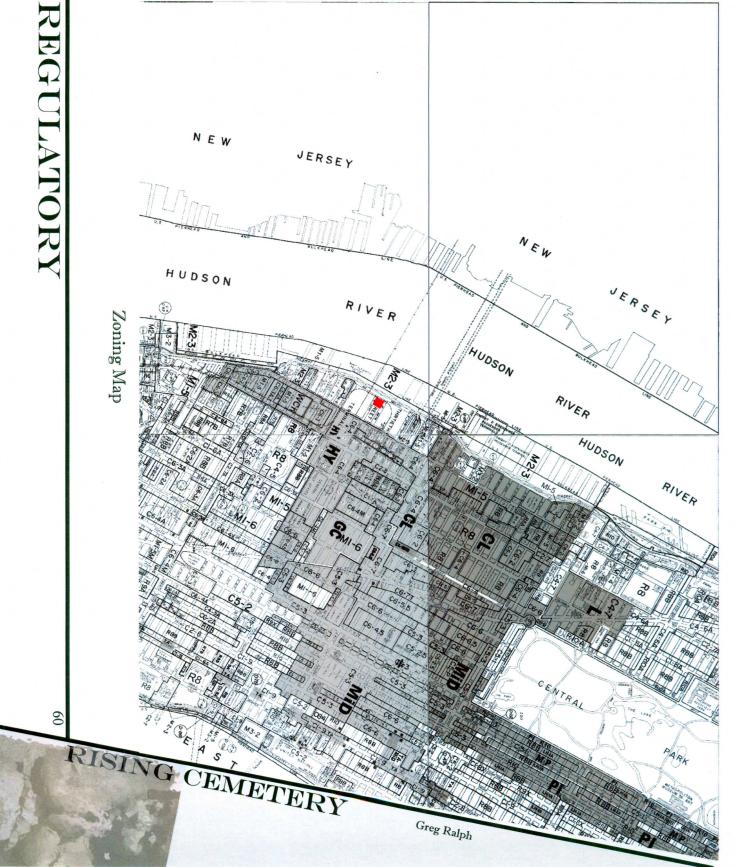
Height Limitation: Based on Type I construction for a Group A-3 building, the height is 160 ft/11 stories. Group B is also 160 ft/11 stories.

Fire Separation: Use Group A and B must be separated by a 1-hour firewall if sprinkler system is in use, and a 2-hour firewall if no sprinkler system is in use. Firewalls shall be permitted to terminate at the interior surface of non-combustible exterior sheathing in accordance with Section 705.5. Penetrations of firewalls must comply with Section 712.

Fire Alarm/Suppression: A Manual fire alarm system shall be installed in Group A occupancies having an occupant load of 300 or more unless equipped throughout with an automatic sprinkler system.

Egress Calculations: Office areas have a floor allowance of 100 s.f. gross. 2000s. f./100s.f = 20. Multiply times factor of .2, use 48 inches for stairs, 36 inches for doors. Assembly without fixed seats is 5 net. There are no direct occupancy provisions provided for a cemetery establishment, so interpolation will be used. Travel distance is a maximum of 250 feet for Group A, and 300 feet for Group B if sprinklers are in place.

Accessibility: As a new construction this building must be handicapped accessible. Refer to ADA Code Book for further information.



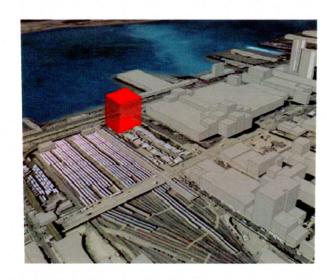
Zoning District: The site is located in zoning district M1-5.

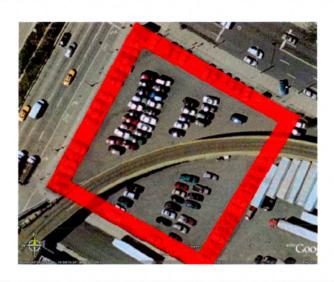
Use Group: Cemeteries are a use group 4 and are permitted in all M1 (light manufacturing) districts.

Setbacks: Setbacks shall be 15 feet along a wide street, and 20 feet along a narrow street. Exception: If an open space of the same width as the setback is provided on the front side of the building, then no setbacks or height limitations shall apply to the rest of the building. Rear yard setbacks of 20 feet shall apply except in the case of corner lots.

FAR: Floor Area Ration is 5.00, but may be modified for a Community Facility (Group 4), without exceeding 6.5. Exception: For each square foot of urban plaza provided, 6 square feet may be added to FAR.

Special Considerations: No special considerations apply.

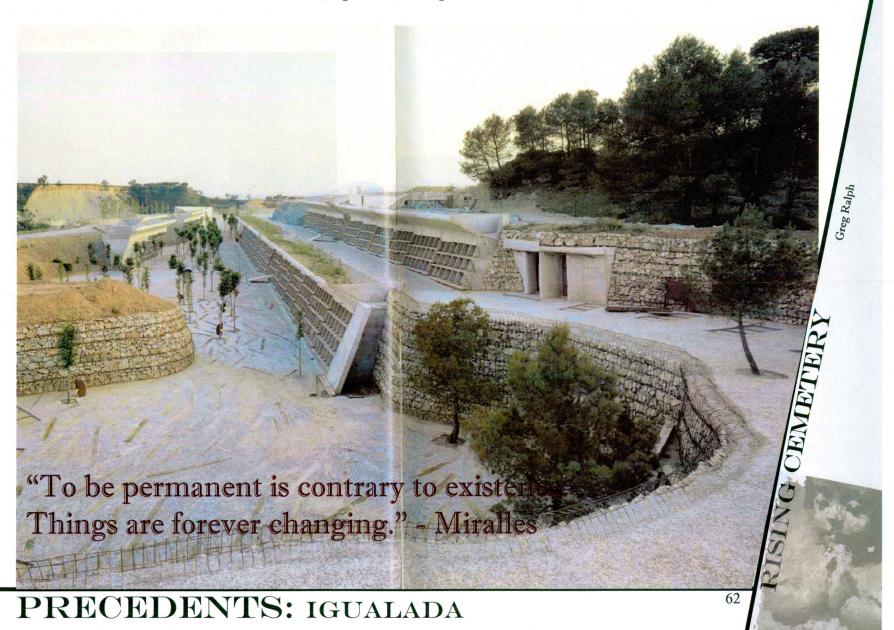




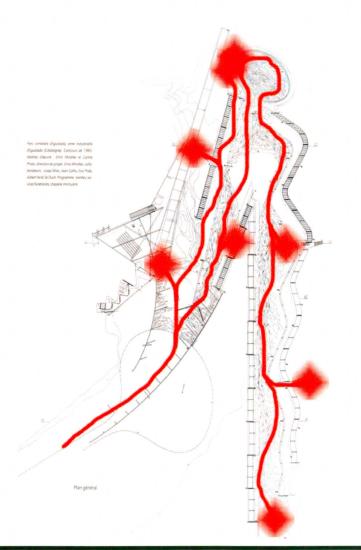
A TYPOLOGICAL EXAMINATION

Project: Iqualada Cemetery Architects: Enric Miralles and Carme Pinos

Location: Near Barcelona, Spain Completion: 1994



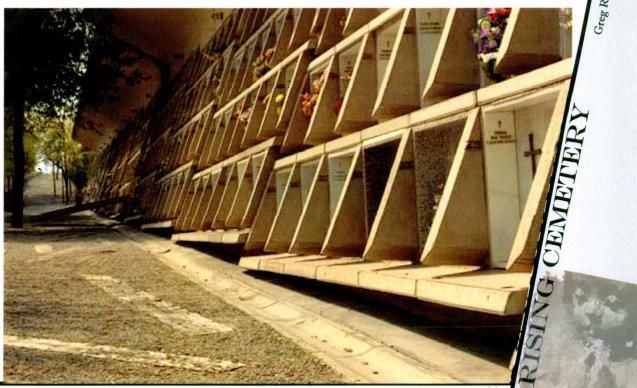
Plans and Sections: The nature of the cemetery relates to a journey, a path through the past arousing memory and evoking emotions. The cemetery is planned to end up with Z-shaped circulation after construction is fully completed, creating the necessary meandering pathway. This project is valuable in that it describes an approach to concentrated circulation in a cemetery.



A journey is commenced upon entering the cemetery gates. Past weaves with present as the path moves through the memories of various families, affording opportunities to stop and mentally shift back into a previous world. The journey occurs simultaneously through the motion of ever visitor, introducing the element of present day temporality into the experience.

PRECEDENTS: IGUALADA

Wall Crypts: These above ground burial sites occur along the main circulation route, creating an "edge" to the journey. The crypts are arranged in a typical fashion, one stacked on top of another along a continuous wall.



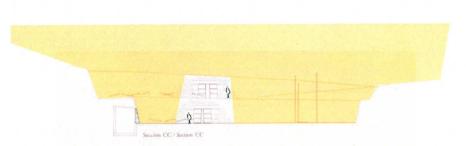
PRECEDENTS: IGUALADA

MAUSOLEUMS:

Another form of above ground burial used infrequently at Igualada Cemetery. Mausoleums offer a more privatized situation for burial, simultaneously permitting privacy in mourning. The private mausoleum is an interesting burial type because it consumes a lot of space for a single family.

LIMBO:

The mausoleum introduces a proximity with death that cannot be achieved in any other program. The mourner enters a private chamber and is confronted with nothing else but their loved one: a synthesis of death and life. What is the mimesis of death?



WASTED SPACE:

An argument can be formed that space is wasted in Igualada Cemetery at the mausoleum end of the site. As diagrammed, the entire wall space is only occupied by 4 crypts, the rest remaining unused. Irregardless of the purpose, the proposed cemetery will not allow for "wasted" space, as this is detrimental to th notion of identifiable, tangible space.





IN-GROUND CRYPTS:

These sites allow for the remains to be placed underground, as is desired and demanded by certain families. In America, certain religions require that the remains be placed underground. This idea will have to be maintained in the design of my Rising Cemetery.

The in-ground crypt remains unnoticed as a visitor experiences the journey, as the human cone of vision passes over the grave site. Architecture can be introduced to draw the eye past the memory of every individual.

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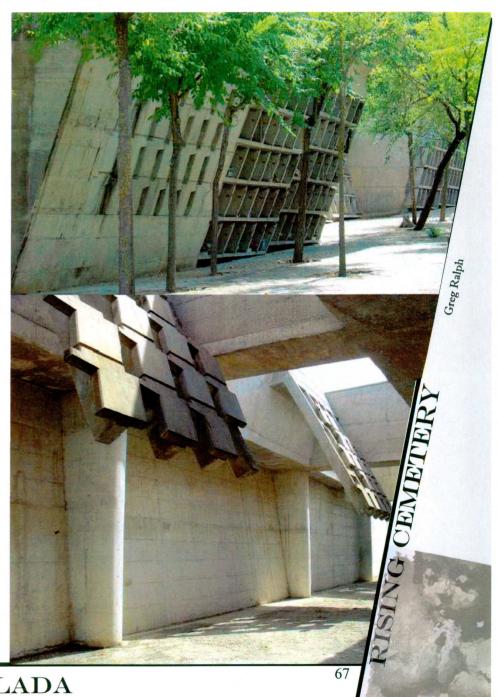
In Igualada Cemetery, circulation and burial are kept separate, one surrounding the other like an island, as diagrammed to the right. An overlapping of movement and mourning could prove beneficial in enforcing an awareness of space and location, factors in the process of healing.





CIRCULATION:

Motion is an occasion made primary in the design of Igualada Cemetery. The relationship between circulation and program is exploited and used as a means of expressing the nature of the cemetery. The cemetery is about history, memories, and reminiscence; a pathway connecting the lives of everyone is a journey through time.



PRECEDENTS: IGUALADA

SERVICES:

An office and a morgue are contained in a separate building on site. It is common practice for a cemetery to keep business functions separate from the main cemetery grounds. I will propose a complete integration of functions.



PRECEDENTS: IGUALADA

Greg Ralph

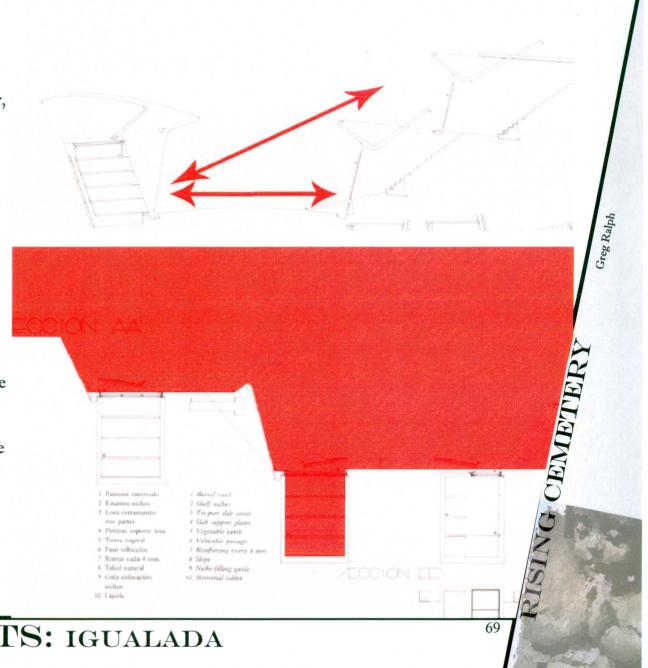
C CEMETERY

SPATIAL RELATIONSHIPS:

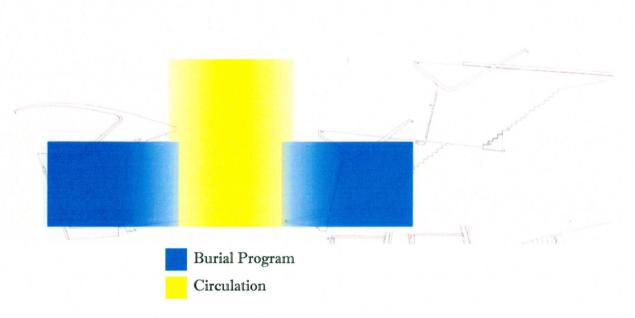
Subtle architectural moves both claim and free the visitor, inciting deep connection with the lost one, and rich interactions with other visitors.

IDENTITY:

Lack of architectural influence can leave both the visitor and the deceased without an individual identity. The space of the grave is the space of the community, eliminating the idea of self.

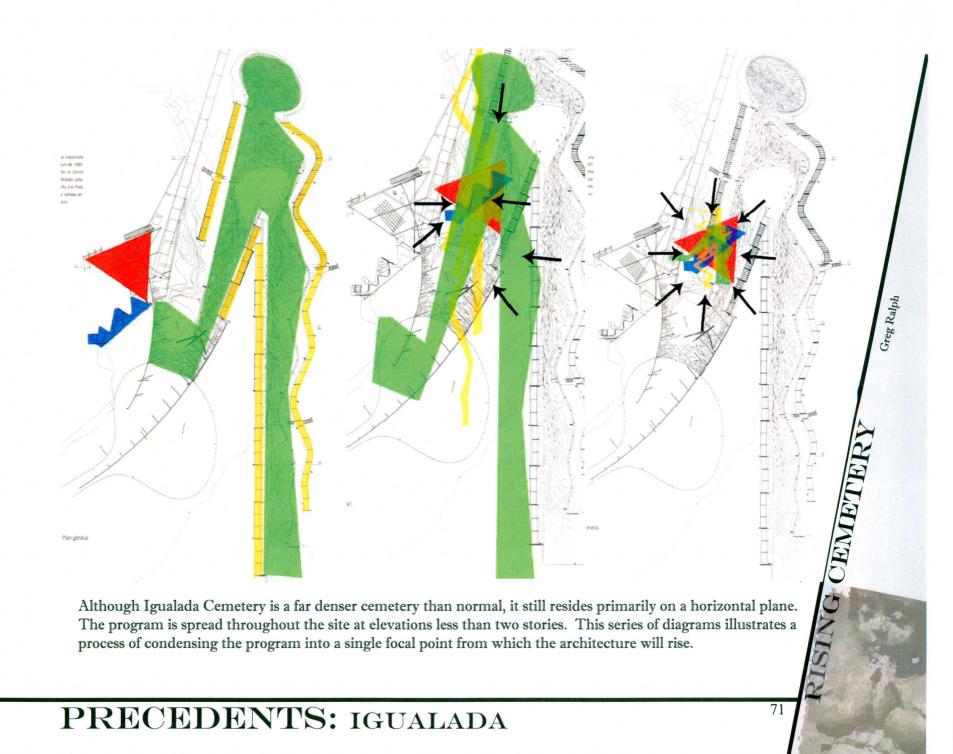


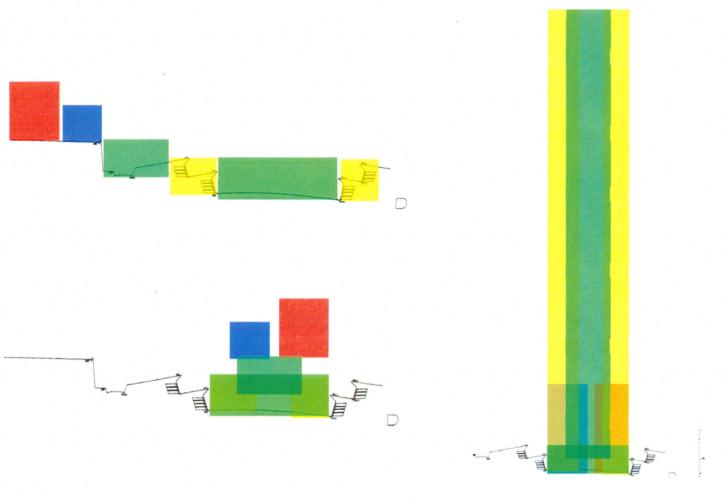
PRECEDENTS: IGUALADA



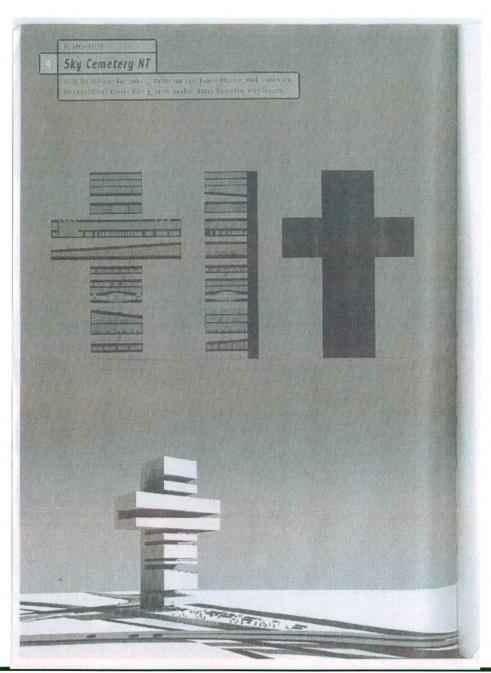
DEFINING "EDGELESS"

Iqualada Cemetery employs the spatial design of edgelessness, or the merging of programmatic elements based on lack of edge definition. The antithesis to my project would be a series of closed off rooms with no clear spatial relationship. It follows, then, that an edgeless interior space is necessary for an efficacious tangible architecture. The dissolution of edge allows for recognition of spatial depth and program location. Thus, the space becomes more legible by becoming less defined. This concept will be pushed as it will ultimately yield a space sympathetic to emotional healing.





This series of diagrams encapsulates the idea of a vertical extrusion in architecture. The program from Igualada has been condensed as shown on the previous page, and adjusted accordingly in section. The final diagram in the series is an attempt to explain the manner in which program would be extruded into a high-rise. The burial sites and circulation would dominate the architecture after the first few floors, raising the bodies up towards heaven.



Project Title: Sky Cemetery NT Architects: NL Architects Completion: Unbuilt Location: Proposed for

Manhattan

"Buried halfway to heaven..."

The architects intended the project to be a radical rethinking of the role of a cemetery in the city. Thus, the stigma of cemeteries as a foreign element in an urban context could be removed. Furthermore, the project was intended to be technologically advance, employing computerization to archive the history of every person buried in the tower, including family videos, pictures, and stories. In the end, the cemetery would become a destination for users other than those in mourning.

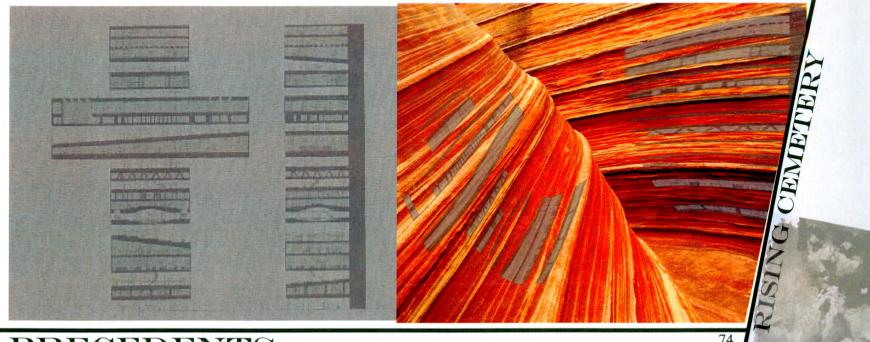
PRECEDENTS: SKY CEMETERY

PERY

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LAYERED TIME:

The growth of a vertical cemetery works historically in direct relation to the way sedimentary rocks form geologically. Layers are built upon one another, leaving a permanent record of the state of existence at any given time. Although the idea of layering history is never directly mentioned in the description by NL Architects, it is implicit in their design. In other words, the cemetery gains more intrigue the longer it exists, instead of becoming gradually ignored as it fills. The ideas of layering in history and geology will be expressed in the high-rise cemetery project in New York City.

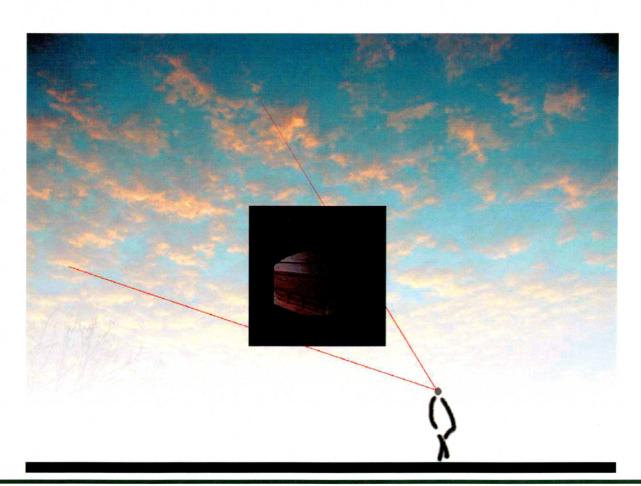


PRECEDENTS: SKY CEMETERY

Greg Ral.

"BURIED HALFWAY TO HEAVEN..."

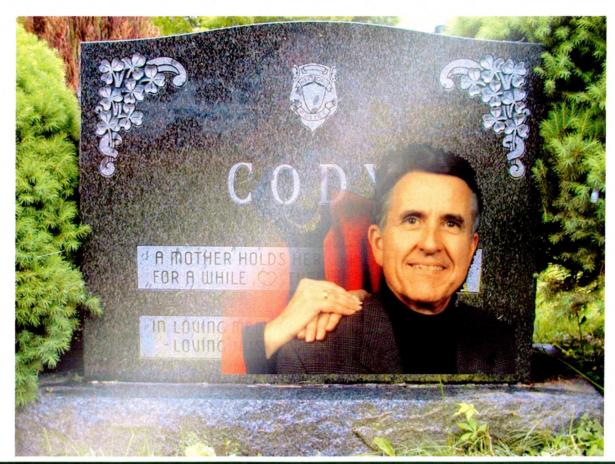
The idea of removing the body from the ground yet still terming it 'burial' is fascinating. An above ground mausoleum is a strange enough phenomenon, leaving the body (which came from the ground) out of the ground. However, mausoleums are still rooted in direct contact with the earth, providing a similar appearance as burial. How, then, would one react to passing directly under a coffin? The relationship between earth and deceased is shattered as one passes between them. Sky Cemetery has opened up the possibility to rethink the definition of burial and its impact on the visitor.



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RETAINED ESSENCE:

A key element to the Sky Cemetery proposal is the idea of archiving personal information for future generations. The architecture would then be informed by the characters of the deceased that (paradoxically) inhabit the space along with the living. A headstone or grave marker is no longer an inanimate object, but a recounting of lives. Another point to consider is that of archiving in relationship with the city. NL Architects mention the building acting as a Museum in the future, however its hard not to consider a library as a better choice for cross-programming; libraries are the existing archive of lost history which could be complemented by the cemetery as history for the lost soul.

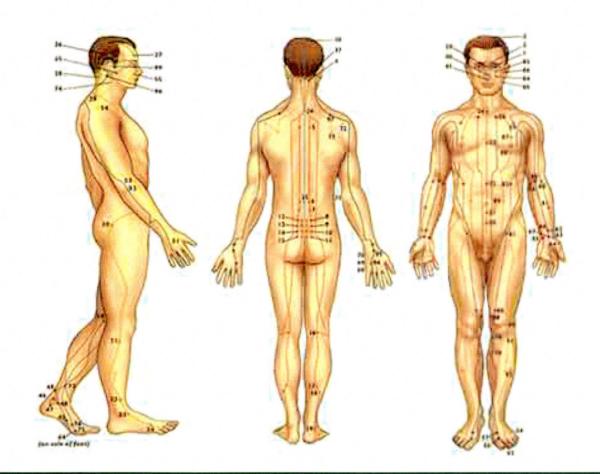


PRECEDENTS: SKY CEMETERY



ACUPUNCTURE:

The idea of acupuncture as a source of healing and wellness through intangible methods relates directly to my concept of space (an intangible) as having the ability to heal through a relationship with the body. Acupuncture uses stimuli to induce mental and physical reactions, similar to the way in which space will affect those same qualities of people in the cemetery.

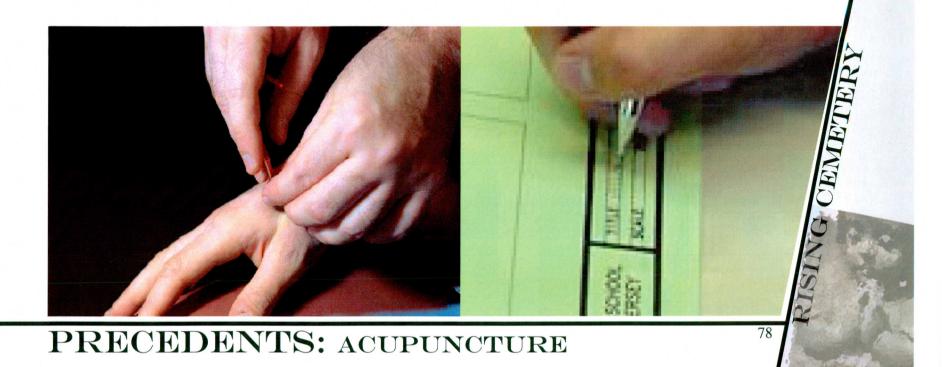


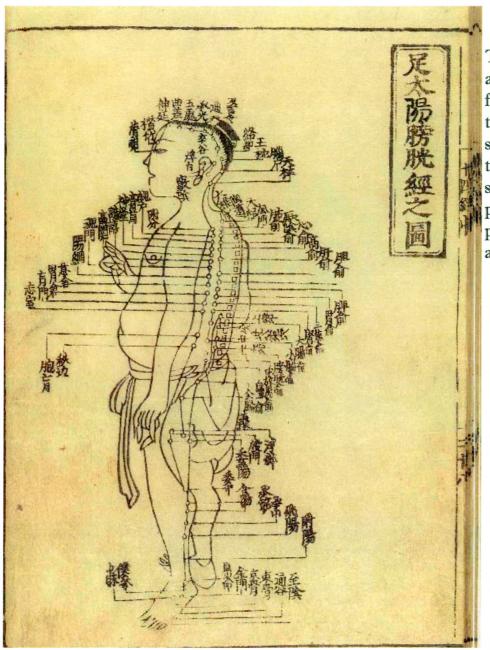
PRECEDENTS: ACUPUNCTURE

CEMETERY GREEN

PIN:ACUPUNCTURE AS SPACE:ARCHITECTURE

In Acupuncture, the needles are used to stimulate anatomical reactions and restore balance to the body. These imbalances block the Qi (vital energy) from flowing along meridians throughout the body, supposedly causing ailments. Space, then, is the pin of architecture, and the meridians are the space structuring systems used in buildings (i.e. structural frame, interior partitions, circulation, etc.). The architect must apply the correct technique (form in acupuncture) to spatial design to achieve the desired results, allowing space to influence the body. Also, acupuncture affects nerve endings and can dull or intensify sensations throughout the body, much like the affect spatial design has on sensations.



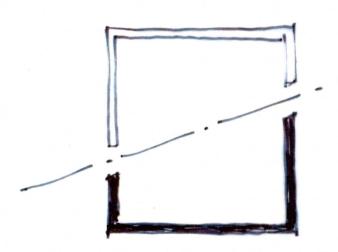


Thus, acupuncture may be viewed as a lens for understanding the way space functions in architecture. Through relation of space to the pin, one can understand architecture as having the ability to heal if designed properly. Just as the stimuli from the needle relieves stress, problems, and ailments, spatial design can provide all these qualities for its inhabitants.

PRECEDENTS: ACUPUNCTURE

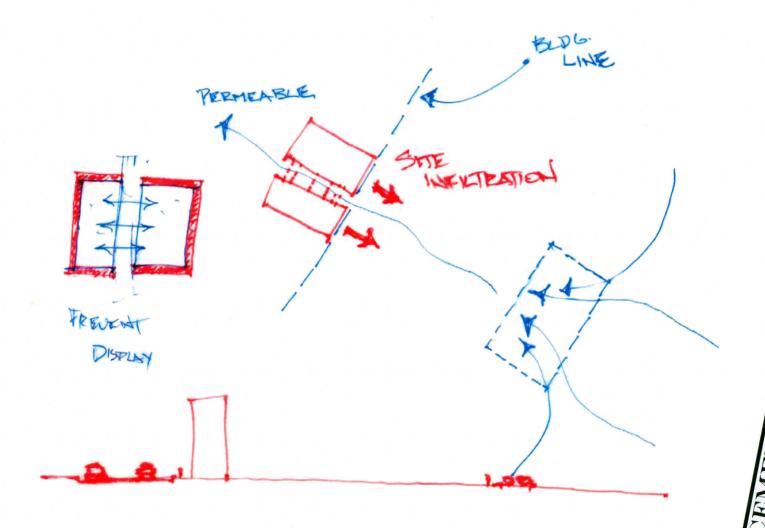
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PART ii: THE DESIGN PROCESS

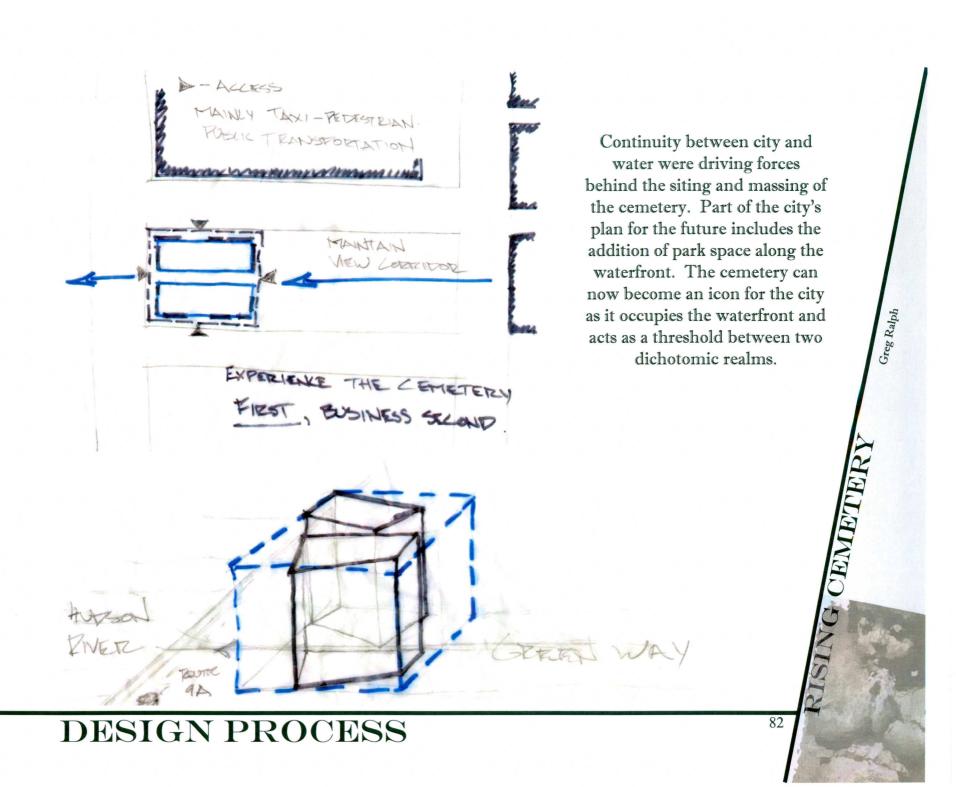


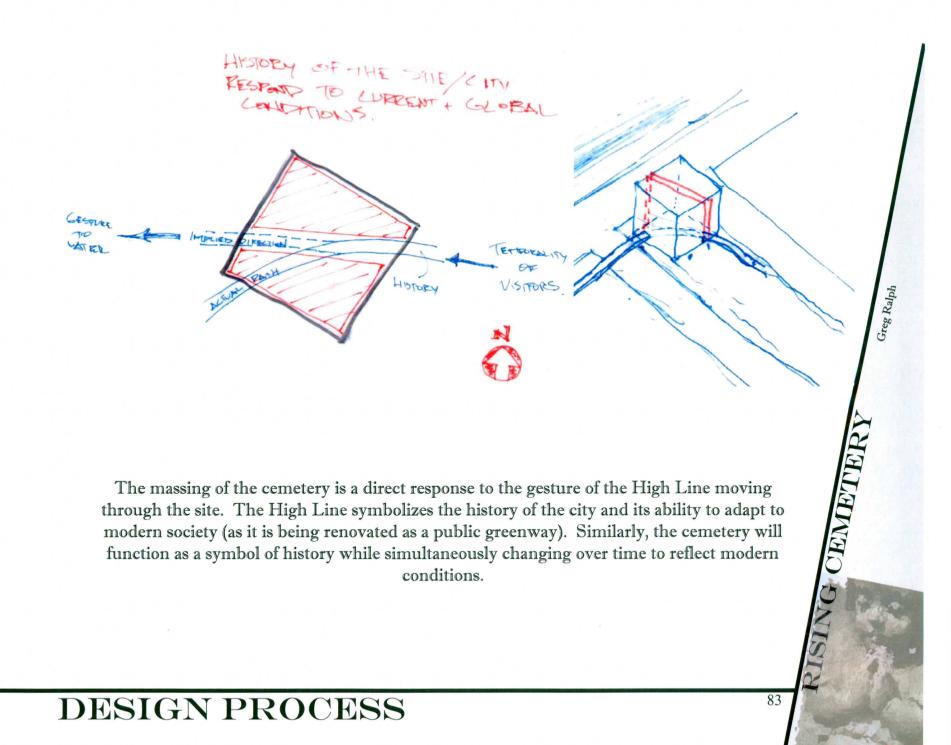
PRECEDENTS
RISING CEMETERY

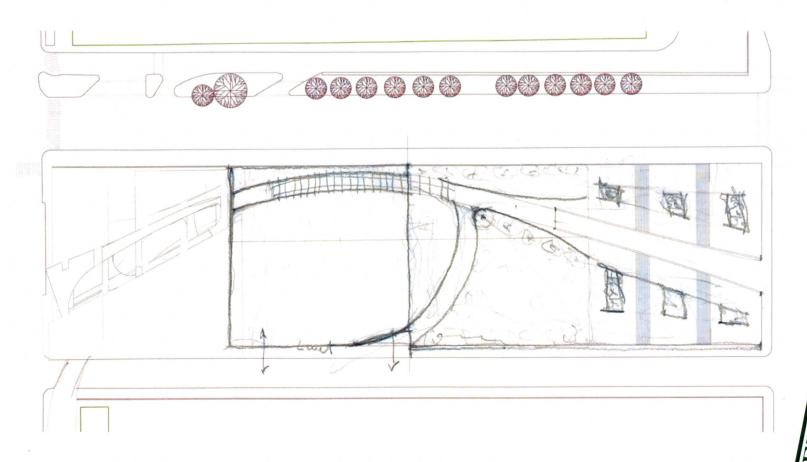
Greg Ralph



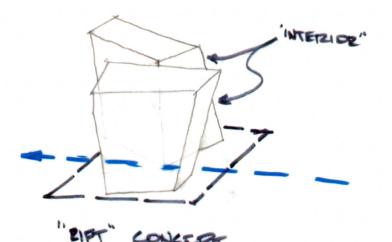
The design process began through an investigation of site movement. Much consideration was given to the way the city would be welcomed by the project.

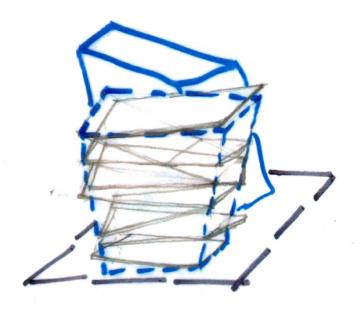






Four two hundred foot squares occupy the extents of the site indicating a transition from an urban condition into a meditative state. The urban condition is met by a hardscape which descends into a greenspace at the level of the cemetery. The greenspace terminates just after the point where the High Line rises out of the ground, beginning its journey through the city. As the High Line rises out of the greenspace it passes over a reflection pool, symbolizing the transition from a dynamic condition to a more peaceful, static one. The site design is concluded with the presence of the cemetery which recieves the High Line as a main form of ground level circulation.

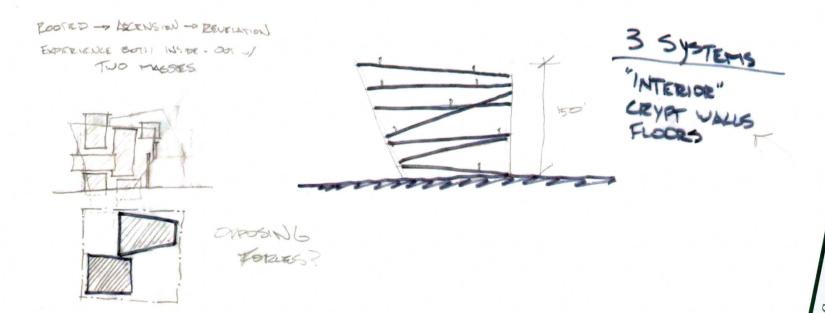






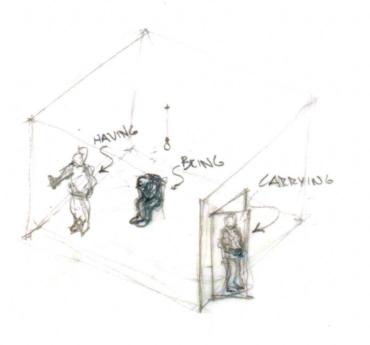
Three Dimensional massing was explored through a study of folding planes moving upward in a contained volume. The folding planes would represent the landscape of a traditional cemetery, except their connection would be vertical as opposed to horizontal.

GCEMETERY



This study of volume and folding led to the creation of three separate systems which informed the cemetery's design. First, the crypt walls would function as a privacy mechanism, protecting the visitor from the city at some instances, while revealing the city at others. Second, the floor system would act as the secondary means of circulation, bringing the visitor between burial sections and contemplation spaces. Third, and most importantly, the Inner-Landscape (or main circulation system) functions as the connection between body and architecture, providing a storyline which the user follows as they ascend through the cemetery. This system begins by rising out of the HighLine, starting a continuous upward journey through the project, terminating at an overlook of the Hudson River, New York, and New Jersey, symbolizing the global nature of inner angst as well as the potential for new beginning. A visitor on the Inner-Landscape simultaneously experiences the dynamism of temporality through their connection with other active visitors, while subtly understanding the static nature of history through contact with burial sites and memorials. The meshing of the two opposites – temporality and history – creates a dichotomic relationship which incites the aforementioned visceral reaction within the visitor.

G CEMETERY





HEACING QUALITIES.

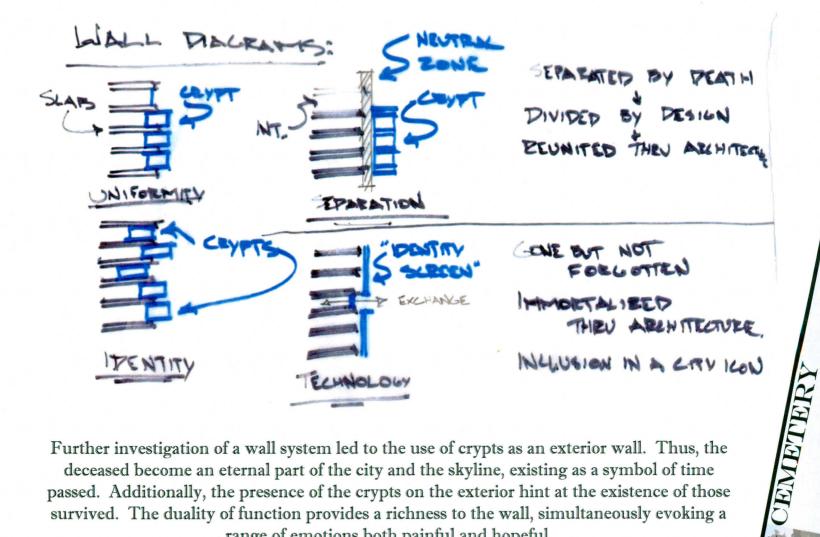
INTERACTION

REFLECTION

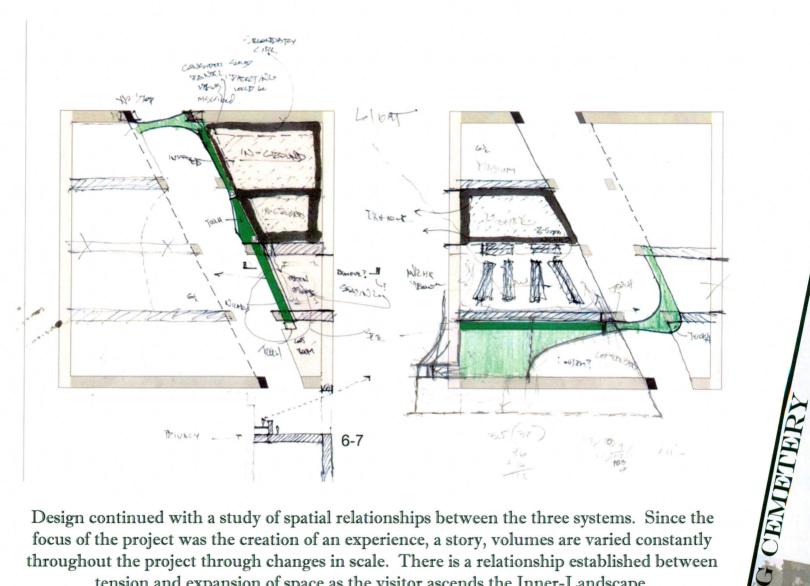
TRANS-FORMATION

The design for the Rising Cemetery is based entirely on experiential qualities, permitting the visitor to become viscerally involved with the building. The basic premise behind this move is the theory that a bodily identification with space – and in turn the building – leaves the user more susceptible to emotional impact.

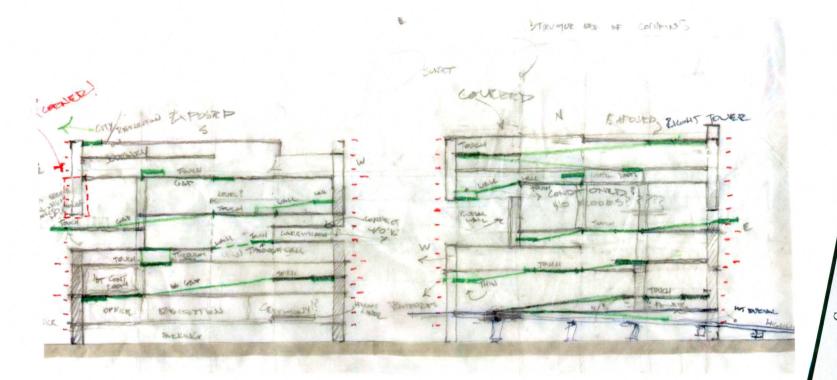
GCEMETERY



Further investigation of a wall system led to the use of crypts as an exterior wall. Thus, the deceased become an eternal part of the city and the skyline, existing as a symbol of time passed. Additionally, the presence of the crypts on the exterior hint at the existence of those survived. The duality of function provides a richness to the wall, simultaneously evoking a range of emotions both painful and hopeful.



Design continued with a study of spatial relationships between the three systems. Since the focus of the project was the creation of an experience, a story, volumes are varied constantly throughout the project through changes in scale. There is a relationship established between tension and expansion of space as the visitor ascends the Inner-Landscape.



Based on the intended complexity of the experience, rationalizing and designing the spaces became increasingly difficult. Therefore the initial sectional design of the building was based on the narrative on the next few pages. It was an attempt to describe in words how the space would feel, how the transition between scales would occur. The narrative became the guide for the sections above. The sections are cut through each tower looking in opposite directions, and provided a means of unwrapping the building in section so that design could take place in both directions at once.

GCEMETERY

A Design Narrative

"This is my first time back to the city in 5 years; I'd been avoiding it since my last visit to the rising cemetery. It's not that I felt uncomfortable there; I just believed that the best way to move on would be avoidance. Recent events have made me realize this isn't true, there's no way to separate myself from my loved one. They were a part of my life – my soul – while living and they'll remain there eternally.

I step out of the cab at the corner of 34th and 11th and pause to gather my thoughts, only to realize that the city will never stop moving long enough for me to find peace. The park looks well-maintained and strangely unchanged. I begin the walk towards the Highline with nervous anticipation and glance upward at the cemetery. The building looks different, older. I can see a noticeable difference in the amount of burials since my last visitation based on the transparency of the façade. We were on of the first families to use this cemetery, and through much consideration we decided to purchase a crypt on the 10th floor. I scan the upper region of the wall and pretend I can him out from my vantage point.

The way in which the Highline rose cleanly out of the park always fascinated me, creating the illusion that the park space continued directly through the cemetery. I decide to stop at the information wall and watch the short clip we submitted 10 years ago at burial time. A woman next to me is watching a video of what appears to be her son. I offer my condolences and we briefly exchange stories of who we are and how we ended up here, in this particular cemetery; she wanted her son to be closer to heaven.

After a few more minutes of conversation I decide to get back on the Highline and begin my ascension to the 10th floor. I glance towards the elevator but decided against it; it's a strangely cool summer day and I have no prior obligations to constrain my time here. Looking at the elevator reminds me of the burial ceremony. We chose to have the service on the landing overlooking the river, mostly because he loved spending time on, in, or around water. The service concluded with an elevator trip up to the 10th floor where the casket was placed 3

rows up in the East wall. Every morning he's greeted with a sunrise.

I set foot on the ramp system that winds its way upward. I've always enjoyed taking this way despite the additional time it takes. The mixtures of interior and exterior space, coupled with gorgeous views of the city are just a few perks to taking this route. The ramp arrives at the first burial section, a half level or so above the information area. The space is rather open and tall, allowing me to feel as though I haven't really entered a building yet. I can't see the office area or the Highline as a row of niches blocks my view. I sense the importance of this privacy as I notice a family kneeling before one. Consciousness of my walk comes back as I reach the start of the next incline. The rise is easy and subtle, far more enjoyable than climbing 10 flights of stairs.

I trace my fingers on the engravings at my side and read as much as I can in passing. The subject of the memorials varies from personal family messages to city inscriptions. I recall an entire stretch of rail devoted to deceased firefighters and policeman. The engraved railing can only hold my attention for so long as I reach the next burial section, passing through a wall of crypts. Although it seemed strange the first time I visited, it now strikes me as utterly awe-inspiring. It's as if you can feel the weight of the wall pressing down on you was you pass through the long narrow opening. The space is far more compressed here than the last section, almost mausoleum-like. The ramp lets off in front of a small room against the south wall from which I can see the sun penetrating the building. I contemplate stopping but decide to keep moving upward.

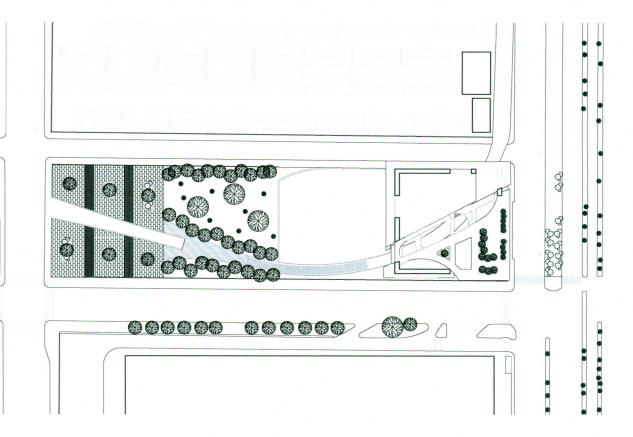
The ramp crosses over the gap for the second time this visit, yet it hits me harder this time. The path is so narrow that I feel as though I could misstep and fall off. The sense of danger causes me to glance over both railings, becoming suddenly aware of the river as I see it through the split in the wall. I pause once again to collect myself, only this time there's no city pressuring me to continue; I can stay static as long as I deem necessary. A soft breeze hits me and shocks me out of my daze so I continue on the ramp. Another burial section meets the ramp briefly as the slope disappears and the two areas mix. I find it interesting how the passerby, innocently observing other visitors and graves, becomes

G CEMETERY

suddenly intimately involved with them as the ramp comes into contact with the next floor. The passerby is thrust into contact with those things that they have been observing from a distance. I feel a sense of empathy wash over me as I pass by an older gentleman visiting what I assume was his wife. The emotion dissipates as the ramp rises up again, pulling me away from the man: I'm left alone with my thoughts.

Although straying occasionally, the ramp stays relatively anchored to the gap, affording views of the entry and at times, burial services held on that lowest landing. It is interesting to watch other people experiencing the same thing I was ten years ago. That was me, and now that is someone else. I would never wish that feeling on anyone, but there's a sense of comfort knowing I'm not alone. Crossing over the gap again I observe the beginning of another service.

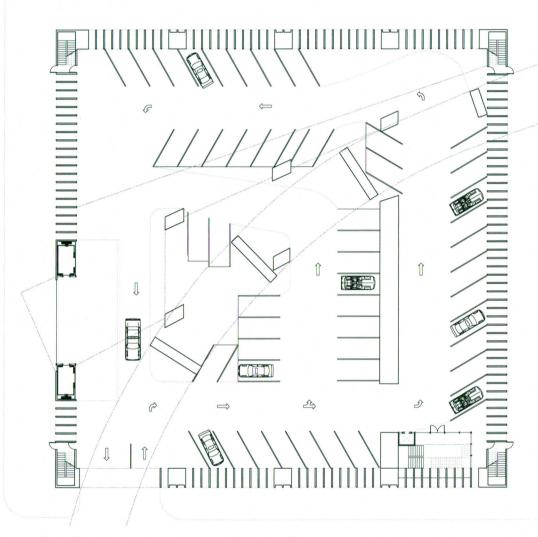
The ramp connects with yet another burial section, this feeling overwhelmingly compressed. The feeling is relieved promptly as the ramp moves through the exterior wall, placing me in direct contact with the city. I must be fifty feet in the air by now, and I return the wave of some children marveling at my sudden appearance at such an astonishing height. I reenter the interior through a huge opening in the wall and shake my head at the live grass growing in this section. I notice a few headstones out on the platform extending from the building; this burial option is intriguing, but we just didn't find it to be the right choice for him. I continue my ascension to be together with him again."



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Greg Ralph

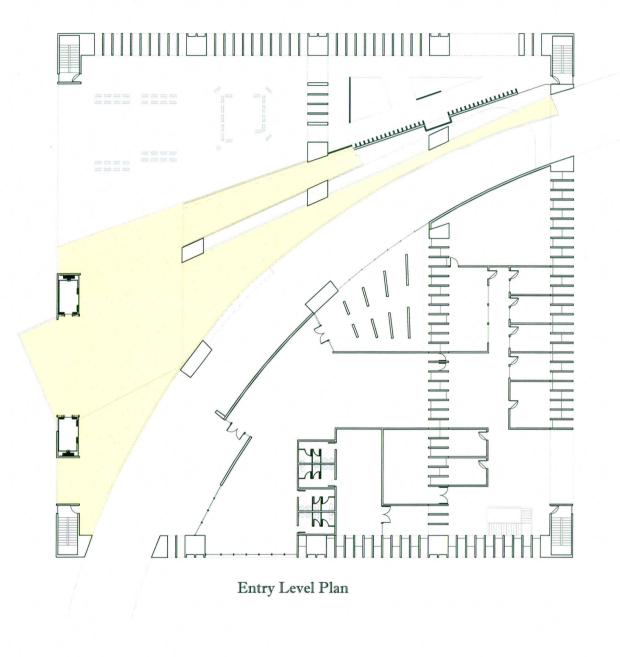


and allow for this same visual connection with movement throughout the building.

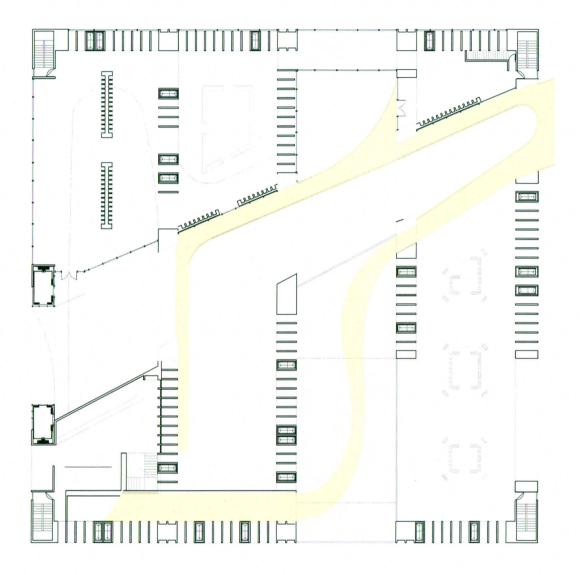
Entry into the parking area becomes an experience as the hearse leads the burial succession through the space, ending at an opening in the west wall. This opening allows passerbies to observe the beginning of the

funeral procession through the building. The elevators are glass

Ground Floor Plan

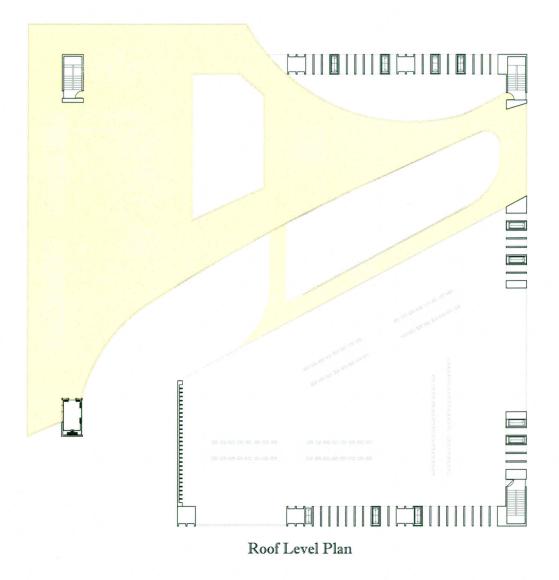


This level demonstrates the manner in which the Inner-Landscape (in yellow) rises off of the HighLine at both sides. The burial sections begin a half level above the office level.



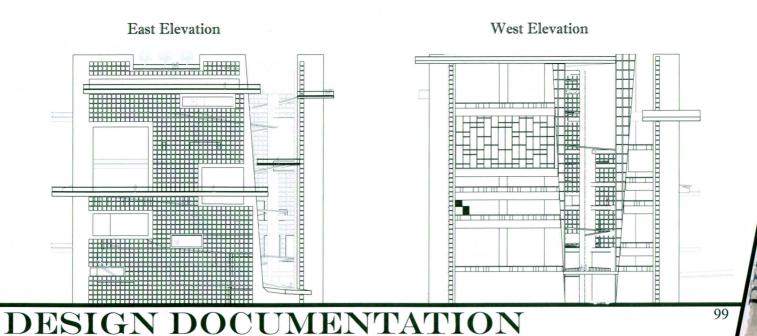
Typical Upper Level Plan

This plan is indicative of the manner in which the Inner-Landscape moves between programs, at times becoming a greenspace within the building and penetrating the exterior wall.

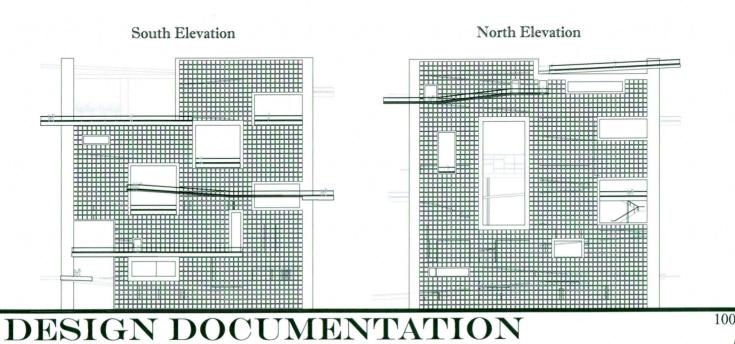


As a visitor nears the top level the walls erode and greenspace becomes more prevalent, enforcing the experience of a garden in the sky. The journey through the cemetery terminates at a parkspace on the roof of the building, functioning as a symbol of the traditional landscape cemetery.

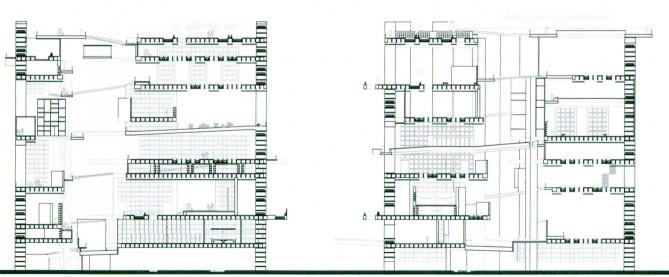
The East and West elevation are a direct reflection of the program inside, and act to enhance the gesture of the HighLine penetrating the building. The exterior walls taper back as they move upward, allowing the sky to enter the cemetery. This design idea serves to enhance the concept of being buried halfway to heaven, increasing visual awareness of the floor slabs in the sky. The west wall is left free of crypts so that there is a constant visual connection with the water and the world beyond. This is intended to connect the visitor with the world beyond NYC, affecting their perception on a macro level.



The South elevation provides a series of terraced greenspaces, affording views along the skyline and down the HighLine. The South wall becomes entirely absent at the uppermost levels allowing for a direct connection between visitor and city. The North wall reveals the glazed and conditioned mausoleum space, another form of spatial variation to aid in the emotional identification of visitors.



"It is as if each of us were a web of connections to the things, places, other people, experiences, activities and projects we care about. By extension, it is as if our families, communities, and all of humankind were joined as webs of webs. Bereavement strikes a blow to those webs...much of the weaving that comprises our individual and collective life histories is undone."

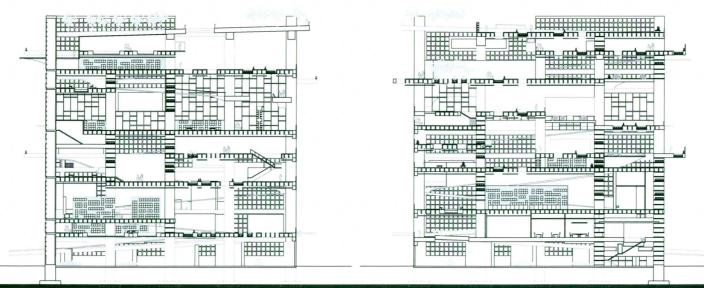


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"We now look to David (the deceased son) as a part of her that is increasingly able to help us by becoming more alive and nurturant. David remains an obsession, but he also advises and guides as a mother would a child. I cannot say precisely what is changing in this dissociated, highly traumatized and tangled attachment, but my patient and I, and now David, are all working together."

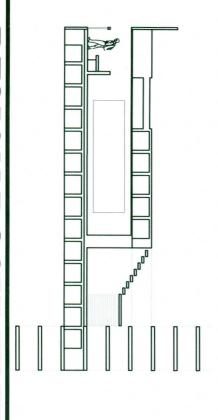
-Doctor Rynearson

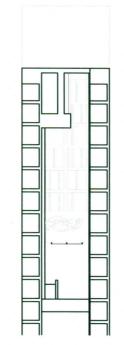


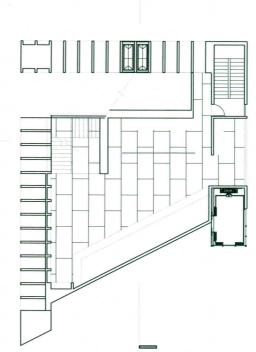
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DESIGN DOCUMENTATION

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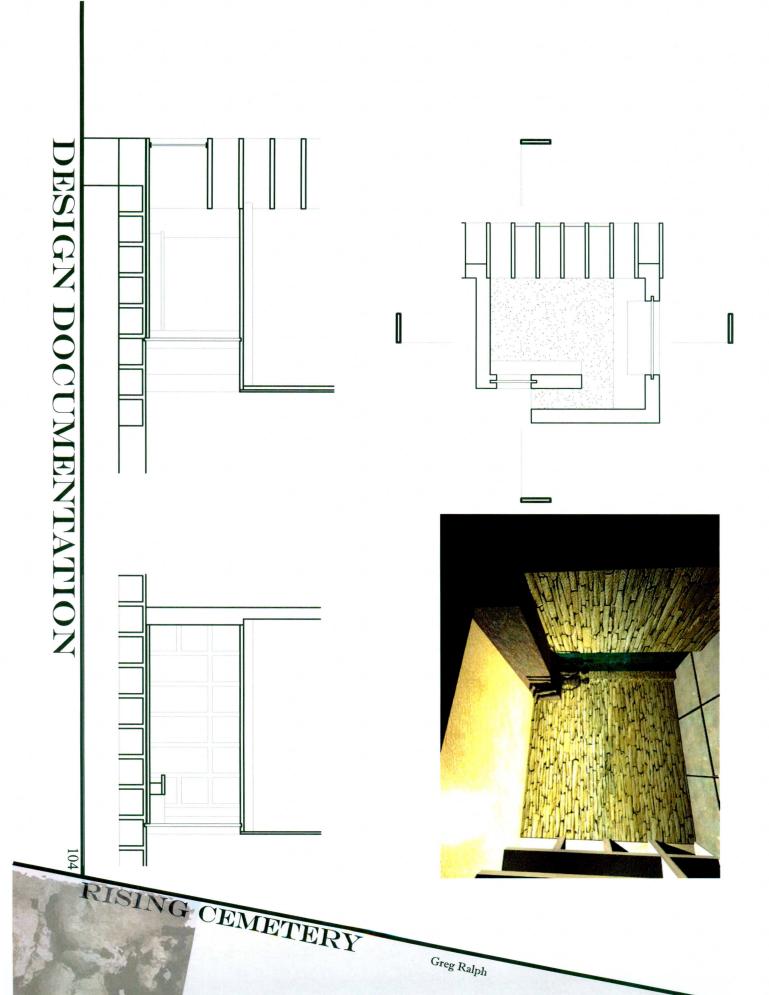






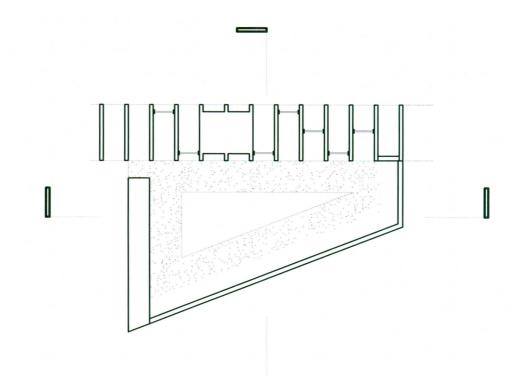
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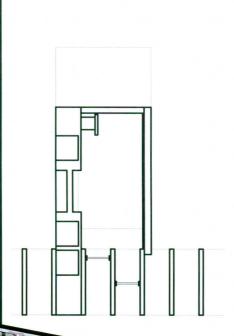
Greg Ralph



DESIGN DOCUMENTATION

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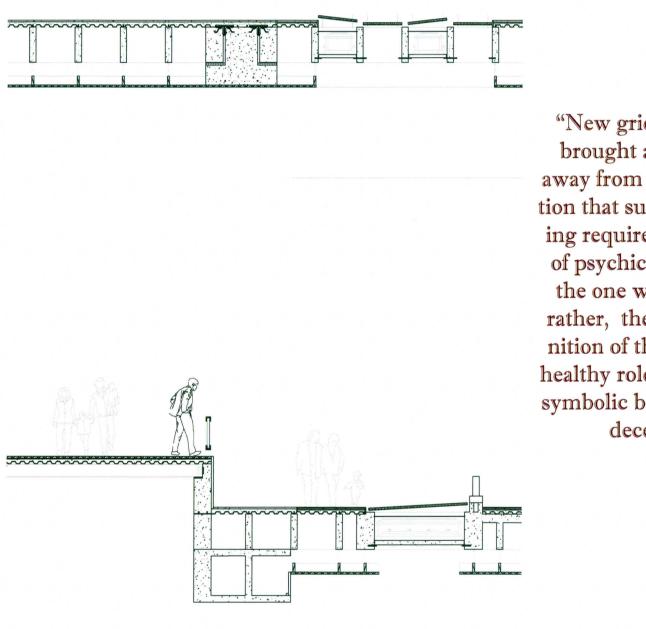




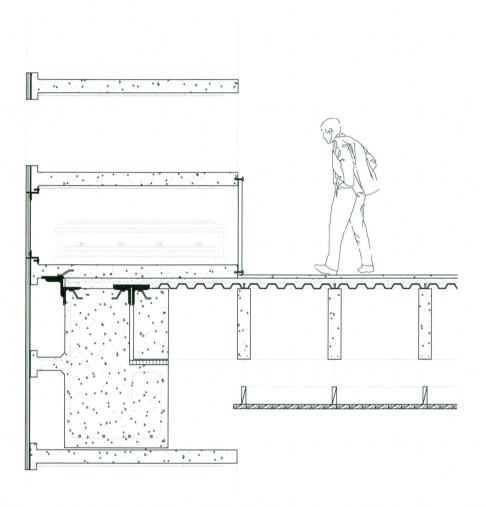


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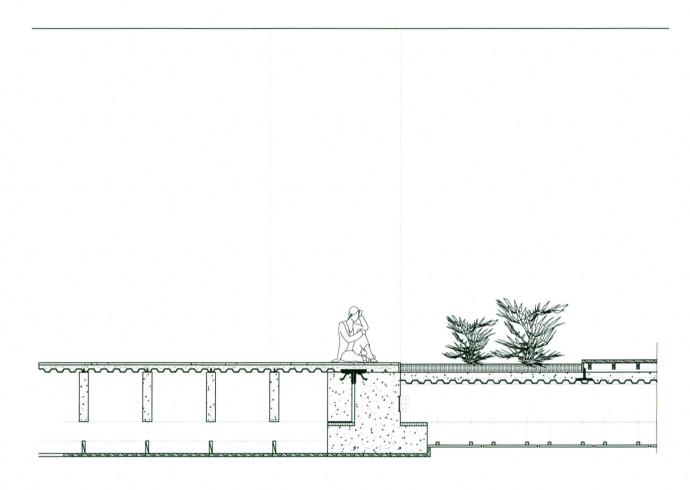
Greg Ralph



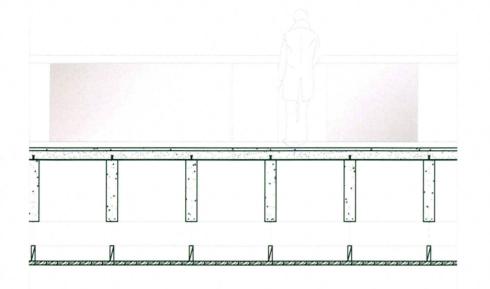
"New grief theory has brought about a shift away from the presumption that successful grieving requires withdrawal of psychic energy from the one who has died; rather, there is a recognition of the potentially healthy role of continued symbolic bonds with the deceased."

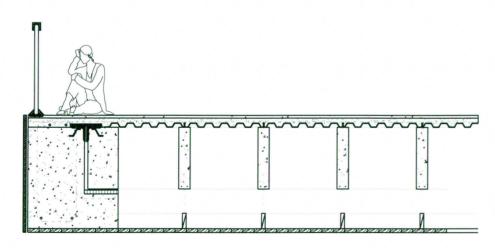


"Don't let those tears fall upon sad faces for i am not to far away. I'm seeing some beautiful places. Although you cannot see me my spirit is close by; our memories shall last forever."



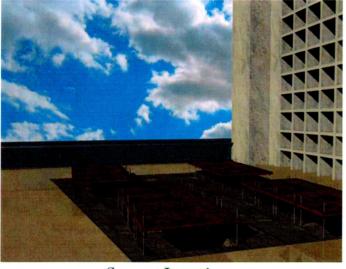
"I find it hard to take in what anyone says, or perhaps, hard to want to take it in. It is so uninteresting. Yet I want the others to be about me. I dread the moments when the house is empty. If only they would talk to one another and not to me." - C.S. Lewis





Loss and our personal, relational and cultural responses to it are definitional of human life, not because of its intrinsic significance, but precisely because it initiates a quest for meaning in deeply personal and intricately social terms."

-Robert A. Neimeyer



Space at Inception



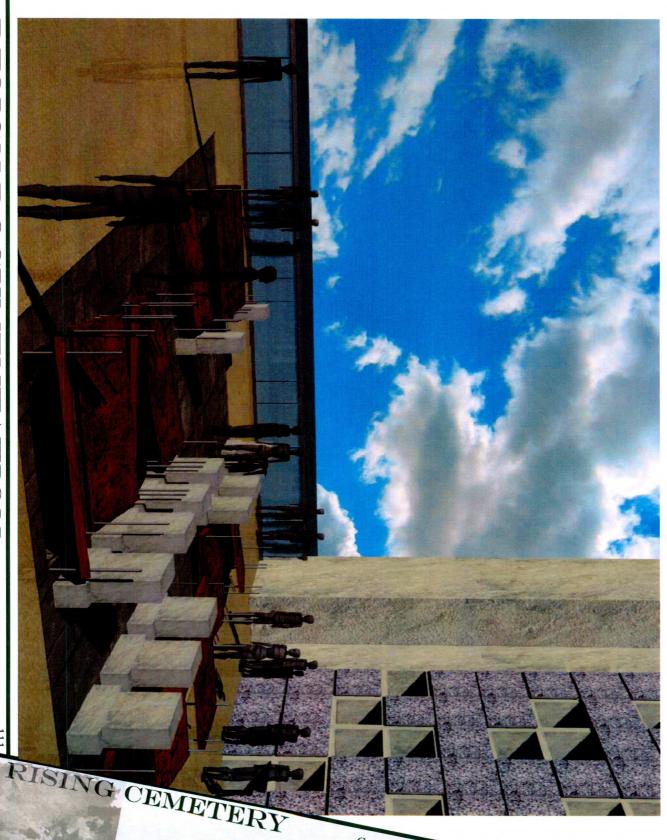
Space After 1 Year

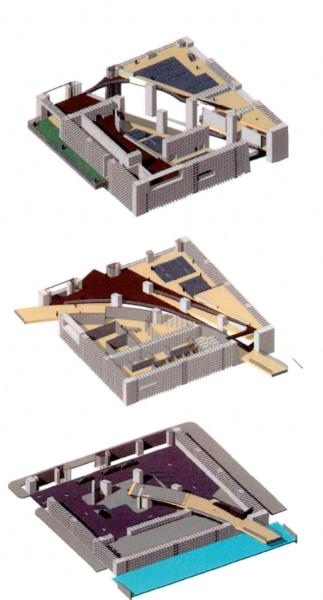


Space After 5 Years

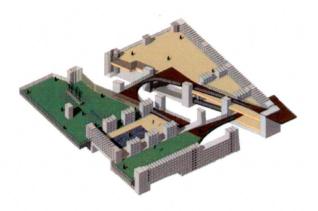


Space After 10 Years

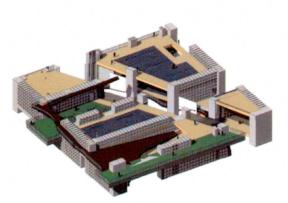




"Man, when he does not grieve, hardly exists." ~Antonio Porchia



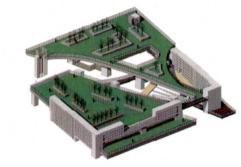


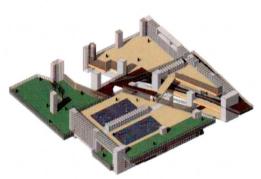


"We must embrace pain and burn it as fuel for our journey." ~Kenji Miyazawa

Greg R



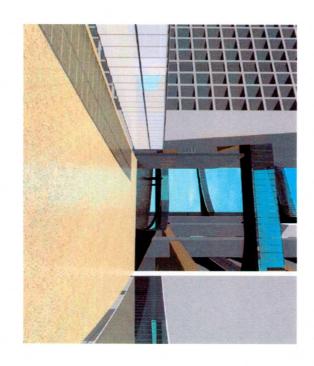




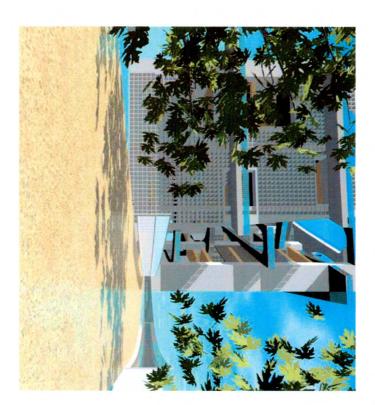
"Grief is itself a medicine." -William Cowper

Greg Ralph

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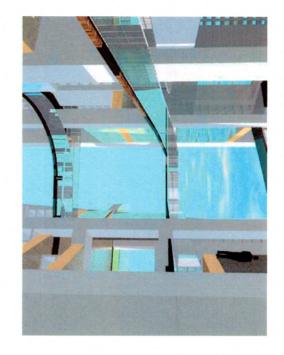






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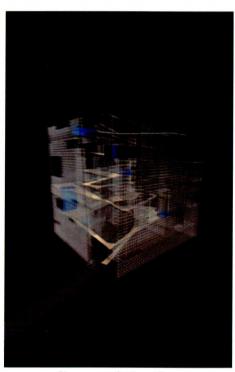




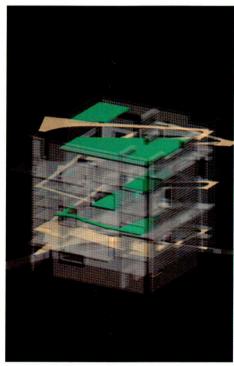
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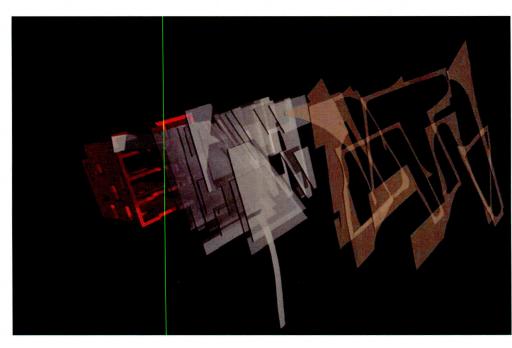
Conditioned Spaces

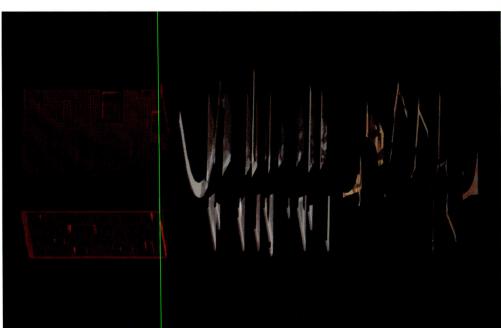


Contemplation Spaces

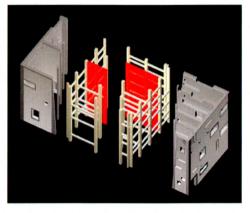


Green Spaces

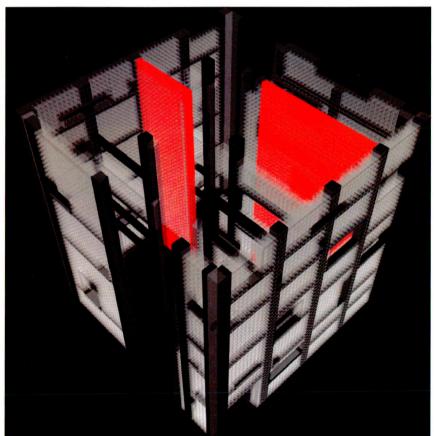




Exploded Systems Diagrams



Structural Diagrams



The structural system for the cemetery would consist of precast concrete beams and columns.

The floor would be a waffle slab construction, allowing for in ground burials throughout the project within the grid system.

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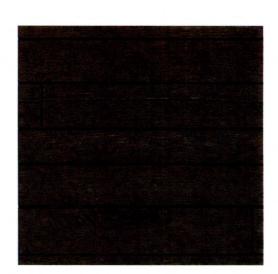
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Material Palette









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