



# RESTORING CURIO[CITY]

An Alternative Adaptive Reuse Approach for the derelict Staatsmuseum building  
through Landscape Design

Nolwazi SX Mlambo



## PROJECT DATA

Full dissertation title:	RESTORING CURIO[CITY] An Alternative Adaptive Reuse Approach for the derelict Staatsmuseum building through Landscape Design
Submitted by:	Nolwazi SX Mlambo
University:	University of Pretoria
Faculty:	Faculty of Engineering, Built Environment and Information Technology
Department:	Department of Architecture
Degree:	Master of Landscape Architecture (Professional)
Dissertation leader:	Dayle Shand
Studio master:	Johan N. Prinsloo
Course coordinator:	Dr. Arthur Barker
Site location:	Old Staatsmuseum, 250 Boom Str, Pretoria, City of Tshwane
GPS coordinates:	GPS coordinates: 25°44'19.70"S 28°11'23.56"E
Site description:	Derelict and disused museum building
Client:	City of Tshwane/Private investor
Users:	Public visitors
Research field:	Heritage and Cultural Landscapes (HCL)
Theoretical premise	Urban regeneration, Adaptive reuse, Creative Industries,
Programme:	Public exhibition and urban garden space with rentable exhibition spaces

## DECLARATION

University of Pretoria

2020

In accordance with Regulation 4(e) of the General Regulations (G.57) for dissertations and theses, I declare that this dissertation, which I hereby submit for the degree of Master of Landscape Architecture (Professional) at the University of Pretoria, is my own work and has not been previously submitted by me for a degree at this or any other tertiary institution.

I further state that no part of my dissertation has already been, or is currently being, submitted for any such degree, diploma or other qualification.

I further declare that this dissertation is substantially my own work. Where reference is made to the work of others, the extent to which that work has been used has been indicated and fully acknowledged in the and list of references.

Nolwazi SX Mlambo



## ENKOSI THANK YOU

<sup>57</sup>But thanks be to God!

He gives us the victory through our

Lord Jesus Christ

1 Corinthians 15:57

### MAMA

For being the best pillar I could have asked for. For being my mental and emotional sponge, enkosi MaMgcina. For believing in me even when my own conviction had withered I am forever grateful. Ndiyabulela sthandwa sam

### MADALA

Lala ngoxolo Xhamela. For instilling in me the value of perseverance and positivity in the midst of trials enkosi. Ndifeza amaphupho ethu, ndiyazi usinqa ngami. Uya kuba ligorha lam ngonaphakade

### MY FAMILY

For all your words of encouragement and prayers enkosi, yanga uThixo andisa instuku zenu zokuphila.

### MY FRIENDS

For our shared laughs, our shared upliftment, conversations and keeping me sane, kea leboha, ndiyabulela.

### MY ACADEMIC TEAM

Dayle and Johan, thank you for believing in my vision even when it wasn't as clear to me. Dayle, for your patience, kindness, encouragement and guidance thank you very much.

Kuni zinyanya zam, ndibulela xa nindikhusele ndide ndifike apho ndikhoyo. Ndibulela nina maGcina, oXhamela, oNokwindla, oTyhopho, oGabikhula, oNjikazi kaNcancashe, oMalambede, oBotsolo bentonga abathi bayozingela batya inyama yenyamakazi. Nakuni oZwane, oNtsele, oZikode. Enkosi zinyanya zam, iCamagu livumile.

Submitted in fulfilment of part of the requirements for the degree Magister of  
Landscape Architecture (Professional) Department of Architecture, Faculty of  
Engineering, Built Environment and Information Technology, University of  
Pretoria, South Africa.

2020

## ABSTRACT

Urban relics, memories of bygone eras, sit desolate and disregarded on the Northern and Southern fringes of the City of Tshwane's inner-city, also known as Pretoria. Flaking facades, uninviting margins and deflected gazes have resulted in forgotten city narratives, narratives that are immortalised in these monuments.

These compositions of culture, and remnants of the past, have fallen prey to the swift progress of the city and have been left forgotten as they retreat into the shadows of their former grandeur. Dwarfed by the bustle of the city and its towering urban fabric, a generation unknowing pass these urban gems daily, unaware of their past splendour. Existing now only as urban scars, these buildings become spectators to the continued advancing and changing cityscape, they become invisible remnants of the city's cultural and historical landscape.

The dissertation aims to generate a landscape design proposal for the Old Staatsmuseum building as an attempt to reactivate one such urban relic, to return it to some of its historic grandeur, and imagining new ways for old buildings to inject meaning into the cityscape. Drawing inspiration from creative industries, such as art, media and functional creations, the project investigates landscape architecture's potential to; regenerate and remodel buildings into creative sites, prevent their further decay, celebrate their inherent adaptive history and make them accessible to the new generation of city dwellers and visitors. Furthermore, such an attempt also seeks to connect and enhance the otherwise fragmented urban nature within the City of Tshwane, by connecting the Old Staatsmuseum, to its context of the National Zoological Gardens, and further afield to the grassland landscapes of Gauteng.

Landscape architecture is therefore used to present an allusion of the "continuation of cultural phenomena through built infrastructure" (Wong 2017:30) and as a catalyst for urban regeneration in the Pretoria inner-city.

# PROLOGUE

The dissertation is structured in the following way:

1. Three introductory chapters:

- Dissertation topic

- The site

- The theoretical study .

2. Three Essays (establishing the role of landscape and art in the city)

3. Design explorations and development

4. Design Technification

# TABLE OF CONTENTS

LIST OF FIGURES	12	Urban Regeneration Theories	29
DEFINITIONS	15	Historical investigation	29
CHAPTER 1 - Introduction	17	Architectural Heritage Response and Design Tectonics [Form-making informants]	29
1.1 PREAMBLE	18	Landscape as a Place of Retreat	30
1.2 BACKGROUND AND CONTEXT	18	Programme, Design and Technification	30
1.3 IDENTIFYING THE URBAN ISSUE	21	1.11 CONTEXTUALISING THE STAATSMUSEUM	30
General Issue: Urban Decay in Tshwane’s Inner-city	21	Regional Context	30
Urban Issue: Continued Decay of Heritage Buildings and Loss of Valuable Property	21	Site Selection	32
Site Issue: Withering Sense of Place	22	1.12 THE CULTURAL AND HISTORICAL DEVELOPMENT OF PRETORIA	35
1.4 A BRIEF INTRODUCTION TO PROJECT: THE STAATSMUSEUM	23	Urbanisation and Suburban Sprawl	35
1.5 PROBLEM STATEMENT	24	1.13 URBAN ANALYSIS	37
1.6 RESEARCH QUESTIONS	24	Urban Street Analysis and Land-use	37
1.7 THESIS STATEMENTS	24	Existing Vision/s and Regeneration Projects for CoT’s inner- city and the contemporary context	38
1.8 PROJECT AIMS AND OBJECTIVES	26	Contextual Analysis Summary	38
1.9 ASSUMPTIONS AND DELIMITATIONS	28	1.14 URBAN VISION:	39
1.10 RESEARCH AND DESIGN METHODOLOGY	29	Urban Decay and Places of Opportunity	39
Disclaimer	29		

# TABLE OF CONTENTS

CHAPTER 2 - Analysing the urban ruin	43	Semi-Ruin Hosts	51
2.1 INTRODUCTION	44	Fragmented Hosts	52
2.2 INVESTIGATION OF THE BUILDING	44	Relic Hosts	52
Street Façade	44	Group Hosts	52
Courtyard	45	2.7 CONCLUSION	53
East Exhibition Halls	45		
West Exhibition Halls	46	CHAPTER 3 - Theoretical Investigation	55
North and South Wing (Ground Floor)	46	3.1 INTRODUCTION: THE THEORETICAL FRAMEWORK	56
Back of Building(	47	3.2 URBAN REGENERATION	56
North and South Wing (First Floor)	47	Landscape Urbanism	56
Notable observations	48	Creative industries	57
2.3 STATEMENT OF SIGNIFICANCE	48	Urban Acupuncture	60
2.4 CONCLUSION	49	Urban Catalyst Theory	61
2.5 HERITAGE AND CULTURAL LANDSCAPES/ HERITAGE RESPONSE	49	3.3 PRECEDENT STUDY: 012 CENTRAL PRECINCT, CITY OF TSHWANE	62
Introduction	49	3.4 PRECEDENT STUDY: VICTORIA YARDS, CITY OF JOHANNESBURG	63
Architectural Heritage Conservation	50		
2.6 ADAPTIVE REUSE AND HOST BUILDINGS	50		
Shell Hosts	51		

# TABLE OF CONTENTS

CHAPTER 4 - Essays	65	5.5 DESIGN DEVELOPMENT EXPLORATIONS	91
4.1 NATURE AND THE CITY	66		
Hortus Conclusus	67	BIBLIOGRAPHY	124
Contemporary enclosed garden	68		
Explorations	68		
4.2 ART AND THE CITY	70		
Art history	70		
Explorations	74		
4.3 THE REPRESENTATION OF NATURE	77		
Constructing Nature	77		
Explorations	78		
CHAPTER 5 - Design Explorations	85		
5.1 RESPONDING TO THE URBAN VISION AND MASTERPLAN DEVELOPMENT	87		
5.2 HERITAGE INFORMANTS	87		
5.3 DESIGN DEVELOPMENT	88		
5.4 PRECEDENT STUDY: KARESANSUI - JAPANESE DRY GARDEN DESIGN & PHILOSOPHY   Japan	89		
5.4 PRECEDENT STUDY: SERPENTINE GALLERY 2011   LONDON	90		

## LIST OF FIGURES

### CHAPTER 1

Fig. 1.1: The Staatsmuseum façade and street condition (Author 2020)

Fig. 1.2: Images of the catalytic projects for the regeneration of the inner-city in remaking it the capital city (City of Tshwane 2013)

Fig. 1.3: The Staatsmuseum and the built environment surrounding it (Author 2020)

Fig. 1.4: Conceptual graphic of art and landscape techniques as mediums of architectural conservation (Author 2020)

Fig. 1.5: Locality diagram situating the Staatsmuseum within the City of Tshwane's inner-city (Author 2020)

Fig. 1.6: Photo collage looking at the green spaces in the inner-city and documenting landmarks in the inner-city (Author 2020)

Fig. 1.7: Diagram of abandoned/derelict/ heritage buildings in the inner-city (Author 2020, adapted from Moodley 2018)

Fig. 1.8: Diagram of open green spaces in the inner-city (Author 2020)

Fig. 1.9: Diagram merging Fig.1.7 and Fig. 1.8 and identifying the site of interest (Author 2020)

Fig. 1.9: Diagram merging Fig.1.7 and Fig. 1.8 and identifying the site of interest (Author 2020)

Fig. 1.10: Development plan for the urban regeneration proposal by the City of Tshwane for their 2055 inner city regeneration plan (City of Tshwane 2017)

Fig. 1.11: Timeline illustrating the temporality of the sites uses to illustrate the changing interests that the site has catered to over time (Author 2020)

Fig. 1.12: Mapping diagram of vehicle and transport nodes (Author 2020)

Fig. 1.13: Mapping diagram of the creative arts activities (Author 2020)

Fig. 1.14: Mapping of the Boom St street condition from the Zoological Gardens to the TUT Arts Campus (Author 2020)

Fig. 1.15: Urban Framework stitching the fragmented urban green space by linking the creative arts nodes (Author 2020)

### CHAPTER 2

Fig 2.1: Locality plan and photographs of the site façade (Plan adapted from Moodley (2019); Photographs Author (2020))

Fig 2.2: Locality plan and photographs of the site courtyard (Plan adapted from Moodley (2019); Photographs 1 and 2 by Moodley (2019); Photograph 3 by Author (2020))

Fig 2.3: Locality plan and photographs of the east exhibition halls and additions (Plan adapted from Moodley (2019); Photographs 1 and 3 by Moodley (2019); Photograph 2 Author (2020))

Fig 2.4: Locality plan and photographs of the west exhibition halls and additions (Plan adapted from Moodley (2019); Photographs 1 and 3 by



## LIST OF FIGURES

Fig 2.5: Locality plan and photographs of the ground floor north and south wings (Plan adapted from Moodley (2019); Photographs by Moodley (2019))

Fig 2.6: Locality plan and photographs of the back of the building (Plan adapted from Moodley (2019); Photographs 1 and 2 by Moodley (2019); Photograph 3 by Author (2020))

Fig 2.7: Locality plan and photographs of the first floor north and south wings (Plan adapted from Moodley (2019); Photographs by Moodley (2019))

Fig. 2.8: The original 'Oregon Pine' timber floor was later covered with a layer of parquet flooring (Photographs by Niebhur (2008))

Fig. 2.9: The only vaulted pressed steel ceiling in the building, painted purple (Photographs by Niebhur (2008))

Fig. 2.10: Pressed steel ceiling found in the east wing (Photographs by Niebhur (2008))

Fig. 2.11: Illustration of a shell host intervention (Author (2020) redrawn from Wong (2017))

Fig. 2.12: Illustration of a semi-ruin host intervention (Author (2020) redrawn from Wong (2017))

Fig. 2.13: Illustration of a fragmented host intervention (Author (2020) redrawn from Wong (2017))

Fig. 2.14: Illustration of a group host intervention (Author (2020) redrawn from Wong (2017))

Fig. 2.15: Illustration of a group host intervention (Author (2020) redrawn from Wong (2017))

Fig. 2.16: Locality illustration (Author 2020)

Fig. 2.17: Illustration of contours, the site slope and stormwater flow on impermeable surfaces into sewer systems (Author 2020)

Fig. 2.18: Section indicating slope of the site, indication a 2.8m fall in the topography (Author 2020)

Fig. 2.19: Sections indicating the Staatsmuseum's immediate context (Author 2020)

Fig. 2.20: Illustration of the existing pedestrian gathering nodes (Author 2020)

Fig. 2.21: Illustration of the Staatsmuseum shady study (Author 2020)

### CHAPTER 3

Fig. 3.1: The framework for the theoretical approach of the design investigation (Author 2020)

Fig. 3.2: 012 Central precinct collage (Author 2020)

Fig. 3.3: Victoria Gardens urban garden (Crewe-Brown, M. 2018 )

Fig. 3.4: Victoria Gardens art stores (Singh 2019 )

## LIST OF FIGURES

### CHAPTER 4

Fig. 4.1: Illustration of the grid-like formation of the inner city's urban fabric, with a central node, Church Square (Author 2020)

Fig. 4.2: Illustration of the fragmented open green spaces in the inner-city (Author 2020)

Fig. 4.3: Persian carpet from 1670-1750 depicting an enclosed garden with an interpretation of four rivers dividing the garden into four distinct areas representing both the plan (horizontal) and foliage in elevation (vertical) (Baker 2018:4)

Fig. 4.4: Persian enclosed garden ((Author 2020) adapted from Walsh 2014)

Fig. 4.5: Light passing through the perforations at different angles (Author 2020)

Fig. 4.6: Exploring the wall plane as a light (Author 2020)

Fig. 4.7: Exploring the wall plane as a light (Author 2020)

Fig. 4.8: Exploring actual plants as a wall plane and the perforation of light through the plants (Author 2020)

Fig. 4.9: *Elephants Charging over Quartos Country* by 19th century artist Thomas Baines (Brand South Africa 2017)

Fig. 4.10: *An extensive view of farmlands* by 20th century South African artist Pierneef (Brand South Africa 2017)

Fig. 4.11: *Mantis Man* by 20th century South African artist Walter Battiss (Brand South Africa 2017)

Fig. 4.12: *Song of the Pick* by 20th century South African artist Gerard Sekoto (Brand South Africa 2017)

Fig. 4.13: Street art observed in the inner-city (Author 2020)

Fig. 4.14: Exploration of a thicket through abstraction (Author 2020)

Fig. 4.15: Exploration of a forest through abstraction (Author 2020)

Fig. 4.16: Exploration of the interpretation of architectural spatial qualities as natural spaces or environments (Author 2020)

Fig. 4.17: Persian carpet from 1670-1750 (Baker 2018:4)

Fig. 4.18: *Ancient Greek Columns* by Dorling Kindersley (Craven 2019)

Fig. 4.19: *A picturesque garden* William Kent (McDowall 2013)

Fig. 4.20: *Wanderer above the Sea Fog* by Caspar David Friedrich (Wikipedia 2020)

Fig. 4.21: *An iris vase* by Emile Gallé (Bodt 2000)

Fig. 4.22: *The Maltese garden at Queluz, Portugal* by J.B. Leroux (Babelon 2000)

Fig. 4.23: *The minimalistic style of the Japanese dry garden* (Ofdesign.net n.d.)

## LIST OF FIGURES

Fig. 4.24: Exploration of the karesansui and the site as a series of indoor gardens (Author 2020)

### CHAPTER 5

Fig. 5.1: Conceptual graphic design (Author 2020)

Fig. 5.2: Zen garden at Tofu ku-ji photographed by Chi King (Yasuka 2012)

Fig. 5.3: Exploration of site design (Author 2020)

Fig. 5.4: Indoor design exploration 1 (Author 2020)

Fig. 5.5: Courtyard design exploration (Author 2020)

Fig. 5.6: Indoor design exploration 2 (Author 2020)

Fig. 5.7: Indoor design exploration 3 (Author 2020)

Fig. 5.8: Indoor design exploration 2 (Author 2020)

Fig. 5.9: Indoor design exploration 3 (Author 2020)

Fig. 5.10: Planting Colour Palette (Author 2020)

Fig. 5.11: Tree Plan (Author 2020)

Fig. 5.12: Paving Plan (Author 2020)

Fig. 5.13: Planting Plan (Author 2020)

Fig. 5.14: Existing Elevation of the Staatsmuseum North Wing (Author 2020)

Fig. 5.15: Proposed Elevation of the Staatsmuseum North Wing Design (Author 2020)

Fig. 5.16: Proposed Elevation of the Staatsmuseum North Wing Design 1:20 (Author 2020)

Fig. 5.17: Proposed Elevation of the Staatsmuseum North Wing Design 1:20 (Author 2020)

Fig. 5.18: Existing Section from east wing to west wing through Staatsmuseum (Author 2020)

Fig. 5.19: Proposed Section from east wing to west wing through Staatsmuseum (Author 2020)

Fig. 5.20: Proposed Section from east wing to west wing through Staatsmuseum 1:20 (Author 2020)

Fig. 5.21: Proposed Section from east wing to west wing through Staatsmuseum 1:20 (Author 2020)

Fig. 5.22: Proposed Section from east wing to west wing through Staatsmuseum 1:20 (Author 2020)

Fig. 5.23 : Existing Section from the north end to the south end of the Staatsmuseum (Author 2020)

Fig. 5.24 : Proposed Section from the north end to the south end of the Staatsmuseum (Author 2020)

## LIST OF FIGURES

Fig. 5.25 : Proposed Detail 01 (Author 2020)

Fig. 5.26 : Proposed Detail 02 (Author 2020)

Fig. 5.27 : Proposed Detail 03 (Author 2020)

Fig. 5.28 : Proposed Detail 04 (Author 2020)

## DEFINITIONS

### ADAPTATION

Adaptation means the process(es) of modifying a place for a compatible use while retaining its cultural heritage value. Adaptation processes include alteration and addition.<sup>1</sup> ICOMOS NEW ZEALAND, 2010

### ADAPTIVE REUSE

Adaptive reuse is the process of taking an old building or site, and reusing it for a purpose other than it was designed. Typically, it is closely related to historic preservation or conservation around cities with rich history.<sup>2</sup> COMPTON CONSTRUCTION, 2016

### CONSERVATION

Preserving a building purposefully by accommodating a degree of beneficial change.<sup>3</sup> JAMES DOUGLAS, 2006

The conservation of monuments is always facilitated by making use of them for some socially useful purpose.<sup>4</sup> THE VENICE CHARTER, 1964

### CONVERSION

Making a building more suitable for a similar use or for another type of occupancy, either mixed or single use.<sup>5</sup> JAMES DOUGLAS, 2006

Conversions always affect the structure of a building. They extend the concept of refurbishment to interventions in the loadbearing members and/or the interior layout.<sup>6</sup> GEORG GIEBELER, 2009

### EXTENSION

Expanding the capacity or volume of a building, whether vertically by increasing the height/depth or laterally by expanding the plan area.<sup>7</sup>

JAMES DOUGLAS, 2006

### PRESERVATION

Implies the maintenance of the artifact in the same physical condition as when it was received by the curatorial agency. Nothing is added to or subtracted from the aesthetic corpus of the artifact.<sup>8</sup> JAMES MARSTON FITCH, 1990

### RECONSTRUCTION

Reconstruction is defined as the act or process of reproducing by new construction the exact form and detail of a vanished building, structure, or object, or a part thereof, as it appeared at a specific period of time.<sup>9</sup>

U.S. SECRETARY OF THE INTERIOR, 2006

### RESTORATION

To bring back an item to its original appearance or state (BS 3811). It is often undertaken to depict a property at a particular period of time in history, while removing evidence from other eras. This usually involves reinstating the physical and/or decorative condition [of] an old building to that of a particular date or event. It includes any reinstatement works to a building of architectural or historic importance following a disaster such as extensive fire damage.<sup>10</sup> JAMES DOUGLAS, 2006

## DEFINITIONS

1. ICOMOS. 2010. ICOMOS New Zealand Charter for the Conservation of Places of Cultural Heritage Value, Revised 2010, p. 9. <http://www.icomos.org.nz/nzcharters.html>
2. Compton Construction. 2016. What is Adaptive Reuse?. <http://comptonllc.com/a-guide-into-adaptive-reuse-construction/>
3. Douglas, J. 2006. Building Adaptation. Routledge
4. International Charter for the Conservation and Restoration of Monuments and Sites (The Venice Charter 1964), Article 5, ICOMOS The International Council of Monuments and Sites.
5. Douglas, J. 2006. Building Adaptation. Routledge
6. Giebeler, G, et. al. 2009. Refurbishment Manual: Maintenance Conversions Extensions. Birkhäuser, p.14.
7. Douglas, J. 2006. Building Adaptation. Routledge
8. Fitch, J.M. 1990. Historic Preservation: Curatorial Management of the Built World. University of Virginia Press, 1990, p.46 .
9. Murtagh, p. 5 (from Wong 2017)
10. Douglas, J. 2006. Building Adaptation. Routledge



# Unveiling the urban ruin

A general introduction to the site and the  
dissertation topic and intentions

# CHAPTER 1 - Introduction

## 1.1 PREAMBLE

The following is the author's personal experience of Pretoria's inner-city and sets the groundwork on which the dissertation is based.

Pretoria's inner-city, characterised by a myriad of historical buildings, is a collage of days past and days to come. The way contemporary inner-city dwellers adapt to this historic urban fabric has always piqued my interest, especially how a landscape is able to portray itself like a book of stories. This urban landscape is evidence of the evolution of the city and the palimpsest of new and old, a continuation of the story of change. I keep on imagining how the city looked in the 1980s and the 40s or even the pre-colonial landscape, and how it could look in the future. Having lived in the inner-city myself, I am interested in the adaptive reuse of abandoned and derelict heritage buildings in the inner-city.

As a student in Landscape Architecture, I am interested in the spatial potential of these urban relics in landscape design and the endless possibilities and roles they can play in the contemporary urban fabric.

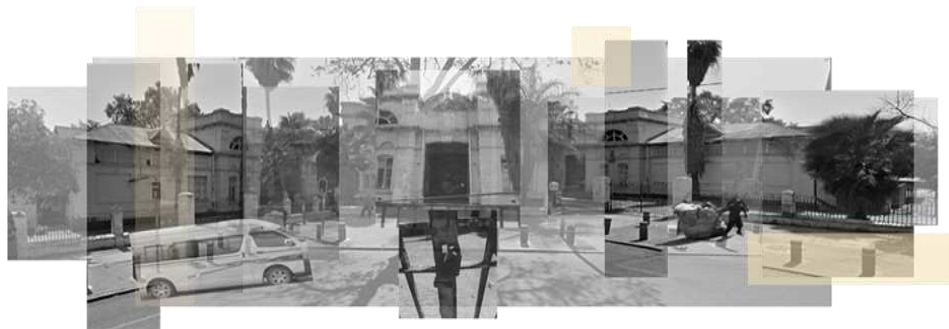


Fig. 1.1: The Staatsmuseum façade and street condition (Author 2020)

## 1.2 BACKGROUND AND CONTEXT

In the early 1990s the City of Tshwane's inner-city suffered a great decline, due in part to the large-scale suburbanisation and decentralisation of the inner-city. Although suburbanisation occurred before South Africa's democracy, the inner-city areas were not intensely affected at the time as they were still predominantly inhabited by the White populace during the Apartheid era (Donaldson, Jürgens & Bahr 2003). The decline experienced in the early 1990s, where affluent businesses and inhabitants fled, which was largely the result of the perceived threat of ANC-led government policies by the White populace (Clarke & Lourens 2015:43). This migration of people towards the periphery of the inner-city and suburbs has resulted in various abandoned buildings scattered throughout the inner-city as the inner-city's architectural fabric consisted of various civic and residential buildings.

As the ANC-led government came into power in the newly democratic state, the focus of government investment moved from the development and protection of the inner-city to the periphery of the city, focusing particularly on the infrastructural backlog of rural areas, townships and other previously disadvantaged areas. The City of Johannesburg then replaced The City of Tshwane (CoT) as the provincial capital in Gauteng (Clarke & Lourens 2015:43) resulting in the loss of a crucial functional element in the city, as Pretoria was the administrative capital and the



inner-city urban fabric consisted of various government buildings, leaving various empty large office buildings. Post 1994's government sought to democratise the city, and this manifested in an inner-city occupied by a multi-ethnic society, encompassing a variety of ethnicities, cultures, religions and languages. The inner-city, in addition, also houses the central administration, services, main markets and residential areas around it (Donaldson, Jürgens & Bahr 2003:14). However, although democratic, with a Gini coefficient of 0,63 the inner-city reflects extreme inequalities within our society, the inherited spatially translated socio-economic inequalities of apartheid (Hamaan, 2015; Hamaan and Horn, 2015). Also, as a result of the lack of public investment and critical urban management, the city experienced a continual cycle of physical, economic and social decline (Clarke & Lourens 2015:43; (Donaldson, Jürgens & Bahr 2003:15).

The inner-city, however, remains a public realm and a hub of intersubjective interactions between its multi-ethnic, multi-cultural and multi-economic populace. With the aim of urban renewal in the inner city, the National Department of Public Works (NDPW) with the City of Tshwane Metropolitan Municipality (CTMM) have implemented various strategic plans , namely the Re Kgabisa Tshwane Strategic Plan 2005 (2005) and the latest Tshwane Vision 2055: Remaking South Africa's Capital City (2013). These have been implemented to; decelerate the

private sector's decentralisation from the inner-city, increase government investment in the inner-city and improvement the inner-city's urban fabric and physical environments.

The Tshwane Vision 2055, according to Clarke and Lourens (2015:47) is intended to provide a logical guide for the growth and development of the inner-city over the next 40 years. Urban regeneration in the City of Tshwane's inner-city, to transform it into the "face of the Capital City" (Clarke & Lourens 2015:47) has focused mainly on large projects such as the establishment of a Government Boulevard and the redevelopment of the Caledonian Precinct, to name a few, which will serve as gateway areas into the city and a social gathering and recreational hub in the case of the Caledonian Precinct (City of Tshwane 2015).

With the apparent government interest in regenerating the inner-city through various urban projects, including landscape projects, the dissertation explores the theory of landscape urbanism as primary medium of the regeneration of the inner-city. Landscape urbanism theorist and designer, Charles Waldheim (2006a:15) introduces landscape design as a medium of representation, construction and regeneration in the contemporary city. The landscape urbanism theory suggests that landscape architecture be employed as the primary medium of urban regeneration and economic investment in post-industrial cities. The DPW

and CTMM, in *The Tshwane Vision 2055*, recognise the significant role that landscape design plays in the city-scale urban regeneration, as indicated in the aforementioned projects.

Landscape architect James Corner (2006:24-26) concurs with Waldheim's theory of landscape urbanism and he, in addition, notes landscape urbanism's flexibility and ability to shift scales to employ landscape design as a medium urban regeneration, from large-scale landscape design projects to micro-scale landscape projects, such as in vast agrarian fields and in single buildings. This dissertation was inspired by Waldheim (2006b) and Corner's (2006) combined ideas of landscape design's potential to regenerate decaying cities, inspired this research dissertation. In particular, Corner's notion of landscape urbanism functioning on a micro-scale, such as in single buildings, inspired this research dissertation and the exploration of landscape design as an appropriate adaptive reuse response for derelict buildings in the inner-city.

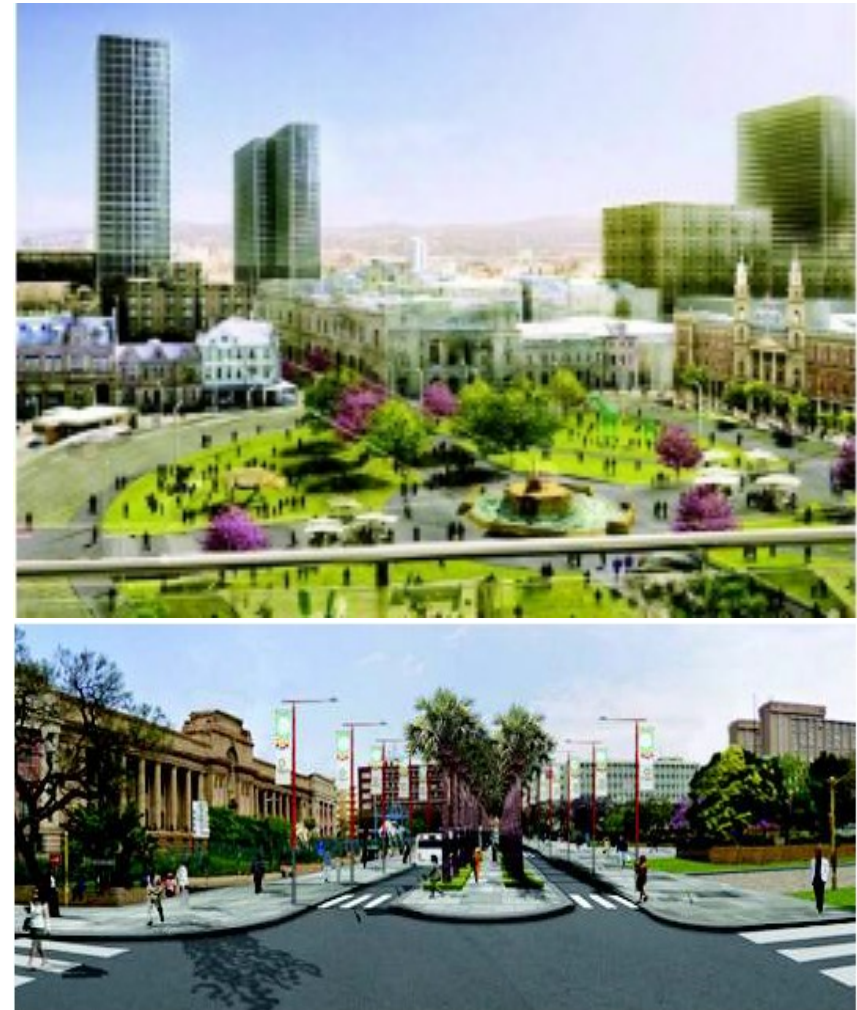


Fig. 1.2: Images of the catalytic projects for the regeneration of the inner-city in remaking it the capital city (City of Tshwane 2013)

### 1.3 IDENTIFYING THE URBAN ISSUE

#### General Issue: Urban Decay in Tshwane's Inner-city

De-urbanisation, suburbanisation, economic restructuring and abandoned buildings, among various other phenomena, have resulted in urban decay and disrepair of previously functioning cities such the City of Tshwane. Derelict buildings are poorly maintained and managed and therefore fall victim to illegal occupation by vagrants or being vandalised. The evident and visible decay of these buildings creates the impression of insecurity in an area, leading to undesirable urban spaces (socially, economically and spatially) which are characterized by disrepair, and perpetuates the depiction of the city as insecure, resulting in undesirable cities. These buildings often sit unused and in disrepair, occupying land which has the potential for future development.

#### Urban Issue: Continued Decay of Heritage Buildings and Loss of Valuable Property

The decentralisation of the inner-city experienced in the early 1990s, due to suburbanisation and the migration of the private sector to periphery areas in the city, particularly suburbs and suburban malls, resulted in the economic restructuring of the post-industrial city (Bickford 2000). Suburbanisation and the economic restructuring in the urban framework of the post-apartheid city has resulted in a democratic urban fabric, creating opportunities for citizens of all economic backgrounds . This

migration from the inner to suburban areas resulted in the abandonment of multiple building in the inner-city.

Approximately 500 buildings within the inner-city are considered to have historical value. The City of Tshwane's inner-city has various historically valued buildings, 19 of which are listed as Heritage Resources (Clarke & Lourens 2015:44). Many of these buildings have fallen into disrepair due to their unsuitability for current urban demands (such as the increasing need for residential buildings), the cost of their maintenance or repair and the lack of understanding of their heritage value resulting in various abandoned and derelict buildings. As discussed in the General Issue, this perpetuates an image of insecurity within the city, which then results in urban decay.

The built heritage in the inner-city "faces destruction unless creative ways are found for the adaptive re-use of these buildings" (Clarke & Lourens 2015:44). CoT's inner-city has a very rich historical value, particularly its architectural heritage, and remains the historical core of the CTMM. It would therefore be negligent to explore the inner-city's urban regeneration without considering and valuing its architectural heritage. It is important that our cities explore solutions to adapting historical cities to their contemporary citizens and this especially includes the architectural heritage. However, architectural heritage is often

regenerated through conservationist and preservationist practices in the hope of restoring it to its former glory (Wong 2017). These approaches, although renewing the use of these buildings, do not address the long-term relevance of the building in its contemporary context and how it relates to the contemporary inhabitants in its context. Architectural heritage, particularly abandoned and derelict buildings, therefore, presents an opportunity for innovation and expression through its renewal. This creates opportunities for its renewal through practices such as adaptive reuse through landscape design.

Along with the issue of the decaying inner-city, urban sprawl, decentralisation and suburbanisation also contribute to the loss of pristine regional habitats, many of which are critical to South Africa's fauna and flora. This is observed through Gauteng's environmentally stressed grassland biome and its diminishing grassland vegetation units. Furthermore, the lack of maintenance and consideration given to natural resources in the city have results not just in derelict buildings, but also derelict natural resources and open spaces. However, in the pursuit of urban regeneration in the inner-city, landscape architecture has the potential to intervene at the unique junction of built fabric and natural open space.

#### Site Issue: Withering Sense of Place

The Staatsmuseum has lost its architectural grandeur to neglect and continued deterioration. The building's association with curiosity and novelty has been dwarfed by urban growth and the image of decay and neglect. The same can be argued for the dwindling number and condition of urban green open spaces found in the inner-city. The Staatsmuseum sits on the northern part of the inner-city, an area that has not been prioritised in the Tshwane revitalisation strategy for 2055, although it is in close proximity to its proposed precincts. This area has various opportunities, including its proximity to public transport nodes, retail nodes, places of employment opportunity, the Tshwane University of Technology Arts Campus (TUT Arts Campus) and other educational institutions as well as one of the few maintained urban green spaces, the National Zoological Gardens of South Africa (NZGSA). The revitalisation of the Staatsmuseum has the potential of attracting investment and regeneration to the northern edge in the inner-city as well as using its proximity to the NZGSA as tool of bringing awareness to the importance of urban green spaces in the inner-city and the lack of said green spaces in the inner-city.

#### 1.4 A BRIEF INTRODUCTION TO PROJECT: THE STAATSMUSEUM

This derelict urban relic sits forgotten and withdrawn on the north eastern edge of Pretoria's inner-city. A shabby façade with worn and peeling plaster indicates the neglect this historical building is victim to. The interior courtyard, due to lack of maintenance, is overgrown with plants. The exhibition halls have fallen victim to looting and vandalism. The Staatsmuseum before its disuse, suffered two water-pipe bursts. The exhibition material originally housed in the museum was eventually merged with various other museums, and relocated to the newly refurbished Mint Building, now known as the Ditsong National Museum of Natural History (Artefacts n.d.).

The Staatsmuseum, commissioned in 1898 by Sytze Woepkes Wierda for the Department of Public Works (then Departement Publieke Werken - Zuid-Afrikaansche Republiek), was commissioned as part of former president Paul Kruger's vision to turn the Transvaal into a 'model state' (Hollenbach 2015).

The property on which the Staatsmuseum, and the National Zoological Gardens of South Africa, stands was formerly a farm known as Rus en Urbe which was owned by J.F. Cilliers (Hollenbach 2015). The arrival of the imported Dutch construction professionals resulted in a Dutch influenced architectural design aesthetic. The Staatsmuseum is one of

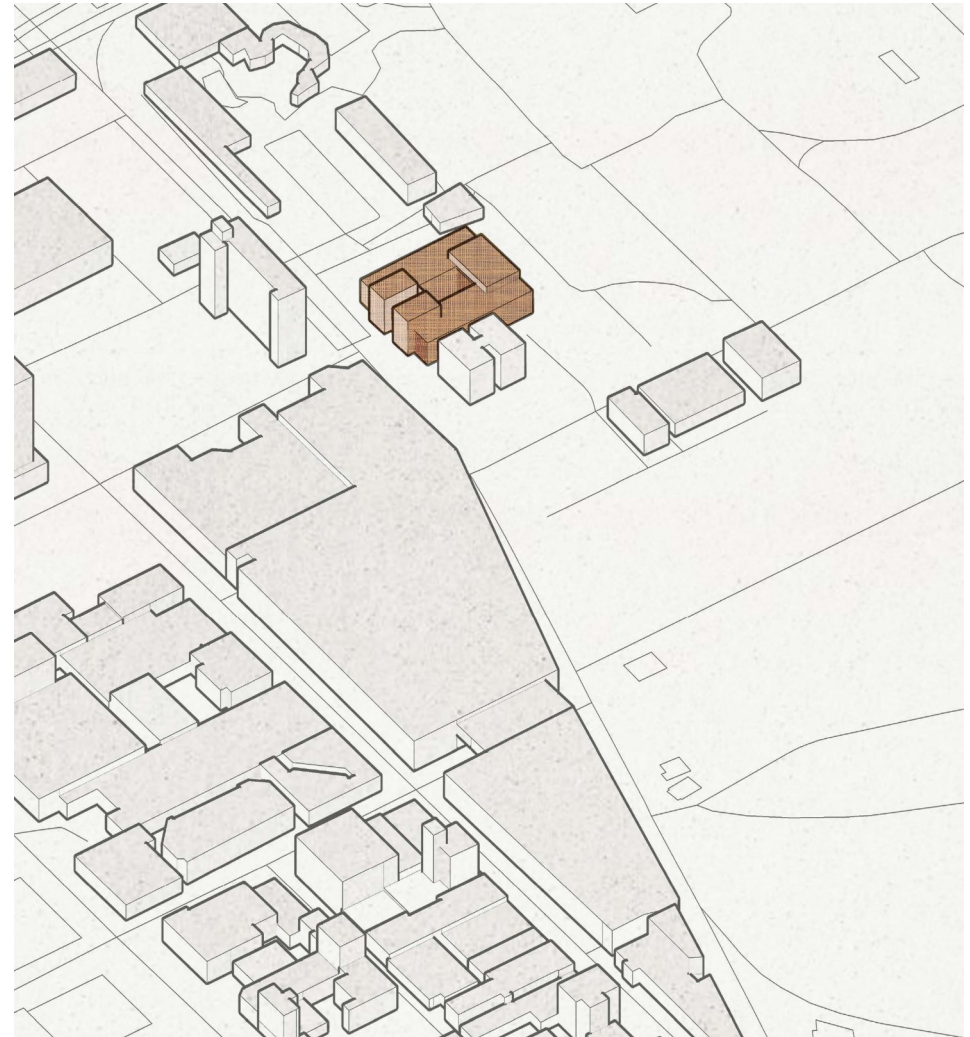


Fig. 1.3: The Staatsmuseum and the built environment surrounding it (Author 2020)

the built examples of this influence as it was built in the Wilhelmiens architectural style (Artefacts n.d.).

The style is eclectic in character due to Wilhelmina's long reign (Artefacts n.d.). In 1899, the outbreak of the Second Anglo-Boer War interrupted building operations. As a result, the incomplete building was used by the British forces as offices (Hollenbach 2015). After the war, in 1902, the building was officially opened and subsequently completed with exhibits in 1904. The Staatsmuseum, regardless of its disuse, has remained a landmark in the inner-city and its alignment with Thabo Sehume Street. Further analysis of the Staatsmuseum and its context will be discussed in the chapter.

## 1.5 PROBLEM STATEMENT

Tshwane's inner-city is characterized by social degradation and urban decay. The Staatsmuseum building is an example of the continued deterioration in this area. Furthermore, various maps indicate the fragmented open green space condition that exists in the inner-city.

Architectural heritage, in the form of once vibrant buildings in the inner-city, continues to fade and settle into decay, as the city around these buildings continues to grow and evolve. However, we should not, and cannot erase the history of our city, as there remains a layering and richness to the city fabric that should be retained and celebrated. In the same way that the urban and architectural fabric of the city changes, so too the character and culture of the city, often expressed through art and other creative means. Art thus becomes a means of expression and a way of documenting the physical, political and cultural changes in the city.

In addition to the above, the City of Tshwane's inner-city, characterised by a network of fragmented open green spaces, has few options for retreat from the bustle of the city. Research indicates that access to nature in the city is beneficial for human well-being and to contributes to a better quality of life (Kallay 2020). This is evidenced in the flocking of Tshwane's residents to the National Zoological Gardens in Boom Street

on weekends. With the expansion and densification of the city, there is an apparent need for natural and alluring spaces in the city for exploration and escape!

Open green space is a diminishing resource in the CoT – as are the various unused heritage buildings, both of which occupy valuable space, often contested for redevelopment. Here, an opportunity arises to transform unused and derelict buildings into attractive and valuable spaces again, layering onto their historical value and reinforcing their contemporary relevance in the contemporary urban fabric – while simultaneously enriching the urban nature landscape.

The project thus explores the combination of creative arts and landscape architecture as mediums of the adaptive reuse of historical building and buildings with heritage value. This combination of the creative arts and landscape architecture creates fantastical storied landscapes on the rich canvas of historical buildings, such as the Staatsmuseum.

## 1.6 RESEARCH QUESTIONS

1. How can landscape design elevate the awareness of and enhance the value of existing landscapes, to provide places of escape and wonder in the CoT?
2. How can the combination of the creative arts and landscape design renew the relevance of a derelict heritage building in the contemporary city, while respecting and commemorating its historical significance?

## 1.7 THESIS STATEMENTS

1. The dissertation applies Aben and de Wit's (1999) urban enclosed garden typology to remediate CoT's inner-city's fragmented open space condition. This urban garden typology of small-scale green pockets has the potential to establish a network of open green spaces in the inner-city.
2. Open spaces are scarce in the inner-city's dense urban fabric and in the pursuit of increasing the inner-city's green space network, the dissertation proposes landscape design retrofitting in derelict buildings. This, the dissertation identifies, has the potential of increasing inner-city green spaces, such as enclosed gardens, that will contribute to the city's green space network.

3. Landscape design retrofitting, in derelict and abandoned buildings in the inner-city can, as with art, be employed as an expression of the character and culture of the city and as a mirror and indication of the evolving culture within the city.

4. The project employs art and landscape design techniques to allude to the wider landscape, creating awareness of nature 'out there' and providing a retreat from the busy inner-city.

#### 1.8 PROJECT AIMS AND OBJECTIVES

By developing a landscape design proposal, the dissertation intends to demonstrate an alternative approach to the conventional architectural heritage conservation practices, such as preservation, reconstruction and restoration. Seeking a balance between crucial heritage preservation and the desire for re-appropriation of this historical architecture, the dissertation proposes a landscape design as a medium for architectural conservation.

The landscape design proposal aims to present the Staatsmuseum building as a desirable place that functions as an urban regenerative catalyst in Tshwane's inner-city, challenging the perception of ruined heritage buildings as an obstacle for urban renewal. While, simultaneously addressing the subject of the fragmented urban space

condition that exists in the inner-city by proposing the adaptation of abandoned and derelict buildings as public space.

Due to the scale and location of the dissertation the design employs art and landscape design techniques as instruments of bringing awareness and alluding to nature beyond the city, such as Gauteng's vegetation units,

#### 1.9 USER GROUP PROFILES

- Zoological gardens' visitors (including parents with children)
- Arts enthusiasts
- Students and pupils from neighbouring educational institutions (primary schools, TUT Arts Campus and colleges)
- Residents in the immediate environment



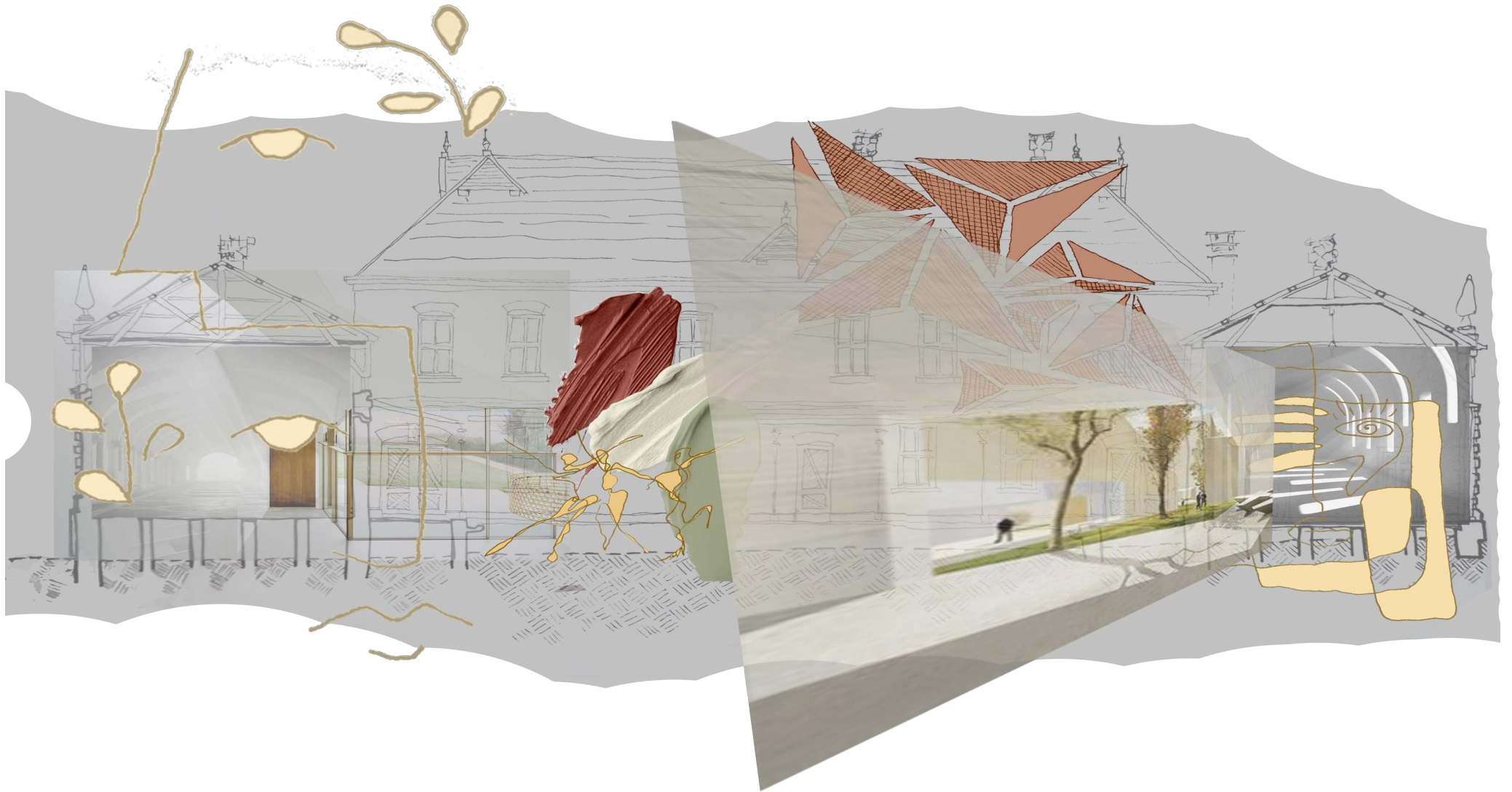


Fig. 1.4: Conceptual graphic of art and landscape techniques as mediums of architectural conservation (Author 2020)

#### 1.10 ASSUMPTIONS AND DELIMITATIONS

The dissertation recognises and acknowledges the urban renewal efforts in Tshwane's inner-city over the last decade which have mainly focused on residential and commercial redevelopment (City of Tshwane 2017).

The project also acknowledges the existing urban regeneration proposals by the CTMM and the DPW which address the renewal of the city through open green space projects, for example the Government Boulevard proposal on the northern portion of Paul Kruger Street (in relation to Church Square), in the Vision 2055 for urban renewal in the inner-city.

The dissertation aligns itself to the planned and on-going Tshwane Vision 2055's long-term urban renewal development plan and incorporates the project within the Tshwane Vision 2055 urban renewal framework.

As the dissertation site is proposed within a building, the dissertation acknowledges that customary architectural practices of restoration or reconstruction of the Staatsmuseum building are possible. However, the dissertation argues for landscape architectural intervention due to the fragmented and contested condition of public green spaces in the city, and for the pursuit of the contemporary relevance and attraction of the site in the contemporary city.

of hosting the proposed interventions and due to the site's age and heritage value, the dissertation proposes for selected portions of the building, particularly those of great heritage value, to be refurbished and incorporated into the project design.

The issue of gentrification in poor neighbourhoods is too often an outcome of urban renewal design projects. However, guided by urban renewal theories such as the urban catalyst theory, the project identifies successful urban renewal projects that have not perpetuated gentrification in poor neighbourhoods. The design proposal therefore presents a project grounded in the principles of urban renewal that address the environmental and social issues in the site's immediate context and, in the long term, extend to other areas of the inner-city.

## 1.11 RESEARCH AND DESIGN METHODOLOGY

### Disclaimer

This dissertation draws inspiration from a similar dissertation project by former University of Pretoria student Gavin Cook (2018) which was undertaken for the degree of Magister of Landscape Architecture (Professional) in the Department of Architecture. The dissertation will critically investigate the theory which Cook investigated for the purpose of the adaptive reuse of unused, derelict or ruined buildings in the city as a method of urban regeneration in decaying post-industrial cities.

As noted, the dissertation will critically investigate, and apply where appropriate, the theories investigate by Cook (2018) for the purpose of the adaptive reuse of unused, derelict or ruined buildings in the city as a method of urban regeneration in decaying post-industrial cities.

Due, primarily, to the theoretical premise that drives the project design investigations and proposal, the dissertation grounds itself within the Department of Architecture's research field of Historical and Cultural Landscapes.

### Urban Regeneration Theories

The dissertation investigates the theories of Urban regeneration is

investigated through the Landscape Urbanism, Creative Industries, Urban Acupuncture and the Urban Catalyst as its theoretical basis, which relate to landscape design and share homogenous concepts.

### Historical investigation

The dissertation investigates the Staatsmuseum building's historical and cultural significance, its architectural significance and the site's relevance in its contemporary urban context as a means of holistically understanding the site's history. Secondly, an investigation of the relationship between landscape design, the building and the theme of temporality are investigated within the philosophy and history of garden design.

### Architectural Heritage Response and Design Tectonics [Form-making informants]

As there is a concern in the disciplines of architecture and landscape architecture for the conservation of architectural heritage (Wong 2017:6; Kibble & Dearing 2008:4), the dissertation examines existing conservation practises. However, the dissertation explores alternative approaches for heritage conservation such as art and landscape design techniques.

The dissertation examines the existing architectural and landscape architectural conservation practises as there is a concern in these

Kibble & Dearing 2008:4). The dissertation therefore explores alternative approaches to heritage conservation.

#### Landscape as a Place of Retreat

Due to the fragmented open green space condition observed in the inner-city, few spaces of retreat from the bustling streets exist for the inhabitants of the inner-city. Addressing this urban condition, the dissertation investigates the renewal of derelict and unused heritage buildings, employing art and landscape design techniques, as urban enclosed gardens.

#### Programme, Design and Technification

## 1.12 CONTEXTUALISING THE STAATSMUSEUM

### Regional Context

The City of Tswane (CoT)'s inner core is a collage of historic feats. Its urban fabric is characterised by the colourful and textural architecture representing the different eras of its development and its streets are indicative of the cultural diversity that now characterises the city. The pedestrian experience is characterised by abundant sounds, mixed smells and plethora of activities and people. Also evident is the visible decay of the inner-city's architectural heritage.

The abandonment and decay of the architectural heritage in the inner-city is, according to Clarke and Corten (2011:188), due to a systematic abandonment of the city's inner core from the mid 1980's as a result of the establishment of new commercial cores towards the East of the city. This move towards the East was made urgent by the dismantling of the Apartheid state and the subsequent repeal of the Group Areas Act of 1966 in 1991. These social and governmental changes resulted in the withdrawal of the financially privileged to gated neighbourhoods and office parks, and the decay of the city core.

The dissertation investigates a building on the north eastern edge of the inner-city, a highly deteriorated and declining area in the inner-city of Tshwane. During the development of the City of Tshwane (previously

Pretoria) as the administrative capital of South Africa, the site area developed as an extension of the National Zoological Gardens of South Africa (NZGSA) which was commissioned by the Apartheid government under former president Paul Kruger, with the vision to turn the Transvaal into a model state (Hollenbach 2015:44). Refer to Figures 1.5 and 1.6, which indicate the dissertation site location in relation to its surrounding context.

### Site Selection

Through the comparative mapping of abandoned, derelict and ruined heritage buildings and public open green spaces in the inner-city, the dissertation identifies the potential of consolidating undesirable architectural heritage with the fragmented open green spaces. The dissertation identifies the north eastern edge of the inner-city as a point of interest for such an exploration. The dissertation also recognises the



Fig. 1.5: Photo collage looking at the green spaces in the inner-city and documenting landmarks in the inner-city (Author 2020)





Fig. 1.6: Locality diagram situating the Staatsmuseum within the City of Tshwane's inner city (Author 2020)

urban regeneration projects proposed by the City of Tshwane such as the city's Tshwane Vision 2055 (refer to Figure 2.5). The dissertation project proposal is proposed to be a part of the CoT vision for the inner-city's urban regeneration.

Through the investigation and documentation of the occurrence of derelict urban architectural heritage in the inner-city, the old Staatsmuseum building is selected as the proposed dissertation site based on the following criteria:

- A site located within a decaying urban environment
- A derelict building which has historical significance although not currently subjected to national heritage conservation practices
- A site with a close connection to one of the City's valuable, yet fragmented open spaces

The Staatsmuseum building has remained in a state of disrepair since it was merged with various other museums and housed in the repurposed Mint building as the National Cultural History Museum in 1999. Prior to the merger the building experienced water damage in the early 90's and no record of repairs were found.



Fig. 1.7: Diagram of abandoned/derelict/ heritage buildings in the inner-city (Author 2020, adapted from Moodley 2018)



Fig. 1.8: Diagram of open green spaces in the inner-city (Author 2020)



Fig. 1.9: Diagram merging Fig.1.7 and Fig. 1.8 and identifying the site of interest (Author 2020)



Fig. 1.10: Development plan for the urban regeneration proposal by the City of Tshwane for their 2055 inner city regeneration plan (City of Tshwane 2017)

### 1.13 THE CULTURAL AND HISTORICAL DEVELOPMENT OF PRETORIA

The City of Tshwane, as with most cities, is a result of various development drivers that occurred throughout history. The dissertation investigates CoT's urban fabric shaped by cultural and historical events.

#### Urbanisation and Suburban Sprawl

Nestled within the Magaliesberg and Daspoort ridges, the City of Tshwane (previously Pretoria) was once a pristine and densely vegetated valley, occupied by the Bakwena and Matebele indigenous groups. In 1836 the Voortrekker community arrived and settled in the area, becoming the first permanent White inhabitants in the area, contributing to Pretoria's early farmland development and identity. The area then

became a sojourn for travellers and traders who passed through the area, which initiated the early urban development and sprawl. In 1853, the Elandsport and Koedoesport farms, purchased by Pretoria's founder MW Pretorius, were declared towns and in 1860 Pretoria became the seat of government the Zuid Afrikaanse Republiek (ZAR) government (South African History Online 2011). The ZAR occupied and governed the north-eastern part of the country, known as the Transvaal.

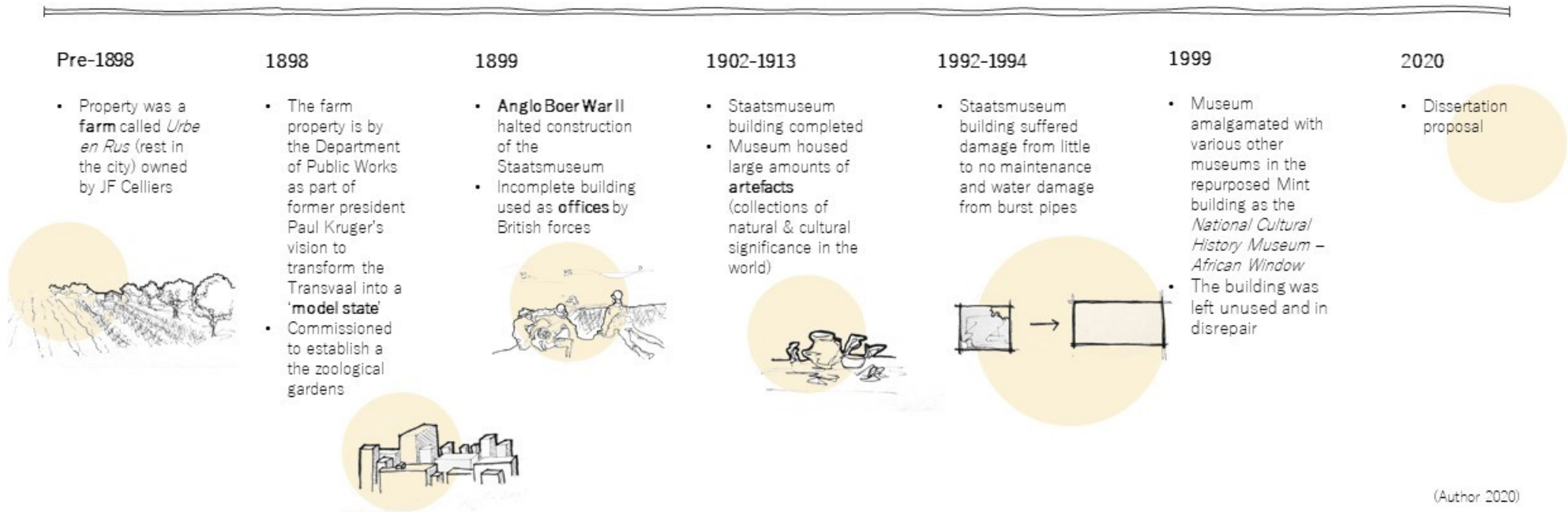
The Urban Act of 1923 was passed resulting in the creation of Black and White urban areas. The establishment of White residential suburbs became prevalent in Pretoria, seen with the established of Colbyn, Menlo Park and Waterkloof Ridge (South African History Online 2011). The political tensions that arose towards the end of the twentieth century resulted in the decline of inner-city development and the increasing development of suburbs in the surrounding areas. The early 90s then saw the flight of White people towards suburbs and the resurgence of Black and Coloured people in the inner-city which, due to poor management and the lack of urban development, rapidly declined (Clarke and Lourens 2015:39-44).

However there has been a shift in the perception of the inner-city, with urban investment from both the private and public sectors. This is seen through government initiatives, such as Re a Kgabisa, as well as private investment seen with the City Property reuse of old buildings for commercial and residential use, such as the 012 Central Precinct (elaborated further in the book).



# Temporality

## History of the site uses



(Author 2020)

Fig. 1.11: Timeline illustrating the temporality of the sites uses to illustrate the changing interests that the site has catered to over time (Author 2020)

### 1.14 URBAN ANALYSIS

The dissertation presents a broad analysis of the semi-residential and commercial area that sits on the north eastern edge of the City of Tshwane's inner-city, as the context for the design investigation. inner-city

#### Urban Street Analysis and Land-use

Through the mapping process, it is identified that few green public spaces exist within the inner-city and particularly the project area, with the exception of the National Zoological Gardens of South Africa (NZGSA) adjacent the project site. In addition, the project area is notorious for regular vehicular congestion and public transport occupation, with taxi's parked on the outer lanes on the road . The urban analysis therefore identifies the importance the streetscape plays as a social space, in addition to its purpose for pedestrian movement and routes. The analysis of the project site's immediate context looks at the commercial and social activities that occur on the sidewalks and recognises that the public domain requires urban renewal intervention as the architectural fabric in the area is characterised by privatism, creating monofunctional street edges, with the exception informal vendor stalls, with little commercial or recreational benefits (refer to figure...).

The analysis identifies that there is fair amount of pedestrian activity

(figure...), mainly due to the access to public transport and the NZGSA. The informal commercial activity is identified to occur on sidewalks, particularly closer to corners or intersections (figure). This, however, does not include the semi-formalised Arts and Craft Market in front of the zoo

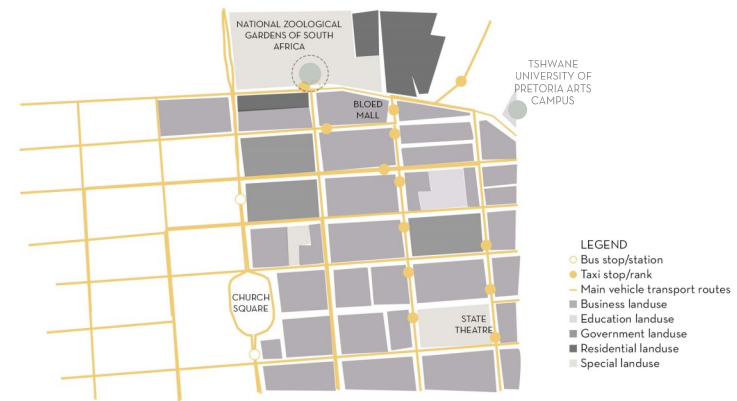


Fig. 1.12: Mapping diagram of vehicle and transport nodes (Author 2020)



Fig. 1.13: Mapping diagram of the creative arts activities (Author 2020)





Fig. 1.14: Mapping of the Boom St street condition from the Zoological Gardens to the TUT Arts Campus (Author 2020)

parking lot. Waste collection and the sale of food from informal portable stalls occur along the sidewalks of most streets (Fig 1.14). Pedestrian movement, although occurring on Boom Street, is predominantly found on Bloed Street and streets further south, while vehicular movement is very concentrated in this area (Fig 1.14).

Boom Street, which runs past the Staatsmuseum and the Tshwane University of Technology's Arts Campus (TUT Arts Campus), hosts a variety of programmes, such as the Crafts Market adjacent the NZGSA visitor parking area, which enrich the pedestrian experience. The 'art' link between the Crafts Market, the Staatsmuseum and the TUT Arts Campus on Boom Street creates an opportunity for the street edge intervention to tie into the theme of the arts and creating an 'art walk' experience for the pedestrian on Boom Street. The area hosts various programmes, from residential to commercial to educational and government, and this encourages a diverse user demographic in the area.

#### Existing Vision/s and Regeneration Projects for CoT's inner-city and the contemporary context

The dissertation project situates itself within the CoT's existing 2055 Vision redevelopment proposal plan for the inner-city's urban regeneration. The dissertation specifically incorporates the proposed Northern Gateway Precinct into the proposed urban vision (Fig 1.15),

however as a design for this precinct is yet to be publicly communicated the project will only refer to this precinct for its intended program and not a design layout.

The dissertation acknowledges that successful urban renewal projects are currently occurring through public and private investment, such as the redevelopment of Church Street and Church Square, and the 012 Central Precinct respectively. The project therefore acknowledges the success of both government-funded and privately funded intervention. As the Staatsmuseum is a government-owned site, the dissertation proposes an occupation-by-rent strategy as a redevelopment and investment model for the Staatsmuseum.

The dissertation situates itself within the existing contemporary context of the inner-city and attempts to respond to the social and economic issues identified in the area while acknowledging existing redevelopment practices.

#### Contextual Analysis Summary

The north eastern fringe of the inner-city consists of a predominantly Black community employed in commercial and government industries. Educational facilities, from primary to tertiary institutes, occur within the Staatsmuseum's immediate context. Commercial and business

programmes, which rely on import of goods and services to operate, also operate within the Staatsmuseums immediate context.

With reference to the existing urban renewal proposals, Boom Street creates an opportunity to create a pedestrian and public transport connection between the proposed Northern Gateway Precinct, Civic Precinct and Caledonian Precinct. The Staatsmuseum building is situated between the NZGSA and the TUT Arts Campus, all on Boom Street, and possesses the catalytic potential to regenerate Boom Street as a historically and culturally rich thoroughfare, similar to the pedestrianisation project of parts of Church Street, found towards the center of the inner-city.

#### 1.15 URBAN VISION:

The dissertation draws on the urban catalyst theory (elaborated on in Chapter 4) for the urban vision, proposing the regeneration of the inner-city through the implementation of small-scale urban acupuncture projects (Attoe & Logan 1989).

#### Urban Decay and Places of Opportunity

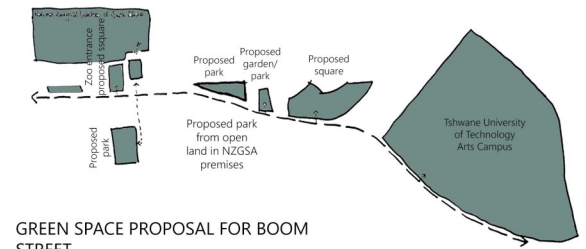
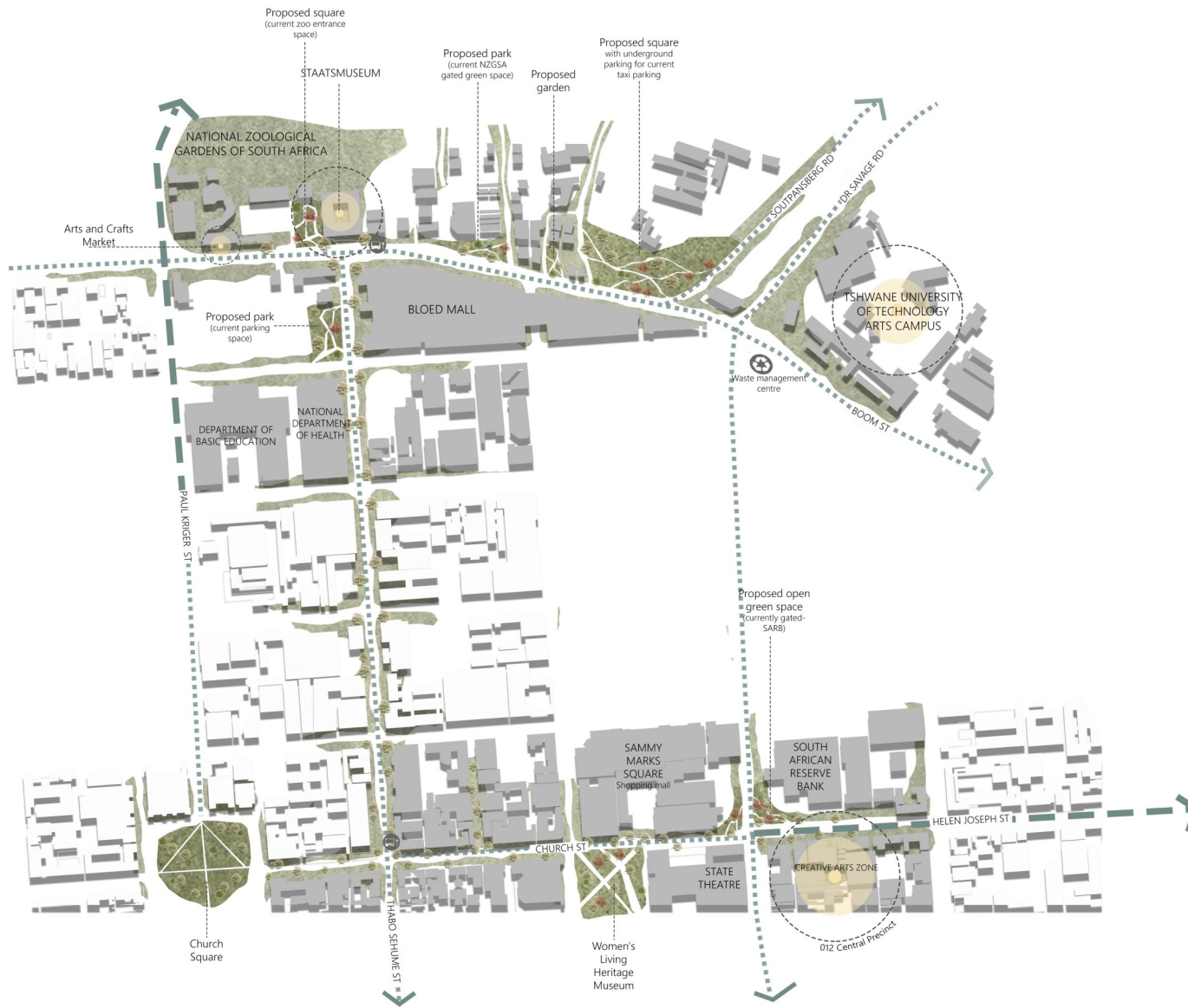
The urban vision proposes the redevelopment of decayed urban public spaces along Boom Street as public gardens and squares with the vision

to remediate the inner-city's urban plight for a less fragmented open and green urban fabric. This proposal stems from the analysis of the north eastern fringe the city's lack of open green spaces, which has contributed to the lack of social spaces in that area and its subsequent deterioration. The programming of these green open spaces will be influenced primarily by the need for social spaces and the prioritisation of the pedestrian, and will have a link to the arts as a means of linking the Staatsmuseum to the TUT Arts Campus and thus regenerating Boom Street, as an Art Walk (figure).

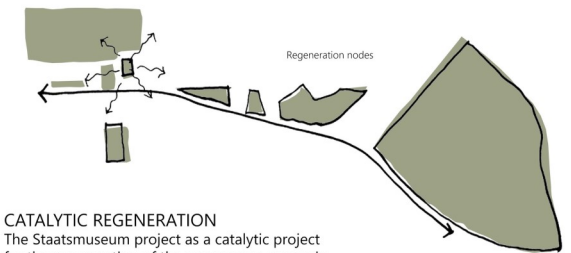
The urban vision suggests that the sidewalks wrapping around Boom Street be redeveloped or adapted to host commercial and public programmes, to address existing scenarios such as Bloed Mall which has a dead and inactive façade facing Boom Street. The regeneration of the sidewalks will ensure pedestrian safety and prioritisation, which allows for the city dweller to move through the gardens and squares comfortably and safely and will encourage lingering, resulting in lively social spaces.

With time, and once Boom Street has become successfully regenerated, the urban vision presents the opportunity for the inner-city's landscape to be stitched together through a design intervention that resembles a landscape urbanist project (Figure1.15). To achieve this, the urban vision proposes the establishment of successive redevelopment projects that will be interconnected to form a single system at a later stage.

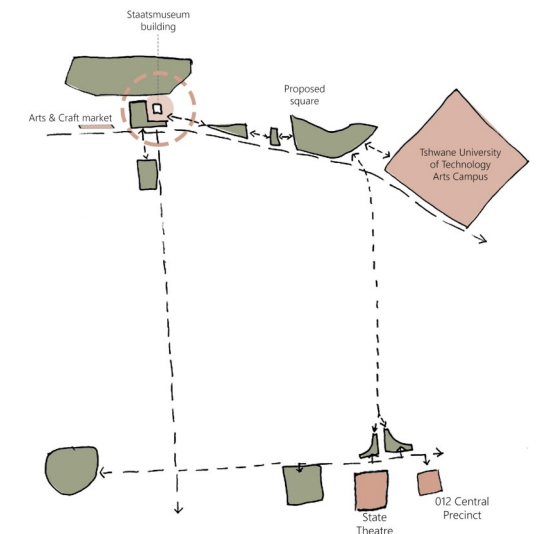




**GREEN SPACE PROPOSAL FOR BOOM STREET**  
Strengthen the Boom St green and social spaces and the pedestrian experience



**CATALYTIC REGENERATION**  
The Staatsmuseum project as a catalytic project for the regeneration of the open green spaces in Boom St



**STITCHING THE FRAGMENTED URBAN GREEN SPACE BY LINKING THE CREATIVE ARTS NODES IN THE INNER CITY**

Fig. 1.15: Visual indicating the project's urban vision to stitch the fragmented urban green space in the inner city by linking the various creative arts nodes in the inner city (Author 2020)

Although the urban vision responds to the landscape urbanisms principle of landscape design as a primary mediator of the negative social and environmental conditions in post-industrial cities, the dissertation proposes that acupuncture projects precede large-scale regeneration, creating a substructure on which large regeneration can be formed. Thus, the current project focuses in on the scale of a single built element, the Old Staatsmuseum, as an example of one such urban acupuncture project.







# **Analysing the urban ruin**

An investigation of the Staatsmuseum building condition

## CHAPTER 2 - Analysing the urban ruin

### 2.1 INTRODUCTION

The Staatsmuseum's grand sandstone, Wilhelmiens architectural style façade, sits on a very busy and congestion-prone street. This historical building, which was built with a specific spatial intent and as one of the first Zuid Afrikaanse Republiek (ZAR) architectural feats as part of the Transvaal legacy, is dwarfed by the bustle of the streets and is overcome by the development of the city. This chapter investigates the building's historical significance and its existing condition and provides the foundation on which the programmatic and conceptual design decisions are made.

### 2.2 INVESTIGATION OF THE BUILDING

Due to the author not being able to access the site during 2020, due to Covid19 related lockdown restrictions, the author investigated the buildings condition by consolidating the building analyses done by Hollenbach (2015), Moodley (2019) and Niebhur (2008) of the Staatsmuseum building.

### Street façade

The building façade is constructed from sandstone (Moodley 2019:79) and is intricately detailed, following the Wilhelmiens Architectural style, showing the craftsmanship that was employed over a decade ago. This indicates the value of building's heritage significance.



Fig 2.1: Locality plan and photographs of the site façade (Plan adapted from Moodley (2019); Photographs Author (2020))

Trees were planted in front of the building, concealing the buildings significance and its relation to the street.

The entrance of building boasts a 4 meters high door which drew visitors to the museum. This entrance boasts the building's intended grandeur as it plays with scale.

## Courtyard



Fig 2.2: Locality plan and photographs of the site courtyard (Plan adapted from Moodley (2019); Photographs 1 and 2 by Moodley (2019); Photograph 3 by Author (2020))

- The courtyard is the site's focal point. Visible from the entrance, this space strengthens this vertical axis and datum from the double volume foyer to the open courtyard.
- The veranda wrapped around it defines the circulation around the courtyard and the layout of the building. It acts as a threshold space between the exhibition halls (internal) and the courtyard (external).
- The courtyard has been planted with vegetation that was not part of the original plan. These plants, due to low levels of maintenance, are overgrown and hinder light from entering through the clerestories to the exhibition halls.

## East Exhibition Halls



Fig 2.3: Locality plan and photographs of the east exhibition halls and additions (Plan adapted from Moodley (2019); Photographs 1 and 3 by Moodley (2019); Photograph 2 Author (2020))

- An additional exhibition space was added to the west wing, post the original building completion.
- This extension is built within the courtyard, reducing the courtyard space. This addition has suffered extensive damage due to vandalism and water damage.
- The clerestory facing the exterior of the building has been painted resulting in a loss of natural light.
- The ceilings and floors are damaged .

## West Exhibition Halls



Fig 2.4: Locality plan and photographs of the west exhibition halls and additions (Plan adapted from Moodley (2019); Photographs 1 and 3 by Moodley (2019); Photograph 2 by Author (2020))

- The west wing has been modified, from the original plan (see figure on the left), and currently hosts four exhibition halls. Two of which are located adjacent the highlighted wing.
- Two grand doors, in each of the highlighted halls, connect the mentioned halls to an additional room, which is an extension that was added after the building's completion.
- The internal structure of the exhibit halls is generally in good condition, but some areas of the roof and floor are damaged.

## North and South Wing (Ground Floor)



Fig 2.5: Locality plan and photographs of the ground floor north and south wings (Plan adapted from Moodley (2019); Photographs by Moodley (2019))

### *North Wing*

- This wing was previously used to house administration facilities.
- The rooms are relatively well lit with numerous windows.
- The ablution facilities that were added post-completion were also vandalised and are currently not functional.

The basement is accessed from this wing via a flight of timber stairs.

### *South Wing*

- The clerestory windows in the two exhibition halls have been painted black resulting with the rooms being dark.
- Evidence of vandalism is observed with; the damaged doors which are now sealed, the existing display walls and some remnants from the exhibits inside .
- Offices were also housed in the rooms adjacent the double volume foyer.

### Back of Building



Fig 2.6: Locality plan and photographs of the back of the building (Plan adapted from Moodley (2019); Photographs 1 and 2 by Moodley (2019); Photograph 3 by Author (2020))

From aerial photographs of the site there is a building at the back of the but according to Moodley’s (2019:79) observation there is no mention of said building.

Due to neglect and lack of maintenance on the building, for over 20 years, certain parts of the buildings are overgrown with climbers and unmonitored plants.

### North and South Wing (First Floor)



Fig 2.7: Locality plan and photographs of the first floor north and south wings (Plan adapted from Moodley (2019); Photographs by Moodley (2019))

These wings are the only parts of the building which have first floors.

#### *North Wing*

- Well-lit spaces with windows giving visual access to the zoological gardens, behind the building.
- The space was previously used for administration purposes and has been badly vandalised.
- This floor is accessed from the ground floor via a flight of timber stairs. This staircase is in an unsuitable condition.
- This wing also provide visual of the Magaliesberg mountain range and the zoological gardens

#### *South Wing*

- Well lit spaces with views of the inner-city.
- Previously used for administration purpose and has been badly vandalised.
- The wing is accessed via a flight of timber stairs. This staircase is in an unsuitable condition.

#### Notable observations

- Historic pressed ceilings are found in some of the exhibitions halls and should be conserved
- Original wooden floors to be conserved , assuming they're structurally sound for hosting people and new interventions



Fig. 2.8: The original 'Oregon Pine' timber floor was later covered with a layer of parquet flooring (Photographs by Niebhur (2008))



Fig. 2.9: The only vaulted pressed steel ceiling in the building, painted purple (Photographs by Niebhur (2008))



Fig. 2.10: Pressed steel ceiling found in the east wing (Photographs by Niebhur (2008))

#### 2.3 STATEMENT OF SIGNIFICANCE

As one of the first civic buildings in the city's northern edge, the Staatsmuseum has valuable architectural significance (Grobler 1994). The most tangible and perceptible significance identified in the Staatsmuseum is its façade. The Wilhelmiens architectural design style used for the building, particularly its façade, is a style that was heavily influenced by the Dutch architectural design style and this makes the Staatsmuseum's façade have great cultural and architectural heritage value. Additionally, the building is significantly located in the landscape at a junction between the Boom Street and Thabo Sehume Street, a spatial intent which according to Hollenbach (2015) indicates the pragmatic zeitgeist of the time. The building location and façade, coupled with the fact that building has been a part of the street edge for over 100 years cements its prominence as an integral part of the city's urban fabric, both historic and contemporary.

The Staatsmuseum was also one of the first museums in the City of Tshwane (then Pretoria) and South Africa (Moodley 2019; Brand South Africa 2017). The museums location, adjacent the NZGSA, influenced the focus of the exhibitions in the museum which were primarily of the natural and cultural history and were concerned with the education and conservation of natural environments.

## 2.4 CONCLUSION

The building has a very symmetrical nature, and this lends to the spatial definition in each space. The horizontal axis that extends from the Thabo Sehume Street through to the Staatsmuseum courtyard is a very strong spatial experience, especially visually. The axial location of the courtyard creates a spatial continuity as it makes it possible for the courtyard to be seen from the street. The visual accessibility from the rooms and exhibitions into the courtyard strengthens the courtyard's spatial significance in the general form and layout of the building.

The interior spaces still have the original 'Oregon Pine' wooden floors, although some parts are covered with newer parquet flooring and most of the exhibition halls still retain the original pressed steel ceilings. These interior details are of great heritage value and should be conserved as much as possible.

Newer additions to the building will however be removed as they take away from the building's heritage integrity and spatial significance, such as the exhibition addition built into the courtyard.

The Staatsmuseum was previously the city's natural history museum, and was used for the exhibition of fossils, amphibians, fish, birds, plants and various other natural material. Its previous programme is of significance as it strengthens its link to the adjacent zoological gardens. Any new

interventions and renewal of the Staatsmuseum should pay homage to the building's programmatic significance

## 2.5 HERITAGE AND CULTURAL LANDSCAPES/ HERITAGE RESPONSE

### Introduction

Heritage can be described as the tangible and intangible (material and cultural) resources that are passed on, from one generation to another.

Cultural and architectural heritage includes instruments that are symbolic of the "creativity and livelihoods of a group of people" (South African History Online 2012). Architectural history can thus be identified as a tangible manifestation of cultural history, such is the case with the Staatsmuseum as an example of the Wilhelmiens architectural style which was heavily influenced by the Dutch architectural aesthetic. McLachlan (2009:60) describes architectural heritage as a medium with which the zeitgeist of an era is captured and preserved.

Due to the site's location, the dissertation situates itself in the existing conservation practices for the architectural design responses in heritage buildings, therefore, the dissertation presents a theoretically grounded landscape design proposal.

## Architectural Heritage Conservation

Although the Staatsmuseum building has great heritage value in the CoT it has not been declared a national heritage site and is not officially under the protection of the South African Heritage Resources Agency (SAHRA). It is, however, protected by the National Heritage Resources Act 25 of 1999 (NHRA) 60-year clause (subsection 34[1]) which 'prohibits any person from altering or demolishing any structure which is older than 60 years, except under the authority of a permit by the provincial heritage authority' (National Heritage Resources Act 1999:58). In addition to consulting the NHRA, the dissertation employs the Burra Charter: the Australia ICOMOS charter for places of cultural significance 1999 (referred as the Burra Charter henceforth) as a guideline for the conservation practices, to which the design proposal for the Staatsmuseum will respond.

The Burra Charter sets various conservation principles which have to be applied when interacting with places of heritage and cultural significance. The dissertation employs the 'cautious approach' set by the Burra Charter which advises that minimal changes be made with any intervention project in a place of cultural significance. It states that conservation should be based on (Burra Charter 2013)

- i) a respect for the existing fabric,
- ii) the current use of the place or building and,

- iii) any associations or meanings that a culture has attached to such a place.

The Staatsmuseum current condition indicates that it is in a vulnerable state as very little has been done in conserving it and its heritage value has been put at risk. The dissertation identifies the sites potential for reuse and for its renewed relevance in the contemporary city, and thus proposes that landscape architecture be the medium through which this renewal is achieved. The intention is to do this through landscape design interventions, guided by the Burra Charter and NHRA conservation principles, that pay homage and respond to the building's heritage value.

## 2.6 ADAPTIVE REUSE AND HOST BUILDINGS

The NHRA and Burra Charter both set principles that guide architectural interventions within registered heritage structures or sites. They particularly advocate for the conservation and improvement of the heritage sites' physical states.

Various studies have been undertaken in an attempt of investigating appropriate interventions for heritage buildings that respond to the buildings' cultural significance and heritage value. In her book Adaptive



Reuse: Extending the Lives of Buildings, Liliane Wong (2016: 104-119) investigates the various design responses to architectural heritage according to the character of the host buildings, under the headings:

- i. Shell: Interior Conversion,
- ii. Incomplete Host Buildings: The Semi-Ruin Host,
- iii. Fragmented Host,
- iv. Relic Host, and
- v. Group Host.

The dissertation will explore the adaptive reuse of architectural heritage by employing those identified by Wong (2016). The responses identified by Wong (2016) are by no means the only responses to the adaptive reuse of architectural heritage but, for this dissertation, they presents comprehensive and proficient explorations that the dissertation can explore and apply.

### Shell Hosts

These host structures are entire buildings. According to Wong (2016:107), interventions in these types of host, structures are primarily in the interior of the building and “engage with every part of the building except the building envelope” (Wong 2016:107).

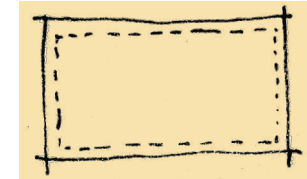


Fig. 2.11: Illustration of a shell host intervention (Author (2020) redrawn from Wong (2017))

### Semi-Ruin Hosts

These host structures usually have missing elements and are not whole. Design interventions in such a structure are both interior insertions and additions (20116:111). According to Wong (2016:111), these design interventions serve two purposes: to make the incomplete host building whole and extend

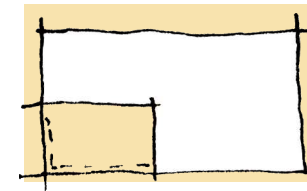


Fig. 2.12: Illustration of a semi-ruin host intervention (Author (2020) redrawn from Wong (2017))

### Fragmented Hosts

According to Wong (2016:114), these host structures are usually inhabitable due to the incompleteness. Due to their fragmentation, these structures require innovative design responses and thus become 'acts of invention.'

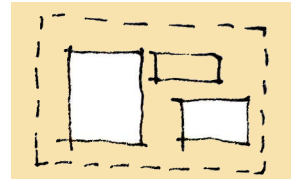


Fig. 2.13: Illustration of a fragmented host intervention (Author (2020) redrawn from Wong (2017))

### Relic Host

The host structure's significance is as "recall of memory, an event, history, a period in time" (Wong 2017:118). It is not transformed but is employed as a catalyst for new construction developments. The new developments uses the relic as a design guide.

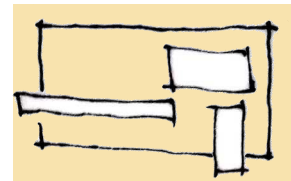


Fig. 2.14: Illustration of a group host intervention (Author (2020) redrawn from Wong (2017))

### Group Hosts

These are multiple host structures which are usually close to each other and result in large scale design interventions (Wong 2016:119).

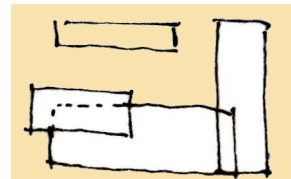


Fig. 2.15: Illustration of a group host intervention (Author (2020) redrawn from Wong (2017))

## 2.7 CONCLUSION

Drawing from the investigation of the Staatsmuseum's condition and the adaptive reuse design responses investigated, it is clear that the Staatsmuseum's structure is still capable of being reused and conserved.

Due to the unknown structural conditions of the building, the dissertation assumes that some parts of the building may not be conservable due to the water damage the building has experienced and the neglect and decay it has experienced. The dissertation therefore proposes employing the Shell Host and Semi-Ruin Host responses as it will be dealing with interior and exterior spaces.

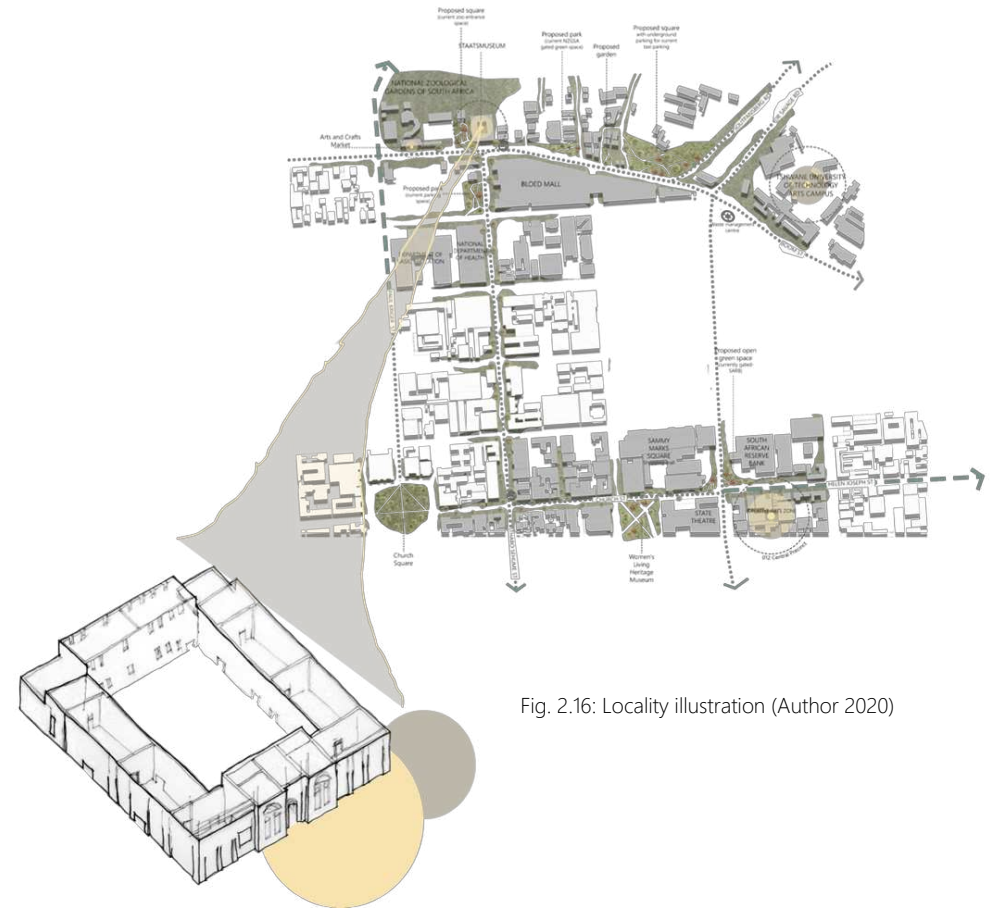


Fig. 2.16: Locality illustration (Author 2020)

## 2.8 SITE ANALYSIS

### Urban Topography

The project site sits on the edge of the inner city, where the landscape becomes more natural with the provision of the vast land on which the NZGSA sits and the Magaliesberg mountain range beyond it.

The site therefore sits on the threshold between the mid-rise commercial and residential areas, to the south and east of the site, and the naturalised and natural areas, to the west and north of the site.

The site slopes down towards the north (see Figure 2.17) with a 2.8m fall from the south end to the north end (see Figure 2.18) and a 5% slope. The site ground conditions are impermeable, save for the courtyard. The immediate context has hard, impermeable surfaces to the south and east (the residential and mid-rise commercial areas), and permeable surfaces to the east and north (the zoological gardens and Magaliesberg mountain range) save for the paths constructed in the zoological gardens.



Fig. 2.17: Illustration of contours, the site slope and stormwater flow on impermeable surfaces into sewer systems (Author 2020)



LOCALITY DIAGRAM

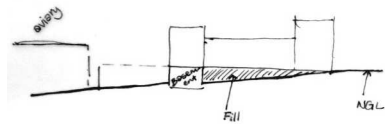


Fig. 2.18: Section indicating slope of the site, indication a 2.8m fall in the topography (Author 2020)

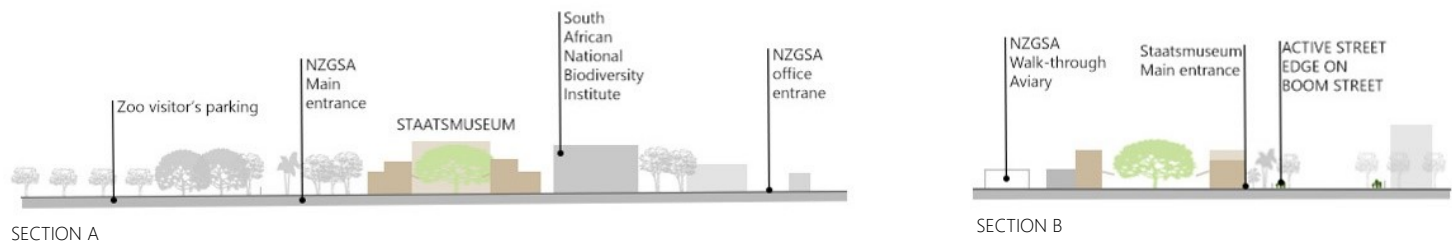


Fig. 2.19: Sections indicating the Staatsmuseum's immediate context (Author 2020)

### Site Surroundings

The Staatsmuseum is within close proximity to various higher education institutions, primary schools, commercial industries as well as various government offices. In addition the site very close to the inner city public transport operations and the NZGSA, as previously mentioned earlier in the book.

These programmes result in active pedestrian street edges and, unfortunately, regularly congested streets.

### Micro-Climate

The Staatsmuseum has a uniform interior microclimate as the building still has walls and roofs that are in good condition. The courtyard and exterior of the building experience seasonal and daily micro-climatic changes due to :

- The sun patterns during the day
- The deciduous condition of the Maple tree in the courtyard

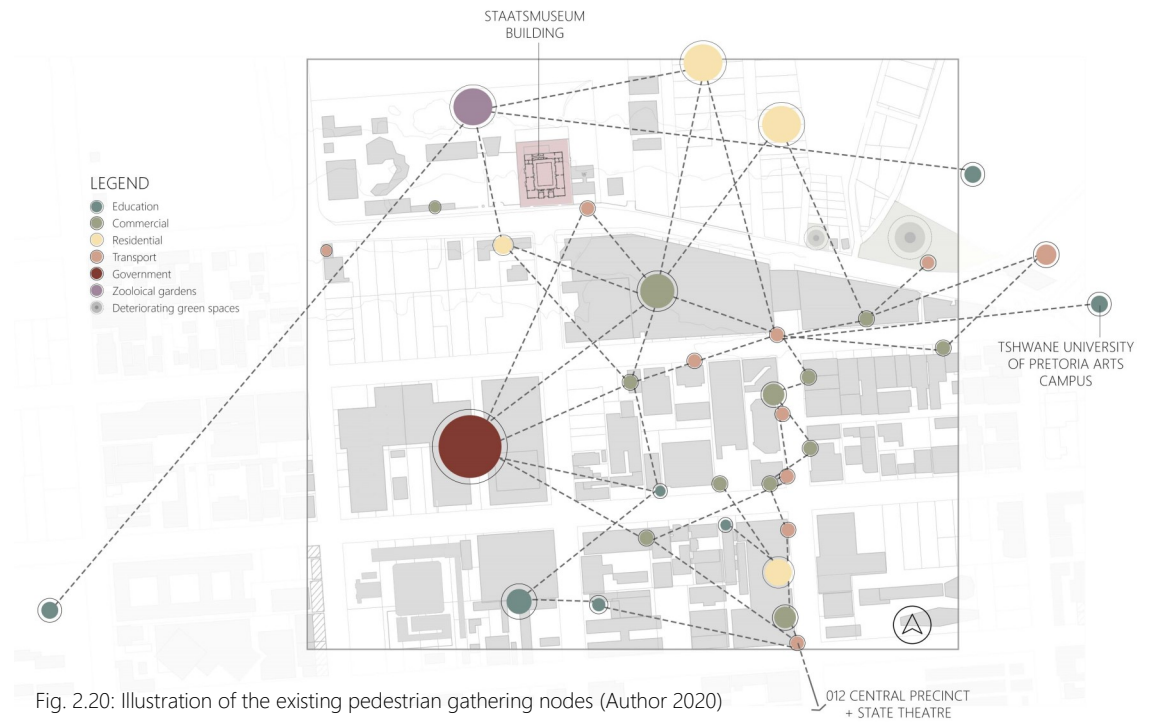


Fig. 2.20: Illustration of the existing pedestrian gathering nodes (Author 2020)

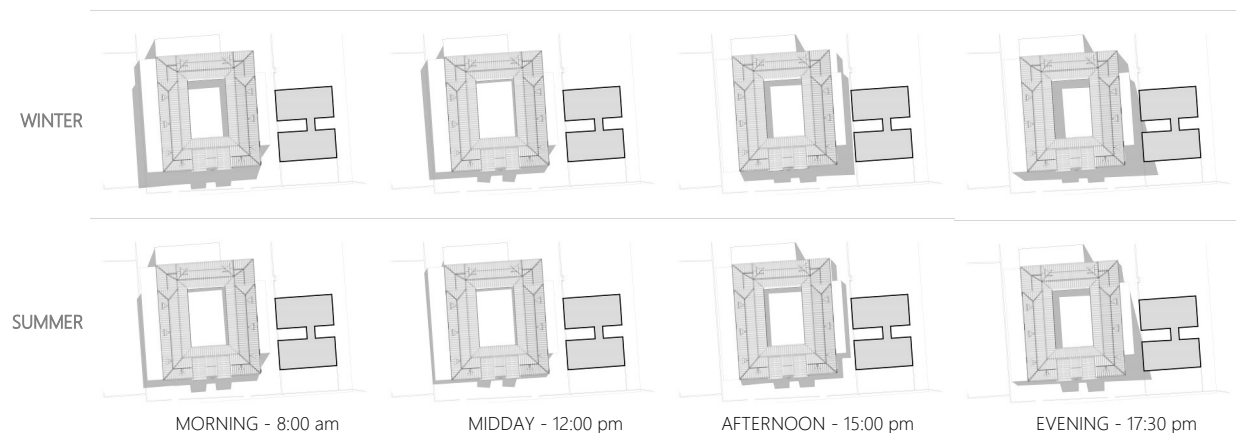


Fig. 2.21: Illustration of the Staatsmuseum shady study (Author 2020)

### Existing Vegetation

The site plan was initially drawn without any vegetation, however plants were added throughout the years. The following vegetation exists on site:

- Maple tree (in the courtyard)
- Palm trees (in front of the building and one in the courtyard)
- River bushwillow (in front of the building)

In addition there are weeds and creeper plants have overtaken the parts of the site.



# Theoretical Investigation

The theoretical investigation and argument on which the proposed landscape intervention is based

## CHAPTER 3 - Theoretical Investigation

### 3.1 INTRODUCTION: THE THEORETICAL FRAMEWORK

The dissertation aims to design a landscape intervention within an urban and historically significant building, which is now derelict. This intervention will reactivate the building as a creative place, act as a catalyst for regeneration of its immediate surrounds and become a model project for the City of Tshwane's goal in reinventing the image of its inner-city.

The project encompasses elements from the disciplines of urban design, architecture and landscape architecture; and the theoretical approach for the proposed landscape intervention will therefore span across these disciplines. The dissertation investigates the role that landscape architecture can play in urban renewal and its role in existing urban regeneration theories, namely landscape urbanism, creative industries, urban acupuncture and the urban catalyst theory. The dissertation also investigates the programmes and projects in which the City of Tshwane has attempted to initiate urban regeneration, as well as private urban renewal projects that have occurred with the Pretoria inner-city.

The derelict state of The Staatsmuseum and its historical association to temporality leads to an investigation of the relationship between landscape and building, building and art, and art and landscape. Lastly, the dissertation proposes landscape as a medium through which a derelict heritage building can be creatively adapted and revered, by

employing art and landscape design techniques.

### 3.2 URBAN REGENERATION

This section discusses urban regeneration theories for the inner-city's regeneration at varying scales. It starts with landscape urbanism which addresses the city-scale approach to urban regeneration and concludes the urban catalyst theory which addresses the micro-scale, site-specific regeneration for the inner-city.

#### Landscape Urbanism

Landscape Urbanism, as explained by Charles Waldheim, is the theory of urban planning employing landscape as a medium of representation and construction in the contemporary city (Waldheim 2006b:15).

In the post-Fordist (1970-1990) models of cities, urbanisation continues to grow horizontally, decreasing the density of cities. This horizontal movement of people into the decentralised suburbs prompted an era of urban decline, which has resulted in a surplus of abandoned buildings in post-industrial cities.

Due to the suburbanisation and decentralisation experienced in the early 1990s the traditionally dense urban form of cities is replaced with an urban form that is characterised by public realms of extensive vegetation



and landscape. This has spurred a newfound relevance of landscape, as a medium for the creation of urban form. This created opportunities to reclaim parts of the city, by employing ecological design principles for landscape urbanism projects (Cook 2018:89). Sites of opportunity included contexts of complex natural environments, post-industrial sites and public infrastructure (Waldheim 2006a:15). Waldheim (2006a:15) suggests that post-industrial 'architectural objects' which were left behind after the urban flight presented opportunities for the development of vertical landscapes. This concept of landscape at various scales is supported by Corner (2006:24-26) as he notes landscape urbanism's flexibility and ability to shift scales, from vast agrarian fields to single buildings.

Tshwane's inner-city is however characterised by a fragmented open space condition. Its densely built-up urban fabric leaves little opportunity for vast open public spaces and this calls for an alternative approach of addressing the lack of open public spaces and parks.

A vertical landscape approach, as a response to decaying urban environments, challenges the cultural perception of landscape, which is firmly attached to the image of 'nature'. The City of Tshwane, in 2013, developed a new vision called Tshwane Vision 2055: Remaking South Africa's Capital City aimed at creating a liveable, resilient and inclusive city to develop an African Capital City of Excellence (City of Tshwane

2013:5). The City's vision of regeneration focuses on vast landscapes in the city such as boulevards, public parks and public art to name a few. This approach seems to neglect the importance of urban renewal projects on smaller scales. In order to attract investment, from public and private investors, Dirsuweit (2008:57-58) suggests that small-scale projects are a successful model for urban renewal. Such small-scale projects create opportunities for greater renewal within the site's immediate communities.

#### Creative industries

Cities can be the hubs for the co-ordination and exchange of knowledge between the diverse industries that they house. The diversity of industries, urban fabric, skills, workforce and cultural diversity allows for the cultivation of diverse knowledge bases as the geographical proximity of people promotes knowledge flows (Flew 2013:2).

"Art is a mirror of society" (Hargrove 2012)

The Creative Arts are a form of expression and application of human creativity and imagination which have been employed for ages, dating back to pre-historic times when the nomadic Khoisan created their rock art. The Creative Arts are an expression of subjective narrative and this creates and allows for diversity and exchange of knowledge. Art is also

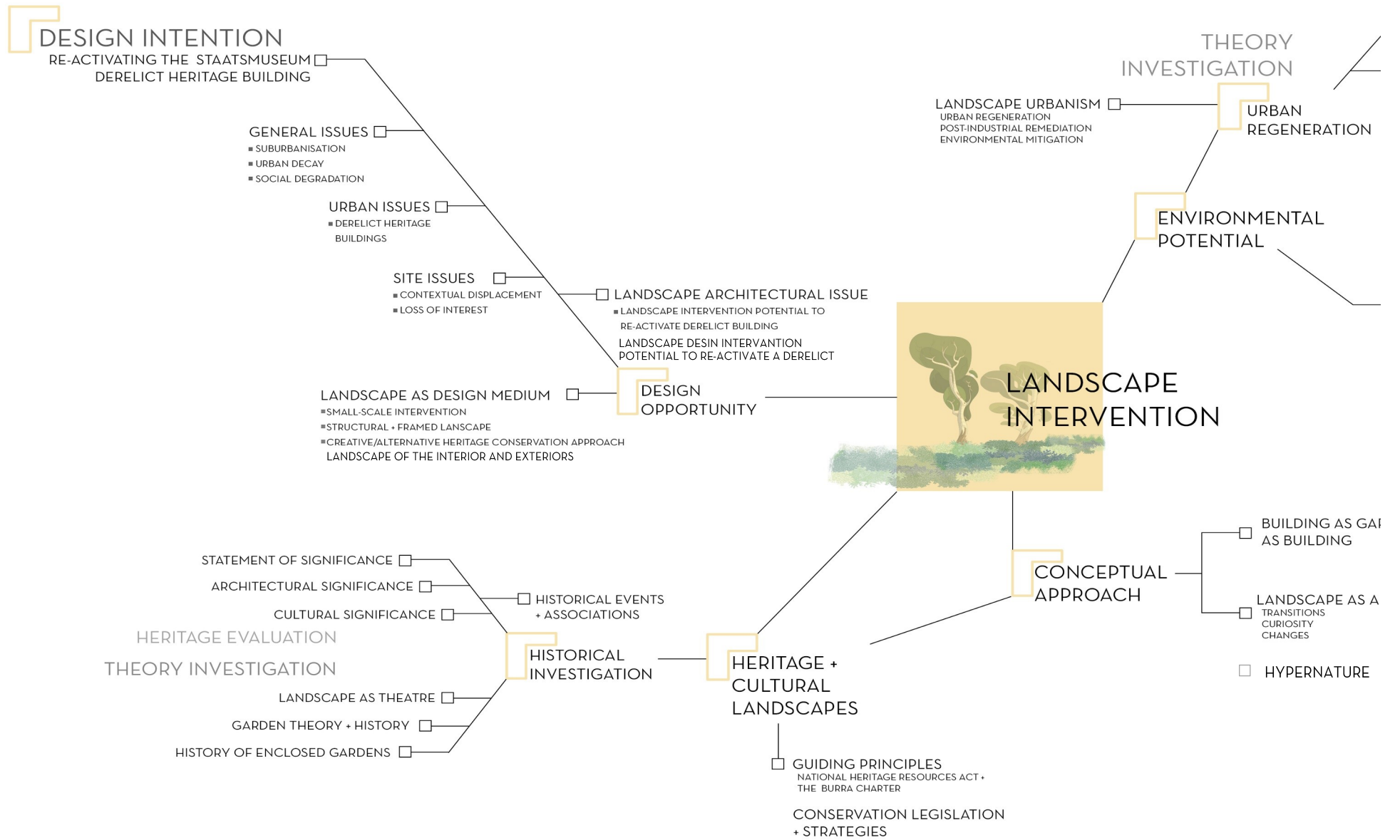
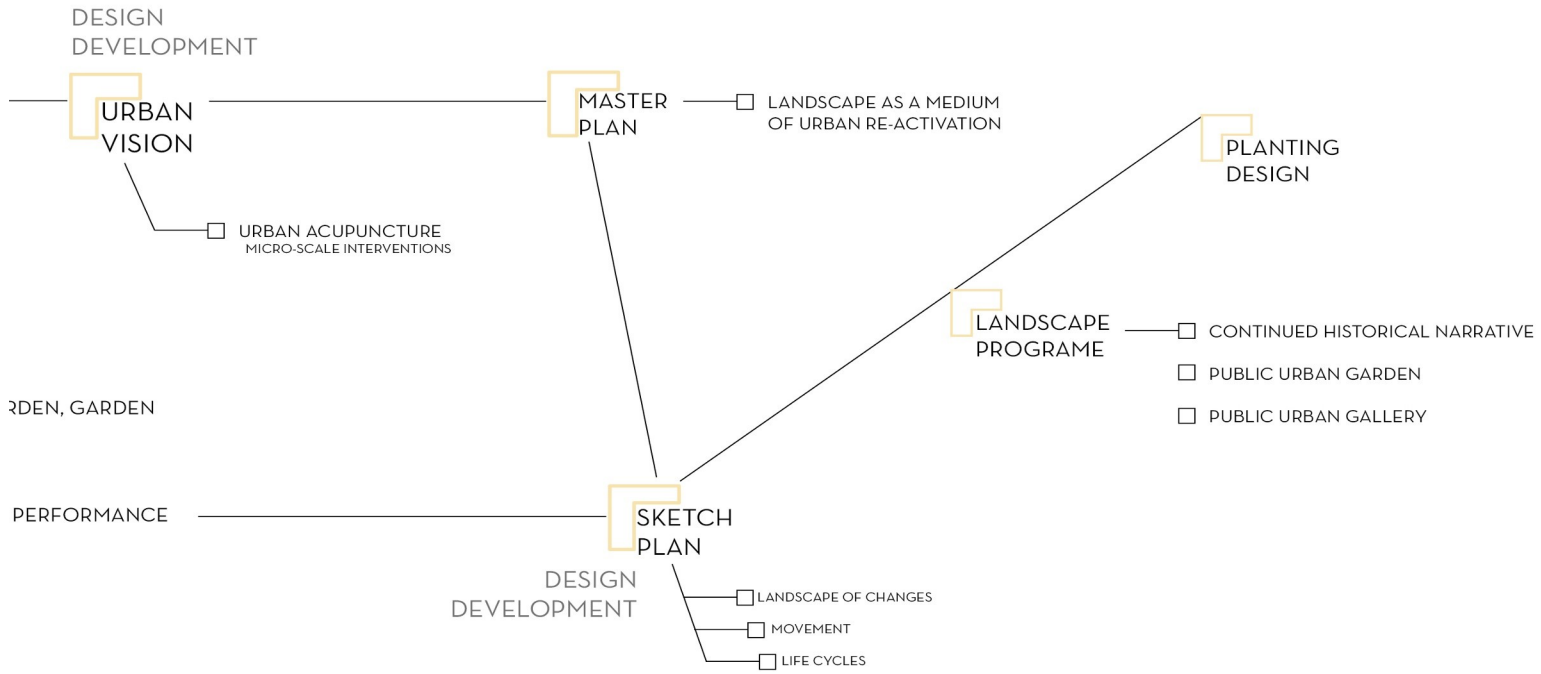


Fig. 3.1: The framework for the theoretical approach of the design investigation (Author 2020)

— □ URBAN CATALYST THEORY

— □ URBAN ACUPUNCTURE  
MICRO-SCALE INTERVENTIONS



an expression of the visual and material culture of a place and time and contributes to the history of a place as well as social history. The creative activity in a place creates a sense of place and creates homogenous communities who have interchangeable knowledge systems (Murdoch et al 2016). This creative activity can result in a range of economic activities which are concerned with the generation and commercialisation of creativity, knowledge, ideas and information (Parrish 2018) which defines, broadly, Creative Industries. Creative industries are naturally inherent in cities, although not often formalised or defined, and their activities enhance a city or place's brand, therefore using placemaking to cultivate regenerative benefits. (Gregory 2016:160)

The creative arts' potential in encouraging community development through facilitating social interaction, collective action and vibrant communities creates opportunities for economic community empowerment and community identity development (Murdoch et al 2016). The dissertation explores a landscape design that encourages and brings awareness of the arts in the inner-city.

Creative industries, in urban regeneration and renewal debates in South Africa, are underrepresented (Gregory 2016:159) and this could owe to the trend that these industries tend to cluster and form creative hubs. Creative clusters can either be private sector driven or subsidised state-driven projects. These clusters are usually defined in a certain geographic area and usually host various creative enterprises, usually

through property leases (Gregory 2016:161) An example of such clusters in South Africa would be the Maboneng Precinct in the City of Johannesburg.

This geographic clustering can, however contribute to urban gentrification as they attract creative people or as Flew (2013) calls them the 'creative class' and centre creative activity to a certain area, thus increasing socio-economic polarisation and exclusion of experiencing these creative industries (Flew 2013, Gregory 2016). Due to the privatisation that creative clusters perpetuate the dissertation explores Urban Acupuncture as an alternative.

#### Urban Acupuncture

Drawing from Corner's (2006:24-26) idea of landscape urbanism occurring on various scales in the urban fabric, Urban Acupuncture focuses on the small-scale approach to revitalising the large-scale urban decay problem (Houghton et al 2015:6). The dissertation explores an Urban Acupunctural approach as an alternative to creative clusters and as a means of distributing creative industries throughout the city and thus promoting widespread public access. An example of such an urban acupunctural project is Victoria Yards in Johannesburg, a creativity hub of makers, artists and artisans situated in a complex of restored industrial heritage buildings which has spurred economic growth in its surrounding

community.

According to Houghton et al (2015:6), urban acupuncture is the small-scale approach to revitalising the large-scale urban decay problem. Urban acupunctural interventions are used as catalysts to the larger scale urban regeneration. Small-scale projects become economically successful as they respond to their immediate environment unlike large-scale projects which generate precincts that function as isolated economic models and exacerbate gentrification and socio-economic isolation (Houghton et al 2015, Garner 2011). Urban redevelopment through acupunctural interventions relies on the targeted and strategic interventions in urban areas to initiate development and create energy thus triggering positive urban renewal becoming urban renewal catalysts (Morales 2008:4). Due to their installation nature, these projects encourage change as people can observe and interact with the physical changes. (Cook 2018)

#### Urban Catalyst Theory

The urban catalyst theory, proposed by Italian architect Aldo Rossi (ref; date), suggests that strategic small-scale changes in decaying neighbourhoods could prompt urban redevelopment. The long-term success of these micro-interventions, however, relies on their integration in a larger redevelopment programme which would develop over time (Rossi & Eisenmann 1982:8-11). The dissertation recognises the City of

Tshwane's 2020 Urban Vision as an existing greater long-term project with which micro-intervention projects can develop in conjunction.

Urban catalysts are micro-interventions which prompt urban renewal in their immediate environments, which, according to Davis (2009:296), they achieve through successive changes to the city. Urban acupunctural projects and urban redevelopment projects may take various forms, besides physical interventions, such as street art and performances (Attoe & Logan 1989:45). Le Roux (2008: 61-65) illustrates that small-scale design interventions create opportunities for the 'imaginative shifts in the collective understanding' of our urban fabrics, particularly our inner cities.

An example of a micro-scale design intervention in Tshwane's inner-city is 012 Central, a multi-space precinct that, through events, creates a platform for talented creatives to showcase their work and interact with other creatives in the inner-city.

The dissertation therefore proposes that urban redevelopment of the city begins at the micro scale through the application of urban acupuncture and the urban catalyst theory.

Figure 3.1: The framework for the theoretical approach of the design investigation (Author 2020)

### 3.3 PRECEDENT STUDY: 012 CENTRAL PRECINCT, CITY OF TSHWANE

012 Central is a multi-space precinct in Tshwane's inner-city. Prior to its renovation, the precinct was a post-industrial shed that was used to store taxis. The precinct is a City Property initiative project that aims to contribute to the urban regeneration of CoT's inner-city. The project has acted as a catalyst for urban renewal in its immediate context, prompting the opportunities for economic development.

The site sits in an opportune location with the State Theatre a block away. The project's financial success relies on rental spaces such as office space lofts, studio spaces and event spaces. The precinct hosts various events such as markets, fashion shows, parties, conferences, corporate functions and much more. The precinct creates an urban environment that allows creatives to truly thrive. It is a creative platform which commissions artists and has created a collection of public art inspiring the 012 Art Walk which encourages visitors to walk through the inner-city and learn about its history.

Although this project is a successful example of urban regeneration and adaptive reuse in the inner-city, it does not address the environmental issue of the fragmented open green space condition that exists in the inner-city and its remediation. Therefore, the dissertation proposes landscape architecture as a primary tool for the remediation of the above-mentioned issue, in small-scale acupuncture projects such as this

above-mentioned issue, in small-scale acupuncture projects such as this one which will aid in re-stitching the fragmented open landscape condition in the inner-city.



Fig. 3.2: 012 Central precinct collage (Author 2020)

### 3.4 PRECEDENT STUDY: VICTORIA YARDS, CITY OF JOHANNESBURG

Victoria Yards is an urban complex of industrial buildings in Lorentzville, Johannesburg. This complex was built as a laundry but due to political shifts and industry decline the area fell into disrepair. The complex and its studios were eventually by informal panel beating shops and businesses of a similar nature. Brian Green and his associates from Group 44 initiated the project as a reaction to the development of the Nando's head office in the area. The fast food chain therefore acted as an urban renewal catalyst in the area of Lorentzville.

The complex is now an urban farm with various studios which house artists and small businesses. The project explored creating a communal area where artisans could have workshops, showcase their work and interact with like-minded people. In addition, the project acts as an "educational facility teaching artisanal and vocational skills" (von Geusau 2020) for members of the community, providing skills development and economic opportunities through the urban farm which is tended to by members of the community.

As with many other urban renewal projects in degraded urban areas, the project can be questioned on its contribution to gentrification in the area, which may be perpetuated by its intentional target market, artists and creative industries (Cook 2018). However, the project employs integrative strategies to alleviate gentrification such as; welcoming and

providing learning opportunities to local educational organisations such as Timbuktu, offering selected businesses free-rent occupation of some spaces and involving community members with the upkeep of the gardens, such as women from Bethany Home, a rehabilitation centre for abused women and children (Botha 2018).



Fig. 3.3: Victoria Gardens urban garden (Crewe-Brown, M. 2018 )



Fig. 3.4: Victoria Gardens art stores (Singh 2019 )







# Essays

Conceptual investigations of landscape, the city and art

## CHAPTER 4 - Essays

### 4.1 NATURE AND THE CITY

The urban planning of the City of Tshwane's inner-city core is greatly influenced by the modernist city and urban spatial planning.

Pre-colonial habitation and settlement, the City of Tshwane (CoT) was inhabited by the Batswana and Matebele indigenous groups. During this time the landscape was primarily natural and untamed except for the groups' settlements and cultivation outcrops which had organic planning. Upon the arrival and settlement of the Voortrekker, CoT's landscape experienced a change with the establishment of extensive farming outcrops with a grid-like urban plan with a central node, Church Square.

From the 1930s to the early 1940s South Africa, like many countries globally, suffered the from the Great Depression coupled with a severe and persistent drought, This resulted in the weakening of the economy and the subsequent movement of large populations into towns and cities from the rural areas. This period resulted in an awareness of global trends and events, particularly in the western world. During this time there was a frustration among some practitioners in the urban planning, construction and architectural fields, regarding the lack of a formal institutional framework for national spatial and urban planning, hence the formation of groups such as the Transvaal Modernist Group and the

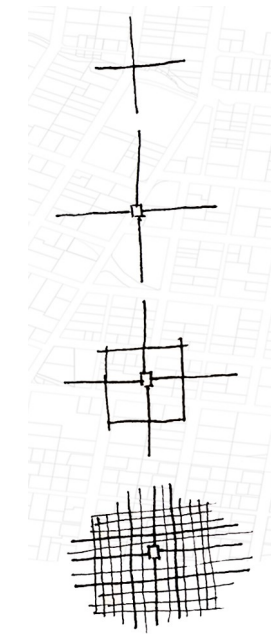


Fig. 4.1: Illustration of the grid-like formation of the inner city's urban fabric, with a central node, Church Square (Author 2020)

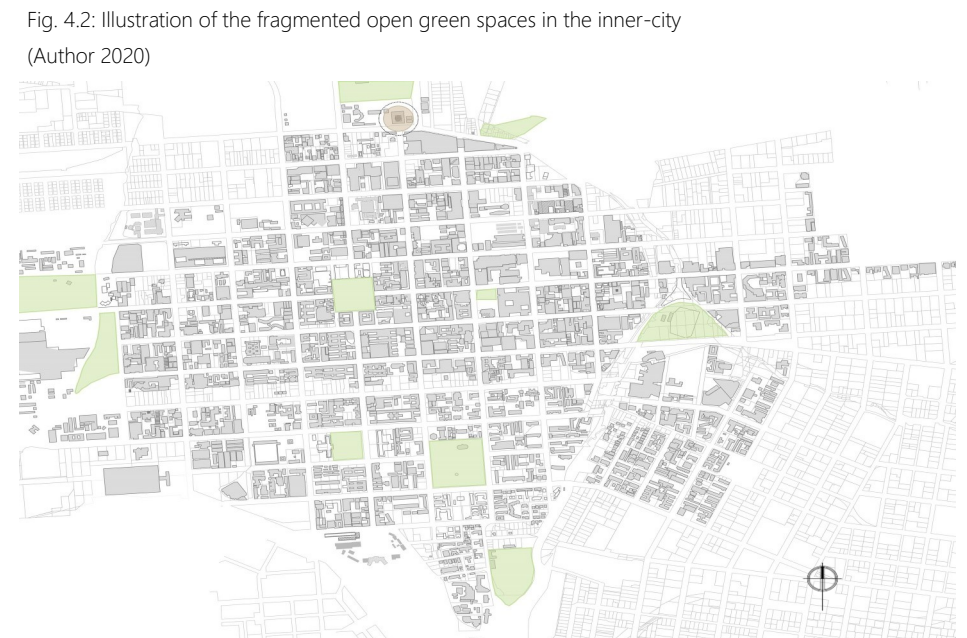


Fig. 4.2: Illustration of the fragmented open green spaces in the inner-city (Author 2020)

Jan Smuts government (Oranje & Merrifield 2010:31-32). These groups and institutions, highly influenced by the urban and spatial planning ideas of Le Corbusier and the International Congresses of Modern Architecture (CIAM), sought to establish a coordinated and focused national spatial and urban development plan (Oranje & Merrifield 2010:32).

CoT's urban planning development, like many other South African cities, was an application of modernist planning ideas which were implemented in service of the apartheid state, aiding their segregationist legislation such as the Group Areas Act of 1950 (Murray 2010:44). The modernist city is characterised by the classification and separation of spaces with differing programs which function independently, although they do interact thus generating an ease in distinguishing between the four principals of human activity, namely: living; working; leisure and socialisation (Archiobjects 2015). This type of urban planning as witnessed in CoT, results in a disjointed urban fabric that does not encourage or sustain social interaction on the human scale, for example the pedestrian experience of the streetscape, between the independently programmed spaces.

The adjoining or thoroughfare spaces linking these programmatic spaces are designed in the functionalist disposition of the

cater to the social component of interaction within the city's urban fabric. From the socially disjointed nature of the city stems a fragmented urban fabric, particularly in the case of the urban public green spaces in CoT's inner-city. The City of Tshwane urban fabric is therefore identified as having a fragmented open green space urban condition.

The dense contemporary city has a limited amount of open sanctuary spaces to which people in the city can escape the chaotic, congested roads and busy character of the city. The dissertation therefore investigates the enclosed garden as a solution for addressing the fragmented urban condition existing in CoT and subsequently increasing green sanctuary spaces in the inner-city.

"The enclosed garden mediates between dwelling and nature, building and landscape, and this is one of the keys to the longevity of this architectural expression." (Baker 2018:1)

## Hortus Conclusus

Enclosed gardens are one of the most ancient landscape and garden typologies which are still being used today. The enclosed garden, during sixth century Persia, was a common garden typology which was employed as a private space and a refuge from the harsh climatic and environmental conditions in Persia (Figure 4.3). The enclosed garden, in the inhospitable desert environment, became a phenomenon in which plants grow and provide sustenance and which provided security from the wilderness. Due to its fertile and secure nature it was likened to an oasis, a paradise.

This notion of paradise, a place in which we can escape and transcend our human frailty, has been a common and pivotal notion in many cultures for many centuries. This is observed in Judaism, Christianity and Islam as the first garden was the Garden of Eden. Its significance being that it was place in which God was in direct contact with our ancestors, before they were banished to the wilderness, and there has been constant desire to return to this place of perfection (Baker 2018:88).

The Persian garden, the earliest having been recorded in 546 BCE, became an art form, with the Greek essayist and historian Xenophon describing the Persian king as “not only brilliant in the art of war, but also in the art of cultivation.” (Baker 2018:90). By the third century BCE,



Fig. 4.3: Persian carpet from 1670-1750 depicting an enclosed garden with an interpretation of four rivers dividing the garden into four distinct areas representing both the plan (horizontal) and foliage in elevation (vertical) (Baker 2018:4)

became an art form, with the Greek essayist and historian Xenophon describing the Persian king as “not only brilliant in the art of war, but also in the art of cultivation.” (Baker 2018:90). By the third century BCE, cultivation had become an expression of art, demonstrating the values of that society and, like with architecture, was seen an expression of the sacred and of the human desire for perfection. Here is where the wealth of designs where landscape and architecture share an intimate relationship.

The intimate relationship between landscape and architecture can thus be observed in the Greek peristyle garden, the Medieval garden, Islamic gardens and many more. This versatile and adaptable garden typology has transcended and withstood various cultural and geographical differences over the centuries.

The intimate relationship between landscape and architecture can thus be observed in the Greek peristyle garden, the Medieval garden, Islamic gardens and many more. This versatile and adaptable garden typology has transcended and withstood various cultural and geographical differences over the centuries.

#### Contemporary enclosed garden

In the urban landscape various conditions exist in tandem, however, due to fragmentation and congestion the transitions between the various

the paradise, this can be seen with urban attempts of recreating nature such as zoological and botanical gardens. . In the condensed spatial fabric of the inner-city the enclosed garden typology is found primarily in courtyard spaces, or spaces between buildings and unused open spaces. Aben and de Wit (1999) explore the enclosed garden’s relevance in the urban landscape, identifying this garden typology’s ability to provide successful transitions between fragmented and contrasting spaces as it pays attention to the edge condition. Informed by Aben and de Wit’s (1999) exploration of urban enclosed gardens and courtyards, the project explores these typologies in its urban vision for regenerating Boom Street by connecting the Staatsmuseum ( and effectively the NZGSA) to the TUT Arts Campus, by introducing pocket parks along the Boom Street in the existing degenerated open spaces (refer to figure). In addition, employing the enclosed garden typology, the project explores the regeneration and adaptive reuse of derelict heritage buildings through landscape architectural interventions. The Staatsmuseum therefore, through the landscape design intervention, becomes a figurative pocket park.

#### Explorations

As an exploration of the ideals of nature in the city and hortus conclusus the dissertation explores and considers the role of light in the spatial experience the space’s genius loci.

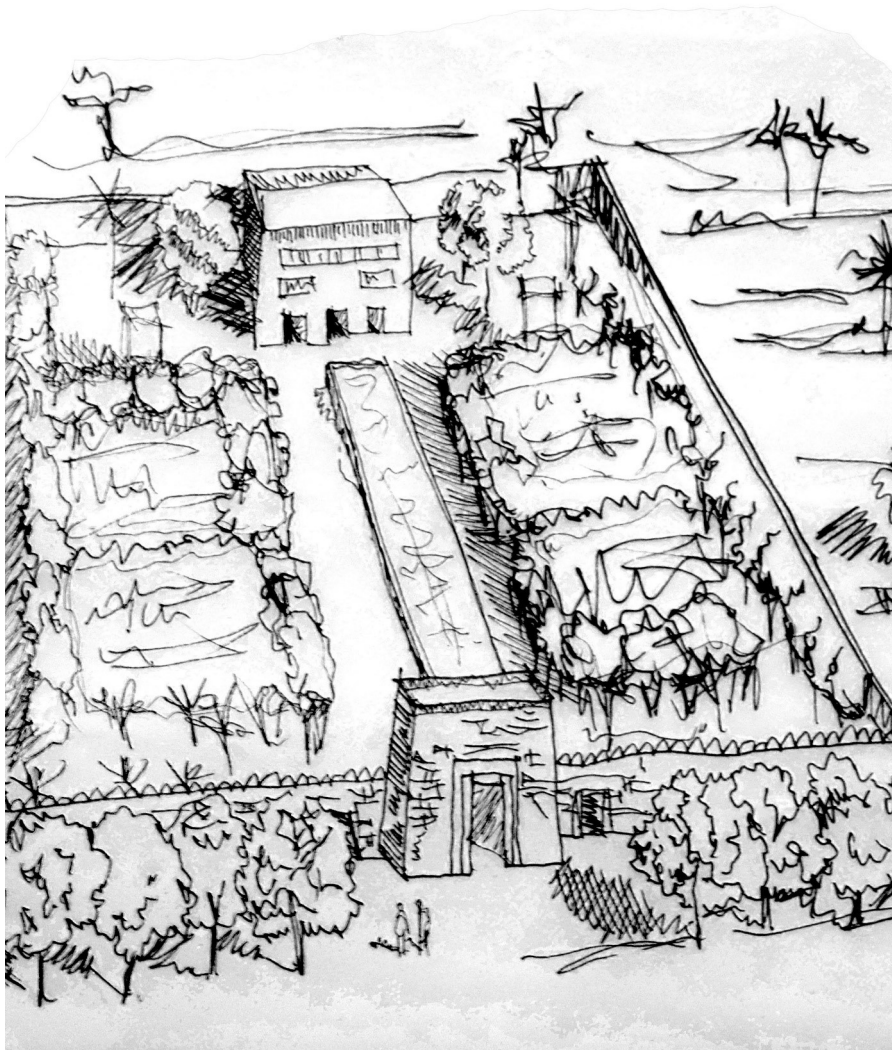


Fig. 4.4: Persian enclosed garden ((Author 2020) adapted from Walsh 2014)

In an enclosed space, the sky plane is particularly important. The primary element that then comes from the sky plane, an open sky plane to be specific, is light. Figure 4.5 therefore explores a closed sky plane with openings for the interior spaces of the interior. Figure 4.5 illustrates a model exploring the idea of a forested area with small openings allowing for a trickling of light below the tree canopy. The model was built with small perforations to act as the openings in a forested area and a light source was used to explore the light quality of the enclosed space. The light source was moved at different points to explore its effect on the spatial and experiential quality of the 'enclosed space'.



Fig. 4.5: Light passing through the perforations at different angles (Author 2020)

The following essay investigates the arts in the inner-city and art as a medium of urban regeneration.



Fig. 4.6: Exploring the wall plane as a light (Author 2020)



Fig. 4.7: Exploring the wall plane as a light (Author 2020)



Fig. 4.8: Exploring actual plants as a wall plane and the perforation of light through the plants (Author 2020)



## 2. ART AND THE CITY

Art history in South Africa has gone through various paradigms, from the 4000 years old rock art exhibitions of the San bushmen, the exploratory painting of the colonial artists, the political resistance art against the Apartheid state and the post-apartheid conceptual art explorations. One thing that remains prevalent throughout these artistic paradigms, is the subjective of experience, expression and perspective.

### Art history

Colonial art, a depiction of the 'new world', was produced as a visual report and scientific analysis of the South African landscape, peoples, fauna and flora to communicate the conditions and environment of the 'newly discovered' world . (See figure 4.9)

In the early 1900s, art was an elitist commodity, enjoyed as a projection of the colonial mythology on the South African context. Art history, at this point in time, was still very Eurocentric with the stylistic accentuation of the post-classical Western art development. In the old Transvaal Republic, art history was focused primarily on the High Dutch styles. This High Dutch stylistic focus can be credited to the importation of Dutch professionals in the late 1800s from the Netherlands, as part of former president Paul Kruger's vision to turn the Transvaal into a 'model state'



Fig. 4.9: *Elephants Charging over Quartos Country* by 19th century artist Thomas Baines (Brand South Africa 2017)

(Hollenbach 2015), and their architectural design aesthetics. This can be seen through the architecture of the time, mainly the Wilhelmiens stylistic architectural style observed in the Staatsmuseum and the paintings of JH Pierneef (see figure 4.10) who portrayed Afrikaner nationalist ideology. The early 20th century also saw the publication of some South Africa's earliest arts and architectural books. These books were written by 'amateurs' interested in the arts and particularly in African art, such as the pre-historic paintings of the San bush peoples, and this was an



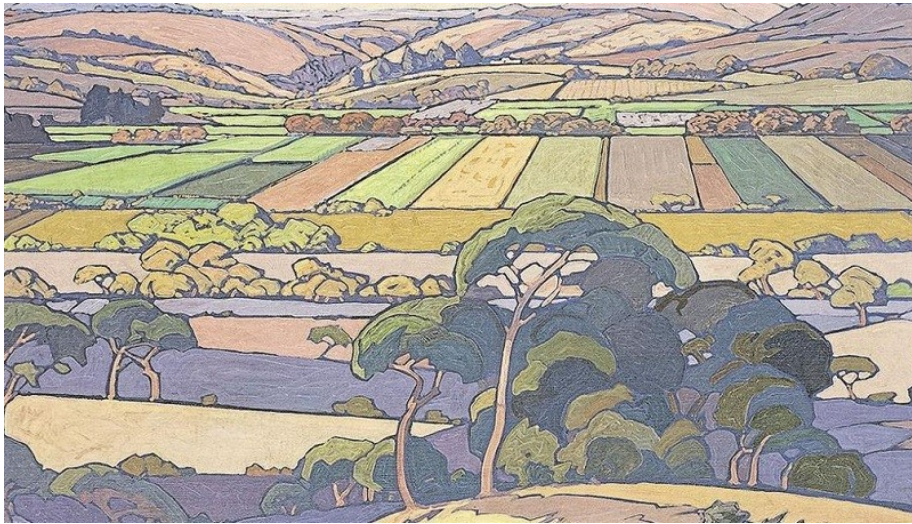


Fig. 4.10: *An extensive view of farmlands* by 20th century South African artist Pierneef (Brand South Africa 2017)



Fig. 4.11: *Mantis Man* by 20th century South African artist Walter Battiss (Brand South Africa 2017)

indication of the South African Arts' move from the modernist form-orientated nature of the elitist, high art (Duffey 1996:113).

Arts' move from the modernist form-orientated nature of the elitist, high art (Duffey 1996:113).

During this time, in the 1930s, emerging Black artists such as George Pemba (see figure 4.12) depicted their realities and contexts in mainly expressionist styles to portray the unacknowledged Black culture (Brand South Africa 2017). The awareness, interest and acknowledgement of African forms influenced the way in which artists, particularly White South African artists, interacted with the African landscape and their

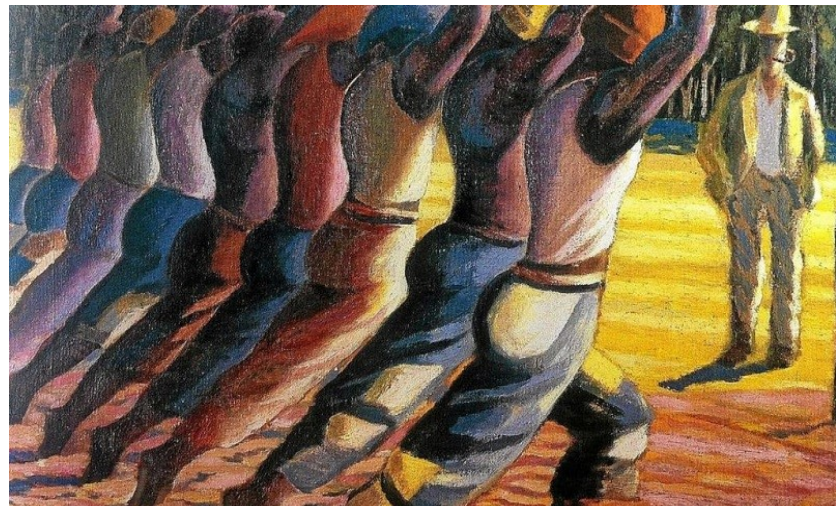


Fig. 4.12: *Song of the Pick* by 20th century South African artist Gerard Sekoto (Brand South Africa 2017)

individualistic adaptations drawn from the forms, textures and various stimuli (see figure 4.11).

The Apartheid years, especially in the years of resistance against its governance and state, saw the art focus move from an expression of idealistic curiosity and at times oblivion, to an expression of political sensibility and protest. This is seen through the expressionist drawings by William Kentridge which were intended to expose the ironies and of expression will continue to be even in the future and the urban fabric should to celebrate and enhance it, instead of restricting the

demographic to which art is made available. Examples of such celebratory urban initiatives are found in CoT's inner-city, such as the 012 Central Art Walk tour, which takes people around the inner-city to showcase street art.



Fig. 4.13: Street art observed in the inner-city (Author 2020)



## Explorations

As an exploration of the representation of nature through artistic techniques, in the city and hortus conclusus, the dissertation explores and considers mass and void and movement and light.

Inspired by the works of minimalist conceptual-based artist and sculptor Fred Sandback, the project explores the abstraction and reductionist approach of interpreting nature in small urban open spaces and, more specifically, the interpretation of landscape and nature in a building.

Figure 4.14 explores the abstraction of the mass and void found in a thicket. Here the string is used to represent the thicket and the openings represent the openings between a thicket through which people move.

Figure 4.15 (see overleaf) explores the abstraction of a forest. The lines represent the light trickling through the openings from the tree tops and foliage. These streaks are used to define and guide spatial use, similar to the exploration in Figure 4.14.

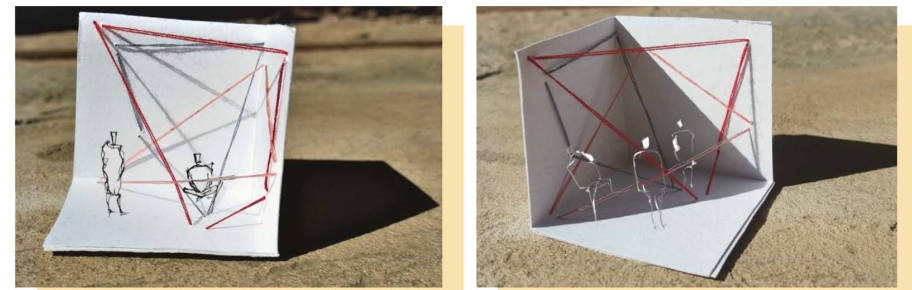
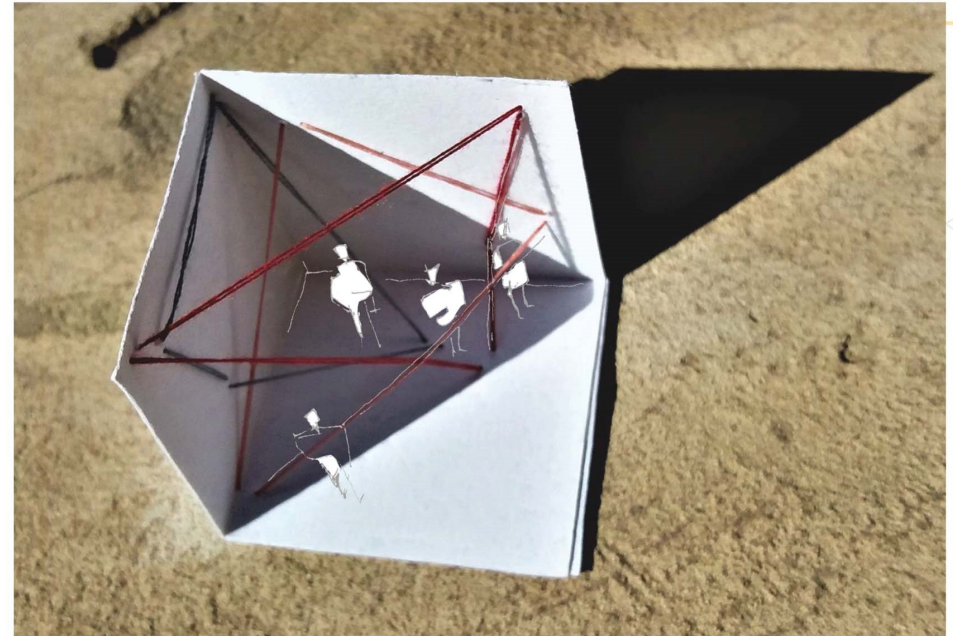


Fig. 4.14: Exploration of a thicket through abstraction (Author 2020)

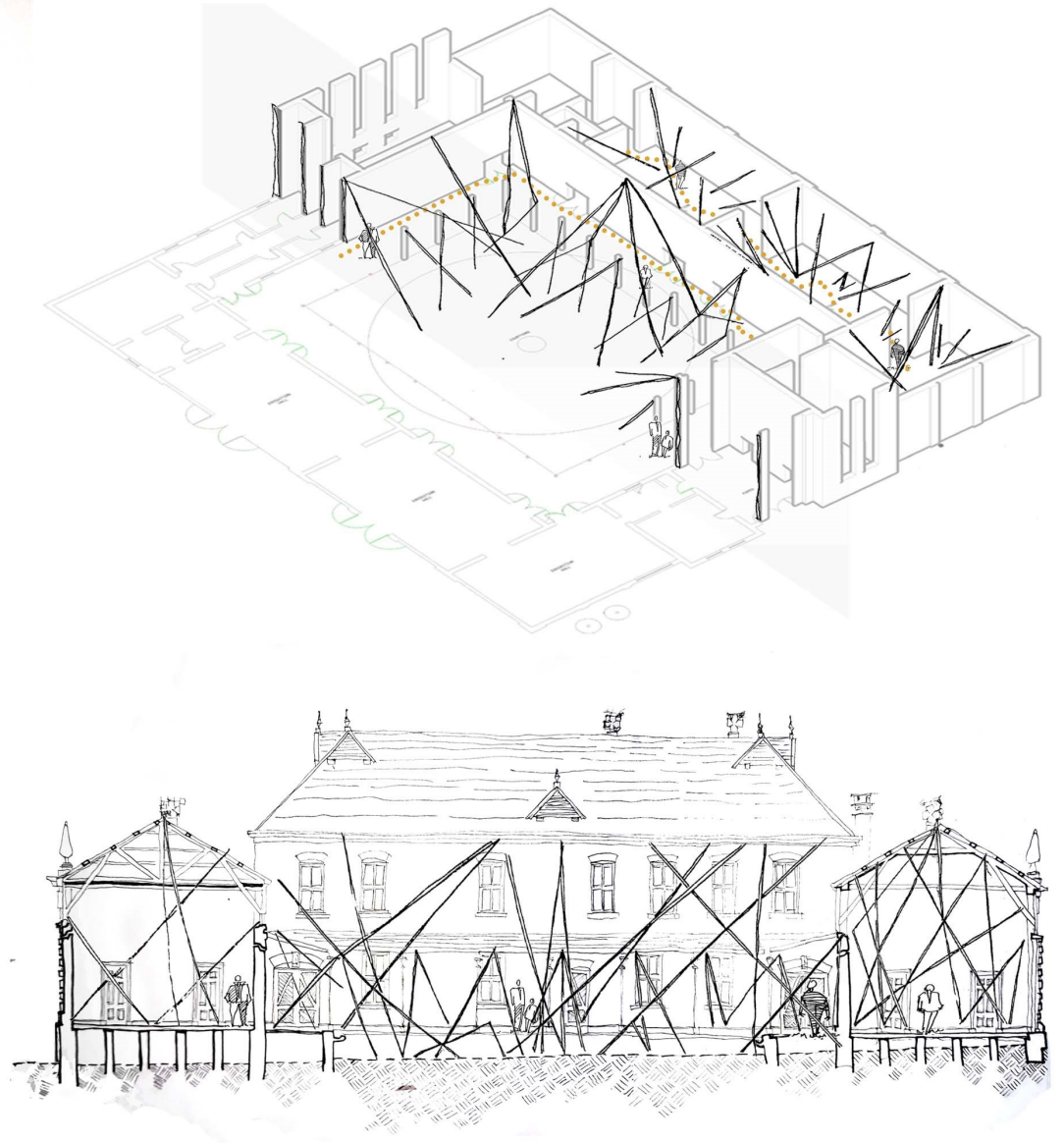
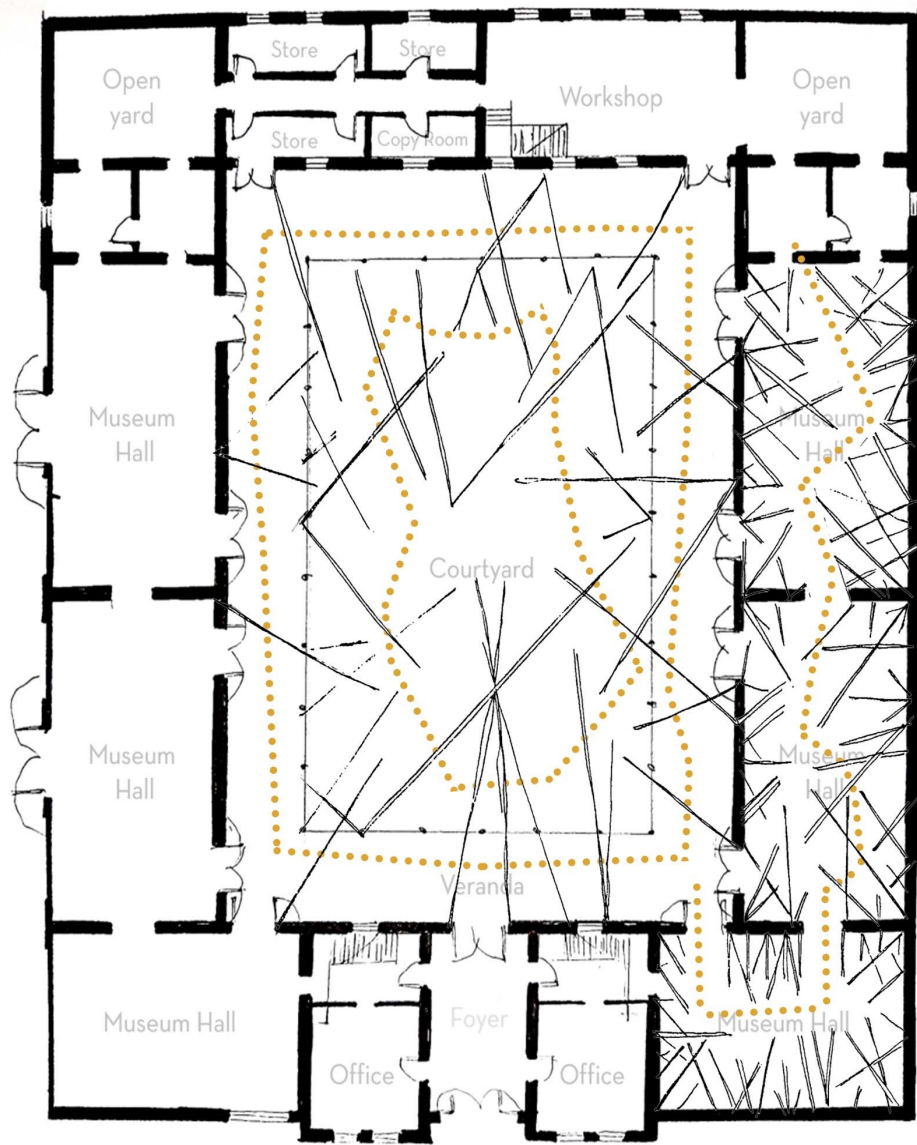
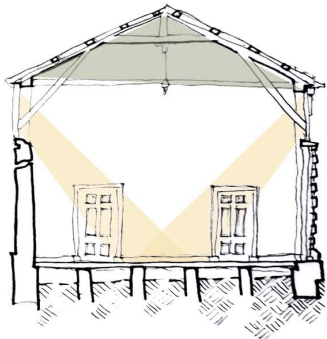
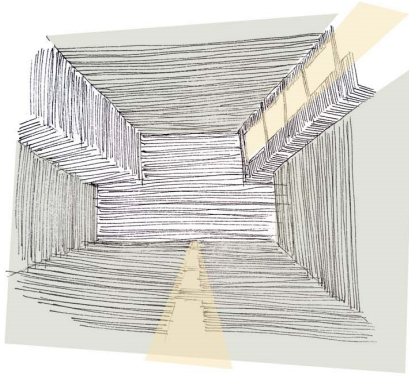
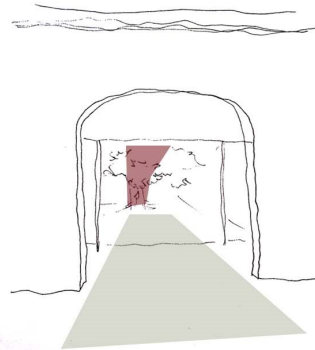
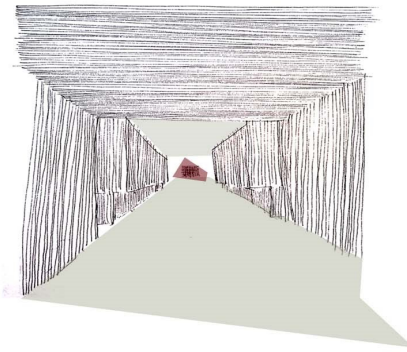
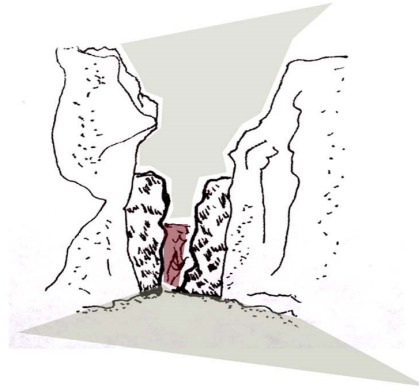


Fig. 4.15: Exploration of a forest through abstraction (Author 2020)

**CLERESTOREY | CLEARING**



**THRESHOLD | RIVERINE**



**ENCLOSED GARDEN | GROVE**

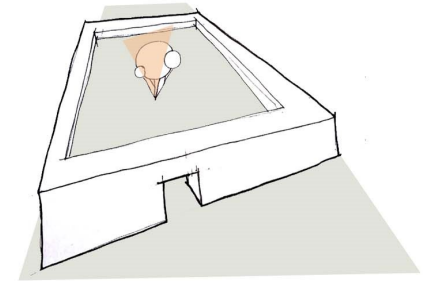
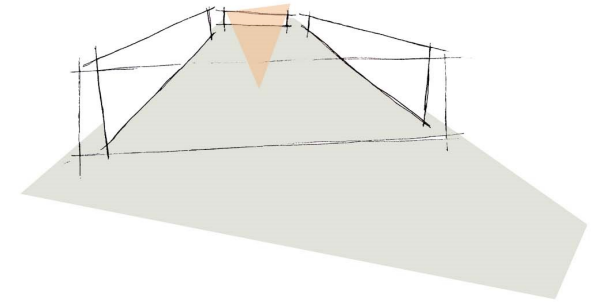
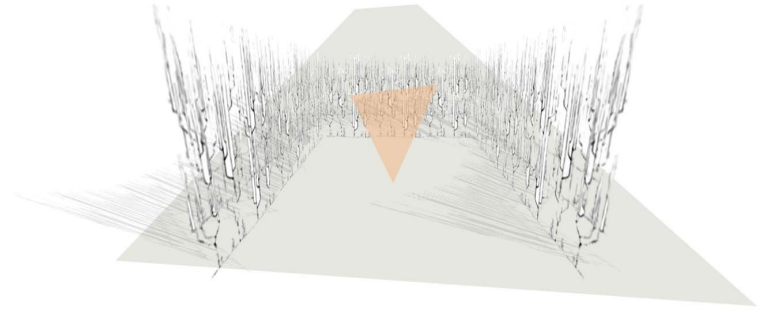


Fig. 4.16: Exploration of the interpretation of architectural spatial qualities as natural spaces or environments (Author 2020)



### 3. THE REPRESENTATION OF NATURE

#### Constructing Nature

The representation of nature over the years has been highly influenced by human relationships with nature, and their perception and understanding of nature. This can be seen through the various modes of artistic representation that exist throughout history, some which are explored in this essay. According to Bozal (2000) the theme of nature, which is often considered elusive and unattainable, in the creative arts has been treated in either a mythical manner or it has been perceived as the “very framework of existence”.

The essay starts in the 1600s, exploring the representation of nature through abstraction and the iconography of nature (i.e. flowers) in the traditional Persian rugs and carpets (refer to Figure 4.17). The first Persian rug is from the BC times although it has endured various depiction in history. These carpets were designed to represent the mythical walled Persian gardens. This bird’s eye-view depiction of nature, which according to Baker (2018:3) were influenced by the traditional Islamic designs and garden layouts, intricately represents water channels, plants and the garden layout. Figure 4.17, through the use of expressing trees in elevation tries to convey the spatial quality of the garden as it would be experienced by the visitor.



Fig. 4.17: Persian carpet from 1670-1750 (Baker 2018:4)

In Ancient Greek and Roman times expressions of nature can be seen through their architectural details such as the detailing of Corinthian columns. The Corinthian columns were used to depict the Acanthus plant leaves, its foliage and different flowers. The columns used very decorative motifs to depict nature, see Figure 4.18.



Fig. 4.18: Ancient Greek Columns by Dorling Kindersley (Craven 2019)



Fig. 4.19: A picturesque garden William Kent (McDowall 2013)



Fig. 4.20: *Wanderer above the Sea Fog* by Caspar David Friedrich (Wikipedia 2020)

During Romanticism, the expression of nature was explored by representing nature as untamed as it is in the wild and unadorned. This can be seen in the gardens designed by William Kent (Figure 4.19) and the paintings of Caspar David Friedrich such as the *Wanderer above the Sea Fog* (Figure 4.20)



Fig. 4.21: An iris vase by Emile Gallé (Bodt 2000)

19th century English and French art explored nature through decoration of functional items such as lamps and vases. Floral motifs were prevalent during this time as seen through the works of glassmaker and decorator Emile Gallé (Figure 4.21).

Italian renaissance gardens explored the link between gardens and architecture. They abstracted nature employing formal and symmetrical styles which were organised around a central axis which created a clear division in the garden (Figure 4.22). The axis crossed both the chateau and the garden, ensuring that the gardens were visible from the main building (Babelon 2000:26).



Fig. 4.22: The Maltese garden at Queluz, Portugal by J.B. Leroux (Babelon 2000)



Japanese gardens also employed abstraction to represent nature. This is particularly seen in the Japanese dry garden (Karesansui), where symbolism was the primary design guide for their compositions of untamed and unadorned nature. With the aim of creating contemplative spaces, these gardens were designed simplistically (Figure 4.23).

### Conclusion

The expression of nature throughout the years, influenced by culture and art, has resulted in multiple examples of the depiction of nature. The construction of nature has therefore reflected the human understanding and perception of nature.

The dissertation explores the representation of nature for both interior and exterior spaces, due to the nature of the site. With a Landscape Architectural approach to the regeneration of the site, the dissertation explores the link and design continuation of design language between the interior and exterior spaces

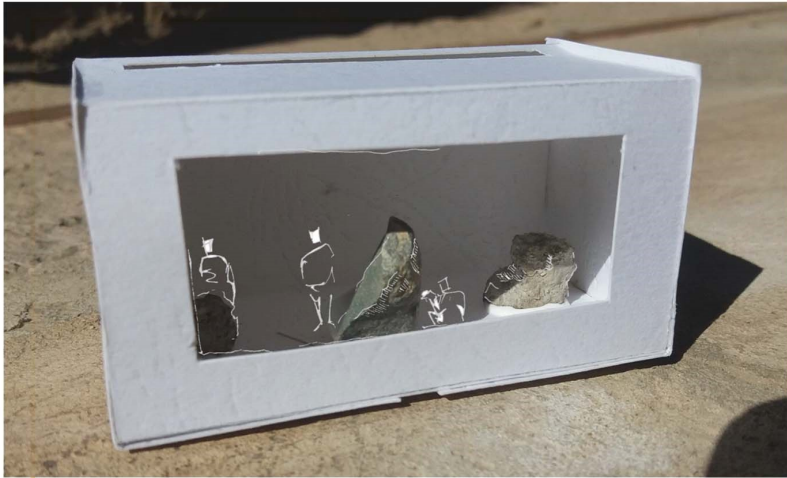
Due to the structural ambiguity of the interior spaces, however, the introduction of living matter in these spaces is not viable. The representation of nature in the Staatsmuseum is therefore explored through abstraction. As a continuation of the project's design language in both the interior and exterior spaces, the style of abstraction will therefore be articulated in the outdoor designs as well.



Fig. 4.23: The minimalistic style of the Japanese dry garden (Ofdesign.net n.d.)

### Explorations

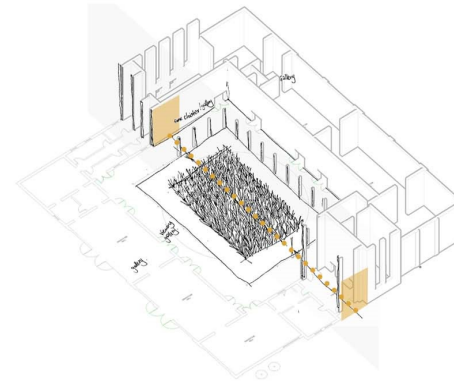
Figure 4.24 illustrates an exploration of the construction of nature in the city and hortus conclusus. It illustrates the abstractionist, reductionist and minimalistic design styles of the Japanese dry garden. Exploring the principles and spatial design styles of this garden design type throughout the Staatsmuseum, Figure 4.24 explores the spectator nature that the Japanese dry garden visitor experiences. Here the exploration explores the spectator as an actor, where each room is treated as a garden.



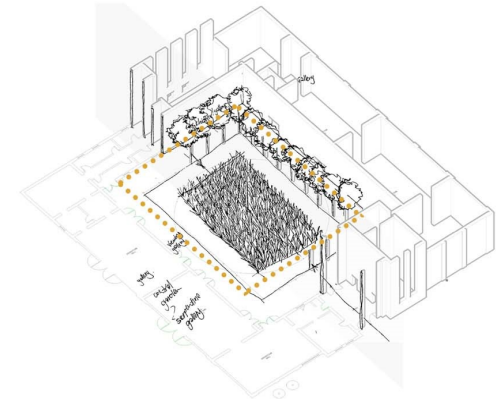
Spectator of space  
Experiencing space and objects in space



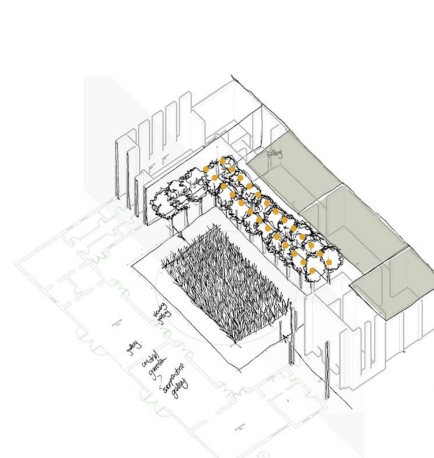
Spectator as actor



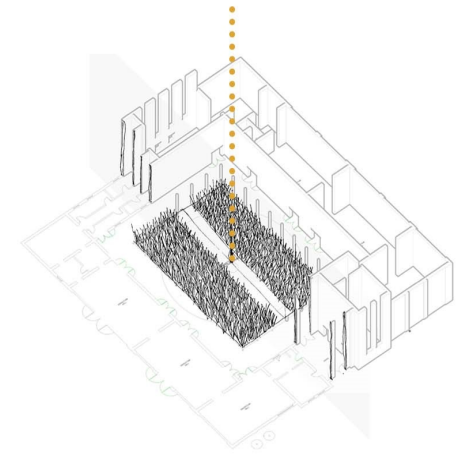
Datum - central spine of the design



Interior boundary



Tree avenue as cloister and wall  
Gallery spaces - enclosed gardens



Centrality

Fig. 4.24: Exploration of the karesansui and the site as a series of indoor gardens (Author 2020)



# **Design Development**



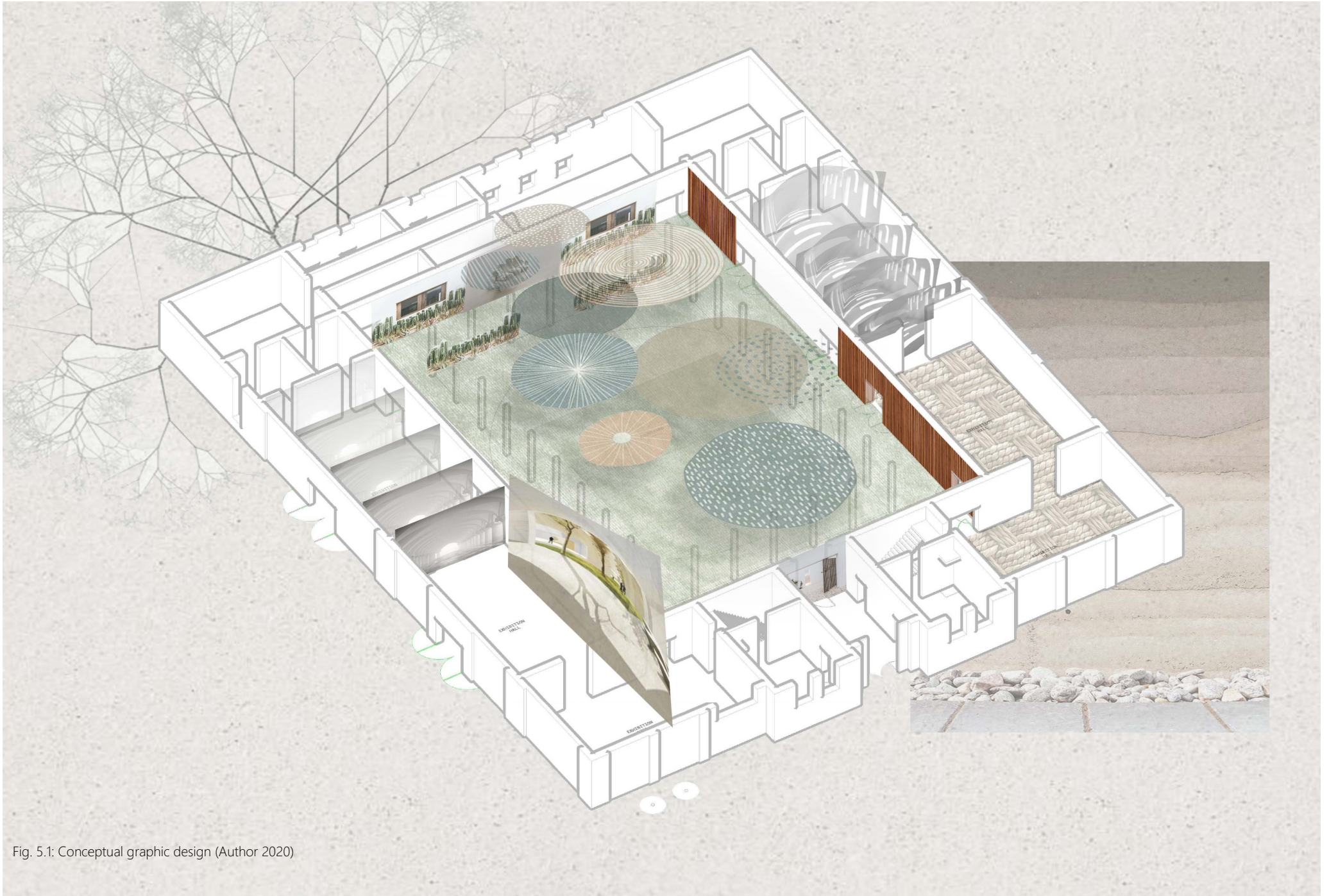


Fig. 5.1: Conceptual graphic design (Author 2020)

## CHAPTER 5 - Design Development

### 5.1 RESPONDING TO THE URBAN VISION AND MASTERPLAN DEVELOPMENT

As discussed in Chapter 1, the dissertation project, situating itself within the CoT's existing 2055 Vision redevelopment proposal plan for the inner-city's urban regeneration, incorporates the proposed Northern Gateway Precinct into the proposed urban vision. The dissertation, in addition to the existing redevelopment plan, proposes an Urban Acupunctural approach to the city's urban renewal.

### 5.2 HERITAGE INFORMANTS

As through the investigations of the Staatsmuseum in Chapter 2, the dissertation acknowledges the site's historical and cultural value.

Although the Staatsmuseum building has great heritage value in the CoT it has not been declared a national heritage site and is not officially under the protection of the South African Heritage Resources Agency (SAHRA). It is, however, protected by the National Heritage Resources Act 25 of 1999 (NHRA) 60-year clause (subsection 34[1]) which 'prohibits any person from altering or demolishing any structure which is older than 60 years, except under the authority of a permit by the provincial heritage authority' (National Heritage Resources Act 1999:58). In addition to consulting the NHRA, the dissertation employs the Burra Charter: the Australia ICOMOS charter for places of cultural significance 1999

(referred as the Burra Charter henceforth) as a guideline for the conservation practices, to which the design proposal for the Staatsmuseum responds.

#### Site Sensitivity

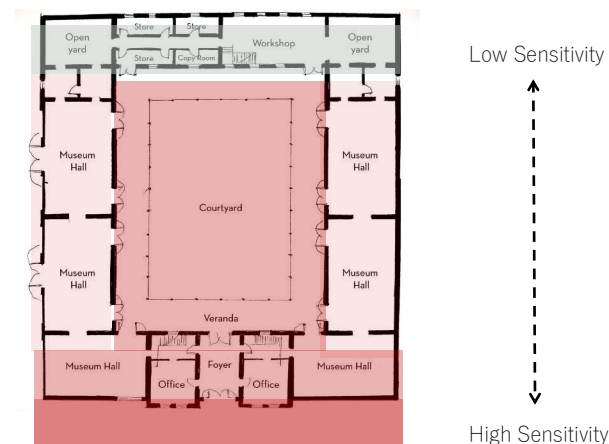


Fig. 5.2: Heritage sensitivity diagram (Author 2020)

As indicated in Figure 5.1, the building's street façade is of great architectural and cultural heritage value as it has been a landmark façade on Boom St for over 100 years.

The further north into the building the Staatsmuseum becomes less sensitive.

### 5.3 DESIGN DEVELOPMENT

Exploring the concept of an urban garden and the project's intention to rehabilitate an old heritage building through a landscape design intervention, the project explores the expression of landscapes of the interior and the exterior. However as previously discussed in the Chapter 2 and earlier in this chapter, caution is to be employed in the design approach. In addition, due to the Staatsmuseum's structural integrity being unknown, creative design approach have to be employed to ensure that a sound and feasible design is achieved.

The dissertation therefore investigates the precedents that employ minimalism and/or symbolism as design languages that can transcend the barrier of interior and exterior and be appropriate for both the interior and exterior.



#### 5.4 PRECEDENT STUDY: KARESANSUI - JAPANESE DRY GARDEN DESIGN & PHILOSOPHY | JAPAN

The Japanese dry garden, also known as the zen garden, is one of the oldest surviving garden styles in the world (Yasuka 2012). Japanese garden designs are inspired by religion and the Karesansui was influenced particularly by Buddhism. Being a very meditative and contemplative religion, Buddhism influenced the minimalist, abstract and symbolic nature of the Japanese dry garden. The minimalist design encourages contemplation and stillness.

Using symbolism and abstraction to display natural biotopes, the garden uses rocks as representations of mountains, gravel and sand as water and planting as an illustration of seasons. These gardens are usually small and enclosed, in comparison to the vast European gardens, and therefore require attentive spatial manipulation (Hoy 2018). The enclosed dry garden is designed in an exhibition-like manner as it is experienced visually, usually from a porch, encouraging subjective perceptions of space.



Fig. 5.3: Zen garden at Tofu ku-ji photographed by Chi King (Yasuka 2012)

#### 5.4 PRECEDENT STUDY: SERPENTINE GALLERY 2011 | LONDON

The Serpentine Gallery designed by Swiss architect Peter Zumthor in partnership with Dutch planting designer Piet Oudolf is an example of hortus conclusus, the enclosed and secluded garden. Zumthor's design creates a garden within a garden by enclosing his garden.

The primary spatial experience in this design is the threshold design, the experience by the visitor from the outside to the inside. Zumthor uses light and shadow to create depth and to enhance the spatial awareness of the narrow paths he employs to create anticipation of what lies before the visitor.

Upon moving through the narrow and somewhat dark threshold, the visitor steps into an open air courtyard that is full of light and Piet Oudolf's planting design.

Oudolf's signature design of seasonal gardens creates an air of temporality within the space. The seasonal changes of these plants create spatial experiences that differ throughout the seasons.

The simplicity of this design highlights the great role light, shadow and views play in the experience and resultant success of a garden space.

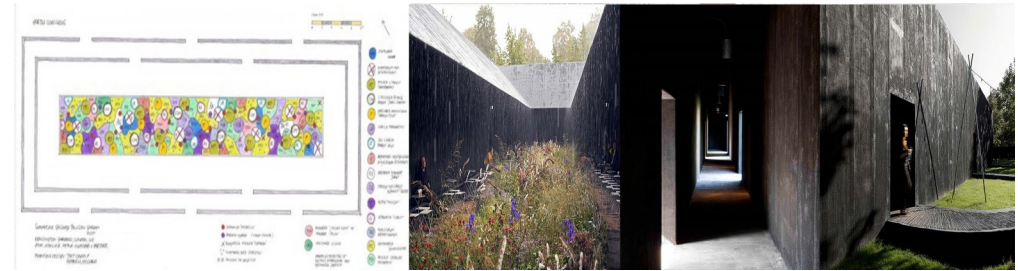


Fig. 5.4: The gallery collage by author (photographs from Serpentine Galleries n.d.)



## 5.5 DESIGN DEVELOPMENT EXPLORATIONS

The design development explorations look at the combination of art and landscape design throughout the Staatsmuseum.

Figure 5.1 explores landscape and art as composition made of layers and this is explored spatially in the rooms through light, texture, depth and perspective.

Figure 5.5 explores the connection of the courtyard to the periphery gardens through planting design.

Figures 5.6, 5.8 and 5.9 explore the abstraction and reductionist approach to representing the grassland vegetation units and their landscape features. These spaces are proposed to become permanent exhibitions.

Figure 5.7 explores the abstraction of the courtyard as a water capturing system. This space is proposed to be used for user heavy programmes such as fashion shows and listening session (music).

NATIONAL ZOOLOGICAL  
GARDENS OF SOUTH AFRICA  
'NZGSA'

VISITOR'S  
ENTRANCE

NZGSA  
BIRD HIDE

Parking

ENTRANCE  
GARDEN & VISITOR  
OVERFLOW AREA

SOUTH AFRICAN  
NATIONAL  
BIODIVERSITY  
INSTITUTE  
'SANBI'  
OFFICES

Main  
Entrance

Walkway

Walkway

Boom St



Fig. 5.5: Exploration of site design (Author 2020)

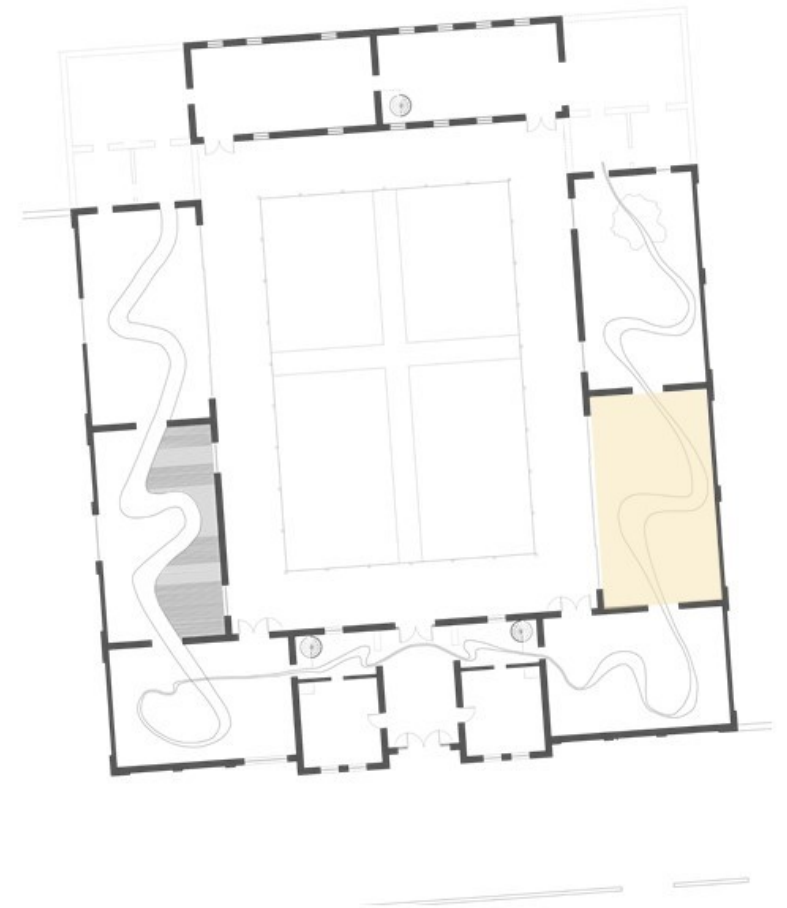
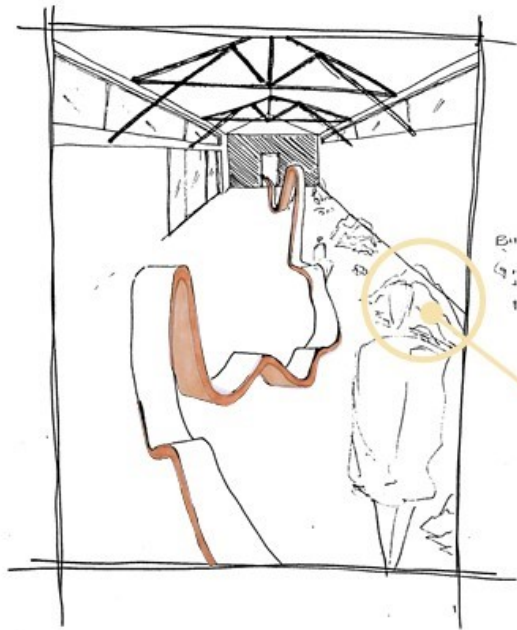
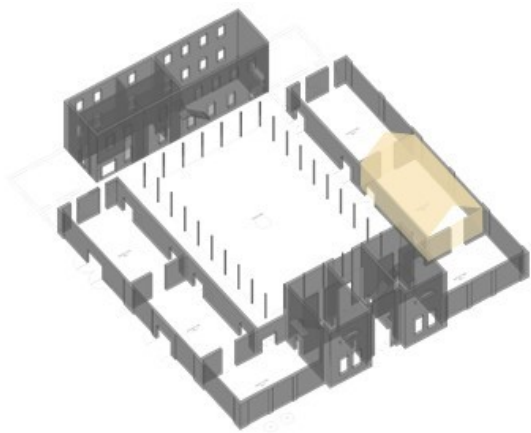


Fig. 5.6: Indoor design exploration 1 (Author 2020)

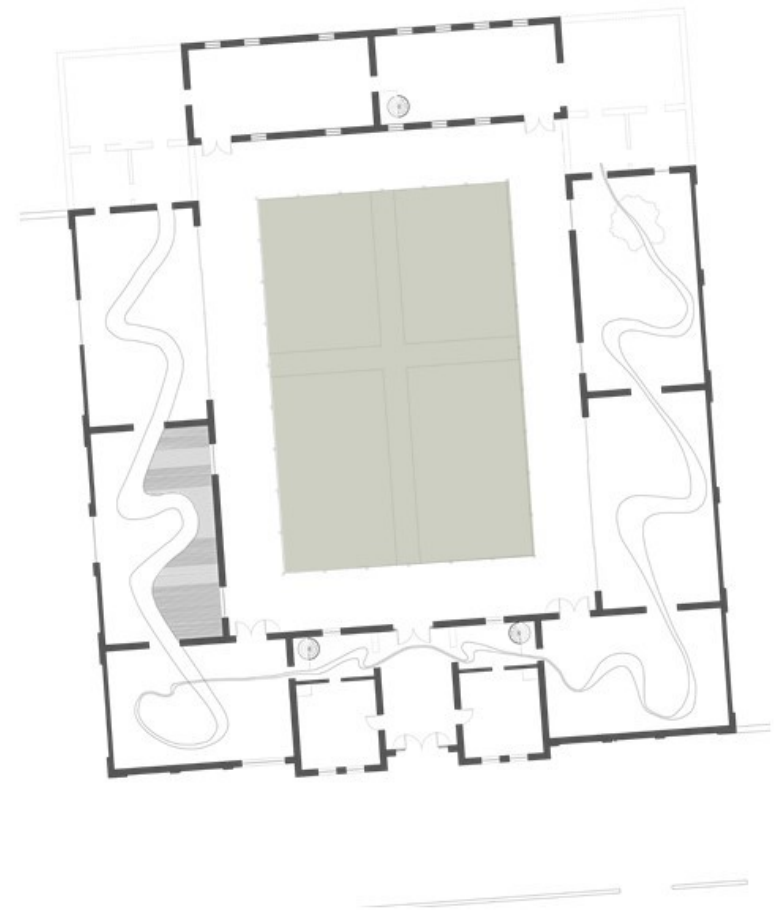
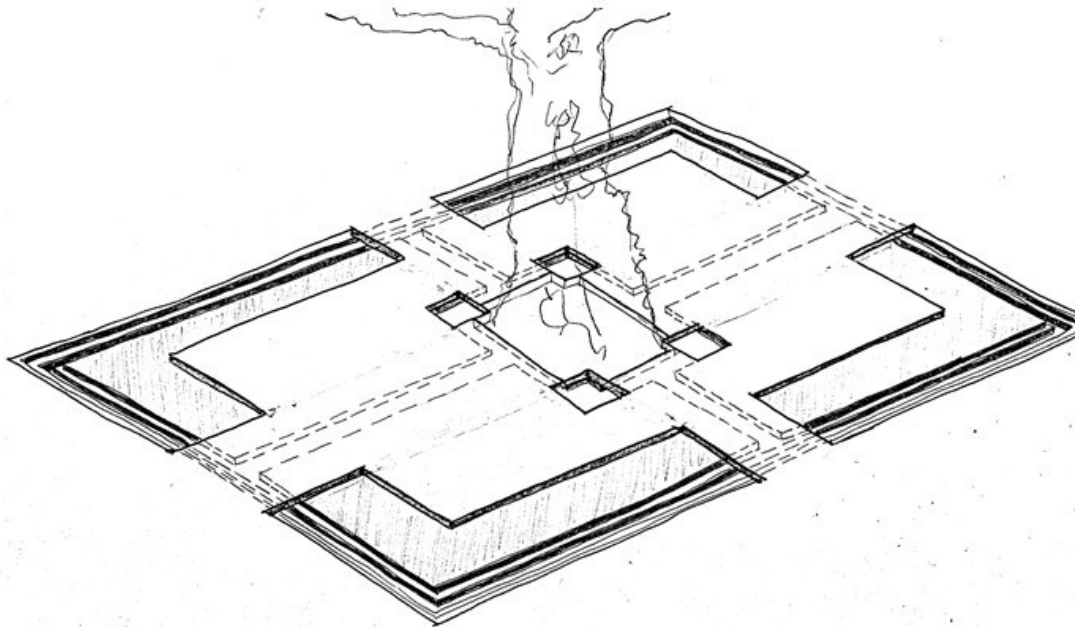
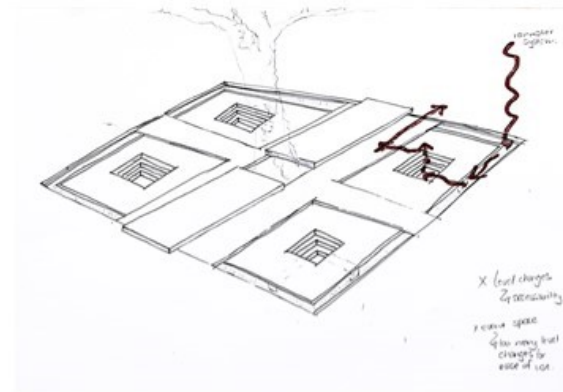
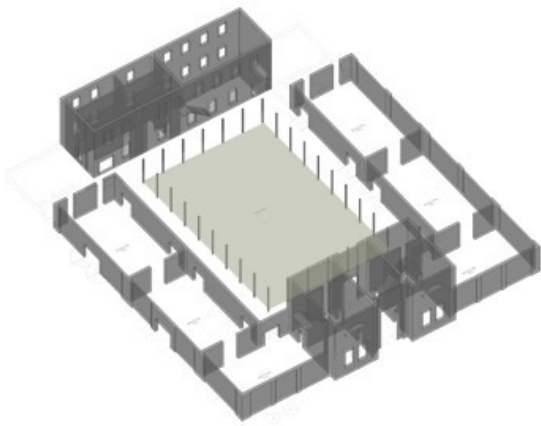


Fig. 5.7: Courtyard design exploration (Author 2020)



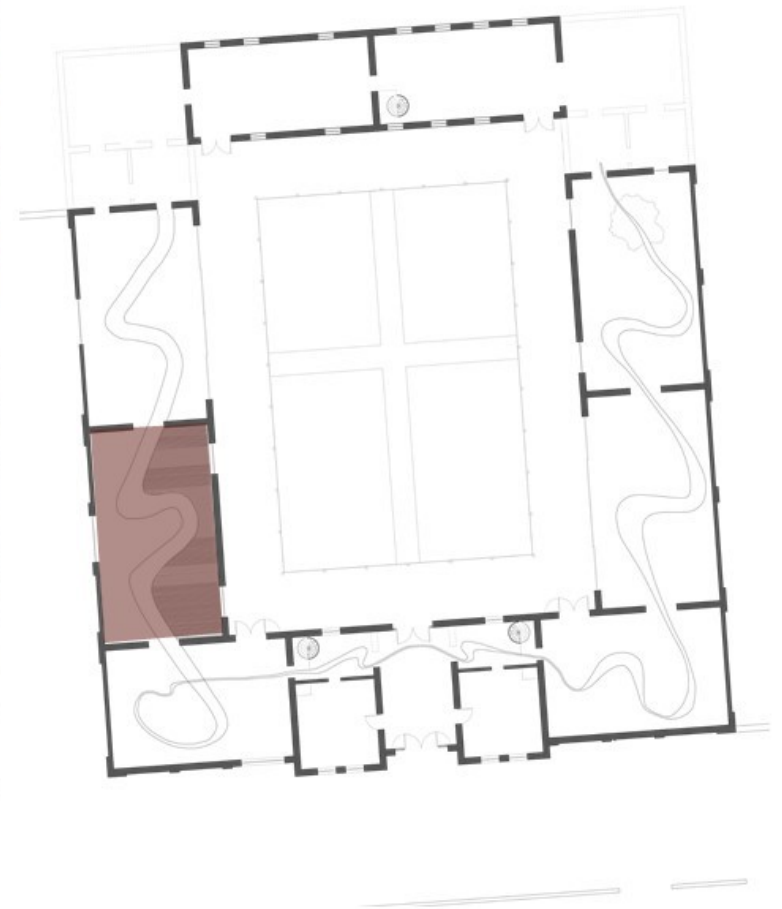
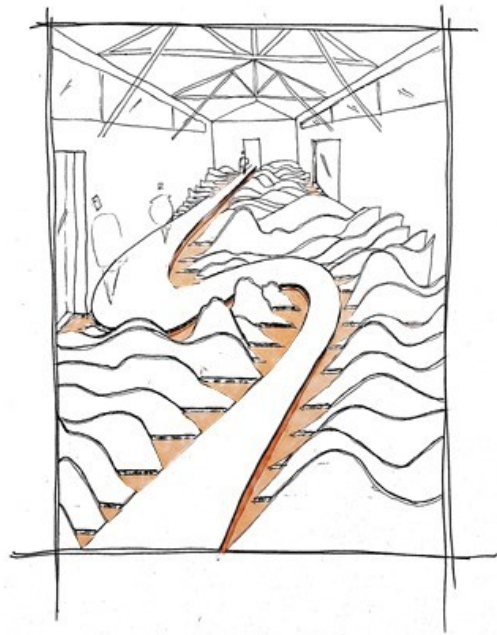
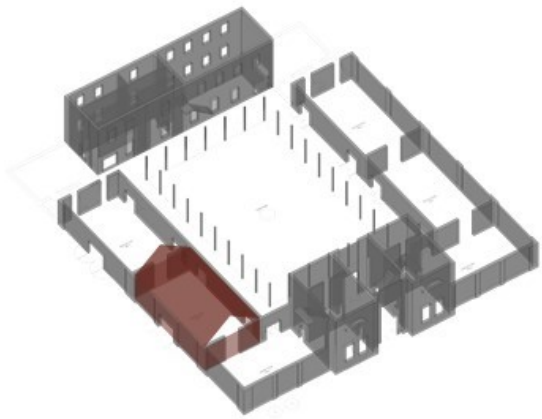


Fig. 5.8: Indoor design exploration 2 (Author 2020)

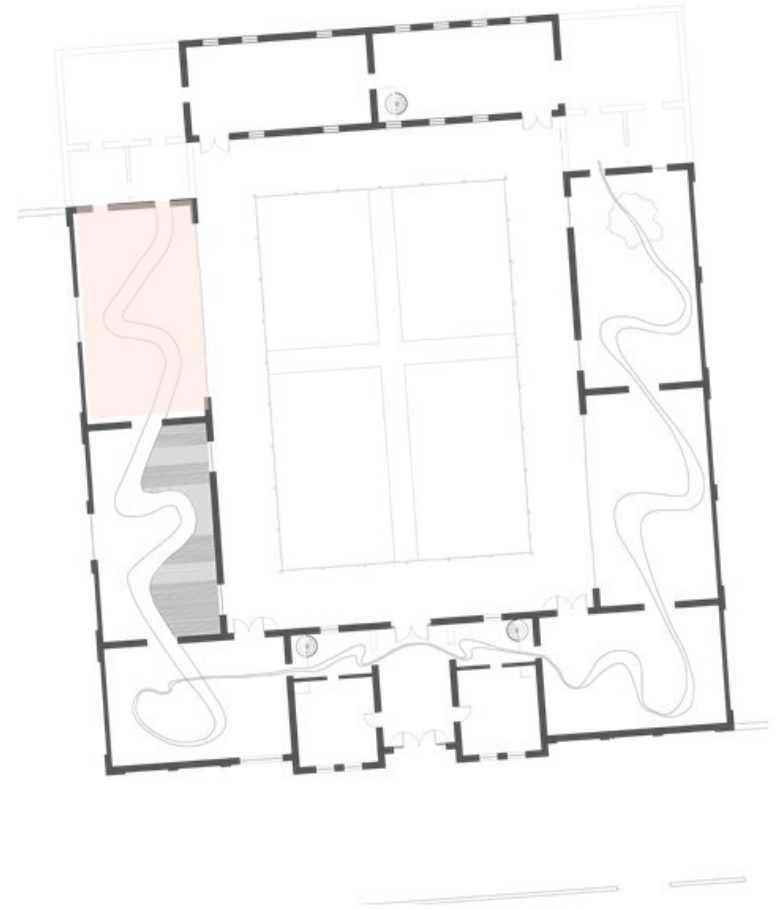
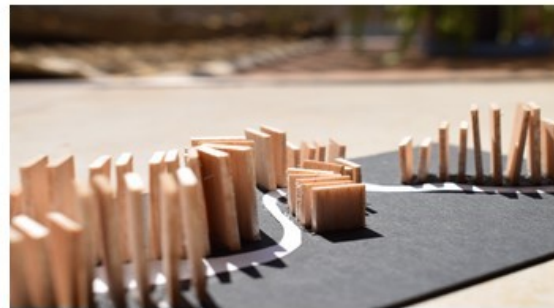
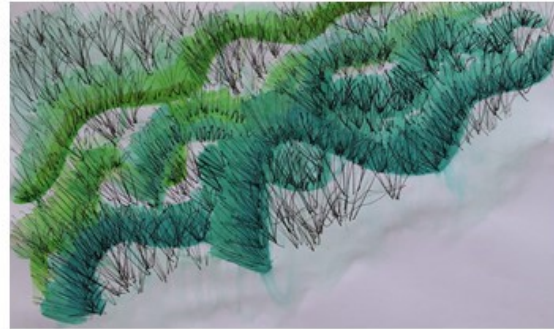
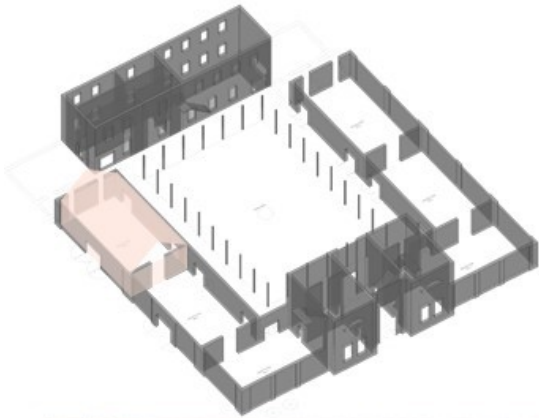


Fig. 5.9: Indoor design exploration 3 (Author 2020)



Fig. 5.10: Planting Colour Palette (Author 2020)

1:100 A0



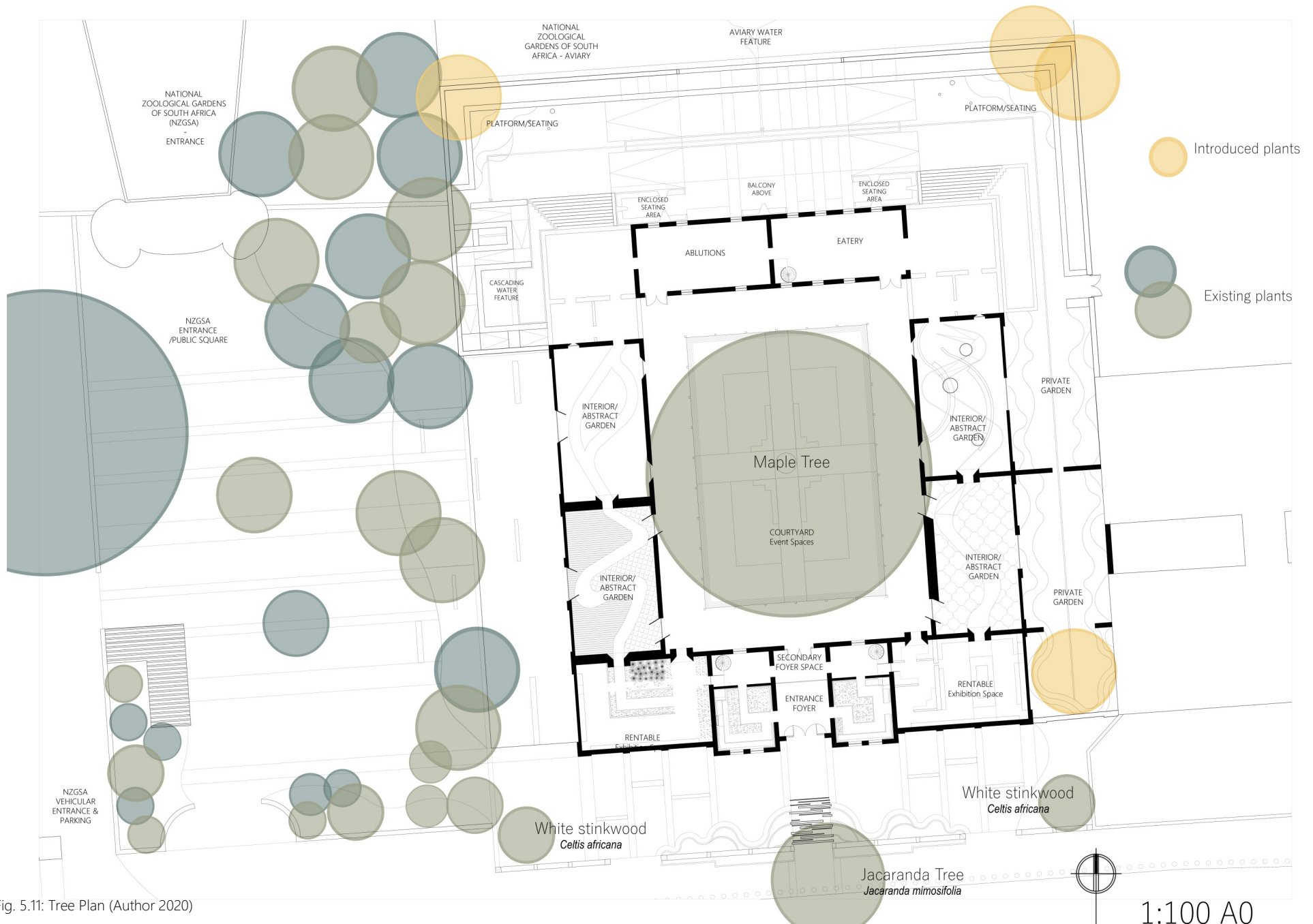
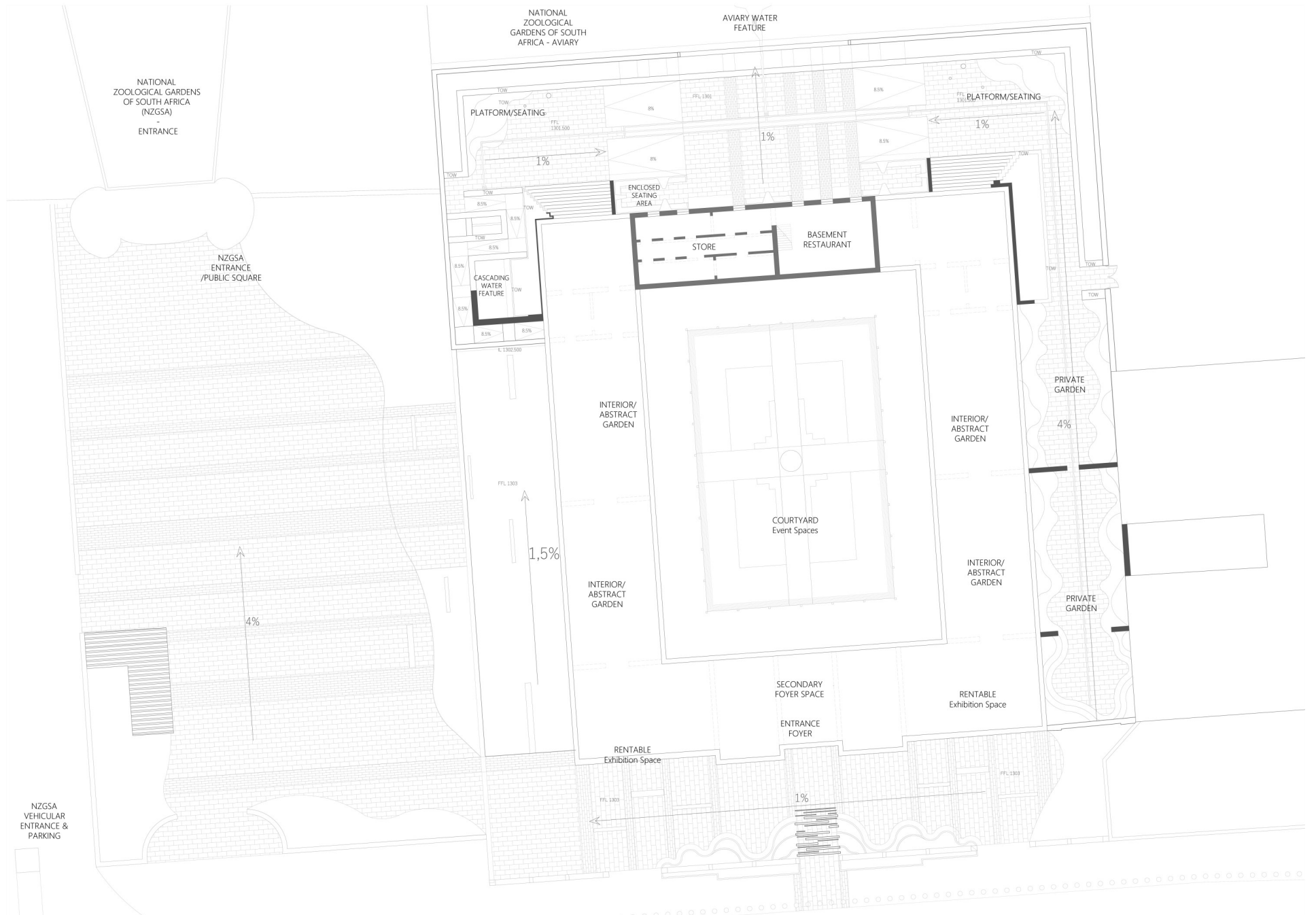


Fig. 5.11: Tree Plan (Author 2020)

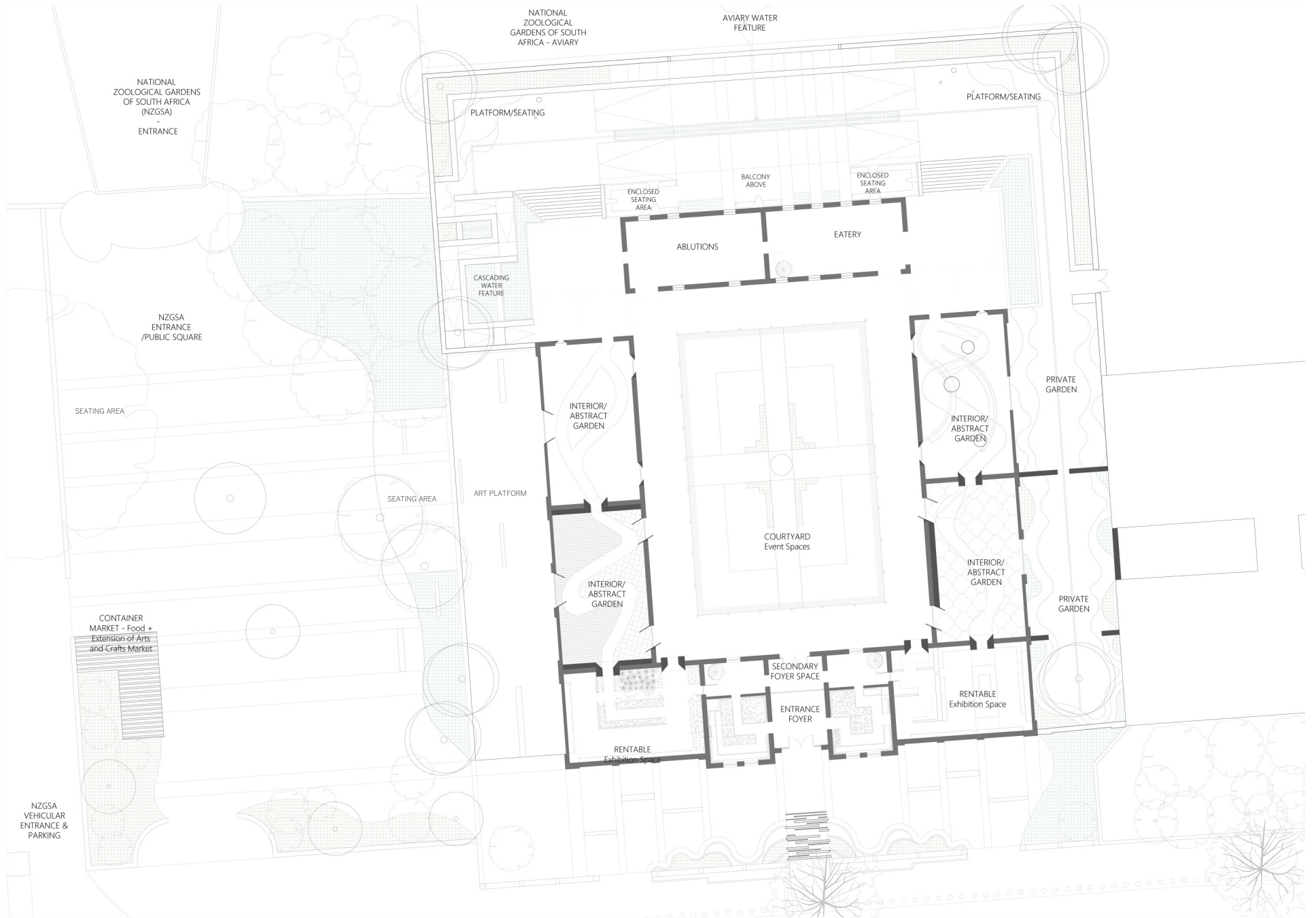




Paving Plan

Fig. 5.12: Paving Plan (Author 2020)

1:100 A0



Planting Plan Fig. 5.13: Planting Plan (Author 2020)

1:100 A0



Elevation of the Staatsmuseum North Wing (existing condition)

1:100  
A1

Fig. 5.14: Existing Elevation of the Staatsmuseum North Wing (Author 2020)



Elevation of the Staatsmuseum North Wing (proposed design)

1:100  
A1

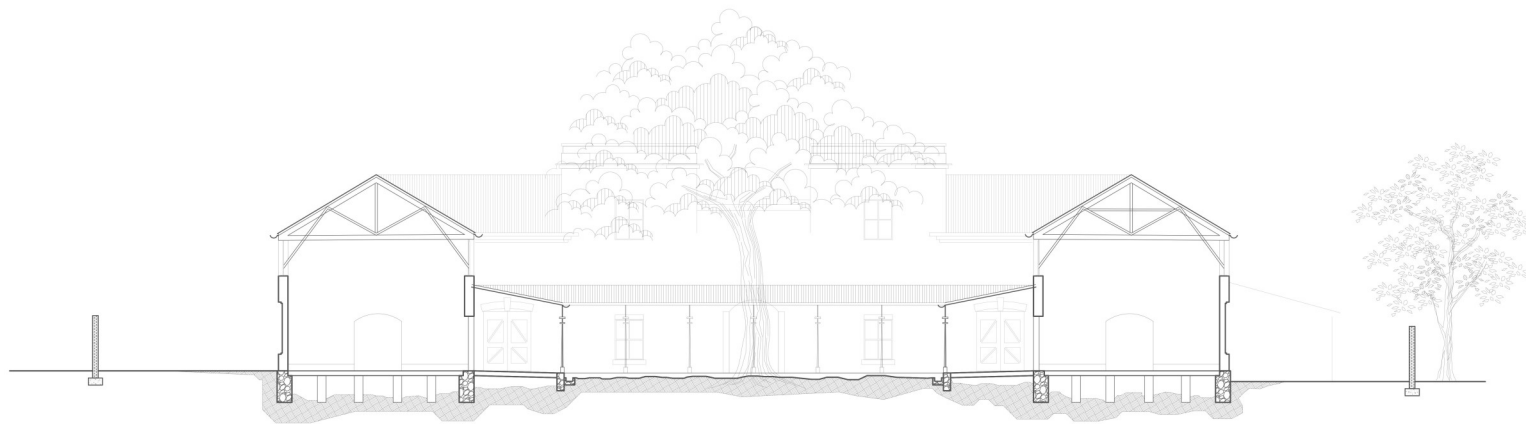
Fig. 5.15: Proposed Elevation of the Staatsmuseum North Wing Design (Author 2020)



Fig. 5.16: Proposed Elevation of the Staatsmuseum North Wing Design 1:20 (Author 2020)



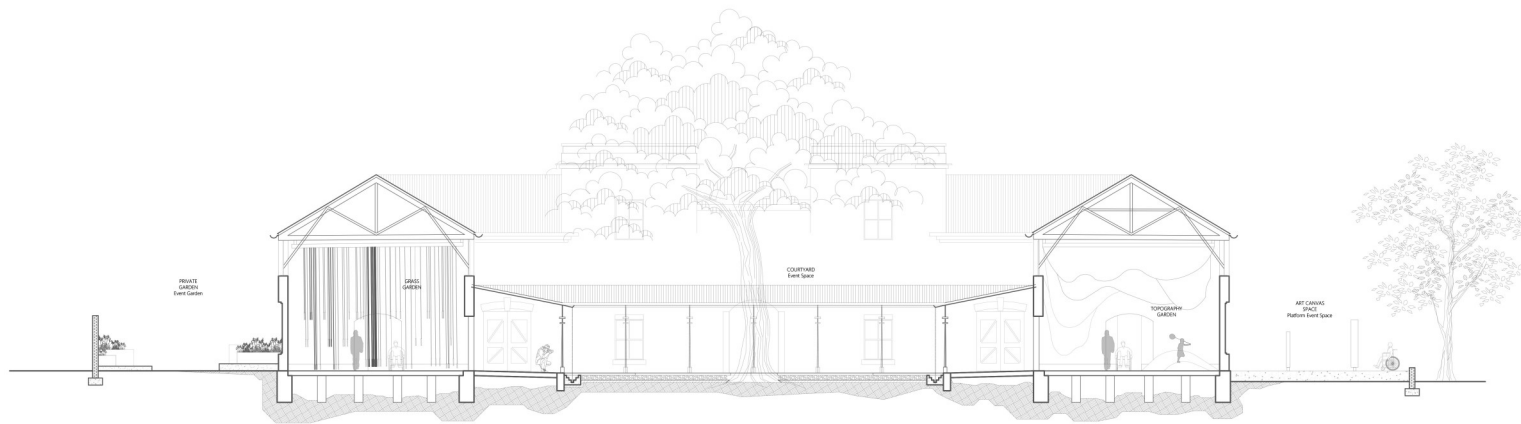
Fig. 5.17: Proposed Elevation of the Staatsmuseum North Wing Design 1:20 (Author 2020)



Section B-B: Elevation through the Staatsmuseum from the east end to west end (existing condition)

1:100  
A1

Fig. 5.18: Existing Section from east wing to west wing through Staatsmuseum (Author 2020)



Section B-B: Elevation through the Staatsmuseum from the east end to west end (proposed design)

1:100  
A1

Fig. 5.19: Proposed Section from east wing to west wing through Staatsmuseum (Author 2020)



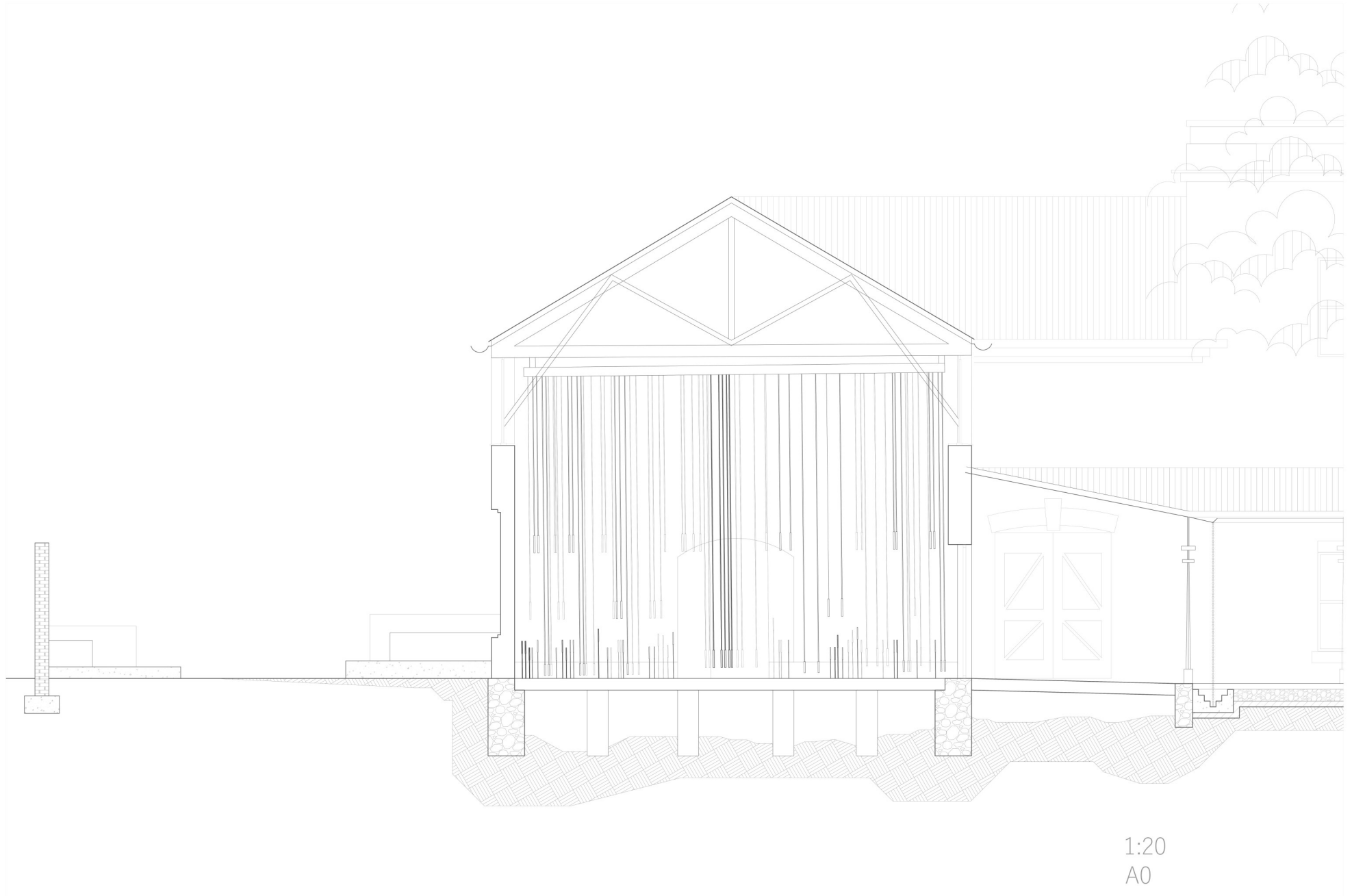


Fig. 5.20: Proposed Section from east wing to west wing through Staatsmuseum 1:20 (Author 2020)

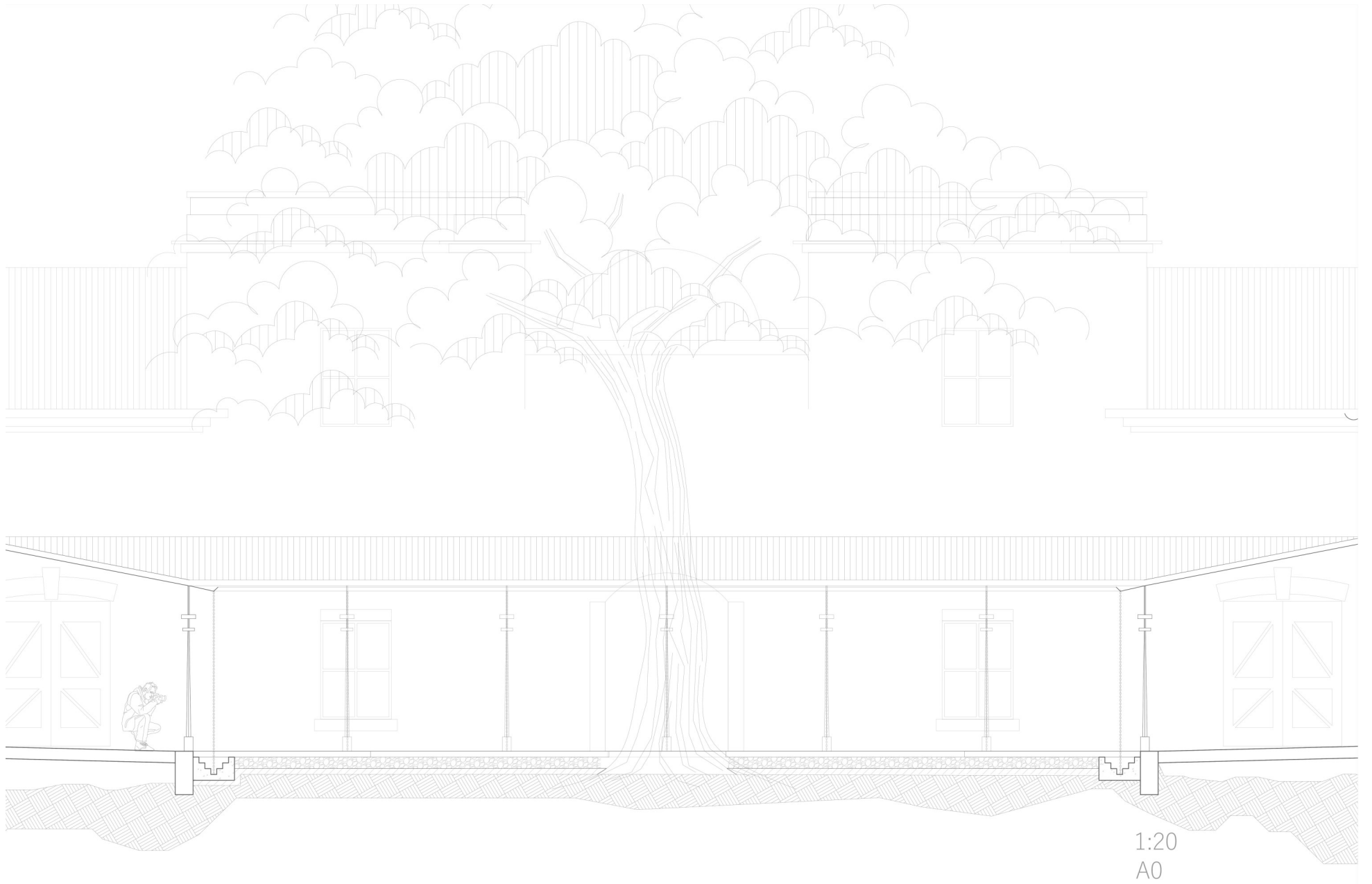


Fig. 5.21: Proposed Section from east wing to west wing through Staatsmuseum 1:20 (Author 2020)

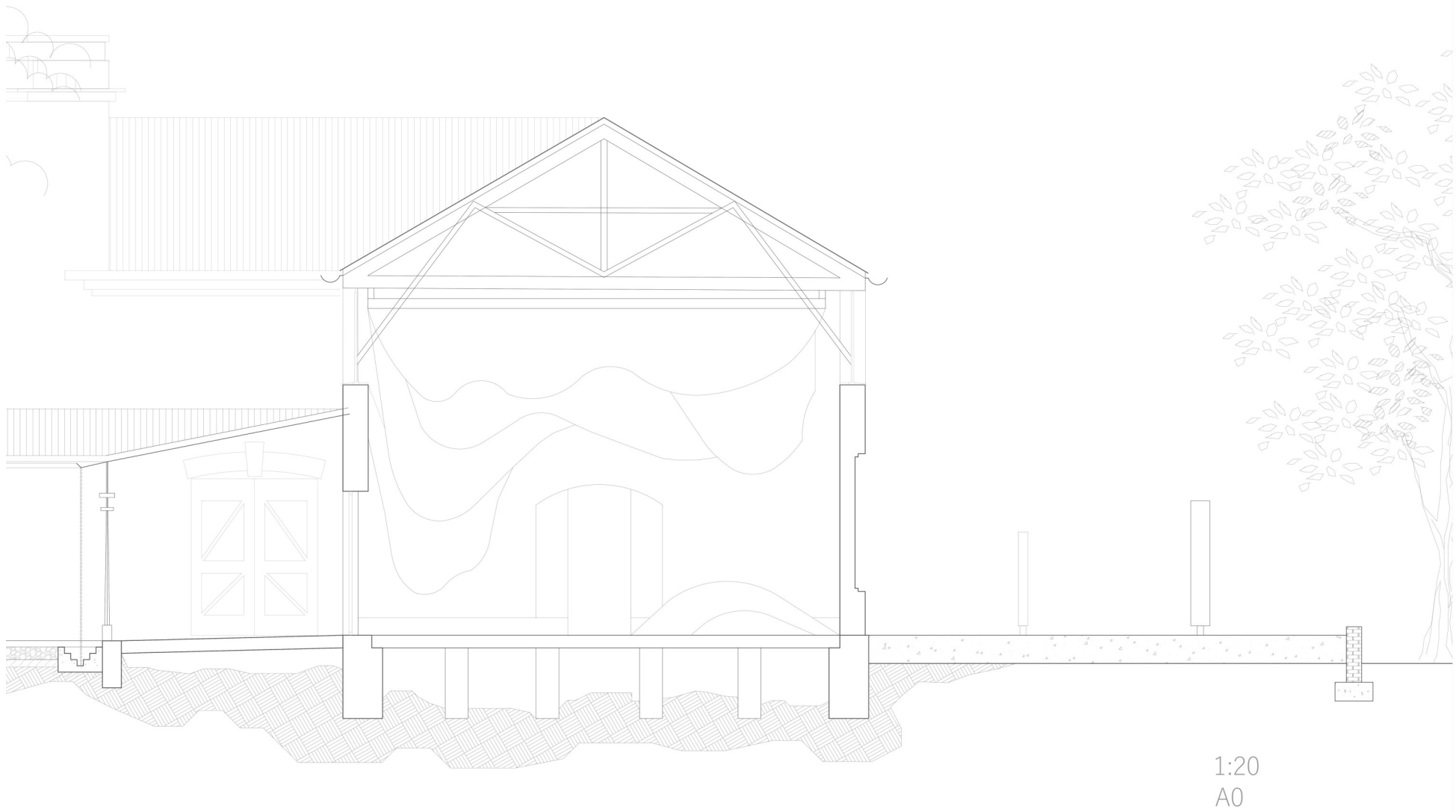
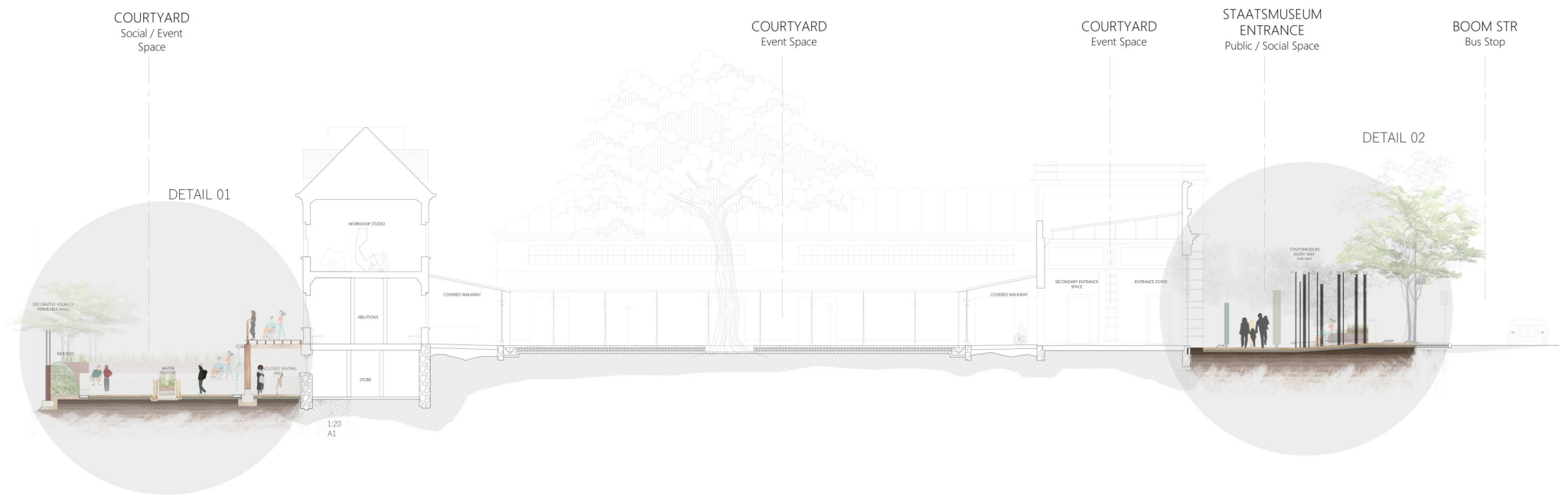


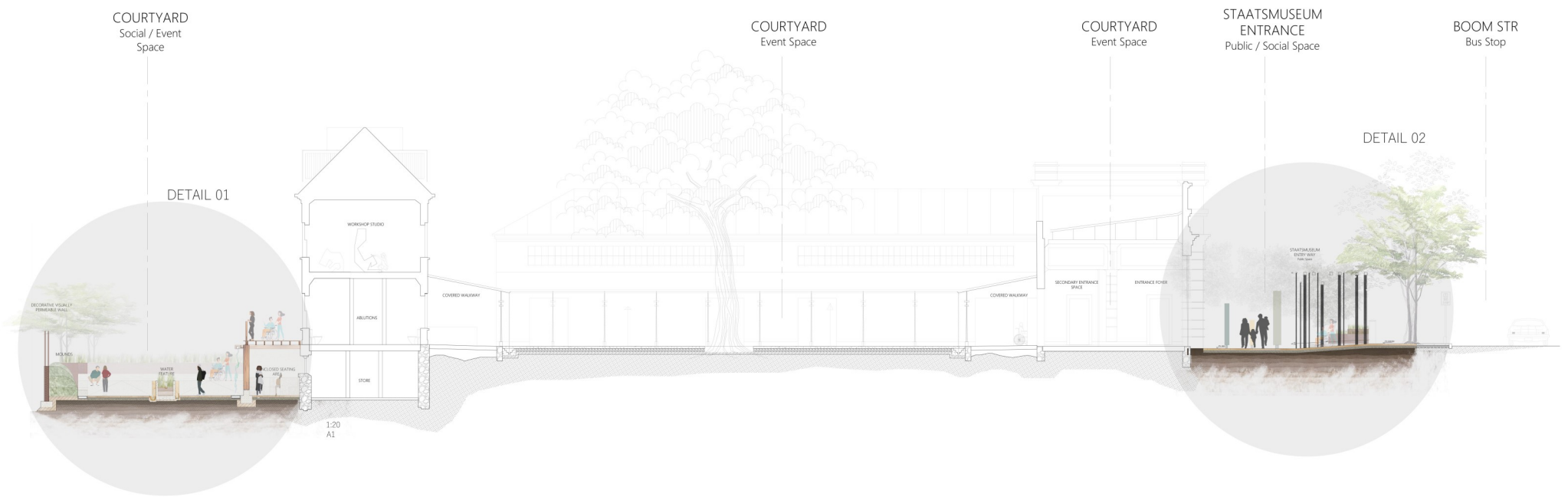
Fig. 5.22: Proposed Section from east wing to west wing through Staatsmuseum 1:20 (Author 2020)



Section A-A: Elevation through the Staatsmuseum from the north end to south end (design proposal)

1:100  
A1

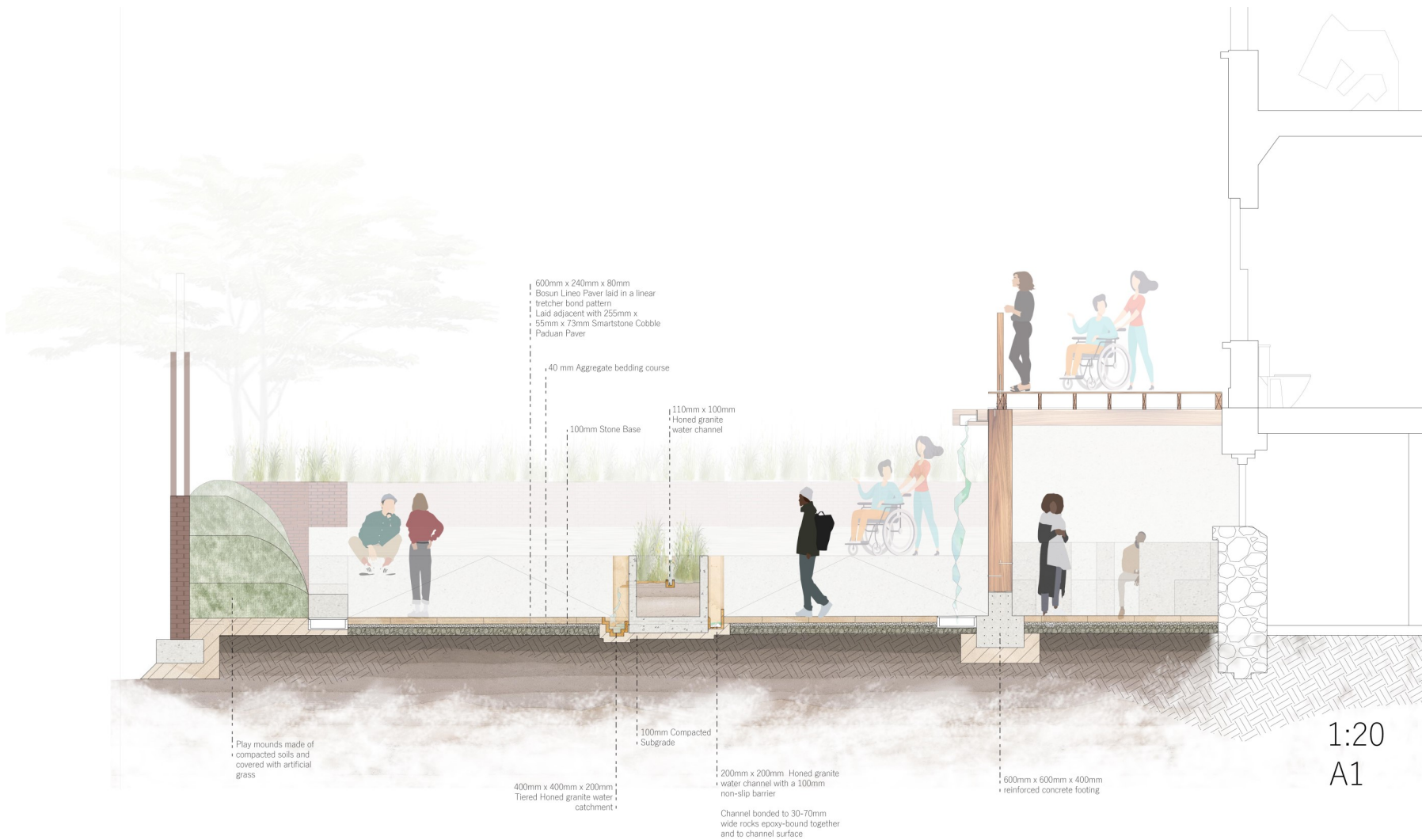
Fig. 5.23 : Existing Section from the north end to the south end of the Staatsmuseum (Author 2020)



Section A-A: Elevation through the Staatsmuseum from the north end to south end (design proposal)

1:100  
A1

Fig. 5.24 : Proposed Section from the north end to the south end of the Staatsmuseum (Author 2020)



# DETAIL 01

Fig. 5.25 : Proposed Detail 01 (Author 2020)



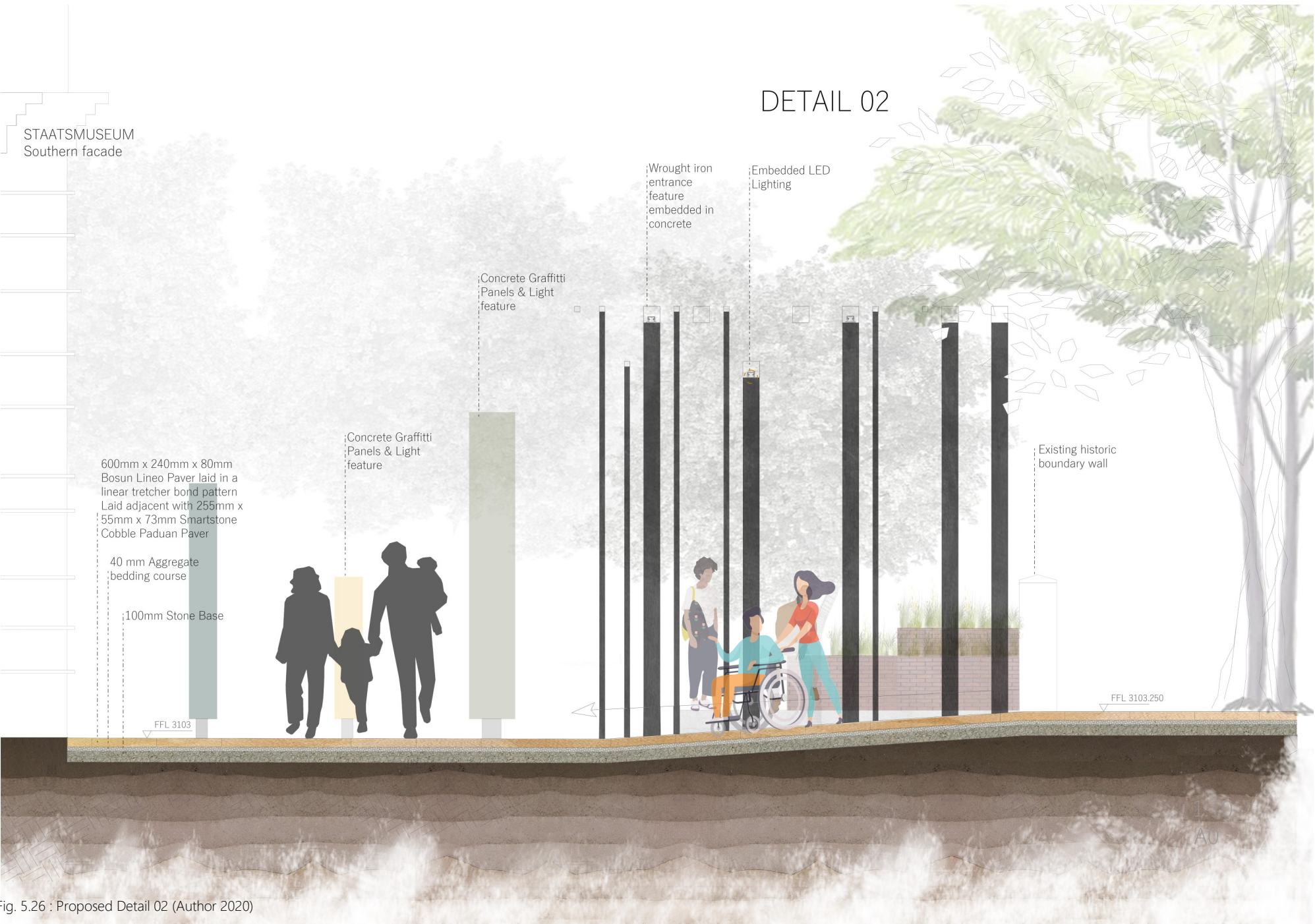
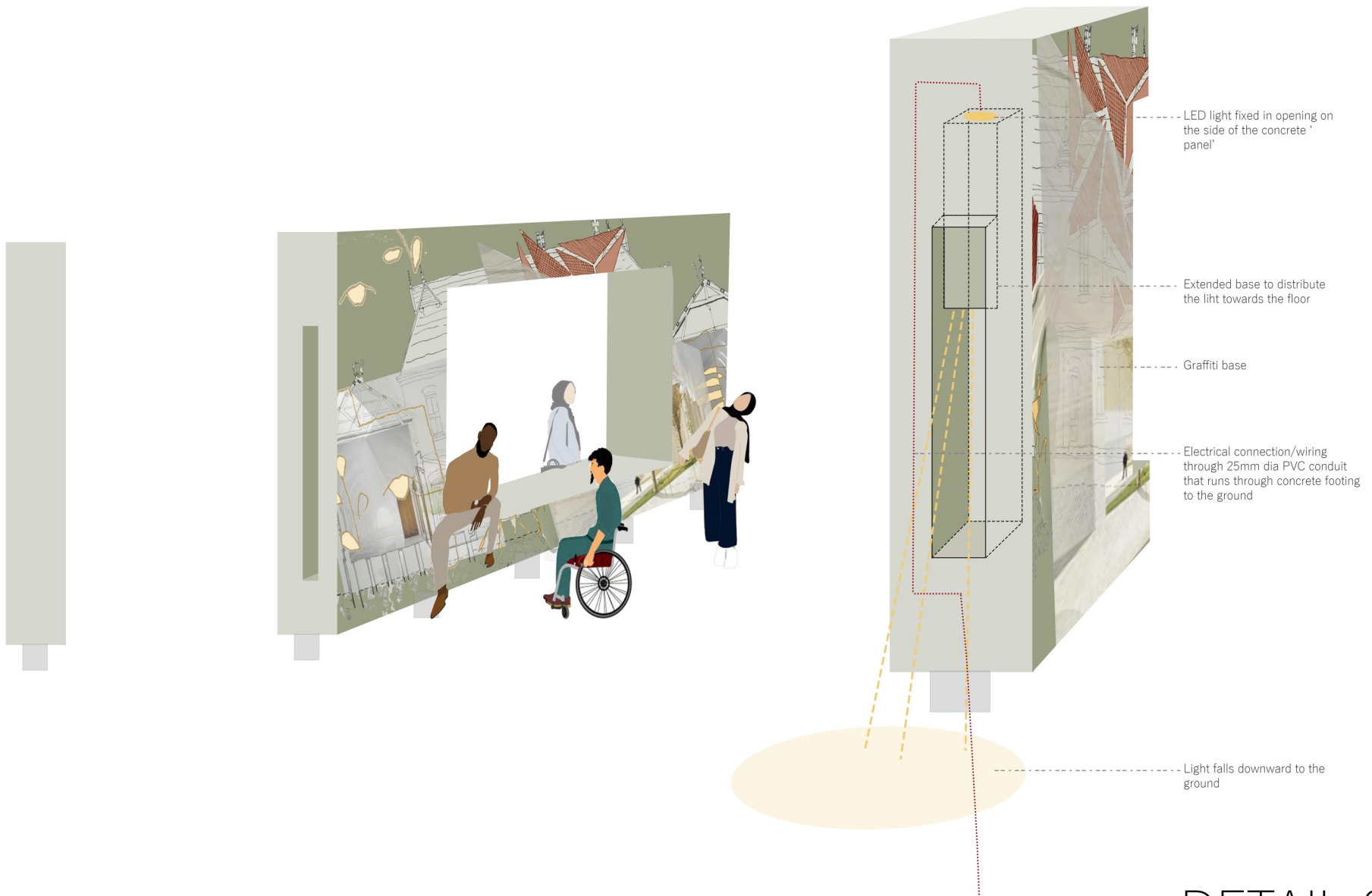


Fig. 5.26 : Proposed Detail 02 (Author 2020)

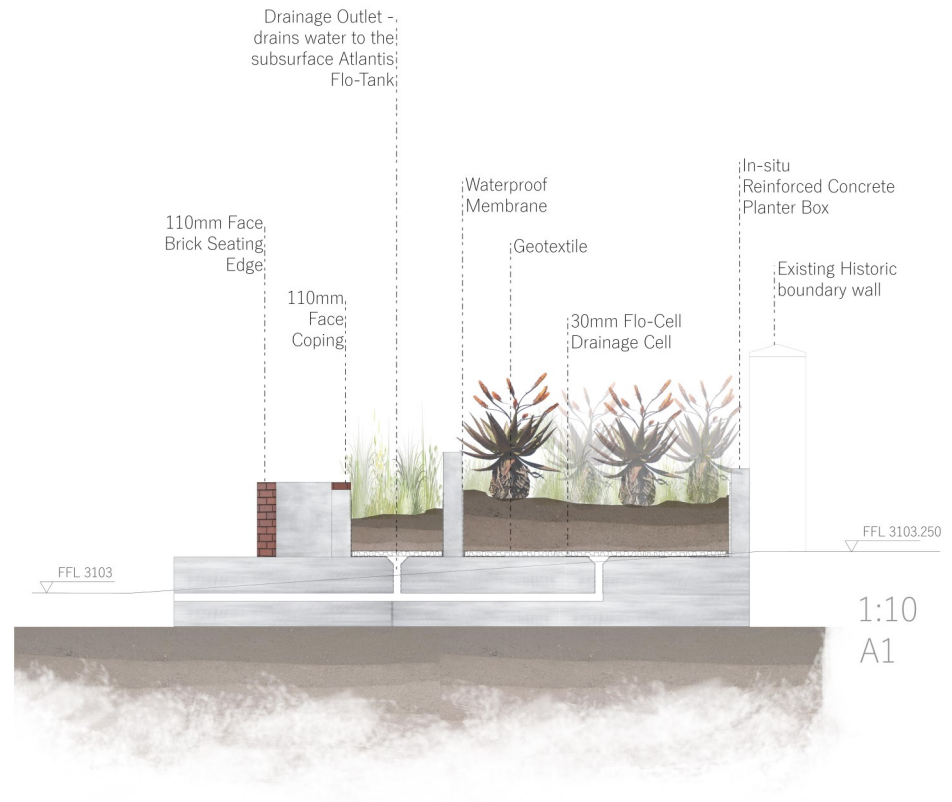


## DETAIL 03

Fig. 5.27 : Proposed Detail 03 (Author 2020)



Staatsmuseum Grand Entrance Planting



PLANT MIX

- Aloe greatheadii
- Aloe marlothii
- Bulbine frutescens



- Selection criteria:
- Hardy
  - Succulent
  - Full/Partial Sun
  - Drought Resistant
  - Low water requirements

DETAIL 04

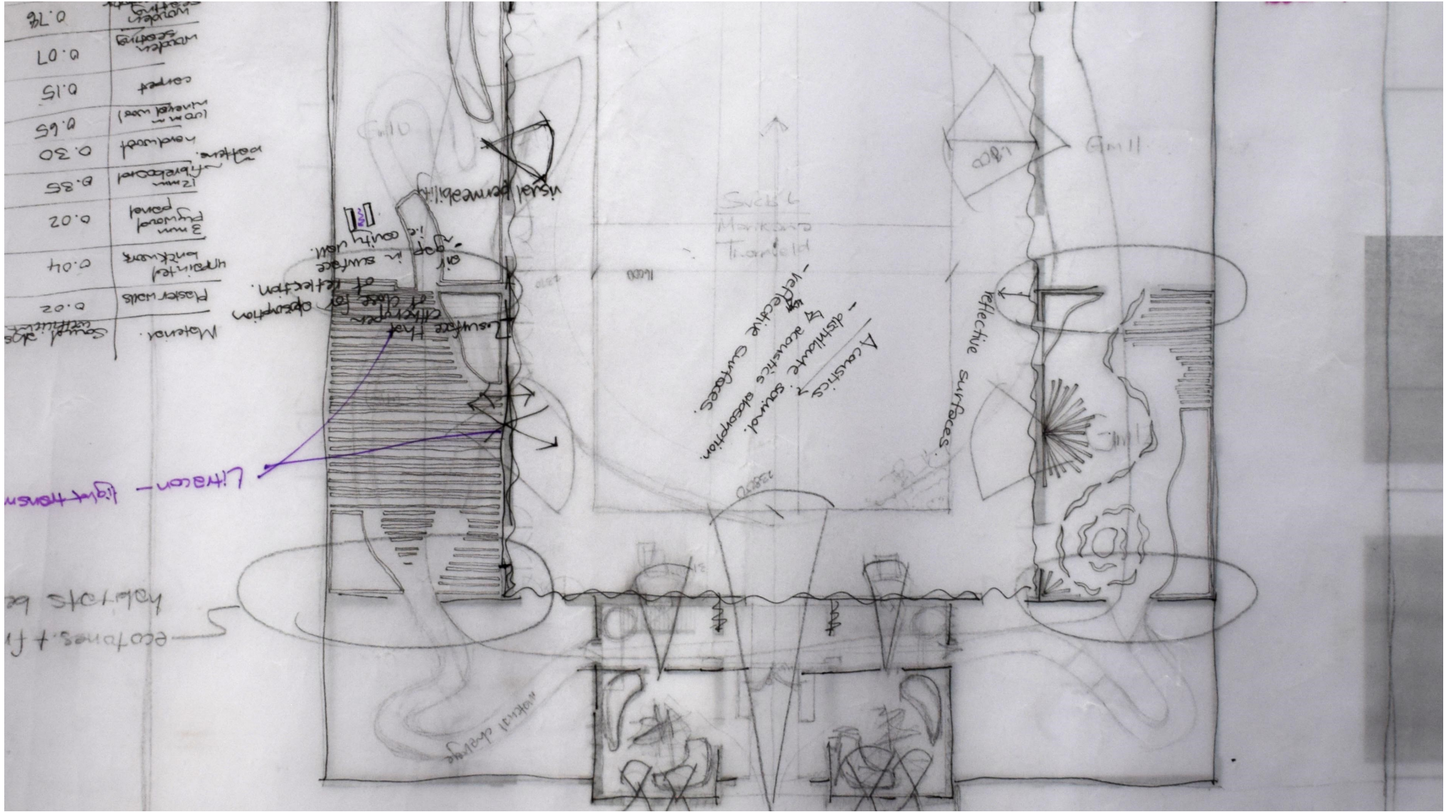
Fig. 5.28 : Proposed Detail 04 (Author 2020)



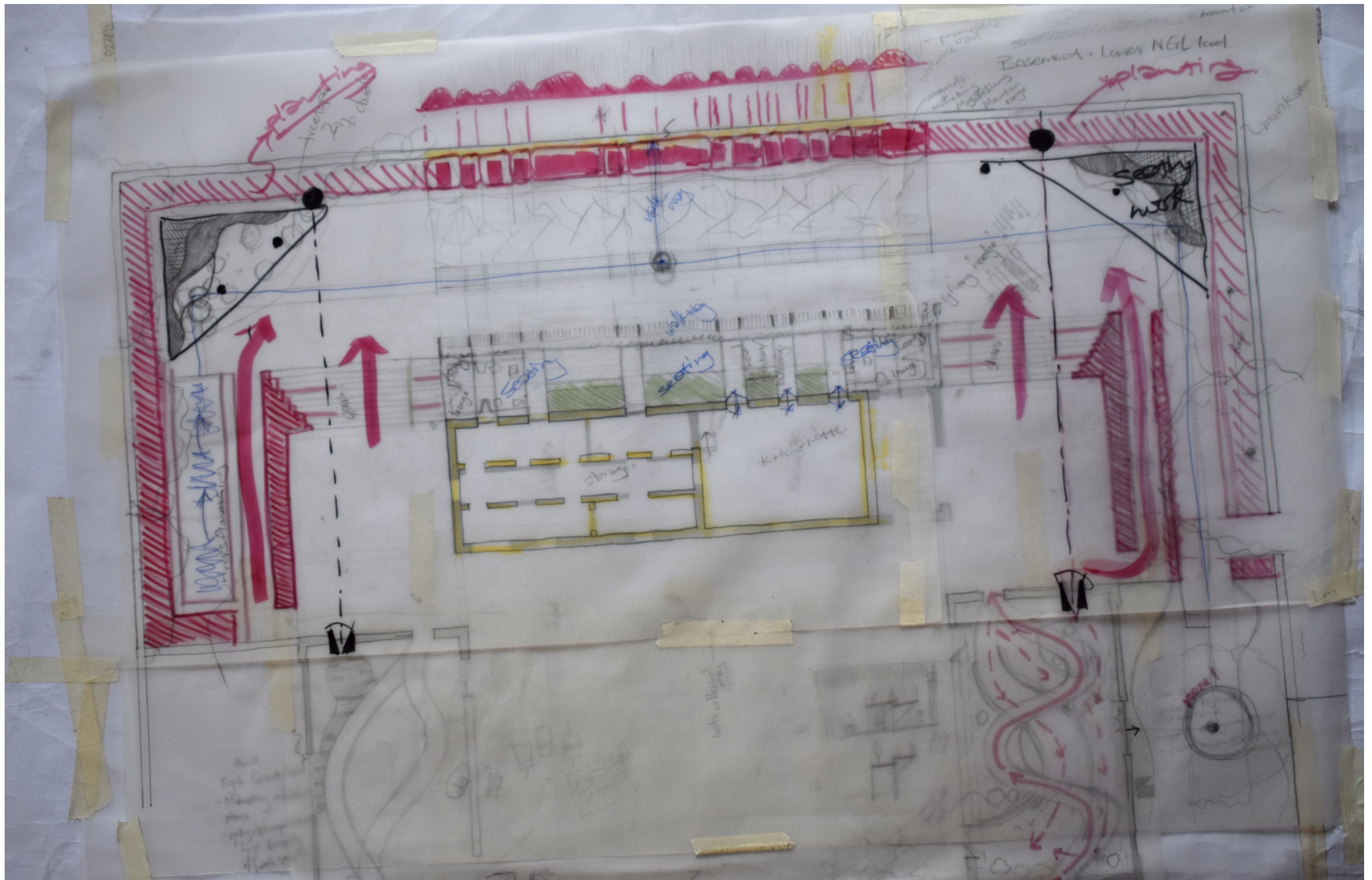


# Rough Work



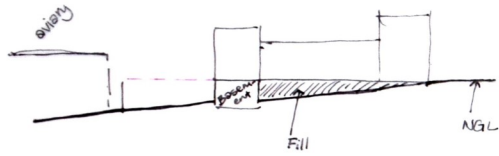




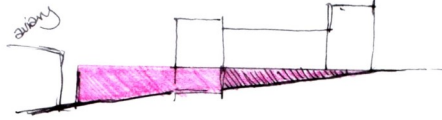




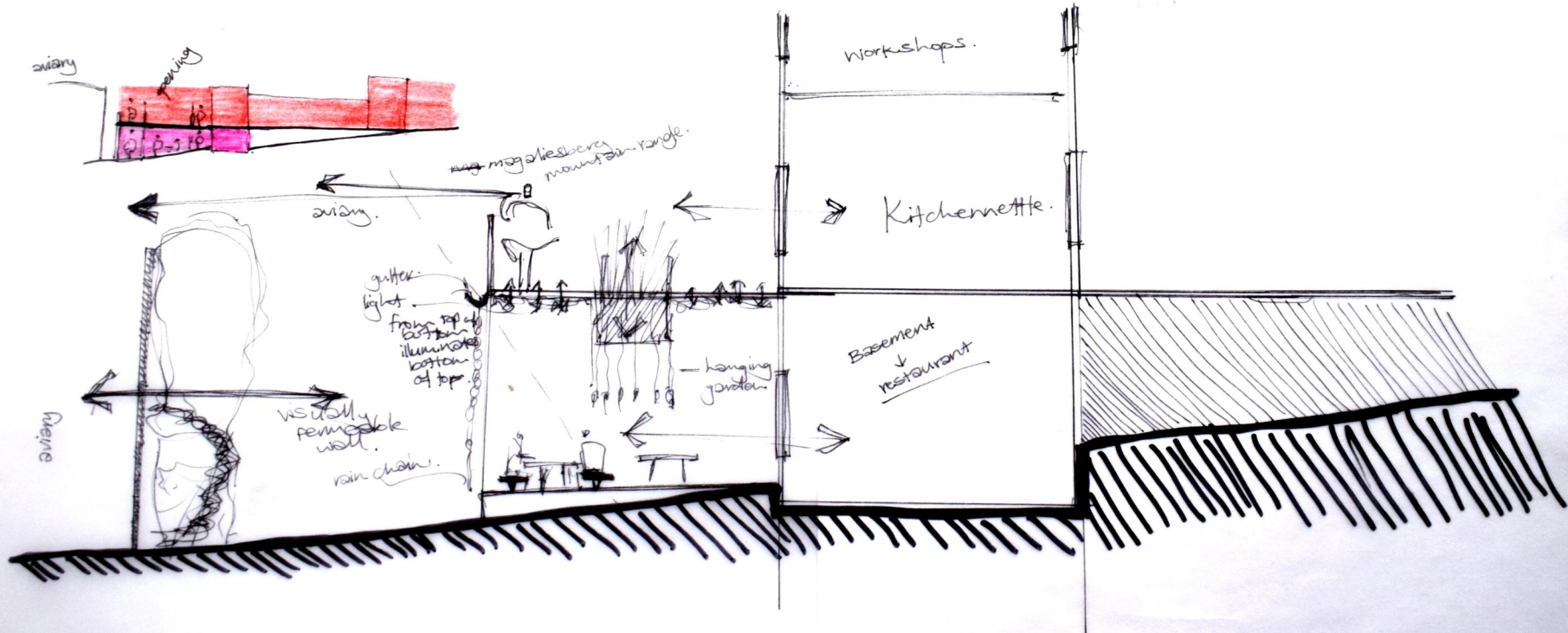
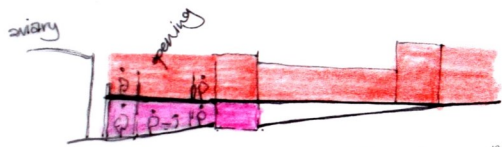
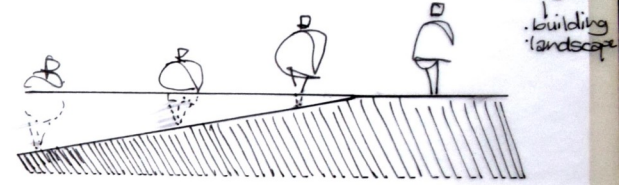
Outdoor design. - sections

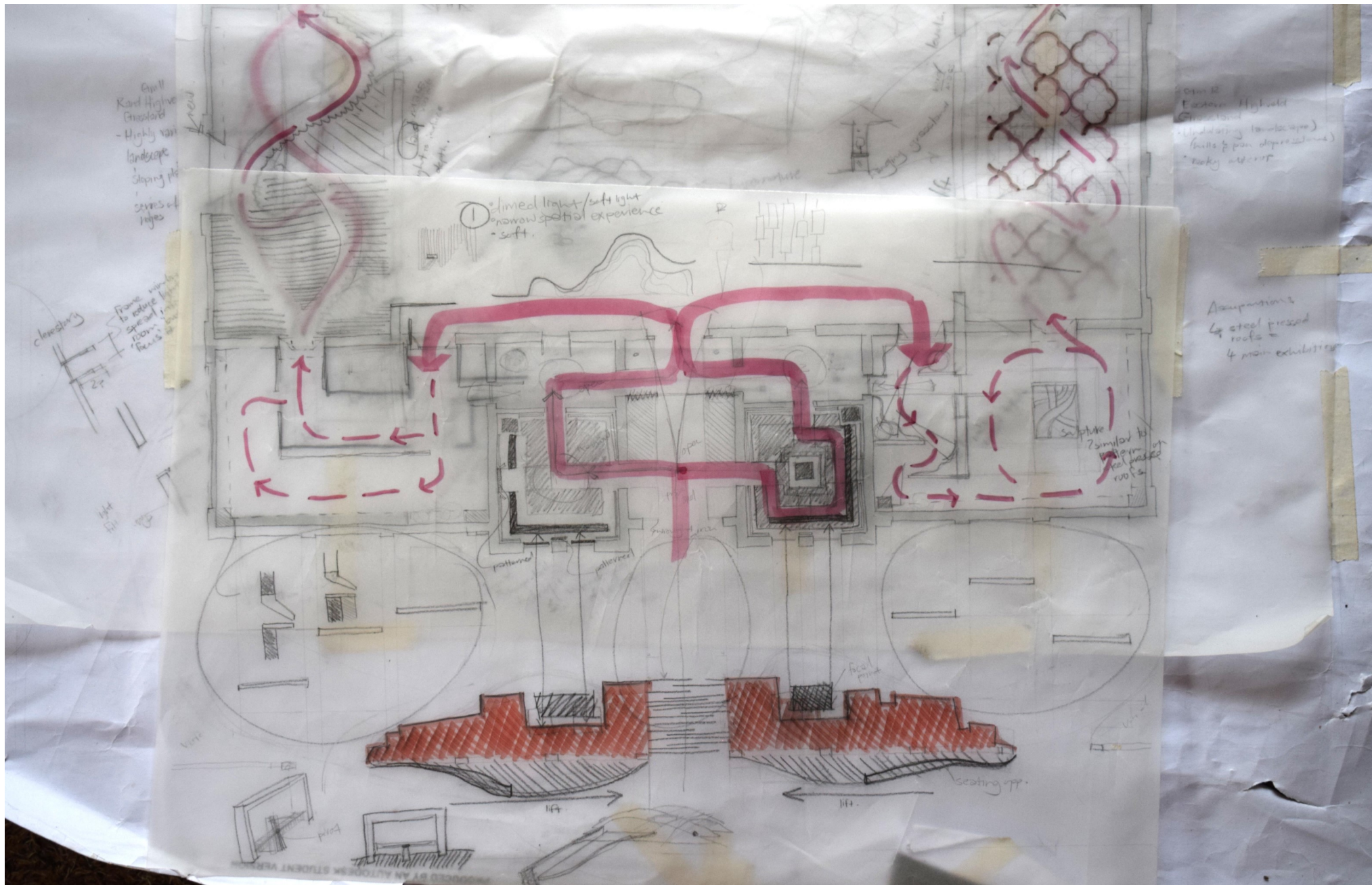


landscape as extension of building  
Zrin as out  
out as in

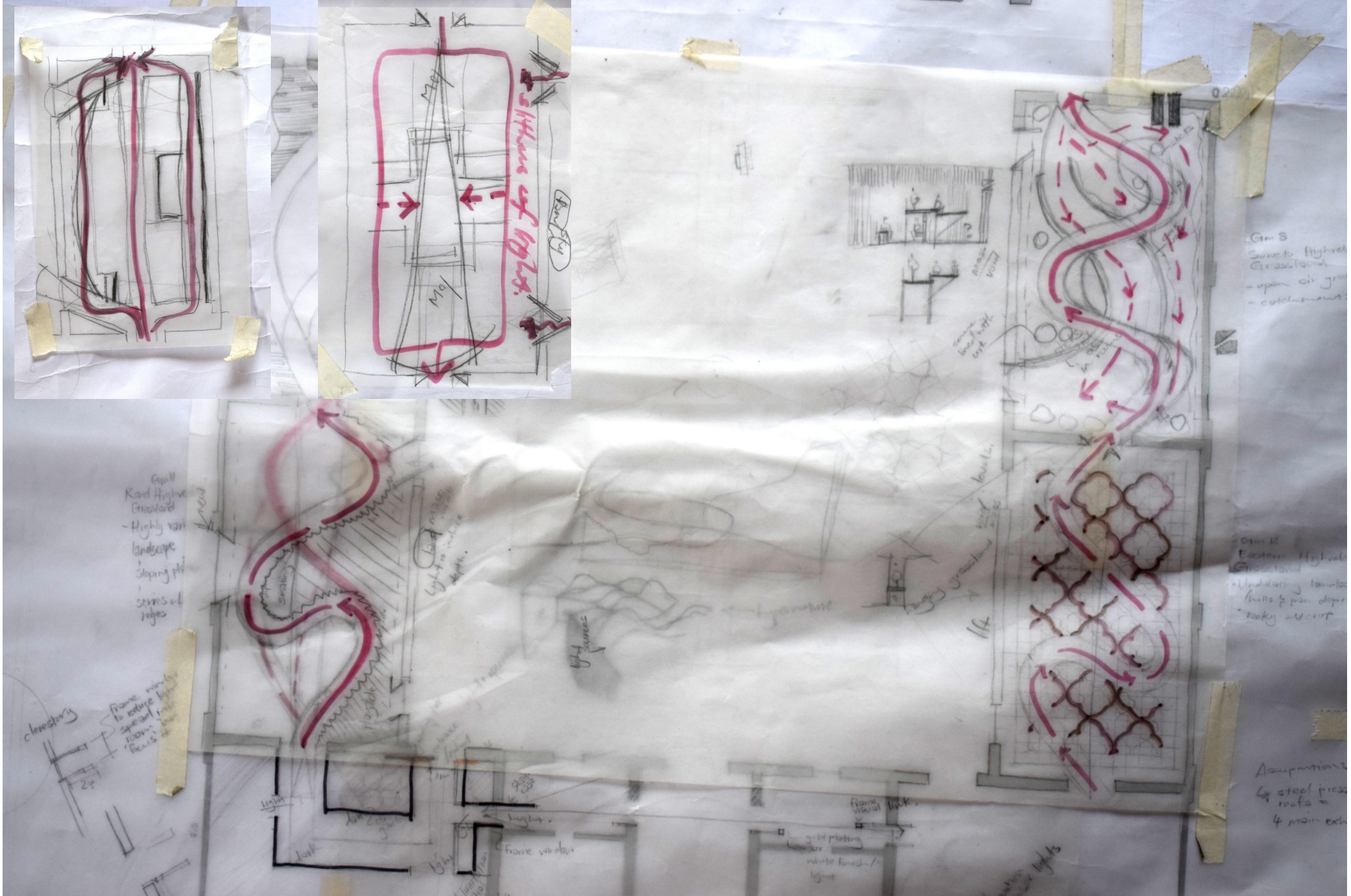


Landscape experience. depth as projection of level change.  
building landscape





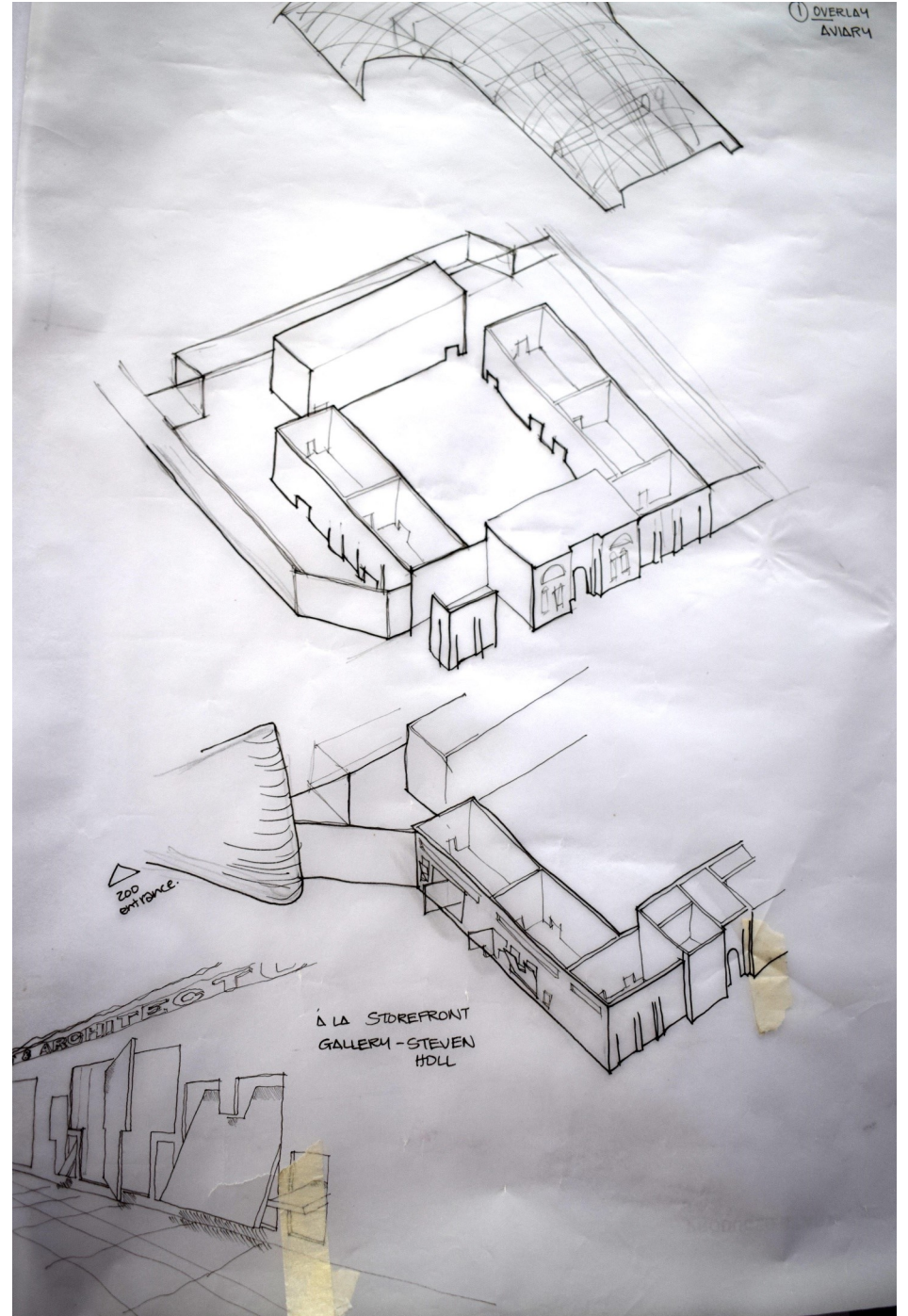
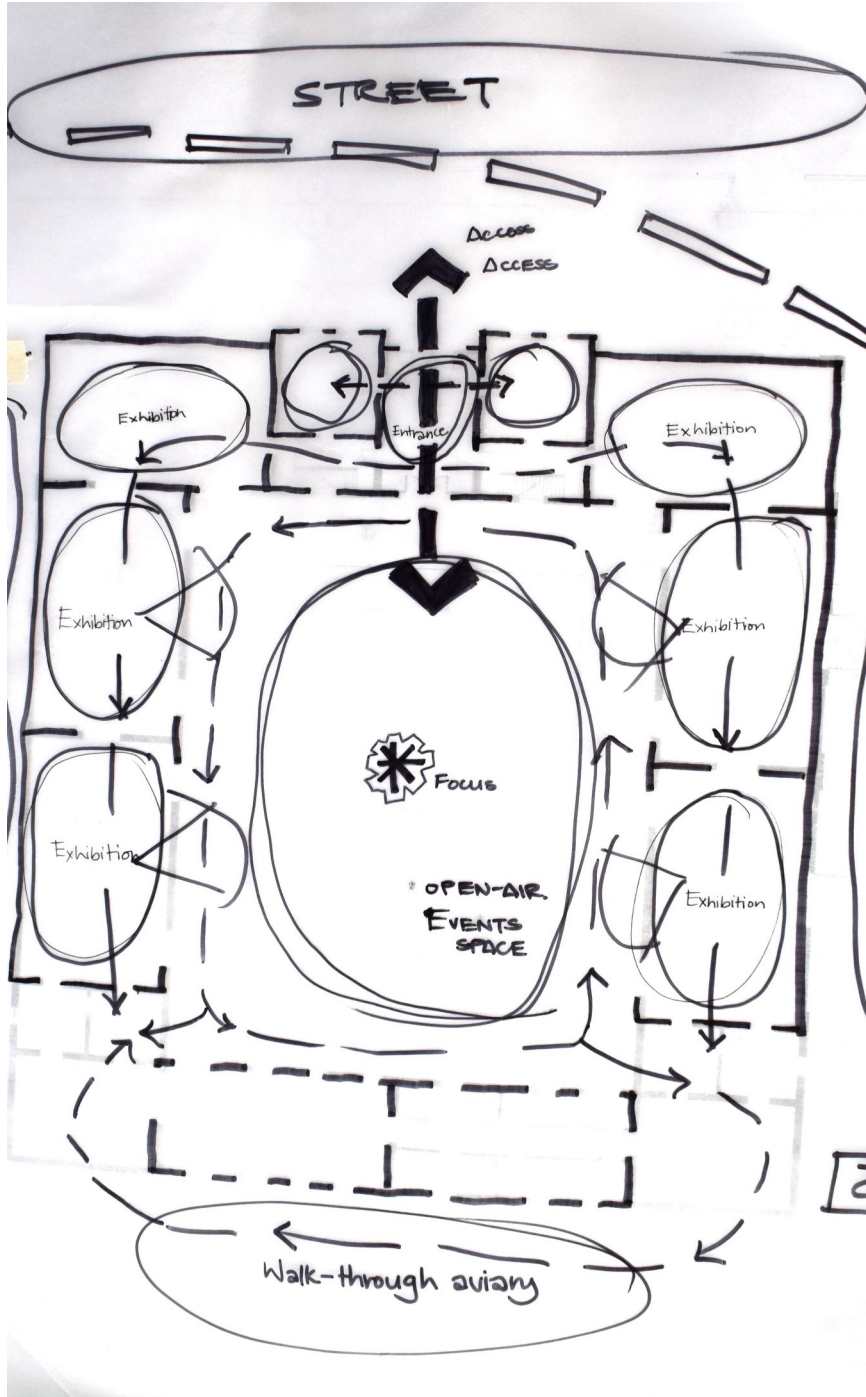
















# **Bibliography**

## Bibliography

Aben, R. and de Wit, S. 1999. *The Enclosed Garden: History and Development of the Hortus Conclusus and Its Reintroduction. Into the Present-Day Urban Landscape.* 010 Publishers

Artefacts. n.d. State Museum - Staatsmuseum Details. <https://www.artefacts.co.za/main/Buildings/bldgframes.php?bldgid=11002>

Attoe, W. and Logan, D. 1989. *American Urban Architecture: Catalysts in the Design of Cities.* California: University of California Press.

Bickford, S. 2000. Constructing Inequality: City Spaces and the Architecture of Citizenship. *Political Theory* 28(3): 355–76.

Brand South Africa. 2017. An Overview of the History of South African Art. <https://www.brandsouthafrica.com/people-culture/people/overview-history-south-african-art>.

City of Tshwane. 2013. *Tshwane Vision 2055: Remaking South Africa's Capital City.* Pretoria: City of Tshwane.

City of Tshwane. 2015. *Tshwane Inner city regeneration.* Pretoria: City of Tshwane. <http://www.tshwanetourism.com/newsletter/images/58/presentation.pdf>

City of Tshwane. 2017. *City of Tshwane Metropolitan Municipality: Consideration Of The IDP And MTREF (2017/18).* <http://www.tshwane.gov.za/sites/Council/Lists/Council%20Calendar/Attachments/38/03.%20Special%20Council%20IDP%20pages%201-700%2025%2005%202017.pdf>

Clarke, N. Lourens, F. 2015. *Urban Planning in Tshwane. Re-Centring Tshwane: Urban heritage strategies for a resilient Capital.* Pretoria: Visual Books. 39-52. <https://repository.up.ac.za/handle/2263/49734>

Clarke, Nicholas J, and Jean-Paul AM Corten. "Regenerating Pretoria's Historical Core: Heritage as an Asset for Inner City Development." ICOMOS Open Archive, 2012. [http://openarchive.icomos.org/1302/1/IV-3-Article1\\_Clarke\\_Corten.pdf](http://openarchive.icomos.org/1302/1/IV-3-Article1_Clarke_Corten.pdf)

Clarke, Nicholas, and Adrian de Villiers. "Church Square, the Old Synagogue and the Old Government Printing Works: Three Historic Places for Testing Strategic Intervention," 2015. [https://repository.up.ac.za/bitstream/handle/2263/49734/Clarke\\_Chapter7\\_2015.pdf?sequence=24&isAllowed=y](https://repository.up.ac.za/bitstream/handle/2263/49734/Clarke_Chapter7_2015.pdf?sequence=24&isAllowed=y).

Clarke, NJ. and Corten, JAM. 2012. *Regenerating Pretoria's Historical Core: Heritage as an Asset for Inner City Development.* ICOMOS Open Archive. [http://openarchive.icomos.org/1302/1/IV-3-Article1\\_Clarke\\_Corten.pdf](http://openarchive.icomos.org/1302/1/IV-3-Article1_Clarke_Corten.pdf)

Cooke, G. 2018. *Re\_Imagining the Urban Ruin Through Landscape Intervention. A Plant-Based Micro-Industrial Landscape and Public Garden Inside Johannesburg's Three Castles Heritage Ruin.* Mini Dissertation, University of Pretoria.

Corner, J. 2006. *Terra Fluxus. The Landscape Urbanism Reader.* New York: Princeton Architectural Press. 21-34.

## Bibliography

Crewe-Brown, M. 2018. 7 Great Reasons to Visit Victoria Yards, a Creative Oasis in Inner-City Joburg. TimesLIVE. <https://www.timeslive.co.za/sunday-times/lifestyle/home-and-gardening/2018-09-29-7-great-reasons-to-visit-victoria-yards-a-creative-oasis-in-inner-city-joburg/>

Davis, J. 2009. Urban catalysts in theory and practice. *Architectural Research Quarterly*, 13(4): 295-306.

Dirsuweit, T.C. 2008. Public Space and the Politics of Propinquity in Johannesburg. Farber, L. (ed.) *Representation and Spatial Practices in Urban South Africa*. Johannesburg: Research Centre, Visual Identities in Art and Design, Faculty of Art Design and Architecture, University of Johannesburg.

Donaldson, R. Jürgens,U. and Bahr, J. 2003. Inner-City Change in Pretoria: Social and Spatial Trends. *Acta Academica Supplementum* 2003 (1): 1–33.

Duffey, Alexander E. 1999. *Art History in South Africa: Past and Present. Memory & Oblivion: Proceedings of the XXIXth International Congress of the History of Art Held in Amsterdam, 1–7 September 1996.* (ed) Wessel Reinink and Jeroen Stumpel, 111–21. Dordrecht: Springer Netherlands. [https://doi.org/10.1007/978-94-011-4006-5\\_14](https://doi.org/10.1007/978-94-011-4006-5_14)

Flew, T.(ed.). 2013. *Creative Industries and Urban Development: Creative Cities in the 21st Century*. New York: Routledge.

Garner. G. 2011. Johannesburg Ten Ahead. A decade of inner-city regeneration. Johannesburg: Double G Media.

Gregory, J.J. 2016. Creative Industries and Urban Regeneration – The Maboneng Precinct, Johannesburg. *Local Economy* 31(1-2): 158–171. <https://doi.org/10.1177/0269094215618597>

Grobler, E. 1994. *Die Staatsmuseum van die Zuid-Afrikaansche Republiek en sy historiese en etnografiese versamelings*. Mini Dissertation, University of Pretoria.

Hamann, C., Horn, A.C. 2014. Continuity or Discontinuity? Evaluating the Changing Socio-Spatial Structure of the City of Tshwane, South Africa. *Urban Forum* 26:39-57

Hargrove, R. 2012. It Isn't a Job. *JazzTimes*. 18 January. <https://jazztimes.com/audio-video/video-archive/roy-hargrove-it-isnt-a-job/>

Hollenbach, R. 2015. *Establishing significance through relevance*. Mini dissertation, University of Pretoria.

Houghton, K., Foth, M. and Miller, E. 2015. Urban Acupuncture: Hybrid Social and Technological Practices for Hyperlocal Placemaking. *Journal of Urban Technology* 22(3): 3–19. <https://doi.org/10.1080/10630732.2015.1040290>

Kallay, T. n.d. Access to Nature in Cities Improves Health and Boosts Well-Being. URBACT. [urbact.eu/access-nature-cities-improves-health-andboosts-well-bein](http://urbact.eu/access-nature-cities-improves-health-andboosts-well-bein)

## Bibliography

Kibble, G. & Dearing, D. (eds.) 2008. *New Uses for Heritage Places. Guidelines for the Adaptation of Historic Buildings and Sites*. New South Wales: The Heritage Council of NSW.

Le Roux, H. 2008. *Acupuncture Johannesburg*. Farber, L. (ed.) *Representation and Spatial Practices in Urban South Africa*. Johannesburg: Research Centre, Visual Identities in Art and Design, Faculty of Art Design and Architecture, University of Johannesburg.

Moodley, S. 2019. *The Ties That Bind*: The Past in the Present, Linking the Pretoria Inner City with Its Natural Context. Mini Dissertation, University of Pretoria.

Morales, M. 2008. *Matter of Things*. In: Morales, M. (ed.). *Matter of Things*. Rotterdam: NAI Publishers.

Murdoch, J III., Grodach, C., Foster, N. 2016. The Importance of Neighborhood Context in Arts-Led Development: Community Anchor or Creative Class Magnet?. *Journal of Planning Education and Research* 36:32-48

Niebhur, I. 2008. *Healing Activities Centre*. Mini dissertation, University of Pretoria.

Onniboni, L. 2015. *Modernism in Urban Planning - Mechanization or Humanity?* Archiobjects (blog). <https://archiobjects.org/modernism-in-urban-planning-mechanization-or-humanity/>.

Oranje, M. and Merrifield, A. 2010. *National Spatial Development Planning in South Africa 1930-2010: An Introductory Comparative Analysis*. *Town and Regional Planning* 56(2010): 29-45.

Parrish, D. 2018. *Creative Industries definitions*. <https://www.davidparrish.com/creative-industries-definitions/>

Pretoria.co.za. <https://www.pretoria.co.za/012-central-multi-space-precinct-in-the-heart-of-pretoria/>

Rossi, A. & Eisenman, P. 1982. *The Architecture of the City*. Massachusetts. The MIT Press.

Serpentine Galleries. n.d. *Serpentine Gallery Pavilion 2011 by Peter Zumthor*. <https://www.serpentinegalleries.org/whats-on/serpentine-gallery-pavilion-2011-peter-zumthor/>.

Singh, N. 2019. *Urban Oasis: Victoria Yards: Joburg's Hidden Gem*. *Daily Maverick*. <https://www.dailymaverick.co.za/article/2019-06-07-victoria-yards-joburgs-hidden-gem/>.

South African History Online. 2012. *What Is Heritage?* <https://www.sahistory.org.za/article/what-heritage>

Von Geusau, K. 2020. *Victoria Yards*. NATAAL. <https://nataal.com/victoria-yards>.

Waldheim, C (ed). 2006a. *The Landscape Urbanism Reader*. New York: Princeton Architectural Press

## Bibliography

Walsh, A. 2014. Beyond the Wall: A study which explores the relevance of the enclosed garden as a landscape architectural type with specific reference to the City of Johannesburg. Mini Dissertation, University of Pretoria

Wong, L. 2017. Adaptive REUSE: Extending the Lives of Buildings. Basel Switzerland: Birkhäuser- Publishers for Architecture

Yasuka. 2012. The Serenity of Karesansui: Japanese Rock Garden. KCP International. <https://www.kcpinternational.com/2012/07/karesansui>