

THE PROSPECTIVE INFLUENCE OF THE LAND ART MOVEMENT ON THE FUTURE  
OF CONTEMPORARY MEMORIAL DESIGN

by

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(Under the Direction of Shelley Cannady)

ABSTRACT

In the early twentieth century, traditional monument structures began to evolve into memorials, becoming more diverse in design and subject matter. Structures were not only built to commemorate triumph and victory but also to recognize hardship and loss. Although memorials have taken on spatial and occupiable qualities, landscape or natural elements as integrated design features have been inconsistent in contemporary memorial design. In contrast to contemporary memorial design, the subject of land art is the landscape itself, where natural materials are used as the medium for the artwork. The idea that land art uses physical earth and the surrounding landscape intentionally could translate into more thoughtful design approaches as memorial design evolves. This study aims to apply two seemingly unrelated subject matters to landscape architecture by exploring the relationship between contemporary memorial design and land art as a means for designing memorials that also engage the landscape in the narrative.

INDEX WORDS: Contemporary memorial design, land art, landscape, landscape architecture, earthworks, landscape sculpture

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by

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## DEDICATION

I would like to dedicate this thesis to my family. Without your love, endless support, and words of encouragement, I would not be the person I am today.

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## CHAPTER 1

### INTRODUCTION

*I consider monuments to be true hybrids, existing between art and architecture, they have a specific need or function, yet their function is purely symbolic. – Maya Lin*

#### **1.1 A Note to the Reader**

I wanted to begin by giving you insight into why I selected to study land art and memorial design for my thesis. Early on in my undergraduate studies, I visited the 9/11 Memorial in New York City. I was taken by the memorial's design and how both tourists and native New Yorkers used the space. Drawn to the idea that I could be a part of designing these essential spaces built for remembering the past, I began researching the process of designing a memorial. I found that architects rather than landscape architects have designed many of the memorials, and although memorials often require built infrastructure in their design, they tend to be located outside, which can be considered the landscape architect's domain. I began to wonder how architects, landscape architects, and other design professionals could collaborate to optimize the use of the surrounding landscape as a method of healing and remembrance.

From there, I expanded on the idea that there was potential for memorial design to creatively use landscape by seeking out an art form that was the embodiment of focusing on the landscape as a form of medium in which to create. Fascinated by the ephemeral and innovative nature of the land art movement, I believed there could be a potential connection that could

ultimately provide designers with a new way of thinking about memorial design. From these ideas, my research topic was envisioned, and my thesis began to take shape.

## **1.2 Chapter Description**

This chapter discusses the purpose of this thesis by outlining the importance of contemporary memorial design and land art, establishing the lack of overlapping research between these two subjects, and considers how these topics are relevant to the field of landscape architecture. Contemporary memorial design and land art will be defined along with a brief history of each. This chapter will also present the research process, limitations of the study, and thesis structure.

## **1.3 Statement of the Problem**

Dating back to the Renaissance period, Western culture has often associated memory with the idea that a material object can serve as a placeholder for human memory. It would be difficult for memory to be preserved from one generation to another without the ability for these memories to reside in physical objects resulting in the creation of monuments, museums, archives, and cemeteries<sup>1</sup>. Memorials serve as built remembrance and should be considered valuable infrastructure within communities' cultural and physical fabrics. Uniquely designed, each memorial aims to create a space to embrace and encourage healing, remembrance, and reconciliation<sup>2</sup>.

Although memorials are often outdoor spaces, they are often thought of through the lens of architecture and not necessarily landscape architecture. The design of the built infrastructure is essential; however, one could argue that the surrounding environment and the context in which

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<sup>1</sup> Russell Rodrigo, "Preserving Memory/Displacing Memory: Historical Shifts in the Understanding of the Agency of Monuments and Memorials.," *International Journal of the Arts in Society* 7 (2012): pp. 59-68.

<sup>2</sup> John Mack, *The Museum of the Mind: Art and Memory in World Cultures* (London: British Museum, 2003).

the memorial is placed are equally important. In contrast, the surrounding landscape is an integral aspect of the design of land art installations. The very name 'land art' implies that the medium for this form of artwork is the landscape itself, the physical earth.<sup>3</sup> Both contemporary memorial design and land art are results from evolution in their respective fields. The design of contemporary memorials is a modernization of statuesque monuments seen in the nineteenth and early twentieth centuries. The land art movement was a direct response to the white-box gallery that was the standard way to view the artwork.<sup>4</sup> The intentionality of utilizing the landscape in land art installations could translate into more thoughtful design approaches for contemporary memorials.

This study aims to apply two seemingly unrelated subject matters to landscape architecture by exploring the relationship between contemporary memorial design and land art as a means for designing memorials that also engage the landscape in the narrative.

### **Gap in Existing Research**

Research on the relationship between contemporary memorial design and land art is virtually nonexistent; however, there is much more research on the topics individually. Other memorial topics cover political activism, detailed accounts of specific sites, cultural tourism, war memorials, art and memorials, architecture, memorials, etc. Research on land art typically covers a multitude of different projects, the history behind the movement, the controversial ethics regarding land art and land art as a form of public art or sculptural art.

There has been some research on the future of memorial design; however, the future is unpredictable. It is difficult to speculate on topics such as the future of memorials. Instead of speculating about future events for which memorials will be designed, existing research focuses

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<sup>3</sup> Gilles A. Tiberghien, *Land Art* (New York: Princeton Architectural Press, 1995).

<sup>4</sup> John Beardsley, *Earthworks and Beyond* (New York: Abbeville Press, 1984).

on what those memorials could look like and how materiality may change over time, shifting towards a focus on landscape.

Relevant research regarding the relationship between landscape and memorials comes from a dissertation done by a Ph.D. candidate, Omar Mohammad, at the Edinburgh School of Architecture and Landscape Architecture. This student has provided thorough research, observation, and analysis, primarily focusing on how people navigate memorials. Ideally, this research would build on the information provided in Mohammad's dissertation by assessing if a memorial's design has integrated landscape as a design element and if that impacts the way people use the space.

#### **1.4 Purpose of the Study**

**Research Question:** How can the relationship between environmental land art and contemporary memorial design influence the future design of memorials?

The purpose of this thesis is to emphasize the importance of landscape in contemporary memorial design. Historically, architects and artists are the main facilitators of memorial design. Given the outdoor nature of memorials, landscape architects have a significant role in designing memorial spaces in partnership with the surrounding landscape to create space for remembrance. Ideally, this research will facilitate more conversation across disciplines resulting in the communal goal of designing thoughtful memorial landscapes.

#### **1.5 Predicted Outcome**

This thesis's predicted outcome is that connections established between environmental land art and contemporary memorial design will allow for design recommendations to be made for thoughtful memorial design in the future.

#### **1.6 Defining Contemporary Memorial Design and Environmental Land Art**

***What is a contemporary memorial? What is contemporary memorial design?***

***Contemporary memorial:*** Like a traditional memorial, a contemporary memorial is a designated place built to commemorate a tragic event, loss of a person or group of persons, historical moments, etc. A contemporary memorial often takes an abstract approach to representation and offers areas for contemplation and visitor engagement.

***Contemporary memorial design:*** Contemporary memorial design creates spatial and occupiable spaces, often serving as engaging public spaces that people actively visit.

### **A Brief History of the Evolution of Monument Design to Contemporary Memorial Design**

During the nineteenth and early twentieth centuries, monuments were freestanding portrait statues placed on pedestals above eye-level in urban places such as parks, plazas, and major avenues. This is depicted in Figure 1.1 in the image of Victory Avenue, where an avenue of freestanding monuments can be seen. A notable shift in memorial design occurred when architects and artists started to explore abstract forms as a means of representation. This movement was met with considerable backlash, leading to a provocative essay published by Lewis Mumford titled "The Death of the Monument," which argued that modern memorials only existed as a contradiction and that the modernist approach would lead to the demise of traditional monuments.<sup>5</sup> As seen in Figure 1.2, memorials proposed during this time were stark, often large expanses of stone slabs emphasizing height and power rather than landscape or nature.

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<sup>5</sup> Andrew Butterfield, "Monuments and Memorials," *The New Republic*, February 2003, pp. 27-32.

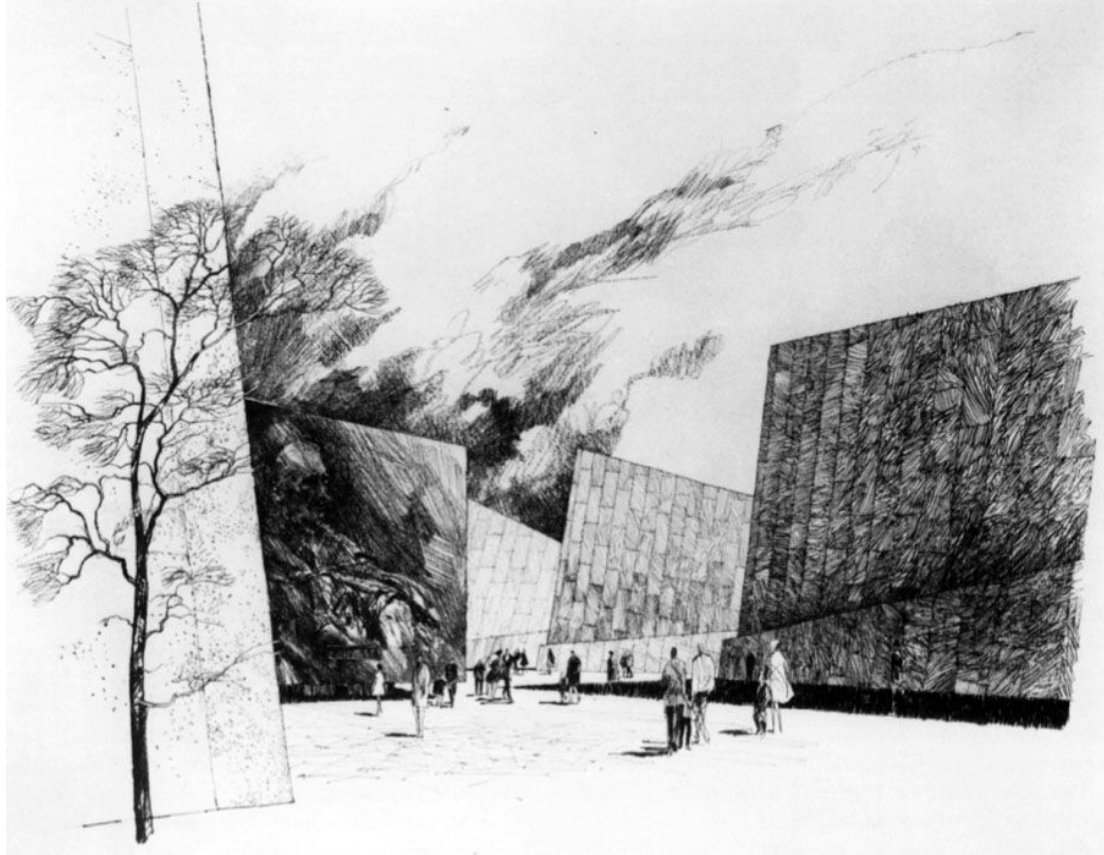


**Figure 1.1:** Victory Avenue, an ensemble of monuments in Tiergarten, Berlin. The monument in the foreground is of Markgraf Albrecht II, Johannes Böse, 1898.

The first abstract spatial memorial completed and built was the U.S Vietnam Veterans Memorial in 1982, designed by Maya Lin. Lin's design was the first abstract spatial memorial that situates a structure into the surrounding landscape. The relationship between memorial design and the use of natural elements or landscape became at odds again in the early 2000s when the popularity of hard-surfaced landscapes dotted with abstract forms dominated memorial design. Examples of this design strategy are evident at the Memorial to the Murdered Jews of Europe and Berlin, the National 9/11 Pentagon Memorial, and the field of steel stelae at the 7 July Memorial in Hyde Park.<sup>6</sup>

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<sup>6</sup> Quentin Stevens and Karen A. Franck, *Memorials as Spaces of Engagement: Design, Use and Meaning* (London: Routledge, 2016), pp. 1-8.



**Figure 1.2:** The winning design for the Franklin Delano Roosevelt Memorial in Washington D.C. by William Pedersen and Bradford Tilney, 1960.

### **What is land art?**

**Land art:** an art form where landscape serves as the subject matter and medium for the artwork.

Land art often varies in scale and can be ephemeral or permanent. Other classifications of this type of art include environmental art, earth art, earthworks, and ecological art.

### **A Brief History of the Land Art Movement**

Artists first began working in land art in the late 1960s and early 1970s to protest against the rapid commercialization and increase in plastic or artificial aesthetics in America. Land artists during this era rejected the confinement of the traditional museum or gallery. Instead, they opted to take their artistic activity to a monumental scale, often in massive desert landscapes. The movement was inspired by various artistic styles, such as minimalism, cubism, modernism, and

conceptual art. This art form uses the landscape as its medium and utilizes natural materials such as soil, rocks, logs, branches, leaves, water, metal, etc. Alan Sonfist, Michael Heizer, Walter De Maria, Robert Smithson, Nancy Holt, James Turrell, Christo, and Jeanne-Claude are just some of the pioneer artists who have created large land art installations. Shown in Figure 1.3 is *Wrapped Coast* by Christo and Jeanne-Claude, featuring one million square feet of fabric covering the landscape. Wrapping the landscape in grand ways to make a statement was one of Christo and Jeanne-Claude's trademarks.



**Figure 1.3:** *Wrapped Coast* by Christo and Jeanne-Claude, 1968-1969.

It is worth noting that the term land art is relatively vague, and not all artists who create this type of work agree on a central name for themselves as artists or the art form itself. Most artists prefer terms like "process art," "environmental art," "ecological art," and "total art."

Robert Smithson, arguably one of the best-known artists of this genre, coined the term "earthworks" to describe his art. Some artists like Michael Heizer refer to their work as "sculptures." Walter de Maria is one of the only artists who actively use the term land art. Some land art is known for being temporary and ephemeral, only now visible through film, photography, or sketches. For example, *Dissipate* by Michael Heizer, seen in Figure 1.4, was created to visualize an object's physical deterioration as the natural environment erases his intervention. There is an idea that land art is not a movement or a school of thought but rather a coming together of like-minded intellectual individuals who sought to represent their work outside of the gallery. These notable artists' work varies greatly; however, it can be understood that early land art has been influential in many works seen in contemporary land art, environmental sculpture, and landscape architecture.



**Figure 1.4:** Michael Heizer, *Dissipate*, 1968. Heizer set pieces of wood into the bottom of a dried lake to see the piece's gradual deterioration over time.

## **1.7 Research Process**

This research will utilize a mixed-methods approach combining several descriptive strategies. Descriptive strategies help understand landscape characteristics and community values and activities. Although there is ample information regarding memorials, the future of contemporary memorial design remains a relatively new topic with little information on the relationship between design and landscape. Three research strategies will be employed to compile comprehensive knowledge on the subject; case study selection, firsthand observation, and typology matrix based on data collected on site.

### **Case Studies**

Case studies will be the primary method of collecting research about different memorial and environmental land art sites. When selecting case studies to research and visit, the main objective was to establish various projects that exemplify a range in their utilization of landscape. Choosing variety within the sites allowed comparative studies to be conducted to find connections or gaps between design elements. A framework of six categories was used to assess the differences between the sites. Those categories are:

- 1- Scale: large or human scale
- 2- Location: on-site vs. off-site, urban, or remote
- 3- Experiential Quality: collective visitor experience or individual visitor experience
- 4- Physical Attributes: water, void space, changes in topography, vegetation, site infrastructure, naturalistic materials
- 5- Form/Sculpture: abstract forms, representational forms, a combination of forms
- 6- Narrative: choreographed narrative, informal narrative, interactive narrative

## **Firsthand Observation**

Once preliminary research was conducted, and the case studies were selected, the sites were visited for firsthand observation. Though landscapes can be viewed through photos and videos, the most effective way to experience a landscape is through firsthand experience. Intangible qualities such as sounds, smells, weather changes, and atmosphere cannot be discerned through an image. Site maps and an observation checklist were created before visiting the site to conduct an inventory analysis of the site. The inventory analysis will be completed to document what design elements are on site and how visitors navigate the site.

## **Typology Matrix**

A typology matrix was developed based on data collected from preliminary research and site visitations. Creating a typology aims to establish a framework for organizing and analyzing the design elements of memorials and environmental art installations. Setting up a framework for sorting this information facilitated drawing parallels between the subject topics of the typologies and memorial design. Ideally, the connection points present a pattern of design elements between memorials and land art installations. It is also expected that there may be gaps in the results where the design elements do not apply to all the sites. The connections and gaps will allow for areas of discussion as to why these are occurring.

## **1.8 Limitations of the Study**

It was determined that there were six sites visited for firsthand observation to collect research for this thesis. Site visitation is an essential research method and can present limiting factors. Time at each site was limited to day trips without the opportunity to return to the site. Although the sites were visited regardless of weather, weather can impact how the site is experienced. The cost was also a limiting factor in determining what sites could be visited. A

majority of the funding was allocated to visiting the three environmental land art installations in Utah and Nevada. As a result, the selected sites for contemporary memorials were limited to the east coast, making them more accessible. In conclusion, the potential limiting factors of this research were time, weather, and cost.

## **1.9 Thesis Structure**

**Chapter 1: Introduction** includes an overview of the chapter, the statement of the problem, the purpose of the study, the predicted outcome, the research process, and research limitations. Chapter 1 also defines contemporary memorials and environmental land art.

**Chapter 2: Brief Overview of Existing Literature: Major Themes, Players, and Influences** gives a brief overview of existing literature, including major themes, players, and influences in contemporary memorial literature and land art literature. It also examines what existing research has been done about the relationship between memorials and land art.

**Chapter 3: Methodology** provides the methodological framework used in this study and outlines data collection methods through case studies and firsthand observation.

**Chapter 4: Case Studies** gives a brief research description for each case study selected in the previous chapter in addition to providing on-site observations to build a comprehensive collection of data about each site.

**Chapter 5: Analysis of Findings** discusses the data collected during site visits and draws findings from the data using a series of tables and analyses.

**Chapter 6: Conclusion** concludes the thesis by connecting land art, contemporary memorial design, and landscape architecture. This chapter includes design recommendations for design professionals to take into consideration when designing future memorials.

## CHAPTER 2

### BRIEF OVERVIEW OF EXISTING LITERATURE; MAJOR THEMES, PLAYERS, AND INFLUENCES

#### **2.1 Introduction**

This chapter is designed to identify current themes in contemporary memorial design and land art as individual topics, identify any themes in literature that incorporate both topics, and identify any gaps in existing research. The chapter begins by introducing themes present in memorial design literature, followed by a section for each central theme. Identically structured, the memorial design section begins with an introduction followed by a section for each theme. The following section outlines the existing research that incorporates contemporary memorial design and land art before ending the chapter with concluding thoughts.

#### **2.2 Themes Across Memorial Design Literature**

Research on the relationship between landscape and contemporary memorial design is limited; however, research on memorials and memorial design seems endless. The literature ranges in topics covering political activism, detailed accounts of specific sites, cultural tourism, war memorials, art and memorials, architecture and memorials, and much more. Four themes have been identified within existing literature that will assist in setting up a framework to organize literature most relevant to this study. Those themes are the evolution of memorial

design, memorials as public space, memorials and ecology, cultural tourism, and the evolution of temporary installations to memorials.

### ***2.2.1 Evolution of Monument to Contemporary Memorial***

Touched on briefly in the problem statement, monuments have evolved from traditional freestanding structures to entire spaces built for commemoration best seen in contemporary memorial design. Dating back to the nineteenth century, monuments were portrait statues placed on pedestals above eye-level in urban places such as parks, plazas, and major avenues. Often these statues were enclosed by an iron fence to be seen but not touched. Throughout the century, this design varied, and as a result, some statues were placed closer to the ground without the barrier fencing allowing people to approach the structures more closely.<sup>7</sup>

Although most nineteenth-century monument designs continued to feature a single impenetrable object, digressions were beginning to be made. Self-contained objects were still designed for public space; however, forms began to take on an abstracted quality. For example, the Monument to the Victims of the Berlin Airlift, which features three prongs reaching into the sky, represents the three flight paths of planes bringing food to Berlin's western sectors during the Soviet blockade in 1948 and 1949.<sup>8</sup> Even as design evolved, monuments remained single objects, which alone do not create space.

It was not until 1880 that sculptors collaborated with architects to create a space for which their design existed. The spaces often included a shallow flight of stairs or benches placed around a statue. This was the first indication that commemorating or remembrance could incorporate other activities such as socializing or sitting to reflect. This would encourage staying

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<sup>7</sup> Quentin Stevens and Karen A. Franck, *Memorials as Spaces of Engagement: Design, Use and Meaning* (London: Routledge, 2016), pg. 12.

<sup>8</sup> Ibid.

within the space for an extended period, and thus the idea of occupying the memorial was imagined.<sup>9</sup>

### 2.2.2 *Memorials as Public Space*

Places for remembrance have historically been utilized as public spaces. For example, Mt. Auburn Cemetery was one of the first green spaces for relaxation and passive recreation in the early nineteenth century. As the dead laid below, people strolled above, escaping the city to socialize and commune with nature. In *Memory and Landscape: Nature and the History of the American Cemetery* by David Sloane, Sloane states that "over the last two centuries, the cemetery has come to exemplify our need to maintain a relationship with nature within the context of large-scale industrial cities. It is a pastoral haven meant to provide respite from the frenetic routine of our daily lives."<sup>10</sup> The idea of utilizing cemeteries in a similar way to public parks has transcended into how people use other commemorative landscapes such as memorials.

Though memorials are designed to be places where people can come to grieve and heal from a tragedy, their access within the city and ability to provide a place of respite can make them a relaxing place for people to spend time. This is a common trend across different memorials spanning all continents and cultures, lending itself subject matter to an entire book titled *Memorials as Spaces of Engagement; Design, Use, and Meaning* by Quentin Stevens and Karen A. Frank. While doing research for their book, the authors visited a multitude of memorials and monuments. Like parks, plazas, streets, and squares, they observed various activities taking place at memorials. Memorials "create spaces people can enter and move through, and they support opportunities for various actions, many of which generate sensory

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<sup>9</sup> Quentin Stevens and Karen A. Franck, *Memorials as Spaces of Engagement: Design, Use and Meaning*, pg. 12

<sup>10</sup> David Charles Sloane, "Memory and Landscape: Nature and the History of the American Cemetery," *SiteLINES: A Journal of Place* 6, no. 1 (2010): pg. 6.

experiences beyond the visual."<sup>11</sup> Steven and Frank analyzed and documented how people interacted with memorials and encouraged other activities other than what they were initially designed for. The concept of memorials as public space adds to the notion that memorials are complex sites in our everyday landscape in how they have evolved, how they are used, and the purpose they will serve in the future.

### ***2.2.3 Memorials and Ecology***

Existing literature suggests that memorials that have a closer relationship with the surrounding landscape result from the site being determined by the event in which space is meant to memorialize. For example, the Flight 93 Memorial is located on 2,200 acres in Somerset, Pennsylvania. Protected by the National Park Service, the memorial has multiple landscape design components that exemplify a memorial landscape when the surrounding landscape is considered. The memorial was designed to acknowledge the changing seasons and how landscapes change over time. Tall walls were constructed to frame the field where the plane crashed, and forty groves of maple and oak trees were planted along the entrance drive, each serving as a living memorial to the victims who died in the plane crash. The memorial design thoughtfully integrates the landscape symbolic of the tragedy that occurred on September 11th, 2001 and shows an intentional process of utilizing the landscape.

Breaking out of a contemporary memorial's traditional mold is the Leopold Memorial Reserve, which uses landscape and ecology as an integral component. In honoring Aldo Leopold, the land was dedicated to conservation. It became a public good that extended to participating landowners, visitors to the reserve, and numerous other individuals seeking to deepen their

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<sup>11</sup> David Charles Sloane, *Memory and Landscape: Nature and the History of the American Cemetery*, pg. 6.

connection and commitment to the land.<sup>12</sup> The Leopold Memorial reserve is unique in that the site was land already purchased as a land trust to memorialize Leopold, and nature and ecology were the primary focus of the space. This is an example of a landscape focused memorial that combines ecological values with a predetermined site.

The last example, the Living Memorials Project, differs from the previous models. It consists of a series of ecology focused memorials commemorating one event in a multitude of locations. The Living Memorials project was created when Congress authorized the USDA Forest Service to use trees and green space's resonant power to create lasting, living memorials for victims of terrorism, their families, communities, and their nation. A Master of Landscape Architecture Studio at the City College of New York explored the idea of a living memorial for the residents of a public housing development in Yonkers, NY that experienced an increase in homicides in addition to the overall decline of the surrounding landscapes in the wake of September 11th, 2001.<sup>13</sup> This movement has spread across the United States and resulted in projects in over 30 different states. Projects vary from gardens to parks, trails, coordinated tree plantings, and preserved forest areas. The Living Memorials Project "attempted to amplify community actions in the post-9-11 context and to connect these, decentralized, yet common, threads of expression and hope."<sup>14</sup>

These three projects provide examples of built memorials that consider the surrounding landscape and uphold ecological stewardship standards. Aside from the Living Memorials

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<sup>12</sup> Stephen A. Laubach, *Living a Land Ethic: A History of Cooperative Conservation on the Leopold Memorial Reserve* (Madison, WI: The University of Wisconsin Press, 2014).

<sup>13</sup> "USDA Forest Service Living Memorials Project Design Collaborative," 2005.

<sup>14</sup> "Living Memorials Project," Living Memorials Project, accessed March 16, 2021, <https://www.fs.fed.us/nrs/livingmemorialsproject/>.

Projects, these examples show that the established relationship between the landscape and the memorial primarily has to do with the subject matter being commemorated.

#### **2.2.4 Cultural Tourism**

According to the National Capital Planning Commission's Memorials and Museum Master Plan, at least 50 major commemorative works could be constructed in Washington, D.C., in the next 50 years.<sup>15</sup> The master plan allows space within the city's existing urban fabric to be allocated to these future memorials.<sup>16</sup> The potential sites have been selected and evaluated based on size, location, transit connections, cultural and historical resources, and possible economic benefits of each site. Of the 102 potential sites, 19 have been selected for a major museum or memorial. One could argue that the monuments and memorials are an essential contributor to Washington's identity as the nation's capital.

Although memorials are critical cultural landscapes, this study highlights an important motive for future memorials and museums' site planning. The memorial and museum industry attracts 21 million visitors annually, producing \$4.2 billion in revenue, placing cultural tourism second to the government as a share of the regional economy. The master plan disperses sites to relate them to locations near central to shopping, restaurants, shops, theaters, and transportation. Although an actual memorial or museum brings in little revenue, cities need to consider economic benefits when appropriately integrating them into the urban fabric.<sup>17</sup>

#### **2.2.5 Evolution of Temporary Installations to Memorials**

Before a memorial can be constructed, makeshift memorials can be a temporary expression of sorrow for family members, friends, and even strangers. Unlike permanent

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<sup>15</sup> Living Memorials Project, "Living Memorials Project," accessed March 16, 2021, <https://www.fs.fed.us/nrs/livingmemorialsproject/>.

<sup>16</sup> "Memorials and Museums Master Plan," 2001.

<sup>17</sup> Ibid.

examples, makeshift memorials can appear suddenly and leave little trace of existence once deconstructed.<sup>18</sup> The makeshift memorials are often near or on the site of a recent tragedy. According to Jeffery Durbin, author of "Expressions of Mass Grief and Mourning: The Material Culture of Makeshift Memorials,"

These constructs usually include impermeant materials such as paper, cloth, and floral arrangements. Often the makeshift memorial will be attached to a fence or the base of a lamp post. Some memorials are placed flat on the ground. In many cases, law enforcement or other authorities will place a fence around the shrine to protect it and perhaps show official support for the construct.<sup>19</sup>

As visitors continue to leave behind photographs, candles, stuffed animals, articles of clothing, drawings, and written banners, the memorial expands until it is eventually dismantled. The materials are either discarded or archived at another location.<sup>20</sup>

These makeshift memorials can influence a more organized approach into an exhibit or installation piece. One example of a temporary memorial installation recognized the global HIV/AIDS epidemic with the AIDS Memorial Quilt. In 1985, gay rights activist, Eleve Jones, started creating panels to commemorate the lives of those who died of aids. From the original 1,000 panels, the quilt now memorializes over 94,000 people. Once an actual quilt displayed at the National Mall, the memorial quilt quickly grew in size and was eventually broken up and shown in different pieces. Part of the memorial includes an interactive quick touch table, nodding to what could be a future development of memorials with a relationship to technology.<sup>21</sup>

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<sup>18</sup> Jeffery L. Durbin, "EXPRESSIONS OF MASS GRIEF AND MOURNING: The Material Culture of Makeshift Memorials," *Material Culture* 35, no. 2 (n.d.): pg. 22.

<sup>19</sup> Ibid, 27.

<sup>20</sup> Ibid.

<sup>21</sup> Ioana Literat and Anne Balsamo, "Stitching the Future of the AIDS Quilt: The Cultural Work of Digital Memorials," *Visual Communication Quarterly* 21, no. 3 (March 2014): pp. 138-149, <https://doi.org/10.1080/15551393.2014.955500>.

There have been few monuments or memorials recognizing disease victims and the ones that do exist to take more traditional commemorative forms such as plaques, benches, or statues. This absence of monuments and memorials has initiated discussions by historians about "the lack of memorials contributed to a mass amnesia around the disease, which in turn may have contributed to a lack of preparedness for the coronavirus pandemic."<sup>22</sup> In the wake of the COVID-19 Pandemic, over 370,000 people in the United States alone and 1.95 million people worldwide have died. These numbers are still increasing as many places have failed to control the spread of the virus. Efforts to remember the victims of the virus have been initiated across the country. As an acknowledgment of the sacrifice and hard work of health care workers this summer, a 20,000 square-foot mural of a doctor wearing a mask was painted by artist Jorge Rodríguez-Gerada in a parking lot outside the Queens Museum in New York City. In September, 20,000 American flags were placed on the National Mall to remember the 200,000 people who had died of the virus in the United States. The installation's goal was to convey the "scale of the loss that the coronavirus pandemic has caused."<sup>23</sup> In October, an event was organized in Philadelphia with local artists' help, showcasing a series of videos and messages superimposed on a surgical mask to promote healing and mourning.<sup>24</sup> These are examples of temporary memorials that have since sparked conversations about designing a more permanent piece to memorialize the victims and first responders.

There has been some progress towards creating more permanent features to memorialize the lives lost to COVID-19. Mark Levine, a councilmember for New York City, presented the

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<sup>22</sup> Zachary Small, "Hardly Any 1918 Flu Memorials Exist. Will We Remember COVID-19 Differently?," NPR (NPR, December 8, 2020), <https://www.npr.org/2020/12/08/940802688/hardly-any-1918-flu-memorials-exist-will-we-remember-covid-19-differently>.

<sup>23</sup> Ibid.

<sup>24</sup> Ibid.

idea to transform Hart Island into a memorial by designating it the site of mass burials for the pandemic victims. According to Levine in an interview with NPR;

America meticulously chronicles the lives of those that we have lost. I guess because of the scale of this pandemic – and that it's not a one-day event but an ongoing disaster – we have done very little of that.<sup>25</sup>

Small speculates that a singular monument or memorial will be unlikely given the politicized nature of the pandemic along with public monument experts. Efforts in other countries have already begun, including the plans to build a memorial garden in the British capital, which will have 33 blossoming trees to represent each of the city's boroughs.<sup>26</sup> An architecture firm in Uruguay is leading a 1.5-million-dollar project to create the first large-scale memorial to the victims of COVID-19. Under Uruguay's president's direction, the firm Gómez Platero is designing a circular structure over Montevideo's shores spanning 130 feet in diameter. In the center of the structure, visitors will be able to see the ocean below them. A statement by the firm on their website reads that "the memorial aims to continue building a collective consciousness that reminds us that mankind is not the center of the ecosystem in which we live since we will always be subordinate to nature."<sup>27</sup>

### **2.3 Themes Across Land Art Literature**

The 'environmental art' and 'land art' movement has been recorded through exhibitions of work, retrospectives, and books. Notable authors who have published books or articles on the topic include Malcolm Andrews, John Beardsley, Susan Boettger, Jeffrey Kastner, Brian Wallis,

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<sup>25</sup> Zachary Small, *Hardly Any 1918 Flu Memorials Exist. Will We Remember COVID-19 Differently?*, 2020

<sup>26</sup> Ibid.

<sup>27</sup> Gómez Platero, "World Memorial to the Pandemic. A Space That Pays Tribute to Life and Nature," Gómez Platero Architecture and Urbanism, accessed March 15, 2021, <https://www.gomezplatero.com/en/proyecto/memorial-pandemic/>.

Sue Spaid, Gilles Tiberghien, Philipp Kaiser, Miwon Kwon, Emily Brady, and Ben Tufnell.

These books' content focuses on the evolution of this genre of art, specific works of art, and the different artists of the movement. Further discussion of land art by philosophers and academics is limited. This discussion includes articles that analyze the topic of environmental aesthetics and the ethical ramifications of environmental artwork (e.g., Crawford, 1983; Humphrey, 1985; Carlson, 1986; Ross, 1993; Heyd, 2002; Saito, 2002), a book on Smithson by Gary Shapiro (1997), and two special issues of journals with some philosophical articles (*Ethics and the Environment*, 2003 and *IO: Journal of Applied Aesthetics*, 1998).<sup>28</sup> Two books considered to be reviews of the genre are *Earthworks: Art and the Landscape of the Sixties* by Susan Boettger and *Earthworks and Beyond* by John Beardsley.

Emily Brady, a professor at Texas A&M, is working towards filling the philosophical gap on the topic by "debating a range of problems and issues related to artworks that are site-determined, often situated in natural environments, and in many cases, composed largely of non-human natural processes and materials."<sup>29</sup> Several of her articles have been published in *Ethics, Place, & Environment* and the *Journal of Philosophy and Geography*, contributing a more unified discussion within the topic of environmental and land art.

The following topics discussed in this chapter provide the foundation for future research in this area. They are the evolution of the land art movement or how it came to be, defining the land art movement, and the ethical controversy surrounding the movement. Although it is challenging to create a centralized discussion of the topic due to the wide variety of works and artists included in the movement, there has been significant research to identify notable artists,

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<sup>28</sup> Emily Brady, "Introduction to 'Environmental and Land Art': A Special Issue Of Ethics, Place and Environment," *Ethics, Place & Environment* 10, no. 3 (2007): pg. 257.

<sup>29</sup> *Ibid.*

their influences, concepts, and the overall historical, social, and cultural context of the movement.<sup>30</sup>

### **2.3.1 Evolution of the Land Art Movement**

The history of the land art movement is nonlinear. The true origin of the genre of environmental and land art is challenging to pinpoint. Emerging in the early 1960s, the genealogy of land art "can be traced to a number of artistic movements and art forms from the twentieth century, including minimalism; postminimalism; public art; conceptual art; process art; interventions; happenings; the 'Arte Povera' movement; and installation art. There are also roots in gardening, landscape design, and other human modifications of the environment."<sup>31</sup> Land art, influenced by built forms from cultures such as the Native American, Mayan, Egyptian, and other prehistoric earthworks, shows that although "radical in its time, can be understood as the latest expression of an artistic impulse that is virtually ageless."<sup>32</sup> Land art evolved in response to these previous artistic movements by rejecting specific ideas and expanding on others.

Multiple sources in land art literature cite Claes Oldenburg as "an innovator in the realms of Happenings and Pop Art" and attribute his excavation titled *Placid City Monument* and more commonly referred to as *The Hole*, in Central Park as a genesis to the earthworks movement. In October of 1967, Oldenburg watched as a cemetery worker excavated a six-foot-long rectangular grave in the middle of Central Park. His work was documented and shown a year later in an exhibition at the Dwan Gallery in New York City titled *Earthworks*. In addition to Oldenburg's works, nine other artists showed their work as a debut of the genre. The nine other artists were Michael Heizer, Walter De Maria, Dennis Oppenheim, Stephan Kaltenbach, Robert Morris,

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<sup>30</sup> Katie Parent (2007), pp. 1-5.

<sup>31</sup> Emily Brady, *Ethics, Place & Environment*, pg. 258.

<sup>32</sup> John Beardsley, *Earthworks and Beyond* (New York: Abbeville Press, 1984), pg. 7.

Robert Smithson, Sol Lewitt, Carl Andre, Herbert Bayer. Virginia Dawn was considered a leading patron of land art. She went on to sponsor some of the most renowned works in the genre, including "Michael Heizer's monumental sculptures Double Negative (1969) and Complex One of City (begun 1972), Robert Smithson's masterpiece Spiral Jetty (1970), Walter De Maria's 35-Pole Lightning Field (1974), and Charles Ross's Star Axis (begun 1971)."<sup>33</sup> Her New York gallery quickly became associated with "emerging tendencies" by showing minimal and conceptual art, before presenting the Earthworks exhibit, which brought in site-specific photographs, artifacts, and even videography from projects.<sup>34</sup>

Many of the artists defined by this movement were creating art at a monumental scale, often in remote locations, in direct protest to the elitist idea that art was traditionally confined to a museum or gallery walls. To combat the traditional museum or gallery experience, the artists contested the traditional mold by bringing with them the landscape's "dirt and organic randomness into the accultured white cube of the gallery."<sup>35</sup> Land artists wanted to emphasize the process of artistic creation while refuting the idea of saleable art.<sup>36</sup> Much of American land art was located in the American West. Michael Heizer, Robert Morris, Nancy Holt, and Walter De Maria were artists who gravitated towards scenic western landscapes. Artists like Agnes Denes and Alan Sonfist chose to make statements about the environment by selecting environmentally damaged urban landscapes, especially in New York City. Political commentary about consumption and the state of the environment were made throughout the movement.

Robert Smithson used abandoned industrial land as locations for his work as "commentary on the

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<sup>33</sup> "National Gallery of Art," Virginia Dwan Collection, accessed March 15, 2021, <https://www.nga.gov/press/2013/dwan-collection.html>.

<sup>34</sup> Ibid.

<sup>35</sup> John Beardsley, *Earthworks and Beyond*, pg. 7.

<sup>36</sup> Jeffrey Kastner and Brian Wallis, "Survey," in *Land and Environmental Art* (London: Phaidon Press, 1998), pg. 26.

harms of industry, and perhaps more importantly inspired the reclamation of derelict sites through art."<sup>37</sup>

Ironically, because of their work's remote and isolated locations, many people could only see their work through exhibitions in the same museums and galleries the artists were rebelling against. Museums were also responsible for financially supporting the artists through commissions that allowed them to create their artwork. Nontraditional land art was still costly due to purchasing a significant amount of property, renting the proper equipment required to move massive amounts of earth, and manual labor. In return for funding the projects, artists were often expected to represent their projects at the museum through photographs, maps, writings, video, and gallery installations.<sup>38</sup> This meant that land artists were rarely able to escape the traditional model of artwork as existing within the walls of a museum or gallery.

### ***2.3.2 Defining the Land Art Movement***

The variety of land art and artists' personal perspectives have made it difficult to describe the genre concisely. Authors have also found it challenging to discuss and categorize projects, apprehensive that grouping some works together and not others or omitting specific projects could be misleading. In the *Introduction Environmental and Land Art: A Special Issue of Ethics, Place, and Environment*, Brady categorizes the genre as follows:

Within 'earth art' and 'land art,' Malcolm Andrews includes minimal and ephemeral interventions in a site (e.g., works by Richard Long, Andy Goldsworthy, Michael Singer); large-scale sculptural earthworks on site (e.g., Michael Heizer, Robert Smithson); 'unmediated installation in an art gallery of materials gathered from a landscape site' (e.g., Walter De Maria and early Smithson); 'landscaped reclamation or

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<sup>37</sup> Katie Parent (2007), pg. 17.

<sup>38</sup> Katie Parent (2007), pg. 18.

planned naturalization of industrial wasteland' (Smithson); and 'acts of conservation of natural land that involve decisions about what traditional usages of the land are retained' (e.g., Alan Sonfist, Agnes Denes).<sup>39</sup>

Sheila Lintott, author of *Ethically Evaluating Land Art: Is It Worth it?* uses Sue Spaid's "general category of 'land art,' with earthworks, ecological art, and environmental art forming subcategories."<sup>40</sup> Other authors prefer Allen Carlson's definition of environment artworks as "in or on the land in such a way that a part of nature constitutes a part of the relevant work . . . not only is the site of an environmental work an environmental site, but the site itself is an aspect of the work"<sup>41</sup> However, they have elaborated on the definition to include that "the 'site should be more or less natural and not an artifactual or urban site."<sup>42</sup>

These authors and philosophers work to create a definition that accurately encompasses the land art movement's work to discuss the topic more effectively. Like the authors and philosophers, whose definitions vary, the land artists have also defined their work in unique ways. Most artists prefer terms like "process art," "environmental art," "ecological art," and "total art." Robert Smithson, arguably one of the best-known artists of this genre, coined the term "earthworks" to describe his art. Although there is a difference between outdoor sculpture and land art, some artists like Michael Heizer refer to their work as "sculptures." Walter de Maria is one of the only artists who actively use the term land art. Half a century after the movement began, there is still no agreement on how to best characterize these artists' works.

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<sup>39</sup> Emily Brady, *Ethics, Place & Environment*, pg. 257.

<sup>40</sup> Sheila Lintott, "Ethically Evaluating Land Art: Is It Worth It?," *Ethics, Place & Environment* 10, no. 3 (2007): pg. 264.

<sup>41</sup> *Ibid.*, 269.

<sup>42</sup> *Ibid.*

### 2.3.3 *Ethical and Environmental Controversy Surrounding the Movement*

Environmentalists and philosophers criticized the land art movement, arguing "that early American land art was, in fact, anti-environmental because it disturbed natural sites with massive earthmoving and required man-made machines and gasoline to complete."<sup>43</sup> The academic community has debated the ethical and environmental controversy for years. In the first two articles in *'Environmental and Land Art': A Special Issue of Ethics, Place and Environment*, *Ethics Place and Environment*, authors Lintott and Fisher consider methods to evaluate the land art with moral standards. Lintott notes that in contemporary philosophical discourse, "the focus of the debate is usually on the work says and how that message relates to its value as a work of art; very little attention is given to the means of making the work of art."<sup>44</sup> Lintott reformulates Leo Tolstoy's Theory of Art, which directly contrasts contemporary debates in the context of land art to assess if or not land art is artistically 'worth it.'<sup>45</sup> In Leo Tolstoy's Theory of Art:

Tolstoy discusses the justification of what we might call the production costs involved in the making of art, and he sincerely wonders whether these costs can be justified. Aware of the great and serious sacrifices, many involuntary, made for art, he reasons that if such costs are to be justified, art and the messages it conveys must be extremely important indeed. In fact, according to Tolstoy, art must be of invaluable service to humanity if its grave costs are to be justified.<sup>46</sup>

She counters the argument that land art infringes on nature and the ecologic cost of producing the artwork by saying that "land art potentially unites 'human beings in the inclusive and progressive mindset of environmentalism,'" ultimately deciding that the ethical evaluation of projects will be

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<sup>43</sup> Katie Parent (2007), pg. 19.

<sup>44</sup> Sheila Lintott, *Ethics, Place & Environment*, pg. 264.

<sup>45</sup> Ibid.

<sup>46</sup> Ibid.

assessed on a case-by-case basis.<sup>47</sup> Fisher examines whether land art has "negative or positive moral value and the relationship between this value and the artistic value in the work."<sup>48</sup>

The anti-environmental approach seen in land art is unique to American culture and does not include all land art from other countries. In *Earthworks and Beyond*, John Beardsley remarks that Americans can "simultaneously exploit and protect their natural resources."<sup>49</sup> America is densely populated in some areas while still surrounded by vast open landscapes where artists can make grand gestures in the landscape. In contrast, land art in places like England is much smaller in scale and "far less obtrusive, spatially and technologically."<sup>50</sup> This could be attributed solely to the amount of available space that an artist has to use. Still, there is evidence that British land artists also disapprove of the excessive traits of American land art as they have expressed "a conscious and articulate reaction to [Americans'] alarming capacity to lay waste to their landscapes."<sup>51</sup>

As mentioned in the previous section, some land artists were interested in more than just making art in an isolated location and using their artwork to create a social and political statement to increase the public's knowledge of environmentalism. An example of this occurred in 1971 when Joseph Beuys waded into a marsh until only the top of his hat was showing. This art piece was titled *Bog Action* and sought "to bring attention to the destruction of wetlands in the Netherlands."<sup>52</sup> Some artists attempted to move beyond environmental aesthetics and focus on natural environments, such as Robert Smithson, Dennis Oppenheimer, Robert Morris, Hermann Prigmann, Patricia Johanson, Newton and Helen Mayer Harrison, and Agnes Denes.

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<sup>47</sup> Sheila Lintott, *Ethics, Place & Environment*, pg. 276.

<sup>48</sup> Emily Brady, *Ethics, Place & Environment*, pg. 259.

<sup>49</sup> John Beardsley, *Earthworks and Beyond*, pg. 10.

<sup>50</sup> Katie Parent (2007), pg. 19.

<sup>51</sup> John Beardsley, *Earthworks and Beyond*, pg. 55.

<sup>52</sup> Emily Brady, *Ethics, Place & Environment*, pg. 259.

These artists "created artworks intended to restore or regenerate the environment on a large or small scale or to artistically transform land previously used by industry."<sup>53</sup> Beardsley notes that "with so apparent a need for urban restoration and land reclamation, the purposeful aims of much recent environmental art may represent the best possible future for public art in this country."<sup>54</sup> In conclusion, much of the debate focused on the moral and environmental controversies surrounding land art weighs the artistic value against ecological concerns.

## 2.4 Land Art and Memorial Design

To date, there has been no known research or articles published on the potential correlation between how land art installations could influence contemporary memorial design in the future. However, it is impossible to exclude the idea that a land artist's work has never influenced a designer. One submission for the Thai Tsunami Memorial may lead one to think that designers have taken inspiration from previous land artworks. 'The Offering,' designed by Richard Weller, Gary Marinko, Mike Rowlands, and Bruce Rowe, is a proposal for the Thai Tsunami Memorial competition that "carries seeds of earlier land art projects."<sup>55</sup>

The brief for the competition called for a master plan of the project site, located in Khao Lak-Lam Ru National Park in Phangnga, the province most seriously affected by the 2004 tsunami. 'The Offering' was the only submission to incorporate the ocean into the design of the memorial. The design proposes creating a two hundred-meter or approximately 650 feet wide circle filled with lights similar to those used for maritime safety. Similar to other contemporary memorials, the lights are used as an object of remembrance and "recognizes the global nature of the event and the global aid response in the form of the circle and, through this form, also

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<sup>53</sup> Emily Brady, *Ethics, Place & Environment*, pg. 259.

<sup>54</sup> John Beardsley, *Earthworks and Beyond*, pg. 107.

<sup>55</sup> "The Offering," ArchitectureAU (Architecture Australia, March 1, 2006), <https://architectureau.com/articles/unbuilt-9/>.

conjures the ghosts of former sublime architects from the late eighteenth century."<sup>56</sup> The lights are designed to move with the water simulating an ephemeral experience by encapsulating similar movement and change to the event.

Over 8,000 miles away in New Mexico is The Lightning Field, designed by American sculptor Walter De Maria in 1977. Laid out in a measured grid pattern measuring one by one kilometer, the field comprises 400 polished stainless-steel poles standing at over 20 feet high. The solid pointed tips define a horizontal plane similar to the visual effect of 'The Offering' memorial proposal. De Maria noted that the qualities he was looking for when selecting a site included "flatness, high lightning activity, and isolation."<sup>57</sup> The metal poles attract lightning from late May through early September, when the amount of thunder and lightning activity is at the highest peak in the year. Although lightning is a significant piece of the design, the sun's lighting is also intended to reflect off the poles during the day, especially during sunrise and sunset. Due to the sun's angle during the middle of the day, 70-90 percent of the poles become virtually invisible and enforces De Maria's idea that "the invisible is real."<sup>58</sup>

De Maria made his thoughts clear on the relationship between the land and his artwork with his statement, "the land is not the setting for the work but a part of the work."<sup>59</sup> His message that land goes beyond just being the setting for the art applies to contemporary memorial design and should be an essential consideration when designing in the future. Weller and his team were among the only groups who incorporated the ocean into a design proposal where the subject matter was the destruction caused by a catastrophic tsunami. Although their proposal was not

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<sup>56</sup> "The Offering," ArchitectureAU (Architecture Australia, March 1, 2006), <https://architectureau.com/articles/unbuilt-9/>.

<sup>57</sup> Walter De Maria, "The Lightning Field: Some Facts, Notes, Data, Information, Statistics, and Statements," *Artforum* 18, no. 8 (April 1980): pg. 58.

<sup>58</sup> Ibid.

<sup>59</sup> Ibid.

selected to be built, it remains a precedent for how memorial designers can take inspiration from land artists inspired by the setting as both the location and materiality of their artwork.

## **2.5 Conclusion**

There is virtually no existing research that ties land art to contemporary memorial design. Identifying the significant themes across memorial design and land art literature begins to build a foundation for future research on the two topics. The five memorial design themes selected represent only a part of the body of literature on memorials. This research could further support why landscape is essential in memorial design and that it should be a consistent variable moving into the future of memorial design.

There is limited philosophical discussion regarding the topics of land art. Most of the literature highlights various artists and their projects. Still, as philosophers and authors have pointed out, the sheer variety of the work makes it challenging to categorize and define. Ideally, this research will build on the existing literature by assessing if the fundamentals of the land art movement can influence the future of contemporary memorial design.

## CHAPTER 3

### METHODOLOGY

#### **3.1 Introduction**

As described in Chapter One, this research aims to apply two seemingly unrelated subject matters to landscape architecture by exploring the relationship between contemporary memorial design and land art as a means for designing memorials that also engage the landscape in the narrative. After examining existing research, it is evident that there is little empirical research into drawing parallels between contemporary memorial design and land art installations. This chapter will discuss the research methodology chosen for this study, the methods, the data collection process.

#### **3.2 Defining Research Methodology**

##### ***3.2.1 Descriptive Strategies***

Descriptive strategies help understand landscape characteristics, community values, and activities. By systematically collecting and recording existing information, descriptive research strategies produce new information while avoiding complex analysis. These strategies are beneficial for exploratory research into phenomena about which little is known.<sup>60</sup> Although there is ample information regarding memorials and land art as separate topics, contemporary memorial design remains a relatively new topic with little relationship between design and

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<sup>60</sup> Simon R Swaffield and M. Elen Deming, *Landscape Architecture Research: Inquiry, Strategy, Design* (Hoboken: Wiley, 2011).

landscape. This study will employ three descriptive research strategies to gain comprehensive knowledge on the subject: observation, secondary description, and descriptive case studies, thus creating a complex description strategy.

A complex description strategy uses complementary accounts of different aspects of landscape topics to understand the subject better. This study used secondary description of the sites selected, combined with observation to build case studies to draw parallels between contemporary memorial design and environmental land art. Case studies are multifaceted investigations into a particular place, project, organization, or landscape.<sup>61</sup> The research utilized six comparative case studies to build a typology of design elements seen in the memorials and land art installations visited.

Before visiting the six sites for observation, secondary description was used to gather information about each project. Secondary description is defined as using and summarizing previous observations or information that has been recorded by other people in the forms of archival documents and maps, diaries, media reports, and prior studies.<sup>62</sup> For this research, the following sources were reviewed to compile a comprehensive overview of each project.

- |                        |                               |
|------------------------|-------------------------------|
| 1. Site history        | 6. Photographs, sketches, and |
| 2. Project information | drawings, maps                |
| 3. Design intent       | 7. Memorial Competitions      |
| 4. Artist interviews   | 8. Visitor observations       |
| 5. Scholarly Articles  | 9. Media Reports              |

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<sup>61</sup> Simon R Swaffield and M. Elen Deming, *Landscape Architecture Research: Inquiry, Strategy, Design*

<sup>62</sup> Ibid.

Once a thorough review of previous research was completed, the projects were visited for observation. The observation method is an efficient way to gain insight into the character, use, and understanding of a place. Observation is arguably the most important way to research a landscape because it allows the opportunity to move through, experience, touch, and smell the surroundings. Thus, site inventories are widely used in landscape architecture and can provide knowledge as the basis for classification and typologies. Several observation strategies allow the researcher to record human activities' nature and location and analyze their relationship to the landscape. The first is documenting within the three categories that define a place: Biophysical features, human activities, and cultural and social meanings. The second observational strategy is to describe an imaginary or actual section, or transect, across a landscape to analyze and describe landscape characteristics. The last observation strategy is to describe a journey through a landscape with quick sketching or diagramming that relays what the researcher is experiencing on site. These three techniques help collect organized information on a site that describes the landscape's experiential qualities.

### ***3.2.2 Classification Strategies***

This study used the descriptive strategies listed above to inform a classification scheme, which allows the researcher to create a system of organization to sort data using reoccurring properties, patterns, behaviors, or themes, ultimately producing new knowledge on the subject matter. Data must be gathered through collection, inventory, or cataloging before it can be sorted or classified. Groups are identified based on shared qualities and rely on prior descriptive or creative work. When this grouping starts to catalog reoccurring patterns regarding site conditions, forms, or concepts, a taxonomic classification scheme or typology is developed.<sup>63</sup>

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<sup>63</sup> Simon R Swaffield and M. Elen Deming, *Landscape Architecture Research: Inquiry, Strategy, Design*

A typology is the systematic study of types and can be applied to categories of the built form relative to cultural values and practices. Typologies utilize various design forms and motifs such as form, shape, structure, arrangement, association, materials, and construction techniques to identify patterns that relate design elements across scales.<sup>64</sup>

### ***3.2.3 Mixed-Methods Approach***

A mixed-methods approach using descriptive research strategies and classification schemes was employed to analyze the relationship between contemporary memorial design and land art. Using secondary research and observation, case studies of both land art installations and memorials were identified for this study. The patterns drawn from the descriptive strategies informed the typology, which provides an organizational framework for the research. Ideally, the themes and patterns presented from the typology matrix will yield qualitative research.

### ***3.2.4 Qualitative Research***

Since little is known about the relationship between contemporary memorial design and land art, qualitative research will help gain a more in-depth knowledge of the subject by exploring various factors.<sup>65</sup> Two types of qualitative research were employed in this study; grounded-theory qualitative research and case studies. Grounded-theory qualitative research aims to create a theory that explains some action, interaction, or process. As the primary data collection method, the researcher sought to derive meaning from the data and produce a theory or explanation that is "grounded" in data. The second type of qualitative research is the case study, "intensive analysis and descriptions of a single unit of system bounded by space and time."<sup>66</sup>

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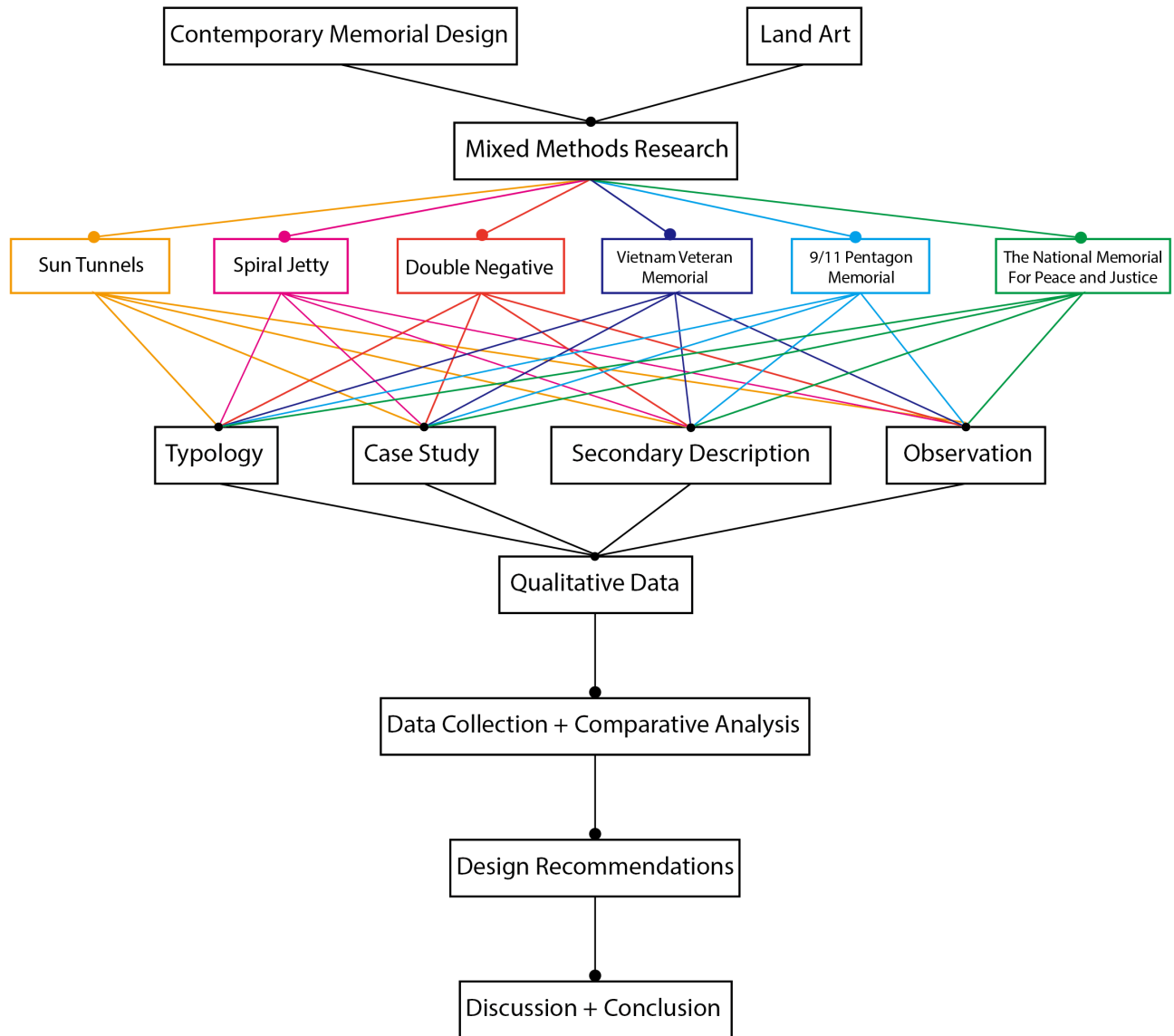
<sup>64</sup> Simon R Swaffield and M. Elen Deming, *Landscape Architecture Research: Inquiry, Strategy, Design*

<sup>65</sup> Dawson R. Hancock and Robert Algozzine, *Doing Case Study Research: A Practical Guide for Beginning Researchers* (New York: Teachers College Press, 2017).

<sup>66</sup> Ibid.

The purpose of utilizing case studies is to gain a greater in-depth understanding of a subject matter to which conclusions can be drawn.

### 3.2.4 Research Methodology Diagram



**Figure 3.1:** Research Methodology Diagram depicting which research methods will be used in this thesis to facilitate draw final conclusions.

### **3.3 Methods for Data Collection**

#### **3.3.1 Case Studies**

Although case studies are designed to provide an intensive analysis of one subject, this study needs to explore various criteria representing many projects within the related field. The criteria have been determined based on relevant design elements seen in contemporary memorial design and land art design. The criteria that are referenced when selecting sites are listed below.

1. Location: Where the project is located in an urban or rural context and if the location is specific to the design intent. For memorials, does the memorialized event or group of people have a connection with the specific location? For land art, was the site integral in achieving the overall design?
2. Relationship to the surrounding landscape: It will be essential to note which projects integrate the surrounding landscape into the design and the design intent in doing so.
3. Scale of intervention: Scale or the size of space or object is an important consideration in design. What is the scale of a memorial or land art installation relative to a human? What is the scale of a memorial or land art installation relative to its surrounding landscape?
4. Physical attributes of design: For this study, physical attributes refer to the materials selected for the design. Materials can refer to natural materials such as rocks, water, vegetation, or manufactural materials such as concrete, walls, or sculptures. This section can also be used to note other significant design choices present on site, such as changes in topography, names, light, and void spaces.
5. User interaction: Projects are often designed with the intent of how users are to interact and engage with a site. Was the project designed to be viewed individually or collectively

with other people? This could be determined by the narrative or the scale of the project.

The narrative refers to how people move through the site. Is there a specific way or a choreographed narrative for users? Are there interactive elements of the design, or is there an informal narrative where users move through the site on their own accord?

Based on these criteria, six case studies were selected: three contemporary memorials and three land art installations to provide varied examples to best inform a comparative analysis. The selected case studies are listed below.

#### Contemporary Memorials

1. Vietnam Veterans Memorial – Washington, DC
2. The 9/11 Pentagon Memorial – Washington, DC
3. The National Memorial for Peace and Justice – Montgomery, Alabama

#### Land Art Installations

1. Spiral Jetty – Great Salt Lake, Utah
2. Sun Tunnels – Wendover, Utah
3. Double Negative – Moapa Valley, NV

#### **3.3.2 Observation and Inventory Mapping**

*"Words and photographs of the work are memory traces, not art. At best, they are inducements for people to go and see the actual work." — Nancy Holt*

Once the projects were selected based on the previous section's criteria, they were visited for firsthand observation. Landscapes can be viewed through photos and videos; however, the most effective way to experience a landscape is through firsthand experience. Intangible qualities such as sounds, smells, weather changes, and atmosphere cannot be discerned through an image.

An observation checklist and maps were prepared before the visits to document how users navigate the site and what attributes are located on site. Symbols will be used to record vegetation, rocks, water, walls, topography changes, light, noises, and smells. Other drawings may include section drawings, perspective illustrations, transects, and paths of users. Field sketches and observations will be refined and included in Chapter 5: Data Analysis. In addition to the sketches and drawings, photographs will be used to document the site and experience.

***Typology Matrix***




















































This research aims to create a typology based on research gathered in the descriptive strategy phase as a framework for organizing and analyzing contemporary memorial design and land art installations. Categories will be determined based on the design elements documented on site. A list of anticipated themes is included below.

- |                   |                     |                   |
|-------------------|---------------------|-------------------|
| 1. Water          | 9. Representational | 16. Choreographed |
| 2. Vegetation     | Forms               | narrative         |
| 3. Rocks          | 10. Collective      | 17. Informal      |
| 4. Walls          | experience          | narrative         |
| 5. Infrastructure | 11. Individual      | 18. Interactive   |
| 6. Void space     | Experience          | 19. Human Scale   |
| 7. Changes in     | 12. On-site         | 20. Large Scale   |
| topography        | 13. Off-Site        | 21. Thresholds    |
| 8. Abstract Forms | 14. Urban           |                   |
|                   | 15. Rural/Remote    |                   |

### 3.4 Data Collection

#### 3.4.1 Design of Checklist for Observation and Inventory Mapping

While on site, the researcher had a site plan, and observation checklist prepared to document site features and user behaviors (Figure 3.2). The site map recorded physical attributes such as vegetation, rocks, walls, water, names, signage, paths, and wildlife. It was also used to document sun, shade, and light patterns and document any people or wildlife present on site. A separate page was prepared to enter site information, weather conditions, and activities observed on site. A space for additional notes and an index of symbols included on this sheet as well.

<p><b>Part 1: Site Information</b></p> <p><b>Project Name:</b> _____</p> <p><b>Location:</b> _____</p> <p><b>Project Type:</b> Memorial <input type="checkbox"/> Land Art <input type="checkbox"/></p> <p><b>Visit Date:</b> _____</p> <p><b>Time of Visit:</b> Morning <input type="checkbox"/> Afternoon <input type="checkbox"/> Evening <input type="checkbox"/></p> <p><b>Weather:</b> Sunny <input type="checkbox"/> Overcast <input type="checkbox"/> Raining <input type="checkbox"/></p> <p style="padding-left: 40px;">Temperature: _____</p> <p><b>Time Spent:</b> &gt; 1 hr <input type="checkbox"/> 1 hr <input type="checkbox"/> &lt; 1 hr <input type="checkbox"/></p> <p><b>How many people on site:</b> _____</p> <p><b>How long did people stay?</b> &gt; 1 hr <input type="checkbox"/> 1 hr <input type="checkbox"/> &lt; 1 hr <input type="checkbox"/></p>	<p><b>Part 2: Observed Activities</b></p> <p>This project encouraged:      Success (Please Circle)</p> <p>Walking:                      1   2   3   4   5</p> <p>Sitting:                        1   2   3   4   5</p> <p>Resting:                        1   2   3   4   5</p> <p>Reading:                       1   2   3   4   5</p> <p>Playing:                        1   2   3   4   5</p> <p>Observing:                    1   2   3   4   5</p> <p>Touching:                      1   2   3   4   5</p> <p>Writing:                        1   2   3   4   5</p> <p>Contemplation:              1   2   3   4   5</p> <p>What other activities were observed on site:</p> <p>Is there any information about the project on site?</p> <p>How are people maneuvering through the site?</p>																																				
<p><b>Part 3: Additional Notes</b></p>          	<p><b>SYMBOLS INDEX</b></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td>Trees</td><td></td><td>Noise</td><td></td><td>Sun</td><td></td></tr> <tr> <td>Shrubs</td><td></td><td>Smells</td><td></td><td>Shade</td><td></td></tr> <tr> <td>Flowering plants</td><td></td><td>Wildlife</td><td></td><td>Clouds</td><td></td></tr> <tr> <td>Rocks</td><td></td><td>People</td><td></td><td>Wind</td><td></td></tr> <tr> <td>Walls</td><td></td><td>Paths</td><td></td><td>Rain</td><td></td></tr> <tr> <td>Names</td><td></td><td>Signage</td><td></td><td></td><td></td></tr> </table>	Trees		Noise		Sun		Shrubs		Smells		Shade		Flowering plants		Wildlife		Clouds		Rocks		People		Wind		Walls		Paths		Rain		Names		Signage			
Trees		Noise		Sun																																	
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Flowering plants		Wildlife		Clouds																																	
Rocks		People		Wind																																	
Walls		Paths		Rain																																	
Names		Signage																																			

**Figure 3.2:** The design of the observation checklist created for site observations includes a section to record site information, a section to document observed activities, a section to record any additional notes, and a symbol index to standardize drawings.

### ***3.4.2 Preparation of Observation and Inventory Mapping***

Before visiting the case study sites for observation, the author established a list of materials and outlined activities to be completed on site to build a comprehensive site analysis.

The list is as follows:

- Accurate scale plan of the memorial or land art installation site: Maps will be created using existing drawings and aerial photography. The researcher will determine the site boundaries and include the memorial or land art installation with an additional measured landscape area. The maps will be printed on tabloid sized printer paper to accommodate travel and efficient field use.
- Project information sheet: An additional sheet will include a list of symbols to indicate documented design elements on the site map. This sheet will also have a place for identifying the setting, weather conditions, name of the site, date, and time. An additional notes section will be included on this sheet. This sheet will be printed on tabloid sized printer paper to accommodate travel and efficient field use.
- The researcher will spend at least one hour on site for observation. During this time, the researcher will document site elements on the site map, photograph, sketch, diagram, and record any additional notes while one site. The researcher will also take note of other visitors and record their visitors' movements.
- Additional equipment for the researcher: The researcher will also have a notepad, writing and drawing utensils, a drawing pad, a camera, and a tape measure.

## CHAPTER 4

### CASE STUDY RESEARCH AND OBSERVATIONS

#### **4.1 Introduction**

This chapter gives a brief research description for each case study selected in the previous chapter, in addition to providing on site observations to build a comprehensive collection of data about each site. The criteria outlined in the last chapter have informed which case studies will provide various data that is beneficial in constructing comparative analysis. Each case study provides an overview of the project, the design intention, significance of the project and concludes with a section on the applicability to this study. This research has been compiled employing secondary research and supplemented with observational research in the second portion of the chapter.

#### **4.2 Land Art Case Studies: Research**

##### ***4.2.1 Case Study #2: Sun Tunnels by Nancy Holt***

Project Location: Great Salt Lake Desert, Utah

Artist: Nancy Holt

#### **Overview**

American sculptor and creator of Sun Tunnels, Nancy Holt, has worked both internationally and nationally to create large-scale, environmental, site-specific work.<sup>67</sup> Located

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<sup>67</sup> J. Wallace Gwynn, Nancy Holt, and Hikmet Sidney Loe, "History of the Sun Tunnels Near Lucin, Utah," in *Great Salt Lake: An Overview of Change*, vol. 2 (Salt Lake City: Utah Geological Survey, 2002), pp. 561-568.

approximately four miles southeast of Lucin and nine miles east of the Nevada border, Sun Tunnels is situated on a 40-acre plot of land that Holt purchased for the project in 1974. The installation comprises four concrete tunnels, seen in Figure 4.1, that are specifically designed to emphasize the celestial cycles of the sun and stars.



**Figure 4.1:** *Sun Tunnels* by Nancy Holt (1973-1976).

### **The Tunnels**

The four concrete tunnels measure eighteen feet long and have an outside diameter of nine feet and two and a half inches with an inside diameter of eight feet and seven and a quarter inches. The tunnels are laid in an X configuration that measures eighty-six feet long across the diagonal. Buried below the desert floor is a concrete foundation built to support the tunnels that

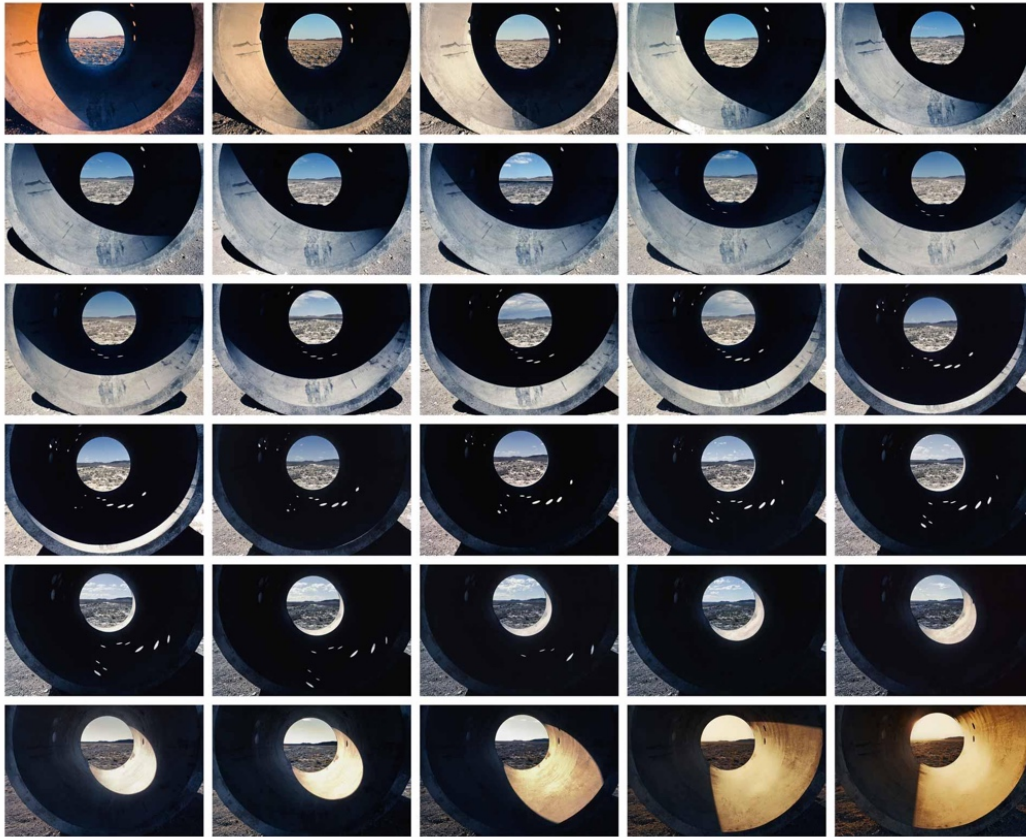
individually weigh twenty-two tons. Even with the desert heat, the tunnels' temperatures are fifteen to twenty degrees cooler because of the concrete's density, shape, and thickness.<sup>68</sup>

The X configuration was used to align the tunnels with the rising and setting sun setting during the summer and winter solstices around June 21 and December 21. About ten days before and after the solstices, the sun is positioned in the tunnels' center. The tunnels were also designed to highlight four different constellations – Draco, Perseus, Columba, and Capricorn. Each of the tunnels has a configuration of holes, ranging in diameter from seven to ten inches, that correspond with the four constellations. The holes' diameter is relative to the stars that are to be viewed through that specific hole. During the day, the holes allow sunlight to cast patterns of ellipses and circles of light onto the bottom half of the tunnels. Similar paler patterns can be seen at night when the moon is more than a quarter full. The light's patterns and shapes differ based on the hour, day, and season depending on the positions of the sun and moon and are pictured above in Figure 4.2.<sup>69</sup>

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<sup>68</sup> Nancy Holt, "Sun Tunnels," *Artforum*, April 1977, pp. 33-37.

<sup>69</sup> *Ibid.*



**Figure 4.2:** Photograph titled *Sunlight in Sun Tunnels* by Nancy Holt shows the different patterns of shadow and light throughout the day.

### Site Selection

After conceptualizing the idea for Sun Tunnels in 1973, Holt began looking for a site that would be well-suited to execute her design. Looking in New Mexico, Arizona, and Utah, Holt needed a flat desert surrounded by low mountains. Finding land to purchase proved challenging, considering most land in this region is owned by either the state and federal governments or by railroads and large ranchers. Typically, the land is sold in one-square-mile sections, which was more than Holt needed for the installation. In the Great Salt Lake desert, Holt purchased a quarter of a mile square.

The closest settlements to Sun Tunnels are Lucin, four miles away, and Tacoma, ten miles away. Before the railroad's demise, these were thriving towns with populations of a few

hundred people and had businesses such as hotels, cafes, barbershops, and saloons. As of 1977, Lucin had a total population of ten people with one standing building left, and Tacoma had been completely leveled.

Depicted in the map in Figure 4.3, the land that Holt purchased for Sun Tunnels was originally Lake Bonneville, which has wholly receded. Lines on the surrounding mountains indicate where the water once was. The land is a desert landscape with very little vegetation limiting the use and livability of the landscape. In Holt's article Sun Tunnels, she includes a quote from *Wallace Stegner from Mormon Country: The Land Nobody Wanted*:

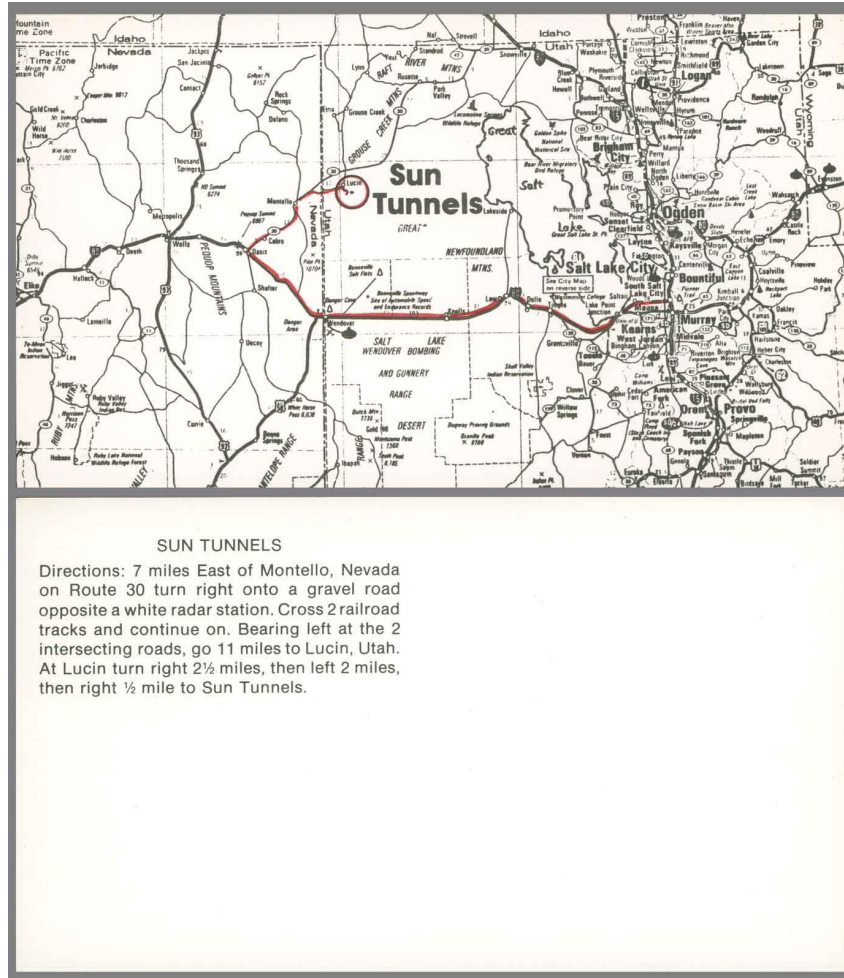
An interminable string of warped, arid mountains with broad valleys swung between them, a few waterholes, a few springs, a few oasis towns and a few dry towns dependent for water on barrels and horsepower, a few little valleys where irrigation is possible...a desert more vegetation less, more indubitably hot and dry, and more terrible than any desert in North America except possibly Death Valley...Even the Mormons could do little with it. They settled its few watered valleys and let the rest of it alone.<sup>70</sup>

To many, the land was unusable; however, Holt felt a timeless connection to the landscape. Holt spent time camping in the desert alone, surrounded by old trails and ancient caves filled with dirt, bones, and artifacts. She felt as if she was connected to the people who had once lived in the caves and that they were sharing the same landscape. From the site that Holt selected for Sun Tunnels, she and the former occupants of the land would have seen the same sun rising and setting over the same mountains and ridges.<sup>71</sup>

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<sup>70</sup> Nancy Holt, "Sun Tunnels," *Artforum*, April 1977, pg. 34.

<sup>71</sup> *Ibid.*



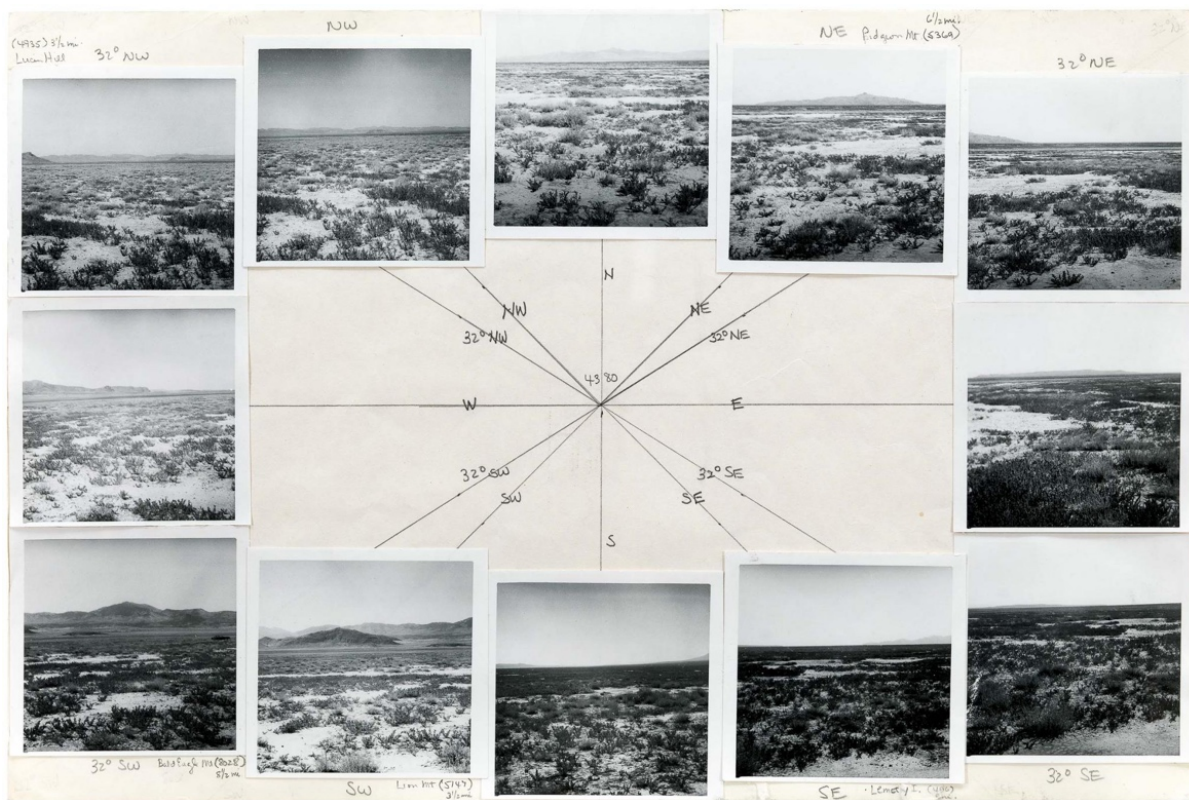
**Figure 4.3:** Commercially Printed Postcard Invitation to Sun Tunnels with directions from Salt Lake City to Lucin, Utah.

## Process

Holt conceptualized Sun Tunnels in 1973, bought the land in 1974, and began working on the project in August of 1975. At the time, Holt knew no one in Utah and started contacting individuals to build up her team. At the time Sun Tunnels was complete, the team consisted of "two engineers, one astrophysicist, one astronomer, one surveyor, and his assistant, one road grader, two dump truck operators, one carpenter, three ditch diggers, one concrete mixing truck operator, one concrete foreman, ten concrete pipe company workers, two core-drillers, four truck drivers, one crane operator, one rigger, two cameramen, two soundmen, one helicopter pilot, and

four photography lab workers."<sup>72</sup> Holt received two grants for the project that covered one-third of the total cost leaving Holt to finance the other two-thirds by herself.

Holt used various techniques to design the tunnels and placement of holes to see the celestial cycles. She made drawings, scale models, and photographic studies to gauge light and shadow changes with various lengths, diameters, and placements—an example of one of her sketches is seen in Figure 4.4. Working with an astrophysicist to calculate the distant mountain's height and ridges, they found that the X configuration would best find the appropriate solstice angles. Holt continued to study changes in light by using a helioscope set to see the light and shadows in her model for every hour during every day of the year.



**Figure 4.4:** Preparatory drawing of "Sun Tunnels" marking the views associated with specific angles and degrees, Nancy Holt, 1975.

<sup>72</sup> Nancy Holt, "Sun Tunnels," *Artforum*, April 1977, pg. 34.

Holt also consulted a surveyor to find True North, which was crucial in determining what constellations could be seen through the "star-holes."<sup>73</sup> In choosing the constellations for the holes, Holt reviewed twelve astronomical charts and selected constellations that had enough stars to encompass all the holes drilled into the top and side of the tunnels and select constellations with stars of several magnitudes to accommodate the different diameters of the holes. From this criteria, it was decided that the four constellations would be Draco, Perseus, Columbia, and Capricorn. At any time during the year, at least one or several of the constellations are present. Holt delayed the construction of the foundation so she could observe the constellations through the end of December.

The tunnels were constructed using re-bar, steel rings, and templates that marked the hole positions on the inner and outer pipe forms. After the tunnels were cast in concrete, cylindrical drill heads ringed with diamonds cut out the holes. It took several months into the Spring for Holt to get workers willing to drive two hours into the desert to pour the foundations. Four trucks and a sixty-ton crane were required to transport and install the tunnels onto their foundations.<sup>74</sup>

### **Scale**

The scale was also an essential consideration for Holt when designing the Tunnels. The tunnels, large compared to the human, are small relative to the size of the vast desert in which they are located. Holt had no desire to create a "megalithic monument" and wanted to give the landscape visual reference points by framing the landscape through her tunnels. The scale of the installation is also dependent on how and from where the tunnels are viewed. From miles away, the tunnels seem large. As the tunnels become closer, the scale becomes difficult to discern. Two tunnels visually blend to one angle, and some overlap, causing the others to disappear. Stepping

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<sup>73</sup> Nancy Holt, "Sun Tunnels," *Artforum*, April 1977, pp. 33-37.

<sup>74</sup> *Ibid.*

into the tunnels, viewers get an entirely different sensation of being enclosed and seeing the landscape from an inside-out perspective. Ultimately, Holt wanted the tunnels to establish human scale within the vastness of the desert landscape.<sup>75</sup> Figure 4.5 photographs Robert Smithson next to the tunnels, serving as a reference of scale.



**Figure 4.5:** Photograph of Robert Smithson standing between the Sun Tunnels, Nancy Holt.

### **Significance**

For Holt, Sun Tunnels reflects the surrounding landscape and skyscape with an overarching theme of joining self and nature. The project's goal was to bring people to a site that they might not have otherwise visited to observe significant celestial cycles, such as the summer and winter solstice, but also to watch the sky on any other day. Sun Tunnels is designed to warp perspective by bringing the sky down to earth, a theme present in many of Holt's works.<sup>76</sup>

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<sup>75</sup> Nancy Holt, "Sun Tunnels," *Artforum*, April 1977, pp. 33-37.

<sup>76</sup> Nancy Holt, and Hikmet Sidney Loe, *History of the Sun Tunnels Near Lucin, Utah*, pp. 561-568.

Wanting to avoid using climate change for the benefit of conversation around her art, Holt does understand the importance of the changing environment and the impact her intervention could have on the landscape. The goal is to spread awareness about the environment with the idea of joining self and nature by incorporating art into the landscape. People are more inclined to want to protect that landscape by expressing the landscape's beauty and value. As artists working within the landscapes, Holt and fellow land artists are considered stewards of the landscape.

### **Application to the Study**

Sun Tunnels has been selected as a case study for this research because it provides variety in the five criteria used to compare land art installations and contemporary memorials: location, relationship to the surrounding landscape, scale of intervention, physical attributes of design, and user interaction. The site of Sun Tunnels is the most remote land art installation being used for this study and was selected for the flat nature of the landscape with the distant mountains and ridges on the horizon. The most important feature of the surrounding landscape is the relationship between the design and the sky. The location allows for the sun and stars to be an integral component of the intervention. The project is the only project that utilized manufactured material such as the cast concrete of the tunnels. Sun Tunnels is arguably the most programmed space because it is meant to view the sky and constellations during specific days, months, and times of the year.

#### 4.2.2 Case Study #1: *Spiral Jetty* by Robert Smithson

Project Location: Rozel Point, Utah

Artist: Robert Smithson

##### Overview

The Spiral Jetty was designed and built by the American artist Robert Smithson in 1970. Smithson, an internationally acclaimed artist, began to create land-specific works in the late 1960s in Germany, Mexico, Italy, and Canada. Inspired by utilizing landscape as a form of materiality in his work, he wanted to create his first large-scale project situated outside and use the surrounding land as his only medium. He specifically wanted to incorporate an inland body of saline water naturally tinged red, which can be seen in Figure 4.6. To construct the Spiral Jetty, which measured 1500 feet long and 15 feet wide, approximately 6500 tons of boulders had to be moved.<sup>77</sup>



**Figure 4.6:** Aerial Photograph of Spiral Jetty by Robert Smithson. Originally photographed 1970.

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<sup>77</sup> Fernando Domínguez Rubio, “The Material Production of the Spiral Jetty: A Study of Culture in the Making,” *Cultural Sociology* 6, no. 2 (September 2012): pp. 143-161, <https://doi.org/10.1177/1749975512440226>.

## Site Selection

*"Red is the most joyful and dreadful thing in the physical universe; it is the fiercest note, it is the highest light, it is the place where the walls of this world of ours wear the thinnest and something beyond burns through."*- G.K. Chesterton

In *The Spiral Jetty*, an essay written by Smithson in 1972, he describes why Smithson was drawn to creating his earthwork, specifically in a saline body of water that tinged red. After working on the Mono Lake Site-Nonsite project in California, Smithson read *Vanishing Trails of Atacama* by William Rudolf, which described the salt lakes in Bolivia. The red surface color of the water in the lakes was the effect of micro bacteria, brine shrimp, and algae that thrived in that microclimate. One lake in particular that Smithson was drawn to, the Laguna Colorado lake, described in *The Useless Land* written by James Aarons and Claudio Vita-Finzi. The authors described the lake where "the Basalt (at the shores) is black, the volcanos purple, and their exposed interiors yellow and red. The beach is grey and the lake pink, topped with the icing of iceberg-like masses of salts."<sup>78</sup>

The salt lakes in Bolivia fascinated Smithson; however, Bolivia proved to be too remote, and the Mono Lake in California was devoid of the red color Smithson was seeking. Smithson contacted Ted Tuttle from the Utah Park Development. Tuttle relayed that the water in the Great Salt Lake was the color of tomato soup, which prompted Smithson to visit Utah. He visited areas at different points around the lake and settled on a site that was approximately one mile north of the oil seeps. There were limestone beds and massive deposits of black basalt,

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<sup>78</sup> Robert Smithson, *The Writings of Robert Smithson: Essays with Illustrations*, ed. Nancy Holt (New York: New York University Press, 1979): pg. 113.

which gave the region a shattered appearance. As Smithson evaluated the site, he felt the solid and liquid elements blur together, and the concept of the Spiral Jetty materialized.

### **Process**

The site was situated in a meandering zone for which Smithson secured a lease for twenty years. In April of 1970, Smithson hired Bob Phillips as a contractor for the project. In addition to the site's remote nature, Phillips was hesitant about the equipment's ability to operate on land with such low ground pressure. To avoid getting the equipment stuck, they would have to raise the ground pressure on the side artificially. Because of the heaviness of saltwater, the high concentration of salinity would cause technical difficulties. To ensure that the jetty had to be built, "eight feet wide at the top and needs to be sloped enough to hold rock on the sides to prevent wave damage."<sup>79</sup> After several exchanges between Smithson and Phillips, they agreed upon a sketch, and Phillips bid the project at \$6,000.<sup>80</sup>

With two dump trucks, a tractor, and a large front loader, construction on the tail of the spiral began. A string and central stake were used to measure and place the coils of the spirals. The placement of the coils was explicitly designed to avoid the soft muds that broke up the salt crust. Some mud fissures could not be avoided inevitably, and the crew suffered delays when machinery sunk into the mud. In total, three curves were staked out to comprise the spiral. The trucks moved basalt and earth from the beaches and dumped the material into the outline of the stakes. This process took approximately two weeks to complete. Figure 4.7 depicts Smithson overseeing the construction of the jetty.

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<sup>79</sup> Bob Phillips, "Building the Jetty," in *Robert Smithson. Spiral Jetty: True Fictions, False Realities*, ed. Robert Smithson (London: University of California Press, 2005), pg. 188.

<sup>80</sup> *Ibid.*



**Figure 4.7:** *Robert Smithson at the site of Spiral Jetty* [Photograph found in Dia Art Foundation]. Originally photographed 1970.

The spiral that is famously photographed today was not the original jetty completed by Phillips and his crew after those two weeks. Photographed in Figure 4.8, the jetty was initially j-shaped with a small spiral at the end of the hook of the j. About a week after the j-shaped jetty was complete, Phillips received a call from Smithson expressing his dissatisfaction with the shape. Reluctantly, Phillips agreed to fix the shape with an extended budget of \$3000.<sup>81</sup> Smithson's change of mind is not described in his essay written in 1972. It can be theorized that he was trying to maintain this romanticized narrative of the conceptualization of the Spiral Jetty, or he had initially thought of the whole spiral and later regretted not choosing that shape. Either way, the new shape was completed in three days, and Smithson was satisfied with the final sculpture.<sup>82</sup>

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<sup>81</sup> Fernando Domínguez Rubio, *The Material Production of the Spiral Jetty: A Study of Culture in the Making*, pp. 143-161.

<sup>82</sup> *Ibid.*



**Figure 4.8:** The original form of the jetty was a J-Shaped Jetty (1970).

### **The Spiral**

The conceptualization of the spiral came from when Smithson was visiting the site for the first time. As Smithson looked out over the site, he felt as if an immobile cyclone with flickering light made the landscape appear as if it was quaking. From the quaking came stillness and then a spinning sensation that allowed Smithson to view the landscape as a "rotary that enclosed itself in an immense roundness."<sup>83</sup> To Smithson, the solid and liquid qualities became one as matter collapsed into the lake, mirroring the shape of a spiral.

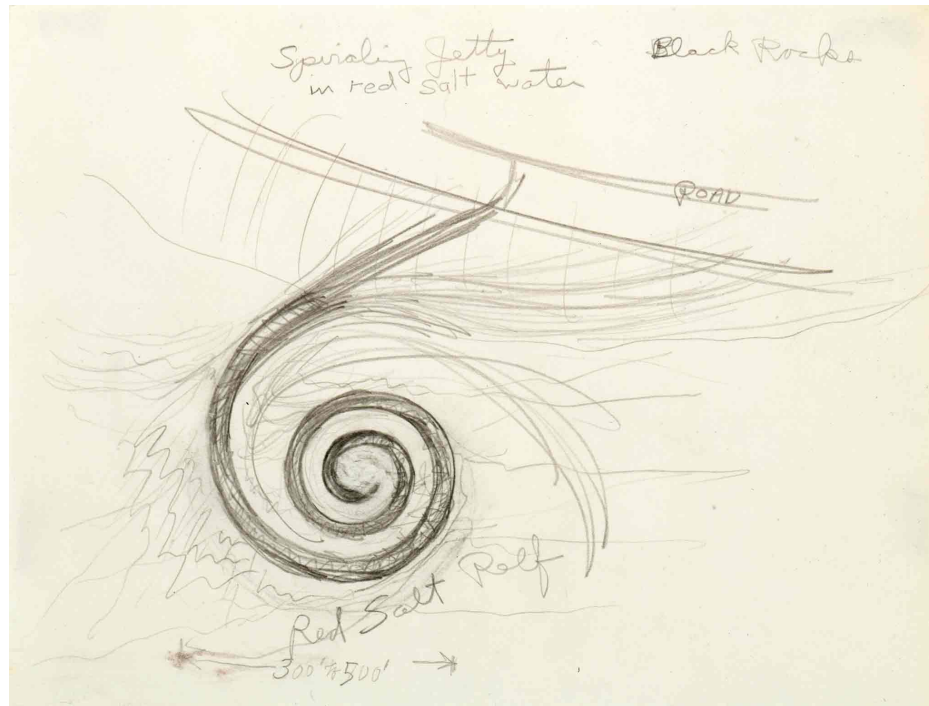
Metaphorically, the spiral described a synthesis of time and space by altering the sense of perception of the mind's "straight" abstractions.<sup>84</sup> Physically, the spiral allowed for the water to blend with the masses of rocks and crystals, thus creating a continued visual effect. Although the spiral was mathematically calculated and designed according to areas, volumes, masses,

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<sup>83</sup> Robert Smithson, *The Writings of Robert Smithson: Essays with Illustrations*, pg. 111.

<sup>84</sup> *Ibid*, pg. 113.

moments, pressures, forces, stresses, and strains, the overall effect is an organic shape intended to evoke feelings unexplainable by numbers and calculations.<sup>85</sup> This organic shape is pictured in one of Smithson's sketches of the spiral in Figure 4.9.



**Figure 4.9:** *Spiral Jetty in Red Salt Water* [Sketch] by Robert Smithson (1970). Located at Museum of Modern Art, Rozel Point, Great Salt Lake, Utah, USA.

### Scale

In his 1972 essay, Smithson says that "size determines an object, but scale determines art."<sup>86</sup> Depending on each person's perception, the scale is relative and varies based on the person's location. If a person cannot differentiate between size and scale, they are viewing an object as certain. Smithson argues that scale is considered an uncertainty, and the Spiral Jetty case changes due to viewing it from the ground or from above.<sup>87</sup> From eye level, the focus is on

<sup>85</sup> Robert Smithson, *The Writings of Robert Smithson: Essays with Illustrations*, pg. 112.

<sup>86</sup> Ibid.

<sup>87</sup> Ibid.

the jetty journey and viewsheds out to the lake. From an aerial perspective, the jetty's entire shape comes into view, and scale is relative to the jetty within its surroundings.

### **Significance**

In an area thought to be abandoned or uninhabitable, Smithson valued the Great Salt Lake's landscape and rich ecosystem. Smithson intertwined art with the environment celebrating the unique character of the lake. The Spiral Jetty is an example of exploring the notion of scale from minute to monumental. The design was inspired by and considered the lake's ecosystem, which consists of microscopic bacteria and other tiny organisms and is contrasted by the spiral's extensive nature.

The Spiral Jetty "emerges as an example of how human action and thought emerge from action within the material world. Thus, the example of the Spiral Jetty shows that artistic production takes place at the interface between human activity and the material world. Furthermore, that is from this interface, from this in-between, that cultural products grow into being and are materially accomplished."<sup>88</sup>

### **Application to the Study**

The Spiral Jetty has been selected as a case study for this research because it provides variety in the five criteria used to compare land art installations and contemporary memorials: location, relationship to the surrounding landscape, scale of intervention, physical attributes of design, and user interaction. At approximately two hours away, Salt Lake City is the closest city to the Spiral Jetty. However, it is not proximately to the city that makes the Spiral Jetty a unique location. The site of the project was specifically chosen for the saline body of water. It is the only case study in this research where water utilization is an essential aspect of the design. This land

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<sup>88</sup> Fernando Domínguez Rubio, *The Material Production of the Spiral Jetty: A Study of Culture in the Making*, pg. 155.

art case study is the only one that features water as a design element. Determining the scale of the intervention is based on two factors. The first factor is the measured size of the intervention, and the second is the impact on the land. Both the intervention's size and the impact on the land measures in between the other two land art case studies. The nature of the spiral also informs the site's narrative and user experience by emphasizing following the jetty to the end.

#### **4.2.3 Case Study #3: *Double Negative* by Michael Heizer**

Project Location: Mormon Mesa, Nevada

Artist: Michael Heizer

##### **Overview**

Michael Heizer, born in California in 1944, is most known for his work *Double Negative* located on the Mormon Mesa in Nevada. *Double Negative* consists of two cuts in the mesa surface that face each other, creating a visual bridge over a shallow valley seen below in Figure 4.10.



**Figure 4.10:** Aerial perspective of *Double Negative* by Michael Heizer.

## Process

After gaining the financial backing of Virginia Dawn, Heizer secured a site on the Mormon Mesa.<sup>89</sup> The project cost approximately \$10,000 and was later donated to the Los Angeles Museum of Contemporary Art by Dawn. Heizer used a team of two bulldozer operators to dynamite and excavate two thirty-foot-wide cuts to a depth of forty-two before he ran out of money. With permission from Dawn, Heizer deepened the trenches 50 feet and expanded the total length to 1,500 ft.<sup>90</sup>

## The Void

*Double Negative* is referred to as a monument of displacement. Heizer famously said, "the title of Double Negative is impossible. There is nothing, yet it is still sculpture."<sup>91</sup> The process of creating *Double Negative* was an act of subtraction as Heizer designed a void in the landscape without replacing it with anything. This concept was not a new idea in the fields of architecture or landscape architecture; however, it was considered radical thinking and distinct from previous sculptures.

## Scale

Like many of Heizer's works, *Double Negative* takes on a monumental magnitude of scale yet still balances human form with the surrounding landscape. Considering the broader context in which *Double Negative* is situated, the Mormon Mesa and the intervention are in proportion to each other. As seen in Figure 4.11, the severity of the ditches may seem daunting to the human form, but the walls' nature contributes to an enclosed feeling that allows the landscape to be framed by the viewer. Heizer acknowledges that both Anglo-American landscape tradition

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<sup>89</sup> John Beardsley, *Earthworks and Beyond* (New York: Abbeville Press, 1984), pg. 16.

<sup>90</sup> Ibid.

<sup>91</sup> Jeffrey Kastner and Brian Wallis, "Survey," in *Land and Environmental Art* (London: Phaidon Press, 1998), pg. 29.

and modernist art view the desert as a negative space. Still, he feels as if that comes from the space being ignored or avoided or both. Instead, he created these voids at a magnitude different from most sculptures for people to appreciate the space.<sup>92</sup>



**Figure 4.11:** Inside Michael Heizer's *Double Negative*, Mormon Mesa, Nevada (1969-1970).

### **Significance**

*Double Negative* is arguably Heizer's most notable project, but it also comes highly criticized. A series of panoramic photographs from inside the trenches were displayed in a Dawn Gallery exhibit in 1970.<sup>93</sup> For many, *Double Negative* symbolized the dangers of creating such

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<sup>92</sup> Andrew Menard, "Cutting Edge," *The Antioch Review* 75, no. 3 (July 1, 2017): pp. 301-312.

<sup>93</sup> Jeffrey Kastner and Brian Wallis, *Land and Environmental Art*, pg. 29.

monumental projects. Some critics wrote that *Double Negative* "proceeds by marrying the very land, which is what we have just learned to stop doing" and "earth art, with very few exceptions, not only does not improve upon its natural environment, it destroys it."<sup>94</sup>

Several years after receiving criticism for *Double Negative*, Heizer sought to clarify that his intentions were not to "destroy the gallery system or the aesthetic object."<sup>95</sup> He recognized that *Double Negative's* importance is what it offered rather than what it rejected. It provided an example of art outside of gallery spaces as a political statement about the economics of art to remove the commodity status of a work of art.<sup>96</sup>

Heizer was adamant about creating nonconformist, non-complacent art in a time when there was great social unrest caused by an unpopular war, racial antagonisms, and space explorations. Heizer found comfort in the Western deserts and said that he found "the kind of unraped, peaceful, religious space artists have always tried to put into their work."<sup>97</sup> In his opinion, "art had to be radical" and "it had to become American," therefore shaking the dependence on European refinement.<sup>98</sup> Heizer's mindset became part of the artistic discourse by the late 1960s and created a shared enthusiasm among other environmental land artists.

### **Application to the Study**

Still considered remote, *Double Negative* is the closest land art case study site to a city with Las Vegas just seventy-one miles away. The intervention scale is the largest of the three land art installations, both in the size of the intervention and the impact on the land. Heizer ultimately dynamited the mesa's sides to achieve the two massive voids, forever altering the

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<sup>94</sup> John Beardsley, *Earthworks and Beyond* (New York: Abbeville Press, 1984), p. 16.

<sup>95</sup> *Ibid.*, 17.

<sup>96</sup> Jeffrey Kastner and Brian Wallis, *Land and Environmental Art*, pp. 29-30.

<sup>97</sup> John Beardsley, *Earthworks and Beyond* (New York: Abbeville Press, 1984), p. 13.

<sup>98</sup> *Ibid.*, 13.

landscape. It is also unique in that there was nothing brought onto the sight to complete his design, so there is no additional materiality in the design. Double Negative has the most informal narrative of the other land art case studies in that visitors can explore the voids in whichever way they choose.

### **4.3 Land Art Case Studies: Summaries of Experience**

After completing the background research analysis for each land art case study, the author visited each site for first-hand observation. The observations are recorded below and use the author's first-person perspective to describe their experience.

#### **4.3.1 Case Study #1: *Sun Tunnels by Nancy Holt***

Departing from West Wendover at 8:00 am, I further drove northwest into Nevada on I-80 for approximately 28 miles before taking exit 378 for NV-233 toward Oasis and Montello. Thirty-five minutes later, I crossed back into Utah, continuing on UT-30 East. The road was open and empty, aside from a few passing truckers. There were no buildings, no exits with gas stations or restaurants, and no people as far as the eye could see. There was only the desert and the mountains, which were vast and seemed endless. I quickly approached the right turn onto Grouse Creek Rd., almost missing the turn since there were no signs. I traveled for roughly ten miles on gravel roads taking close to thirty minutes before approaching Sun Tunnels. As seen in Figure 4.12, a small metal sign in the shape of an arrow with the words 'Sun Tunnels' cut out of it, directing me to take a left towards the art installation.



**Figure 4.12:** A metal sign indicating the direction towards *Sun Tunnels*. Photograph was taken in October 2020.

When I arrived on site at 10:00 am, it was 41°F. I noted how intensely quiet it was as if I was the only person existing at that moment. In the two hours that I spent on site, there was no one else. The first thing I did was walk around the tunnels, which were configured in x-pattern as seen in Figure 4.13. I walked through each one, seeing the landscape as Nancy Holt and many others before I once did. I ran my hands along the smooth concrete, looking out of the holes in the sides of the tunnels. The tunnels were cold to the touch, and there was a notable shift in temperature, at least five degrees cooler inside compared to standing outside of the tunnels. Viewing the tunnels outward, they each framed a slightly different landscape with different mountain ranges. Inward to the installation, as seen in Figure 4.15, the views showed how two tunnels aligned together to seeing a tunnel within another tunnel. An unexpected discovery was

the views from the holes in the tunnels, which align with sun and star patterns. The holes almost act as small tunnels with smaller but equally unique views out to the landscape.



**Figure 4.13:** Image of the four tunnels. Photograph was taken in October 2020.

**Figure 4.14:** Sun patterns inside the one tunnel with the view to another tunnel and the landscape beyond. Photograph was taken in October 2020.

The sky was clear of any clouds, and the sun shone intensely in the two hours I was there. The tunnels acted as the only protection from the elements and were the only source of shade on site as the site receives direct sunlight the entire day. I spent approximately an hour documenting each tunnel. Figure 4.15 is included to note the scale of tunnels and surrounding the landscape.

Although there were no other people on site, there was evidence of human interaction as there were remains from a fire pit, presumably from those who camp on site. I documented animal droppings that were too large to come from any household or domesticated animals, implying that wildlife crosses paths with the Sun Tunnels. There were shrubs and grasses around the site; however, the roads and the area where the tunnels were all gravel and dirt. Given the site's proximity to the Salt Flats, there was evidence of salt mixed into the dirt and gravel. The site itself was very flat, and the only topography changes were the mountains in the distances.



**Figure 4.15:** Author photographing the site for site observations. Photograph was taken in October 2020.

Of the three land art installations, Sun Tunnels was the most compelling to photograph. The four tunnels create a sense of rhythm on site. The repeated use of the design elements created an organized movement and unity as all the tunnels worked harmoniously together as a work of art. The tunnels' equal distribution creates a balance on site while still providing the

viewer with a sense of movement throughout the site. Each tunnel's holes are unique to the position it is situated within the surrounding landscape. Exploring the tunnels and the view framed by each tunnel gave the site a playful tone, and it was easy to lose track of time. After visiting the Sun Tunnels, it is evident why the site attracts those interested in the summer and winter solstices, stargazing, and photography.

#### **4.3.2 Case Study #2: *Spiral Jetty by Robert Smithson***

Leaving Salt Lake City at 10:00 am, I headed north on 1-15 for 50 miles before exiting to UT-13 N. Unlike the drive to Sun Tunnels, 1-15 is the main highway thoroughfare with average suburb and city traffic. UT-13 N had less traffic, but it was still more readily used by everyday commuters. Turning left off of UT-13, I entered Golden Spike National Historical Park. To reach Salt Lake and the Spiral Jetty, you have to drive through the national park. Stopping at the visitor center, I picked up a pamphlet with information about the Spiral Jetty and directions to get there since cellular service can be inconsistent within the park. It took about 35 minutes of driving on gravel roads to reach Salt Lake from the visitor center. There were several signs, similar to the one pictured in Figure 4.16, indicating how far I was to the jetty and a small parking area at the end of the road.



**Figure 4.16:** A sign in Golden Spike National Historical Park, indicating 10.3 miles until reaching the Spiral Jetty.

Getting down to the jetty was challenging and would not be accessible to people in a wheelchair, having a stroller, or anyone with difficulty walking on uneven surfaces. I did not see any designated paths for people to take or steps from what I observed, considering there was a significant slope from the parking down to the jetty. As seen in Figure 4.17, the water has receded significantly away from the jetty, and the jetty is now mostly flush in the salt flats. It was easier to walk the spiral by walking to the side on the flat salty earth than the rocks which once were elevated above the water.



**Figure 4.17:** Aerial perspective of the *Spiral Jetty* by Robert Smithson. Photograph was taken in October 2020.

While on site, I documented nineteen people, including several families with small children, pairs of friends, hikers, and cyclists. Because the water levels have receded well past the jetty, I found that many visitors walked past the jetty out to the water, spending little time interacting with the installation, as seen in Figure 4.18. Activities observed on site were walking, sitting, resting, eating or picnicking, hiking, biking, and exercising. These activities are primarily influenced by the site's proximity and relationship with the national park. Many of the hikers and cyclists were there because of the trails that the park provided. I met and spoke with two different pairs of friends, all four natives to Utah, and for all of them, it was their first time out to see the Spiral Jetty. Pictured in Figure 4.19 are the cyclists who biked four hours into the national park to see the Jetty and spent time sitting on a bench to observe. The other pair of

friends had brought their chairs, food, and wine to have a picnic in the middle of the day, proclaiming that this had always been on their bucket list. I averaged that people spent an hour on site and longer if they had never been there.



**Figure 4.18:** Visitors at the Salt Lake. Photograph was taken in October 2020.

**Figure 4.19:** Two cyclists rest at a bench overlooking the Spiral Jetty and Salt Lake. Photograph was taken in October 2020.

I was impressed by the amount of recognition to the Spiral Jetty as a land art installation. A small monument was built next to a bench by a Boy Scout, seen in Figure 4.20. The marble monument had a detailed description of the installation, including information about Robert Smithson, and had an engraving of the spiral within the marble. The monument served its purpose as I noticed several hikers and cyclists stop to read the description.



**Figure 4.20:** Monument with a description of Spiral Jetty constructed by a Boy Scout. Photograph was taken in October 2020.

After spending two and half hours on site, the temperature had risen from 46°F to 51°F. There was no protection from the sun offered on site from plants or structures, aside from the mountain on the other side of the parking area. As documented in Figure 4.21, there was a significant number of shrubs and flowering plants along the mountain and slope down to the jetty and some grasses. As seen in Figure 4.22, the site was cluttered with basalt rocks, which was the material Smithson created the Jetty with. These rocks were embedded in gravel, sand, and salt. Birds were the most commonly seen wildlife on site.



**Figure 4.21:** Slope from the edge of the parking area down to the Spiral Jetty. Photograph was taken in October 2020.

**Figure 4.22:** Basalt rocks used to construct the jetty when it was initially submerged by water. Photograph was taken in October 2020.

### 4.3.3 Case Study #3: *Double Negative* by Michael Heizer

Flying from Salt Lake City to Las Vegas, I landed and within the hour had my rental car and was headed N on 1-15. *Double Negative* is only an hour and a half from the airport, but I had to use coordinates to navigate to the site without a definitive address. Even with a smartphone with a GPS map and written directions, finding *Double Negative* was somewhat challenging and was very nerve-racking. To get there, you have to pass through a series of small towns, the closest being Overton, NV. Pictured in Figure 4.23, *Double Negative* is located in the Mormon Mesa, located approximately 15 minutes outside of Overton. A well-maintained dirt road took me out to the mesa, where I began to ascend the mesa's steep side, which measures 1,900ft tall. The incline up to the mesa is pictured below in Figure 4.24. There was no guard-rail to prevent you from driving over the edge, and I stayed as close to the side of the mesa as possible.



**Figure 4.23:** *Double Negative* by Michael Heizer. Photograph was taken in October 2020.

Once I got to the top of the mesa, it was flat, and the dirt road remained in good condition, as seen in Figure 4.25. I drove five miles on this road before turning left onto Carp Elgin Rd, although the road should not be classified as a road as it was more like a path for All-Terrain Vehicles (ATV). Multiple pathways would veer off from Carp Elgin Rd. and looked identical in width at approximately six feet wide. Large, sharp rocks protruded from the path, making me uneasy that my rented minivan would not survive the drive. Double Negative was only one mile from the turn off of Mormon Mesa Rd; however, it took close to twenty minutes driving at an extremely slow pace to ensure I was on the right path and doing my best to avoid large rocks, although it was inevitable in some places.



**Figure 4.24:** The road approaching the Mormon Mesa and the steep incline up the side of the mesa. Photographed in October 2020.

**Figure 4.25:** Camp Elgin Rd. on top of the Mormon Mesa. This road is used to access Double Negative by Michael Heizer. Photographed in October 2020.

About a half mile before reaching Double Negative, I came across a sign for what I thought might be for the installation. I was mistaken, for when I got closer, it read, "Welcome to the Polish Negative, Support our Troops." I was unsure what the sign meant and who placed it there, but it contributed to an uneasy feeling as if I was intruding on something. I continued along the path until reaching the installation. It was much warmer here, already reaching over 70°F. There were shrubs, some small cacti, and desert plants. There was no one on site while I was there, except for an ATV off in the distance as I was leaving.

As seen in Figures 4.26 and 4.27, the installation was grand in scale and magnificent within the landscape. I hiked into it and walked out to where the mesa dropped off, and I could see the other negative across from me. Figure 4.28 captures the beautiful views of the river valley and farms that could be seen in the distance from the top of the mesa. There was significant vegetation on both sides of the river that dissipated into the slopes of the mesa.



**Figure 4.26:** View from within *Double Negative* by Michael Heizer. Photograph was taken in October 2020.

**Figure 4.27:** View from within *Double Negative* by Michael Heizer. Person at the top of the installation to provide a sense of scale. Photograph was taken in October 2020.



**Figure 4.28:** Views of the river valley below the mesa. Photograph was taken in October 2020.

Although no one else was observed on site, there were indications of recent human activities and footsteps pictured in Figure 4.29. As seen in Figure 4.30, there were remnants of another campsite, this one right next to the Double Negative, and a few beer cans. When driving through the town before arriving at the installation, most homes had All-Terrain Vehicles or ATVs parked in the driveways. There are hundreds of ATV tracks on top of Mormon Mesa, indicating that locals come up to the mesa regularly using the ATVs to navigate the rugged terrain. Because of this, it seems like the campfires and footsteps are left behind by local townspeople. There is no signage out there, no indication that it even exists apart from the "Polish Negative" sign. While I was on site, I contemplated what Michael Heizer would think of how people engaged with his artwork now. It was so difficult to access that it makes you feel as if you are not supposed to be there, which could be an outcome Heizer had hoped for. Even if he

wanted it to maintain a sense of elusiveness, it was almost uneasy to be there and made it difficult to appreciate his artwork fully.



**Figure 4.29:** Footsteps in the sand inside *Double Negative* by Michael Heizer. Photograph was taken in October 2020.

**Figure 4.30:** Remnants of campfires next to *Double Negative* by Michael Heizer. Photograph was taken in October 2020.

## 4.4 Contemporary Memorial Case Studies

### 4.4.1 Case Study #1: *The Vietnam Veterans Memorial*

Project Location: The National Mall – Washington, DC

Artist: Maya Lin

#### Overview

The Vietnam Veterans Memorial, seen in Figure 4.31, was designed in 1981 by Maya Lin, an American architect, and sculptor. At the time, Lin was an undergraduate student at Yale University, studying to become an architect. During her senior year, she took an architectural seminar that focused on funeral architecture and taught students how to express their attitudes about death through built forms.<sup>99</sup> A notice at the school was posted, announcing a design competition for a Vietnam's Veteran Memorial, and the seminar class decided to adopt it as their final design project. Lin created and submitted a series of simple drawings in soft pastels and a written description as her entry to the competition. Representatives from the Vietnam Veterans Memorial Fund flew to New Haven to deliver the news to Lin that she had won the competition. After graduation, Lin moved to Washington to oversee the approval process and see the design through the conceptual and design development phases. The memorial was completed in November of 1982 and dedicated over a five-day ceremony, presided over by President Ronald Reagan. The ceremonies involved a procession of tens of thousands of Vietnam War Veterans, and Lin recalls being "in tears watching these men welcoming themselves home after almost ten years of not being acknowledged by their country for their service, their sacrifice."<sup>100</sup>

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<sup>99</sup> Maya Lin, "Making the Memorial," *The New York Review of Books*, November 2, 2000, pg. 1.

<sup>100</sup> *Ibid*, 6.



**Figure 4.31:** The Vietnam Veterans Memorial by Maya Lin, facing the Washington Monument and Washington, D.C.

### **Design Inspiration**

Maya Lin started her design process for the Vietnam Veterans Memorial by extensively researching earlier monuments and memorials. She found that most focused on a central message of success through a leader's victory or accomplishments. Memorials built for World War I were some of the first to address individual lives by including names of those killed and more adequately reflected the horrors of war by quantifying the loss of life. The power of name was not lost on Lin as she recalls the Memorial Rotunda at Yale where in Wesley Hall, the names of Yale alumni who were killed in war have their names inscribed in the marble walls.

She made an intentional decision not to do specific research on the Vietnam War. Understanding the tremendous political turmoil it had caused the country, she wanted to "create a

memorial that everyone would be able to respond to, regardless of whether one thought our country should or should not have participated in war."<sup>101</sup> Instead, she decided to take inspiration from the monument to the missing soldiers of the World War I Battle of the Somme by Sir Edwin Lutyens in Thiepval, France. The memorial acknowledges the 100,000 names of people who died in battle who could not be identified. Focusing on the lost lives rather than the war itself achieved an apolitical approach by not creating a statement on victory or loss. Lin felt this approach to be especially important because it did not glorify war or forget the sacrifices made for war and emphasized human life's remembrance.<sup>102</sup>

In designing a memorial, Lin wanted to focus on "the nature of accepting and coming to terms with a loved one's death. As simple as it seems, I remember feeling that accepting a person's death is the first step in being able to overcome loss."<sup>103</sup> She asked herself what would bring back a memory of a person and wanted to design something that people could relate to on a personal level. The class then received the design requirements for the competition, which were that "all the names of those missing and killed (57,000) must be a part of the memorial; the design must be apolitical, harmonious with the site, and conciliatory."<sup>104</sup> Lin's vision was compatible with these requirements.

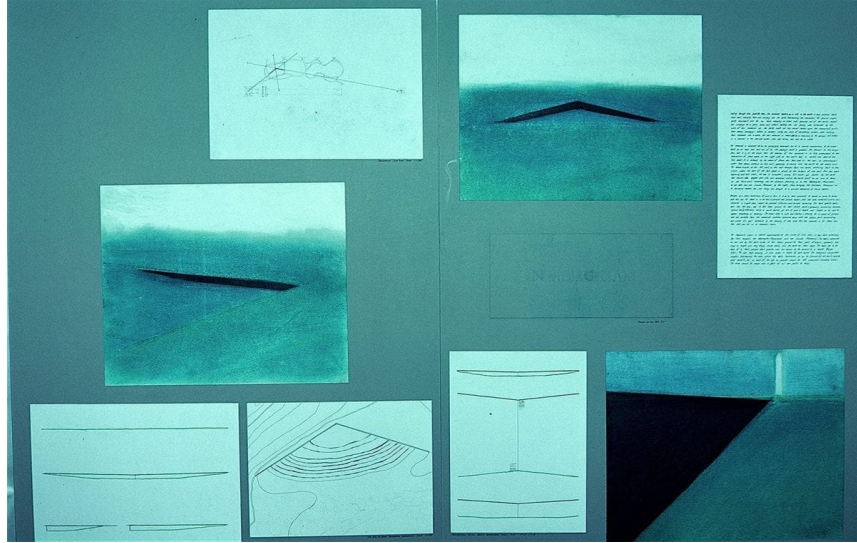
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<sup>101</sup> Maya Lin, *Making the Memorial*, pg. 1.

<sup>102</sup> *Ibid*, 2.

<sup>103</sup> *Ibid*.

<sup>104</sup> *Ibid*, 6.



**Figure 4.32:** Maya Lin's submission to the design competition. Her sketches featured muted pastel colors for the landscape and a black color for the memorial.

**Figure 4.33:** Sketch of Maya Lin's design concept for the memorial.

With several of her classmates, Lin traveled to Washington, D.C., to see the site to visualize her design for the memorial. In *Making the Memorial* published by The New York Review of Books in 2002, Lin noted that while she was on site:

I had a simple impulse to cut into the earth. I imagined taking a knife and cutting into the earth, opening it up, an initial violence and pain that in time would heal. The grass would

grow back, but the initial cut would remain a pure flat surface in the earth with a polished, mirrored surface, much like the surface on a geode when you cut it and polish the edge. The need for the names to be on the memorial would become the memorial; there was no need to embellish the design further. The people and their names would allow everyone to respond and remember.<sup>105</sup>

Lin selected black granite for its reflective qualities to mirror the park and create two worlds: the visitor and the world of those who have died. The two walls come together at an apex, with one wall directed to the Lincoln Memorial and the other led to the Washington Monument to symbolize a unity between the nation's past and present. Lin further notes that she wanted her "design to work with the land, make something with the site, not fight it, or dominate it."<sup>106</sup> She emphasized the relationship between her work and the landscape as being additive rather than combative.

After several rounds of deliberation, Lin decided to etch the 57,000 names of the killed into the black granite in chronologic order rather than alphabetically. To keep the design seamless, she opted to categorize the days by an alphabetic list as an alternative to listing dates. Visitors can follow the chronologic order by knowing that a day is over when the list of names starts over at the top of the alphabet. Her design was not just to list the names of the dead, but by choosing a reflective surface, you see not only the name you were looking for but also others close by, and yourself reflected in the black granite.

## **Process**

The idea for the Vietnam Veterans Memorial came from Jan Scruggs, a wounded warrior who had a dream of creating a memorial to honor those who served and those who died in the

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<sup>105</sup> Maya Lin, *Making the Memorial*, pg. 2.

<sup>106</sup> *Ibid*, 3.

Vietnam War. Scruggs came together with Robert Doubek, an Air Force Veteran, and John Wheeler, an Army Veteran, to form the Vietnam Veterans Memorial Fund (VVMF) to get the support and funding from the American public to build a memorial. The VVMF hired Paul Spreiregen to lead the design competition. He is considered an expert on design competitions and was the head of the American Institute of Architects Committee on competitions, and is an AIA fellow. Along with Spreiregen, the VVMF staff and board members selected a jury to judge the competition. The members of the jury included: Pietro Belluschi (architect), Grady Clay (journalist and elected chair of the jury), Garrett Eckbo (landscape architect), Richard Hunt (sculptor), Costantino Nivola (sculptor), James Rosati (Sculptor), Hideo Sasaki (landscape architect), and Harry Weese (architect).<sup>107</sup>

The jury received 1,421 submissions and required an airplane hangar, seen in Figure 4.34, to display all of the presentation boards. Of the 1,421 submissions, Spreiregen approximated that about 200 submissions met the competition requirements and were considered competitive. Regardless, the process maintained that every entry is looked at by each juror. The jury follows several rounds of eliminating submissions until they are left with a final six. During these deliberations, it was noted by Weese that Maya Lin's proposal would be the only dark memorial in contrast to the white marble seen all around Washington. Hunt defended the material choice by remarking that black granite would offer reflections not to appear starkly black. Lin's

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<sup>107</sup> Clay, Grady, Michael Kennedy, Judith McCandless, and Jerri Weitzel. *Before the Wall: How a Dream Becomes a Memorial*. Beyond the Wall Writers Group, n.d.

submission was chosen.

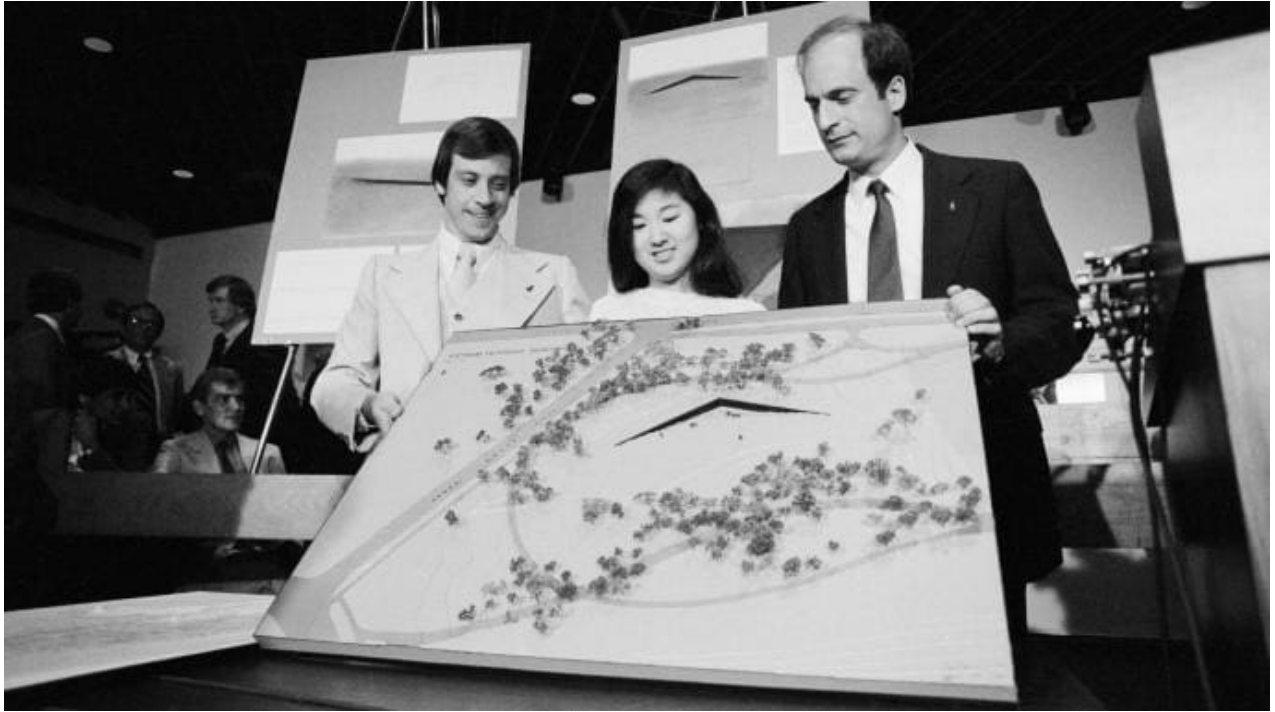


**Figure 4.34:** Airplane hangar used to display all of the presentation board of the 1,421 submissions that the jury received.

After the jury presented the winning submission to the VVMF staff, a public press conference was held to present the winning design and designer to the public, seen in Figure 4.35. After the public announcement of winning the competition, Lin moved to Washington to finalize the design of the memorial and oversee its construction. To make her design a reality, Lin sought a qualified firm with experience in architecture and landscape-integrated solutions. After a recommendation from the dean of Yale's School of Architecture, Lin selected the firm Cooper-Lecky to be the architect on record. The design of the walls went through several phases of refinement. Every aspect of the design was questioned, from the order of the names, the size of the text, the text's location, the materiality of the granite, and where the granite could be sourced from. Ultimately, Lin felt the actual building process went smoothly for the most part, and the memorial was built very close to her original intentions.<sup>108</sup>

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<sup>108</sup> Maya Lin, *Making the Memorial*, pg. 5.



**Figure 4.35:** Jan C. Scruggs, the President of the Vietnam Veteran's Memorial Fund, and Project Director Bob Doubek display the final design for the memorial, with Maya Lin Yale architecture student Maya Lin.

### Controversy

The memorial was subject to heavy criticism and was controversial among veterans and the public. The memorial was called everything from "a 'ditch' of shame, a condemnation of the war itself" to "a 'black gash of shame' and an insult to veterans."<sup>109</sup> The memorial's criticisms included that it was below ground and black, there is no United States flag present, and the two walls form an anti-war peace sign in the shape of a "V." To refute this claim, Lin said the 130° angles the walls formed was hardly a "V" shape. The black granite color was a central point of contention as black was associated with shame and dishonor. According to Lin, "It took a prominent four-star general, Brigadier General George Price, who happened to be black,

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<sup>109</sup> Clay, Grady, Michael Kennedy, Judith McCandless, and Jerri Weitzel. *Before the Wall: How a Dream Becomes a Memorial*. Beyond the Wall Writers Group, n.d.

testifying before one of the countless subcommittee hearings and defending the color black, before the design could move forward.<sup>110</sup>

Also, Lin was personally criticized for her age, race, and gender. An article titled "An Asian Memorial for an Asian War," published in *The Washington Post*, sparked further controversy in Washington. Lin recalls one side attacked the design for being "too Asian." In contrast, others saw its simplicity and understatement not as an intention to create a more Eastern, meditative space but as a minimalist statement, which they interpreted as being non-referential and disconnected from human experience.<sup>111</sup> Because of her ivy-league education, many felt Lin was using the memorial to force elitist attitudes about art and political commentary.

In retrospect, this project was bound to become controversial with "the fact that no veterans had been on the jury, the unconventionality of the design and the designer, and a very radical requirement made by the Vietnam veterans to include all the names of those killed."<sup>112</sup> The war had been controversial, and therefore, even in attempting to create an apolitical memorial, a political statement was still made to those who felt the memorial should carry the same positive attitudes of memorials and monuments that came before it. Ultimately, Lin realized that "it was extremely naïve to think that I could produce a neutral statement that would not become politically controversial simply because it chose not to take a side."<sup>113</sup>

### **Significance to Memorial Design**

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<sup>110</sup> Maya Lin, *Making the Memorial*, pg. 6.

<sup>111</sup> *Ibid.*

<sup>112</sup> *Ibid.*

<sup>113</sup> *Ibid.*, 7.

The Vietnam Veterans Memorial was the first abstract spatial memorial completed in the United States.<sup>114</sup> It was unique that its walls were designed to be integrated into the landscape and existing topography, rather than sitting on top of the landscape as most traditional memorials and monuments do. It is also notable because it is designed to be below grade. The granite walls are sunken into the ground requiring visitors to descend below the ground plane.<sup>115</sup>

At the time of the design competition, abstract interpretations were still controversial; however, since the Vietnam Veterans Memorial's construction, abstract memorials increased in popularity, especially in the 2000s. Examples include "the Memorial to the Murdered Jews of Europe and Berlin (Peter Eisenman, 2005), the National 9/11 Pentagon Memorial (Julie Beckman and Keith Kaseman, 2008), and the field of steel stelae at the 7 July Memorial in Hyde Park (Groarke Architects, 2009).<sup>116</sup> As seen with the Vietnam Veterans Memorial, strictly abstract designs can be controversial and not widely accepted by experts and the public. As a compromise in the Vietnam Veterans Memorial's design, traditional figural statues were included as a complement to the abstract features and to please a wider audience who may be critical of abstract expression.

### **Application to the Study**

The Vietnam Veterans Memorial was selected to be a case study because of its location, scale, and relationship with the landscape. Located at the National Mall, the Vietnam Veterans Memorial is visited by over three million people annually. Measuring approximately 250 feet, it is the smallest memorial discussed in this project. It offers a straightforward narrative for users to walk the wall's length, allowing users to stop and read the names on the wall. Though in a

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<sup>114</sup> Quentin Stevens and Karen A. Franck, *Memorials as Spaces of Engagement: Design, Use and Meaning* (London: Routledge, 2016), pg. 23.

<sup>115</sup> Ibid.

<sup>116</sup> Ibid, 23.

metropolitan area, the National Mall provides a park-like feel to the space. The memorial works with the existing topography, and the walls were constructed to appear seamless in the surrounding lawn space. The first contemporary memorial to be built, the memorial was so influential that it changed the way memorials and monuments are designed today. Because of both the site's physical attributes and its significance to memorial design, it was critical to include them in this study.

#### ***4.4.2 Case Study #1: The 9/11 Pentagon Memorial***

Project Location: The Pentagon – Washington, DC

Artist: Julie Beckman and Keith Kaseman

##### **Overview**

At 9:37 am on the morning of September 11th, American Airlines Flight 77 collided with the Pentagon at 530mph, killing all 59 passengers and crew on board and 125 people inside the building. The Pentagon was one of three targets of an organized terrorist attack; the other two being 'Ground Zero,' the site of the World Trade Center in New York City; and Shanksville, PA, where Flight 93 crashed en route to Washington, DC. In the immediate wake of the tragedy, memorials began to appear on the streets and sidewalks where teddy bears, balloons, flowers, cards, and other items were left. Within days, conversations of how to permanently commemorate the attacks began across the country. The Pentagon Memorial, pictured below in Figure 4.36, was designed by Julie Beckman and Keith Kaseman and was completed and dedicated on September 11th in 2008.<sup>117</sup>

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<sup>117</sup> Elyse Glickman, "An Inspired Architects' 9/11 Pentagon Memorial Design Is Reflective in Many Ways," ICONIC LIFE, September 11, 2019, <https://iconiclif.com/two-architects-9-11-memorial-design-honoring-those-we-lost-at-the-pentagon/>.



**Figure 4.36:** A visitor spends a contemplative moment in 2011 at the Pentagon Memorial, built in honor of those killed there on Sept. 11.

Beckman and Kaseman earned their masters' degree in architecture from Columbia University in the spring of 2001. Working in New York on the morning of September 11<sup>th</sup>, Beckman and Kasemen witnessed first-hand the tragedy and chaos that followed in the aftermath of the attacks and decided to enter the international competition for the Pentagon Memorial.

Beckman and Kaseman recall:

We lived through the events of that day, we were part of the endless crowds that had to walk 100 blocks to get home that day, and we lived through the long aftermath. When the Pentagon competition was announced, she says, "We knew this was our opportunity to give something back. We thought, 'Even though this may not get more than 10 seconds of attention, this is what we can do as professionals.'" During July and August of 2002,

Beckman and Kaseman spent many of their evenings discussing the design in a small restaurant just below their tiny apartment in Manhattan. "There was lots of talk, lots of sketching, and tears, too," Kaseman recalls.<sup>118</sup>

Interviews with Beckman and Kaseman "affirmed that they entered the competition not to win, but to heal their personal wounds, spark productive conversation and 9/11's impact, design something as a team that had great personal meaning, and their respects to those who family members and friends perished at the Pentagon."<sup>119</sup> These sentiments ultimately allowed them to win an international competition in which top architecture firms were also competing. In 2012 at the Architects of Healing ceremony, Beckman and Kaseman won a National Medal of Service from the American Institute of Architects for their design four years after completing the memorial.

### **Design of the Memorial**

Only 165 feet from the wall where the Boeing 757 crashed into the Pentagon, the 1.93-acre site for the memorial was referred to as the "impact site." The premise of Beckman and Kaseman's design "aligned 184 bench-like "memorial units" – one for each of the victims – precisely on the angle followed by the airplane during the attack."<sup>120</sup> Measuring at 14-feet long, the bench-like memorial units are cantilevered over a thin band of slowly flowing water and have the person's name inscribed at the unit's front. As seen in Figure 4.37, the lines are organized by dates of birth from the youngest victim to the oldest victim from 1930 to 1998.<sup>121</sup> The design's intentionality is evident in the small details, including how the directionality of the memorial units corresponds to where the person died; the cantilevered slabs that face inward towards the

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<sup>118</sup> Elyse Glickman, *An Inspired Architects' 9/11 Pentagon Memorial Design Is Reflective in Many Ways*.

<sup>119</sup> Ibid.

<sup>120</sup> Benjamin Forgey, "The Pentagon Memorial Story," *Landscape Architecture Magazine*, January 2009, pg. 81.

<sup>121</sup> Ibid, 83-84.

building represent the victims on the plane, and the slabs that face outward towards the western sky represent those who perished inside the Pentagon.<sup>122</sup>



**Figure 4.37:** The 9/11 Pentagon Memorial features cantilevered benches, reflecting pools, and lines that organize the benches based on the victim's age who perished in the terrorist attack.

The design initially called for the benches' materials to be a clear-anodized aluminum that should have been easy to mass produce; however, a year of failed experimentation resulted in units that would randomly bend or twist. The bench's material was changed to stainless steel inlaid with thin slabs of granite, while the lower half of the unit was made of reinforced precast concrete. The lower half of the unit contained the reflection pool, built-in lights and drain units, and connections to the water and electrical supply underground.<sup>123</sup> The original design concept also included 184 trees, one for every life honored in the memorial, but the number was reduced to 85 for fear of trees dying due to over competition for sunlight. Because each tree would represent one life, it would have been too personal for a family to lose a tree representing their loved one. Beckman and Kaseman agreed to the change because it still met the goal of having

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<sup>122</sup> Benjamin Forgey, *The Pentagon Memorial Story*, pg. 84.

<sup>123</sup> *Ibid*, 86.

consistent shade across the memorial and visually opened the field.<sup>124</sup> Because the memorial units are placed in a field of gravel, the last alteration to the design was adding six crosswalks that would run parallel to the benches to increase visitor accessibility that was made difficult by the gravel.

Taking approximately two years to complete, the memorial's installation cost \$22 million and, although simple in design, proved challenging to construct. First, the sloping site needed to be leveled and had to accommodate the seven-foot underground system that would supply the water to each memorial unit. Although the construction process was not seamless, Beckman had high praise for the entire design-build team, which included "hundreds of people and dozens of companies from around the U.S., including academic and industry advisors, material scientists, fabrication specialists, testing facilities, construction experts and design professionals."<sup>125</sup>

Dedicated in 2008, the 9/11 Pentagon Memorial was the first memorial to open to commemorate the tragic events of September 11th. Following the 9/11 Pentagon Memorial, both the Flight 93 Memorial in Shanksville, PA, and the Ground Zero Memorial in New York City opened in September of 2011.

### **Design Competition**

In November 2001, a steering committee for the memorial was established with membership split equally between relatives of military and civilian victims. The civilian representatives were evenly divided into those whose relatives were in the plane and inside the Pentagon. The committee quickly decided on the site of the memorial, which was called the "Impact Site," where the plane had crashed into the side of the Pentagon. The second decision that was made included design criteria for the memorial. The families did not want proposals to include flames,

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<sup>124</sup> Benjamin Forgey, *The Pentagon Memorial Story*, pg. 86.

<sup>125</sup> Elyse Glickman, *An Inspired Architects' 9/11 Pentagon Memorial Design Is Reflective in Many Ways*.

flags, soldiers, angels, naked ladies, excessive heights of structures, enclosed rooms, and ancillary interpretative facilities.<sup>126</sup>

By late September, just two months after the announcement of the competition, 1,126 qualifying entries were submitted to the competition with submissions from every American state and over 50 different countries. The entries were displayed in the National Building Museum in downtown Washington in the hallways, galleries, and just about every corner of the building. The 11-person jury committee was comprised of one architect, two landscape architects (Walter Hood of the University of California, Berkley, and Roger Martin, FASLA, professor emeritus at the University of Minnesota), two artists, an architecture curator, two former Secretaries of Defense, a wife of a former chairman of the Joint Chiefs of Staff, and two family members.<sup>127</sup> As the jury reviewed the submissions, their general sentiments were:

The many entries that included exhortative "flames, planes," and the like were culled, and despite notable differences, the designs of the six finalists shared a tone of restraint and undemonstrative intensity. None deployed conventional national iconography or figurative sculpture. All in some way emphasized qualities of a well-ordered landscape. And all used design elements and the site itself to help provoke strong responses without directly telling visitors what to think or feel.<sup>128</sup>

In October 2002, Beckman and Kaseman, along with the five other finalists, were called by the Pentagon Memorial Committee and given two more months and a stipend to develop their proposals further. They traveled to Washington, DC, to present their proposal and receive feedback from their design and answer any of the families' questions. In describing the second-

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<sup>126</sup> Benjamin Forgey, *The Pentagon Memorial Story*, pg. 83.

<sup>127</sup> Ibid.

<sup>128</sup> Ibid, 84.

stage presentations, Jeff Lee, a Washington Landscape Architect, remembers it being "almost like being in a church or mosque or a temple, just because of the spirituality each designer brought to the presentation."<sup>129</sup> In late February of 2003, Beckman and Kaseman received the call that the competition jury had selected their design.

### **Significance of the Memorial**

Unlike its predecessors, such as the Vietnam's Veteran Memorial, the 9/11 Pentagon Memorial's design was widely well received, and there has been virtually no controversial opposition to the design. As the first memorial opened to commemorate the lives lost on the morning of September 11<sup>th</sup>, Beckman and Kaseman's design for the 9/11 Pentagon Memorial gave back to the community by providing a calm, peaceful, and inviting setting to remember.

This memorial also contributes to contemporary memorial design as it utilizes abstract forms instead of literal forms such as statues. It also reinforces the idea of memorials as public space. In an interview with the Washington Post in 2003, Beckman said that when designing the memorial, "one of the first things I was thinking was that it should be a place where, say, a mom and her kids could go on a Sunday afternoon to be near the husband and the father and how we could make it a very welcoming and inviting place."<sup>130</sup>

### **Application to the Project**

At just under two acres, the 9/11 Pentagon Memorial is the second-largest memorial to be analyzed in this research. It is located in Washington, DC, outside of the Pentagon, where there are higher amounts of vehicular street traffic and noise. Like the other two memorials, the Pentagon memorial uses names to commemorate the lives lost on that tragic event. It is the only memorial not to use any figural forms such as statues. Instead, the memorial embraces

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<sup>129</sup> Benjamin Forgey, *The Pentagon Memorial Story*, pg. 84.

<sup>130</sup> Elyse Glickman, *An Inspired Architects' 9/11 Pentagon Memorial Design Is Reflective in Many Ways*.

contemporary design qualities, with the main feature of the design being the 184 bench-like cantilevered structures. It is also the only memorial of the three to utilize water as a reflection and memory mechanism. The informal narrative of the site allows users to engage with it as they wish.

#### ***4.4.3 Case Study #3: The National Memorial for Peace and Justice***

Project Location: Montgomery, Alabama

Contributors: Equal Justice Initiative + MASS Design Group

##### **Overview**

The National Memorial for Peace and Justice, pictured in Figure 4.38, opened to the public on April 26, 2018, and is "the nation's first memorial dedicated to the legacy of enslaved Black people, people terrorized by lynching, African Americans humiliated by racial segregation and Jim Crow, and people of color burdened with contemporary presumptions of guilt and police violence." The concept to build this memorial originated in 2010 when the Equal Justice Initiative (EJI) initiated an investigation of racial terror lynchings across the American South. The EJI documented over 4,000 racial terror lynchings between Reconstruction and World War II across twelve Southern States resulting in a mass migration of six million Black people fleeing "the South as refugees and exiles."<sup>131</sup> The memorial was constructed to create "a sober, meaningful site where people can gather and reflect on America's history of racial inequity."<sup>132</sup> The EJI partnered with several prominent sculpture artists and the firm MASS Design Group to design a memorial journey for visitors to remember and acknowledge the past and present racial

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<sup>131</sup> "The National Memorial for Peace and Justice," Legacy Museum and National Memorial for Peace and Justice, accessed March 16, 2021, <https://museumandmemorial.eji.org/memorial>.

<sup>132</sup> Ibid.

injustices. They hope that the memorial "inspired communities across the nation to enter an era of truth-telling about racial injustice and their own local histories."<sup>133</sup>



**Figure 4.38:** Sculpture by artist Kwame Akoto-Bamfo.

### **Design of the Memorial**

EJI collaborated with the MASS Design Group and multiple artists on the memorial design, located on six acres of land in Montgomery, Alabama. Visitors first encounter a sculpture by the artist Kwame Akoto-Bamfo before being lead "on a journey from slavery, through lynching and racial terror, with text, narrative, and monuments to the lynching victims in America."<sup>134</sup> The center of the site features a memorial structure designed by MASS Design Group, which features eight hundred Corten steel monuments that "represent the counties in the

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<sup>133</sup> *The National Memorial for Peace and Justice.*

<sup>134</sup> *Ibid.*



memorial journey to address contemporary issues such as police violence and racial based criminal justice issues.<sup>137</sup>



**Figure 4.40:** Memorial Square, which surrounds the memorial structure, also features 800 Corten steel monuments measuring six feet long.

### **Significance of the Memorial**

The National Memorial for Peace and Justice is the first memorial to be dedicated to the lives lost to lynchings and other racial injustices. The United States has done very little to acknowledge its long history of slavery and the lasting damage it has on communities and people of color. A statement on the memorial's website reads:

The museum and memorial are part of EJI's work to advance truth and reconciliation around race in America and to more honestly confront the legacy of slavery, lynching, and segregation. "Our nation's history of racial injustice casts a shadow across the American landscape," EJI Director Bryan Stevenson explains. "This shadow cannot be lifted until we shine the light of truth on the destructive violence that shaped our nation,

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<sup>137</sup> *The National Memorial for Peace and Justice.*

traumatized people of color, and compromised our commitment to the rule of law and to equal justice."<sup>138</sup>

Lynching took thousands of lives, caused mass migrations out of the South, and maintained an environment of racial terror where racial subordination and segregation were enforced for decades.<sup>139</sup> As MASS Design Group states on their website, "the discussion about lynching and its legacy has been sorely inadequate, which has contributed to ongoing struggle, exclusion, and discrimination."<sup>140</sup> Not only is this the first memorial to acknowledge lynchings and racial injustices, but there also remain few markers across the South that commemorate the lives lost during decades of racial terror. In contrast to the markers that acknowledge the Civil Rights Movement and slavery, there are still many markers present that commemorate the Confederate South. The National Memorial for Peace and Justice and the work of the EJI is a critical step forward in providing the necessary space for "truth-telling, hope, healing, and reconciliation."<sup>141</sup>

### **Application to the Project**

The National Memorial for Peace and Justice has been selected as a case study because it provides variety in the five criteria used to compare land art installations and contemporary memorials: location, relationship to the surrounding landscape, scale of intervention, physical attributes of design, and user interaction. The memorial uses both abstract and representational forms in conjunction with historical narratives and stories to convey racial injustice atrocities. The steel monuments are an abstraction of tomb-like structures and even hold an abstract resemblance to human bodies hanging as if they were lynched. These abstracted forms are

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<sup>138</sup> *The National Memorial for Peace and Justice*.

<sup>139</sup> "The National Memorial for Peace and Justice," MASS Design Group, accessed March 16, 2021, <https://massdesigngroup.org/work/design/national-memorial-peace-and-justice>.

<sup>140</sup> *Ibid.*

<sup>141</sup> *Ibid.*

complemented with realistic sculptures of slaves, the Montgomery Bus Boycott, and the police violence directed towards African American Men. Set on six acres, the National Memorial for Peace and Justice is the largest memorial of the three selected and located in Montgomery, AL, which is considered urban but significantly smaller than Washington, DC. Montgomery is an important location because of its history with racial injustices and the Civil Rights Movement. Lastly, the memorial was selected because it is one of the first contemporary memorials constructed in the southeast of the United States. Typically, contemporary memorials are associated with larger cities such as Washington, DC, and New York City.

#### **4.5 Memorial Case Studies: Summaries of Experience**

After completing the background research analysis for each memorial case study, the author visited each site for first-hand observation. The observations are recorded below and use the author's first-person perspective to describe their experience.

##### ***4.5.1 Observations of Case Study #1: The Vietnam Veterans Memorial by Maya Lin***

I visited the Vietnam Veterans Memorial around noon on a cold but sunny January day. To get there, I walked the National Mall from the Washington Monument past the World War II Memorial and Reflecting Pool before approaching the Vietnam Veterans memorial from the side of the Lincoln Memorial. Before I started to document the various site elements, I first wanted to walk the memorial's length and observe the experience as a visitor. I read names as I walked, stopping at the memorial's apex to read the quotes inscribed in the black granite panels. At the bottom of the left panel next to the year 1975, the quote "*Our nation honors the courage, sacrifice, and devotion to duty and country of its Vietnam Veterans*" is inscribed, followed by the day the memorial was opened. Inscribed at the top of the right panel next to the year 1959 is the quote:

*"In honor of the men and women of the armed forces of the United States who served in the Vietnam War. The names of those who gave their lives and of those who remain missing are inscribed in the order they were taken from us."*



**Figure 4.41:** Photograph of the Vietnam Veterans Memorial. Photograph was taken January 2020.

I continued reading names as I walked back up towards the Washington Monument, taking note of the flags, flowers, and memorabilia left by families and friends of loved ones. From there, I walked back around to the side I started on passing by the Vietnam Women's Memorial (Figure 4.42), a statue honoring the women who served in the war, and The Three Soldiers (Figure 4.43), a statue of three servicemen. A plaque on the ground read, "In memory of the men and women who served in the Vietnam War and later died as a result of their service. We honor and remember their sacrifice." Pennies, dimes, nickels, and quarters have been left on and around the Three Soldier's plaque.



**Figure 4.42:** The Vietnam Women's Memorial constructed in 1993. Photograph was taken in January 2020.

**Figure 4.43:** The Three Soldiers Statue constructed in 1984. Photograph was taken in January 2020.

As I came to the side I had started on, I began documenting people, activities, and site features. In the hour that I was on site, I noted 69 people of all ages who visited the memorial. Most people traveled in small groups of two or three; however, there were some individuals and several larger groups of six to ten people. The average person spent approximately ten to fifteen

minutes walking the memorial's length, while some took longer to find the name of someone they knew. In contrast, a few people walked through the memorial as part of the walking routine as the National Mall is a popular place for exercising in the city. Two people rode bikes through the memorial. Most people were quiet as they took in the memorial's somber nature. I did observe a few young children who were playing with each other as their parents experienced the memorial. Although there is no specific way to enter this memorial, I noted a pattern of people entering from the Lincoln Memorial side instead of the Washington Memorial side. I attribute this to the popularity and proximity of the Reflecting Pool and Lincoln Memorial drawing more people to that end of the National Mall.

The memorabilia placed beneath panels told how frequently the memorial is visited by friends and family who had lost someone in the Vietnam War. As seen in Figures 4.44 and 4.45, memorabilia left behind was usually flags, photographs, flowers, and coins. Flags were placed at panels W43, W23, W9, W6, W2, 2E, and 58E. There were flowers left on panels W7 and 35E. In addition to the flowers left at panel 35E, there was also a photograph of the soldier and his identification bracelet. A flag was placed with the flowers. There were also flags left in other places, such as the walkway's side and around The Three Soldiers statue. A rock was left at panel W20, with a name written on it. Several stands containing books with lists of names and the location of the names were provided at the memorial. These allowed visitors to look up and locate a name on the walls.



**Figure 4.44:** A flag placed at the base of the memorial wall. Photograph taken January 2020.



**Figure 4.45:** A flag, photograph, identification bracelet, and flowers placed at the base of the memorial wall. Photograph taken January 2020.

Situated between the Lincoln Memorial and the Constitution Gardens, the Vietnam Memorial is frequently visited, although protected with a buffer of mature trees allowing for reflection away from typical tourist activities. The trees provided some shade for the sidewalks leading up to the memorial; however, the memorial itself was entirely in the sun. The Three Soldiers Statue was mostly shaded and surrounded by shrubs and flowering plants. Flags were placed in the planting bed in addition to a sign that read "*Honor Our Veterans, Please Stay Out of The Bushes.*" Squirrels were noted as the only visible wildlife on site. The temperature only rose one degree while on site from 37°F to 38°F; however, the cooler temperatures did not deter visitors from the usual activities and sightseeing on the National Mall.

#### **4.5.2 Observations of Case Study #2: The National 9/11 Pentagon Memorial**

As of January 2021, the National 9/11 Pentagon Memorial remains closed due to safety concerns related to the COVID-19 worldwide pandemic. The memorial had recently been closed to repair the lighting on site. Although that has been completed, the 9/11 Pentagon Memorial will remain closed until the Pentagon Visitor Center resumes its normal operations, including giving public tours. Upon visiting the Pentagon and closed memorial in January, I found heightened security measures, including many signs that prohibited any photography while on site. I followed the usual signs that take you from the Pentagon Metro Stop around to the west side of the Pentagon building where the memorial is located. The closest I could get was a security entry gate, and just beyond that, I could see fences erected around the memorial.

Closures during the COVID-19 pandemic have not been unusual and are often necessary to ensure visitors' safety. To counter the closures, virtual experiences have gained popularity as they allow visitors to see museum exhibits, shows, and lectures that would have otherwise been available for in-person observation. Viewing memorials have also been made possible through virtual experiences. In addition to seeing the closed memorial from a distance, I have visited the National 9/11 Memorial virtually through an interactive map and audio tour provided on its website and via Google Street View images to gain a more comprehensive experience of what the memorial would be like in person.

The most thorough of the three platforms is the audio tour, which is a twenty-eight-minute video provided on the National 9/11 Pentagon Memorial website. The video opens with a warning of serious content and advises that the video may be inappropriate for young children and distressful for those personally impacted by September 11<sup>th</sup>. The video begins with background information about the memorial's design and the Pentagon building. The guide then introduces the entry stone and reads the inscription, which says:

*We claim this ground in remembrance of the events of September 11<sup>th</sup>, 2001.*

*To honor the 184 people whose lives were lost, their families, and all those who sacrifice that we may live in freedom.*

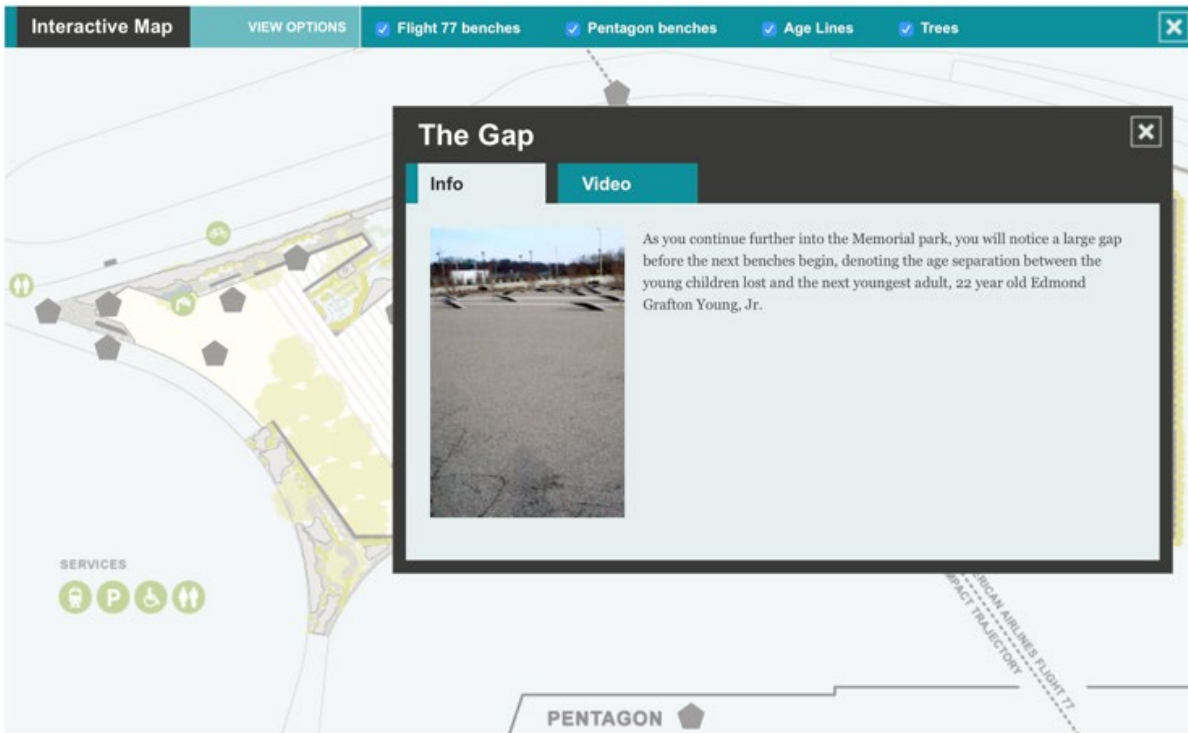
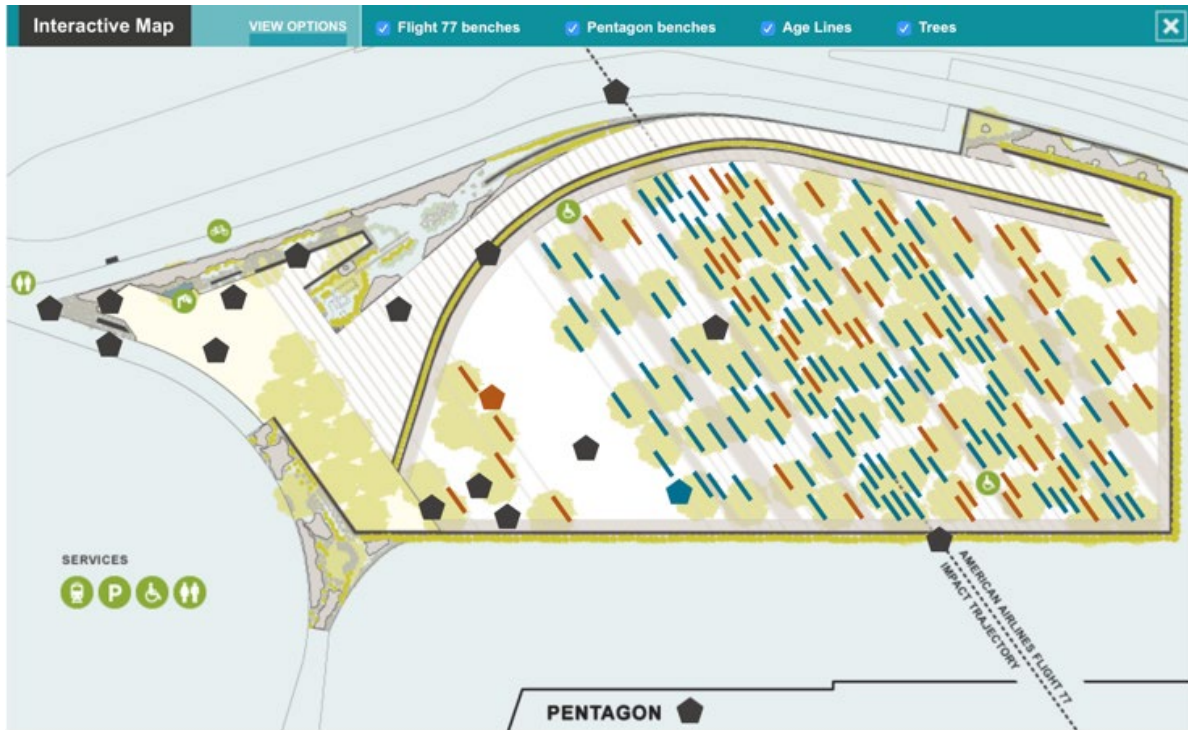
*We will never forget.*

The tour continues by advising the listener to walk to the next granite stone, which lists the names of the 184 victims alphabetically and in order of their birth year. This helps visitors locate a victim's personal bench inside the memorial. The following image shown is the Memorial Gateway's memorial entrance, and the narrator describes this as a place for "a point of thought and remembrance before entering the memorial." The narrator directs listeners to walk to the Zero Line and gives a history of the Pentagon building while showing images of the building. The next portion of the tour offers listeners details about the memorial's design, explaining what each detail means to the event of 9/11.

The narrator then directs listeners to the 1998 age line where Dana Falkenberg's, the youngest victim of the terrorist attack, bench is located. In reading the nameplate, visitors are faced toward the sky, indicating that the victim had died on Flight 77. The tour continues with visitors walking between age lines and observing the age wall, reflecting the victim's age through the wall's height. The narrator explains that the memorial is designed to engage the senses with the gravel ground covering, sleek marble finishing, reflection ponds, and lighting. The tour also explains the relationship between the Pentagon memorial and the building and the exact location where Flight 77 crashed. The tour then allows visitors to sit and reflect as the narrator recounts the day's events through interviews with survivors. As I listen to this portion of the tour and see the crash's imagery, I have goosebumps hearing the individual recounts from people inside the Pentagon. The tour then shows when the memorial was dedicated and opened to the public. The

dedication speech plays over the imagery. The tour then ends with the narrator thanking the listener for visiting the memorial and giving information on how to learn more about the memorial and donate to the Pentagon Memorial Fund.

The Interactive Map is an additional platform provided on the National 9/11 Pentagon Memorial website that allows users to learn more about the memorial. As seen in Figure 4.46, the platform's base uses a map where you can hover over elements to learn more about that specific subject with your mouse. You can click on a memorial bench, and it pulls up a concise biography and photograph of the victim with a link to a full biography. You can also click on components, displayed in Figure 4.47, to learn more about various design elements such as the Crepe Myrtle trees, the age lines, the age wall, the memorial units or benches, the Memorial Gateway, the Gap, Zero Line, birth year markers, and the entry and locator stones. There is also additional information about the Flight 77 path trajectory and the Pentagon building. Each written description comes with a short video with information from the audio tour. The platform also allows you to select only certain information you want to see and gives basic information about handicap accessibility. Lastly, I used Google Street View to virtually view the memorial by dropping down into various locations and seeing imagery uploaded by other visitors.



**Figure 4.46:** The Interactive Map showing the layout of the 9/11 Pentagon Memorial.

**Figure 4.47:** Information about specific design elements comes up when hovering over parts of the interactive map.

### 4.5.3 Observations of Case Study #3: The National Memorial for Peace and Justice



**Figure 4.48:** Sculpture by artist Kwame Akoto-Bamfo. Photograph taken January 2020.

The National Memorial for Peace and Justice is located within the Montgomery city limits and is just minutes from exiting I-65 and the main downtown area. The memorial is situated in a historically black neighborhood that has suffered from blight and high poverty levels. As I exited the highway and drove the five minutes through residential streets to the memorial, this became evident as approximately 50% of buildings and homes were vacant. Situated on a hill, the National Memorial for Peace and Justice and the Peace and Justice Memorial Center became visible as its modern architecture contrasted with the historic homes in the area. After parking, I retrieved my ticket from the Peace and Justice Memorial Center, where there were several artifacts, including jars of soil taken from lynching sites and a movie theater, which was showing a film about Martin Luther King Jr. From there, I headed across the street to the entrance of the memorial where there were a small security checkpoint and ticketing counter.

Once inside, visitors see the memorial structure designed by MASS Design Group elevated on a small hill with a sloping lawn meeting them at the edge of the sidewalk. The sidewalk is a subtle incline that takes visitors along the site's edge. The first sculpture I encountered, pictured in Figure 4.49, is by the artist Kwame Akoto-Bamfo and features the likeness of six enslaved persons chained together. Continuing past the sculpture, there were multiple signs integrated into the wall design that addressed racial injustices and racial terror lynching in the American South. At the top of the sidewalk, I entered the memorial structure where at eye-level were hundreds of Corten steel monuments listing the counties where racial terror lynching's took place and the names of the victims. Following to the left, the slope of the floor began to decline, and as I continued to walk down, the monument structures became higher until they were completely over my head. Although the monuments are abstract structures, the feeling of walking under them gave a very literal and somber representation of hanging victims. At the bottom portion of the memorial structure inscribed on a wall, a quote read:

FOR THE HANGED AND BEATEN.

FOR THE SHOT, DROWNED, AND BURNED.

FOR THE TORTURED, TORMENTED, AND TERRORIZED.

FOR THOSE ABANDONED BY THE RULE OF LAW.

WE WILL REMEMBER.

WITH HOPE BECAUSE HOPELESSNESS IS THE ENEMY OF JUSTICE.

WITH COURAGE BECAUSE PEACE REQUIRES BRAVERY.

WITH PERSISTENCE BECAUSE JUSTICE IS A CONSTANT STRUGGLE.

WITH FAITH BECAUSE WE SHALL OVERCOME.

Turning to the right, there is a prominent water feature running the wall's length and height to honor the unknown victims of racial terror lynchings, as many were undocumented. This portion of the memorial is dark and quiet, with only the sound of the water and sun peeking through the hundreds of Corten steel monuments that hang above, as depicted in Figure 4.49. There are benches in this area, providing a place for visitors to stop and reflect on the quotes on the walls and the victims' stories.



**Figure 4.49:** View from underneath the Corten steel monuments. Photograph taken in January 2020.

At the lowest part of the memorial, visitors can either venture into the garden in the center of the memorial (Figure 4.50) or exit out into the Memorial Square (Figure 4.51). The garden is planted with shrubs, flowering plants, and lawns. Through the Corten steel monuments, there is a Montgomery skyline view. Outside in the Memorial Square, another eight hundred Corten Steel Monuments lie on the ground serving as a memory bank outside of the memorial

structure. Walking through those, there is the Ida B. Wells Memorial Grove planted with pine trees and a small plaza with cement stools. To continue on the path, I had to walk through the sculpture dedicated to the women who endured the Montgomery Bus Boycott by artist Dana King seen in Figure 4.52. The three women in the sculpture are placed strategically so that visitors must weave between them, creating a unique opportunity for interaction. This feature resonated with me because sculptures do not often allow for this user experience, and it was difficult to pass without taking note of whom it was honoring. Pictured below in Figure 4.53, the last sculpture is by Hank Willis Thomas, and it addresses contemporary issues such as police violence and racial based criminal justice. This sculpture was stunning with the shadows it created in the late afternoon sun. From here, I looked back up at the memorial structure and took a minute to reflect on the overall experience.



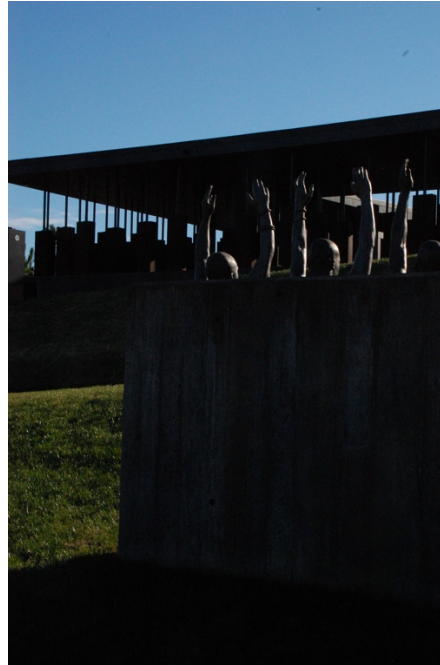
**Figure 4.50:** View of Corten steel monuments from inside the Memorial Garden. Photograph taken January 2020.

**Figure 4.51:** View of Corten steel monuments from outside in the Memorial Square. Photograph taken January 2020.

In total, I spent two hours on site and documented approximately 45 people at the memorial. Walking the memorial's entirety takes, on average, about an hour if visitors are stopping to read and reflect. Most visitors walked through the site, while some sat on the benches or took photographs throughout. The sculptures allowed visitors to stand nearby, prompting some even to take photographs or "selfies" with the statues. Although the last sculpture stands alone, there are sidewalks and lawns that could provide more space for additional sculptures to be added. In navigating the memorial, there was a formal narrative where paths led visitors from one point to another; however, visitors could experience the memorial at their own pace and take opportunities to stop and reflect. There was an overall somber tone of the memorial, and visitors behaved respectfully on the site.



**Figure 4.52:** Sculpture by Dana King is dedicated to the women who sustained the Montgomery Bus Boycott. Photograph taken January 2020.



**Figure 4.53:** Sculpture by Hank Willis depicts contemporary police violence issues and racially biased criminal justice issues.

## **4.6 Conclusion**

After an extensive analysis of the six case studies used in this thesis, it is evident that both prior research and first-hand observation are critical to understanding a site. The background research provided the author with knowledge of the site before visiting for observation, providing an adequate understanding of what to expect and the overall concepts behind each site. The observation served as a complement to the research as the author was able to document how the site was used and what design elements were seen while on site. Information gathered from the observations was often information only attainable by visiting the site in person. It is difficult to ascertain how a site is used and what features are on site through just photographs and text in the existing literature. Together, the background research and notes observed on site provided the author with a comprehensive analysis of each site.

## CHAPTER 5

### ANALYSIS OF FINDINGS

#### **5.1 Introduction**

This chapter discusses the data collected during site visits and draws findings from the data using a series of tables and analyses. The chapter is organized by examining the data from the land art sites first and the memorial sites second. The chapter then compares the data from both site types to each other in combined analysis tables. The data tables cover site elements, activities observed on site, time spent, and quantity of people surveyed on site. The site elements tables and the activities observed on site tables are color-coded to draw attention to the elements or activities most observed on site compared to those least observed. Activities or site elements that were not initially thought to be on site have been added to the list with an asterisk to indicate the addition. The data is intended to support a comparative analysis between the land art installations and memorials using the same design variables. This chapter concludes with data compiled together in a typology matrix to determine if any parallels can be drawn.

This data is based on notes taken while on site during the first-hand observation periods. The original documentation of these notes is provided in Appendix A.

#### **5.2 Analysis of Land Art Case Studies**

Tables 1, 2, and 3 display the data collected on site during first-hand observation at the three land art installations: Sun Tunnels, Spiral Jetty, and Double Negative. Table 1 shows the

data documented during the inventory mapping process, including the site elements categorized into three groups: vegetation, natural elements, and site infrastructure. The most documented site elements were shrubs, rocks, gravel, dirt, and roads. Trees, water, walls, names, sidewalks, asphalt, concrete, and lighting were the least present across the three sites. The three installations share familiar landscapes and climates; therefore, the vegetation looked similar across all three. Nevada's warmer climate allowed for greater diversity in the plants at Double Negative, such as cacti, but still lacked trees like Sun Tunnels and Spiral Jetty. Given the Salt Flats' proximity, both Sun Tunnels and Spiral Jetty in Utah had salt present in the soil. Although minimal, the Sun Tunnels and the Spiral Jetty both have signage directing visitors to the site. The roads to get to all three sites were made from gravel, although Double Negative's pathway had large rocks and was not suitable for standard vehicular travel.

**Table 1:** Analysis of Site Elements at Land Art Sites Table displays the data collected from inventory mapping site elements during site visits.

**ANALYSIS OF SITE ELEMENTS AT LAND ART SITES**

		LAND ART	SUN TUNNELS	SPIRAL JETTY	DOUBLE NEGATIVE
VEGETATION	SITE ELEMENTS	TREES			
		SHRUBS	X	X	X
		FLOWERING PLANTS		X	X
NATURAL ELEMENTS		ROCKS	X	X	X
		GRAVEL	X	X	X
		DIRT	X	X	X
		WATER		X	
		SALT *	X	X	
SITE INFRASTRUCTURE		WALLS			
		SIGNAGE	X	X	
		NAMES			
		ROADS	X	X	X
		SIDEWALKS			
		ASPHALT			
		CONCRETE	X		
		LIGHTING			

- ELEMENTS PRESENT AT ALL 3 SITES
- ELEMENTS PRESENT AT ≤ 2 SITES
- ELEMENTS PRESENT AT ≥ 1 SITES
- \* ELEMENT ADDED ON SITE

The activities most encouraged by Sun Tunnels were observing and touching. On site, a significant portion of time was given to observing the tunnels situated within the landscape and then looking through each tunnel separately to see the unique view of the landscape that each tunnel had. Previous research of the site showed several families on site, and it was evident how the tunnels could encourage playing by running through them or around them. There were also markings on the tunnels' sides indicating that people had used the tunnels for skateboarding. The site was relatively small and did not require much walking or hiking as you could park close to the tunnels. Remnants of campfires showed some recent human activity and that the spot used for camping overnight.

As seen in Table 2, Spiral Jetty was the most popular of three installations, and in the two hours on site, approximately nineteen people were documented. People stayed for an average of one hour, picnicking, hiking, and walking out to Salt Lake. Even with an increase in the number of people and activities observed on site, not everyone showed interest in the installation. Instead, people would walk past the jetty on the way to the water, giving the impression that visitors came and went relatively quickly. There was a bench close to the parking lot that encouraged people to sit, rest, and observe the viewshed that the steep drop in topography gave way to. On site, three pairings of visitors were documented stopping to observe their surroundings: two men taking a break from their bike ride, two women with glasses of wine, and another pair lunching on some sandwiches. Lastly, there was a monument constructed by a Boy Scout that gave a thorough description of the installation.

**Table 2:** Analysis of Site Elements at Land Art Sites Table displays the data collected from inventory mapping site elements during site visits.

**ANALYSIS OF TIME SPENT AND PEOPLE ON SITE AT LAND ART SITES**

SITES	SUN TUNNELS	SPRAL JETTY	DOUBLE NEGATIVE
PEOPLE ON SITE	0	19	0
AVERAGE TIME PEOPLE SPEND ON SITE IN MINUTES	-	30-45	-

Double Negative scored high in activities such as walking, observing, contemplation, and hiking. The views from the Mormon Mesa gave way to sublime landscapes with mountains, rivers, and farms. The scale of the installation itself encourages both contemplation and hiking. Double Negative would score the lowest for road access and lacked any signage or information regarding the installation, and it would be easy to miss without GPS directions. This installation has the most varied topography, given that the nature of the installation is a void in the landscape. After hiking down a steep incline, it is relatively flat inside the void aside from some erosion on the sides. The surrounding landscape also has varying topography, as the mesa drops off significantly to the sides

As seen in Table 3, the three land art sites encouraged walking, observing, hiking and photography more than other activities. Reading and writing scored the lowest while sitting, resting, playing, touching, and contemplation scored in the middle. Hiking and photography were not listed initially before site visits; however, it is evident that these two activities are an integral part of the appeal of visiting these sites. It is important to note that these sites were visited once for inventory mapping, and these conclusions are preliminary. Further research requiring an extended period spent at each site would be needed to draw more concrete conclusions about these activities observed on site

. Additionally, aside from the Spiral Jetty, the site's activities are solely based on my interaction with the site and are not intended to generalize potential activities.

**Table 3:** Analysis of Activities at Land Art Sites Table displays the data collected on observed activities on-site from the three land art installations visited.

**ANALYSIS OF ACTIVITIES AT LAND ART SITES**

SITES		SUN TUNNELS	SPIRAL JETTY	DOUBLE NEGATIVE	TOTAL SCORE
ACTIVITIES	WALKING	1	5	5	11
	SITTING	2	4	1	7
	RESTING	2	4	1	7
	READING	1	2	1	4
	PLAYING	4	3	1	8
	OBSERVING	5	4	4	13
	TOUCHING	5	1	2	8
	WRITING	1	1	1	3
	CONTEMPLATION	4	1	4	9
	HIKING *	1	5	5	11
	ACTIVITIES OBSERVED ON-SITE	PHOTOGRAPHY *	5	5	5

- ACTIVITIES SCORED ≤ 10 POINTS
- ACTIVITIES SCORED BETWEEN 5-10 POINTS
- ELEMENTS PRESENT AT ≥ 5 POINTS
- \* ACTIVITY ADDED ON SITE

### **5.3 Analysis of Memorial Case Studies**

Tables 4, 5, and 6 display the data collected on site during first-hand observation at the three memorials: Vietnam Veterans Memorial, The 9/11 Pentagon Memorial, and The National Memorial for Peace Justice. Table 4 shows the data documented during the inventory mapping process, including the site elements categorized into three groups: vegetation, natural elements, and site infrastructure. The most documented site elements were vegetation and site infrastructure categories, and all the memorial sites had trees, shrubs, flowering plants, walls, signage, names, roads, sidewalks, and lighting. Two of the three memorials had rocks, gravel, water, asphalt, and concrete. The only memorial to document dirt on site was the National Memorial for Peace and Justice. This was explicitly noted because part of the memorial includes jar displays of soil taken from lynching sites. Vietnam's Veterans Memorial lacked some of the other two memorials' infrastructure and natural elements, correlating to the fact it is the smallest of the three memorials.

**Table 4:** Analysis of Site Elements at Memorial Sites Table displays the data collected from inventory mapping site elements during site visits.

**ANALYSIS OF SITE ELEMENTS AT MEMORIAL SITES**

SITE ELEMENTS		MEMORIALS		
		VIETNAM VETERANS MEMORIAL	9/11 PENTAGON MEMORIAL	NATIONAL MEMORIAL FOR PEACE AND JUSTICE
VEGETATION	TREES	X	X	X
	SHRUBS	X	X	X
	FLOWERING PLANTS	X	X	X
NATURAL ELEMENTS	ROCKS		X	X
	GRAVEL		X	X
	DIRT			X
	WATER		X	X
SITE INFRASTRUCTURE	WALLS	X	X	X
	SIGNAGE	X	X	X
	NAMES	X	X	X
	ROADS	X	X	X
	SIDEWALKS	X	X	X
	ASPHALT		X	X
	CONCRETE		X	X
	LIGHTING	X	X	X

- ELEMENTS PRESENT AT ALL 3 SITES
- ELEMENTS PRESENT AT ≤ 2 SITES
- ELEMENTS PRESENT AT ≥ 1 SITES
- \* ELEMENT ADDED ON SITE

As seen in Table 5, the Vietnam Veterans Memorial was the most popular of the three memorial case study sites. In the one hour spent on site, approximately sixty-nine other visitors were observed. In referencing previous information about the memorial, it is clear that this is considered below-average for the number of people visiting the memorial in an hour-long period. However, given that it was a cold January day during a global pandemic, it makes sense that the number of visitors would be lower as the travel and tourism industries have declined immensely in the last year. The Vietnam Veteran's Memorial is the smallest of the three memorials selected for this case study. Visitors could spend as little as five minutes walking through without pausing to read the names or take a minute to reflect. The memorial's design encouraged visitors to leave tokens of remembrance for their loved ones, such as flowers, photographs, flags, and other mementos.

**Table 5:** Analysis of Time Spent and People On-Site at Memorial Sites Table displays quantitative data of the number of people documented on site and how long they spent there.

**ANALYSIS OF TIME SPENT AND PEOPLE ON SITE AT MEMORIAL SITES**

SITES	VIETNAM VETERANS MEMORIAL	NATIONAL MEMORIAL FOR PEACE AND JUSTICE	9/11 PENTAGON MEMORIAL
PEOPLE ON SITE	69	45	-
AVERAGE TIME PEOPLE SPEND ON SITE IN MINUTES	10-30	60	-

As a result of the National 9/11 Pentagon Memorial being closed for in-person visitation, this memorial's analysis is based on the user experience of the memorial's website's virtual tour platforms. The audio tour was created for visitors to use while on site to gain more information but has gained increased use during the COVID-19 pandemic. It is the only way to experience the memorial currently. It gives thorough knowledge about the sequence of the memorial, design

elements, and events of the morning of September 11<sup>th</sup>, 2001. The audio tour uses somber music, imagery, ambulance sounds, and interview sound bites from survivors, creating an emotionally rich and very moving listening experience. The interactive map presented the same information as the audio tour in map format and helped understand the elements discussed in the audio tour. It also allowed users to click on individual benches and read more about a victim through their brief autobiography. Google Street View was the least informative of the three platforms linked on the website; however, it did provide imagery that gave a sense of physically being there. It was challenging to achieve the same experience as one would have in person. There was no way to document user experience, such as how many visitors come to the site, how they interact with the memorial, or how long they stay. Recording site features were limited to what could easily be seen in the imagery, videography, and previous research of the memorial. Virtual tours are valuable tools for experiencing places while travel is restricted; however, these tools could be updated to give a more in-depth and accurate experience to an in-person visit.

Of the three memorials visited for this study, The National Memorial for Peace and Justice provided the most formal narrative by encouraging a specific movement through the site. Visitors were guided through the memorial by pathways, written narrative, topography changes, and strategic placement of sculptures. The memorial also had the most balanced use of abstract and figurative forms on site. The Corten steel monuments were abstract representations of the victims of racial terror lynchings juxtaposed with the carefully created sculptures that depict issues from slavery to police brutality. This memorial also provided the most significant variation of spaces and landscapes from the sloping lawn to the memorial structure's dark enclosed space to Ida B. Wells Memorial Grove of Pine Trees. The memorial had thorough signage. It takes visitors an hour to walk through the memorial and surrounding memorial

grounds. The overall tone was somber, and visitors were respectfully quiet and reflective throughout the experience.

For this study, the 9/11 Pentagon Memorial has been excluded from the data collected on user experience. The virtual experience provided a sense of space; however, it could not give information about how users interacted with the site. Because of this, Table 6 uses the Vietnam Veterans Memorial and the National Memorial for Peace and Justice to score activities observed on site. As mentioned previously in this chapter, it is essential to note that these sites were visited once for inventory mapping, and these conclusions are preliminary. Further research requiring an extended period spent at each site would be needed to draw more concrete conclusions about activities at these sites.

**Table 6:** Analysis of Activities at Memorial Sites Table displays the data collected on observed activities on-site from the three land art installations visited.

**ANALYSIS OF ACTIVITIES AT MEMORIAL SITES**

ACTIVITIES		SITES			TOTAL SCORE
		VIETNAM VETERANS MEMORIAL	NATIONAL MEMORIAL FOR PEACE AND JUSTICE	9/11 PENTAGON MEMORIAL	
ACTIVITIES OBSERVED ON-SITE	WALKING	5	4	-	9
	SITTING	2	5	-	7
	RESTING	1	4	-	5
	READING	5	5	-	10
	PLAYING	2	1	-	3
	OBSERVING	5	5	-	10
	TOUCHING	4	1	-	5
	WRITING	1	1	-	2
	CONTEMPLATION	5	5	-	10
	PHOTOGRAPHY *	3	5	-	8

- ACTIVITIES SCORED ≤ 10 POINTS
- ACTIVITIES SCORED BETWEEN 5-9 POINTS
- ELEMENTS PRESENT AT ≥ 5 POINTS
- \* ACTIVITY ADDED ON SITE

The two memorials observed first-hand encouraged reading, observing, and contemplation the most. The high reading score can be attributed to incorporating names at the Vietnam Veterans Memorial and the extensive displayed narrative at the National Memorial for Peace and Justice. Observing and contemplation scored high because of the sites' nature and the intentionality behind visiting the memorial. Most people who visit are either there to remember family members or friends or to see the memorial and reflect on past events. Playing, not a

commonly seen activity at memorials, was documented at the Vietnam Veteran's Memorial as two young children waited for the parents to finish walking through the site. Writing was not recorded at any of the memorials. Photography, not originally listed as an activity before the site visits, was added to the table after seeing the way users document their own experience throughout the memorials. In conclusion, the data collected on site fulfilled expectations based on previous research findings.

#### **5.4 Comparing Land Art Case Studies and Memorial Case Studies**

Table 7 displays the inventory data collected on site during first-hand and website observation at the three land art installations and the three memorial sites for site-by-side comparison. The most documented site elements, highlighted in green and present at all six sites, were shrubs, gravel, and roads. Present at four and five of the sites highlighted in orange are the site elements flowering plants, rocks, dirt, and gravel. Highlighted in red are the site sidewalks, asphalt, concrete, and lighting.

**Table 7:** Combined Analysis of Site Elements at Land Art and Memorial Sites Table displays data collected from inventory mapping on both site types.

**COMBINED ANALYSIS OF SITE ELEMENTS AT LAND ART AND MEMORIAL SITES**

		SITES						
		SUN TUNNELS	SPRIRAL JETTY	DOUBLE NEGATIVE	VIETNAM VETERANS MEMORIAL	9/11 PENTAGON MEMORIAL	NATIONAL MEMORIAL FOR PEACE AND JUSTICE	
VEGETATION	SITE ELEMENTS	TREES				X	X	X
	SHRUBS	X	X	X	X	X	X	
	FLOWERING PLANTS		X	X	X	X	X	
NATURAL ELEMENTS	ROCKS	X	X	X		X	X	
	GRAVEL	X	X	X	X	X	X	
	DIRT	X	X	X			X	
	WATER		X			X	X	
	SALT *	X	X					
	WALLS				X	X	X	
SITE INFRASTRUCTURE	SIGNAGE	X	X		X	X	X	
	NAMES				X	X	X	
	ROADS	X	X	X	X	X	X	
	SIDEWALKS				X	X	X	
	ASPHALT					X	X	
	CONCRETE	X				X	X	
	LIGHTING				X	X	X	

- ELEMENTS PRESENT AT ALL 6 SITES
- ELEMENTS PRESENT AT ≤ 4 SITES
- ELEMENTS PRESENT AT ≥ 3 SITES
- \* ELEMENT ADDED ON SITE

Table 8 displays the number of people on site and the average length of time people stayed on site for both the land art and memorial sites. In contrast with Sun Tunnels and Double Negative, the Spiral Jetty was the only land art installation with other visitors. As referenced in Section 4.4.2, visitors have to drive through Golden Spike National Historic Park to get to the Spiral Jetty and access Salt Lake. By having this proximity to the park, the installation has benefited from more significant roadway infrastructure and publicity about the site. With this knowledge, greater accessibility to the site and knowledge about the site can increase the number of people who see the site and the awareness they have while there.

**Table 8:** Combined Analysis of Time Spent and People On-Site at Land Art Sites and Memorial Sites Table displays quantitative data of the number of people documented on site and how long they spent there at both site types.

**COMBINED ANALYSIS OF TIME AND PEOPLE ON SITE AT  
LAND ART AND MEMORIAL SITES**

SITES	SUN TUNNELS	SPIRAL JETTY	DOUBLE NEGATIVE	VIETNAM VETERANS MEMORIAL	NATIONAL MEMORIAL FOR PEACE AND JUSTICE	9/11 PENTAGON MEMORIAL
PEOPLE ON SITE	0	19	0	69	45	-
AVERAGE TIME PEOPLE SPEND ON SITE IN MINUTES	-	30-45	-	10-30	60	-

In reviewing this data, it is essential to note that these numbers may not accurately represent the number of visitors these sites usually have. This potentially skewed data can be attributed to two reasons. The first reason is that site visits were completed during traditionally off-seasons for traveling. The second reason is that site visits were also conducted during the COVID-19 pandemic. Although these sites are located outdoors, and it is possible to take proper safety measures by wearing a facial covering and social distancing, traveling and tourism have decreased significantly in the last year. When normal operations resume once the pandemic is

over, further research would be required to gain a more accurate picture of each site's number of visitors.

As seen in Table 9, the highest-scoring activities across both the land art sites and the memorial sites are highlighted in green and include walking, observing, and photography. Scoring between ten and twenty points, sitting, resting, reading, touching, contemplation, and hiking are highlighted in orange. The only activity that scored below ten is highlighted in red, and that is writing. Also highlighted in red is playing, which scored an even ten.

**Table 9:** Combined Analysis of Observed Activities at Land Art and Memorial Sites Table displays data collected on activities observed on-site at both site types.

COMBINED ANALYSIS OF ACTIVITIES AT LAND ART AND MEMORIAL SITES

SITES		ACTIVITIES					TOTAL SCORE	
		SUN TUNNELS	SPIRAL JETTY	DOUBLE NEGATIVE	VIETNAM VETERANS MEMORIAL	NATIONAL MEMORIAL FOR PEACE AND JUSTICE		9/11 PENTAGON MEMORIAL
ACTIVITIES OBSERVED ON-SITE	WALKING	1	5	5	5	4	-	20
	SITTING	2	4	1	2	5	-	14
	RESTING	2	4	1	1	4	-	12
	READING	1	2	1	5	5	-	14
	PLAYING	4	3	1	5	1	-	14
	OBSERVING	5	4	4	5	5	-	23
	TOUCHING	5	1	2	3	1	-	12
	WRITING	1	1	1	1	1	-	5
	CONTEMPLATION	4	1	4	5	5	-	19
	HIKING *	1	5	5	-	-	-	11
	PHOTOGRAPHY *	5	5	5	3	5	-	23

- ACTIVITIES SCORED ≤ 20 POINTS
- ACTIVITIES SCORED BETWEEN 11-20 POINTS
- ELEMENTS PRESENT AT ≥ 10 POINTS
- \* ACTIVITY ADDED ON SITE

## **5.5 Typology Matrix**

After completing the site inventory and observation analysis, a typology matrix was created as an additional framework to draw parallels between design features at memorial and land art sites. As seen in Figure 5.1, the six sites were sorted into eight categories. Those categories are vegetation, naturalistic materials, site infrastructure, site narrative, site location, site forms, site scale, and spatial features. Each of these categories is made up of sub-categories which are defined below.



Figure 5.1: Typology Matrix Grouping Diagram.

***Informal narrative:*** The site allows users to interact with the site however they please. There is not a set way or designed narrative for the users to follow.

***Choreographed narrative:*** The site is designed in a specific way that guides the user through the site by using paths or signage.

***Interactive:*** The site is meant to involve the user in some way, such as walking, touching, observing, reading, and reflecting.

***Human Scale:*** The design is proportional to the size of a person.

***Large Scale:*** The design is scaled larger for intentional impact.

***On-site:*** For land art installations, the site was chosen because it fulfilled specific requirements the artists needed to see their design to fruition. For memorials, the site directly relates to the subject which the memorial is commemorating (i.e., the site is the location of the subject matter).

***Off-site:*** The site choose has no apparent relationship with the subject matter.

***Relative to Site:*** The subject matter does not require a specific site, but the site selected applies to the subject matter.

***Remote:*** The site is not located in a populated area such as a town or city.

***Urban:*** The site is located in a populated area such as a town or city.

***Representational forms:*** The site incorporates literal forms such as statues or shapes that are easily identified.

***Abstract forms:*** The design uses forms that do not represent an accurate depiction of a visual reality but rather general shapes to convey a narrative.

***Changes in topography:*** The ground plane of the site varies.

**Void Space:** The design uses features that create empty spaces within the landscape. These empty spaces are often created with walls sunk into the landscape and are meant to be occupied by users.

**Thresholds:** A physical or metaphorical pause between two spaces, such as areas or rooms, that allow a user to feel a transition from one space to another.

Once the sites were categorized, dotted lines were drawn to visualize the connections and show patterns seen in Figure 5.2. For example, starting with the diagram's top right, most of the memorials had all the site infrastructure such as roads, signage, sidewalks, names, lighting, concrete, and asphalt. When expanding the scope to include the other categories, more interesting connections were made. For example, the memorials with sidewalks and lighting were also located in urban areas and promoted a more choreographed narrative. Another interesting connection is that memorials that integrate sculptural forms, or statuesque forms, have a greater tendency to be at a human scale. All of these connections can be explored in greater detail in Appendix B. By visualizing the connections between categories and patterns begin to establish themselves and could be useful in guiding future memorial design. Future research with a broader examination pool would be necessary to test this theory.

# CONNECTIONS

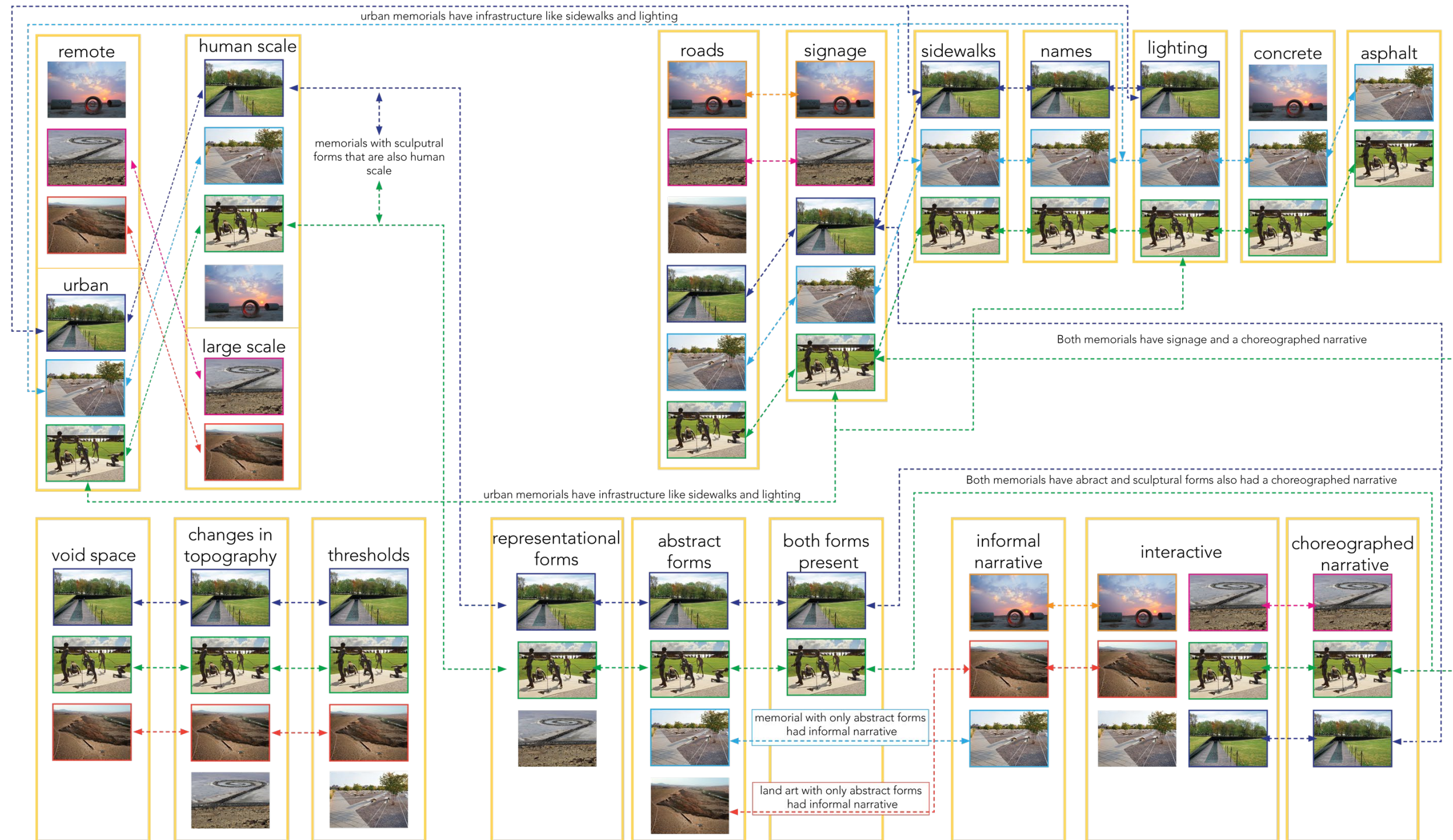


Figure 5.2: Typology Matrix Connections Diagram.

## 5.6 Conclusion

By comparing the data collected from first-hand observations at both land art installations and the memorial sites, clear distinctions can be made about similarities and differences between site elements and activities observed on-site. As mentioned previously in Section 3.3.1, these six case studies have been selected to explore five various criteria. These criteria include location, relationship to the surrounding landscape, scale of intervention, physical attributes of the design, and user interaction. The documented information while on site focused on the last two categories of the selection process: physical attributes of the design and user interaction. To conclude on if and how land art installations can inform contemporary memorial design, it is essential to take inventory of site elements included in the design and how visitors ultimately used the space.

For both the land art installations and the memorial sites, contemplation and photography were among the highest-scoring activities. Most all of the activities observed on site tracked similarly in the scoring process. These case studies were carefully selected to fulfill a variety of criteria, and although they are different in purpose, they prove to have similarities in how visitors use them. The most significant difference between site elements included in both land art installations and memorials were natural elements such as rocks, dirt, water, and gravel. Although memorials lacked natural elements, they surpassed the land art installations in both the vegetation and site infrastructure categories. These are not unexpected findings considering the remote location and arid desert climates where the three selected land art case studies are located.

Most importantly, these results show correlations between land art and contemporary memorial design in both design elements and how users interact with the sites. The differences revealed can also contribute to overall findings by facilitating discussion about why those

discrepancies exist and provide further research opportunities. Both the similarities and differences will be used to inform a set of recommendations for memorial designers to use the ideology of land artists to influence their design process in a more thoughtful approach.

## CHAPTER 6

### CONCLUSION

#### **6.1 Connecting Land Art, Contemporary Memorial Design, and Landscape Architecture**

The case studies and resulting synthesis provide a solid foundation for building a connection between land art and contemporary memorial design that can be applied to the field of landscape architecture. Commemorative sites are multifaceted in that they are meant to provide a space to honor lives lost, for visitors to come and reflect, and to inform future generations. Memorial designers are tasked with creating a space that can speak to the past, present, and future while remaining factually accurate and visually interesting to a large audience.

Through extensive research of both the land art movement and the evolution of contemporary memorial designs, six case studies were selected for first-hand observation and analysis. Though there was little evidence to support the cross-reference of land art and contemporary memorials before this research, this study has identified parallels between design elements and how visitors utilize the sites. The research also has distinguished differences between the two subjects, most notably with the lack of natural materials documented in the memorial case studies. With this information, the author has uncovered five design recommendations for how land art can inspire and inform the work of memorial designers.

## 6.2 Design Recommendations

- **Thoughtfully examine the site.**

Memorial designers can learn about thoughtful site examination from land artists who go through extensive searches to find the right site suited for their idea. Though site selection for memorials is often predetermined, a more meticulous survey of the land before the design process can better inform how a designer would approach a concept for a memorial. Once Nancy Holt purchased the land to use for Sun Tunnels, she spent an extended period experiencing the landscape. By spending time on site, she gained a rich understanding of the landscape's past and present, ultimately feeling a deep connection to the landscape and the people who had once lived there.

Landscape architects and designers are equipped to take inventory and analyze sites before starting the design process. These methods could be enriched by considering the larger context in which the site is located, both physically and culturally. Designers should also consider the site's smells, colors, textures, genius loci, and emotions that these assets evoke for its users.<sup>142</sup> If the site does not physically or culturally have the suitable context for the proposed memorial, then the designer should ideate ways to incorporate appropriate context into the site. Though these site elements are just as important as traditionally documented site features, they can be overlooked or dismissed during the inventory and analysis phase. By thoughtfully examining the site, designers can add an essential layer of information regarding the site's characteristics to better inform their design. Landscape architects can learn from land artists as

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<sup>142</sup> Katie Parent (2007), pp. 149-165.

"land art seems to restore to landscape architecture its old and largely lost concern for the intricate melding of site, sight, and insight."<sup>143</sup>

- **Integrate contextually accurate materials.**

Building off the first design recommendation, it is critical to consider the site's physical and cultural context. One way to incorporate physical and cultural context into a design is to use appropriate vegetative or naturalistic materials relevant to the subject of memorialization.

Vegetative materials refer to vegetation or plant life, such as trees, shrubs, flowering plants, and ground covers. Naturalistic materials are materials found in the landscape or the earth, including water, dirt, rocks, gravel, and stone. Land art is the landscape itself, where natural materials are used as the medium for the artwork. The Spiral Jetty by Robert Smithson was entirely made from basalt rocks and sand found on site. The idea that land art uses physical earth and the surrounding landscape intentionally could translate into more thoughtful design approaches for memorials.

- **Assimilate the ephemeral qualities of the space.**

Ephemeral qualities of the space refer to the qualities that only exist for a limited period and are therefore impermanent or transient.<sup>144</sup> These qualities can be intangible or without mass, such as smells, light, shadows, colors, temperature, and textures. These can also be tangible attributes such as an ephemeral stream, which inconsistently flows depending on the amount of rainfall, or plants, which look different throughout the year. Mick Atha, the author of *Ephemeral Landscapes*, writes:

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<sup>143</sup> Udo Weilacher and John Dixon Hunt, "Between Landscape Architecture and Land Art," in *Between Landscape Architecture and Land Art* (Basel: Birkhäuser, 2007), pp. 6-7.

<sup>144</sup> Mick Atha, "The Routledge Companion to Landscape Studies," in *The Routledge Companion to Landscape Studies*, ed. Peter Howard, Ian Thompson, and Emma Waterton (Routledge, 2020), pg. 115.

Landscapes, although having the illusion of fixity at any given moment, are in reality in a more-or-less constant state of flux. But the perception of any landscape's permanence or ephemerality is dependent upon a wide range of factors, such as the mode of human engagement (e.g., immersed pedestrian movement versus remote static overview), the spatial and temporal scales involved, whether the people involved have local knowledge and past experience of an area or not, as well as the social, cultural and political circumstances mediating processes of interpretation and understanding.<sup>145</sup>

Land artists actively sought out the ephemeral in their work and use the fleeting attributes of a landscape as a component of their design. Holt designed the configuration of the holes in each tunnel to highlight the summer and winter solstices, constellations, and patterns of the sun and moon – all of which were constantly changing and could look different at every minute of every day. She used ephemeral qualities of the site to create an experiential component to her design, adding to the site's overall spirit. Designers can create a unique and continuously transformative experience by assimilating the space's ephemeral qualities into a memorial design.

- **Consider the notion of temporality.**

Looking at land art as an influence can help landscape architects recognize and embrace the temporality inherent in their work. Often land artists consider the notion of temporality from the conception of their ideas. Holt, Smithson, and Heizer's creations will deteriorate and evolve due to the naturalistic characteristics of materials they are made from. For example, the Spiral Jetty was initially constructed at Salt Lake's edge, and visitors used the Jetty to walk out over the water. Today, the water has receded significantly away from the Jetty, and only the spiral of basalt rocks remains. The basalt rocks have sunk into the sand, measuring at the height of six

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<sup>145</sup> Atha, *Ephemeral Landscapes*, pg. 115.

inches to a foot. Over time, the rocks may become entirely buried by the sand. Mentioned in Chapter 1, *Dissipate* by Michael Heizer was an installation where Heizer placed pieces of wood into a dry lakebed to visualize an object's physical deterioration as the natural environment erases his installation over time.

While land artists actively incorporated the notion of temporality in creating their designs, traditional memorials remain permanent features requiring visitors to be physically present to experience the memorial. *Memorials for the Future*, an ideas competition to reimagine the way we think, feel, and experience memorials, explored the idea that moving a memorial around a city, relocating to different cities, or having it only exist for a limited period had the potential to ignite enthusiasm and reach a broader audience. To support this idea, they give the AIDS Memorial Quilt as an example of a temporary memorial.

The AIDS Memorial Quilt, a living memorial to those who have died of AIDS, has been viewed by 14 million people around the world since its creation in 1987. Though well-documented and photographed, the ability to move the Quilt, allowing people to view and host the memorial in different locations, has aided its visibility and impact.<sup>146</sup>

This idea can be expanded on to include a virtual component to the design for visitors to view the memorial from anywhere in the world. This is especially relevant today during the COVID-19 pandemic as it is one of the only ways people can experience these sites as travel is limited. Ultimately, designers need to consider the notion of temporality as many land artists have and realize the potential advantages of creating versatile designs.

- **Strive for balance between subjective and objective.**

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<sup>146</sup> “Memorials for the Future Competition,” Memorials for the Future, 2016, <https://future.npc.gov/>.

A designer's ability to design subjectively through an objective lens seems oxymoronic upon first examination. To be objective in the design process, designers cannot be influenced by personal feelings or opinions; however, true objectivity does not exist. Every designer, like all humans, has a unique system of beliefs, perspectives, and experiences that guide and inform the design process.<sup>147</sup> Just as this subjectivity cultivates unique minds, subjectivity also contributes to unique design processes and sets each designer apart as an individual. Like other visual arts branches, landscape art is almost entirely subjective as artists "operate by way of unique and personal approaches, from their aesthetic tastes to their preferred venues."<sup>148</sup> As a result, their creations are often emotionally charged and creatively expressive, which visitors often feel while on site. Subjective designs can cultivate creative spaces that allow users to better connect with a place.

Although subjectivity is still important in memorial design and differentiates a design as a great one, it is still essential to the design process to continuously review the design through an objective lens. As Udo Weilacher describes *In Gardens: Profiles of Contemporary Landscape Architecture*, there is a hesitancy to design with a subjective design approach:

A subjective design approach is sometimes seen as elitist by the general public opinion, presents a considerable higher risk of failure, especially in a knowledge society based on co-determination rather than a more objective design approach that is scientifically sound and backed by the agreement of the majority.<sup>149</sup>

Community engagement and feedback are critical during the commemoration process.

Encouraging the public's participation in the initial planning process can help ensure memorials are valued by their communities and reflect the community's many perspectives. Community

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<sup>147</sup> Katie Parent (2007), pp. 149-162.

<sup>148</sup> Ibid., 162.

<sup>149</sup> Udo Weilacher and Rita Weilacher, "In Gardens: Profiles of Contemporary European Landscape Architecture," in *In Gardens: Profiles of Contemporary European Landscape Architecture* (Basel: Birkhäuser, 2005), pg. 18.

feedback and feedback from other design professionals and subject experts can help refine a design to represent a group's sentiments rather than individuals objectively. Both subjectivity and objectivity are essential in the design process and must be considered when designing commemorative spaces.

### **6.3 Current Reflections in Contemporary Memorial Design**

These five design recommendations are not intended to imply that memorial designers are not currently designing with these principles in mind. In the last century, memorial design has seen a dramatic shift from statuesque monuments to the abstraction and minimalism of contemporary memorials. A secondary shift in memorial design may be coming as designers continue to consider what the future of memorials will look like.

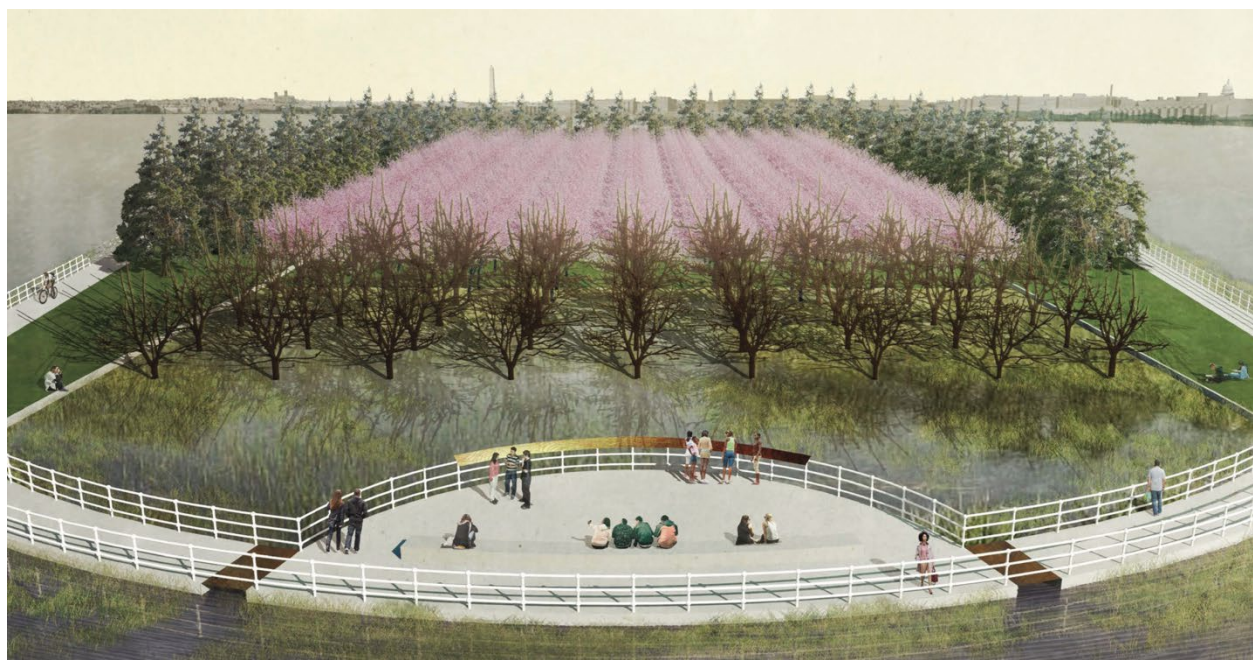
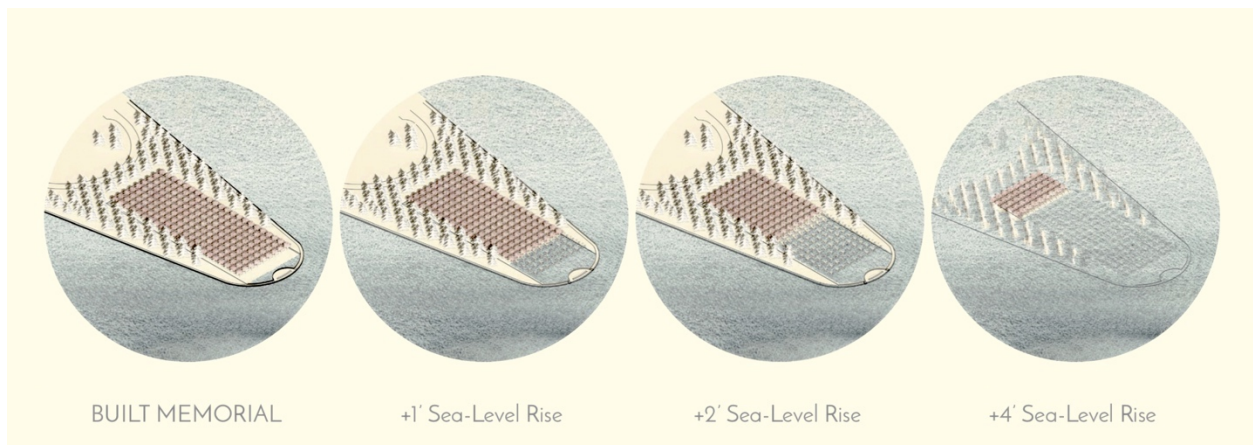
The topic of the future of memorials and the subject matter for these memorials has already sparked interest in design competitions. *Memorials of the Future* is a design competition commissioned by the National Capital Planning Commission in Washington, D.C., that asked architects and designers to consider new ways to commemorate people and events while remaining inclusive and flexible. Some of the submissions included "a series of fountains around the city that would swell as victims are struck down by gun violence around the United States. Another would create a Skelton of a "lost city" in the center of a Tidal Basin to raise awareness of climate change. Yet another suggests building an inverted pyramid in Tenley Circle as a "Memorial for Otherness" that would honor women, immigrants, and other groups."<sup>150</sup>

The competition winner is titled Climate Chronograph and uses Washington D. C.'s iconic cherry trees to convey a powerful sea-level rise message. As seen in Figures 6.1 and 6.2,

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<sup>150</sup> Jonathan O'Connell, "Beyond Granite: Architects Envision Washington's Memorials of the Future," The Washington Post (WP Company, March 30, 2019), <https://www.washingtonpost.com/news/digger/wp/2016/04/22/beyond-granite-architects-envision-washingtons-memorials-of-the-future/>.

the design, sited at Haines Point in East Potomac Park, would deliberately involve flooding a grove of cherry trees over time corresponding to one, two, and four feet of sea-level rise. The idea is that the trees are submerged and eventually die, serving as a political statement on climate change.<sup>151</sup>



**Figure 6.1:** Axonomic series illustrating minimal intervention strategy to create the proposed Climate Chronograph memorial.

**Figure 6.2:** Bird's eye view of the tip of Climate Chronograph from the conflux of the Potomac and Anacostia Rivers and Washington Channel.

<sup>151</sup> "Memorials for the Future Competition," Memorials for the Future, 2016, <https://future.ncpc.gov/>.

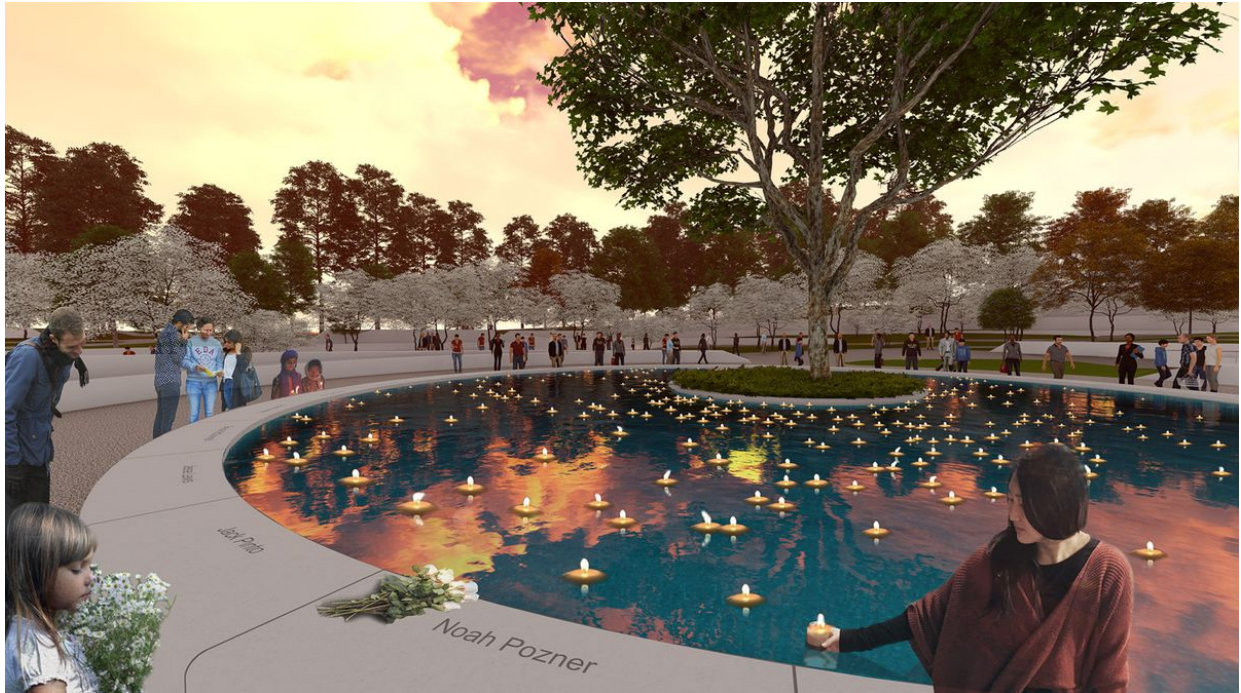
The Sandy Hook Memorial proposal, titled "The Clearing," commemorates the lives lost in the elementary school mass shooting on December 14th, 2012.<sup>152</sup> The design features a series of trails and lakes with a spiral path through a garden of flowers and trees. At the center of the design, a young sycamore tree is planted in the middle of a reflecting pool. The sycamore tree would be planted in "sacred soil," consisting of a cubic yard of incinerated remains of flowers, letters, cards, and other mementos brought to the town following the shooting.<sup>153</sup> The names of victims would be carved into the stone edging of the reflecting pool. The designers from SWA wanted to create paths and trails that seemingly had no end as "walking clears the mind and promotes reflection and aids in the healing process. The designers also considered plant choices that would still be visually interesting during the colder winter months."<sup>154</sup> Dominated by natural elements such as water and vegetation, this is one of the first memorials designed with the experience to be almost entirely guided by the utilization of landscape for healing.

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<sup>152</sup> Eric Baldwin, "Winning Design Chosen for Sandy Hook Memorial," ArchDaily (ArchDaily, August 13, 2018), <https://www.archdaily.com/900124/winning-design-chosen-for-sandy-hook-memorial>.

<sup>153</sup> Ibid.

<sup>154</sup> Ibid.



**Figure 6.3:** *The Clearing* by Ben Waldo and Daniel Affleck is the winning proposal for the Sandy Hook Memorial. The design features a reflecting pool inscribed with the victim's names.

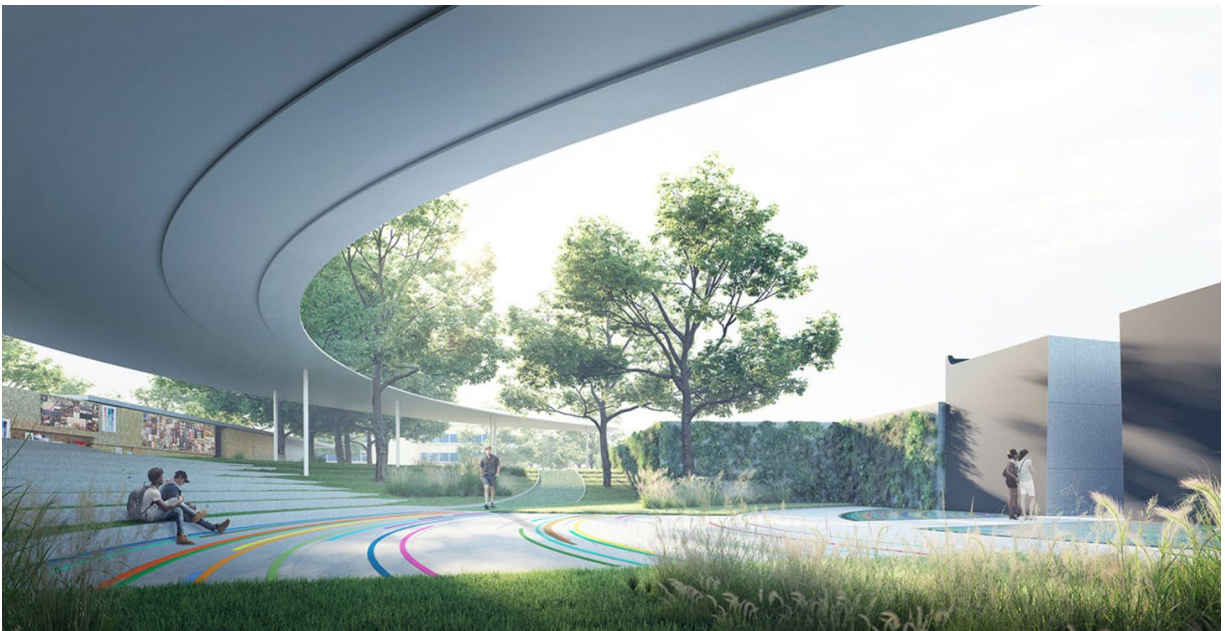
Another example of a memorial symbolically incorporating landscape is the National Pulse Memorial and Museum, led by the non-for-profit onePULSE foundation established to honor the 49 people killed and those affected by the June 12th, 2016 Pulse nightclub tragedy. The number 49 is symbolically integrated into the design, which features 49 colors lining the basin or depressed center of the memorial depicted in Figure 6.4. These lines radiate towards a garden planted with 49 trees. In this design, "a planted path and interactive sculptures in tribute to the victims of the tragedy line the 2km route taken by the victims to reach the nearest hospital."<sup>155</sup> With feedback from victim's families, survivors, first responders, and the public, the competition jury "felt the design best reflected the interest expressed by the community, demonstrated design excellence, inventiveness, creativity, and alignment with onePULSE's core

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<sup>155</sup> "National Pulse Memorial & Museum," Coldefy. <https://coldefy.fr/projet/national-pulse-memorial-museum/>.

values. The memorial proposal features resonated with many people in the community, including one of the victims' mothers. During a review period, she commented:

This design is the one that I personally fell in love with. It gives me peaceful memories and reflections of remembering our 49 Angels. The water running calms the soul. The opening beam of light shining towards the heavens, confirms to me that our Angels are watching over us.<sup>156</sup>



**Figure 6.4:** The winning design for the National Pulse Memorial and Museum by Coldefy, featuring a depressed basin with forty-nine radiating color lines representing each person killed.

The Memorials for the Future Competition, the Sandy Hook Memorial, and the National Pulse Memorial and Museum proposals are examples of how designers are beginning to utilize landscape as an integral piece of the design. Committees chose the three memorials proposals based on their thoughtful use of landscape to tell a meaningful narrative. This could suggest a trend that memorial designs that incorporate landscape as design features are more positively received by the community and will more consistently be selected as the winning proposal.

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<sup>156</sup> “National Pulse Memorial & Museum,” Coldefy. <https://coldefy.fr/projet/national-pulse-memorial-museum/>.

However, it is too early to distinguish any patterns without generalization, and future research is needed on this topic.

The last intersection between memorials and landscape architecture to be addressed in this study is the current efforts to preserve and protect existing memorials from the effects of climate change. The Tidal Basin Ideas Lab is an urgent call to action to rescue and transform the nation's most iconic memorial landscape: The National Mall in Washington, D.C. The Tidal Basin adjacent to the National Mall has suffered from unstable land underneath the basin, daily flooding, and crumbling infrastructure. Five landscape architecture studios: DLANDstudio, GGN, Hood Design Studio, James Corner Field Operations, and Reed Hilderbrand, have put together proposals that imagine bold ways to prevent or strategically incorporate the flooding of the Potomac River to inspire future discussion about the Tidal Basin. In a joint statement, the firm refers to this project as an:

Opportunity to posit new ways of thinking about ecology, social space, narratives, and experiences, pushing forward our understanding of what memorials and public landscapes can be. The time to begin this process is now.<sup>157</sup>

Organizers of the Ideas Lab selected the five architecture firms because they all have experience designing projects that "address ecological considerations at a regional scale and embrace the uncertainties of growth and change over time."<sup>158</sup> Unlike traditional design competitions, the intended outcome was to have five distinct proposals instead of one clear winner to help facilitate conversations with the community about what the future of the Tidal Basin and National Mall should look like. A common theme present in several proposals is an

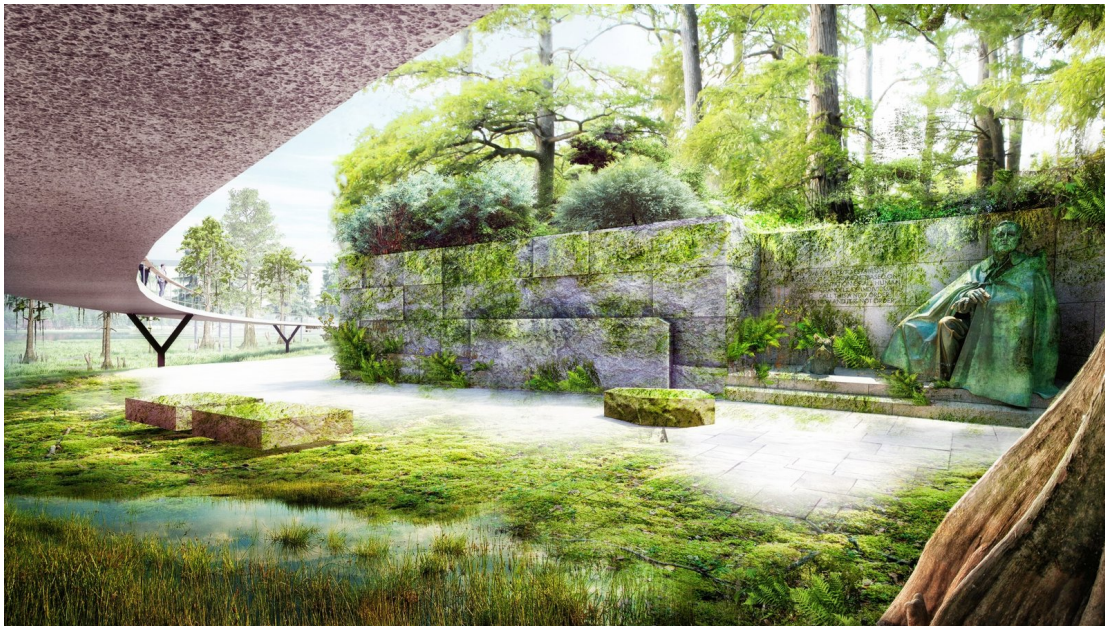
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<sup>157</sup> "National Mall Tidal Basin: Tidal Basin Ideas Lab," National Mall Tidal Basin | Tidal Basin Ideas Lab, accessed March 15, 2021, <https://tidalbasinideaslab.org/>.

<sup>158</sup> Ibid.

elevated walkway that allows pedestrians to continue interacting with the site even as flooding events occur and the ecological systems on site begin to change.

One proposal with an elevated walkway is James Corner Field Operations' proposal, which presents a design scenario where nature would take its course as visitors observed from the walkway above. Figure 6.5 is a rendering done by the firm and illustrates how this would look using the Franklin Delano Roosevelt Memorial, adjacent to the existing path around this Tidal Basin. This exemplifies a unique relationship that could exist between landscape and memorials as ecological systems continue to change. Though this design competition focuses on preserving built memorials rather than designing new ones, it provides opportunities for both designers and community members to think critically about the continuously changing role landscape has and its relationship to the future of memorials. These examples could indicate that landscape once absent in traditional monument design could become not only a participant in the design but ultimately the subject.



**Figure 6.5:** In one of the possible future design scenarios presented by James Corner Field Operations, nature would take its course, and a walkway would be built around the Tidal Basin for visitors to observe.

## 6.4 Concluding Thoughts and Future Research

The process of uncovering these five design recommendations has raised more questions than it has answered, prompting these topics for future research:

- **The professionals designing commemorative spaces and memorials.**

Whom are the design professionals designing commemorative spaces and memorials? Are these design professionals—whether they be architects, landscape architects, or artists—using any of the five design recommendations uncovered by this study? If so, how have these design professionals effectively used the principles outlined in the design recommendations to improve their designs?

- **The current collaboration between land artists and memorial designers.**

Has there been any indication that land art has already influenced these design professionals? Are there any collaborations between artists and designers—land artists, landscape architects—currently happening regarding commemorative spaces? Have land artists ever contributed their expertise to a memorial design?

- **The future role of landscape architecture in memorial design.**

What will be the future role of landscape architects in memorial design? Are landscape architects actively advocated to have a voice in designing these spaces? Are the memorials that utilize the landscape as an integral component considered more successful?

- **The impact of climate change on existing and future memorials.**

How will existing memorials change over time? How will climate change and sea level rise impact existing memorials? Will memorial design adapt and consider the changing climate and integrate that into the design? Will memorials become more versatile in design and locations?

Addressing these topics will facilitate discussion on the role of land art and landscape architecture in future of contemporary memorial design. One of the responsibilities of a designer, especially a landscape architect, is to visualize how space has been utilized in the past, how it is utilized presently, and how it should be utilized in the future. Landscapes and places continuously change and adapt; therefore, commemorative spaces and memorials are evolving. There have been significant efforts put forth through design competitions to ask landscape architects and other design professionals to envision the next evolution of memorial design. Most of these designs remain conceptual, and landscape architects should continue advocating to be a part of the discussion and see these memorial concepts to fruition. By using their expertise regarding ecological and site design, in combination with influences from other art professions such as land art, landscape architects have the ability to effectively design memorials that will successfully transcend the next century and beyond.

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## APPENDIX

### **Appendix A Inventory Mapping: Observation Checklist Notes**

In preparation for the site visits, the author created a checklist template to be completed during their visit. The template included space for site information, time of visit, duration of visit, and how many people were observed while on site. The template also included a list of site features and activities that could be checked off if the element or activity was observed on site. There was also additional room for notes. The author's notes are recorded in the images below.

**Part 1: Notes from Visits to Land Art Case Study Sites**

part 1: site information

**Project Name:** Sun Tunnels

**Location:** Wendover, UT

**Project Type:** Memorial  Land Art

**Visit Date:** 10/28

**Closest city/town:** Lucin, UT

**Time of Visit:** Morning  Afternoon  Evening   
10:00am - 12:00pm

**Weather:** Sunny  Overcast  Raining   
 Temperature on arrival: 41°F Temperature on departure: 52°F

**Time Spent on Site:** > 1 hr  1 hr  < 1 hr

**How many people on site:** 0

**How long did people stay?** > 1 hr  1 hr  < 1 hr  N/A

part 1: site features

What site features are observed during the visit:

<b>Vegetation</b>		<b>Site Infrastructure</b>	
Trees	<input type="checkbox"/>	Walls	<input type="checkbox"/>
Shrubs	<input checked="" type="checkbox"/>	Signage	<input checked="" type="checkbox"/> ONE SMALL SIGN
Flowering Plants	<input type="checkbox"/>	Names	<input type="checkbox"/>
<small>GRASSES</small>	<input checked="" type="checkbox"/>	Roads	<input checked="" type="checkbox"/> GRAVEL
<b>Natural Elements</b>		Sidewalks	<input type="checkbox"/>
Rocks	<input checked="" type="checkbox"/>	Asphalt	<input type="checkbox"/>
Gravel	<input checked="" type="checkbox"/>	Concrete	<input checked="" type="checkbox"/> TUNNELS
Dirt	<input checked="" type="checkbox"/>	Lighting	<input type="checkbox"/>
Water	<input type="checkbox"/>		
<small>SALT</small>	<input checked="" type="checkbox"/>		

Are there significant changes in topography?  
*No, the site is very flat. Mountains can be seen in the distance.*

How does is the site situated in the surrounding landscape?  
*Mountains surround the tunnels on almost every side, and the tunnels are situated in the valley between.*

part 2: observed activities

This project encouraged:

	Success (Please Circle)				
Walking:	<input checked="" type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
Sitting:	<input type="radio"/> 1	<input checked="" type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
Resting:	<input type="radio"/> 1	<input checked="" type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
Reading:	<input checked="" type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input checked="" type="radio"/> 4	<input type="radio"/> 5
Playing:	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input checked="" type="radio"/> 4	<input type="radio"/> 5
Observing:	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input checked="" type="radio"/> 5
Touching:	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input checked="" type="radio"/> 5
Writing:	<input checked="" type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
Contemplation:	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input checked="" type="radio"/> 4	<input type="radio"/> 5

What other activities were observed on site:  
*Remnants of campsites*

Is there any information about the project on site?  
*No, one entrance sign that pointed in the general direction of the tunnels.*

How are people maneuvering through the site?  
*0*

part 1: site information

**Project Name:** Double Negative  
**Location:** Mormon Mesa, NV  
**Project Type:** Memorial  Land Art   
**Visit Date:** 10/30  
**Closest city/town:** Overton, NV  
**Time of Visit:** Morning  Afternoon  Evening   
12:00PM-12:45PM  
**Weather:** Sunny  Overcast  Raining   
 Temperature on arrival: 71°F Temperature on departure: 73°F  
**Time Spent on Site:** >1 hr  1 hr  <1 hr   
**How many people on site:** 0  
**How long did people stay?** >1 hr  1 hr  <1 hr  N/A

part 1: site features

What site features are observed during the visit:

<b>Vegetation</b>		<b>Site Infrastructure</b>	
Trees	<input type="checkbox"/>	Walls	<input type="checkbox"/>
Shrubs	<input checked="" type="checkbox"/>	Signage	<input type="checkbox"/>
Flowering Plants	<input checked="" type="checkbox"/>	Names	<input type="checkbox"/>
<b>Natural Elements</b>		Roads	<input checked="" type="checkbox"/> MINIMAL "ROAD"
Rocks	<input checked="" type="checkbox"/>	Sidewalks	<input type="checkbox"/>
Gravel	<input checked="" type="checkbox"/>	Asphalt	<input type="checkbox"/>
Dirt	<input checked="" type="checkbox"/>	Concrete	<input type="checkbox"/>
Water	<input type="checkbox"/>	Lighting	<input type="checkbox"/>

Are there significant changes in topography?  
 Yes! The installation with the greatest change in topography. The sides of the void have eroded some. The most erosion is seen at the "entrance" to the void, where people hike down into it.

How does is the site situated in the surrounding landscape?  
 The installation is cut into the mesa leaving views of the surrounding mountains, farms, and the river valley.

part 2: observed activities

This project encouraged: Success (Please Circle)

Walking:	1	2	3	4	5
Sitting:	1	2	3	4	5
Resting:	1	2	3	4	5
Reading:	1	2	3	4	5
Playing:	1	2	3	4	5
Observing:	1	2	3	4	5
Touching:	1	2	3	4	5
Writing:	1	2	3	4	5
Contemplation:	1	2	3	4	5
HIKING:	1	2	3	4	5

What other activities were observed on site:  
 Remnants of camping, ATV driving

Is there any information about the project on site?  
 No

How are people maneuvering through the site?  
 N/A

part 1: site information

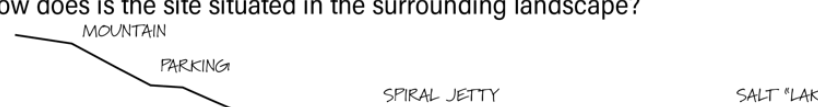
**Project Name:** Spiral Jetty  
**Location:** Salt Lake, UT  
**Project Type:** Memorial  Land Art   
**Visit Date:** 10/29  
**Closest city/town:** Lucin, UT  
**Time of Visit:** Morning  Afternoon  Evening   
12:23pm-2:30pm  
**Weather:** Sunny  Overcast  Raining   
 Temperature on arrival: 46°F Temperature on departure: 51°F  
**Time Spent on Site:** >1 hr  1 hr  <1 hr   
**How many people on site:** 19  
**How long did people stay?** >1 hr  1 hr  <1 hr

part 1: site features

What site features are observed during the visit:

<b>Vegetation</b>		<b>Site Infrastructure</b>	
Trees	<input type="checkbox"/>	Walls	<input type="checkbox"/>
Shrubs	<input checked="" type="checkbox"/>	Signage	<input checked="" type="checkbox"/>
Flowering Plants	<input checked="" type="checkbox"/>	Names	<input type="checkbox"/>
<b>Natural Elements</b>		Roads	<input checked="" type="checkbox"/>
Rocks	<input checked="" type="checkbox"/>	Sidewalks	<input type="checkbox"/>
Gravel	<input checked="" type="checkbox"/>	Asphalt	<input type="checkbox"/>
Dirt	<input checked="" type="checkbox"/>	Concrete	<input type="checkbox"/>
Water	<input checked="" type="checkbox"/>	Lighting	<input type="checkbox"/>
SALT	<input checked="" type="checkbox"/>		

Are there significant changes in topography?  
 Yes. The Spiral Jetty is located on a flat salt bed where the lake used to reach; however, there is significant sloping from the parking lot down to the jetty.

How does is the site situated in the surrounding landscape?  


part 2: observed activities

This project encouraged: Success (Please Circle)

Walking:	1	2	3	4	5
Sitting:	1	2	3	4	5
Resting:	1	2	3	4	5
Reading:	1	2	3	4	5
Playing:	1	2	3	4	5
Observing:	1	2	3	4	5
Touching:	1	2	3	4	5
Writing:	1	2	3	4	5
Contemplation:	1	2	3	4	5

What other activities were observed on site:  
 Picnicking, hiking, biking, exercising, photographing the lake

Is there any information about the project on site?  
 Yes, a monument built by a Boy Scout.

How are people maneuvering through the site?  
 People park, walk down to the jetty, spend a few minutes but not long before heading out to the lake.

**Part 2: Notes from Visits to Memorial Case Study Sites**

part 1: site information

**Project Name:** The Vietnam Veterans Memorial

**Location:** The National Mall

**Project Type:** Memorial  Land Art

**Visit Date:** 1/30/21

**Closest city/town:** Washington, DC

**Time of Visit:** Morning  Afternoon  Evening   
12:00pm - 1:00pm

**Weather:** Sunny  Overcast  Raining   
 Temperature on arrival: 33°F Temperature on departure: 34°F

**Time Spent on Site:** > 1 hr  1 hr  < 1 hr

**How many people on site:** 69


**How long did people stay?** > 1 hr  1 hr  < 1 hr

part 1: site features

What site features are observed during the visit:

<b>Vegetation</b>		<b>Site Infrastructure</b>	
Trees	<input checked="" type="checkbox"/>	Walls	<input checked="" type="checkbox"/>
Shrubs	<input checked="" type="checkbox"/>	Signage	<input checked="" type="checkbox"/> ONE SMALL SIGN
Flowering Plants	<input checked="" type="checkbox"/>	Names	<input checked="" type="checkbox"/>
		Roads	<input type="checkbox"/>
<b>Natural Elements</b>		Sidewalks	<input checked="" type="checkbox"/> GRANITE & COBBLE STONE
Rocks	<input type="checkbox"/>	Asphalt	<input type="checkbox"/>
Gravel	<input checked="" type="checkbox"/>	Concrete	<input type="checkbox"/>
Dirt	<input type="checkbox"/>	Lighting	<input checked="" type="checkbox"/>
Water	<input type="checkbox"/>		

Are there significant changes in topography?  
*The design of the memorial slopes below grade so there is a subtle, but noticable change in topography.*

How does the site situated in the surrounding landscape?  

GROUND PLANE  
 THE WALLS AND SIDEWALK ARE SITUATED INTO THE LANDSCAPE.

part 2: observed activities

This project encouraged:

		Success (Please Circle)				
Walking:		1	2	3	4	5
Sitting:		1	2	3	4	5
Resting:		1	2	3	4	5
Reading:		1	2	3	4	5
Playing:		1	2	3	4	5
Observing:		1	2	3	4	5
Touching:		1	2	3	4	5
Writing:		1	2	3	4	5
Contemplation:		1	2	3	4	5

What other activities were observed on site:  
*Placing flags, coins, flowers. Two visitors biked through.*

Is there any information about the project on site?  
*Yes. There are signs are the statues and places to look up and lcoated the names of soliders on the wall.*

How are people maneuvering through the site?  
*69*

### part 1: site information

**Project Name:** The National Memorial for Peace and Justice  
**Location:** Montgomery, AL  
**Project Type:** Memorial  Land Art   
**Visit Date:** 1/17/21  
**Closest city/town:** Washington, DC  
**Time of Visit:** Morning  Afternoon  Evening   
2:30pm - 4:30pm  
**Weather:** Sunny  Overcast  Raining   
 Temperature on arrival: 55°F Temperature on departure: 57°F  
**Time Spent on Site:** >1 hr  1 hr  <1 hr   
**How many people on site:** 45  
**How long did people stay?** >1 hr  1 hr  <1 hr

### part 1: site features

What site features are observed during the visit:

<b>Vegetation</b>		<b>Site Infrastructure</b>	
Trees	<input checked="" type="checkbox"/>	Walls	<input checked="" type="checkbox"/>
Shrubs	<input checked="" type="checkbox"/>	Signage	<input checked="" type="checkbox"/>
Flowering Plants	<input checked="" type="checkbox"/>	Names	<input checked="" type="checkbox"/>
<b>Natural Elements</b>		Roads	<input type="checkbox"/>
Rocks	<input checked="" type="checkbox"/>	Sidewalks	<input checked="" type="checkbox"/>
Gravel	<input checked="" type="checkbox"/>	Asphalt	<input checked="" type="checkbox"/>
Dirt	<input checked="" type="checkbox"/>	Concrete	<input checked="" type="checkbox"/>
Water	<input checked="" type="checkbox"/>	Lighting	<input checked="" type="checkbox"/>

Are there significant changes in topography?

Yes! Both within the memorial and the surrounding site.

How does is the site situated in the surrounding landscape?

The memorial sits on a hill overlooking Montgomery. In a historically black neighborhood.

### part 2: observed activities

This project encouraged:

Success (Please Circle)

Walking:	1	2	3	4	5
Sitting:	1	2	3	4	5
Resting:	1	2	3	4	5
Reading:	1	2	3	4	5
Playing:	1	2	3	4	5
Observing:	1	2	3	4	5
Touching:	1	2	3	4	5
Writing:	1	2	3	4	5
Contemplation:	1	2	3	4	5

What other activities were observed on site:

Photographs

Is there any information about the project on site?

Yes!

How are people maneuvering through the site?

10-15 people in every part of the memorial.

### part 1: site information

**Project Name:** The 9/11 Pentagon Memorial  
**Location:** Pentagon City  
**Project Type:** Memorial  Land Art   
**Visit Date:** 1/29/21  
**Closest city/town:** Washington, DC  
**Time of Visit:** Morning  Afternoon  Evening   
4:30pm - 5:00pm  
**Weather:** Sunny  Overcast  Raining   
 Temperature on arrival: 31°F Temperature on departure: 29°F  
**Time Spent on Site:** >1 hr  1 hr  <1 hr   
**How many people on site:** N/A  
**How long did people stay?** >1 hr  1 hr  <1 hr

### part 1: site features

What site features are observed during the visit:

<b>Vegetation</b>		<b>Site Infrastructure</b>	
Trees	<input checked="" type="checkbox"/>	Walls	<input checked="" type="checkbox"/>
Shrubs	<input checked="" type="checkbox"/>	Signage	<input checked="" type="checkbox"/>
Flowering Plants	<input checked="" type="checkbox"/>	Names	<input checked="" type="checkbox"/>
<b>Natural Elements</b>		Roads	<input type="checkbox"/>
Rocks	<input checked="" type="checkbox"/>	Sidewalks	<input checked="" type="checkbox"/>
Gravel	<input checked="" type="checkbox"/>	Asphalt	<input checked="" type="checkbox"/>
Dirt	<input checked="" type="checkbox"/>	Concrete	<input checked="" type="checkbox"/>
Water	<input checked="" type="checkbox"/>	Lighting	<input checked="" type="checkbox"/>

Are there significant changes in topography?

No, the site is mainly flat.

How does is the site situated in the surrounding landscape?

The memorial is situated in between the Pentagon Building and the a parking lot.

### part 2: observed activities

This project encouraged:

Success (Please Circle)

Walking:	1	2	3	4	5
Sitting:	1	2	3	4	5
Resting:	1	2	3	4	5
Reading:	1	2	3	4	5
Playing:	1	2	3	4	5
Observing:	1	2	3	4	5
Touching:	1	2	3	4	5
Writing:	1	2	3	4	5
Contemplation:	1	2	3	4	5

What other activities were observed on site:

N/A

Is there any information about the project on site?

Yes!

How are people maneuvering through the site?

N/A