Grief + Healing Sanctuary

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My thesis is an exploration of the emotional connection we have with architecture.

The inspirations for the Grief and Healing Sanctuary were the healing experienced at quiet spaces of reflection and my father’s stories as a Navy Vietnam shipboard combat veteran.

I designed a building to provide a place for healing and to deal with grief. The building was designed for patients and their families being treated at the National Institutes of Health in Bethesda, Maryland. Not all families leave as they arrive. The families, many from out of town, need a place to reflect, pray, cry, or laugh.

This need was reinforced by my father’s stories of his transition from normal life to the extremes of combat to life back as a civilian. No one comes out unaffected, and there is not always a place to go and reflect.

The Grief and Healing Sanctuary provides these spaces for all people who have these needs.
First I would like to extend a very special thank you to my wonderful committee, Jaan, Susan and Marcia, who encouraged me to keep pushing forward and grow. Your tutelage has influenced me greatly.

To my friends for all the encouragement and help they provided me as I traveled along this journey.
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Most importantly, thank you to my amazing parents Robert and Rita Sumner. You have taught me to always work hard for what I want and to never give up. Words can never thank you enough for everything.
INSPIRATION

Travel photo of the Pantheon, Roma, Italy.
Some girls played with dolls growing up. I used to build cities for my dolls with string, pillows and sticks. I would sit in my parents’ living room and take over the space with my elaborate spaces. I would borrow our Christmas tree to create a high rise and use chairs to create caves for my dolls to hide in.

As an undergraduate at Clemson University, I began experimenting with model materials. I admit most prefer building models with wood and cardboard, but I always sought out the unusual materials. I once built an entire model of rubber. Liquid and gooey, it smelled so bad I scared my roommate and was banished from ever using that in our dorm again. Lucky for my old roommate, I fell in love with string and plaster. Using this material helped me find my voice and style. Two of my early explorations from my time at Clemson University are seen below.

By the time I started my thesis I was eager to get reacquainted with plaster. From the start I experimented with different castings to see the reaction of forms, glass and light of forms.

The first element I studied for my thesis was the window, and the image to the right of the stained glass of the Air Force Chapel in Colorado Springs, Colorado was my start.

At the start of my thesis I wanted to explore the transformation of space through the window and glass; the contrast of lightness and darkness, and the impact of color and texture.

The effect glass can leave in a space can be incredibly transformative and emotional. Traveling through Europe I was often struck silent by the power of stained glass windows. The colors danced upon the walls and crafted wonderful watery patterns that flowed along the walls, ceilings and floors. There can be passion, anger, sadness, regret, and hope all evoked by the movement of light through glass, and the interaction of the space, or an explosion of color that is in a heated conversation with space.

Early explorations with glass began with testing plaster as a frame for the glass to be imbedded in the frame as seen below. This study involved casting sea glass within a thin frame of plaster to see the translucency of the colored glass and what effect the frame of plaster had on the shadows. From this discovered the power of the light and color combined with the thin framing of the glass as seen to the right. Here I built a small window, and using glass paint drew in lines to simulate the lead lines in stained glass. As illustrated at the top and bottom of the photo, the shadows cast fascinating lines.
Integral in many of these transitions between the indoors and outdoors was the element of water. Central in many gathering spaces, the element of water brings people together. As seen to the right, pools and fountains can be fun to dance in and enjoy, serve as cultural landmarks, and reflect at in spaces of prayer.

Site studies informed me that the design needed a water element to follow the natural grade changes. The rain flows down the grade of the site to the north and locating a water feature at the lowest point of the site made sense for the design. The water feature would be a landmark for the building as well as a space to gather formally near the sanctuary and informally along the grassy bank.

From the window I expanded my studies out into where nature meets the built environment. The site I had chosen for my thesis had a divide between being undeveloped and lush with large trees and soft grass and being barren with recent demolition scraping the soil bare. The site needed to have some recognition to this split and maintaining a garden within the site became important.

During my time as an undergraduate I had the opportunity to study in both Spain and Italy. The travel was a great experience exposing me to many wonderful spaces that transition between indoors and outdoors. The gardens of the Alhambra are a wonderful example of this. Each space within the complex flows into the next moving the visitor through the transitions seamlessly. On this page are some of the different garden spaces that helped inspire me from the enclosed pool in the Barcelona Pavilion in Spain, to the covered paths of Dumbarton Oaks in Washington DC.
Early in my study of light and the window, I had cast a small room with a coffered roof, seen to the right. I set this aside during part of my design process, but returned to this idea when frustrated with my design. I turned to exploring the possibilities of what a long expansive roof could be. That brought me to the waffle slab.

I have been taking pictures of waffle slabs for years, as evidenced by my large collection of roof shots as I traveled Europe as an undergraduate. Exploring the structural properties informed my design decisions to lead me to the final design. Among the most inspiring was the Pantheon in Rome. Similar in design to my early cast, I chose to take this inspiration and simply the design to a single square cast as part of a larger rectangular grid.

From the shallow roof cast I made the decision to make the coffers deeper, and make the void a perfect square. The cast to the right was intended to be just the roof, but as I turned it around I began to see the possibilities of using these lines in other parts of the building. Thus the design of the roof and its pattern has been translated into niches carved out of the retaining wall, tile sizes in the floor inside and outside, and the outdoor roof connected to the original waffle slab design.

October 2009. Plaster cast of coffered roof with sea glass imbeds.

October 2010. Plaster waffle slab pattern as used in walls.

October 2010. Travel photo of the Pantheon. Rome, Italy.


October 2010. Plaster cast of waffle roof.

October 2010. Plaster waffle slab as used in floors.

October 2010. Plaster waffle slab pattern as used in walls.
Site
Bethesda, Maryland. North corner of site.
The site is an open block of land south of NIH and NNMC along Rockville Pike/Wisconsin Avenue. This major artery into Washington DC is the sites’ eastern edge, with Woodmont Avenue on the west and Battery Lane on the south. About one and a half miles from Interstate 495, and between Medical Center Metro Station and Bethesda Metro Station on the Red line, the site is conveniently located for both vehicular and pedestrian access.

The site is at an interesting border of Bethesda MD. It is close to two major centers of medical importance to the north, multi-family residential housing to the west, single-family housing to the east, and commercial development to the south.
I discovered the site while working on a project that mapped out potential emergency routes in Bethesda from the National Institutes of Health (NIH), National Naval Medical Center (NNMC), Suburban Hospital, and surrounding fire stations. My idea to create a space exploring the emotional connection of architecture needed an open space that was centrally located to city services and had an expansive view that allowed one to close off the city at the same time.

The site was ideal with its proximity to NIH and NNMC and for the park qualities that currently exist on the northern half of the site. The southern half was previously a parking garage and motel that have since been demolished. Examining the site in its current state allowed me to see the beauty of the natural undeveloped side and the barren side that has been cleared for development.

A large site of about 185,600 square feet, it has a natural slope down in the northern direction of 35 feet became the starting point of my design. Respecting the natural language of the site, my concepts would develop from the south down the grade toward the north. Any intervention in the site would need to respect the elevation change, along with a respectable roof line. Surrounding buildings are about 30 to 40 feet high and my desire was to respect the existing sight lines.

The site informed the design that it wanted a water element that collects to the north and the building would need to transition the 35 foot grade change up to the southern end of the site. Also necessary would be some type of park feel to be maintained within the design.
To the right is a view of NIH across Woodmont Avenue. A line of sixteen trees spaced about 30 feet apart line the curve of the road to the intersection with Wisconsin Avenue.

Below, the northern end of the site is currently dominated by large trees inside the trees that border the road. They provide a nice bit of shade that keeps the site very dark at the edges of the site.

On the page to the right is a view of an existing strand of five large pine trees at the current border of natural and barren. The heights of these trees dominate views of the site as existing.
“I do not think that we can fully understand how one makes a specific mark upon a page—at some point one has to trust one’s eye, one’s intuition. I do not think that that implies a lack of rational thought. I just think that one cannot understand why one makes a specific move, that the creative act is a combination of conscious and subconscious thoughts that cannot or should not be deciphered.”

Maya Lin, Boundaries, 3:09
In the fall of 2009 I had chosen a site and had the idea of creating a place for patients' families to stay while their loved ones undergo treatment. I began exploring the potential of the site with the initial concept of a full campus for patients' families. The large size of the site lent itself to a campus idea and from there I began a simple list of requirements broken into two categories of Public and Private.

Public spaces would be for families to gather and interact with each other in common spaces shared. Included were:
- a chapel, café, meeting room, living space for gathering,
- area for children to play,
- a garden to experience nature, and
- a library for reflection.

Private spaces would be restricted to the individual families. Included were:
- private apartments for the families,
- private walled gardens and dining areas.

Separating the two categories would be a Transition. Existing cross roads naturally divided the site into thirds and the site informed the concept of the best place for the transition which evolved into a road separating the spaces.

I designed a building to provide a place for healing and to deal with grief. The building was designed for patients and their families being treated at the National Institutes of Health in Bethesda, Maryland. Not all families leave as they arrive. The families, many from out of town, need a place to reflect, pray, cry, or laugh.

The design of a building the site began by with my early studies of the window. Starting with simple sketches of what type of space I would want to create, I began by examining the elements of space before looking at the program and layout on the large site.

The idea of program was influenced by the idea of pilgrimage chapels. The chapel in Neviges, Germany by Gottfried Böhm was a source of inspiration. The idea was to have a complex that can provide the families traveling to Bethesda all the amenities of home in one space. The site also afforded easy access to the medical facilities nearby.

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In the spring of 2010 the master planning of the site became more concentrated on two spaces: housing and the chapel.

Using the concept of Public/Transition/Private, the site became divided into three parts:
1. At the north end of the site is the chapel to be close to the medical facilities.
2. Dividing the north end of the site from the south is a new road.
3. At the south end is housing for proximity to the businesses and residential housing nearby.

To the right this concept design shows a large stepped apartment building with a main entrance on Battery Lane. The south façade of the apartment building has an outdoor courtyard and fountain facing north to the chapel. Crossing a gravel road, one following a thin stream of water to a small rectangular chapel set within the grade. The roof of the chapel slopes down with the idea of water flowing down the roof at the center of the chapel, down the front façade and down into a larger stream as it follows the natural grade to pool at the north end of the site.

As spring progressed my interest became focused on developing the chapel using the existing site grade as a design consideration. Remaining within the overall master plan for the site are the road and location for future housing.

This concept extends the division of the site as seen previously, with a hard line oriented to the angle of Battery Lane as a wall between the built and the natural. From the gravel road one enters the chapel from the south by following a ramp to the entrance. Using the Vietnam Memorial as inspiration, two retaining walls enclose the visitor as one walks down the path to enter the chapel. The chapel is accessible from Woodmont Avenue by an outdoor stair. The front façade of the chapel is transparentglazed with two large retaining walls to the west and east. A large pond is at the north end of the site.
This concept expanded on the chapel design from spring and introduced the wedge slab design for the roof. Maintained is the ramp access to the chapel from the housing.

Here the chapel is set within a walled courtyard below grade. Pulling the design out from being dug into the earth as the previous design, a visitor accessible roof was carried over with a set of stairs leading up to the roof, and down to the south entrance of the small chapel. Paths follow retaining walls as access to the east and west sides of the site. The pivot aligns the curve and angles of the roof within the courtyard.

The chapel orientation has changed to due north on the site to maximize sun angles within the north south skew of the site. The chapel is divided by a small entry separating restrooms from the main gathering space that faces east to a fountain. A north entry allows access under the covered roof from visitors from NIH following Wisconsin and Woodmont Ave south and a south entry allows access from the ramp and from stairs for visitors coming north from downtown Bethesda.

Key:

A - Housing Zone
B - New Road
C - Chapel
D - Pond
E - Ramp
F - Stairs
G - Existing Trees
H - Fountain
I - Restrooms
Using the waffle roof design as inspiration, the chapel transformed into a larger space and will now be referred to as the sanctuary.

Understanding the concept from the summer did not respond to the size of the site, the sanctuary increased in size to become a presence on the site and not disappear as previous design concepts. Increasing the height of the sanctuary created two levels tucked within the slope of the site.

A large grove of trees would provide separation from the new road and the sanctuary. A series of exterior ramps and stairs would lead the visitor down from the grove to the main level of the sanctuary.

The pond becomes more symmetrical with a perfect half circle as the northwest edge and straight lines for the south and east boundaries. Columns following the grid within the sanctuary become part of the pond to form a perfect square.
SANCTUARY

1. Rendering of Sanctuary from pond.
The final design of the sanctuary incorporates the elements I explored during my studies of the site into one design.

A pond brings the calming of water, with concrete pads in the water near the sanctuary allowing people to walk into the water under the outdoor roof. The main sanctuary is an open space to gather and enjoy the view of the pond to the north. A mezzanine with niches for reading and listening overlooks the main sanctuary. Accessible from the mezzanine is a large grove of trees. This leads south to a new road separating the public of a gathering space from the private of housing.
The final design of the site divides the site into six main areas.

A- At the highest grade, the site is open for future housing for patients’ families.

B- A new gravel road separates the southern part of the site from the northern end. The road is built to allow access to the future housing and as a physical separation of the public of the sanctuary from the private of the housing. Gravel has been chosen as the material of the road to differentiate it as not a cut through of the site, but a slow path for access.

C- A grove of trees lead north toward the mezzanine of the main sanctuary. Branching off to the west and east, stairs and a ramp lead down to the main level of the sanctuary.

D- The main sanctuary is oriented on the site true north. It is an open space to gather and enjoy the view of the pond to the north. The waffle slab influenced the design of the sanctuary starting with the roof and wrapping around into the interior walls and floor patterns. The pattern of the roof is expressed in the transitions between indoors and outdoors.

E- A pond is built into the site and the west edge expresses the curve of Woodmont Ave. Concrete pads in the water follow the pattern established by the design, allowing people to walk into the water under the outdoor roof.

F- New trees and grass planting finish off the northern border providing a shady area to relax next to the pond.
Images on this page convey the main approach to the Sanctuary from NIH following Wisconsin Avenue south.

At the corner of Wisconsin Avenue and Woodmont Avenue the sidewalk opens up as it follows Wisconsin Avenue south to the main entrance. A line of new trees buffers the visitor from the busy traffic on Wisconsin as they walk up the sloped grade to the main entrance. The planting along the pond grows denser near the columns of the exterior roof creating a more enclosed feeling as you approach the entrance to the sanctuary.

A set of concrete steps leads down to the pond from the north wall of the sanctuary. The steps were wide to allow visitors a place to sit and enjoy the pond under the cover of the roof. Walking down the steps into the pond, concrete pads in the water allow visitors to walk into the shallow end of the pond under the outdoor roof. The waffle slab influenced the design of the sanctuary starting with the roof of the main sanctuary and is translated here in the form of the beams forming the outdoor roof with the negative mirrored down to become the concrete pads in the pond.

Sites model of Sanctuary across the pond from Woodmont Ave.

1- Rendering of Main Entrance view across pond towards NIH.
2- Rendering of Main Entrance approach along Wisconsin Ave.
3- Rendering of Main Entrance view across pond towards NIH.
The main sanctuary is an open space to gather and enjoy the view of the pond to the north.

The design of the main sanctuary was influenced by the structural constraints of the waive slab. The waive slab is designed as a perfect void of 30 inches by 30 inches with 6 inch ribs separating the coffers. This pattern, starting with the roof, wraps around into the interior walls and floor patterns.

Four small chapels are separated from the main sanctuary by sliding copper screen panels. The panels can be fully closed to isolate smaller gatherings from the main space, or fully opened to be included in the main sanctuary. The north view within the main sanctuary looks through the front transparent façade showing the continuation of the roof line translation over the pond.

The main sanctuary east and west walls are anchored by two distinct stairs that follow the design guidelines set by the roof. The west stair follows the west wall and is more direct to enter up to the mezzanine, with a small vestibule contained under the landing for entry from Woodmont Ave. The east stair follows the line of the corner of the east back of the main entrance and is wide enough to provide a grand statement to the corner.
The mezzanine overlooks the main sanctuary.

Access to the mezzanine from the main level of the Sanctuary is provided by the east and west stairs along with an elevator. The mezzanine of the sanctuary is an open space with no interior walls, except for those enclosing the elevator. The mezzanine is accessible from the grove by two glass doors set in the south wall. Niches following the design of the waffle roof slab are cast in the concrete of the south wall. The niches hold books, candles, and lamps with seating in front provided to create reading areas. A glass railing separates the mezzanine from the main sanctuary allowing an unobstructed view out to the pond and surrounding trees.

In the grove, the spacing of the trees follows the spacing of the columns inside the sanctuary. Set apart every 30 feet, the trees follow the language of the sanctuary with trunks acting as the columns and the branches the outdoor roof. The concrete squares in the walkways continue the tiling from inside the mezzanine out into the grove of trees.
This section elevation illustrates the glass wall pattern of the north wall of the Sanctuary and the shadows cast by the waffle slab roof. The left of the view illustrates the setback of the main entrance. A large expanse of glass wall overlooking the pond comprises the rest of view. The glass wall pattern is a series of posts set every six feet and horizontal mullions above the floor at 9 feet, 12 feet, 18 feet and 24 feet.

The glass wall pattern of the south wall of the Sanctuary and the shadows cast by the waffle slab roof. The left of the view illustrates the start of the west exterior stair leading up to the grove, with the right of the view illustrating the beginning of the east exterior stair. A retaining wall and railing separate the grove from the exterior stairs. The south retaining wall is visible above the grade before transitioning to glass. Two glass doors set into the south retaining wall provide access from the grove into the mezzanine of the sanctuary.
This section elevation illustrates the glass wall pattern of the east wall of the Sanctuary and the shadows cast by the west slab roof. The left of the view illustrates the retaining wall separating the east exterior stairs and the grove leading to the mezzanine. Toward the center of the glass wall is the set back of the main entrance. The exterior roof continues out from the sanctuary and is supported on columns set in the pond. The planting along the pond grows denser near the exterior columns creating a more enclosed feeling as you approach the entrance to the sanctuary.

This section elevation illustrates the glass wall pattern of the west wall of the Sanctuary and the shadows cast by the west slab roof. The exterior roof, supported on columns set in the pond, continues into the west slab of the sanctuary. The planting along the pond grows denser near the columns of the exterior roof creating a more enclosed feeling as you approach the entrance to the sanctuary. Toward the center of the west glass wall is the west entrance. To the right illustrates the retaining wall separating the west exterior stairs and the grove leading to the mezzanine.
This section illustrates a cut through the center of the site encompassing the pond, sanctuary and the grove. Starting on the left page, the north corner of the site with new trees and planting along the pond edge is visible. The pond steps down to the center and then steps back up to the shallow south end. Columns in the water hold up the exterior roof. Extending out to the columns are concrete pads set in the water where people can walk out into the pond. A set of steps leads up from the pond to the north wall of the sanctuary. Within the sanctuary, the main entrance is visible with the east stair as it leads up to the mezzanine reading space. Below the mezzanine is a small chapel divided from the main sanctuary by copper sliding doors. The south retaining wall of the small chapel follows the pattern of the waffle slab roof with niches for storing items. Above, the mezzanine reading space is enclosed by a glass rail as it overlooks the main sanctuary, and a glass and concrete wall to the south. Doors in the south wall lead one out into the grove of trees.
This section illustrates a cut through the center of the sanctuary looking south at the small chapels and mezzanine. Starting at the left, the view of the exterior east stairs beyond is visible. The large expanse of open glass overlooking the pond comprises next part of the view. Lastly the view shows the beginning of the east stair to its corner landing.

This section illustrates a cut through the center of the sanctuary looking north at the main open sanctuary. Starting at the left, the view of the exterior west stair beyond is visible. Set back into the west wall is the west stair and steps up to the mezzanine. After the west stair, four small chapels are seen beyond, separated from the main sanctuary by sliding copper doors. Next is the west entrance vestibule under the west stair landing and the exterior west wall. Lastly the view shows the beginning of the east stair to its corner landing.
The east stair of the sanctuary is the main stair of the sanctuary and leads up to the mezzanine. Next to the main entrance, the stair is a focal point as one approaches the sanctuary from NIH. The pattern of the stair follows the module as set by the waffle slab and translated in the floor tiles. One enters on a large first step that is 12 feet wide by 6 feet deep and surrounds one of the structural columns supporting the roof. The width of the stair transitions to 9 feet wide as it goes up to a landing of 9 feet by 15 feet at the building corner, which also embraces a second column. The stair then follows the east wall up to the mezzanine.
The West Stair of the Sanctuary is the second interior stair of the Sanctuary. Smaller in width than the east stair at 6 feet, it makes a straight run up to the mezzanine level along the west wall. The landing of the stair is also utilized as the west entrance vestibule. Tucked under the landing, the west entrance vestibule is only 12 feet by 9 feet and allows direct access to the sanctuary from Woodmont Ave.
1- Rendering of a typical small chapel from the main sanctuary at night.

Key:
A- Main Sanctuary
B- Concrete Bench
C- Copper Screen Walls
D- Ledge
E- Niches for storage (typical)

The square floor tiles from the main sanctuary transition to rectangles at the threshold and increase in size as one moves through the space. One enters the space through sliding copper screen doors that open or close depending on the need. At the walls that separate each small chapel is a fixed copper panel. Four doors slide from west to east behind the fixed panel, allowing for permanent seating. The back wall follows the pattern established with the waffle slab of the roof, creating niches for storage of items such as candles, books and instruments for prayer.
2- Section of a typical small chapel side wall.

3- Section of a typical small chapel south wall.


All images, renderings, sketches and illustrations created by the author. Photograph List noted below.

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