

RESTORATIVE MEMORIALS: IMPROVING MENTAL HEALTH BY RE-MINDING

by

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A REPORT

submitted in partial fulfillment of the requirements for the degree

MASTER OF LANDSCAPE ARCHITECTURE

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ABSTRACT

Human nature compels us to remember the past. A society's collective memory creates meaning in our lives, establishing individual and group identity and contextualizing cultural values. Commemorative landscapes give physical form to loss and memory, providing a space for public awareness and remembrance while acting as a sanctuary for dealing with loss. Over time, memorials face a loss of relevance as generations pass and society evolves to embody different shared memories and values.

At the same time, our environment directly affects our physical and psychological well-being. Restorative environments benefit the individual by reducing stress. If the well-being of the individual and his or her environment are directly linked, landscape architecture can be utilized to restore mental well-being.

A commemorative space combining the characteristics of memorials and restorative environments will act as a "restorative memorial". Beyond remembering the events, people, or circumstances that establish cultural identity and values, restorative memorials would improve mental well-being, reminding the individual of their cultural identity while reducing psychological stress.

Synthesizing literature understanding the importance of memorials, restorative environments, loss, stress, and environmental psychology with experiential observations of memorials and restorative environments generated a set of design guidelines for restorative memorials. These design guidelines were applied to a design commemorating the legacy of the Menninger Clinic in Topeka, Kansas.

The Menninger family formed the first group psychiatric practice in the country. They became world-renowned leaders in psychiatric and behavioral health treatments, believing a patient's physical and social environment was instrumental to improve mental health. In 2003, the Menninger Clinic relocated to Houston, Texas, vacating a campus which played a great role in the history of Topeka, Kansas, and psychiatry. A restorative memorial commemorating the Menninger legacy could reconnect the citizens of Topeka with the history of the former campus and would pay homage to the ideals of the Menningers, using the designed environment to continue improving mental health.

Restorative memorials can become landmarks in the urban fabric, providing an engaging built environment, imbued with meaning. They will transcend generational significance, serving the past, present, and future.

ON SOLOMON • NORMA
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restorative memorials

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Anne Beamish

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Anne Beamish

Jon Hunt

Susanne Seipl-Coates

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to my parents

who continuously encourage me to pursue my passions

cover image | Carnation Reflection
Vietnam Veterans Memorial
Washington D.C.
(Hundley, 2012)

abstract

Human nature compels us to remember the past. A society's collective memory creates meaning in our lives, establishing individual and group identity and contextualizing cultural values. Commemorative landscapes give physical form to loss and memory, providing a space for public awareness and remembrance while acting as a sanctuary for dealing with loss. Over time, memorials face a loss of relevance as generations pass and society evolves to embody different shared memories and values.

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... J PIRE • EDM
GARY J J SCHEU
A M SYKES • GE
AUSEN Jr • CAR
CARBONE • J
C DONAHUE
Y HEAD • TH
AIR • THOM

left image | Sunset on Names
Vietnam Veterans Memorial
Washington D.C.
(Hundley, 2012)

table of contents

1	introduction		
2	background		
5	intent		
7	investigation		
8	process		
14	relevance		
15	looking ahead		
17	memorials		
19	theoretical understanding		
35	precedents		
75	summary		
77	restorative environments		
79	theoretical understanding		
105	precedents		
143	summary		
145	design guidelines		
147	guideline generation		
151	guidelines		
169	conclusions		
		171	the menninger legacy
		173	historical background
		213	summary
		215	the menninger campus
		217	understanding the land
		229	site inventory
		235	experiential analysis
		261	summary
		263	design application
		265	design approach
		267	conceptual vision and framework
		277	master plan
		287	conceptual spaces
		297	reflections
		301	appendices
		303	glossary
		304	precedent study list
		304	works cited
		311	references
		313	images cited

list of figures

introduction

- figure 1.01 | The Memorial Landscape
(Hundley, 2012) | p. 2
- figure 1.02 | Intent Diagram
(Hundley, 2013) | p. 4
- figure 1.03 | Identifying A Dilemma
(Hundley, 2012) | p. 7
- figure 1.04 | Master's Project Work Plan
(Hundley, 2013) | p. 12

memorials

- figure 2.01 | Steps that Narrate
(Hundley, 2012) | p. 17
- figure 2.02 | The Seal of Patriotism
(Hundley, 2012) | p. 18
- figure 2.03 | Relief of a Temple
(Hundley, 2012) | p. 22
- figure 2.04 | Reflections in the Cut in the Earth
(Hundley, 2012) | p. 24
- figure 2.05 | Community Reflections
(Hundley, 2012) | p. 30
- figure 2.06 | Washington Monument Plan
(Hundley, 2013) | p. 34
- figure 2.07 | Washington Monument from
the Lincoln Steps
(Hundley, 2012) | p. 36

- figure 2.08 | Lincoln Memorial Plan
(Hundley, 2013) | p. 38
- figure 2.09 | Lincoln Memorial
(Hundley, 2012) | p. 39
- figure 2.10 | The Savior of the Country
(Hundley, 2012) | p. 40
- figure 2.11 | Across the Water
(Hundley, 2012) | p. 41
- figure 2.12 | Thomas Jefferson Memorial Plan
(Hundley, 2013) | p. 42
- figure 2.13 | Washington and Jefferson
(Hundley, 2012) | p. 43
- figure 2.14 | Statue of Jefferson
(Hundley, 2012) | p. 43
- figure 2.15 | An American Pantheon
(Hundley, 2012) | p. 43
- figure 2.16 | Franklin Delano Roosevelt
Memorial Plan
(Hundley, 2013) | p. 44
- figure 2.17 | Memorial Entrance
(Hundley, 2012) | p. 45
- figure 2.18 | Stone, Inscription, and Water
(Hundley, 2012) | p. 45
- figure 2.19 | The First Inauguration
(Hundley, 2012) | p. 46
- figure 2.20 | The Breadline
(Hundley, 2012) | p. 47
- figure 2.21 | FDR and his Chair
(Hundley, 2012) | p. 47
- figure 2.22 | "I have seen war on land and sea"
(Hundley, 2012) | p. 48
- figure 2.23 | "I HATE WAR"
(Hundley, 2012) | p. 48
- figure 2.24 | Civil Freedoms
(Hundley, 2012) | p. 49
- figure 2.25 | Martin Luther King Jr.
Memorial Plan
(Hundley, 2013) | p. 50
- figure 2.26 | The Mountain of Despair
(Hundley, 2012) | p. 51
- figure 2.27 | Dr. King through the Leaves
(Hundley, 2012) | p. 52
- figure 2.28 | Visitors in the Memorial
(Hundley, 2012) | p. 53
- figure 2.29 | Dr. King as the Stone of Hope
(Hundley, 2012) | p. 53
- figure 2.30 | National Museum of the
American Indian Plan
(Hundley, 2013) | p. 54
- figure 2.31 | Undulating Building
(Hundley, 2012) | p. 55

- figure 2.32 | Landscapes of the
Chesapeake Bay
(Hundley, 2012) | p. 56
- figure 2.33 | Grandfather Rocks
(Hundley, 2012) | p. 57
- figure 2.34 | World War II Memorial Plan
(Hundley, 2013) | p. 58
- figure 2.35 | Lit Rainbow Pool
(Hundley, 2012) | p. 59
- figure 2.36 | The Atlantic Pavilion
(Hundley, 2012) | p. 60
- figure 2.37 | "Here We Mark the
Price of Freedom"
(Hundley, 2012) | p. 60
- figure 2.38 | Lincoln at Sunset
(Hundley, 2012) | p. 61
- figure 2.39 | "Shared to the Full"
(Hundley, 2012) | p. 61
- figure 2.40 | Korean War Veterans
Memorial Plan
(Hundley, 2012) | p. 62
- figure 2.41 | Approaching the Soldiers
(Hundley, 2012) | p. 63
- figure 2.42 | "Freedom is Not Free"
(Hundley, 2012) | p. 63
- figure 2.43 | The Losses of War
(Hundley, 2012) | p. 64
- figure 2.44 | Visages in Granite
(Hundley, 2012) | p. 65
- figure 2.45 | Approaching the Flag
(Hundley, 2012) | p. 65
- figure 2.46 | Vietnam Veterans Memorial Plan
(Hundley, 2012) | p. 66
- figure 2.47 | Approach from the
Constitution Gardens
(Hundley, 2012) | p. 67
- figure 2.48 | Vietnam Women's Memorial
(Hundley, 2012) | p. 68
- figure 2.49 | The Three Servicemen
(Hundley, 2012) | p. 68
- figure 2.50 | Approach from the
Lincoln Memorial
(Hundley, 2012) | p. 69
- figure 2.51 | The Center of the Wall
(Hundley, 2012) | p. 70
- figure 2.52 | Textures (Hundley, 2012) | p. 71
- figure 2.53 | The Wall (Hundley, 2012) | p. 71
- figure 2.54 | Rubbing A Name
(Hundley, 2012) | p. 72
- figure 2.55 | American Star
(Hundley, 2012) | p. 72
- figure 2.56 | Muskoke Nation Honor
Guard Badge
(Hundley, 2012) | p. 73
- figure 2.57 | "They Were Our Fathers..."
(Hundley, 2012) | p. 73
- figure 2.58 | "I Have A Dream..."
(Hundley, 2012) | p. 74

restorative environments

- figure 3.01 | The River of Life
(Hundley, 2012) | p. 76
- figure 3.02 | Rejuvenation through Nature
(Hundley, 2012) | p. 86
- figure 3.04 | Natural Elements in the Built Environment
(Hundley, 2012) | p. 90
- figure 3.05 | Textures of Water, Shade, and Stone (Hundley, 2012) | p. 91
- figure 3.06 | Opportunities for Seating
(Hundley, 2012) | p. 91
- figure 3.07 | Enclosed Nature, Nature Beyond
(Hundley, 2012) | p. 92
- figure 3.08 | Fascination in Being Away
(Hundley, 2012) | p. 96
- figure 3.09 | Choosing Crossings
(Hundley, 2012) | p. 100
- figure 3.10 | Seating Movability
(Hundley, 2012) | p. 102
- figure 3.11 | A Space for Community
(Hundley, 2012) | p. 103
- figure 3.12 | Healing Garden Plan
(Hundley, 2013) | p. 104
- figure 3.13 | The Hospital Tower
(Hundley, 2012) | p. 106
- figure 3.14 | Sinuous Seat-Walls
(Hundley, 2012) | p. 107
- figure 3.15 | Under the Shade of the Paloverde Tree
(Hundley, 2012) | p. 108
- figure 3.16 | Ceramic Pillars
(Hundley, 2012) | p. 108
- figure 3.17 | Wisdom Circles
(Hundley, 2012) | p. 109
- figure 3.18 | Entry Garden Plan
(Hundley, 2013) | p. 110
- figure 3.19 | Framed Corridor
(Hundley, 2012) | p. 111
- figure 3.20 | Infusion Garden Site Sketch
(Hundley, 2012) | p. 111
- figure 3.21 | The Third Eye Chakra
(Hundley, 2012) | p. 112
- figure 3.22 | An Overflowing Fountain
(Hundley, 2012) | p. 113
- figure 3.23 | The Infusion Garden
(Hundley, 2012) | p. 113
- figure 3.24 | The Desert Flower
(Hundley, 2012) | p. 114
- figure 3.25 | Color and Texture
(Hundley, 2012) | p. 115
- figure 3.26 | Roof Garden Plan
(Hundley, 2013) | p. 116
- figure 3.27 | Bright Pots and White Spots
(Hundley, 2012) | p. 117
- figure 3.28 | Healing Garden
(Hundley, 2012) | p. 118
- figure 3.29 | Animal Fountains
(Hundley, 2012) | p. 119
- figure 3.30 | Mosaic Bench
(Hundley, 2012) | p. 119

- figure 3.31 | Braeden's Playground
(Hundley, 2012) | p. 120
- figure 3.32 | Deer Sculpture
(Hundley, 2012) | p. 120
- figure 3.33 | Space for Sharing
(Hundley, 2012) | p. 121
- figure 3.34 | H.N. and Francis C. Berger
Thomas and Joan Kalimanis
Healing Garden Plan
(Hundley, 2013) | p. 122
- figure 3.35 | Indoor-Outdoor Relationships
(Hundley, 2012) | p. 123
- figure 3.36 | Seating under the Butterfly Vines
(Hundley, 2012) | p. 124
- figure 3.37 | The Plant-Lined Path
(Hundley, 2012) | p. 124
- figure 3.38 | Yellow Scrim
(Hundley, 2012) | p. 125
- figure 3.39 | Butterfly Trellis
(Hundley, 2012) | p. 126
- figure 3.40 | Sitting On the Water
(Hundley, 2012) | p. 127
- figure 3.41 | Banner Gateway Hospital
Healing Gardens Plan
(Hundley, 2013) | p. 128
- figure 3.42 | Linking Shaded Pathways
(Hundley, 2012) | p. 129
- figure 3.43 | Being Away
(Hundley, 2012) | p. 130
- figure 3.44 | Tranquility
(Hundley, 2012) | p. 131
- figure 3.45 | Surrounding Seating
(Hundley, 2012) | p. 131
- figure 3.46 | Treatment (Hundley, 2012) | p. 132
- figure 3.47 | Recovery (Hundley, 2012) | p. 132
- figure 3.48 | The Togetherness Garden
(Hundley, 2012) | p. 133
- figure 3.49 | The Canyon Wall |
(Hundley, 2012) | p. 134
- figure 3.50 | Meditation Garden Courtyard
(Hundley, 2012) | p. 135
- figure 3.51 | Seclusion (Hundley, 2012) | p. 136
- figure 3.52 | Reclining Seating
(Hundley, 2012) | p. 136
- figure 3.53 | Overhanging Trellis
(Hundley, 2012) | p. 137
- figure 3.54 | Mercy Gilbert Medical Center Plan
(Hundley, 2013) | p. 138
- figure 3.55 | Fountains and the Tree of Life
(Hundley, 2012) | p. 139
- figure 3.56 | The Labyrinth Amphitheater
(Hundley, 2012) | p. 140
- figure 3.57 | A Community's Canopy
(Hundley, 2012) | p. 141
- figure 3.58 | Nature and the Individual
(Hundley, 2012) | p. 142

design guidelines

- figure 4.01 | A Touched Hand
(Hundley, 2012) | p. 144
- figure 4.02 | Understanding the Characteristics
of Memorials and
Restorative Environments
(Hundley, 2013) | p. 148
- figure 4.03 | Finding Themes and Patterns
(Hundley, 2013) | p. 148
- figure 4.04 | Cultural Identity and Value
(Hundley, 2013) | p. 152
- figure 4.05 | “Places” with Meaning
(Hundley, 2013) | p. 154
- figure 4.06 | Meanings through Narratives
(Hundley, 2013) | p. 156
- figure 4.07 | Community
(Hundley, 2013) | p. 158
- figure 4.08 | Biophilia (Hundley, 2013) | p. 160
- figure 4.09 | Individual Choice
(Hundley, 2013) | p. 162
- figure 4.10 | Social Interactions
(Hundley, 2013) | p. 164
- figure 4.11 | Stimulate the Senses
(Hundley, 2013) | p. 166
- figure 4.12 | Design Guidelines for a
Restorative Memorial
(Hundley, 2013) | p. 168

the menninger legacy

- figure 5.01 | A Historic Icon
(Hundley, 2013) | p. 170
- figure 5.02 | The Three Drs. Menninger on
Arbor Day in Topeka, KS
(Kansas Memory, 1953) | p. 172
- figure 5.03 | The Menninger Clinic East Lodge
(Wolfe Commercial Photo, 1928)
| p. 181
- figure 5.04 | Aerial View of the Menninger
Clinic West Campus
(Kansas Memory, 1963) | p. 191
- figure 5.05 | Security Benefit Association,
Hilltop Manor Brochure
(Kansas Memory, n.d.) | p. 192
- figure 5.06 | Security Benefit Association
Hospital Building
(Kansas Memory, 1930) | p. 193
- figure 5.07 | “Your Host for the Leisure Years”
(Kansas Memory, n.d.) | p. 193
- figure 5.08 | Tower Building and Clocks
(Kansas Memory, 1980) | p. 194
- figure 5.09 | Master Plan Rendering
(Carlos Diniz Associates, 1980)
| p. 195
- figure 5.10 | A Patient’s Room at the
Menninger Clinic
(Kansas Memory, 1980) | p. 196
- figure 5.11 | The Creative Arts Complex
(Carlos Diniz Associates, 1980)
| p. 197

figure 5.12 | Therapy Practices at the
Menninger Clinic
(Kansas Memory, 1985; 1980; 1980;
1994; 1980-1990; 1967; 1965-1968;
1990; 1980) | p. 198

figure 5.13 | The Creative Arts Complex
Rendering
(Carlos Diniz Associates, 1980)
| p. 199

figure 5.14 | Aerial Perspective Master Plan
(The Menninger Foundation, n.d.)
| p. 200

figure 5.15 | The Conference Center
(Kansas Memory, 1982) | p. 202

figure 5.16 | Karl Menninger, M.D., lecturing
(Kansas Memory, 1961) | p. 203

figure 5.17 | Landscape Zones
(Skidmore, Owings, & Merrill et al.,
1979) | p. 204

figure 5.18 | Entry Plaza
(Skidmore, Owings, & Merrill et al.,
1979) | p. 206

figure 5.19 | Pedestrian Avenue
(Skidmore, Owings, & Merrill et al.,
1979) | p. 207

figure 5.20 | Courtyard
(Skidmore, Owings, & Merrill et al.,
1979) | p. 208

figure 5.21 | Sitting Area (Skidmore, Owings, &
Merrill et al., 1979) | p. 209

figure 5.22 | Lawn
(Skidmore, Owings, & Merrill et al.,
1979) | p. 210

figure 5.23 | Parking
(Skidmore, Owings, & Merrill et al.,
1979) | p. 211

figure 5.24 | The Main Entry to the
Menninger Campus
(Carlos Diniz Associates, 1980)
| p. 212

figure 5.25 | Dr. Roy Menninger at the West
Campus Dedication
(Kansas Memory, 1982) | p. 213

the menninger campus

figure 6.01 | Slopes Looking North
to the Tower
(Hundley, 2013) | p. 214

figure 6.02 | Site Context
(Hundley, 2013) | p. 218

figure 6.03 | Site Infrastructure
(Hundley, 2013) | p. 220

figure 6.04 | Poor Existing Road Conditions
(Hundley, 2013) | p. 221

figure 6.05 | Road Maintenance Typologies
(Hundley, 2013) | p. 221

figure 6.06 | Adjacencies
(Hundley, 2013) | p. 223

figure 6.07 | The Tower Building
(Hundley, 2013) | p. 224

- figure 6.08 | Land Use
(Shawnee County Public GIS, 2012)
| p. 226
- figure 6.09 | Property Ownership
(Shawnee County Public GIS, 2012)
| p. 227
- figure 6.10 | Site Topography
(USGS, 2006) | p. 228
- figure 6.11 | Native Stone
(USDA, 1998) | p. 229
- figure 6.12 | North-South Section
(Hundley, 2013) | p. 229
- figure 6.13 | Slope Inventory
(USGS, 2006) | p. 230
- figure 6.14 | East-West Sections
(Hundley, 2013) | p. 231
- figure 6.15 | Slope Aspect
(USGS, 2006) | p. 232
- figure 6.16 | Hydrology (USGS, 2006) | p. 232
- figure 6.17 | Wind Rose (NRCS, 2003) | p. 232
- figure 6.18 | Walkable Suitability
(Hundley, 2013) | p. 233
- figure 6.19 | Experiential Zones
(Hundley, 2013) | p. 234
- figure 6.20 | Revealing the Tower Building
(Hundley, 2013) | p. 236
- figure 6.21 | Revealing the Main Entry
(Hundley, 2013) | p. 237
- figure 6.22 | Revealing from the Southeast
(Hundley, 2013) | p. 238
- figure 6.23 | The Southeastern Entry
(Hundley, 2013) | p. 239
- figure 6.24 | View from the KDWPT Office
(Hundley, 2013) | p. 240
- figure 6.25 | The Western Entry
(Hundley, 2013) | p. 241
- figure 6.26 | The North Meadow
(Hundley, 2013) | p. 242
- figure 6.27 | Framed View from the Clearing
(Hundley, 2013) | p. 243
- figure 6.28 | View from the Hillcrest
(Hundley, 2013) | p. 244
- figure 6.29 | The Western Entry
(Hundley, 2013) | p. 244
- figure 6.30 | The Eastern Overlook
(Hundley, 2013) | p. 246
- figure 6.31 | The Eastern Ridge's Panoramas
(Hundley, 2013) | p. 247
- figure 6.32 | I-70 from the Western Ridge
(Hundley, 2013) | p. 248
- figure 6.33 | The Western Overlook
(Hundley, 2013) | p. 249
- figure 6.34 | The Central Drainage
(Hundley, 2013) | p. 250
- figure 6.35 | Encompassing Views
(Hundley, 2013) | p. 251
- figure 6.36 | Pecans on the Pedestrian Avenue
(Hundley, 2013) | p. 252
- figure 6.37 | The Approach to the Tower
Building (Hundley, 2013) | p. 253

figure 6.38 | The Exposed Hillside
(Hundley, 2013) | p. 254

figure 6.39 | The Former Campus
(Hundley, 2013) | p. 255

figure 6.40 | Views of the Entry Plaza
(Hundley, 2013) | p. 256

figure 6.41 | The Icon of the Campus
(Hundley, 2013) | p. 257

figure 6.42 | Standing Level with the
Tower Building
(Hundley, 2013) | p. 258

figure 6.43 | View from the Encompassing
Slope (Hundley, 2013) | p. 260

design application

figure 7.01 | View from the Pedestrian Avenue
(Hundley, 2013) | p. 262

figure 7.02 | Overlaying Milieu Therapy
with the Design Guidelines for a
Restorative Memorial
(Hundley, 2013) | p. 266

figure 7.03 | Nature in Milieu Therapy
(Hundley, 2013) | p. 268

figure 7.04 | Characteristics of a Natural
Experience (Hundley, 2013) | p. 269

figure 7.05 | Community in Milieu Therapy
(Hundley, 2013) | p. 270

figure 7.06 | Characteristics of a Community
Experience (Hundley, 2013) | p. 271

figure 7.07 | Mind in Milieu Therapy
(Hundley, 2013) | p. 272

figure 7.08 | Characteristics of a Mindful
Experience (Hundley, 2013) | p. 273

figure 7.09 | Design Framework
(Hundley, 2013) | p. 275

figure 7.10 | Menninger Clinic Commemorative
Park Master Plan
(Hundley, 2013) | p. 276

figure 7.11 | Entry Enlargement
(Hundley, 2013) | p. 278

figure 7.12 | Trail System Enlargement
(Hundley, 2013) | p. 280

figure 7.13 | Commemorative Space
Enlargement
(Hundley, 2013) | p. 282

figure 7.14 | Pioneer Courthouse Square
(Hundley, 2011) | p. 285

figure 7.15 | Big Birds in Geneva by Cedric Le
Borgne (Nova, 2012) | p. 285

figure 7.16 | Limestone Walls
(Hundley, 2013) | p. 285

figure 7.17 | Keller Fountain Park
(Hundley, 2011) | p. 285

figure 7.18 | Kansas Natives
(Hundley, 2013) | p. 285

figure 7.19 | Location of Conceptual Spaces
(Hundley, 2013) | p. 286

figure 7.20 | Aerial View of Fellowship Space
(Hundley, 2013) | p. 288

figure 7.21 | Standing within the Outdoor Classroom (Hundley, 2013) | p. 288

figure 7.22 | Looking Out over Topeka (Hundley, 2013) | p. 288

figure 7.23 | The Fellowship Plaza (Hundley, 2013) | p. 289

figure 7.24 | Aerial View of Interpretation Space (Hundley, 2013) | p. 290

figure 7.25 | The Interpretation Space (Hundley, 2013) | p. 291

figure 7.26 | Covered Walkways (Hundley, 2013) | p. 292

figure 7.27 | Lowered Courtyard and Movable Seating (Hundley, 2013) | p. 292

figure 7.28 | A Brick and Limestone Fountain (Hundley, 2013) | p. 293

figure 7.29 | Fauna Statues (Hundley, 2013) | p. 293

figure 7.30 | A Place to Rest (Hundley, 2013) | p. 294

figure 7.31 | Hidden Alcoves in the Meadow (Hundley, 2013) | p. 294

figure 7.32 | A Discovery Overlook (Hundley, 2013) | p. 295

reflections

figure 8.01 | Reflections at the Korean War Veterans Memorial (Hundley, 2012) | p. 310

appendices

figure 9.01 | Twenty-Five Years of Service (Hundley, 2012) | p. 314



A landscape photograph showing a wide body of water in the foreground, a dark silhouette of trees and buildings in the middle ground, and a vast, cloudy sky in the background. The word "introduction" is overlaid in a bold, green, sans-serif font in the center of the image.

introduction

background

figure 1.01 | (previous spread)
The Memorial Landscape
Thomas Jefferson Memorial
Washington D.C.
(Hundley, 2012)

Just west of Topeka stands the Tower Building of the former Menninger Clinic West Campus. This clock tower is on the National Register for Historic Sites as the “centerpiece” of a campus that housed the first group psychiatry practice in the country (Walton, 2007). The Menninger family built their practice around the belief that the patient’s environment was instrumental in the treatment of mental illness, a revolutionary therapeutic method that earned them international renown. Highway signs used to greet visitors saying “Welcome to Topeka, Kansas, the psychiatric capital of the world” (Goode, 2003). In 2003, the Menninger Clinic relocated to Houston, Texas, leaving Topeka at a loss for this part of its historic identity. The campus now lies vacant, sitting high on a hill overlooking central Topeka. While

plans to develop the site into a new health park for the St. Francis Health Center of Topeka once held hope for reinventing this historic landscape, that vision has been abandoned. As the landscape of the campus changes over time, what remains is the legacy of the Menninger's work, using the environment as a key aspect in the restoration of mental health. Though the Menninger Clinic practice is no longer an active part of Topeka, their legacy should be commemorated.

As cities, communities, or individuals experience differing forms of loss, spaces commemorating cultural identity can experience losses of meaning. A memorial's purpose is to communicate meaning by commemorating cultural identity through remembrance of people, events or ideals. Without communicating this meaning,

memorials lose their significance in the landscape. A hybrid of memorials and restorative landscapes would be a fitting means to remember the importance of the Menningers to Topeka. The ideals of the Menningers can serve as inspiration for creating commemorative spaces that will reach the visitor on deeper level. If memorials were to serve as restorative environments, improving mental health, they could service future generations as a richer element in the landscape. Just as the past shapes the future, a restorative memorial can help shape how we remember the past.



figure 1.02 | Intent Diagram
(Hundley, 2013)

intent

Memorials function as physical expressions of cultural identity and remembrance in the landscape. As generations associated with that cultural identity are no longer present, a memorial's meaning and relevance to society can be lost. The urban environment often experiences overabundances of commemorative spaces that have lost their importance and faded into the urban fabric. To combat this, memorials need to do more than just commemorate. Discovering richer ways to design memorials and commemorative spaces will ensure that their significance is retained. Beyond commemorating a single person or event, these spaces must communicate ongoing meaning to future generations as physical interpretations of society's shared memories and values. By pursuing the study of the user's mental interaction with their environment, this report examined how to communicate a society's shared memories and values in a recognizable way that has deeper layers of meaning.

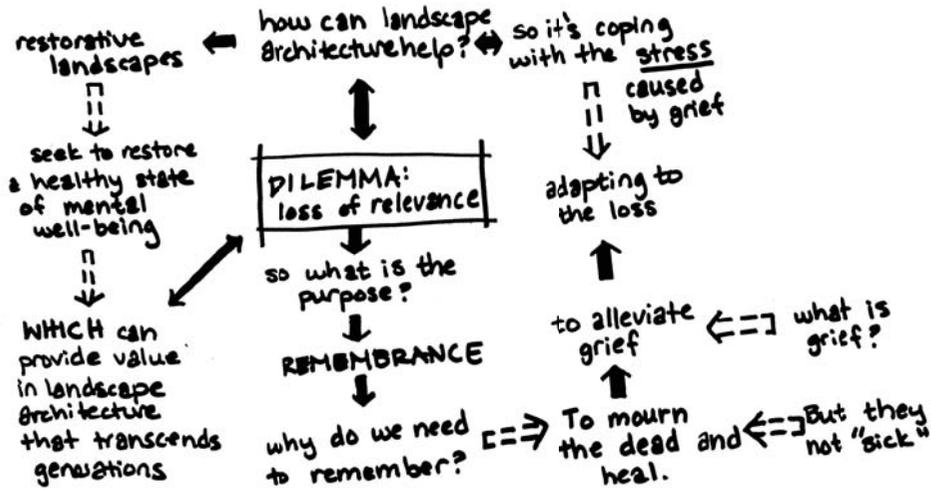
objective

The objective of this project was to create design guidelines for a new type of memorial—a restorative memorial. To generate these guidelines, a process of research, synthesis, application, and reflection occurred. Currently, there are no design guidelines for a commemorative landscape, and for good reason. Differing cultural values and subjects of commemoration will influence how they should be represented in the built landscape. These spaces should not be subjected to “rules” per say, for they must be adaptable to the diverse aspects of a community's cultural values and subjects of commemoration. To aid designers in the development of commemorative spaces, a vocabulary and understanding needs to be established as to what a “restorative memorial” is. This will better communicate how to incorporate the characteristics of both memorials and restorative environments into a singular design. A hybrid such as this has not been defined

before, and to do so it is necessary to identify the essential characteristics of both memorials and restorative environments. This understanding was strengthened by experiential observations at memorial and restorative environment precedents. Together, a synthesis of this information generated the design guidelines for a restorative memorial. These guidelines were applied through a commemorative park design commemorating the work of the Menninger Clinic and the values of their practice in Topeka, Kansas. Recalling the Menningers' historical background, methods, and philosophy helped to envision the design of this park as a restorative memorial. And finally, reflections on the strengths and weaknesses of these guidelines provided insight into their best uses for landscape architects.

personal philosophy

Throughout my education, I have cultivated an interest in how spaces are perceived by the individual and what aspects of the environment affect their experience of a place. I seek to utilize this new approach to designing spaces for remembrance and commemoration to improve the environment in which we live, creating spaces that will hold greater meaning and be beneficial to both the individual and community's health.



investigation

dilemma

Commemorative spaces face the challenge of continuously communicating meaning to future generations. If memorials are to retain meaning and significance in the future, they must fulfill more purposes in their design. One method could be to design these spaces to aid in the restoration of mental well-being. Therefore, a hybrid of memorials and restorative environments needs to be developed to define a new type of memorial—a restorative memorial.

The Menninger family built a group psychiatry practice that has achieved recognition as a world leader and national resource in psychiatric and behavioral health treatments emphasizing the importance of a patient’s physical and social environment to mental health. Due to the recent move to Houston, Texas, the former Menninger Clinic West Campus now stands vacant, leaving a void in Topeka’s cultural and historical identity.

research question

Using literature on memorials, loss, restorative environments, and stress, what design guidelines could lead to memorials serving two purposes: remembering and reducing psychological stress?

How then could these guidelines be applied a restorative memorial commemorating the ground-breaking psychiatric work of the Menninger Clinic in Topeka, Kansas?

thesis

Incorporating restorative environment principles into the design of memorials will help individuals remember the past and alleviate stress. These “restorative memorials” will retain meaning and significance, benefiting both present and future generations. Applying design guidelines for a restorative memorial to the former Menninger Clinic West Campus would commemorate the work and ideals of the Menningers, using the designed environment to improve mental health.

process

Restorative memorials synthesize the theory behind the design of memorials and restorative environments, thus creating commemorative spaces that evoke remembrance and alleviate stress. A comparative analysis of literature and experiential observations of the qualities of memorial and restorative environment precedents informed a set of design guidelines to create a hybrid of these two spaces. These guidelines were applied to the design of a restorative memorial commemorating the people, work, and ideals of the Menninger Clinic in a Topeka, Kansas.

research and investigation

Initially, an understanding of the qualities of memorials and restorative environments must occur. This was done by synthesizing existing literature and experiential observations of memorial and restorative environment precedents. These two types of spaces differ in their purposes, and so too do their design characteristics. A memorial serves as a physical form of remembrance and cultural identity in the environment; whereas, a restorative environment seeks to benefit the physical and mental health of the visitor. Some memorial precedents were not originally designed to be restorative, and some healing gardens, as restorative environments, do not necessarily commemorate. Therefore, neither can individually serve as a model for a restorative memorial.

Background research of existing literature helped to define the purpose and qualities of a memorial and of a restorative environment. Only through a clear understanding of these spaces' purposes and

how they are shaped can the differences and similarities between the two be illustrated and applied to the set of design guidelines for restorative memorials.

To further understand how these purposes are realized in the landscape, personal experiential observations at both memorial and restorative environment precedents was done to interpret the most evocative practices of both precedent forms. Observations involved a visual analysis as well as reflections on the experience of the site. The visual analysis focused on noting the physical aspects of the site design; such as design features, aesthetic and spatial elements, circulation, orientation, and key views. This was recorded by noting the memorial or restorative environment's location and name, sketching the site plan and describing the place, understanding the location and context of the space within the broader environment, summarizing the activities observed within the space and by whom, objectively recording personal experience within the space, and assessing

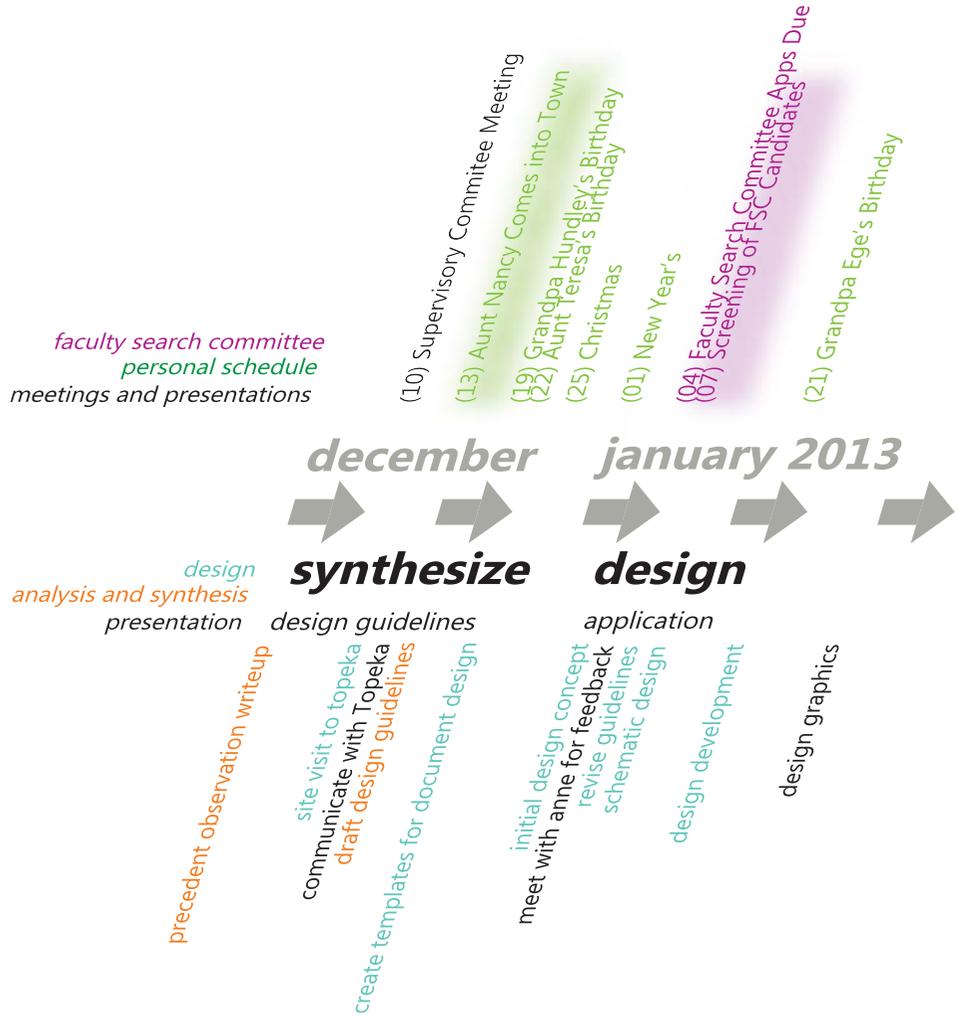
how the design is working or failing overall (Marcus and Francis, 1997). This method was adapted from the studies of Claire Cooper Marcus, Carolyn Francis, and Marni Barnes' analysis of "people places" and gardens in healthcare facilities (Marcus & Francis, 1997; Marcus & Barnes, 1995). By understanding how the space is physically shaped, one can then correlate that knowledge with how the design affects the visitor's experience. A personal experiential record was kept, noting the sensory qualities of space at the time observed and opportunities for privacy or social interactions. This record was kept through a stream of consciousness, tracking what stimulated the senses, attracted attention, or evoked emotional responses (Marcus & Francis, 1997).

subjects of study

The memorial precedents chosen were congregated within the Memorial Parks of the National Mall in Washington D.C. These memorials were selected for the purpose of their convenient proximities and broad cultural significance. As memorials depicting influential people and events on a national and international scale, they hold significance across a wider user dataset. These spaces are most likely to speak to an American, providing a sense of national pride, history, and identity; despite our multi-cultural society built on differing values. I selected the Washington Monument, Lincoln Memorial, and Thomas Jefferson Memorial, for their importance to the shaping of our nations values. I also selected the Franklin Delano Roosevelt Memorial, Martin Luther

King Jr. Memorial, the National Museum of the American Indian, World War II Memorial, Korean War Memorial, and Vietnam Veterans Memorial, for they are contemporary examples of how memorials are being designed today, serving as examples for memorial design in this generation's era.

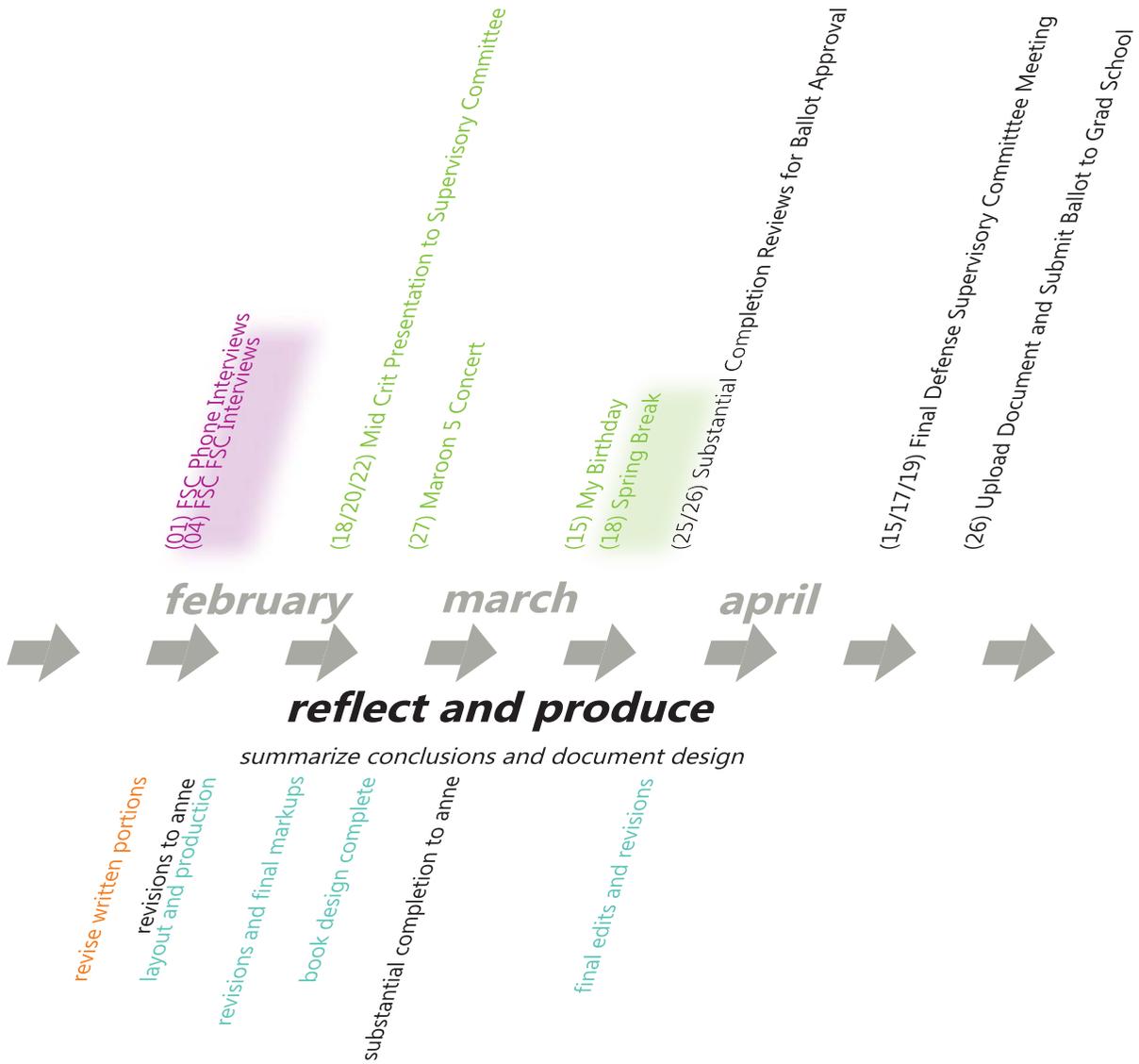
The healing gardens featured at the 2012 ASLA Annual Meeting and Expo in Phoenix, Arizona, served as precedents for restorative environments. These projects include Banner Good Samaritan Regional Medical Center, Phoenix Children's Hospital, Scottsdale Healthcare Center: Thompson Peak, Banner Gateway Hospital, and Mercy Gilbert Hospital. These spaces are accepted as exemplary forms of restorative environments by landscape architects.



analysis

To synthesize the literature and experiential observations of memorials and restorative environments, a comparative analysis was conducted to find patterns, connections, and recurring themes in the design of each respectively. A firm

understanding of memorial and restorative environment design and how the purpose of both is communicated was necessary to combine these two types of spaces into a new typology. This process shaped the generation of design guidelines for a restorative memorial.



application

These restorative memorial design guidelines were applied to the former Menninger Clinic West Campus to test them in practice and propose a space commemorating the legacy of the Menninger Clinic’s people, work, and

ideals. The design of this site can act as one approach for utilizing the restorative memorial design guidelines, serving as a model for landscape architects to utilize in the design of future commemorative spaces.

figure 1.04 | Master’s Project Work Plan (Hundley, 2013)

relevance

Deeper meaning and significance for generations will occur when memorials serve the needs of the individual. Healthcare facilities have made great strides in recognizing the natural environment's restorative benefit on a patient's healing process through the alleviation of stress. If memorials were to transcend the act of commemoration and function as a means to cope with loss, alleviate grief-induced stress, and restore mental health, they would acquire greater value. Landscape architects have expertise in using the natural landscape to shape the human environment. Human contact with nature in the environment is beneficial to an individual's health (Hartig & Marcus, 2006). The understanding of the positive effects of nature in environmental psychology informs the design of restorative landscapes and could shape a new way

of approaching commemorative spaces. Though each site of commemoration will dictate the design and meaning it has to communicate, by incorporating restorative design for mental health, universal benefits may be attained for society.

The relevance of this study lies in the current lack of guiding principles for the design of memorial spaces. Establishing landscapes that not only transcend the act of commemoration but also improve mental well-being will retain significance over generations. Though cultural values and preferences will dictate the design and message that each site communicates, an understanding of restorative environments could benefit the future design of memorials as spaces that establish cultural meaning and identity and prove to be beneficial to the mental well-being of all visitors.

looking ahead

The structure of this book addresses the process in which this project was approached. The following two chapters illustrate the characteristics of memorials and restorative environments respectively. Next these concepts are synthesized through the formulation and articulation of restorative memorial design. Then, to provide perspective for the selection of the Menninger Clinic West Campus; a historical background of the Menninger family, the growth of their practice, their ideals, and the history of the campus' development is necessary. With that perspective, the

following chapter describes the physicality and experience of the existing grounds. Combining this knowledge with the application of the design guidelines, the next chapter describes the process in which the master plan design and conceptual sketches for a commemorative park on the former Menninger Clinic West Campus was developed. And finally, the last chapter reflects on this research, the effectiveness of the design guidelines, their success in the application to a design, and further research possibilities.

JANUARY 30, 1882, FRANKLIN

"A NEW DEAL" FOR THE AMERICAN PEOPLE

FOUR FREEDOMS SPEECH

IN DELANO ROOSEVELT BO

AMERICAN PEOPLE • 1932

H • 1941 JAPAN ATTACKS

memorials



1933

figure 2.01 | (previous spread)
Steps that Narrate
Franklin Delano Roosevelt Memorial
Washington D.C.
(Hundley, 2012)

figure 2.02 | left
The Seal of Patriotism
Franklin Delano Roosevelt Memorial
Washington D.C.
(Hundley, 2012)

theoretical understanding

The following chapter will examine the theoretical understanding of memorials by examining the importance of memory and how meaning is established in the landscape. Not only is it essential to understand the relevance of memorials in the landscape, but also the emotional response that memorials instill in the individual. The second section of this chapter will describe experiential observations of precedents for memorials in Washington D.C.

the importance of memory

Culture is built around memory.

Remembering the past is integral to how we shape and understand our environment. While different religious beliefs and cultural values influence the design and subject matter of commemorative spaces, signifying historic moments in the physical landscape is a universal cultural phenomenon. A culture's memory precedes its identity, and is dependent on that identity to establish continuity over time (Wolschke-Bulmahn, 2001).

Memorials and other places of commemoration have many functions. They serve as a way to preserve the memory of individuals, groups, or events; establish both group and individual identity; and serve as a way to visualize and preserve the memories, cultural values, and political symbolism of a society in the built environment (Wolschke-Bulmahn, 2001). Memorials may commemorate wars, tragedies, achievements, or the lives of heroes or victims, but are unique to their respective communities, and the subjects of commemoration remain highly diverse (Hunt, 2001; Wolschke-Bulmahn, 2001). For example, the bronze eagle depicted in the Franklin Delano Roosevelt Memorial symbolizes America and the solidarity of the American Spirit during a time of doubt, depression, and war. Harris Dimitropoulos, professor of architecture, defines a memorial as a "representational work that stands as a testimony to the collective importance of an event, person, or circumstance. In its most successful form it has continuing

value, linking the past to the present and the future” (Dimitropoulos, 2009, p. 52). By representing memory, memorials communicate meaning and values to future generations.

The Purpose of Commemorative Spaces

To preserve memory and pride, commemorative spaces refer to a ‘true history’, presenting the “collective and consensual sense of the past as a series of facts—not individual narrations or interpretations” (Dimitropoulos, 2009, p. 53). By re-creating a person, a deed, or an event, commemorative spaces seek to communicate moral lessons to future generations, which may not necessarily be factual (Allen, 2009). Collective memory is formulated from these individual accounts. To remain as a cohesive, idealist sense of identity, “the myths it shares have to be unchallenged; the causes it shares have to be noble and justified” (Dimitropoulos, 2009, p. 55). To succeed in communicating these messages to future generations, clarity must be attained to convert individual memory to the collective memory (Allen, 2009).

The link between identity and memory formulates a society’s construction of reality. This can be influenced by the culture’s history, politics, morals, ideals,

or other factors—such as class, gender, or power relations (Wolschke-Bulmahn, 2001). A memorial has the ability to recall the past to inform new responses for the future by keeping “‘human deeds or events...alive in the mind of future generations’” (Bonder, 2009, p. 64). Joachim Wolschke-Bulmahn writes that “identity is oriented toward the future, but is based on a history that individuals have in common with others, and on the process of remembering this history, often via the act of commemoration” (Wolschke-Bulmahn, 2001, p. 2). A memorial then commemorates, but also encourages one “to be aware, to mind and remind, to warn, advise, and call for action...invit[ing] community engagement (Bonder, 2009, p. 67). In a world characterized by fast-paced development, these commemorative spaces or “memoryscapes” interpret important stories and reinforce cultural continuity (Wasserman, 1999). At the 1999 American Society of Landscape Architects Annual Meeting, Judith Wasserman emphasized that “history stays alive through storytelling, myth, ritual, and language” (Wasserman, 1999, p. 222). As an integral part of the human environment, “the designed memorial fixes events for perpetuity” (Wasserman, 1999, p. 222).

Our Role as Landscape Architects

As landscape architects, we must recognize that memorials not only preserve cultural values, but also capture the designs and materiality of landscape architects that have preceded us. Acknowledging these resources, today's landscape architects, planners, and communities will be instrumental in communicating narratives and remembrance through design (Wheelock et al., 1999). Individuals and communities utilize memorials for catharsis, providing a space for public awareness, healing, and remembrance (Wolschke-Bulmahn, 2001). As landscape architects, Joachim Wolschke-Bulmahn points out several questions to consider (2001):

How does time affect the effectiveness of sites as places of commemoration and the way they are perceived? Habits, tastes, and political ideals and ideas regarding how and what to commemorate change over time. In addition, natural developments...can alter the effectiveness of a site regarding its commemorative qualities. Do we need to reevaluate memorials from time to time to see whether they still fulfill their original purpose, assuming this purpose is still agreed upon as appropriate and desirable? Might new generations that have no personal experience of the events commemorated need a

more distinctive, more clearly explanatory and perhaps more provocative design? (pp. 4-5)

Spaces that are important to society should be designed to retain relevance over time, allowing future generations to still draw meaning from them, though their society may evolve to embody different shared memories and values.

the establishment of meaning in the landscape

Whether wars, tragedies, achievements, or the lives of heroes or victims are being memorialized, the memorial landscape's purpose is to "sustain the living" (Hunt, 2001, p. 13). So then one must ask, what do the 'living' need to be sustained? John Gillis writes in *Commemoration: The Politics of National Identity*, that "the core meaning of any individual or group identity, namely, a sense of sameness over time and space, is sustained by remembering; and what is remembered is defined by assumed identity" (Wolschke-Bulmahn, 2001, p.2). So is to be sustained to be able to draw meaning? This question is difficult to answer, for in America—and even the broader world—societies are multi-cultural, multi-temporal, and multi-geographic. Therefore, a singular



figure 2.03 | Relief of a Temple
Paestum, Campagna, Italy
(Hundley, 2012)

consensus on meaning in the landscape cannot be achieved, for there is no commonly shared value system. How then is meaning derived? We must consider the individual's experience, education, joys, and biases (Treib, 2005, p. 16). It is through our memory of the past that meaning is given to our lives, developing social values and establishing our culture's identity.

What then is the relationship between commemoration, identity, and landscape design? Can these spaces stimulate awareness or influence how we commemorate or derive identity? Do visitors find a common meaning in the landscape? Can it mediate between ideas or identities? What social, political, ethnic, or other groups own history?

Meaningful Landscapes through History

The use of memory to derive meaning from the land has been a practice of cultures since ancient Greece. In the fourth century, the Greeks provided sensory experiences in their landscapes. Music, art, food, the sound of water, and light were used as modes of entertainment, diversion and healing for users. When the Greek civilization was annexed by the Roman Empire, the remnants of these landscapes no longer existed as civic or religious sites,

but as memorial landscapes commemorating Greece's past as a symbolic means to fortify Greek identity (Herrington, 2008).

Memory is critical to perceive symbolic meanings such as these. These ancient civilizations recognized that interpretation of the landscape was essential for the well-being of body and mind. Experiencing the landscape can evoke patterns of thought that link chains of memories and associations. Memorials rely on this aspect to guide the interpretation of space (Herrington, 2008). Through shared knowledge of past information and drawing from personal experiences, anticipation of the future may occur (S. Kaplan & R. Kaplan, 1978; Campbell, 1978).

In the past 50 years, the contemporary memorial has replaced figural qualities and allegorical content with minimalism and abstraction (Dimitropoulos, 2009). Within a minimalist typology, the memorial “eschews referentiality,” projecting the ego or image of what one would like to be on the memorial (Dimitropoulos, 2009, p. 52). In this way, we would like to identify the positive aspects of ourselves, as individuals, or as a society (Dimitropoulos, 2009). The contemporary memorial must address both the needs of a “loosely defined collectivity and the needs and desires of diverse

individuals” in order to allow the visitor to see themselves in the context of the commemorative subject (Dimitropoulos, 2009, p. 54). These subjects make up a society’s “ego-ideal”, and for an identity to have continuity and be preserved, negativity must be eliminated so that the collectivity may become the ideal “extension of the past” (Dimitropoulos, 2009, p. 55).

While a society’s collective identity still strives to be preserved in the commemorative form, contemporary memorials are changing in their typology. According to Susan Herrington, contemporary memorials utilize past memories to evoke emotional states, “arous[ing] painful memories that are transformed by recollection, reflection, and even hope” (Herrington, 2008, pp. 83-84). The new art of memorial design seeks to both trigger emotional states in the visitor and encourage participatory responses—like placing personal items within the landscape (Herrington, 2008). This is exemplified through projects such as Maya Lin’s Vietnam Veterans Memorial in Washington D.C. Lin described her design in the context of healing and recovery as “an initial violence that in time would heal as the grass grew up to the pure flat surface of the stone” (Watkins et al., 2010, p. 355).

figure 2.04 | Reflections in the Cut in the Earth
Vietnam Veterans Memorial
Washington D.C.
(Hundley, 2012)



The features of her work both embody physical and psychological experiences, which may be interpreted by multiple senses “to inspire creative and complex interpretations (Watkins et al., 2010, p. 360). Unlike prior memorials, the glossy black granite “V” cuts into the earth, bringing the past and the present together. It serves both as a place of commemoration to the lives lost during the war, as well as a place of healing and reflection. By seeing one’s own reflection against the names of the lost, “self awareness of a moral and emotional sort” is exploited in a literal reflective metaphor (Beardsley, 2005, p. 193). Designs that strive to seek meaning and symbolism beyond the recognition of a person or event will resonate in the landscape; setting the stage for success, continued significance, and longevity.

Designing Meaning into the Landscape

Meaning established in a place may vary across persons, groups, or cultures, but the resulting emotional attachment is essential for social behavior and welfare (Vorkinn & Reise, 2001). Meaning cannot be designed directly into the landscape. Marc Treib, a professor of Architecture at University of California, Berkely, states that “no place is created with meaning, despite

any designer’s intention to do so. If we can accept that meaning derives from the transaction between the perceiver and the place, significance becomes a byproduct of that transaction, individually produced” (Treib, 2005, p. 15). Deriving meaning is then essential, but how can it translate from different individual’s experiences to a collective understanding?

Drawing Meaning from Landscape Archetypes

One must be able to read the landscape to establish form and understand meaning within it. These spaces may range in scale, space, or structure, but can be understood in the same manner as language is understood. A language can communicate meaning by looking for a word’s form, its origin, and its evolution or transformation over time. Just as a language will evolve, so too does a landscape, though its classification or rules of combination may be varied in reading it.

This language of the land can embody personal and collective meanings—social constructions that are likely to shift given social change. These social constructions can translate to larger archetypal forms of landscapes that are universally understood. The archetypal forms of the landscape are the same as roots of words. Similarly,

their forms will evolve with time and are influenced by local conditions. How they are interpreted is based upon the individual as well as the collective history of humans. This collective unconscious is shared by humankind in the form of archetypes and iconic images and symbols. These templates are what give meaning to human behavior (Sinha, 2006). Amita Sinha, who has researched the form and meaning of landscapes in India extensively, writes that “each culture has its own unique symbols of universal archetypes commonly found in its religious or folkloric myths” (Sinha, 2006, p. 6). These origins are embedded within the mind, never failing to resonate in the outside world. This sparks continuous habits in thinking and behavior over generations—making archetypes the universal heritage of humankind (Sinha, 2006). They are reproduced across regions but are adapted to “local climate, topography, and building tradition” (Sinha, 2006, p.7). These symbols can appear in abstracted form, local technology or materials, and are given shape by local imaginations.

The natural archetypal forms seen in the landscape inspire human design and are the “loci of meaning projected by the human mind” (Sinha, 2006, p. 7). Understandably, designers are then drawn to nature for

inspiration, stemming “from the deep unconscious”, to be “experienced with one’s whole being, so that the natural and built forms evoking them make up a natural language for placemaking” (Sinha, 2006, p. 8).

Placemaking

When a person or culture’s identity becomes linked to a landscape, it has the ability to become a place. This occurs when the physical form has succeeded in becoming symbolic and evocative of that identity (Watkins et al., 2010). Landscapes can be generators of form by weaving physical, spatial, and social patterns into a dynamic multi-sensory experience. These spaces will engage memory, the concept of temporal change, and enliven the need to preserve places and sustain traditions (Horrigan, 1999). By engaging the senses, Nicholas Watkins, Frances Cole, and Sue Weidemann ascertain that a place will emphasize:

The dynamic between distal (sight and sound) and proximal senses (touch and smell) when perceiving objects and places, becoming more intimate with them, and interpreting them... so [that] it becomes a composition of responsive and tactile media like mirror-finish materials,

etchings, daylight and shadows, surfaces of water, echoes, and plants are design elements that prompt curiosity, attract the eye, invite touch, and may serve as artifacts of the user's presence (Watkins et al., 2010, pp. 369-370).

When people are attached to a place, they find a rootedness through a human-environment connection, known as place identity (Vorkinn & Reise, 2001).

Landscape Narratives as a Means for Placemaking

How are people going to read the landscape they encounter? The use of narratives to shape experience within the landscape contrives temporal and spatial experiences, connecting time, events, experience, memory, and other intangibles to the physical realm (Potteiger & Purinton, 1998). Through the addition of cultural and historical information, a narrative increases the attractiveness and interestingness of a place (Karmonov & Hamel, 2008).

The naming of places and telling of stories shape the world around us (Stuart, 2012; Potteiger & Purinton, 1998). For a memorial to be evocative of these stories, it must establish a relationship between the design intent, or meaning of the memorial, and the response of the visitor (Wolschke-

Bulmahn, 2001). One cannot predict the infinite responses an individual might have to a memorial and its landscape, but the designer should seek to “facilitate a common experience” (Wolschke-Bulmahn, 2001, p. 4). The narratives of folk, myths, children’s, or religious stories teach values and are further cemented in the individual through childhood experiences, family emphasis, or impressionable places (Stuart, 2012). When telling these stories, we must examine whose story is being told, what beliefs or values systems are present, and what layers exist within the ethical or political context (Potteiger & Purinton, 1998).

Narratives can go beyond creating interesting, attractive places to communicate a common experience. These spaces connect emotionally with the user by having the ability to elucidate, provoke, clarify, or agitate the user (Potteiger & Purinton, 1999). Lauren Hansen comments that to do this an “understanding of the history, culture and nature of a place and an experiential and/or emotional response to the place” is necessary (as cited in Potteiger & Purinton, 1999, p. 163). It is the designer’s role to interpret these differing layers and use narrative to conceal or reveal histories or meanings, allowing

highlights or dramatizations of meanings to be transparent (Potteiger & Purinton, 1998). While these places are imbued with meaning, we must go beyond storytelling to consider other factors that may improve the quality of the space on the user and better connect with the individual through emotional responses. The memorial is a fitting subject of study, for loss and grief are especially powerful in evoking both a sense of place identity and these emotional states.

Loss Establishes a Community's Identity and Values

The construct of death, or loss, is integral to the establishment of a culture's identity and values. Regardless of the cause, death plays an important role across all world cultures, historically. Apparent in cultural values, beliefs, and rituals; death provides the context to allow people to derive meaning in their lives (Delgado, 2003). In the pursuit of deriving meaning, "the commemoration of death, both ceremonially and as a designed environment, is often seen as helping to establish and maintain identity" (Wolschke-Bulmahn, 2001, p. 3). So then, it is important to understand how society mourns in the physical environment.

Just as contemporary memorials are changing how they represent a society's identity, so too are settings for public expressions of mourning. Mourning has historically been focused in private environments such as funeral homes, houses of worship, cemeteries or homes (Delgado, 2003). Today, memorials put these places into a public context, allowing the public a venue for grief and remembrance and giving the visitor a place to negotiate the "meaning of death" at their own pace (Delgado, 2003, p. 61). These spaces are relevant, for they do not push the individual coping process that a person may have by setting a time frame for grief (Delgado, 2003). Any trauma of a loss will threaten an individual's relationship with their sense of self or sense of community with others (Watkins et al., 2010). In the individual process of mourning, spaces exhibiting "familiarity, security, curiosity, and exploration", become preferred places which "can be transitional spaces that serve as stepping stones toward self-actualization (Watkins et al., 2010, p. 353). While there are many different understandings of a grieving process, it essentially begins with the trauma of a loss and concludes "with the acceptance of, control over, or separation from loss"

(Watkins et al., 2010, p. 353). Memorials act as transitional phenomena to fill the void between trauma and recovery, helping the individual to in this process to "make sense of and recover from losses" and utilizing the social support a community can provide to mitigate private loss (Watkins et al., 2010, p. 354).

The act of mourning in public arenas may not be understood by the broader world community, but is essential to community commemorating the subject. Meaning will be based within the community's values, for the community's perception of death is influenced by its cultural context (Delgado, 2003). Memorials allow users to connect with the commemorated loss through both a "physical and psychological demarcation", creating an "actual threshold through which to commune with a loss" (Watkins et al., 2010, p. 370). They serve as a motive of remembrance and "are created when events are so tragic, or are uniquely significant, that a community response is required" (Wasserman, 1999, p. 222). For example, the war memorial becomes a "communal rallying point", for the confrontation and interpretation of death, becoming a "literal and symbolic heart of a community" (Watkins et al., 2010, p. 371).

figure 2.05 | Community Reflections
Vietnam Veterans Memorial
Washington D.C.
(Hundley, 2012)



It is important to recognize the cultural value of memorials for a community, but also to recognize that memorials, especially in contemporary examples, are able to use the mystery of death to ‘elicit intense emotions in their visitors’ (Herrington, 2008, p. 10). Communities need memorials to help in the grieving process of individuals, family, and friends. These spaces may also bring larger issues to the public’s attention and emphasize cultural importance. Grief and bereavement can connect communities through shared tragedy, in an expression of form unique to that community itself (Delgado, 2003).

The Importance of Community and Social Support

The social support that memorials provide in the community is essential for allowing family, friends, and communities to express grief and reestablish levels of well-being. In urban settings, memorial murals, while considered by some to be acts of public deviance or graffiti, are markers of community assets. These public artworks provide a mode for communities to show remembrance and give dignity and meaning to those important to them but generally overlooked by society. Markers memorializing people or events, eliciting

prayers, or making public statements to a society can be private acts commemorated in a public environment for public purposes. Like loss, death and bereavement, these spaces need to be contextualized within a society to reveal their meaning. Otherwise our spaces become littered with art objects and meaningless symbols. When a space is able to establish a connection with its community through shared history or meaning, it can facilitate communication within and outside the community, using its narrative to teach about the histories, tensions, concerns, and aspirations of a society (Delgado, 2003).

grief as an emotional response to memorials

Capturing the emotional state of grief in the human environment requires a better understanding of what grief is and how it affects us. Adapted from a compilation of definitions, Melvin Delgado defines grief as the “psychological process of adapting to a loss” (Delgado, 2003, pp.44-45). It is important to distinguish the difference between grief and bereavement. David W. Moller, Ph.D., states that grief is “an intense emotional response to bereavement”—the state of having experienced a loss (as cited

in Delgado, 2003, p. 45). This emotional response will manifest itself differently depending on the culture or individual in which it is experienced, and will also encompass a range of emotions (Kalish & Reynolds as cited in Delgado, 2003, p. 45).

Grief in the Public Environment

In the past twenty years, attitudes toward grief in public have changed from private remembrance and silence to public expressions of loss. Sites for public commemoration of private grief are becoming exceedingly prevalent. This abundance of private memorials in public spaces detracts from the significance of memorial landscapes as a whole. In a country characterized by differing cultures, values, and beliefs; landscapes imbued with a universal language of loss transcend cultural and societal differences to provide universal benefit for all users. These commemorative spaces move beyond one generation’s context and allow future generations to derive their own meaning and worth, teaching the origins of cultural values and connecting the visitor with the past. Spaces that meet this criterion will not lose significance in the urban fabric, but provide an engaging environment, rich with meaning (Delgado, 2003).

The Grieving Process

A memorial's primary purpose is to allow society a physical expression of grief. There are many models for the understanding the grieving process, but it is commonly agreed that grief is made up of cyclical stages that are unique to the individual. Dr. Elisabeth Kubler-Ross, a Swiss American psychiatrist, was a pioneer in the study of grief as this process. Her model consisted of five stages of grief; denial, anger, bargaining, depression, and acceptance (Kubler-Ross, 1997). These cyclical stages have been accepted in a number of accounts of loss. In *A Grief Observed*, C.S. Lewis chronicled his bereavement over the loss of his wife, describing his experience not as a singular state, but rather as this process:

Grief is like a long valley, a winding valley where any bend may reveal a totally new landscape. As I've already noted, not every bend does. Sometimes the surprise is the opposite one; you are presented with exactly the same sort of country you thought you had left behind miles ago. That is when you wonder whether the valley isn't a circular trench. But it isn't. There are particular recurrences, but the sequence doesn't repeat (Lewis, 2001, p. 60).

Not only is this process cyclical, but the journey through the grieving process is experienced on an individual basis. In the Foreword to Lewis' book, Madeleine L'Engle reflects how the emotional journey of loss has basic similarities from person to person, such as feelings of fear, forgetfulness, or impatience, but each experience is unique (Lewis, 2001).

Lewis writes:

You can't really share someone else's weakness, or fear or pain. What you feel may be bad. It might conceivably be as bad as what the other felt, though I should distrust anyone who claimed that it was. But it would still be quite different. When I speak of fear, I mean the merely animal fear, the recoil of the organism from its own destruction; the smother feeling; the sense of being a rat in a trap. It can't be transferred. The mind can sympathize; the body, less (Lewis, 2001, p. 13).

In modern society, denial that we will in fact succumb to death makes us averse to its inevitability, prolonging the grieving process (Kubler-Ross, 1997). Nicholas Wolterstorff, an American philosopher, also chronicled his grieving process, but over the loss of his son. In *Lament for a Son*, he describes the universality of loss. Each

person will experience their own quality of suffering, impenetrable by the outsider. In coping with this, we often try to overcome our grief, seeking to escape the inevitability of death, but essentially “death shatters our illusion that we can make do without coping” (Wolterstorff, 1987, p. 72). Just as death is integral for the establishment of our cultural values, coping with grief is essential to acknowledge the human experience. Regarding his son, Wolterstorff states:

If he was worth loving, he is worth grieving over. Grief is an existential testimony to the worth of the one loved. That worth abides. So I own my grief. I do not try to put it behind me, to get over it, to forget it...Lament is a part of life (Wolterstorff, 1987, p. 5).

This process of individually coping with grief is manifested through stress on the individual.

Grief as a Form of Stress

As an emotional state, grief is difficult to track, however studies agree that no matter the emotional manifestation of the individual experience, the grieving process inflicts an amount of stress on the individual. Stress is a transaction, or relationship, between two systems, the individual and the environment, and is the centrally important concept in understanding this interaction (Lazarus & Cohen, 1977; Ulrich et al., 2003). Because the individual and the environment are directly linked through stressors, stimulants, and coping responses, commemorative spaces should seek to meet the individual’s needs in the design. This way landscape architecture can shape the environment to mitigate stress and restore the mental well-being of visitors. This could be directly related to the emotional stress caused by the grieving process, environmental factors or the daily hassles of life. Some individuals visiting a memorial would argue that they are not in need of “healing”. But if not dealt with, grief, as a form of stress, can lead to serious physiological health problems (Greene, 1994).

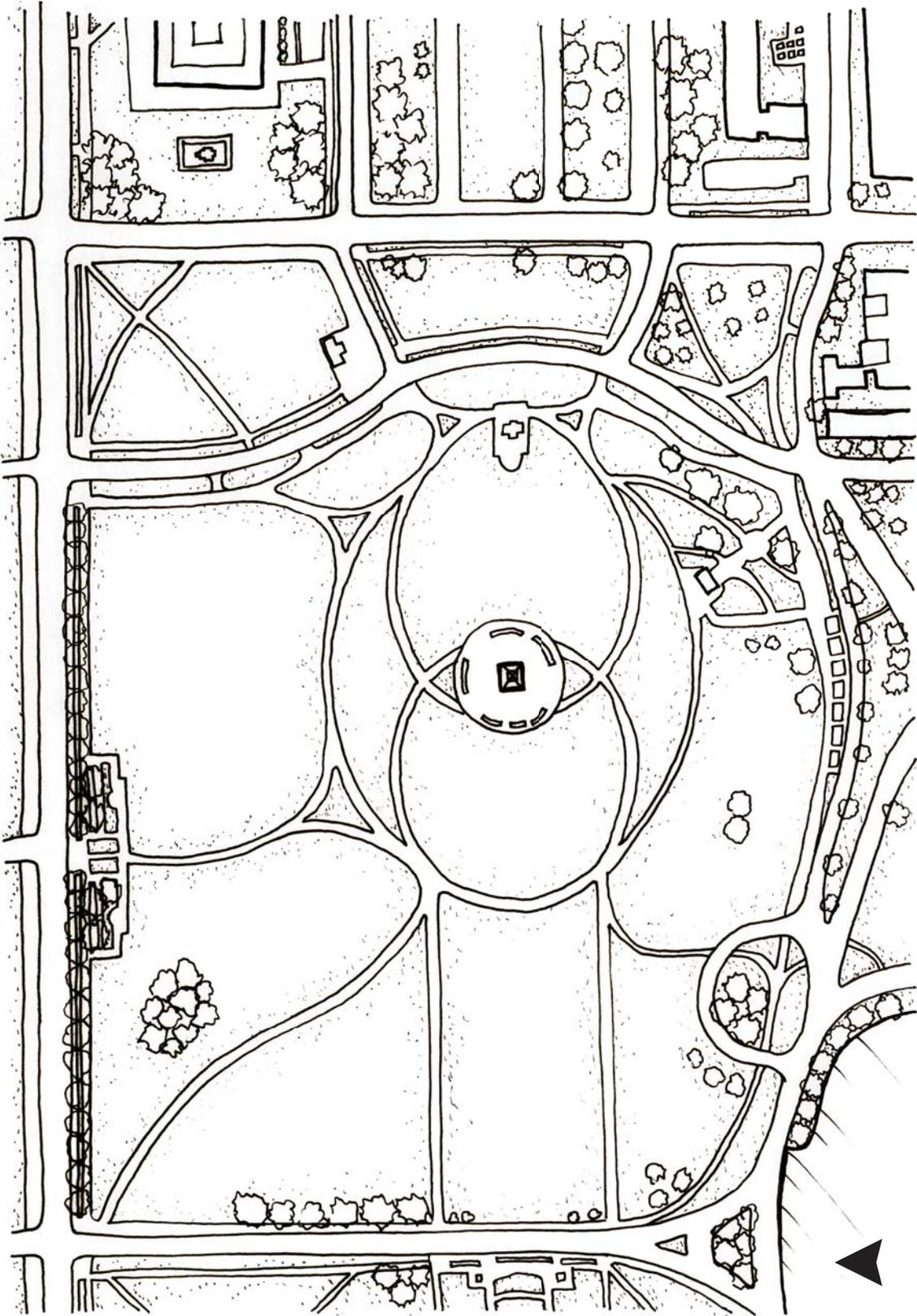


figure 2.06 | Washington Monument Plan
Washington Monument
Washington, D.C.
(Hundley, 2013)

memorial precedents

The commemorative landscapes at the National Mall in Washington D.C. exemplify a larger society's construct of identity, representing the people, ideas, and events that shaped the American nation. My observations at these sites include commemorative spaces that recognize the achievements of individuals and the effects of war that have shaped how America defines its values.

commemorating people

Washington Monument

The Washington Monument is an iconic symbol of our national capital. As the central orientation point for L'Enfant Plan, the marble obelisk is visible from any point in the National Mall and the Capitol area. Located at the intersection of the north-south axis from the White House to the Jefferson Memorial and the east-west axis from the Capitol Building to the Lincoln Memorial, Pierre L'Enfant had set aside space to commemorate George Washington

as a national hero for his military and political leadership (National Park Service, 2013).

In 1833, John Marshall and James Madison helped to form Washington Monument Society, which raised funds to commemorate Washington by soliciting for donations. They called for designs to be submitted regarding the monument's design and form. The design deemed worthy of the 106-acre park was awarded to Robert Mills in 1845. Construction began on July 4th, 1848 and was completed in two major phases, from 1848 to 1856 and from 1876 to 1884, interrupted by both the Civil War and a lack of funding. Mills sought to pay tribute to Washington's military leadership in the American Revolution, commemorate him as a national hero, and emphasize his role in creating a civilian government and a peaceful transfer of power (National Park Service, 2013).

The monument is seen as the central point of the National Mall, but does not fall exactly at the L'Enfant axes intersection.



figure 2.07 | Washington Monument from the Lincoln Steps
Washington Monument
Washington, D.C.
(Hundley, 2012)

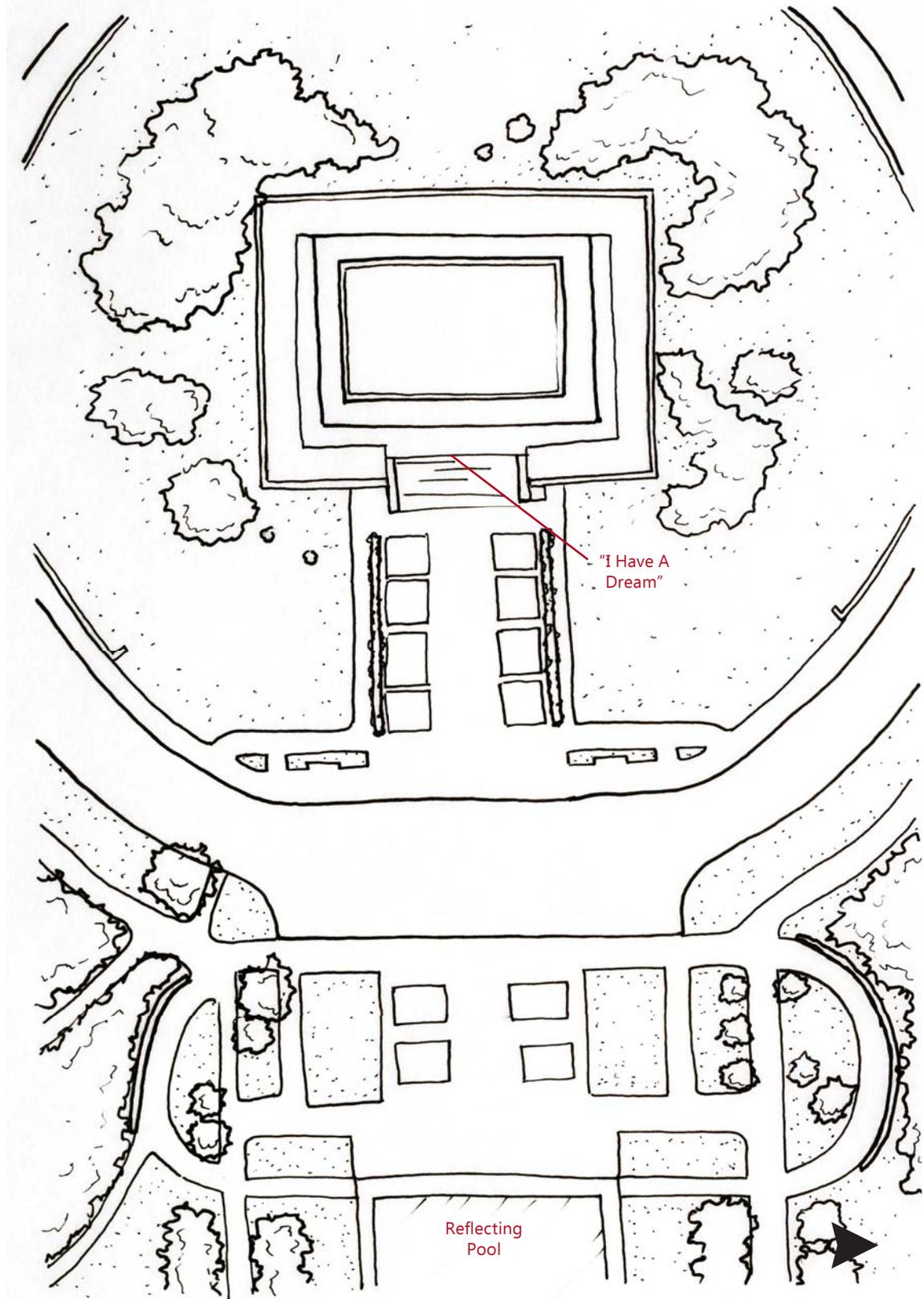
The ground the monument stands on was once on the shores of the Potomac River, and thus unable to structurally support the weight of the monument. Instead, the obelisk was built slightly southwest of center allowing for the visual connection between the U.S. Capitol and the Lincoln Memorial and the Jefferson Memorial and the White House. The original program featured fish ponds, greenhouses, and propagating areas, as well as recreational features of swimming, tennis, archery, golf, roads, parking, circulation, temporary military buildings, a visitor facilities office, and maintenance facilities. But during the second phase of construction, the stark appearance of the 555 foot obelisk was deemed appropriate for the monument (National Park Service, 2013).

Maintenance has occurred over many years. The National Park Service gained jurisdiction over the monument in 1933, and started renovations as a public works project the following year. Restoration occurred again in 1964 and again from 1998 to 2001 sponsored by Target Stores, the National Park Service, and the National Park Foundation. The post-September 11th security design altered the circulation of the site to allow for simple stone retaining walls to prevent cars from getting within 400

feet of the monument, with graceful curves guiding the visitor up to the base (National Park Service, 2013). The elegant nature of the design adds to the grandeur of the expansive space. People sit across the lawn, picnicking and resting. Others break off from the main arterial sidewalks that border the mall, drawn to the curving paths of this park as they cross the site.

Renovations to the monument are occurring again due to an earthquake of a 5.8 magnitude 's major damage. This continuous upkeep and the value that the memorial holds for America is best described through the words of Robert Mills. His vision described how "the storms of winter must blow and beat upon [the Washington Monument]...the lightnings of Heaven may scar and blacken it. An earthquake may shake its foundations...but the character which it commemorates and illustrates is secure" (National Park Service, 2013).

Walking along the expanse of the National Mall, the Washington Monument served as a focal point and guide as I traversed the expansive grounds enclosed by the museums and figural government buildings. While walking along the Mall's tree-lined sidewalks, I was visually drawn to the gleaming white obelisk.



"I Have A
Dream"

Reflecting
Pool



figure 2.08 | left
Lincoln Memorial Plan
Lincoln Memorial
Washington, D.C.
(Hundley, 2013)

figure 2.09 | above
Lincoln Memorial
Washington, D.C.
(Hundley, 2012)

Lincoln Memorial

The Lincoln Memorial sits at the western terminus of the National Mall. The key location it possesses has led it to becoming an evocative symbol of our nation. It exudes a commanding presence, evoked by the steep nature of the steps approaching the kingly statue of President Abraham Lincoln. Lincoln sits on a throne looking out to the Washington Memorial and the Capitol Building (National Park Service, 2013).

Construction of the memorial occurred between 1914 and 1922, up until the beginning of the First World War. Made up of stones from states across the United States, the memorial's materiality tells the story of a country that was divided, but came together to build a beautiful monument to democracy. The Reflecting

Pool at the base of Lincoln's steps emphasizes the visual connection between the "Father of the Country" and the "Savior of the Country" (National Park Service, 2013).

Lincoln acts as a symbol for freedom, providing inspiration and hope for the American people. The temple-like appearance is attributed to Henry Bacon's design emulating the Parthenon in Athens, Greece. As a defender of democracy, designing a commemorative space for Lincoln inspired by the historical society that founded the idea of democracy was fitting. The thirty-six columns symbolize the thirty-six reunited states at Lincoln's death, as expressed by the inscriptions of their respective names in the frieze above. There is symbolism also embedded within the statue of Lincoln's

IN THIS TEMPLE
AS IN THE HEARTS OF THE PEOPLE
FOR WHOM HE SAVED THE UNION
THE MEMORY OF ABRAHAM LINCOLN
IS ENSHRINED FOREVER



figure 2.10 | left
The Savior of the Country
Lincoln Memorial
Washington, D.C.
(Hundley, 2012)

figure 2.11 | right
Across the Water
Thomas Jefferson Memorial
Washington, D.C.
(Hundley, 2012)



hands. Daniel Chester French illustrated Lincoln's characteristics by carving a fist of strength, with a clenched position, and an outreaching, compassionate nature with his other hand. Aside from the sculpture, the most prominent aspects of the three chambers within the memorial are the inscriptions of the Gettysburg Address and the Second Inaugural Address. Both of Lincoln's speeches are reflective of his character and achievements during his presidency (National Park Service, 2013).

People mill about the space, on tours, reading Lincoln's words, taking photos; all of whom's attentions are directed towards the statue, the words, and the views out to the National Mall. It was on these steps that great moments in our history have occurred, adding further meaning to this memorial. The inscription from Dr. Martin Luther King's "I Have A Dream" speech lies in the center of the first landing of steps. This memorial has become a rallying point for the community to express civil rights, activism, political views, and the arts.

Thomas Jefferson Memorial

Along the southern edge of the Tidal Basin, is the Thomas Jefferson Memorial. John Russell Pope and Frederick Law Olmsted Jr. created the Thomas Jefferson Memorial Commission in June of 1934. The commission approved a plan for a design to emulate the Pantheon of Rome. The memorial was completed on November 15th, 1939; leaving the completion of the centerpiece sculpture to Rudolph Evans in 1941.

The design for the Jefferson Memorial was inspired by his architectural tastes in an effort to synthesize Jefferson's contributions to America as a statesman, architect, drafter of the Declaration, adviser of the Constitution, founder of the University of Virginia, and President. During his time, Jefferson was a revolutionary, a statesman, a diplomat, and a political leader. The memorial illustrates the influence of Jefferson in reference to the American Revolution, Early Republic, and National Expansion eras (National Park Service, 2013).

There was much public criticism due to the removal of the Japanese flowering cherry trees that became iconic of the Tidal Basin. In addition, the Commission of the Fine Arts objected to the design, fearing

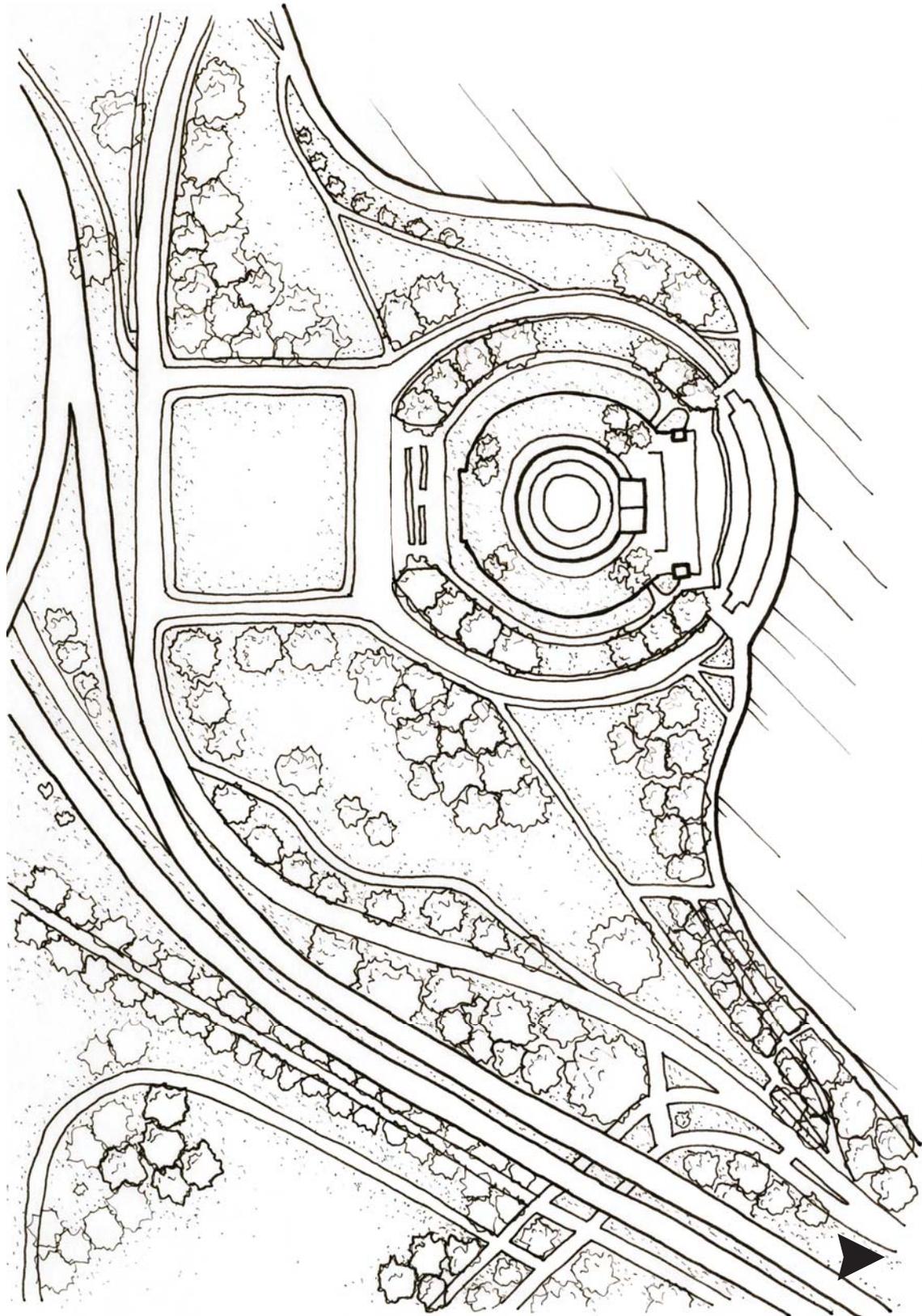




figure 2.12 | top left
Thomas Jefferson Memorial Plan
Washington, D.C.
(Hundley, 2013)

figure 2.14 | above left
Statue of Jefferson
Washington, D.C.
(Hundley, 2012)

figure 2.13 | top right
Washington and Jefferson
Washington, D.C.
(Hundley, 2012)

figure 2.15 | above right
An American Pantheon
Washington, D.C.
(Hundley, 2012)

that it would compete with the Lincoln Memorial; however President Franklin Delano Roosevelt moved the plans forward (National Park Service, 2013).

All along the Tidal Basin are views to the Memorial, and from within are key views out. This adaptation of neoclassical architecture creates a backdrop to look out over the water. Walking along the Tidal Basin, you pass by people on benches and fly fisherman sitting along the concrete retaining walls. The curving paths continuously wind and curve to

hide and reveal the memorial between the overhanging leaves. The wind off of the basin is cool and wafts you up the marble steps to enter a circular hall. You feel uplifted over the water reaching the foot of the statue of Thomas Jefferson. The people walk about the memorial, read the inscriptions, take pictures of Jefferson's statue, sit on the steps, talk, read, and move about in general. Jefferson's head is encircled by five quotations taken from his writings that illustrate the principles to which he dedicated his life.

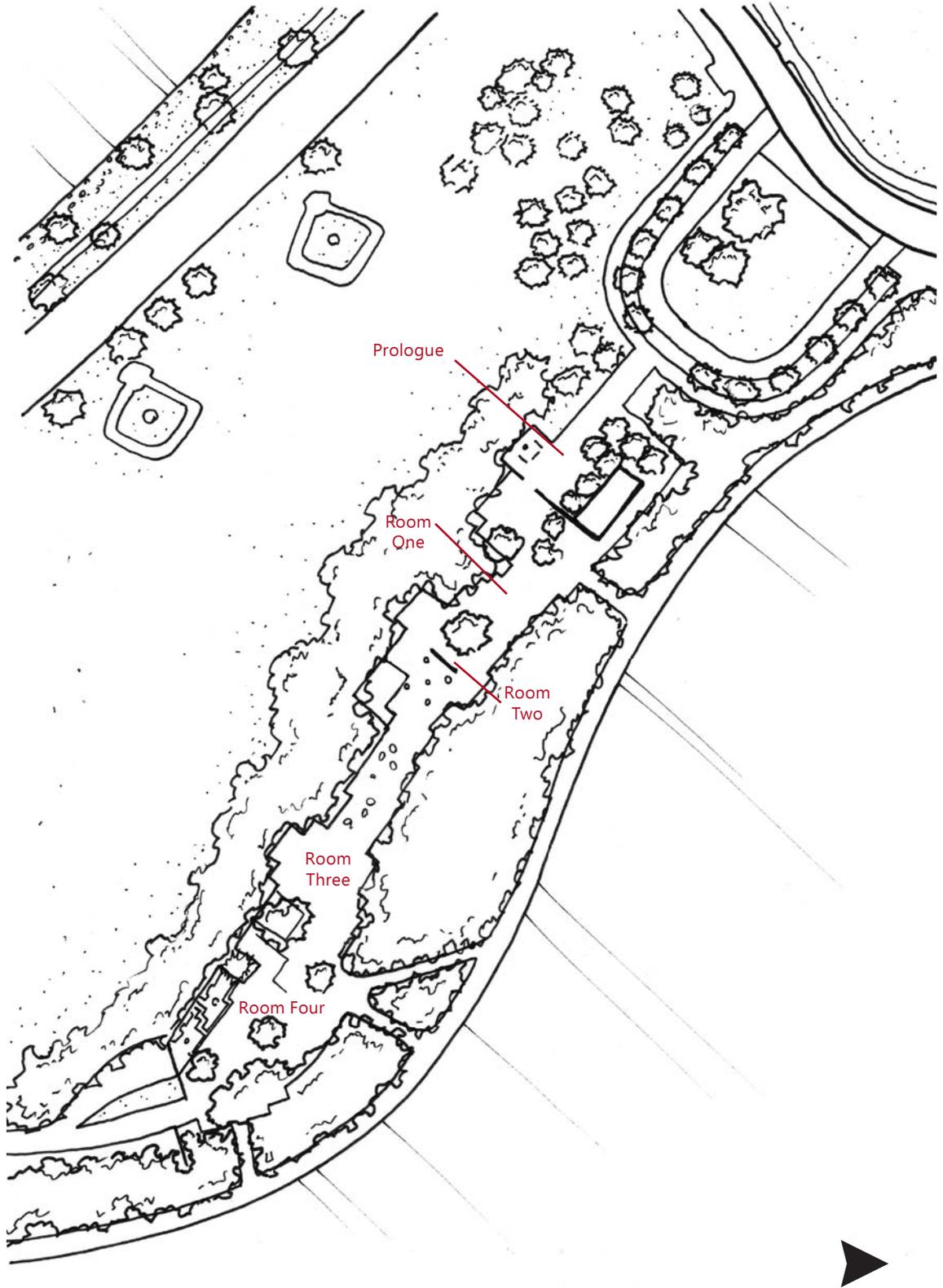


figure 2.16 | left
Franklin Delano Roosevelt
Memorial Plan
Washington, D.C.
(Hundley, 2013)

figure 2.17 | below
Memorial Entrance
Franklin Delano Roosevelt Memorial
Washington, D.C.
(Hundley, 2012)

figure 2.18 | lower right
Stone, Inscription, and Water
Franklin Delano Roosevelt Memorial
Washington, D.C.
(Hundley, 2012)



Franklin Delano Roosevelt Memorial

Located between the Lincoln Memorial and the Thomas Jefferson Memorial along the Tidal Basin is the Franklin Delano Roosevelt Memorial. In 1955, the Franklin Delano Roosevelt Memorial Commission began planning a memorial to act as a more visible commemoration of Roosevelt than the inscribed block in front of the Archives Building.

With a much more secluded garden feel than other memorials of the National Mall, the Franklin Delano Roosevelt Memorial is divided into a series of rooms, each representing one of Roosevelt's terms in office. These spaces form a spine along the Tidal Basin, made up of granite, water, bronze sculpture, and inscriptions. Wrapping along the shore, the memorial frames views across the water to the

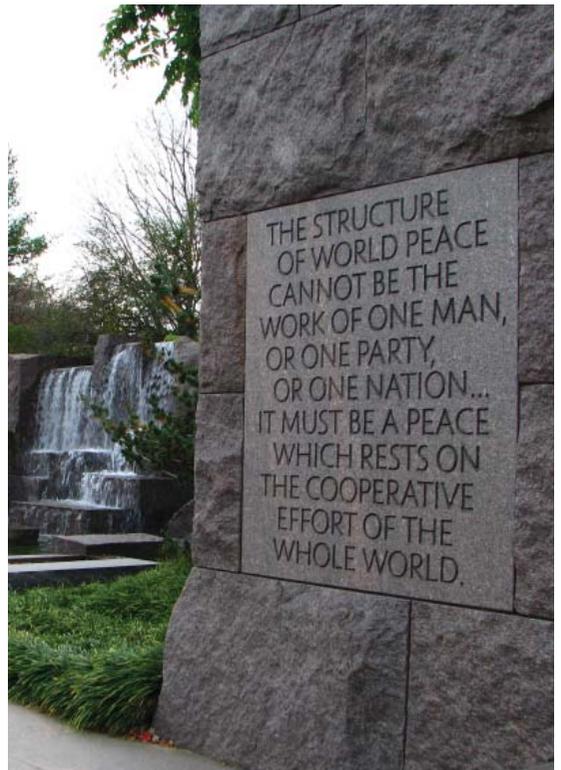




figure 2.19 | above
The First Inauguration
Franklin Delano Roosevelt Memorial
Washington, D.C.
(Hundley, 2012)

figure 2.20 | upper right
The Breadline
Franklin Delano Roosevelt Memorial
Washington, D.C.
(Hundley, 2012)

figure 2.21 | lower right
FDR and his chair
Franklin Delano Roosevelt Memorial
Washington, D.C.
(Hundley, 2012)

Jefferson Memorial and Washington Monument. This memorial was the product of a design competition won by Lawrence Halprin in 1974, but a lack of funding postponed completion until 20 years later. The first years of Franklin Delano Roosevelt’s presidency are represented in Room One with Robert Graham’s bronze bas-reliefs of the first inauguration. In the second room, George Segal’s sculpture “The Breadline” represents the troubles of the American people during the Great Depression adjacent to Franklin Delano Roosevelt conducting his Fireside Chats, inspiring hope to the nation. Room Three features a waterfall roaring over scattered

boulders to represent the troubling times of World War II. Roosevelt sits with his dog Fala, looking at the “chaos” represented by the largest waterfall. Room Four consists of a Leonard Baskin’s bas-relief of “The Funeral Cortege” showing the nation’s grief over their president. Many critiques of the original design wrestled whether to depict Roosevelt in a wheelchair—a result of his paralysis due to polio in 1921. Halprin argued that Roosevelt should be depicted without the wheelchair, for that is how he appeared to the public during his life. However, Halprin eventually added a fifth room, acting as a “prologue” to the memorial, depicting Franklin Delano





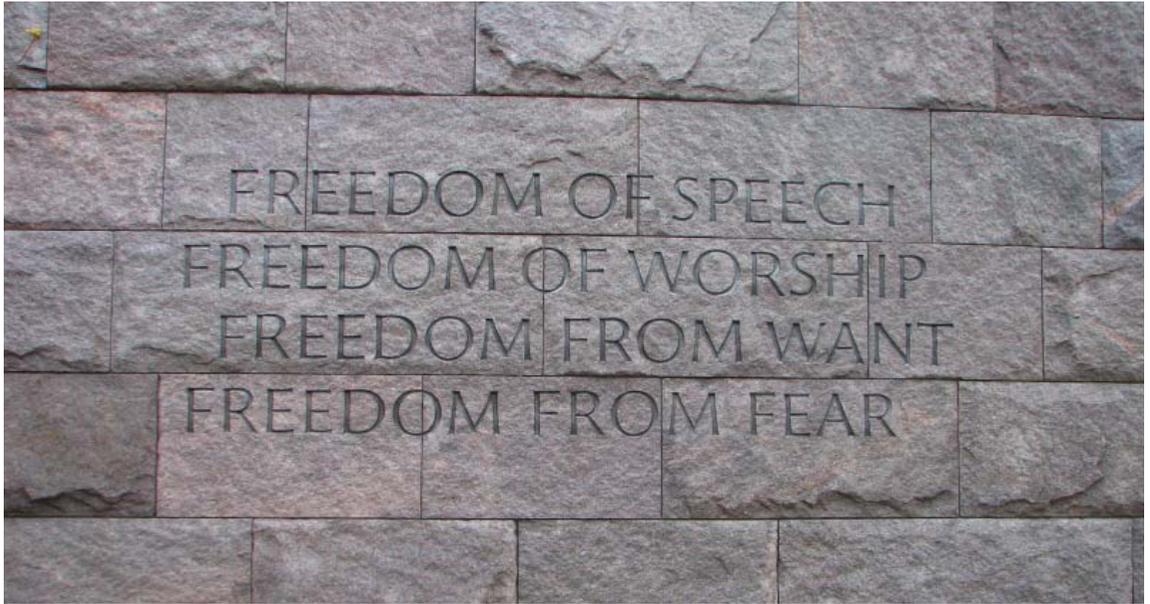


figure 2.22 | upper left
"I have seen war on land and sea"
Franklin Delano Roosevelt Memorial
Washington, D.C.
(Hundley, 2012)

figure 2.23 | lower left
"I HATE WAR"
Franklin Delano Roosevelt Memorial
Washington, D.C.
(Hundley, 2012)

figure 2.24 | above
Civil Freedoms
Franklin Delano Roosevelt Memorial
Washington, D.C.
(Hundley, 2012)

Roosevelt in his chair (National Park Service, 2013).

Each space is built with red South Dakota and Minnesota granite, inscribed with quotes emulating the time in which each room represents. Walking into these spaces, the engravings greet the visitor, the encompassing walls make one feel below the earth, surrounded by the thick fortress walls of the memorial. Each room holds a new surprise. Halprin's design features elements of water and bronze sculpture scattered along a staggered pathway. All of these spaces are handicap accessible in acknowledgment of Roosevelt's disability, with multiple opportunities for access to the Tidal Basin shore and Cherry Walk. Some corners of these spaces seem dead, without seating, clear focal point, or purpose. In the first rooms, still pools represent the

calm before the storm. They act as places of quiet and respite. In the rooms beyond, the water's roar merges with the rumble of planes overhead, drowning out the sounds of Reagan airfield nearby. Water serves as a motif throughout the memorial as a reminder of Roosevelt's connection of being raised near the Hudson River, serving as a sailor. Water was also the source of his polio and later in life his therapy at hot springs.

The sound of rustling leaves filters into the spaces. Vibrant yellow and orange fall color contrast with the greenish blue bronze patina of the sculptural pieces. The bronze statues turn gold where hands from many have touched or rubbed the artwork. Families pose in front of these figural elements, creating beautiful backdrops for their visit.

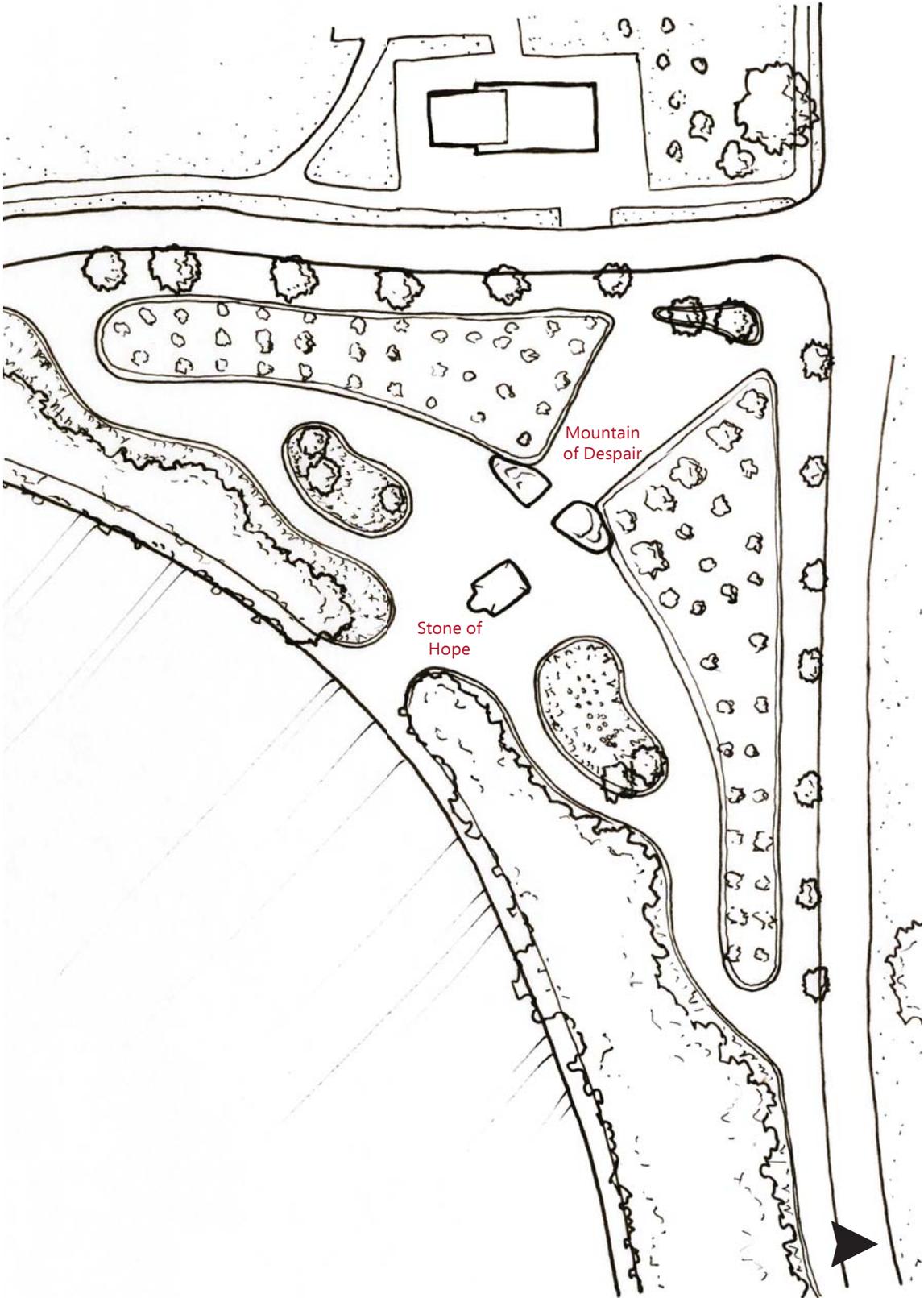




figure 2.25 | left
Martin Luther King, Jr. Memorial Plan
Martin Luther King, Jr. Memorial
Washington, D.C.
(Hundley, 2012)

figure 2.26 | above
The Mountain of Despair
Martin Luther King, Jr. Memorial
Washington, D.C.
(Hundley, 2012)

Martin Luther King, Jr. Memorial

The Martin Luther King, Jr. Memorial was dedicated on the 48th anniversary of the “March on Washington for Jobs and Freedom”. The granite monument represents Dr. King’s activism as a beacon of leadership during the Civil Rights movement, celebrating the freedoms and liberties that America stands for. Dr. King himself became a symbol of civil rights across nations, using his words to speak to a more compassionate, loving, and tolerant world (National Park Service, 2013).

In 1996, Dr. King’s fraternity, Alpha Phi Alpha, proposed to establish a memorial to Dr. Martin Luther King in Washington D.C. A competition was then held by the Martin Luther King, Jr., National Memorial Project Foundation. The Tidal Basin site was selected to enhance the “city

beautiful” concept proposed by L’Enfant in 1791 and McMillan’s expansion plan in 1901. On axis with the Lincoln Memorial, the location of Dr. King’s “I Have a Dream” speech, and the Thomas Jefferson Memorial, symbolizing the Declaration of Independence; the Martin Luther King Jr. Memorial stands for freedom and equality for all (National Park Service, 2013).

The memorial consists of a “Mountain of Despair” being split in two by a “Stone of Hope” with Martin Luther King’s sculpture thrust forward. In this manner, Master Lei Yixin’s sculpting of Dr. King reflects victory over disappointment. This concept still allows views of the Thomas Jefferson Memorial across the Tidal Basin, reflecting the principles of freedom and liberty that America was founded upon (National Park Service, 2013).



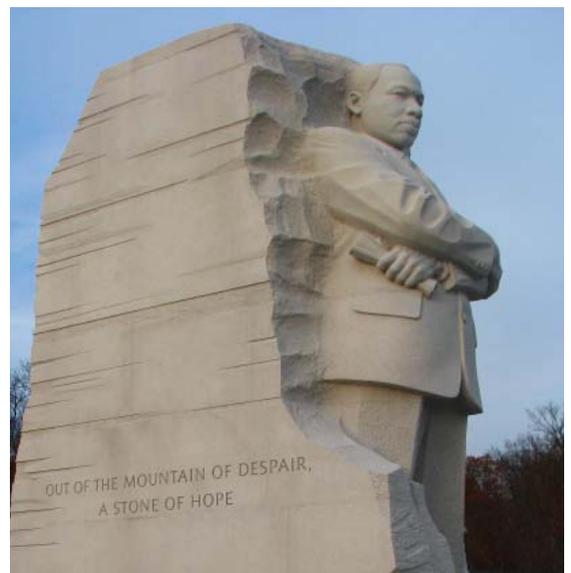


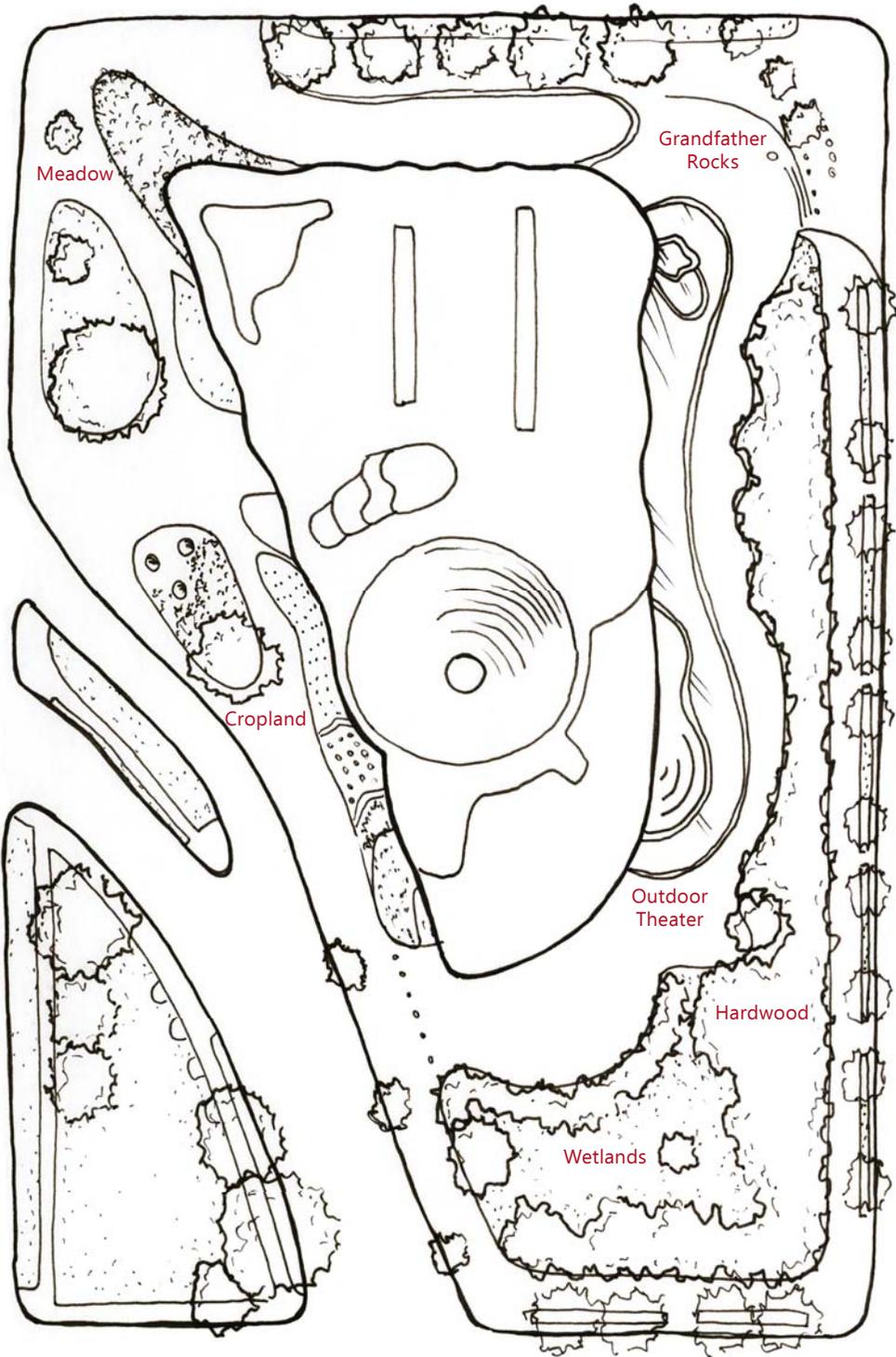
figure 2.27 | left
 Dr. King through the Leaves
 Martin Luther King, Jr. Memorial
 Washington, D.C.
 (Hundley, 2012)

figure 2.28 | above
 Visitors in the Memorial
 Martin Luther King, Jr. Memorial
 Washington, D.C.
 (Hundley, 2012)

figure 2.29 | below
 Dr. King as the Stone of Hope
 Martin Luther King, Jr. Memorial
 Washington, D.C.
 (Hundley, 2012)

The approach to the Martin Luther King, Jr. incites initial confusion as to its meaning. From across the Tidal Basin, the sculpture seems like a granite mountain and nothing more. Entering the memorial, the space is edged by a curving fountain wall engraved with Dr. King’s key quotes of inspiration and vision. The water makes a slight lapping noise, fading into the noise of the people and cars driving nearby. Curving paths, edged by raised planters filled with native plants gently guide you closer to the Stone of Hope. The planter walls are sloped at a sharp angle, preventing one from sitting on them, but bending in slope and







height to merge visually with the fountain's framing of the memorial. People stay to the edge of the wall, reading the excerpts from Dr. King's speeches, always moving towards the gap between Dr. King's statue and the Mountain of Despair, the clarity of which slowly becoming defined. It wasn't until I saw the quote in the side of the stone that the symbolism of the memorial was fully realized. The form of the memorial is defined by words. Out of the mountain of despair is a stone of hope. Dr. King's words create a literary symbolism for the memorial; bringing physical form to his words and message.

figure 2.30 | left
National Museum of the American Indian Plan
Washington, D.C.
(Hundley, 2012)

figure 2.31 | above
Undulating Building
National Museum of the American Indian
Washington, D.C.
(Hundley, 2012)

The National Museum of the American Indian

The landscape of the National Museum of the American Indian commemorates the life, history, and art of the Native American tribes of America throughout their history. This museum is the eighteenth of the Smithsonian Institution's museums, opening in 2004. The entire design team was made up of Native American architects, artists, consultants, and designers. The building exhibits the Native American perception of the universe, inspired by symbolic representations of nature, astronomy, and objects within the collection. Imbuing this space with meaning important to the Native American nations makes it an ideal center for exhibitions, events, films, and educational activities.

The undulating form of the building responds directly to the landscape, working as a cohesive whole. The museum's grounds exemplify the four environments indigenous to the Chesapeake Bay region. Traveling around the building, the visitor

figure 2.32 | below
Landscapes of the Chesapeake Bay
clockwise from top left | wetlands, croplands,
meadow, and hardwood
National Museum of the American Indian
Washington, D.C.
(Hundley, 2012)



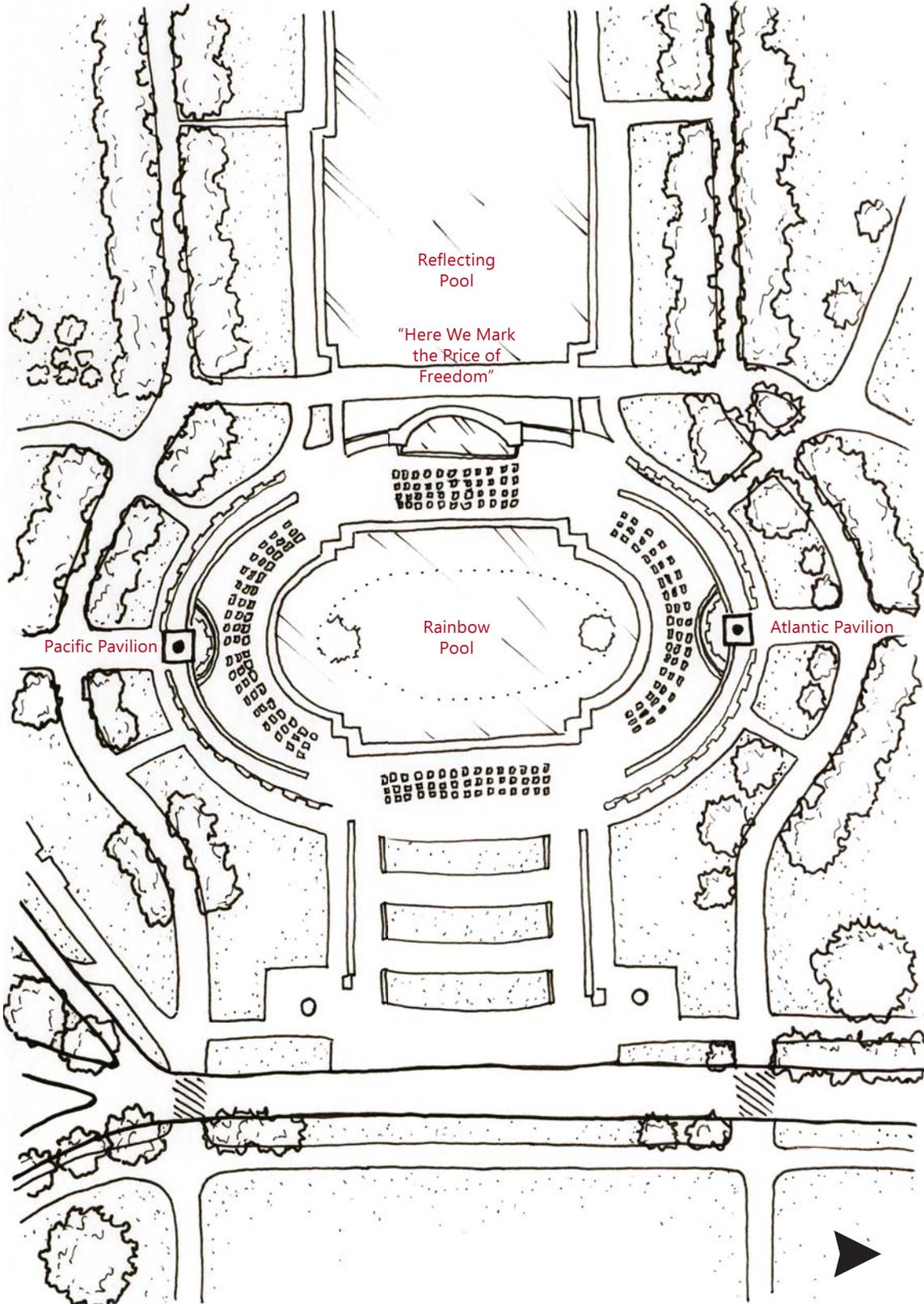
figure 2.33 | right
Grandfather Rocks
National Museum of the American Indian
Washington, D.C.
(Hundley, 2012)





passes through a wetland, hardwood forest, cropland, and meadow landscape. The form of the spaces responds directly to Cardinal Direction Marker stones from Maryland, Canada, Hawaii and Chili. In addition to these, 40 Grandfather Rocks serve as reminders of the longevity of the Native American's relationship to the natural world. Throughout the entire landscape, water features, opportunities for social interaction or seclusion are provided, along with a direct connection to the plants, animals, and historical information about native Chesapeake Bay landscape. Near the main entrance, the wetlands are complemented by the sound of drums and native music playing faintly over the speakers. An undulating water feature wraps itself around the building, guiding the visitor through the space and encompassing an embedded private space accessible from the

building itself. The curve of the building is reflected in the pool as the image ripples with the lapping of the water. Forms of wayfinding explaining the spirituality of the landscape occur throughout the space. The only distraction from the tranquility this site provides is the constant noise of cars from the nearby street, competing with the immersive sounds of music and water. At the same time, this dissonance draws one closer to the natural elements of the landscape, feeling comfortable and safe within its paths, constantly in connection with the interior environment. People break off of the main sidewalk to walk the perimeter of the building or come out of the building to walk a portion of the landscape. The large glass windows allow guests inside to experience the designed landscape from within the exhibits themselves as well.



Reflecting Pool

"Here We Mark the Price of Freedom"

Pacific Pavilion

Rainbow Pool

Atlantic Pavilion



figure 2.34 | left
World War II Memorial Plan
Washington, D.C.
(Hundley, 2012)

figure 2.35 | above
Lit Rainbow Pool
World War II Memorial
Washington, D.C.
(Hundley, 2012)

commemorating war

World War II Memorial

In between the Washington Monument and the Lincoln Memorial is the World War II Memorial. Friedrich St. Florian's circular design commemorates the sacrifice of American soldiers and celebrates the Allied Forces' victory in the Second World War. The space honors the service of the sixteen million members of the American Armed forces and the loss of 405, 399 American soldiers. The dedication of this memorial served as a tribute to the "Greatest Generation" for veterans in 2004 (National Park Service, 2013).

Bronze panels flanking the ceremonial entrances visualize the war experience for people at home and at war, inspired by black and white photographs and newsreels from the time period. Battle names and military campaign designs are carved into the stones. The space is enclosed by fifty-six granite columns surrounding the Rainbow Pool, representing the unity of the states, territories, and District of Columbia as also symbolized by the bronze ropes tying the columns together. The side pavilions of the site commemorate the victory on the Atlantic and Pacific fronts. The most evocative aspect of the site is



figure 2.36 | above
The Atlantic Pavilion
World War II Memorial
Washington, D.C.
(Hundley, 2012)

figure 2.37 | below
"Here We Mark the Price of Freedom"
World War II Memorial
Washington, D.C.
(Hundley, 2012)

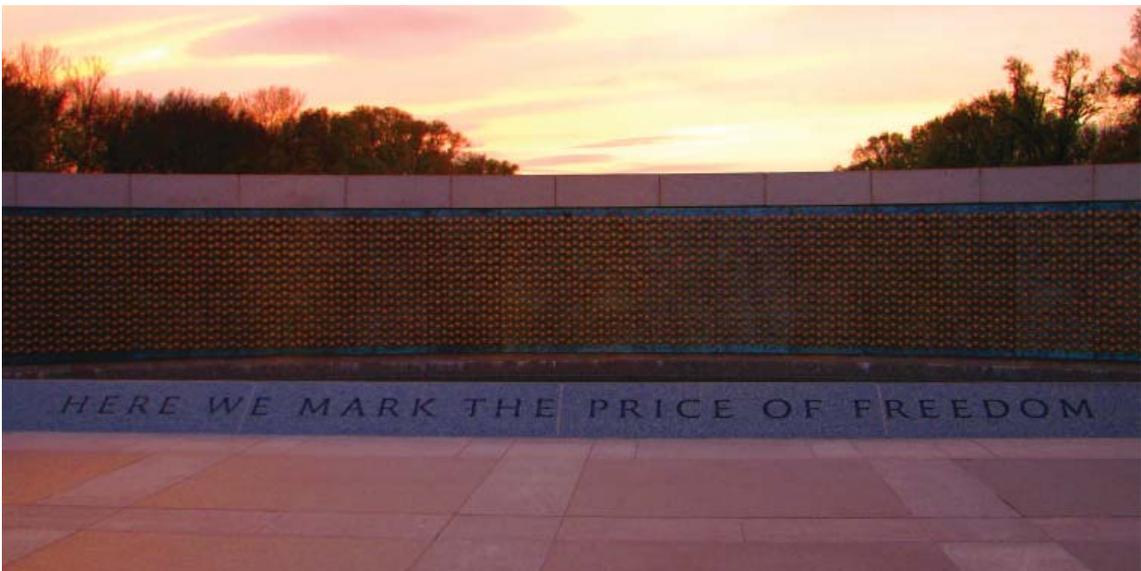
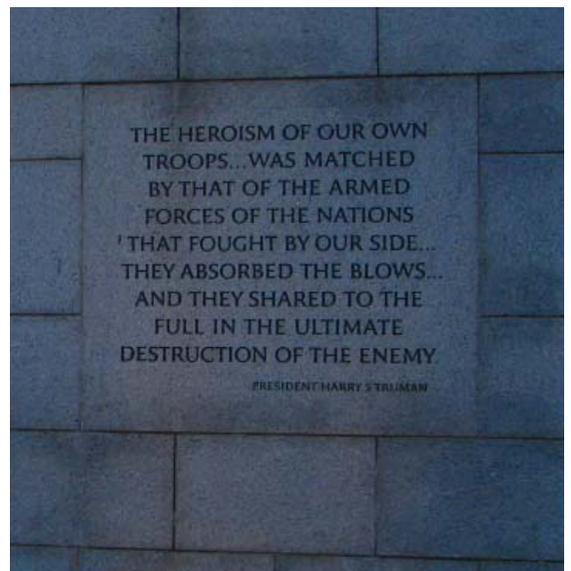




figure 2.38 | above
Lincoln at Sunset
World War II Memorial
Washington, D.C.
(Hundley, 2012)

figure 2.39 | below
"Shared To The Full"
World War II Memorial
Washington, D.C.
(Hundley, 2012)

the reflecting pool with 4,048 gold stars, each representing the lives of a hundred American soldiers (National Park Service, 2013). One is drawn to this pool as the inscription reads, "Here Marks the Price of Freedom", almost as if to say, this is why we do this, isn't it magnificent? While people seem to move about loudly through the rest of the memorial, this space acts as a place of reverence and respect. The sacrifice of the soldiers is almost minimized by their representation, making the site seem to commemorate the national pride in war more strongly than the people it affected.



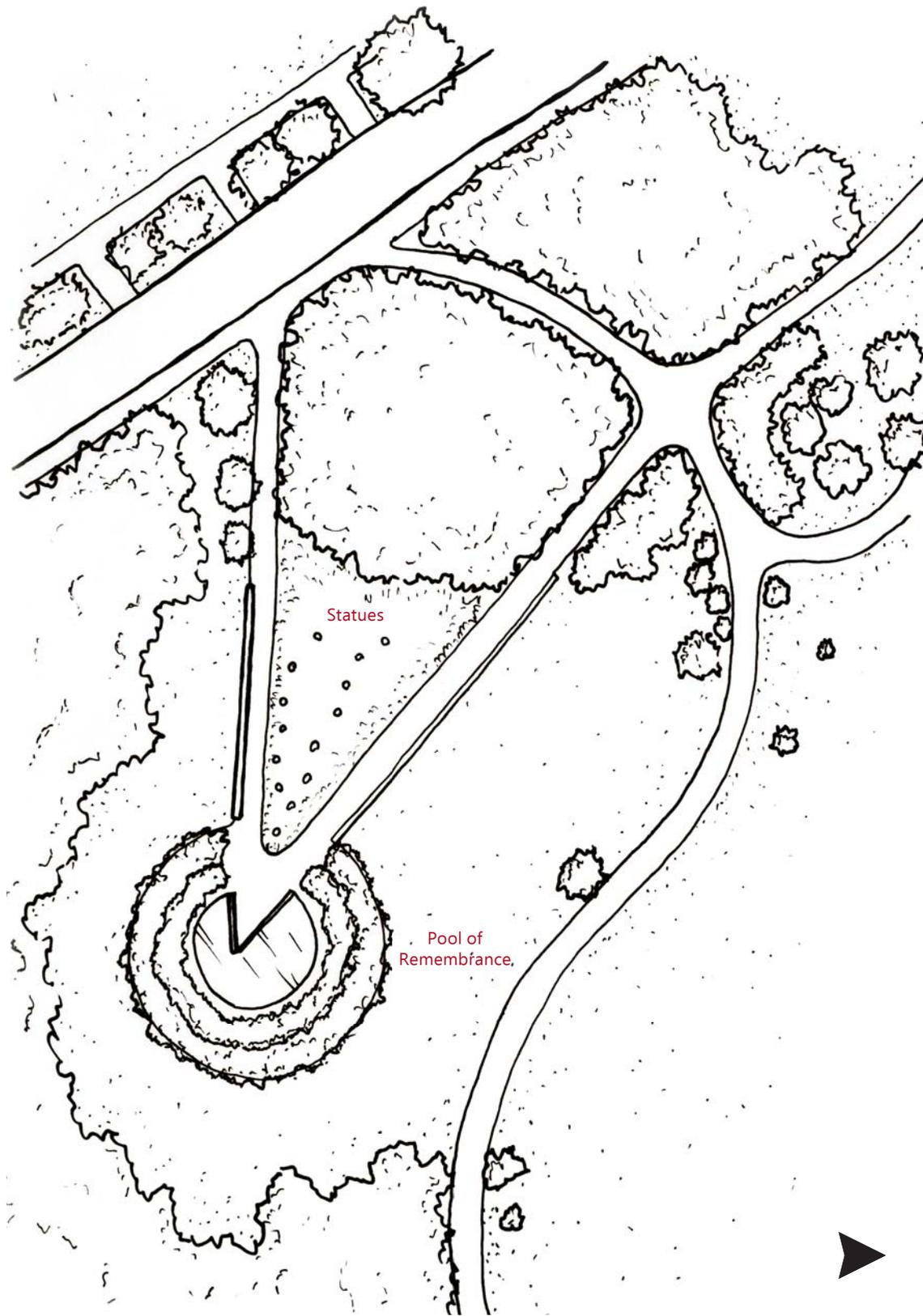




figure 2.40 | left
 Korean War Veterans Memorial Plan
 Korean War Veterans Memorial
 Washington, D.C.
 (Hundley, 2012)

figure 2.41 | above left
 Approaching the Soldiers
 Korean War Veterans Memorial
 Washington, D.C.
 (Hundley, 2012)

figure 2.42 | above right
 "Freedom is Not Free"
 Korean War Veterans Memorial
 Washington, D.C.
 (Hundley, 2012)



Korean War Veterans Memorial

Located just southeast of the Lincoln Memorial, is the Korean War Veterans Memorial. Authorized by Congress in 1986, this commemorative space was designed by Cooper-Lecky architects and dedicated in 1995, on the 42nd anniversary of the armistice which ended the Korean War.

"Freedom is not Free," reads the inscription on the reflecting pool. The memorial represents the commitment of American soldiers and their comrades from the United Nations and the Republic of South Korea. Instead of glorifying war, this space seeks to show the resolve of the individuals involved to bring freedom to others. The design consist of 19 sculptures depicting the United States Armed Forces soldiers that fought on the ground, sea, and in the air; set against a backdrop of





figure 2.43 | top left
The Losses of War
Korean War Veterans Memorial
Washington, D.C.
(Hundley, 2012)

figure 2.44 | lower left
Visages in Granite
Korean War Veterans Memorial
Washington, D.C.
(Hundley, 2012)

figure 2.45 | above
Approaching the Flag
Korean War Veterans Memorial
Washington, D.C.
(Hundley, 2012)

over 2500 visages of people or scenes from the war etched onto a polished granite wall. At the peak of the hill is the Pool of Remembrance, recognizing the casualties and losses of the war simply by the numbers. Around this circular pool are benches and trees with brilliant yellow fall foliage, filtering the light in the space and dropping leaves into the lapping water.

This memorial lacks a preamble. The design seems to spread outward, without a central focus or direction. It sits up on the hill, stretching upwards towards the

reflecting pool as the statues of soldiers run up the hill. The sound of the water's gentle lapping draws the visitor close to look down at the inscriptions reading the number of dead, missing, wounded, and captured soldiers of the U.S. and United Nations. These inscriptions, rather than the sculptures and etchings, evoke the emotional aspect of the memorial. There is very little seating outside of the Memorial space. Visitors walk directly up the path, past the ghostly visages of the soldiers, to gather at the circular reflecting pool.

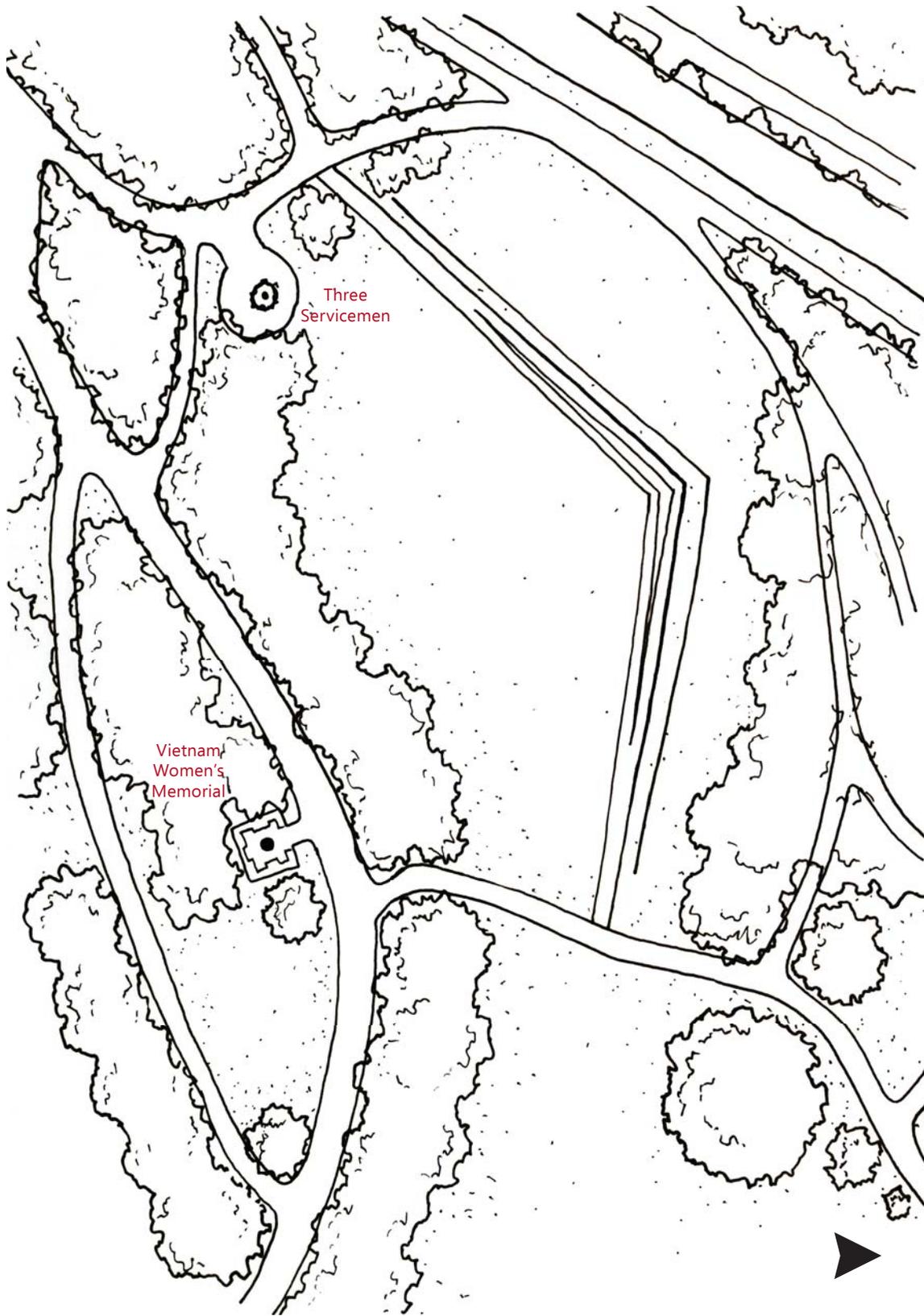




figure 2.46 | left
Vietnam Veterans Memorial Plan
Washington, D.C.
(Hundley, 2012)

figure 2.47 | above
Approach from the Constitution Gardens
Vietnam Veterans Memorial
Washington, D.C.
(Hundley, 2012)

Vietnam Veterans Memorial

Over the Lincoln Memorial Reflecting Pool and opposite the Korean War Veterans Memorial is the Vietnam Veterans Memorial. From a distance it looks like a dark granite cut into the hillside. There are two satellite memorials surrounding this space, including the Vietnam Women's Memorial as well as the Three Servicemen. The Vietnam Women's Memorial is a small space, with a simple sign across from it, providing historical information regarding the work of women during the Vietnam War. This space is enclosed and surrounded

by benches, inviting one to sit and watch people move through the Vietnam Veterans Memorial from across the lawn.

The concept for establishing a commemorative space for the Veterans of the Vietnam War was established by Jan Scruggs, who served during the war. Organizing the Vietnam Veterans Memorial Fund, Inc (VVMF) in 1979, this nonprofit organization sought the federal support to annex two acres of the Constitution Gardens and fund the project. It was announced in October of 1980 that the VVMF would be open to receiving design





figure 2.48 | upper left
Vietnam Women's Memorial
Vietnam Veterans Memorial
Washington, D.C.
(Hundley, 2012)

figure 2.49 | lower left
The Three Servicemen
Vietnam Veterans Memorial
Washington, D.C.
(Hundley, 2012)

figure 2.50 | above
Approach from the Lincoln Memorial
Vietnam Veterans Memorial
Washington, D.C.
(Hundley, 2012)

entries for the next year. On May 1st, 1981, the Vietnam Veterans Memorial design was chosen by a panel of landscape architects, architects, urban developers, sculptors and an author. They accepted Maya Ying Lin's concept to create a park within a park, a protected area that responded to the overall plan of the Constitution Gardens. The committee had requested that the designs be reflective and contemplative in character, harmonize with its surroundings, contain the names of those who had die in the conflict or who were still missing, and make no political statement about the war.

Maya Lin responded to this by designing mirror-like, polished black granite walls that would not only contain the etchings of individuals' names, but also reflect the nearby trees, lawn, and the faces of visitors. The two directions of the walls expand outward, reaching towards the Washington Monument to the east and Lincoln Memorial to the West, connecting the individual with the symbolic historical context. Once the design was approved by the government, construction began in 1982 and was completed and dedicated later that year (The Wall-USA, n.d.).



figure 2.51 | above
The Center of the Wall
Vietnam Veterans Memorial
Washington, D.C.
(Hundley, 2012)

figure 2.52 | left
Textures
Vietnam Veterans Memorial
Washington, D.C.
(Hundley, 2012)

figure 2.53 | far left
The Wall
Vietnam Veterans Memorial
Washington, D.C.
(Hundley, 2012)

Approaching the memorial, the noises of the road and construction create a vacuum-like sensation with the wind as an undertone, only noticeable by paying close attention. If one is not paying close attention, the memorial, set into the hillside can be missed if walking on the north sidewalk. The path coming from the Lincoln Memorial and the Vietnam Women’s Memorial curves to provide different perspectives of the deep, black wall. The names look almost like dew or frost on the glassy surface. The amount of people visiting is doubled by their reflections in the stone. Lights along the base of the wall line the path, illuminating the visitor’s reflections at night. Even with the variance of textures underfoot, people stay on the smooth stone in the middle of the path, only stepping onto the cobblestone to move

to touch a name or feel the smoothness of the wall. The slight crevice between the wall and the pathway seems like a slit in the earth, as if the names are going to slide down into that slit and disappear. The path is smooth like soap over your hands. The rich colors of fall leaves reflect on the black stone, the only true color in the space being left to the visitors and their mementos left behind. Dead leaves gather in the slit, devoid of the color surrounding reflections in the space. The planes that fly overhead and construction nearby sometimes overpower the calming rustle of the leaves by the wind.

The words seem to blend together, barely distinguishing them. This place is said to be a “healing place”. Why does it heal? This place is nondescript. It shows no opinion, but rather gives “just the

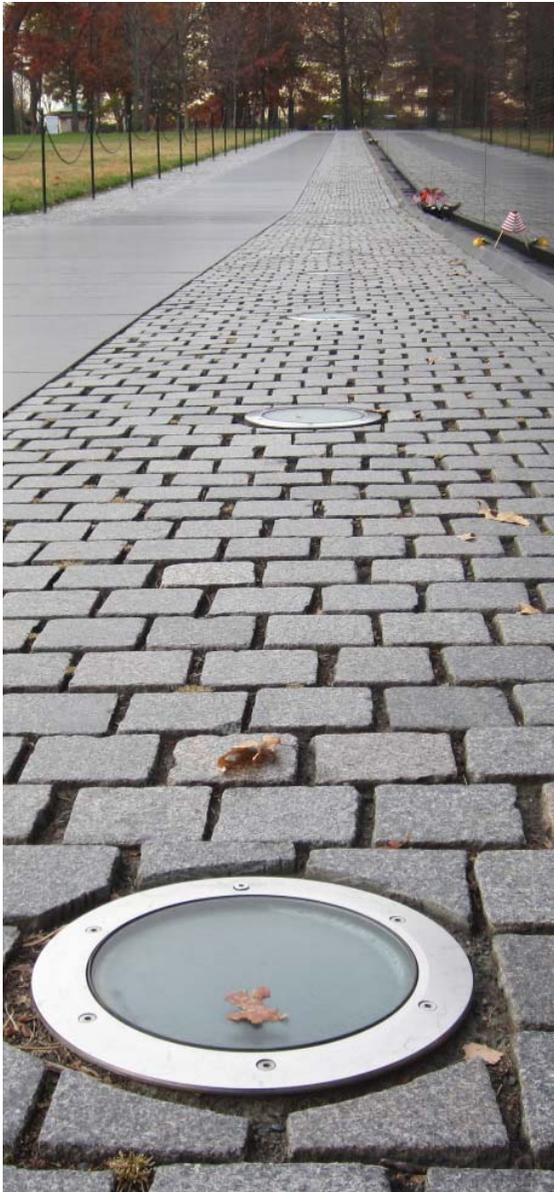




figure 2.54 | far left
 Rubbing a Name
 Vietnam Veterans Memorial
 Washington, D.C.
 (Hundley, 2012)

figure 2.55 | top left
 American Star
 Vietnam Veterans Memorial
 Washington, D.C.
 (Hundley, 2012)

figure 2.56 | right
 Muskoke Nation Honor Guard Badge
 Vietnam Veterans Memorial
 Washington, D.C.
 (Hundley, 2012)

figure 2.57 | top right
 "They Were Our Fathers..."
 Vietnam Veterans Memorial
 Washington, D.C.
 (Hundley, 2012)



facts". Here is what this war was, take it, and reflect. Some visitors are tourists; some look for their family and friends. Everywhere people take photos of the wall, mementos, veterans, and families coming here to rub the names of their lost friends and family. Couples, old, young, tourists, and veterans descend down the path to be buried in the names. The numbered panels help individuals locate their loved ones on the wall. One woman caught up to her husband asking, "Did you find your friend?" "Yes," he replied, "I found three of them." The only adornment on the wall is the wreaths at the flattened based. A child picked up a flower that had been propped against the wall, only to be chastised by his father. School groups walk through, young



hands running their hands along the wall and sliding their fingers over the name inscriptions. Families walk up to the wall, but the children don't seem to understand the symbolism behind the design. Some people are respectful and pensive, some are excited, in hunt for people they know, and others do not seem affected in the slightest. They are attentive; a man is poring over the register looking to find someone he knew. The path is direct, you can go back and forth and linger, but there is no place to stop or sit. The only benches encircle the flag at the top of the path near the Lincoln Memorial. Social interaction occurs through the flow of traffic, each group with their own private experience.



I HAVE A DREAM
MARTIN LUTHER KING, JR.
THE MARCH ON WASHINGTON
FOR JOBS AND FREEDOM
AUGUST 28, 1963

figure 2.58 | "I Have A Dream..."
Lincoln Memorial
Washington, D.C.
(Hundley, 2012)

chapter summary

Memorials are important for society to establish cultural identity and incorporate meaning into the physical environment. These spaces connect societies to their sense of community. The precedents on the National Mall exemplify this through the evocation of national pride and historical importance to the American people.





**restorative
environments**

figure 3.01 | (previous spread)
The River of Life
Entry Gardens
Banner Good Samaritan Regional Medical Center
Phoenix, Arizona
(Hundley, 2012)

theoretical understanding

A mind will experience restoration when the health or spirit of the individual is revived or renewed (Collins English Dictionary, 2009). In *Contemporary Landscapes of Contemplation*, Rebecca Krinke defines a restorative environment as a space that “provides measurable physical and/or psychological benefit to human health” (Krinke, 2005, p. 107). While there is no concrete method to achieve a restorative environment, medical psychological literature supports the claim that there is a link between an individual’s contact with the natural environment and the healing process. This is quantifiable through the reduction of stress in patients (Epstein et al., 1999). This chapter will examine both the origins of stress and the means to reduce it through restorative environment design. To experience these landscapes, restorative environments in Phoenix, Arizona from the *Therapeutic Gardens for Healing and Respite* workshop at the American Society of Landscape Architect’s 2012 Annual Meeting and Expo were visited and observed.

the origins of stress

As mentioned in the previous chapter, stress is a transaction between the individual and environment. More specifically, it is “both a physical and psychosocial syndrome” that influences “the way in which the physical environment is perceived and dealt with,” resulting in a depletion of the body’s resources due to attempts to cope with one’s environmental stressors (Saegert, 1976, p. 218). In order to mitigate stress in the human environment, we must first understand the causation of it.

The Impacts of Directed Attention on Stress

To first understand the impact of stress on the human mind, one must consider the contributions of attention and effort to stress. Directed attention is a “key psychological resource” that plays a strong role in how humans process the information in their environment, cope with challenges, problem-solve, and reach conclusions (Kaplan, 1995, p. 180). This concept stems

from William James' Attention Restoration Theory, focusing on the effort of human will for 'voluntary attention' contrasted with the effortless nature of 'involuntary attention'. This 'voluntary attention' is that which is not attracted by the outside environment, but is important for the individual to attend to as well. A long attention span for a specific, concentrated task is not an evolutionary aspect of the mind. Originally, it was essential for the mind to be vigilant and remain alert to the surrounding environment. In today's age, our attention is required to be focused under voluntary control. This is called directed attention. To do this, one must inhibit all distractions to protect the mind from competing thoughts. This prolonged mental effort results in directed attention fatigue (Kaplan, 1995).

Directed attention has seven considerable impacts upon human effectiveness and information processing. These include selection, inhibition and affect, fragility, perception, thought, action, and feeling. Selection involves the problem-solving, accessing the stored knowledge and decision-making possibilities of the mind. As a critical-thinking activity, involuntary attention cannot be used to make decisions. The elimination of competing thoughts

through inhibition and affect allows the focus needed for selection to occur. By inhibiting some impulses or inclinations of the mind, the individual may avoid behaviorally unacceptable actions. Directed attention has a great deal of fragility, for it is susceptible to fatigue over time. By lacking this aspect of mental functioning the perception of the individual be effected, resulting in high distractibility and impaired perception of uninteresting material (Kaplan, 1995). In order for thought to occur, directed attention allows the mind to comprehend a bigger picture to “deal with situations in which appropriate action is not immediately obvious” (Kaplan, 1995, p. 171). All of these thought processes lead up to action. Qualities of patience and endurance allow the individual to achieve longer attention spans for tasks, which are dependent upon inhibition and the focusing of thought on challenge at hand (Kaplan, 1995). Lastly, Kaplan states that directed attention is “a key ingredient in human effectiveness” and the emotional response is resultant from a person’s control of directed attention (Kaplan, 1995, p. 172). Emotions such as irritability may arise when directed attention fails, resulting in the avoidance of others. This is a strong contrast to other stress-induced emotions such as anxiety,

which characteristically draws the individual to others for comfort (Kaplan, 1995). While these impacts and factors relating to directed attention all focus within the functioning of the mind, that is not the sole source of mental fatigue and stress.

Stressors within the Individual’s Environment

What events cause stress in the individual’s environment? There is a variety of stress that visitors to memorials may be experiencing. These can be driven by life events or the environment itself. Richard S. Lazarus and Judith Blackfield Cohen characterize three types of stress—cataclysmic phenomena, changes effecting fewer persons, and daily hassles. Cataclysmic phenomena encompass single life events that are powerful and unique, requiring a major adaptation response on the part of a large population sharing the experience. Events such as these may include geographic change, such as natural disasters or political events, but can also encompass the social and cultural environment through cultural change. Changes affecting fewer persons can be just as powerful or unique, but tend to be privately significant to an individual or group. Most cases of bereavement lie here, requiring modification of patterns

of adjustment, or coping. The third environmental stressor is daily hassles, which, unlike the prior two, are ongoing occurrences through stable, repetitive, or chronic stressors. These may be rare or occasional, chronic or repeated (Lazarus & Cohen, 1977). Examples include poverty, crowding, lack of sanitation, poor diet and health, family life, sex-role conflicts, racial or ethnic considerations, sensory deprivations, and essentially “all sorts of difficulties encountered when the physical environment is unusually unyielding, harsh or uncomfortable, especially when the persons affected regard such conditions as destructive to their well-being” (Lazarus & Cohen, 1977, p. 92). The relative importance for health, morale, or functioning of the above three types of environmental stressors has little known about it.

Just as the grieving process is experienced at an individual level, so too is a person’s stress response. Environmental stressors can be positive, negative, or neutral in the affectation of the individual, but this depends on the individual’s ability to cope with them (Lazarus & Cohen, 1977). Lazarus & Cohen state that (1977):

Some persons are severely traumatized in an environmental context that hardly fArizonaes others, and even when the environmental event is universally destructive and stressful, the way it is experienced and interpreted, the pattern of emotion generated, the coping process employed, and the adjustive and health/illness outcome show remarkable diversity from group to group and person to person (p. 97).

At any rate, these stressors are typical of ordinary human life, but if prolonged or especially severe, the relative costs may be high.

The Effects of Stress

The symptoms of stress can be understood through somatic, physiological responses and behavioral, psychosocial ones (Lazarus & Cohen, 1977). Both of these stress responses are connected and exist simultaneously (Kaplan, 1995). Somatic responses, or physiological indicators, reflect emotional states through reactions in the body’s physical health. Various studies have revealed how stress makes itself known through cardiovascular changes, decreased skin resistance, increased muscle-action potentials, and changes in brain waves, stomach motility, breathing rates, and end organ reactions (Lazarus & Cohen,

1977). These reactions are a result of the nervous system's neuroendocrine activity. Secretions of stress hormones suppress the immune system and tax the heart and other major organs. If the effects are prolonged or severe, they can lead to psychosomatic disorders, or stress-related diseases (Ulrich et al., 2008). Quantifying stress levels on a somatic level is easier than a behavioral one, for in order to recognize differences in how people will act or function, a baseline must be established to assess them (Lazarus & Cohen, 1977).

Behavioral—or psychosocial—responses indicating stress emotions can be divided into three types: coping behavior, disorganized functioning, and expressive behavior. Stress occurs when a “person’s resources are appraised as being heavily taxed or exceeded and that no automatic, adaptive response is available” (Lazarus & Cohen, 1977, p. 103). The individual’s coping behavior encompasses attempts to adapt or alter stressful transactions. Understanding coping responses is useful to identify the presence of related processes, but is difficult to distinguish from detached problem-solving (Lazarus & Cohen, 1977). This is also called resilience—“the ability to withstand or recover quickly from difficult conditions” (Ming Kuo, 2010, p. 24). As

another classification, Dr. Karl Menninger asserts that “the impairment and sometimes the sever disorganization of a person’s functioning, [is] a common consequence of stress” (as cited by Lazarus & Cohen, 1977, p. 103). Stress’ ability to facilitate or impair a person’s performance is highly influenced by the amount of psychological stress experienced and a person’s repertoire of coping processes. Identifying stress through behavioral responses can also involve the observation of expressive behavior through bodily movements, postures, and facial expressions; all of which may appear differently under stress than under benign conditions (Lazarus & Cohen, 1977).

These approaches to identify physiological and psychosocial responses to stress need to be considered with the understanding that the environmental event, or stressor, is separate from the response that it induces (Lazarus & Cohen, 1977). When considering emotional responses as well, as Lewis and Wolterstorff have ascertained in their reflections, the grief-induced stress a person experiences from bereavement entails an “extended and complex process, changing in character in stages over time” (Lazarus & Cohen, 1977, p. 107). Coping methods may need to continuously adapt in order to retain

beneficial qualities. Despite the causes of stress, the repercussions are what the physical environment can contend with.

The Environment's Influence on the Individual

Just as environmental stressors may occur due to geographic or cultural events, the physical and social environment in which the individual experiences them had an impact through its direct connection with the individual. Environmental and social factors may also impact our physical and mental health. Both environmental and psychological stresses have proven to link with disease and illness, also referred to as psychoneuroimmunology (Lazarus & Cohen, 1977). The physical environment might cause stress through a variety of factors. These include poor air quality, noise, thermal comfort (presence of drafts, shade etc.), lighting quality (whether there is dim light or glare), or odors. Noise is a good illustration of this. As a major stressor, it causes sleep disturbance and deprivation, fragmentation, low oxygen saturations, high blood pressure and heart rates, interference with oral communication and poor performance (Hartig & Marcus, 2006; Ulrich, 2006; Ulrich et al., 2008; Ulrich et al., 2010). How the individual physically

experiences and perceives their environment can cause any of these reactions. The social environment is influenced by the individual's actual and perceived amount of control over their environment through ranges of privacy, the influence of crowds or threats, and demands on attention (Greene, 1994; Hartig & Marcus, 2006).

The powerful relationship between the designed environment and environmental psychology must be considered. The designed environment is instrumental in being supportive or detrimental to a person's psychological and emotional needs (Kaplan & Kaplan, 1978; Greene, 1994). If an environment is designed poorly, without consideration of environmental stressors, the visitor may experience increased anxiety or stress (Greene, 1994). If the environment is designed in a manner to minimize detrimental stimuli, it can offer an "outer 'silence' that can slow the mind to correspond with inner silence that is beneficial to contemplation" (Hermann, 2005, p. 70). Environments functioning as therapeutic landscapes to alleviate stress can "create positive interaction through activities, social groupings and relationships to outdoor environments" (Epstein et al., 1999). How can the commemorative landscape become a means to reduce stress?

stress reduction through the natural environment experience

Humanity should recognize that we are a part of nature (Bruce, 1999). The natural environment experience can mitigate stress, as well as prevent it by aiding in the recovery of the capacity to focus through directed attention, an essential resource for human effectiveness (Kaplan, 1995, p. 169). This ability is especially apparent due to the moral implications of landscapes. Western culture has conditioned us to regard nature positively and cities negatively. Civilizations throughout history, such as the Egyptians or Chinese, went to great lengths to maintain their connection to nature within the urban environment (Ulrich, 1995). Positive feelings toward naturalness are apparent through the construct that landscapes have moral overtones and are intrinsically “good” or “morally innocent” (Herrington, 2008, p. 7). Images of landscapes may be real or fabricated by designers, but environmental psychologists still ascertain that even pictorializations of nature are beneficial to mental health. By perceiving landscapes as intrinsically valuable and good, the viewer will not be influenced by expressions of culture through politics, fashions, or

ideologies (Herrington, 2008). But what is considered to be a natural environment and what is our perception of it?

Technological developments and cultural institutions are constantly shaping the landscape around us, making nature and culture difficult to distinguish. But just as memorials and culture are indistinguishable, so too should we ‘see’ landscapes as both nature and culture (Herrington, 2008, p. 68). The power to provide “spatial and sensorial experiences” reminds us of our relationship to the land as our main source of sustenance (Herrington, 2008, p. 34). Natural landscapes improve the human regard for the environment by aiding in mental recovery from fatigue and exuding positive moral implications. It follows then, that designers would utilize gardens as a design element to create meaning in the landscape.

Gardens are one of the most prominent motives to evoke narratives through folk and individual memory. In *What are Gardens For?*, Rory Stuart suggests that we “think of gardens more in terms of music”, for like music, gardens cannot convey semantic meaning through analysis and calculation (Stuart, 2012, p. 103). However, they can stimulate emotional and therapeutic benefits which “move us in ways that



figure 3.02 | Rejuvenation through Nature
Healing Garden
Banner Good Samaritan Regional Medical Center
Phoenix, Arizona
(Hundley, 2012)

seem to be beyond words and [are] deeply spiritual (Stuart, 2012, p. 103). Using the landscape as “a representation of collective life in nature, which was conceived in response to social and economic changes in people’s relationship to the land” is what Denis Cosgrove calls the “landscape idea” (Herrington, 2008, p. 33). This concept can be understood in the context of biophilia, as a universal response to the natural environment.

Biophilia

Biophilia is a universal response to the natural environment, for “as a species, we are still powerfully responsive to nature’s forms, processes, and patterns (Heerwagen, 2011, p. 39). It “is not a cultural amenity, not an individual preference, but a universal primary need” to have contact with nature (Heerwagen, 2011, p. 39). Our evolutionary response to plants is an emotional one, recognizing that nature is central to the human environment in “all subsequent thoughts, memory, meaning, and behavior” (Relf, 2008, p. 23). Our world is biocentric, and the principles behind biophilia emphasize an understanding of human evolution through our dependence on the natural environment (Heerwagen, 2011, p. 55). The natural landscape provides trees for

shelter, flowers or vegetation for food, water for drinking or bathing as a foundation of life, all resulting in the resources necessary to survive. This does not disregard the cultural, geographic, or ecotype specificity (Heerwagen, 2011). For biophilic design, a space may use “inspiration from both the local natural environment and vernacular cultural expressions for creating a sense of place” (Heerwagen, 2011, p. 42). In this way, contact with nature will prove beneficial to all ages, genders, races, or ethnicities (Heerwagen, 2011).

Restorative Nature

Our preference for natural environments is also supported by the restorative effects viewing these spaces incurs (Van den Berg et al., 2003). Prior to the work of environmental psychologists such as Roger Ulrich, the understanding of the restorative benefits of nature has been intuitive around the globe and throughout time. When people lack access to nature, or are met with environments that may be “noisy, chaotic, illegible or dangerous” it can add to their perturbation and anxiety (Ming Kuo, 2010, p. 24). The natural environment can “help people withstand and recover from threat and potential loss—which we experience on a physiological and emotional

level as stress and anxiety” (Ming Kuo, 2010, p. 24). Plants low in intensity and incongruity provide stimuli that reduce the arousal and processing effort, providing restoration from stress or fatigue (Krinke, 2005).

The restorative effects of nature can be seen in the writings and research across disciplines. In Ming Kuo’s study of healthy human habitats, he states that:

People with less access to nature are more prone to stress and anxiety, as reflected not only individuals’ self-report, but also measures of pulse rate, blood pressure, and stress-related patterns of nervous system and endocrine system anxiety, as well as physician-diagnosed anxiety disorders (Ming Kuo, 2010, p. 4).

This statement is supported by Robert Ulrich’s studies of aesthetic and affective responses to outdoor visual environments (Ulrich, 1984). Ulrich concluded that American and European groups, elicit more positive feelings, reduced fear, extended attention, and greater restoration

from stress in natural environments than urban ones (Ulrich, 1984). These positive feelings have proven to speed recovery from negative emotions such as fear or sadness (Frederickson & Levenson, 1998). The environmental properties that are able to do this, go beyond to encompass stress-reducing or restorative properties that have not been explicitly defined (Ulrich et al., 2003).

Historically, the notion of using nature as therapy first occurred in Egypt, when court physicians instructed the mentally disturbed royalty to walk in the palace gardens. The idea of paradise gardens was used in medieval cloister gardens, but it wasn't until the late 1700s and early 1800s that a link between nature and health was considered in a clinical setting (Davis, 1998). In the middle of the 19th century, landscape designers and physicians were focused on crafting a dualism between health and the environment to inform the design of parks, military installments, hospitals, schools, rural cemeteries, and early suburbs (Martenson, 2011). Influential

thinkers, such as Henry David Thoreau, John Muir, and Frederick Law Olmsted, “asserted that ‘contact with nature’ was important to psychological, physical and spiritual health” (Ming Kuo, 2010, p. 3). Reclaiming the ideas of Hippocratic and Vitruvian, they ascertained that the prevention of stagnation or decay at physical and social levels could prove to be healthy to the human environment and salubrious for the preservation of human health. John Rauch worked to create a multi-park system in Chicago that would improve the general health of all city residents and reduce mortality (Martensen, 2011). Similarly, Frederick Law Olmsted recognized that natural scenery was essential in restoration, for it “employs the mind without fatigue and yet exercises it; tranquilizes it and yet enlivens it; and thus, through the influence of the mind over the body, gives the effect of refreshing rest and reinvigoration to the whole system” (as cited in Kaplan, 1995, p. 174). Olmsted and Calvert Vaux believed that the land itself could not “generate salubrity”, but had “to be re-engineered so

that it did” (Martensen, 2011, p. 31). As a means of therapy, the gardens have been used to relieve pain as well as aid patients in attaining a sense of orientation or equilibrium. The discipline has now grown to an accepted method in the psychiatric profession, in the form of therapeutic gardens (Davis, 1998).

Whether exposure to nature occurs through gardens, parks, or vegetation, it has a considerable effect on enhancing psychological health (Ming Kuo, 2010). Claire Cooper Marcus and Marni Barnes have studied the psychological benefits of gardens from accounts of the user. Describing their feelings after spending time in the garden, users reported feeling more relaxed, calmer, refreshed, stronger, able to think or cope, more positive, and more in touch with a spiritual connection. The elements that inspired these feelings included trees, plants, or nature in general; senses, such as smells, sounds, or fresh air; opportunities for seclusion or social interaction; views, sub-areas, and the presence of textures; and practical features, such as places for seating (as cited in Ming Kuo, 2010, p. 18). Other populations have examined this with the same results. The practice of “shinrin-yoku”, immersion in the forest environment or “forest bathing”,

figure 3.04 | below
Natural Elements in the Built Environment
Meditation Garden Courtyard
Banner Gateway Hospital
Phoenix, Arizona
(Hundley, 2012)



figure 3.05 | below
Textures of Water, Shade, and Stone
Maternity Family Garden
Banner Gateway Hospital
Phoenix, Arizona
(Hundley, 2012)



figure 3.06 | below
Opportunities for Seating
Roof Garden
Phoenix Children's Hospital
Phoenix, Arizona
(Hundley, 2012)





figure 3.07 | Enclosed Nature, Nature Beyond
Infusion Garden
Banner Good Samaritan Regional Medical Center
Phoenix, Arizona
(Hundley, 2012)

is a Japanese tradition that has recently been tested by scientists. They have determined that even 15 minutes spent walking in the forest environment can reduce stress in male college students more than in the city environment, indicated by the human endocrine system (Ming, Kuo, p. 18). The work of Roger Ulrich is essential in defining design elements successful in reducing stress. His theory of supportive garden design encourages access to nature, a potential for exercise, support for social interaction, and the ability to a degree of control to promote therapeutic benefit in a medical setting (Epstein et al., 1999). Plants that are low in intensity and incongruity provide stimuli that reduce the arousal and processing effort, providing restoration from stress or fatigue (Krinke, 2005). The American Horticultural Therapy Association defines therapeutic gardens through seven characteristics (Epstein et al., 1999, p. 185):

- scheduled and programmed activities to acquaint patients and visitors to the garden experience
- garden features—elements and equipment conducive to accessibility
- well-defined perimeters to increase enclosure and direct attention
- promotion of people-plant interactions and their sensory attributes
- benign and supportive conditions minimizing environmental irritants and reinforcing personal comfort and safety
- universal design principles to allow people to experience the garden in their own way and at their own pace
- recognizable placemaking to promote “independence, reduces stress, and enhances the therapeutic garden as a unique, identifiable, and special place” (p. 185).

These characteristics can also be applied to the idea of a “healing garden.” The term denotes a place that recognizes the connection between nature and people and seeks to improve the individual’s health and well-being (Hartig & Marcus, 2006). It is a “place, a process, and their intertwining” (Hartig & Marcus, 2006, p. S36). “Healing” is not synonymous with a cure and is important to distinguish in a memorial setting. The term “healing” associates itself with the beneficial process that strives to promote overall well-being through the relief from physical symptoms or awareness, stress reduction, and an increase of emotional or physical comfort (Marcus & Barnes, 1999). Visitors are not “sick” or in need of “healing,” but these spaces can improve overall wellness (Hartig & Marcus, 2006). For example, this space could be denoted as “a place for grieving or for a restorative respite from stressful caring demands” (Hartig & Marcus, 2006, p. S36). While normally attributed to the use of medical facilities, the restorative resources in these designs can help all persons cope with stress and allow psychological rebalancing to occur (Hartig & Marcus, 2006; Stuart, 2012).

It is through both the physical and psychological experience of place that these

beneficial interactions may improve health. The body does not exist independently of the mind or spirit, for “the human mind is so complex, so powerful, yet so fragile a marvel (Bruce, 1999). Without the mind the body has no direction, the emotions have no meaning and the spirit is without expression” (Bruce, 1999, p. 63). People and plants are connected through their evolutionary linkage to the land as supportive of life (Bruce, 1999). We must adopt a way of thinking that connects the intrinsic qualities of a garden to the interaction with nature and well-being of people (Tyson, 1998). Rory Stuart describes this relationship further:

The garden or landscape is connected to people in a way that is uniquely healing in its essence. The restorative qualities of gardens span the human spectrum and have no social, cultural, or ethnic boundaries. Gardens may contain elements that are specific to culture, climate, or time; however, the simple truth of their existence reflects the universal desire for human interaction with nature, with humans as stewards of the land (Stuart, 2012, p. 3).

A biophilic design of natural environments would emphasize the cycles of birth, death, and regeneration, as a testament to

change and resilience (Heerwagen, 2011). The cyclical rhythm of nature differs from human life and our linear fixation on death, thus inciting fascination when experienced (Stuart, 2012). These interactions between the physiological and the psychological experience establish a sense of place and connection with the natural environment.

The Reduction of Stress

Stress is a psychological response to the impacts of the surrounding environment. Not all forms of stress are bad, and gardens are by no means free of environmental stressors. The link between nature, body, and the mind emphasizes that stressors come from all aspects of this chain, and restorative actions must be approached at all levels as well. Lazarus and Cohen state that environmental changes have:

...primary causal significance in stress production or in the development of illness. The classification of life changes on the basis of the magnitude of adjustment [or coping] demands creates the illusion that such events have their origin solely in the environment rather than in the individual or the individual's reaction with the environment (1977, p. 98).

To effectively reduce stress in the landscape, the psychological responses to the natural environment with restorative value must be identified (Lazarus & Cohen, 1977). Access to nature impacts psychological and social functioning, by yielding “better cognitive functioning; more proactive, more effective patterns of life functioning; more self-discipline and more impulse control; greater mental health overall; and greater resilience in response to stressful life events” (Ming Kuo, 2010, p. 4). In the interest of combating directed attention fatigue and establishing an environment to use an “alternate mode of attending” to maintain the individual’s focus (Kaplan, 1995, p. 172). Stephen Kaplan identifies restorative attributes as fascination, being away, extent, and compatibility (Kaplan, 1995; Relf, 1998, Krinke, 2005).

Fascination involves involuntary attention that requires no effort and is resistant to fatigue (Kaplan, 1995). Fascination can occur from process or content, but is “a central component of a restorative experience” (Kaplan, 1995, p. 172). Nature has naturally engrossing processes that elicit interest through “soft fascinations”, such as the passing of clouds, sunsets, snow patterns, or motion of leaves in the breeze—holding the individual’s

figure 3.08 | Fascination in Being Away
Dining Patio
Phoenix Children's Hospital
Phoenix, Arizona
(Hundley, 2012)



attention (Kaplan, 1995). Elements such as these provide a soft reflective mood where one is pleurably or aesthetically engaged, but not required to make a response (Krinke, 2005). Beyond incorporating natural elements, biophilic design seeks to create positive emotional experiences, such as “enjoyment, pleasure, interest, fascination, and wonder” by incorporating appealing or aesthetically pleasing experiences (Heerwagen, 2011, pp. 47-48). Incorporating discovered complexity, the depth of mystery incites investigation to explore and know more about one’s environment. These aspects can become “precursors of human attachment to and caring for a place,” resulting in more “naturally evocative space[s]” (Heerwagen, 2011, p. 48).

Settings that allow separation from the everyday world and its activities encompass Kaplan’s concept of “being away” (Krinke, 2005). This does not necessarily require a distance from one’s everyday setting. Natural environments can be incorporated into the human environment to alleviate directed attention fatigue. These spaces allow involuntary attention to take over, releasing the mind from the effort of directed attention. Changing the setting can be done simply through framing of views to reach a conceptual shift (Kaplan, 1995).

The environment must have a measure of extent—to “be rich enough and coherent enough so that it constitutes a whole other world” (Kaplan, 1995, p. 173). These spaces balance order and mystery, belonging to a whole, and making one feel “connected to larger systems or ideas—such as the human relationship with nature or natural processes” (Krinke, 2005, p. 134). This does not entail large tracts of land, but must engage the mind, providing “enough to see, experience, and think about so that it takes up a substantial portion of the available room in one’s had” (Kaplan, 1995, p. 173). On a small scope, utilizing elements of the landscape that include historical artifacts, a sense of connectedness to the past can evoke a larger world (Kaplan, 1995).

Compatibility is achieved when the demands of the environment meets the individual’s purposes or inclinations through personal, feasible goals (Kaplan, 1995). The environment will support the individual by requiring little demand for directed attention, still providing interest but also ensuring security (Krinke, 2005). Individual purposes in the environment will vary widely, but a compatible environment will help carry out problem-solving while it “requires less selectivity and hence less directed attention” (Kaplan, 1995, 173).

The importance of the sensory experience in stress reduction pervades Kaplan's attributes the natural landscape. We are instinctively "drawn to the mystery, security, beauty, comfort, and promise of tomorrow that these special places provide (Bruce, 1999, p. 5). When a mind perceives its environment, it does so rapidly and unconsciously, unless the process is made known by subsequent events (Kaplan, 1995). The natural environment "can provide intense sensory experiences that combine movement with what we see, hear, smell, and touch" as a physical landscape (Herrington, 2008, p. 12). By appealing to the senses, the body, mind, and spirit may be stimulated (Bruce, 1999). Activated senses engage the mind, igniting a primitive alertness to garner information about one's surroundings (Bruce, 1999; Stuart, 2012). Singularly, each sense will provide a different perception of the world than when multiple senses act together (Hilgard, 1978). Our minds look to the senses, often stimulating more than one to hold interest and avoid boredom (Bruce, 1999).

Sight forms the initial impression of a landscape, determining its beauty. Light is essential to establish the initial sensory reaction to a space. Visual perceptions from and physical exposure to light are

both beneficial to health (Ulrich, 2006; Ulrich et al., 2008; Ulrich et al., 2010). People prefer the presence of daylight in their environments over electric light. In addition, natural light is better for health and psychological functioning (Heerwagen, 2011). Ulrich's studies have proven access to daylight for medical patients reduces depression and pain by affecting serotonin levels faster than any antidepressants. This manifests itself in patients through less stress, depression, pain, pain medication usage, sleep, and length of stay, resulting in a faster recover time (Ulrich, 2006; Ulrich et al., 2008; Ulrich et al., 2010). His studies also determined that artistic stimuli soothed stress when depicting nature scenes or people with emotionally positive facial expressions. Positive visual distractions, which will be further examined later, divert the patient's attention away from stressors, alleviating negative feelings and increasing psychological and emotional well-being (Ulrich et al., 2010). Elements in the natural environment that also serve as soft fascinations can be characterized as possessing heraclitean motion that "always changes, yet always stays the same" (Heerwagen, 2011, p. 48). These pleasing patterns of movement "move on their own rhythm or with the aid of the

wind” and “may be associated with safety and tranquility” (Heerwagen, 2011, p.48). In contrast, stimuli depicting abstraction of negative or surreal subjects aggravated stress in patients (Ulrich, 2006). When applying visual stimuli to the environment; complexity, intensity, or erratic movement worsened the stress expressed by the user, while environments with low stimulation levels facilitated stress reduction (Ulrich et al., 2003).

Smell is the most primitive sensory tool, encompassing the individual’s analysis of the chemosensory environment. While we have a short attention span for smell, our brain is able to detect, analyze, examine, or creatively think about what we experience in a short span of time before moving onto the next experience. The creation of a diverse landscape experience will hold the visitor’s interest and involvement. Olfactory qualities can be easily incorporated into the environment. However, to avoid overstimulation, it is important to consider plant adjacencies. Plants that strongly stimulate the olfactory experience should be staggered to retain the unique identity of each experience through discoveries, not destinations (Bruce, 1999).

While noise is a strong environmental stressor, it can also prove to be beneficial.

This quality in the landscape is not easily shut out (Bruce, 1999). Introducing pleasant sounds such as relaxing music or nature sounds will reduce pain and stress. This is amplified when coupled with visual stimuli (Ulrich et al., 2010). Overall, the user must maintain a sense of comfort, safety, and control when experiencing multi-sensory stimuli in the environment.

Physical comfort is instrumental in minimizing an individual’s anxiety. This can be done by improving the air quality, providing shade or wind blocks to moderate temperature, as well as reducing glare and noise, removing pollutants, increasing humidity, and screening unattractive sites (Greene, 1994; Relf, 1998). Levels of comfort can be directly influenced by the designer. For example, if one were to enter a space with a singular bench, the obvious implication is to invite the visitor to sit and rest alone. However, most likely the visitor would feel unease, waiting for the next user to enter the space. Providing various forms of seating allows the visitor to relax with the knowledge that there is plenty of space for everyone. Placing these areas at different vantage points also allows different levels of interactions and contemplative connections to be made, with sitting or walking occurring nearby (Krinke, 2005).



figure 3.09 | Choosing Crossings
Scottsdale Healthcare: Thompson Peak
Phoenix, Arizona
(Hundley, 2012)

By accommodating for these factors, users may choose to experience the landscape in a way that they feel most comfortable.

As humans, we wish to organize and manage the information we attain in the environment. It is essential that control and choice be maintained to cope with environmental stressors (Kaplan, 1978). The impact that an environment stressor has on the individual's stress level is affected by its significance to the individual and his or her perceived control over the situation (Lazarus & Cohen, 1977). Ulrich defines this through "control theory", stating that the levels of stress will be affected by both control as well as the perception of control over environmental stimuli (Ulrich et al., 2003). With an amount of control in the environment, the user may facilitate their physical and psychological movements, shifting perspectives from pathways, vistas, or other types of spaces (Marcus & Barnes, 1995). This change in brain activity patterns relaxes the emotional state of the user (Greene, 1994). At the same time, control itself can be stressful,

so again an individual's ability to make choices with their landscape experience is important (Bruce, 1999). Landscape designs that empower the individual with choice allow them to become active in the healing process that restorative environments can provide through stress-reducing properties reconnecting the mind, body, and spirit (Greene, 1994). Dr. John Kabat-Zinn, Professor of medicine Emeritus and founding director of the Stress Reduction Clinic at the University of Massachusetts Medical School, asserts that aspects of contemplation or meditation can be virtually interchangeable, allowing the mind to control itself (Krinke, 2005). By allowing focus on a specific thought or release of thoughts or emotion, an awareness of one's own mind can be attained through contemplation, bringing a greater sense of "self-mastery, well-being, equanimity and reduced stress" (Krinke, 2005, p. 3). To "aspire, create, and belong" within an environment, spaces must allow for creativity in the landscape experience, both on the individual level

figure 3.10 | below
Seating Movability
Roof Garden
Phoenix Children's Hospital
Phoenix, Arizona
(Hundley, 2012)



and as a canvas for culture to “imprint its pattern on the growing mind” (Farber, 1978). Choice can also be found in a space’s transformability—the ability to create multi-use spaces that can be molded through imagination (Heerwagen, 2011). These multi-use spaces can facilitate the physical and psychological movements of the individual in the landscape. Grouping by location and providing ample wayfinding will eliminate frustration (Marcus & Barnes, 1995; Ulrich et al., 2010). These groupings should emphasize safe seclusion as well as social interactions, through considerations on planting typologies, design form, incorporation of wildlife, and adjustable spaces that allow for enclosure as well as social interactions in comfortable settings (Marcus & Barnes, 1995).

The natural environment, settings that have elements of fascination, being away, extent, and compatibility will prove alleviate directed attention fatigue, while multi-sensory experiences can stimulate the mind through involuntary distractions. By incorporating control and choice within restorative environments, a level of comfort and safety for the individual may be achieved.

The Individual's Need for Support in the Social Experience

The individual experiencing stress associated with grief or loss will do so in a unique way, but is essential that landscapes allow for social support. Social support as a community can be defined as the “group of people living in close proximity and sharing similar interests and values” (Relf, 1998, p. 23). The emotional, informational, and tangible support given by family and social networks is needed to allow individuals to express feelings of loss without the demands of normal life encompassing their energy (Ulrich et al., 2008). In this setting, the landscapes provide the opportunity for the sharing of values in a comfortable physical environment. As a method to enhance the economic and social condition of the community on a larger context, it is agreed that the incorporation of plants into landscapes are the most cost effective agents to change the negative perceptions of an area and generate a positive community atmosphere (Relf, 1998).

figure 3.11 | below
A Space for Community
Healing Garden
Banner Good Samaritan Regional Medical Center
Phoenix, Arizona
(Hundley, 2012)

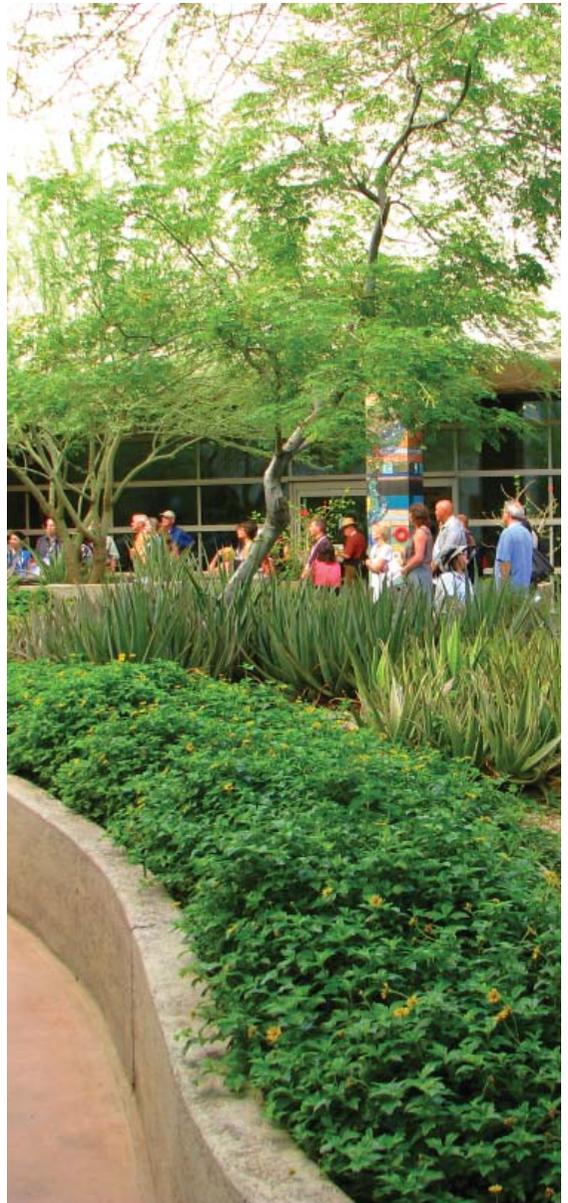
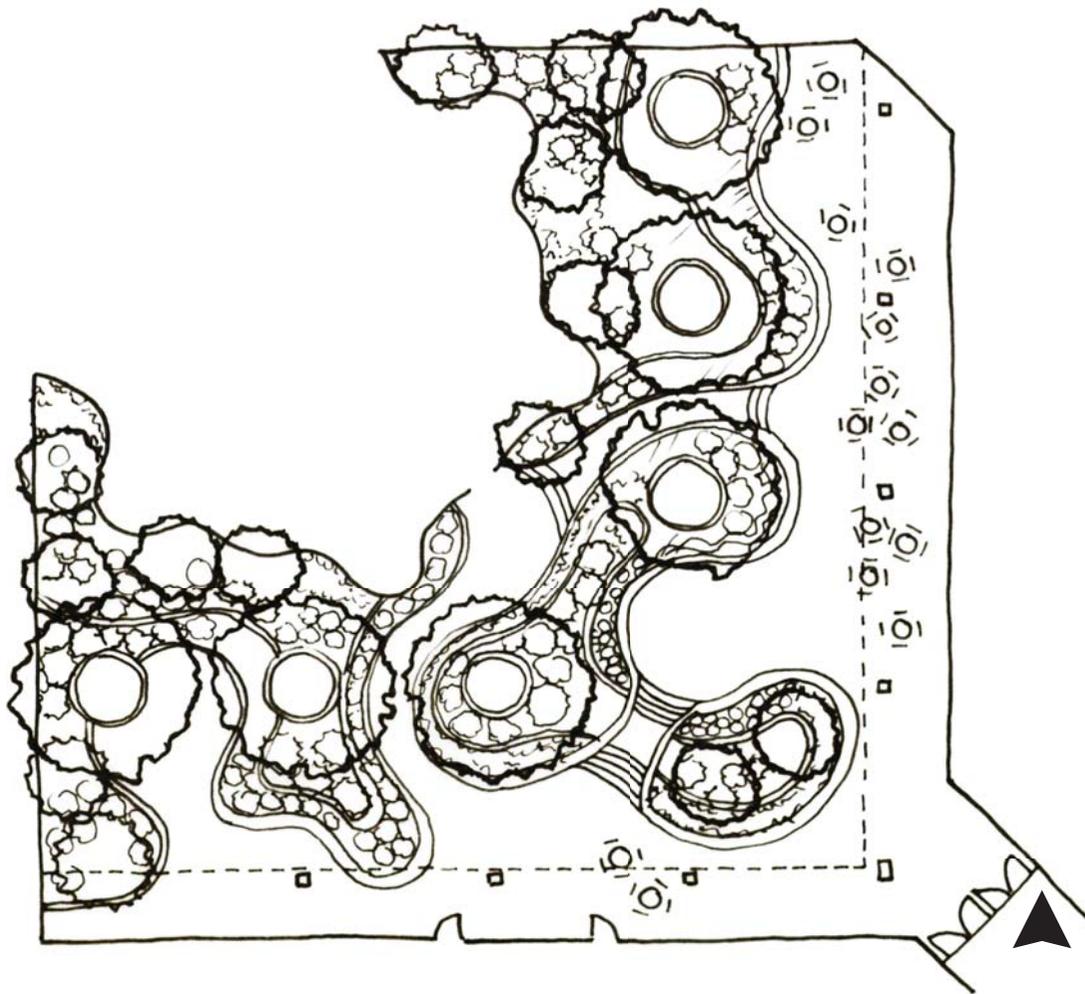


figure 3.12 | Healing Garden Plan
Banner Good Samaritan Regional Medical Center
Phoenix, Arizona
(Hundley, 2013)



restorative precedents

The 2012 ASLA Annual Meeting and Expo in Phoenix, Arizona featured a workshop entitled “Therapeutic Gardens for Healing and Respite.” With a variety of presenters, the learning objectives of this mobile session were to understand the “positive impacts of gardens in healthcare settings,” “evaluate the physical, psychological, and social benefits of outdoor spaces for both patients and caregivers,” and “review the process of post occupancy evaluations during the tour of various garden spaces” (Floor et al., 2012). The five hospitals visited included Banner Good Samaritan Regional Medical Center, Phoenix Children’s Hospital, Scottsdale Healthcare Center: Thompson Peak, Banner Gateway Hospital, and Mercy Gilbert Hospital.

Banner Good Samaritan Regional Medical Center

In an effort to accommodate both an increasing number of patients and provide a better environment for the staff, Banner Good Samaritan Regional Medical Center undertook renovations from 1995 until 2005. As a part of this expansion, it was important to the hospital to incorporate a healing garden within the facilities. Floor Associates, Ten Eyck, the Orcutt/Winslow Partnership, and artist Joan Baron conceptualized and redesigned the existing over-structure concrete courtyard, transforming it into a healing garden that would stimulate the senses. After this project proved to be successful, the transformation of other areas of the hospital followed, creating a series of intimate garden spaces that expanded the concept of a healing landscape throughout the Medical Center’s campus. This continuous connection with the outdoor environment was exemplified in the entry atrium.

figure 3.13 | below
The Hospital Tower
Healing Garden
Banner Good Samaritan Regional Medical Center
Phoenix, Arizona
(Hundley, 2012)

figure 3.14 | right
Sinuous Seat-Walls
Healing Garden
Banner Good Samaritan Regional Medical Center
Phoenix, Arizona
(Hundley, 2012)





There, the entry gardens and pedestrian pathways were designed to offer respite for patients and visitors and continued throughout the grounds, especially in areas linking the hospital buildings. In this way, the Medical Center encourages healing and wellness for its staff, patients, and visitors (Floor et al., 2012).

Healing Garden

After the expansion of the hospital began in 1995, the healing garden was dedicated the following year, celebrating a culture of healing and offering a unique multi-sensory environment. The Healing

Garden was designed to respond to the curvilinear concrete hospital tower, by creating sinuous concrete seat-walls wrapping around a series of terraces. This space is visible both from patients' rooms as well as the hospital lobby. With native, medicinal plants and a series of gentle, stream-like lapping water features, this garden symbolizes the sequences of life, invoking a sense of wellness that provides a pleasant, unique, and inspiring environment (Floor et al., 2012). The opportunities for seclusion and enclosure exist all along the edges of the garden as the green branches of paloverde trees gently filter the light.

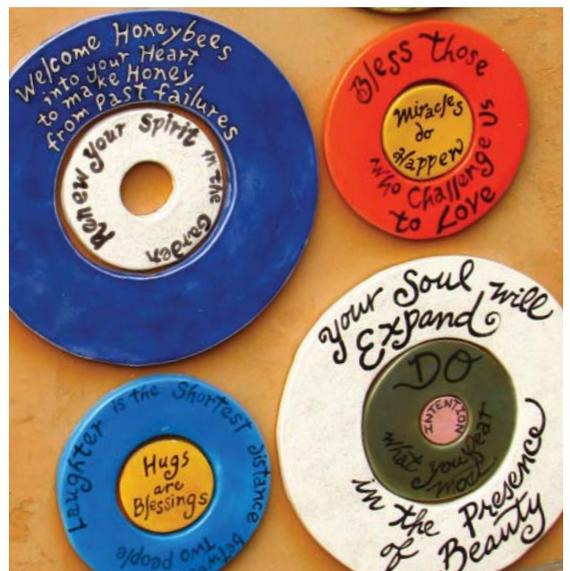
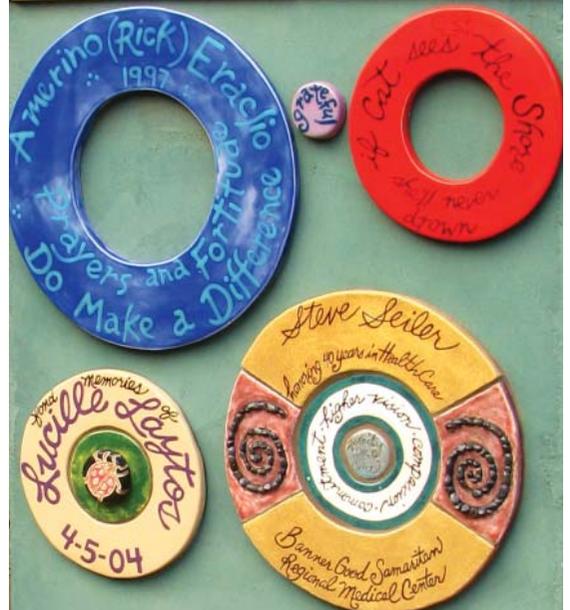


figure 3.15 | far left
Under the Shade of the Paloverde Tree
Healing Garden
Banner Good Samaritan Regional Medical Center
Phoenix, Arizona
(Hundley, 2012)

figure 3.16 | left
Ceramic Pillars
Healing Garden
Banner Good Samaritan Regional Medical Center
Phoenix, Arizona
(Hundley, 2012)

figure 3.17 | right
Wisdom Circles
Healing Garden
Banner Good Samaritan Regional Medical Center
Phoenix, Arizona
(Hundley, 2012)

They bring the courtyard to a human scale, offsetting the stark, shining tower of the hospital. The dense plantings at the base of the trees are lined with cool, smooth river stones that shimmer with the bubbling of the surrounding fountains. Bright flowers are interspersed within the foliage, inviting touch and smell. The smooth seat walls offer places to rest throughout, but tables are also provided for a more adaptable experience. Pots with overflowing aromatic plants edge these seat walls, breaking up the form of the sinuous curves. A plaque describing the space remarks how sensory stimuli in the garden invite “mental, physical, emotional, and spiritual discovery and transformation through its rich offerings of symbol, diversity, and meaning.” Meaning can also be found in the ceramic “wisdom circles” that adorn columns the along the entry of the meditation gardens. Vibrant with color, these unique pieces of art commemorate patients or staff members’ favorite sayings or qualities, allowing the visitor to engage with the space by reading the different stories. By taking this personal aspect of each person, it becomes much more meaningful.



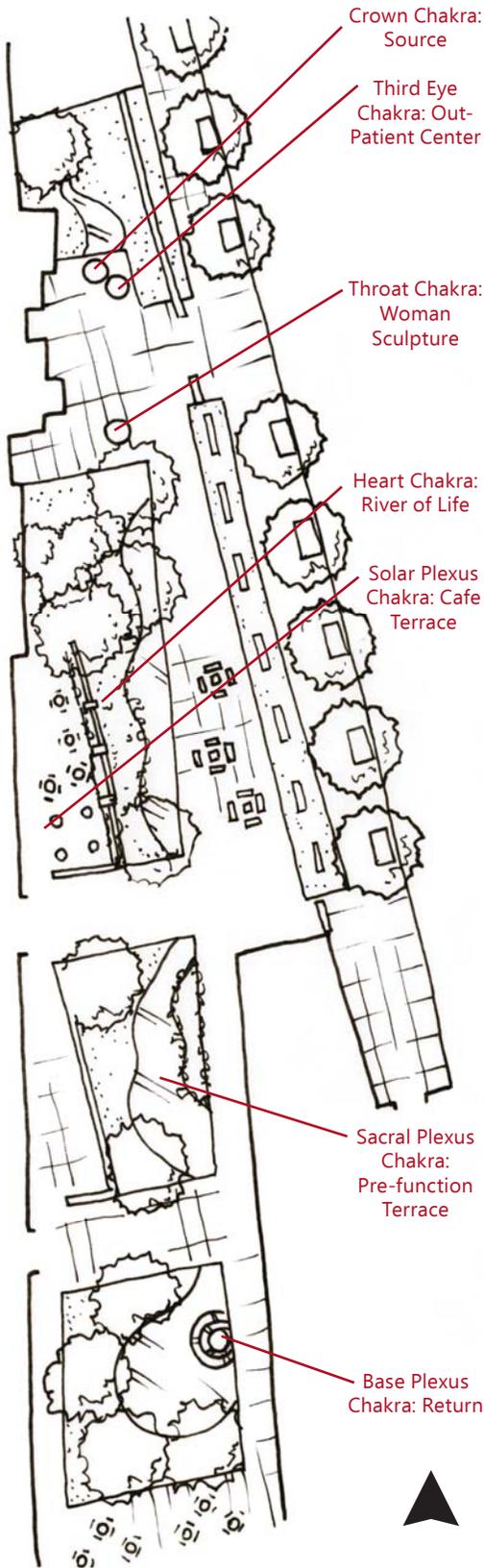


figure 3.18 | left
Entry Garden Plan
Banner Good Samaritan Regional Medical Center
Phoenix, Arizona
(Hundley, 2013)

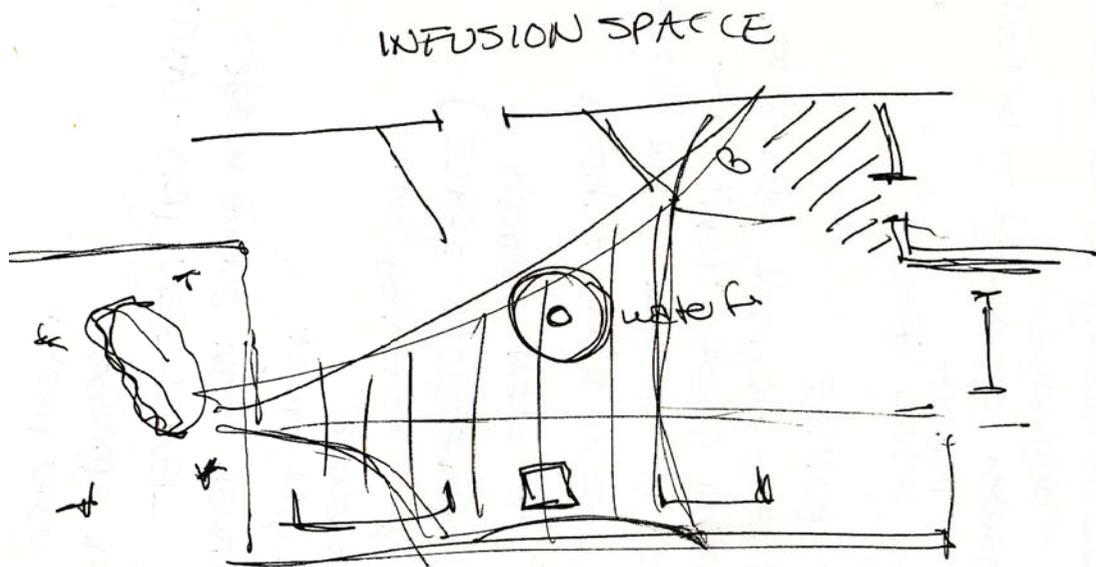
figure 3.19 | top right
Framed Corridor
Entry Garden
Banner Good Samaritan Regional Medical Center
Phoenix, Arizona
(Hundley, 2012)

figure 3.20 | lower right
The Third Eye Chakra
Entry Garden
Banner Good Samaritan Regional Medical Center
Phoenix, Arizona
(Hundley, 2012)

Entry Gardens

The entry gardens for the hospital are based upon the chakras of the body, with a linear pathway guiding the individual into the hospital lobby, by way of green undergrowths that frame a ceramic fountain. All along this linear way, ceramic mosaic-tile medallions act as seat walls and art installations, each representing a chakra of the body. While the meaning of the chakra would be lost without the aid of an informational handout, this space had a relaxing quality, providing space to momentarily pause for breath before entering the main lobby space.





Infusion Garden

The Infusion Garden is accessed from the pathway that forms the Garden of Service, commemorating the work of hospital staff who have served for more than 25 years. With the names of the individuals engraved on leaves, this gateway acts as a figural sculpture, enclosing a small bench off of the main pathway. Turning into the Infusion Garden, the space is highly enclosed and acts more as a natural painting for the Infusion Room within the hospital where cancer patients are treated. This smaller healing garden connects the individual to the outside through a glass wall. While many individuals may not physically experience this space, those that do see simple, grass plantings that gently

line the walls of the space. There is little seating, because it is meant to be a quiet, calming, visual stimulus for patients rather than active space. A simple stone water feature sits in the middle of the space, shaded by a peachy-orange shade canopy. The water within the fountain is treated to be conscientious of immune-suppressed patients that may venture into the garden. This fountain symbolizes the beginning of life, providing a burbling flow of water that splashes down over the angular, dark surface onto the river rocks and pavement below. The sounds of the water and gentle clinging of the chimes float through the air. This is a gentle space, simple in form and simple in function, exuding a wonderful sense of peace.



figure 3.21 | top left
Infusion Garden Site Sketch
Banner Good Samaritan Regional Medical Center
Phoenix, Arizona
(Hundley, 2012)



figure 3.22 | above
An Overflowing Fountain
Infusion Garden
Banner Good Samaritan Regional Medical Center
Phoenix, Arizona
(Hundley, 2012)

figure 3.23 | left
The Infusion Garden
Banner Good Samaritan Regional Medical Center
Phoenix, Arizona
(Hundley, 2012)



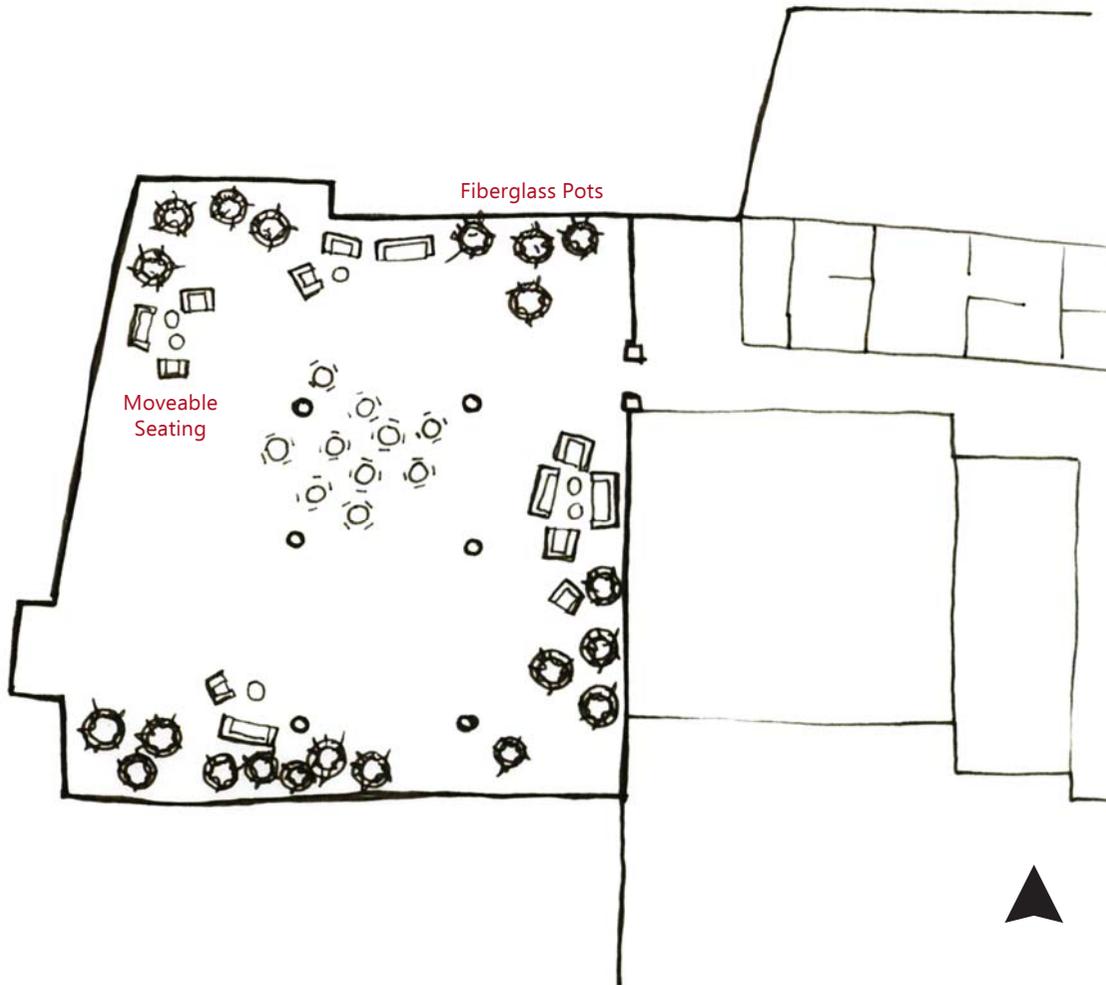
figure 3.24 | left
The Desert Flower
Phoenix Children's Hospital
Phoenix, Arizona
(Hundley, 2012)

figure 3.25 | right
Color and Texture
Phoenix Children's Hospital
Phoenix, Arizona
(Hundley, 2012)

Phoenix Children's Hospital

The Phoenix Children's Hospital is the one of the largest children's hospitals in the country. Designed by HKS Architects, this 11-story building based its design on the "Green Guide for Healthcare: from Green Building Services" to create a healthy and sustainable building. The hospital features multiple outdoor designed spaces embody the idea of the Phoenix Children's Hospital as a "Desert Flower," creating an "oasis of healing and shade for the Valley" (Floor et al., 2012). Both the indoor and outdoor environment utilizes vibrant colors on walls and ground planes, mosaic tiling and sculpture, and playful lighting to provide visual interest and distraction for visitors. This idea is exemplified at night as well, for LED lighting outlines highlight the flowing design of the hospital's tower.





Roof Garden

Overlooking the Salt River Valley, the roof garden is located on the third floor of the building, with 5,200 square feet of open space and seating for patient, their families, and caregivers. The dominant features of this space are giant, colorful fiberglass pots that create a whimsical environment that plays with the individual's sense of scale. Stream-lined white couches and armchairs can be moved to allow families

to create their own space and have a sense of privacy within the larger expanse of seats. Unfortunately, this space is only open seasonally due to the extreme heat of the Phoenix climate, but otherwise is available to the public at any time, accessible from the adjacent patient wing. Despite the heat of the desert climate, the shade created from the floor above, along with the fiberglass pots and clean, white furniture bring a visual and physical coolness to the space.



figure 3.26 | left
Roof Garden Plan
Phoenix Children's Hospital
Phoenix, Arizona
(Hundley, 2013)

figure 3.27 | above
Bright Pots and White Spots
Roof Garden
Phoenix Children's Hospital
Phoenix, Arizona
(Hundley, 2012)





figure 3.28 | left
 Healing Garden
 Phoenix Children's Hospital
 Phoenix, Arizona
 (Hundley, 2012)

figure 3.29 | above
 Animal Fountains
 Healing Garden
 Phoenix Children's Hospital
 Phoenix, Arizona
 (Hundley, 2012)



figure 3.30 | above
 Mosaic Bench
 Healing Garden
 Phoenix Children's Hospital
 Phoenix, Arizona
 (Hundley, 2012)

Healing Garden

Unlike most other healing gardens in healthcare facilities, this one is private, featuring a small seating area. This space lies adjacent to the neonatal ICU and is used by parents as a place to say goodbye to their children. Plaques dedicated to the children that have not survived are placed on benches throughout the meandering walk. The thin corridor enclosed by the buildings has a serpentine form, inlaid with colorful mosaic tile patterns that continue into the other features of the site. Benches, bollard lighting, and water features all have these colorful tiles and imagery of animals

set in the gray stone. The desert trees were salvaged from the existing landscape, and provide an enclosed overhang, shading the walk from the sun above. To ensure children's safety and to prevent falls on the slippery tile, the fountains are not used, but act as sculptural pieces that add to the whimsy and playfulness of the space. The space was meant to allow patients and their families to "get away" from the hospital environment, but now is used less often, as the expansion of the hospital draws families to other parts of the complex. However, the space can still be viewed from the hospital interior.



figure 3.31 | top left
Braeden's Playground
Phoenix Children's Hospital
Phoenix, Arizona
(Hundley, 2012)



figure 3.32 | top right
Deer Sculpture
Dining Patio
Phoenix Children's Hospital
Phoenix, Arizona
(Hundley, 2012)

figure 3.33 | right
Space for Sharing
Dining Patio
Phoenix Children's Hospital
Phoenix, Arizona
(Hundley, 2012)

Braeden's Playground

Braeden's Playground was dedicated in honor of Karen and Brandel Chamblee's premature infant son, Braeden, who passed away shortly after his birth. A foundation in Braeden's name funded the creation of a 4,500 square foot outdoor play area adjacent to the Healing Garden that offers a variety of play opportunities. The play equipment exhibits vibrant colors and is shaded by a bright blue overhang. Minimal plantings are used, in an effort to prevent poisonous ingestions or allergic reactions. The playground's turf is artificial grass and few flowers other than the yellow bird of

paradise are present. This space is utilized for both play and play therapy. Patients use this space to get fresh air and sun.

Dining Patio

The dining patio extends from the colorful cafeteria as an enclosed courtyard within the hospital building, evoking a sense of privacy and security. This space allows families to share meals, spend time together, and get fresh air in the outdoor environment. Hints of whimsy are present within this space as well. Deer sculptures hide in the planting areas, for the discovery of the visitors as they eat.



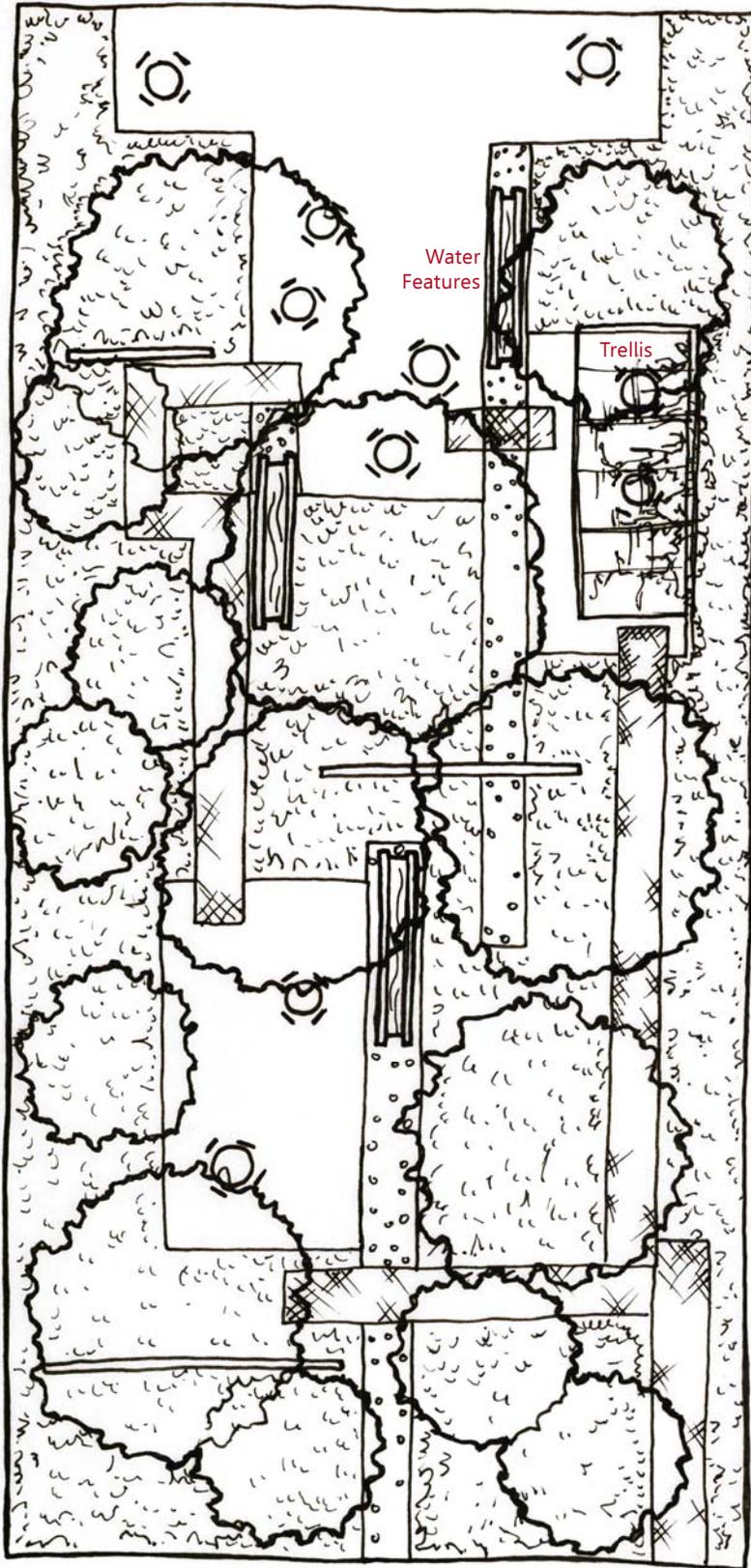




figure 3.34 | left
H.N. and Frances C. Berger Thomas and
Joan Kalimanis Healing Garden Plan
Scottsdale Healthcare: Thompson Peak
Phoenix, Arizona
(Hundley, 2013)

figure 3.35 | above
Indoor-Outdoor Relationships
H.N. and Frances C. Berger Thomas and
Joan Kalimanis Healing Garden
Scottsdale Healthcare: Thompson Peak
Phoenix, Arizona
(Hundley, 2012)

Scottsdale Healthcare: Thompson Peak

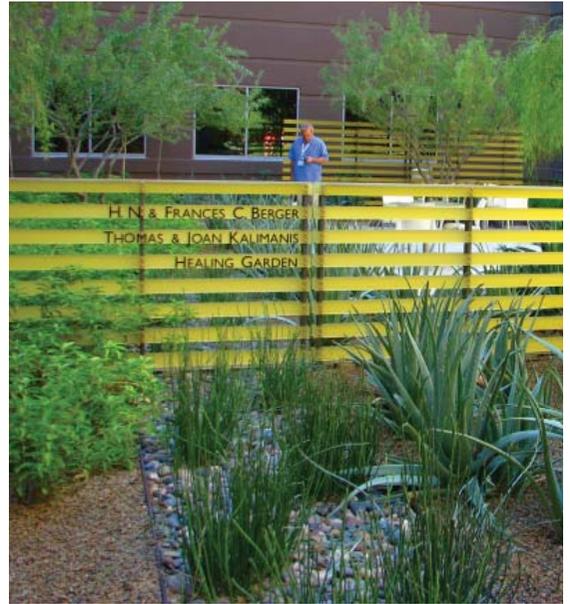
The H.N. and Frances C. Berger Thomas and Joan Kalimanis Healing Garden was designed by Ten Eyck Landscape Architects in conjunction with the San Francisco-based design firm Gensler. This space is an extension of the hospital's lobby and had previously been an open-air courtyard that had deteriorated into a bare and unused space. Ten Eyck and Gensler sought to create a seamless experience from the lobby to the outdoors, inviting nature directly into the hospital



figure 3.36 | top left
Seating under the Butterfly Vines
H.N. and Frances C. Berger Thomas and
Joan Kalimanis Healing Garden
Scottsdale Healthcare: Thompson Peak
Phoenix, Arizona
(Hundley, 2012)

figure 3.37 | lower left
The Plant-lined Path
H.N. and Frances C. Berger Thomas and
Joan Kalimanis Healing Garden
Scottsdale Healthcare: Thompson Peak
Phoenix, Arizona
(Hundley, 2012)

figure 3.38 | right
Yellow Scrim
H.N. and Frances C. Berger Thomas and
Joan Kalimanis Healing Garden
Scottsdale Healthcare: Thompson Peak
Phoenix, Arizona
(Hundley, 2012)



setting and greeting hospital patients, family, and staff directly as they walk in. To make this happen, the wall originally separating the courtyard was removed and replaced with glass windows and doors that hide the division between the indoors and outdoors. By bringing the natural limestone paving and inlaid beach pebbles directly into the lobby space, the two areas become one space (Floor et al., 2012).

Entering the garden space, visitors see the movable tables and chairs sitting under a trellis planted with vines to attract hummingbirds and butterflies. Shade is provided by the surrounding building and Palo Blanco trees. The colors and textures of this space create a variety of experience, but have a soft effect overall. Within the garden itself, geometric forms feature troughs of water as linear water features throughout the garden. The light lapping of the water on the river rocks, has a calming

effect and invites one to experience the space through touch. Other forms of visual interest can be found in the variety of lush, drought tolerant plantings and bright yellow, three-form scrims that accent the space. This form creates interest not only within the garden but from above as well, for it is visible from patients' rooms on upper floors. The paving textures, plantings, and scrims define the space into smaller rooms within the garden that provide a variety of experiences for the individual. The paving patterns delineate pathways and provide opportunities to bridge across the soil or water sections to move to different "rooms" within the garden. This beautiful space has become the focus of the entire facility, because it "evokes feelings of wellbeing, provides places of serenity, rejuvenation, social interaction and imparts visitors with a sense of connectedness to the natural world" (Floor et al., 2012).

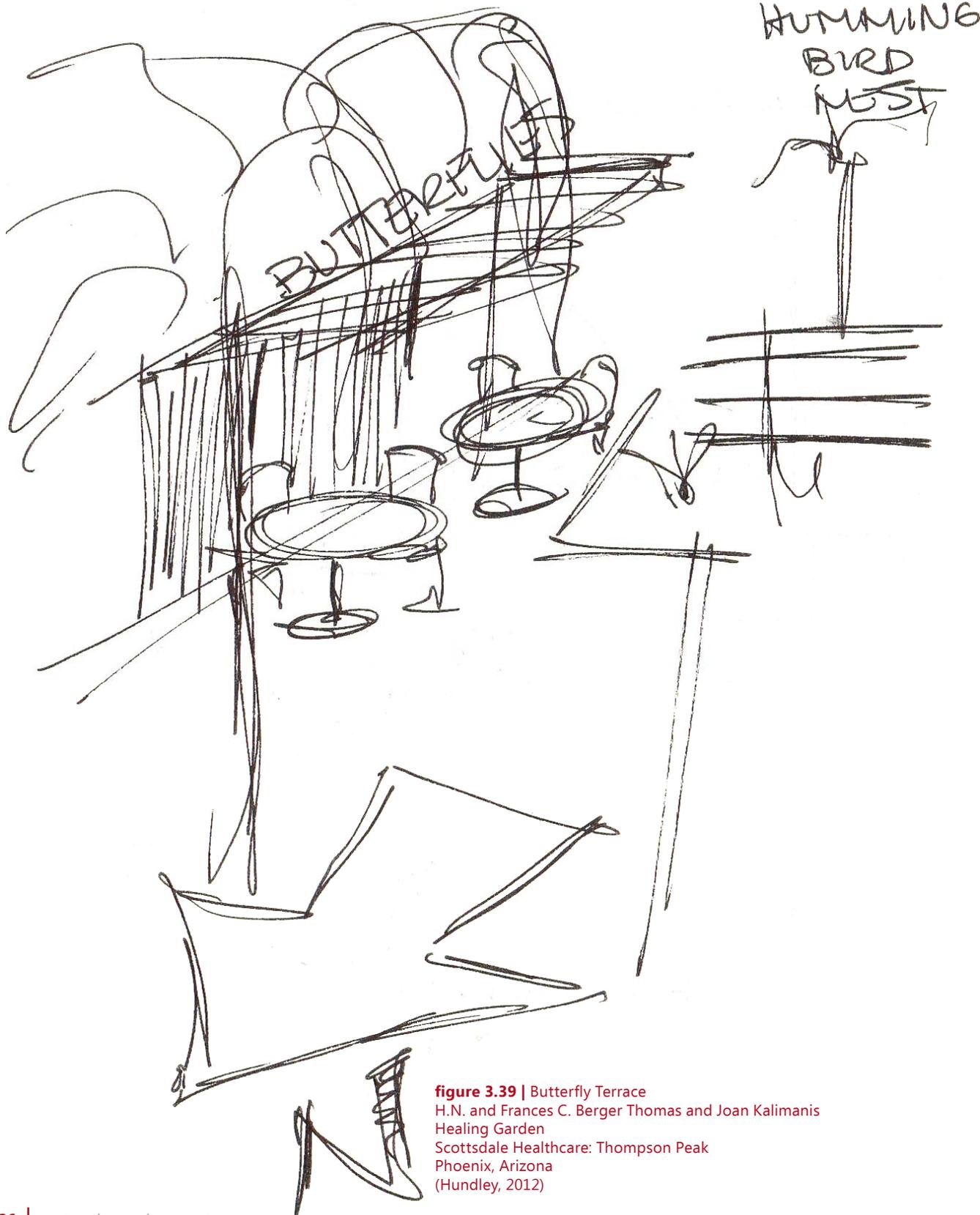
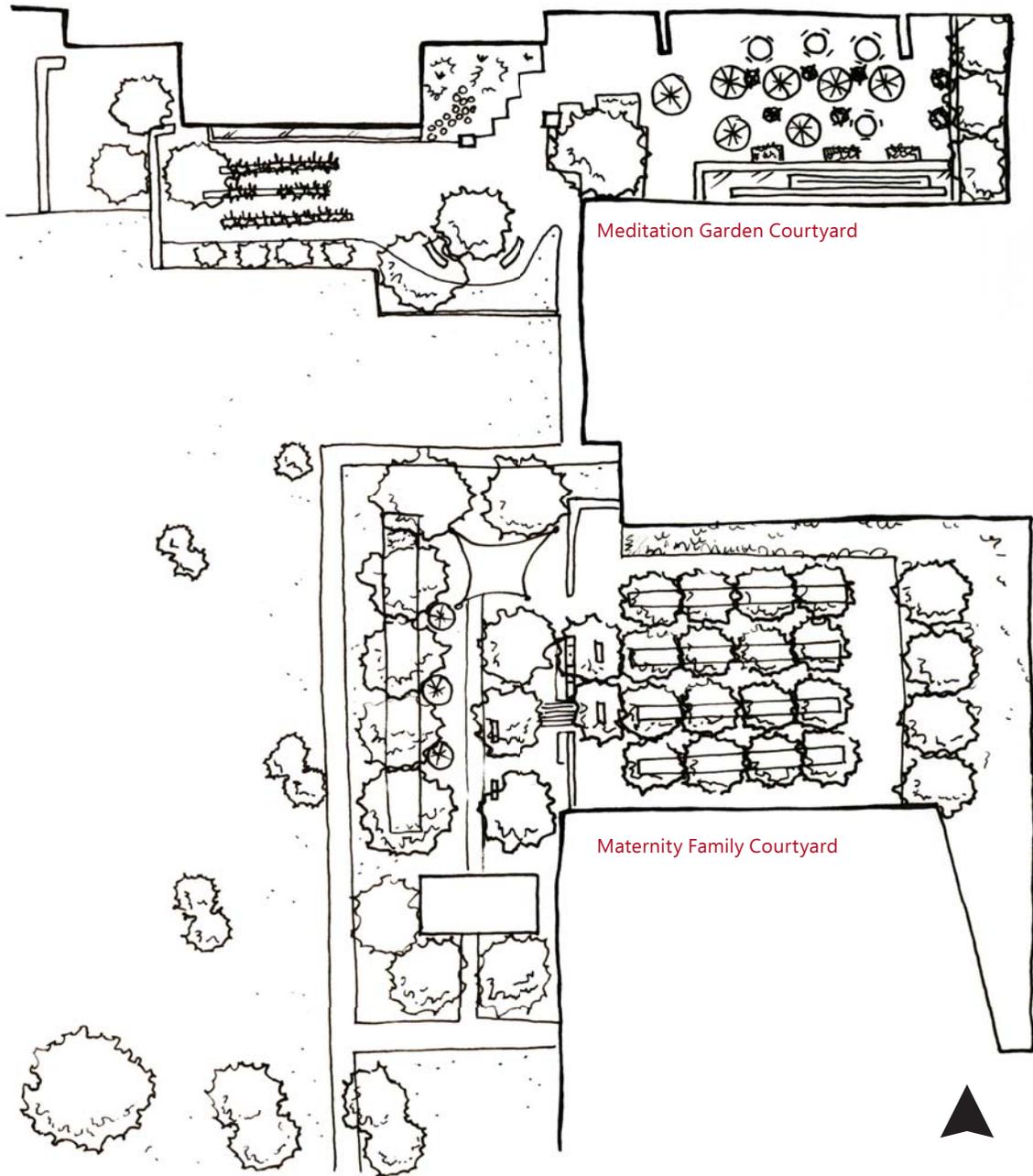


figure 3.39 | Butterfly Terrace
H.N. and Frances C. Berger Thomas and Joan Kalimanis
Healing Garden
Scottsdale Healthcare: Thompson Peak
Phoenix, Arizona
(Hundley, 2012)



figure 3.40 | Sitting on the Water
H.N. and Frances C. Berger Thomas and Joan Kalimanis
Healing Garden
Scottsdale Healthcare: Thompson Peak
Phoenix, Arizona
(Hundley, 2012)



Meditation Garden Courtyard

Maternity Family Courtyard



Banner Gateway

The Banner Gateway hospital is a complex of several large medical treatment centers that are connected by shaded pathways that take their inspiration from native desert landscape. Multiple courtyards enclosed by the medical buildings promote the connection between the interior and exterior environment, allowing an escape from the heat of the Salt River Valley by featuring a variety of water features and shaded seating opportunities.

figure 3.41 | left
Banner Gateway Hospital
Healing Gardens Plan
Phoenix, Arizona
(Hundley, 2013)

figure 3.42 | above
Linking Shaded Pathways
Banner Gateway Hospital
Phoenix, Arizona
(Hundley, 2012)





Healing Courtyard

Located on the west side of the Medical Center buildings, this courtyard is primarily accessed through the building, creating a space that is more secure and private. The garden area, known as the Healing Courtyard represents the three stages of a patient's battle against cancer. The first space represents the tranquility in a patient's mind prior to their diagnosis. With filtered shade from the trees and comforting seating areas, this space is framed by three stone barriers, with water cascading down the offset stones. The next space exemplifies the uncertain path ahead



figure 3.43 | far left
Being Away
Healing Courtyard
Banner Gateway Hospital
Phoenix, Arizona
(Hundley, 2012)

figure 3.44 | upper left
Tranquility
Healing Courtyard
Banner Gateway Hospital
Phoenix, Arizona
(Hundley, 2012)

figure 3.45 | upper right
Surrounding Seating
Healing Courtyard
Banner Gateway Hospital
Phoenix, Arizona
(Hundley, 2012)



figure 3.46 | above
Treatment
Healing Courtyard
Banner Gateway Hospital
Phoenix, Arizona
(Hundley, 2012)

with boulders symbolizing the struggles of cancer treatment. The final space, known as the Togetherness Garden is reached through a narrow doorway in a concrete wall, representing the hope and victory of the patient over cancer at the conclusion of the treatment. This small seating garden surrounds three stone pillars that symbolize the patient's support system throughout their journey. Wildflowers, water features,



figure 3.47 | above
Recovery
Healing Courtyard
Banner Gateway Hospital
Phoenix, Arizona
(Hundley, 2012)

and stepping stones symbolize the “hope for cancer patients to live a fulfilling life” (Floor et al., 2012). The narrative for this space can only be read on the hospital's website, leaving the garden open to interpretation by visitors. Many community events occur within this space, such as the ringing of a bell, symbolizing the end of a patient's chemotherapy—a celebration with hospital staff, friends, and family.

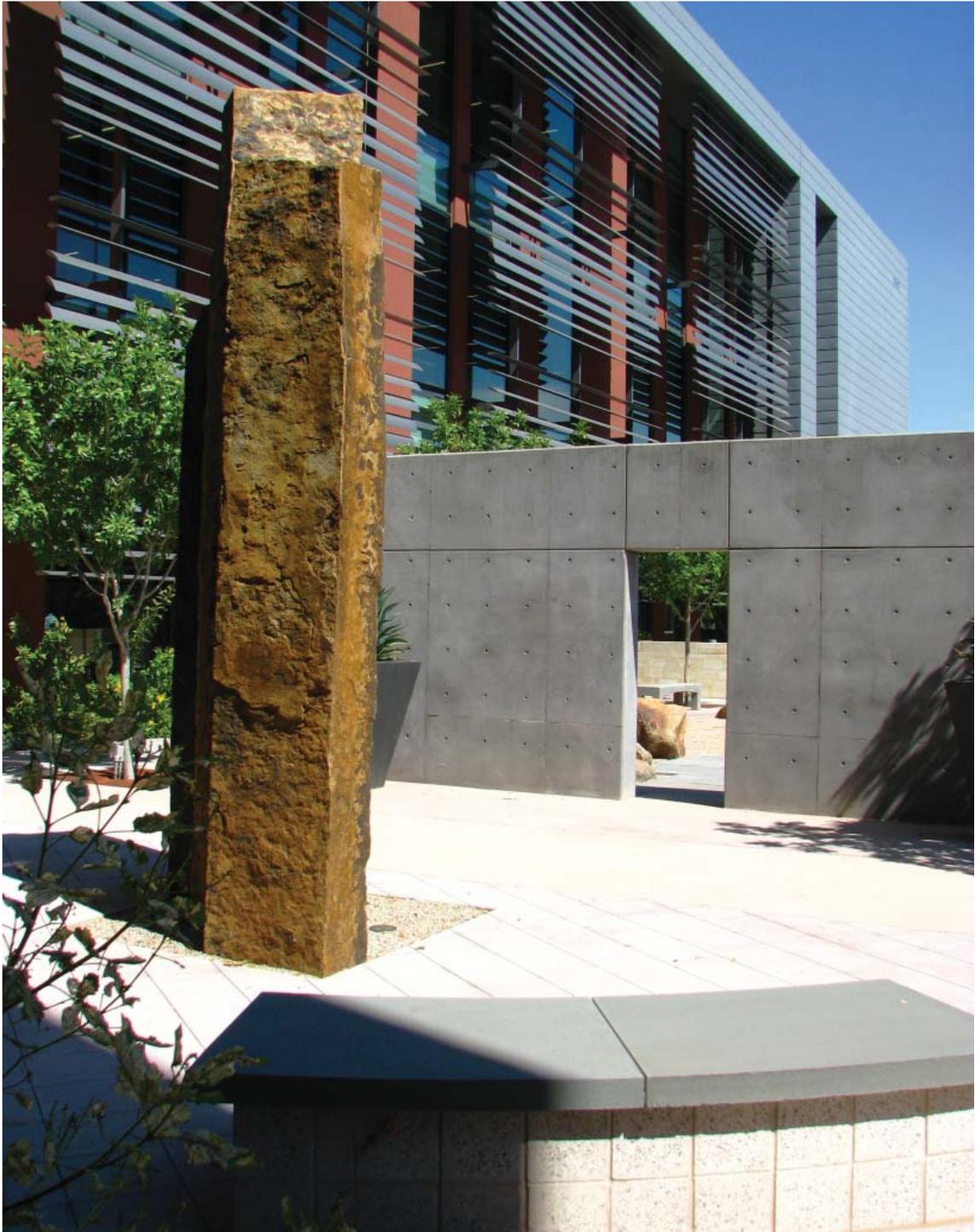


figure 3.48 | above
The Togetherness Garden
Healing Courtyard
Banner Gateway Hospital
Phoenix, Arizona
(Hundley, 2012)





figure 3.49 | left
The Canyon Wall
Meditation Garden Courtyard
Banner Gateway Hospital
Phoenix, Arizona
(Hundley, 2012)

figure 3.50 | above
Meditation Garden Courtyard
Banner Gateway Hospital
Phoenix, Arizona
(Hundley, 2012)

Meditation Garden Courtyard

The Meditation Garden Courtyard is accessible from the hospital chapel, allowing opportunities for private reflection and relaxation. Soft music permeates the space, intertwining with the sound of water running along the channels at the base of the building's rust-colored corten steel wall. This space is also accessible from the café and espresso bar and provides a place for dining and relaxation with a backdrop of plants, the building's symbolic waterfall, and a waterfall water feature.

The landscape commemorates the desert canyon, with the bright blue glass windows of the hospital acting as a figurative, symbolic wall that transforms into an actual water feature that flows as a river out of the dining area and into the meditation garden beyond. The visitor takes a journey as they start in a very geometrically planted area and move toward a more tranquil open space at the base of the waterfall. The plantings that edge these garden spaces are medicinal plants that have been used historically for the treatment of cancer.





figure 3.51 | top left
Seclusion
Maternity Family Garden
Banner Gateway Hospital
Phoenix, Arizona
(Hundley, 2012)

figure 3.52 | lower left
Reclining Seating
Maternity Family Garden
Banner Gateway Hospital
Phoenix, Arizona
(Hundley, 2012)

figure 3.53 | left
Overhanging Trellis
Maternity Family Garden
Banner Gateway Hospital
Phoenix, Arizona
(Hundley, 2012)

Maternity Family Garden

This space is a private area for new mothers, providing a variety of shaded areas with eight-foot high water features and colorful reclining benches and chairs for new mothers to relax in. The water cascades down the surfaces to a bed of river rocks below. The deep blue structural steel shade canopy covers playground equipment that engages children with their environment, while allowing their mothers to supervise from a comfortable setting, tending to their newborns. The leaves from the mesquite trees and agaves filter light into the space, creating an enclosed overhead plane and sending shadow textures across the pavement.

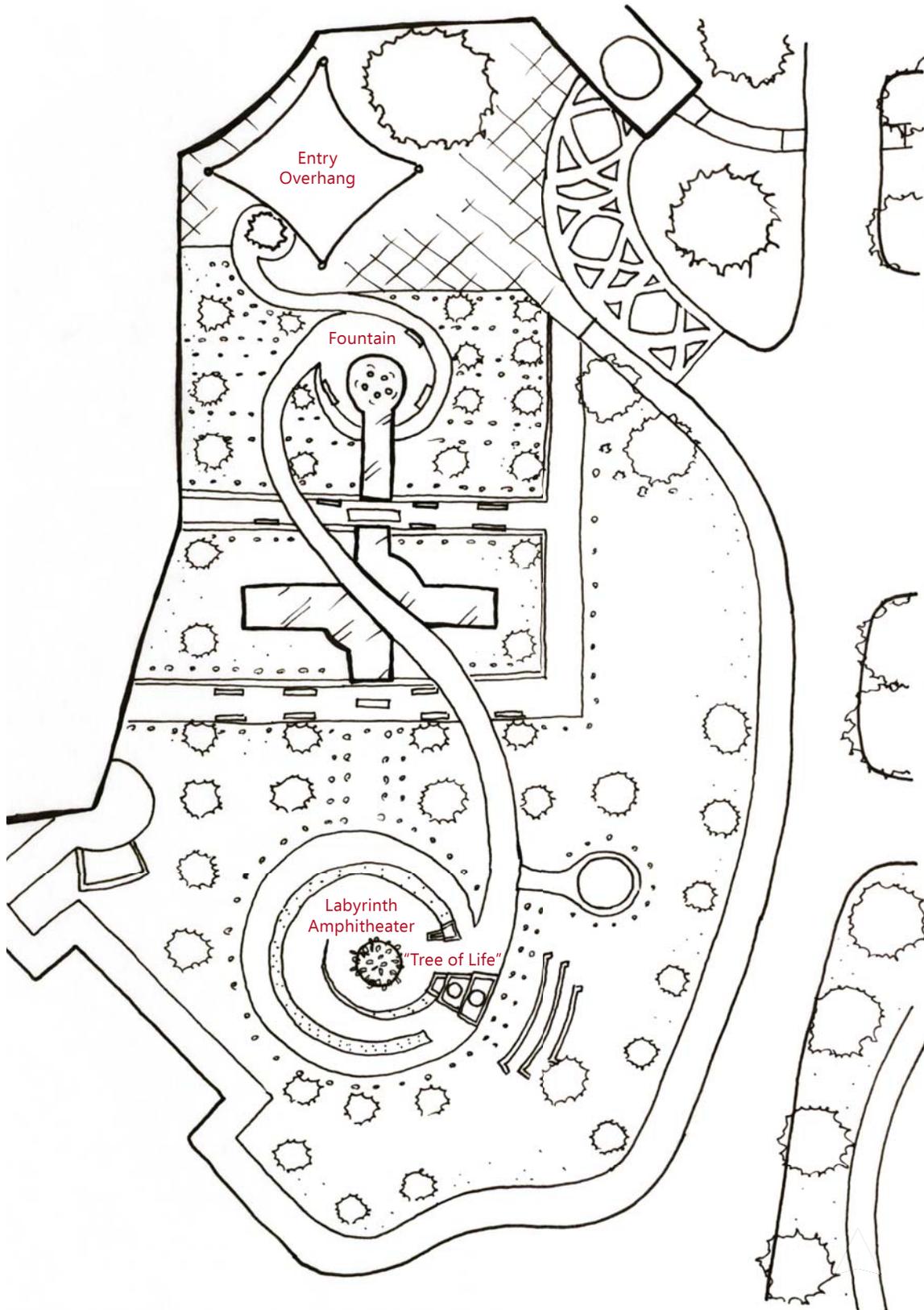




figure 3.54 | left
Mercy Gilbert Medical Center Plan
Phoenix, Arizona
(Hundley, 2013)

figure 3.55 | above
Fountain and the Tree of Life
Mercy Gilbert Medical Center
Phoenix, Arizona
(Hundley, 2012)

Mercy Gilbert Medical Center

At the entryway of the Mercy Gilbert Medical Center is the Gila River Indian Community Healing Garden. This space is open to the public, patients, families, and neighbors and is intended as a space of comfort and peace to heal the mind, body, and spirit. The garden was designed in partnership with the Gila River Indian Community to commemorate their contributions to the building of Mercy Gilbert's second tower in January of 2008. The one acre site, designed by Greey Pickett, wraps around the front of

the hospital building. The site includes three water fountains and the Tree of Life sculpture within a labyrinth and amphitheater designed as a desert landscape with Southern Live Oak trees. The Tree of Life Sculpture features the names of donors to the space. Plants throughout the design feature those with medicinal uses or qualities. In this way, the Healing Garden of Mercy Gilbert illustrates the "balance between science and the human spirit" through the medicinal plants and restorative aspects of the space (Floor et al., 2012). The space is more exposed than typical healing spaces that feature strong senses of





figure 3.56 | left
The Labyrinth Amphitheater
Mercy Gilbert Medical Center
Phoenix, Arizona
(Hundley, 2012)

figure 3.57 | above
A Community's Canopy
Mercy Gilbert Medical Center
Phoenix, Arizona
(Hundley, 2012)

enclosure. Even in October, the sun beats down on the paving, driving users under a small shade canopy with limited seating or away from the garden to the hotel lobby entrance. Due to the design's orientation, it focuses on the greater community rather than the hospital community within, serving a different audience than the healing gardens featured within the rest of the workshop



figure 3.58 | Nature and the Individual
Banner Good Samaritan Regional Medical Center
Phoenix, Arizona
(Hundley, 2012)

chapter summary

These healing gardens possess many aspects of restorative environments, seeking to alleviate stress of both staff and patients. The most successful designs were those that had a sense of enclosure or clearly guided the visitor through the space. Spaces with greater exposure did not offer a sense of lingering or rest, making it difficult for the environment to connect with the individual. Multi-sensory qualities were apparent throughout these designs, especially the element of sound. The Meditation Garden Courtyard's incorporation of sound and music created a continuity of spaces that continued into the building. At Banner Good Samaritan, the water features had been reported to exemplify light, gentle sounds, which are most beneficial to health as opposed to harsh crashing or slapping of some fountains.

Successful restorative environments allow users to interact with their physical and social environment, providing maximum safety and control. Interactions with the natural environment encourage biophilia, connecting the individual with their universal need for contact with nature. There is a great need for privacy and security within these spaces, and they are most successful when they extend into the interior space. Opportunities to control interactions with their surroundings through decisions to walk in the sun, to sit in the shade, to rearrange chairs, or to rest allow the individual to dictate their own experience. By seeking to alleviate stress, restorative environments aid in the restoration of mental well-being.





**design
guidelines**

guideline generation

figure 4.01 | (previous spread)
A Touched Hand
Franklin Delano Roosevelt Memorial
Washington D.C.
(Hundley, 2012)

Restorative memorials will combine the characteristics of memorials with restorative environments, thus creating commemorative spaces that evoke remembrance and aid in alleviating stress. A comparative analysis of literature and experiential observations of the qualities of both memorials and restorative environment precedents informed a set of design guidelines for a restorative memorial.

research and investigation

Initially, an investigation of the existing literature and experiential observations of memorials and restorative environments took place to define their purpose and design qualities. These two types of spaces differ in their purposes, as do their design characteristics. A memorial serves as a physical form of remembrance and cultural identity in the environment; whereas, a restorative environment seeks to improve the physical and mental health of the visitor. Since most memorials were not originally designed to be restorative, and restorative environments do not necessarily commemorate; neither can individually serve as a model for a restorative memorial.

Only through a clear understanding of how memorials and restorative environments are shaped and their

purposes expressed can the differences and similarities between the two be illustrated and applied. To do gain this understanding, observation of memorials and restorative environments was done to understand their purpose, designs and experiential qualities. The visual analysis focused on describing the physical attributes of the space in conjunction with experiential observations within the spaces. How the design was experienced from the visitor's interpretation was communicated through the recording information gained and senses stimulated.

Finding patterns, connections, and recurring themes in the design of memorials and restorative environments synthesized the literature and experiential observations for memorial and restorative environment precedents.

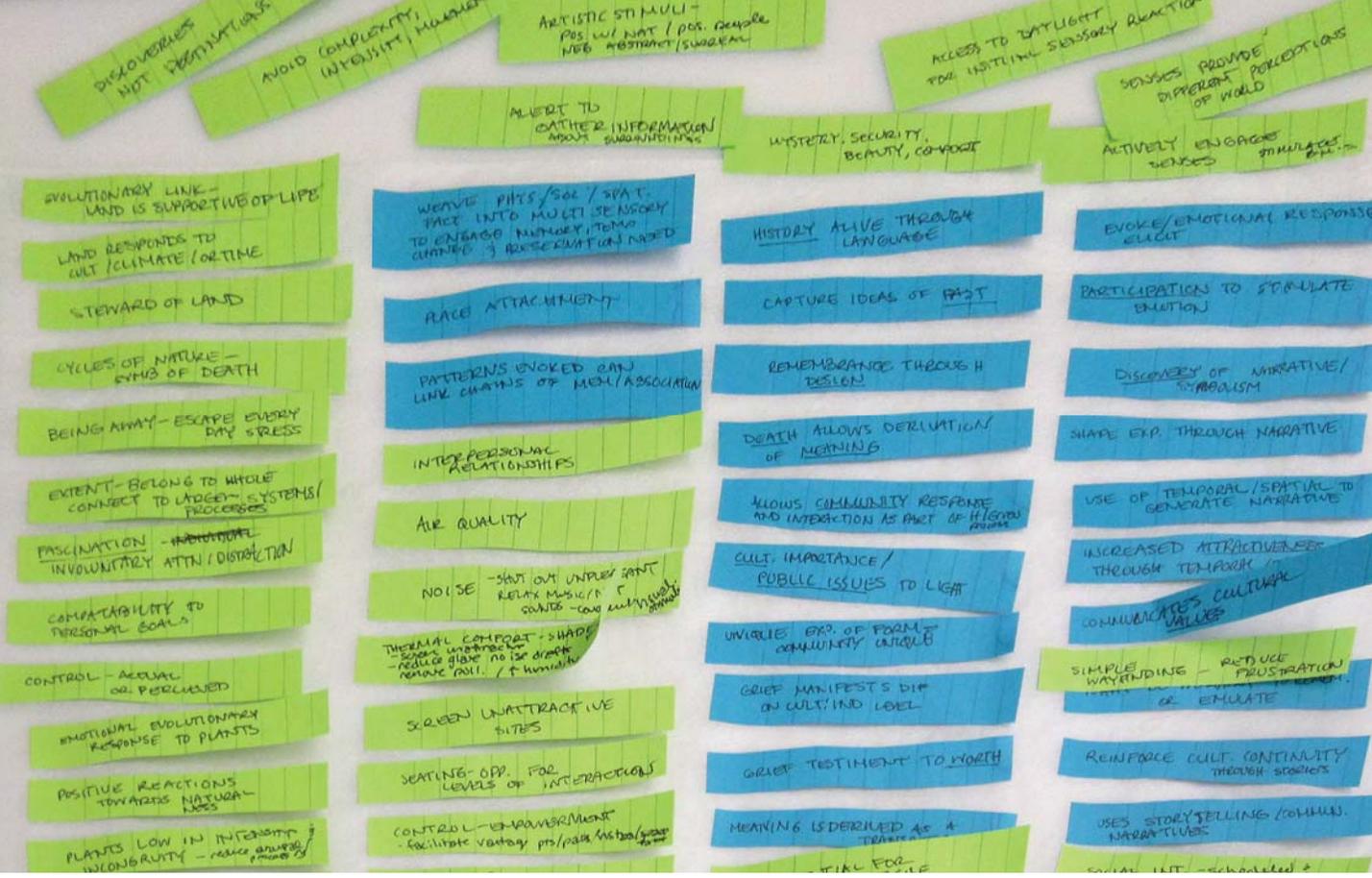


figure 4.02 | top left
Understanding the Characteristics of
Memorials and Restorative Environments
(Hundley, 2013)

figure 4.03 | lower left
Finding Themes and Patterns
(Hundley, 2013)

process and development

A firm understanding of memorial and restorative environment design and how their purposes are communicated is necessary to create a new typology for commemorative spaces as restorative memorials. The synthesis of these understandings involved multiple iterations and approaches. The first approach to generate these guidelines grouped characteristics of both types of spaces by similarities within overlapping themes. This approach resulted in a set of guidelines that did not hold equal weight, for some synthesized memorial

and restorative environment characteristics, some focused entirely on memorials, and some entirely on restorative environments.

Upon this realization, a new approach was used to determine how these characteristics should be formulated. Instead of combining characteristics of both memorials and restorative environments, a set of four guidelines for memorials and four guidelines for restorative environments were separately defined. In order for a restorative memorial to occur, it was decided that all eight characteristics must be embodied within the space.

design guidelines for restorative memorials

guidelines for memorials

As physical representations of a culture's memory and identity in the landscape, the following four guidelines describe the essential qualities of a memorial. These spaces must: 1) establish cultural identity and value, 2) create “places” to incorporate meaning in the landscape, 3) communicate values and meaning to individuals through narratives, and 4) evoke a sense of community.

1) Establish Cultural Identity and Value

The cultural identity of a society is established through its collective memory. What is remembered will perpetuate identity over time, communicating meaning and cultural values to future generations. Subsequently, a society's construct of reality results from this linkage between identity and memory (Wolschke-Bulmahn, 2001). Memorials—such as the Lincoln Memorial—act as physical expressions of a culture's identity, embodying both the values of the past and acting as stages for events of the present. People come to these places to show respect, sometimes leaving tokens or mementos behind. These spaces will “sustain the living” by interpreting the past to inform new responses for the future (Hunt, 2001, p. 13; Bonder, 2009). Collective memory occurs when clarity of meaning is achieved to convert the interpretation of individual memory to a collective understanding of the past. By stating the number of dead, missing, captured, and wounded soldiers during the Korean War,

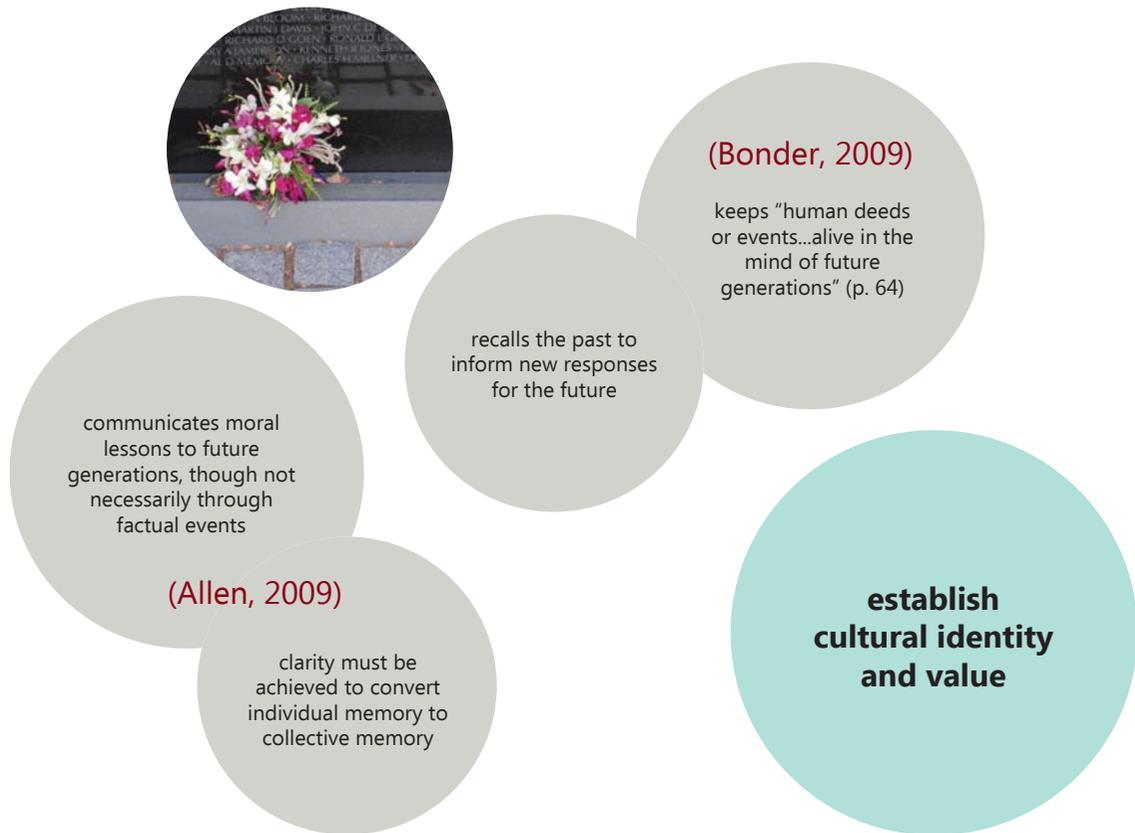


figure 4.04 |
 Cultural Identity and Value
 (Hundley, 2013)

the Korean War Veterans Memorial allows the visitor to understand the gravity of the event. While events that people remember may or may not be factual, these spaces are instrumental in communicating meaning to future generations (Allen, 2009). By incorporating physical representations of the individual’s memory—such as the statues of the Three Servicemen and the Vietnam Women’s Memorial at the Vietnam Veterans Memorial—collective memory can be

formulated and accessed by others. In this way, a consensual sense of the past creates a “true history” that seeks to identify the positive aspects of ourselves, as individuals, or as a society (Dimitropoulos, 2009). By weaving physical, spatial, and social patterns together, memorials create an experience that engages the individual’s memory, preserving the importance of the place and sustaining cultural traditions (Horrigan, 1999).



'true history': the collective and consensual sense of the past as defined by society

we would like to identify the positive aspects of ourselves, as individuals, or as a society

(Dimitropoulos, 2009)

subject is the ego-ideal extension of the past

address needs of both "loosely defined collectivity and desires of diverse individuals" (p. 54)

collective memory is formed from individual accounts of the past

(Hunt, 2001)

exist to sustain the living



A culture's memory precedes its identity

memorials are unique to respective communities and the subjects of commemoration remain highly diverse



memory establishes continuity over time

(Horrigan, 1999)

landscapes can generate form by weaving physical, spatial and social patterns into a dynamic multi-sensory experience to engage memory, and preserve places and sustain traditions

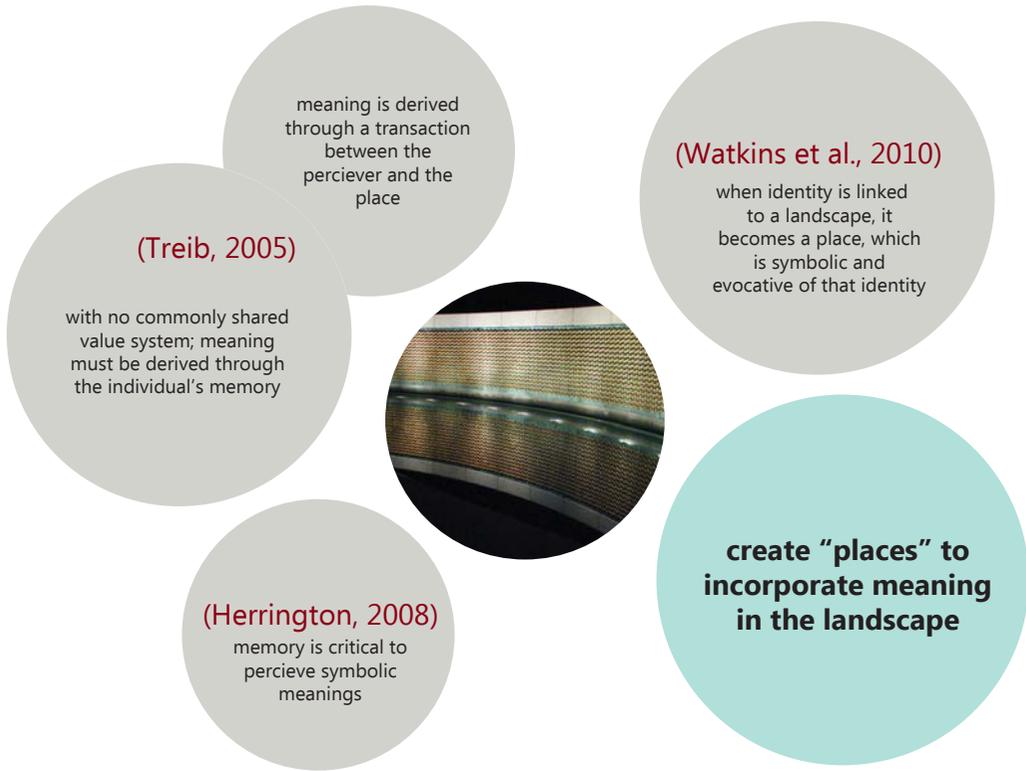
identity defines what is remembered

preserve the memories, cultural values, and political symbolism of a society in the built environment

(Wolschke-Bulmahn, 2001)

the link between identity and memory establishes a society's construction of reality





2) Create “Places” to Incorporate Meaning in the Landscape

“Places” occur when symbolism of a culture’s identity are evoked in the landscape (Watkins et al., 2010). The Vietnam Veterans Memorial established a new type of commemorative space, becoming a place that involved reflection and understood the spatial and symbolic relationships to surrounding memorials. Symbolism may not be explicitly apparent. The waterfall at the Franklin Delano Roosevelt Memorial symbolizes the climax of the Second World War, utilizing crashing waters and boulders strewn about the space to exemplify the chaos that ensued during the war. The Reflecting Pool at the World War II Memorial uses stars to each represent one hundred American lives lost during the war. Seeing these stars

reflected in the pool below, along with the inscription, “Here We Mark the Price of Freedom”, solemnly illustrates the losses of life in the war. Memory and identity that is expressed within a space is critical to perceive symbolism and interpret meaning (Herrington, 2008). This meaning will vary across persons, groups, or cultures, but the resulting emotional attachment to place is essential for social behavior and welfare (Vorkinn & Reise, 2001). To reach a broader audience, Amita Sinha’s description of archetypal landscape forms illustrate how a universal human experience of the landscape translates across cultures and societies (2006). This is important, for while a space seeks to emulate its cultural identity and memory, meaning is something derived through a transaction between the perceiver and the place. As it is rare for a



(Sinha, 2006)

archetypal landscape forms may help the reading of landscapes



(Vorkinn & Reise, 2001)

meaning will vary across persons, groups, or cultures, but the resulting emotional attachment is essential for social behavior and welfare



society to have a universally shared value system, meaning must then connect to the individual's memory and form connections there (Treib, 2005). Sometimes symbolism is hidden from us until something sparks that understanding. This can best be done by utilizing the power of language. For example, the inscription, "Out of the Mountain of Despair, a Stone of Hope" brings the meaning the Martin Luther King, Jr. Memorial to the forefront of one's mind. Showing Dr. Martin Luther King, Jr. thrust out of the Mountain of Despair behind him depicts him as the Stone of Hope that drove the nation forward during the Civil Rights Era. This meaning is then further emphasized by incorporating segments of his speeches within the commemorative space, illustrating how Dr. King's words embodied that sense of hope.

figure 4.05 | "Places" With Meaning (Hundley, 2013)

(Karmonov & Hamel, 2008)

by adding cultural and historical information to a place, the narrative established makes it more interesting and attractive



communicate values and meaning to individuals through narratives

3) Communicate Values and Meaning to Individuals through Narratives

The use of words is also important, for they establish narratives in the landscape. The addition of cultural and historical information to a place creates narratives that make a place interesting and attractive (Karmonov & Hamel, 2008). The naming of places and telling of stories shape the world around us, teaching the values of our society (Stuart, 2012). The Franklin Delano Roosevelt Memorial tells the story of FDR's presidential terms through the series of thematic rooms. The power of inscription above the statue of Lincoln and the speeches on either side of his statue embody the essence of his vision and influence on

our country's history. The visual narrative, established through the statues and etchings of photos at the Korean War Memorial tell their story by showing the faces of those involved in the war reflected in the dark granite. These sorts of "memoryscapes" interpret the stories important to our society, reinforcing cultural continuity in our fast-paced, developing world (Wasserman, 1999). By communicating a common experience and connecting emotionally with the user, a narrative will enliven history and fix events for perpetuity in the minds of this and future generations (Potteiger & Purinton, 1999; Wasserman, 1999).



(Potteiger & Purinton, 1999)

narratives communicate a common experience and connect emotionally with the user



(Stuart, 2012)

the naming of places and telling of stories through narratives shape the world around us and teach values



"memoriscapes" interpret important stories and reinforce cultural continuity in a fast-paced, developing world.

figure 4.06 |
Meaning through Narratives
(Hundley, 2013)

(Wasserman, 1999)

keeps history "alive through storytelling, myth, ritual and language", and "fixes events for perpetuity" (p. 222).

becomes a threshold to commune with loss through physical and psychological demarcation

fills the void between trauma and recovery, utilizing the social support a community can provide to mitigate a private loss

(Watkins et al., 2010)

literal and symbolic heart of the community



evoke a sense of community

4) Evoke a Sense of Community

When meaning is communicated to the individual, it is important to connect that meaning with the community. Meaning is based within the community's values. When a community experiences a loss, their identity and values are solidified in the commemorative landscape (Delgado, 2003). These spaces become the literal and symbolic heart of the community as a threshold to commune with loss through physical and psychological demarcation (Watkins et al., 2010). Without the people that come to occupy, remember, and interpret its meaning, a memorial loses its purpose. The Vietnam Veterans Memorial would not hold the same value if one did not see the veterans and their families visiting it, searching for their friends or loved ones,

rubbing names, and touching the wall. While the World War II Memorial does not list the names of the lost within the war, the pillars with the states' names, reconnect the individual with their home, bringing the magnitude of the war home. These spaces fill the void between a trauma and recovery, allowing the social support of a community to mitigate a private loss (Watkins et al., 2010). When a memorial does not have a direct connection with the individual—such as a lost family member—the design must tell their story in a way that allows the visitor to connect with it. At that point, a memorial will encourage the individual with a sense of awareness, understanding, and remembrance that will call for action and invite community engagement (Bonder, 2009).

meaning is based
within the
community's values

(Delgado, 2003)



loss establishes a
culture's identity and
values



(Bonder, 2009)

encourages one to "be aware,
to mind, and to remind, to
warn, advise, and call for
action....invi[ing] community
engagement" (p. 67)



figure 4.07 | Community
(Hundley, 2013)



a sense of place may be created by using inspiration from both the local natural environment and vernacular cultural expressions

(Kaplan, 1995)

the natural environment experience can mitigate stress and aid in the capacity to focus through directed attention

biophilic design is beneficial to all ages, genders, races, or ethnicities

(Heerwagen, 2011)

biophilia is our species' response to nature's forms, processes, and patterns signifying our universal need to have contact with nature

connect with the individual's biophilic response to nature



guidelines for restorative environments

Restorative environments enliven the individual by reviving or renewing his or her physical or psychological health by alleviating stress. To do this, a restorative environment must: 1) connect with the individual's biophilic response to nature, 2) provide inward connections through choice and movement, 3) provide outward connections through engagement with social support and group interactions, and 4) stimulate the senses to engage the mind and alleviate directed attention fatigue.

1) Connect with the Individual's Biophilic Response to Nature

It is important to understand how the designed environment can either support or detriment the individual's psychological or emotional needs (Kaplan & Kaplan, 1978). Nature and collective thought are central components to the human environment (Relf, 2008). As a collective, landscapes are perceived as "good" and evoke positive feelings about naturalness (Herrington, 2008). This construct embodies biophilia—the understanding that humans have a universal need for contact with nature,



(Kaplan & Kaplan, 1978)

the designed environment is instrumental in being supportive or detrimental to a person's psychological and emotional needs

(Ming Kuo, 2010)

the natural environment can help with recovery from loss experienced as stress or anxiety

(Relf, 2008)

nature is central to the human environment and collective thought

(Ulrich, 1984)

natural settings elicit more positive feelings, reduce fear, extend attention, and provide greater restoration from stress than urban settings



(Farber, 1978)

the ability to aspire, create, and belong in a space allows an imprintation of self or culture

(Herrington, 2008)

the construct that landscapes are intrinsically "good" or "morally innocent" cause positive feelings towards naturalness

being beneficial across age, gender, race, or ethnicity (Heerwagen, 2011). Natural settings can improve the mental health of the individual by restoring mental well-being and alleviating stress (Kaplan, 1995; Ming Kuo, 2010; Ulrich, 1984). Inspiration from the local natural environment and vernacular cultural expressions can contribute to making a sense of place that will exude a sense of aspiration, creation, and belonging to the individual, allowing an imprintation of self and culture (Heerwagen, 2011; Farber, 1978).



figure 4.08 | Biophilia
(Hundley, 2013)



changes in brain activity patterns relaxes the emotional state of the user

(Marcus & Barnes, 1995)

with control, the user can facilitate their physical and psychological movements

(Greene, 1994)

the social environment is influenced by the individual's actual or perceived amount of control

provide inward connections through choice and movement

2) Provide Inward Connections through Choice and Movement

Restorative environments are beneficial to the mind; therefore, it is essential that these spaces connect with the individual. Stephen Kaplan discusses how these spaces allow an escape from the everyday world and its activities, accommodating for levels of individual comfort to minimize anxiety (Krinke, 2005). In this way, the environment imbues a sense of compatibility with the individual's purposes or inclinations, allowing personal, feasible goals to be attainable (Kaplan, 1995). This attention to the individual is important, for levels of stress are affected by the individual's perception of control over environmental stimuli (Ulrich et al., 2003). For with a sense of control, a user must

have the power of choice in their physical and psychological experience of the place (Marcus & Barnes, 1995). Spaces that inspire movability or imagination allow a sense of transformability, where the user may create a comfortable environmental experience (Heerwagen, 2011). At Scottsdale Healthcare Thompson Peak, "bridges" that occur across natural elements through a delineation of paving, provide the individual with a choice to cross. The provision of movable seating at the Phoenix Children's Hospital Roof Garden and at Scottsdale Healthcare: Thompson Peak, let the individual create their own sense of space. By being allowed to experience the environment in their own way, the emotional state of the user can be relaxed due to changes in brain activity patterns

(Heerwagen, 2011)
transformability of a space through the movability or imagination can allow the user to choose their comfortable environment



(Ulrich et al., 2003)
levels of stress will be affected by the perception of control over environmental stimuli

(Kaplan, 1995)
"compatibility" occurs when the environment meets the individual's purposes or inclinations through personal, feasible goals

(Herrington, 2008)
the natural environment provides intense sensory experiences through movement



(Hermann, 2005)
minimize detrimental stimuli to slow the mind

(Greene, 1994). Other ways to engage the mind through the sensory experiences can occur by moving through the natural environment (Herrington, 2008). Banner Gateway incorporates nature throughout the experience of the place, with trickling water, filtered light from overhanging leaves, and boulders of native stone. Banner Gateway's Healing Courtyard representing a patient's journey through cancer, using this symbolism to embody a varying experience throughout the space. Therefore it is important for a restorative environment to facilitate these experiential changes and allow for a sense of control by minimizing detrimental stimuli to slow the mind, (Hermann, 2005).

(Krinke, 2005)
allow for levels of individual comfort to minimize anxiety

Stephen Kaplan's concept of "being away" allows a separation from the everyday world and its activities

figure 4.09 |
Individual Choice
(Hundley, 2013)



(Ulrich et al., 2008)

emotional, informational, and tangible support of families or social networks invites the expression of loss without external stressors



(Relf, 1998)

the opportunity for sharing of values in the physical environment incurs positive perceptions of a space

provide outward connections through engagement with social support and group interactions

3) Provide Outward Connections through Engagement with Social Support and Group Interactions

Not only must the environment speak to the individual, but it must also provide the opportunity for the sharing of values. By allowing this, the individual will then have a positive perception of the space, for the emotional, informational, and tangible support of families or social networks invites the expression of loss without external stressors (Relf, 1998; Ulrich et al., 2008). A tangible form of community can be seen at Good Samaritan Hospital in the Garden of Service and Healing Garden, with the gate commemorating

staff that has served the hospital for over twenty five years and the ceramic Wisdom Circles. A broader sense of community is commemorated through the donor's names in the Tree of Life sculpture within the labyrinth/amphitheater space. Stephen Kaplan defines the connection of individuals to larger systems or ideas as "extent." Studies done by Roger Ulrich show that social interaction through access to nature and potential for movement allow the individual a sense of control and prove to be therapeutic (Epstein et al., 1999). Variance of pathways and differing seating, gives individuals multiple opportunities to engage in the social context.



(Krinke, 2005)

Stephen Kaplan's concept of "extent" connects the individual to larger systems or ideas



(Epstein et al., 1999)

Roger Ulrich's studies support that access to nature, potential for exercise, support of social interaction, and an amount of control prove therapeutic

figure 4.10 | Social Interactions
(Hundley, 2013)





pleasant sounds can mitigate noisy environmental stressors to reduce pain and stressful stimuli

(Bruce, 1999)

through the sensory experience we are drawn to places of mystery, security, beauty, and comfort

our minds look to the senses to alleviate boredom

stimulate the senses to engage the mind and alleviate directed attention fatigue

4) Stimulate the Senses to Engage the Mind and Alleviate Directed Attention Fatigue

As mentioned previously, it is essential for a restorative environment to stimulate the individual's senses. The sensory experience draws the individual to places of mystery, security, beauty, and comfort. Our mind utilizes the senses to alleviate boredom (Bruce, 1999).

Directed attention allows the mind to process information in the environment, cope with challenges, problem-solve, and reach conclusions (Kaplan, 1995). Positive visual distractions will divert attention, thus releasing the mind from the daily pressures of directed attention.

By utilizing sensory aspects to do this, negative feelings will be alleviated, increasing the well-being of the individual (Ulrich et al., 2010). These can occur through “soft fascinations,” to hold the individual's attention and alleviate the fatigue brought on by continued directed attention (Kaplan, 1995). Senses can be stimulated through smell of plants, feel of textures, or through the filtering and variance of light in a space. A single instance of utilizing a sense can be expressed through the power of sight. Sight determines a sense of beauty through an individual's initial impressions. Light allows the sense of sight to reduce depression by exposure to daylight (Ulrich, 2006).



figure 4.11 | Stimulate the Senses
(Hundley, 2013)

**establish
cultural identity
and value**

**create “places” to
incorporate meaning
in the landscape**

**communicate values
and meaning to
individuals through
narratives**

**evoke a sense
of community**

figure 4.12 | Design Guidelines for a Restorative Memorial (Hundley, 2013)

connect with the individual's biophilic response to nature

provide inward connections through choice and movement

provide outward connections through engagement with social support and group interactions

stimulate the senses to engage the mind and alleviate directed attention fatigue

conclusions

By ensuring that all of these guidelines are present within the design of a restorative memorial, it can be ensured that all characteristics of a commemorative space and restorative environment are embodied within the design. These environments will

communicate the culture's memory and identity, and serve the purpose of improving mental health to imbue further meaning into the landscape. These spaces will hold greater value and will become an important aspect of the human environment.





the menninger legacy



figure 5.01 | (previous spread)
A Historic Icon
The Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

figure 5.02 | left
The Three Drs. Menninger on Arbor Day in Topeka, KS
From left: Drs. Karl, C.F., and Will Menninger
Menninger Clinic East Campus
Topeka, Kansas
(Kansas Memory, 1953)

historical background

The Menninger family built a psychiatry practice that has achieved recognition as a world leader in psychiatric and behavioral health treatments. This practice was founded by Charles (C.F.) Menninger and his two sons, Karl and Will. Together, they began a legacy during a time where educational opportunities in the realm of psychiatry were just beginning to emerge (Smith, 1978).

In the psychiatric world, the name, Karl Menninger, is now synonymous with his family's institution. His legacy in psychiatry was established through the teaching of students, his treatment of patients, and his writings on his work. The publications that Karl Menninger produced helped to make understanding the human mind more accessible to society. He was committed to a broader scope of social psychiatry, hoping to foster a more caring understanding of psychiatric patients (Smith, 1978).

Established in their hometown of Topeka, Kansas, the Menninger psychiatric practice and grew to include a clinic, sanatorium, and school of psychiatry. Their approach to treatment of the mentally ill revolved around the influence of the total environment on the individual (Friedman, 1992). As a principle, C.F. Menninger recognized the value of the natural world and physical and social surroundings for human health. From the founding of the Menninger practice, the family emphasized therapy through activities, art, and horticulture as an integral part of their patients' daily activities (Shapiro & Kaplan, 1998). Validations of their observations of this "milieu therapy"'s effectiveness began appearing in occupational therapy books and textbooks of the 1920s (Davis, 1998).

an emerging “new psychiatry”

At the beginning of the 20th century, a new form of psychiatry—the study of the human mind and mental illness—was just beginning to emerge. Prior to this time, the impact of religion on cultural thought associated insanity or forms of mental illness with the influence of the Devil. Psychiatric patients were customarily misunderstood and treated with neglect and cruelty. Methods of treatment often turned to inducing fear or terror, through confinement, blood-letting, starvation, purging, blistering, surprise baths, or whippings (Menninger, 1942).

The Changing Vision of the Human Mind

In *The Human Mind*, Karl Menninger writes that:

It was psychiatry that first introduced the idea of treating sick minds and then the idea of preventing mental ill health. In fact it is from the idea of preventing mental ill health that a more useful conception of the nature of the mind took its origin (Menninger, 1942, p. 15).

Menninger attributes this change in understanding to the efforts of Clifford Beers, a man who recovered from a severe mental illness and through his publications and surveys was set to improve the mental health of the community. This awareness activated new state societies for mental hygiene throughout the United States, seeking to disseminate the true nature of mental illness, its best prevention, and treatment (Menninger, 1942).

The mind was no longer seen functioning solely as a memory storage bank within the brain, but as a connected network communicating information about the individual’s environment and directing actions. A dependence upon the nerves of the muscles and organs begins the process of attaining information. The environment stimulates the senses of the individual and

communicates that information to the brain, which responds by directing all other physical aspects of the body. Actions of the individual were now understood as a synthesis between the body's physical and psychological workings (Menninger, 1942). Psychology now focused upon:

The human being as a bundle of instincts, habits, memories, organs, muscles, and sensations, all going through a process, a process of constantly changing itself in an effort to make itself more comfortable, constantly changing its environment for the same purpose, and constantly being changed by its environment, sometimes for the better, sometimes for worse (Menninger, 1942, p. 23).

This constantly changing transaction between the individual's mind, senses, and environmental stimuli puts stress upon the individual, testing their capacity to adapt and cope to new situations (Menninger, 1942).

Shifting Approaches to Psychiatry

By furthering the understanding of the connection between the mind, body, and environment, perceptions regarding mental health began to change. For one, the terminology shifted during the 1930s

and 1940s from “mental hygiene” to “mental health.” This change reflected how human behavior related to adjustments of mental and emotional maladjustments could be traced back to environmental factors. Hygiene refers to the body of knowledge preserving and promoting mental health—which refers to the state or condition of a person's mental well-being (Ridenour et al., 1961). As a new form of psychiatry, optimism about the therapies and knowledge that this research could yield developed a new class of “cure-oriented psychiatrists” (Friedman, 1992, p. 34).

New Psychiatry in Practice

In practice, existing and emerging institutions embraced this “new psychiatry,” through furthering research in psychiatric treatment. When Karl Menninger began his residency at the Boston Psychopathic Hospital, it was seen as the model for what the new psychiatric hospital should be. By limiting patients to those in early, acute stages of mental illness, it offered a comprehensive diagnoses followed by quick, intensive treatments. The goal was to return patients to society, but if their illness worsened, they would be retained for instruction or research opportunities. Patients unaffected by treatments were

transferred into state hospitals for long-term care (Friedman, 1992).

Many of these psychiatric specialty hospitals were private undertakings, expensive and directed towards the elite. From 1911-1923 the number of these institutions doubled across the United States, while ninety-six percent (96%) of the patient population was still cared for in state hospitals. Functioning similarly to the state institutions, few of these private hospitals were intent on yielding cures for their patients through programs of therapy, teaching, or research (Friedman, 1992).

the development of the menninger practice

As a general physician, Charles Menninger saw Topeka as the best opportunity to establish a medical practice in 1888. The city housed a good size population and was a major railroad center with various cultural urban amenities, such as orchestras, opera houses, music halls, and libraries. The medical community at the time had developed a cooperation and trust that was seen in a small, medical school affiliated with Washburn College (Friedman, 1992). Perhaps in foreshadowing, the Topeka Insane Asylum was merely a decade old and seeking to reform itself as a “topflight medical institution” (Friedman, 1992, p. 8). With two of his three sons, entering the medical field, Charles had a great desire to form a group practice, based upon the model of the Mayo and Joslin Clinics (Friedman, 1992). Though Charles was seen as the “leading man in the specialty of internal medicine and diagnosis in [Kansas]”, specifically regarding metabolic disorders, the possibility of his eldest son becoming a partner in practice prompted him to relinquish his work in favor of Karl’s interest in neuropsychiatry (Friedman, 1992, p. 32).

Karl Menninger's Road to the Psychiatric Practice

Karl Menninger began studying medicine at the University of Wisconsin. For a time, his philosophy classes inspired him to consider missionary work; however it was his father Charles' example as a selfless physician, provider, and father that inspired him to practice medicine (Smith, 1978).

One of the family's missionary ventures was to take in outsiders as boarders, through whom Karl was first exposed to "mentally unbalanced" individuals, and his interest in psychiatry increased throughout his schooling (Friedman, 1992, p. 28). Both attending Harvard Medical School and his commitment to the United States Navy moved him to Boston, where Elmer Southard, director of the Boston Psychopathic Hospital, became his mentor (Smith, 1978). In his studies and beginning practice, Menninger was most interested in surgery and neurological ills (Friedman, 1992). At the fulfillment of his residency, Menninger considered joining Southard in practice to finish their research, but Southard encouraged him to return to Topeka saying, "there are lots of people who can finish things; the job is to find someone to start things" (Smith, 1978, p. 17). Inspired by his mentor and the type of

practice he experienced during his residency, Karl Menninger's personality, characterized by the Midwestern rugged individualism and independence of spirit, incited him to join his father's practice and advance the psychiatric profession (Smith, 1978). He wanted to create a cure-directed psychiatry practice within an institutional setting that would be effective beyond the wealthy clientele of private institutions and prove significant to be the masses (Friedman, 1992).

After returning to Topeka in 1919, Karl Menninger took the opportunity to tour several of the emerging psychiatric institutions of the time. Throughout his visits, he observed a wide variety of cure-oriented treatment programs and therapeutic approaches. but it was the Henry Phipps Psychiatric Clinic that impressed him most. While all of these institutions exhibited pleasant environments that encouraged interpersonal relationships, little of the somatic elements in mental disturbance were addressed. Established in Baltimore in 1913, the Phipps Clinic's leadership by Adolf Meyer and affiliation with Johns Hopkins University, the most prestigious medical school in the country, had set it as a model institution for elite private hospitals (Friedman, 1992).

Unlike the others, Meyer “was dedicated to curing mental patients regardless of financial costs or the seriousness of their problems” (Friedman, 1992, p. 37). Through his principles of “psychobiology”, Meyer ascertained that the patient’s psychological and physical disorders should be considered in the context of their general lifestyle by studying the interactions between the individual biological psychological organism and the surrounding social environment. In his therapies he emphasized the functional needs of patients in their everyday lives, linking the physical and mental health of the individual with their actions and activities. In his clinic he encouraged a synthesis of teaching, research, and patient care by his staff as complimentary elements of a holistic practice. Over the course of the its first six years, the Phipps Clinic yielded nearly 100 staff papers and books (Friedman, 1992).

Unlike the east coast with many emerging psychiatric institutions, there were no hospitals such as this in Kansas during this time period. Upon Karl’s return to Topeka, he was met the challenges of physician-neurologist W.S. Lindsay, who had recently resigned as assistant superintendent at the Topeka State Hospital. The facility had become increasingly custodial and a new city ordinance prevented any mental

institution to be within five hundred feet of a residence. With private hospitals across Kansas experiencing financial difficulties, establishing a private mental facility, similar to the Phipps Clinic, was not necessarily the route to take at this time. Many of the owners of these facilities were being forced to sell to religious organizations or municipal authorities (Friedman, 1992).

establishing the menninger clinic and psychiatric practice

A Unique Group Practice

Combining Charles' focus on internal medicine and metabolic disorders with Karl's understanding of surgery and neuropsychiatry, the Menninger Diagnostic Clinic was not solely a psychiatric facility (Friedman, 1992, p. 45). Administering thorough physical and neurological examinations, along with some laboratory testing; the Menningers attracted and admitted patients that could not be diagnosed by other doctors in northeastern Kansas. Charles remarked that the family "had a vision, of a better kind of medicine and a better kind of world" (The Menninger Foundation, 1979, p. 5). As a group psychiatric practice, the Menningers sought to provide the best diagnosis and

treatment for their patients. They made innovations in the care of the mentally ill, creating a top standard of psychiatric care through the practice of milieu therapy. Milieu therapy incorporates the "total environment used in patient's treatment" (The Menninger Foundation, 1980, p. 7). They believed that it was possible to treat and help patients in a time period where the only alternative for treatment was custodial care and asylum. In the future, they added aspects of professional education, research, and prevention to build a comprehensive psychiatric center (The Menninger Foundation, 1980).

As the reputation of the clinic grew, there came a need to alter their facility to accommodate patients who could not be treated solely on an outpatient basis. He began boarding some patients with a former Topeka State Hospital attendant, but found this inadequate for patients were being confined to their rooms and tied to their beds at night. He next attempted to circumvent the city ordinance by installing five to six patients on a wing of Christ's Hospital. Eventually, he found the hospital environment and staff as inadequate for his patients (Friedman, 1992).

In the spring of 1923, Menninger determined that Christ's Hospital could

no longer serve as in his inpatient facility for the Menninger Diagnostic Clinic. By establishing his own sanitarium, built upon models such as the Phipps Clinic, he knew that he could finally create the psychiatric clinic that would follow his work with Southard, shifting his diagnostic focus to emphasize therapy. Forming the Menninger Sanitarium Corporation, Karl was able to convince investors to support his endeavor and buy up shares to fund his new facility. The newly named Menninger Neuropsychiatric Clinic would soon expand from its downtown outpatient facility to include an inpatient sanitarium—the Menninger Psychiatric Hospital just outside of Topeka (Friedman, 1992). Two years later, the clinic purchased a 20-acre farm site on the western side of town with a \$20,000 mortgage (Friedman, 1992; The Menninger Foundation, 1979). The existing farmhouse was transformed into a twelve-bed sanitarium (Friedman, 1992). Outbuildings housed office and patient activities, and over time, additional buildings were added, allowing a greater patient capacity (The Menninger Foundation, 1979; Friedman, 1992).

The Menninger Clinic East Campus

Even though the new grounds were set apart from the disturbances of the city, the atmosphere of the facility was not adequate (Friedman, 1992). Noise and dust from traffic on an adjacent road, along with the nearby roller-skating rink and dance hall disturbed the peace of the grounds. To mitigate this and prevent outsiders from trespassing, the Menningers lobbied to remove the road and close the roller-skating rink.

In 1928, the Menningers took up residence on the grounds, moving the outpatient clinic to the hospital grounds as well. They were able to devote their time to a routine of therapy, conducted by themselves and a growing staff of graduate nurses through their school of psychiatric nursing. In addition, a formal residency program was established in 1932, giving the Menninger Clinic an excellent professional staff to patient ration, compatible with most elite hospitals (Friedman, 1992). In this way, there were now 24 hours that they and the psychiatric nurses could influence the patient (Menninger, 1942). It wasn't until 1941, that the Menningers established a formal research department to focus on the output of scientific papers and books based upon the research and observations

figure 5.03 | The Menninger Clinic East Lodge
Menninger Clinic East Campus
Topeka, Kansas
(Wolfe Commercial Photo, 1928)



from their work as a clinical practice. In addition to their publications, the clinic conducted public-education courses focused around the prevention and understanding of mental hygiene. The institution was growing, and the Menningers focused on investing their profit into the “brains” of the clinic, adding additional staff and developing new programs. This philosophy stemmed from Dr. Will Menninger’s belief to buy “brains before bricks.” This led to the transformation of the clinic to a non-for-profit foundation in 1945, in the pursuit of new contributions and grants. The Menningers contributed all of their holdings in the practice to this foundation (The Menninger Foundation, 1980).

The greatest growth of the clinic towards a comprehensive practice occurred over the next three decades. Once the Menninger School of Psychiatry was formed, it became not only the first formal training program for psychiatrists, but also the largest, growing from three graduates to one hundred a year. Their school offered new training programs for clinical psychologists and social workers as well. Their research expanded to examine the causes, natural history, prevention, as well as treatment of mental illness. Not only was this work beneficial to the psychiatric

community, but by establishing programs for business and industry executives to better understand human nature, motivation, qualities of leadership, and the management of stress they were able to share their work with the community of Topeka. As figureheads for a revolution in state hospitals for the mentally ill, other institutions began transforming to emulate the Menninger Psychiatric Hospital, first in Kansas and then across the country (The Menninger Foundation, 1980). Hoping that other institutions would abandon the idea of “human warehouses,” Dr. Karl Menninger stated that “patients will get well in a barn if you give them the right doctors and the right treatment” (The Menninger Foundation, 1980, p. 8). The Menningers’ research, training, and outreach to the community established them as a national resource in the field of psychiatry, promoting a “heritage of excellence and a distinguished history of public advocacy for improved mental health services” (The Menninger Foundation, 1980 p. 8).

The Research of Karl Menninger

During this time, Karl devoted most of his time to research and writing. The subject matter of his first book, *The Human Mind*, evolved from a series of lectures Karl

presented to a freshman mental hygiene course at Washburn College. The lectures gave a general understanding of mental health and illness, which to the college freshman or a uniformed reader became a reachable introduction to psychiatry (Friedman, 1978). He opened his book with what is described as “one of the richest descriptions of mental illness in the history of American psychiatry” (Friedman, 1992, p. 58):

When a trout rising to a fly gets booked on a line and finds himself unable to swim about freely, he begins a fight which results in struggles and splashes and sometimes an escape. Often of course, the situation is too tough for him. In the same way the human being struggles with his environment and with the hooks that catch him. Sometimes he masters his difficulties; sometimes they are too much for him. His struggles are all that the world sees and it usually misunderstands them. It is hard for a free fish to understand what is happening to a booked one (Menninger, 1942, p. 3).

While he was criticized for being deficient in his approach towards a psychiatric cure, his optimism for a cure for most mental illnesses was unsurpassed even by other “new psychiatrists” such as Adolf Meyer

(Friedman, 1978, p. 57). Despite these criticisms, his book put Topeka on the map, sparking his invitation to speak on a variety of psychological issues at conferences and meetings (Smith, 1978). It was described as a “triumph of simplicity and common sense over the stuffy pedantry of scientific writing at its worst” (Smith, 1978, p. 15). His book eventually became a required textbook to mental hygiene classes across the country (Friedman, 1978).

The Development of the Menningers' Therapeutic Method

The development of their therapeutic method was mainly governed by Will, Karl's brother, who was appointed as the sanitarium-hospital director upon the completion of his medical studies (Friedman, 1978). At the 1932 American Medical Association annual meeting, Will presented his paper outlining the principles of the Menninger Hospital's milieu therapy program and how it could contribute to this “new psychiatry” (Friedman, 1978, p. 60).

Rather than focusing on a singular drug or operation that could cure mental illness, he ascertained that the social milieu—surroundings—and interpersonal relationships between the patients and staff was the best route for psychiatric

innovation (Friedman, 1992). By creating a “miniature community” adaptive to the individual patient’s needs, the patient could be reeducated in a protected environment (Friedman, 1992, p. 72). In *The Human Mind*, Karl remarked that the modern psychiatric hospital should allow the patient to “[enter] an environment in which his peculiar sufferings are recognized as personal problems which deserve serious consideration, sympathy, and help” (Menninger, 1942, p. 403). In this way, he or she would be comfortable both physically and mentally, protected from the everyday world, where their predicament would be considered queer (Menninger, 1942; Friedman, 1978).

To ensure that this milieu therapy method was communicated throughout the psychiatric facility, the Menningers utilized a series of standards for the conduct and function of their spaces. It was most important that the “environment of the psychiatric facility shall enhance the patient’s self-respect and preserve human dignity” (The Menninger Foundation, n.d.). The patients at this facility should be able to establish a positive self-image. The relationships among staff members, among patients, and between staff and patients should be those that contribute

to therapeutic means. The physical surroundings themselves should promote perceptual clarity and awareness of the surrounding landscape. The patient will be provided opportunities for communication with persons outside the facility, and the facility may define the population it serves and is accessible to. Productive work for the residence shall be provided wherever possible, and full programs of social, educational, and recreational activities for patients will be provided both during the day and night to maintain cultural interests and establish feelings of human dignity. Finally the rules of daily living within the facility were to be consistent with the therapeutic program and enhancement of human dignity and individuality (The Menninger Foundation, n.d.).

the anxiety issue

At the conclusion of the 1960 Gallahue Conference, a dialogue regarding psychiatry and theology hosted by the Menninger Foundation, Karl Menninger and Seward Hiltner compiled essays relating to the nature of anxiety (Hiltner & Menninger, 1963). Menninger comments, “anxiety, like pain, is familiar to everyone and fully understood by no one” (Hiltner & Menninger, 1963, p. 8). Ishak Ramzy’s essay regarding Sigmund Freud’s understanding of anxiety, defines it as a “range of various intensities and colors of unpleasant feelings and affects” (Ramzy, 1963, p. 17). To Freud, anxiety is a condition of *human* existence, unlike an animal’s instinctual reactions to fear. By understanding what incites our anxiety, we are able to alleviate it based upon solution-seeking reasoning (Ramzy, 1963). Another contributor, Paul W. Pruyser, noted that while there are different conceptions of anxiety in a general context, separated subtypes, or containing a specific phenomenology. Other writers delineate anxiety with “tension-awareness” linking it with the idea of stress (Pruyser, 1963, p. 123). These variances in understanding continue to make the concept an enigma within psychology (Pruyser, 1963).

The Menninger Understanding of Anxiety

Karl Menninger understood anxiety as a fluid transaction occurring between the individual and their environment. This transaction occurs through a complex relationship balancing interactions of external persons or stimuli with the internal parts of oneself. This balance is maintained through the constantly changing relationships that are accompanied by stresses (Menninger, 1973). In coping with these stresses, “all of us make the best possible adaptations to the mishmash of biological and social existence by constantly rearranging ourselves, externally and internally” (Menninger, 1973, p. 87). When an individual’s normal coping devices are inadequate, somatic and/or psychological symptoms may emerge as an emergency measure employed by the organism (Menninger, 1973). In summary, Menninger states that:

To stay alive in this hectic world, every individual is constantly calling upon resources to cope with stress and overstress, internal and external. Constantly exchanging with his environment, he tries to make the best bargain possible with it, with its threats and demands and opportunities and dangers (Menninger, 1973, p. 92).

He acknowledges that these internal psychological components are also factors in the development of organic diseases. When a person is no longer able to cope with responses to emotional stimuli, habitual or chronic symptoms emerge that may appear unassociated with their psychological meaning (Menninger, 1956).

Hans Selye, an endocrinologist researching stress in physiology and psychology at Johns Hopkins University, also maintained the hope that a universal “antistress” vaccine could be created if stress was addressed through holistic solutions, dependant on the total context of an individual coping with their environment (Brenman-Gibson, 1978, p. 103).

Understanding that the origins of pain lie with an individual’s unconscious conflicts, psychologists would need to ascertain the origin of these conflicts and how they were transferred to determine a relief or cure. For individual rehabilitation, the healing process was “fundamentally emotional in nature” and therefore dependent on stress-mitigation (Brenman-Gibson, 1978, p.

107). The Menninger Foundation’s study of psychotherapy also determined that “rehabilitation is far more difficult than prevention” and that “benefits derived [from therapy] were directly proportional to the original intactness of the person—so here, with a few striking exceptions, the more severely fractured the individual the more difficult to establish the enduring and consistent improvement” (Brenman-Gibson, 1978, p. 116). The environment may initially induce or alleviate stress. In *The Human Mind*, Menninger comments that “sometimes we must change the environment before we can change the patient” (Menninger, 1942, p. 401). This change in the environment could occur either by making the “needed change in surrounding personnel, in locale, or in the direction of activities; or it is a matter of temporary removal to a place where internal changes can be made in the individual such that he can return to the life he has to live and live it happily and successfully” (Menninger, 1942, p. 401). The Menninger Hospital existed as this secondary option.

the change in environment at the menninger hospital

The Hospital Schedule

As part of a healthy environment, Will Menninger's program of milieu therapy included an activity schedule of work and recreation out of doors, acknowledging Charles's love of plants and animals (Freidman, 1992). In *Love Against Hate*, Karl Menninger wrote how work and play can absorb the aggressive energies of mankind, channeling them towards useful endeavors. By entertaining the individual's impulse towards the need for mastery or control, work allows the individual a motive to master their situation using both the "powers of the mind and body" (Menninger & Menninger, 1942, p. 135). As another motive for "blowing off steam", play allows the individual to blow off steam in a socially acceptable manner. The attractions of play lie in the fact that it is the process rather than the end result that is important. Pleasure is a conscious aspect, but the activity can disassociate itself with reality, and this disassociation allows expression of aggressive motives (Menninger & Menninger, 1942).

Social Relationships with Staff

In addition to patient activities, the Menningers focused on the relationships within the social environment. The scientific relationship with each patient was present throughout their daily schedules of therapeutic activities, but it was the "family spirit" on the grounds that they believed was even more important than their scientific medical program of milieu therapy.

The doctors were regarded as fathers or big brothers and the patients as children (Friedman, 1992, p. 63). The necessity to love one's patients was believed to aid in psychotherapy (Friedman, 1992, p. 374). The emotional responses developed towards the patient's doctors and nurses, providing a haven of understanding, were a great aid in the process of the patients' recovery (Menninger, 1942, p. 404). At the same time, for scientific research to occur, "one has to be infinitely patient and genuinely interested, and yet detached enough—"cold-blooded" enough--to be objective in the handling of the sufferer" (Friedman, 1992, p. 375).

Social Relationships with Patients

The social environment between patients was used as a tool for psychiatric innovation. Will led group therapy sessions with the inpatients to establish relationships among themselves (Friedman, 1992, p. 87). Will believed that it was necessary for the patient to ease his or herself from the protection of the Menninger Clinic's individualized environment into the reality of the outside world (Menninger, 1942, p. 404). These "scientifically controlled friendships" provided a systematic way for patients to engage in these relations through various forms of occupational, recreational, and physical therapy; music; reading; or other creative efforts (Menninger, 1942, pp. 404-5). The facilitations of these various occupations fit between rest and psychotherapeutic study groups, allowing therapies to shift from one form to another, creating a continuous process of treatment. As to the patient's physical environment, the degree of exhaustion enacted by these activities was alleviated with appetizing,

nourishing food; clean, cheerful living rooms; comfy beds in pleasant, well-ventilated rooms; easy accessibility to facilities; and nursing care throughout the day and night (Friedman, 1992).

the road to expansion

The Legacy of the Institution

The belief in the cohesive environment of learning, research, and patient care continued beyond the founding Dr. Menningers. In 1972, Rhea McCandless, as director of the Menninger Foundation, surveyed the interest of health care institutions in horticulture programs and found a need to connect horticulture and mental health (Shapiro & Kaplan, 1998). The next year, Menninger Foundation established a cooperative educational agreement with the activity therapy and horticulture department of Kansas State University. This encompassed the first horticulture therapy curriculum in conjunction with mental health,

training students both in psychology and horticulture and providing a seven month clinical internship at Menninger (Davis, 1998).

After the First Half Century

In 1975, the Menningers celebrated their fiftieth anniversary as a group psychiatric practice (The Menninger Foundation, 1980). As the third generation of the Dr. Menningers, Dr. Roy Menninger, Will's son, sought to find ways to improve the continuously developing practice. Llewelyn-Davies Associates, a strategic and physical planning firm, analyzed the clinic's lands, buildings, and environment. This study—referred to as the Booz, Allen & Hamilton study—affirmed the Menninger Foundation as a “leader in the mental health field and a national resource for treatment of the mentally ill” and a unique organization offering a full scope of clinical, research, professional education, and prevention service (The Menninger Foundation, 1979, p. 7). The “brains” of

the institution through this broad scope of psychiatric programs was recognized as being more formally emphasized than other institutions. This emphasis stimulates an intellectual atmosphere, thus attracting and retaining highly qualified staff to establish the national and international reputation of the Foundation for the quality of their patient-oriented services. This sparked the recommendation that these areas develop further into the future. Already spread across two campuses, with the office in downtown Topeka and the sanitarium campus on the outskirts, many of the hospital buildings were deemed outmoded and inadequate for the Menningers' modern treatment programs (The Menninger Foundation, 1979). This division of the Foundation facilities “separate[d] staff, fragment[ed] programs, and severely hinder[ed] communication and exchange between the clinical services on one campus and the programs of education, research, and prevention on the other” (The Menninger Foundation, 1979, p. 11).

Essentially, the Llewelyn-Davies Associates recommended the integration of Foundation staff and programs to a singular campus (The Menninger Foundation, 1979).

The Board of Trustees and staff reviewed the Booz, Allen & Hamilton study and subsequent recommendation, approving a major construction project to consolidate the Foundation’s “programs of treatment, research, education, and prevention on the West Campus” (The Menninger Foundation, 1979, p. 12). Authorizing the first capital campaign by the Foundation, “Brains & Bricks” sought to raise twenty-two million dollars to support the fifteen million bid for construction of the new hospital for adults and subsequent buildings to support the consolidation of programs onto one campus. The additional seven million was projected to strengthen

the programs of professional education and outreach, focusing on qualified staff to help the treat the mentally ill, teach, and research. While recognizing the need to replace the “antiquated” structures of their current split campus, the Menningers knew that it was also important to focus on the staff that would occupy this new space. The finances were sold through tax exempt bonds and contributions by Foundation members and friends. The groundbreaking began on May 1, 1980, and was projected for completion two years later. With the integration of the most effective programs and services of the Menninger Clinic, this new campus would be the first psychiatric hospital of its kind. Again, the Menningers recognized that by bringing the staff together into a cohesive campus, the quality of their work in treating patients would



figure 5.04 | Aerial View of the Menninger Clinic West Campus
Menninger Clinic West Campus
Topeka, Kansas
(Kansas Memory, 1963)

exponentially improve. Another advantage seen was the increase of outreach, off-campus services that could be conducted if the staff and programs were integrated. Not only was the original office in Topeka to move to the West Campus, but also the East Campus was to relocate there as well. Dr. Roy Menninger believed that:

such an undertaking—the construction of new psychiatric facilities—is a powerful statement of our convictions about the significance of this work and its ongoing importance in a world that seems ever more perplexing and stressful. It is a task worthy of our total commitment (The Menninger Foundation, 1980, p. 13).

the west campus

The new West Campus development was to be located on a 500 acre hilltop on the northwest side of Topeka. The land possessed a beautiful relationship with the natural and urban surroundings, encompassed by woods and meadows, with the north hillside leading down to the Kansas River, strong views of Topeka to the east and south, and a connection to the Flint Hills of Kansas to the west. The land had been purchased in 1961 by the Menninger Foundation, and currently housed the Foundation's professional education and research programs, social applications, and professional library, museum, and archives (The Menninger Foundation, 1980).

The historic buildings on site were originally built by the Security Benefit Association, a fraternal organization—or

Hilltop Manor... Miles from City Noise, But Only Steps from City Convenience!



HOTEL AND HILLTOP DINING ROOM

A lovely place for your many friends and visitors to stay. Located on the grounds, with regular taxi and bus service available to it from bus, railroad and air lines stations.



SECURITY BENEFIT CLINIC AND HOSPITAL

This lovely 200-bed Hospital includes a section for the care of semi-invalid or invalid persons, also attracts many interesting people from all parts of the United States.



HILLTOP MANOR APARTMENT GROUP "E"

Beautiful buildings located on the most scenic part of the grounds. Apartments are provided for staff and personnel.



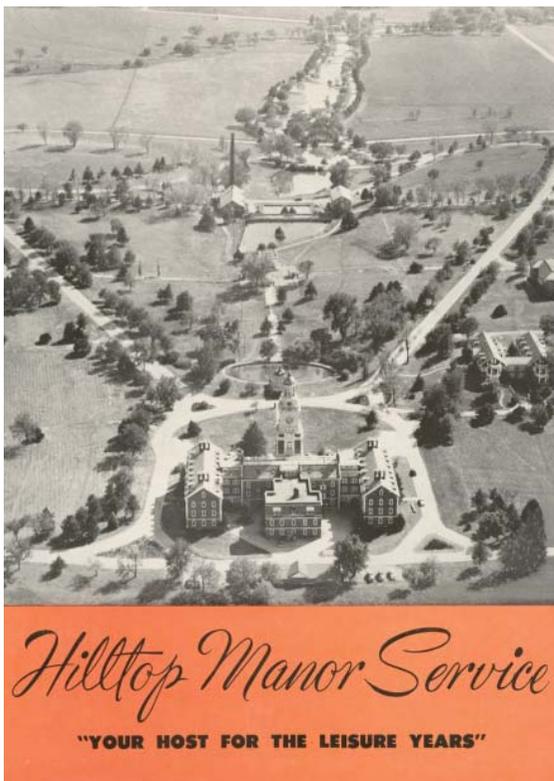
HILLTOP MANOR "C" DORMITORY

Beautiful fireproof dormitory of Early American architecture. This is located centrally in the building group.

figure 5.05 | above
Security Benefit Association,
Hilltop Manor Brochure
Topeka, Kansas
Menninger Clinic West Campus
(Kansas Memory, n.d.)

figure 5.06 | top right
Security Benefit Association,
Hilltop Manor
Menninger Clinic West Campus
Topeka, Kansas
(Kansas Memory, 1930)

figure 5.07 | lower right
"Your Host for the Leisure Years"
Menninger Clinic West Campus
Topeka, Kansas
(Kansas Memory, n.d.)



Fellows' Club—that acted as an early social security system to provide health and welfare benefits for its members. Built from 1918 to 1919, the 400-acre grounds included a two-hundred bed hospital, retirement home, children's home, schoolhouse, and cemetery centered on a model farm. As members of the organization, housing or hospital care could be received for a nickel a month. These buildings were influenced by the colonial revival, utilizing the red brick and white trims of Georgian architecture to establish their form. The hospital building was modeled directly after Independence Hall in Philadelphia, Pennsylvania. The Security Benefit Association hospital became known as the Tower Building of the Menninger Campus, becoming an iconic figure building of the future West Campus.



figure 5.08 | above
 Tower Building and Clocks
 Menninger Clinic West Campus
 (Kansas Memory, 1980)

figure 5.09 | top left
 Master Plan Rendering
 Menninger Clinic West Campus
 (Carlos Diniz Associates, 1980)

The Menninger Foundation selected the architecture firms of Skidmore, Owings, and Merrill out of Chicago, Illinois to partner with the Topeka-based Kiene and Bradley Partnership to design the new campus. The design drew inspiration from both the natural landscape as well as the “sturdy, attractive buildings” (The Menninger Foundation, 1980). The Foundation sought to “preserve the natural

beauty of the land and trees, complement the existing buildings, and most importantly to establish and maintain a human scale” thus ensuring the Foundation’s “concern for the individual and the quality of his life” (The Menninger Foundation, 1980, p. 15). The vision for this project would provide a total therapeutic environment (The Menninger Foundation, 1980).



The Built Environment

The new buildings were to be designed in a contemporary fashion, with simple construction and maintenance, but would complement the historic buildings of the site. For a residential feeling, these white-painted brick buildings contrasted with the red brick of the existing buildings and the surrounding landscape's seasonal colors. Pitched, shed roofs, and clerestory windows allowed maximum natural light to enter the buildings and brought awareness of the changing of seasons and weather (The Menninger Foundation, 1980). These orthogonal buildings were encompassed by multiple shade trees on either side of the tower. The central point of the campus focused around the entry court, just south of the Tower building, for all buildings and subsequent circulation led to this space. The character of these spaces was expressed through the renderings of Carlos Diniz Associates out of Los Angeles with changes recommended by the Menninger Foundation and Skidmore, Owings, and Merrill.

Extending from the Tower Building and the central entry court was a pedestrian avenue. The buildings of the site clustered around this diagonal walkway with the adult hospital, activities therapy buildings, clinical staff hospital, and children's hospital to the east side; and the public buildings of the site, with a commons building and conference center on the west. Circulation on the site was nestled into the perimeters of the landscape, but maintained walking distances between all buildings (The Menninger Foundation, 1980).

The adult psychiatric hospital was designed to convey a therapeutic atmosphere. Dr. Peter Hartocollis, director of the C.F. Menninger Memorial Hospital described it as building that would be “cheerful and bright and provide a stable, residential environment. It should reflect the principles of the community, the principles of living together” (The Menninger Foundation, 1980, p. 15). Housed across four buildings, the hospital could treat up to 166 patients. These buildings included two residential buildings,



figure 5.10 | above
A Patient's Room at the Menninger Clinic
Menninger Clinic West Campus
Topeka, Kansas
(Kansas Memory, 1980)

an emergency admission section, a short-term diagnostic and treatment unit, and an alcohol recovery program. Even within these buildings, there was a variety of living choices, encompassing the total therapeutic community, providing privacy of the patient's room, small lounges, larger living units, and recreational areas. Each building provided a partially enclosed courtyard with a lawn and paved recreation areas. The buildings were linked by covered walkways that bordered each building, serving as a "front porch" feel, crossed by informal red brick pathways (The Menninger Foundation, 1980). With

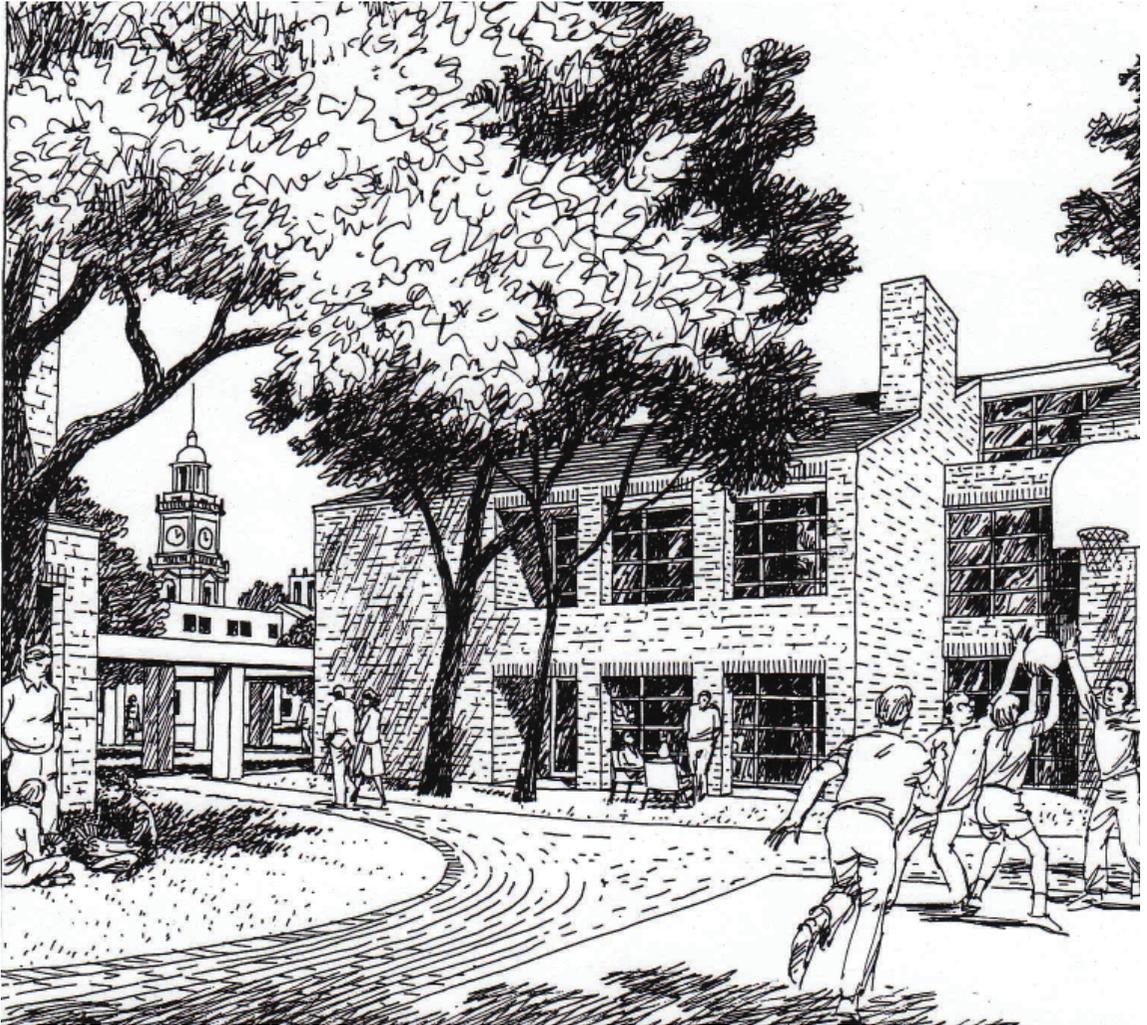


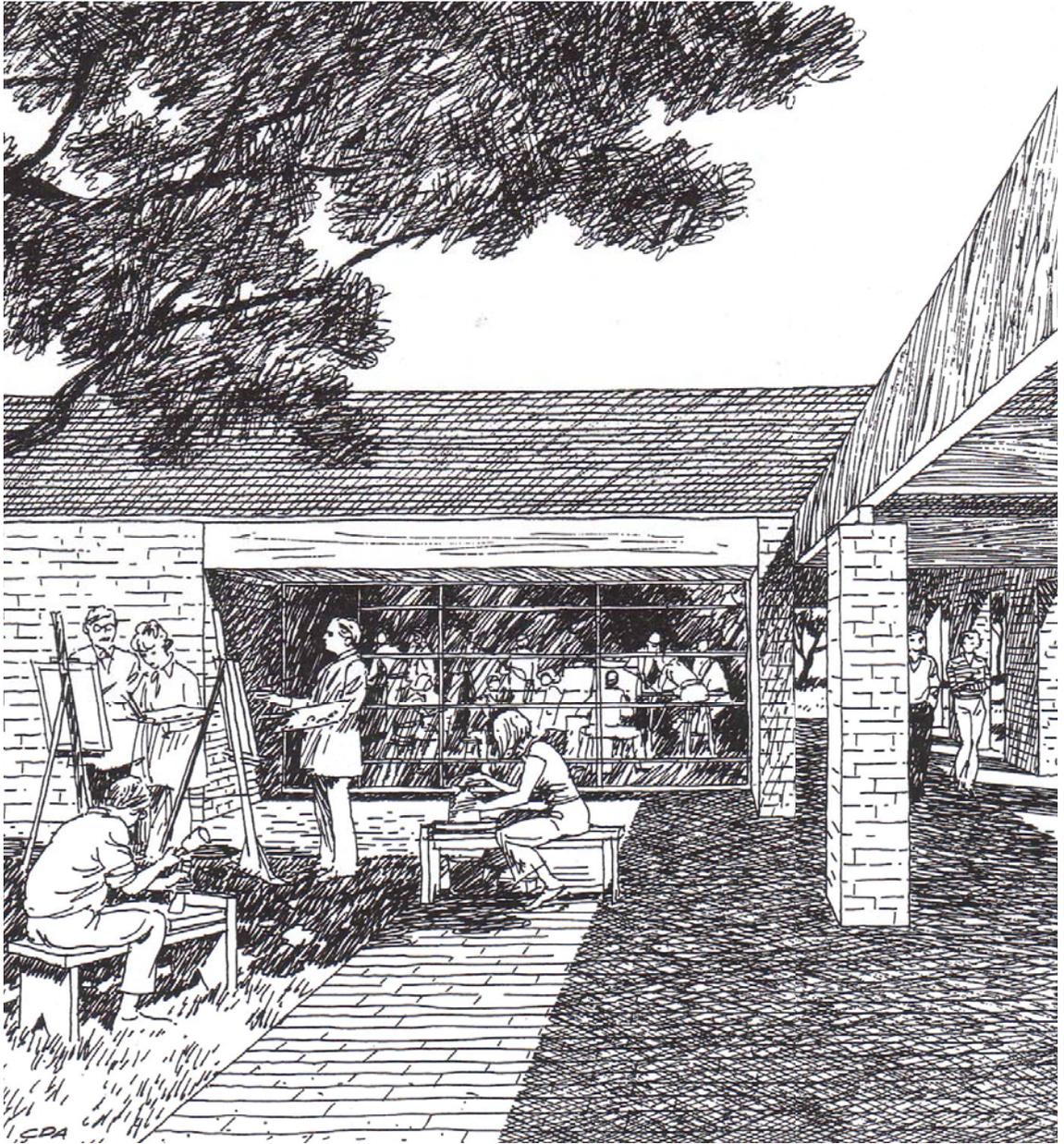
figure 5.11 | above
Courtyards as Backyards
Menninger Clinic West Campus
Topeka, Kansas
(Kansas Historical Society, 2013)

this total environment, the patient spends most of the day out of his or her room, “participating in a carefully structured and prescribed program of activities, as part of a process of learning ways of resolving conflict and dealing with life” (The Menninger Foundation, 1980, p. 18). These creative, recreational, and educational activities functioned were vitally important to the treatment of psychiatric patients, as developed by the Menninger Foundation (The Menninger Foundation, 1980).



figure 5.12 | above
Therapy Practices at the Menninger Clinic
Top: Music Therapy, Pottery, Loom Weaving
Middle: Gardening, Art, Bicycle Repair
Bottom: Theater, Painting, Physical Activity
Menninger Clinic East and West Campus
Topeka, Kansas
(Kansas Memory, 1985; 1980; 1980; 1994; 1980-1990;
1967; 1965-1968; 1990; 1980)

figure 5.13 | top right
The Creative Arts Complex Rendering
Menninger Clinic West Campus
(Carlos Diniz Associates, 1980)



The creative arts complex, physical recreation center, and horticulture therapy buildings were all located on the east side of the pedestrian avenue, surrounding the residential and hospital buildings. The creative arts complex was staggered across three buildings. The first featured studios for drawing and painting, silversmithing, lapidary work, sewing, and sculpture and

pottery. The second focused on manual arts, such as wood-working and metal crafts. The third made up the adult school, with classrooms for academic and laboratory courses, home economics, and the patient library. The physical recreation center was located just south of the Commons building to the west of the pedestrian avenue, featuring a gymnasium, racquetball and

handball court, an exercise room, locker and shower room, and plans for a future indoor swimming pool. The horticultural therapy building was located to the east of the pedestrian avenue, including a greenhouse and workrooms for potting and arranging flowers. The outdoor garden grew flowers, shrubs, and vegetables to be used across the site. This method of therapy first began with Dr. C.F. Menninger's love of nature and became important to reflect the importance of the natural environment to the therapeutic experience (The Menninger Foundation, 1979).

The commons, clinical office buildings, and conference center acted as the more public buildings on the site. The commons acted as the campus dining facility with large and small dining rooms. In the familial type atmosphere, patients, staff, and visitors all gather for meals or other social activities. There also was a patio-terrace for outdoor dining. The Tower building, clinical office buildings, conference center all face the entry court just south of the Tower building (The Menninger

figure 5.14 | Aerial Perspective Master Plan
Menninger Clinic West Campus
(The Menninger Foundation, n.d.)







Looking south from the Tower Building: Buildings at right are the conference center, commons or dining room, and gymnasium. Left of the tree-lined road are the clinical office building which will house outpatient services, the adult school, manual arts shop, and creative arts building. The present Dean Building is in the background. New buildings in the far left background are patients' residential units. The road will become the major pedestrian thoroughfare for the new complex.

Foundation, 1979). The clinical office building housed the “hospital administrative and admissions offices, medical records, outpatient and internal medicine services, personnel services and the Topeka Institute for Psychoanalysis” (The Menninger Foundation, 1980, p. 23). The conference center focused on the education of students, professionals, and the public—with community outreach becoming a central part of the Menninger Foundation’s mission. The student enrollment of the Menninger Foundation was compatible of a small university in size. Each year, approximately a hundred students would

be enrolled in the professional training programs. Beyond that, the Division of Continuing Education would host nearly four thousand mental health professionals from across the country in workshops and seminars. Into the even broader community, seminars for business and government executives, biofeedback training workshops, high-school psychology classes, women’s clubs and others all attracted the community to learn about the work at the Menninger Clinic. Understanding the importance of the conference center for these educational outreach programs, the building earned the central importance

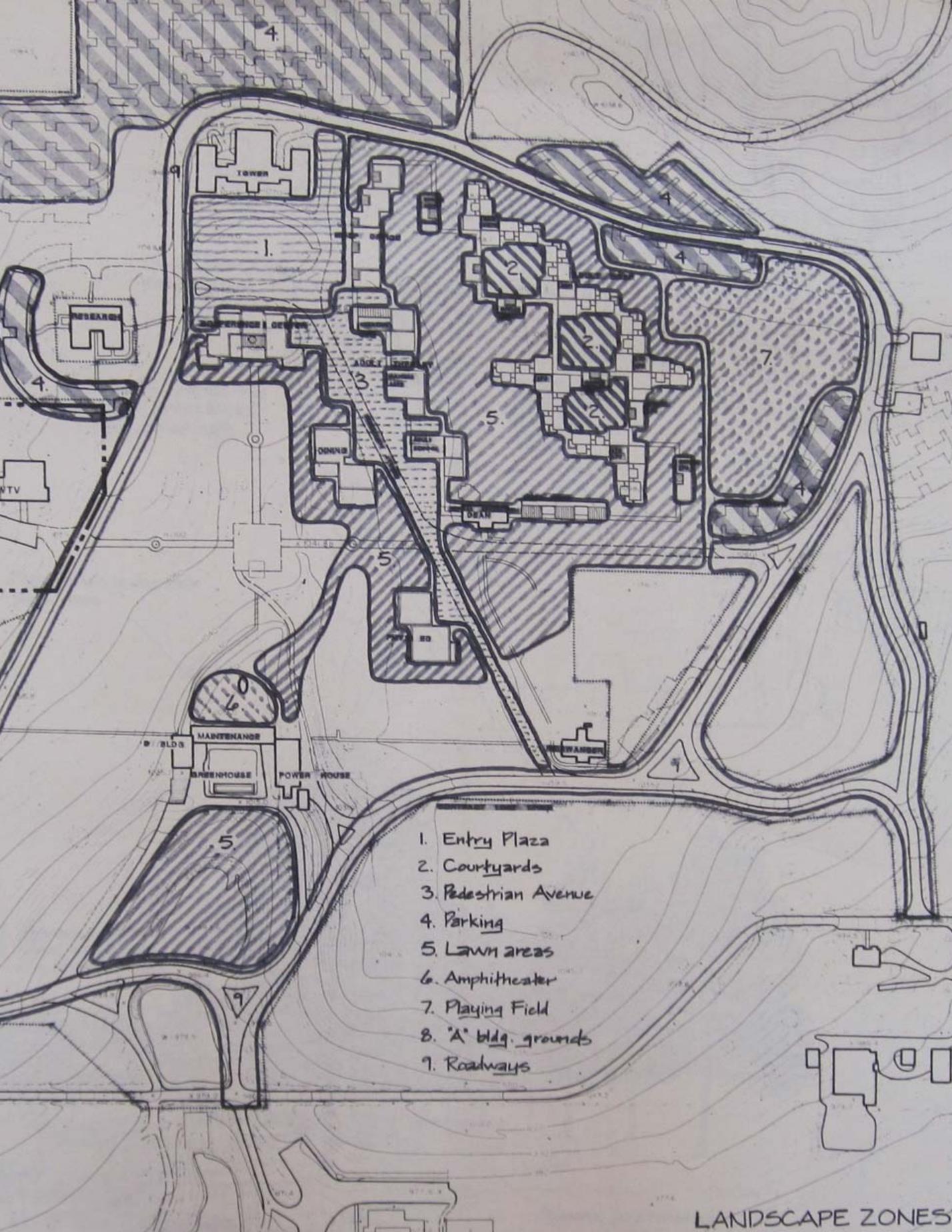


figure 5.15 | top left
 The Conference Center
 Menninger Clinic West Campus
 Topeka, Kansas
 (Kansas Memory, 1982)

figure 5.16 | above
 Karl Menninger, M.D., lecturing
 Topeka, Kansas
 (Kansas Memory, 1961)

of the master plan acting as an “adequate, creatively organized, readily available space for its programs of professional and public education” (The Menninger Foundation, 1980, p. 23). With its central location on the campus, the building consists of three levels for educational activities. The garden floor featured “classroom space for professional education, audio-visual studios and work space, a 200 seat auditorium for lectures and conferences, and for dramatic and musical presentations by patients” (The Menninger Foundation, 1980, p. 23). These audiovisual features allowed the Foundation to extend the availability of its professional instruction

and training programs to other institutions. The first floor consisted of the atrium that opened onto the entry plaza leading to a variety of large and small conference rooms and continuing education classrooms. The second floor then housed the offices of staff and faculty for the Center for Applied Behavioral Sciences” (The Menninger Foundation, 1980).



1. Entry Plaza
2. Courtyards
3. Pedestrian Avenue
4. Parking
5. Lawn areas
6. Amphitheater
7. Playing Field
8. 'A' bldg. grounds
9. Roadways

figure 5.17 | left
Landscape Zones
Kansas Historical Society
(Skidmore, Owings, & Merrill et al., 1979)

The Natural Environment

This total environment experience was extended into the campus landscape as well. The architecture firms conducted a landscape analysis to determine the existing conditions of the site, and delineate nine landscape zone typologies to be incorporated into the master plan of the West Campus. The existing site featured a picnic area with diverse natural areas for seating, walking trails. The firms proposed relocating wildflowers and native grasses to the north meadow, as well as utilizing the dominating, distant views and long vistas from the entry plaza. The landscape zones include an entry plaza, pedestrian avenue, courtyards, lawn areas, parking areas, an amphitheater, a playing field, the “A” Building grounds, and roadways.

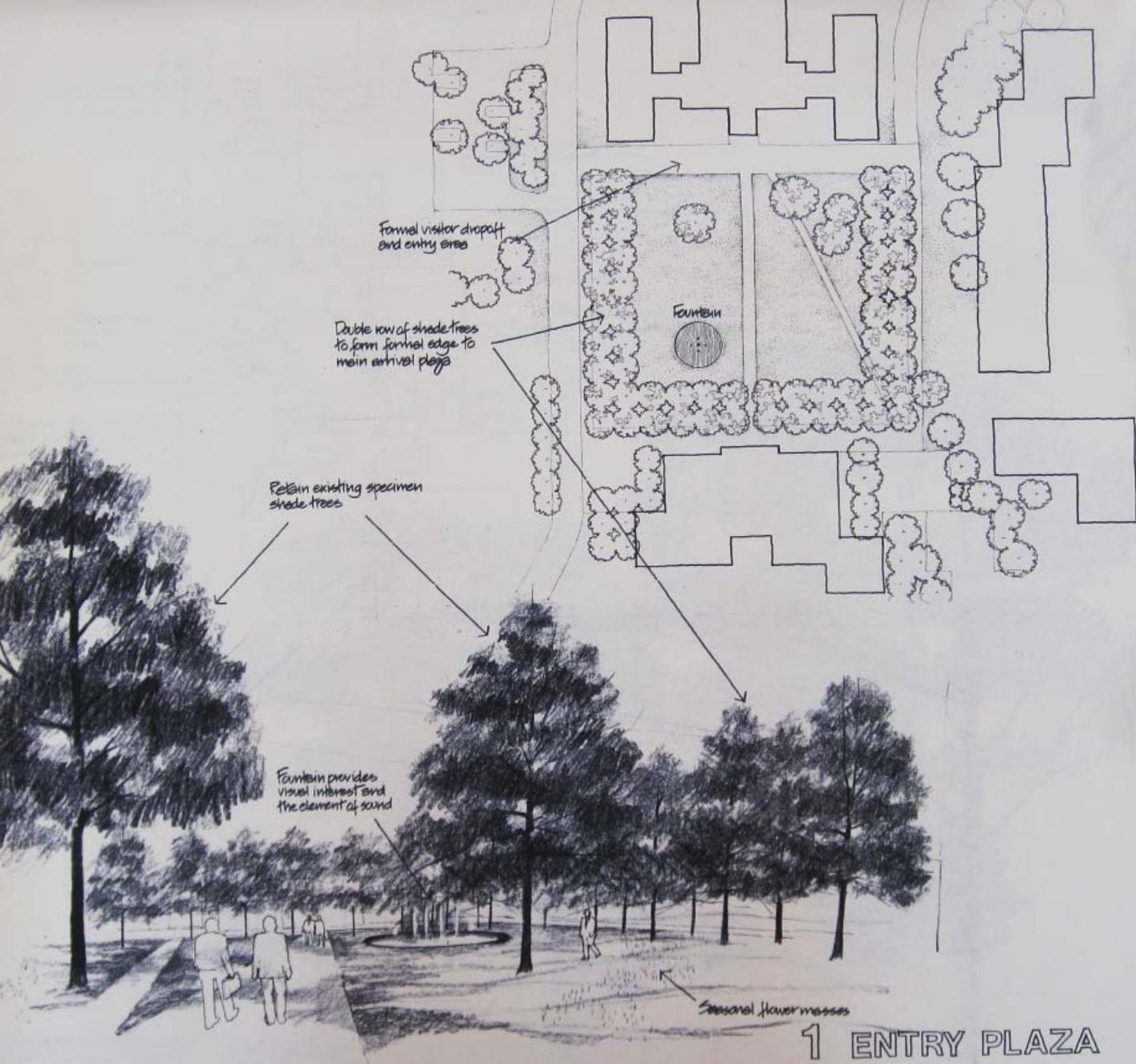
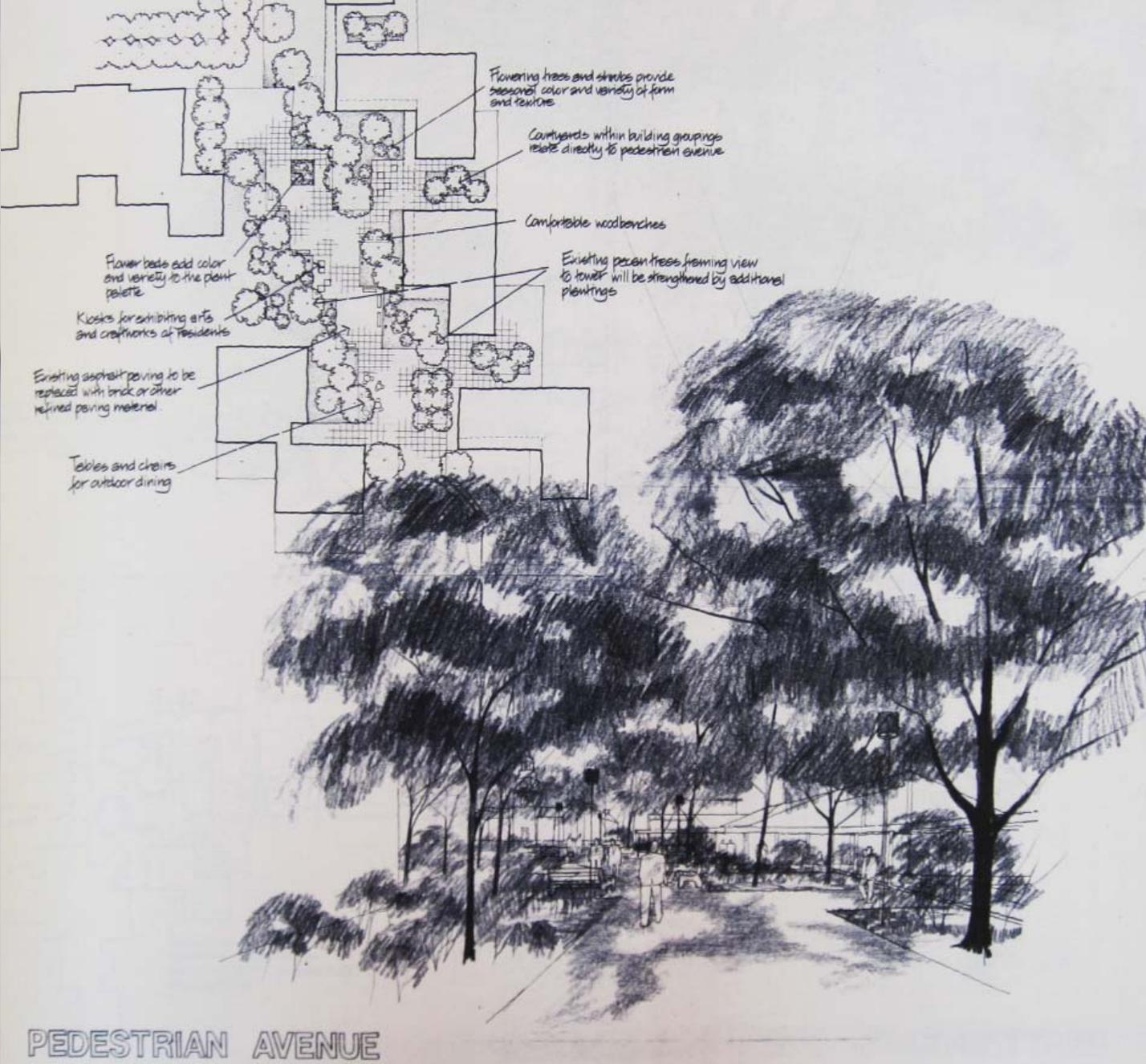


figure 5.18 | above
 Entry Plaza
 Kansas Historical Society
 (Skidmore, Owings, & Merrill et al., 1979)

The entry plaza is focus of many key buildings of the site—the Tower Building, the conference center, and the clinical office building. This space was enclosed by a double row of shade trees to create a formal edge of this main arrival space, but also retained the existing specimen trees. A fountain was included to provide sensory stimuli to the space, along with seasonal

flower massings throughout. The diagonal path through the original plaza extended into the pecan-lined pedestrian avenue.



The form of the pedestrian avenue responded to the orthogonal forms of the surrounding buildings. Brick pathways connected these spaces, while flower beds were incorporated for color interest and variety to the plant palate. Along the avenue, kiosks for exhibiting resident patient’s artwork were made visible in the community, and social interaction was

figure 5.19 | above
 Pedestrian Avenue
 Kansas Historical Society
 (Skidmore, Owings, & Merrill et al., 1979)

encouraged through the placement of tables and chairs. The frame for the Tower Building was enhanced by adding additional plantings to the existing pecan tree-lined avenue.

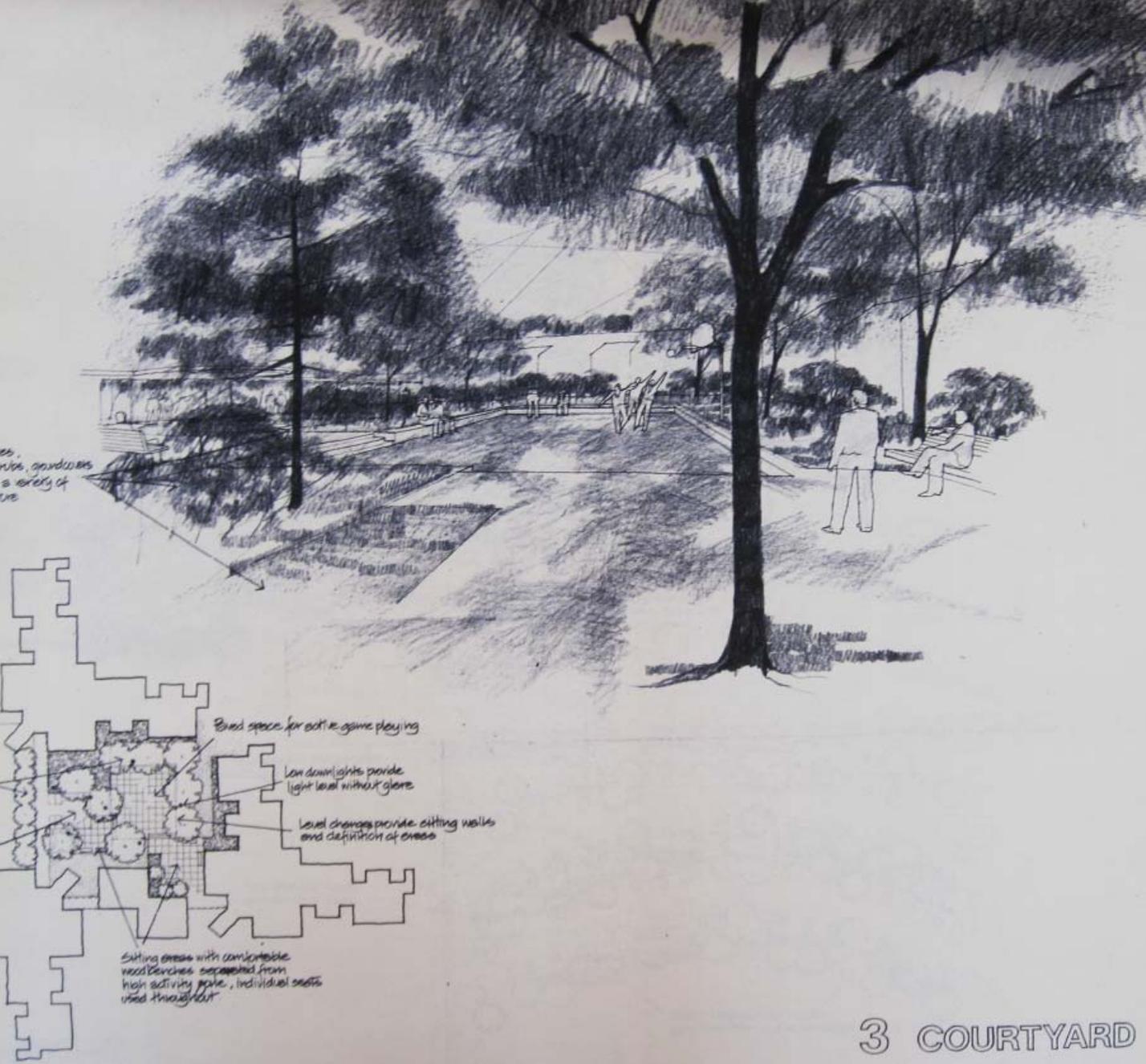
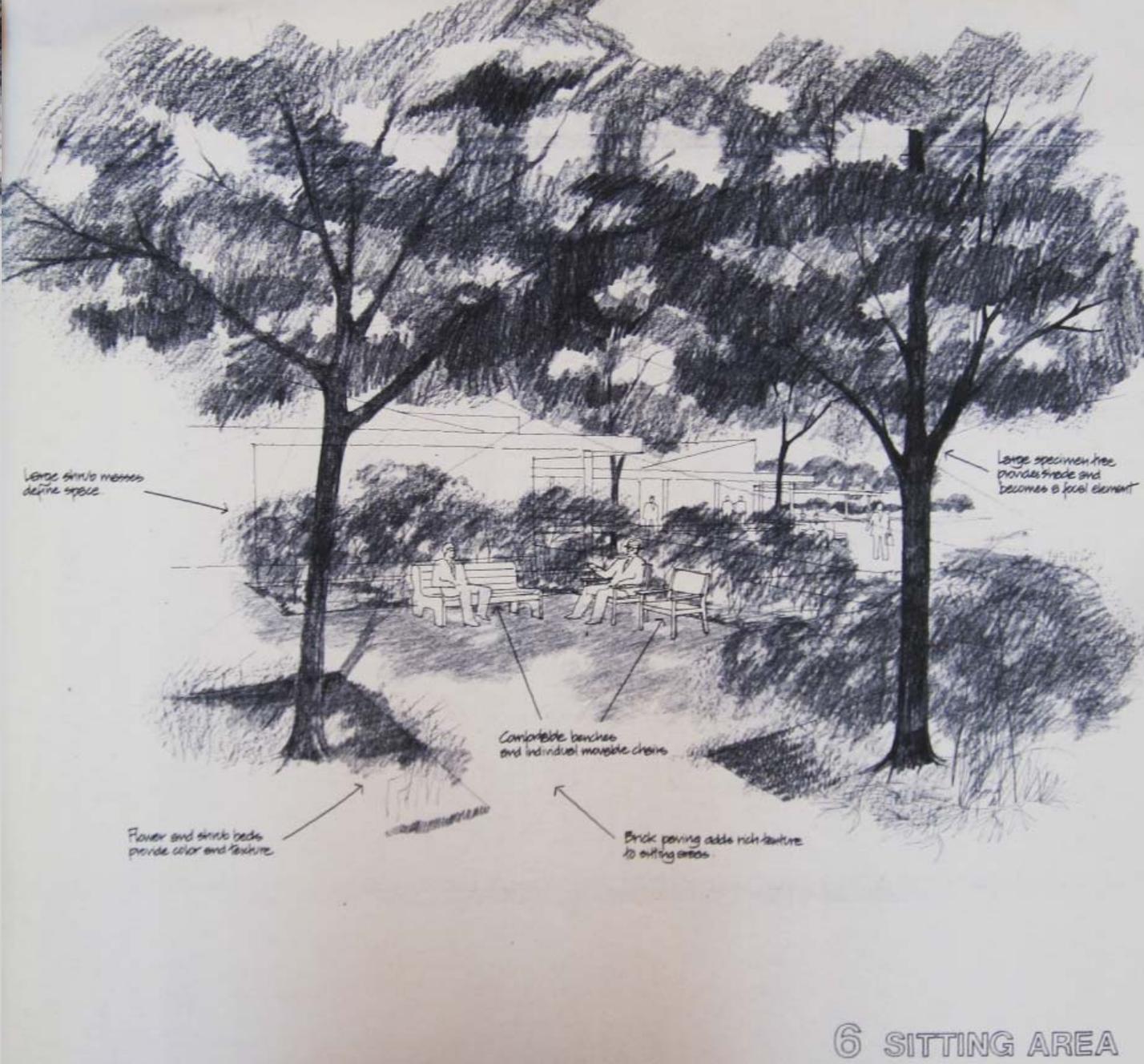


figure 5.20 | above
 Courtyard
 Kansas Historical Society
 (Skidmore, Owings, & Merrill et al., 1979)

Courtyard spaces were defined by the trees and buildings surrounding them, acting as a more intimate spaces for either social interaction or recreation. With both paved and green spaces, active game play was encouraged with low lighting to eliminate glares. Multiple level changes defined spatial areas and provided additional seating. By incorporating different colors

and textures; shade trees, flowering trees, shrubs, groundcovers, and grass became elements of a multi-sensory experience.



6 SITTING AREA

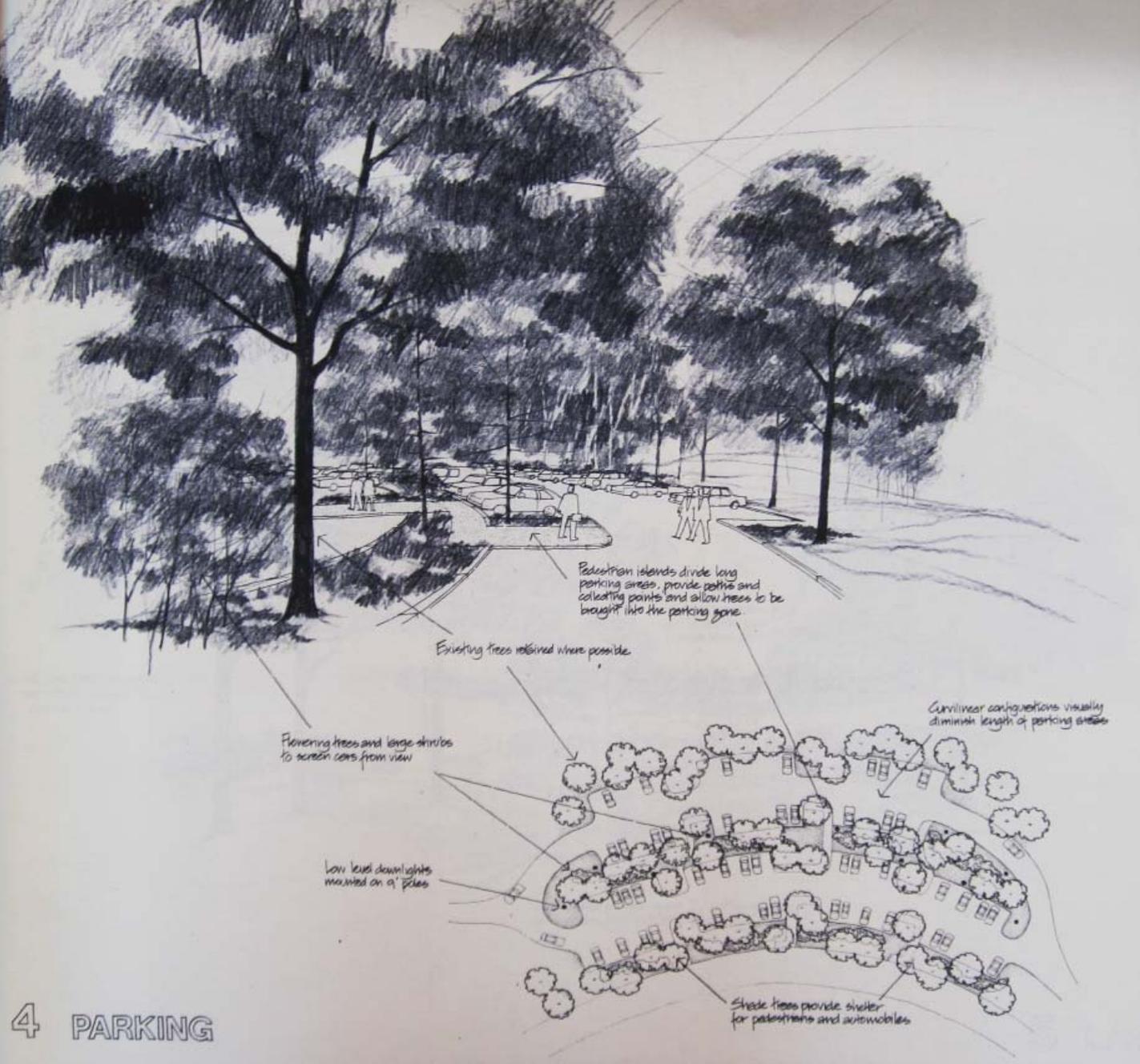
Other seating areas, added additional texture to the surrounding landscape with brick paving. Defined by the variety of colors, shrubs, and flowers surrounding these spaces, these zones featured comfortable seating options with opportunities to move furniture around.

figure 5.21 | above
Sitting Area
Kansas Historical Society
(Skidmore, Owings, & Merrill et al., 1979)



The lawn invited multiple opportunities for a variety of experiences. In this space, active games, quiet sitting, or picnicking could occur with understory plantings dividing spaces and providing wind protection.

figure 5.22 | above
Lawn
Kansas Historical Society
(Skidmore, Owings, & Merrill et al., 1979)



4 PARKING

The total environment experience was considered beginning from the parking areas. With curvilinear parking areas, the visual length of the space was diminished and divided by pedestrian islands. These areas provided paths and collecting points, incorporating trees into the parking zone and screening cars with flowering trees and large shrubs.

figure 5.23 | above
 Parking
 Kansas Historical Society
 (Skidmore, Owings, & Merrill et al., 1979)



figure 5.24 | above
The Main Entry to the Menninger Campus
Kansas Historical Society
(Carlos Diniz Associates, 1980)

figure 5.25 | right
Dr. Roy Menninger at the West Campus Dedication
Menninger Clinic West Campus
Topeka, Kansas
(Kansas Memory, 1982)



chapter summary

The Menninger family has played a great role in the history of Topeka and the advancement of psychiatric practices. The ideals of the first group psychiatric practice focused on using the patient's environment to improve mental health. This institution became a national resource, and the legacy of the institution has continued as one of the best psychiatric practices in the world.





the menninger campus

figure 6.01 | (previous spread)
Slopes Looking North to the Tower
The Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

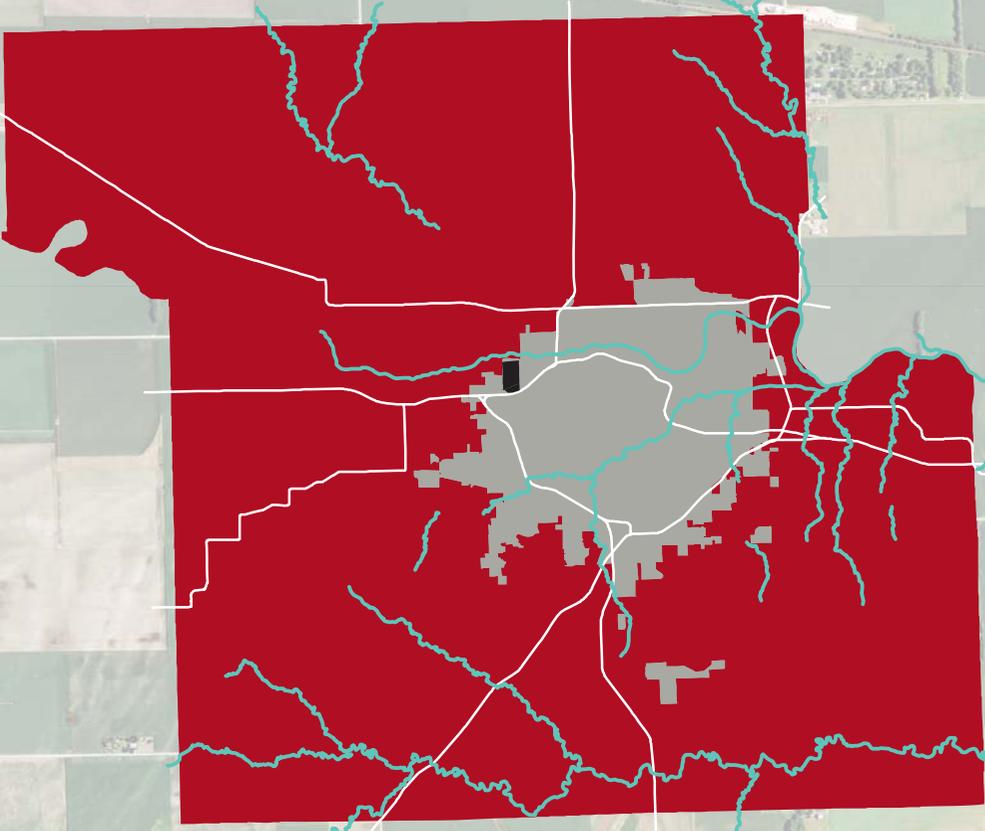
understanding the land

Applying the design guidelines for a restorative memorial to the former Menninger Clinic West Campus puts the goals of restorative memorials into the context of practice. The city of Topeka has lost a strong component of their cultural and historical identity. Developing the former Menninger Clinic West Campus as a restorative memorial is a good opportunity to reconnect Topeka to its past in a valuable way.

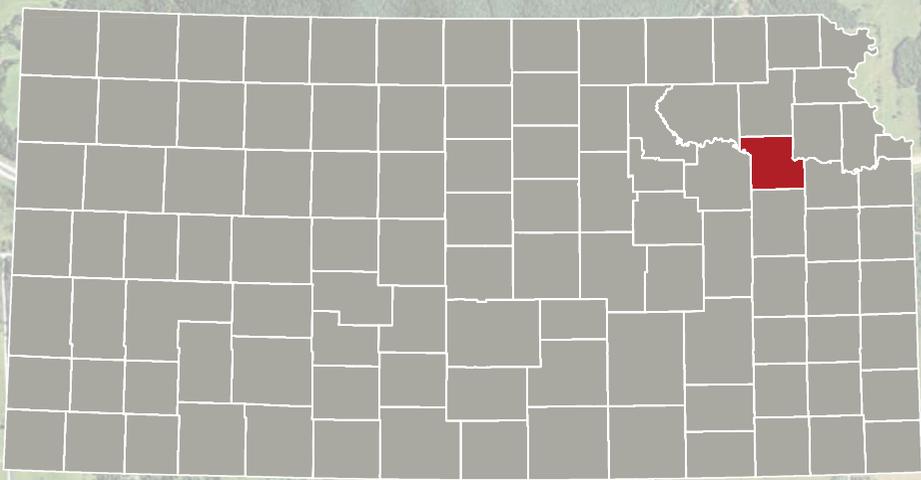
Since the Clinic's relocation to Houston, Texas in 2003, the campus has lain vacant, subject to the demolition of the majority of the campus and vandalism of the historic buildings. Even so, the site still evokes a strong historic and natural character. This chapter will describe and analyze the existing conditions of the former Menninger Clinic West Campus to better understand the physicality of the land and its experience.

site context

The Menninger Clinic West Campus is located in the northwest area of Topeka in Shawnee County, Kansas. The area of interest within the former Menninger Clinic West Campus envelops the crest of a hill overlooking Topeka to the southeast and is bounded by the Kansas (Kaw) River to the north and Interstate-70 Highway to the south.

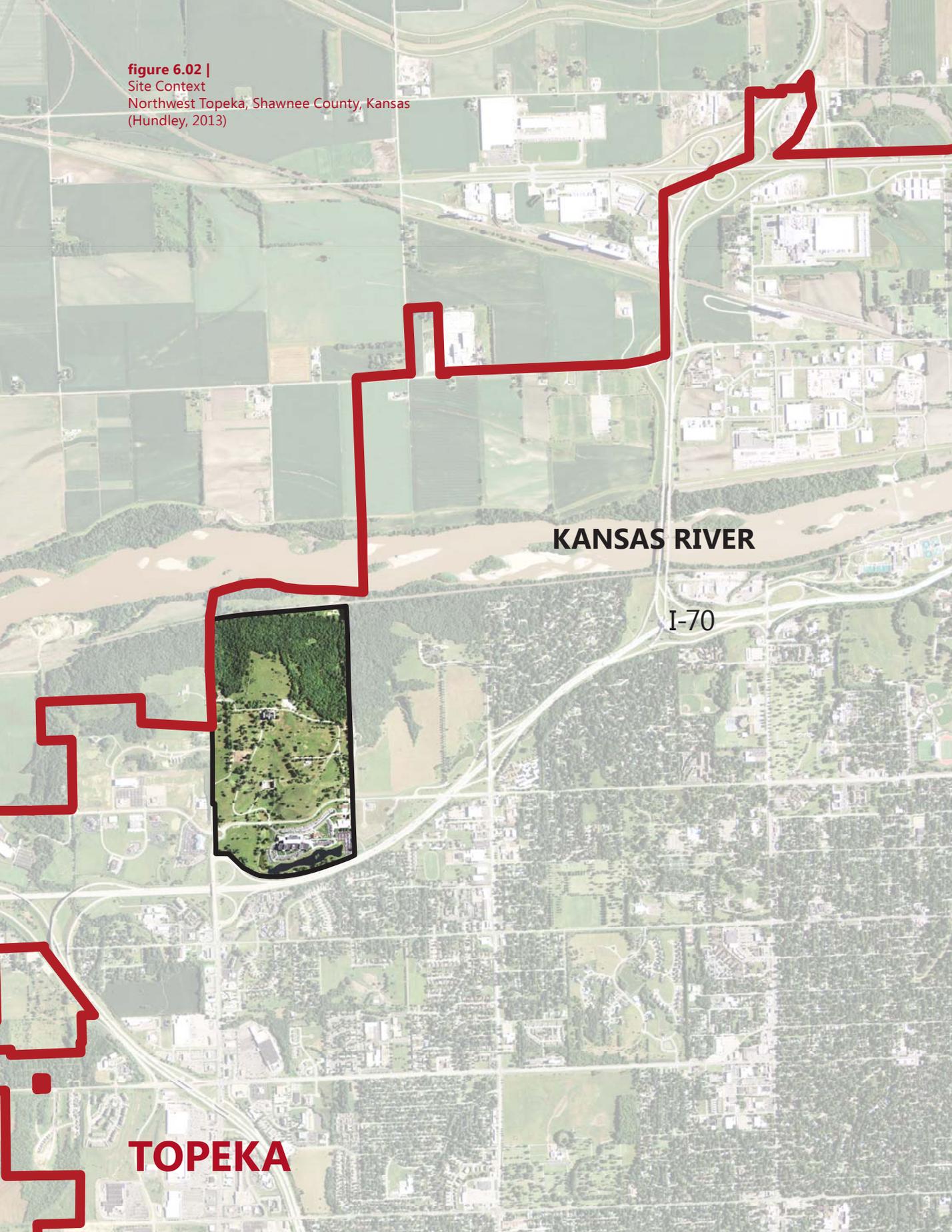


SHAWNEE COUNTY



KANSAS

figure 6.02 |
Site Context
Northwest Topeka, Shawnee County, Kansas
(Hundley, 2013)



KANSAS RIVER

I-70

TOPEKA

KANSAS RIVER

Chicago, Rock Island, and Pacific Railroad

SW Wanamaker Rd.

SW 4th St.

SW 6th Ave.

SW 6th Ave.

I-70

I-70

SW 10th Ave.

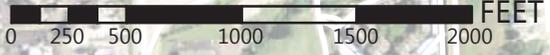




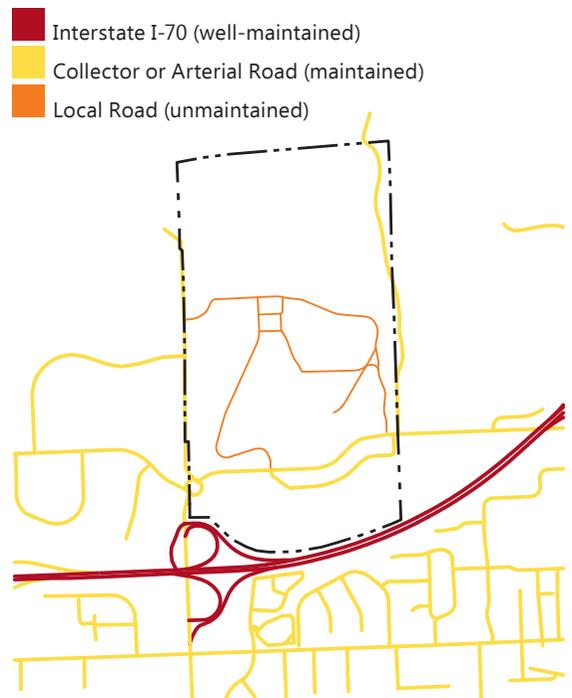
figure 6.03 | left
 Site Infrastructure
 Menninger Clinic West Campus
 Topeka, Kansas
 (Hundley, 2013)

figure 6.04 | above
 Poor Existing Road Conditions
 Menninger Clinic West Campus
 Topeka, Kansas
 (Hundley, 2013)

Infrastructure

The area of interest for this site is bounded by the site's infrastructure. The land encompasses 292 acres of the former Menninger Clinic West Campus. The Chicago, Rock Island, and Pacific Railroad tracks to the north, SW Wanamaker Road to the west, Interstate -70 Highway to the south, and an access road to Kaw River State Park to the east bound the area of interest for the project. The site is bisected by SW 6th Avenue, which separates the vacant former campus from the Security Benefit Insurance Company to the south. Vehicular traffic is prohibited on the former roads and gated, with two entryways off of SW 6th Avenue and a western entrance off of SW Wanamaker Road. The diagram and image show how the roads within the area of interest north of SW 6th Avenue are degrading and unmaintained.

figure 6.05 | below
 Road Maintenance Typologies
 Menninger Clinic West Campus
 Topeka, Kansas
 (Hundley, 2013)



Adjacencies

The land of the former campus is currently vacant, but several key adjacencies could complement the establishment of a commemorative park on this site.

As an important cultural connection to the site, the Kansas Historical Society is located just one mile to the west, housing the State Archives and the Kansas Museum of History. The Kansas Historical Society also features four nature trail loops that surround their property, providing potential for further pedestrian connections to a commemorative park nearby.

The historic buildings existing within the site are the Tower Building, Power House, and Maintenance Building. The Tower Building was added to the National Register of Historical Places in 2005 (National Park Service, 2005). The Georgian architecture emulates Independence Hall in Philadelphia, Pennsylvania and was originally the Security Benefit Association Hospital, which was adapted into the former Menninger Clinic West Campus as a museum and offices (Walton, 2007; The Menninger Foundation, 1980).

Aside from these existing buildings, areas to the west, south, and east have been developed or are in the process of

development. Still in progress, the River Hill Estates Development to the west is currently undergoing the construction of houses on an extension of the former Menninger Clinic West Campus grounds. Other amenities, such as financial, hospitality, education, and healthcare institutions surround the site.

The Security Benefit Insurance Company building complex is just south of the historic buildings and SW 6th Avenue. Even further south of Interstate-70 are many restaurants and hotels as well. Having this variety of amenities set this area up to become a cohesive neighborhood in Topeka's urban fabric.

Despite the development surrounding the site, the land still has a very natural character. The Kaw River State Park encompasses the north-facing hillside oriented towards the Kansas River. The 76-acre park is accessed by a paved road along the eastern border of the area of interest. The park contains one of the only access points to the Kansas River in Topeka, two parking lots, and gravel trails all throughout the forested hillside. The Kansas Department of Wildlife, Parks, and Tourism Region II Headquarters is also located within the area of interest.

KANSAS RIVER

Chicago, Rock Island, and Pacific Railroad

Kaw River State Park

Kansas Dept. of Wildlife and Parks Region II Headquarters

Tower Building

River Hill Estates Development

Landmark National Bank

Power House and Maint.

Cassidy Orthodontics

To Kansas Historical Society

Tallgrass Surgical Center

Rasmussen College

Hyatt Place

Security Benefit

Holiday Inn Express Hotel and Suites

NW Wanamaker Rd.

I-70

I-70





figure 6.07 | left
The Tower Building
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

Relationship to Stakeholders

Stakeholders that are influential in the potential development of this site into a commemorative park include the Kansas Historical Society, City of Topeka, St. Francis Health Center Foundation, the profession of landscape architects and the public.

Through contact with Kate Alexander, the Kansas Historical Society's Menninger Project Archivist, I learned that there are no current plans to build a space to commemorate the Menninger Foundation. She also graciously provided access to many sources that aided in the understanding of the history of the site and the Menninger clinic.

The St. Francis Health Center Foundation is a majority parcel owner on the site. The organization originally intended to develop a health park on the site, but Bill Fiander, Planning Director of the City of Topeka Planning Department, claimed that St. Francis had abandoned these plans (Hooper, 2008; Fiander, 2013).

The former Menninger Clinic West Campus would function strongly as a commemorative landscape, connecting Kansas with its past, as well as become a restorative experience for visitors, improving mental well-being and health. Utilizing this historic land as a model for a restorative memorial would serve as an example for landscape architects to understand this hybrid of memorials and restorative environments as a restorative memorial.

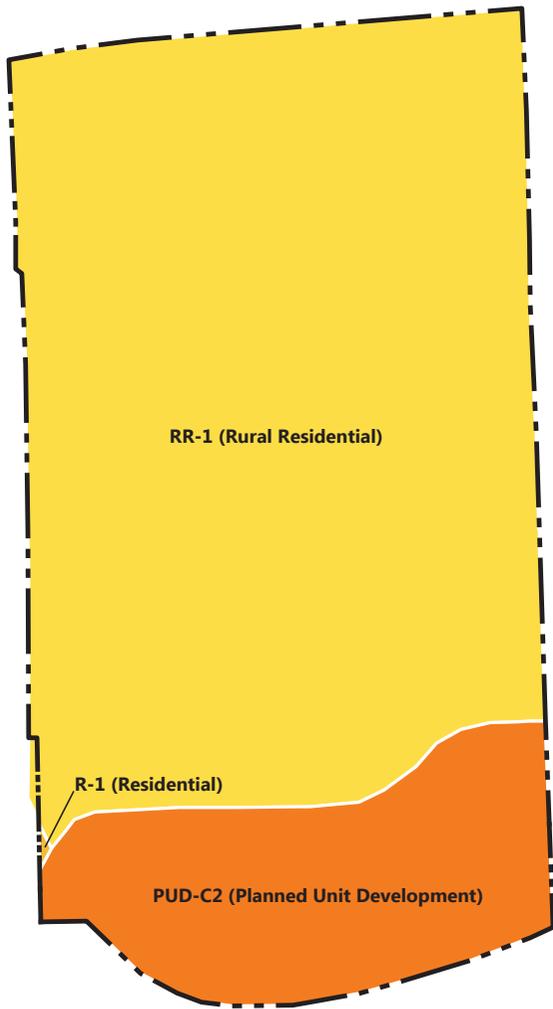


figure 6.08 | left
 Land Use
 Menninger Clinic West Campus
 Topeka, Kansas
 (Shawnee County Public GIS, 2012)

Land Usage

The Menninger Clinic West Campus is surrounded by residential and commercial development. The site is currently slated as Rural Residential (RR-1) north of SW 6th Avenue and as a Planned Unit Development (PUD-C2) to the south (Shawnee County Public GIS, 2012). The Topeka Planning Department’s 2030 Land Use Plan puts the area of interest within an “existing or planned commercial district” for the 2030 Planned Growth Areas. The majority of the site is delineated as a commercial or office area, with the Kaw River State

Park categorized as Parks, Open Space, or Recreation on the 2030 Regional Land Use Map. Within the 2030 Land Use Plan, there is an identified need for conservation parks—areas special-circumstantial, historic, cultural, or social use. As a part of the regional history and with a connection to the Kansas Historical Society and Kaw River State Park, reslating this area as a Conservation Park, would fit within the goals of the Topeka’s 2030 plan (Topeka Planning Department, 2004).

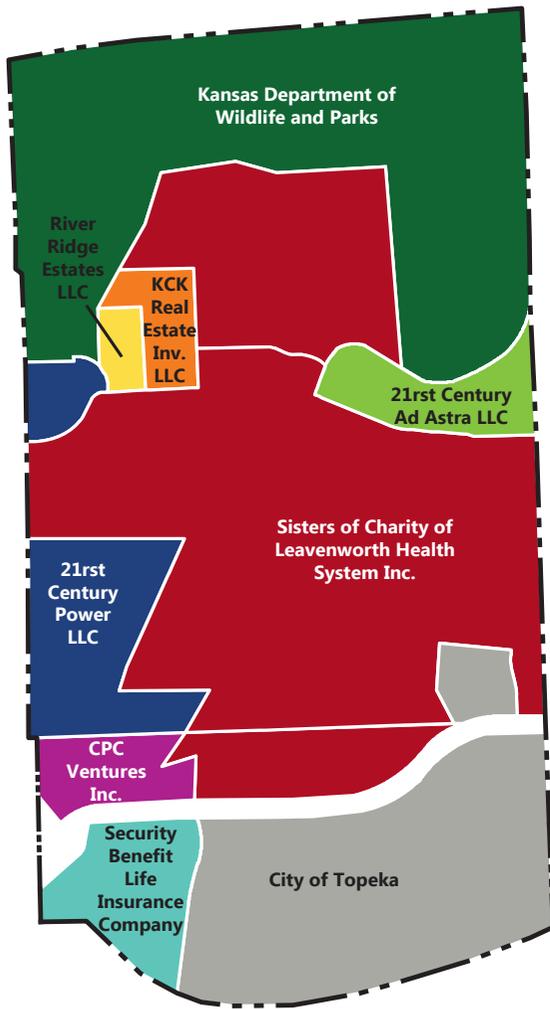


figure 6.09 | left
 Property Ownership
 Menninger Clinic West Campus
 Topeka, Kansas
 (Shawnee County Public GIS, 2012)

Ownership

The Menninger Clinic relocated their facilities to Houston, Texas in 2003. This move was motivated by a research partnership with the Baylor College of Medicine and the desire to be close to its other partners, The Methodist Hospital and the Texas Medical Center (Azevedo, 2011). The campus buildings have sat vacant for the past nine, years, switching ownership between various landowners. The Tower Building served as the centerpiece for the Menninger Clinic, standing as a symbol of the institution. Initially, the Heritage

Preservation Group of Topeka sought to restore the Tower and convert it to into office space and a museum. However, vandalism of the Tower in 2006 caused them to abandon these plans and sell (Walton, 2007).

The parcels predominantly encompassing the former Menninger campus buildings were purchased by the Sisters of Charity of Leavenworth Health System in conjunction with the St. Francis Health Center. This land encompasses 117 acres that have a strong potential to be developed into a commemorative park.

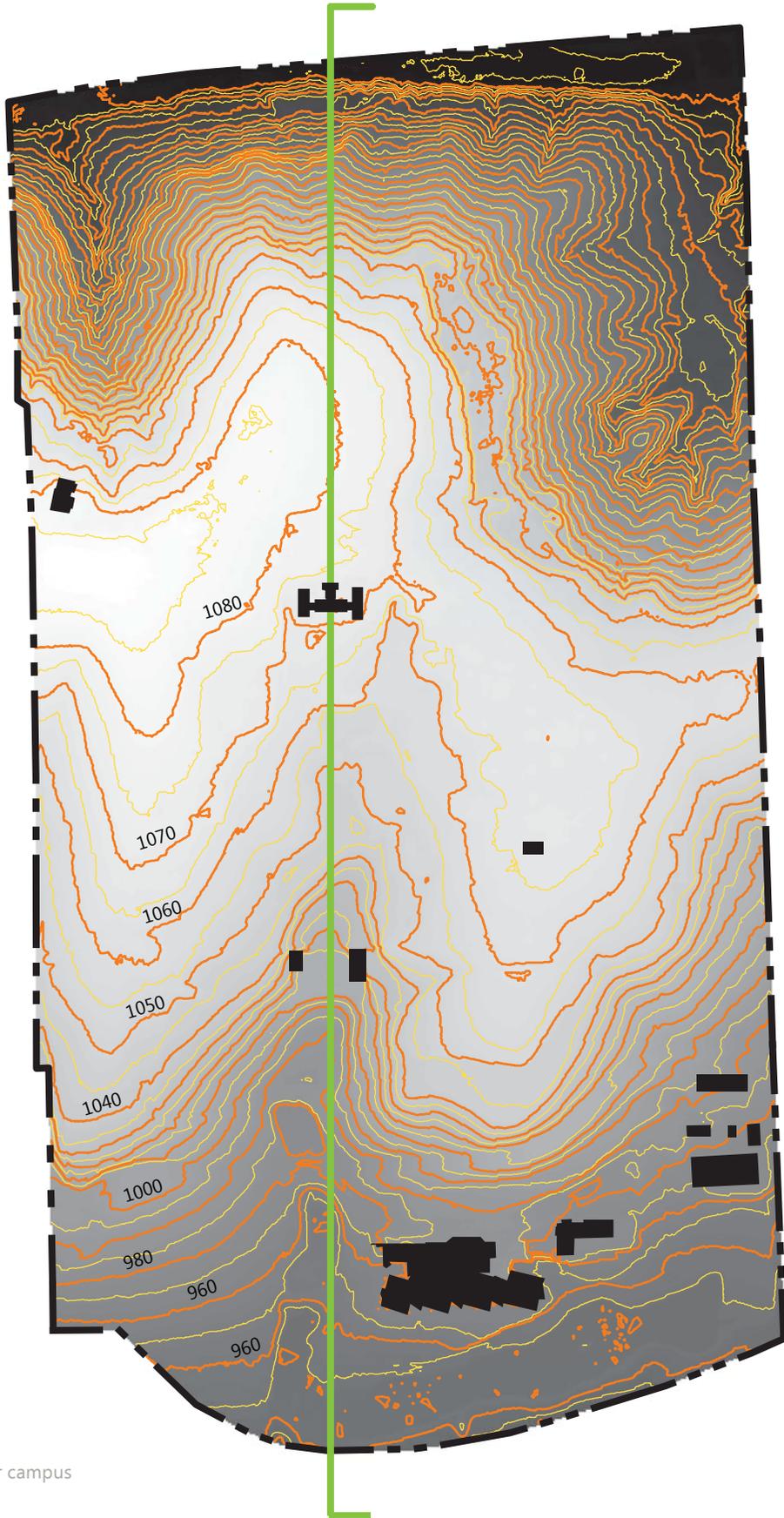


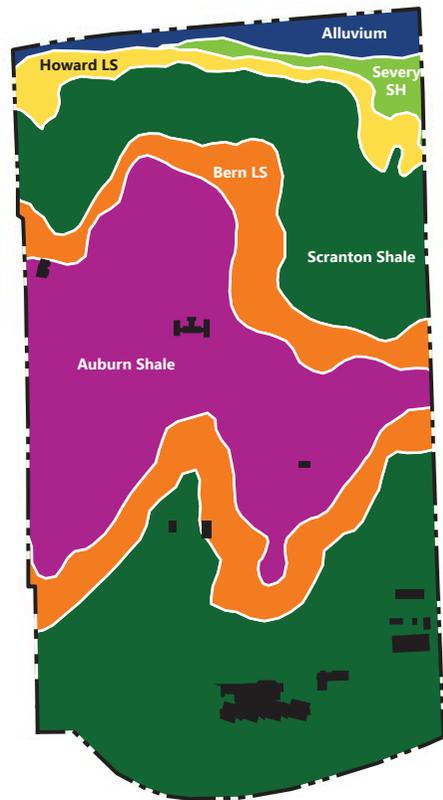
figure 6.10 | left
Site Topography
Menninger Clinic West Campus
Topeka, Kansas
(USGS, 2006)

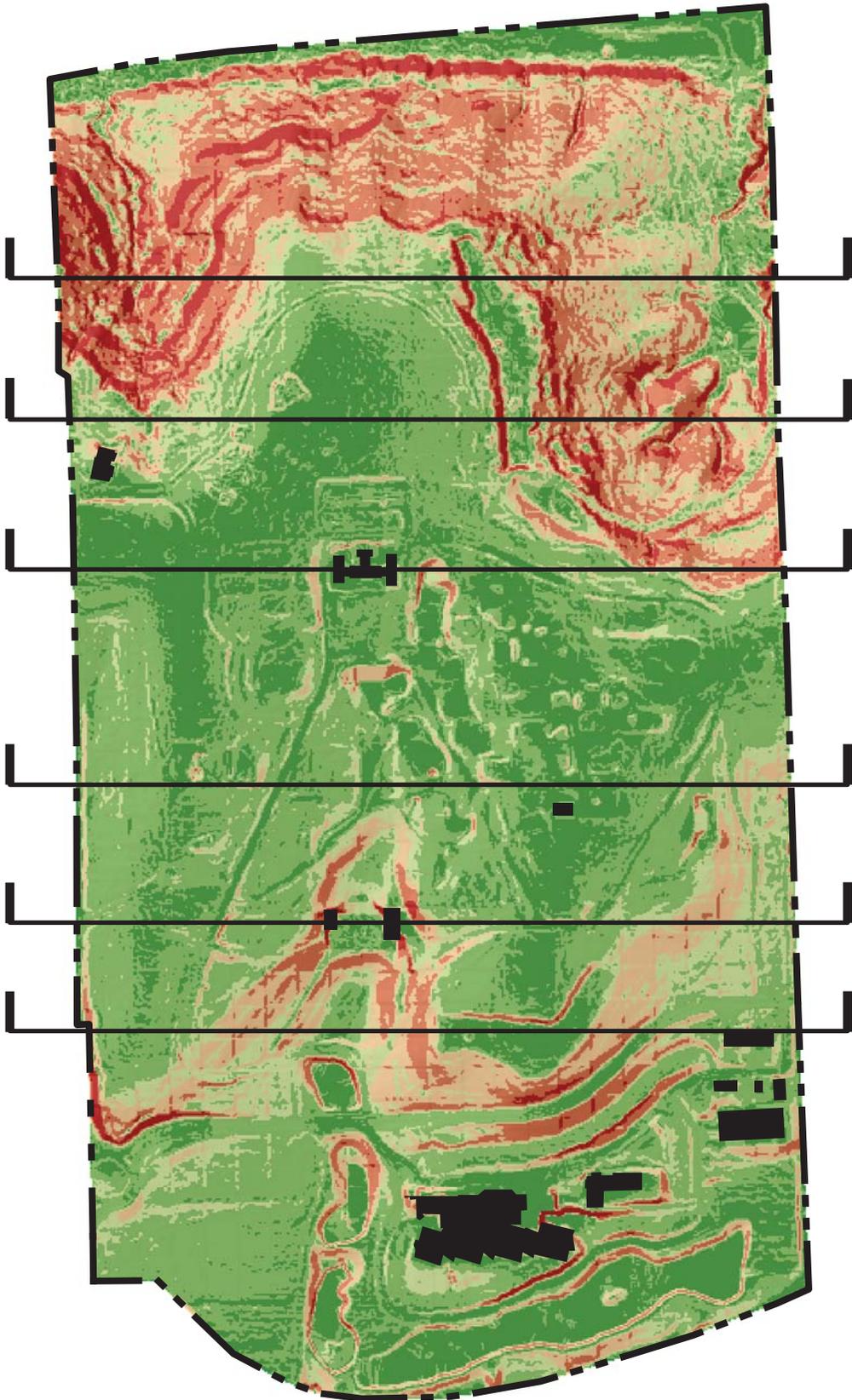
figure 6.11 | right
Native Stone
Menninger Clinic West Campus
Topeka, Kansas
(USDA, 1998)

figure 6.12 | below
North-South Section
Menninger Clinic West Campus
Topeka, Kansas
(USGS, 2006)

site inventory

By examining the topography of the site, the elevations range from approximately 900 to 1100 feet above sea level. The steep slopes are apparent throughout the site, emphasizing the prominence of the Tower Building at the crest of the hill and the two ridges extending to the southeast and southwest of the site. The landforms in this area were formed by glaciers 500,000 years ago, creating the Osage Cuestas within the Central Irregular Plains. These landforms have gentle slopes on one side, and steep slopes on the other. This is due to the geologic composition of the bedrock's layers of limestone and shale on site.





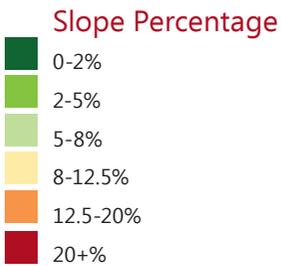
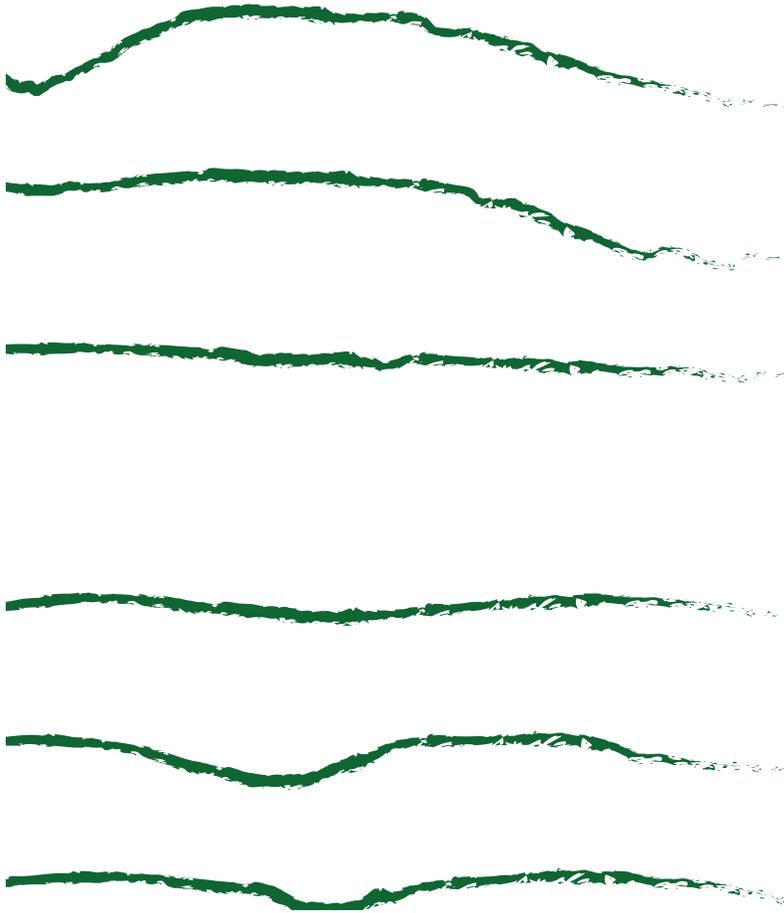
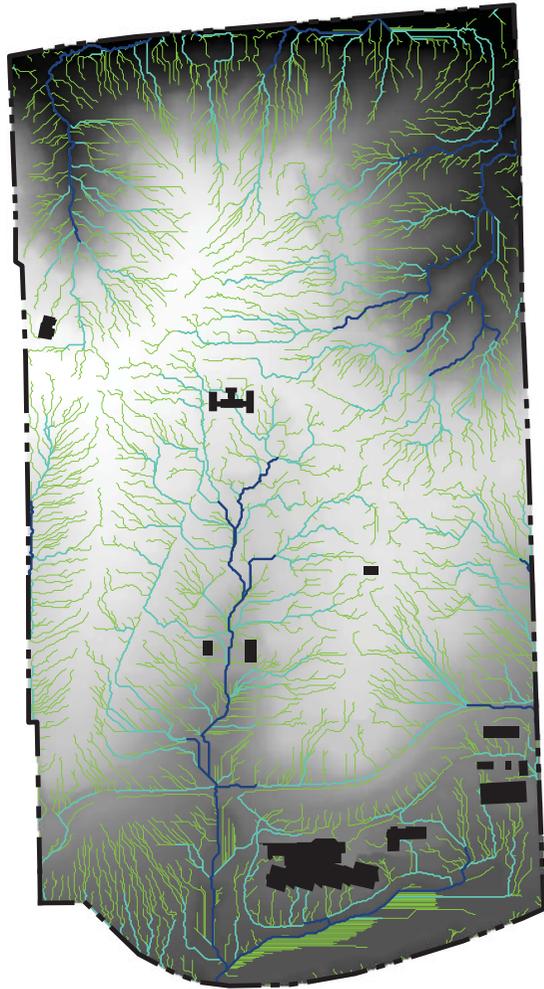
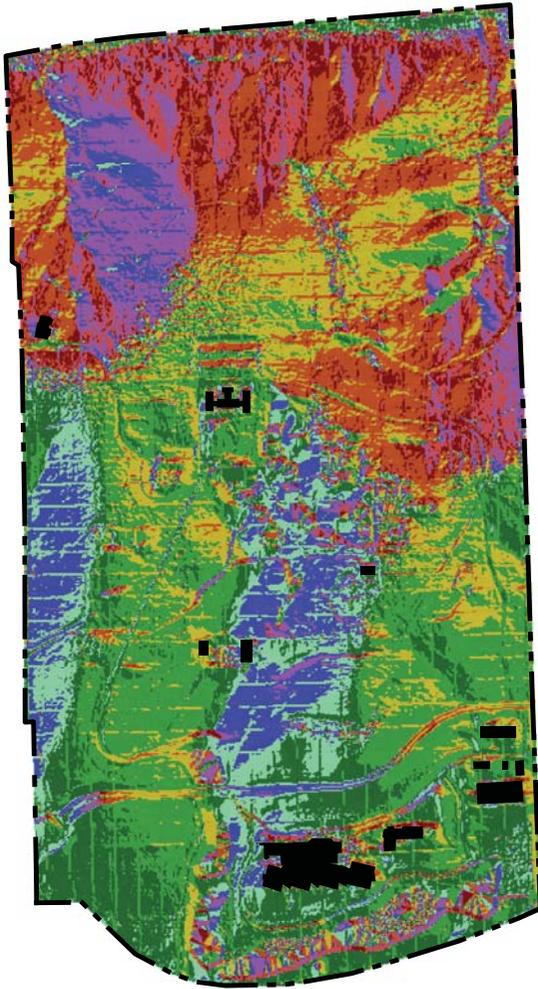


figure 6.13 | left
Slope Inventory
Menninger Clinic West Campus
Topeka, Kansas
(USGS, 2006)

figure 6.14 | above
East-West Sections
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)



Slope Aspect

- North
- Northeast
- East
- Southeast
- South
- Southwest
- West
- Northwest
- North

Hydrology

- 5000 Cell Drainage Line
- 500 Cell Drainage Line
- 50 Cell Drainage Line

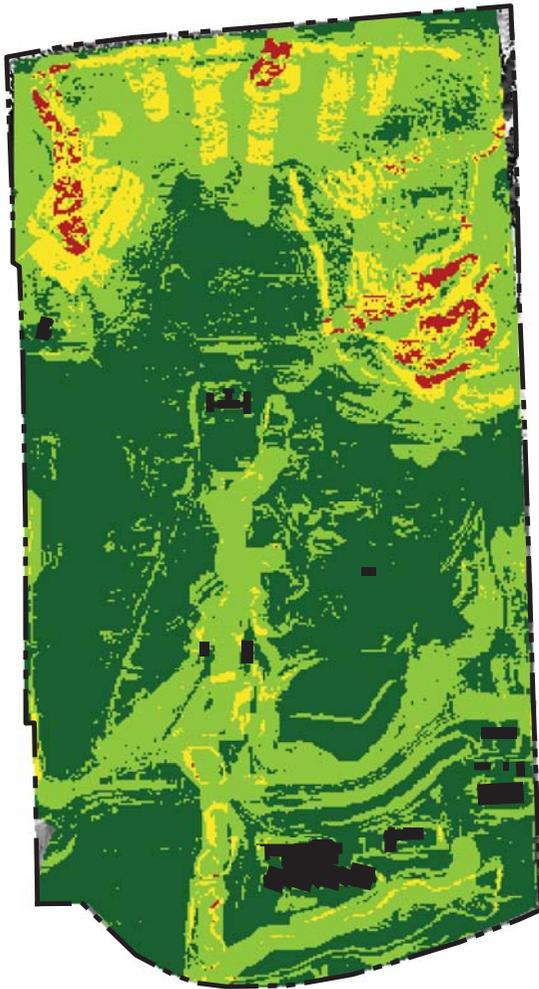
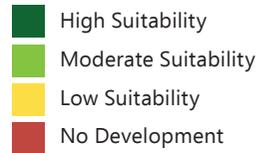


figure 6.15 | top left
Slope Aspect
Menninger Clinic West Campus
Topeka, Kansas
(USGS, 2006)

figure 6.16 | center left
Hydrology
Menninger Clinic West Campus
Topeka, Kansas
(USGS, 2006)

figure 6.17 | lower left
Wind Rose
Menninger Clinic West Campus
Topeka, Kansas
(NRCS, 2003)

figure 6.18 | left
Walkable Suitability
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

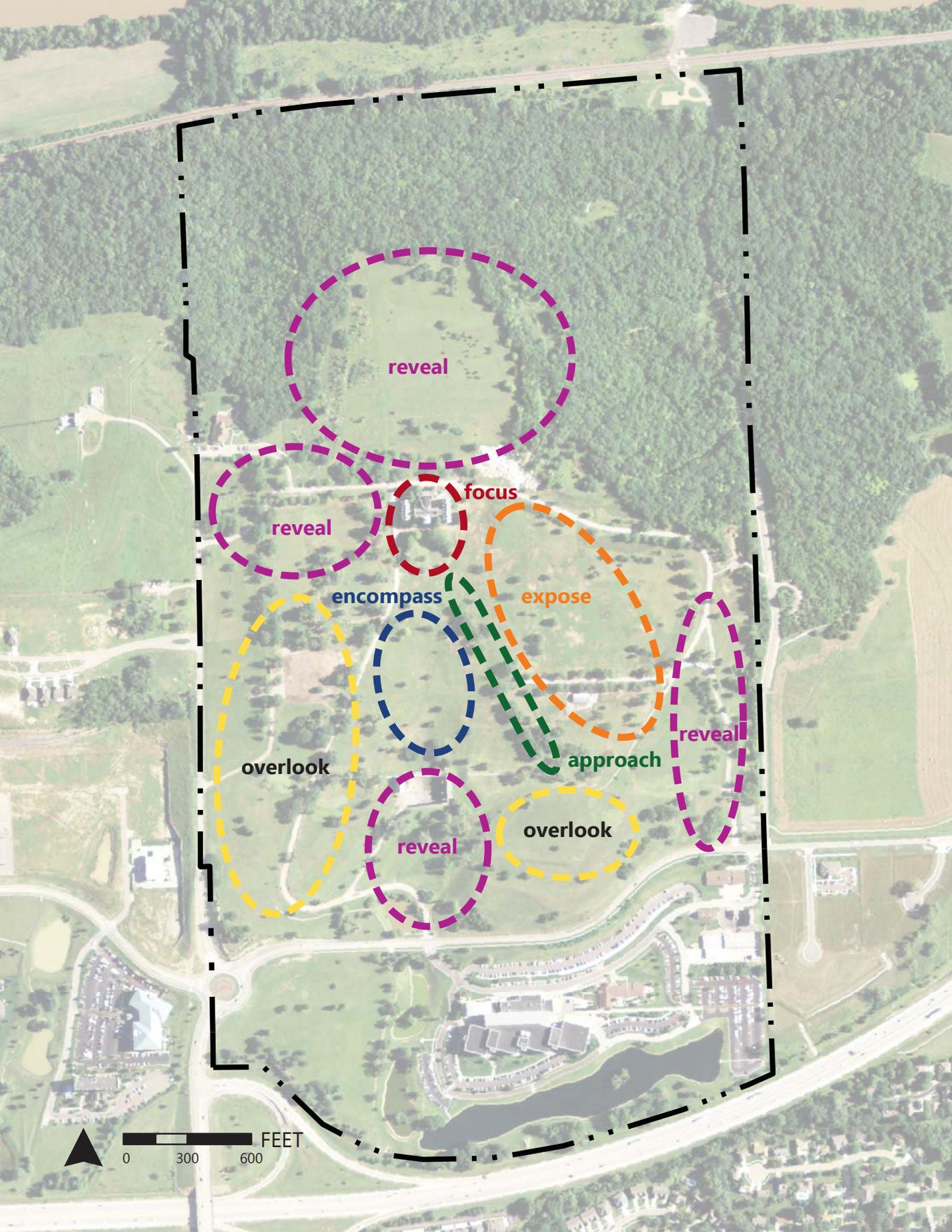


These ridges create eastern and western facing hillsides south of the Tower Building predominantly, and over the northern crest of the hill, those facing north, northwest, and northeast. The direction of these slopes can be seen by examining the surface drainage on the site. The different cell accumulations show the hierarchy and direction of surface runoff. There are no perennial streams onsite, but surface runoff drains both to the south, down the center of the site; and to the north, from the hillcrest to the Kansas River.

After conducting a suitability analysis involving low slopes, southern aspects, and

areas away from high accumulation drainage lines, areas that were suitable for trails and walkways within the area of interest were found to be predominantly focused along these ridge tops.

Due to the elevation of the site in comparison with the surrounding area of Topeka this site will be very prone to wind exposure. By utilizing information from the National Resources Conservation Service, an overlay of wind roses was created to show that the strongest winds come from the northern, northwestern, and southern directions, but the direction of wind varies throughout the year (NRCS, 2003).



reveal

focus

reveal

expose

encompass

approach

reveal

overlook

reveal

overlook



0 300 600 FEET

figure 6.19 | Experiential Zones
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

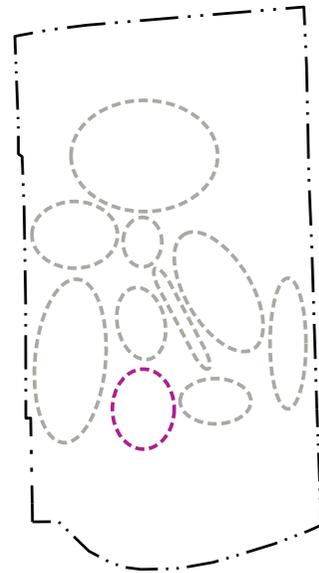


experiential analysis

In addition to understanding the physical, topographical and climatic aspects of the site, it is important to understand the experiences that the site engenders. After reflecting on a series of site visits through photographs and notes, different areas of the landscape were evaluated for their experiential qualities. This was done by condensing the primary experience of the site into a single action verb. The landscape of the former Menninger Clinic West Campus exhibits six experiential zones. It reveals, overlooks, encompasses, approaches, exposes, and focuses.

Reveal

There are four zones delineated as spaces that reveal. Three of these are located at the vehicular entryways to the site and the fourth as the northern meadow over the crest of the hill. These zones act as entries or gateways to the site, exhibiting a sense of wonder through initial glimpses or first impressions of the landscape.



The southernmost zone is located at the major entryway to the Menninger campus. This entryway has the most visual access into the site, beginning as far back as the Interstate Highway Exit 356 onto SW Wanamaker Road. Driving along the highway, one can glimpse the white, stone top of the tower, rising up over the hillside and treetops. When reaching the roundabout at SW Wanamaker Road and SW 6th Avenue, the tower disappears from view due to the steep hillside. However, as the hillside reopens up, the axial relationship between the Tower Building and the former power plant building between the two ridges of the site is revealed. This view is



figure 6.20 | above
Revealing the Tower Building
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

figure 6.21 | right
Revealing the Main Entry
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

clearly framed by the topography and dense pine trees to the right of the entrance. To the left is a small pond, one of a series that continues down onto the Security Benefit Insurance Company's property. Once within the Menninger Clinic West Campus grounds, the pedestrian (vehicles may not enter the site), has two opportunities to move up the hillside. Originally, the campus featured a "Y" intersection in the road, one route rounding the pond and climbing up the western ridge, the other rapidly climbing along the edge of the slope up past the power plant building. Turning to the left features a the still paved road, though

riddled with potholes and weeds, turning along a steeply graded bowl, that previously was the northernmost pond of the series. The route to the right brings the visitor up the unpaved, but evenly graded slope to come just above the main doorways into the former power plant building. All along this route, beautiful views of the power plant building with the tower as a backdrop are revealed. These views encourage one up the hill, inciting exploration and discovery. The former power plant building, now boarded up, encompasses a level concrete slab, which has been overtaken by green growth between the cracks of the asphalt.

reveal



the axis inspires curiosity and drives exploration of the hill beyond

the tower incites you up the hill

1040

1030

1020

1010

1000

900

steeply graded bowl with level basin

key axial relationship between tower building and power plant

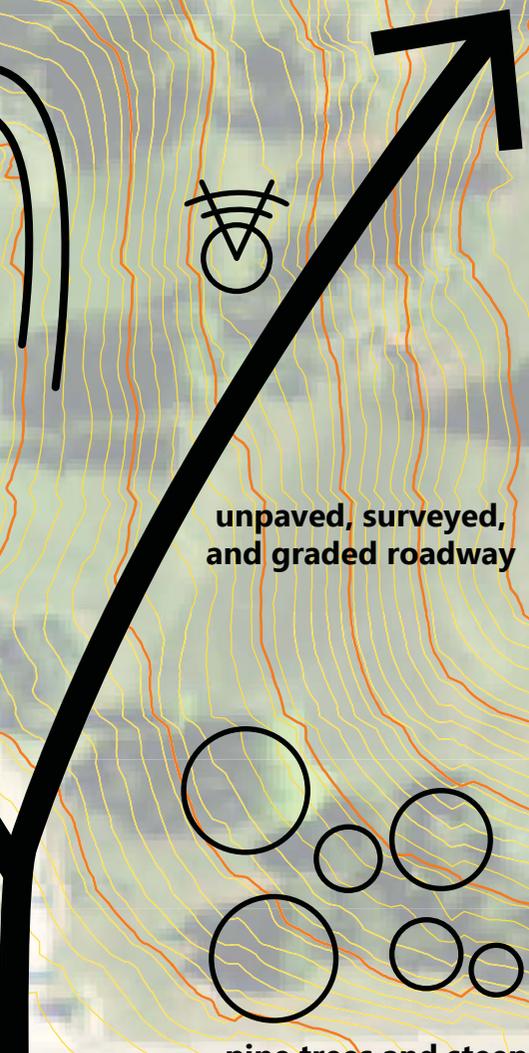
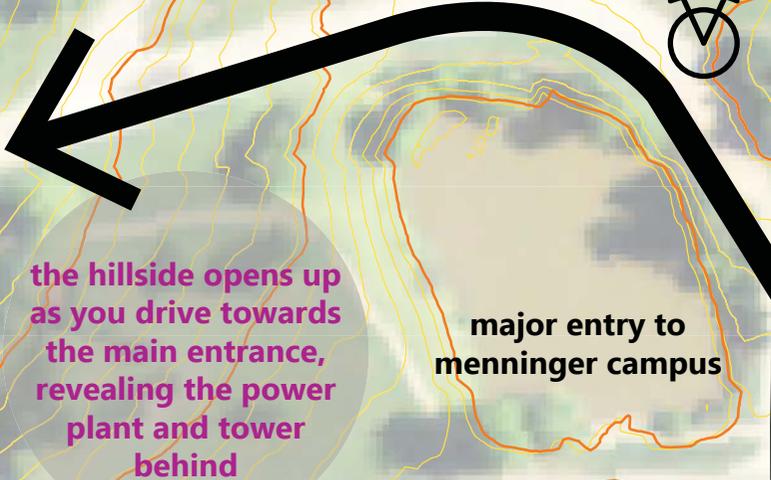
unpaved, surveyed, and graded roadway

the hillside opens up as you drive towards the main entrance, revealing the power plant and tower behind

major entry to menninger campus

pine trees and steep slopes hinder viewshed up the east slope

0 50 100 150 200 FEET



reveal



first view
of site

minor entry to
menninger campus,
alongside access
road to KAW RIVER
STATE PARK

i had no idea
what view
would await
me

breaks in
vegetation
encourage me
on

adjacent parking
for KAW RIVER
STATE PARK

steep and highly
vegetated, enclosing
the road



0 50 100 150 200 FEET

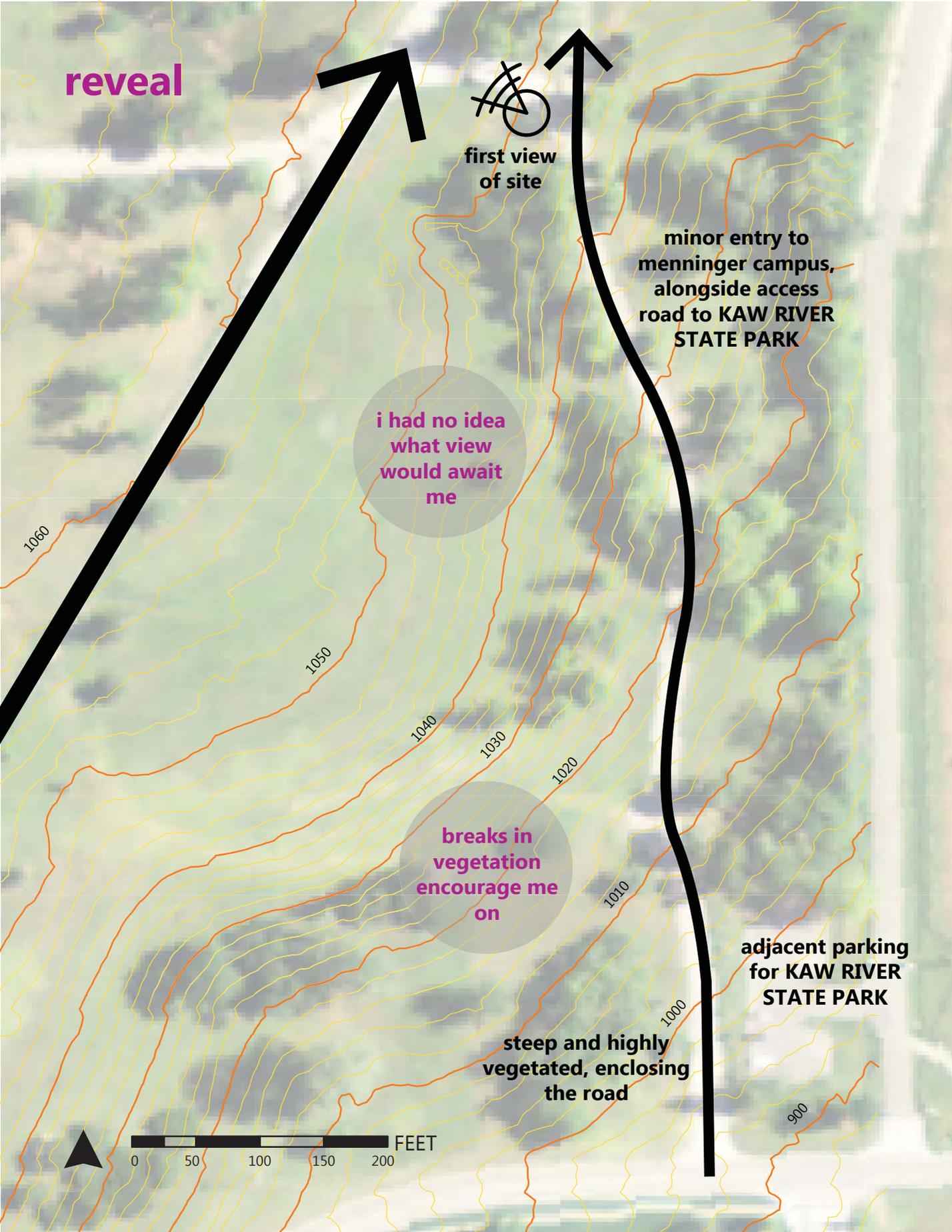




figure 6.22 | left
 Revealing from the Southeast
 Menninger Clinic West Campus
 Topeka, Kansas
 (Hundley, 2013)

figure 6.23 | above
 The Southeastern Entry
 Menninger Clinic West Campus
 Topeka, Kansas
 (Hundley, 2013)

The southeastern entry to the site lies adjacent to the access road to the Kaw River State Park and parking lot. Again, this entrance is gated. As a pedestrian, walking up this roadway offers a sense of mystery, for the steep slopes of the eastern ridge and the dense vegetation make it seem as if one is walking into a forested park. Occasionally, breaks in the vegetation above give glimpses of a grassy hillside and open air. It wasn't until another "Y" intersection mid-way up the hill that the first glimpse of the open fields and Tower Building is possible.

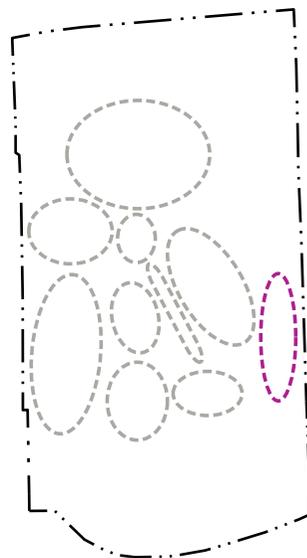


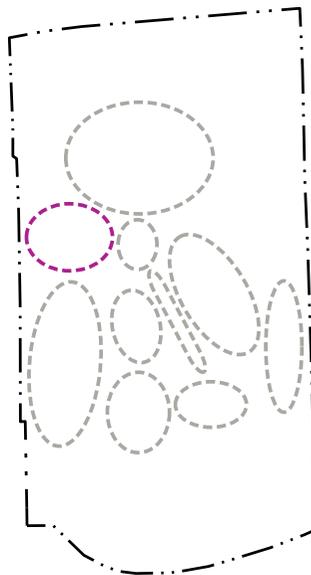


figure 6.24 | above
View from the KDWPT Office
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

figure 6.25 | right
The Western Entry
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

From the western entry to the site, from continuing north around the roundabout and up SW Wanamaker Road, one can enter the Menninger Campus grounds by the road for the Kansas Department of Wildlife, Parks, and Tourism (KDWPT) Region II office. Again, the steep slopes along the edge of the road prevent views into the grounds, though this route is not as enclosed as the southeastern entry. The hillside continues dropping off to the east towards the River Hill Estates Development. Once one comes around the bend, the Tower Building can be glimpsed through the leaves of the trees, only coming into full view on axis with the eastern-sycamore lined avenue. The road tees up with the extension of the left fork of the main entry drive. This road wrapped up the western ridge, following the drainage between the two ridges up

the hillside towards the Tower Building. In addition, the Kaw River State Park Trails come out of the forested area on the north hillside at the KDWPT office.





KDWPT

connection to
KAW RIVER
STATE PARK
trails



reveal

first sight of the
tower is like a
magnet, pulling me
into the site by
grabbing my
focus

minor entry to the
menninger campus
and main entry for
KDWPPPT



first view of
tower from
entering from
west



tower
building

the nondeveloped
nature of
WANAMAKER RD.
incites curiosity and
exploration

view of lawn



the scar of a recently
demolished building
makes me
wonder...what was
here?



distant trains and airplanes punctuate the sounds of the rustling leaves

lowest point of hillcrest with tower no longer visible

lower enclosed clearing

connection to KAW RIVER STATE PARK trails

peace. quiet.

top of tower visible over trees

view across reestablished meadow to top of tower

stand of small trees filter views over hillcrest

immersion within native tall shrubs and grasses

the meadow creates pockets of mystery to explore on the edge of the woods

the hilltop slopes gently along the forest edge, always directing one's gaze back to the tower

clear view of tower with enclosure of trees

compacted gravel lot

connection to KAW RIVER STATE PARK gravel road



0 75 150 FEET



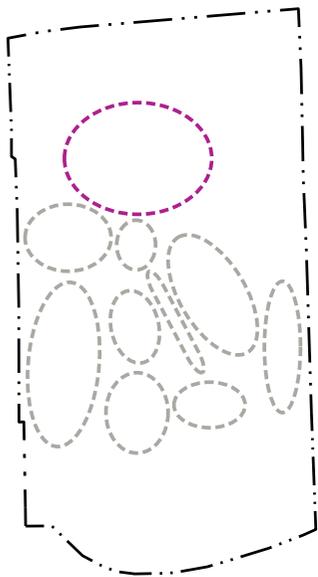
tower building

reveal



figure 6.26 | left
 The North Meadow
 Menninger Clinic West Campus
 Topeka, Kansas
 (Hundley, 2013)

figure 6.27 | above
 Framed View from the Clearing
 Menninger Clinic West Campus
 (Topeka, Kansas)
 (Hundley, 2013)



The final experiential zone that reveals is the meadow over the crest of the hill, facing the Kansas River. This open meadow is for the most part still a greenfield, its only scar from the presence of a former parking lot. This meadow space lies adjacent to the northernmost road on the site. Walking in the open grasses, the hillside gently slopes northward, with the edge of the trees enclosing the space just as it drops off to steeper slopes. Consistently, with the trees at one's back, a visitor's gaze will instinctively be drawn back to the figural Tower Building, consistently being the focal point of the experience. The only view obstruction occurs on the north side of the meadow, where the topography and a small stand of trees filters the views of the tower over the hillcrest. At the northernmost point of the meadow, the Kaw River State Park trail emerges from the trees alongside a small clearing with a direct framed view of the Tower Building. Along the western edge of the meadow are reestablished meadow grasses and shrubs, immersing you in the beauty of the natural landscape as they slowly spread and reestablish. This hiding and reemergence of viewsheds offer a consistent sense of mystery and exploration along the edge of the woods and a sense of openness and freedom along the ridgeline.





The experiential zones that reveal all provide distinct opportunities for the visitor's initial impression of the site. These spaces establish the visual focus as well as incite further exploration and interest in the ground surroundings.

figure 6.28 | top
View over the Hillcrest
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

figure 6.29 | above
View from the Reestablished Meadow
Menninger Clinic West Campus
(Topeka, Kansas
(Hundley, 2013)

overlook

view to tower building and power plant



I have no guide, the open expanse lies before me to walk into



flat grass field with best views of topeka

after the enclosure of the entry experiences, the overlook allows breath



1050

the tower and power plant disappear over the ridge



terraced drop



distant view of capitol dome

1040

the wind caught my back, pushing me along



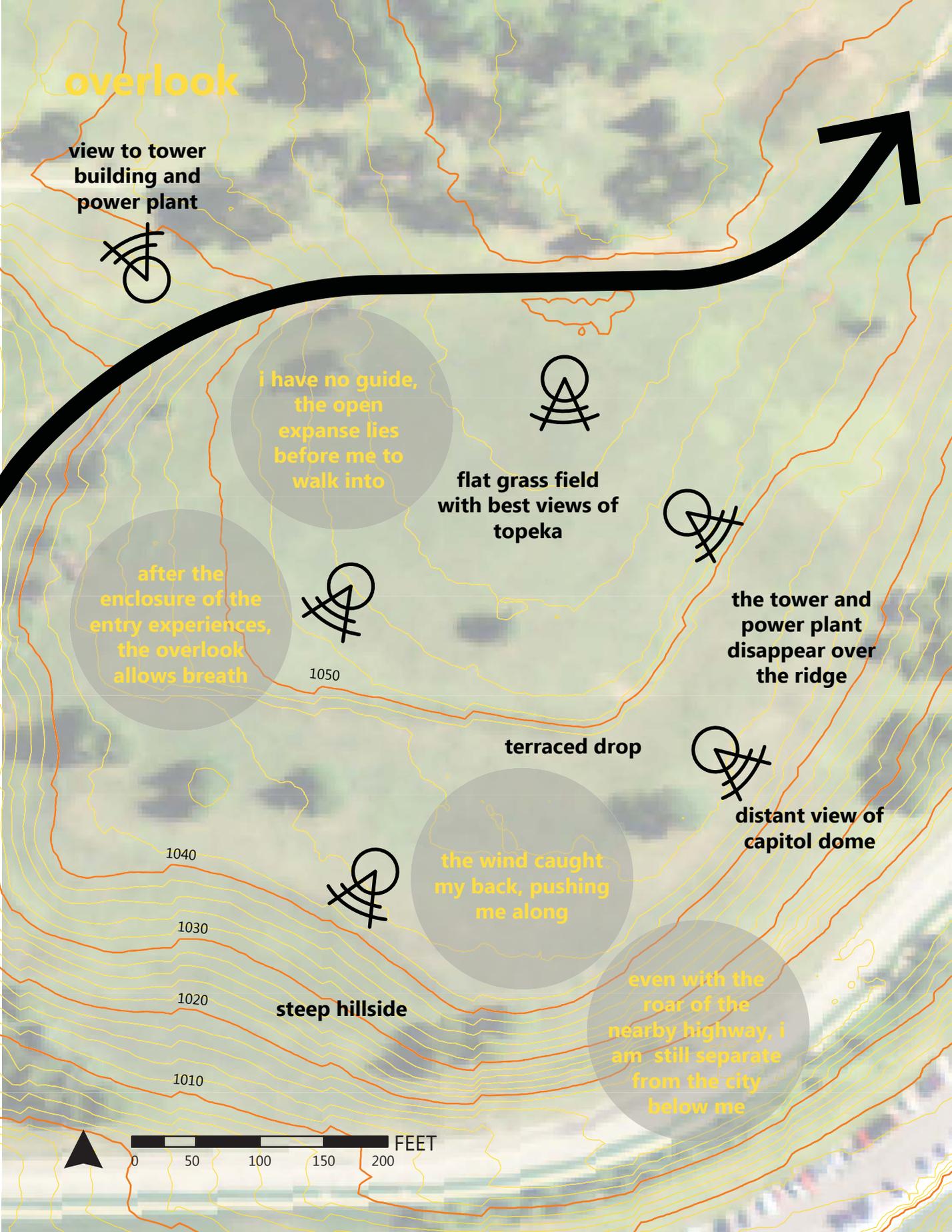
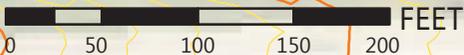
1030

steep hillside

1020

even with the roar of the nearby highway, i am still separate from the city below me

1010





Overlook

The two ridges that extend south from the hillcrest provide the most opportunities for visual connections to the city of Topeka. These spaces create vistas, acting as headlands, or promontories. They inspire the sense of breath or release as one looks at the development of Topeka beyond.

The eastern ridge is accessed by the nonpaved fork to the right of the main entryway. After feeling nestled between the two ridges and hugging the eastern ridge on way up the slope, the overlook unfolds the skyline to the south, allowing a clear view. The Kansas State Capitol Dome is just visible on the eastern horizon. The pine trees are small or mainly below on the slope edge, thus unobstructing in the viewshed. This flat grass field acts as a two-leveled terrace.

figure 6.30 | left
The Eastern Overlook
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

figure 6.31 | above
The Eastern Ridge's Panoramas
from top: view north, southeast to Capital, and south
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

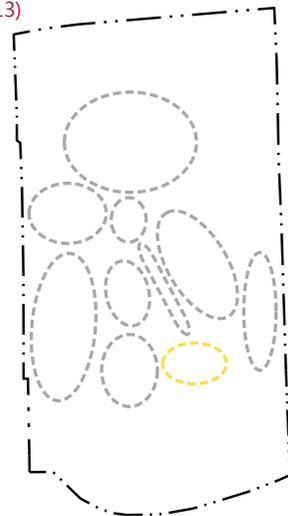
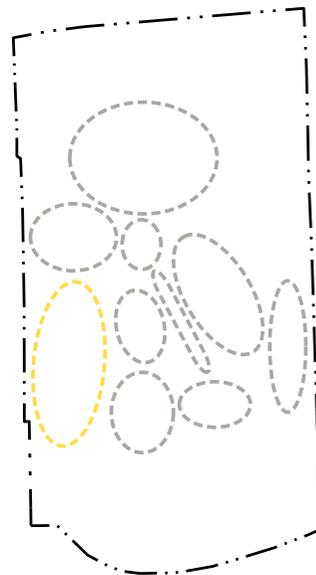


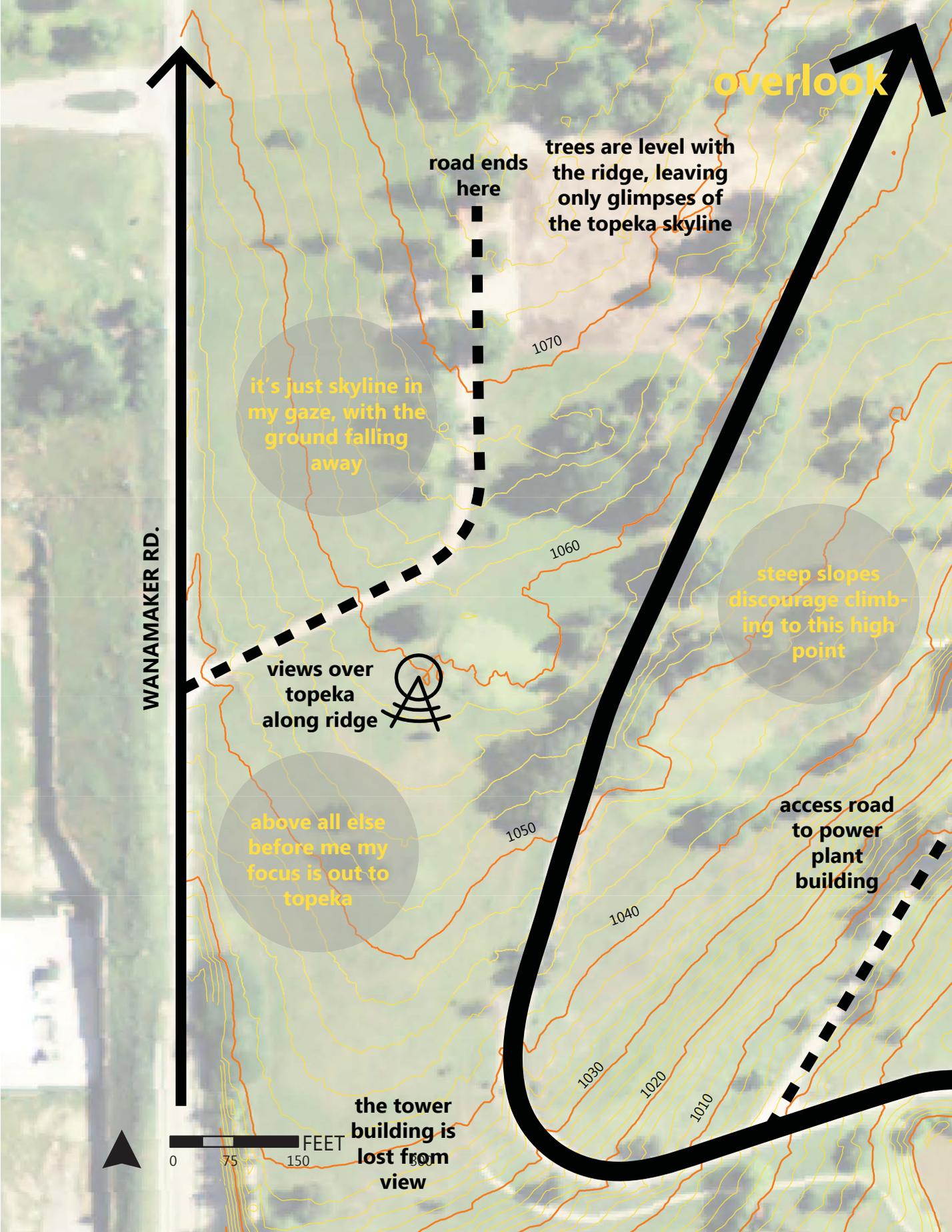


figure 6.32 | above
I-70 from the Western Ridge
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

figure 6.33 | right
The Western Overlook
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

The western ridge is accessed from the left fork of the main entryway. Before the road bends up the ridge, it is met by an access road to the power plant building. This roadway aligns just downslope of the ridgeline. The steeper slopes along this ridgeway are discouraging to the pedestrian, but the promise of the views above incite curiosity to climb higher. There is an additional road access off of SW Wanamaker Road, but it terminates at the site of a demolished building and does not connect to the existing roads.





overlook

trees are level with the ridge, leaving only glimpses of the topeka skyline

road ends here

it's just skyline in my gaze, with the ground falling away

steep slopes discourage climbing to this high point

views over topeka along ridge



above all else before me my focus is out to topeka

access road to power plant building

the tower building is lost from view

WANAMAKER RD.

0 75 150 FEET

encompass



tower building

**central axial view
between power plant
buildings to topeka**



deep dip



**i could run,
sit, explore,
gaze...**



**slopes come
to a central
drainage**

**the most comforting
space onsite, with
the hill to my back
and views ahead**

**extremely steep slope
at drainage terminus**



high wall



**former
power
plant**

0 75 150 FEET





figure 6.34 | left
The Central Drainage
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

figure 6.35 | above
Encompassing Views
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

Encompass

The next type of space is shaped by the drainage way between the two ridges. This space acts as a hillside, a viewshed, or a harbor. Framed by the tree-lined roadways and topography, this bowl-like area directs ones attention to the axis between the Tower Building and the former powerplant. This space is a comforting one, providing clear boundaries and enclosure simply by the topography and avenues of trees. The deep dip of the contours south of the Tower Building, create the point where the two ridges meet. This central drainage then meanders down to another steep slope that terminates in the high retaining wall of the former power plant.

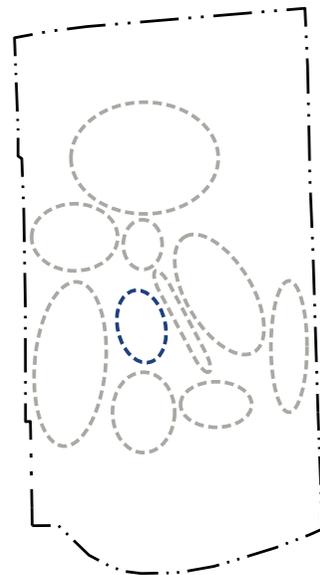
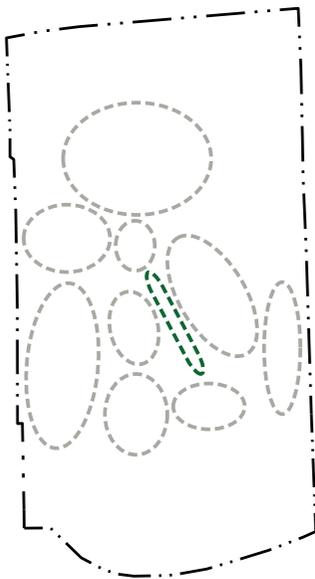




figure 6.36 | above
 Pecans on the Pedestrian Avenue
 Menninger Clinic West Campus
 Topeka, Kansas
 (Hundley, 2013)

figure 6.37 | right
 The Approach to the Tower Building
 Menninger Clinic West Campus
 Topeka, Kansas
 (Hundley, 2013)



Approach

Still existing onsite is a space that clearly approaches the Tower Building, providing direction and guiding the visitor forward up the hillside through an avenue of pecan trees. This diagonal axis is clearly delineated by the trees, but is no longer paved. However, the smaller, paved east- west axis meets this approach mid-way up the hillside. This space creates a direct viewshed framed by the vegetation, exemplifying the Tower Building as the focus of the site.

approach

direct relationship with the tower of the tower building

the trees give a sense of enclosure by framing spaces within the axis and edging spaces outside

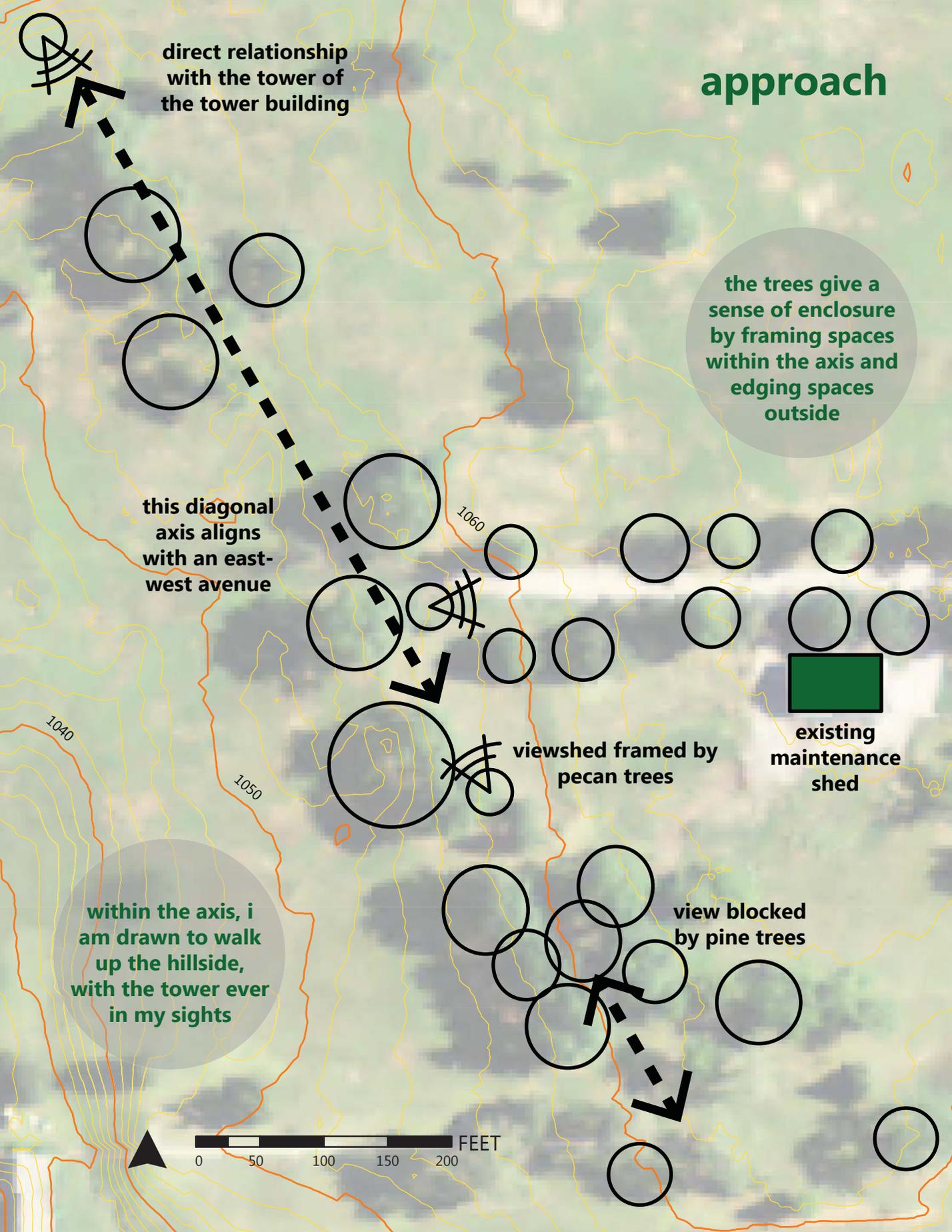
this diagonal axis aligns with an east-west avenue

viewshed framed by pecan trees

existing maintenance shed

within the axis, i am drawn to walk up the hillside, with the tower ever in my sights

view blocked by pine trees



expose

steep grade down to the riverbank

1070

the landform dips and rolls

road is lined with eastern sycamore trees

1060

occasionally remnants of brick are unearthed in the smooth, but scarred slope

gentle grade towards hillcrest and tower building

the ground seems unchanging, unbroken by trees or pathways

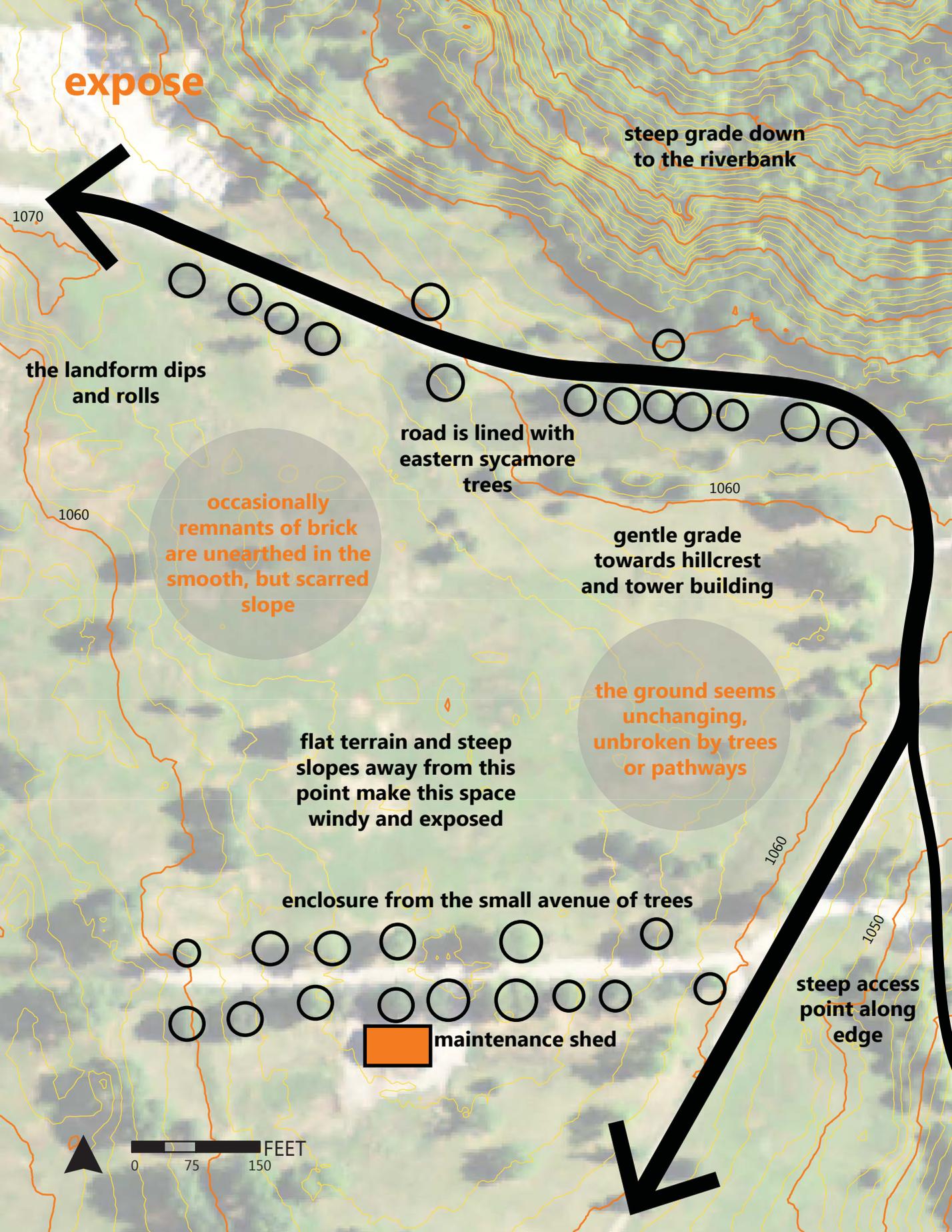
flat terrain and steep slopes away from this point make this space windy and exposed

enclosure from the small avenue of trees

maintenance shed

steep access point along edge

0 75 150 FEET





Expose

Just north of the approach is a more level, exposed hillside. This space is where the majority of the former Menninger Clinic buildings were located. The demolished buildings now are only scars in the hill slope, with slight changes in grass delineating where they once stood. All that remains are an occasional brick or pipe sticking out of the ground, suggesting that something else was once there. This space seems to echo with emptiness. Because the majority of the visitor's previous experiences of the site have been characterized by steep slopes, this more level ground seems highly exposed due to the lack of windbreaks on the gentle grade up the hillside towards the Tower Building. The space is visually enclosed by the avenues of trees, with the diagonal axis of pecans to the west, the smaller pecan avenue to the south, and the primary circulatory route lined by eastern sycamores wrapping along the forest edge.

figure 6.38 | left
The Exposed Hillside
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

figure 6.39 | above
The Former Campus
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

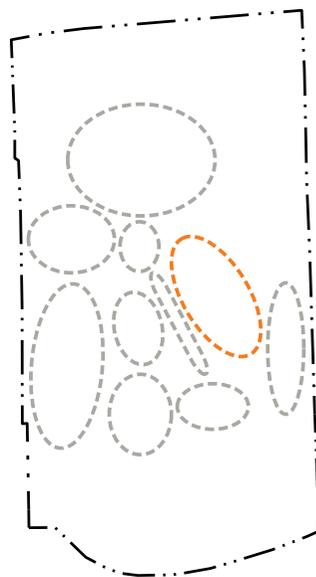


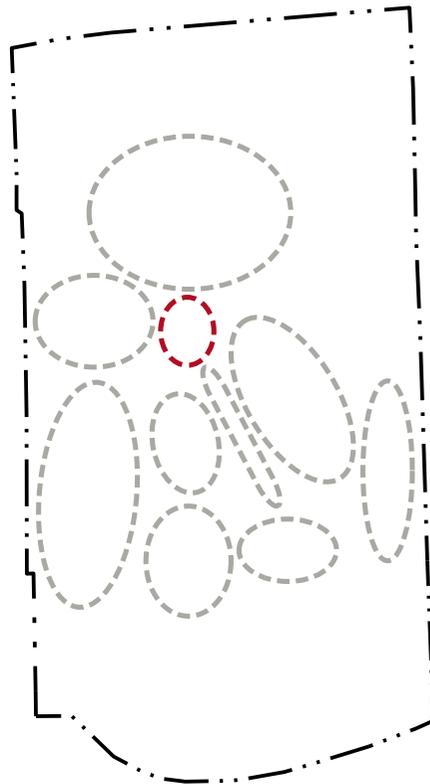


figure 6.40 | above
Views of the Entry Plaza
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

figure 6.41 | The Icon of the Campus
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

Focus

The last zone on the site has been visually apparent across all of these experiential zones. The Tower Building serves as both the highest point of the hill and as the symbolic icon for the place. All views are either oriented to or from the Tower out to the city or surrounding forest. The fact that the top of the tower can be seen from the surrounding landscapes makes this space the identifying, key area of the site. The former landscape design utilized this, by keeping the roads to the ridges and allowing clear visual access to the site through the framing of tree avenues. The land just south of the building forms



focus

**boarded up windows
and fenced off
doorways do not
detract from the stoic
nature of the building**



**brick walkways
surrounding
building are
characteristic of
the architecture**

**trees frame this
space adjacent to
the building's
main entrance**

**the even slope
accentuates the
iconic nature of
the building**

**one is drawn to
this space from all
areas of the
campus**

**views south
across the
campus from
plateau of space**

**the top of the tower
can be seen even
from the highway in
the surrounding
landscape**

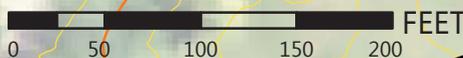






figure 6.42 | Standing Level with the Tower Building
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

a sort of plateau, before dropping off into the encompassing space below. This even landing with a broken circle of trees not only frames the tower, but distinctly confirms the iconic nature of this building. The walkways surrounding it are paved with bricks, reflecting the Colonial Revival style of architecture, based upon Georgian influences.



figure 6.43 | View from the Encompassing Slope
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

chapter summary

In all, these spaces better define how the site can be characterized on a broader scale by the visitor through both a physical and experiential analysis of the site. The landscape experience is varied throughout the site, revealing views, overlooking the city, encompassing the visitor, and approaching the iconic focus of the site, all while passing the exposed hillside of the former Menninger Clinic buildings.





**design
application**

figure 7.01 | (previous spread)
View from the Pedestrian Avenue
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

design approach

The former Menninger Clinic West Campus is a fitting site for a restorative memorial, for the design guidelines can be applied to a place that has both historical and psychological significance. Topeka draws a great part of its historic identity from the national importance of the Menninger's innovations in the psychiatric and behavioral health field. As a commemorative park, the former campus would illustrate the importance of the Menninger legacy of Topeka, while

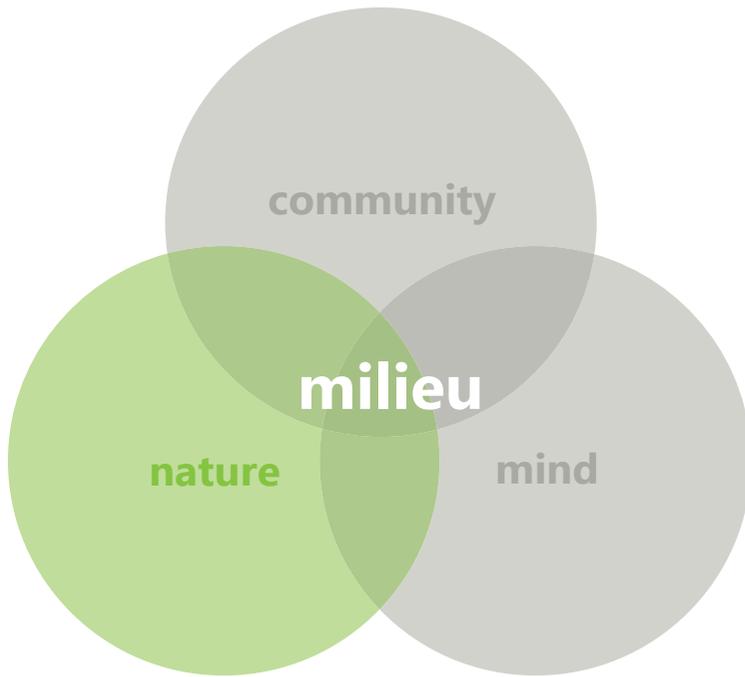
serving as a public space to aid in the restoration of mental well-being. The approach to developing the master plan for this commemorative park—serving as a restorative memorial—will be to utilize the historical context of the land and its physical experience as inspiration. This inspiration will form the framework for incorporating the restorative memorial design guidelines into the former Menninger Clinic West Campus.



figure 7.02 | Overlaying Milieu Therapy with the Design Guidelines for a Restorative Memorial
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

conceptual vision and framework

The Menninger Clinic utilized milieu therapy to improve the mental well-being of their patients. This method encouraged positive environmental and social interactions in the patient's total environment to improve mental health. Inspiration for the development of a commemorative park master plan fits well within this concept, for the total environment experience can be understood as a connection between nature, the community, and the mind. These concepts also overlay with the design guidelines for restorative memorials, understanding the importance of the natural environment, the community's establishment of cultural identity and meaning through collective support, and the improvement of mental well-being through the alleviation of stress.



milieu therapy on the menninger campus

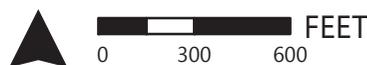
nature

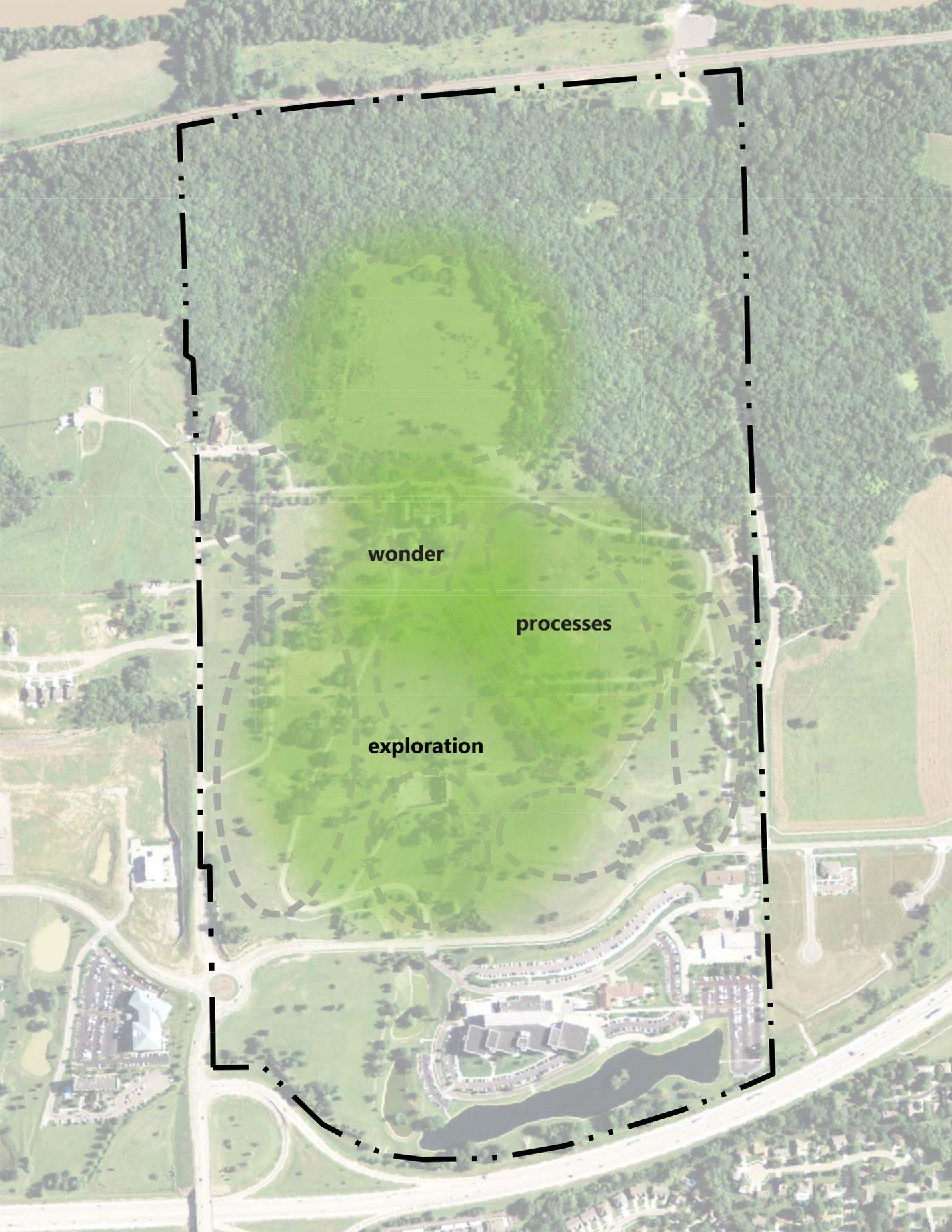
The potential for milieu therapy is apparent throughout the experiential zones of the site. The former campus' natural character dominates through exploration, wonder, and natural processes. The dynamic topography and cadences of vegetation from sparse to dense and from formal to natural create variety throughout the site. As one traverses the slopes of the hillside's ridges, a constant need for further exploration encourages one in pursuit of key vantage points or perspectives from the campus out to the greater landscape of Topeka. There is a sense of wonder, standing at the former entry plaza of the Tower Building, seeing the avenues of pecan trees approaching the

building, without the former delineation of a roadway. The hillside to the east shows the strength of nature, as the processes of reestablishment overtake the scars of the former building footprints.

figure 7.03 | above
Nature in Milieu Therapy
(Hundley, 2013)

figure 7.04 | right
Characteristics of a Natural Experience
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

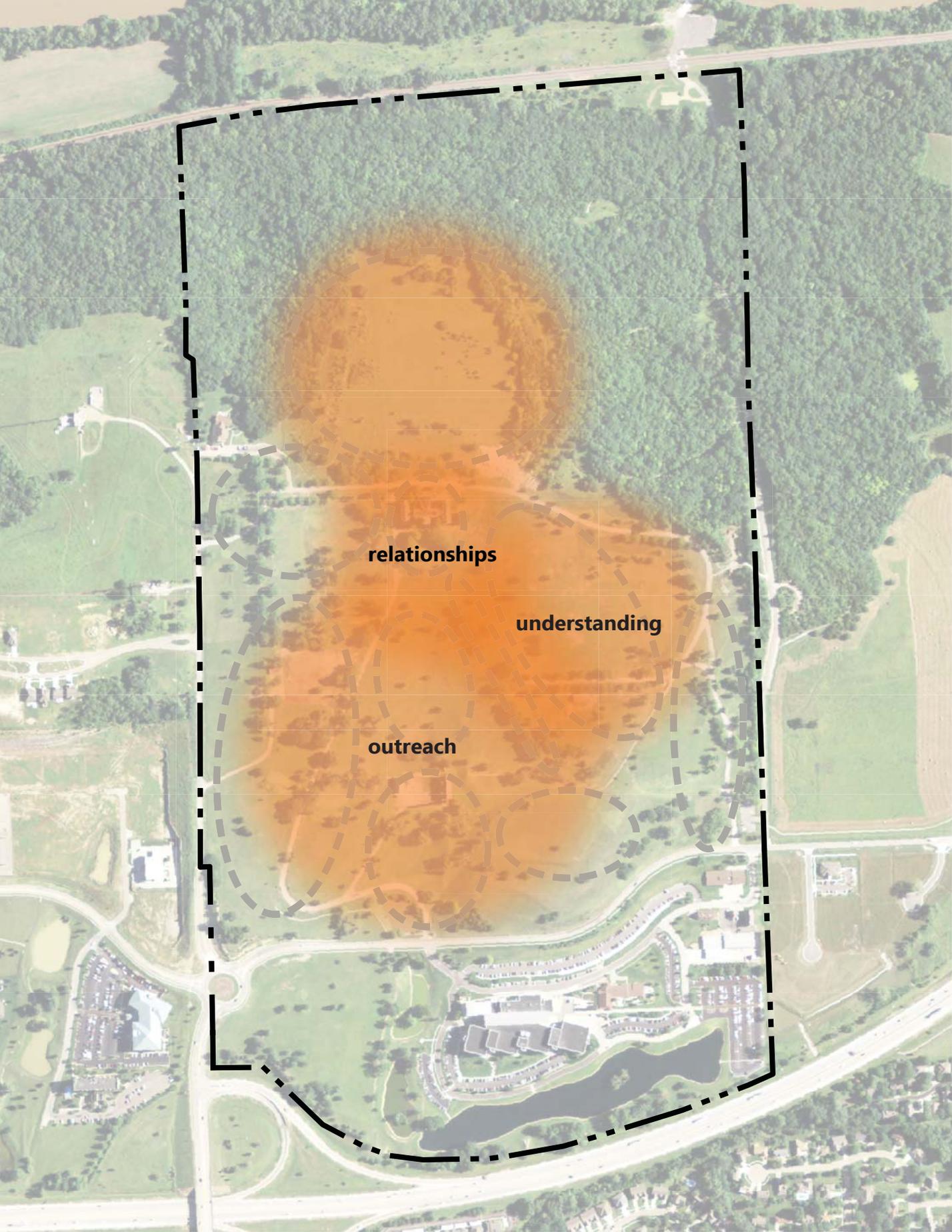




wonder

processes

exploration



relationships

understanding

outreach

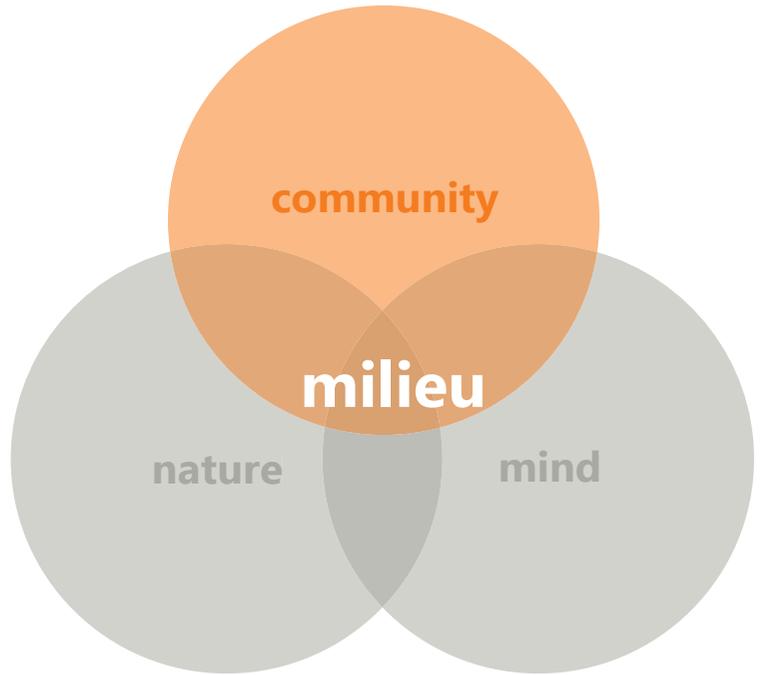
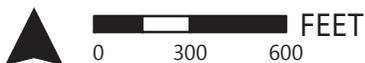


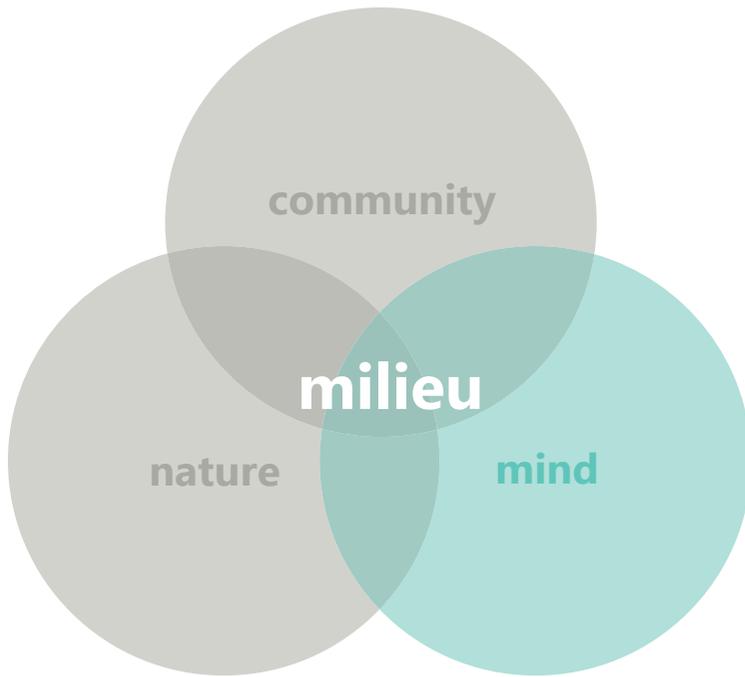
figure 7.05 | left
 Characteristics of a Community Experience
 Menninger Clinic West Campus
 Topeka, Kansas
 (Hundley, 2013)

figure 7.06 | above
 Community in Milieu Therapy
 (Hundley, 2013)

community

The aspect of community is established through the ideas of outreach, relationships, and understanding. The ridges, entries to the site, and central drainage all feature key views that extend either towards the iconic figure of the site—the Tower Building—or extend outwards to the Topeka skyline. At the Tower Building, we are reminded of the relationships that have taken place within this building throughout its history. Across the exposed hillside, the search for remnants of the footprints pursues an understanding of what the patients, staff, and community experienced while the clinic was in its prime.



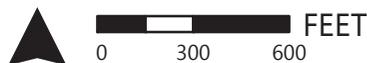


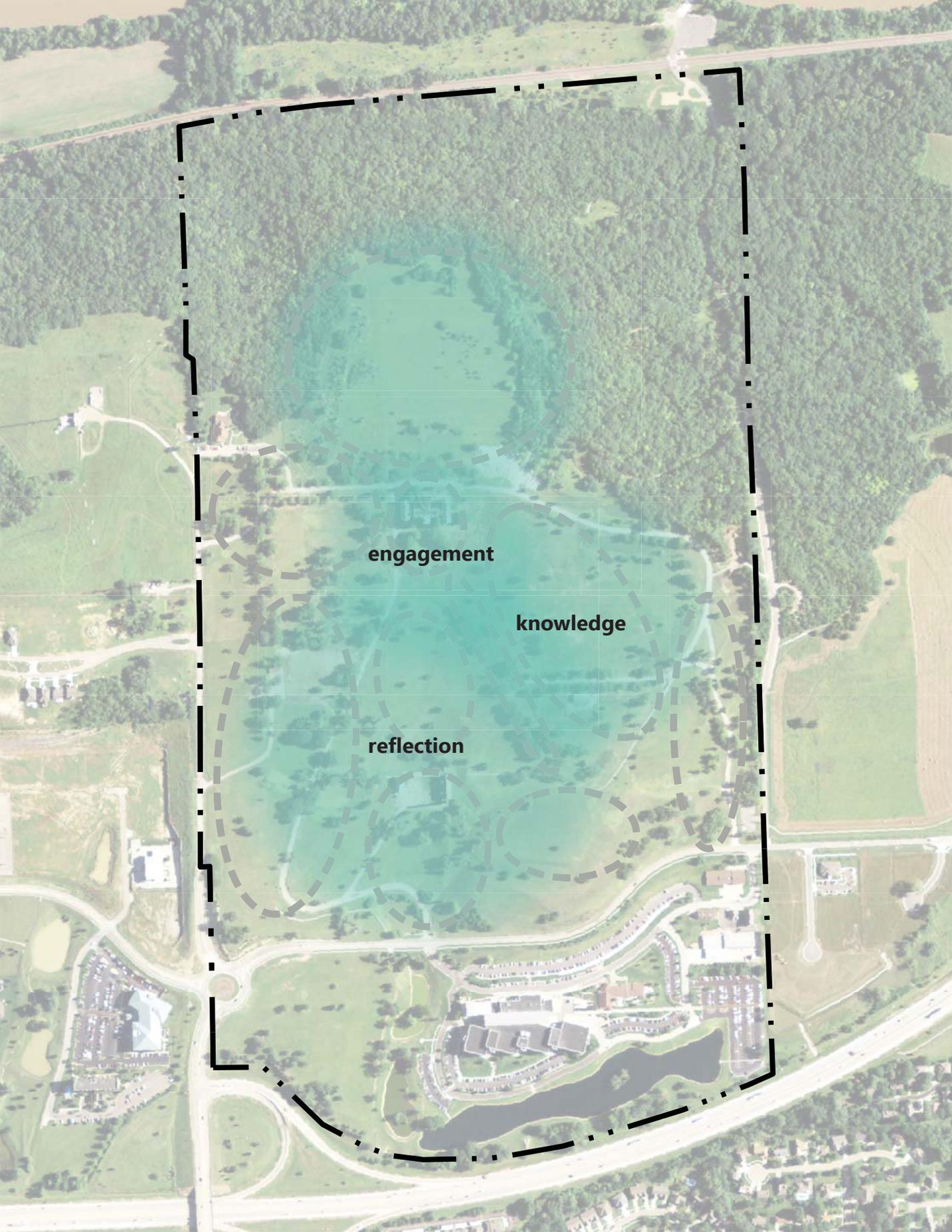
mind

And lastly the connection with the mind exists throughout the site as a memory of the former purpose of the site and the sensory stimulations the environment provides today. The topography of the landscape is constantly changing, engaging the mind, alleviating directed attention fatigue, and allowing room for reflection and peace as one walks the grounds. The Tower Building engages the mind with the opportunity for social interaction, for the telling of narratives, and the possibility to learn about the past and the buildings communicate memory through knowledge of the past and imagination for the future.

figure 7.07 | above
Mind in Milieu Therapy
(Hundley, 2013)

figure 7.08 | right
Characteristics of a Mindful Experience
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)





engagement

knowledge

reflection

design framework

The total environment experience—connecting, nature, the community, and the mind—can be established throughout the former Menninger Clinic West Campus. However, to make these aspects of the Menninger’s concept of milieu therapy apparent, the key areas for nature, the community, and the mind, were exemplified as spatial zones in the master plan’s framework.

discovery

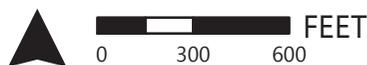
Nature is expressed through the areas of discovery, featuring pathways guiding the visitor to the key vantage points in the site. These spaces are both active and insightful. The natural environment encourages reflection, relaxing the mind and alleviating the stresses of daily life by occupying the mind with opportunity for physical activity. This creates a the sense of “being away” from the hassles of the daily environment, while outward views still give an “extent” to the site within the context of the capital city. Natural elements provide soft “fascinations” that relax the mind and ensure the “compatibility” of the individual with their environment.

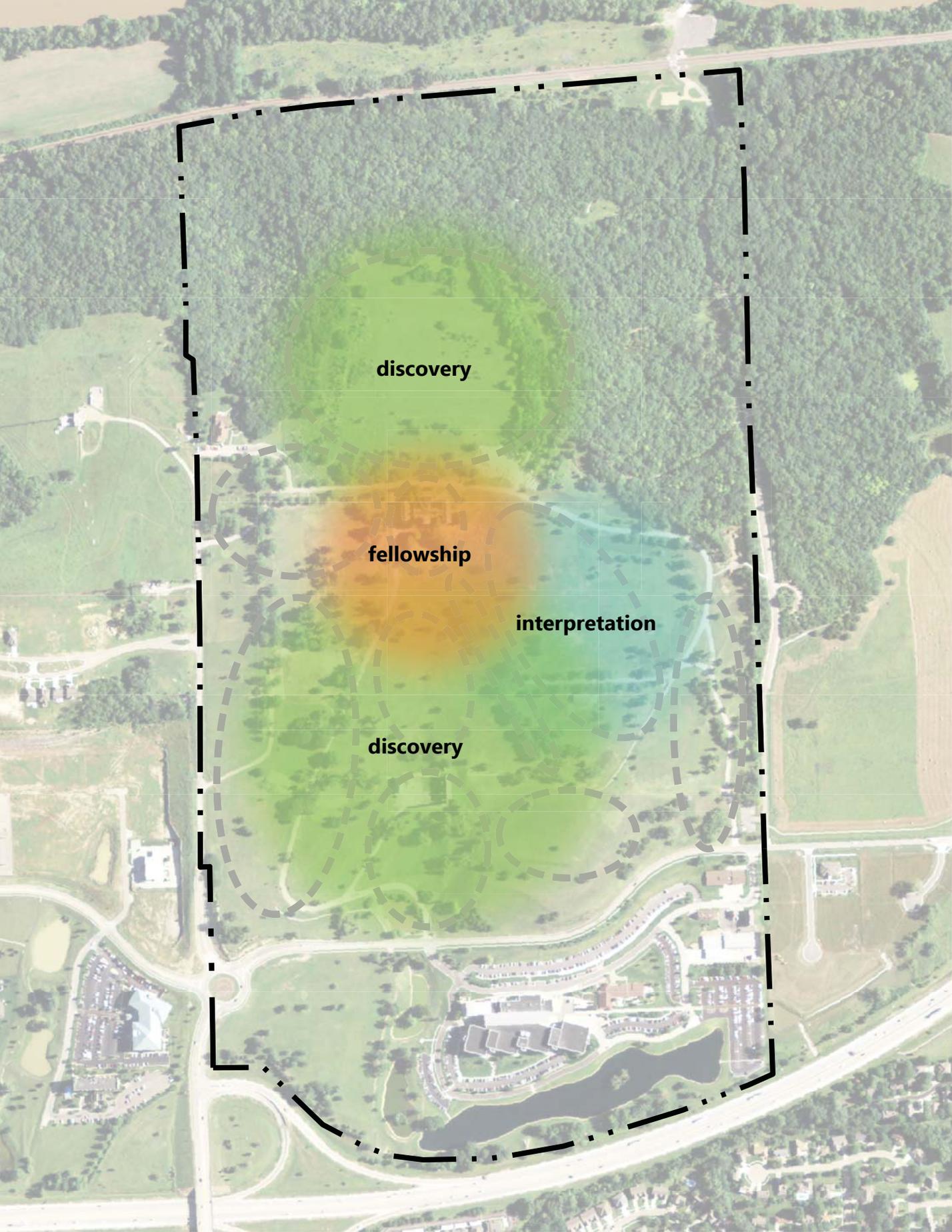
fellowship

The Tower Building has the opportunity to bring individuals of the community together through fellowship. People are drawn to this space, for is the central aspect of the site. It is an ideal location to promote social interactions and establish both relationships within the community of Topeka, and with the greater community of Kansas and beyond. Lastly, if the Tower Building was to be reestablished as a museum, it could host a number of cultural community activities as a conference center, meeting space, educational place, performance space, and historical preservation area. This area could become a locus of activity for the community of Topeka.

interpretation

Lastly, the exposed hillside with the former building footprints communicate knowledge of the past to the individual, by remembering the built form of the former campus, the buildings’ purposes, and would utilize a multi-sensory environment to stimulate the senses and alleviate stress.





discovery

fellowship

interpretation

discovery

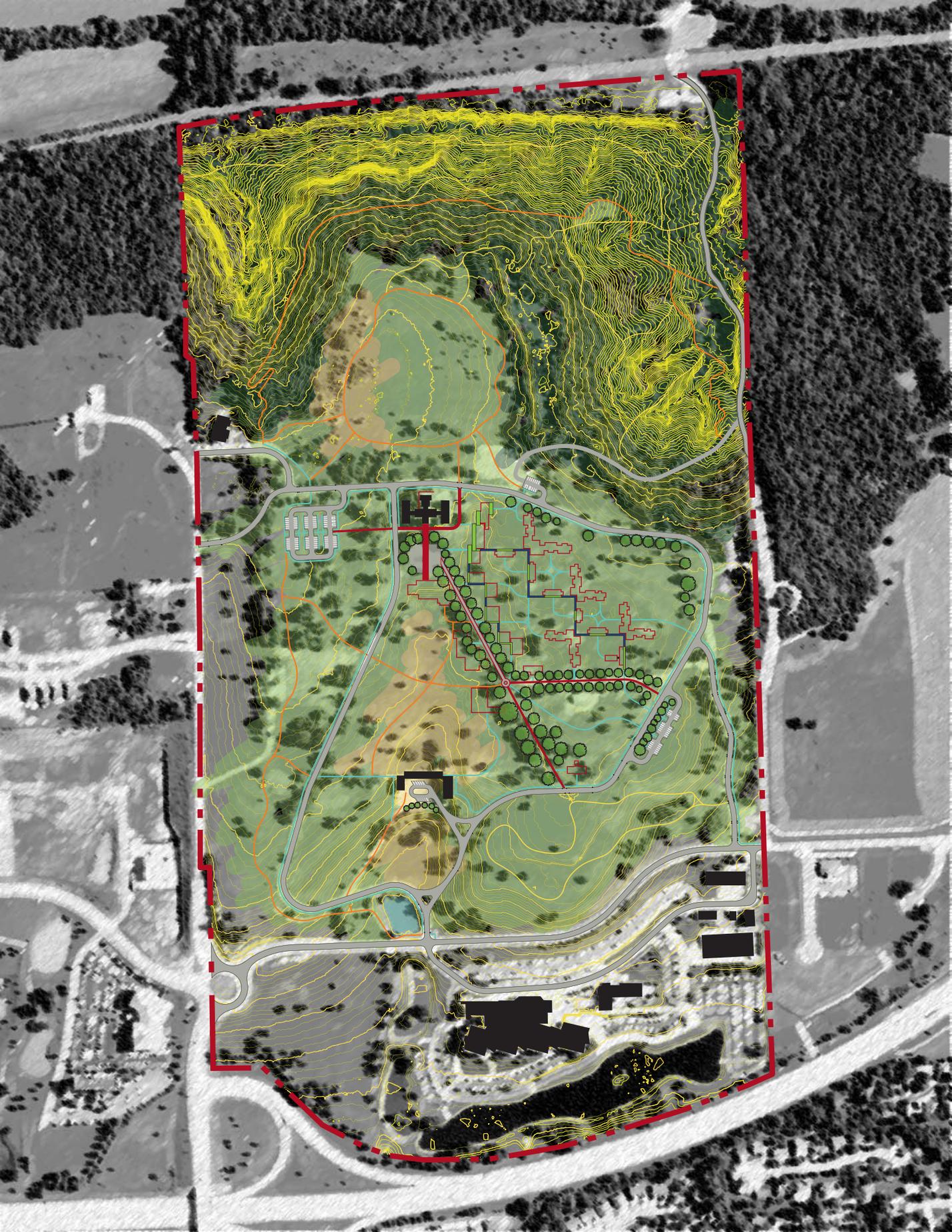


figure 7.10 | Menninger Clinic Commemorative Park
Master Plan
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

master plan

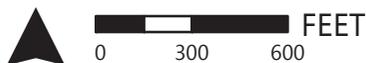
design features

The master plan for the Menninger Clinic West Campus Commemorative Park examines how the discovery, fellowship, and interpretation zones would be connected, how the existing landmarks of the site would be utilized, and what the materiality smaller commemorative spaces would be. The circulation for both vehicles and pedestrian wind through and around these zones, utilizing key vantage points to direct the visitor around the site. To revitalize the

Tower Building and Power Plant building as landmarks for the former Menninger Clinic West Campus, the buildings would be re-purposed to serve as community amenities for this commemorative park. The aesthetic of the spaces would commemorate both the architectural materiality of the former campus as well as the native geology of Topeka and Kansas.

master plan

-  existing buildigns to remain
-  commemorative building footprints
-  covered walkway
-  trellised walkway
-  brick paved walkway
-  sidewalk
-  major trail
-  minor trail





Circulation

The vehicular site circulation is kept to the outskirts of the site, separating the pedestrian experience from the disturbance of cars. When the visitor enters the site, they will first be greeted by views of the axial relationship between the former power plant building and the Tower Building. The user meets a “Y” intersection, providing ample signage and directing the driver up the slope by following a series of small brick collonades. The visitor may choose to turn up the slope of the East Ridge to go to go to the power plant building, and

interpretation spaces, or they may drive alongside the discovery trails up the western ridge of the site. From this route the visitor will align oneself along the ridge of the hillside, on axis with the tower building, turning to bypass the fellowship plaza and meeting the “T” intersection where they may turn off to go to the main parking area or circle to the east to connect with the Kaw River State Park Trailhead Parking Lot. The design of this circulation allows the visitor to reach the space they wish to visit, park on the perimeter, and walk the rest of the site to achieve a truly restorative experience.



outdoor dining

gift shop

trees to screen views of parking lot

visitor center and restaurant

reestablished meadow

overlook seating area

SW 6th Avenue

0 50 100 150 200 FEET

figure 7.11 | (previous spread)
Entry Enlargement
Master Plan
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

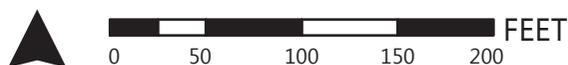
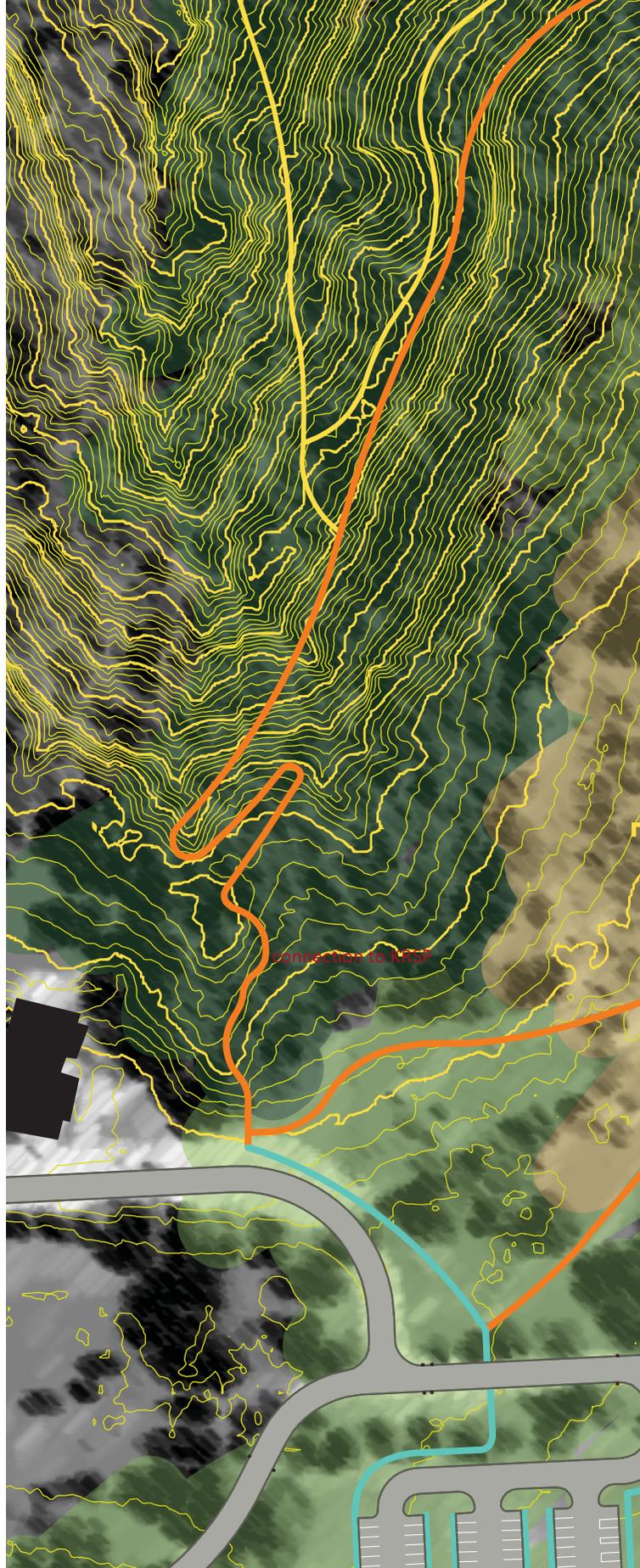
figure 7.12 | Trail System Enlargement
Master Plan
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

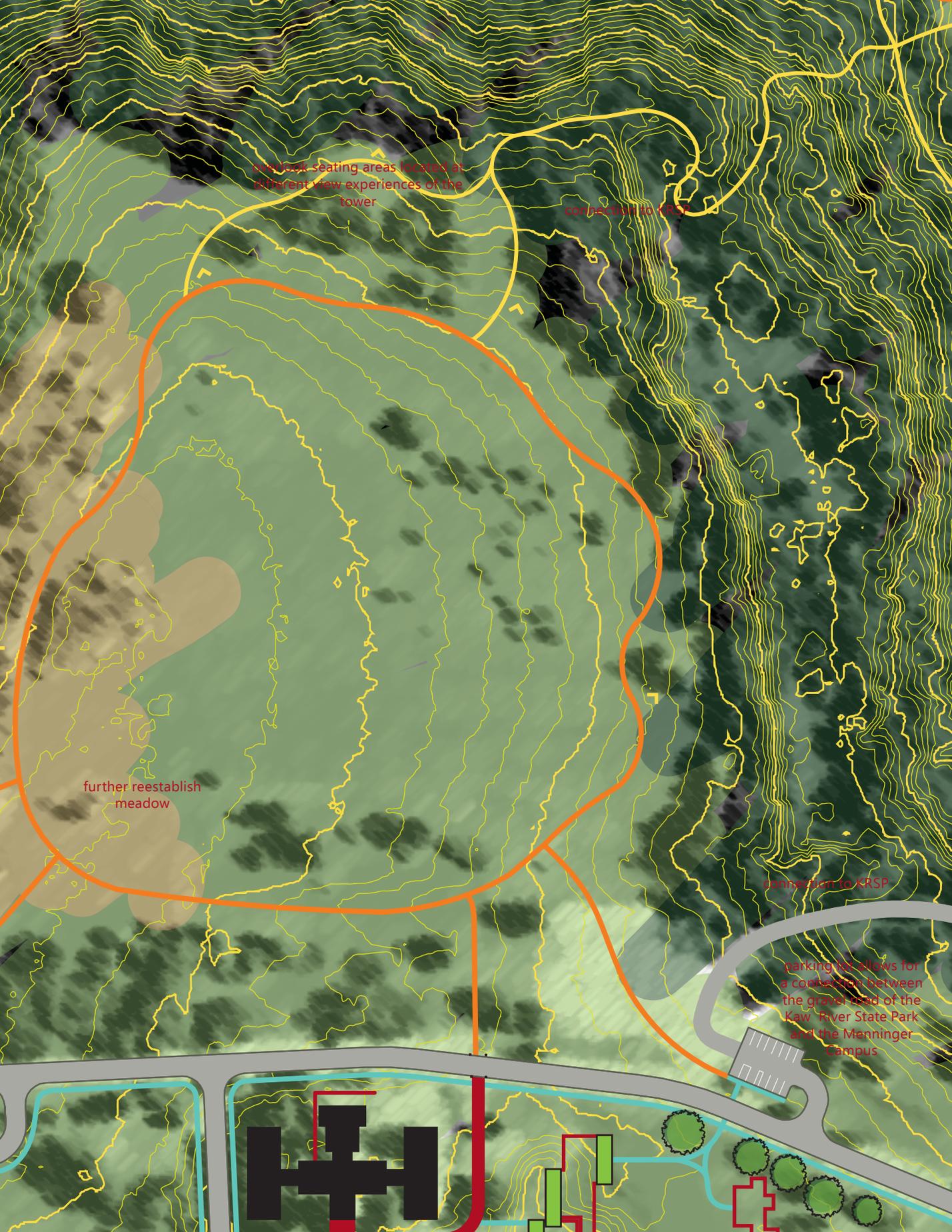
Repurposing the Buildings

Within this master plan the existing Tower Building and former Power Plant building could be repurposed and activated by converting them into both a community and park amenity. The Tower Building should be repurposed into a Museum that could be utilized as a conference center, educational space, or performance space. The power plant building would serve the visitors of the site, by acting as a visitor center, gift shop, and restaurant.

The Trail System

The trail system responds to the topography of the site, emphasizing the key experiences and vantage points the hillside provides. These trails would feature overlooks, as stepped brick seats that would be built up from the landscape as berms or cut into the hillside, planted with native grasses at the visitor's back.





potential seating areas located at different view experiences of the tower

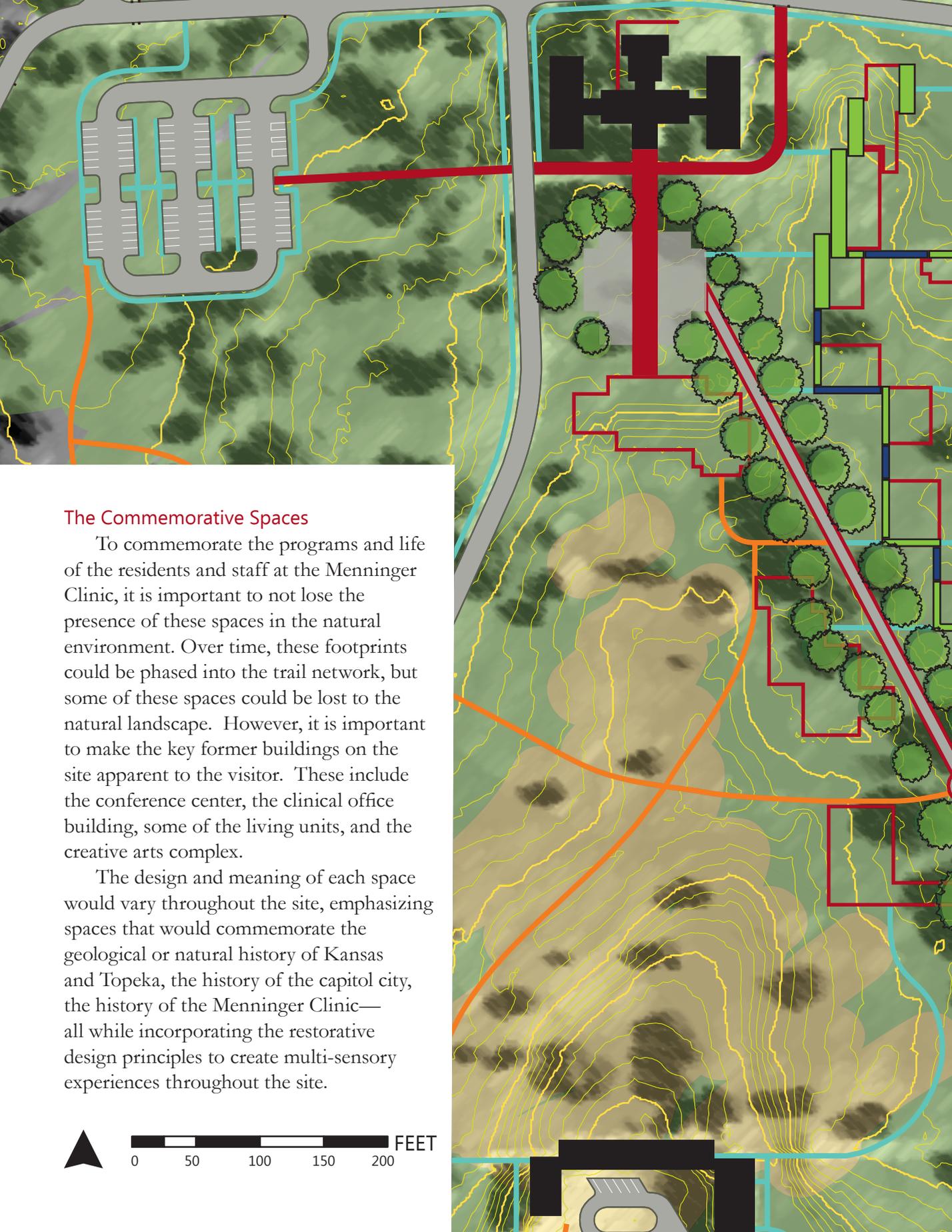
connection to KRSP

further reestablish meadow

connection to KRSP

parking lot allows for a connection between the gravel used of the Kaw River State Park and the Menninger Campus

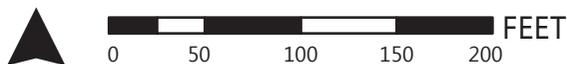


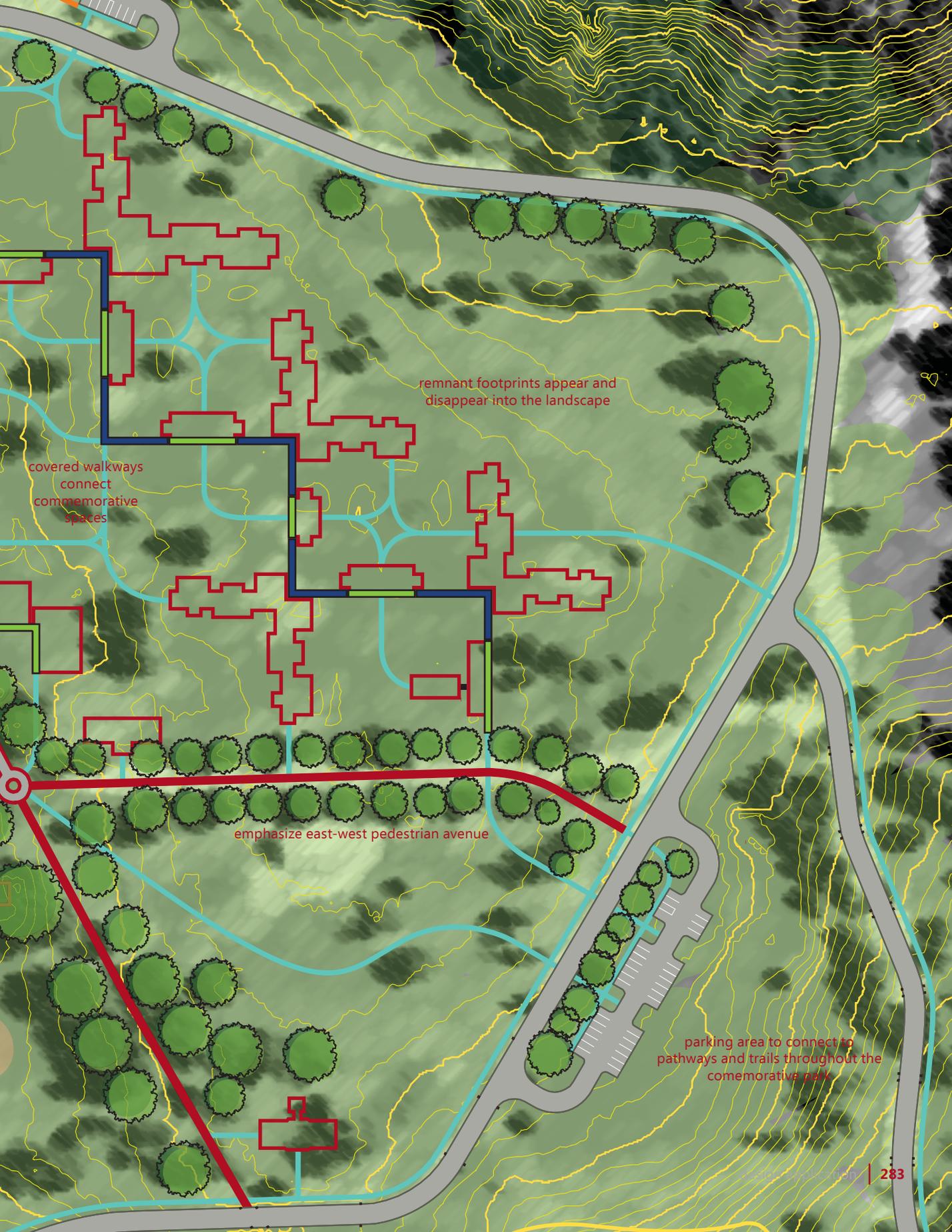


The Commemorative Spaces

To commemorate the programs and life of the residents and staff at the Menninger Clinic, it is important to not lose the presence of these spaces in the natural environment. Over time, these footprints could be phased into the trail network, but some of these spaces could be lost to the natural landscape. However, it is important to make the key former buildings on the site apparent to the visitor. These include the conference center, the clinical office building, some of the living units, and the creative arts complex.

The design and meaning of each space would vary throughout the site, emphasizing spaces that would commemorate the geological or natural history of Kansas and Topeka, the history of the capitol city, the history of the Menninger Clinic—all while incorporating the restorative design principles to create multi-sensory experiences throughout the site.





remnant footprints appear and disappear into the landscape

covered walkways connect commemorative spaces

emphasize east-west pedestrian avenue

parking area to connect to pathways and trails throughout the commemorative park

This delineation of the former buildings would occur through the marking of former footprints, by utilizing a 2' border of red brick. These spaces would not need to outline the entire building, and not all buildings would need to be delineated. By letting pieces of the footprint outlines be realized by the visitor as they experienced the space, the memory of the former campus would be established, without overstimulating the visitor. Originally, these buildings were connected by a series of covered walkways. By reestablishing this vocabulary into the landscape form, utilizing trellises within the building footprints, this orthogonal relationship would be emphasized across the site.

materiality

Throughout the site, the use of brick and limestone will both connect the visitor with the historic character and historic architectural style of the site, and also utilize the native geology of the site. The forms of the 1979 master plan utilized orthogonal shapes for the buildings that were broken by organic, curvilinear pathways under the trees. In this way utilizing brick and limestone, a series of terraced spaces and steps would be created that would merge and emerge with the existing topography, landform, and native plantings. The use of water features throughout the site would establish a restorative multi-sensory experience with forms responding to the geometries of the footprint spaces. Artists within the community would have opportunities to display sculptural pieces in the landscape, as expressions of the people, flora, fauna, or other artistic forms exemplifying the native and historic landscape of Topeka.

figure 7.13 | (previous spread)
Commemorative Space Enlargement Master Plan
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

figure 7.14 | top
Pioneer Courthouse Square
Portland, Oregon
(Hundley, 2011)

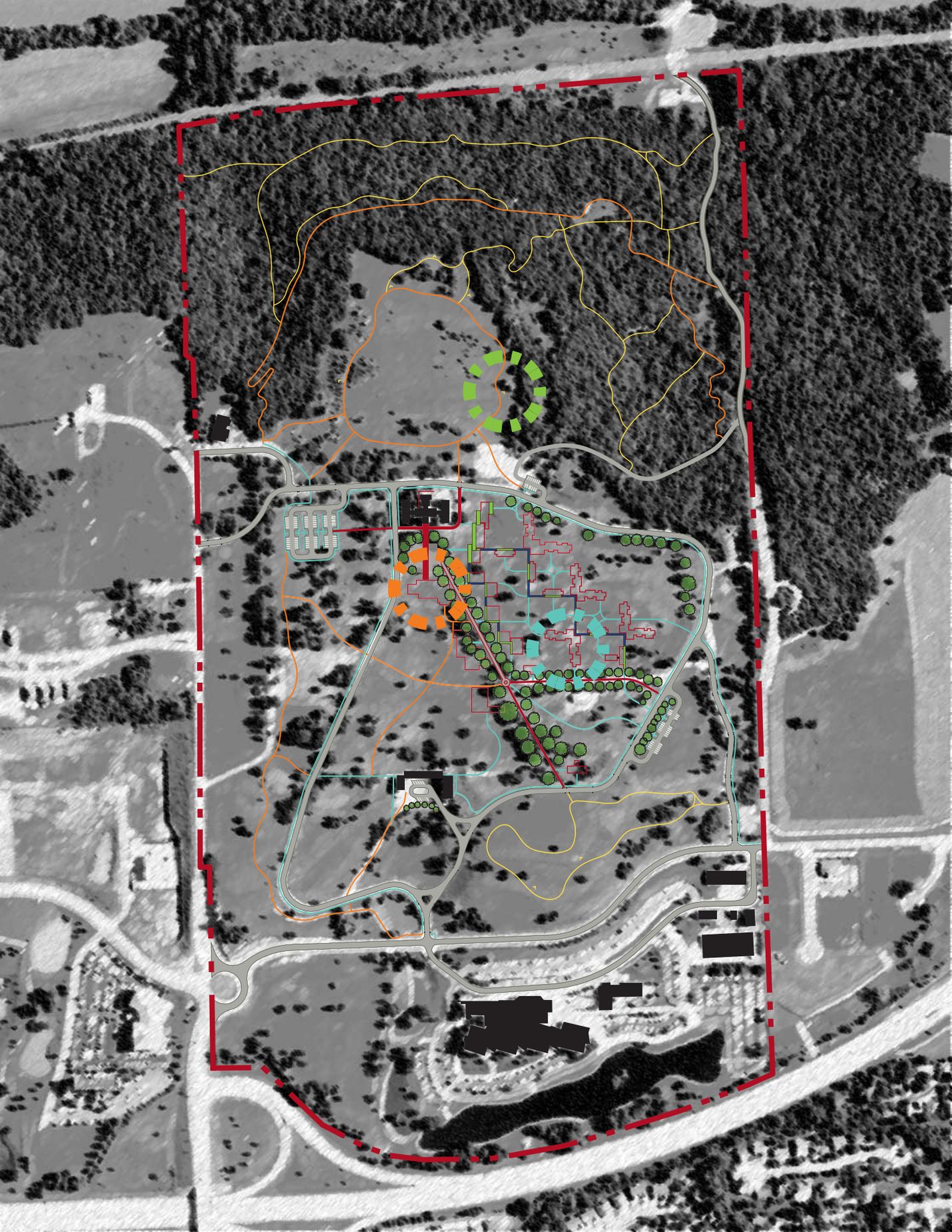
figure 7.15 | left
Big Birds in Geneva by Cedric Le Borgne
Geneva, Switzerland
(Nova, 2012)

figure 7.16 | right
Limestone Walls
Kansas State University
Manhattan, Kansas
(Hundley, 2013)

figure 7.17 | lower left
Keller Fountain Park
Portland, Oregon
(Hundley, 2011)

figure 7.18 | lower right
Kansas Natives
Manhattan, Kansas
(Hundley, 2009)





Conceptual Spaces

To better explain how this vision could be approached in the site, a series of sketches was made to illustrate the character of each of the conceptual zones of fellowship, interpretation, and discovery.

figure 7.19 | Locations of Conceptual Spaces
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

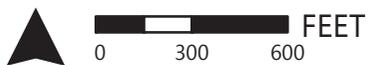




figure 7.20 | above
Aerial View of Fellowship Space
(Hundley, 2013)

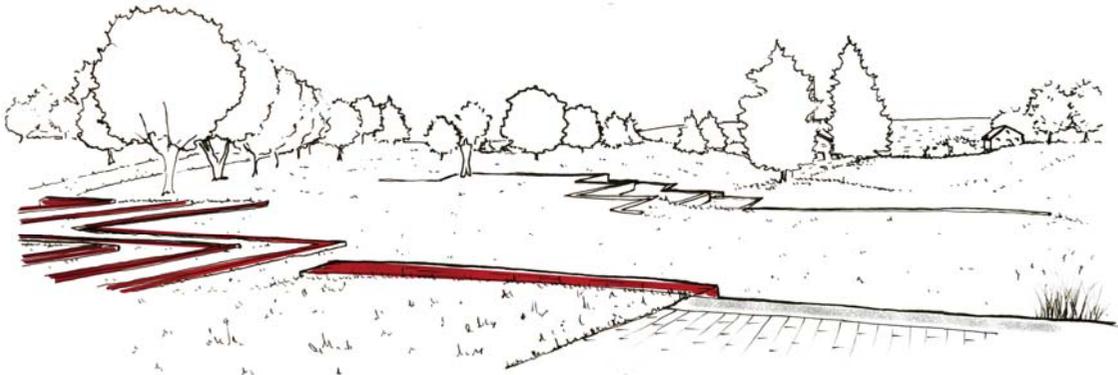


figure 7.21 | right
Looking out over Topeka
(Hundley, 2013)

figure 7.22 | right
Within the Outdoor Classroom
(Hundley, 2013)

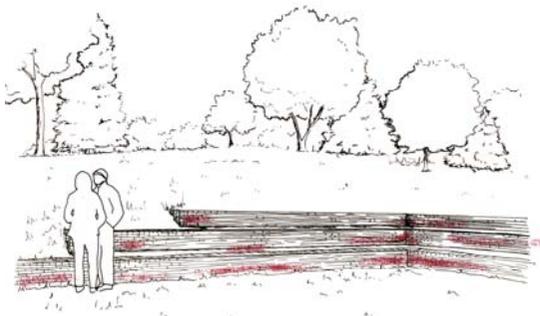
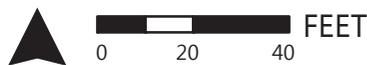
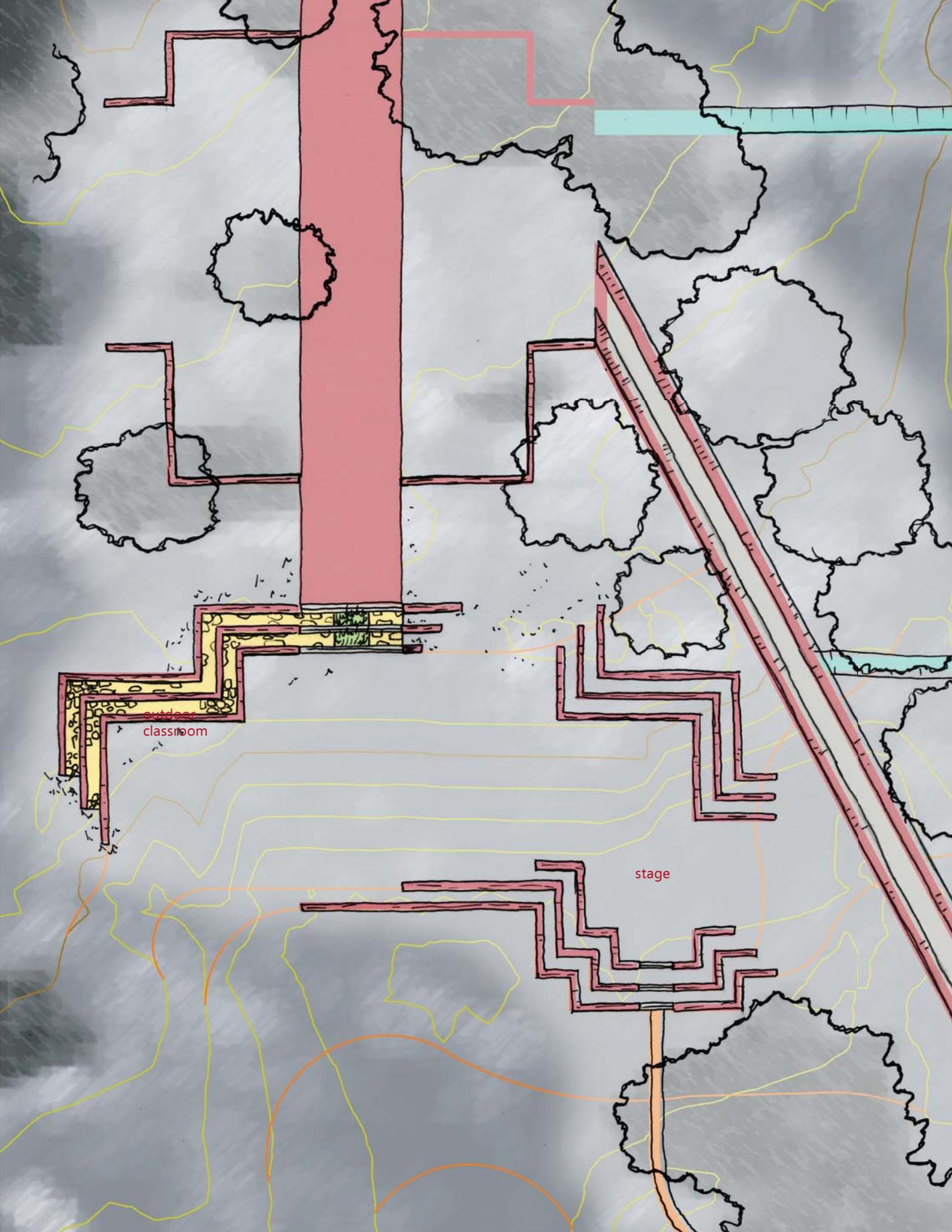


figure 7.23 | right
The Fellowship Plaza
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

Fellowship

When exiting the main entrance of the Tower building, one enters the entry plaza, a space that is framed by the geometry of the surrounding buildings and footprints, and left open to accommodate for a variety of community events for the city of Topeka. From this space, the entry plaza slopes downward to a steep drop that has been transformed to respond to the former conference center, acting as both an outdoor classroom and a stage overlooking the city of Topeka below.





outdoor
classroom

stage

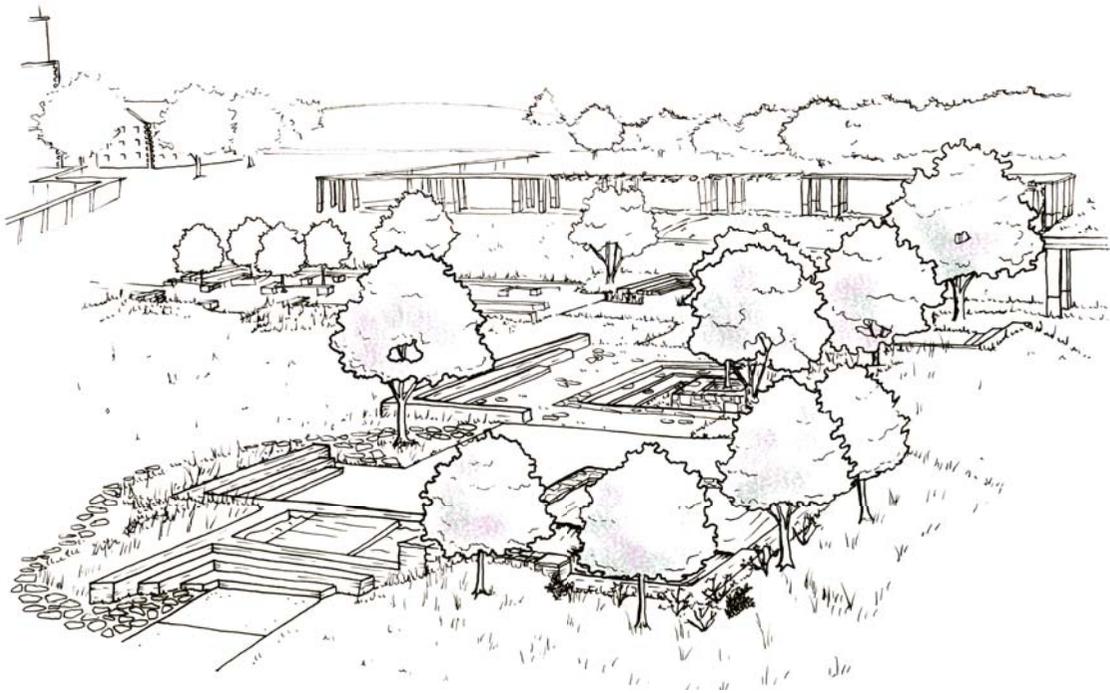


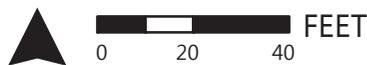
figure 7.24 | above
Aerial View of Interpretation Space
(Hundley, 2013)

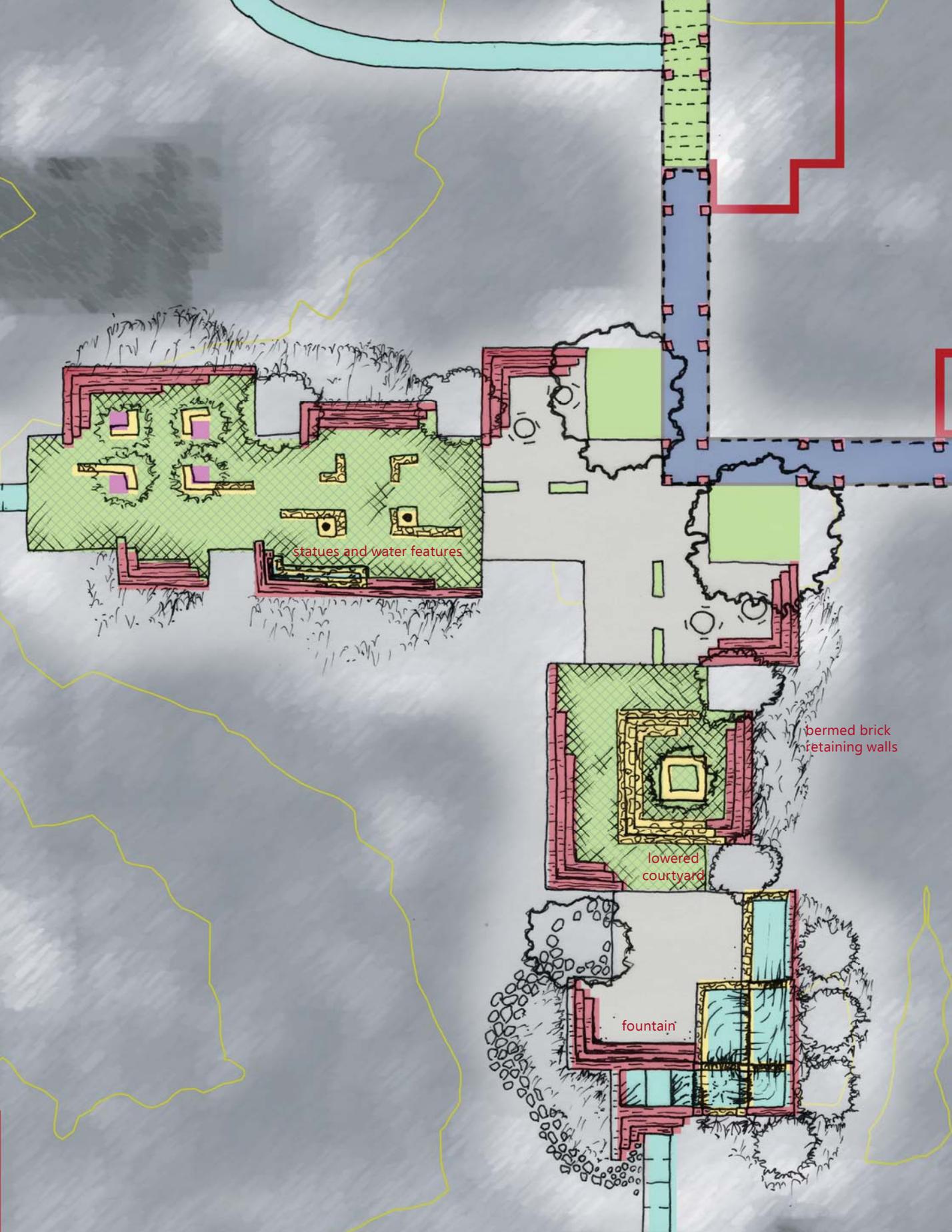
figure 7.25 | right
The Interpretation Space
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

Interpretation

This space is built up from the landscape, with intimate spaces that provide a variety of seating options, both elevated and inset within the ground plane. By allowing movable tables and chairs within the entry space of this particular footprint, users are able to adapt some of the seating in ways that suit their needs. This space is a multi-sensory environment, utilizing a small fountain on the east wing and large fountain on the south wing. Both of these would have a gentle sound quality, quietly lapping to produce a relaxing effect. The space

would be shaded by both filtered light of smaller ornamental trees that provide visual and olfactory interest, but also by larger ones that would provide an overhead plane for the site. Art would also be incorporated, with pedestals that offer the option to local artists to have installations that could commemorate Topeka and the Kansas landscape.





statues and water features

bermed brick retaining walls

lowered courtyard

fountain

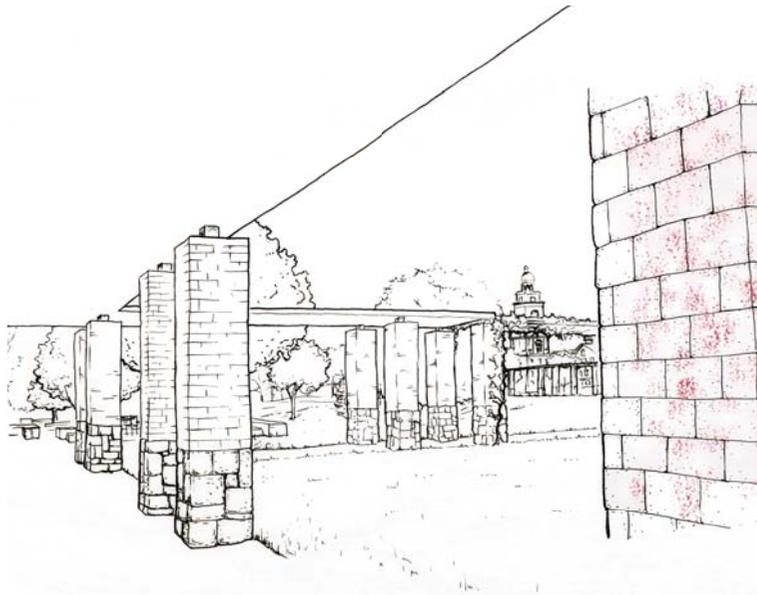


figure 7.26 | right
Covered Walkways
(Hundley, 2013)

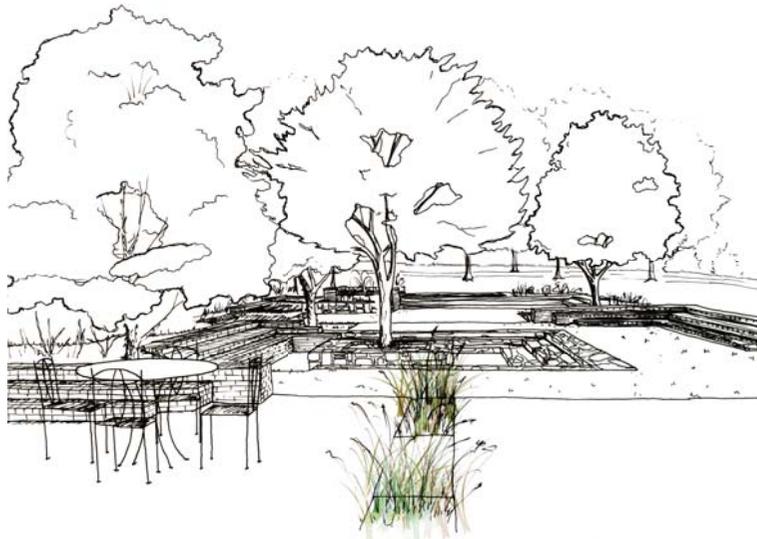


figure 7.27 | right
Lowered Courtyard
and Movable Seating
(Hundley, 2013)



figure 7.28 | left
A Brick and Limestone Fountain
(Hundley, 2013)

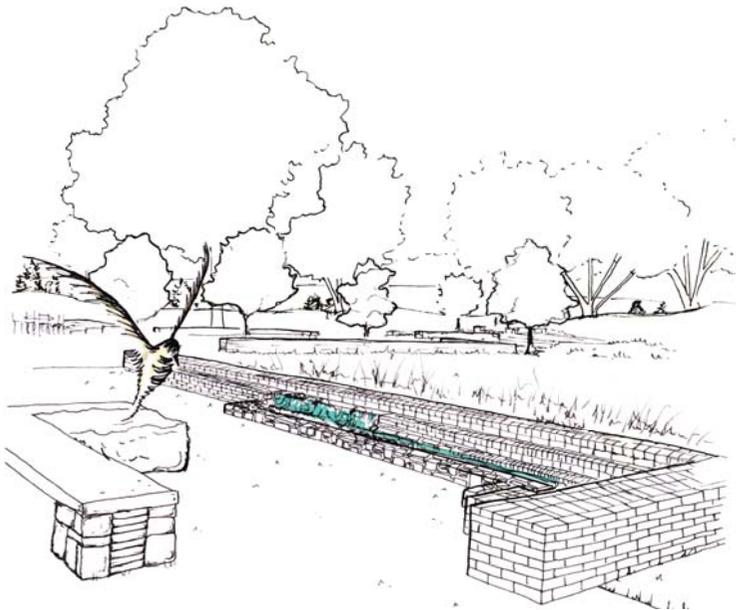


figure 7.29 | left
Fauna Statues
(Hundley, 2013)

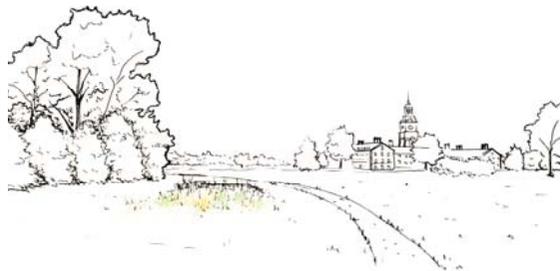
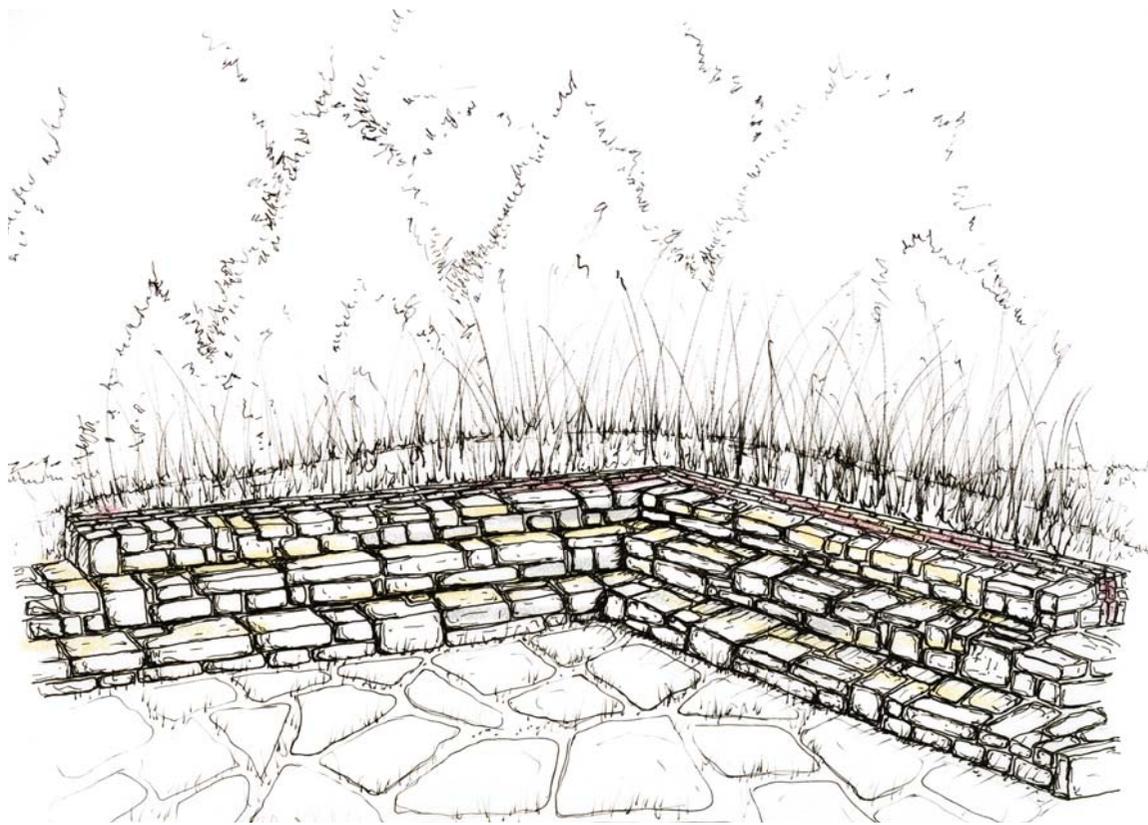


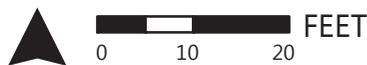
figure 7.30 | top left
A Place to Rest
(Hundley, 2013)

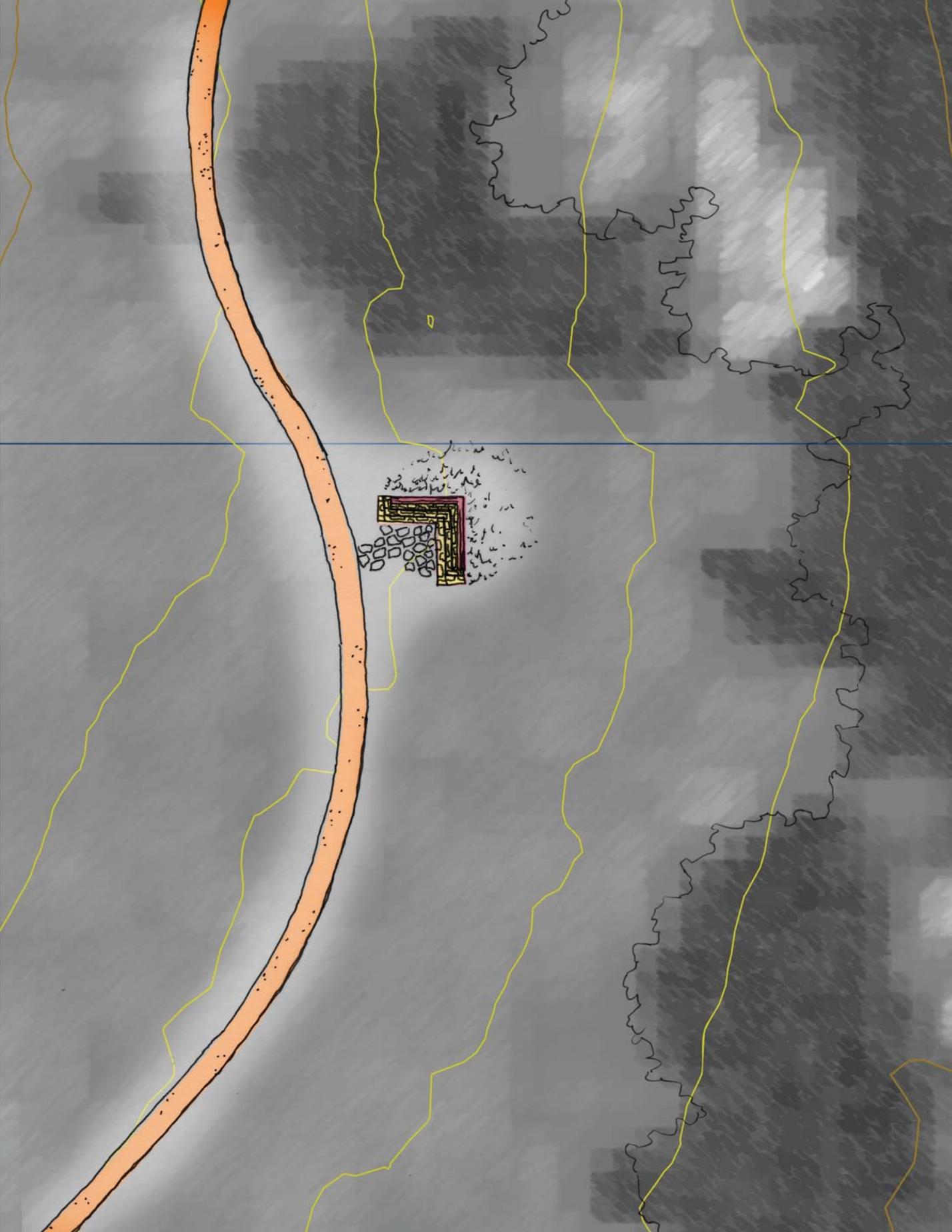
figure 7.31 | left
Hidden Alcoves in the Meadow
(Hundley, 2013)

figure 7.32 | right
A Discovery Overlook
Menninger Clinic West Campus
Topeka, Kansas
(Hundley, 2013)

Discovery

The trail system throughout the site offers several places of rest at the key viewpoint areas. These spaces would feature a simple orthogonal seating area, utilizing the natural stone with an accents of brick, with berms that hide this space in the landscape, only to reveal itself as the visitor approaches. Throughout the open areas of the site, native meadow and prairie grasses would be encouraged to reestablish themselves to connect with the native Kansas Aesthetic.







A photograph of a brick-paved ground with scattered autumn leaves. The word "reflections" is overlaid in white text. The bricks are dark grey and arranged in a grid pattern. The leaves are in various shades of yellow, orange, and brown, scattered across the bricks. The text "reflections" is centered horizontally and positioned in the lower half of the image.

reflections

figure 8.01 | (previous spread)
Reflections at the Korean War Veterans Memorial
Korean War Veterans Memorial
Washington D.C.
(Hundley, 2012)

reflections

This master's project and report sought to understand the theoretical underpinnings of two different typologies of spaces in landscape architecture—the memorial and the restorative environment. By understanding the characteristics of each of these spaces, the guidelines developed sought to act as benchmarks of a commemorative space that both helps society remember as well as improving mental health.

At the conclusion of the design process it was found that these guidelines function best as objectives or goals throughout the design process, rather than as generators of. They can be easily applied from an analytical standpoint, providing insight for post-occupancy evaluations. The scope of this project addressed the aspects of a restorative memorial in a broad sense. Should this project be continued, a stronger articulation of the formation of space could occur to alter the guidelines to act as generators of design form.

...mie
Munshower

...ce Monaghan

Ju

Virginia Knight

...rdon Wild

A close-up photograph of a heavily rusted metal object. A circular, light-colored label is attached to the metal, featuring the text "dy Johnson". The metal surface is dark brown and covered in numerous small, raised spots of rust. The lighting is bright, highlighting the texture of the rust and the metallic surface.

dy Johnson

appendices

Anto
Sa

figure 9.01 | (previous spread)
Twenty-Five Years of Service
Banner Good Samaritan Regional Medical Center
Phoenix, Arizona
(Hundley, 2012)

1) glossary

Grief: Adapted from Delgado's compilations of definitions of grief, one should assume that that grief is the psychological process of adapting to a loss" (2003, p. 44-45).

Healing: the term "healing" associates itself with the beneficial process that strives to promote overall well-being; through the relief from physical symptoms or awareness, stress reduction, and an increase of emotional or physical comfort, (Marcus, 1999).

Memorial: n. something designed to preserve the memory of a person, event, etc. as a monument or a holiday (Dictionary.com, 2012.) In this context, the term memorial deals with installations serving to commemorate people, places, achievements, or events in the built environment.

Restorative: adj. tending to revive or renew health, spirits, etc. (Collins, 2009). For this pursuit of study, the concept of restorative, or therapeutic, landscapes shall be those that pertain to the reduction of an individual's stress, quantifiable through medical studies.

Stress: is both a physical and psychosocial syndrome that influences the way in which the physical environment is perceived and dealt with; resulting in a depletion of the body's resources due to attempts to cope with one's environmental stressors (Saegert, 1976, p. 218).

2) precedent study list

Memorials

- Franklin Delano Roosevelt Memorial
- Korean War Memorial
- Lincoln Memorial
- Martin Luther King Jr. Memorial
- National Museum of the American Indian
- Thomas Jefferson Memorial
- Vietnam Veterans Memorial
- Washington Monument
- World War II Memorial

Restorative Environments

- Banner Gateway Hospital
- Banner Good Samaritan Regional Medical Center
- Mercy Gilbert Hospital
- Phoenix Children's Hospital
- Scottsdale Healthcare Center: Thompson Peak

3) works cited

- Allen, D. (2009). Memory and Place: Two Case Studies. *Places*, 21(1), 56–61. doi:Spring 2009
- Azevedo, M. A. (2011). Menninger's new clinic scaled down, but moving forward - Houston Business Journal. *Houston Business Journal*. Retrieved October 25, 2012, from <http://www.bizjournals.com/houston/print-edition/2011/03/11/menningers-new-clinic-scaled-down.html?page=all>
- Beardsley, J. (2005). Filling a void: Creating contemporary spaces for contemplation. In R. Krinke (Ed.), *Contemporary Landscapes of Contemplation* (New Ed.). Routledge.
- Bonder, J. (2009). On Memory, Trauma, Public Space, Monuments, and Memorials. *Places*, 21(1), 62–69. doi:Spring 2009
- Brenman-Gibson, M. (1978). The War on Human Suffering. In S. Smith (Ed.), *The Human Mind Revisited: Essays in honor of Karl A. Menninger*. International Universities Press.
- Bruce, H. (1999). *Gardens for the Senses, Gardening as Therapy*. (T. J. Folk, Ed.) (1st ed.). Petals & Pages Press.

- Campbell, L. W. (Ed.). (2011). *Restorative Commons: Creating Health and Well-Being Through Urban Landscapes*. Retrieved from <http://www.nrs.fs.fed.us/pubs/8810>
- Campbell, B. G. (1978). *Perceiving: Evolution and Information*. In S. Kaplan & R. Kaplan (Eds.), *Humanscape: Environments for people* (First). Duxbury Press.
- Collins English Dictionary-Complete & Unabridged 10th Edition. (2009). *restorative*. (2009). Retrieved from <http://dictionary.reference.com/browse/restorative>
- Davis, S. (1998). *Development of the Profession of Horticultural Therapy*. In S. P. S., Martha C. , Editors Simson (Ed.), *Horticulture As Therapy Principles & Practice*. Crc Press.
- Delgado, M. (2003). *Death at an Early Age and the Urban Scene: The Case for Memorial Murals and Community Healing*. Praeger.
- Dimitropoulos, H. (2009). *The Character of Contemporary Memorials*. *Places*, 21(1), 52–55. doi:Spring 2009
- Epstein, M., Gerlach-Spriggs, N., Hazen, T., Marcus, C. C., Barnes, M., & Kavanagh, J. S. (1999). *The Therapeutic Landscape: History, Design and Application*. In D. L. Scheu (Ed.), *1999 ASLA Annual Meeting Proceedings* (pp. 184–189). Washington, DC: American Society of Landscape Architects.
- Farber, S. M. (1978). *Quality of Living-Stress and Creativity*. In S. Kaplan & R. Kaplan (Eds.), *Humanscape: Environments for people* (First). Duxbury Press.
- Fiander, B. (2013). *MLA student seeking information regarding new St. Francis Health Park*.
- Floor, K., Jauchius, J. P., Placko, S., Spalenka, R., & Sachs, N. (2012). *FS003 Therapeutic Gardens for Healing and Respite*. Powerpoint Handout, Phoenix, AZ.
- Hiltner, S., & Menninger, K. (1963). *Constructive Aspects of Anxiety*. Abingdon Press.
- Fredrickson, B. L., & Levenson, R. W. (1998). *Positive Emotions Speed Recovery from the Cardiovascular Sequelae of Negative Emotions*. *Cognition & emotion*, 12(2), 191–220. doi:10.1080/026999398379718

- Friedman, L. J. (1992). *Menninger: The Family and the Clinic*. University Press of Kansas.
- Goode, E. (2003). Famed Psychiatric Clinic Abandons Prairie Home - New York Times. New York Times. Retrieved April 20, 2013, from <http://www.nytimes.com/2003/05/31/us/famed-psychiatric-clinic-abandons-prairie-home.html?pagewanted=all&src=pm>
- Greene, J. (1994). *Healing environments: places and settings, needs and responses : a report of the AIA Academy of Architecture for Health Conference, February 10-12, 1994, Portland, Oregon*. AIA.
- Hartig, T., & Marcus, C. C. (2006). Essay: Healing gardens—places for nature in health care. *The Lancet*, 368, Supplement 1(0), S36–S37. doi:10.1016/S0140-6736(06)69920-0
- Heerwagen, J. (2011). Biophilia, Health, and Well-being. In L. W. Campbell (Ed.), *Restorative Commons: Creating Health and Well-Being Through Urban Landscapes*. Retrieved from <http://www.nrs.fs.fed.us/pubs/8810>
- Herrington, S. (2008). *On Landscapes* (1st ed.). Routledge.
- Hilgard, E. R. (1978). The Goals of Perception. In S. Kaplan & R. Kaplan (Eds.), *Humanscape: Environments for people* (First.). Duxbury Press.
- Hooper, M. (2008, April 14). Health center set for change: St. Francis official details plans for former Menninger campus. *The Topeka Capital-Journal*. Retrieved from http://cjonline.com/stories/041408/bus_268183522.shtml
- Horrigan, P. (1999). *Placemaking By Design*. In D. L. Scheu (Ed.), *1999 ASLA Annual Meeting Proceedings* (pp. 248–250). Washington, DC: American Society of Landscape Architects.
- Hunt, J. D. (2001). “Come into the Garden, Maud”: Garden Art as a Privileged Mode of Commemoration and Identity. In J. Wolschke-Bulmahn (Ed.), *Places of Commemoration: Search for Identity and Landscape Design*. *Dumbarton Oaks Research Library and Collection*. Kansas Historical Society. (n.d.). *Kansas Memory*. Archive. Retrieved from kansasmemory.org
- Hermann, H. (2005). On the Transcendent in Landscapes of Contemplation. In R. Krinke (Ed.), *Contemporary Landscapes of Contemplation* (New Ed.). Routledge.

- Kaplan, S. (1995). The restorative benefits of nature: Toward an integrative framework. *Journal of Environmental Psychology*, 15(3), 169–182. doi:10.1016/0272-4944(95)90001-2
- Kaplan, S., & Kaplan, R. (1978). *Humanscape: Environments for people* (First.). Duxbury Press.
- Karmanov, D., & Hamel, R. (2008). Assessing the restorative potential of contemporary urban environment(s): Beyond the nature versus urban dichotomy. *Landscape and Urban Planning*, 86(2), 115–125. doi:10.1016/j.landurbplan.2008.01.004
- Krinke, R. (2005). *Contemplative Landscapes, Restorative Landscapes*. In R. Krinke (Ed.), *Contemporary Landscapes of Contemplation* (New Ed.). Routledge.
- Kuebler-Ross, E. (1997). *On Death and Dying* (First Edition.). Scribner.
- Lazarus, R. S., & Cohen, J. B. (1977). Environmental Stress. In I. Altman & J. F. Wohlwill (Eds.), *Human Behavior and Environment: Advances in Theory and Research: Volume 2* (1st ed.). Springer.
- Lewis, C. S. (2001). *A Grief Observed* (1st ed.). HarperOne.
- Marcus, C. C., & Barnes, M. (1995). *Gardens in Healthcare Facilities: Uses, Therapeutic Benefits, & Design Recommendations*. Center for Health Design.
- Marcus, C. C., & Barnes, M. (Eds.). (1999). *Healing Gardens: Therapeutic Benefits and Design Recommendations* (1st ed.). Wiley.
- Marcus, C. C., & Francis, C. (Eds.). (1997). *People Places: Design Guidelines for Urban Open Space*, 2nd Edition (2nd ed.). Wiley.
- Martensen, R. (2011). *Landscape Designers, Doctors, and the Making of Healthy Urban Space in 19th Century America*. In L. W. Campbell (Ed.), *Restorative Commons: Creating Health and Well-Being Through Urban Landscapes*. Retrieved from <http://www.nrs.fs.fed.us/pubs/8810>
- Menninger, Karl A. (1942). *The Human Mind - Corrected, Enlarged and Rewritten* (2nd ed.). Alfred A. Knopf.
- Menninger, Karl Augustus. (1973). *Whatever became of sin?* Hawthorn Books.
- Menninger, Karl Augustus, & Menninger, J. L. (1942). *Love Against Hate*. Harcourt, Brace and company.

- Ming Kuo, F. E. (2010). Parks and Other Green Environments: Essential Components of Healthy Human Habitats. Retrieved from <http://fyi.uwex.edu/mgvrockco/2011/09/01/parks-and-other-green-environments-essential-components-of-healthy-human-habitats-ce-opportunity/>
- National Park Service. (2013). National Mall & Memorial Parks: District of Columbia.
- National Park Service. (2005). <http://www.nps.gov/history/nr/listings/20051209.HTM>
- National resources Conservation Service (NRCS). (2003). Topeka Wind Rose Data. Retrieved from <http://www.wcc.nrcs.usda.gov/climate/windrose.html>
- Potteiger, M., & Purington, J. (1999). Telling Stories/Making Places: working Methods in Landscape Design, Public Art and Preservation. In D. L. Scheu (Ed.), 1999 ASLA Annual Meeting Proceedings (pp. 162–165). Washington, DC: American Society of Landscape Architects.
- Potteiger, M., & Purinton, J. (1998). Landscape Narratives: Design Practices for Telling Stories. John Wiley & Sons.
- Pruyser, P. W. (1963). Anxiety: Affect or Cognitive State? In S. Hiltner & K. Menninger (Eds.), *Constructive Aspects of Anxiety*. Abingdon Press.
- Ramzy, I. (1963). Freud's Understanding of Anxiety. In S. Hiltner & K. Menninger (Eds.), *Constructive Aspects of Anxiety*. Abingdon Press.
- Relf, P. D. (1998). People-Plant Relationship. In S. P. S., Martha C. Simson & M. C. Straus (Eds.), *Horticulture As Therapy Principles & Practice*. Crc Press.
- Ridenour, N., & New York State Association for MentalHealth. (1961). *Mental health in the United States: a fifty-year history*. Published for the Commonwealth Fund by Harvard University Press.
- Saegert, S. (1976). Stress-Inducing and Reducing Qualities of Environments. In H. M. Proshansky, W. H. Ittelson, & L. G. Rivlin (Eds.), *Environmental Psychology: People and Their Physical Settings* (2nd ed.). Holt McDougal.
- Scheu, D. L. (Ed.). (1999). 1999 ASLA Annual Meeting Proceedings. Washington, DC: American Society of Landscape Architects.

- Shapiro, B., & Kaplan, M. J. (1998). *Mental Illness and Horticultural Therapy Practice*. In S. P. S., Martha C. , Editors Simson (Ed.), *Horticulture As Therapy Principles & Practice*. Crc Press.
- Shawnee County Public GIS. (2012). *Menninger Clinic West Campus*.
- Sinha, A. (2006). *Landscapes in India: Forms and Meanings*. University Press of Colorado.
- Smith, S. (1978). *Introduction: A Renaissance Man of Psychiatry*. In *The Human Mind Revisited: Essays in honor of Karl A. Menninger*. International Universities Press.
- Stuart, R. (2012). *What Are Gardens For?: Visiting, Experiencing and Thinking About Gardens*. Frances Lincoln.
- The Menninger Foundation. (1979) *Brains & Bricks: for the second half century of the Menninger Foundation*. Menninger Perspective.
- The Menninger Foundation. (1980). *Brains & Bricks: A \$22 Million Campaign for The Menninger Foundation-Report of Progress*.
- The Menninger Foundation. (n.d.). *Environmental Services*.
- The Wall-USA. (n.d.). *The Vietnam Veterans Memorial*. Retrieved from <http://thewall-usa.com/information.asp>
- Topeka Planning Department (2004). *Topeka: Land Use & Growth Management Plan- 2025*). Retrieved March 13, 2013, from http://www.topeka.org/pdfs/LU-GM_plan.pdf.
- Treib, M. (2005). *Attending*. In R. Krinke (Ed.), *Contemporary Landscapes of Contemplation (New Ed.)*. Routledge.
- Tyson, M. M. (1998). *The Healing Landscape: Therapeutic Outdoor Environments*. McGraw-Hill.
- Ulrich, R. S. (1984). *View through a window may influence recovery from surgery*. *Science*, 224, 420+.
- Ulrich, R. S. (1995). *Biophilia, Biophobia, and Natural Landscapes*. In S. R. Kellert & E. O. Wilson (Eds.), *The Biophilia Hypothesis*. Island Press.
- Ulrich, R. S. (2006). *Evidence-based health-care architecture*. *The Lancet*, 368, Supplement 1(0), S38–S39. doi:10.1016/S0140-6736(06)69921-2
- Ulrich, R. S., Berry, L. L., Quan, X., & Parish, J. T. (2010). *A Conceptual Framework for the Domain of Evidence-Based Design*. *HERD : Health Environments Research & Design Journal*, 4(1), 95–114.

- Ulrich, R. S., Simons, R. F., & Miles, M. A. (2003). Effects of environmental simulations and television on blood donor stress. *Journal of Architectural and Planning Research*, 20(1), 38–47.
- Ulrich, R. S., Zimring, C., Zhu, X., MS, J., Seo, H.-B., Choi, Y.-S., ... Joseph, A. (2008). A Review of the Research Literature on Evidence-Based Healthcare Design. *HERD : Health Environments Research & Design Journal*, 1(3), 61–125.
- U.S. Department of Agriculture (USDA). (1998). Soil Survey Geographic Database. Retrieved from <http://www.kansasgis.org/catalog/index.cfm>
- U.S. Geological Survey (USGS). (2006). Lidar 2006. Retrieved from <http://www.kansasgis.org/catalog/index.cfm>
- Van den Berg, A. E., Koole, S. L., & van der Wulp, N. Y. (2003). Environmental preference and restoration: (How) are they related? *Journal of Environmental Psychology*, 23(2), 135–146. doi:10.1016/S0272-4944(02)00111-1
- Vorkinn, M., & Riese, H. (2001). Environmental Concern in a Local Context The Significance of Place Attachment. *Environment and Behavior*, 33(2), 249–263. doi:10.1177/00139160121972972
- Walton, K. (2007, March 6). Time Running Out for Topeka Clock Tower. *Preservation: The Magazine of the National Trust for Historic Preservation*. Retrieved from http://www.preservationnation.org/magazine/2007/todays-news-2007/time-running-out-for-topeka.html?utm_source=facebook&utm_medium=like&utm_campaign=TimeRunningOutforTopekaClockTower
- Wasserman, J. R. (1999). Memory and Place: From Salem, Massachusetts to Oklahoma City and Beyond. In D. L. Scheu (Ed.), *1999 ASLA Annual Meeting Proceedings* (pp. 222–224). Washington, DC: American Society of Landscape Architects.
- Watkins, N., Cole, F., & Weidemann, S. (2010). The War Memorial as Healing Environment: The Psychological Effect of the Vietnam Veterans Memorial on Vietnam War Combat Veterans' Posttraumatic Stress Disorder Symptoms. *Environment and Behavior*, 42(3), 351–375. doi:10.1177/0013916510361873

Wheelock, P. C., Hanna, J., & Davis, T. (1999). *Attributing the Public Landscapes of Washington, D.C. to Frederick Law Olmsted, Jr.* In D. L. Scheu (Ed.), *1999 ASLA Annual Meeting Proceedings* (pp. 36–40). Washington, DC: American Society of Landscape Architects.

Wolschke-Bulmahn, J. (Ed.). (2001). *Places of Commemoration: Search for Identity and Landscape Design*. Dumbarton Oaks Research Library and Collection.

Wolterstorff, N. (1987). *Lament for a Son*. Wm. B. Eerdmans Publishing.

4) references

Altman, I., & Wohlwill, J. F. (1977). *Human Behavior and Environment: Advances in Theory and Research: Volume 2* (1st ed.). Springer.

Bechtel, R. B., Marans, R. W., & Michelson, W. (Eds.). (1987). *Methods in environmental and behavioral research*. Van Nostrand.

Dictionary.com (2012). memorial. (2012). Retrieved from <http://dictionary.reference.com/browse/memorial>

Interview with Jinny Blom on the Therapeutic Effect of Gardens. (n.d). *The Dirt*. Retrieved October 18, 2012, from <http://dirt.asla.org/2012/10/17/interview-with-jinny-blom-on-the-power-of-gardens/>

Ittelson, W. H. (1960). *Visual space perception*. Springer Pub. Co.

Kabat-Zinn, P. D., Jon. (2005). *Coming to Our Senses: Healing Ourselves and the World Through Mindfulness*. Hyperion.

- Man Found Guilty of Vandalizing Menninger Clock Tower. (n.d). Retrieved October 19, 2012, from http://www.wibw.com/home/headlines/Man_Found_Guilty_of_Vandalizing_Menninger_Clock_Tower_158498935.html?site=full
- McLemore, D. (2012). MLA Student inquiring about The Menninger Clinic's Design.
- Menninger family (American physicians) -- Britannica Online Encyclopedia. (n.d.). Retrieved October 31, 2012, from <http://www.britannica.com/EBchecked/topic/375142/Menninger-family?anchor=ref100545>
- Menninger, K. (1938). *Man Against Himself*. New York: Harcourt, Brace and Company.
- Messervy. (1995). *The Inward Garden: Creating a Place of Beauty and Meaning* (1st ed.). Little Brown and Company.
- Proshansky, H. M., & etc. (1976). *Environmental Psychology: People and Their Physical Settings* (2nd ed.). Holt McDougal.
- Simson, S. P. S., Martha C. , Editors. (1998). *Horticulture As Therapy Principles & Practice*. Crc Press.
- The Changing Face of Downtown. (n.d.). Retrieved September 18, 2012, from <http://www.austinchronicle.com/news/2001-04-20/81505/>
- Topeka's Historic Clock Tower Hit by Vandals. (n.d.). Retrieved October 19, 2012, from <http://www.insurancejournal.com/news/midwest/2006/07/06/70075.htm>

5) images cited

- Activity Therapy at Menninger Clinic in Topeka, Kansas. (1980). Retrieved from <http://www.kansasmemory.org/item/223440>
- Activity Therapy at the Menninger Clinic in Topeka, Kansas - 2. (1985). Retrieved from <http://www.kansasmemory.org/item/223455/page/2>
- Adjunctive Therapy at the menninger clinic in Topeka, KS. (1960). Retrieved from <http://www.kansasmemory.org/item/223458>
- Aerial view of Menninger West Campus, Topeka, Kansas. (1963). Retrieved from <http://www.kansasmemory.org/item/222342/page/1>
- Aerial views of construction of Menninger West Campus buildings, Topeka - This aerial view is looking east. The Tower building is at the mid left hand side of the photograph. (1981). Retrieved from <http://www.kansasmemory.org/item/224484/page/1>
- Arbor Day at the Menninger Clinic in Topeka, Kansas. (n.d.). Retrieved from <http://www.kansasmemory.org/item/226174/page/1>
- Art Therapy at Menninger Clinic in Topeka, Kansas. (1980). Retrieved from <http://www.kansasmemory.org/item/223438/page/1>
- Bicycle repair activity therapy group at Menninger, Topeka, Kansas - 1. (1967). Retrieved from <http://www.kansasmemory.org/item/223459/page/1>
- Dean Building, Menninger West Campus, Topeka, Kansas. (1969). Retrieved from <http://www.kansasmemory.org/item/224554>
- Facilities management at the Menninger Clinic in Topeka, Kansas. (1990). Retrieved from <http://www.kansasmemory.org/item/226199>
- Freudian Follies at the Menninger Clinic in Topeka, Kansas. (1965). Retrieved from <http://www.kansasmemory.org/item/226218>

Greenhouse and gardens, Menninger Clinic in Topeka, Kansas - 1. (1994). Retrieved from <http://www.kansasmemory.org/item/223622/page/1>

Greenhouse at Menninger Clinic, Topeka, Kansas. (1960). Retrieved from <http://www.kansasmemory.org/item/222482>

Karl A. Menninger, M.D., in the 1980's - The Native Grass and Wildflower Garden at the VA hospital in Topeka was dedicated to Dr. Karl in September of 1985. (n.d.). Retrieved from <http://www.kansasmemory.org/item/222334/page/4>

Karl Menninger, M.D. as artist in Topeka, Kansas. (1990). Retrieved from <http://www.kansasmemory.org/item/227001>

Karl Menninger, M.D., lecturing. (1961). Retrieved from <http://www.kansasmemory.org/item/226452>

Menninger Clinic's west campus dedication in Topeka, Kansas. (1982). Retrieved from <http://www.kansasmemory.org/item/226126>

- Nova, N. (2012). Big birds in Geneva by Cedric Le Borgne. Retrieved from <http://www.flickr.com/photos/nnova/8250006787/>
- Neiswanger Building, Menninger Clinic, West Campus, Topeka, Kansas. (n.d.). Retrieved from <http://www.kansasmemory.org/item/222601>
- Patient's room at Menninger Clinic, Topeka, Kansas. (n.d.). Retrieved from <http://www.kansasmemory.org/item/224564/page/1>
- Security Benefit Association, Hilltop Manor, Topeka, Kansas - 1. (n.d.). Retrieved from <http://www.kansasmemory.org/item/221854/page/1>
- Security Benefit Association, Hilltop Manor, Topeka, Kansas - 3. (n.d.). Retrieved from <http://www.kansasmemory.org/item/221854/page/3>
- The Security Benefit Association hospital building, Topeka, Kansas. (1930). Retrieved from <http://www.kansasmemory.org/item/224550/page/1>
- The three Drs. Menninger on Arbor Day in Topeka, Kansas. (1953). Retrieved from <http://www.kansasmemory.org/item/225967>
- Tower Building and clocks, Menninger West Campus, Topeka, Kansas - 1. (1980). Retrieved from <http://www.kansasmemory.org/item/224552/page/1>
- Tower Building and clocks, Menninger West Campus, Topeka, Kansas - 4. (1980). Retrieved from <http://www.kansasmemory.org/item/224552/page/4>
- West Campus construction of Menninger Foundation, Topeka, Kansas - Looking south from the Tower building, the nearly completed buildings are shown with new trees being staked out in the lawn . (1982). Retrieved from <http://www.kansasmemory.org/item/224519/page/1>
- Wolfe Commercial Photo Service. (1928). Menninger Clinic East Lodge. Retrieved from <http://www.kansasmemory.org/item/224305/page/1>