

UNYIELDING PERSPECTIVES

A Museum Between Controversies

Jonathan Brodheim



Unyielding Perspectives: A Museum Between Controversies

A Thesis Submitted to Faculty of the Architecture Department in Partial
Fulfillment of Requirements for the Degree of Master of Architecture

Savannah College of Art and Design

by

Jonathan Brodheim

SAVANNAH, GA
© JULY 2014

Hsu-Jen Huang, Committee Chair

Matthew Dudzik, Committee Member

Daves Rossell, Committee Member

„Border society“ is an abstract concept compounded of ideas about the sovereignty of nation states, the intensification of commerce and social discourse, and strategies of cultural representations. II

“A great building must begin with the unmeasurable, must go through measurable means when it is being designed and in the end must be unmeasurable.”

LOUIS KAHN

TABLE OF CONTENTS

LIST OF FIGURES 01

ABSTRACT 06

01 INTRODUCTION

ARCHITECTURE & CONTROVERSY 10

- 1.1 The Premise
- 1.2 How is architecture contested?
- 1.3 Nazi Architecture
- 1.4 What is being contested?

02 CONTEXT & REGION

THE PERIMETER OF DESPONDENCY 24

- 2.1 Border Significance
- 2.2 Forming a Borderline
- 2.3 Border Disputes
- 2.4 The International Boundary
- 2.5 Borderlines in History
- 2.6 Borderlands
- 2.7 The International Boundary
- 2.8 Interdependency

AN EXPLORATION OF FIVE CASE STUDIES 33

- 2.9 Border Zones
- 2.10 North & South Korea
- 2.11 Morocco & Spain
- 2.12 The U.S. and Canada
- 2.13 The Golden Triangle
- 2.14 Israel & Palestine

03 SITE ANALYSIS

ANTIQUITY'S PROMISED LAND	52
3.1 The Land of Israel	
3.2 The Middle East	
3.3 Geography & Climate	
3.4 Israel & Palestine	
THE INVULNERABLE BARRIER	62
3.5 Israel's Security Fence	
3.6 Size & Length	
3.7 The Conflict & The Fence	
3.8 Perspective	
ISRAEL'S MOUNTAINS THE JUDAEAN HILLS	72
3.9 Israel's Mountains	
3.10 The Jerusalem Hills	
3.11 Choosing the Site	
3.12 Important Local Monuments	
YAD VASHEM	80
3.13 Yad Vashem	
3.14 The Museum Complex	
3.15 Hall of Names	
3.16 Navigating the Galleries	

04 PROGRAM ANALYSIS

MEMORIAL & HISTORY SUBJECTIVE REVERENCE	90
4.1 Memorial Design	
4.2 Bruder Klaus Kapelle	
4.3 The Alesia Museum	
4.4 Remembrance	
BONDS THROUGH STRUCTURAL PLATFORMS	98
4.5 Bridge Case Studies	
4.6 The Henderson Waves Bridge	
4.7 Pedro e Inês Bridge	
4.8 Széchenyi Chain Bridge	

04 PROGRAM ANALYSIS (CONT.)

INCEPTIVE ARRANGEMENT 106

- 4.9 Introducing Neutrality
- 4.10 Making the Case for a Circular Plan
- 4.11 Developing the Hierarchy
- 4.12 Developing the Circulation
- 4.13 Moving Through the Structure
- 4.14 Experiential Spaces

05 QUANTITATIVE PROGRAM ANALYSIS

NAVIGATING TANDEM PASTS 118

- 5.1 Joint History
- 5.2 Placing the Program
- 5.3 Developing the Program
- 5.4 Traversing Twin Peaks
- 5.5 Macro Design Analysis
- 5.6 Scaling the Program

06 SCHEMATIC DESIGN

HALLOWED ADMITTANCE A SACRED ENTRANCE 130

- 6.1 Designing the Entry
- 6.2 Symbolizing the Past
- 6.3 Creating Sacred Ground

LANDSCAPE & STRUCTURE AMALGAMATED 136

- 6.4 Landscape & Structure
- 6.5 Penetrating the Mountainside
- 6.6 Detailing the Circulation

07 DESIGN DEVELOPMENT

APPROACHING EXTREMITIES 144

- 7.1 Evolving the Design
- 7.2 Macro Design Analysis
- 7.3 Micro Design Analysis
- 7.4 The Entry Pavilion
- 7.5 The Atrium

08 FINAL DESIGN

ARCHITECTURE OF NEUTRALITY 156

- 8.1 Choosing the Site
- 8.2 Architecture of Neutrality
- 8.3 Exploring Form
- 8.4 Developing the Parti
- 8.5 The Finished Design
- 8.6 A Home for Relics
- 8.7 The Unknown
- 8.8 The Separation
- 8.9 The Solution
- 8.10 In Memoriam
- 8.11 Commemorating Loss
- 8.12 Alleviating Antipathy
- 8.13 Perpetuating Movement

MERGING PERSPECTIVES 176

- 8.14 Cessation

FINAL BOARDS 179

FINAL EXHIBITION 181

BIBLIOGRAPHY 183

LIST OF FIGURES

	COVER	Architecture & Controversy	
01	FIGURE 1.0	Abandoned Shoes	07
	FIGURE 1.1	The Louvre	09
	FIGURE 1.2	The Taj Mahal	12
	FIGURE 1.3	The Disney Opera House	12
	FIGURE 1.4	Zeppelinfeld	15
	FIGURE 1.5	Zeppelinfeld, Main Tribune	17
	FIGURE 1.6	Zeppelinfeld, Dec 2004	17
02	FIGURE 2.0	The Bedouin of Saudi Arabia	21
	FIGURE 2.1	U.S.-Mexico Border	23
	FIGURE 2.2	Expanding Empires	28
	FIGURE 2.3	China's Great Wall	30
	FIGURE 2.4	The Berlin Wall, Protesters	35
	FIGURE 2.5	The Berlin Wall, Memorial	35
	FIGURE 2.6	North & South Korean Border	37
	FIGURE 2.7	Morocco & Spain Border Crossing	37
	FIGURE 2.8	The U.S.-Canadian Border	40
	FIGURE 2.9	The U.S.-Canadian Border, Patrol	40
	FIGURE 2.10	Israel's Security Fence	43
	FIGURE 2.11	Palestinian Destruction	46
	FIGURE 2.12	Salvaged Concrete Barriers	46
03	FIGURE 3.0	Israel's Landscape	49
	FIGURE 3.1	The Sea of Galilee	51
	FIGURE 3.2	Middle East Region	53
	FIGURE 3.3	Israel's Neighbors	53
	FIGURE 3.4	Israel	53
	FIGURE 3.5	Jilabun Waterfall, Golan Heights	54
	FIGURE 3.6	The Old City of Jerusalem	54
	FIGURE 3.7	Tsin Valley, Negev	54
	FIGURE 3.8	Administrative Divisions	57
	FIGURE 3.9	Major Cities	57
	FIGURE 3.10	Ecoregions	58
	FIGURE 3.11	Hydrology	58
	FIGURE 3.12	Palestine's Changing Borders	59
	FIGURE 3.13	War, Art and Pride	59
	FIGURE 3.14	Israel's Security Fence	61
	FIGURE 3.15	Israel's Security Fence, Graffiti	64
	FIGURE 3.16	Israel's Security Fence, Separation Wall	64
	FIGURE 3.17	Israel's Security Fence, Size Comparison	65
	FIGURE 3.18	Palestinian Poem	69
	FIGURE 3.19	Judaeen Mountains	71
	FIGURE 3.20	Judaeen Mountains, Outlook	74
	FIGURE 3.21	Judaeen Mountains, Trail	74
	FIGURE 3.22	Site Location	75
	FIGURE 3.23	Knesset	77
	FIGURE 3.24	The Old City	77
	FIGURE 3.25	Yad Vashem	77
	FIGURE 3.26	Yad Vashem, Complex	79
	FIGURE 3.27	Yad Vashem, Museum Entrance	82

	FIGURE 3.28	Yad Vashem, Museum Exit	82
	FIGURE 3.29	Yad Vashem, Museum Interior	83
	FIGURE 3.30	Yad Vashem, Hall of Names	83
	FIGURE 3.31	Yad Vashem, Circulation	85
04	FIGURE 4.0	Palestine	87
	FIGURE 4.1	Memorial to a Buried Village	89
	FIGURE 4.2	Bruder Klaus Kapelle	91
	FIGURE 4.3	Bruder Klaus Kapelle, Assorted Views	92
	FIGURE 4.4	Alesia Museum	93
	FIGURE 4.5	Alesia Museum, Plan	94
	FIGURE 4.6	Israel and Palestine's Timeline	95
	FIGURE 4.7	Bridge Design	97
	FIGURE 4.8	Henderson Waves Bridge	99
	FIGURE 4.9	Henderson Waves Bridge, Assorted Views	100
	FIGURE 4.10	Pedro e Inês Bridge	101
	FIGURE 4.11	Pedro e Inês Bridge, Assorted Views	102
	FIGURE 4.12	Széchenyi Chain Bridge	103
	FIGURE 4.13	Széchenyi Chain Bridge, Assorted Views	104
	FIGURE 4.14	Prefatory Section	105
	FIGURE 4.15	Circle as Time, Cycle, and Enclosure	107
	FIGURE 4.16	Circulation Hierarchy	109
	FIGURE 4.17	Circulation Ribs	109
	FIGURE 4.18	Circulation Parti	111
	FIGURE 4.19	Prefatory Plan	112
	FIGURE 4.20	Monolithic Staircase	113
	FIGURE 4.21	Puncturing the Mountainside	113
05	FIGURE 5.0	Arch of Titus, Menorah	115
	FIGURE 5.1	Israel and Palestine's History	117
	FIGURE 5.2	Placing the Program	119
	FIGURE 5.3	Developing the Program	119
	FIGURE 5.4	Site, Plan, and Section	122
	FIGURE 5.5	Developing the Form	124
	FIGURE 5.6	Yad Vashem, Program	125
06	FIGURE 6.0	Western Wall, Old City of Jerusalem	127
	FIGURE 6.1	Plaster Model, Form	129
	FIGURE 6.2	Assorted Entry Sketches	131
	FIGURE 6.3	Prefatory Entry Section	131
	FIGURE 6.4	Schematic Plan	133
	FIGURE 6.5	Schematic Plan, Sketch	134
	FIGURE 6.6	Schematic Entry, Triangle	135
	FIGURE 6.7	Schematic Entry, Peel	135
	FIGURE 6.8	Schematic Section, Verifying Heights	138
	FIGURE 6.9	Schematic Section, Vertical Circulation	138
	FIGURE 6.10	Schematic Plan, Museum	139
	FIGURE 6.11	Natural Light Opportunities	140
07	FIGURE 7.0	Memorial Design	141
	FIGURE 7.1	Secular Design	143
	FIGURE 7.2	Bird's Eye Perspective	145
	FIGURE 7.3	Site Plan Design	145
	FIGURE 7.4	North Elevation	145
	FIGURE 7.5	Site Section	148
	FIGURE 7.6	Detail Section, Secular Peak	148
	FIGURE 7.7	Detail Section, Sacred Peak	148
	FIGURE 7.8	Entry Pavilion	149

	FIGURE 7.9	Crossing the Bridge	149
	FIGURE 7.10	Atrium Design	151
	FIGURE 7.11	Bridge Design	151
08	FIGURE 8.0	Israel's Security Fence, Graffiti	153
	FIGURE 8.1	Floor Plans	159
	FIGURE 8.2	Northern Section	161
	FIGURE 8.3	The Memorial Anatomized	165
	FIGURE 8.4	Secular Entry	168
	FIGURE 8.5	Bridge to Solution	168
	FIGURE 8.6	Sacred Atrium	168
	FIGURE 8.7	Site Plan	169
	FIGURE 8.8	The Unknown	171
	FIGURE 8.9	In Memoriam	173
	FIGURE 8.10	Merging Perspectives	175
...	FIGURE 9	Final Boards	179
	FIGURE 10	Final Exhibition	181

**UNYIELDING PERSPECTIVES
A MUSEUM BETWEEN CONTROVERSIES**

Jonathan Brodheim

JULY 2014

Can architecture embody a controversy? This question introduces the theory that a structure can claim ownership of divergence, war and antagonism. *Unyielding Perspectives: A Museum Between Controversies* investigates the Israeli/Palestinian conflict through history, landscape, and culture. Architecture that remains neutral yet embodies the history of two nations must represent both timelines simultaneously and without bias. Israel and Palestine's narratives have become entangled by the conflict that divides them. The final design of the museum abstracts the natural and cultural landscape, guiding the occupant through Israel and Palestine's turbulent past. The objective of this thesis is to represent both cultures equally and without bias, establishing a space where both are to be protected.





CHAPTER ONE
INTRODUCTION



FIGURE 1.1

THE LOUVRE

ARCHITECTURE & CONTROVERSY

“Globally recognized design does not come without consequence.”

1.1 The Premise

Can architecture embody a controversy? This question presents the idea that architecture can be used to force confrontation upon the viewer. Mankind's darker acts have divided the world into territories, leaving behind structures regarded negatively for their origins but protected for their historical relevance. Problems range from historical, political or religious debates, to the lack/abundance of resources. Though these subjects can be trivial on the surface, these issues share strong connections with a country's culture and race. An architecture developed through controversy is forced to interact with both sides on equal levels.

1.2 How is architecture contested?

The Louvre. The Louvre's original collection was established in the 16th century by King Francis I. It wasn't until the French Revolution in 1793 when the Louvre's once private art collection became available to the general public and established as a national art museum.¹ Showcasing priceless works of art, including Da Vinci's infamous "Mona Lisa" and the 19th century Greek sculpture "The Winged Victory of Samothrace," the Louvre is now the world's most visited museum.

001

"Louvre, Paris." A
View on Cities.

"Most felt that Pei's modern design aesthetic would clash with the Louvre's Classical architecture; appearing as an alien form."²

002

Kroll, Andrew.
"AD Classics: Le
Grande Louvre
/ I.M. Pei." Arch-
Daily.

In 1983 French president, Francois Mitterrand commissioned Ieoh Ming Pei to renovate and reorganize the Louvre Museum; making history as the first time a foreign architect was employed to work on the Louvre.³ With a collection of over one-million works of art (35,000 of which are on display), a complete restructure of the Louvre's diverse collection was no doubt a daunting, but necessary task; the old Louvre Palace was unable to serve the rising number of visitors. Those that did visit

003

ibid.



FIGURE 1.2 THE TAJ MAHAL



FIGURE 1.3 THE DISNEY OPERA HOUSE

found themselves lost and confused by the museum's layout, and struggled to find either the entrance or the exit.⁴

004

"Louvre Pyramid, Paris." A View on Cities.

Originating in the 12th century, the Louvre Palace - a symbol of history and culture - cemented itself as a Parisian icon. Pei's plans for the Louvre's modern renovation was quickly leaked, and most critics disliked the pyramid design. Locals were quickly made aware of Pei's plans to gut the Cour Napoléon (a central courtyard), and feared such a modern project tainting their once beloved icon. Due to an issue of style, "polls indicated a large majority of the French citizens opposed the structure."⁵

005
ibid.

The Taj Mahal. India's most famous structure, the Taj Mahal (or Crown Palace), is considered one of the most beautiful examples of Mughal architecture in the world. Inside rests the beloved corpse of Mumtaz Mahal, the second wife of Shah Jahan (the fifth Mughal ruler). Mahal was a Persian princess who deeply influenced Jahan's life; she died at the age of thirty-nine while giving birth to their fourteenth child. After her death in 1631, Jahan and his empire felt the impact of her loss; "the Taj Mahal is a real monument of one man's love for a woman."⁶

006

"Taj Mahal: The Hidden Truth." World Mysteries.

Located south of the city of Agra, three acres of land

were excavated to make room for the Taj Mahal's immanent construction in 1632. Ustad Ahmad Lahauri, a Persian architect, is widely believed to be the lead designer of the Taj Mahal. A competition to construct a tomb and shrine dedicated to Jahan's much loved wife was established. Over 20,000 people worked on Mahal's tomb alone - not to mention the expansive complex of mosques, gardens, gateways, and fountains.⁷

There are two stories of how one of the world's most treasured structures came to be. The first would have you believe in the true love between the Mughal ruler and his wife Mahal. Corroborating this story, myths would have you believe Jahan planned a second Taj Mahal situated across the river, connected only by a single silver bridge. The controversy surrounding the Taj Mahal questions these romantic origins. Professor P.N. Oak, author of "Taj Mahal: The True Story," believes the Taj Mahal was originally constructed as an ancient Hindu temple/palace of Lord Shiva (then known as Tejo Mahalaya).⁸ Oak attributes his beliefs to a number of rooms in the Taj Mahal which remain sealed and inaccessible to the public. Oak argues that the only way to disprove his theory is to open the sealed rooms of the Taj Mahal, allowing experts to investigate his claims.

Disney Concert Hall. Designed by the infamous Frank O.

007

"Taj Mahal Architecture." Taj Mahal: The Monument of Love.

008

"Taj Mahal: The Hidden Truth." World Mysteries.



FIGURE 1.4 ZEPPELINFELD

Gehry, the Walt Disney Concert Hall is the permanent home to the Los Angeles Philharmonic and Los Angeles Master Chorale. Gehry's rebellion against the oft-repeated "form follows function" mantra fuels the Concert Hall's strange, alien-like appearance. The dichotomy of practicality and what Gehry considers "cutting edge design" is showcased in the Walt Disney Concert Hall's main auditorium, featuring a magnanimous concert organ.⁹

"Buildings clearly have an impact on the surrounding environment; they can shift the microclimate substantially."¹⁰

010
Elizabeth Valmont, University of Southern California, 2005

Despite the Walt Disney Concert Hall's controversial appearance, Gehry's design was contested by locals for other reasons. Environmental experts studied the structure and the surrounding micro-climate, finding a series of concentrated heat spots increasing nearby residential buildings energy bills.¹¹ The problems and complaints were being generated by Gehry's choice of highly reflective stainless steel panels, which had to be dulled by way of a two-step sanding process costing stakeholders nearly \$90,000 in repairs.

009

"AIA Cities: Walt Disney Concert Hall." American Institute of Architects.

011

Craven, Jackie. "Gehry Responds to Concert Hall Heat." About.com (an IAC Company).



FIGURE 1.5 ZEPPELINFELD, MAIN TRIBUNE



FIGURE 1.6 ZEPPELINFELD, DEC 2004

1.3 Nazi Architecture

Designed as a symbol of power and oppression, Adolf Hitler used architecture as a means to advance the power of the state. Minimally adorned with clean lines, columns, pilasters and stark facades, architects like Albert Speer, Hermann Giesler, and Fritz Todt crafted a new architectural style. These architects were heavily influenced by classical Greece and Rome, “[cultivating] an aesthetic of order, using minimal decoration and emphasizing straight lines.”¹² Nazi Architecture quintessentially represented the Third Reich’s wealth, power, and domination over the German state.

012

“Order from Stone: Nazi Architecture.” *Art Under Fascism*.

“Nazi architecture served the state by emphasizing its values, demonstrating its power, and creating edifices capable of lasting for centuries.”¹³

013
ibid.

Designed by Albert Speer, Hitler’s chief architect, the Zeppelinfeld embodied the Nazi Party’s horrifying past; it signified what they were trying to accomplish, “crushing the world’s major communist power.”¹⁴ To a single Nazi soldier, the sheer size of the the Nazi Party Rally Architecture represented his “[participation] in

014

“Nazi Party.” *History.com (A+E Networks Digital)*.

something major and significant, while at the same time conveying the impression of his own insignificance.”¹⁵ The Zeppelinfeld is located in Nuremberg, Germany and was built on the Zeppelin meadow in 1934. Sized with an area larger than twelve football fields, the structure accommodated 100,000 people in the Nazi Party Rally Grounds, and was named as such in the early 1900s, after the landing of one of Count Zeppelin’s airships in 1909.

In 1945 the US Army destroyed the vast majority of the Zeppelinfeld, including a swastika that hung directly above the Zeppelin Grandstand. The Zeppelinfeld received the same treatment in 1967, and the columns flanking both sides of the Grandstand were damaged beyond repair.¹⁶ Due to the Zeppelinfeld’s role through Germany’s history, the remaining structure and grounds were converted into a temporary exhibition (1985-2001) entitled “Fascination and Terror.” Originally the home of Nazi party rallies, the Zeppelinfeld has been converted into a museum, symbolizing a horrifying past and forever leaving a scar on this Earth.

015

“The Nazi Party Rally Grounds.” Nuremberg Online.

016
ibid.

1.4 What is being contested?

The previously stated examples fit into one of three categories: landscapes, monuments, or borderlines. Contested for cultural beliefs, local stigmas, and their architectural symbolism, such projects spark a prejudice in favor of or against their development, maintenance, or restoration. Cultures express disagreements differently; it is generally accepted that it is difficult for humans to view a situation from the another's cultural perspective. "Every culture believes it defines normality, [and] all cultures have values that are sacrosanct and difficult, if not, impossible to impact." ¹⁷ These cultural disputes are typically centered around borderlines, which create a natural division between rituals and customs.

017

*Hammerich, and
Richard D. Lewis.
"How different
cultures say 'I dis-
agree!'" Quarts.*



A man wearing a white turban and a white shirt is pouring water from a metal pot into a glass pitcher. The scene is lit with warm, orange light, creating a cozy atmosphere. The man is looking down at the pitcher. In the foreground, there is a glass pitcher and a small glass. The background is blurred, showing a warm, textured wall.

CHAPTER TWO
CONTEXT & REGION



FIGURE 2.1 U.S.-MEXICO BORDER

PART ONE

**THE PERIMETER OF
DESPONDENCY**

“The borderline is a division between two distinct, often extreme conditions.”

2.1 Border Significance

The significance of a border has been modified time and time again in an effort to redefine the seriousness of this manmade threshold. A border is defined as (1) a line separating two political or geographical areas, (2) the edge or boundary of something, or the part near it, or (3) a band or strip. This dividing line requires context. How is the borderline formed? What is the significance of a boundary? Does the border presume cultural attributes? Why are borderlines disputed? These questions are posed not as guidelines, but miscellaneous thoughts into discovering how and why borders are formed.

2.2 Forming a Borderline

The formation of a borderline is actually pretty straightforward. As various groups and empires expanded their territories, other groups and empires were discovered. These opposing forces fought over the rightful ownership of a section of land, causing economic hardship and strain on available resources. As time passed, the leaders of these groups ultimately came to an agreement which returned the land to peace once again. What is eventually formed is a peaceful transition between the two territories, or what is described a border zone.¹⁸

018

*"Boundaries,
Borders and
Disputes." Pacific
Island Travel.*

2.3 Border Disputes

The 20th-century was the most conflict driven era ever experienced by mankind. The effects of World War I, World War II, the Korean War, the Vietnam War, and the Gulf War were felt around the globe. Many of these conflicts rose with disputes regarding ownership; some religious, others political. Today, border-disputes are more common than ever before. These disagreements happen between everyday people and bodies of government alike, which often spark civil unrest often leading to war. Debates often find themselves centralized

around the availability of resources (i.e. food, water, and oil), and a growing population.

Such disagreements typically revolve around one country's desire for something the other has. "That quality could include an important historic or cultural shrine, a strategic position, or economic resources."¹⁹ More often than not, these disputes are trivial in nature, and sometimes revolve around oil fields or deepwater ports. Most border-related disputes are complicated in nature. There are four types of boundary disputes: positional disputes, territorial disputes, resource disputes, and cultural disputes.²⁰

019

"Boundaries, Borders and Disputes." Pacific Island Travel.

020

"Boundary Disputes." Oxford University Press.

Positional disputes argue for or against an existing boundary. Any individual may contest a boundary if they feel a survey was performed incorrectly, records are deemed unreliable, etc. As previously discussed, geographic features are often used as natural boundaries due to their fixed position. Problems can arise when a mountain range is altered due to a shifting in tectonic plates.

Territorial disputes have strong historical and cultural ties to an area or group of people. When this border is disputed, one country's property exists in another.

As civilizations grow and populations become more

dense, our basic needs for survival become more valuable; this is the basic principal of supply and demand. Water, food, and oil are three resources that have been deemed critical to a nation's survival. "Water is the only scarce resource for which there is no substitute."²¹ If a nation feels threatened in their ability to provide it's citizens with their basic needs, it might be necessary to search for outside resources. Such resources may come in the form of land reclamation, petroleum rights, etc.

021

Wolf, Aaron T.
"Conflict and Co-
operation Along
International Wa-
terways." *Water
Policy* 1 (1998).

022

"Boundaries,
Borders and
Disputes." *Pacific
Island Travel*.

Though often centered around land disputes, border zones have important connections to cultural differences and racial stigmas. Disputes of this nature are not easily separated with a line, which often does more harm than good. Culturally distinct groups choose to exclude other distinct groups from their own territory using force if necessary to create the separation.²² Though cultural disputes are broad in scope, they typically involve issues regarding ethnic backgrounds, religious affiliations, political beliefs, language, etc. Cultural disputes are typically considered unresolvable due to their connection with a person or civilization's personal and communal values.

As the list of names, categories, and classifications of a boundary grows, the message they leave is very clear. "The constant pressures of population, resources, and

political and cultural differences will continue to play an important role in shaping the boundaries of the countries we live in, and in turn, the political map we view.”²³ We treat the extent of a large body of water or mountain range as daily determinants which truly affect daily life. People treat these dividing lines as governing principals that regulate their position and alter personal beliefs. In reality, such borders are truly akin to self-imposed limits preventing all species from taking pleasure in the simple joys of life.

023

ibid.

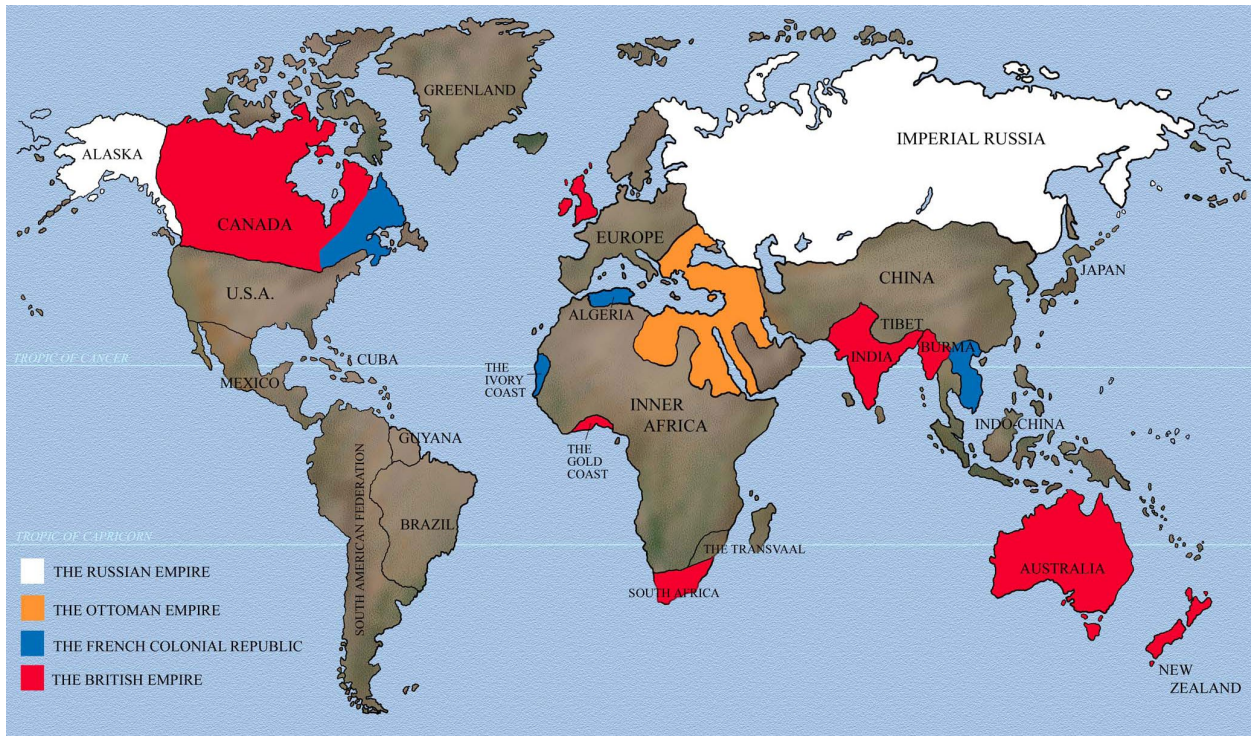


FIGURE 2.2 EXPANDING EMPIRES

2.4 The International Boundary

Border Zone can easily be broken into different categories that focus on the purpose of the perimeter. What we see as a boundary line actually discusses a country's history, their culture, and their government. A boundary line most often appears as a line on a map - either solid or dashed. Mountain ranges, major rivers or streams, and even deserts can mark the separation between two bodies of land.

The *international boundary* is the most common boundary that denotes a separation between two entities. "An international boundary is a line that divides one country from another country by a mutual, peaceful agreement."²⁴ All variations of controversial borders are categorized as international in nature.

024
ibid.

2.5 Borderlines in History

How (and why) civilizations were separated was much easier to diagnose in the past. The most common practice for determining a boundary involved physiographic features of the landscape.²⁵ These early settlers focused on features that were easy to recognize both internally and externally. Common physiographic features include

025
ibid



FIGURE 2.3

CHINA'S GREAT WALL

rivers, hills, mountain crests, edges of forests, etc. These natural perimeters proved successful for only a short time. As civilizations grew and became more advanced, the development of walls became a necessary defense. Famously, China's Great Wall not only outlined their territory, but also acted as a defense mechanism from invasive Mongol tribes.

...Border society is an abstract concept compounded of ideas about the sovereignty of nation states, the intensification of commerce and social discourse, and strategies of cultural representation...²⁶

026

Cadaval, Olivia. "United States-Mexico." *Smithsonian Education*.

2.6 Borderlands

Borderlands are centralized around cultural achievement and acts of heroism.²⁷ They generally lead to a widespread belief that societies residing on (or near) the borderline are not governed by or obedient to laws. Members of borderline societies typically have a wide-eyed sense of national pride, and will fight for what they believe is just. A border is a line that "marks the place where adjacent jurisdictions meet."²⁸

027

ibid.

028

ibid.

At the risk of sounding blasé, people are watched very closely along the border; zones are created to regulate the movement of people and the goods they may be carrying. Borderland communities have a strong sense of their fiscal responsibilities, and emphasize trading as their primary source of income. More importantly, however, these communities share similar opinions about the identity of their people.

2.7 Interdependency

"The border is an environment of opportunity." ²⁹ Individuals are able to find work on one side of the proverbial fence - either with the law or trying to avoid it entirely. This may seem debatable, but to families on the border these actions are normal and oftentimes required. It is very common for outsiders to take advantage of a dwindling economy, in an effort to exploit cheap labor and resources.

029
ibid.

PART TWO

**AN EXPLORATION OF
FIVE CASE STUDIES**

*“Research is formalized curiosity.
It is poking and prying with a purpose.”*

2.8 Border Zones

Typically centered around public disagreements, border zones are always disputed. These boundary disputes discuss the turmoil that exists in any nation, because of a border’s proximity to another authoritative figure or government. Problems range from historical, political or religious debates, to the lack/abundance of resources. Though these subjects can be trivial on the surface, these issues create strong connections within a country’s culture and race. “The constant pressures of population, resources, and political and cultural differences will continue to play an important role in

shaping the boundaries of the countries we live in, and in turn, the political map we view.”³⁰ An architecture developed along a borderline is forced to interact with both sides on equal levels..

030

“Boundary Disputes.” Oxford University Press.

“No country, no matter how big, can solve its own internal problems before solving the problems threatening the global system”³¹

031

Meadows, Randers, and Dennis L. Meadows. *The Limits to Growth. White River Junction, Vt: Chelsea Green Pub., 2004. Print.*

Across the globe, borderlines exist on many levels, each of which have their own story to tell. The borderline always finds itself balancing its relationship on a regional and international scale. There are typically two categories of borderline relationships, as discussed in part one of this chapter: hostile and cooperative borders. The former exists where there is distrust amongst two neighboring regions, and the latter focuses on borderline relationships that are characterized by cooperation and an emphasis on mutual development.³² Today there is a strong emphasis on national security when discussing borders. This concern leads to a renewed focus on border issues around the world. “Territorial disputes, contentious

032

Romero, Fernando. “Context.” *Hyperborder: The Contemporary U.S.-Mexico Border and Its Future.*



FIGURE 2.4 THE BERLIN WALL, PROTESTERS



FIGURE 2.5 THE BERLIN WALL, MEMORIAL

borders, and terrorist activities play considerable roles in the effort to secure (and oftentimes seal) international borders.”³³ In the post 9/11 global political climate, fortress-like walls are being discussed and in some instances are already under construction. These walls create geo-political boundaries which divide two regions. The idea of a mutually beneficial relationship can serve as a model for the rest of the world.

033

ibid.

2.9 North & South Korea

One instance of a fortified border resides between North and South Korea. The feud between North and South Korea began in 1950, and ended with a ceasefire three years later in 1953. The momentary truce was the catalyst in establishing the Demilitarized Zone (DMZ) and marked the official closing of the border. Over two-million troops patrol both sides of the DMZ's 151-mile perimeter, and is split along the middle by the Military Demarcation Line (MDL). It is said that crossing the MDL would revive the stagnant war. The feud extends internationally to the US, where the government is constantly monitoring North Korea's nuclear weapons program. The former president, Bill Clinton, described the borderline as “the scariest place on earth.”³⁴

034

Landler, Mark.
“Obama Warns
North Korea to
End ‘Bad Behavior’”
The New York Times.



FIGURE 2.6 NORTH & SOUTH KOREAN BORDER



FIGURE 2.7 MOROCCO & SPAIN BORDER CROSSING

2.10 Morocco & Spain

Despite the large body of water separating Morocco and Spain, illegal immigration has risen at a tremendous rate over the last twenty years. Morocco relationship with Europe is often compared to Mexico's connection to the United States. There is a lack of resources and viable opportunities for citizens living in a developing nation. Geographically however, "the two regions have easy access to wealthier, labor-hungry nations of the United States and the European Union." ³⁵ Morocco serves as the primary gateway for immigrants trying to enter Spain's European border. Spain currently has the highest immigration rate in the European Union. Due to their shifting demographics, Spaniards are focusing on increasing immigration rates more than ever before. Spain has a shrinking labor force, economic stagnation, and a growing elderly population, whereas Morocco currently has populations that are much younger. The small detail in the distinction in the demographics can help lead to the creation of a system involving future growth for both countries. So long as the willingness of Africans to migrate north remains, and the aging population in Spain is willing to accept a controlled immigrant population - the two regions have the potential to fill the voids in each other's labor forces.

035

Romero, Fernando. "Context." *Hyperborder: The Contemporary U.S.-Mexico Border and Its Future*.

2.11 The U.S. and Canada

The U.S. and Canada currently hold the World's largest trading relationship. They both work to maintain an efficient and secure border which is conducive to a mutual economic growth and prosperity. On a daily basis more than \$1.2 billion in goods and services crosses the border. Despite the benefit this has brought financially to the two countries, the environment has been affected on a macro scale. In response to these concerns the Air Quality Agreement (AQA) was signed by the two governments in 1991. A reduction in sulfur dioxide and nitrogen oxide emissions are required by both the U.S. and Canada. Since this act has been implemented, transboundary smog emission has decreased exponentially.³⁶

Communities have gone far and beyond what the two reigning governments have set in motion, establishing their own communal environmental commitments. These new communities unit as a cross-border bioregion dubbed "Cascadia" which includes several of the northwestern states of the U.S. British Columbia, and Alberta in Canada.³⁷ This led to a development of a series of environmental protection programs, tourism campaigns, and cross-border transportation. Despite international and state boundaries, the inhabitants

037

Romero, Fernando. "Context." *Hyperborder: The Contemporary U.S.-Mexico Border and Its Future*

036

Furtan, and Blain M. Van Melle. "Canada's Agricultural Trade in North America: Do National Borders Matter?"



FIGURE 2.8 THE U.S.-CANADIAN BORDER



FIGURE 2.9 THE U.S.-CANADIAN BORDER, PATROL

of Cascadia are connected on a social and political level, linked by an environmental consciousness. This situation is an exemplary case study for cross-border environmental initiatives.

2.12 The Golden Triangle

The Golden Triangle is the region between the borders of Myanmar, Thailand, and Laos which connect in Southeast Asia. This area is a hotbed for the cultivation of opium poppies, which are a key component in heroin production. For a long period of time this region was under the charge of drug traffickers. The borders that lie between the regions was considered “fuzzy”. The smuggling of narcotics between borders and given to locals was easy and in turn created an extremely lucrative international drug market.³⁸ International pressure was introduced in order to stop the problem that was arising because of the drugs within lesser developed communities. The problem was confronted by The Golden Triangle by a cutback on the cultivation of opium poppies. For the first time in February 2006, Laos, the world’s third largest supplier of opium

038

ibid.

narcotics, declared itself “poppy-free”. According to Niklas Swanstrom, director of Silk Road Studies at Sweden’s Uppsala University and expert on drugs and regional cooperation, “the most effective way to tackle drug smuggling is to close down borders.”³⁹ After realizing that illicit drugs were making their way into the territories, China sealed their border to Myanmar.

039

ibid.

“Numerous discrepancies divide our world: from hunger to AIDS to poverty, borders extend beyond their geopolitical definition.”⁴⁰

040

ibid.

Another approach currently being accepted is Alternative Development. This approach was created by The United Nations, and provides communities that are dependent on income from unlawful activities, a series of legal alternatives that fit within their existing skill set.⁴¹ This is a viable solution, because narcotic eradication has the potential to impoverish an entire community. The Golden Triangle has a goal of introducing new alternatives to opium cultivation. In Laos, alternative development was extremely successful.

041

ibid.



FIGURE 2.10 ISRAEL'S SECURITY FENCE

2.13 Israel & Palestine

Israel and Palestine share a long history that is full of hostility and conflict. During the 19th-century the Zionist Movement was established, relocating European Jews to Palestine in an attempt to create a homeland for Jews in Israel. Flocks of European Jews fled their homes throughout the first half of the twentieth century, during World War II and the Holocaust. The immediate and sporadic arrival of Jews within Palestine caused deep rooted disagreements within neighboring Palestinian communities. More often than not, former Palestinian residents were replaced by Jewish immigrants purchasing land.

The conflict between Israel and Palestine revolves around the relationship between their respective religions. Islam and Judaism share the same Holy Land, which caused the United Nations General Assembly to make the decision to separate Palestine into two states in 1948, one Arab and the other Jewish. In an effort to avoid future religious conflict, the United Nations General Assembly marked Jerusalem as an international zone where neither Jewish nor Arab authority would exist. In

theory this gesture was sound, but in reality the solution failed.⁴² Local Palestinian citizens were entirely opposed to surrendering any land or succeeding in any way. Due to the overall resilience of the Palestinian people in 1967, the Six Day War began. Israel seized control of the West Bank, the Gaza Strip, the Sinai Peninsula, and the Golan Heights - all heavily populated with Palestinians. Until today, there has been no resolution. Even decades since the war, the two regions can be characterized by suicide bombings committed by radical Palestinians, and the Israeli government's subsequent retaliations.

In 2002, Israel's government made the critical decision to separate the Jewish State from the predominantly Palestinian West Bank. More importantly, Israel wanted a way to control and maintain the types of people crossing the border. In place of increasing military prowess, Israel began erecting the Security Fence, which was designed to keep Palestinian terrorists outside of Israel. The Security Fence currently stretches 170-miles, however when it is finished it will extend the full 440-miles, occupying the perimeter of the West Bank. The Security Fence was designed as a prison-like fence, with sensors,

042

Falah, Ghazi.
"The 1948
Israeli-Palestinian War and Its
Aftermath"



FIGURE 2.11 PALESTINIAN DESTRUCTION



FIGURE 2.12 SALVAGED CONCRETE BARRIERS

watch towers, sniper posts, and barbed wire. Palestinians first need permission from the Israeli government in order to cross the border. The construction of this fence was deemed a violation under international law by the International Court of Justice in 2004, however the the Israeli Government rejected the opinion in September 2005. The barrier is still being constructed to this day.⁴³

043

*Romero, Fernando. "Context."
Hyperborder:
The Contemporary U.S.-Mexico
Border and Its
Future*



An aerial photograph of a vast, arid desert landscape. The terrain is characterized by deep, winding erosion patterns and a network of dirt roads. In the center, a small cluster of buildings and a road form a tiny settlement. The background shows a wide, flat plain extending to a distant horizon under a dramatic, cloudy sky. The overall color palette is dominated by earthy browns, tans, and greys, with a touch of blue in the sky and distant water bodies.

CHAPTER THREE
SITE ANALYSIS



FIGURE 3.1

THE SEA OF GALILEE

PART ONE

**ANTIQUITY'S
PROMISED LAND**

*"Israel was not created in order to disappear,
Israel will endure and flourish."*

3.1 The Land of Israel

The Land of Israel is a small sliver of land located on the southeastern coast of the Mediterranean Sea. Over 7 million people live in Israel today, 5.4 million Jews and the remaining 1.4 million Arab. "A wide spectrum of lifestyles characterizes the country, ranging from religious to secular, from modern to traditional, from urban to rural, from communal to individual."⁴⁴ Despite their cultural differences, most would give their lives to in order to preserve its religion, culture, and spiritual presence that has been encapsulated in the grains of Ha'aretz (the Land) for the past 3,000 years.

044

*"Basic Facts: The
Land of Israel."
Stand for Israel.*



FIGURE 3.2 MIDDLE EAST REGION



FIGURE 3.3 ISRAEL'S NEIGHBORS



FIGURE 3.4 ISRAEL

3.2 The Middle East

Politically, the Middle East is regarded as a zone of conflict and backwardness. Culturally however, the region is considered both varied and diverse, featuring expressive literature, art, languages, media, and religions. This is not to be mistaken for uniformity; traditional and contemporary cultures in the Middle East may appear similar, but actually vary dramatically from country to country and region to region. It is these differences that sparked the onset of competition and hostility between neighboring countries. Religion is predominantly the cause of such chaos, and is "tightly integrated into the cultural institutions of Middle Eastern countries."⁴⁵

Individuals in this region associate themselves very strongly to their national identity, which differentiates a person based on where they live. For example, people who live in Israel are Israeli, people who live in Syria are Syrian, people that live in Egypt are Egyptian, etc. This distinction is one of the most misunderstood concepts by North American and European civilizations, who often believe these cultural battles are rooted in politics and greed; this is simply not the case.

045

Kelly, Caitlin.
"Middle Eastern
Culture & Cuisine."
USA Today.



FIGURE 3.5 JILABUN WATERFALL, GOLAN HEIGHTS



FIGURE 3.6 THE OLD CITY OF JERUSALEM



FIGURE 3.7 TSINA VALLEY, NEGEV

3.3 Geography & Climate

Israel is a very small country in Southwest Asia, which acts as a land bridge that connects three continents: Africa, Asia, and Europe. Bordered by Lebanon in the north, Jordan in the east, Egypt in the south, and the Mediterranean Sea in the west, Israel is approximately 290 miles long and 85 miles wide, with a total area of 10,840 square miles.⁴⁶ Israel is divided into three main climactic regions: the coastal plain, the mountain region, and the Jordan Valley Rift.⁴⁷ These divisions vary greatly in terms of topographical features; from mountainous forests to lush valleys to Israel's infamous desert - the Negev.

047
"Geography &
Nature in Israel."
Ministry of Tour-
ism, Government
of Israel.

046

"Geography
of Israel." NSW
Board of Jewish
Education.

***"... a land flowing with milk and honey ..."* (Exodus 3:8)**

Israel is in a subtropical region, which features two seasons: a hot, dry summer and a cold, wet winter. Due to its position between the Mediterranean Sea and the Negev, Israel features a dramatically varied climate. Tourists are often surprised to discover they can ski in Mt. Hermon to the north and swim in the the Bay of Eilat in the south - all within a six hour drive.



Figure 3.8 Administrative Divisions

(1) Northern Israel, (2) Haifa, (3) Central Israel, (4) Tel Aviv, (5) Jerusalem, (6) Southern Israel, (A) Golan Heights, (B) West Bank, (C) Gaza Strip.

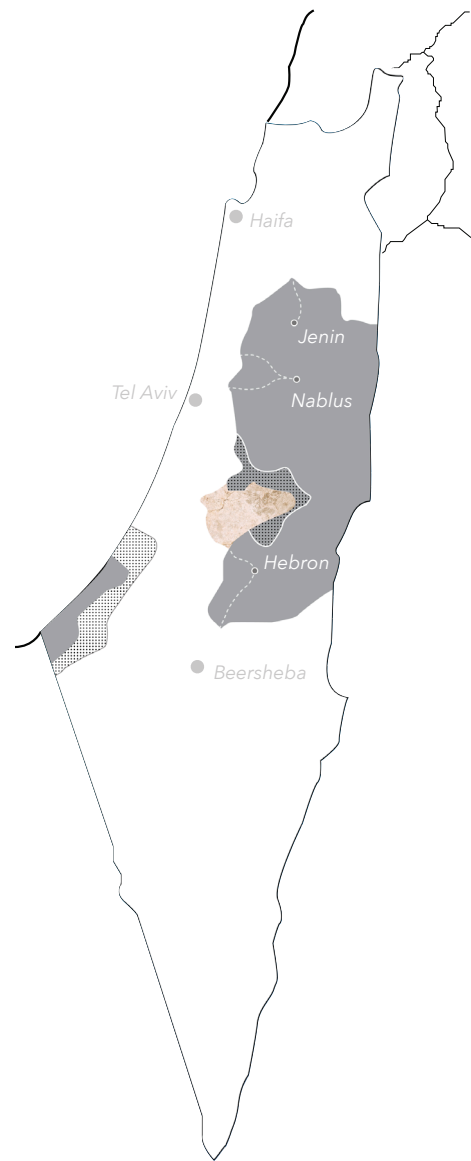


Figure 3.9 Major Cities

Palestine (Grey), Israel (White), and Jerusalem (Stone)



Figure 3.10 Ecoregions

From North to South: Broadleaf Forests, Shrub Desert, and Arabian Desert.

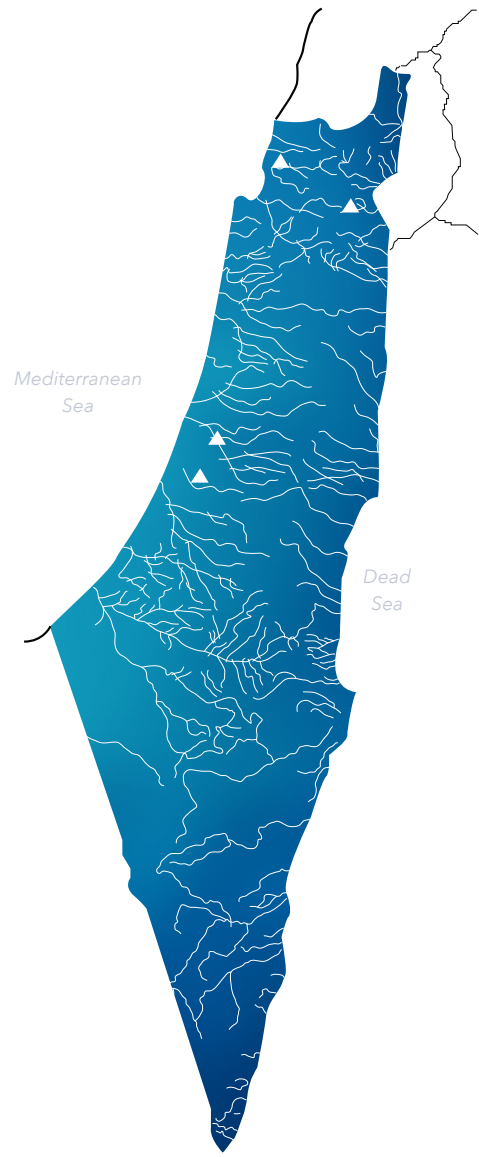


Figure 3.11 Hydrology

From North to South: AKKO, LAVI, Ben Gurion Airport, and Mazkeret Batya.

1917

1948

1967

Today



FIGURE 3.12 PALESTINE'S CHANGING BORDERS



FIGURE 3.13 WAR, ART AND PRIDE

3.4 Israel & Palestine

In the years following the conclusion of World War II, a political campaign called the Zionist Movement, sought to provide a homeland for Jews scattered across the globe. Due to international pressure in 1948, the UN voted to partition Palestine and recognize Israel as a Jewish state. Palestinians resisted the Jewish migration through large-scale combat and smaller skirmishes. The 1948 War of Independence was represented by the Zionist Movement on one side, and multiple Palestinian and Arab organizations on the other. "Hundreds of thousands of Palestinians were displaced in the fighting in 1948, [and] Israel lost one percent of its population, which ended in a series of uneasy armistices."⁴⁸

048

"Israel Profile."
BBC News.

Often referred to as the Six Day War, Israel and Palestine were involved in yet another full-scale regional war in 1967. Sparked by the dissolution of Palestine in 1948, Palestinians sought control over the land they had lost. In retaliation, Israel's military force occupied the remaining 22% of Palestine - the West Bank and Gaza Strip, despite International Law stating it is "inadmissible to acquire territory by war."⁴⁹

049

"A Synopsis of
the Israel/Pales-
tine Conflict." *If
Americans Knew.*



FIGURE 3.14 ISRAEL'S SECURITY FENCE

PART TWO

**THE INVULNERABLE
BARRIER**

*"We will bankrupt ourselves
in the vain search for absolute security."*

3.5 Israel's Security Fence

Israel's Security Fence was erected after a plethora of terrorist attacks and suicide bombings plagued the country, which have resulted in over 850 deaths and thousands of injuries since September 2000. The goal of Israel's Security Fence is to prevent Palestinian terrorists from infiltrating their borders and attacking innocent Israeli citizens. Construction of the Security Fence has been besieged with controversy, despite similar solutions being used around the world to protect their borders.⁵⁰ Famously, the United States is currently erecting a fence along its southern border to keep out illegal Mexican immigrants.

050

*"Israel's Security
Fence." Jewish
Virtual Library.*

The Security Fence is constructed just north of the pre-1967 "Green Line" between Israel and the West Bank. Jews opposing the fence are worried it will mark a "final border," leaving those who remain in the West Bank unprotected and outside of Israeli jurisdiction. Furthermore, Israeli citizens are worried they will be forced to relocate to Israel-proper - especially if the construction further signifies a political border. Prior to the construction of Israel's Security Fence, a terrorist was required to cross an imaginary line into Israel. It was too easy and nearly "inviting" not to have any obstructions preventing such acts from happening.

There are two versions of the security fence currently being utilized by Israel and the IDF: (1) a wall made of concrete or a concrete/fence combination, and (2) a fence only version of the wall. The two versions correspond to different levels of security as determined by the Israeli government. Walled sections are reserved for areas considered especially vulnerable. " After the construction of the fence started, attacks have declined by more than 90%, the number of Israelis murdered is down by 70%, and Israelis wounded have decreased by more than 85%.



FIGURE 3.15 ISRAEL'S SECURITY FENCE, GRAFFITI



FIGURE 3.16 ISRAEL'S SECURITY FENCE, SEPARATION WALL

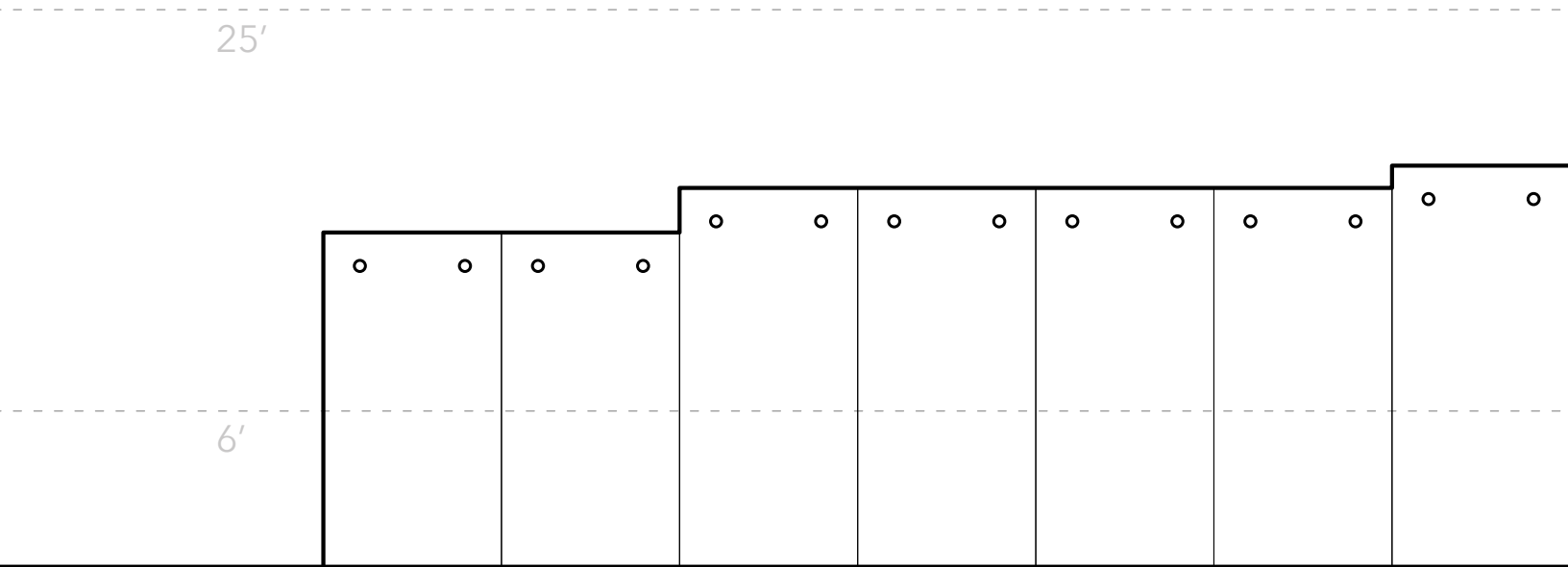
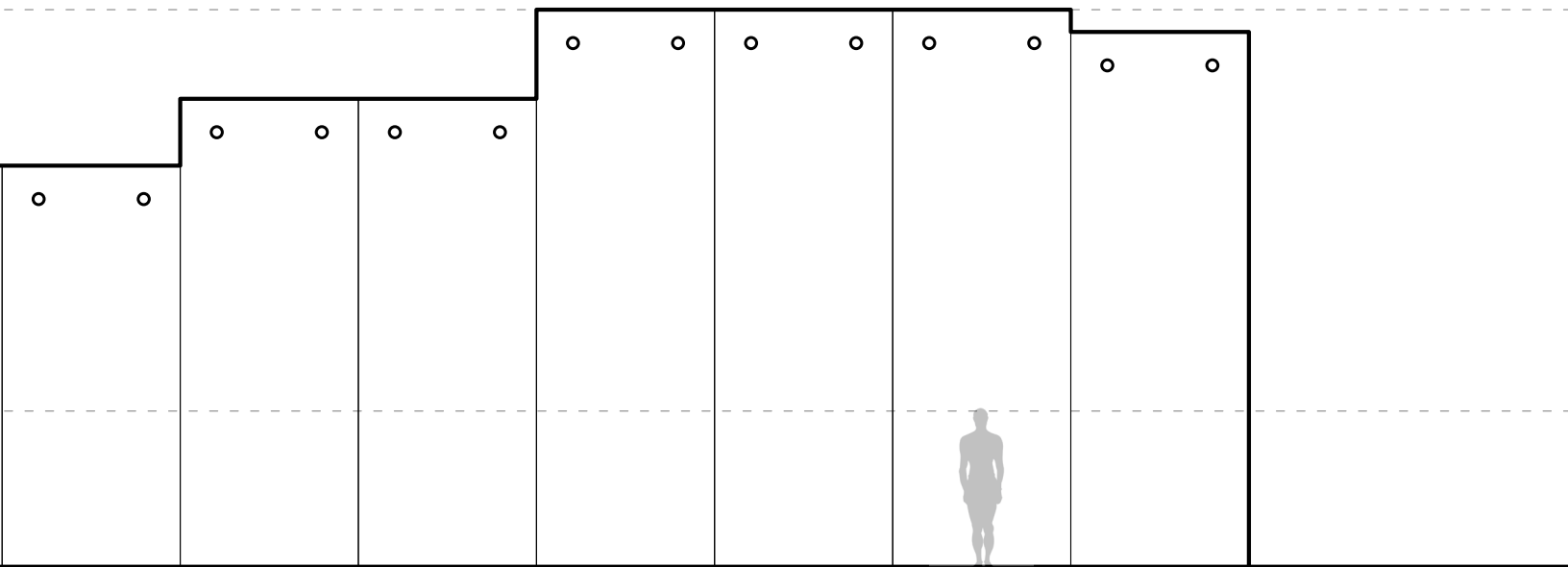


FIGURE 3.17 ISRAEL'S SECURITY FENCE, SIZE COMPARISON

3.6 Size & Length

The Security Fence is approximately 500-miles long, and is the largest infrastructure project in Israel's history. The project was expected to cost \$1-billion, but it quickly exceeded \$2-billion. Each kilometer of built fence costs approximately \$2-million - that is every 3,280ft or roughly .5 miles. It is unknown whether or not the areas fenced-in are temporary solutions until a wall can be built at a future date. The average height is 11ft, compared to the Berlin Wall's 11.8ft. According to the Palestinian environmental organization, PENGON, "some 14,680 denims of land [approximately 3,600 acres] have been razed for the footprint of the wall,



including the uprooting of over 102,000 trees.”

The Security Fence symbolizes the Israeli population’s support of a two-state solution, one that takes form as both a physical barrier and psychological separation. The route of the fence is designed to conform to varying topography, population density, and threat assessment of each area. “To be effective in protecting the maximum number of Israelis, however, it must incorporate some of the settlements in the West Bank.”⁵¹ Though many are quick to criticize where the fence deviates from the Green Line and encroaches on Palestinian territory, there are instances where the fence is built inside Israel’s borders.

051
ibid.



“It obliges us to establish a barrier wall which is the only thing that can minimize the infiltration of these male and female suicide bombers ... the fence is not political, [and] is not a border.”

BENJAMIN BEN-ELIEZER, DEFENSE MINISTER OF ISRAEL



“For the sake of peace, and for the sake of future Palestinian and Israeli generations, all settlement activities must be stopped now, and the wall must come down.”

MAHMOUD ABBAS, PALESTINIAN PRIME MINISTER

3.7 The Conflict & The Fence

It is important to pay attention to the language used by the media, and compare it to the realities of the situation. The preferred Israeli terminology for the barrier is gader hafradeh, which translates to “separation fence.” Palestinians call the fence “the Apartheid Wall” or the “Berlin Wall,” constantly attracting unwarranted international media attention.

“Journalism has the potential, like teargas, to blind and disperse while the horrors of history elude us.”

The barrier has been challenged by Palestinian residents and Israeli activists in four high-profile hearings with the Israeli Supreme Court and the International Court of Justice. In 2004 the International Court of Justice ruled in a non-binding statement that the barrier “cannot be justified by military exigencies.” The Israeli Supreme Court asserts that Israel “has a legal duty to balance properly between security considerations and humanitarian ones.”⁵³

053
Tristram, Pierre. “Israel’s Separation Barrier in the West Bank: Security Fence or Land Grab?”

052

Parry, Nigel. “Is it a Fence? Is it a Wall? No, it’s a Separation Barrier.” *The Electronic Intifada*

My Palestine is love.
My Palestine is laughter.
My Palestine is fruit.
My Palestine is warmth.
My Palestine is timeless.
My Palestine is passion.
My Palestine is My art.
My Palestine is life.

What's mine is yours.

Poem by Najat El-Khairy

3.8 Perspective

The opinions of government leaders tell only one part of the story; this war has affected the daily lives of millions of Palestinians and Jews alike. “Basic rights to food, life, property, safety, and freedom”⁵⁴ are made more difficult, sparking retaliation and constant refutation and contradiction of authority.

Figure 3.20 shows a poem written by Palestinian author, Najet El-Khairy. Najet’s poem focuses on what once belonged to her people, and how it was taken away throughout the war. “My Palestine” refers to pre-1947 Palestine, and the absence of external pressure from the UN, the Zionist Movement, and the onslaught of Jewish Immigration to the Arab nation. Najet’s opening verse fantasizes about Palestinian culture, its people, and what life might of been like had the war failed to materialize.

The final verse of Najet’s poem is envious and resentful of Israel’s occupation. Her desires are not only a pipe dream, given Palestine’s current state of affairs, Najet’s aspirations for her people are enjoyed by millions of Jews instead.

054

*“The Impact
of the Conflict
on Daily Life” If
Americans Knew.*



FIGURE 3.19 JUDAEAN MOUNTAINS

PART THREE

ISRAEL'S MOUNTAINS
THE JUDAEAN HILLS

*"As the mountains surround Jerusalem,
so the Lord surrounds his people."*

3.9 Israel's Mountains

As mentioned earlier, Israel's reasonably small territory features extremely diverse geography: including oceans, mountains, and even rift valleys. The "Mountain Region" stretches from Lebanon in the north to Eilat Bay in the south, providing shelter to indigenous plants and animals. The continuous mass of the region is interrupted by two major valleys: (1) the Yizre'el Valley separating the Galilee Mountains from the Hills of Samaria, and (2) the Be'er Sheva-Arad Rift separating the Judean Hills from the Negev Highlands.⁵⁵ At roughly 3,200 feet, the Judean Mountains is one of the few mountain ranges that span across Israel and the West Bank.

055

"The Jerusalem Hills." Ministry of Tourism, Government of Israel.

3.10 The Jerusalem Hills

As the name suggests, the Judaeen Hills are a highland region encircling the Holy City of Jerusalem. This mountain range features seven extensions of hills that stretch toward the Mediterranean Sea in the west, and the Jordan Valley in the east. The Jerusalem Mountains are significant to the historicity of the Bible due to their proximity to the Holy City. Disoriented Pilgrims used this line of mountains to “[make] their way to the holy sites for prayers [and] sacrificial offerings. Armies and many divisions of soldiers fought here, forcing their way between the mountains to the beloved city.”⁵⁶

056

ibid.

Today, a handful of communities inhabit the rural landscape, including Mevaseret Zion and Tsur Hadasa. The greater part of this mountainous region is occupied by natural and man-made forests, supported by the region’s stone and rocky earth terrain which is composed of terra rossa soils and limestone. Small perennial streams and sufficient rainfall maintain the lushness of the landscape, inviting local residents and tourists to hike the countryside or swim in one of the area’s numerous springs.⁵⁷

057

“The Land: Geography and Climate.” Israel Ministry of Foreign Affairs.



FIGURE 3.20 JUDAEAN MOUNTAINS, OUTLOOK



FIGURE 3.21 JUDAEAN MOUNTAINS, TRAIL



FIGURE 3.22 SITE LOCATION

3.11 Choosing the Site

As the thesis developed, choosing the site became critical in developing the storyline between the two disparate nations. Though the initial response is to place a commemorative structure between the two feuding countries, it is more important to recognize the need for the symbol in the first place.

Israel and Palestine's chaotic history begs the site be situated at a point of cultural significance for both countries involved. The site is located in the Jerusalem Hills, approximately 15km (9.3 miles) west of the Holy City and 7km (4.3 miles) south of the West Bank's border and Israel's Security Fence. With the site situated in Jerusalem, it introduces a new dimension to the narrative; the holy city of Jews, Muslims, and Christians was annexed to Israel during the 1967 Six Day War. Though this particular site does not spark heated disagreement between the two nations alone, it does represent the controversy at large.

Israel's connection to the site is derived from the people's reverence and adoration for their country's history. To symbolize their deep respect for the past, the Jews have erected a series of monuments commemorating ancestry, spirituality, death, and nationalism. Israel's most significant structures are in alignment with one another, including The Old City, the Knesset, and Yad Vashem. Curiously, the Jerusalem Mountain's highest peak is also aligned on the same axis as these monuments, providing the ideal setting to site a commemorative structure.



FIGURE 3.23 KNESSET



FIGURE 3.24 THE OLD CITY



FIGURE 3.25 YAD VASHEM

3.12 Important Local Monuments

Established before the conclusion of the War of Independence in 1949, *the Knesset* (Figure 3.23) is the home of Israel's parliament and legislature. The structure symbolizes the establishment of a Jewish state and disunion from the British Mandate. Though the Knesset's location has changed several times since its inception, Israel's Parliament House is indelibly located in Jerusalem.⁵⁷

057

"History of the First Knesset." The Knesset (State of Israel).

The Old City of Jerusalem (Figure 3.24) is Israel's most sacred holy site. Cherished throughout history by all religions, "this was the place where the Jews built the Temple, where Jesus was crucified, and where Mohammed rose to Heaven."⁵⁸ The 0.9km² site features seven gates, thirty-four towers, a citadel, and four quarters: Armenian, Christian, Jewish, and Moslem.

058

"The Old City of Jerusalem" Ministry of Tourism, Government of Israel.

YadVashem (Figure 3.25) is Israel's preeminent Holocaust museum and memorial, dedicated to commemorating the six million Jews murdered during the Shoah. The complex symbolizes Jewish commemoration, documentation, research, and education.



FIGURE 3.26 YAD VASHEM, COMPLEX

PART FOUR

יָד וַשֵּׁם

YAD VASHEM

*“A memorial in the historical Jewish homeland
for Jewish victims of the Holocaust.”*

3.13 Yad Vashem

Established in 1953 by the Israeli Knesset, Yad Vashem documents the history of Jewish people throughout the Holocaust. The complex is located on Mt. Herzl on the Mount of Remembrance in Jerusalem, where Israeli leaders established a national cemetery for fallen soldiers and government officials. The 180 dunam (44.5 acre) memorial site incorporates the Holocaust History Museum, the Children’s Memorial, the Hall of Remembrance, and the Museum of Holocaust Art. The Yad Vashem experience is emotional, resulting from years of research into preserving the memory and story of each of the six million victims.

3.14 The Museum Complex

Moshe Safdie was tasked with the rebuilding of the Holocaust History Museum at Yad Vashem. The museum complex showcases original artifacts and personal possessions in 4,200 m² (45,000 ft²) of mostly underground exhibition space. The Holocaust Martyrs' and Heroes Remembrance Authority wanted Safdie to present a unique experience of the Holocaust from the Jewish perspective, focusing on individual experience and testimony.

“If we wish to live and to bequeath life to our offspring, if we believe that we are to pave the way to the future, then we must first of all not forget.”⁵⁹

The 180 m (590 ft) structure stretches across the Yad Vashem mountain ridge. The long, shaft-like prism is accompanied by auxiliary galleries that portray “the complexity of the Jewish situation during those terrible years.”⁶⁰ The network of underground galleries utilize skylight and diverse proportions to help highlight consequential moments of the Jewish narrative.

060
ibid.

059

*“The Holocaust History Museum.”
Yad Vashem The Holocaust Martyrs' and Heroes' Remembrance Authority.*



FIGURE 3.27 YAD VASHEM, MUSEUM ENTRANCE



FIGURE 3.28 YAD VASHEM, MUSEUM EXIT



FIGURE 3.29 YAD VASHEM, MUSEUM INTERIOR



FIGURE 3.30 YAD VASHEM, HALL OF NAMES

3.15 Hall of Names

The Hall of Names is a memorial to each and every Jew who perished in the Holocaust. Located towards the end of the museum, the circular hall houses the "Pages of Testimony." These records contain short biographies of each Holocaust victim, and commemorates those whose names will never be known. More than two-million pages are filled, with room for all six-million that died.

"And to them will I give in my house and within my walls a memorial and a name (a "yad vashem")... that shall not be cut off."⁶¹

061

ibid.

The ceiling of the memorial displays six-hundred photographs—a fraction of the men, women, and children murdered by the Nazis. These portraits are reflected in water in a cone carved out of the Jerusalem bedrock. "With its three areas for contemplation, preservation and research, the Hall of Names ensures that each and every Holocaust victim will be remembered and honored for eternity."⁶²

062

"Hall of Names."
The Rothschild
Caesarea Foundation.

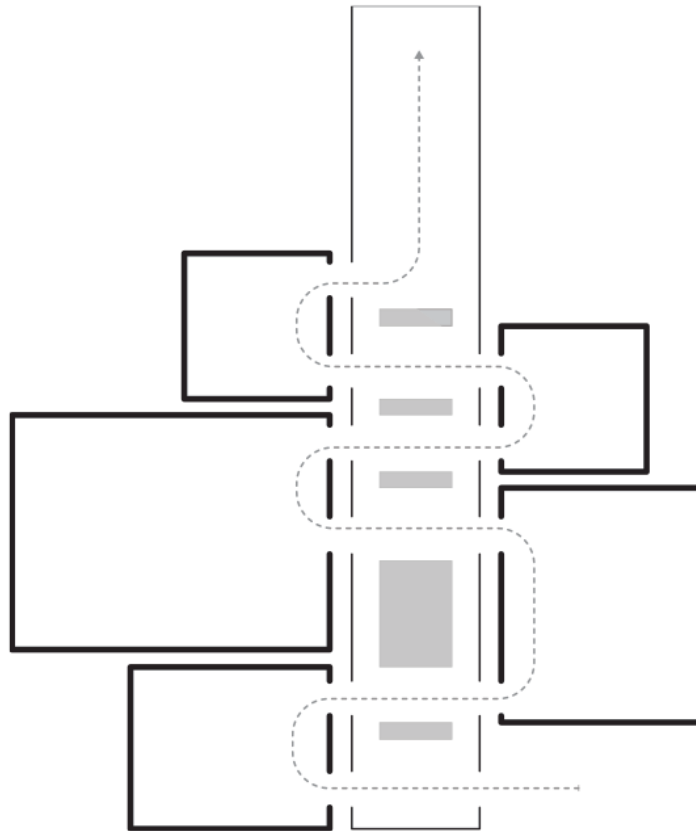


FIGURE 3.31 YAD VASHEM, CIRCULATION

3.16 Navigating the Galleries

The museum's narrative-based design leads its guests through the story of the Holocaust, embracing the accelerated timeline from the beginning to the end. Visitors are unable to travel in a straight path, and must 'snake' through the different galleries - further cementing the narrative's format and structure. Throughout their visit, guests are able to see either end of the prism,

symbolizing the past and a brighter future. Each gallery contains original artifacts, documentation, testimonies, film, literature, diaries, letters, and works of art collected in the aftermath of the Shoah. All help tell unique stories of Jews in Europe during that terrible time.

“The prism is therefore a longitudinal axis of historical memory, crossed by the visitors as they move from one gallery to another.” ⁶³

To conclude the poetic narrative, visitors ascend to a balcony overlooking the The Old City of Jerusalem and its Walls - the land millions of Jews died for.

063

“The Museum Complex: Galleries.” Yad Vashem The Holocaust Martyrs’ and Heroes’ Remembrance Authority.



Libab



WE ♥
YABLUS
EVER

NO FRONTIER

NO FRONTIER

NO FRONTIER

NO FRONTIER

NO FRONTIER



CHAPTER FOUR
PROGRAM ANALYSIS



FIGURE 4.1

MEMORIAL TO A BURIED VILLAGE

PART ONE

MEMORIAL & HISTORY
SUBJECTIVE REVERENCE

*“Men are swayed more by fear
than by reverence.”*

4.1 Memorial Design

Memorials are structures established to commemorate a person or event that influenced history profoundly. Recollection and remembrance is a deeply personal phenomenon, whereby individuals reconstruct their past based on present needs and context.⁶⁴ Familial, geographical, or religious groups/affiliation affect our understanding of the past, and therefore the significance of the intended tribute. Consequently, memorial-design attempts to separate collective memory from history - whereby eliminating prejudice in favor of or against an individual or group.

064

Savage, Kirk.
“History, Memory, and Monuments.” *University of Pittsburgh*.



FIGURE 4.2

BRUDER KLAUS KAPELLE

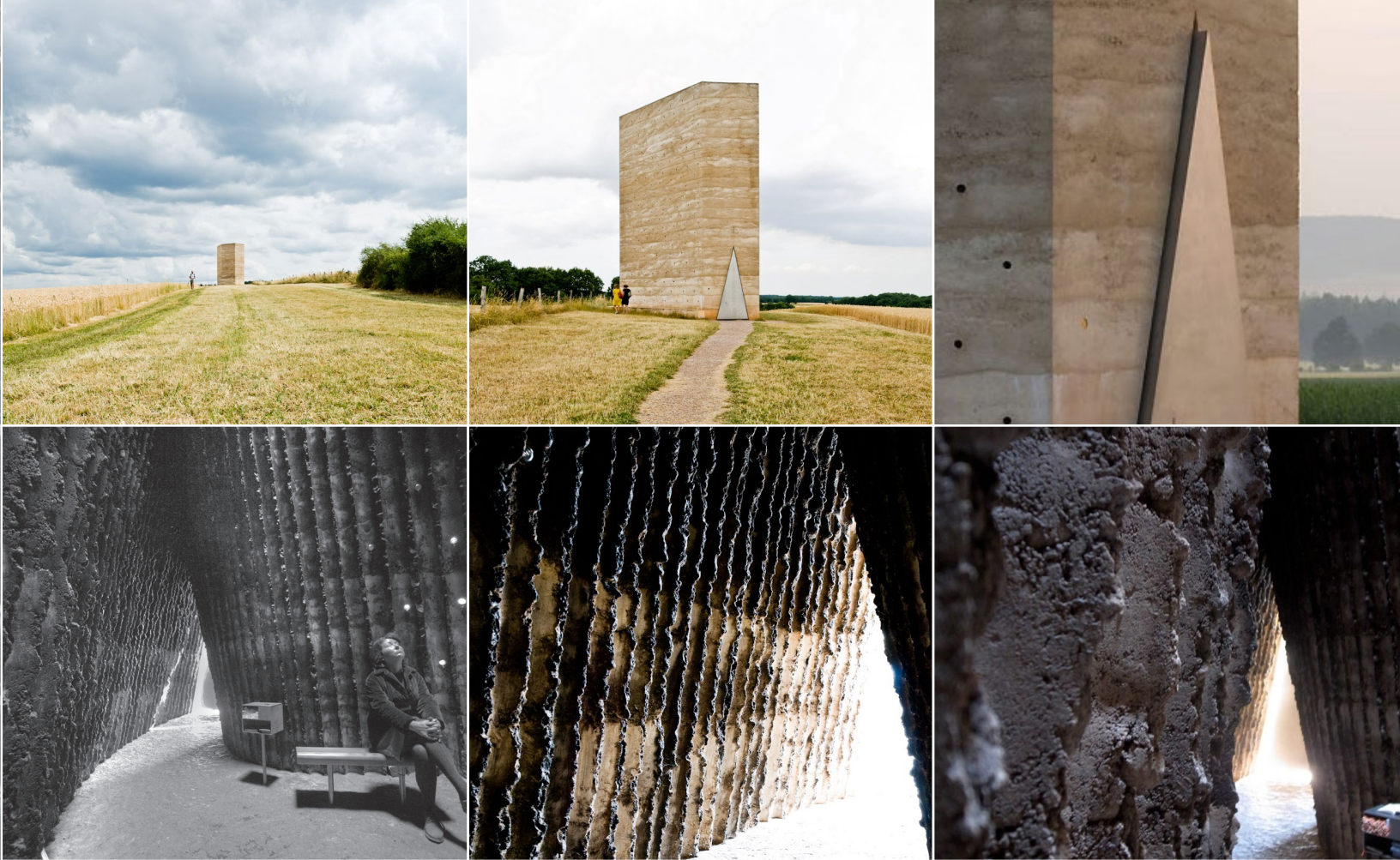


FIGURE 4.3 BRUDER KLAUS KAPELLE, ASSORTED VIEWS

4.2 Bruder Klaus Kapelle

Peter Zumthor’s deliberately enigmatic, Bruder Klaus Field Chapel, is a church constructed to honor the patron saint, Bruder Klaus of the 15th century. The obelisk-like structure evokes very somber and reflective feelings,⁶⁵ resulting from the structure’s external stimuli and foreboding appearance. Zumthor’s design is based on the phenomenological aspects of space, making it difficult to describe through photography or in writing.

065

Sveiven, Megan.
 “Bruder Klaus
 Field Chapel /
 Peter Zumthor.”
 ArchDaily.



FIGURE 4.4

ALESIA MUSEUM

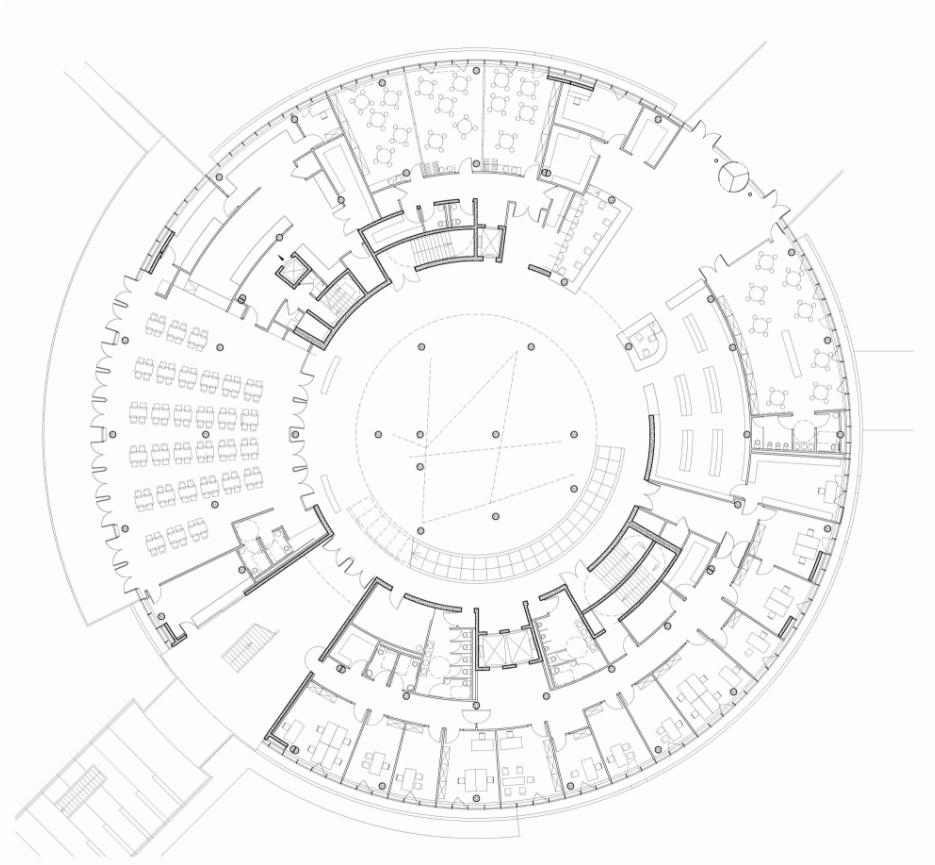


FIGURE 4.5 ALESIA MUSEUM, PLAN

4.3 The Alesia Museum

Designed by architect, academic, and theorist - Bernard Tschumi - the Alesia Museum commemorates the battle between Julius Cesar and the Gauls in central France 52 B.C. The project represents both participants in the war, highlighting the historical landscape which hosts a complete medieval town. The circular plan provides the viewer with an uninterrupted 360 degree view of the site and recreated battlements below.



FIGURE 4.6 ISRAEL & PALESTINE'S TIMELINE

4.4 Remembrance

“Subjective Reverence” refers to an individual’s admiration and respect towards historical events, people, and locations. The visual timeline depicted in Figure 4.6 portrays Israel’s (top) and Palestine’s (bottom) subjective reverence towards their unique historic timelines. Viewing the disparate narratives side-by-side engenders appreciation and understanding towards their intertwined history.



The requisite lesson provoked by Israel and Palestine's adjacent timelines is remembrance. Israel's contemporary history permeates positivity, optimism, and confidence. Conversely, Palestine's present-day chronicle is fragmented by external pressure from world leaders, discrimination, and unbridled terrorism. The two nations may share the middle eastern landscape, but their current circumstances could not be more divergent and dissimilar.

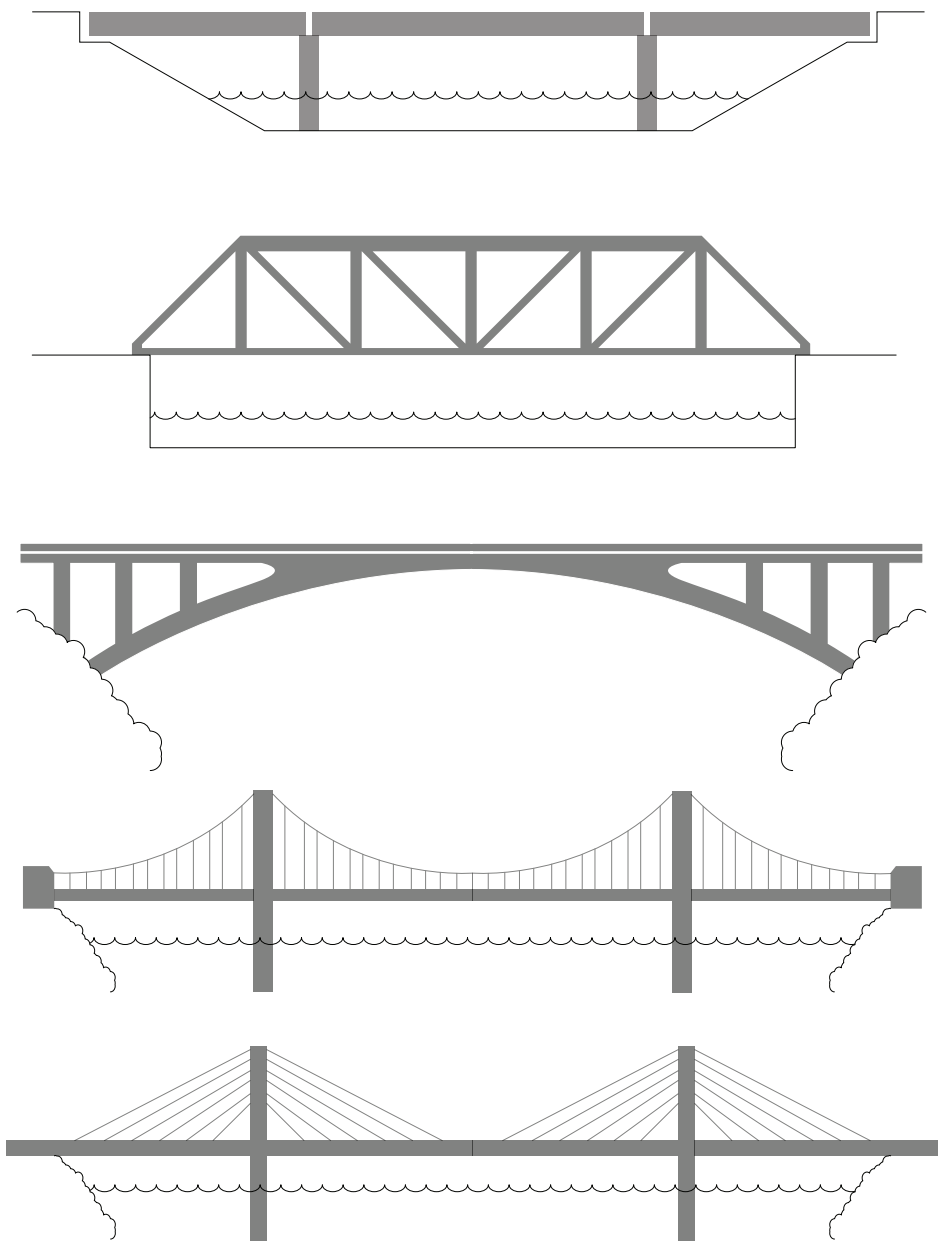


FIGURE 4.7 BRIDGE DESIGN

PART TWO

ESTABLISHING BONDS THROUGH STRUCTURAL PLATFORMS

*“We build too many walls
and not enough bridges.”*

4.5 Bridge Case Studies

By its very definition, a bridge is “something that is intended to reconcile or form a connection between two things.” Oftentimes this is materialized as a structure carrying a path over an obstacle like a river, railroad, or valley. Bridge construction presents a unique design challenge; utilizing individualized schemes to provide the best solution for a given setting/environment. As shown in Figure 4.7, there are five notable bridge types: beam, truss, arch, suspension, and cable-stayed. Engineers must consider many factors when spanning these structures over different environments, such as what materials are available and its intended use.



FIGURE 4.8

HENDERSON WAVES BRIDGE



FIGURE 4.9 HENDERSON WAVES BRIDGE, ASSORTED VIEWS

4.6 The Henderson Waves Bridge

The Henderson Waves Bridge is a 274 meter-long (900 ft) pedestrian bridge in Singapore that connects Mount Faber Park to the Telok Blangah Hill Park. The structure spans thirty-six meters (120 feet) above Henderson Rd., resulting in the highest pedestrian bridge in the country. The bridge is notable for its artistic, wave-like structure which acts as an overhang for pedestrians crossing the undulating overpass. Despite its complicated appearance, the Henderson Waves Bridge is a simple beam bridge; the wave-form provides aesthetic and non-structural support.



FIGURE 4.10 PEDRO E INÊS BRIDGE



FIGURE 4.11 PEDRO E INÊS BRIDGE, ASSORTED VIEWS

4.7 Pedro e Inês Bridge

The Pedro e Inês Bridge was designed by Cecil Balmond in Coimbra, Portugal. Spanning the Mondego River, the footbridge opened in 2007, and provides foot and bicycle access to the two parks located on each side of the river. Balmond's design references one of Portugal's greatest 14th-century love stories, whose star-crossed lovers were forbidden from being together. This story is epitomized where the two dislocated wooden passages are joined together by a small, square viewing platform. Despite their displaced appearance, each walkway supports the other.



FIGURE 4.12 SZÉCHENYI CHAIN BRIDGE



FIGURE 4.13 SZÉCHENYI CHAIN BRIDGE, ASSORTED VIEWS

4.8 Széchenyi Chain Bridge

One of Budapest's most famous landmarks, the Széchenyi Chain Bridge is a suspension bridge that spans the River Danube, connecting Pest with Buda. The stone bridge is 375 meters (1230 feet) long and 16 meters (52 feet) wide, and at the time of its construction, held the record for the second-largest span in the world. This marvel of engineering is supported by two river piers, towering 48 meters (160 feet) in the air; decorated with the Hungarian Coat of Arms. The Chain Bridge sparked the economic revival of Hungary and led to Budapest's golden century.

FIGURE 4.14 PREFATORY SECTION



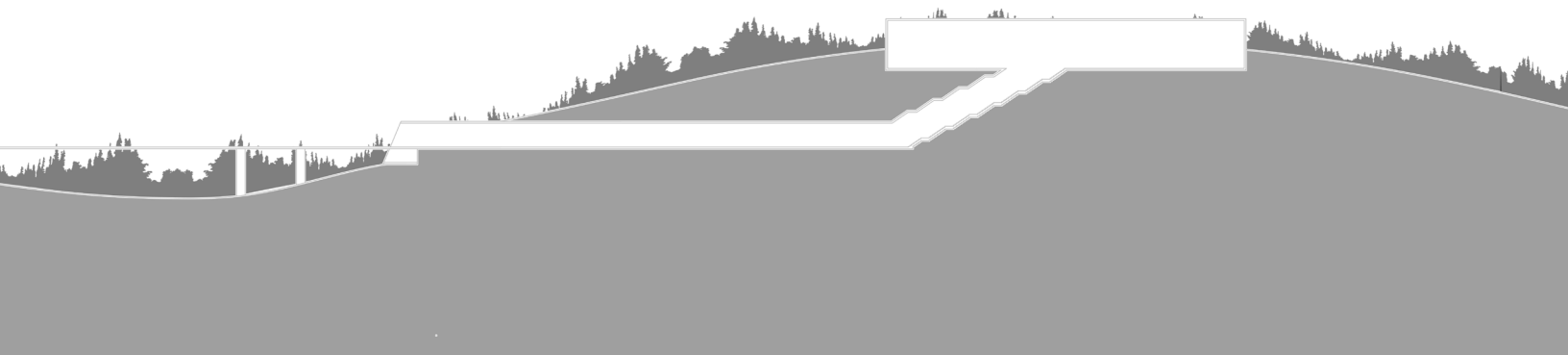
PART THREE

**INCEPTIVE
ARRANGEMENT**

*"The least initial deviation from the truth
is multiplied later a thousandfold."*

4.9 Introducing Neutrality

Adapting the tumultuous relationship between Israel and Palestine into a phenomenological structure must follow a complex system of beliefs. The premise of the thesis focuses primarily on an impartial or unbiased representation of this unpleasant relationship. The architecture of neutrality manifests itself through controversy: the beauty of imperfection and the beauty of conflict. The chosen site's twin peaks symbolically portray the 19th-century hostility, and establishes an objective basis for further development.



4.10 Making the Case for a Circular Plan

Throughout history, circles have been used to symbolize a multitude of theories and beliefs that differ as a consequence of culture and religion. This round plane is significant because of its idiosyncratic nature: the circle has no beginning or end.



FIGURE 4.15 CIRCLE AS TIME, CYCLE, AND ENCLOSURE

Circles as Time. Our ancient kin observed a circular aspect to the cycles of time, specifically in the movements of the seasons. In waltzing rhythms of time, and with the revolutions of the earth 'round the sun, we can feel the same kind of evolution in annual time and seasons - just as our forefathers and mothers did.

Circles as a Cycle. The Circle represents The Infinite; Eternity. It also represents the flow of Time and the ever repeating Cycles of Eternity which have no beginning and no end; cycles which, when complete, flow back into themselves and repeat anew. We find this cyclical Truth also represented, symbolically, by the Ouroboros: the serpent swallowing its own tail.

Circles as a Boundary/Enclosure. The Circle is the most common and universal signs, found in all cultures. It is the symbol of the sun in its limitless or boundless aspect. It has no beginning or end, and no divisions, making it the perfect symbol of completeness, eternity, and the soul. The circle is also the symbol of boundary and enclosure, of completion, and returning cycles.

Many conclusions can be drawn from the circle's history and symbolic meaning. Universally however, the circle is recognized by the absence of direction; with no beginning or end, the circle becomes a direct symbol for neutrality. Given the choices for establishing the foundation of the design, the circle provides the most appropriate structural implications for spaces pertaining to both Israel and Palestine.

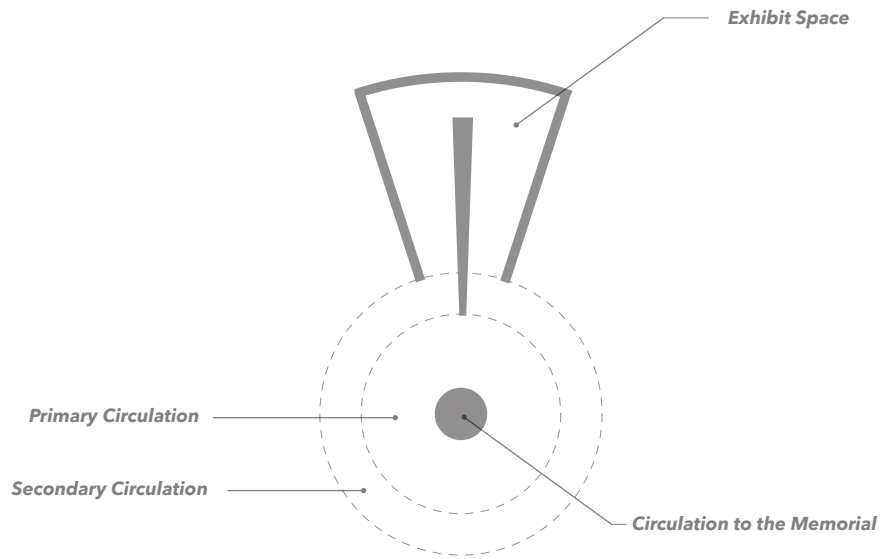


FIGURE 4.16 CIRCULATION HIERARCHY

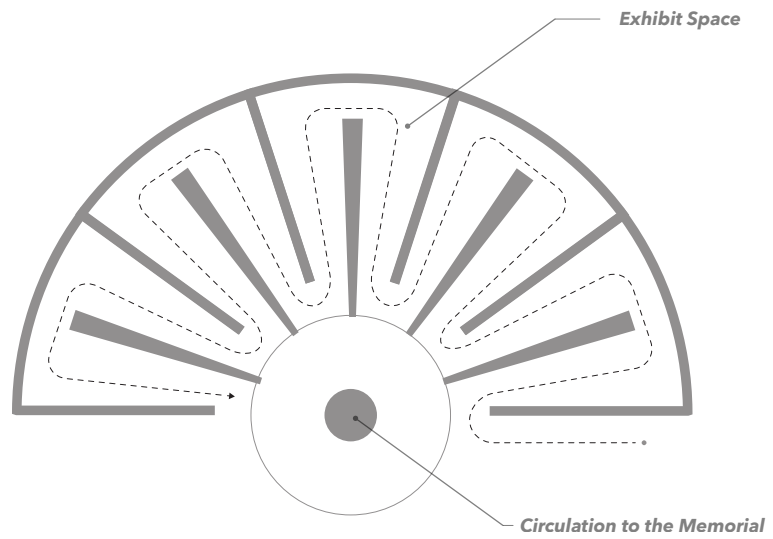


FIGURE 4.17 CIRCULATION RIBS

4.11 Developing the Heirarchy

The intrinsic nature of a circular plan makes it difficult to establish hierarchy. The occupant understands a rectilinear path as this arrangement is considered commonplace, but more importantly inherently illustrates a narrative's structure. As shown in Figure 4.16, a circular plan can be divided by a series of alternating ribs to setup a hierarchical circulatory pattern. This system creates natural spaces along the occupant's path, which can be further developed through material choice and tectonic details.

4.12 Developing the Circulation

Multiplying the number of ribs permeating throughout the structure institutes a snake-like path, not unlike the circulatory arrangement seen in Yad Vashem. Despite the circle's absence of orientation, these ribs support the chronological narrative of the Israeli-Palestinian conflict. The central spine, and circulation to the memorial, establishes an origin by which spaces can germinate; separating distinctive spaces in a natural manner.

4.13 Moving Through the Structure

Despite Israel and Palestine's unwavering and unique perspectives of the conflict, separating their views or judgement would destroy the intent of the thesis. It was determined early on that the two mountain peaks inherently symbolize the dissenting nations, however programmatic concerns must be taken into account before moving forward.

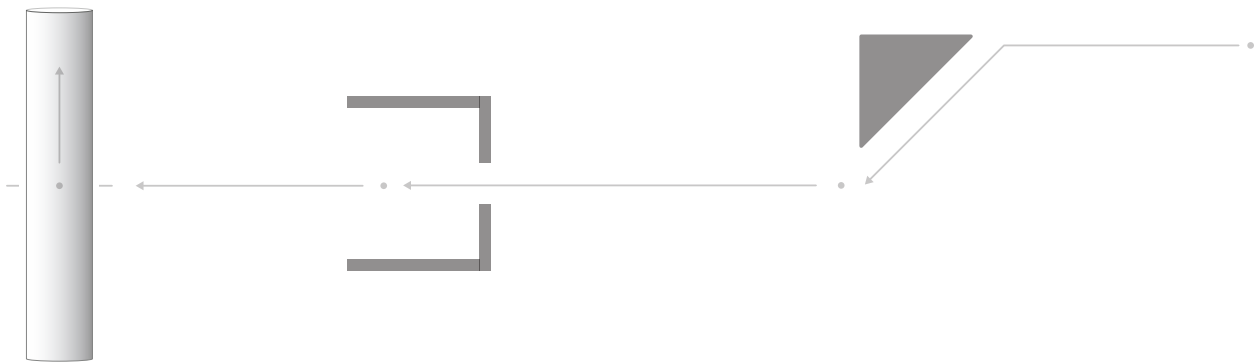


FIGURE 4.18 CIRCULATION PART I

The landscape's natural urban separation distinguishes one peak from the other. By using a series of thresholds, the design can be divided physically and symbolically - establishing one peak as secular and the other sacred.

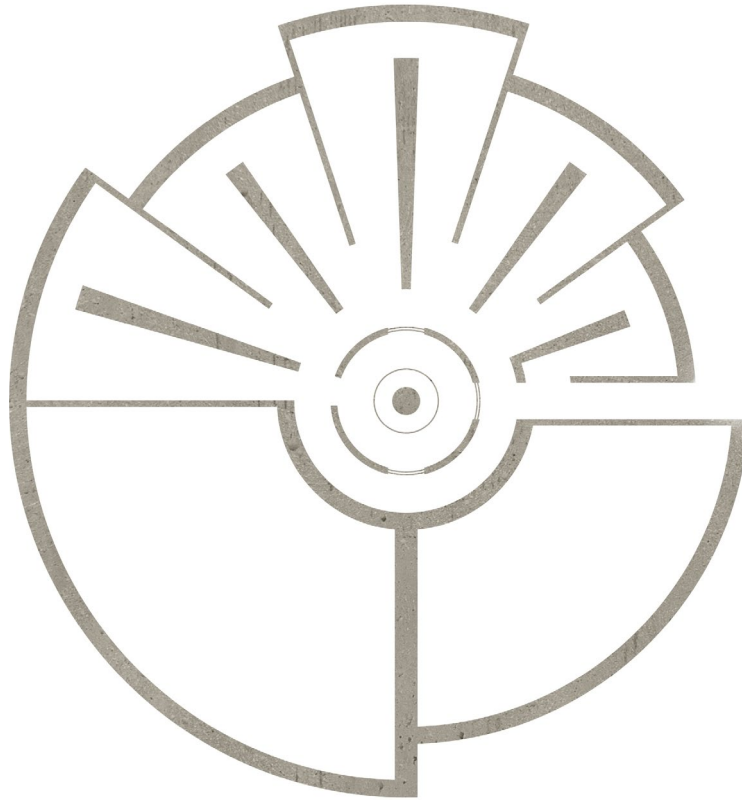


FIGURE 4.19 PREFATORY PLAN

The circular plan is therefore a cyclical axis of time, repetition, and a sacred boundary - separating the museum from its secular needs on the second peak of the mountain.



FIGURE 4.20 MONOLITHIC STAIRCASE



FIGURE 4.21 PUNCTURING THE MOUNTAINSIDE

4.14 Experiential Spaces

In light of Peter Zumthor's, "Bruder Klaus Kapelle," the three-dimensional exploration of form should follow the cultural and aesthetic investigation discussed up to this point. Defining the phenomenological objectives for this structure is complex. The design utilizes the occupant's sensory experience to capture the historical remnants of light and movement as they travel through the museum.

As shown in Figure 4.20, the user ascends a contrastingly-lit monolithic staircase. The degree of difference in luminosity emphasizes the significance of the staircase and where it leads. Situated on the origin of the circular plan, the staircase also acts as a point of reference for the museum's occupants.

Jerusalem's natural landscape affects how the structure is positioned, and how the occupant interacts with the terrain. The bridge depicted in Figure 4.21 conveys an initial response to puncturing and penetrating the mountain. Visitors are exposed to the conflict through this interminable outlook - with views of not only Israel, but the Security Fence, and even Palestine itself.





CHAPTER FIVE
**QUANTITATIVE
PROGRAM DEVELOPMENT**

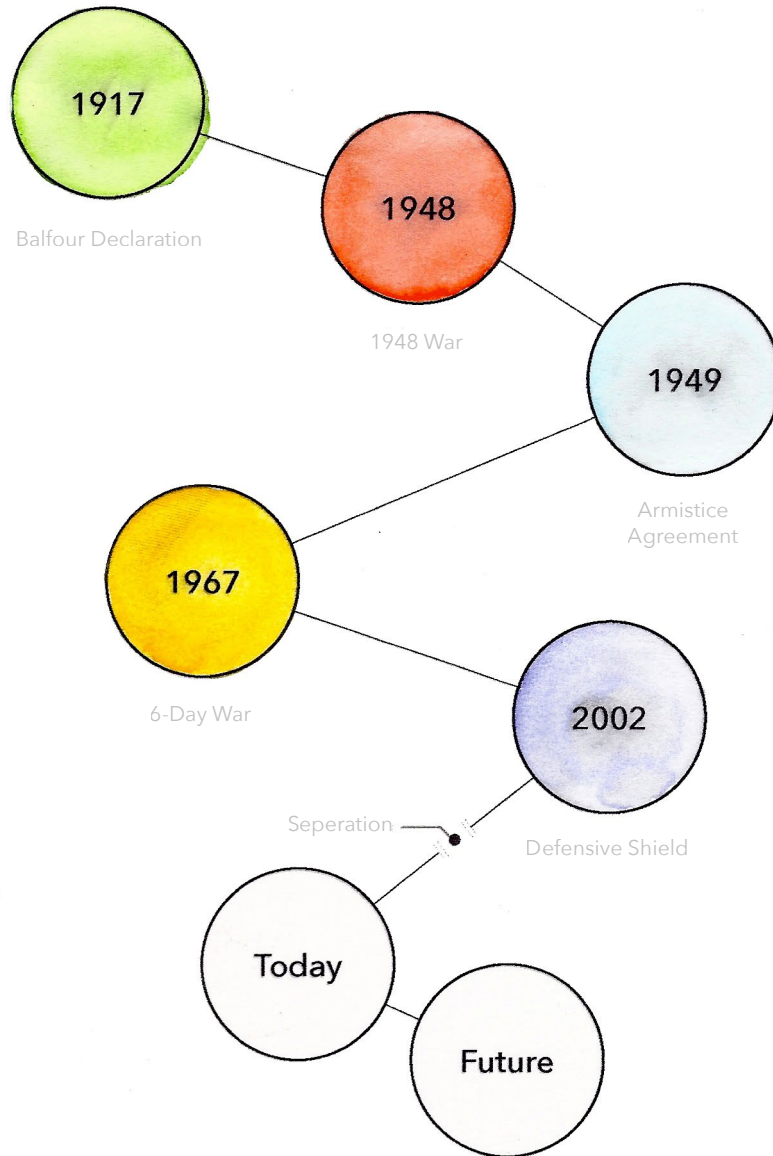


FIGURE 5.1 ISRAEL AND PALESTINE'S HISTORY

NAVIGATING TANDEM PASTS

*“Those who don’t know history
are destined to repeat it.”*

5.1 Joint History

Despite Israel and Palestine’s resolute opinions of their half-century dispute, understanding pivotal moments of their joint history is crucial to the development and success of the thesis. The cultural debate revolves around five of the regions most chronicled events: The Balfour Declaration (1917), The War of Independence (1948), The Armistice Agreement (1949), The 6-Day War (1967), and Operation Defensive Shield (2002). Understandably both nations exhibit contrastive views of these events, and interpret the consequences as underserved punishment. It is imperative the program present their individual views from an unbiased and historically accurate perspective.

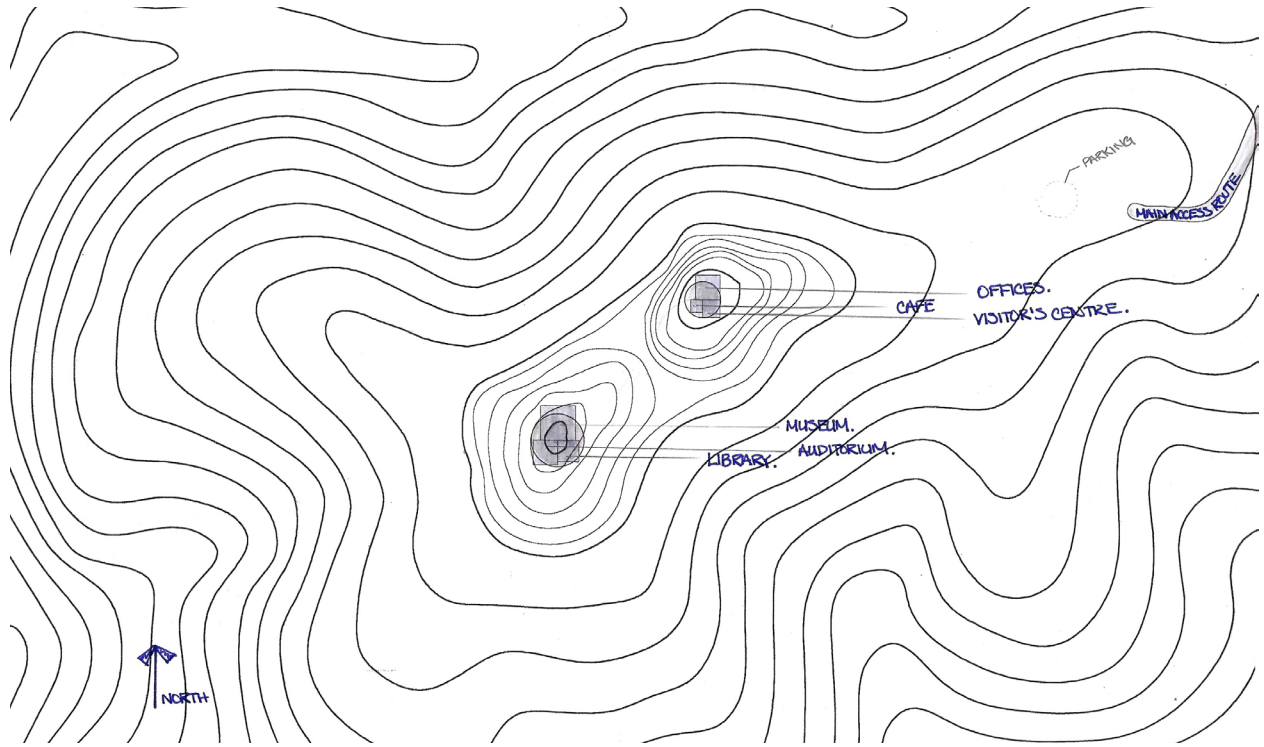


FIGURE 5.2 PLACING THE PROGRAM

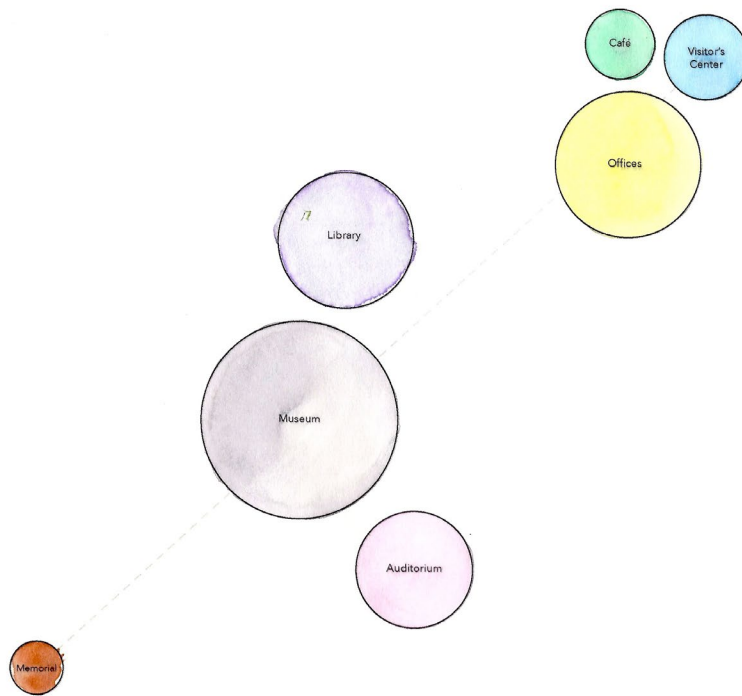


FIGURE 5.3 DEVELOPING THE PROGRAM

5.2 Placing the Program

The site's elaborate and unusual terrain has a significant impact on the program's organization. Choosing which peak is classified as sacred vs secular is easily defined by accessibility; as shown in Figure 5.2, the site features one access road for both automotive and pedestrian traffic. This existing path can be extended to the eastern peak economically and naturally, whereas the western peak remains remote out of reach.

5.3 Developing the Program

The program is organized hierarchically based on the conflict's narrative. The occupant moves through three categories of spaces: administrative (or what has been referred to as "secular" up to this point), pedagogic, and devotional (the two of which form the "sacred" classification). These categories are experienced as an evolving account of the Israeli-Palestinian dispute. The nature of the museum's program dictates general spaces that are required for day-to-day operation - including offices, storage facilities, and a visitor's center. The expositional requirements allow for more flexibility, including an auditorium, library, assorted galleries, and the memorial.

5.4 Traversing Twin Peaks

With the program extending across the mountainside, a bridged-connection is used to provide accessibility to both peaks. This spanned structure allows all visitors to experience the hilly landscape, without the need to interact with its rough, uneven, and dangerous surface. The circulatory system for the structure is therefore dependent on the axis created by the two mountain tops - establishing a bilinear path by which the occupant travels into and out of the structure.

Despite the site's sprawling landscape, the scale of the structure must remain appropriate for its function. Due to the large span between the two mountain peaks, it is advantageous to separate the museum into a string of building, creating a complex by which the narrative can be experienced. The landscape is recognized by both nations as contested terrain, and by extension a living and ever-changing exhibit. Housing the complex on separate foundations opens the gap between the mountains, creating an ideal viewing platform and utilizing the mountainous topography; penetrating and piercing the site, creating a series of unique thresholds.

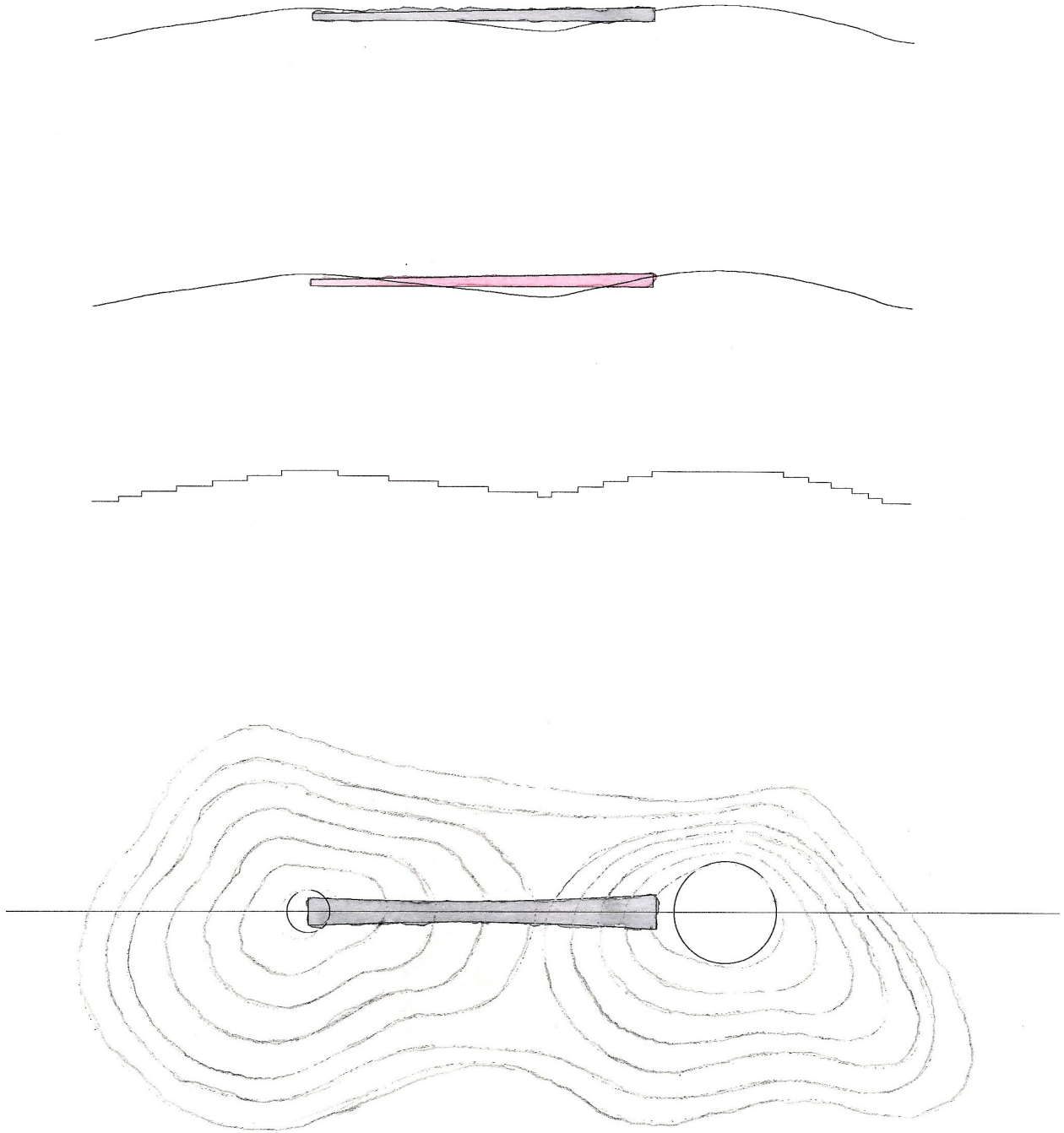


FIGURE 5.4 SITE, PLAN, AND SECTION

5.5 Macro Design Analysis

The overall design goals for the thesis are centered around the occupant's experience. Figure 5.5 diagrams the occupant's journey through the museum complex, which is defined by four contrastive gestures: relief, axis, puncture, and ascent. These movements and transitions help establish a foundation for the museum's design.

Relief. The descent into the mountain is symbolized architecturally by a structural element that peels above the earth. It symbolizes a feeling of reassurance, and appears carved or molded so as to stand out from the mountain's rough surface. This component not only acts as the entrance to the complex, it represents the narrative's origin.

Axis. As discussed earlier in the chapter, the complex is oriented on an east-west axis defined by twin mountain peaks. This line creates a central column in the structure, to which other parts are connected. The axis establishes a circulatory backbone, by which occupants can travel to-and-from the museum without interrupting supplementary exhibits.

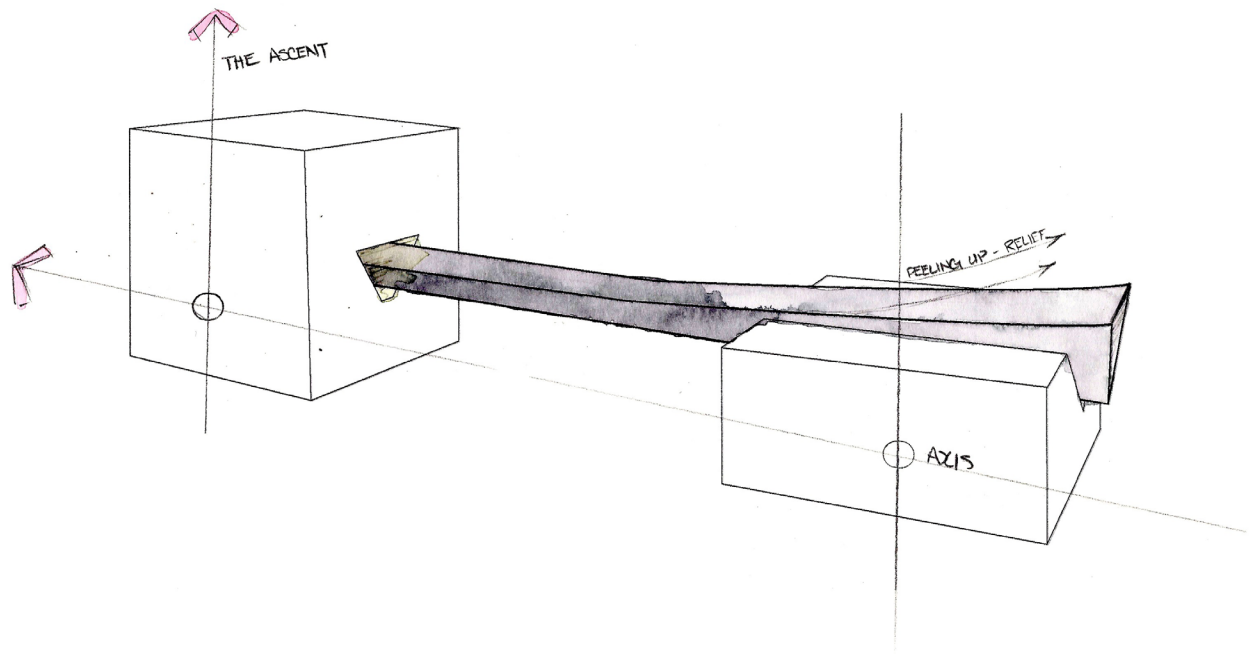


FIGURE 5.5 DEVELOPING THE FORM

Puncture. Due to the variance in height between the two mountain tops, the axis naturally penetrates the second peak. Symbolically, this perforation represents a sudden change in mood or feeling, and establishes a threshold between outlook and understanding.

Ascent. Perhaps the most significant gesture, the ascent epitomizes the museum's climax and conclusion. The vertical rise is only experienced on one occasion, at the core of the second peak, and navigates the occupant to a place of commemoration, remembrance, and worship.

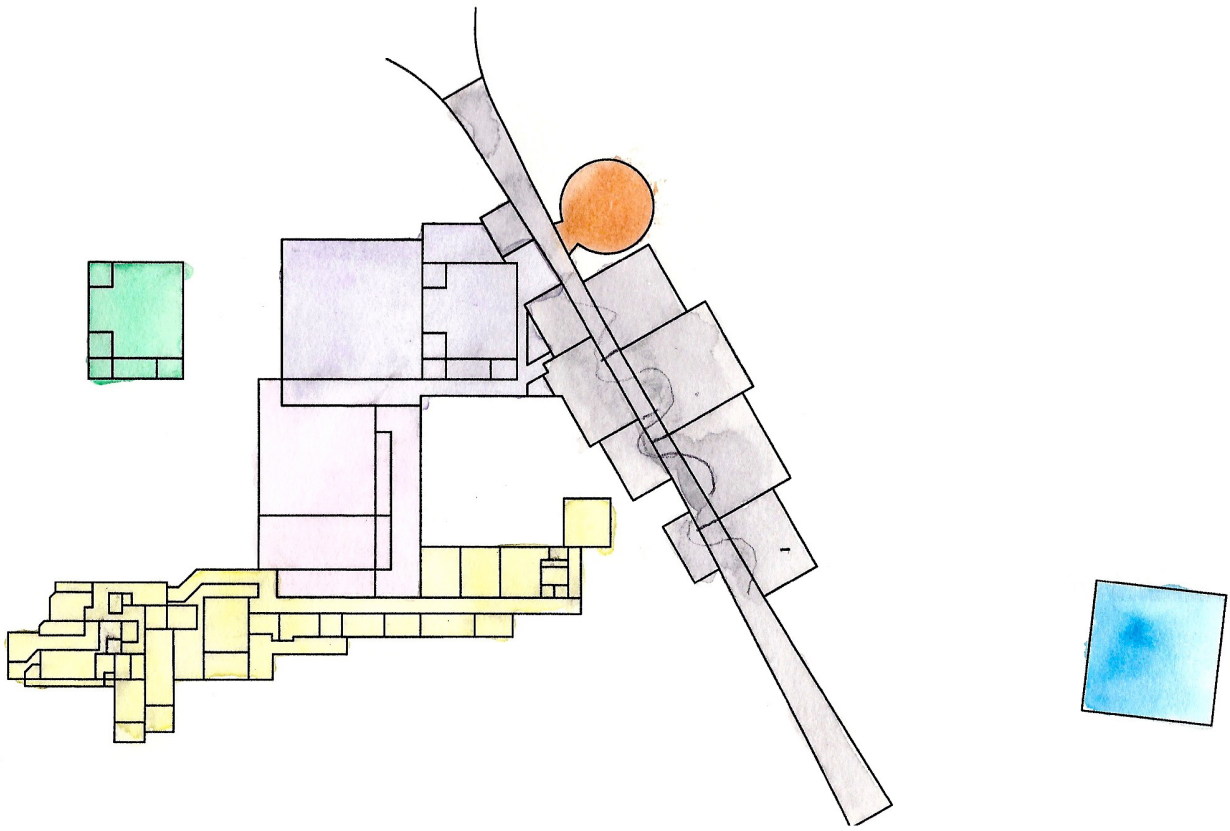


FIGURE 5.6 YAD VASHEM, PROGRAM

5.6 Scaling the Program

With the design foundations established, the scale of the museum complex needed to be considered. Figure 5.6 depicts Yad Vashem's spatial arrangement, color coded to identify the complex's spacial requirements. The entirety of Yad Vashem's grounds are split by programmatic requirements, including offices, storage facilities, library, visitor's center, the museum, and a memorial. Safdie's project totals 190,521 square feet, and offers more than a conceptual case study of design and intent. The museum complex was developed to provide visitors with an exceptional experience of the Holocaust, while maintaining realistic expectations of size for running a structure of this scale.



CHAPTER SIX
SCHEMATIC DESIGN



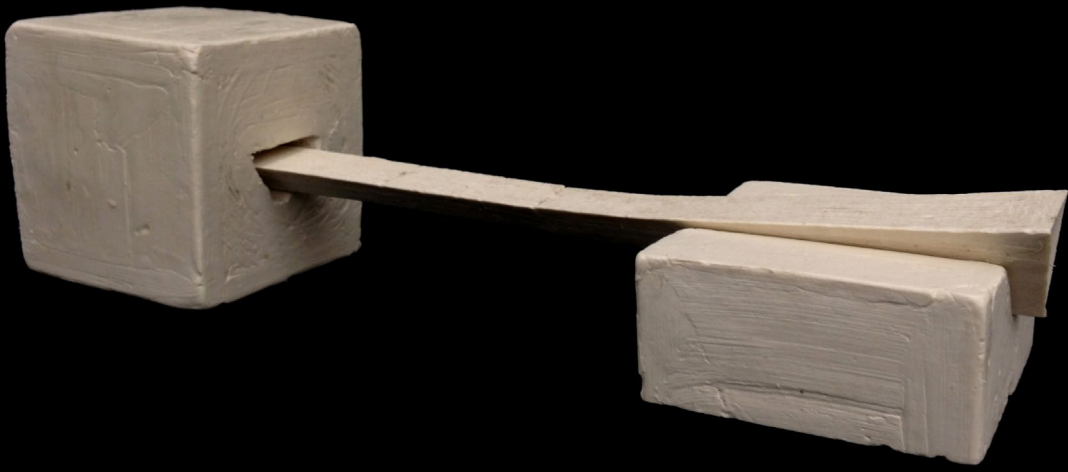


FIGURE 6.1 PLASTER MODEL, FORM

PART ONE

**HALLOWED ADMITTANCE
A SACRED ENTRANCE**

*“He had the vague sense of standing on a threshold,
the crossing of which would change everything.”*

6.1 Designing the Entry

The entryway to the museum complex is a consecrated detachment from what visitors consider familiar and commonplace. Its purpose is twofold: (1) to introduce the Israeli-Palestinian narrative, and (2) foster venerated awareness and understanding for the museum’s grounds. Taking this into consideration, the design of the entryway should express sacredness and history; standing as a monument to the conflict’s introduction. The entryway serves the practical purpose of providing access to the bridge, which connects the two disparate mountain peaks.

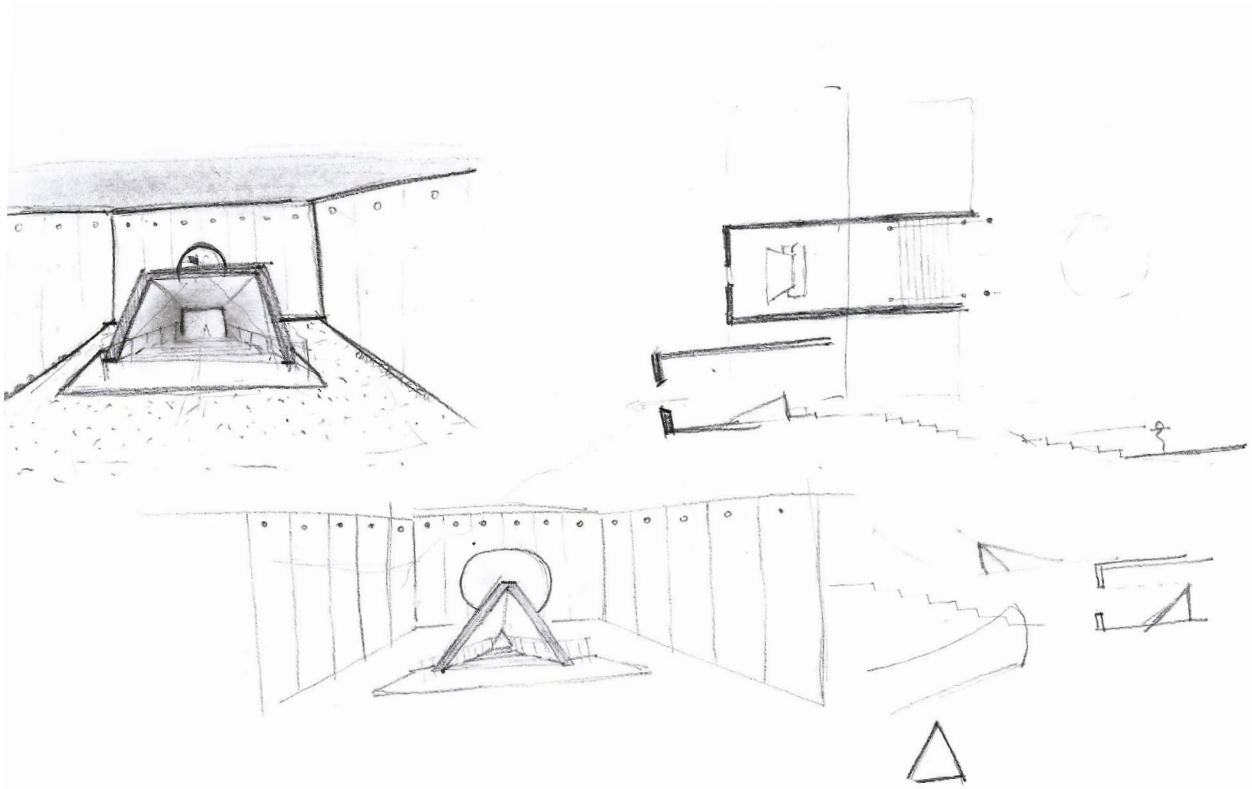


FIGURE 6.2 ASSORTED ENTRY SKETCHES

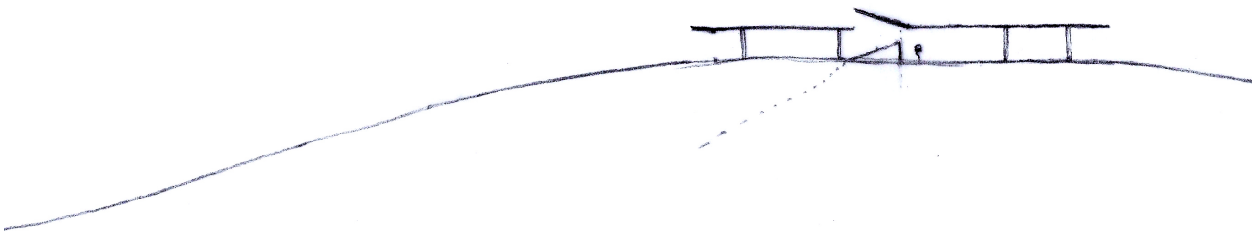


FIGURE 6.3 PREFATORY ENTRY SECTION

6.2 Symbolizing the Past

The initial response to the entry's design sought to utilize basic shapes to create a monumental entrance. As shown in Figure 6.2, the triangle was selected to symbolize change and create a contrast with the rectilinear platform. Surrounding the triangular structure is a wall constructed of the same materials as Israel's Security Fence. This enclosure is designed to confront the occupant with the controversy, and control the amount of natural light that enters the structure. To the rear of the edifice is a circular opening, highlighting the museum on the second mountain peak. The circular aperture is positioned to conceal the occupant's view of the bridge, coercing them to descend into the mountain to proceed.

The triangular entryway is just a small part of the overall entrance structure. This introductory framework houses offices, a visitor's center, and a café. More importantly, it provides access to the bridge which leads to the second half of the complex. As shown in Figure 6.3, skylights and overhangs control and diffuse sunlight to illuminate the structure naturally.

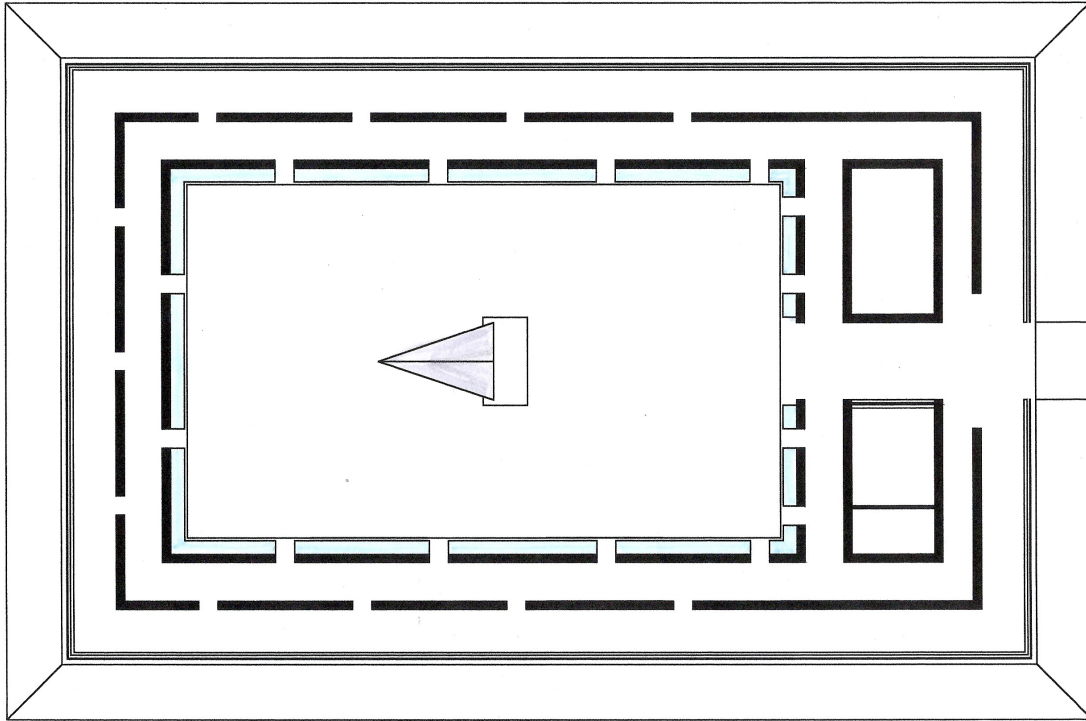


FIGURE 6.4 SCHEMATIC PLAN

6.3 Creating Sacred Ground

One of the tentpole objectives for the entrance pavilion is to instill a sense of reverence towards the museum's grounds. In doing so, what is held within garners spiritual and sacred prestige. Figure 6.4 illustrates the entry pavilion as it ventures towards achieving this goal. The design is emblematic of a fortress or tomb, immediately shifting the occupant's state of mind as they approach the grounds. This is a place of loss, the soil of war, and an opportunity to learn.

The pavilion is raised on a plinth, which immediately creates a separation from the external terrain. Upon ascending to the upper surface of the pavilion, visitors are met with a network of hallways and openings which prolong the exploration of the entry's grounds. The pavilion's center houses the garden and entry to the bridge, disconnected from the outer grounds by a perimeter of water. Crossing the garden's outside edge acts to purify the occupant before they are permitted to journey to the second, sacred mountain peak.

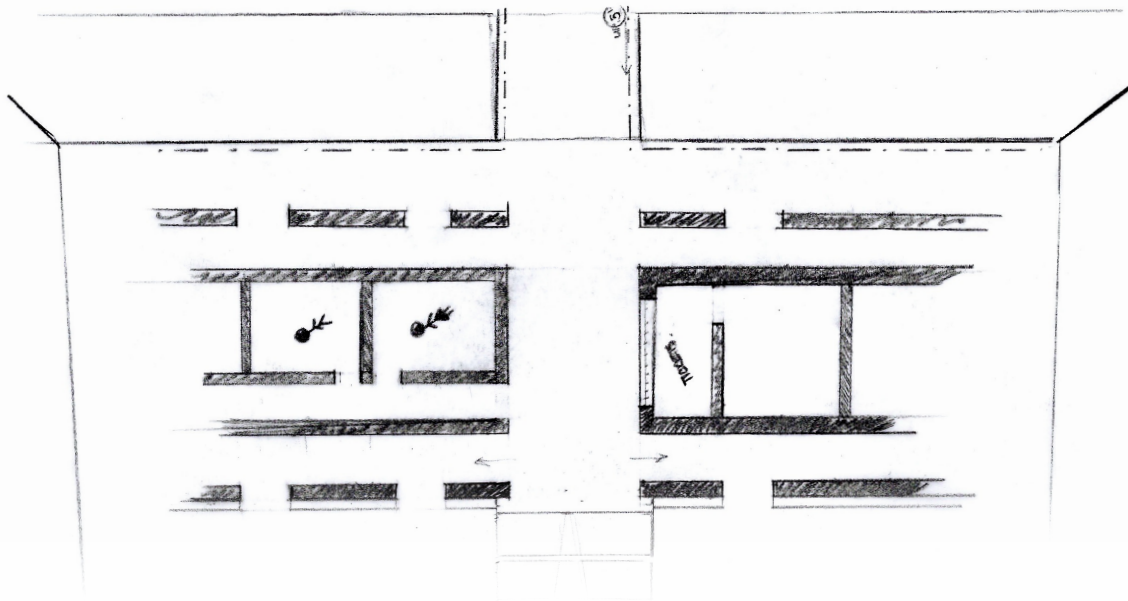


FIGURE 6.5 SCHEMATIC PLAN, SKETCH

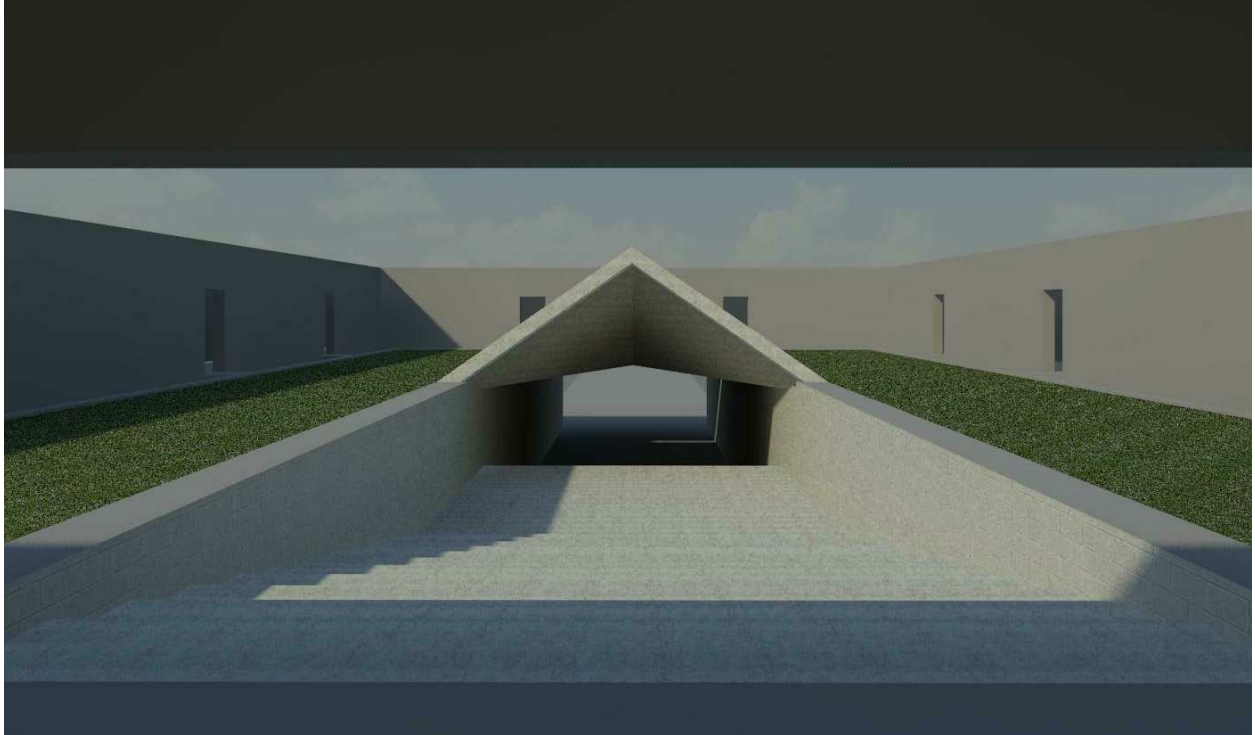


FIGURE 6.6 SCHEMATIC ENTRY, TRIANGLE



FIGURE 6.7 SCHEMATIC ENTRY, PEEL

PART TWO

**LANDSCAPE & STRUCTURE
AMALGAMATED**

*“There is a language beyond human language,
an elemental language, one that arises from the land itself.”*

6.4 Landscape & Structure

As discussed in Chapter Three, the holy city of Jerusalem engenders friction between Israelis and Palestinians alike. It is therefore pivotal to introduce visitors to the contested landscape in a monolithic and intractably indivisible manner. This fusion of landscape and structure creates an imposing yet majestic threshold, through which the occupant gains access to the remaining exhibits and memorial. The descent into the landscape brings on an uneasy and tense response from the occupant, further removing them from their comfort zone and introducing the conflict without bias.

6.5 Penetrating the Mountainside

The mountainous terrain introduced a labyrinth of design challenges on the second mountain peak. With the height increasing nearly fifteen feet above the eastern peak, the primary response is to tunnel into the mountainside. Establishing an underground structure, without altering the existing landscape, involved verifying the site's topography in length, breadth, and depth. Decreasing in elevation increased the square footage concealed by earth; conversely, increasing in elevation decreases the square footage concealed by earth. Figure 6.11 depicts how a circular structure peeks out of the mountainside, providing an opportunity for natural light to penetrate the otherwise cavern-like structure.

The western peak's section provides details about the structure's program and circulation. The main floor houses the museum, with additional storage directly underneath. Sitting atop the uppermost section of the craggy landscape is the memorial, highlighted with panoramic views of Jerusalem, Palestine, and Israel's Security Fence.

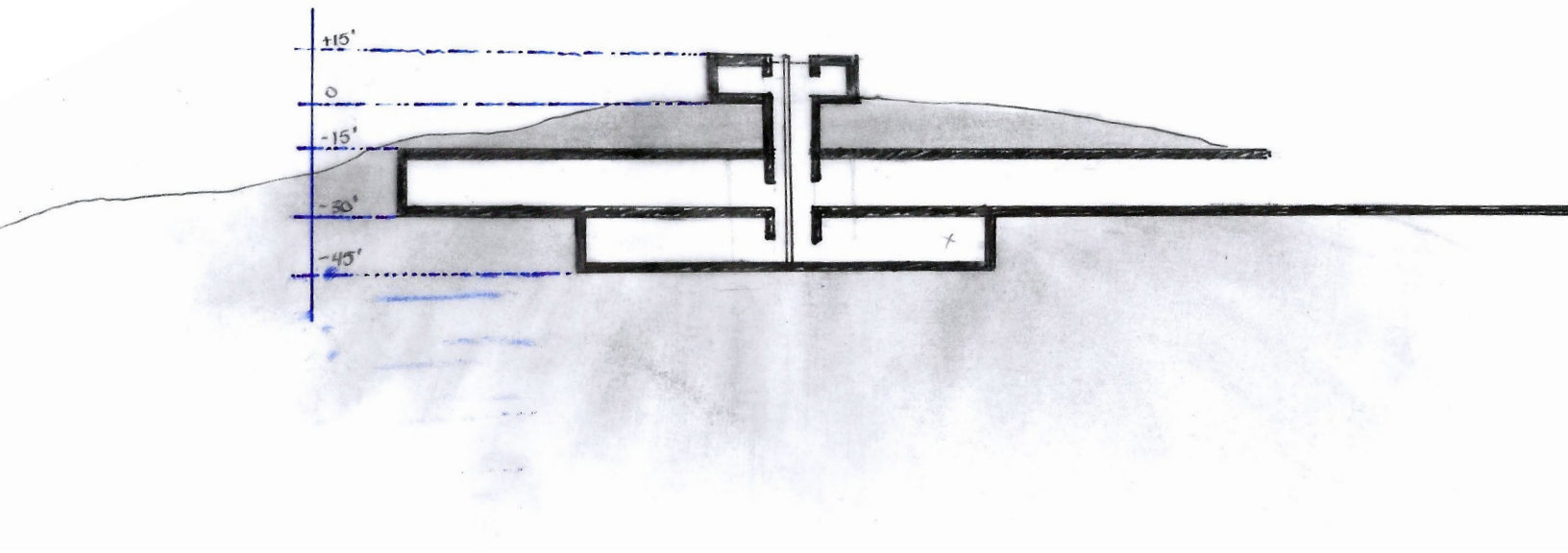


FIGURE 6.8 SCHEMATIC SECTION, VERIFYING HEIGHTS

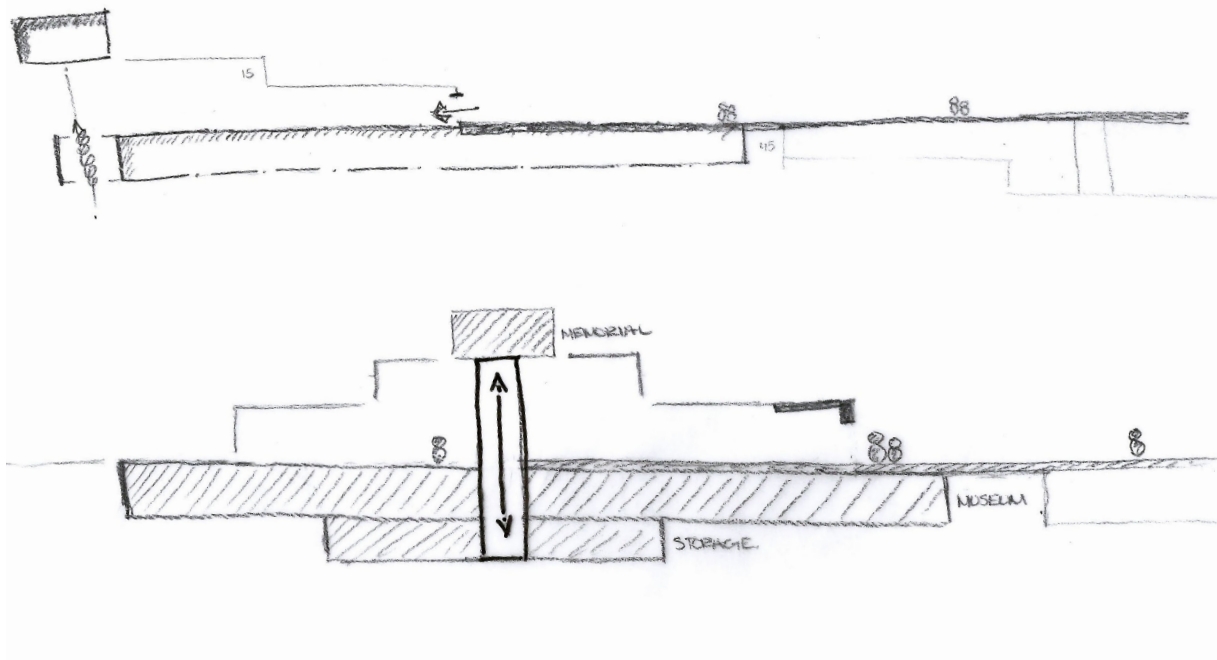


FIGURE 6.9 SCHEMATIC SECTION, VERTICAL CIRCULATION

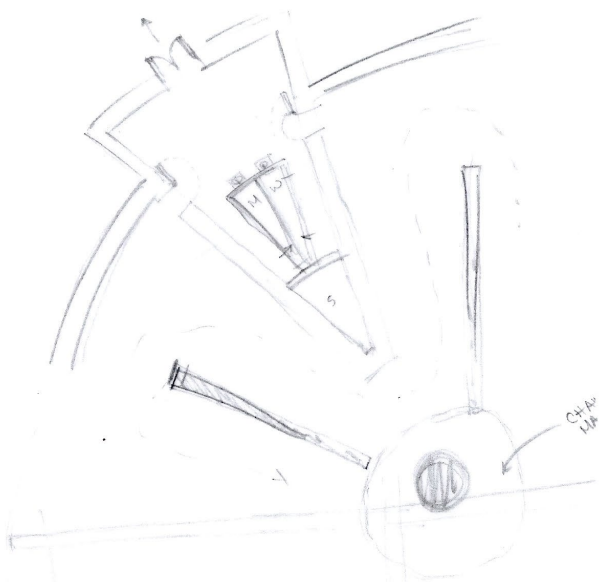
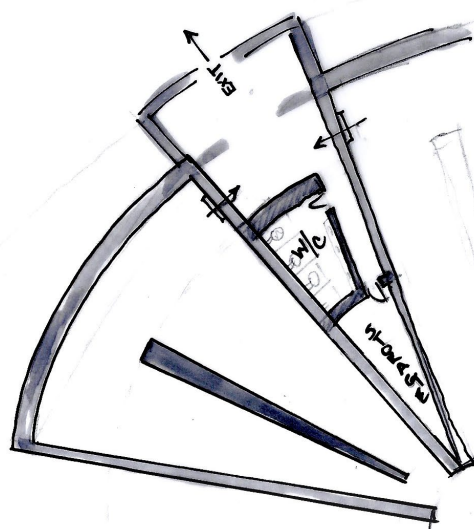
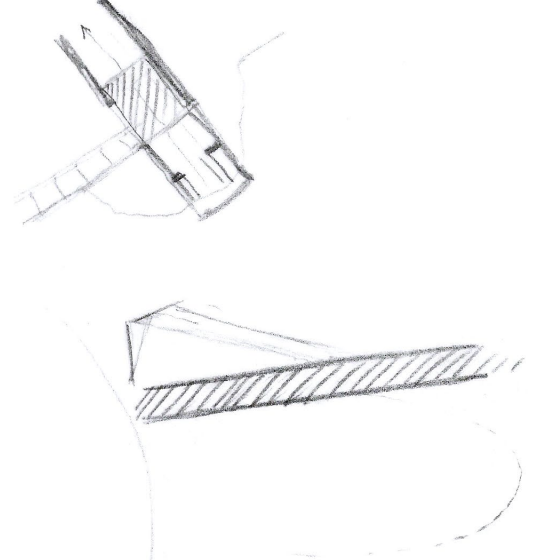
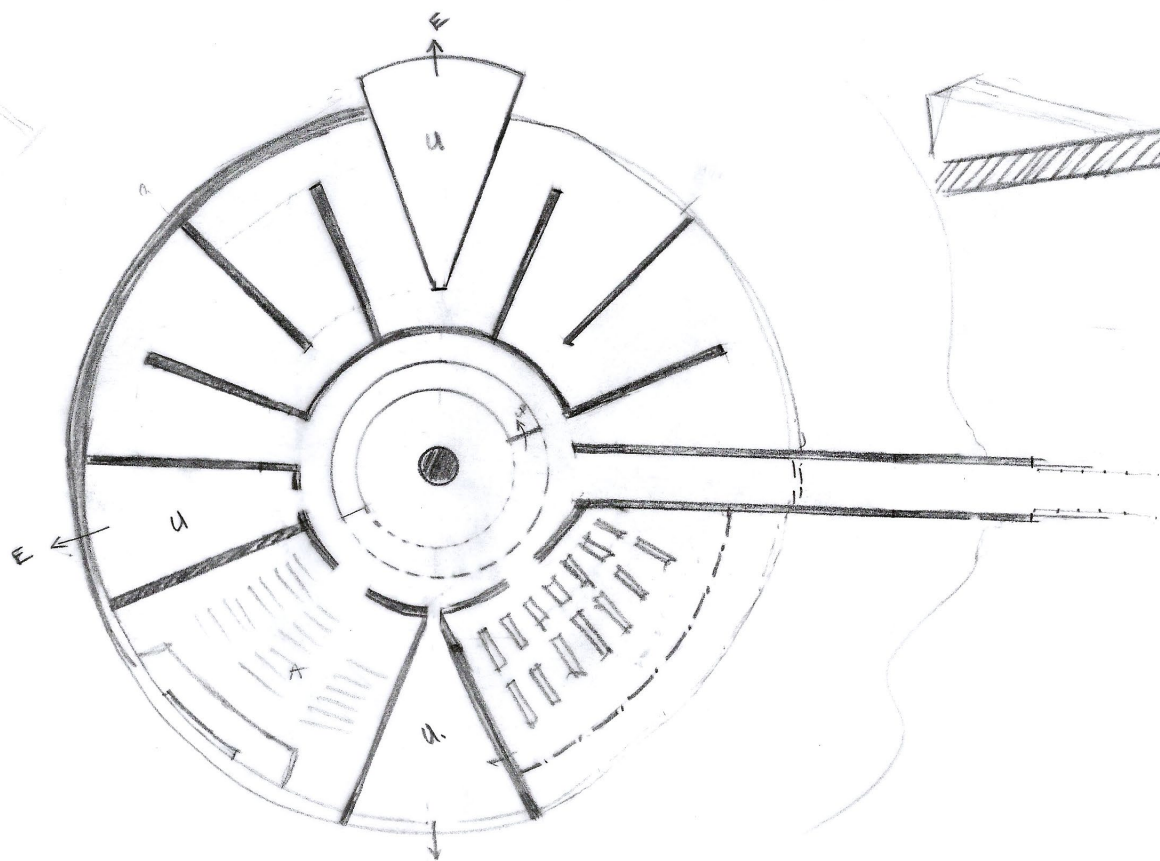
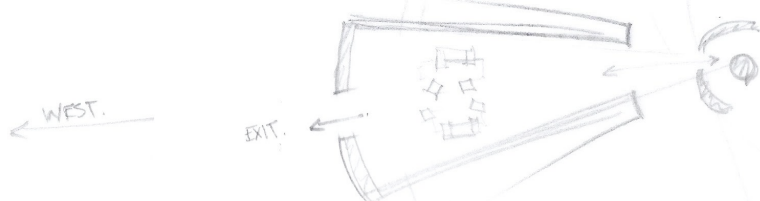


FIGURE 6.10 SCHEMATIC PLAN, MUSEUM



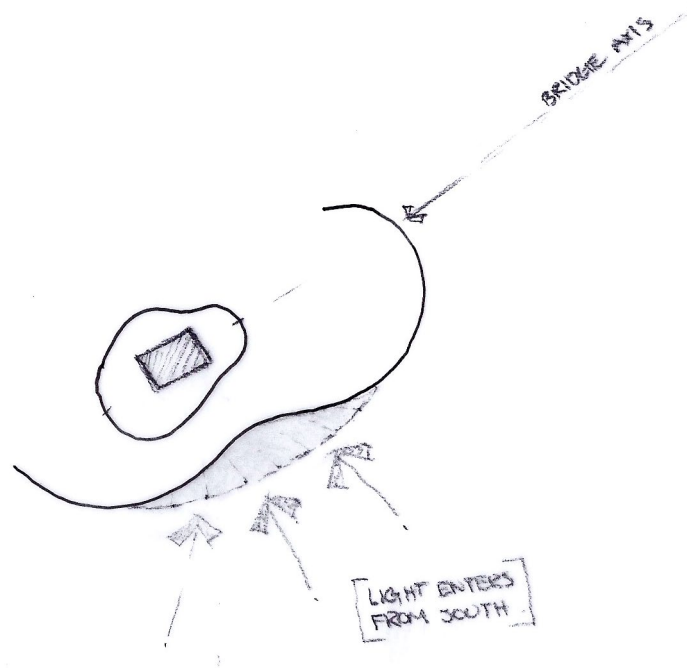


FIGURE 6.11 NATURAL LIGHT OPPORTUNITIES

6.6 Detailing the Circulation

Making sense of the main floor's circulation was difficult, considering the size and programmatic requirements. The circular plan is composed of three distinguishable spaces: the museum, auditorium, and library. Upon entering the underground structure, visitors are met with a large, open atrium and lobby. This central axis establishes vertical circulation, through which visitors ascend to the memorial.





CHAPTER SEVEN

DESIGN DEVELOPMENT

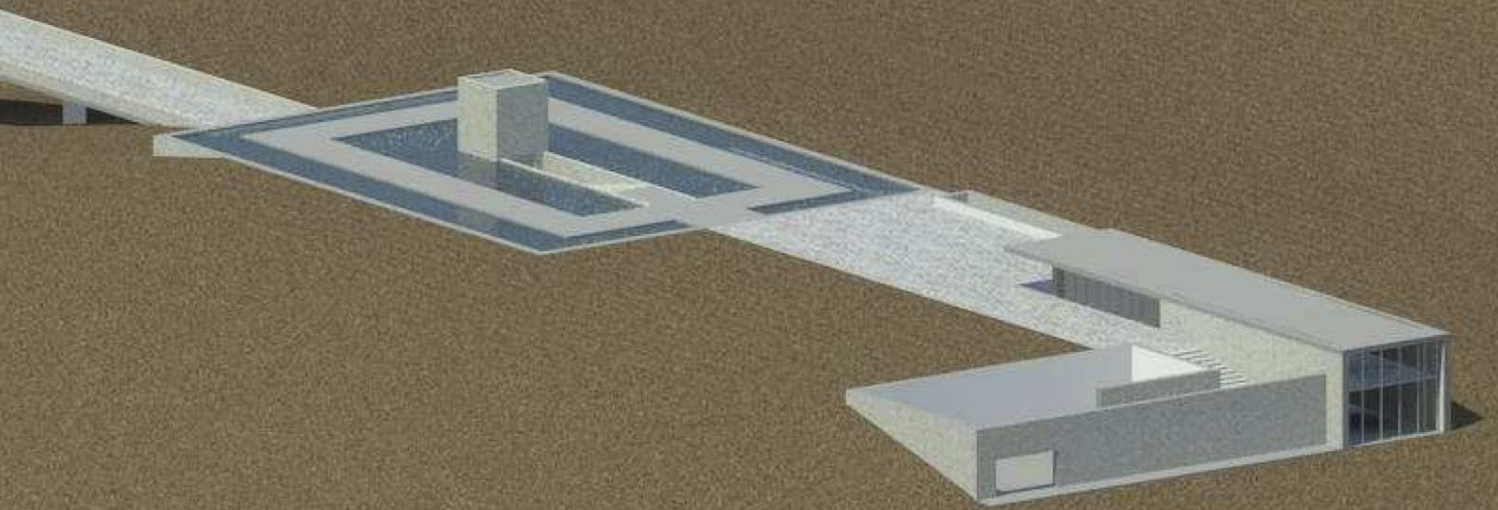


FIGURE 7.1 SECULAR DESIGN

APPROACHING EXTREMITIES

*“Now this is not the end.
It is not even the beginning of the end.”*

7.1 Evolving the Design

The design evolved to showcase Jerusalem’s landscape, and promote exploration of the museum’s grounds. Removing and simplifying nonessential elements resulted in a more refined, and symbolically potent arrangement. How the occupant moves through the complex underwent earnest scrutiny; deliberating when and in what manner they might ascend topographic layers or puncture the earth. Defining thresholds made it easier to establish breaks in the museum’s design, allowing occupants to digest the ground’s illustrative undertones of war and memory.

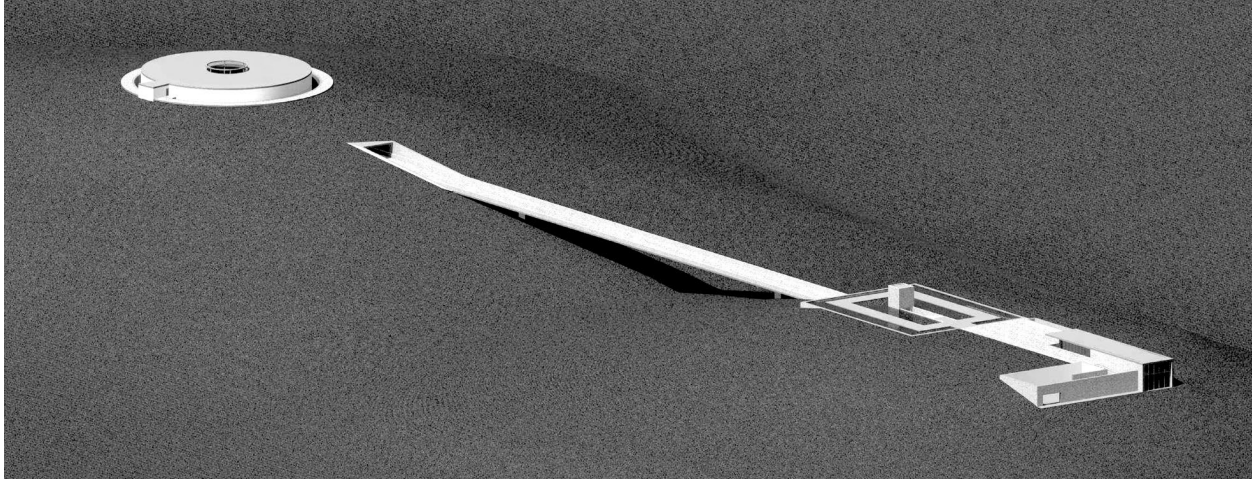


FIGURE 7.2 BIRD'S EYE PERSPECTIVE

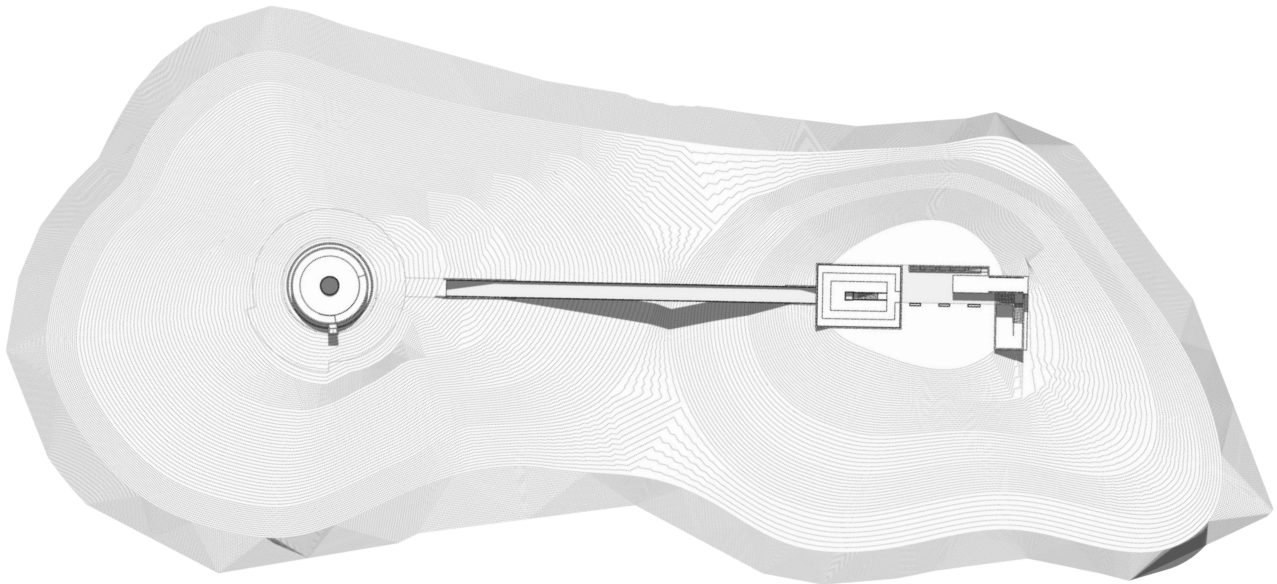


FIGURE 7.3 SITE PLAN DESIGN

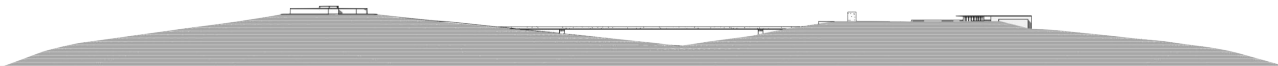


FIGURE 7.4 NORTH ELEVATION

7.2 Macro Design Analysis

Viewing the complex from above communicates an understanding of the plan's arrangement; an axis through which the narrative is told. The eastern structure houses the administrative components of the museum's program, including the Visitor's Center, offices, and secure storage. Crossing the bridge introduces an assortment of sacred spaces: the museum, library, and memorial. Dividing the complex into the disparate roles, sacred and secular, affords occupants the opportunity to discern outlook from understanding.

The structure on the eastern peak is visually open, un-intimidating, and helps build anticipation for the journey to the second mountain peak. Conversely, the western peak is closed and mysterious, imparting few clues as to what lies within the mountain's core. Visually, the complex represents the dichotic relationship between Israel and Palestine, illustrating disparity as contrastive forms. It would not be impetuous to classify the two structures as either rectilinear or crescent-shaped; these forms help delineate the Israeli-Palestinian dispute through structural and visual cues.

7.3 Micro Design Analysis

The occupant's journey is best described through the building's section, from east to west as a scrolling narrative.

Visitors enter the structure through an opening in the concrete wall, immediately climbing a staircase to their right. Upon ascending to the second level, the museum's grounds are revealed. The act of rising to this higher level controls how visitors engage the structural symbolism depicted on the first peak. The second level houses an administrative area for access to the exhibit, and a Visitor's Center with information on the area's attractions, events, and history. After exploring the complex's grounds, visitors descend a staircase leading to the bridge through a walled and enclosed tower, symbolic of Israel's unknown future in 1917.

After crossing the bridge, visitors enter the second mountain peak. The lighting within the mountain's core is natural and deliberate, focusing attention on the museum's vertical circulation which leads to the memorial. Before moving up the ramp, visitors

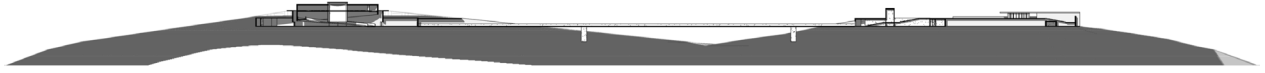


FIGURE 7.5 SITE SECTION



FIGURE 7.6 DETAIL SECTION, SECULAR PEAK

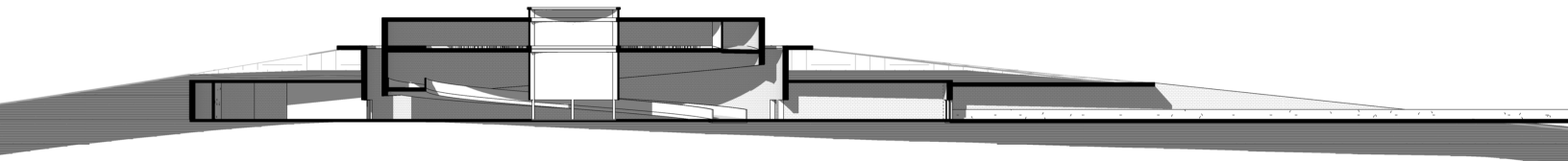


FIGURE 7.7 DETAIL SECTION, SACRED PEAK

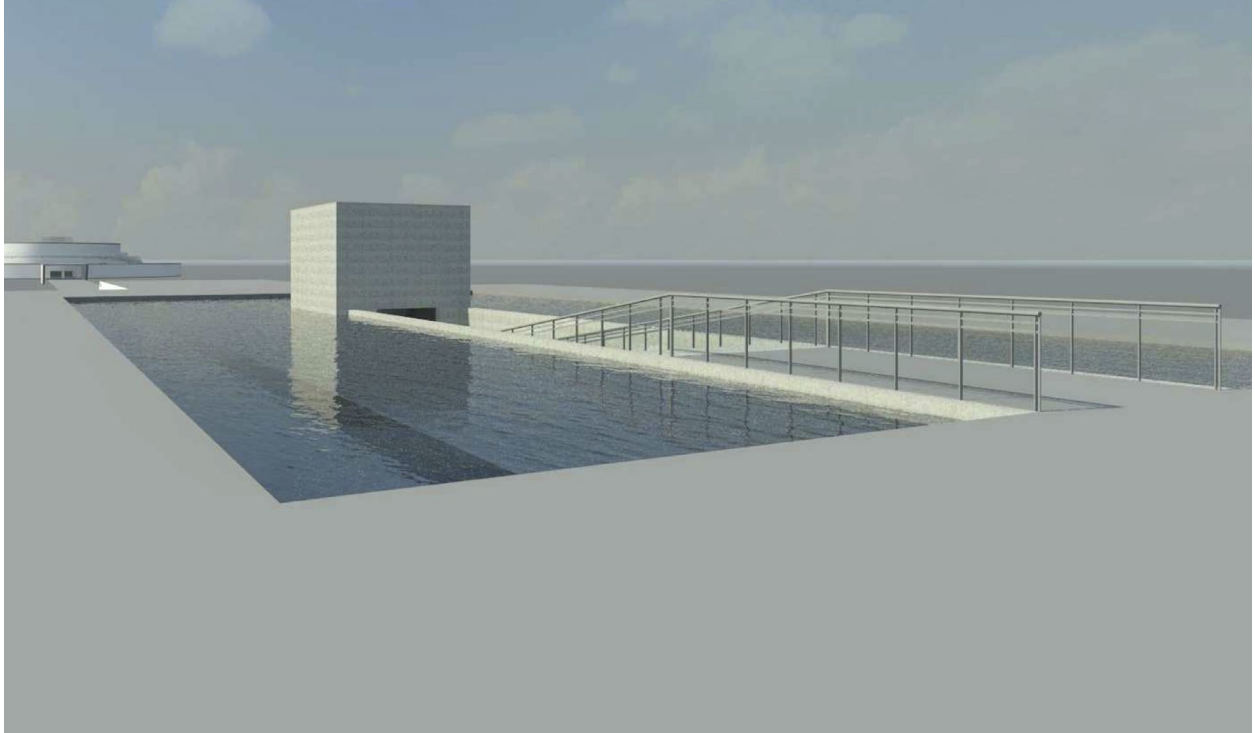


FIGURE 7.8 ENTRY PAVILION

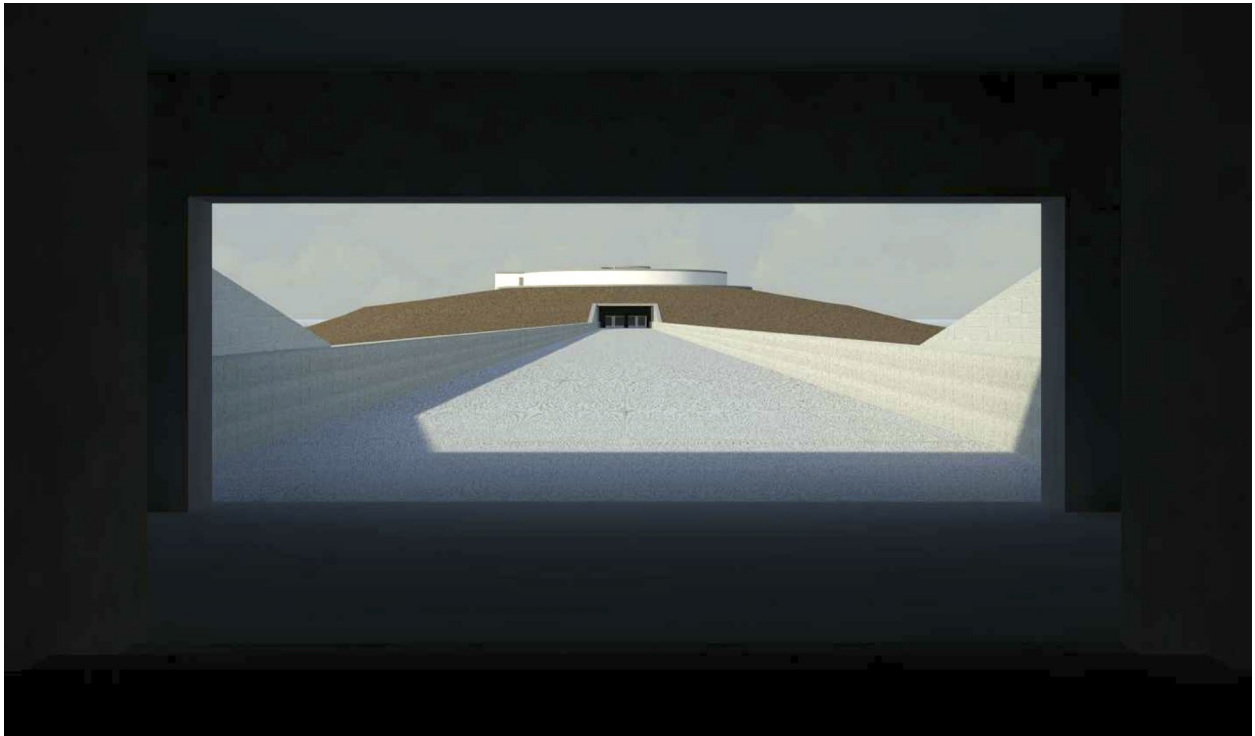


FIGURE 7.9 CROSSING THE BRIDGE

are encouraged to wander through the five exhibits detailing Israel and Palestine's tumultuous history. The final gallery's exit coincides with the memorial's ramped entry. The visitor's final ascent leads them to the memorial, where individuals can show respect for those who have lost their lives during this half-century war. The memorial also features a doorway leading to an outdoor walkway, where visitors can experience a 360° view of the disputed landscape with a newfound understanding of what was lost over the land this museum's very foundation is built.

7.4 The Entry Pavilion

As seen in Figure 7.8, the Entry Pavilion incorporates three thematic elements that engender the overall aesthetic. The idea of crossing water to purify individuals as they journey to the museum was introduced in the previous chapter. In this near-final iteration, the volume is increased and emphasized as a tentpole feature of the design. The cube-shaped tower is designed to share a contrastive relationship with the circular structure on

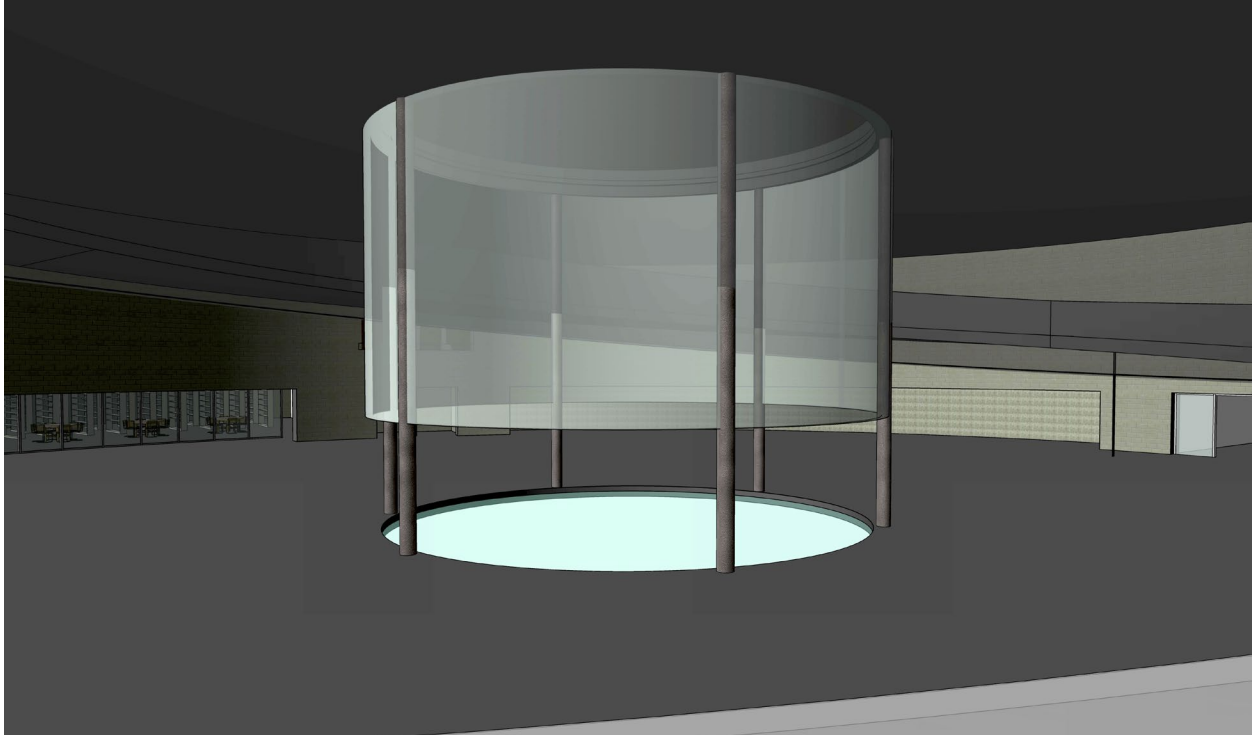


FIGURE 7.10 ATRIUM DESIGN

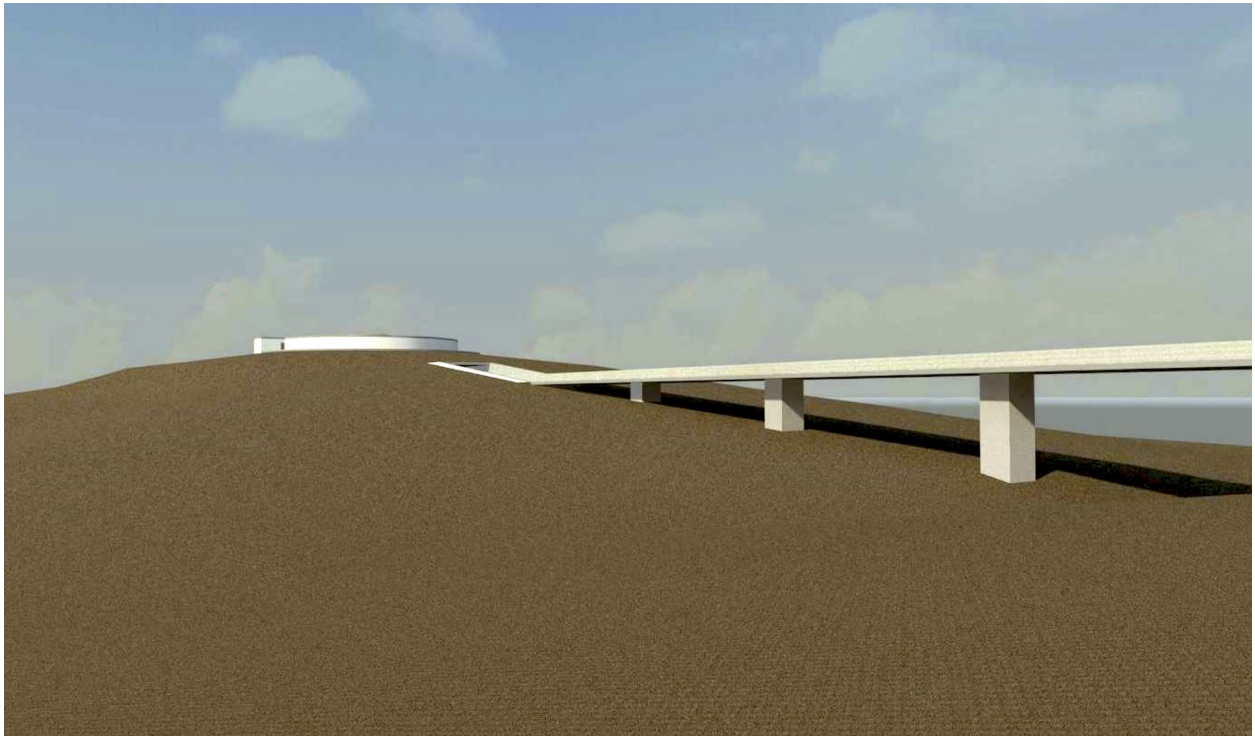


FIGURE 7.11 BRIDGE DESIGN

the second peak. This dichotomy provokes controversy through opposition and difference. Furthering this disputation, the tower is made of the same materials as Israel's Security Fence (as seen in Chapter Three).

7.5 The Atrium

The Atrium proved to be the second significant addition to the museum's design. As shown in Figure 7.10, the latest iteration centers the circulation around a still reflection pool lit from above through a series of skylights. Symbolically, this pool exists in direct opposition with the memorial above - representing a lack of understanding with regards to the Israeli/Palestinian conflict.



The separation wall



CHAPTER EIGHT
FINAL DESIGN

PART ONE

**ARCHITECTURE OF
NEUTRALITY**

*"The course of this conflict is not known,
yet its outcome is certain."*

Since 1948 Palestinian territory has been significantly diminished by Israel's expanding borders. This dissolution resulted in the construction of Israel's Security Fence.

8.1 Choosing the Site

The last of the land to be dissolved into Israel during 1967's Six Day War was Jerusalem, a region culturally significant to both nations. Situated on the highest peak of the Jerusalem Mountains, the chosen site provides a clear view of Israel's Security Fence. This location is in

direct alignment with three of Jerusalem's historically significant structures: The Old City, The Knesset, and Yad Vashem. These three monuments are a testament to Israel and Palestine's narrative over the last 2,000 years.

8.2 Architecture of Neutrality

The goal of this thesis is to represent both cultures equally and without bias. Architecture that remains impartial, or unsupportive of either side, allows the content within to receive the attention and respect it deserves.

The design language could not be drawn from either Israeli or Palestinian influence. It was required that the built form remain neutral in both its outward appearance and symbolic meaning. Instead, the natural geography was used to inform the design. The building is split between tandem peaks, representing two disparate nations that share one landscape.

Architecture that remains neutral yet embodies the history of two nations must represent both timelines simultaneously and without bias. Israel and Palestine's narratives have become entangled by the conflict that divides them. The design abstracts these events in

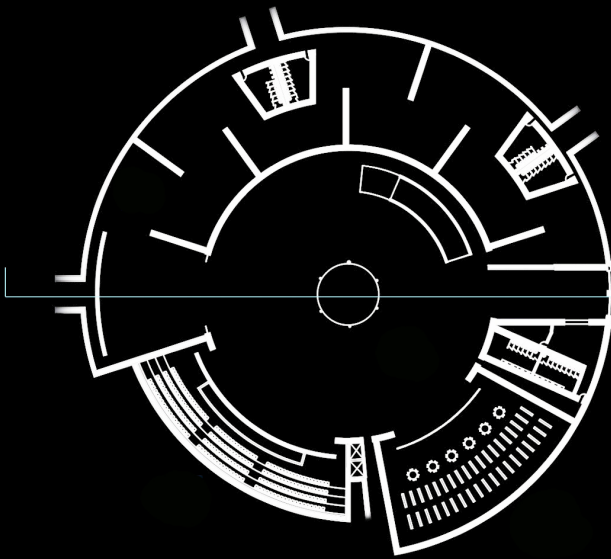
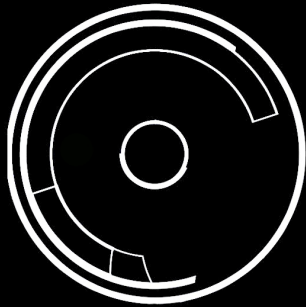
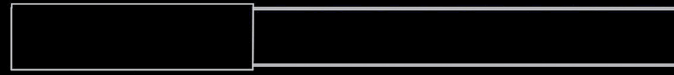
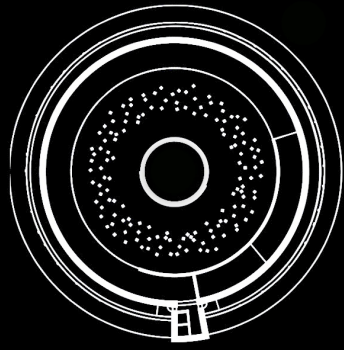
order to create various thresholds that guide the viewer through Israel and Palestine's turbulent past.

8.3 Exploring Form

This project is meant to present the viewer with an abstract awareness of the conflict through the built form. As humans, our knowledge is largely based on what we see with our own eyes. This design challenges that perception. As one peak is lower than the other, the structure begins above land, representing the easily seen: the familiar. However, as viewers move through the space, they confront uncertainty, the section of the building that descends into the mountain.

8.4 Developing the Parti

The parti displays the path the viewer travels, moving through the four thresholds representative of Israel and Palestine's abstracted history. Upon entering the project site, the viewer finds themselves outside, surrounded by the Israeli landscape. Passing the first threshold, the viewer descends into the earth. The user proceeds across an extended path, which penetrates the mountainside through a large, solid threshold. The user's



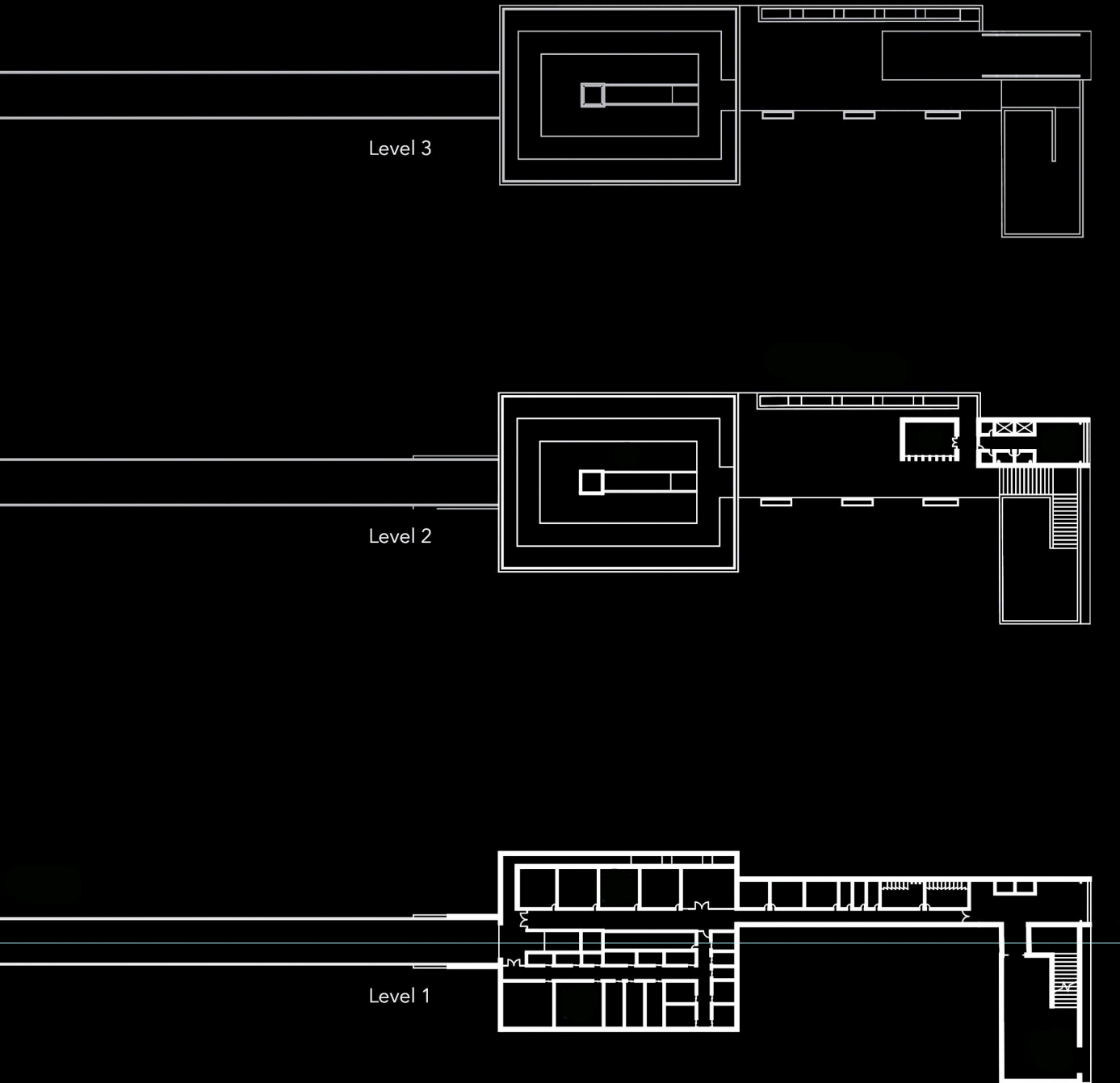


FIGURE 8.1 FLOOR PLANS



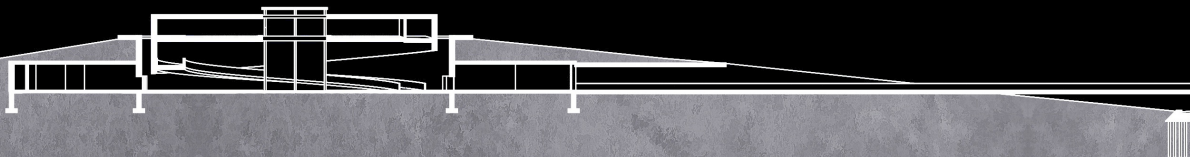
final movement sees them ascend through a cylindrical threshold, representing a stylistic contradiction from all previous experiences.

8.5 The Finished Design

The project materializes itself as a museum, consisting of three programmatic sections; the administrative, the museum, and the memorial. To traverse these spaces, the viewer moves through four main thresholds.

The administrative section is the first the viewer confronts, as they ascend a staircase after entering the structure. Here is the administrative division, where viewers glimpse the tower for the first time. Immediately below are employee offices and museum storage space.

From this section, the viewer approaches the first threshold, 'The Unknown', which is a tower symbolically made from the same material as Israel's Security Fence. The second threshold, 'The Separation', acts as a partition between the administrative and the museum and is depicted as an expansive bridge that joins the two peaks. The bridge transitions into 'The Solution', the



third threshold that cuts into the peak and acts as the museum's lobby area.

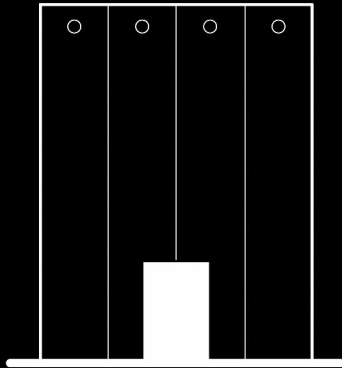
The museum consists of an auditorium space, a library housing all relevant literature, and five galleries representing the key events in Israel and Palestine's history. From the museum lobby the viewer ascends a circular path into the memorial space. This area is known as 'In Memoriam' and acts as the final threshold.

8.6 A Home for Relics

A relic is regarded as an object that has survived from an earlier time. In a museum depicting conflict between nations, relics would often be thought of as war paraphernalia. However, more than bullets and tanks survive the test of violence. From art and writing to memorabilia, these mementos created from a time of war will tell the story of these two nations.

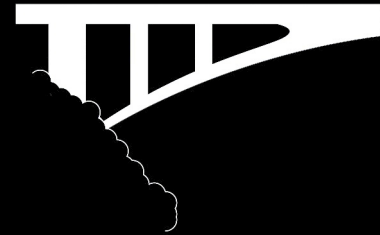
FIGURE 8.2 NORTHERN SECTION





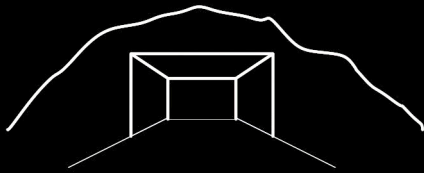
8.7 The Unknown

The first of the thresholds is a tower symbolic of the unknown future the Jewish and Palestinian people faced in 1917. As the UN began immigrating Jewish masses from Europe into Palestine, the relocated were forced into a land had never seen, while Palestinians were confronted with an unfamiliar culture injected into their land. The tower, inspired by Israel's Security Fence, is reminiscent of a gateway that symbolizes the beginning of the journey between two nations.



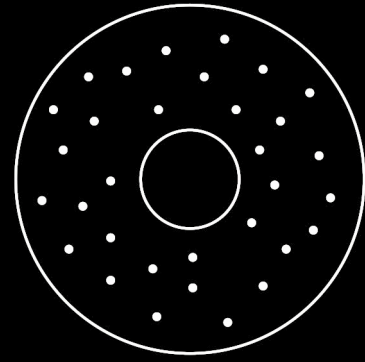
8.8 The Separation

In 1948, the UN split Palestine into two nations and the state of Israel was born. This key moment in history is represented by the second threshold, the 'Separation', appearing as a quarter-mile long bridge personifying how distant yet connected the two cultures are. The design of an arched bridge signifies the strong, unyielding bases of either nation, whose opposing pressures support a thin and fragile connection.



8.9 The Solution

'The Solution' represents the point in time when Israel erected a twenty-five foot, concrete wall around the West Bank. This wall, known in Israel as the Security Fence, was devised as an unproven solution to the country's struggle with terrorism. The threshold, materialized as a punched opening in the mountainside, represents the failure of the wall to end the conflict. The opening leads the viewer into the museum, where the occupant is introduced to a better understanding of this conflict.



8.10 In Memoriam

The final threshold honors those that have lost their lives throughout the war between Israel and Palestine. "In Memoriam" is a memorial that represents today in the sense that as the future cannot be predicted, what remains is respect for the past. The timeline is the present and, in this manner, we gain an understanding that there will be more deaths to come, that the battle between nations is not over, and will not be for some time.

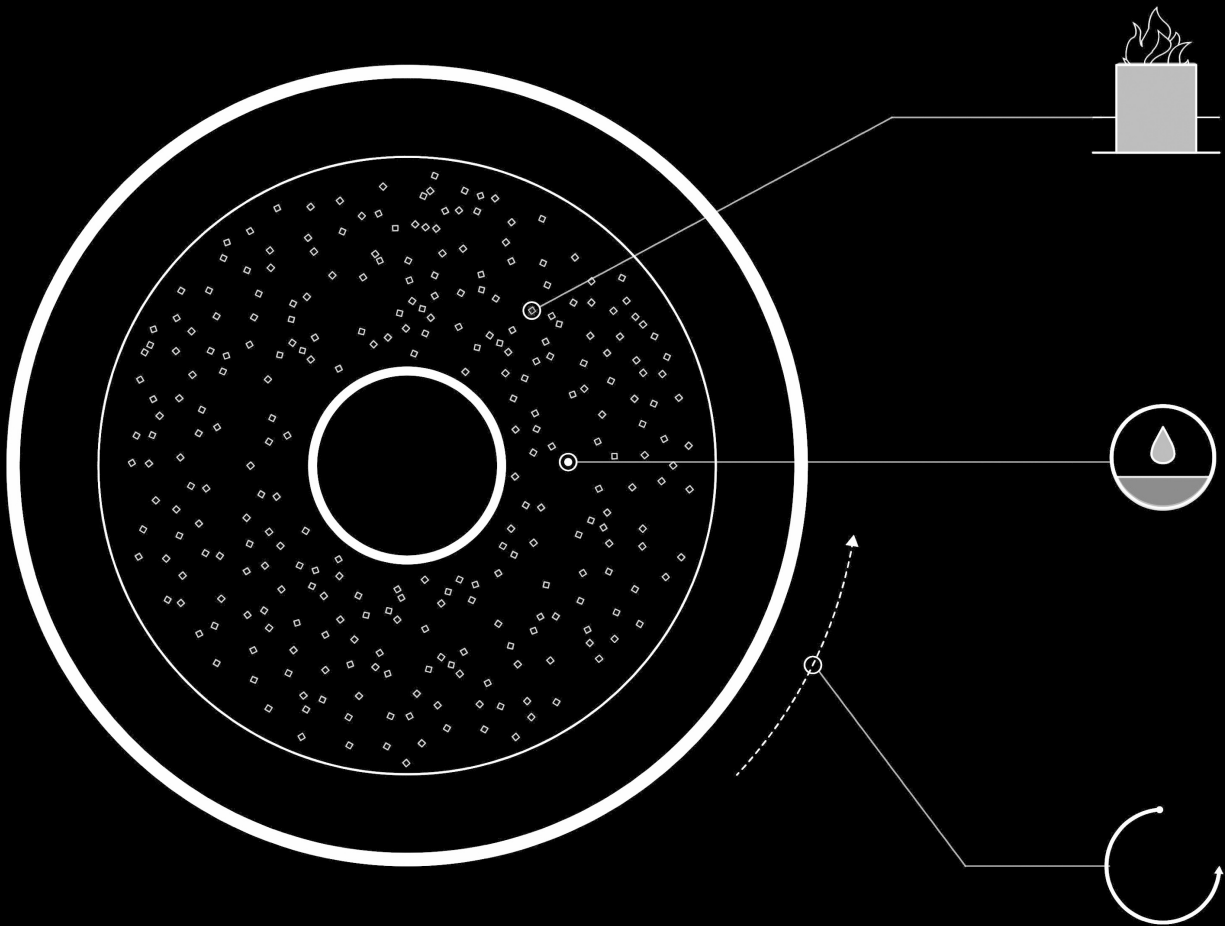


FIGURE 8.3

THE MEMORIAL ANATOMIZED

8.11 Commemorating Loss

The pillars, reminiscent of tombstones, commemorate those who have died during the war between Israel and Palestine. The eternal flame, a symbol of chaotic and intimidating natural power, illuminates the tragic and momentous events shaped by the violence of war. Reflected in the turbulent waters, the multiplied flames serve as a reminder that while so much has been lost, more death is still to come.

8.12 Alleviating Antipathy

Culturally, Israel and Palestine share the notion that water is a purifying substance. It is revered as a source of life, but also regarded as a barrier that separates two realms, both in the physical sense of territorial boundaries, and in the spiritual differentiation of life and death. The memorial is immersed in water, purifying all that has been lost to violence and hatred, while remaining respectful of nations divided by space, culture, hostility, and loss.

8.13 Perpetuating Movement

Below the memorial rests a pool of calm, tranquil water that the viewer confronts prior to ascending into the final threshold. Here, the water represents a general lack of understanding of the Israeli/Palestinian conflict. Directly above this pool stands the memorial, whose waters are rough and turbulent. As the water moves in a counterclockwise direction and collides with the pillar, what was once calm becomes disturbed. The movement of the water, distorting the reflection of the eternal flames, represents the truth of the conflict. As more pillars are added with every death, the water - the relationship between the two nations - becomes more agitated.



FIGURE 8.4 SECULAR ENTRY



FIGURE 8.5 BRIDGE TO SOLUTION

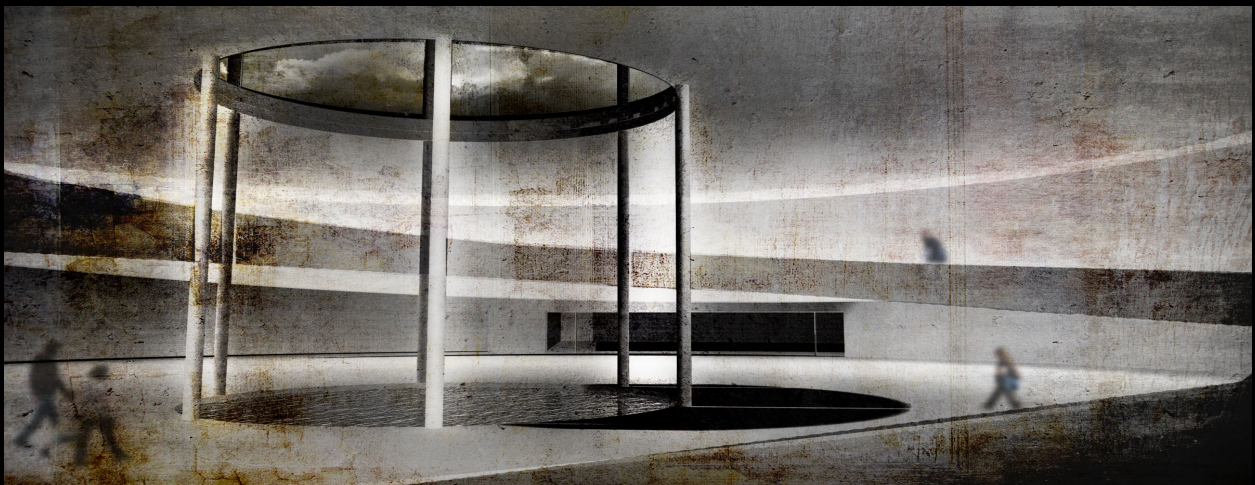


FIGURE 8.6 SACRED ATRIUM





FIGURE 8.7

SITE PLAN





FIGURE 8.8 THE UNKNOWN





FIGURE 8.9

IN MEMORIAM

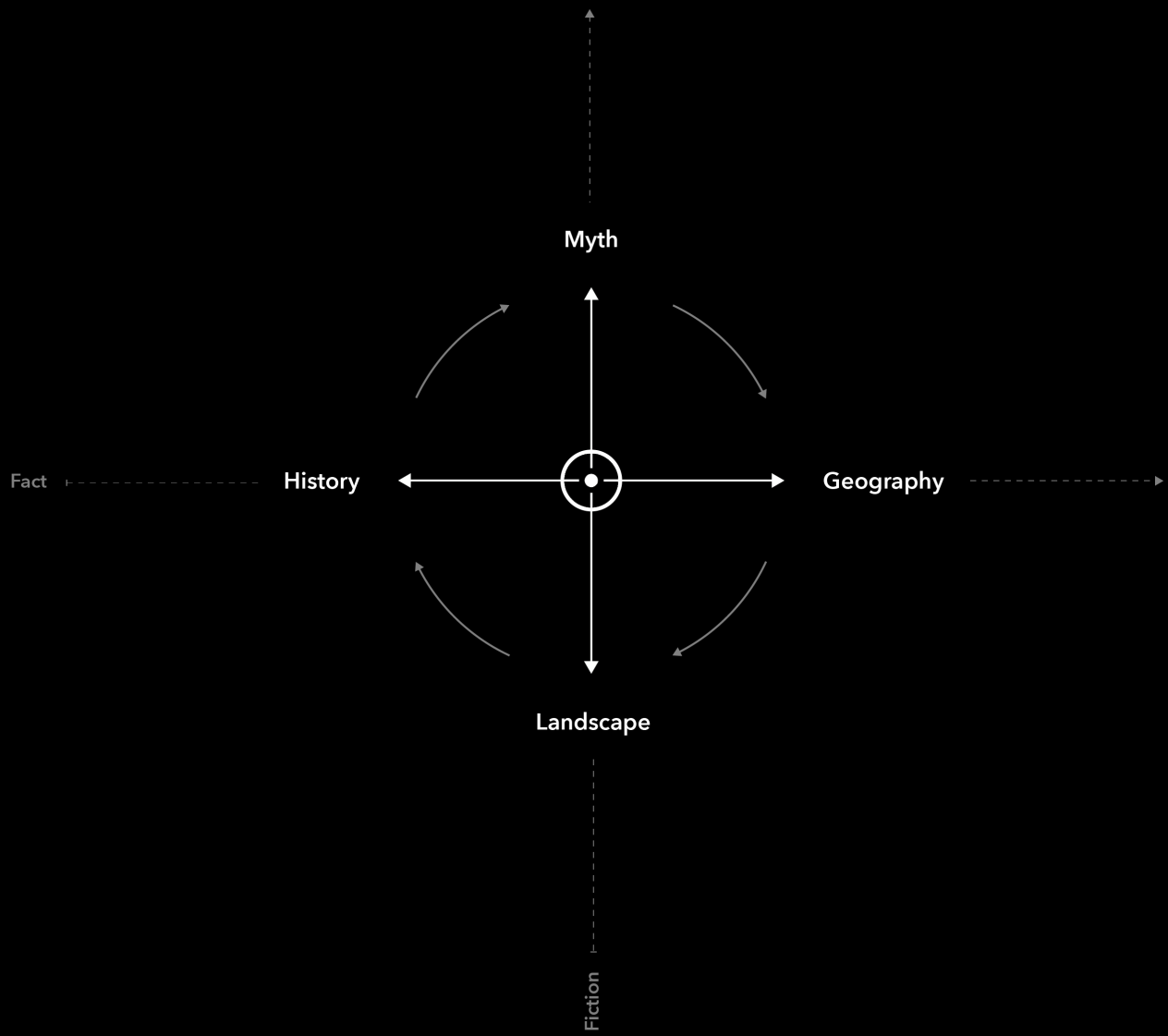


FIGURE 8.10 MERGING PERSPECTIVES

PART TWO

**MERGING
PERSPECTIVES**

*“Civility is not about dousing strongly held views.
It’s about making sure that people are willing to respect other perspectives.”*

8.14 Cessation

The project exists at the intersection of fact and fiction where history and geography meet landscape and myth. This graph represents a cycle of time. History, the recording of past events, leads to the creation of myths, a culture’s representation of themselves. These beliefs influence the social geography: the placement of significant structures. The location of these objects changes how a civilization perceives their landscape. In turn, altered perceptions change the manner in which a

nation views their future.

The building embodies the idea that the timeline comes full circle, abstracting fact into fiction. The history of the Israeli/Palestinian conflict is built into the various sections of the structure, representing the story of two cultures. This narrative alters the geography, slicing into the landscape and changing how it is perceived. The history of the land is forever altered by the museum and will, in turn, affect the future stories of these two countries.

This museum allows the viewer to confront the Israeli/Palestinian conflict from an unbiased position. The project is designed to merge the unyielding perspectives of two nations and provide an opportunity for history to meet humanity in a space where both are protected.

FINAL BOARDS

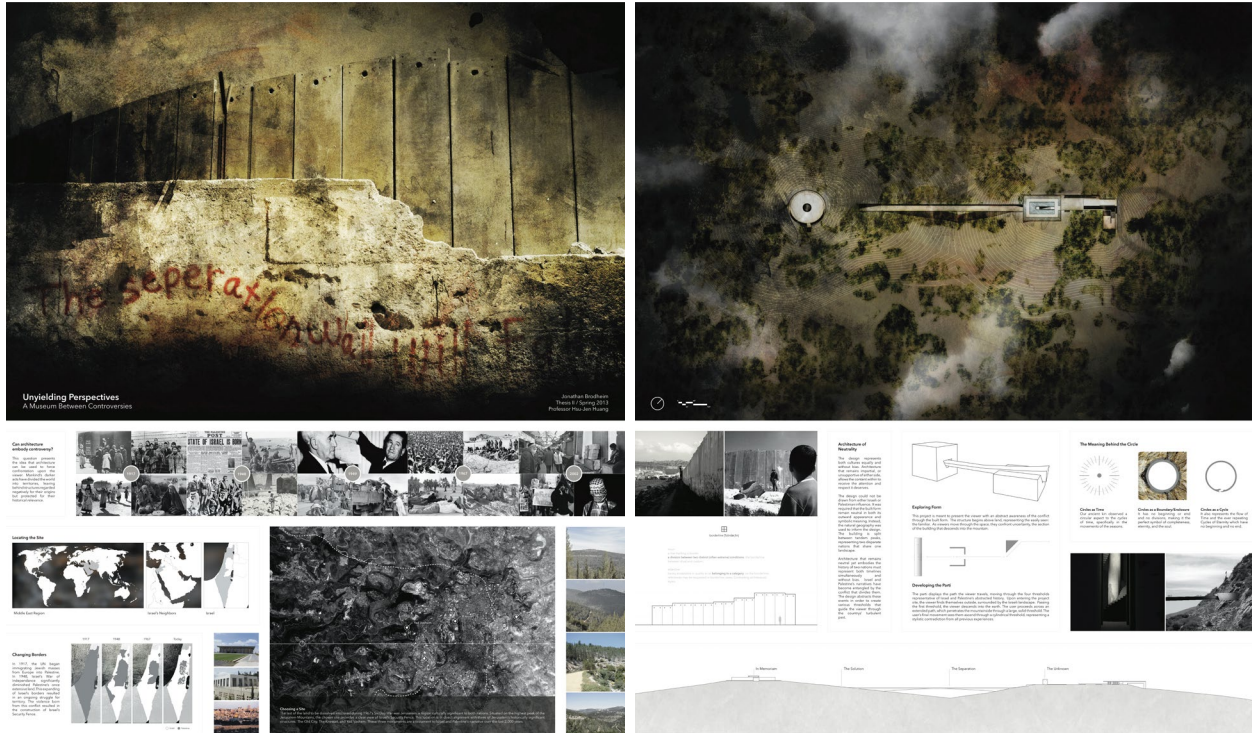


FIGURE 9 FINAL BOARDS

The final boards are designed to recount the abridged narrative of the feuding nations, and the subsequent museum design. The panels are arranged to showcase the final renderings in the first row, and relevant details in the second. The boards describe the history and landscape of the Israeli/Palestinian dispute, and the war's potential to repress their development.



The Finished Design

The final design is a complex architectural plan that integrates various elements of the project. It includes a detailed site plan, a floor plan, and a section view. The design is characterized by its geometric forms and the use of light and shadow to create a sense of depth and atmosphere.

Material Key

- 1. Concrete
- 2. Steel
- 3. Glass
- 4. Wood
- 5. Brick
- 6. Stone
- 7. Metal
- 8. Plastic
- 9. Rubber
- 10. Fabric
- 11. Paper
- 12. Glass
- 13. Metal
- 14. Concrete
- 15. Steel

Exploring Light

The design explores the interplay of light and shadow, creating a dynamic and ever-changing environment. The use of light is a key element of the design, highlighting the architectural details and creating a sense of depth and atmosphere.

The Material Assessment

The material assessment is a critical part of the design process, ensuring that the chosen materials are suitable for the project's requirements. It involves a thorough analysis of the materials' properties, including their strength, durability, and aesthetic qualities.

Communicating Use

The design communicates the intended use of the space through its form and layout. The arrangement of the elements and the use of light and shadow create a clear sense of purpose and function.

Addressing Ambiguity

The design addresses the ambiguity of the project by providing a clear and consistent visual language. The use of geometric forms and the interplay of light and shadow create a sense of order and clarity.

Preparing Material

The preparation of the materials is a crucial step in the design process, ensuring that they are ready for use in the final design. This involves a range of techniques, including cutting, grinding, and polishing.

Merging Perspectives

The design merges different perspectives, creating a rich and multi-layered experience. The use of light and shadow creates a sense of depth and atmosphere, while the geometric forms provide a clear and consistent visual language.

Stylistically, there is an absence of color beneath the full-bleed images above. This was purposefully done to highlight the the colors, depth, and disposition seen in the preceding renderings. The final panel concludes the narrative with the contrastingly colored "Merging Perspectives" passage seen in Chapter Eight.

Unyielding Perspectives A Museum Between Controversies

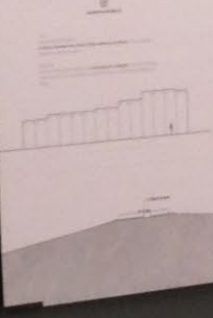
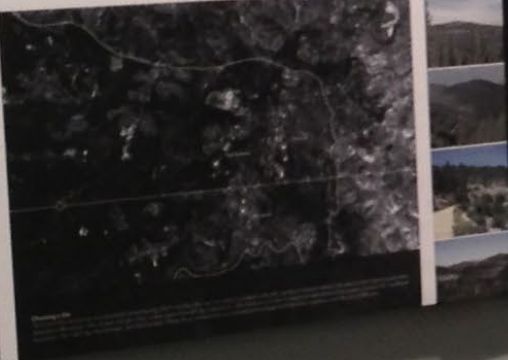
Can architecture
and city planning
be used to force
controversial issues
on the public?



Leveling the Site



Changing Scales



Architecture
and city planning
can be used to force
controversial issues
on the public.

... of these two
... value of the
... the center of





**FINAL
EXHIBITION**

FIGURE 10

BIBLIOGRAPHY

- "A Synopsis of the Israel/Palestine Conflict." If Americans Knew. Last modified May 31, 2014. <http://www.ifamericansknew.org/history/>
- "After Authoritarianism: State Development and National Identity in the Middle East." Global Politics Magazine. Last modified January 29, 2013. http://global-politics.co.uk/blog/2013/01/29/authoritarianism_identity_middleeast_qc/
- "AIA Cities: Walt Disney Concert Hall." American Institute of Architects. Last accessed June 16, 2014. <http://www.aia.org/cities/los-angeles/all-stories/disneyconcerthall/index.htm>
- "Basic Facts: The Land of Israel." Stand for Israel. Last accessed June 16, 2014. http://www.ifcj.org/site/PageNavigator/sfi_about_land_facts
- "Boundaries, Borders and Disputes." Pacific Island Travel. Last accessed October 6, 2012. http://www.pacificislandtravel.com/nature_gallery/boundries.htm
- "Boundary Disputes." Oxford University Press. Last accessed October 15, 2013. <http://www.answers.com/topic/boundary-disputes>
- "Geography & Nature in Israel." Ministry of Tourism, Government of Israel. Last modified March 31, 2014. http://www.goisrael.com/Tourism_Eng/Tourist%20Information/Discover%20Israel/Pages/Geography%20and%20Nature.aspx
- "Geography of Israel." NSW Board of Jewish Education. Last modified December 10, 2013. <http://www.bje.org.au/learning/israel/geography.html>
- "Hall of Names." The Rothschild Caesarea Foundation. Last accessed June 16, 2014. http://www.rcf.org.il/index.php?option=com_content&view=article&id=82:hall-of-names-ca-id=19&Itemid=119
- "History of the First Knesset." The Knesset (State of Israel). Last modified June 6, 2008. http://www.knesset.gov.il/history/eng/eng_hist1.htm
- "Israel Profile." BBC News. Last modified March 17, 2013. <http://www.bbc.com/news/world-middle-east-14628835>
- "Israel's Security Fence." Jewish Virtual Library. Last modified July 21, 2010. http://www.jewishvirtuallibrary.org/jsource/talking/24_fence.html
- "Louvre Pyramid, Paris." A View on Cities. Last accessed June 16, 2014. <http://www.aviewoncities.com/paris/louvrepyramid.htm>
- "Louvre, Paris." A View on Cities. Last accessed June 16, 2014. <http://www.aviewoncities.com/paris/louvre.htm>
- "Memorial to a Buried Village." BLDG Blog. Last modified October 17, 2012. <http://bldgblog.blogspot.com/2012/10/memorial-to-buried-village.html>
- "Nazi Party." History.com (A+E Networks Digital). Last modified 2009. <http://www.history.com/topics/world-war-ii/nazi-party>
- "Order from Stone: Nazi Architecture." Art Under Fascism. Last accessed June 16, 2014. <http://sitemaker.umich.edu/artunderfascism/architecture>

- "Taj Mahal Architecture." Taj Mahal: The Monument of Love. Last accessed June 16, 2014. <http://www.tajmahalindia.net/taj-mahal-architecture.html>
- "Taj Mahal: The Hidden Truth." World Mysteries. Last accessed June 16, 2014. http://www.world-mysteries.com/mp1_TajMahal.htm
- "The Holocaust History Museum." Yad Vashem The Holocaust Martyrs' and Heroes' Remembrance Authority. Last modified April 5, 2014. <http://www.yadvashem.org/yv/en/museum/overview.asp>
- "The Impact of the Conflict on Daily Life" If Americans Knew. Last modified February 9, 2014. http://www.ifamericansknew.org/cur_sit/daily_life.html
- "The Jerusalem Hills." Ministry of Tourism, Government of Israel. Last modified April 5, 2013. http://www.goisrael.com/Tourism_Eng/Tourist%20Information/Discover%20Israel/Geographic%20Regions/Pages/The%20Jerusalem%20hills.aspx
- "The Land: Geography and Climate." Israel Ministry of Foreign Affairs. Last modified February 10, 2014. <http://www.mfa.gov.il/mfa/aboutisrael/land/pages/the%20land-%20geography%20and%20climate.aspx>
- "The Museum Complex: Galleries." Yad Vashem The Holocaust Martyrs' and Heroes' Remembrance Authority. Last modified December 17, 2013. <http://www.yadvashem.org/yv/en/museum/galleries.asp>
- "The Nazi Party Rally Grounds." Nuremberg Online. Last modified April 3, 2014. <http://museums.nuremberg.de/documentation-centre/topics/party-rally-grounds.html>
- "The Old City of Jerusalem" Ministry of Tourism, Government of Israel. Last modified May 30, 2014. http://www.goisrael.com/Tourism_Eng/Articles/Attractions/Pages/OldCityJerusalem.aspx
- Abandoned Shoes*, 2012, 43.2 in × 32.40 in. Poland: Past, Present and Prospering. <http://hyacoda.wordpress.com/page/2/>
- Andrade, J.M. Pedro e Inês Bridge, 2009, 12.8 in. x 10.65 in. Flickr. <https://www.flickr.com/photos/zekatreka/4365499924/>
- Arch of Titus: Menorah, 2014, 15.75 in. × 8.79 in. Anti-Zionism as Antisemitism. <http://boundary2.org/2014/06/10/anti-zionism-as-antisemitism/>
- Art, 2004, 6 in. x 3.68 in. Quebec/Palestine Coalition: "Chess Board" Print Ad. <http://www.coloribus.com/adsarchive/prints/quebecpalestine-coalition-chess-board-6575055/>
- Barber, Johnny. Salvaged Concrete Barriers, 2012, 18 in. × 10.10 in. One Bright Pearl Photography. http://onebrightpearl.com%2Fgaza-palestine-spring-2012-2%2F11_28_131.html
- Barshaw, Diana. Knesset, 2010, 10 in. x 6.11 in. Jerusalem Trail. <http://www.dianabarshaw.com/israel-trail-jerusalem.php>
- Cadaval, Olivia. "United States-Mexico." Smithsonian Education. Last accessed October 4, 2012. <http://smithsonianeducation.org/migrations/bord/intro.html>
- Cox, Whitney. The Disney Opera House, 2012, 16 in. x 10.67 in. Whitney Cox Architectural & Interiors Photography. <http://www.whitneycox.com/architecture/disney-opera-house/>
- Craven, Jackie. "Gehry Responds to Concert Hall Heat." About.com (an IAC Company). Last modified January 17, 2013. <http://architecture.about.com/od/ideasapproaches/ss/Controversy-DisneyHall.htm>
- Expanding Empires, 20.67 in. x 14.76 in. Space 1889. <http://mateengreenway.com/steampunk/Space1889UK.htm>

- Falah, Ghazi. "The 1948 Israeli-Palestinian War and Its Aftermath: The Transformation and De-Signification of Palestine's Cultural Landscape." *Annals of the Association of American Geographers* 86.2 (1996): 256-85.
- Francheschi-Bicchierai, Lorenzo. *Morocco & Spain Border Crossing*, 2012, 6.60 in. x 5 in. Wired. <http://www.wired.com/2012/07/euro-immigrant-drone/>
- Furtan, and Blain M. Van Melle. "Canada's Agricultural Trade in North America: Do National Borders Matter?" *Review of Agricultural Economics* 26.3 (2004): 317-31.
- Hammerich, and Richard D. Lewis. "How different cultures say 'I disagree'." *Quarts*. Last modified August 22, 2013. <http://qz.com/117519/how-different-cultures-say-i-disagree/>
- Israel's Landscape, 2013, 15.36 in. x 11.61 in. Huffington Post. http://www.huffingtonpost.com/rabbi-nina-beth-cardin/the-earth-is-a-gift-torah-environment_b_3535333.html
- Israel's Security Fence, 2010, 32.40 in. x 43.20 in. *Rejecting Victimhood: The Women of Occupied Palestine Rise Up*. <http://inwomenshands.wordpress.com/2010/10/21/rejecting-victimhood-the-women-of-occupied-palestine-rise-up/>
- Israel's Security Fence, 2012, 15.33 in. x 11.5 in. Heritage Study Program. <http://dp.heritagestudyprograms.com/itinerary.htm>
- Israel's Security Fence: Graffiti, 2014, 8 in. x 5.32 in. *A Communist At Large*. <http://convincingreasons.wordpress.com/2014/02/13/why-i-am-no-longer-anti-zionist/>
- Israel's Security Fence: Separation Wall, 2014, 30 in. x 19.96 in. *Students for Justice in Palestine*. <http://sjpalestine.com/?p=1002>
- Kelly, Caitlin. "Middle Eastern Culture & Cuisine." *USA Today*. Last modified January 6, 2014. <http://traveltips.usatoday.com/middle-eastern-culture-cuisine-22651.html>
- Kroll, Andrew. "AD Classics: Le Grande Louvre / I.M. Pei." *ArchDaily*. Last modified November 18, 2010. <http://www.archdaily.com/88705/ad-classics-le-grande-louvre-i-m-pei/>
- Lee, Erik, and Christopher E. Wilson. "The State of Trade, Competitiveness and Economic Well-being in the U.S.-Mexico Border Region." *State of the Border Report* (2012).
- Ludwig, Samuel. *Bruder Klaus Kapelle*, 2011, 8.75 in. x 10 in. *ArchDaily*. <http://www.archdaily.com/106352/bruder-klaus-field-chapel-peter-zumthor/>
- Memorial to a Buried Village, 2012, 9.94 in. x 11.48 in. *International VELUX Award 2012*. <http://stavba.tzb-info.cz/denni-osvetleni-a-osluneni/9176-international-velux-award-2012-predstavila-nejlepsi-projekty-studentu-architektury>
- Meng, Soon. *Henderson Waves Bridge*, 2010, 45.11 in. x 30.07 in. *Dreamstime*. <http://www.dreamstime.com/stock-images-bridge-singapore-henderson-waves-image5211574>
- Murphy, Douglas. *Zeppelinfeld: Main Tribune*, 2009, 16 in. x 8.31 in. *Albert Speer and the Fascist Theory of Ruins*. <http://youyouidiot.blogspot.com/2009/11/albert-speer-and-fascist-theory-of.html>
- Nagy, Craig. *China's Great Wall*, 2005, 15.12 in. x 20.16 in. *Flickr*. <https://www.flickr.com/photos/nagy/40993759/>
- North & South Korean Border, 2013, 8 in. x 5.33 in. *Parallel Lines, Diverging Lives: Revisiting Korea's DMZ*. <http://www.remotelands.com/blog/index.php/parallel-lines-diverging-lives-revisiting-koreas-dmz/>
- Palestine, 2007, 38.88 in. x 25.92 in. *Notes from Ramallah*. <http://ghth.wordpress.com/2007/09/22/blog-3-qalandia/>

Palestinian Destruction, 2012, 3.44 in. x 2.57 in. Widespread Human Rights Abuses in Gaza. <http://theirishlawanddemocracycommittee.wordpress.com>

Pride, 2013, 4 in. x 3 in. The Commentator. http://www.thecommentator.com/article/3274/why_a_palestinian_state_needs_israel

Richters, Christian. Alesia Museum, 2012, 12.80 in. x 17.07 in. ArchDaily. <http://www.archdaily.com/254235/alesia-museum-bernard-tschumi-architects/>

Romero, Fernando. "Context." Hyperborder: The Contemporary U.S.-Mexico Border and Its Future (New York: Princeton Architectural, 2008). 20-42.

Savage, Kirk. "History, Memory, and Monuments: An Overview of the Scholarly Literature on Commemoration." University of Pittsburgh. Last modified April 13, 2014. <http://www.nps.gov/history/history/eresedu/savage.htm>

Sveiven, Megan. "Bruder Klaus Field Chapel / Peter Zumthor." ArchDaily. Last modified January 26, 2011. <http://www.archdaily.com/106352/bruder-klaus-field-chapel-peter-zumthor/>

Svobodin, Igor. Judeaan Mountains, 2011, 10.24 in. x 7.68 in. Panoramio. <http://www.panoramio.com/photo/60359716>

-. Judeaan Mountains: Outlook, 2011, 10.24 in. x 6.8 in. Panoramio. <http://www.panoramio.com/photo/47223269>

-. Judeaan Mountains: Trail, 2012, 10.24 in. x 6.8 in. Panoramio. <http://www.panoramio.com/photo/66502876>

Széchenyi Chain Bridge, 2013, 8.75 in. x 6 in. 13.17 in. Budapest Sightseeing. <http://www.budapestsightseeing.net/bridges-of-budapest>

The Bedouin of Saudi Arabia, 2012, 59.49 in. x 45.18 in. Wayne Eastep's Blog. <http://eastep.wordpress.com/2012/05/21/bedouin-of-saudi-arabia/>

The Berlin Wall: Memorial, 4.80 in. x 3.74 in. History Tunes: The Cold War. <http://www.historytunes.com/The%20Cold%20War.php>

The Berlin Wall: Protesters, 10.82 in. x 7.36 in. History 12. <http://jdayhistory.weebly.com/the-berlin-wall-1961the-cuban-missile-crisis-1962.html>

The Louvre, 2013, 10.24 in. x 7.68 in. La Rêveur Vrai. <http://omnduut.wordpress.com/2013/04/21/bbe-mari-menjelajahi-21-negara/>

The Old City, 2011, 16.94 in. x 11.33 in. On The Go Tours. <http://www.onthegotours.com/blog/2011/09/knights-of-the-old-city-take-a-trip-into-jerusalem-past/>

The Taj Mahal, 19 in. x 12 in. Santa Banta. <http://www.santabanta.com/photos/tajmahal/9012035.htm>

The U.S.-Canadian Border, 2007, 23.04 in. x 15.36 in. The Janssen's Travel Adventure. http://www.ksw1.50megs.com/photo_18.html

The U.S.-Canadian Border: Patrol, 4.49 in. x 3.39 in. Canadian Border Laws Regarding Reckless Driving. <http://www.travels.com/travel-tips/advice/border-laws-regarding-reckless-driving/>

Tristram, Pierre. "Israel's Separation Barrier in the West Bank: Security Fence of Land Grab?" About.com (an IAC Company). Last modified April 11, 2014. <http://middleeast.about.com/od/arabisraeliconflict/a/me070905b.htm>

U.S.-Mexico Border, 2013, 46.24 in. x 29.12 in. The Guardian. <http://www.theguardian.com/commentisfree/2013/may/17/bodies-at-border-immigration-reform>

War, 2008, 6.4 in. x 4.13 in. Peridodismo en le Red. <http://www.periodismoenlared.com/israel-hezbollah-cierran>

Wasserman, Hilary. Yad Vashem, 2013, 16 in. x 12 in. Trapped in the Library. <http://hdwblog.blogspot.com/2013/02/my-visit-to-yad-vashem.html>

Weaver, Jason. Pedro e Inês Bridge: Assorted Views, 2007, 30.72 in. x 23.04 in. Flickr. <https://www.flickr.com/photos/jasonweaver/377844427/>

Western Wall: Old City of Jerusalem, 14 in. x 9.32 in. Professor Vaiman's ENT Clinic. <http://vaiman.org/eng/organization/>

Wolf, Aaron T. "Conflict and Cooperation Along International Waterways." *Water Policy* 1 (1998).

Yad Vashem: Complex, 2013, 19.20 in. x 14.67 in. Wikipedia. [http://en.wikipedia.org/wiki/Yad_Vashem#mediaviewer/File:Israel-2013\(2\)-Aerial-Jerusalem-Yad_Vashem_01.jpg](http://en.wikipedia.org/wiki/Yad_Vashem#mediaviewer/File:Israel-2013(2)-Aerial-Jerusalem-Yad_Vashem_01.jpg)

Yad Vashem: Hall of Names, 2013, 6.5 in. x 4.25 in. iDeasgn. <http://ideasgn.com/architecture/yad-vashem-holocaust-history-museum-moshe-safdie/>

Yad Vashem: Museum Entrance, 2013, 6.5 in. x 4.24 in. iDeasgn. <http://ideasgn.com/architecture/yad-vashem-holocaust-history-museum-moshe-safdie/>

Yad Vashem: Museum Exit, 2005, 20 in. x 13.81 in. About.com (an IAC Company). <http://architecture.about.com/od/greatbuildings/ig/Museum-Architecture/Yad-Vashem.htm>

Yad Vashem: Museum Interior, 2013, 6.5 in. x 4.22 in. iDeasgn. <http://ideasgn.com/architecture/yad-vashem-holocaust-history-museum-moshe-safdie/>

Zeppelinfeld, 2006, 28.48 in. x 21.36 in. Flickr. <https://www.flickr.com/photos/10068173@N08/4486710571/>

Zeppelinfeld: Dec 2004, 2004, 16 in. x 12 in. Wikipedia. http://en.wikipedia.org/wiki/Nazi_party_rally_grounds

