ABSTRACT

Title of Thesis: DEATH AND THE SUBLIME LANDSCAPE
Nandor Mitrocsak
Master of Architecture, May 2008

Thesis directed by: Professor of the Practice Peter Noonan, AIA
School of Architecture, Planning and Preservation

This thesis explores the sublime experience through architectural and landscape design. Narrations concerning time, nature, life and death are conveyed through the medium of architectural promenade. Do these experiences have the power to lift individuals from the everyday into the transcendental and memorial?

Mount Washington sits atop Pittsburgh, Pennsylvania, overseeing the flows of the Allegheny, Monongahela and Ohio rivers. Its physical form and presence has been evolving over the last 300 million years, a timescale beyond typical human constructs. Today, its topography enables sweeping views across the city and the river valley beyond. The temporal and physical scale of Mount Washington renders it a sublime object, worthy of contemplation. The thesis seeks to engage natural and man-made features of Mount Washington throughout the site.

Throughout history, cemeteries and other landscapes of the dead have been extraordinary subjects of sublime experiences. The thesis abstracts elements of cemeteries and reassembles a choreographed promenade. Using the language of path and place, this promenade seeks to accommodate and respect rituals of cremation and the accommodation of the dead in the landscape.
DEATH AND THE SUBLIME LANDSCAPE

by

NANDOR CHOI MITROCSAK

Thesis submitted to the Faculty of the Graduate School of the University of Maryland, College Park in partial fulfillment of the requirements for the degree of Master of Architecture 2008

Advisory Committee:

Professor of the Practice Peter Noonan, AIA, Chair
Professor Steve Hurtt, AIA
Professor Karl DuPuy, AIA
DEDICATION

This thesis is dedicated to the selfless and inspiring faculty at the University of Maryland School of Architecture, Planning and Preservation.

I am grateful for their generous support over the last six years.
ACKNOWLEDGEMENTS

This thesis would have been impossible without the time and effort of specific individuals.

Karl DuPuy, our thesis director, provided constant guidance and motivation throughout the entire year. I am inspired by his timeless wisdom and positive attitude and will miss his eminently quotable speeches.

Peter Noonan, my thesis chair, became a powerful role model for me when I started graduate school. Two years later, nothing has changed. To me, he is the ideal balance of academic inquiry and professionalism, artistic vision and technical competence, youth and wisdom.

To describe Steve Hurtt as my mentor diminishes his role in my education. Significant moments in my architectural education occurred directly under his instruction, for which I am grateful.
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We succeeded in taking that picture, and, if you look at it, you see a dot.
That’s here. That’s home. That’s us.

On it everyone you know, everyone you love, everyone you’ve ever heard of,
every human being who ever was, lived out their lives.

The aggregate of all our joys and sufferings, thousands of confident religions,
ideologies and economic doctrines.

Every hunter and forager, every hero and coward,
every creator and destroyer of civilizations,
every king and peasant, every young couple in love,
every hopeful child, every mother and father,
every inventor and explorer, every teacher of morals,
every corrupt politician, every superstar,
every supreme leader, every saint and sinner
in the history of our species, lived there -

on a mote of dust suspended in a sunbeam.

Carl Sagan
Preface

*In the depths of winter I finally learned there was in me an invincible summer.*

*Albert Camus*

One lazy summer weekend in 2006, I decided to drive north, past the Canadian border, to the city of Toronto. I spent two pleasant days enjoying the sights, sounds and tastes of the city. At the end of the weekend, I planned a stop at Niagara Falls, the famous series of waterfalls located at the United States-Canada border. As I crossed Rainbow Bridge, a glimpse of the awesome Niagara Falls persuaded me to take a closer look. I decided to park my car on the American side and walk towards the edge of the falls.

As I exited my car, I became aware of a pervasive thundering in the distance. As I moved closer to the falls, the sound drowned out the noise of people and traffic. The wooded scenery became mysterious and foreboding, as if they were hiding a terrible secret. I quickly lost any sense of civilization and the imprint of man.

My first sight of Niagara Falls was awe-inspiring. The sound of rushing water was deafening and the air was exceptionally misty, obscuring any sense of a horizon. Sunlight striking the moist air created thousands of glistening rainbows; I was simultaneously delighted and nauseated. I walked to the edge of Horseshoe Falls, where the fury of the water was the greatest. I felt like a god as I stood directly above the churning base of the falls, a dizzying 173 feet below.

Just as I was taking a photograph, a woman shrieked. I snapped out of my dream-like state and turned around. A person had fallen into the water! The fast-moving river pushed a young man along its edge and he frantically tried to grab onto something, anything. The water propelled him to within ten feet of me, at the edge of the falls. My earlier feelings of greatness changed into despair and helplessness as I saw his body plunge over the edge and disappear into the hazy mist below me.
The rest of the night became a blur in my memory. Because I was the last person to see the person alive, I volunteered to write a police report. As I walked away from the park, I looked back at the person’s wife and child. They knelt and wept, devastated by what had just happened. I couldn’t help but notice their cries being drowned out by the falls and that birds started to circle above their heads, as if to commemorate their grief.

Standing on the precipice, at the edge of certain death, I felt I was in a surreal dream. The vastness of the setting made me reflect on the fragility and inconsequence of humans. The thought was strangely comforting. Driving home, I felt detached from the world, as if I were immune to death, above it.

Figure 1 | Niagara Falls, New York. An awe-inspiring waterfall. [author]
Introduction

Sublime encounters are of the most visceral and memorable in the human experience. This thesis explores how architectural and landscape manipulations can evoke sublime experiences and then serve to lift individuals from the everyday into the transcendental.

Chapter I broadly describes the idea of the sublime. Elements of sublime experiences are described through archetypal experiences and architectural precedents.

Chapter II describes Mount Washington and its relationship with Pittsburgh. The site has important natural and man-made features with implications for design.

Chapter III examines programmatic requirements of a cemetery through architectural precedents. This chapter concludes with program analysis and development.

Chapter IV presents design processes and the final design.

Chapter V concludes this year-long experience by summarizing jury comments at the final review. Also included are personal thoughts about the thesis journey.
I. Death and the Sublime

Figure 2 | Arlington Cemetery, near Washington D.C. The optical convergence of repetitive markers evokes infinity. This manipulation intensifies and complements the natural landscape, creating a solemn environment.
The Individual and the Sublime

The painting *Wanderer Above the Sea of Fog* depicts a man perched atop a cliff. He is presented with a landscape of jagged precipices and tempestuous fog. In the distance, vast mountaintops emerge from the clouds. He looks forward with a contemplative gaze, trying to grasp the intensity of the landscape. This is an encounter with the sublime. The word sublime is an adjective that describes objects that cause viewers to be lifted above everyday life.

An object or scene is considered sublime when three conditions are satisfied:
First, the sublime object should be something that humans find to be hostile and threatening. Cliffs, like the one in the painting, are generally considered threatening because of the real possibility of injury or death.
Next, the subject must become aware of this dangerous relationship. One assumes that the person in the painting realizes the imminent danger of falling.
Finally, the subject transcends the hostile object and comes to terms with it. Though the person is faced with danger, he makes no immediate attempt to disconnect himself with the vista. Sublime objects freeze viewers into a state of contemplation and raise their awareness beyond their personal identities.

Following on Immanuel Kant, German philosopher Arthur Schopenhauer defined two distinct types of sublime effects. Dynamically sublime objects expose the fragility of the subjects’ lives in the face of gigantic powers. This often happens when nature is revealed ‘in turbulent and tempestuous motion; semi-darkness through threatening black thunder clouds; overhanging cliffs shutting out the view by their interlacing; rushing, foaming, masses of water; complete desert; the wail of the winds rushing through the ravines’ [Schopenhauer]. *Wanderer Above the Sea of Fog* is an example of a dynamically sublime scene because the vastness and scale of natural objects (cliffs, wind, fog) minimizes the life of the young man.

Figure 3 | *Wanderer Above the Sea of Fog* (1817), a painting by Caspar David Friedrich. The person depicted in the painting contemplates while being immersed in a sublime landscape.
Mathematically sublime objects remind the subject of the limited experience of a single human within the infinity of time and space. *Rain, Steam and Speed - The Great Western Railway* conveys the immense speed of trains by blurring the outline of its figure. An 18th century person used to walking or riding horses must have considered the speed of trains as mathematically sublime.

Human lives are but a blink of time on a cosmic scale. There are numerous natural processes that are indifferent to the presence of humans. The constant sound of waves crashing on rocks are a humbling reminder of a person’s relative unimportance in the grand scheme of the universe.

Figure 4 | *Rain, Steam and Speed - The Great Western Railway* (1844), a painting by Joseph Mallord William Turner. The train is blurred, depicting unfathomable speed.
Elements of Sublime Experiences
The following set of ideas contribute to a wholistic understanding of the sublime. Some types of sublime experiences may be overwhelmingly characterized by a single idea, such as uniformity and infinity (as in Arlington Cemetery). More common are sublime experiences with subtle balances of multiple ideas.

Terror
Humans, in general, will try to avoid pain or death. A sublime object evokes terror because it presents a perceptible danger to the person. High cliffs and waterfalls are examples of sublime objects that induce terror. The design of Niagara Falls State Park, NY, presents the waterfalls as profoundly grand and terrible. The edge of the park follows a ridge to the edge of Horseshoe Falls, where one is surrounded by falling water. The railings are thin and transparent, allowing one to peer down into the base of the falls, 173 feet below. Even the height of the railing seems dangerously low relative to the risk of death.

There are, obviously, several ways of inducing fear of pain or death in a person. Two important types relate to height (the fear of falling to one’s death) and speed (an abrupt change in velocity will cause injury).

Figure 5 | Horseshoe Falls at Niagara Falls State Park.
The design of the park accentuates the grandness of the scene, which induces fear of falling. Only five thin aluminum rails save a person from certain death.
Obscurity

Obscurity can amplify the terror of a situation. When the full extent of a danger is known, it seems less frightening because one can apply rational steps towards resolution. A sublime scene reveals enough of the danger, but prevents full understanding. An individual, then, becomes more terrified and irrational.

Obscurity primarily has to do with the lack of perception, often vision. Two strategies, darkness and obstruction, hinder the individual from seeing and understanding a scene.

The Mortuary Temple of Queen Hatshepsut, in Deir-el-Bahari, Egypt, utilizes darkness to signify sacred spaces. The temple is ordered by an axis perpendicular to the Nile River. Traveling along the axis, one passes through a series of rectangular spaces. These spaces decrease in both size and interior light. The last room in the temple is completely buried in the earth with no natural light. It is considered the holiest space in the complex, where only high priests dare to tread. The overall effect of the promenade is one of layering, where increasing darkness is accompanied by increasing terror.

Figure 6 | Section of the Mortuary Temple of Rameses III in Medinet-Habu, Egypt. The promenade passes through rooms of decreasing light levels. While the forecourts are well-lit and comfortable, later rooms are shrouded in secrecy and darkness.
**Difficulty**
Some structures are so obviously difficult to build, they minimize any individual contribution towards its construction. Even in an contemporary context of massive structures, the Great Pyramids at Giza still have the power to evoke the sublime. The immense manpower used to quarry, transport and assemble millions of limestone blocks negates all individual efforts.

![Figure 7](image1.png)

**Vastness**
Vastness refers to large differences in scale between an object and the human body. When the length, depth and width of an object become so vast as to negate the scale of an individual, it is considered sublime.

Etienne-Louis Boullee, the 19th century French architect, emphasized the concept of vastness in his unbuilt projects. His Cenotaph to Newton is ordered by an enormous spherical space, representative of the heavenly sky. The vast circular dome presents with unlimited views towards the sky; humans are mere spectators of an infinite Nature.

![Figure 8](image2.png)
Uniformity and Infinity

An intense repetition of uniform units can evoke infinity. The Vietnam Veterans Memorial in Washington DC is made of two granite walls sunk into the earth. The granite slabs are polished to a shimmering reflection and are etched with the names of 58,256 missing or killed Vietnam soldiers. Because every name is treated with the same size and font, the viewer can read a few names and then extrapolate the immensity of sorrow the wall represents.

Arlington Cemetery, located in northern Virginia, uses a similar technique in its layout. White marble slabs mark the burial ground of a fallen soldier. Every slab is identical, except for the name, birthplace and religious symbol of the soldier. The cemetery derives its powerful message from the infinite repetition of these markers.

Figure 9 | Photograph of the Vietnam Veterans Memorial (1982) by Maya Lin. The memorial conveys the idea of infinity through the aggregation of small names and the reflection of the horizon.

Figure 10 | Panorama of Arlington Cemetery, near Washington, DC. The cemetery is marked by thousands of white markers, each representing a body. The uniformity of the markers gives the cemetery a coherence.
Transcending Death

The dead have a surprising amount of influence on the living. The death of a loved one can be an important experience in a person’s life. Initially, one endures a phase of grief in which he or she searches for understanding. Rituals, such as funerals, draw attention to the deceased and their accomplishments. Friends and family members recount memories and shared experiences with each other.

Loved ones are not the only ones affected by loss; through narration, visitors to the cemetery listen to and observe the dead. Beginning with a setting of solitude, cemeteries become didactic vehicles through which people conceptualize life and death. Cemeteries are spaces of reflection, where one distances his or herself from everyday life and reestablishes direction and meaning. After all, they too, will pass away someday.

Why do we value the sublime? Arthur Schopenhauer uses the phrase das Erhabene, or ‘being raised from one’s everyday self’, to describe the sublime. On the surface, a person is threatened with injury and annihilation; the person may even come to the conclusion that death is the inescapable fate of all humans. The essence of the sublime is of immortality - where we no longer identify with the fragile self, but with the eternal and indestructible universe. A sublime experience, then, is one of deep satisfaction.

Terror, obscurity, vastness, difficulty, uniformity and infinity are abstract adjectives describing the experience of a place. This thesis seeks to manipulate landscape and architecture using these elements to create an encounter with the sublime.

Figure 11 | ‘In Loving Memory’. Flowers on a gravestone in Oak Hill Cemetery. Grave markers serve as places for continuous emotional healing for loved ones. Tokens of memory, such as flowers, remind us that each gravestone represents a once-living person who had relationships and accomplishments.
II. Mount Washington and Pittsburgh

Figure 12 | Downtown Pittsburgh from Mount Washington. The view looking at Point State Park from Mount Washington has become the iconic image of Pittsburgh.
Allegheny Plateau

Pittsburgh is located on the Allegheny Plateau, a dissected plateau created 300 million years ago. When the Appalachian Mountains were formed, an existing plain was elevated several hundred feet, forming a plateau. Over time, rivers carved gentle scars into the plateau surface, often hundreds of feet deep. All ‘mountains’ in the Allegheny Plateau are roughly the same height.

Mount Washington, located next to Pittsburgh, is one such landform. It is bounded to the north by the Ohio River and is near the confluence of the Monongahela and Allegheny Rivers.
Figure 15 | Pittsburgh and Mount Washington. The landscape is marked by folds and scars, formed by water erosion over millions of years.
Figure 16 | Mount Washington sits atop Point State Park, where the Monongahela and Allegheny Rivers form the Ohio River.
Figure 17 | Mount Washington rises more than 425 feet above the Ohio River
Local Geology

Figure 18 | Over time, the Ohio River carved away at the side of Mount Washington, exposing a wide variety of geological conditions.
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Figure 19 | A terracing technique, called sheeting and shoring, used to build on steeply sloping sites.

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Figure 29 | Panorama of Mount Washington, taken from Point State Park. The side of the mountain forms a face oriented towards downtown.
III. The Urban Cemetery

Figure 30 | Oak Hill Cemetery. Here, everyday life is forgotten and one is alone with the cemetery.
sanctuary/chapels

serene

- church of the light, tadao ando

strategies:
- plain surfaces
- dramatic lighting
- simple volumes
- no distracting sounds
- objects of contemplation

sense of collective

- memorial to the murdered jews of europe, peter eisenman

strategies:
- abstracted element representing a unit
- creation of a field of units
- understanding of whole and parts

alien/other-worldly

- stonehenge

strategies:
- mysterious technology
- tremendous effort
- unconventional construction
- unconventional function

Figure 31 | Proposed activities and character of chapel space
service / support

**utilitarian**
- strategies:
  - function is expressed
  - unadorned surfaces
  - simple volumes

**solemn**
- strategies:
  - sobering content
  - engages multiple senses
  - focus on symbol

**supporting**
- strategies:
  - scaled down massing
  - contributes to a figure, rather than being one

Figure 32 | Proposed activities and character of support spaces
Mont-Saint-Michel

Figure 33 | Section through Mont-Saint-Michel, in Normandy, France. The Romanesque Abbey and monastery are designed to conform with, or even exaggerate, the existing landform.
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Figure 38 | Site plan of Notre Dame du Haut, in Ronchamp, France. Like Delphi, different components of a pilgrimage are ordered along a promenade.
Program

Crematorium

| Outdoor space / Entrance:     | 2000 sf |
| Gathering Space:              | 1000 sf |
| Crematorium / Storage:        | 12,000 sf |
| Waiting Area:                 | 300 sf (3) |
| Chapel:                       | 500 sf |
| Offices:                      | 300 sf (3) |
| Bathrooms:                    | 100 sf (4) |
| Service / Mechanical:         | 800 sf |

Visitors Center

| Outdoor Space:                | 2500 sf |
| Lobby / Information Desk:     | 1000 sf |
| Library:                      | 3500 sf |
| Exhibition:                   | 1500 sf |
| Offices:                      | 300 sf (3) |
| Conference Room:              | 400 sf |
| Bathrooms:                    | 100 sf (2) |
| Service / Mechanical:         | 600 sf |

Chapel

| Outdoor Sanctuary:            | 4000 sf |
| Indoor Sanctuary:             | 2000 sf |
| Auxiliary Chapel:             | 500 sf |
| Bathrooms:                    | 100 sf (2) |
| Service / Mechanical:         | 200 sf |

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Figure 49 | Axonometric of crematorium/chapel. A series of spaces form the promenade.
Figure 50 | South elevation

Figure 51 | North elevation
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Figure 53 | Section A-A looking east
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Process - Chapel

Figure 56 | Sketches of chapel form
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**construction detail:**
gathering / viewing rooms

- stainless steel point support
- (shiny!) aluminum louver
- steel beam
- laminated safety glass
- (shiny!) aluminum louver
- stainless steel tension rod
- low-e double glazing
- silicone joint
- stainless steel support rod
- nandor (6’2”)
- ventilation grating
- steel fixing plate
- hollow floor construction:
  - 1” horizontal steel plates
  - 1” steel cross ribs
- heating/ventilation duct

*Figure 58 | Gathering / Viewing room wall section*
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Process - Columbaria

Figure 60 | Sketch of columbaria in series
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garden of memories
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Figure 69 | Interior of chapel
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Site Model

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V. Conclusions

Figure 74 | Studio desk, spring 2008.
Conclusions

*The longest journey is the journey inward*
Dag Hammarskjold

During the summer of 2007, I spent several days brainstorming ideas that would sustain my interest during the next year. After much thought, I recounted my most sensuous and memorable personal experiences - stories of empathy and self-awareness, growth and maturation, life and death. I came to the realization that my emotional growth as a person had been significantly propelled by certain experiences. Though they differed in location, these moments of self-awareness were framed by a specific ambiance, which I later came to know as sublime.

For this thesis, I wanted to design a sublime experience. But what constitutes a sublime experience? How have architects described sublime experiences, and are there common threads in sublime environments? Could principles be abstracted and synthesized?

I read the philosophical treatises of Edmund Burke, Immanuel Kant and Arthur Schopenhauer as an introduction to the sublime. These philosophers provide many examples of quintessential sublime experiences and argue for their constructive value within in the spectrum of human experience.

Figure 75 | New Grandview Ave. elevation. Brick texture was applied onto exterior walls.
I initially thought I would develop the singular idea of the sublime experience to its logical end; instead, the thesis led me to multiple families of ideas. The scope of study expanded to include areas as diverse as natural geologic processes, Islamic paradise gardens, mining and boring techniques and the social history of Pittsburgh. Within this body of work, I tried to weave together a synthesis, ultimately represented by the final design.

Throughout history, architects have accommodated sublime experiences through built form. I studied spaces and landscapes which had different types of sublime qualities. While this yielded many precedents and gave direction towards site selection, the analysis was too abstract to help determine program. At second design meeting, I chose the cemetery type as the program for the thesis. A large percentage of the precedents were memorials, cemeteries, temples and chapels - landscapes of the dead. Sublime landscapes are visceral because they raise the possibility of one’s insignificance in time and space. We are made aware of our own mortality.

Figure 76 | New site plan. Circulation around the crematorium is linked with the immediate neighborhood.
After selecting a site and program, I turned to analogical ideas found in precedents. I was impressed with Mont-Saint-Michel’s merging of topography and built form. The temple complex at Delphi provided ideas about carving paths up and down a steep hill, while also defining sacred precincts. The temples at Ajanta showed the potential richness of spaces built into the side of mountains. Ronchamp abstracts the program of a pilgrimage chapel and rearranges them to form a compelling promenade along a hillside. Alvar Aalto’s church projects provided a vocabulary of walls, columns and foundations that merge building and earth.

The final review was immensely helpful, as the design raised several points of discussion. One juror questioned the orientation of the passage, gathering and viewing rooms; they all exploited the same basic view towards downtown Pittsburgh. He advocated more variation in the light sources, perhaps even blocking the view completely in some spaces.

Another reviewer challenged the boundaries of the cemetery-park. Instead of being sharply defined by Grandview Avenue and the railway, the park could have extended upslope into the Mount Washington residential neighborhood. It should have also extended downslope into the Ohio River, allowing an interaction with the water.

Figure 77 | New riverside elevation.
Several reviewers commented on the ambiguous representation of materials in the perspectives. Specifically, the solid four-foot-thick walls had no material texture. After the review, I reflected on Pittsburgh’s history and building culture. Many of Pittsburgh’s historic civic buildings are made of brick, due to the local availability of clay and quality craftsmen. New elevations with textured brick walls better reflect the juxtaposition between heavy, earthy walls and the light, airy glass boxes of the gathering rooms.

During the course of design, some of the sublime elements were ‘watered-down’ in order to accommodate site and program. In my opinion, this was a natural course for the design; as it developed, the design became less diagrammatic and more sympathetic towards the promenade and program.

Overall, I am pleased with the results of this year. My committee provided constructive criticism during design meetings and were supportive of this thesis through all phases. I especially appreciated their anecdotes about the death of their loved ones. I am not old enough to have significant deaths in my family, so I recounted their stories in order to make design decisions.

So what did I learn through this experience? I learned how to integrate life experiences with one’s design work. I was introduced to awe-inspiring precedents from around the world. Whole new fields of study were introduced to me through books recommended by my committee. Last, and perhaps most importantly, I have acquired a sense of empathy for those dealing with the death of a loved one. Landscapes of the dead represent shared memories - a living legacy that transcends death.

Nandor Mitrocsak
Figure 78 | Bookshelf, spring 2008.
Bibliography

Sublime Philosophy


Theory


**Precedents**


**Technical Information**


**Miscellaneous (The Interesting Books)**


