

Exercises in Imagination

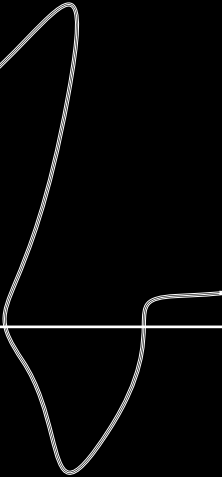
Fluid Space

by:
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2019



[Fade in]



Trailer(abstract)

One of the first calculations we are taught as children is that $1+1 = 2$. We then learn to count until 10 and are for the first time introduced to 0, which is odd in some sense and deeply interesting in another. $1 + 1$ are identical in the structure. Twins one might argue, and so begins the childlike exploration into the context of Pretoria.

To be continued with a story.

[and Scene]

Acknowledgements

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To my parents for supporting my studies even though they didn't always know what we were up to in Boukunde.

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Prelude

Fluid Space: Exercises in Imagination



Parliament Street, Pretoria Central,
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Study Leader:
Marguerite Pienaar

Year Coordinator :
Prof. Arthur Barker

Research Field:
Heritage and Cultural Landscapes

Function of building:
Recreational Park/Atmospheric Theatre

Client:
Department of Arts and Culture

Theoretical premise:
Twin Phenomena

Keywords:
Twin, Phenomena, Duality, Atmospheric, Trace, Time, Memory, Nature, Water.

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List of Figures

Figure 1: Graphic normative position (Author, 2018)	15
Figure 2: Conceptual Sketch of sites as twins (Author, 2018)	19
Figure 3: Sketch and diagram illustrating concept of Landing (Author, 2018)	21
Figure 4: Sketch and diagram illustrating concept of Grounding (Author, 2018)	21
Figure 5: Sketch and diagram illustrating concept of Finding (Author, 2018)	23
Figure 6: Sketch and diagram illustrating concept of Founding (Author, 2018)	23
Figure 7: Conceptual Urban model that weaves Landing, Grounding, Finding, and Founding of Capitol Theatre and Fountains Valley, and begins exploring the connection of the two sites as a twin phenomena.	24
Figure 8: The words, "Twin-Phenomena, Uncanny, Gesture", highlight the intentions of reconnecting the umbilical cord of Capitol Theatre and Fountains Valley.	24
Figure 9: Sketch and diagram depicting Finding (Author 2018)	27
Figure 10: Fountains Valley (Author, 2018)	28
Figure 11: Capitol Theatre (Author, 2018)	29
Figure 12: Photographs depicting Genius loci of Fountains Valley (Author, 2018)	30
Figure 13: Photographs depicting Genius loci of Capitol Theatre (Author, 2018)	31
Figure 14: In praise of shadows (Author, 2018)	33
Figure 15: Sketch revealing the hidden in Fountains valley and Capitol theatre (Author, 2018)	33
Figure 16: Effect of infrastructure (Author, 2018)	33
Figure 17: Silence and darkness of space (Author, 2018)	33
Figure 18: Dreams and Imagination (Author, 2018)	35
Figure 19: Presence of water on both sites (Author, 2018)	35
Figure 20: Activity/lived (Author, 2018)	35
Figure 21: Presence of ruins (Author, 2018)	36
Figure 22: Threshold projections (Author, 2018)	36
Figure 23: Sites as escapes from and within the urban (Author, 2018)	37
Figure 24: Frequency of sound experienced in nature and building (Author, 2018)	37
Figure 25: Silence (Author, 2018)	37
Figure 26: Gravity as expressed landscape and architecture (Author, 2018)	38
Figure 27: Memory of train tracks within site fabric (Author, 2018)	38
Figure 28: Memory of theatres once lived (Author, 2018)	38
Figure 29: Sketch and diagram depicting Grounding (Author 2018)	41
Figure 30: Depicting Stone Age settlement presence in 2000 BC Author 2018)	42
Figure 31: Depicting Iron Age settlement locations in Groenkloof Nature Reserve between 550 BC - 700 AD (Author, 2018)	42
Figure 32: Depicting the Ndebele Tribe presence in the 1500s (Author 2018)	42
Figure 33: Depicting the areas in which Mzilikazi and his tribe settled along the Apies River (Author 2018)	44
Figure 34: Depicting war waged between Mzilikazi and the Voortrekkers (Author 2018)	44
Figure 35: Depicting initial Boer Settlement within Fountains Valley (Author, 2018)	44
Figure 36: Depicting water furrow system that was created to feed water to the developing Church Square (Author, 2018)	45
Figure 37: 14.11.1879 compass sketch plan of pretoria with focus on aqueduct (Isandora Repository, 2018)	47
Figure 38: 1902 map of pretoria demarcating various boundaries , infrastructure, and ecological conditions	49
Figure 39: (Isandora Collection, 2018)	49

Figure 40: Depicting the Fortification of Pretoria as a result of the 1898 Jameson Raid (Author, 2018)	49
Figure 41: 1905 Fountain in church square (Friedel Hansel, 2018)	51
Figure 42: 1928 map of Pretoria depicting condition of development (van der Waal collection, 2018)	51
Figure 43: 1934 Aerial Map of Pretoria (van der Waal Collection, 2018)	52
Figure 44: Visitors guide to Pretoria, notice prevalent open spaces (date not specified) (Isandora Collection, 2018)	52
Figure 45: 1933. Rowing on the Fountains Valley's lake, with the kiosk in the background (Sammy Marks Archive Collection, 2018)	53
Figure 46: Diagram showing road network development over Fountains Valley (Author, 2018)	53
Figure 47: Timeline highlighting key moments in the history of Capitol Theatre, Fountains Valley, and the history of Pretoria (Author 2018)	55
Figure 48: Fountains valley 1870s (Sammy Marks Archive Collection, 2018)	56
Figure 49: Floods at Fountains Valley 1939 (Sammy Marks Archive Collection, 2018)	56
Figure 50: Weir and bridge at Fountains Valley, with the kiosk in the background (1933) (Sammy Marks Archive Collection, 2018)	56
Figure 51: The Kiosk, Fountains Valley, 1948 (Sammy Marks Archive Collection, 2018)	56
Figure 52: Church Square facing west down Church Street West 1888	57
Figure 53: (Van der Waal Collection, 2018)	57
Figure 54: Church Square 1905, Slow place (Vivien Allen, 2018)	57
Figure 55: Market Street 1900 (Van der Waal Collection, 2018)	57
Figure 56: Fountains Valley Gardens, October 1952 (Sammy Marks Archive Collection, 2018)	58
Figure 57: Fountains Valley playgrounds (29.6.1958) (Sammy Marks Archive Collection, 2018)	58
Figure 58: Fountains Drive-in cinema at Fountains Valley (1958) (Sammy Marks Archive Collection, 2018)	58
Figure 59: Fountains Valley Gardens, October 1952 (Sammy Marks Archive Collection, 2018)	58
Figure 60: Fountains Valley playgrounds (29.6.1958) (Sammy Marks Archive Collection, 2018)	58
Figure 61: Church Square from Standard Bank building 1934 (Friedel Hansen, 2018)	59
Figure 62: Capitol Theatre in the background with church square in the foreground. 1970 (Friedel Hansen, 2018)	59
Figure 63: Capitol Theatre with church square in the background. 1931 (Friedel Hansen, 2018)	59
Figure 64: Map placing Capitol Theatre and Fountains Valley into a larger contextual framework (Author, 2018)	60
Figure 65: Map figure contextualising Capitol Theatre and Fountains Valley (Author 2018)	62
Figure 66: Conceptual Urban Vision Sketch exploring the re-representation of spaces with extension into their immediate surrounding context. (Author, 2018)	65
Figure 67: Urban Vision sketch of Capitol Theatre depicting intention to extend architecture out of Capitol Theatre into public space (Author, 2018)	66
Figure 68: Urban Vision sketch of Fountains Valley depicting intention to extend architecture out of Capitol Theatre into public space (Author, 2018)	66
Figure 69: Combined Urban Vision of Twin Places (Author, 2018)	67
Figure 70: Urban Vision for Fountains Valley (Author, 2018)	70
Figure 71: Urban Vision for Church Square with emphasis on Capitol theatre (Author, 2018)	71
Figure 72: Theatres in Pretoria (Author 2018)	78
Figure 73: Parks in Pretoria (Author 2018)	82
Figure 74: Graphic representation of General Issue (Author 2018)	84
Figure 75: Graphic representation of Urban Issue (Author 2018)	85
Figure 76: Graphic representation of Architectural Issue (Author, 2018)	86
Figure 77: Sketch and diagram depicting Finding (Author 2018)	89
Figure 78: Folding and Intersection of sites (Author, 2018)	94
Figure 79: Final model exploration of intuitive exercise (Author, 2018)	96

List of Figures

Figure 80: Section cut through Final model exploration of intuitive exercise (Author, 2018)	97
Figure 81: Model exploration morphing form with site and embedding form in the landscape (Author 2018)	98
Figure 82: Model exploration morphing form with site and embedding form in the landscape (Author 2018)	99
Figure 83: Section exploring spatial intention and attitude to landscape (Author, 2018)	102
Figure 84: Site plan depicting potential position of building on site (Author, 2018)	102
Figure 85: Sectional models exploring potential three dimensional qualities of space (Author, 2018)	102
Figure 86: Section exploring building as landscape and extending theatre programme (Author, 2018)	103
Figure 87: Site plan depicting potential position of building on site (Author, 2018)	103
Figure 88: Sectional models exploring potential three dimensional qualities of space (Author, 2018)	103
Figure 89: Section exploring spatial intention and attitude to landscape while expressing experience of water and spatial use (Author, 2018)	110
Figure 90: Site plan depicting potential position of building on site (Author, 2018)	110
Figure 91: Sectional models exploring potential three dimensional qualities of space (Author 2018)	110
Figure 92: Section exploring relationship between urban and recreational space within Capitol Theatre (Author, 2018)	111
Figure 93: Site plan depicting potential position of building on site (Author, 2018)	111
Figure 94: Sectional models exploring potential three dimensional qualities of space (Author, 2018)	111
Figure 95: Section exploring the potential of an atmospheric theatre within Fountains Valley (Author 2018)	118
Figure 96: Site plan depicting potential position of building on site (Author 2018)	118
Figure 97: Sectional models exploring potential three dimensional qualities of space (Author 2018)	118
Figure 98: Section exploring building as landscape, while retaining recreation intention and introducing nature as a reflection of Fountains Valley (Author, 2018)	119
Figure 99: Site plan depicting potential position of building on site (Author, 2018)	119
Figure 100: Sectional models exploring potential three dimensional qualities of space (Author, 2018)	119
Figure 101: Section exploring architecture archiving into landscape and testing approach of the atmospheric theatre (Author, 2018)	126
Figure 102: Site plan depicting potential position of building on site (Author, 2018)	126
Figure 103: Sectional models exploring potential three dimensional qualities of space (Author, 2018)	126
Figure 104: Section exploring 'Building as Landscape' as it references Fountains Valley and human inhabitation of form in and Urban condition (Author, 2018)	127
Figure 105: Site plan depicting potential position of building on site (Author, 2018)	127
Figure 106: Sectional models exploring potential three dimensional qualities of space (Author, 2018)	127
Figure 107: Section exploring atmospheric theatre as expressed in a different form to enhance atmosphere of site (Author 2018)	134
Figure 108: Site plan depicting potential position of building on site (Author, 2018)	134
Figure 109: Sectional models exploring potential three dimensional qualities of space (Author, 2018)	134
Figure 110: Section exploring programme of Fountains Valley in a n urban context, with water as a key component (Author, 2018)	135
Figure 111: Site plan depicting potential position of building on site (Author, 2018)	135
Figure 112: Sectional models exploring potential three dimensional qualities of space (Author, 2018)	135
Figure 113: The Cult of Yoruba Twins Yoruba mother with the memorial figures of her deceased twins (Randafrikanart, 1980)	146
Figure 114: Exploration sketch in Fountains Valley 1 (Author 2018)	148
Figure 115: Exploration sketch in Fountains Valley 2 (Author 2018)	148

Figure 116: Exploration representation of mist and water (Author 2018)	149
Figure 117: Exploration swimming pool experience (Author 2018)	149
Figure 118: Conceptual Vision for Fountains Valley (Author, 2018)	150
Figure 119: Conceptual Vision for Capitol Theatre (Author, 2018)	151
Figure 120: Depicting Placial Triad as an ally to reading place (Author 2018)	152
Figure 121: Sketch depicting Material Dimension of Place (Author, 2018)	155
Figure 122: Sketch depicting Lived Dimension of Place (Author, 2018)	157
Figure 123: Sketch depicting Mental Dimension of Place (Author, 2018)	159
Figure 124: Conceptual themes (Author, 2018)	162
Figure 125: Precedents showing different representations of water (Author 2018, See Appendix for description.)	167
Figure 126: Water diagrams showing water as guiding element for experiencing architecture and its weathering away (Author, 2018)	168
Figure 127: Water diagrams showing different representations of Water within architecture (Author, 2018)	169
Figure 128: Shared and Referential Memory (Author, 2018)	173
Figure 129: Diagrams depicting memory, as it relates to conceptual themes and references of Capitol Theatre (Author, 2018)	174
Figure 130: Diagrams depicting memory, as it relates to conceptual themes and references of Fountains Valley (Author, 2018)	175
Figure 131: Diagrams depicting expression of time in Fountains Valley (Author, 2018)	178
Figure 132: Diagrams depicting expression of time in Capitol Theatre with relation to accompanying conceptual themes (Author, 2018)	179
Figure 133: Floor Plan situating architecture within natural context (Author, 2018)	182
Figure 134: Sketch depicting Falling Water as an extension of Natural Context (Author, 2018)	182
Figure 135: Villa Savoye and its elevated connection to Nature (Author, 2018)	183
Figure 136: Villa Savoye surrounded by nature in an urban context (Author, 2018)	183
Figure 137: Approaches to Nature in Fountains Valley (Author, 2018)	184
Figure 138: Approach to nature in Capitol Theatre (Author, 2018)	185
Figure 139: Conceptual exchange of programme diagram (Author, 2018)	191
Figure 140: Diagrams showing programmatic informants for Fountains Valley in Capitol Theatre (Author, 2018)	192
Figure 141: Diagram showing programmatic informants for Atmospheric Theatre in Fountains Valley (Author, 2018)	193
Figure 142: Proposed intervention, morphed into landscape (Author, 2018)	206
Figure 143: Proposed intervention highlighting relationship to existing pump house (Author, 2018)	206
Figure 144: Proposed intervention, situated in context (Author, 2018)	207
Figure 145: Proposed intervention highlighting architectural intention (Author, 2018)	207
Figure 146: Existing Condition of site (Author, 2018)	216
Figure 147: Proposed intervention, morphed into landscape (Author, 2018)	216
Figure 148: Proposed intervention highlighting relationship to existing pump house (Author, 2018)	216
Figure 149: Existing Condition of site (Author, 2018)	217
Figure 150: Proposed intervention, situated in context (Author, 2018)	217
Figure 151: Proposed intervention highlighting architectural intention (Author, 2018)	217
Figure 152: Existing Condition of site (Author, 2018)	223
Figure 153: Proposed intervention, morphed into landscape (Author, 2018)	223
Figure 154: Proposed intervention highlighting relationship to existing pump house (Author, 2018)	223
Figure 155: Exploring basement spaces (Author, 2018)	231
Figure 156: June Crit Model showing proposed design in Fountains valley (Author, 2018)	232
Figure 157: June Crit Model showing proposed design in Capitol Theatre (Author, 2018)	233
Figure 158: Existing Condition of site (Author, 2018)	234

List of Figures

Figure 159: Proposed intervention, morphed into landscape (Author, 2018)	234	
Figure 160: Proposed intervention highlighting relationship to existing pump house (Author, 2018)		234
Figure 161: Existing Condition of site (Author, 2018)	235	
Figure 162: Proposed intervention, situated in context (Author, 2018)	235	
Figure 163: Proposed intervention highlighting architectural intention (Author, 2018)	235	
Figure 164: 3D exploration of design (Author, 2018)	242	
Figure 165: Spatial arch reform (Author, 2018)	244	
Figure 166: Section A-A and testing joinery construction (Author, 2018)	246	
Figure 167: Section A-A and steel and glass detail exploration (Author, 2018)	247	
Figure 168: Existing Condition of site (Author, 2018)	248	
Figure 169: Proposed intervention, morphed into landscape (Author, 2018)	248	
Figure 170: Proposed intervention highlighting relationship to existing pump house (Author, 2018)		248
Figure 171: Existing Condition of site (Author, 2018)	249	
Figure 172: Proposed intervention, situated in context (Author, 2018)	249	
Figure 173: Proposed intervention highlighting architectural intention (Author, 2018)	249	
Figure 174: Exploring spatial arch form (Author 2018)	250	
Figure 175: Glass pool detail exploration (Author 2018)	251	
Figure 176: Sketches exploring floor and spatial layout of atmospheric theatre (Author 2018)	258	
Figure 177: Sketches exploring floor and spatial layout as response to landscape (Author 2018)	260	
Figure 178: Sketch and diagram depicting founding (Author 2018)	263	
Figure 179: Timber from atmospheric theatre used to shutter concrete in urban site. Twin construction of sites (Author 2018)		265
Figure 180: Locality Map (Author 2018)	266	
Figure 181: Locality Map (Author 2018)	267	
Figure 182: Steel as it references trees in Fountains Valley (Author 2018)	269	
Figure 183: Glass swimming pool by Guedes Cruz Arquitectos (Ricardo oliveira alves 2018)	269	
Figure 184: Timber joinery construction exploration (Author 2018)	270	
Figure 185: Timber joinery influence from Capitol theatre block figure ground (Author 2018)	270	
Figure 186: Glass swimming pools (Author 2018)	271	
Figure 187: Foundation construction process (Author 2018)	272	
Figure 188: Rammed Earth in promenade (Author 2018)	272	
Figure 189: Timber shuttered concrete pavers on ground floor (Author 2018)	273	
Figure 190: Timber shuttered concrete pavers on ground floor (Author 2018)	273	
Figure 191: Material palette and deterioration (Author 2018)	274	
Figure 192: Primary material palette (Author 2018)	275	
Figure 193: Perspective showcasing relationship between new building and existing pump house (Author 2018)		280
Figure 194: Proposed theatre in landscape 1 (Author 2018)	280	
Figure 195: View from public square to proposed structure (Author 2018)	281	
Figure 196: View of glass swimming pools from market space (Author 2018)	281	
Figure 197: Atmospheric theatre (Author 2018)	282	
Figure 198: Atmospheric theatre corridor (Author 2018)	282	
Figure 199: Basement experience (Author 2018)	283	

Figure 200: Elevated pool level 1 (Author 2018)	283
Figure 201: Basement Floor Plan (Author 2018)	284
Figure 202: Basement Floor Plan (Author 2018)	285
Figure 203: Ground Floor Plan (Author 2018)	286
Figure 204: First Floor Plan (Author 2018)	287
Figure 205: Second Floor Plan (Author 2018)	287
Figure 206: Projection room showcasing projection of activity in twin site.	288
Figure 207: Aerial view of intervention in context	290
Figure 208: Section A-A through Atmospheric theatre (Author 2018)	292
Figure 209: Section A-A through proposed swimming pools, exhibition space, studio space and existing capitol theatre (Author 2018)	294
Figure 210: Wetland system (Author 2018)	296
Figure 211: Wetland system (Author 2018)	297
Figure 212: 100 Year flood line frequency (Author 2018)	298
Figure 213: Second Floor heated pools with water running in circular loop (Author 2018)	299
Figure 214: First Floor heated pools with water running in circular loop (Author 2018)	299
Figure 215: Natural Ventilation of Atmospheric Theatre (Author 2018)	300
Figure 216: Ventilation strategy as response to Fountains Valley (Author 2018)	301
Figure 217: Timber joinery detail showcasing stone and decking structure	302
Figure 218: Green roof and paving detail referencing introduction of nature to urban space and the buildings relationship with water (Author 2018)	303
Figure 219: Timber joinery detail (Author 2018)	304
Figure 220: Glass swimming pool and walkway detail (Author 2018)	305
Figure 221: SBAT rating of existing Fountain valley condition (Author 2018)	306
Figure 222: SBAT rating of proposed intervention in Fountains valley (Author 2018)	306
Figure 223: SBAT rating of existing Capitol Theatre condition (Author 2018)	307
Figure 224: SBAT rating of proposed intervention (Author 2018)	307
Figure 225: View down Projection room (Author 2018)	308
Figure 226: View overlooking Church Square (Author 2018)	309
Figure 227: View down Promenade (Author 2018)	310
Figure 228: Original ground floor plan of Capitol Theatre	324
Figure 229: Original first floor plan of Capitol Theatre	324
Figure 230: Original third floor plan of Capitol Theatre	325
Figure 231: Redrawn fourth floor plan of Capitol Theatre	325
Figure 232: Original sections of Capitol Theatre	326
Figure 233: Original sections of Capitol Theatre	327
Figure 234: Water yield and harvest tables (Author 2018)	328
Figure 235: Water yield and harvest tables (Author 2018)	329
Figure 236: Water yield and spring water cycle tables (Author 2018)	330
Figure 237: Water yield and spring water cycle tables (Author 2018)	330
Figure 238: Solar Panel energy calculations (Author 2018)	331
Figure 239: Water pump spec	332
Figure 240: Water pump spec	333
Figure 241: Planting palette (Author 2018)	335
Figure 242: Material Decay of Atmospheric Theatre (Author 2018)	336
Figure 243: Theory paper (Author 2018)	338

Table of Contents

[a tale of two places]

Chapter 1

Landing

Page 27

Chapter 2

Grounding

Page 40

Chapter 3

Finding

Page 88

Chapter 4

Founding

Page 262

Normative Position

[Looking at the world]

I see it clearly....

First the hidden light, amongst the shadows...

Then the texture of the ground and its creation of space.

I am aware of its presence now in a physical and metaphysical sense.

The evasive threshold, the Sublime, the tangible and intangible, and the materials containing all these experiences.

It first moves my heart and soul, then floods my thoughts and lets me be.

A Haptic Architecture.

The 7 senses expressed through sight, touch, hearing, taste, smell, muscle, and bone, as romanced by Pallasmaa.

All these experienced amongst physical and mental constructs.

The measuring of place, place measuring you.

The intro is phenomenology, The body is an exploration, The conclusion is Architecture.

A phenomenological Architecture.

Let me revel in the material that tells time of things lived and living to come.

Imagination is what gives life to bricks and mortar, to concrete and glass, to void and solid, to past and present, to light and dimness, to rebar and sill.

Its all very overwhelming.

Elementary.

Poetic.

Necessary.

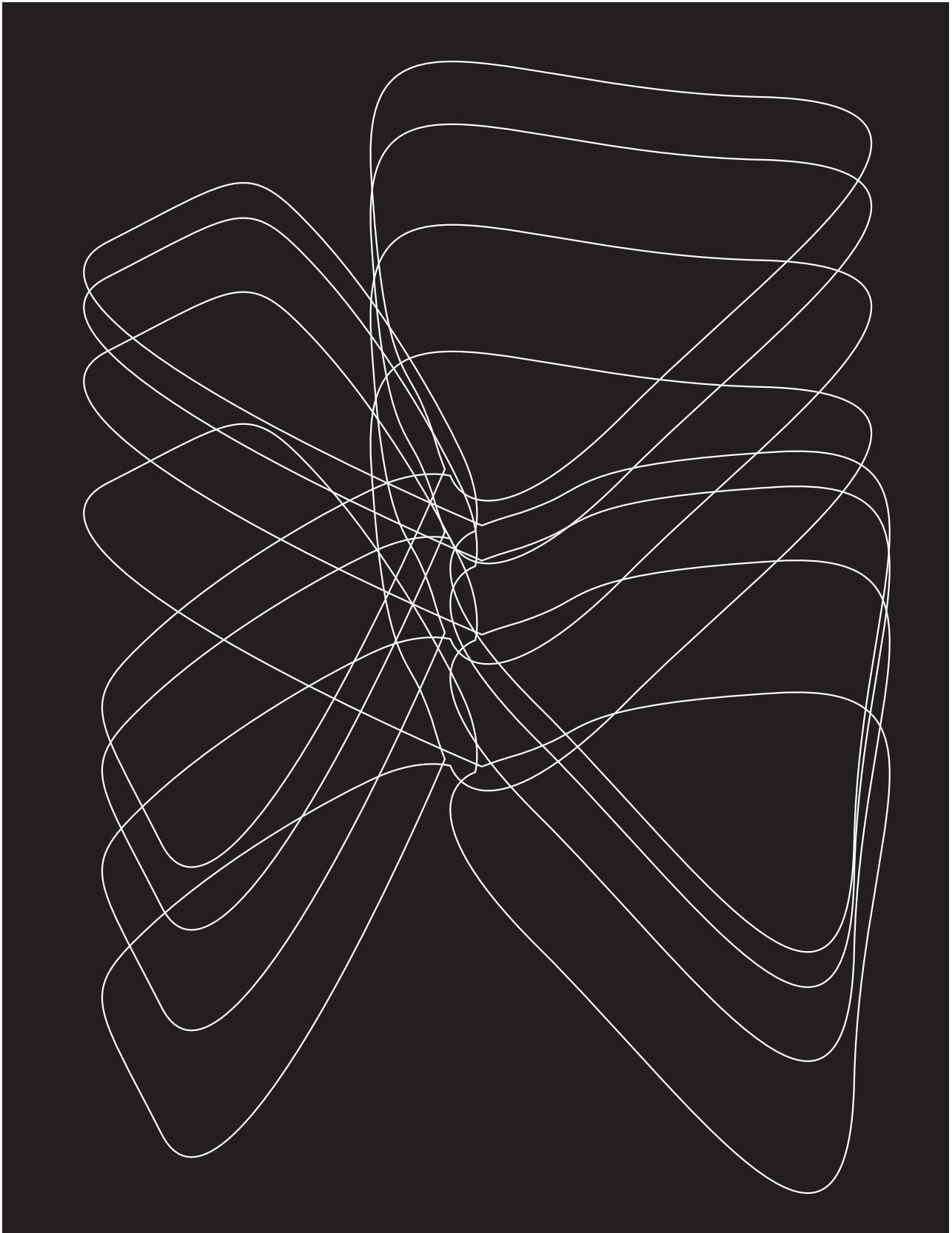


Figure 1: Graphic normative position (Author, 2018)

Twin-Context

[a tale of two places]

[Fade in:]

Imagine the birth of these two special places, these twins. Twins born not of the same time but of the same dreams. Dreams that suspend time to allow their birth to bare resemblances of each other. Water was their umbilical cord. Fountains Valley sustained the life of Capitol theatre. Capitol theatre sustained the imagination of humans. Time was slower then, water traversed the landscape at the speed at which nature allowed. Water played on rocks and soil and gave and sustained life. Time was the fabric that held the ties of the metaphoric umbilical cord in harmony.

[Introduce Suspense]

Over time the threads of the umbilical water were contaminated and the two began forming into ones. The city developed and the water was needed elsewhere. Fountains remained in its natural character and Capitol performed its role. On a day that is uncertain to record, fountains overheard man talk in nature about a theatre, which brought back memory of the Capitol. The Springs reaccessed the gravity to send a message to Capitol theatre. The message was so intense it began flooding its basement. The two now sit reunited in some way, trying to find ways to reconnect the umbilical, to reestablish place and dreams, to think of a future of accord.

[Fade Out]

Script and Screen Play

[reading]

Screen play and the place

The history of Pretoria can be read as screenplay, or an act that has been performed in a theatre. Each scene resides in a time frame, within a very particular place to express characters roles in the play. Characters are important in the ordering of the story, but place situates and grounds characters and brings a sense of Genius loci. Within place actors read the quality of the environment and perform the script to best suit place.

The actors within Pretoria find themselves in various forms, the literal and metaphoric, the tangible and intangible, the seen and the unseen, the real and the imagined. The Tangible aspects relate to the landscape, human artefact's, buildings, and dwellings. The Intangible aspects speak to language, perceptions, haptic experiences, dreams, and imaginations. The tangible and intangible are threaded deeply into the script of place.

Genre

Ordering the Story of place

Within Screenplays there are various genres that give expressions to the ideas and imaginations of authors. History of characters tend to be the focus of a genre, with place as the supporting actor. Within a history where the landscape is as important a part of the cast as the autobiographic actor, one may ask as to what the genre of this scenario would call for?:

Drama, Fantasy, Suspense

A TALE OF TWO CRIMES. Twin Phenomena



? TWO PLACES ?

NEWA .

THE SKETCH STATES A DIALOGUE
BETWEEN TWO PLACES IN P.A..
THESE TWO PLACES HAVE SIMILARITIES.
AS THEY ARE BOTH OF HIPPER
SPACES, & COULD BE A FENCE,
MAYBE.

01/02/18
MAY 10, NIGHT TIME.

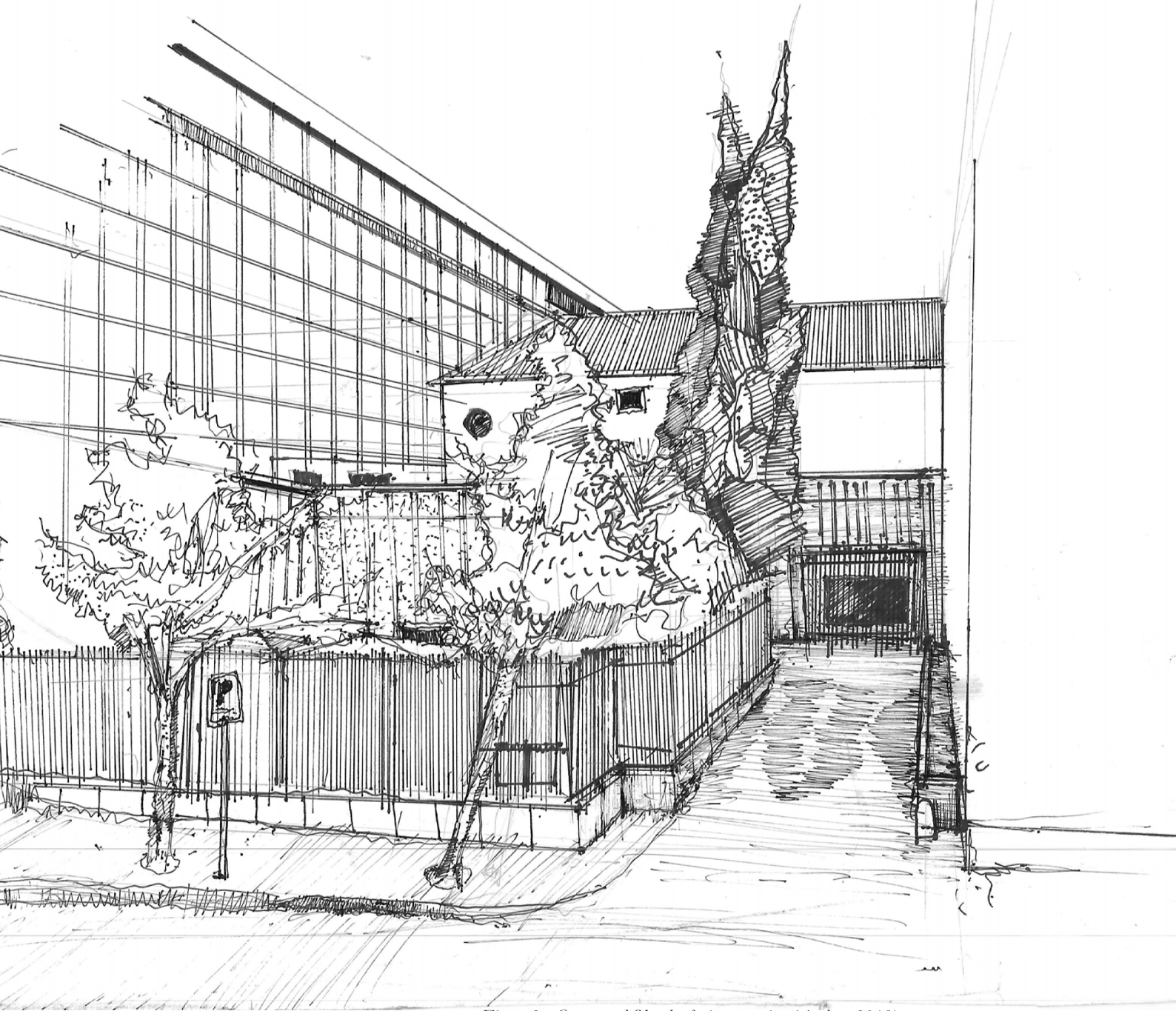


Figure 2: Conceptual Sketch of sites as twins (Author, 2018)

IV Trace Concepts

[Landing, Grounding, Finding, Founding]

[Introduction to concept]

“A designer seldom belongs to a place in which he or she is asked to intervene”

The quote above by Christopher Girot (1999:60) gives a clear indication of the reasoning to develop the “trace concepts” that are outlined above (Landing, Grounding, Finding, Founding). This approach was initially conceptualised in reference to Landscape Architecture but can also be read as an approach to Architecture as landscape forms a part of place, time, and various tangible and intangible fabric. The Four Trace concepts are progressive and become intertwined as one gets immersed in the process of design and discovery. Christophe Girot (1999:60) makes mention to how:

”site functions like a partition or container for a muse, who may through design, reveal hidden aspects of a hidden place”.

This revelation of these hidden aspects is framed through Landing, Grounding, Finding, and Founding.

[Enter_Trace 1]

Landing

“Our everyday life-world consists of concrete “phenomena”. It consists of people, of animals, of flowers, trees and forests, of stone, earth, wood and water, of towns, streets and houses, doors, windows and furniture. And it consists of sun, moon, and stars, of drifting clouds, of night and day and changing seasons. But it also comprises more intangible phenomena such as feelings”.

(Christian Norberg-Shulz 1980:6)

Landing is the first act of site acknowledgment that marks the odyssey of a project (Girot 1999:61). Landing can be thus be seen as a sacred experience because it is devoid of an in depth knowledge of a place and allows the first experience to be unsolicited and visceral. Landing is a measuring of place that invokes a displacement and change of speed which allows one to experience the confines of an unknown world(Girot 1999:61).

[Fade to_Trace 2]

Grounding

Grounding follows the second step in the four traces. The experience of grounding deals with a more definite orientation and rootedness in place as it deals with a more critical reading of place through various studies and continuous site visits(Girot 1999:62). The activity of grounding views a given site as a Tabula Rasa and thus reads the site as both tangible and intangible layers . Grounding thus forms a probe into the successive history and present quality of a place, through careful research and analysis(Girot,1999:63)

Landing

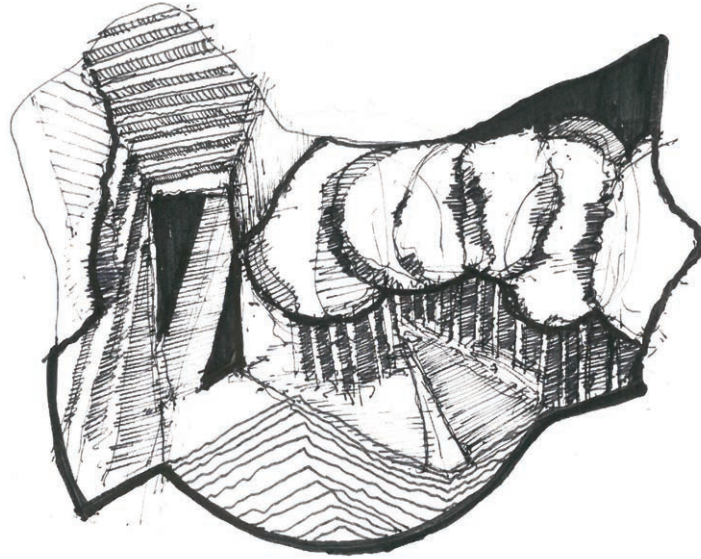


Figure 3: Sketch and diagram illustrating concept of Landing (Author, 2018)

Grounding

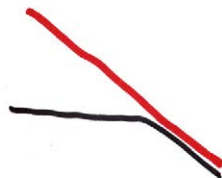
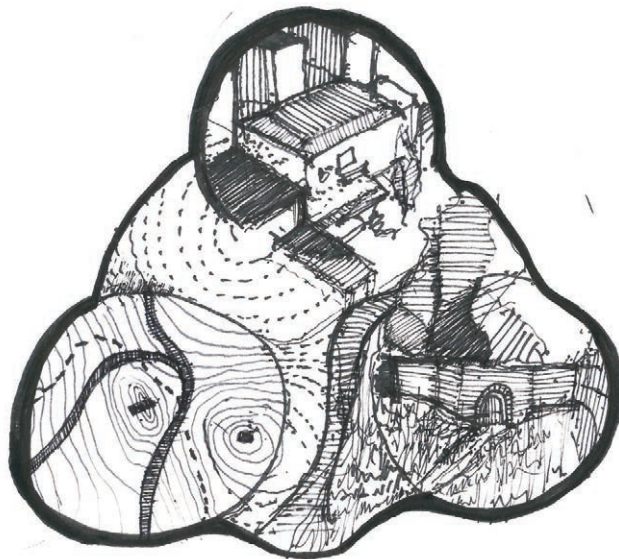


Figure 4: Sketch and diagram illustrating concept of Grounding (Author, 2018)

[Fade to_Trace 3]

Finding

Finding forms the third trace that is a culmination and extension of Landing and Grounding. Findings are expressed through the tangible and evanescent through the activity of discovery and insight (Giro 1999:63). Findings are unique in that they are knit into the fabric of a specific place which contributes to the identity of its genius loci. Thus Finding is privileged in that its results are made both by a surprise discovery and a critical methodical investigation(Giro 63).

As this third trace blurs boundaries between the previous two, Giro (1999:64) further states that:

“Finding is the alchemical component in the design process; it may be permanent or impermanent, the result of a fleeting vision or some resounding echo. Finding usually discloses the evidence to support one’s initial intuitions about a place”.

[Fade to_Trace 4]

Founding

Founding is realised as a synthesis of Landing, Grounding, and Finding, into an approach to constructing on a site. The previous three traces oscillate between discoveries of permanence and ephemerality, and thus the opportunity for either/or is possible in the Founding of place (Giro 1999:64). Founding adds to the palimpsest of place in either a recollection of past events or something new to extend the legacy of place toward a productive future(Giro 1999:65).

Finding

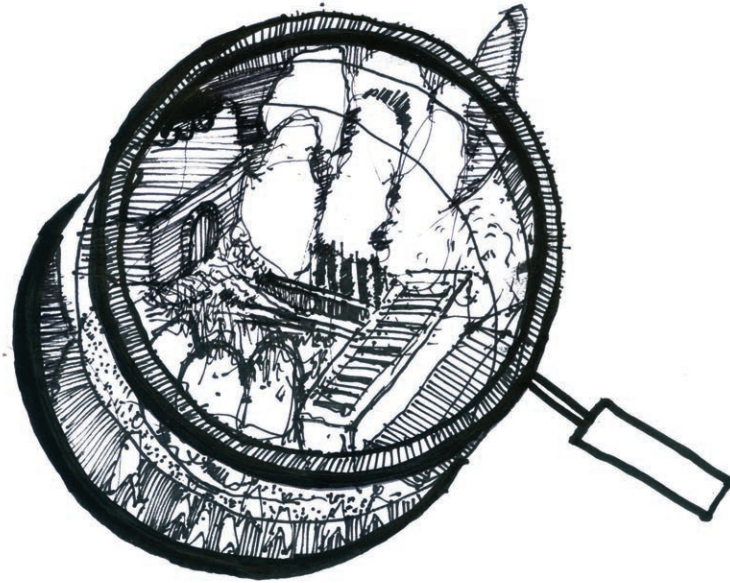


Figure 5: Sketch and diagram illustrating concept of Finding(Author, 2018)



Founding

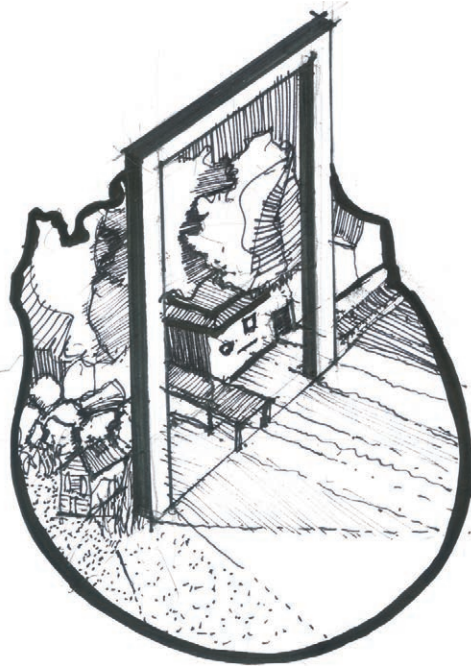


Figure 6: Sketch and diagram illustrating concept of Founding(Author, 2018)





Figure 7: Conceptual Urban model that weaves Landing, Grounding, Finding, and Founding of Capitol Theatre and Fountains Valley, and begins exploring the connection of the two sites as a twin phenomena.

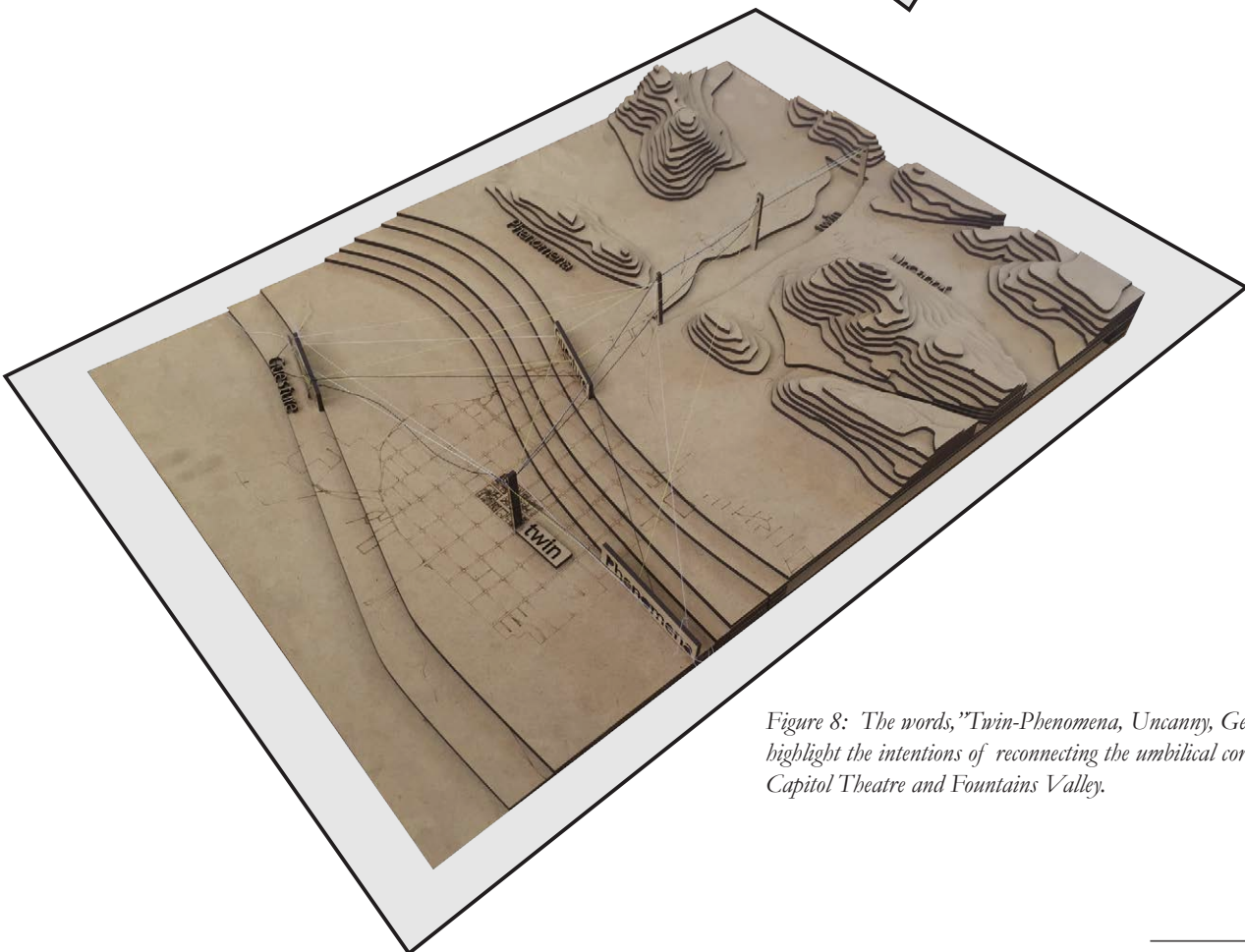
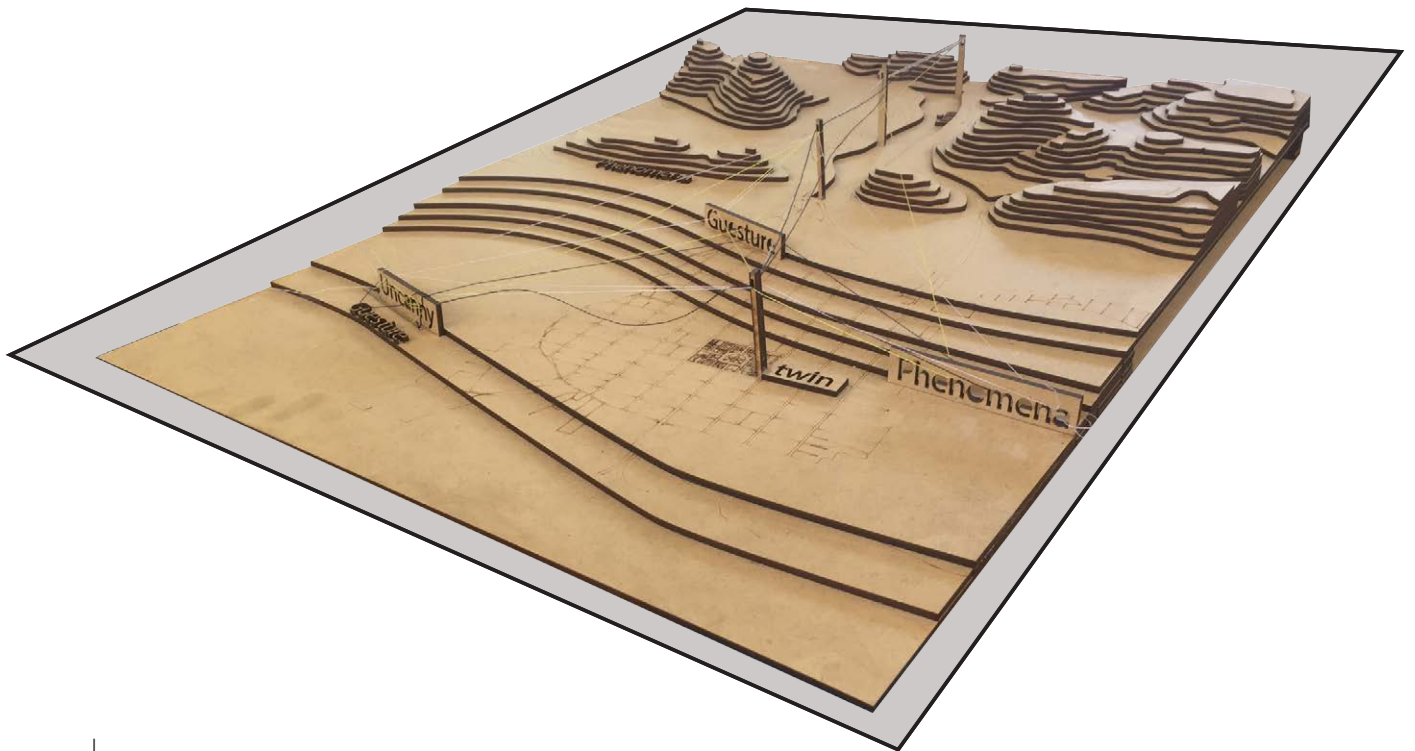
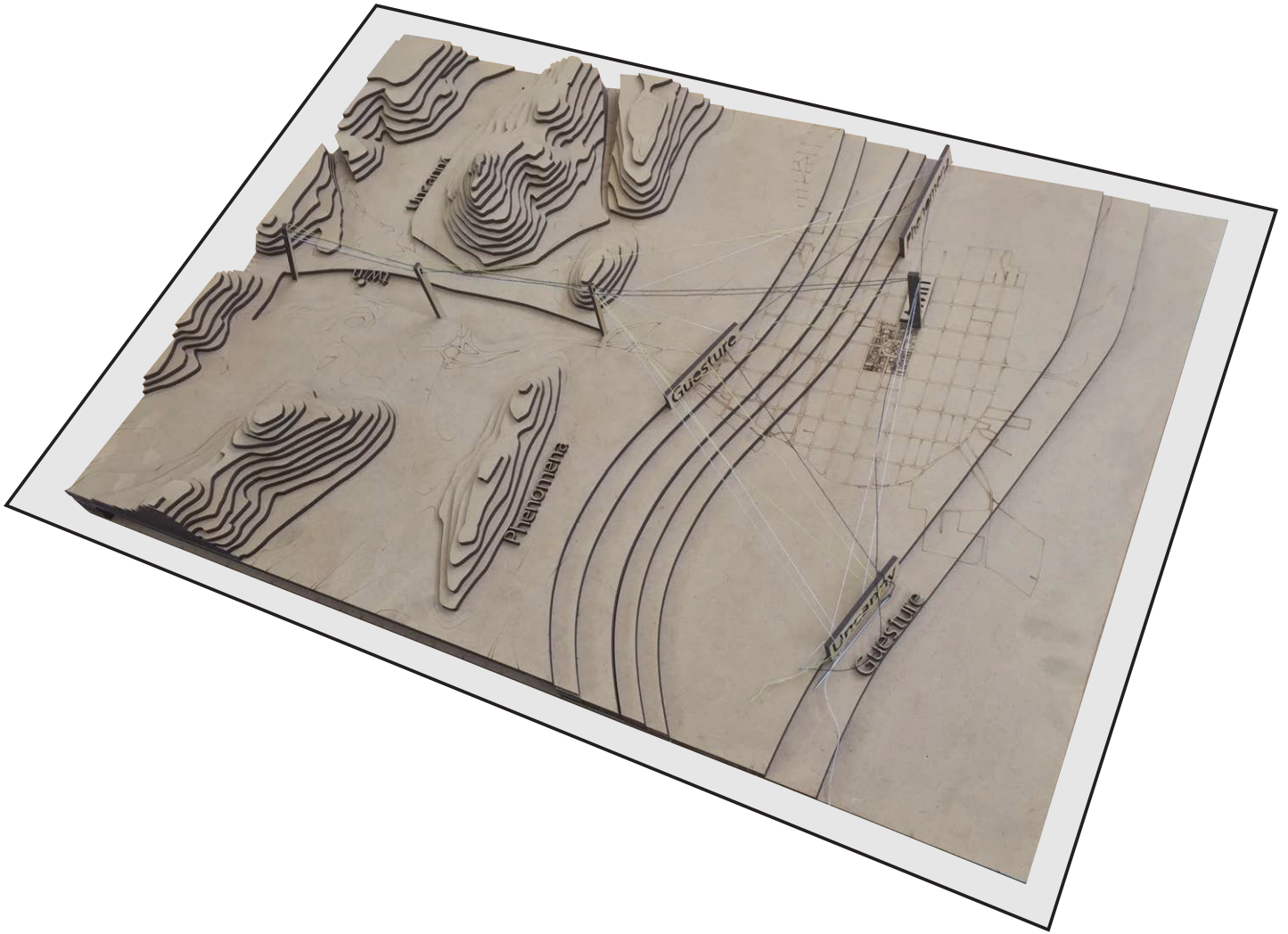


Figure 8: The words, "Twin-Phenomena, Uncanny, Gesture", highlight the intentions of reconnecting the umbilical cord of Capitol Theatre and Fountains Valley.



CHAPTER 1

Landing

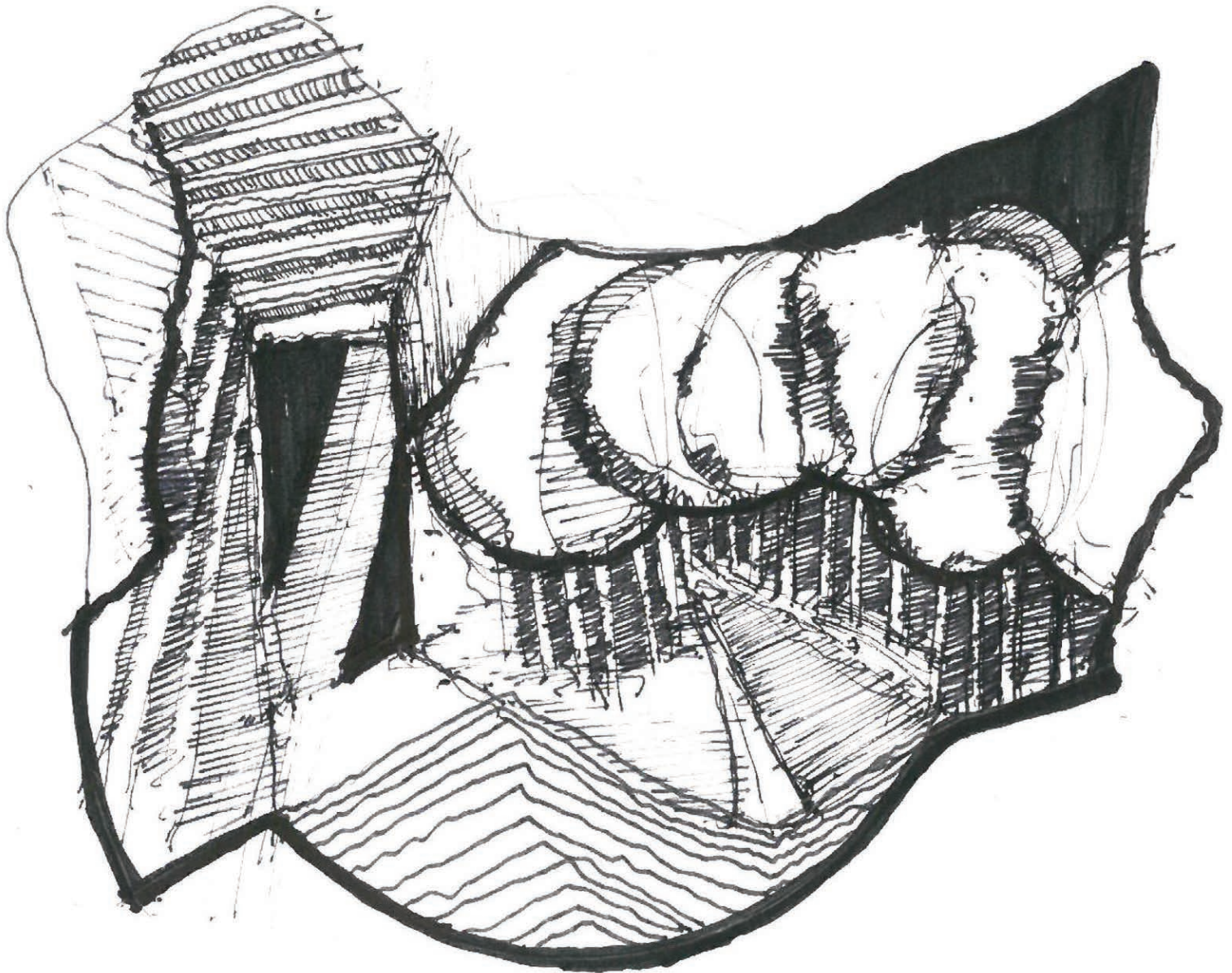


Figure 9: Sketch and diagram depicting Finding (Author 2018)



Fountains Valley

[Written landing experience]

Whichever path you decide on arriving here is dominated by the interchanging of roads with nature contained in its own reveries. The thatched double storey entrance forms the threshold between the hard and the soft. Driving in you may be torn on whether to drive around the entire place or begin by walking. A poor decision might find you driving around and finding yourself back where you started realising that this landscape holds dreams, secrets and peace.

If I were you I would park just a few meters to the right of the entrance and start your journey there. Step out your car and take a deep breath. Do you hear how loud the cars behind you are on the highway, don't worry too much. Continue walking and get lost to your left where there is a wash of shadows, where light dances between the leaves. Walk towards the spruit and try keep your balance between the soft ground with hard uneven fallen branches and soft twigs. Walk to the edge of the river bank and you might find that the:

*The air is cold
The trees are magical
The air is fresh
The traffic is loud but I cant hear it
If you play close enough attention to the river
you can hear its rhythms through its ripples.*

You now have experienced more senses than you care to account for. Your speed is now determined by the ground on which you walk. Continue to get lost and explore.

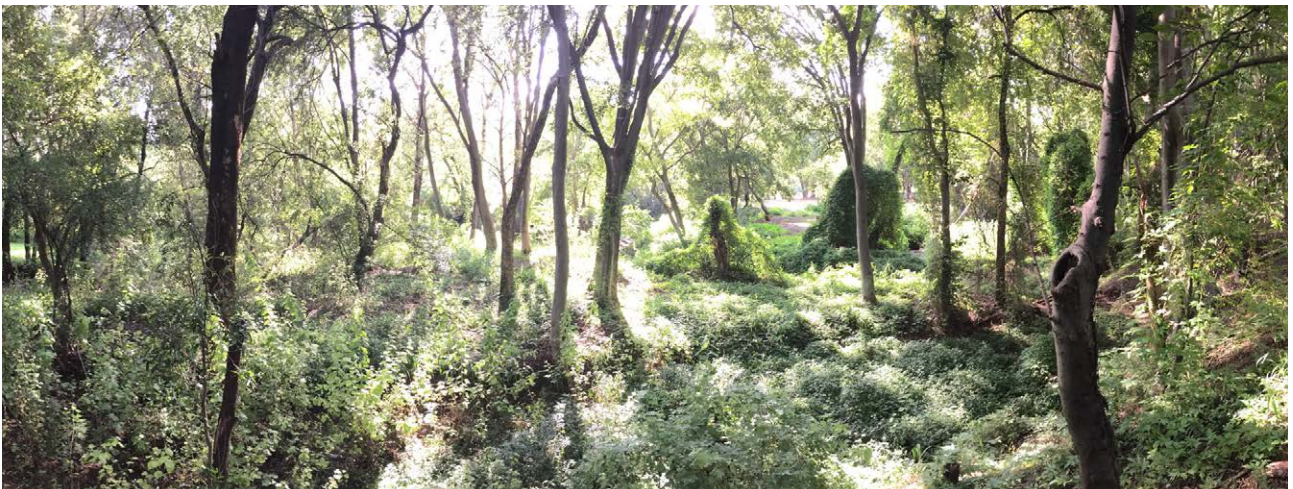


Figure 10: Fountains Valley (Author, 2018)



Capitol Theatre

[Written landing experience]

The best way to describe this experience is with reference to the timeless metaphor of a rose. You are walking in a deep dark forest. The air is thick with exotic and familiar smells. Each step is a balancing act as the ground hasn't been tempered by man. It is all very disorientating at first, until you stumble across the deepest expression of red you have seen in your life.

Kneel down on the ground with your hands behind your back and smell the rose. The soft ground will make it hard to balance and you might just want to hold the rose. Do it. The new red you see is a prickle of blood from the thorns. Find the space between the thorns and try smell it again.

The rose is a similar experience to Capitol Theatre. The progression from Church Square to the theatre is a layering process.

From noise to silence.

Light to Dark.

Certainty to Uncertainty.

Atmosphere to Atmospheric.

Fast Time to Slow Time.

Material, to material, to the immaterial.

An Architecture of the Imagination.



Figure 11: Capitol Theatre (Author, 2018)

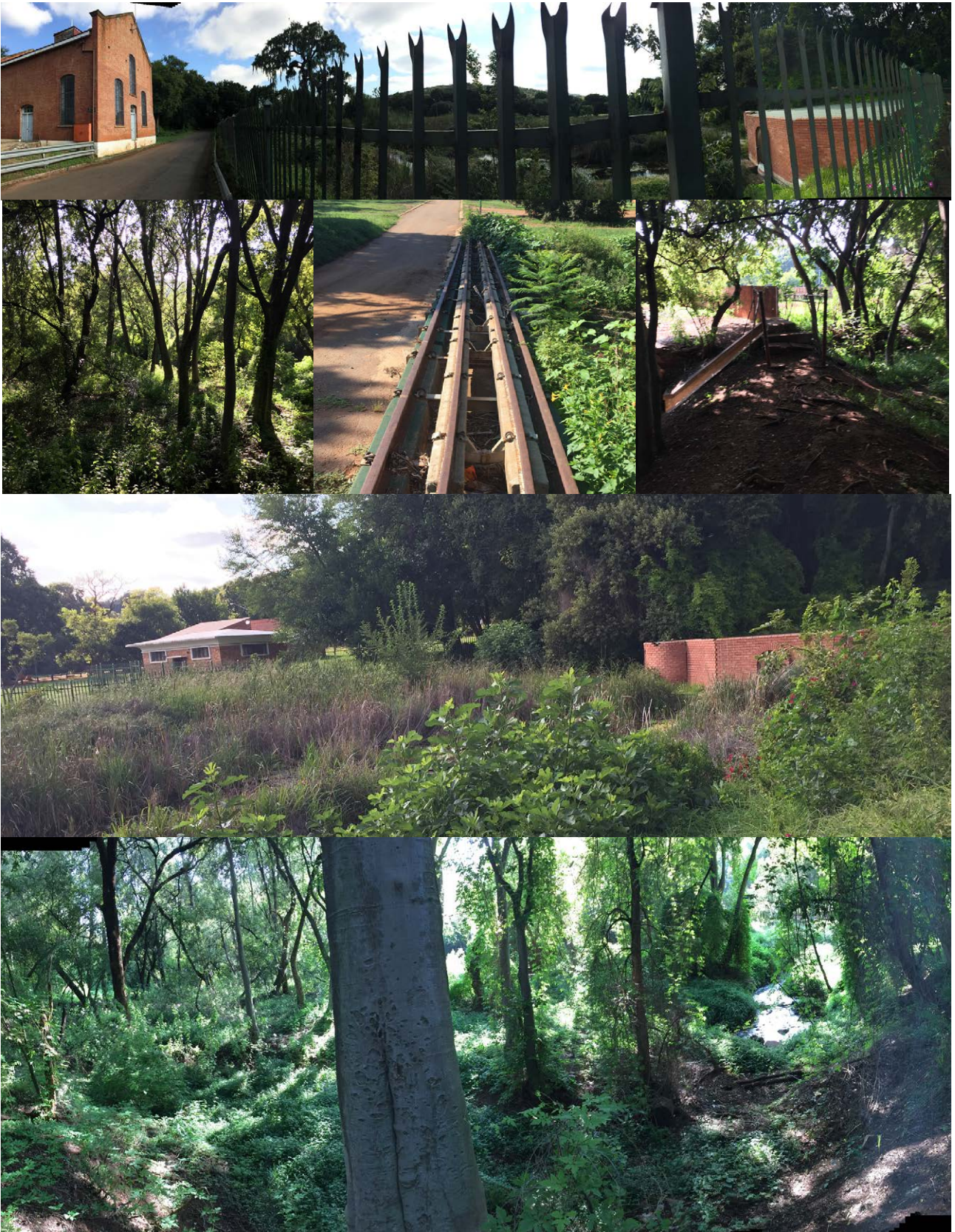


Figure 12: Photographs depicting Genius loci of Fountains Valley (Author, 2018)

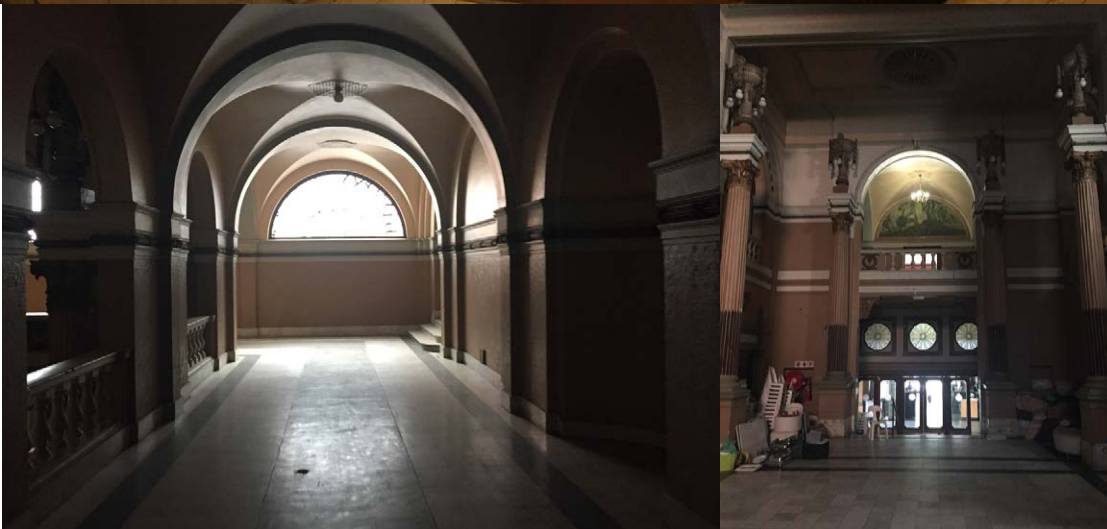


Figure 13: Photographs depicting Genius loci of Capitol Theatre (Author, 2018)

Intuitive Analysis

[Initial landing experience]

[Fade in_ quote on visceral experience]

“ There is almost an idea of relativity in landing; one might argue that circumstances change at every moment and that the perception of a place can never really be twice the same. The sense of entry and landing is, therefore, personal. It escapes clear scientific methodology and is almost always the result of chance. Landing is an event open to the elements and to the seasons, to all the customs and risks at large. It is, in fact, a living manifestation of the experiential potential of a site and thus has potent spatial and psychological effects on the subsequent thinking through of the design project.”

Christophe Girot(1999:62)

The Landing within these twin places began an inquiry into the similarities and unique qualities of Fountains Valley and Capitol theatre. As a method of exploration intuitive themes of similarities were drawn and explored. This method was a result of triggers of visceral experiences within these two spaces. The exploration itself isn't linear as the idea of landing is one that allows one to be immersed in place and one's imagination simultaneously. The first emotional reactions to these twin spaces was an overwhelming feeling of experiencing uncanny spaces hidden from the more prevalent human condition. The exploration explored themes related to :

In Praise of Shadows, Hidden, Infrastructure, Silence/Darkness, Dreams/Imagination, Water, activity, Lived, Presence of Ruins, Threshold, Escape, Sound, Frequency, Gravity, Tracks, Theatres.

[Fade in_ Intuitive themes explored]

[Cut to Fig]

In Praise of shadows gives attention to the importance of shadows in allowing the Genius loci of the twin spaces to allow for a visceral experience.

[Cut to Fig]

The **Hidden** questions how these spaces are forgotten with such a distinct character within the urban condition.

[Cut to Fig]

Infrastructure takes note of how the twin spaces have infrastructure as common threat to a sense of place.

[Cut to Fig]

Silence and Darkness revel in the ability of these spaces to be comfortable in the midst of the hustle and bustle of the busy city and highways.

[Meditate on Fig]

Dreams and Imagination takes note of time being suspended and allowing space to become an embodied experience. Within the landscape there is an imagination of architecture, and within the architecture there are dreams of landscapes.

[Cut to Fig]

Water takes notice of the different personalities that water expresses within and urban and natural condition.

[Ponder on Fig]

Activity/Lived takes note of how these two spaces are epiphanies of spaces that were escapes for people.

[Cut to Fig]

Presence of Ruins bares the traces of how time has left its mark in both twin conditions, as they remain hidden.

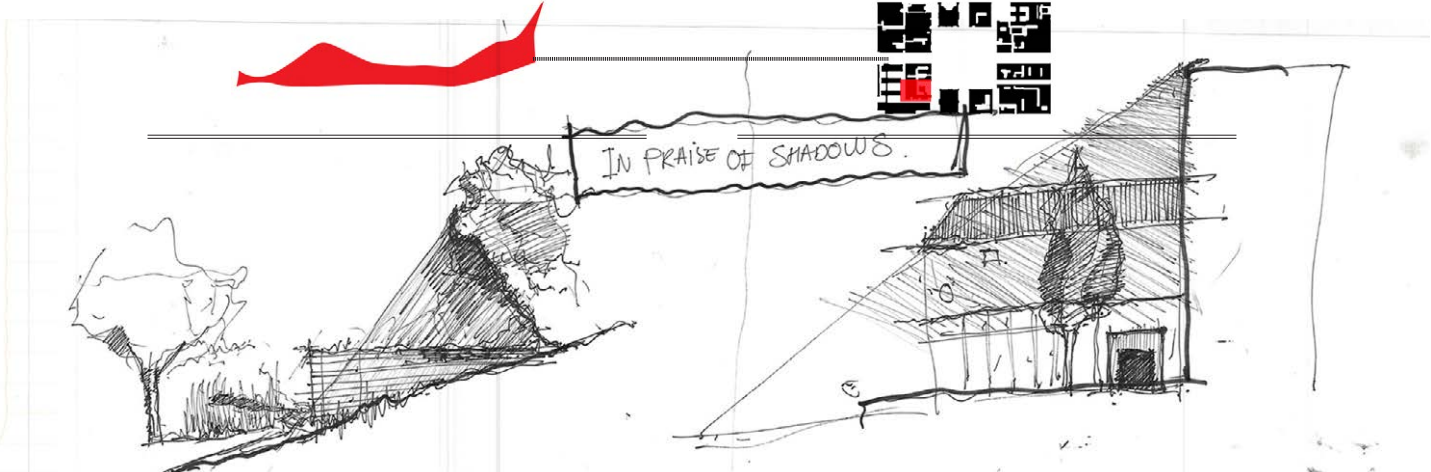


Figure 14: In praise of shadows (Author, 2018)

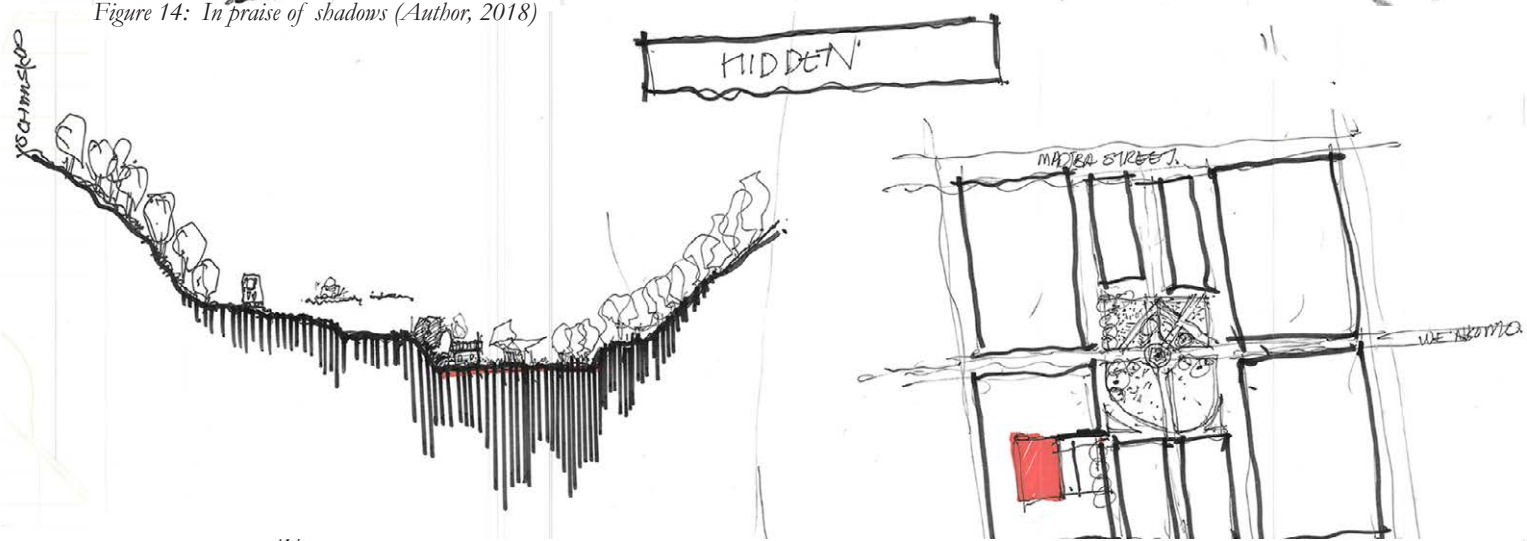


Figure 15: Sketch revealing the hidden in Fountains valley and Capitol theatre (Author, 2018)

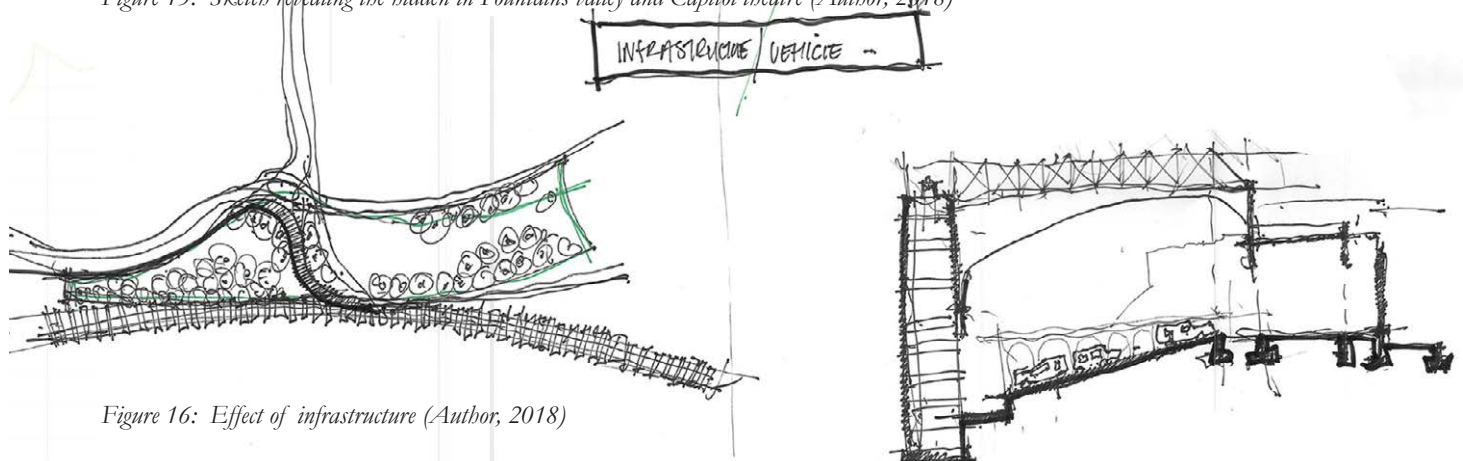


Figure 16: Effect of infrastructure (Author, 2018)

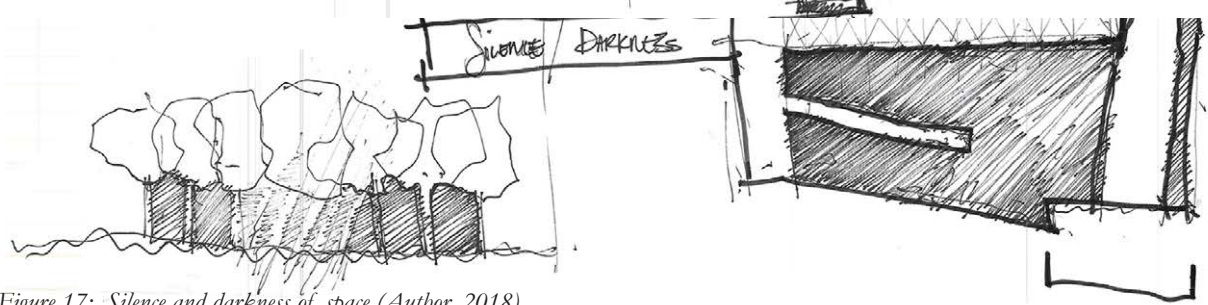


Figure 17: Silence and darkness of space (Author, 2018)

[Cut to Fig]

Threshold appreciates the manner in which one is constantly layered into varying experiences of place. These transitions, in what can be seen as stratifies space, creates an erosion of doubts and an accumulation of curiosity as the sequences are experienced within a physical and haptic realm.

[Cut to Fig]

Escape takes cognisance of when immersed within discovery these spaces are where one might tend to take refuge from the everyday urban life without having to travel to far. The ideas of escape from the urban and escape within the urban are pondered on.

[Cut to Fig]

Sound is curious in the way that the landscape and the theatre have textures of ground texture. These sound textures layer the experience of a place. Within Fountains Valley there is the presence of tarmac that one walks on with good balance and absence of ones presence of walking. The second one moves to the untouched natural ground the sound of twigs breaking and the malleable ground creating an imbalance in posture, sound becomes an important quality. In this state the sound of the flowing river becomes known but not seen, the sound of birds leads vision to trees where leaves move with no sound.

Within the Capitol Theatre the main theatre seatings spaces have scarred polished concrete floors that for the most part emit small sound bites, depending on the shoes one wears. The main stage holds whole different experience as the wooden floors flood the theatre with a deep earthy sound.

[Cut to Fig]

Frequency is an expression of the oscillation between different variations of silence. The sound of birds feathers flapping in the empty Capitol theatre is silent in that it presences the quality of theatre. The fluid friction of water on earth silences external noise and focuses one in dwelling in place.

[Cut to Fig]

Gravity is experienced through the experience of the flâneur. Time is measured in experience of space. The slope in ground plane of these two spaces makes one conscious of speed. In Fountains Valley there are varying degrees of change of topography. In Capitol Theatre we find a similar situation, however the change in topography is experienced in a slopes, stairs, single & double volumes spaces.

[Cut to Fig]

Tracks are the memory of transportation systems that brought life into these twin spaces. Church Square still has the memory of trams and Fountains Valley still has the its train tracks dancing above and within nature.

[Cut to Fig]

Theatre appreciates that both of the sites have historically been Theatres, with Capitol expressed in the interior and Fountains Valley celebrating the exterior with a Drive-in Cinema.

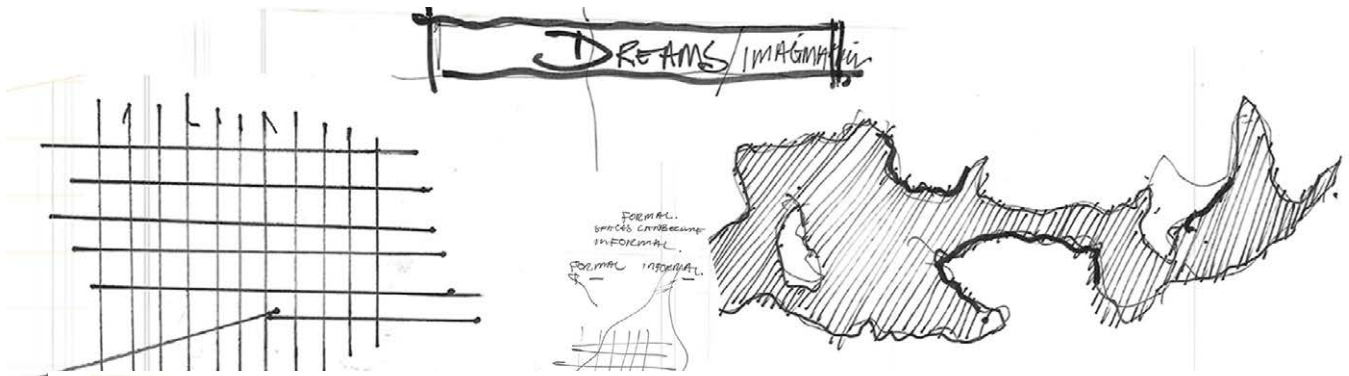


Figure 18: Dreams and Imagination (Author, 2018)

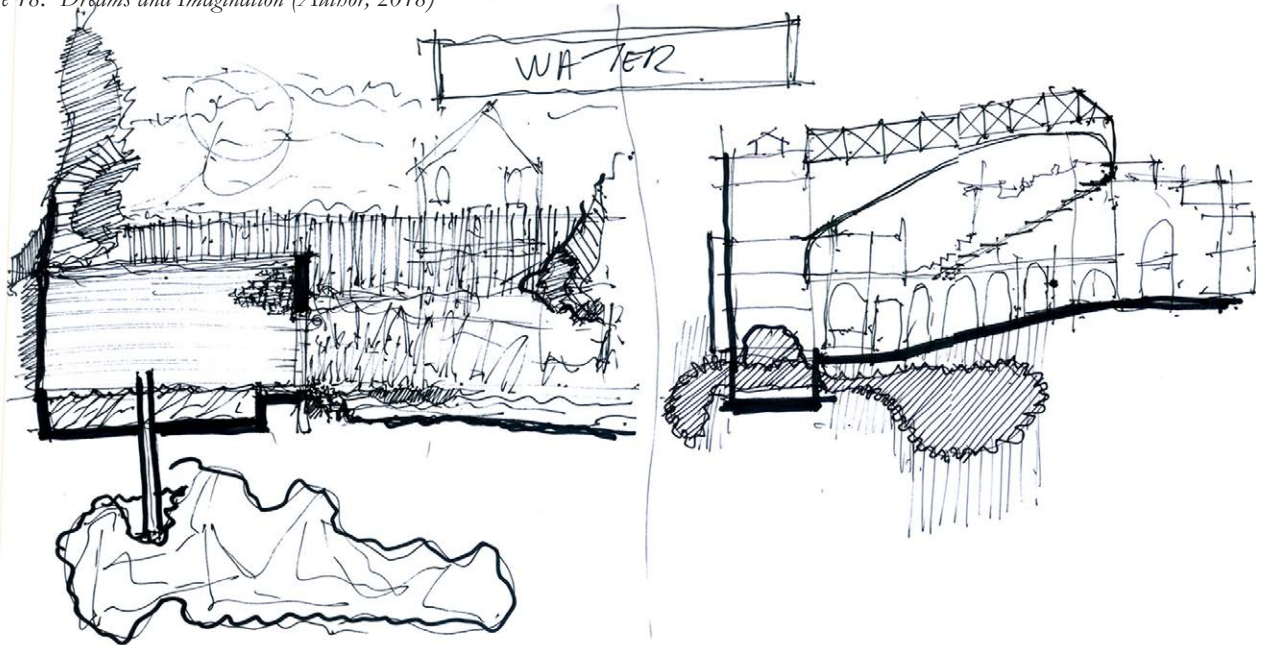


Figure 19: Presence of water on both sites (Author, 2018)

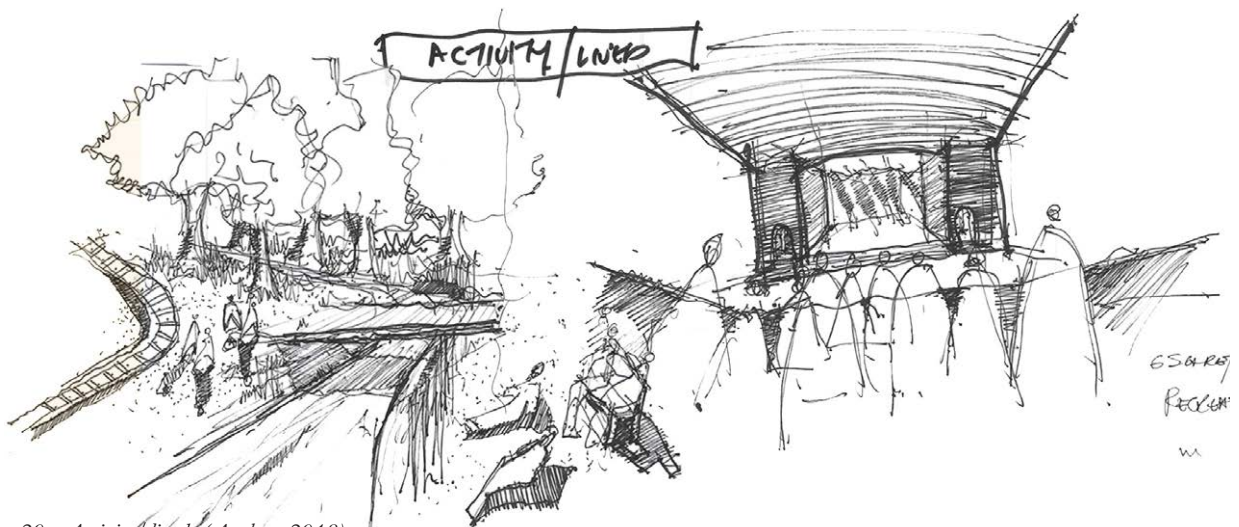


Figure 20: Activity lived (Author, 2018)

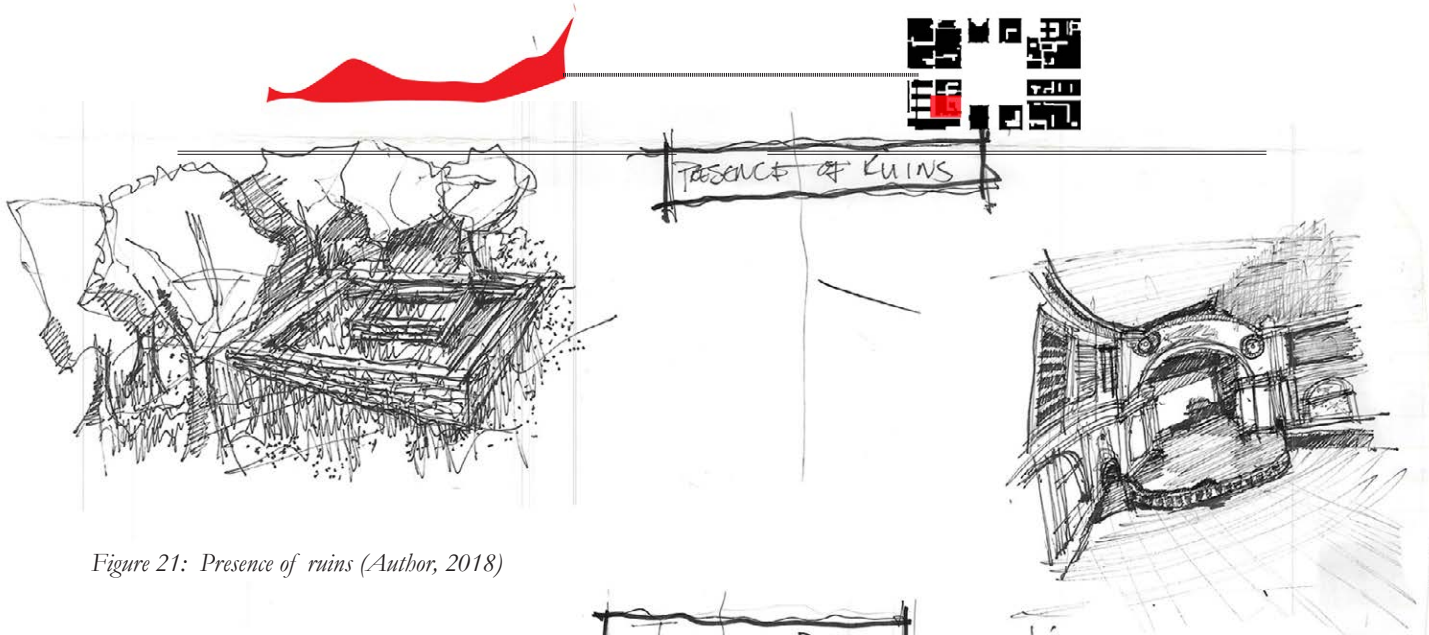


Figure 21: Presence of ruins (Author, 2018)

THRESHOLD

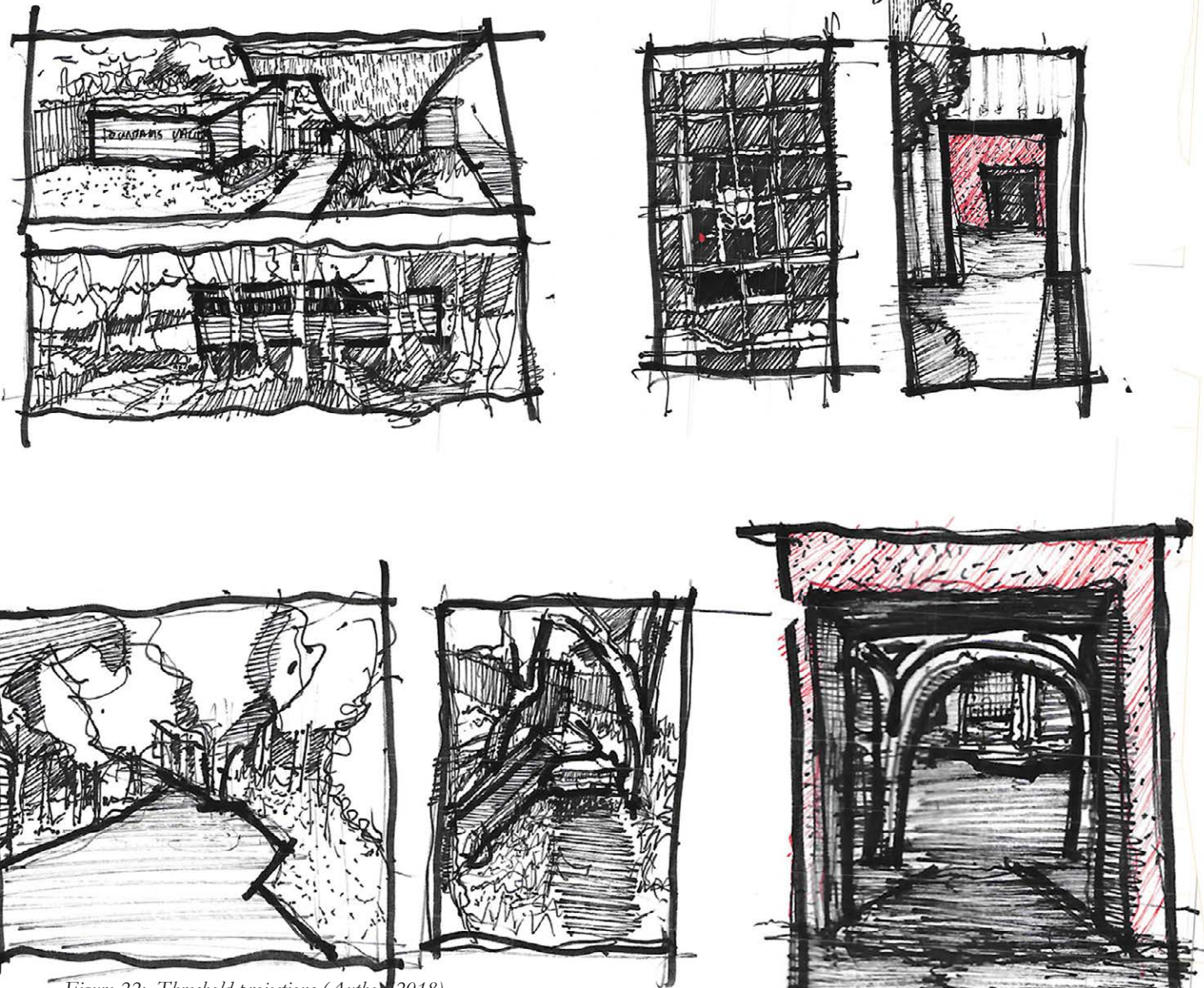


Figure 22: Threshold projections (Author, 2018)

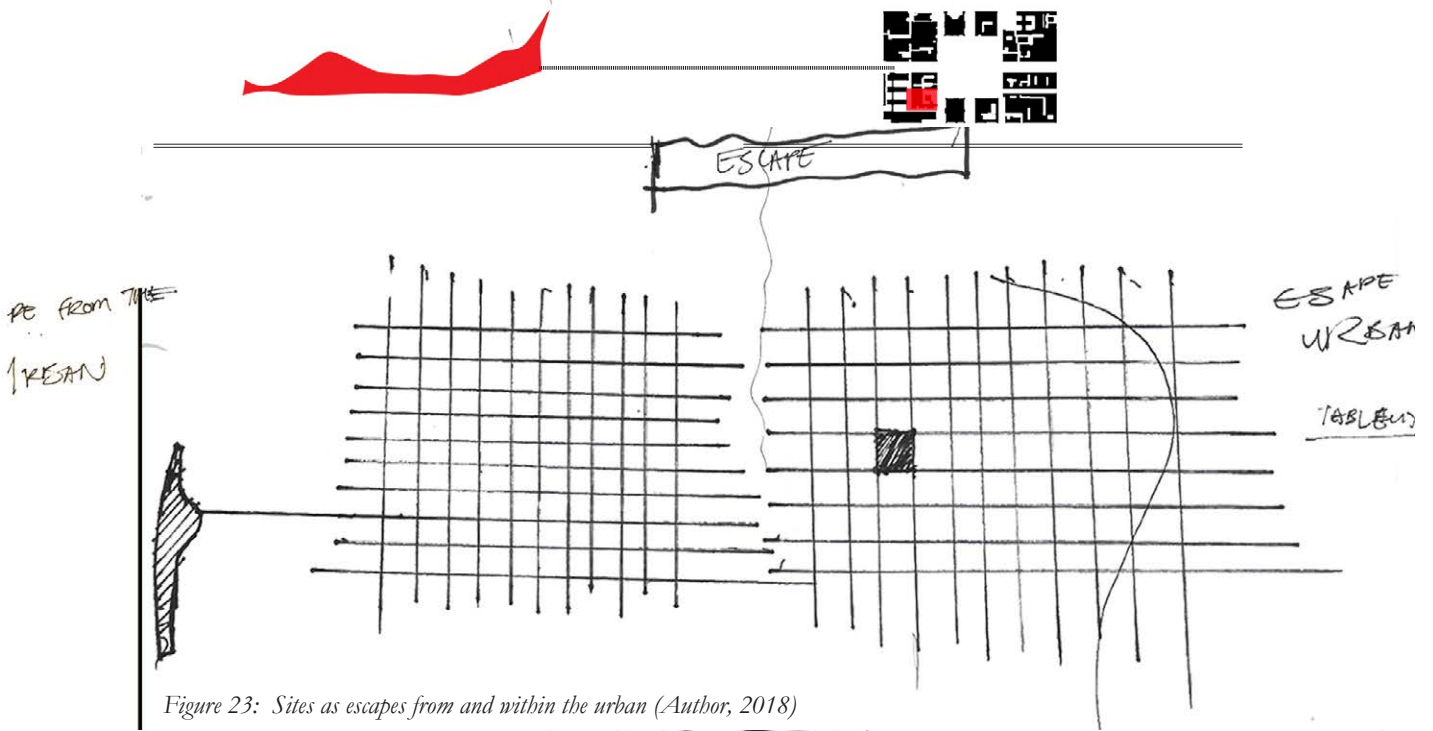


Figure 23: Sites as escapes from and within the urban (Author, 2018)

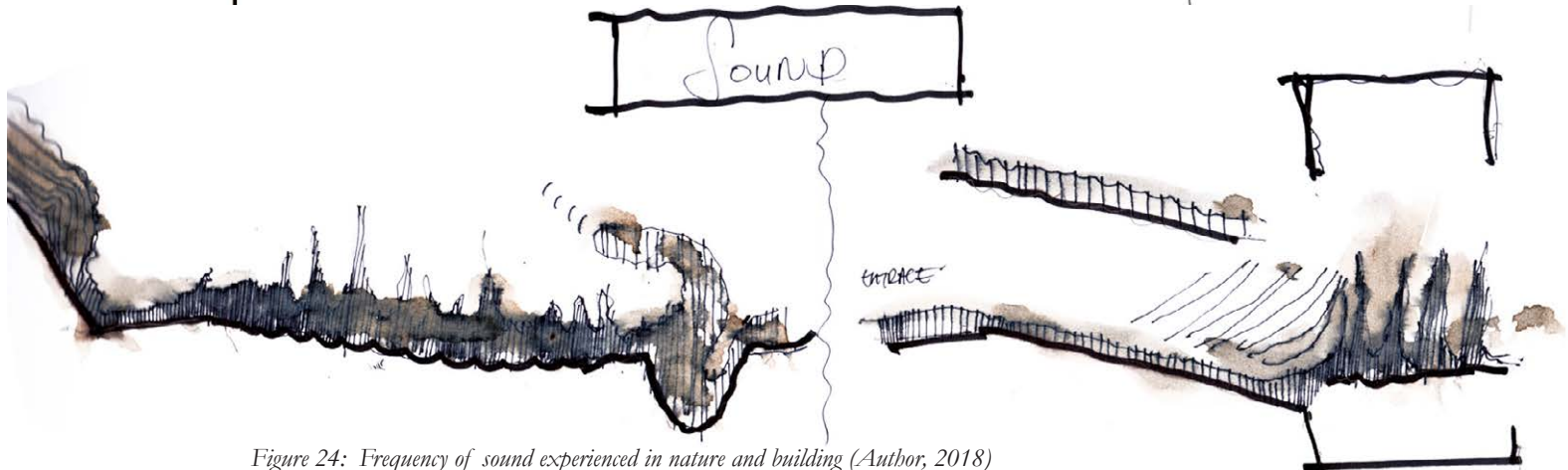


Figure 24: Frequency of sound experienced in nature and building (Author, 2018)



Figure 25: Silence (Author, 2018)



Figure 26: Gravity as expressed landscape and architecture (Author, 2018)

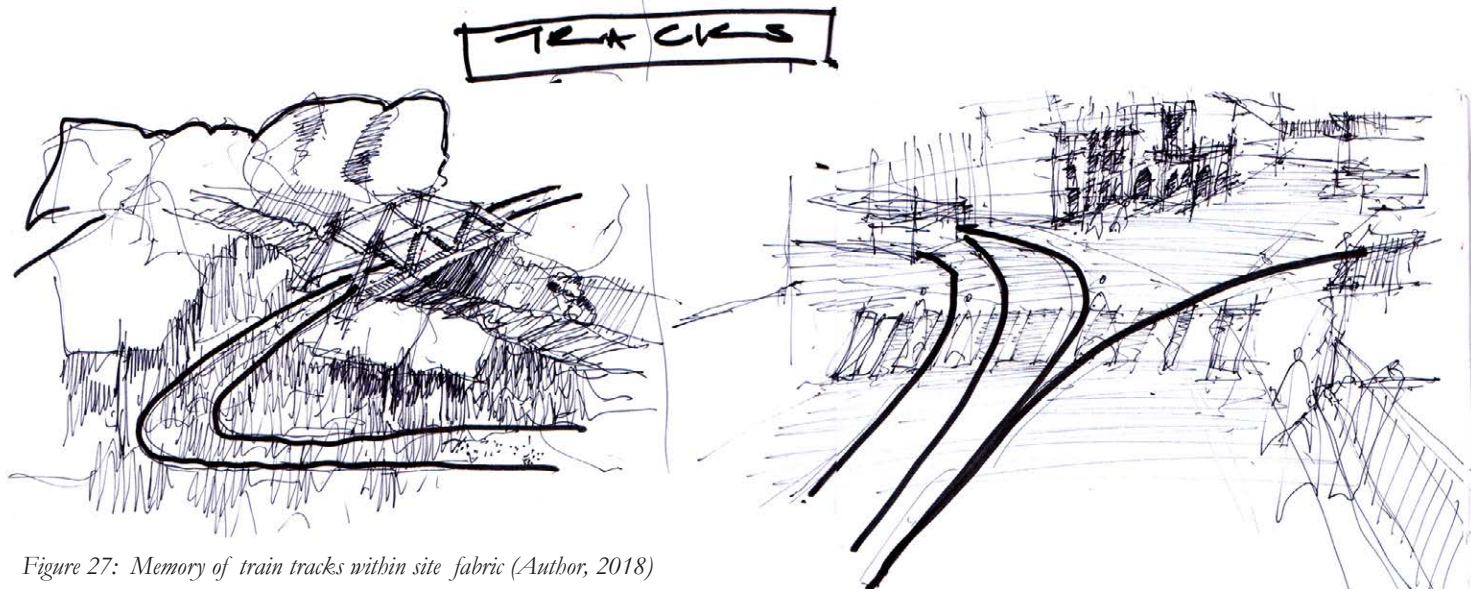


Figure 27: Memory of train tracks within site fabric (Author, 2018)

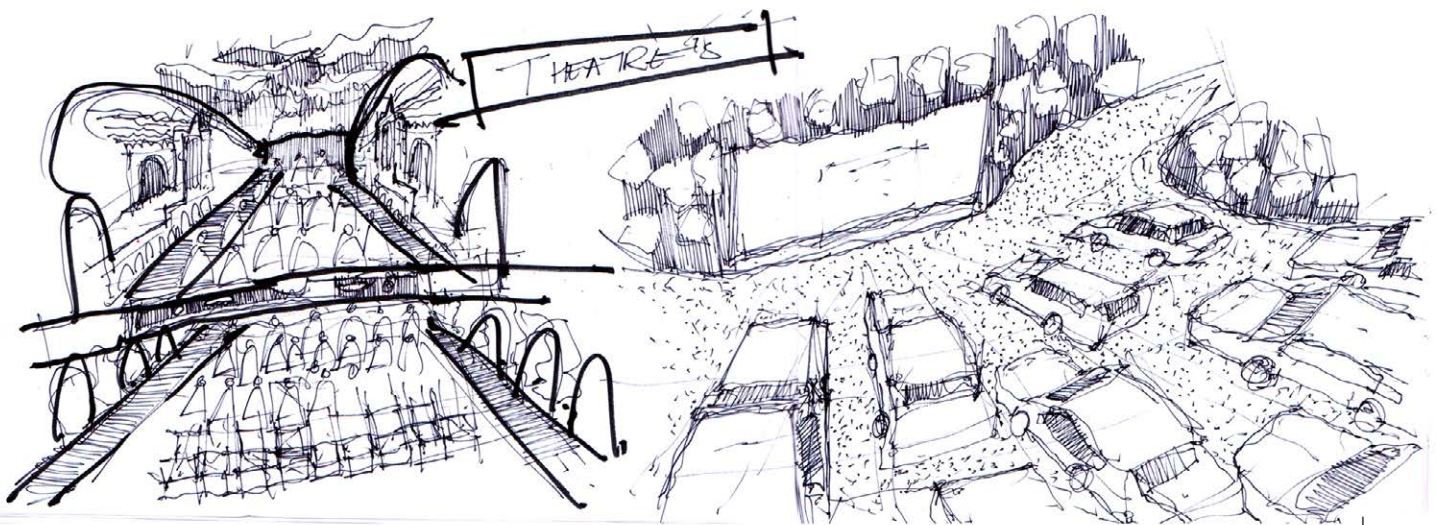


Figure 28: Memory of theatres once lived (Author, 2018)

Intuitive Analysis

[Reflection]

[Fade in, reference images and text]

The process that this intuitive analysis follows is effective in that it heightens perception because of the visceral nature that the twin sites offer. With this layering in place, the blurring of boundaries between Landing and Grounding begin to manifest. Architecture is experienced in a concrete sense while experiencing a space and volume without a strict quantitative bias. Landscape measure the body in space and presences surface, temperature, light, and boundary.

Landing can thus be viewed as critical qualitative method, however it does not take away from the process of Grounding. When being grounded it is important to remember what landing feels like, as these investigations take place in real places.

[Fade to Chapter 2: Grounding]

CHAPTER 2

Grounding

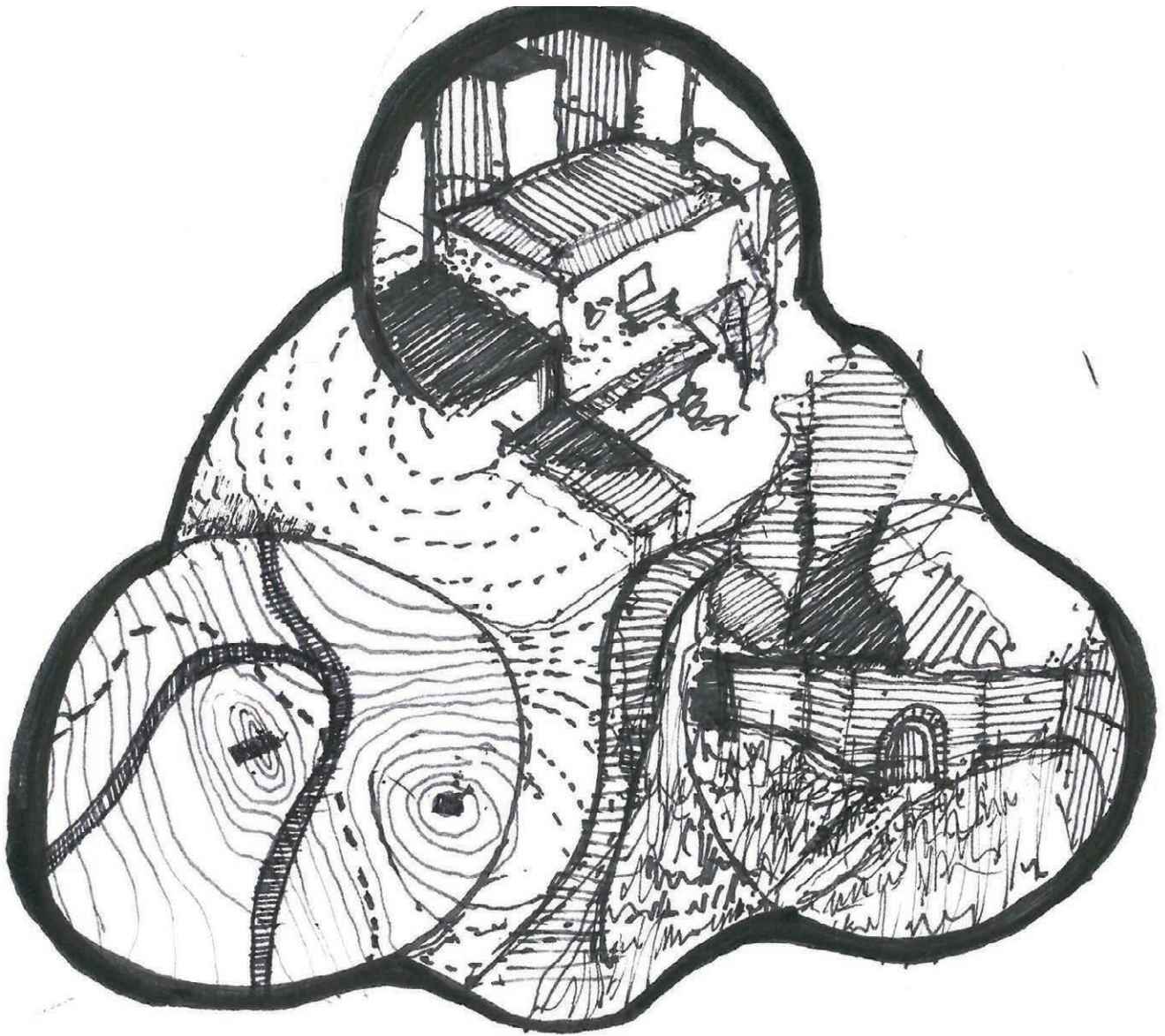


Figure 29: Sketch and diagram depicting Grounding (Author 2018)



Figure 30: Depicting Stone Age settlement presence in 2000 BC (Author 2018)

STONE AGE (2000 BC)
Representative of oldest occupation of Pretoria, stone tools were found in small caves on the Groenkloof nature reserve, as well as along the banks of the Apies river

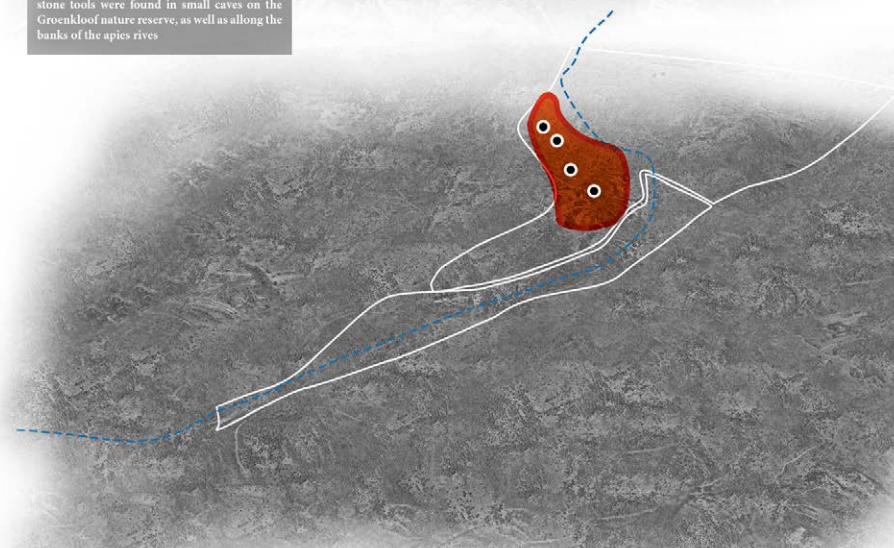


Figure 31: Depicting Iron Age settlement locations in Groenkloof Nature Reserve between 550 BC - 700 AD (Author, 2018)

IRON AGE (550 BC - 700 AD)
Iron age pottery style shards found on Groenkloof nature reserve that are connected to the Moloko Tradition of Sotho-Tswana speaking people.



Figure 32: Depicting the Ndebele Tribe presence in the 1500s (Author 2018)

NDEBELE TRIBE (1500s)
Chief Msi of the Ndebele tribe settled along the Apies river due to the plentiful resources of water, vegetation and wildlife.

Setting the Scene

[Recall Twin Story]

“Pretoria had its beginnings in an open space among the Bushveld trees, where the winters were dry enough to offer an outspan to hunters. Here people sought the warmth of one another’s company, long before there was any thought of founding a town.”

Hannes Meiring (1980:9)

The History of Fountains Valley and Capitol Theatre is formed through the continuum of landscape and pasts. It is uncertain which cultural group first landed within the landscape of Pretoria, before its name. Van Vollenhoven & Van Tonder (2008:20) postulate that the first inhabitants of this landscape were the San people, with evidence of the Stone Age and Iron Age spread throughout Fountains Valley (*cut to fig +fig*). Traces of habitation are limited to archaeological artefacts and the traces suggest that the first cultural group to settle in Fountains Valley were the Ndebele Tribe (*cut to fig*), with mention being made of the possibility of the San residing in the vicinity (Dippenaar, 2003:18).

[Insert Drama]

The San were removed by the Bakwena tribe. In the 1820s, Mzilikazi arrived in the Fountains Valley area and waged a war to claim the land (*cut to fig*). The area of Fountains Valley was an ideal location for various cultural groups because of its abundant source of water from the natural springs and wildlife.

[Zoom out]

In 1836, to the South of Fountains Valley, the Voortrekkers, Andries and Hendrik Potgieter, settled in the Rietvlei area. Between 1836 - 1840, the brothers established the Elandspoor and Groenkloof farms

after waging a war with Mzilikazi (*cut to fig*). Over the course of time more settlers arrived (*cut to fig*), resulting in the gradual development of the Boer community (Dippenaar 2013:19).

[Zoom in: Twin 1]

The first house believed to be built within Fountains valley belonged to Lucas Cornelus Bronkorst. As the Voortrekkers settled in this landscape they began to realise that this particular place was not ideal for the beginnings of a town as development would tarnish its natural features.

[Zoom out _ Conception of Twin 2]

1854 bears witness to the first church being built, pre-proclamation of the town (Allen 1971:22). In 1855, the General Marthinus Wessel Pretorius gave birth to Market Square (later renamed as Church square). Within some time the space had 300 residents and about 80 houses before it was officially proclaimed (Dippenaar, 2013:20). The establishment of this town was ideal in that it was in close proximity to the Delgoa Bay (Maputo’s former name) wagon trail which provided a convenient exchange of resources for trade. Water furrows drawing from the Apies River were conceptualised and completed to provide the town with water (*cut to fig*). The success of the establishment was celebrated by the town being named Pretoria, which was a homage to Martinus Pretorius’s father.

[Zoom out_ Political layers]

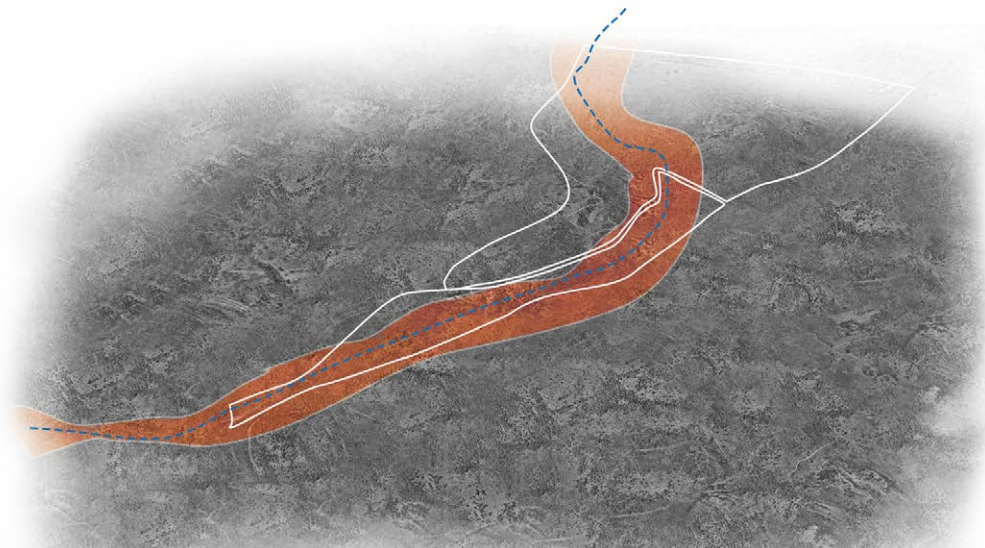


Figure 33: Depicting the areas in which Mzilikazi and his tribe settled along the Apies River (Author 2018)

MZILIKAZI (1820-1832)
Mzilikazi and his tribe settled by the Apies River after fleeing King Shaka's army. The river was experienced in many forms. It was a source of life, however the sharpness of the dolomitic rock hurt women's feet. The river was also used for Circumcision ceremonies for Sotho tribes.

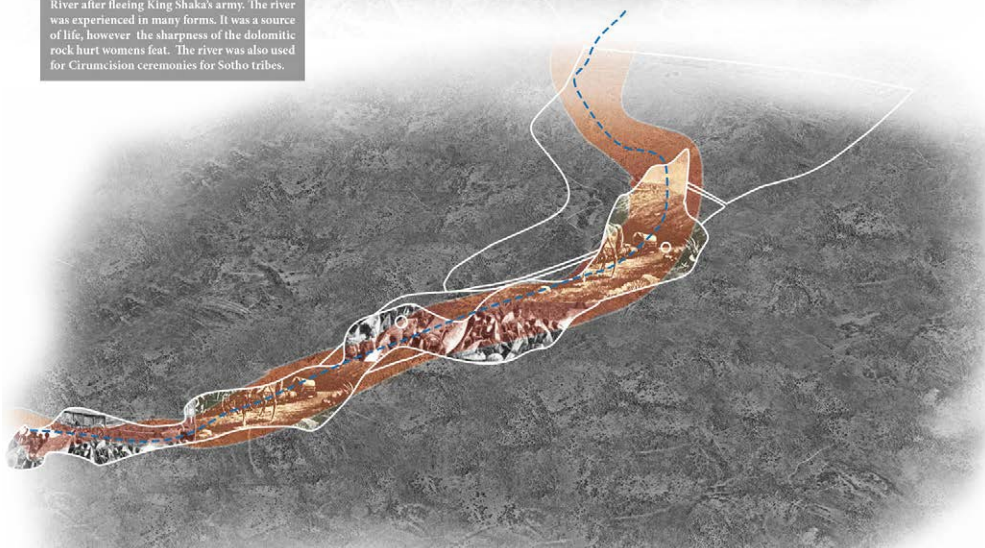


Figure 34: Depicting war waged between Mzilikazi and the Voortrekkers (Author 2018)

VOORTREKKERS (1836-1840)
A War was waged between Mzilikazi and the Voortrekkers. The final result was Mzilikazi fleeing and the Voortrekkers settling in. This gave the Bronkhorst brothers the opportunity to settle in Fountains Valleys with its abundance of water and grand scenery.

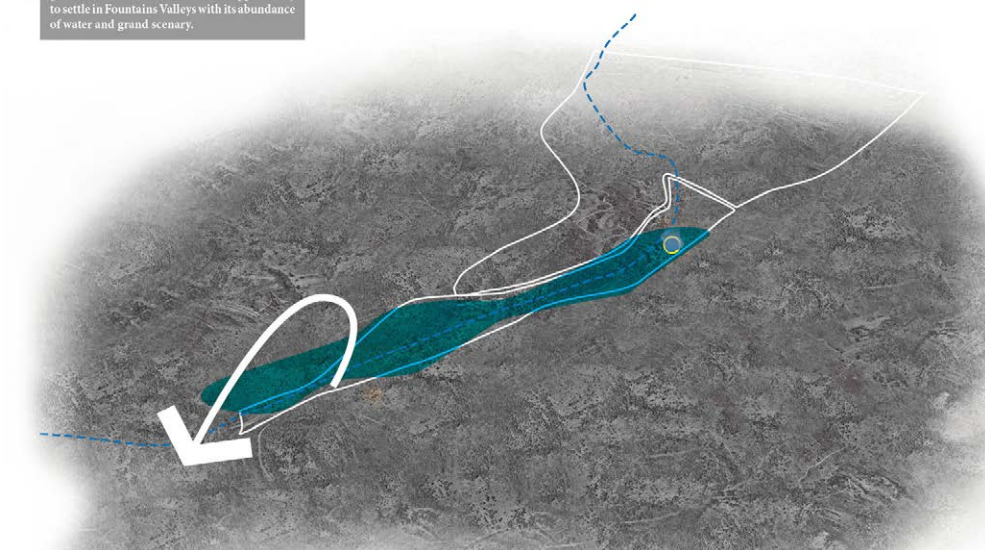


Figure 35: Depicting initial Boer Settlement within Fountains Valley (Author, 2018)

Boer Settlement (1836-1840)
With fountains valley occupied, the Pretorius brothers decided to make this land the new capital because of its abundance of water. They began development of the capital +/- 4km from Fountains valley and named it Pretoria, in honour of their father.



FOUNTAINS WATER SYSTEM(1850s- 1900s)

With the development of the new capital it was decided that water furrow should be constructed to provide water. Wthe success of this infrastructure was short lived as a typhoid infection in the water became an epidemic. The furrows were converted inot a piping system to combat the problem.

Figure 36: Depicting water furrow system that was created to feed water to the developing Church Square (Author, 2018)

1857 saw the founding of the ZAR, with Marthinus Pretorius being appointed as president in 1859. On 1 May, 1860, the ZAR was selected as the official seat of Government. With the status of the capital, the town needed water and basic services. A deal was brokered between the ZAR and the Bronkhorst brothers in which the Upper and lower Fountains in the Valley were purchased on 20 August, 1863. Furrows were designed to transport the water from the Springs to the town at a distance of 4.8 km (*cut to map*). The elevation of the land between the two towns allowed for the water to travel via gravity.

[Zoom out_ *umbilical water*]

With the water being interpreted as a rare gift, laws to protect the resource were created. The two prohibited acts were mainly that no water could be accessed from the aqueduct before it entered the town, and no washing could be done in the water. By the 1870s, disregard for ideal operations and maintenance of drainage and sanitation began a decline in the quality of the established water courses. The result of this was an outbreak of diseases. In 1874 the government water superintendent began with a more focused maintenance plan for the infrastructure, with help from local prisoners (Dippenaar 2013:21).

[Zoom in _ *Insert dramatic music*]

The change of power between Pretorius being forced to resign and the Reverend TF Burger being elected in 1872, saw poor sanitary conditions further declining. Pretorius was forced to resign due to allegations pertaining to diamonds. Dippenaar(2013:21) makes mention of how the local newspaper(De Volkstem) gave light to the condition of sanitation by citing that:

“the homesteads in Pretoria, how fearfully the smell, there’s fever in the furrow, there’s sewage in the well”.

[Zoom out to twin 1: *Fountains Valley*]

Following the death of the Bronkhorst brothers in 1874, the Groenkloof farm was sold to H.J Frames for £1.250, who then sold the farm to Jesse Jeans(van Vollenhoven 2008:20)

[Zoom out_ *the prevailing political*]

In April, 1877, Pretoria was annexed by the British due to the discovery of diamonds in the ZAR and what would seem to be the general dislike of TF Burger. 16 December saw the birth of the first Anglo Boer War (Transvaal Freedom War) with Pretoria besieged in December 1880. 3 August 1881 saw the signing of a peace treaty at the Pretoria Convention. The mud-walled church in Church Square burnt down around this time and was replaced by a new structure. May 1883 bore witness to the inauguration of Paul Kruger as the president following which the ZAR was recognised as an independent entity, with the limitation of foreign policies being developed with permission from the British Monarch. 1886 bore the fruits of the Witwatersrand gold discovery with the construction of the Palace of Justice.

[Zoom in_ *Twin 1 and her water*]

With the steady growth of Pretoria, 1889 resulted in yet another outbreak of fevers due to poor water supply (Dippenaar 2013:22). The Pretoria Water Works Company was commissioned to remedy the issues with the installation of a collection chamber constructed in the Fountains Valley to create a combined link of the two springs into a singular source. The furrow system was discontinued and steel pipes were installed to transfer water from the chamber into the town (Dippenaar 2013:23). The water was then transferred from the town into a network reticulation of cast iron pipes.



Figure 37: 14.11.1879 compass sketch plan of pretoria with focus on aqueduct(Isandora Repository, 2018)

[*Retain Focus*]

In 1895 President Paul Kruger declared Fountains Valley a reserve due to extensive game hunting so as to protect animals from hunters (van Vollenhoven & van Tonder 2008:21).

[*Re-insert dramatic music*]

1899 to 1902 saw the advent and decline of the Second Anglo Boer War. The War was brought on due to the British governments disapproval of President Krugers established ‘Foreign Query’ which allowed 75000 foreigners into the ZAR during the increase of the gold rush in Johannesburg (Dippenaar 2013:24). Prior to the war President Kruger constructed four forts (Fort Klapperkop, Fort Daspoortrand, Fort Wonderboompoort, Fort Schanskop) which proved unhelpful and president Kruger was forced to evacuate the country (*cut to fig*).

[*Zoom in_Twin 1 _ Water and War*]

During the war eight men were assigned to guard of the Fountains Valley springs.

[*Re-zoom _ back to war*]

Pretoria surrendered to the British on 31 May 1902 (*cut to fig*) with the signing of the Peace of Vereeniging at Melrose House. The British decided to build a pumping station to supply fresh water to the military base in Quagga-poort, then known as Robert’s heights (Dippenaar 2013:25). Between 1903 and 1910 a new council was elected that gave inception to the first sewer system in Pretoria.

[*Zoom out _ connecting the twins*]

Within the development of the new council, Sammy

Marks made the donation of the Sammy Marks Fountain to the city of Pretoria in 1905 (Dippenaar 2013: 26).The fountains sculpture was initially built in Europe and transported to Pretoria. The fountain functioned by diverting water from the springs and then discharging it back to the Apies River (*cut to fig*).

[*Zoom out further _ the political landscape*]

1910 saw the dismantling of the Sammy Marks Fountain, with it being relocated to the Pretoria Zoological Gardens in 1911. President Kruger’s statue was initially intended to occupy the central space, however the British occupation motivated its safe keeping in storage instead. 1911 saw the advent of the Union of South Africa, and President Kruger’s statue was subsequently placed in the void left behind.

[*Insert eerie filter lens _ a new political landscape*]

In 1913 we see the advent of the first water meters and the Findlay Reservoir(1973) that stores 29 Megalitres of water from the Springs. The development of Pretoria resulted in the high demand for water and the 1920s proved to strain the springs natural resources with the development of Iscor Iron and Steel works, coupled with increased urban development. The result of the urban development lead to the extent of the resources being tapped into with new sources of additional water being sought after(Dippenaar 2013:30).

[*Zoom in_twin 1 _ Fountains Valley*]

June 1922, marks the date where J.H. Venning envisioned a development scheme for Fountains valley that would include public and recreation activities. The council at that point found the proposal of value and a kiosk was formally built in Fountains Valley on May 1928(Van Vollenhoven & Van Tonder 2008:21).

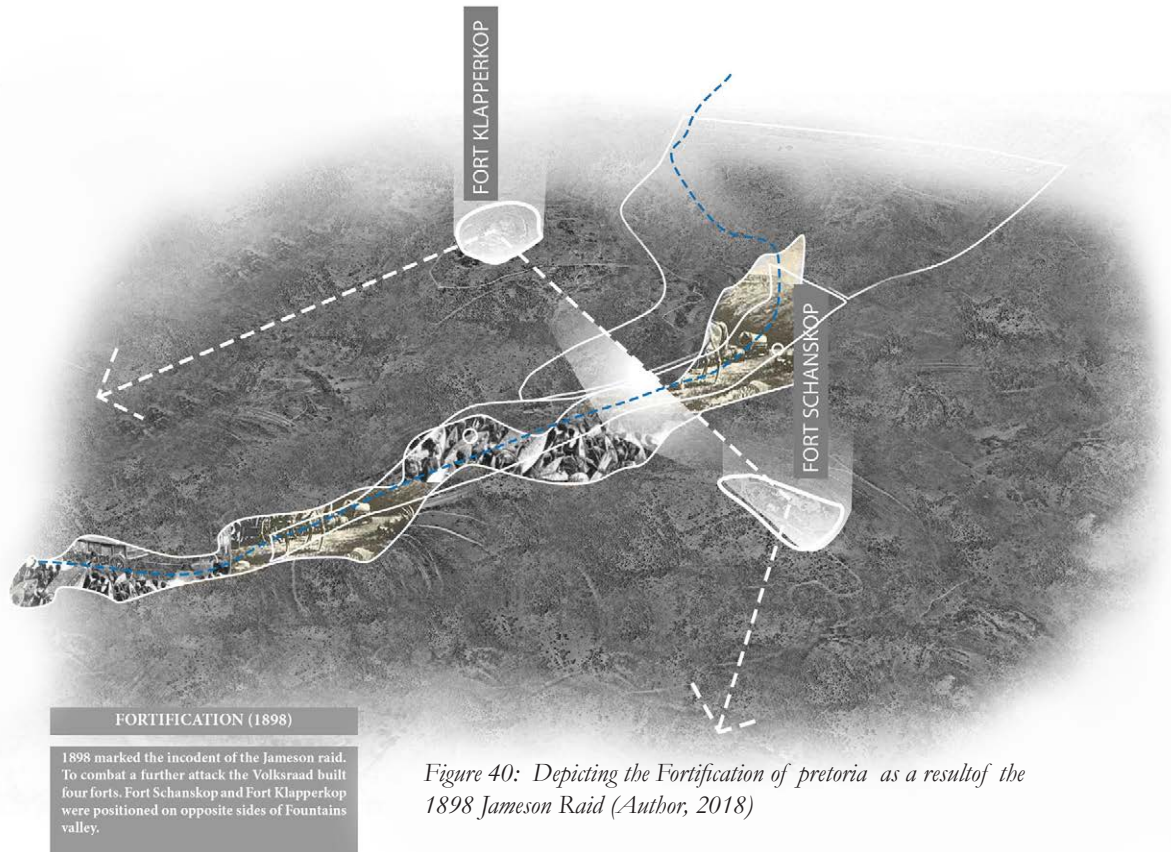


Figure 40: Depicting the Fortification of pretoria as a result of the 1898 Jameson Raid (Aubor, 2018)



Figure 38: 1902 map of pretoria demarcating various boundaries , infrastructure, and ecological conditions
Figure 39: (Isadora Collection, 2018)

[Zoom out _ *Growth of water supply*]

With an increase in water consumption, a more formalised water meter system was introduced in 1928 to curb over-consumption of water by the public (*cut to fig*). The City Council employed consulting Engineers to explore additional sources of water. 1929 saw the inception of the Rietvlei Water Scheme which tapped into 6 natural springs which added an additional 15.3 megalitres of purified water a day to the growing urban condition (Dippenaar 2013:31).

[Zoom in _ *birth of twin_Capitol theatre*]

On the opening night of the Capitol Theatre, the then Prime Minister of the Union of South Africa, General Hertzog(et al 1971:1), gave the opening which read :

“The Capitol Theatre, which tonight is thrown open to the Public, has been designed and built with the thought that it has fine traditions to uphold. It has been constructed to afford, not only amusement but also a sense of pride to those within whose midst it has taken shape and, in the hope that it may add a very definite quota to the pleasure of those for whose leisure hours it has been built, the Capitol Theatre is dedicated to the Citizens of Pretoria, to their Wives and their Children in the hope that within its walls they may find relief from the cares and worries of the everyday world by passing through the magic portals into the world of “Make-believe.”

African Theatres Ltd gave birth to this inspired Capitol Theatre in September 1931(Gutsche 1972:233). The Architect, P. Rogers Cooke (et al 1971:8), gives an account on how the idea of an atmospheric theatre was inspired by an architect who witnessed, on a night in the south of Spain, a theatre production taking place under the stars. Thus the atmospheric theatre grew to inspire I.W. Schlesinger, the chairman of African Theatres Limited, to construct Capitol Theatre.

Schlesinger(et al 1971:6) conceptualised the theatre as a vessel to allow drama and comedy to give a mental break from the modern conditions that life had subjected on people. This time was the time of the Great Depression.

The interior of the theatre was fashioned in the Italian Renaissance style with the entrance and foyer designed as grand spaces.

[a twist in the tale]

During the construction of the theatre it was discovered that unknown springs of water began flooding the basement. A drainage system was created and sealed with bitumen (Cooke et al 1971:14)

[Zoom out _ *historic events*]

October 14, 1931, marks the date on which Pretoria received city status. The continuous growth of the city attracted the Rand Water Board to supply more water resources in 1947 from Germiston (Dippenaar 2013:32). In 1955 a monument was placed within the Groenkloof Nature Reserve to commemorate Pretoria’s centenary.

[Zoom in _ *Fountains Valley*]

The late 1950s saw the transfer of ownership of the Groenkloof farm to the City Council.

[Zoom out _ *historic events*]

The republic of South Africa was established on 31 May, 1961, with Pretoria retaining its status as the administrative capital. Church Square holds the memory where CR Swart was elected the first president of the Republic of South Africa (Dippenaar 2013:33). Over time Pretoria grew as a city while adopting new areas. The continuous growth of the city resulted in the water supply at Rietvlei Dam being increased from 29 *Megalitres/day* to 40 *Megalitres/day* in 1988 (Dippenaar 2013:34)

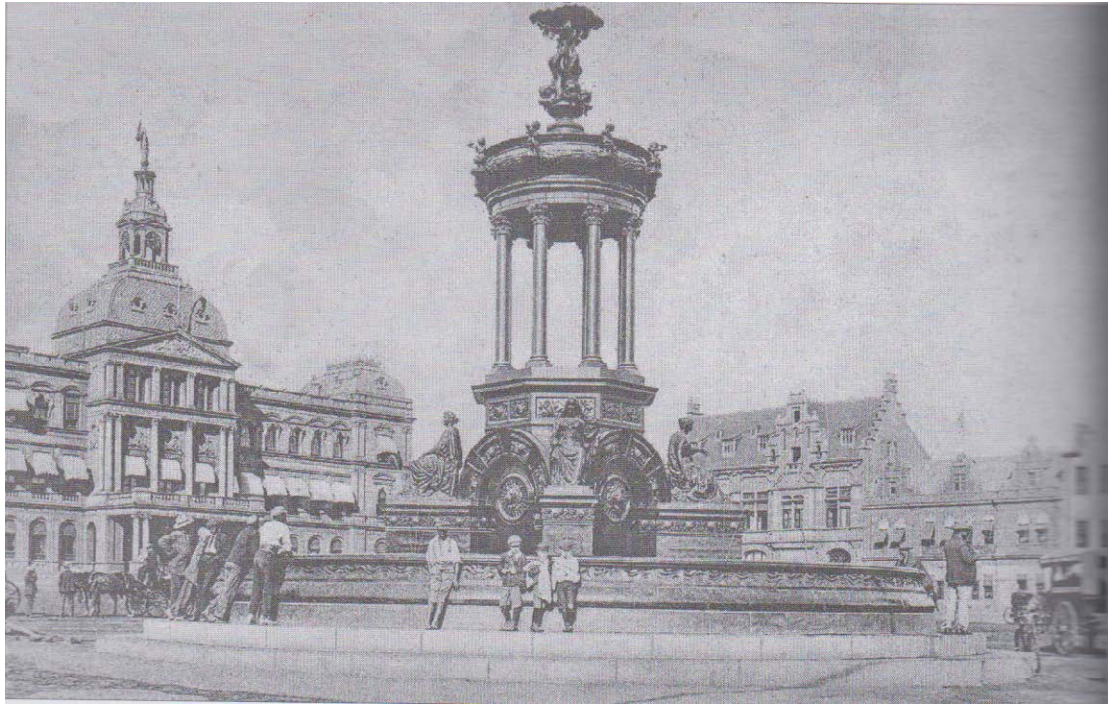


Figure 41: 1905 Fountain in church square (Friedel Hansel, 2018)

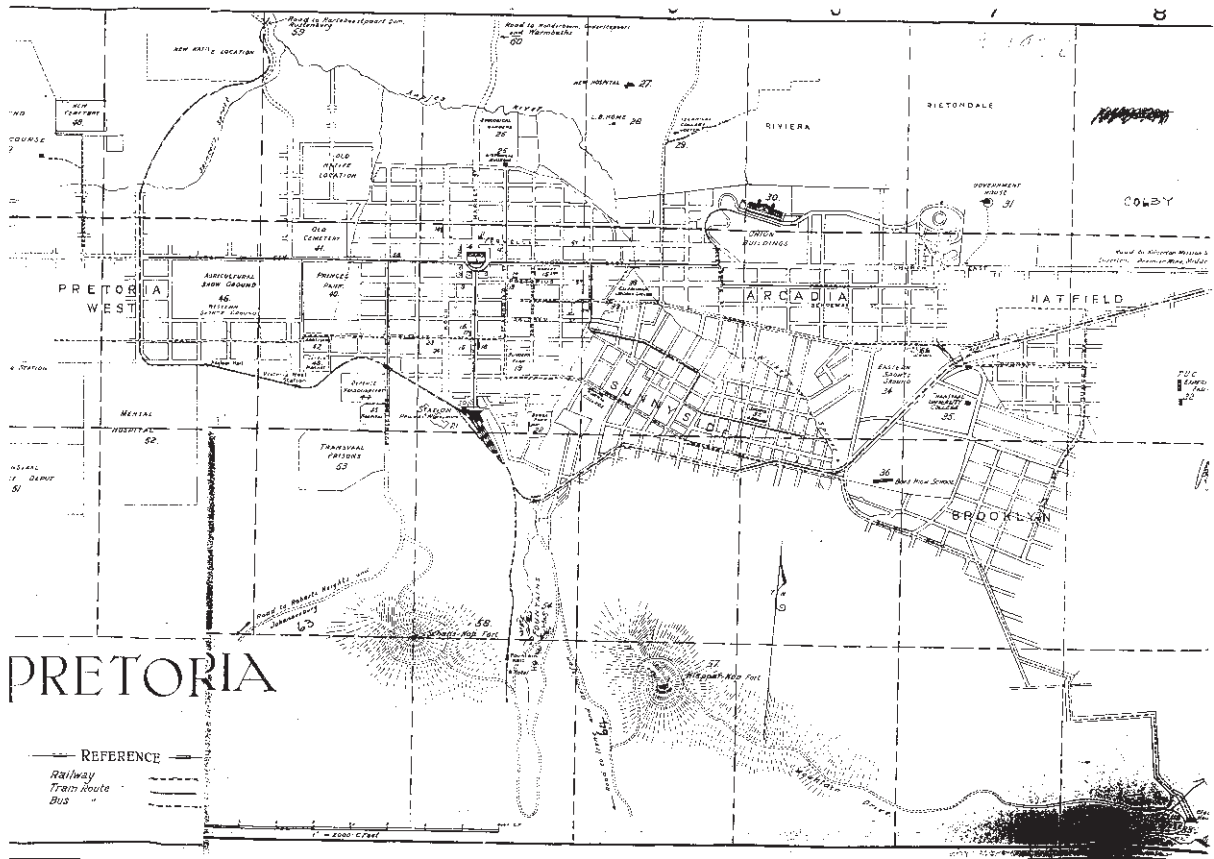


Figure 42: 1928 map of Pretoria depicting condition of development (van der Waal collection, 2018)

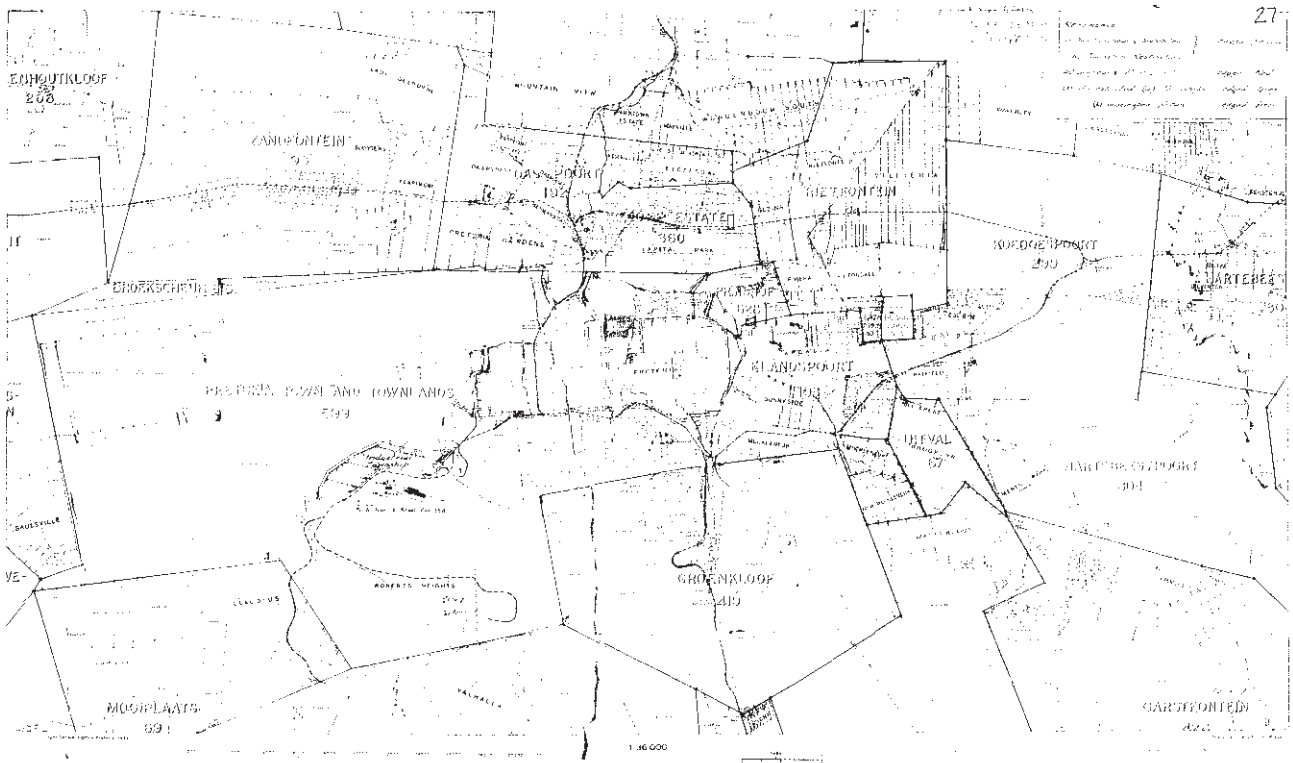


Figure 43: 1934 Aerial Map of Pretoria (van der Waal Collection, 2018)

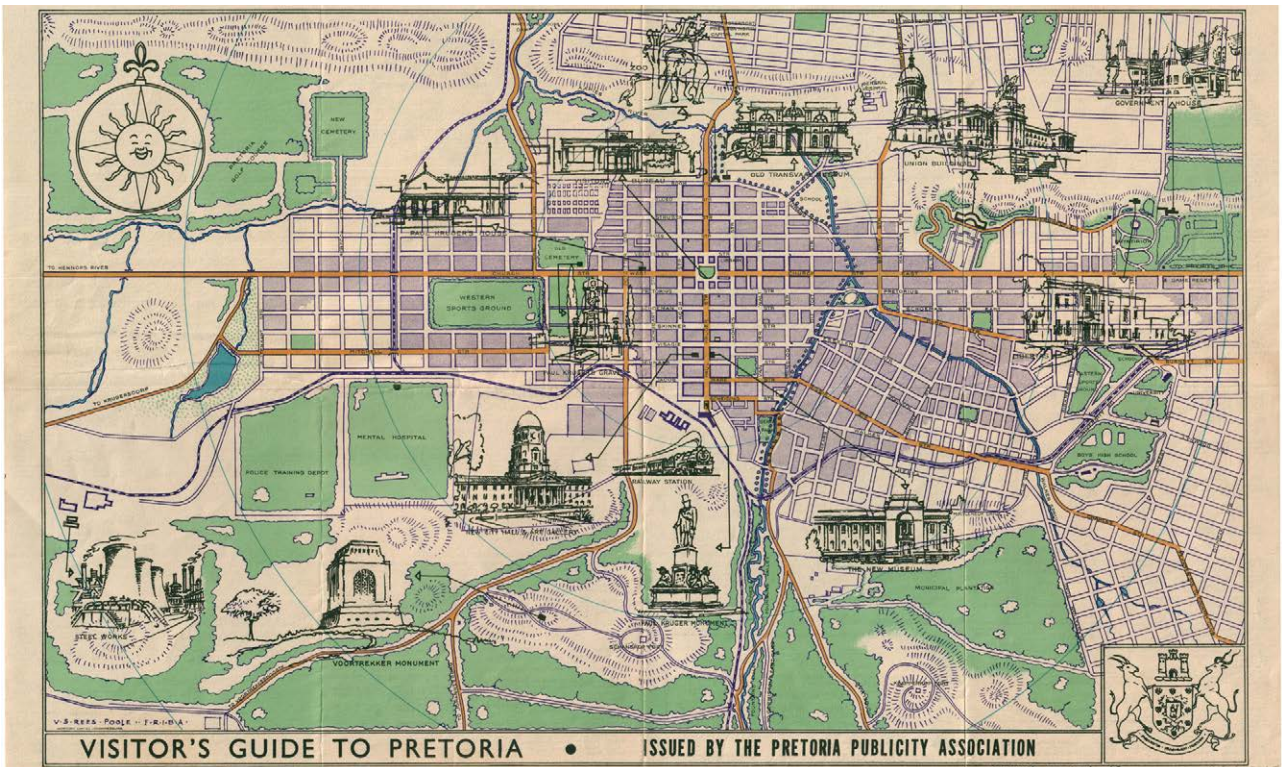


Figure 44: Visitors guide to Pretoria, notice prevalent open spaces (date not specified) (Isadora Collection, 2018)

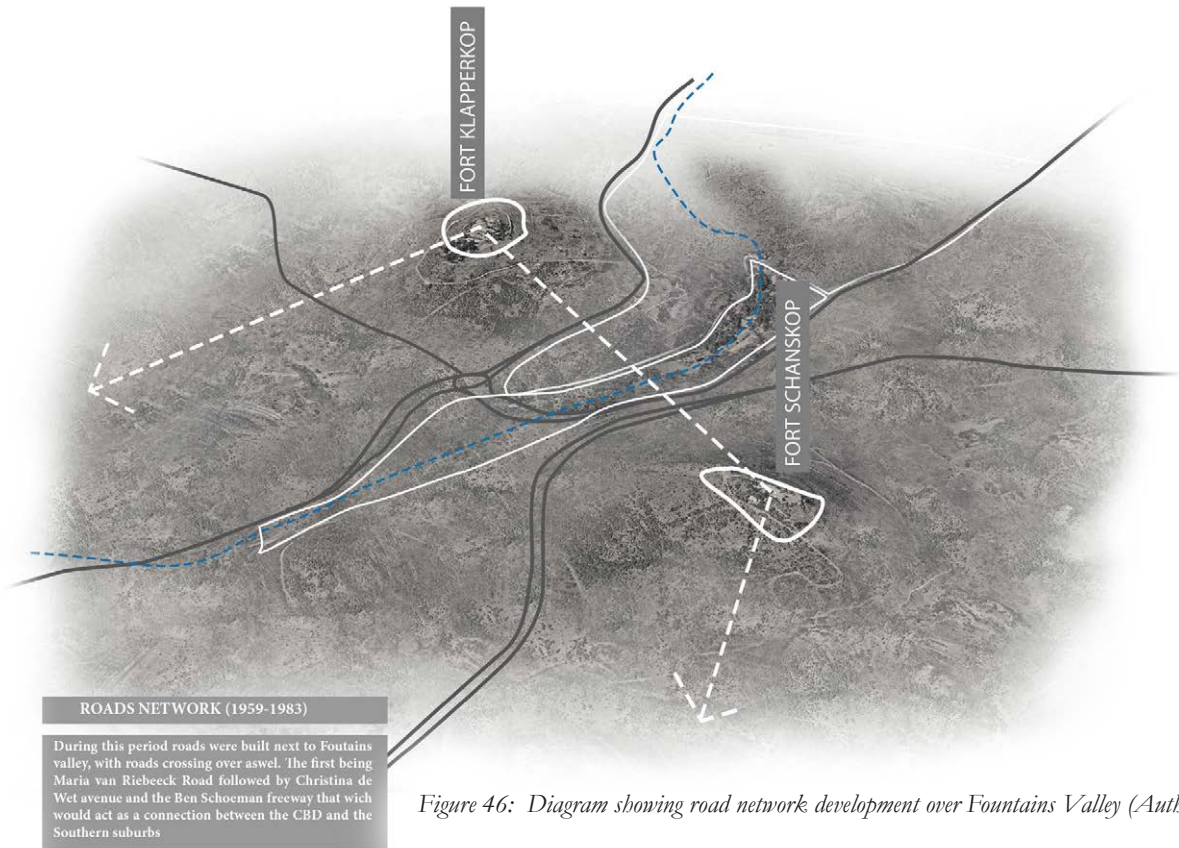


Figure 46: Diagram showing road network development over Fountains Valley (Author, 2018)



Figure 45: 1933. Rowing on the Fountains Valley's lake, with the kiosk in the background (Sammy Marks Archive Collection, 2018)

Timeline Represented

[Initial landing experience]

Fountains Valley

Capitol Theatre



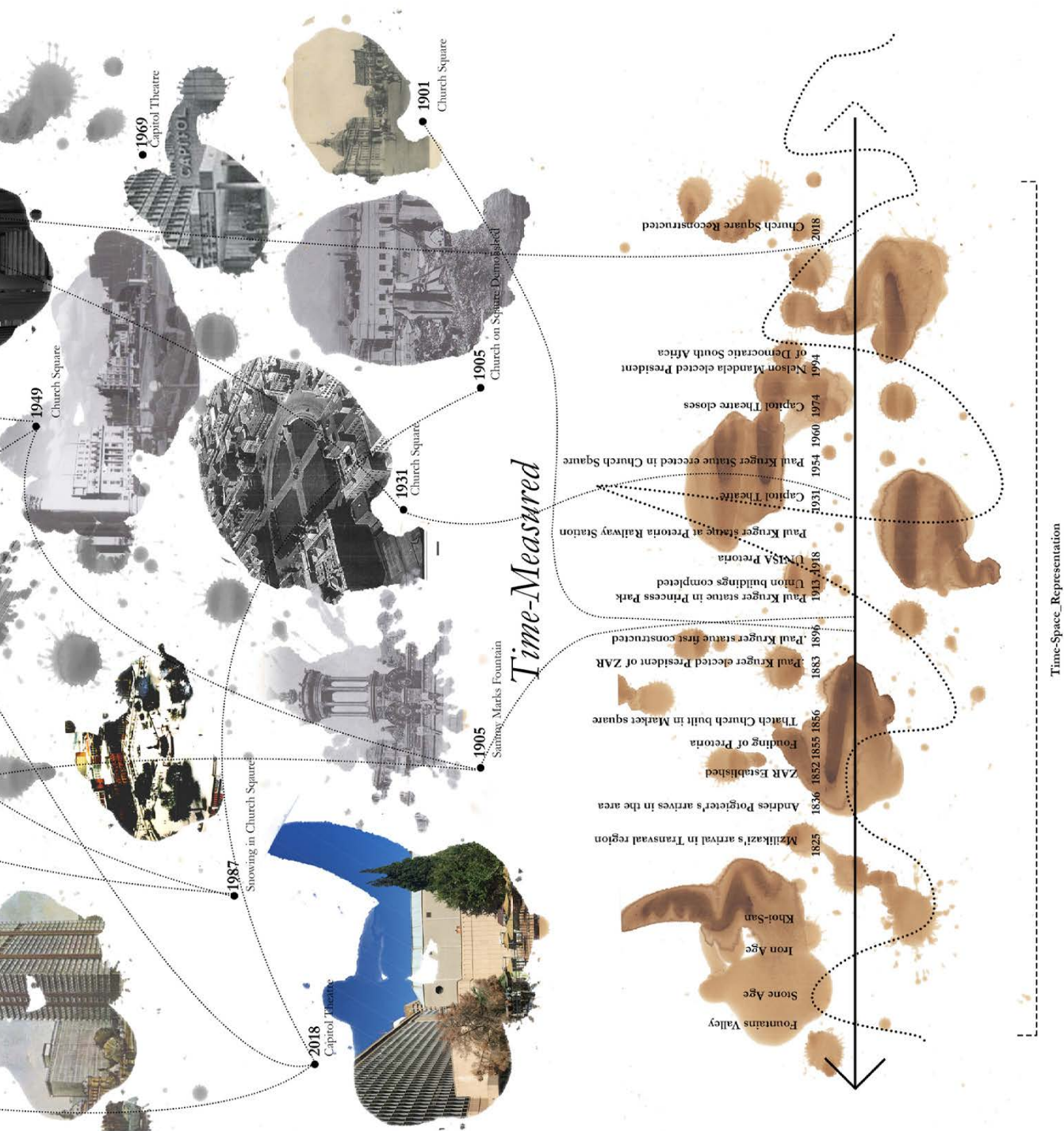


Figure 47: Timeline highlighting key moments in the history of Capitol Theatre, Fountains Valley, and the history of Pretoria (Author 2018)

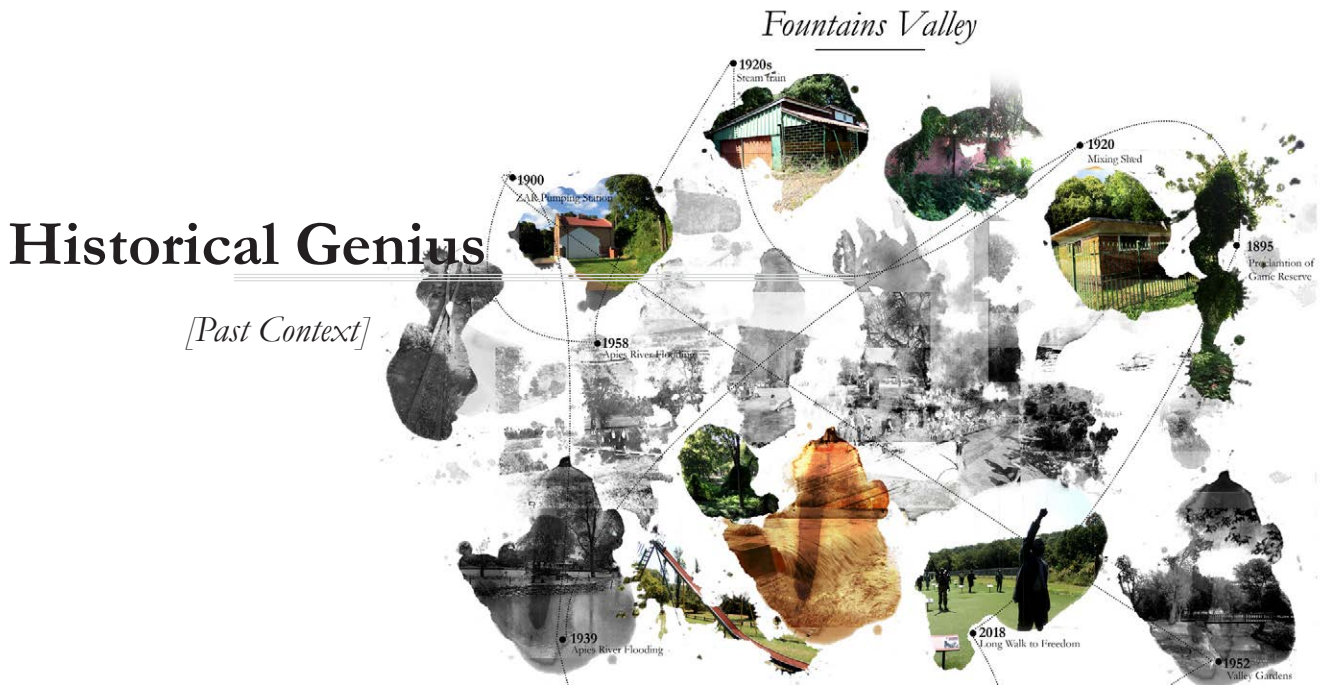


Figure 48: Fountains valley 1870s (Sammy Marks Archive Collection, 2018)



Figure 49: Weir and bridge at Fountains Valley, with the kiosk in the background (1933) (Sammy Marks Archive Collection, 2018)



Figure 50: Floods at Fountains Valley 1939 (Sammy Marks Archive Collection, 2018)



Figure 51: The Kiosk, Fountains Valley, 1948 (Sammy Marks Archive Collection, 2018)

Historical Genius

[Past Context]

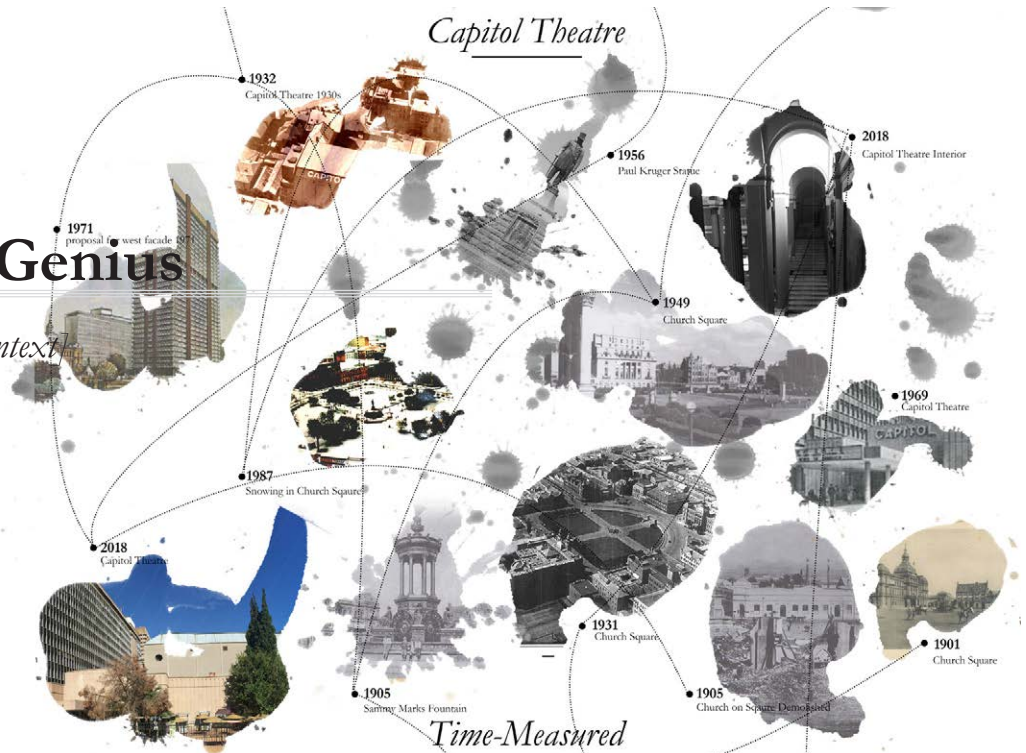


Figure 52: Church Square facing west down Church Street West 1888



Figure 54: Market Street 1900 (Van der Waal Collection, 2018)



Figure 55: Church Square 1905, Slow place (Vivien Allen, 2018)





Figure 57: Fountains Valley Gardens, October 1952 (Sammy Marks Archive Collection, 2018)



Figure 56: Fountains Valley Gardens, October 1952 (Sammy Marks Archive Collection, 2018)



Figure 58: Fountains Valley playgrounds (29.6.1958) (Sammy Marks Archive Collection, 2018)



Figure 59: Fountains Valley playgrounds (29.6.1958) (Sammy Marks Archive Collection, 2018)

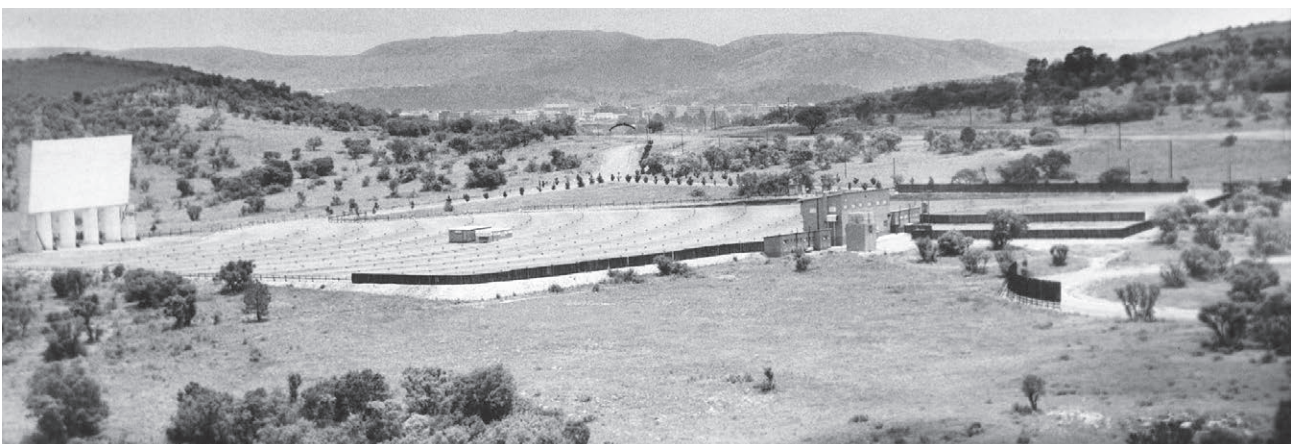


Figure 60: Fountains Drive-in cinema at Fountains Valley (1958) (Sammy Marks Archive Collection, 2018)



Figure 61: Church Square from Standard Bank building 1934 (Friedel Hansen, 2018)

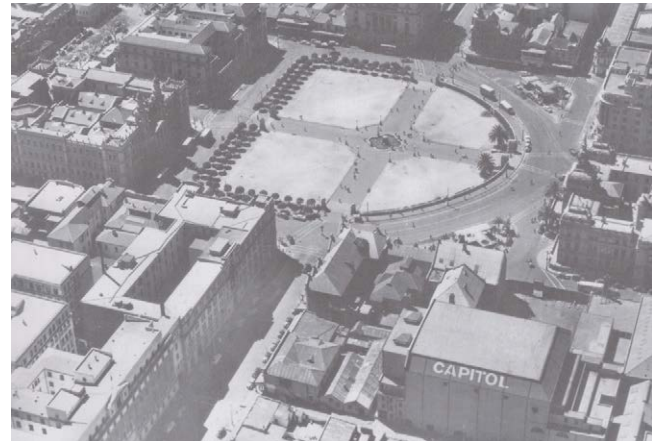


Figure 62: Capitol Theatre with church square in the background.1931 (Friedel Hansen, 2018)

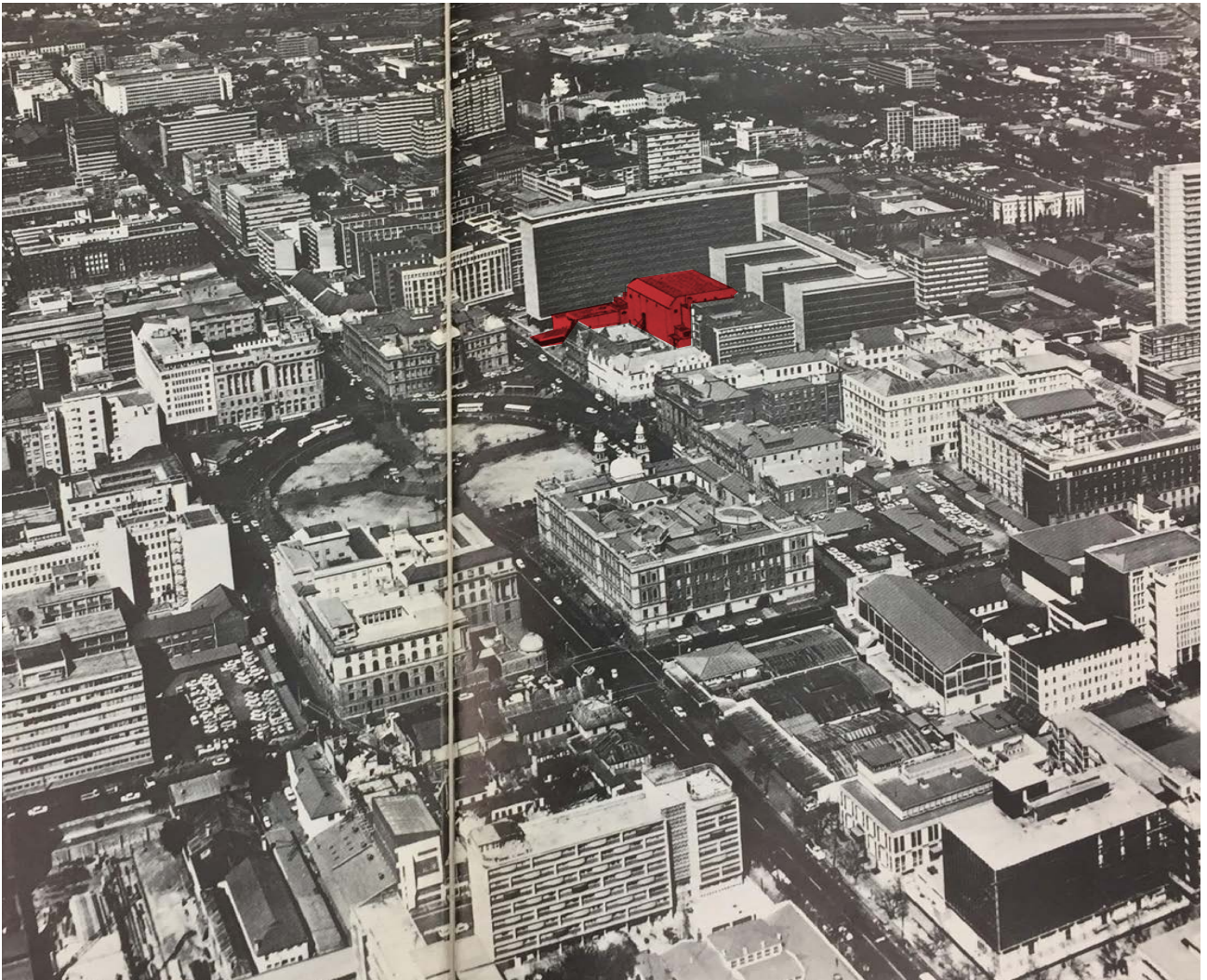
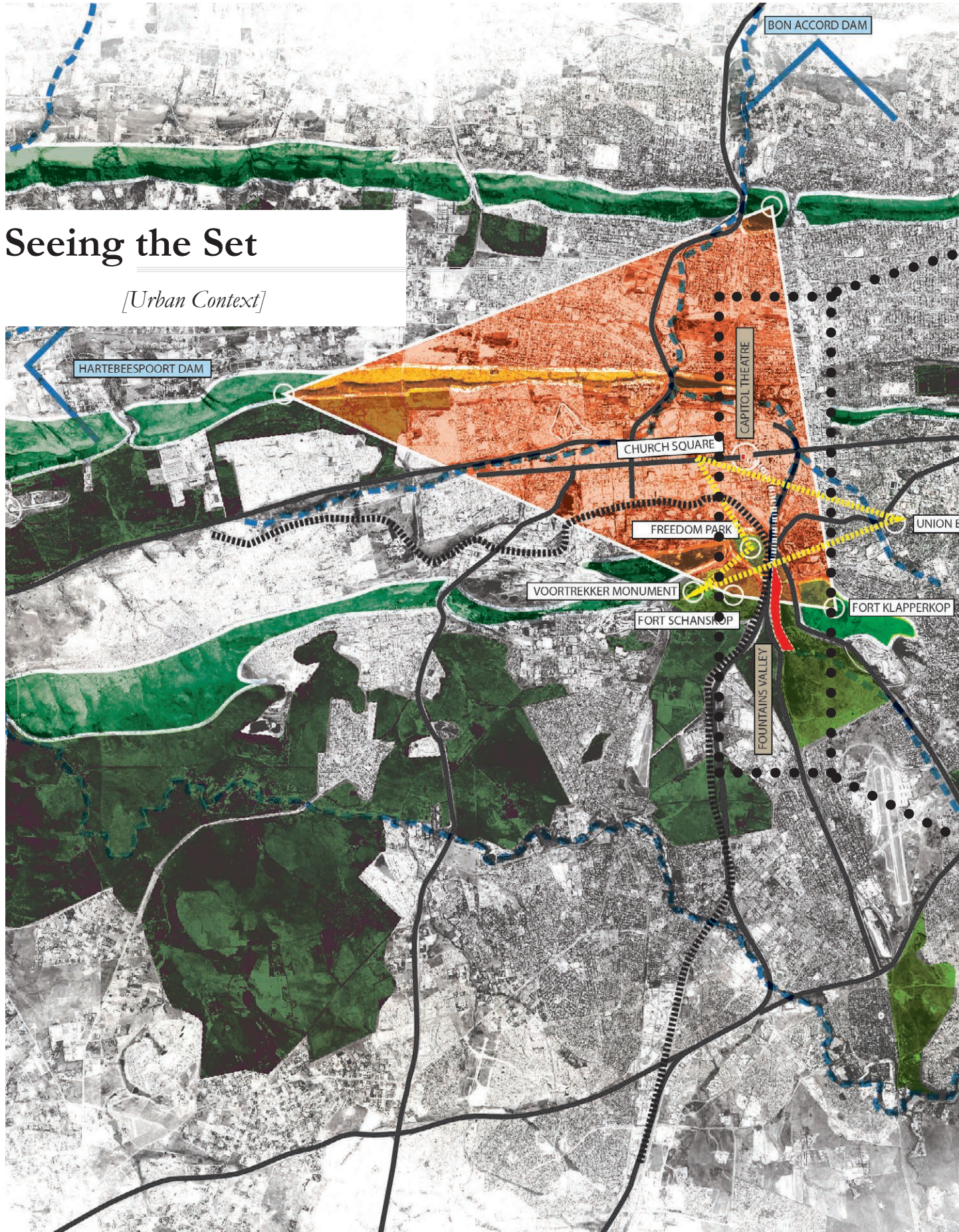


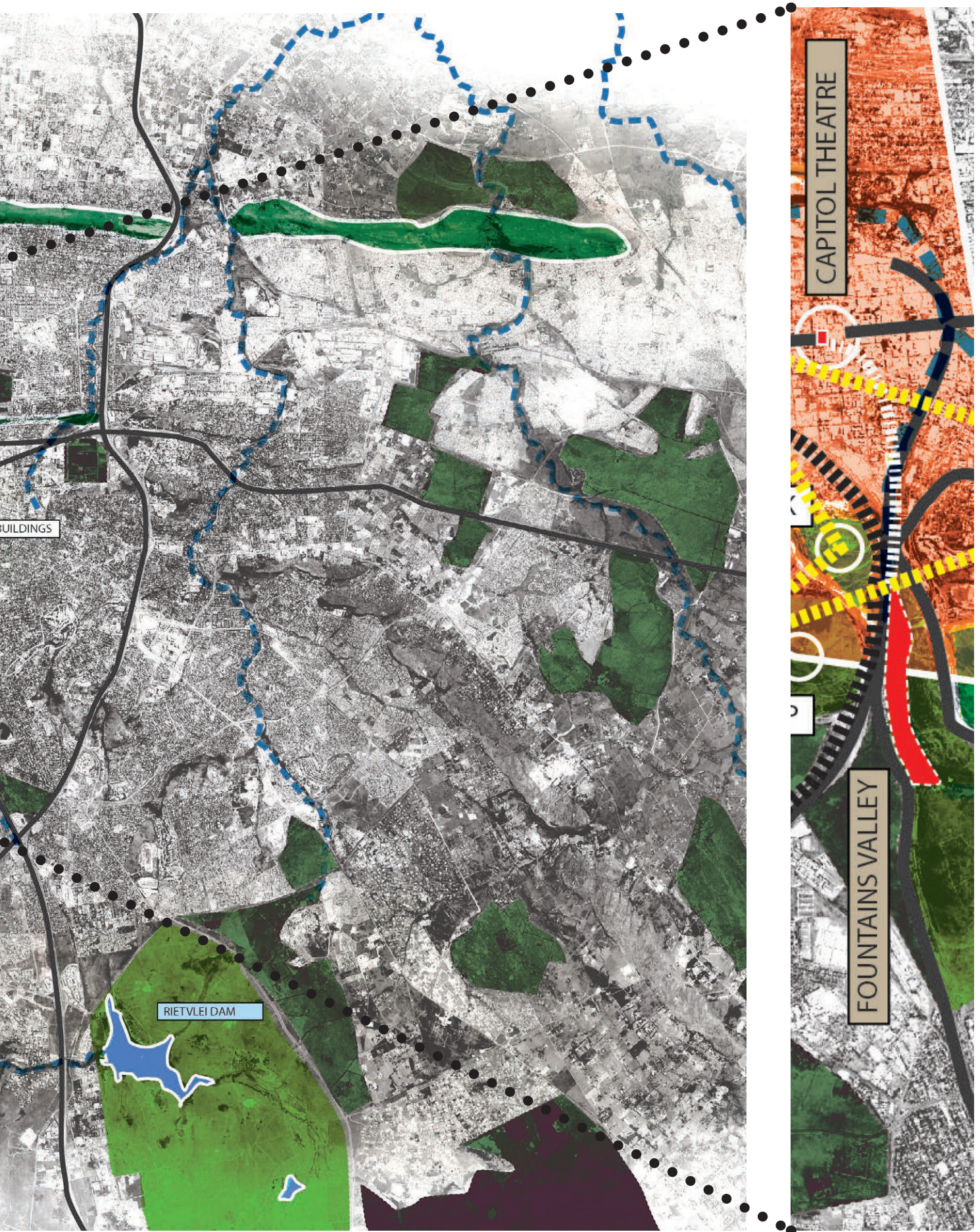
Figure 63: Capitol Theatre in the background with church square in the foreground.1970 (Friedel Hansen,2018)



Seeing the Set

[Urban Context]

Figure 64: Map placing Capitol Theatre and Fountains Valley into a larger contextual framework (Author, 2018)





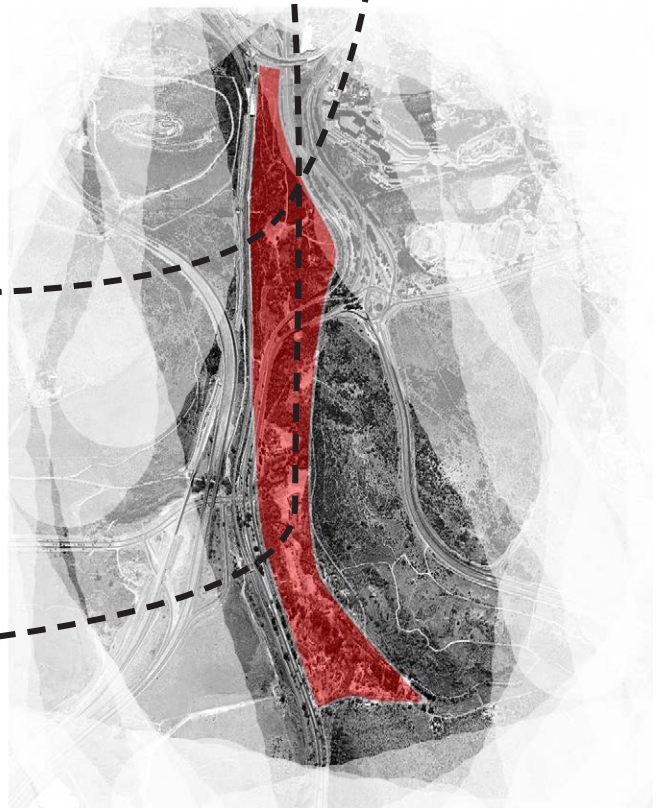
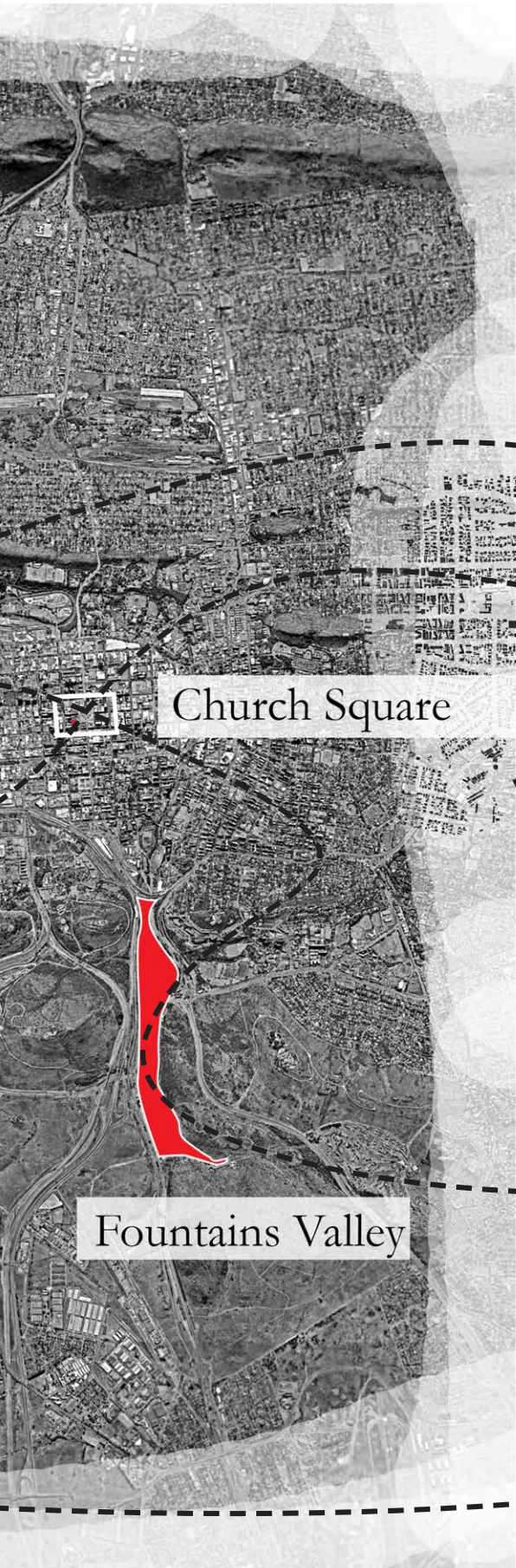
Seeing the Set

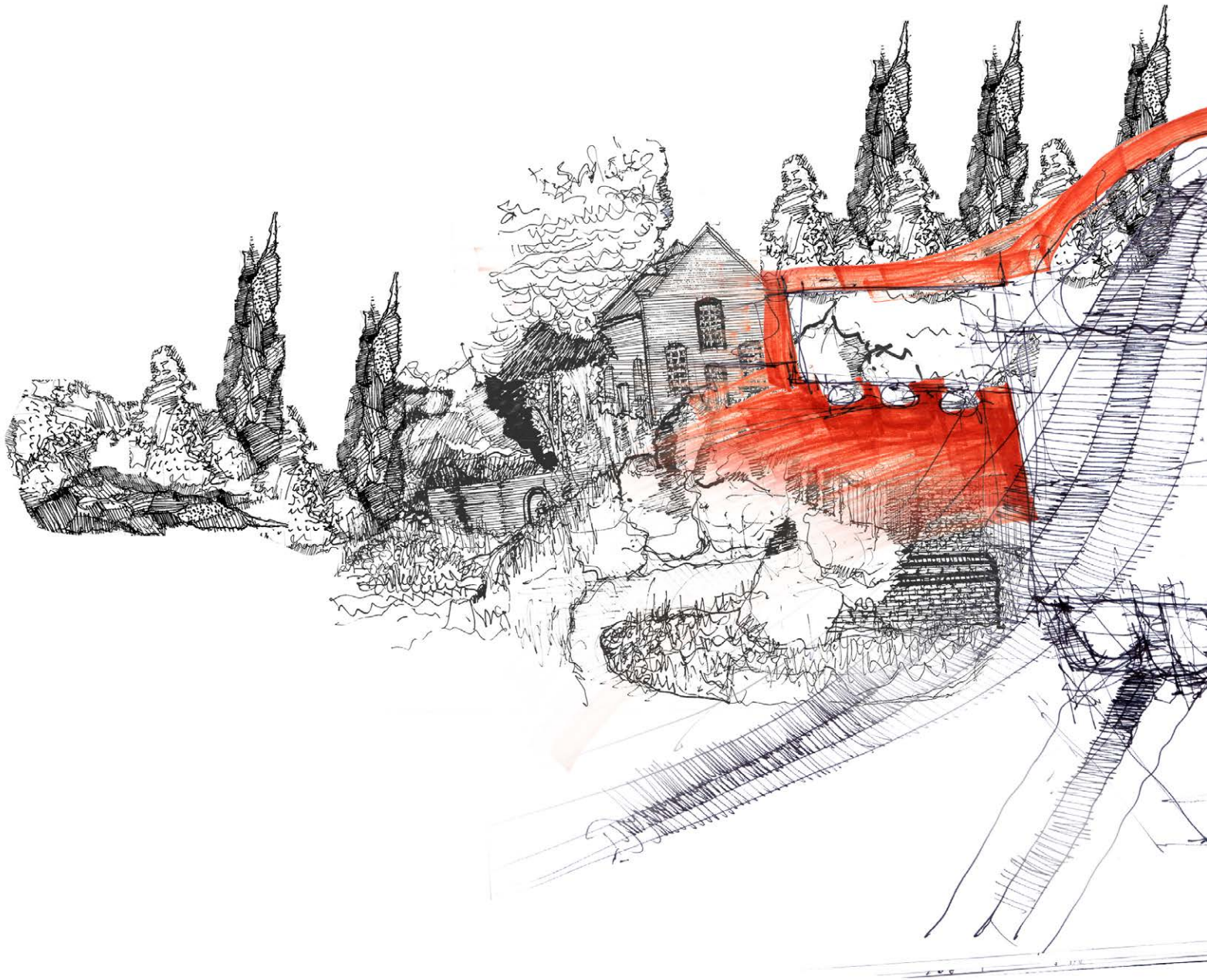
[Current Context]

The present day context finds Capitol theatre and Fountains Valley as hidden spaces; one hidden in the urban and the other hidden within a theatric landscape. Capitol Theatre is currently being used as a secure parking lot with a market on the street edge that is active. Fountains Valley is recognised as a Recreation Resort and has a large swimming pool, playgrounds, camping facilities, government offices(not large), and the beginnings of what may become a Heritage Park.



Figure 65: Map figure contextualising Capitol Theatre and Fountains Valley (Author 2018)





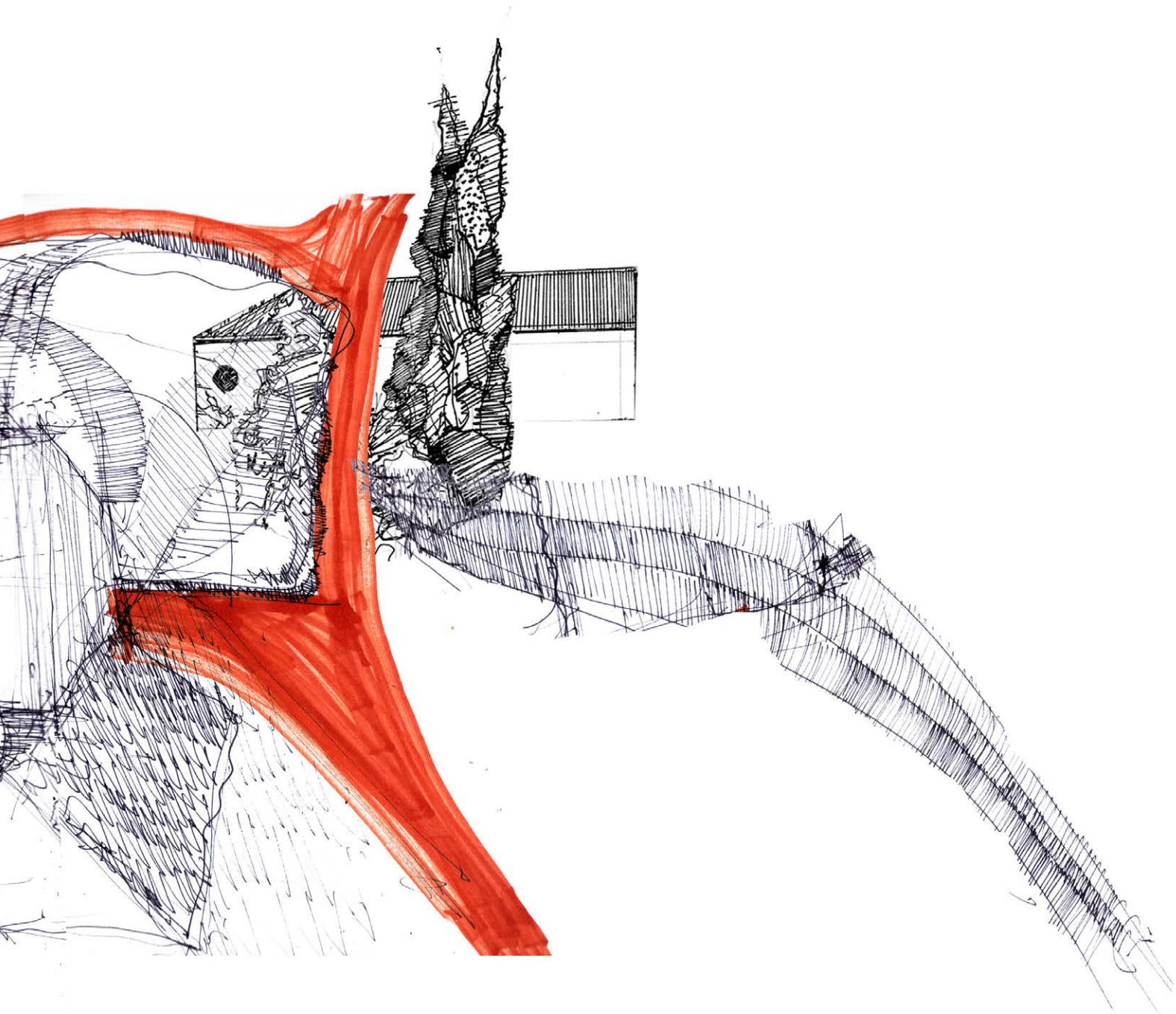


Figure 66: *Conceptual Urban Vision Sketch exploring the re-representation of spaces with extension into their immediate surrounding context. (Author, 2018)*



Re-setting the scene_Urban Vision

[Future Context]

The Urban Vision is a result of critique of past visions proposed, as well as an appreciation for the memory of the sites histories as they bare traces that allow this vision to find a strong foothold.

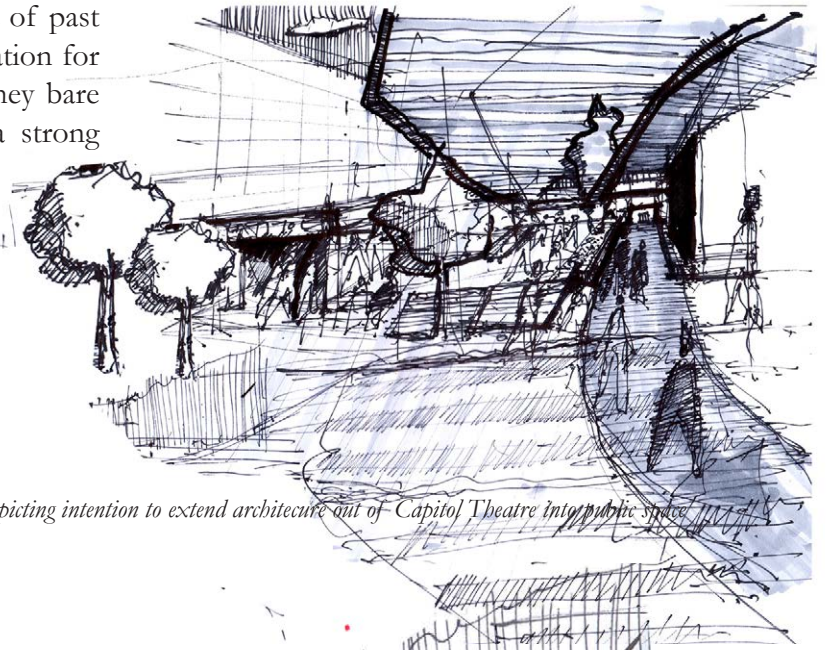


Figure 67: Urban Vision sketch of Capitol Theatre depicting intention to extend architecture out of Capitol Theatre into public space (Author, 2018)

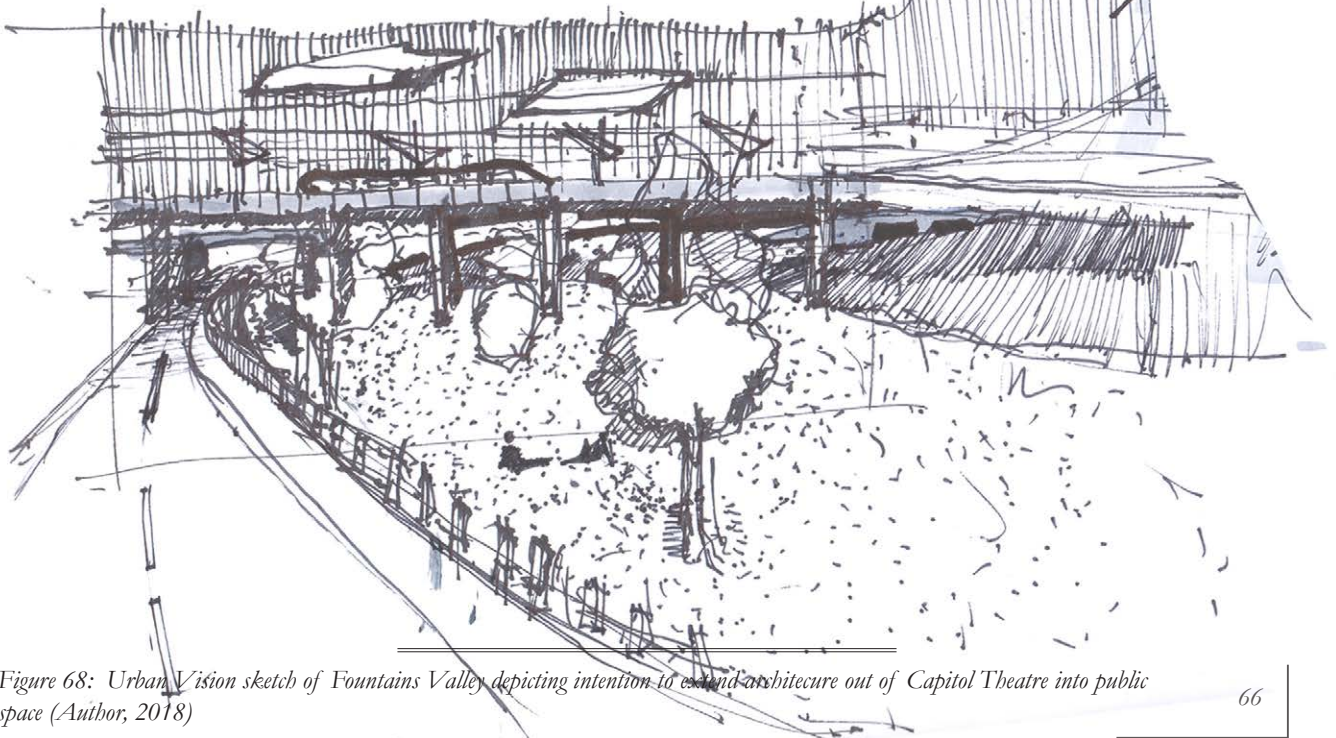


Figure 68: Urban Vision sketch of Fountains Valley depicting intention to extend architecture out of Capitol Theatre into public space (Author, 2018)

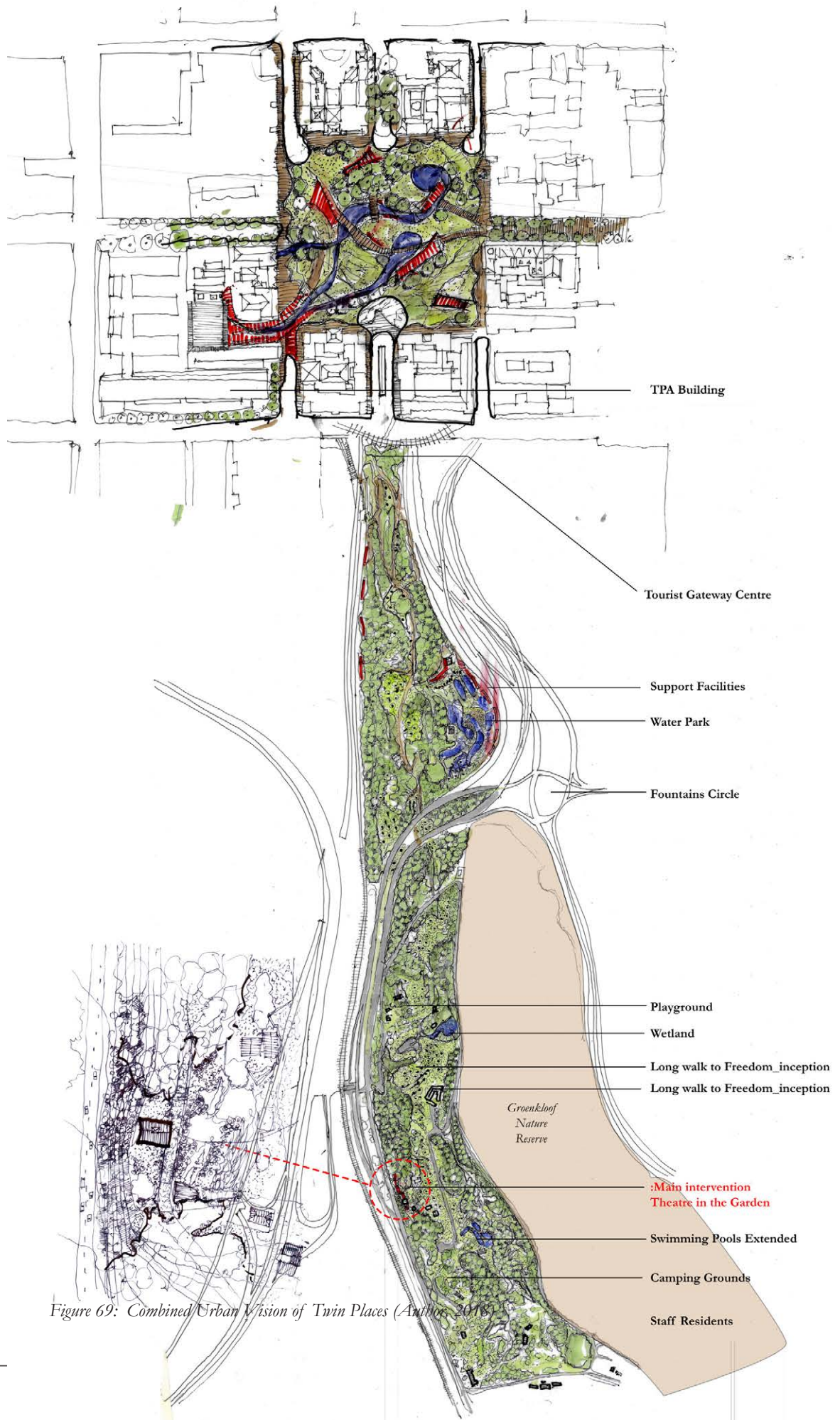


Figure 69: Combined/Urban Vision of Twin Places (Axtos, 2018)



National Heritage Monument

Fountains Valley Proposal

1

The Long March to Freedom



An envisaged procession of 400 life-size figures, visitors will be encouraged to walk among the heroes and heroines who brought freedom and democracy to South Africa

2

The Heroe's Acre



Heroes' Acre will be a space for celebration, accommodating up to 30,000 people and offering VIP and conference facilities, public amenities and a central piazza connected to the Long March to Freedom

3

Africa's Biggest Water Park



The proposed water park intends to offer water-based rides, outdoor and indoor heated swimming pools, fast-food kiosks and merchandising retail outlets and will cater for up to 10,000 visitors at any one time

4

A Centre for Learning



A Visitor and Interpretive Complex will house an archive, library, a lecture theatre, an auditorium and an exhibition space

A space of learning using the latest media technology, the complex will entertain, inform and encourage visitors to travel to other struggle-related heritage sites in South and southern Africa

5

Memorial Gardens



The gardens will represent the collective efforts and unity of those nations in the most influential international solidarity campaign of the 20th century

Their significant contribution will be commemorated through ceremonial donations and plantings, symbolizing the shelter and support the African National Congress and other liberation organisations were given during years of exile

6

Civic and Event Areas



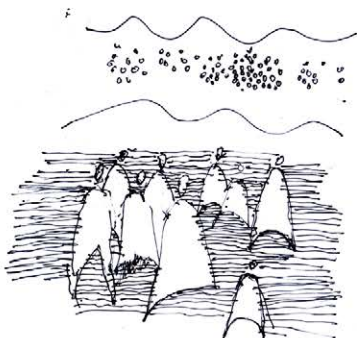
The National Heritage Monument aims to be an important inner city people's park, with an amphitheatre that will be used for educational purposes, music performances and other outdoor events

An envisaged amphitheatre will offer an outdoor venue for a variety of events, while conference facilities, ranging from small meeting rooms to an expansive convention centre will offer more formal meeting venues

Response

1

The Long March to Freedom



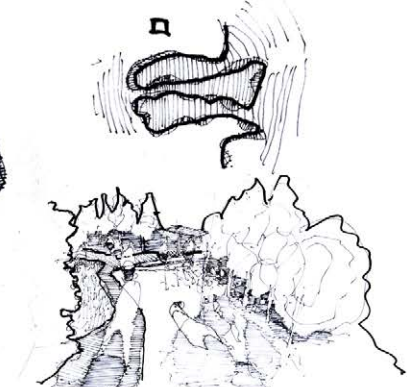
3

Africa's Biggest Water Park



5

Memorial Gardens





Church Square Proposals

Present Day

Mashabane Rose Associates



Space Contained



Space - recontained



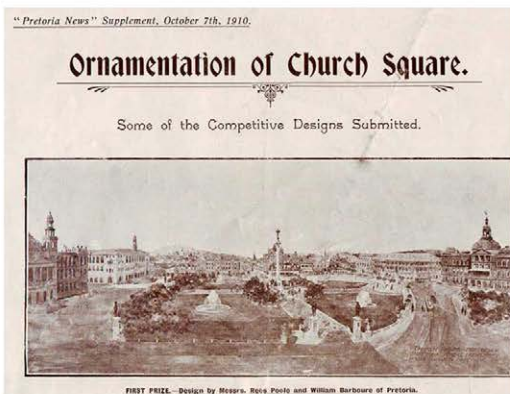
Space lost ?

Tshwane 2055 Vision



1910

Competition for the Ornamentation of Church Square



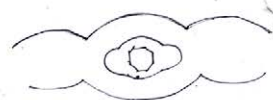
FIRST PRIZE
REES-POOLE & BARBOURE



SECOND PRIZE
GEG LEITH and J FILTNESS



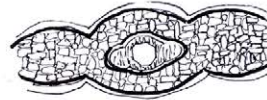
ENTRY
GEG LEITH and J FILTNESS



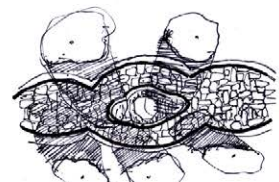
ORNAMENT



WATER



WALKING



PLACE

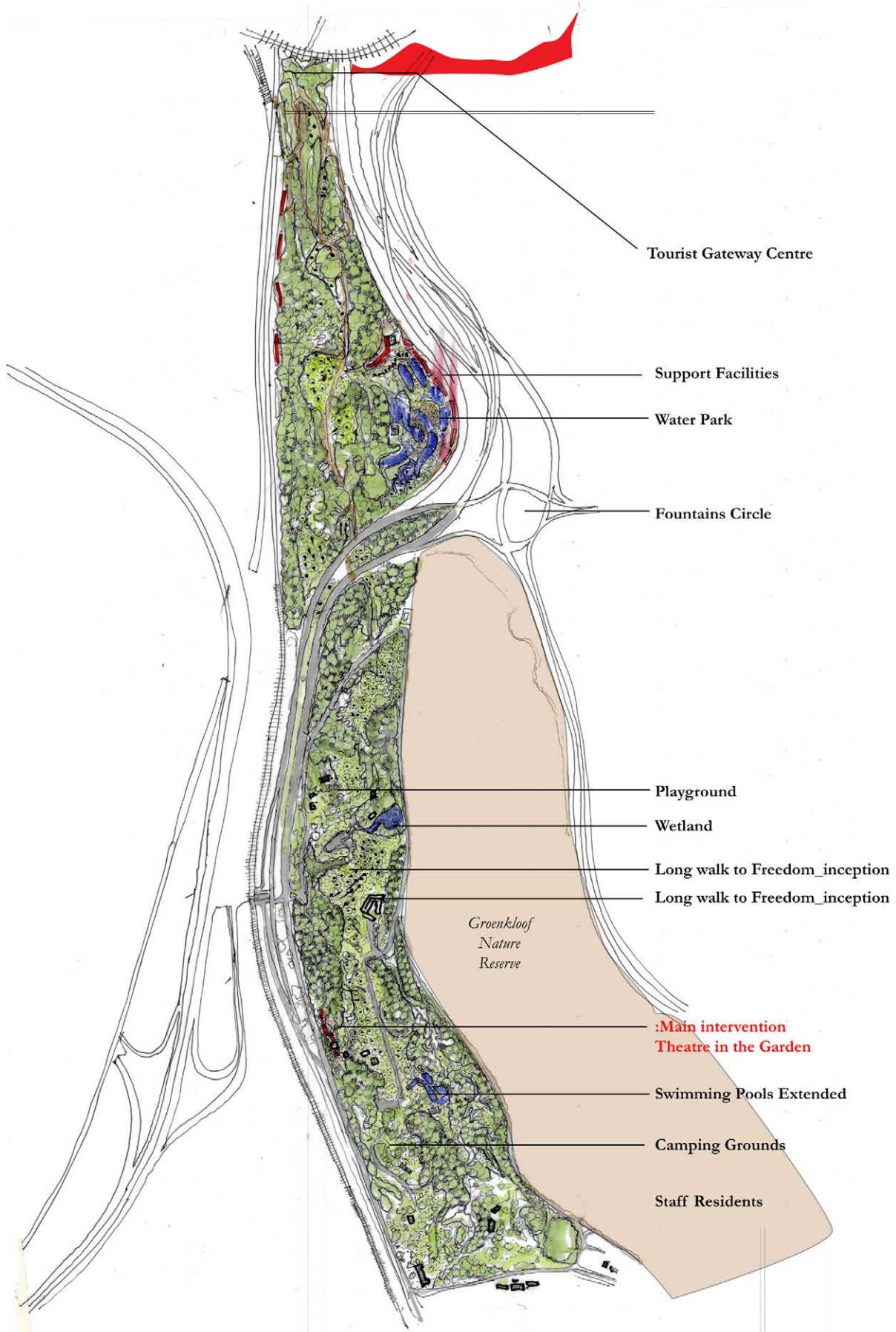


Figure 70: Urban Vision for Fountains Valley (Author, 2018)



Figure 71: Urban Vision for Church Square with emphasis on Capitol theatre (Author, 2018)

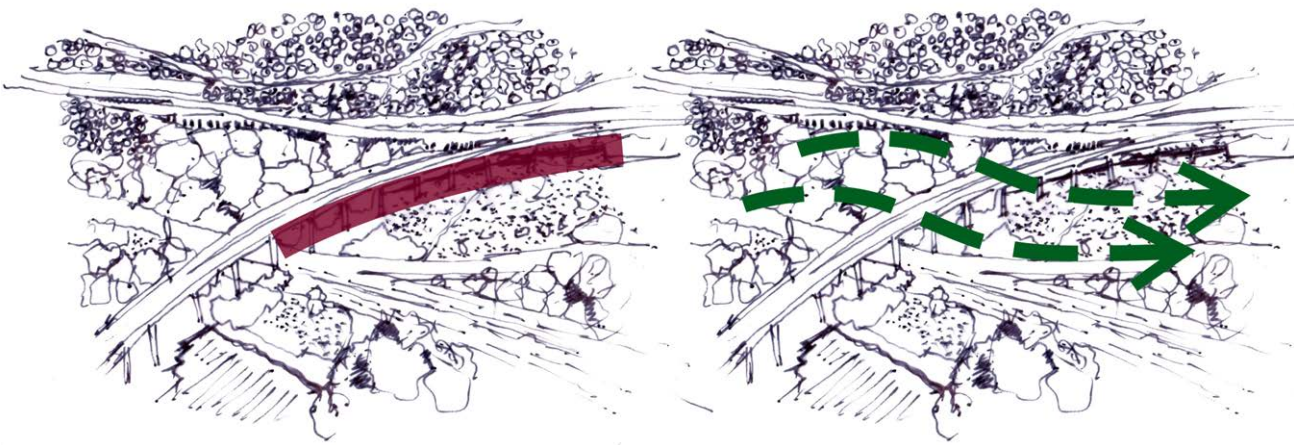


Urban Strategies

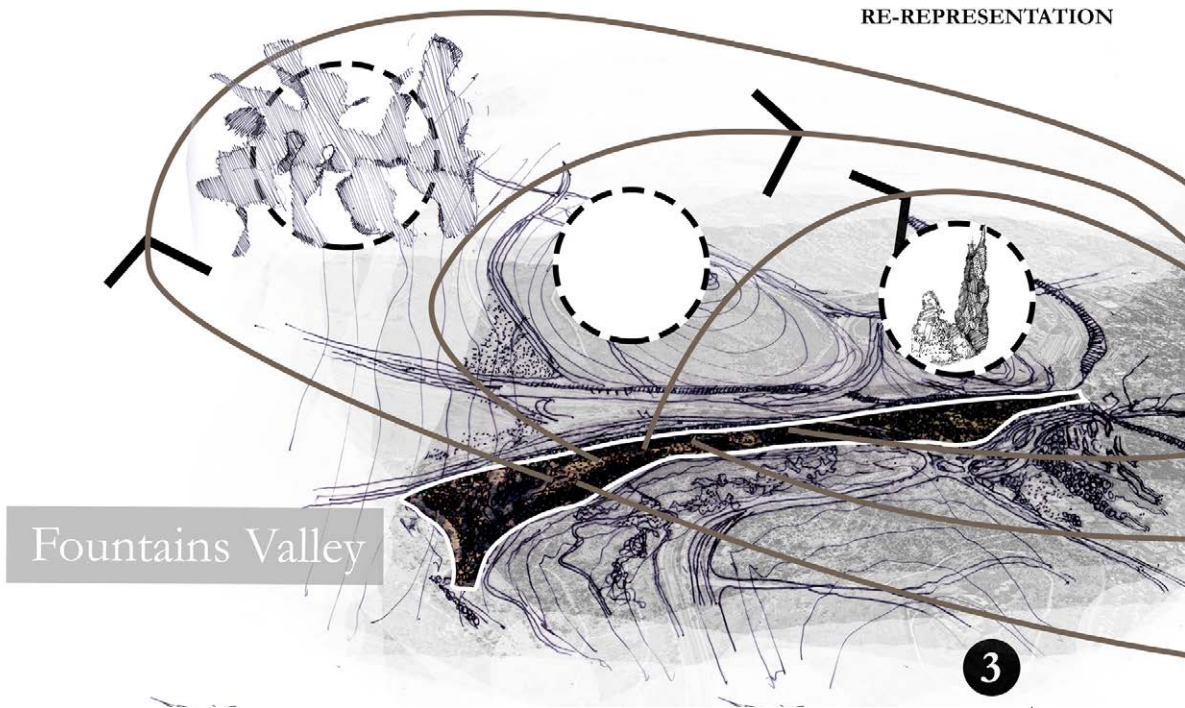
[Analysis + Proposal]

Condition

Solution



RE-REPRESENTATION



Fountains Valley

3

72

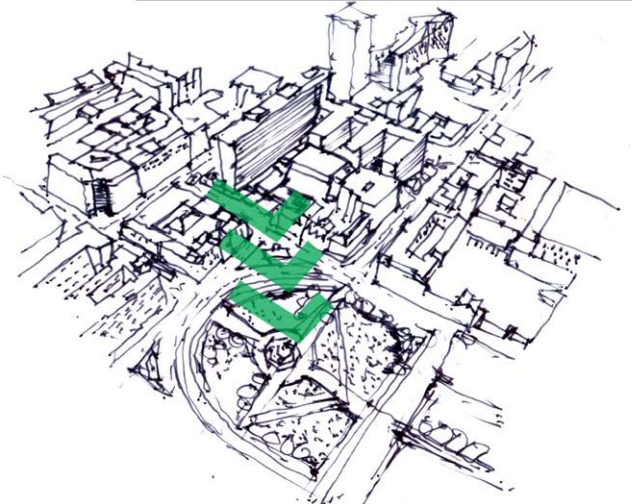
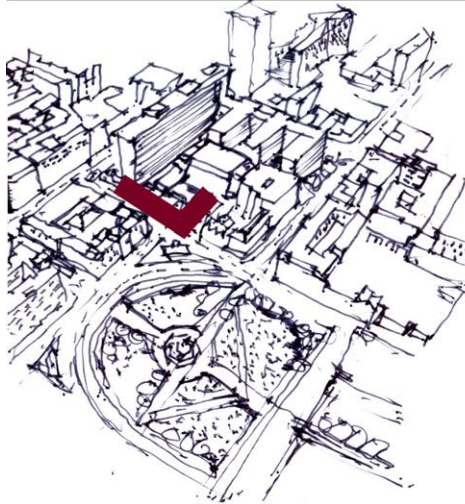


Condition

Solution

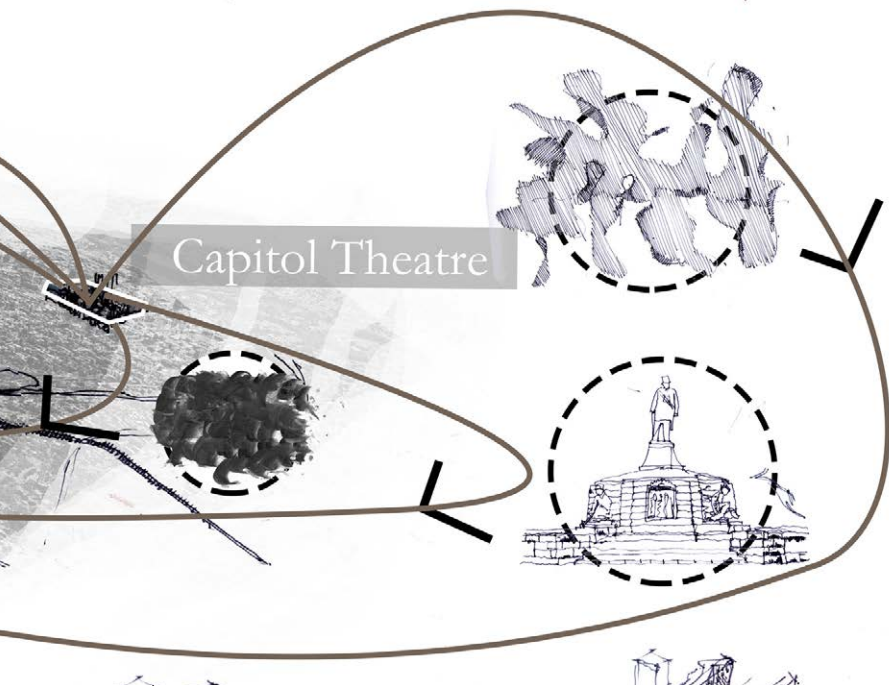
1

ACCESSIBILITY



2

REPRESENTATION



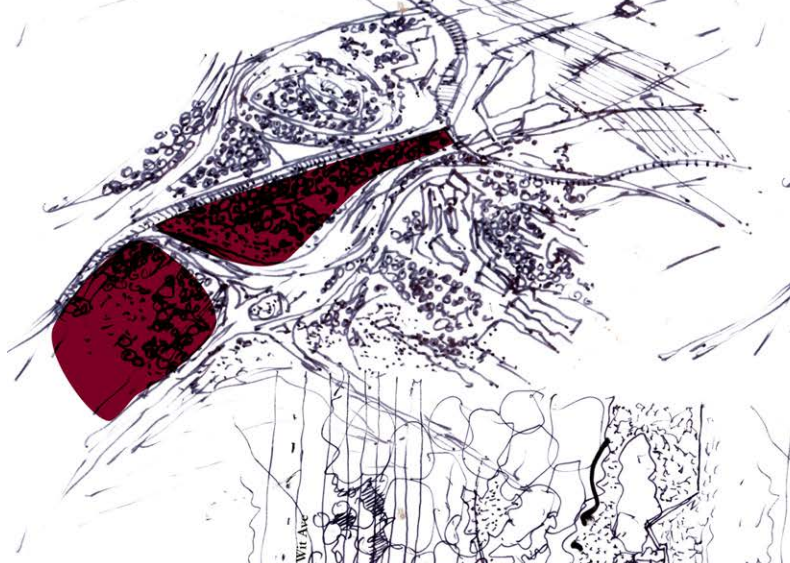
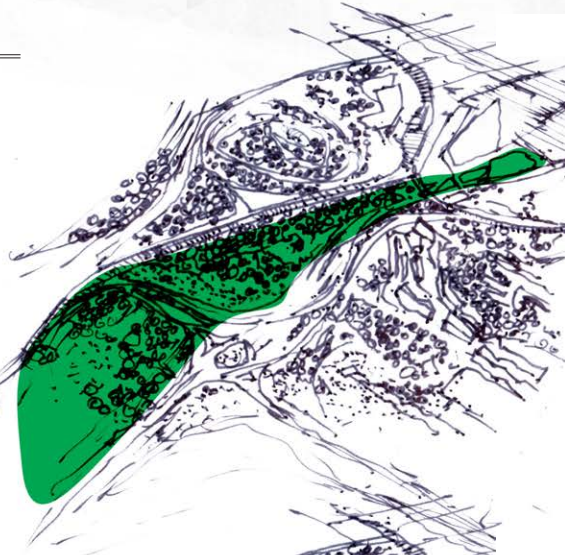


Condition

Solution

Urban Strategies

[Analysis + Comparison]



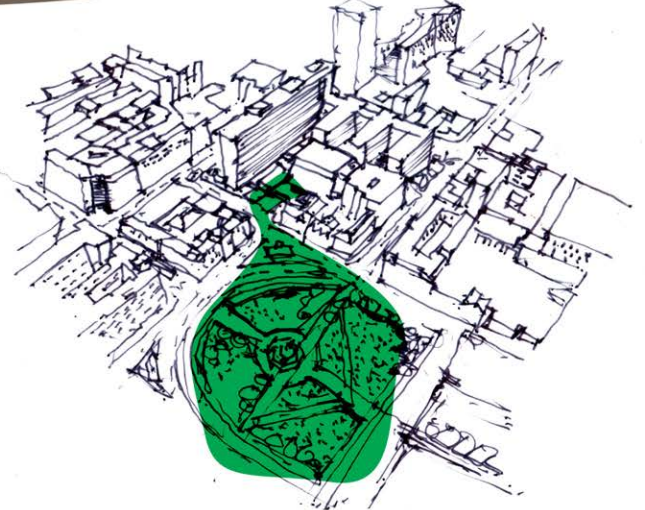
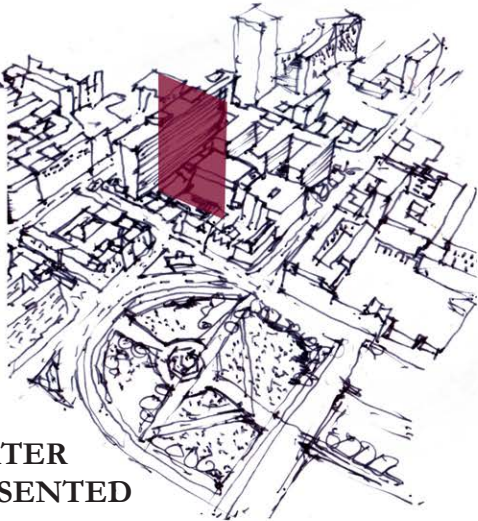


Condition

Solution

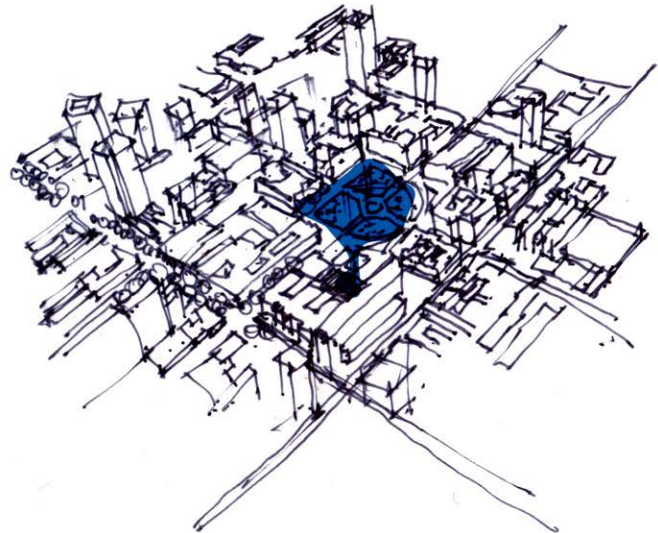
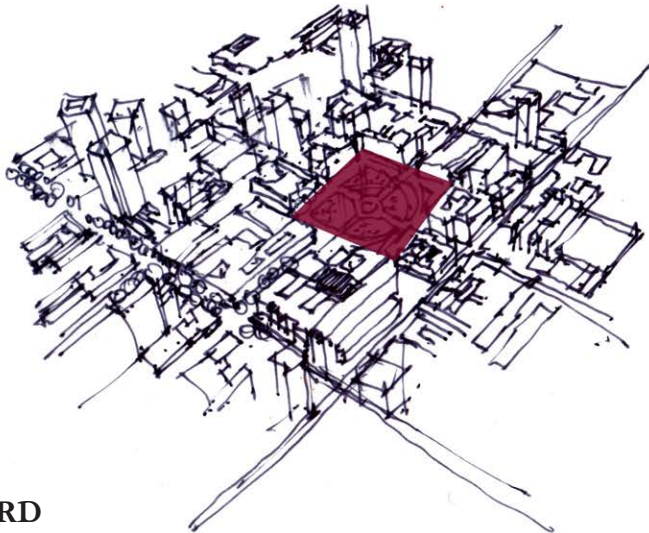
3

EXTENDING PROGRAM



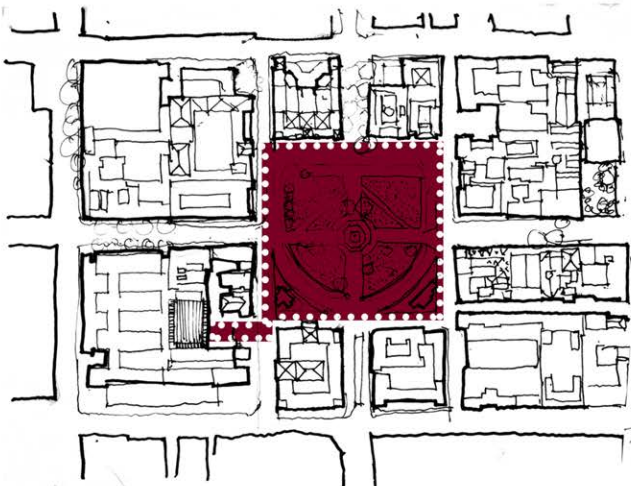
4

WATER REPRESENTED



5

SOFTEN HARD SPACE

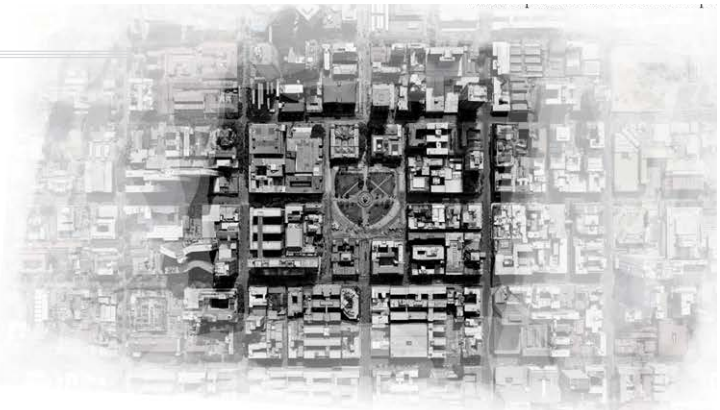


Church Square Analysis

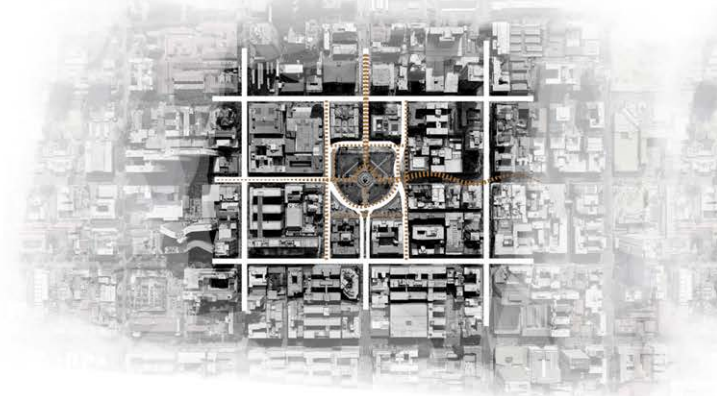
[Findings]

The site analysis conducted focuses on 12 conditions of the context: Current Condition looks at the site as it exists as a result of palimpsests over time. The pedestrian movement highlights the good amount of pedestrian access and movement that the square offers, which is an advantage for a proposed public building. An analysis of the boundary and access reveals that access to Capitol Theatre is currently restricted to a singular access which is dominated by vehicular parking controlled by the government. The Walking circles situates Church Squares proximity to the surrounding context. The main threats that affect the square and theatre is the dilapidated state of the theatre and the neighbouring TPA building, as well as the stagnant nature of the square. An analysis of the function of the space reveals a strong presence of government run buildings with the potential for other functions to make the precinct more dynamic.

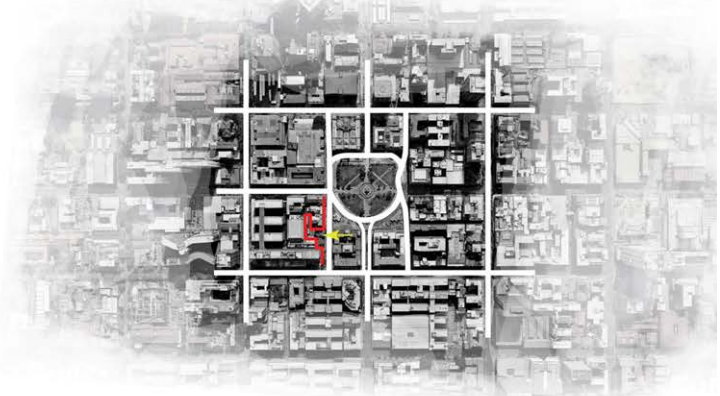
The Water Systems reveal a presence of storm water management along the streets with the Capitol Theatre block showing signs of a high water table, which is currently causing damage to the buildings basements. An analysis of fence conditions looks at what is perceived as a major concern that needs protection; such as the TPA Building and the Paul Kruger Statue. The Road condition gives an understanding of the vehicular presence within the square. A look at the green spaces shows Church Square as a major space for potential recreation with trees that line the surrounding street acting as extensions of soft space. A look at the energy reveals the inherent importance of Church Square whereas a study of the boundary conditions reveals more hard boundaries emitted by surrounding buildings that soft boundaries.



Current Condition



Pedestrian movement



Capitol boundary and Access



Threats



extending experiences

- LEGEND**
- TPA Building
 - Koyama Building
 - Cafe Riche
 - Old Law Chambers
 - Old Nederlandsche Bank
 - Standard bank
 - Rental Towers
 - Tudor Chambers
 - First National Bank
 - Director Public Prosecutions
 - One on Mutual Apartments
 - Old Reserve Bank
 - Palace of Justice
 - SA Post Office
 - Public Ablutions
 - Capitol Theatre

Function of spaces

Road Condition

Water systems

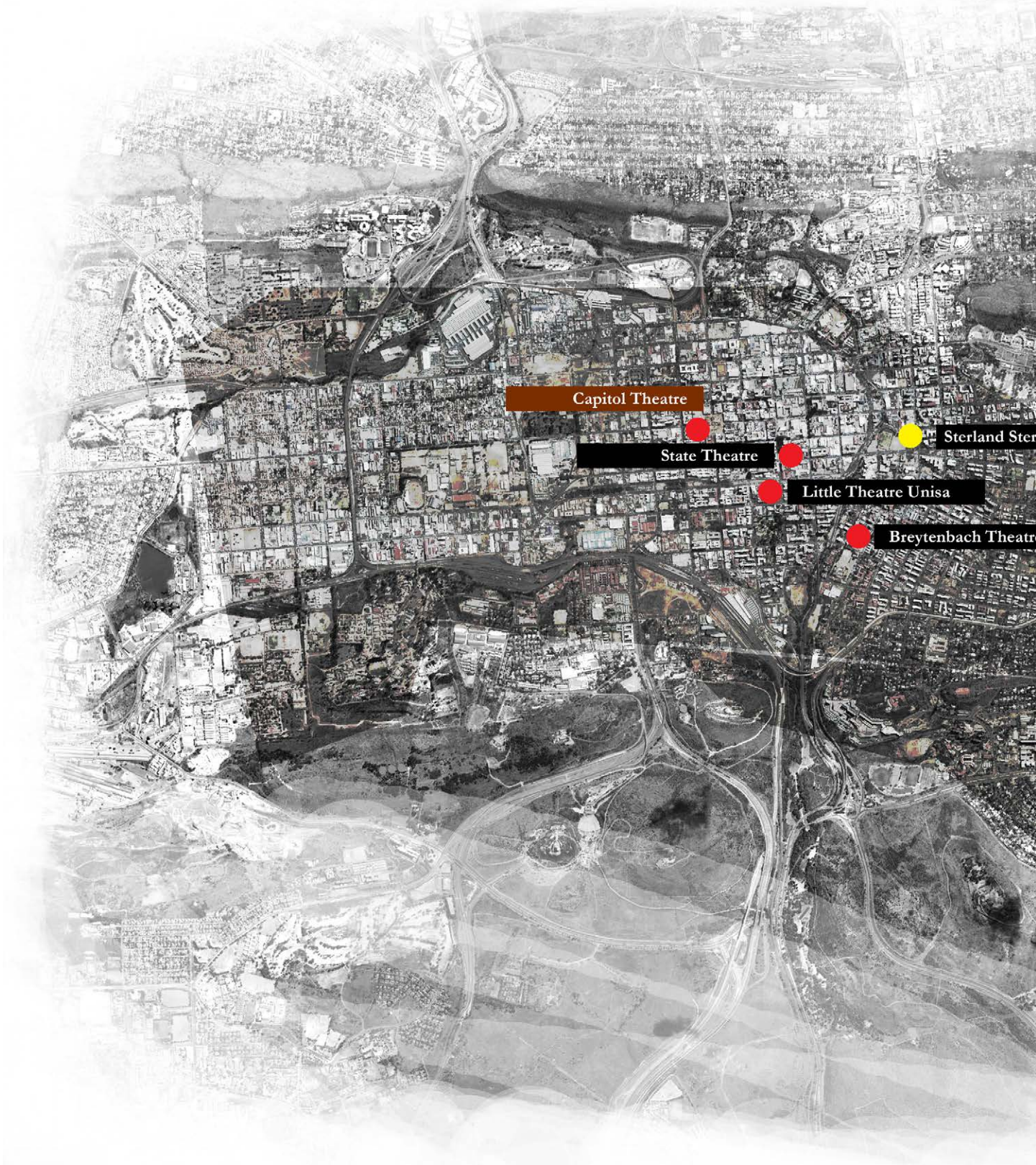
Green spaces

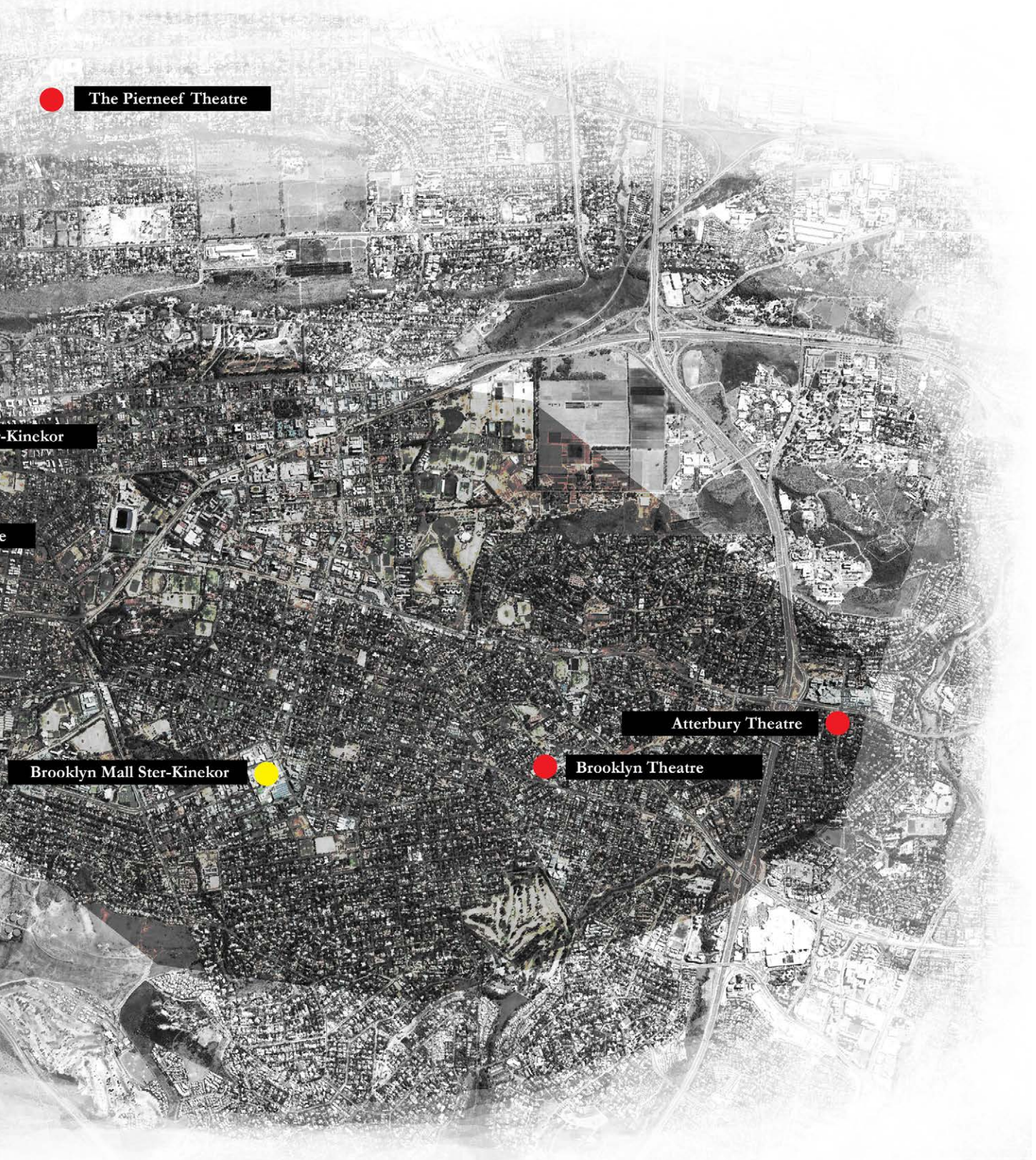
Walking distances

Energy Week days

Fence Conitions

Hard and Soft Boundaries



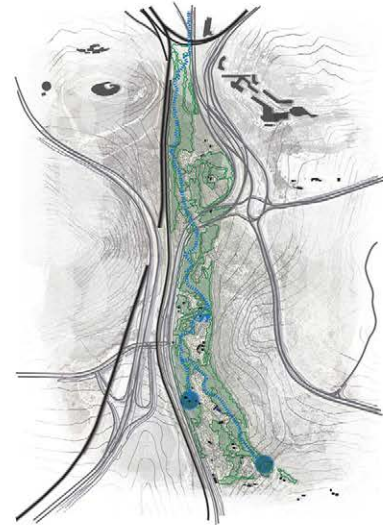


Fountains Valley Analysis

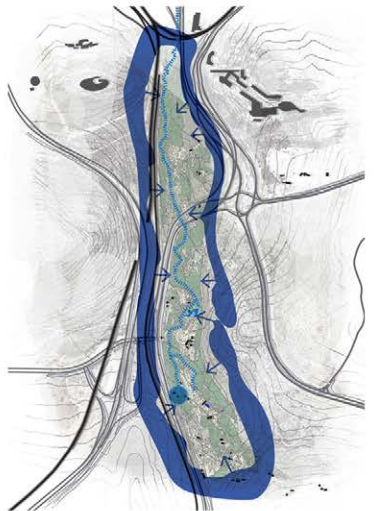
[Findings]

With Fountains Valley being the origin of the water to city, the first analysis focuses on the presence of the two springs that give water to the city, as well as the presence of a wetland and the Apies River that runs through the city. The Hydrology of the valley shows how the topography feeds water into the site, and that the valley falls within a 100 year flood line. The boundaries to the site in this case are visual with more sight possibility towards the east of Groenkloof Nature Reserve. The site is dominated by green trees and green space which renders it a hidden phenomena from its surrounding context. Fences are erected in places where the roads form easy access into the site. An Energy study during the weekdays and weekends shows the frequency of occupancy. Fountains Valley allows two points of access from the western boundary of the site. Although the site is surrounded by vehicular and train movement, the walking circles give an understanding of buildings that fall within the sites proximity.

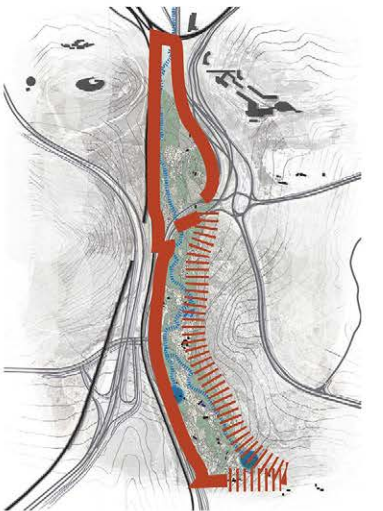
As Fountains Valley and Groenkloof Nature Reserve fall within the same land portion, dedicated to recreation, there is a high presence of pathways and hiking trails which forms a major contribution to the manner in which the land is used. The main threat the site is the northern portion that is cut off by the highway infrastructure which has encouraged looting and illegal inhabiting of buildings. On the southern portion sit vacant heritage buildings which show potential for ruin. The present day function of the sites shows camping grounds, a swimming pool, Government offices, the Long Walk to Freedom Sculpture park, Picnic and Braai Areas, and the Pump Station which feeds water to Pretoria.



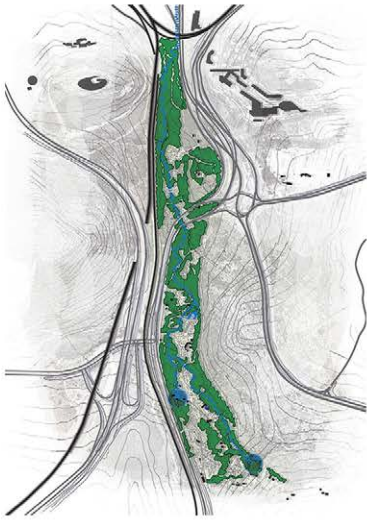
Water Systems



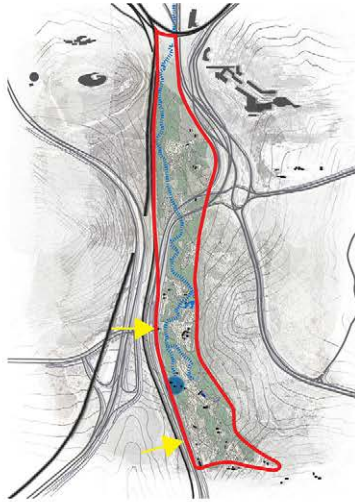
Hydrology



Site Boundaries



Green Density



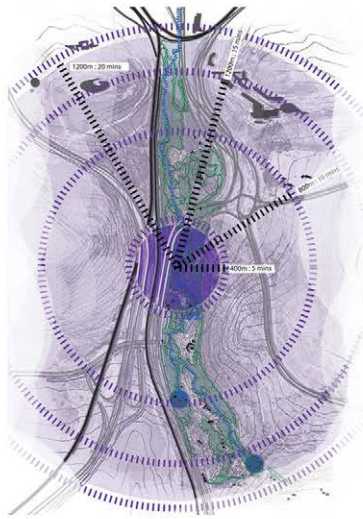
Site Restrictions and Access



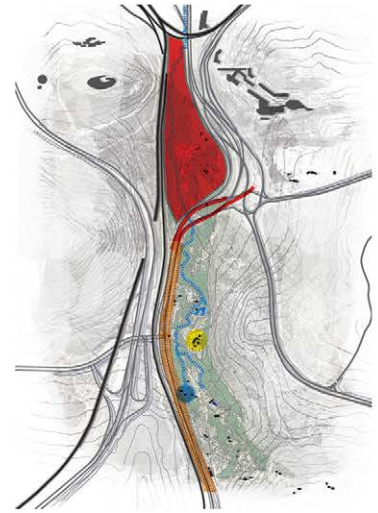
Pathways & Hiking trails



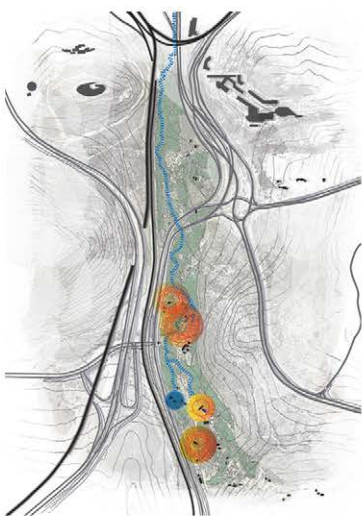
Fence Condition



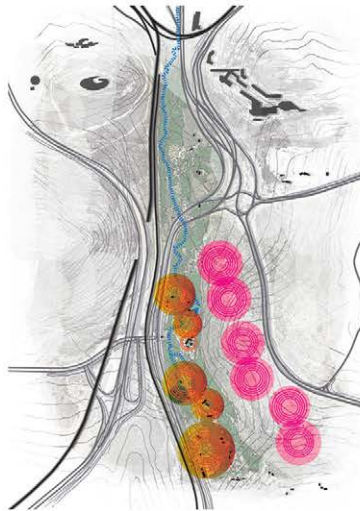
Walking Distances



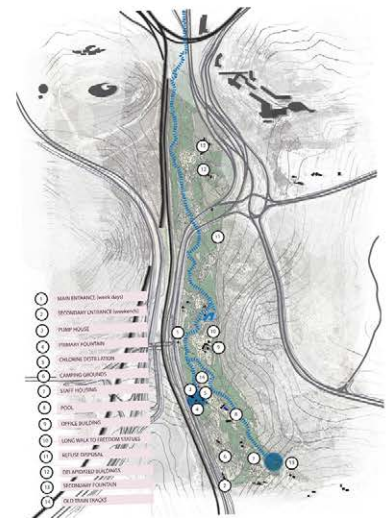
Threats to spaces



Energy Week day



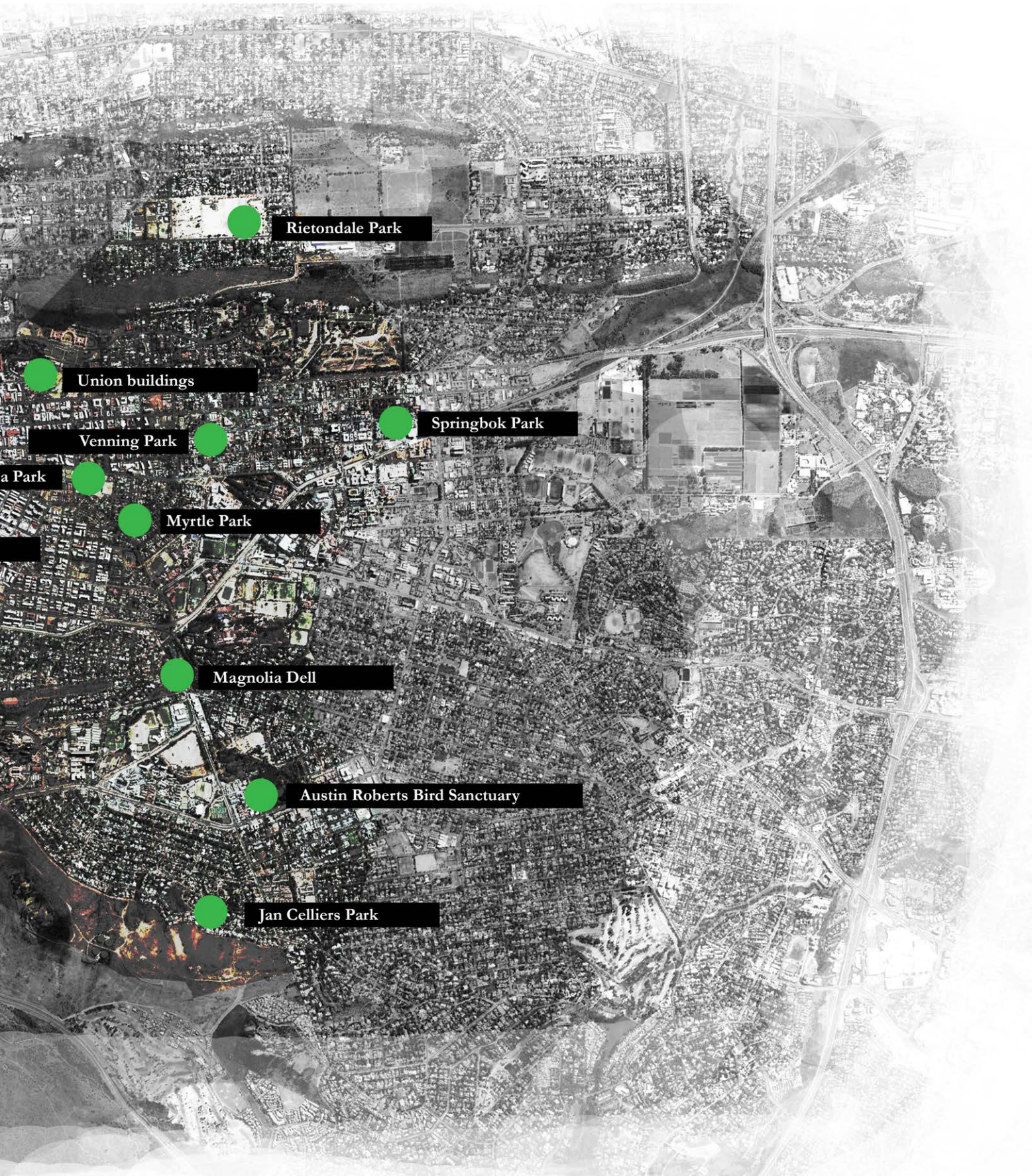
Energy Weekend



Present Day Programme



Figure 73: Parks in Pretoria (Author 2018)





General Issue

[Time contained]

The General Issue explores the manner in which Capitol Theatre and Fountains Valley find themselves stagnant in the palimpsest of their contexts. The two sites have become frozen in time, contrary to their inherent potential to reintroduce and re-represent qualities that would contribute to the experience of architectural and urban spatial conditions.

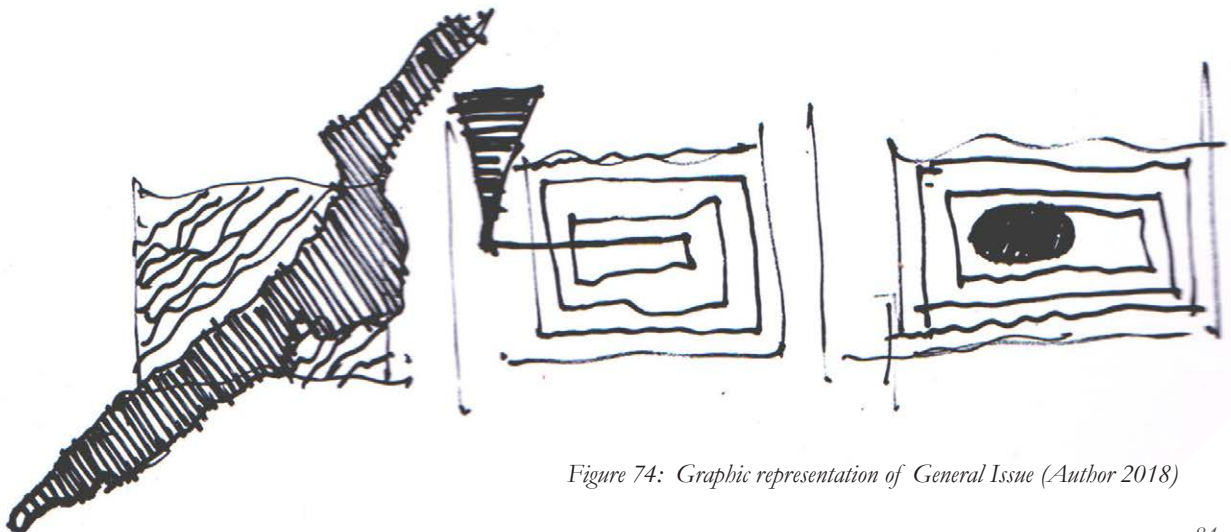
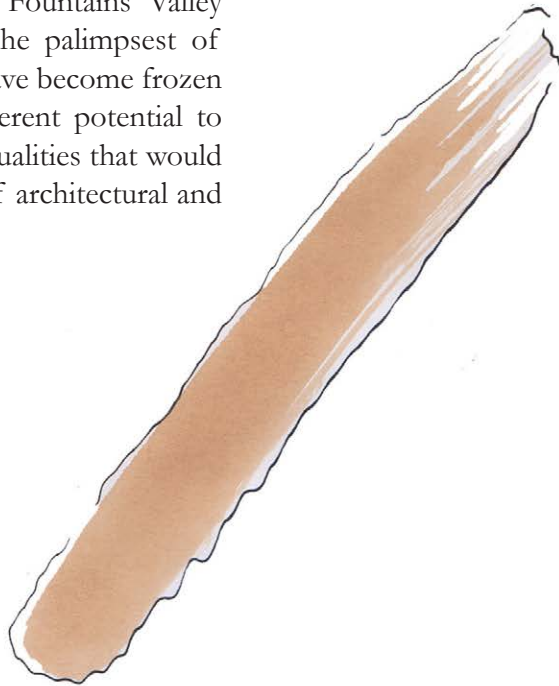


Figure 74: Graphic representation of General Issue (Author 2018)



Urban issue

[Time free]

The Urban issue explores the intention of Capitol Theatre and Fountains Valley to weave with their surroundings to thicken the palimpsest by allowing time to be measured through different experiences. Water becomes an important device in connecting the palimpsest with historical and future conditions.

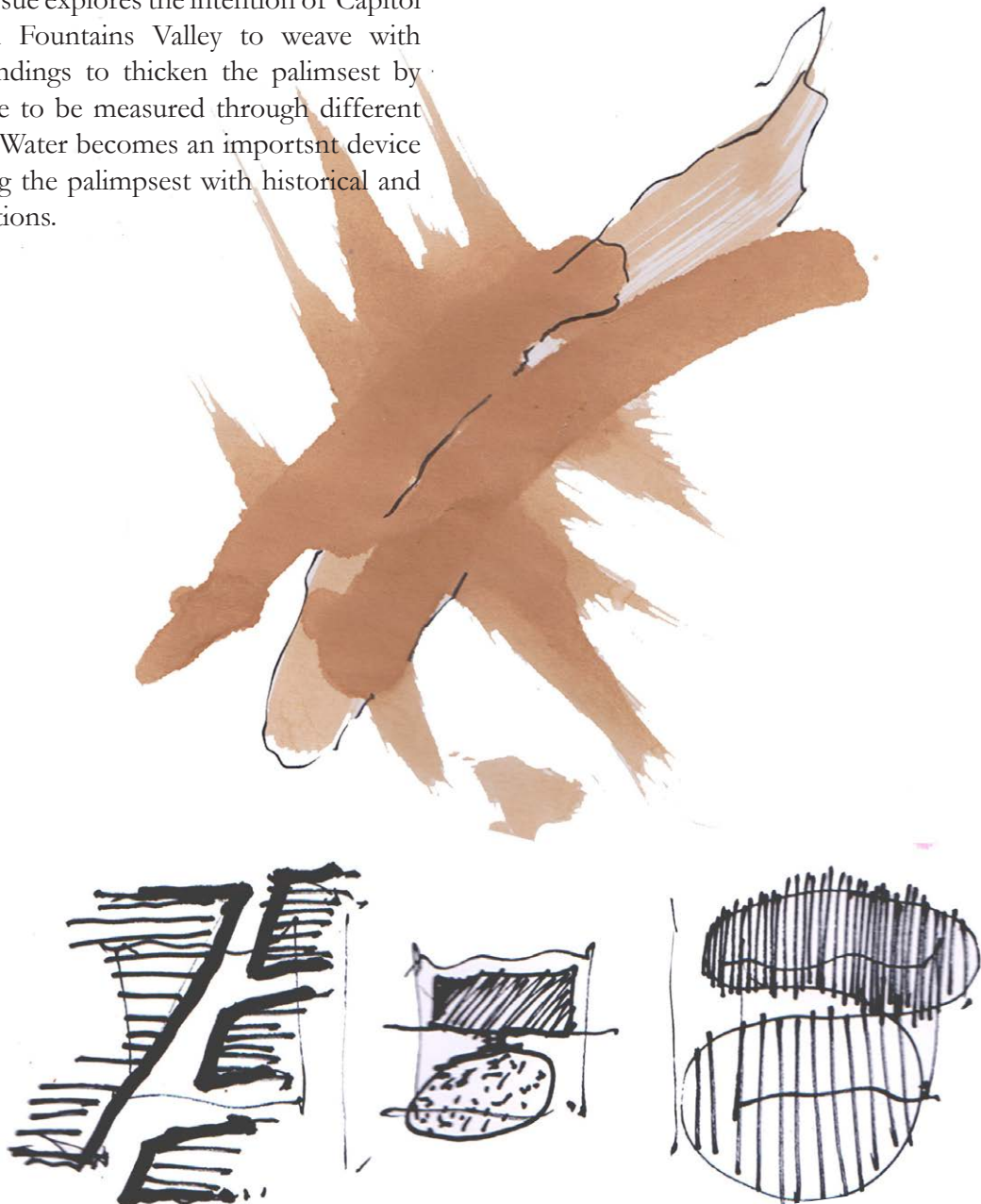


Figure 75: Graphic representation of Urban Issue (Author 2018)



Architectural Issue

The Architectural issue explores the spatial potential of extending

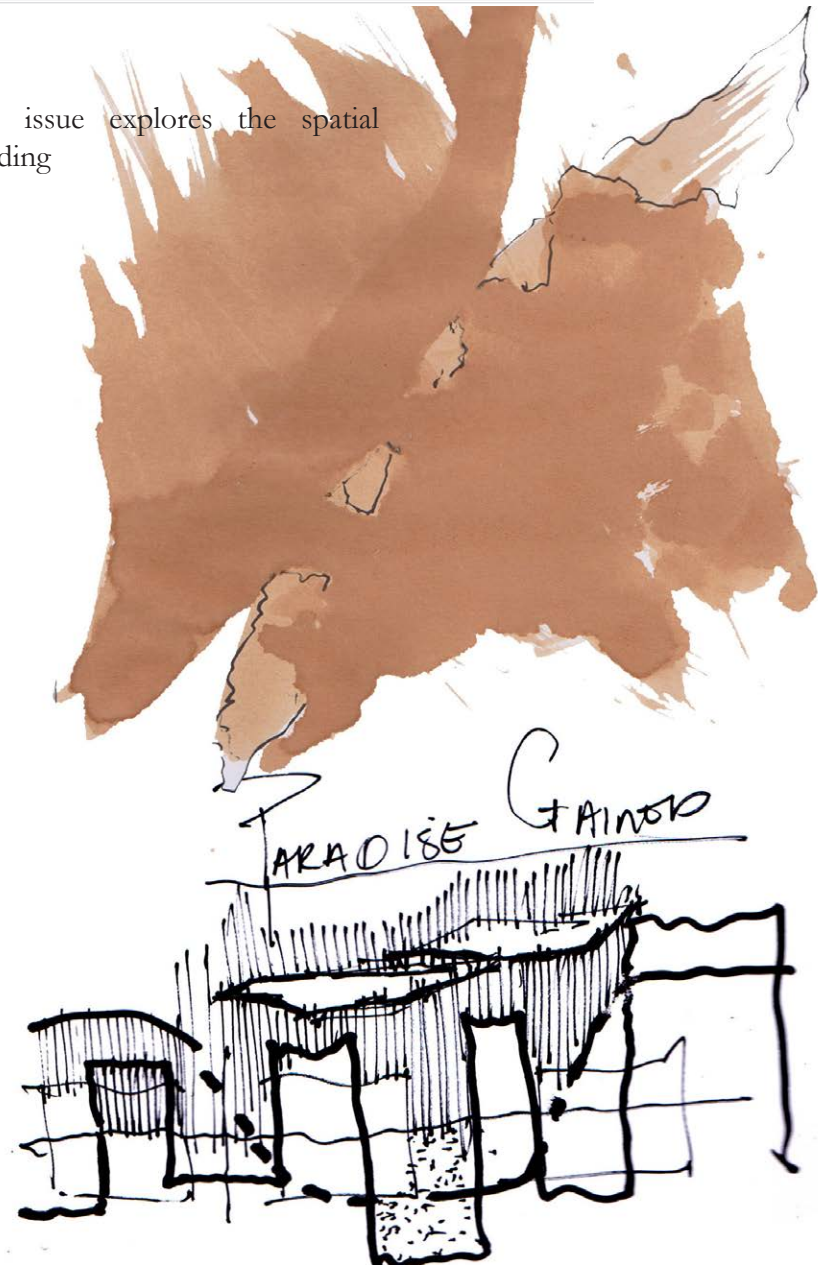


Figure 76: Graphic representation of Architectural Issue (Author, 2018)



[Enter_Background to Study]

The background to this study is grounded in a personal inquiry into architectural expression through hapticity and phenomenology. Being a part of a world filled with varying external influences, this search begins with platial memory. My experience within Architecture and Place, over the years, has provoked my memory of experiences in space and found clarity in a phenomenological view of the world. My normative position is framed by these ideas with a strong belief that our experience of place should be rooted in deep meaning and guided with an embodied experience.

[Focus_Research Methodology]

Qualitative Analysis:

The Qualitative Analysis will follow two methods of investigations. One approach will take form in an intuitive understanding of place (landscape and architecture) and document the findings for translation into informants. The second approach will use theory in literature to support the intuitive findings, as well as provide additional understandings of qualitative interpretations of place, space, and its importance of embodied human experience.

Precedent Studies:

Architectural Precedent studies will be conducted that expand understanding of programme, place, space, and form. The study will critique the findings that are made and explore methods of appropriation in the current conditions being explored.

Site Visits:

Throughout the year there will be continuous visits to site to continually understand the context and test ideas that have been formed through various investigations into the interpretation and re-representation of the



site.

Desktop Studies:

Where site visits are unable to provide necessary information, desktop studies will be conducted to extend frames of reference and understanding of place.

Literature Review:

The review of the literature will focus on Primary and Secondary research, with a selected incorporation of tertiary research where necessary.

Comparative Analysis:

An approach of Comparative analysis will be explored between Fountains Valley and Capital Theatre to explore their similarities and differences, and methods of re-representing each condition within the other.

[Fade into: Informants]

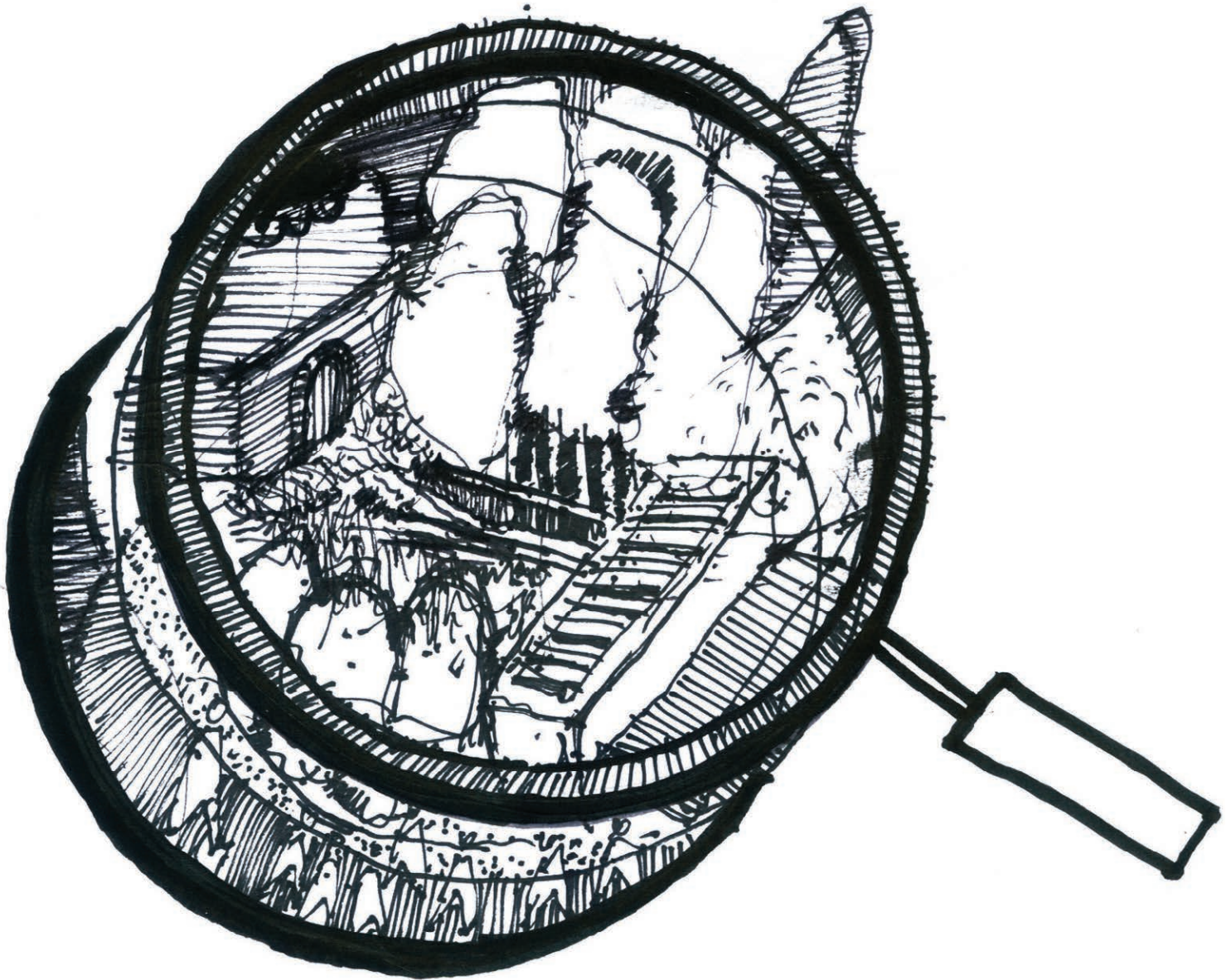
The informants of the dissertation are grounded in a normative position, theory, and reading of place.

[Intentions]



CHAPTER 3

Finding



*Finding outlines the
Design Process.*

*Figure 77: Sketch and diagram
depicting Finding (Author 2018)*



Design Process

The idea and exploration of twin phenomena is explored through an interesting approach that explores an alternative way of beginning the design process. Through an understanding of the site from an dual analytic approach which fuses the scientific and intuitive, an exploration in model building leads the inception into exploring spatial possibilities.

Step 1:

A 1:200 figure ground portion of the proposed site is cut out of grey cardboard on both sites.

Step 2:

A grid is placed over the cut piece of cardboard at 5 meter intervals to give an understanding of scale.

Step 3:

Time limits are given for three tasks that entail critically looking at the form of the figure ground cut plane and making an intuitive decision of what to cut out from the cardboard.

Step 4:

The following task entails taking the two cut figure grounds and exploring ways of morphing them spatially into a 3D model that projects an understanding of ones personal spatial approach to architecture.

Step 5:

Once built the model is disassembled and re-imagined in a way that re-looks at how space can be articulated in a different way that grows an understanding of spatial explorations as well as the poetics that align with it.

Step 6:

The final model is a combination of remnants of Fountains Valley and Capitol theatre. A section is cut of the model and morphed into the existing sites to explore architectural possibilities through space making.



Exploring Architectural Possibilities.

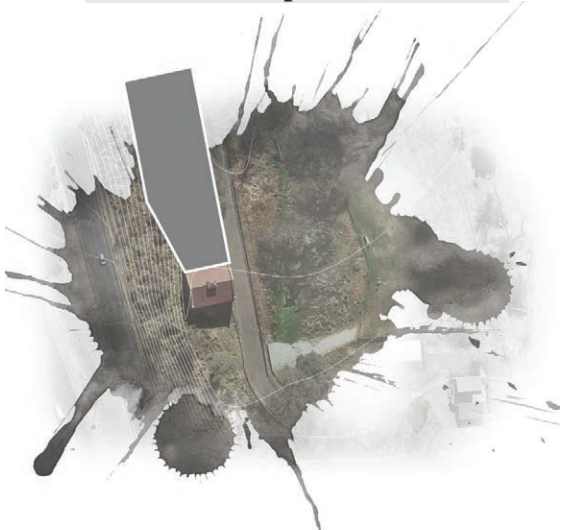
Step 7

The drawings that follow show the explorations that were done with the intention to contextually explore various approaches in both Fountains Valley and Capitol Theatre. These explorations, articulated in section, begin exploring the ideas of re-representing one site within the other by exploring the concept of duality. The Programme of Capitol Theater's Atmospheric Theatre is tested within the natural landscape of Fountains Valley, and the Programme of a Park is explored within and extending out of Capitol Theatre. Water is evident in both explorations as it is the main element that binds these two sites together.

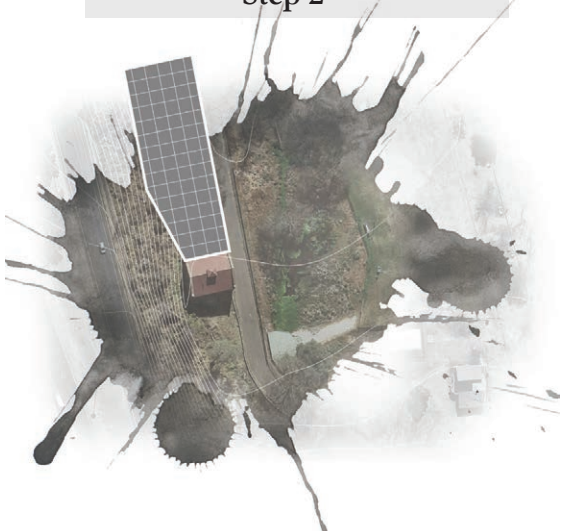
Attached to each section, drawn at a scale of 1:50, is plan drawings which gives a conceptual idea of how the intervention would sit on the site. Next to the plan drawings sits two sectional models of each idea that explores the potential spatial and tectonic qualities that intervention explores. Once explored in this intuitive manner, a critical analysis is done into the 7 sensuous qualities (Sight, Hearing, Touch, Smell, Taste, Muscle, and Bone) defined by Juhanni Pallasmaa, as well as two esoteric ideas of energy and change of consciousness. Once tested, the architecture is analysed spatial through the focus of a Parti Diagram, Pure Form, and Spatial Diagrams, to understand the implications of the proposed exploration on the landscape, spatial potential, and relationship to water.



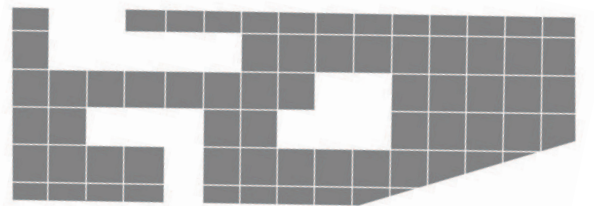
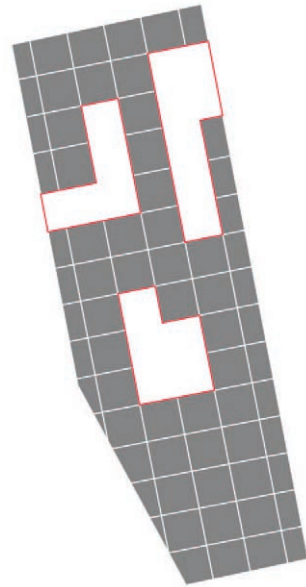
Step 1

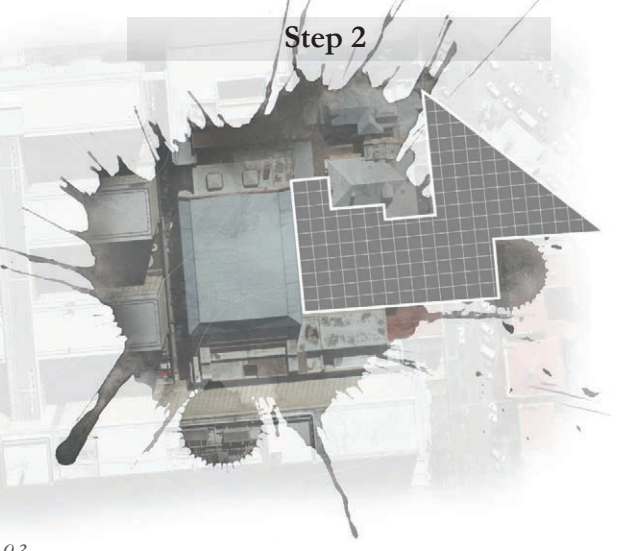
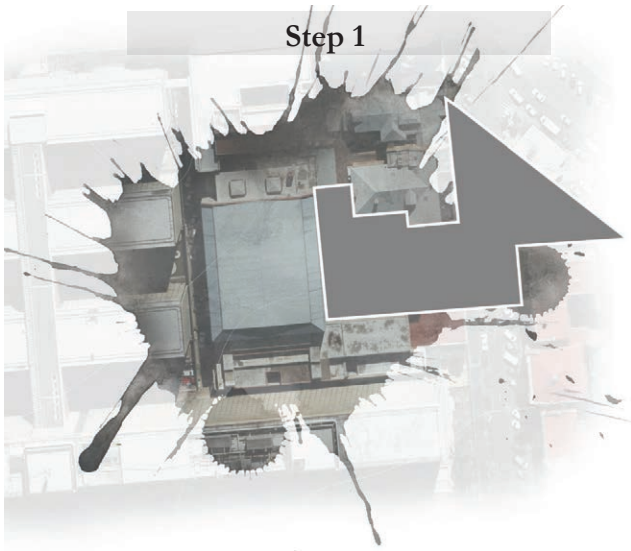


Step 2

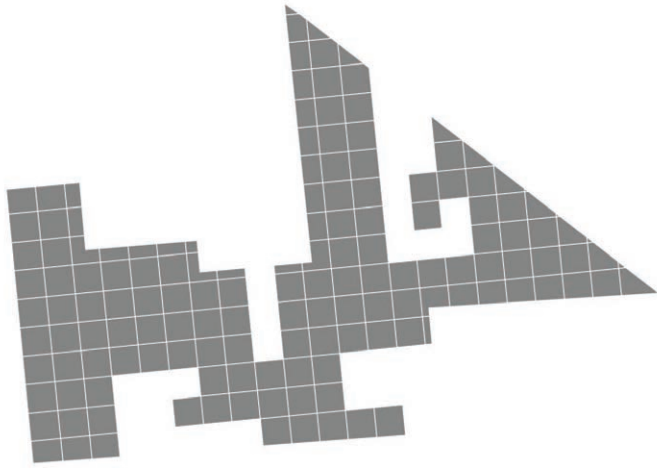
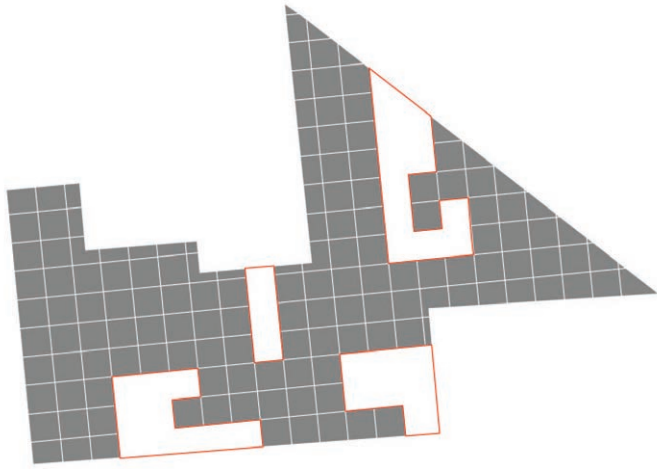


Step 3



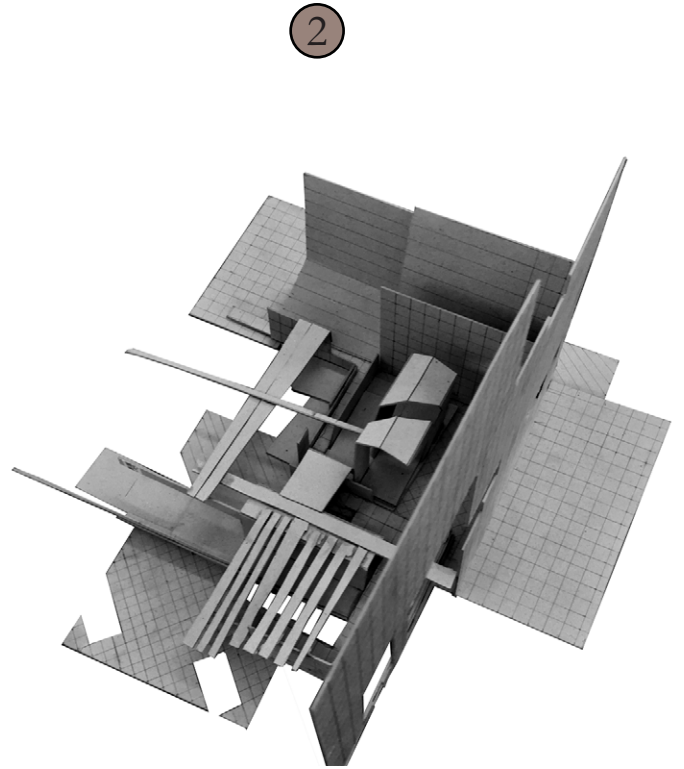
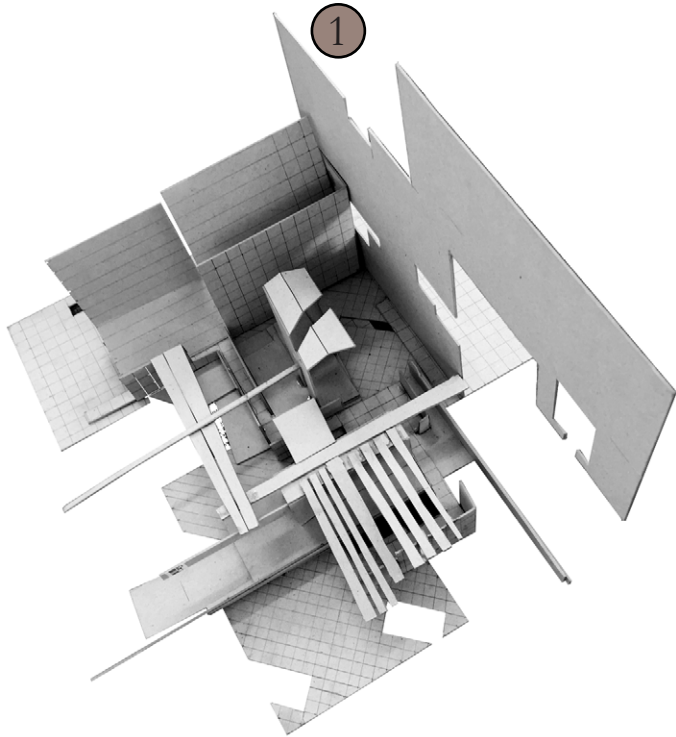


Step 3





Step 4



Step 5

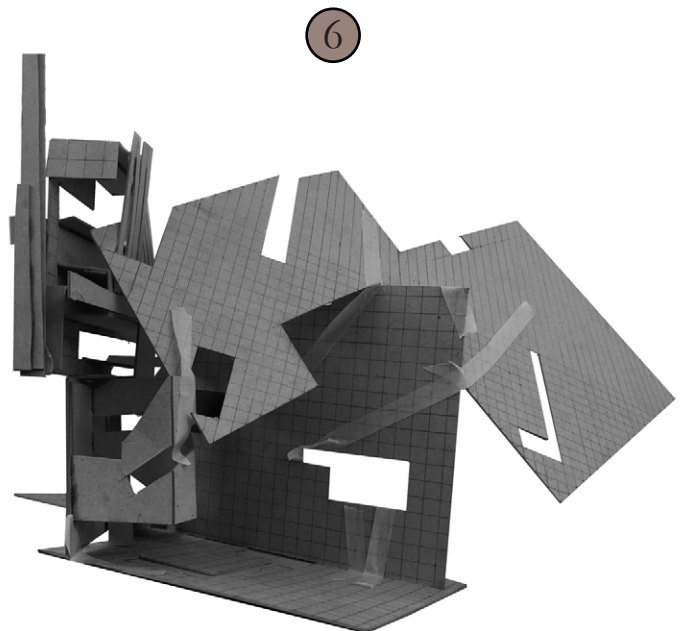
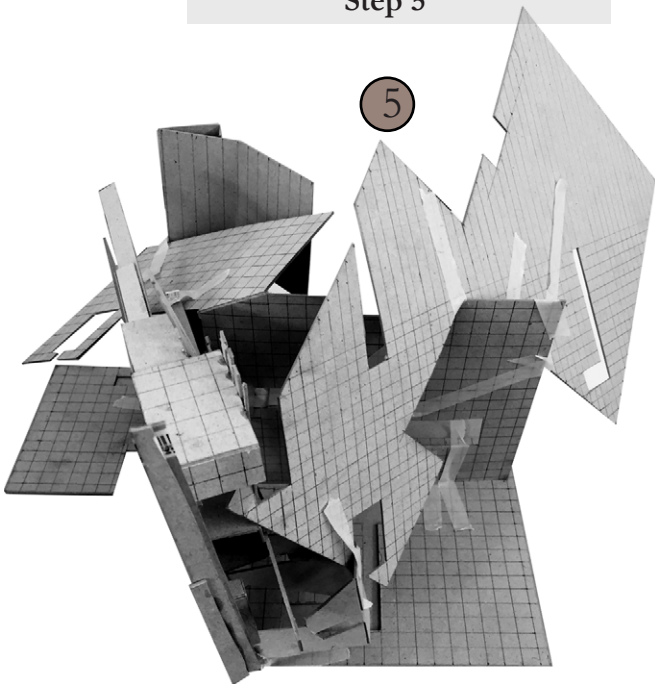
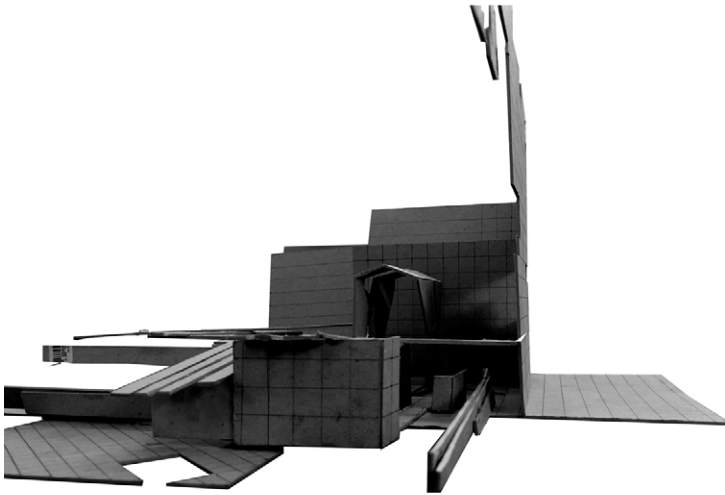


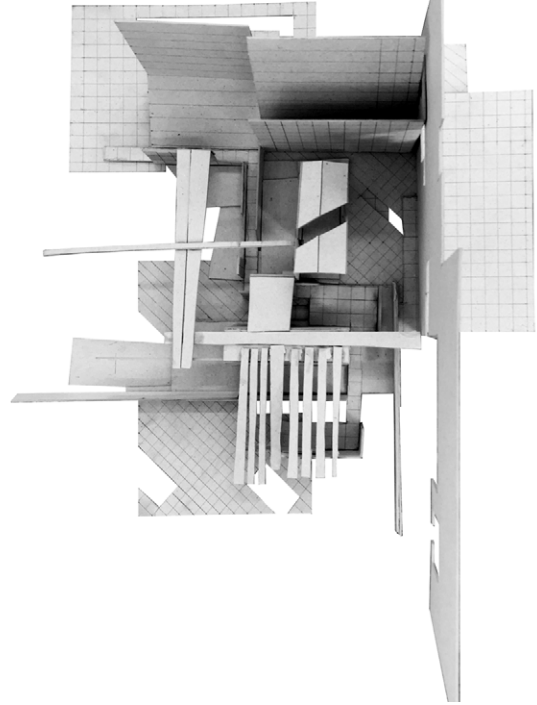
Figure 78: *Folding and Intersection of sites* (Author, 2018)



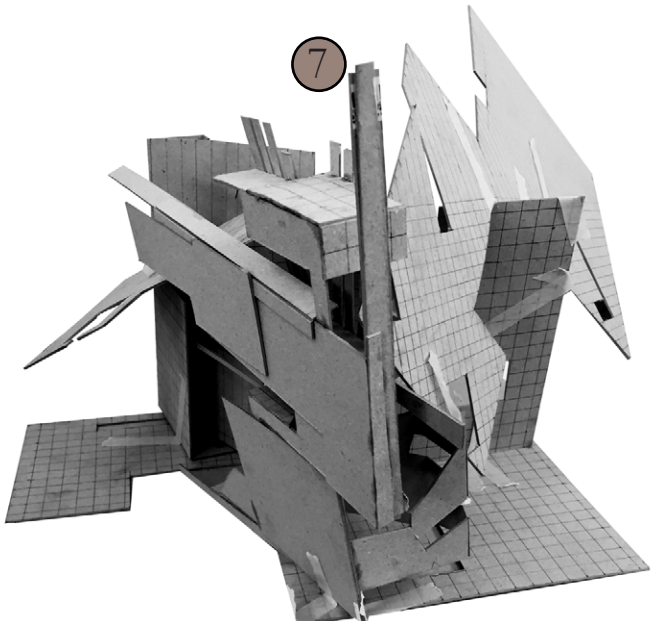
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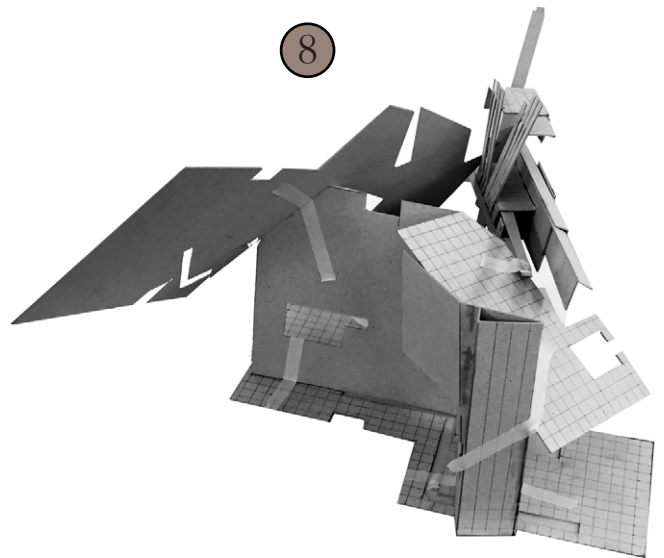
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7



8





Step 6

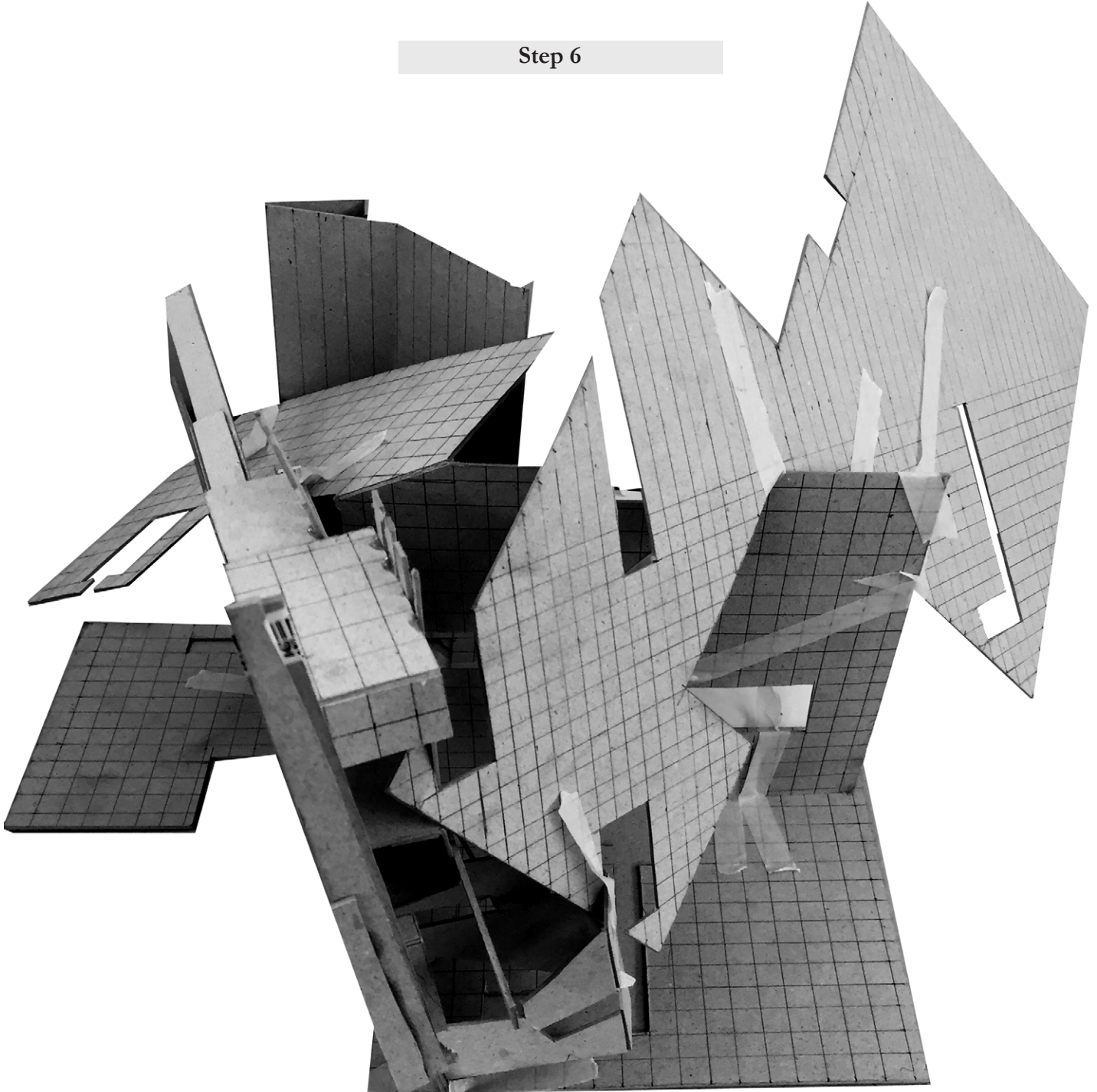


Figure 79: Final model exploration of intuitive exercise (Author, 2018)

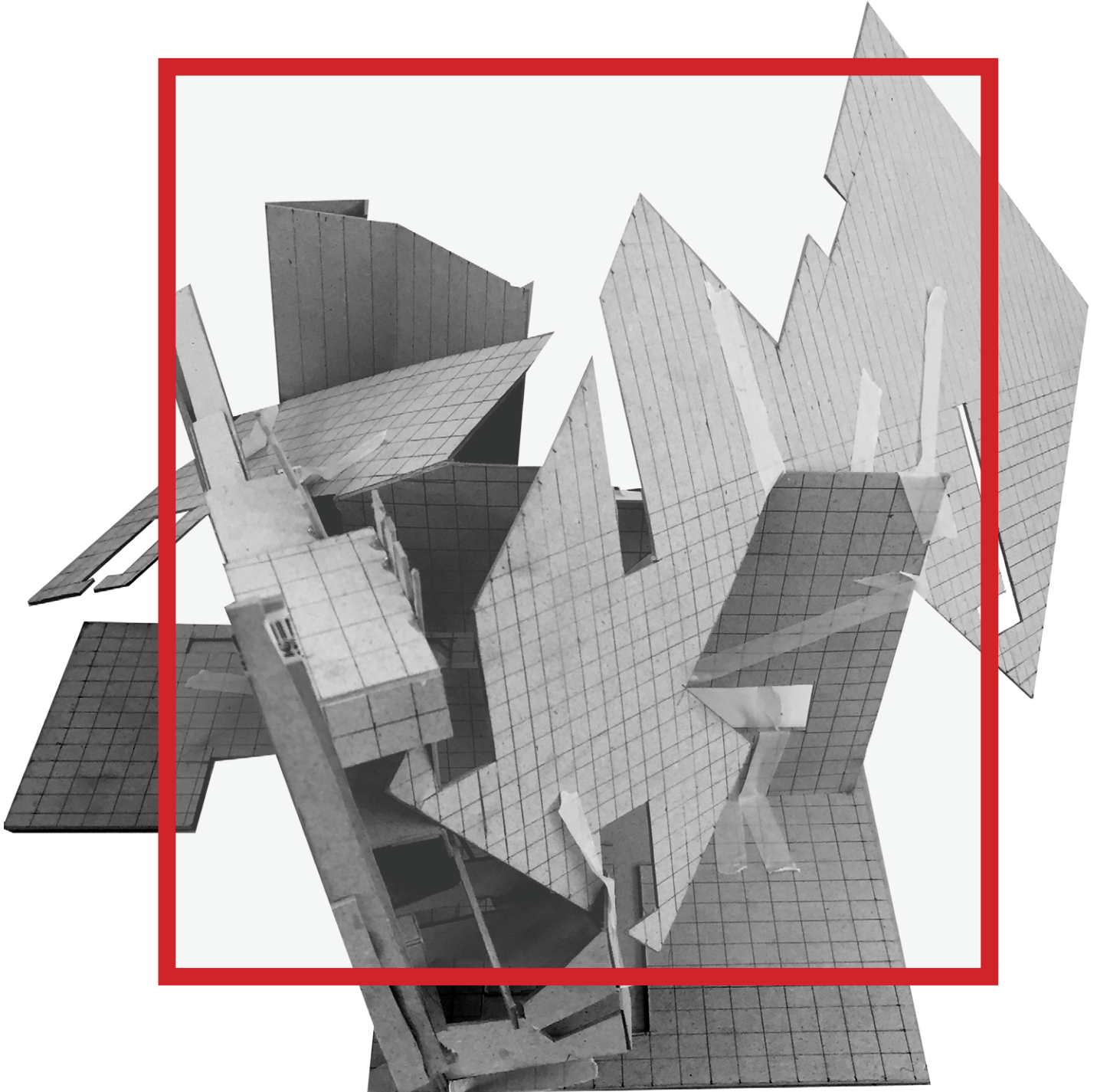
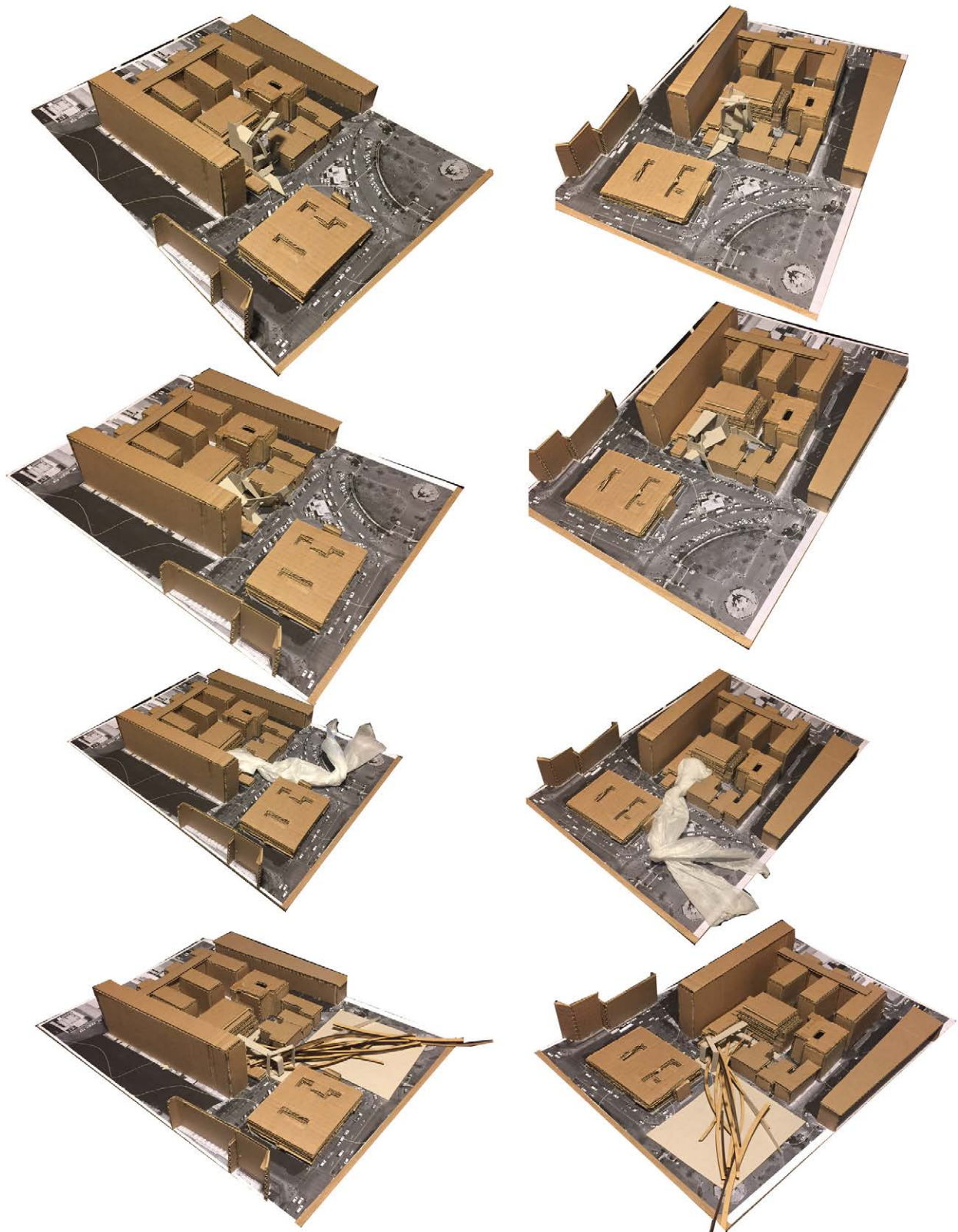


Figure 80: Section cut through Final model exploration of intuitive exercise (Author, 2018)



Figure 81: Model exploration morphing form with site and embedding form in the landscape (Author 2018)



EXPLORATION



Theatre of Landscape

Theatre of Landscape marks the first exploration of creating an Atmospheric Theatre within Fountains Valley and creating a Recreational Park within Capitol Theatre. The exploration begins to mark architectural intentions through spatial articulation and expression through stereotomic and tectonic expressions and the manner in which they relate to the context.

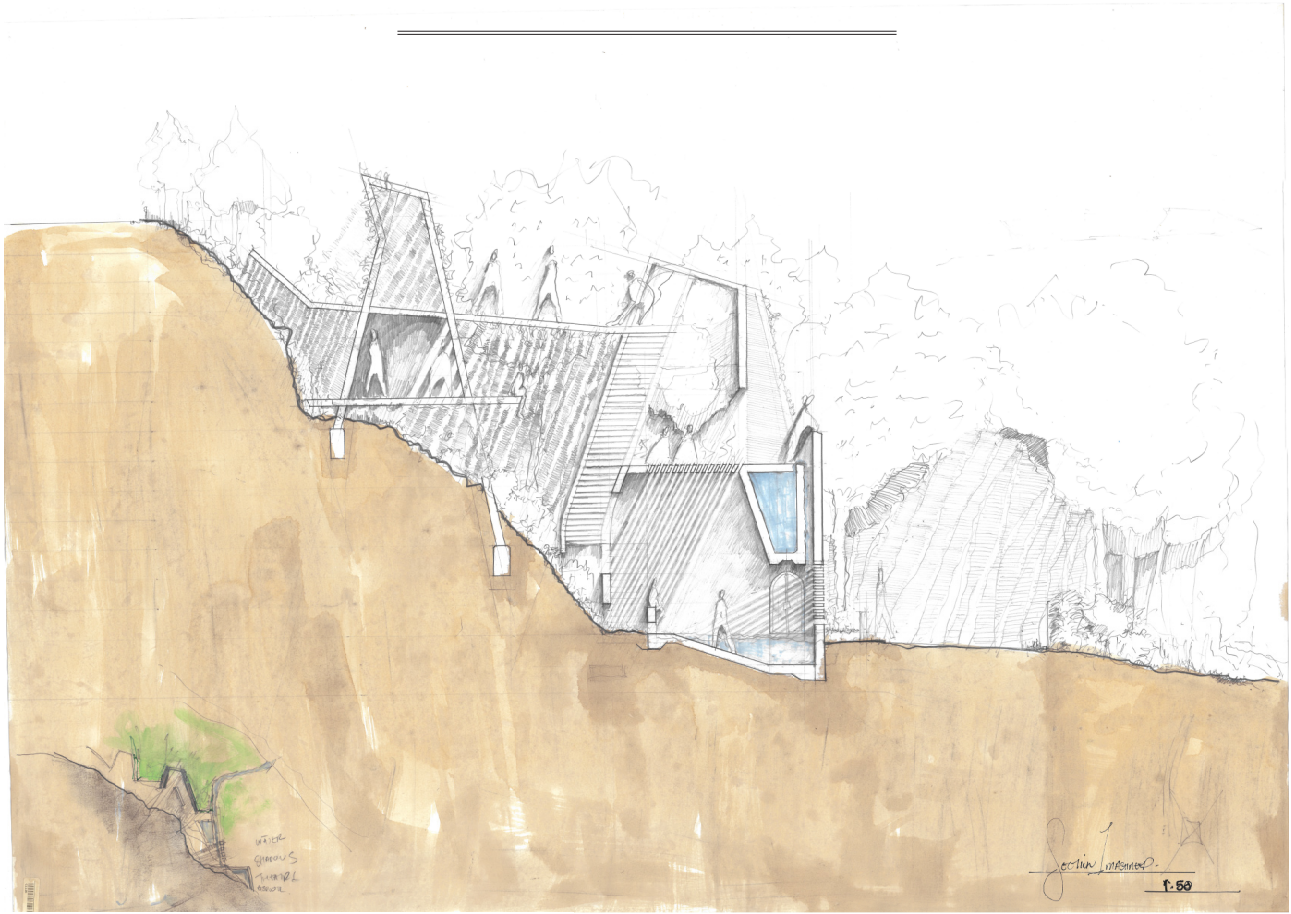


Figure 84: Section exploring spatial intention and attitude to landscape (Author, 2018)



Figure 85: Site plan depicting potential position of building on site (Author, 2018)

1



2



Figure 83: Sectional models exploring potential three dimensional qualities of space (Author, 2018)

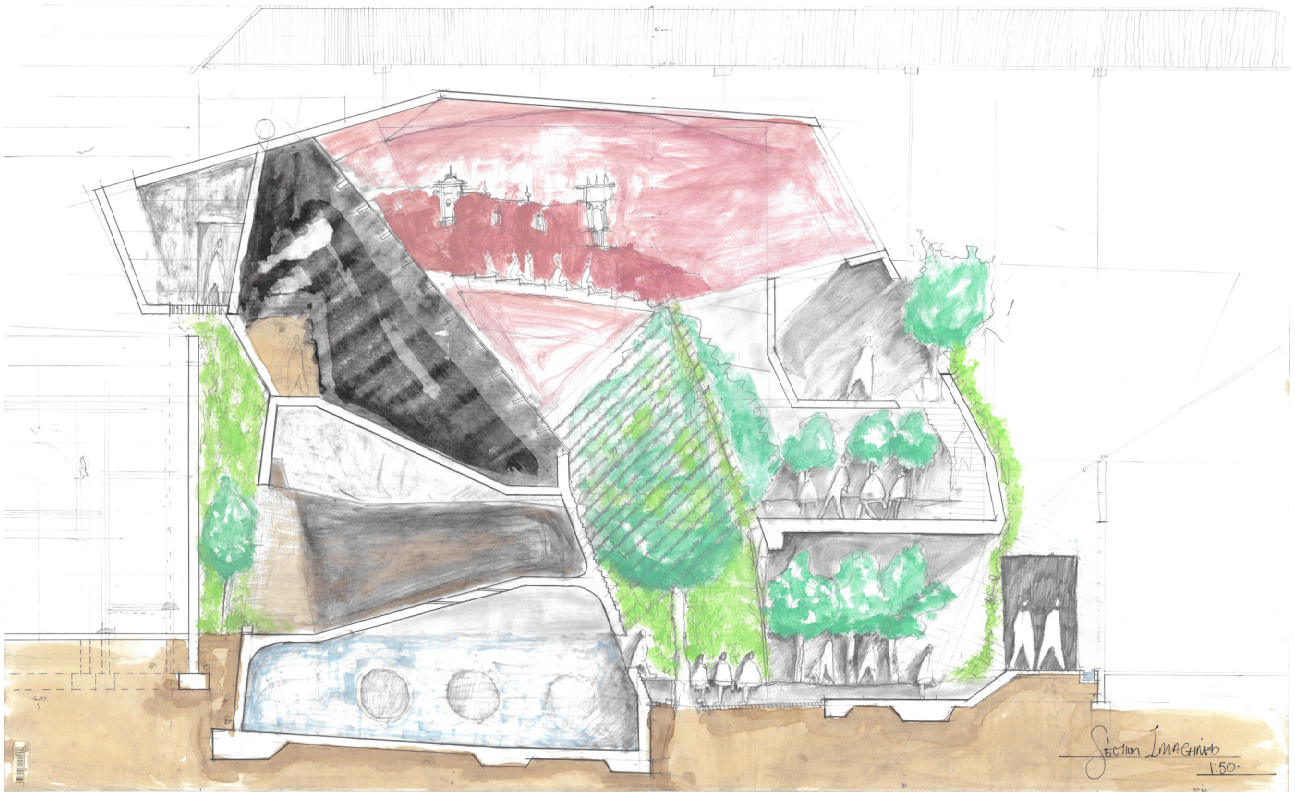


Figure 86: Section exploring building as landscape and extending theatre programme (Author, 2018)

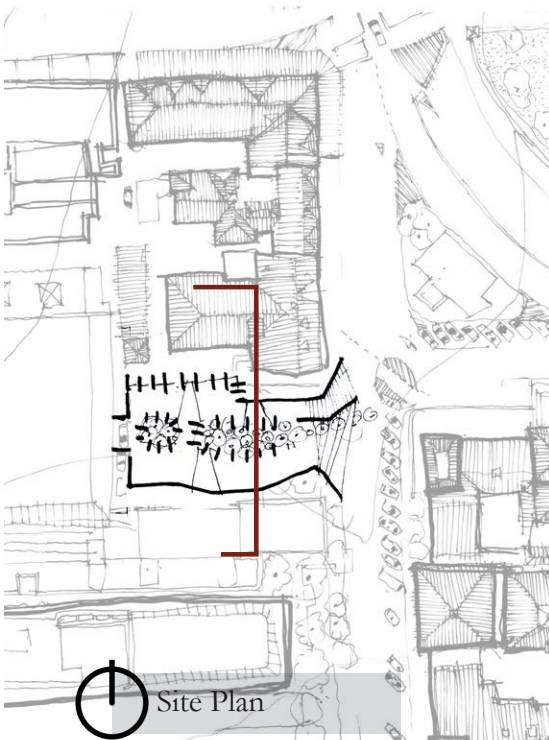
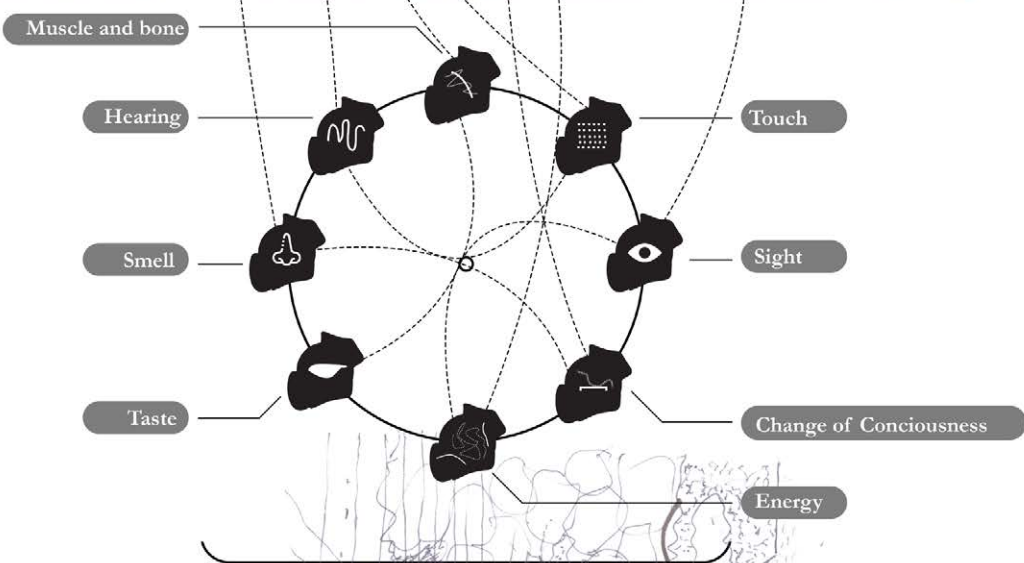
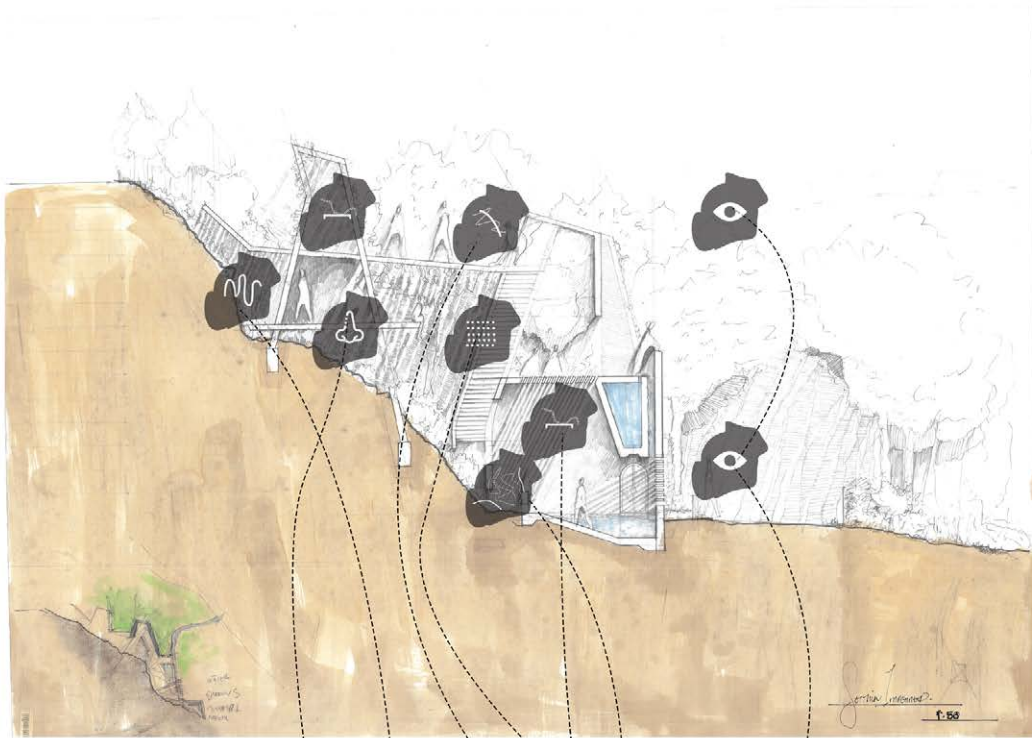
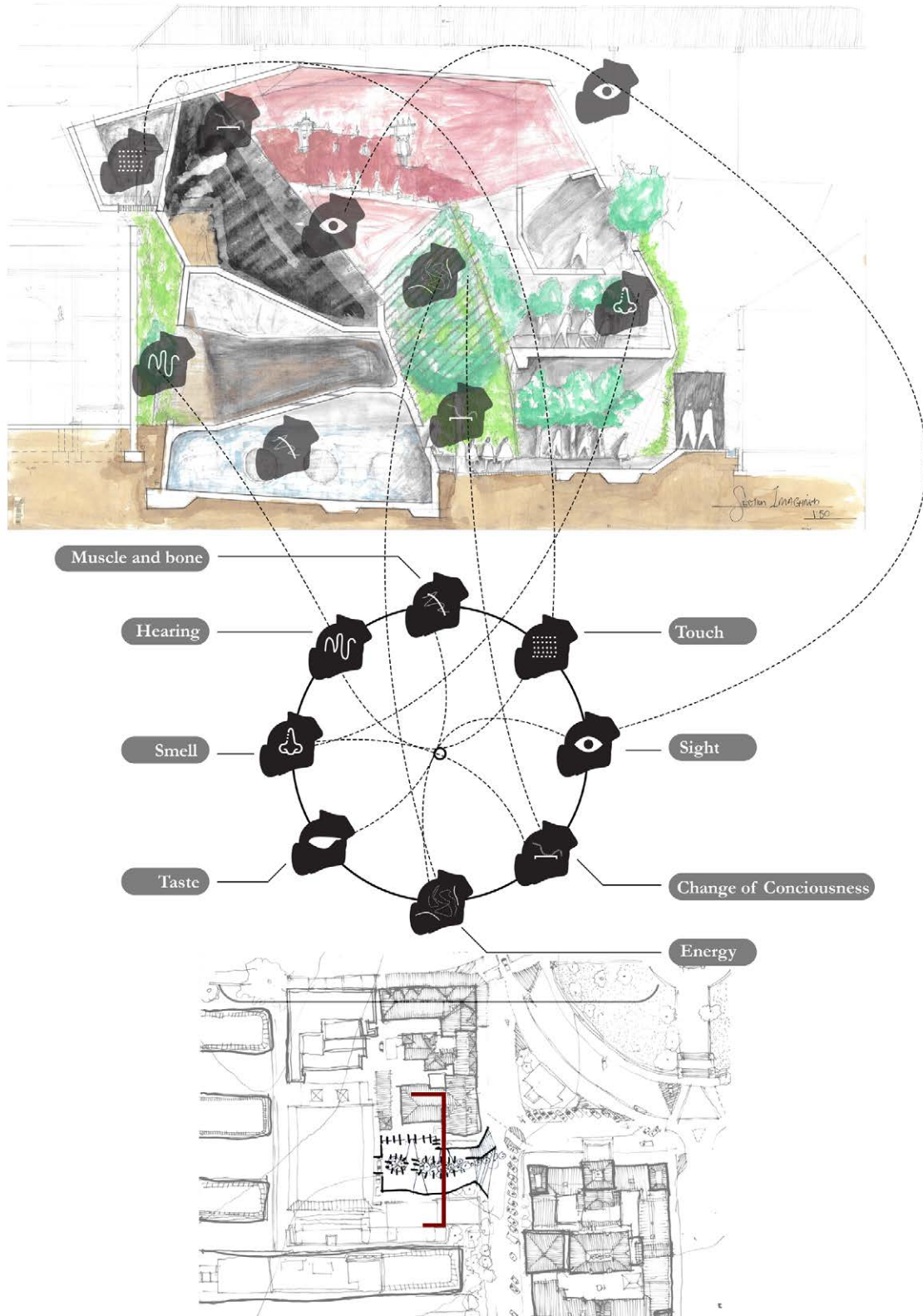


Figure 88: Site plan depicting potential position of building on site (Author, 2018)



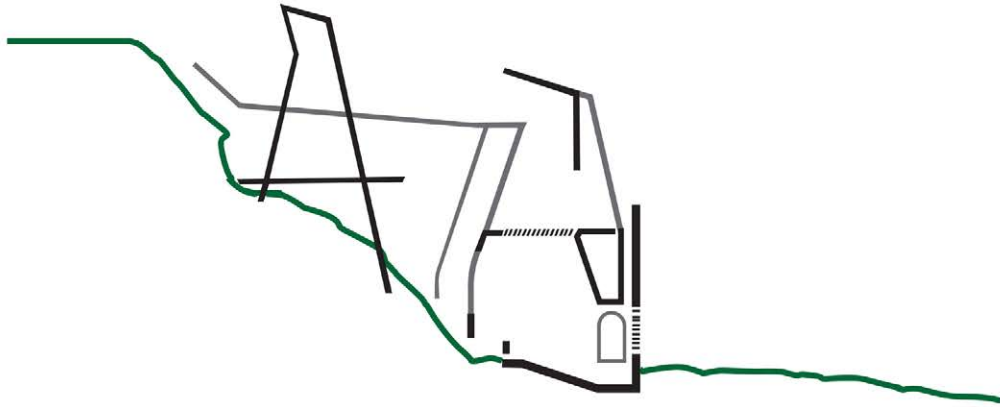
Figure 87: Sectional models exploring potential three dimensional qualities of space (Author, 2018)



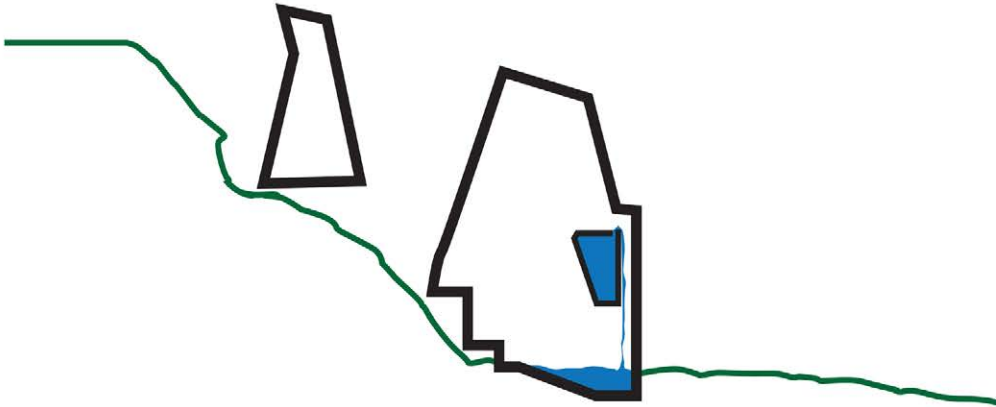




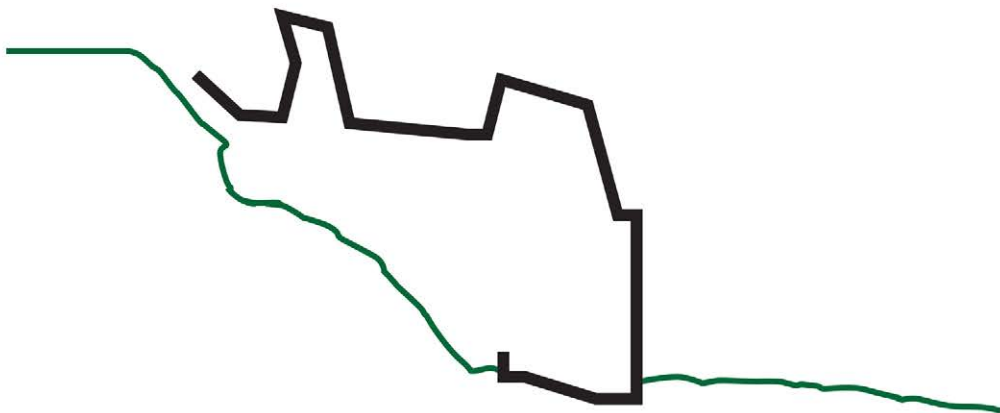
Spatial Lines



Pure Forms

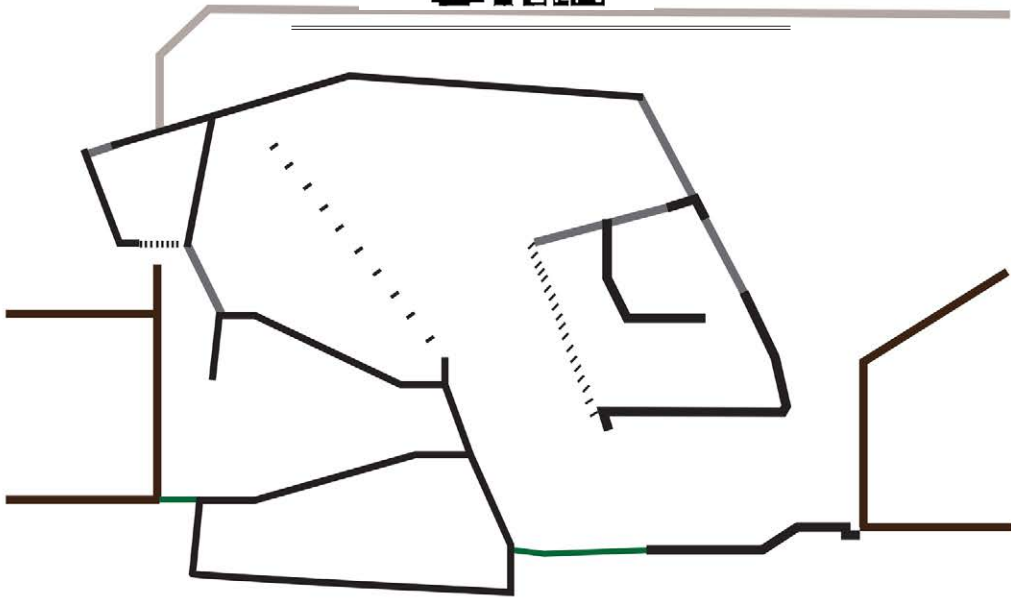


Parti Diagram

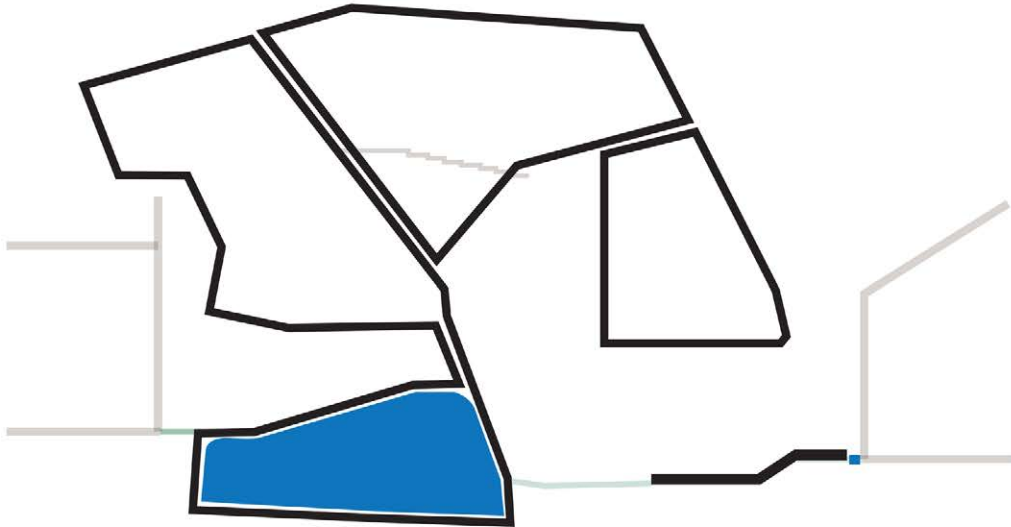




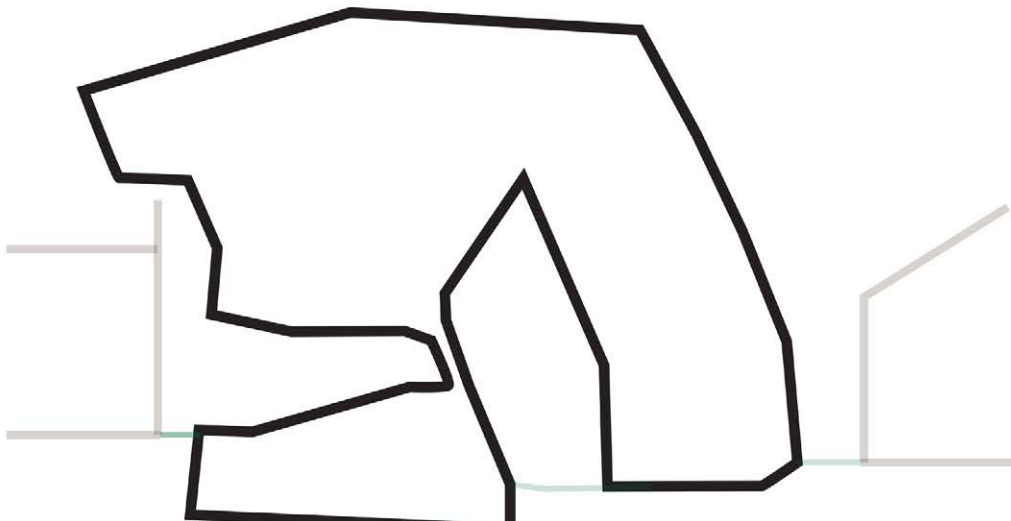
Spatial Lines



Pure Forms



Parti Diagram



EXPLORATION

2

Philosophy Cafe

The second exploration draws inspiration from a programme that takes part in a nearby building, Cafe Riche. The theme explores creating spaces that would enrich the dual reading and experience of Capitol Theatre and Fountains Valley. The exploration considers context and the manner in which water is presenced, occupied, and imagined.

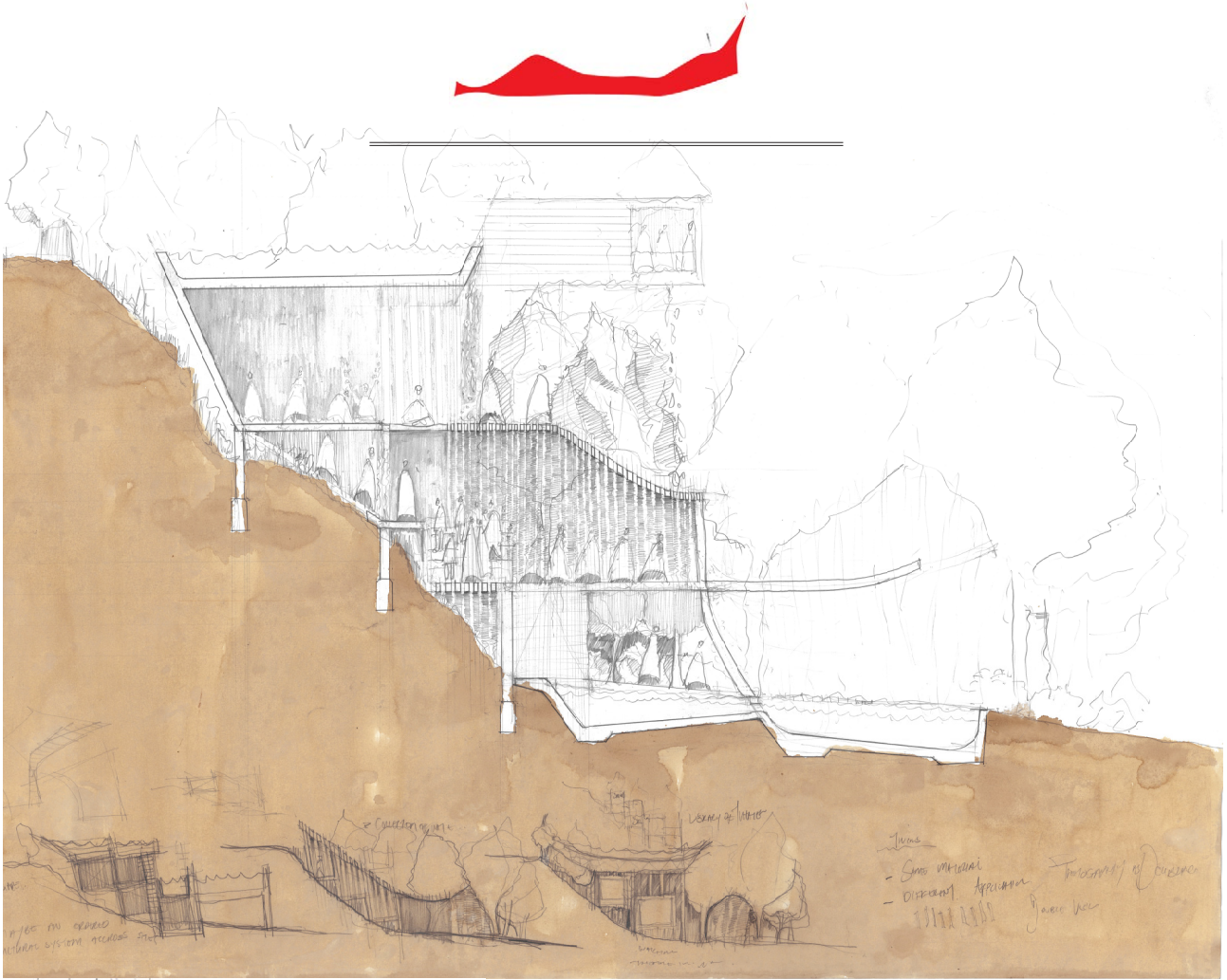


Figure 91: Section exploring spatial intention and attitude to landscape while expressing experience of water and spatial use (Author, 2018)



Figure 90: Site plan depicting potential position of building on site (Author, 2018)

1



2



Figure 89: Sectional models exploring potential three dimensional qualities of space (Author 2018)



Figure 94: Section exploring relationship between urban and recreational space within Capitol Theatre (Author, 2018)

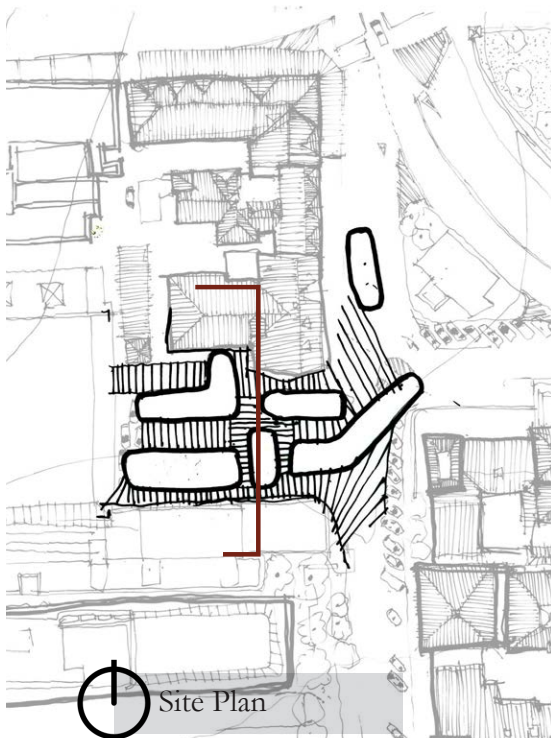


Figure 93: Site plan depicting potential position of building on site (Author, 2018)

1



2

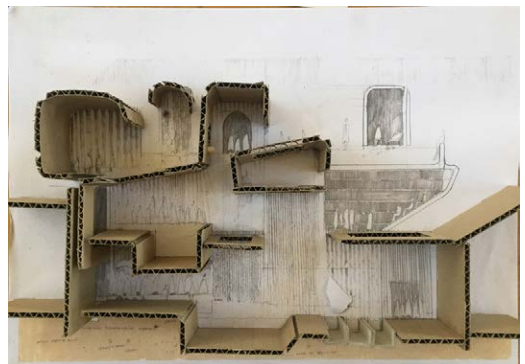
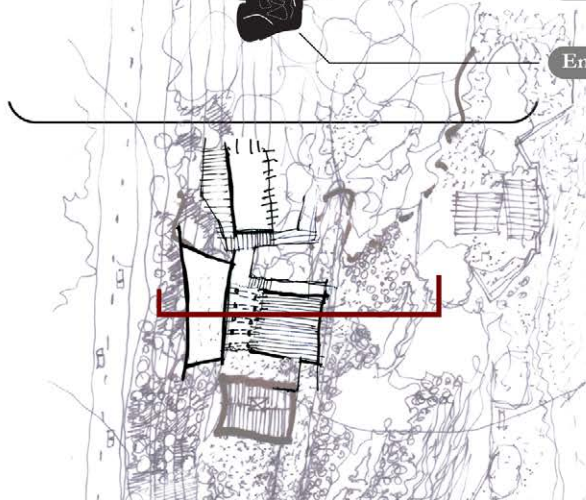
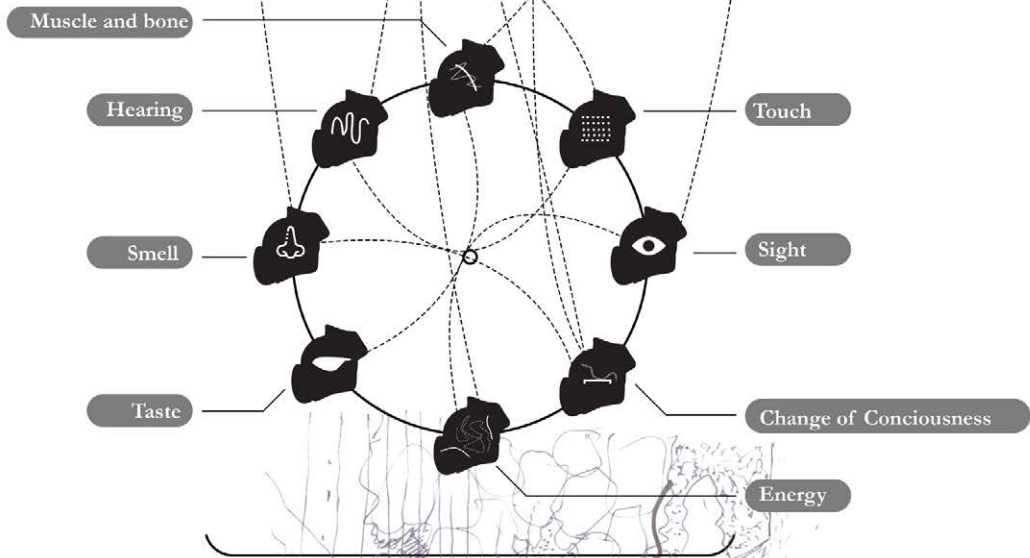
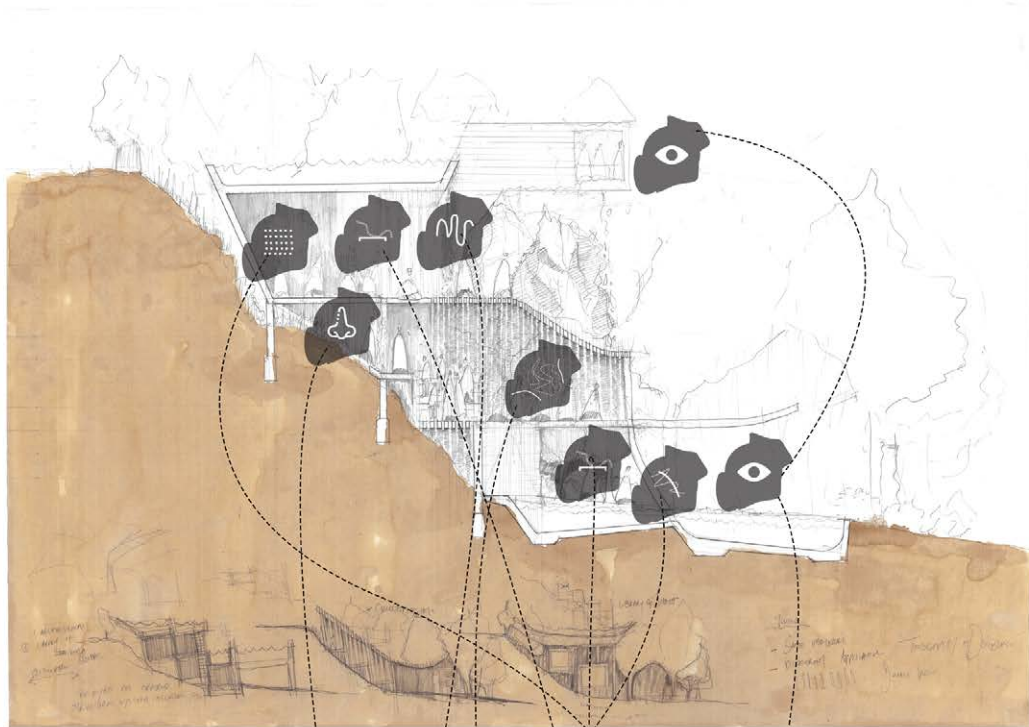
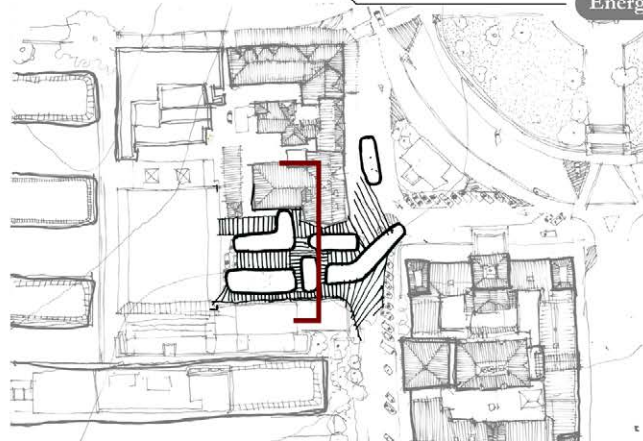
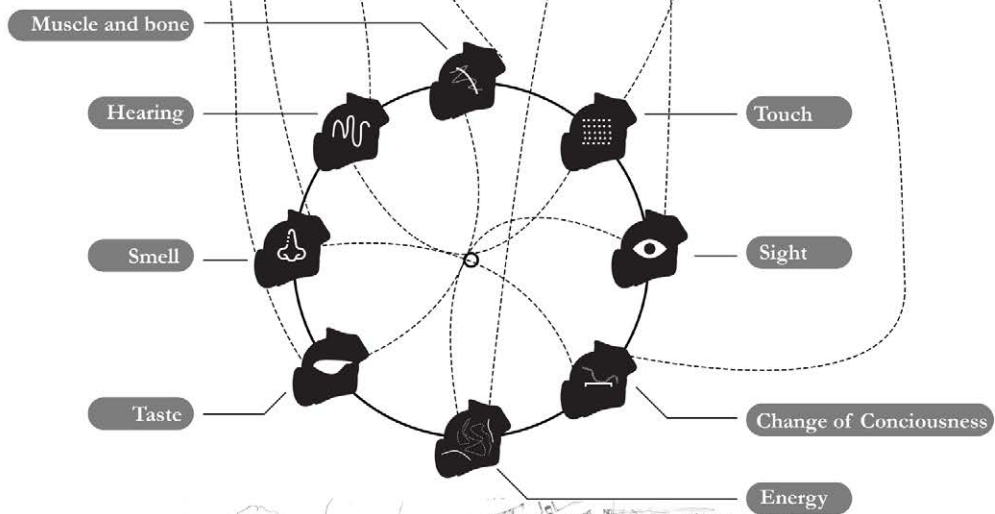
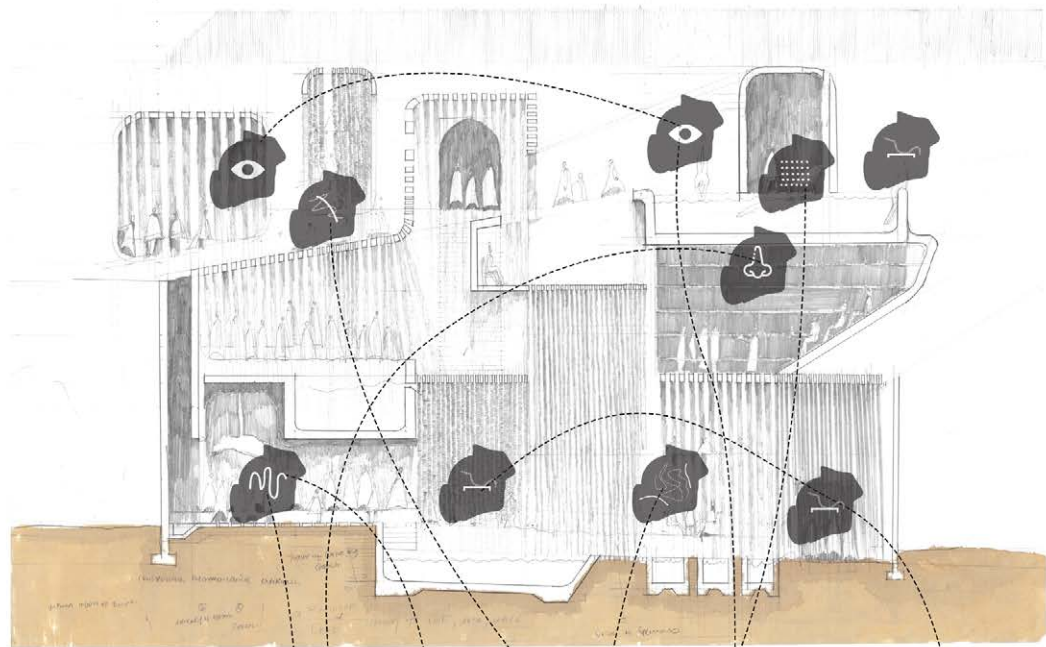


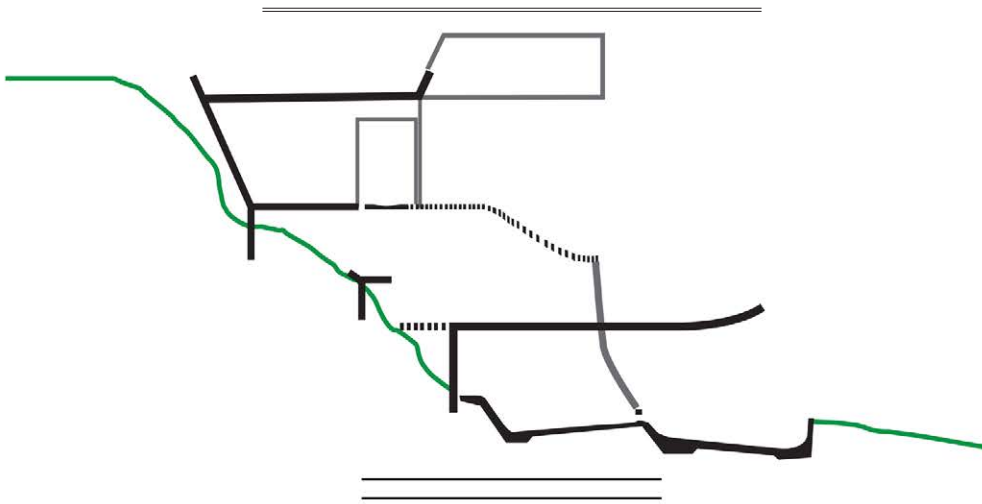
Figure 92: Sectional models exploring potential three dimensional qualities of space (Author, 2018)



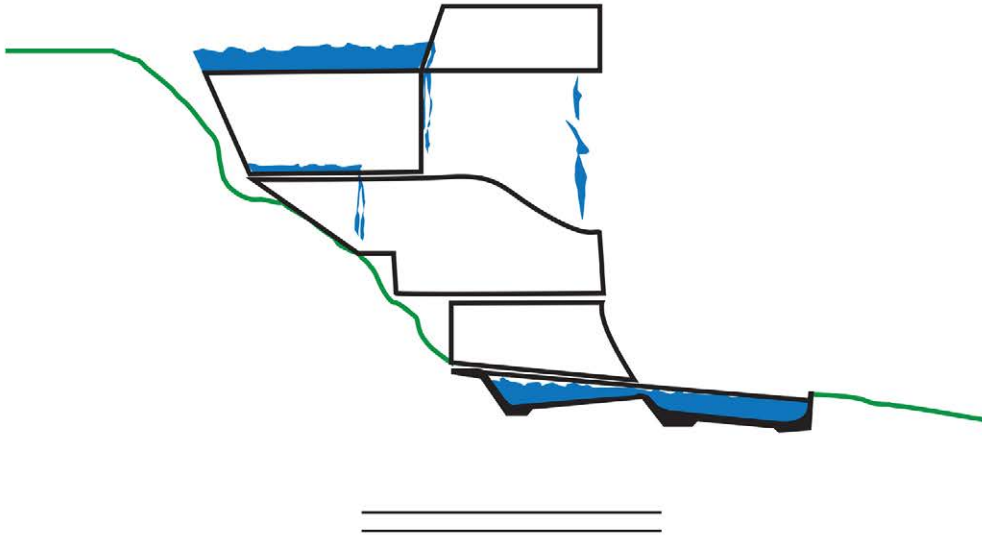




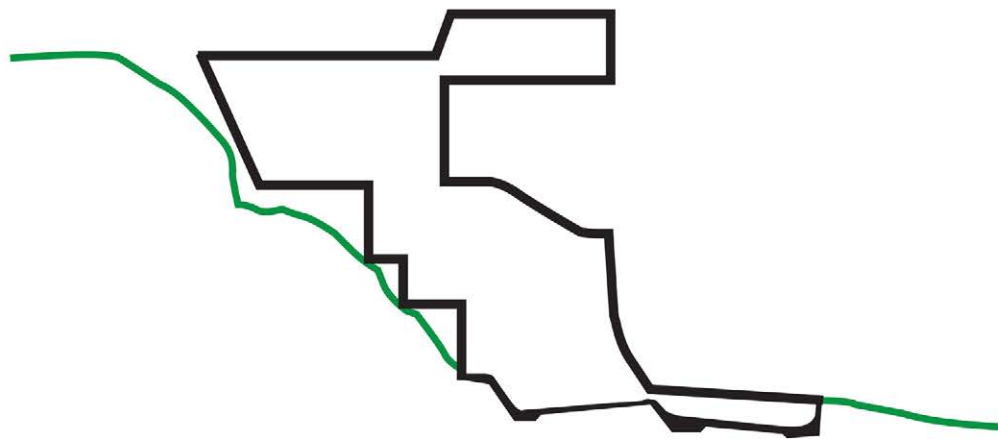
Spatial Lines



Pure Forms

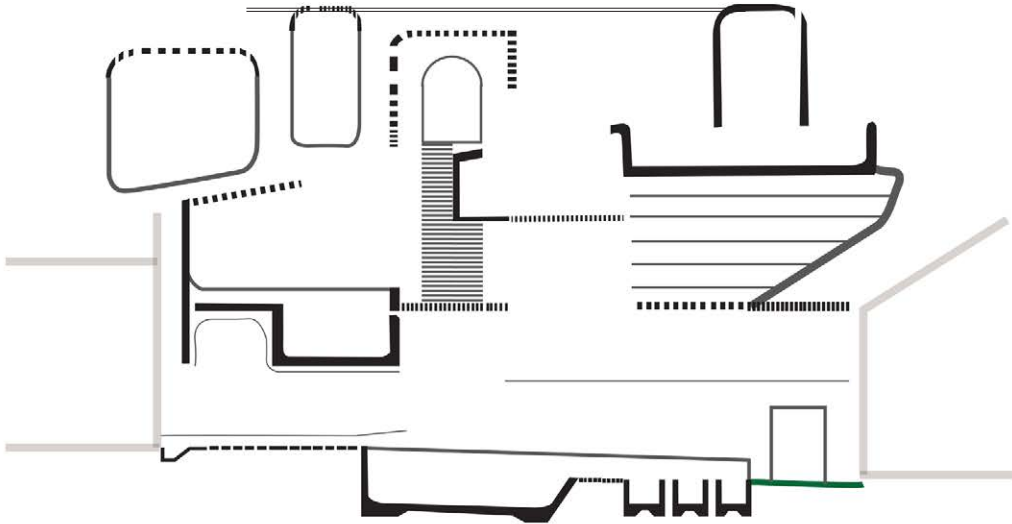


Parti Diagram

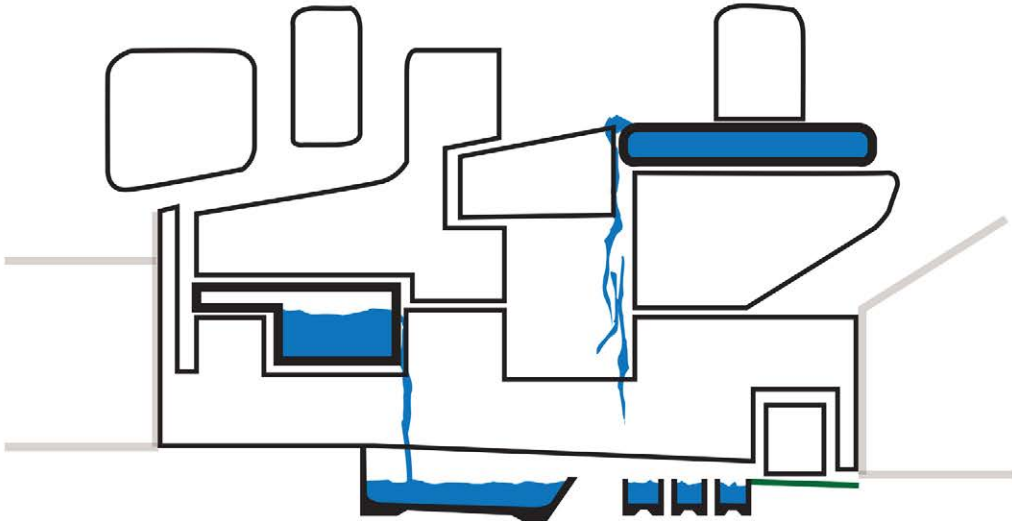




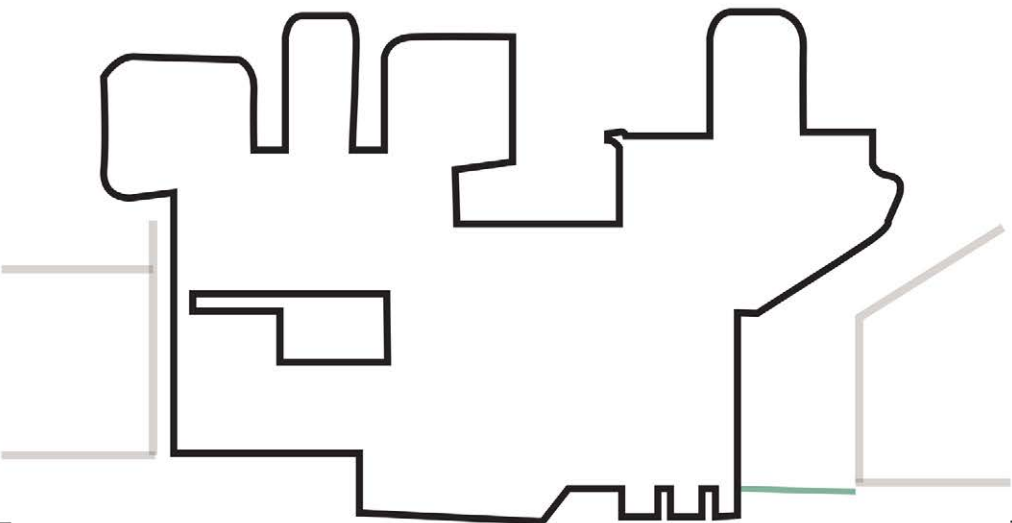
Spatial Lines



Pure Forms



Parti Diagram



EXPLORATION

3

Theatre of Landscape

The third exploration looks back at the idea of theatre and landscape and questions the manner in which we can inhabit space in each context. Water and Nature become more expressive qualities and the approach to landscape is sensitive to the function of spaces and their proximity to their context.



Figure 97: Section exploring the potential of an atmospheric theatre within Fountains Valley (Author 2018)

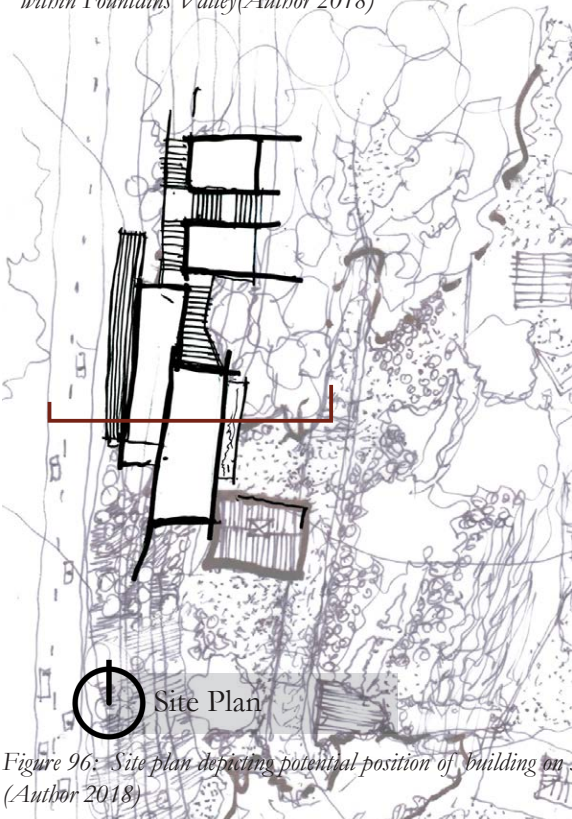


Figure 96: Site plan depicting potential position of building on site (Author 2018)

1



2



Figure 95: Sectional models exploring potential three dimensional qualities of space (Author 2018)

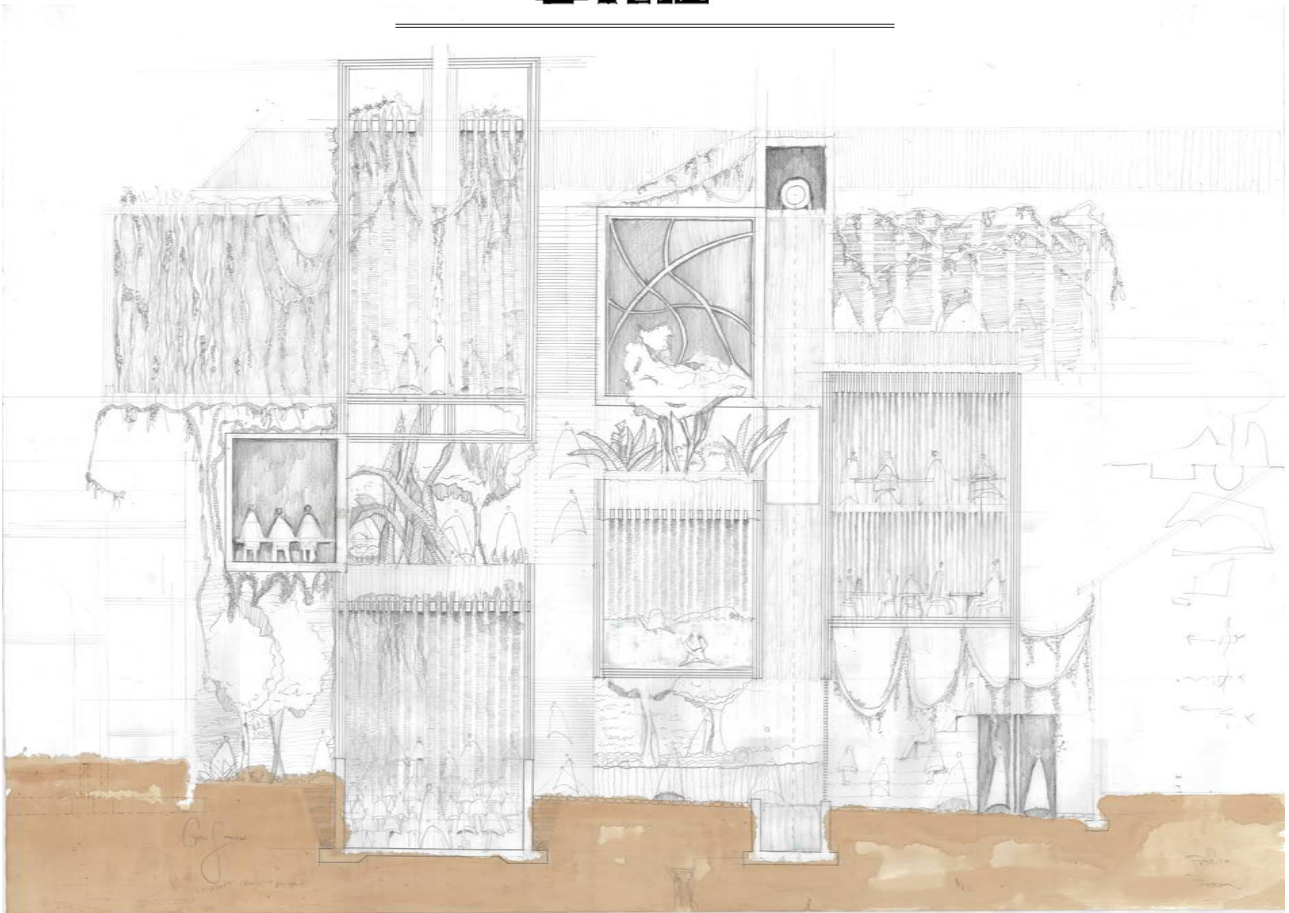


Figure 100: Section exploring building as landscape, while retaining recreation intention and introducing nature as a reflection of Fountains Valley (Author, 2018)

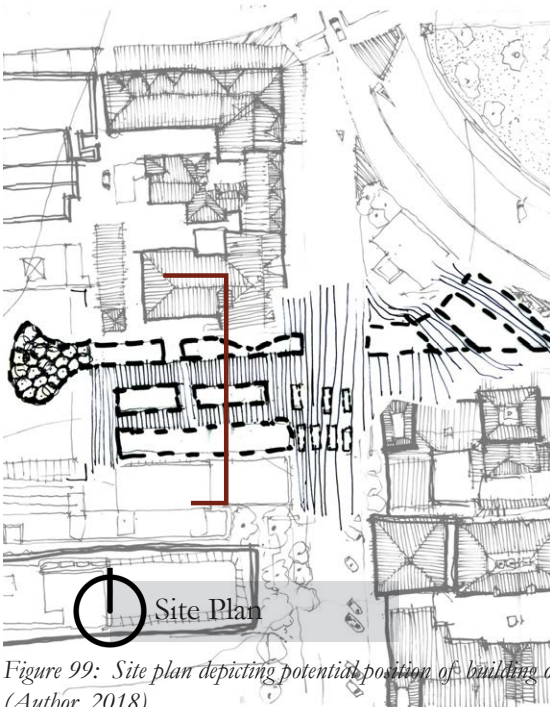


Figure 99: Site plan depicting potential position of building on site (Author, 2018)

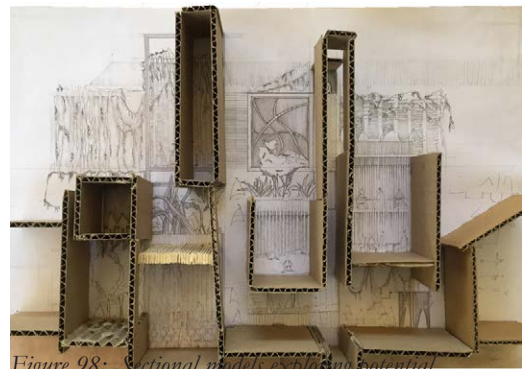
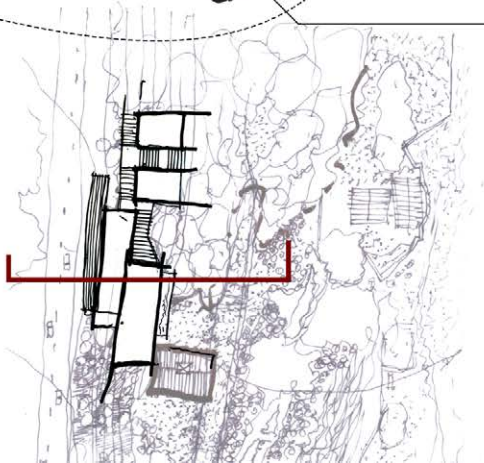
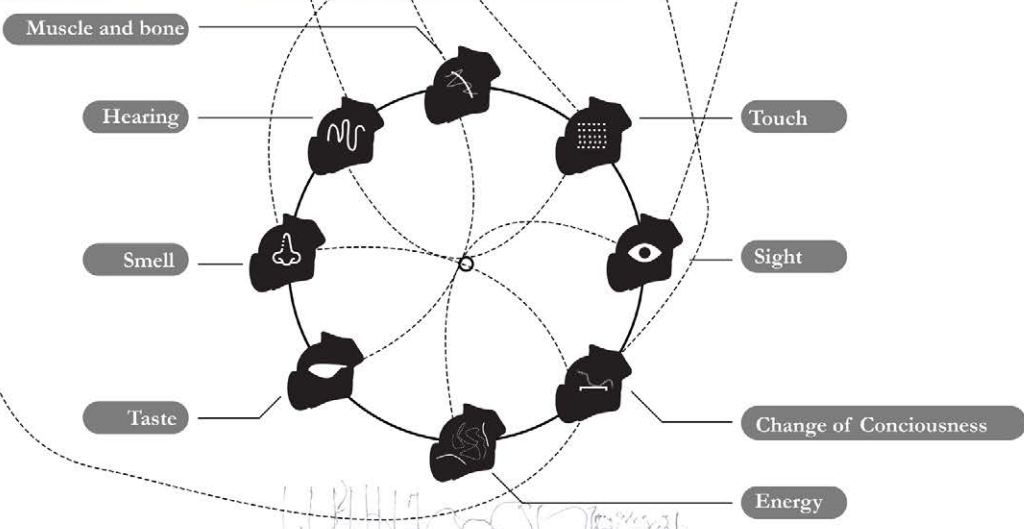
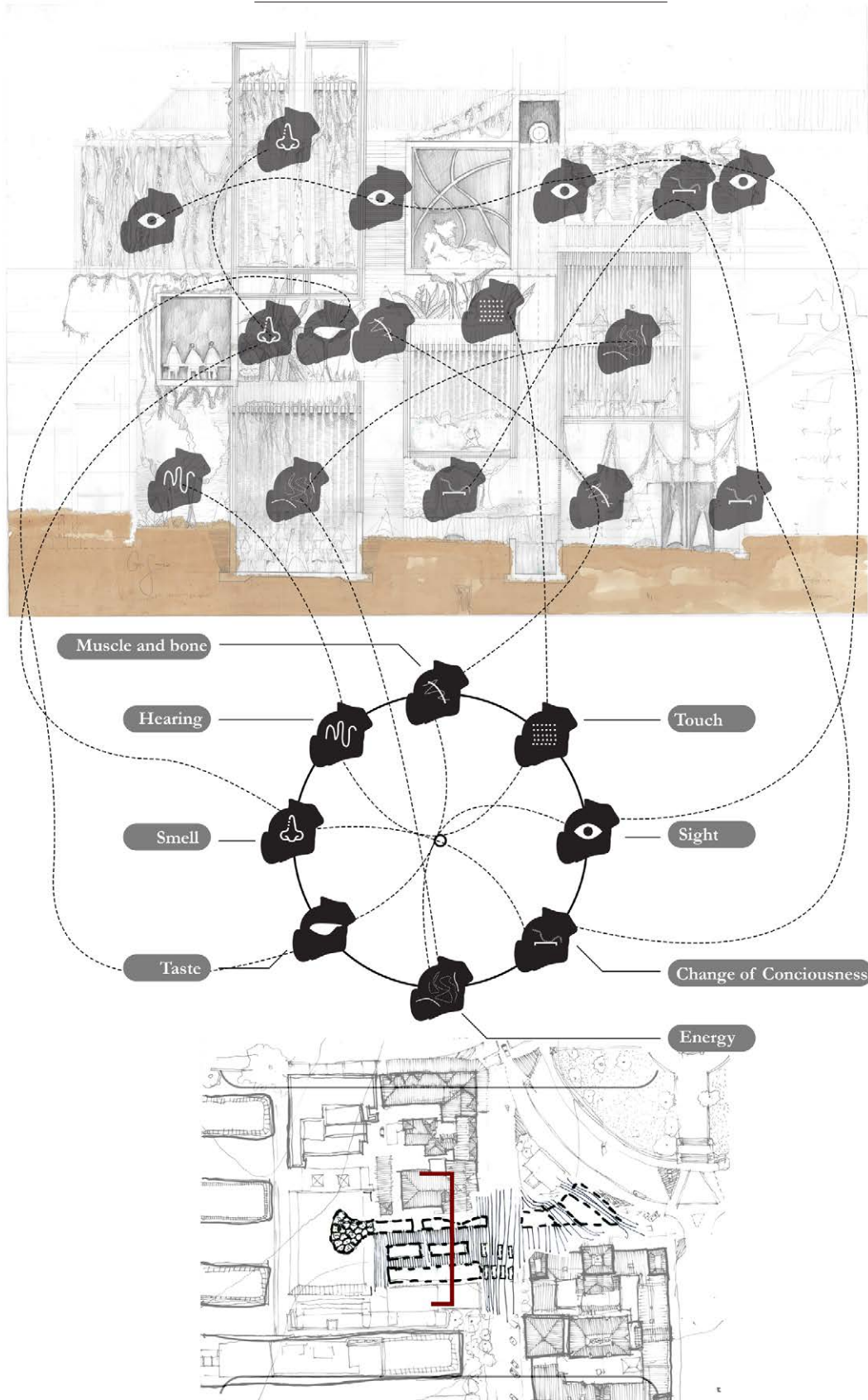


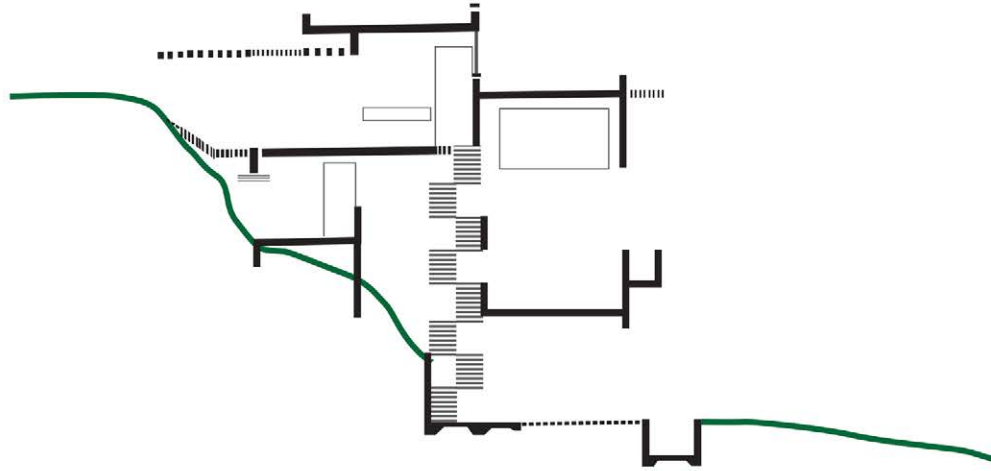
Figure 98: Sectional models exploring potential three dimensional qualities of space (Author, 2018)



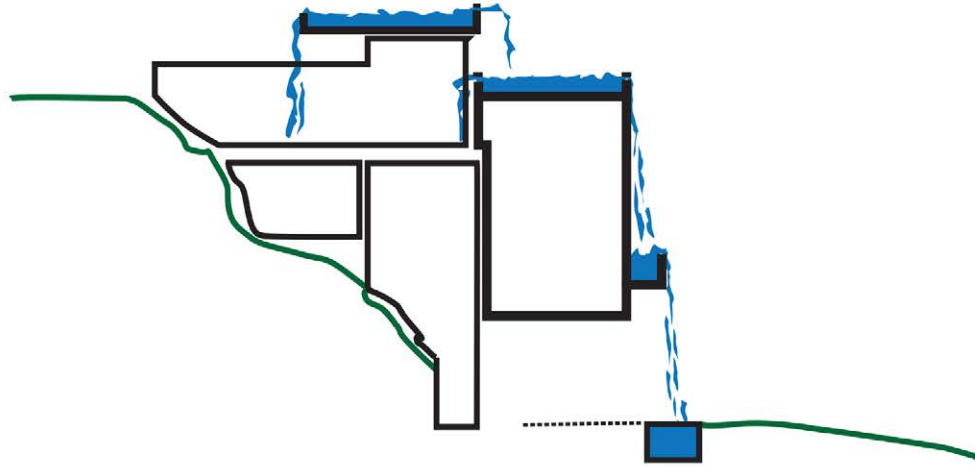




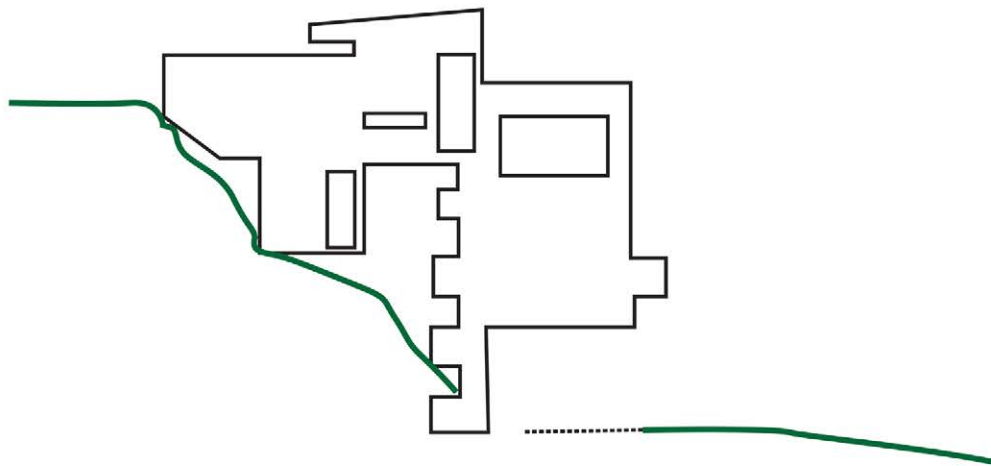
Spatial Lines



Pure Forms

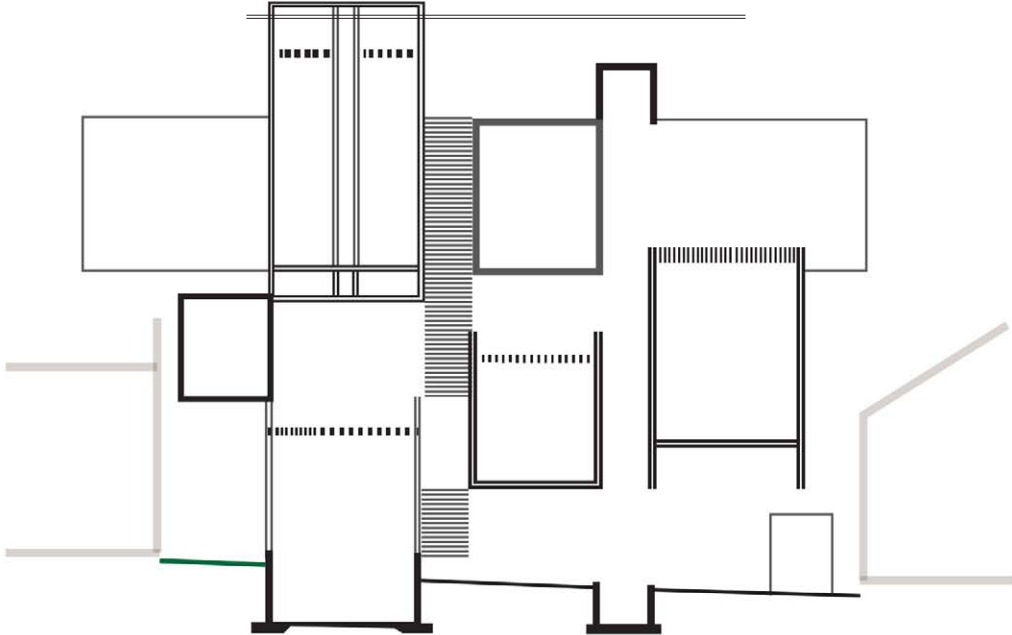


Parti Diagram

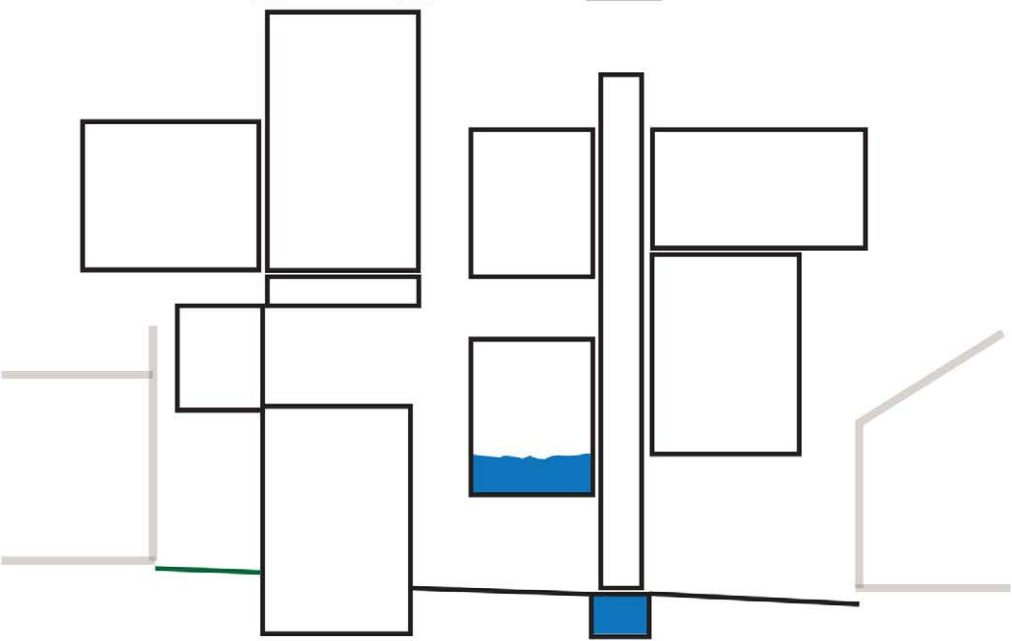




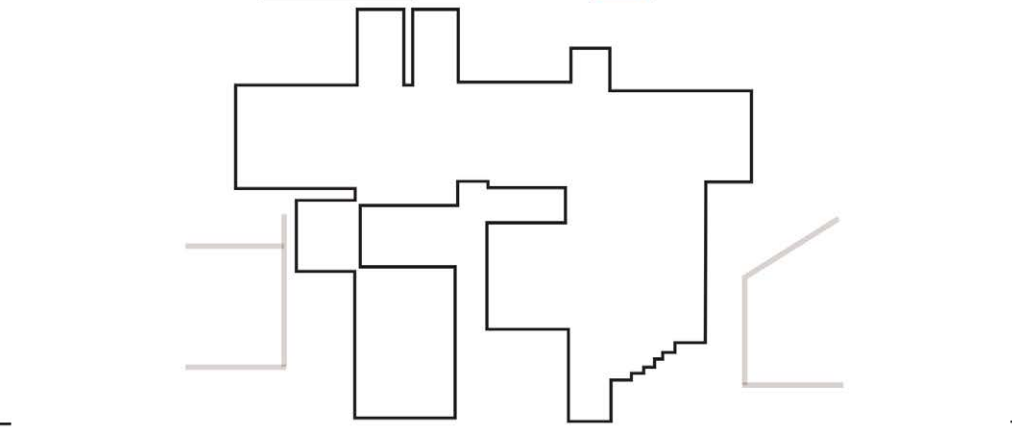
Spatial Lines



Pure Forms



Parti Diagram



EXPLORATION

4

Archive

The fourth exploration learns from previous explorations and considers the manner in which architecture carves an approach into context. The explorations consider mans relationship to architecture and landscape by remembering early ways of dwelling and expressing alternative ways to return and further express that phenomenology.

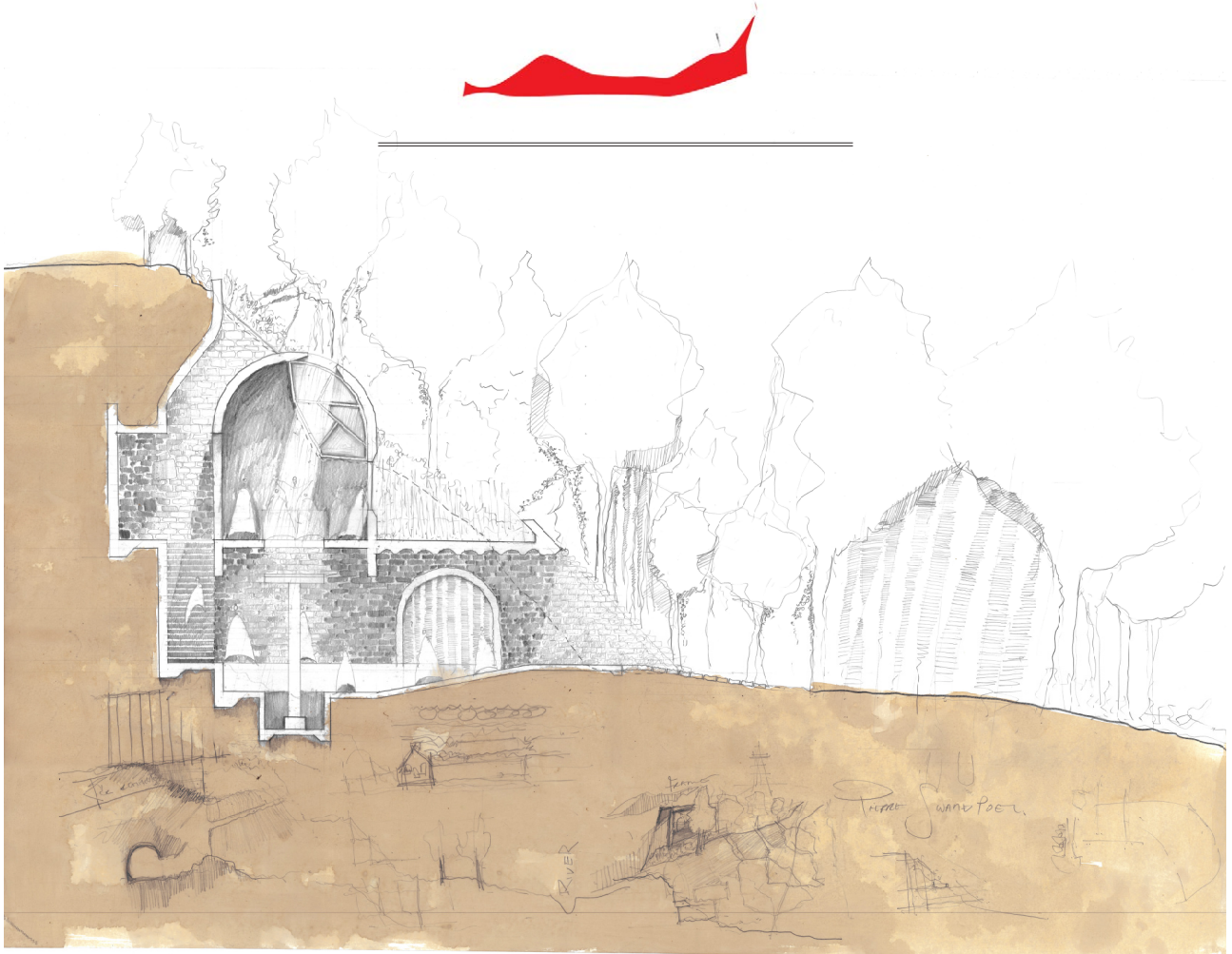


Figure 103: Section exploring architecture archiving into landscape and testing approach of the atmospheric theatre (Author, 2018)



Site Plan

Figure 102: Site plan depicting potential position of building on site (Author, 2018)

1



2



Figure 101: Sectional models exploring potential three dimensional qualities of space (Author, 2018)



Figure 106: Section exploring 'Building as Landscape' as it references Fountains Valley and human inhabitation of form in and Urban condition (Author, 2018)

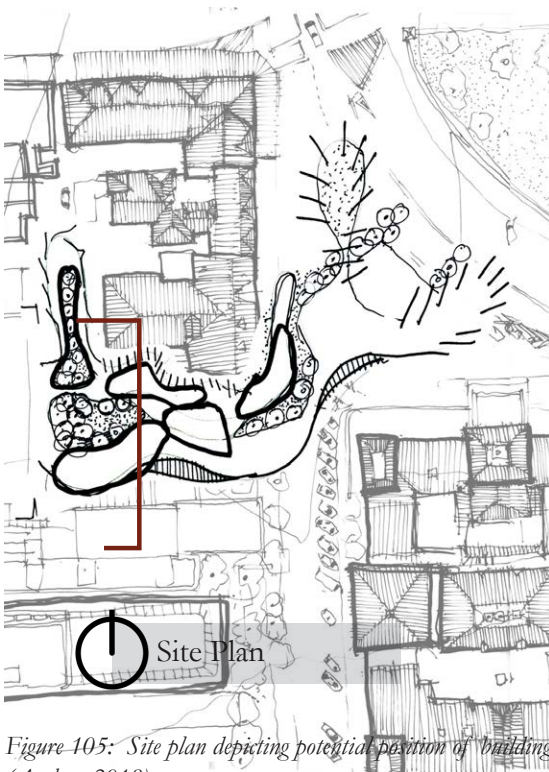
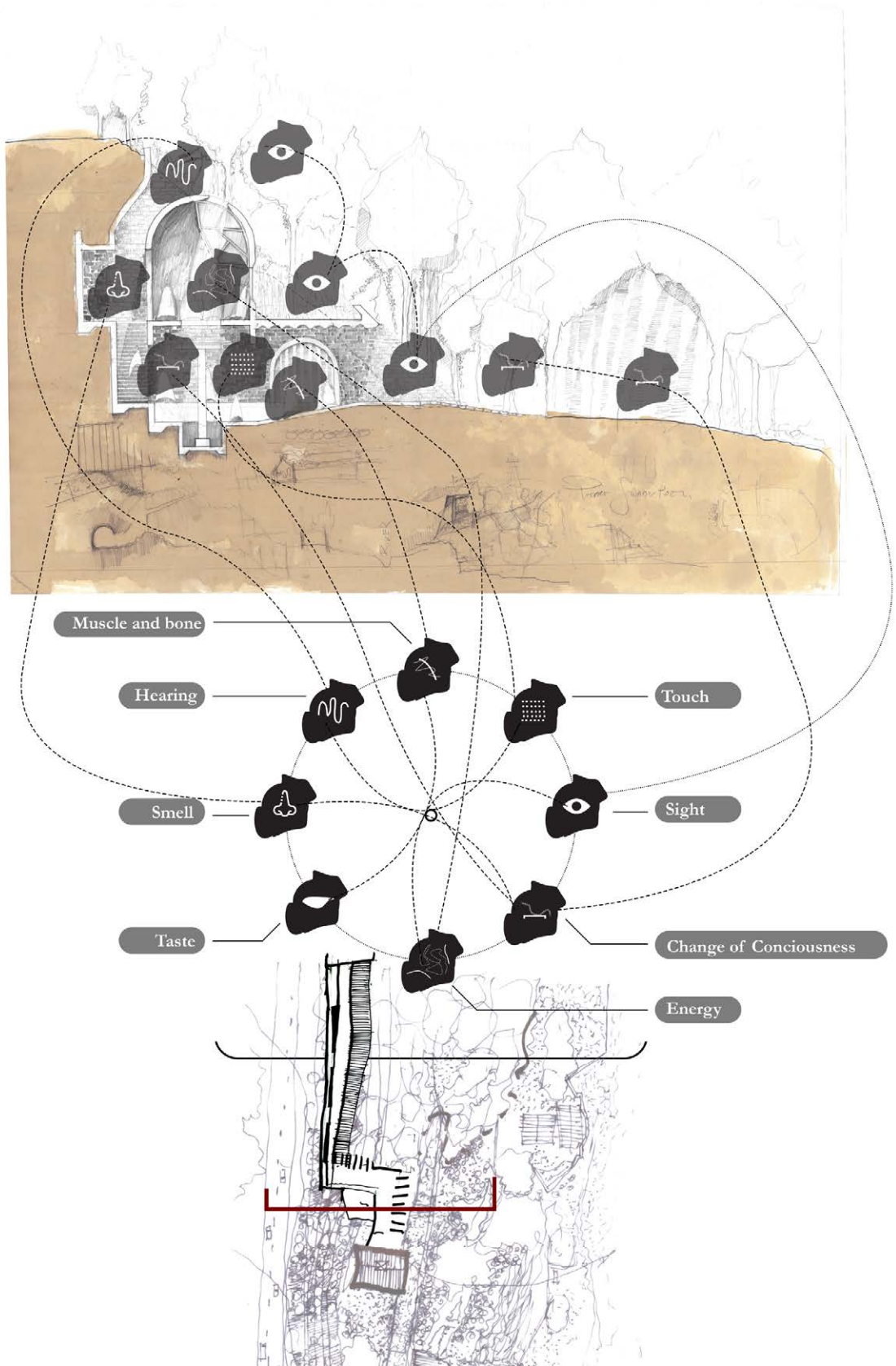
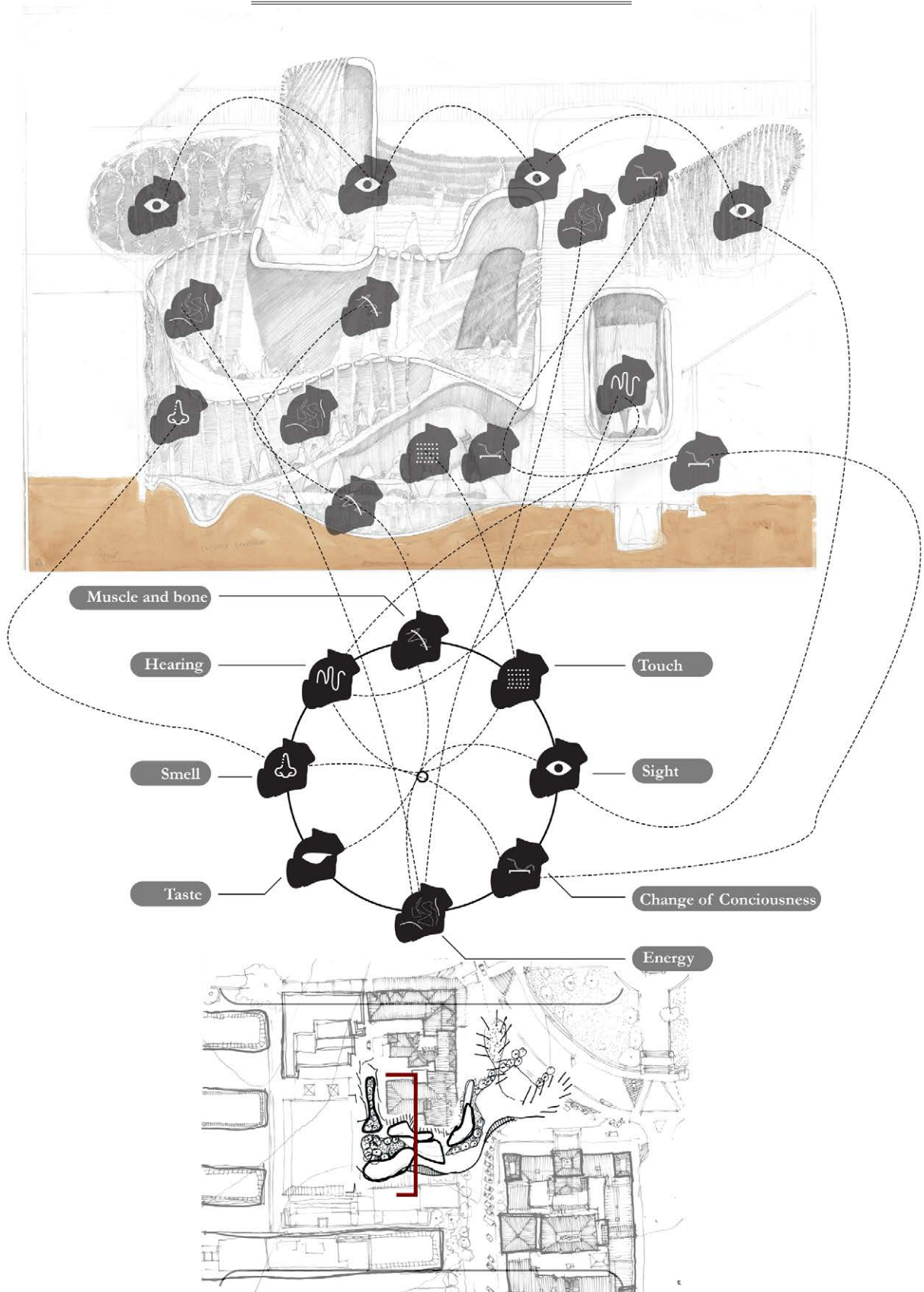


Figure 105: Site plan depicting potential position of building on site (Author, 2018)



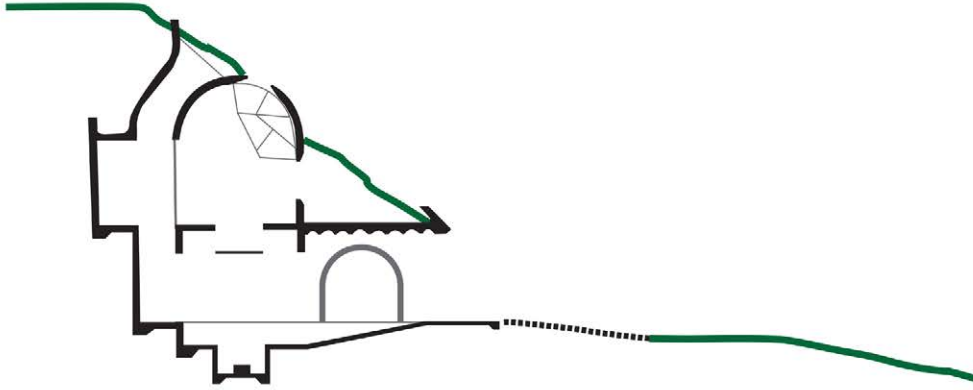
Figure 104: Sectional models exploring potential three dimensional qualities of space (Author, 2018)



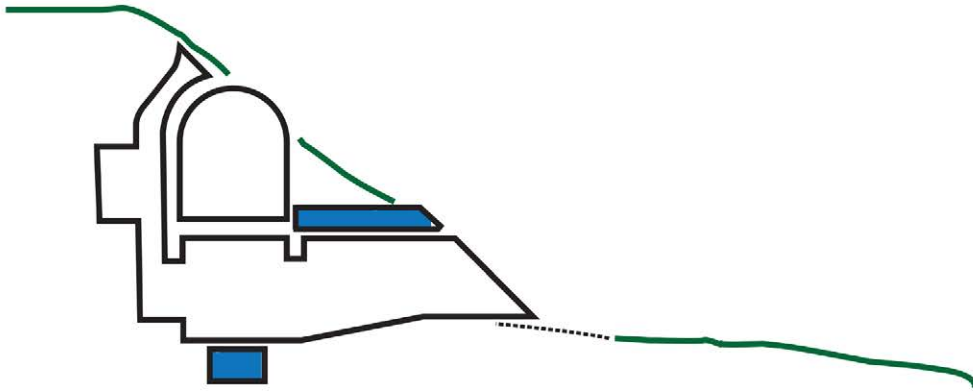




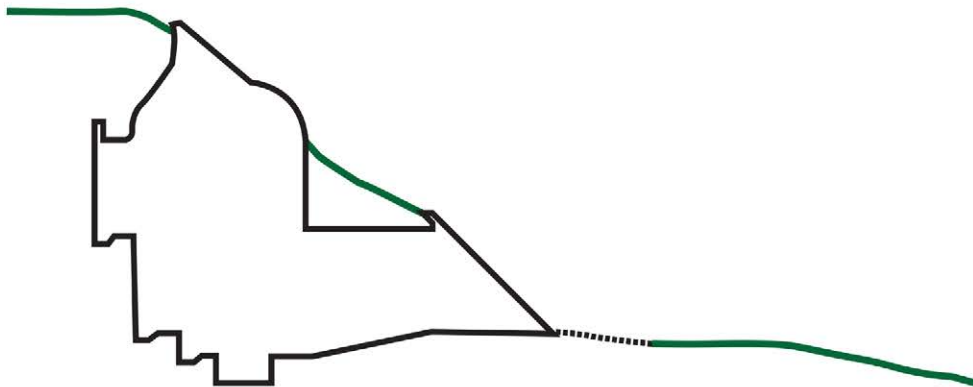
Spatial Lines



Pure Forms



Parti Diagram

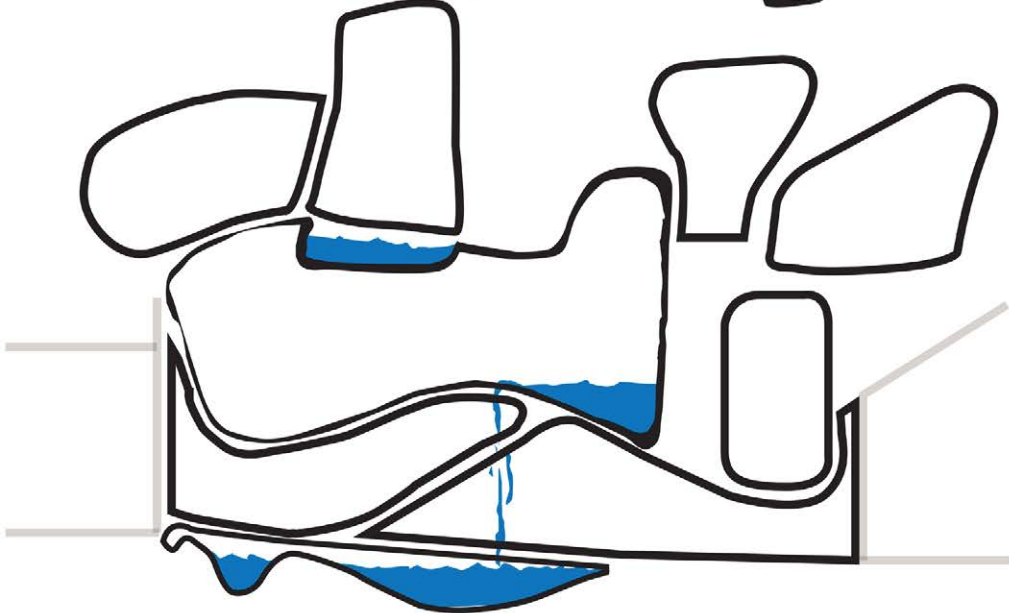




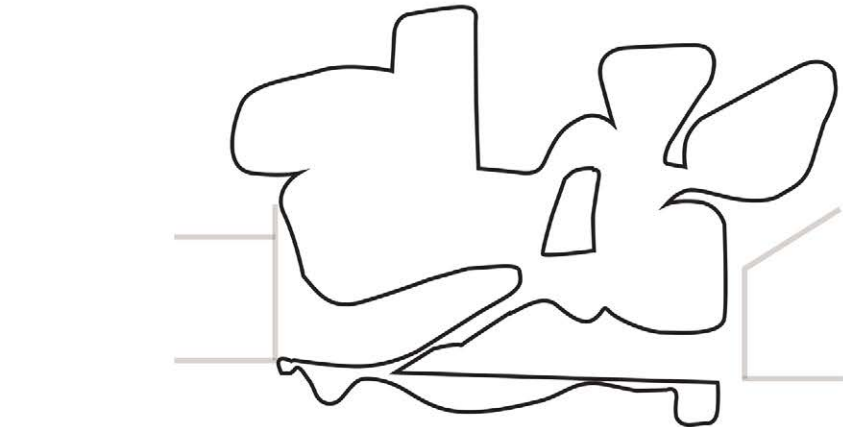
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Parti Diagram



EXPLORATION



Civic Space

The fifth and final exploration imagines the future condition of the two sites as expressions of civic space in doing so questions how the atmospheric theatre and recreational park can alter the way we see civic space. The two sites still use each other as reference points and start to imagine a different condition that will presence both sites.

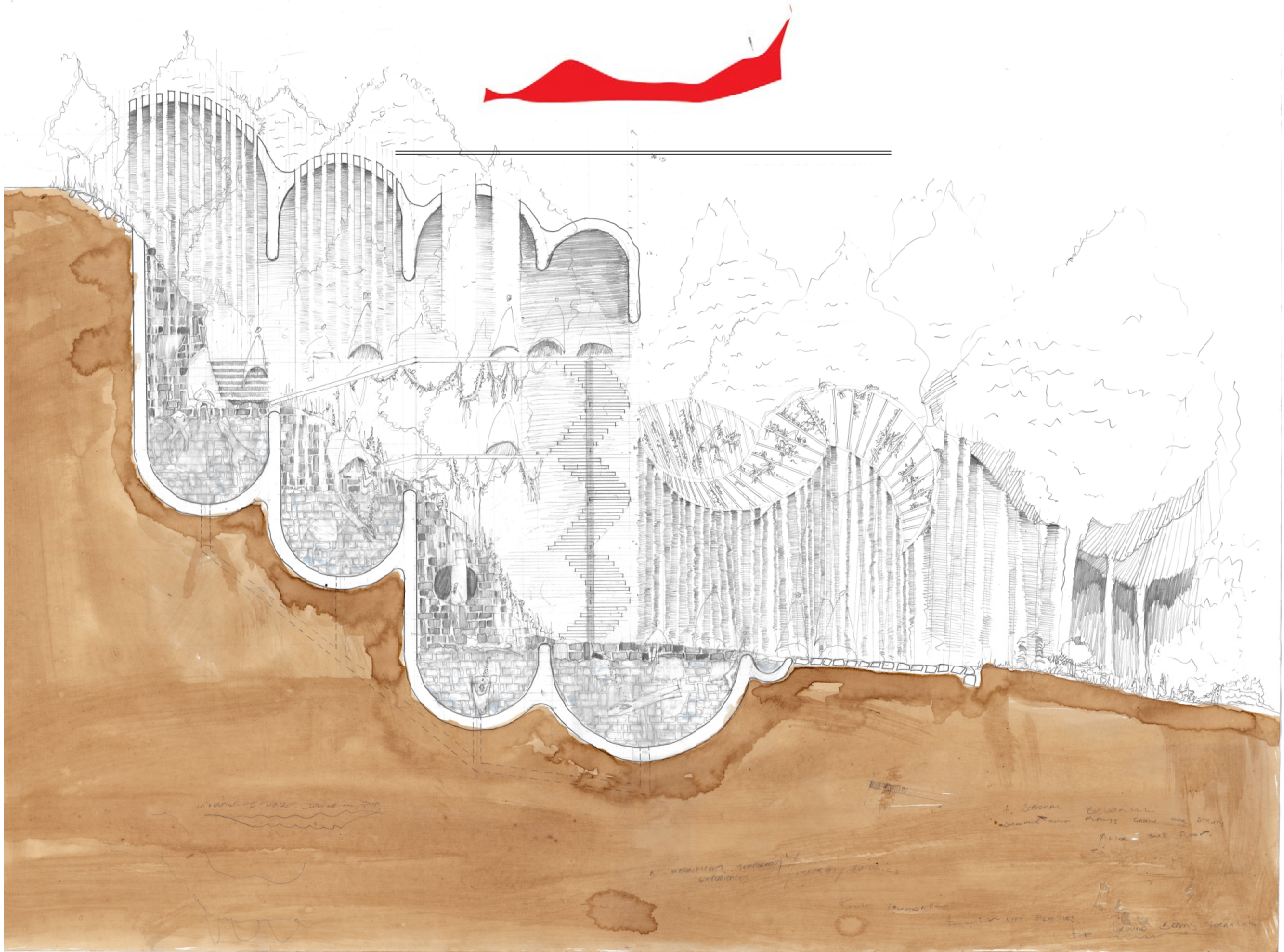


Figure 109: Section exploring atmospheric theatre as expressed in a different form to enhance atmosphere of site (Author 2018)

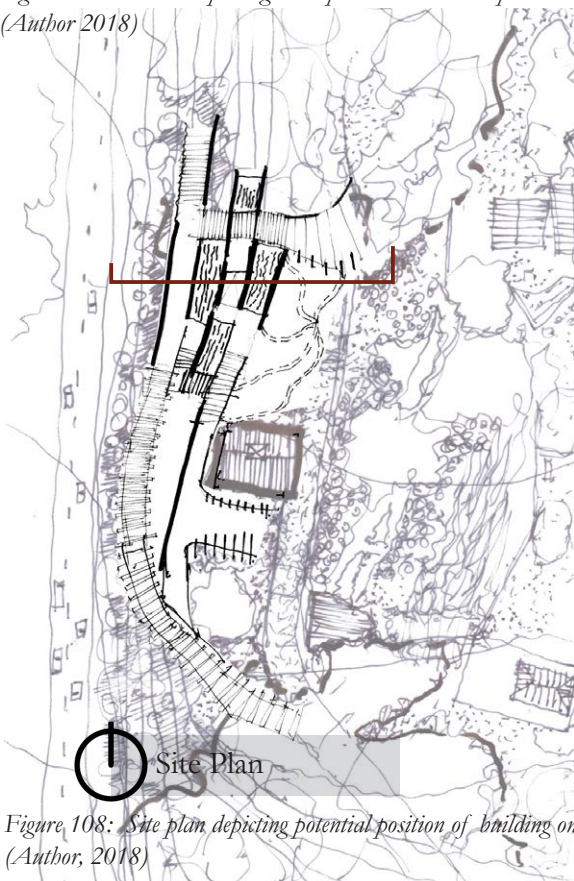


Figure 108: Site plan depicting potential position of building on site (Author, 2018)

①



②

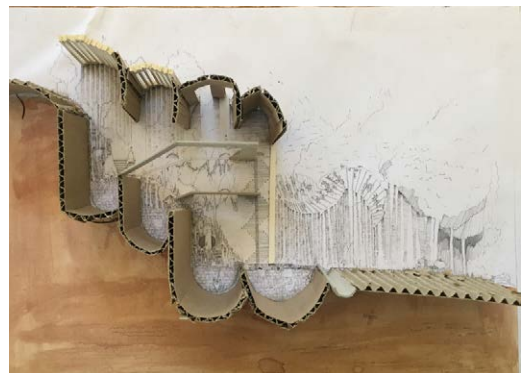


Figure 107: Sectional models exploring potential three dimensional qualities of space (Author, 2018)



Figure 112: Section exploring programme of Fountains Valley in a n urban context, with water as a key component (Author, 2018)

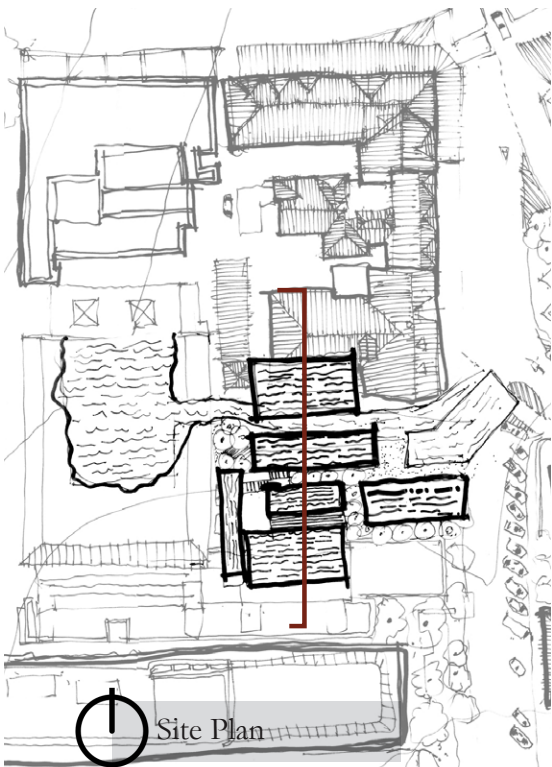
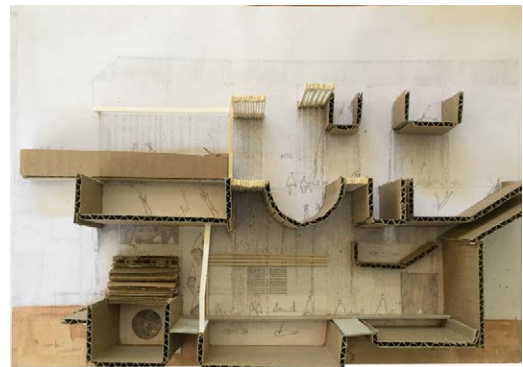
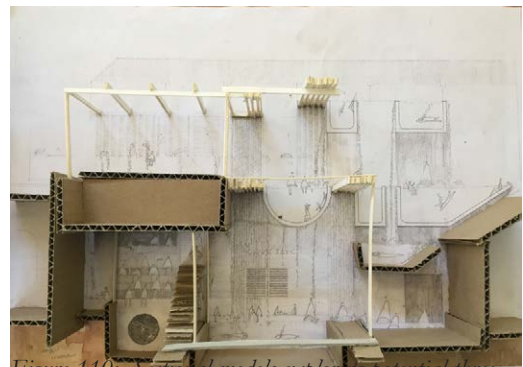


Figure 111: Site plan depicting potential position of building on site (Author, 2018)

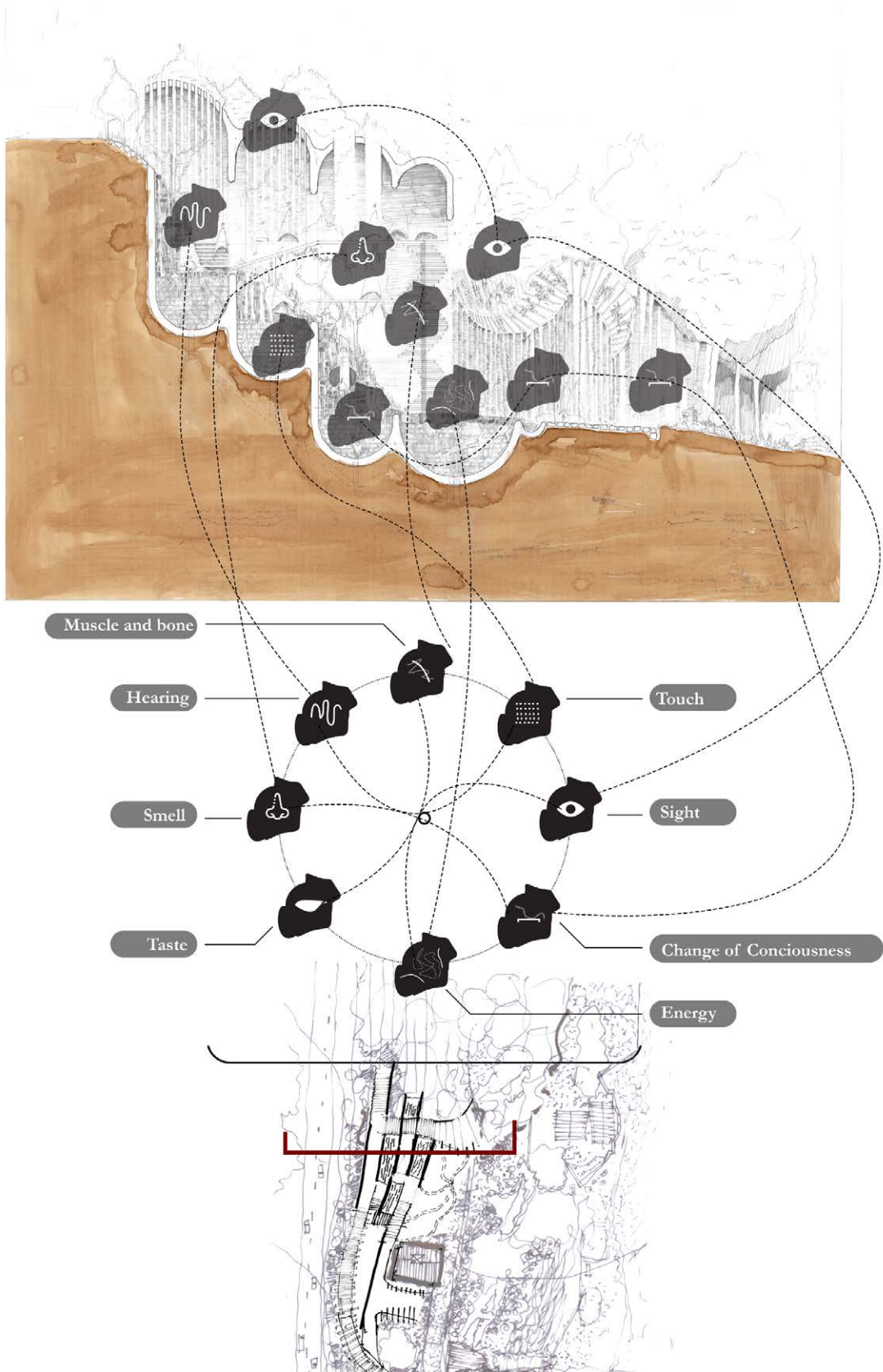


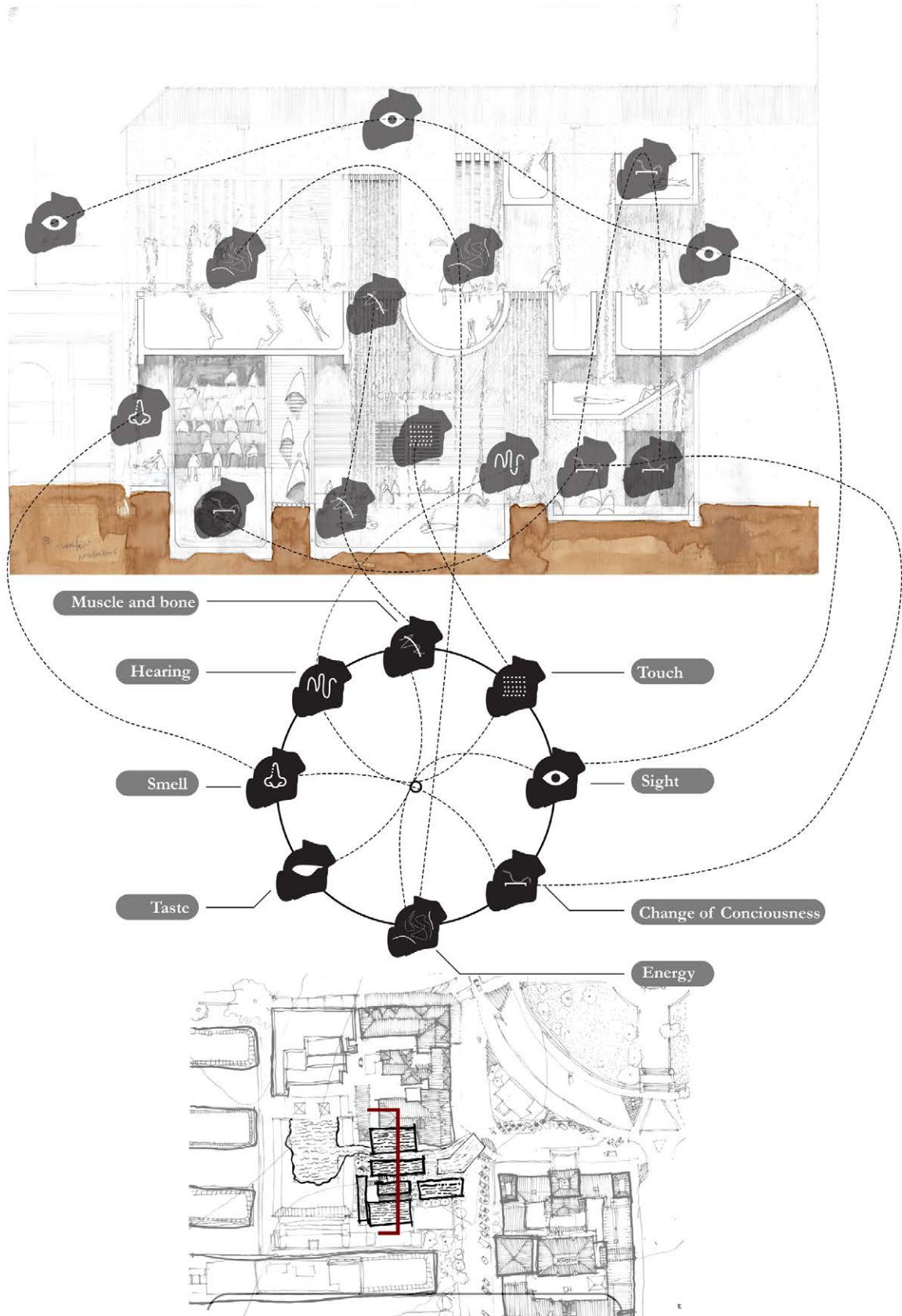
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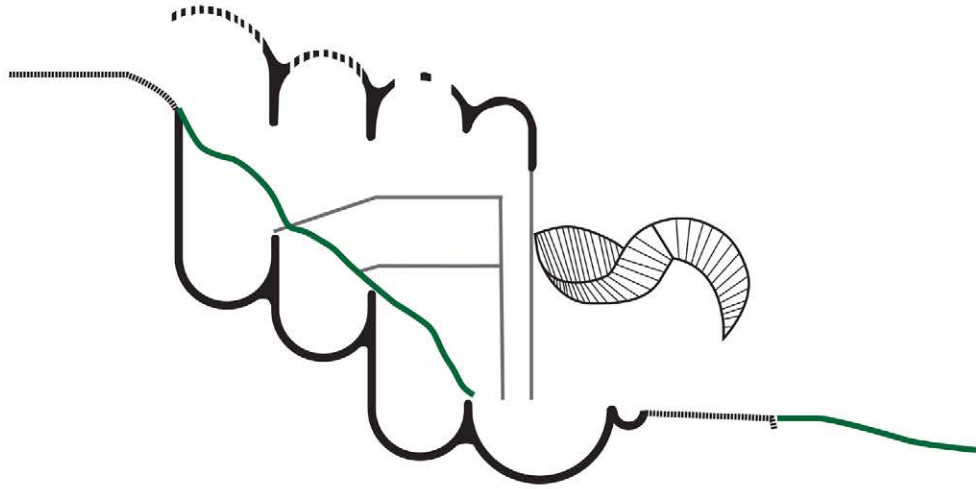
Figure 110: Sectional models exploring potential three dimensional qualities of space (Author, 2018)



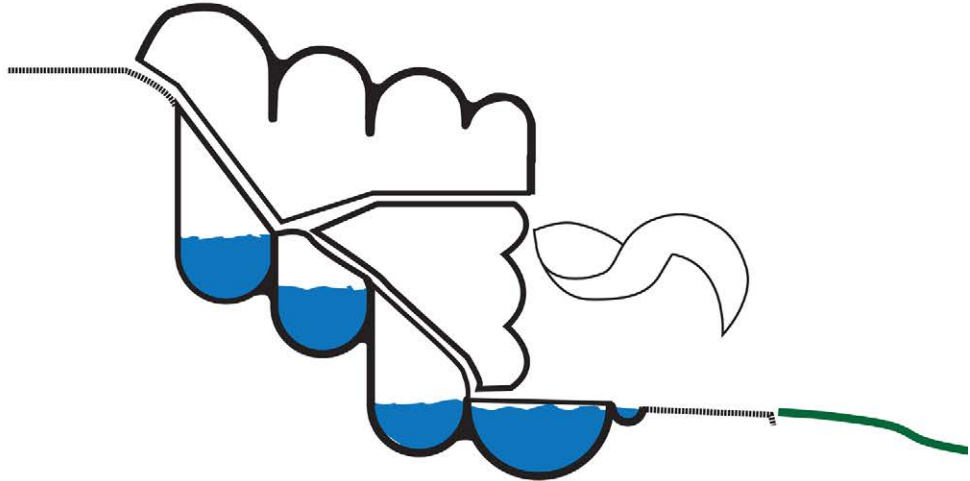




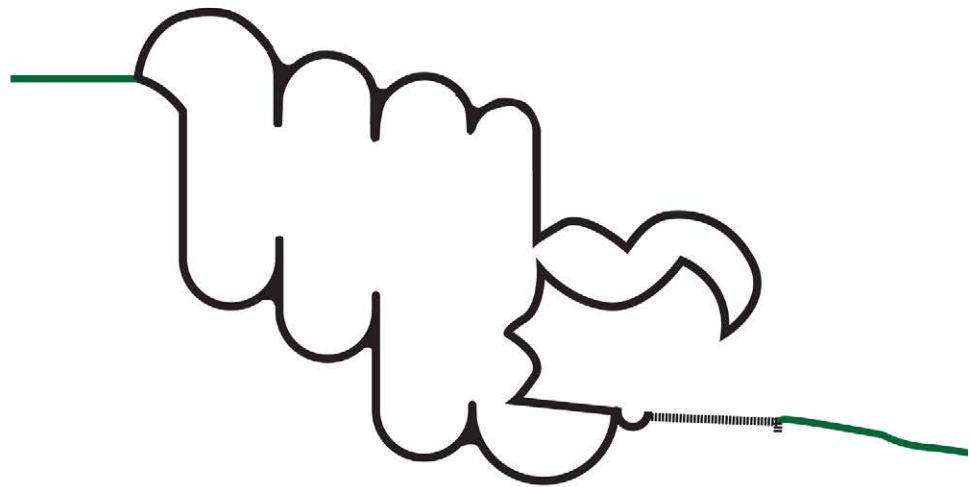
Spatial Lines



Pure Forms

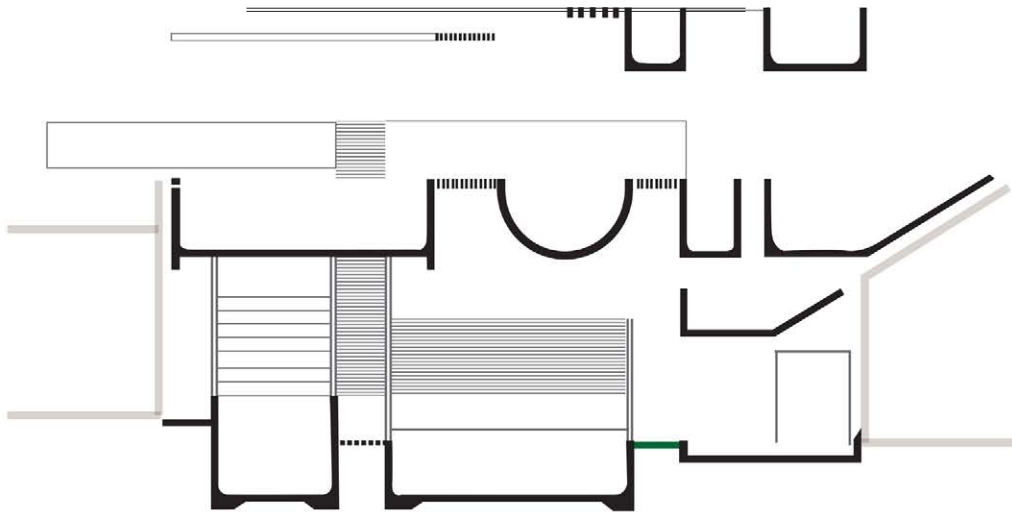


Parti Diagram

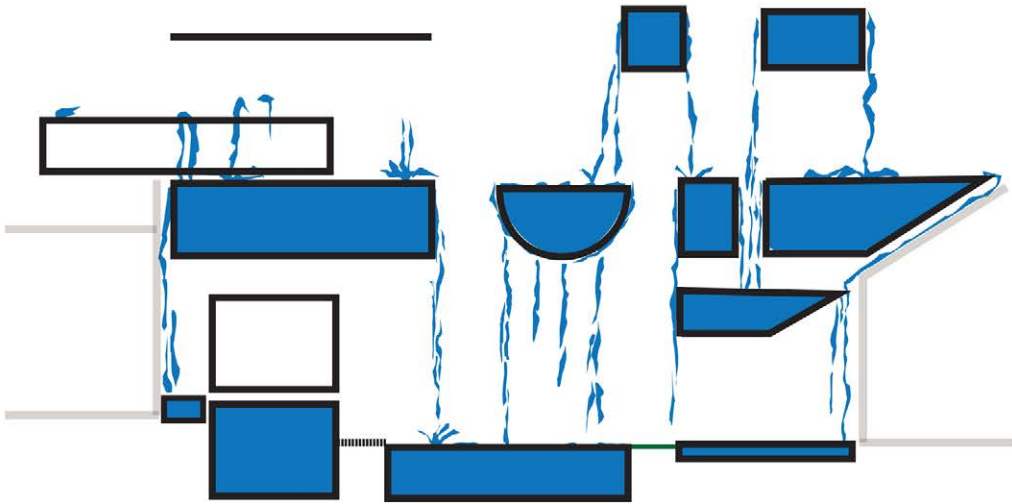




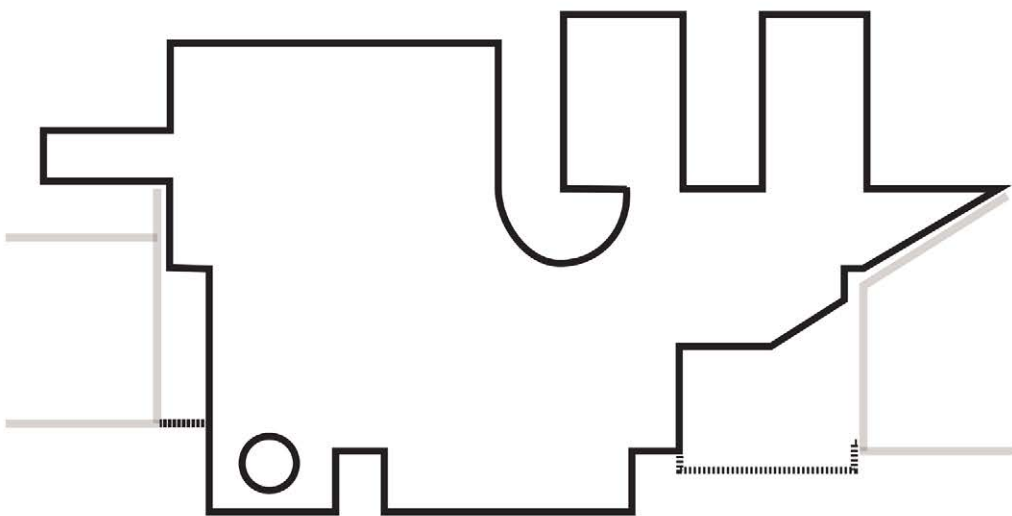
Spatial Lines



Pure Forms



Parti Diagram



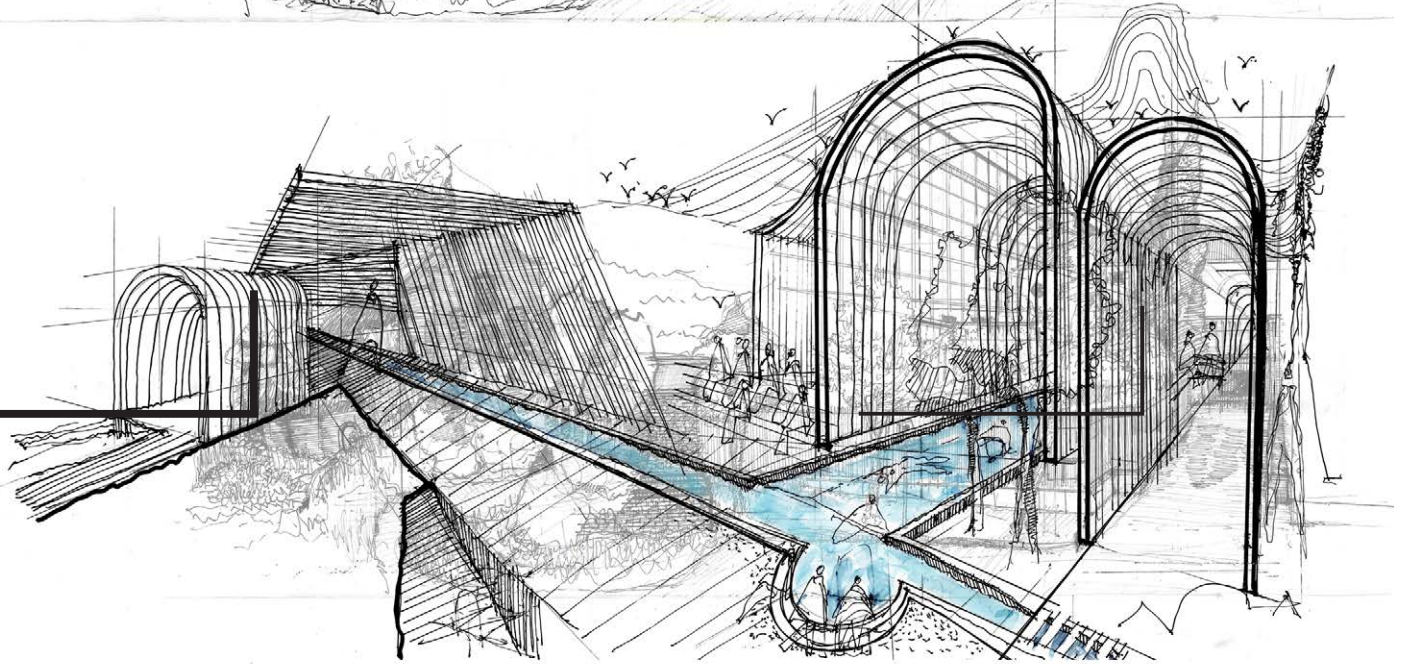
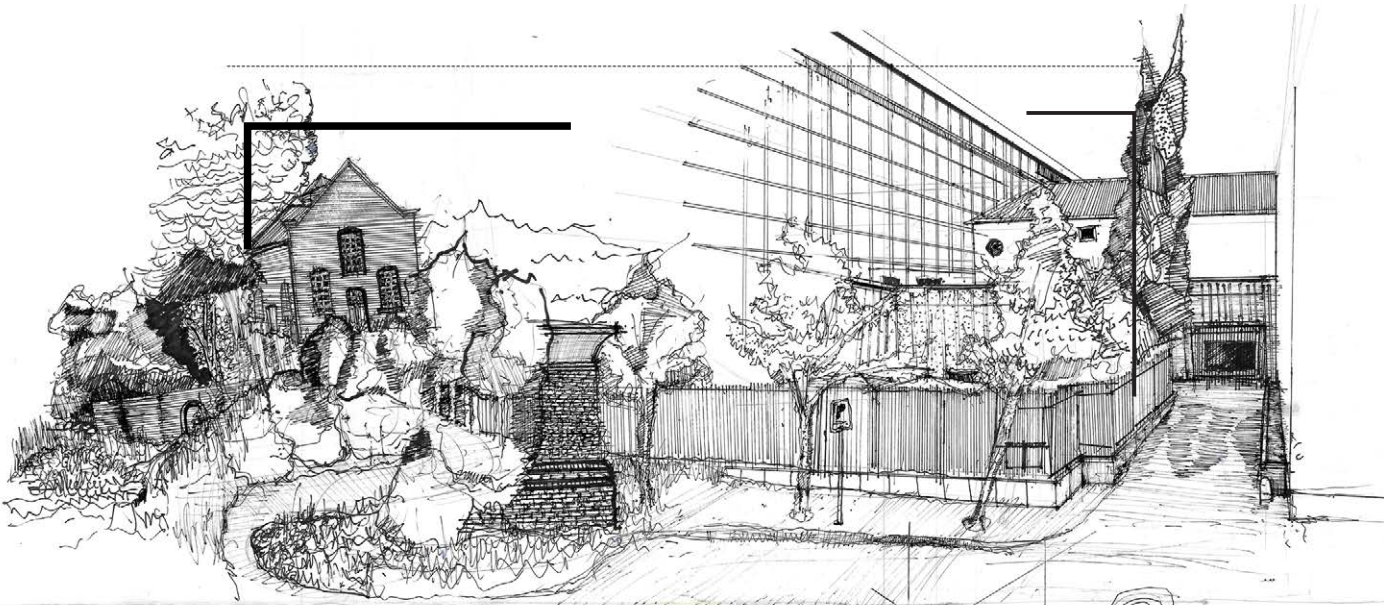
EXPLORATION



Conclusion

The fifth and final exploration imagines the future condition of the two sites as expressions of civic space in doing so questions how the atmospheric theatre and recreational park can alter the way we see civic space. The two sites still use each other as reference points and start to imagine a different condition that will presence both sites.

Theory



The Theory chapter will explore the idea of Twin Phenomena, Phenomenology, June Jordans Placial triad, and the Conceptual themes that are drawn from the study previous sectional explorations.



Twin Phenomena

Phenomena

Twin

In this section of the text, twin phenomena is discussed in its application in various cultures and the various ways in which it manifests. Twin Phenomena forms the theoretical grounding for the project.

*The unconscious is housed. Our soul is an abode.
And by remembering 'houses' and 'rooms,' we learn to
'abide' within ourselves.
Now everything becomes clear, the house images move in
both directions:
they are in us as much as we are in them."
_Gaston Bachelard (1964)*

German Philosopher, Peter Sloterdijk (2011:17) tells a captivating story of the connection a child shares with a fragile phenomena. On a balcony that the reader constructs in his/her own mind while the story is being told, a child stands blowing bubbles into the sky. The nearness of the circular loop to his mouth presences the moment in which air from his lungs turns the foamy liquid into countless bubbles. On a particular attempt a swarm of bubbles erupts from loop and fills the immediate sky, "as chaotically vivacious as a throw of shimmering blue bubbles" (*ibid*). As the bubbles travel at varying speeds through the sky, one oval shaped bubble veers off with the breeze and is carried down to the street. This bubble captures the child's attention as into floats away into space for a few seconds, as if fate itself intended to delight the child's curiosity. The child remains constantly captivated by the bubble as it descends down to the street, until the trembling bubble bursts into tiny liquid forms and disappears completely from the child's gaze. Without realising the intensity of the moment that just passed, the child releases a 'sigh of cheer' because for that time it seemed as if the life of the bubbles depended on the full gaze of the child. The child was outside of himself and," embarked on a shared expedition only to lose its partner halfway" (*ibid*:18). Peter Solterdijk (*ibid*) mentions this experienced being expressed as "Allies", or the "Breathed Commune", in which a solidarity exists between the bubble and the blower that is

separate from the rest of the world. In the space shared between the child's breath and the bursting of the bubbles, the child's consciousness leaves his body and the rest of the world falls into the realm of the peripheral(*ibid*). Sloterdijk (*ibid*:23) argues that since the beginnings of the modern age, "every century, every decade, every year and every day", has been spent trying to understand new truths of extra-terrestrial spaces and the old nature of homo sapiens has fallen away over time.

Sloterdijk (*ibid*:417) extends the idea of allies and the breathed commune by exploring how the Romans believed humans were never born alone, and therefore could not have a singular birthday. Each yearly celebration was considered a "double-birthday" of an individual and its guardian spirit, which formed an "indissoluble link" that was stronger than the link between mother and child(*ibid*). Sloterdijk reflects on this by expressing that," all births are twin births; no one comes into the world unaccompanied or unattached". Within the real of a kingdom, it is characteristic that the palace and the entire compound and landscape in view becomes an extension of himself(*ibid*). Sloterdijk (*ibid*:413) views these phenomena as, "Soul Partitions".

Twin Culture is explored though various parts of the world with Anthropologist, Phillip Peek (2011), exploring an African perspective in his curated book, "Twins in African and Diaspora Cultures: Double Trouble, Twice Blessed". Within the Yoruba Tribe in Nigeria exists a, "poetics of twin figures" that expresses the universal idea that there exists two aspects to reality, explored through dual themes of, "spirit/matter, visible/invisible, male/female, good/evil, essence/existence" (Peek, 2011:81).

Within the Yoruba people resonates a tradition that if one of the pair of twins die, a gender specific memorial sculpture should be made by a

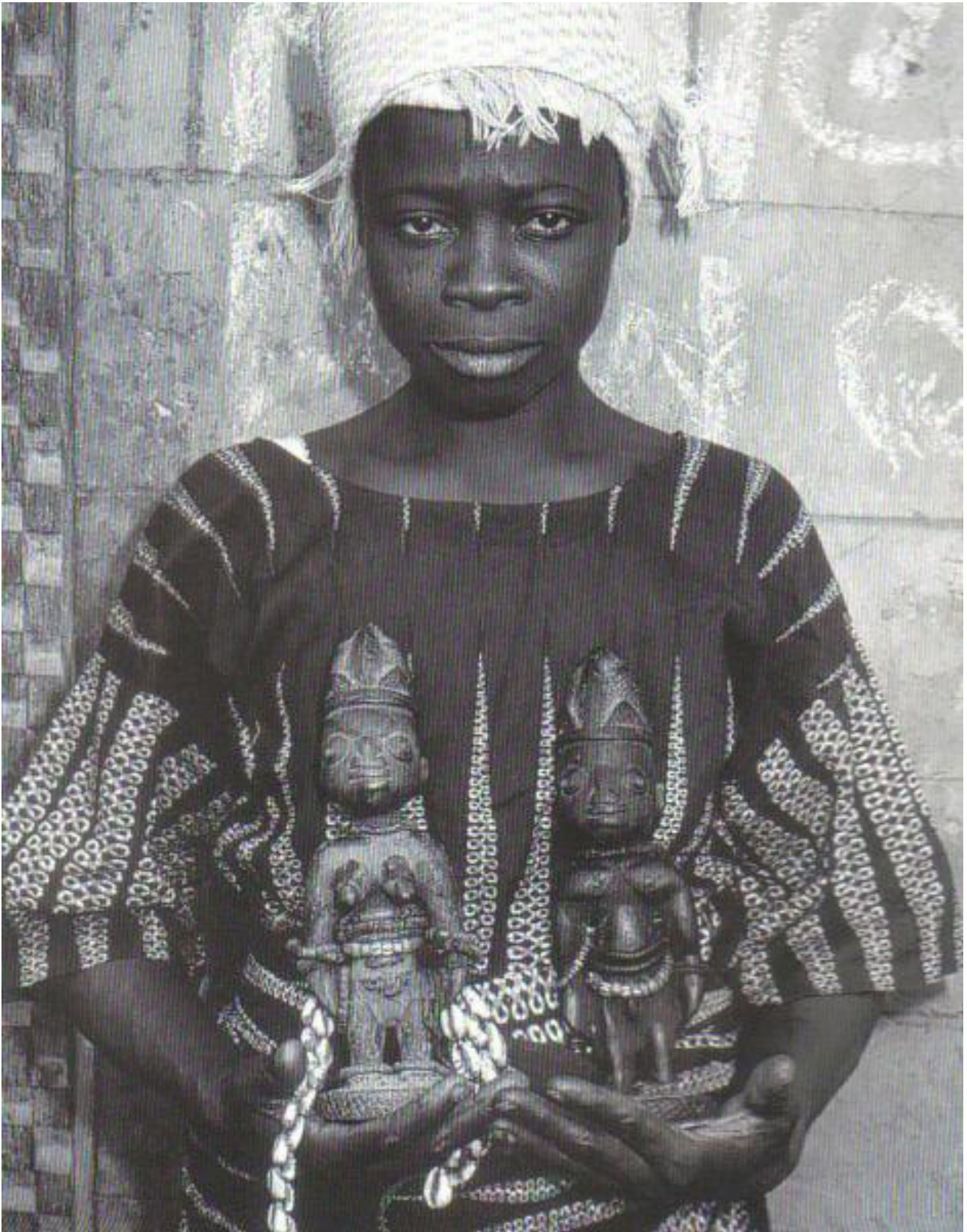


Figure 113: The Cult of Yoruba Twins Yoruba mother with the memorial figures of her deceased twins (Randafrikanart, 1980)

local carver to, “localize the soul of the deceased” (*ibid*:85-86). The mother of the children is required to treat the representational memorial as a living child and care for it as if the child were still living. The twins are thus fed together (with the memorial fed symbolically), dressed in the same clothing (with clothes for the memorial being made in miniature scale), (gbénàgbénà) with certain instances where the memorial is given to the child to, “minimize the natural instincts in twins to want to see one another after a long separation” (Peek, *ibid*:86). When questioning the origin of the memorial, the twin is told that his/her twin has traveled to a distant land and will return soon; when the living twin comes of age and stops inquiring about the memorial a shrine is built in the house to remember memorialize the memorial (*ibid*).

The Yoruba express their beliefs in another expression of twin culture through a conceptualization of the cosmos as a “big gourd with two halves”, which they express in a popular saying, “*T’ako, t’abo, ejimapo*” which translates to, “The male and female in togetherness” (*ibid*:82). The top half of the gourd represents maleness as he relates to heaven/sky expressed as, “the realm of invisible spirits”. Hints at the potential of the life-producing potential of the couple are held together by a mysterious power of phenomena that bind the gourd in space which enable, “sun and moon to shine, wind to blow, fire to burn, rain to fall, rivers to flow and both living and non-living things to exist” (*ibid*). The power if the phenomena emanates from a Supreme Deity that expresses its existence through benevolent and malevolent forces of natural occurrences of, “day and night, hot and cool, wet and dry, right and left, north and south, east and west, and life and death” (*ibid*). A “Power of Twoness” is evident in this cultural group with similarities tied with Sloterdijk’s (2011) revealing of twin-ness in Roman culture. The Yoruba share a belief that

every living person, expressed in a physical body, is blessed with a spirit double, expressed as a soul, that resides in heaven. As souls works in a manner that enlivens the body, the body in tun is bilaterally halved to reflect images/traits of the parents within each half of their offspring’s body. The left part of the body embodies the presences of the mother, with the presencing the opposite side. With the body representing separate representations there still exists a twin dialogue through the body where bone identifies with male representations, and the flesh female, the semen male, and the breast milk female (*ibid*). A physical and metaphysical expression of twin and its relative phenomena is evident in the various expressions of the power association with a dual existence that connects humanity with the heavens and the earth.

Conclusion and Link following Writing

The concept of twin phenomena, though based in theory and culture, also has spatial and placial implications. In the following section June Jordans Placial triad will be discussed, which focuses on the various dimensions of place. These dimensions are key in the understanding and application of Twin Phenomena.

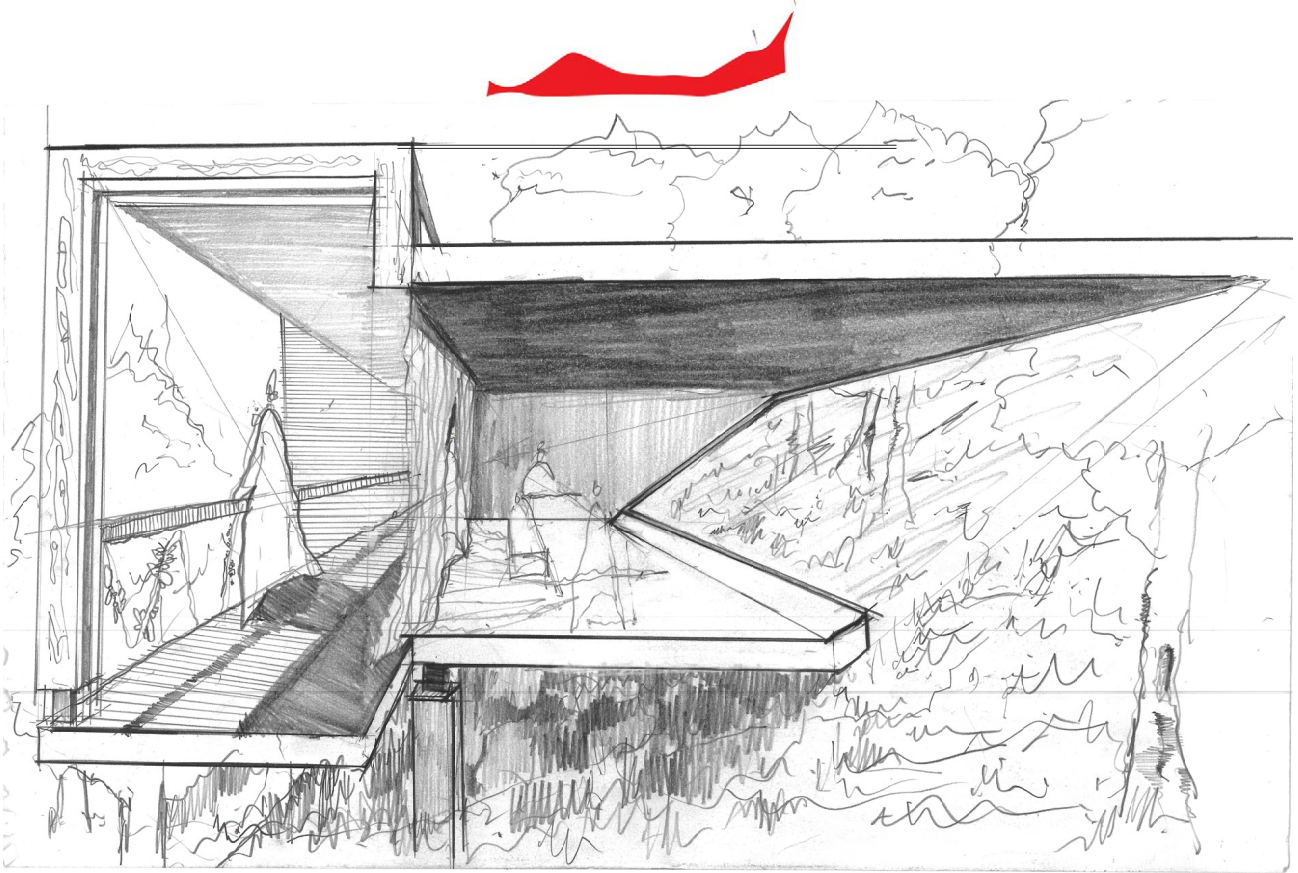


Figure 114: Exploration sketch in Fountains Valley 1 (Author 2018)

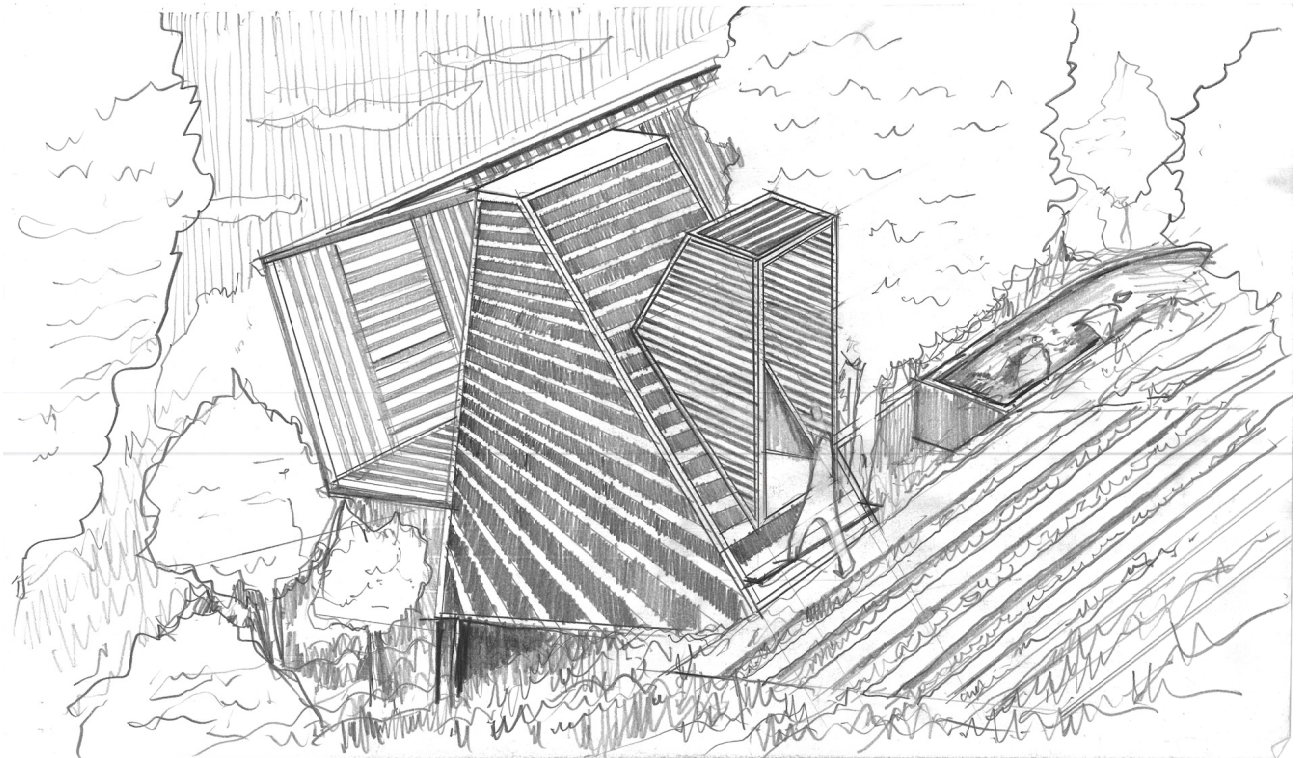


Figure 115: Exploration sketch in Fountains Valley 2 (Author 2018)

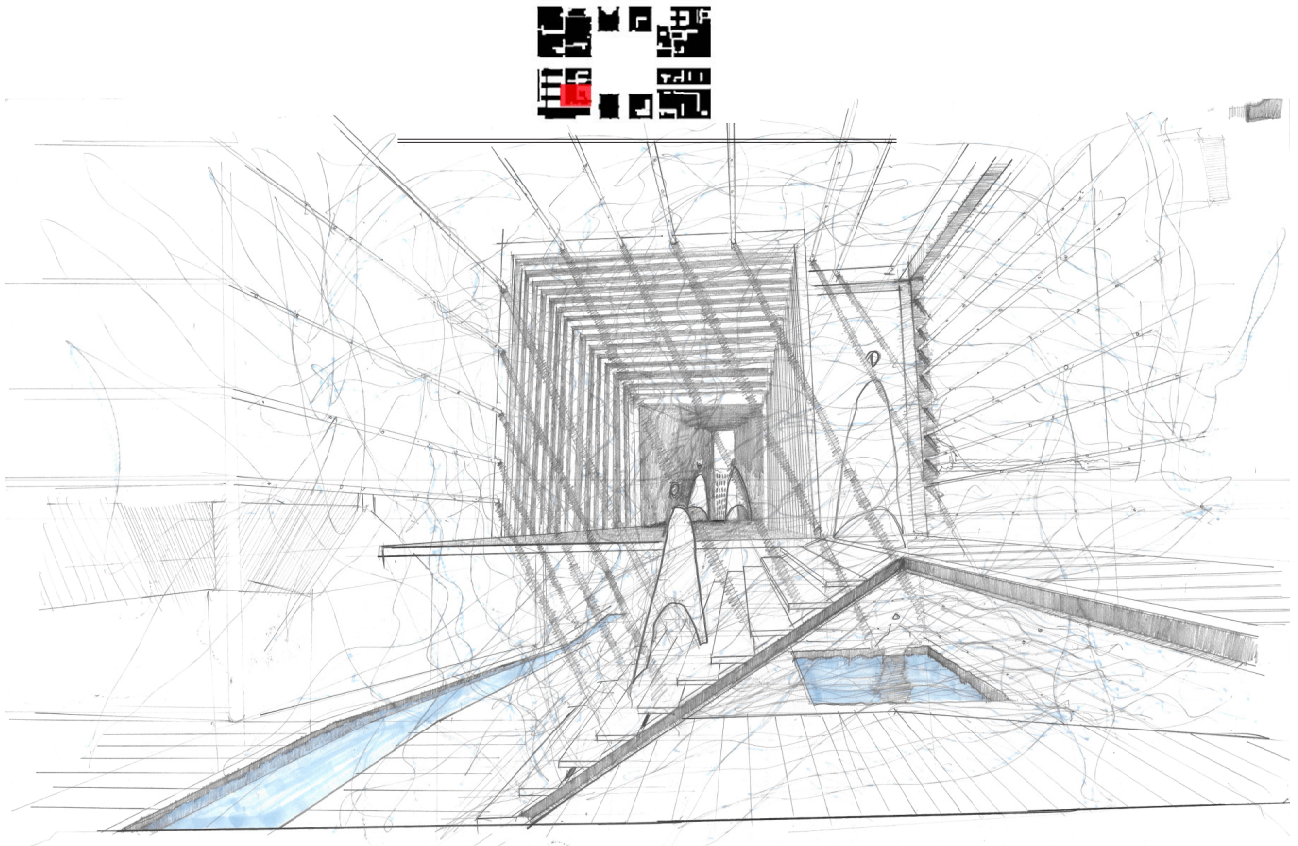


Figure 116: Exploration representation of mist and water (Author 2018)

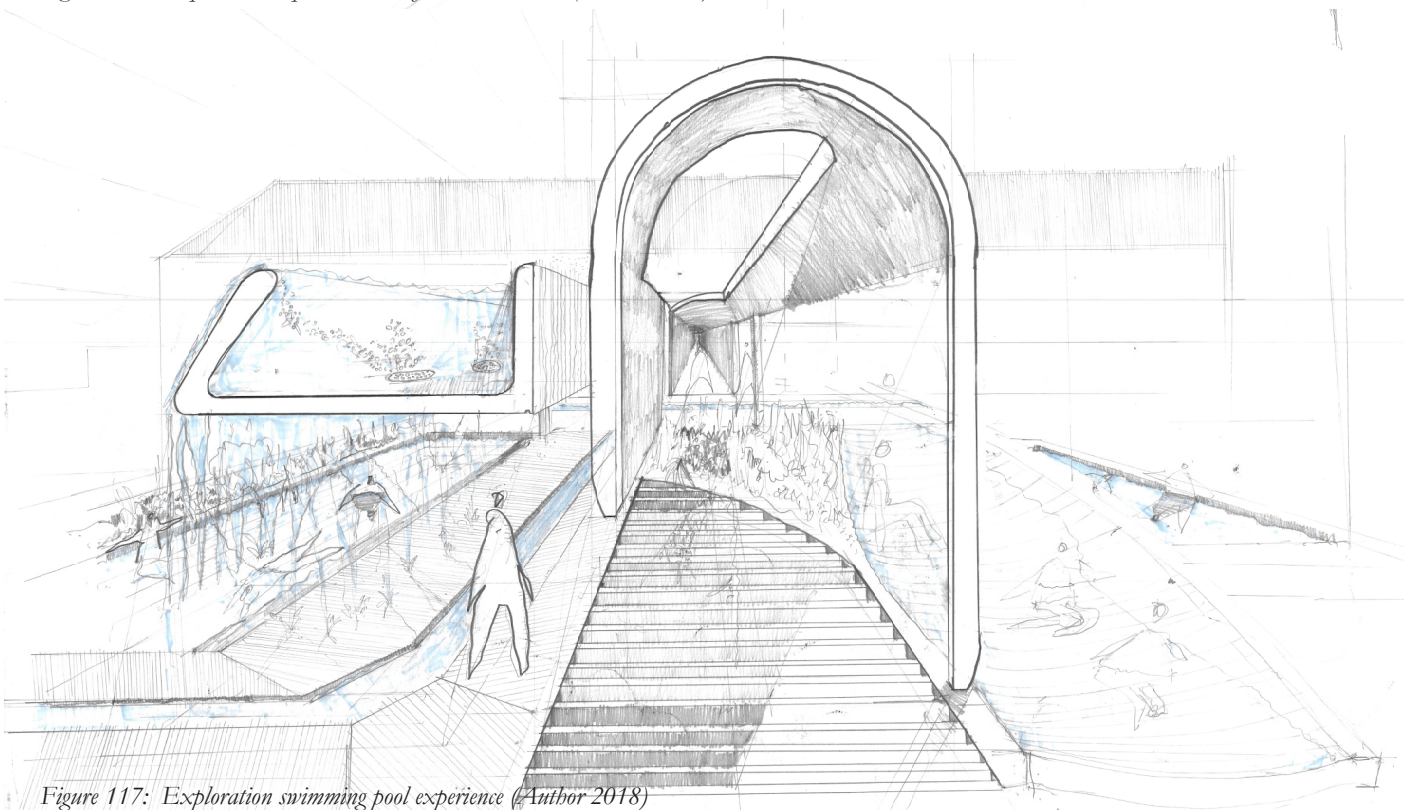


Figure 117: Exploration swimming pool experience (Author 2018)

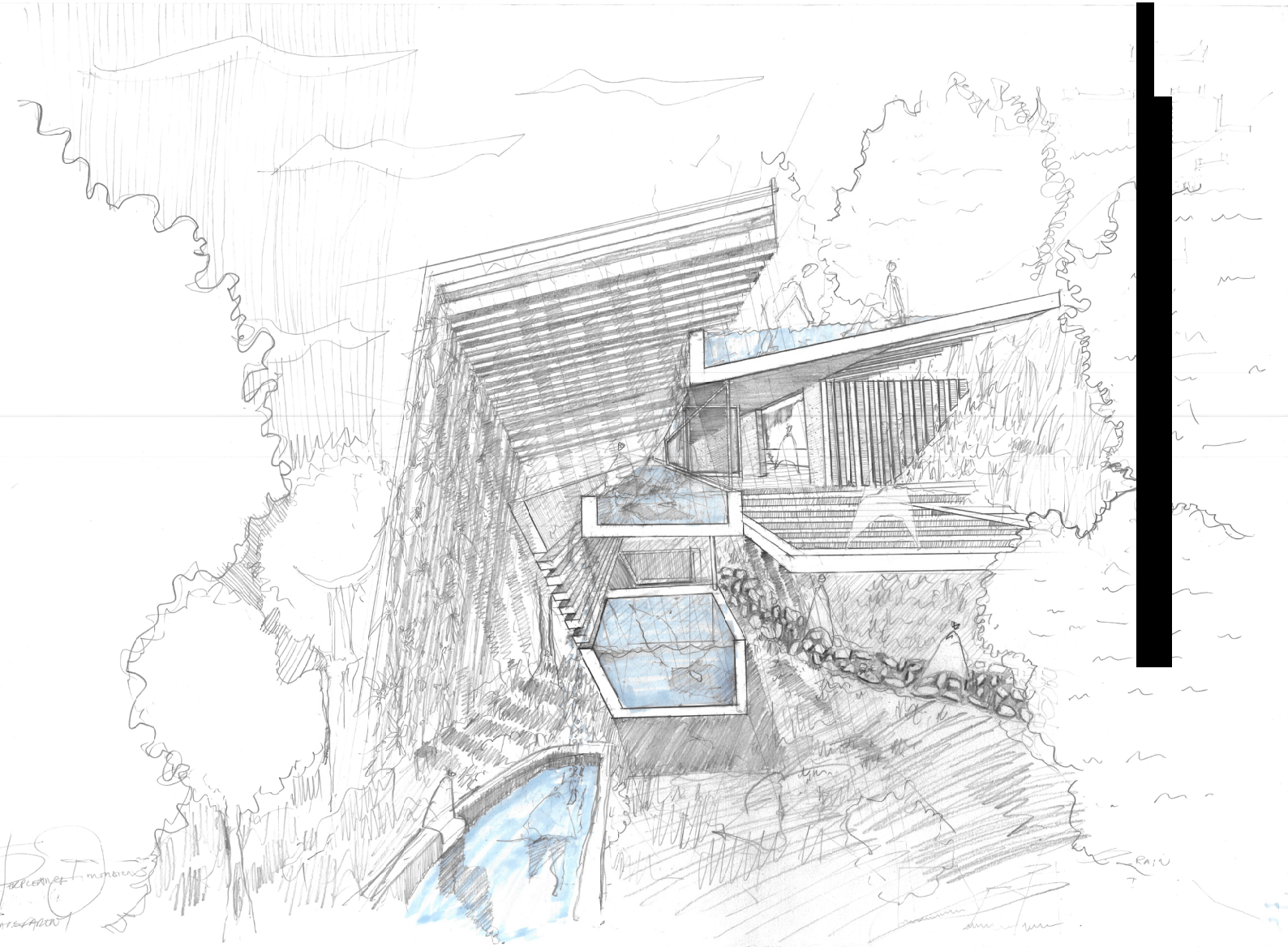


Figure 118: *Conceptual Vision for Fountains Valley (Author, 2018)*

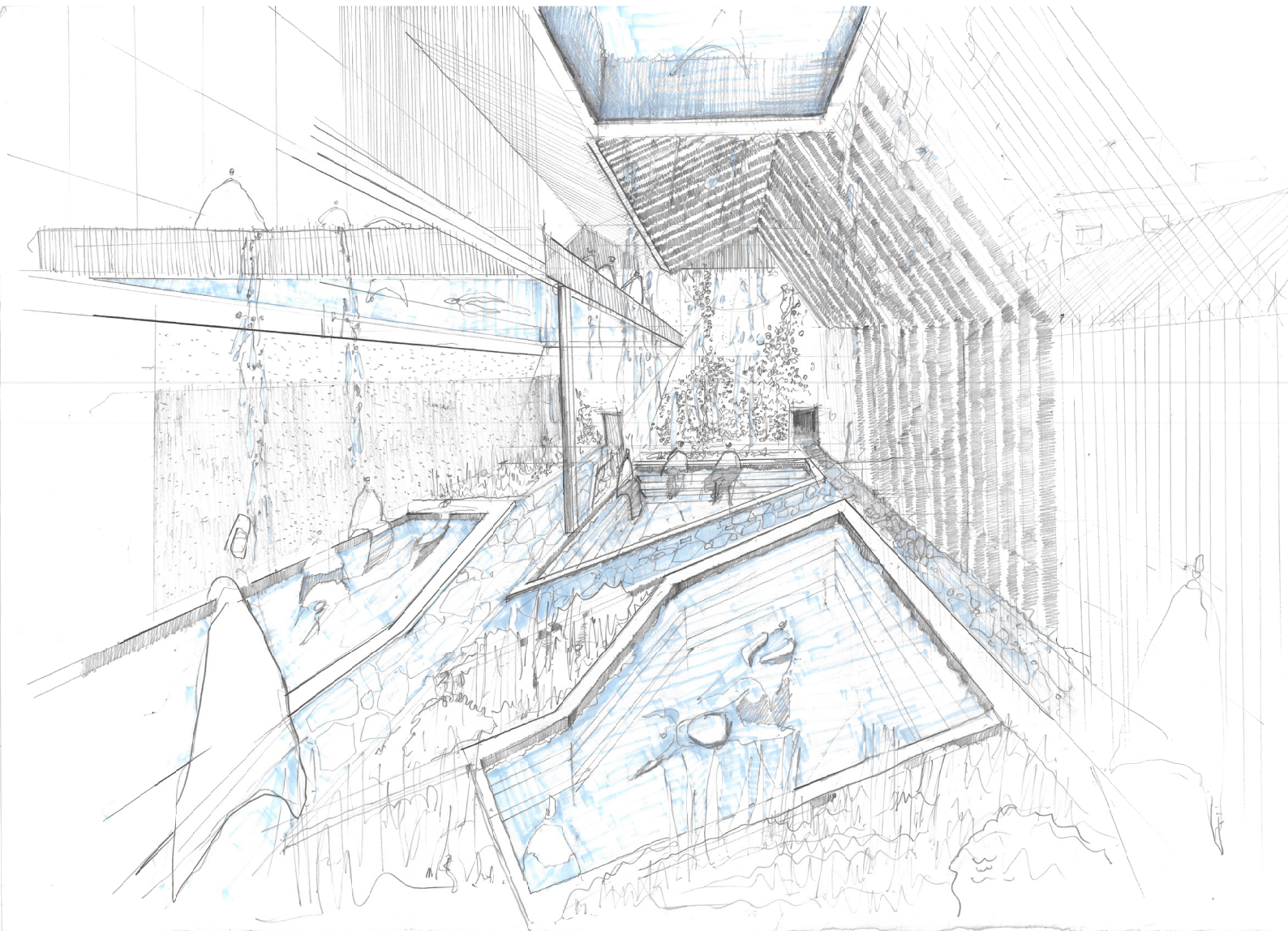


Figure 119: Conceptual Vision for Capitol Theatre (Author, 2018)

In her Thesis on ways of constructing place, June Jordaan (2015:52) explores the way that a placial triad expresses the manner in which architecture contributes to the human experience of place, “through the expressive nature of material places and through our physical and mental encounters with place”. The placial triad is expressed through the mental dimension, material dimension, and lived dimensions of place. The triad does not exist in isolation but rather forms a part of a continuum of thinking. Soya (1996:57) finds expression of triad thinking through Historicity, Sociality and Spatiality. Cresswell (2005:51) seeks for Descriptive, Phenomenological, and Social Constructivist dimensions of place. In the production of Space, Henri Lefebvre explores the idea of Representations of Space, Representational Space, and Spatial Practices. Conceived Space, Perceived Space, and Lived Space.

MATERIAL DIMENSIONS OF PLACE

“There was a time when I experienced architecture without thinking about it. Sometimes I can almost feel a particular door handle in my hand, a piece of metal shaped like the back of a spoon. I used to take hold of it when I went into my aunt’s garden. That door handle still seems to me like a special sign of entry into a world of different moods and smells. I remember the sound of the gravel under my feet, the soft gleam of the waxed oak staircase, I can hear the heavy front door closing behind me as I walk along the dark corridor and enter the kitchen, the only really brightly lit room in the house.”

Peter Zumthor (1998:9)

The vivid description above, captures the manner in which Peter Zumthor perceives the materiality of architecture and place. The description is framed using an intangible construct, memory, to highlight the way materiality is an extension of a metaphysical connection to place. Jordaan (*ibid*:62) extends this thought by expressing how material

configurations can be interpreted in two ways, “On the one hand places can be seen as vehicles that convey meaning, as signs and symbols, and on the other hand, places can be seen as real and ‘concrete things’ that create atmospheres, presences and ambiances”. As Humans, our everyday lives are confronted with tangible substances that guide our movement from one space to the other. Within our movement man stumbles across peculiar experiences of place which is known as Genius loci. Norberg-Schulz (1980:18) makes a historical reference to how ancient Egypt was ordered in response to the Nile floods and the structure of the landscape, which influenced the layout of public buildings. The result of this response to place was that Egyptians felt a secure within the landscape, which acted as a symbol for an eternal environmental order (*ibid*). The special relationship to place was historically a means of survival as a good relationship to the landscape was expressed through both a physical and psychic sense (*ibid*).

Ancient Romans believed each independent being is born with a guardian spirit, a genius, which gives life to people and places, accompanies them from birth to death and determines their character or essence” (*ibid*:18). Various expressions of these characters and/or essences are what make the genius of loci unique. The Genius loci finds its architectural expression through atmospheres that are an extension of tangible elements that form buildings and space. In his book *Atmospheres*, Zumthor (2006:13) explores the idea that humanity measures the extend of an atmosphere using our emotional sensibility. To elucidate this point Zumthor recollects something he wrote in his notebook that tries to map an understanding an analysis of particular atmospheres that move him:

“It is Maundy Thursday 2003. Here I am Sitting in the sun. A grand arcade long, tall, beautiful in the sunlight.

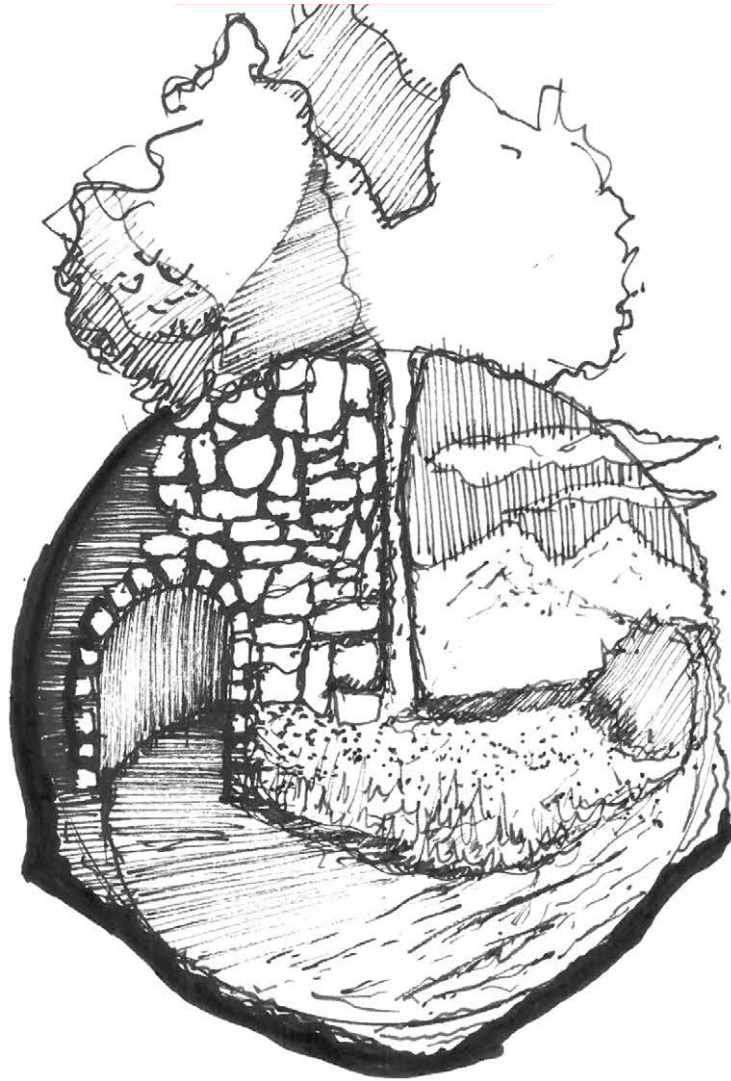
The square offers me a panorama – the facades of houses, the church, the monuments. Behind me is the wall of the café. Just the right number of people. A flower market. Sunlight Eleven o'clock The opposite side of the square; in the shade, pleasantly blue Wonderful range of noises: conversations nearby, footsteps on the square, on stone, birds, a gentle murmuring from the crowd, no cars, no engine sounds... So what moved me?"

Within this exploration of atmosphere, we see how atmospheres are an extension of environments and all their tangible and intangible qualities. To further elucidate what impression the environment gives him, Zumthor (ibid:15) pays attention to how the atmospheres are experienced not by something extraordinary but through the ordinary, “people, the air, noises, sound, colours, material presences, textures, and forms too – forms I can appreciate”. The author further probes the question of atmosphere and draws out an important aspect of experiencing spaces with mood, feelings, expectations, appreciation, and surprises. Jordaan (2015:61) further confirms this exploration by commenting on how the material dimension of place are best read in relation to the sensory perceptive, moving and experiential body.

Architect and Philosopher, Juhanni Pallasmaa(2000), has done extensive writing on the experiential body and its value in a world where sight and aesthetics, are more of a focal point that a whole body experience. Common western knowledge give light to how we experience our existence namely through our five senses; touch, sight, smell, taste and hearing. Pallasmaa (*ibid*) believes that every, “significant experience of architecture is multi-sensory”, and that, “qualities of matter, space and scale are measured”. The method of measuring Pallasmaa uses is what he refers to as the seven senses which extend the standard five senses; eye, ear, nose, skin, tongue, skeleton and muscle. Skeleton and muscle are used

as they are the main components of the human body that allow for the most natural movement and referential experience of the environments we inhabit.

The Material Dimension of Place forms the first portion of the placial triad and weaves in with the remaining to strengthen its contribution.



MATERIAL DIMENSION OF PLACE

Figure 121: Sketch depicting Material Dimension of Place (Author, 2018)

THE LIVED DIMENSION OF PLACE

The Lived Dimension of place strengthens the Material Dimension of place by exploring an alternate understanding of how places are subject to human life in various forms (Jordaan 2015:111). As the Lived dimension associates itself very strongly with humans and it is best understood that places are never static but are always in a state of becoming as a relationship always exists with the living, moving and perceiving body, to its current place (*ibid*). The Lived Dimension is expressed in articulations of the past and present. When in a particular place that is sensitive to its environment, one can perceive the traces of time that speak of a dialogue between now and then. Architecture in its relation to its environment can be read as a palimpsest that presences traces in varying time sequences. It is important that the dialogue with past and present is ever present to give an account of how humans have inhabited spaces and related to them. Place can be viewed as a background for life (*ibid*:143).

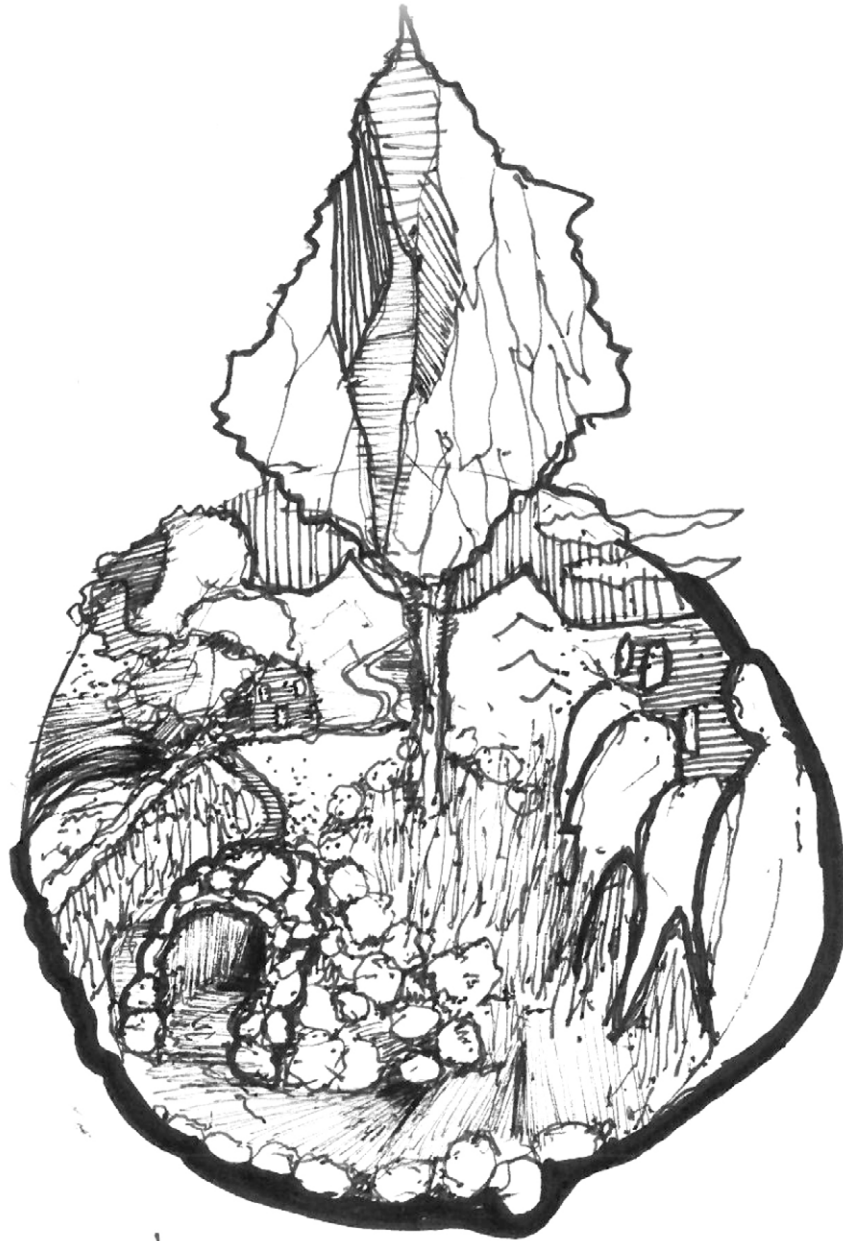
Time

Time and environment are important aspects in understanding the traces of memory. Humanities experience of time has been altered as the human experience with environments become similar to that of a thoroughfare (Pallasmaa 2016:52). Pallasmaa (*ibid*) explains how our consciousness of our experience of time has lessened dramatically through history and has been reflected in our spatial experience of architecture. Reference is made to experiential time as it relates to cyclical time and linear time. Experiential time is the consciousness of the time spent within particular places in a manner that presences moments. Cyclical time is an expression of a sensitivity to aspects of nature such as seasons, daily cycles, fauna and flora, climate, rhythms, sunrise, sunset. This experience of time has been forgotten

through the modernising of mans perception of the environment. This disconnect with time is a result of misuse of technology in growing culture endeavours. Ancient Cultures used the sun, moon, and stars as indicators of time and events. The 16th Century compartmentalised time into half-an-hour intervals, with the 19th century introducing minutes to measure the development of railway traffic(*ibid*). Modern society has lost its connection to cyclical time with a more focus placed on linear time. Linear time compartmentalises time .and assigns minutes, seconds, and hours to the way we experience space, place, and architecture.

Time is an important concern to the Lived Dimension in that the manner is which we experience space, place, architecture, and humanity is governed by the time those spaces are designed for. With the acceleration of time, even homes are beginning to feel like public space with the extension of similar programmes to typologies such as television, media, internet, and the factors that accompany them. In an analysis of the way Enrique Miralles Architecture is sensitive to time, Quiros, MaKenzie, and McMurray (2011), explore how the architect uses Experiential Time and Referential time in the conceptualisation of buildings into place. Experiential Time is sensitive to the present moment and all the events that occur in particular places, as sensory experiences are indulged through bodily and mental processes to the experience just lived.

Referential time is an expression of past and future made present, with memory and meaning brought to the present moment (Quiros et al. 2011:1). To express the idea of reference, Enrique Miralles makes reference to, “previous works and experiences (both his own and others) and by incorporating the historical and cultural past of the region and site where the project is located” (*ibid*). This way or reading and representing deals with themes of memory and



LIVED DIMENSION OF PLACE

Figure 122: Sketch depicting Lived Dimension of Place (Author, 2018)

palimpsest. Layers of time are used in a manner that is knitted into the fabric of time which forms a part of a continuum. In the design of the Iqualada Cemetery, referential time is expressed through the passing of time in architecture and landscape. Nature grows over and the building, the steel used to reinforce layers of excavated soil rusts over time, the concrete receives a patina over time, wooden floors deteriorate over time and change in sound. Quiros et al (*ibid*) further elaborates on how the idea of referential time is used as a metaphor in the design of this cemetery and the “passing of time”. A metaphysical relationship with the living and dead is evident as the living integrate with the dead through movement where the idea of procession can be viewed as, “a social landscape involving street like form and communal spaces; relationships such as man-architecture, architecture-site, site-landscape and thus, man-landscape are forced to refine themselves within this valley of the dead, in which the cemetery emulates the path of life and landscape of time” (*ibid*).

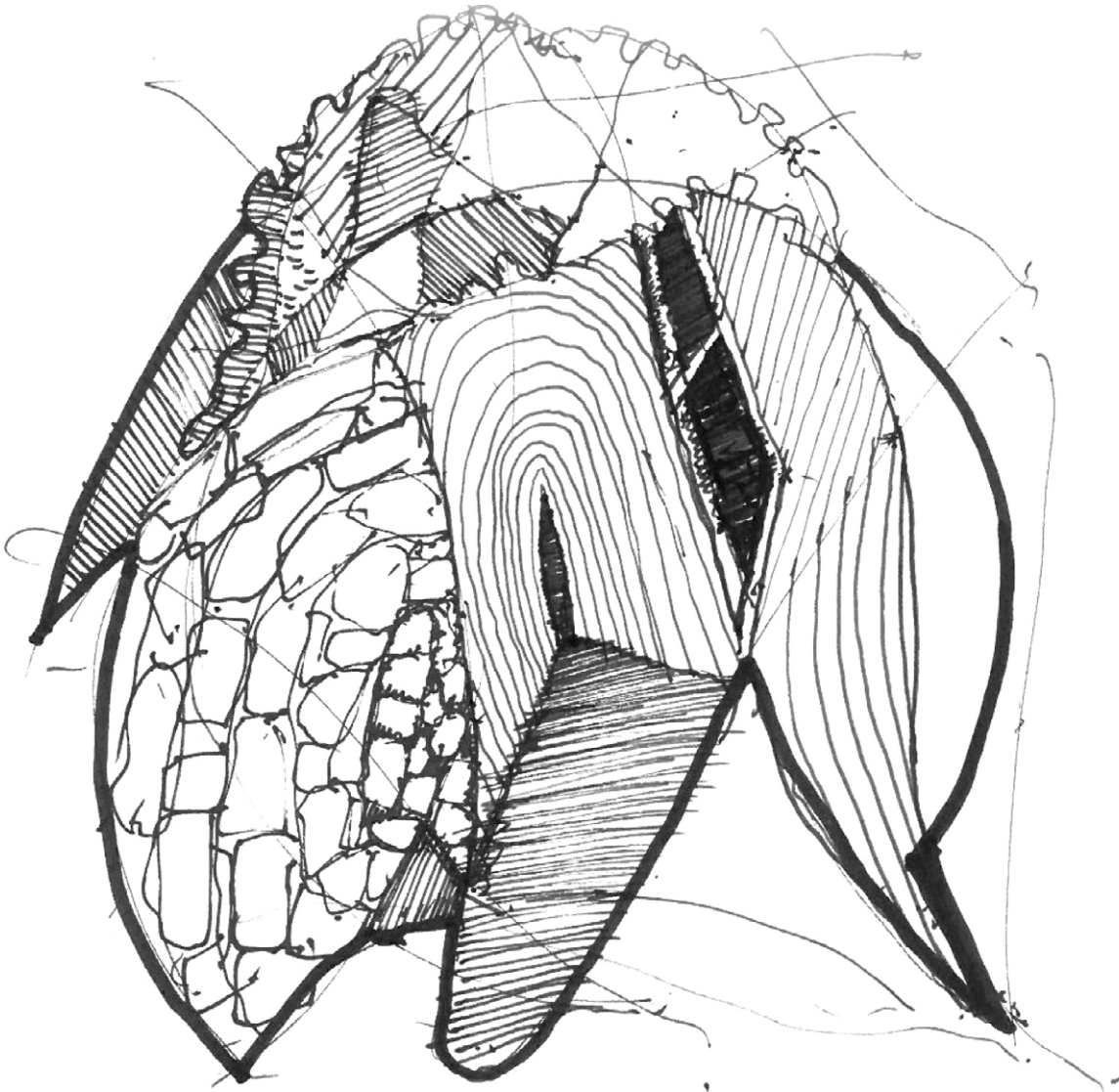
MENTAL DIMENSION OF PLACE

“Daydream transports the dreamer outside the immediate world to a world that bears the mark of infinity.”
— Gaston Bachelard, *The Poetics of Space* (1964)

The last dimension of place that forms a part of the placial triad is that which is and is in association with explorations and experiences of the mental. This dimension concerns itself with matters that are less tangible and explores how perceptions, imaginations, memories and dreams of places find meaning in themselves and their relationships to each other, as they reside in our minds (Jordaan 2015:153). With our minds being the highest expression of the mental dimension, the ability to perceive becomes an important tool when reading a place through a phenomenological lens (*ibid*:154). The mind is however not a separate entity from the rest of the body, in fact the way we perceive spaces with our whole body contributes to how one might psychologically experience place and architecture. Jordaan (*ibid*) explores spaces of perception, memories, dreams and imagination, as expressions of the mental dimensions of place. A similar sequence will be used in further exploring the spatial, palatial, and architectural consequences of these Ideas.

Memory and Imagination

Pallasmaa (1996a:52) argues that smell is often the most persistent trigger for the memory of space and gives account to this idea by explaining how, “I cannot remember the appearance of the door to my grandfather’s farmhouse in my early childhood, but I do remember the resistance of its weight and the patina of its wood surface scarred by decades of use, and I recall especially vividly the scent of home that hit my face as an invisible wall behind the door.”



MENTAL DIMENSION OF PLACE.

Figure 123: Sketch depicting Mental Dimension of Place (Author, 2018)

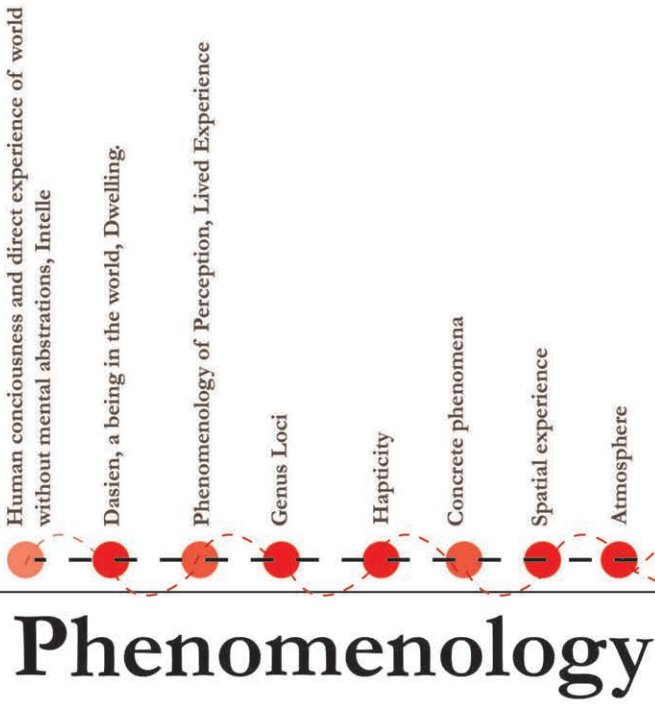
In this instance the memory associated with smells becomes spatial and an architectural atmosphere is recreated in the mind. Pallasmaa (*ibid*) continues to explain how our nostrils awaken forgotten images and without a conscious awareness we are drawn into forgotten spaces. Scientific research explains that as little as eight molecules of an odour are needed to trigger an nerve impulse, with the sense of smell being able to detect more than 10 000 different odours at a time(*ibid*). The presence of 10 000 odours can be found within various landscapes and buildings, but the presencing of these spaces requires all our available senses to create an embodied experience.

Pallasmaa (*ibid*:67) argues that perception, memory, and imagination are in constant interaction with one another, which combines images of memory and fantasy. Architecture is a privileged practise of expression in that within the buildings that are designed lie various objects, such as books, painting, art, sculpture, and human interaction that inspire other forms of memory and imagination. In the book *Invisible cities*, Italo Calvino (1974) gives a good descriptive account of his travels around the world that allows the reader to immerse oneself mentally into the spaces as if they were physically there. In giving a description of city called Zora, Calvino (1974:15) paints the picture of the city existing ,”beyond six rivers”. An understanding of Zora as a destination point that requires a concentrated effort to reach over and through varying landscape conditions is clear. Calvino continues to emphasize how once seeing city, the ability to forget Zora becomes difficult because of its unusual nature which is echoed through in its succession of streets, houses, doors, and windows(*ibid*). Peter Zumthor (1998:27) makes reference to William Carlos Williams comment on how the best expression of something is in the thing itself, which Zumthor continues to call the, ‘hard core of beauty’. Calvino(*ibid*)

reveals the secret to Zora is in the way one’s gaze perceives the patterns of the city flow into one another seamlessly like a musical score, and if in a resident of the city struggles to sleep she, he need only mentally access the city streets where, “the copper clock follows the barber’s striped awning, then the fountain with the nine jets, the astronomer’s glass tower, the melon vendor’s kiosk, the statue of the hermit and the lion, the Turkish bath, the cafe at the corner, the alley that leads to the harbour.”

The spatiality of memory has value beyond its dance with the past. Memory can be used as a tool for imagining possibilities for spatial explorations in architecture.

Philosopher, Gaston Bachelard (1983:1) believed that there are two different axes in which the imagining powers of mind develops; a formal imagination and a material imagination. The formal imagination lends itself to perceptions that incite feeling of intuition that are unfiltered of our desires, whereas the material imagination is derived directly from images of matter in which, “the eye assigns the names, but only the hand truly knows them” (*ibid*). Zumthor (2006:25) explores this idea further by speaking of the endlessness of material/matter as reactions are formed between two or more, which ignite a radiance that gives rise to something unique. To express the numerous abilities of material and uses the stone as an example of its extend: “you can saw it, grind it, drill into it, split it, or polish it – it will become different each time” (*ibid*). The Material imagination thus takes form in various representations and finds grounding in the way we haptically engage with matter during the process of design, the construction of a building and the spatial and placial experiences of the architecture.



- Edmund Husserl**
1859 - 1938
- Martin Heidegger**
1889 - 1976
- Maurice Merleau-Ponty**
1908 - 1961
- Christian Norberg-Schulz**
1926 - 2000
- Juhanni Pallasmaa**
1936- present
- Peter Zumthor**
1943 - present
- Steven Holl**
1947 - present
- RCR Arquitectes**
1987- present

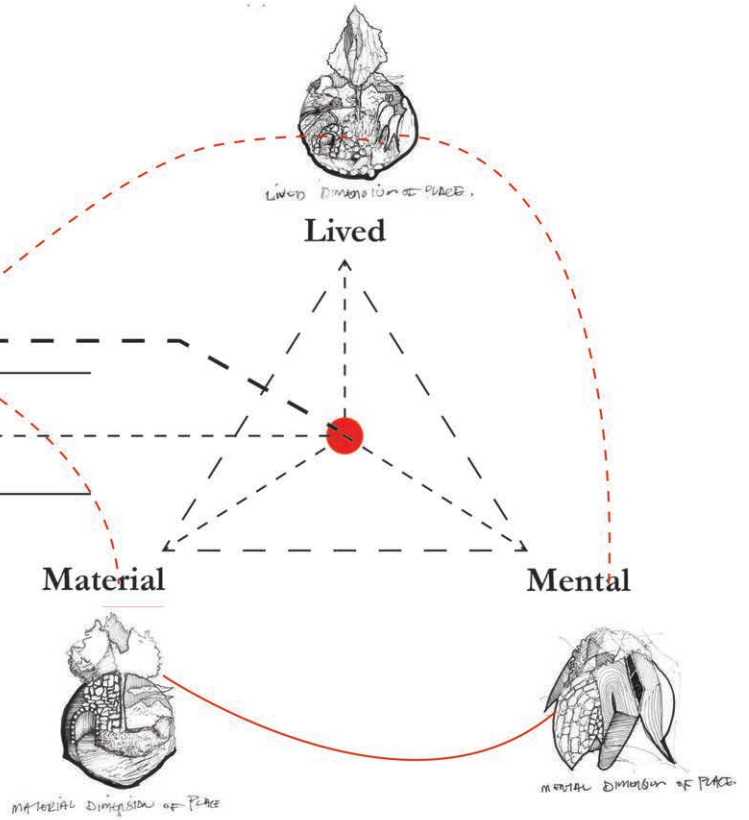
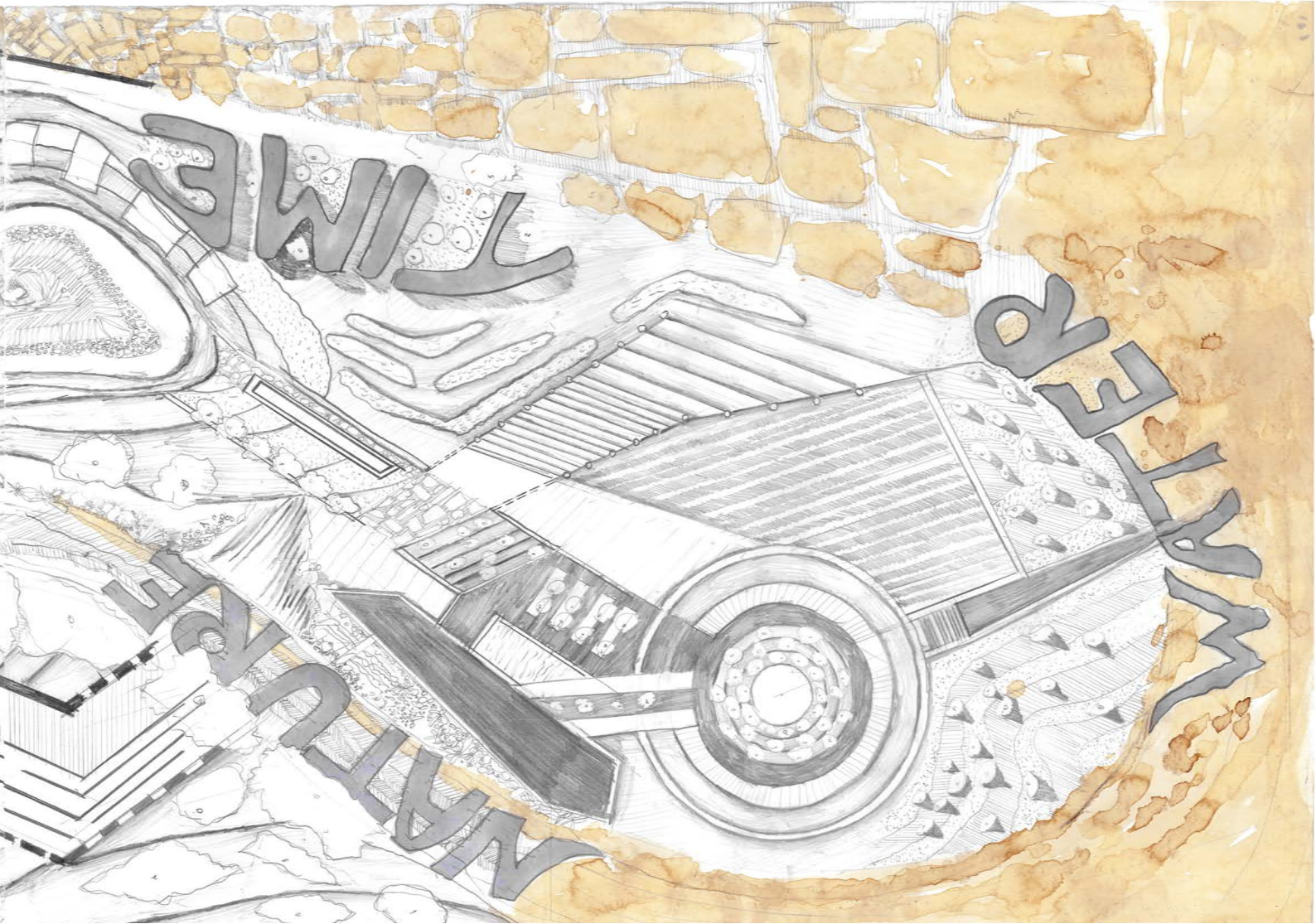




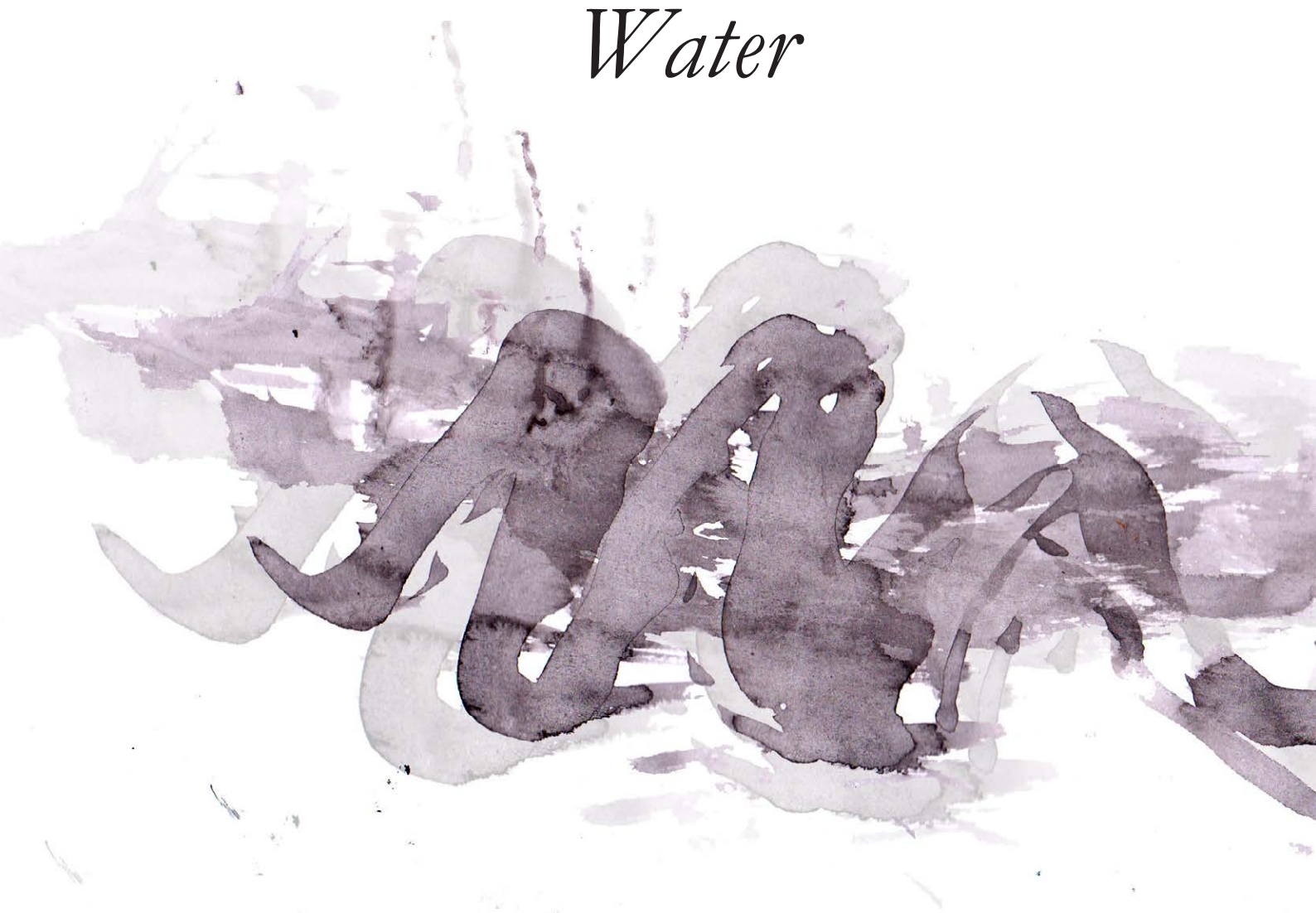
Figure 124: *Conceptual themes* (Author, 2018)

Conceptual Themes



The following section outlines conceptual themes as a continuation of the earlier intuitive explorations and theory previously discussed. The image above forms a summary of spatial and theoretical lessons learnt from the explorations and proposes the four conceptual themes that will assist in the design process of the twin sites:
Water, Memory, Time, Nature.

Water



Water and Architecture

Take time to access your memory of the last time you were in a building when it was raining. If you were in your own house do you remember the first indications of rain by the gradual increase of a tapping sound on the roof? When the tapping starts to overpower the sound of your television set and the curiosity to witness the presence of the rain leads you to look out the now wet window, you might find that the down pipe outlet gushes with water from the gutter. Spend a few seconds on this memory and turn your head slightly as you see how miniature rivers have already formed and begin to race along the paved driveway, under the entrance gate, and into the distance. If this memory dares to lead you back to your childhood where the excitement of moving water led you to find the nearest twig in your vicinity and place it in the water as if it were a ship at sail on the sea, you might yourself looking back every now and then to see if anyone else has appeared through the front door stoep you emerged from. Eventually when one of the adults call you back from this intimate experience, you will find yourself undressing your wet cloths under the stoep as the rain begins to subside. If it happens to be a summers day, the clearing of the sky might lead you to walk outside soon after the rain stops and find that the house has a layer of water on the exterior envelope that protects the interior from becoming wet.

This is one of the roles of architecture, to protect man from the environmental elements and afford comfort. The roof and wall retard heat, rain, and wind, while windows and skylights allow in light and connect us with our surrounding contexts. The gutter collects rain from the roofs and channels it through a down-pipe, while the underside of the floor slab is lined with a damp proof membrane to retard the access of water from the ground.

Water

*If I were called in
To construct a religion
I should make use of water.*

*Going to church
Would entail fording
To dry, different clothes;*

*My litany would employ
Images of sousing,
A furious devout drench,*

*And I should raise in the east
A glass of water
Where any-angled light
Would congregate endlessly*

Philip Larkin

“For, if buildings divorce us from nature, both to protect us from the elements and to erect a more rational human realm in its stead, and if they then replace our bodies with a second, alien form that, though designed in our image, is cold and removed, the sensual play of water reconnects us”.(Aaron Betsky 1995:9)

Springs

“In southwestern Pennsylvania, a vibrant stream called Bear Run storms down from forested Appalachian foothills, plunges in white foam over rocks and ancient boulders, sprays green ferns with fans of fractal leaves, and swirls into shallows soaking massive oak-tree roots. Midway in its course, the stream spills over a carbonaceous ledge in a sweeping cascade. Falling through the air, the water glazes and spins into white spider’s silk, sineny and striated, and then splashes down into a pool, tangling into froths, suds, and bubbles. Then, as the water pours over another ledge, it surges deeper into the forest, racing through an obstacle course of fallen logs, stones, and earthen dams”.

Charles Moore, Water and Architecture(pg 197)

Moore(1994) argues that the age in which we live has become increasingly domesticated with a latent effect of decreased appreciation for water with an ease of water flowing from,”kitchen faucets (or dishwashers, hot-water heaters, toilets, lawn sprinklers, Jacuzzis, showers, and ice-cube makers)”.While referencing the drinking fountain in ancient Pompeii, Moore (1999) comments on the on the value or re-connecting with myths and religions of the past to help us make sense of the complex world in which we live. Moore (1999:200) further speaks of Architecture as being an intermediary negotiator between people and water which expresses itself through materials and forms.

Water and Reflection

“Reflective water idealizes places we build to symbolize the gods we worship, the heroes we intend to remember, or the ideals we cherish.”

- Charles Moore, Water and Architecture(pg 201)

The manner in which architects orchestrate the experience of water encourages an in depth engagement with materiality and the context. Water can be seen as a material in this sense and be manipulated in various ways.

Water

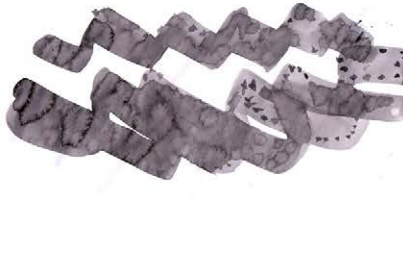
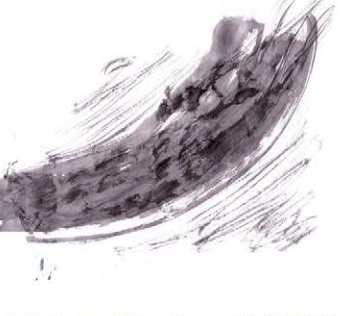
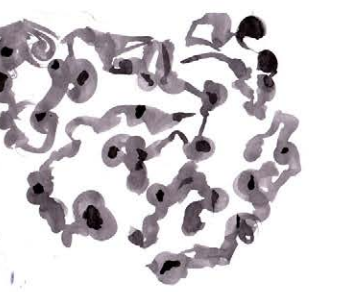
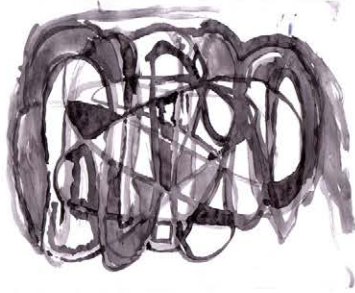
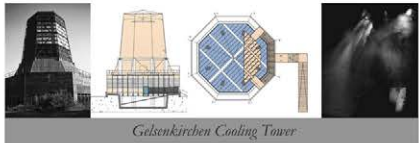
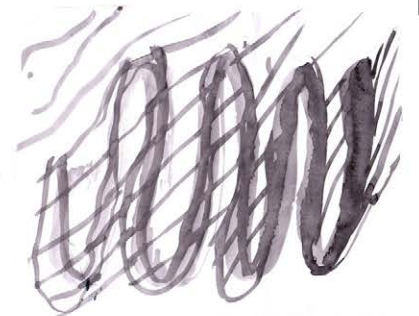


Figure 125: Precedents showing different representations of water (Author 2018, See Appendix for description.)

Design Application

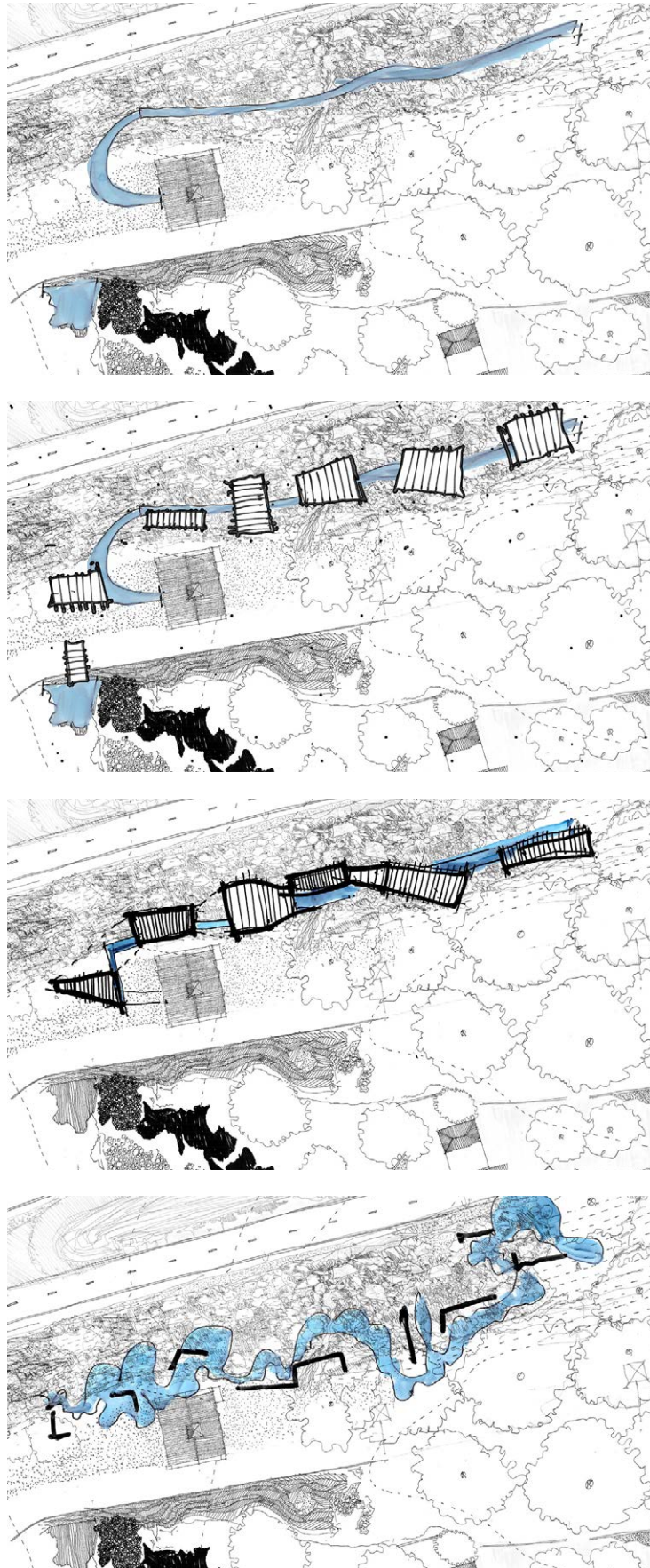


Figure 126: Water diagrams showing water as guiding element for experiencing architecture and its weathering away (Author, 2018)

Design Application

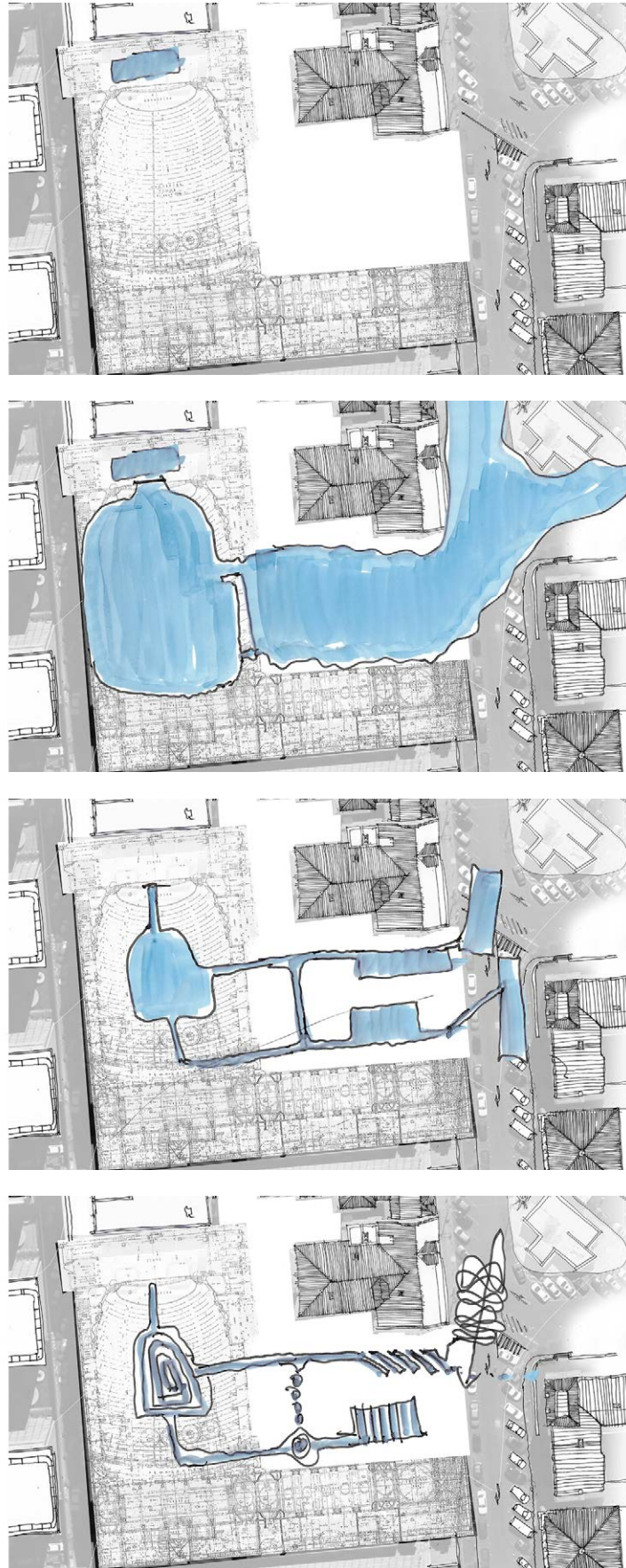


Figure 127: Water diagrams showing different representations of Water within architecture (Author, 2018)

Memory



To introduce collected thoughts on memory within architecture and landscape, Mark Trieb (2009:XI) calls on the memory of the 1972 film, *Roma*. Italian Film Director and Screenwriter, Federico Fellini, tells the story of a tunneling expedition for a new subway line beneath Rome. A huge hall lined with murals from ancient times bring the digging machine to a halt, as the director illustrates the, "collective nightmares shared by the engineer, the builder, the cinéaste, and the archaeologist" (ibid). The builder and film crew make their way through an opening in the wall and find themselves starting at the murals in a state of awe. The moment is soon called short as the frescoes begin to rapidly disintegrate before their very eyes as a reaction to the air sparks a chemical reaction that destroys and disintegrates the pigments. The chemical process takes place at such a rapid pace that the 'intruders' remain frozen as the process occurs right in front of them. A reversal of memory has occurred as the ancient murals have been erased, along with the memories they accompany. The physical heritage of the murals has vanished and by virtue of their disappearance, "we will never know - or forget - these someones, somethings; these memories have vanished in the clear, modern air" (Trieb 2009:XI).

Individual Memory

"Memory and fantasy, recollection and imagination, are related and they have always a situational and specific content. One who cannot remember can hardly imagine because memory is the soil of the imagination." (Trieb, 2009:18)

The manner in which we perceive and encode the environments in which we find ourselves plays a crucial role in which we create and experience space. Individual Memory becomes collective memory when space allows for shared

experiences of events. These shared experiences mark time and history and form a thick tapestry of experiences to recall.

Spatial Memory

"And what a delight to move from one realm of odor to the next in the narrow streets of an old town; the scent sphere of a candy store makes one think of the innocence and curiosity of childhood; the dense smell of a shoemaker's workshop makes one imagine horses and saddles, harness straps and the excitement of riding; the fragrance of a bread shop projects images of health, sustenance and physical health..."
Juhanni Pallasmaa, An Architecture of the Seven senses. pg 32

There lies an inherent difficulty in looking at a two-dimensional photograph and appreciating a memory without allowing oneself to travel back in time to that particular time to make a connection with an object, person, or particular event. There lies a lived and multi sensory experience that is triggered by the image, that allows us to experience dual spatiality, that being the physical environment we occupy while looking at the photograph, and the mental environment that our minds travel to. When in Capitol Theatre there exists a vastness to the silence of the ruin that drew me right back to Fountains Valley. The next indicator became the damp smell created by the flooding basement that held an odour similar to soil. In speaking on the space of scent, Pallasmaa (et al 2006:32) mentions how, "A particular smell may make us secretly re-enter a space that has been completely erased from the retinal memory; the nostrils project a forgotten image and we are enticed to enter a vivid daydream".

Having experienced Capitol theatre a few times over years the past, the landscape of Fountains Valley provided an interesting connection to Capitol Theatre in the manner in which the natural environment reference the silence and smells of the ruin. The movement of the landscape referenced the sloped floor of the theatre, and the sounds of the apies river, birds, nearby cars,, referenced the acoustic echoes as once moves through the space.

In attempting to recall his fathers farmhouse, Juhanni Pallasma mentions that his eyes have forgotten the images that he once saw, as child, and that in place of sight his body remembers more clearly (Trieb 2009:20). Pallsmaa further states that, “ We internalize our experiences as lived situational, multi-sensory images and they are fused with our body experience. Human memory is embodied, skeletal and muscular in its essences,not merely cerebral ”(ibid).

Architectural Memory

Trieb (2009:26) makes an argument that our, “lived reality does not follow the rules of space and time as defined and measured by the science of physics”, and further distinguishes this idea by arguing that lived space is operates at a different wavelength than that of physical or geometric space. Lived space is thus referenced as ‘existential space’ which operates in the basis that intentions, values, and meanings are interpreted through the memory and experience of the individual, and that our lived experiences are given life where recollection and intention, perception and fantasy, memory and desire, meet at an interface(ibid).

If the human body has the capacity to embody memory, evidence of an architectural memory are found in buildings that have stood the test of

time, and ruins that attest to time. Landscape and Architectural ruins guide the mind to ponder on lives that have previously inhabited and allow us to situate our present time in relation to past and present. Where they evocative in their state, they forces us to reminisce and imagine.

Referential Memory-Building Twin Phenomena

In addition to being memory devices, landscapes and buildings are also amplifiers of emotion; they reinforce sensations of belonging or alienation, invitation or rejection, tranquility or despair. A landscape or work of architecture cannot, however, create feelings. Through their authority and aura, they evoke and strengthen our own emotions and project them back to us as if these feelings of ours had an external source” (Trieb 2009:30)

The referential nature that Fountains Valley and Capitol theatre share extends through just a memory of the mind but also of the sense. a thickening g of experience becomes vital to extend the palette of memory that exists and engage in an active continuum.

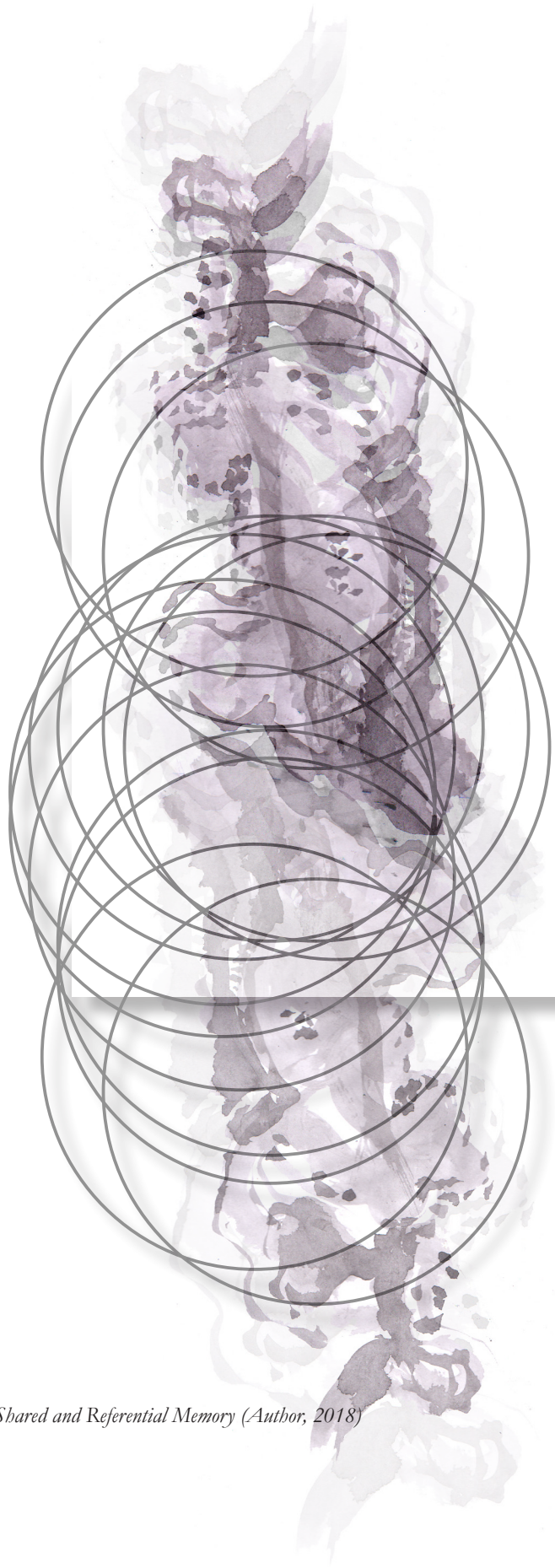


Figure 128: Shared and Referential Memory (Author, 2018)

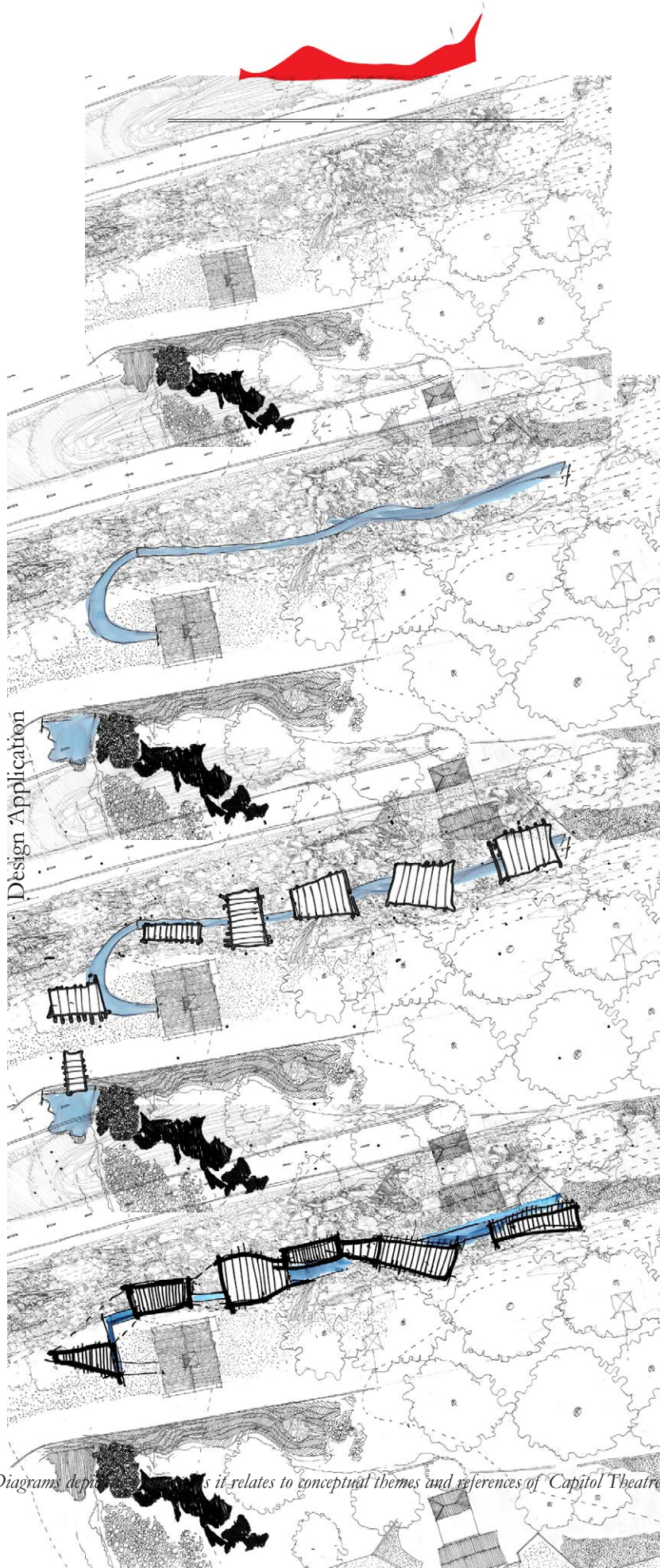


Figure 129: Diagrams depicting how it relates to conceptual themes and references of Capitol Theatre (Author, 2018)

Design Application

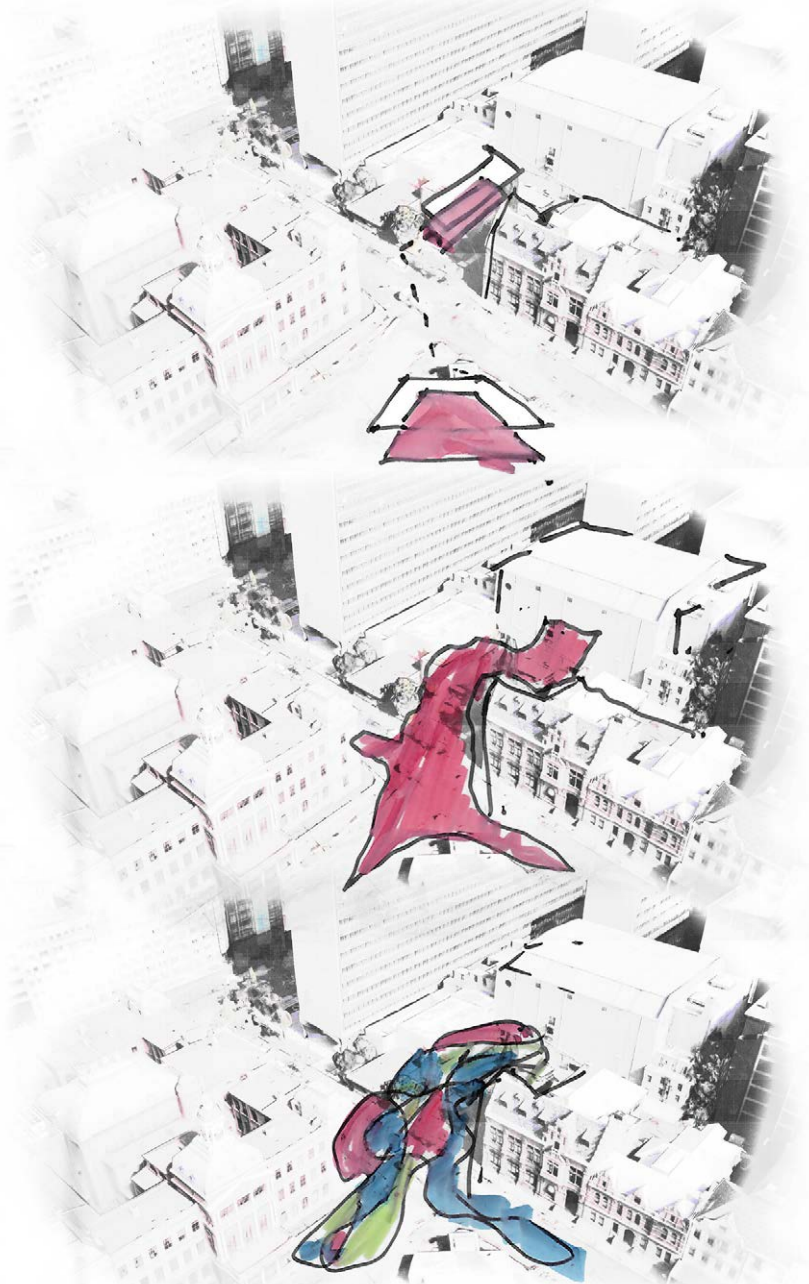
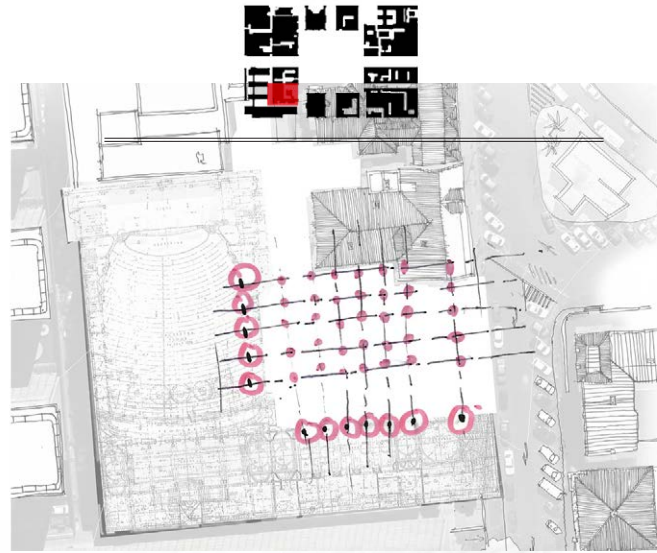



Figure 130: Diagrams depicting memory, as it relates to conceptual themes and references of Fountains Valley (Author, 2018)

Time





“There are “two ways of prolonging life. The first consists in putting the maximum distance between the points of birth and death, and thereby extending the journey...The other way consists in walking more slowly, leaving the points where God desires them to be; this is the way of the philosophers, who have discovered that the best thing is to walk in a zigzag, botanizing and trying to jump a ditch here, and further on, where the ground is bare and nobody sees them, performing a somersault.”
Lichtenberg, Anaxnu: Miralles-Tagliabue:Time Architecture. 1999

Please make reference to previous writing on Time on Page 127 to refresh memory.

Time is woven into the other three conceptual themes in a seamless manner and is presenced according to the manner in which the two sites relate to each other. Due to the nature of Fountains Valley falling within a 100 year flood line and the soil being of a dolomitic nature, the approach to the architecture becomes one of temporarily. The robust nature of Capitol Theatre and its surrounding context calls for a slow time but with a more permanent architecture that continuously feeds experience.



Design Application

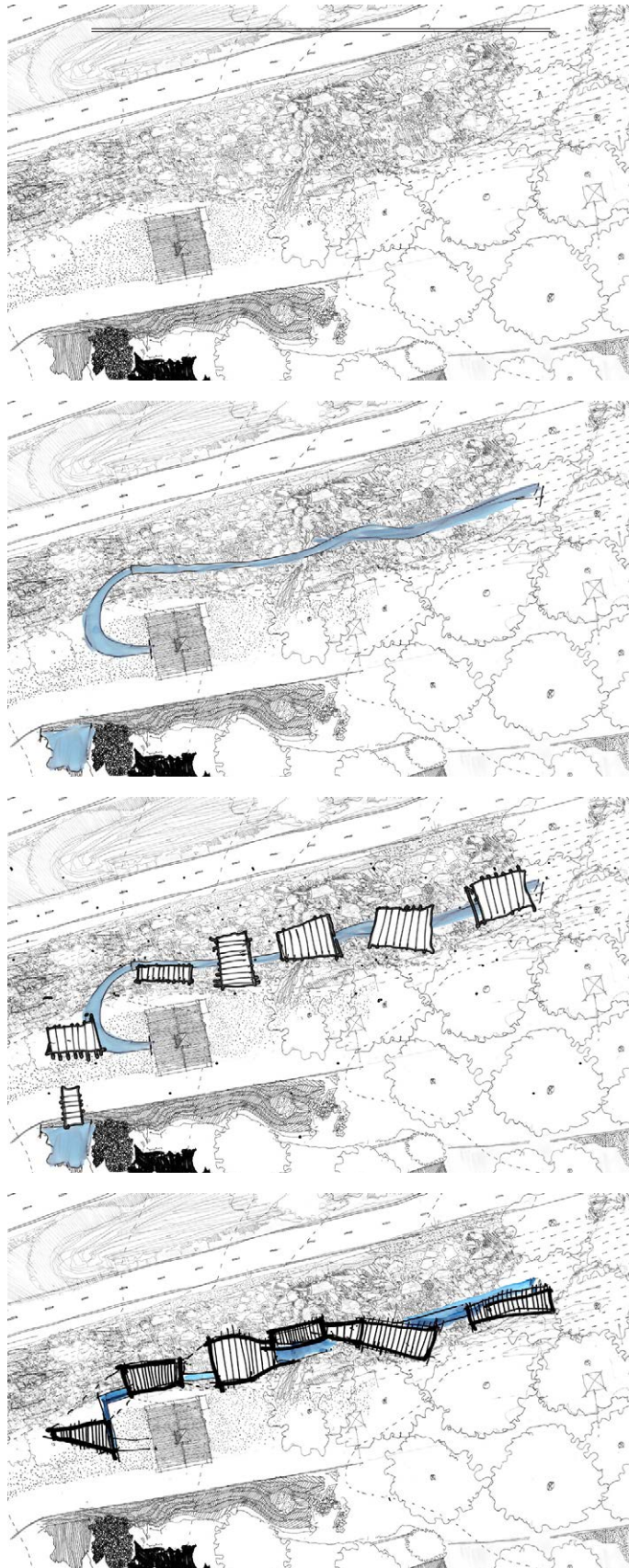


Figure 131: Diagrams depicting expression of time in Fountains Valley
(Author, 2018)



Design Application

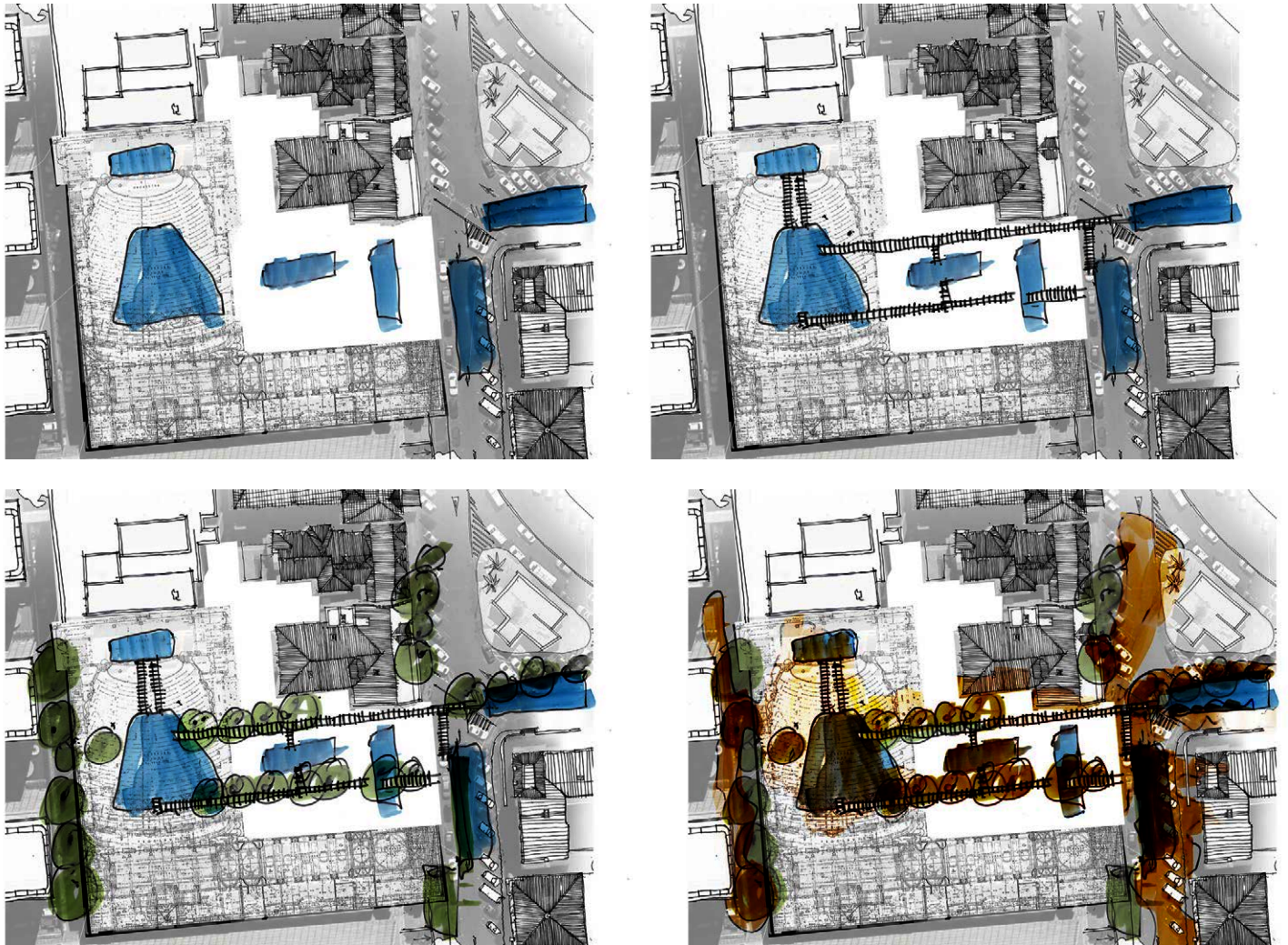


Figure 132: Diagrams depicting expression of time in Capitol Theatre with relation to accompanying conceptual themes (Author, 2018)

Nature



A Tale of Falling Water

Frank Lloyd Wright's design of the Falling Water residence for Edgar and Lilian Kaufman, has been a great example of how architecture can live in unison with the land. In an attempt to extract all the beauty that this architecture shares with the land, Moore(1994:197) begins to reveal that manner in which phenomena such as light and sound, compel one to see, hear, and feel this connection. This connection is a result of fusions, counterpoints, and tensions, that are evident in the manner in which moving water is presented by still architecture, cantilevers offset strong and tall stone walls, and materials from the site are re-represented in an architectural manner (*ibid*).

The stone that was used in the construction of the walls was indigenously sourced from the landscape and the pattern that has been articulated was done in a manner that imitated rough-bark textures and strains of stone edges. Moore further explains that, "Wright invited the forest in, using local, natural materials. Boulders emerge through the hearth, moss gardens grow under windows, and beams defer to trees, politely bending around their trunks" (*ibid*). Glass was used as an important element to regulate internal comfort in the house while visually connecting nature into internal spaces. A closer look at the coated fieldstone paving on the interior floors reveals a simulation of glazed stone on the outside (*ibid:198*).

Water and light play well together in the way light is deflected from the stream to reveal dancing reflections of water on the ceilings. In the right light walls are seen to welcome leafy shadows, as sound changes its rhythm and cadence as it moves through the Pennsylvanian houses seasonal settings (*ibid*). Summers in June are flooded with rain, and autumn brings a silence to the stream as fallen leaves and twigs clog drains.

The experience of architecture is framed by nature and the inherent mysterious qualities that are inherent in nature. A play between nature and architectural elements takes place as the audibility of the brook grows into a louder rumble of water as the ravine path reveals portions of the architecture. Uniting nature and the first touch of the building lies a bridge that

Man and the Land

*"We enjoy the fruits of the plains and of the mountains,
the rivers and the lakes are ours,
we sow corn, we plant trees, we fertilize the soil by
irrigation,
we confine the rivers and straighten or divert their courses.
In fine, by means of our hands we essay to create as it
were
a second world within the world of nature."
Cicero, De natura deorum (1st century BC)*

In expanding the above perspective on nature, Norman Crowe (1995:4) explores how the revealing of human presence in the world is experienced through the creation of spaces such as towns, buildings, farms, and cities. His book, *Nature and The Idea of a Man-Made world*, explores how these created spaces, either directly or indirectly, serve as a second nature. The idea of second nature is explored in the manner in which architecture relates to its immediate environment. In questioning the expression or architectures 'Ideal Relationship with Nature', Crowe (*ibid:10*) uses Villa Savoye by Le Corbusier and Frank Lloyd Wright's Falling Water to explore two different approaches to building in nature. The initial explorative process seen earlier in the book already shows an engagement with Capitol Theatre and Fountains Valley as it pertains to an attitudes to landscape.



Figure 133: Sketch depicting Falling Water as an extension of Natural Context (Author, 2018)

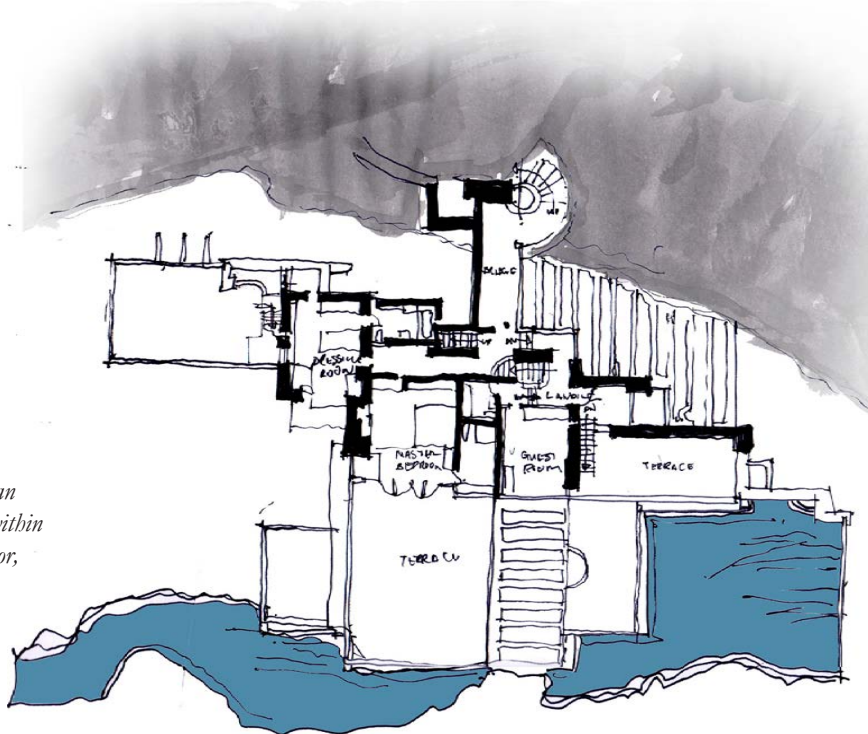


Figure 134: Floor Plan situating architecture within natural context (Author, 2018)



Figure 135: Villa Savoye and its elevated connection to Nature (Author, 2018)

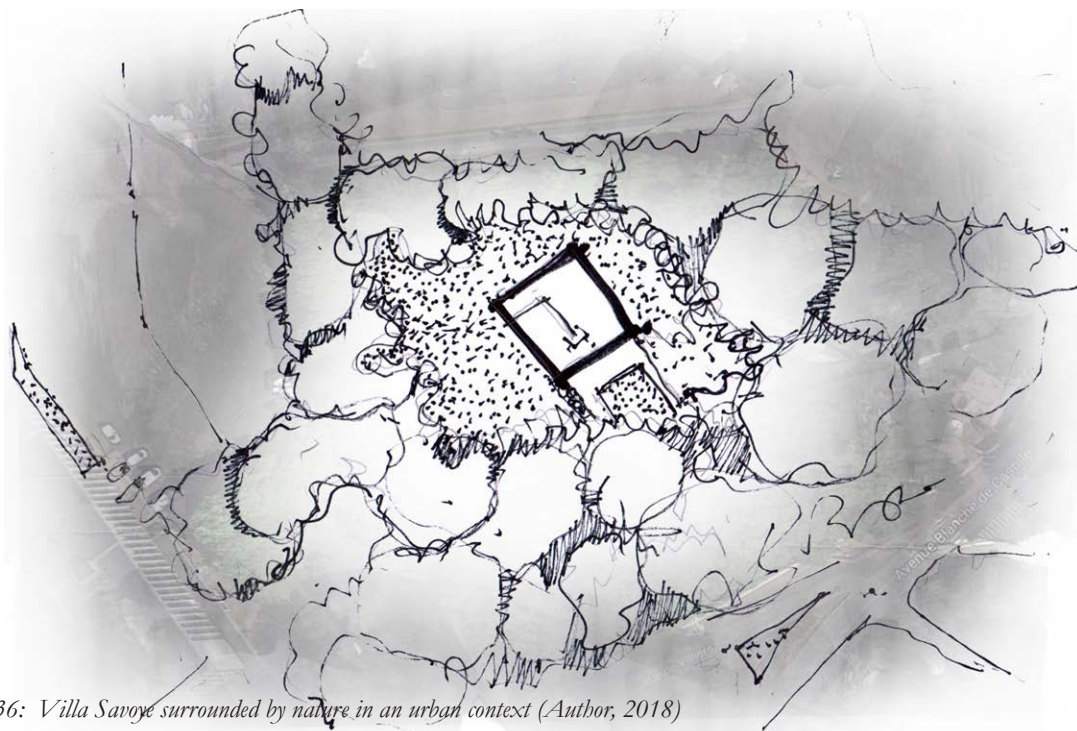


Figure 136: Villa Savoye surrounded by nature in an urban context (Author, 2018)



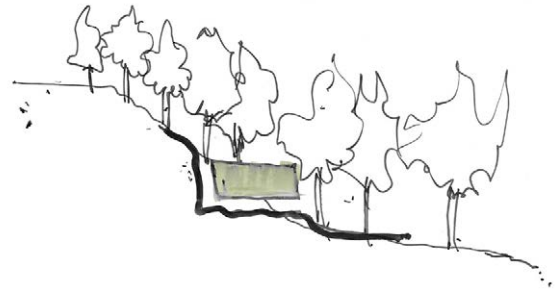
Villa Savoye

Lecorbusiers Villa Savoye offers a different approach to landscape than Falling Water. The white building stands on the landscape and pronounces itself as an architecture that gives expression. The columns give the illusion of the building floating while treading lightly in the landscape. The vertical nature of the columns also references the trees that form the background of the building on all sides.



Design Implication

The idea of nature in Fountains valley is formed by an approach to way of inhabiting the landscape. The approaches of both Falling Water and Villa Savoye are applied and explored through the programme and function of an Atmospheric Theatre in the landscape.



The idea of nature within capitol theatre draws primarily from the artificial nature of the interior theatre and the intention of softening the artificial with the natural, as expressed through the concept of twin phenomena.

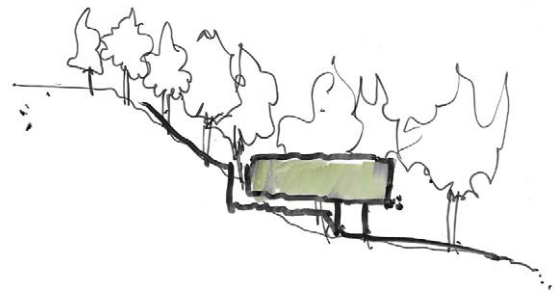


Figure 137: Approaches to Nature in Fountains Valley (Author, 2018)

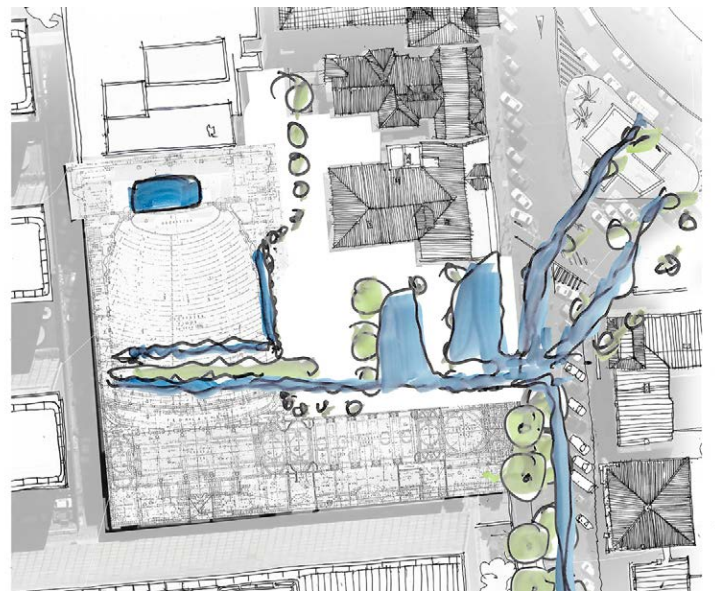
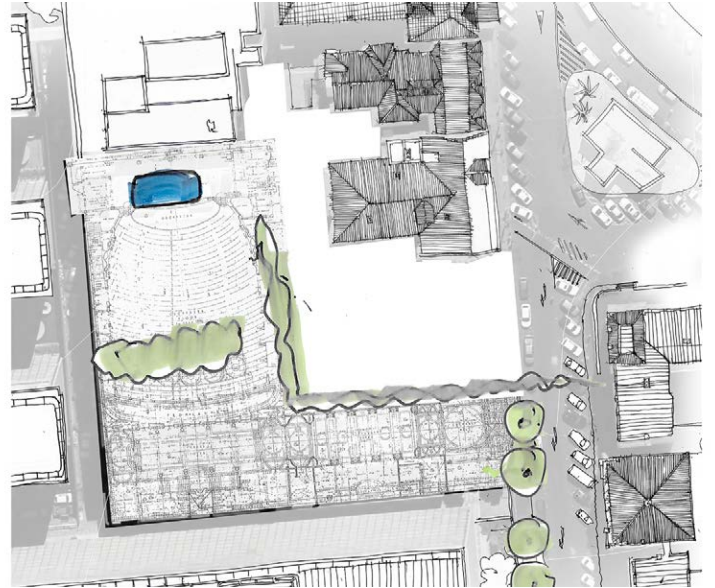
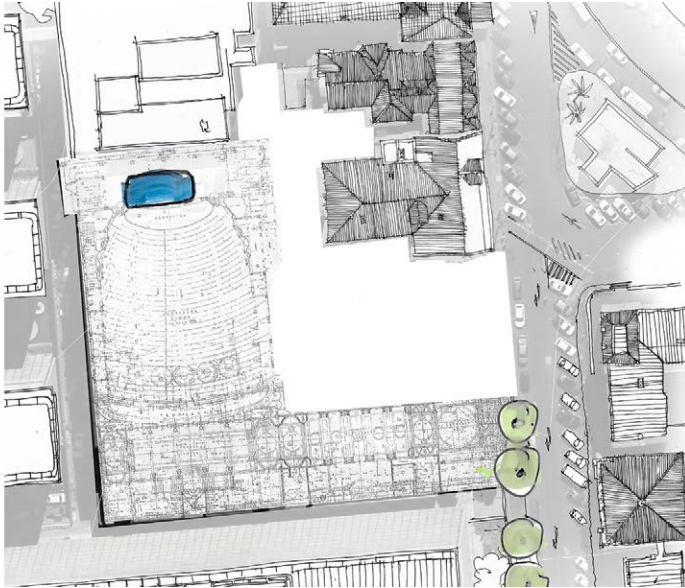
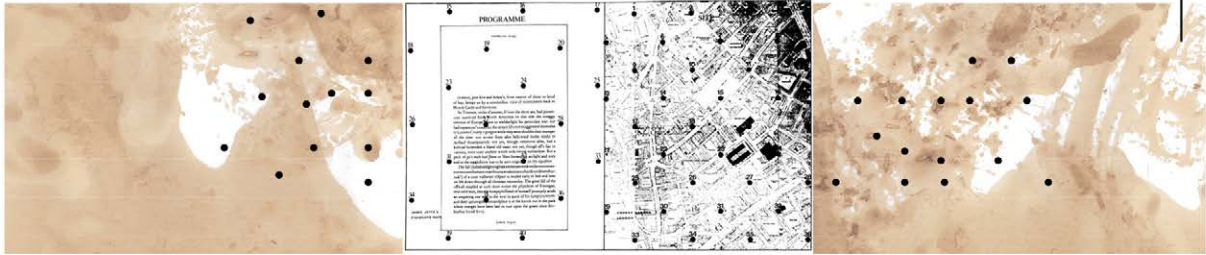


Figure 138: Approach to nature in Capitol Theatre (Author, 2018)

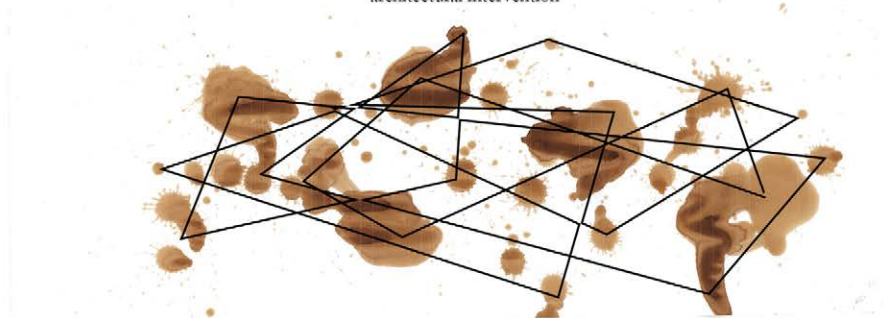
Theoretical Precedent

Joyce's Garden *Bernard Tschumi*

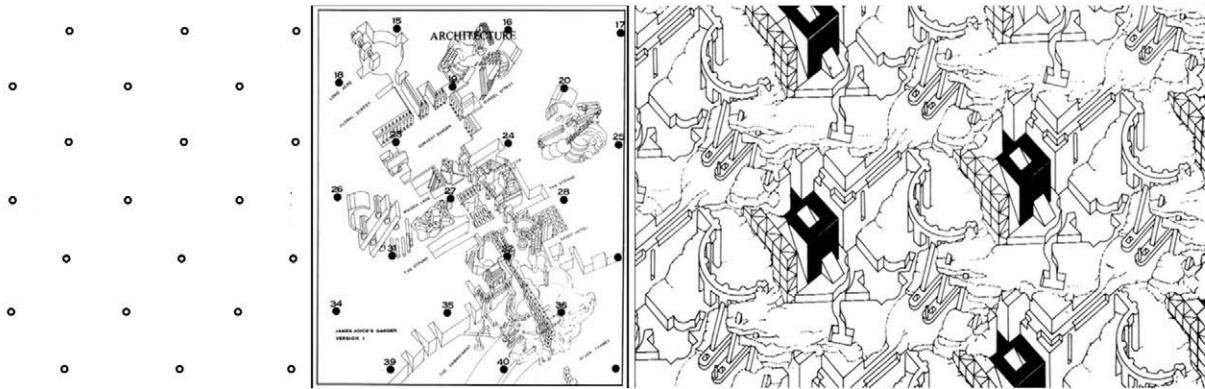
Literary text as program



intersections of an ordinance survey grid became the locations of each architectural intervention



Grid as a mediator between
literary program and the architectural text

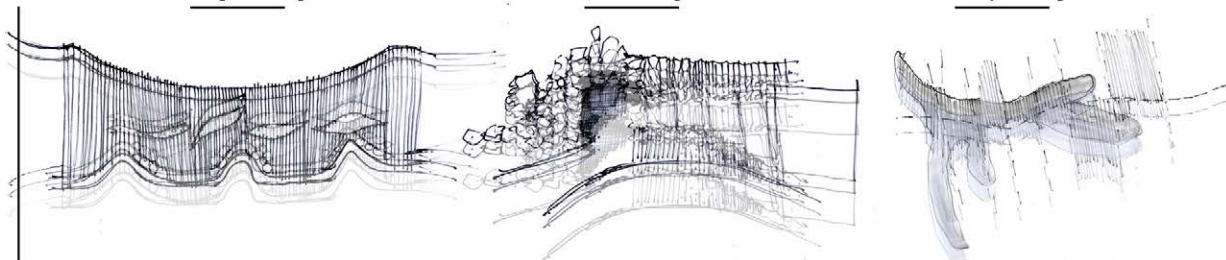


Transcribing

Landscape as Script

Ruin as Script

Memory as Script



Theoretical Precedent

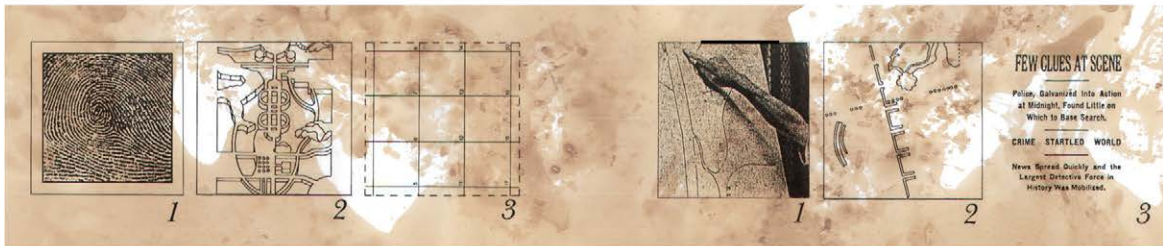
Manhattan Transcripts

Bernard Tschumi

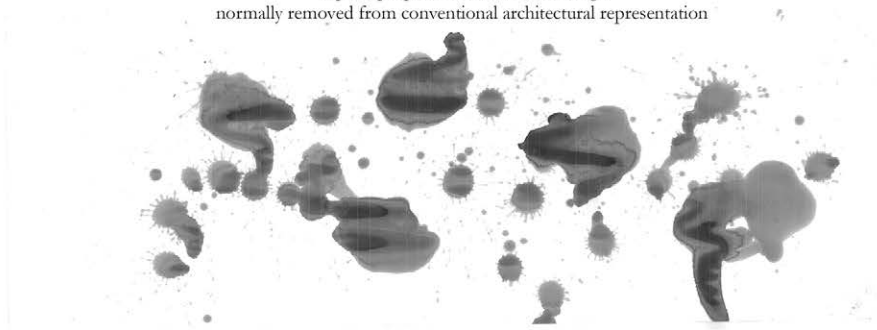
.architectural interpretation of reality



self-contained set of drawings, with its own internal
.coherence, they are first a device

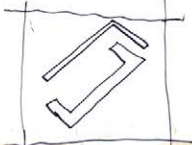


explicit purpose is to transcribe things
normally removed from conventional architectural representation

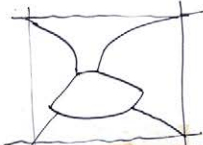


Relationship-Between

Space and thier use



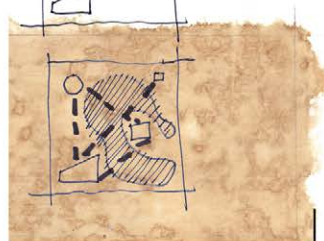
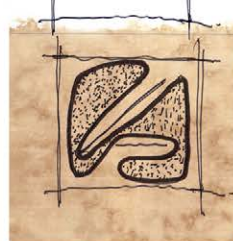
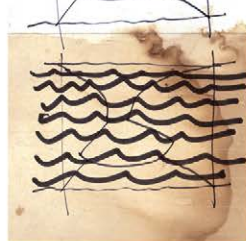
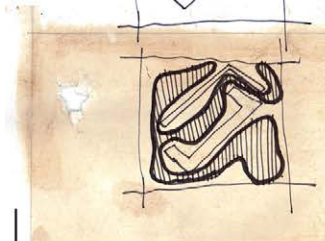
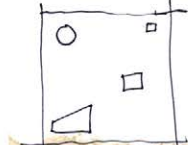
Set and Script



Type and Program



Objects and Events



Re-Representation



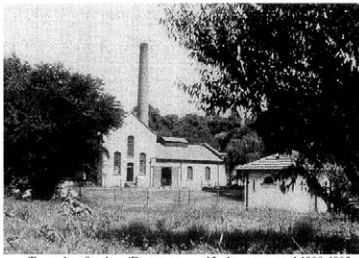


Fountains Valley

ZAR Pumping Station



Pumping Station 2018

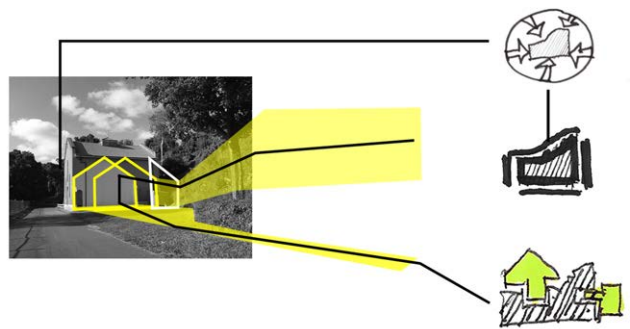


(Pumping Station (Date not specified, constructed 1900-1902

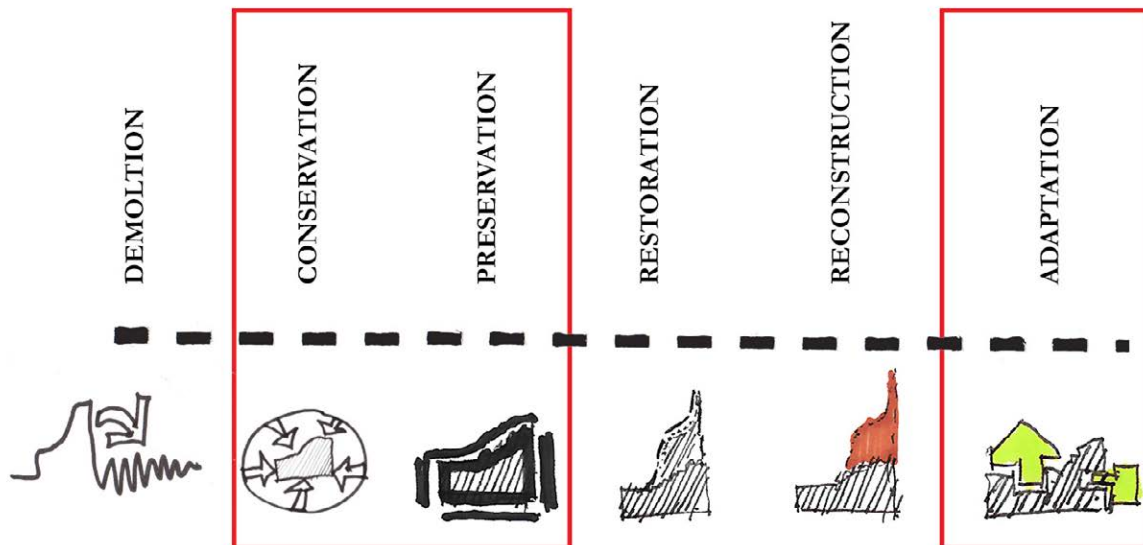
Architect: ZAR
Stlye: 19th Century Industrial Architecture
Current Function: Parking Garage

Statement of Significance

When you find yourself in Pretoria, open the nearest tap and take sip or three of the water. There is an 8% chance that the water you are drinking comes directly from Fountains valley. The site has performed as a place of dwelling from the time of the stone age. Cultural groups that have traversed this place have left artefact's and made memories. The ZAR Pumping Station holds great significance in that it helped with the distribution of water from the early 1900s to present day. The architecture is unique within its context and architecturally as it is styled in 19th Century Industrial Architecture. The site sits sympathetically to the landscape and has been well preserved over time



Heritage Approach





Church Square

Capitol Theatre



Capitol Theatre 2018

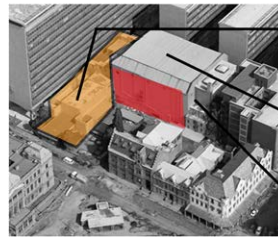


Capitol Theatre 1930s

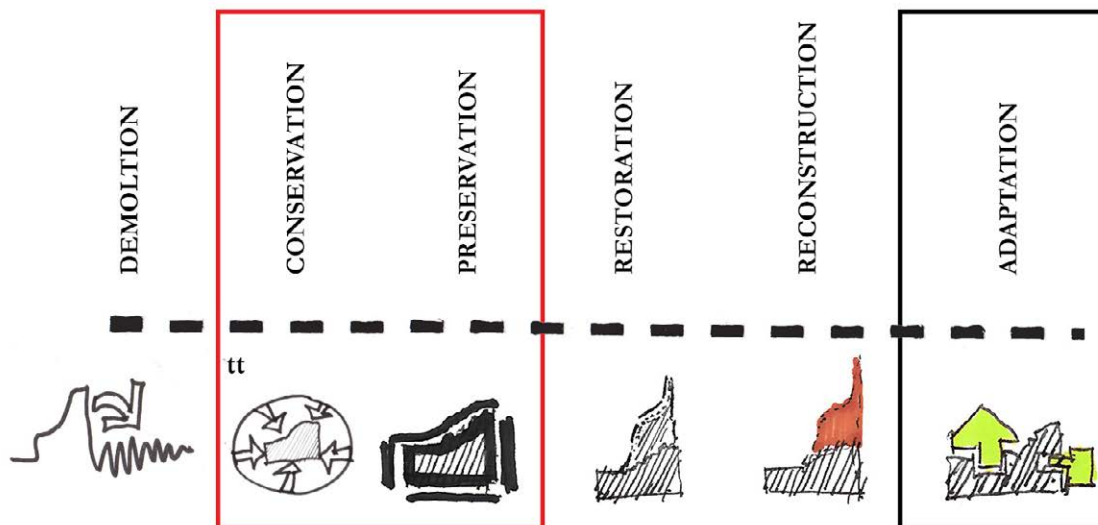
Architect: P. Rogers Cook
Style: Italian Renaissance
Current Function: Parking Garage

Statement of Significance

Walk into a standard theatre and the walls might be lined with materials that we are accustomed to seeing on a daily basis. Walk into the Capitol Theatre and you are introduced to an Italian Landscape that was designed to allow one to escape to foreign landscapes within the comfort of their seats. The current state of the theatre is in a state of ruin with the function being adapted to a parking garage. Where the facade is plain and silent, the interior is highly ornate and well crafted interior. The Capitol Theatre closed down due to plans of developing a hotel in front of it which never materialised. The Capitol theatre sits within a highly significant church square with the potential to give a more significant contribution to heritage, time, memory, and public use.



Heritage Approach



Programme





Within Fountains Valley the key programmatic functions are not specific to room schedules. Due to the nature of representing one site within the other, Fountains Valley draws on a more experiential experience of programme. The landscape is read from the first *Landing* and *Grounding*, with *Finding* locating these specific attributes as important:

The programme continues the rationale of reading the two sites as a Twin Phenomena in the manner it re-represents one within the other. The proposal for an Atmospheric Theatre within Fountains valley borrows programmatic functions and re-frames the atmospheres according to the conditions in the landscape. The Functions that were highlighted from Capitol Theatre are:

Fountains Valley Landscape

- _ *Wetland*
- _ *Vegetation*
- _ *Fauna*
- _ *Flora*
- _ *Organic Water*
- _ *Swimming Pool*
- _ *Pump Station*
- _ *Verticality of Trees*

Ground Floor Plan

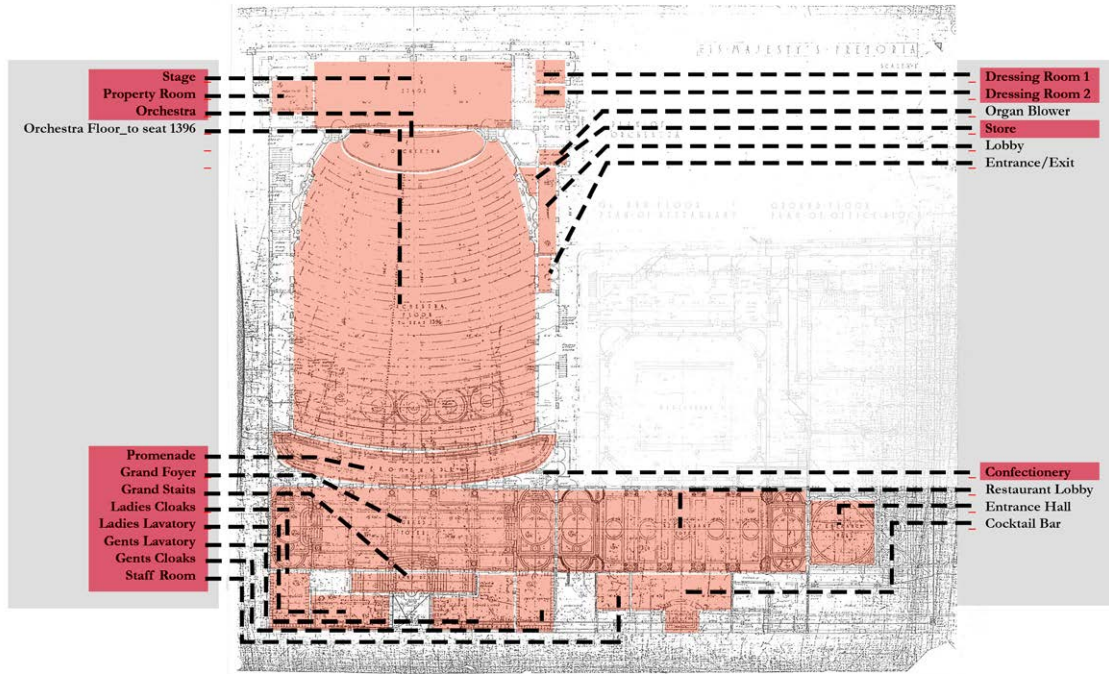
- _ *Stage*
- _ *Orchestra*
- _ *Confectionery*
- _ *Promenade*
- _ *Grand Foyer*
- _ *Property Room*
- _ *Dressing Room*
- _ *Store Room*
- _ *Cloak Room*
- _ *Staff Room*



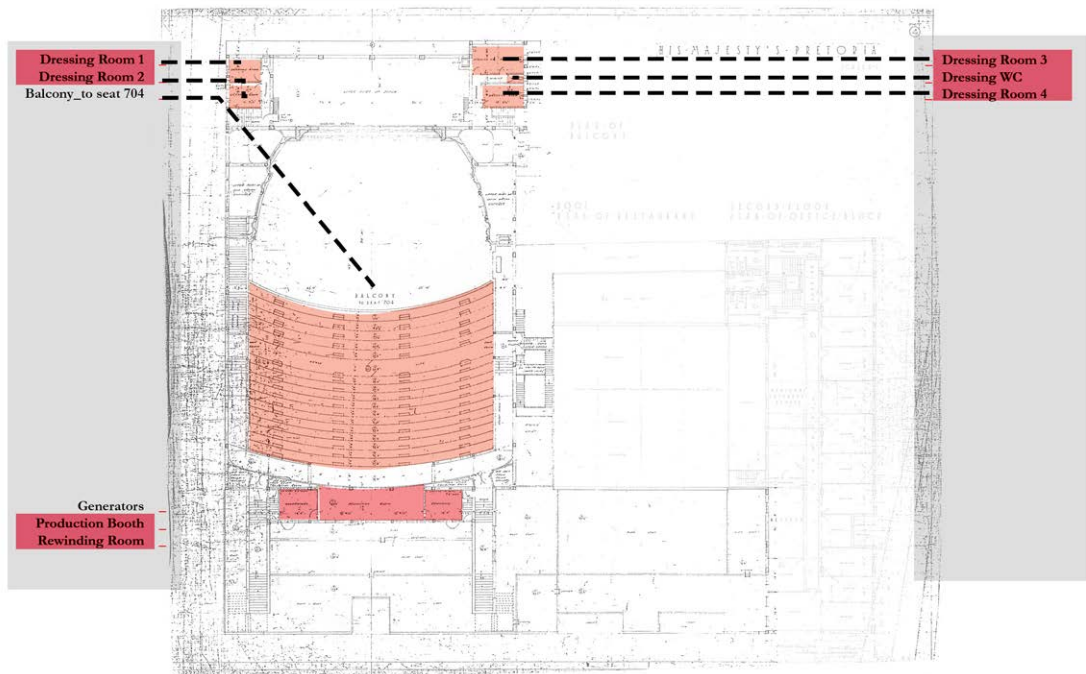
First Floor Plan

- _ *Dressing Room*
- _ *Production Booth*
- _ *Rewinding Room*

Figure 139: Conceptual exchange of programme diagram (Author, 2018)



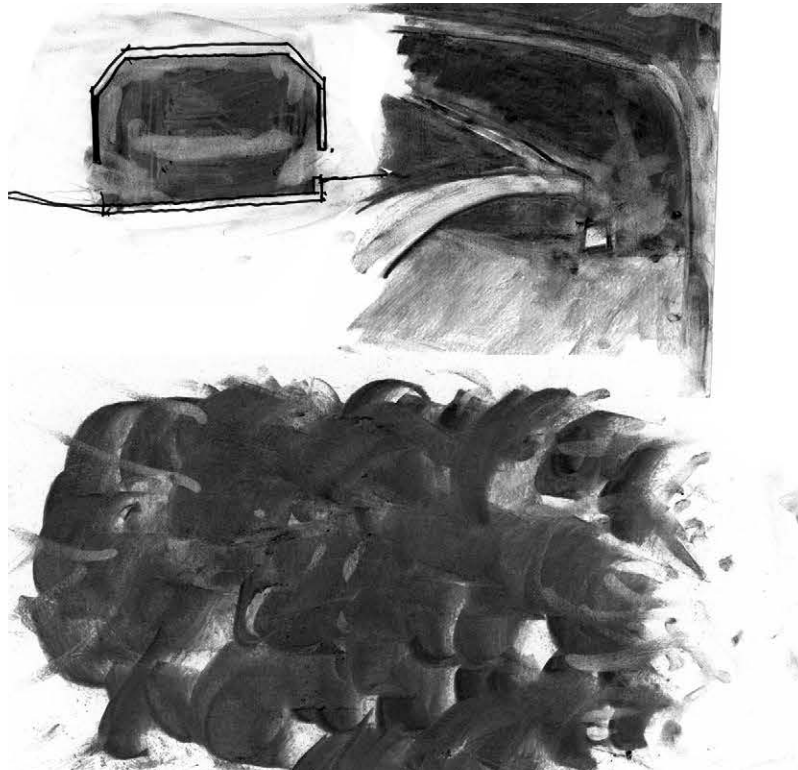
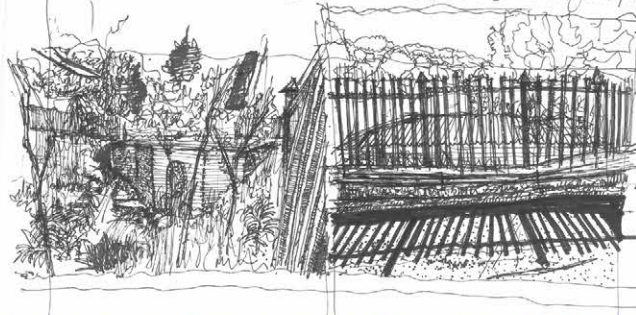
Ground Floor Plan_Original Capitol Theatre Drawings

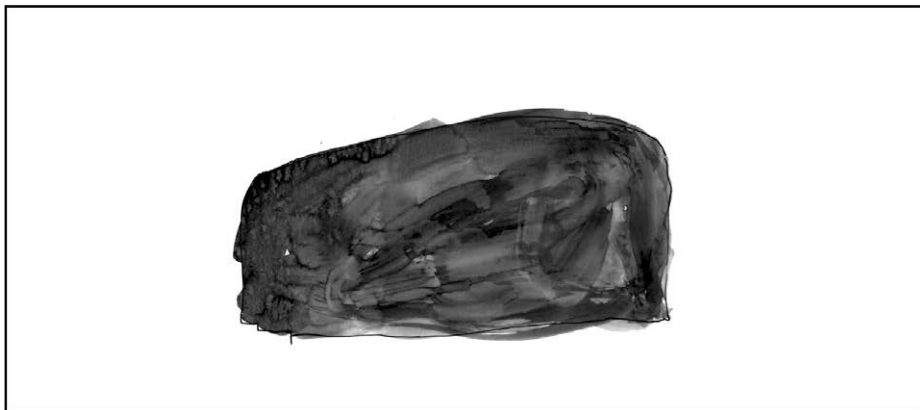
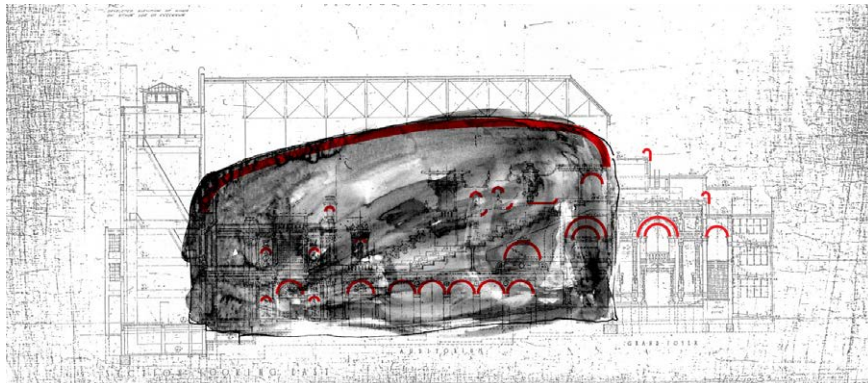
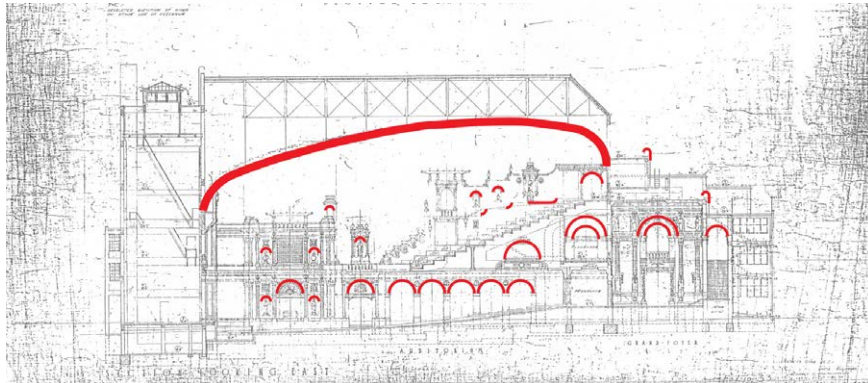
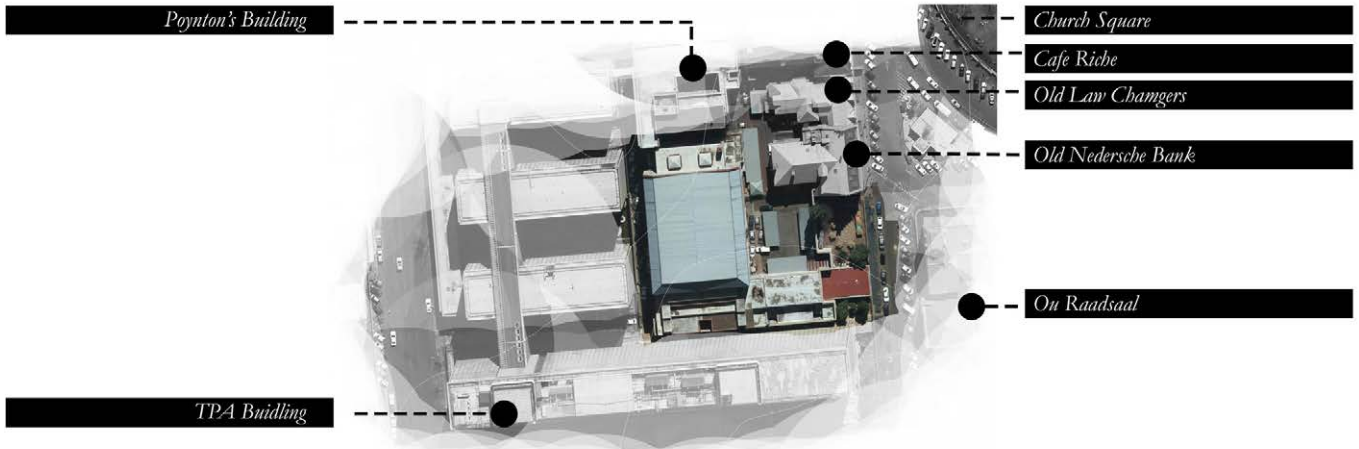


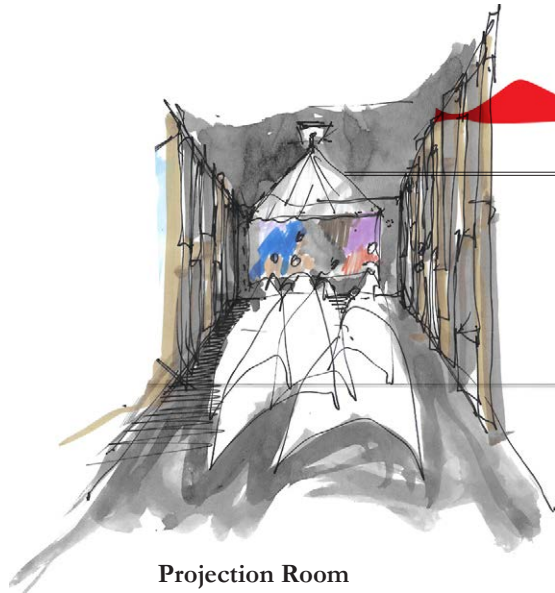
Second Floor Plan_Original Capitol Theatre Drawings



PLACE. YOU MIGHT JUST GET LOST HERE. THE LIGHT IS SHARPLY
MORNING AND THE COOLNESS OF THE AIR IS SO STRONG
I HAVE ALREADY TUNED OUT THE SOUND OF CARS PASSING
BY ON THE ROAD ABOVE AND BEHIND ME. THE GROUND IS
SOFT AND HARD. I HAVE NEVER OWNED HERE BEFORE TODAY I'VE

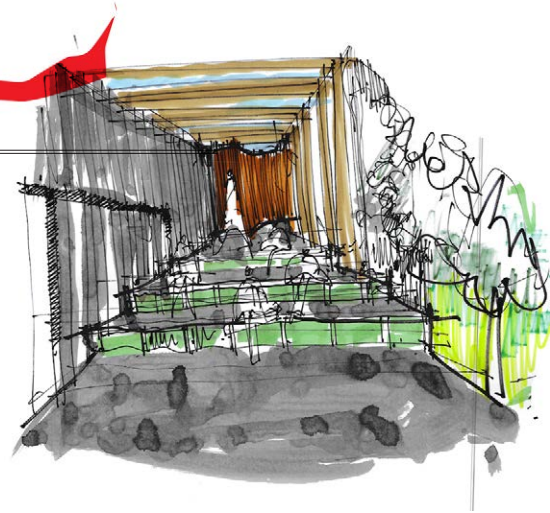






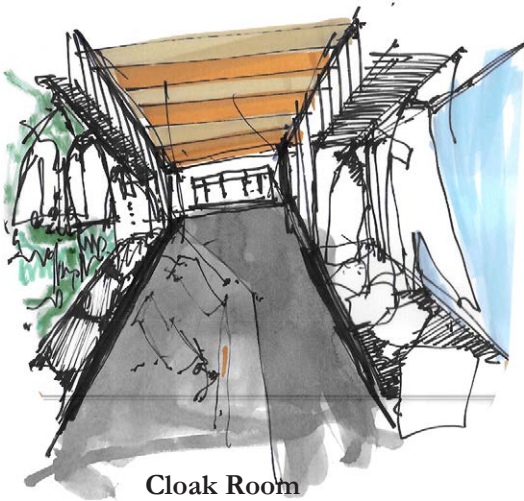
Projection Room

The Project room projects the functions taking place at Capitol Theatre in order retain memory and connect the two sites for as long as they exist.



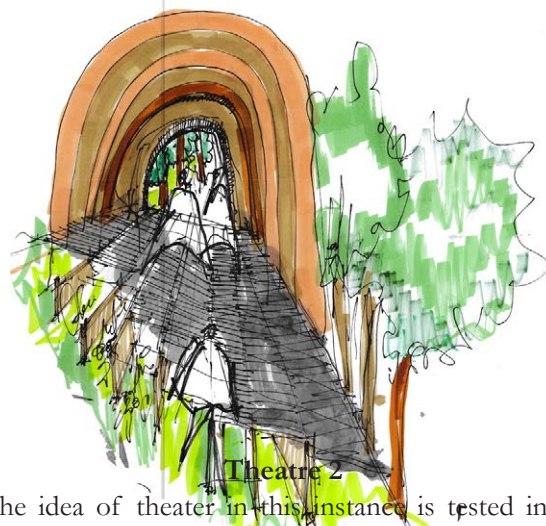
Theatre 1

Theatre 1 looks at the manner in which we negotiate the relationship and proximity of architecture and landscape in Fountains Valley.



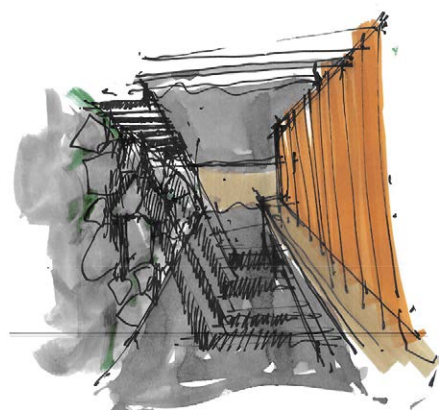
Cloak Room

The idea of the Cloak Room is referenced from the programmatic function of Capitol Theatre.



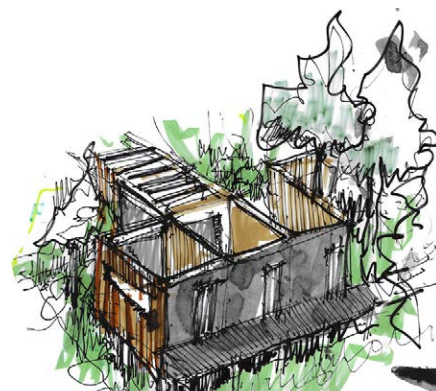
Theatre 2

The idea of theater in this instance is tested in its formal and experiential expression and the



Change Rooms

Change Rooms are primarily designed for the artists and performers that will use the theatre space.



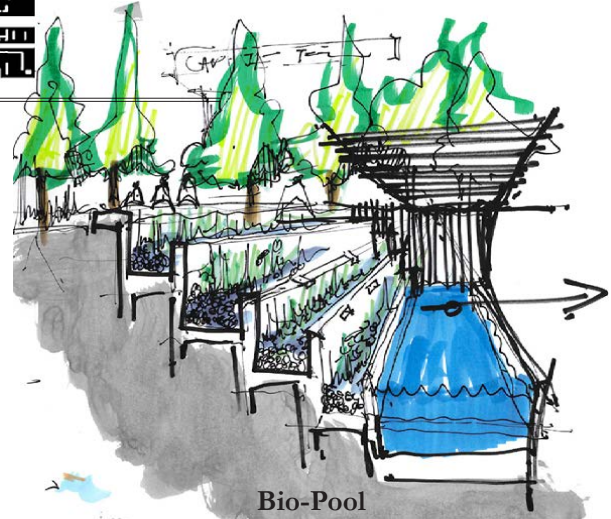
Offices

Offices that manage and curate the Atmospheric Theatre become important in the manner they negotiate the relationship between architecture and landscape.



Projection Room

The Project room projects the functions taking place at Fountains Valley in order retain memory and connect the two sites for as long as they exist.



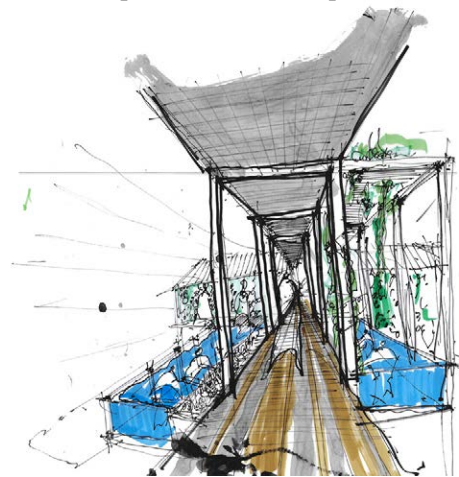
Bio-Pool

Bio-Pools are used to allow for natural clean water to run through the pools as an extension of the twin phenomena concept .



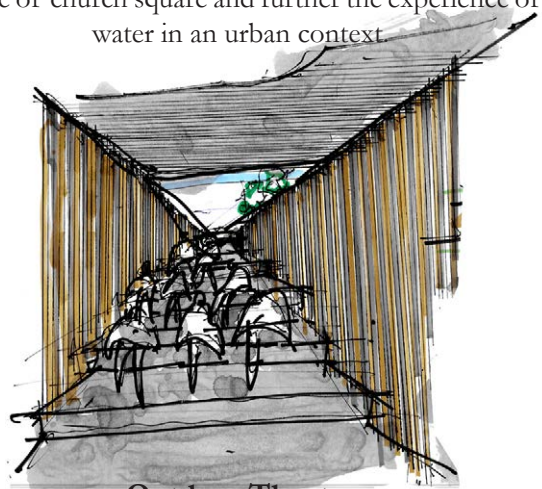
Grounded Swimming Pools

The Urban ground plane has pools to break the sterile nature of church square and further the experience of water in an urban context.



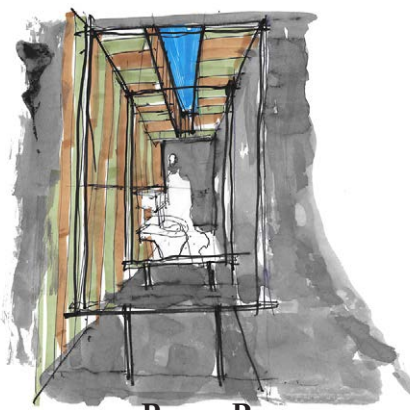
Elevated Pools

Pools are referenced from Fountains Valley and are elevated to respond to the context with the intention to allow for a different atmosphere.



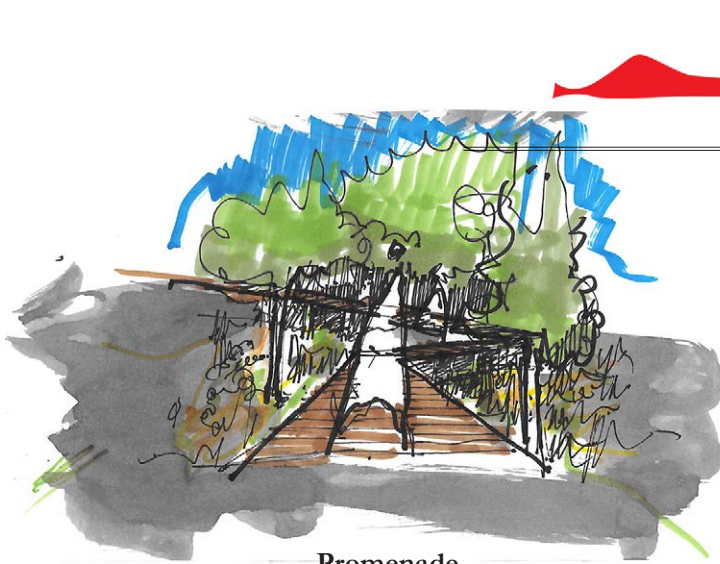
Outdoor Theatre

This Theatre created a connection between interior and exterior space to replicate the experience of landscape.



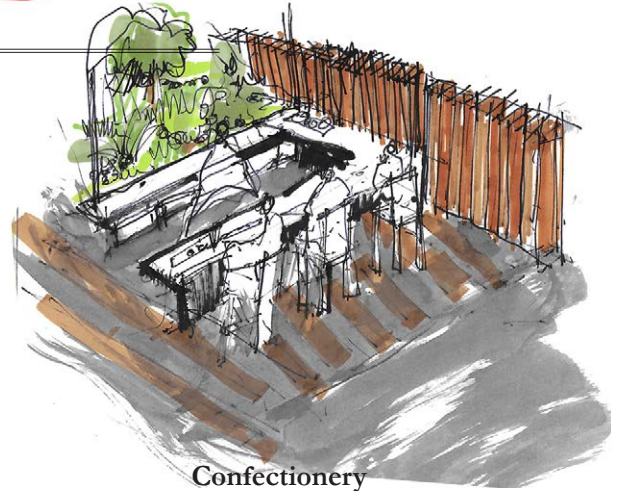
Pump Room

The Pump Room becomes an incredibly important feature in that it distributes water throughout the recreational space.



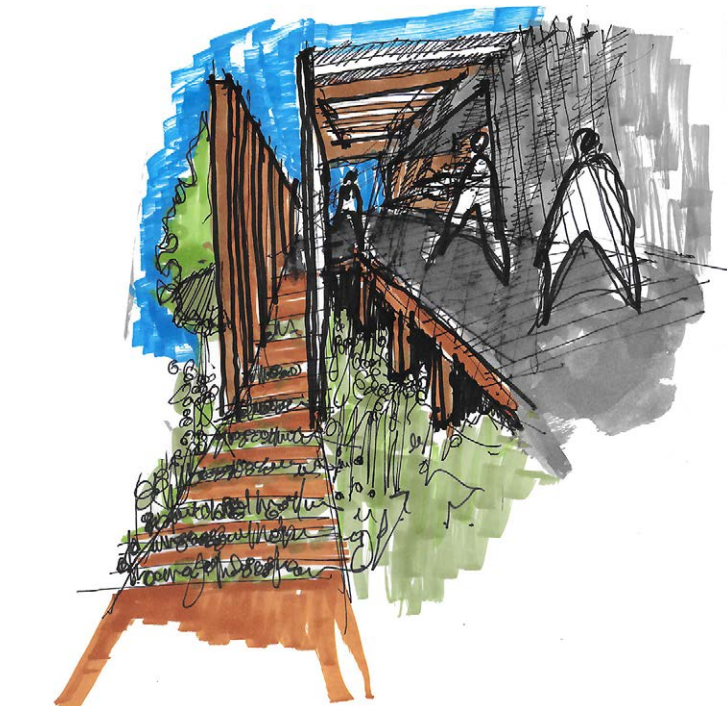
Promenade

As an important theatrical theme, promenade is woven into the landscape and experienced according to one's reference point within nature.



Confectionery

As referenced from Capitol Theatre, the confectionery is morphed into the landscape to allow for a contextual experience.



Waiting Area

The idea of the waiting area is morphed into the landscape to reintroduce the manner in which we pause before entering theatrical space.



Ablutions

Ablutions are nestled in the landscape to question our relationship to mundane programme within nature. Anaerobic digestive systems are used to deal with human waste and the manner in which feeds nature and atmosphere.



Studio

The Studio Space functions as an artists hub to explore and exhibit the different uses and representations of water.

The Design Development portion is guided by the explorations, theory, principles, and conceptual themes that have been tested and discussed in the dissertation so far. As the design process itself forms its own exploration process, influences that have grown the design will be highlighted to give a clearer understanding of the approaches that have been taken and their value within the conceptual framework.

The Design Development follows a similar theme as the rest of the dissertation in that the Fountains Valley explorations are articulated in the left page and Capitol Theatre explorations are on the right side. To tie in with the nature of the two sites being a Twin Phenomena and one site being re-represented within the other, a dual process of design was undertaken to design both sites at the same time to retain the conceptual intention and test out an alternative design method. The Informants highlighted from both sites are tested in a manner that is sensitive to the concept and concept, while engaging in the imaginative possibilities of architecture.

DESIGN

DEVELOPMENT





INITIAL DESIGN



ACCOMMODATION
 SCHEDULE

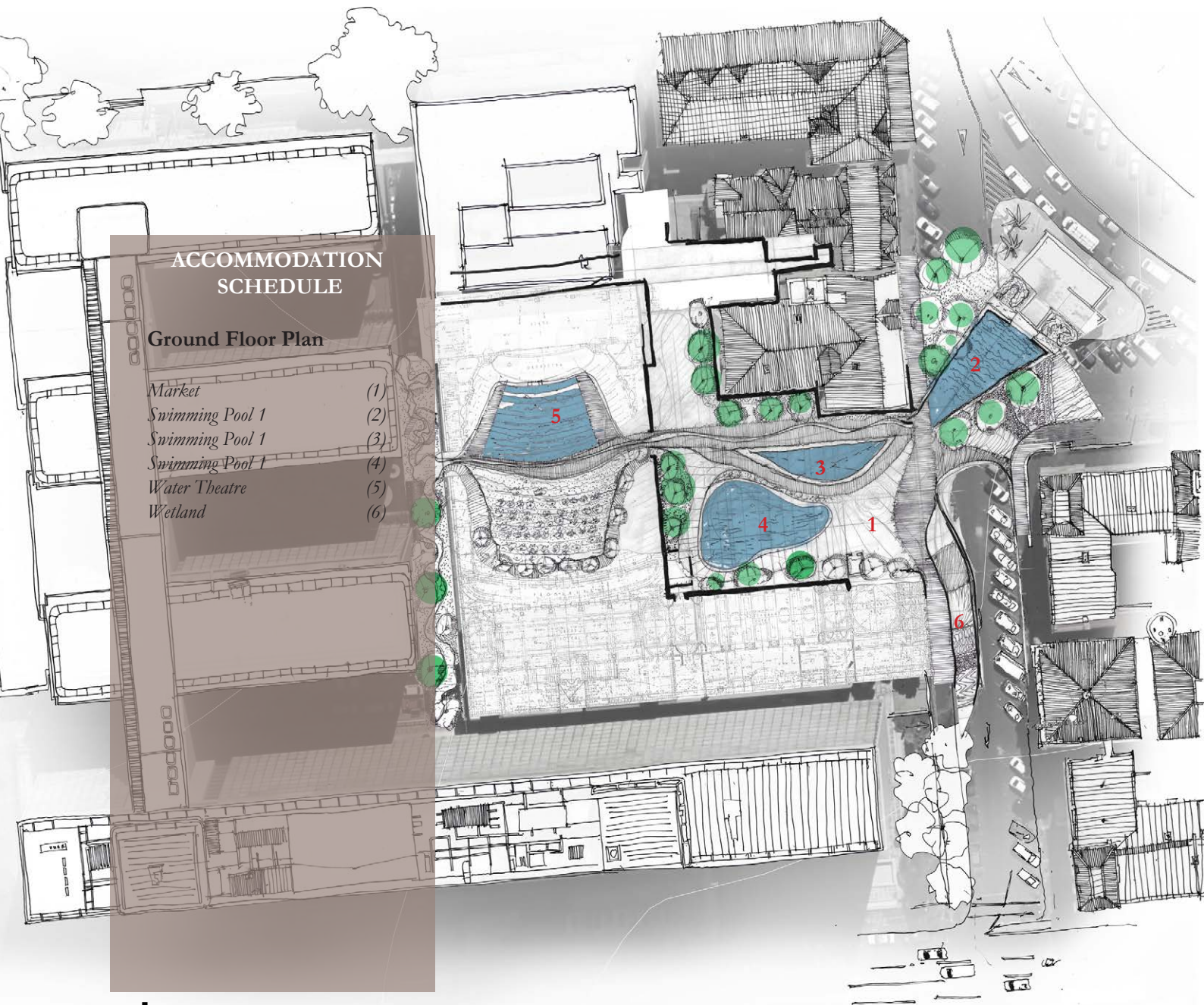
Ground Floor Plan

- Existing Pump House* (1)
- Main Entrance* (2)
- Ablutions* (3)
- Landscape Theatre* (4)
- Theatre 1* (5)
- Theatre 2* (6)
- Theatre 3* (7)
- Discussion Room 1* (8)
- Discussion Room 2* (9)
- Change Rooms* (10)
- Swimming Pool* (11)
- Cloak Room* (12)



Ground Floor Plan





ACCOMMODATION
SCHEDULE

Ground Floor Plan

- Market (1)
- Swimming Pool 1 (2)
- Swimming Pool 1 (3)
- Swimming Pool 1 (4)
- Water Theatre (5)
- Wetland (6)



Ground Floor Plan



Existing Condition of site



Figure 142: Proposed intervention, morphed into landscape (Author, 2018)



Figure 143: Proposed intervention highlighting relationship to existing pump house (Author, 2018)



Existing Condition of site

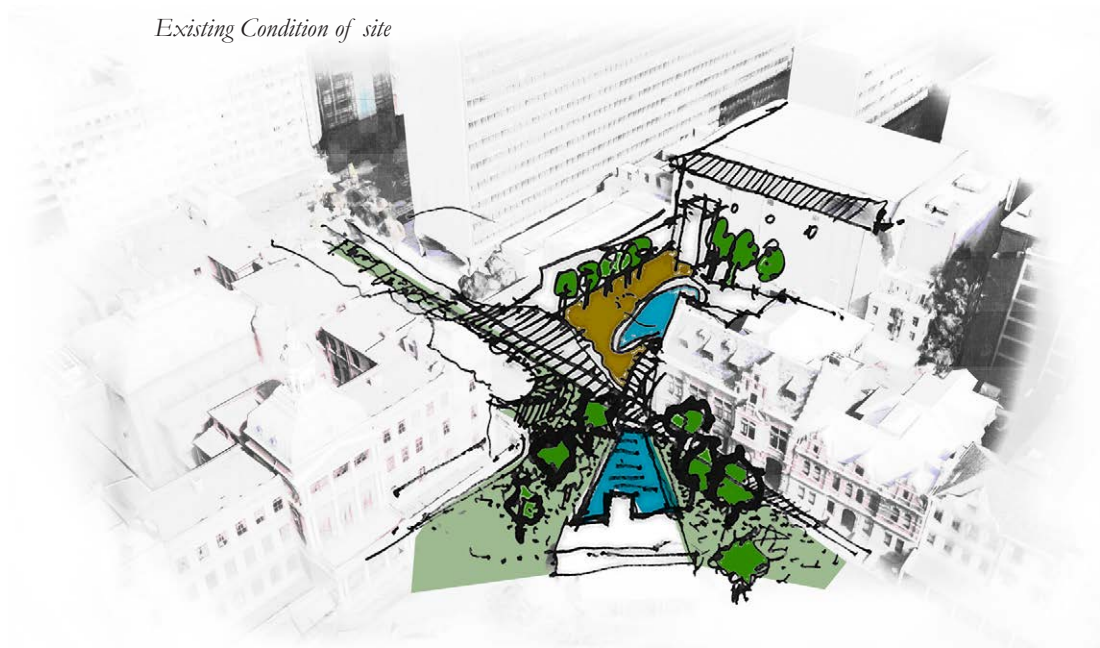


Figure 144: Proposed intervention, situated in context (Author, 2018)

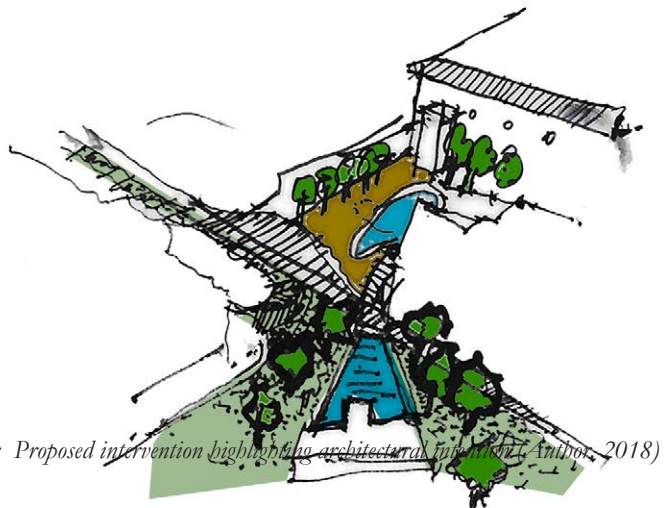


Figure 145: Proposed intervention highlighting architectural features (Author, 2018)



ITERATION



1

**ACCOMMODATION
SCHEDULE**

Basement Plan

Spring Viewing (1)

Ground Floor Plan

Existing Pump House (2)

Main Entrance (3)

Ticket Office (4)

Ablutions (5)

Natural Swimming Pool (6)

Theatre 1 (7)

Theatre 2 (8)

Storage (9)

Courtyard (10)

First Floor Plan

Discussion Room 1 (11)

Discussion Room 2 (12)

Natural Swimming Pool 2 (13)

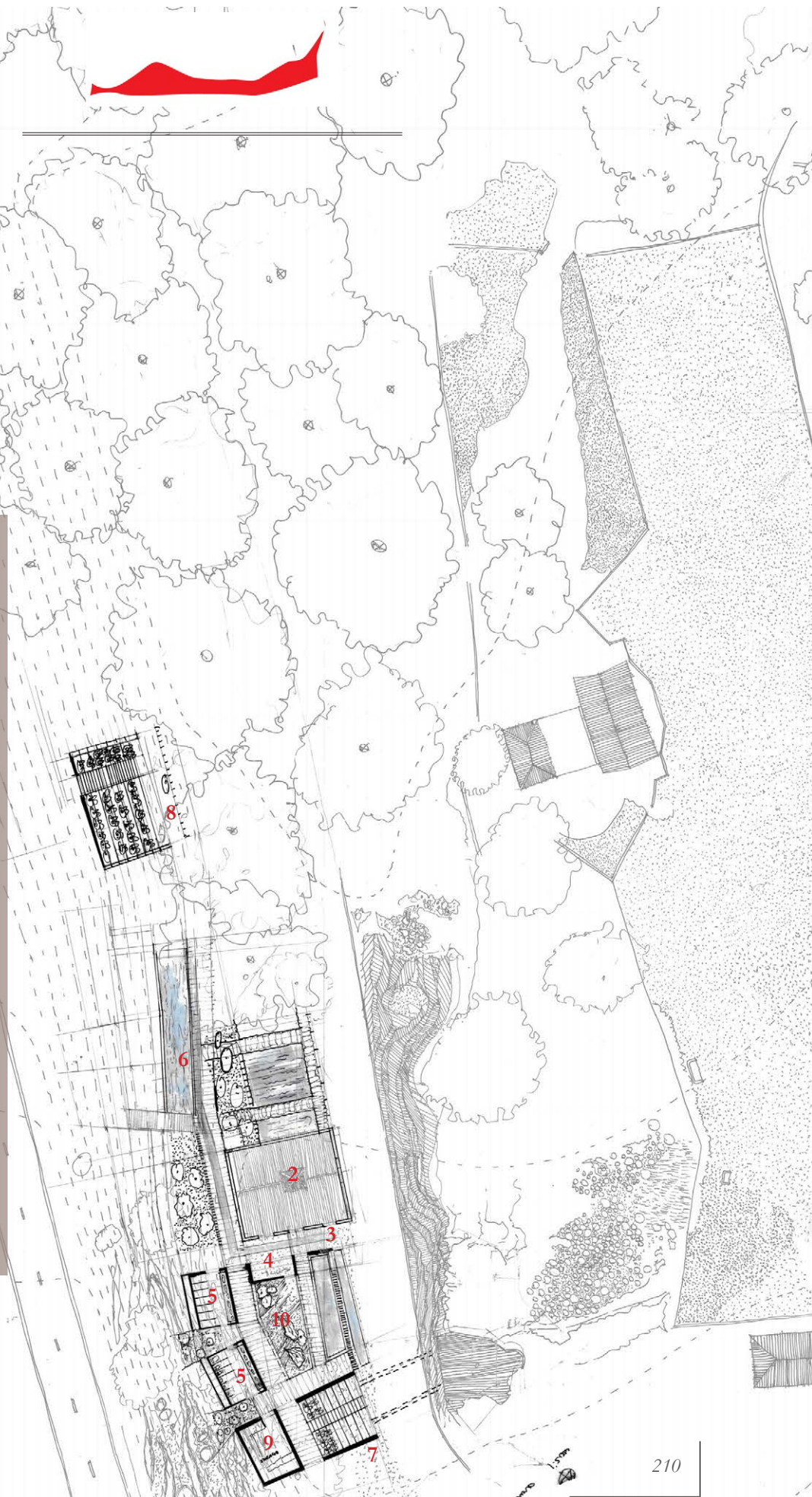
First Floor Plan

Meditation Room (14)

Meeting Room (15)



Ground Floor Plan





**ACCOMMODATION
SCHEDULE**

Basement Plan

- Thermal Pools* (1)
- Ablutions* (2)
- Change Rooms* (3)
- Exhibition 1* (4)
- Reservoir* (5)

Ground Floor Plan

- Market* (6)
- Swimming Pool* (7)
- Ablutions* (8)
- Water Theatre* (9)



Ground Floor Plan



**ACCOMMODATION
SCHEDULE**

Basement Plan

Spring Viewing (1)

Ground Floor Plan

Existing Pump House (2)

Main Entrance (3)

Ticket Office (4)

Ablutions (5)

Natural Swimming Pool (6)

Theatre 1 (7)

Theatre 2 (8)

Storage (9)

Courtyard (10)

First Floor Plan

Discussion Room 1 (11)

Discussion Room 2 (12)

Natural Swimming Pool 2 (13)

First Floor Plan

Meditation Room (14)

Meeting Room (15)



Basement Plan



ACCOMMODATION SCHEDULE

Basement Plan

- Thermal Pools* (1)
- Ablutions* (2)
- Change Rooms* (3)
- Exhibition 1* (4)
- Reservoir* (5)

Ground Floor Plan

- Market* (6)
- Swimming Pool* (7)
- Ablutions* (8)
- Water Theatre* (9)



Ground Floor Plan

**ACCOMMODATION
SCHEDULE**

Basement Plan

Spring Viewing (1)

Ground Floor Plan

- Existing Pump House* (2)
- Main Entrance* (3)
- Ticket Office* (4)
- Ablutions* (5)
- Natural Swimming Pool* (6)
- Theatre 1* (7)
- Theatre 2* (8)
- Storage* (9)
- Courtyard* (10)

First Floor Plan

- Discussion Room 1* (11)
- Discussion Room 2* (12)
- Natural Swimming Pool 2* (13)

Second Floor Plan

- Meditation Room* (14)
- Meeting Room* (15)



First Floor Plan



ACCOMMODATION SCHEDULE

Basement Plan

Spring Viewing (1)

Ground Floor Plan

Existing Pump House (2)

Main Entrance (3)

Ticket Office (4)

Ablutions (5)

Natural Swimming Pool (6)

Theatre 1 (7)

Theatre 2 (8)

Storage (9)

Courtyard (10)

First Floor Plan

Discussion Room 1 (11)

Discussion Room 2 (12)

Natural Swimming Pool 2 (13)

Second Floor Plan

Meditation Room (14)

Meeting Room (15)



Basement Plan



Figure 146: Existing Condition of site (Author, 2018)



Figure 147: Proposed intervention, morphed into landscape (Author, 2018)

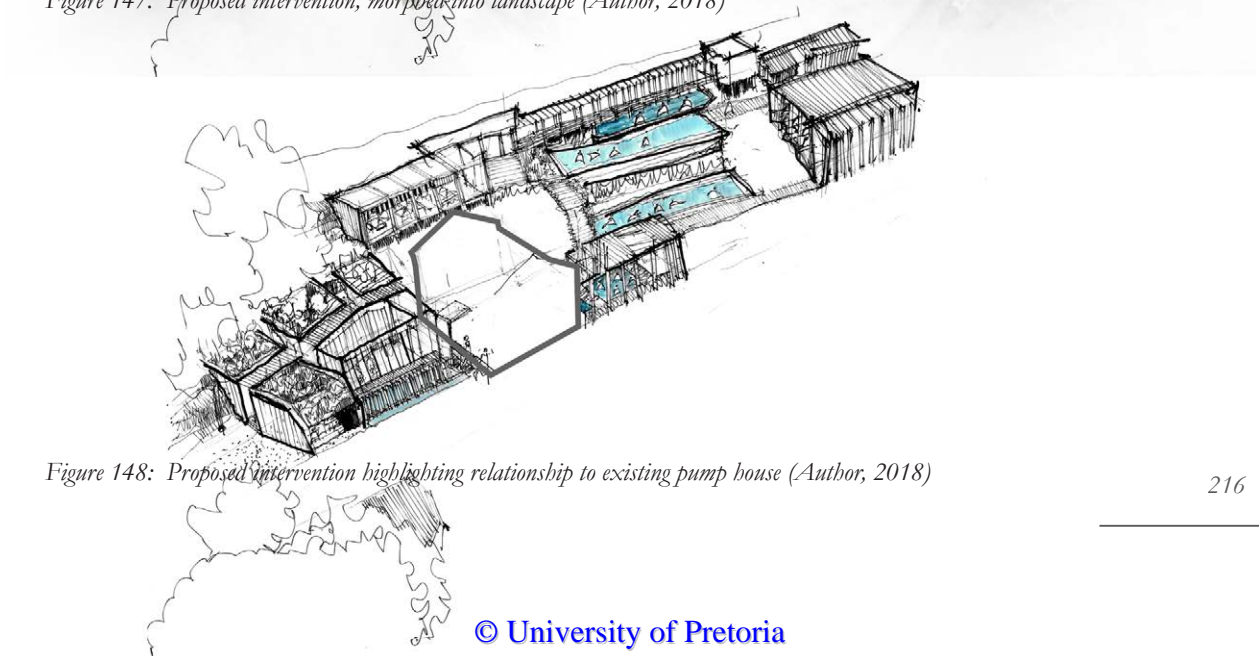


Figure 148: Proposed intervention highlighting relationship to existing pump house (Author, 2018)



Figure 149: Existing Condition of site (Author, 2018)



Figure 150: Proposed intervention, situated in context (Author, 2018)

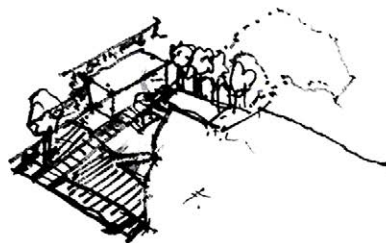


Figure 151: Proposed intervention highlighting architectural intention (Author, 2018)



ITERATION



2

ACCOMMODATION SCHEDULE

Ground Floor Plan

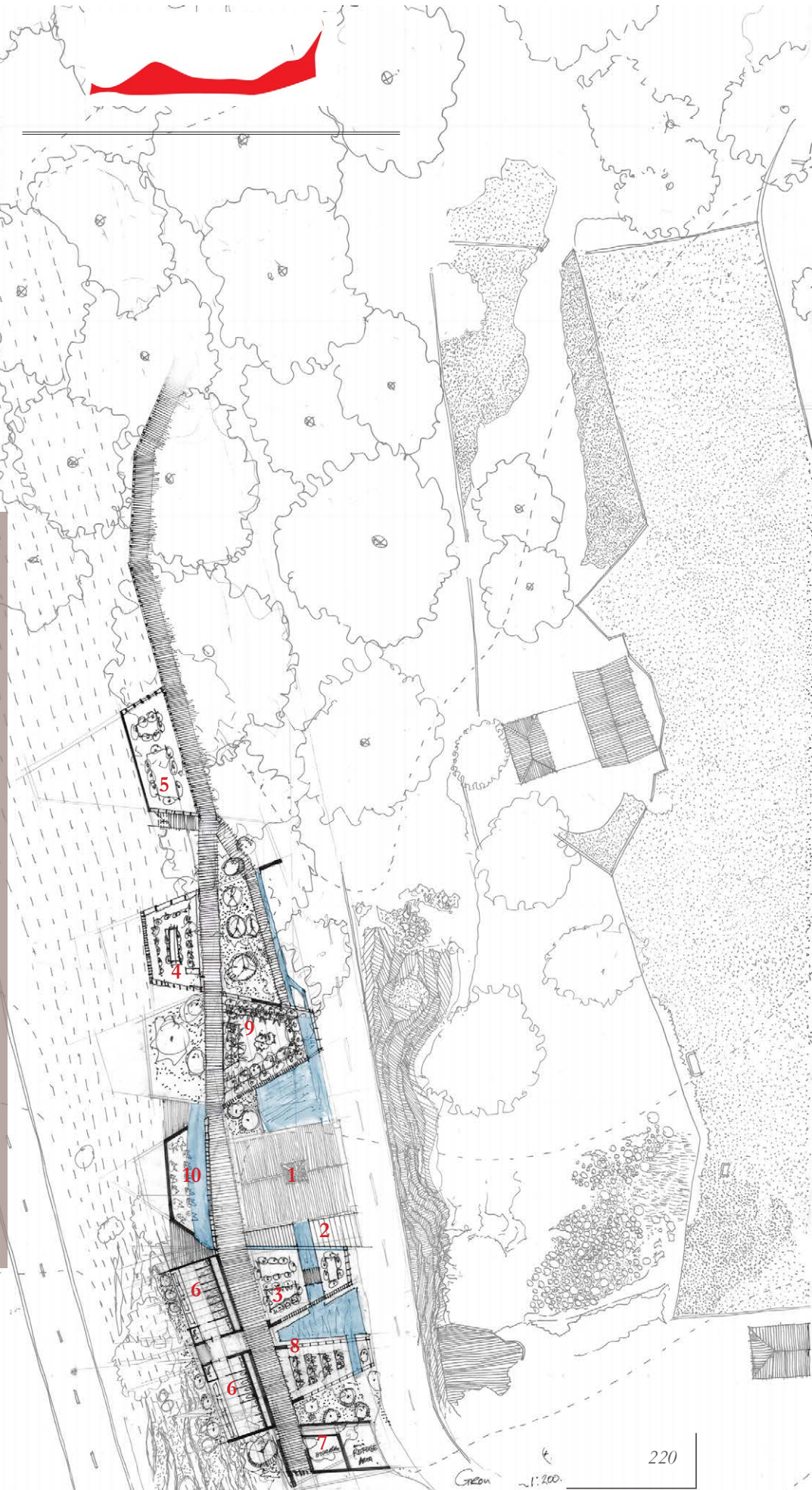
- Existing Pump House* (1)
- Main Entrance* (2)
- Discussion Room 1* (3)
- Discussion Room 1* (4)
- Discussion Room 1* (5)
- Ablutions* (6)
- Storage* (7)
- Theatre 1* (8)
- Theatre 2* (9)
- Swimming Pool 1* (10)

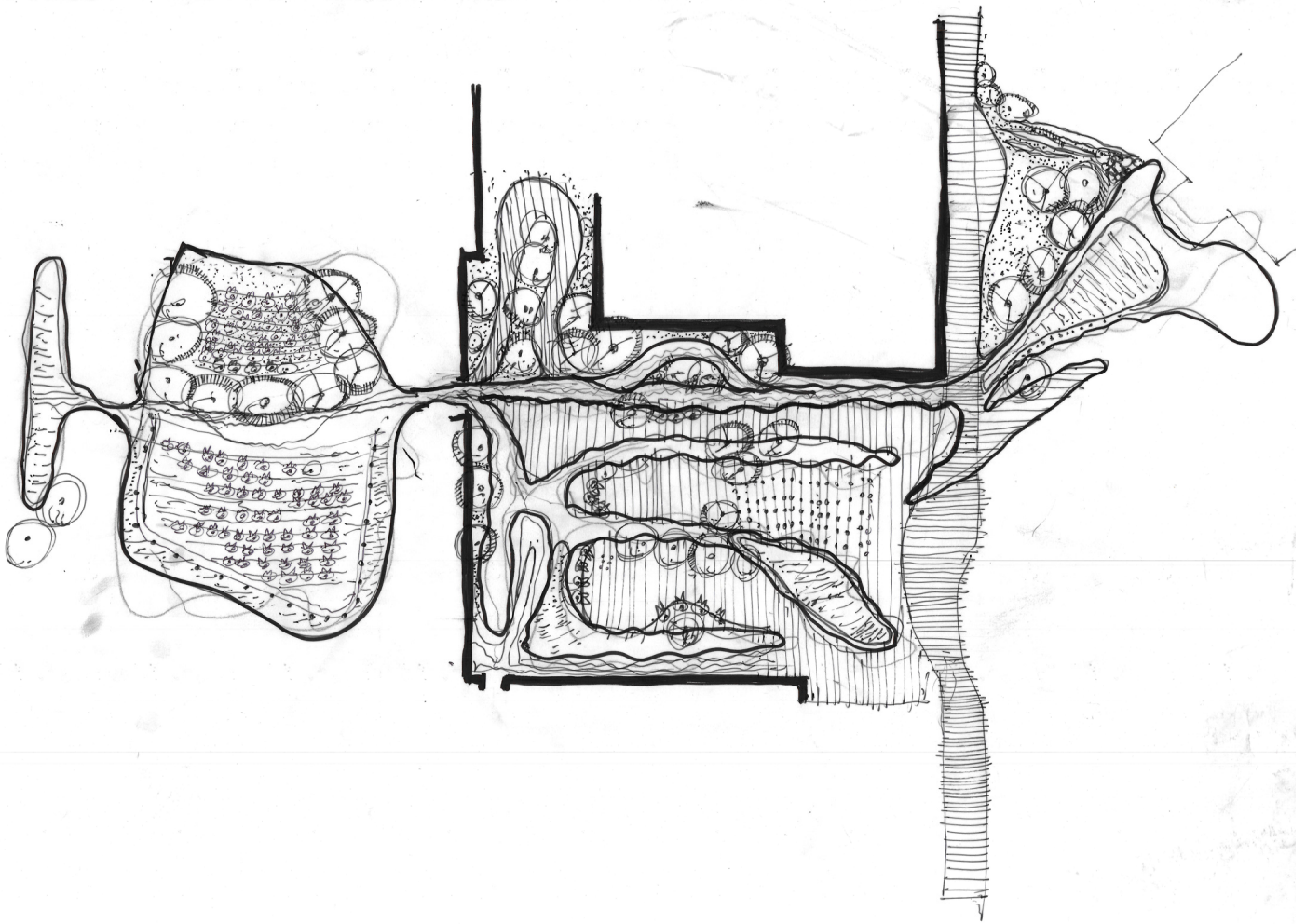
First Floor Plan

- Natural Swimming Pool 1* (11)
- Natural Swimming Pool 2* (12)
- Natural Swimming Pool 3* (13)
- Meditation Room* (14)
- Reflection Room* (15)



Ground Floor Plan





Ground Floor Plan

**ACCOMMODATION
 SCHEDULE**

Ground Floor Plan

- Existing Pump House* (1)
- Main Entrance* (2)
- Discussion Room 1* (3)
- Discussion Room 1* (4)
- Discussion Room 1* (5)
- Ablutions* (6)
- Storage* (7)
- Theatre 1* (8)
- Theatre 2* (9)
- Swimming Pool 1* (10)

First Floor Plan

- Natural Swimming Pool 1* (11)
- Natural Swimming Pool 2* (12)
- Natural Swimming Pool 3* (13)
- Meditation Room* (14)
- Reflection Room* (15)



First Floor Plan





Figure 152: Existing Condition of site (Author, 2018)



Figure 153: Proposed intervention, morphed into landscape (Author, 2018)



223 Figure 154: Proposed intervention highlighting relationship to existing pump house (Author, 2018)



ITERATION



ACCOMMODATION
SCHEDULE

Ground Floor Plan

- Existing Pump House* (1)
- Main Entrance* (2)
- Ablutions* (3)
- Holographic Projection Room* (4)
- Theatre* (5)
- Promenade* (6)

First Floor Plan

- Natural Swimming Pool 1* (7)
- Natural Swimming Pool 2* (8)
- Promenade* (10)
- Reflection Room* (11)
- Reflection Room* (12)



Ground Floor Plan





**ACCOMMODATION
SCHEDULE**

Basement Plan

- Outdoor Theatre* (1)
- Projection Room* (2)
- Ablutions* (3)
- Exhibition* (4)
- Studio* (5)
- Pump Room* (6)
- Mechanical Room* (7)

Ground Floor Plan

- Market* (8)
- Swimming Pool* (9)
- Ablutions* (10)
- Water Theatre* (11)
- Indoor Garden* (12)
- Wetland* (13)



Ground Floor Plan

ACCOMMODATION SCHEDULE

Ground Floor Plan

- Existing Pump House* (1)
- Main Entrance* (2)
- Ablutions* (3)
- Holographic Projection Room* (4)
- Theatre* (5)
- Promenade* (6)

First Floor Plan

- Natural Swimming Pool 1* (7)
- Natural Swimming Pool 2* (8)
- Promenade* (10)
- Reflection Room* (11)
- Reflection Room* (12)



Ground Floor Plan



ACCOMMODATION SCHEDULE

Basement Plan

- | | |
|------------------------|-----|
| <i>Outdoor Theatre</i> | (1) |
| <i>Projection Room</i> | (2) |
| <i>Ablutions</i> | (3) |
| <i>Exhibition</i> | (4) |
| <i>Studio</i> | (5) |
| <i>Pump Room</i> | (6) |
| <i>Mechanical Room</i> | (7) |

Ground Floor Plan

- | | |
|----------------------|------|
| <i>Market</i> | (8) |
| <i>Swimming Pool</i> | (9) |
| <i>Ablutions</i> | (10) |
| <i>Water Theatre</i> | (11) |
| <i>Indoor Garden</i> | (12) |
| <i>Wetland</i> | (13) |



Basement Plan



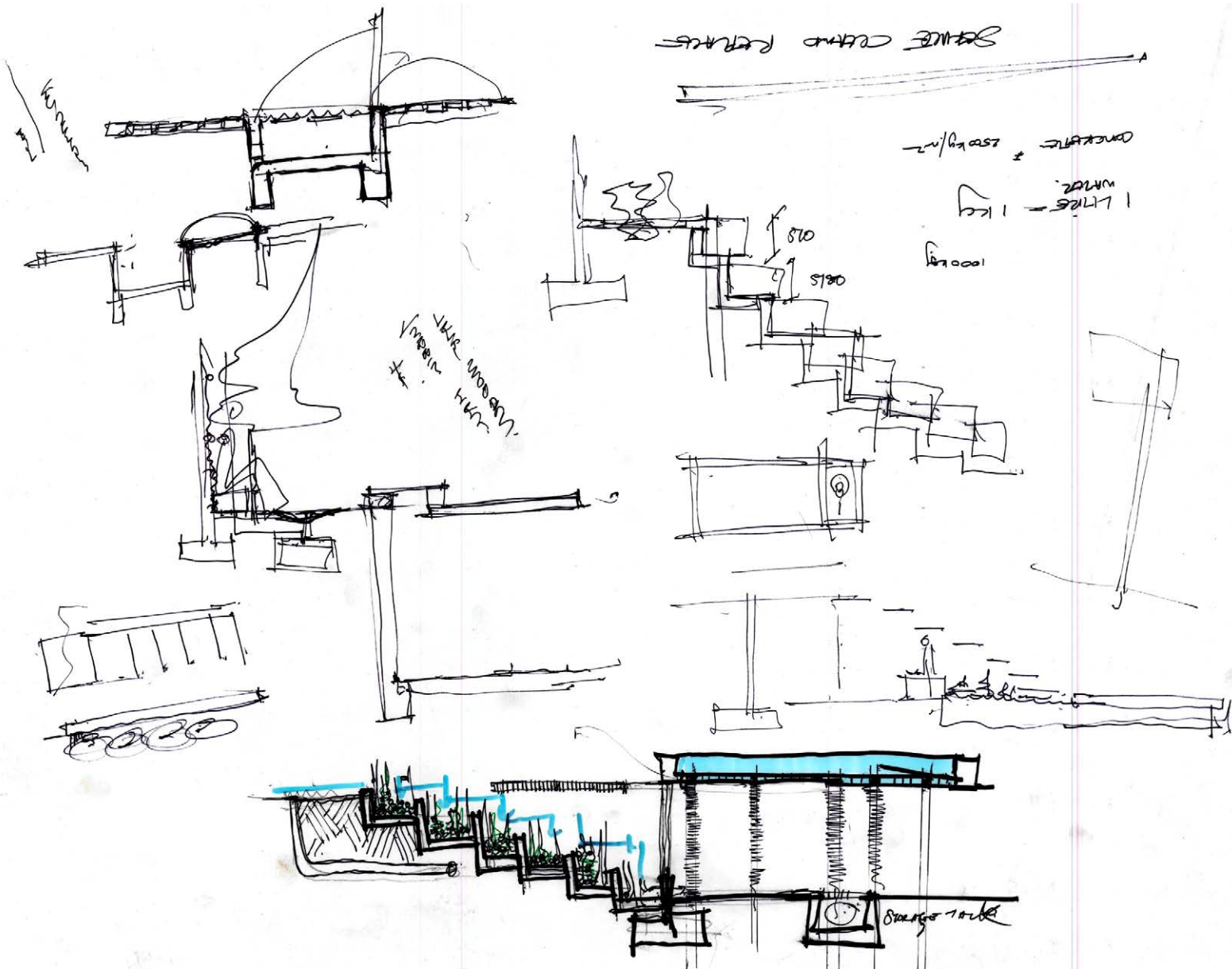


Figure 155: Exploring basement spaces (Author, 2018)

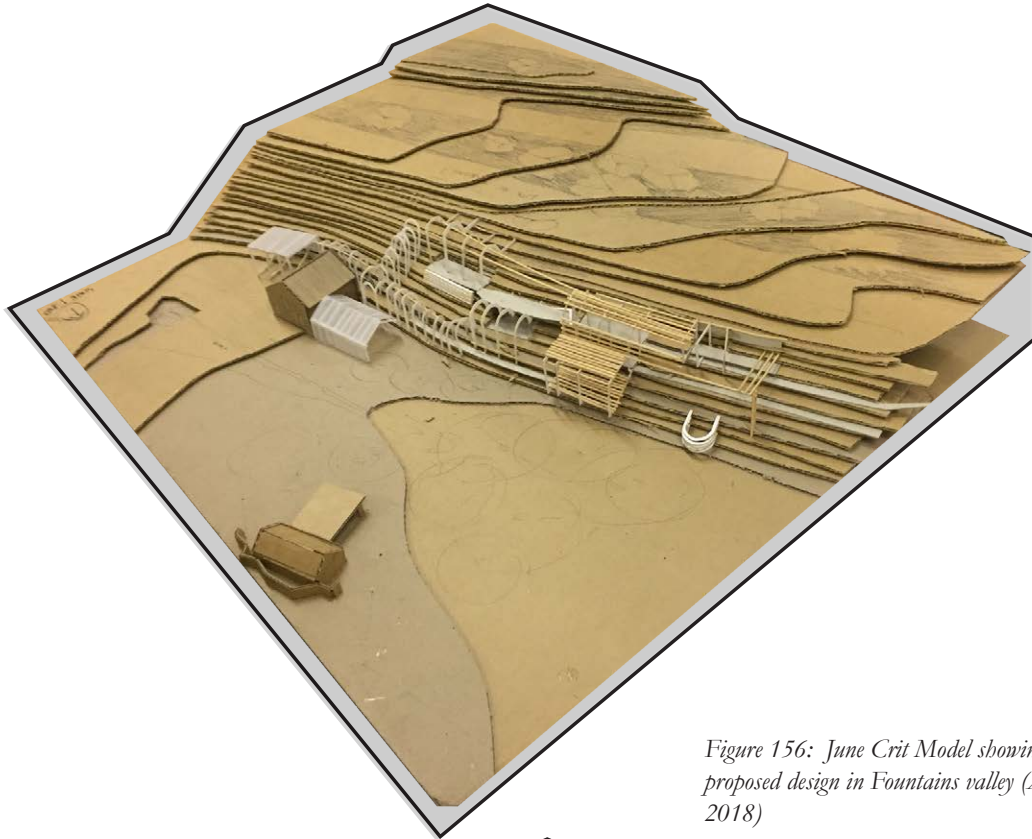
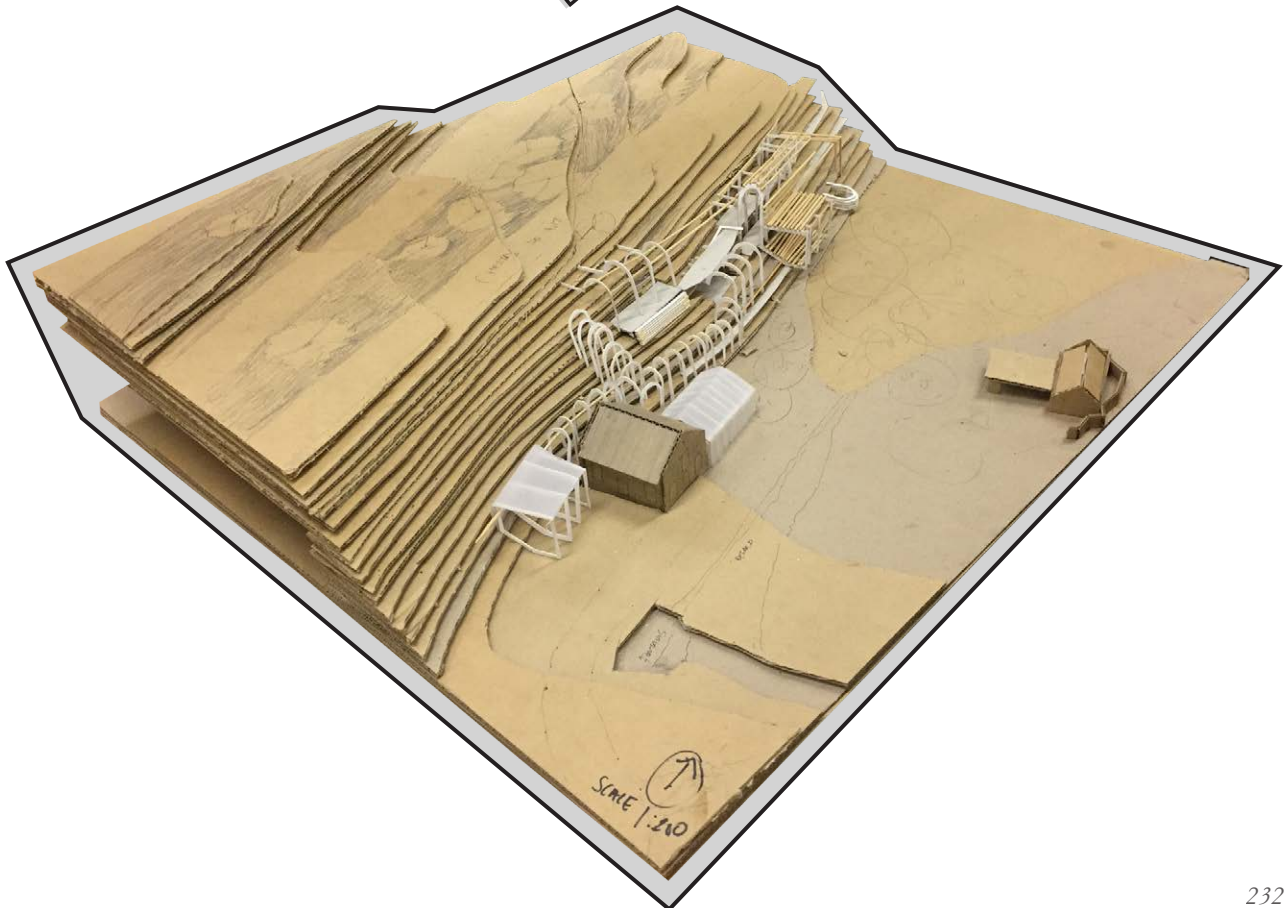


Figure 156: June Crit Model showing proposed design in Fountains valley (Author, 2018)



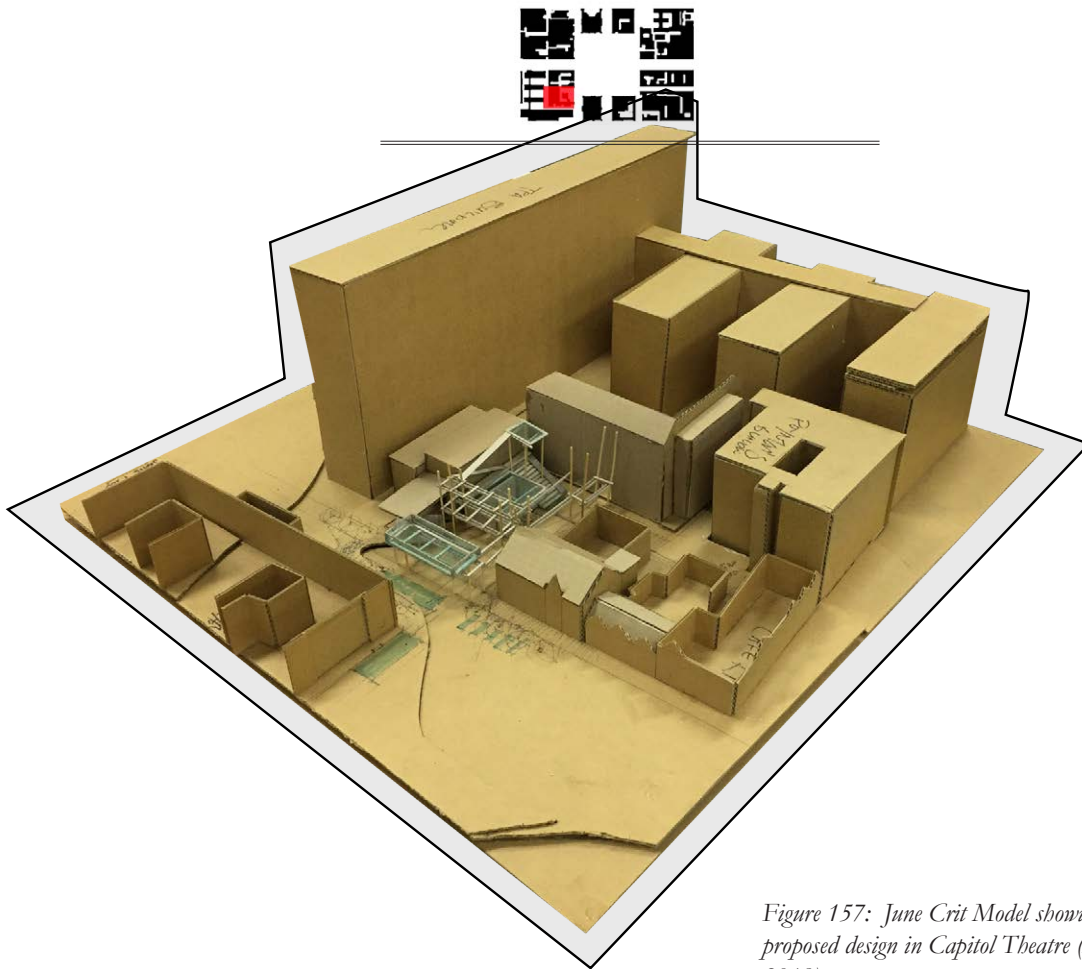


Figure 157: June Crit Model showing proposed design in Capitol Theatre (Author, 2018)

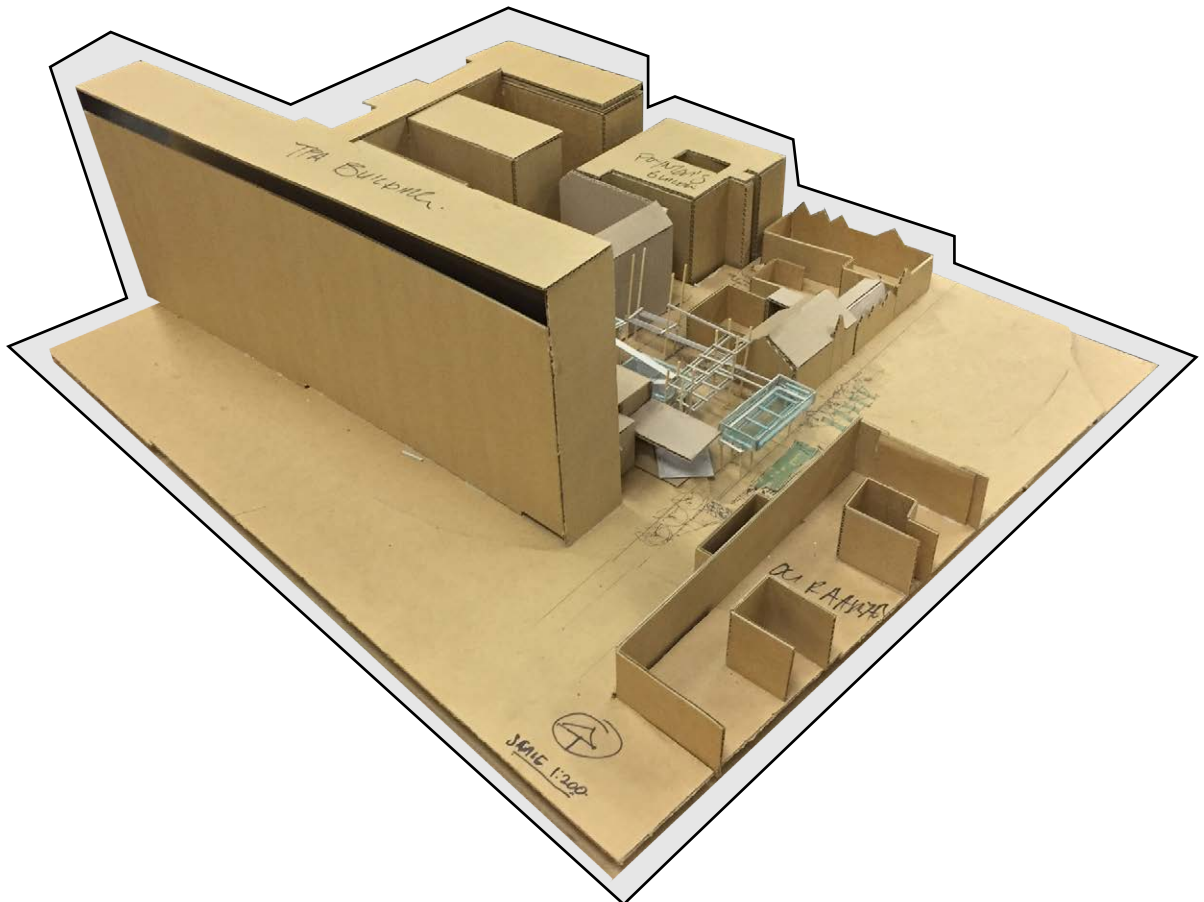




Figure 158: Existing Condition of site (Author, 2018)



Figure 159: Proposed intervention, morphed into landscape (Author, 2018)

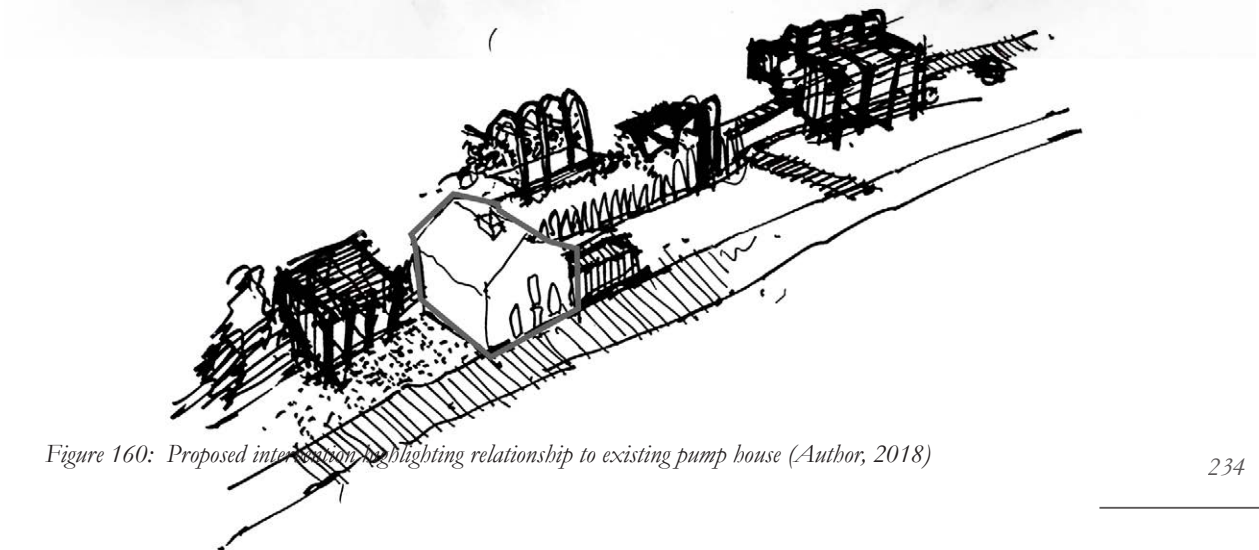


Figure 160: Proposed intervention, highlighting relationship to existing pump house (Author, 2018)



Figure 161: Existing Condition of site (Author, 2018)

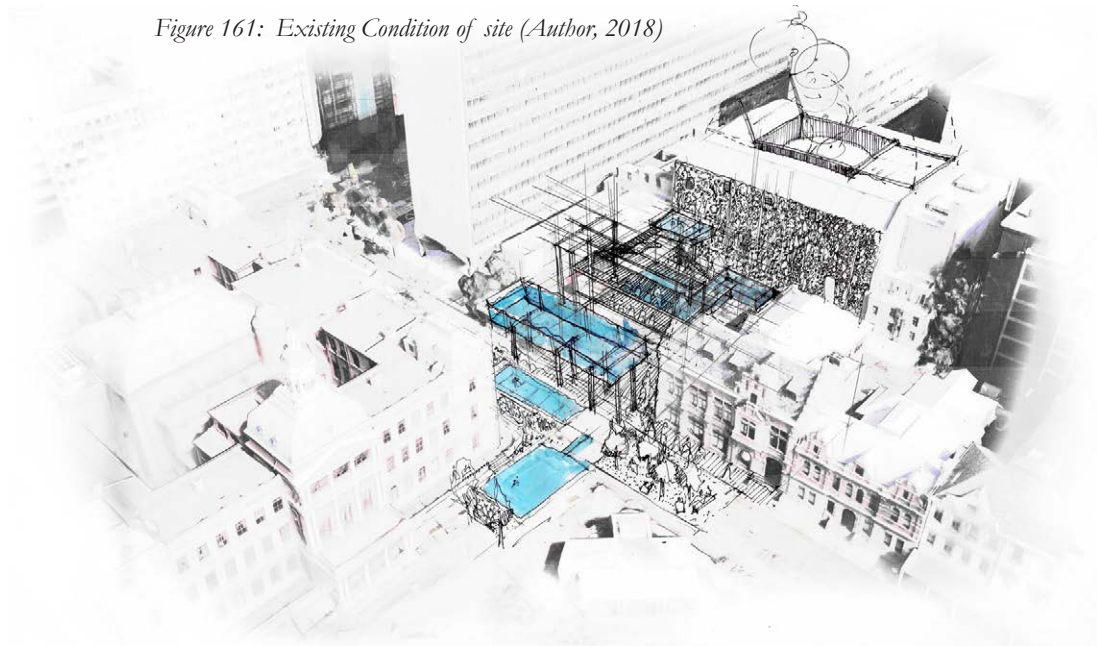


Figure 162: Proposed intervention, situated in context (Author, 2018)

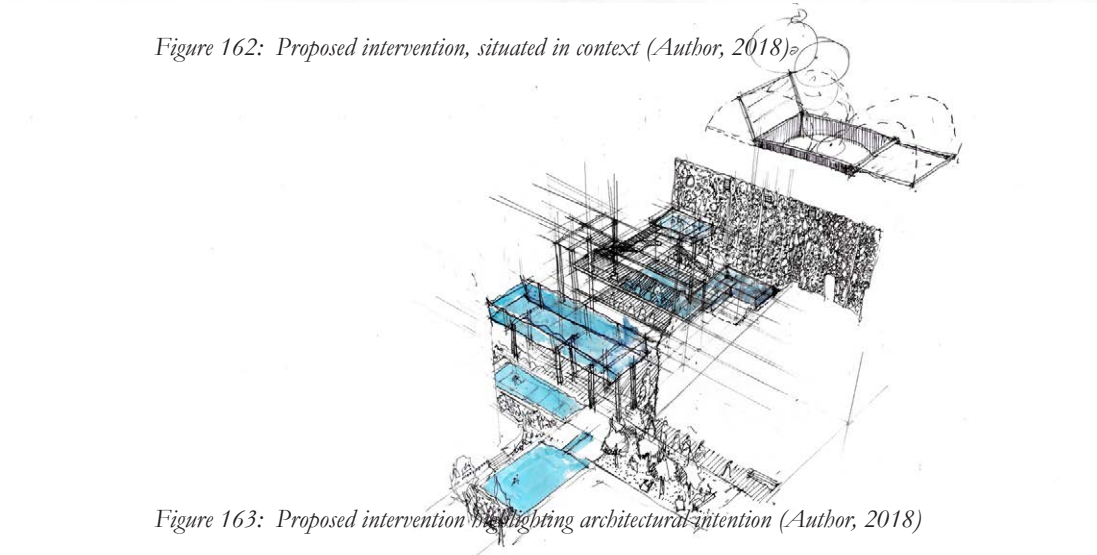


Figure 163: Proposed intervention highlighting architectural intention (Author, 2018)



ITERATION



4

ACCOMMODATION
SCHEDULE

Basement Plan

- Spring Viewing* (1)
- Ablutions* (2)
- Projection Room* (3)

Ground Floor Plan

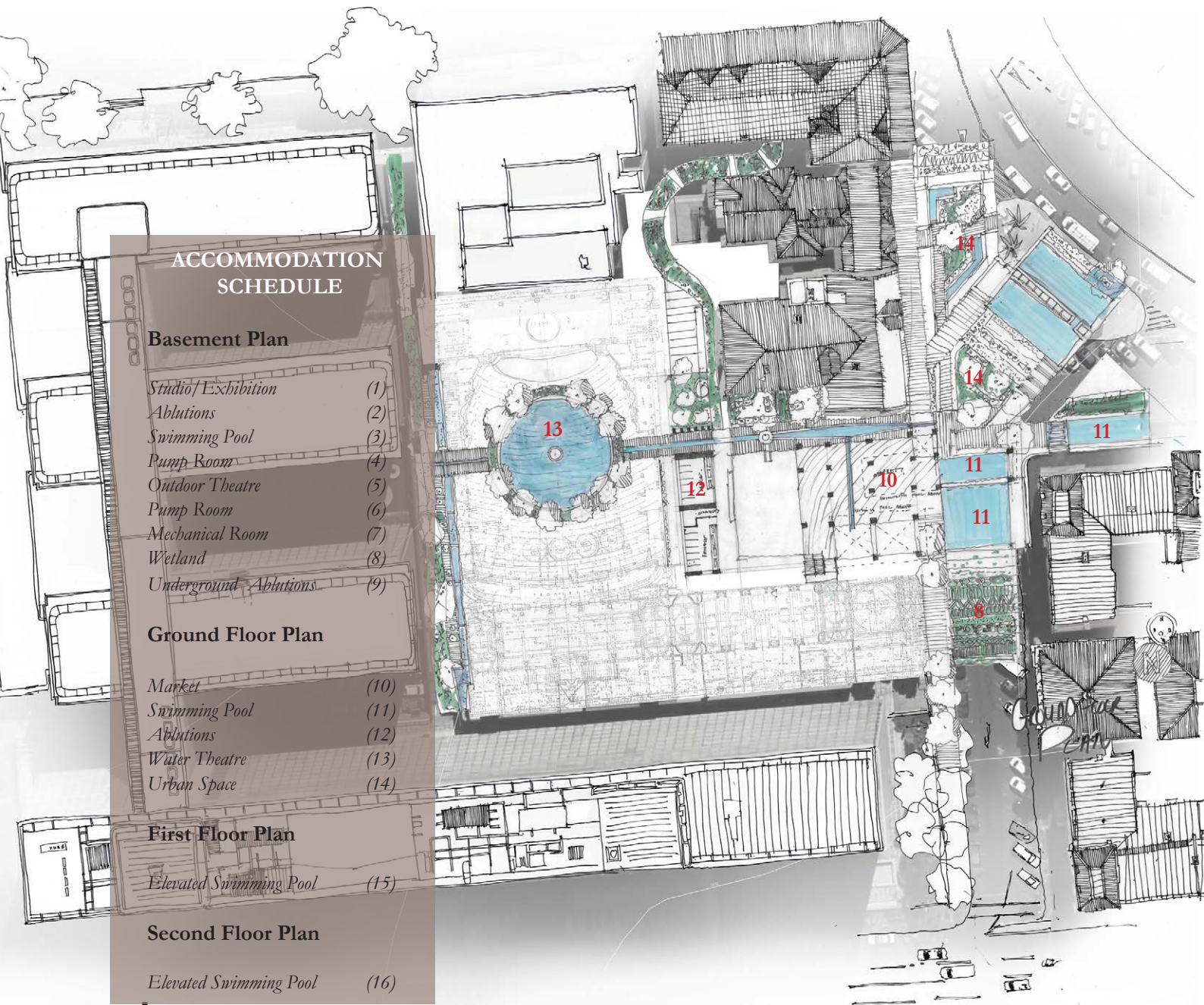
- Existing Pump House* (4)
- Main Entrance* (5)
- Change Room* (6)
- Natural Swimming Pool 1* (7)
- Natural Swimming Pool 2* (8)
- Natural Swimming Pool 3* (9)
- Theatre 1* (10)
- Theatre 2* (11)
- Theatre 3* (12)
- Theatre 4* (13)
- Theatre 5* (14)
- Promenade* (15)



Ground Floor Plan



GROUND FLOOR PLAN



ACCOMMODATION SCHEDULE

Basement Plan

- Studio/Exhibition* (1)
- Ablutions* (2)
- Swimming Pool* (3)
- Pump Room* (4)
- Outdoor Theatre* (5)
- Pump Room* (6)
- Mechanical Room* (7)
- Wetland* (8)
- Underground Ablutions* (9)

Ground Floor Plan

- Market* (10)
- Swimming Pool* (11)
- Ablutions* (12)
- Water Theatre* (13)
- Urban Space* (14)

First Floor Plan

- Elevated Swimming Pool* (15)

Second Floor Plan

- Elevated Swimming Pool* (16)



Ground Floor Plan

ACCOMMODATION
SCHEDULE

Basement Plan

- Spring Viewing* (1)
- Ablutions* (2)
- Projection Room* (3)

Ground Floor Plan

- Existing Pump House* (4)
- Main Entrance* (5)
- Change Room* (6)
- Natural Swimming Pool 1* (7)
- Natural Swimming Pool 2* (8)
- Natural Swimming Pool 3* (9)
- Theatre 1* (10)
- Theatre 2* (11)
- Theatre 3* (12)
- Theatre 4* (13)
- Theatre 5* (14)
- Promenade* (15)



Basement Plan



BASEMENT
PLAN



ACCOMMODATION SCHEDULE

Basement Plan

- Studio/Exhibition* (1)
- Ablutions* (2)
- Swimming Pool* (3)
- Pump Room* (4)
- Outdoor Theatre* (5)
- Pump Room* (6)
- Mechanical Room* (7)
- Wetland* (8)
- Underground Ablutions* (9)

Ground Floor Plan

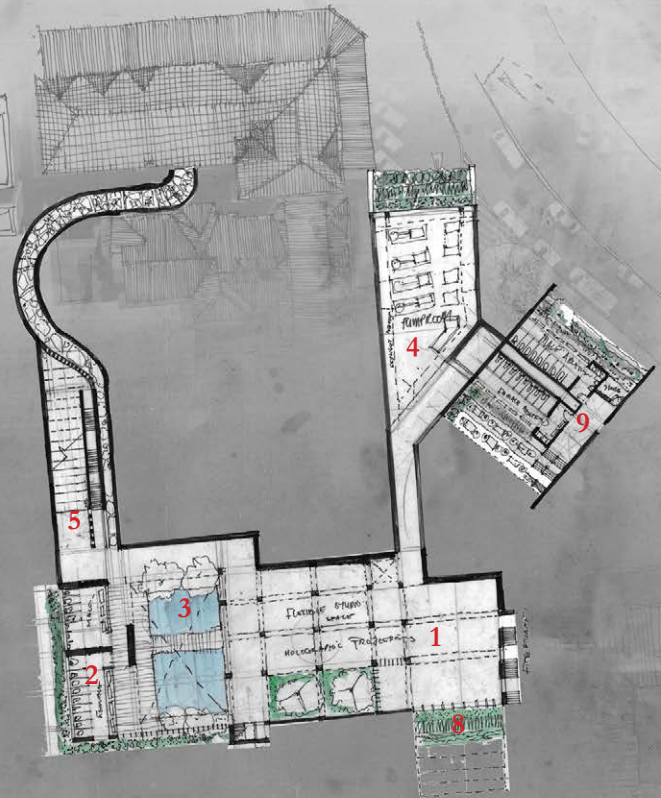
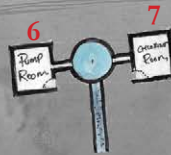
- Market* (10)
- Swimming Pool* (11)
- Ablutions* (12)
- Water Theatre* (13)
- Urban Space* (14)

First Floor Plan

- Elevated Swimming Pool* (15)

Second Floor Plan

- Elevated Swimming Pool* (16)



Ground Floor Plan



SPACE
& INTERIORS

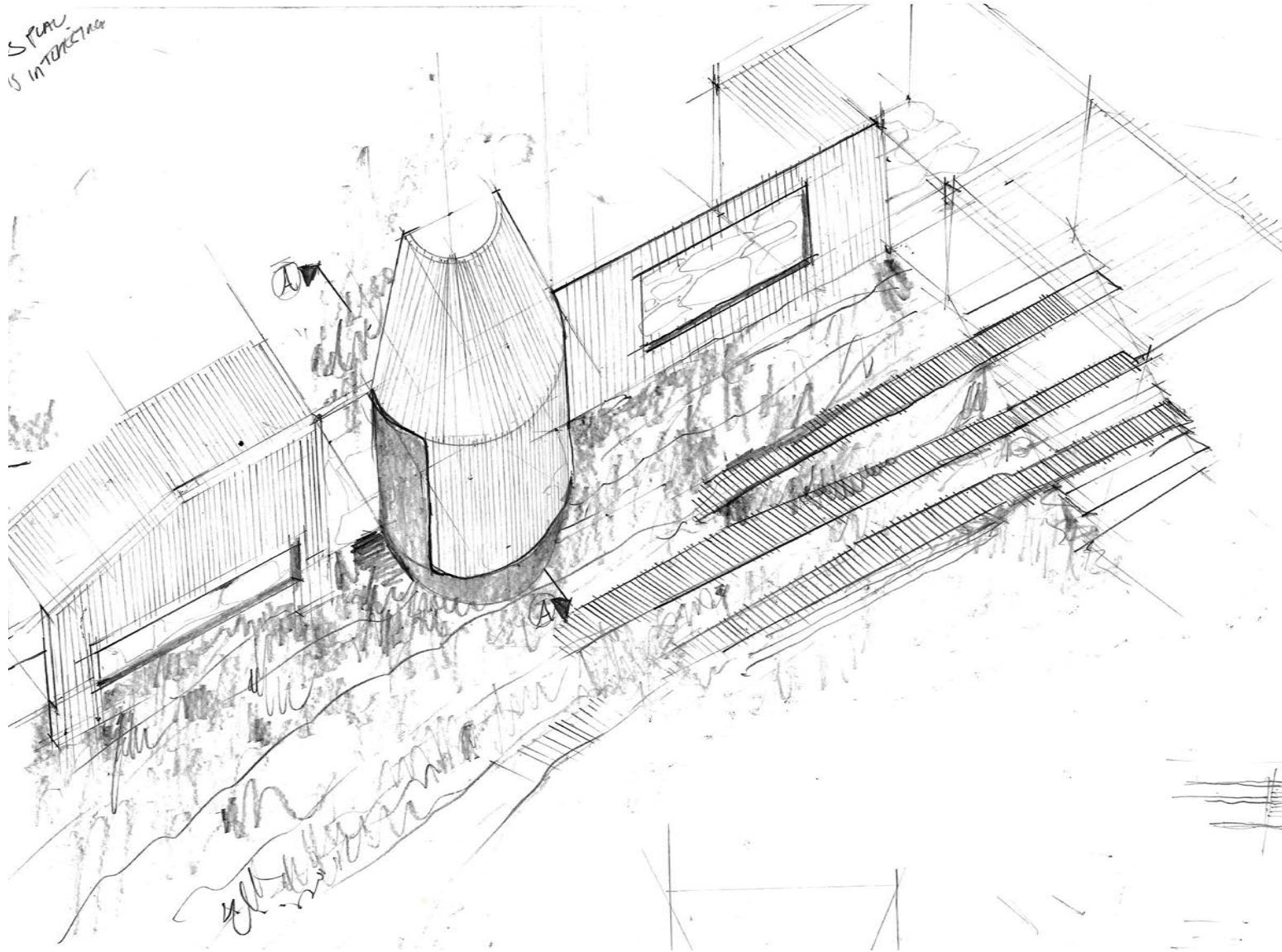


Figure 164: 3D exploration of design (Author, 2018)



ACCOMMODATION SCHEDULE

Basement Plan

- Studio/Exhibition* (1)
- Ablutions* (2)
- Swimming Pool* (3)
- Pump Room* (4)
- Outdoor Theatre* (5)
- Pump Room* (6)
- Mechanical Room* (7)
- Wetland* (8)
- Underground Ablutions* (9)

Ground Floor Plan

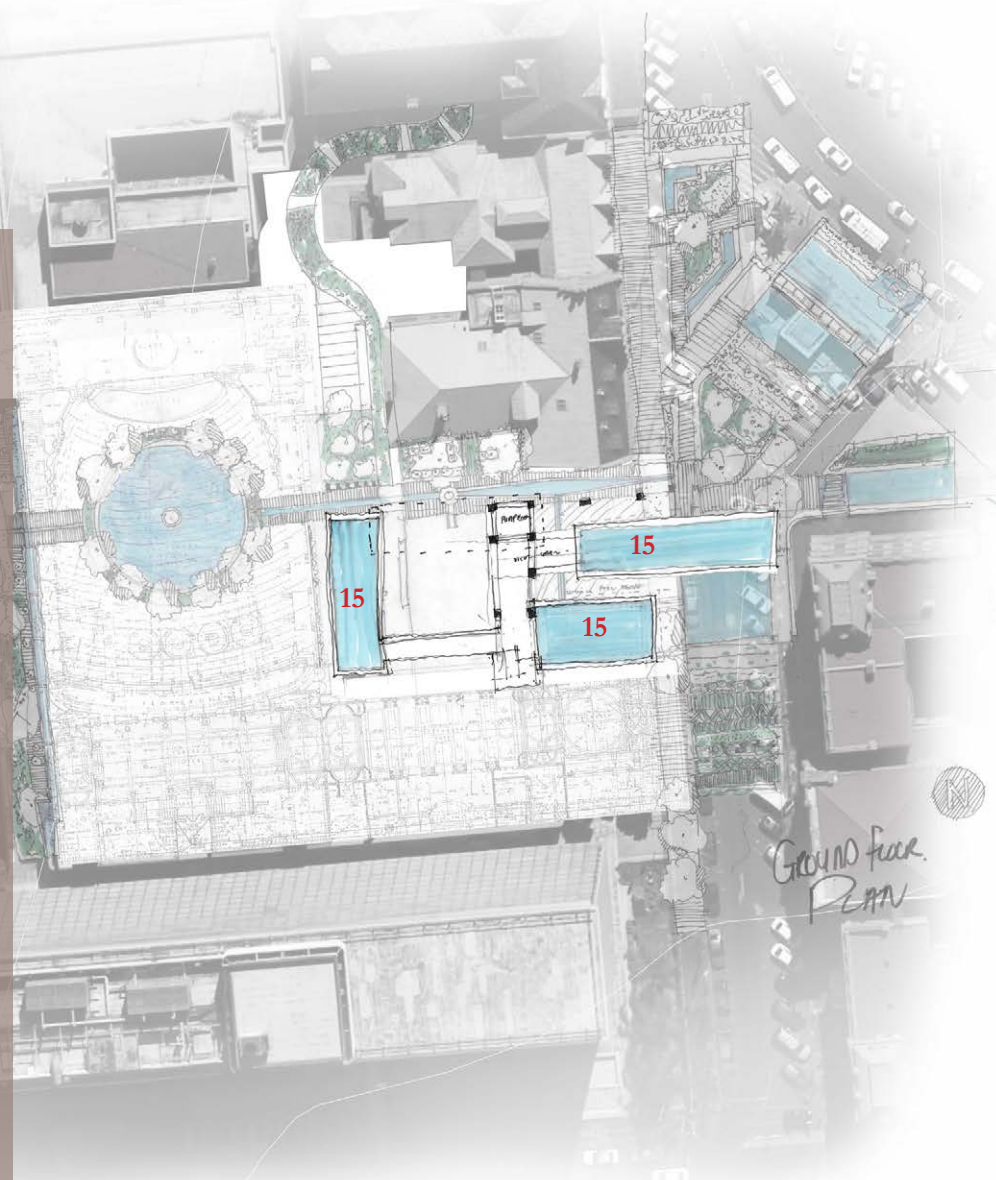
- Market* (10)
- Swimming Pool* (11)
- Ablutions* (12)
- Water Theatre* (13)
- Urban Space* (14)

First Floor Plan

- Elevated Swimming Pool* (15)

Second Floor Plan

- Elevated Swimming Pool* (16)



Ground Floor Plan

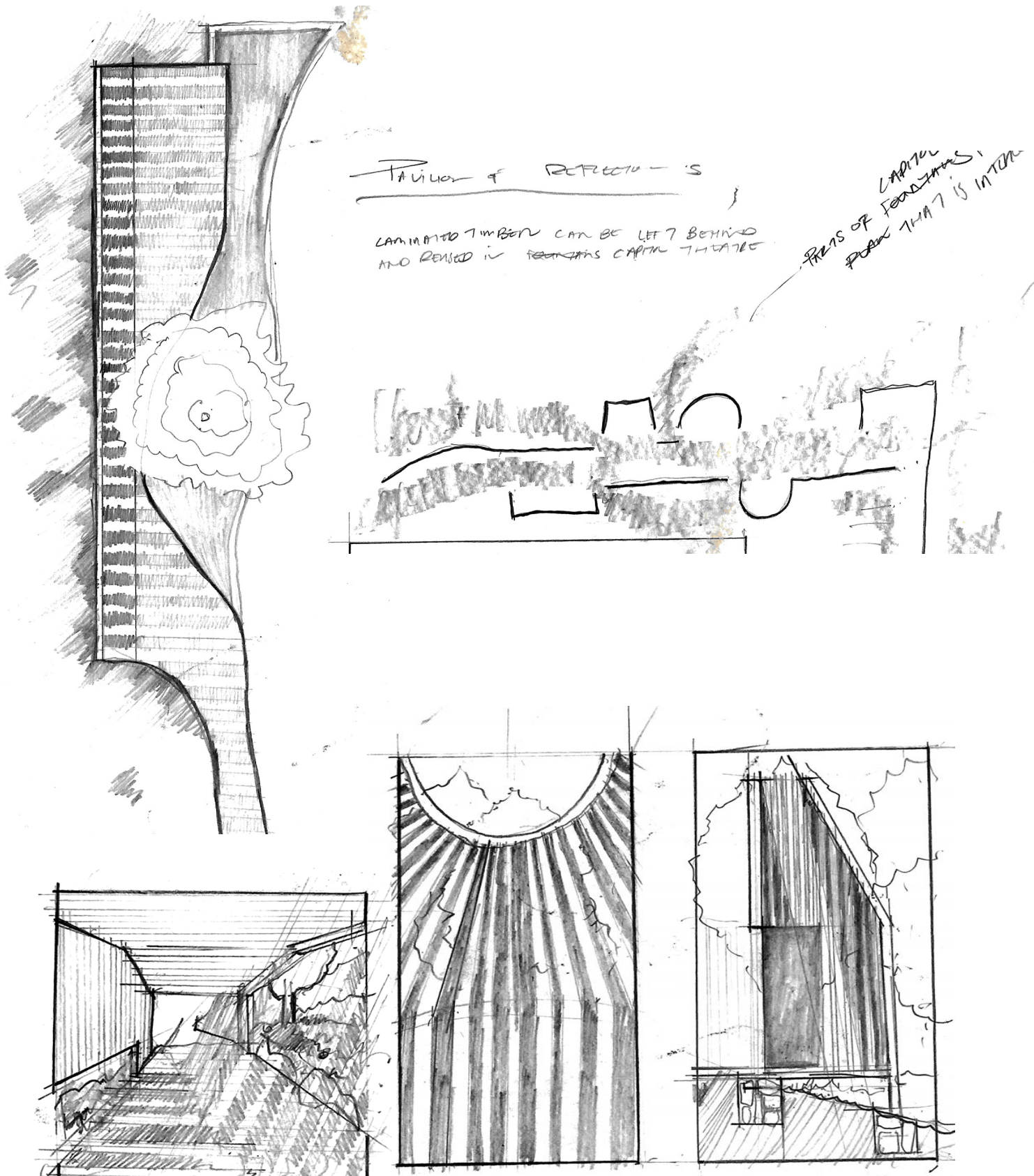


Figure 165: Spatial arch reform (Author, 2018)

ACCOMMODATION
SCHEDULE

Basement Plan

- Studio/Exhibition* (1)
- Ablutions* (2)
- Swimming Pool* (3)
- Pump Room* (4)
- Outdoor Theatre* (5)
- Pump Room* (6)
- Mechanical Room* (7)
- Wetland* (8)
- Underground Ablutions* (9)

Ground Floor Plan

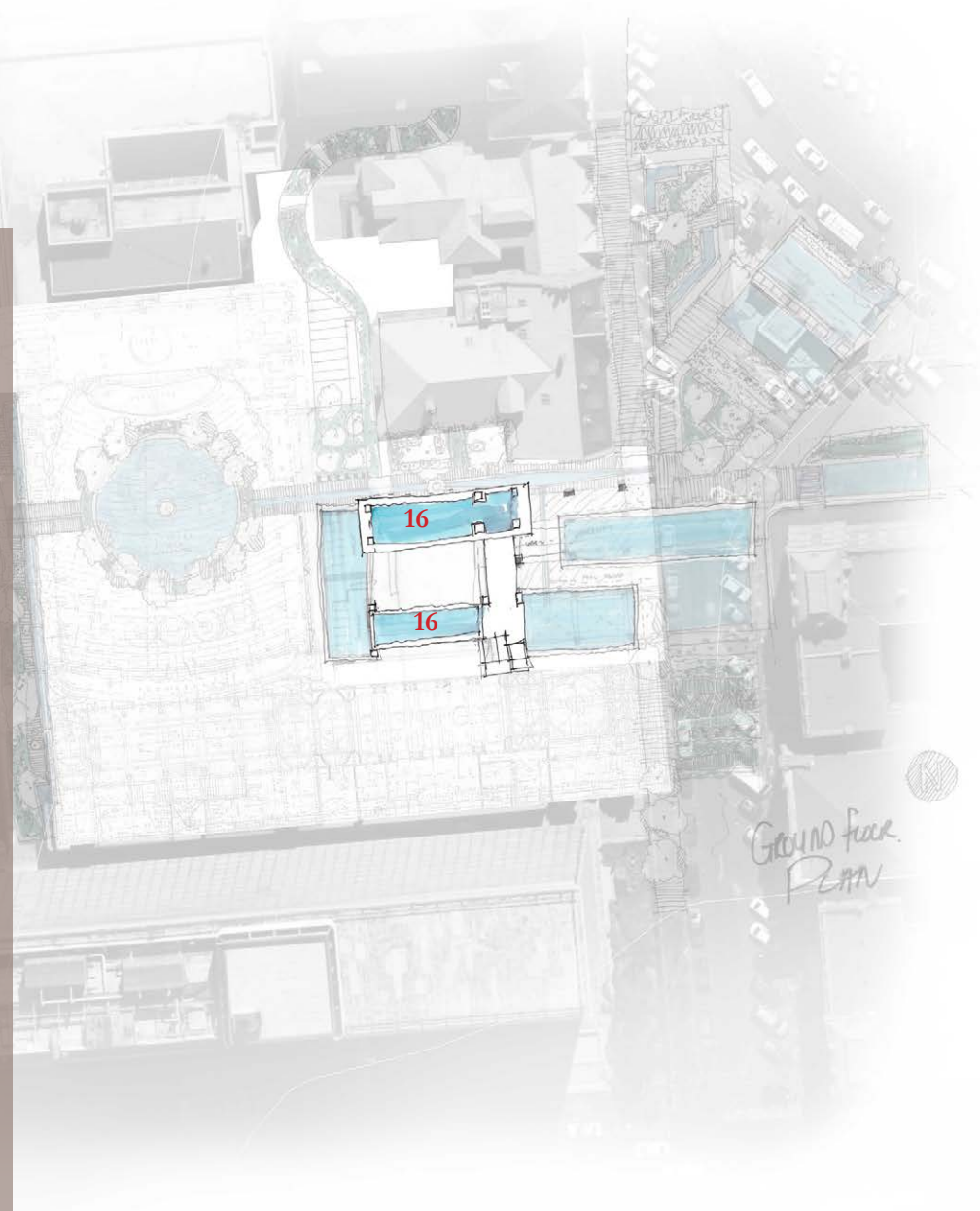
- Market* (10)
- Swimming Pool* (11)
- Ablutions* (12)
- Water Theatre* (13)
- Urban Space* (14)

First Floor Plan

- Elevated Swimming Pool* (15)

Second Floor Plan

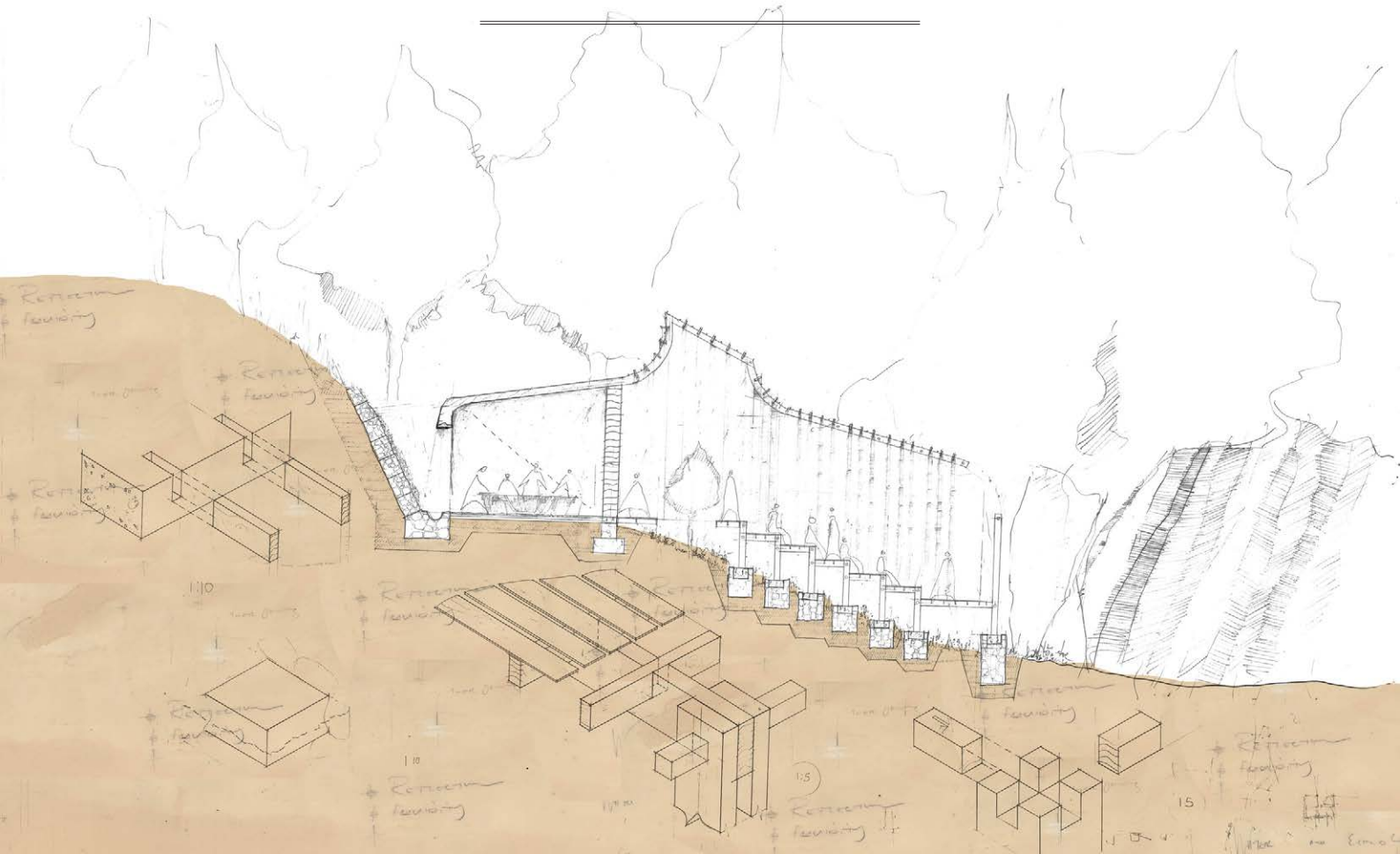
- Elevated Swimming Pool* (16)



GROUND FLOOR
PLAN



Ground Floor Plan



Section A-A

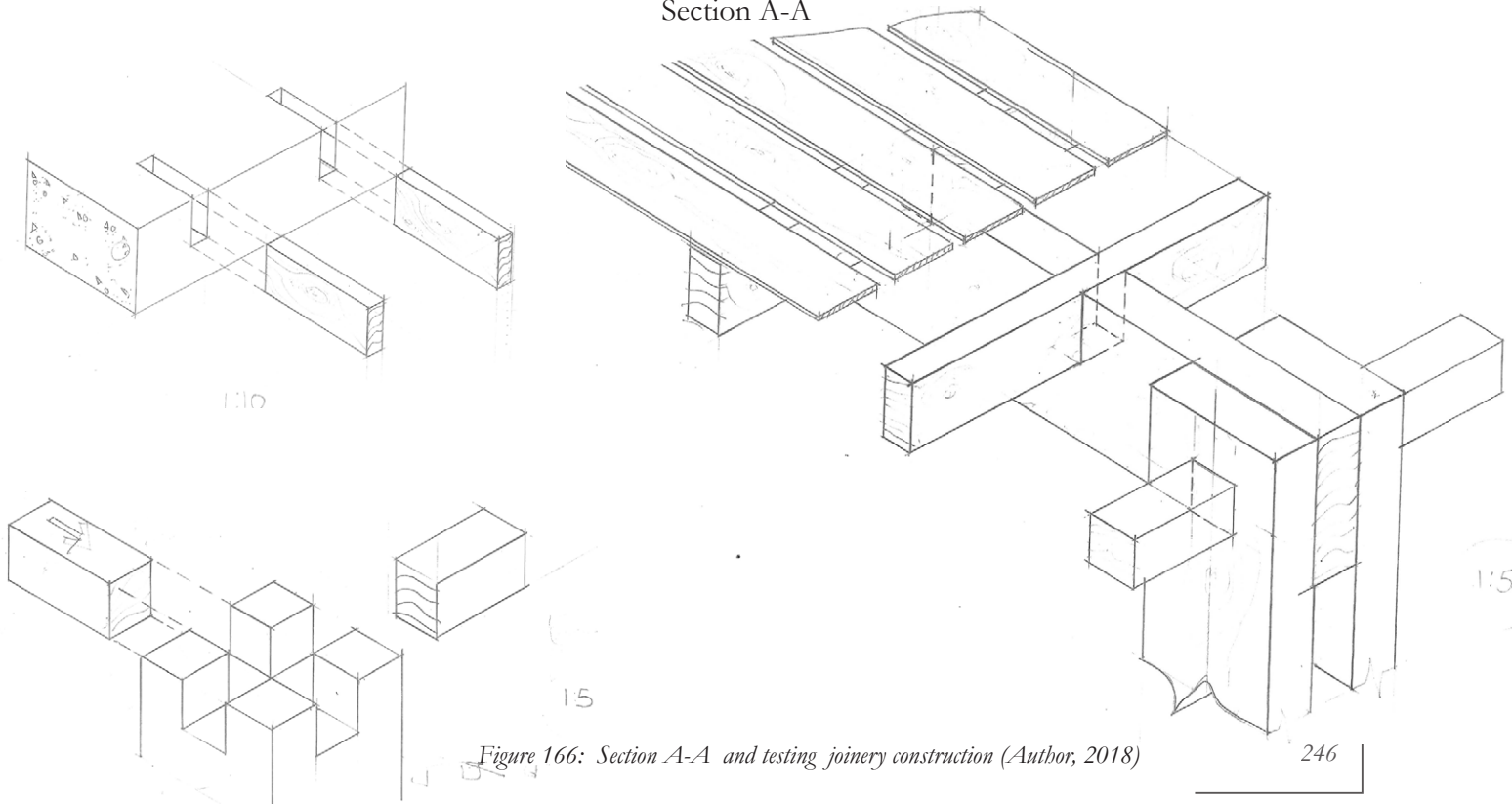


Figure 166: Section A-A and testing joinery construction (Author, 2018)

246



Section A-A

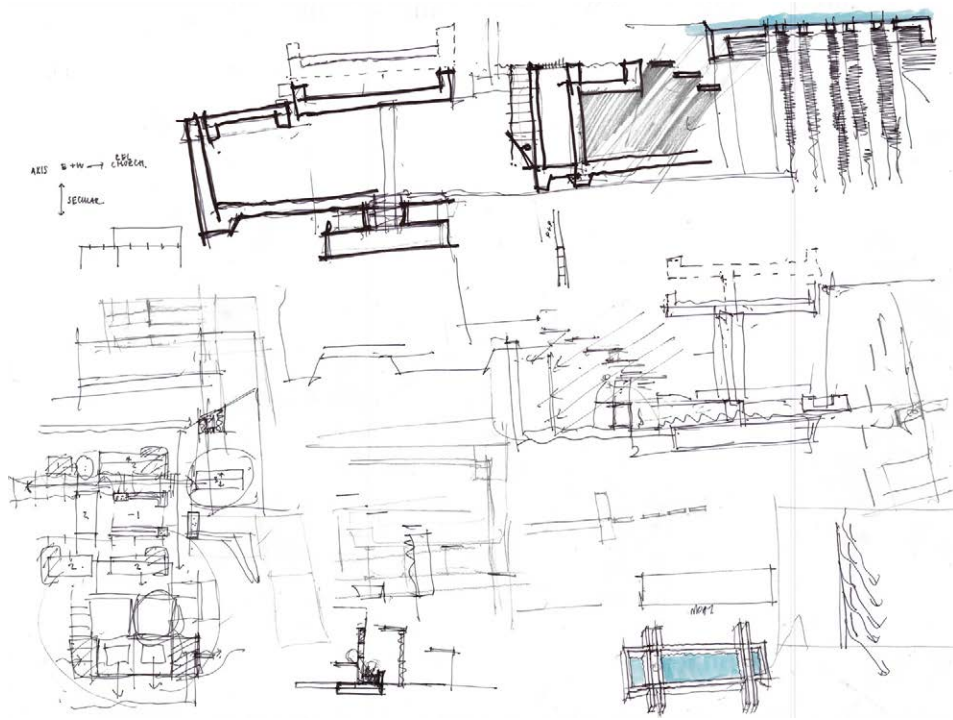


Figure 167: Section A-A and steel and glass detail exploration (Author, 2018)



Figure 168: Existing Condition of site (Author, 2018)

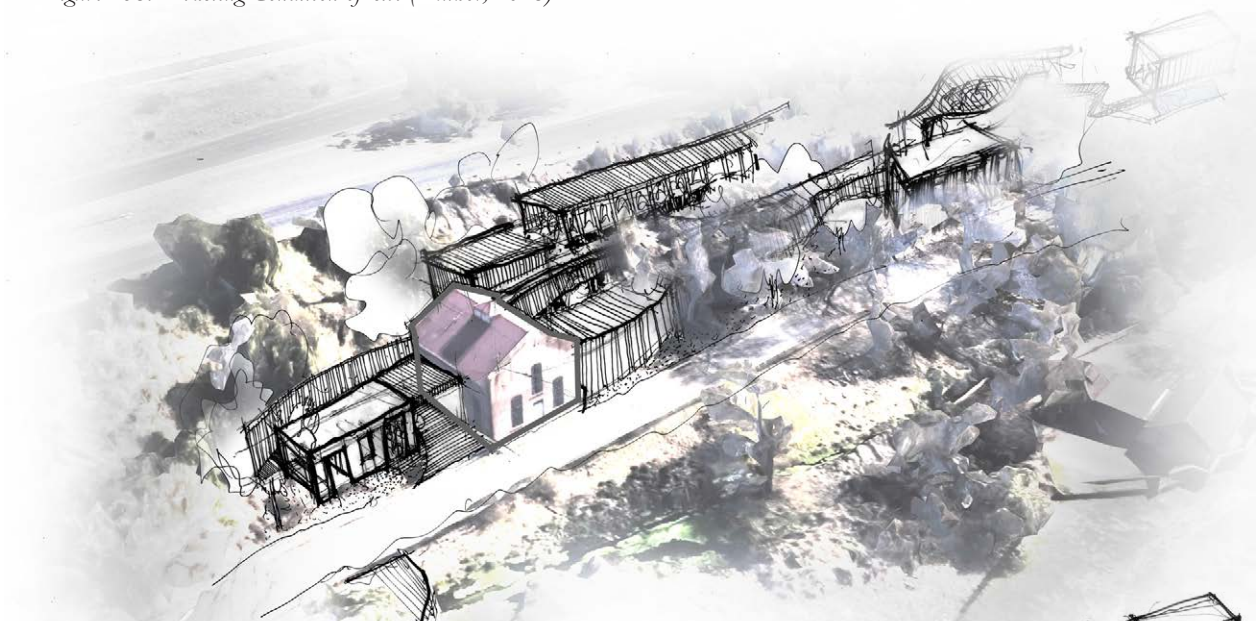


Figure 169: Proposed intervention, morphed into landscape (Author, 2018)



Figure 170: Proposed intervention highlighting relationship to existing pump house (Author, 2018)



Figure 171: Existing Condition of site (Author, 2018)

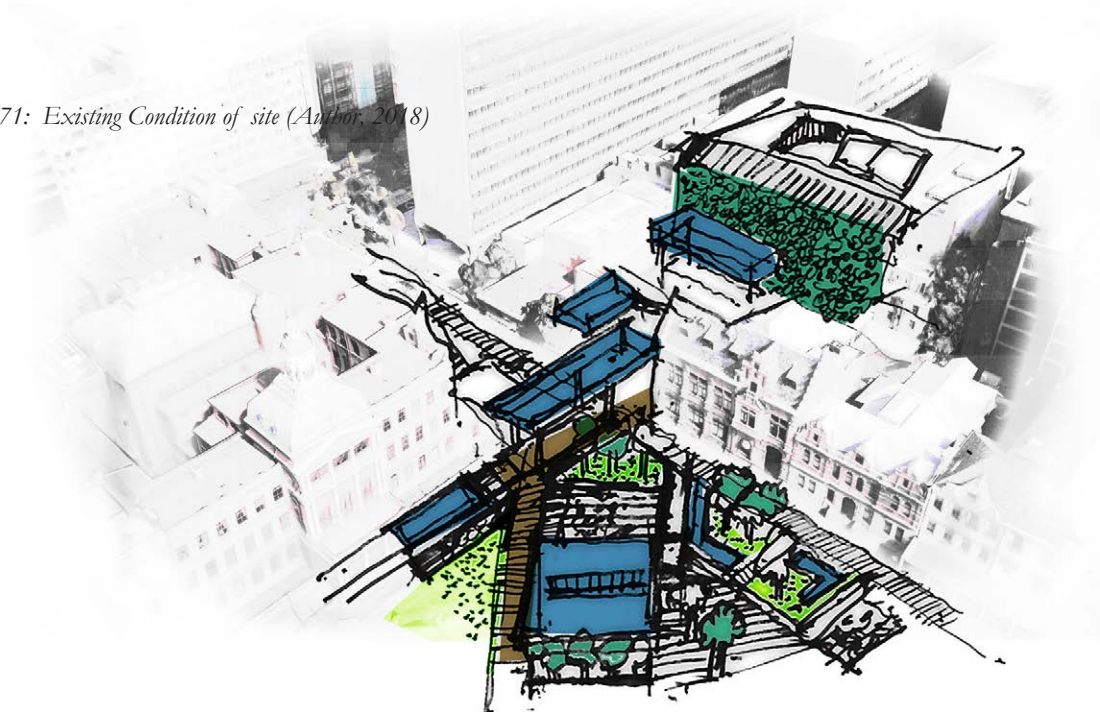


Figure 172: Proposed intervention, situated in context (Author, 2018)

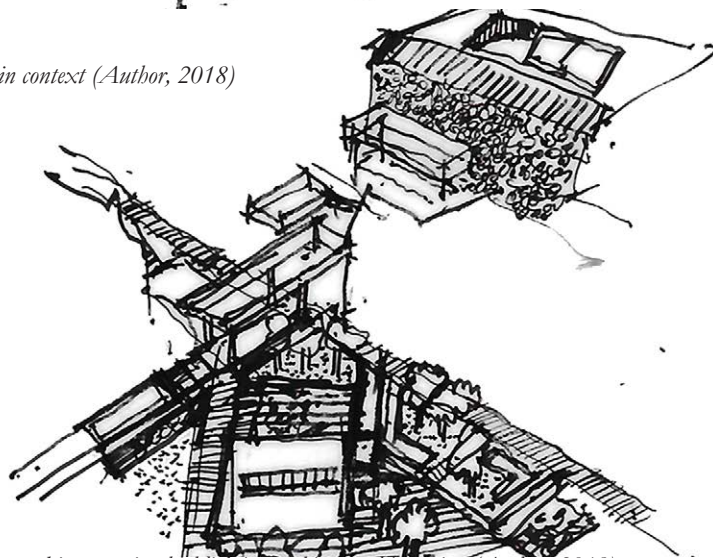


Figure 173: Proposed intervention highlighting architectural intention (Author, 2018)

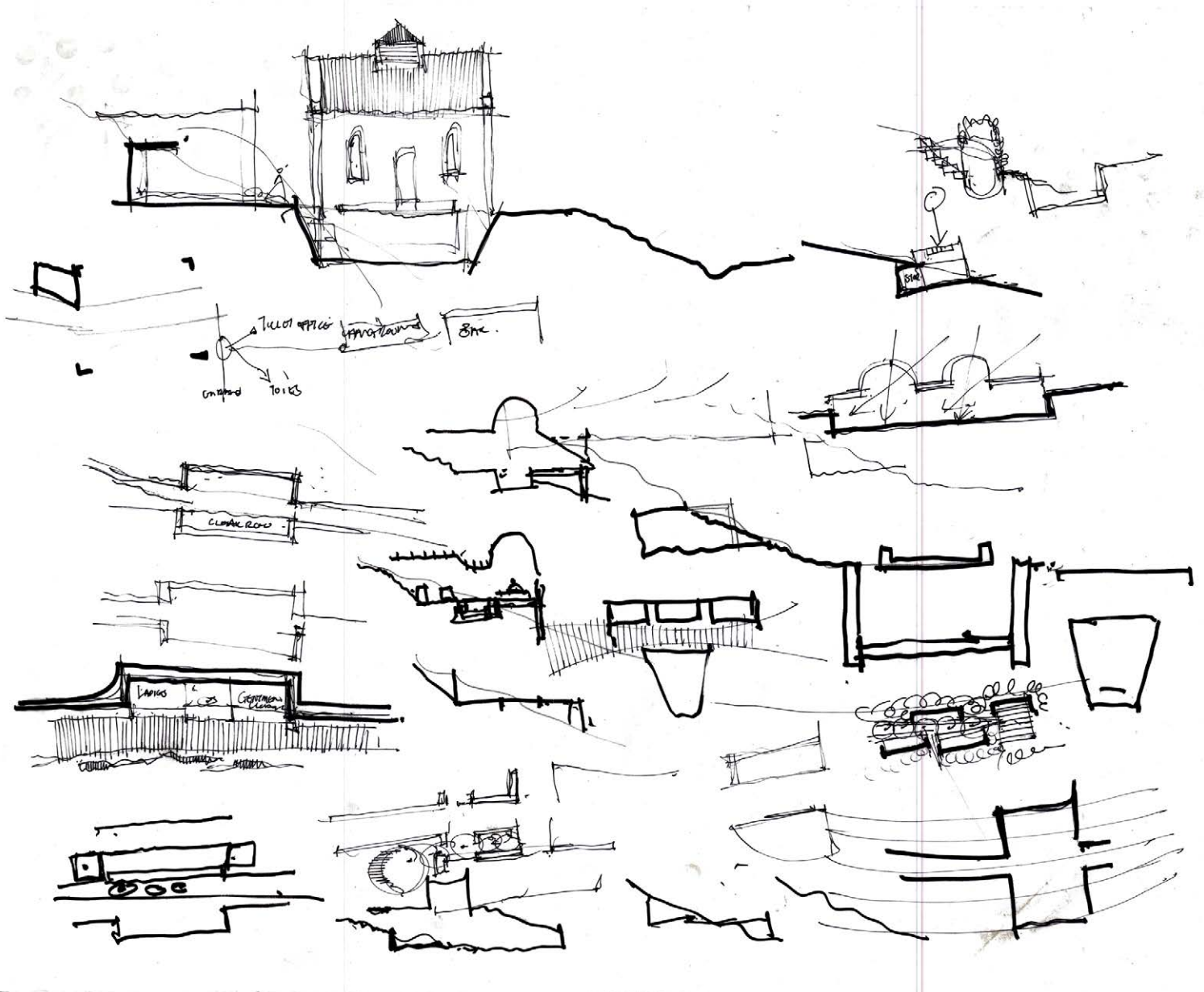


Figure 174: Exploring spatial arch form (Author 2018)

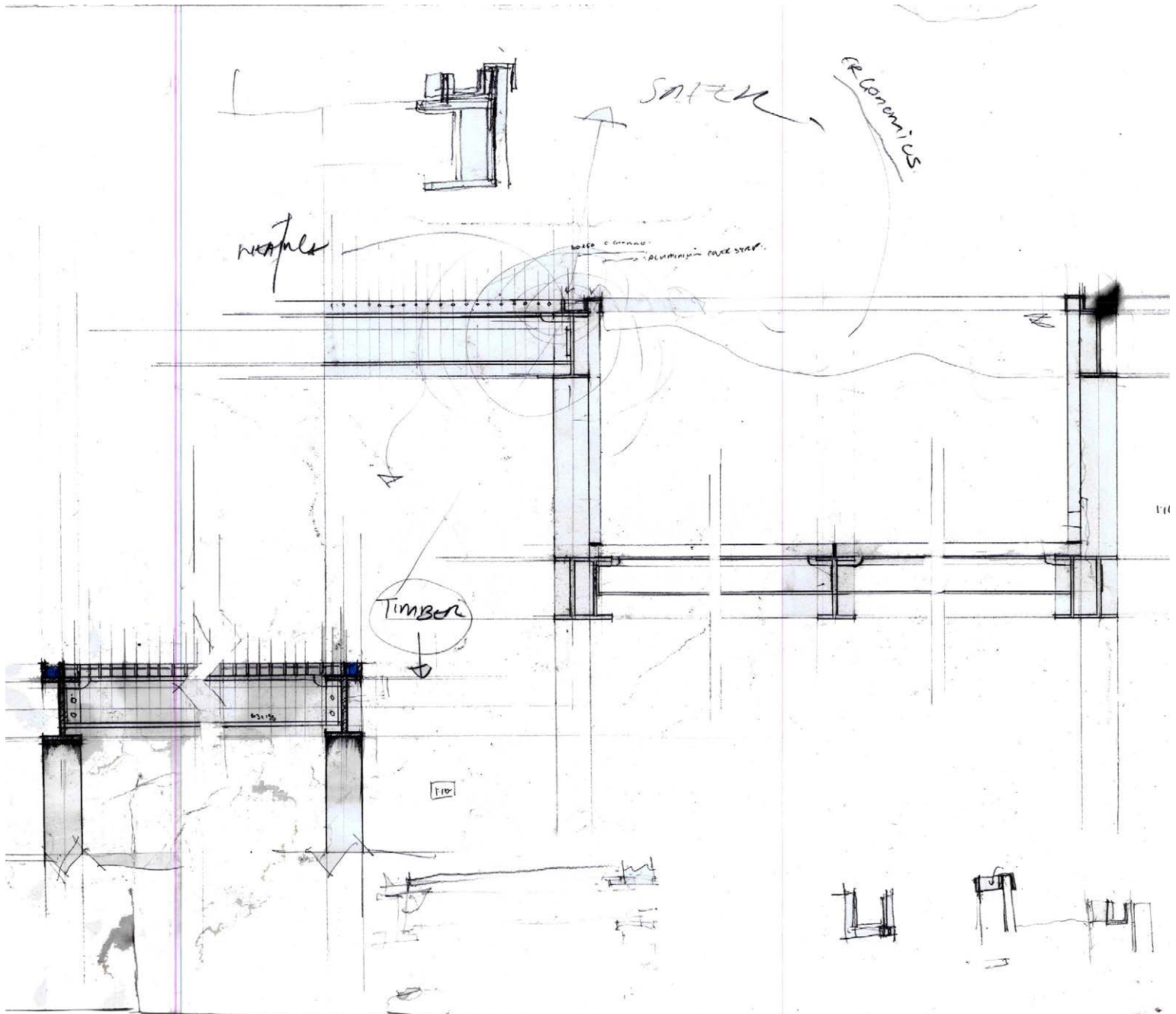


Figure 175: Glass pool detail exploration (Author 2018)



ITERATION



ACCOMMODATION
SCHEDULE

Basement Plan

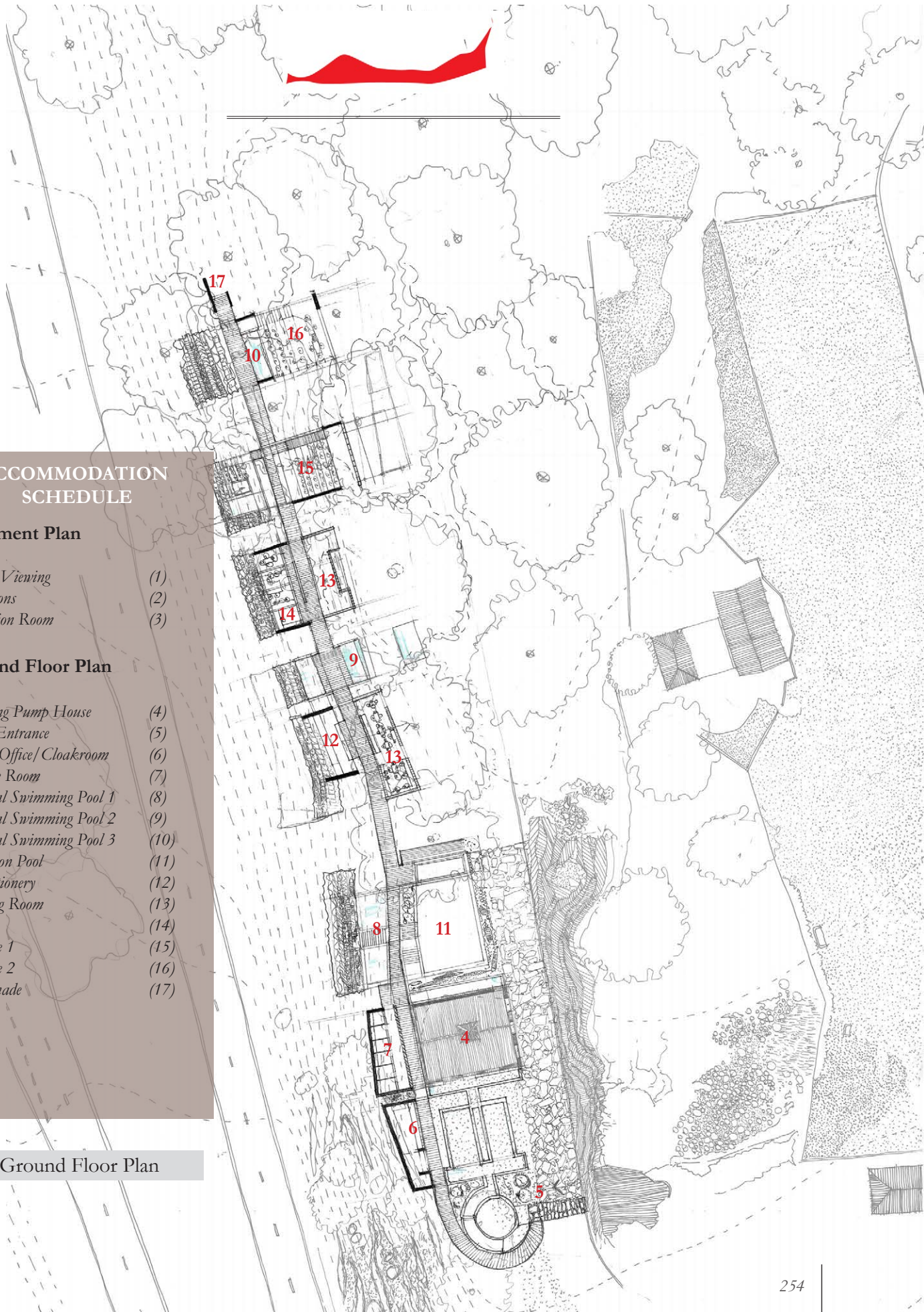
- Spring Viewing* (1)
- Ablutions* (2)
- Projection Room* (3)

Ground Floor Plan

- Existing Pump House* (4)
- Main Entrance* (5)
- Ticket Office/Cloakroom* (6)
- Change Room* (7)
- Natural Swimming Pool 1* (8)
- Natural Swimming Pool 2* (9)
- Natural Swimming Pool 3* (10)
- Reflection Pool* (11)
- Confectionery* (12)
- Waiting Room* (13)
- Offices* (14)
- Theatre 1* (15)
- Theatre 2* (16)
- Promenade* (17)



Ground Floor Plan





ACCOMMODATION SCHEDULE

Basement Plan

- Studio/Exhibition* (1)
- Ablutions* (2)
- Swimming Pool* (3)
- Pump Room* (4)
- Outdoor Theatre* (5)
- Pump Room* (6)
- Mechanical Room* (7)
- Wetland* (8)
- Underground Ablutions* (9)

Ground Floor Plan

- Market* (10)
- Swimming Pool* (11)
- Ablutions* (12)
- Water Theatre* (13)
- Urban Space* (14)

First Floor Plan

- Elevated Swimming Pool* (15)

Second Floor Plan

- Elevated Swimming Pool* (16)



Ground Floor Plan

ACCOMMODATION SCHEDULE

Basement Plan

- Spring Viewing* (1)
- Ablutions* (2)
- Projection Room* (3)

Ground Floor Plan

- Existing Pump House* (4)
- Main Entrance* (5)
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- Natural Swimming Pool 3* (10)
- Reflection Pool* (11)
- Confectionery* (12)
- Waiting Room* (13)
- Offices* (14)
- Theatre 1* (15)
- Theatre 2* (16)
- Promenade* (17)



Basement Plan





ACCOMMODATION SCHEDULE

Basement Plan

- | | |
|------------------------------|-----|
| <i>Studio/Exhibition</i> | (1) |
| <i>Ablutions</i> | (2) |
| <i>Swimming Pool</i> | (3) |
| <i>Pump Room</i> | (4) |
| <i>Outdoor Theatre</i> | (5) |
| <i>Pump Room</i> | (6) |
| <i>Mechanical Room</i> | (7) |
| <i>Wetland</i> | (8) |
| <i>Underground Ablutions</i> | (9) |

Ground Floor Plan

- | | |
|----------------------|------|
| <i>Market</i> | (10) |
| <i>Swimming Pool</i> | (11) |
| <i>Ablutions</i> | (12) |
| <i>Water Theatre</i> | (13) |
| <i>Urban Space</i> | (14) |

First Floor Plan

- | | |
|-------------------------------|------|
| <i>Elevated Swimming Pool</i> | (15) |
|-------------------------------|------|

Second Floor Plan

- | | |
|-------------------------------|------|
| <i>Elevated Swimming Pool</i> | (16) |
|-------------------------------|------|



Basement Plan

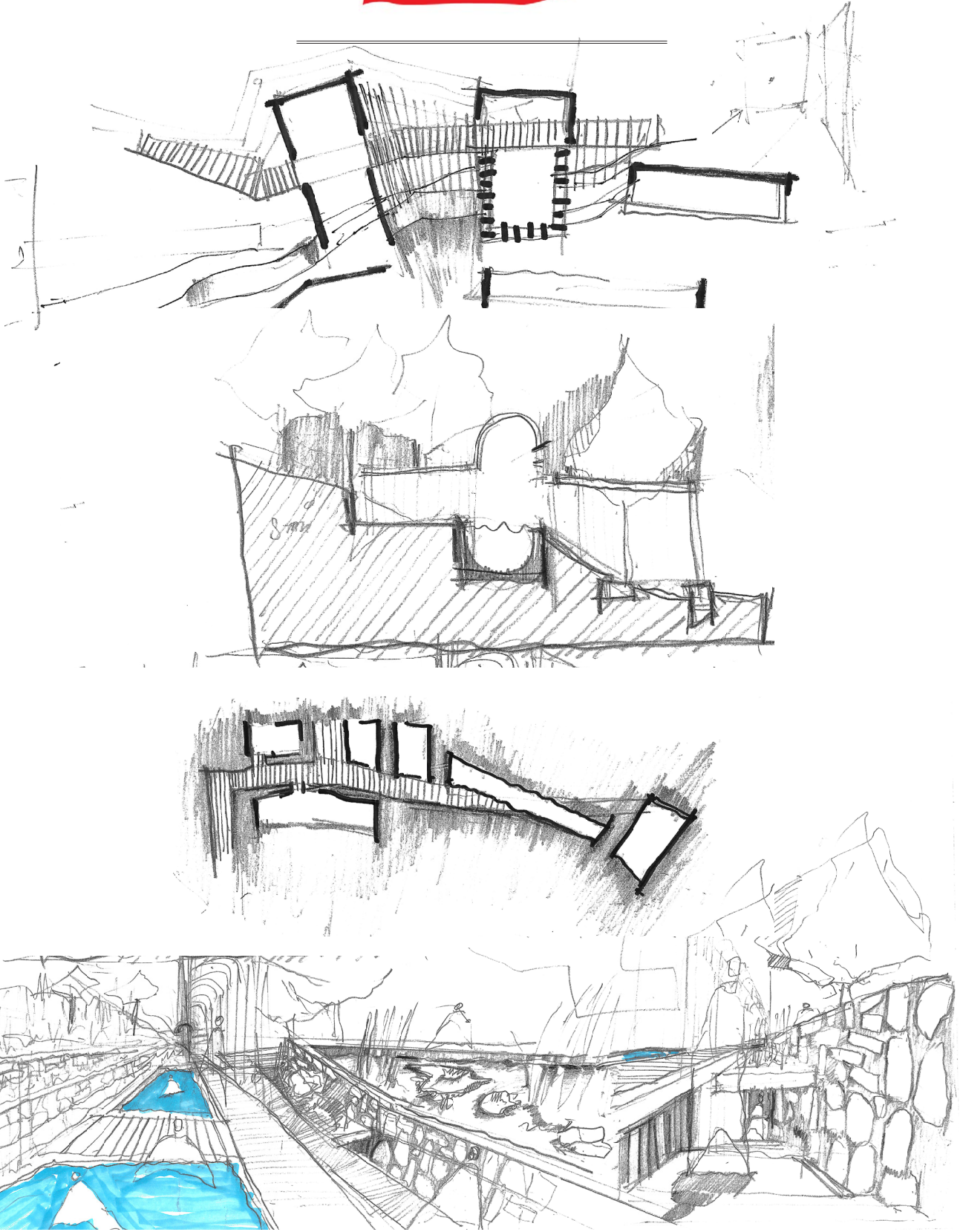


Figure 176: Sketches exploring floor and spatial layout of atmospheric theatre (Author 2018)



ACCOMMODATION SCHEDULE

Basement Plan

<i>Studio/Exhibition</i>	(1)
<i>Ablutions</i>	(2)
<i>Swimming Pool</i>	(3)
<i>Pump Room</i>	(4)
<i>Outdoor Theatre</i>	(5)
<i>Pump Room</i>	(6)
<i>Mechanical Room</i>	(7)
<i>Wetland</i>	(8)
<i>Underground Ablutions</i>	(9)

Ground Floor Plan

<i>Market</i>	(10)
<i>Swimming Pool</i>	(11)
<i>Ablutions</i>	(12)
<i>Water Theatre</i>	(13)
<i>Urban Space</i>	(14)

First Floor Plan

<i>Elevated Swimming Pool</i>	(15)
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Second Floor Plan

<i>Elevated Swimming Pool</i>	(16)
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First Floor Plan

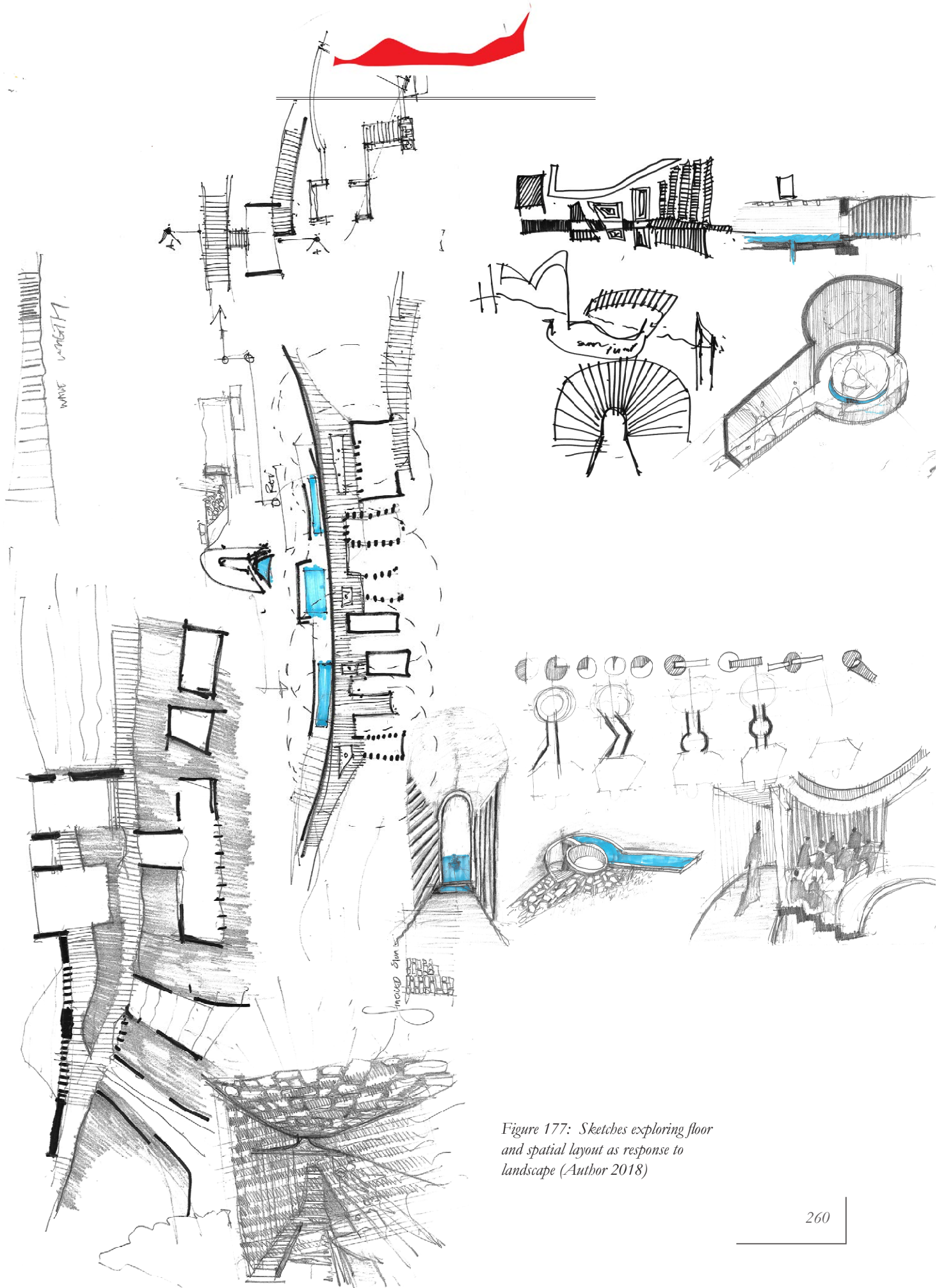


Figure 177: Sketches exploring floor and spatial layout as response to landscape (Author 2018)



ACCOMMODATION SCHEDULE

Basement Plan

<i>Studio/Exhibition</i>	(1)
<i>Ablutions</i>	(2)
<i>Swimming Pool</i>	(3)
<i>Pump Room</i>	(4)
<i>Outdoor Theatre</i>	(5)
<i>Pump Room</i>	(6)
<i>Mechanical Room</i>	(7)
<i>Wetland</i>	(8)
<i>Underground Ablutions</i>	(9)

Ground Floor Plan

<i>Market</i>	(10)
<i>Swimming Pool</i>	(11)
<i>Ablutions</i>	(12)
<i>Water Theatre</i>	(13)
<i>Urban Space</i>	(14)

First Floor Plan

<i>Elevated Swimming Pool</i>	(15)
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Second Floor Plan

<i>Elevated Swimming Pool</i>	(16)
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Second Floor Plan

CHAPTER 4

Founding

Technical Resolution

To be Added to Final Book

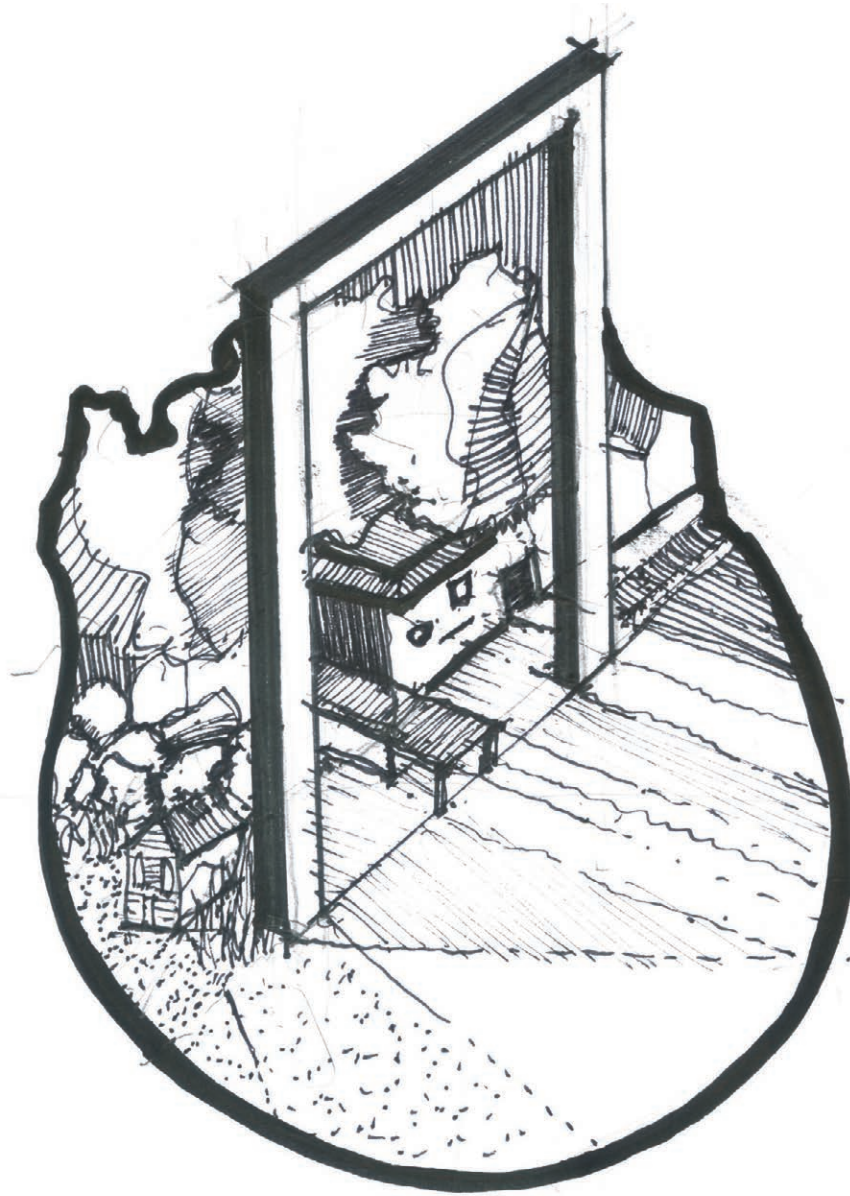


Figure 178: Sketch and diagram depicting founding (Author 2018)

Technical Concept

The Author invites the reader to recall the twin story at the beginning of the dissertation

[Fade in:]

Imagine the birth of these two special places, these twins. Twins born not of the same time but of the same dreams. Dreams that suspend time to allow their birth to bare resemblances of each other. Water was their umbilical cord. Fountains Valley sustained the life of Capitol theatre. Capitol theatre sustained the imagination of humans. Time was slower then, water traversed the landscape at the speed at which nature allowed. Water played on rocks and soil and gave and sustained life. Time was the fabric that held the ties of the metaphoric umbilical cord in harmony.

[Introduce Suspense]

Over time the threads of the umbilical water were contaminated and the two began forming into ones. The city developed and the water was needed elsewhere. Fountains remained in its natural character and Capitol performed its role. On a day that is uncertain to record, fountains overheard man talk in nature about a theatre, which brought back memory of the Capitol. The Springs reaccessed the gravity to send a message to Capitol theatre. The message was so intense it began flooding its basement. The two now sit reunited in some way, trying to find ways to reconnect the umbilical, to reestablish place and dreams, to think of a future accord.

[Fade Out]



The Technical Concept is an extension of the twin phenomena in that it draws influences from one site to the other. The relationship shared between Capitol Theatre and Fountains Valley is technically explored through the four main conceptual drivers: Water, Memory, Time, and Nature. These conceptual drivers manifest in the construction approach of each site as it draws influences from the other site. The Idea expressed below postulates a scenario in which both sites are built within the same time. Concrete that will be used in the Construction of Capitol Theatre will be shuttered with timber that will leave a memory of the material, as the timber will be used within the construction of the Atmospheric Theatre in Fountains Valley. The duality expressed within the reference of these two sites reiterates the binary constructs while reinforcing the conceptual themes.

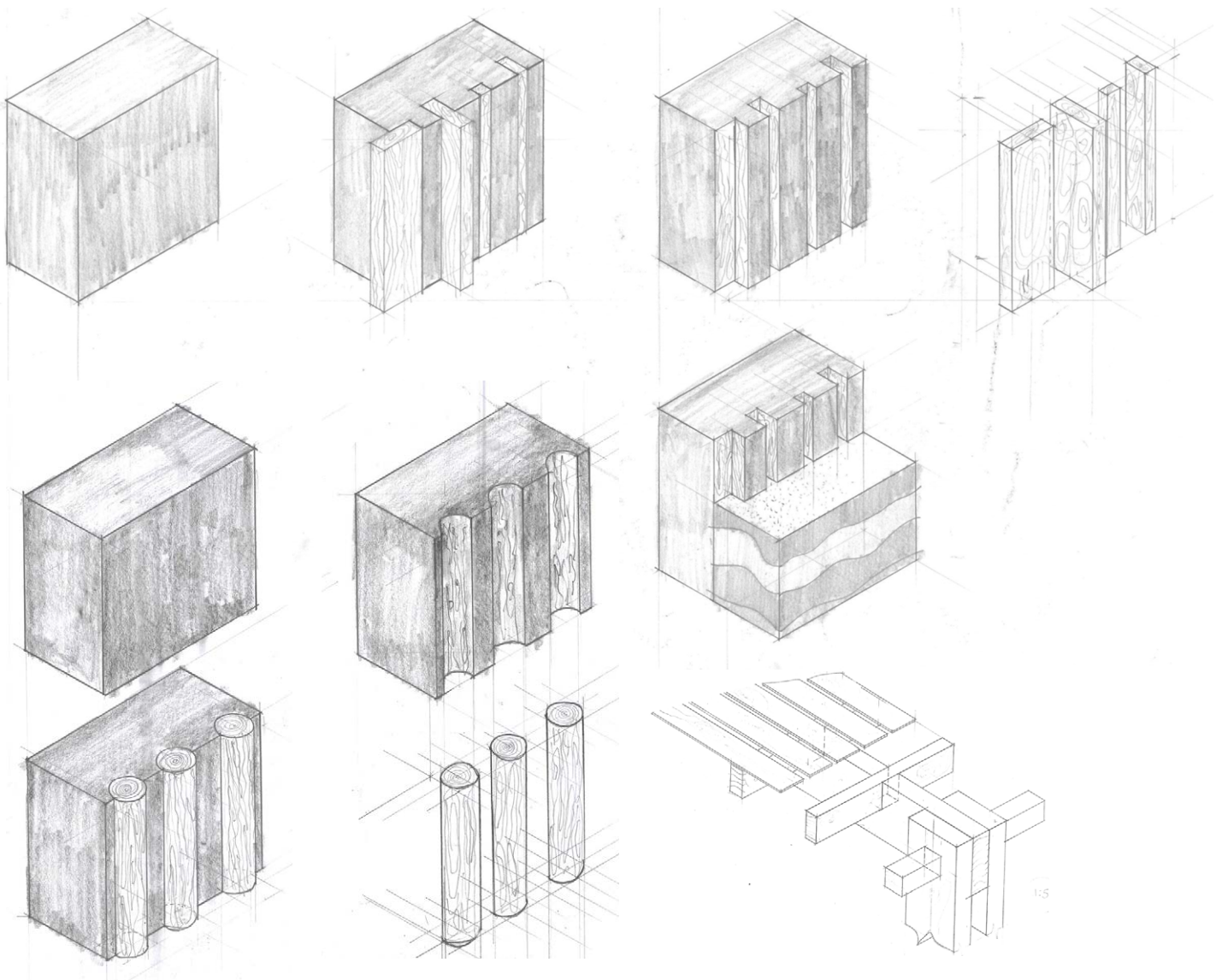


Figure 179: Timber from atmospheric theatre used to shutter concrete in urban site. Twin construction of sites (Author 2018)

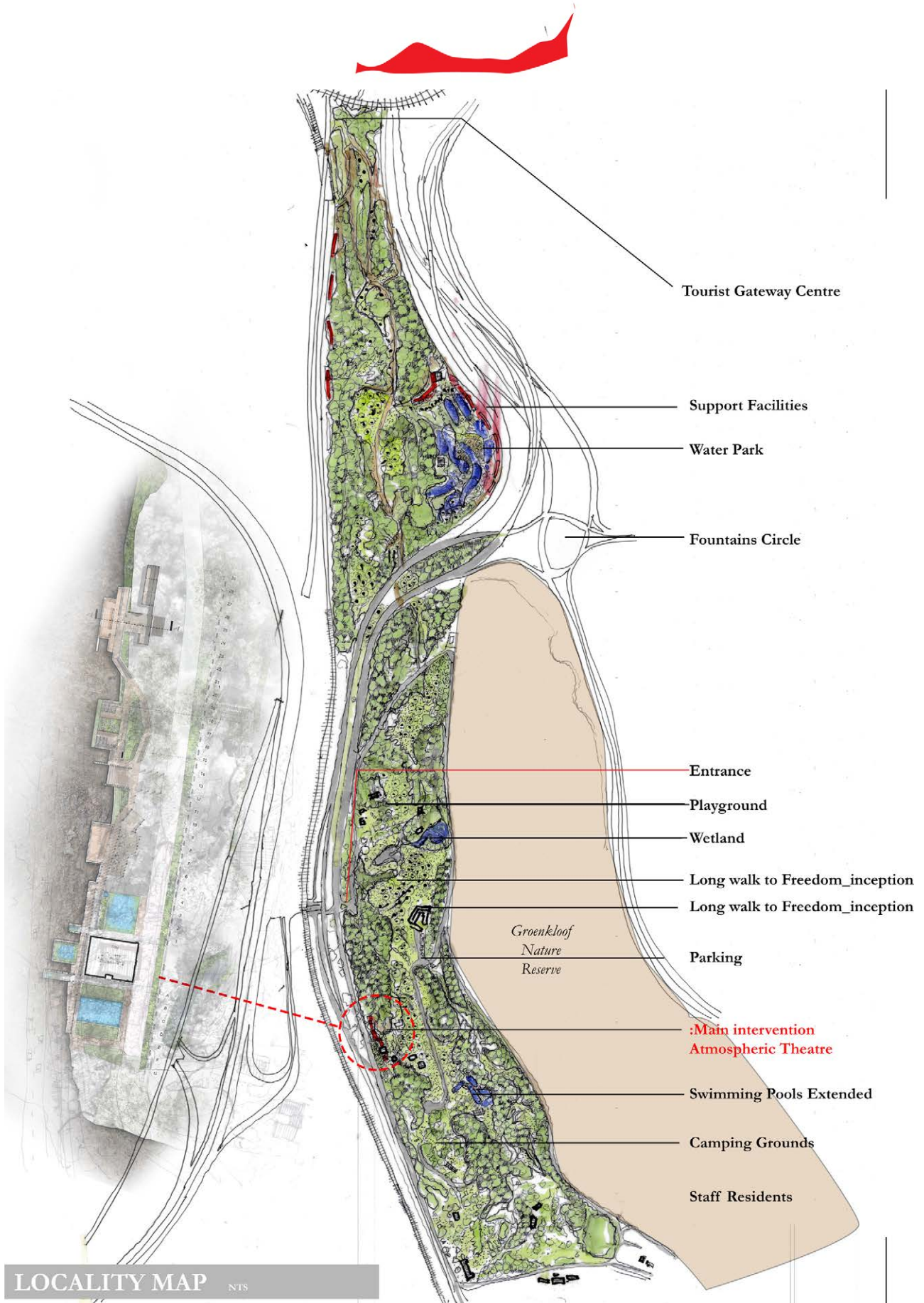


Figure 180: Locality Map (Author 2018)



Figure 181: Locality Map (Author 2018)



TECHNICAL

The site for the proposed atmospheric theatre falls within a 100 year floodline which offers the opportunity for an alternative method of construction that leans more to the temporal. The materials that are explored through the construction of the atmospheric theatre are natural materials to complement allow for building to leave a natural imprint on the landscape. The materials used within the structure are variations of timber, rammed earth, rock.. The intention of the architecture is that when the building withers away there will be minimal hazardous materials left to contaminate the landscape.

TIMBER

Laminated Timber Beams

To allow for the for the arched nature of the design which references the interior spatial experience of Capitol theatre, lam-stock laminated SA pine beams are used to allow for the formal expression and constructibility of the design. According to Nolte Smit (Architective 2013) the advantages of glue lamination are :

- Size and length
- Strength
- Stability
- Ease of Working
- Resistance to chemicals
- Fire resistance
- Impact resistance

The advantages expressed showcase the structural soundness of the material.

Untreated Timber

Untreated SA Pine beams are used based on their

nature to be temporal. Various sizes are used within the structure to enhance the experience of the architecture and allow for material to weather into the landscape with ease.

Plywood

The structural nature of plywood allows for lightweight construction methods that allow for weathering to be expressed more vividly as it is exposed to the elements.



Lamstock Laminated Beam



Untreated SA Pine



Plywood



TECHNICAL

The Conceptual theme of time in Capitol theatre opposes the temporal nature of Fountains Valley and seeks more permanence. Permanence is determined by the nature of the city context as well as the programmatic requirements for a durable structure that will hold large bodies of water.

Steel

Steel columns are used in Capitol Theatre as a reference to the tall trees found in Fountains Valley. The Primary load of the steel superstructure is held up by 254x 254 Hot rolled steel columns with a 146x 254mm Hot Rolled I-Section bracing the structure horizontally. Due to the load of the imposed by the programme, and additional cross bracing system is used with 2 x 50 x 50 x 3 MS Equal angle cross brace, back to back, bolted through pre-drilled hole in gusset plate using M12 bolt and nut. Angles fastened back to back at 1.2m C/C using M8 bolts.

The grid structure is drawn from the memory of the existing capitol theatre structural spacing which provides varying spacing between 4000mx 4000mm and 4000mmx4500 mm.



Figure 182: Steel as it references trees in Fountains Valley (Author 2018)

Glass Pool

Toughened laminated glass is used for the glass pools. The glass panels are fitted within a steel frame off site and joined together with a structural silicone. The Wall house by Guedes Cruz Arquitectos uses this method of construction to allow for an elevated glass pool. The swimming pools cast liquid shadows which references the experience of walking within the highly vegetated fountains valley context. Holes are cut in the glass in factory conditions to allow for drainage, aerators to allow for water circulation, and for creepy crawly pool cleaner to keep the water glass clean.

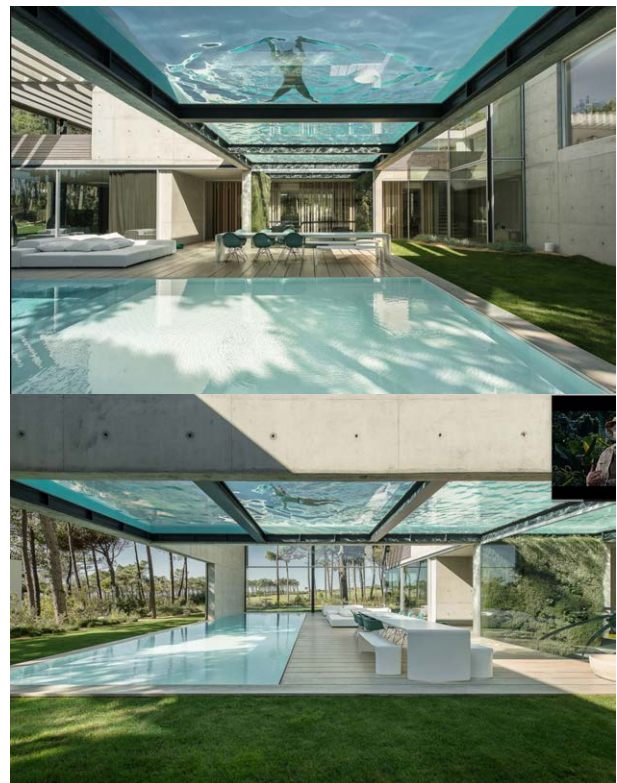


Figure 183: Glass swimming pool by Guedes Cruz Arquitectos (Ricardo oliveira alves 2018)

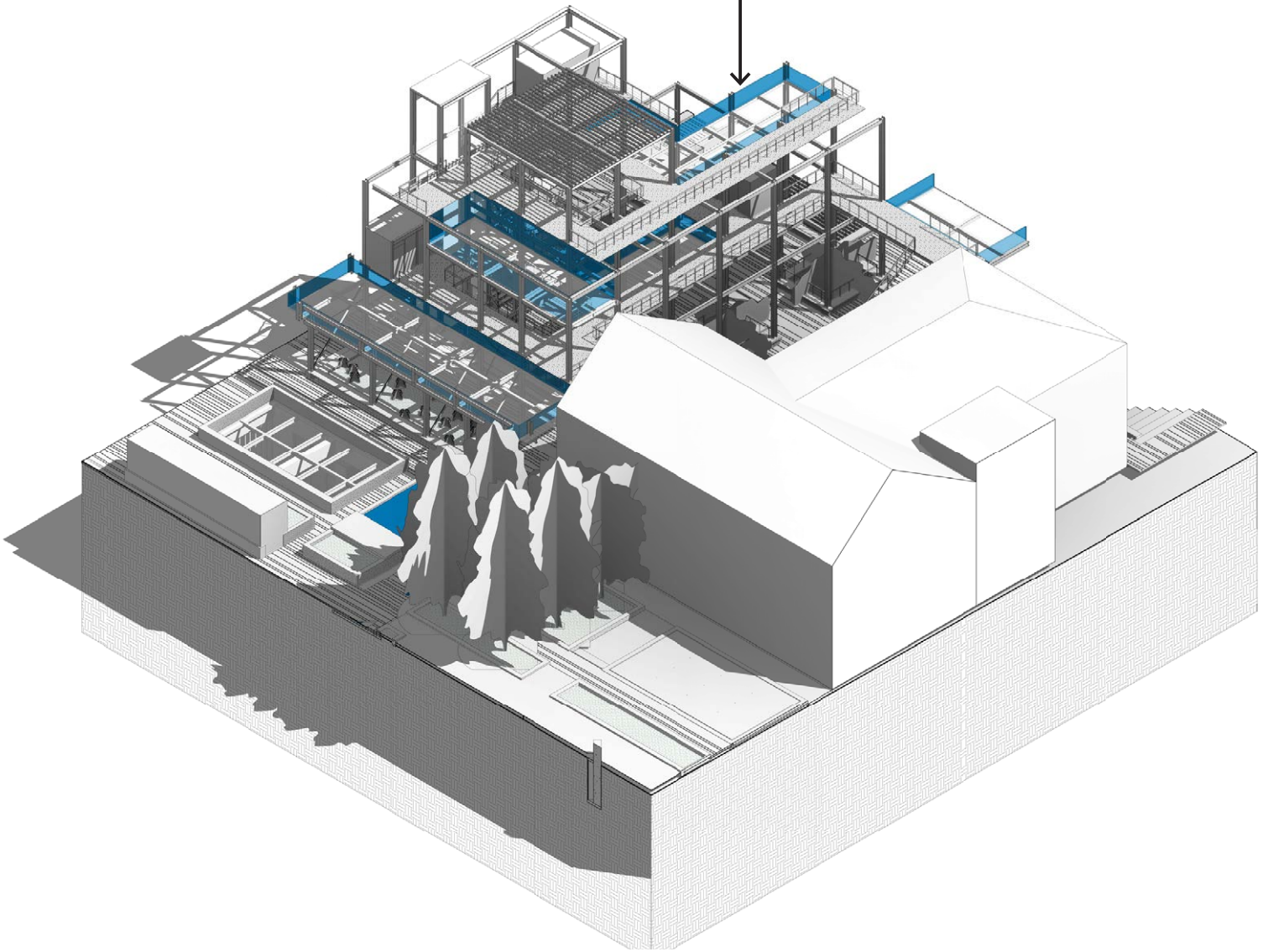


Figure 186: Glass swimming pools (Author 2018)



Rock

The excavation for the foundation of the theatre will yield quartz rock which will be used for the foundation structure

Construction Method

Due to the dolomitic nature of the soil and the intention to allow for a natural construction, the quartz rock will be dry packed. A 1.5x1.5m foundation is dug and re-compacted in layers of 150mm layers ModASHTO to allow for the stone foundation substructure to gain stability for the timber superstructure to rest firmly in the rock. the bottom of the rock foundation has a coarse gravel base to allow for water to flow quickly out of the foundation to combat the nature of dolomitic soil to collapse.



Quartz Rock

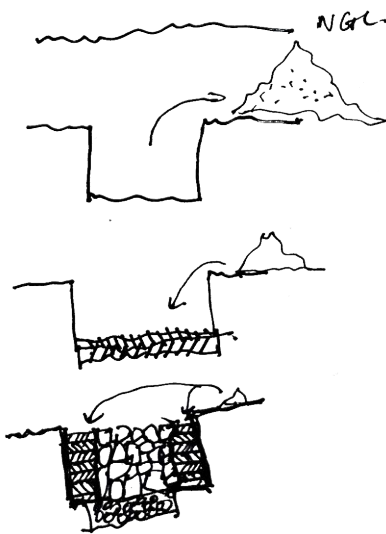
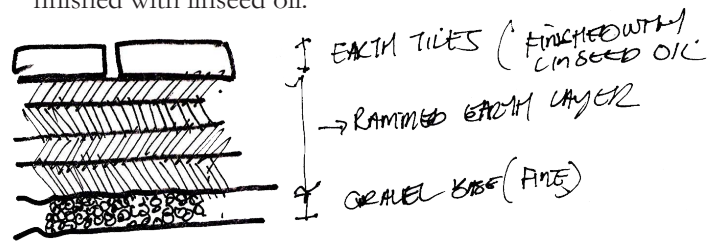


Figure 188: Foundation construction process (Author 2018)

Rammed Earth

Rammed Earth is used in the construction of the floor surface. The rationale for this method lies in the opportunity for weathering and reconstruction. The bottom of the rammed earth floor construction is lined with four layers of 50 mm rammed earth with a drainage base of fine gravel to allow for water to easily escape. the top of the rammed earth is lined with 300x 300mm rammed earth tiles (cast in situ) and finished with linseed oil.



Rammed Earth



Figure 187: Rammed Earth in promenade (Author 2018)



Composite Timber

Where natural timber is used within Fountains Valley to allow for decay, elevated walkways are treated with composite timber to allow for a durable surface material that will retard decay from the excess water spillage that will occur.



Rock

Quartz Rock found insitu and from fountains valley will be used as a retaining wall structure. The rock retaining walls are dry packed to allow for water to flow into the building to thicken the presence of water in the building and the natural springs relationship to earth in Fountains Valley.
Saligna Beams



Quartz Rock

Concrete

The Basement structure is made from concrete to allow for loads imposed by the steel and glass pool superstructure to be spread within the earth. Due to the high water table and subsequent soil conditions, a raft foundation is used with 450x 900 mm reinforced concrete beams to combat movement. Concrete drainage tiles are used to allow for water to drain to the nearest green shaft/light shafts where water will be lead back into the earth. Concrete work is finished with an off shutter timber finish to reference the timber materiality expressed within the atmospheric theatre in fountains valley.

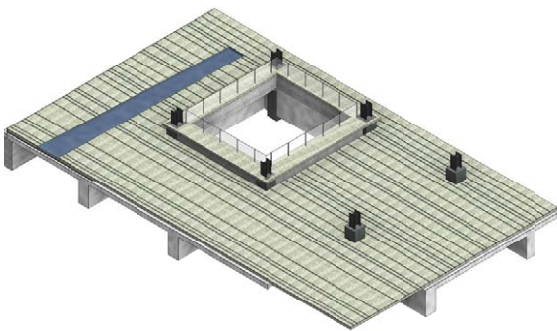


Figure 189: Timber shuttered concrete pavers on ground floor (Author 2018)



Figure 190: Timber shuttered concrete pavers on ground floor (Author 2018)

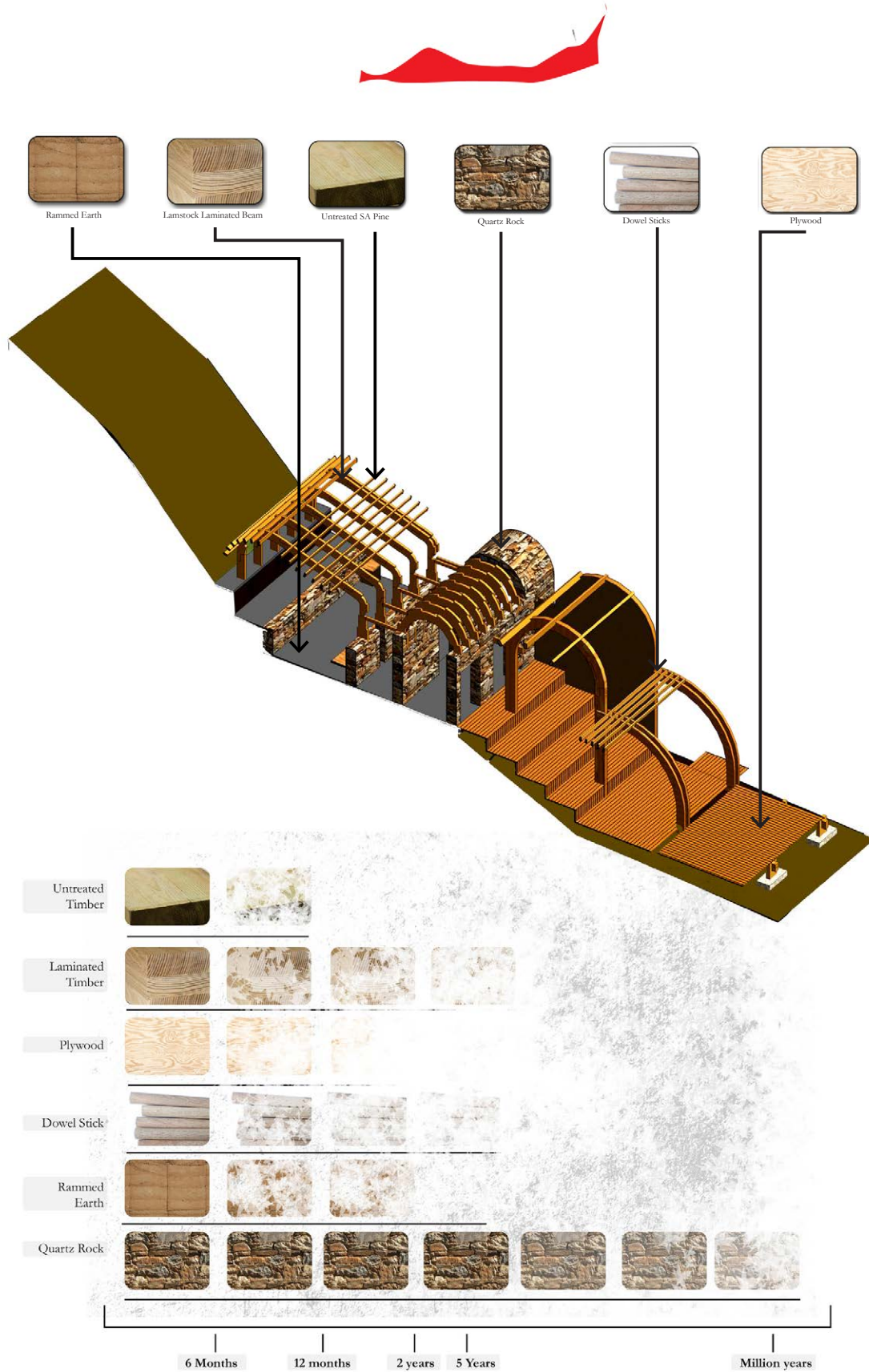


Figure 191: Material palette and deterioration (Author 2018)

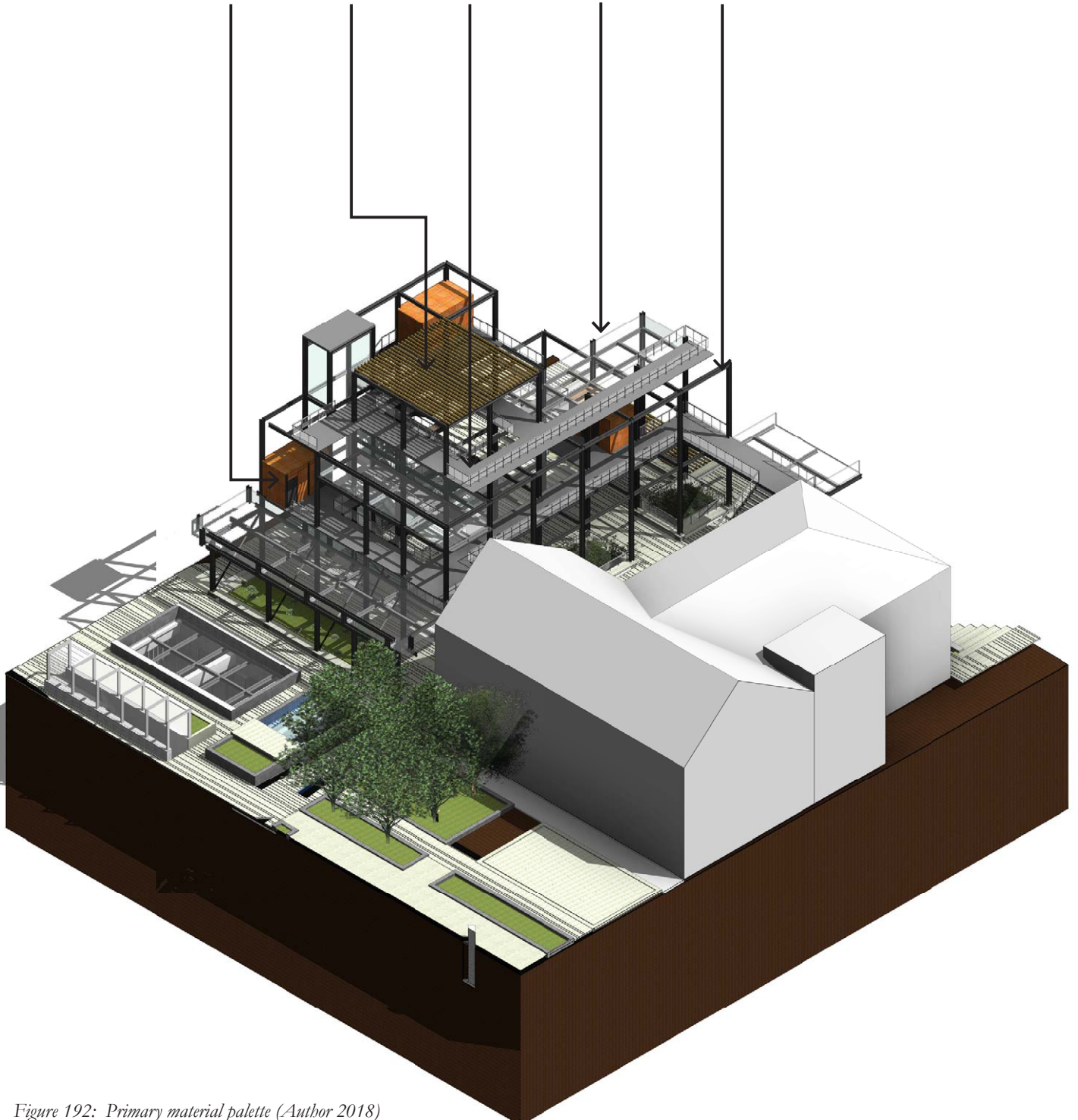
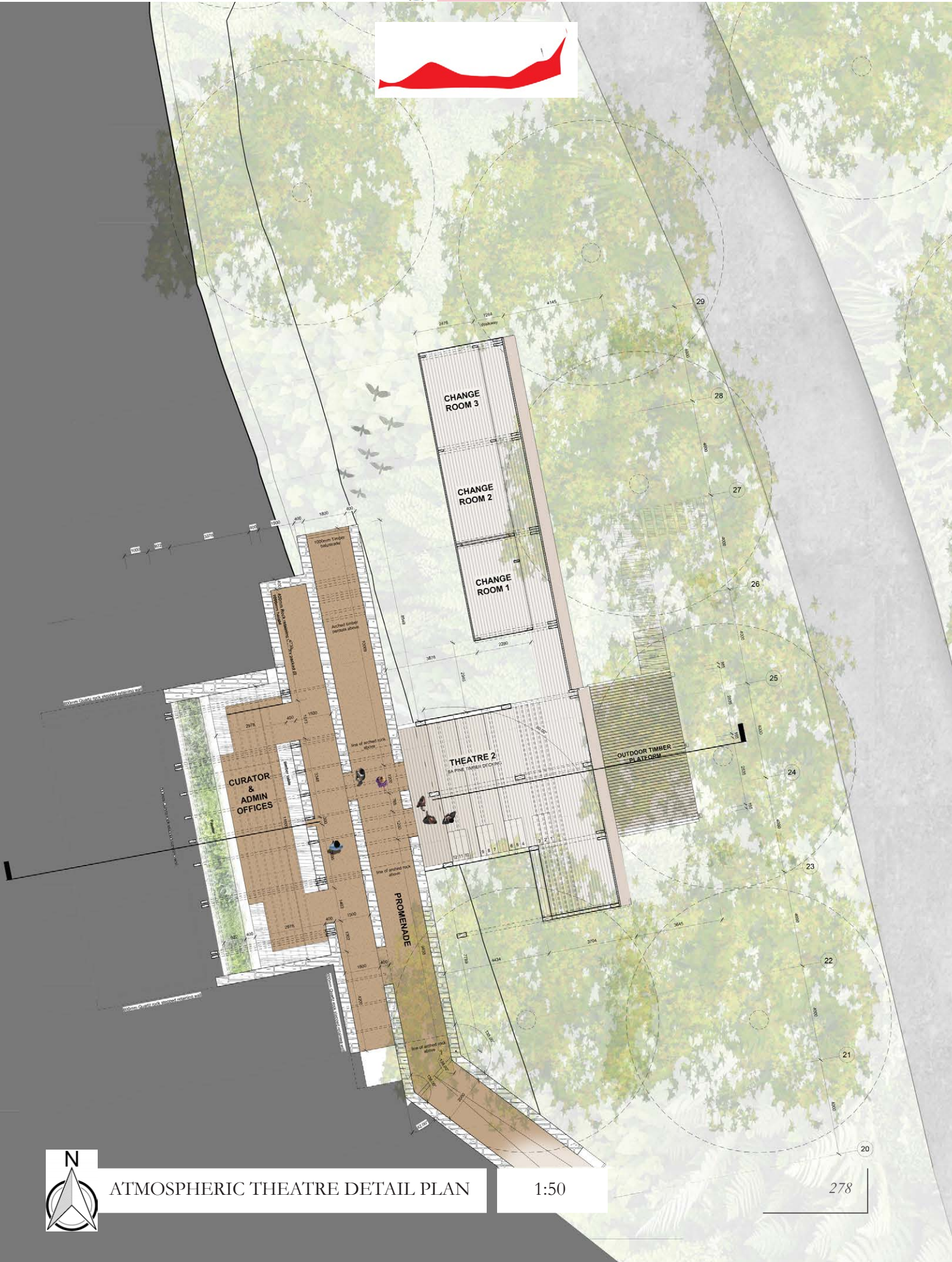


Figure 192: Primary material palette (Author 2018)







ATMOSPHERIC THEATRE DETAIL PLAN

1:50

278

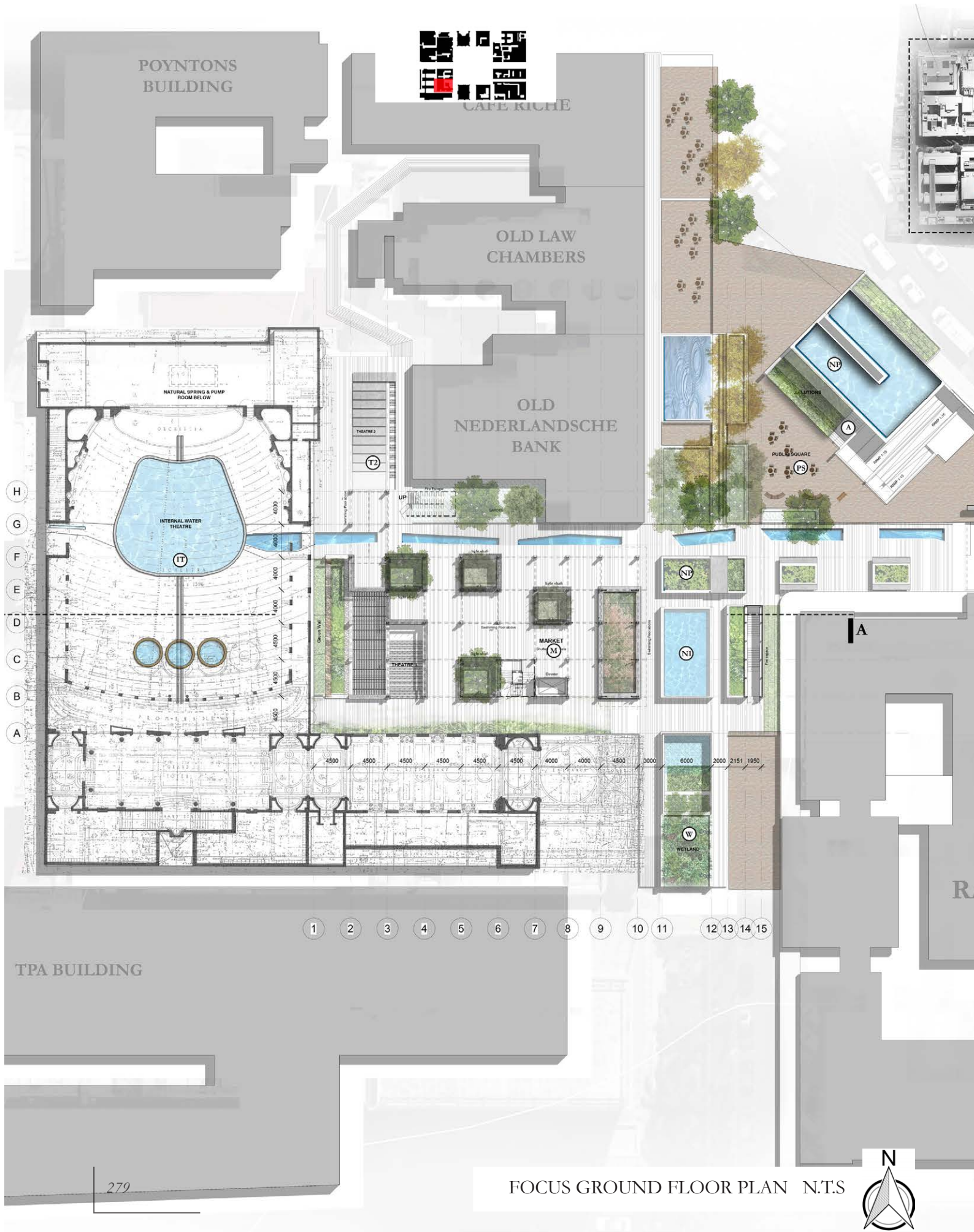




Figure 193: Perspective showcasing relationship between new building and existing pump house (Author 2018)



Figure 194: Proposed theatre in landscape 1 (Author 2018)



Figure 195: View from public square to proposed structure(Author 2018)



Figure 196: View of glass swimming pools from market space (Author 2018)



Figure 197: Atmospheric theatre (Author 2018)



Figure 198: Atmospheric theatre corridor (Author 2018)



Figure 199: Basement experience (Author 2018)

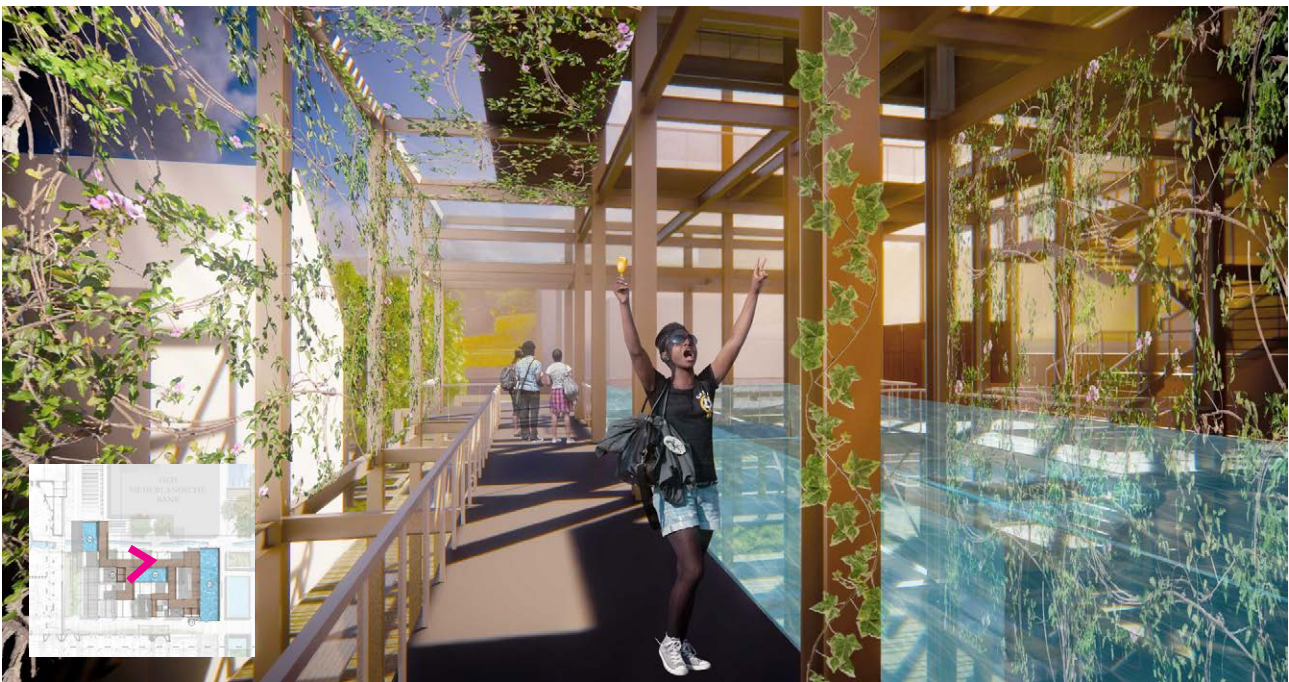


Figure 200: Elevated pool level 1 (Author 2018)



Figure 201: Basement Floor Plan (Author 2018)

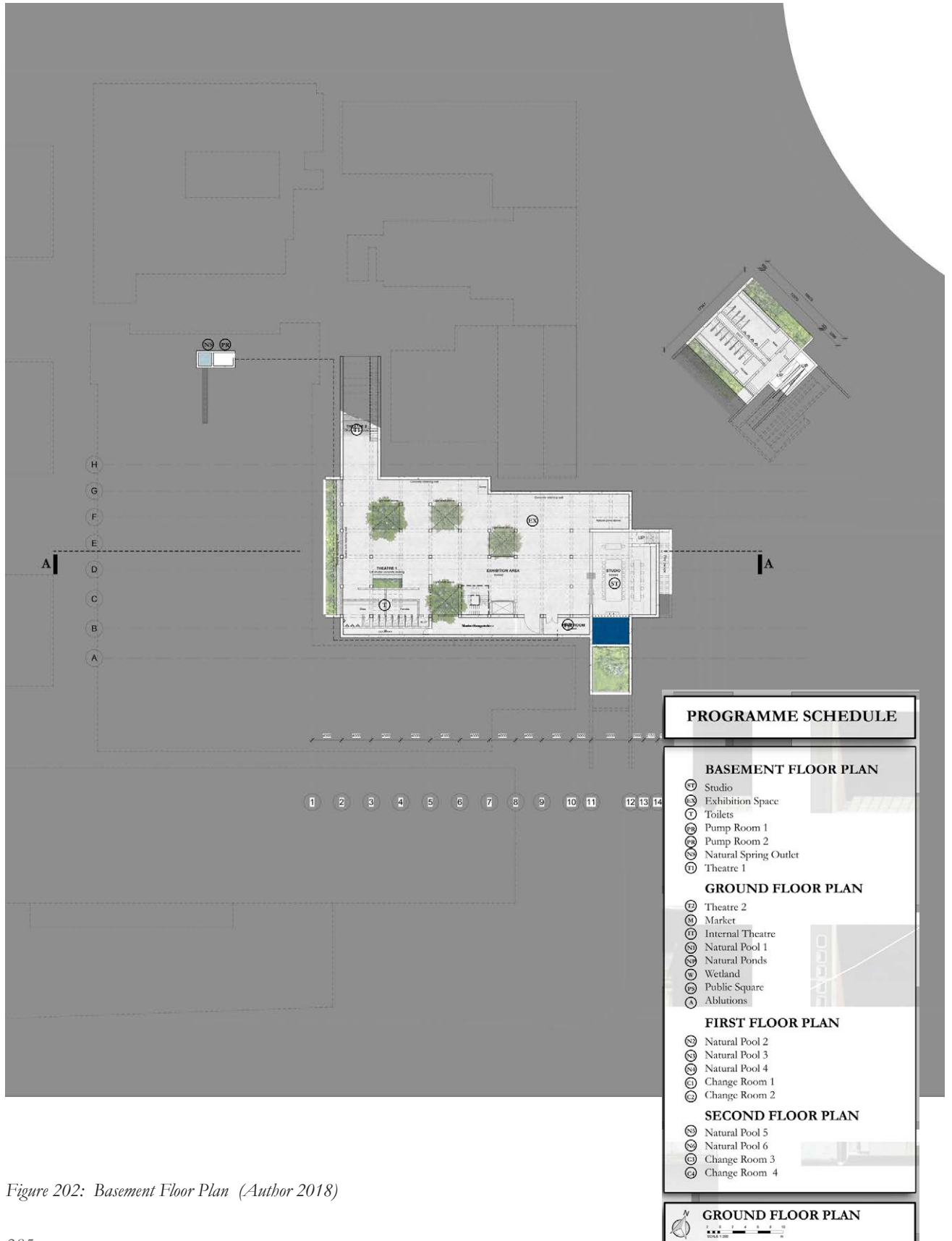


Figure 202: Basement Floor Plan (Author 2018)



Figure 203: Ground Floor Plan (Author 2018)

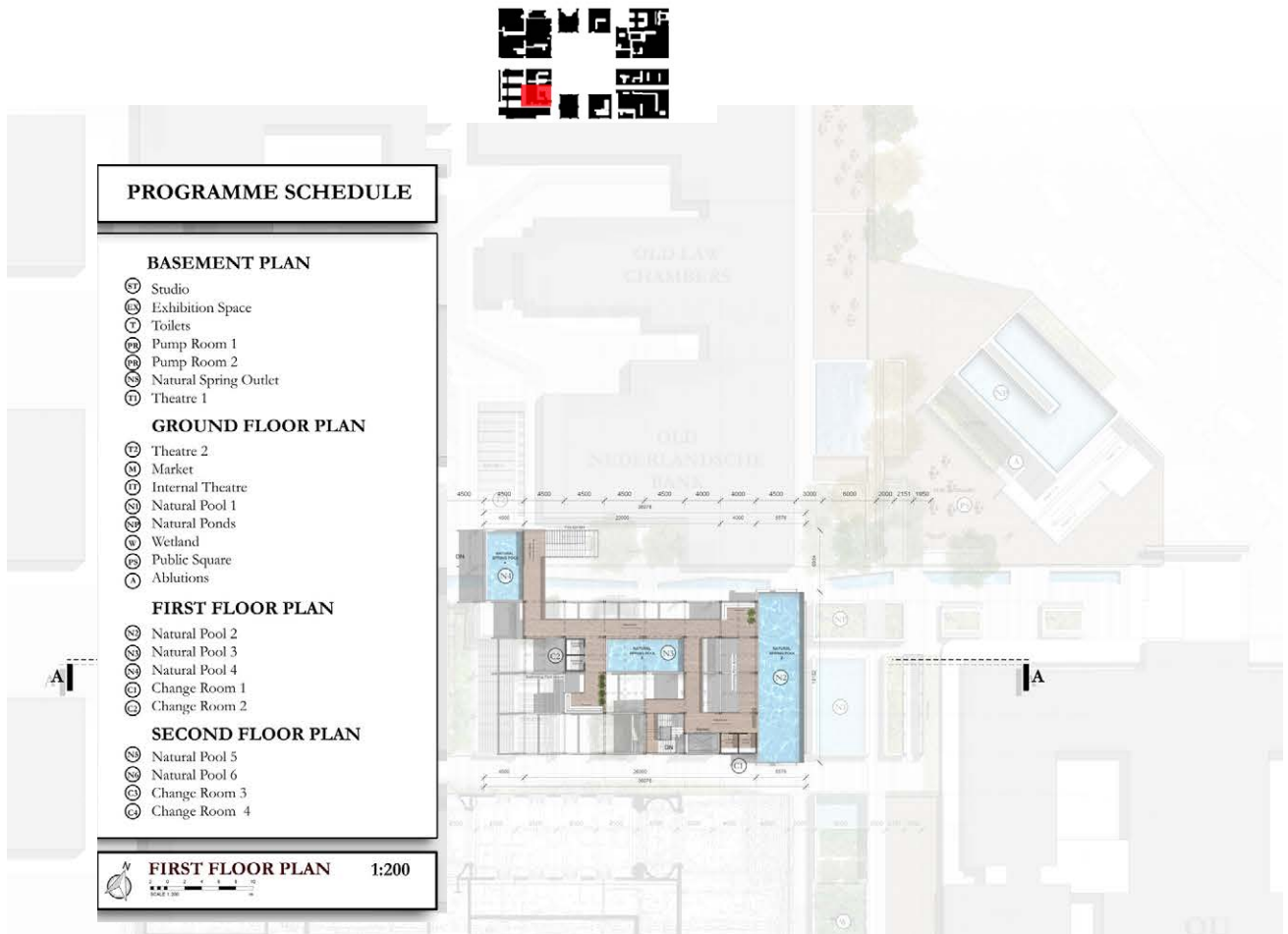


Figure 204: First Floor Plan (Author 2018)

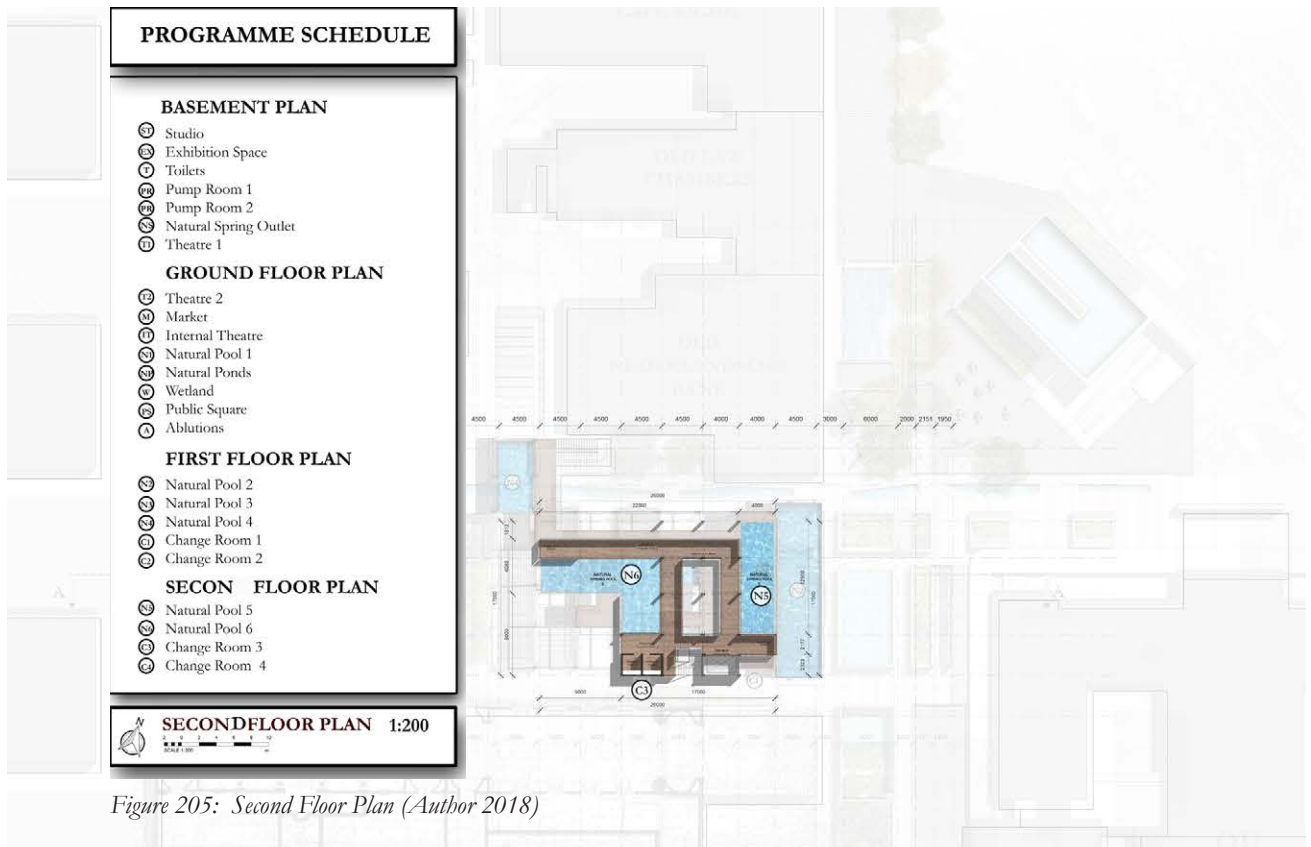


Figure 205: Second Floor Plan (Author 2018)

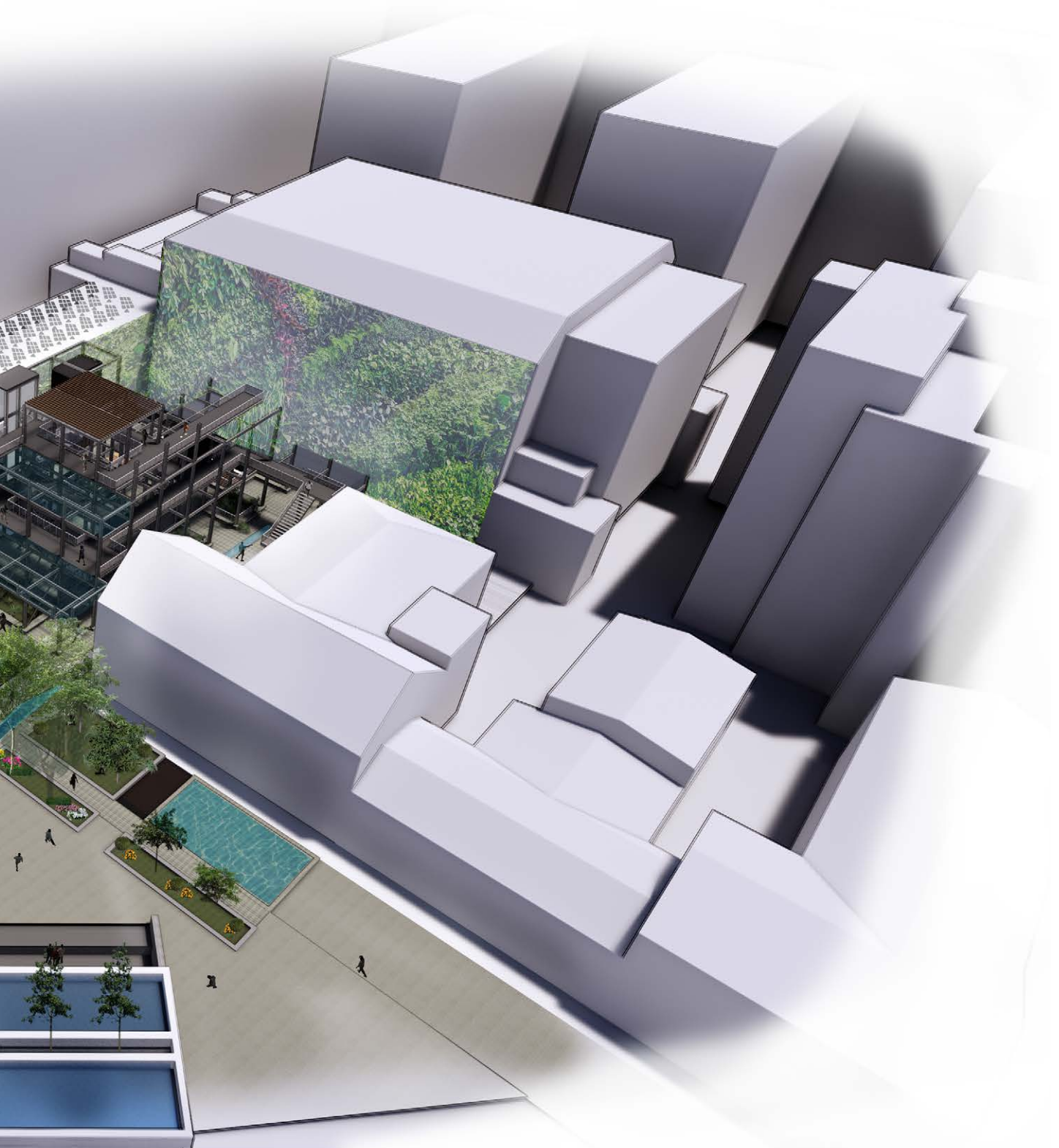


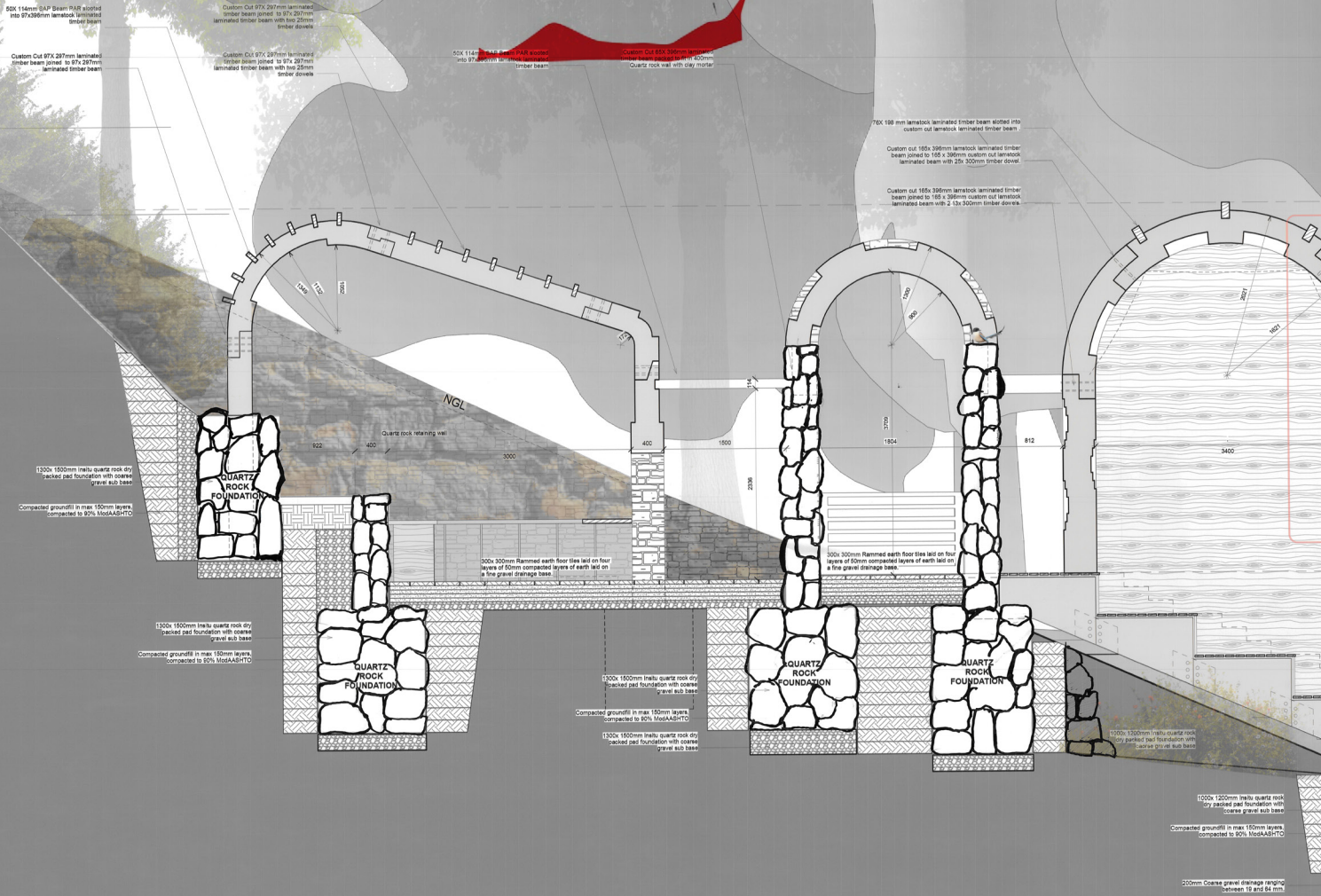
Figure 206: Projection room showcasing projection of activity in twin site.





Figure 207: Aerial view of intervention in context





DETAIL EXPLORATION

The Exploration investigates methods of construction that celebrate nature and the manner in which it seamlessly forms with other parts of its ecosystem. The investigation explores the manner in which natural materials are built with the relationship between water and weathering continuously explored at different junctions.

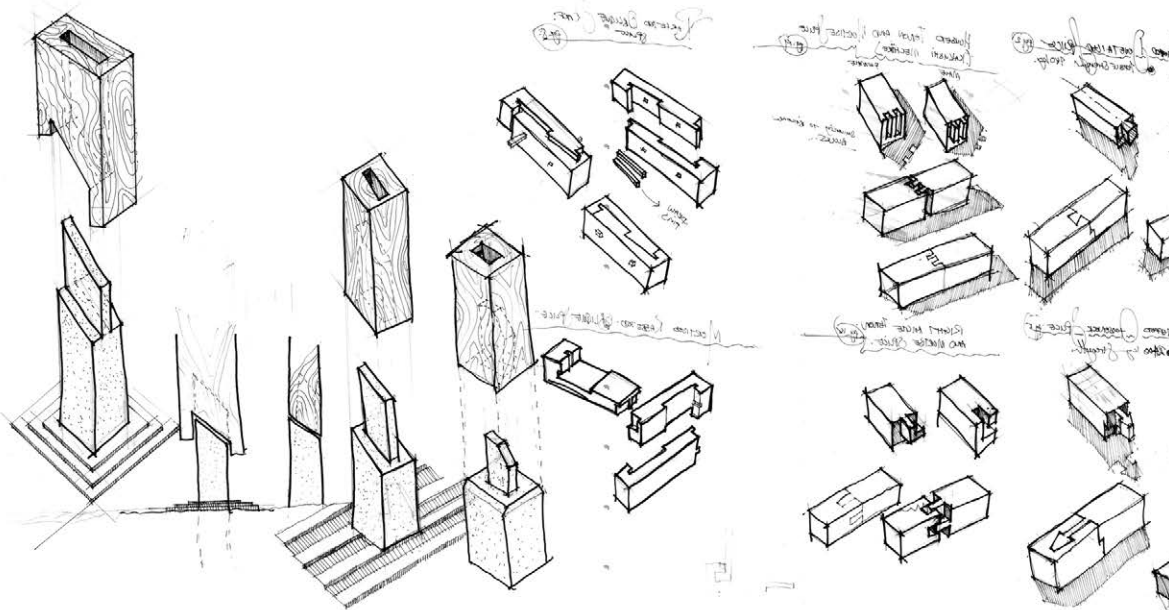
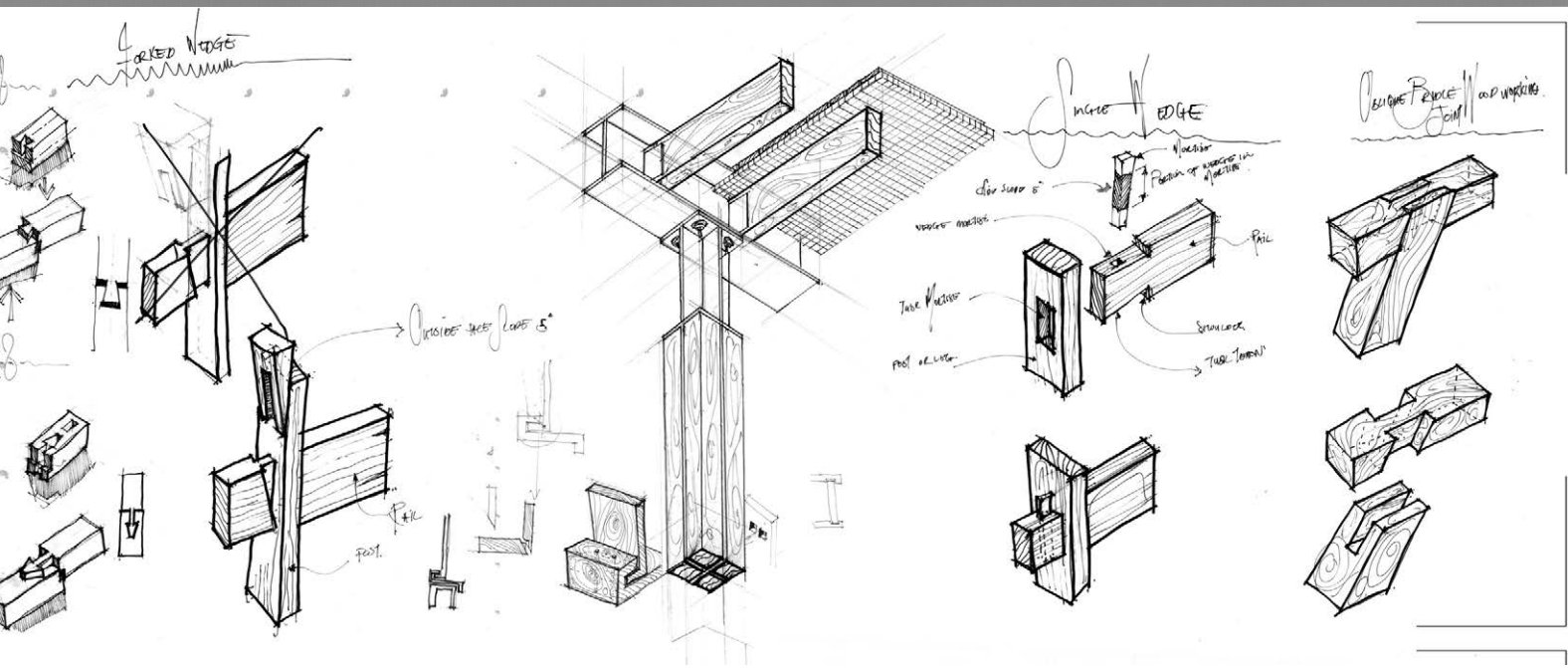
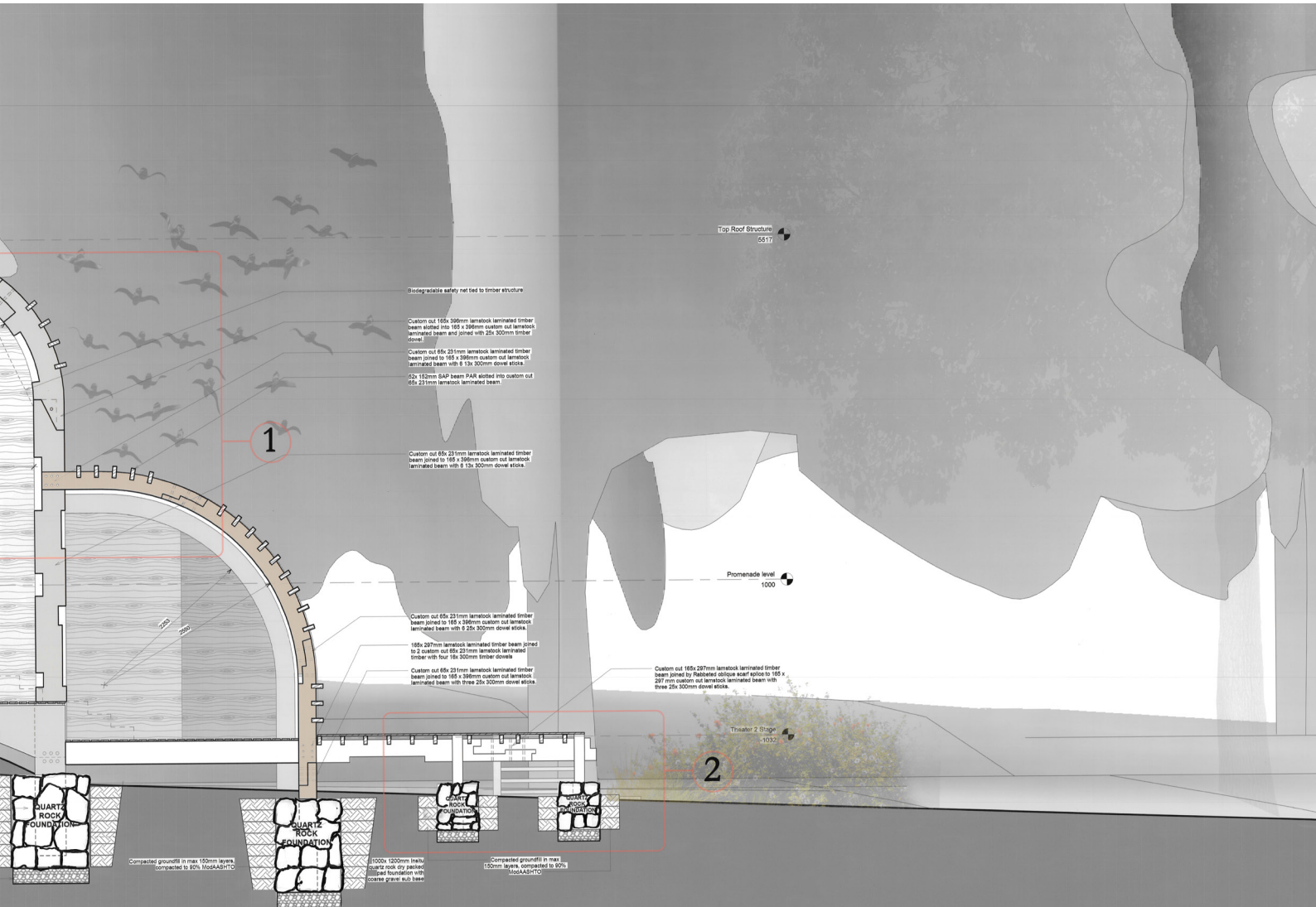


Figure 208: Section A-A through Atmospheric theatre (Author 2018)





DETAIL EXPLORATION

Capitol Theatre draws influences from the landscape and calls for an Architecture that explores the relationship between water and materiality as it relates to nature, time, and memory.

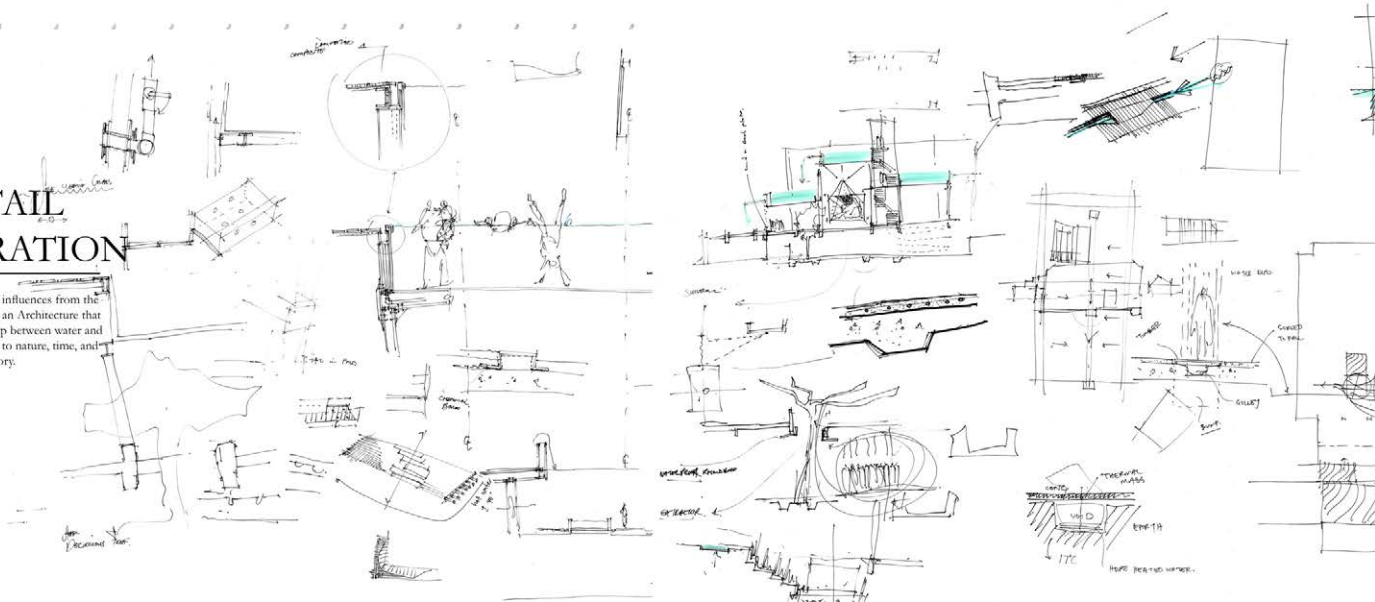
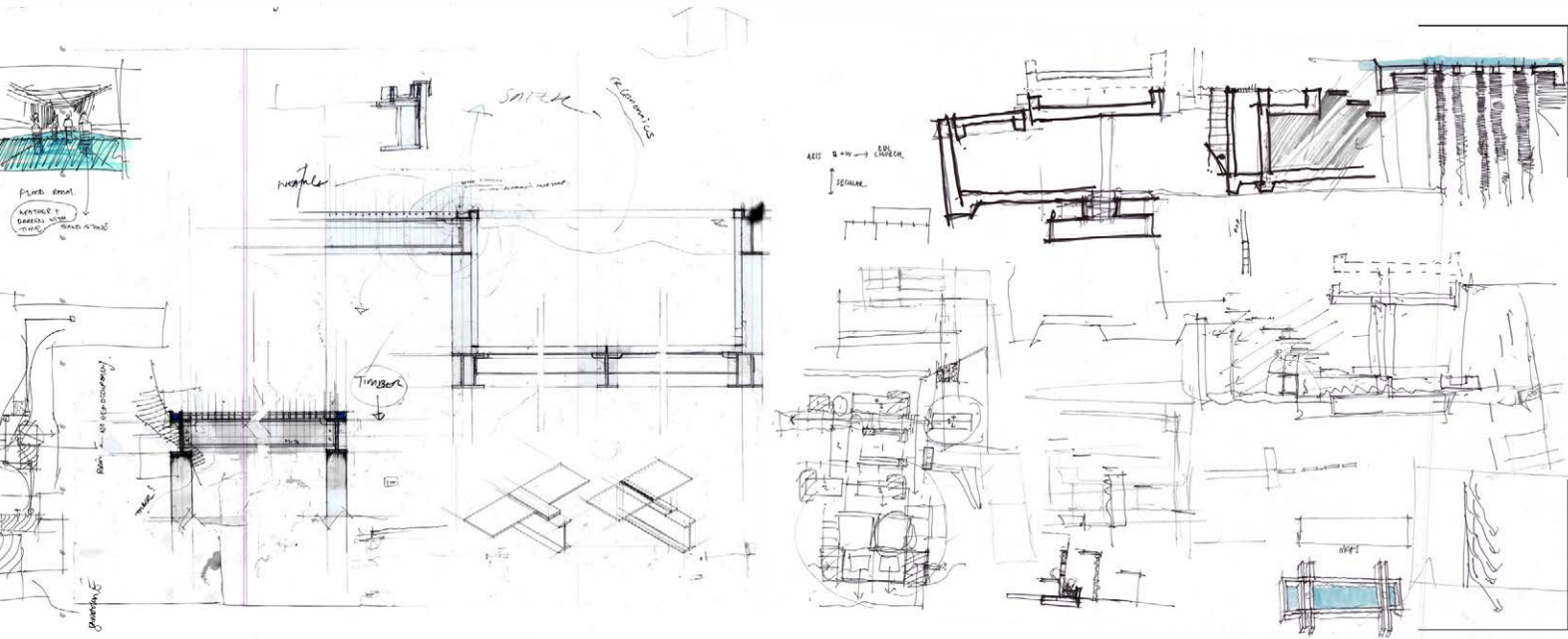
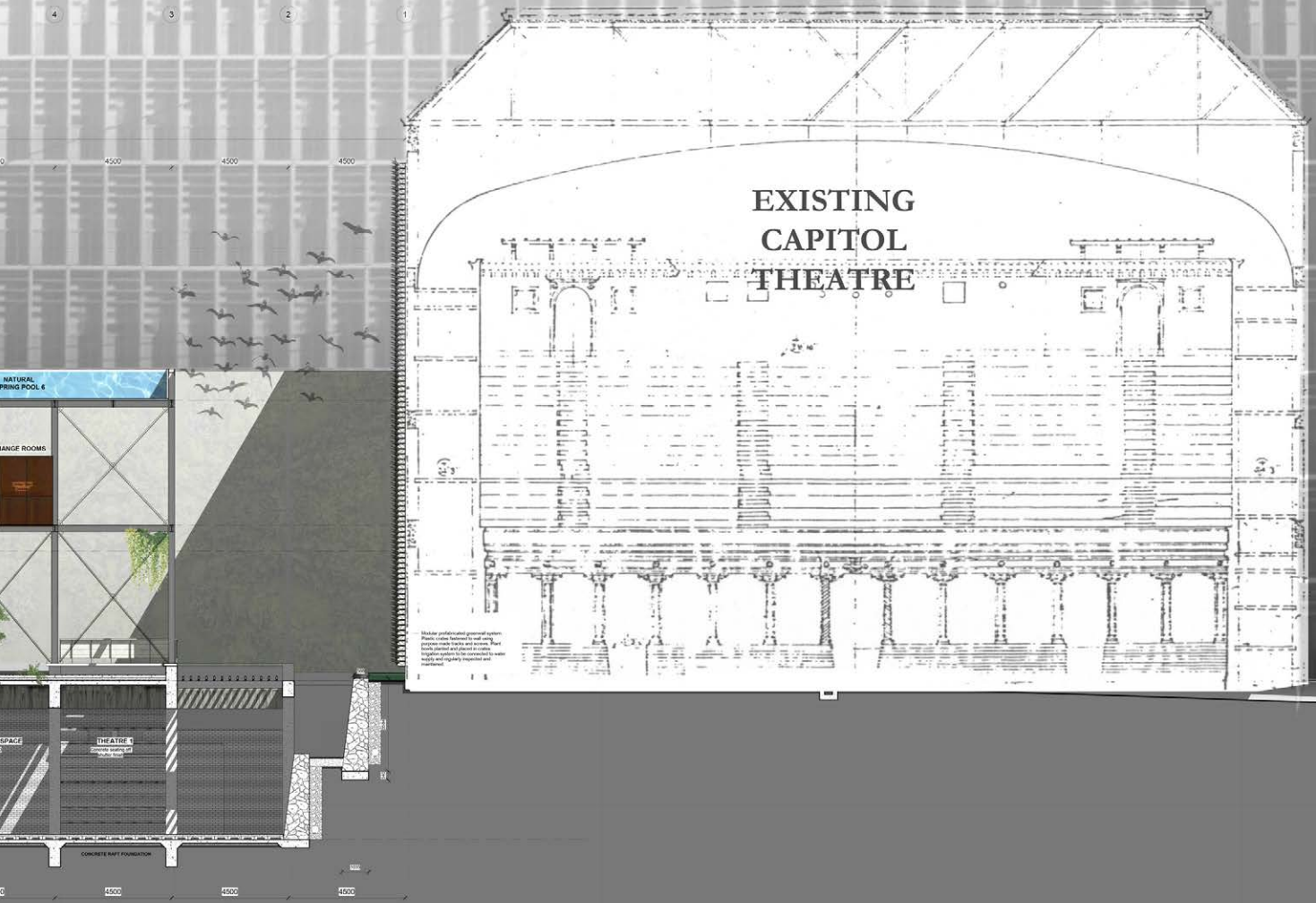


Figure 209: Section A-A through proposed swimming pools, exhibition space, studio space and existing capitol theatre (Author 2018)





Wetland

The wetland system draws on the memory of the natural systems of fountains valley and allows for storm water and natural pool water to be filtered and cleaned for irrigation purposes , as well as for the studio space where artists use water the create exhibition for the public to experience. This idea feeds into the revealing of the hidden layers of water in Pretoria. The plants that are used in the wetland fall under plant species such as Sedges;, Grasses&Reed, and Rushes.

Water Supply

The natural springs that lie within the Capitol theatre basement provide the main supply for water for the pools. The water is pumped out of the basement to a pump room that pumps water to the pool at the highest floor (second floor) where the water is then gravity fed down to the lower pools. The water within each swimming pool is circulated at for four weeks at a time before the water is drained from the pool, run through a wetland system and used as irrigation. Where one pool drains sooner than the rest the water can be run through wetland system and pumped back up to the pool.(See appendix for calculations)

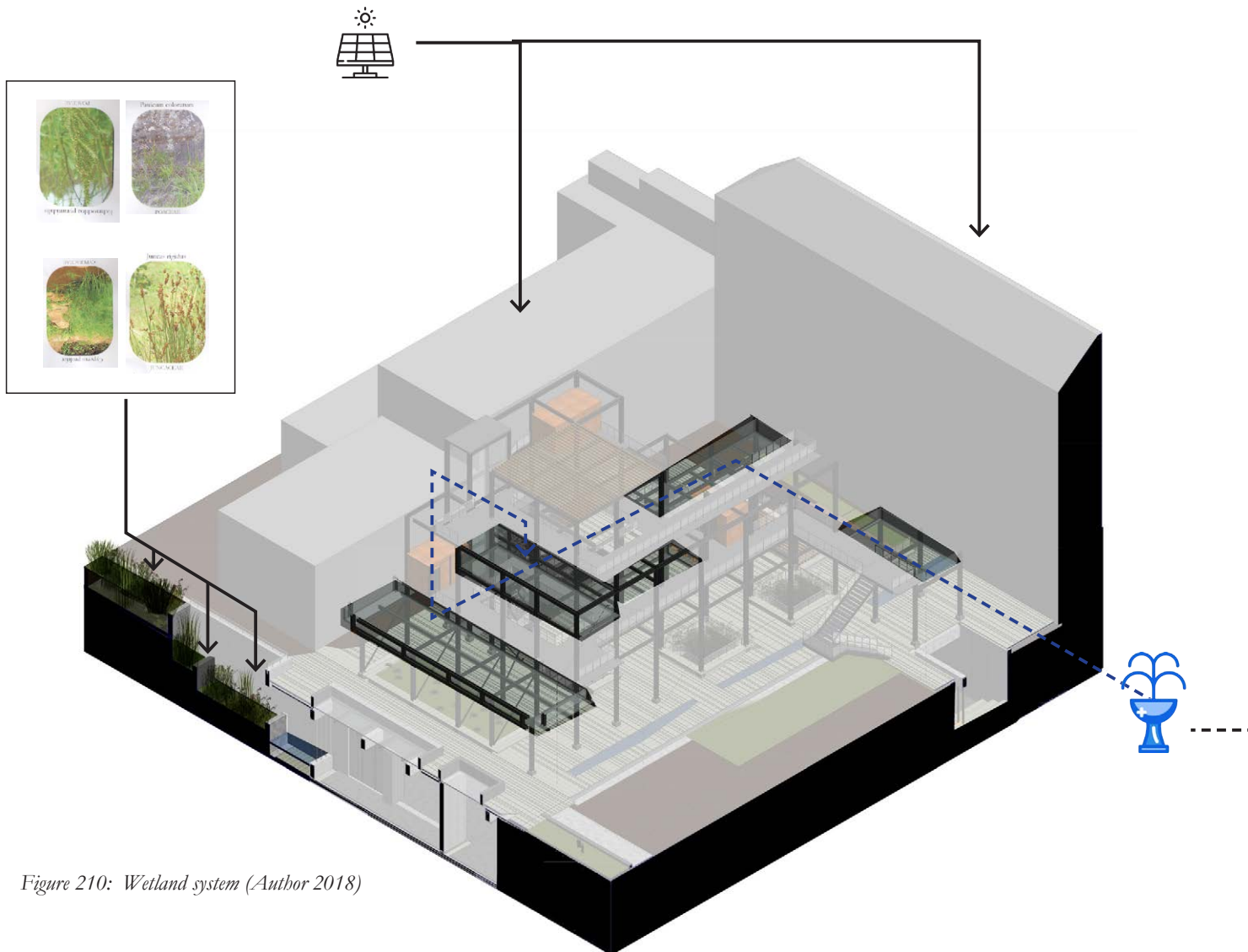


Figure 210: Wetland system (Author 2018)

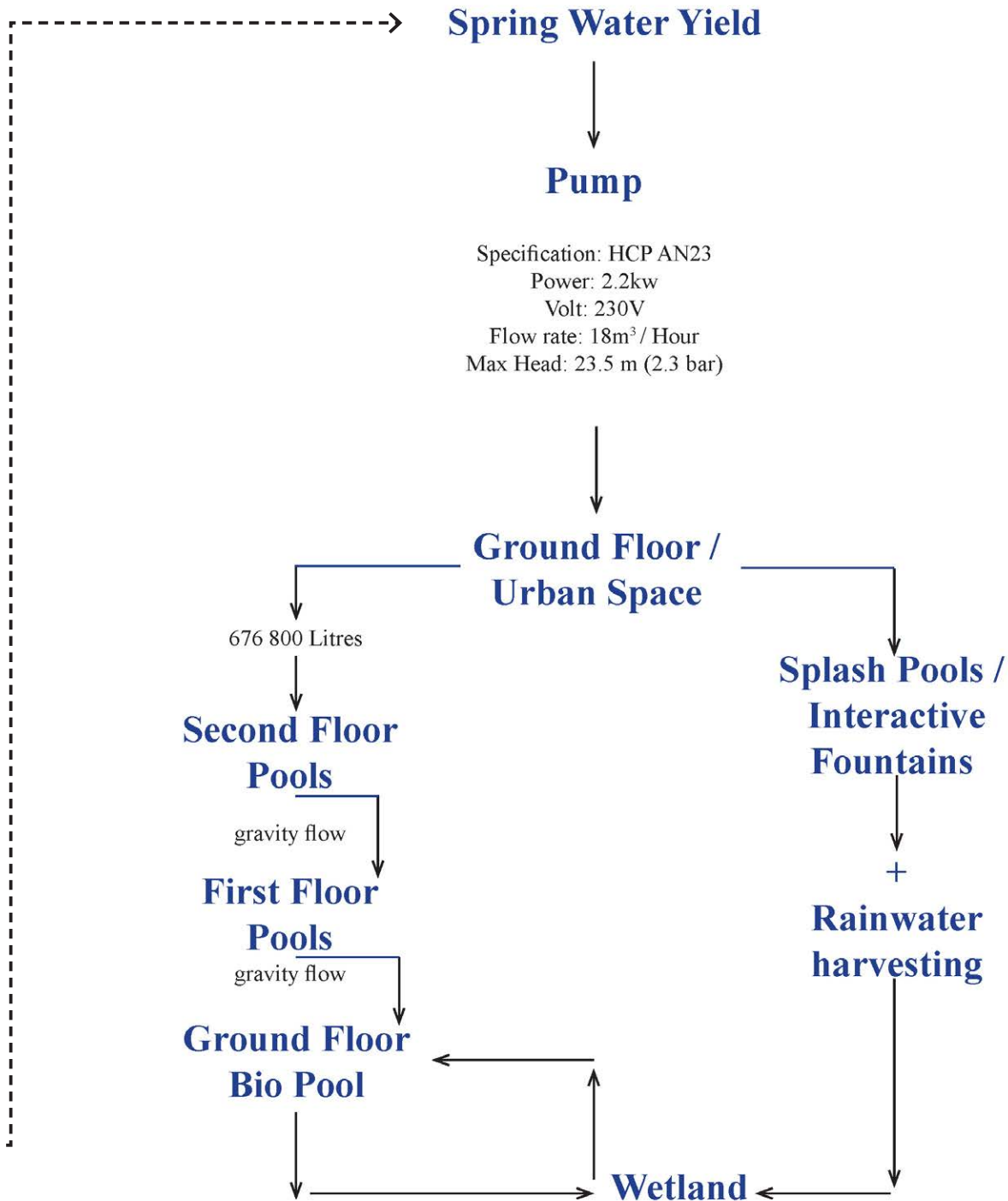


Figure 211: Wetland system (Author 2018)

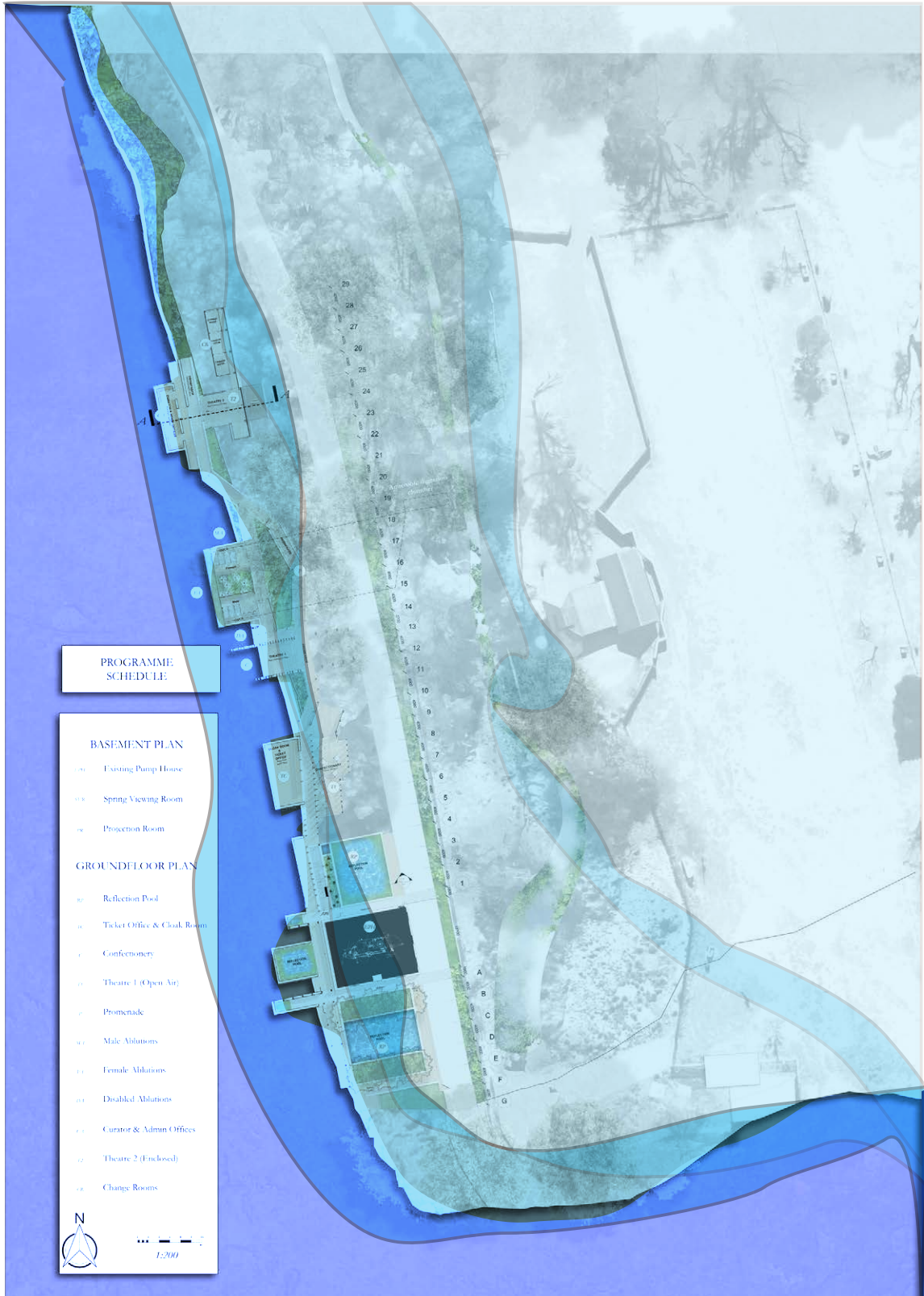


Figure 212: 100 Year flood line frequency (Author 2018)



WATER TEMPERATURE

The Natural pools are heated using solar panels that are stored on the roof of the existing Capitol theatre building. The water is run through pipes within the steel structure and fed into the glass pools where the water runs in a circular loop.

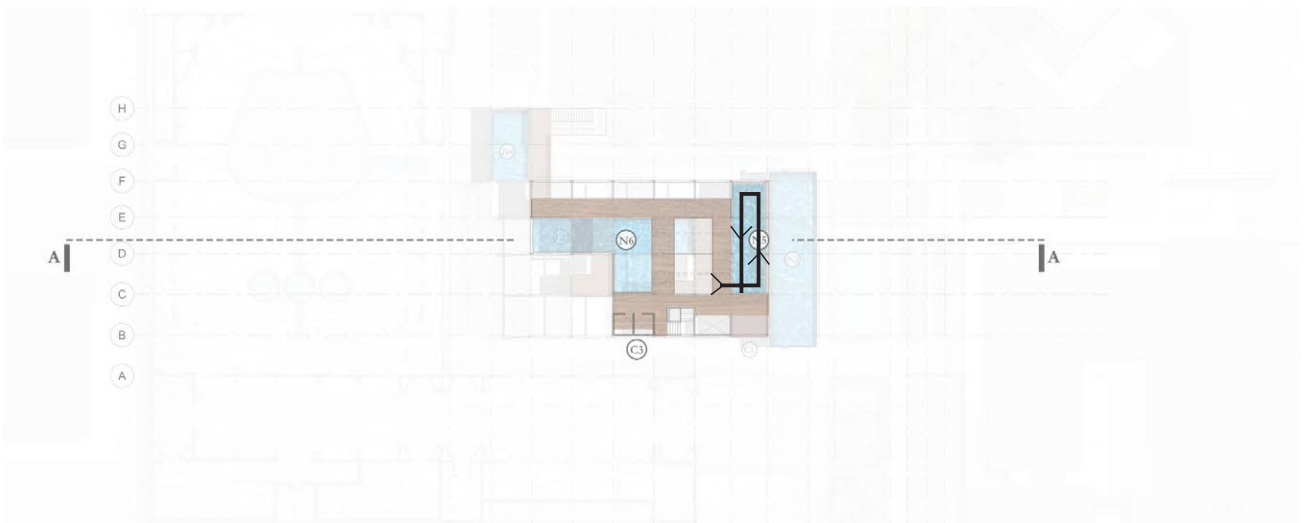


Figure 213: Second Floor heated pools with water running in circular loop (Author 2018)

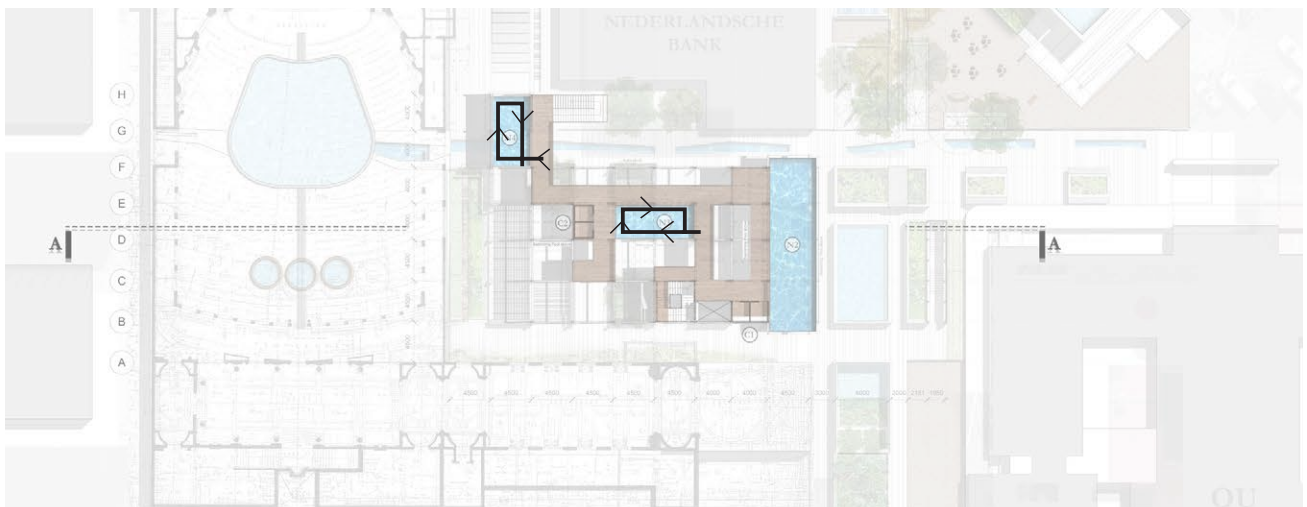


Figure 214: First Floor heated pools with water running in circular loop (Author 2018)



Ventilation

The atmospheric theatre based within Fountains Valley has no mechanical forms of ventilation and is thus ventilated naturally.

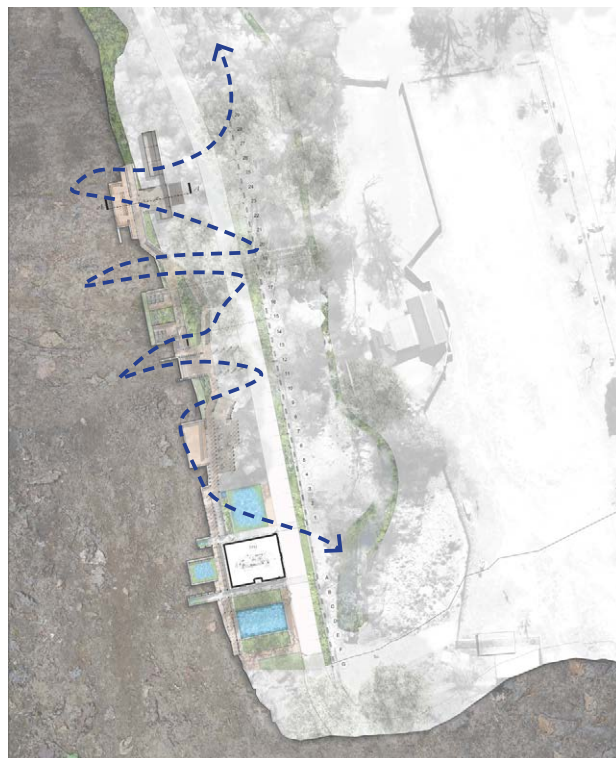
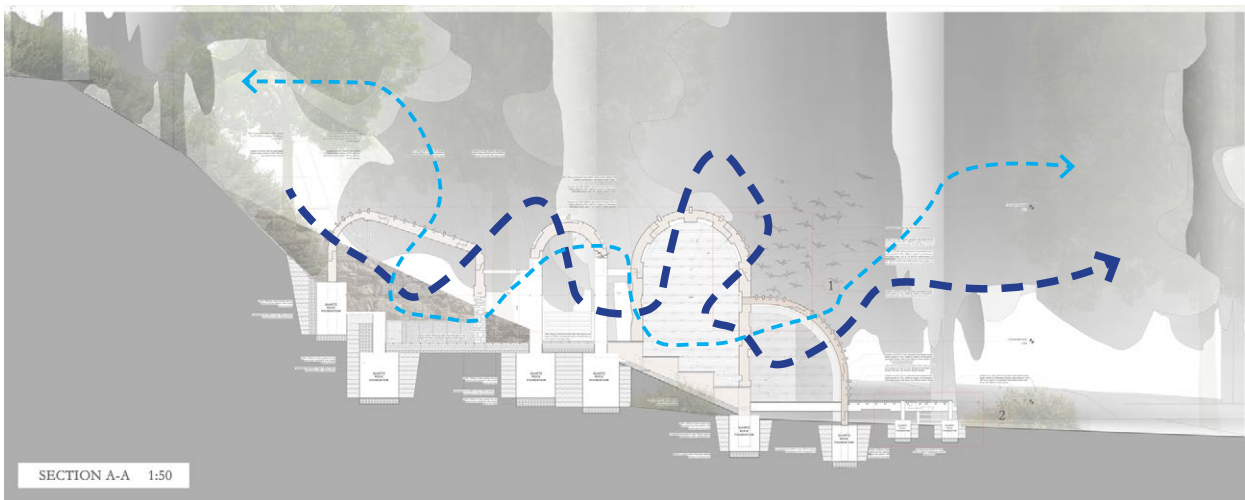


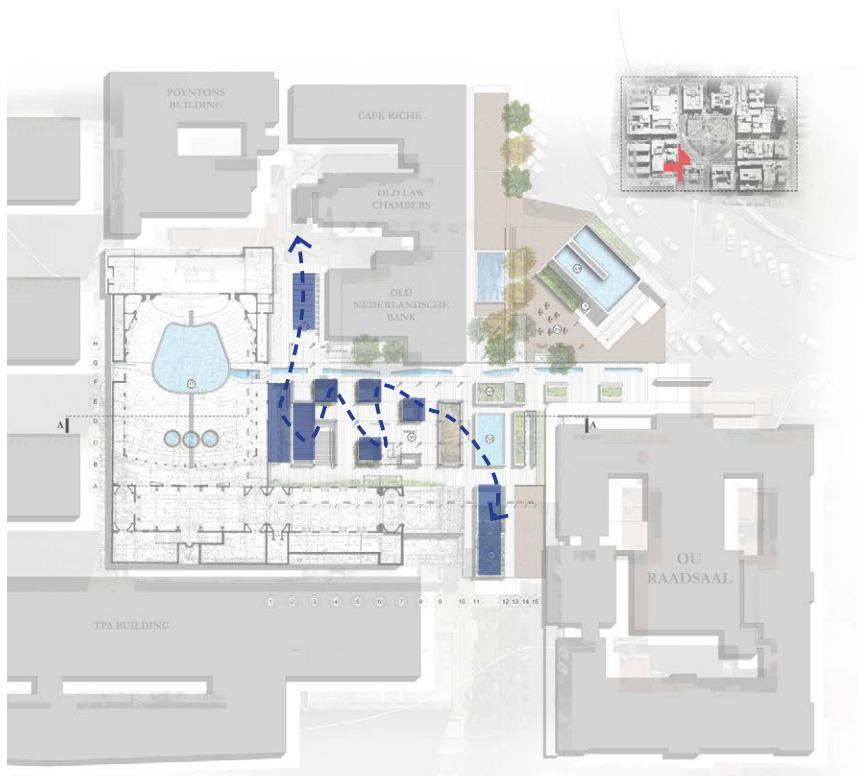
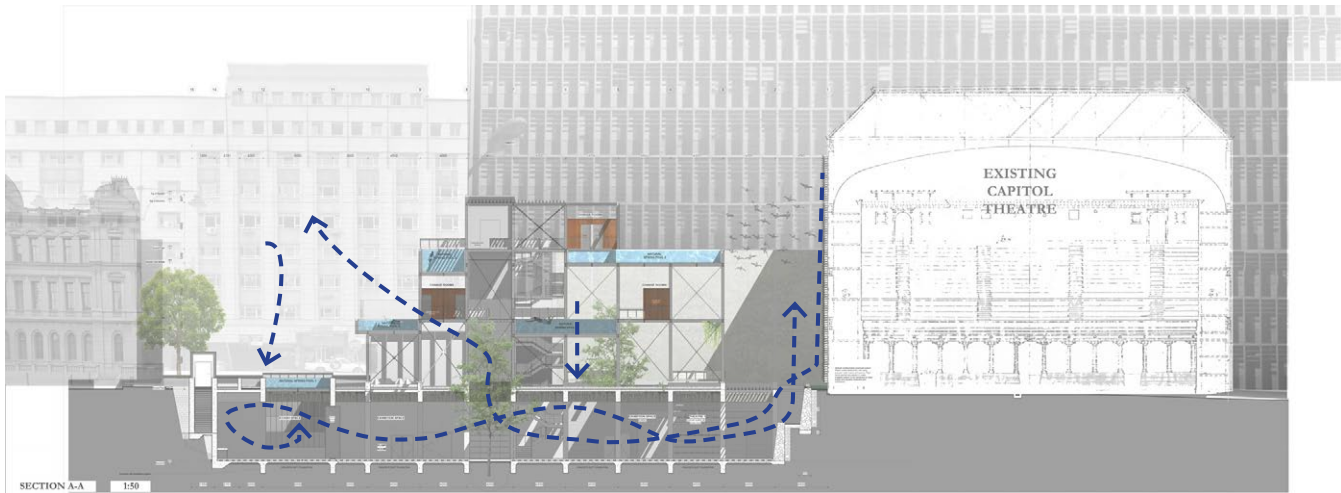
Figure 215: Natural Ventilation of Atmospheric Theatre (Author 2018)



Ventilation

Capitol Theatre makes reference to the natural ventilation used within Fountains Valley to allow for the memory of the landscape to be experienced. The building uses vegetation as a means to cook down air and allow for the through flow of air. The light shafts allow for hot air to escape. The green wall on the existing Capitol theatre wall cools down air and

allows cross ventilation to take place throughout the basement structure.



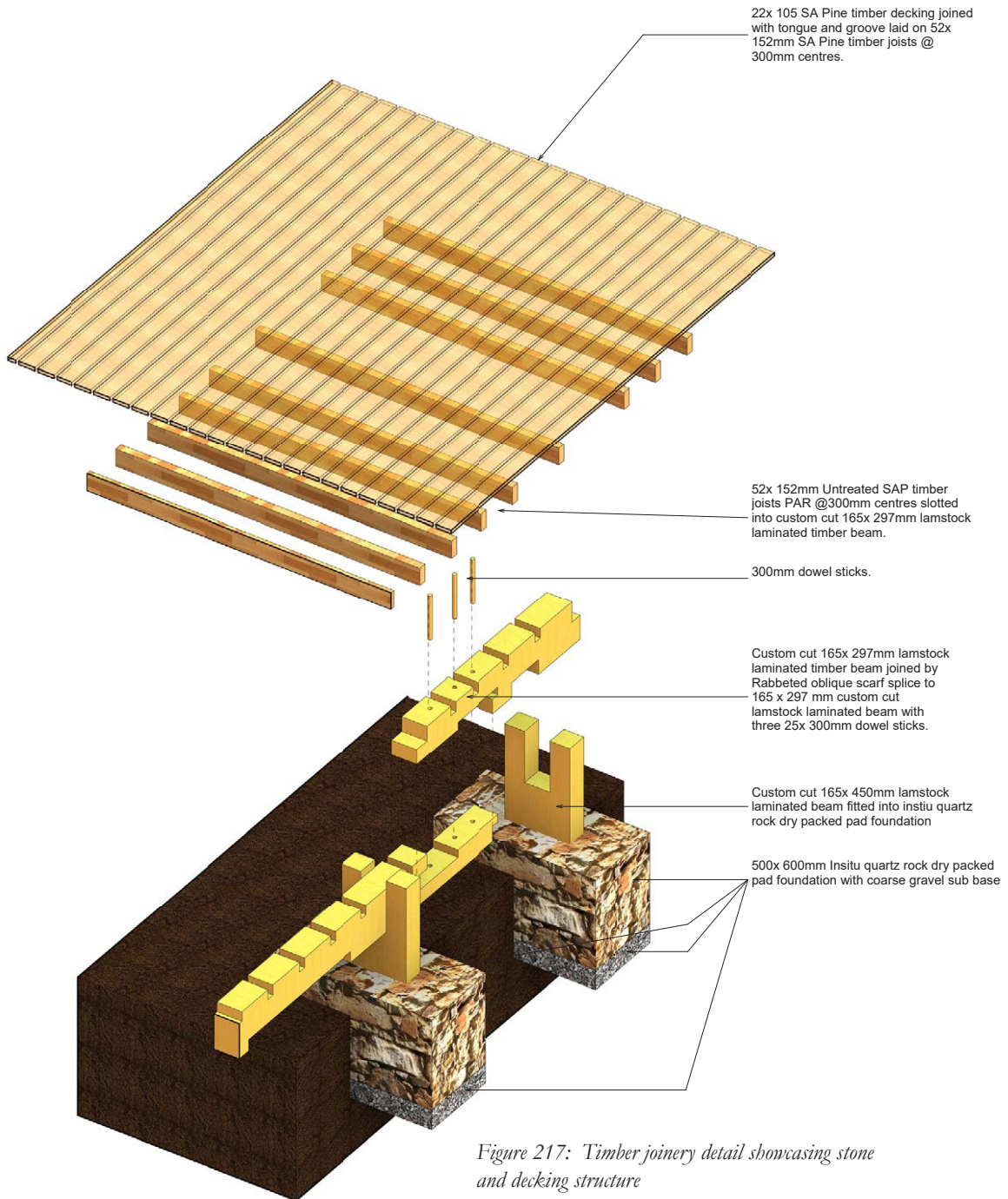
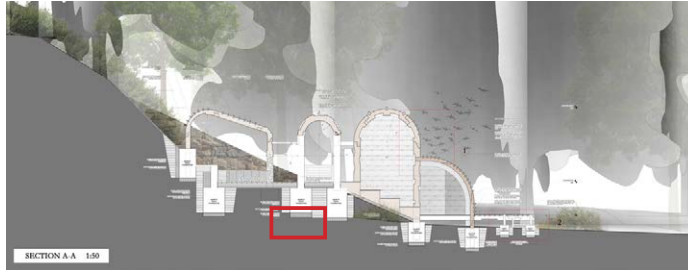


Figure 217: Timber joinery detail showcasing stone and decking structure

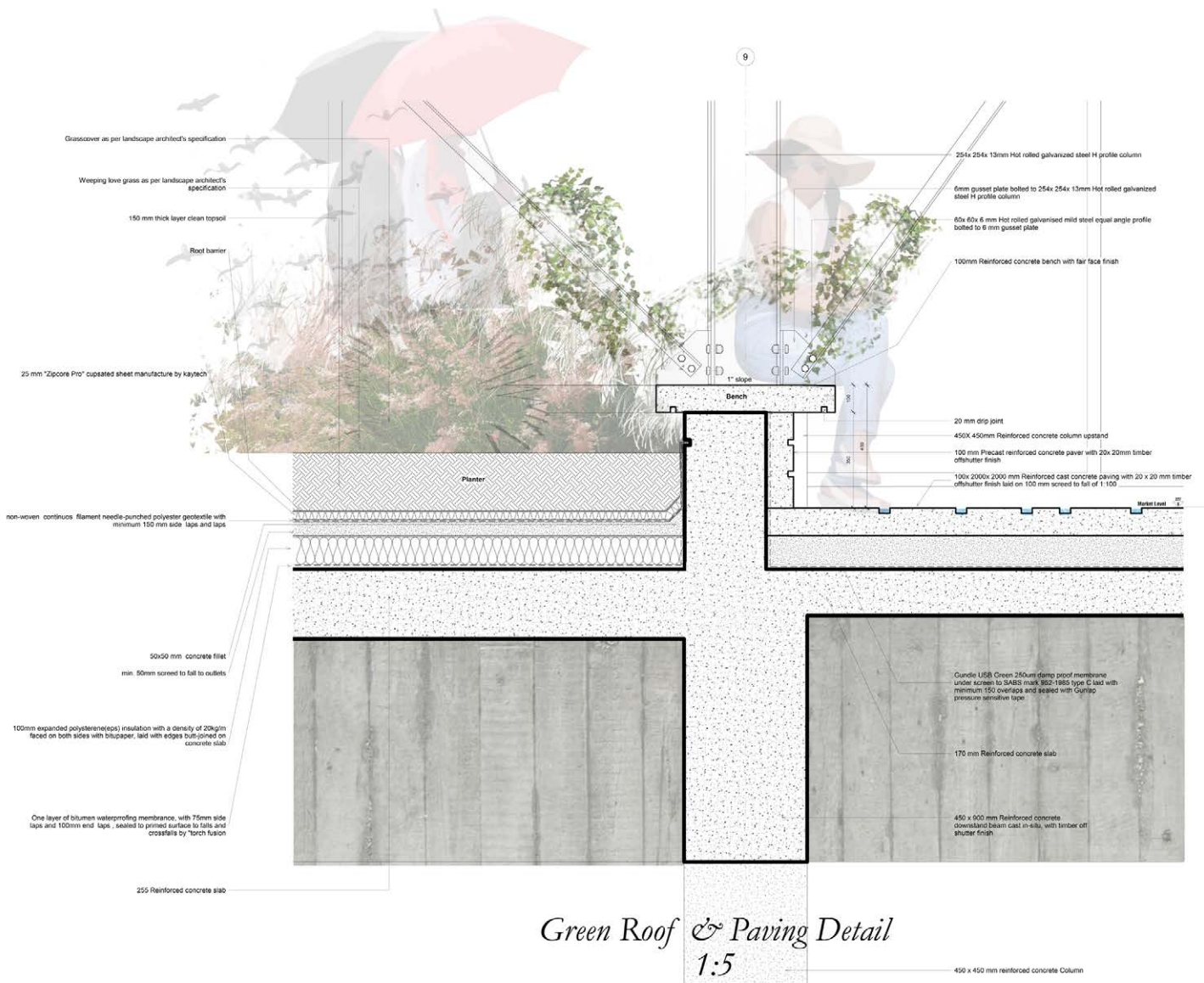


Figure 218: Green roof and paving detail referencing introduction of nature to urban space and the buildings relationship with water (Author 2018)

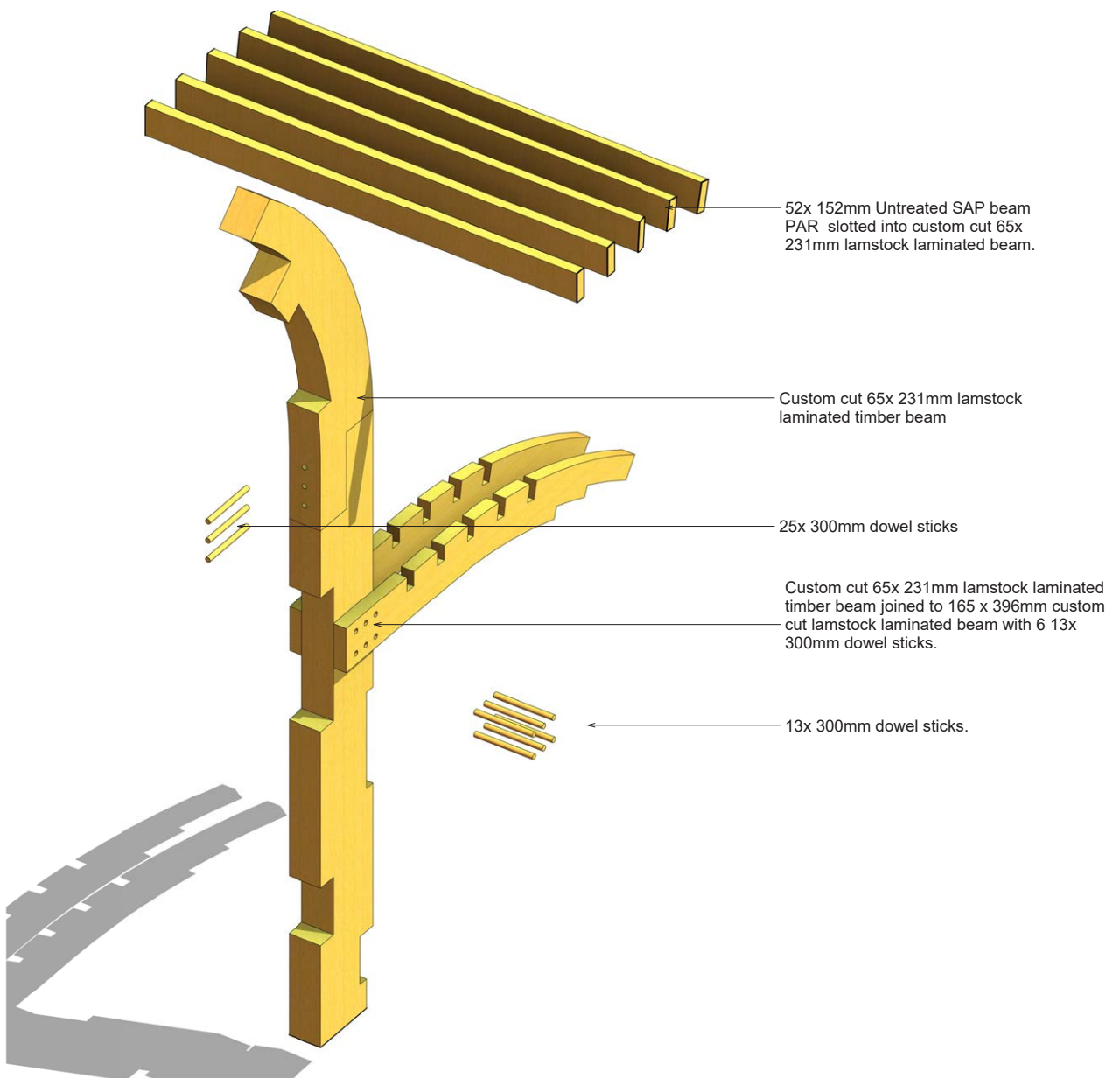
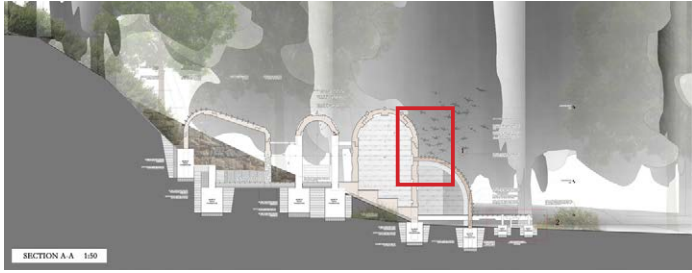
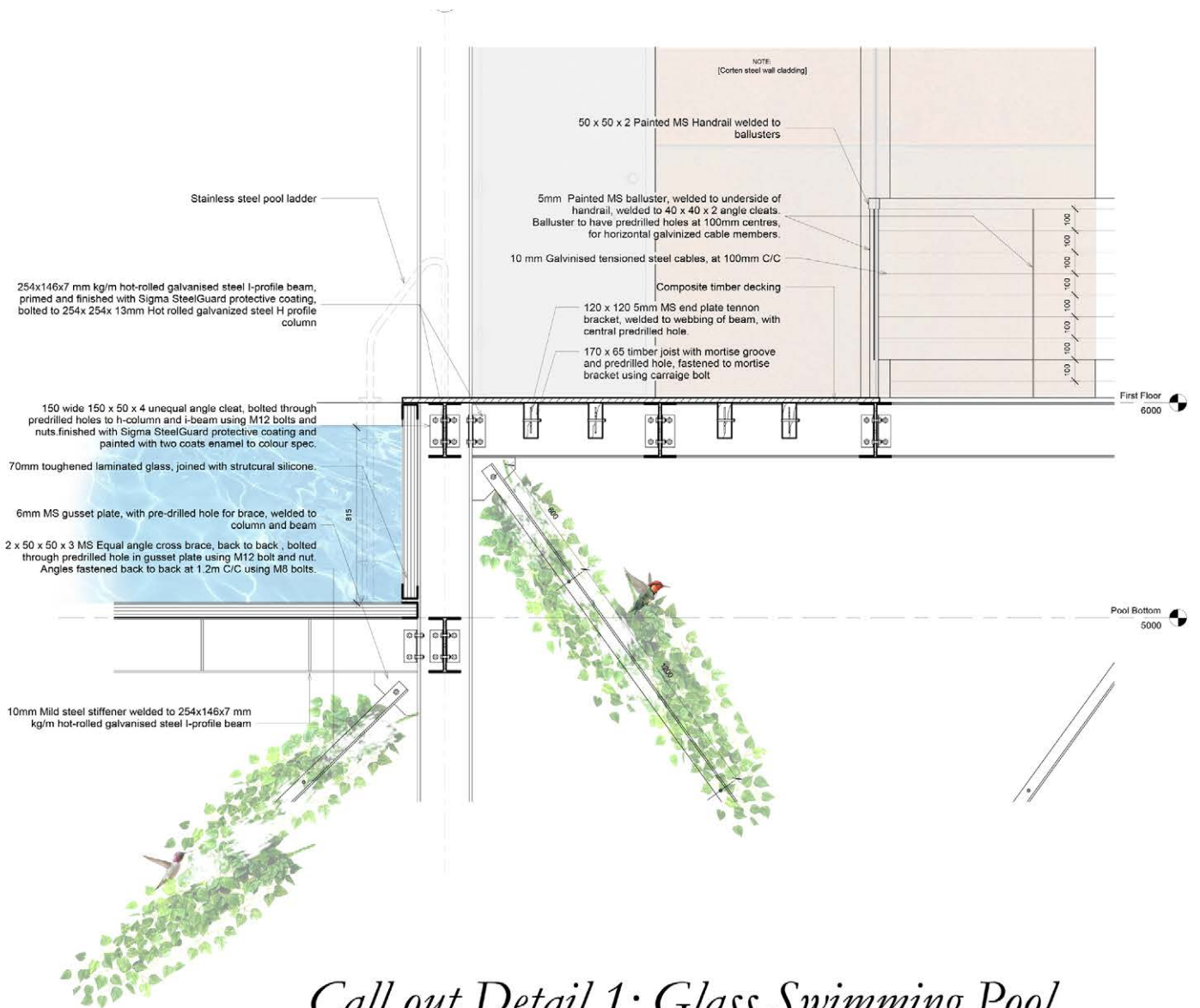
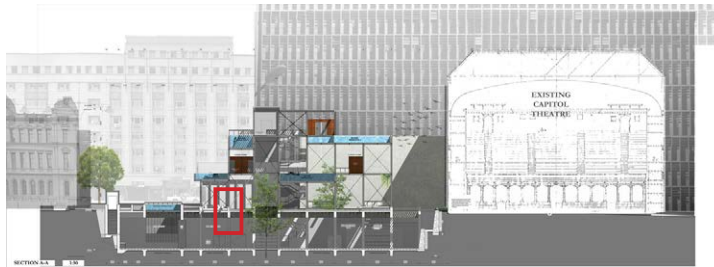
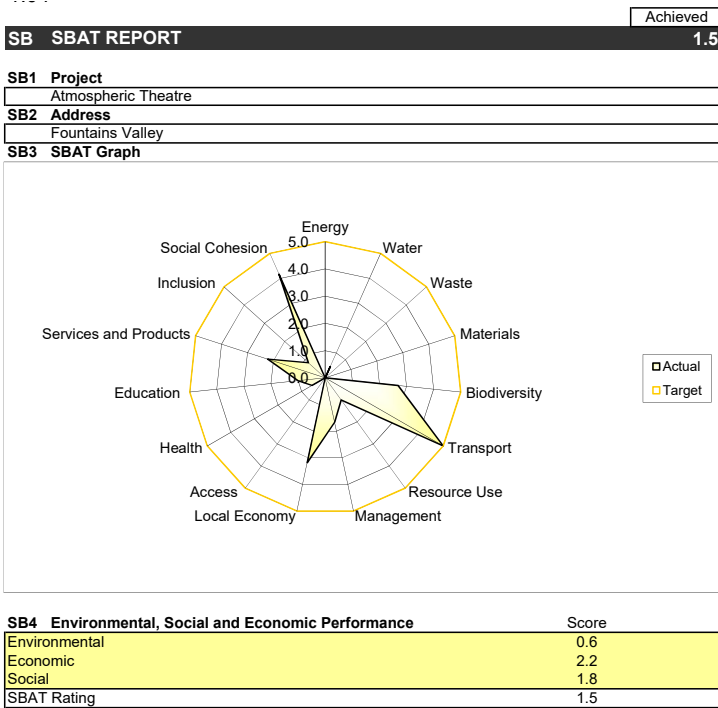


Figure 219: Timber joinery detail (Aubor 2018)



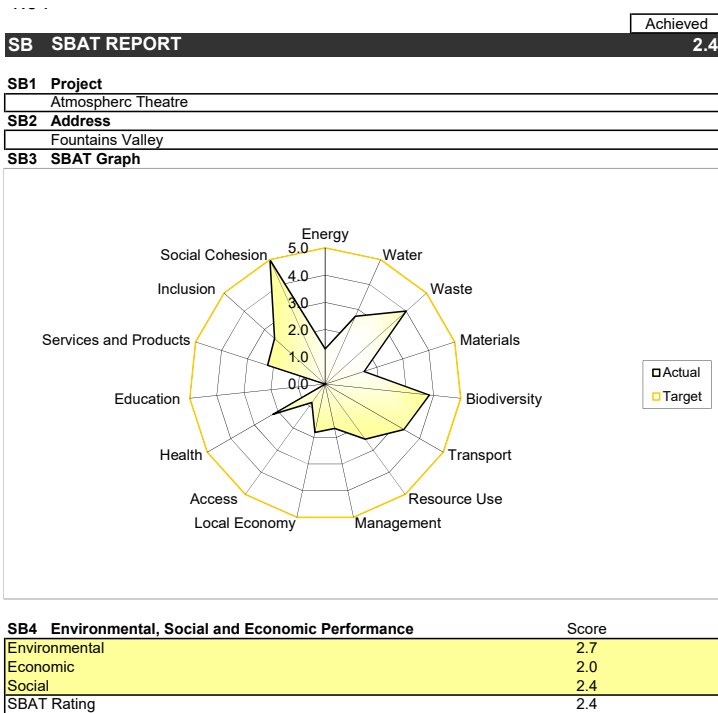
Call out Detail 1: Glass Swimming Pool 1:10

Figure 220: Glass swimming pool and walkway detail (Author 2018)



The Sbat rating for the existing site conditions of Fountains valley gives light to the nature of the recreation resort in that there lies minimal architecture within the site even though it is well connected to public transportation systems. The biodiversity of the site sits at a low reading while the social cohesion reaches a high target level due to the public nature of the resort.

Figure 221: SBAT rating of existing Fountain valley condition (Author 2018)



The proposed atmospheric theatre strengthens more aspects of the SBAT reading mainly through the consideration of timber as a dominant material that serves its full life within the site in that it decays within the context without causing a more permanent impact. Due to the public nature of the theatre, sewage is dealt with by using an anaerobic digestion chamber which allows for clean water to be released back into the Apies river.

Figure 222: SBAT rating of proposed intervention in Fountains valley (Author 2018)

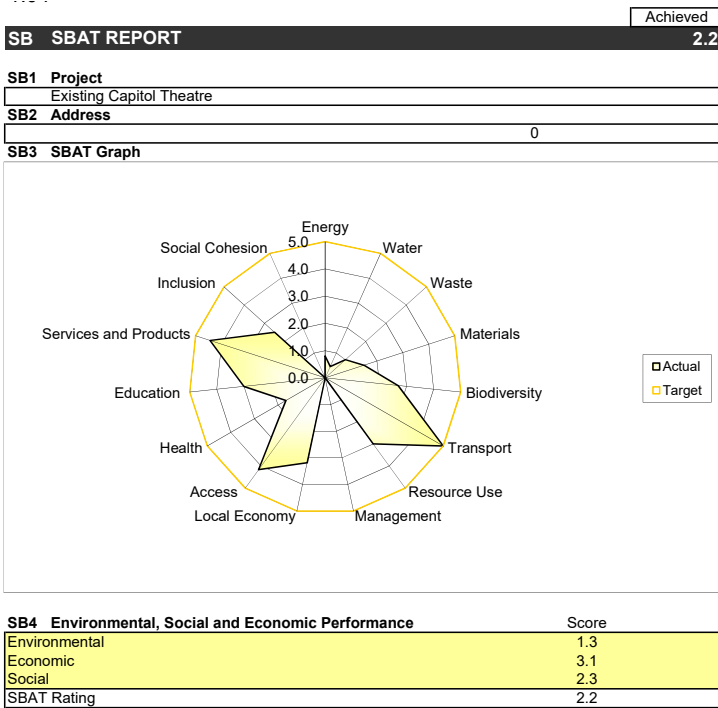
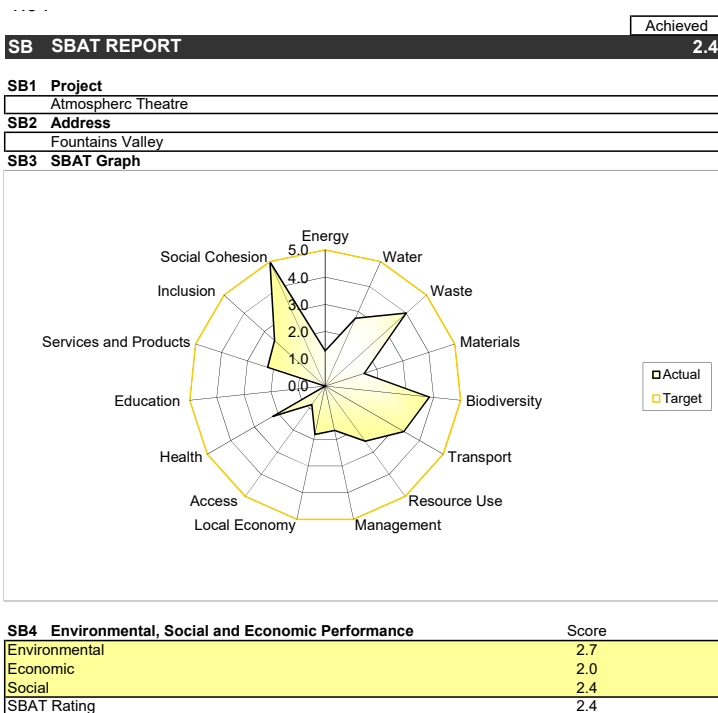


Figure 223: SBAT rating of existing Capitol Theatre condition (Author 2018)

The existing Capitol theatre is used as a benchmark in that the proposed intervention will aid in the revival of the building and its use. The existing structure sits within the Pretoria CBD with access to a vast amount of services, products, transport, and resources. A low rating in energy, water, waste, materials, and management offers the opportunity for an intervention that can offer a different condition to the theatre and the city.



Natural Springs that lie within the basement of Capitol theatre are used to feed water into the swimming pools while using solar pumps to circulate the water through the structure. The buildings market, pools, and exhibition areas increase social cohesion with the increase in the environmental factor influenced by water and larger influx of vegetation. Local materials are used in the construction of the building.

Figure 224: SBAT rating of proposed intervention (Author 2018)

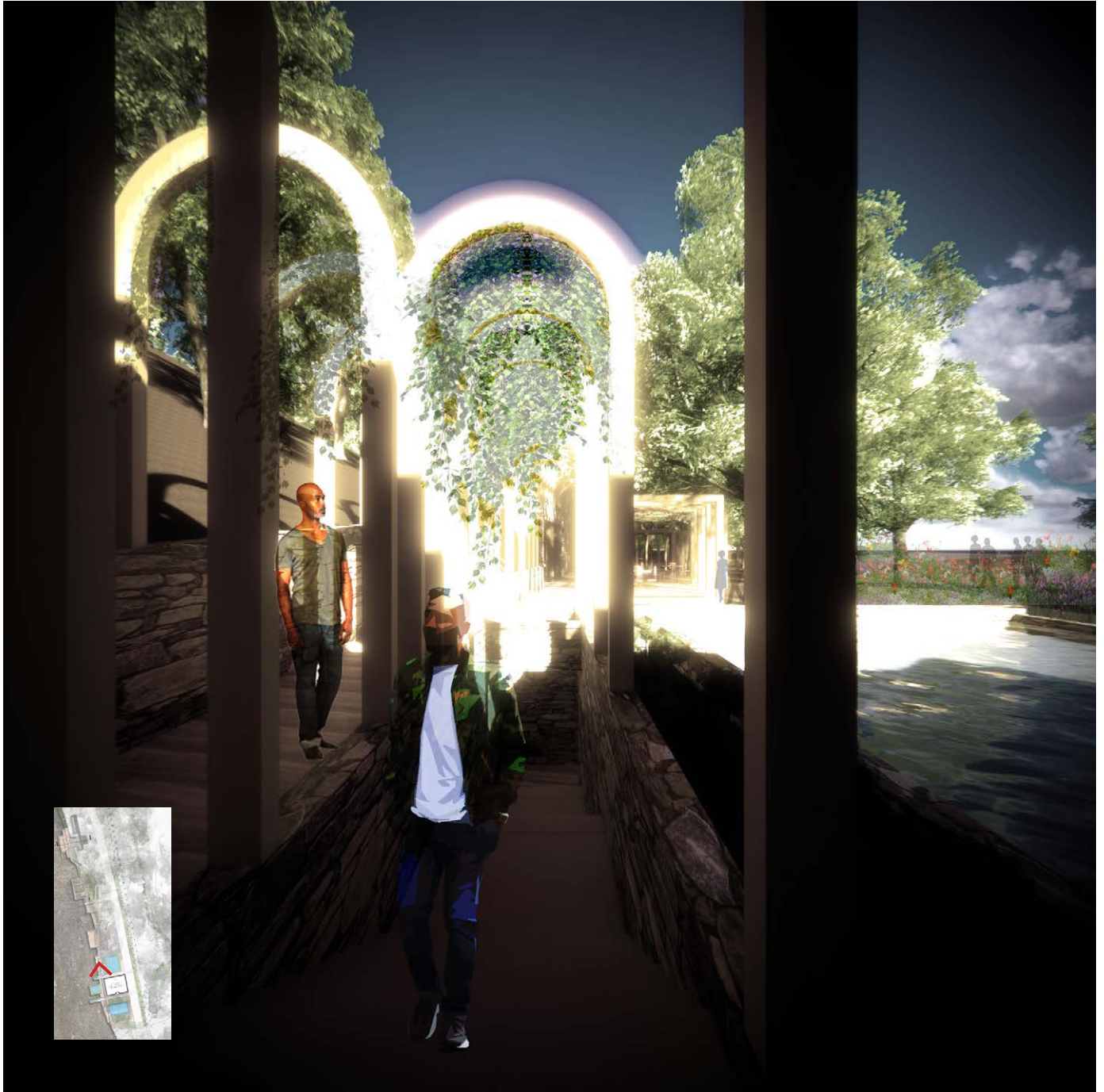


Figure 225: View down Projection room (Author 2018)

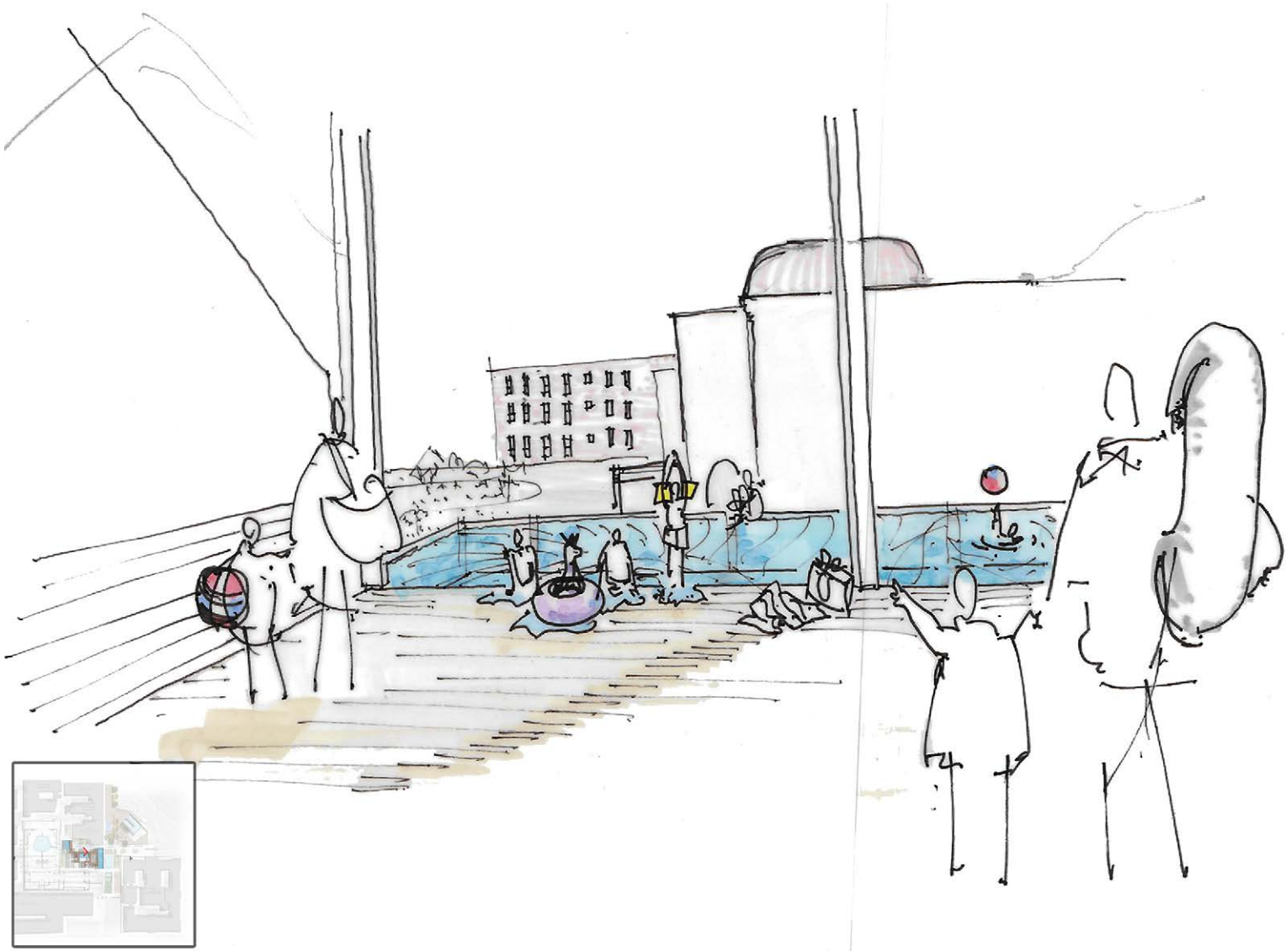


Figure 226: View overlooking Church Square (Author 2018)



Figure 227: View down Promenade (Author 2018)



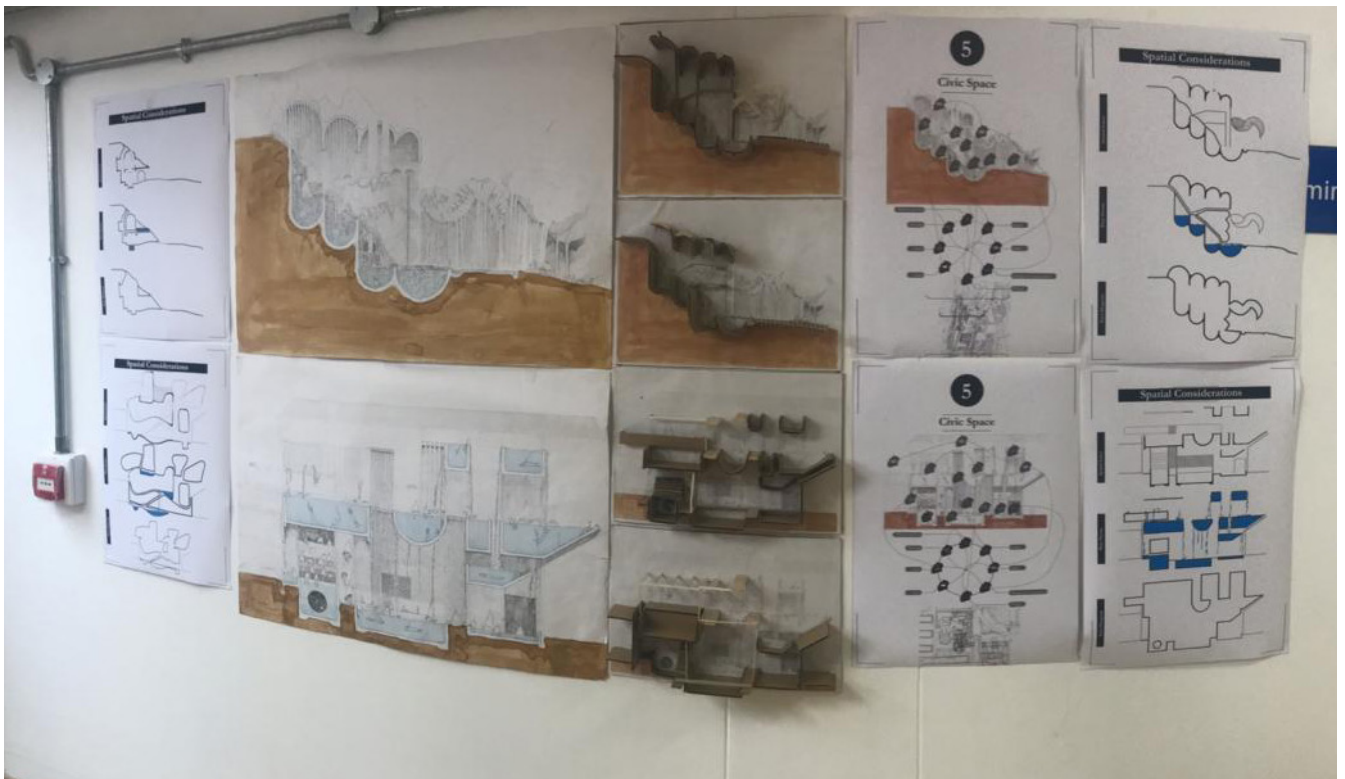
FINAL

PRESENTATION

Images

To be Added to Final Book









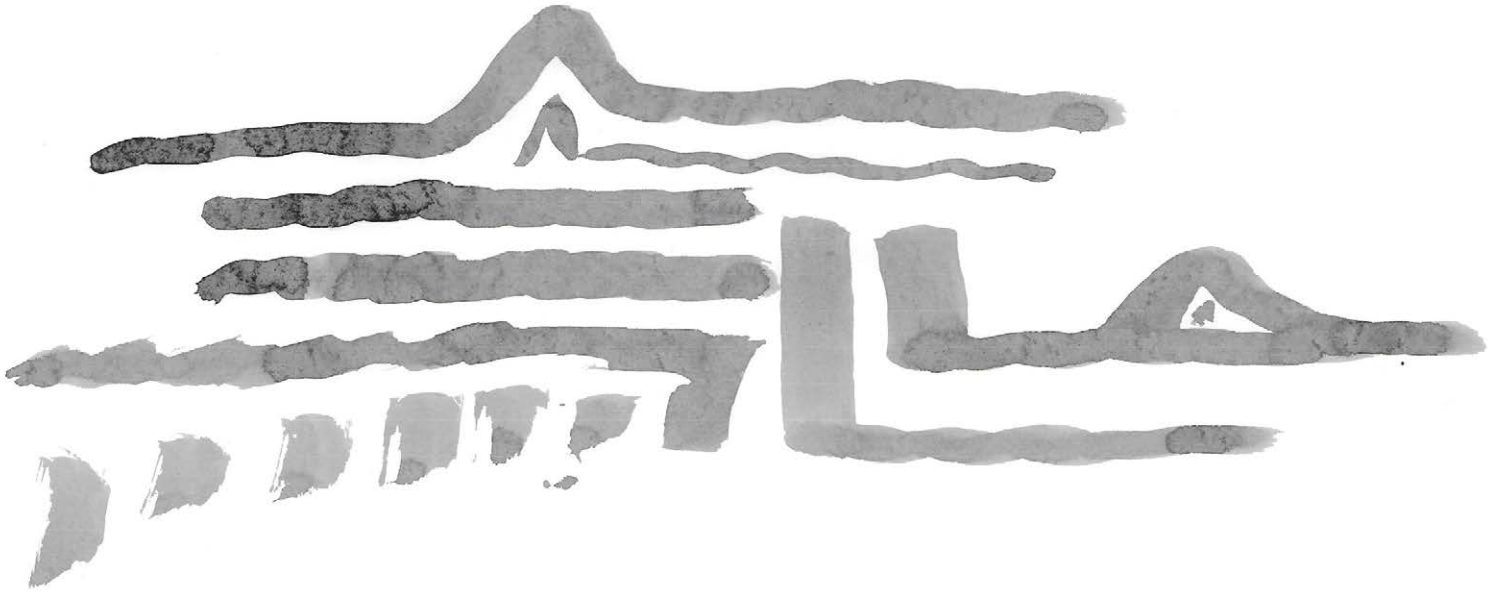


Finale

Architectural Contributions

&

Recommendations



The idea of using the places we have lived and passed by isn't necessarily a new idea. We walk through time and perceive our environments and get to remember a lot of those perceptions when we are in less motion. The reading of place in this dissertation is more formalised though also intuitive in its nature. The two selected sites become the focus of the idea of a twin phenomena and the lens chosen explores architectures creation and habitation through the conceptual themes of Memory, Time, Nature and Water. These themes are used as focal points to draw influences from one site and investigates and articulates the resultant tectonic spatial presence.

This twin contribution to architecture, in my opinion, can foster a more intimate understating of place and give from to a less restrictive architectural form and give life to a more imaginative but real spatial experience. The twin story that began the journey through the dissertation can be seen as manifesto to guide the design process as the last few lines speak of:

The two now sit reunited in some way, trying to find ways to reconnect the umbilical, to reestablish place and dreams, to think of a future of accord.

Design as process, imagination and context.

APPENDIX

Precedents

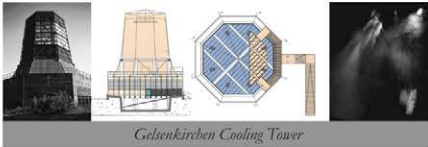
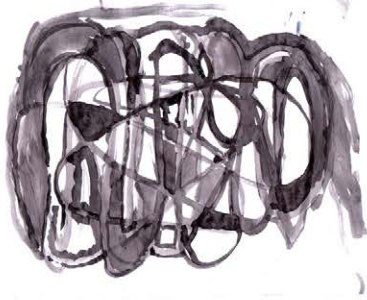
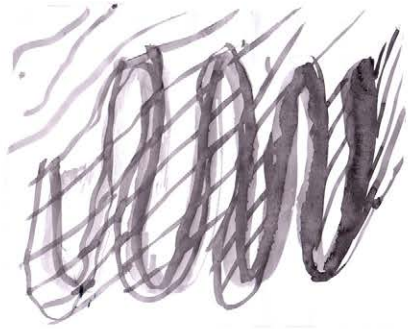
Original Drawings

Water Calculations

Theory Paper July



Water



Gelsenkirchen Cooling Tower



Blur Building



Fog Assembly



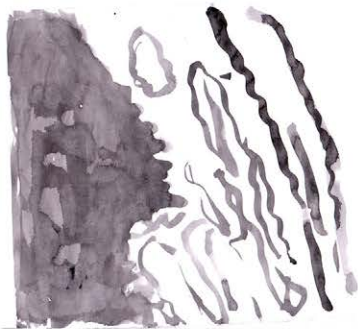
Princess Diana Memorial Fountain



Palazzo Querini Stampalia



Serpentine Gallery 2012



Altered States of Being



Bubbles



Thermal Baths



Precedent Descriptions

Gelsenkirchen Cooling Tower

In the Ruhr city of Gelsenkirchen, Herbert Dreiseitl took part in a Federal Horticultural Show in which his proposal aimed at showing the different states of water to the local people. He found an existing barn and retrofitted the interior in what would become an exhibition of water. The interior of the retrofitted design had projections of films playing while mist slowly occupied the space from below the visitors. Over time the mist would render the moving images more unclear and at the same time presence them in the space as the water was felt and all that was evident was the particular moment being experienced. Water, as re-represented as steam, allowed one space to be experienced in various manners.

Blur Building

Diller Scofidio conceptualised the idea of representing water by using mist as a means to alter the perception of space. The water blurs the relationship between man, architecture, and water, and offers the opportunity for a metaphor as one can seemingly drink the building. The Project lasted for 6 months and speaks to the temporarily of different states of water.

Fog Assembly

The Fog Assembly, positioned at the Palace of Versailles, was conceptualised as an ephemeral work that explores the ways in which mist dissolves boundaries experienced in varying degrees according to the sunlight

Princess Diana Memorial

The Princess Diana Memorial was conceptualised under the idea of 'Reaching out – letting in' which were reflections of one of the most loved qualities of

the Princess of Wales. Design Architects, Gustafson Porter + Bowman, foster an engagement with visitors and water by creating channels and groves that animate water and invite passersby to put their feet in the water. Air jets create different water effects such as a 'Chadar Cascade', a 'Swoosh', 'Stepped Cascade', 'Rock and Roll', as they move down the ring, with a still pool of water as the final experience. The water is then pumped back up to the top and a cycle is expressed. (Gustafson Porter + Bowman 2017)

Serpentine Pavilion 2012

For the design of the 2012 Serpentine Pavilion, Herzog & de Meuron and Ai Weiwei, conceptualised using the memory of the old foundations of previous pavilions to create a grounding for gatherings. The earth was excavated and variations of seating options were introduced to further presence the idea of memory through the exchange of human interaction. 12 columns that represent the 12 pavilions that were previously built, hold up a circular pool of water which forms an introduction to the sunken pavilion. The water sits at 1.2 meters and acts as a datum of calm and tranquility before flowing into the pavilion.

Altered States of Being Snarkitecture

This exhibition, commissioned by Caesorstone, explores a particular altered state of water. Snarkitecture explores the manner in which Caesorstone tops are designed in a manner that can withstand varying temperature. A solid piece of ice is placed on the top and is set to be seen as a spectacle as the solid melts into liquid. The melting process is assisted by constant running water. In this instance water and its different states are explored, as it relates to materiality and humans interaction with the changes that take place within a particular space.

Existing Capitol Theatre Drawings

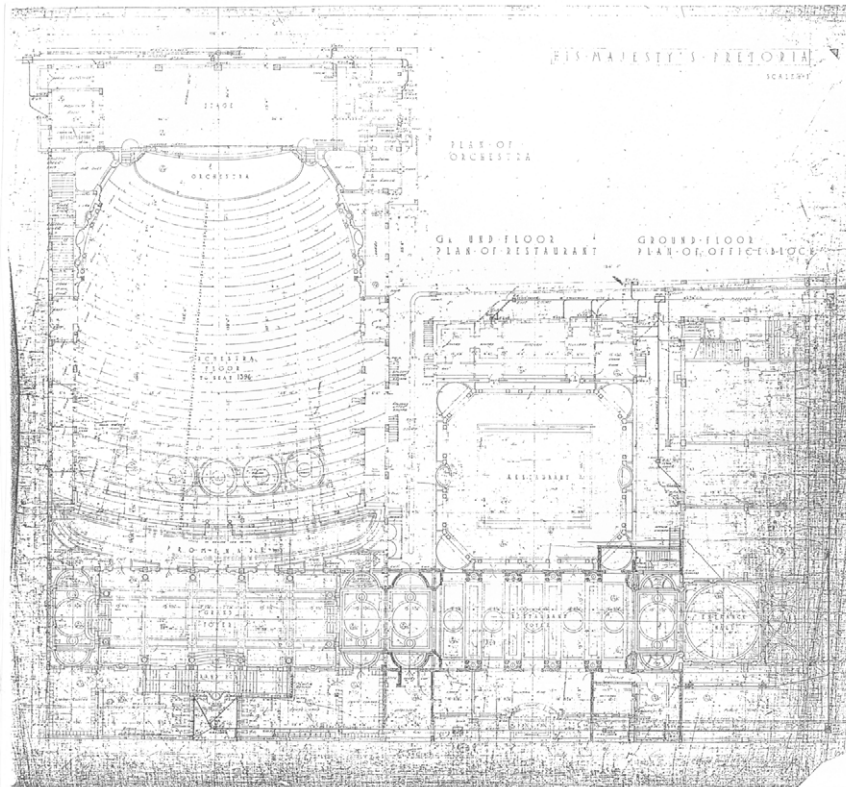


Figure 228: Original ground floor plan of Capitol Theatre

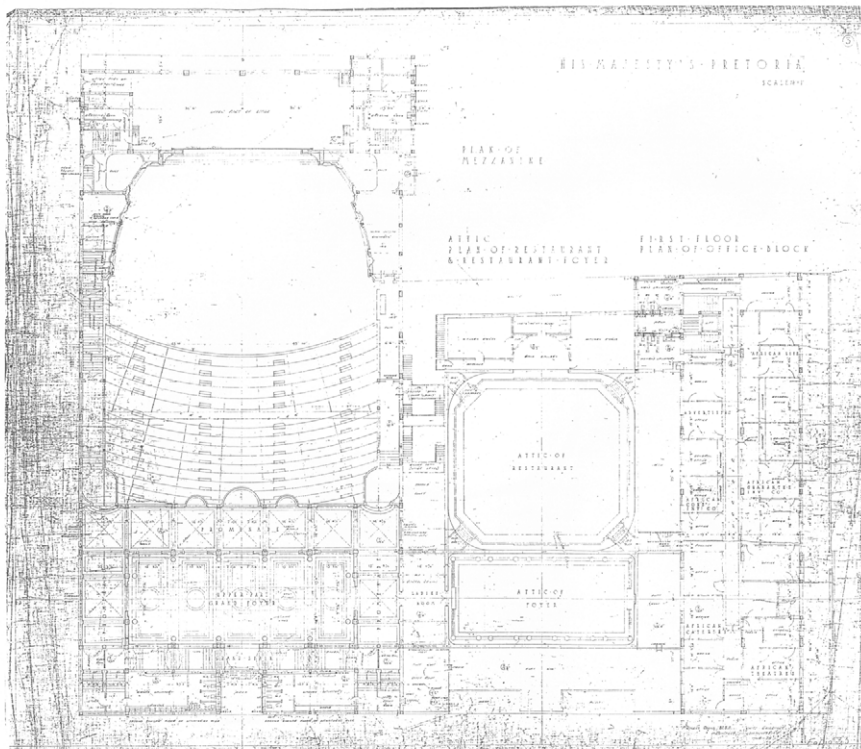


Figure 229: Original first floor plan of Capitol Theatre

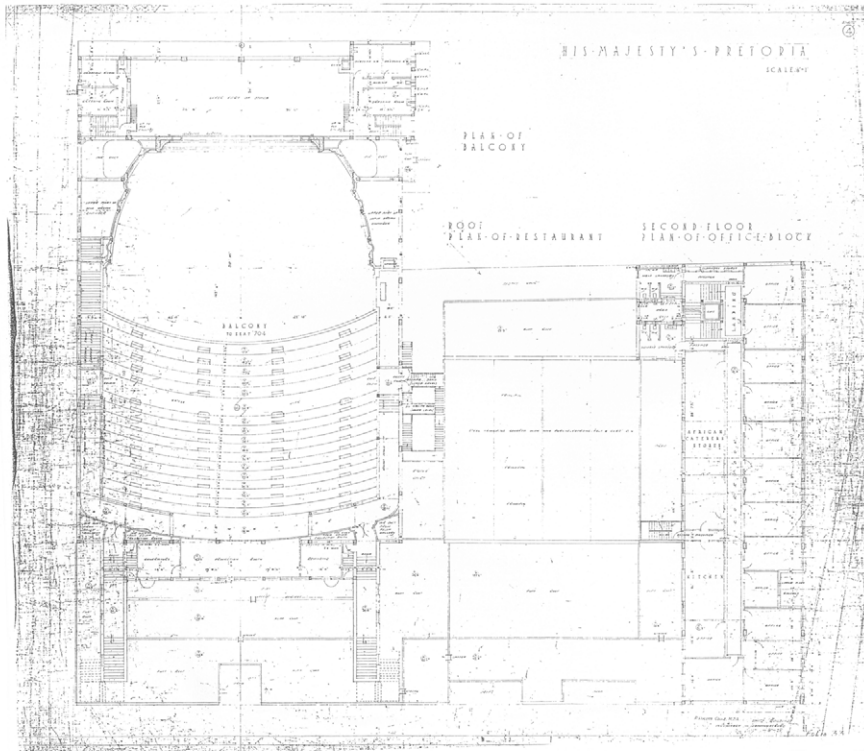


Figure 230: Original third floor plan of Capitol Theatre

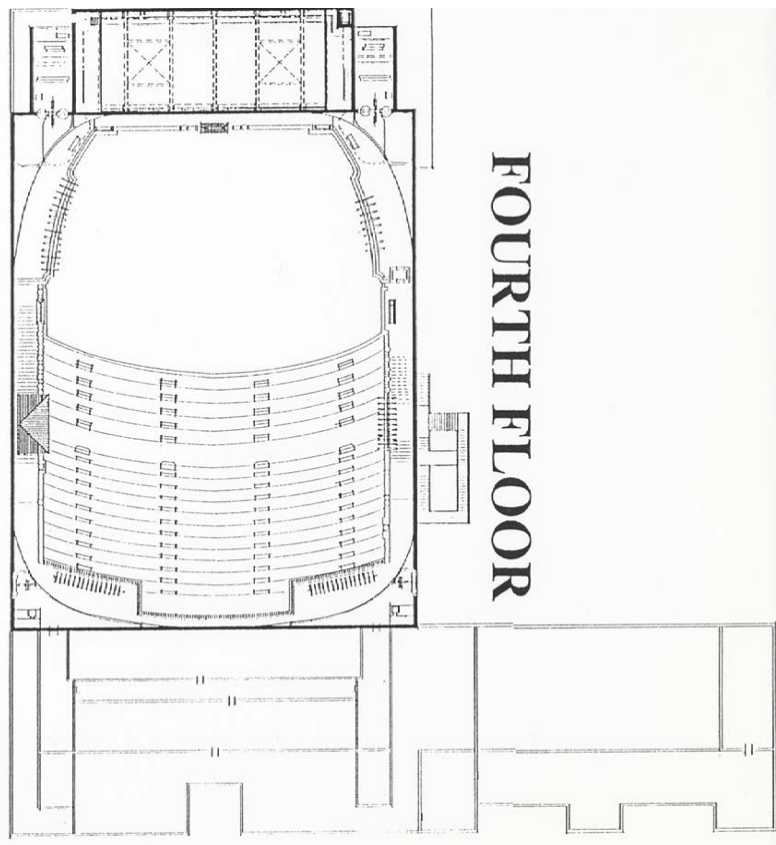


Figure 231: Redrawn fourth floor plan of Capitol Theatre

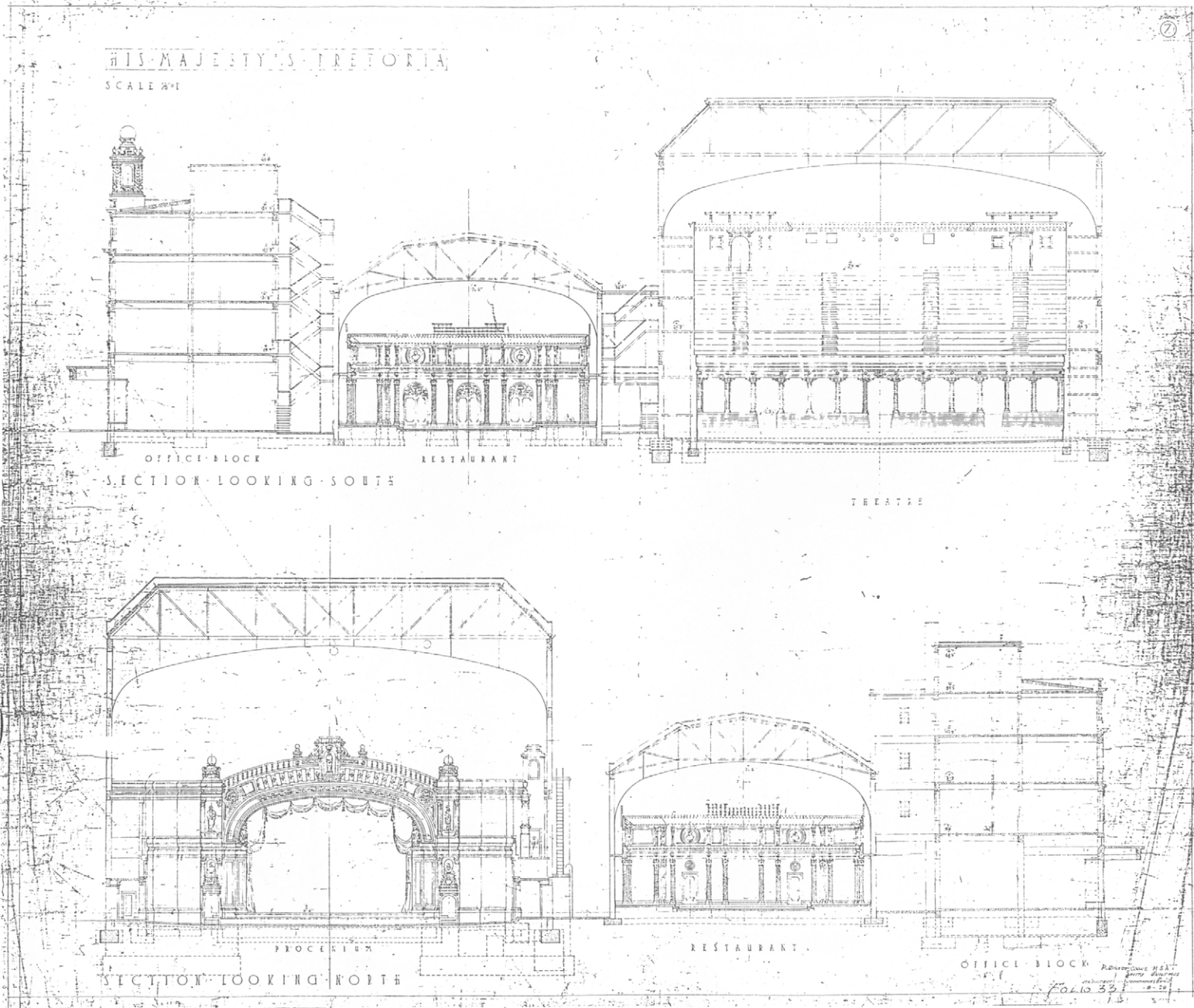


Figure 232: Original sections of Capitol Theatre

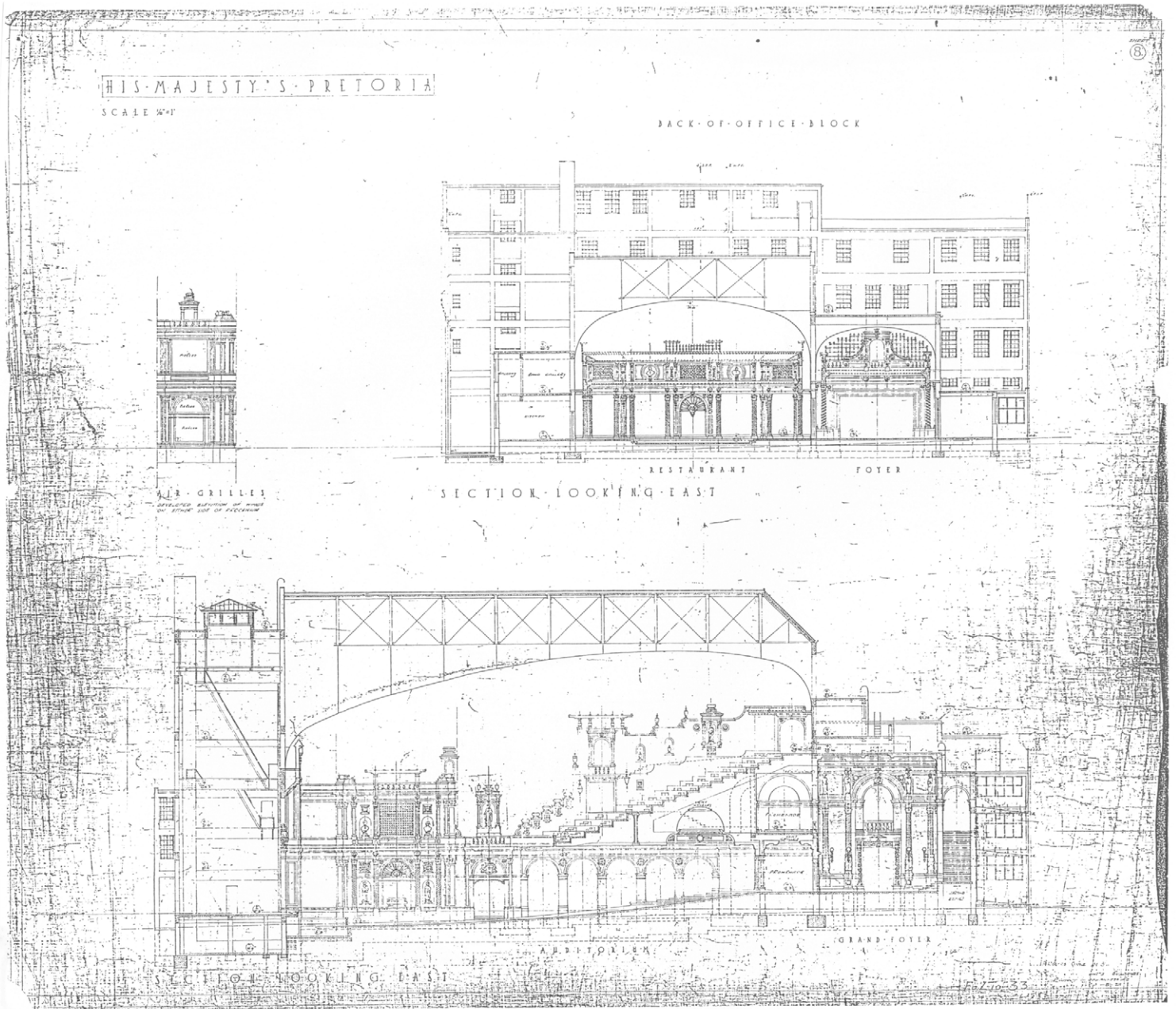


Figure 233: Original sections of Capitol Theatre



WATER MANAGEMENT MODEL

A WATER RESOURCE INFORMATION (YIELD, m³)

A1

SOURCE 1: RAIN WATER HARVESTING DATA		
DESCRIPTION	AREA (m ²)	RUNOFF COEFF. (C)
Roof structures	2842	0,9
Paving A	852	0,8
Gravel	0	0,2
Lawn	0	0,1
Decking	873	0,1
TOTAL AREA (A)	4567,00	
WEIGHTED C		0,73

A3 TOTAL WATER YIELD

MONTH	AVE RAINFALL, P (m)	CATCHMENT YIELD (m ³) (Yield = PxAxC)	ALTERNATIVE WATER SOURCE (m ³)	TOTAL WATER YIELD (m ³)
January	0,13	442,45	34,00	476,45
February	0,09	282,77	34,00	316,77
March	0,09	292,75	34,00	326,75
April	0,05	172,99	34,00	206,99
May	0,01	39,92	34,00	73,92
June	0,01	26,61	34,00	60,61
July	0,00	13,31	34,00	47,31
August	0,01	19,96	34,00	53,96
September	0,03	83,17	34,00	117,17
October	0,07	242,85	34,00	276,85
November	0,10	345,98	34,00	379,98
December	0,11	359,28	34,00	393,28
ANNUAL AVE.	0,70	2322,04	408,00	2730,04

A2 Minimum yield from spring under Capitol Theatre (base (170m² x 0,2m deep = 34m³)

SOURCE 2: SPRING WATER SOURCE		
MONTH	WEEKLY YIELD (m ³)	MONTHLY YIELD (m ³)
January	34	136,00
February	34	136,00
March	34	136,00
April	34	136,00
May	34	136,00
June	34	136,00
July	34	136,00
August	34	136,00
September	34	136,00
October	34	136,00
November	34	136,00
December	34	136,00
ANNUAL AVE.		1632,00

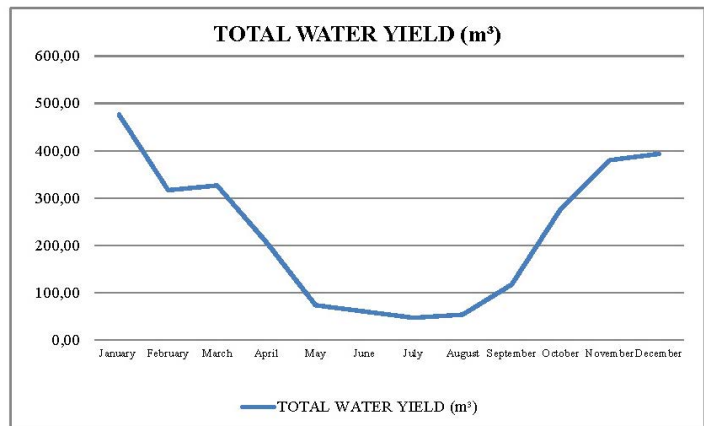


Figure 234: Water yield and harvest tables (Author 2018)



B WATER DEMAND

B1 LANDSCAPE IRRIGATION DEMAND (m³)

DESCRIPTION:	LAWN (m ²):		AGRI (m ²):		PLANTER (m ²):		TOTAL MONTHLY IRR. DEMAND (m ³)
	WEEKLY IRR. (m)	MONTHLY DEMAND (m ³)	WEEKLY IRR. (m)	MONTHLY DEMAND (m ³)	WEEKLY IRR. (m)	MONTHLY DEMAND (m ³)	
January	0.02	0	0.025	0	0.005	0.44	0.44
February	0.02	0	0.025	0	0.005	0.44	0.44
March	0.02	0	0.025	0	0.002	0.176	0.176
April	0.02	0	0.025	0	0.002	0.176	0.176
May	0.01	0	0.025	0	0.002	0.176	0.176
June	0.01	0	0.025	0	0	0	0
July	0.01	0	0.025	0	0	0	0
August	0.02	0	0.025	0	0	0	0
September	0.02	0	0.025	0	0.005	0.44	0.44
October	0.02	0	0.025	0	0.005	0.44	0.44
November	0.02	0	0.025	0	0.005	0.44	0.44
December	0.02	0	0.025	0	0.005	0.44	0.44
ANNUAL TOTAL		0		0		3.168	3.168

B2 DOMESTIC DEMAND, Facilities & Abattoirs

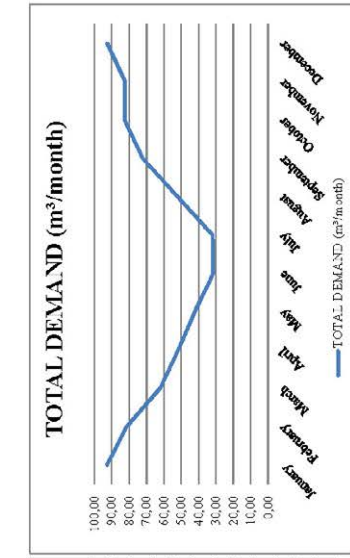
MONTH	PERSONS	WATER/ CAPITA/ DAY (l)	DOMESTIC DEMAND (m ³ /month)
January	100	3.5	11.78
February	100	3.5	10.64
March	100	3.5	11.78
April	100	3.5	11.4
May	100	3.5	11.78
June	100	3.5	11.4
July	100	3.5	11.78
August	100	3.5	11.78
September	100	3.5	11.4
October	100	3.5	11.78
November	100	3.5	11.4
December	100	3.5	11.78
ANNUAL TOTAL			138.7

B3 EVAPORATION LOSS (For 'open' reservoirs)

GF POOLS (m²) 202
FF POOLS (m²) 182
SF POOLS (m²) 119

35mm -45mm/week in summer

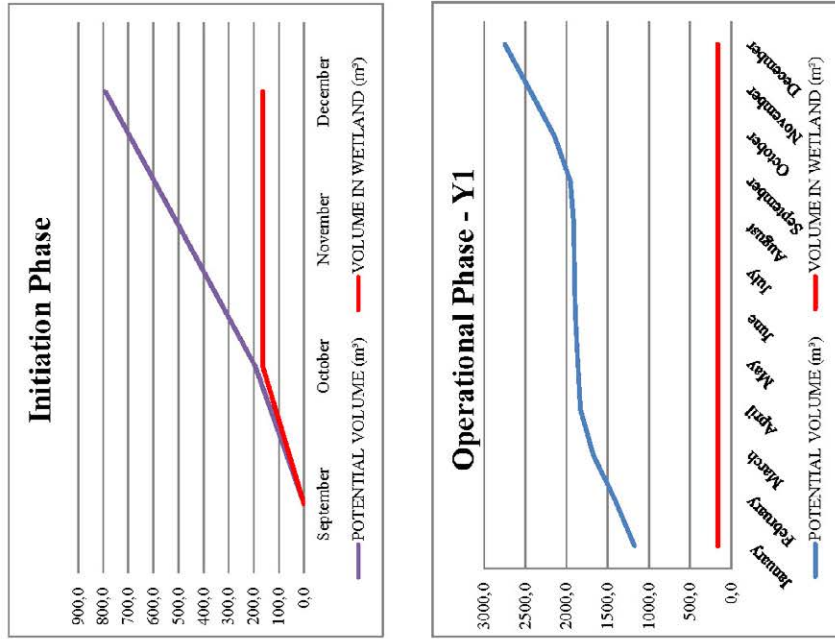
MONTH	EVAPORATION RATE (m/week)	EVAPORATION RATE (m/month)	TOTAL LOSS (m ³ /month)
January	0.04	0.16	80.48
February	0.035	0.14	70.42
March	0.025	0.1	50.3
April	0.02	0.08	40.24
May	0.015	0.06	30.18
June	0.01	0.04	20.12
July	0.01	0.04	20.12
August	0.02	0.08	40.24
September	0.03	0.12	60.36
October	0.035	0.14	70.42
November	0.035	0.14	70.42
December	0.04	0.16	80.48
ANNUAL TOTAL	0.32	1.26	633.78



B4 TOTAL WATER LOSS & DEMAND

MONTH	TOTAL DEMAND (m ³ /month)
January	92.70
February	81.50
March	62.26
April	51.82
May	42.14
June	31.52
July	31.90
August	52.02
September	72.20
October	82.64
November	82.26
December	92.70
ANNUAL TOTAL	775.648

Figure 235: Water yield and harvest tables (Author 2018)



C WATER BUDGET

WETLAND	
WETLAND CAPACITY (m ³):	164,5
MIN VOLUME (m ³):	164,5

C1 WATER BUDGET

INITIATION PHASE					
MONTH	YIELD (m ³ /month)	DEMAND (m ³ /month)	MONTHLY BALANCE	POTENTIAL VOLUME (m ³)	VOLUME IN WETLAND (m ³)
September	117,2	72,2	45,0	0,0	0,0
October	276,8	82,6	194,2	194,2	164,5
November	380,0	82,3	297,7	491,9	164,5
December	393,3	92,7	300,6	792,5	164,5
ANNUAL AVE.	1167,3	329,8	837,5		

C2 WATER BUDGET

YEAR 1					
MONTH	YIELD (m ³ /month)	DEMAND (m ³ /month)	MONTHLY BALANCE	POTENTIAL VOLUME (m ³)	VOLUME IN WETLAND (m ³)
January	476,5	92,7	383,8	1176,3	164,5
February	316,8	81,5	235,3	1411,5	164,5
March	326,7	62,3	264,5	1676,0	164,5
April	207,0	51,8	155,2	1831,2	164,5
May	73,9	42,1	31,8	1863,0	164,5
June	60,6	31,5	29,1	1892,1	164,5
July	47,3	31,9	15,4	1907,5	164,5
August	54,0	52,0	1,9	1909,4	164,5
September	117,2	72,2	45,0	1954,4	164,5
October	276,8	82,6	194,2	2148,6	164,5
November	380,0	82,3	297,7	2446,3	164,5
December	393,3	92,7	300,6	2746,9	164,5
ANNUAL AVE.	2730,0	775,6	1954,4		

Figure 236: Water yield and spring water cycle tables (Author 2018)



LIGHTING ANALYSIS				
ROOM	TYPE	NO. PER ROOM	NO. OF ROOMS	TOTAL
ABLUTIONS	T8 LED tube	8	4	32
STUDIOS	LED spot 111	20	1	20
OUTDOOR CIRCULATION	LED reflector lamp	18	1	18

70

LOAD CALCULATION				
DC LOAD ITEM	QUANTITY	WATT	HOURS	Wh/day
APPLIANCES				
Laptops	20	50	8	8000
Kettle	1	1500	3	4500
Microwave	1	900	3	2700
Bar Fridge	1	90	24	2160
EXTERNAL				
Water pump	2	2200	4	17600
INTERNAL				
T8 LED tube	8	20	3	480
LED spot 111	20	11	8	1760
LED reflector lamp	18	6	12	1296

SUBTOTAL		38496
TOTAL AC Watt hours	ALLOWANCE FOR SYSTEM LOSSES (15%)	44270,4

RESULTS

$$\begin{aligned}
 & \mathbf{Wp} \\
 & \text{(Wh to be generated / 4 peak sun hours)} \\
 & \frac{44270,4}{4} \\
 & \hline
 & 11067,6 \\
 & \hline
 \\
 & \mathbf{Qty\ of\ panels} \\
 & \text{Wp / size of panels} \\
 & \frac{11067,6}{240} \\
 & \hline
 & 46,115 \\
 & \hline
 \\
 & \frac{46,115 \text{ panels} \times 1,65\text{m}^2 \text{ per panel}}{} \\
 & \hline
 & \mathbf{76,08975 \text{ m}^2} \\
 & \hline
 \end{aligned}$$

Total Existing Roof Area = 2842m²

Conclusion: there is ample space for the solar panels

Figure 238: Solar Panel energy calculations (Author 2018)



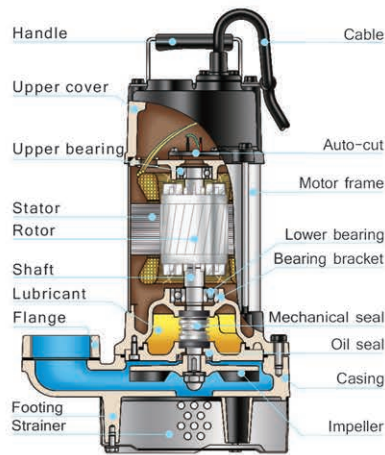
APPLICATIONS

- waste water.
- Sump Drainage.
- Flood control.
- Dewatering for fish pond or basement and cellars.

PRODUCT NOMENCLATURE

A/AN — 2 1
Type Discharge HP
inch

SPECIFICATIONS



Discharge (mm)		40 • 50 • 80 • 100
Limits Of Use	Liquid Temp.	0~40°C
	Applications	General wastewater • Sewage water and Drainage waster
	Submersion Depth	30m
Type	Frequency	50Hz
	Motor	2P(3000RPM) Dry Motor(A-05A:Oil Motor)
	Insulation	Class B
	Protection	IP68
	Protector	Auto-cut (A-05A 30:none,10;overheat)
	Bearing	Ball Type
Material	M.seal	Double M.seals
	Impeller	Semi-open
	Upper Cover	FC-200
	Motor Frame	SUS304
	Shaft End	SUS410 (0.5~1.5HP) • SUS403 (2~3HP)
	M.seal	SiC/SiC
	Casing	FC-200
	Impeller	FC-200
Cable	VCT or H07RN-F or SJOW/SOW	
Optional	Pumps can be customized to fit specifications	

PERFORMANCE SPEC.

Note: Weight Not Included Cable & Elbow Set
*1/1 2" (40mm) optional by request
A-05~31 30 Vortex impeller will cause higher amperage in reverse

Model	Output HP(kW)	Discharge Inch(mm)	Phase	Start Method	Head (m)	Capacity		Solid Passage (mm)	Weight (kg)		Dimension (mm)					Dimensional Drawing
						m ³ /min	m ³ /h		10	30	A	B	C	D		
A-05A	½ (0.4)	2" (50)	1	Capacitor	8	0.1	6	7.5	12	11	226	-	161	349	349	
A-05B	½ (0.4)	2" (50)	3	Direct	8	0.1	6	7.5	13	12	226	-	161	372	372	
A-05L	½ (0.4)	2" (50)	1	Capacitor	7	0.15	9	8	16	14	245	-	173	430	430	
A-21	1 (0.75)	2" (50)	1	Capacitor	10	0.18	10.8	10	17	15	245	-	173	430	430	
A-31	1 (0.75)	3" (80)	1	Capacitor	6.5	0.3	18	10	18	17	278	-	173	457	457	
AN-21	1 (0.75)	2" (50) +1½" (40)	1	Capacitor	13.5	0.12	7.2	7	18	17	262	-	187	408	408	
AN-21.5	1½ (1.1)	2" (50) +1½" (40)	1	Capacitor	15	0.16	9.6	7	20	18	262	-	187	428	408	
AN-22	2 (1.5)	2" (50)	1	Capacitor	18.5	0.25	15	10.5	31	27	282	-	207	580	499	
AN-23	3 (2.2)	2" (50)	1	Capacitor	23.5	0.3	18	10.5	35	30	282	-	207	592	499	
AN-32	2 (1.5)	3" (80)	1	Capacitor	10.5	0.5	30	10.5	33	29	391	249	214	591	510	
AN-33	3 (2.2)	3" (80)	1	Capacitor	15.5	0.5	30	10.5	37	32	391	249	214	603	510	
AN-43	3 (2.2)	4" (100)	1	Capacitor	11.5	0.7	42	20	37	32	389	248	207	601	520	

Figure 239: Water pump spec



AN New Generation Wider Selection • Better Performance • Easier handling

FEATURE

- A precision manufactured motor is achieved by utilizing the highest standard of quality control. All rotors adopt heat treatment methods for drive shaft assembling, and stator winding impregnated with varnish that is heat dried in an industrial oven. The Water Resistance for Pump can reach IP68 Grade.
- HCP's professional assembly line, complimented with a synthesized production test, ensures the highest level of pump quality.
- Standard accessories include : cable with an epoxy resin sealed water-resistant cable base, AC thermal motor protector, dual mechanical seals and lip seal design.
- The A-05A is an extremely practical pump, with a low temperature, oil filled motor and single seal design (CA/CE).
- Optional 1½" (40mm) Flange for AN-21/21.5.

<p>Semi-open Produces a vortex (whirlpool effect) allowing long fibrous materials and other solid waste to pass through, without contact with the impeller.</p>	<p>Semi-open: Excellent to use with waste materials to prevent from clogging.</p>

PERFORMANCE CURVES

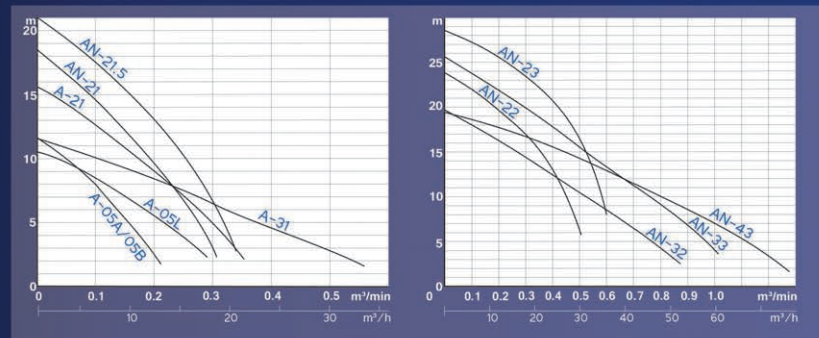


Figure 240: Water pump spec

PLANTING PALETTE



GRASSES & FERNS

Melinis repens



Bloom: October to June
Height: 250 - 500
Appearance: narrow leaves and dainty inflorescences
Characteristic: a woody species naturally occupying in areas dominated by trees
Fauna: seeds are eaten by birds such as the red bishops, wax-bills and bronze mannikins

Asparagus plumosus



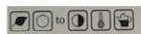
Bloom: September to February
Height: 6 000 x 2 000
Appearance: A climber with soft, finely-divided leaves creating a lacy effect. An ornamental plant with white flowers and red fruit in summer.
Characteristic: A very hardy and adaptable plant surviving neglect or drought.
Fauna: Attracts birds and bees in summer and spring

Clivia miniata



Bloom: August to November
Height: 400 to 500
Appearance: Dark strap-like leaves with orange flowers
Characteristic: Water-wise. Preferring well composted soils and leaf litter or mulch.
Fauna: Attracts bees

Jasminum multiparatum



Bloom: September to February
Height: 1 000 x varies
Appearance: a woody scrambler and climber with dark green leaves and bright pink and white flowers which makes an attractive contrast.
Characteristic: Flowers are highly scented in the evenings.
Fauna: Flowers are pollinated by hawk moths. Attracts butterflies and moths

KEY TO SYMBOLS

- evergreen
- deciduous
- sun
- semi-shade
- shade
- frost hardy
- moderately hardy
- not hardy
- high water use
- medium water use
- low water use
- size: height x width

Eragrostis curvula



Bloom: All year
Height: 900 x 700
Appearance: A decorative tufted grass with lax leaves and fine clumps.
Characteristic: Fibrous root system - good for stabilising soils
Fauna: Attracts birds and butterflies

Chlorophytum comosum



Bloom: All year
Height: 300 x 500
Appearance: A tufted ground-cover with narrow dark green leaves producing long straw-colored stalks.
Characteristic: Grows in shaded areas with the ability to stabilize soil and spread over large areas under trees.
Fauna: Attracts small insects

Bauhinia galpinii



Bloom: November to March
Height: 1 000 x 5 000
Appearance: Dark green leaves with coral flowers. Excellent for screens and embankments.
Characteristic: Can tolerate poor soil conditions and remains evergreen in moist conditions
Fauna: Attracts birds to sweet scent of flower

Carissa edulis



Bloom: November to January
Height: 1 000 x 3 000
Appearance: an evergreen shrub with attractive glossy foliage and single long spikes.
Characteristic: Edible fruits ripen when red and are loved by birds.
Fauna: Attracts birds and bees to sweet nectar of fruit

SHRUBS & GROUND-COVERS



CLIMBERS

Rhoicissus tridentata



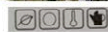
Bloom: N/A
Height: varies
Appearance: A strongly branched climber with decorative, serrated mid-green leaves.
Characteristic: Can be trained to grown on fences, gabions or pergolas.
Fauna: Attracts various birds

Philenoptera violacea



Bloom: September - November
Height: 9 000 x 6 000
Appearance: The sparse to fairly dense crown bears hairless and glossy leaves on the upper surface and velvety below. The creamy-brown bark varies from smooth to cracked when flaking. Sprays of fragrant purple flowers hang from branch tips.
Characteristic: The flowers are full of a sweet nectar that attract a range birds.
Fauna: Glossy beetles and other pollinating insects are attracted by the nectars.

Heteronmiopha arborescens



Bloom: November - March
Height: 7 000 x 6 000
Appearance: Has dark green drooping foliage with a dark copper bark. The tree is adaptable to context and can grow in dense rocky among succulents or in a vast grassland.
Characteristic: Large crown provides great amount of shade. Flowers have a distinctive smell when crushed underfoot.
Fauna: birds are attracted to the sweet scent of flower.

Senecio tamoides



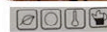
Bloom: All year
Height: 4 000 x 3 000
Appearance: A fast growing climber with glossy leaves and masses of yellow flowers in autumn.
Characteristic: With frequent water and mulching flowers grow in abundance.
Fauna: Attracts birds and butterflies

Ptaeroxylon obliquum



Bloom: August - December
Height: 10 000 x 6 000
Appearance: Usually evergreen, the sparse rounded to cone shaped crown of glossy green leaves produces beautiful golden autumn foliage. The yellow forgers are sweetly scented.
Characteristic: A great shade tree with non-aggressive roots. Is used as a general-purpose timber. The wood is employed for building huts and bridges.
Fauna: Attracts a range of insects and insectivorous birds.

Cassia abbreviata



Bloom: August - October
Height: 6 000 x 6 000
Appearance: The large crown of the tree is a great shading bearing tree with dark bark and contrasting yellow drooping foliage. It flowers in early spring with long cylindrical pods which droop from the tree all year round.
Characteristic: The tree has a non-aggressive root system and can be planted close to buildings and driveways.
Fauna: The brightly flowered leaves attract birds and insects.

Joffe, P. & Oberholzer, T. 2012. Creative Gardening with indigenous plants. 2nd edition. Pretoria: Beta Publications
 Huang, M. 2014. Indigenous Plant Palettes: an essential guide to plant selection. 1st edition. Quercus Publications

Figure 241: Planting palette (Author 2018)

Material & Environmental Decay

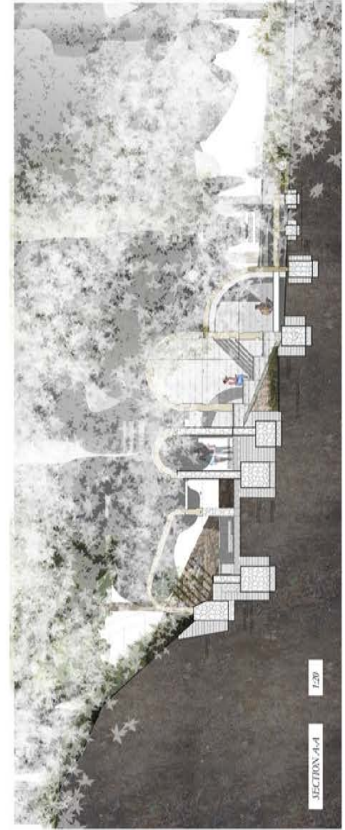
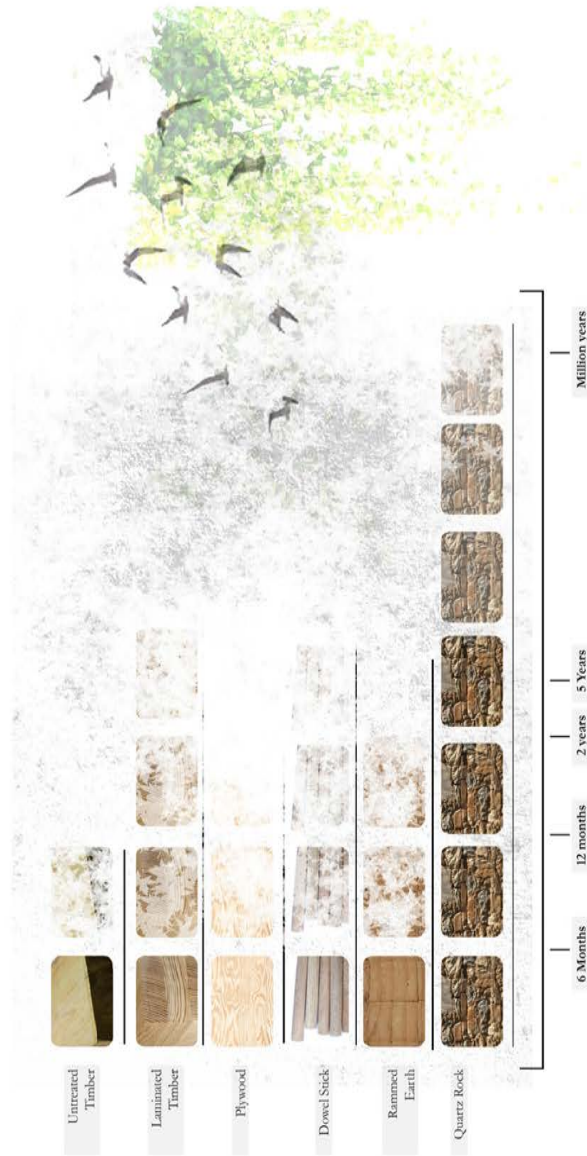
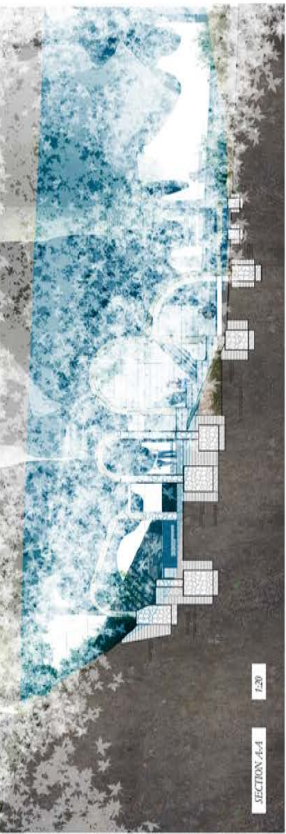
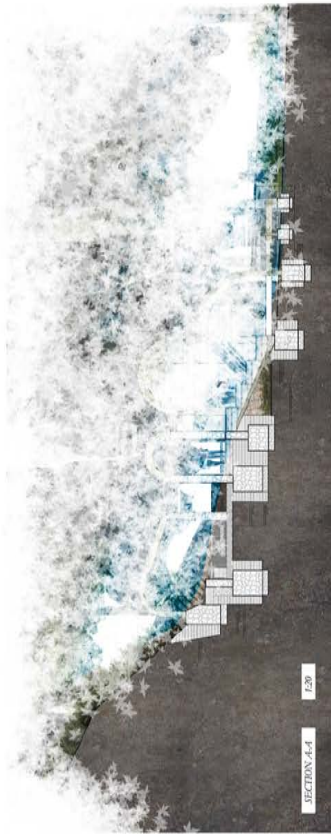


Figure 242: Material Decay of Atmospheric Theatre (Author 2018)



STAGE 6
100 year floodline



STAGE 7
7 -10 Years
Deterioration via water



STAGE 8
10 years forward
Deterioration via water and natural elements



STAGE 2
0-6 Months
Deterioration via natural elements



STAGE 3
6-12 Months
Deterioration via natural elements



STAGE 4
12- 36 Months
Deterioration via natural elements



Silindzile Shongwe

F

Fluid Space

Exploring the Binary constructs of Architecture and Phenomena in forgotten sites of escape and wonder.

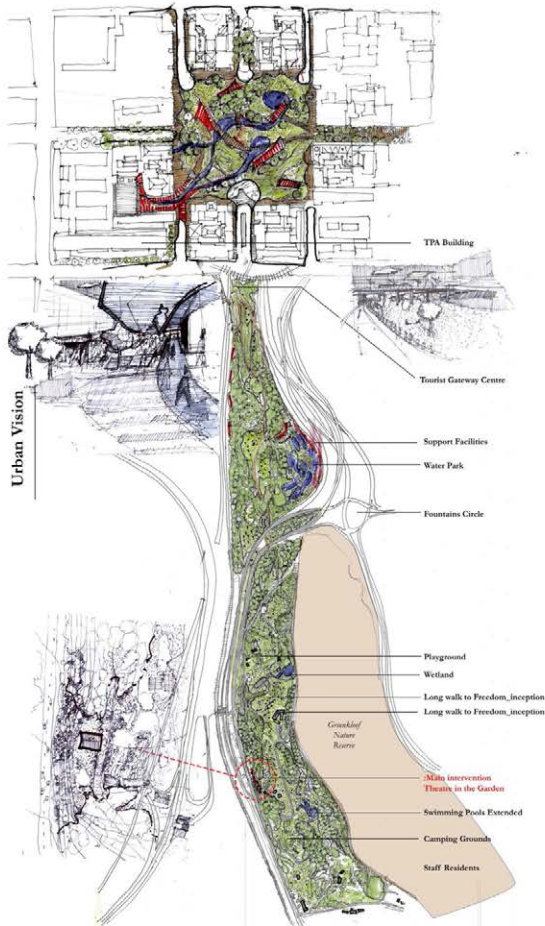


Fig. 01. Above; Binary Construct Urban Vision (Author, 2018)

INTRODUCTION

“Architecture is our primary instrument in relating us with space and time and giving these dimensions a human measure. It domesticates limitless space and endless time to be tolerated, inhabited and understood by humankind.” (Juhanni Pallasmaa, 1996a:17)

Our development as society has suffered a great loss in terms of the manner in which we previously experience architecture through all our senses, with vision becoming a dominant sense (Pallasmaa, 1996a:17). During early Greek times the ocular was considered a great source of knowledge in that there was symbolic connection between man and phenomena (ibid). Pallasmaa argues that our presence in this world forms an existential connection with architecture. The neglect to presence our sensory experience has a spatial consequence that affects our perception of the environment. An exploration into an alternative method of experiencing place and architecture will be explored by learning from two sites and testing the manner in which we can learn from the contextual and sensory qualities that are expressed through sensory spatial understanding and phenomenology. ↵

Trace Concepts: An alternative way

“A designer seldom belongs to a place in which he or she is asked to intervene”

The quote above by Christophe Girot (1999:60) gives a clear indication of the reasoning to develop these trace concepts. This approach was initially conceptualised in reference to Landscape Architecture but can also be read as an approach to Architecture as landscape forms a part of place, time, and various tangible and intangible fabric. The Four Trace concepts are progressive and become intertwined as one gets immersed in the process of design and discovery. Girot (ibid) gives mention to how, “site functions like a partition or container for a muse, who may through design, reveal hidden aspects of a hidden place”. This revelation of these hidden aspects is framed through Landing, Grounding, Finding, and Founding.

Landing

“Our everyday lifeworld consists of concrete phenomena”. It consists of people, of animals, of flowers, trees and forests, of stone, earth, wood and water, of towns, streets and houses, doors, windows and furniture. And it consists of sun, moon, and stars, of drifting clouds, of night and day and changing seasons. But it also comprises more intangible phenomena such as feelings”.
(Christian Norberg-Shulz 1980:6)

Figure 243: Theory paper (Author 2018)

Landing is the first act of site acknowledgment that marks the odyssey of a project (Giro 1999:61). Landing can be thus be seen as a sacred experience because it is devoid of an in-depth knowledge of a place and allows the first experience to be unsolicited and visceral. Landing is a measuring of place that invokes a displacement and change of speed which allows one to experience the confines of an unknown world (Giro 1999:61).

Grounding

Grounding follows the second step in the four traces. The experience of grounding deals with a more definite orientation and rootedness in place as it deals with a more critical reading of place through various studies and continuous site visits (Giro 1999:62). The activity of grounding views a given

site as a Tabula Rasa and thus reads the site as both tangible and intangible layers. Grounding thus forms a probe into the successive history and present quality of a place, through careful research and analysis (Giro 1999:63)

Finding

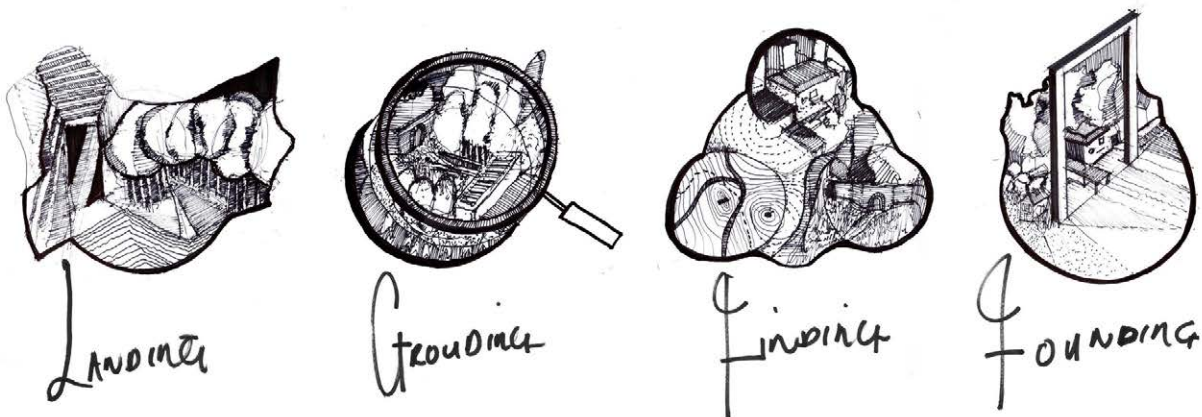
Finding forms the third trace that is a culmination and extension of Landing and Grounding. Findings are expressed through the tangible and evanescent through the activity of discovery and insight (Giro 1999:63). Findings are unique in that they are knit into the fabric of a specific place which contributes to the identity of its *genus loci*. Thus Finding is privileged in that its results are made both by a surprise discovery and a critical methodical investigation (Giro 63). As this third trace blurs boundaries between the

previous two, Giro (1999:64) further states that: "Finding is the alchemical component in the design process; it may be permanent or impermanent, the result of a fleeting vision or some resounding echo. Finding usually discloses the evidence to support one's initial intuitions about a place".

Founding

Founding is realised as a synthesis of Landing, Grounding, and Finding, into an approach to constructing on a site. The previous three traces oscillate between discoveries of permanence and ephemerality, and thus the opportunity for either/or is possible in the Founding of place (Giro 1999:64). Founding adds to the palimpsest of place in either a recollection of past events or something new to extend the legacy of place toward a productive future (Giro 1999:65).

Fig. 02. Below; Trace Concepts: Landing, Grounding, Finding, Founding (Author, 2018)





TWIN PHENOMENA

The unconscious is housed. Our soul is an abode.

And by remembering 'houses' and 'rooms,' we learn to 'abide' within ourselves.

Now everything becomes clear, the house images move in both directions: they are in us as much as we are in them."

_Gaston Bachelard (1964)

German Philosopher, Peter Sloterdijk (2011:17) tells a captivating story of the connection a child shares with a fragile phenomena. On a balcony that the reader constructs in his/her own mind while the story is being told, a child stands blowing bubbles into the sky. The nearness of the circular loop to his mouth presences the moment in which air from his lungs turns the foamy liquid into countless bubbles. On a particular attempt a swarm of bubbles erupts from loop and fills the immediate

sky, "as chaotically vivacious as a throw of shimmering blue bubbles" (ibid). As the bubbles travel at varying speeds through the sky, one oval shaped bubble veers off with the breeze and is carried down to the street. This bubble captures the child's attention as it floats away into space for a few seconds, as if fate itself intended to delight the child's curiosity. The child remains constantly captivated by the bubble as it descends down to the street, until the trembling bubble bursts into tiny liquid forms and disappears completely from the child's gaze.

Without realising the intensity of the moment that just passed, the child releases a sigh of cheer because for that time it seemed as if the life of the bubbles depending on the full gaze of the child. The child was outside of himself and," embarked on a shared expedition only to lose its partner halfway" (ibid:18). Peter Sloterdijk (ibid) mentions this experienced being expressed as Allies, or the Breathed Commune, in which a solidarity exists between the bubble and the blower that

is separate from the rest of the world. In the space shared between the child's breath and the bursting of the bubbles, the child's consciousness leaves his body and the rest of the world falls into the realm of the peripheral(ibid). Sloterdijk (ibid:23) argues that since the beginnings of the modern age, "every century, every decade, every year and every day", has been spent trying to understand new truths of extra-terrestrial spaces and the old nature of homo sapiens has fallen away over time.

Sloterdijk (ibid:417) extends the idea of allies and the breathed commune by exploring how the Romans believed humans were never born alone, and therefore could have a singular birthday. Each yearly celebration was considered a "double-birthday" of an individual and its guardian spirit, which formed an "indissoluble link" that was stronger than the link between mother and child(ibid). Sloterdijk reflects on this by expressing that, "all births are twin births; no one comes into the

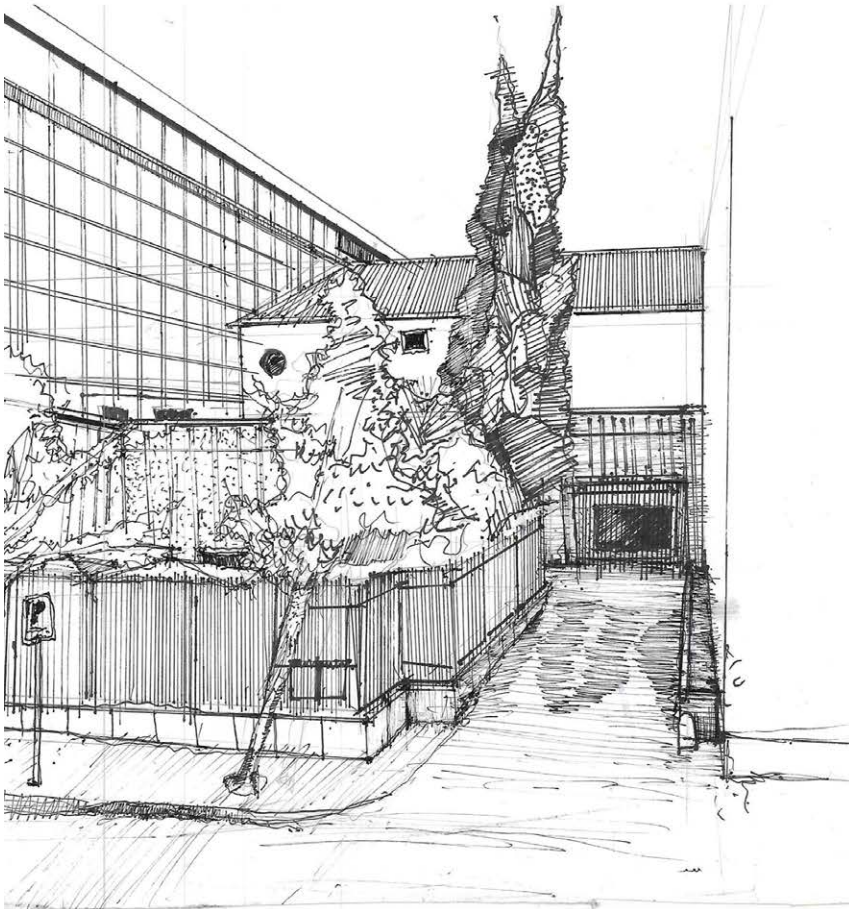
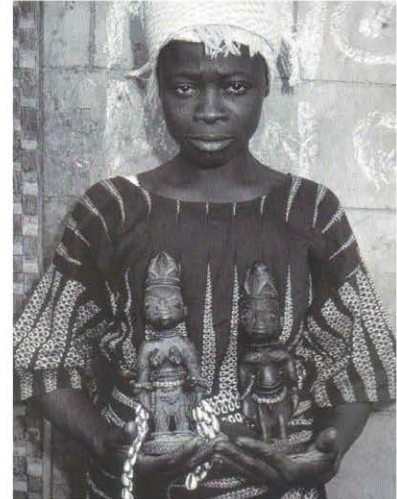


Fig. 03. Left; Twin Phenomena: Connecting Fountains Valley and Capitol Theatre (Author, 2017)

Fig. 04. Top Right; The Cult of Yoruba Twins Yoruba mother with the memorial figures of her deceased twins (Randafrikanart, 1980)



world unaccompanied or unattached". Within the real of a kingdom, it is characteristic of that the palace and the entire compound and landscape in view becomes an extension of himself (ibid). Sloterdijk (ibid:413) views these phenomena as, "Soul Partitions". Twin Culture is explored through various parts of the world with Anthropologist, Phillip Peek (2011), exploring an African perspective in his curated book, "Twins in African and Diaspora Cultures: Double Trouble, Twice Blessed". Within the Yoruba Tribe in Nigeria exists a, "poetics of twin figures" that expresses the universal idea that there exists two aspects to reality, explored through dual themes of, "spirit/matter, visible/invisible, male/female, good/evil, essence/existence" (Peek, 2011:81).

Within the Yoruba people resonates a tradition that if one of the pair of twins die, a gender specific memorial sculpture should be made by a local carver to, "localize the soul of the deceased" (ibid:85-86). The mother of the children is required to treat the

representational memorial as a living child and care for it as if the child were still living. The twins are thus fed together (with the memorial fed symbolically), dressed in the same clothing (with clothes for the memorial being made in miniature scale), (gbénàgbénà) with certain instances where the memorial is given to the child to, "minimize the natural instincts in twins to want to see one another after a long separation" (Peek, ibid:86). When questioning the origin of the memorial, the twin is told that his/her twin has travelled to a distant land and will return soon; when the living twin comes of age and stops enquiring about the memorial a shrine is built in the house to remember memorialize the memorial (ibid).

The Yoruba express their beliefs in another expression of twin culture through a conceptualization of the cosmos as a, "big gourd¹ with two halves", which they express in a popular saying, "T'ako, t'abo, ejiwapo²" (ibid:82). The top half of the gourd

represents maleness as he relates to heaven/sky expressed as, "the realm of invisible spirits". Hints at the potential of the life-producing potential of the couple are held together by a mysterious power of phenomena that that bind the gourd in space which enable, "sun and moon to shine, wind to blow, fire to burn, rain to fall, rivers to flow and both living and non-living things to exist" (ibid). The power if the phenomena emanates from a Supreme Deity that expresses its existence through benevolent and malevolent forces of natural occurrences of, "day and night, hot and cool, wet and dry, right and left, north and south, east and west, and life and death" (ibid). A "Power of Twoness" is evident in this cultural group with similarities tied with Sloterdijk's (2011) revealing of twinning in Roman culture. The Yoruba share a belief that every living person, expressed in a physical body, is blessed with a spirit double, expressed as a soul, that resides in heaven. As souls works in a manner that enlivens the body, the body in tun



Fig. 05. Left: Fountains Valley, with emphasis on site (Author, 2018)

is bilaterally halved to reflect images/traits of the parents within each half of their offspring's body. The left part of the body embodies the presences of the mother, with the presencing the opposite side. With the body representing separate representations there still exists a twin dialogue through the body where bone identifies with male representations, and the flesh female, the semen male, and the breast milk female (ibid). A physical and metaphysical expression of twin and its relative phenomena is evident in the various expression of the power association with a dual existence that connects humanity with the heavens and the earth.

CONTEXT

The bottom half of the gourd expressed in the Yoruba culture that holds the cosmos in place signifies femaleness and the "primeval waters" that the physical world was later created from. The significance of the femininity of water as a representation of a binary construct is echoed through a tale I have written for the sites that inspire my contribution to discipline.

Twin Story

[Fade in]

Imagine the birth of these two special places, these twins. Twins born not of the same time but of the same dreams. Dreams that suspend time to allow their birth to bare resemblances of each other. Water was their umbilical

cord. Fountains Valley sustained the life of Capitol theatre. Capitol theatre sustained the imagination of humans. Time was slower then, water traversed the landscape at the speed at which nature allowed. Water played on rocks and soil and gave and sustained life. Time was the fabric that held the fabric of the metaphoric umbilical cord in harmony.

[Introduce Suspense]

Over time the threads of the umbilical water were contaminated and the two began forming into one's. The city developed, and the water was needed elsewhere. Fountains remained in its natural character and Capitol performed its role. On a day that is uncertain to record, fountains overheard man talk in nature about a theatre, which brought back memory of the Capitol. The Springs re-accessed the gravity to send a message to Capitol theatre. The message was so intense it began flooding its basement. The two now sit disconnected in some way, trying to find ways to reconnect the umbilical, to re-establish place and dreams, to think of a future of accord.

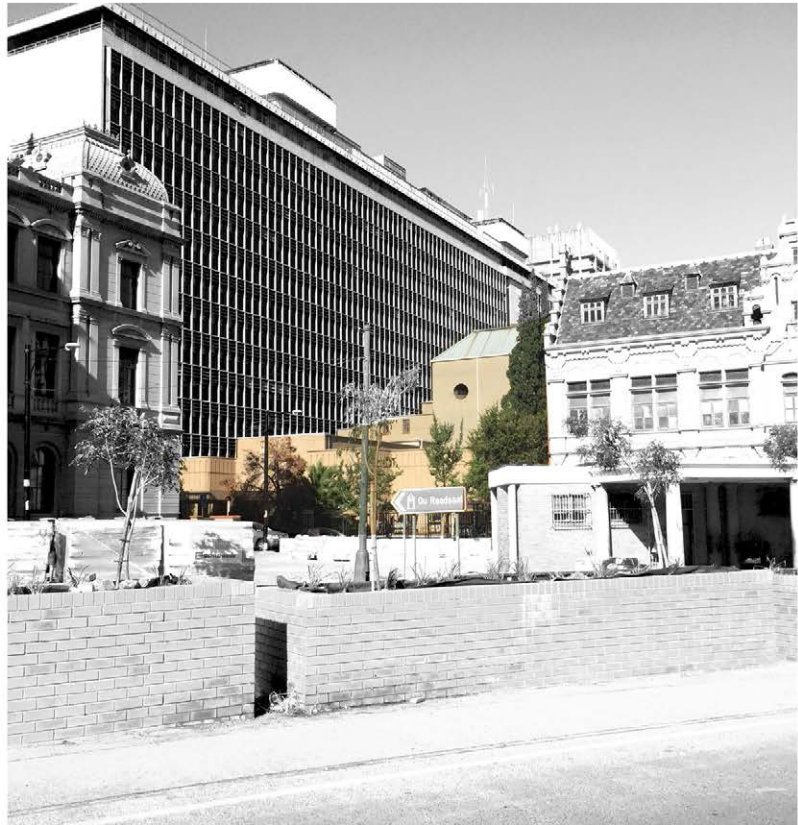
[Fade Out]

In her book, 'A Field Guide to Getting Lost', Rebecca Solnit (2005) explains how, "To lose yourself: a voluptuous surrender, lost in your arms, lost to the world, utterly immersed in what is present so that its surroundings fade away. In Benjamin's terms, to be lost is to be fully present, and to be fully

present is to be capable of being in uncertainty and mystery". The discovery of these twin sites was discovered while using the approach of a flâneur³, traversing the city and landscape of Pretoria in search of a site to explore the possibilities of architecture. Fountains Valley, which bares traces of the city's first inhabitants, sits tucked away into a valley which funnels two main southern entry points into the city. Historically the site was used as a means of escape from the city, to a hidden park of relaxation and reflection. The current function serves as a recreational resort where various activities such as picnic, camping, swimming, hiking, and sculptures of fallen heroes resides. The site is home to the first natural spring that provided water to the city 150 years ago with the spring still providing water to the city at about 800 000 litres as day (Dippenaar 2013).

Capitol Theatre sits hidden in the south-western corner of the historic church square in the CBD. The interior theatre was designed as an atmospheric theatre in the high Italian Renaissance style with walls painted as landscapes, and the sky an artificial blue to mimic the southern atmosphere of the sky. Built during the great depression, the building was intended to form an escape from the troubles of the world and allow people to be transported from their worries into an imaginary land. During its construction the construction team built into a natural spring that they soon repaired with a basement (Cooke et al. 1931). The springs now flood

Fig. 06. Left; Capitol Theatre (Author, 2018)



the Capitol Theatre basement with the opportunity to create a connection to Fountains Valley. Capitol Theatre and Fountains Valley now sit as memories of their former presence with a new experience expressed through the authors experience of landing as a flaneur on the site.

Fountains Valley Landing

Whichever path you decide on arriving here is dominated by the interchanging or roads with nature contained in its own reveries. The thatched double story entrance forms the threshold between the hard and the soft. Driving in you may be torn whether to drive around the entire place or begin by walking. A poor decision might find you driving around and finding yourself back where you started realizing what that this landscape holds dreams, secrets and peace.

If I were you I would park just a few meters to the right of the entrance and start your journey there. Step out your car and take a deep breath. Do you hear how loud the cars behind you are on the highway, don't worry too much. Continue walking and get lost to your left where there are a wash of shadows, where light dances between the leaves. Walk towards the spruit and try keep your balance between the soft ground with hard uneven fallen branches and soft twigs. Walk to the edge of the river bank and you might find that the:

The air is cold

*The trees are magical
The air is fresh
The traffic is loud but I can't hear it
If you play close enough attention to
the river
you can hear its rhythms through its
ripples.*

You now have experienced more senses than you care to account for. Your speed is now determined by the ground on which you walk. Continue to get lost and explore.

Capitol Theatre Landing

The best way to describe this experience is with reference to the timeless metaphor of a rose. You are walking in a deep dark forest. The air is thick with exotic and familiar smells. Each step is a balancing act as the ground hasn't been tempered by man. It is all very disorientating at first, until you stumble across the deepest expression of red you have seen in your life. Kneel down on the ground with your hands behind your back and smell the rose. The soft ground will make it hard to balance and you might just want to hold the rose. Do it. The new red you see is a prickle of

blood from the thorns. Find the space between the thorns and try smell it again. The rose is a similar experience to Capitol theatre. The progression from church square to the theatre is a layering process.

*From noise to silence.....
Light to Dark.
Certainty to Uncertainty.
Atmosphere to Atmospheric
Fast Time to Slow Time.
Material, to material, to the immaterial.
An Architecture of the Imagination.*

EXPLORING PHENOMENOLOGY

"To be able to dwell between heaven and earth, man has to "understand" these two elements, as well as their interaction. The word "understand" here does not mean scientific knowledge; it is rather an existential concept which denotes the experience of meanings. When the environment is meaningful man feels "at home". The places where we have grown up are such "homes"; we know exactly how it feels to walk in that particular ground, to be under that particular sky, or between those particular trees; we know the

all embracing sunshine of the South or the mysterious summer nights of the North. In general we know "realities" which carry our existence. But "understanding" goes beyond such immediate sensations." (Christian Norberg-Schulz 1980:23)

Philosopher, Dermot Moran (2000:4) argues that phenomenology attempts to describe phenomena in a way that manifests itself to consciousness and attempts to get to the truth of matters. Edmund Husserl (1859-1939) is arguably the father of phenomenology in that he focused more research and time into the subject, however, other philosophers made earlier mention of interaction with the phenomena before Edmund (ibid:6). In his book, *Metaphysical Foundations of Natural Science*, Immanuel Kant (1724-1804) spoke of phenomenology as a branch of science that explored the manner in which things appear to us depending on the human observer. Husserl argues that phenomenology should address the given phenomena, that constitutes 'the things themselves' in light of what appears to our consciousness (Moran, 2000:108). The appearance of this consciousness is a result of logical experiences in which uses phenomenology as an expression to clarify the essential nature and structure of phenomena (ibid). An investigation into essences negates a purely theoretical understanding of phenomena which further attempts to unite the subjective and the objective (ibid:109). Husserl thus viewed phenomenology as a mental abstraction where intelligence was used to reason phenomena.

Martin Heidegger (1889 - 1976) critiqued Husserl's work that focused on transcendental structures of consciousness and formed his own idea of phenomenology which focused on being-in-the-world and dwelling poetically in time and place (Jordaan., 2015:45). To express this idea of dwelling Heidegger uses the German word "bauen" to illustrate that dwelling is an extension of mans connection to his surrounding, thus dwelling in time and being in time is experienced phenomenologically in a real time environment (ibid). The French phenomenological philosopher, Maurice Merleau-Ponty (1908-1961), critiqued both Husserl and Heidegger's views, with more focused extension

of the latter's consciousness of the bodies connection to places (ibid:45). Merleau-Ponty focused his work on the phenomenology of perception and which focused on the lived experience which viewed our consciousness and perceptions as one unit of measurement and unable to be separate (ibid:46). With a full experience of consciousness and the body being explored, Merleau-Ponty (1962:vii) believed phenomenology to not only be a study and understanding of essences but also a process in which the essences are placed back into existence.

With Merleau-Ponty's idea in mind of a phenomenology that places essences back into existence, Christian Norberg-Schulz (1926-2000) explores role in which architecture relates to phenomena. In his book, *Genius Loci: Towards a Phenomenology of Architecture*, a understanding of the phenomena of man-made place is seen as an act of dwelling between the heavens and the earth in a meaningful manner where constructed structures have embodied meanings (Norberg Schulz, 1980:50). *Genius Loci* is a vital informant for the Architect as it reinforces the need for architecture to form a part of the extension of phenomena of place. Swiss Architect, Peter Zumthor, doesn't consider himself a to strictly be a phenomenologist, however he uses the principle of phenomenology, as defined by Merleau-Ponty (1962), to emphasize materiality and the manner in which it can articulate architectural atmospheres. Zumthor (1998:11) argues that materials can assume a poetic quality within a context of an architecture that expresses qualities of composition, smell, acoustic quality, and tangibility, in a manner where sense emerges in a manner that articulates architecture by returning to essences. In his book, *Atmospheres*, there is an understanding of how his buildings from part of an exchange with his surroundings, to create a tempered feeling between architecture and its context (Zumthor, 2006:7).

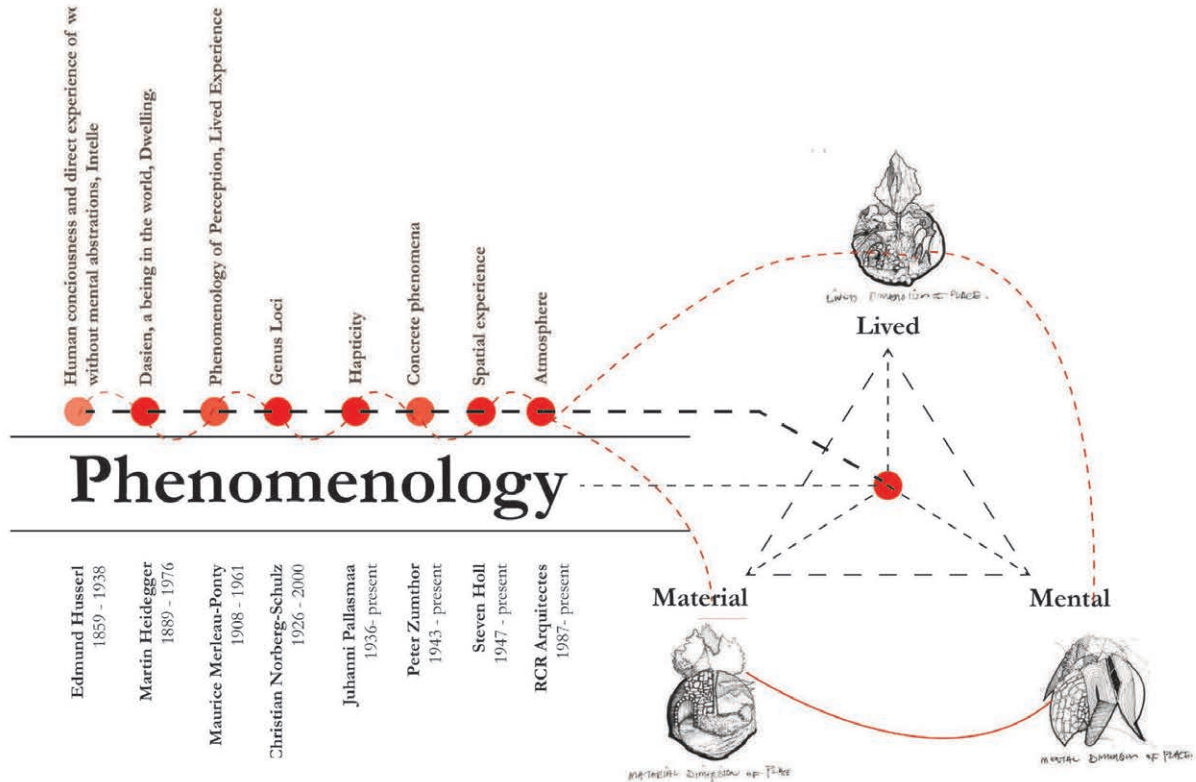
Architect, Juhanni Pallasmaa (2006), introduces a more tailored experience of phenomenology, through what he refers to as hapticity⁴. The approach the phenomenology of architecture is a response how the architecture in our time has focused its efforts on

Fig. 07. Right; Continuum of Phenomenological thinking with connection to Placial Triad (Author, 2018)

expressing buildings as retinal art for the eye, rendering them a form of plasticity with a detachment to the observer (Pallasmaa et al. 2006:29). To counter this movement, the architect assesses hierarchical experience of the five senses in Renaissance times, with touch being the highest sense and sight being the lowest (ibid:29). The senses were organised according to mans relationship with the cosmos in which, "vision was correlated to fire and light, hearing to air, smell to vapor, taste to water, touch to earth" (ibid). Pallasmaa (ibid:34) further explores primitive mans relationship to building in that construction was an extension of the human body, and thus he proposes an addition of two senses to the existing five; muscle and bone. The seven senses thus become a way to experience the world with our body in relation to our immediate environment of landscape, architecture, and the environment.

Steven Holl (et al. 2006:41) believes architecture should, can, does engage our immediacy with sensory perceptions, such as "the passage of time, light, shadows and transparency, colour phenomena, texture, material, and detail. These architectural related phenomena are important for the what he has termed, "the complete experience of architecture. Steven Holl is one of the few architects in our time that focus on phenomenology as a driver and tool in the articulation of spaces. The Spanish architectural firm, RCR architects, deals with phenomena in ways that has an incredibly dense experience of atmosphere that bares pieces of predecessors from Heidegger, Merleu-Ponty, all the way to the recently mentioned Steven Holl

According to Jordaan (2015:33), phenomenology can be seen as, "a tool, or as a way of seeing, interpreting, and representing the world", through an embodied experience and an enquiry into the haptic.



- Edmund Husserl
1859 - 1938
- Martin Heidegger
1889 - 1976
- Maurice Merleau-Ponty
1908 - 1961
- Christian Norberg-Schulz
1926 - 2000
- Juhanni Pallasmaa
1936- present
- Peter Zumthor
1943 - present
- Steven Holl
1947 - present
- RCR Architects
1987- present

PLACIAL TRIAD

In her Thesis on ways of constructing place, June Jordaan (2015:52) explores the way that a palatial triad expresses the manner in which architecture contributes to the human experience of place, “through the expressive nature of material places and through our physical and mental encounters with place”. The palatial triad is expressed through the mental dimension, material dimension, and lived dimensions of place. The triad does not exist in isolation but rather forms a part of a continuum of thinking. Soya (1996:57) finds expression of triad thinking through Historicity, Sociality and Spatiality. Cresswell (2005:51) seeks for Descriptive, Phenomenological, and Social Constructivist dimensions of place. In the production of Space, Henri Lefebvre explores idea of Representations of Space, Representational Space, and Spatial Practises. Conceived Space, Perceived Space, and Lived Space.

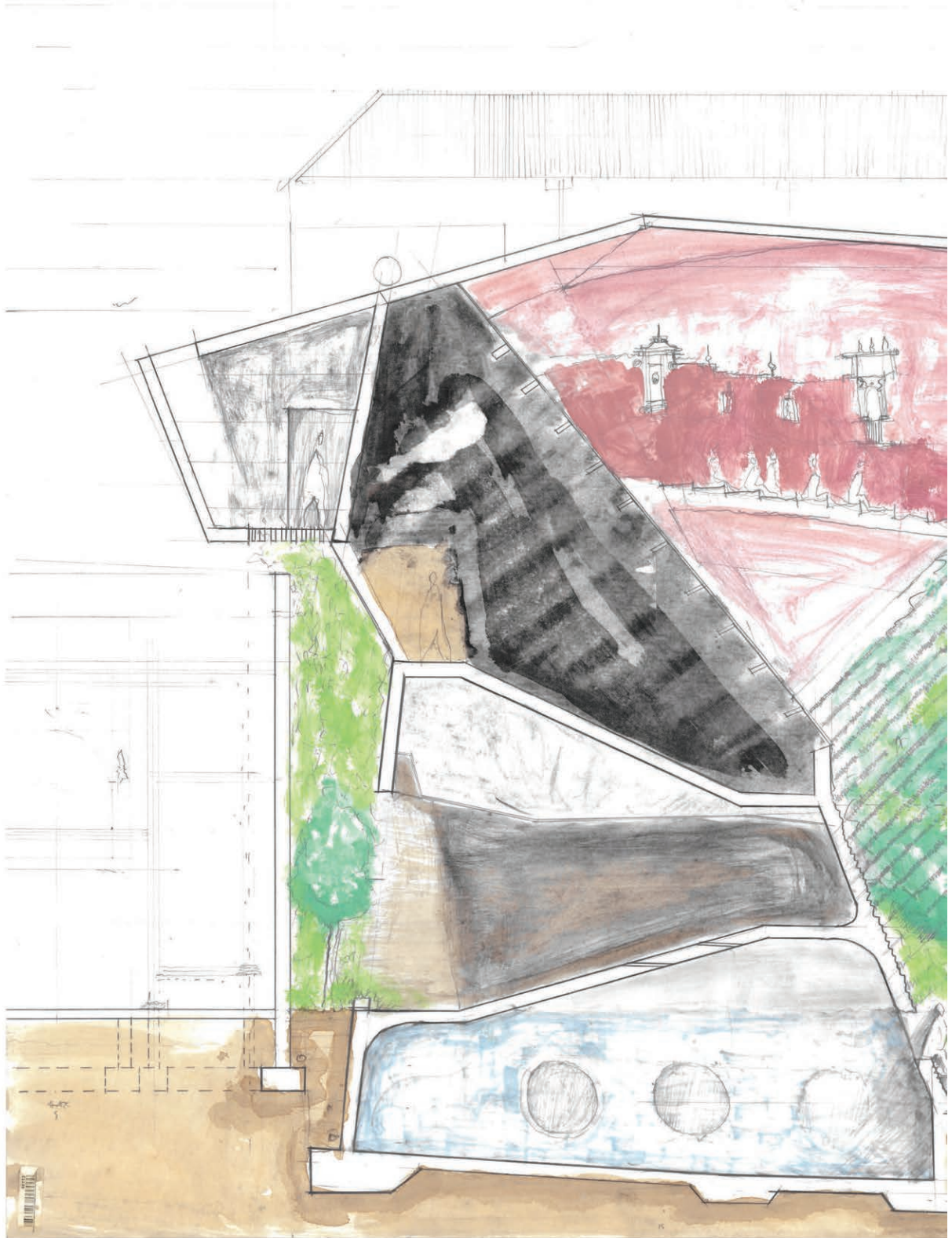
MATERIAL DIMENSIONS OF PLACE

“There was a time when I experienced architecture without thinking about it. Sometimes I can almost feel a particular door handle in my hand, a piece of metal shaped like the back of a spoon. I used to take hold of it when I went into my aunt’s garden. That door handle still seems to me like a special sign of entry into a world of different moods and smells. I remember the sound of the gravel under my feet, the soft gleam of the waxed oak staircase, I can hear the heavy front door closing behind me as I walk along the dark corridor and enter the kitchen, the only really brightly lit room in the house.”
Peter Zumthor (1998:9)

The vivid description above, captures the manner in which Peter Zumthor perceives the materiality of architecture and place. The description is framed using an intangible construct, memory, to highlight the way materiality is an extension of a metaphysical connection to place. Jordaan (ibid:62) extends this thought by expressing how material configurations can be interpreted in

Architecture exists in another reality from our everyday life and pursuits. The emotional force of ruins, of an abandoned house or rejected objects stems from the fact that they make us imagine and share the fate of their owners. They seduce our imagination to wander away from the world of everyday realities. The quality of architecture does not lie in the sense of reality that it expresses, but quite reverse, in its capacity for awakening our imagination.”
(Juhanni Pallasmaa 1996b:452)

Fig. 08. Below; Exploration of Architectural Contribution in Capitol Theatre (Author, 2018)





two ways, "On the one hand places can be seen as vehicles that convey meaning, as signs and symbols, and on the other hand, places can be seen as real and 'concrete things' that create atmospheres, presences and ambiances". As Humans, our everyday lives are confronted with tangible substances that guide our movement from one space to the other. Within our movement man stumbles across peculiar experiences of place which is known as *Genus Loci*. Norberg-Schulz (1980:18) makes a historical reference to how ancient Egypt was ordered in response to the Nile floods and the structure of the landscape, which influenced the layout of public buildings. The result of this response to place was that Egyptians felt a secure within the landscape, which acted as a symbol for an eternal environmental order (ibid). The special relationship to place was historically a means of survival as a good relationship to the landscape was expressed through both a physical and psychic sense (ibid).

Ancient Romans believed each independent being is born with a guardian spirit, a genius, which gives life to people and places, accompanies them from birth to death and determines their character or essence" (ibid:18). Various expressions of these characters and/or essences are what make the genius of loci unique. The *genus loci* finds its architectural expression through atmospheres that are an extension of tangible elements that form buildings and space. In his book *Atmospheres*, Zumthor (2006:13) explores the idea that humanity measures the extend of an atmosphere using our emotional sensibility. To elucidate this point Zumthor recollects something he wrote in his notebook that tries to map an understanding an analysis of particular atmospheres that move him:

"It is Maundy Thursday 2003. Here I am Sitting in the sun. A grand arcade long, tall, beautiful in the sunlight. The square offers me a panorama – the facades of houses, the church, the monuments. Behind me is the wall of the café. Just the right number of people. A flower market. Sunlight Eleven o'clock The opposite side of the square; in the shade, pleasantly blue Wonderful range of noises: conversations nearby, footsteps on the square, on stone, birds, a gentle

murmuring from the crowd, no cars, no engine sounds... So what moved me?"

Within this exploration of atmosphere, we see how atmospheres are an extension of environments and all their tangible and intangible qualities. To further elucidate what impression the environment gives him, Zumthor (ibid:15) pays attention to how the atmospheres are experienced not by something extraordinary but through the ordinary, "people, the air, noises, sound, colours, material presences, textures, and forms too – forms I can appreciate". The author further probes the question of atmosphere and draws out an important aspect of experiencing spaces with mood, feelings, expectations, appreciation, and surprises. Jordaan (2015:61) further confirms this exploration by commenting on how the material dimension of place are best read in relation to the sensory perceptive, moving and experiential body. Architect and Philosopher, Juhanni Pallasmaa(2000), has done extensive writing on the experiential body and its value in a world where sight and aesthetics, are more of a focal point that a whole body experience. Common western knowledge give light to how we experience our existence namely through our five senses; touch, sight, smell, taste and hearing. Pallasmaa(ibid) believes that every, "significant experience of architecture is multi-sensory", and that, "qualities of matter, space and scale are measured". The method of measuring Pallasmaa uses is what he refers to as the seven senses which extend the standard five senses; eye, ear, nose, skin, tongue, skeleton and muscle. Skeleton and muscle are used as they are the main components of the human body that allow for the most natural movement and referential experience of the environments we inhabit.

'My perception is [therefore] not a sum of visual, tactile, and audible givens: I perceive in total way with my whole being: I grasp a unique structure of the thing, a unique way of being, which speaks to all my senses at once'. Lived Dimension of Place
 "Rilke wrote: 'These trees are magnificent, but even more magnificent is the sublime and moving space between them, as though with their growth it too increased.'
 — Gaston Bachelard (1964)

THE LIVED DIMENSION OF PLACE

The Lived Dimension of place strengthens the Material Dimension of place by exploring an alternate understanding of how places are subject to human life in various forms (Jordaan 2015:111). As the Lived dimension associates itself very strongly with humans and it is best understood that places are never static but are always in a state of becoming as a relationship always exists with the living, moving and perceiving body, to its current place (ibid). The Lived Dimension is expressed in articulations of the past and present. When in a particular place that is sensitive to its environment, one can perceive the traces of time that speak of a dialogue between now and then. Architecture in its relation to its environment can be read as a palimpsest that presences traces in varying time sequences. It is important that the dialogue with past and present is ever present to give an account of how humans have inhabited spaces and related to them. Place can be viewed as a background for life (ibid:143).

Time

Time and environment are important aspect in understanding the traces of memory. Humanities experience of time has been altered as the human experience with environments become similar to that of a thoroughfare (Pallasmaa 2016:52). Pallasmaa (ibid) explains how our consciousness of our experience of time has lessened dramatically through history and has been reflected in our spatial experience of architecture. Reference is made to experiential time as it relates to cyclical time and linear time. Experiential time is the consciousness of the time spent within particular places in a manner that presences moments. Cyclical time is an expression of a sensitivity to aspects of

nature such as seasons, daily cycles, fauna and flora, climate, rhythms, sunrise, sunset. This experience of time has been forgotten through the modernising of man's perception of the environment. This disconnect with time is a result of misuse of technology in growing culture endeavours. Ancient Cultures used the sun, moon, and stars as indicators of time and events. The 16th Century compartmentalised time into half-an-hour intervals, with the 19th century introducing minutes to measure the development of railway traffic (ibid). Modern society has lost its connection to cyclical time with a more focus placed on linear time. Linear time compartmentalises time and assigns minutes, seconds, and hours to the way we experience space, place, and architecture.

Time is an important concern to the Lived Dimension in that the manner in which we experience space, place, architecture, and humanity is governed by the time those spaces are designed for. With the acceleration of time, even homes are beginning to feel like public space with the extension of similar programmes to typologies such as television, media, internet, and the factors that accompany them. In analysis of the way Enrique Miralles Architecture is sensitive to time, Quiros, MaKenzie, and McMurray (2011), explore how the Architect uses Experiential Time and Referential time in the conceptualisation of buildings into place. Experiential Time is sensitive to the present moment and all the events that occur in particular places, as sensory experiences are indulged through bodily and mental processes to the experience just lived.

Referential time is an expression of past and future made present, with memory and meaning brought to the present moment (Quiros et al. 2011:1). To express the idea of reference, Enrique Miralles makes reference to, "previous works and experiences (both his own and others) and by incorporating the historical and cultural past of the region and site where the project is located" (ibid). This way of reading and representing deals with themes of memory and palimpsest. Layers of time are used in a manner that is knitted into the fabric of time which forms a part of a continuum. In the design of the Iqualada Cemetery, referential time is expressed through

the passing of time in architecture and landscape. Nature grows over and the building, the steel used to reinforce layers if excavated soil rusts over time, the concrete receives a patina over time, wooden floors deteriorate over time and change in sound. Quiros et al (ibid) further elaborates on how the idea of referential time is used as a metaphor in the design of this cemetery and the "passing of time". A metaphysical relationship with the living and dead is evident as the living integrate with the dead through movement where the idea of procession can be viewed as, "a social landscape involving street like form and communal spaces; relationships such as man-architecture, architecture-site, site-landscape and thus, man-landscape are forced to refine themselves within this valley of the dead, in which the cemetery emulates the path of life and landscape of time" (ibid).

MENTAL DIMENSION OF PLACE

"Daydream transports the dreamer outside the immediate world to a world that bears the mark of infinity."
 — Gaston Bachelard, *The Poetics of Space* (1964)

The last dimension of place that forms a part of the placial triad is that which is and is in association with explorations and experiences of the mental. This dimension concerns itself with matters that are less tangible and explores how perceptions, imaginations, memories and dreams of places find meaning in themselves and their relationships to each other, as they reside in our minds (Jordaan 2015:153). With our minds being the highest expression of the mental dimension, the ability to perceive becomes an important tool when reading a place through a phenomenological lens (ibid:154). The mind is however not a separate entity from the rest of the body, in fact the way we perceive spaces with our whole body contributes to how we psychologically experience place and architecture. Jordaan (ibid) explores Spaces of perception, memories, dreams and imagination, as expressions of the mental dimensions of place. A similar sequence will be used in further exploring the spatial, palatial, and architectural consequences of these Ideas.

Memory and Imagination

Pallasmaa (1996a:52) argues that smell is often the most persistent trigger for the memory of space and gives account to this idea by explaining how, "I cannot remember the appearance of the door to my grandfather's farmhouse in my early childhood, but I do remember the resistance of its weight and the patina of its wood surface scarred by decades of use, and I recall especially vividly the scent of home that hit my face as an invisible wall behind the door."

In this instance the memory associated with smells becomes spatial and an architectural atmosphere is recreated in the mind. Pallasmaa (ibid) continues to explain how our nostrils awaken forgotten images and without a conscious awareness we are drawn into forgotten spaces. Scientific research explains that as little as eight molecules of an odour are needed to trigger a nerve impulse, with the sense of smell being able to detect more than 10 000 different odours at a time (ibid). The presence of 10 000 odours can be found within various landscapes and buildings, but the presence of these spaces requires all our available senses to create an embodied experience.

Pallasmaa (ibid:67) argues that perception, memory, and imagination are in constant interaction with one another, which combines images of memory and fantasy. Architecture is a privileged practise of expression in that within the buildings that are designed lie various objects, such as books, painting, art, sculpture, and human interaction that inspire other forms of memory and imagination. In the book *Invisible cities*, Italo Calvino (1974) gives a good descriptive account of his travels around the world that allows the reader to immerse oneself mentally into the spaces as if they were physically there. In giving a description of city called Zora, Calvino (1974:15) paints the picture of the city existing, "beyond six rivers". An understanding of Zora as a destination point that requires a concentrated effort to reach over and through varying landscape conditions is clear. Calvino continues to emphasize how once seeing city, the ability to forget Zora becomes difficult because of its unusual nature which is echoed through in its succession of streets, houses, doors, and windows (ibid).

Fig. 09. Below; Exploration of Architectural Contribution in Fountains Valley (Author, 2018)





Peter Zumthor (1998:27) makes reference to William Carlos Williams comment on how the best expression of something is in the thing itself, which Zumthor continues to call the, 'hard core of beauty'. Calvino (ibid) reveals the secret to Zora is in the way one's gaze perceives the patterns of the city flow into one another seamlessly like a musical score, and if in a resident of the city struggles to sleep she, he need only mentally access the city streets where, "the copper clock follows the barber's striped awning, then the fountain with the nine jets, the astronomer's glass tower, the melon vendor's kiosk, the statue of the hermit and the lion, the Turkish bath, the cafe at the corner, the alley that leads to the harbour."

The spatiality of memory has value beyond its dance with the past. Memory can be used as a tool for imagining possibilities for spatial explorations in architecture.

Philosopher, Gaston Bachelard (1983:1) believed that there are two different axes in which the imagining powers of mind develops; a formal imagination and a material imagination. The formal imagination lends itself to perceptions that incite feeling of intuition that are unfiltered of our desires, whereas the material imagination is derived directly from images of matter in which, "the eye assigns the names, but only the hand truly knows them" (ibid). Zumthor (2006:25) explores this idea further by speaking of the endlessness of material/matter as reactions are formed between two or more, which ignite a radiance that gives rise to something unique. To express the numerous abilities of material and uses the stone as an example of its extend: "you can saw it, grind it, drill into it, split it, or polish it – it will become different each time" (ibid). The Material imagination thus takes form in various representations and finds grounding in the way we haptically engage with matter during the process of design, the construction of a building and the spatial and placial experiences of the architecture.

Contribution

"The creative act within which a work of architecture comes into being goes beyond all historical and technical

knowledge. Its focus is on the dialogue with the issues of our time. At the moment of its creation, architecture is bound to the present in a very special way. It reflects the spirit of its inventor and gives its own answers to the questions of our time through its functional form and appearance, its relationship with other works of architecture and with the place where its stands."

Thinking Architecture, Zumthor (1998:22)

The architectural contribution of Capitol Theatre and Fountains valley is echoed in the twin theories discussed earlier. Each site has a quality that the other can benefit from, similar to the Yoruba's belief that the body is represented by a being in each half of the body, so therefore certain qualities of both sites will be re-represented into the other to thicken the narratives of place and extend their phenomenological qualities. Fountains valley will host the program of the atmospheric theatre and Capitol theatre will host the program of a park. These two atmospheres will extend the others atmosphere and living in memory of the other.

The four informants and vehicles thus become Memory, Nature, Time, and Water. The relationship between architecture and memory will be explored in the way re-representation is explored through program, atmosphere, nature, time, and water. The relationship between waters various representations will test the spatial, and atmospheric expressions of architecture. Referential and Cyclical time will be tested through the themes of Memory, Nature, and Water. The fragile relationship between nature and architecture will be tested as expression within the landscape and the urban context.

Phenomenology, as a return and re-representing of essences will explore Jordaan's (2005) placial triad of the Material, Lived, and Mental dimensions of place, as they relate to architectural form, function, and experience.

Conclusion

Normative Position

I see it clearly.....

First the hidden light, amongst the shadows...

Then the texture of the ground and its

creation of space.

I am aware of its presence now in a physical and metaphysical sense.

The evasive threshold, the Sublime, the tangible and intangible, and the materials containing all these experiences.

It first moves my heart and soul, then floods my thoughts and lets me be.

A Haptic Architecture.

The 7 senses expressed through sight, touch, hearing, taste, smell, muscle, and bone, as romanced by Pallasmaa.

All these experienced amongst physical and mental constructs.

The measuring of place, place measuring you.

The intro is phenomenology, The body is an exploration, The conclusion is Architecture.

A phenomenological Architecture.

Let me revel in the material that tells time of things lived and living to come.

Imagination is what gives life to bricks and mortar, to concrete and glass, to void and solid, to past and present, to light

and dimness, to rebar and sill.

It's all very overwhelming.

Elementary.

Poetic.

Necessary.

Through the phenomenological exploration of the potential of twin sites to re-represent each other, the project intends to reconcile lost atmospheres and imagine future relationships that architecture has with Memory, Nature, Water, and Time. The intention of the project is to explore architecture in a different manner to try develop a new way of perceiving the material, mental, and lived dimension of place and space, by returning and reinforcing essences.

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