

Utah State University

DigitalCommons@USU

---

All Graduate Theses and Dissertations

Graduate Studies

---

5-2014

## The Role of the Transcendent in Landscapes

Kathryn E. Sonntag  
*Utah State University*

Follow this and additional works at: <https://digitalcommons.usu.edu/etd>

 Part of the [Landscape Architecture Commons](#)

---

### Recommended Citation

Sonntag, Kathryn E., "The Role of the Transcendent in Landscapes" (2014). *All Graduate Theses and Dissertations*. 3697.

<https://digitalcommons.usu.edu/etd/3697>

This Thesis is brought to you for free and open access by the Graduate Studies at DigitalCommons@USU. It has been accepted for inclusion in All Graduate Theses and Dissertations by an authorized administrator of DigitalCommons@USU. For more information, please contact [digitalcommons@usu.edu](mailto:digitalcommons@usu.edu).



THE ROLE OF THE TRANSCENDENT IN LANDSCAPES

by

Kathryn E. Sonntag

A thesis submitted in partial fulfillment  
of the requirements for the degree

of

MASTER OF LANDSCAPE ARCHITECTURE

Approved:

---

Caroline Lavoie  
Major Professor

---

Sarah E. Gordon, PhD  
Committee Member

---

Phillip S. Waite  
Committee Member

---

Mark R. McLellan, PhD  
Vice President for Research and  
Dean of the School of Graduate Studies

UTAH STATE UNIVERSITY  
Logan, Utah

2014

Copyright © Kathryn E. Sonntag 2014

All Rights Reserved

## ABSTRACT

## The Role of the Transcendent in Landscapes

by

Kathryn E. Sonntag, Master of Landscape Architecture

Utah State University, 2014

Major Professor: Caroline Lavoie

Department: Landscape Architecture and Environmental Planning

There is evidence that the need for spaces of contemplation is as real as ever, despite the seeming lack of spaces designed to provide the possibility of transcendent connection. Reintroducing commonly held physical attributes and characteristics of contemplative spaces that have been repeated through space and time is a fundamental and necessary way to reflect this renewed interest in and need for integrated ways of knowing in the landscape. Placing spaces conducive to the transcendent within the built community fabric could aid in addressing the modern Western phenomenon of places that lack characteristics which support an individual experience of transcendence. By looking at contemporary spaces with these characteristics as well as those from the past, this study seeks to describe the implications and unique opportunities available to landscape architects in addressing this aspect of integrated design.

Through historical overview and case studies devised of comparative analysis and my personal experience, this paper addresses the benefits of further identifying and understanding the necessary design elements of spaces of transcendence, and the role of introducing these elements into landscapes to provide for the potentiality of the transcendent experience. Three designed spaces are selected for case study comparative analysis and chosen based on their public nature, variation in scale, use, and designated user, to evaluate the current use of and potential for development as spaces of contemplation and the possible individual transcendent experience.

Five overarching criteria with sub-criteria for measuring successful presence of reoccurring elements of spaces of transcendence are chosen based largely on historical overview, which finds summation in the recommendations of contemporary landscape architects such as Heinrich Hermann. Underlying principles of these criteria are used to gauge and evaluate the success of spaces, in tandem with my impressions. The five criteria selected are: the creation of a sense of vastness, incorporation of archetypal design elements, minimization of distracting stimuli, physical orientation within larger order, and the harmonious integration of spatial qualities.

Analysis of these sites strives to benefit future design of community spaces that would be conducive to the transcendent. By describing characteristics of contemporary spaces of contemplation and transcendence, this thesis seeks to demonstrate how greater incorporation of certain design elements could help foster public spaces of contemplation that allow for the possibility of individual transcendence.

This study contributes to the overarching goal of restorative design by addressing the user need of experiencing cosmologically aligned space, the presence of which contributes to a greater sense of place and, by extension, personal identity, orientation, perspective, and purpose. This study adds to a postmodern understanding of contemplative space, that is, the notion of an ancient framework and its contemporary application and possible contributions to the current and future betterment of individuals and communities.

(177 pages)

## PUBLIC ABSTRACT

### The Role of the Transcendent in Landscapes

Kathryn E. Sonntag

For as long as humans have designed spaces, they have done so not just to meet basic physical needs but in quest of higher aspirations, including those spiritual and intellectual. These were spaces of contemplation, conducive to the transcendent experience, found in abundance in premodern times, and generally communal in nature. They are less prevalent now, yet there is ample evidence that the need for spaces of contemplation as well as transcendent experiences is as real as ever, despite the current lack of spaces providing such a transcendent connection. Past communal landscape design that provides for the possibility of the transcendent is found to incorporate a unique array of underlying principles guiding the physical attributes of spaces, including design criteria that: create a sense of vastness, incorporate archetypal design elements, minimize distracting stimuli, orient individuals within a larger order, and have harmonious spatial qualities. Reintroducing these commonly held design characteristics of contemplative spaces into public landscapes, though now experienced individually rather than communally, is a fundamental and necessary way to reflect this renewed interest in and need for transcendent experiences in the landscape, and could aid in addressing the modern Western phenomenon of spaces that lack the structure to support contemplation. Little research has been done, however, to evaluate the current use of and potential for existing public spaces as spaces of contemplation and possible transcendent experience.

A literature review of historical precedents establishing the five guiding categorical design criteria listed above, guides three case studies of public spaces in the Seattle, Washington area. Sites are selected from the Seattle area because of concentration and variety of spaces designed by well-known landscape architects and their proximity to the author. Individual sites were selected based on their public nature, variation in scale, purpose and location. These case studies, comprised of comparative analysis and my personal experience, highlight the benefits of further identifying and understanding necessary design elements of spaces of contemplation.

A discussion of implications related to possible benefits shows that incorporation of such spaces into community fabric presents many community and personal benefits to users. By looking at existing contemporary spaces as well as those from the past, this study seeks to describe the implications and unique opportunities available to landscape architects in addressing this aspect of integrated design. Analysis of these spaces strives to benefit future design of spaces that would be conducive to the transcendent.

## ACKNOWLEDGMENTS

I would like to thank my committee members, Prof. Caroline Lavoie, Prof. Phillip Waite, and Dr. Sarah Gordon, for their support and insight along the way. I also give thanks to my colleagues for their encouragement and advice through various iterations. I thank my friends and family who have given continued support, especially my husband, Robert, whose shared love and enthusiasm for sacred space and design helped carry the work along.

Kathryn E. Sonntag



## CONTENTS

	Page
ABSTRACT.....	iii
PUBLIC ABSTRACT .....	vi
ACKNOWLEDGMENTS .....	vii
LIST OF TABLES .....	ix
LIST OF FIGURES .....	x
CHAPTER	
I.    INTRODUCTION .....	1
II.   METHODOLOGY .....	7
III.  LITERATURE REVIEW .....	19
Definitions and Key Terms Relating to Transcendence .....	19
Historical Overview .....	47
IV.   CASE STUDIES AND REFLECTIVE ANALYSIS .....	87
Gasworks Park .....	93
Benaroya Garden of Remembrance .....	119
Waterfall Garden Park .....	139
Comparative Analysis.....	160
V.    SUMMARY COMMENTS .....	166
Findings.....	166
Conclusions.....	168
Further Research .....	170
REFERENCES .....	172

LIST OF TABLES

Table	Page
1. Criteria Comparison Chart.....	161

LIST OF FIGURES

Figure	Page
1. Tree of Life, Navaho sandpainting.....	36
2. Representation of Mount Meru.....	51
3. The cosmic axis or <i>axis mundi</i> .....	54
4. Marzabotto city plan.....	55
5. Pawnee star map.....	57
6. Court of the Lions.....	58
7. Osun-Osogbo sacred grove.....	59
8. Mount Olympus.....	61
9. Nabta Playa.....	62
10. Caves at Lascaux.....	63
11. Axis Mundi and cardinal directions.....	67
12. Sun Tunnels.....	84
13. Sun Tunnels center.....	85
14. Gasification plant, 1965.....	94
15. Gas Works Park, 2013.....	95
16. Gas Works Park site map.....	95
17. Crescent gravel path.....	96
18. Sundial.....	98
19. Gas works.....	100

Figure	Page
20. Concrete train trestles.....	102
21. Gas Works Park, spaces.....	103
22. Concrete trestles.....	105
23. Gas Works Park, paths.....	106
24. View from mound.....	107
25. Mound spiral path.....	108
26. Meandering paths.....	109
27. Gas Works Park, edges.....	110
28. Gas Works Park, foci.....	111
29. Gas works, focal point.....	112
30. Gas Works Park, thresholds.....	113
31. The Great Earth Mound.....	114
32. Sundial detail.....	116
33. View from the Great Earth Mound.....	117
34. Cardinal directions.....	118
35. Benaroya Garden of Remembrance context map.....	120
36. Upper garden space .....	120
37. Benaroya Garden of Remembrance site plan.....	121
38. Garden of remembrance, spaces.....	125
39. Garden pool.....	126

Figure	Page
40. Upper garden.....	127
41. Middle garden space.....	128
42. Water feature.....	128
43. Lower garden space.....	129
44. Garden of Remembrance, paths.....	130
45. Garden of Remembrance, edges.....	131
46. Water channel.....	133
47. Water channel, 2.....	133
48. Garden of Remembrance, foci.....	134
49. Garden of Remembrance, thresholds.....	136
50. Stone threshold.....	136
51. Waterfall Garden Park site plan.....	140
52. Waterfall Garden Park context map.....	141
53. Waterfall Garden Park context map .....	141
54. Lower patio.....	142
55. The approach.....	143
56. South side.....	143
57. View from south entrance.....	145
58. Open patio.....	146
59. Waterfall Garden Park, spaces.....	147
60. Upper terrace.....	149

Figure	Page
61. Waterfall Garden Park, paths.....	150
62. Waterfall Garden Park, edges.....	151
63. Water channel.....	152
64. Terracing.....	153
65. Vertical edges.....	154
66. Waterfall Garden Park, foci.....	154
67. Waterfall Garden Park, thresholds.....	155
68. Aged (sacred) stone.....	157

## CHAPTER I

### INTRODUCTION

On my first trip to Europe, my 20-year-old heart stopped short the day I saw Monet's Garden and Chartres Cathedral. Before the study of landscape architecture was a thought in my mind, and sitting in the morning haze of the garden, I wrote, "The reason why all spaces work that do is that they inspire us to see beyond, to see a greater world." As I watched the water lily garden "undulate and sigh with the breeze" I was keenly aware of being inside one living organism of countless parts. I described it as a place of healing, and felt the difficulty of articulating what it was to transition from a separate state of mind to the overwhelming sensation that I was very much a part of its being, responding to its movement and energy, affected by its moods of shadow and light.

I passed beneath the figures of the portals of Chartres later that afternoon, every inch of me awake, watching, listening. I was drawn into a realm as familiar as my own internal landscape and felt the breathtaking liminality of the shadowy spaces; I was on the verge of crossing into another time, another place. What happened next I would later identify as one of the most poignant transcendent experiences of my life. Years after I came across someone speaking of such experiences in perfect harmony with what I had known. "There are many sacred landscapes in the world, but *our* experience of them is out of this world. Although such places exist in time, our experience of them is *outside* time" (Mann, 2010, p. 2).

Artists, philosophers, and religious scholars alike have written about the orienting role of transcendent experiences so rarely interspersed within the fabric of the daily mundane. What do we seek from these moments of moving beyond what we perceive as the boundaries of temporality? Perhaps in part it has to do with what I found within those timeless cathedral walls. “I found in Chartres the outward expression of my soul. I was so alive in the gardens – and Chartres completed the great awakening”.

C.S. Lewis (1941) writes of this yearning for a glimpse of something beyond. In his sermon, “The Weight of Glory,” he articulates the longing evidenced from the time of early man to the present day; “the sense that in this universe we are treated as strangers, the longing to be acknowledged, to meet with some response, to bridge some chasm that yawns between us and reality, is part of our inconsolable secret” (Lewis, 1941, pp. 29-30). He goes on to describe this desire as “our lifelong nostalgia, our longing to be reunited with something in the universe from which we now feel cut off, to be on the inside of some door which we have always seen from the outside” (Lewis, 1941, p. 42). The longing of those who built Chartres was imbued in every inch of its space, in the host of sculpted figures surrounding its walls. This longing for a transcendent reality existed and exists within humankind, regardless of beliefs (Eliade, 1957; Mann, 2010).

While moments of transcendence can happen in a variety of places and can be ignited in a variety of ways, this thesis centers around the symbolism of spaces that remind us of those images that universally live within the human psyche and thus resound within us when found in symbolic expression in the designed landscape. For as long as humans have designed spaces, they have done so not just to meet basic functional needs



but to also find expression of higher aspirations, which are spiritual, emotional, and intellectual in nature (Rogers, 2001). This thesis addresses how our need continues today by describing the common characteristics of past and contemporary sacred spaces and how an understanding and incorporation of these principles into present-day public landscapes could help create the possibility of transcendence for the individual served.

Landscapes that provide for the possibility of the transcendent have been found to incorporate identifiable and vital underlying principles guiding physical attributes and characteristics that foster contemplative beholding, including: the creation of a sense of vastness; the incorporation of archetypal design elements; the minimization of outer stimuli; orientation within a larger order; and the harmonious integration of spatial qualities (Dee, 2001; Eliade, 1957; Hermann, 2005; Messervy, 1995).

Contemplative (and sacred) landscapes, those spaces rich with spiritual symbols, designed to invite an experience with the transcendent and found in abundance in premodern times, are less prevalent now. Despite the current lack of spaces providing such transcendent connection and the little amount of scholarly literature on contemplative landscapes, there is evidence that the need for these spaces is as real as ever (Hatch, 2000; Kabat-Zinn, 1994; Krinke, 2005). Creating contemplative spaces conducive to the transcendent within built community fabric could aid in addressing the modern Western phenomenon of places that lack characteristics which support an experience of transcendence. With an overview of sacred landscapes from the past informing analyses of contemporary public spaces to evaluate their success and/or potential as spaces of contemplation and transcendence, this study seeks to describe the

implications and unique opportunities available to landscape architects in addressing this aspect of landscape design.

Chapter 2 presents the methodology of this study. The incorporation and identification of key terms, historical overview, and three case studies conducted by myself, along with subsequent findings and conclusions, shape the body of this thesis. Case studies evaluate three public spaces that vary in scale and use, chosen from the Seattle, Washington area. They include my personal experience at each location, a description for each based on the above-mentioned criteria which forms the basis for a comparative analysis, and a comparative analysis based on criteria supported through historical findings and outlined by Julie Moir Messervy (1990, 1995), Catherine Dee (2001), Heinrich Hermann (2005), and Tom Stoner and Carolyn Rapp (2008).

Chapter 3 identifies and defines key terms that are critical to understanding the role of contemplative and sacred spaces in the past and present. A large effort is made to tease out past and present meanings of key terms as they apply to the topic at hand, to facilitate a meaningful discussion and understand the potential roles of sacrality, contemplation and the transcendent in contemporary landscapes. Inherent difficulties in unpacking the terms and the benefit of understanding the historical usage and context of each word are discussed.

With key terms identified and defined relative to a discussion of the transcendent in landscapes, a historical overview, from premodern times to the present day, demonstrates changes and consistencies in purpose and design of sacred landscapes across time and geographic space. The section “Modern Paradigm” focuses on an

understanding of the sacred vs. the profane, as best exemplified by religious historian and foremost theorist of sacred space, Mircea Eliade (1957). “Postmodern Paradigm” addresses the effects of a shift in thought from the absolutism of modernity to extreme subjectivity, exemplified by postmodern philosophers such as Derrida, on landscape design (Lavoie, 1998). The change in perception, purpose, form, and subjectivity of meaning in sacred landscapes, as a direct response to or reaction against the definitive nature of modern constructs, is discussed. Thoughts on the latest reaction against deconstructionist approaches to meaning are discussed along with recent trends toward the integrative manifest in the landscape (Hermann, 2005; Lavoie, 1998).

The conclusions of Hermann (2005) summarize the current role of spaces of contemplation with the transcendent and inform the selection of a set of criteria used to evaluate three sites. While this study focuses mainly on exterior spaces, some comparison to studies on interior architectural space and extraordinary experiences, taken from the research of Julio Bermudez and Brandon Ro (2012) will be made, as well as a discussion of similarities in concepts, elements, criteria and meanings such as the notions of thresholds as an example of universal language of design.

Chapter 4 presents three case studies and comparative analysis by the author of the sites selected from the Seattle, Washington area. Descriptive analysis of these spaces is based on a list of criteria for successful contemplative spaces adapted from Messervy (1990, 1995), Dee (2001), Hermann (2005), and Stoner and Rapp, (2008), beneficial to future design of landscapes conducive to the transcendent.

Chapter 5 concludes with implications and opportunities available to landscape architects in addressing this unique role of design. A discussion of study findings, conclusions and recommendations for further research are presented.

Landscape architects can make a unique offering to community and individual wellbeing through addressing the scarcity of spaces designed for the transcendent by incorporating elements in the landscape that allow for a greater chance of experiencing the transcendent. This thesis affirms the words of Christopher Alexander (1977): “We believe that every community, regardless of its particular faith, regardless of whether it even has a faith in any organized sense, needs some place where this feeling of slow, progressive access through gates to a holy center may be experienced” (p. 66).

The opportunity to act in greater capacity to embrace a continuing human need, that which drove creation of the sacred spaces of the world, past and present, is ours; it is an opportunity to reach a form of expression that frames the spiritual and poetic, borders the eternal, and that transcends the parochial and mundane.

## CHAPTER II

### METHODOLOGY

This thesis forms the argument that the need for spaces of transcendence has always existed and been answered through the design of landscapes that meet existential, spiritual, and intellectual needs through the use of certain design principles, elements, and spatial qualities, many of which are still relevant in addressing these needs today. This argument is made first through an historical overview of past sacred landscapes and contemporary contemplative landscapes throughout geographic space and time that have proven successful in aiding in the creation of transcendent experience. Specific landscapes, their role in cultural and religious context and their commonly held design features, are highlighted.

An overview of the overarching role of sacred landscapes throughout history and geography culminates in the research of Heinrich Hermann (2005). His findings reiterate the remarkable consistency in major design principles and elements of contemplative landscapes throughout time and space. Five of these repeated design principles and spatial qualities, further specified through the criteria of Catherine Dee (2001) and Julie Moir Messervy (1990, 1995), and Stoner and Rapp (2008) are used in the evaluation of sites for case study.

The three types of methodology used are (1) case studies, (2) reflective analysis based on my experience at each site, and (3) comparative analysis.

## **Case Studies**

I conducted case studies to evaluate the degree of contemplative conduciveness of three public spaces that vary in scale, purpose, and designated user, chosen from the Seattle, Washington area. Case studies are chosen in addition to an argument-based thesis method in order to talk about spaces that have not been studied in the context of contemplation and transcendence. Case studies are chosen in the Seattle area because of the variety of public spaces available serving different communities in a relatively small geographic area created by some of the best American landscape architects. Case studies provide the best avenue to address the argument of this thesis by increasing the number of spaces investigated for potential use as landscapes of contemplation and transcendence, ultimately testing agreed-upon criteria while looking to the possibility of other potentialities.

## **Reflective Analysis of the Author**

My reflective analysis introduces informed insights about sense of place. In order to understand the dynamics of a chosen case study site – if certain elements and design features are working together to create a space conducive to contemplation – it was necessary that I experience those spaces.

My vision and experience of each site are enriched by the historical nature of the thesis argument and its development from premodern to postmodern times. An understanding of the design strategies and spatial qualities of spaces of contemplation,

those ubiquitous throughout history, give necessary insight into the potential use of these spaces as spaces of contemplation and transcendence.

Because I chose sites for which there is limited information in regards to potential as sites of contemplation, it was necessary to go in person to assess the dynamics of each place. Experiential understanding of each location along with an analysis of the characteristics of the place best facilitated a working knowledge of how public landscapes could potentially allow for the transcendent to succeed on a personal level.

I visited spaces during the morning hours from the 14<sup>th</sup> to the 17<sup>th</sup> of December, 2012. I explored Gas Works Park, the first case study site, on the first day of the trip while I had access to a car. The other two sites, Benaroya Garden of Remembrance and Waterfall Garden Park, in the city center, were approached on foot.

As mentioned, case studies and the comparative analysis are based on the criteria best summarized by Dee (2001), Messervy (1990, 1995), Hermann (2005), and Stoner and Rapp (2008). Success is measured by (1) the degree to which criteria are present in some form, (2) the degree to which I felt the greatest ability to reach a contemplative state, and (3) the amount of time spent in each space, as greater time spent can increase the likelihood of moving to a contemplative state (Hermann, 2005).

### **Comparative Analysis**

Comparative analysis is necessary to assess the difference in potentiality of sites based not only on the chosen set of criteria but also on the ways in which the harmonization and integration of the same criteria, for example, could display themselves

differently in different settings, causing variations and degrees in success. Comparing the conditions and potentials of the three sites sheds light on the power of certain criteria above others, certain combinations of spatial qualities, and opens the possibility for factors otherwise not considered. A comparative analysis of criteria allegedly crucial in contemplative space creation and design, also allows for an assessment and evaluation of previous research.

Hermann's (2005) strategies and criteria are revised and expanded due to the supplementary information that came during my literature review. The elements of gardens of transcendence by Messervy (1990, 1995) and sacred spaces by Stoner and Rapp (2008) are consulted and incorporated as qualitative measures as they also summarized findings of the historical overview. The general understanding of spatial quality in design, outlined by Dee (2001), are also consulted as qualitative measures.

### **Case Study Criteria**

My understanding and vision of each chosen site is enriched by historical argument development, having begun with premodern examples and understandings of contemplation and continued up to the present day. I use generally agreed-upon universal strategies of places of contemplation, as summarized by Hermann (2005) and others. These timeless principles and strategies are needed in the design of spaces able to provoke a state of transcendence through contemplative beholding and facilitate a transcendence of the finite limits of space, time, and a focus on one's self (Hermann, 2005). The five design strategies and criteria are discussed below.



### **Separation from Distracting Stimuli**

Separation from distracting stimuli is measured as the degree to which the studied site is physically or auditorily removed from distracting stimuli. Distracting stimuli is defined as anything that takes the user's mind from the present experience of the designated space, anything that takes one's mind from contemplative beholding. A form of enclosure is found to be a design element in sacred spaces that helps keep distractions at bay (Stoner & Rapp, 2008). Distracting stimuli could be found without or within the space in the form of other people or weather conditions, for example. As discussed by Hermann (2005), the minimization of distracting stimuli is critical to bring the mind into focus on immediate surroundings. Contemplative beholding brings the mind into a meditative or contemplative state, a necessary prelude to the transcendent.

Hermann (2005) suggested that landscapes able to create and induce silence in receptive users are most effective in helping one reach a contemplative state. This finding is supported by a history of the exploration into the importance of silence within various meditative traditions across geographic locations and throughout all historical periods (Hermann, 2005). Since meditation and contemplation are closely related – the latter not carried out with the same single-mindedness -- it follows that contemplation would also be nurtured by an environment with suitable and supporting stimuli and a dearth of those distracting. A mind void of “overly distracting sensual stimulation” allows the brain to be clear of “sensory impulses, freeing it for inner perception and communion” (Hermann, 2005, p. 28).

Sites investigated by Hermann (2005) have the ability to induce silence in attuned users. The importance of silence in experiencing symbols in the landscape is discussed in detail in “Silence and Chance Operations: Adapting John Cage’s Musical Concepts in Design,” by Caroline Lavoie (2006). According to Lavoie (2006), silence allows for an integral design experience and expression that carry us beyond symbolic language in the landscape:

Our use of symbols in language (particularly its poetic and metaphorical uses), in music, art and landscape, point to significance that symbols cannot completely express. What encompasses this significance is the silence that accompanies the experience of these ‘symbols’ by the participant — the phenomenal. While the first conception of silence, within the limits of language, is open to different interpretations, it leads or attempts to point to the second conception which is beyond interpretation, thus beyond any language or symbols of language. (p. 3)

Silence is shown to be a requirement for entering a meditative state throughout meditative traditions and throughout time (Hermann, 2005). The five strategies below directly aid in both shifting one’s focus to the infinite and greatly increase the possibility of engaging silently with surrounding space within a natural/built spectrum.

### **Creation of a Sense of Vastness**

Sense of vastness is measured by the presence or absence of expansive or framed views, repetition, motion, and the use of silence or sound. These views could direct one’s gaze to views of sky, water, or land. It is also measured as an internal feeling. The role of framing views directly contributes to the creation of a sense of vastness and includes “physical and visual iterations” (Hermann, 2005, p. 62). The role of scale in creation of views is paramount. Framing distant views within garden designs to enlarge the visual sphere is known in Japanese garden tradition as the technique of borrowing scenery, or

*shakkei* (Rogers, 2001). A sense of openness, of sky, land or water, is also an important quality for sacred spaces (Stoner & Rapp, 2008). Zen rock gardens are also examples of vastness, yet achieved through a play in scale that creates a sense of internal and external vastness as one contemplates stones and sand as the form and structure of the cosmos. They highlight microcosmic traits that hold all the elements of a large system contained at a tangible scale.

### **The Harmonious Integration of Spatial Qualities**

The spatial qualities of each site are identified and discussed. Case studies are evaluated based on the integration of spatial qualities created by six primary categories outlined by Dee (2001) in her work *Form and Fabric in Landscape Architecture: A Visual Introduction*. Landscape architects and designers create connection, form, dynamics, and unique expressions with these six categories: distinction of spaces, integrated paths, integrated edges, integrated foci, integrated vegetation, and presence of thresholds. The specific qualities of each type of landscape element are assessed based on her morphological sections. As explained by Dee (2001), the harmonious integration of elements such as topography, water, vegetation, and structures is vital. The main focus for each space is to see the various ways in which combinations and integration enable an exploration of contemplative design potential.

Further research led to the discovery of a list of criteria for gardens of transcendence in, *Contemplative Gardens* by Messervy (1990), which added two elements and qualitative measures: incidents along the path and mind journey. Two more criteria from Stoner and Rapp (2008) are (1) sense of enclosure and (2) places for

introspection and rest. The degree to which a site allows the mind of the user to become most fully engaged in present surroundings, to be in a state of contemplative beholding, is expressed in the successful interplay of built and natural forms, their qualities and characteristics that define space. Each landscape form is defined based on its composition and is discussed in detail in each case study where applicable. Paths that encourage exploration and introspection, for example, which are connected to destination points and provide places for rest and reflection are ideal (Stoner & Rapp, 2008).

These case study criteria also ascertain qualities such as legibility, complexity, mystery and coherence, all qualities found through Kaplan and Kaplan's (1989) research on environmental behavior that influence the preference for and experience of landscapes. They also gauge unity, diversity, dynamics, expression, wholeness, integration, and Appleton's (1996) prospect-refuge theory as applicable.

Landscape fabric, as described by Dee (2001), is the context for the design of landscapes. Dee deals with spatial qualities through topography, vegetation, built elements and the qualities of water. The ways in which these elements aid in the creation of spaces, paths, edges, foci, and thresholds are analyzed mainly by ascertaining the qualitative look of harmonious integration of two or more of these elements.

### **Presence of Archetypal Design Elements**

Archetypes are described by Dee (2001) as, "similar forms or physical arrangements of human environments which have been repeated or copied over long periods of time and continue to perform the same types of functions. They are considered universal" (p. 41). Archetypes, specifically those that hearken back to cosmological

landscapes, are the focus of case study criterion “Presence of Archetypal Design Elements”, as these outstanding elements have found their way over long periods of time to the present day. I found the repetition of these archetypes in the literature review to be outstanding in sacred spaces and thus necessary as case study measures. The archetypes chosen are listed below.

- Water: still, moving
- Sacred/aged stones
- Sacred/cosmic mountain
- Axis mundi/the *Tree of Life*
- Sacred grove
- Sacred cave
- Celestial bodies

### **Orientation of Individual within Larger Order**

Four different ways to orient users within spaces of contemplation are laid out by Hermann (2005). All four of these forms of orientation are used as criteria in case study analysis.

**Reorientation upon entering grounds.** This form of orientation would simply include some sort of preparatory space leading up to the designated space sought by the user. These spaces remove users from the sights and sounds of the outside world and prepare them for the experiences that follow. The presence or absence and effect of such preparatory spaces are noted for each case study.

**Physical placement/orientation in relation to existing community.** The ability of each case study site to orient users in relation to the surrounding city or neighborhood is gauged based on the presence or absence of visual and auditory connections. The use

of structures or arrangements that connect the space with the four cardinal directions as well as to community foci is reviewed. The contrast and/or harmony of the site with the surrounding area is also noted.

**Orienting the individual within the cosmos.** Spaces are evaluated based on their ability to connect users to the larger order of the cosmos. Specific design elements and arrangements sought for include: alignment with celestial bodies; indications of or alignments with the four cardinal directions; presences of a representational figure of the *axis mundi* and other archetypal design elements as listed above; and evidence of vegetation that highlights seasonal change.

**Enhancing orientation through linkages and transitions between spaces.**

Within contemplative sites linkages and transitions are used to gauge orientation within the space itself.

## **Summary**

**Historical overview.** From premodern times to the present day, we find demonstrated changes and consistencies in purpose and design of sacred landscapes. The consistencies found by research from many fields seem to mean that the human mind still draws significance from specific symbols and design elements. Further surveying and case study results would continue to show that creating spaces of contemplation and transcendence is not so elusive. The connections found between restorative landscape design and contemplative landscape design also suggest that contemplative spaces have similar potential toward mental and spiritual restoration (Krinke, 2005). These kinds of

potential linkages have repercussions that begin with the individual but, as the spaces are public in nature, have the ability to affect community at large.

**Case studies.** Case studies and my personal experience in the sites reveal that certain combinations of criteria seem to have the potential of being more effective than others. Overall weather is a major player in the atmosphere of all three case study sites and their ability to encourage contemplation.

Of the three sites visited, Gas Works Park is found to be most conducive to contemplative beholding and reaching a transcendent state. Gas Works Park was the most successful at creating a powerful sense of orientation in all its subcategories: on a larger (cosmic) order; within the framework of the physical community; and on-site. Orientation was central to my ability to disengage from an “I” and “it” state of mind and move toward a “we” frame of mind, a sense of communion. The satisfaction of feeling connected in space and time was felt keenly at Gas Works Park and therefore missed when it was not as strongly felt at the Waterfall Garden Park or Garden of Remembrance. I also found that the journey to a destination point, found at Gas Works Park, offered a type of experience not found at the other two sites.

Reoccurring themes of motion and water in all three sites provided an endless source of fascination and calm that invited contemplation and meditation. Moving water was the main contributing factor to my ability to contemplate in all three of the sites. Two of the three sites – Waterfall Garden and the Garden of Remembrance – are directly influenced by Japanese garden style, making elemental archetypes of water, sacred stone and sacred grove, the building blocks of their form and, coupled with a harmonious

integration of spatial qualities, were fundamental to fostering a contemplative atmosphere that helped my mind move toward existential ponderings.

This thesis affirms that design elements and strategies of the transcendent can be incorporated in different degrees within existing and future public spaces and have great effect on the individual pursuit of transcendence in the landscape.



## CHAPTER III

### LITERATURE REVIEW

#### **Definitions and Key Terms Relating to Transcendence**

Possible definitions of key terms necessary to a discussion of the role of transcendence in landscapes, such as *sacred* and *transcendence*, can vary based not only on application (i.e. secular vs. religious), but also as understood in different historical contexts. A large effort is made here to tease out past and present meanings of these terms in order to facilitate a more in-depth discussion about the nature of the transcendent in the context of landscape and its potential role in the work of landscape architects.

Terms most relevant to the purposes of this thesis and most difficult to exact are selected, namely: spiritual, sacred, profane, transcendence, contemplation, sacred symbol or archetype, archetypal design element, mythology, cosmology, and orientation in time and space. Premodern, modern, and postmodern paradigms are defined first to give context to the terms that follow. Terms are defined by identifying word origin with historical and contextual differences as applicable, and finally by a contemporary definition best suited to a study of the transcendent experience in landscape. The goal of this section is to make concepts more transparent and to aid in a movement toward more ubiquitous use within the field of landscape architecture. It is hoped that the definitions arrived upon will aid in conveying the meaning and benefits of transcendent spaces in contemporary contexts.

By drawing on current scholarly sources for as many definitions about sacred

space terminology as possible, an attempt to support a growing body of consensus about what sacred spaces and spirituality are and what they look like in a postmodern context is made.

### **Contemplation**

The word *contemplation* comes from the late 16<sup>th</sup> century. Its origin lies in the Latin *contemplat*, which means “surveyed, observed, contemplated,” that comes from the verb *contemplari*, which is based on *templum*, or “place for observation” (Oxford Dictionaries, 2013). The primary definition from the Oxford online dictionary is “the action of looking thoughtfully at something for a long time” (Oxford Dictionaries, 2013).

According to Robert Thurman (1994), professor of Indo-Tibetan Studies at Columbia University and a Tibetan Buddhist, contemplation is not confined to rare and sought-after events, but rather something millions of people are involved in everyday, whatever their object of contemplation happens to be. He cites the watching of television as modern culture’s “contemplative shrine” that provides a source of contemplation but leaves those “in a trance in which sensory dissatisfaction is constantly reinforced, anger and violence is imprinted, and confusion and the delusion of materialism is constructed and maintained” (Thurman, 1994). From a Buddhist tradition, two major forms of contemplation are emphasized. “Calming contemplation” involves the process of removing thought from the mind, which benefits both mind and body, and “insight contemplation,” a state of mind similar to a reflective state of mind, and which is believed to benefit psychological, intellectual, and spiritual development more so than

calming contemplation (Thurman, 1994). Another type of contemplation is that akin to meditation, which aids in stress reduction, the lowering of blood pressure, and other health benefits (Krinke, 2005).

Rebecca Krinke (2005), landscape architect and contributing editor to *Contemporary Landscapes of Contemplation*, presents this definition: “Contemplation indicates a deliberate attention, often implying a concentration on ideas, objects, or places that are somewhat outside our day-to-day thoughts” (p. 2). Robert Durback (2000), a former Trappist monk, identifies what this concentration brings. By fixing one’s attention on an object, for example, one moves from that “fixed attention” to an “identification” which Durback (2000) defined as “becoming one with the object one is contemplating”, until the identification “deepens, and there is the sense of communion” (p. 14). Contemplation is a process, a developmental activity that leads to communion, as the ultimate outcome. Julie Moir Messervy (1990), author of *Contemplative Gardens*, also sees communion as the ultimate outcome of participating in contemplative beholding:

By concentrating on a focal point or object, the viewer becomes one with it. After concentrating long enough, the focal point loses its literalness and becomes abstract – we transcend the object and, by extension, the world. After a contemplative experience, we come away refreshed, more centered, more tranquil, and more joyful, ready to face the outside world with new equanimity and self-awareness. (p. 19)

The act of contemplating is the act of beginning the process of uniting with a thing or place we are beholding. It is a way of accessing it and parts of one’s own understanding in previously unexplored ways that ultimately grants the potential of personal revelations. Contemplative beholding then, becomes the way to access

transcendence, to move beyond the daily mundane, gaining inspiration and knowledge about the relationship between self and world. Throughout this thesis, places identified as being conducive to contemplation are also considered conducive to the transcendent experience.

The Internet places at our fingertips, information about a host of religious belief systems that contain, in some form, a tradition of contemplation. In this postmodern world many find themselves without a single religious or spiritual tradition and instead, are weaving together different voices and ideas to make their own. What this means in terms of landscape architecture is hard to say. Dr. Jon Kabat-Zinn (1994), molecular biologist and Professor of Medicine Emeritus and founding director of the Stress Reduction Clinic and the Center for Mindfulness in Medicine, Health Care, and Society at the University of Massachusetts Medical School, has, for the past 20 years, conducted pioneering work with patients introducing the contemplative practices of mindfulness meditation, which he defines as “focused attention on the present moment” (Kabat-Zinn, 1994). He believes that a “profound social/cultural revolution” has begun, a revolution that was started by a “strong inward longing in our society for well-being, meaning, and connectedness” (Kabat-Zinn, 1994). Stephen Hatch (2000), author of “The Formation of the Everyday Contemplative”, writes, “Stress in the workplace and home, the breakneck pace and complexity of the ‘information age’ and a growing lack of connection to the natural world drive many to seek a life of greater silence, peace, and simplicity” (p. 59). An increased demand for spiritual and renewal experiences evidenced by the increase in community programs like yoga and meditation classes seems to be sparked by this desire

for connection and peace (Krinke, 2005). Krinke (2005) found that such a search for connectedness is something not often talked about in contemporary design, yet exploring meaning has always been art and design's primary function.

Contemplative beholding is a term best suited to contemporary landscapes of contemplation being most closely related to insight contemplation, and implies that the process toward a contemplative state is initiated by beholding something that captivates one's attention within the landscape.

The kind of contemplation sought when describing spaces of contemplation comes about through initial captivation. Many studies have been done based on Attention Restoration Theory (ART), developed by Rachel Kaplan and Steven Kaplan (1989). It proposes that intense or lengthy cognitive work leads to a reduced ability to direct attention. Restorative environments (often in natural settings) elicit effortless attention and allow one's directed attention to recover (Kaplan & Kaplan, 1989). Briefly, four characteristics of ART include: being away (i.e., physical and/or psychological escape); extent (i.e., sense of a vast other world to experience); compatibility (i.e., environmental support of one's desired activities); and fascination (i.e., involvement in the space) (Kaplan & Kaplan, 1995). "Soft" fascination occurs when there is interest in the surroundings sufficient to hold one's attention while allowing room for reflection (Kaplan & Kaplan, 1995).

A study entitled, "The Restorative Benefits of a Monastery" used ART to explore what possible benefits a monastic setting could provide (Ouellette, Kaplan, & Kaplan, 2005). Part of the study's findings include the belief that an attractive peaceful

environment can potentially facilitate cognitive restoration and reflection along with a sense of spiritual well-being (Ouellette et al., 2005), further supporting the idea that spaces that hold one's attention provide the possibility of contemplation, which can lead to transcendence, the possible experience of the ineffable.

## **Spiritual**

*Spiritual* (adj.) comes from Middle English, derived from the Old French *spirituel*, which comes from the Latin *spiritualis* and *spiritus* (Oxford Dictionaries, 2013). Its primary definition “relating to, or affecting the human spirit or soul as opposed to material or physical things” leaves off any religious denotation (Oxford Dictionaries, 2013). Within the field of landscape architecture, we also find an inclusive definition: “spirituality, being both intensely personal and universal, is inclusive of but not necessarily limited to religious beliefs” (Mann, 2010, p. 5). The Oxford definition creates a clear set of opposites: spiritual versus material. In reality, scholars continue to grapple with what comprises “spirituality” and what it means in relation to different fields, the reconciliation between the spiritual and material seemingly the most interesting point of discussion.

Poets, scholars, and philosophers have all contributed greatly to an understanding of how inexplicable and elusive the idea of the spiritual can be, how subtly various meanings manifest themselves based on perspective, personal belief, and context. Rudolf Otto (1923), an eminent German Lutheran theologian and scholar of comparative religion, defined the spiritual as “numinous,” a word he popularized in the early 20<sup>th</sup> century in his highly influential book, *The Idea of the Holy*. An English adjective, taken

from the Latin *numen*, *numinous* describes the power or presence of a divinity. According to Otto (1923), the numinous experience has an aspect of the *mysterium tremendum*, the tendency to invoke fear and trembling in the face of that which is a mystery “inexpressible and above all creatures,” and an aspect of *fascinans*, the propensity to fascinate and compel (pp. 12-13). He argued that both the *mysterium tremendum* and *fascinans* are felt while in communion with someone or some realm wholly “other”. Otto adopted the term precisely because he was not satisfied with terms available to describe a state of mind or experience that, by its very nature, must avoid reductionism. Otto (1923) argued that the numinous can only be discovered in comparison to others’ experiences and to what it is not; it cannot be taught, “it can only be evoked, awakened in the mind; as everything that comes ‘of the spirit’ must be awakened” (p. 7).

Edmund Burke (1757) saw the spiritual as synonymous with the sublime in his seminal work, *A Philosophical Enquiry into the Origin of our Ideas of the Sublime and Beautiful*. Burke (1757) expressed here that the terror of the sublime is an expression of awe and exultation rather than dread and loathing (Nash, 2001). Similar to the idea of the numinous, the sublime as understood in the 18<sup>th</sup> and 19<sup>th</sup> centuries, applied to places in nature where one came closest to experiencing a direct encounter with God, a type of transcendent experience, the mountain itself seen as embodying His image (Nash, 2001). In the writings of Burke (1757), Immanuel Kant (1960), and William Gilpin (1748), sublime landscapes included the mountaintop, canyon, thunderhead, chasm, waterfall, and rainbow. Only later in the 19<sup>th</sup> century when wilderness becomes a popular

destination for romantic travelers, does the terror of the sublime begin to lessen; the wild becomes less threatening and the definitions of sublime and beautiful begin to converge. Soon the sublime found expression, though altered in form and meaning, in many locations; landscapes with rocky formations down to the private garden, tried to create this sensation of sublime beauty (Rogers, 2001).

Within the field of architecture, the spiritual is described as the “immeasurable” by Louis Kahn (1960), and the “ineffable” by Le Corbusier (Le Corbusier, 1948). Christopher Alexander (2003) applied it to places and structures that possess spirit or life. Within the field of neuroscience, one finds definitions of *spiritual* and *sacred* being distinct in application to spaces. “A spiritual place is one that has been designated for some religious purpose” and sacred space as “any space (including spiritual places) that evokes special transcendent feelings within the visitor – a connection with something larger and deeper than our self” (Eberhard, 2009, p. 111). Regardless of whether a space is used for religious purpose or not, this definition shows the transcendent as a dimension of landscape experience that encapsulates either spiritual or sacred characteristics or both.

The distinction between aesthetic (which has been more than thoroughly studied within the field of architecture) and spiritual, must be made here. Aesthetic, for Modern and Postmodern philosophy, as defined by architect Julio Bermudez (2009), is “a limited, perceptual understanding of experience focused on ‘beauty’ that was created at the turn of the 18<sup>th</sup> century in direct response to Cartesian dualism and the rise of rationalism and science,” while spiritual experiences “are not limited to the sensual or perceptual realm alone” (p. 47). And according to Bermudez (2009), the aesthetic and more “objective”



ways of measuring and evaluating in architecture have long been studied, (dimensions, proportions, materials, light, etc.) without taking into account the actual experiences and reactions of those experiencing the architectural spaces (emotions, gained insight, introspection, and focus). Likewise, the field of landscape architecture is lacking in a collected discourse on the experience of spiritual places (Krinke, 2005).

Spirituality addresses the human need for transcendence (ACS, 2013). The Forum for Architecture, Culture and Spirituality (ACS), an international group of individuals engaged in a reflective relationship between architecture, culture and spirituality, has gone to considerable trouble examining past definitions from a range of disciplines and developed a working definition that represents a best fit in regards to the spiritual in architecture. It is adopted for use in this thesis:

The spiritual refers to a heightened or alternative state of mind in which one is overcome by, or perceives the presence, insight or action of forces beyond self-limited consciousness. Spiritual experiences are realized individually and although possible to articulate, they cannot be completely conveyed due to the limited nature of our symbolic language. More specifically, spirituality addresses the human need for transcendence. (ACS, 2013)

Many landscape architects are finding the design process for the transcendent a uniquely spiritual experience, as important as the spaces themselves (Krinke, 2005). Hermann (2005), for example, believes that every landscape architecture project offers, to some degree, contemplative design opportunities if the designer chooses to seek them, and that needed most “are the will to create environments charged with poetic/spiritual, contemplation-inducing qualities and the will to educate and persuade clients of their desirability” (p. 70). Landscape architects acknowledge that the scholarly resources and literature on the subject are limited, but as further discussed in the section “Postmodern

Paradigm,” there is much research and theory on restorative environments from which to build (Krinke, 2005).

## **Sacred**

*Sacred* originates from the late Middle English past participle of archaic *sacre* which means “consecrate” (Oxford Dictionary, 2013). *Sacre* comes from the Old French *sacrer*, which root, *sacr*, means “holy” (Oxford Dictionary, 2013). It defines something or someone “connected with God or a god or dedicated to a religious purpose and so deserving veneration; religious rather than secular” (Oxford Dictionary, 2013).

The most prevalent modern understanding of the term *sacred* is exemplified in Eliade’s (1957) seminal work, *The Sacred and the Profane*, which hinges on the earlier work of Otto (1923), *The Idea of the Holy*. Framed by their relation to religious man, Eliade’s (1957) definitions delineate a binary understanding of spaces; those considered profane were spaces that did not go beyond “man’s natural experience,” and while those that interfaced with the eternal, acting as places of passage between heaven and earth, were sacred (p. 10). These sacred spaces were qualitatively different from other spaces, providing a “revelation of an absolute reality, and opposed to the non-reality of the vast surrounding expanse,” or the homogeneity of the profane world (Eliade, 1957, p. 21). As discussed further on, these sacred spaces acted as centers for ritual and ceremonial events, ritual being the way in which premodern peoples engaged in the art of beholding and progressed from the profane to the sacred. Ritual is “first and foremost, a mode of paying attention. It is a process for marking interest.... [It is not] blind and thoughtless

habit”) (Smith, 1987, p. 104). Sacred spaces constituted physical centers of orientation in an otherwise amorphous profane world (Welch & Perry, 2011).

Eliade (1957) was the first to lay out the primary differences of early man’s perception of the sacred and modern man’s division between the religious and secular. Scholars now are focusing on how knowledge, belief and early man’s perceptions of the world were integrated in approach (Kabat-Zinn, 1994; Rogers, 2001). As reflected in their sacred spaces, early societies made no real distinction between the religious and the scientific in the use and construction of their spaces (Rogers, 2001). Indeed, the separation of the physical and spiritual was a false dichotomy to the early peoples and civilizations of the world; nature, being enchanted with spirits and gods, was seen also as an opening into an eternal realm.

Eliade saw the sacred as being directly tied to the religious, revealed in objects or places through hierophanies rather than created by human interpretation (Paul, 2003). Some contemporary scholars, while agreeing with Eliade that sacred space serves to orient individuals or to focus them on particular elements, argue against his interpretation and believe that sacrality is more situational than substantial (Paul, 2003). Chidester and Linenthal (1995) stated, “Some definitions of the sacred presume to have penetrated and reported its essential character . . . [or evoked] certain experiential qualities that can be associated with the sacred. . . . By contrast, however, a situational analysis . . . has located the sacred at the nexus of human practices and social projects . . . [recognizing] that nothing is inherently sacred” (p. 5). As Jon Paul (2003) pointed out in his book, *Shopping Malls and Other Sacred Places*, the dichotomy of both views is problematic;

both views have their pros and cons, yet taken individually are much too limiting. The definition below aims for the inclusivity that contemporary landscape architects and architects are looking for in their hopes of creating spaces that can speak to the broadest range of users.

In our current highly secularized and individualized world, the term *sacred* must broaden its reach. As Paul (2003) stated, “a place is not sacred... if it does not relate to how people are oriented spiritually, culturally, and practically, and if it is not part of a larger symbolic system through which people have dealt with ultimate questions—such as how to live or why we die” (p. 266). Architect A. T. Mann (2010), author of *Sacred Landscapes: the Threshold Between Worlds*, has suggested that a contemporary definition of *sacred*, as applied to landscapes, is not limited to a religious practice or system:

The sacred is an ethereal quality that has roots in the life of the soul and spirit rather than in any formal religious practice or system. Spiritual qualities are dynamic aspects of the human psyche that are independent of but that find expression through the world of form. Sacred landscape triggers a spiritual recognition in us when we experience it. Australian Aborigines describe the earth’s power as the “dreaming” of a place, because anything that occurs in a particular location leaves seeds, myths or images, unseen vibrations that provoked the place into being in the first place. (p. 5)

This thesis uses the above definition of "sacred" and the distinction between "sacred" and "spiritual" found in Mann’s (2010) *Sacred Landscapes: the Threshold Between Worlds*, as these definitions are either taken from or informed by current leading scholars in the fields of architecture and landscape architecture. Therefore, *spiritual* and *sacred* are not limited to the realm of Eliade’s (1957) “religious man,” but encompass a range of experiences rooted in individual experience.

Mann (2010) used ACS's definition of *spiritual* and defined *sacred* as “a component of spirituality, that has a transcendent quality integral to all people in our present world (whatever their beliefs), many of whom are scientists or even self-described atheists” (p. 5). *Sacred*, then, falls under the larger umbrella of spirituality, its inherent and prime characteristic being its transcendent quality. This thesis focuses on this transcendent quality. Further discussion of the role of contemplation in order to access the sacred nature of landscapes will bring consideration to defining *sacred* not just by contrast to other things (Eliade, 1957), but by its found traits. Sacrality is a quality discovered through contemplative beholding, which allows one to see a thing not only for its form and substance but also for what it symbolizes and beyond (Eliade, 1957). Contemplative beholding then, becomes the way of accessing the transcendent.

### **Transcendence**

Transcendence is the “existence or experience beyond the normal or physical level” (oxforddictionaries.com). *Transcendence* comes most recently from late Middle English, with roots in the Latin *transcendent*, meaning, “climbing over”, which originated from the Latin verb *transcendere* (Oxford Dictionaries, 2013).

Sacred landscapes have the power to aid in “stepping out of ordinary time” (Mann, 2010, p. 12). Hermann (2005) went further in defining how landscapes that elicit contemplation increase the possibility of transcending not only time but also a focus on one's own self, physical space (through perceivable links between human and cosmos), and finiteness. In documenting and describing spiritual experiences of architecture, persons report moving from a dual state of “I” and “it” to being at “one” (Bermudez,

2009, 2012). This suggests that experience of the spiritual involves a non-dual state of consciousness.

This might explain why moments of transcendence are so rare. According to Wilber (2000), transcendent experiences (i.e. accessing the spiritual) require a shift from third person detachment to first person intimacy. So in essence, there is no longer “my” experience of a landscape “it,” a duality, but a phenomenological shift to oneness with subject and object (Lavoie, 2006). While an uninterrupted contemplative beholding in natural landscapes is becoming more and more rare in the bustle of modern living (Krinke, 2005), it is considered an ancient way to access the transcendent, meaning to experience beyond the physical world, to light upon personal revelations, to encounter the ineffable and infinite.

### **Sacred Symbol and/or Archetype**

This outward spring and garden  
 Are the reflection of the inward garden.  
 -- Rumi (Messervy, cover page, 1990)

An archetype is “a recurrent symbol or motif in literature, art, or mythology” (Oxford Dictionaries, 2013). This recurrent symbol is further described in Jungian theory as a “primitive mental image inherited from the earliest human ancestors, and supposed to be present in the collective unconscious” (Oxford Dictionaries, 2013). Archetypes differ from other symbols as they are considered original images present in the mind and universally so. A symbol that is not an archetypal symbol functions only as a sign, shape or object used to represent something else and is not necessarily universally discernible (Oxford Dictionaries, 2013).

Archetypes have been in existence since earliest known time and are modified little by little, codified, and integrated into the collective psyche through myths and other stories (Jung, 1969). According to Jung, these archetypes are of the collective unconscious, and precede their forms of manifestation but require form (manifestation) to function (Mann, 2010). A manifestation of an archetype, in Jung's (1969) terms, is an "expression of the inner unconscious drama of the psyche which becomes accessible to man's conscious by way of projection—that is, mirrored in the events of nature" (p. 6).

What contributes to making sacred landscapes powerful is the symbolic nature of the elements of which they are composed; mountains, rivers, sky, stars, trees and landforms, function on multiple levels at once to convey meaning. As Jung (1927) described:

All the powerful ideas in history go back to archetypes. This is particularly true of religious ideas, but the central concepts of science, philosophy and ethics are no exception to this rule. In their present form they are remnants of archetypal ideas, created by consciously applying and adapting these ideas to reality. For it is the function of consciousness not only to recognize and assimilate the eternal world through the gateway of the senses but to translate into visible reality the world within us. (p. 342)

According to Eliade (1957), "History cannot basically modify the structure of an archaic symbolism. History constantly adds new meanings, but they do not destroy the structure of the symbol" (p. 137). The cross, for example, is seen foremost as a Christian symbol, but it is found in almost all pre-Christian cultures as a symbol of the cardinal directions, or the convergence of heaven and earth, and sometimes found within a circle, the oldest known symbol of the earth (Mann, 2010). These symbols are discussed in greater detail in the section, "Premodern Paradigm."

Their universal and recurrent expression in the world – in dreams, and the arts, in ancient and contemporary times – makes archetypes prime vehicles of communication in space design that provides the possibility of experiencing the transcendent. Eliade (1957) elucidates the role of many archetypes in bringing to the conscious mind manifestations of the sacred, supernatural, or something that transcends it, specifically, in “how sacrality is revealed through the very structures of the world” (p. 177). A sacred stone, for example, is a natural object that expresses something that transcends it, the supernatural. It is venerated not because of its purely natural state—a stone—but because it is sacred. “It is the sacrality *manifested through the mode of being of the stone* that reveals its true essence”, the supernatural and natural being inseparably connected (Eliade, 1957, p. 118).

Eliade also notes that the most primitive and archetypal of all sacred places throughout the history of religions is found to be the basic landscape of water, stones, and trees (Lane, 2001). As Mann (2010) described, “ancient symbolism is thus inseparable from our experience of sacred places, and we resonate with these underlying symbols wherever we encounter them” (p. 16). The presence of sacred archetypes, then, is key to eliciting contemplative beholding. These basic forms do not only communicate their form and arrangement in space, but also hearken to other forms and spaces, other landscapes and times of contemplation, which move the mind into contemplation of that which is beyond. A greater knowledge of how our minds continue to use and understand archetypes in a modern world can greatly enhance the potential of experiencing the transcendent as the potential for contemplation is enhanced.



### Archetypal Design Element

A primary understanding of the function and power of archetypes in the premodern and modern world, elucidated by Jung (1927), sheds light on how archetypal elements and symbols are used as design elements in sacred landscapes. Here, the transition to the fields of architecture and landscape architecture helps clarify how universal symbols of a sacred nature are translated into landscape form and fabric.

One prominent example of such an image, discussed in great detail in the section “Premodern Paradigm,” is the *axis mundi*, which finds representation across historical time and geography—in many forms, such as the *Tree of Life* or the “cosmic tree”. It is a conceptual and ceremonial center, marking the point of intersection of the cardinal directions (Devereux, 2001; Eliade, 1958). The *Tree of Life* exemplified the *axis mundi* for many premodern cultures and in many religions and continues as a powerful image today. For example, the *axis mundi* is represented as a reed for the Navajo of the America Southwest (Figure 1). The “pollen-path” or “blessing-way” goes up the giant corn plant (*axis mundi*) between female spirit guardians. On one side of the stock is the masculine zigzag of lightening, on the other side, the feminine curve of the rainbow, and at the top, the bird of happiness symbolizes transcendence, flight, and freedom. Their mythical ancestors moved up the center of this reed as they progressed through four subterranean worlds that lie beneath this one. Their origin or creation myth—also called a myth of emergence by Cook (1974)—is a story of movement up the reed from one underworld to another caused by a series of disasters such as natural disasters, disease, and overcrowding (Cook, 1974).

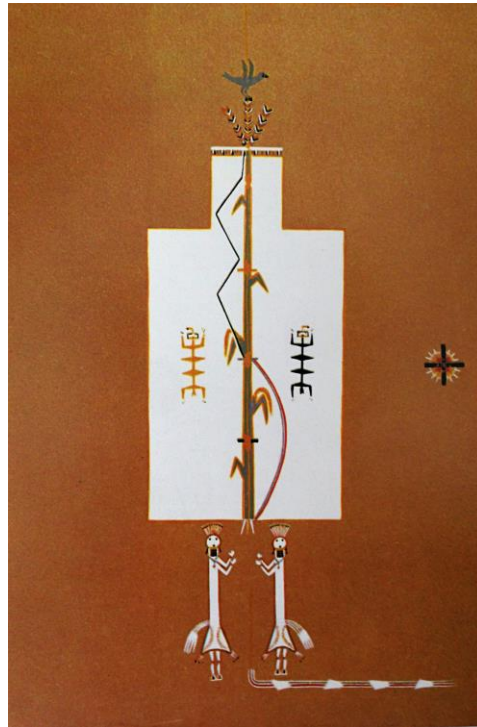


Figure 1. Tree of Life, Navaho sandpainting, New Mexico. From *The tree of life: Image for the cosmos*. (Cook, 1974, p. 36)

Each new underworld was an improvement upon the last, finally bringing the Navajo to the fifth world, or this world, where all colors, plant and animals that had been isolated in previous worlds, come together, “bringing to birth the fullness of light and colour, man and the world” (Cook, 1974, p. 17). Yet, the Navajo believe man needs further transformation, so the *axis mundi* continues to grow upward (Cook, 1974). In Navajo sand paintings, created during ceremonials or “chantways,” events of these mythic times are re-enacted, the composition and structure of the paintings always centering around some symbol of the *axis mundi*. Roger Cook (1974), in his work, *The Tree of Life: Image for the Cosmos*, describes the important role of the *axis mundi* and myth in the mental and physical wellbeing of the Navajo:

This centredness and symmetry is especially significant, since the chief purpose of the paintings is therapeutic. At a certain point in the proceedings the patient is actually placed upon the painting, and sand from the figures is applied to his body. The purpose of this action is to plunge him, psychologically and spiritually, into mythical time and space. This is a dimension stronger and more vital than that of profane, everyday existence, because it is the time and space in which things *first* came to be. It is this experience of a ‘return to origins’, at the axial centre of the world, that integrates the patient and effects the cure. (p. 17)

The *axis mundi* is discussed as the foundation for many forms of mythological thought, specifically in relation to the structure of Jungian psychology, in the section, “Premodern Paradigm” below.

## **Mythology**

*Mythology* originates most recently in late Middle English and comes from the French *mythologie*, or via Latin from the Greek *mythologia*, which comes from *mythos*, meaning ‘myth’ and *-logia* (Oxford Dictionaries, 2013). A mythology is a “collection of myths, especially one belonging to a particular religious or cultural tradition” (Oxford Dictionaries, 2013). A myth is defined as “a traditional story, especially one concerning the early history of a people or explaining some natural or social phenomenon, and typically involving supernatural beings or events” (Oxford Dictionaries, 2013). To define myth and its role to early man one must turn to expert mythologist, Joseph Campbell, who is best known for his work in comparative mythology and comparative religion. As Campbell expressed in a PBS interview with Bill Moyers entitled “The Power of Myth,” the common defining thread of all mythology is found in these two explanations: “A place of being that’s beyond the visible plane and which is somehow supportive of the visible one to which we have to relate”, and “the experience of the

eternal aspect of what you're doing in the temporal experience is the mythological experience" (Miller & Dowling, 2010).

According to Eliade (1957), a shift from collective mythologies has not left "nonreligious" individuals void of a mythology. Modern man still has his version of mythology, his "private mythologies", his personal dreams, reveries, etc., though they function differently from those collectively understood in the premodern world (Eliade, 1957, p. 211). Eliade (1957) believes that precisely because these mythologies are private they do not have the power to transform "a particular situation into a situation that is paradigmatic", thereby raising one up spiritually through collective power. Yet as Campbell (1968) believes, finding the aspect of myth that has to do with the conduct of one's life, whether ancient or modern, can inspire individually.

Like Eliade (1957), this thesis embraces the idea that it is through symbols that mankind is found able to "awaken individual experience and transmute it into a spiritual act, into metaphysical comprehension of the world" (pp. 211-212). While some truth may be found in Eliade's belief that nonreligious man cannot access the full power and meaning of archetypes such as the *Tree of Life*, symbol of the world tree and image of cosmic life, being cut off from collective ritual and myth, it is argued in this thesis that the very nature and function of universal symbols in the human psyche (Jung, 1927) can still raise individuals without religious background to a realm of spirituality capable of providing needed insight, revelation, orientation, and communion with landscape. In essence, "the presence, insight or action of forces beyond self-limited consciousness" are available to all (ACS, 2014, p. 4). Bermudez (2012), Hermann (2005), and Krinke

(2005) are examples of contemporary scholars in the fields of architecture and landscape architecture testing the validity of such an idea through measures of individual experiences within sacred spaces and the commonalities of characteristics in the spaces themselves.

### **Orientation within Space and Place**

One commonality found in landscapes that provide the possibility of experiencing the transcendent is the presence of an orientating element or design that provokes the mind to a higher plane of thought, providing the possibility of not just physical orientation but of inner orientation and identification within a larger community and cosmic order (Cook, 1974; Eliade, 1957; Rogers, 2001). They demark one's position in space, time, the cosmos, community, and myth.

As discussed below in the section "Premodern Paradigm", a universal symbol of orientation is the *axis mundi* (Devereux, 2000; Eliade, 1957). The *axis mundi* can take many forms but always marks one's place in space and quite often time. Eliade holds that even those who are not religious, who have chosen a "secular" life, cannot escape completely from "religious" behavior. In this context, they cannot do away with seeking sacred places for a very practical reason: "Revelation of a sacred space makes it possible to obtain a fixed point and hence to acquire orientation in the chaos of homogeneity, to 'found the world' and to live in the real sense" (Eliade, 1957, p. 23). "Sacred" space, made so not just by religious experience but individual significance, marks qualitatively different space than "secular" space which functions as homogenous in its value.

While not the focus of this thesis, finding orientation in sacred places can aid in addressing the modern Western phenomenon of placelessness (Relph, 1976). Many modern cities appear chaotic and are confusing; they are marked by a lack of clear limits and an irrational growth pattern. “We find increasingly that we are confronted and confused by landscapes that lack clear centres and boundaries and which are constantly changing identity” (Relph, 1976, p. 133). Finding physical and spiritual orientation is still a critical part of transcendent spaces (Relph, 1976). For example, the location of a human-scale sundial on top of a hill that overlooks a large body of water can give respite and perspective in a surrounding suburban environment. This space can provide not only external perspective but enable a change of focus from self to contemplation on the larger image of life, which can give internal perspective and orientation.

### **Cosmology**

*Cosmology* originated in the mid 17<sup>th</sup> century, from the French *cosmologie* or modern Latin *cosmologia*, which came from the Greek *kosmos*, meaning ‘order, world’, and *logia*, meaning ‘discourse’ (Oxford Dictionaries, 2013). Its definition reads, “An account or theory of the origin of the universe” (Oxford Dictionaries, 2013).

Cosmologies reflect beliefs underlying the great existential questions of humanity: How was the earth created? Where are we in the universe? What is our purpose and role? Cosmological narrative, as reflected in landscape form, (i.e. the organization of cities based on constellation arrangements) was a powerful way to symbolically express quintessential meanings that rooted societies in cosmic order (Rogers, 2001). These cosmological notions were a fusion of cultural and social

knowledge and beliefs, being scientific, mythic, philosophical and religious in nature, integrated to inform place creation.

The human psyche is rooted in certain fundamental spatial constructs that relate to our “upright posture, directional movement, desire to place ourselves in space in ways that are imbued with societal meaning, and our yearning for connection with the infinite and eternal” (Rogers, 2001, p. 26). Because of this there was a firm cosmological model in human consciousness that not only spread geographically but also persisted through the ages. These constructs inform the basic framework of space creation, resulting in landscape forms of astonishing universality in cultures, both prehistoric and extant, where cosmology reflects a tapestry of mythic, religious, philosophic, and scientific thought. Cosmological symbolism is found in the organization of cities, temples, and landscapes, each place representing and acting as a center of the world (Relph, 1976). Premodern man sought to live as closely as possible to the Center of the World. In his cosmological framework, “his country lay at the midpoint of the earth; he knew too that his city constituted the navel of the universe, and, above all, that the temple or the palace were veritably Centers of the World” (Eliade, 1957, p. 43). Houses, as well were seen to be at the center of the world, and so, on a microscopic scale, to reproduce the universe (Eliade, 1957). The body itself acted as a symbol of the cosmos, as further discussed in the section “Premodern Paradigm.”

### **Premodern**

*Premodern* is defined as, “anticipating the modern phase or period of something while not actually belonging to it” (Oxford Dictionaries, 2013). While there is debate

about when Modernism actually began, the Premodern era will be defined as that time before the period associated with the Industrial Revolution and the Enlightenment philosophy of the West from the eighteenth century onwards (Hubbard & Kitchin, 2011). The majority of premodern cultures or early cultures predates the Modern era, extending as far back as known historical time and reaches into the moments before the birth of Modernism. While this is indeed a vast and varying time to place into one category, and while premodern cultures may still be found, many distinguishing characteristics on spiritual notions and religious organization mark it as distinct from Modernism and Postmodernism.

### **Modern**

*Modern* is defined as “of or relating to the present or recent times as opposed to the remote past: denoting a current or recent style or trend in art, architecture, or other cultural activity marked by a significant departure from traditional styles and values” (oxforddictionaries.com). Hubbard & Kitchin (2011), in *Key Thinkers on Space and Place*, define it more specifically as:

A period associated with the West from the eighteenth century onwards characterized by the reorganization of society through a combination of the development of a capitalist economy, the political reorganization associated with nation-states, and the pre-eminence of cultural values such as rationality and progress arising from the philosophy of Enlightenment. This gave rise to a particular social order that remained dominant in the West until the late twentieth century. (p. 495)

Modernist thought that predominated notions of the sacred, as it relates to early and modern man, was best exemplified by scholar Mircea Eliade (1957), in his seminal work, *The Sacred and the Profane*. The most important change created by the imposition



of a false dichotomy between spiritual and secular that directly affected the use and organization of landscapes was the change in the role of mythology.

Not until the several past centuries, beginning in the Western world with the Renaissance and felt most dramatically in the rise of the Enlightenment, has man created “the assumption of a spatial continuum ordered purely by mathematics and Western theories of spatial perspective,” disintegrating the cosmological framework that incorporated, as equally valuable, all ways of knowing, including the intuitive and sensorial, and denigrating the intuitive and ‘non-rational’ as the least reliable (Rogers, 2001, p. 27). As Eliade explains, it is only in modern societies of the Western world where this disintegration of ways of knowing, this divide between spiritual and secular has fully developed (1957). Whereas premodern man continues in a holistic realm of understanding the world – spirituality or religion did not exist as separate from other realm of knowledge – Modernist constructs, create only two possible types of man; religious man and secular man. Modern landscapes tended to be equally divided in purpose and function. Sacred landscapes became most completely identifiable as religious spaces separate from other kinds of learning or ways of knowing.

### **Postmodern**

Postmodern is defined as “subsequent to or coming later than that which is modern relating to or characterized by postmodernism, especially in being self-referential” (Oxford Dictionaries, 2013). Hubbard & Kitchin (2011) defined it as:

Often used to denote playful and self-referential styles of art, architecture and literature, post-modernism is a term that captures both the logic of a particular epoch (i.e. capitalism) and the methods required to make sense of this era.

Associated with a breakdown of order, rationality and assured progress, post-modern times are often taken to be typified by fluidity and flexibility; accordingly post-modern theorists argue that grand theories such as feminism, Marxism or positivism are no longer appropriate for exploring social life. Instead, post-modern thinkers seek to embrace difference and fluidity, adopting methods and writing styles that are in tune with postmodern times. (p. 497)

With a new interest in more flexible and fluid approaches to creating public spaces, a resurgence of integrated approaches to landscapes is taking center stage. As the dualities of modernity became obscured in its denouement by reactions of postmodernists, public natural landscapes that were, for a long time, used mostly as separated sources of recreation, movement, individual and yet transitory experiences, are beginning to see a resurgence of integrated purpose, including within their design, individual spiritual and restorative considerations. The structure of current communities is less dependent on a common cosmology, a shared cultural or religious paradigm, and more on the design of architects, landscape architects, planners and developers.

### **Sacred Landscapes**

Sacred communal landscapes of premodern times are known as those “shared by all members of a community” for common religious and ritual use (oxforddictionaries.com, 2013). Spaces chosen for case study review in this thesis were selected in large part because of their variation in size, location, and purpose, all functioning as spaces with potential contemplative elements and as open green spaces or public parks. As many sacred landscapes of premodern man were used for ritual and ceremony, their location and accessibility targeted specific groups of individuals. Stonehenge is an example of megalithic forms erected as a way to mark the passing of

celestial bodies, to create an astronomical observatory that was also a religious festival space where celebrations relating to celestial events took place (Eliade, 1957; Hadingham, 1984; Mann, 2010; Rogers, 2001).

Contemporary spaces of contemplation reserve some similar traits of ancient sacred landscapes but mostly without a shared religious or spiritual ideology that dictates communal use and meaning. Instead of one ideology guiding the form and function of a landscape, contemporary community landscapes provoke individual spiritual and contemplative experiences, drawing on collective symbolism. In light of research by many scholars from many disciplines, this thesis takes a similar position as Hermann (2005), that landscapes of contemporary Western society have the potential of providing contemplative benefits and even transcendent experiences that are spiritual in nature and that have the power to help individually while inviting collectively. “The relationship between community and place is indeed a very powerful one in which each reinforces the identity of the other, and in which the landscape is very much an expression of communally held beliefs and values and of interpersonal involvements” (Relph, 1976, p. 34). The creation of contemplative landscapes can aid in place creation and community identity, being centers for respite and gathering.

### **Contemporary**

*Contemporary* comes from the mid 17<sup>th</sup> century. Its origins come from the medieval Latin *contemporarius*, *con-* meaning ‘together with’ and *tempor*, meaning ‘time’ (Oxford Dictionaries, 2013). The second definition listed applies to the usage

requisite to this thesis: “belonging to or occurring in the present; following modern ideas in style or design” (Oxford Dictionaries, 2013).

Building from above definitions, this thesis could be described as fitting the postmodern time, a time when the stabilizing ideas and optimism of the modern era are dismantled and “much of the sense of rootedness in place, tradition, and conviction” is shaken (Frolich, 2000, p. 72). Some are referring to it as “past-modernism,” a time that has moved past reacting against the modern movement (Mann, 2010). It refers to a philosophy that embraces a spiritual and ecologically balanced world and recognizes an era cognizant of multiple voices rather than one metanarrative (Mann, 2010).

## **Conclusion**

Establishing context and interrelationships for the terms listed above enables a more concrete reading of the main premise of this thesis. The definitions above aim for the inclusivity of contemporary landscape architects who are looking to create spaces that can speak to the broadest range of users. This section laid out some of the most current themes and discourses on the place of spirituality in landscape architecture and known ways in which spaces can evoke the transcendent. For example, the power of sacred landscapes centers around the presence of an orientating element—the *axis mundi*—or design that provokes the mind to this higher plane of thought, providing the possibility of not just physical orientation but of inner orientation and identification within a larger community and cosmic order (Cook, 1974; Eliade, 1957; Rogers, 2001).

These definitions create relationships between what is spiritual and sacred in landscape, and how transcendence can relate to public landscapes. Spiritual is defined as

the larger umbrella term that encapsulates sacred as a component of it, which has a transcendent quality that is integral to the human experience. 'Sacred' is defined not just by contrast to other things but by what it is itself; a quality of something, discovered through contemplative beholding which allows vision of a thing not only for its form and substance but of what it symbolizes, carrying the viewer beyond to transcend the present world (Eliade, 1957).

### **Historical Overview**

The human need to connect to the cosmos was deeply connected to humankind's comprehension of order and chaos within the temporal sphere and was expressed in creation myths manifested through rites and rituals (Cook, 1974; Eliade, 1957; Lane, 2002). Sacred space provided orientation in the physical world and spiritual realm and was always present in the premodern ages of the world (Hadingham, 1984; Rogers, 2001). From the *Tree of Life* to the sacred grove, many archetypal design elements reverberated in the landscapes of peoples from the Western to the Eastern hemisphere and were consequential to their designs (Cook, 1974; Eliade, 1957; Rogers, 2001).

This historical overview establishes continuity of the use of five sets of design elements and practices in defining places of transcendence throughout historical time and geographic space, including separation from distracting stimuli, creation of a sense of vastness, the harmonious integration of spatial qualities, archetypal design elements, and orientation of the individual within a larger order. The overview of premodern, cosmologically structured sacred space; modern, desacralized and disintegrated

landscapes; and the postmodern return to seeking premodern/archetypal elements and universal spatial constructs, shows that certain design elements and spaces can not only be placed in local and temporal (cultural) contexts but can also transcend them (Mann, 2010; Rogers, 2001).

### **Premodern Paradigm**

[Sacred landscapes] flow, they produce a deep and powerful resonance that can be felt, and, above all, their power is often encoded in myths or stories that tell of ancient origins . . . In this sense, these magnificent landscapes and the myths associated with them represent an older and deeper connection we share with our world. (Mann, 2010, p. 220)

**Organizational structures of the cosmological landscape.** Throughout time and space, designed landscapes have reflected cosmological notions underlying the existential questions of humanity. Cosmological narrative, as reflected in communal landscape form, was a powerful way to symbolically express quintessential meanings that rooted societies in cosmic order (Rogers, 2001). These cosmological notions were an integration of cultural and social knowledge and beliefs, being scientific, mythic, philosophical and religious in nature, and informed place creation.

One way to begin understanding the patterns and purpose behind the physical order of sacred space in the premodern world is to first understand the organization of the premodern mind to our greatest ability. Some of this understanding comes through considering the way mythical space, a component of worldviews or cosmologies was organized. Yi-Fu Tuan (1977) distinguishes two main kinds of mythical space, distinct and common among different groups of premodern peoples. The first kind of

organization shows mythical space as an indistinct area that lacks concrete knowledge, surrounding that which is known; it is a fuzzy area framing pragmatic, or rationally-known space. The second type of mythical space “is the spatial component of a world view, a conception of localized values within which people carry on their practical activities” (Tuan, 1977, p. 91). The second way of perceiving space and one’s place in it functions as a component in a cosmology more clearly articulated and consciously grasped than the mythical space of the first kind, and is the basis for discussion of sacred landscapes in this thesis as it has more directly influenced the design of landscapes.

This latter kind of mythical space gave birth to two types of cosmologies within the premodern world. In one conception, the human body is seen as an image of the cosmos, a microcosm, while in the other, man is in the center of a cosmic frame, a world delineated and defined by the cardinal points and the vertical axis (*axis mundi*) (Eliade, 1957). It is this later oriented mythical space that is the focus for understanding sacred landscapes in this thesis, and will inform a brief analysis of premodern sites from peoples known to have functioned under this spatial frame of reference.

This spatial frame of reference is known to have been eminent in New World cosmologies (Tuan, 1977). It was also very developed from Egypt to India, China and Southeast Asia as well as beyond centers of sophisticated culture; it appears in the more simple structures of interior Asia and the Siberian plains (Tuan, 1977). The ideas of Mediterranean Africa are thought to have reached down into the cosmological understandings and structures of West Africa, affecting peoples such as the Bushmen (Tuan, 1977).

Certain general characteristics found in this type of mythical space are listed below and come from Tuan (1977, p. 91):

- (1) It is anthropocentric: man is placed at the center of the universe.
- (2) This type of oriented space organizes forces of nature and society through association with significant locations or places within the same spatial system.
- (3) It attempts to make sense of the universe through classification of its components and suggesting that there are mutual influences that exist among them.
- (4) Some kind of identity is imbued into space, ultimately creating a sense of place.
- (5) Oriented mythic space is infinitely divisible. From largest (world) scale to smallest part, such as a single shelter, it is all an image of the cosmos.

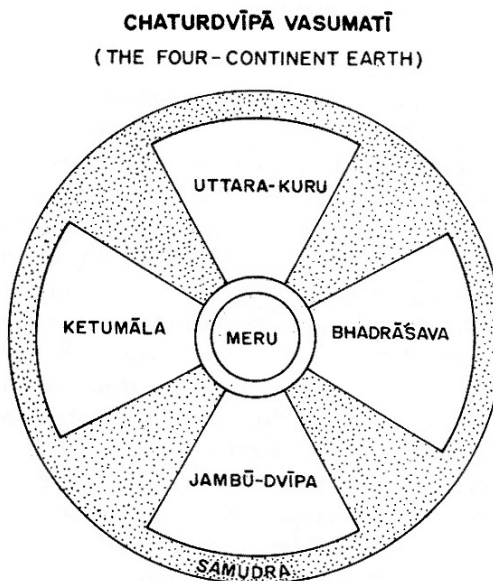
One example of mythic space enshrining physical space is that of Mount Meru.

This mountain is the metaphysical and spiritual center of the universe in Hindu, Jain, and Buddhist cosmologies. There are many guesses as to where Meru could exist in the physical world, but its location in a mythical landscape is much more important. Mount Meru is situated amid seven other mountain ranges. Four heavenly kings live midway up each of the four sides of the mountain, guarding the four cardinal directions. On the summit is the Sudarshana, home of “the highest gods—the equivalent of Mount Olympus for the Greeks and Valhalla for the Vikings” (Mann, 2010, p. 29). From the base of the mount four continents spread out to the ends of the earth, making up the physical world (Figure 2).

Although one physical Mount Meru is debated, the continued mythicization and ritualization of Meru makes it as real and present in the mind of those it inspires; yogis (male) and yoginis (female) from many religions sought and continue to seek ascent of the Mount to reach the celestial realm through rituals and trances, hoping, along with



others, to abide in a similar realm when they die. Mount Meru appears in mandalas, paintings, and diagrams that convey it as not only a symbol of the cosmos but as a map of a celestial kingdom. The city of Angkor Thom, translated as, “The Great City”, located in Cambodia, acts as a threshold between worlds—human and divine—and is the largest manmade model of the cosmos (Mann, 2010). At the heart of this space, aligned with the four cardinally oriented entrances of the city, is a temple that represents Mount Meru. There are many cultures that have their own version of Mount Meru, mountains, real and mythical, that reside at the center of the world. Some examples include, Haraberezaiti in Iran, the mythical “Mount of the Lands” in Mesopotamia, and Gerizim in Palestine, which was called the “navel of the earth” (Eliade, 1957, p. 38).



*Adapted from Sircar (1967)*

*Figure 2.* Representation of Mount Meru. The extent of the earth is organized around the position of Mount Meru.

Source: <http://www.thelivingmoon.com/42stargate/04images/Meru/map-meru.gif>

The premodern sacred spaces are structures of the mind. These structures are linked with premodern cosmological landscape form; a look into the role of archetypes in premodern landscapes delves into more of the land/mind connection through the modern lens of psychology. This lens allows an explanation of possible ways in which peoples have used the land to express deeply held paradigmatic beliefs.

As reflected in their sacred spaces, early societies made no distinction between the religious and the scientific in their use and construction (Rogers, 2001). Indeed the separation of the physical and spiritual did not exist for early peoples; being enchanted with spirits and gods, the natural world was seen also as an opening into an eternal realm (Eliade, 1957). The role of spirituality throughout the ages suggests that these early societies found that knowledge most worthy of gaining was obtainable through contemplation, intuitive and imaginative channels and “communicable only through poetic image and metaphor” (Sandercock, 1998, p. 59). This kind of holistic cosmology was reflected as basic characteristics of sacred space (Devereux, 2001, p. 24):

- (1) Must be set apart from routine experience;
- (2) Must have historic associations that remind one of the experiences of the holy had by others in the past;
- (3) Must be so structured as to direct minds towards non-ordinary states.

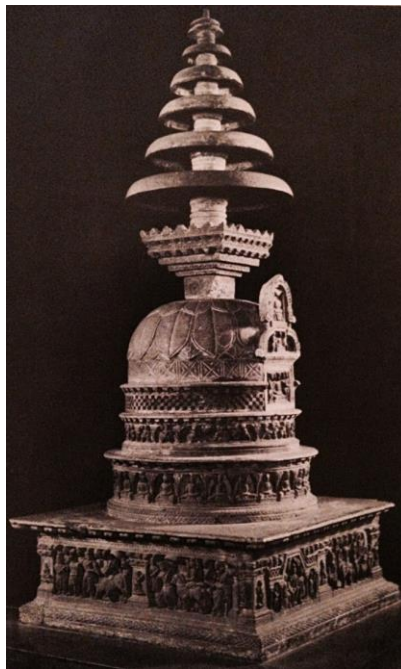
Carmichael, Herbert, Reeves, and Schanche (1994), in *Sacred Sites, Sacred Places*, summarized other broad similarities in the nature of traditional sacred sites around the world: “Over and over again these sacred places are connected with or are, what the Western world classes as ‘natural’ features of the ‘landscape’, such as mountain peaks, springs, rivers, woods and caves” (Carmichael et al., 1994, p. 24). Also, the term “thin

spaces” describes the Celtic concept defined as “the narrowness of the line that divides this world from the next, usually found in the wild landscapes and known to this day in places like the Isle of Iona” (Bradley, 2010, p. 37). They are places where the natural and the supernatural meet, where the thinness of the veil of separation produces intense feelings of closeness to a world beyond.

Premodern sacred spaces and landscapes were also often spaces through which to travel as though on a microcosmic journey, either of actual ascent or symbolic; one progressed through physical space into increasingly sacred or inspiring spaces (Cook, 1974; Nibley, 1992; Rogers, 2001). The desired final state of mind was the same as identified by Wilber (2007) in his levels of consciousness, that of a transpersonal state. To briefly illustrate, a garden of transcendence that follows a journey motif would likely include an initiatory space that removes one from the outside world. The overall creation of a microcosm through scale and form would challenge one to think beyond the physical realities of the space (Messervy, 1990). It would include a path that can, through its size and composition, flow and change, create different paces, a sense of endlessness and/or of immediacy, an all-encompassing sense of the presence of the landscape. These intermediate paths usually lead to spaces that are increasingly captivating and that direct attention, ultimately bringing the individual through to destination spaces of rewards (focal points and views). This type of journey space is almost always enclosed in some way, containing within it sub-enclosures that can further divide the interior spaces (Messervy, 1990).

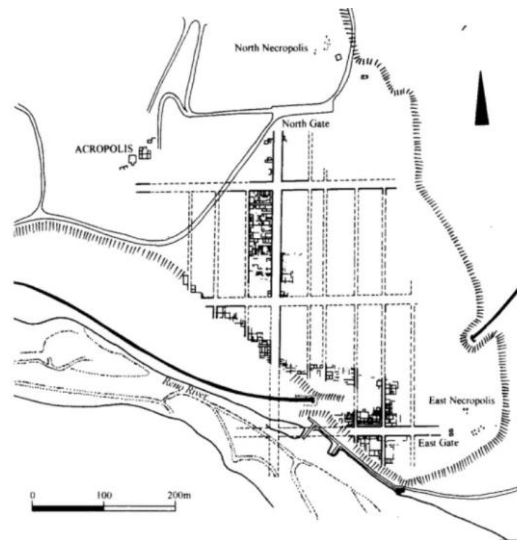
**Archetypal design elements.** Here reoccurring archetypes most prevalent in the reviewed literature are discussed, including their meanings and uses in revealing and concealing mythical and cosmological meanings. This thesis explores their use as archetypal design elements through brief discussion of examples illustrating how they are incorporated into design. They are: *axis mundi*, celestial bodies, holy waters, sacred grove, the cosmic mountain, sacred stones, and caves.

*Axis mundi* – the function of orientation in relation to transcendence. The *axis mundi* is represented across cultures as a tall vertical element – pillar or pole, tree or center axis of a built structure or mountain – that marks sacred space, differing mainly in particulars of expression (Figure 3).



*Figure 3.* The Cosmic Axis or Axis Mundi. The cosmic axis or *Axis mundi*, passes through the many planes of being (shown as flat discs) that make up the levels of the cosmos. (Cook, 1974, p. 38)

The *axis mundi* is a crucial concept for the premodern mind (Cook, 1974; Devereux, 2001; Eliade, 1957; Mann, 2010; Rogers, 2001). “Projected outwards into the world it provided a point of reference in time and space as well as helping to augment tribal identity; projected inwards it provided an image that structured the cosmology of a people” (Devereux, 2001, p. 33). Vertically, it is a cosmological anchor in the transcending orders of sacred knowledge and meaning (Eliade, 1957). As a path to the heavenly realm and the supernatural, the *axis mundi* is a “cleavage in space,” revealing the “pre-eminently real” or the “superabundance of the real” of a transcendent cosmology (Eliade, 1957). For example, the *axis mundi* marks the vertical point from which horizontal space is organized. It informed the layout of Etruscan cities and the Romans adopted this practice from them (Figure 4) (Devereux, 2001). The Etruscan town of Marzabotto, Italy, dating from the late sixth century BCE, had a rectangular town-plan



*Figure 4.* Marzabotto City Plan. The Axis Mundi was the organizational point from which the design of the Etruscan City began. Source: <http://quadralectics.wordpress.com/4-representation/4-1-form/4-1-3-design-in-city-building/4-1-3-4-the-grid-model/4-1-3-4-3-the-roman-grid-towns/>

with streets crossing at right angles and blocks of houses all emanating from a central point (Figure 4).

The function of the “cosmic center”, or *axis mundi*, espoused by Eliade (1957), is that of necessary corollary to the division of reality into the sacred and the profane. The sacred contains all value and the world gains purpose and meaning only through hierophanies (Eliade, 1957). Hierophanies are “breakthroughs of the sacred (or the ‘supernatural’) into the world” (Eliade, 1963, p. 6). “In the homogeneous expanse of the profane, in which no point of reference is possible and hence no orientation is established, the hierophany reveals an absolute fixed point, a center” (Eliade, 1957, p. 21). This center abolishes the “homogeneity and relativity of profane space,” as it becomes “the central axis for all future orientation” (Eliade, 1957, p. 21). As such, the *axis mundi* acted as the primary ordering element in religious and social community (Eliade, 1957). The *Tree of Life* is seen as a representation of the *axis mundi* spanning countless cultures and geographic locations. As explained by Devereux, “the tree, whether in its native state or as a pole or post, is the *axis mundi* par excellence” (2001, p.102).

*Celestial bodies.* The use of celestial bodies to orient a culture or people spiritually as well as physically is prevalent throughout time and history. Eliade (1957) speaks specifically of the role of the sun and the moon in providing orientation in many different premodern religions. Celestial bodies were often associated with deities and expressed symbolically in temples and other centers of worship (Eliade, 1958; Nibley, 1992). Stars for example, wholly informed the identity of the Skidi band of the North

American Pawnee (Figure 5). Beliefs regarding the stars above influenced the band's mythology, ceremonies and social order (Hadingham, 1984). Not only did the Skidi believe that certain stars represented supernatural beings who continued to have relationships with those on Earth, they also used their extremely ordered cosmology as a blue print for the organization of villages said to have been laid out duplicating the positions of the greatest of the star gods (Hadingham, 1984).



Figure 5. Pawnee Star Map. Source: <http://physics.gac.edu/~chuck/astro/archeo.html>.

*Holy waters.* Water has many ways of presenting itself in the world, and many of these forms take on spiritual interpretation, lending the same archetypal resonance found in trees, caves, and peaks (Devereux, 2000). Water is the symbol most closely associated with life and birth, manifest in the rites of baptism in Christianity and sacred bathing in Hinduism, for example (Eliade, 1957). According to Eliade (1957), waters are the “spring and origin, the reservoir of all the possibilities of existence; they precede every form and support every creation” (p. 130). For example, the act of an individual or land itself coming out up from water after being immersed “repeats the cosmogonic act of

formal manifestation,” or in other words, the act of rising up as a fully formed individual entity or person (Eliade, 1957, p. 30). Water shapes land and is the element from which life gains its shape and individual form (Eliade, 1957). Immersion in water, as Eliade (1957) points out, is another archetypal idea that expresses the opposite, or the dissolution of forms.

The fountain is a major symbolic element resting exactly at the center of the *axis mundi*, usually issuing forth from the ‘sacred mountain,’ and is the source of the four sacred rivers (Cook, 1974). Seen in the fountain design in the Court of the Lions at the Alhambra, a fountain stands at the court center with four water channels in crucifix form (Figure 6) (Rogers, 2001). The use of four rivers to mark the four cardinal directions emanating from the *axis mundi* is also found repeatedly in representations of cosmic order (Cook, 1974).



*Figure 6.* Court of the Lions. Sacred Mountain and sacred rivers intersected by the axis mundi. Alhambra, Spain. Source: [https://c1.staticflickr.com/9/8087/8533663249\\_e228bf494a\\_o.jpg](https://c1.staticflickr.com/9/8087/8533663249_e228bf494a_o.jpg)





*Figure 7.* Osun-Osogbo Sacred Grove. The archetype of “sacred grove” is present in Nigerian mythology as well. The Osun-Osogbo Sacred Grove is dedicated to the fertility goddess in Yoruba mythology. Source: [http://upload.wikimedia.org/wikipedia/commons/1/17/Rio\\_Osun.jpg](http://upload.wikimedia.org/wikipedia/commons/1/17/Rio_Osun.jpg).

*Sacred groves.* Eliade (1958) discussed at length the reasons for ancient tree veneration in his work, *Patterns in Comparative Religion*, citing examples of symbolism and practices from all parts of the globe. The tree represented a great source of power to the mind of early man because it symbolized the universe. Nature and symbol were directly connected, inseparable. As Eliade (1958) stated, “No tree was ever adored for itself only, but always from what was revealed through it, for what it implied and signified” (p. 268). Through their natural cycles plants grow, shed leaves, and then grow again after a state of dormancy. This cycle of life and death was, to early man, the whole cosmos, not just a symbol of it. It was the cosmos exactly because it recreated it (Eliade, 1958). The tree however, maintained its natural characteristics and presence, never being reduced to just an abstraction (Eliade, 1958). Many early peoples revered trees as gods or as symbols of gods (Figure 7). The Druids of Wales worshipped in groves and

venerated especially the oak tree. This worshipping of the oak was a cultural adaptation from the Romans; the oak being a sacred symbol important to Zeus (Mann, 2010).

*The cosmic mountain.* The first temples of ancient nomadic societies were out in the open, framing the heavens. The vault of the sky was home to gods and divinities. Peaks were the meeting place of heaven and earth and gave support to the heavenly vaults (Mann, 2010). When agriculture developed, humanity began to settle, creating cities and temples. Pyramids became sacred mountains and their vaults re-creations of the heavens (Mann, 2010). As such, these early structures were observatories and sacred sanctuaries. The process of ascending the sacred mountain was the literal and symbolic process of journeying toward the home of the gods. According to Jung, “the mountain stands for the goal of the pilgrimage and ascent” (Covell, 1980, p. 219).

Creation myths of early cultures identify the Earth’s revolving axis as the ‘navel of the world’ (*axis mundi*) because celestial bodies appeared to revolve around the North Pole Star (Devereux, 2001; Mann, 2010). This star functioned as a celestial “tent pole,” remaining fixed no matter where they traveled, linking the heavens above and earth below, providing a path for the gods to descend to earth and by which humans could ascend to the realm of the gods (Devereux, 2001; Mann, 2010; de Santillana & von Dechend, 1977). Mountains therefore, are revered because they provided an access axis to the world above, their commanding presence and permanence echoing the timeless nature of the divine realm (Figure 8). Sacred mountains found in myths



*Figure 8.* Mount Olympus. Mount Olympus is the highest mountain peak in Greece and was once regarded as home of the Greek Gods. No conflict existed regarding multiple spots as ‘the center of the world’; the symbol of earth’s *omphalos* (navel) stone operated in a number of locales at once in ancient Greece. Source: [http://upload.wikimedia.org/wikipedia/commons/8/85/Greece\\_Mount\\_Olympus\\_%281%29.jpg](http://upload.wikimedia.org/wikipedia/commons/8/85/Greece_Mount_Olympus_%281%29.jpg)

across the world take various shapes such as mountains surrounded by rivers or a large body of water, and volcanoes providing a link to the underworld (Mann, 2010).

Regardless of form, they are ubiquitously places of revelation, the place where Moses received the tablets of God’s law and where Buddhist and Hindu sages continue to meditate.

*Sacred stones.* The development of agriculture and domestication of animals in the New Stone Age brought a greater sense of stability and permanence. Stones are considered the first monuments (Figure 9) (Rogers, 2001). Megaliths surfaced with the retreat of the glaciers of the last Ice Age, standing upward, pointing toward the sky.

Woven in the very nature of stone is the concept of eternity. As expressed by Eliade,

“Above all, stone *is*. Rock shows [the human being] something that transcends the precariousness of his humanity: an absolute mode of being ....Men have always adored stones simply in as much as they represent something other than themselves” (1958, p. 216). Having endured spans of time that rival the brief life span of humans, stone awakens the sense of the eternal, inspiring the creation of monuments that endure many hundreds and thousands of years (Ronnberg & Martin, 2010).

Along with settlement came a host of fears. Peoples were more keenly aware of their dependence on the sun, moon and stars, whose positions in the sky were associated with seasonal patterns. They used stone to mark the cycles of the sun and moon, the cycles of the heavens that affect the conditions and seasons of Earth (Devereux, 2001). The reliance on crops and the harmony of new social organizations were all a result of cooperation with the heavens.



*Figure 9.* Nabta Playa. In the 5th millennium BCE, the stone circles at Nabta Playa may have used astronomical alignments. Source: [http://upload.wikimedia.org/wikipedia/commons/c/c9/Calendar\\_aswan.JPG](http://upload.wikimedia.org/wikipedia/commons/c/c9/Calendar_aswan.JPG)



*Figure 10.* Caves at Lascaux. Caves are linked to premodern man’s experience of ritual and transcendence. Source: <http://www.flickr.com/photos/46205805@N04/7999129077/>

*Caves.* The use of design elements that echo back to the shadowy passage of a cave space is found throughout sacred sites in the world. Old World caves such as the caves at Lascaux in the Dordogne region of France, the Cosquer Cave near Marseilles, and Chauvet Cave in the Ardèche region of the Rhone Valley, are filled with hundreds of images of animals in charcoal and vegetable dyes (Figure 10). Although there are many theories floating around about the purpose of these images, it is generally believed that they were allied with some sort of religious practice (Rogers, 2001). Their placement within caves links these images to the realm of the human unconscious, with its “well-established repertoire of archetypes” (Rogers, 2001, p. 29). Also, those who made such cave art and those who continued to revere it, seem to have been sensitive to the spatial aspects of the caves, taking into account the routes leading to them to inform their placement. The design of both the external space leading up to the caves and the

interior chambers give a strong impression that there was a corresponding strength of ritual experience as one progressed into the inner chambers (Rogers, 2001). As Devereux (2001) expressed:

The cave is archetypal: the entrance to the underworld, the liminal place where light ends and eternal darkness begins. The cave is a metaphor: it is the womb of the Earth, yet the gateway to the realm of the dead; it is the threshold between the warmth and sounds of day and the chill silence of a cavernous night; it is the boundary between the living world of humanity and the mysterious dark realms of the shades and of the shaman; it is the passage between waking consciousness and the dark deeps of the unconscious mind... No wonder the shamans and sorcerers of the Ice Age conducted their rituals and vision-quests in such places. Perhaps we can catch the spirit of the paleolithic paintings by thinking of them as frozen visions left on the walls of prehistory, the collective unconscious of humanity (p. 87)

**Orientation of individual within larger order.** Sacred landscapes provided spiritual and physical orientation, necessary to moving toward a transcendent state (Krinke, 2005; Wilbur, 2006). The function of orientation in relation to transcendence is described below.

*Elements of orientation.* Repeated characteristics within sacred spaces of premodern times include one or many of the following: alignment with celestial bodies; alignment with the cardinal directions; incorporation of built elements that focus attention on outside elements of alignment, such as alignment with sacred landforms; the *axis mundi* expressed in a variety of forms, such as a tree, pole, column, central temple axis, etc. (Cook, 1974; Eliade, 1957, 1958; Hermann, 2005; Rogers, 2001). Through contemplative beholding during rituals and rites spiritual orientation was possible (Hermann, 2005; Krinke, 2005). Separation from day-to-day reality, to draw the mind to

focus on questions of purpose and beholding the wider expanse of one's connection to the cosmos, provided a sense of identity and purpose (Eliade, 1957; Rogers, 2001).

A wide range of examples of premodern cosmologies that provide orientation is expressed in the landscape (Rogers, 2001). Astronomical landscapes – those linking structures on land with celestial bodies – are thought to have occurred across ancient Greece (Devereux, 2001). It is theorized that Grecian temples were aligned with their appropriate constellations, their placement on Earth dictated by the location of stars whose stories bore considerable weight on the cosmological understandings of the people (Devereux, 2001).

As stated by William Lethaby (1974) in his book, *Architecture, Mysticism and Myth*, the “perfect temple should stand at the center of the world, a microcosm of the universe fabric, its walls built foursquare with the wall of heaven” (p. 53). While the earliest conception of earth was round, the earliest conceptions of the universe were square, or cubic (Mann, 2010, p. 169). This perception of the cosmos as square is found in the original Latin word for “paradise,” which comes from the original Iranian for “walled enclosure” (Mann, 2010, p. 169). Sacred buildings were universally attuned to the four cardinal directions with entrances aligned with the rising sun in the East and the setting sun in the West. Many sacred structures also aligned and oriented with planets and various constellations. For example, the three large pyramids of Giza are thought to be placed in the landscape to mirror the constellation Orion (Mann, 2010).

Carvings found in the Boyne Valley, Ireland (5,000 years old) have precise orientation and a relationship to each other with astronomical meaning, making up, as

Martin Brennan (1980) said, “an entire cosmology, vocabulary of symbols, sundials, calendars, and other scientific tools of the oldest culture known in Ireland” (back cover). The ancient kings of Ireland ruled on the Hill of Tara and were found in 1699, buried in the Boyne Valley. Newgrange, the largest of the burial mounds, is oriented in relation to Nowth and Dowth, the other major mounds in the valley. The long stone shaft of Newgrange along with a large stone close to its entrance, align with the sunrise of the winter solstice (Hadingham, 1984). Other stones located around the outside of Newgrange mark other cosmic alignments.

Mounds create a large circle around the Boyne Valley, with an approximate twenty-mile radius, and could have been sited so accurately and precisely only with the knowledge to measure accurately both distance and time (Mann, 2010). Some theorize that the entire landscape of Ireland was surveyed five thousand years ago, explaining why so many stone circles, cairns, and standing stones are located long the intersections of specific landscape lines (Mann, 2010). These findings lead to the possibility that Boyne Valley and other sites in the United Kingdom were used as other prehistoric burial places were: as scientific instruments (Mann, 2010).

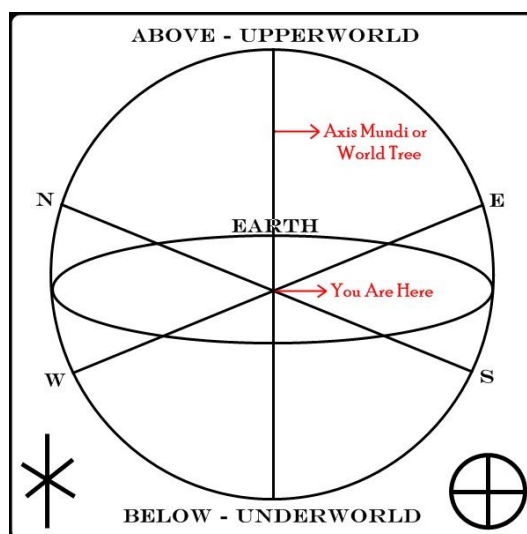
### **Universality in Spatial Constructs**

As previously discussed in defining *cosmology*, the psyche of the premodern man is rooted in spatial constructs that relate to our “upright posture, directional movement, desire to place ourselves in space in ways that are imbued with societal meaning, and our yearning for connection with the infinite and eternal” (Rogers, 2001, p. 26). Myths and spatial forms of premodern societies contain striking similarities and universalities



(Cook, 1974; Eliade, 1957; Hadingham, 1984; Rogers, 2001). One way the framework for the way in which peoples answered the age-old questions of who they were and why they were here is reflected in landscape in the form of archetypes that give form and order to abstract ideas. Archetypes, as Carl Jung states, “symbolically express quintessential meanings and cannot be directly identified by the conscious mind, so find expression in myths” (Rogers, 2001, p. 28).

Centering earth in the universe, and a society or people on the planet, for example, were fundamental constructs in many early cosmologies. Jung’s four states of perceiving (thinking, feelings, intuition, sensation) become the archetype of quaternity expressed in the four part circle and four cardinal directions found in landscape constructions of many cultures (Figure 11) (Rogers, 2001). The three vertical strata



*Figure 11.* Axis Mundi and Cardinal Directions. The *axis mundi* creates the vertical center and intersects the cardinal directions. Source: <http://forestgrove.files.wordpress.com/2010/08/circle-casting-diagram1.jpg>

represented as the *axis mundi*—the celestial strata, the underworld, and a terrestrial middle plane—intersect the cardinal directions, becoming the center from which four principal directional axes diverge along a 360 degree horizon line, in line with the movement of celestial bodies. The *axis mundi* is the vertical expression of the center, “the pillar of the universe which, as it were, supports all things,” from which they organized physical space as well as beliefs and cultural identity (Eliade, 1957, pp. 34, 35).

In their most elemental displays, reoccurring symbols of orientation and the cosmic structure, as described by Eliade (1963), take shape as the cosmic mountain, holy waters, thresholds, sacred stones, caves, and the *Tree of Life*. The most elemental sacred landscapes are microcosms, landscapes of stones, water, and trees, imbued with mythic, religious, scientific, and philosophical meaning, all forming a notion of sacred. This notion of sanctity in the natural world, within earth and sky, was culturally pervasive, continuing in some contemporary cultures, and gave birth to the idea of *genius loci*, spirit of place (Rogers, 2001).

### **Conclusions on Premodern Paradigm**

The cosmologies and mythical landscapes of premodern peoples influenced, sometimes minutely, the organization and structure of landscapes. Alignment with celestial bodies and the cardinal directions influenced and sometimes dictated the location of centralized places of worship and ritual within the larger context of community. These structures and alignments called into remembrance mythical time. As

Mann (2010) describes it, “experiencing sacred landscapes is like being present at archetypal realities that occurred at the beginning of time and that continue to repeat *ad infinitum*, if only in the collective imagination and our psyche” (p. 6).

Many of the archetypal design elements and symbols continue to influence the way sacred spaces are identified and created. The following section, “Modern Paradigm,” illustrates the ways in which these early conceptions of place and time, cosmic structures and definitions of sacred landscape have changed and in what ways meanings have transcended time.

### **Modern Paradigm**

Modernity is the period of time associated with the Western world from the eighteenth century onwards, focused on embracing the cultural values of the Enlightenment, namely the rationality and progress of humankind. The best commentary on the role of sacrality in the Premodern and Modern eras, specifically the role of myth and its shift from communal to individual importance, comes from Mircea Eliade (1957). Understanding the role of myth in the Modern Era will elucidate the continued evolution of thought on the design spaces that have the potential of provoking contemplation and transcendence.

**Division of spiritual and secular.** Not until the several past centuries, beginning in the Western world with the Renaissance and felt most dramatically in the rise of the Enlightenment, has man created “the assumption of a spatial continuum ordered purely by mathematics and Western theories of spatial perspective” (Rogers, 2001, p. 27). This change in thought disintegrated the cosmological framework that incorporated, as equally

valuable, all ways of knowing, including the intuitive and sensorial, and demoted the intuitive and ‘non-rational’ as the least reliable (Rogers, 2001). As Eliade (1957) explained, it is only in modern societies of the Western world where this disintegration of ways of knowing, this divide between spiritual and secular has fully developed. Whereas premodern man continues in a holistic realm of understanding the world – spirituality or religion did not exist as separate from other realm of knowledge – modernist constructs create a division: religious man and secular man. Just as the pattern of cosmological understanding is reflected in designed landscapes of non-Western peoples, we see reflected in the modern Western landscape this separation and devaluation in the fabric of public landscapes (Sennett, 1990). In fact, the presence of a type of premodern communal landscape is scarce. Instead we see public space, separated and often neutralized, having found expression in the modern Western phenomenon of “placelessness” (Relph, 1976).

The understanding of sacred space within modern constructs relies heavily on the contrasting and opposing force of the secular. This is a world of binary definitions – a two-space idea. As the modern paradigm continued to change and shift, the ideals it espoused became more and more problematic, specifically in regards to a pure separation of the more intuitive and other sources/forms reflected within landscape architecture as highly segregated and secularized landscapes.

The most important change created by the imposition of a false dichotomy between spiritual and secular that directly affected the use and organization of landscapes was the change in the role of mythology. This change most dramatically shifted the

importance of the collective to the individual. “Degenerated mythologies,” as Eliade (1957) called them, are a direct product of not only a lack of ritual and rites woven into landscape and modern nonreligious constructs, but are directly affected by modern man’s “private mythologies” – dreams and reveries (p. 211). Modern man limited these ‘private mythologies’ to his nonreligious realm, which left him without the power of the religious paradigm to help him. Religion according to Eliade (1957), provides the paradigmatic solution to every existential crisis for two reasons: one, because “it is believed that the paradigmatic solution has a transcendental origin and hence is valorized as a revelation received from an other, transhuman world”, and two, the paradigmatic solution can be repeated an infinite amount of times (p. 210). Also, the private experiences of each individual do not always add to a collective experience or consciousness, to a shared cosmology.

**The desacralization of nature.** The desacralization of nature is not a phenomenon unique to the Western world, but has been found within its bounds in unprecedented ways with the rise of Modernism (Eliade, 1957). This is not to say every individual experiences desacralization, or suddenly; desacralization comes in degrees (Eliade, 1975). Experience of a totally desacralized nature is a phenomenon only experienced by a few. According to Eliade (1957) only a portion of modernists, those entirely scientific, have experienced the “complete secularization of nature” (p. 158).

Part of this high degree of desacralization specifically in public landscapes, is due to an unprecedented repurposing; there is little need by modern “nonreligious” man for ritual performance space. Religious behavior, a need for ritual and rites, still exists but is

found in secular forms and shadows, imitations of the religious (Eliade, 1957). While total desacralization of nature is not yet apparent in the world, a shift in perception, brought upon the world through the modern age, can alter cosmic sanctity to the point that it resembles human emotion instead. For example, Eliade (1957) commented on how in the Far East, the term “esthetic emotion” is applied to miniature gardens, representations of the cosmos (p. 154). These gardens are, in the Taoist mind, the complete, perfect place, combining mountain and water with solitude. They are microcosms of the world and Paradise (Eliade, 1957). The term “esthetic emotion” continues to carry a religious or spiritual dimension in the Far East, even among sectarians. But as Eliade (1957) finds, “we need only imagine what an esthetic emotion of this sort could become in a modern society, and we shall understand how the experience of cosmic sanctity can be rarefied and transformed until it becomes a purely human emotion—that, for example, of art for art’s sake” (pp. 154-155).

**A lasting view of transcendence.** The insistence on a lasting view of the transcendent manifests itself, as mentioned, in the midst of modernity, in the idea of the ‘numinous’ – a mystery (*mysterium*) that is both terrifying (*tremendum*) and fascinating (*fascinans*) – that sought to define spiritual and transcendent experience, presented by Otto (1917) and further developed by Eliade (1957). The idea of the ‘numinous’ set up a framework for the study of religion focused on the need to realize the religious as a nonreducible category worthy in its own right. This paradigm came under attack between 1950 and 1990 but made a strong comeback, after its worth as a

phenomenological argument became more apparent, and was written about in Karl Rahner's (1978) presentation of man as a being of transcendence.

The exploration into the role of the transcendent in the life of man continued on the edges of Modernism. The two types of mythical space (Tuan, 1977), as previously discussed—an indistinct area that lacks concrete knowledge, surrounding that which is known, and a mythical space that functions as a component in a cosmology more clearly articulated and understood—continued to exist for individuals and groups of people in the Modern Era as there will always be areas of the “hazy known” and the unknown in the human consciousness, and because it is likely that there will always be those in pursuit of understanding humankind’s place in the natural world in a more holistic way (p. 86).

Understanding and engaging the universalities of elemental archetypes could help re-envision and re-imbue public landscapes with symbolism through which the human mind still finds organization and meaning even in the face of abiding Modern constructs. Seen in the resurgence of spaces of contemplation and meditation in the Western world, elemental forms have the power to form the foundation of individual cosmologies, called for by the nature of our highly individualized societies. These spaces have the potential to teach us how to reweave strands that form rich fabrics of integrated knowledge and meaning into landscape experience. These elements can ground us in the ancient and needed role of existential storytelling in the landscape, acting to reflect us to ourselves (Potteiger & Purinton, 1998).

One rare example of a transcendent landscape built successfully in contrast to the modern spatial constructs of its time, is the Woodland Cemetery in Stockholm, Sweden.

The Cemetery, begun in 1917, draws on elemental archetypes to create a space of contemplation, meditation and possible transcendence. Woodland Cemetery is created on existing forest landscape. An arrangement of carefully selected design elements is inserted within, to create “a symbolically charged, nearly all ‘natural’ landscape” (Hermann, 2005, p. 49). The use and arrangement of fountains, aged stones, and trees that align visitors with the four cardinal directions, are consciously applied to enhance the contemplative nature of the public space. These design elements today, as theorized and supported by Jung (1969), Eliade (1957), and many other religious and archeological scholars, continue to draw the modern mind to existential questions, those cosmological ponderings.

### **Conclusions on the Modern Paradigm**

The mind of modern man greatly shifted from its former reliance on an integrated way of knowing so thoroughly evidenced in the premodern cultures around the world, to rational and irrational, secular and religious constructs. The rise of dichotomy in Western thought between the secular and the spiritual disintegrated ways of knowing, favoring the scientific over the intuitive, the secular as more reliable and valid than the spiritual and religious, seen as irrational and emotion-based.

This segregation was mimicked in the landscape and created many public spaces devoid of contemplative qualities, beneficial for those seeking not only contemplation and spiritual connection, but also mental rejuvenation and restoration in the growing cities of the Western world. The end of the strong modern movement saw, among other things, a new interest in holistic approaches to ways of knowing and creating spaces. The



power of Woodland Cemetery's use of archetypal design elements shows that universals of the collective unconscious still prove powerful to the modern mind, opening a world of design possibility for landscape architects.

### **Postmodern Paradigm**

The absolutisms of modernity became obscured in its denouement by reactions of post-modernists; the world began to find that “a purely rational man is an abstraction; he is never found in real life” (Eliade, 1957, p. 209). Public and natural landscapes that were, for a long time, used mostly as separated sources of recreation, circulation and transitory experiences, began to see a resurgence of integrated purpose, including spiritual and restorative considerations within their designs. Though the Western world is now removed from many of the beliefs that informed place-making in premodern times, the very archetypal nature and power of these spaces allow us to still draw meaning from their forms. There is a role for understanding contemporary layers and interpretations of archetypes reflected by narrative in the landscape form. This section explores how the incorporation of strategies for contemplative space design, as identified by Hermann (2005) and others, can aid in creating centers of gathering, meditation, and contemplation.

**Unique role of transcendence in postmodern landscapes.** Eliade (1969) posed the question, “what are the possibilities of a demystification in reverse,” an effort to recapture the mystery of divine presence in landscape without returning to a pre-critical naïveté with its “...enchanted enclosure of consciousness” (p. 126). The recognition that the power of knowledge gained through myth or archetypal symbol is not entirely

available to outside analysis or understanding can help in the search for answers. That is, the symbolism of myth can never be fully understood by reducing it to one mode of explanation or form of knowledge, like the scientific. As Belden C. Lane (2002) describes in his book, *Landscapes of the Sacred*, “this is because, in the most basic sense, myth that is understood is no longer myth. That which we analyze with thorough objectivity—turning into psychology, history, or social geography—has ceased to exercise any formative power on us” (p. 24). When myth is studied from a purely secular/objective point of view, as Campbell (1968) says, “the life goes out of it” (p. 249). Yet Lane (2002), Eliade (1957), and Campbell (1968) believe the same quest for a mythical sense of empowered space continues, if retained only in the private, unconscious dreams of the modern individual.

Paul Ricoeur’s (1967) answer to how to better respond to this quest for a mythically empowered space is found in changing the role of myth in ‘nonreligious’ man’s mind. “The dissolution of the myth as explanation is the necessary way to the restoration of the myth as symbol” This change would reinstate the myth as a symbol for answers or meanings that may be entirely personal (Ricoeur, 1967, pp. 347-357). So, as Eliade (1969) stated:

Let us repeat... that symbols never disappear from the reality of the psyche. The aspect of them may change, but their function remains the same; one has only to look behind the latest masks.... The life of modern man is swarming with half-forgotten myths, decaying herophanies and secularized symbols.... They are of no less interest for all that. These degraded images present us the only possible point of departure for the spiritual renewal of modern man. It is of the greatest importance... to rediscover a whole mythology, if not a theology, still concealed in the most ordinary, everyday life of contemporary man; it will depend upon

himself whether he can work his way back to the source and discover the profound meanings of all these faded images and damaged myths. (pp. 16-20)

It is not, then, that these archetypal symbols have disappeared – that would, in fact, contradict their very nature – or that experiences with the transcendent are less desired, but perhaps that because of our worldview in the contemporary age, most of us are unaware of the original archetypal power or our disconnection from the source of what imbued these images with so much lasting importance. And as Eliade (1957) believes, perhaps the modern age requires a personal journey of rediscovery. Making landscape architects aware of the nature of these images, their history and potential as design elements that have perhaps been overlooked and secularized can help create spaces of more symbolic harmony and transcendent power.

In the postmodern paradigm, landscape architects can find ways to continue to access the contemplative and spiritual power of archetypal images and design strategies through the medium of landscape to aid in the creation of landscapes of contemplation and transcendence. Jung's (1969) theory on the role of archetypes and the collective unconscious, paired with a grouping of design strategies, teased out from this historical overview and further examined below, will elucidate ways in which landscape architects can incorporate elements that create spaces of contemplation and that can ultimately render spaces sacred for those who access their full transcendent capacities.

**Spirituality in the larger context.** Transcendence is a spiritual need that, by definition, results in some form of revelation or enlightenment, new understanding or knowledge. Some scientists of the Modern Era, such as Albert Einstein, revealed that

they obtained knowledge and insight through more ways than the rational mind. Einstein writes “only intuition, resting on sympathetic understanding, can lead to discovery; that daily effort comes from no deliberate intention or programme, but straight from the heart” (Sandercock, 1998, p. 59). With continued interest in more spiritual ways of knowing, many scientific centers have been created at prestigious institutions over the past few years and are supported by grants. For example, the University of Pennsylvania created in 2005 a “Center for Spirituality and the Mind”. The first study, announced in 2009, examines the effect of meditation on early cognitive impairment (PENN). The University of Wisconsin developed the “Body-Mind Center” in 1999 with a \$10.9 million dollar grant from the National Institute of Mental Health to study “how emotional, psychosocial, and neurobiological factors interact to influence unfolding profiles of physical and mental health, in both human and animal models” (University of Wisconsin Body-Mind Center website, 2013). The *Academy of Neuroscience for Architecture (ANFA)* was created by the AIA in 2003 (ANFA).

In the recent analysis of entries to a survey on extraordinary architectural experiences entitled, “Extraordinary architectural experiences; comparative study of three paradigmatic cases of sacred spaces: the Pantheon, the Chartres Cathedral and the Chapel of Ronchamp,” by Julio Bermudez & Brandon Ro (2012), the largest number of individuals to be polled (nearly 2,900) about such experiences answered questions about the nature of these experiences. A majority of those polled chose the same adjectives to describe the EAEs they each had. Specifically, English- and Spanish-speaking participants were asked to choose the top four descriptions of their extraordinary

encounters. They agreed on these characteristics, despite geographic, cultural, and language differences. They agreed the EAEs are “strongly *pleasurable* and *emotional* events that provide immediate access to the *timeless* nature of *physical*, *sensorial*, and *perceptual* reality – and not at all ‘analytical or intellectual’ events” (Bermudez & Ro, 2012, p. 691). Bermudez and Ro concluded that “in the right conditions, architectural atmospheres can and do become gateways to transcendental experiences” (2012, p. 691).

These findings raise important questions about how landscape architecture can contribute to renewed interest in extraordinary, spiritual, and transcendent experience in a wide range of contributing disciplines. Some important questions for landscape architects to consider include: What are the implications of Bermudez and Ro’s findings for landscape architecture? What are the opportunities unique to landscape architects in understanding the real potential for deep spiritual encounters in contemplative landscapes? And how could we incorporate key elements and design strategies to provide the possibility of contemplation when a site’s main purpose is something else? These questions are further addressed in the ‘Conclusions and Findings’ chapter.

**Restorative and contemplative spaces – areas of overlap.** While much research has been done over the past 25 years on restorative environments, pioneered by Rachel and Stephen Kaplan, Roger S. Ulrich and others, the scholarly research on contemplative landscapes is slight (Krinke, 2005). Landscape architects largely know about findings of perceptual studies performed by the Kaplans, yet the connections between restorative and contemplative spaces are less examined.

Restorative landscapes are found to create measureable positive changes in physical and /or psychological human health (Krinke, 2005). Some interesting findings of Kaplan and Kaplan include that there is a measure of restorative quality in the landscape, and that the highest quality of the restorative landscape promotes the highest level of restoration (Kaplan & Kaplan, 1989). This type of high quality restorative environment is not described per se by the Kaplans, though they talk about the ‘sacred groves’ of the ancient world and its philosophers as being a good place to start that exploration (Kaplan & Kaplan, 1989).

The Kaplans lay out four levels of development in a restorative experience, each level requiring an increasing amount of time. The first level is “clearing the head,” the second “the recovery of directed attention,” the third “the recovery of cognitive quiet,” and the fourth level is “reflections on one’s life” (Kaplan & Kaplan, 1989, pp. 196-197). Kaplan and Kaplan (1989) reported never suspecting this fourth aspect of restoration to manifest itself so apparently in their findings. Their levels of development in a restorative experience support Wilbur’s (2006) theory that the contemplative experience is last in a series of developments. Though his is a spiritual scale rather than a restorative one, both theories point to the ultimate place of arrival as a transpersonal awareness (Kaplan & Kaplan, 1989; Wilbur, 2006). More directly related to this thesis, these four levels of restoration lead to a similar purpose and shape some of the same necessary strategies behind successful landscapes of contemplation that provide the possibility of the transcendent (Hermann, 2005).

Research by Kaplan and Kaplan (1989), with an examination of the work of Hermann (2005), Krinke (2005), and others, shows an overlap of attributes of restorative landscapes with landscapes of contemplation. Through the Kaplans' perceptual studies different types of natural environments are found to be more pleasing than others, affecting the restorative potential of different landscapes. According to the Kaplans (1989) the restorative experience includes four different attributes: Fascination, Being Away, Extent, and Compatibility. These attributes overlap with the common conditions found in spaces designed for contemplation and transcendence, namely, a break in connection with the outside world, an initiatory space which transitions one from the ordinary to the fascinating, and which ultimately creates a ritual-like experience, which as mentioned, is possible namely through contemplative beholding.

**Characteristics of contemplative places that provide the possibility of transcendence.** Natural attributes and design elements all contribute to the spirituality of place. Talking specifically about gardens and the reasons behind their persistence, Robert B. Riley (1988), in his article, "From Sacred Grove to Disney World: The Search for Garden Meaning", grounds the fundamental motive behind their formation to be "a spiritual-intellectual concept, an always mental, sometimes physical, artifact expressing humans' relation not only to nature but to their gods and their universe" (p. 137). Other postmodern writers, such as Harbeson (1977), Treib (1979), and Tuan (1974) continue to see gardens as they originally were devised; "miniature recreations of the cosmos, models of an ideal world made from the stuff of the real" (Riley, 1988, p. 137). On top of all the other possible cultural, social, and psychological themes found in the garden, Riley

(1988) pointed out that the ever-present themes of life and death through the turning of seasons makes gardens a place where we can grapple with the fundamental questions of existence. The external physical garden spaces give us internal freedom to wander and feel, to connect our inner life to the pulse of the natural world. Today we see a resurgence of designers back into the gardens, “forming nature and seeking meaning” (Riley, 1988, p. 141).

In *Contemplative Gardens*, Messervy (1990) listed the sea, cave, harbor, promontory, island, mountain, and sky as archetypes that link individuals to developmental stages in their lives. She believes these developmental stages are linked to and symbolized in landscape images (Messervy, 1990). These places and images have the power to remind individuals of their first contemplative memories and thus to create a sense of familiarity and a place of paradise.

More specifically, Messervy (1990) talked about the design of gardens of transcendence, reinforcing many of the reoccurring design traits and elements Hermann (2005) discussed. Messervy added to Hermann’s (2005) design traits a well-designed path, with “incidents” along the way that creates a sense of journey, organization and intrigue. One is then able to engage in a mind journey that is both experienced in the surrounding details and the abstract. Viewing positions and focal points create places of rest and perspective, and places of arrival. Messervy (1990) also found the framing of views from the background to incorporate them into the foreground a reoccurring and effective tool. Gardens that function as spaces of transcendence are minimal and naturalistic, with plants and rocks arranged according to natural principles, so while they



may have certain dynamic elements like waterfalls and rivers, they mostly are expressed in abstract form and in another material, such as the gravel in Zen gardens representing the ocean or sea (Messervy, 1990).

**Creating postmodern and contemplative landscapes.** Part of the reason there are too few landscapes capable of creating the possibility of the transcendent is the unfamiliarity among many landscape architects and designers of the underlying principles that invite transcendence in the user and that these principles can be applied to each and every landscape project (Hermann, 2005). Two case studies conducted by Rebecca Krinke (2005), of the Bloedel Reserve and the National Library of France, also conclude that contemplative design strategies do not have to be reserved for spaces created primarily for contemplation: “It also seems clear that strategies for inducing a contemplative state can become a part of other settings, such as schools, parks, prisons, health care centers, and corporate settings, among others” (p. 136).

Part of the power behind archetypal design elements such as the *axis mundi*, was the power of the associated myths and rites. An example of a postmodern space that successfully incorporates principles of transcendent landscape design is artist Nancy Holt’s Sun Tunnels (1973-76), located in the West Desert, Utah. It is, I would argue, a place of postmodern sacrality; meaning, a place of orientation, contemplation, spiritual rejuvenation, and the possible transcendent experience (Figure 12). Primarily, Holt continued her theme of creating installations in the landscape that focus the user’s eye, creating focal points and framing views (Williams, 2011). This act of framing the surrounding desert landscape and locating the position of the summer and winter solstice

sunrise and sunset is done without any specific religious symbolism but calls very keenly on a sense of spirituality, evoked by directing one's thoughts to a larger spatial order, to a sense of orientation not only within the time of day and year, but from a location marked by a celestial body that can be seen as ageless and enduring. It would be incredibly easy to become disoriented in this remote part of the Great Basin Desert, with nothing around for miles, and within a large flat sand and salt stretch, surrounded only by distant hills and small mountains. It becomes very clear how the *axis mundi* could serve as the central organizing point in space that connects celestial organization to cardinal directions (Figure 13). The whole scene can be seen as a symbol for Eliade's (1957) long expanse of profane space, homogeneous in its qualitative value, punctuated by this one feature (the sun tunnels) that organizes and provides order through highlighting points in the sun's orbit and framing views of the desert that actually help one to see its unique forms and distinctive aspects after all.



*Figure 12.* Sun Tunnels. View looking into the center space created by the sun tunnels that align with the rising and setting sun during the summer and winter solstices. Photo by author.



*Figure 13.* Sun Tunnels Center. A round concrete pad marks the center spot of convergence of the four concrete tunnels. Photo by author.

### **Conclusions on Creating Contemporary Landscapes of Contemplation and Transcendence**

Transcendence in landscape is a relatively unexplored topic as pertaining to landscape architecture yet it is one of the fundamental spiritual needs found in humankind (ACS website, 2012; Cook, 1977; Eliade, 1957; Krinke, 2005; Mann, 2010; Wilber, 2006). Providing the possibility for encountering the transcendent by incorporating ancient design elements and strategies into landscapes means providing the possibility for healing problems of disintegration unique to the modern and postmodern age. More spaces created for the transcendent means providing access to reorientation, restoration, and personal revelation.

Contemporary landscapes of contemplation incorporate design structure and strategies to create spaces that remove users from the outside world into spaces that

captivate and direct views while facilitating movement to destinations and rewards. As discussed, these spaces would ideally incorporate high levels of all four of Kaplan and Kaplans' (1989, 1995) landscape preference factors necessary for gaining knowledge of any landscape: complexity, coherence, identifiability, and mystery.

Hermann's (2005) list of strategies and suggestions for contemplative spaces supports and distills many ancient and reoccurring design strategies and principles necessary to create the possibility of experiencing the transcendent in landscapes. These five categories of principles and strategies are grouped and named by me in the introduction to the next chapter "Case Studies & Reflective Analysis" as potentially necessary elements to design strategy. Space design that incorporates these elements would provide: unique and defining elements to the space; unique and restorative community spaces that can aid in community identity; a place of sanctity and communion other than a specified religious space; and a place of orientation. Incorporating design principles and strategies of contemplation in a variety of landscape environments will provide spaces that not only have the ability to restore, but to inspire.

## CHAPTER IV

### CASE STUDIES AND REFLECTIVE ANALYSIS

Three case studies are conducted using a combination of Hermann (2005), Messervy (1990) and Dee's (2001) guiding design and spatial character criteria to gauge the success of spaces in their capacity to bring users into a state of contemplative beholding. Spaces varying in scale, use, and designated users were chosen in the Seattle, Washington area. I visited the three sites during the late morning hours of the 13<sup>th</sup> - 17<sup>th</sup> of December, 2012. Due to time limitations visiting each site at the same time on different days was not possible. I explored Gas Works Park first for no other reason than to make best use of transportation availability. I approached this site by private car. The remaining two sites in Seattle's city center were visited in the remaining days and approached on foot. The spaces are, in order of visitation:

1. Gas Works Park (1975), a municipal park designed by landscape architect Richard Hagg.
2. Benaroya Garden of Remembrance (1998), an urban memorial space influenced by Japanese garden design, designed by the late world renowned Robert Murase of Murase Associates, Seattle.
3. Waterfall Garden Park (1978), a pocket park done in Japanese/modernist garden style, and designed by Masao Kinoshita of Sasaki Associates.

It should be noted that I was not aware of the specific design styles of the sites or their dates of construction beforehand and that the selection of two Japanese influenced designs was completely coincidental. I was also unaware of the design intent of each designer. The Seattle area and potential case study sites were selected after discussion with committee members some of whom are familiar with the Seattle area. A

concentration of potentially successful and well-known contemplative spaces, as well as relative proximity to my residence in Utah, made the Seattle area an ideal location.

Success of these sites as contemplative spaces, conducive to the transcendent experience, is measured by (1) the degree to which design elements and strategies were present, and (2) the degree to which I felt the greatest ability to reach a contemplative state, meaning the degree to which I was able to engage in directed attention to the surrounding landscape and remove my mind from distracting thoughts. The reflective analysis is integrated into the discussion of criteria and summary comments for each case study.

Hermann (2005) argued that the “contemplative state triggered in an encounter depends both on one’s degree of receptivity to the spiritual/poetic realms and on the depth and duration of one’s experience in those realms” (p. 39). I stayed at least one hour in each space as a measure of duration and exposure to each selected site. One hour allowed for the exploration and contemplative beholding of the whole of each site and time to stop, reflect and record sensations felt.

Design strategies and criteria of transcendent spaces should ultimately do one or more of the following: accommodate solitude; assist an individual’s turning inward; transcend time (arrest time); and transcend space through perceivable links between human and cosmos (Hermann, 2005). The specific design criteria selected to achieve these goals, are:

(1) Separation from distracting stimuli, measured as:

- Degree of physical removal from inside each space

- Auditory separation
- Presence of other humans
- Weather conditions

Being present in one's environment often begins with fascination with something that draws one's attention. This "effortless attention" begins the directed attention rejuvenation process, allowing one to participate in greater identification with the natural world, to engage in contemplative beholding and to ultimately feel a sense of communion and connection, the feelings that the stresses of modern life most keenly deaden (Kaplan & Kaplan, 1989).

Stephen Kaplan (2001) believes that an environment designed especially for restoration/mediation would be able to move, "even [a] relatively unskilled individual [to] something approximating meditation with comparatively little mental effort" (p. 500). Part of this design includes the ability to experience solitude, whether in actuality or as a feeling (Krinke, 2005). This state of mind might also contribute to being able to move through a space at one's own pace, pausing to gaze wherever and for however long is needed.

All of these design principles and landscape forms must work together to create a break from our normal perception of the world to be effective in creating an experience with the spiritual.

(2) Creation of a sense of vastness (Inside user and/or in the near and/or surrounding landscape), measured as:

- Framing views
- Open sky, open water, and/or open land
- Scale

- Motion
- Repetition
- Sound/Silence

### (3) Harmonious integration of spatial qualities

While the quality of design elements and the harmony with which they are integrated greatly affect the overall experience and quality of a space conducive to the transcendent, they are not unique to such spaces but serve as the foundational elements of any space that is considered well designed (Dee, 2001). These elements are considered in brief, discussed in full when their presence and/or arrangements lend a unique feel and experience to a case study site. Definitions listed below come from Dee (2001).

- Landscape fabric – defined as:
  - Description of the broader environmental and social contexts in which a design of places takes place.
  - The arrangement and harmonizing of the design elements below.
- Spaces – defined as:
  - An area of land enclosed, defined or adopted by people for human purposes
  - A medium and concept of landscape architecture
  - A place for outdoor activities
  - An enclosure
  - The ‘opposite’ of form or mass
- Paths – defined as:
  - Linear landscape spaces for travel
  - Linking forms that create networks of circulation in the landscape
  - Linear surfaced areas
- Edges - defined as:
  - The linear interface between two spaces or regions of a landscape that have different functions and/or physical characters
  - A thickened permeable ‘wall’ plane
  - A transitional or ‘in-between’ linear zone
  - A seam of ‘interlock’ in landscape
  - An ecotone



- A boundary
- A horizon
- Foci – defined as:
  - A form or centralized group of forms (often vertical) that contrast(s) with the surrounding landscape
  - A landscape form which assists orientation
  - A form that marks a place of spiritual, cultural or social significance attracting people and becoming a destination and gathering point
  - An ‘event’ in the landscape
- Thresholds – defined as:
  - A small transitional space between larger spaces or paths
  - An ‘in between’ place
  - A space on an edge
  - A landscape form that visually links one place with another
  - An entrance place or gateway
  - A place of ending or beginning, rest and anticipation

#### (4) Presence of archetypal design elements

Archetypes, specifically elemental archetypes, hearken back to ancient cosmological landscapes and gardens. While some of these design elements overlap with the broad categories of landscape elements listed above, specific arrangement of these elements and forms are discussed here in detail as they fit the role of archetype. For example, ‘threshold’ is used as both a spatial element possible of harmonious integration with other spatial elements, and as a sacred space archetype, having the power to affect users spiritually. The list of archetypal design elements below is by no means complete, yet those listed are found most readily in my literature review, repeated in ancient cosmological landscapes and proven to be some of the most elemental and universal (see Chapter III, “Premodern Paradigm”). Two other archetypes that deserve notation are the labyrinth and the path. Their prevalence and continued relevance in sacred and

transcendent space design mark them as more than eligible for further study but were not used as criteria in the selected sites. As discussed above, analysis of paths is focused on their role in creating harmonious spatial qualities. The selected archetypes are:

- Axis mundi
- Sacred grove
- Threshold
- Sacred/cosmic mountain
- Water: still, moving
- Sacred/aged stones
- The *Tree of Life*
- Sacred cave
- Celestial bodies

#### (5) Orientation of Individual

Four different ways to orient users within spaces of contemplation are laid out by Hermann (2005). All four of these forms of orientation are used as criteria in case study analysis.

1. Reorientation upon entering grounds to affect visitors spiritually. This form of orientation would simply include some sort of preparatory/transitional space leading up to the designated space sought by the user. The presence or absence of such a space is noted for each case study.

2. Enhancing orientation through linkages and transitions on site. Within the contemplative space, linkages and transitions are used to gauge orientation within the space itself. Orientation within designated space is measured as the presence of:

- Links and gateways, thresholds
- Transition spaces or elements
- Sequencing of spaces and forms

- Approach

3. Physical placement/orientation in relation to community. Orientation of users in relation to the surrounding context is gauged based on the presence or absence of visual and auditory connections. The use of structures or arrangements that connect the space with the four cardinal directions as well as visible community landmarks are reviewed.

4. Orienting the individual within a larger order. Spaces are evaluated based on their ability to connect users to the larger order of the cosmos. Specific design elements and arrangements sought for included:

- Alignment with celestial bodies
- Indications of or alignments with the four cardinal directions.
- Presences of a representational figure of the *axis mundi* and other archetypal design elements listed above.
- Evidence of vegetation that highlights seasonal change

### **Case Study 1: Gas Works Park, 2101 North Northlake Way, Seattle Washington**

Gas Works Park is located on the north shore of Lake Union, at the south end of the Wallingford Neighborhood (Figures, 14, 15, and 16). Originally the site of the Seattle Gas Light Company gasification plant, in operation from 1906 to 1956, the plant was purchased by Seattle in 1962 for the purpose of creating a park. The park opened in 1975 and was designed by Seattle-based Richard Haag Associates.

While other designers thought to return the space to a natural state, Haag came to a strikingly different solution, one that came to him in a dream. According to Thompson (1989), after spending hours of time on the 19.1-acre site, Haag decided the industrial

structures should be saved, and not for historical purposes but for aesthetic reasons, to provide a visual anchor for the park design. The park landforms “create rooms and experiences for human recreation ranging from the contemplative to the intensely social, habitat for nature wild and cultivated, and a topography ranging from hilltops to swales, forming streams, wetlands, and beaches” (Thompson, 1989).

Gas Works Park was also groundbreaking for its ability to gather public support and shift negative perceptions of post-industrial landscapes. The project is considered pivotal for its use of the natural processes of bioremediation in the reclamation of polluted soils. Haag won the American Society of Landscape Architects (ASLA) President’s Award for Design Excellence for the project in 1981. The park was added to the National Register of Historic Places on January 2, 2013. My site visit occurred on the 14th of December at 11 a.m.



*Figure 14.* Gasification plant, 1965. Courtesy of Seattle Municipal Archives. Item 2908

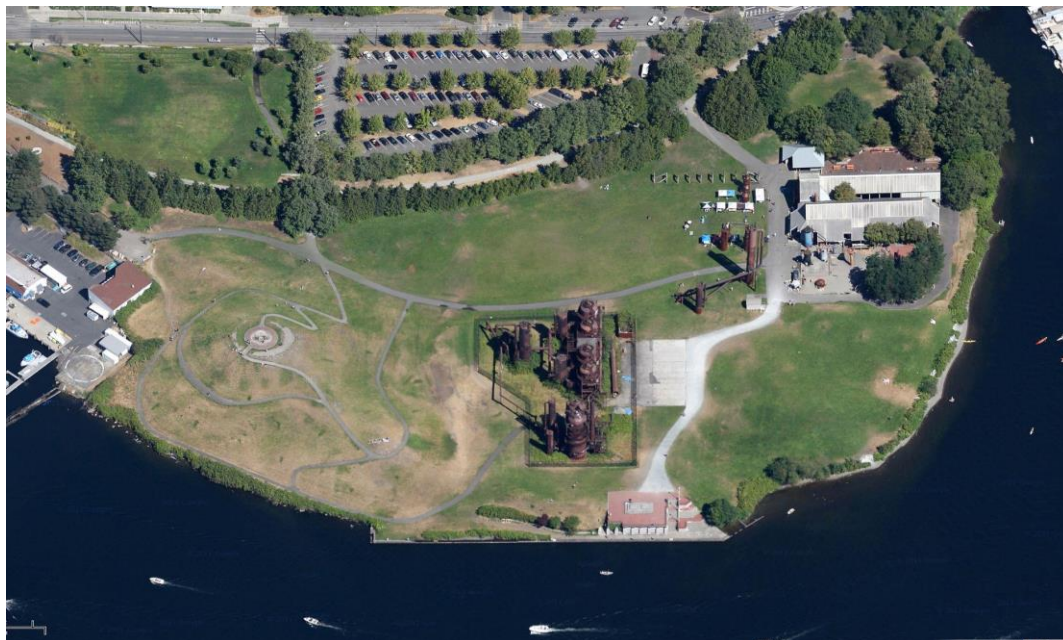


Figure 15. Gas Works Park, 2013. Aerial image from April 24, 2013. Google Earth.

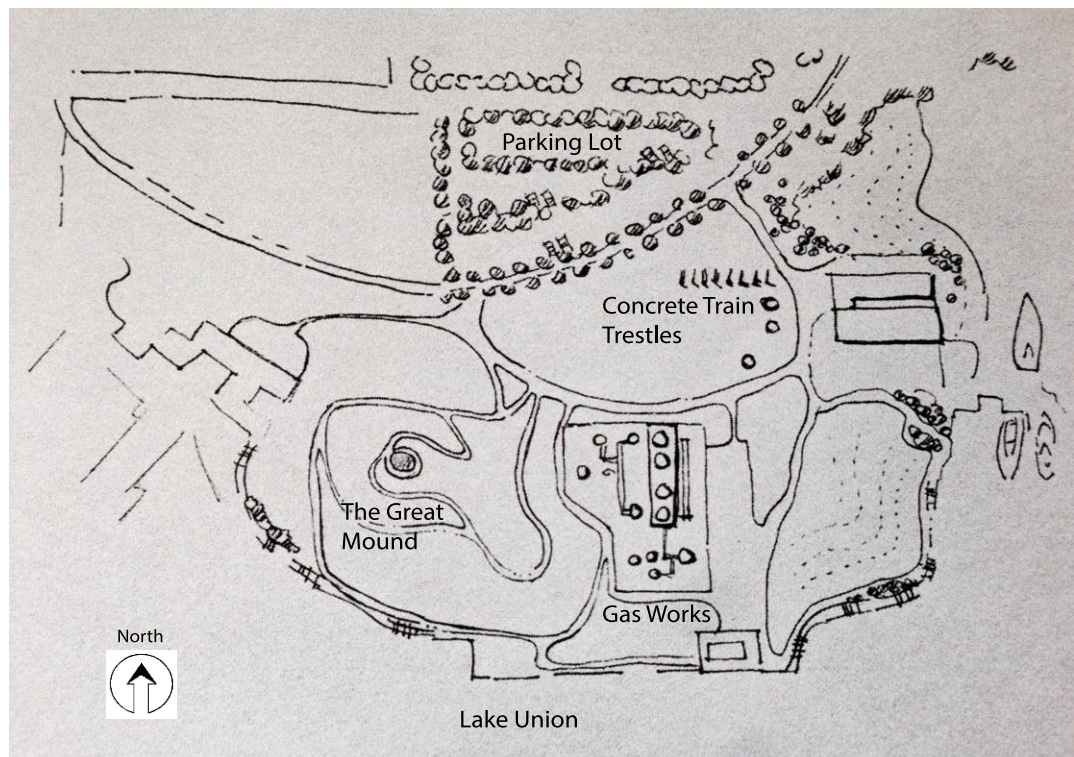


Figure 16. Gas Works Park site map. Drawing by author.

### **Separation from Distracting Stimuli**

**Degree of physical removal.** The parking lot is designated and enclosed by berms and formal tree lines. The parking lot is surrounded by berms; they run along the street and continue back along the park edge, running the length of a gravel path (Figure 17). The path sits low between the grassy edge of the parking lot, lined with London plane trees, and a higher grassy berm lined with firs that act as a buffer between the park and the surrounding parking lot. Small gravel paths rise up over the berm through veiled entrances. Two large entrances, at opposite ends of the park, serve as main entrances and provide framed views into the park.



*Figure 17.* Crescent gravel path. Parking lot is lined with one continuous berm and London plane trees. The park is veiled by large firs. Photo by author.

This physical isolation creates a greater sense of retreat. Gas Works Park occupies the whole tip of the peninsula, creating a uniquely positioned public space inaccessible on foot from three directions. Walking onto the park grounds I felt a keen sense of anticipation and that I should pay attention; the veil of trees signaled that something entirely different lay beyond, different, not just in the promise of natural landscape, but also in pace, focus and reward.

Another sense of physical removal happened at the top of The Great Earth Mound (constructed from material excavated on-site) that overlooks the area in expansive 360-degree views. After ascending the mound on a winding path, I reached the top central space highlighted with a large round sundial (Figure 18). I felt a great sense of excitement in discovering the ancient style and feel of the intricate object. Before anything else, I wanted to figure out how to use it. Once I was positioned correctly on the month and day of the year and saw my shadow cast along the markings of the hour I felt great satisfaction. There was something deeply rewarding about bodily participation in discovering knowledge about something as fundamental and ordering as time itself. I felt at the center of the workings of something vitally important as well as a direct link between sun and Earth. This central space is encircled by a slight berm, seen in Figure X, making it impossible to see down the sides of the Mound. This use of berms created two effects. It cut off possible visual distractions from below, consequently directing my attention to the views of the open and immense sky as well as an open and immense waterfront. It also created a feel of separation from the actual form and height



*Figure 18.* Sundial. Looking toward the park entrance on The Great Earth Mound summit. Photo by author.

of the Mound and a sense of suspension above ground, a sort of extra push toward the sky that created a singular focus on my position on a higher plane.

**Auditory separation.** The freeway to the northeast was visible and audible but far enough away that its constant sounds functioned as white noise. The occasional airplane passed above but was not a continual or extremely distracting occurrence. The city across the water is experienced at a distance, and the surrounding suburbs also. This auditory separation created the possibility of mental stillness, providing space for my thoughts to wander. I began thinking of the larger goal of my daily concerns, in which I was able to prioritize and frame them within a larger purpose.



**Presence or absence of other humans.** At the park there was space to breathe, to move freely without distractions such as traffic lights, cars, and other people. Overall there were very few people and all were relatively quiet. Most likely this was a function of the time of the year, the time of day (late morning), and all visits being on a week day. The park was designed for passive uses such as strolling or flying a kite, and community gatherings at various scales, because of some large open areas, the park can be heavily occupied during various events. At the time of my visit, however, people mostly came in small groups or on their own, some with dogs. About a half of all people visiting were there for recreational walking or running. The remainder seemed to come mainly for the view from The Great Earth Mound.

**Weather conditions.** Upon arrival the sky was overcast, but storm clouds moved out and the combination of bright sun and dark clouds created high contrast on the landscape. The warmth of the sun was enough to take my concentration away from the cold air. Yet every possible place to sit was wet and as soon as the sun dipped behind the clouds, small winds became very cold and it became hard to concentrate on anything but the cold.

Overall the weather seemed to be a major player in the atmosphere of the site and its ability to encourage contemplation. The incredible long winter shadows cast by the remaining gas works (Figure 19), the intense white sparkle in the water, and the high contrast of the dark clouds – the blinding white light that blazed along their edges – captured my attention and worked their magic on the land. It was easy to be captivated, to lose myself in the movement and alterations and to turn my thoughts inward as a direct



*Figure 19.* Gas works. High-contrast lighting increases visual depth and sense of awe. Photo by author.

result. It is also important to note that bad weather has the potential to lead to the ‘sublime’ experience, as previously discussed in the definition of ‘spirituality’ in the “Defining Key Terms” section. The experience of awe and fear, encapsulated in the sublime experience, although not fully discussed or measured in this study, also has the potential of creating the experience of the transcendent for the user.

### **Creation of a Sense of Vastness**

**Framing views.** The entrance at the northwest end of the park is framed by two London plane trees when I stood just outside this threshold. The Great Earth Mound inside the park was perfectly framed. Such a reach of curiosity was piqued as well as awe – something important had to be inside to qualify for all the orchestration around it, for all the forms and lines that place the Mound as a central focal point. There was a

quality of slow meandering encouraged by this immediate framing; the Mound could wait, so to speak, as I explored other spaces below.

**Open land, sky, and water.** The park fills the tip of the peninsula offering unrivaled panoramic views of the lake and downtown skyline. The curve of its shoreline creates a sense of vastness as the eye sweeps across its circumference. The globe-like roundness of the land creates a sense of arrival; I reached the Great Earth Mound overlook to orient myself with the surroundings, and to take in the large sky above, the curving shoreline, and the vast sweep of the city, buzzing and breathing even from a distance. The open grassy bowls that surround the Mound largely accentuate this vastness. Only from this vantage point are the views across the water unobstructed and the sky becomes the majority of the eye's visual composition.

**Scale.** The park's scale, in contrast with the tightly woven fabric of the surrounding urban neighborhood and city core, offered a great sense of visual and physical expansion. The contrast in scale communicates a change in function, pace and purpose. This is a destination space that allows for exploration, solitude and gatherings independent from the pace of the city. Distance is emphasized by the visual contrast of open green versus cityscape fabric and large Lake Union that separates them. Features in the park are fairly spread out; the remaining gasworks are grouped together, surrounded by open grassy expanses, accentuated only by The Great Earth Mound. Shoreline structures, like stairs and integrated seating, mark some of the only hardscape areas. This kind of breathing room allows a meandering that was easily echoed in the slow weaving of my own thoughts.

**Motion.** The winding and sometimes angular configuration of the paths that both circle the hill and follow the edge of Lake Union, accommodated my movement through the park, allowing for meditation. A lack of foreground objects, as I moved through the space, kept my attention to the mid ground and distant views. On the path my focus became attached to the act of moving through space, catching glimpses here and there of distance foci out beyond the boundaries of the park.

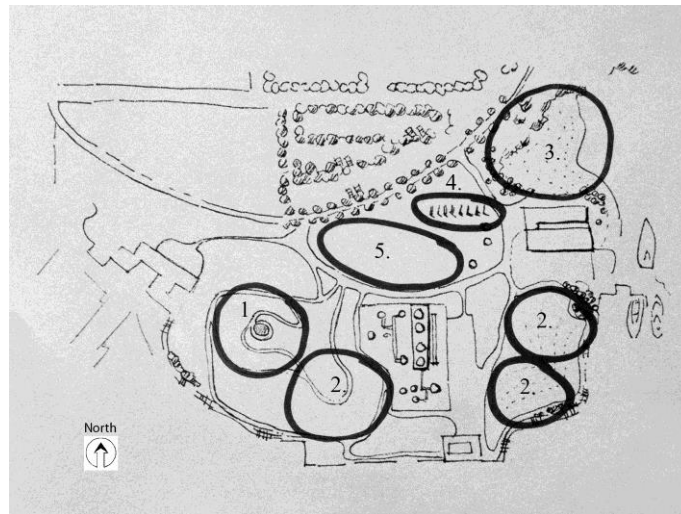
**Repetition.** Little repetition is found within the park. The concrete trestles on the northeast side of the park near the east entrance form an open tunnel that creates a pleasing repetition of form and acts as a megalithic statement, yet their form and repetition are not found again (Figure 20).



*Figure 20.* Concrete train trestles. View looking west. Photo by author.

**Sound and silence.** Sounds within the park were not distracting. The fairly constant and distant hum of freeway traffic and waves of the water were pleasing and conducive to internal processes of meditation and contemplation. If I were to visit the

park on a busy summer day, however, uninterrupted contemplation could be impossible. For example, the sudden appearance of a group of noisy visitors coming to see the sundial would most likely break one's concentration.



*Figure 21.* Gas Works Park, spaces. Drawing by author.

### **The Harmonious Integration of Spatial Qualities**

**Spaces - Great Earth Mound.** The Mound incorporates both a meandering and a zigzag path that follow its topography up the summit (Figure 21-1). Upon entering the park, it was obvious that the Mound is a place of arrival and a sought-after climatic experience. It was hard to hold off, to wait until other areas were first explored, as the need to explore the Mound was always in the back of my mind. How one first approaches the Mound seemed of the utmost importance, as it would change and shape the whole journey experience, and as there are two paths of possible ascent, it was hard at

first to decide. I chose to ascend from the Northeast, on the path that zigzags up the Mound.

The incorporation of paths makes the Mound a place of prospect and journey. The Mound is large enough to block large portions of the skyline from view along the path, until the last moments of ascent. The final resting point on the summit was the final reward for the journey, resulting in not only breathtaking views but also in the interactive sundial. It seemed like something ancient from an old sailing ship, covered in sea creatures in high relief swirling around astrological symbols. Moving my body onto the correct month and day of the month, where the time of day is marked by one's shadow, made me keenly aware of my position in relation to the sun, and the sun's motion relative to the Earth.

**Bowl spaces.** These spaces abut and contrast with the centralized Mound ( Figure 21-2). They also provided the highly desired prospect/refuge experience (Appleton, 1996). Paths in the bowl spaces are adjacent to the mound and therefore open to views in many directions, but also have the benefit of some physical refuge provided by the size and solid backing of the Mound; I could look ahead and see the prospect of the Seattle Skyline but also felt a sense of security and enclosure due to the proximity of the Mound.

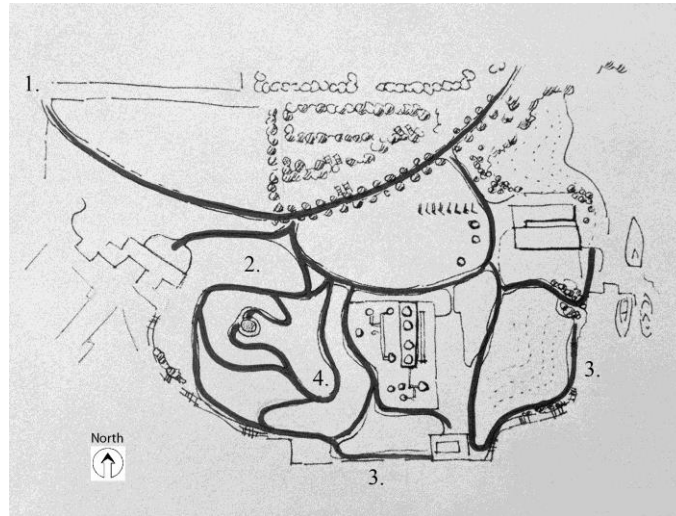
**Vegetation spaces.** The only vegetation space to speak of is in the northeast corner of the park, just north of the picnic area (Figure 21-3). It was visually disconnected from the rest of the space and was not an immediate draw; in fact it was the last place that I visited on my way out of the park. It seemed unkempt, unwelcoming and disconnected from the rest of the park.



*Figure 22.* Concrete trestles. Firs to the right and slight incline on left form visual boundaries to the concrete trestle space. Photo by author.

**Concrete trestles space.** The concrete trestles sit in a detention basin and run parallel to the adjacent firs that block views into the parking lot (Figure 21-4). This area was definitely a space unto itself. The trestles are visually and physically removed enough from other features that I became wholly fascinated by the power of their beautiful lines, formation and repetition. As mentioned, the arches felt like a megalithic statement and had an ancient and striking presence. The edge of the space was formed by the firs on one side and the rise of the basin on the other as seen in Figure 22.

**Grassy raised open space.** This space is raised slightly from the detention basin where the cement arches are arranged (Figure 21, 5.). While it is large enough to make into an attraction of its own, it currently adds only a bit of topographical interest. It did not feel like a destination point and had little identity or connection to the rest of the park.



*Figure 23.* Gas Work Park, paths. Drawing by author.

I had no desire to stop there, as I felt exposed on all sides and out of the flow and purpose of the journey experience the designer intended. These feelings and the space's proximity to the park's primary path made it unsuited for contemplation.

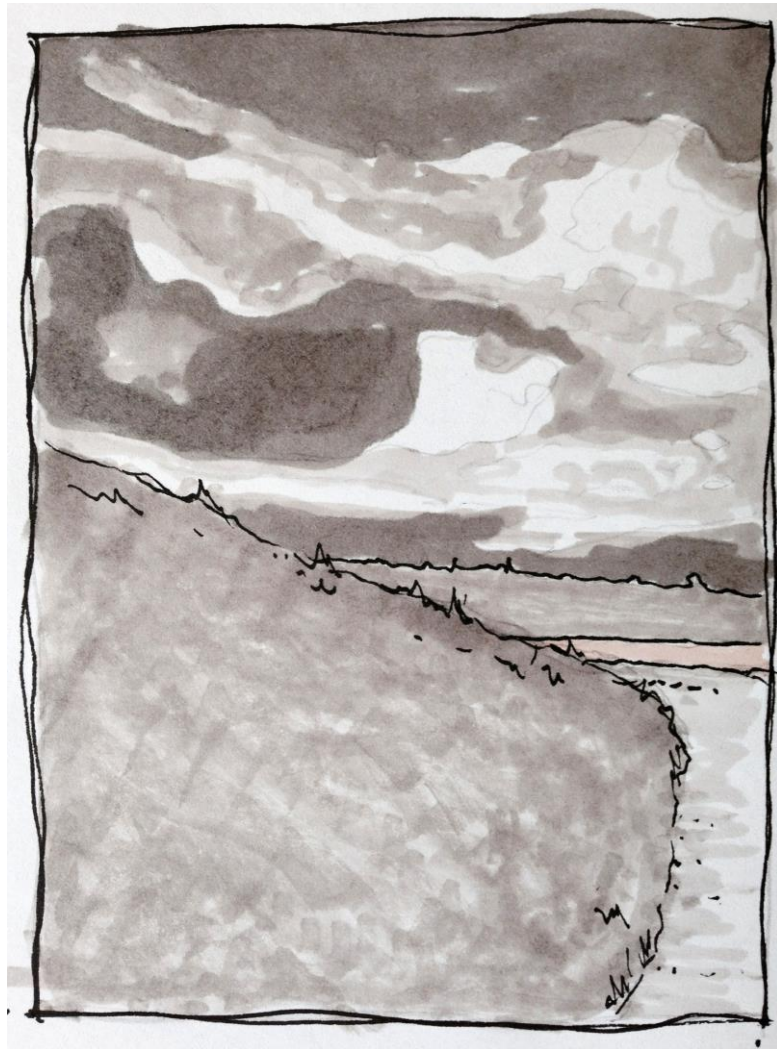
## **Paths**

**Access road.** The main parking lot avenue sweeps along the bowl-shaped edge of the park (Figure 23-1). The line of the avenue served to orientate me to the parking area and to locate entrances into the park.

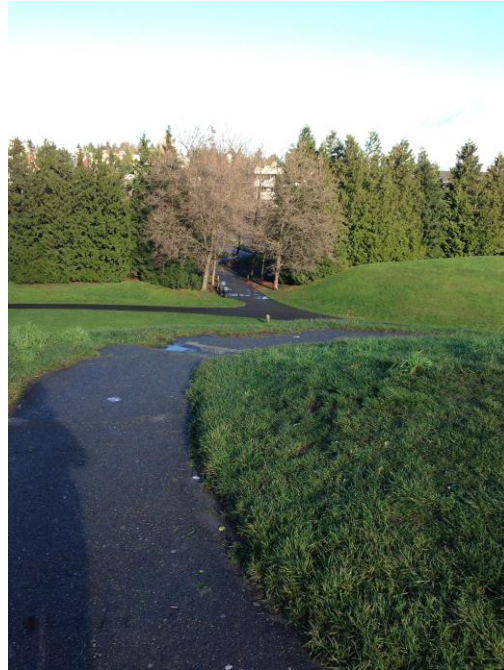
**Mound paths.** The landform of the hill created an opportunity for a unique journey sequence and the designer chose to incorporate two journey possibilities (Figure 23-2). One spiral path moves around the contours of the hill while the other zigzags up its northeast side. The zigzag path was the shorter access to the top of the steep landform. The potential frustration of repeatedly moving back and forth on the zigzag



was avoided by its relatively short sequence of just three switchbacks. It drew me up the Mound and created a series of changing scenes, as my view of the city changed with each unfolding view (Figure 24). The spiral path had a smooth flowing and energetic character (Figure 25). While spiral paths have the potential to be disorienting if no natural stopping place or visual cues are provided, the slope was gradual enough that it was not uncomfortable for me to stop and stand anywhere along the path.



*Figure 24.* View from mound. Skyline opens up as one rounds the Mound. Drawing by author.



*Figure 25.* Mound spiral path. View looking back at the west entrance of the Park framed by large London Plane trees. Photo by author.

**Water's edge path.** The water's edge path was designed to facilitate movement along the edge of land and water (Figure 23-3). By following the terrain and natural line of the land, the path allowed for a continually changing view. Because of its proximity to the Mound and other structures on site, the path created another opportunity for changing prospect as new views opened.

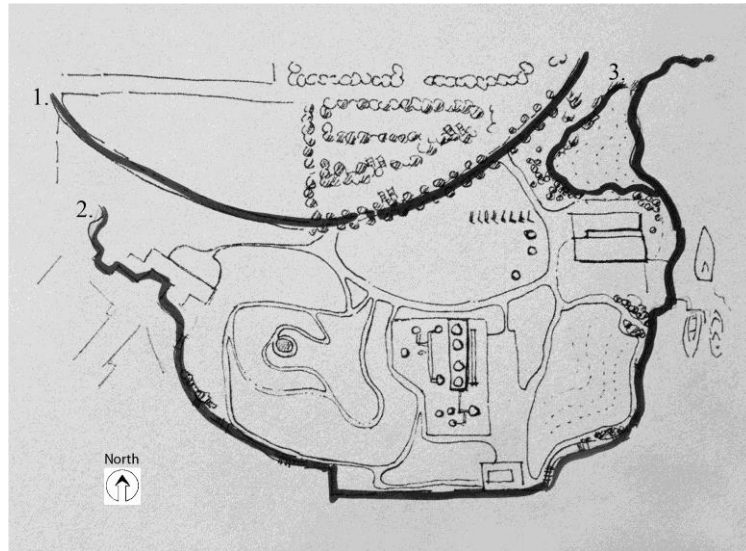
**Meandering paths.** As discussed, the meandering paths throughout the park serve recreational as well as contemplative purposes (Figure 23-4). As I walked along the path that weaves up the Mound, I was aware of the gentle slope and curve and the continuously changing views of the skyline. The meandering paths in the bowl-like spaces provided enough interest to encourage following them as opposed to just walking

in the open space. They also encouraged a leisurely pace. The open nature of the bowl spaces and gentle movement of the relatively flat path allowed my attention to turn to other things, especially the interesting forms and shadows of the gas works and clouds that made up the middle and background of the park that day.

The main difference I established between what constitutes primary and secondary paths was path width. Secondary paths in the park are made of asphalt and three feet wide. Primary paths are also made of asphalt but are five feet wide. There is a softness to asphalt that feels less permanent than concrete and I found it more inviting. The smaller paths gave the feel that I needed to move through the space in a more careful way. The incorporation of seating along the lower, wider paths near the water beautifully integrated an edge along grade changes (Figure 26).



*Figure 26.* Meandering paths. Integrated seating. Photo by author.

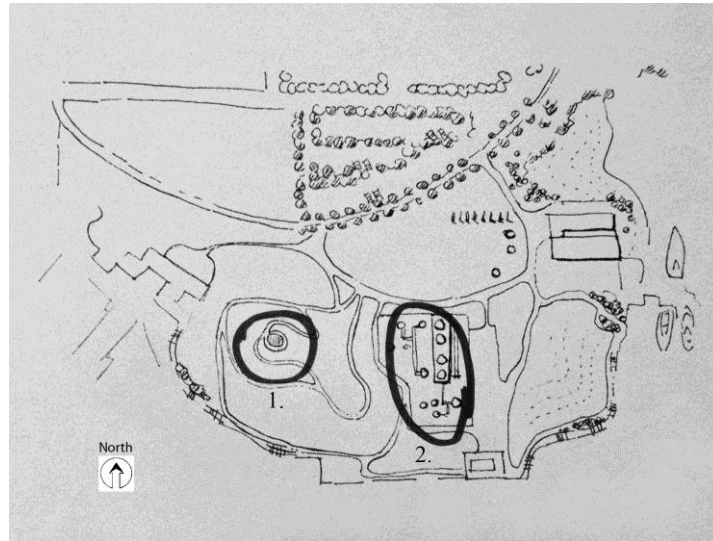


*Figure 27.* Gas Works Park, edges. Drawing by author.

## Edges

**Avenue edge.** The avenue edge defines the south end of the parking lot and the beginning of the park (Figure 27-1). Created by berm and fir tree line, it invokes a sense of mystery and curiosity due to the density and height of the firs. The line of firs breaks where a number of small veiled entrances as well as the two large main entrances are. The avenue edge also creates physical separation and serves to create transition between the two spaces of differing use, specifically the parking lot, an arrival space, and the park itself, the destination.

**Water's edge.** The water's edge is celebrated in the design of this park through the use and integration of paths (Figure 27-2). The bowl-like spaces, like valleys that carry water to the sea, provide paths to the water's edge. These paths meander, following the topography of the bowl-like spaces and link to paths that follow the water's edge



*Figure 28.* Gas Works Park, foci. Drawing by author.

almost completely. The integration of these paths and general movement toward the water's edge, create a slow yet growing momentum toward another major source of delight and fascination; the ever-moving ever-changing Lake Union. Moving water, as further discussed in the "Presence of Archetypal Design Elements" section, provides an endless source of fascination that invites contemplation and meditation (Messervy, 1995).

## **Foci**

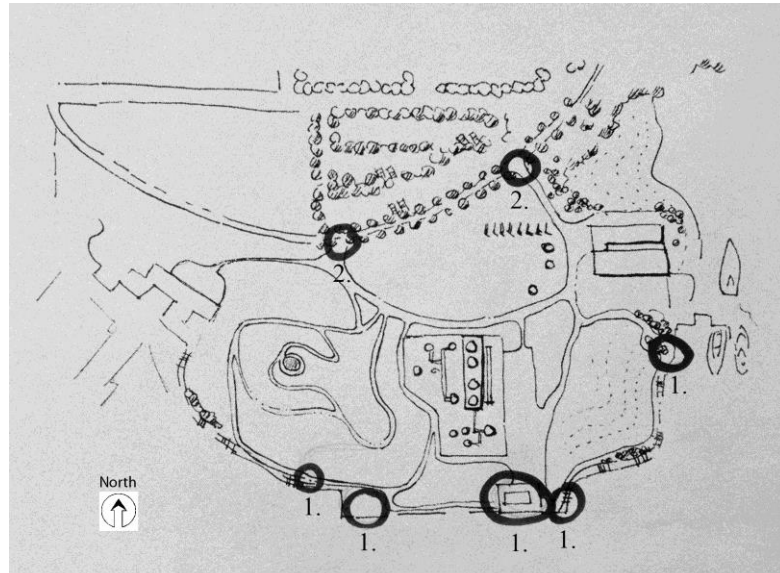
**The Great Earth Mound.** I found the Mound to be the focus of the whole park space (Figure 28, 1.). The gasworks were visible upon entering the park and while they were interesting they did not hold as much visual mystery for me. Ascending the Mound meant ascending to new views out toward the water and city, as well as discovering what exists at the summit. I knew about the sundial beforehand but it was still exciting to discover it for the first time. I felt instinctively that there must be something worth

seeing up there, whether an ideal view, or something on the Mound itself that would signal arrival and offer some kind of reward. The sundial served as both built focal point and archetypal design element, discussed in further detail in the “Presence of Archetypal Design Elements” section below.

**Gas works towers.** The gas works themselves, situated in a bowl-like portion of the landscape, were large and imposing, yet not dominating because of the vast and winding nature of the park; they were the initial focal point from the east entrance but not the final point of interest (Figure 28, 2.). An added level of intrigue was felt there because of the history of the park; it felt almost like a graveyard with figures and monuments that still carry the energy and echoes of a distant time (Figure 29).



*Figure 29.* Gas works, focal point. Photo by author.



*Figure 30.* Gas Works Park, thresholds. Drawing by author.

## Thresholds

**Water/land thresholds.** There are five major water/land thresholds in the park (Figure 30-1). As I could not cross over these thresholds without a boat, they remained places of unsatisfied anticipation. Crossing these thresholds would involve a new journey into an entirely different experience that I wanted to experience but couldn't. They are exciting points of tension between land and water, places of energy, and designed as points of gathering and observing. A few overlook areas of terraced cement were built out by the water's edge. These spaces were ideal for sitting close to the water. They incorporated steps that made it easier to enjoy a gradual movement down to the edge, yet it was too cold and wet to remain long.

**Gateway thresholds.** The park entrances are the gateway thresholds into the park (Figure 30-2). The change in vegetative material (from fir to London Plane) marks

the main entrance from the axial path in the parking lot, and signaled a change in user experience; I had now arrived at the desired location that was veiled from the outside world (Figure 31). This visual removal and careful marking of entrances signaled a transition into another pace and purpose. The framing of the main entrance with London plane trees was particularly effective.



*Figure 31.* The Great Earth Mound. The west entrance is framed by London planes, which in turn frame The Great Earth Mound. Photo by author.



London plane trees line the parking lot berm and create a threshold between the lot and the gravel path. Another berm threshold covered in larger firs reinforces this transition zone. This larger and impenetrable barrier signaled my arrival into a space of a different tenor and use than that of the surrounding city fabric.

### **Presence of Archetypal Design Elements**

**Sacred stone.** The east entrance focused views on the remaining gas works and a series of concrete arches. These concrete train trestles form a row where coal cars rode up and down depositing quarry into Northern Pacific Railway trains waiting below. This form was reminiscent of megalithic stone structures. Arranged in a row, the arches hearken back to stones arranged with some ritualistic alignment, purpose and pattern. The concrete was aged and discolored and resembled the surface of old stone.

**Sacred mountain.** The sacred mountain is represented in the design of The Great Earth Mound. Like other symbolic representation, the Mound is used as a way to create a hierarchy of space; not only could I grasp my exact location in relation to my surrounds but I felt an added level of importance to the higher ground, crowned with the large and intriguing sundial. As discussed later on, both the Mound and sundial provide orientation to individuals within the larger layout of the park as well as the city.

### **Orientation of Individual**

**Orientation within larger order. *Alignment with celestial bodies.*** The sundial (Figure 32) contains, at its center, a long oval loop that maps the months and days of the year. The instructions for the sundial, located on the northwest corner by the dial,



*Figure 32.* Sundial detail. Photo by author.

indicate that by standing on the current day and month of the year, I could see my shadow align with the current hour of the day. The position of the sun in reference to my location established the time. Through a substantial work of art on a prominent natural feature that represented the sacred mountain, I felt the satisfaction of feeling oriented through multiple levels of reinforcement.

*Axis mundi.* While the remaining gas works are the obvious vertical elements in the park, they do not serve to orient outside of the immediate space of the park. The sundial at the top of the hill, however, does. The *axis mundi* is known to transect the center of sacred archetypal forms such as the ‘sacred mountain’, which is represented in Gas Works Park as The Great Earth Mound, which orients in time and physical space.

**Orientation within community.** As previously mentioned, 360-degree views of landmarks within the city and surrounding suburban landscape fabric creates an immediate sense of orientation within the framework of the larger Seattle metropolitan (Figure 33).



*Figure 33.* View from the Great Earth Mound. Looking toward the gas works and suburban landscape from Mound summit. Photo by author.

**Cardinal directions.** The cardinal directions are displayed as letters with a hand pointing in each direction around the sundial at the top of the hill (Figure 34). Each of these directional signs is also a decorative drainage grate.

**Orientation within space.** The remaining gas works are visible from every vantage within the park. My view of the park and the surrounding scene – the lake, the hill, and the city – all tended to rotate around my position as it related to the Mound.



*Figure 34.* Cardinal directions. Four decorative drains mark the four cardinal directions at the edges of the circular sundial. Photo by author.

**Seasonal changes.** As mentioned, London plane trees frame the west entrance and add a contrast to the row of firs that line the boundary between the park and the parking lot to the north. The bare trees in the winter indicate the season and the offseason nature of a park in the winter.

**Reorientation space.** The axial alignment of the entrance paths into the park were effective reorientation devices and served as a preparatory experience before I proceeded into the park, guiding me into a space that was quite legible upon entrance. There was little visual obstruction. The Mound and remaining gas work structures were all visible and the organic asymmetrical layout of the park was very pleasing.

### **Summary Comments**

Gas Works Park is a good example of integrated design that contains several of the necessary elements and design strategies to be conducive to a contemplative state of

mind. While the main design intent of the park was not to create a public space solely for contemplation, many archetypal elements and contemplative space design strategies, render the park an environment where one can potentially experience the transcendent. Two main factors that had the greatest ability to hinder reaching a contemplative state were the weather and the presence of many users.

### **Case Study 2: Benaroya Hall Garden of Remembrance, 1350 2<sup>nd</sup> Avenue, Seattle Washington**

The Garden of Remembrance at Seattle Symphony's Benaroya Hall is located in the downtown business district on 2nd Avenue and University Street in Seattle, Washington. Designed by the late world-renowned Robert Murase of Murase Associates, Seattle, it is an understated 0.5 acre memorial space that honors Washington State residents who died in battle since World War II. Murase's Japanese roots and experiences in Army service and in a WWII internment camp heavily influenced the Garden's design. It incorporates 19 engraved black granite slabs, native deciduous and evergreen plantings, and a system of waterfalls, channels, and pools. The Garden is also used as an entry portal into the Metro bus tunnel. The garden was dedicated on July 4, 1998 and it continues to be the site of Seattle's annual Memorial Day Ceremony. The Garden received an ASLA Washington Chapter Honor Award and the Downtown Seattle Association Horticulture Award, Most Unique Public Outdoor Space in 1999. My site visit took place on the 17th of December at 10:00 a.m.



*Figure 35.* Benaroya Garden of Remembrance context map. Google Earth image, 2013.



*Figure 36.* Upper garden space. Photo by author.

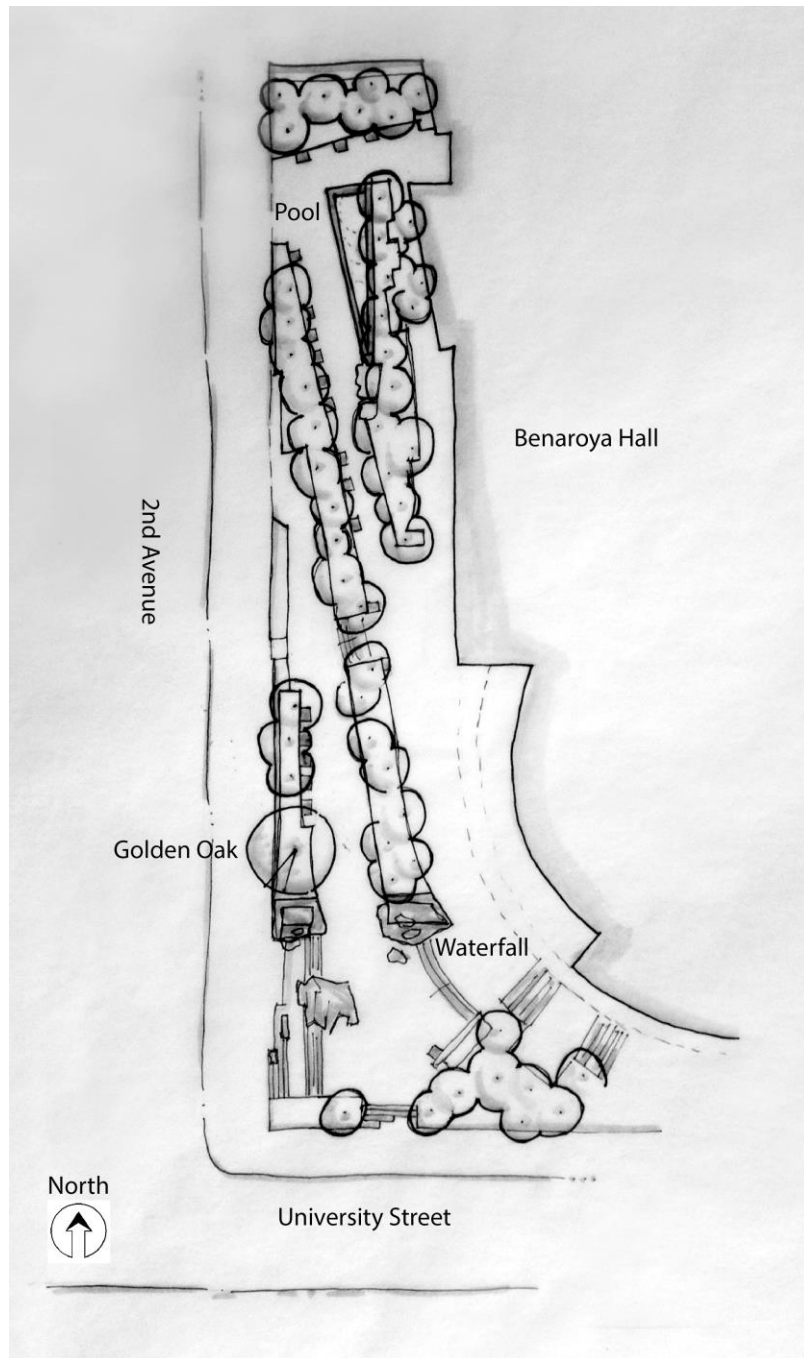


Figure 37. Benaroya Garden of Remembrance site plan. Drawing by author.

## **Separation from Distracting Stimuli**

**Degree of physical separation.** This memorial space functions as a garden and plaza space. It lacks physical buffers from its surroundings – gates or some form of boundary – and is designed to accommodate pedestrian circulation. The garden is designed on a slight diagonal in relation to the two cross streets, 2<sup>nd</sup> Avenue and University Street, creating six entrances into the space that cut through the square diagonally to the other sidewalk (Figure 36). It accommodates circulation, places for reading memorial stones, and contemplation. Though the bustle of the city is omnipresent, the white messages carved into the black granite, if truly heeded, become a sort of passage through Washington’s history that momentarily transport users to another time.

**Auditory removal.** Because the garden space is right on the corner of 2<sup>nd</sup> Avenue and University, across the street from the Seattle Art Museum, and with no auditory captivation of its own, city noise is as present here as anywhere else along the road.

**Presence of other humans.** On this site visit it was rainy and cold and not many people were out walking the streets. A handful of people with umbrellas passed through the Garden as I walked around, and none of them stopped. As the garden forms the plaza space for the symphony hall, it is enjoyed and used by many performance attendees at once. It is surrounded by tourist destinations, such as the Seattle Art Museum, and therefore also becomes integrated into the tourist’s experience of downtown.



**Weather.** The rain made the surface of the dark smooth granite shiny and it reflected my image onto it. There was a sense of solemnity created by this visual depth. The white names carved into the stones of those who were lost in numerous wars looked out in soft and undemanding tones. Nothing about the white words was brash or bright or insisting, but soft and calling in the subtlest ways.

The weather was a major factor in defining usage of the space. People can and do walk here in the rain, yet no overhead plane exists, making all stone seating wet and cold during my visit. It was nearly impossible to linger in the freezing rain.

### **Creation of a Sense of Vastness**

**Framing views.** No framing of outward views was a part of this design. The two black granite fountains frame the entrance to the central Garden path on the University Street side (Figure 37). This framing focuses attention and creates anticipation of something to come within the long central space bordered by granite slabs on both sides. As views down the long spaces are direct – there was nothing obstructing my view to the opposite end – I found myself looking to the edges of the space. It is there that the intriguing elements lie; the long slabs of black granite with writing that cannot be discerned from a distance, and another edge composed of small trees, shrubs, and granite stone seats.

**Open land, sky, and water.** There was a paucity of open sky inasmuch as the sky was covered largely by tall buildings and vegetation overhead. Nor is a sense of vastness created through expanses of open land. I found myself contemplating the words

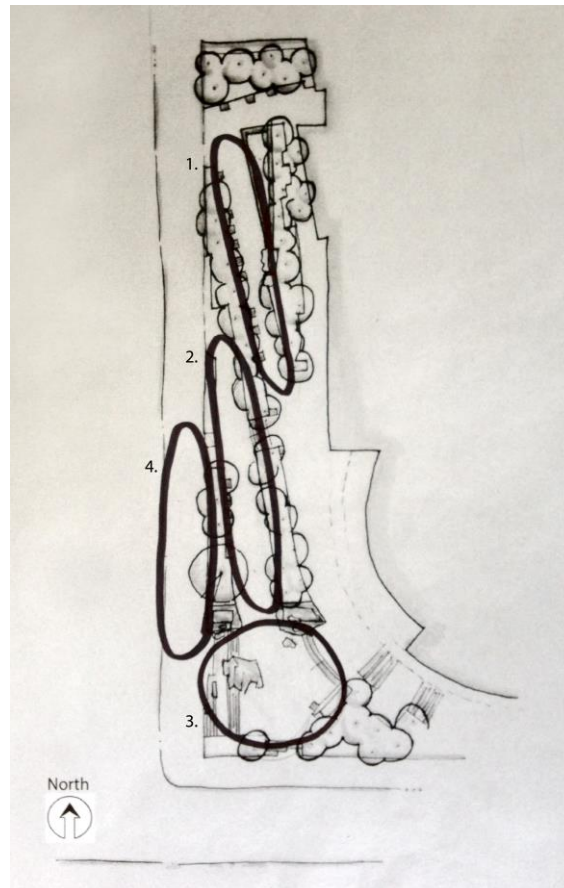
carved into the slabs of stone that run along the tiered paths and feeling their far-reaching implications.

**Scale.** The arrangement of rocks, water, and small trees is reminiscent of Japanese gardens. The soft and small deciduous trees along with evergreen shrubs are manicured just enough to create rhythm and order but not enough to lose the feeling of a natural wood. It was easy to feel in awe of the collective and monumental effect of the actions taken by soldiers over the years, and find symbolic expression in the massive stones that carry their names.

**Motion.** The repetitive motion of the two small falls that form a threshold to the middle garden space helps signal a change in space and creates a sense of respite and renewal.

**Light and shadow.** The Memorial slabs of granite are oriented so that the names face the setting sun, while visitors in front of them face toward the rising sun. It was hard not to recognize the seeming desire to connect the passing of human life with cosmic cycles. The rising of the sun in the east is often and anciently associated with renewal and rebirth, while the sun in the west is associated with parting, death, and/or passing on to another realm or state of existence (Hermann, 2005).

**Sound.** The sounds of city traffic were repetitive but also included many acute and varying sounds, such as nearby car horns, which acted as substantial distractions, inhibiting my ability to maintain a state of contemplation. The sound of the waterfall certainly helped me to reach (if not maintain) some state of contemplation.



*Figure 38.* Garden of Remembrance, spaces. Drawing by author.

### **The Harmonious Integration of Spatial Qualities**

The overall design of the garden creates four separate but incredibly integrated spaces. Walking along the sidewalk toward the garden, from either direction, will bring one into one of three tiered longitudinal spaces. The design echoes the importance of remembrance and contemplation of what losses have occurred for the sake of a greater good, found in the harmonious integration of vegetation, stone, water, and lighting to create a space that evokes pause and contemplation.

The terracing of the entire garden creates a sense of ascent up a series of switchbacks. Not only can the garden be accessed at different points, one can begin the journey at the top, bottom, or middle, circling back in every which direction. There is not necessarily an order of progression through the spaces, and one can get a feel of its purpose and significance by glancing at the names of soldiers etched in all garden spaces.

**Upper garden space.** The upper portion of the Garden runs close to the wall of the Benaroya Hall (Figure 38, 1.). It is a long somewhat narrow space, lined with seating and vegetation. Entering the space from the north side of 2<sup>nd</sup> Avenue, I found a small pool with black granite slabs lining its backside, and the largest rough granite boulder acting as one cohesive focal point. This intersection of archetypal elements – sacred stone, sacred grove, and water – and variation in texture and form, was stunning (Figure 39).



*Figure 39.* Garden pool. Intersection of archetypal elements: sacred stone, sacred grove, and water. Photo by author.



*Figure 40.* Upper garden. The garden design utilizes dynamic lines in paving and pool to create sense of motion. Photo by author.

**Middle garden space.** The central space of the Garden, as mentioned, is framed on the University Street end by two water features (Figure 38, 2.). It feels slightly wider than the upper Garden space but the same arrangement exists to accommodate use of the space by passersby: seating on the west side and sleek stone slabs with names and quotes on the east, backed by vegetation (Figure 41). This section of the garden continues the list of names of fallen soldiers begun in the lower garden along with a few interspersed quotes from letters of soldiers to loved ones, highlighted in larger and centered text. Reading these portions of letters was a fast and poignant way I was reminded that each name represented an individual with a world of history and stories and love all sacrificed at war.



*Figure 41.* Middle garden space. Walking toward University Street. Photo by author.



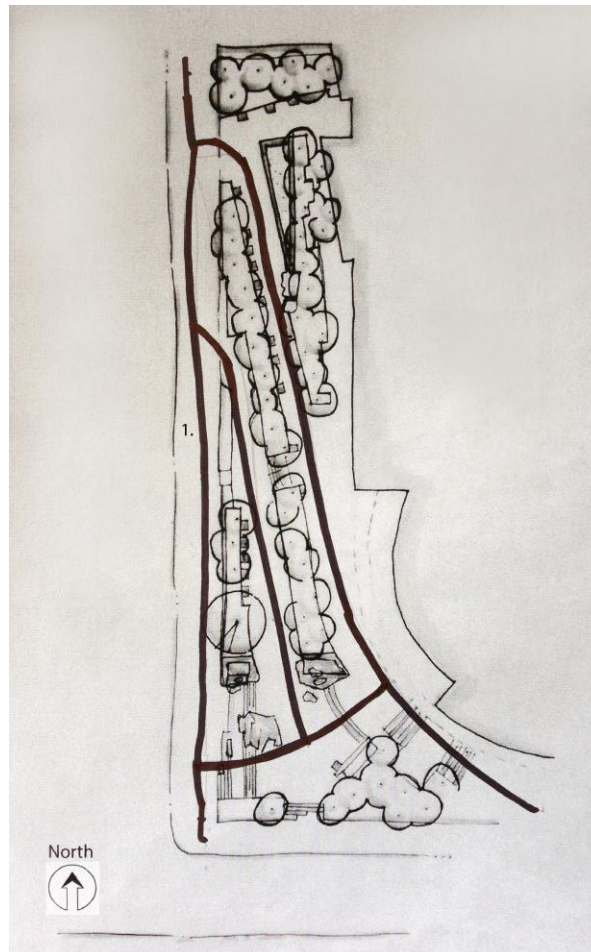
*Figure 42.* Water feature. Corner entrance into memorial. Photo by author.

**Corner steps.** These concrete steps incorporate both smooth and rough granite that are the perfect height for seating (Figure 38, 3.). The steps offer a nice open space to eat, talk and observe (Figure 42). This portion of the garden space functions as an urban plaza and accommodates such uses while reminding users of its overall purpose as a memorial through inscribed quotations. The main entrance of the Hall is on the northeast corner of the block, distanced from the memorial space. Yet for those traveling up from 2<sup>nd</sup> Avenue and heading east up University Street, the stairs are the main entrance into the memorial space and the primary way the Hall is approached.

**Lower garden space.** Here there was again the vertical smooth dark stone wall with names of fallen soldiers and excerpts from some letters sent home and visa versa (Figure 38, 4.). The angle for the whole memorial space is seen here (Figure 43), set on a diagonal that both allows for ease of circulation but also expands the sidewalk on this lower level. Anyone on the sidewalk becomes integrated into the memorial space.



Figure 43. Lower garden space. Looking down 2<sup>nd</sup> Avenue on street level. Photo by author.

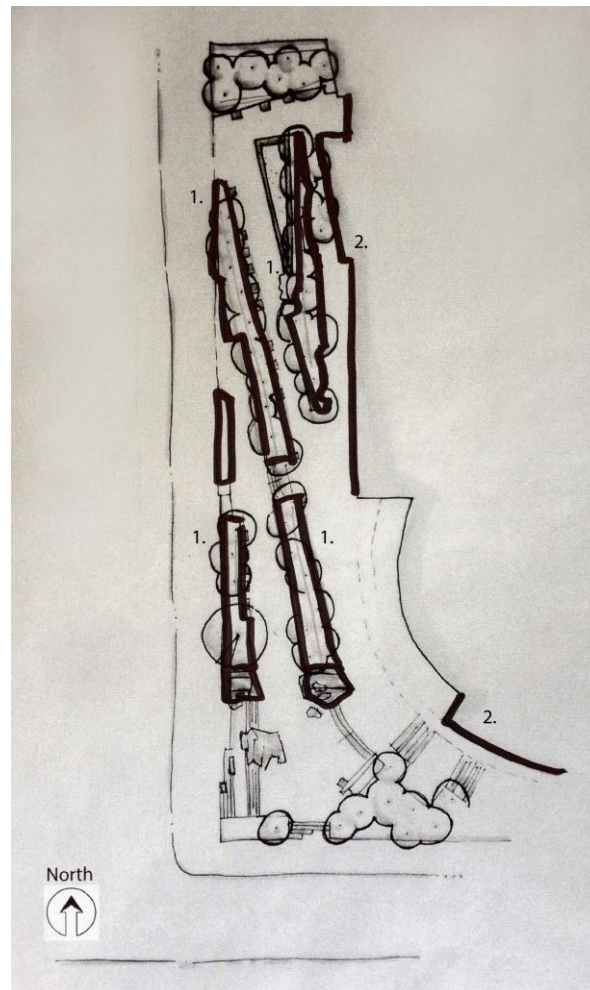


*Figure 44.* Garden of Remembrance, paths. Drawing by author.

### **Paths**

Each distinct space in the Garden of Remembrance also serves as a path. The approach into the site is an oblique one (Ching, 2007), meaning users do not approach the space head-on. Paths cut across the street corner at a diagonal creating three separate circulation spaces. As seen from the site plan (Figure 44), there is a subtle bowing of the paths that helps create a sense of mystery and depth to the spaces. The pavers are also set on a diagonal creating a sense of dynamic movement.





*Figure 45.* Garden of Remembrance, edges. Drawing by author.

## Edges

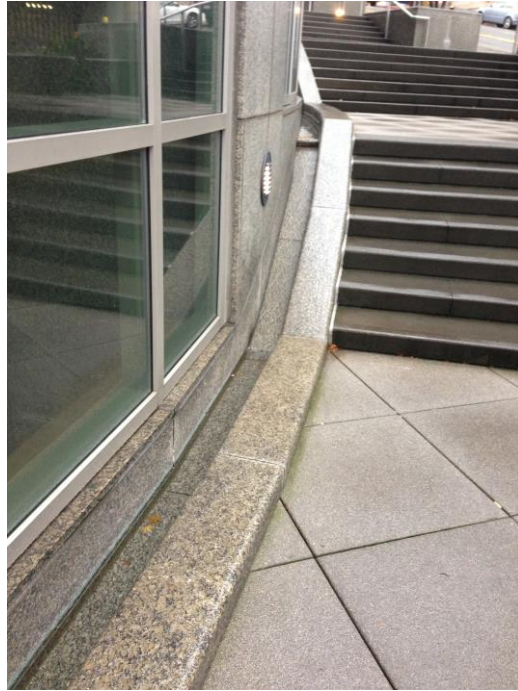
**Vegetation and stone.** Vegetation lines each grade change within the garden and creates a nice sense of enclosure (Figure 45, 1.). These plants consist of evergreen shrubs and deciduous trees. During non-winter months the deciduous trees would add a level of overhead enclosure.

The written memorial itself is literally carved into the edges of the space with the names of thousands of men and women. The large stone slabs create a backing for the

vegetation on the next tier so that the tops of the plants are near level with, if not higher, than the stone walls they abut. Stone seats line the edge of the middle and upper spaces. A line of deciduous trees behind the line of seats reinforces the vertical motion of the space and adds texture and depth to the buffer line. Unlike Gas Works Park and Waterfall Garden, the seating found in the Garden of Remembrance is incorporated as a place to rest momentarily, inviting the opportunity for contemplation. They are individual square stone seats with no backs, not an ideal design for sitting or conversing for an extended amount of time.

**Water channels.** Water details are the fine trim to this space, woven through as small channels, falls, still pools and the substance that adds a glossing surface to the dark stone on a rainy day, illuminating a depth that hearkens to the and profundity of the subject matter it addresses (Figure 45, 2.). Water channels are incorporated into the whole design of the garden, as with the Waterfall Garden, mimicking natural systems, helping to make visible the flow of water in an urban city core where such relationships are usually hidden.

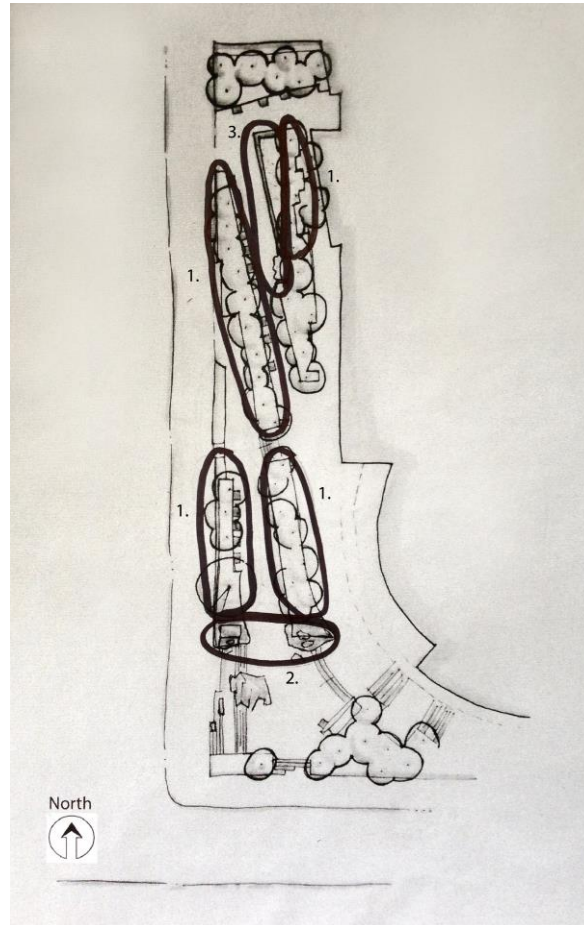
A small water channel runs adjacent to the adjacent Benaroya Hall and seems to tie both spaces together seamlessly (Figure 46). As found in many ancient sacred landscapes the water channels in both the Waterfall Garden and here seem to carry the symbol of water as the renewal of life literally throughout the space. The channels constantly flow through the garden, supporting the surrounding plant life while reminding users of water's unique ability to support and heal all life.



*Figure 46.* Water channel. This water channel flows from the upper end of the Benaroya Hall around the edge of the building into the Garden. Photo by author.



*Figure 47.* Water channel, 2. Photo by author.



*Figure 48.* Garden of Remembrance, foci. Drawing by author.

## **Foci**

**Memorial stone walls.** As I moved through the spaces I gravitated to the small geometric pool of water and the white writing above it (Figure 48, 1.). This space contains slabs that name the garden and give a quote that encompasses its purpose. It is a place of orientation as to the purpose and identity of the space. It also differs compositionally from the other spaces, as it contains a pool and a shorter granite slab, onto which is attached the largest granite boulder in the garden.

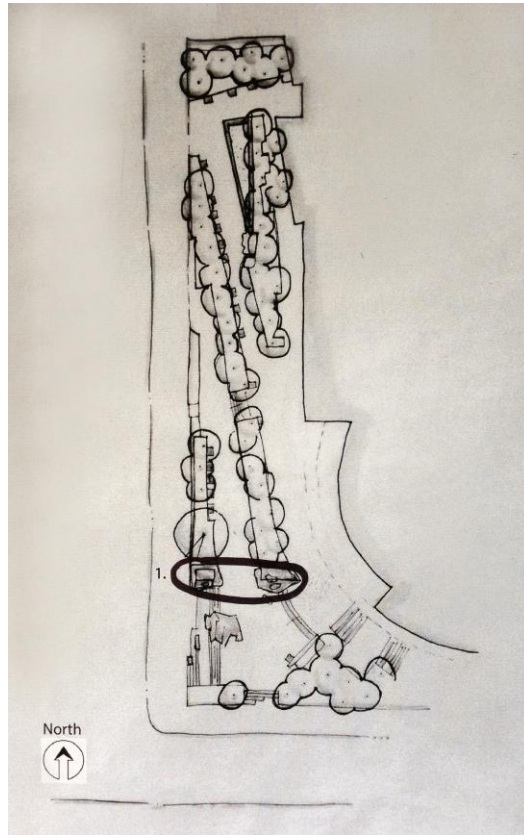
The granite stones in the center of the garden steps, both rough and smooth together, with quotes carved in white, serve as another focal point. It is here where people can gather and sit. Also, from the corner street level the quotes carved here are larger – “Man was not made for himself alone - Plato” - inviting people to come up the steps and explore the space further.

**Fountain.** Two miniature waterfalls and small pools at the east end of the plaza frame the middle tiered path through the garden (Figure 48, 2.). These waterfalls mimic natural falls beautifully and are the only source of sound and motion on site.

**Pool.** As mentioned, in the upper garden space, a small asymmetrical pool glides off the bottom edge of a large and smooth black granite boulder onto which the words “Garden of Remembrance” are carved (Figure 48, 3.). The water is a beautiful blue/green, only a few inches deep. The shallow pool of water beneath the smooth wall of stone completes a beautifully integrated focal point of the space (Figure 39). From the west the flaring angle of the space draws one in, pulling one to the narrower end of the space that ultimately leads to the street. From the west, the mystery of the seemingly more enclosed space hidden partially by a large rough dark boulder raises interest. The appearance of the pool and the smooth stone are a welcome surprise and create a deep sense of satisfaction upon arrival.

### **Thresholds**

**Stones.** Two large black granite boulders roughly tiered act as small waterfalls depositing water into small pools below (Figure 49, 1.). They mark the east entrance of the central tier and demarcate space transition (Figure 50).



*Figure 49.* Garden of Remembrance, thresholds. Drawing by author.



*Figure 50.* Stone threshold. Photo by author.

### **Presence of Archetypal Design Elements**

**Sacred stone.** The most compelling archetype found in the garden is sacred stone. The granite slabs echo the form and purpose of altars upon which the names and memories of the deceased are honored and the past made alive. They act as both headstone and mirror: a place of memorial and a place where the glossy dark surface of the stone reflects our own image, tying our present state to the fate of those who died in the past. I felt a great reverence evoked by the solemn continuance of the long walls of stone, softened by the gleam of water on their surface and the sound of water falling.

The integration of smooth and rough-hewn stone creates a beautiful juxtaposition of new and old. The design seems to commemorate those who have recently passed on in service of Country with those of the more distant past. I found an ancient sense of reverence for those who have sacrificed for a greater good.

**Water: still, moving.** The beautiful small waterfalls at the east end of the plaza evoked a sense comfort in the continuance of life, while the pool of water in the upper Garden felt like the source; it rests at the top of the Garden space and though it seems separate from the two fountains visually, there is a sense that they are somehow connected underground as they would most likely be in a natural system. Pools of water are seen throughout time as the source of life and regeneration (Eliade, 1991) and here I felt serenity and a sense of renewal in its simple yet powerful arrangement.

**Sacred grove.** Gardens are historically places set aside from ordinary life for pleasure and/or contemplation (Ronnberg, A. & Martin, K., 2010). The use of trees to line the longitudinal tiered spaces evoked a sense of enclosure in a forest space. The

single golden oak centered in the garden is purposefully reminiscent of the *Tree of Life*, placed by Murase to symbolize remembrance of the cycle of life and to honor the fallen and their families (Figures 37, 41).

### **Orientation of Individual within Larger Order**

There were no design elements that drew my attention to the celestial order, to planets or the sun or moon. My visual attention reached only as far as the deciduous canopy above but mostly remained on the words carved in the dark stone. While Murase intended for the golden oak to symbolize the Tree of Life I was not aware of its existence and perhaps due to its lack of foliage, overlooked it almost entirely.

**Orientation within space.** As mentioned in the section “Spaces,” the space is tiered with all paths cutting diagonally across the garden. As there is no loss of sight from one end of the space to the other, no major elements to orient visitors are necessary.

**Reorientation in space.** No transitional space for reorientation is needed as the garden is not divided from the sidewalk and surrounding streetscape but is a continuation of pedestrian experience within the city. I moved seamlessly from the sidewalk up the garden paths with the feeling that I was entering a different space but with a continued sense of orientation within both the garden and the city.

### **Summary Comments**

The recurrent themes of healing water, sacred stone and sacred grove are found working in harmony in the Garden of Remembrance. As seen in historical examples, the junction of water, stone and sacred tree or grove was common in sacred spaces (Eliade,



1991). These themes were found operating in this space designed for circulation with the possibility of rest incorporated into the design. Murase intended the Garden of Remembrance to be a space of both contemplation and socializing and its continued use as both proves its effectiveness (Murase Associates, 2014). My experience of the space, seemingly due to the weather, was entirely as a space of contemplation.

### **Case Study 3: Waterfall Garden Park, 219 2nd Avenue South, Seattle Washington**

Created to commemorate the birthplace of the United Parcel Service (1907), Waterfall Garden Park is a private pocket park open to the public on the corner of Main Street and 2<sup>nd</sup> Avenue, in the Pioneer Square District of Seattle, Washington. Designed by Sasaki, Dawson and DeMay – Masao Kinoshita of the Sasaki office was the primary designer – Waterfall Garden Park opened in 1978. Its compact design (60 by 80 feet, approximately .1 acre) is a modern interpretation of a Japanese garden. A contemplative “pocket park”, the Garden is Seattle’s response to the celebrated Paley Park in New York. Its location is a fundamental part of its overall character; it sits nestled in the heart of the bustle of the city center, created here to give reprieve to those within the city. The garden was completed in 1978 and won the Landscape Award, from the American Association of Nurserymen, 26th Landscape Awards Program in 1981. It is open Monday through Sunday from 8 a.m. to 5:30 p.m. I visited the site on the 17th of December at 11 a.m.

## Separation from Distracting Stimuli

**Degree of physical removal.** While the garden is not removed from outside distractions by distance, it successfully removes the sounds and sights of the city, enough to create the sensation of true physical separation. An iron fence surrounds the garden along the south and east edges along Main St. and 2<sup>nd</sup> Avenue. The other sides are solid, the north wall formed by large rocks and an abutting building, and the west wall also by rocks, and an outer supporting brick wall.

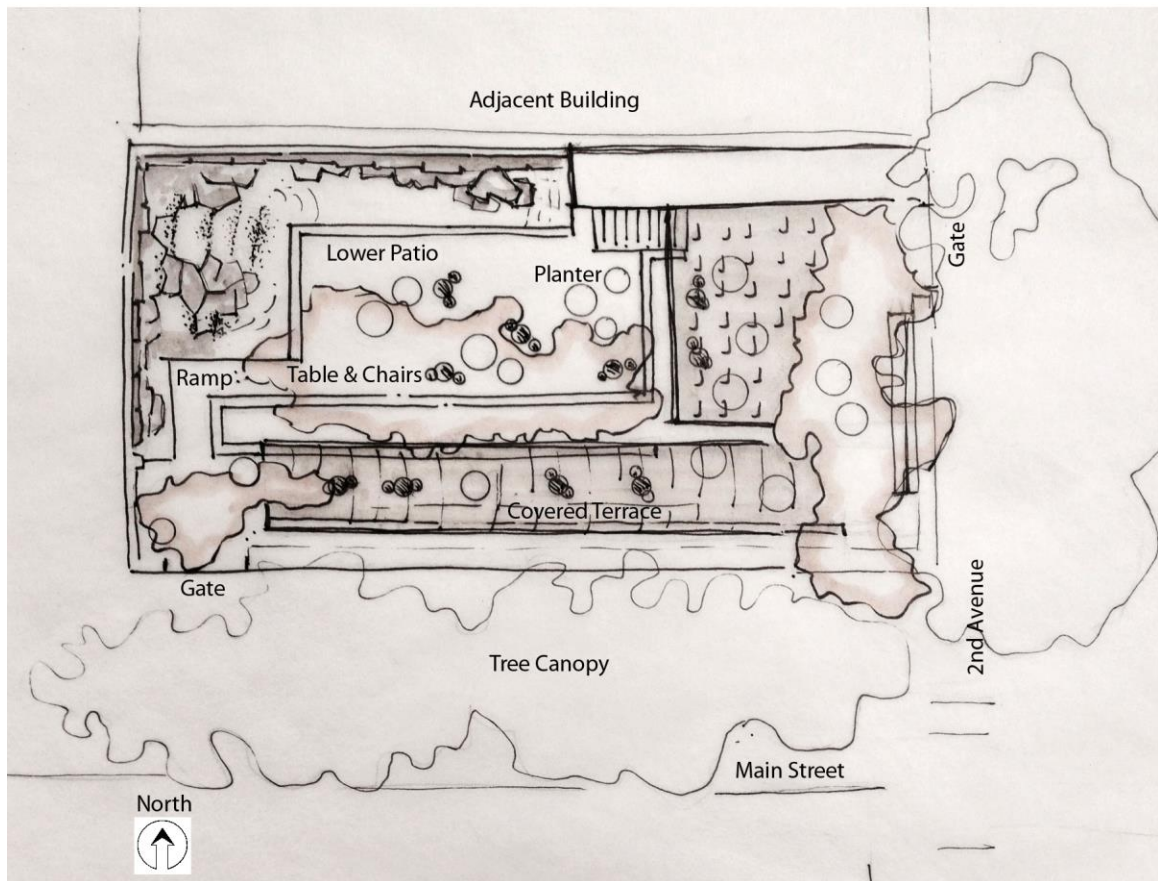


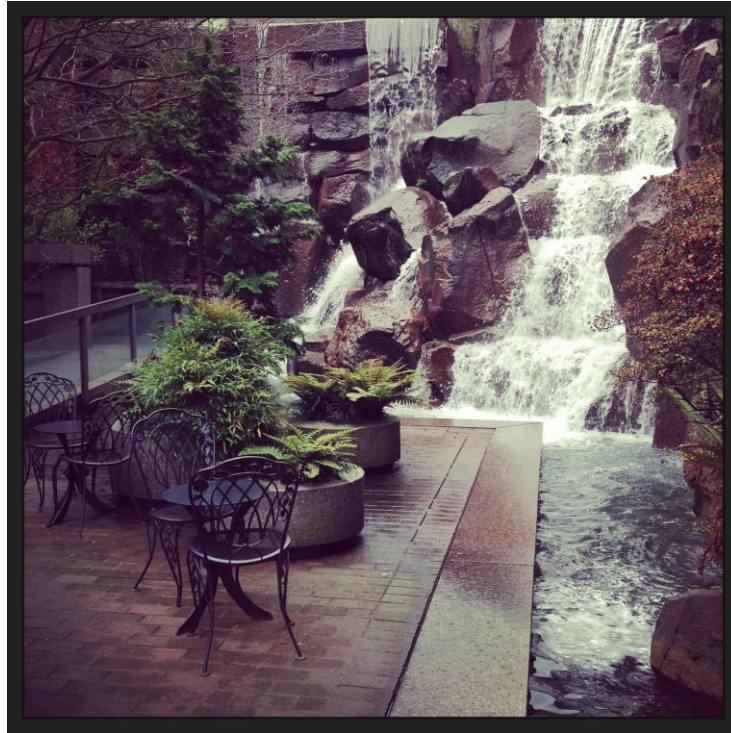
Figure 51. Waterfall Garden Park site plan. Drawing by author.



*Figure 52.* Waterfall Garden Park context map. Google Earth image, 2013.



*Figure 53.* Waterfall Garden Park context map 2. Pioneer Square is located northwest of the garden. Google Earth image, 2013.



*Figure 54.* Lower patio. Looking down onto patio from east end. Photo by author.

Entering from the south, I had an immediate view of an overhead archway that runs east/west across the length of the upper terrace, forming an ‘L’ along the south and east end. The overhead arch blocked views of the city and created, as Appleton (1996) puts it, “a sense of refuge” that juxtaposed nicely with the prospect views out to the city through semi-transparent iron posts lined with vegetation.

**Auditory separation.** The garden’s location in the city makes it impossible to be physically removed from city noise. Yet the continuous sounding of the falls blocks outside sounds and helps create the garden’s own sense of space and identity. While the streets were not very busy on the cold winter morning that I visited - as seen in Figures 55 and 56 - the area is right in the city center and the garden is quite popular.



*Figure 55.* The approach. Gold lettering marks the space for those approaching from the west. Photo by author.



*Figure 56.* South side. Corner of Waterfall Garden Park. Photo by author.

The sound of the 22-foot-high waterfall focused my attention on the falls, blocking the tenor of the surrounding city. The rushing of water immediately grabbed my attention and has the capacity to pull people off the street into the park. Users maintain a strong visual connection to both surrounding streets through the iron fence posts as well as through the two wide entrances that remain open until the park closes at night, which increases the fluidity of movement, light and visual connection between the park and the surrounding city. The creation of a sense of separation from the city allows other elements of contemplative space design to have an effective place in the garden's design.

### **Creation of a Sense of Vastness**

**Framing views.** Both approaches to the garden frame the waterfall at the back northwest corner of the garden (Figure 57). The sound of the waterfall alone captured my attention from outside, but once seen framed in the gates it became the visual center around which all movement in the garden orbits.

Once inside, my attention turned upward, first to take in the height of the falls, and then, moving closer to the falls, it turned to the open sky above the lower patio that sits flush with the bottom of the falls. Here the framing of the open sky by the dark lines of the abutting building, walls, and upper terrace overhang became prominent.

**Open sky, land, and water.** As mentioned, views open to the sky on the lower patio level. My eyes were drawn upwards not only by the falls but by the abutting brick building that rises high above along the north wall of the park. The sky itself was



*Figure 57.* View from south entrance. Photo by author.

not a focal point per se, but helped create a sense of visual vastness in an otherwise horizontally-constrained space (Figure 58).

**Scale.** This park masterfully evokes a sense of internal vastness through its use of scale. The falls themselves are a microcosm, a world in a relatively small space that is representative of a larger system. This sense of microcosm is achieved by the stunning scale of the waterfall in comparison to dimensions of the space. The amount and size of vegetation in proportion with the scale of the falls, felt very true to a natural scenario. Everything is scaled in relationship to the waterfalls; the small round tables and chairs on the lower terrace are surrounded by large-leafed vegetation, potted to create an even higher line of vegetation. The falls pour down over large boulders into a shallow, elongated pool that is formed by perpendicular, smooth stone edges. The combination



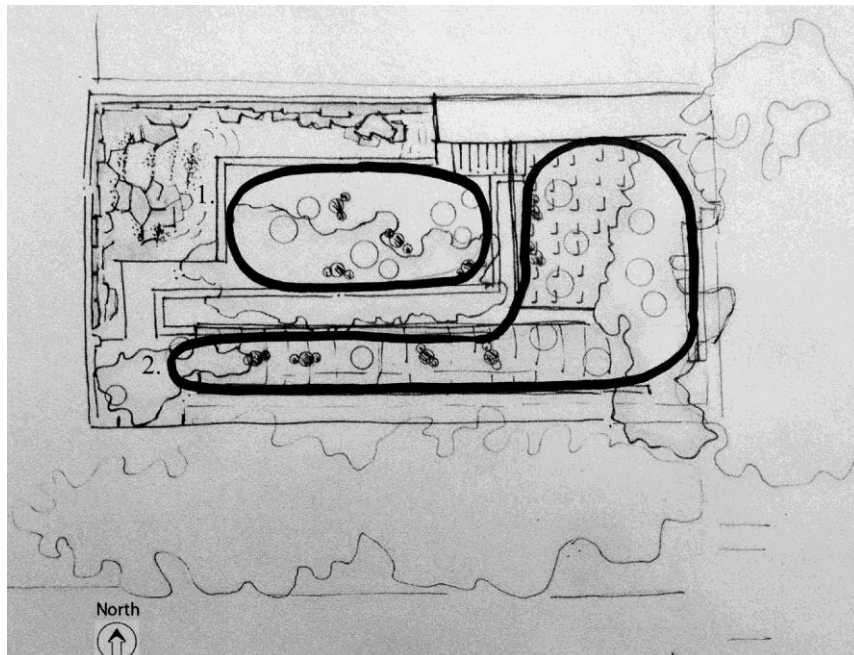
*Figure 58.* Open patio. Photo by author.

of the natural forms of the granite boulders and the clean lines of the pond into which the water falls made this space feel both expansive and contained, natural and designed.

**Motion.** The smooth and continuous repetitive motion of falling water created a sense of mesmerization and fascination within me. It captured my attention and seemed the perfect catalyst for contemplative beholding. Following the water with my eye from the top of the falls down into the pool below was almost endlessly captivating. I found this motion as effective in evoking contemplation as the way deep and conscious repetitive breathing serves mediation. Focusing on the continuous nature of the water allowed my mind to let go of thoughts about day-to-day activity and to be open to whatever arose from contemplative beholding.



**Sound.** The continuous and repetitive sound of the waterfall crashing worked in tandem with the motion of the falls, creating an incredibly powerful and captivating focal point. Even when visitors are not watching the falls, the powerful sound of water falling has the potential to captivate the mind and create a space of introspection, as conversation above the sound is difficult. While the falls are not uncomfortably loud, they prevent much interaction with others by creating an auditory buffer. This allows individuals to come into a relatively small space and not feel awkward about sitting in fairly close proximity to others. It creates a sense of relaxation and relief; one can come here and escape and not worry about the potential awkwardness of being in the garden with only one or two other people or alone.



*Figure 59.* Waterfall Garden Park, spaces. Drawing by author.

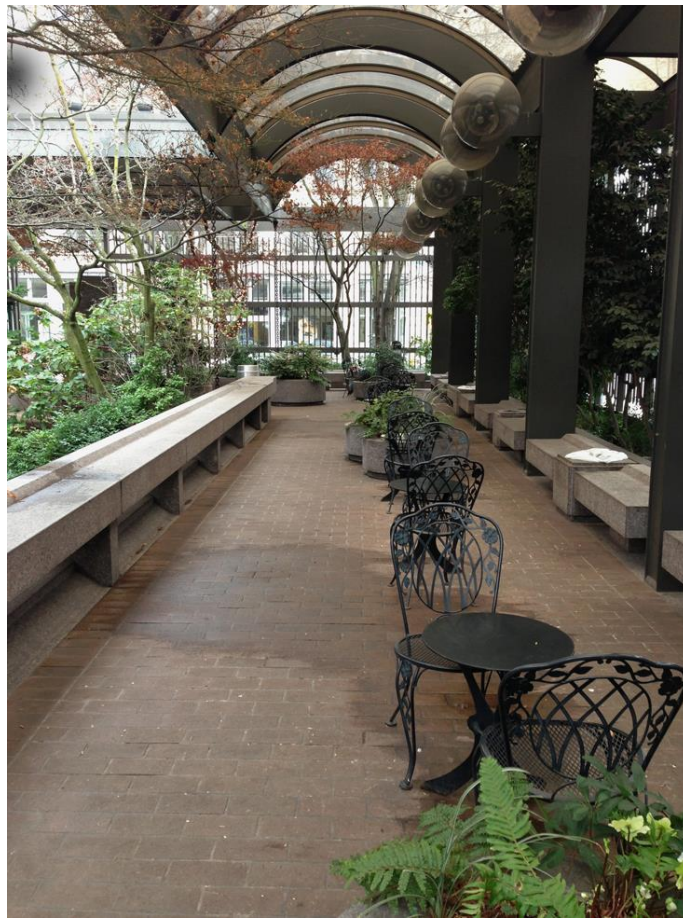
## **The Harmonious Integration of Spatial Qualities**

**Spaces - lower patio.** The lower patio space feels more like a sanctuary and retreat than the upper terrace (Figure 59, 1.). Small spaces within the lower patio, divided by vegetation, are much more private. The lower patio is framed by a low, stone seating wall. An 'L' shaped vegetative buffer a few times wider than the stone seating wall creates a buffer between the lower patio and upper terrace stone seating edge that runs along the east and south end.

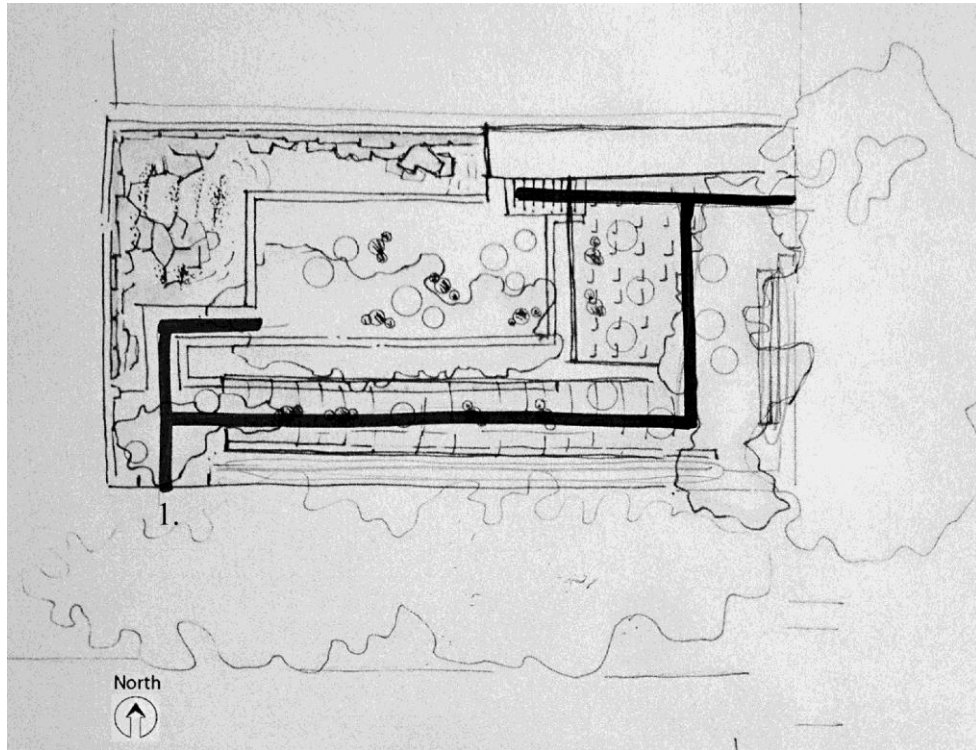
Small spaces within the lower patio space are created by the combination of the surrounding vegetation buffer and large round planters that hold medium-sized trees and large-leafed tropical plants. One can sit either facing the falls with no obstructions between them, or back at a table or along the stone wall. This allows for a variety of interactions. I felt the excitement of being on the same level as the falls, and up close, feeling the power of the water and the touch of mist, and while sitting level with the falls but veiled from them and other people as I sat at a table further away. This last placement within the space created a sense of mystery and awe of its own right; I felt truly in a wild or natural setting away from any urban center and able to focus freely on the beauty of the surrounding images and sounds.

**Upper terrace.** I found the upper terrace space design less conducive to reaching a contemplative state due to its nature as more of a thoroughfare (Figure 59, 2.). Although close to empty when I visited, this space is designed to accommodate seating and the majority of people moving through. The long rectangular space that runs the length of Main St. is lined by a continuous low, smooth stone wall on the inner edge, and

stone slab seating (slightly lower) positioned between dark metal columns on the outer edge. These slabs are cut smooth with a slightly raised back and partition down the center, creating two separate seating areas on each stone (Figure 60). Each area can accommodate two people comfortably. Round stone planters and round tables and chairs run the length of the terrace. There is little privacy for those seated in this space and the possibility of visual distraction or commotion from those walking by or seated nearby could also keep one from being comfortable enough to engage the mind in more meditative thoughts.



*Figure 60.* Upper terrace. Photo by author.



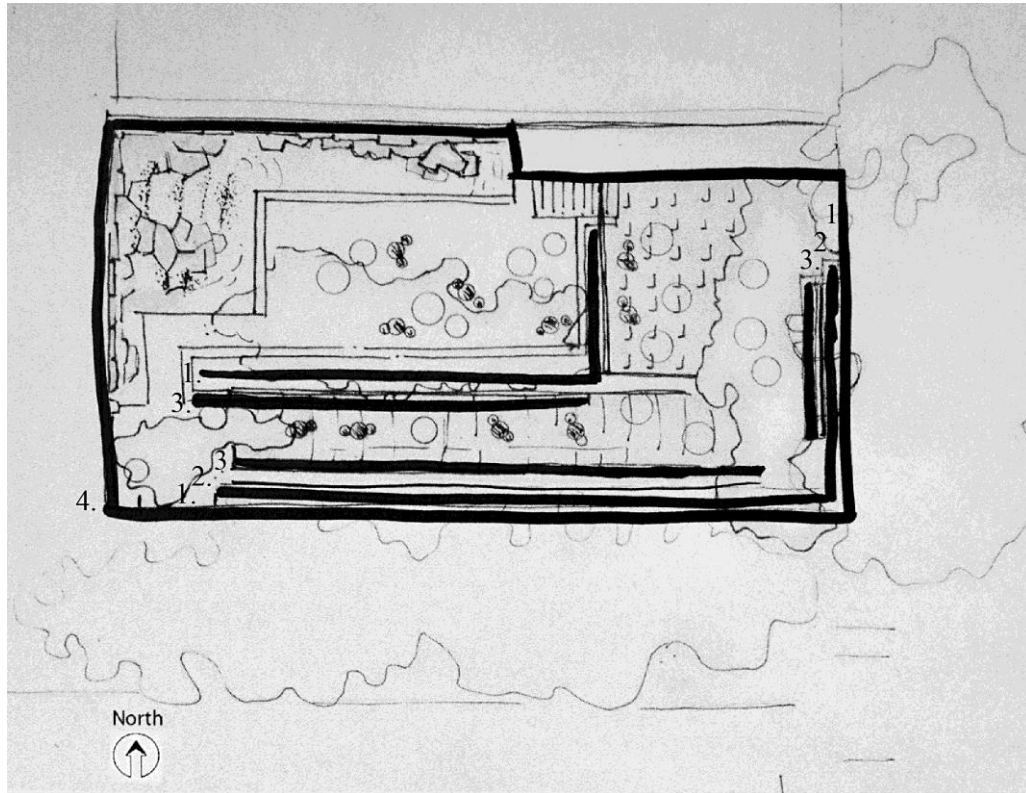
*Figure 61.* Waterfall Garden Park, paths. Drawing by author.

### **Paths**

**Built.** Built paths are incorporated seamlessly with the space itself (Figure 61, 1.). Stairs on the east end align with both the east entrance and the waterfall. The ramp by the south entrance takes the user from the upper terrace space down into the patio next to the falls. Both the terrace and patio floors are composed of clay-red rectangular pavers, framed by thick granite stone edging.

### **Edges**

**Vegetation edge.** As mentioned, inside the iron fence and the surrounding water channel, a vegetation screen lines the garden, limiting visual access into the space but not



*Figure 62.* Waterfall Garden Park, edges. Drawing by author.

significantly blocking visual access out onto the street (Figure 62, 1.). This three foot wide buffer increases the possibility for serenity, protection and refuge, allowing for a sense of prospect (Appleton, 1996) and orientation while not interfering with visual access to the street. It also softens the edge of the fence, adding texture and form, playing an important role in creating transition and visual interest. The upper and lower spaces are separated beautifully by lines of vegetation between the grade change. It was easy to have an immediate, close-up sensory experience of the landscape.

**Water Edge.** A water channel, about a foot wide, creates a raised edge around the east and south edges of the park (Figure 62, 2.). It is a beautiful addition to the



*Figure 63.* Water channel. This water channel borders the garden between the stone seating and the vegetative screen. Photo by author.

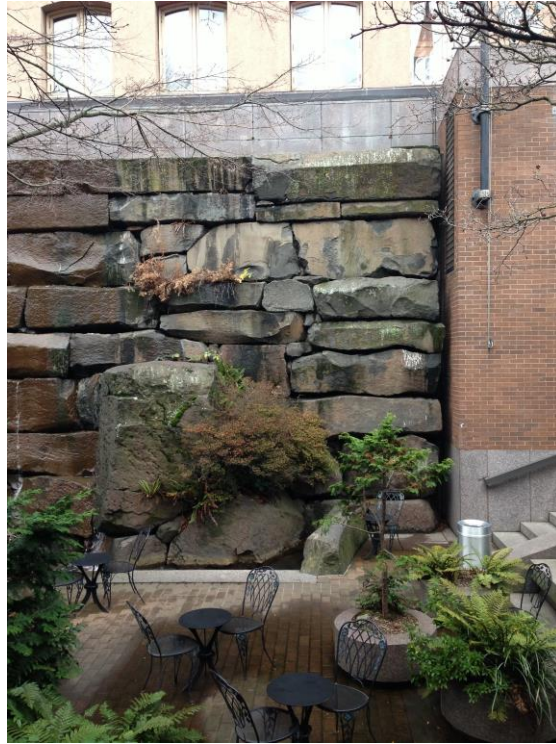
overall design that emphasizes the edge of the garden and serves to visually contain the space (Figure 64).

**Stone seating edges.** The beautiful terracing mimics the topography of many natural waterfall settings, creating a drop down to the base of the waterfalls that one must follow on foot (Figure 62, 3.). The rock wall on the north end of the garden abuts the brick of the building next to it, and blends and connects the garden on a vertical plane with the city. While the building is only a few stories tall, this vertical element brings the eye upward and creates an edge, like a mountain, that is unsurpassable (Figure 65).

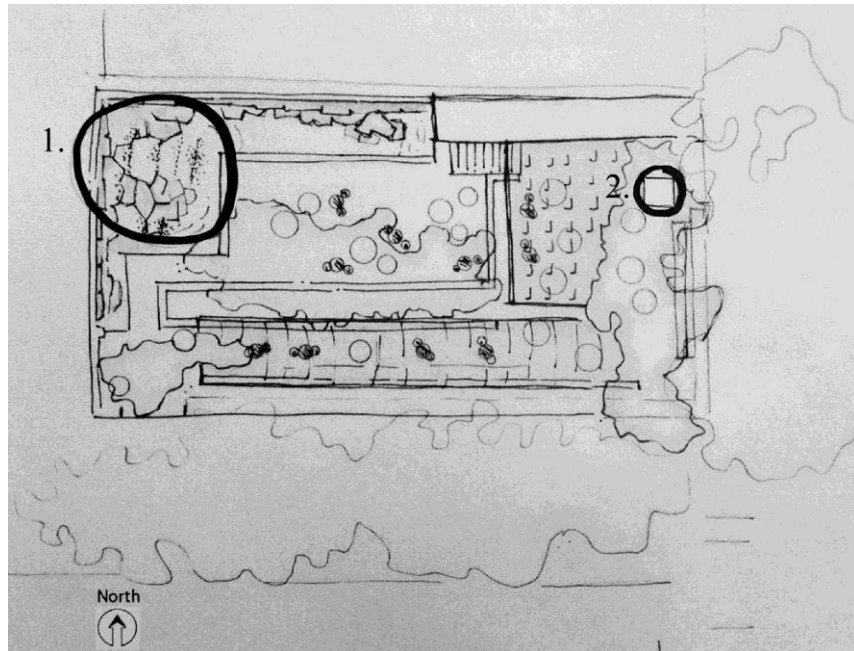


*Figure 64.* Terracing. Stone terracing mimics natural grade changes. Photo by author.

**Iron fence and stone wall edges.** The Garden incorporates an example of an “eroded edge,” a transition between architectural and natural edging, and an important theme in contemporary landscape architecture. As mentioned, the iron fence surrounds the east and south ends of the park while granite stone walls form the west and north boundaries (Figure 62, 4.). Solid walls frame positions of outlook, creating a wonderful sense of security characteristic of spaces that create a strong sense of prospect and refuge



*Figure 65.* Vertical edges. Junction of materials. Photo by author.



*Figure 66.* Waterfall Garden Park, foci. Drawing by author.



(Appleton, 1996). The adjacent building to the north continues the vertical plane three stories, while a brick wall reinforces the inner rock wall to the west (Figure 65).

## Foci

**Waterfall.** The waterfall is the main focal point and namesake of the park (Figure 66, 1.). The vertical form of the falls draws one in through contrast with the surrounding horizontal plane. Its movement, sound, and size attract immediate attention.

**Water sculpture.** The water sculpture is a small focal point in the space (66, 2.). Located just inside the east entrance, the fountain is another microcosm of waterfall and surrounding pool. While it is a beautiful feature of the garden, its presence is superseded by the waterfall.

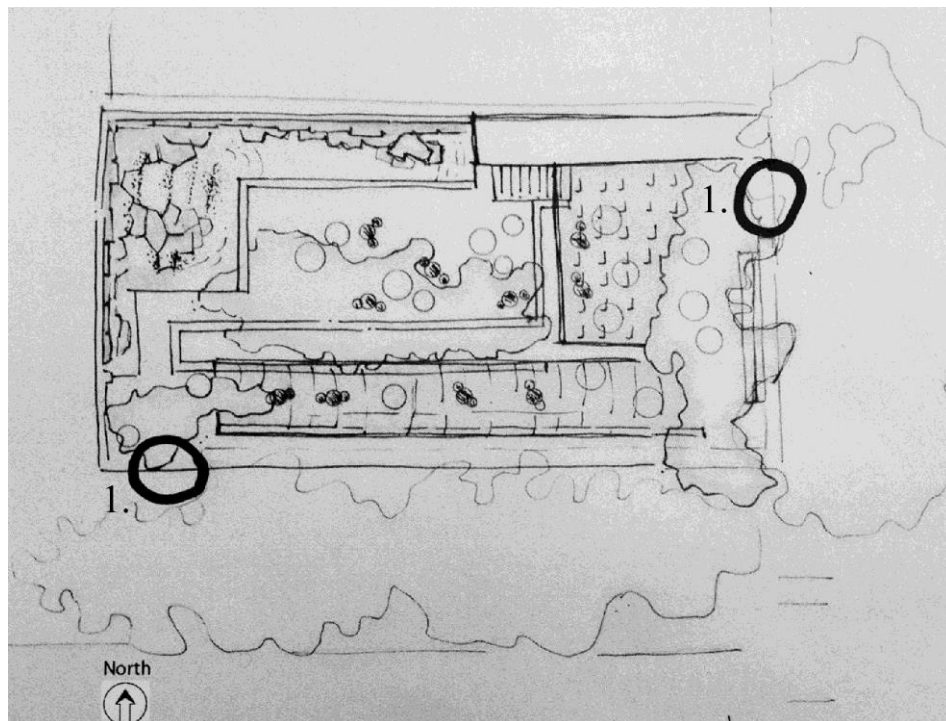


Figure 67. Waterfall Garden Park, thresholds. Drawing by author.

## **Thresholds**

**Entrance thresholds.** The thresholds of this space were an immediate change in space without a preparatory experience (Figure 67, 1.). The gates continue the open and incorporated feel of the space as it claims a place within the fabric of the city.

## **Presence of Archetypal Design Elements**

**Sacred grove.** The garden mimics some major features of a natural forest waterfall. The use of tropical plants dispersed along the edge of terraces creates the feeling of descending a hill or rocky shore toward a waterfall. The garden works as a sanctuary because it does an excellent job of creating not only separation from outside distractions, but also by creating small private spaces within the lower patio, through the use of vegetation planters and buffers. These buffers create privacy, as discussed earlier, but also play a key role in creating visual depth and mystery through concealment and reveals.

**Thresholds.** Both large gates serve as thresholds between the cacophonous energy of the city and the continuous melody of the waterfall that provides respite (Figure 67). Both gates are open during the day so anyone passing on the street has visual access to the source of the sound of rushing water, and can catch a glimpse of the space from both angles as they round the corner. One could also cut through the space, as the alignment from gate to gate cuts a diagonal across the corner of the block.

**Sacred stone.** Large, dark stones create the falls (Figure 68). These stones are roughly hewn and create the feeling of being in a portion of a larger forest landscape. Aged stones are used in many different sacred spaces, such as Zen gardens, as



*Figure 68.* Aged (sacred) stone. Photo by author.

symbols of islands or the Earth itself. The microcosmic effect of the falls and the surrounding stone can remind one of the larger order of the universe and potentially bring the mind out from its daily concerns into a contemplative state.

**Water: still, moving.** Water is the main player in the garden’s design and created a deep sense of relief and rejuvenation as I followed its flow through beautiful design details of carved and rough stone around the circumference of the garden. I was surprised to see how shallow the pool of water at the base of the fountain really is as its dark color adds a degree of depth and vastness to the small park space.

**Sacred cave.** A glass archway covers the length of the upper terrace, creating a similar type of refuge space as the archetypal ‘sacred cave’, a strong contrast to the adjacent open patio (Figure 60). Especially on a day as rainy as the one I experienced,

the space had the feel of a slightly darkened and damp shallow cave from where one can look and watch the outside world.

**Celestial bodies.** While there are no design elements created within the space that align with celestial bodies, the open and framed view of the sky above would provide star gazing opportunities at night.

### **Orientation of Individual within Larger Order**

**Cardinal directions.** Knowing the coordinates of the park is the best way to gauge one's position in terms of the cardinal directions. Because the park is on a corner, this becomes a much easier task; street views to the east and south are visible from inside the space, and creation of a corner gives an added sense of placement within the immediate context and to landmarks nearby.

**Seasonal changes.** The shrubs and understory plants within the space are largely evergreen while many of the small trees are deciduous. As I was there during the winter, the full effect of the leafing deciduous canopies was not felt. I could imagine how the added foliage would create greater shelter from street noise, as well as a greater sense of depth and mystery to the space, providing more nooks and places for solitary contemplation.

**Orientation within space.** Natural and artificial lights have a place in the waterfall park that aids contemplation and orientation. At night and during the day, small lights shine around trees at the east entrance. Globe-like lights hang down along the edge of the long archway and provide light during the evening hours. Round and high, these

lights hang against the dark backdrop of columns and vegetation and appear to mimic stars or celestial bodies in the sky.

**Through links and transitions.** A vertical transition from the upper terrace to the lower patio happens from two places within the space directly in line with the entrances. On the east entrance the lower patio is only accessible by stairs. From the south entrance the lower patio is accessed by ramp (Figure 51). The combination of these built elements and the vegetation that veils the two main spaces from each other serves as the only real transition places in the park space.

**Reorientation in space.** The garden does not contain a transitional space from the street. One step off the sidewalk takes the user immediately in visual and auditory engagement with the waterfalls. The iron fence creates a semi-permeable buffer to the outside street; one look back outside the space can reorient anyone in need.

### **Summary Comments**

Waterfall Garden Park successfully incorporates many design strategies and elements that make it a space in which I could quite easily and successfully enter a contemplative state of mind. While the space is not physically removed from outside distractions by distance, it is successfully removed from distracting sounds and sights of the city, enough to create the sensation of being quite separated. This sense of separation, physical and possibly mental, allows other elements of contemplative space design to reach their full potential.

As mentioned, the design intent of Sasaki was to create a modern interpretation of a Japanese garden, an oasis in the city. I felt that the strong combination of the elemental

archetypes of water, sacred rock, and sacred grove, combined with the harmonious integration of spatial elements created much potential for individual experiences with transcendence.

### **Comparative Analysis**

Comparative analysis was necessary to assess the difference in potentiality of sites based not only on my set of criteria but also on the ways in which the harmonization and integration of the same criteria, for example, could display themselves differently in different settings, causing variations and degrees in success. Comparing the conditions and potentials of the three sites sheds light on the power of certain criteria above others, including certain combinations of spatial qualities, and opens the possibility for factors otherwise not considered. A comparative analysis of criteria allegedly crucial in contemplative space creation and design, also allows for a thorough assessment and evaluation of previous research, most specifically that of Hermann (2005). The comparison chart below lists the five main criteria categories and the three case study sites with my comments on what elements were present and to what degree (Figure 69).

#### **Separation from Distracting Stimuli**

Overall weather was a major player in the atmosphere of all three case study sites and their ability to encourage contemplation. The cold weather made it impossible to linger longer than the one hour to which I committed. It was an ever-present nuisance that kept me from entering a transcendent state. Yet, other elements of the weather brought life to the spaces. At the Garden of Remembrance, the wet surface of the

	Separation from Distracting Stimuli	Creation of a Sense of Vastness	The Harmonious Integration of Spatial Qualities	Presence of Archetypal Design Elements	Orientation of Individual
<b>Gas Works Park</b>	<ul style="list-style-type: none"> <li>• Vegetative screen between road and parking lot.</li> <li>• Another vegetative screen blocks sight and sound between parking lot and park.</li> <li>• Distant traffic acts as white noise.</li> <li>• City is seen at a distance.</li> </ul>	<ul style="list-style-type: none"> <li>• 360-degree views from the top of the Great Mound.</li> <li>• Gentle curve of Ferrissule gives visual sense of increased vastness.</li> <li>• Surrounded by Lake Union.</li> <li>• Main path is snakes through open grass, open sky above.</li> </ul>	<ul style="list-style-type: none"> <li>• Vegetative screen between park and parking lot creates pleasing space transition.</li> <li>• Land/water rhinoceros along lake shore transitions from park and patio areas to integrated seating and viewing areas.</li> <li>• Framed view of the Great Mound through main entrance.</li> <li>• Overall asymmetrical and fluid design of park creates less formal definition of spaces.</li> </ul>	<ul style="list-style-type: none"> <li>• Concrete arches and gas works reminiscent of megalithic/laged stone.</li> <li>• The Great Mound is an expression of the Sacred Mountain.</li> <li>• Lake Union on three sides.</li> <li>• Axis mundi projected vertically through center of the Great Mound with use of Sundial.</li> </ul>	<ul style="list-style-type: none"> <li>• The Great Mound, high point from which all of site is visible.</li> <li>• Sundial crowns The Great Mound, uses position of visitor in relation to sun to tell time.</li> <li>• Large open sky provides unobstructed view of stars and moon.</li> <li>• Visual orientation on terrestrial plane established by view of downtown, and 360-degree views.</li> </ul>
<b>Waterfall Garden</b>	<ul style="list-style-type: none"> <li>• Located in downtown Seattle.</li> <li>• Garden empty but for security guard behind a partially hidden door.</li> <li>• Cold and wet weather was distracting and kept other visitors away.</li> <li>• Waterfalls blocks City sounds.</li> <li>• Garden surrounded by permeable iron fence.</li> <li>• Sound of waterfalls does not encourage conversation; ideal place to think.</li> </ul>	<ul style="list-style-type: none"> <li>• Continuous visual flow of water sound, conducive to meditation and contemplation. Sense of fascination and mesmerization.</li> <li>• Garden space is microcosmic; feels like replication of forest landscape at smaller scale.</li> <li>• Waterfalls are framed at each entrance.</li> <li>• Vertical vastness felt in open sky above waterfall. Its effect is heightened by juxtaposition covered terraces.</li> </ul>	<ul style="list-style-type: none"> <li>• Creation of small semi-private spaces through vegetative screening in lower patio.</li> <li>• Grade changes (terracing) invokes mountainous terrain.</li> <li>• Iron fence surrounding garden is a semi-permeable threshold that encloses the space.</li> <li>• Two main spaces exist: an upper terrace and a lower patio, connected by stairs on the east end and a ramp on the south.</li> <li>• Water channels create soft edge around garden.</li> <li>• Vegetative materials and stone beautifully integrated to create terraced seating.</li> <li>• Waterfalls focal point that also form the west and north inner walls of the garden.</li> </ul>	<ul style="list-style-type: none"> <li>• Globe lights line covered darker terrace like stars.</li> <li>• Megalithic dark stone form the water falls.</li> <li>• Presence of still (channel and pool) and flowing (falls) water.</li> <li>• Archway/reminiscent of primeval cave; was dark and damp during winter visit.</li> <li>• Vegetation reminiscent of primeval wood.</li> <li>• Whole space is microcosm of universe.</li> </ul>	<ul style="list-style-type: none"> <li>• Seasonal changes are manifest in changing foliage of deciduous trees.</li> <li>• Visual access to the city.</li> <li>• Globe lights along upper terrace as well as lighting on lower patio provide orientation at night.</li> </ul>
<b>Garden of Remembrance</b>	<ul style="list-style-type: none"> <li>• Built into City with no hard physical or auditory separation.</li> <li>• No one found lingering due to rain.</li> <li>• Easier to become distracted here than at other two sites.</li> </ul>	<ul style="list-style-type: none"> <li>• Not visually as strong as the other sites.</li> <li>• Internal sense of the vast implications of effects of war is pronounced.</li> <li>• Thoughts lead to the past reading names of fallen soldiers.</li> </ul>	<ul style="list-style-type: none"> <li>• Stone seats integrated along path face names of veterans and quotes carved into granite.</li> <li>• Terraces formed by integrated vegetated and stone edges.</li> <li>• Four different spaces that function as space and path together: named by the author as Upper Garden, Middle Garden, Lower Garden and side walk.</li> <li>• Water channel edges.</li> </ul>	<ul style="list-style-type: none"> <li>• Megalithic stone (black granite).</li> <li>• Still and flowing water.</li> <li>• Paths along names and dates of wars and those fallen create journey through time.</li> <li>• Reminiscent of sacred grove: filled with trees.</li> </ul>	<ul style="list-style-type: none"> <li>• Thoughts lead to the past reading names of fallen soldiers, orienting reader in historical time.</li> </ul>

Figure 69. Criteria comparison chart. The five categories of analysis for all three case study sites show those criteria that were present in all, some or none of the sites.

black granite memorial stones created such a rich depth and mirror-like effect that caused me, as mentioned, to ponder on my connection to the events of the war while watching my own reflection in the stone. Before it began raining at Gas Works Park, the brilliant sun and dark clouds created such a captivating play of light and shadow on the forms and colors of the landscape that it was the key factor in creating a sense of wonder and encouraging contemplative beholding. Weather is an uncontrollable yet exciting variable that offers a range of potential nuances and rediscovery of place, as well as the potential for rendering the site nearly unusable as a place of contemplation (unless poor weather considered in the design).

### **Creation of a Sense of Vastness**

Of the three sites visited I found Gas Works Park to be most conducive to contemplative beholding from which a transcendent state could follow. A wonderful feel of vastness and removal from the form and fabric of the city, paired with such a direct link to the movement of the sun by way of the sundial are the criteria that made all the difference. Unlike Waterfall Garden Park and the Garden of Remembrance, Gas Works Park is surrounded by considerable distance from the city which helps signal a change in purpose and pace. The stunning 19.1 acres of open green stand in high contrast to the tightly woven city and suburban fabric that surround it. The combination of open land, water and sky, as well as the high contrast lighting created that day had a powerful effect in creating a space that felt set aside for experiencing the wonder of the vastness of the world, mind, and spirit.



### **Harmonious Integration of Spatial Qualities**

Water in motion provides a source for contemplative beholding (Messervy, 1995). I found reoccurring themes of motion and water in all three sites, providing an endless source of fascination that invited contemplation and meditation. Moving water was the main contributing factor to my ability to contemplate in all three of the sites. Gas Works Park did not have water on-site, but the surrounding Lake Union was very effective at capturing my attention. The excitement and tension of the land/water thresholds and the overlook point on the summit of The Great Earth Mound awoke a very innate desire for internal exploration and discovery. Water has always been a mysterious source of life and captivation (Eliade, 1957) and I found my eyes constantly resting on its repetitive motion as a way to see beyond.

Of the three sites visited, the Garden of Remembrance was unique in its designation as a memorial garden and its role in city fabric; it is a garden through which one passes to arrive elsewhere, not purely a destination space. Its location in the heart of downtown Seattle is most effective as a public space dedicated to events that awaken a sense of reverence. Premodern sacred sites most often were deemed sacred because of sacred events that occurred there (Devereux, 2001). It was fascinating to find that the Garden of Remembrance probably carries an air of sacrality not only because of the memories it evokes but also because of the annual Memorial Day Ceremony held on its grounds.

### **Presence of Archetypal Design Elements**

Two of the three gardens – Waterfall Garden and the Garden of Remembrance – were directly influenced by Japanese garden style. Because of this, their designs used mainly elemental archetypes as the building blocks of their form, coupled with harmonious integration of spatial qualities. My mind was cued to the power these spaces had to foster existential ponderings without the conscious thought of their Japanese influence but of their archetypal forms. I also found that design archetypes, such as ‘cosmic mountain’, ‘sacred grove’, and ‘cave’ seemed to hold an equal amount of influence on me, meaning the presence of any one in itself was influential. Grouped together, they were still more powerful.

### **Orientation of Individual**

Gas Works Park was also the most successful at creating a powerful sense of orientation in all its subcategories: on a larger (cosmic) order, within the framework of the physical community, and on-site. Orientation both vertically and horizontally was central to my ability to disengage from an “I/it” state of mind and to move toward a “we” frame of mind, a sense of communion. The satisfaction of feeling so connected in space and time was felt keenly at Gas Works Park and therefore missed when it was not as strongly felt at the Waterfall Garden or Garden of Remembrance. The importance of orientation both vertically and horizontally is emphasized in the strong and immediately revealed main purpose of the park -- to create an invitation to contemplation.

I was not surprised to find a lack of elements of orientation on a cosmic scale in Waterfall Garden Park and the Garden of Remembrance. There seemed to be an instinctual connection to the cosmos more overtly displayed in Gas Works Park, in a

space more remote and open and able to invite a true and undistracted gaze upward.

In the two garden case study sites, an eye on the horizontal happenings was advantageous as the spaces are designed to capture interest there, and those with whom I shared the space were in close enough proximity that keeping an eye out made more sense than keeping one above.

## CHAPTER V

### SUMMARY COMMENTS

#### **Findings**

##### **Historical Context**

The findings of this thesis support the claim that commonalities among sacred and contemplative elements continue across space and time and include identifiable and underlying principles that shape the physical characteristics of landscapes. Through historical overview, this thesis demonstrated the presence of contemplative, (and sacred) landscapes from premodern times to the present. While communities of premodern times participated in ritual acts in sacred landscape that created shared experiences, landscapes for present times are designed for the individual experience in community (Eliade, 1957). Reintroducing commonly held physical attributes of contemplative spaces is a fundamental and necessary way to reflect the need for integrated ways of knowing in the landscape.

##### **Case Studies**

This thesis addressed, through case studies devised of comparative analysis of design criteria and my reflective analysis, the benefits of further understanding the design elements of spaces of transcendence and the role of introducing these elements into public landscapes. While the subjective nature of this study brings limiting factors and complications, some of these very complications and perceived difficulties allow for a

clearer vision of how involved and complex the study of the transcendent through the lens of design elements and personal perception can be, illuminating specific needs for continued study and honest evaluation.

Case studies that include my personal experience in the three sites revealed that certain combinations of criteria seem to have the potential of being more effective than others. I found the combination of “physical removal” from distracting stimuli and a visual “sense of vastness” as experienced at Gas Works Park to be foundational to my ability to engage in contemplative beholding. The lack of these two criteria in the other two case study sites was most missed and desired. Combined also with a strong sense of ‘orientation’ and spatial creation of ‘prospect and refuge’ (Appleton, 1996), Gas Works Park was most conducive to contemplation with the possibility of experiencing the transcendent. This combination created a sense of security (the physical refuge of The Great Earth Mound), a strong sense of prospect (views from the Mound) and sense of extent and fascination (Kaplan & Kaplan, 1995). Another powerful combination was ‘water in motion’ and the archetypal ‘sacred grove’ found in both the Garden of Remembrance and Waterfall Garden Park. These criteria had a calming and meditative effect.

I also found that the subtle journey motif of Gas Works Park, manifest in path design, offered an experience not found at the other two sites. Here, I was able to move through different spaces that led to a final focal point with views and the revelation of an unexpected element (sundial). The importance of the journey aspect of spaces of transcendence that Messervy (1990) illustrates was reinforced here. Also, the importance

of mystery in the landscape (Kaplan & Kaplan, 1989) was evident in the hidden crown of the Mound.

Although not used directly as criteria in this study, the adjectives agreed upon by those surveyed in the Bermudez and Ro (2012) study were experienced at Gas Works Park. The Park was where I felt most strongly able to describe the space, as I arrived at the top of the Mound, as “strongly *pleasurable*” and I felt “the *timeless* nature of *physical, sensorial, and perceptual* reality” (p. 691). My experiences in all three case study sites, along with findings from my historical research, lead me to believe that “in the right conditions”, not just architectural but landscape architectural atmospheres “can and do become gateways to transcendental experiences” (2012, p. 691).

### **Conclusions**

From premodern times to the present day we find demonstrated changes and consistencies in purpose and design of sacred landscapes. The consistencies found by research from many fields could mean that the human mind still draws significance from specific symbols and design elements. Further surveying and case study results could show that creating spaces of contemplation conducive to reaching transcendence is not so elusive. The connections found in restorative landscape design to contemplative landscape design also suggest that these spaces have similar potential toward mental and spiritual restoration (Krinke, 2005). These kind of potential linkages have repercussions that begin with the individual, but as the spaces are public in nature, they also have the ability to affect community at large.

While I acknowledge different interpretations of landscape and its meaning, I also find that there are archetypes that transcend time and reflect some sense of universality in the human condition. This thesis does not claim there is or needs to be a unified understanding of man's origins or a shared cosmology, but that the ancient need to feel connected to something larger than ourselves remains in us. This paper attempted to explore what some of those essential elements within a landscape experience might be.

While many of the criteria examined have been studied elsewhere in various combinations, this study uniquely combines criteria suggested by Hermann (2005), Dee (2001), and Messervy (1990), while also taking into consideration the findings of Kaplan and Kaplan (1989) and Bermudez and Ro (2012). Although I found that the greatest combination of criteria (found in Gas Works Park) created the best environment for reaching a transcendent state, it is possible that other factors and criteria exist that could enhance and strengthen these environments. This study would therefore benefit greatly from other case study analyses that shed further light on the need for or lack of certain criteria either in tandem with others or individually.

The study of the role of the transcendent in landscapes has the potential to change the way the creation of landscapes, particularly in areas that lack spaces with the potential to evoke the transcendent, are thought of and constructed. This study ultimately shows that the contemplative powers of a site exist on a spectrum and reinforces the belief by landscape architects such as Krinke (2005) and Hermann (2005) that every landscape architecture project can successfully incorporate some degree of contemplative design, the individual benefits of which can be great and as a community continue to be explored.

Contemporary landscapes of contemplation can produce a powerful resonance that is felt universally, and which is imperative to creating a deeper connection with the world.

### **Further Research**

One visit to each case study site is not enough. Two visits planned at different times of year and/or day, for example, would in all likelihood, create a different experience. The change in feel from rain to sun, along with the presence of deciduous tree canopies, from a first-time to on-going experiences with a space, would most definitely produce different effects. Experiencing each case study site in different seasons would reveal other ways in which weather can add to contemplative beholding or take away from it. Subjective variables not considered here, such as the roles of rest, hunger, or emotion, could weigh into the evaluation of the spaces.

As noted in the “Case Studies and Reflective Analysis” section, two of the sites (Garden of Remembrance and Waterfall Garden Park) are in the downtown urban setting of Seattle. Gas Works Park is located in the suburbs. While site context is important to the analysis of the potential experience of the transcendent, it is outside the focus of this thesis to discuss the urban nature of spaces.

A discussion of the potential benefits for individuals and the community at large is beyond the scope of this thesis and therefore only briefly speculated. Further analysis into the potential power of incorporating archetypal design elements in other types of community landscapes, for example, hospital gardens and university campuses, would prove informative. Further studies on the possibilities of situations, locations, and



functions of landscape, as pertains specifically to community and contemplation, are all needed. A discussion of possible implications related to issues of “placelessness” (Relph, 1976) would potentially bring added insight.

Studies are needed that evaluate and survey the experience of multiple users – such as those conducted by Bermudez and Ro (2012) – in a variety of landscape spaces, both those created as spaces of contemplation and transcendence, that contain criteria to some degree, and those which have the capacity to become such. The way architects and scholars from a variety of interests and practices are advocating the role of the spiritual in their disciplines should encourage landscape architects to follow suit.

## REFERENCES

- ANFA (Academy of Neuroscience for Architecture). Retrieved from <http://www.anfarch.org/>
- Architecture, Culture and Spirituality (ACS). (2013). Spirituality in the larger context. Retrieved from <http://www.acsforum.org/definitions.htm>
- Alexander, C. (1977). *A pattern language*. New York, NY: Oxford University Press.
- Alexander, C. (2003). *The nature of order: An essay on the art of building and the nature of the universe*. London, UK: Routledge.
- Appleton, J. (1996). *The experience of landscape*. London, UK: Wiley.
- Bermudez, J. (2009). The extraordinary in architecture: Studying and acknowledging the reality of the spiritual. *Architecture and Art*, 12, 45-49.
- Bermudez, J., & Ro, B. (2012). Extraordinary architectural experiences: Comparative study of three paradigmatic cases of sacred spaces - The Pantheon, the Chartres Cathedral and the Chapel of Ronchamp. In *Ambiances in action. Proceedings of the 2<sup>nd</sup> International Congress on Ambiances / Ambiances en acte(s). Actes du 2<sup>nd</sup> Congrès International sur les Ambiances* (pp. 689-694). Retrieved from <http://halshs.archives-ouvertes.fr/halshs-00746645>
- Bradley, I. (2010). *The celtic way*. London, UK: Darton, Longman and Todd.
- Brennan, M. (1980). *The boyne valley vision*. Portlaoise, IE: Dolmen Press.
- Burke, E. (1757). *A philosophical enquiry into the origin of our ideas of the sublime and Beautiful*. London, UK: R. and J. Dodsley.
- Campbell, J. (1968). *The hero with a thousand faces*. Princeton, NJ: Princeton University Press.
- Carmichael, D.L., Hubert, J., Reeves, B., & Schanche, A. (Eds.). (1994). *Sacred sites, sacred places*. London, UK: Routledge.

- Chidester, D., & Linenthal, E.T. (1995). *American sacred space*. Bloomington, IN: Indiana University Press.
- Ching, (2007).
- Cook, R. (1974). *The tree of life: Image for the cosmos*. New York, NY: Thames and Hudson.
- Covell, J.E.H.C. (1980). *Unraveling zen's red thread: Ikkyu's controversial way*. Seoul, KR: Hollym International.
- Dee, C. (2001). *Form and fabric in landscape architecture: A visual introduction*. New York, NY: Spon Press.
- Devereux, P. (2001). *The sacred place*. London, UK: Cassell & Co.
- Durback, R. (2000). Contemplation: Journey inward or journey outward? In V. Manss, M. Frohlich, & T. Edwards (Eds.), *The lay contemplative: Testimonies, perspectives, resources* (p. 14). Cincinnati, OH: St. Anthony Messenger Press.
- Eberhard, J.P. (2009). *Brain landscape*. New York, NY: Oxford University Press.
- Eliade, M. (1957). *The sacred and the profane*. Orlando, FL: Harcourt.
- Eliade, M. (1958). *Patterns in comparative religion*. New York, NY: Sheed and Ward.
- Eliade, M. (1969). *The quest: History and meaning in religion*. Chicago, IL: University of Chicago Press.
- Eliade, M. (1963). *Myth and reality*. New York, NY: Harper & Row.
- Frohlich, M. (2000). Lonely valleys and strange islands: contemplative conversations with the 'other'. In V. Manss, M. Frohlich, & T. Edwards (Eds.), *The lay contemplative: testimonies, perspectives, resources* (pp. 71-72). Cincinnati, OH: St. Anthony Messenger Press.
- Gilpin, W. (1976). *Dialogue upon the gardens at Stowe*. Los Angeles, CA: Augustan Reprint Society. (Original work published 1748)

- Hadingham, E. (1984). *Early man and the cosmos*. Norman, OK: University of Oklahoma Press.
- Harbeson, R. (1977). *Eccentric spaces*. New York, NY: Alfred A. Knopf.
- Hatch, S. K. (2000). The formation of the everyday contemplative. In V. Manss, M. Frohlich, & T. Edwards (Eds.), *The lay contemplative: Testimonies, perspectives, resources* (p. 59). Cincinnati, OH: St. Anthony Messenger Press.
- Hermann, H. (2005). On the transcendent in landscapes of contemplation. In R. Krinke (Ed.), *Contemporary landscapes of contemplation* (pp. 36-72). London, UK: Routledge.
- Hubbard, P., & Kitchin, R. (2011). *Key thinkers on space and place*. Los Angeles, CA: Sage.
- Jung, C.G. (1927). *The structure and dynamics of the psyche (Collected works of C.G. Jung, volume 8)*. Princeton, NJ: Princeton University Press.
- Jung, C.G. (1969). *Archetypes of the collective unconscious*. London, UK: Routledge.
- Kabat-Zinn, J. (1994). Catalyzing movement toward a more contemplative/sacred-appreciating/non-dualistic society. Retrieved from <http://www.contemplativemind.org/resources/pubs/kabat-zinn.html>
- Kahn, L. (1960). The new art of urban design: Are we equipped? In R. Twombly (Ed.), *Louis Kahn: Essential texts* (p. 75). New York, NY: Norton.
- Kant, I. (1960). *Observations on the feeling of the beautiful and sublime*. Oakland, CA: University of California Press (Original work published 1764)
- Kaplan, R., & Kaplan, S. (1989). *The experience of nature: A psychological perspective*. Cambridge, MA: Cambridge University Press.
- Kaplan, R., & Kaplan, S. (1995). The restorative benefits of nature: Toward an integrative framework. *Green Psychology*, 15(3), 169-182.
- Kaplan, S. (2001). Meditation, restoration, and the management of mental fatigue. *Environment and Behavior*. 33(4), 499-500.

- Krinke, R. (2005). *Contemporary landscapes of contemplation*. New York, NY: Routledge.
- Lane, B.C. (2002). *Landscapes of the sacred*. Baltimore, MD: The Johns Hopkins University Press.
- Lavoie, C. (1998). The wall / ruin: Meaning and memory in the landscape. *Landscape Review*. 4(1), 27-38.
- Lavoie, C. (2006). Silence and chance operation: Adapting John Cage's musical concepts in design. In G. Lasker, J. Lily, & J. Rhodes (Eds.), *Systems research in the arts volume III: Music, environmental design and the choreography of space* (pp. 77-81). Tecumseh, ON: The International Institute for Advanced Studies in Systems Research and Cybernetics.
- Le Corbusier (1948). *New world of space*. New York, NY: Reynal and Hitchcock.
- Lethaby, W.R. (1974). *Architecture, mysticism and myth*. London, UK: Architecture Press.
- Lewis, C.S. (1941). *The weight of glory: And other addresses*. New York, NY: HarperOne.
- Mann, A.T. (2010). *Sacred landscapes: The threshold between worlds*. New York, NY: Sterling.
- Messervy, J.M. (1990). *Contemplative gardens*. Charlottesville, VA: Howell Press.
- Messervy, J.M. (1995). *The inward garden: Creating a place of beauty and meaning*. Boston, MA: Little, Brown and Company.
- Miller, A. (Producer), & Dowling, D. (Director). (2010). *Joseph Campbell and the power of myth with Bill Moyers* [DVD]. United States: Athena.
- Murase Associates (2014). Retrieved from <http://www.murase.com/flash/index.html>
- Nash, R. F. (2001). *Wilderness and the American mind*. New Haven, CT: Yale University

Press.

Nibley, H. (1992). *Temple and cosmos*. Salt Lake City, UT: Deseret Book.

Oxford Dictionary. (2013). Retrieved from <http://www.oxforddictionaries.com/us/>

Otto, R. (1923). *The idea of the holy*. London, UK: Oxford University Press.

Ouellette, P., Kaplan R., & Kaplan, S. (2005). The monastery as a restorative environment. *Journal of Environmental Psychology*, 25(2), 175-188.

Paul, J. (2003). *Shopping malls and other sacred spaces*. Grand Rapids, MI: Brazos Press.

PENN medicine website, (2006). Retrieved from [http://www.uphs.upenn.edu/news/News\\_Releases/jul06/medcog.htm](http://www.uphs.upenn.edu/news/News_Releases/jul06/medcog.htm)

Pottejger, M., & Purinton, J. (1998). *Landscape narratives: Design practices for telling stories*. New York, NY: Wiley.

Rahner, K. 1978. *Foundations of christian faith: An introduction to the idea of christianity*. (W.V. Dych, Trans.). New York, NY: The Seabury Press. (Original work published 1976)

Relph, E.C. (1976). *Place and placelessness*. London, UK: Pion Limited.

Ricoeur, P. (1967). *The symbolism of evil*. New York, NY: Harper & Row.

Riley, R.B. (1988). From sacred grove to Disney World: The search for garden meaning. *Landscape Journal*, 8, 136-147.

Rogers, E.B. (2001). *Landscape design: A cultural and architectural history*. New York, NY: Harry N. Abrams.

Ronnberg, A., & Martin, K. (2010). *The book of symbols: Reflections on archetypal images*. Cologne, DE: Taschen.

Sandercock, L. (1998). *Towards cosmopolis: Planning for multicultural cities*.

New York, NY: Wiley.

de Santillana, G., & von Dechend, H. (1977). *Hamlet's mill*. Boston, MA: Godine.

Sennett, R. (1990). *The conscience of the eye: The design and social life of cities*. New York, NY: W. W. Norton.

Smith, J. Z. (1987). *To take place: Toward theory in ritual*. Chicago, IL: University of Chicago Press.

Stoner, T., & Rapp, C. (2008). *Open spaces sacred places: Stories of how nature heals and unifies*. Annapolis, MD: TKF Foundation.

Thompson, J.W. (1989). Landscape of dream, warrior of vision. *Landscape Architecture*, 9(4), 81-86.

Thurman, R.A.F. (1994). Meditation and education: Buddhist India, Tibet and modern America. Retrieved from <http://www.contemplativemind.org/archives/869>

Treib, M. (1979). Traces upon the land: The formalistic landscape. *Architectural Association Quarterly*, 11(4), 28-39.

Tuan, Y.F. (1974). *Topophilia: A study of environmental perception, attitudes, and values*. Englewood Cliffs, NJ: Prentice Hall.

Tuan, Y.F. (1977). *Space and place: The perspective of experience*. Minneapolis, MN: University of Minnesota Press.

University of Wisconsin "Body-mind center" (2013). Retrieved from <http://aging.wisc.edu/research/mindbody.php>

Welch, J.W., & Parry, D.W. (2011). *The tree of life: From eden to eternity*. Neal A. Maxwell Institute for Religious Scholarship Brigham Young University. Salt Lake City, UT: Deseret Book.

Wilber, K. (2006). *Integral spirituality*. Boston, MA: Integral Books.

Williams, A.J. (2011). *Nancy holt: Sightlines*. Berkeley, CA: University of California Press.

