

# THE URBAN CATHARSIS

*Strategies for the adaptation of Johannesburg's privately-owned public spaces along the mining belt. Approaches to adapting mining landscapes for the leiscurescape in Johannesburg south*

*by Helgar Da-Gloria Fernandes*

City Deep quarry



# The Urban Catharsis

The leiscapescape in Johannesburg South

**Location:** Santarama Miniland

183 Rosettenville Rd, Glenesk, La Rochelle, Johannesburg, 2190

**GPS:** 26°22'8670"S; 28°05'63"E

**Programme:** Aquatic Therapy Pier

**Study Field:** Cultural and Heritage Landscapes & Human Settelements & Urbanism

**Client:** City of Johannesburg Parks, Recreations and Zoo, Jomo Cosmos and Lusito School Association

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This document pertains the proposal for an aquatic therapy pier in the Santarama Miniland, Wemmer Pan,  
Johannesburg.

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### Declaration of authenticity

In accordance with Regulation 4(e) of the General Regulations (G.57) for dissertations and theses, I declare that this document (which I hereby submit in partial fulfillment of the degree Magister of Architecture Professional) is my own work and has not been submitted by me for a degree at any other institution.

I further state that no part of this document has already, or is currently, being submitted for any degree, diploma or other qualification.

This document is substantially comprised of my own work. Where reference is made to the work of others, the extent to which the work is used has been indicated and fully acknowledged both in the text and in the list of references.

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*Helgar Da-Gloria Fernandes*

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for always remaining by side gratitude and love cannot be expressed enough in words, thank for always being an inspirational.

Mummy, Daddy and Jason

For allowing me the liberty to be exactly who I wanted to be.

## Abstract

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*This dissertation offers a reading into three distinct sites of urban entertainment in Johannesburg, as a result of appropriation to post-industrial landscapes. The key to understanding Johannesburg's seemingly disjointed landscapes is multi-layered and complex intersecting between past industries, a world-class city image agenda, recreation and city inhabitant geographies through class and race. Seemingly commemorative in nature, the entertainment based landscape seeks to invoke questions of public memory while simultaneously enticing cathartic experiences.*

*This dissertation contextualises the Santarama Miniland amusement park within a family of sites as an archetype of urban entertainment landscapes (theme parks, shopping malls, casinos and outdoor cinemas in particular) that have manifested in Johannesburg. The landscape of pleasure addresses the ongoing question of heritage in the discourse of museology environments.*

*The urban catharsis will act as a mediator in the exploration of adapting the amusement park, and a larger sporting precinct an environment founded by the transformation of previously productive landscapes to reimagined landscapes of pleasure in the Johannesburg landscape. Settlement on the ridge formed stark socio-economic spatial divides which still resound in the city today (Bobbins & Trangos, 2018).*

*The intention of the project is to address the disparity of adequate public recreational facilities in the south of Johannesburg. Parks could be an important strategy to increase physical activity and reduce racial or ethnic and socioeconomic disparities.*

*Key Words: Amusement Park, Heritage, Urban Entertainment, Leisure*

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## Preface

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*...there is a form of architecture that although focused on critique of ideology, after recognising that ideology-in its multiple incarnations-has filtered all spheres of architectural production, including the sphere of criticism itself. An architecture through narrative texts and a vast repertoire of images (collages, photomontages, drawings storyboard, comic strips, animators)- creates allegorical stories that aim to expose the impasse and misfires of architecture in theory and practice...this Narrative Architecture and this is its manifesto.*

*-Wai Think Tank, Cruz Garcia and Nathalie Frankowski*

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## Reading [terminology]

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### *Urban Entertainment:*

*Urban Entertainment Centre (UEC) can be defined as family-oriented entertainment destinations. These centres combine shopping and recreation with entertainment to form an overall experience. Retail needs entertainment to draw people in and entertainment needs retail to support the overall operation ((Karnataka), 2009). The components that, typically, form a UEC are: Movie halls, restaurants, sports complex, shopping complex, theme parks, walk ways, museums.*

### *Leisure:*

*The time when you are not working or doing other duties*

### *Recreation:*

*Activity done for enjoyment when one is not working.*

### *Post-Modernity:*

*Post-Modernity refers to the view that the institutions and ways of living characteristic of Modernity have been replaced to such a profound extent that our society is fundamentally different to the 'modern' society*

### *Mine Residue:*

*Generally classified as mine residue areas, mining waste found in the Gauteng City-Region includes tailings, disposal facilities, waste rock dumps, open-cast excavations and quarries, water storage facilities, tailings spillages sites, footprints left after the re-mining of tailings disposal facilities and a mixture of other waste located within the boundaries of former mine properties (GDARD, 2013).*

### *Third Place:*

*"Third places," as defined by Oldenburg (1989), are the "great, good places" that foster community and communication among people outside of home and work, the first and second places of daily life.*

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## Johannesburgs landscapes of Pleasure

[background]

The emergent south of Johannesburg has experienced a myriad group of cultures. In Johannesburg, the dialogue of public realm lies shackled between, acting as a social safety valve, not only created for utilitarian purposes, but for our deep need as society to experience leisure and pleasure.

After Apartheid, the Johannesburg municipal authorities sought to strike a balance between addressing the basic needs and service backlogs of all urban residents by promoting sustained economic growth and global competitiveness (Murray, 2008, p. 28). Since the early 1990s, major museums, and some minor ones have been set up dedicated to remembering what happened in South Africa between 1948 and 1994 (Coombes, 2003). Yet, unlike the conventional museum, the entertainment-based landscape such as the amusement park considers an altered view on orchestrating history.

Besides the role as a space for leisure promises urban renewal is often viewed unorthodox. Shrouded in obscurity and frivolity the question of the significance. Culture and heritage has for the largest part played a role. The more densely populated a cityscape becomes, the more pressure it experiences in carving out non-instrumental public space from within.

Mine residue constitutes large sections of waste land in Johannesburg, communities who live beside them are unaware of both the short and long-term effects of mining waste on their health and immediate environment. Used for fishing, bathing, watering, crops and playing they have become an intrinsic part of the lives of those who live beside a mine dump (Kerry Bobbins, 2018). While there are national policies directed at revitalising distressed mining landscapes, broader questions arise on how these areas may be re-purposed, how their economies can support their communities and appropriate strategies

that remain in these discarded landscapes.

Emblematic changes done unto the landscape during the latter part of the 20th century considered discarded landscape as sites to test outlandish entertainment schemes conceived conversions of slime dams into ski parks, theme parks and amusement parks. The theoretical vantage point adopted in this thesis, derived from cultural studies and postmodern readings of leisure underlining the social construct of urban society and development strategies employed as catalyst for urban regeneration within previously adapted productive landscapes in Johannesburg.

*“Although pleasure is considered an elusive term that operates on a variety of scales and meanings it is used as a conceptual driver to the dissertation for reading an atypical public realm space.”*

## Captured Fantasies

[a comparative case study]

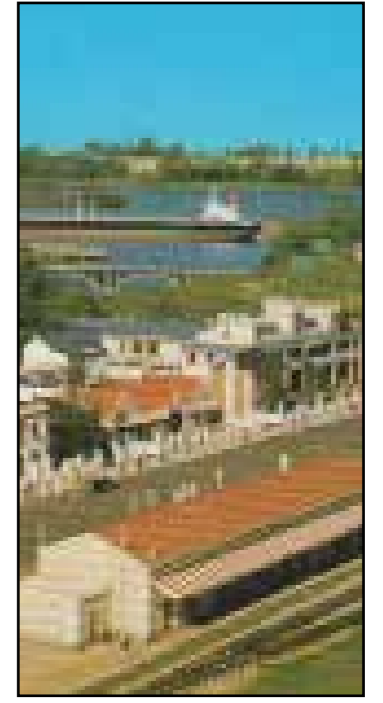
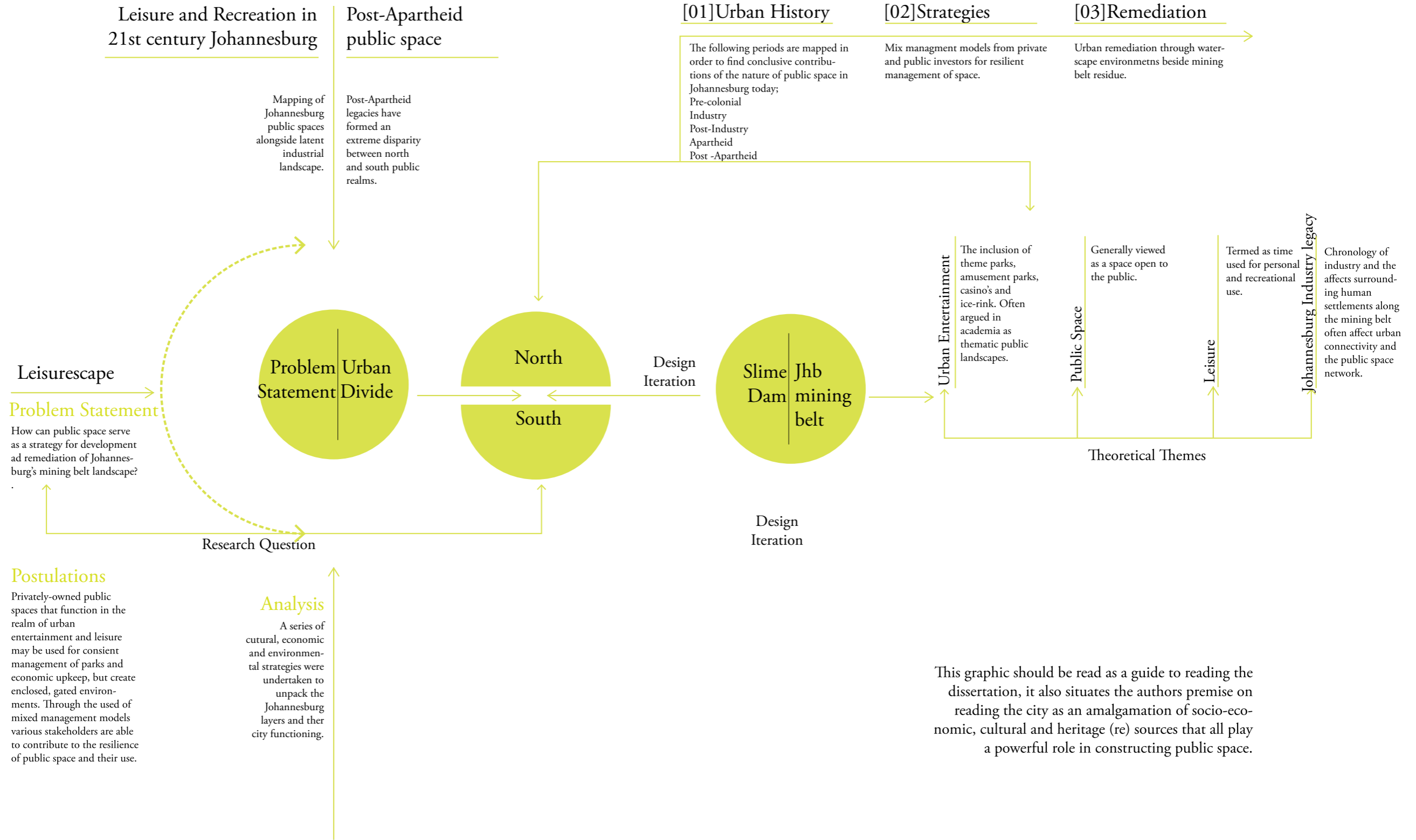


Fig. 1 Remainder of Top-Star Drive-In at present, with remining activity

Fig. 2 Gold Reef City Theme Park Complex

Fig. 3 Santarama Miniland during the 1980's



This graphic should be read as a guide to reading the dissertation, it also situates the authors premise on reading the city as an amalgamation of socio-economic, cultural and heritage (re) sources that all play a powerful role in constructing public space.

# INTRO DUCTION URBAN HISTORY

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# 1

*This chapter introduces the intentions of the dissertation and outlines the components that form the basis of the argument.*

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- 1.1 Background
- 1.2 Introduction
- 3 Problem Statement
- 1.4 Proposed site and programme
- 1.5 The Main Issue
- 1.6 Urban Issue.
- 1.7 Architectural Issue
- 1.8 Architectural Intentions



Fig.2.1 Collage illustrating socio-cultural layers of Johannesburg's economic growth and emerging landscape of pleasure (Auhtor, 2018)

## 1.1. Background

The 1886 Witwatersrand gold rush marked the beginning of the gold production in Johannesburg as a result of productive activity an 80km span of mining residue remained, commonly known as the mining belt. Influenced by economics, geological shifts, cultural and social change where unnatural landscape morphed into massive tailing dams. As a result of their disuse and decommissioning a new typology of urban entertainment emerged on top and surrounding derelict adapted landscapes. The physical condition of Johannesburg from the inner city contrast light industry, manufacturing warehouses and southern suburbs while the remainder of mining heads, mining sheds surrounding lay scattered and dormant. Notably, the discrepancies between north and south are apparent in the physical boom of northern suburbs and perpetual decline of investment to the south.

Johannesburg's built urban landscape is spatially characterised by complexity of the urban grain, the in-fill nature of various typologies post-industry and fragmentation of a particular spatial form between the northern and southern suburbs. Synonymous edge city development, the stark spatial divide, between cities and towns, urban centres and townships is evident in Johannesburg south. Various urban renewal attempts of Johannesburg's mining landscapes during the 20th century resulted in strategies for the remediation and transformation of post-industrial sites, by utilising urban entertainment interventions as a strategy for urban development surrounding derelict or underutilised mining landscapes, as shopping nodes and office parks become desirable typologies of escape.

Today, adapted landscapes have been constructed to urban entertainment landscapes that adopted Americanised modes of leisure activities. Indicative of these patterns of consumptions, tourism and leisure, these have come to epitomise Johannesburg's public environment, specifically where the former productive landscapes are concerned.

Gestures to urban entertainment have been nothing short of contested, functioning within the realm of public memory, escape and fantasy, and bringing about greater complexity as an important contemporary cultural phenomenon. Recreation should not be separated from a consideration of the welfare needs of any urban society. Leisure as an economic activity is a distinctive spatial expression within the South African context.

While there are national policies directed at revitalising distressed mining landscapes, broader questions arise on how these areas may be re-purposed, how their economies can support their communities, and appropriate strategies in revitalising discarded landscapes.

Much of Johannesburg's urban and architectural theory focuses on creating 'World class city', this dissertation is derived from cultural studies and postmodern readings of leisure underlining the social construct of urban society.

This dissertation seeks to comprehend the extent to which adapted landscapes have become repositories of past industry through the development strategies can be employed as catalysts for urban regeneration within previously adapted

productive landscapes in Johannesburg.

The dissertation study area is located to the south of Johannesburg, Santarama Miniland is examined within the broader context of postmodern developments of entertainment in Johannesburg, which have become generators which drive public memory within entertainment, leisure and tourism. The city-regions numerous landscapes overlap in identity, use and activity.

The dissertation explores the role of architecture from present models of transformation of former historical productive landscapes into urban entertainment sites.

Considered the economic, political and social hub of Southern Africa, Johannesburg's history is traditionally recorded as the rise of the Randlords, the growth of the mine-shafts and the transformation of raw mining camp to latterday metropolis (Rogerson, 1980).

The 1886 Witwatersrand gold rush marked the beginning of the gold production in Johannesburg as a result of this carnivorous activity an 80km span of mining residue remained, commonly known as the mining belt. Influenced by economics, geological shifts, cultural and social change where unnatural landscape morphed into massive tailing dams. As a result of their disuse and decommissioning a new typology of urban entertainment emerged on top and surrounding derelict adapted landscapes. The physical condition of Johannesburg from the inner city contrast light industry, manufacturing warehouses and southern suburbs while the remainder of mining heads, mining sheds surrounding lay scattered and dormant. Notably, the discrepancies between north and south

are apparent in the physical boom of northern suburbs and perpetual decline of investment to the south.

Today, Johannesburg's built urban landscape is spatially characterised by complexity of the urban grain, the in-fill nature of various typologies post-industry and fragmentation of a particular spatial form between the northern and southern suburbs. Synonymous edge city development, the stark spatial divide, between cities and towns, urban centres and townships is evident in Johannesburg south. Various urban renewal attempts of Johannesburg's mining landscapes during the 20th century resulted in strategies for the remediation and transformation of post-industrial sites, by utilising urban entertainment interventions as a strategy for urban development surrounding derelict or underutilised mining landscapes, as shopping nodes and office parks become desirable typologies of escape.

This narrative often presents a one side perspective to the 'City of Gold'. As a city whose population has burgeoned, the growing need for adequate recreational outlets have spawned a network of escapes. Often, large sites converted for showgrounds and major urban entertainment centres featured on the outer skirts of the landscapes, rarely were they considered to be on decommissioned post-productive landscapes found within a 5km radius of the city. The discourse from work and production post-industry towards leisure and consumption in contemporary society has contributed as a driving forces to social and economic change.

Settlement on the ridge formed stark socio-economic spatial divides which

still resound in the city today (Bobbins & Trangos, 2018). Political, economic and social forces structured the Johannesburg landscape into two distinct economy classes. As wealth pools to the northern suburbs of Johannesburg enclaves, the post-productive landscapes to the south remains largely underinvested in by corporate structures. While much of the post-apartheid enclaves focus has been placed on Soweto, other significant southern suburbs surrounded by industrial nodes and residential areas lack improvement.

After Apartheid, the Johannesburg municipal authorities sought to strike a balance between addressing the basic needs and service backlogs of all urban residents by promoting sustained economic growth and global competitiveness (Murray, 2008, p. 28). Market-driven strategies driven by investors, property owners, and city officials sought to fashion the urban landscape in conformity to 'World-Class' city status. Developments of urban entertainment in contemporary society illustrates how leisure and consumption have become major forces which often have social, economic and geographical implications. The more densely populated a cityscape becomes, the more pressure it experiences in carving out instrumental public space from within. In Johannesburg, the dialogue of public realm lies shackled between, acting as a social safety valve, not only created for utilitarian purposes, but for our deep need as society to experience leisure and pleasure.

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**“Cities accumulate metonymic objects, artefacts and discarded residues of the past as a kind of involuntary memory. To elicit this city memory is to arrive at a moment of recognition of how the present is both fading and reflection of what came before and a prescient foretaste of what is to come...As emblematic artifices in the allegory of modernity, cities stand for the failure of intentionally planned futures to realize future.”**

- (Murray, 2008)

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Johannesburg after deindustrialisation has taken a particular spatial form between the northern and southern suburbs synonymous to edge city development. Constructed entertainment landscape has increasingly been affected by Americanised modes of leisure activities. Indicative to patterns of consumptions, tourism and leisure and consumption have come to epitomise Johannesburg's public environment, specifically those adapted by post-modern agendas of city image and production, The enigma behind the 'City of Gold' has brought about global changes to the nature of leisure and consumption. Gestures to urban entertainment have been nothing short of contested functioning within the realm of public memory, escape and fantasy and bring about greater complexity as an important contemporary cultural phenomenon.

Mine residue constitutes large sections of waste land in Johannesburg, communities who live beside them are



Fig.2.2 Contaminated waterscape of mining landscapes (Trangos, 2018)

unaware of both the short and long-term effects of mining waste on their health and immediate environment. Used for fishing, bathing, watering, crops and playing they have become an intrinsic part of the lives of those who live beside a mine dump (Kerry Bobbins, 2018). While there are national policies directed at revitalising distressed mining landscapes,

### 1.2. Introduction

Johannesburg after deindustrialisation has taken a particular spatial form between the northern and southern

suburbs, which is synonymous to edge city development. Various urban renewal attempts of Johannesburg's mining landscapes during the 20th century resulted in strategies for the remediation and transformation of post-industrial sites, by utilising urban entertainment interventions as a strategy for urban development surrounding derelict or underutilised mining landscapes.

Constructed urban entertainment landscapes has increasingly adopted Americanised modes of leisure activities. Indicative of these patterns of consumptions, tourism and leisure, these

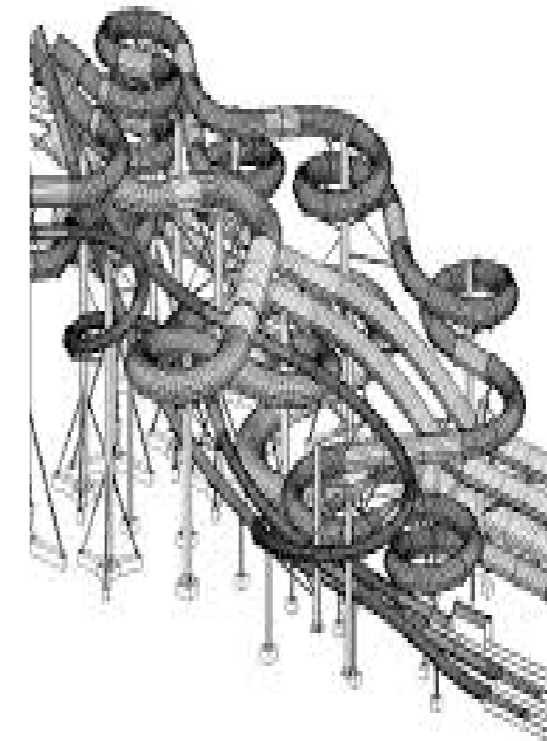


Fig.2.3 Architectural language of urban entertainment

have come to epitomise Johannesburg's public environment, specifically where the former productive landscapes are concerned.

Gestures to urban entertainment have been nothing short of contested, functioning within the realm of public memory, escape and fantasy, and bringing about greater complexity as an important contemporary cultural phenomenon. Recreation should not be separated from a consideration of the welfare needs of any urban society. Leisure as an economic activity is a distinctive spatial expression within the



South African context.

**While there are national policies directed at revitalising distressed mining landscapes, broader questions arise on how these areas may be re-purposed, how their economies can support their communities, and which appropriate strategies remain in these discarded landscapes.**

The theoretical vantage point adopted in this dissertation is derived from cultural studies and postmodern readings of leisure underlining the social construct of urban society, and how development strategies can be employed as catalysts for urban regeneration within previously adapted productive landscapes in Johannesburg. In the dissertation, Santarama Miniland is examined within the broader context of postmodern developments of entertainment in Johannesburg, which have become generators which drive public memory within entertainment, leisure and tourism.

The intention with the project is to critique the present model of transformation of former historical productive landscapes into urban entertainment sites.

It is argued that these sites become contextually unrelatable, due to large scaled, capital driven investments which exclude communities, fostering a culture of non-ownership by the surrounding communities. This often leads to a lack of maintenance and decay which in turn discourages investment and thereby threatens the sustainability and resilience of these urban entertainment sites. In the case of the Wemmer Pan precinct, specifically, these conditions also threaten the commemorative heritage

fabric that constitutes the significance of Wemmer Pan as a cultural landscape.

### 1.3. Problem Statement

Technological limitations of the mining industry during the 19th century resulted in decommissioning of mines leaving a trail of mine tailings known as the mining belt on the Gauteng city-region landscape. The decommissioning of these mines prompted the re-imagining of these productive landscapes into public parks of pleasure, entertainment and leisure (Trangos, 2018) transforming the spatial and social fabric of the southern region.

#### 1.3.1. Sub-Problem

The social, economic and environmental repercussions of the 1930's conversions of productive landscapes into commodified public parks resulted in interventions devoid of the realities of an exploitative industry. Superimposing exuberant nostalgic theme parks, amusement parks and celebrated jubilee events in the turn of the century, these spaces marked the incongruent reality of everyday dwellers of urban communities.

### 1.4. Proposed Site and Programme

#### *Site*

The project is located at the derelict amusement park, Santarama Miniland, on the north-western bank of Wemmer Pan in Johannesburg South.

#### *Programme*

The dissertation proposes a development partnership is for the renewal of the broader Pioneers Park and Wemmer Pan precinct for the Jomo Cosmos

sporting academy, and introduces an aquatic therapy programme for public and sport players.

Programmatically, the urban catharsis project explores the extension of aquatic programmes for the functioning of leisure and recreation where the public and sport practitioners can interact within a managed development.

The architectural intervention would create a hybrid public-private environment where three public aquatic programmes converge as a tool for remediating the site and to contribute to the extension of leisure, healing and escape.

### 1.5. The Main Issue

The transformation of former landscapes of production into places of pleasure, leisure, recreation and tourism in Johannesburg has created large entertainment silos functioning under a core mandate of tourist attractions and "World-Class City" destinations. These models have in part proven to be unsustainable, as a result of a family of abandoned, neglected sites left in decay due to their inability to adapt into to context driven interventions.

The issue of silo management within a larger recreational district and the lack of urban presence have resulted in a neglected and decaying public environment. The social landscape of themed environments such as casinos, theme parks, cinemas and amusement parks in South Africa today have consequentially been altered due

to economic and past spatial legacy practices, the result and proliferation of reconstructed privatised public space with entertainment orientated development and tourism agendas has exacerbated how public space is accessed.

The following question will be investigated;

- How can architecture contribute to sustainable models and interventions employed for urban entertainment?
- How may the 21st century urban park be planned for resilient urban entertainment?
- On an architectural scale, how can leisure be conceived not only through thematic need but everyday intervention for daily use?

### 1.6. The Urban Issue

In an attempt to redefine the development along the Johannesburg mining belt, the condition of repurposing tailings into pleasure parks raises the question of how the sustainable the typology of leisure parks can be as a catalysts for development.

Mine residue constitutes large sections of waste land in Johannesburg. Communities who live beside them are unaware of both the short and long-term effects of mining waste on their health and immediate environment. Used for fishing, bathing, watering, crops and playing they have become an intrinsic part of the lives of those who live beside a mine dump (Kerry Bobbins, 2018).

The thematic approaches to urban space located within post-productive sites have resulted in privatised enclaves isolated from the urban context. Often times the controlling nature of leisure complexes create boundaries, considered by (Hannigan, 1993) as “large-scale urban control zones” which mushroom to the scale of a mini-metropolitan area. The closely managed environment constructs “private” escapes that withdraw from the wider urban fabric.

### 1.7. The Architectural Issue

The architectural issue extends to how the state of decay and reuse of mining residue sites in Johannesburg may contribute to spatial identity in the city through urban entertainment, leisure and recreation strategies.

Due to the lack of ownership and management, the existing buildings and landscapes are in a state of decay and neglect contributing to the stigma and social ills surrounding the precinct which can possibly ascribed to the lack of the Santarama Miniland to adjust to urban entertainment trends and to suitably programme space into the larger cultural/ entertainment precinct.

### 1.8. Research Question

What role does architecture play in urban entertainment sites as a strategy for the urban renewal within adapted mine residue sites surrounding the Johannesburg south districts, specifically within entertainment districts?

### 1.9. Research Methodology

In this dissertation various research approaches are employed to generate the respective content to support

it’s descriptive, theoretical and an interpretive inquiry into Santarama Miniland.

The interpretation of the urban context derived from an overall genealogical reading of urban history in Johannesburg, identifying heritage artefact landscapes related to productive history and historical events. The process includes conducting a study through the following methods;

### 1.10. Chapter 2\_ The Urban Carve [from industry to urban entertainment]

This chapter outlines the genesis of urban space in Johannesburg, specifically the history of planned parks for leisure and recreation, by situating specific entertainment precincts in the context of the adopted and adapted former productive landscapes of the Witwatersrand mining belt.

The aim with this chapter is to contextualise the urban entertainment sites of Johannesburg South, of which Wemmer Pan forms part, in an historical context to gain an understanding of the historical development and consequential significance of these sites and of Santarama Miniland in particular.

Here a literature review of the historic policy development of parks and leisure sites in Johannesburg by the Department of Parks and Recreation, as well as media publications, is relied on to create an understanding of the planning methods applied in the making of the urban entertainment sites. The chapter will conclude with the spatial repercussions of social and political dynamics on leisure and recreation.

### Chapter 3\_ Order and Chaos

### \_case studies

To develop an approach to the transformation of urban entertainment sites, an understanding of the past and current approaches to the transformation of former productive landscapes into urban entertainment sites in Johannesburg was necessary. For this understanding, a casual comparative study methodology (Groat & Wang, 2013) is employed that casually observed the natural (the obvious) (re)occurring patterns between the three existing sites of urban entertainment transformation: Gold Reef City, Top-Star Drive-in and Wemmer Pan precinct, derived from literature.

The chapter situates leisure and recreation as a social construct to city-making

### 1.11. Chapter 4-Theory of leisure

O’Hare argues that cultural landscapes consists of a dialogue between the natural setting and physical setting, the human modifications to that setting and meanings resulting from the landscape to insiders and outsiders.

This chapter introduces the entertainment environment, as the “third place”. To establish a theoretical lens in approaching leisure and recreation in an urban environment, the spatial parameters are defined by outlining leisure and recreation as an extension to the home and work for social interaction and emotional support in the cultural production of place. Experimental Preservation approaches contribute to the theoretical lens of heritage and cultural preservation of sites both from and tangible and intangible heritage perspective.

A theoretical review of consumption of entertainment environments, leisure and history of recreation in the city will guide the investigation to lead to conceptual arguments. Emerging theoretical notions of leisure and architecture which become design informants.

Within the context of the dissertation, Santarama Miniland is considered a cultural landscape. Aspects of the remaining landscape are read through the heritage lenses of experimental preservationist which suggest conceptual frameworks to dealing with heritage and artefacts in contemporary society. The frameworks will architectural intentions of the project.

### 1.12. Chapter 5\_ consuming a Spectacle\_ context

This chapter interrogates the Santarama Miniland within the broader context of the Wemmer Pan precinct for investigating the postulation in the dissertation. This section will interrogate the spatial layout of the decayed urban condition and illustrate the potential the site has to contribute to the spatial identity of the site.

Nye’s (Nye, 1981) “8 ways of looking at an amusement park” is employed as a lens for reading the site, as this work is seen as instrumental, in academia, to the understanding of thematic landscapes.

### 1.13. Chapter 6\_ Mechanical pleasures\_ precedents

A selection of precedents illustrate sites of similar condition and how the imagined urban entertainment conditions may spatially contribute to the sites resilience and spatial identity.

Various precedent studies were

consulted in order to inform the architectural intentions of the dissertation. The spatial methods employed by the precedents give insight to how previously productive landscapes and their transformation may be successful for leisure and entertainment.

#### 1.14. **Chapter 7\_Design Synthesis and Development**

The concept of the states of water is a synthesis of the historical conditions and theoretical aspects of leisure and recreation. It views water as an integral part of leisure on the site, and directly relates the different states of water (related to the programme) to the different type's experiences of leisure as described by Nye's theory (1981).

#### **Chapter 8\_Technical Development**

Technical development clarifies how the architecture manifests leisure at a detail level in response to its context and users.

#### 1.15. **Dissertation Intentions**

The dissertation is a critique of former models for the repurposing of productive landscapes into places of escape, leisure, entertainment and leisure.

##### 1.15.1. **Urban Intention**

Proposes a resilient model for urban entertainment along repurposed mining area sites.

The dissertation, on an urban scale, intends to create an urban entertainment precinct that can cross-pollinate between various leisure programmes. To better the spatial identity of Wemmer Pan through the introduction of cross-pollination of existing networks and programs.

##### 1.15.2. **Architectural Intentions**

In the dissertation the application of Nye's (1981) expression of leisure in a recreational environment is architecturally explored. Supplemented not only as an insular architectural intervention but as an experience of a thematic landscapes as a whole.

To catalyse urban regeneration in and around the Wemmer Pan precinct, the cross-programming of major cultural institutions is proposed to democratise leisure in the La Rochelle region.

##### 1.15.3. **Theoretical Approach**

In the dissertation one such site that forms part of a comparative family of landscapes that had to undergo such transformation is investigated namely: Gold Reef City, Top Star Drive-in and Pioneers Park. The Santarama Miniland, an amusement miniature park, adjacent to Pioneers Park in La Rochelle, Johannesburg South, reconstructs the history through miniature scaled models exemplified through nationalist ideology. This landscape contributes to the commemorative nature parks play in displaying cultural memory using museology devices. Former productive landscapes, now leiscapes, are highly politicized acts often ruled by vested interest and power imbalances (Trangos, 2018). In an attempt to redefine the future legacy and development along the Johannesburg mining belt, the condition of repurposing tailings into pleasure parks questions how sustainable the typology of leisure parks acts as a catalyst for development.

The lack of economic investment along the southern suburbs dwindled as wealth pooled to the wealthier northern suburbs, resulting in neglected cultural institutions today. These landscapes are

further threatened by prospective deep level mining of mine tailing as well as imagining leisure outlets between multi-scalar collaborations and stakeholder's within the township community, questioning the sustainability of these landscapes of pleasure.

The urban catharsis is an exploration of leisure and recreation in the southern Johannesburg region as a result of the unsustainable retrofitting. An architectural condition that critiques the programmatic isolation of leisure in townships is investigate in the dissertation by applying a theoretical lens of leisure as the third place, to uncover the role of leisure as a spatial driver to cross-pollinate between urban growth, the re-mined productive edge and the need to invest in appropriate recreational activities for urban communities as a device for place-making.

#### 1.16. **Background**

Johannesburg has been considered the economic, political and social hub of Southern Africa, traditionally recorded as the rise of the Randlords, the built industrial fabric of the mine-shafts and the transformation of raw mining camp to latterday metropolis (Rogerson, 1980). This narrative often presents a one side perspective to the "City of Gold"?. The discourse from work and production post-industry towards leisure and consumption in contemporary society has contributed as a driving force to social and economic change.

After Apartheid, the Johannesburg municipal authorities sought to strike a balance between addressing the basic needs and service backlogs of all urban residents by promoting sustained economic growth and global

competitiveness (Murray, 2008, p. 28). Market-driven strategies driven by investors, property owners, and city officials sought to fashion the urban landscape in conformity to "World-Class" city status. Developments for urban entertainment in contemporary society became core strategies to deal with how leisure and consumption contribute to major forces within social, economic and geographical implications.

An attempts is made to outline the perspectives and themes of urban entertainment and the leisure in Johannesburg. In an attempt to redefine contemporary concepts of leisure and recreation in urban entertainment. The dissertation contextualises the Santarama Miniland amusement park within a family of sites as an archetype of urban entertainment landscapes (theme parks, shopping malls, casinos and outdoor cinemas in particular) that have manifested in Johannesburg.

The landscape of pleasure addresses the ongoing question of heritage in the discourse of museology environments. The key to understanding

#### 1.17. **Problem Statement**

Settlement on the ridge formed stark socio-economic spatial divides which still resound in the city today (Bobbins & Trangos, 2018). Political, economic and social forces structured the Johannesburg landscape into two distinct economy classes. As wealth pools to the northern suburbs of Johannesburg enclaves, the post-productive landscapes to the south remains largely underinvested in by corporate structures. While much of the post-apartheid enclaves focus has

been placed on Soweto, other significant southern suburbs surrounded by industrial nodes and residential areas lack improvement.

Gold production has made a marked impact on the Gauteng City Region's (GCR) natural landscapes, the effort of converting mine residue as a result of decommissioning in the central basin required concerted effort from Departments to convert slime dams and large sections of mine residue along the mining belt into lush park-land which included water features and other public attractions.

#### 1.17.1. SUB-PROBLEM

The subjugation of unsustainable retrofitted sites of the Johannesburg south mine dumps into a various urban entertainment schemes, geared towards tourist consumption and voyeuristic pleasure, is reinforced by a joint marketing campaign to promote Johannesburg as a 'holistic, integrated destination.

The unique condition amongst the three case studies in Johannesburg should consider the effect of it is through spatially aligning a coherent experience and programmatically situating leisure between recreation and leisure that merge between the active and passive realms.

### 1.18. Architectural Issues

How can architecture facilitate in various mediums of the cultural landscape through recreation?

The urban catharsis will explore architectures potential to exist as combined extension of the cultural landscape and health recreation, and

extend ways in which new modes of activity and pleasure exist complex programmatic types.

A site-specific condition within the broader context of landscapes of pleasure as previously productive landscapes within the region of Gauteng is adopted. The significance of the site is highlighted as an extension to recreation and escape. As a critical lens asks the question of complexity in recreation industry as a contribution to the extension of city image making and metropolitan urbanity.

### 1.19. Delimitations

The dissertation does not strive to generate a model or methodology for dealing with sites adjacent to or above decommissioned mining sites within the Witwatersrand region. Rather, it serves to produce an awareness to the chronology of urban morphology of sites which that been adopted for cultural use. (as the focus is on converting sites into urban entertainment sites).

An archival acknowledgement to the continuous appropriation within the narrative of cultural landscapes of Johannesburg create and contribute to the character of the city and inhabitants, space in and surrounding these mining belt areas recognises the parallel activity between cultural production and space and evolution of the urban grain without remediation of past industrial activity.

1. Due to the extent of the Wemmer Pan and pioneers park site, the intervention is limited to the north-western boundary of the park of the Santarama Miniland site. The greater Wemmer Pan and Pioneers Park are however investigated, acknowledged and addressed at framework level as an integral part of the cultural landscape.

2. By focusing on a culture-led development strategy, the architectural design cross-pollinates between existing networks (programmes) therefore retains existing cultural institutions to facilitate the existence of the new programme.

### 1.20. limitations

1. The existing sheds and building sizes on site are assumed according to surrounding context.

2. No formal plans and landscape plans could be obtained of the Santarama Miniland, the study therefore relied on geographical data and maps

3. Johannesburg districts are divided into seven districts or regions (Regions A to G). Region F is the considered region of interest for this dissertation, which includes the inner city and the suburbs of Johannesburg South. The study area was chosen to encompass three sites considered a family of entertainment/leisure precincts built on or beside mine residue. These sites exemplify cultural landscapes.

### 1.21. assumptions

1. Despite the threat of informal mining activity and the prospect of deep-level mining surrounding the Wemmer Pan precinct and the broader central basin, within the context of this dissertation, the mining activity and all relevant infrastructure have been decommissioned and are no longer in use.

2. The completion of existing engineered infrastructure projects which will remediate and reduce acid mine drainage on the water table is complete and in full operation.

# LEISURE IN THE CITY

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# 2

*The chapter introduces the themes and theoretical discourse in which the dissertation functions to inform the design framework. The discourse of public space, leisure and entertainment to include the affect industrial heritage has had on public space in Johannesburg.*

- 
- 2.1 Defning Cultural Insitutions
  - 2.2 Reading the leiscapescape as a cultural institution
  - 2.3 Exploring the third place in leisure environments
  - 2.4 Urban Fracture 2//Igniting ‘Green Lungs’
  - 2.5 Urban Fracture 3//Forced Separation
  - 2.6 Urban Fracture 4//Decay and Neglect
  - 2.7 Spatial Effect// Mediating a World-Class African City-Status, Urban enclaves and leisure

## 2.1. Leisure and the city

*“The crowded city afforded no chance to be alone with nature or one’s self, to ponder questions of life and identity.”*

- (Nye, 1981)

The evolution of leisure and recreation provides a rich tapestry of people, places, events and social forces (McLean, et al., 2011). While several definitions exist on leisure, the agreed upon definition can be adopted from Aristotle who conceptualised leisure as time every modern person sets aside for their creative self.

The seventeenth century was the golden age of the tavern, the eighteenth century introduced pleasure gardens, while the nineteenth century featured fêtes, carnivals and circuses littered over public space. By the twentieth century, the mechanisation of work allowed for more leisure time and the distinction of class sparked the leisure revolution for the consumer igniting refined taste for museum culture (Pilcher, 1938).

Recreation too has evolved from elitist leisure (Kelly, 1992) through industrialised recreation that ‘restored men for work’, to holistic recreation that is diverse and multi-dimensional (Weimers, 2000). Various forms of recreation and leisure now primarily incorporate sport as a social function and not an athletic activity and

consumption as a mean to access leisure and leisure spaces. By the 1970’s efforts at creating urban entertainment in the city to narrate the progression of the city through technology, civilization and narrative came to the fore and featured thematic landscapes for its inhabitants. It became evident during this time through exhibitory and thematic events, installations and events, the nature of public space had changed in its construct and structure. In Johannesburg, the Empire Exhibition celebrated on the 15 September 1936 for the fiftieth anniversary of Johannesburg’s founding of gold on the Reef (Witwatersrand), was intended to mark the city’s jubilee to include the narrative of civilization and technology. The exhibition included displays of mineral marvels, diamonds, rock gardens a replica of Victoria Falls, an animal zoo, a model of the Rand. Other attractions included a Jubilee parade, an ice rink, a cinema, musical performances and a pageant presenting South African history (Coe, 2001).

Leisure provision, according to Logan and Molotch (1987), has been used to facilitate post-industrial growth by

connecting feelings of community to the goal of local economic growth. As a result, the introduction of meticulous choreography of space in the 21st century created for universal cultural entertainment after the industrial revolution, informed modes of entertainment for specific features of entertainment after the second industrial revolution which formed a paradigm shift from production to consumption (Mitrasinovic, 1998).

The nature and origins of empire exhibitions, world fairs seep in today’s contemporary thematic public spaces of Johannesburg. Further illustrated in the case studies to be discussed in the following chapter, are existing sites which continue to narrate space through this old age medium. Leisure activities are the reason for the existence of contemporary urban sites of entertainment (EYÜBOĞLU, 2018) Cultural production of entertainment which corresponded to the needs of late-modern capitalist society (Botterill, 1993).

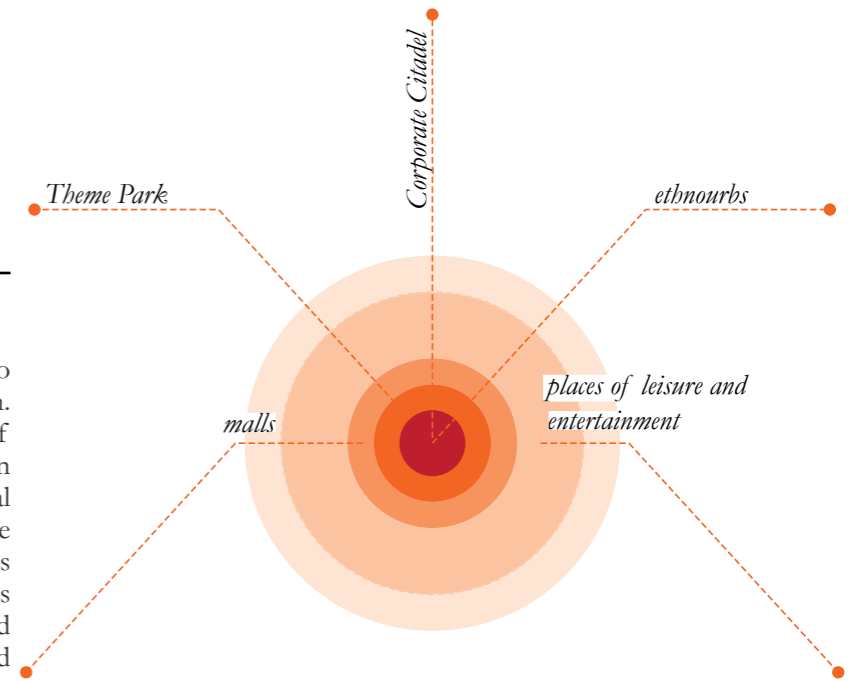


Fig.2.1 Artist depiction of water as leiscapescape (Maria Guerreiro Morias, 2017)

## 2.2. Reading the leiscapescape as a cultural institution

*‘Across space and time, people have created a place in which they gather in large numbers to participate in ritual, entertainment, amusement and spectacles’*

- (Clavé, 2007)

Leisure is a term that has been used to encompass a state of mind that an individual finds themselves in a particular time (Torkildsen, 2003). The question of relativity for leisure opportunities in the twenty-first century put forward by sociologists; believe that leisure involves an individual reaching a particular psychological state which is more about a holistic experience. Rem Koolhaas reads the city as simply “scape”- a condition which architecture and landscapes are undifferentiated and subject to the same forces (Weller 2006:77). The term “leiscapescape” denotes landscapes as places of domestic leisure activity, domestic and international tourism and developments of the tourism industry and will be used a theoretical driver for the dissertation. Leiscapescape also connotes the complex structural system of landscapes formation that includes the manner in which people engage in spaces and relationships formed between stakeholders that are integral to managing public space.

Leisure spaces, be they public, private, inside or outdoors, multi-purpose or tailored for specific activities are important to individuals and society as a whole as it contributes to their health and community identity (Ritcher, et al., 2013). The innate need for humans to play and seek recreational experiences in urban contexts illustrates the need for

appropriate leisure experiences within the built environment that provide a sense of pleasure. The understanding of leisure and its manifestations in urban spaces differs decidedly between individual, institutions and context and could be argued from both the typological perspective and psychological perspective.

To merge these definitions provides a theoretical framework of leisure for the dissertation and frame the development of these spaces in the twentieth century, is best described by (Torkildsen, 2003) as four discernible spatial dimensions expressed from the typological and user perspective. By definition, cultural institutions intersect the relationship between leisure, recreation and tourism within this dialogue fundamentally hinges on the nature of public space in which leisure exists (Magi & Nzama, 2002).

The distinction of these constructed urban spaces elicits how urban public space carries dual purpose for cultural significance, memory, meaning of history and every recreational purposes. Technological influence has defined how the contemporary world views leisure is designed, defined and expressed.

One of the tasks of local government

has been to provide services which ensure the well-being of its communities (Weimers, 2000). Opportunities created in re-imagining, industrial or abandoned sites became desirable areas for urban renewal, contributing the cities narrative of a boom mining town and City of Gold. The case studies selected illustrate the cultural reuse whose value lies in its political and social transformation of space to ensure continuity in the transformation of the industrial enterprises into functional cultural spaces (Cristina, et al., 2014).

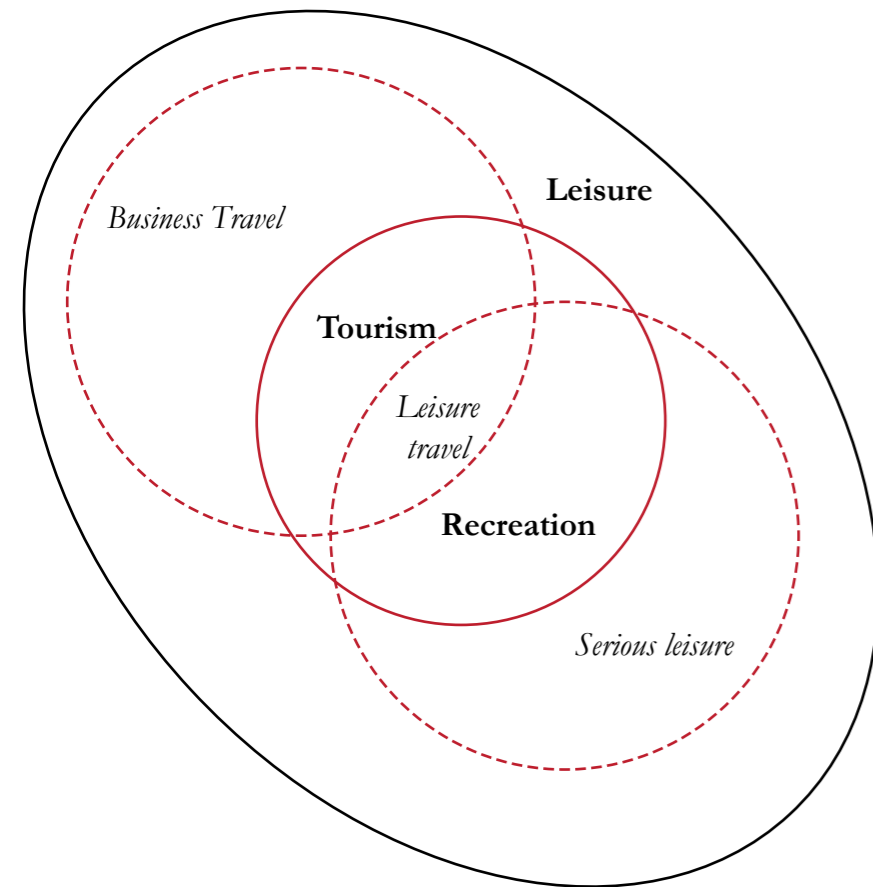


Fig.2.2 Relationship between leisure, recreation and tourism (Hall, 1998)

### 2.3. Defining Urban Entertainment



Fig. 2.3 Collage of Johannesburg's landscape of pleasure (Author, 2019)

The production of an environment as a themed space- has been used as a core strategy to incorporate the concept of technology and heritage into a narrative or story of a controlled environment, such as museums, theme parks and outdoor entertainment. These spaces are considered urban entertainment spaces and are spatially constructed as a public environments created to cater for the masses, succumbed to artificial and consumerist agendas.

Urban entertainment industries are often associated with tourist industries and thus create commodified spaces which essentially package and sell a product through an experience of narrative. The nature of selling national heritage through packaged experiences has often left the question of its cultural significance in public space for local inhabitants.

In Johannesburg, the cultural significance of urban entertainments exists two-fold, from a global aspect of culture which intends to produce a city through image-building techniques and fantasy-worlds, and the second from a local perspective of town-planning and management of public space for leisure use.

Urban entertainment and leisure landscapes have remained largely unexplored architecturally while

academically serving interest over the last 55 years (Walker, 2015). These landscapes described by (Kane, 2013) set how the built environment has shaped and contributed to the idea of reflecting the social cohesion in contemporary society. As cultural institutions, they express modern ideals shaped by architects, who recognise the artistic visionaries of the urban landscape (Botterill, 1993).

In his book, *The Amusement Park; History culture and the Heritage of Pleasure* Wood(2017) argues how the cultural and heritage significance for the origins of these parks lie within the pleasure park, by definition expresses industrial archaeology and highly related forms of entertainment architecture dedicated to the provision of leisure and enjoyment such as theatres and cinemas.

Conforming to a major part of the commodification of the public realm, this urban phenomenon of what is termed the "disneyfication" defined by (Bezzoli & Marks, 2001) is explicitly revealed in thematised urban entertainment sites.

Architecturally, the experience of urban entertainment has squarely focused on consumable product(s) and experience, where architecture is the subject of consumption too. Consumption being

described by Julier(2014) as the pleasure or un-pleasures of having an artefact, acts prior to ownership, looking, listening or touching used as a device for consuming.

In order to understand the cultural significance of the urban entertainment spaces within the built environment, their spatial syntax ought to be understood. The following reading of public space and the space as a repository of memory and cultural value in society as well as an all-encompassing hedonistic experience.

In his book, *Fantasy City; Pleasure and Profit in the Postmodern Metropolis* (Hannigan, 1998) describes six central features which define urban entertainment;

- The concept of Theme-o-centric defined by individual entertainment venues to the city image that conforms to a scripted theme.
- The aggressive branding of urban entertainment destinations, which rely on the ability to market and finance consumer satisfaction but potential to sell licensed merchandise on site.



- The Fantasy City operates during the day and night in which urban entertainment centres (UEC's) encourage after-dark activities.
- The Fantasy City as a modular element, mixing and matching standard array of components in various configurations
- Fantasy City as solipsistic; isolated from surrounding neighbourhoods, physically, economically and culturally.

In this way, the image driven city becomes what is described by (Hannigan, 2007) as the "Fantasy City" born from the construction around technologies of simulation, virtual realities and thrill of the spectacle.

The advent of creating Fantasy Cities has sparked debate in the turn of the mid-twentieth century that marked a turning point for the amusement industry as Walt Disney's idea of organising amusement areas, rides and shows under themes and contributed to a new era of the entertainment industry.

The Fantasy City is argued to be constructed around technologies of simulation, virtual realities and thrill of the spectacle. (Hannigan, 1998) and (Cartier, 1998) argue that the future conflict between locally based heritage conservation and themed development threaten the experience of leisure. The significance of leisurescapes thus lies in their seductive quality to represent visually only the values conveyed by their spectacular and functional characteristics.



Fig.2.4 Collage illustrating cycles of adaptation on historical industrial sites (Author, 2019)

## 2.4. Re-looking at the idea of leisure

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Leisure and recreations greatest value lies in the fact that it brings release of tension. Publius Ovidius Naso (Ovid) stated that in our leisure we reveal what kind of people we are. Aristotle argued that leisure, unlike amusement, involves pleasure, happiness and living blessedly that form part of the necessities of our life that exceed entertainment objectives. Recreation in retrospect relies on the opposite, and is defined as an activity of leisure considered for amusement, pleasure and enjoyment.

Leisure activities are thus the reason for the existence of contemporary urban sites of entertainment (EYÜBOĞLU, 2018).As a result, the introduction of meticulous choreography of space in the 21st century created for universal cultural entertainment after the industrial revolution, created designated modes of entertainment for specific features of entertainment after the second industrial revolution which formed a paradigm shift from production to consumption Mitrasinovic(1998).

The term sport/physical recreation refers to all recreational activities requiring physical exertion. This includes all sports, competitive or pleasure-orientated activities (Wilson & Hattingh, 1988).

Outdoor recreation is used in a general

sense to include activities associated with both natural and cultural environments. As a result, the terms outdoor-recreation and nature-based recreation have often been used synonymously to denote recreation activities which will take place out doors in a natural setting (McCall & McCall, 1995).The architectural critique of the cultural landscapes lie in what Cramer & Breitling (2007) describes as a clear distinction between design strategies and architectonic expressions whereby design strategies exist as physical interventions and alterations to landscapes and as an architectonic expression the aesthetic quality of intervention.

The aesthetic of themed environments often rely on a playful borrowing of other historical styles, the style of amusement architecture played part in the formation of an architecture that amuses (EYÜBOĞLU, 2018). (Botterill, 1993) clarifies that the theme park as a cultural production of entertainment that corresponds to the needs of late-modernist capitalist society and only makes sense in that context. Unusual architectural experiences and new experiences, thus within the construct.

*Approaches to the concept of leisure*

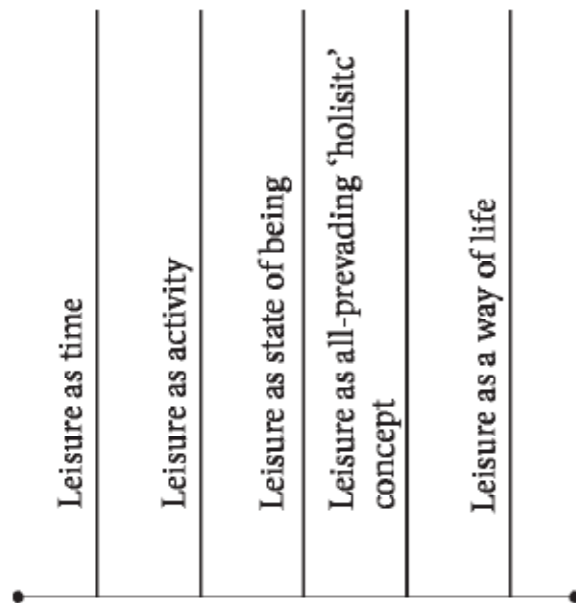


Fig.2.5 Conceptual layers to leisure (Author, 2019)

## 2.5. Exploring the third place in leisure environments

Cities and urban areas are environments with a multiplicity and variety of functions, including commercial, administrative, and residential and leisure uses. The 21st century dialogue and theoretical debates of leisure environments intersect between narratives, meaning of leisure, tourism and consumption which all form a critical debate in planning and providing, appropriate outlets to the idea of escape and urban entertainment within the built environment.

The third place is defined as a location outside the realm of “home” and “work” that allows for social interaction and emotional support, regardless of levels of social classes, ethnic and racial differences. Considered as locally-owned, independent, small-scale establishments, the third place usually exist in the urban setting of public places (Samadi Ahari & Sattarzadeh, 2017).

Urban sociologist ( Akyeampong & Ambler, 2002) (Horner & Swartbrooke, 2005) have defined the success of the third place in urban communities to influence and define how it will be used. The factors which influence the use of the third place are the culture of the residents, their varied viewpoints and also the amount of income they earn. The disparity to quality of life causes the third

place to exhibit various features, as well as the optimization of existing spaces.

The third place thus differs from culture to culture and offers a space of exchange, placing meaning and offering a place of exchange. For the individual, the third place offers stress relief from the everyday demands of both home and work (Samadi Ahari & Sattarzadeh, 2017). The significant role these urban areas play in social, psychological, environmental and health needs surrounding the community comes in offering reduced stress and enhanced fitness levels. It extends from the home and work as a crucial space with social connections where novel entertainment activities are fostered.

Neutra has propounded the effect of ‘psycho place’ as places as man’s mental relaxation, their spatial hierarchy to the third place is defined by (1) spaces which provide a way to play, (2) an activity that offers social support to citizens, (3) a way to establish norms in the community, offering participation in leisure opportunities for individual and communal benefit.

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to the third place is defined by (1) spaces which provide a way to play, (2) an activity that offers social support to citizens, (3) a way to establish norms in the community, offering participation in leisure opportunities for individual and communal benefit.

Emphasis on the importance of recreation and leisure is in communities having been linked to social ills as follows;

“The neglect of recreation can lead to frustration and ultimately conflict and possibly unrest...” (Butler-Adam & Franke, 1986).

Leisure time is argued by (Samadi Ahari & Sattarzadeh, 2017) to be closely linked to people and society’s spiritual and cultural life. The expression and investment in leisure thus addresses in the fractured social nature of our communities. In part, the contribution these leisure landscapes rely on the use of the broader public to engagement and view others using the space.

Leibowitz(2008) argues that within the built environment, the memory space extends beyond the purveyor of truth, marking the intersection between museum and artefact. In that way it is either the artefact or experience of

visiting the space that contributes to public memory.

By defining the third place for the architectural the intervention take cues from heritage approaches and the palimpsest of layering the programme from a leisure perspective and to act as spatial conceptual drivers approaches architecturally. The intervention aims to create a leisure experience in which the city spectacle, narrative and memory are backdrops to the intervention and seeking to express hybrid notions between, release (healing), spectacle, activity and sport are housed as an interwoven entity woven existing between the public and private functions of public life.

The leiscapes presents creative visions that continuously negotiate their place among commodities and corporate interests. The leiscapes is thus approached from three fundamental design principles, namely; the aesthetic expression of leisure as a distinct form, the audience required from sport to public sector and boundaries which are expressed as closed and semi-enclosed.

Within the South African context, specifically in urban Johannesburg, leisure and recreation play an important part in the quality of life of a community (Wilson & Hattingh, 1988), although the disparity to quality of life exhibits extremes in South Africa, specifically due to political and social forces and historical governance of public space has caused the third place to exhibit incongruent access, highly regulated public environments and quality of public space in the city, as well as the optimization of.

The dissertation investigates an architectural condition that critiques the programmatic isolation of urban entertainment sites in Johannesburg south by applying a theoretical lens of leisure as the third place, to uncover the role of leisure as a spatial driver to cross-pollinate between urban growth, the re-mined productive edge and the need to invest in appropriate recreational activities for urban communities as a device for place-making

The theoretical approach takes informants defined by (Nye, 1981) and acknowledges viewing the amusement park as a starting point to the discourse of layering the existing leiscapes for an approach of palimpsest to the previous layer conceived within approaches to leisure.

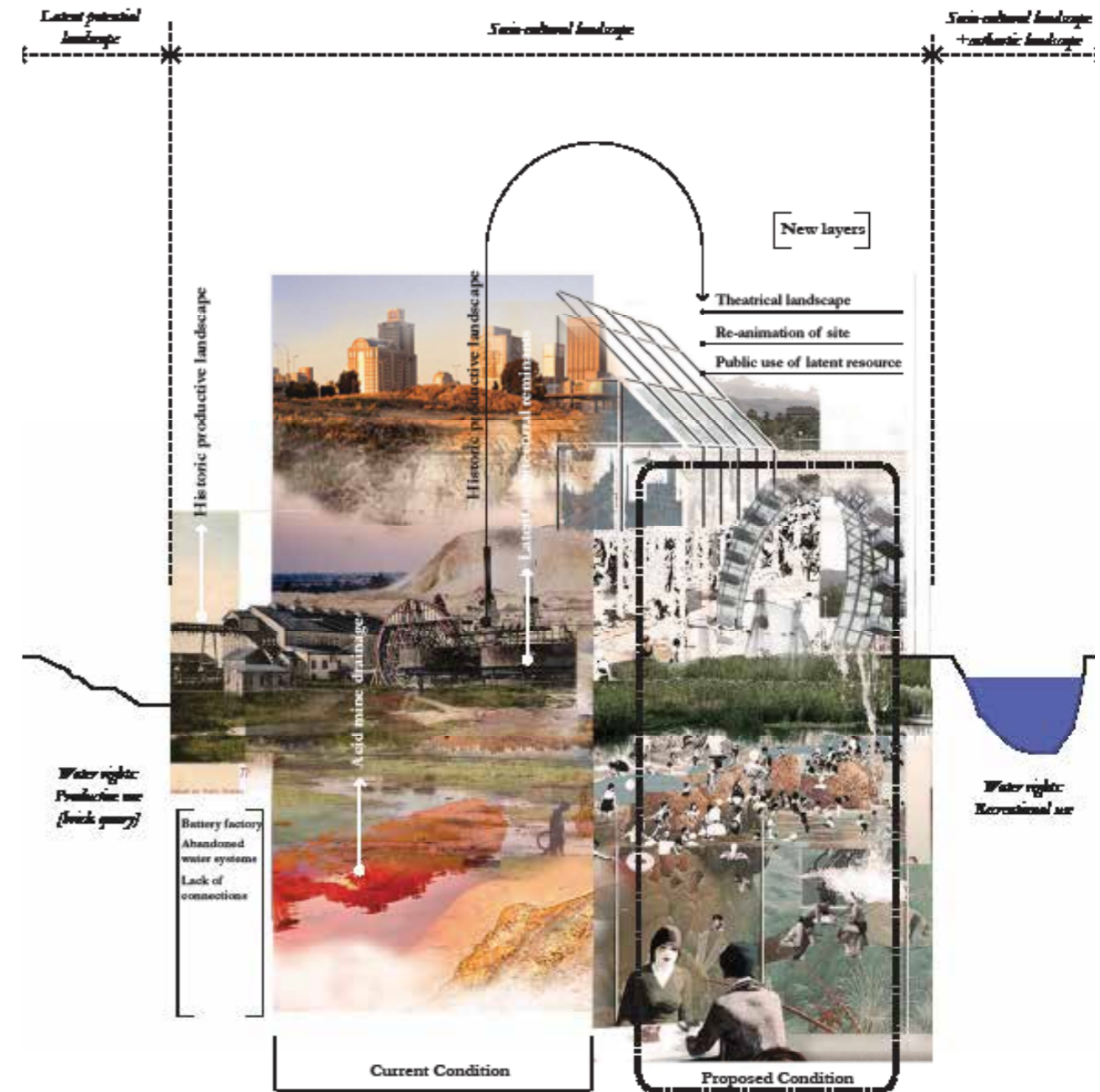


Fig.2.6 Conceptual layers to leisure (Author, 2019)

## 2.6. Leisurescape and Public Parks in Johannesburg

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### Social and moral control

Hoskins point out the manifold roles of parks:

“They contributed to the ‘moral enlightenment’ of the population. Like museums and expositions, which indeed they often accommodated, parks were public spaces that operated as ‘exhibitionary complexes’ communicating social codes and gaining popular acquiescence to these codes.”

On the surface they were seen as areas for relaxation and calm but, underneath they were places of potential disorder and an ever-present risk of danger, or at least affront. By their very definition as public places and being surrounded by the reality of the sights, sounds and smells of the city streets and environment, they facilitated the mingling of people. So, in addition to providing a space for exercise and improve hygiene and health, parks had another important function. They were emblematic of the Victorian project of providing an alternative space for leisure time activities. Rather than visiting drinking and gambling houses<sup>48</sup> — viewed as the seed-bed of moral degradation<sup>49</sup> - visiting a park was the more virtuous thing to do.

The park created a distinctive civic and cultural space for the significantly changing the city landscape. Middle

class refinement at the turn of the century included admiration for music, nature, art, a library, a museum, facilities for horticultural displays and “civilised” sporting activities. The Johannesburg city council that drove the civilising project, providing an escape from the crowded city life and reinforcing class differences. The designs of 19th century English parks were strongly influenced by either scientific or educational needs or for stimulating land values.<sup>67</sup> Parks of this period often focused on especially monumental architectural and eye-catching features, usually a bandstand, pavilion, shelter and fountains.

Citizenship was, after all, intimately entwined associated with cultural presumptions. So was respectability.

## 2.7. The Landscape of Urban Leisure



*“From the time a city emerges, inhabitants have filled them with statues and monuments representing civic regalia to markers of time. With each leaving a repository of civic and or national memory which define virtues by speaking of great events.”*

Benton-Short & Short, 2008.



Expos, World fairs or International Expositions had a major impact on the amusement industry which provided a platform of incentives for countries around the world to exhibit their manufactured goods under one roof. In such a way, Gold reef city epitomizes this concept by translating exhibiting the city’s history of productive past, technological and productive endeavours of the city through an exhibitory type mechanisms and extending its use for leisure purposes.

In Johannesburg mechanisms employed by the colonial elite fashioned suburban landscapes in the image of traditional British townscape to counteract the rough and tumble of the city. Integral to suburban expansion was the development of key institutions that were essential to anglicising the Transvaal to the northern suburbs (Kerry Bobbins, 2018). Reconstituted historic productive landscapes and their waste are often conceived as by products to industrial heritage. Their conversion often lie in-between debates surrounding retaining the significance of public urban entertainment schemes as cultural institutions often lie outside the realm of considered typical heritage.

Leisure is the English term for activities that are connected with recreation, culture, sport and relaxation. Leisure time activities or “free time

activities” are those activities which are available to the individual to be enjoyed at his discretion after the necessary employment duties have been completed (Wilson & Hattingh, 1988).

(Leslie Witz, 2007) notes the idea of theme parks in South Africa represent the real world tugged in war of financial transactions and land deals, the translocation of imagined pasts into real space and merely than just fantasy places Africa into a world of science and education offering ‘edu-adventure’. Further note the post-colonial tourist adventures drew upon ‘nativist authenticity’.

The archetypes existing in Johannesburg’s leiscapes discussed in the previous chapter, the amusement park and alteration of theme park which have been described as a social artwork designed and to be experienced as a four-dimensional experience, evoking impressions of place and times, real and imaginary King (1996).

The Santarama Miniland presents an opportunity to read how leisure spaces have been constructed as a place for city making agendas and creating cultural narration through commodification efforts. In order to read the leiscapes as a notion of post-modern experience of the leisure Nye (1981) provides a

conceptual spatial analysis to describe characteristics of an amusement park which are subsumed in the theme park landscape as the following;

- The creation of an alternative world
- The emphasis on fantasy and theatricality
- The use of architecture and design to create a unified spectacle
- The opportunity for release from conventional behaviour
- A family orientated environment
- The incorporation of construction and transportation technology
- The provision of riskless disaster re-creations
- The notion of a complete lucid experience in a single, controlled environment and,
- Accommodation in camping sites or hotels (Hildebrandt, 1981)

The urban catharsis is an exploration of leisure and recreation in the

southern Johannesburg region as a result of the unsustainable retrofitting.

## 2.8. Looking at the typological nature of leisure environments

The success and use of leisure environments have always been tied to their perceived attractiveness and spaces offering multi-destination linkages (Crompton & Lue, 1993).

According to Kim and Fesenmaier (1990), the spatial structure of the supply of recreational opportunities is likely to affect the nature and extent of participation in pleasure travel. Focusing on multi-destination trips is that investigating the nature of linkages between destinations or attractions may help establish which types of tourism activities or resources should be located close to each other in order to maximize the financial return to both of them.

Alternative spatial patterns of attractions and leisure environments influence the probability of being visited; their role and structure highlight the importance of developing appropriate models between four facets of users

Functional definition means that “regions are distinguished from each other on the basis of a closely linked set of internally consistent travel patterns” (Smith 1989: 183). That is, visitors who go to a destination in a region are more likely to go to others in that region,

than to destinations in another region.

The typology of leiscapes has been outlined by (Crompton & Lue, 1993) into four main categories, between purposes or benefits sought versus number of destinations visited.

Fig 3 offers a typology that classifies leisure trips using the dimension of number of destinations visited and the purpose or benefits sought.

## 2.9. Controlling Urban Space [the effect of POPS on sites of leisure]

Debates defining tourism and recreation in the 21st century in South African landscapes are fairly infant within the academic realm. The result of spatial and socio-economic inequalities has historically marginalised previously disadvantaged communities (Magi & Nzama, 2002).

The model of constructing leisure spaces complex and often dictated by external forces, one could argue that the nature of public space has become somewhat highly regulated through private

investment. The flow of activities away from the metropolitan centres is nothing new. The decay and attempted renewal of the central cities is a familiar subject of our times (Wilund, 1976, p. 76).

The leiscapes presents a problematized notion of “other worldly”, its creative visions have continually negotiate their place among commodities and corporate interests.

Not only has the theme park emerged from the amusement park, the threat to the existence of the amusement park in contemporary society featured as necessary junctures of appropriating the site, an outdated concept conceived through American norms of recreation. In what Leibowitz (2008) describes as memory space, it extends beyond the built environment as a purveyor of truth, marking the intersection between museum and artefact. In that way it is either the artefact or experience of visiting the space that contributes to public memory.

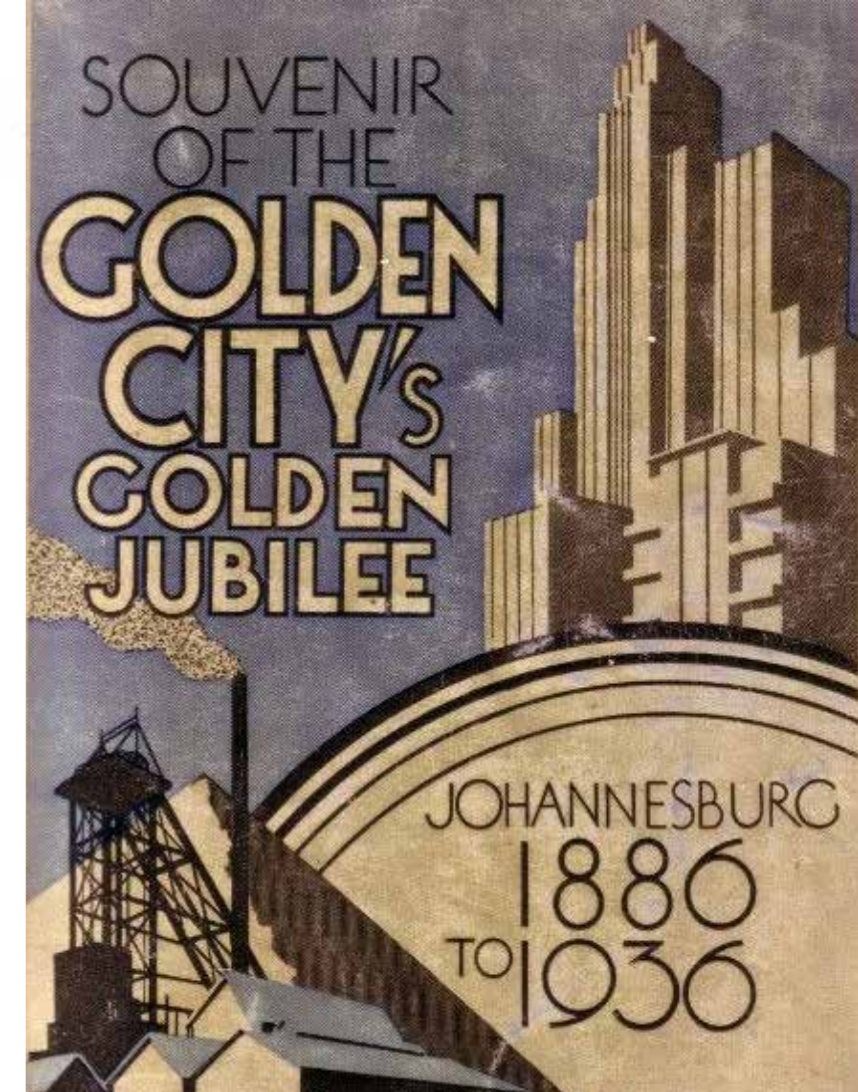


Fig.2.7 Golden City Jubilee Souvenir book cover (Wordpress, 2015)

## 2.10. A portrait of Johannesburg's social landscape

Between the proclamation of the gold farms in 1886 and the outbreak of the Anglo Boer War, several forms of recreation and entertainment were dictated by the environment caused by mining industries and settlement. The town firstly grew from a tented camp, into a tin village of a settlement and finally into an extensive town of two-storey burned brick buildings (Anon., 1987).

Various snapshots during this revolution across space and time-precolonial, colonial and post-colonial provide a collage to the nature of leisure and recreation experiences in different parts of Johannesburg's cultural and social fabric (Akyeampong & Ambler, 2002).

The early days of the diggers was dusty, brutish and short as darkness fell on the potholed streets that were either mud baths of dust holes, workers and urban poor gathered in bars, brothels, rooming hotels, gambling hotels and outlandish cafes later stumbling home to crowded a hotel or rooming house, while the middle-class worked in quiet and strict conditions in factories.

The onset of the industrial revolution in late 19th century sparked rapid urban intensification, and created the division of labour and 'free time' to create what was termed the "leisure revolution".

Modernisation under the impetus of the Industrial Revolution and urbanisation eroded traditional rural patterns of life. The revolution drew people into cities in search of work, and the regimented hours associated with industrial work left the masses for the first time in

the modern era, with scheduled free time to direct their own activities.

Due to the lack of water, adequate sanitation, lack of facilities three plagues were enteric fever, social disease and alcoholism. The third period of urbanisation in the city included substantial numbers of buildings, theatres, a permanent circus, horse-trams, railway, elegant drawing rooms, and music halls, cinemas, with the inclusion physical activities for the rich included, cricket, gold, tennis and soccer created a hinterland of escape.

Mechanisms employed by colonial elite to create a suburban landscape in the image of a traditional British townscape set to counteract the rough and tumble of the city manifested to the north of the mining belt ridge (Bobbins & Trangos, 2018, p. 38). As the elite fashioned the Johannesburg landscape to European landscape, their manicured gardens contrasted the brutish and dusty southern landscape sacrificed to mining activity.

## 2.11. Leisure Post-Modernity

The invention of new technologies and new forms of entertainment at national and international level created at various times, created a local demand during the eccentric era of the 60's and 70's for fashionable leisure venues and facilities such as cinemas, theatres, roller-skating rinks, sports centres, water parks, coffee bars, theme pubs and discos.

By the late 1980's acceleration to the consumption of entertainment districts gained prominence in Johannesburg's cityscape, parks and cultural institutions altered the relationships between social life and production



Fig. 2.8 Cable cars in full swing 1969. Source (A Very Smart Medal, 1992)



of public space (Clavé, 2007).

Today the leisure and recreation environment is lauded with contemporary notions of consumption, often resulting in further exclusionary enclaves of society and status.

Tourist attractions in their diversity such as outdoor recreation resource, indoor recreation facilities, amusement parks, theme parks, gaming casinos, sporting activities and shop-entertainment complexes have become major sources of tourism activity and revenue. According to Akyeampong & Ambler(2002) the need to re-imagine how leisure is design and accessed in the 21st century from the perspective of people seeking pleasure and relaxation. in a rapidly desnse and urbanised cities.

Well over 100 years has passed since the “leisure revolution” and the fruits of civilisation have become more plentiful and leisure more bountiful. The period of 1900-2000 saw the introduction of extensive range of leisure, recreational and entertainment facilities, due to higher disposal income (Archive, 2008). The concept of leisure and recreation has long been identified as a social and cultural construct whose meaning differs sharply along race, ethnicity, gender, class and age. Academically conceived as the time consciously set aside for social and recreational activities or even “rest”.

## 2.12. Post-modern Architecture

The following chapter is summarised from three sources (Kros, 1990) (Kane, 2013) (Van Eeden, 2000) unless otherwise stated.

The entertainment and leisure landscape has for the largest part remained

architecturally unexplored. The amusement park has been overlooked as a site of architectural interest (Walker, 2015), while academically serving interest over the last 55 years. These landscapes described by (Kane, 2013) set how the built environment has shaped and contributed to the idea of reflecting what fun is in contemporary society.

The distinction of these artificially constructed urban space elicit how urban public space carries dual purpose for cultural significance and a space of memory and history.

Architecture has increasingly been implicated and influenced by contemporary capitalist, further argued by Chaplin and Holding as a merchandised and choreographed experience and entertainment modes of consumption, entertainment and commodification. During the period of the 1980’s, Post-Modern architecture become institutionalised as a mainstream, successful style oppositional to the high Modernism (Van Eeden, 2000).

The architectural stance drew on Modernisms populist influenced by architects such as Robert Venturi which propagated aesthetic in key books *Contradiction and complexity in architecture* (1966) and *Learning from Las Vegas* (1972) to its users as a key informant to space. Post-modern architecture has made conscious use of vernacular materials and stylistic tropes (Van Eeden, 2000).

The Post-Modern aesthetic had delighted in colour, reflective surfaces, the labyrinth, surface details, ornamentation, symbolism, allusion, surprise, gratuitous effect and metaphor,

which some critics argue stem from the Art Nouveau’s fantastic dream-world imagery, exhibited in landscapes such as Gold Reef City and Santarama Miniland.

The visual and technical appeal draw onto accommodate various programmes, temporal, event-based nature. The performance of production of the fairground architecturally, the amusement park may be argued as the ‘contested subject’ which can provide robust and flexible agreements transfixes a multiplicity of interest, sites, time, things and spaces.

The architectural exploration during the 1960’s and 1970’s marked a significant change in architectural aesthetics, the emergence of an appetite of what Architecture could or should be. The avant-garde architectural group, Archigram, grounded neo-futuristic, anti-heroic and pro-consumerist, drawing inspiration from technology which set out polemic proposals at wide range scales that possess elements of amusing. The specific projects drawn into the flagship projects based on the idea of society as spectacle and the instant city as a mobile technological event.

The instant city was conceptualised as a device made of moving objects, airships, tents, caps) and technology (cranes, refineries, robots) that seep temporarily into a community to create an audio-visual event. Envisaged as a series demountable, plug-in technologies. The effect is a deliberate overstimulation to produce mass culture.

It is evident that in the leisure based entertainment environment the idea of hybridisation forms a strong spatial informant to experience and composition

of space, employing various methods of post-modern architecture. What has become critical at this point, is if this urban entertainment gestures serve effectively to South African cultures to the idea of leisure and entertainment. The construct of this architectural root; four categories the body, geographical space, psychic forces, social forces (Walker, 2015).

## 2.13. Contemporary notions on leisure and entertainment

In South Africa, culture-led developments achieved a heightened surge in the 20th century as a result of cities struggling to deal with economic restructuring. The entertainment industry provided a potential redevelopment strategy for culture and tourism-led developments which would catapult districts into success and rejuvenation (Akyeampong & Ambler, 2002) (Samadi Ahari & Sattarzadeh, 2017).

One of these strategies included cultural-led strategy, which is categorised under urban entertainment and include thematic programmes such as cinemas, theme parks and casinos introduced to the urban public landscape. Considered by critics and scholars, as a composition of post-modern entertainment (Albert & Murray, 2014) (Banerjee, 2001) (Bezzoli & Marks, 2001) (Clavé, 2007) (EYÜBOĞLU, 2018), often aligned with the Disney entertainment phenomenon, the idea of the urban park has drastically changed since its colonial manicured gardens.

This new public stance of late twentieth century followed international urban trends as South African cities rapidly transformed into archetypal postmodern cities for ‘World-Class’ city

status (Bezzoli & Marks, 2001).

Layered with new cultural narrative and intention, public space in South Africa often carries with it profound political ideology and memory. The current state of urban entertainment precincts are often considered contested for its representation as a result of adopted “Americanised” strategies to public space.

The architectural development of urban entertainment in Johannesburg is rooted in cultural and heritage significance, contributing to spatial identity of the city and social landscape of Johannesburg. The spatial and aesthetic value of thematic environments exhibit how technology of theming architectural perspective and constructed as a spatial technology has become a global phenomenon.

The following case studies in the next chapter illustrate how architectural schemes were influenced by architectural history and the spirit of the time in Johannesburg’s created ornamental landscapes and reconstituted styles which celebrate the consumption of place and architecture, the idea of the ‘City of Gold’, articulated in local conditions to global economic and economic cultural forces (Bezzoli & Marks, 2001).

#### 2.14. Narrating history within the entertainment industry

*“Many, if not all cities bear signs of the past, constructed and scarred by acts of history.”*

*(Leibowitz, 2008)*

The relationship between leisure parks and urban reforming of past spatial legacy serves as a proponent for

metropolitan reconstruction (Bobbins & Trangos, 2018).

These post-modern attractions included large artificial entertainment complexes which would play an influential role in shaping Johannesburg’s social and cultural landscape. Considered as an alternative museum the amusement park merges both as a tool for education and entertainment immersed in one environment.

These cultural landscapes include mines, quarries, dams and jetties, and the purposeful manipulation of the earth’s vegetative cover simultaneously existing between natural and artificial landscapes. Urban park renewal within a cityscape experienced pressure specifically due to densely populated in carving out non-instrumental public space from within. Reflecting simultaneous environments of history, tangible and/or intangible heritage, education, fantasy, escape. These cultural landscapes appear in the nature of escape environments, such as the casino, theme park and amusement park. The artificiality is emphasized within the treatment of its symbolic nature of memory by reconstructing lurid experience of theatrics.

The interpretation of both a remediation and assemblage of new constructed public space that have thus attempted to assimilate the re-imagining the collective vision of cultural landscapes as an extension to the lived and everyday space.

The typical nature of museological environments seldom consider the contribution, or lack thereof, the entertainment-based landscape orchestrates in public memory as a repository for or to memory, somewhat

secular in nature these environments recollect and establish memory through alternative means.

Policies which dictate development such as breaking new ground and the white paper on spatial planning and land use management 2001 advocate for breaking away from a housing-only approach to a holistic development of human settlements, including the provision of social and economic infrastructure.

Inherent in the discussion of memory is the physical manifestation and construction of the entertainment/leisure environment, which in part either dilute narrative or completely obliterate narrative for sake of theatrical consumption.

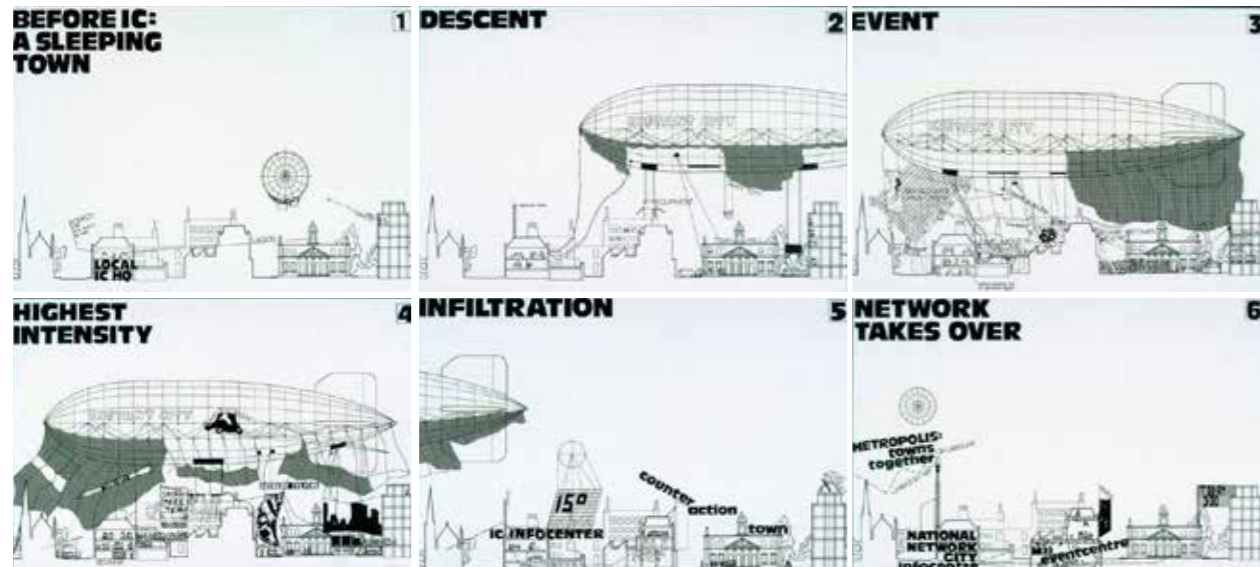


Fig.2.9 Archigram (Archigram, 2018)

## 2.15. Local perspective

*“Many, if not all cities bear signs of the past, constructed and scarred by acts of history.”*

*(Leibowitz, 2008)*

The City of Johannesburg’s described that public open spaces play a particularly important role in spatial structuring of a settlement, image building and boosting of the community’s civic pride (City of Johannesburg, 2010). Leisure activities in Johannesburg have been riddled with commemorative relics, with the most unlikeliness displayed through a museological landscape.

These post-modern attractions included large artificial entertainment complexes which would play an influential role in shaping Johannesburg’s social and cultural landscape. These cultural landscapes include mines, quarries, dams and jetties, which include the purposeful manipulation of the earth’s vegetative

cover simultaneously existing between natural and artificial landscapes. Urban park renewal within a cityscape experienced pressure specifically due to densely populated in carving out non-instrumental public space from within.

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The relationship between leisure parks and urban reforming of past spatial legacy serves as a proponent for



Fig.2.10 Artificial rooftop beach in CBD(gauteng.net,2019)

metropolitan reconstruction (Bobbins & Trangos, 2018). Layered with new cultural narrative and intention, public space in South African often carries with it profound political ideology and memory. Considered as an alternative museum the amusement park merges both as a tool for education and entertainment immersed in one environment.

The typical nature of museological environments seldom consider the contribution, or lack thereof, the entertainment-based landscape orchestrates public memory as a repository for or to memory, somewhat secular in nature these environments recollect and establish memory through alternative means.

The current state of themed environments are considered contested which for its representation as a result of adapted landscapes in the metamorphic chronicles of Johannesburg urban scape. As a result of two prominent landscapes which emerged in Johannesburg’s history, one north and one south, resulting in successive economic

policies, colonialism and Apartheid (Kerry Bobbins, 2018, p. 35).

Policies which dictate development such as breaking new ground and the white paper on spatial planning and land use management 2001 advocate for breaking away from a housing-only approach to a holistic development of human settlements, including the provision of social and economic infrastructure.

Inherent in the discussion of memory is the physical manifestation and construction of the entertainment/ leisure environment, which in part either dilute narrative or completely obliterate narrative for sake of theatrical consumption.

Debates defining tourism and recreation in the 21st century in South African landscapes are fairly infant within the academic realm. The result of spatial and socio-economic inequalities have historically marginalised previously disadvantaged communities (Magi & Nzama, 2002).

# THE URBAN CARVE

# 3

*The chapter outlines the chronology of planned parks by the Johannesburg City Council's during the period of post-industry in search of sanitised public space, strategically placed in what is now considered the northern suburbs away from mine residue and a city agenda for World-Class status. A conceptual framework unearths the demographic and social landscape of Johannesburg enforced by the Amenities Act of 1953. Resulting in two distinguishable spatial landscapes, north and south of the CBD. The purpose of this chapter is to introduce the historical trajectory of urbanisation in Johannesburg, and the early beginnings of social stratification of public space producing fantasy-driven entertainment environments.*

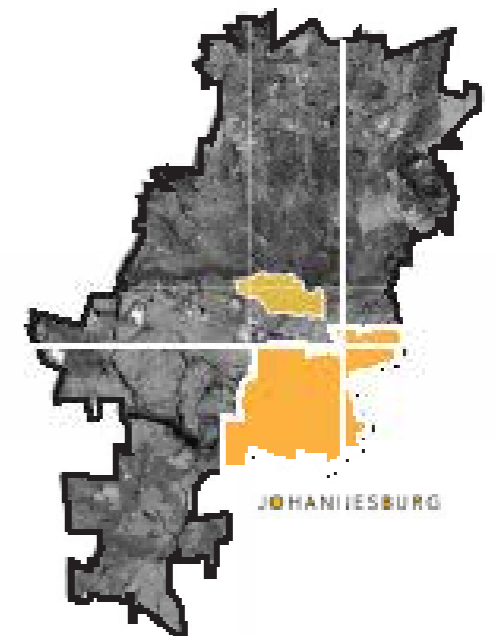
- 3.1 Introduction
- 3.2 Understanding urban fractures
- 3.3 Urban Fracture 1// Death of the urban park
- 3.4 Urban Fracture 2// Igniting 'Green Lungs'
- 3.5 Urban Fracture 3// Forced Separation
- 3.6 Urban Fracture 4// Decay and Neglect
- 3.7 Spatial Effect// Mediating a World-Class African City-Status, Urban enclaves and leisure



Figure 1. Extent of study region with surrounding neighbourhoods and mining belt



5



### 3.1. Introduction

The effect the “mineral revolution” had on public space in Johannesburg is often times described as fragmented, viewed as irrevocable by spatial planners in the uniformity of urban language. As a result of poor planning for public space networks, the genesis of urbanisation inherently created layered urban fractures in Johannesburg post-industrial landscape. The deterioration and neglect of part of the south of Johannesburg urban space which spawned ‘spatial reconstructions’ introducing cultural institutions which sparked the post-modern condition of the “leisure revolution”.

The first section outlines the chronology of the Johannesburg City Council’s planned public parks post-industry in search of sanitised public space. Strategically

placed in what is now considered the northern suburbs away from mining residue. In four chronological periods

1. Precolonial Development
2. The Gold Rush of the 1880s
3. The Apartheid Era (Circa 1948–1994)
4. Post-1994 Development

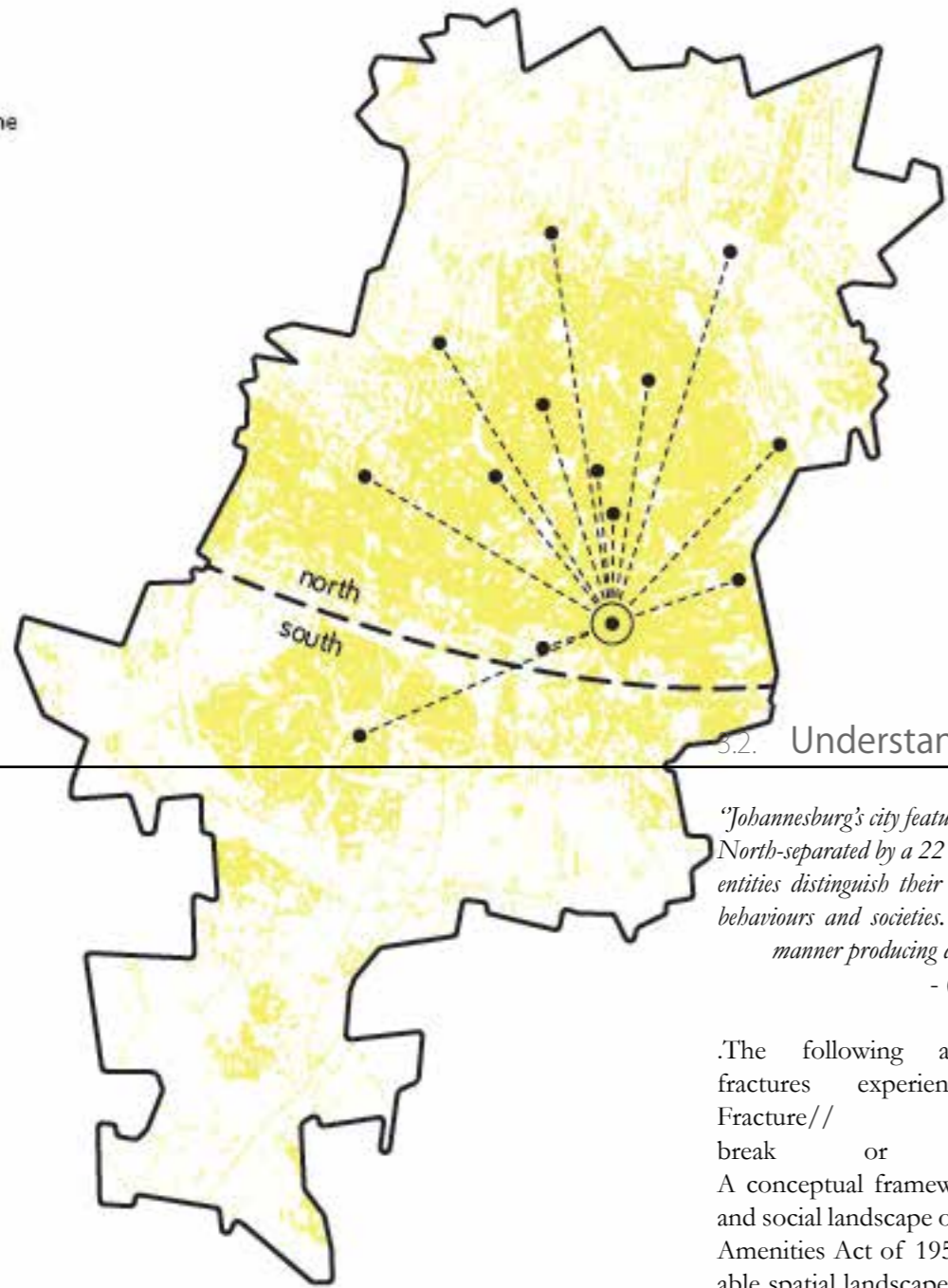
This chapter outlines the chronology of planned parks by the Johannesburg City Council during the period of post-industry in search of sanitised public space, strategically placed in what is now considered the northern suburbs away from mine resi-

due and a city agenda for World-Class status. The chronological periods outlined from pre-industry, industrial periods, post-industry, Post-Apartheid.

A conceptual framework unearths the demographic and social landscape of Johannesburg enforced by the Amenities Act of 1953, resulting in two distinguishable spatial landscapes north and south of the CBD.

The purpose of this chapter is to introduce the historical trajectory of urbanisation in Johannesburg and the early beginnings of social stratification of privately-owned public space within urban entertainment environments.

Fig.3.2 Extent of study region with surrounding neighbourhoods and mining belt



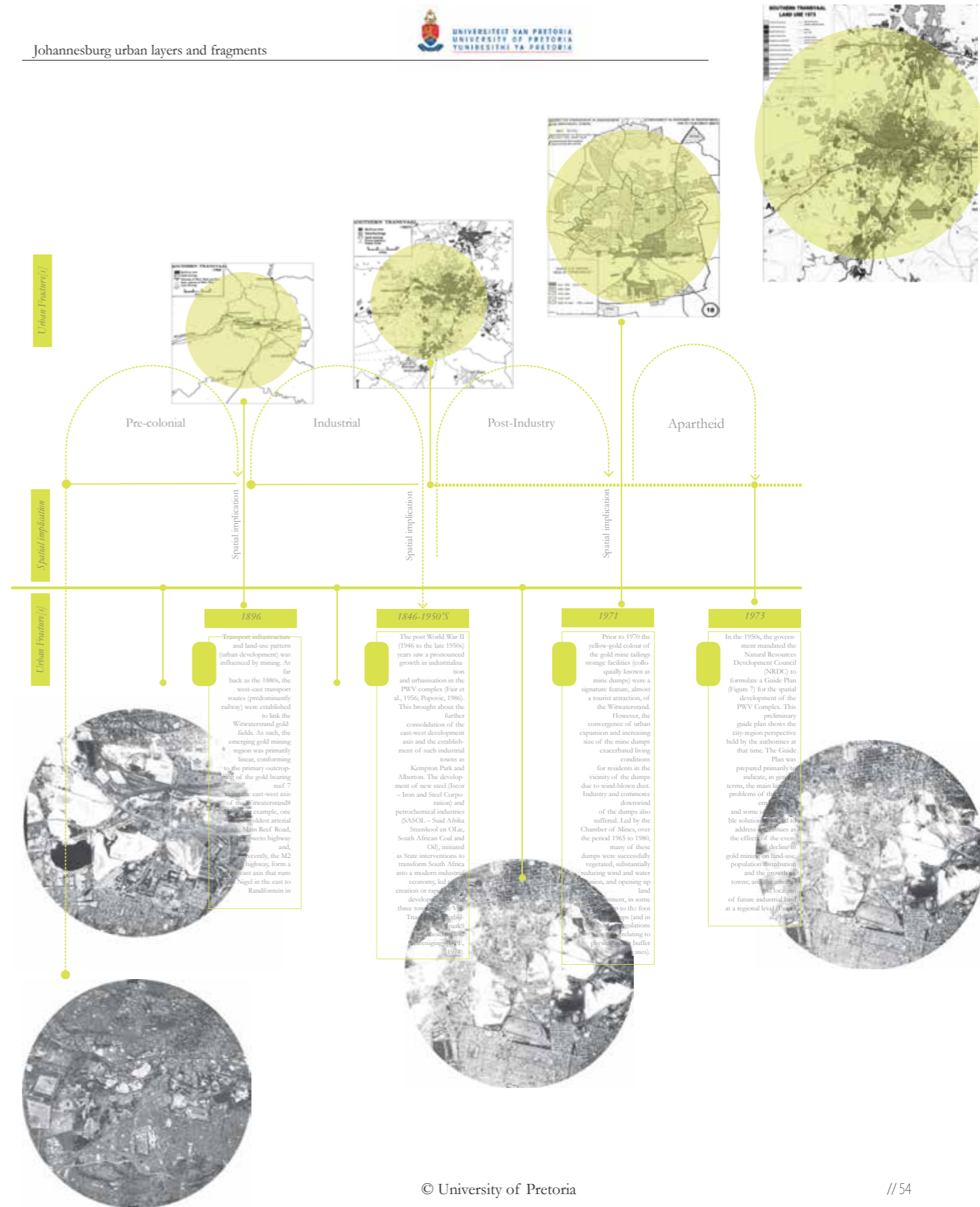
### 3.2. Understanding urban fractures

*“Johannesburg’s city features two fragmented parts, a South and North-separated by a 22 square miles of mining land. The two entities distinguish their own histories, climates, customs and behaviours and societies. Developing in a mutually exclusive manner producing defined regional distinctiveness.”*  
- (Hart, 2012)

The following analysis breaks down the fractures experienced within the urban Fracture// break or cause to break A conceptual framework unearths the demographic and social landscape of Johannesburg enforced by the Amenities Act of 1953. Resulting in two distinguishable spatial landscapes, north and south of the CBD. The purpose of this chapter is to introduce the historical trajectory of urbanisation in Johannesburg, and the early beginnings of social stratification of public space producing fantasy-driven entertainment environments.

Fig.3.3 Timeline of reading Johannesburg’s urban landscape (Author, 2010)

Fig.3.4 Timeline of reading Johannesburg’s urban landscape (Author, 2010)



### 3.3. Public Space effect

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“Johannesburg’s city features two fragmented parts, a South and North - separated by 22 square miles of mining (waste) land. The two entities are distinguished by their own histories, climates, customs, behaviours and societies. The two sides are developing in a mutually exclusive manner producing defined regional distinctiveness.” - (Hart, 2012) The effect that the “mineral revolution” had on public space in Johannesburg is often described as fragmented and irrevocable by spatial planners. This fragmentation came as a result of an industry that sparked the growth of Johannesburg, gold mining. The industrial activity consumed large pockets of land for the mining activity itself and created with it, new communities that serviced this industry.

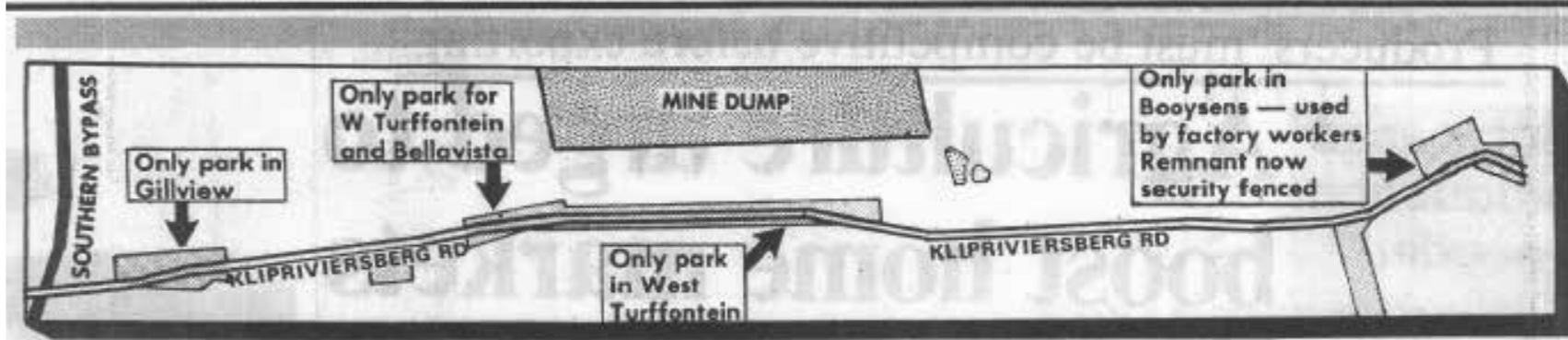
At the cessation of the industry, mine waste remained – large pockets of empty polluted land, fracturing the city. As a result, the genesis of urbanisation created layered urban fractures in Johannesburg’s post-industrial landscape. This strip of mountain-like dumpsites necessitated spatial reconstructions to mitigate the disconnection caused by the dumps. This was the introduction of what was known as the “leisure revolution” – a reconstruction strategy that would use various leisure-scapes as infill to stitch the city.

This chapter is an outline of the chronology of the Johannesburg City Council’s planned public parks post-industry in search of sanitised public space. This chronology explains the development and significance of leisure in four chronological periods (fractures):

1. The death of the urban park
2. Igniting the green lungs
3. Force – law and segregation
4. Decay and neglect

A conceptual framework unearths the demographic and social landscape of Johannesburg enforced by the Amenities Act of 1953, resulting in two distinguishable spatial landscapes, north and south of the CBD. The purpose of this chapter is to introduce the historical trajectory of urbanisation in Johannesburg and the early beginnings of social stratification of public space producing fantasy-driven entertainment environments.





A map showing how one small highway cost four parks.

# They're threatening to take away Greater Johannesburg's parkland

Fig.3.5 Architectural language of urban entertainment

## 3.4. Urban fracture 1 // The golden split

The loss of heavy industry in Johannesburg had an impact on the dynamics of the City's urban growth, increasing the importance of public space, both as place of consumption and as a site of symbolism and expression (Lloyd & Clark, 2001). Johannesburg's fortunes have always been closely tied to those of the international gold standard. The huge red mine dumps that announce one's entry into the city are an incredible reminder that the wealth of this sprawling, river-less city is founded on gold mining (E. Coombes, 2003, 195). The development of the "Old South", historically, began as a white working-class residential area located immediately south of the historic mining belt (Harrison & Zack, 2014, 182). This was an ideal location, at the time, to place the working class that serviced the mines.

Manufacturing and mining establishments were located on the south side of the central business district, and along the mine dumps. This strip of industrial development was followed by the rail and road networks that linked them to the gold mines and industrial areas in the towns to the east and west (Crankshaw, 2008). According to Tranick, five factors influence the death of urban space, namely the highway, the Modern Movement in architecture, urban renewal and zoning, competitions for image on the part of private enterprise (Tranick, 1986).

Today remains a disfigured and disorderly cluster of derelict land, mine dumps, slime dams, industry, recreational space and deteriorating residential developments that are economically and socially disjointed from the rest of the city.

The awkward interface with mine dumps and other mine waste, as a result of production activity altered the experience of public space, leaving the City council with a major task at hand of socially, ecologically and

economically mediating between urban implications caused by mining activity and the provision of cultural amenities for urban inhabitants.

Urbanisation in this duty town was closely connected to industrialisation, in what Yudelman (1984) terms as the "Mineral Revolution". The revolution had spatial implications in that as the industry grew, so did the work force that serviced it, which increased the size of the allocated areas for these workers. The growth of these, now suburbs, would unfortunately be met with wastelands growing at an equal rate. At the same time, as Grundligh Grundligh (2001) asserts – rapid urbanisation should always be met with equally rapid provision for usable public space. Whilst these spaces were provided for, in abundance, in the northern suburbs; the

south was not well posited to access these. The golden split had created an alternative city on the other side of the dumps.

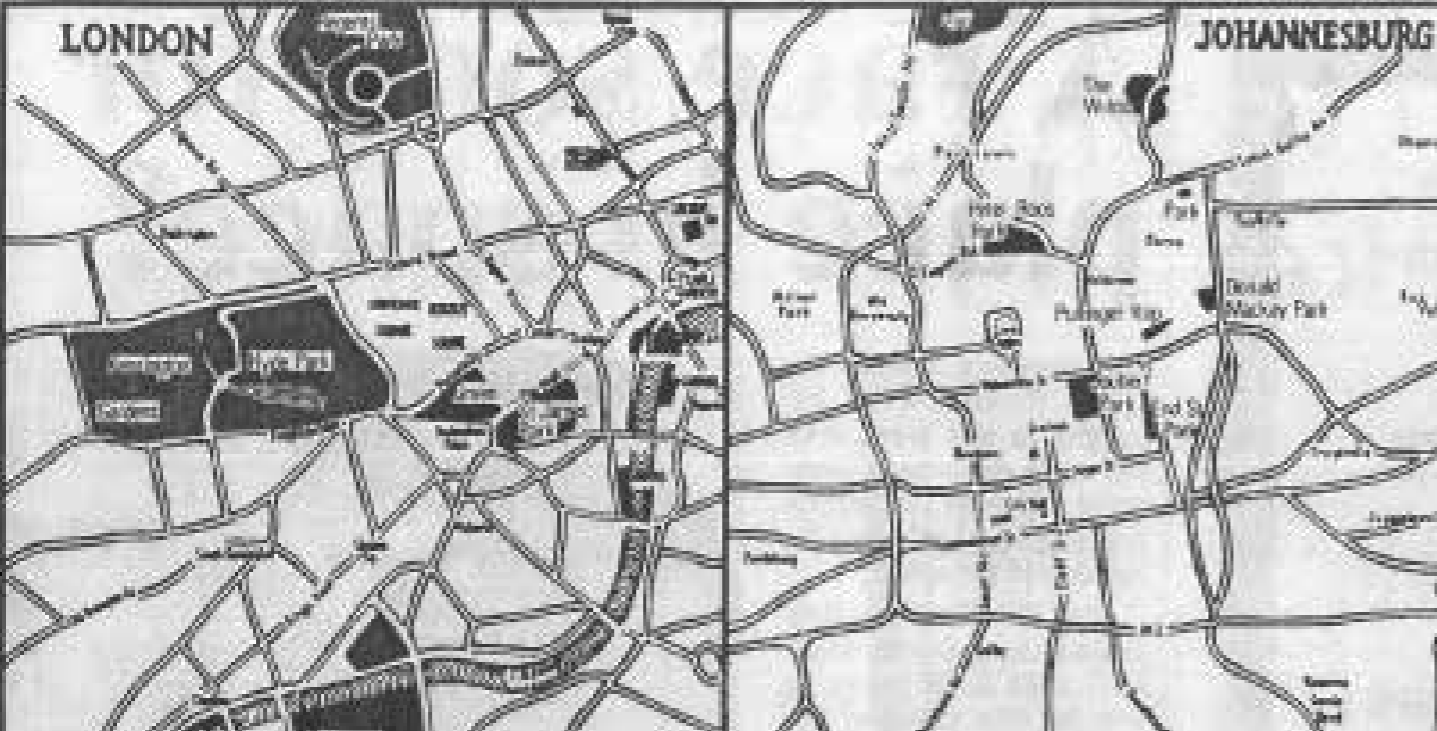


Fig.3.6 Paucity of urban parks in Johannesburg versus London in 1986

### 3.5. Urban fracture 2// Igniting the green lungs

Due to the unsatisfactory state of affairs in the late 1800s, President Kruger soon made reparations to set aside land specifically allocated for parks and recreation. The early 19th century witnessed the kick-off of Wanderers Sports Stadium that became a focal point of social life in Johannesburg. Its success as the first planned outdoor entertainment arena sparked various attempts, thereafter, to use sports and recreation to reunite the goldfields into the city.

By the late summer of 1886, public parks were associated with ideas of public health and recreation. By providing “green lungs” for overcrowded and polluted cities, the idea of humanising the industrial city was clad in concepts of city and the park (Grundlingh, 2001). The Town Council, which was established in 1901 took full advantage for the management of public services and the management of open spaces and initiated its mandate through the planning of Joubert Park and Kruger Park. These parks were initially planned as open areas to illustrate the city’s progressive plan to transform material power into cultural and symbolic capital.

The Town Council requested the Government to grant freehold rights to portions of farms in Braamfontein, Randjeslaagte, Turffontein and Krugersdorp. Manifestations of the Town Council to control parks resulted in fenced parks.

A practice that became standard – parks were to be locked at sunset and opened at 7am in winter and 6 am in summer. This intense regulation of public space was arguably the beginning of Johannesburg’s notorious enclosed public enclaves. The typical response to ordering Johannesburg’s landscape along European lines was to develop opportunities for social classes to mingle, believing that this was the solution to social problems of urban life.

Parks thus emerged as significant elements of social engineering - or so-called “rational recreation” (Grundlingh, 2001). The Town Council acquired land for parks through three financial strategies: through grants or through the initiative of residents or gifts from private companies (Grundlingh, 2001).

The layout of these facilities mirrored the philosophy on which Parks in England and the United States of America were built on. The foundation for the division between the upper and middle-classes of the northern neighbourhoods and the working-class of the southern neighbourhoods was established during the decades immediately after the Second World War. The Town Council made attempts at making the city habitable for its residents. Albeit that these attempts were for white people and the wealthy middle class. By the 1920s, sporting and entertainment facilities in parks were well catered for in white suburbs and almost non-existent in working class areas (Grundlingh, 2001). The influence of how parks were conceived differently in Johannesburg, can be attributed the superintendent of Parks Mr A.H Stirrat believing that Johannesburg’s urban parks should be conceived consciously as spaces for leisure for the Johannesburg urban inhabitant (Grundlingh, 2001).

He believed that formal gardens should accommodate for recreation. He criticised the 19th century park design with its classically precise sculptured gardens as “good to look at” and argued that they could not accommodate for recreation. Thereafter, the park visitors’ pleasure was arranged for through botanical gardens and planting. Eventually entertainment such as tennis and bowling became obvious components of urban park design (Grundlingh, 2001).

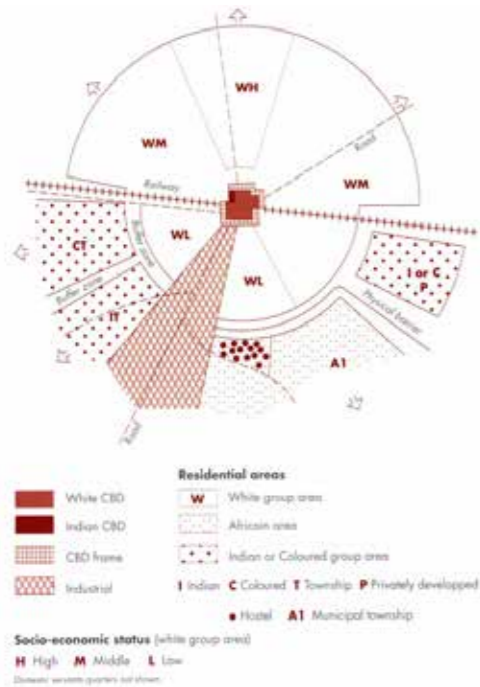


Fig.3.7 Map illustrating city planning demarcation(The Star, 1982)

### 3.6. Urban fracture 3 // Forced

#### separation laws and regulation

Urbanisation and the associated integration into Western economic systems brought about radical changes in the living conditions for South Africans. The influence of socio-economic factors played a major role in what Pierce Lewis describes cultural landscapes ‘as the total assemblage of visible things that human beings have done to alter the face of the earth’. According to Wilson & Hattingh (1988) the phenomenal industrial growth of the 1930s attracted a soaring number of black urban dwellers and with the city growing to a critical extent, the burgeoning effect on urban spaces, resulted in larger and more elaborate entertainment districts. Increased pressure for the delivery of



Fig.3.8 Demarcation of public space (The Star, 1982)

adequate services/amenities, specifically existed in townships as township development lacked adequate facilities.

The colonial and apartheid planning legacy has left a fractured urban form with unequal access to amenities and public services (Turok, 2014). The legacy of one such law is the reservation Act No. 49 of 1953 that formed part of the apartheid system of racial segregation in South Africa (SAHO, 1990).

The apartheid government formulated a deliberate policy of marginalisation and segregation in their approach to civic space, which had a wide impact on black South Africans’ ability to relate to civic spaces and find a personal connection with state architecture (Findley, 2006).

The Act sought to create separate so-

cial environments for white and other population groups that enforced segregation of all public facilities, including buildings, transport, municipal facilities, beaches, buses, hospitals, schools, parks and universities. According to this Act, separate recreational activities had to be provided for the various racial groups. Reservation of Separate Amenities Act outlined the use of amenities to the entire South African landscape as described in section 54;

“To provide for the reservation of public premises and vehicles or portions thereof for the exclusive use of persons of a particular race or class, for the interpretation of laws which provide for such reservation, and for matters incidental thereto.” - (SAHO, 1990)

The effect of this act tremendous-

ly influenced services infrastructure provision in disadvantaged township communities, including the service provision of adequate facilities for recreation.

Access to amenities compromised majority of townships and their inhabitant's urban landscape. The result of the Act was that it made townships and similar areas into prime incubators for anti-social behaviour, which emerged. Issues such as excessive gambling, substance abuse and violence became commonplace.

The implications of this Act flouted the human cost, wellbeing and psyche – these very crucial benefits of leisure were considered secondary in the planning of public space, especially in the southern suburbs and other non-white areas. Johannesburg's parkland area was historically also engrained with spatial injustice in terms of access.

The agenda to redress adequate amenities within previously segregated communities was the task of a post-democracy government through departments such as the Arts and Culture, as well as Sports and Recreation. The Act was repealed on the 15th October 1990 by the Discriminatory Legislation regarding Public Amenities Repeal Act. Yet the repercussions of inadequate provision of services and amenities by municipalities and

government are still evident in these townships. The subsequent effect the Amenities Act had on equal distribution of recreational facilities was highly political and socially orchestrated by the governing party during the apartheid era. As a result, having to restructure how adequate resources and recreational amenities were distributed was done by the early 1990s.

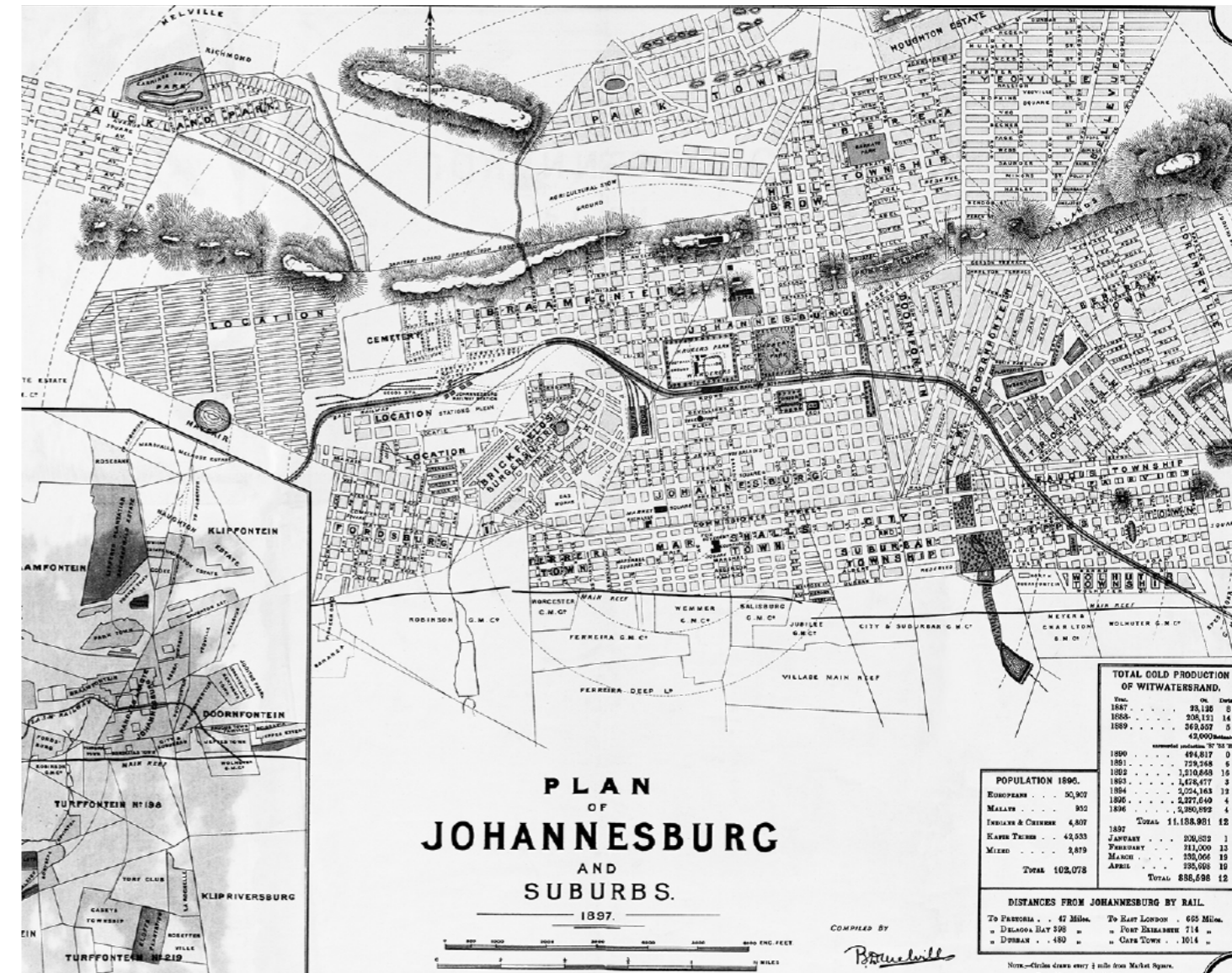


Fig.3.9 Proposals from the City Council to converted slime dams into Ski Park (The Star Newspaper(Barnett Collection, 2018)

### 3.7. Urban fracture 4 //

#### Decay and neglect

“Theming—the production of an environment as a themed space—is a technology for incorporating a narrative or story into a controlled movement in a built environment.”

- (Gottdiener, 1997)

As an intrinsically spatial regime, apartheid has always been a source of interest for critically defining public spaces at national, regional and city-level in what Houssay-Holzschuch (2009) describes as socio-spatial control.

The legacy of imbalanced post-apartheid planning, resulted in a highly segregated urban form generating harmful social, economic and environmental consequences (Turok, 2014). Gold production has made a marked impact on the Gauteng City Region’s (GCR) natural landscapes. The efforts to embark on transforming mine residue was as a result of the decommissioning of the mines, initially just in the central basin.

These plans required concerted effort from departments to convert slime dams and large sections of mine residue along the mining belt into lush parkland which included water features and other public attractions. These public attractions included sites of urban en-

tertainment that combined thematically co-ordinated imagery merged with the ideology of consumption (Ren, 2007).

The social landscape of themed environments such as casinos, theme parks, cinemas and amusement parks in South Africa today has consequentially been altered due to economic and past spatial legacy practices. The result and proliferation of reconstructed, privatised public space with entertainment orientated development and tourism agendas has exacerbated how public space is accessed.

The retrofitting of the Johannesburg south mine dumps into various urban entertainment schemes, was geared towards tourist consumption and voyeuristic pleasure. This notion was reinforced by a joint marketing campaign to promote Johannesburg as a ‘holistic, integrated destination’. The unique condition amongst the three case studies in Johannesburg (discussed in chapter 3) illustrates the attempt to create a holistic integrated destination through transforming former historic productive landscapes into urban entertainment schemes.

In 2013, the democratic government came up with their own spatial restructuring vision called the ‘Corridors

of Freedom’, which was premised on the notion of building a “non-racial, non-sexist, socially and economically cohesive South Africa (read Johannesburg) using instruments such as Transit

Orientated Development”. The framework according to Bobbins and Trangos (2018), had two overt goals:

1. To transform the apartheid spatial planning that has pushed black and poor households to the periphery of Johannesburg’s economic and social opportunities and
2. to reduce the number of private cars on the road to lower congestion and carbon emission, and thereby increasing sustainability.

The southern suburbs specifically succumbed to this condition of both the spatial and productive legacy. The

nondescript nature of the south for areas such as Rosettenville and La Rochelle have fallen into degradation and neglect accompanied by a myriad of social ills, which are contributing to the deterioration of the built environment and public space (Murray, 2008). This rapid proliferation of enclosed places signifies the expansion

of what Murray (2008) describes as post-public space in the post-liberal city.

Within the dialogue of public space and urban parks, Benton-Short and Short (2008) argue that the rise of privatised spaces – like carnivals masks or themed park environments – come at the expense of a declining urban public space.

Due to the city’s agenda to package Johannesburg in a “World-Class” city image, the attempt at creating urban entertainment schemes on abandoned productive landscape existing complete antithesis to each other.

### 3.8. The spatial effect // mediating a world-class African city-status and urban leisure

The end of apartheid signified a considerable shift expressed in urban practices. As the economic, political and social hub of Southern Africa, Johannesburg's industrial and urban development became part of the global race to become 'World-Class' cities influenced the nature of urban public space.

According to Tranick, five factors influence the death of urban space namely; the highway, the Modern Movement in architecture, urban renewal and zoning, competitions for image on the part of private enterprise (Tranick, 1986). By the mid 1980's, 57 percent of the central city consisted of buildings other structures, 40 percent covered by streets and only 3 percent was public space (Murray M. J., 2011, p. 79).

Today the effects of this structure and approach remains evident in the remains a disfigured and disorderly cluster of derelict land, mine dumps, slime dams, industry, recreational space and devel-

opments that are economically and socially disjointed from the rest of the city.

At the centre of this development was the importation of spectacle-orientated developments that are based on fantasy such as Gold Reef City. The required transformation of former productive landscapes ignited a series of council projects for the rehabilitation of mining residue and the re-imagining of public space through grandeur city schemes for urban inhabitants.

The lifting of cultural and sporting sanctions provided opportunities for new development on these landscapes, which came in the form of leisure and recreation activities (Dodson, 2000). The South African landscape of urban entertainment boomed during the early 1970s, adopting the architectural and landscape language of American Disney land entertainment landscapes and iconography.

### 3.9. Creating new urban entertainment and leisure spots

Pre-democracy was highly characterised by restricted and exclusive domestic tourism and very little international tourism due to anti-apartheid sentiments. Recreation facilities were planned, managed and predominantly reserved use by white South Africans only (McCall & McCall, 1995).

A growing demand for leisure facilities required the inclusion of facilities such as libraries, museums, sport pitches, swimming pools, provision for community halls centres and social clubs. Present day themed environments exemplify notions of exclusivity and escape.

Often relying on recreating a fantasy atmosphere of another time and place, these landscapes are often so preoccupied with the recreation of nostalgia-based escape that they not only threaten the ecologies of the actual landscape but often take away from the existing recreation anchors of the affected communities.

Open and recreational space have long been considered by social scientists as integral components of the housing zone where psychic and physical energy are regenerated and the creative and intellectual development of human personality take place (Tranick, 1986).

The need to architecturally redress and the re-imagined leisure and recreation in contemporary urban society, presents the opportunity of transforming parks and open space as a key resource to poor and minority areas; as new contributions to city-making, image building and community cohesion.

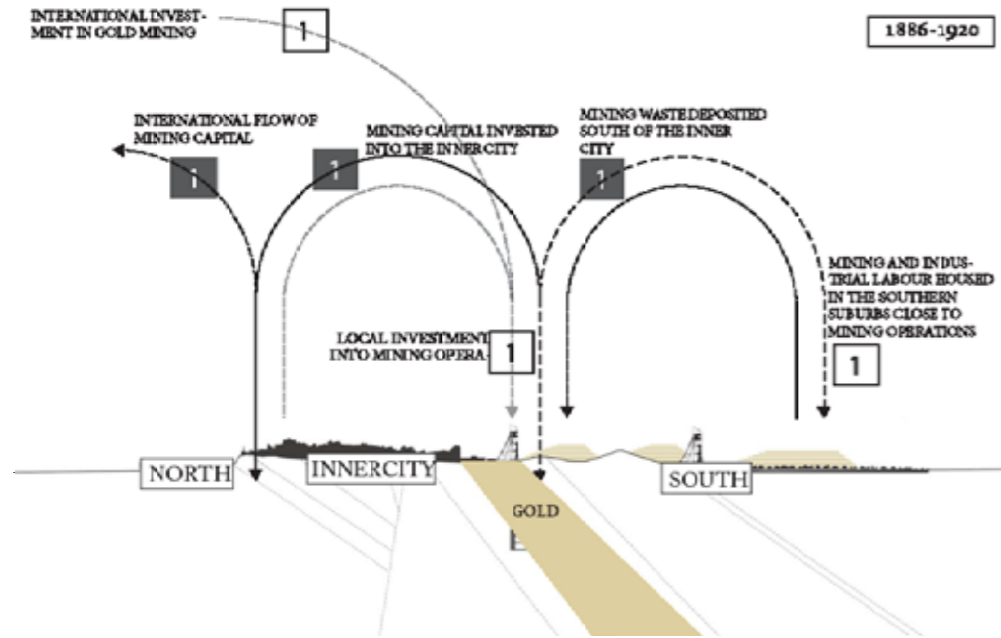


Fig.3.10 North and South investment relationship (Adapted from Trangos & Bobbins (2019);3)

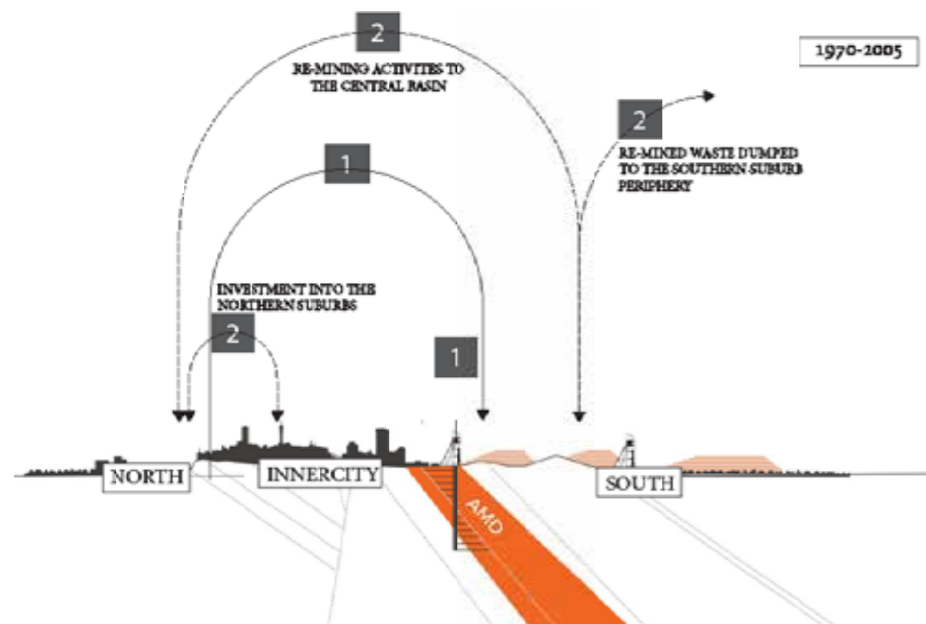


Fig.3.11 Re-centering economy to the inner-city and Northern suburbs (Adapted from Trangos & Bobbins (2019);3)

### 3.10. *Production Investment versus Northern Investment*

#### *North and South Divides*

Two prominent urban landscapes have emerged through Johannesburg's history, one north of the mining belt and one south. These are the result of successive economic policies, colonialism and apartheid. Originally divided on racial lines, these unequal landscapes are socio-economically distinct (as demonstrated in Figure 16).

#### *Re-mined Phases*

The 1970-2005 emerged as a space where re-centering the cities global and economic presence located firmly to the northern suburbs, leaving the inner-city and the southern suburbs in a state of decay and neglect, further discussed in Chapter 3.

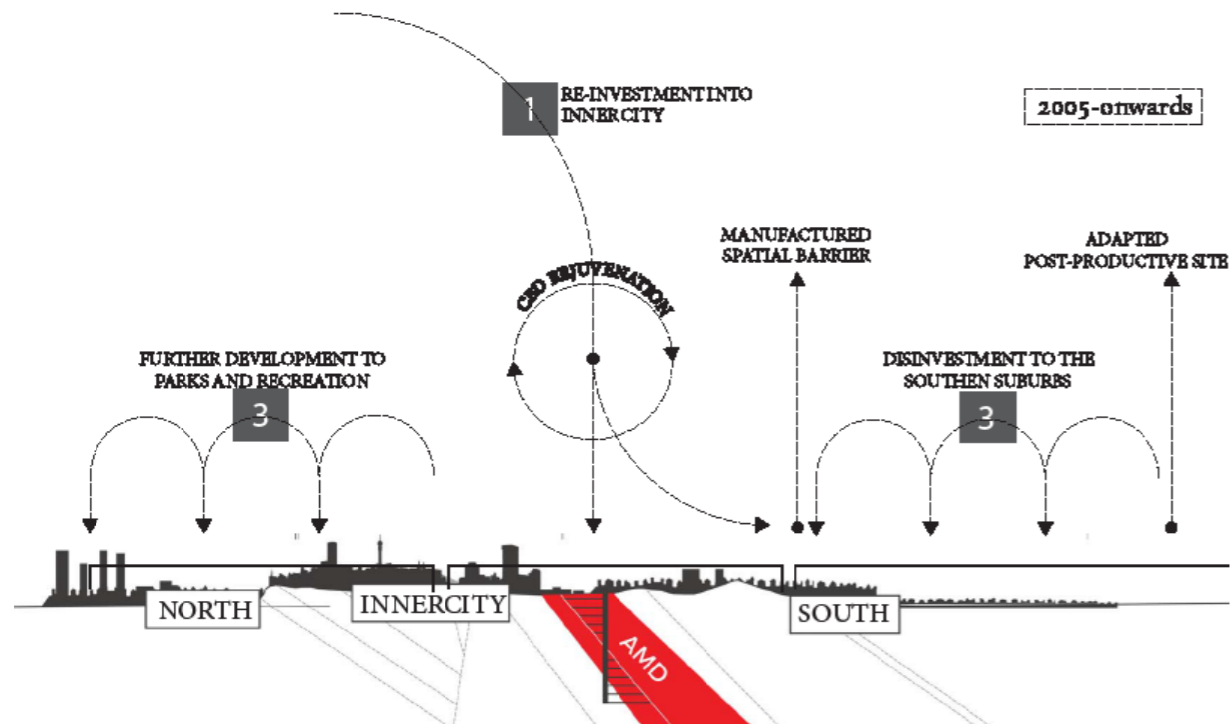


Fig.3.12 CBD rejuvenation and further development to North (Adapted from Trangos & Bobbins (2019:3))

### 3.11. *Inner-City Rejuvenation vs Southern Dis-investment*

#### *The proposed urban gesture*

Figure 18 illustrates how urban rejuvenation strategies within the in CBD are currently taking place while disinvestment of the south continues in the similar pattern from previous decades.

The manufactured spatial barrier of the mine dumps, as well as adaptation projects to reclaimed mine residue leave a scarred spatial barrier evident in the city fabric today.



# PART A UNPACKING LEISURE IN THE SOUTH

# 4

*The chapter identifies the disjuncture of privately-owned public spaces (POPS) of urban entertainment sites in the south of Johannesburg and their use of abandonment alongside the mining belt which forms part of the proposed public space network..*

## Part A\_Leisure in South Africa

- 4.a Reworking the industrial landscape for public space
- 4.b Transformation and reimagined landscapes
- 4.c Producing a second life\_From minescape to leiscapescape
- 4.d Post-Industrial Landscapes: Perspectives onPublic Space
- 4.eThe Unseen network of POPS in the South: urban entertainment as a strategy for development .
- 4.fSite Selection

## Part B\_Case Studies

- 4.1 Top-Star Outdoor Cinema
- 4.2 Gold Reef City
- 4.3 Santarama Miniland

#### 4.1. Reworking the industrial landscape for public space

*“From the time a city emerges, inhabitants have filled them with statues and monuments representing civic regalia to markers of time. Each leaving a repository of civic and or national memory which define virtues by speaking of great events.”*

*-(Benton-Short & Short, 2008).*

The past twenty years has seen various rehabilitation strategies and re-mining of the old slimes dams and sand dumps situated to the south of the CBD. This resulted in a major change to the cultural landscape and skyline of Johannesburg and surrounding areas (Fourie & van der Walt, 2005).

Few historical mining structures have been preserved or documented in the past and a rich history has been destroyed as a result of demolition, decay or neglect. Benton-Short & Short (2008) describe these sites as a reflection of society within monuments, memorials and public space as important symbolic messages within the urban landscape, some of the most important public spaces are also memorial landscapes, in what (Benton-Short & Short, 2008) describes simultaneous landscapes which serve a dual purpose as public space and landscapes of commemoration.

The tourist theming of South Africa’s modernity within recreational and leisure environments in the case studies, illustrates that the country is still mapped and memorialized for international and domestic tourists as a sequence of routes in urban settings (E.Coombes, 2003).



Fig.4.1 City of Johannesburg proposal for slime dam conversions (Wits Archive , 2019)

Leslie Witz (2007) notes the idea of theme parks in South Africa represent the real world tugged in war of financial transactions and land deals, the translocation of imagined pasts into real space and merely than just fantasy places Africa into a world of science and education offering ‘edu-adventure’. Further note the post-colonial tourist adventures drew upon ‘nativist authenticity’.

Multi-layered spaces usually have more than one monument or memorial for location of memorials and contemplation. And as a result, some urban spaces act as urban memorial spaces or serve as sites of civic and national pageantry (Benton-Short & Short, 2008).

## 4.2. Transformations and reimagined landscapes

The central basin is most notable for being host to the very first mines in the city and ultimately the first to be decommissioned. These landscapes acted as no-man’s land, undevelopable, contaminated and sometimes containing mine residue affecting very large stagnant slime dams (mine tailing) of contaminated water and in the midst of suburbia as in the case of Wemmer Pan (discussed below).

The past twenty years have seen various rehabilitation strategies of the old slimes dams and sand dumps situated to the south of the CBD. Alongside these decommissioned sites featured open pockets of publicly-owned land and opened the debate on their transformation and appropriation and programmatic uses into sites of urban entertainment.

Proposals for the conversions of

4.2

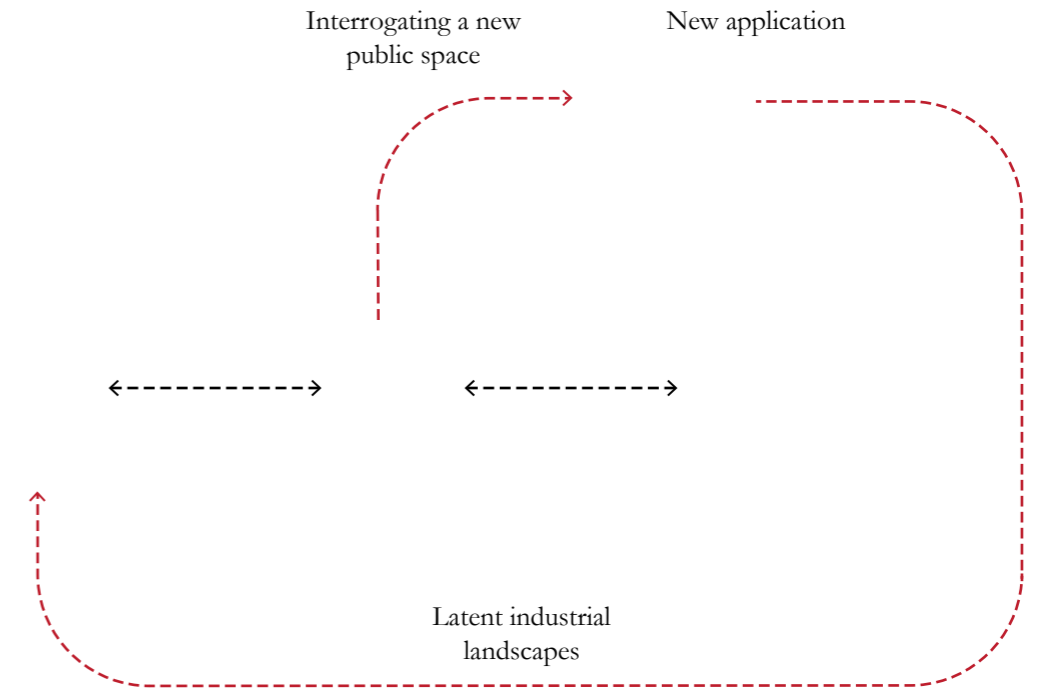


Fig.4.2 Approach to dissertation urban critique (Author, 2019)

post-industrial landscapes to urban entertainment sites have become a dominant feature in market-driven strategies to reworking and transforming of Johannesburg’s post-industrial sites in what the author terms leiscapes. This resulted in a major change to the cultural landscape and skyline of Johannesburg and surrounding areas (Fourie & van der Walt, 2005). The distinction of these constructed urban spaces has elicited how urban public space carries dual purpose for cultural significance, memory, meaning of history and everyday recreational purpose.

Architecturally, the experience of urban entertainment focused squarely on consumable product(s) and experience(s), where architecture too, is the subject of consumption. Consumption is termed as pleasure or un-pleasures of having an artefact;

acts prior to ownership, looking, listening or touching also become acts of consuming (Julier, 2014). Leisure spaces be they public, private, indoors or outdoors, multi-purpose or tailored for specific activities are important to individuals, the society, health and community identity (Ritcher, et al., 2013).

The three sites are situated in what is known as the “central basin” of the Witwatersrand mining belt – a series of mine residue, waste sites, forming a “belt” scattered along a 400km reef. The spatial orientation of the Witwatersrand mining belt gold reef that runs in the East-West direction of Johannesburg effectively creates what has come to be known as the reef control to the North-South divide. The 400km long reef is divided into the East, Central and West basins and forms part of a further seven district gold mining areas each

containing mines servicing different areas in the city. Within Johannesburg the adapted urban entertainment sites, illustrate this urban phenomenon which the historic productive landscape and the reprogrammed entertainment environments exist within a conjoined discourse of appropriation. The chosen sites for the study are illustrative of Johannesburg's transformed mine residue to urban entertainment and leisure sites namely:

- a) Gold Reef city, the City's only themed park built on Shaft No.14;
- b) Santarama Miniland, an abandoned amusement park and situated on the north-western banks of Wemmer Pan Precinct, a slime dam situated in the central basin
- c) The Top-Star Drive-In, Johannesburg's first drive-in outdoor cinema built on the Ferreira mine dump.

The fact that the sites are often identifiable as waste sites, makes the conversation around their transformation a contested one. As a result these sites are currently being (re)appropriated or conceived as memorial, commemorative or thematic landscapes often devoid of contextual sensitivity, economic sustainability and engagement with local stakeholders thereby maintaining the extractive nature of these landscapes without giving back to their respective contexts. Van Heerden (2016) ascribes the lack of public participation of-stake holder engagement, to the a-contextually of the current forms of transformation. The phenomena is best illustrated by the three case studies discussed in the latter part of the chapter.

### 4.3. Producing the second life on minescapes [from mine waste to leiscapes]

*Transforming former productive landscapes to urban entertainment sites – Clues from heritage theory*

While South Africa's natural environments have been subject to research, the historic mining environment has not been similarly addressed in terms of its industrial heritage value, ecological crisis and social responsibility potential (Worth, 2004). As a result, the approach to the transformation process of post-productive landscapes and associated mine residue requires establishing the cultural significance of place to assess the fabric and value of place.

Heritage conservation and valuation is often based on the assessment of an object or place through two criteria: 1) the cultural significance of place and 2) its authenticity in relation to what it originally was (Alexander, 2010). The Charter of International Committee for

the Conservation of Industrial Heritage (TICCH) defines industrial heritage as "heritage which consists of the remains of industrial culture and which are of historical, technological, social, architectural or scientific value" (Tagil, 2003).

Whilst the above definition is sufficient for the case of the mine dumps, Alexander (2010) extends the definition to include entire places which were used for social activities related to the industrial history of place. The TICHH charters definition of industrial heritage along with Alexander's (2010) extension thereof become sufficient to classify the post-productive sites of the central basin as industrial heritage sites of cultural significance.

The TICCIH charter identifies the need for programmes where conservation of industrial heritage are integrated into

policies for economic developments along with regional national planning (ICOMOS, 1999). For a successful integration into planning policy, value must be ascribed to these sites.

Value is a broad term suggesting usefulness and benefits. De la Torre defines value as a set of positive characteristics or qualities perceived in cultural objects or site in question. Value-based conservation offers a framework for dealing holistically with the site and to address both contemporary and historic values of place (Mason, 2002).

Different heritage valuations put forward by different philosophers and organisations exist, the Burra Charter (1999) outlines a comprehensive definition to cultural significance through value. The Burra Charter (1999) introduces the notion of identifying the concept of cultural significance, a

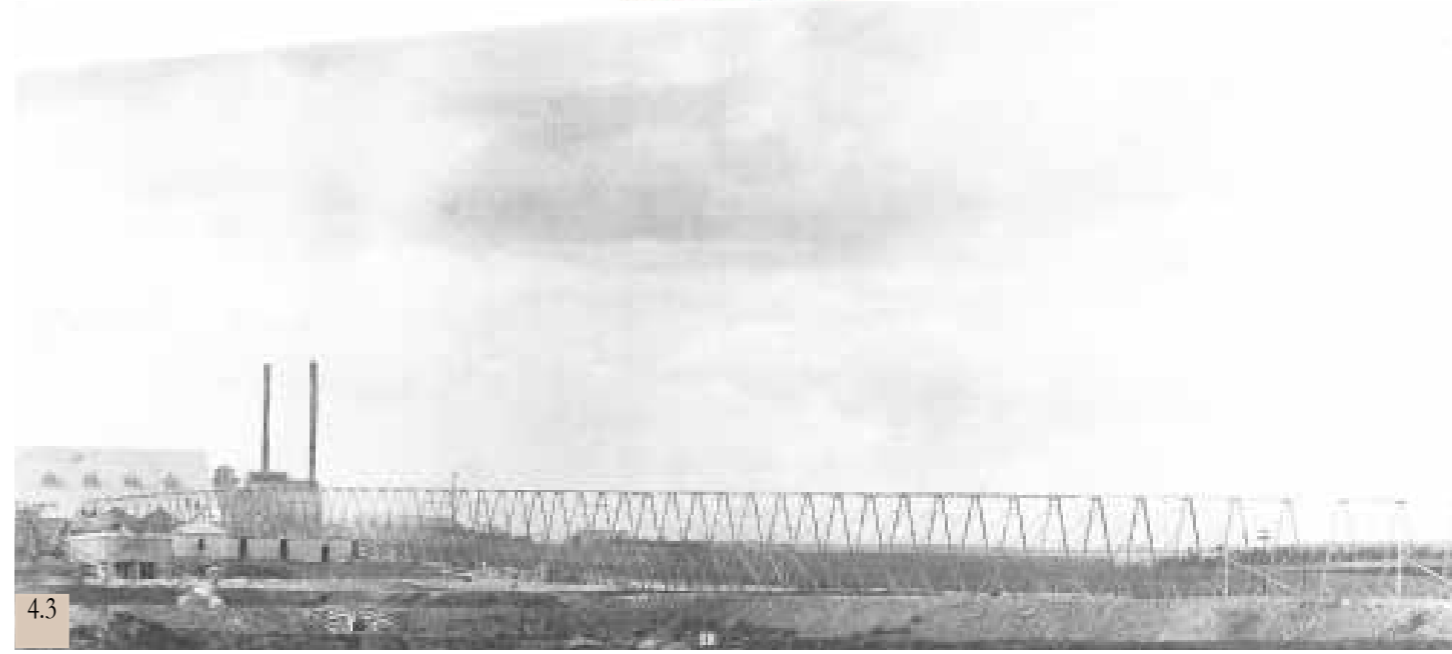


Fig.4.3 Wemmer Pan looking east (Museum Africa, 1998)

concept which helps in estimating the value of places. Cultural Significance is embodied in place itself, its fabric associations, meanings, records, related places and related objects, these place helps enrich the understanding of the past or enrich the present.

Value ascribed through cultural significance is identified by the (ICOMOS, 2000) through, aesthetic, historic, scientific and social value for past, present or future generations.

Whilst value is also inclusive of the aesthetic, Quaghebeur, (2000) states that in the case of industrial heritage; social, scientific and technological values will generally be more important than aesthetic considerations. Therefore readings should not only be grounded in an analysis of landscape, site and structure but also contextualise within a broader social and economic framework (Quaghebeur, 2000).

(Gimblett, 1995) argues that heritage adds value to existing assets that have ceased to be viable such as subsistence lifestyle, obsolete technologies, abandoned mines, the evidence of past disasters or that were never economically productive. Defining these sites as cultural landscape is the first step to defining them as important assets that have the potential to (re)contribute to their contexts using their inherent heritage value.

#### 4.4. Post-Industrial Landscapes: Perspectives on public Space development

In 2012, the Gauteng Department of Agricultural and Rural Development (GDARD) completed a study titled 'Gauteng mine residue areas strategy' that outlines three economically viable reclamation projects that would serve to create new land uses along the Witwatersrand. These include conservation and heritage approaches to enhance commercial and industrial re-development to stimulate economic growth (in Ekurhuleni), heritage approaches to enhance water resources protection and eco and geo-tourism (in Mogale City); and urban and urban-rural development to foster sustainable livelihoods (in Johannesburg) (Kerry Bobbins, 2018).

Attempts by provincial government to create action committees for the management of mining waste land have failed due to lack of interest by national government and limited resources. Much of the mining landscapes have been abandoned by its previous mining



4.4

Fig.4.4 Johannesburg Parade (Museum Africa,1998)

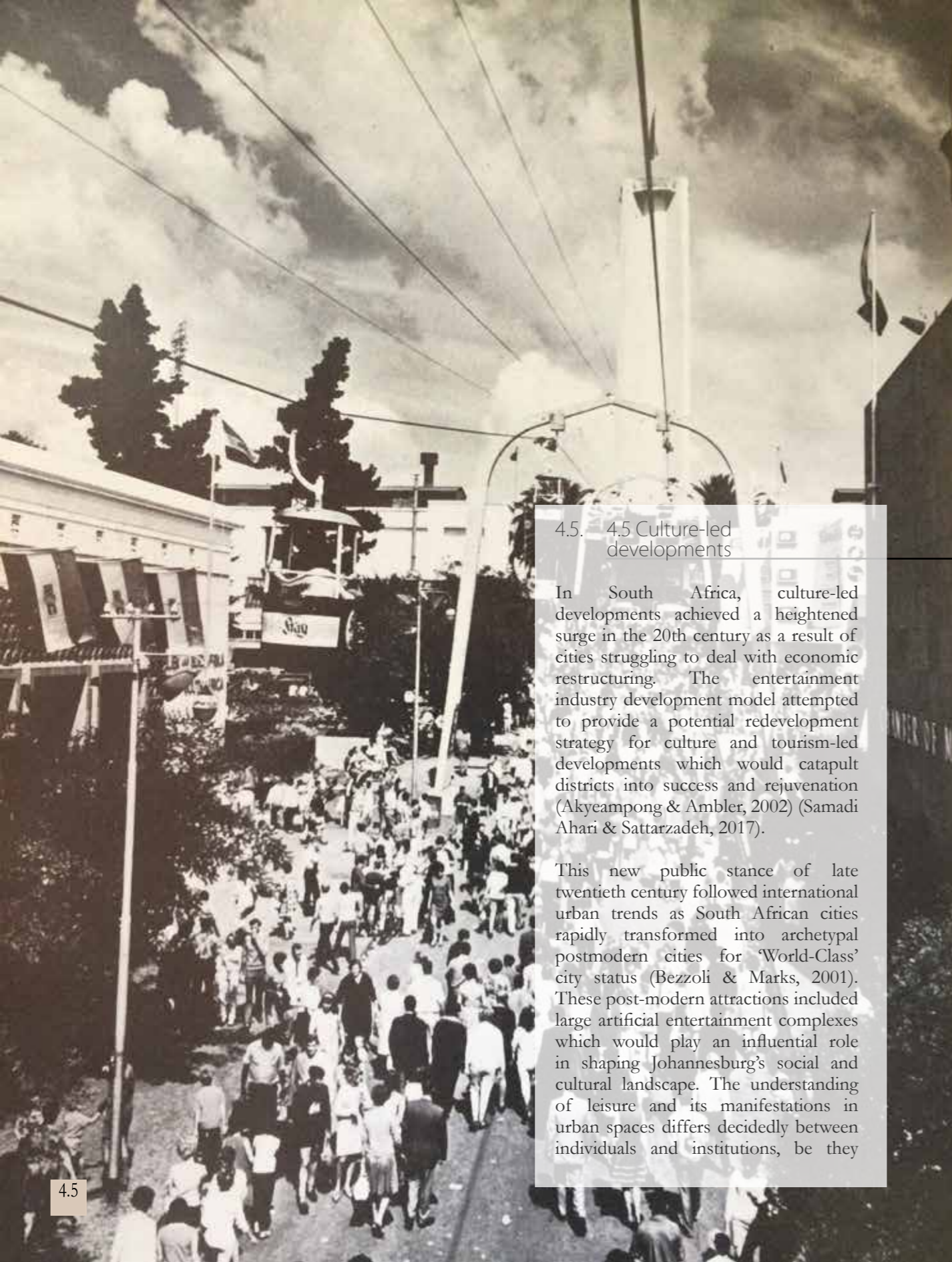
companies, becoming the responsibility of the state (PMG, 2010). The questions to developing new visions of the Gauteng-City regions mining landscapes have become critical in contributing as an active role in the redevelopment and growth of the city region. In terms of addressing responsibilities towards ownerless mining waste, the Department of Mineral Resources has adopted a programme to rehabilitate its collection of ownerless and derelict mines. Planning, conceptualising and imagining these spaces are highly politicised acts often ruled by vested interest (Bobbins & Trangos, 2018).

The opportunities to align with future human settlements and planning visions for the city-region such as Johannesburg's included spatial frameworks known as the Corridors of Freedom .

*The shift in focusing on mining companies on activities mining to property development*

*allowed derelict land beside mine waste, or on areas of land that have been reclaimed forming waste drive for development of land beside the mining belt.*

Considered a significant force in the expansion of the south, formerly used by eight mining companies that all closed in the late 1970's were earmarked for development from political pressure to build low-cost housing in Johannesburg (Kerry Bobbins, 2018). Since the early 1990's the mining belt has appeared in spatial developments to the east-west development corridor illustrating the strong political will and commitment of large public budget and development to the corridor. Debates defining tourism and recreation in the 21st century in South African landscapes are fairly infant within the academic realm. As a result, the spatial and socio-economic inequalities have historically marginalised previously disadvantaged communities through economic and spatial exclusion (Magi & Nzama, 2002).



#### 4.5. 4.5 Culture-led developments

In South Africa, culture-led developments achieved a heightened surge in the 20th century as a result of cities struggling to deal with economic restructuring. The entertainment industry development model attempted to provide a potential redevelopment strategy for culture and tourism-led developments which would catapult districts into success and rejuvenation (Akyeampong & Ambler, 2002) (Samadi Ahari & Sattarzadeh, 2017).

This new public stance of late twentieth century followed international urban trends as South African cities rapidly transformed into archetypal postmodern cities for 'World-Class' city status (Bezzoli & Marks, 2001). These post-modern attractions included large artificial entertainment complexes which would play an influential role in shaping Johannesburg's social and cultural landscape. The understanding of leisure and its manifestations in urban spaces differs decidedly between individuals and institutions, be they

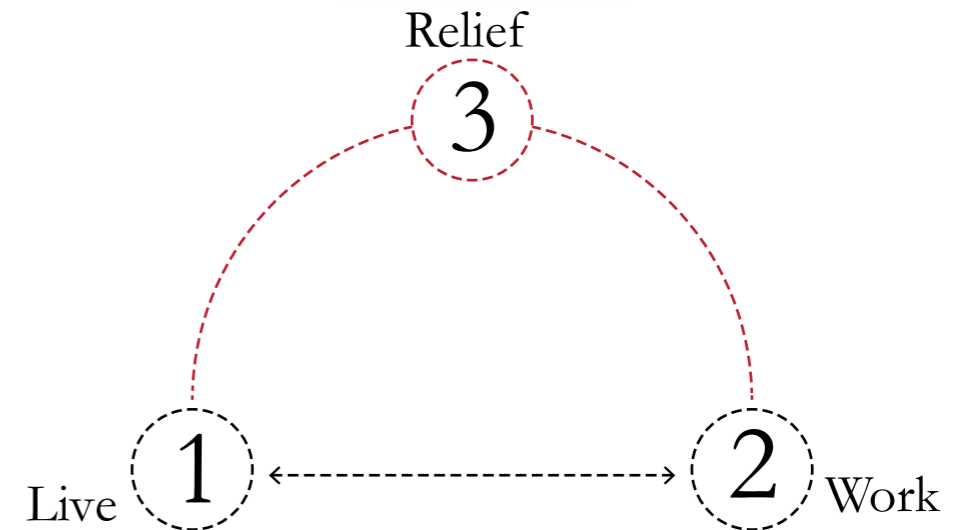


Fig.4.5 Patrons at the Rand Show( Museum Africa, 2019)

Fig.4.6 Relationship between live, work and relief (Author, adopted from Hall, 1998)

Within the 21st century dialogue and theoretical debates of leisure environments, their intersection between narratives, meaning of leisure, tourism and consumption all forming a critical debate in planning and providing appropriate outlets to the idea of escape and urban entertainment. (Tranick, 1986) argued that designing urban recreational spaces require harmonious insertions to existing, cultural and historical identity of population and place.

Thematic programs included cinemas, theme parks, water parks and casinos introduced to the urban public landscape. Considered by critics and scholars, as a composition of post-modern entertainment (Albert & Murray, 2014) (Banerjee, 2001) (Bezzoli & Marks, 2001) (Clavé, 2007) (EYÜBOĞLU, 2018), often aligned with the Disney entertainment phenomenon, thereby influencing the idea of the urban park since its colonial manicured gardens.

The City of Johannesburg's described that public open spaces play a particularly important role in spatial structuring of a settlement, image building and boosting of the community's civic pride (City of Johannesburg, 2010). The relationship between leisure parks and urban reforming of past spatial legacy serves as a proponent for metropolitan reconstruction (Bobbins & Trangos, 2018).

The relationship between leisure parks and urban reforming of past spatial legacy serves as a proponent for metropolitan reconstruction (Bobbins & Trangos, 2018).

Exploitative visions of the city in the urban environment questions approaches to create meaningful visions of and for the city. Theses environments provide a regulated vision of society as a substitute for the democratic public realm.

Policies which have dictated

development such as breaking new ground and the white paper on spatial planning and land use management 2001 advocate for breaking away from a housing-only approach to a holistic development of human settlements, including the provision of social and economic infrastructure.

According to Brooker and Stone, the term adaptive re-use also encompass 'conversions', 'reworking', 'rehabilitation'. Using the TCHHH heritage charters, Brooker and Stone's description allows us to consider the transformation of the mining landscapes as large adaptive re-use projects.

Adaptive re-use is defined as a design-based intervention aimed at bringing new life to a space to often abandoned, neglected, underutilised space. In contemporary conservation theory and practice, adaptive reuse is considered an important strategy towards conservation of cultural heritage. Exemplarily to this phenomenon are case studies within the Johannesburg south post-productive landscapes to urban entertainment sites.

Beside the debacle of ownership and remediation of mine waste some conversions on industrial sites include urban entertainment sites often associated with tourist industries and thus create commodified spaces, which essentially package and sell a product through an experience of historically themed narratives for example Gold Reef city. The nature of selling national heritage through packaged experiences have often left the question of the significance and cultural value of this heritage in public space to local inhabitants. The current debate between scholars and spatial planners is whether urban entertainment sites should

be considered of cultural heritage significance, as they are often conceived as artificial reconstructions of history.

#### 4.6. The Unseen network of POPS in the South: Urban entertainment as a strategy for development

The advent of creating "Fantasy Cities" sparked a debate at the turn of the mid-twentieth century and a turning point for derelict open space network of the south. The following case studies introduce a network of strategies to develop the open network of abandoned space to places of entertainment and leisure. Due to the proximity of the southern suburbs to residual mine landscapes, the conversions of slimes dams for public use encouraged the need for a public space network to residual mine landscape, the condition of ecological networks.

These landscapes are analysed using a holistic approach, which include ecological reality, as the physical and biologic part of the ecosystems; the historic-cultural reality, as the elements that connects people with their place and history - enhances possibilities of creative practice (Loures, 2008). The gold industry has shifted from deep shaft mining to reprocessing waste; much of the original mining land in Johannesburg has been redeveloped for recreational, commercial or light industry uses (Places Journal, 2011).

Seen specifically in the central basin is the appropriation of slimes dams alongside residual mine dumps.





# PART

# B CASE STUDIES

# PRIVATELY-OWNED PUBLIC SPACE

## 4.7. Introducing entertainment in the city-Case Studies

In order to read the leiscapescape as a notion of post-modern experiences of public space, the POPS (Privately-Owned Public Spaces) provides a conceptual spatial analysis to describe characteristics of public space Urban entertainment and leisure landscapes have remained largely unexplored architecturally (Walker, 2015), while academically serving interest over the last 55 years. These landscapes described by (Kane, 2013) set how the built environment has shaped and contributed to the idea of reflecting society's cultural aspirations in contemporary society.

Subject to cultural debate regarding their conversions, these urban developments and architectural productions challenge planning practice through their loss of function, derelict fabric and approaches to strict protection in classical discourses of conservation. Van der Rohe (2016) argues that there is conflict between preservation and change and asks the following questions;

Should heritage be conserved in its present state? How much can be permitted in order to accommodate new demands while preserving an authentic core of a particular site?

There have been various attempts at answering questions presented by Van der Rohe (2016) in dealing with the former productive landscapes of the Johannesburg's mining waste sites along the gold reef. Three sites exhibiting such attempts where the former productive landscapes have been converted to sites of urban entertainment are discussed.

(Van Cleempoel & Plesvoets, 2011) Typological approach of adaption which classify architectures role into classification of an architectural program. Conceptually illustrate the case studies, the nature in which these landscape transformed exemplify the theoretical strategic approached discussed by (Robert, 1989). Theories to adaptive re-use are described by approaches, distinguished as: typological, technical and architectural strategies. Imposing strategies illustrating thematic approach has not consider the heritage significance of these sites.

#### 4.8. Historic Landscapes of Production

##### [production and the city]

*“From the time a city emerges, inhabitants have filled them with statues and monuments representing civic regalia to markers of time. With each leaving a repository of civic and or national memory which define virtues by speaking of great events.”*

-Benton-Short & Short, 2008

The past twenty years have seen various rehabilitation strategies and mining of the old slimes dams and sand dumps situated to the south of the CBD. This resulted in a major change to the cultural landscape and skyline of Johannesburg and surrounding areas (Fourie & van der Walt, 2005).

Illustrated from the transformed sites in Johannesburg’s case studies in this dissertation.

The tourist theming of South Africa’s modernity within recreational and leisure environments in the case studies, illustrates that the country is still mapped and memorialized for international and domestic tourists as a sequence of routes in urban settings (E.Coombes, 2003).

(Leslie Witz, 2007) notes the idea of theme parks in South Africa represent the real world tugged in war of financial transactions and land deals, the translocation of imagined pasts into real space and merely than just fantasy places Africa into a world of science and education offering ‘edu-adventure’. Further note the post-colonial tourist adventures drew upon ‘nativist authenticity’.

Very few of the historical mining structures have been preserved or documented in the past and a rich history has been destroyed. (Benton-Short & Short, 2008) describes these sites as a reflection within monuments, memorials and public space as important symbolic messages within the urban landscape, some of the most important public spaces are also memorial landscapes, in what (Benton-Short & Short, 2008) describes simultaneous landscapes which serve a dual purpose as public space and landscapes of commemoration.

Multi-layered spaces usually have more than one monument or memorial for location of memorials and contemplation. And as a result, some urban spaces act as urban memorial spaces or serve as sites of civic and national pageantry (Benton-Short & Short, 2008).



4.8



4.9



4.10

Fig.4.8 Aerial Photograph of head gear at Crown Mines (Museum Africa,1998)

Fig.4.9 City Deep Mine (Museum Africa, 2008)

Fig.4.10 Ferreira Deep Mine (Museum Africa, 2018)

#### 4.9. Post-Industrial Landscapes: Heritage or Dereliction

*'In Johannesburg the backdrop is always man-made. We have planted the forest the birds endorse. For hills we have mine dumps covered with grass. We do not wait for time and elements to weather us, we change the scenery ourselves, to suit our moods. Nature is for other people, in other places.'*

*Ivan Vladislavic*

*Transform*

*1.*

*Make a marked change in the form, nature, or appearance of.*

Industrial heritage consists of the remains of industrial culture which are of historical, technological, social, architectural or scientific value. These cultural landscapes are related with recognized patterns of activity in place and time, they are manifestations of human activity in space and in essence give character to define space (Loures, 2008).

The discovery of the world's most prolific gold mining area certainly transformed the place that became Johannesburg. The discovery of the main reef of gold in 1886 set off one of the largest gold rushes in history, and within ten years Johannesburg was the largest city in South Africa.

The Witwatersrand Basin represents the richest goldfield ever discovered. It has been claimed that 40% of all of the gold ever mined has come out of the Basin. About 50 million kilograms of gold has been extracted from the Wits Basin to date. In 1970, South Africa's output accounted for nearly 80% of the world's gold production; forty years later, South Africa's share of world gold production had dropped to less than 8%.

Architecture's intersection within these cultural landscapes exist conservation of industrial heritage and their associated relics, and the cultural and social value associated to challenging what it means to preserve cultural aesthetics of the built environment. Changes over time as a reconstruction and re-use or complete erasure as it ages and changes, advocating for a less conservation preservation strategy (Cristina, et al., 2014). The analysed landscapes are analysed using a holistic approach, which including ecological reality, as the physical and biologic part of the ecosystems, the historic-cultural reality, as the elements that connects people with their place and history enhances possibilities of creative practice (Loures, 2008).



4.9

Fig.4.11 Children swim in a toxic water pool on a mine dump in Soweto (James Oatway, 2016)

#### 4.10. Adaptive interventions: [Case Studies: Reusing, Reactivating and Re-inhabiting]

Industrial heritage is not only about memory, traditions and labour movements; it belongs to cities, as sites of transformation. Urban transformations of heritage sites result from the constellation and interrelation of different discourse from heritage to cultural production of space (Oevermann, 2018).

**According to Brooker and Stone, the term adaptive re-use also encompass 'conversions', 'reworking', 'rehabilitation'. Exemplarily to this phenomenon are the case studies within the Johannesburg south established as post-productive landscapes to now converted sites of urban entertainment cultural institutions.**

Adaptive re-use may be defined as a design-based intervention aimed at bringing new life to a space, often abandoned, neglected under or mis-used space. In contemporary conservation theory and practice, adaptive reuse is considered an important strategy towards conservation of cultural heritage.

Historical sites, their architecture and machinery provide evidence of the past and are spatial resources for urban development. Subject to cultural debate regarding their conservation, these urban developments and architectural production challenge planning practice through their loss of function, derelict fabric and approaches to strict protection in classical discourses of conservation. Van der Rohe(2016) argues the conflict between preservation and change and asks questions should heritage be conserved in their present

state/ How much can be permitted in order to accommodate new demands while preserving an authentic core of a particular site.

Theories to adaptive re-use are described by approaches, distinguished as: typological, technical and architectural strategies.

Van Cleempoel & Plesvoets (2011) present the typological approach of adaption which classify architectures role into classification of an architectural program. The nature in which these landscape transform exemplify the theoretical strategic approached discussed by (Robert, 1989).

Breitling & Cramer (2007) define understandings of the analogy between defined strategies and architectonic expressions. The distinction between design strategies as physical interventions and alterations to the existing fabric as architectonic expressions as the aesthetic quality of the intervention.

The disturbances of landscapes and sites that constitute the nations cultural heritage, such as Johannesburg's mine dumps, the generation of waste contribute to debates of historical conservation preserves memories and reminds us of the accomplishments and failures of the past. The issue of waste and decay left after industry has left is particularly acute in old mining landscapes (Oevermann, 2018).

(Gimblett, 1995) argues that heritage adds value to existing assets that have ceased to be viable such as subsistence lifestyle, obsolete technologies, abandoned mines, the evidence of past disasters or that were never economically productive.

Conflicts emerging from working with these landscapes emerge in heritage conservation, which is considered with preservation; Urban development, which aims for prosperous liveable city; Architectural production which strives to brings forth contemporary architecture. Industrial heritage thus illustrates cycles of use and re-use in the industrial landscape (Alfrey & Putnam, 1992). Modern conservation is rooted in values, therefore assessment of these values should be the basis for each rehabilitation project of a significant building or site.

Tourism and heritage are argued to be collaborative industries, heritage converting locations into destination and tourism making them economically viable as exhibits of themselves (Gimblett, 1995). Locations become museums of themselves within a tourist economy. Thus the key concept into this notion and interface and the possibilities it affords for conveying messages other than those of heritage. Land marking, historic recreation, cultural conservation and heritage tourism are not transparent.

The discourse from work and production within a post-industrial society towards leisure and consumption in contemporary society has contributed to social, cultural and economic change. Particularly under the influence of globalisation and privatisation policies, city-marketing and imaging programmes of urban regeneration projects, the new landscape of post-industrial cities has witnessed the emergence of attractive and alluring public spaces (Boyer, 1993; Crilley, 1993; Hubbard, 1995; Madanipour, 2000; McInroy, 2000).

Marred by privatization, commodification, commercialisation, Increasing control and surveillance over them, and consequently the imbalance among their roles in society, public space are certainly not a fait accompli (Ercan & Müge, 2007). The accretion of privatized enclaves and dead spaces has radically devalued urban public space as a powerful social and political ideal in cities of the new South Africa (Murray M. J., 2011, p. 19). While there are dwindling numbers of open social spaces where one can go to the city, their economic and social value deteriorates simultaneously as a result.

Design and management characteristics underline the changing roles of the publicness of the post-industrial cities. The dissertation structure follows an overall review

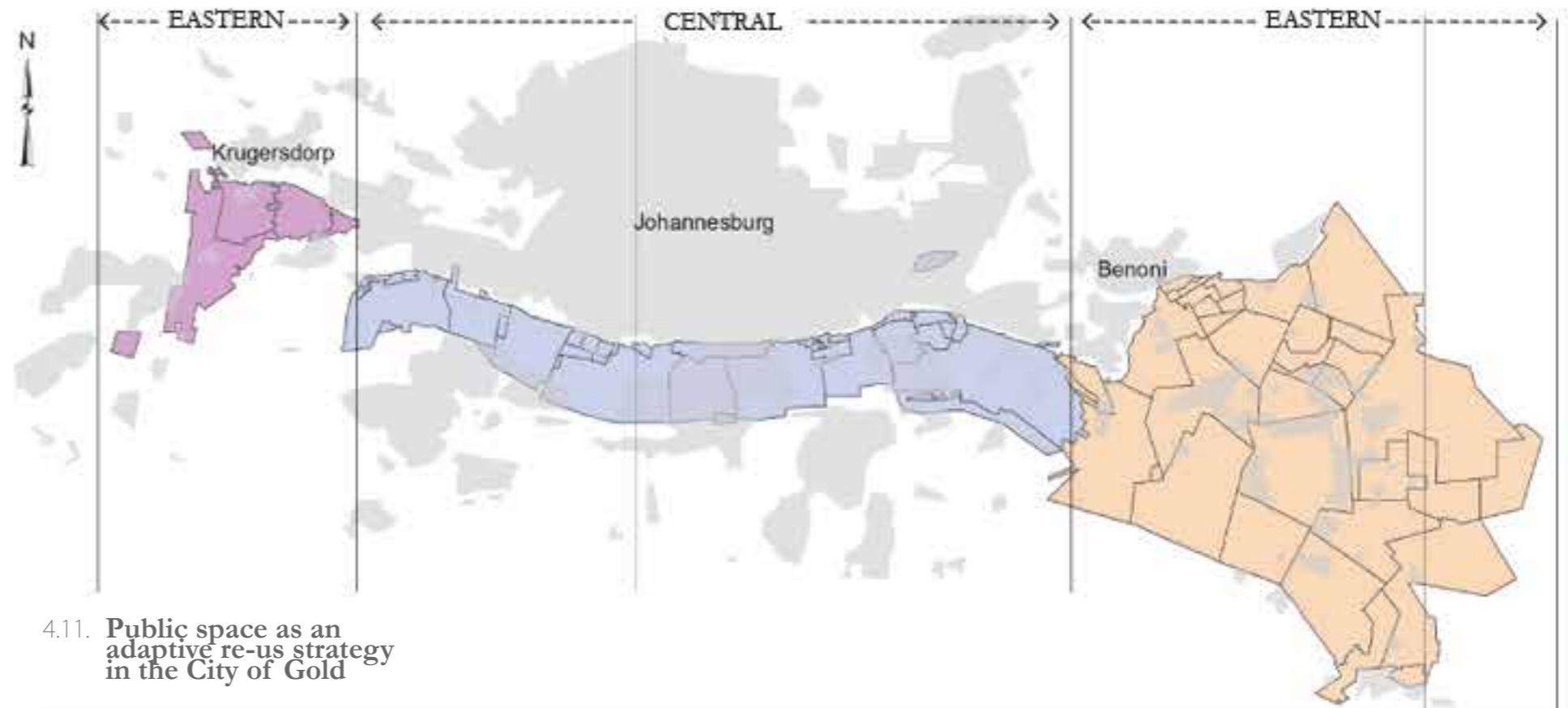


Fig.4.12 Easter, central and western basin( Council for Geoscience, 2010).

of the nature and history of public space through a period of colonialism and post-apartheid, specifically in Johannesburg, chapter 1 reviews historical planning to trace the evolution of urban spatial development between 1890's and late 1980' form a critical point to underlying present issues of Johannesburg's urban public space. Including the spatial complex of mining, topography, industry, commerce and apartheid spatial planning.

#### 4.11. Public space as an adaptive re-us strategy in the City of Gold

From Agora of the polis, open market places of Medieval cities to today's shopping malls, corporate plazas, atria and festival places, public spaces have been one of the crucial components of cities for centuries (Ercan & Müge, 2007). Their contribution often argued from a political perspective by (Lynch, 1992) that promotes democracy, social and urban image. The following schematic outline depicts how leisure and space has been intertwined with local and international zeitgeist. The seventeenth century was the golden age of the tavern, the eighteenth century introduced pleasure gardens, while the nineteenth century featured fêtes, carnivals and circuses littered over public space.

During the 19th century, the park was considered a Western response to unhealthy and disintegrated environments

caused by industrialization and rapid urbanization in the 18th century (Beck & Koh). The purpose of the park shifted beyond impressionist paintings of strolling, for seeing and being seen, picnicking it what was considered a staged picturesque scene was for the bourgeois.

The invention of new technologies during the Industrial revolution and new forms of entertainment at national and international level, created a local demand during the eccentric era of the 60's and 70' for fashionable leisure venues and facilities such as cinemas, theatres, roller-skating rinks, sports centers, water parks, coffee bars, theme pubs and discos. By the twentieth century, the mechanisation of work allowed for more leisure time and the distinction of class sparked the leisure revolution for the consumer igniting refined taste for museum culture

(Pilcher, 1938).

The new landscape of the post-industrial city witnessed the emergence of quasi-public spaces, characterized by strong emphasis on their economic, symbolic and roles (Ercan & Müge, 2007, p. 126). Common features are the commodification and commercialisation, the promotion of 'good design', cultural and historical values and the increasing control over activities and users of public spaces.

By the late 1980's acceleration to the consumption of entertainment districts gained prominence in Johannesburg's cityscape, parks and cultural institutions which altered the relationships between social life and production of public space (Clavé, 2007).



Fig.4.13 City Council of Johannesburg Road Map (Museum Africa, 2019)

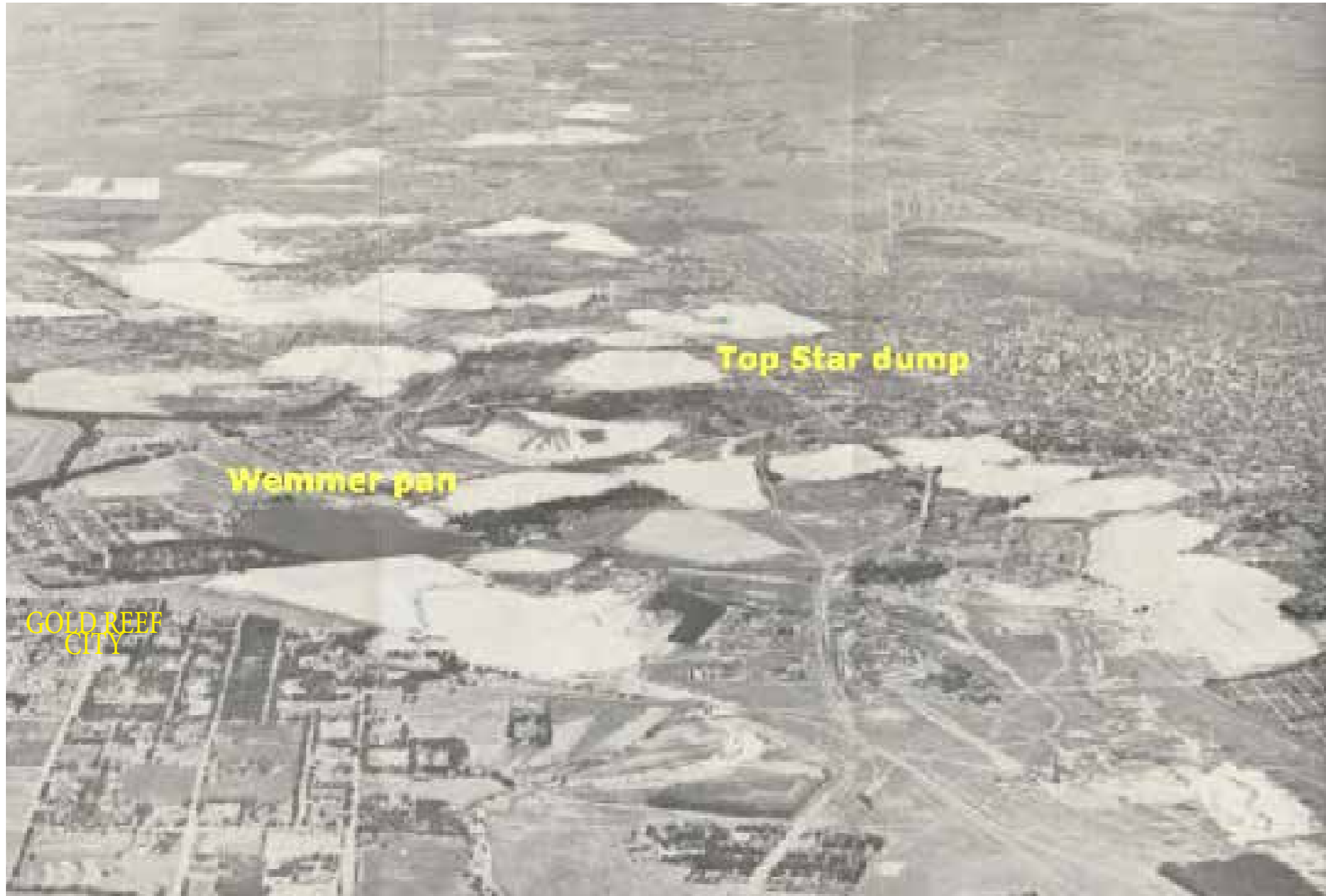


Fig.4.15 Aerial photograph of relationships between mine dumps and their conversions into leosurescapes(Museum Africa, 2018)



Fig.4.16 The screen of Top Star Drive-in-cinema looking towards the city (Alastair Mclachlan, 2018)

Fig.4.17 Board and left over infrastructure of Top Star Drive -In Cinema (Alastair Mclachlan, 2018)

Fig.4.18 Gold Reef City in context with the city ((Alastair Mclachlan, 2018)



#### 4.12. Culture-led developments

In South Africa, culture-led developments achieved a heightened surge in the 20th century as a result of cities struggling to deal with economic restructuring. The entertainment industry provided a potential redevelopment strategy which would catapult districts into success and rejuvenation (Akyeampong & Ambler, 2002) (Samadi Ahari & Sattarzadeh, 2017). This new public stance of late twentieth century followed international urban trends as South African cities rapidly transformed into archetypal postmodern cities for ‘World-Class’ city status (Bezzoli & Marks, 2001).

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commodification and commercialisation, the promotion of ‘good design’, cultural and historical values and the increasing control over activities and users of public spaces.

Defined in literature as spaces of “capture” public spaces in such settings are supposed to help to keep the users inside and to increase consumption. These public spaces are self-referential, that is, they bear no relation to the surrounding city fabric.

According to Loukaitou-Sideris (1993), 21st century contemporary notions of public space include highly regulated and secured that attempt to include/exclude certain members of the public. The management authorities of these public spaces mainly attempt to avoid people and since:

- i) They might be potential threats toward the increase in the maintenance cost of the public spaces,
- ii) They can change the ‘perfect’ image of the public space (as a safe, protected and orderly setting) and thus threaten the marketability of the space, iii) They can put at risk the liability of the management authorities for all the facilities and spaces within the property lines of the owners (Loukaitou-Sideris, 1993).

Although these features have placed them at the center of broad interest in they have led to the impoverished physical, psychological, social and political roles of those spaces, while strongly emphasizing their economic, symbolic and aesthetic roles. (Ercan & Müge, 2007) further argue that control



of users and activities of public space(as a safe, protects and orderly setting) aims at achieving smooth operations for consumptive activities.

This new public stance of late twentieth century followed international urban trends as South African cities rapidly transformed into archetypal postmodern cities for ‘World-Class’ city status (Bezzoli & Marks, 2001). Layered with new cultural narrative and intention, public space in South Africa often carries with it profound ideology and memory.

Consequently, these quasi-public spaces have become not only the means that increase consumption and the tools that mainly serve in the interests of developers, employers and employees of the service sector, the affluent groups of local inhabitants and tourists, but also the instruments that enhance the confusion about local traditions, identities and that cause the of individual places, and that strengthen social stratification, social exclusion and gentrification. The public spaces with such features are highly questionable in terms of their ‘publicness’ (Nemeth & Schmidt, 2011, p. 131).

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As a result the introduction of meticulously choreographed public space in the 21st century has created universal cultural entertainment after the industrial revolution, created designated modes of entertainment for specific features of entertainment after the second industrial revolution which formed a paradigm shift from production to consumption (Mitrasinovic, 1998).

Tourist attractions in their diversity such as outdoor recreation resource, indoor recreation facilities, amusement parks, theme parks, gaming casinos, sporulg and shop entertainment complexes have become major sources of tourism activity and revenue. Contemporary notions of public space argue that public space becomes inevitable components of cities, not only for their physical but ecological role, mental and psychological health of human beings

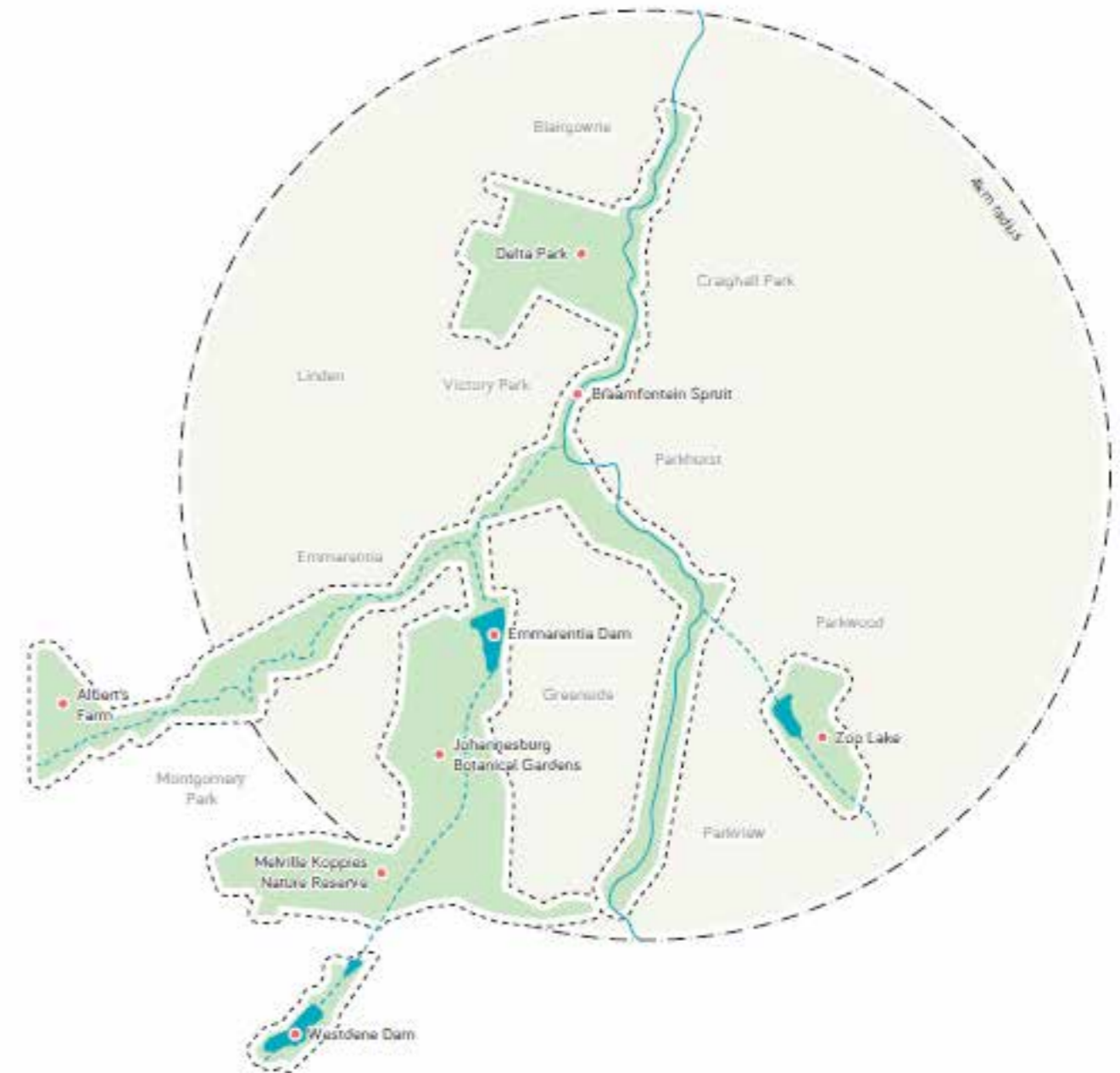


Fig.4.19 Location of park networks to water(Kegan Stokes, 2018)

(Nemeth & Schmidt, 2011).According to Akyeampong & Ambler (2002) the need to re-imagine how leisure is design and accessed in the 21 st century from the of people seeking pleasure and relaxation.in rapidly dense and urbanised is crucial in their resilience and longevity.

In the pursuit of appropriate management strategy for culturally-led urban development's public space, their heritage perspectives are adopted from (Nemeth & Schmidt, 2011) methodology which serves as a starting point. The benchmarks for conceptualizing publicness and provide empirical analysis of public spaces. (Van Cleempoel & Plesvoets, 2011) present the typological approach of adaption which classify architectures role into classification of an architectural program. The nature in which these landscape transform exemplifies the theoretical strategic approached discussed by (Robert, 1989). (Breitling & Cramer, 2007) of the analogy between defined strategies and architectonic expressions. The distinction between design strategies as physical interventions and alterations to the existing fabric as architectonic expressions as the aesthetic quality of the intervention.

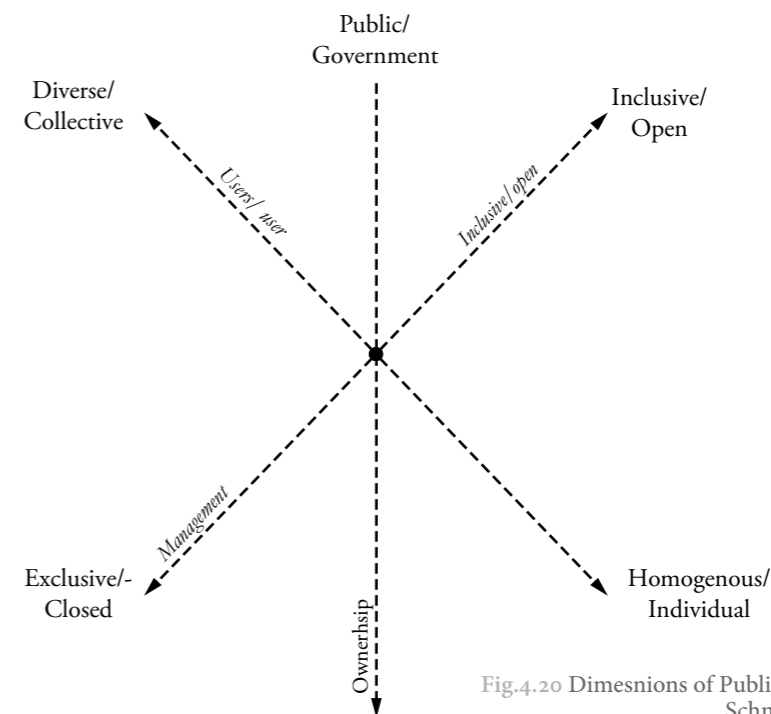


Fig.4.20 Dimesnions of Publicness(Nemeth and Schmidt Schmidt, 2011)

### 4.13. Defining Public Space

The term of “Privately Owned Public Space” was first invented in 1960s in New York City. As a las”Rs

Oxymoronic Invention, it comprises two parts.

“Privately Owned” refers to the legal status of the land and/or building on or in which the public space is located. Owners would continue to control overall access and use of their private property and the public as a whole could not secure rights of access and use without the owner’s express permission. Thus, it is a “Public Space” rather than a public property in this case since it is not owned by the city (Kayden, 2000).

“Public Space” means a physical place located on private property to which the owner has granted legally binding rights

of access and use to members of the public. Ownership continues to reside with the private owner, public space may be thought of as an easement held by the public on the owner’s property (Kayden, 2000).

Characteristics of public space of the post-industrial city

Key corporate companies became instrumental in economic and spatial development of new public urban landscapes. Globalisation attracted drastic change to the urban landscape of the “world-cffies”, especially in their downtowns (Boyer, 1992). These market driven strategies driven by investors, property owners and city officials sought to fashion the urban landscape in conformity to a “World-Class city status”.

According to (Celik , Favro, & Ingersoll, 1994) the new landscape, public spaces have become significant as a means of the new landscape, functioning with the agenda of inward privatization and financial gain. This new landscape described as ‘spectacular’ ‘astonishing’, ‘glorious’ ‘fantasy-world’. The new landscape of ‘world-cities’ distinguished the nature of public spaces from historical industrial landscape. These developments often resulted in urban entertainment strategies to revitalize derelict, urban areas forming elite clusters conceptualized as American ideals of public life. The benefit often conceded by long-term benefits through increased floor ratios of valuable commercial space in exchange for some public amenities

In former times, demands from society due to urbanization expand and require adequate open spaces for leisure and recreation, while land use profits in one region, they expand spectacularly in other regions and diminish equally in other regions. Seen evidently in the investment between the northern and southern suburbs of Johannesburg of

public space. While there are national policies directed to revitalize distressed landscapes, broader questions arise on how these areas may be repurposed, how economies can support local communities and appropriate strategies/ In these discarded landscapes (Murray, 2008).

At present, land use exists in mosaic and are multi-layered, becoming in what (Meeke & Vos, 1999) argue originated from dependency of nature, through a nature adapted multi-use space towards man-production space. These land uses typically influence the planning and construction of public parks while urban recreational parks have been argued in literature to contribute to sustainable cities, people’s lifestyle and wellbeing in general (Beck & Koh).

Certain abstract characteristics of an ideal public space such as variety, flexibility, permeability or authenticity are argued for by (Madanipour, 1999) interpreted the framework by & Gauss, 1983) that theorizes publicness as based on three dimensions: access, agency and interest.

For (Spencer & Zembani, 2011) (Radebe, 2015), the relationship observed between the use and success of public parks stems from the case that the more densely populated cityscapes become, the more it experiences in carving out instrumental public space from within.

The following are terms are described as followed;

**Access:**

Access is defined as access to a place as well as the activities within it.

**Agency:**

Refers to the locus of control and decision-making present. Interest:

**Interest**

Refers to the targeted beneficiaries of actions or decisions impacting a space.

Furthermore theoretical understandings of public space are layered and act as an axis that intersects and interacts with other components (Fig). Operational dimensions include three core components; ownership, management and user/users. Which are defined in the following definitions in the study by (Nemeth & Schmidt, 2011);

**Ownership:**

Involves whether a space is owned by a government body (public) or a private individual or corporation(private).

**Management:**

This dimension refers to the manner in which a space is controlled and maintained, and specifically refers to the methods by which owners indicate acceptable uses, users, and behaviors. User/Users:

This is perhaps the most difficult axis to measure, as it can be interpreted both quantitatively, by the diversity of uses and users of the space, and qualitatively, by the behaviors and perceptions of the users themselves.

#### 4.14. Degrees of ownership

		Ownership	
		Public	Private
Operation	Public	Publicly owned and operated	Privately owned publicly operated
	Private	Publicly owned and privately operated	Privately owned and operated

Fig.4.21 Ownership and Operation Combinations(Nemeth and Schmidt Schmidt, 2011)

(Marcuse (2005) describes six legal forms of ownership of public space: (1) public ownership, public function, public use (streets), (2) public ownership, public function, administrative use(city hall), (3) public ownership, public function, private use (space leased to commercial establishments), (4) private ownership, public function, public use (air-ports, gated communities, zoning-bonus private plazas), (5) private ownership, private function, public use (cafes), (6) private ownership, private use (home).

Design physical matrix:

Include four major dimensions

1. Laws and rules governing space
2. Surveillance and policing present in space
3. Design and image building techniques
4. Access restrictions and territorial separation to control space

In South Africa, sport, leisure, recreation, tourism development and growth is government led (Spencer & Zembani, 2011) in order to operate parks, community centers, libraries and other facilities that are open and accessible. The link between culture, leisure and social control play a crucial role in constructing the nature of public space today, its growth objectives, environmental issue.

Defined by two distinct variations of use, our cities have come to be known as disjointed in use and access and by virtue stand in contrast seen privately-owned spaces and public space, including retail stores, theatres and casinos.

In spear-heading public space, the drive toward remaking the city of Johannesburg an emergence of privately-owned public space. The availability of public space does not lead to public sphere activity; it requires a state that allows opportunities for interactions between citizens. Specifically, how public spheres are spatialized in a park. Certain factors articulate to produce certain experiences of the park.

Collectively the terms are defined by “place” and “space” that suggest an image of accessible urban, suburban, rural and landscapes. Lefebvre argues how these spaces become social realms, also known as urban commons. Public space is distinctive from but is always connected to public space.

In a space less tightly regulated there must be a community that somehow pulls together public space, Lefebvre argues that for a social space to function it should exhibit spatially the encounter of assembly and simultaneity.

#### 4.15. Case Study Selections:

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The spatial matrix between publicness is presented as a theoretical approach to the conditions of contemporary public space, by analyzing case study sites within the study are informed by urban historical readings of place, the condition starts by crafting socially optimal public so thin privately-owned public space

The model scribed by (Nemeth & Schmidt, 2011) offers layers a multiuse age an methodology which potentially serves to plot the relative publicness of space. The hypothetical model of plotting spaces intersects between management and ownership of public space

The index divided into four major dimensions:

- (1) Laws and rules governing the space;
- (2) Surveillance and policing present in the space;
- (3) Design and image-building techniques to both literally and symbolically dictate

Appropriate behavior (eg outfitting benches with metal crossbars to prohibit homeless people from sleeping on them);

- (4) Access restrictions and territorial separation

Site selection criteria for evaluating privately-owned public space within the Id area included spaces managed within the ownership and operation matrix each encompassing. The above matrix informs the result of public space and use between all four spheres

Gold Reef Mine

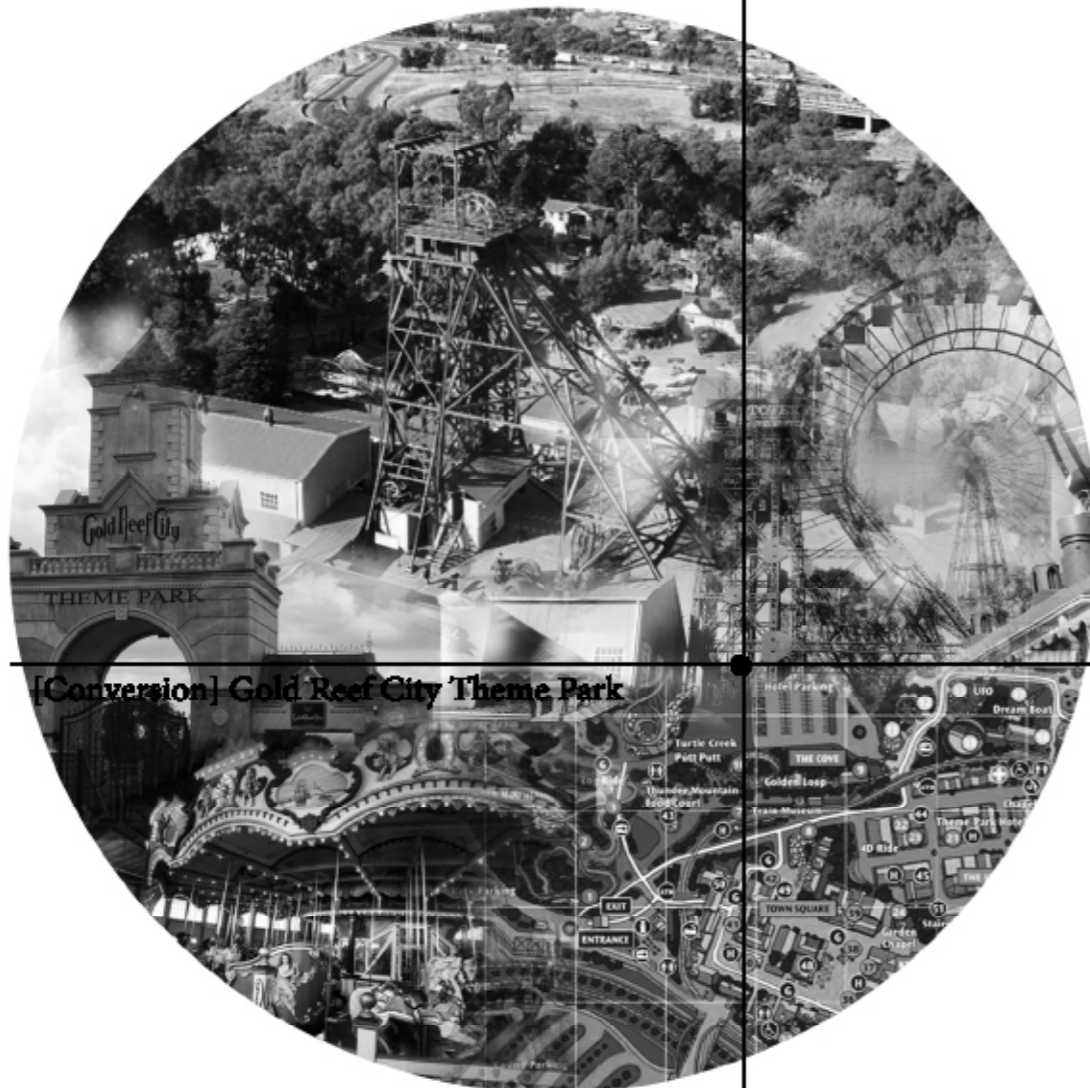


Fig.4.22 Collage illustrating industrial and cultural change of Gold Reef City (Author, 2019)

#### 4.16. Gold Reef City

##### Historical Background

Considered as South Africa's first theme park, the Gold Reef City theme park in Southern Johannesburg opened in 1971. Conceived as a large cultural park and the theme park as a catalyst for the Reef was constructed around the mothballed Crown Mines Shaft No.14, purports to represent Johannesburg as it was in 1890's (Kerry Bobbins, 2018).

The theme park is modelled to simultaneously exhibit Johannesburg's mining history via the mining museum and provide leisurely escape through the theme park and eventually the casino. This manufactured park of urban pleasure reconstructs the Victorian mining wonderland and interprets Johannesburg's mining history into a spectacle of Wild West references by reconstructing the early mining village in a fictitious sequence of events (Bobbins & Trangos, 2018).

##### Social and Cultural Heritage Significance

Gold Reef theme park, which ironically represents a modern image of the historical city, distorted by nostalgia and located in a landscape of historical production. Here, the complex and extremely exploitative nature of capital on the Witwatersrand and the mines is denied representation (Bobbins & Trangos, 2018).

It is typical in that it portrays a highly selective and casual version of the past that glamorises gold and industrial capitalism and combines history with funfair-style entertainment. (King, 1991) Viewpoints on the 'disneyfication' of history invokes popular and nostalgic viewpoints of history, the past approached uncritically and recycled into extravagant entertainment. The theme park at this point extend to more than just leisure space (Clavé, 2007). They become the physical expressions of society's desires as to its preferences for the city and offer alternatives to the conventional processes of urban construction.

Bobbins & Trangos, (2018) argues how the Gold Reef City complex highlights the city built on exploitative social and environmental affects that replicates and deepens social and ecological divides. The landscapes monumentalises the role of mining capital, denying the relationship of the city to its original landscape.

### Sustainability model

The sustainability of this complex is maintained by constant external capital investment and the nature of the site as a tourist heritage destination, including hotel complexes, theatres and museums. The Apartheid Museum opened in 2001, as the theme parks social responsibility portfolio. In a twist of fate the threat of closure to the casino due to an unlicensed casino prompted an addition of the Apartheid Museum for as corporate social responsibility project by the Ekani Corporation,, thus extending the social landscape of this complex.

Kros, (1990) elaborates that Gold Reef City duplicit game with history and authenticity arouses initial interest but patronises history. The production of the past and its commercial nature outweighs the authenticity of history, yet in the same breath the staggering draw factor illustrates how the sites productive narrative as an urban renewal model successfully operates in terms of economy and a draw card into the cities entertainment and leisure space.

Cultural forms have been argued by cultural theorist Raymond Williams to be best understood in a social historical context. The concepts exhibited in these landscapes, provide a window from which to view contemporary culture (Botterill, 1993).

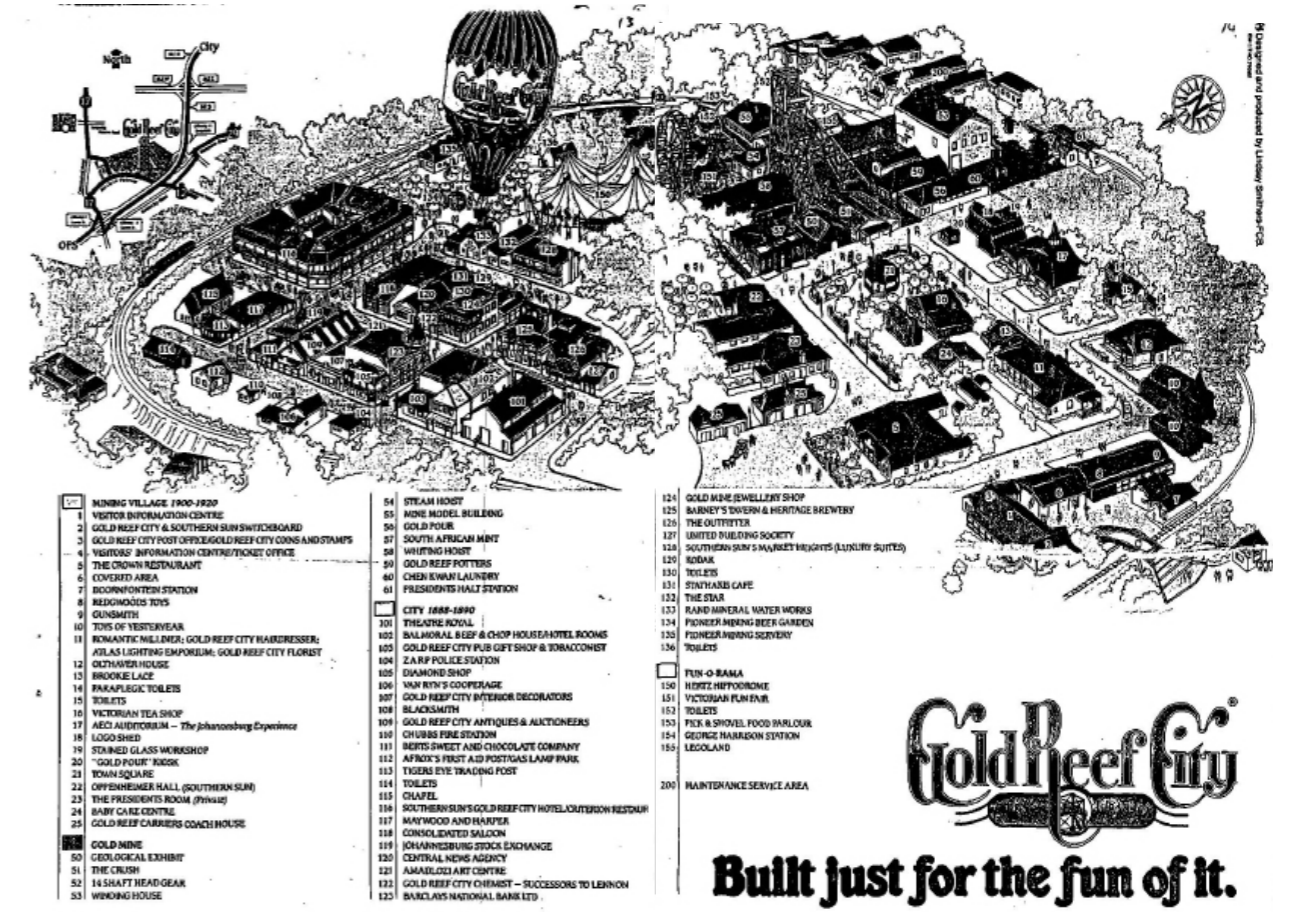


Fig.4.23 Gold Reef City Visitor Map in 1997 (Kros, 1998)

#### 4.17. Top-Star Drive-In

##### Historical Background [Ferreira Deep Mine]

After the discovery of the Main Reef at Witwatersrand in 1886, various mines were established. Mining methods in the early years was labour intensive, while only surface areas of the gold were exploited. Lionel Phillips was one of the first magnates to realise the potential of deep-level mining. As part of the company, Phillips and Herman Eckstein managed to acquire large claims including Ferreira Deep.

Historically, managed by the Zuid-Afrikaanse Republiek Government during the early part of the Anglo Boer War, and later formed part of the mines administered Ferreira Deep administered by Rand Mines Ltd.

In 1893 the company of H. Eckstein formed the company Rand Mines Ltd, which took over the administration of these mines (Catwright, 1965). The Ferreira Gold mine was sited on Park Central, just south of the current M2 highway, located to the north of Ferreira Deep. Established in the late 1880's, and in 1912 these two mines were amalgamated (Fourie & van der Walt, 2005), the addition of the vertical shafts was erected on the 7th of March 1897. The Ferreira Deep was liquidated in 1929 due to the cession of activities on the site (Fourie & van der Walt, 2005, p. 25).

Due to the cession of productive work in 1929, the Ferreira dump was liquidated in 1929 (Fourie & van der Walt, 2005) The character of neighbouring Selby areas from industrial to general business and office usage changed as per the decisions made by City council to change the "industrial" zoning of Park Central to one of "general business". The change in economic sparked an alternative fabric to the previously industrial park. The concern of opposing the proposed township development envisioned danger of building on a tailings dam and mine dump, as well as Town Council being held responsible for any damages to take place.

In 1948, the area in which the slime dams is situated was given an Industrial Stand Permit, numbered 219. According to this permit almost any kind of industrial development was allowed to take place on the slimes dam. In accordance with this permit, heavy industry and factories were constructed during the period of 1947-1948 (Fourie & van der Walt, 2005, p. 26).

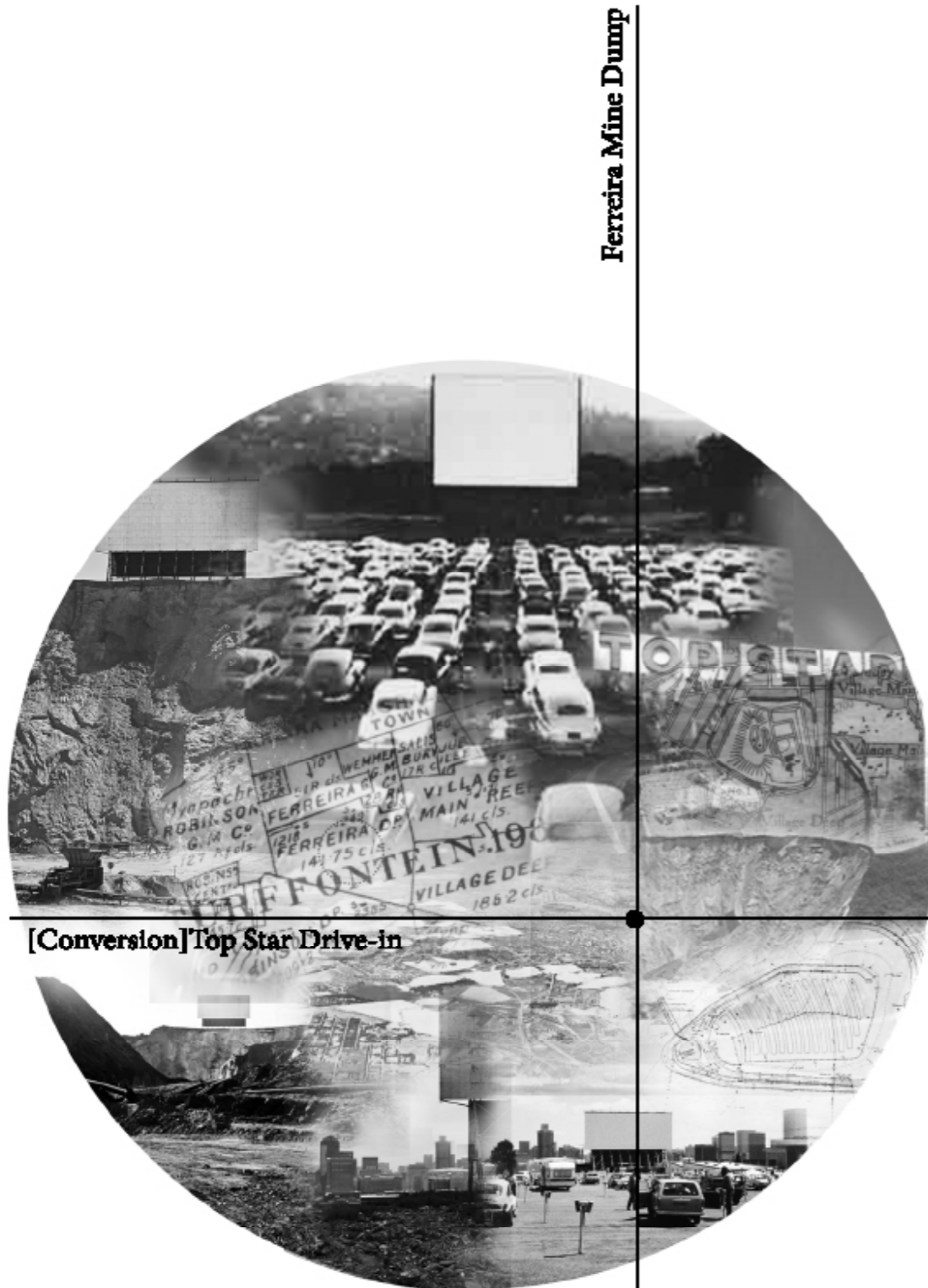


Fig.4.24 Collage illustrating industrial and cultural change of Top-Star Drive-In Author, 2019)



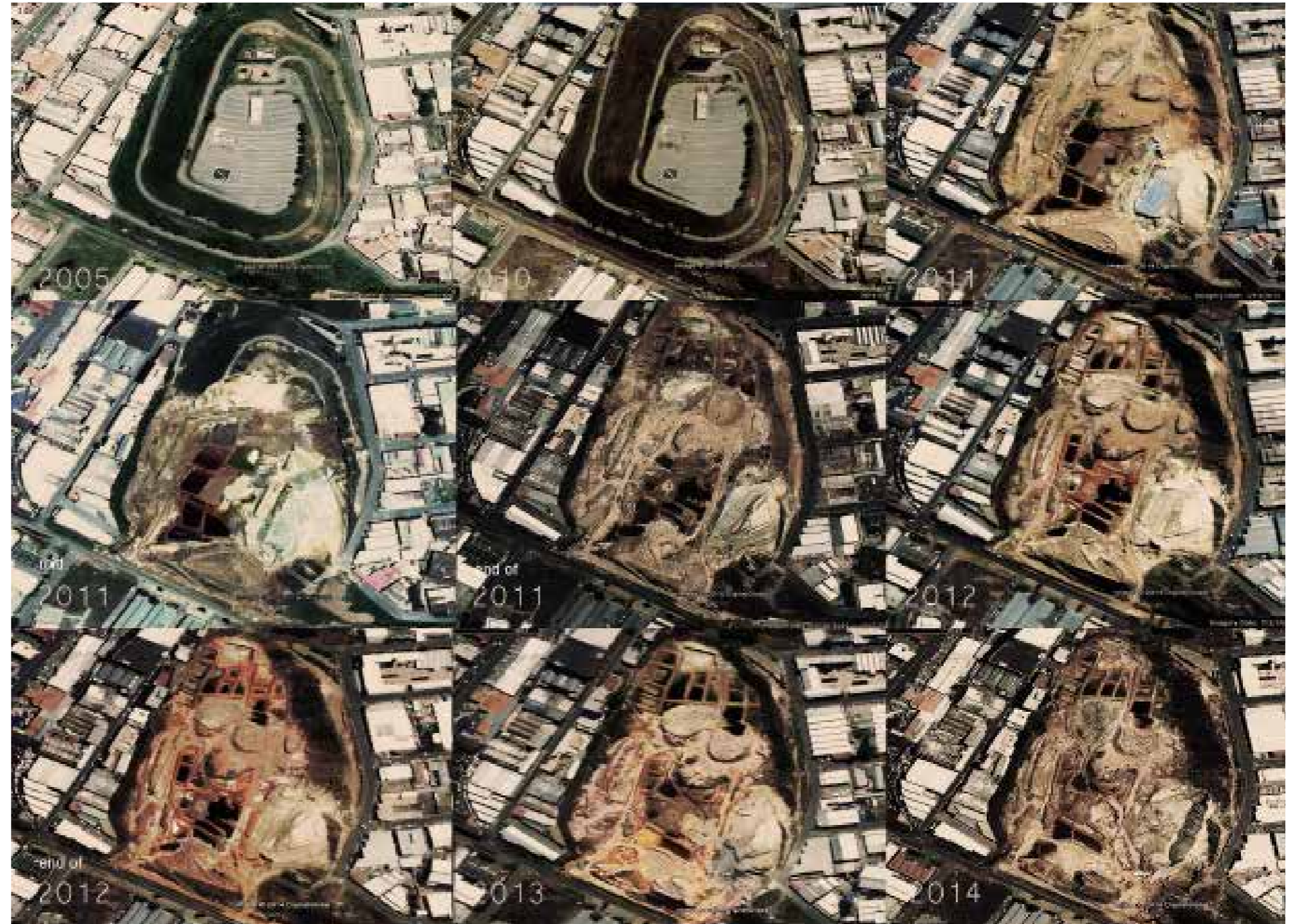


Fig.4.25 Aerial map illustrating physical change over a decade at Top Star Mine dump(Google Earth 2018)

Various attempts were made during the 1940's by the Ferreira Company Limited for repurposing as owners of the property containing slimes demanded dump to establish development.

During the 1950's the property was transferred from the Ferreira Estates Company Limited to the Ruargh Hill Development Corporation Limited. In November 1950 the Ruargh Hill Development Corporation Limited as registered owner of Portion 316 of the fame Turffontein No.21, made an application to the Township Board for the establishment of a township on that portion. Although township developments were common in Johannesburg's history, the site in question had a peculiar physical characteristic in the area for consisted of a disused slimes and mine dump.

According to an article which appeared in the Rand Mail on 29 August 1951, the proposal was strongly opposed by James Gray M.P.C and Mr R.N.B. The main concern for the opposition for proposed township developments was the envisioned danger of building on a tailings dam and mine dump, as well as the responsibility the Town Council would take have to take.

### Social/Cultural Heritage Significance

Various discussions, meetings and correspondence followed, and after a number of years resulted in the approval of the proposed Park Central developments given and published in the Government Gazette of 12 May 1955. Due to the property developments and town planning fabric the conversation surrounding occupying the dump for the cinema was considered. Written approval

for the drive-in theatre to be constructed was received from the Administrator in a letter dated 2 October 1959.

The transformation of the Top Star Dump in the early 1960's, better known and remembered by the public as Top Star Drive-in Cinema had been rented to the film company Ster-Kinekor as a drive-in cinema.

The Ferreira Dump was considered to be of historical and cultural significance due to its conversion to an outdoor cinema or function venue, by the heritage impact assessment taken by (Fourie & van der Walt, 2005). The earliest indication of the construction of a drive-in theatre on top of the disused mine dump was considered by the City of Johannesburg Licensing Department first addressed for an application to the Directors of Inrybelange Edms. Bpk dated 29 October 1958 for the application for a "Bioscope". In their heritage assessment of Top Star Drive-in (Fourie & van der Walt, 2005) note the cultural and social significance of this entertainment sites presents as a unique social phenomenon of the early drive-in theatre in Johannesburg.

Directors of Inrybelange Edms. Bpk set off 13 site specific conditions for parking and on the 4th of September 1959, L.I Coertze as Chairman of the Top-Star Drive-In Cinema (Pty) Ltd indicated intent on building a hotel, and provide angled sides of the dump hired for advertising, consisting of ten illuminated advertising boards compromised of moving court lights.

Considered as part of the Johannesburg social calendar, Drive-in theatres played a large part during the 1960's to the 1980's in South Africa. Functioning as a city-our

stop over, media launches, buying and selling cars on a Saturday and concerts.

The report further implies that the dump contributes to the cultural and visual characteristics of the Johannesburg skyline. And should be considered in the history of Johannesburg for its social contribution according to the evaluation of the National Heritage Resource Act of 1999 (Act No 25 of 1999) section 3(3).

Reclamation of the dump began in August 2008 and threatened the existence of the drive-in which officially closed in 2011. The reclamation activities claim to contribute to the continued viability of Crown's operations within the City of Johannesburg. The Top Star Dump Reclamations project claims to ensure the following:

- Ensure the removal of a source of pollution in terms

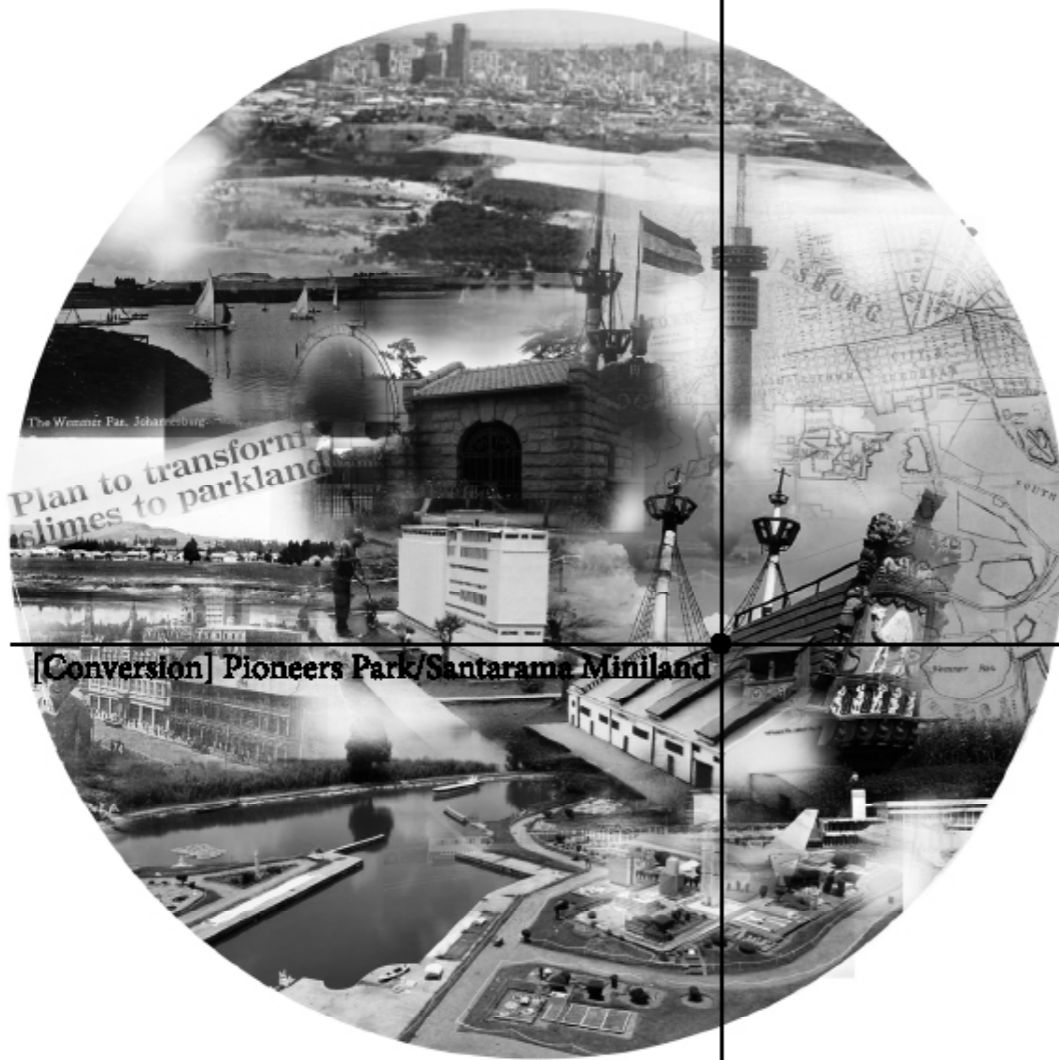
of surface water contamination and air pollution from dust.

- Key urban land will be unlocked for future developments (industrial or residential)

- The reclamation of the Dump will return the area to its original surface level and rehabilitate to appropriate environmental standards

Although strategies were suggested on how to mitigate the social significance of the site, the procedure to remediating the site was not considered and now is at a stage of being re-mined, forming a stark gaping hole to the past cultural significance of place the Drive-in served to the city.

City Deep quarry



[Conversion] Pioneers Park/Santarama Miniland

#### 4.18. Santarama Miniland

##### Historical Background

Four kilometres south of Johannesburg lies an amalgamation of cultural heritage in built form represented through miniature scaled models in an amusement park lauded with South Africa's political narrative.

On the Northern bank of Wemmer Pan lies the amusement park, Santarama Miniland commissioned by the South African National Tuberculosis Association (SANTA) conceived as a fundraising initiative. The amusement park was established in 1974, modelled after the Maudorodam miniature land in the Netherlands.

Known as the 'Liliput of the South', the miniature land exhibits various monuments and heritage sites from South Africa, in the form of scaled 1:25 miniature physical models for the explicit goal of raising financial support for the charitable SANTA fund. The Santarama Miniland, was established in 1970 initiated by the South African National Tuberculosis Association as a project which would raise awareness for the TB disease..

##### Social and Cultural Heritage Significance

Included in this entertainment-based landscape are South Africa's largest architectural marvels such as Union Buildings by Herbert Baker, the Post Office Tower, The then Jan Smuts International Airport(now OR Tambo International Airport), offering an alternative "edu-tainment" environment. Often critiqued as a skewed narration to the South African landscape. The method of prioritising entertainment and escape neglects to engage in rigorous dialogue of South Africa's social, political climate, throughout the periods displayed in modelled form.

The Santarama Miniland was conceived as a social and political manifestation during the height of South Africa's Nationalist period. Thus this considered fun, family-orientated "edu-tainment" landscape to the then repressive Apartheid regime, often times devoid of the larger South African narrative conceived and masked between candy-floss and children and water ferry.

Fig.4.26 Collage illustrating industrial and cultural change of Santarama Miniland (Author, 2019)

#### 4.19. Conclusion

The reading of three case studies each illustrate how (Hannigan, 1998) urban entertainment features are expressed within their respective environments. Translated through the physical and sensory experience of Johannesburg. The explicit dereliction and neglect on one part, illustrate how the “Fantasy City” remains an elusive a-contextual reality in Johannesburg’s southern suburbs public spaces.

While conditions of Gold Reef City reveal how the sense of space propels from local to global scale under the auspice of “global city” images and strategies. Limits set by the culture industry (i.e. museums, theme parks) has influence how leisure is conceived and consumed, thus leisure experiences become a commodity for profit motive as displayed in the case of Gold Reef City.

2.4 From minescape to leiscapescape: The birth of urban entertainment

As part of a spatial reconstruction strategy of the city, the project to convert historic productive landscape into places of pleasure, entertainment and leisure. Interest in preserving industrial abandoned sites, not only as scientific, economic and heritage resources to the city, provide a platform to generate cultural heritage and generate positive effects for local economy, not only in terms of cultural consumption, but in the form of employment and income (Cristina, et al., 2014)The spatial technology includes three components;

- Environment as a medium for integrating a story or theme into a controlled movement and as the message of the medium
- Theming as an economic process that operates on a basis of separating the stage (consumption and the performance from the backstage (production and surveillance)

- Cultural imagineering (EYÜBOĞLU, 2018)

In the context of Johannesburg urban history in this chapter 1, merged with the transformation of industrial heritage sites to leiscapes discussed in this chapter, illustrate the architectural chronology of leisure places and the constant effort to negotiate between the nature of man to domesticate nature in harsh urban settings as well as contend to a world-class city status by creating mega-scaled developments of entertainment and leisure.

Exploitative visions of the city in the urban environment questions approaches to create meaningful visions of and for the city. These environments provide a regulated vision of society as a substitute for the democratic public realm.

The tourist theming of South Africa’s contemporary public landscapes for recreational and leisure use

illustrated in these case studies, illustrates that the country is still mapped and memorialized for international and domestic tourists as a sequence of routes in urban settings (E.Coombes, 2003).

The selected case study sites illustrate the politics surrounding entertainment landscapes, globalisation and geography perpetuating the idea of world-class cities.

The history of Gold Reef City is one born out of definitive political, commercial and social era of Johannesburg. The pervasive “Disneyfication” of society argued by (Coombes, 2003) suggests that the theme park operates as a model for putting an acceptable public face on an otherwise unacceptable industry with an extremely poor record of labour relations, health and safety provisions which have clear historical precedent in South Africa. Disneyfication is depicted as a process by which the principles of the Disney Theme parks dominate more sectors of society, presented as compromising four aspects; theming, dedifferentiation of consumption, merchandising and emotional labour (Bryman, 1999).

Gold Reef City still forms part of the older more established ways of thinking about re-presenting the City’s gold mining past. In order to read Gold Reef City theme park, the salient characteristics of both amusement and theme parks. The Theme Park takes the primitive amusements of pleasure gardens as its starting point (Lukas, 2008) conceived as an

The understanding of leisure and its manifestations in urban spaces differs decidedly between individuals and institutions. While conditions of Gold Reef City

reveal how the sense of space propels from local to global scale under the auspice of “global city” images and strategies. Limits set by the culture industry (i.e. museums, theme parks) has influence how leisure is conceived and consumed, thus leisure experiences become a commodity for profit motive as displayed in the case of Gold Reef City.

Yet, smaller scaled leisure sites indicate how the chronology and influence of time created alternative escapes in sites like the Santarama Miniland deteriorate and are often left neglected.

To situate the Santarama Miniland within the spectrum of cultural institutions in Wemmer Pan as the site of investigation for this dissertation, the uniqueness of this leiscapescape informs a reading of its intentions as a leiscapescape and understanding its relevance today.

The adapted productive sites situated south of Johannesburg to urban entertainment sites illustrate the development of “heritage landscapes” to “leisure landscapes” within the discourse of mega-urban entertainment developments sites in Johannesburg’s natural and historic productive landscapes termed leiscapescapes.

The uniqueness of the Santarama Miniland as a site of investigation situates the discourse “leiscapescapes” of converted post-industrial sites to urban entertainment in Johannesburg- provide a comprehensive understanding of the social conditions to sites of urban entertainment should be understood.

The theoretical reading is premised, influenced and strengthened by architectural intentions and responses.

Leisure within the realm of sport, recreation and tourism establishes an appropriate program for re-scripting the Santarama Miniland into a contextual response for leisure and recreation. Mostly defined within the approaches to leisure for the consumer outlined by (Torkildsen, 2003).

The theoretical approach takes informants defined by (Nye, 1981) and acknowledges viewing the amusement park as a starting point to the discourse of layering the existing leiscapescape for an approach of palimpsest to the previous layer conceived within approaches to leisure.

Not only has the theme park emerged from the amusement park, the threat to the existence of the amusement park in contemporary society featured as necessary junctures of appropriating the Santarama Miniland. An out-dated concept conceived through American norms of recreation.

The condition of these conversions evident along Johannesburg’s mining belt landscapes of pleasure highlight this phenomena as one that is immersed spatially in time through tangible heritage, the evolution from an industrial phase to the period of conversions of the decommissioned industrial assets into an image of a city of fantasy and escape.

# URBAN CONTEXT OF THE SOUTH

# 5

*This chapter introduces the “Old South” as a point of investigation. Outlining the geographical construct of the region, the cultural assemblage and urban processes that contributed to the changing cultural nature of the ‘Old South’.*

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- |  |   |
|--|---|
| 5.1 Spatial Origins: <i>Uitvalgrond</i> and the southern townships | 5.1 Introducing entertainment in the city           |
| 5.2 Johannesburg south in context                                  | 5.12 Heritage Conservation                          |
| 5.3 Cultural Context   | 5.13 Architectural Preservation or Continuum?       |
| 5.4 Cultural Context   | 5.14 Conclusion                                     |
| 5.5 Recreation in the south  | 5.15 Santarama Miniland                             |
| 5.6 Wemmer Pan Precinct  | 5.16 The idea of a themed environment               |
| 5.7 Meso Investigation_The Pioneers Park                           | 5.17 Heritage of amusement parks                    |
| 5.8 Micro Investigation  | 5.18 The beginning of decay_Snataram MIniland today |
| 5.9 Historic development   | 5.19 The imagined landscape reimaged                |
| 5.10 Photographic Route Map  | 5.10 Escape and leirsue in the city                 |



Fig.5.1 Paucity of Parks throughout Gauteng region (James Page, 2015)

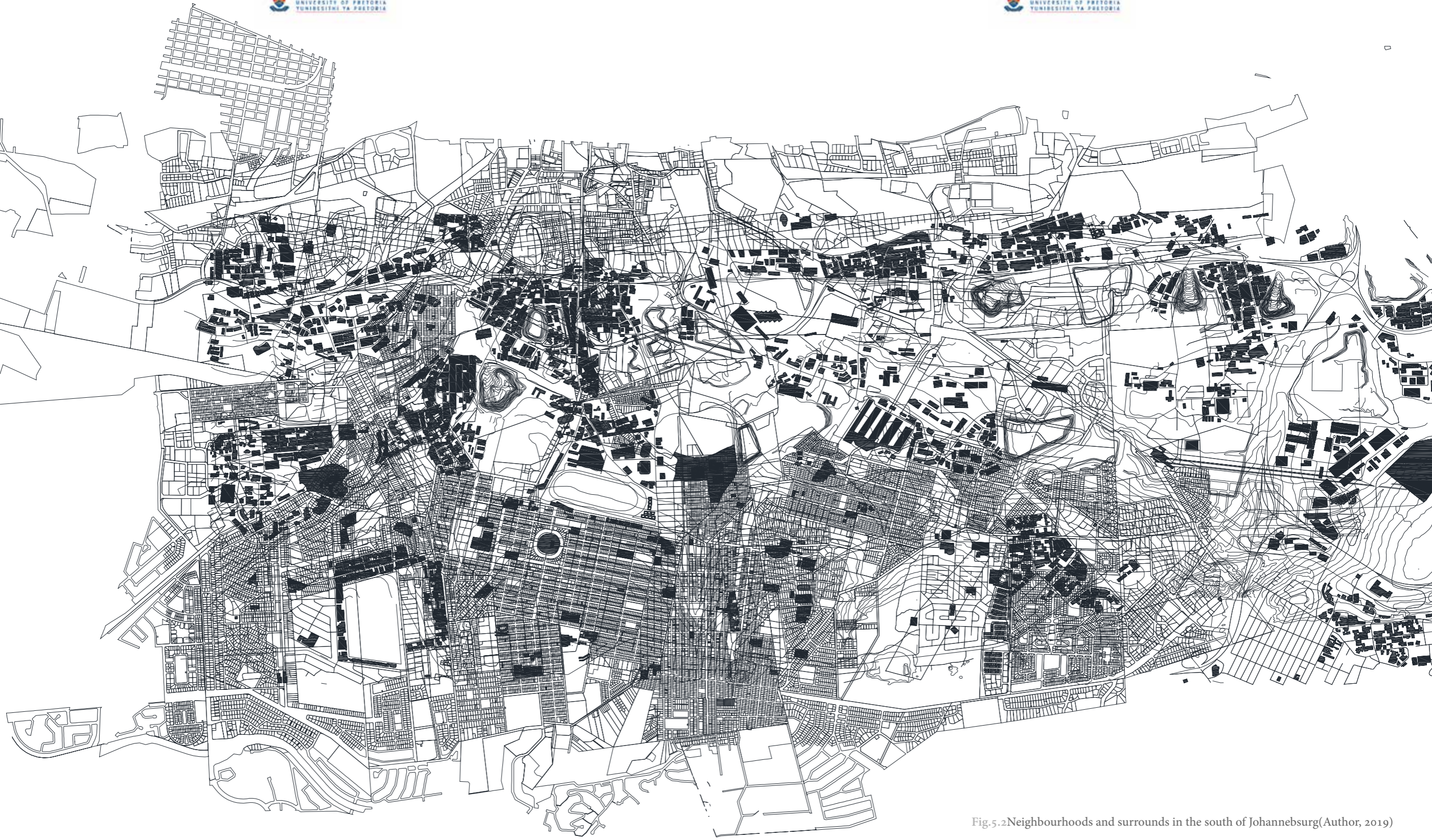


Fig.5.2 Neighbourhoods and surrounds in the south of Johannesburg(Author, 2019)



- Urban Morphology “Old South”

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*The Old South exists as an in-between space that has locally rooted identities, but which has also been profoundly linked through its entire history to the shifting networks of a global diaspora. Within the ‘Old South’, there is a complex entanglement of global, national, citywide, local and interscalar processes and loyalties.*

- (Harrison & Zack, 2014)

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### 5.1. Spatial Origins: *Uitvalgrond* and southern townships

The Ranjeslaagte was considered the original Johannesburg established in 1886. Existing in the centre of eight farms, the first public diggings was proclaimed on a triangular piece of land known as the “uitvalgrond” or “left over ground” after surveys were made of farms, Braamfontein, Doornfontein and Turffontein.

This year marked the beginning of Johannesburg with township proclamations of approximately 40 suburbs until the 1950’s. The heart of the ‘Old South’ was established with the suburb of Rosettenville proclaimed in 1889 followed shortly by suburbs including Booyens (1887), Turffontein (1889) and La Rochelle (1895) (see Fig 5.1) (Harrison & Zack, 2014) which does not include the considered ‘New South’ including the inner city of Johannesburg, Soweto and Alberton. Further development in the far south of Johannesburg formed by the late 1960’s until 1980’s, where the freeway system constructed the ‘New South’, consisting of a different demographic profile and spatial identity.

### 5.2. Johannesburg south in context

Literature focused on reading Johannesburg included three categories according to Harrison & Zack (2014); places of poverty and disconnection from the global networks such as informal settlements and townships, or on places with a global aesthetic that caters for a globally connected elite and spatial reconstructions (Mbembe, 2008) (Nuttal, 2008).

In order to comprehend the rich cultural dynamic of the south, a comprehensive historical outline of the ethnographic and urban changes of Johannesburg ought to be understood.

Summarised from geographical studies executed by (Harrison & Zack, 2014), the readings provide a context to the socio-political, spatial and ethnic territorialities which help frame the uniqueness of the ‘Old South’.

The previous chapter illustrated the economic, social, ecological and political factors that contributed to a major shift in the broader historical narrative and existence of the south.

### 5.3. Cultural Context

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The space of the ‘Old South’ of Johannesburg has been argued as place disconnected from the global networks such as Sandton and Midrand but not marginalised from these networks such as informal settlements or historically black African townships (Harrison & Zack, 2014).

Established as an industrial town in 1886, the oldest southern suburb La Rochelle, grew into what was colloquially known as “little Portugal” and formed home to a large Portuguese community for migrant Mozambique labourers. Myriad cultures converged due to mining labour force in time and place.

Contained largely of a white working class during the period of 1880s-1933, typically not attractive to middle –class and social elite as the downwind of the mines and harsh climate discouraged investors and elite. As a result, the southern suburbs was dominated by labour aristocracy; English speaking artisans and mine workers. Enclaves of Afrikaaner and Jewish community clustered around La Rochelle. The Portuguese community, from Mozambique Madeira clustered in La Rochelle, Regent’s Park, parts of Rosettenville and Turffontein changing the character of the areas. In La Rochelle, majority of Portuguese communities

was the majority.

By the late 1930’s, against the backdrop of the Great Depression and severe drought, a flood of white Afrikaaners from rural areas moved in from the ‘Last Great Trek’ and settled to what was then known as Welfare Park (now known as South Hills). Post-war invited immigrants from Southern Europe and filled the gap of the white English middle class as they elevated to social class and moved northward.

The largest demographic influx included the Portuguese, arriving in three waves, initially from impoverished islands of Madeira, then during the 1960’s from mainland Portugal and finally in the mid 1970’s from Mozambique and Angola where white colonial rule suddenly collapsed. The Portuguese clustered in La Rochelle, Regent’s Park and parts of Rosettenville and Tuffontein, changing the character of these areas.

By the mid-1990’s, the south witnessed a flush of demographic transition, as the population doubled between the periods, 1996-2011 and from 87,500 to 179,597 (Harrison & Zack, 2014).

#### 5.4. Recreation in the south

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A well-established town to the south, co-existed with several established Johannesburg towns created along adjoining mining camps and towns. Towns considered to the south of the mining belt functioned inherently for manufacturing and mining establishments. While residential settlement patterns corresponded roughly with this north-south division between manufacturing and service sectors (Crankshaw, 2008). A growing population established various cultural and religious amenities that would match the strong identities and rituals of the communities, forming religious sanctuaries, events and social gatherings.

This relationship between, town, human settlement and cultural amenities illustrated that the south experienced considerable alteration, and sometimes, completely stagnant, as migration and urban shifts occurred one which is in continual identity crisis, the southern suburbs specifically being subjected to this condition. The emerging micro-spaces of the 'Old South' including entertainment venues will require to merge into new identities to syncretism.

Within the study area includes one of Johannesburg's historical parks known as Pioneers Park.

The following chapter investigates the

history and contextual analysis of the proposed focus area illustrated in Figure 5.2. The focus area will inform the urban framework for the Wemmer Pan precinct.

Recreational amenities in the context of La Rochelle have seen phenomenal change following the initial planning process of the city from a manufactured landscape to human settlement and identity formed by cultural institutions for recreational development starting the turn of the century.

The prominent Turffontein racecourse as a central urban raceway course for competitive sport and social gathering still exists today as one of South Africa's largest raceway courses. The Wembley stadium which featured ice-rinks as well as polo events theatrically gave urban inhabitants cathartic recreational releases away from the mechanical structured lifestyle of industrial activity and work, fast paced city living less than 2km away. The Pioneers Park covers 70 acres of land adjacent to Wemmer Pan. Officially as the pioneers' park, commemorated as a memorial to the Rand Pioneers on the 25 April 1924 to the Pioneers who discovered and prospected to open up the rich fields to the goldfields in the world (Dr. KÜSEL, 2015).

The Park, adjacent to Wemmer Pan in La Rochelle, was opened on the 26th of April 1924 by Governor General, the Earl of Athlone, as a memorial to two Pioneer organisations, the Rand Pioneers and the Pioneers of the Transvaal Goldfields. Eight years later the then Governor General, the Earl of Clarendon, open the gates and the lodge at the entrance to the Park.

Park was officially opened on the 26th of April 1924 by the Governor General, the Earl of Athlone. A series of theatrical markers dotted along the Pioneers park landscape has contributed to a unique character as a palimpsest to time. The foundation stone laid by Reverend James Gray on the 5th of June 1932 signified the tribute to prospectors.



### 5.5. 5.5 Introduction to precinct

The Wemmer Pan and Pioneers Park precinct was considered one of Johannesburg's major outdoor attractions. During its heydays, the park featured a series of cultural events on the annual social calendar.

Established as an industrial town in 1886, the oldest southern suburb La Rochelle, colloquially known as "little Portugal" formed home to a large Portuguese community of imported Mozambique migrant labourers. Myriad cultures converged due to mining labour force in time and place. Within the study area includes one of Johannesburg's historical parks known as Pioneers Park.

Recreational amenities in the context of La Rochelle has gradually expanded from a cultural precinct to a sporting precinct. Initial planning process of the city for recreational development starting the turn of the century. Visiting attractions included the James Hall Transport Museum, housing over 400 years of transport artefacts and related history in South Africa, Turffontein racecourse, the Santarama Miniland, miniature railways and illuminated magical fountains donned the landscape in all sorts of elaborate theatrical gestures.

The Pioneers Park covers 70 acres of land adjacent to Wemmer Pan. Dedicated as a commemorative site, officiated as the pioneers' memorial on the 25 April 1924 to the Pioneers who discovered and prospected to open up the rich fields to the goldfields in the world (Dr. KÜSEL, 2015).

### 5.6. 5.6 Meso Investigation\_The Park

Originally a brick field quarry, Wemmer Pan, owned by Samuel Wemmer, (one of the first gold mining pioneers in 1886 Barbir, et al., 2010), in partnership with George Goch erected one of the earliest two-stamp batteries on the southern part of Turffontein in 1886 and founded the Wemmer Gold Mining Company (Barbir, et al., 2010, p. 25).

Ownership changed to two mining companies, Village Deep in the west and City Deep in the east, with their property boundary running north-south through the middle of the Pan.

The perpetual rights for water use at Wemmer Pan was granted by five mining companies for public recreations concerned free was vested in the council for the people with the Sailing club retaining their privileges. At this point no natives were allowed to access the park or any amenities for leisure.

Water drawn from the Pan, also held off run-off from the slime dams. Rights to the pan changed according to the Notarial Agreement signed on 22 June 1923, in which the agreement allocated surface water use rights for recreation and boating purposes together with foreshore land. The effect of this agreement sparked the recreational nature of the precinct.

The The Pioneers Park covers 70 acres of land adjacent to Wemmer Pan. officiated who discovered and prospected to open up the rich fields to the goldfields in the world as the pioneers' park, commemorated as a memorial to the Rand Pioneers on Park the park was opened by the Governor General and Princess Alice on 1924 to honour the Pioneer men and women of

Fig.5.3 Wemmer Pan and surrounds (Googl Earth, 2019)

### 5.9. Wemmer Pan Existing Amenities

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The following shows the development of the site from its inception in 1886 as a small industrial town to its present state.

Fig.5.4 Inauguration of Pioneers Park opened by Earl Governor (Barlett Collection, Wits, 2019)

Fig.5.5 Pioneer Memorial (Wits Archive, 2019)

Fig.5.6

Fig.5.7

Fig.5.8

Fig.5.9

Fig.5.10

Fig.5.11

Fig.5.12

Fig.5.13)

Fig.5.14

Fig.5.15

Artefact and Cultural Memory

**A** James Hall Transport Museum

The James Hall Museum of Transport contains the largest and most comprehensive museum of land transport in South Africa. Established by the Late Jimmie Hall together with the City of Johannesburg in February 1964. The JHMT gives visitors a rare glimpse of Johannesburg's transport history, dating back more than a century.

Built: 1964 Status: Operational



5.4

Water

**B** Musical Fountain

The Musical fountain was installed by the municipality to commemorate National Water year in 1970. Attracting up to 3000 people each night. The evening soirées held at the illuminated fountains complemented the tunes of computerised music during spring and summer seasons and closed during winter seasons.

Built: 1970 Status: Operational



5.5

Event

**C** Lusiro Land

The Lusiro land is a cultural festival established by the Portuguese community in 1981. Initially as a fundraising initiative hosted by the Lusiro School Association, a non-profit organisation for children with disabilities. A two week long festival takes place in the last week of April featuring indigenous Portuguese cuisine, music and cultural activities held at the Pioneers Park.

Established: 1981 Status: Relocated

The event relocated as of 23 February 2017.




5.6

**D** Pioneers Memorial

The memorial was erected as a tribute to the Rural Pioneers and forms the entrance to the park. The memorial is constructed of a cement base covered by a block of rough granite and onto a red blanket with a blanket tree. The structure bears a brass plate commemorating the Pioneers Park dedicated by Governor General and Princess Alice.

Opened: 1924 Status: Restored [2016]




5.7

**E** Aquatics Club

The Wemmer Pan Sailing club was established by employees of Village Deep and City Deep. Land was used under a mining surface rights permit allocated in 1913 through Village Deep. The rowing section was formed in between 1918-1920 by Henri de Kok and by 1922 rowing became a competitive sport (Juniper, Miles and Mackinnon, 2010).

Built: 1911 Status: Operational



5.8

**F** Santarosa Miniland

The Santarosa Miniland was established as a fundraising initiative for the South Africa Nation Tuberculosis Association. The miniature town was modeled on the miniature town of Mandrodam in the Netherlands. Main features of the miniature land include a full-sized replica of the original Jan Van Riebeeck vessel, Drumedaris, Jan Van Riebeeck statue at the entrance and Michael Jackson as a donation piece during the 1970's world tour (Steele, 1918).

Built: 1973 Status: Closed



5.9

Artefact and Heritage value

**G** Turffontein Fire Station

The Turffontein fire station is considered of heritage significance and considered as a Grade 2 Provincial Site. The fire brigade was founded in 1891, with the main fire stations located on Van Bantam street and branch substations were established as the town grew. As seen on the Figure a side light on the fire station was its lookout tower with wide generous views to the east coast, the building is no longer used as a fire station, but as a collection of fire department e, beams and memorabilia. Architecturally, the fire station has maintained its original features such as wood slatted ceilings, large wooden windows and wooden floors (TSCCA, 2013).

Built: 1910 Status: Operational




5.10

Water

**H** Pioneers Park heated swimming pool

The Pioneers Park swimming pool located in La Rochelle, at the corner of Roitdeville road. On the 11th of August 1925, the council agreed to request the La Rochelle Ratepayers Vigilance Association that Wemmer Pan Swimming bath be named Pioneer Park Swimming bath.

Built: 1965 Status: Operational



5.11

Event

**I** Turffontein Racecourse

The Turffontein Race Course was laid out at the end of the 19th century around 1887. Established by the Johannesburg Turf Club. The racecourse is one of the flagship courses run by Phumelela. Containing an inner and outer grass track-the old standside track and new inside track. The pavilion lends itself to the Johannesburg city skyline. The course serves as a host to the Group One South Africa Derby and November's Summer Cup.

Established: 1887 Status: Relocated




5.12

**J** Vasco Da Gama Park

The Vasco Da Gama Park, formerly known as Boylan Park, in La Rochelle, was given to the Portuguese community by the South African government and the community. The park was used to celebrate Portugal's national day on the 10th of June to commemorate the death of national literary Luis de Camões.

Opened: 1924 Status: Restored [2016]



5.13

**K** Zion Apostolic Church: Baptismal Site

The Northern banks of the site is used by the Zion Christian Church as a baptismal site. A seasonal event in which adult members of the church submerge in the water for several seconds for religious purposes. The site also houses a small sacred space of workshop adjacent to eh Santarosa Miniland.

Established: 1911 Status: Operational



5.14

**L** Wemmer Ice Rink and Stadium

The Wemmer Ice rink and stadium, designed in an inter-war functional architectural style of 1930's architecture (Johs, 2010). The building functioned as a prominent night outing for ice skating and ice hockey. The conversion of the building into a multi-purpose indoor sports facility was executed by the Johannesburg City Council as a result of neglect.

Built: 1932 Status: Closed



5.15

the Transvaal Gold

In 1926 it was decided to change the names from Pioneer to Pioneers' Park as it was felt that this would be a more fitting tribute to the pioneers.

The main gate being transformed in 1932 as a memorial, adjacent to Wemmer Pan in La Rochelle, was opened on the 26th of April 1924 by Governor General, the Earl of Athlone, as a memorial to two Pioneer organisations, the rand Pioneers and the Pioneers of the Transvaal Goldfields. (Dr. KÜSEL, 2015). Eight years later the then Governor General, the Earl of Clarendon, open the gates and the lodge at the entrance to the Park.

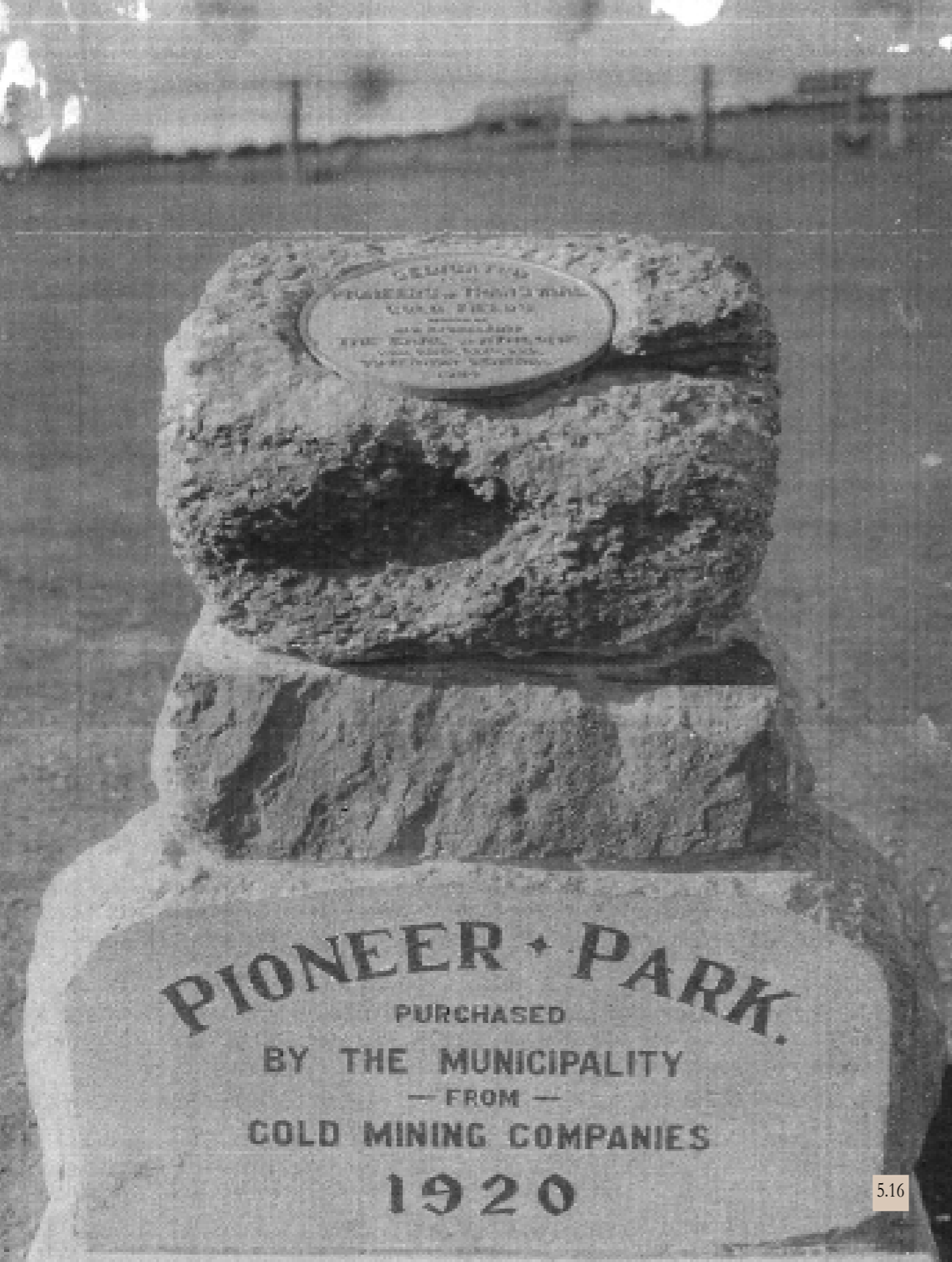
The Pioneers Park is bounded on the north by a large urban water body known as Wemmer Pan extending a vast 162 acres, previously a brick quarry, was

The offer to grant a memorial The Park was officially opened on the 26th of April 1924 by the Governor General, the Earl of Athlone

The foundation stone laid by Reverend James Gray on the 5th of June 1932 signified the tribute to prospectors.

The Pioneers memorial, designed by E.H Waugh and built by A.Trevenen with the cost being raised by public subscription was added as a commemorative display to the park, the memorial signals its main entrance with a centred memorial stone with the first stone taken from the place where George Walker located the reef laid by Govenor General, the Earl of Clarendon, the first minister to arrive at the Rand.

The parks name was conceived in commemoration to Mrs Samuel Wemmer, generally thought to be first woman to arrive to the Rand, as well as being the oldest woman



5.16



5.17

Fig.5.16 Inauguration of Pioneers Park opened by Earl Govenor (Barlett Collection, Wits, 2019)

Fig.5.17 Pioneer Memorial (Wits Archive, 219)

alive in 1932.

The Pioneers Park bounded on the north of a large urban water body known as Wemmer Pan extending a vast 162 acres, previously a brick quarry, the parks was officiated by the Governor General and Princess Alice on 1924 to honour the Pioneer men and women of the Transvaal Gold Fields with the main gate being transformed in 1932 as a memorial.

The offer to grant a memorial to the Park was officially opened on the 26th of April 1924 by the Governor General, the Earl of Athlone. The Wemmer Pan and Pioneers Park precinct was considered one of Johannesburg's major outdoor attractions. During its heydays featured a series of cultural events on the annual social calendar. Visiting attractions included the James Hall Transport Museum , housing over 400 years of transport artefacts and related history in South Africa, Turffontein racecourse, the Santarama Miniland, miniature railways and illuminated magical fountains donned the landscape in all sorts of elaborate theatrical gestures.

The illuminated musical fountain installed by the Municipality of Johannesburg built to commemorate National Water Year in 1970. Considered a fitting monument to the men and woman who initiated the development of South African's largest city.

A series of theatrical markers dotted along the Pioneers park landscape has contributed to a unique character as a palimpsest to time. The foundation stone laid by Reverend James Gray on the 5th of June 1932 signified the tribute to prospectors. The illuminated musical fountain installed by the Municipality of Johannesburg built to commemorate National Water Year in 1970.



5.18

Fig.5.18 Wemmer Pan while pan contained(Barnett Collection, Wits, 2018)



Fig. 5.19 Santarama Miniland view to the city (Ferguson, 2017)



D 1886-1920

The main street exhibits varied uses for economy on Main Street.

E 1920-1970

The main street exhibits varied uses for economy on Main Street.

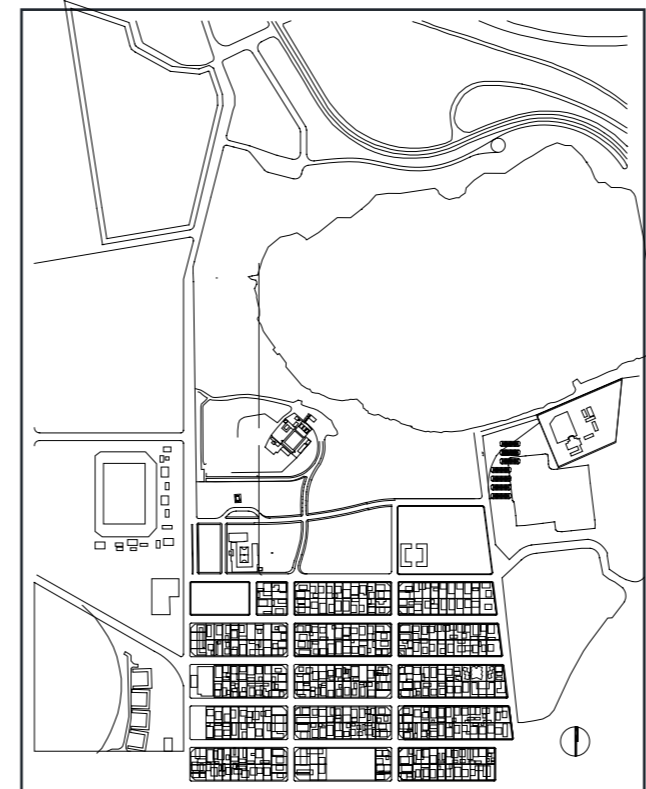


5.10. Spatial Development

The following maps illustrate the growth of the Wemmer Pan and broader La Rochelle, Glenesk and high industry precincts.

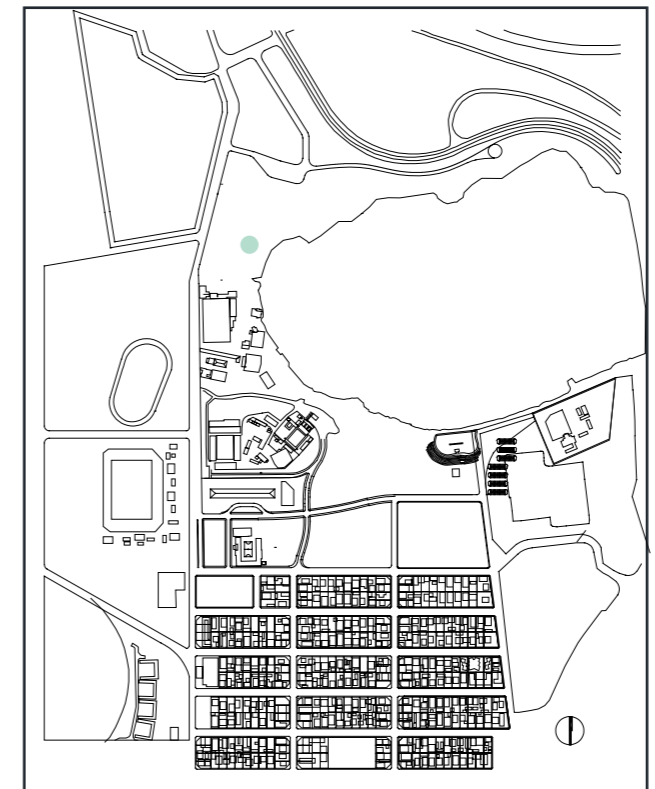
F 1970-2000

The main street exhibits varied uses for economy on Main Street.



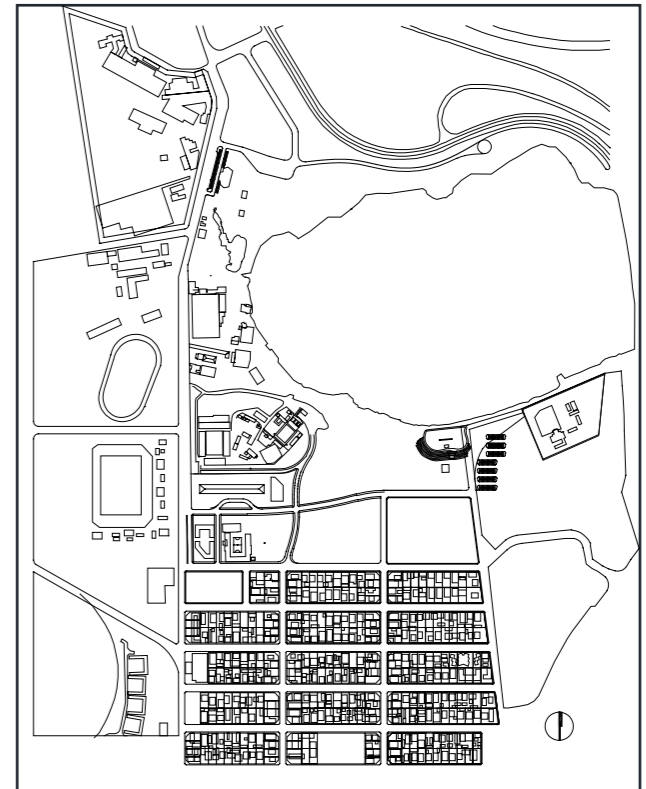
A SURVEY IN 1886

Much of the main street development surrounding industry existed.



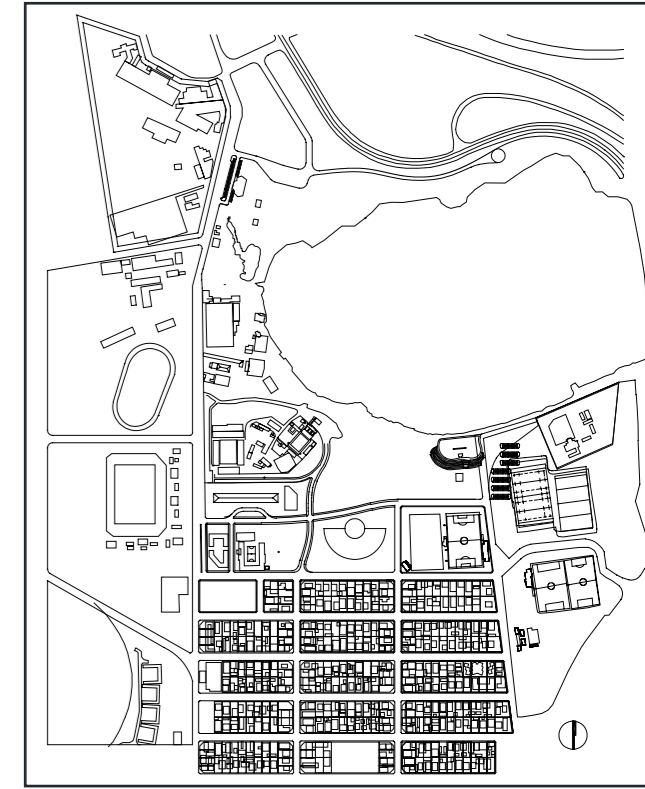
B 1889-1920

The main street exhibits varied uses for economy on Main Street.



C 1920-1970

The main street exhibits varied uses for economy on Main Street.



### 5.11. Photographic Route Map\_

A photographic study was undertaken on a the journey towards Santarama Miniland through the Wemmer Pan park, between pedestrian and vehicular modes of transport. Due to the scale of the site and current lack of access to some facilities and incoherent pedestrian internal park routes between each facility, the site had been viewed in quadrants with each condition unique to sequence the viewers understanding of the site. This research methodology gave inquisition to forming the idea of place, and the nostalgia set behind the modes of experiencing a landscape of recreation and leisure.

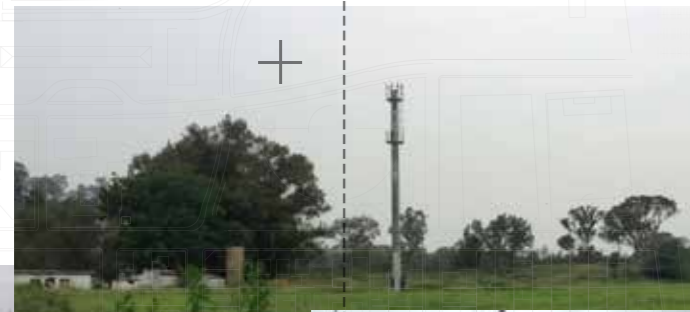
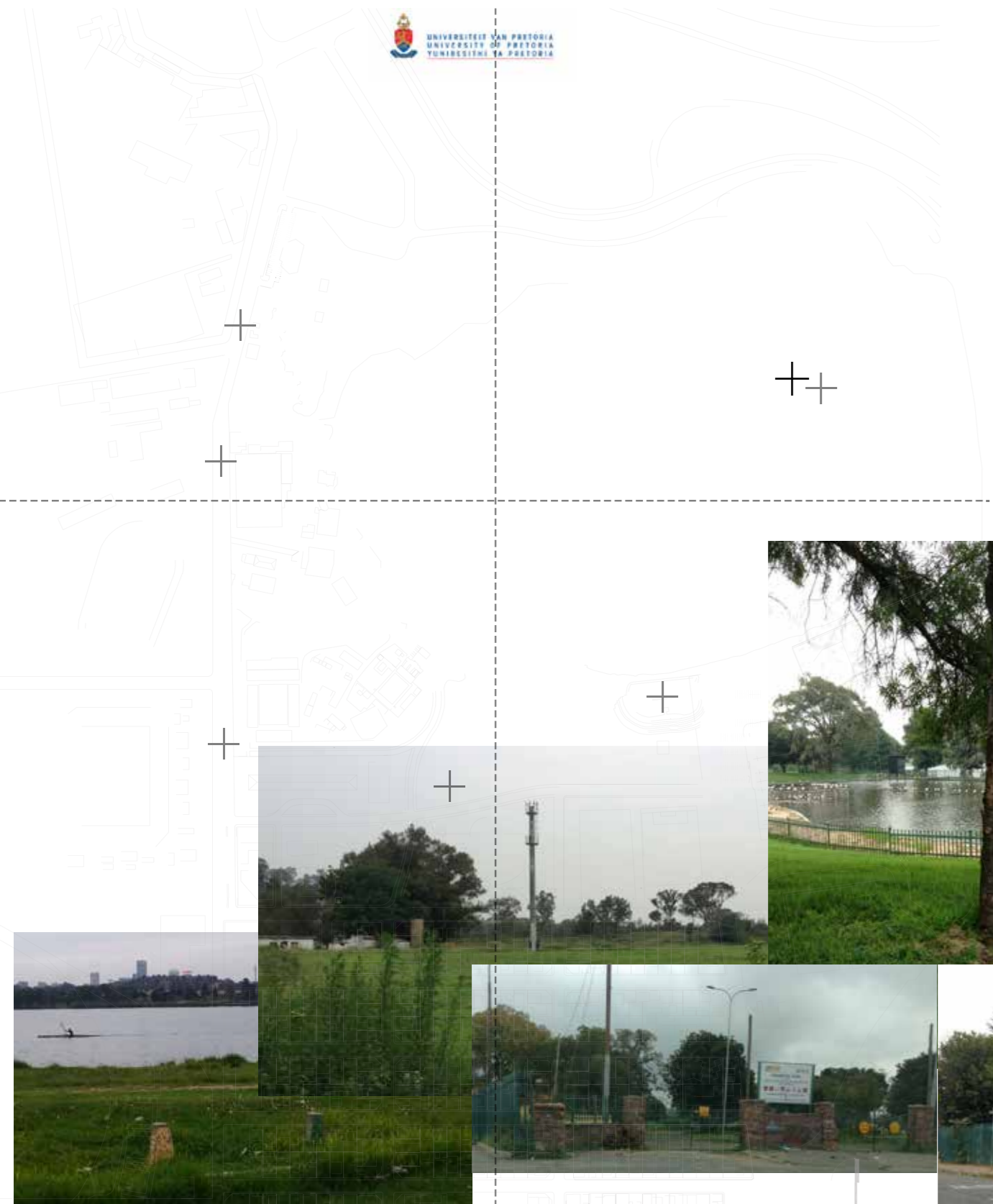


Fig.5.22 Photographic route toward Santarama (Author, 2019)

Fig.5.21 Wemmer Pan while pan contained (Barnett Collection, Wits, 2018)

## 5.12. Introducing entertainment in the city

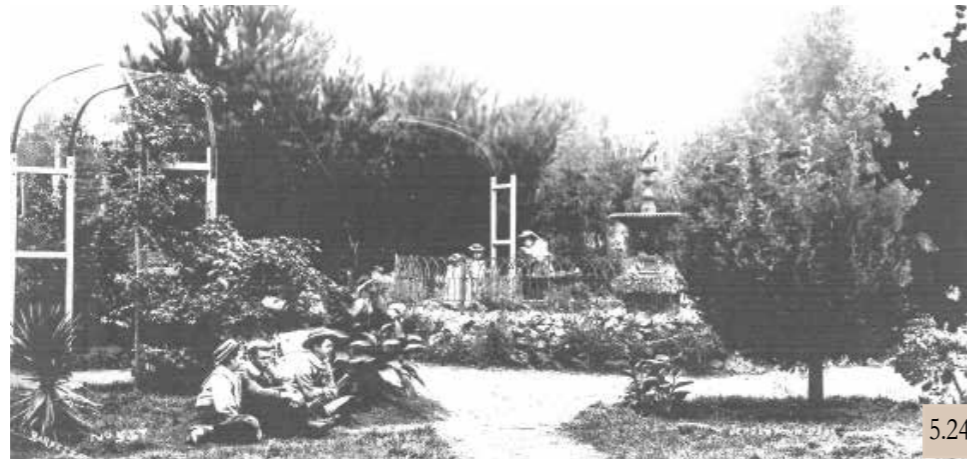
The concept of cultural heritage has exhibited different meanings to various groups, changes associated with urban growth often involve the destruction of built characteristic and natural elements, eradicating the physical expression of former indigenous ways of life that are contributors to people's culture (Loures, 2008). Reconstituted historic productive landscapes and their waste are often conceived as by products to industrial heritage and debates surrounding retaining the significance or conversion for public urban entertainment schemes as cultural institutions often lie outside the realm of considered typical heritage.

*“Cities and urban areas are environments with a multiplicity and variety of functions, including commercial, administrative, and residential and leisure uses. The significant role these urban areas play in social, psychological, environmental and health needs surrounding the community, by offering reduced stress and enhanced fitness levels.”*

Urban entertainment and leisure landscapes have remained largely unexplored architecturally (Walker, 2015), while academically serving interest over the last 55 years. These landscapes described by (Kane, 2013) set how the built environment has shaped and contributed to the idea of reflecting the social contribution in contemporary society. As cultural institutions, they express modern ideals shaped by architects, who recognise the artistic visionaries of the urban landscape (Botterill, 1993). Within these distinct elements of describing urban entertainment, a critical reading implies locating spatial compositions of these environments.



Fig.5.23 Wemmer Pan while pan contained(Barnett Collection, Wits, 2018)



5.24

Fig.5.24 Wemmer Pan while pan contained(Barnett Collection, Wits, 2018)

### 5.13. Heritage Conservation

Cultural attractions during the emergence of modernity are often considered within tourism, leisure and hospitality realms and became major economic drivers for development (Leighton, 2008). The debate in which transformed sites intersect between historic preservation and heritage tourism, and industrial conservation merge and intersect within the zeitgeist of post-modern societies interests of leisure. born from principles of critical restoration, considered particularly appropriate in practice in the 21st century in its clear consideration of cultural heritage.

The typical lens for case study sites are typical of postmodern modes of entertainment which will be investigated further in the chapter.

For the majority of new urban actors (entertainment and property moguls, developers and architects) in global cities such as Johannesburg

have the trend to developed large entertainment districts of “privatised” enclosed space.

Taste, leisure and consumption within the realm of urban entertainment are emulated in the genesis of these three case studies is underlined by the social and political fabric of South Africa, much as the treatment of amusement parks as political instruments.

Debates surrounding the conservation of heritage sites surrounded a multi-faceted redevelopment strategies for tourist attractions focused on local-global audiences. Heritage environments cleverly reproduced contested currently dominant domestic and international imaginaries of post-colonial nations.

Given the pluralism of urban social life, reactions to cultural Imagineering of urban spaces and the construction of urban mega-projects are seldom unified; instead

they often entail alliances, negotiations and conflicts among multiple actors with different interest and subjectivities (Yeoh, 2005).

The conjoined notion of education and entertainment are displayed elaborately, yet the theme parks generally don’t engage with true history, but are rather as large zones where people actively encounter produced pasts (Witz, et al., 1999).

Counter arguments to the theoretical constructs of the theme park have been criticized as sites of cultural cohesion and policing by programming events and controlling flow of human traffic. As a crucial development, the theme park, in economic and cultural imperialism and possibly even enslavement of imagination. The case studies exemplify the dynamic nature of the cities constant need to adapt to the nature to of contextual and regional trends of recreation, amusement and leisure simultaneously.

Places such as Gold Reef City, displaces the real past, thereby invalidating national identity, as cultural heritage as a constructive engagement with the past (Coombes, 2003). Gold Reef City, Wemmer Pan and Top Star Mine Drive-in cannot be read in isolation of urban history, context of current leisure and entertainment trends which all contribute to its success for a critical understanding. The later 19th century saw a new development in commercial recreation- the amusement park. Decline of public urban entertainment and their implications for the souths vitality and urban sociability have to a large extent contributed to the lack of economic sustainability.

As symbolic space of identity, cultural construction of meaning the two case studies illustrate how a landscape creates economic power that appropriate history, myth and other cultures which are reprocessed as entertainment, rendering these environments as enclosed thematise environments which render space as an integral part of a closed

narrative structure (Van Eeden, 2000).

Modern development in the city continues in the same pattern as that set up by the original English colonialists and mining magnates forming a physical divide between north and south of Johannesburg and the historical inner city and the northern suburbs. The unequal and socially and environmentally unsustainable form of development reinforces social inequality, as did its original urban form on the ridge.

#### 5.14. Architectural Preservation or Continuum?

The concepts exhibited in the case study landscapes, provide a window from which to view contemporary culture (Botterill, 1993). Cultural forms have been argued by cultural theorist Raymond Williams to be best understood in a social historical context.

Arguably the heritage value lies on the continuity of attraction rather than artefact itself. The idea of 'heritage' and amusement park are rarely related to each other, conventionally raised in questions by academia in the field of heritage studies (Wood, 2017). Changing heritage values within contemporary society, as (Wood, 2017) argues are driven by a strong sense of place and local cultural attachment and identity.

The concept of cultural significance described by the Burra Charter is embodied in place itself, its fabric, setting, use, associations, meanings, records, related places and objects. Through aesthetic, scientific, social or spiritual value for past, present or future generations. The amusement park as an architectural archaeological endeavour are seen as having

significant heritage value (Wood, 2017).

(ICOMOS, 1999) describe that adaptation means modifying a place to suit the existing use or proposed use. The tools described by heritage charters to understand and read the urban entertainment landscape in the south, which embody past cultural value and exhibit both conditions of preservation of industrial heritage and adaptations as a result of current paradigm of leisure as a result inflicting change.

(Hannigan, 2007) illustrates how the Las-Vegas model of the casino city is replicated in South Africa which thrives at the intersection of three complementary commercial sphere; the luxury consumer goods and service industry, the gambling business and the tourist trade.

(Doherty, 1999) describes the amusement park as undeniably playful and extends that these urban spaces may reveal more than societies desires for entertainment and diversion, but signify the formation of collective identity. Contending nature of leisure in in the 21st century idea.

Often constructed ideas of preservation, in terms of its tangible artefacts overlaid with elements of theatrics. Preservation is appropriate where existing fabric or its condition constitutes evidence of cultural significance, or where sufficient evidence is available to allow other conservation processes to be carried out (ICOMOS, 1999).

#### 5.15. Conclusion

Theoretical readings provided by the Burra Charter of cultural landscapes and heritage help define leisure as the third place in the public urban environment. In doing so, ascribe the topic of a unique urban condition of post-productive sites to entertainment/leisure environments in Johannesburg as sites of entertainment and leisure.

What remains critical within the experimental preservationist argument is the fact that cultural objects shape subjectivity to the extent that we cannot imagine our participation in culture without the object. And in the same breathe sharpen our understanding of contemporary present and collective future (Otero-Pailos, 2016).

(Wood, 2017) argues how the cultural and heritage significance for the origins of amusement parks within the public park, by definition expresses industrial archaeology and highly related forms of entertainment architecture dedicated to the provision of leisure and enjoyment such as theatres and cinemas.

Besides the role as a space for leisure promises urban renewal is often viewed unorthodox. Shrouded in obscurity and frivolity the question of the significance. Culture and heritage has for the largest part played a role

The performance and production of these case studies illustrate how the nature and thinking of the experimental preservationist is expressed through object and landscape through the cultural assemblage

## 5.16. Santarama Miniland

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The following analysis of the Santarama Miniland amusement park intends to evaluate the current condition and possible new uses for any remaining infrastructure and/or architecture.

The phot series analysis indicates the



5.25

Fig.5.25 Jan Van Riebeeck Statue in front of Santarama Miniland (Author, 2018)

Fig.5.26

## The idea of a themed environment

In his book *landscape of Power Consumer Behaviour in Theme Parks*, Ren (2007) he describes theming as the production of an environment as a themed space- a technology for incorporating a narrative into controlled built environment. The spatial technology include three components. First an environment built as a medium for integrating a story or theme into controlled movement.

Second, theming as an economic process that operates on the basis of separating the stage (consumption and performance of work) from the landscape from the backstage (production and surveillance)

And thirdly the producer or manager of the built environment is a corporation or an organisation (Ren, 2007).

(Clavé, 2007) argues that the theme park today, might be considered as a cultural condition /phenomenon. The construction of theme parks as a tool to conceive and construct a modern metropolitan image that is in harmony with the social, economic and financial transformation of our time.



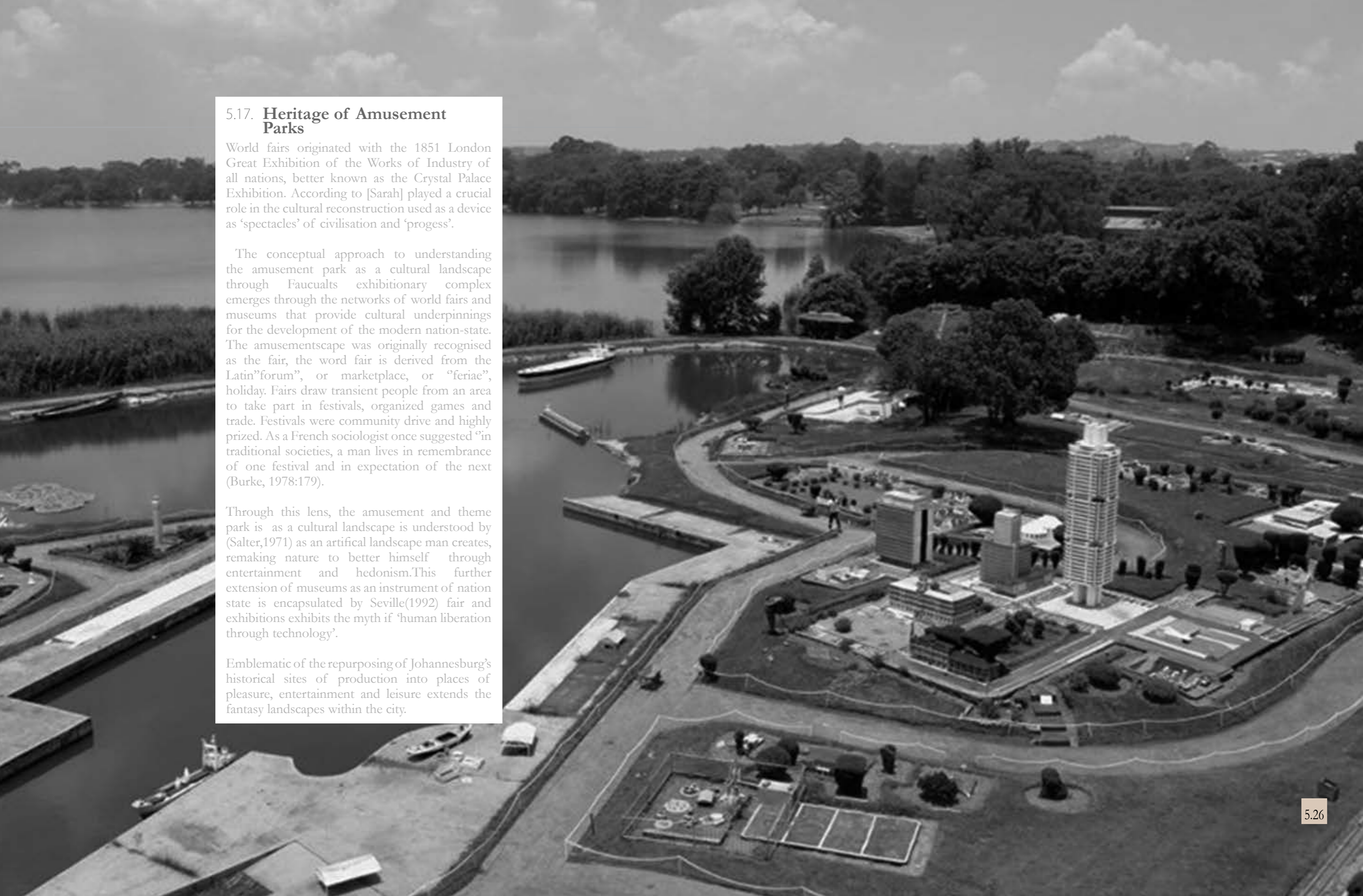
## 5.17. Heritage of Amusement Parks

World fairs originated with the 1851 London Great Exhibition of the Works of Industry of all nations, better known as the Crystal Palace Exhibition. According to [Sarah] played a crucial role in the cultural reconstruction used as a device as 'spectacles' of civilisation and 'progress'.

The conceptual approach to understanding the amusement park as a cultural landscape through Foucault's exhibitionary complex emerges through the networks of world fairs and museums that provide cultural underpinnings for the development of the modern nation-state. The amusementscape was originally recognised as the fair, the word fair is derived from the Latin "forum", or marketplace, or "feriae", holiday. Fairs draw transient people from an area to take part in festivals, organized games and trade. Festivals were community drive and highly prized. As a French sociologist once suggested "in traditional societies, a man lives in remembrance of one festival and in expectation of the next (Burke, 1978:179).

Through this lens, the amusement and theme park is as a cultural landscape is understood by (Salter,1971) as an artificial landscape man creates, remaking nature to better himself through entertainment and hedonism. This further extension of museums as an instrument of nation state is encapsulated by Seville(1992) fair and exhibitions exhibits the myth of 'human liberation through technology'.

Emblematic of the repurposing of Johannesburg's historical sites of production into places of pleasure, entertainment and leisure extends the fantasy landscapes within the city.



### *Santarama Miniland Today*

*“...an eutrophic fatalism... with the quintessential Jan Van Riebeeck greeting you at the door, in this amusement park, the theme is of colonial and Apartheid legacy state of mind, it was the one place in the city where Die Taal Monument, the Johannesburg city skyline and Michael Jackson converge in a mis-match of social and political narrative miniaturised, one thing that lies explicitly contrasting in this landscape is the apathetic nature to which the indigenous settlement is represented, the half attempt to produce relics which ought to represent...”*



Fig.5.30 Jan Van Riebeeck Statue in front of Santarama Miniland (Author, 2014)

*“At the very beginning fantasy is not a substitute for reality but the first method of finding it”*

-Adam Phillips

### 5.7. **The beginning of decay – Santarama Today**

The quote encapsulates the Santarama Miniland today, as a site in decay, neglect of the rainbow nation narrative and overall affliction to the consumption of this medium of entertainment diminished. Additions to the considered landscapes telling of narrative of South Africa’s past post-Apartheid presented an opportunity to represent and extend the collection to represent truer narratives of South African landscape in an inclusive manner.

For the miniature land, it meant including public narratives through the archetypal medium. Yet, narrating South African ‘rainbow nation’ seemed to be arguably distasteful and disagreeably executed, a life sized replica built in 1975 of the Dromedaris which brought Jan Van Riebeeck along the shores of the Cape in 1652. Placed within an amusement like construction of various with scaled models within the miniland landscape. Reading as an Apartheid zeitgeist to the past. the ‘rainbow nation’ is epitomised within the spatial composition.” Following

mis-management and the park being scrutinised for lack of representation in the urban entertainment environment, the park slowly grew into a decayed, derelict amusement park which now lies scattered with pieces of models.

The Santarama Miniland was commissioned by the South African National Tuberculosis Association (SANTA) conceived as a fundraising initiative. The amusement park was established in 1974, modelled after the Maudorodam miniature land in the Netherlands. Known as the ‘Liliput of the South’, the miniature land exhibits various monuments and heritage sites in the form of scaled 1:25 miniature physical models for the explicit goal of raising financial support for the charitable SANTA fund.

Included in this entertainment-based landscape are South Africa’s largest architectural marvels such as Union Buildings by Herbert Baker, the Post Office Tower, The then Jan Smuts International Airport(now

OR Tambo International Airport), offering an alternative “edu-tainment” environment. Often critiqued as a skewed narration to the South African landscape, the Santarama Miniland was conceived as a social and political manifestation during the height of South Africa’s Nationalist period. Thus this considered fun, family-orientated “edu-tainment” landscape to the then repressive Apartheid regime, often times devoid of the larger South African narrative conceived and masked between candy-floss and children and water ferry.

The current nature of the site in its neglected state, overgrown and shrouded with relics with scattered elements of Santarama Miniland. The idea of spectacle plays illustrates the nature of public space as an open realm which has moments of public display and retreat.



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Fig.5.31 View to La Rochelle late 18th century (Museum Africa, 2018)

Fig.5.32 Dromedaris ship reconstruction Ship (Museum Africa)

Fig.5.33 Condition of Santarama inland wetland today (Author, 2018)

Fig.5.34 Rowers on Wemmer Pan (Museum Africa, 2018)

Fig.5.35

Fig.5.36 Scullers on Wemmer Pan (Museum Africa, 2018)

Fig.5.37 View towards the city and mine dump from Wemmer Pan (Babir, 2011)

Fig.5.38 Worker maintaining models on the Santarama Miniland Site (Museum Afric, 2018)

Fig.5.39 Wemmer Pan with Rowers on a Sunday afternoon (Museum Africa, 2018)



5.40



5.41

Fig.5.40 Fibre Cement ship reconstruction (Author, 2018)

Fig.5.41 Modelled Architectural reconstructions in Santarama Miniland

### 5.8. The idea of a themed environment

In his book the landscape of Power Consumer Behaviour in Theme Parks, Ren (2007) describes theming as the production of an environment as a themed space- a technology for incorporating a narrative into controlled built environment. The spatial technology include three components. First an environment built as a medium for integrating a story or theme into controlled movement.

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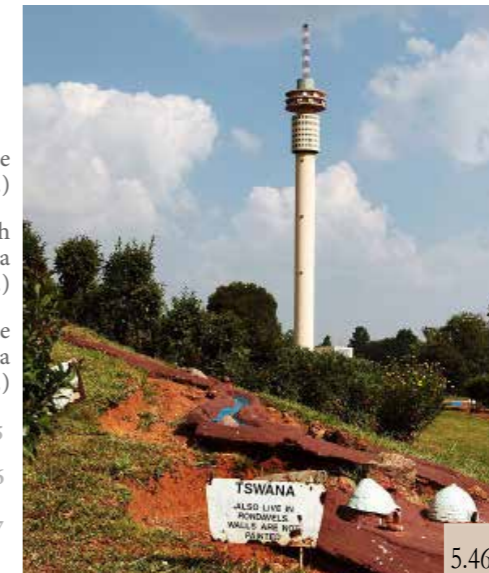
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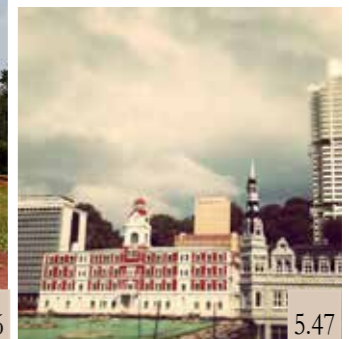
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Fig.5.42 Model of Cape Town Castle (Ivan de La Rey, 1993)

Fig.5.43 Model of Port Elizabeth Campanile I (Ivan de La Rey, 1993)

Fig.5.44 Patrons viewing models at the Miniand (Ivan de La Rey, 1993)

Fig.5.45

Fig.5.46

Fig.5.47



5.48

Fig.5.48 Signature piece to the South Africa landscape (Author, 2018)



5.49

Fig.5.49 Delapidated model (Author, 2018)



5.50

Fig.5.50 Overgrown vegetation on site (Author, 2018)



5.51

Fig.5.51 Models lurking behind overgrown landscapes (Author, 2018)



5.52

Fig.5.52 Remainder of train tracks for family rides (Author, 2018)



5.53

Fig.5.53 Contaminated wetland situated west of the larger pan (Author, 2018)



5.54

Fig.5.54 Post office tower and Sunflower factory model reconstruction in derelict condition (Author, 2018)



5.55

Fig.5.55 Entrance parking to the site (Author, 2018)



5.56

Fig.5.56 Micheal Jackson 1998 statue donated for world tour (Author, 2018)



5.57

Fig.5.57 View towards highway overlooking the pan (Author, 2018)

### 5.18. Escape and Leisure in the City

*“The crowded city afforded no chance to be alone with nature or one’s self, to ponder questions of life and identity.”*

- (Nye, 1981)

The seventeenth century was the golden age of the tavern, the eighteenth century introduced pleasure gardens, while the nineteenth century featured fêtes, carnivals and circuses littered over public space. By the twentieth century, the mechanisation of work allowed for more leisure time and the distinction of class sparked the leisure revolution for the consumer igniting refined taste for museum culture (Pilcher, 1938).

The evolution of leisure and recreation introduces a rich tapestry of people, places, events and social forces (McLean, et al., 2011). Aristotle conceptualised leisure as time every modern person sets aside for their creative self.

Recreation has evolved from elitist leisure though industrialised recreation that ‘restored men for work’, to holistic recreation that is diverse and multi-dimensional Weimers (2000) Kelly (1992). Various forms of recreation and leisure encompass sport as primarily a social and not an athletic activity. The Arts are not an esoteric amusement for the intellectual elite but an integral part of the entire educational experience (Cosgrove & Jackson, 2016).

The adapted productive sites situated south of Johannesburg to urban entertainment sites illustrate the development of “heritage landscapes” to “leisure landscapes” within the discourse of mega-urban entertainment developments sites in Johannesburg’s natural and historic productive landscapes termed leisurescapes.

The uniqueness of the Santarama Miniland as a site of investigation situates the discourse “leisurescapes” of converted post-industrial sites to urban entertainment in Johannesburg- provide a comprehensive understanding of the social conditions to sites of urban entertainment should be understood.

MODEL	EXHIBITOR
1. S.A.S. President Kruger – Frigate	South African Navy
2. S.A. Tugela – Coaster	Usoon Shipping Lines
3. Steensok – Dredger	Rotary Club, Benoni
4. British Explorer – Tanker	B.P. Southern Africa Ltd.
5. J. R. Mose – Tug	Rotary Club, Springs
6. F. C. Steynok – Tug	South African Railways
7. John Dr. Building	John Dr. & Co. Ltd.
8. R. P. Jackson – Pilot Boat	S. D. Seale Africa (Pty) Ltd.
9. Fast Patrol Boat	
11. Voornicker Yacht	Thesen Industries (Pty) Ltd.
13 – 26. Fishing Boats	E.A. Navy (Under construction).
27. Mine Sweeper	
28. Twelve Harbour Cranes	S.A.N.T.A. Springs
30. Warehouses and Cargo	Port Elizabeth City Council
32. Denon Memorial and Lighthouse P.E.	Pietermaritzburg Commerce & Industry
34. Pannamantburg Station	Under construction
35. Airport	Esos Solomon Joffe
36. Fire Station – Pinetown	Lufthansa Africa Ltd.
38. Lufthansa 747	South African Airways
39. S.A.A. 747	British Airways
40. British Airways 747	Sonair (S.A.) (Pty) Ltd.
43. Scrap Garage – Hanssmith	De Beers Consolidated Mines
48. Kimberley Open Mine	Costar Excavations (1968) (Pty) Ltd.
49. Excavation and Earth Digging Equipment	Department of Water Affairs
50. Wagendrift Dam	Rend Water Board
51. Purification Plant – Zuberbooch	Stellenbosch Municipality
52. Rheinisch Mission Church	Stellenbosch Divisional Council
53. P. J. Olivier Art Gallery	Stellenbosch District Bank
54. Rheinisch School	Rensbrand Tobacco Corporation
55. Kruthuis	Lanzac Hotels, Ltd.
56. Burgerhuis	Gilbey's Distillers & Vintners
57. The Coachman's Cottage	Beland Bank Ltd.
58. Laetitia	The Stellenbosch Family Winery Ltd.
59. Divisional Council Offices	
60. St. Mary's-on-the-Break	
64. Farm	
66. Pioneer Mill (Snowflake) Isando	Pioneer Milling Co. Ltd.
67. Standard Bank Centre	Standard Bank S.A. Ltd.
68. Lincoln's Inn – Johannesburg	Union Corporation Ltd.
69. J. G. Str. Post Office Tower – Johannesburg	Standard Telephones & Cables
71. Great Westwood – Cape Town	The Southern Life Association
72. La Provence – Cape	
73. Groot Constantia – Cape	Ko-operatiewe Wyeboewers Vereniging van Zuid-Afrika
74. The Second Corner House	Reel Mines Limited
75. Old Palace Building – Johannesburg	Real Estate Corporation of S.A. Ltd.
76. N.G. Kirk – Johannesburg	N.G. Kirk Congregation, Municipality
78. Belvidere – Johannesburg	Krysan Publicity Association
79. Mouille Point Lighthouse – Greenpoint Cape	Siemens (S.A.) Ltd.
80. Durban Tax Garden	Natal Anti-TB Association
81. Shipbuilding Yard	James Brown & Home Ltd.
84. Turfontein Race Course & New Grandstand complex	Witwatersrand Association of Racing Clubs
85. Mala Mala Game Reserve	Mala Mala Game Reserve – Under construction
86. African Villages	Twin Pharmaceutical Holdings (Pty) Ltd.
87. Mathews Kotie Park – Springs	Spring City Council
88. A mountain cableway	
89. Risk Street Post Office – Johannesburg	Courline Helicopters
90. Helicopters and Hangar	Lanzac Hotels Ltd.
91. Lord Milner Hotel and Matjeelantien Village	Glenon & Mitchell Ltd., assisted by Hall Longmore & Co. Ltd.
93. Jan van Riebeeck Statue	Reppert Uitgewers
94. President Kruger's House – Pretoria	Port Elizabeth City Council
95. Cempaske – Port Elizabeth	Schecher Holdings
96. Schachal Culture Housing Development	Parker Pen Co. (Pty) Ltd.
98. Parker Pen Factory – East London	S.A. Associated Newspapers
99. S.A.A.N. Building	South African Railways
113. Railway System	City of Kimberley
129. Kimberley City Hall and Market	Borough of Howick
130. Howick Falls – Natal	Invan & Johnson Ltd.
131. Fishing Trawler	Rebel Discount Bottle Stores
132. Maylar Hood	Ronny Goldberg's Liquor Supermarket
133. Liquor Supermarket Building	Reel Motors
134. Soap Yard	Tenpin Bowling and Fun Centre (Pty) Ltd.
135. Tenpin Bowling and Fun Centre	Intercontinental Airlines of Portugal
143. Landing of Bartholomeu (Near Port Elizabeth 1488)	Cape Gate Netting Manufacturing Co. Ltd.
145. The Castle of Good Hope	East London City Council
146. East London Harbour	Coca-Cola Bottling Co.
147. Coca-Cola Amusement Park	Union Carriage & Wagon Co. Ltd. – Under construction
148. Blue Tigris	SANTA Benoni and Benoni City Council – Under construction
154. Benoni Civic Centre complex	Johannesburg Consolidated Investment Co. Ltd. – Under construction
155. Union Buildings	

Fig. 5.58 List of models and donators to the Santarama Miniland (Museum Africa, 2018)



# PRO- GRAMME CATHARSIS

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# 6

*The following chapter investigates the programmatic response and design brief constructed from theory.*

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- 6.1 Introduction
- 6.2 Programme Informants
- 6.3 Strategy
- 6.4 Application of theory into space
- 6.5 Conceptualising a catalogue for leisure
- 6.6 Conceptual Precedent

- 6.7 Stakeholders
- 6.8 Water-cure movement: [A brief history]
- 6.9 Programme Intentions
- 6.10 Applied POPS model
- 6.11 Urban Vision
- 6.12 Event Scenarios

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## *Water, Culture and the City*

*Water is the beginning of all that exists, the vital element of human existence, having been the subject of different cults and of several conceptions.*

*The triple symbolism water-body-bath is as old as humanity itself, and its reference as creative element of the world, in the various civilisations and cultures, allows to show not only its importance, but also its symbolic complexity. This project constitutes a study about the relationship between Man and Water, creator of city and culture, and how it was manifested and modified over time, intending to rediscover some of the ritual and the memory impregnated and associated with it.*

*-Maria Guerreiro Morais*

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### 6.1. Introduction

The proposed programme is derived from the reading of the city, its economy, industry, urban morphology and socio-cultural layers that drove the development and eventual identity of public spaces alongside Johannesburg residual area. The analysis provides a historical understanding of place and what each aspect of it might become to shape future development of public space.

On an urban scale the project addresses the dilemma of a contemporary urban condition found in the south of Johannesburg's public space network where on one hand the activity of daily life and their interaction in public spaces occur, is necessary and intensifying, while on the other hand, the need to have a counterpoint, a release or an escape which finds increasing importance in finding balance in urban life.

The intervention seeks to provide new public space in Santarama Miniland that facilitates integration between the existing space and the user, through public and private functions using water as tool for programming these types of spaces and conditions.

Drawing on the theoretical premise of the dissertation, Nemeth & Schmidt (2011) provide a comprehensive practical approach for the future development and rehabilitation of derelict open spaces, like Santarama Miniland.

Upon interrogating the current conditions and disparities of highly regulated public spaces, the matrix begins to evaluate definitions of public space and consequently proposes a model rooted in the criteria of how public spaces may operate and their degree of ownership ranging from public to private. This model allows for various spatial planning and management of public space which contribute to

issues of access, inclusivity and social diversity of space (Sandercock, 1998).

The chapter identifies how water can act as a civic amenity in Santarama Miniland, which is unmanaged and unbounded by any current programme or event, and questions how architecture plays roles in strategically intervening as a catalyst to assist in the longevity of public space alongside an industrial belt.

The intervention proposes to respond to the existing waterbody and existing stakeholders on site and architecturally proposes their relationship merge in co-managed public space that facilitates resilience through the sites current abundant feature of water. The spatial response attempts to create a public recreational amenity.

### 6.2. Programme Informants

The new landscape of Santarama Miniland would serve as both a public recreational space as well as a catalyst for sustainable urban growth. By creating a specific waterscape necessary to preserve the memory of the site by attempting to intertwine with old structures, both physically and emotionally, the feeling and the qualities of the current state of ,waiting for new uses, buildings and temporary interventions.

Since water pollution does not allow, for the moment, direct bathing activities along the shore, the establishment of bathing culture activities will generate a form of prediction for the future of this particular setting.

Establishing bathing in this rough and hostile environment is, above all, a way to change the perception of it: creating intimate spaces, new leisure experiences and the opportunity for communication between different groups of people..The proposed strategy for the insertion of

each programme is suggested in the following steps;

### 6.3. Strategy

#### STEP [01]\_Leisure

On an urban level, the design contributes to remediating industrial waste entering the site through infrastructural aspects to facilitate the water driven activity on site.

By allowing the existing water body to be replenished through aerobic and anaerobic systems, further discussed in chapter 7, the leisure component allows for recreational swimming along the shore and the re-establishment for fishing.

#### STEP [02]Memory of the site

The following act is to provide and space requires a design tool to identify the different current individuals, groups, institutions of the space, while proposing new stakeholders. This provides feasibility and incremental approach in sustaining the park through various clients.

The architectural response is to be programmed and each distinguished by three spaces related to activities:

- a) Physical activity [semi-public]
- b) Urban activity [public]- This allows for public recreation
- c) Recreational activity [event/shared space]- The need to introduce shared and event space activities

#### STEP [03]\_Urban Entertainment

The third step is to introduce a catalogue of diverse events that corresponds to various seasons which allow the park to sustain activity. This also allows the remediation to take place systematically without the disturbance of uncoordinated events related to the introduced water system.

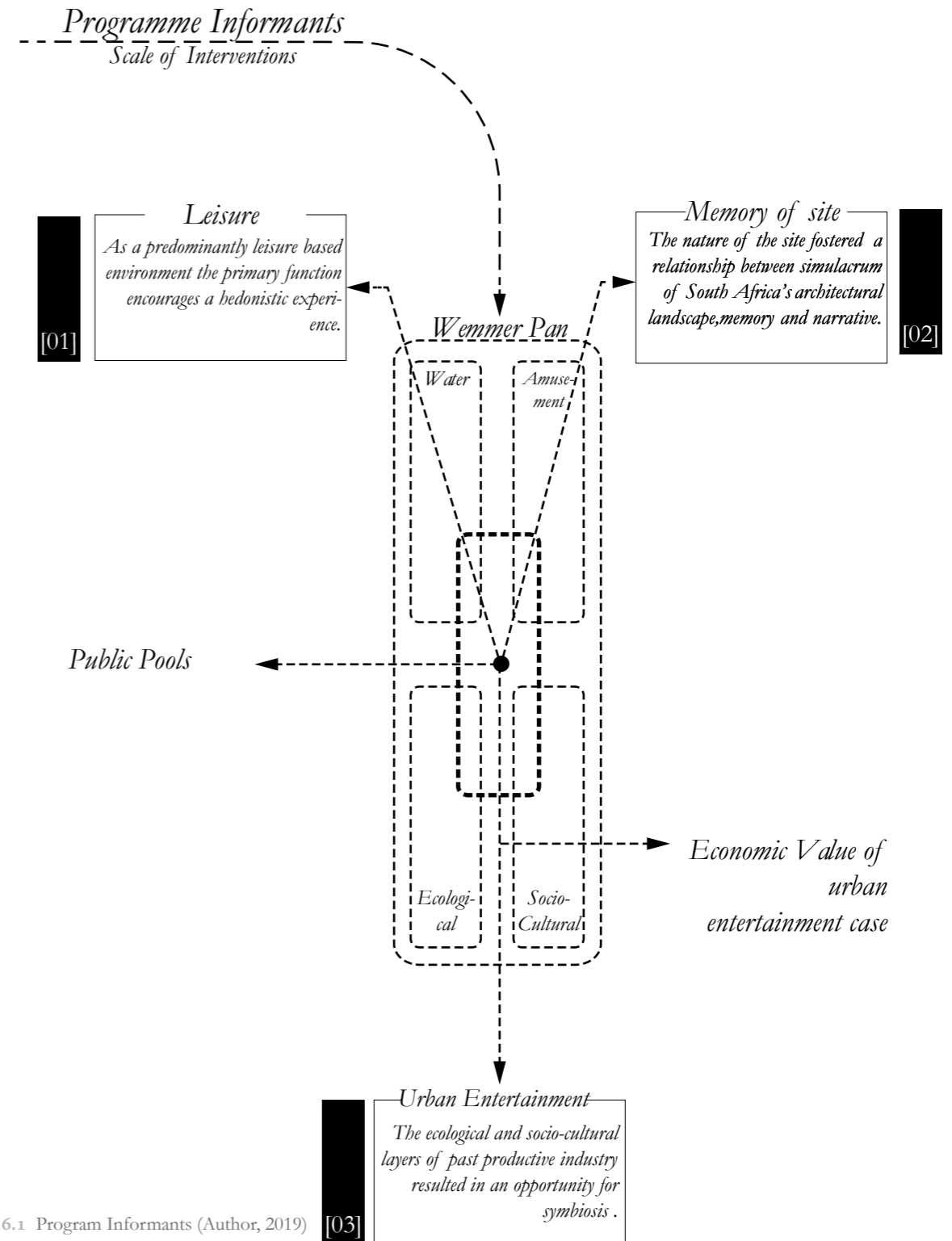


Fig.6.1 Program Informants (Author, 2019)

## 6.4. Application of theory into space

By providing the framework for public and private functions the case studies discussed in Chapter 3 serve as a basis for informants as to how privately-owned public spaces have functioned in Johannesburg and serve as overarching tools for grounding design decisions made in Chapter 7.

All design principles are applied to public space facets, to the spectrum of each programme according to, as illustrated in **Figure 6.2**, to Nemeth's facets of managing public space;

### 1. Exclusive/Closed

### 2. Diverse and Collective

### 3. Scale of publicness

### 4. Private/ Corporate

The index groups techniques into hard (active) control, and soft (passive) controls (see Loukaitou-Sideris and Banerjee, 1998). Hard controls involve the use of overt physical impositions (surveillance cameras, private security guards), while soft controls focus on symbolic measures (access restriction, small-scale design measures). The index is divided into four major dimensions:

- (1) laws and rules governing the space;
- (2) surveillance and policing present in the space;
- (3) design and image-building techniques to both literally and symbolically dictate appropriate behavior (eg outfitting benches with metal crossbars to prohibit homeless people from sleeping on them);
- (4) access restrictions and territorial separation to control space (eg programming certain areas for restricted or conditional use).

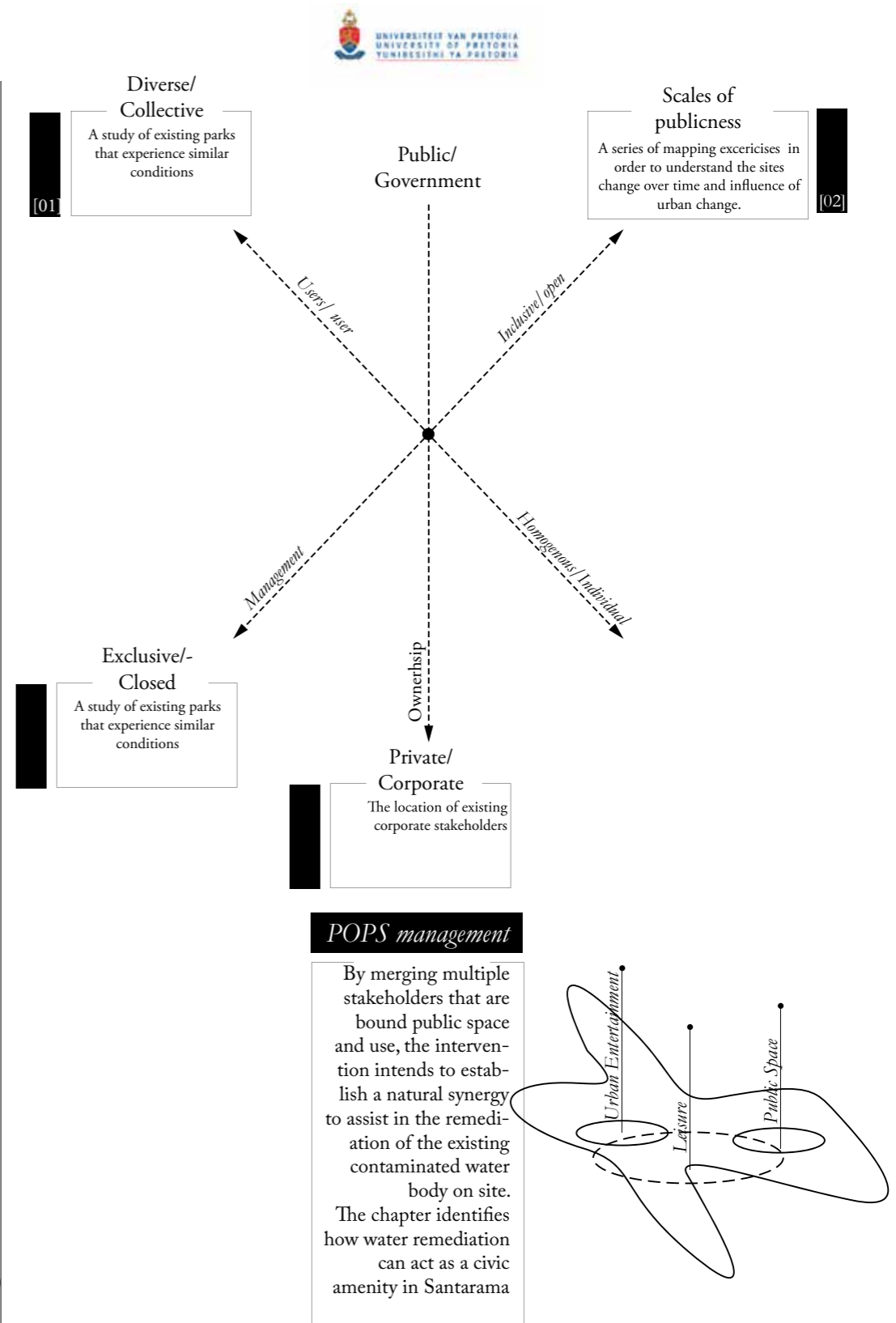


Fig.6.2 POPS Management Structure (Author, 2019)

### 6.5. Conceptualising a catalogue for leisure

Due to the abstract nature of the principles previously discussed, each proposed programme is further broken down into collective and individual spheres.

mapped. Spatial overlaps inform where leisure experiences may be shared and become collective(a, b, c). Water use and pragmatic use is quadrant to individual use(d,e,f).

Illustrated in **Figure 6.4**, the conceptual catalogue of public uses and users are

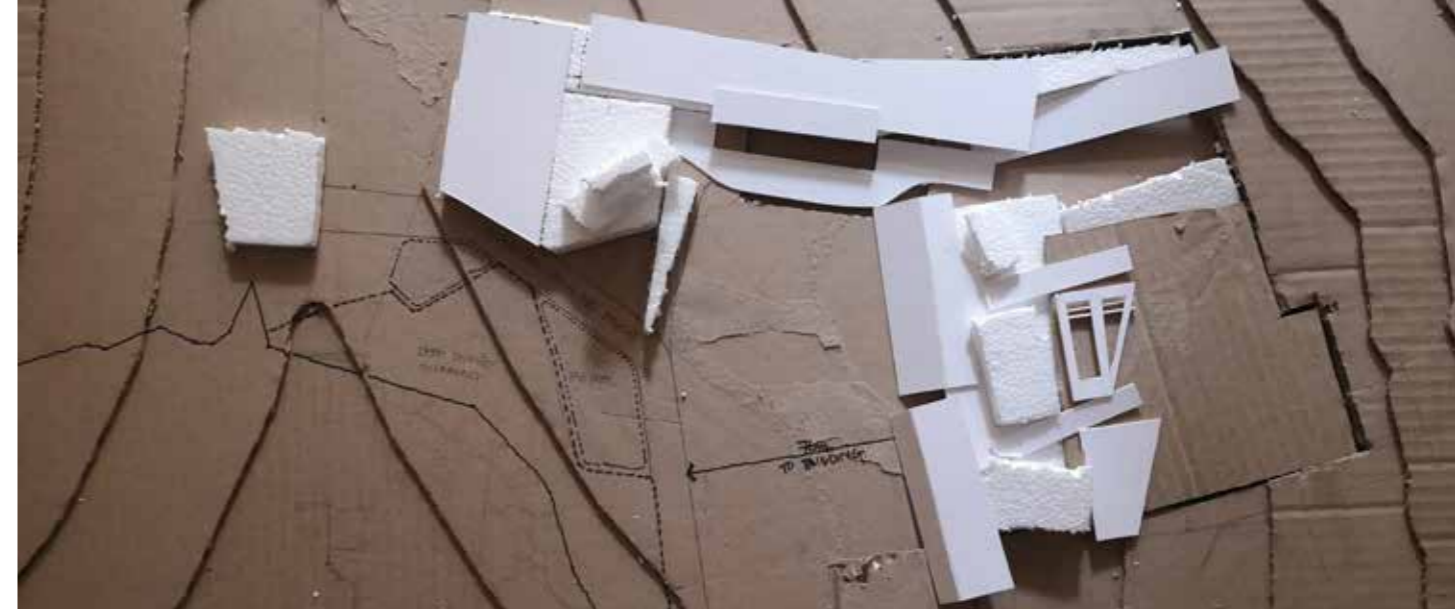
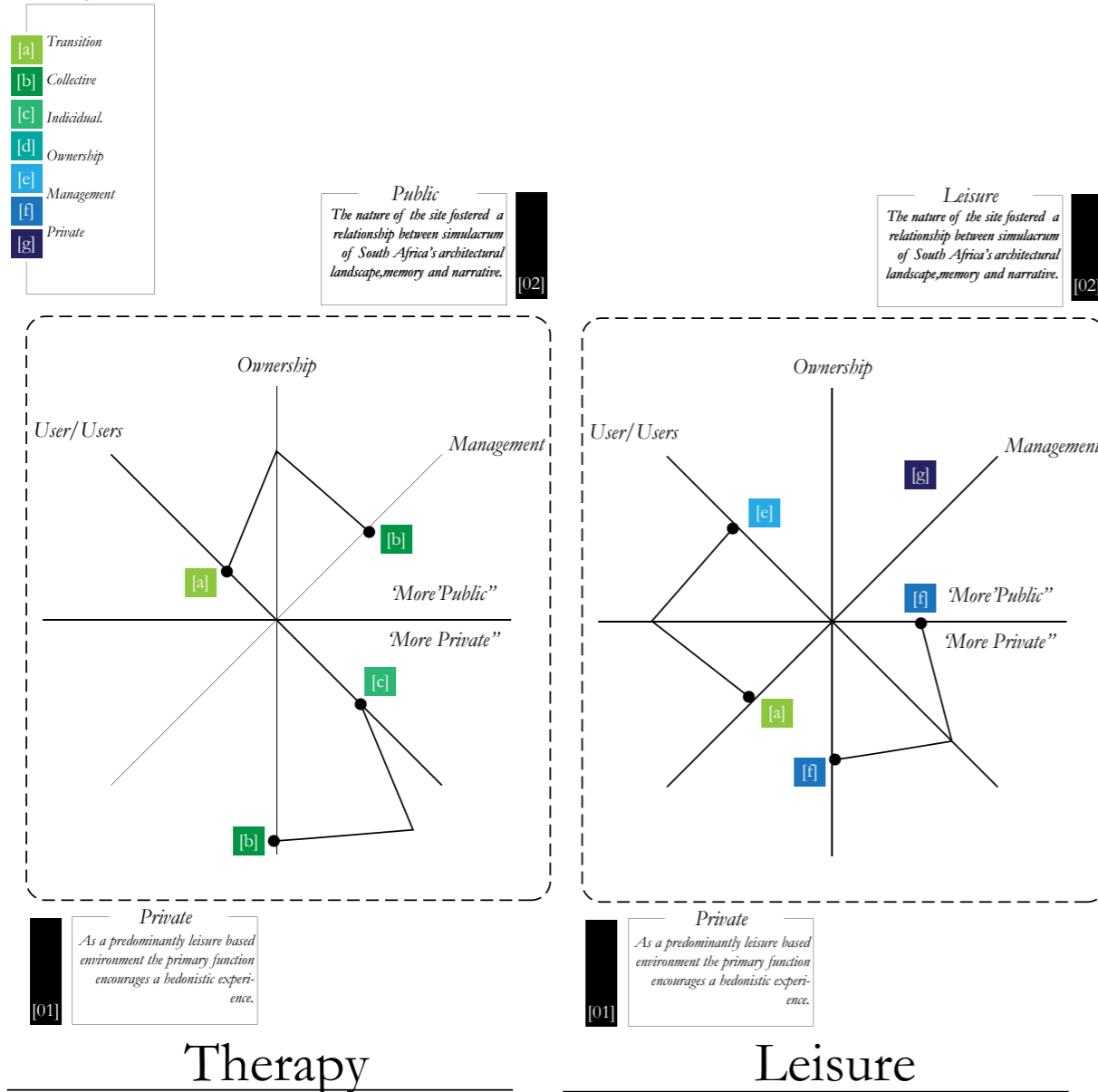
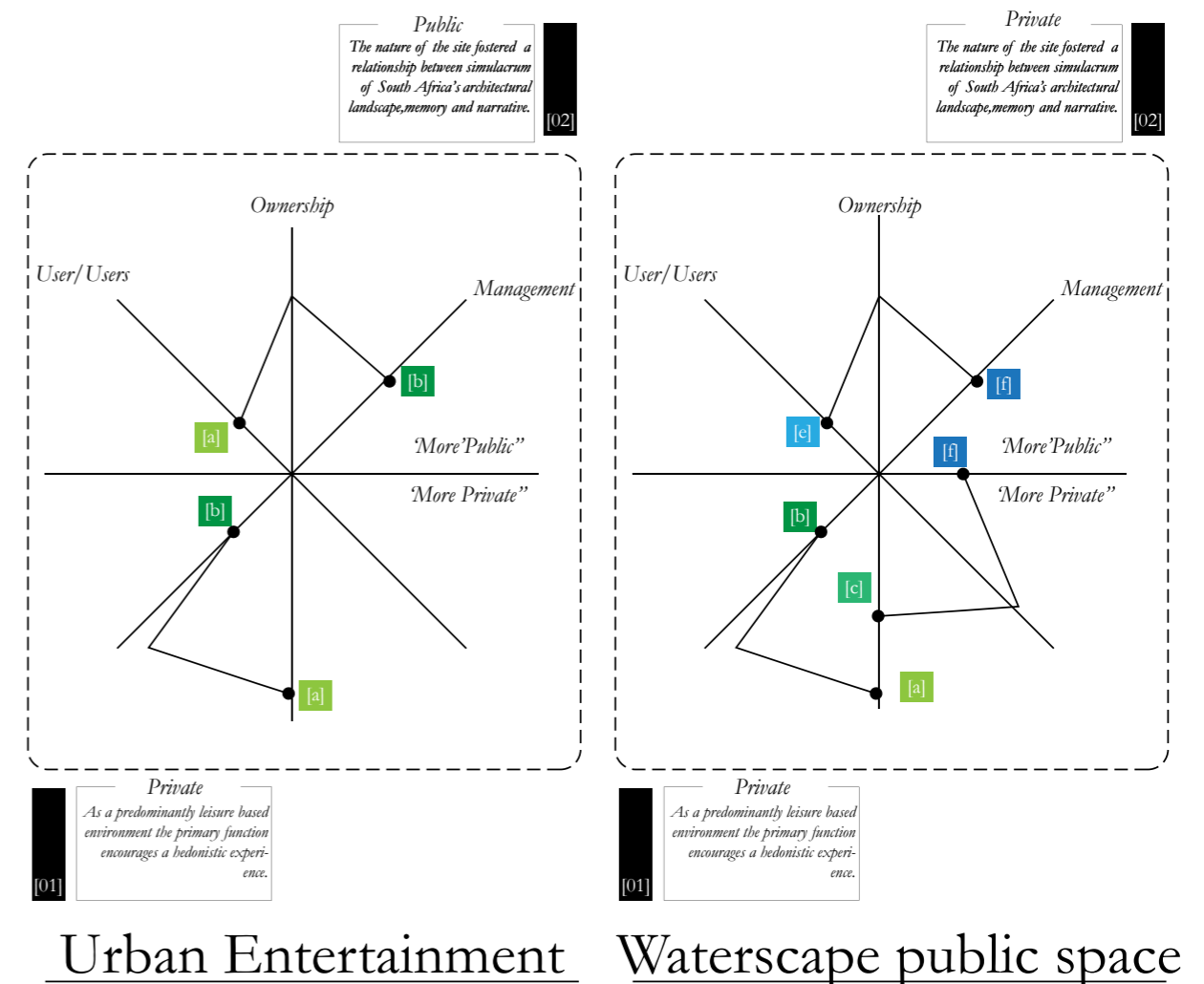


Fig.6.3 Conceptual massing model illustrating applied theoretical model to site(Author,2019)

Fig.6.4 Plotting leisure spaces in public space according to Nemeth and Schmidt (Author, 2019)



Hypothetical plotting to dimensions of publicness in Santarama Miniland | Designing for public space

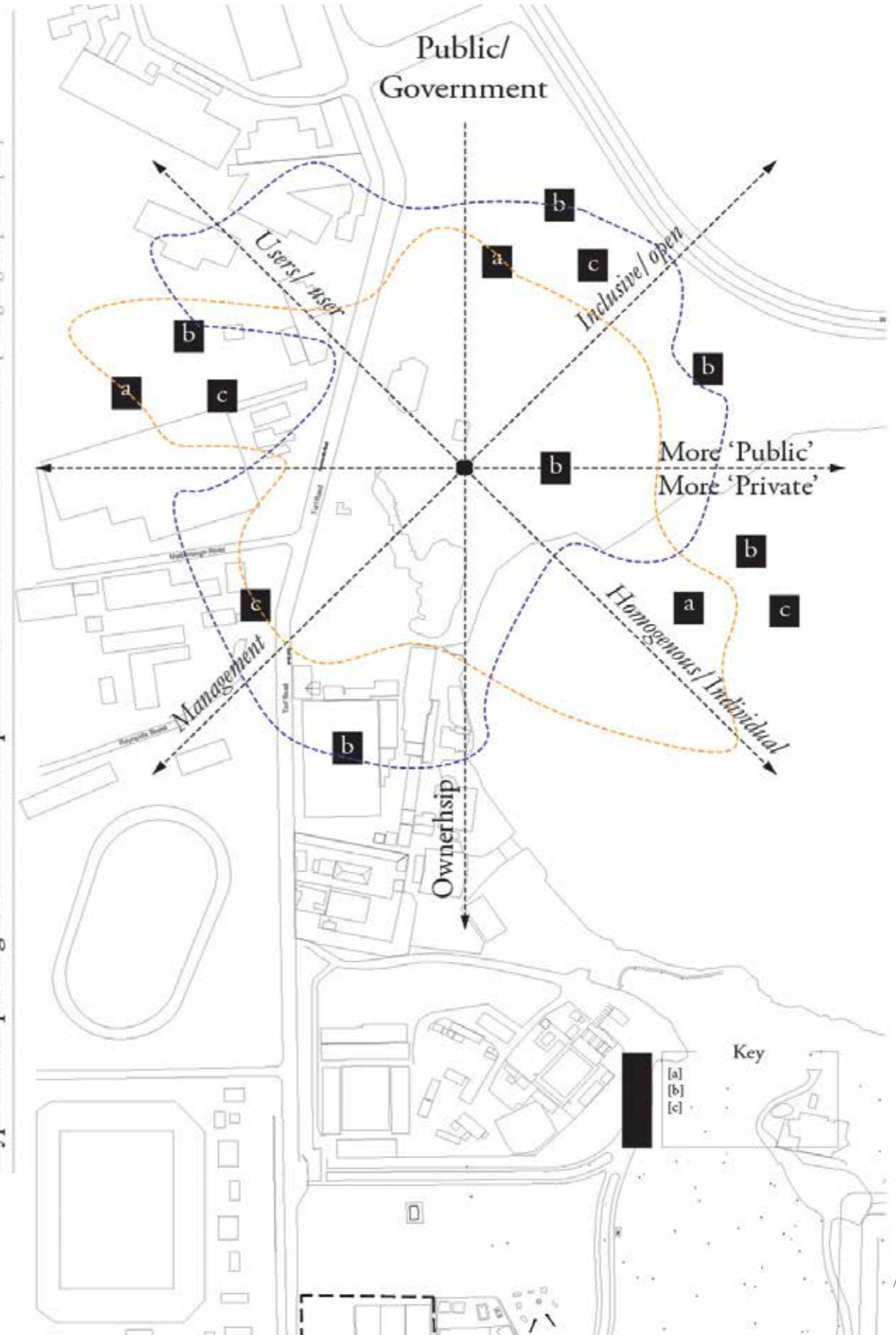


Fig.6.5 Dimensions of Publicness within the Wemmer Pan precinct(Author, 2019)

## 6.6. Conceptual Precedent\_ Adaptive Re-use

**Project Name:** Gothenberg Bathing Culture

**Location:** Gothenburg, Sweden

**Architect(s):** Francesco Apuzzo, Jan Liesenberg

**Project Year:** 2014

The Gothenberg Bathing Culture Project proposes a strategic rejuvenation along an industrial harbour of Gothenberg.

The industrial port project proposed a series of functional objects (spatial and architectural) that re-use existing buildings and combine spontaneous activity and links with the water.

The quality and current state of buildings and remaining infrastructure waiting for new uses. Existing buildings are examined for temporary and interventions were conceived through layering programmatic layers which are termed 'potential maps' intended as a means of collecting, visualising and locating existing uses, hidden qualities and potential players for a specific public space.

The desire tool (Fig. 207) was created to identify different individuals, groups, institutions and projects throughout the scheme as thoughts on the future development and feasibility of desired stakeholders. A series of imagined interventions, new uses and types of experiences along the water dock envisaged the Jubilee Park. The design tool employed creates a map for desired users and spaces in a desire map. Created envisioned a two-fold experience of the park, a potential map and desire map. Links with the water, land and neighbourhood was a crucial point for the whole development. The choice of materials enhances the intended dramaturgy for visitors to the bath. Cold and weathered

metal on the outside, ready-made from naval equipment, produce the sensation of something that could naturally belong to the harbor site. The wooden path with its pattern, the physical and visual connection between the different buildings, recall floating wood pieces along the shore. The project's intent illustrates a city strategy to a redundant harbour edge and the conversion to a cultural element throughout the city.

The project takes on memory, spectatorship and immersion of an experiential space of water and escape within an unconventional context that is achieved through

*“Architecture’s role for alternative strategies in redundant industrial landscapes merges the spontaneity of leisure environments and encourages interaction within a large park context. The human need to escape within harsh urban environments is illustrative in this project, in what is conceived as an adaptive re-use strategy and project.”*

*Memory of the site was attempted through intertwining old structures, both physically and emotionally using water as a core material and informant.”*

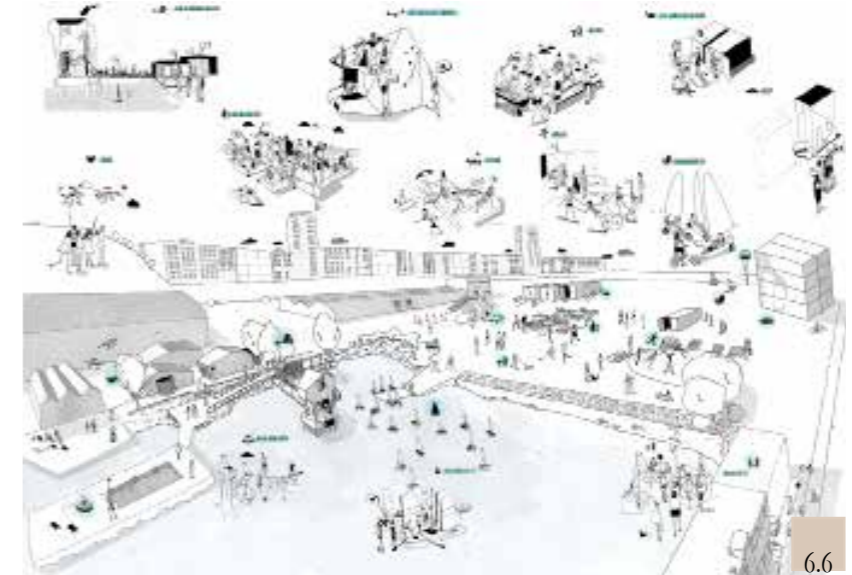
-Francesco Apuzzo

Fig.6.6 Desire Map (Archdaily,2019)

Fig.6.7 Re-used industrial fabric for spa-house (Archdaily, 2019)

Fig.6.8 Activity Map for desired spaces (Archdaily, 2019)

Fig.6.9 Interior of Sauna with timber finish (Archdaily, 2019)



### Tangible Heritage

Tangible heritage is reinterpreted by contextualising new additions through re-use of material. The articulation of industrial archetypes become anchor points for the scheme by reconstructing the archetype in form.

### Escape and Spectacle:

The project draws on contextual clues of the historic productive landscape and extends its use through an ecologically conscious architectural intervention. The attempt at dealing with the terrain vague

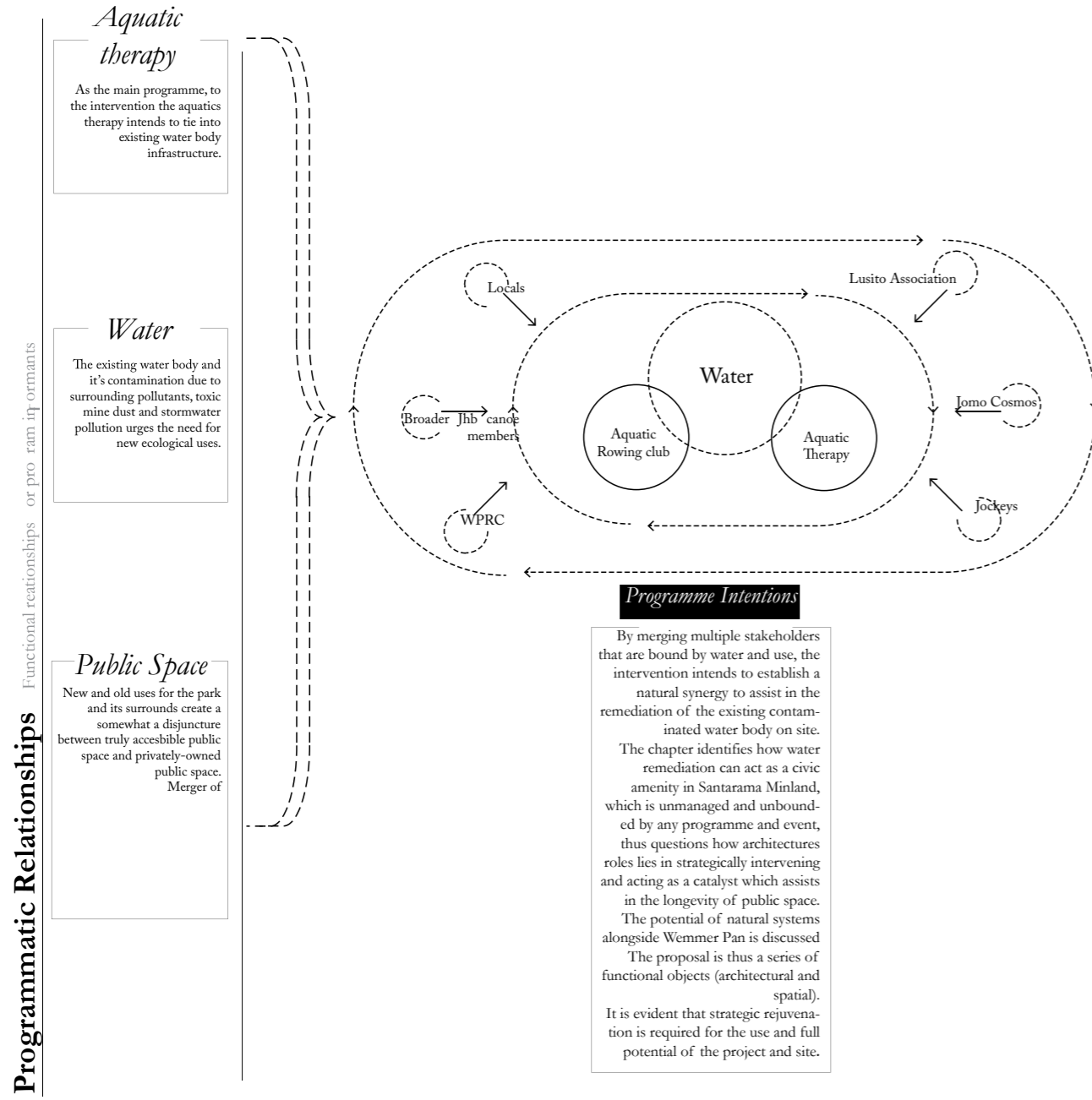


Fig.6.10 Diagram illustrating programmaticrelationships (Author, 2019)

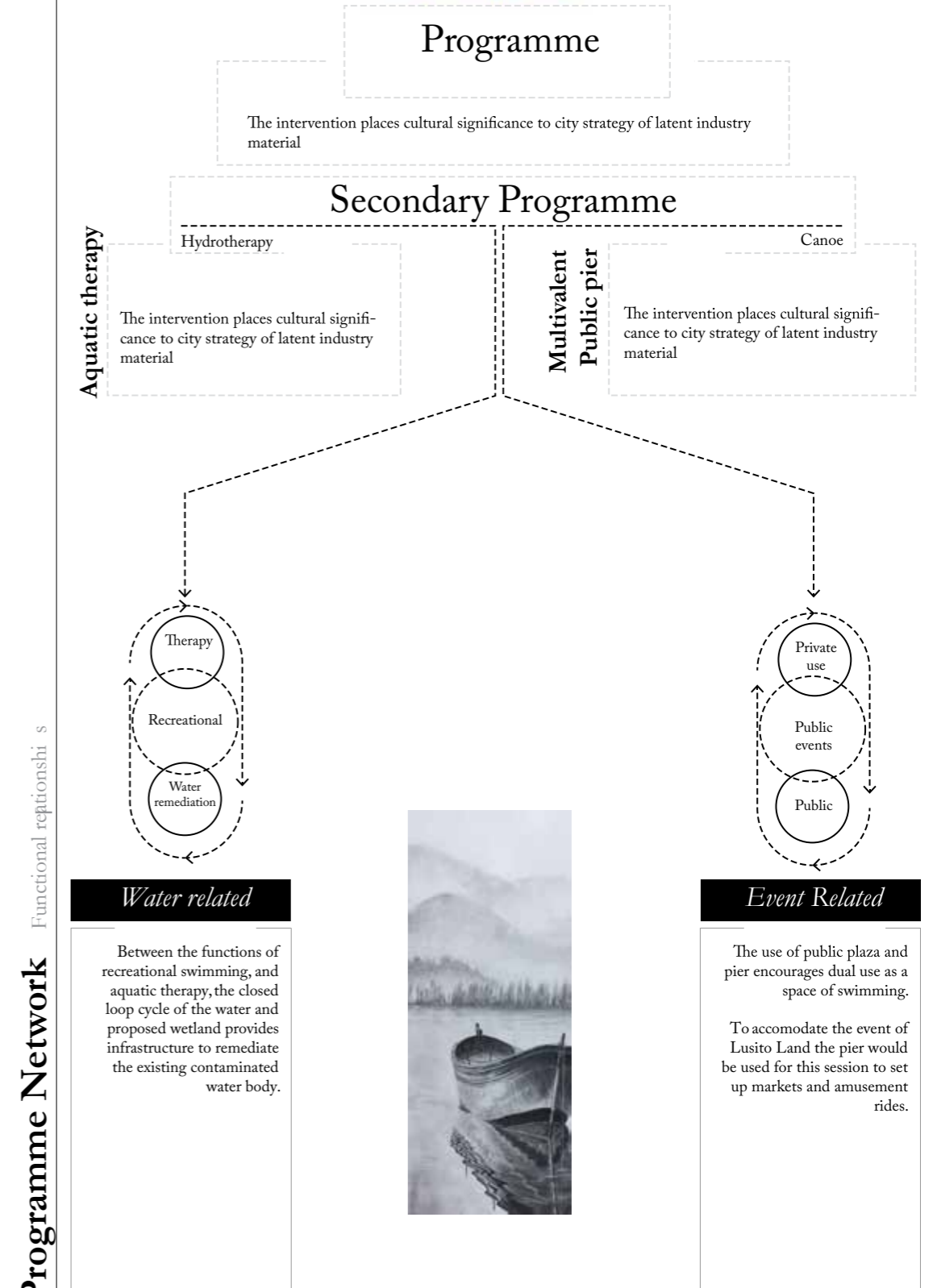


Fig.6.11 Diagram illustrating programmatic informants (Author, 2019)



## 6.7. Stakeholders

The precinct is surrounded by various sporting institutions managed and operated on a private scale, namely; Jomo Cosmos, Turffontein Racecourse and the Wemmer Pan Rowing Club, the intervention is an exploration of (Nemeth & Schmidt, 2011) conceptual development model of public spaces through access and design of a recreational, therapeutic and public waterscape. The model provides a comprehensive approach to establish the relationship between these stakeholders as a multi-faceted public space for ownership, accessibility and inter-subjectivity, the last term referring to the kinds of encounters and interactions that the space facilitates

### Jomo Cosmos F.C Academy

The Rand Stadium which is adjacent to Wemmer Pan is the home ground for the Jomo Cosmos football team. Due to the ultimate neglect and abandonment closure of Santarama Mininland Erven 162,163 and 164 by the SANTA Association, the Jomo Cosmos F.C Academy has acquired the land.

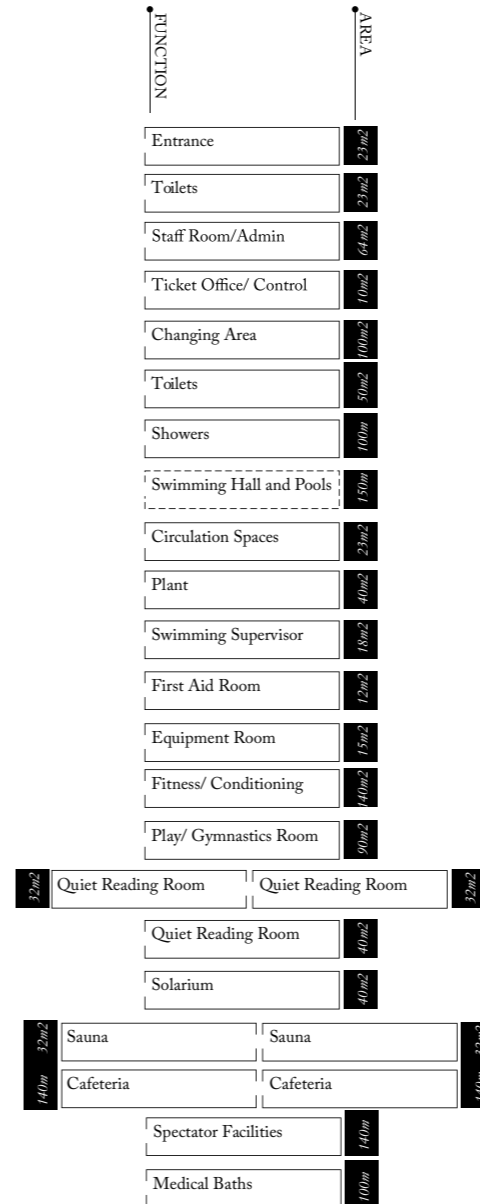
The proposed expansion of the Jomo Cosmos facility has drawn interest for public and social extension programmes and initiatives.

The opportunity to acquire the land led to the opportunity for the development of the north shore. The current proposal for the site as a training facility is currently being developed and devoid of the waters ability as a training methodology.

### Lusito Portuguese Association for the Challenged

The Lusito Land School, situated in Regents Park currently provides care for 80 children that are mentally and physically handicapped with Cerebral Palsy, learning disabilities, traumatic brain syndrome and other symptoms, offering special education as well as medical and therapeutic

Function diagram of indoor pool



21st Century function diagram of outdoor pool

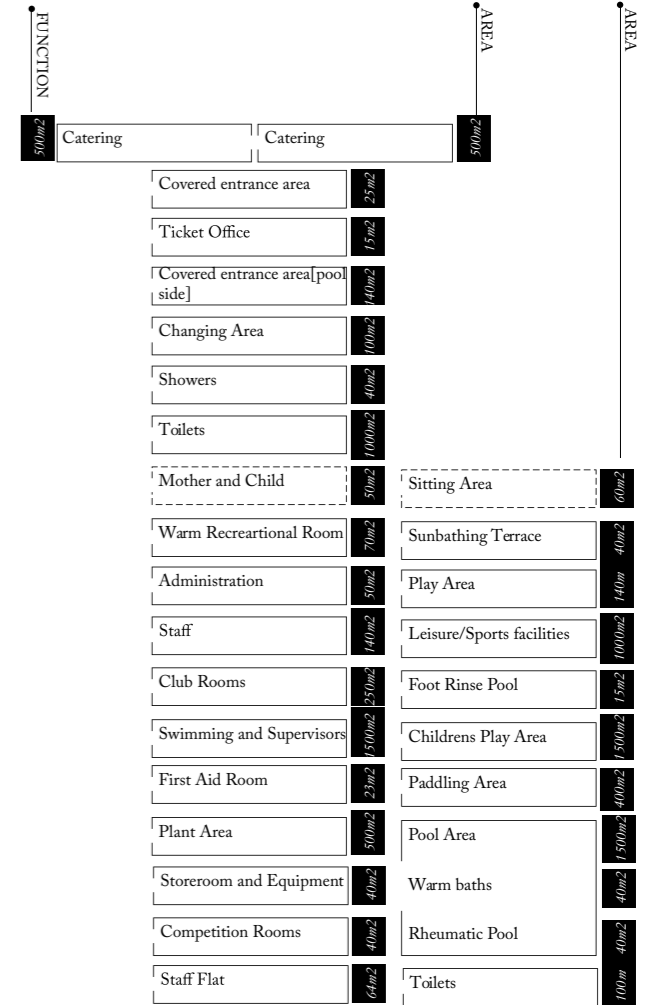


Fig.6.12 Spatial layout requirement for indoor pools(Author, 2019)

Fig.6.13 Spatial layout requirements for outdoor pool(Author, 2019)



treatments (Babir, Rianna du Plessis Urban Planning , Lokisa Environmental Consulting CC, Leo Consulting, & Motla Engineering (Pty) Ltd., 2010).

Patients with medical conditions, such as burns, septic ulcers, lesions, amputations, and arthritis, can benefit from the effects of sitting in warm water (CDC, 2016). While the envisaged programme intends to cater for patients and main stakeholders, spatially the scheme encourages local users to the site.

### Wemmer Aquatics Club (WPRC)

The existing rowing club facilities on site require new and upgraded facilities; a tackle room, clubhouse, ergometer room and gallery for exhibitions and functions. Due to the state of water quality on site, Dragon races and other related recreational water activities have been halted.

### Johannesburg Parks and Recreation and Zoos (JPRZ)

The current condition of parks and their management has remained contested due to lack of adequate budget allocation. The Pan features an approximately 700m open water opportunity, which supports various water sports such as canoeing, rowing, sailing, diving and dragon boat racing (Iyer, 2016).

Despite the reduction of mining activities associated with these tailing, deposits have persisted, causing high E-coli and low Ph levels whilst water pollution has affected the natural eco-system fishing activities. Following the current water quality, a water purification strategy becomes integral to the scheme and the use existence of the rowing club.

## Function diagram of clubhouse

Interneta tem efature re uijrements

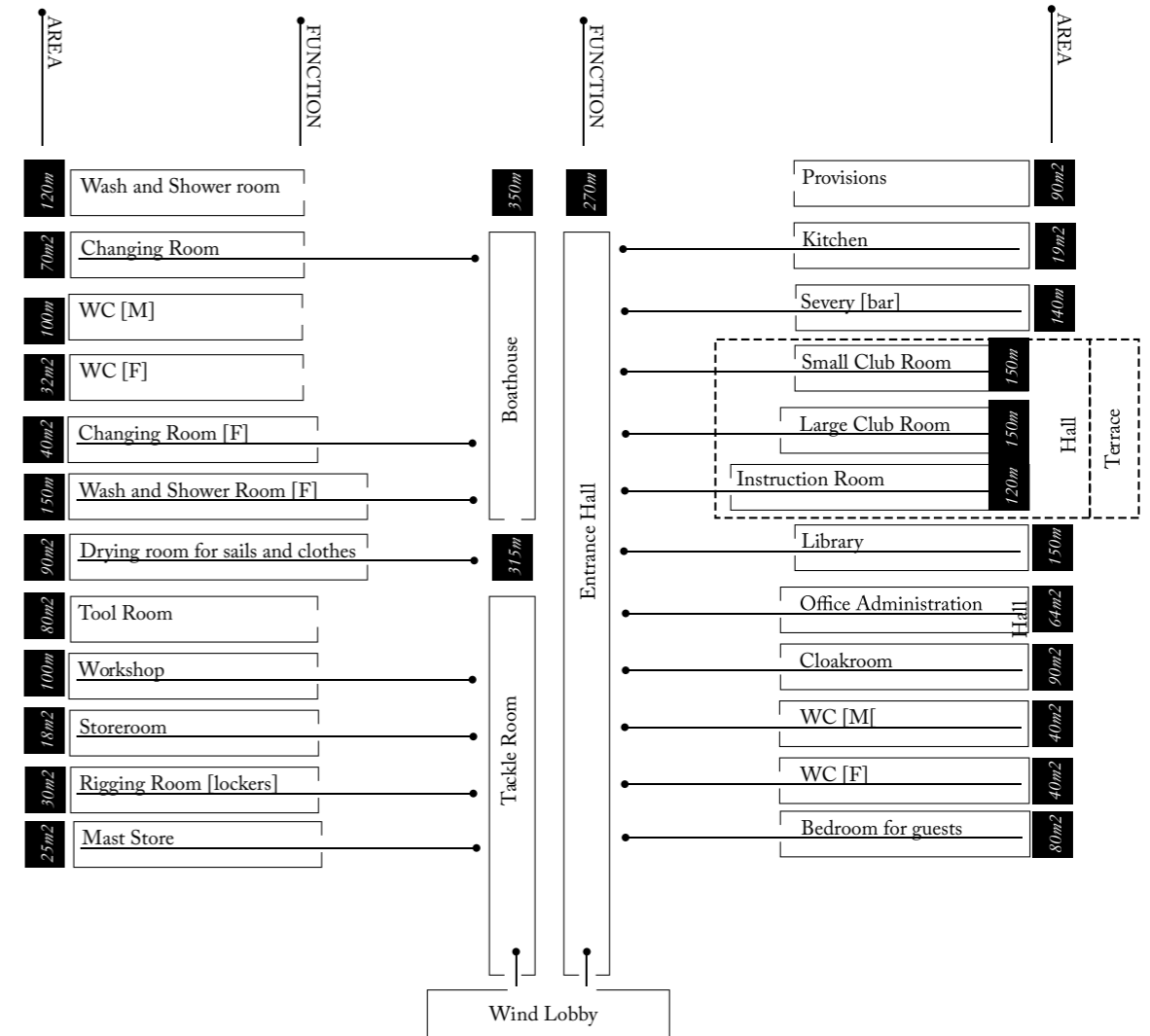


Fig.6.14 Spatial layout of canoe facility (Author, 2019)

## 6.8. Water-cure movement: A brief history

### Hydropath:

A method of treating disease by copious and frequent use of water both externally and internally —

The use of water for therapeutic purposes first dates back to 2400 B.C in the form of hydrotherapy.

Hydrotherapy, as it initially appeared in the 1820s, was an entire medical system, exclusive of all other forms of treatment, based upon the internal and external application of water use as a medium to facilitate thermoregulatory reactions for therapeutic benefit.

Hydrotherapy (HTP) is a therapeutic, water-based exercise programme focusing on aerobic endurance, strength, Range of Motion (ROM), function and flexibility by the means of interval training.

Water therapy may be restricted to use as aquatic therapy, a form of physical therapy, and as a cleansing agent. However, it is also used as a medium for delivery of heat and cold to the body, which has long been the basis for its application.

The exercise session is medically supervised by 2 staff members. One instructor on the pool deck and the other in the pool to assist clients. Client schedules usually occur for 8 weeks for 45 minute sessions.

The spatial programme diagram [Fig 6.16] illustrates the distribution of different areas for the design proposal. The largest areas dedicated to pools and bioremediation landscape to assist the hydropath.

Hydrotherapy (1) A modality for treating certain diseases (hydropathies) by applying water either externally (as an external “pressor”) or internally (to impart physical

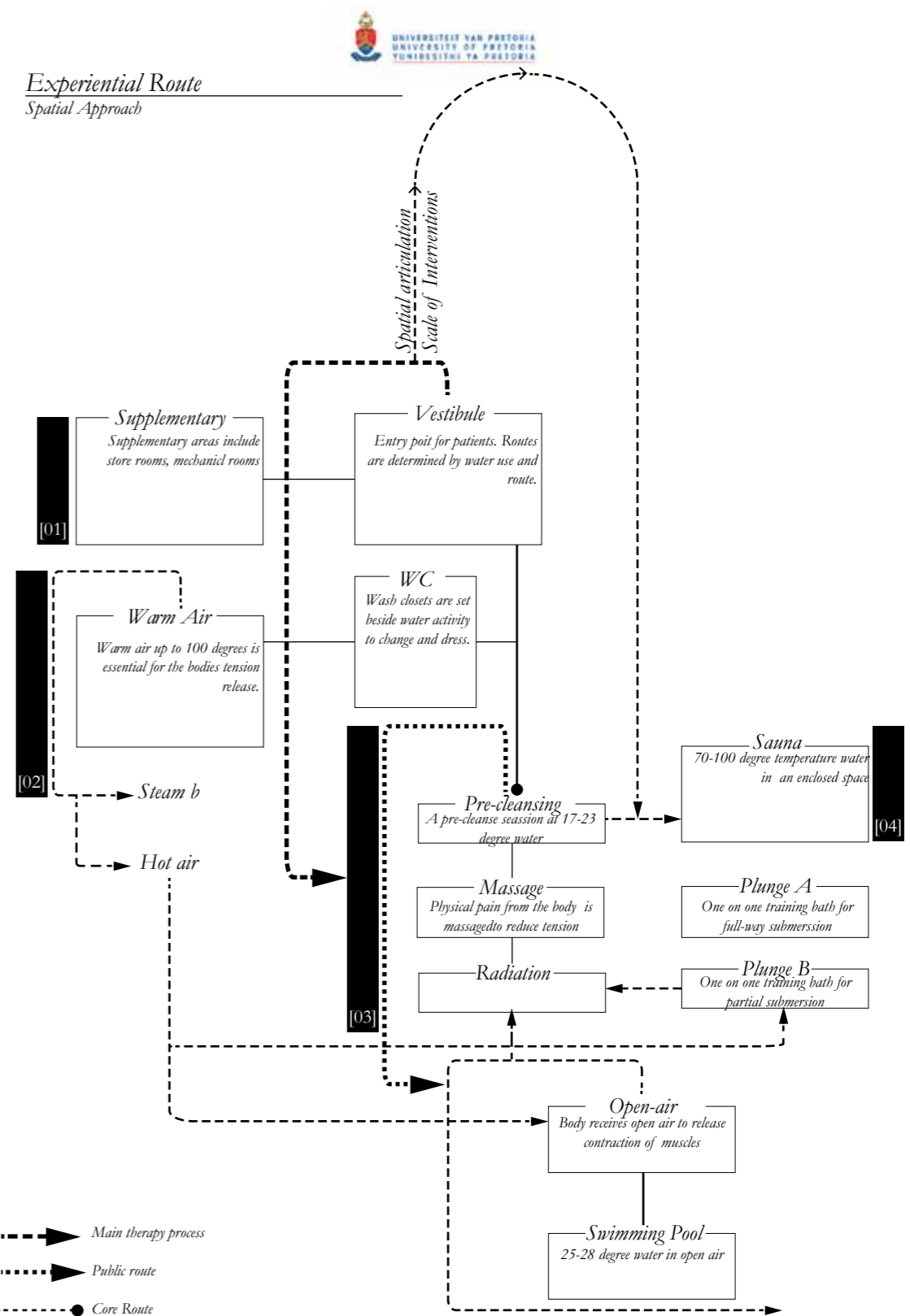


Fig.6.16 Experiential route for aquatic therapy (Author, 2019)

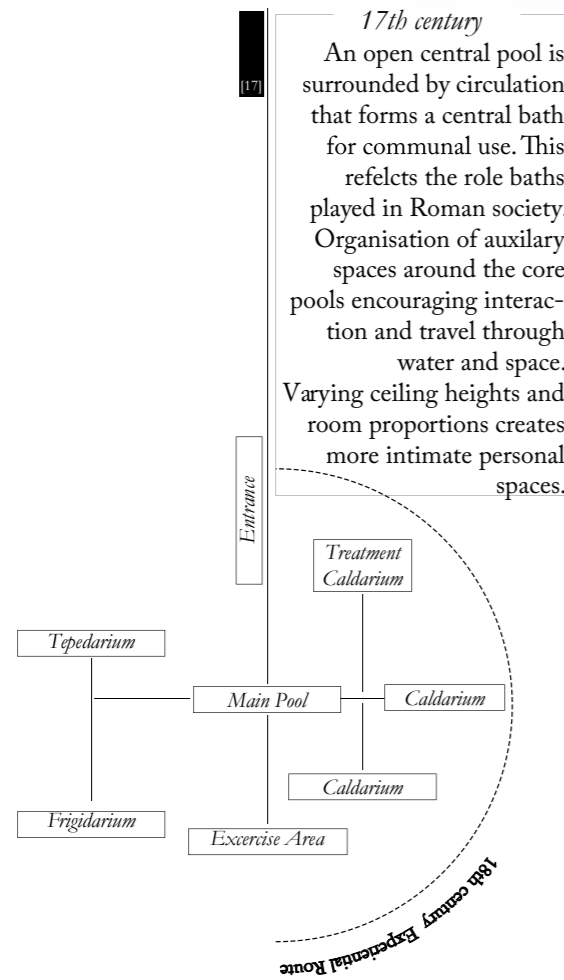


Fig.6.17 17th century spatial layout of pools (Author, 2019) Fig.6.18 18th century spatial layout of pools (Author, 2019)

followed by quickened pulse, sweating, nervous excitation and increased muscle irritability), and the subsequent responses to each.

Hydrotherapy equipment includes pools, whirlpools, whirlpool spas, hot tubs and physiotherapy tanks. Water requirements for hydrotherapy are strict and require constant temperature regulation the following pools are outlined in the following diagram for the programmatic.

**Proposed clients and programmes:**

Existing Clients and programmes:

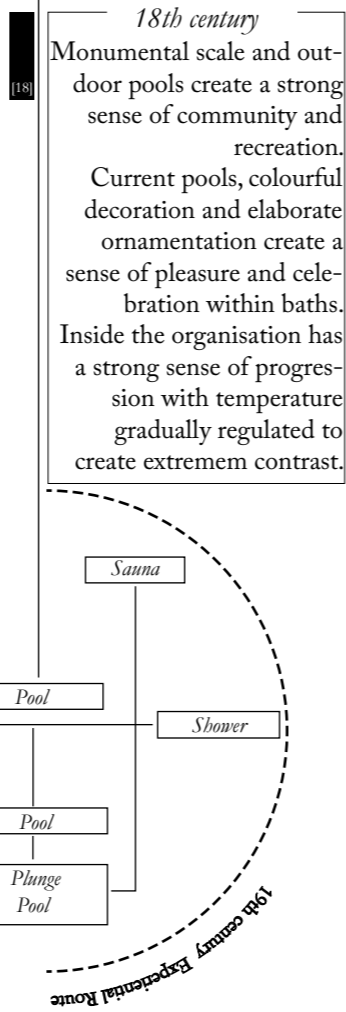


Fig.6.19 19th century spatial layout of pools (Author, 2019)

- Wemmer Pan Rowers Club [WPRC]
- Indoor training facility
  - Canoe Exhibition Walkway
  - Canoe Suspension
  - New Entrance Lobby
  - Public Ablution Facilities

- Rowers Clubhouse
- Fishing Club
- Buoyant Pier
- Wash-up areas
- Disposal Area
- Storage Area
- Fish Display

- Proposed Aquatic Therapy
- Jomo Cosmos Training Club
- Upgraded entrance and parking, new reception spill-out
  - Public space
  - Spa
  - Foot Area
  - Plunge Pool Area A
  - Plunge Pool Area B
  - Consultation Room

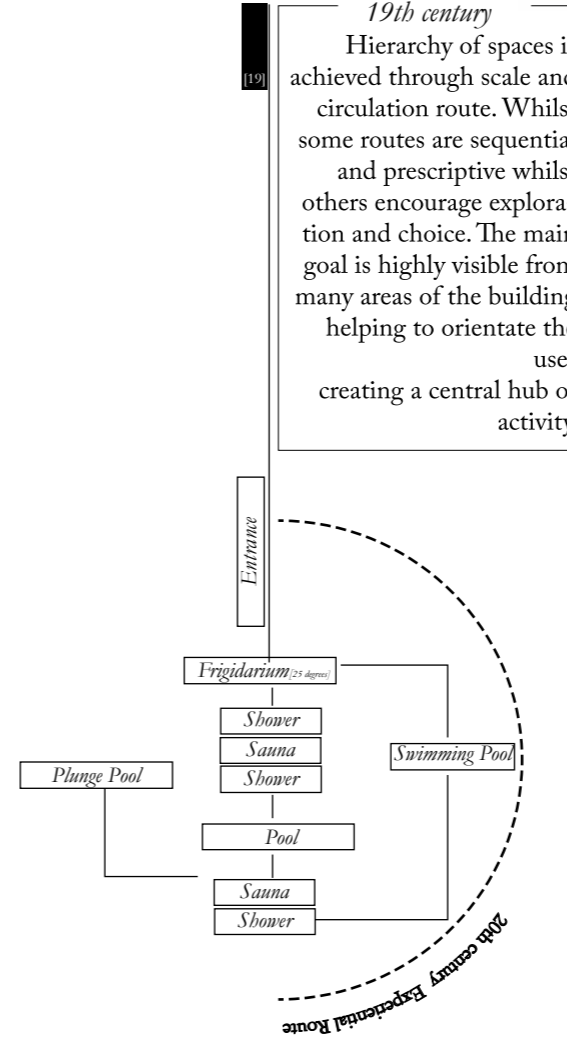
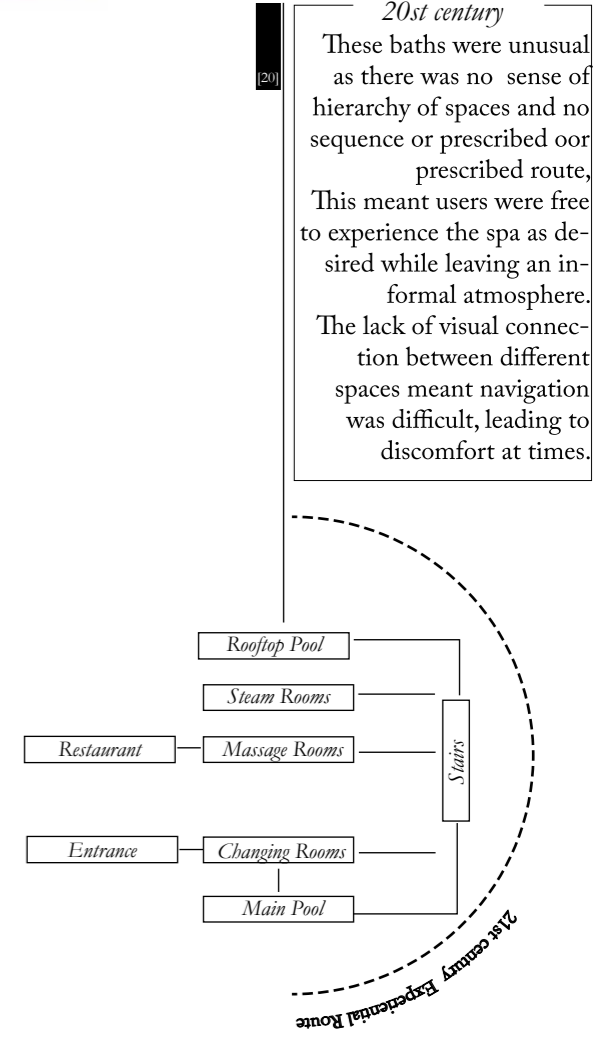


Fig.6.20 20th century spatial layout of pools (Author, 2019)



## 6.9. Programme Intentions:

By merging multiple stakeholders that are bound by water and use, the intervention intends to establish a natural synergy to assist in the remediation of the existing contaminated water body on site as well as the human body. Given the role of the Pan and adjoining systems in the structure and functioning of the broader precinct, an approach to future intervention in the area must draw fundamentally on the role of natural systems and resources. Key in this regard are landscape and water, and in particular the Pan and its tributaries, as the most important resource to work with, one of the defining features of the study area (Babir, Rianna du Plessis Urban Planning , Lokisa Environmental Consulting CC, Leo Consulting, & Motla Engineering (Pty) Ltd., 2010). The program intends to functions for indoor and outdoor aquatic therapy by responding to local and urban users of the precinct and improves water quality, where possible, through connections.

The Wemmer Pan water quality has been evaluated through the following mean to establish the recreational use of the water;

Water: Water is essential to making the new landscape of recreation and escape; the design is structured alongside the existing water body. The water tower not only assists with the process of preparing the urban development of the scheme, the Scientific Aquatic Services assessed the water quality in the Wemmer Pan with the aim of determining the suitability of the venue for use as a recreational resource (Babir, Rianna du Plessis Urban Planning , Lokisa Environmental Consulting CC, Leo Consulting, & Motla Engineering (Pty) Ltd., 2010).

The proposal is thus a series of functional objects (architectural and spatial).It is evident that strategic rejuvenation is

required for the use and full potential of the project and site. The proposed strategy for the insertion of each programme is suggested in the following steps;

## 6.10. Applied POPS mixed-model

According to (Ne'meth & Schmidt, 2011) the dimensions of publicness exists between the range access, agency and interest, while publicness is assessed through ownership, management and user/users.

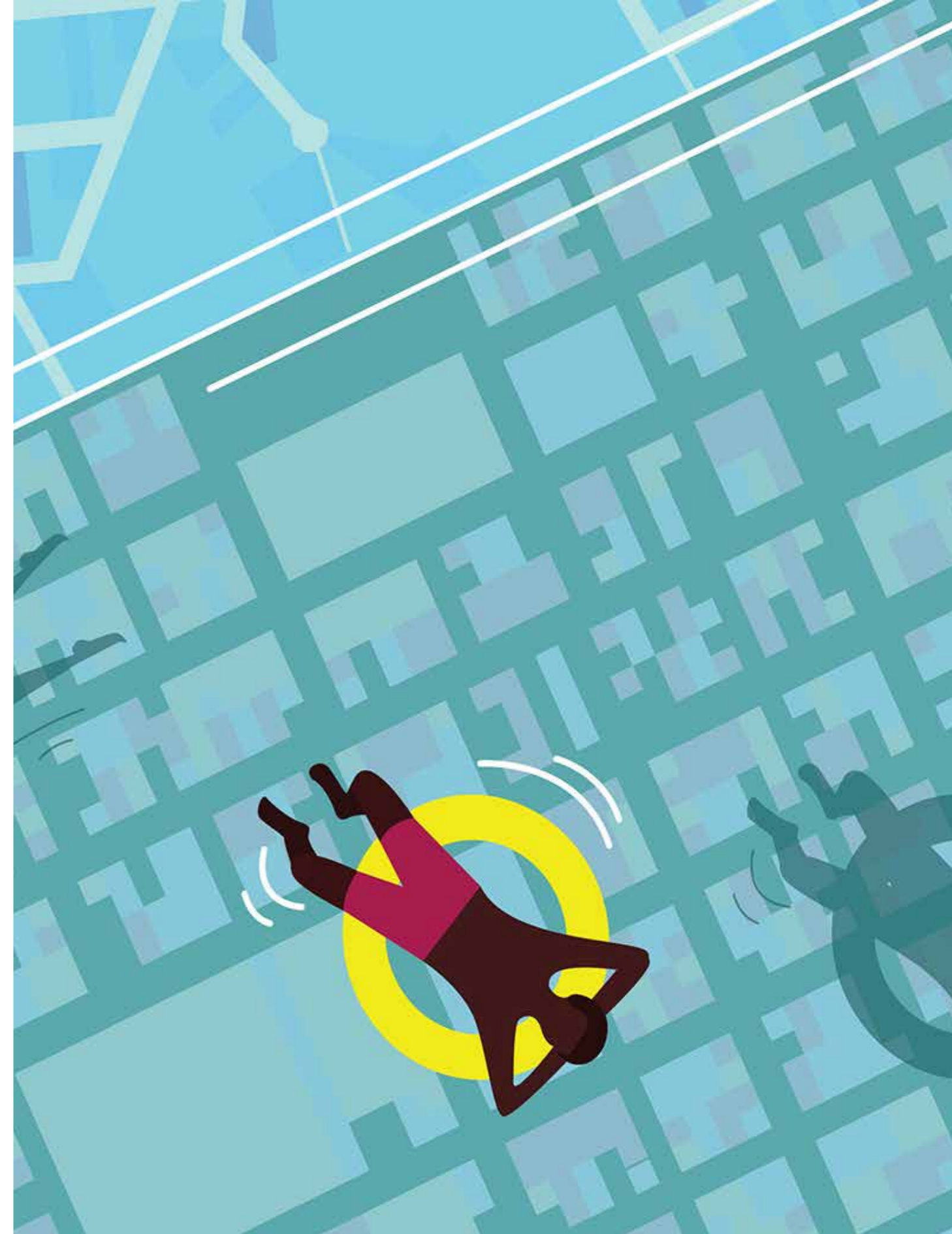
The programme reflects various stakeholders though the hydrotherapy, public swimming pools and the extension of the existing rowing club facility.

By providing varied stakeholders to engage in the proposal, the applied model proposed by (Ne'meth & Schmidt, 2011) may prove to be successful in providing the rejuvenation and cultural success of public spaces as a shared commodity within the precinct, open and accessible while sustaining longevity.

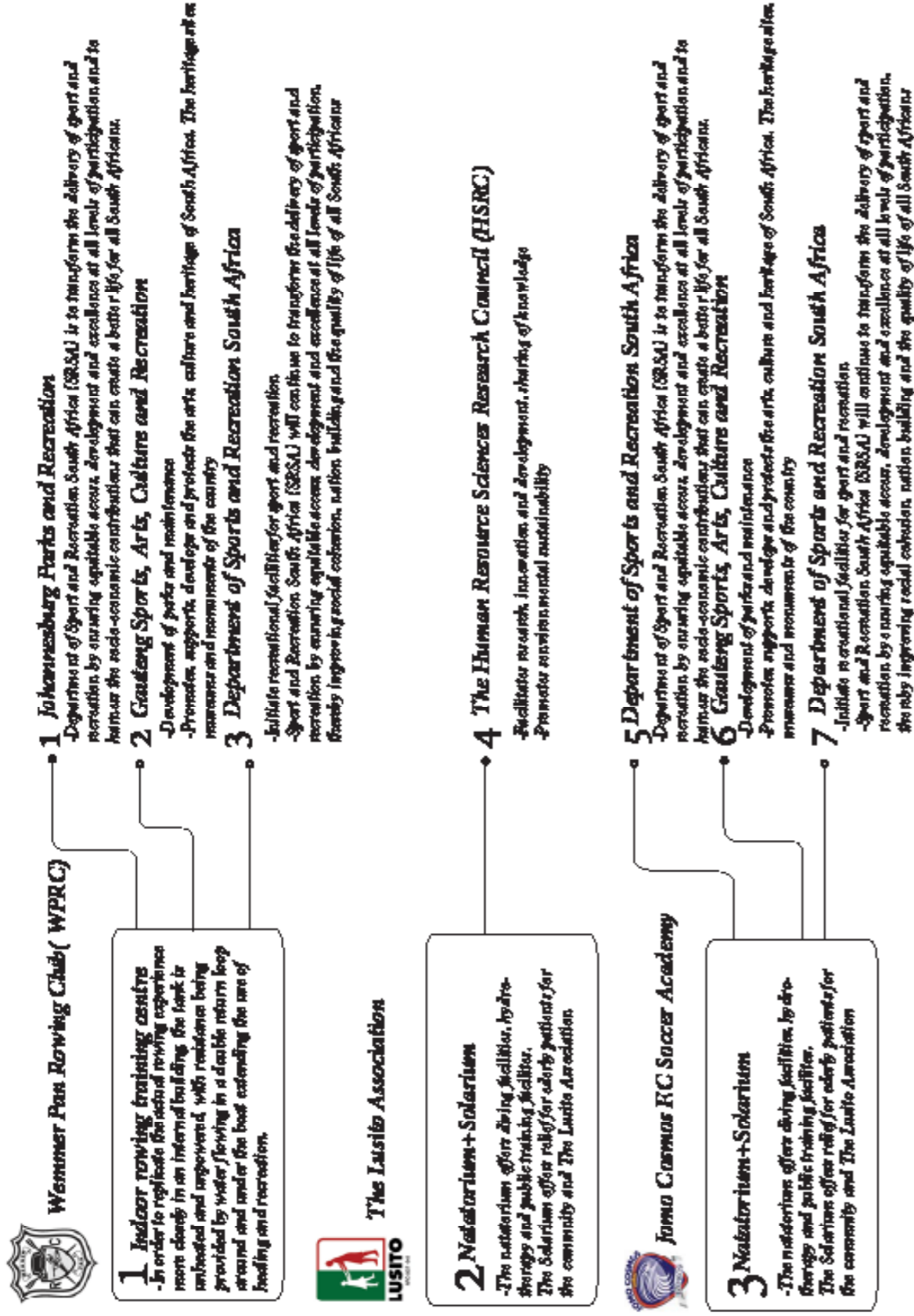
The arguement for constructing private space may be one solution for rectifying this fundamental power imbalance is to reform the sections of zoning resolutions dealing with the bonus system.

We advocate reexamining the FAR bonuses provided in exchange for privately-owned spaces. privately owned spaces include many features that bothencourage use and control behavior.

Consequently, the reliance on the private sector to supply publicly accessible spaces often results in the creation of vibrant but frenetic and highly programmed 'festival' spaces in which designers employ an array of techniques, tools, and activities to manipulate and program the use of, and behavior within, such spaces (Sorkin, 1992).



## Client/Stakeholders



## Programme Event Schedule

[ Establishing a 24 hour leisurecape ]

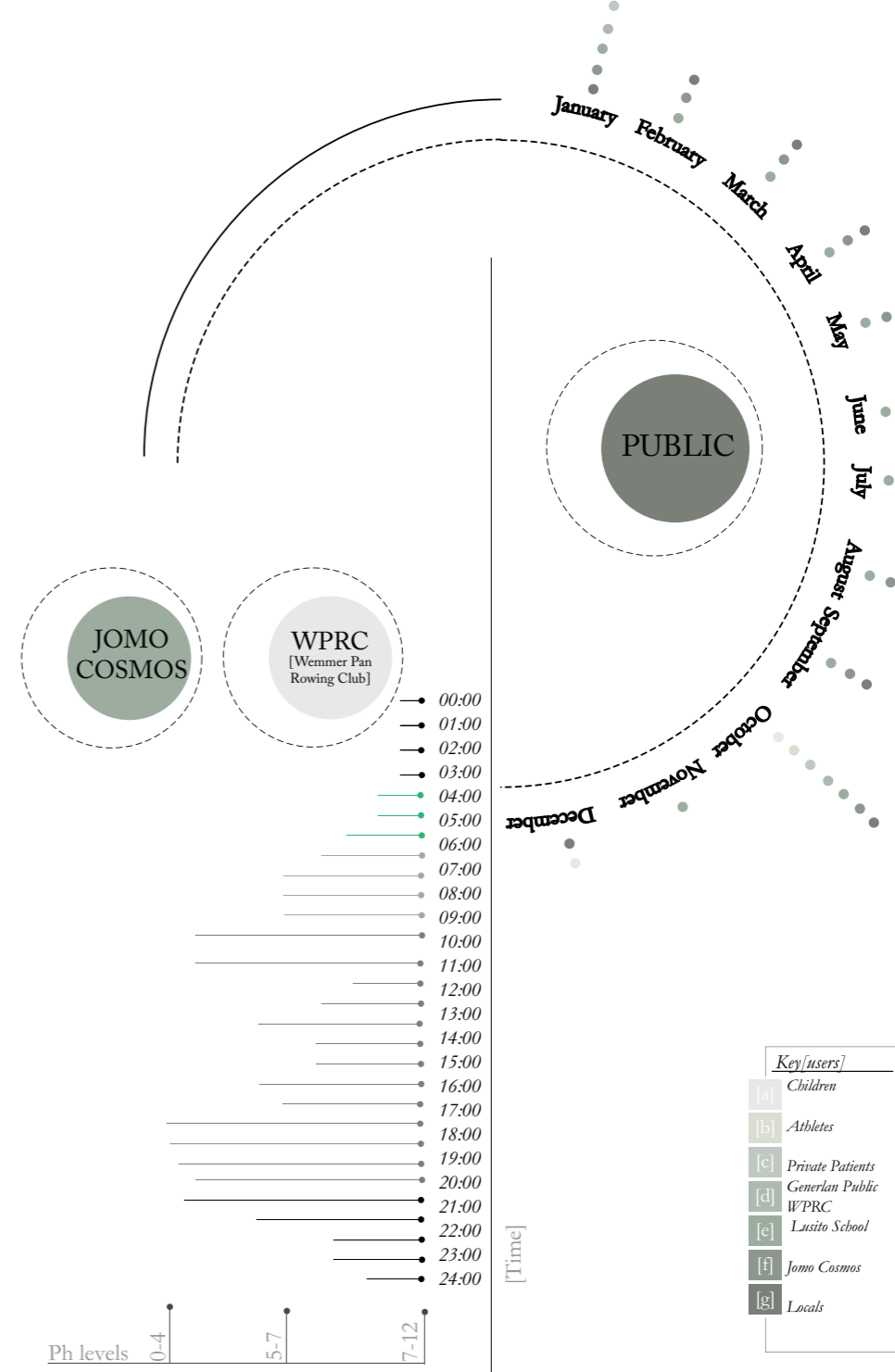
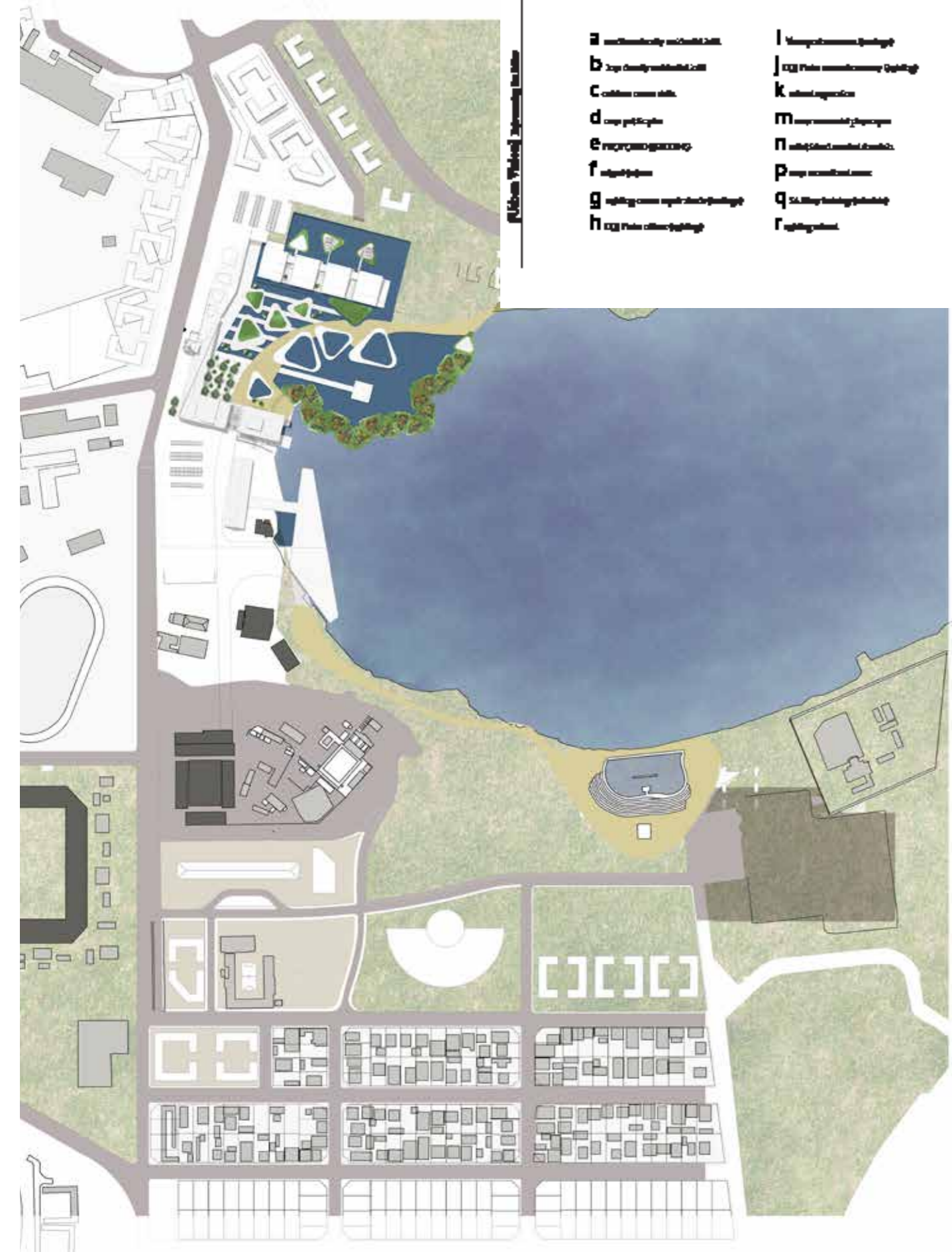


Fig.6.21 Programme Event Schedule (Author, 2019)



## 6.11. Urban Vision

In the making of a successful precinct that caters for both residents and visitors, it is essential to (re) create a cohesive approach and experience of a lesiruescape.

The park is thus divided into various experiences. Conceptualised as points and lines, these concepts translate to certain activities (points) and their relationship to each other through circulation (lines).

On an urban scale, the project aims to initiate program in and beside the existing Wemmer Pan water body by extending into the Santarama Miniland site.

The vision exists on two scales, a neighbourhood scale and a site-specific scale. provision of extending water into the public use of creates the function of an infrastructural channel. The urban surface is thickened at scales for public use and folding into fissures for non-public use of cleaning water beside non-programmed areas.

### Architectural Scale

Kenneth Frampton (Frampton, 1983) urged for adopting a “place-conscious poetic” in architecture. Advocating for critical regionalism and warns against Post-Modernisms’ architecture which has a tendency to escape into nostalgic historicism and

The project positions itself in-between various scenarios, allowing the programme and architecture to become a social-integrator.

The previous language of the sites focused on elements of nostalgic historicism and as such, the intervention focuses on creating a new contextual response to architectural language mentioned by Frampton (1983). By layering the language of it past industry, the existing industrial layers of the site are used as physical material for the making of the architecture as homage to the past layer of the site. A Frampton (1983) argued that environment should play on all senses ought to be involved in the experience of architecture and the environment.

Thereby the following event scenarios intend to achieve:

Fig.6.22 Urban Vision (Author, 2019)

Fig.6.23 Swimming Day event (Author, 2019)

Fig.6.24 Parking and Movement (Author, 2019)

Fig.6.25 Therapy Route (Author, 2019)

Fig.6.26 Public Swimming and Wetlands (Author, 2019)

## 6.12. Event Scenarios

The following event scenarios illustrate how the facility may functions for various users on sport, therapy or recreational public use days. The facility caters to specific stakeholders as well as public event days that sustain the recreational use throughout a social calendar. This ensures economic and cultural sustainability of the precinct.

- Boathouse and Public Gallert
- Sport Training and Therapy
- Lustio Land event
- Water Movie Cinema Day
- Theoretical underpinnings of the urban

Provisions for set events informal and formal.



### Parking and Pedestrian Movement:

Pedestrian movement is encouraged throughout the site in order to provide a leisurely environment for huan activities surrounding the water body.

Fig 6.23 illustrates the movement of walkways through the site that are accessible to patron and foreign visitors.



### Canoe related activities:

Due to the proximity of the new intervention, the building intends to engage with the Wemmer Pan Rowing club existing facilities. The boardwalk allows for passerby’s to visual access to the sculling room as well as gallery and exhibition space.



### Therapy

Post-Modernisms’ architecture which has a tendency to escape into nostalgic historicism and overt decoration.

The previous language of the sites focused on elements of nostalgic historicism and as such, the intervention focuses on creating contextual response to architectural language mentioned by Frampton (1983). By layering the language of it past industry, the existing shed are homage to the past layer of the site. He argued that all senses ought to be involved in the experience of architecture and the environment.



### Public Swimming Pool and Wetland

Post-Modernisms’ architecture which has a tendency to escape into nostalgic historicism and overt decoration.

The previous language of the sites focused on elements of nostalgic historicism and as such, the intervention focuses on creating contextual response to architectural language mentioned by Frampton (1983). By layering the language of it past industry, the existing shed are homage to the past layer of the site. He argued that all senses ought to be involved in the experience of architecture and the environment.

The following maps illustrate the journey towards Santarama Miniland through the Wemmer Pan park, between pedestrian and vehicular modes of transport.

# DESIGN DEVELOPMENT

# 7

*This chapter will explore and define the conceptual approach that guided the design and technical development of the dissertation. The leiscapescape explored the components of place-making within waterscape facility by applying the public space model discussed in Chapter 6. These design informants are integral to programmatic and contextual and spatial design response. The principles become a guidelines to the conceptual drivers of the scheme and inform the design iterations through physical models, sketches in order to achieve the most applicable design product that answers*

7.1 Introduction

7.2 Conceptual Site strategy

7.3 Site Approach

7.4 Urban Precedent

7.5 Urban Vision and Intent

7.6 Design iteration strategy

7. Architectural Vision and Intent

7.7 Conceptual models

7.8 Plan Lyout development

7.9 Urban Precedent

7.10 Urban Vision and Intent



## 7.1. Introduction

Any design intervention that seeks to occur from the theoretical framework of leisure as well as the sustainable development of public space has to be premised on has three principles according to Khodaverdi & Shokrzadeh (2016) of environmental sustainability, economic sustainability and social sustainability.

The public space approach in the dissertation requires a conceptual approach of a scheme lies inherently as the relationships formed within public space by layering an approach of open space layout and definition as a conscious process of from giving to an otherwise amorphous, formless space, the guidelines developed by CSIR human settlement and planning and design between leisure and spatial results thereof; this may be achieved through the spatial structure – a system of ordering space.

Due to the scale of the site, a structured approach the function of a public network structure is to generate a rich range of diverse opportunities to which individuals and groups can respond in a fairly predictable way. To achieve this, the structure must be logical and easily understandable.

The primary elements of structure are movement connections, public space, public facilities and utility services arranged into a hierarchical system which ranges from public privacy. People respond to this framework by locating their activities in an appropriate environment, depending on how public or private they want them to be.

Most public spaces are intended to be multi-functional and should be able to accommodate more than one function. Each coming with their own set of requirements this strategy of layering of public space and their overlaps drives the scheme between social, cultural, private and public function.

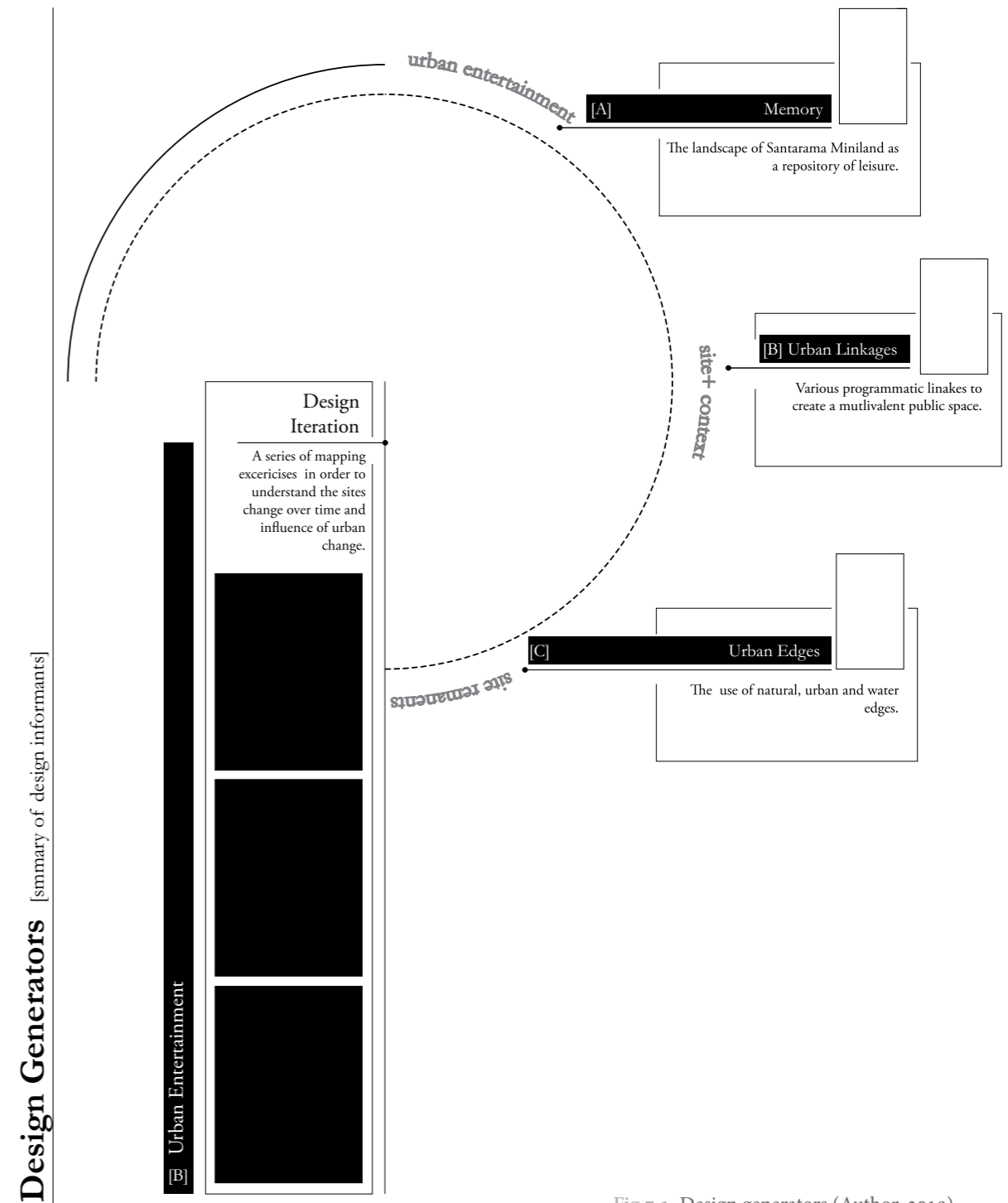


Fig.7.1 Design generators (Author, 2019)

## 7.2. Conceptual Site Strategy

Six core themes drive the site strategy to respond to an urban condition as well as the site condition. Discussed below;

### 7.2.1. Cross-pollination;

Within the context of the scheme, green infrastructure and their related use to the water becomes integral in their relationship to one another .

The current isolated condition of existing cultural institutions provide a new use for merge use through water.

### 7.2.2. Community links;

The distinction between wet and dry elements of the landscape is imperative in a water-based landscape. The layering to the use of water and their state required by the user should translate for the user's needs.

### 7.2.3. Maintain the element of urban entertainment within the landscape;

In memory of the sites innate use as a form of urban entertainment, the intervention requires spaces that may be set up for event and public spectacle. Abstractly these spaces form informal leisure spaces

### 7.2.4. Water strategy

The water network that exists in Wemmer Pan relationship between the contaminated pan as well as the proposed landscape based approach to remediating the water the diagram illustrate the relationship between the architecture and water.

### 7.2.5. Experience

In her book *The Architecture of Pleasure* (Kane, 2013) describes how amusement parks were multisensory experiences-their visitor being influenced by design of new attractions, bringing together ideas of storytelling, emotive immersion and escapism.

By using the elements of experience required in urban entertainment sites, understanding the historic relationship between all the amenities within the cultural precinct of Santarama Miniland illustrates the relationship between although urban entertainment sites have generally been conceived as destination sites, often devoid of the possibility to expand their used.

### 7.2.6. Public Space

The use of programmes all bound by water forms a key component to contrasting elements. The architecture finds three conditions, a public pavilion, the aquatic therapy and boathouse.

### 7.2.7. Social Infrastructure

Heightened sense of scale and Kinetics merged in architectural forms in amusement parks. As mnemonic device to the sites memory

The scheme relies on the inherent possibility of using the water to the basin at the bottom. The proposed functions and client partnership is based on (Breitling & Cramer, 2007) define understandings of the analogy between defined strategies and architectonic expressions. The distinction between design strategies as physical interventions, and alterations to the existing fabric as architectonic expressions as the aesthetic quality of the intervention.

Conceptual Strategy [summary of design informants]

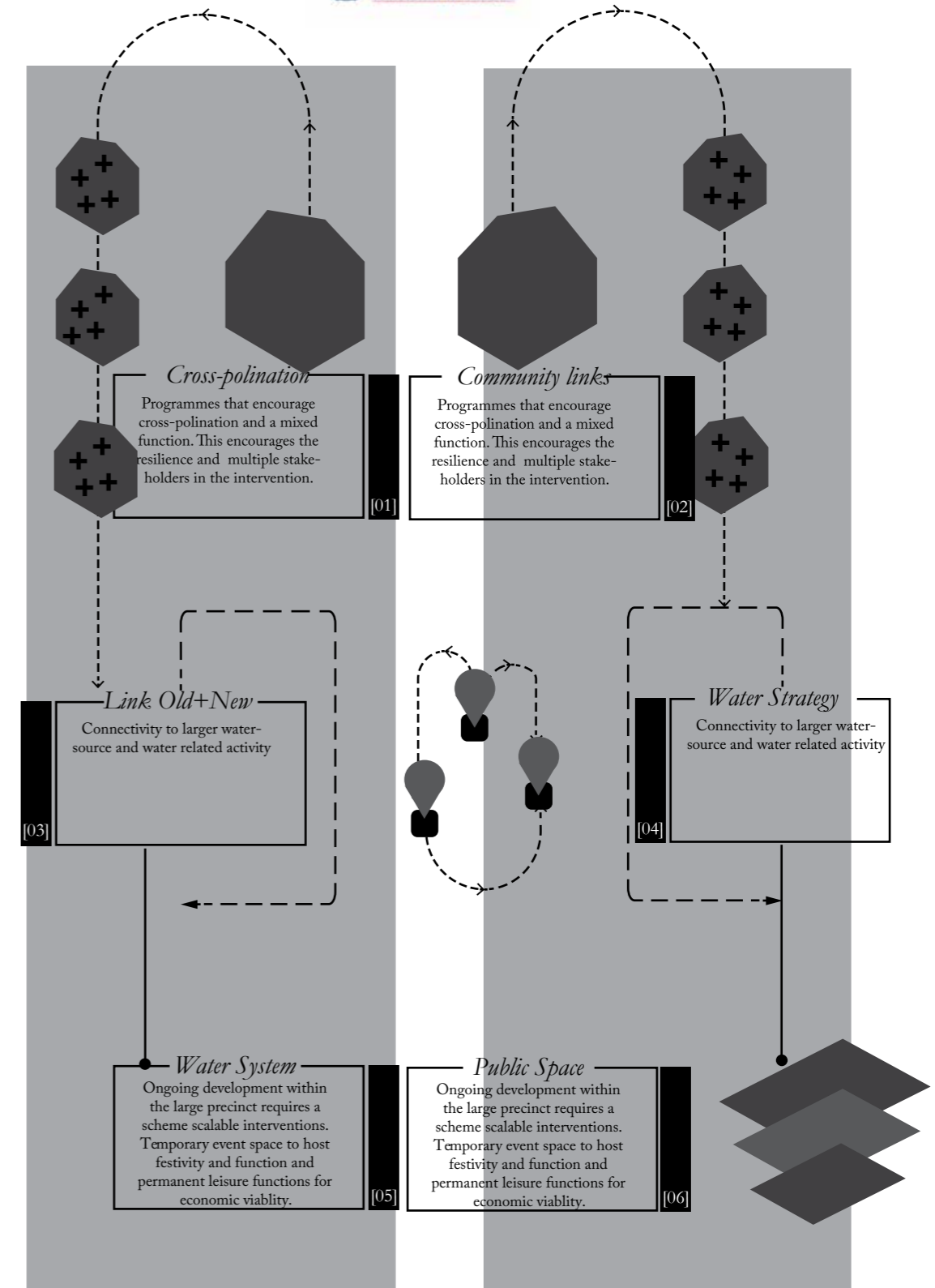


Fig.7.2 Conceptual design strategies(Author, 2019)

### 7.3. Site Approach

#### Conceptual site strategy of public space

Six core themes drive the site strategy to respond to an urban condition as well as the site condition. Discussed below;

##### 7.3.1. Infrastructure;

Within the context of the scheme, green infrastructure and their related use to the water becomes integral in their relationship to one another

##### 7.3.2. Definition between “wet” and “dry”;

The distinction between wet and dry elements of the landscape is imperative in a water-based landscape. The layering to the use of water and their state required by the user should translate for the user’s needs, internal programmatic temperature requirements .

##### 7.3.3. Maintain the element of urban entertainment within the landscape;

In memory of the sites innate use as a form of urban entertainment, the intervention requires spaces that may be set up for event and public spectacle. Abstractly these spaces form informal leisure spaces

##### 7.3.4. Dam water and hydrology

The water network that exists in Wemmer Pan relationship between the contaminated pan as well as the proposed landscape based approach to remediating the water the diagram illustrate the relationship between the architecture and water.

##### 7.3.5. Experience

In her book *The Architecture of Pleasure* (Kane, 2013) describes how amusement parks were multisensory experiences-their visitor being influenced by design of new attractions, bringing together ideas of storytelling, emotive immersion and escapism. By using the elements of experience required in urban entertainment sites, understanding the historic relationship between all the amenities within the cultural precinct of Santarama Miniland illustrates the relationship between although urban entertainment sites have generally been conceived as destination sites,

### Site Approach [summary of design informants]

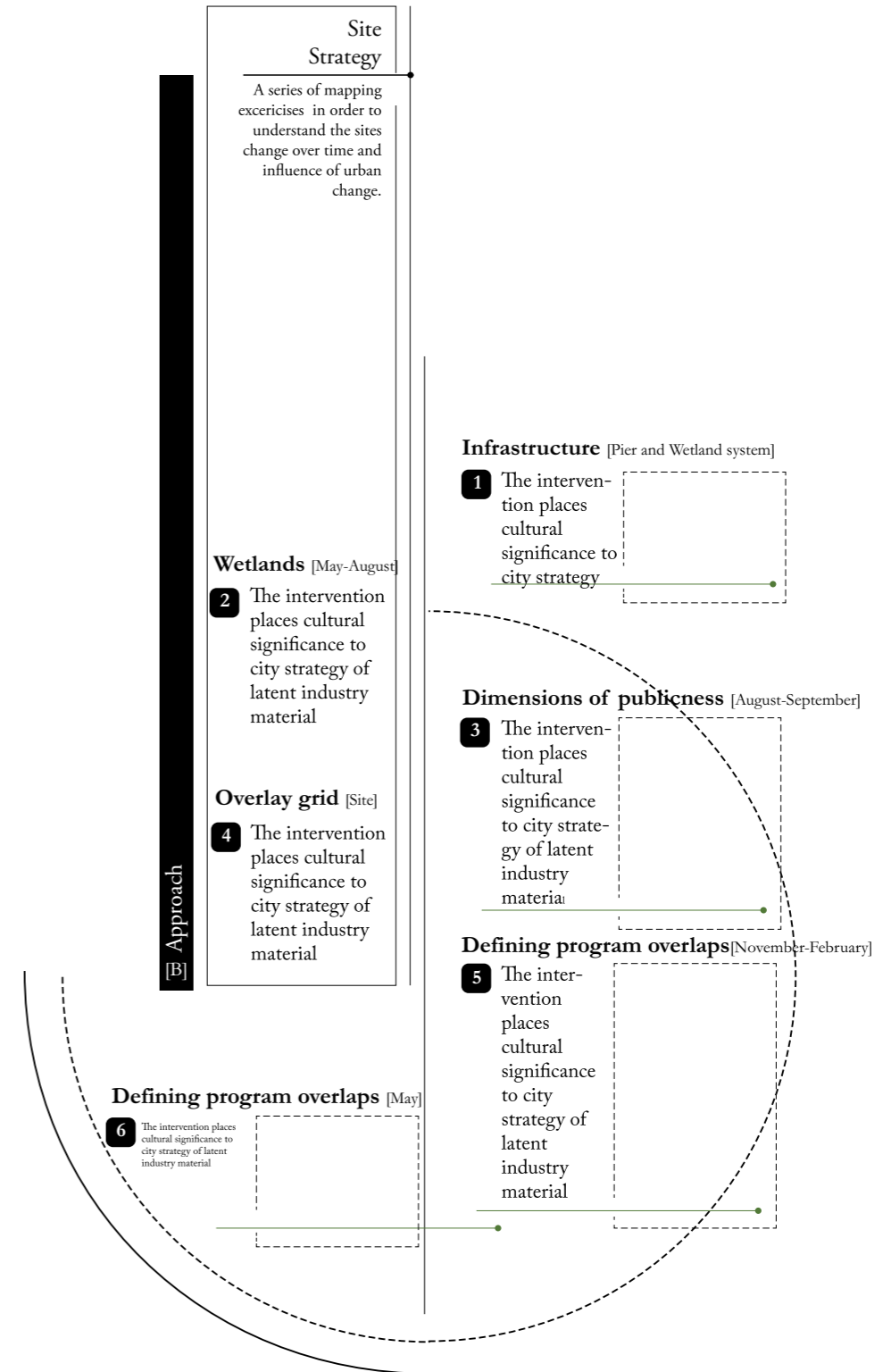


Fig.7.3 Site Approach (Author, 2019)

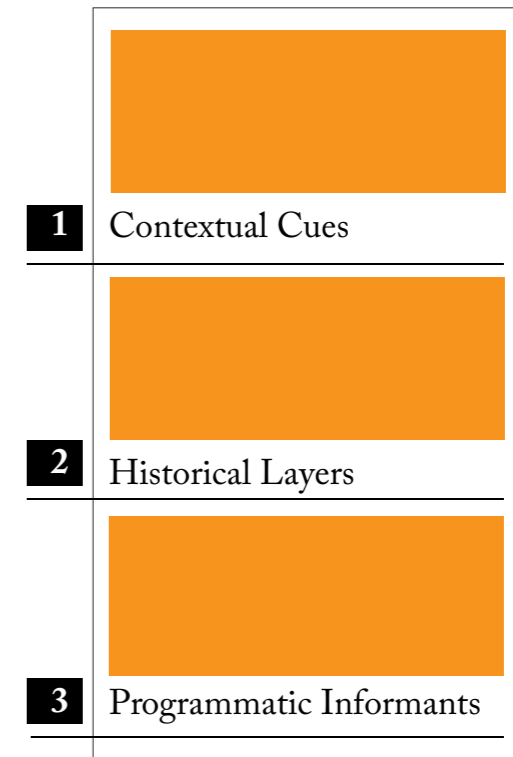
often devoid of the possibility to expand their used.

### 7.3.6. Cross-pollination

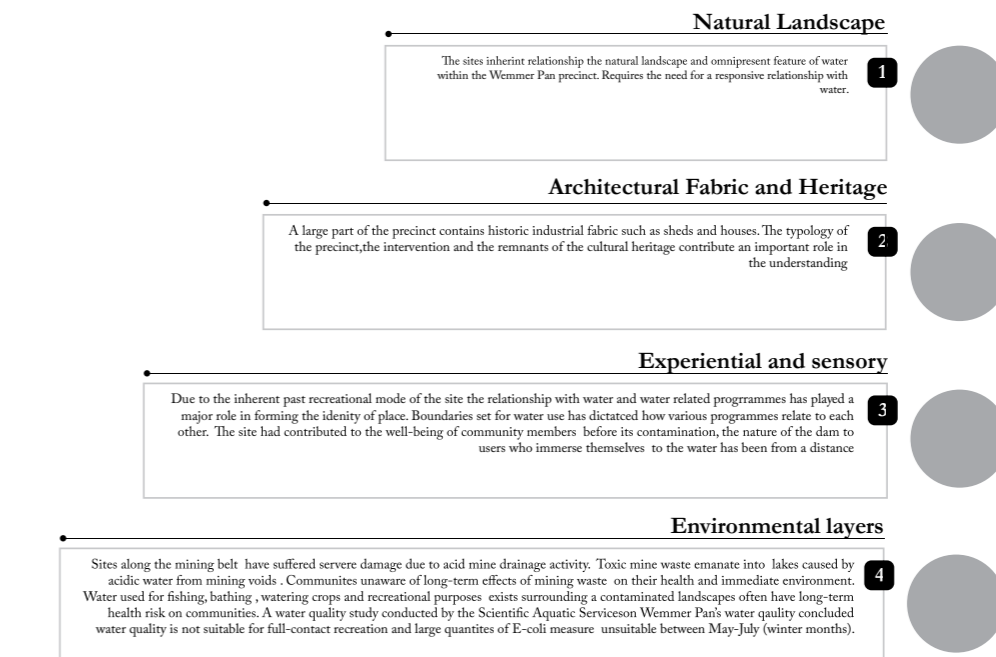
The use of programmes all bound by water forms a key component to contrasting elements. The architecture finds three conditions, a public pavilion, the aquatic therapy and boathouse.

### 7.3.7. Contextual Informants

Heightened sense of scale and Kinetics merged in architectural forms in amusement parks. As mnemonic device to the sites memory. The scheme relies on the inherent possibility of using the water to the basin at the bottom. The proposed functions and client partnership is based on (Breitling & Cramer, 2007) define understandings of the analogy between defined strategies and architectonic expressions. The distinction between design strategies as physical interventions, and alterations to the existing fabric as architectonic expressions as the aesthetic quality of the intervention.



Conceptual Drivers



Design Informants C

Fig.7.4 Designand conceptual drivers (Author,2019)

## 7.4. Urban Precedent

**Project Name:** Aarhus Harbour Bath

**Location:** Aarhus, Denmark

**Architect(s):** Bjarke Ingels Group & Francesco Apuzzo, Jan Liesenberg

**Project Year:** 2018

The Aarhus harbor bath is an extension of BIG's current development plan for Aarhus' new waterfront and neighborhood development named O4. Similar to BIG's first harbor bath in Copenhagen from 2002 which has come to define the Danish capital as one of the most livable cities in the world, Aarhus Harbor Bath and adjacent Beach Bath provide new ways for the public to enjoy the water in all seasons.

The harbor bath zig-zags gently into the island, extends all the way out into the harbor pool and back again. The swimmers can enjoy the circular diving pool, a children's pool, the 50m long lap pool or one of the two saunas that are tucked underneath the public boardwalk which doubles as a viewing platform for those who prefer to stay dry.

In front of the bath, a series of freestanding restaurants, a children's theater, beach huts for various activities and other life-creating public oriented programs were designed before the private buildings blocks which will rise in the coming years. As a result, the private residential buildings at O4 become subordinate to the needs of the public realm.

Aarhus Harbor Bath gives the residents and visitors of the island a more engaging and adventurous waterfront experience who can use the harbor bath not only in swim shorts but as a walkway that extends the public realm into the water, breathing new life into an area historically reserved for industrial purposes.

*"The architectonic language and relationship with water allows for the programme to merge with social elements in between an industrial context. Proving the possibility of re-use and adaptation of derelict sites."*

*"Together with urban life expert Jan Gehl, the strategy was to create a framework for maximum amount of life with the minimum amount of built substance."*

Fig.7.5 Natural Pool versus chlorinated pool (Archdaily, 2019)

Fig.7.6 Aarhus Harbour bath in construction (Archdaily, 2019)

Fig.7.7 Aarhus Harbour Bath in public use (Archdaily, 2019)

Fig.7.8 Various states of water intersecting with intervention and user (Archdaily, 2019)



7.5



7.6



7.7



7.7



7.8

### *Social and Cultural Heritage:*

The freestanding restaurants, children's theatre, beach huts and various public orientated programs and becomes the subordinate to the needs of the public realm.

### *Project Principles:*

The project draws on contextual clues of the historic productive landscape and extends its use through an ecologically conscious architectural intervention. The attempt at dealing with the terrain vague

## 7.5. Urban Vision and Intent

The current fragmented Wemmer Pan and broader Pioneers Precinct site holds immense significance for both its historical and future opportunities for recreational and urban communities.

### Contextual responses

#### 7.5.1. Urban context: edges and threshold

The relationship to the main road allows the urban edge to extend and draw pedestrians and users into context by creating visibility.

#### 7.5.2. Spatial layering

By forming a pedestrian edge parallel to the existing road two spatial layers are formed shaping the building along a public route. The Wemmer Pan dam, a connection between the Transport museum(site), La Rochelle (human settlement) and artificial landscape of the mine residue, the building is layered according to these changing spatial conditions.

#### 7.5.3. Visual Access

The current nature of the Wemmer Pan precinct creates a negative urban edge while visual access to the water is blocked.

#### 7.5.4. Water

The relationship of the existing dam is invisible to the passerby. The urban model exploration attempts to break massing for visibility to the water and create a permeable waterfront edge.

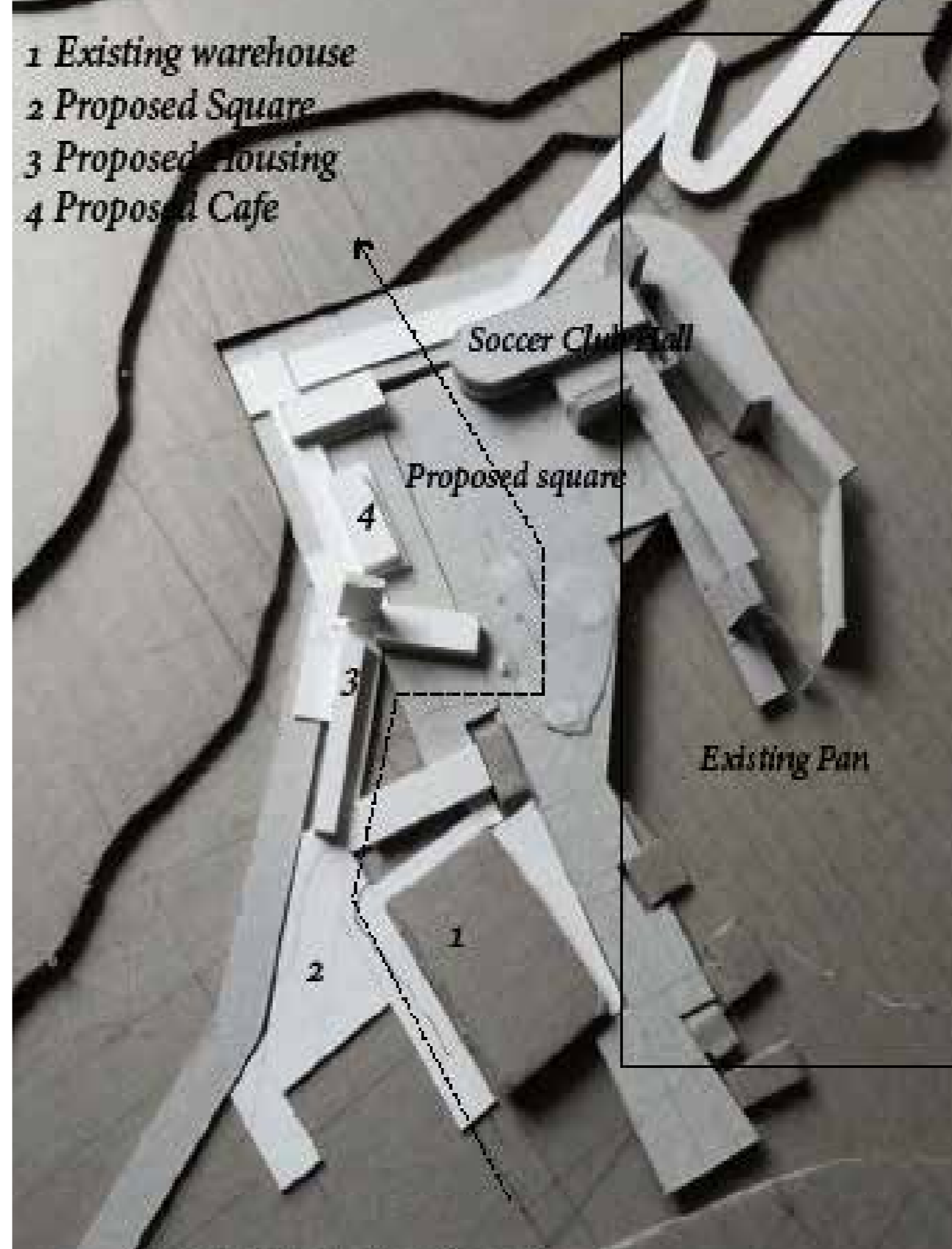


Fig.7.9 Physical Model of applied conceptual strategies (Author,2019)

## 7.6. Design iteration strategy

The design process was informed by several main generators/

The current fragmented Wemmer Pan and broader Pioneers Precinct site holds immense significance for both its historical and future opportunities, for recreational and urban communities.

### 7.6.1. Urban context: edges and threshold

The Rosettenville road to the west of the site provides the formal entrance. While constructed inlets form barriers and isolate the site, The building therefore becomes an extension to the internal and external walking patterns

### 7.6.2. Spatial layering

By shaping the building along a public route along the Wemmer Pan dam, a connection between the Transport museum(site), La Rochelle (human settlement) and artificial landscape of the mine residue , the building is layered according to these changing spatial conditions.

### 7.6.3. Visual Access

The current nature of the Wemmer Pan precinct creates a negative urban edge while visual access to the water is blocked.

### 7.6.4. Water

Water is essential to the design of the recreational waterscape; The building is structured around the existing dam water body.

Due to the condition of the water, a secondary retention structure directs water for use. From the dam water is directed to floating wetlands and gradually released into a sump and gravel bed for further filtration.

After public swimming use, water is directed to UV filter rooms , then through to mechanical rooms for aquatic therapy use.

By exposing water as an architectural device ,hydrology becomes an embedded layer of the human environment.

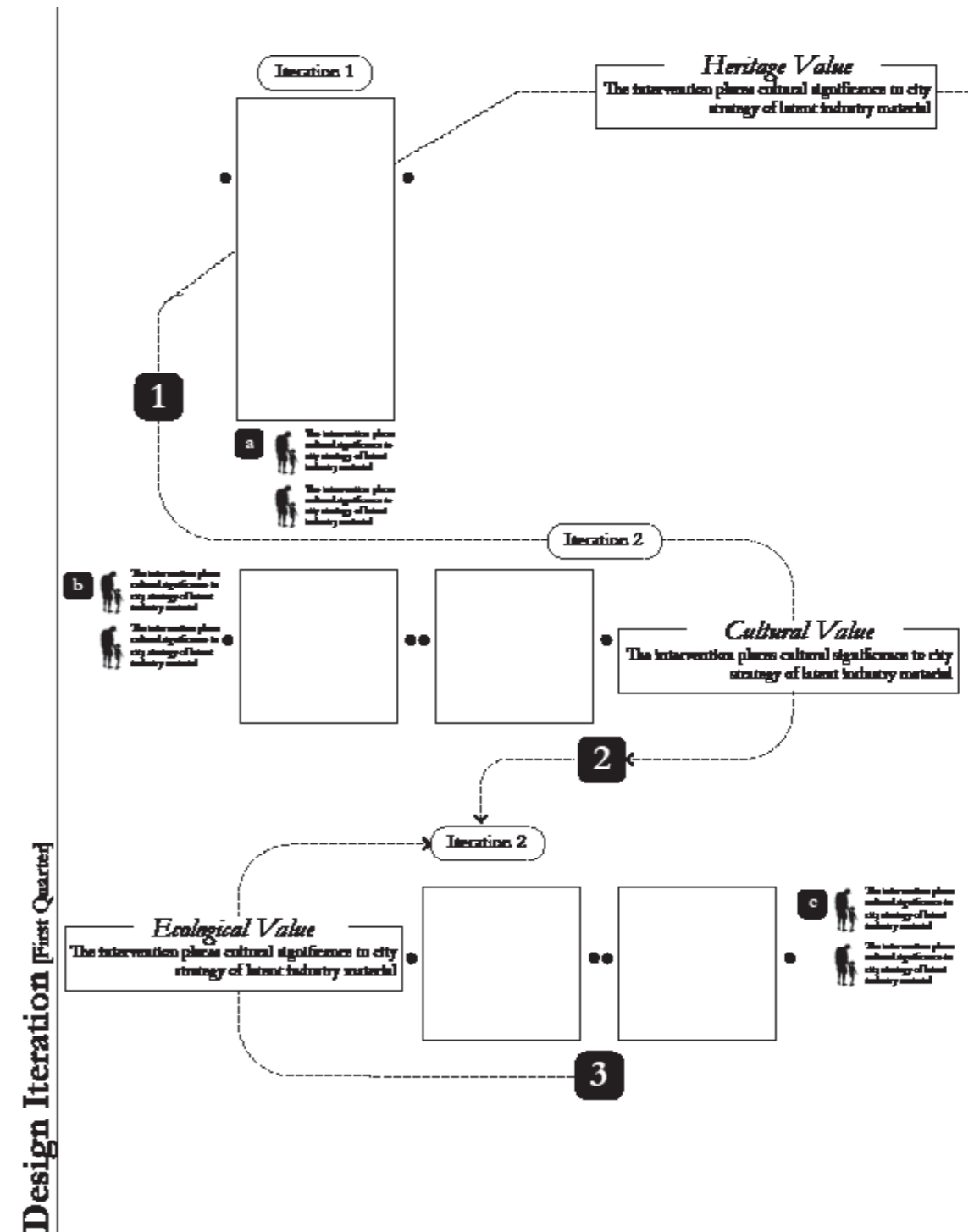


Fig.7.10 Design iteration process(Author,2019)

## 7.7. Architectural Vision and Intent

The design process was informed by several main generators/

The current fragmented Wemmer Pan and broader Pioneers Precinct site holds immense significance for both its historical and future opportunities for recreational and urban communities.

### 7.7.1. Urban context: edges and threshold

The Rosettenville road to the west of the site provides the formal entrance. While constructed inlets form barriers and isolate the site, The building therefore becomes an extension to the internal and external walking patterns

### 7.7.2. Plaza

By shaping the building along a public route along the Wemmer Pan dam, a connection between the Transport museum(site), La Rochelle (human settlement) and artificial landscape of the mine residue, the building is layered according to these changing spatial conditions.

### 7.7.3 Pier

The pier intends to host the natural pools and public related activities for markets and festivals. At the end of the pier is a secondary watch tower intended for viewers who wish to spend private time people-watching or viewing the water.

### 7.7.4 Water

Water is essential to the design of the recreational waterscape; The building is structured around the existing dam water body.

Due to the condition of the water, a secondary retention structure directs water for use. From the dam water is directed to floating wetlands and gradually released into a sump and gravel bed for further filtration.

A series of mapping exercises in order to understand the sites change over time and influence of urban change.

Typological Matrix [summary of design informants]

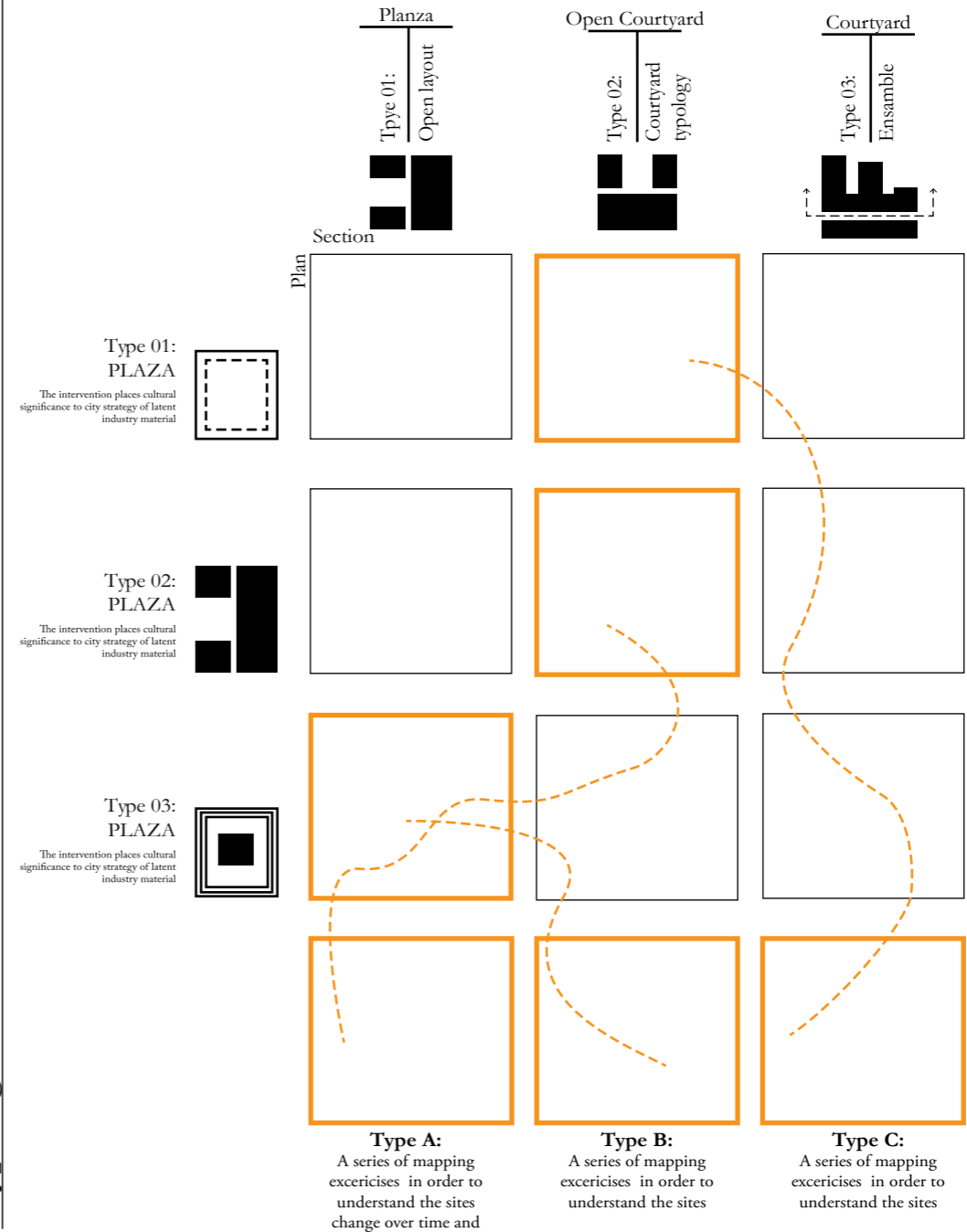


Fig.7.11 Design process of exploring the roof and relationship to water (Author,2019)



## 7.8 Conceptual Models

The design process included several model iterations to explore 3-dimensionality of the scheme.

The architectural layering and structure of the building starts with the public promenade and extends into secondary public spaces, like the courtyard and eventually culminating into private space.

### 7.7.3. Contextual responses

Architecturally, the relationship formed with the existing context starts with the Wemmer Pan rowing club shed currently used for storage. The proposal extends its use into gallery and exhibition space.

### 7.7.4. Urban context: edges and threshold

The walkways proposed for the water bridge Each model iteration engages with edges and model.

### 7.7.5. Spatial layering

By shaping the building along a public route along the Wemmer Pan dam, a connection between the Transport museum(site), La Rochelle (human settlement) and artificial landscape of the mine residue , the building is layered according to to these changing spatial conditions.

### 7.7.6. Visual Access

Two strong axis have been formed using the existing tower as a datum and adding a secondary public tower.

### 7.7.7. Water

The relationship between the existing waters edge and the facility has been ill defined.

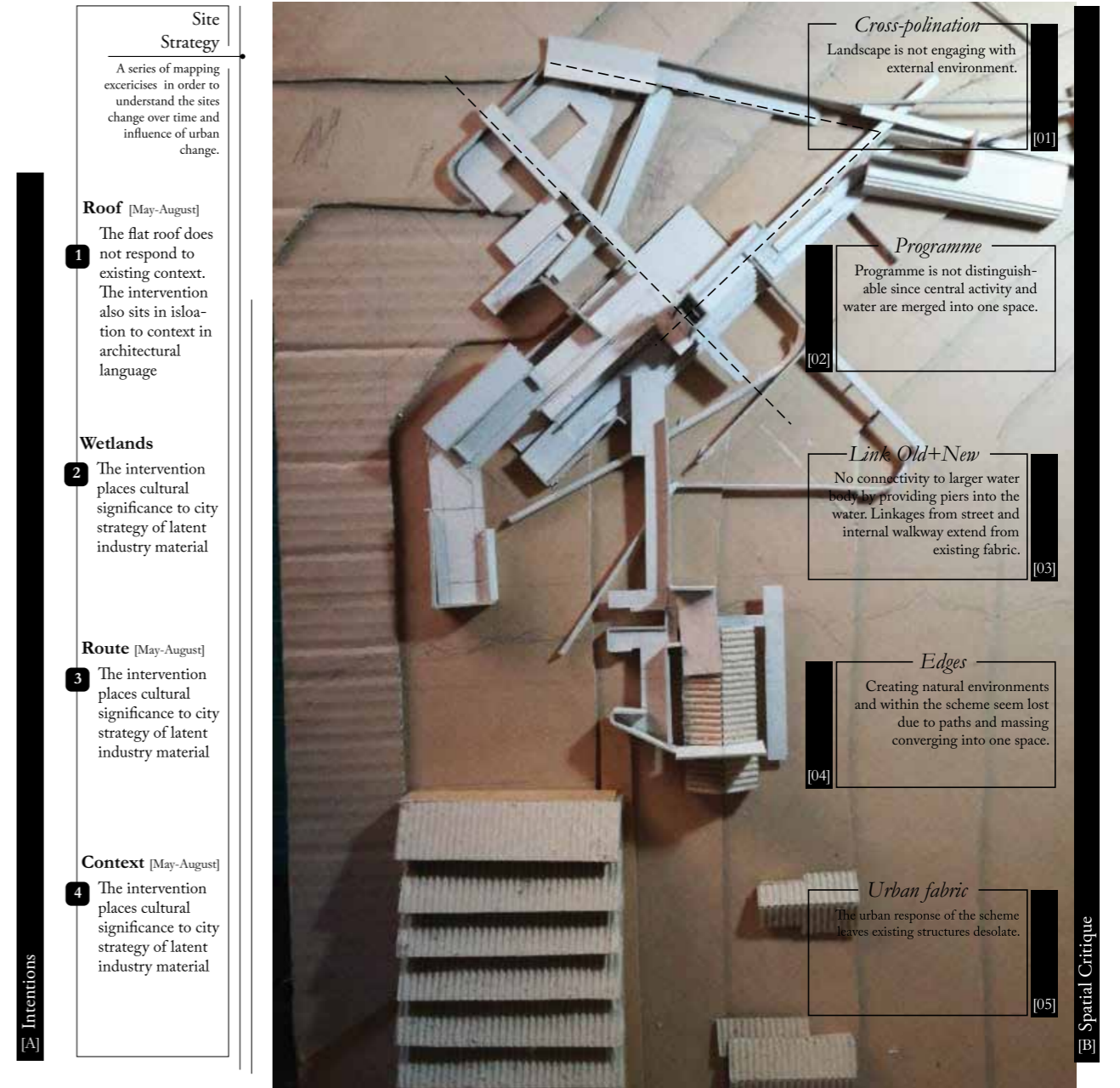


Fig.7.12 Model Exploration (Author,2019)

**Site Strategy**

A series of mapping exercises in order to understand the sites change over time and influence of urban change.

**1 Roof** [May-August]

The flat roof does not respond to existing context. The intervention also sits in isolation to context in architectural language

**2 Wetlands**

The intervention places cultural significance to city strategy of latent industry material

**3 Route** [May-August]

The intervention places cultural significance to city strategy of latent industry material

**4 Context** [May-August]

The intervention places cultural significance to city strategy of latent industry material



Fig.7.13 Model exploration of pedestrian routes (Author,2019)

**Site Strategy**

A series of mapping exercises in order to understand the sites change over time and influence of urban change.

**1 Roof** [May-August]

The roof exploration considered how light enters the space, as well as programmatic internal requirements.

**2 Wetlands**

Allowing water to seep into the building begins to form a relationship to the surrounding water body.

**3 Route** [May-August]

A clearer route is defined between tectonic and stereotomic elements. The axial route begins to define a promenade.

**4 Context** [May-August]

Proposed boathouse engages with existing heritage fabric.



Fig.7.14 Tectonic and Stereotomic model exploration (Author,2019)

## 7.8. Layout Plan development [01]

-Programming (adjacent vs self-contained)

### Conceptual layout

A visual relationship becomes important as the nature of the scheme lies inherently in its public spaces and relationships formed around and between them.

### Initial layouts

**Intention** To minimise floor area and find cohesion between three proposed programmes

### Relationship to pier and water

**Project Year:** 2018

The purpose of intervening on the site is to foster relationships between existing cultural institutions and layers of the artificial landscape configured surrounding the site. The northern and western edge of the study area borders with the mining belt, that are considered 'working areas' characterised by mining, manufacturing (industry), large-scale infrastructure, large commercial users such as warehouses and depots. While public environments are generally unattractive along this edge, the new relationship between proposed 'play areas' which include large scale recreation, relaxation and entertainment facilities where people have fun, play sports and games could counteract the negative effect of 'working areas' have on this environment.

### Spatial Layout

The public pier and promenade allows for a north-south movement

The public relationship between the stages of water is natural technologies are exposed in order to make the public passively aware of the buildings function of cleaning the dam.

To be removed within the landscapes but share the common source of water

The atmosphere of public, indoor therapy pools and saunas become an important driver to creating successful wet environments. By locating the pools to the rear of the building with a northern orientation, views to the city skyline

Due to strong winds and the seasonal use of the scheme the ideal relationship between indoor and outdoor areas were required to strengthen the scheme and its use throughout the year. Forming the private realm to the north of the scheme includes all patients

The result of its on-going isolated management and use of public space is further exacerbated by the existing water condition and quality of use for water sport and recreational use.

### Programme Layout

-Layout configuration (circuit vs shuttle)

-Accessibility (separate vs continuous)

-Control of vista and motion (controlled vs uncontrolled)

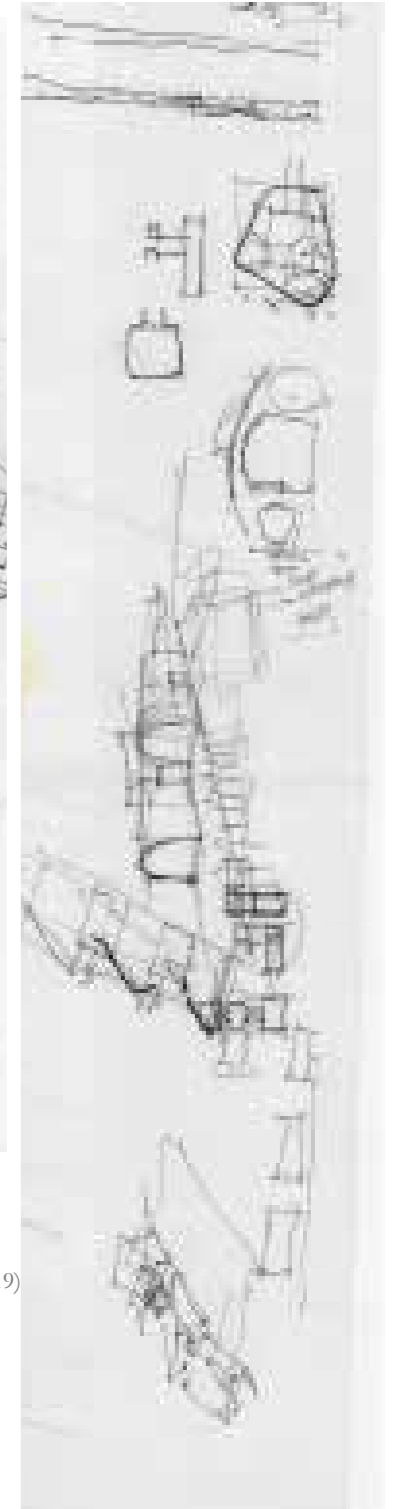
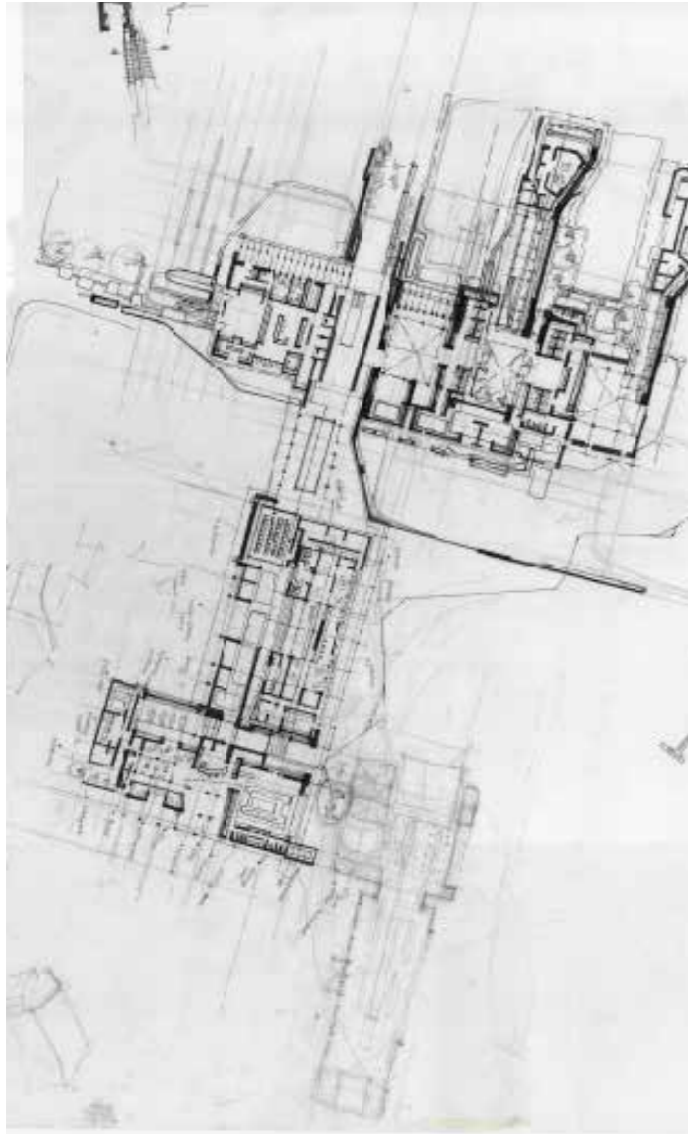


Fig.7.15 Sketched development plan (Author, 2019)

## 7.9. Plan Development[Iteration 01]

**Plan development:**

May-June

**Intention(s):** Developing the urban edge and related public and private functions.

**Project Year:** 2018

### [01] Plan development

[1] The internal layout and functioning of the programme and experiential route, is expressed through public circulation routes into the waterscape is proposed to merge the ideas of leisure uses.

### [02] Aquatic Therapy

[2] The placement of the aquatic therapy spaces to the north of the site translates the sequence in which the body would move in various states and temperature. The topographical relationship to understand the relationship between being the spectacle in public space and retreating into public environments.

### [03] Public Pavilion

[3] The core public pavilion serves to as a backdrop to all public activities, the relationship between the existing towers and the containment of public is achieved as a found landscape re-inhabited for use of the public spaces.

The core theme to creating public space in this environment merges between facilitating and revitalising water use and the ability for it to become a theatrical public space of event and festival.

### [04] Boathouse

[4] The extension of facilities to the existing Wemmer Pan club, allows for the public interaction of the facility, providing an exhibition gallery for canoe suspension.

The internal function of the southern edge building includes a trophy room, a public platform for public ferry rides, and administration area.



Fig.7.16 Floor Plan iteration [01](Author, 2019)

## Plan Development [Iteration 02]

Plan development: Iteration 02

January-May

Intention(s): Bjarke Ingels Group & Francesco Apuzzo, Jan Liesenberg

Project Year: 2018

### [01] Plan development

[1] The facility functions fundamentally as two wings that converge into a public plaza. Relationships formed by water, water users and function become the threshold between the buildings edge

### [02] Aquatic Therapy

[2] The placement of the aquatic therapy spaces to the north of the site translates the sequence in which the body would move in various states and temperature. From the plunge pool, to the lap pool, warmer pools are situated to the far north allowing for natural light. The progression from warm to cold water internally moving east west respectively.

The topographical relationship to saunas are then sunken into the ground for privacy away from core functions of the building.

### [03] Public Pavilion

[3] The route and use of the public pavilion. The relationship formed by pavilions and the relationship of building edges

### [04] Boathouse

[4] The extension of facilities to the existing Wemmer Pan club, allows for the public

interaction of the facility, providing an exhibition gallery for canoe suspension.

The internal function of the southern edge building includes a trophy room, a public platform for public ferry rides, and administration area.

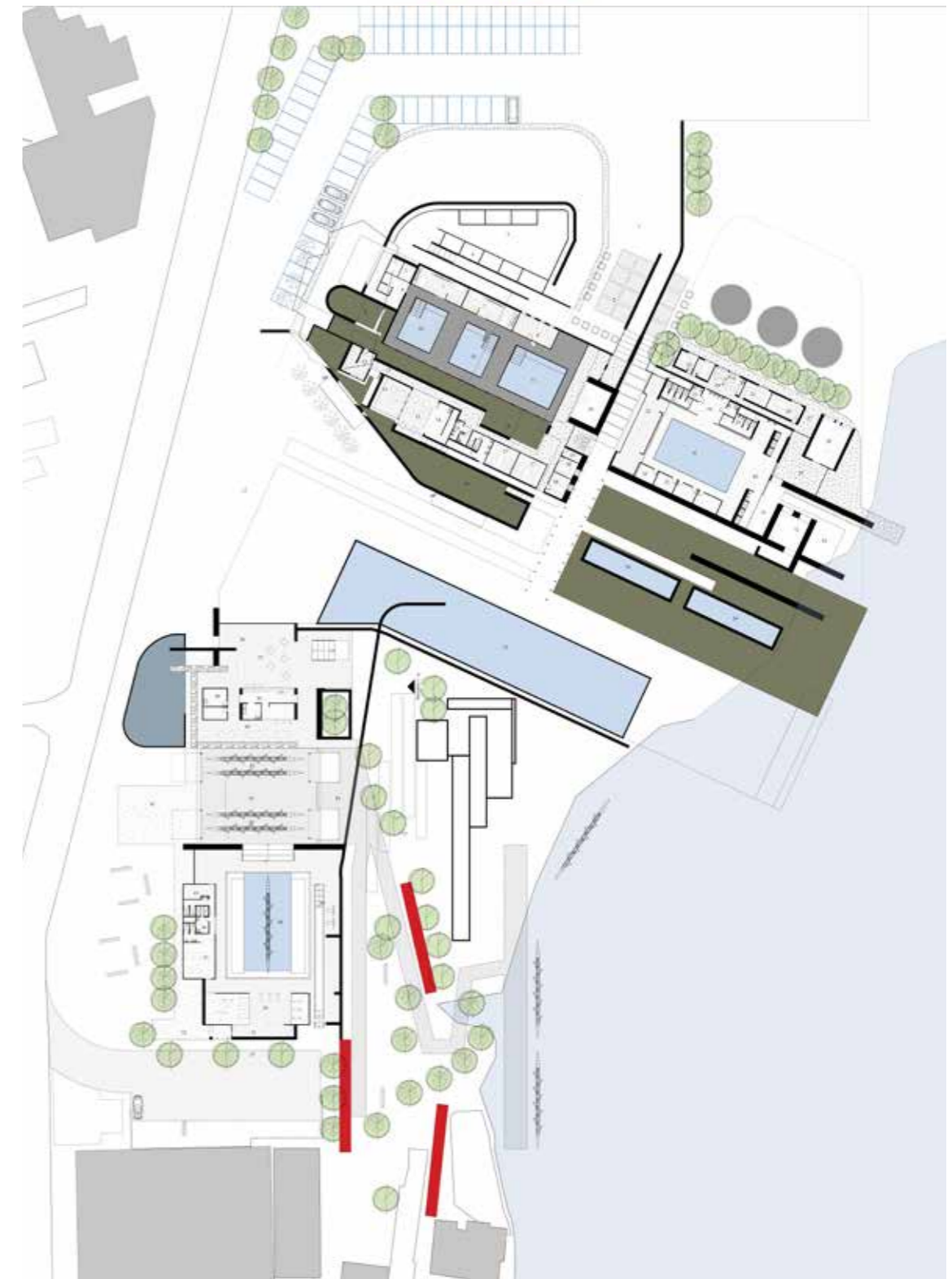


Fig.7.17 Floor plan iteration 02 (Author, 2019)

## 7.10. Roof Development

Roof development:

September-October

Material(s)

Project Year: 2018

-Control of vista and motion  
(controlled vs uncontrolled)

-Programming (adjacent vs self-contained)

A visual relationship becomes important as the nature of the scheme lies inherently in its public spaces and relationships formed around and between them.

### Final conceptual design

The purpose of intervening on the site is to foster relationships between existing cultural institutions and layers of the artificial landscape configured surrounding the site. The northern and western edge of the study area borders with the mining belt, that are considered 'working areas' characterised by mining, manufacturing (industry), large-scale infrastructure, large commercial users such as warehouses and depots. While public environments are generally unattractive along this edge, the new relationship between proposed 'play areas' which include large scale recreation, relaxation and entertainment facilities where people have fun, play sports and games could counteract the negative effect of 'working areas' have on this environment.

The result of its on-going isolated management and use of public space is further exacerbated by the existing water condition and quality of use for water sport and recreational use.

### Defining Materials

The public pier and promenade allows for a north-south movement

The public relationship between the stages of water is natural technologies are exposed in order to make the public passively aware of the buildings function of cleaning the dam. Architecturally

To be removed within the landscapes but share the common source of water

The atmosphere of public, indoor therapy pools and saunas become an important driver to creating successful wet environments. By locating the pools to the rear of the building with a northern orientation, views to the city skyline

Due to strong winds and the seasonal use of the scheme the ideal relationship between indoor and outdoor areas were required to strengthen the scheme and its use throughout the year. Forming the private realm to the north of the scheme includes all patients

### Five characteristics are established for the scheme

-Layout configuration (circuit vs shuttle)

-Accessibility (separate vs continuous)

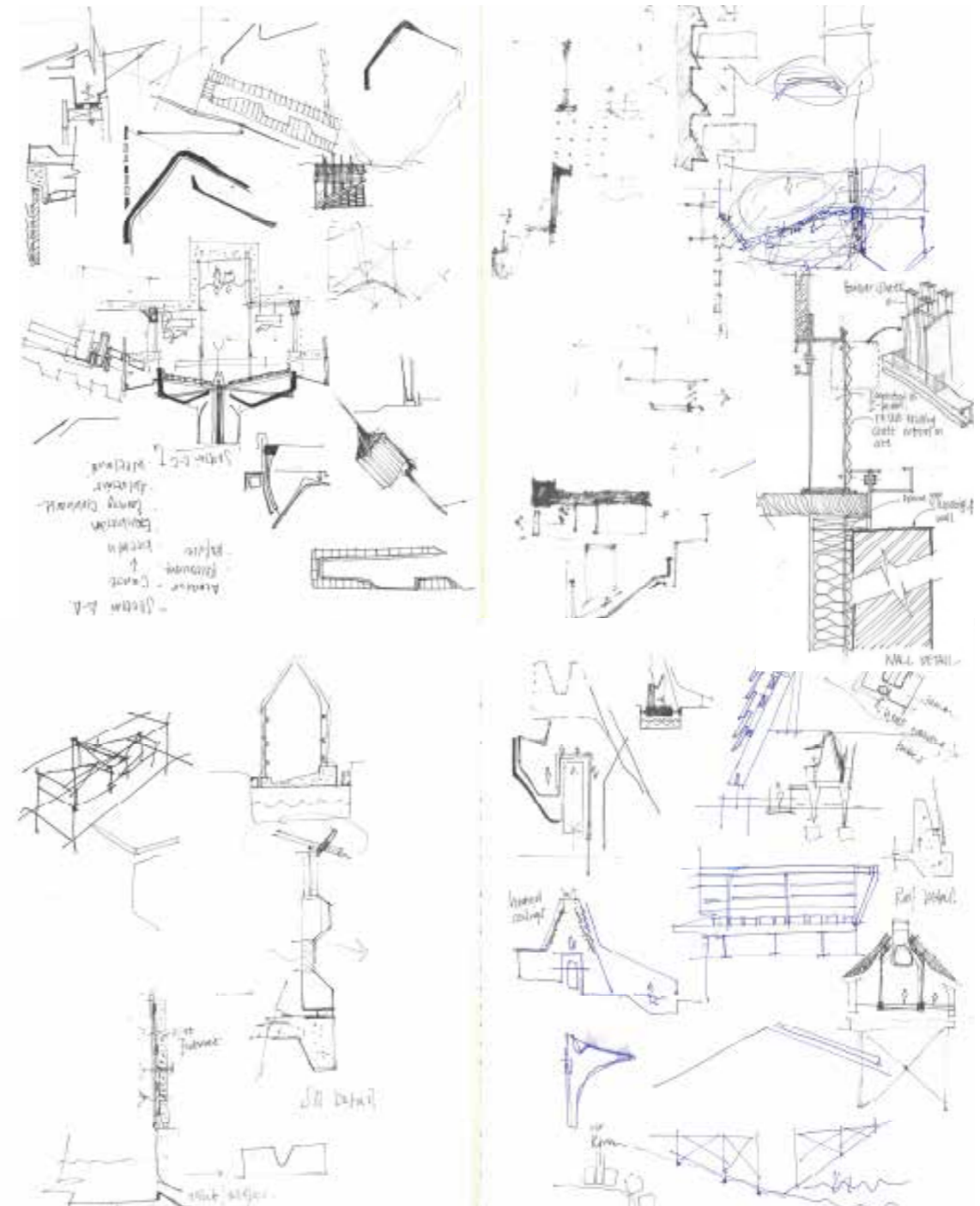


Fig.7.18 V Sketches of roof and structure exploration (Author, 2019)

### 7.11. Final Site Development Plan

Plan development: Iteration 05

September-October

Site plan description : Approach

Project Year: 2018

#### [A] Entrance/parking/ drop-off:

The layout of the existing road network and existing parking is changed to open the public pier.

The public pier and promenade allows for a north-south movement

The public relationship between the stages of water is natural technologies are exposed in order to make the public passively aware of the buildings function of cleaning the dam. Architecturally

To be removed within the landscapes but share the common source of water

#### [B] Reception/assembly:

Depending on the use and user, the location of entry is located. Main access for public leads off from the promenade.

atmosphere of public, indoor therapy pools and saunas become an important driver to creating successful wet environments. By locating the pools to the rear of the building with a northern orientation, views to the city skyline

Due to strong winds and the seasonal use of the scheme the ideal relationship between indoor and outdoor areas were required to strengthen the scheme and its use throughout

the year. Forming the private realm to the north of the scheme includes all patients

#### [C] Public plaza:

The function of the public plaza is multi-valent, meaning that the space functions for both dry and wet activities.

-Accessibility (separate vs continuous)

-Control of vista and motion (controlled vs uncontrolled)

#### [D] Watch Tower/ Light house:

The existing tower is repurposed the fire staircase.

#### [E] Tranquility square:

The purpose of intervening on the site is to foster relationships between existing cultural institutions and layers of the artificial landscape configured surrounding the site. The northern and western edge of the study area borders with the mining belt, that are considered 'working areas' characterised by mining, manufacturing (industry), large-scale infrastructure, large commercial users such as warehouses and depots.

#### [F] Entertainment square:

While public environments are generally unattractive along this edge, the new relationship between proposed 'play areas' which include large scale recreation, relaxation and entertainment facilities where people have fun, play sports and games could counteract the negative effect of 'working areas' have on this environment.

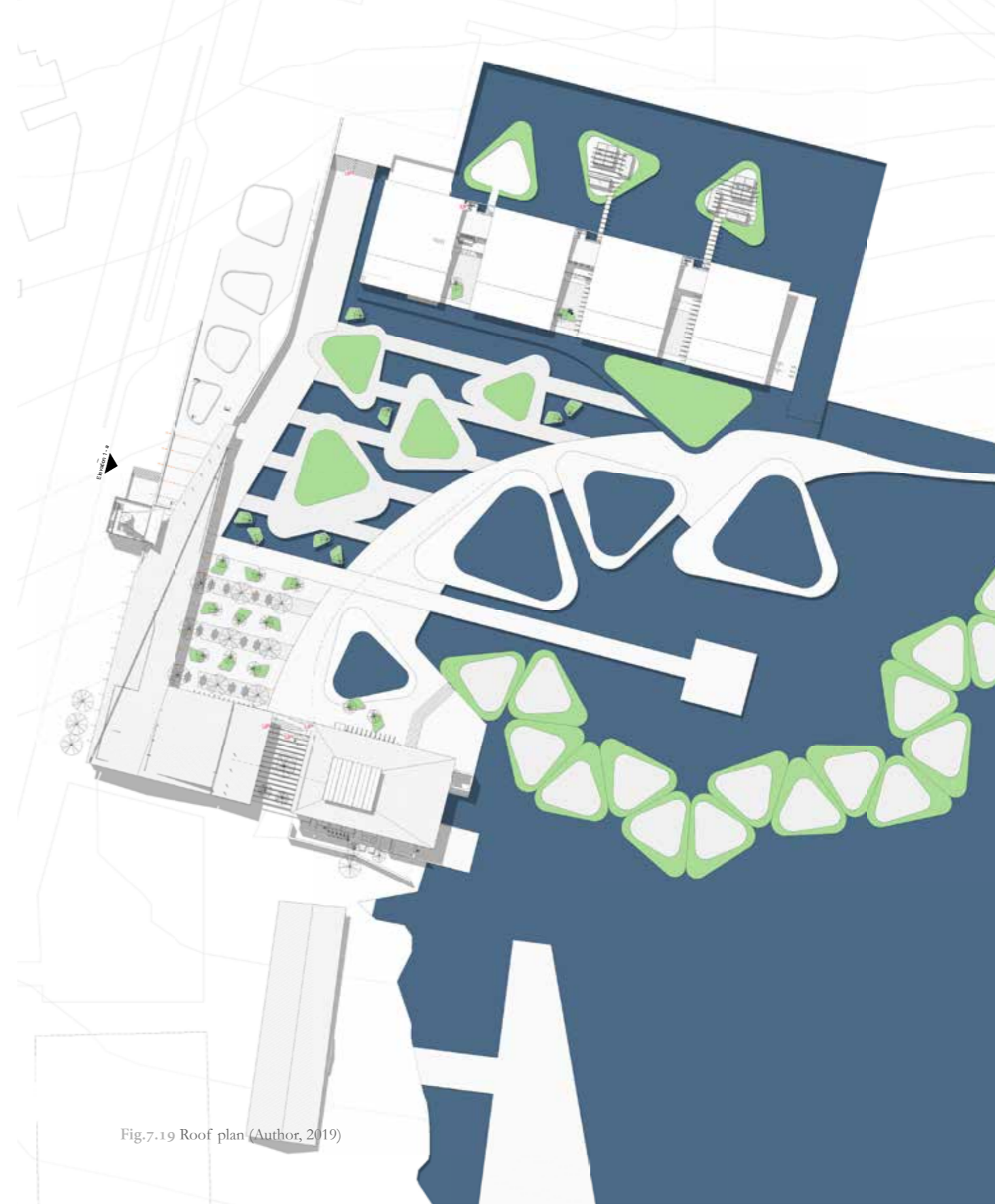


Fig.7.19 Roof plan (Author, 2019)



## \Final Design [04]

Plan development:

September-October

Site plan description: Approach

Project Year: 2018

-Control of vista and motion  
(controlled vs uncontrolled)

-Programming (adjacent vs self-contained)

A visual relationship becomes important as the nature of the scheme lies inherently in its public spaces and relationships formed around and between them.

### Final conceptual design

The purpose of intervening on the site is to foster relationships between existing cultural institutions and layers of the artificial landscape configured surrounding the site. The northern and western edge of the study area borders with the mining belt, that are considered 'working areas' characterised by mining, manufacturing (industry), large-scale infrastructure, large commercial users such as warehouses and depots. While public environments are generally unattractive along this edge, the new relationship between proposed 'play areas' which include large scale recreation, relaxation and entertainment facilities where people have fun, play sports and games could counteract the negative effect of 'working areas' have on this environment.

The result of its on-going isolated management and use of public space is further exacerbated by the existing water condition and quality of use for water sport and recreational use.

### Therapy sequence

The public pier and promenade allows for a north-south movement.

The public relationship between the stages of water is natural technologies are exposed in order to make the public passively aware of the buildings function of cleaning the dam. Architecturally

To be removed within the landscapes but share the common source of water

The atmosphere of public, indoor therapy pools and saunas become an important driver to creating successful wet environments. By locating the pools to the rear of the building with a northern orientation, views to the city skyline

Due to strong winds and the seasonal use of the scheme the ideal relationship between indoor and outdoor areas were required to strengthen the scheme and its use throughout the year. Forming the private realm to the north of the scheme includes all patients

### Five characteristics are established for the scheme

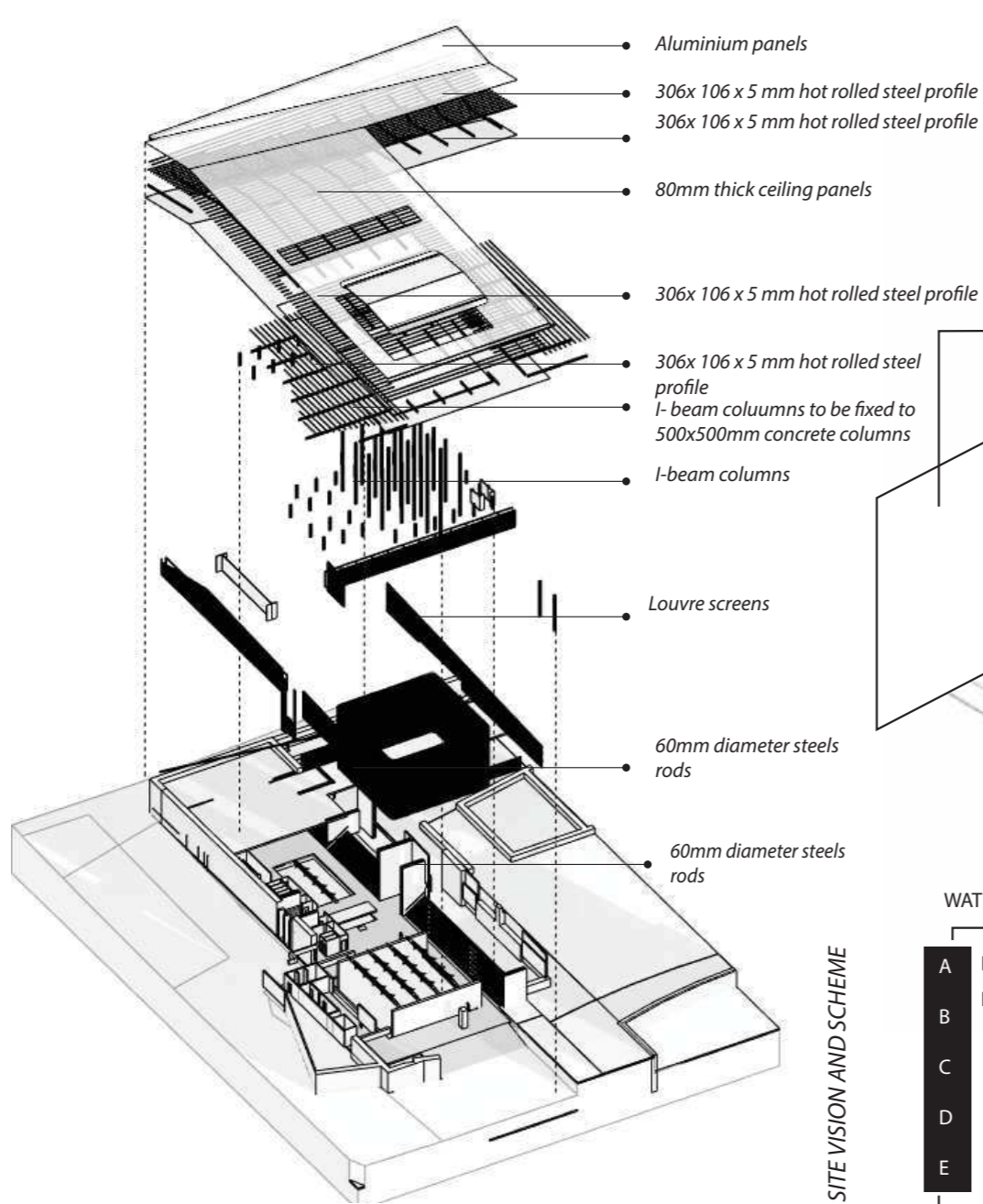
-Layout configuration (circuit vs shuttle)

-Accessibility (separate vs continuous)



Fig.7.20 Floor plan layout (Author,2019)

AQUATIC RECREATION HUB AXONOMETRIC



SITE VISION AND SCHEME

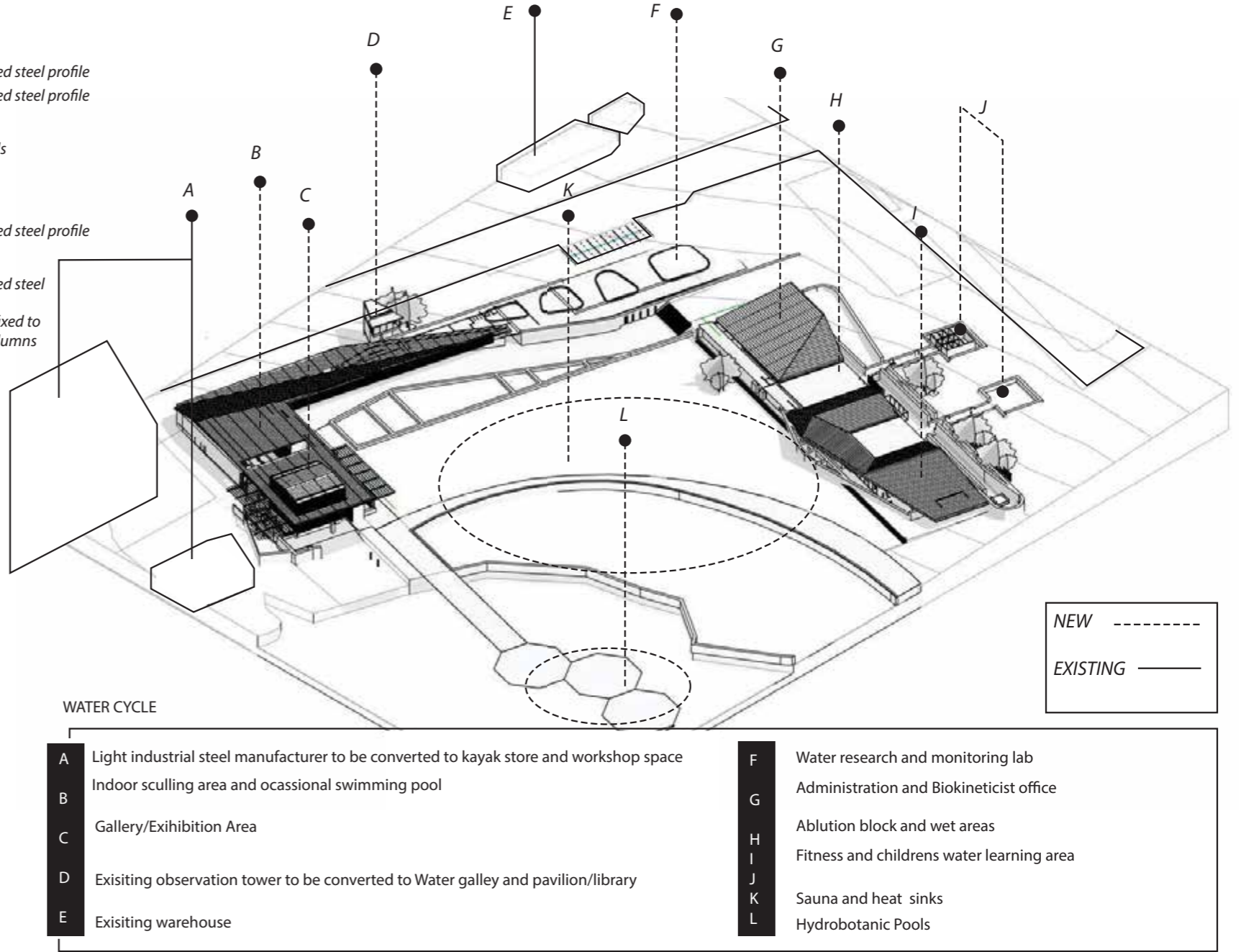


Fig.7.21 Exploded later of the building (Author,2019)

Fig.7.22 Building functions in axonometric(Author,2019)



7.23



7.24



7.25



7.26



7.27



7.28

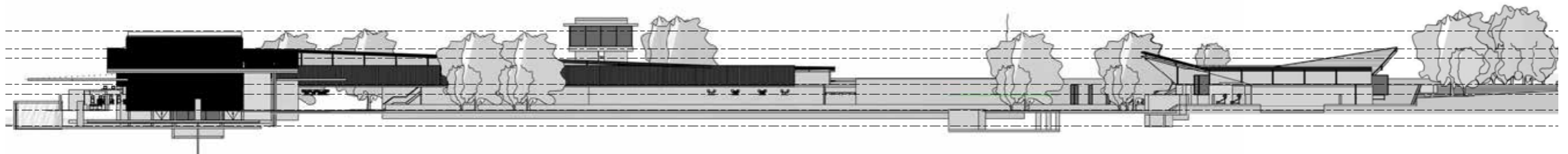


Fig.7.23 View looking toward existing tower (Author,2019)

Fig.7.24 Stereotomic brutalist language of tower (Author, 2019)

Fig.7.25 Logo of SANTA Association (Author, 2019)

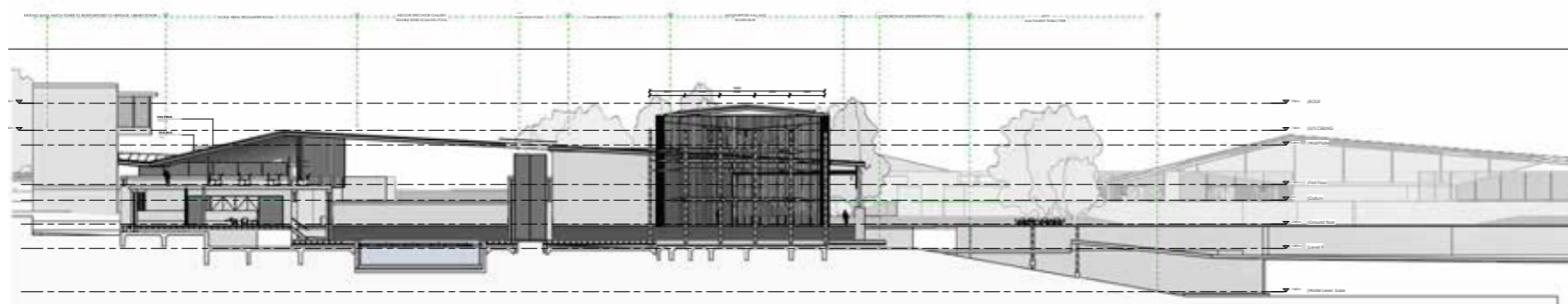
Fig.7.26 Existing water condition (Author, 2019)

Fig.7.27 View towards mine dump from dam edge (Author, 2019)

Fig.7.28 Deteriorated rail used for childrens rides (Author, 2019)

Fig.7.29 Conceptual section 01 (Author, 2019)

Fig.7.30 Conceptual Section 02 (Author, 2019)



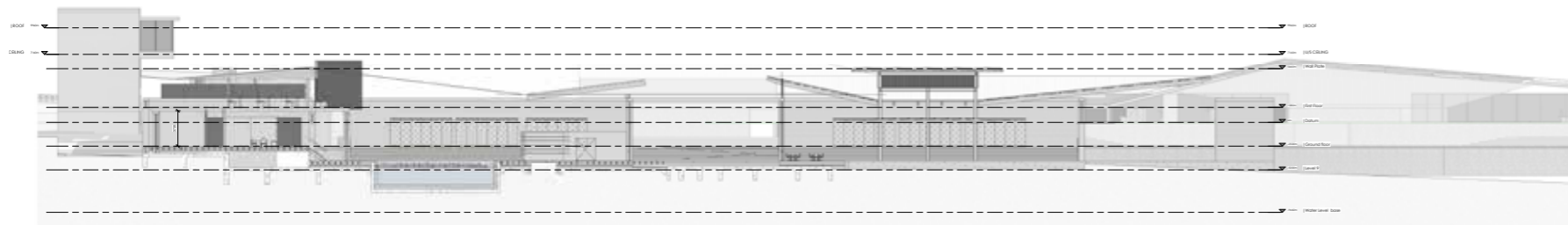
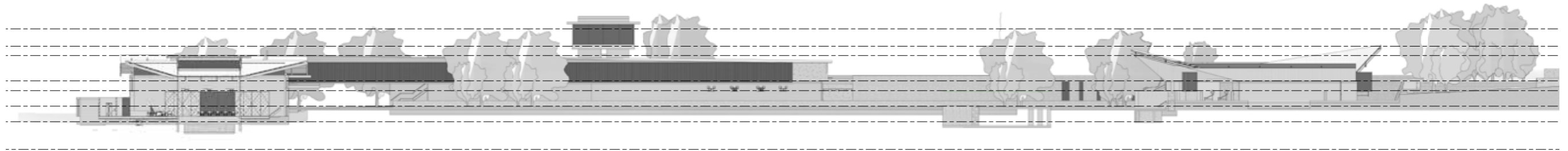


Fig.7.31 Proposed external staircase addition (Author,2019)

Fig.7.32 Extension of platforms from existing structure (Author, 2019)

Fig.7.33 East Elevation Iteration 02 (Author,2019)

Fig.7.34 Section A-A (Author, 2019)

# TECHNICAL

# RESOLUTION

# 8

*The following chapter explores the technical assembly of the urban catharsis as result of technical and conceptual considerations. The interventions structural intention, materiality and movement are explained and systematic responses to the contextual contaminated water, water, ventilation and light is discussed with reference to the experience of water and relationship to healing/escape.*

## 8.1 Introduction

## 8.2 PART A\_ Tectonic Concept

## 8.3 Strucutral Concept

## 8.3 PART B\_ Water Strategy

Current water condition and hydrology of Wemmer Pan

Water and body contact

Establishing pH levels

Designing floating wetlands

## Aerobic and Anearobic Process

Overall site strategy

Technical Precedent

Wetland System

## 8.4 PART C\_ Material Study

Current Materials

Mine dump sand as aggregate for masonry blocks

## 8.5 PART D\_ Heating and Cooling

## 8.1. Introduction

*“Architecture is a sort of theatrical producer, the man who plans the settling of our lives (Ramusen, 1964) to act as the physical manifestation to symbolic content of ethos. Creating the experience of place through embodied imagination.”*

Contemporary consumption practice extends to the consumption of space. The lifestyle concerns of social participants are increasingly important in defining the overall rationale for driving, other urban social processes, quality of life concerns, and related considerations. There is a rise of leisure pursuits compared to “work”.

As a strategy for creating closed-loop cycles for seemingly unrelated programs relationships throughout the project, the themes of urban entertainment, leisure and public space inform the techne of the design.

The architectural intervention aims to mediate between the dissertations themes by drawing on the memory of the site as a site of amusement and leisure by creating architecture of performance through the use of water. By using the existing resource on site, the proposed material palette, the re-use of mine tailing waste from the scarred landscape and the water body. Residue deposit means any residue stockpile remaining at the termination, cancellation or expiry of a prospecting right, mining right, mining permit, exploration right or production right.

Different tailings disposal methods indicated that an integrative, proactive approach to tailings management is needed for improved, environmental, social, and economic outcome.

The significant architectural and urban dichotomy between water and artificial landscape of mine tailings suggests a possibility for the use of the mine dump sand as building material exists at the

Wemmer Pan region. The mining tailing may be used as an aggregate; the materials used were mine tailings, water and cement.

The following technical investigation and resolution are aimed at giving expression to the main concepts of genius loci to the creation of an archetypal landscape through the consideration of leisure and healing spaces found at Wemmer Pan.

Material and construction methods are inspired by the surrounding terrain of unused mine tailings as a construction material and the strategic purification of water as a binding catalyst for water related activities to exist for the proposal.

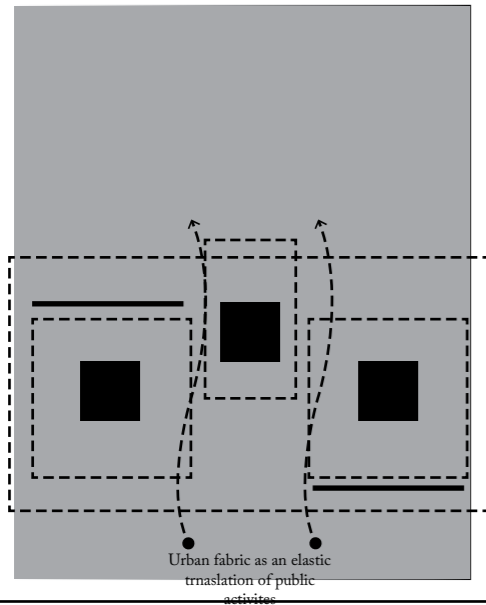
The technical design investigation will focus on three main elements;

- The technical process in terms of water systems and process implementation
- The haptic approach towards technical resolution.
- The site scale and architectural scale is considered for the environmental strategy

Three scales of technical resolution are explored from a site scale pertaining to the water strategy and the architectural scope, firstly the rehabilitation of existing contaminated water body to create a conducive environment for recreational activities, the detail resolution of the bio-filter system, floating wetlands and pedestrian access from the pier, construction elements (walls and retaining structures) that are formed by the re-use of mine tailings within the focus area will be investigated for the detailed and/or technical design resolution. All three elements has systems or processes as main focus areas, construction of mine tailing bricks for walls along the waters edges.



Fig.8.1 Collage of tectonic concept (Author, 2019)



## PART A\_ Tectonic Concept

*“Water implies a series of connectedness between the body and the city, between social and bio-physical systems, between the evolution of water networks and capital flows and between the visible and invisible dimension to urban space.”*

- (Gandy, 2004).

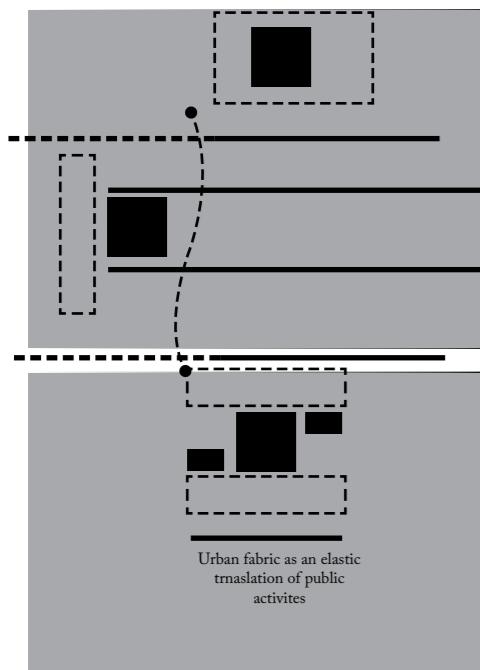


Fig.8.2 Conceptual Approach to scheme (Author, 2019)

The tectonic concept postulates three technical approaches that developed as a result of a comprehensive understanding of the current conditions and the reason for its' demise and inability for resilience of the Santarama Miniland.

The following conceptual approaches were employed in order to guide the architectural strategy,

**[A]** The need to consider approaches to the way public space is operated and designed become apparent, especially for the future prospect for the historic relationship of mine tailings landscape surrounding the study area and the states of water from the process of extension and process of the design argument.

**[B]** The new intervention mediates between architecture for physical and emotional well-being and how it plays out within a public urban environment crucial role in the intervention. As did the amusement park that provided a place of escape and retreat as an enclave to the city, so does the hydro-path, as a point for release. The architecture responds to the traditional aspect of hydrotherapy as an alternative medium of playfulness and release for the emotional and physical well-being of users.

**[C]** The underlying formal layout of the internal space is carefully modeled path of circulation which leads bathers to certain predetermined points, the perspective and panoptikon of the public environment either ensures or denies the viewer to the city, surrounding industrial legacy of mine tailings and water.

## Structural Concept

Fig 277 shows the developed conceptual and structural concept: the plinth creates a heavy base which anchors the building into the landscape. This allows for a thermal mass, the conceptual intention of translating the idea and presence of the surrounding landscape of Johannesburg's mining legacy a physical manifestation and desertion of a scarred landscape.

The structural system exposes the layers of sand through rammed earth and hierarchically forms the thermal mass for the building.

### Aesthetics and Structure

In terms of the aesthetic in creating leisure environments the process of making public space

### The narrative

As a site inherently defined by leisure and recreation, the role of architecture in the scheme intends to act as a sensory device that is pivotal in the technification for places that mediate between hedonism, healing and escape.

The technical investigation of the hydro-path explores two integrated structural concepts;

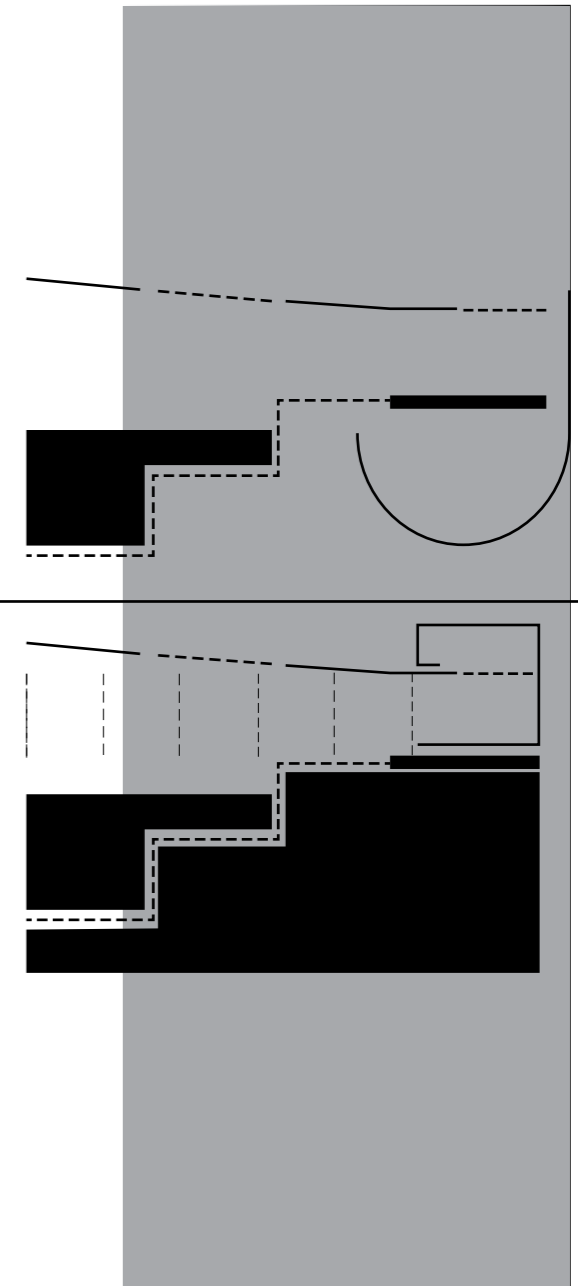
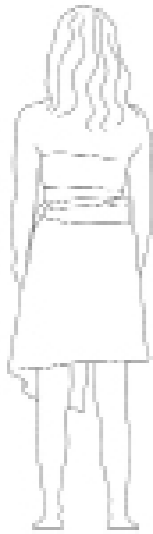


Fig.8.3 Structural concept to scheme (Author, 2019)



## PART B\_ Water strategy

Given the history and the climate of Johannesburgs water as both a political, social and economic asset to the city. Due to the arid climate, water has always been a limitation for economic development, especially since Johannesburg is globally the only city of this size that hasn't been built on a river, lake or seafont (Turton et al., 2006).

Passive treatment systems include the use of anoxic limestone drains, successive alkalinity producing systems and wetlands. In anoxic limestone drains the acid drainage flows through a constructed channel of coarse limestone gravel (that is covered) under anaerobic conditions.

Experience shows that this treatment system has a relatively short effective lifespan as the alkaline materials in the drain will be consumed or coated, while a sludge or slime may form that requires ongoing maintenance of the system. Successive alkalinity producing systems avoid these problems by increasing the alkalinity in 'clean' drainage streams and then mixing these streams with the acid drainage (IIEA, 2002).

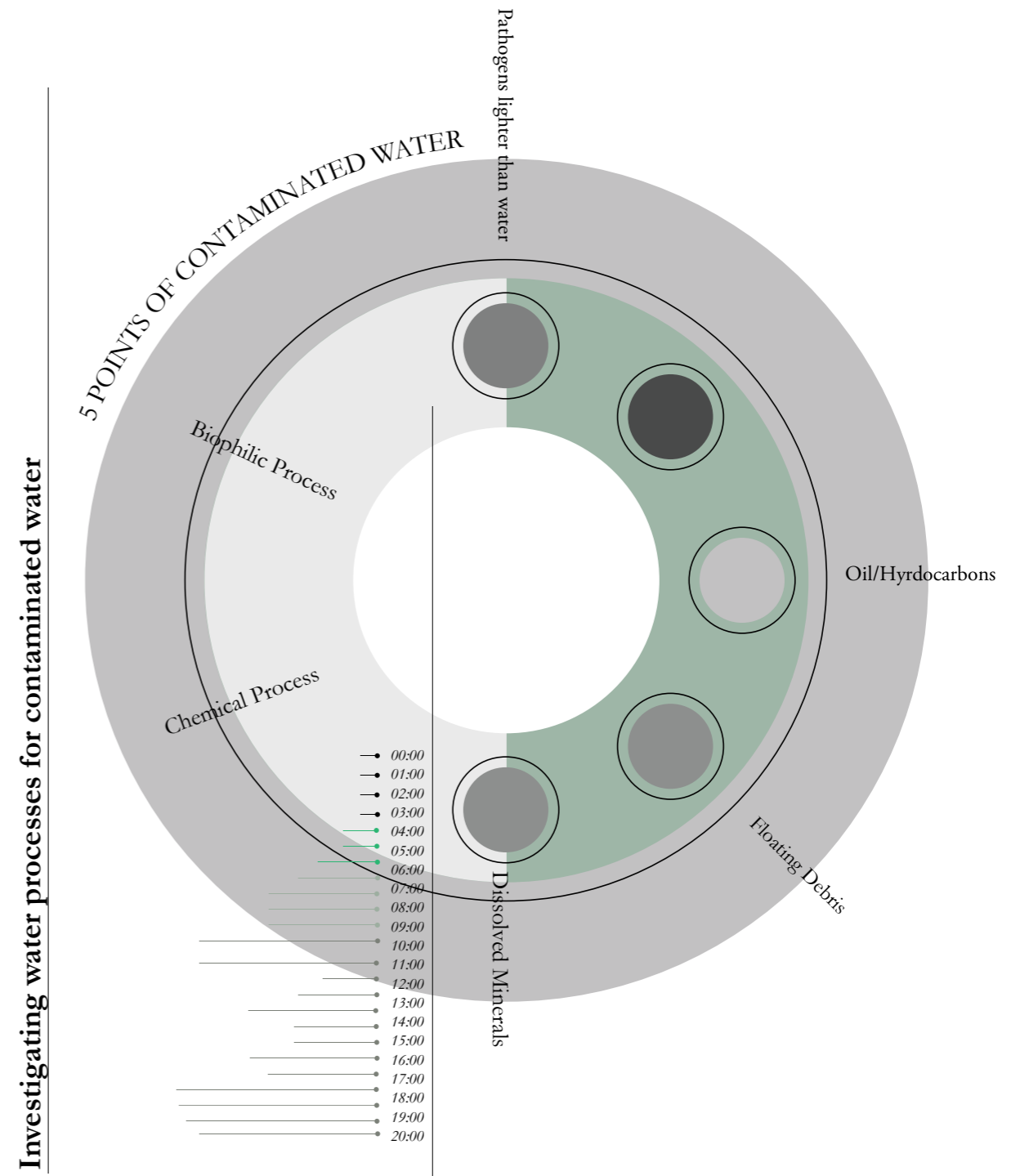


Fig.8.4 Water network strategy (Author, 2019)



## 8.2. Existing water conditions

These classifications have been defined as follows (DWAF, 1996):

### Plan development:

September-October

Site plan description: Approach

Project Year: 2018

Due to the high water demand of the facility, catchment and treatment of water demand are discussed.

### Full contact recreation:

This involves full-body contact with water and includes activities such as swimming and diving. Immersion is common and hence greater probability of ingestion of water.

### Intermediate contact recreation

This class encompasses all forms of contact recreation excluding activities implying full contact recreation. It includes activities such as water, skiing, angling, paddling, wading etc.

### Non-contact recreation

Non-contact recreation encompasses all forms of recreation which do not involve direct contact with water. It includes activities such as picnicking and hiking alongside water bodies and scenic appreciation of water by those residing or holidaying on the shore of the water body.

The following breakdown illustrates the relationship of bodily contact with water and their related activities to users, diagrammatically illustrated in Fig 7.3.

### 8.2.1 Current condition and hydrology of Wemmer Pan

The history of the Wemmer Pans water use from an industrial and recreational perspective span over a 60 year period., this in effect has contributed to it's current state of unacceptable water quality.

In order to create an acceptable waterscape environment, an evaluation of the current condition of the water is required; the following data collated by the Scientific Aquatic services provide an assessment of Wemmer Pan's water quality in order to determine the suitability of the venue for uses recreational resource.

The water quality data for the inlet and outlet sampling points was assessed and compared to the South African Target Water Quality (SA TWQG) of 1996 for recreational use (Van Staden, 2010):

### 8.2.2 Water body contact

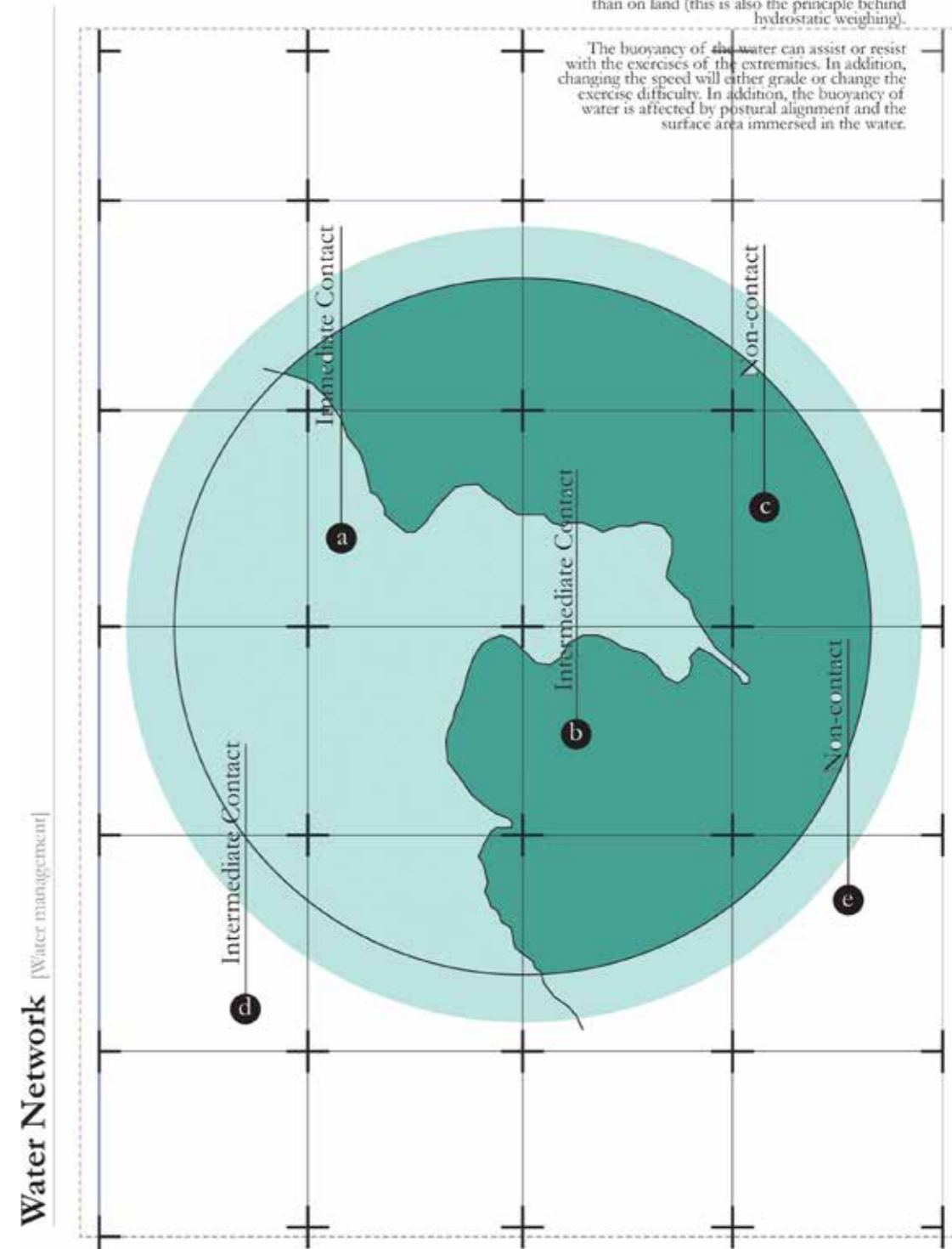
Recreational use of water is classified into three sub-users groups namely;

- Full-contract
- Intermediate contact
- Non-contact recreation

By mapping various existing conditions with possible new relationships.

This is why the body feels less weight in water than on land (this is also the principle behind hydrostatic weighing).

The buoyancy of the water can assist or resist with the exercises of the extremities. In addition, changing the speed will either grade or change the exercise difficulty. In addition, the buoyancy of water is affected by postural alignment and the surface area immersed in the water.



### 8.3. Wemmer Pan's water quality

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#### Step 1: Establishing water quality

The analyses concluded by (Van Staden, 2010) stated the water was unsuitable for full contact and intermediate contact recreational activities due to the following bacterial condition;

E Coli

#### Inlet site

- the water is not suitable for full-contact recreation at most times and the values exceeded the guidelines for intermediate contact until April 2009.

#### Outlet site

- From November 2008 to January 2008 and from February 2009 to April 2009 values were unacceptable for any recreational use.

- E coli values were unsuitable for full contact recreation at all times except between May 2009 to July 2009.

#### pH

pH values are suitable for all recreational uses at all times.

#### Turbidity

Turbidity levels are unacceptable at both the inlet and outlet from spring to autumn, while in winter values are suitable for full contact recreation.

Turbidity is not a limiting factor for intermediate contact recreational use.

Fig.8.5 Diagram illustrating experiential route according to spatial requirements (Author, 2019)

## Step 2: Designing floating wetlands and pedestrian accessibility

Floating island systems, also described as concentrated floating wetlands, provide a successful strategy in storm water management; the ponds are ideally suited for the application in treating wastewater, industrial effluent, mining effluent dams and treatment systems (Harding, 2009).

The following description by (Harding, 2009, p. 30) provides a comprehensive definition of the purpose and function of floating wetlands;

“Floating wetlands are plant able floating island devices that provide a range of water treatment, habitat creation and aesthetic benefits for storm water detentions ponds, wetlands and water features. These units mimic the behavior and natural floating islands, and due to their construction, provide a completely natural appearance.”

Architecturally, these floating wetlands are placed within the existing water body constructed from recycled, nonwoven and nontoxic polyester fibre matrix and provide bridging structures, jetties and walkways. The structure assist with the initial cleaning of the water body of the system benefit the site by increasing water quality and also provide the haptic experience of the leiscapescape to visitors.

These structures provide the catalyst to re-establish the recreational use of water on site for human use and provide the second stem of the cleaning process of the water purification the natural eco-system within the pan as a site strategy and encourage a habitat for fish living and bird life.



*Floating Wetlands:*

The freestanding restaurants, children's theatre, beach huts and various public orientated programs and becomes the subordinate to the needs of the public realm.

*Mentis Grating*

The project draws on contextual clues of the historic productive landscape and extends it's use through an ecologically conscious architectural intervention. The attempt at dealing with the terrain vague

## 8.4. Water Processes

**Plan development:**

**September-October**

**Site plan description:** Approach

**Project Year:** 2018

### 8.3.2 Key urban water processes

The primary objective of treating contaminated water is to dispose of pollutants and industrial effluents without affecting health or causing environmental damage. Biological wastewater treatment introduces contact with bacteria feeding on organic materials in wastewater, which reduces its BOD (Veolia, 2017).

Our engineers understand how to mix aerobic microorganisms, soluble organic compounds and dissolved oxygen for high-rate oxidation of organic carbon. Anaerobic and aerobic digestion is naturally occurring processes that are harnessed to treat waste, produce biogas, provide heat and produce compost. As wastewater treatment processes each of them, singularly or combined, prevent waterborne diseases stemming from municipal or industrial wastewater (Veolia, 2017).

#### Anaerobic biological water treatment

Aerobic treatment is often used as a secondary treatment process and follows an anaerobic stage. This is because anaerobic treatment is preferred when the dissolved organic concentrations of untreated wastewater are high.

Aerobic treatment consists of activated sludge processes or aerated pond. The size of

these can be reduced and tolerance against fluctuations and toxins can be increased by adding a step with moving bed bioreactors (MBBR) to the active sludge treatment

#### Anaerobic

Anaerobic treatment is a slow process and can take up to 3 months, which may be due to septic decomposition. Unpleasant odours may occur in this wastewater treatment process, which Veolia resolves with its sewage treatment processes that include solutions for physical/chemical de-odourisation processes and green biological control.

Many applications are directed towards the removal of organic pollution in wastewater, slurries and sludges. The organic pollutants are converted by anaerobic micro-organisms to a gas containing methane and carbon dioxide, known as biogas.

The dissertation employs both systems to assist in creating a conducive water environment for full body contact, illustrated in Fig 280 and 281.

Ecosystem services delivered by wetlands Internatona temperatu

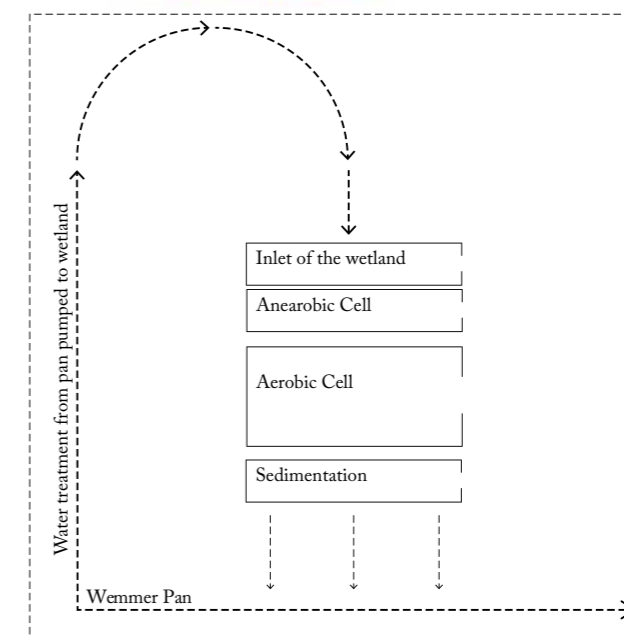


Fig.8.6 Various states of water intersecting with intervention and user (Archdaily, 2014)

Ecosystem services supplied by wetlands Internatona temperatu

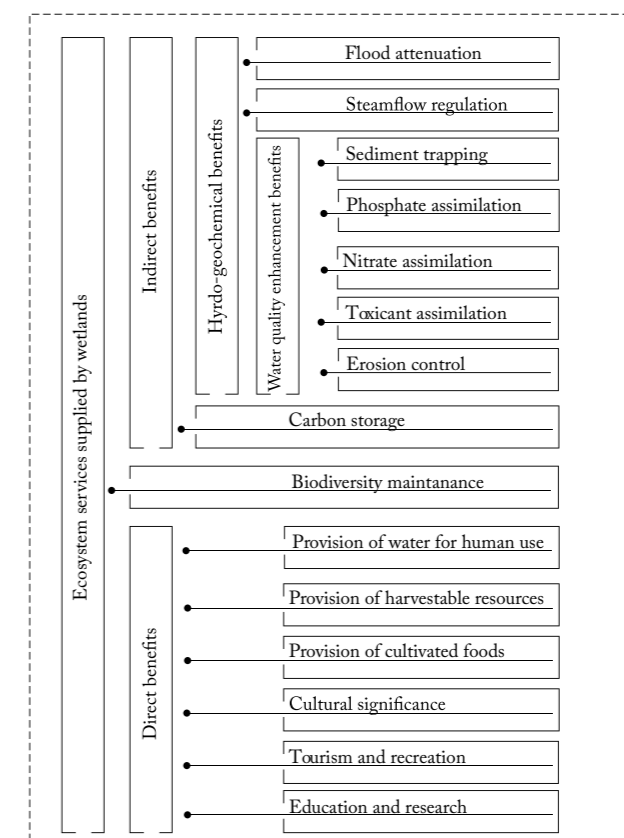


Fig.8.7 Various states of water intersecting with intervention and user (Archdaily, 2014)

## 8.5. Technical Precedent

**Project Name:** Borden Park Natural Pool

**Location:** Edmonton, Canada

**Architect(s):** CH3\*

**Project Year:** 2018

The Borden Park Natural Swimming Pool is the first chemical free public outdoor pool to be built in Canada. The project replaced an existing pool, with a seasonal pavilion and landscaped pool precinct for 400 swimmers.

The brief required to create a large-scale pool with the high-quality water control (a criterion essential for any public bathing facility), while also achieving an environmentally healthy and natural filtration process.

In front of the bath, a series of freestanding restaurants, a children's theater, beach huts for various activities and other life-creating public oriented programs were designed before the private buildings blocks which will rise in the coming years.

As a result, the private residential buildings at O4 become subordinate to the needs of the public realm

The pool involves a balanced ecosystem where plant materials, microorganisms, and nutrients come together within a gravel and sand filtering process to create "living water"

Aarhus Harbor Bath gives the residents and visitors of the island a more engaging and adventurous waterfront experience who can use the harbor bath not only in swim shorts but as a walkway that extends the public realm into the water, breathing new life into an area historically reserved for industrial purposes.

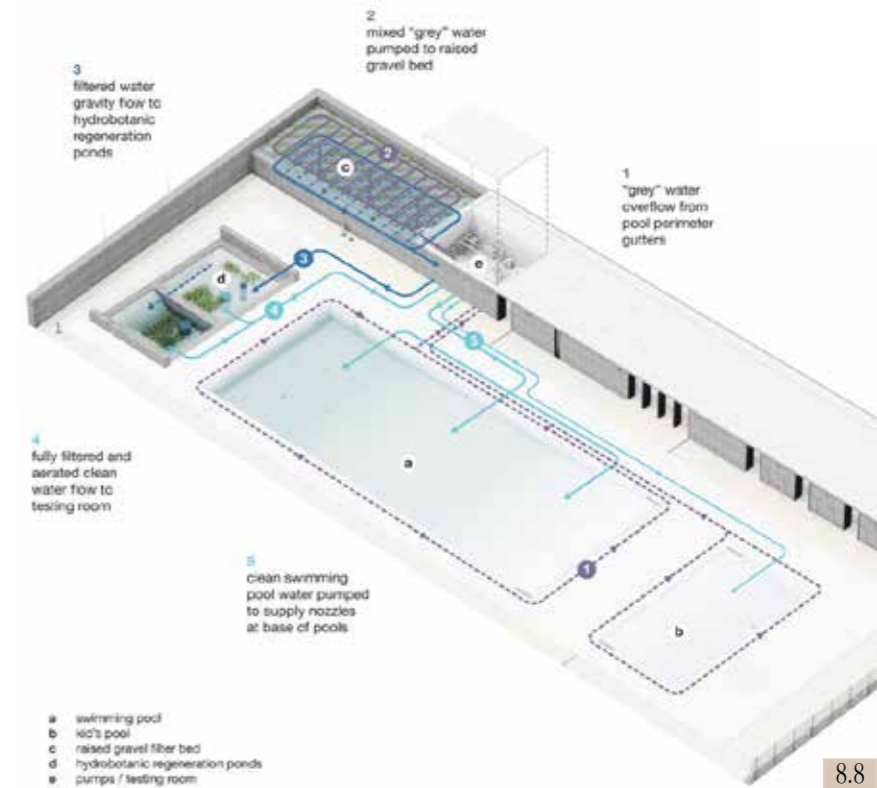
*"The architectonic language and relationship with water allows for the programme to merge with social elements inbetween an industrial context. Proving the possibility of re-use and adaptation of derelict sites."*

*"Together with urban life expert Jan Gehl, the strategy was to create a framework for maximum amount of life with the minimum amount of built substance."*

Fig.8.8 Natural Pool versus chlorinated pool (Archdaily,2019)

Fig.8.9 Natural pools in relation to systems (Archdaily, 2019)

Fig.8.10 Menits grating for water seepage (Archdaily, 2019)



8.8



8.9



8.10

### Social and Cultural Heritage:

The relationship between pools, users and use are distinguishable on plan and the experience of the landscape.

### Project Principles:

The project draws on using systems as an integral tool for cleaning water.

**Type A**  
A series of mapping exercises in order to understand the sites change over time and influence of urban change.

**[01] Stormwater Runoff**  
Stormwater collected and captured through a grease-trap to collect all oil residue. Following into a sump, any debris is caught and collected. Finally filtered through a naturalised channel.

**[02] Gravel beds:**  
Sand and gravel beds placed on park edge allow viewers to engage with the cleaning process

**[03] Filter gravity flow hydrobotanic ponds**  
Filtered water from gravel beds circulate through hydrobotanic ponds.

**[04] Testing Room**  
Once filtered all water is tested in testing lab for suitability for human contact.

**[05] Nozzle pump**  
Once filtered all water is tested in testing lab for suitability for human contact.

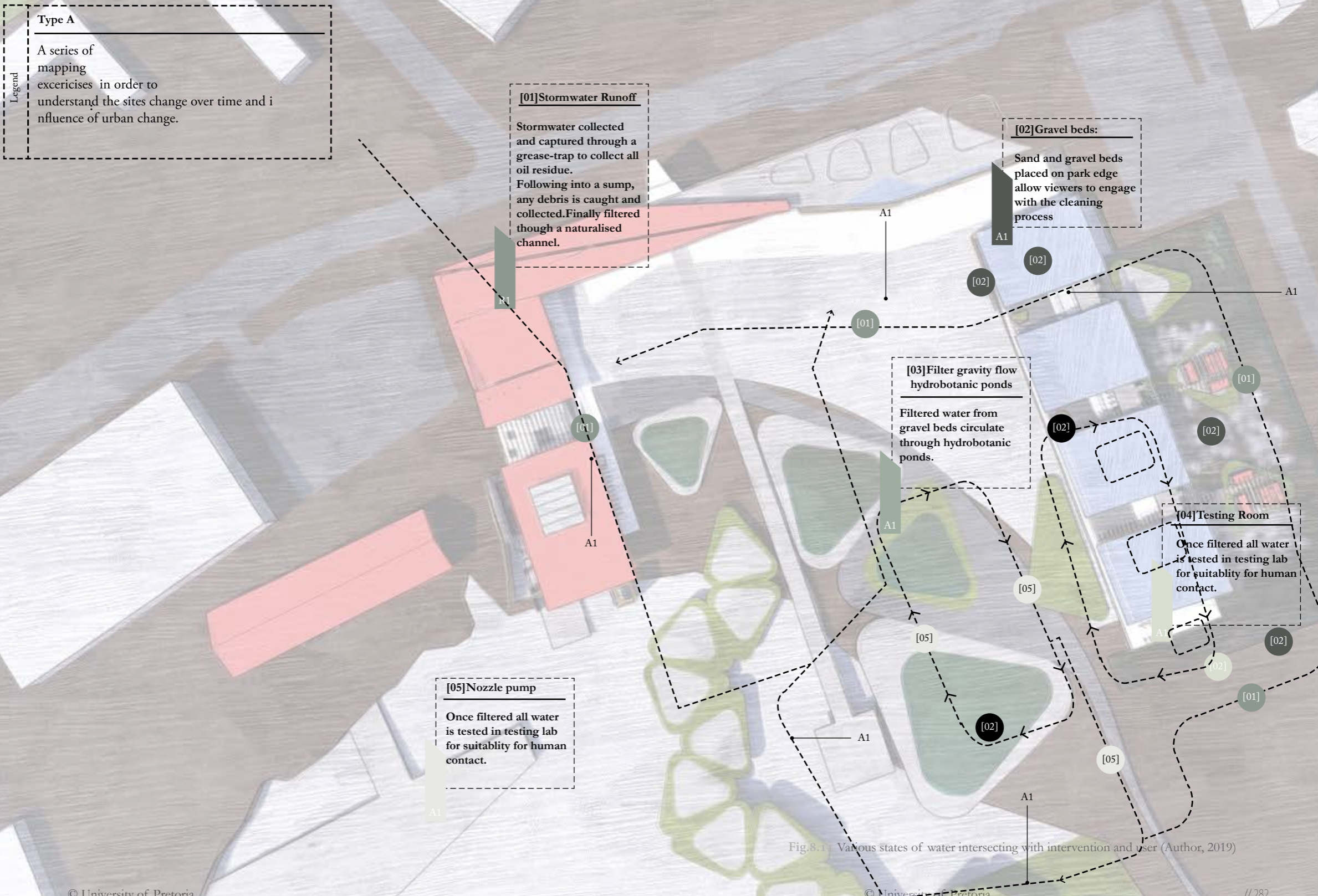


Fig.8.11 Various states of water intersecting with intervention and user (Author, 2019)

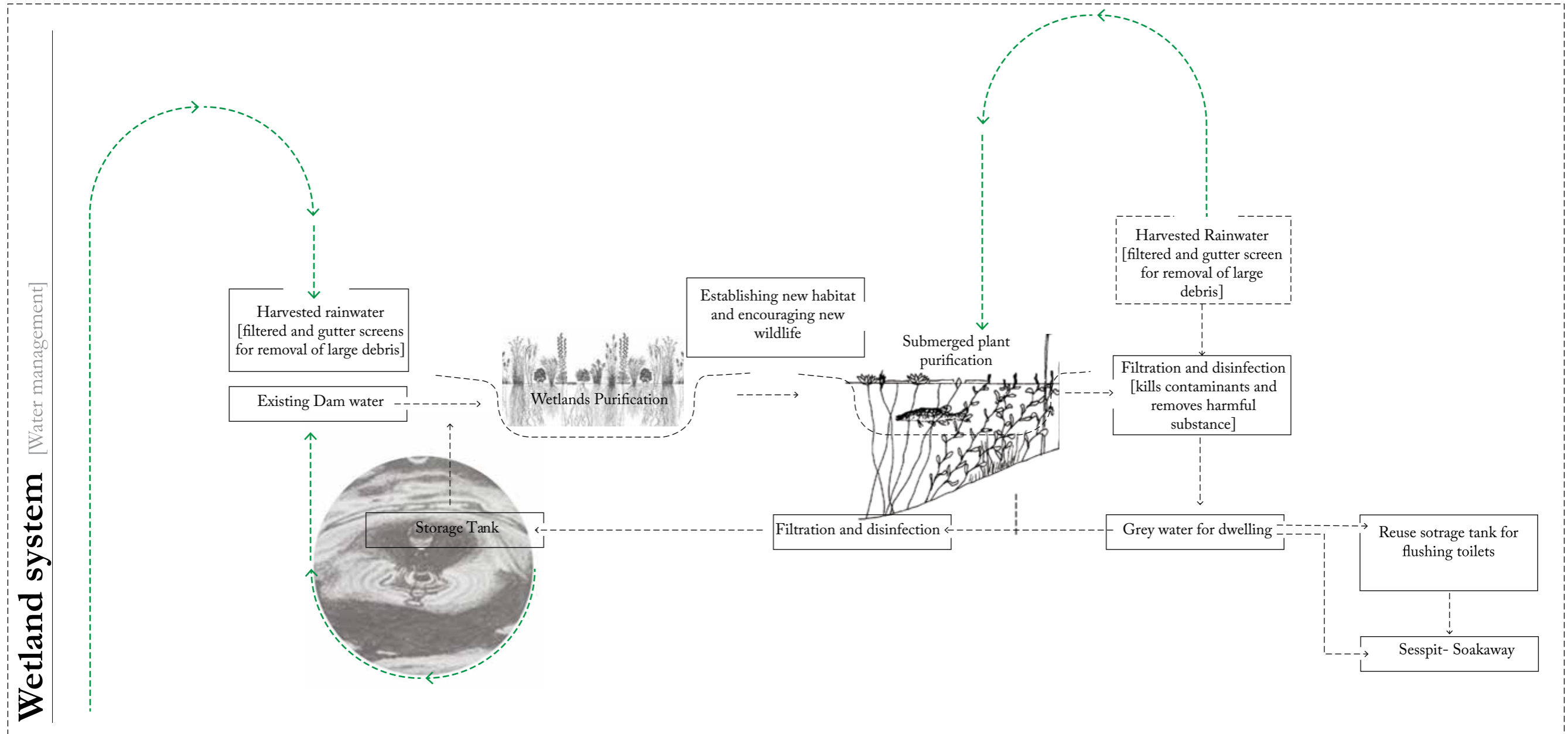


Fig.8.12 Water system diagram (Archdaily, 2014)

## 8.6. Translating water depths into architecture

### Plan development:

### September-October

### Site plan description: Approach

### Project Year: 2018

Comfort and health

Humidity control

Indoor air quality

Condensation Control

Sauna bathing sequence

### 8.5.1 Step 3: Comfort and Health

The public swimming areas are divided into three zones by user requirements

- A 600mm depth pool for children
- A 1200mm depth pool for youth and children
- A 2000mm deep diving area for experienced swimmers

As a site inherently defined by leisure and recreation, the role of architecture in the scheme intends to act as a sensory device is pivotal in the technification for places that mediate between hedonism, healing and escape. The design of internal aquatic spaces requires strict considerations for designing the building structure. It is argued by (Seresco, 2014) that a critical systems approach, from basic engineering and subtle details complete the experience of the design. The following inclusion of design factors should be considered to create a satisfactory natatorium design;

By creating closed looped resources through water management, awareness of the waters quality and recreational value creates an importance of recycling while having visual and experiential uses and assorted haptic relationships with water.

The private spaces, configured to the northern and southern facilities of the site. The principle of bathing in a sauna involves alternating use of hot and cold air. Bathers sweat in dry hot air, and then in hot pure steam emissions, which are created every 5-7 minutes by pouring a quarter litre of water on to heated stones. The cycle between dry and damp results in a strong stimulation of the skin and strengthen resistance to illness. The effect is intensified by periodic cold water treatment, massage and rest.

Bathing involves three periods of 8-12 minutes in the sauna followed by cooling off with pouring bowls, in showers or a plunge pool (although it is nicer to cool off in the natural water of a lake or the sea).

The cooling process also includes the air bath, which entails the breathing in of fresh, cool air as a counterbalance to the hot air. The air bathing area should be screened off and seating provided. In public saunas, adequate changing areas must be provided along with additional rest and massage rooms.

Illustrated in fig 284, the relationship between depths of water

### 8.5.2 Therapy sequence

Hydrotherapy is a therapeutic experience that architecturally negotiates between various depths of water related to healing, temperature and velocity of water are a fundamental technical aspect

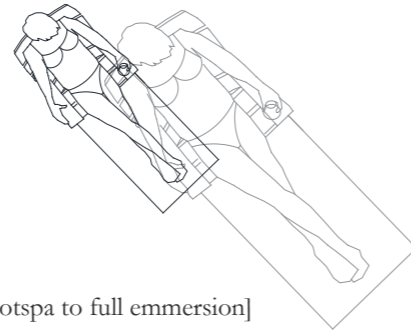
in ensuring the environment and role of the therapeutic process runs successfully depending on the degree of injury and scale.

Architecturally, various pools related to their depth and temperature play a role in working with the typography and relationship to the existing dam, an internal street edge condition and natural landscape.

Internal temperatures conditions are determined by pool uses as indicated by Figx and require moisture resistant rooms due to high humidity. The roofs explorations between controlled internal thermal control and cooler exteriors become a defining feature of the scheme.

The process of adjusting the body to various levels within the water is carefully considered within the design. The nature of water in the scheme as being contained released and cleansed through various tectonic elements. A visual relationship becomes important as the nature of the scheme lies inherently in its public spaces and relationships formed around and between them.





[From footspa to full emmersion]

## 8.7. Experience 01\_ Hydropath

### The Kneipp walk

A water treatment using a mix of hot and cold water actions (stepping through the water) to stimulate the metabolism of tissues and the circulation of blood. Pebbles on the bottom of the stream/walkway massage the feet, and the alternation of hot and cold baths stimulate circulation of all parts of the body.

There are two walks used—the bather begins by stepping in hot water for one minute to two minutes (the water is usually lit up with color), and then moves to the cold-water pool (usually lit light blue) for half a minute. The process is repeated approximately three times.

A handrail is often used to help the bather walk through the different water pressures. Kneipp walks can be located anywhere within the spa journey and are often used as a feature by designers, creating interesting paths and walkways.

### Foot Spa

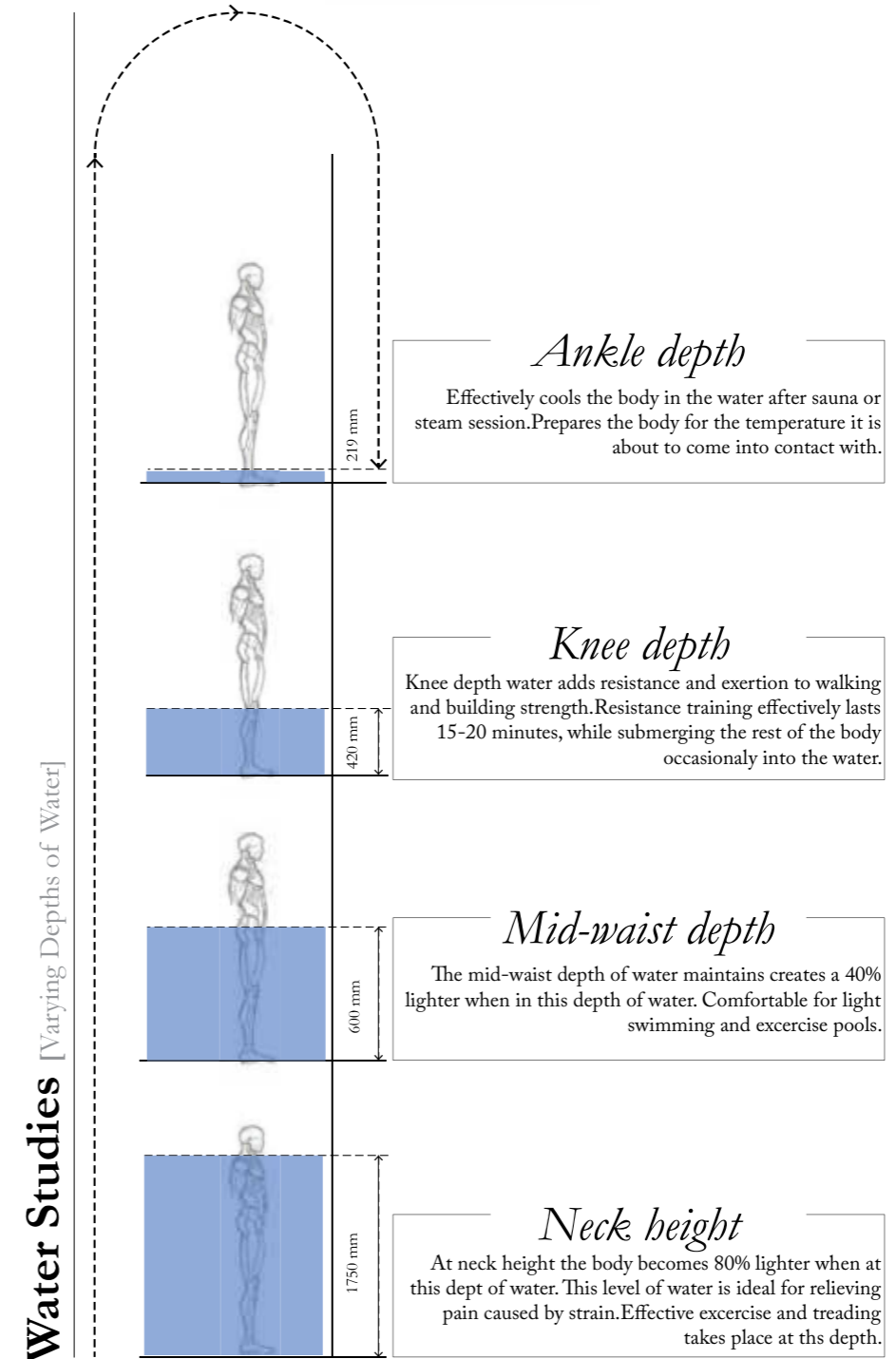
Specifically designed for bathing feet in cool or warm water in between hot treatments; feet play an important role in the heating and cooling process of the body due to the small amount of flesh and fat on them.

Commonly found at ankle at knee depth as illustrated in **Fig 288**

### Plunge Pool

A cold plunge pool is typically entered after and between hot thermal treatments to cool bathers down. Going from a heated environment to a cold plunge, which is usually kept at about 10° C to 15° C, stimulates the body in several ways. A quick, 30-second dip is enough to kick start circulation and dilate the vascular system, delivering the positive therapeutic effects of hot/cold contrast therapy.

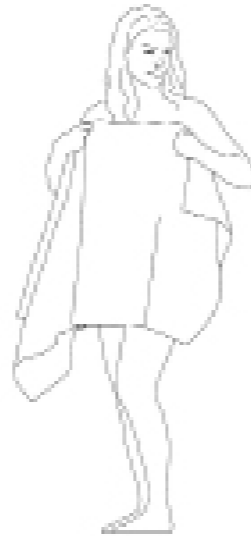
Commonly at mid-waist depth **Fig 288**.



\*Heights based on average South African male

Fig.8.13 Various states of water intersecting with intervention and user (Archdaily, 2014)

Fig.8.14 Diagram (opposite) illustrating experiential sauna route according to spatial requirements (Author, 2019)



## 8.8. Experience 02\_ Sauna

### Sauna bathing sequence

Steam and water wayer environemtns, configured to the northern part of the facility of the site. The principle of bathing in a sauna involves alternating use of hot and cold air. Bathers sweat in dry hot air, and then in hot pure steam emissions, which are created every 5-7 minutes by pouring a quarter litre of water on to heated stones. The cycle between dry and damp results in a strong stimulation of the skin and strengthen resistance to illness. The effect is intensified by periodic cold water treatment, massage and rest (Cavanah, 2016).

The sauna is more than a method of bathing: for many it is a type of physical cleansing, almost a ritual, and it is now an essential part of all modern sports facilities.

Bathing involves three periods of 8-12 minutes in the sauna followed by cooling off with pouring bowls, in showers or a plunge pool (although it is nicer to cool off in the natural water of a lake or the sea).

The cooling process also includes the air bath, which entails the breathing in of fresh, cool air as a counterbalance to the hot air. The air bathing area should be screened off and

A proper sauna session will take 90 minutes

- Remove clothing, jewelry and contact lenses

- Prior to sauna, users must shower and fully dry themselves to remove any film on the skin that can delay the onset of sweating (ideally, a foot bath should be used)

- Once in the sauna, it's ideal to lie down so that the

entire body is within the same temperature zone; if you must sit, sit with your feet up on the same bench you are sitting on

- First sauna session should last eight minutes to

12 minutes (depending on how the body

reacts);

followed by cooling off 12 minutes to 20 minutes

- Cool off first in the air, then rinse off the sweat with

cold water

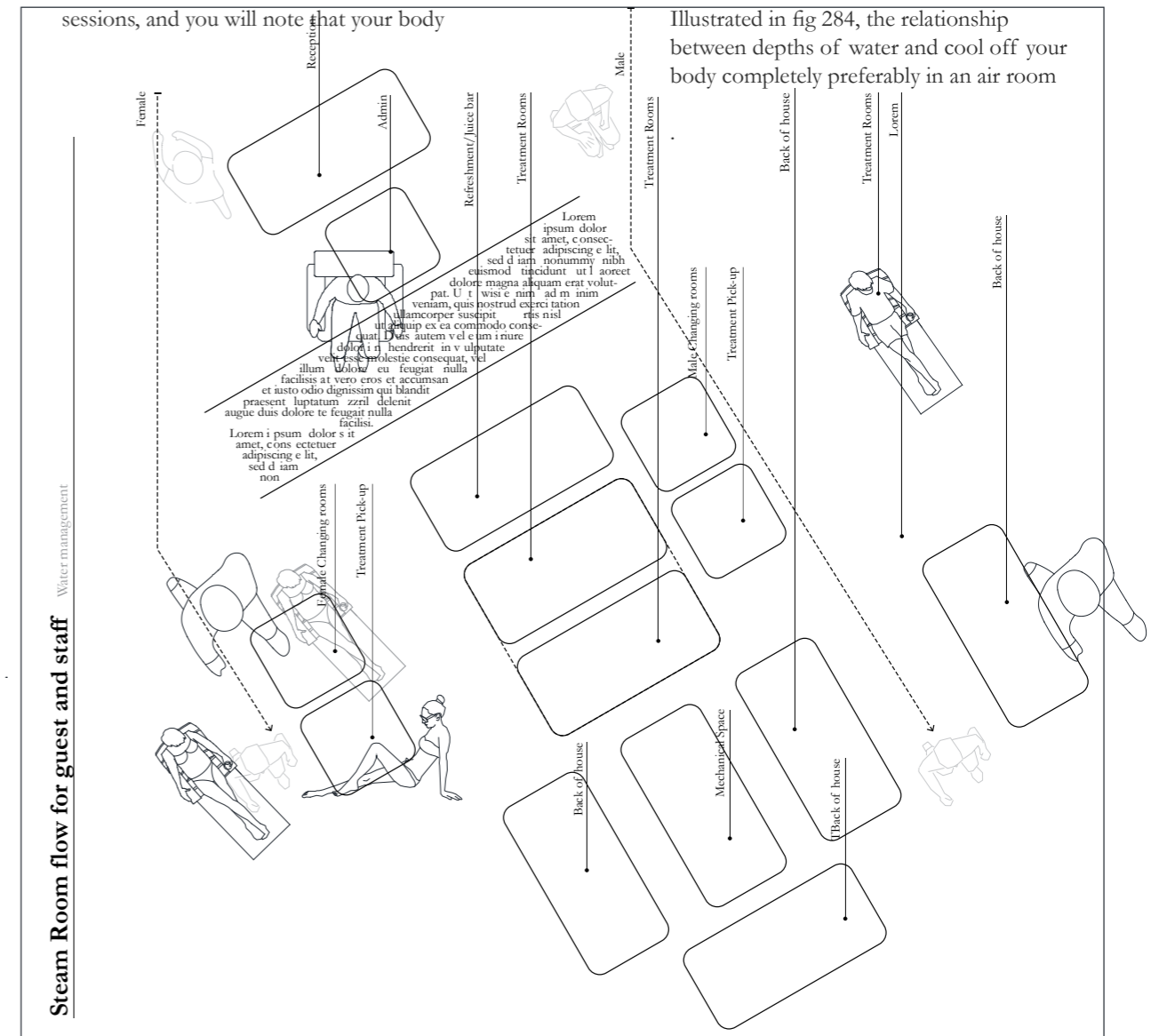
- The first session can be followed by two more

will

visibly sweat more rapidly during the second and

third sessions

- After the final sauna session, it's important to rest seating provided. In public saunas, adequate changing areas must be provided along with additional rest and massage rooms.



## 8.9. Planting Palette

The planting palette is predominantly selected for the capacity for plants to remediate and stabilize soil due to the surrounding mine tailings to the north and the establishment of a natural channel to assist in cleaning any minerals entering the water body.

Due to the sensitivity of the ground and soil surrounding mining areas, careful planning for plants in this study area is required further confirms that *S. lancea* trees are ideal candidates for phytoremediation and have greater phytoextracting abilities than phytostabilising abilities.

A management plan must be drafted for the Robinson Deep landfill site that will address all negative externalities, such as bad odours, air pollution, destruction of roads and sidewalks by trucks and negative visual qualities, that have a detrimental impact on the attractiveness, liveability and investment potential of the study area. The tree feed material approach (tailing, cement and water)

The planting strategy is suggested for their ability to work in proposed strategic planting zones as indicated in fig x.. Providing a strategic plan for Plants for wetlands, the progression from the internal and natural environment is layered by with a natural landscape.

The need to understand the relationships to water mining activities can impact on wetlands either in a physical manner or on a chemical level.

### Plant Zone A: Grass seed mix - seasonally wet

*Andropogon eucomus*

*Paspalum urvillei*

*Paspalum dilatatum*

*Cyperus articulatus*

*Cyperus congestus*

## Planting Palette [Seasonal planting]

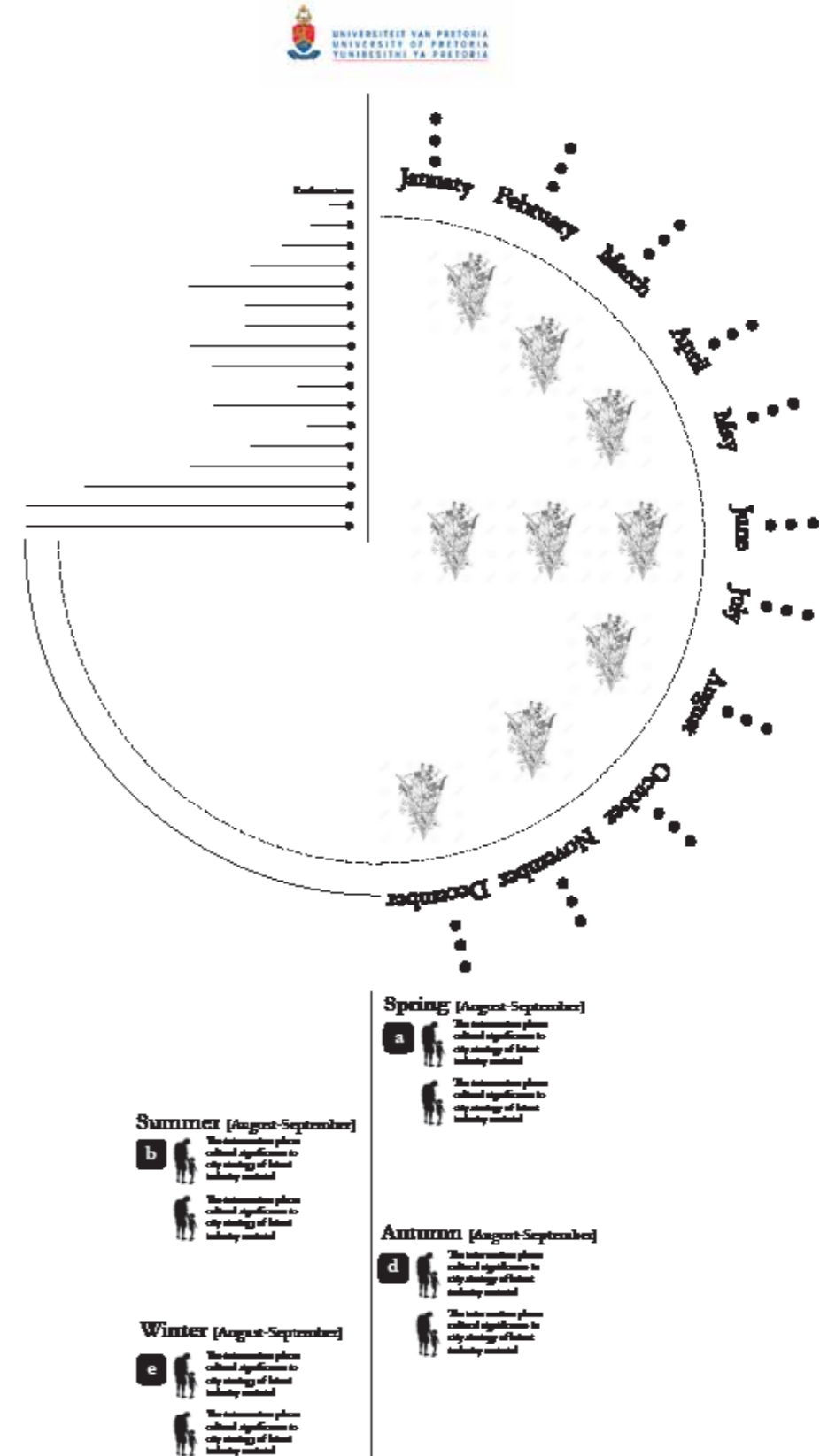


Fig.8.15 Seasonal Planting palette (Author, 2019)



### 8.10. Experience 03\_ Aromatic

*“Aromas can be introduced via a humidifier to enhance this beneficial treatment and maintain a comfortable atmosphere. Aromatic extracts of essential oils can be injected concurrently to give the steam bath an added sensory element.”*

-Cassandra Cavanah

#### Plant Zone B: Typha sp and Phragmites sp

Typha capensis

Phragmites australis

Miscanthus junceus

Miscanthus capensis

Leptochloa fusca

Cyperus articulatus

Cyperus fastigiatus

#### Plant Zone C: Vegetated island/mounds

Hermarthria altissima

Paspalum dilatatum

Setaria megaphylla

Cyperus marginatus

Cyperus marginatus Aromas can be introduced via a humidifier to enhance this beneficial treatment and maintain a comfortable atmosphere. Aromatic extracts of essential oils can be injected concurrently to give the steam bath an added sensory element.

liveability and investment potential of the study area. The tree feed material approach (tailing, cement and water) Due to the sensitivity of the ground and soil surrounding mining areas, careful planning for plants in this study area is required further confirms that S. lancea trees are ideal candidates for phytoremediation and have greater phytoextracting abilities than phytostabilising abilities.

There has been increasing research into plants used for phytoremediation, specifically for phytoextraction and phytostabilisation of heavy metals in soil.

## Integrated aromatic ventilation system Water mana |ement

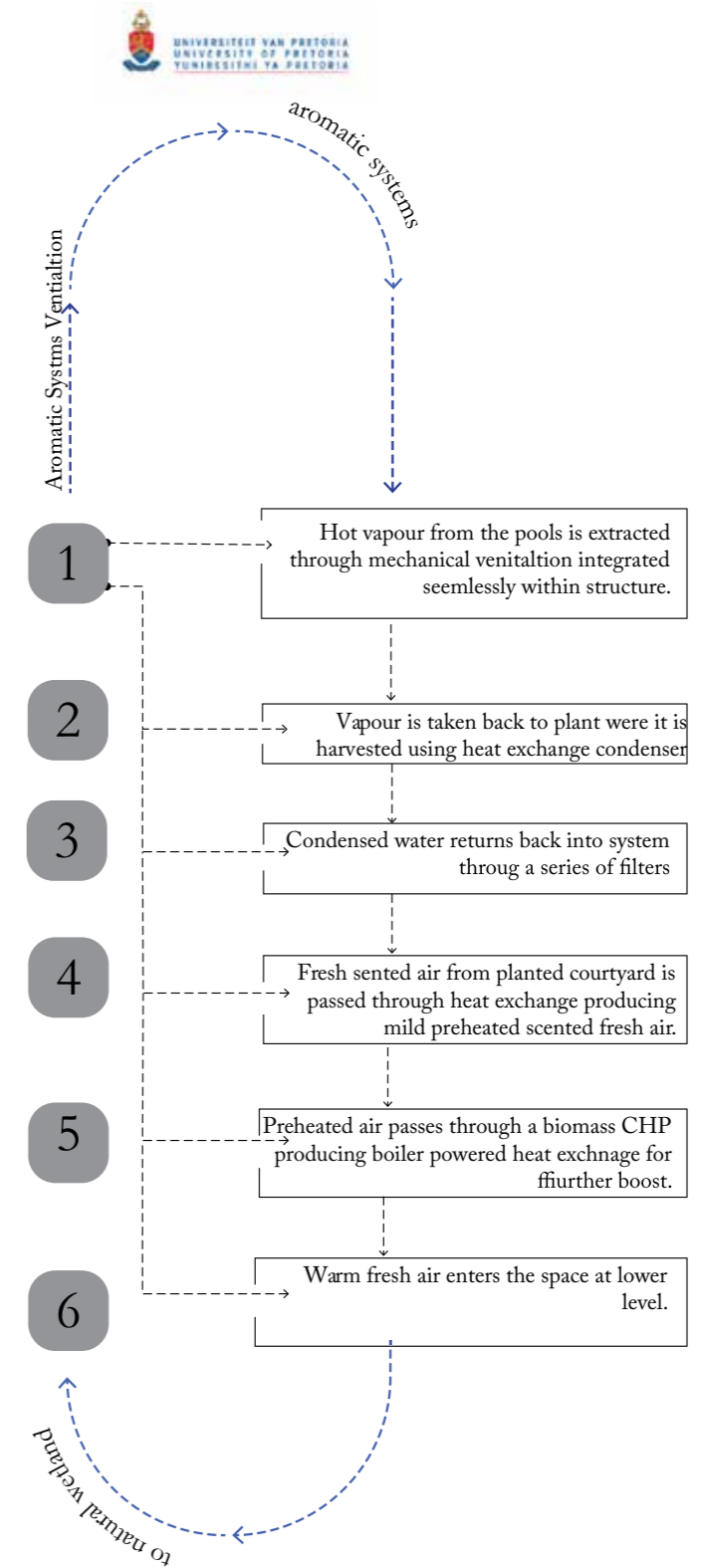
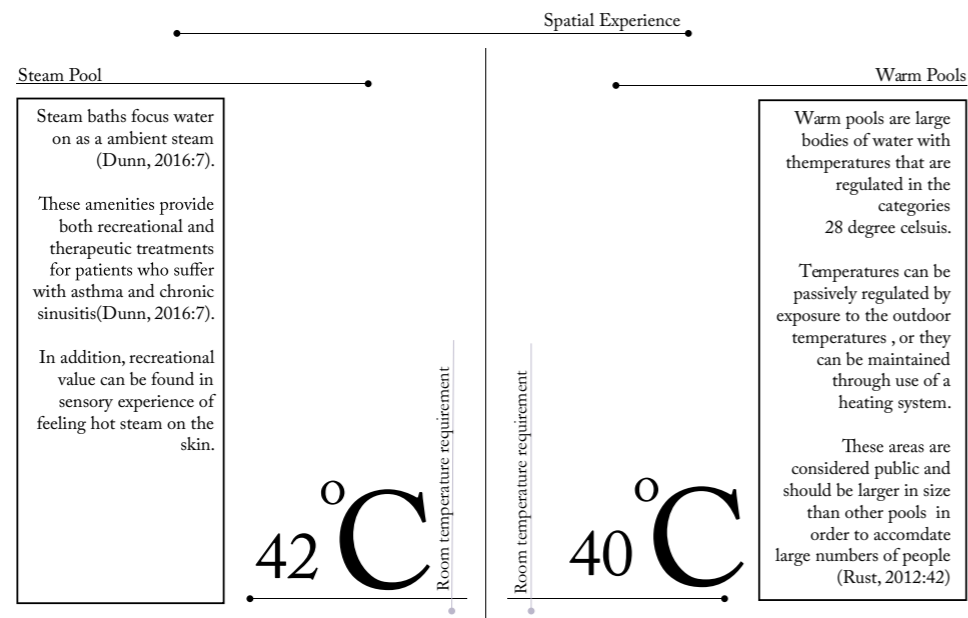
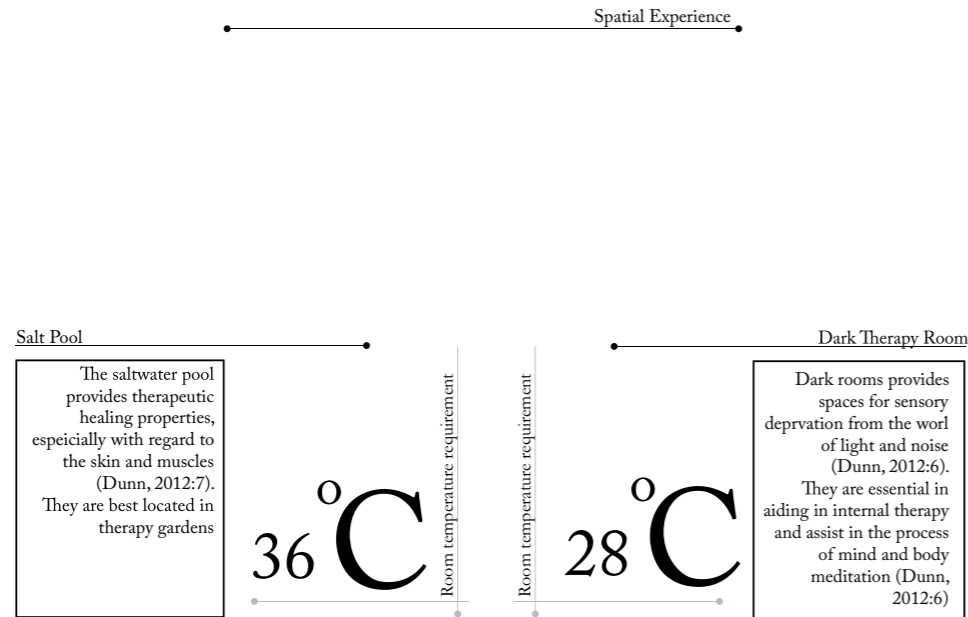


Fig.8.16 Integrated aromatic ventilation system (Adapted from Bruce Doran, 2019)

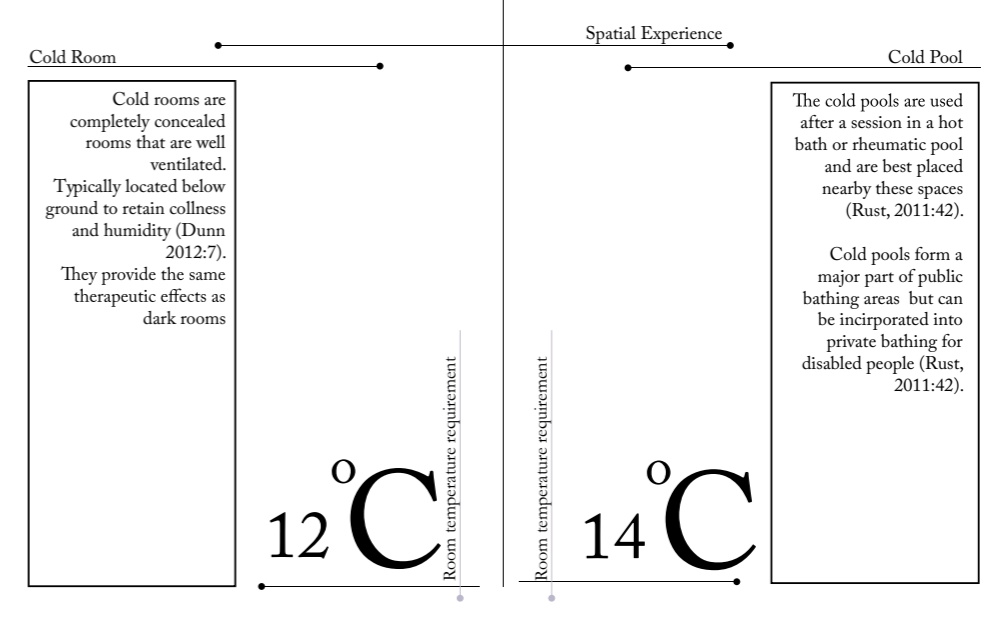
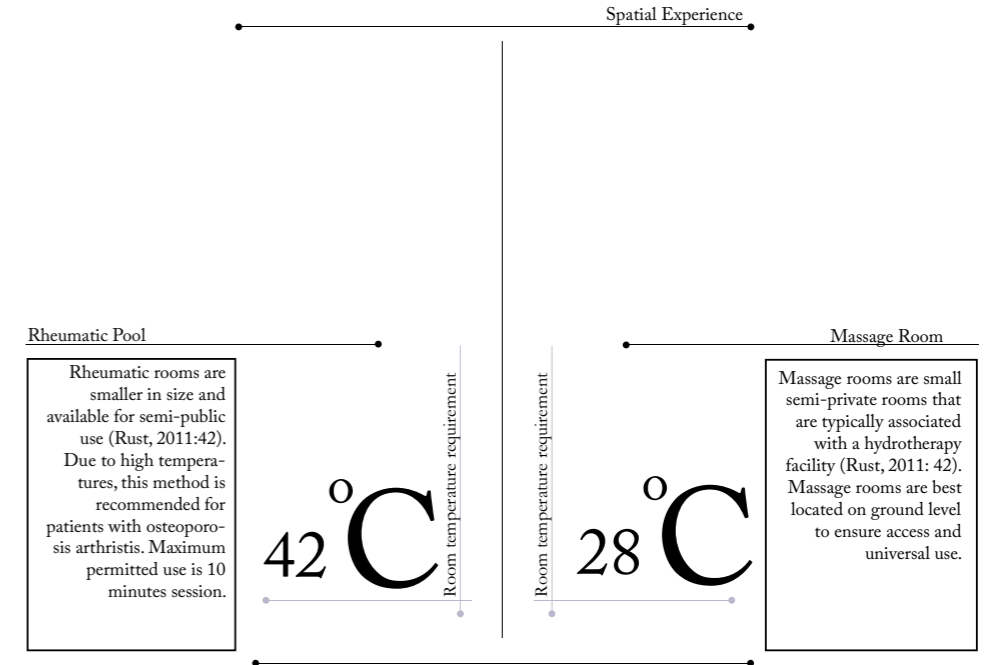
## Water room Schedule for hyopathy

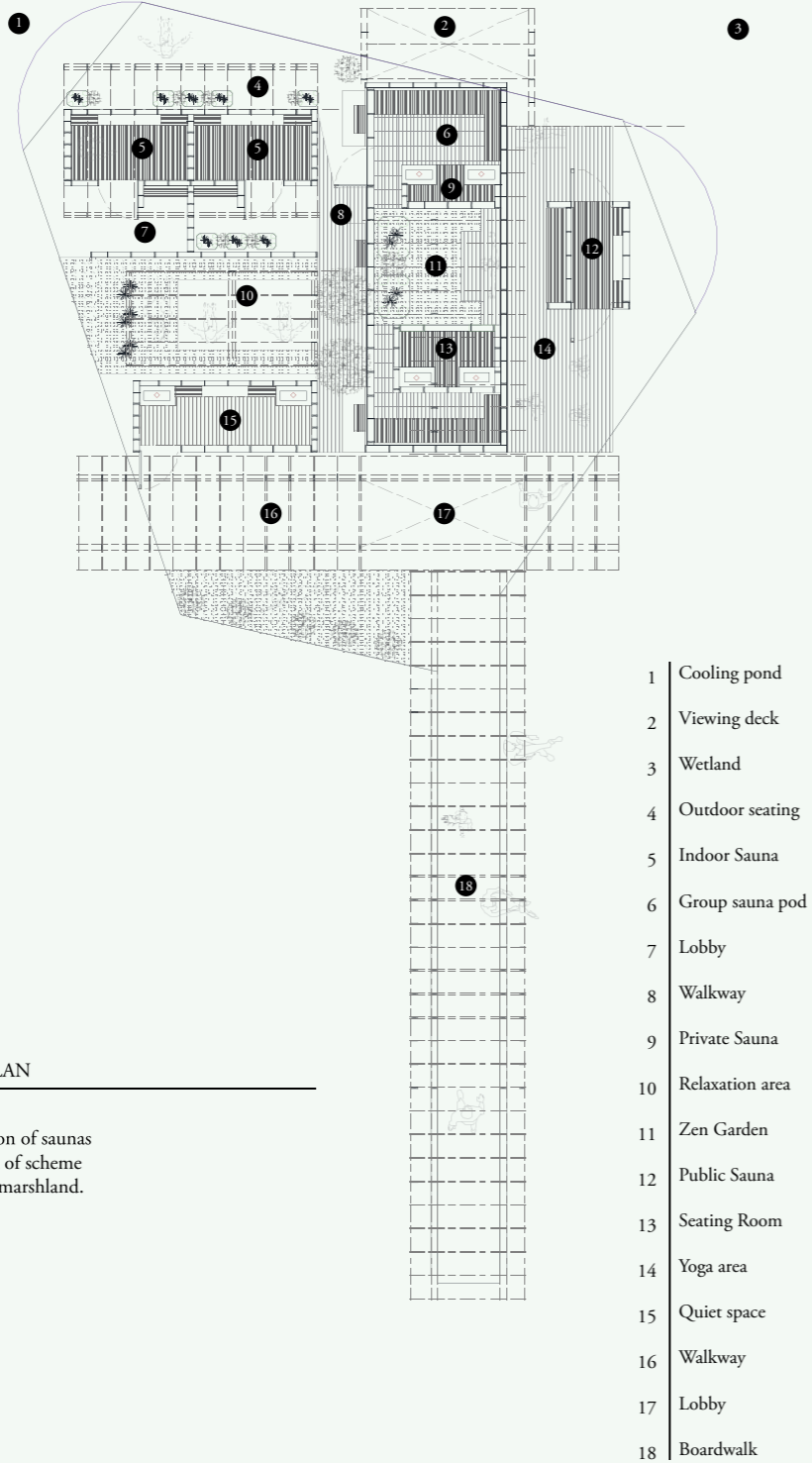
Internal temperature and spatial requirements



## Water room Schedule for hyopathy

Internal temperature and spatial requirements





SAUNA PLAN

Scale 1:200

The allocation of saunas to the north of scheme borders the marshland.

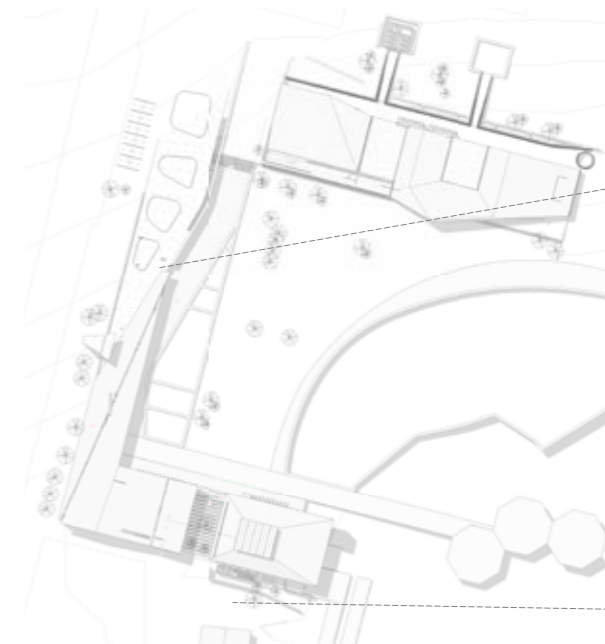


Fig.8.17 Floor plan of sauna (Author 2019)

Fig.8.18 Key plan (Auhtor, 2019)



## PART C\_ Material strategy

With the unprecedented rate of mining and mineral processing over the past decade, there has been an increasing level of concern worldwide about the fate of tailings and the irreversible consequences of contaminant release through dust, tailings dam seepage, dam wall failure, or direct disposal of tailings into waterways (Edrak, Baumgartl, Bradshaw, Franks, & Manlapig, 2014).

Volumetrically, mine tailings impoundments are among the largest man-made structures in the world (Davies, 2002).

Furthermore, tailings dam failures account for major mining-related environmental disasters with high salt and metal content of the tailings often affect biodiversity, surrounding water bodies and soil conditions.

The South African Chamber of mines established that each tailing deposit facility should have a 500m buffer zone where no human settlement is allowed. However, 81% of tailings and dumps lie within a 500m of residential and informal areas., as in the case of the disseration study area.

The mining sector is represented mainly by linear activities, being the major supplier of resources to modern society; nevertheless the

concept of circular economy can help to improve the sector's sustainability performance by considering mine waste as an aggregate for the construction industry [55].

The aim would be to optimise the total material cycle from mining to manufacturing and to extend the product use phase, including the reuse and recycling of any waste streams arising in industrial and consumer activities to ensure overall resource efficiency and resilience [56].

Fig.8.19 Structural logic (Author, 2019)

### 8.11. Current Material Palette

**Project Name:** Borden Park Natural Pool

**Location:** Edmonton, Canada

**Architect(s):** CH3\*

**Project Year:** 2018

#### Existing materials

The nature of Santarama Miniland consist of very few architectural remnants. While the rest of the precinct bear remnants of steel structures.

#### Steel

Surrounding context consisting of light industry .

#### Masonry

#### Material Choice

There are numerous advantages to using recycled rammed earth as a breathable natatorium.

Rammed earth is considered to have high thermal mass has the ability to absorb and release air, thereby removing particulate matter and replenish indoor air quality (Ciancio & Beckett, 2015). Furthermore, the rammed earth construction has high recyclable quality. The thermal mass keeps internal room temperature stable due to the heat to transfer through the walls.

The more thicker the wall the higher the thermal mass and higher the time for transfer of heat from one source to another. Rammed earth is non-toxic, non-polluting and 'breathes'. This effectively reduces

heating and cooling costs the intention to use thicker walls around the sauna

The acoustic properties in terms of reverberated sounds and a barrier stop through the transfer sound can assist in internal noise production. The intervention mediates between scarred industrial landscapes; the material palette draws from the existing surrounding landscape of mine tailings and their reuse. Similar to waste rocks dumps, tailings may generate AMD and, apart from the catastrophic failure of dam walls, may pose chronic environmental and human health issues due to the dispersion of contaminants by dust and seepage.

*“The hydopath has a high energy demand. The strategy to harvest energy, the choice of material, rammed earth is used to support the buildings thermal comfort requirements.”*

Fig.8.20 Natural Pool versus chlorinated pool (Archdaily,2019)

Fig.8.21 Aarhus Harbour bath in construction (Archdaily, 2019)

Fig.8.22 Aarhus Harbour Bath in public use (Archdaily, 2019)

Fig.8.23 Various states of water intersecting with intervention and user (Archdaily, 2019)

Fig.8.24

Fig.8.25



#### Existing Material Palette



Laminated Timber

Used as a ceiling material, timber reacts well to moisture

Polycarbonate Sheeting

The need to highlight vertical landmark on site for distinction between programmes.

Pigmented Concrete

Concrete as a malleable material is used for the plinth. Thick and structural retaining walls.

#### PROPOSED MATERIAL PALLETTE





### 8.12. Mine dump sand as an aggregate

The main environmental impacts of gold mining are the waste dumps, dust, disturbance of the water table, acid mine water and visual effects. With the unprecedented rate of mining and mineral processing over the past decade, there has been an increasing level of concern worldwide about the fate of tailings and the irreversible consequences of contaminant release through dust, tailings dam seepage, dam wall failure, or direct disposal of tailings into waterways (Edrak, Baumgartl, Bradshaw, Franks, & Manlapig, 2014).

The South African Chamber of mines established that each tailing deposit facility should have a 500m buffer zone where no human settlement is allowed. However, 81% of tailings and dumps lie within a 500m of residential and informal areas.

The Gauteng Provincial Government (CPG) recognises the need to close and remediate illegal waste dumps, including redundant and abandoned mine tailings and slimes dams, in accordance with national legislation.

Due to the established buffer zones around mine sites, the proximity of the northern edge requires a sensitive strategy. Different mixing ratios of gold tailings, cement, and water were used.

Volumetrically, mine tailings impoundments are among the largest man-made structures in the world (Davies, 2002). Furthermore, tailings dam failures account for the major mining-related environmental disasters [26]

The mining sector is represented mainly by linear activities, being the major supplier of resources to modern society; nevertheless the concept of circular economy can help to improve the sector's sustainability performance [55]. The aim would be to optimise the total material cycle from mining to manufacturing and to extend the product



Fig.8.26 Natural Pool versus chlorinated pool (Archdaily,2019)

Fig.8.27 Aarhus Harbour bath in construction (Archdaily, 2019)

use phase, including the reuse and recycling of any waste streams arising in industrial and consumer activities to ensure overall resource efficiency and resilience [56].

Residue stockpile comprises of any debris, discard, tailings, slimes, screening slurry, waste rock, foundry sand, beneficiation plant waste, ash or any other product derived from or incidental to a mining operation and which is stockpiled, stored or accumulated for potential re-use, or which is disposed of, by the holder of a mining right, mining permit or production right. Tailings may also contain mineral processing reagents, including salts and cyanide.

Iron ore tailings can also be used as replacement to fine aggregates in cement concrete pavements. The properties of iron ore tailings (from Kudremukh Lakya Dam site) were determined and compared the results with the conventional sand. The strength properties of concrete for 3, 7, 28 and 56 days were also determined. The IOT replacement was in the ratio Mix1 - 10 %, Mix-2 - 20 %, Mix3 - 30 %, Mix4 - 40 % and Mix5 - 50 % and it was observed that replacement of IOT 40 % gives maximum compressive strength (56.59 N/mm<sup>2</sup>) is more than the reference mix (41.05 MPa ) for 56 days of curing period.

Some academic sources have proposed for the rehabilitation and reuse for mine-waste for the proactive management; paste

and thickened tailings, tailings reuse, recycling and reprocessing.

Due to high mineral content contained in soil, the process of removing metal contents first requires a chemical process of jet flotation. According to Lottermoser (2011) reuse of mine wastes is defined as the process that involves the new use or application of the total mine wastes in its original form for a specific purpose directly without any reprocessing.

Recycling on the other hand extracts new valuable resource ingredients, or uses the waste as feedstock and converts the entire mine waste into a new valuable product or application with some reprocessing. In the case of the dissertation, the reuse utilises mines waste as a building material.

In "reprocessing" the waste material is used as a feedstock for producing a valuable product, such as recovered minerals and metals (Edrak, Baumgartl, Bradshaw, Franks, & Manlapig, 2014).

Manganese residue The mining waste is generally used as aggregate in concrete and also in manufacturing of bricks, tiles, cement, pozzolana etc as well as pigments for paints. A study carried out by Hammond (1998) stressed that by using mine waste natural resources will be conserved, energy will be saved and environmental pollution will be reduced. The study conducted by Reddy (2004) concludes that there is a large scope for R & D in developing alternative building technologies.

Extensive research has been conducted on the production of bricks using waste material (Zhang 2013; Saeed and Zhang, 2012). These waste materials include mining waste, construction and demolition waste, wood sawdust, cotton waste, limestone powder, paper production residues, petroleum effluent treatment plant sludge, kraft pulp production residue, cigarette butts, waste tea, rice husk ash, crumb rubber, cement kiln dust, and coal fly ash (Zhang 2013; Bennet et al., 2013; Saeed and Zhang, 2012). Manufacturing of non-fired bricks

In utilization of huge waste generated during mining of minerals and any other engineering activities, but it also helps in restoring land and maintaining aesthetic beauty of the nature, which will assist in the reduction of land degradation, water and air pollution.

Mine dump sand is occasionally used in the Gauteng area for building purposes. It is fine sand which may contain minerals such as pyrite (which is undesirable) and also sulphuric acid and soluble sulphate salts. Mine-dump sand is classified as manufactured sand. (point 7.22 in mining document). High compressive strength from autoclaved bricks then allow for various compressive strength

The industrial ecology is considered an emerging integrated tool to guide the economic industries to use materials and energy in a sustainable way and to reduce wastes generation. It aims at establishing closed loop cycles (recycling and reuse) instead of open loop systems (linear economy) to minimize the potential impacts of urban and industrial activities on the environment.

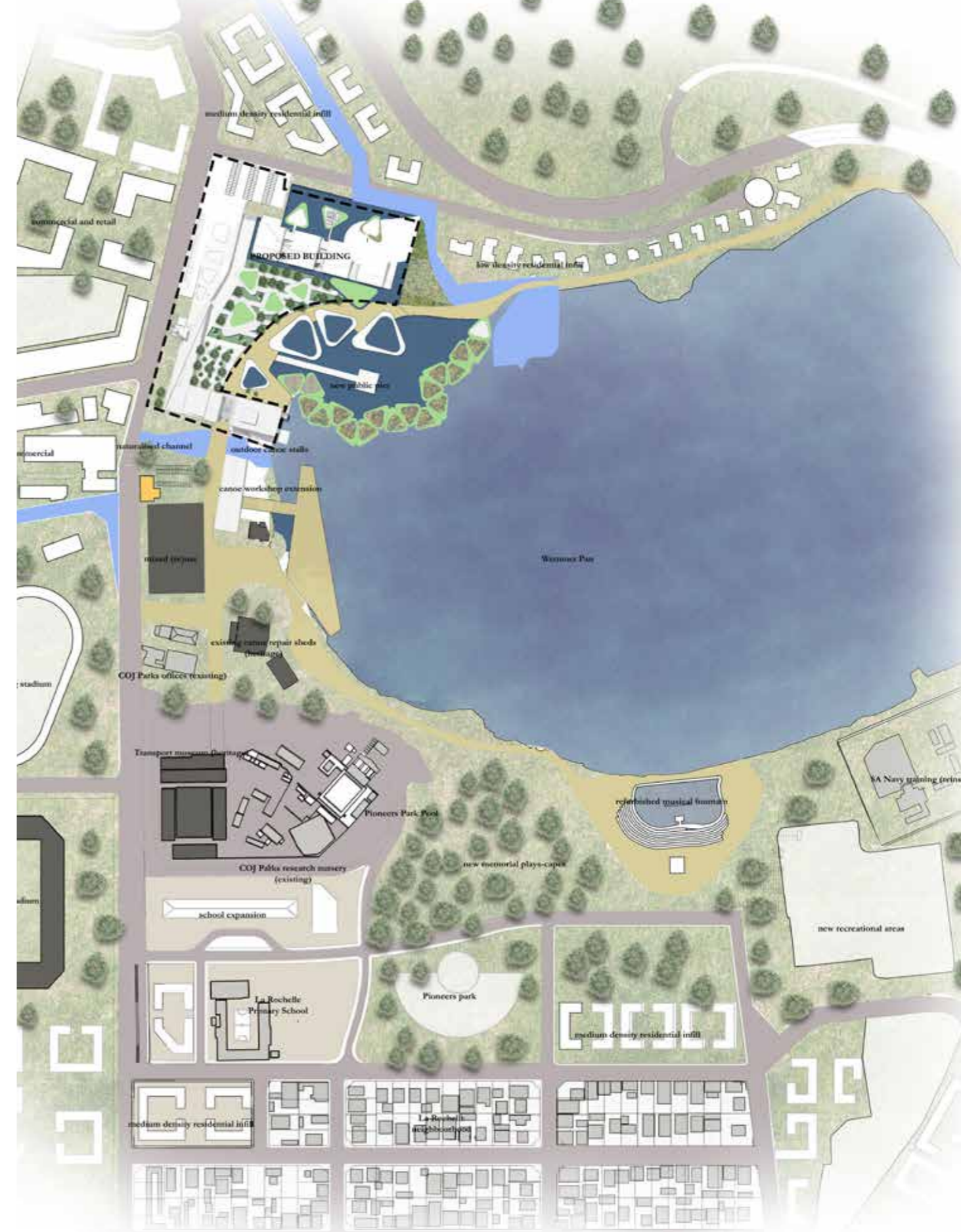


Fig.8.28 Diagram illustrating experiential route according to spatial requirements (Author, 2019)

### 8.13. Experiential Route

Pu

#### Visitor/Public Route

Visitors are encouraged to walk W through two entrances allowing variation and option through the relationship with water.

W

#### Worker Route

Workers require quieter routes away from public especially for the aquatic therapy facility.

Pa

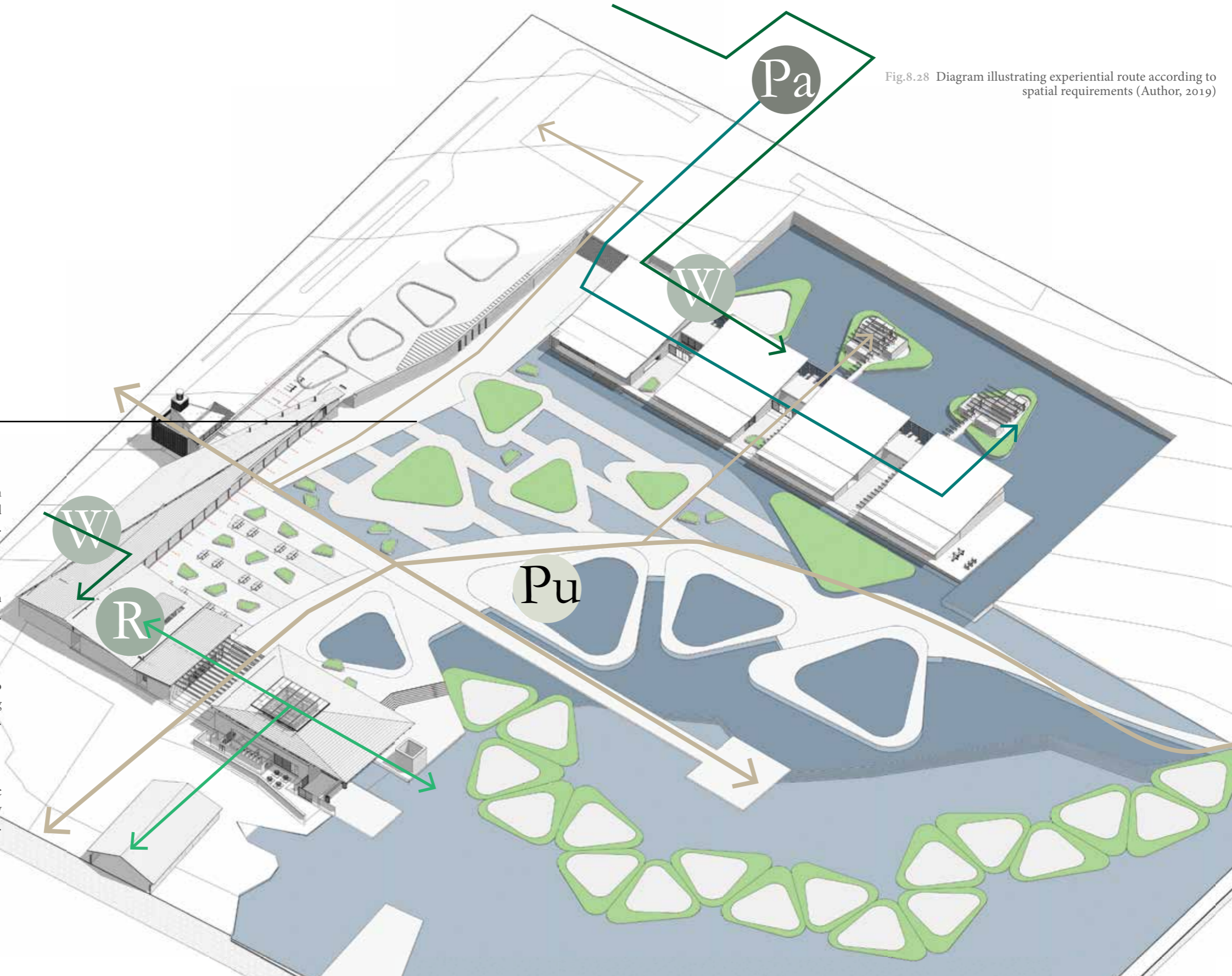
#### Patient Route

The aquatic therapy route functions on two scales, giving the user visibility depending on the nature and seriousness of the injury.

R

#### Boathouse clients

The boathouse functions for both public and private function. This allows for ferry rides on the public platform as well as gallery.



- |                             |                           |                          |                       |                        |                       |
|-----------------------------|---------------------------|--------------------------|-----------------------|------------------------|-----------------------|
| 1. Public Entrance          | 14. Male Change Room      | 27. Water Research       | 40. Viewing Pod       | 53. Change Room        | 62. Deep Diving Pool  |
| 2. Aquatic Therapy entrance | 15. Female Change Room    | 28. Office               | 41. Kiosk             | 54. Ablutions          | 63. Floating Wetlands |
| 3. Courtyard                | 16. Consultation Rooms    | 29. Plant Room           | 42. Duct              | 55. Trophy Room        | 64. Wemmer Pan Dam    |
| 4. ECG Room                 | 17. Massage Room          | 30. Showers              | 43. Storeroom         | 56. Exhibition Gallery | 65. Cooling Pond      |
| 5. Ablution                 | 18. Exercise Pool         | 31. Female Change Room   | 44. Play Park         | 57. Bar Area           | 66. Sauna             |
| 6. Waiting Area             | 19. Wet lounge Area       | 32. Male Change Room     | 45. Childrens Pool    | 58. Viewing Pavilion   | 67. Walkway           |
| 7. Reception                | 20. Office                | 33. Public Plaza         | 46. Amphitheatre      | 59. Courtyard          |                       |
| 8. Kitchenette              | 21. Gym Area              | 34. Existing SANTA Tower | 47. Entrance Lobby    | 60. Service Yard       |                       |
| 9. Cafe                     | 22. Training Pool         | 35. Pier                 | 48. Reception         | 61. Parking            |                       |
| 10. Consultation Room       | 23. Spectator Gallery     | 36. Youth Pool           | 49. Meeting Room      |                        |                       |
| 11. Entrance Courtyard      | 24. Observation Room [01] | 37. Adult Pool           | 50. Boardroom         |                        |                       |
| 12. Plunge Pool A           | 25. Yoga Area             | 38. Recreational Pool    | 51. Spectator Gallery |                        |                       |
| 13. Plunge Pool B           | 26. Pond                  | 39. Watch/ Diving Tower  | 52. Sculling Pool     |                        |                       |

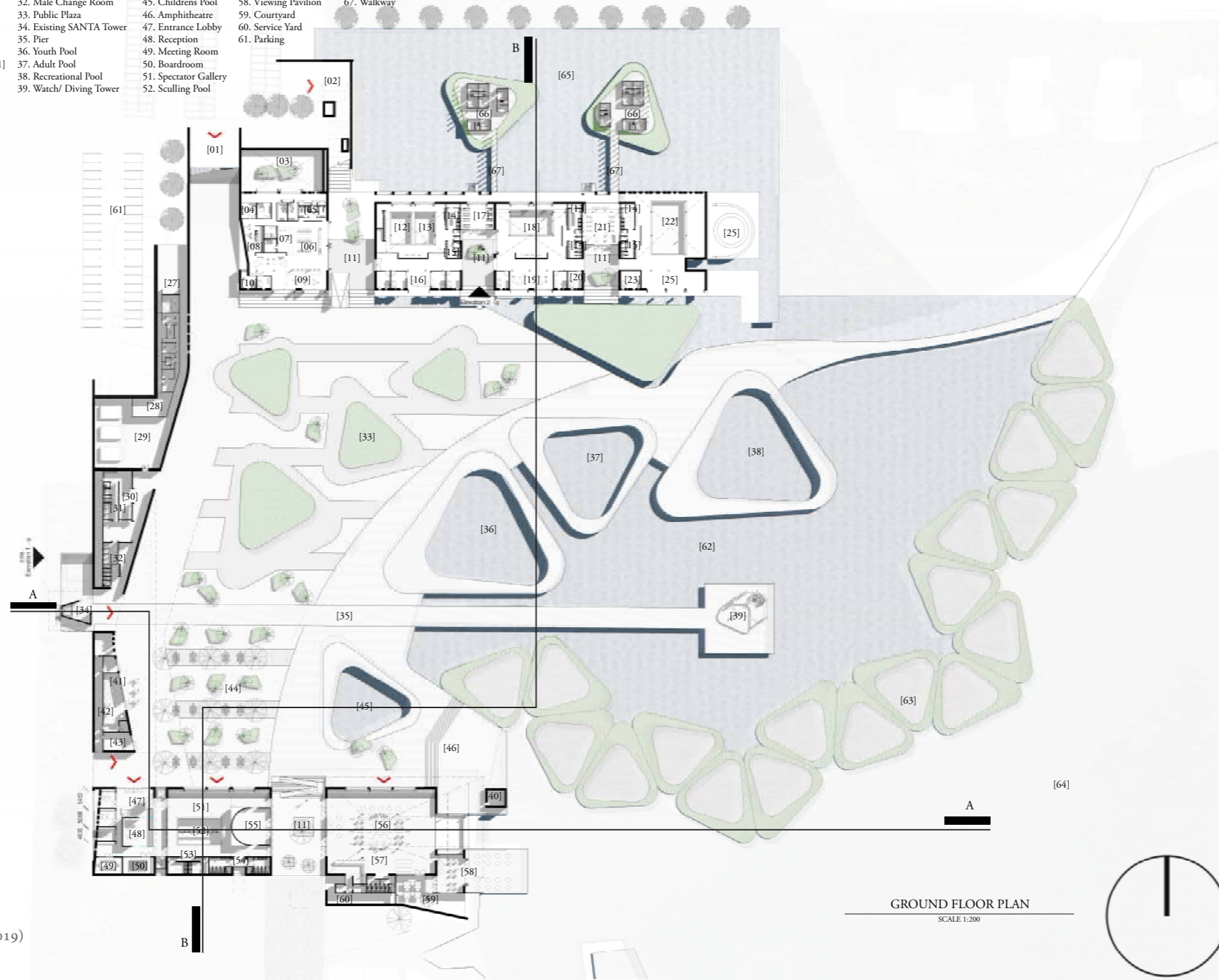


Fig.8.29 Ground Floor Plan (Author, 2019)

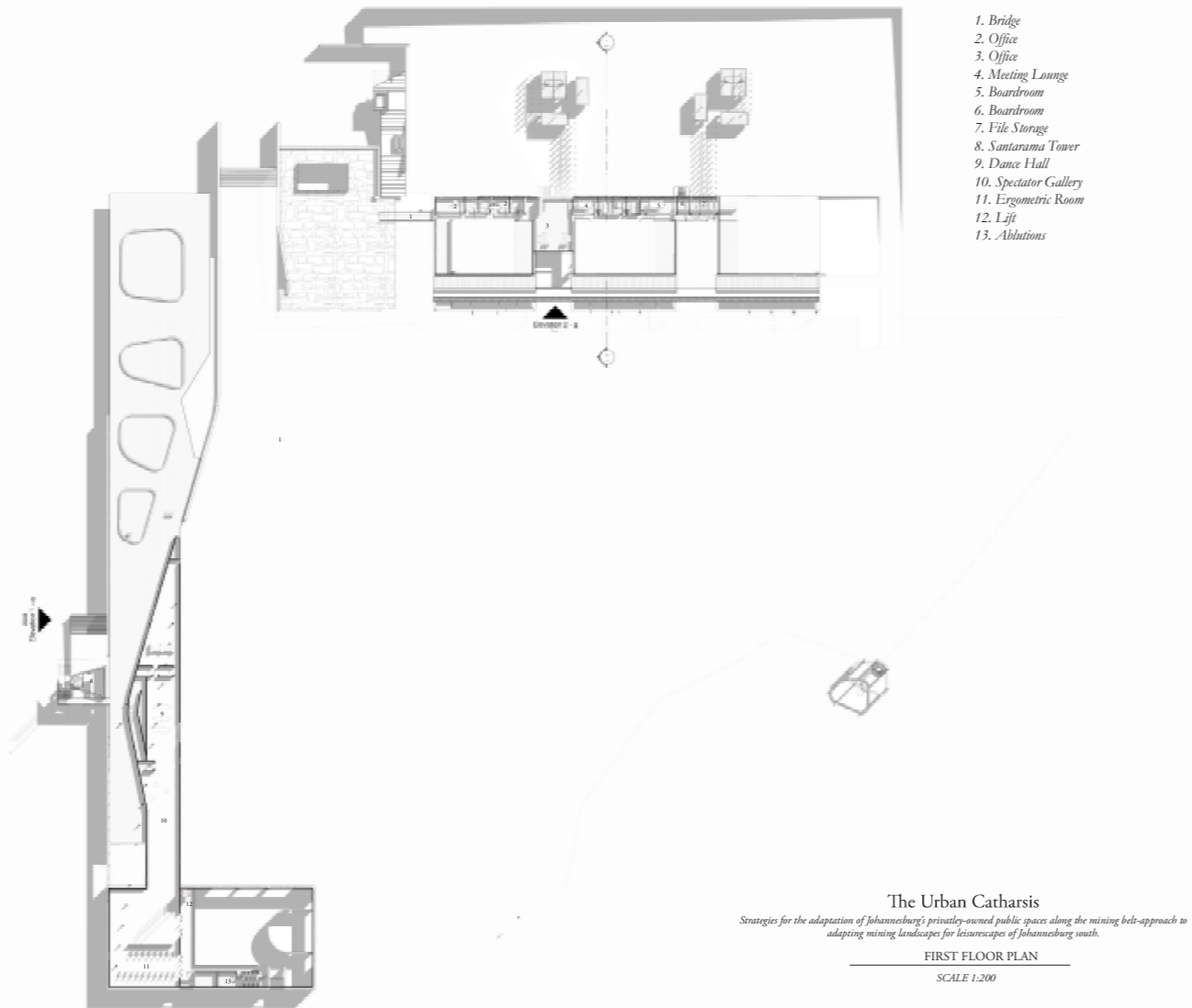
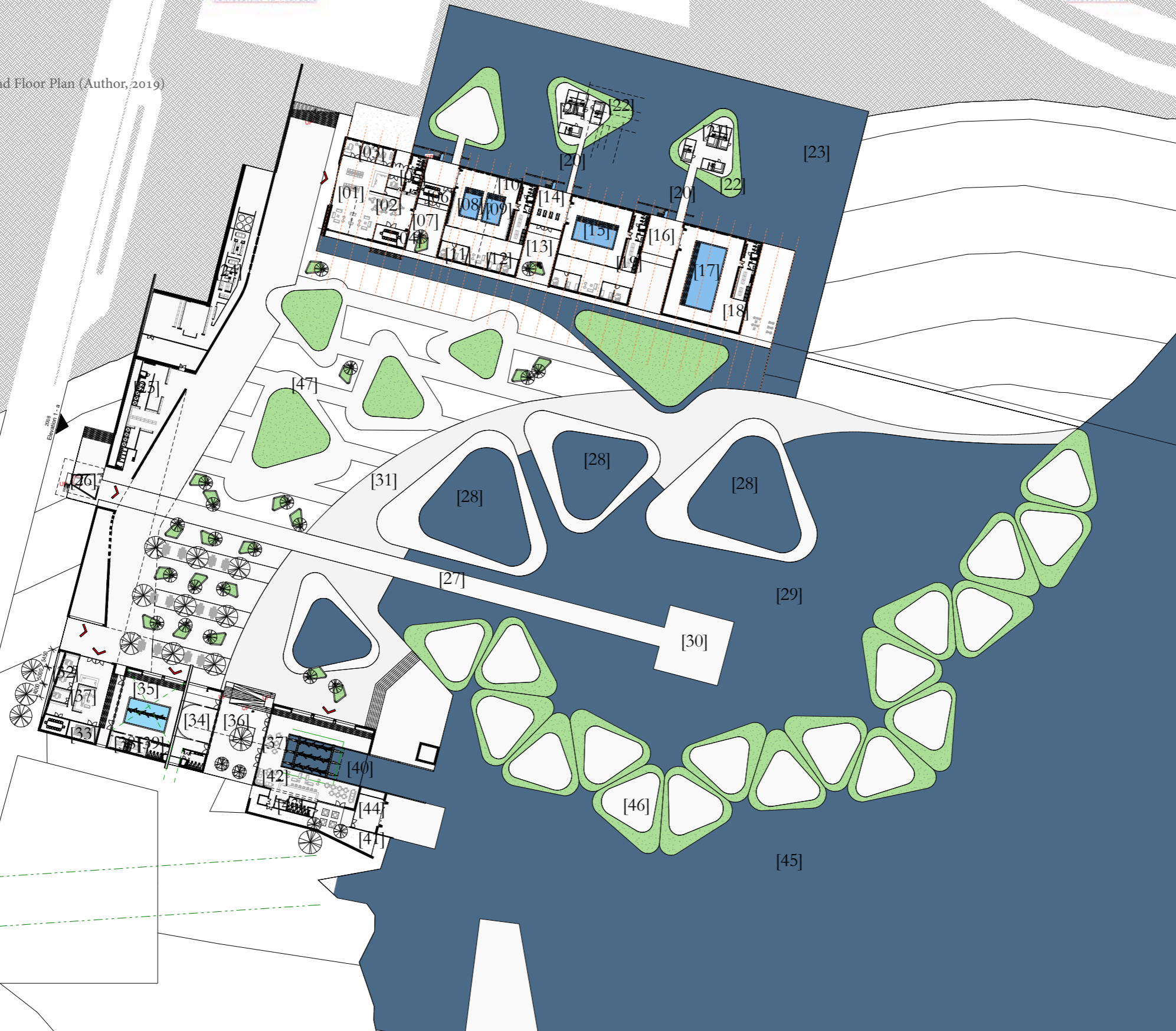


Fig.8.30 First Floor Plan (Author, 2019)

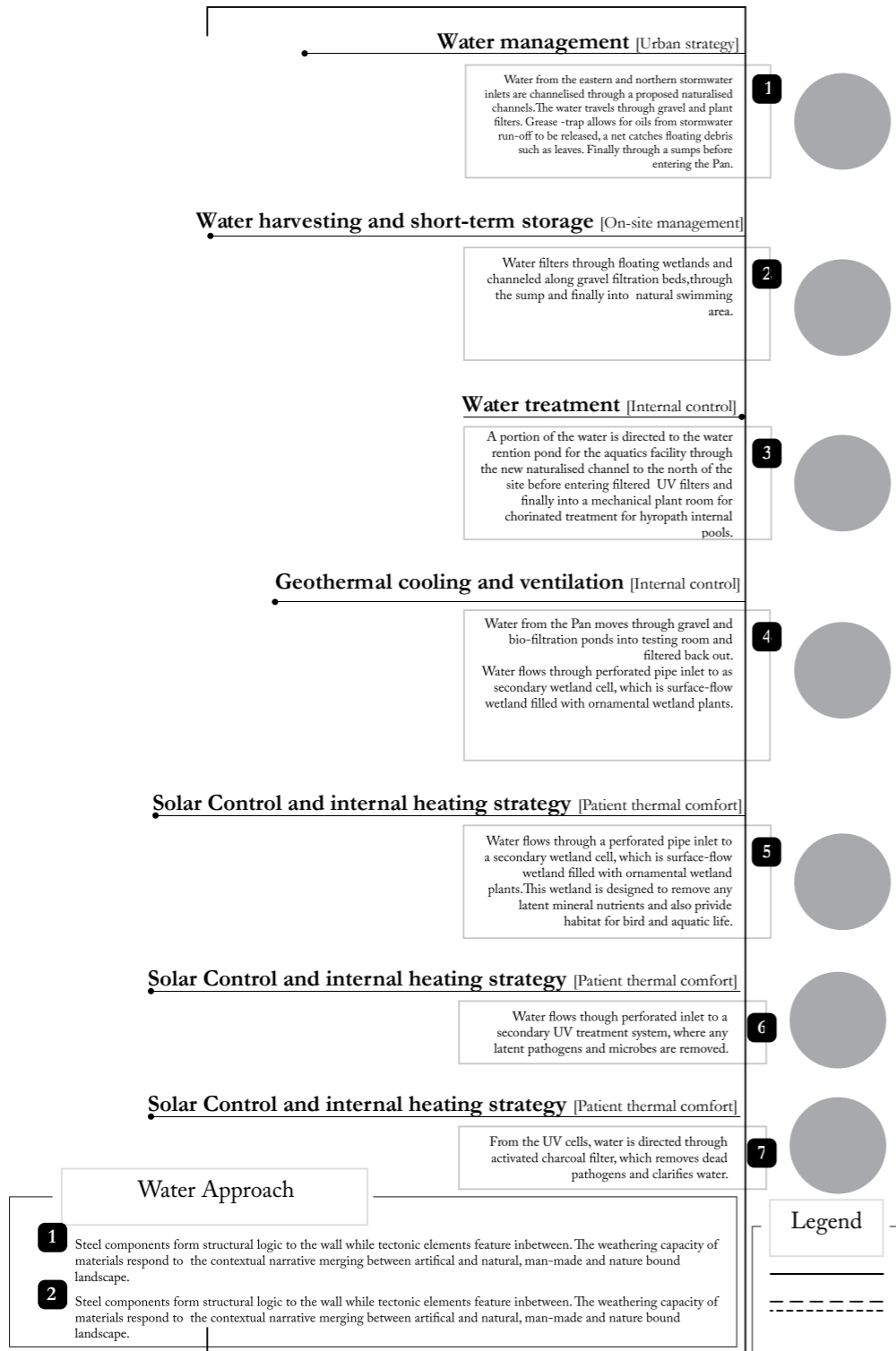
Fig.8.31 Approach towards saunas (Author, 2019)



Fig. 6.1 Ground Floor Plan (Author, 2019)



1. Reception
2. Waiting Area
3. Office
4. Storeroom
5. Kitchenette
6. Boardroom
7. Courtyard
8. Plunge Pool A
9. Plunge Pool b
10. Spectator Gallery
11. Observation Room (01)
12. Observation Room (02)
13. Coutyard 02
14. Massage Room
15. Warm Pool
16. External dry room
17. Pool
18. Male Change Room
19. Female Change Room
20. Walkway
21. Sauna
22. Outdoor drying Room
23. Cooling Pond
24. Water Testing Room
25. Public change room
26. Existing tower
27. Pier boardwalk
28. Biopools
29. Deep diving pool
30. Viewing Platform
31. Amphitheatre
32. Offices
33. Boardroom
34. Trophy room
35. Sculling room
36. Throughfare courtyard
37. Reception hall
38. Ablutions
39. Change Rooms
40. Exhibition Gallery
41. Bar
42. Kitchenette
43. Toilet
44. Jetty
45. Wemmer Pan Dam
46. Floating Wetlands
47. Plaza





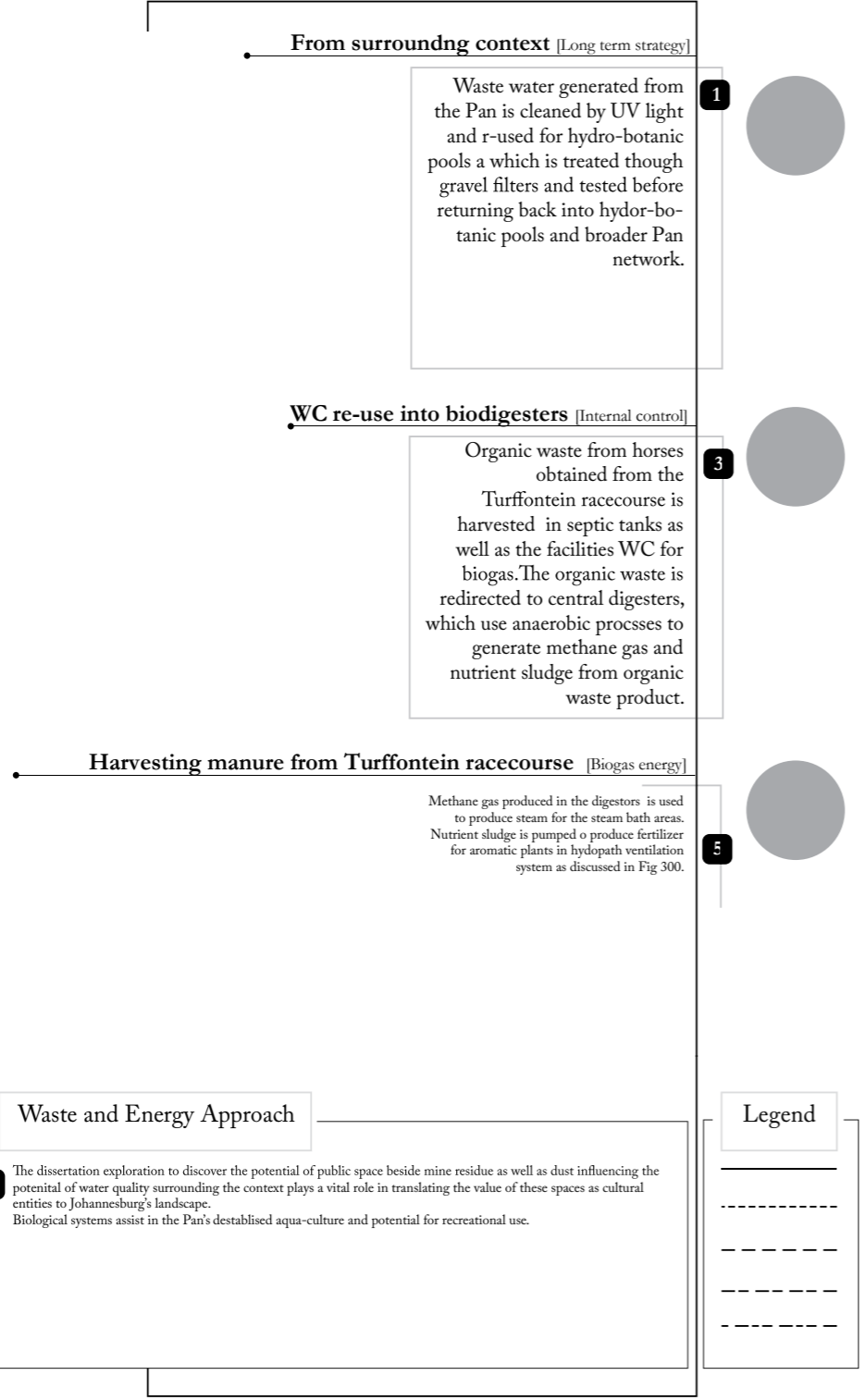
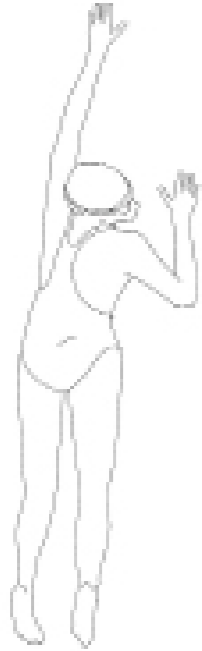


Fig.8.34 Waste management (Author, 2019)



Fig.8.35 Relationship of mine waste to water (Vally, 2013)



## PART C Structural logic+ Assembly

### 8.4 Primary Structure

The material used for the plinths primary structure is a pigmented concrete as the structural element that is cast in-situ, suggesting a certain level of permanence. The primary structure draws from its surrounding ground condition of mine tailings draws translating the nature of the mine dumps which presences themselves as static and permanent elements within a scarred the landscape.

The intervention starts by creating a plinth that extends throughout the intervention and gradually separates the public activities from private healing programs in the waterscape urban environment. The plinth centres itself surrounding two bodies of water on site; the existing dam and the proposed hydrobotanic ponds. The different experiences of water creates the experience of moving between a stereotomic ground planes, to a tectonic to a sky plane expressed through its rough to condition the experience through the roof of submerging in and out of the landscape.



### Secondary Structure (skin)

The general creation of natatorium design for the purpose of therapy is generally enclosed, concealed and private in nature, The projects deliberate take on providing a scheme which is fully conscious of water as an omnipresent element situates not only the body as place of spectacle, but provide architectural elements/components to reveal and conceal between the states of water.

Thus the architectural skin provides a medium as an element to hide and conceal, and architecturally plays a role as a component to the buildings climatic control that negotiates between publicness of display and the technical requirements of the programme.

The moment the body relieves itself from the water one can navigate in communal spaces.

Significant amounts of research have been carried out worldwide in usage of mine waste and tailings for the manufacturing of building materials

The mining waste is generally used as aggregate in concrete and also in manufacturing of bricks, tiles, cement, pozzolana etc.

Fig.8.36 Diagram illustrating experiential route according to spatial requirements (Author, 2019)

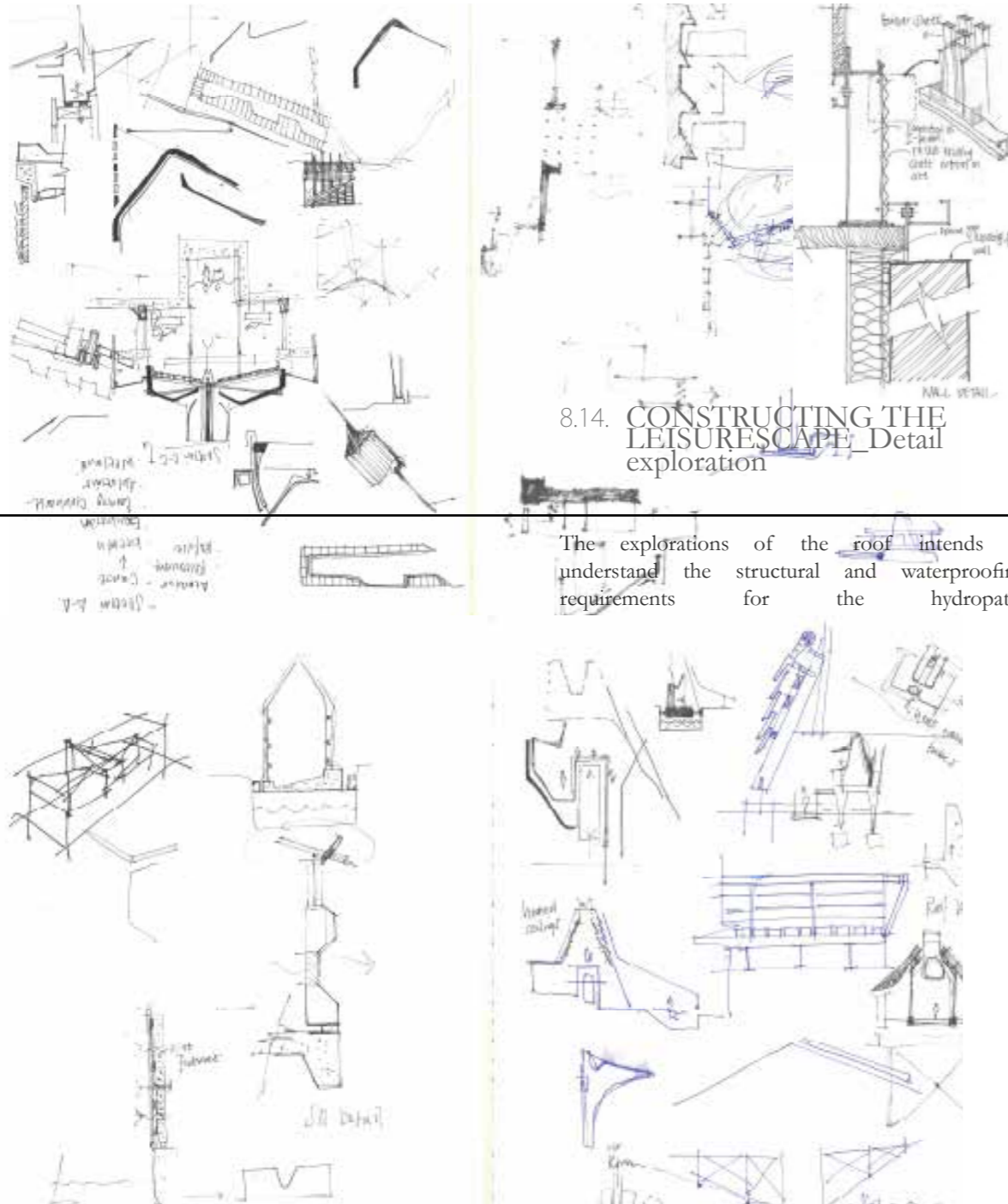
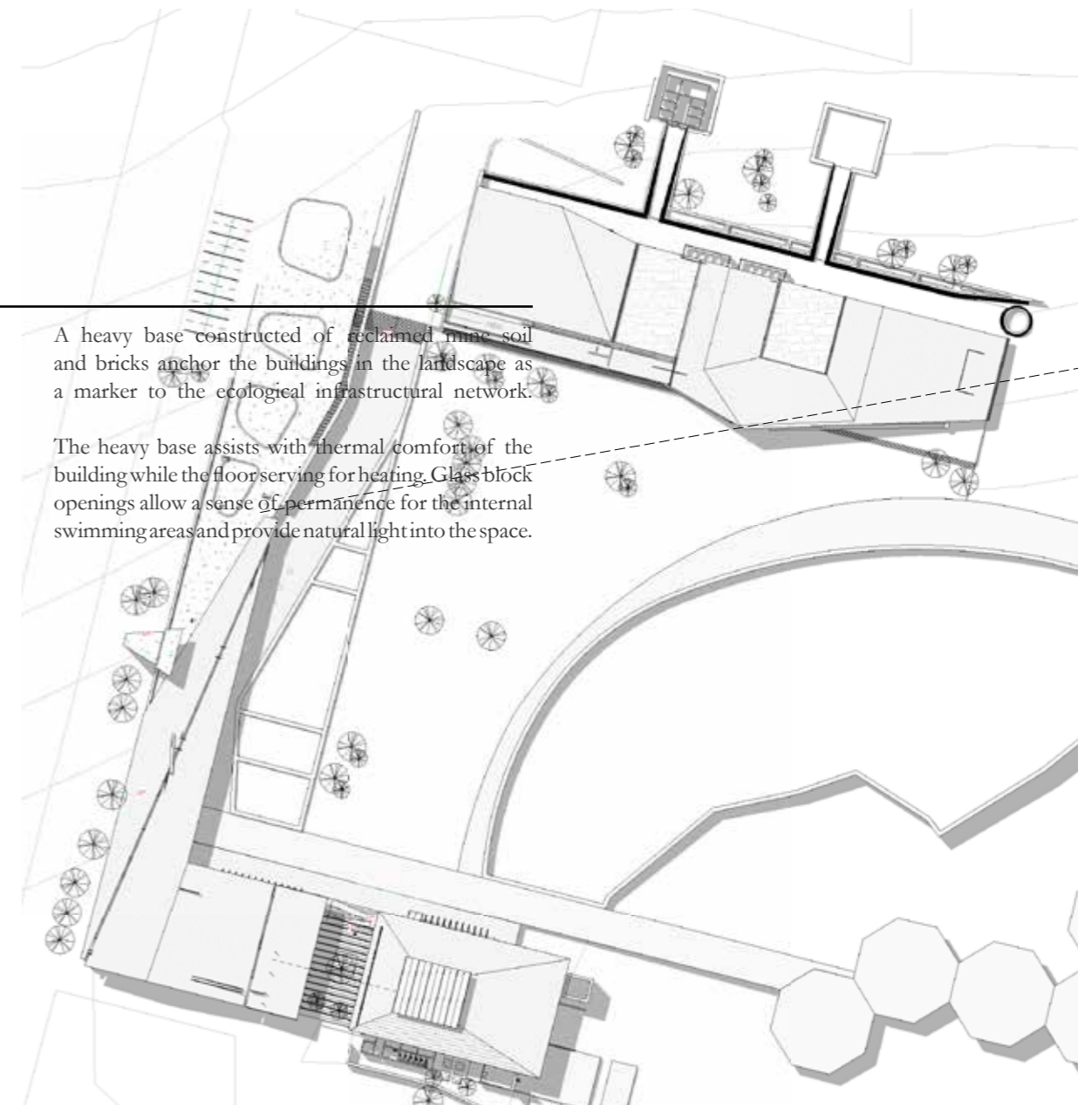


Fig.8.37 Sketches of detail exploration(Author, 2019)



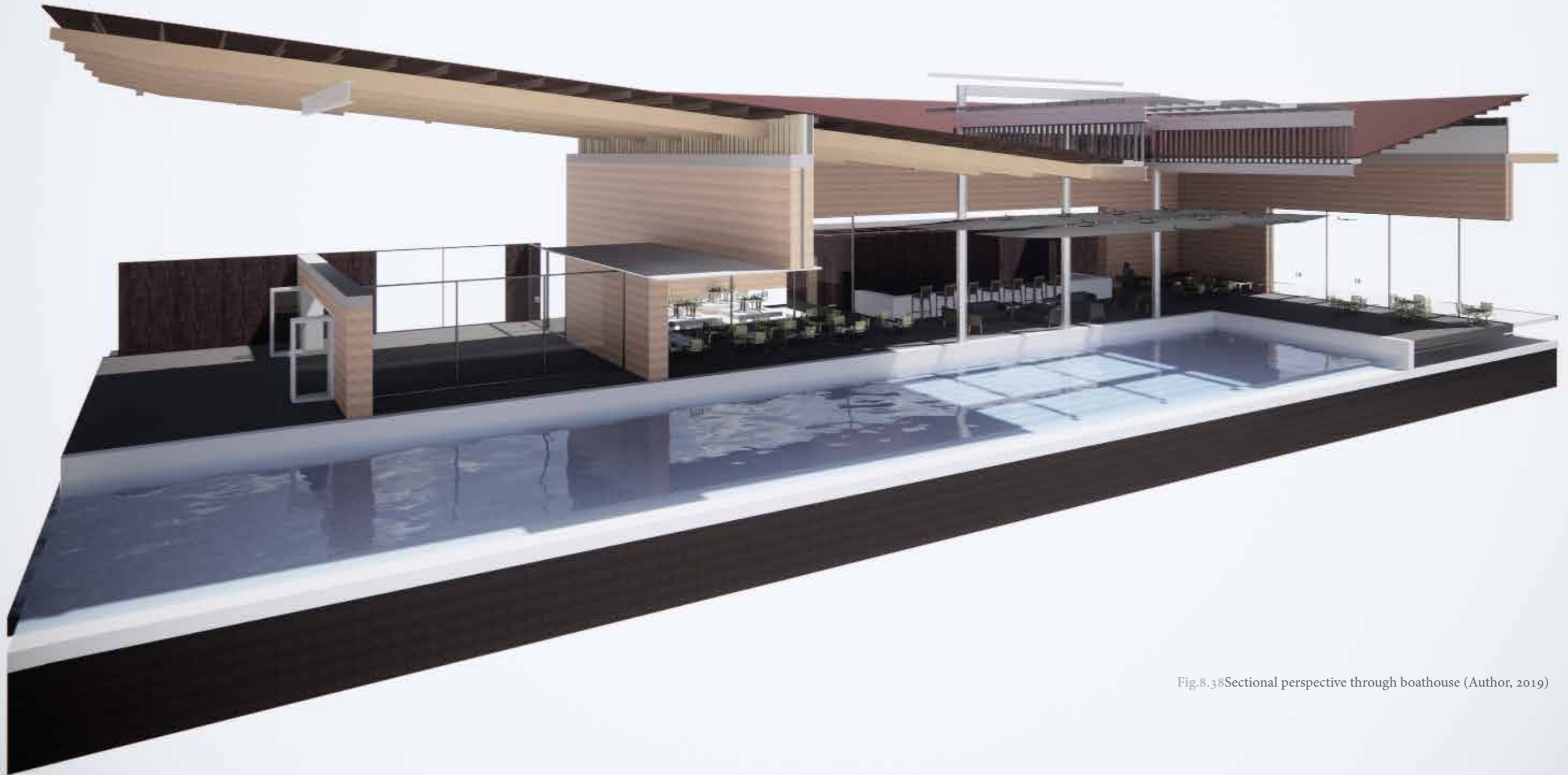


Fig.8.38 Sectional perspective through boathouse (Author, 2019)



### SECTION A\_Structural logic+ Assembly

A heavy base constructed of reclaimed mine soil and bricks anchor the buildings in the landscape as a marker to the ecological infrastructural network.

The heavy base assists with thermal comfort of the building while the floor serving for heating. Glass block openings allow a sense of permanence for the internal swimming areas and provide natural light into the space.

A heavy base constructed of reclaimed mine soil and bricks anchor the buildings in the landscape as a marker to the ecological infrastructural network.

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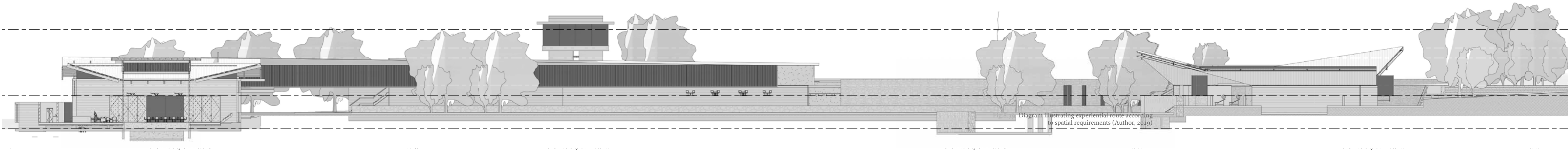


Diagram illustrating experiential route according to spatial requirements (Author, 2019)

Fig.8.40 Eastern Elevation (Author, 2019)

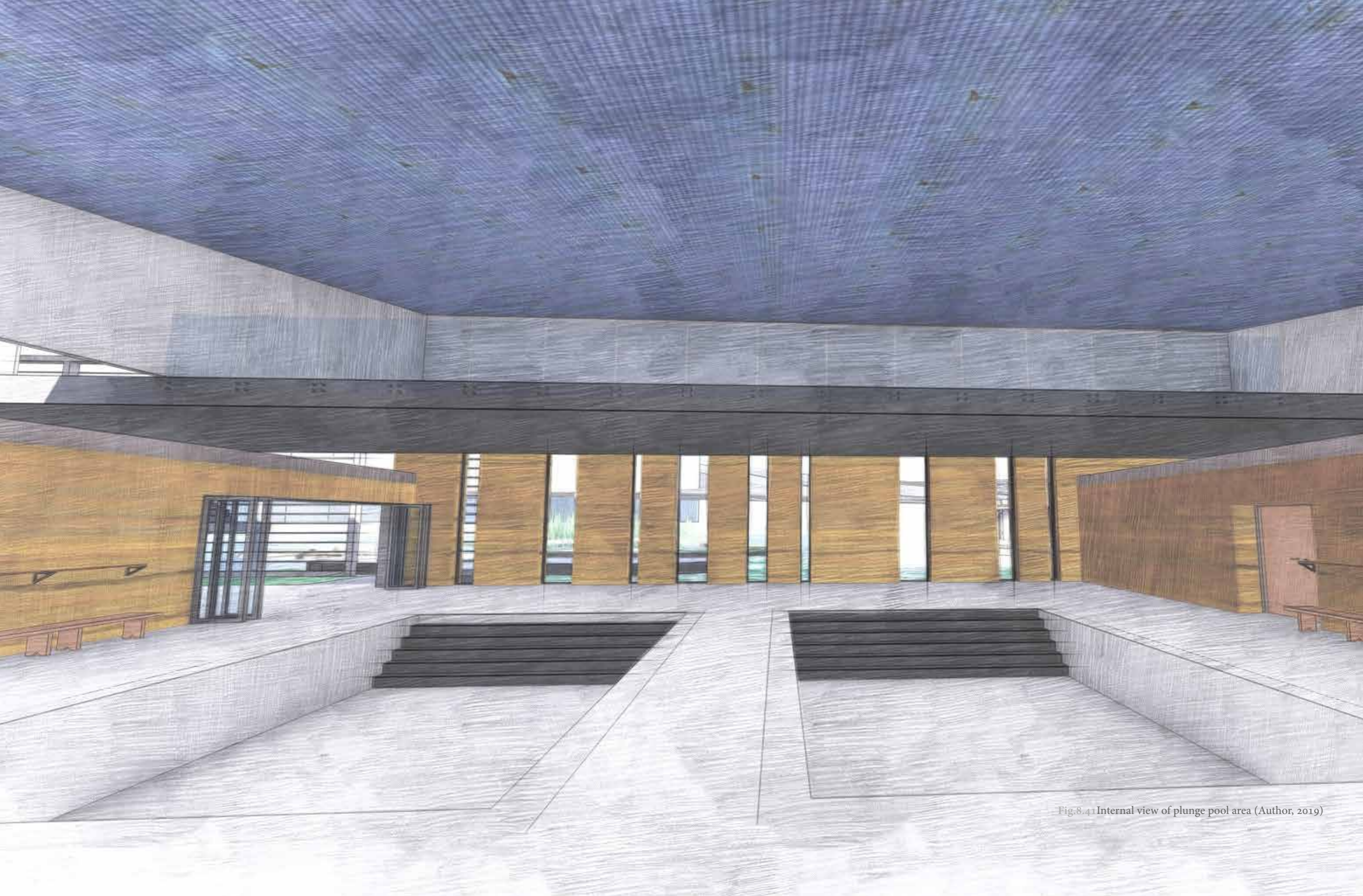


Fig.8.41 Internal view of plunge pool area (Author, 2019)

## 8.15. Detail/Louvered+Screen

### Detail A\_ Lighting

Lighting choices are fairly limited in saunas simply due to the fact that it has to be resistant to extremely high operating temperatures, especially in the higher section of the sauna, where heat is strongest.

### {B} Artificial and Controlled lighting

There are specifically designed specialty products available for use in saunas, including sconces, crystal glass diffusers and fiber optic lighting. Standard lighting equipment can also be sourced for installation below the first bench level, as heat is less of an issue.

Enclosed regulated spaces for deep cleansing require artificial lighting. Indirect, dimmable lighting that is positioned away from the guest's line of vision to prevent them being dazzled.

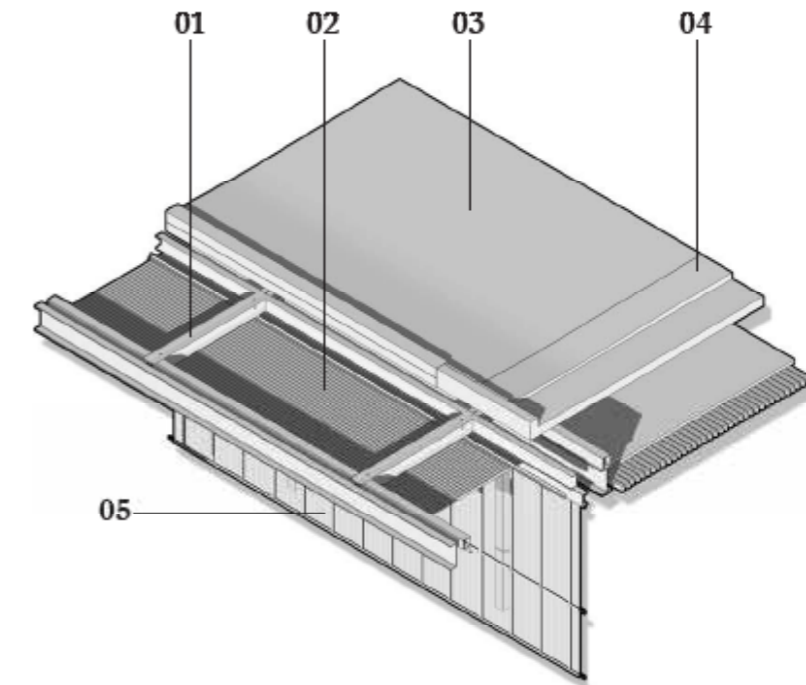
### [A] Southern light

Southern light is maximised using clerestories in angled roof for the aquatics leisure spaces. Planned as having a north-south axis, the related temperatures

### Detail B\_Ventilation

Fresh air should be introduced with steam flow; an air outlet in the roof will remove warm air from the steam bath to ensure continuous steam supply and a stable temperature control. Ideally, exhaust ducts should also be installed directly above the exterior of the steam room doors to remove steam that escapes when opening and closing the door.

To maintain a comfortable environment and correct levels of humidity, wet treatment rooms should be heated to 25° C to 35° C



### [A] Ventilated ceilings

The purpose of the ventilated ceiling is to allow the release of moisture building up to prevent mould and efflorescence. The ceiling is constructed of timber to resist rust.

### [B] Western Trombe Wall

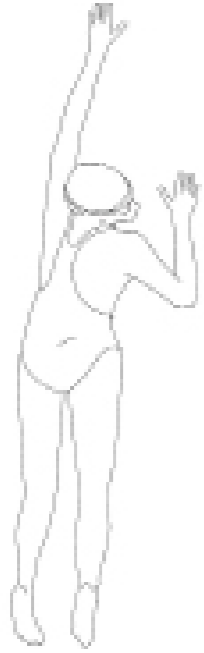
Trombe wall system to the western edge of the building are used as a natural ventilation in summer and heating in the winter. These walls integrate the composite mine dump sand brick used as a thermal mass, and form a thermal barrier between harsh western sun and interior space.

### [C]. Ventilated Floor

Floors for spaces that experience high humidity and moisture build-up should allow for water to seep through. The coolth of water assists in natural ventilation of the building.

Fig.8.42 Louvre and screen detail (Author, 2019)





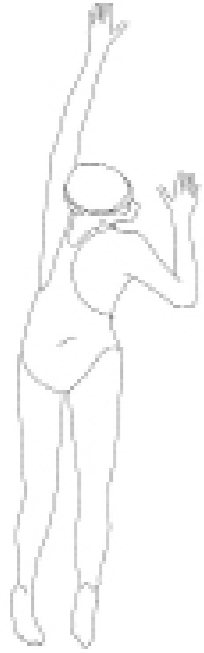
## SECTION B\_Structural logic+ Assembly

A heavy base constructed of reclaimed mine soil and bricks anchor the buildings in the landscape as a marker to the ecological infrastructural network.

The heavy base assists with thermal comfort of the building while the floor serving for heating. Glass block openings allow a sense of permanence for the internal swimming areas and provide natural light into the space.

Fig.8.43 Sectional perspective through canoe exhibition (Author, 2019)





## SECTION B\_Structural logic+ Assembly

A heavy base constructed of reclaimed mine soil and bricks anchor the buildings in the landscape as a marker to the ecological infrastructural network.

The heavy base assists with thermal comfort of the building while the floor serving for heating. Glass block openings allow a sense of permanence for the internal swimming areas and provide natural light into the space.

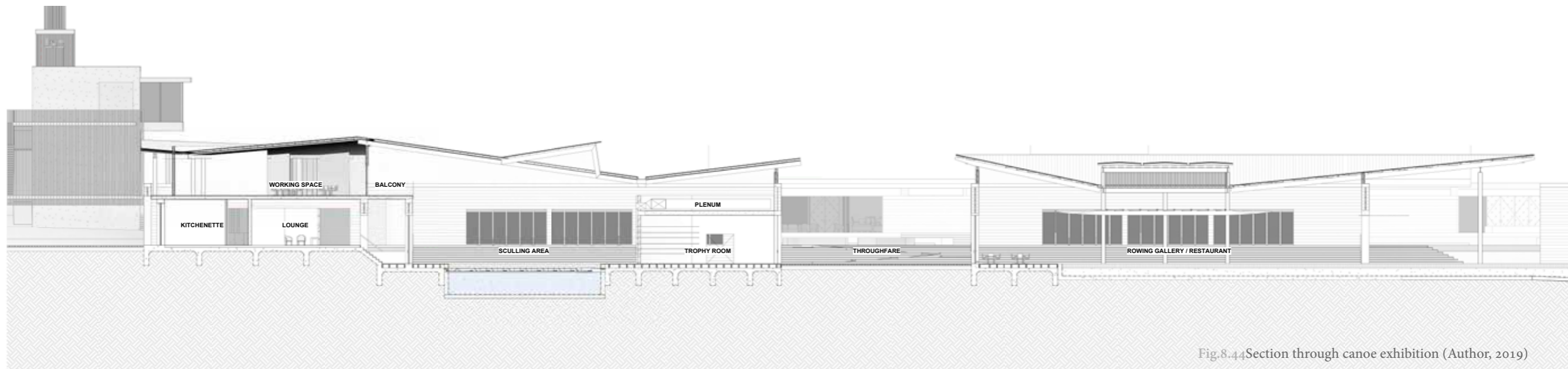


Fig.8.44Section through canoe exhibition (Author, 2019)

## Canoe Roof Detail\_Screens

In order to exhibit canoes, an engineered route for the suspension of elements.

Steel columns in the superstructure are 203x203x52kg/m hot rolled parallel flange H-columns spaced along 5m and 10m grid.

Roofs are supported by IPE 200x100x22kg hot rolled profile I-sections.

## Canoe Exhibition\_Screens

The inward facing roof allows for ample natural light to fall into spaces. The roof covering made from clear polycarbonate sheet allows for additional light and illumination of the elevated roof tower.

The Natralite T 48 ® diffuser polycarbonate 16mmx2700g//m<sup>3</sup> sheet allows for a 16mm powdercoated gauge sheeting

A l-shapped channel allows for fixed to 326x203x52kg/m hot rolled beams spaced 5m apart is to be welded together. Compressed mine dump sand allows for fins to be pre-cast as concrete blocks.

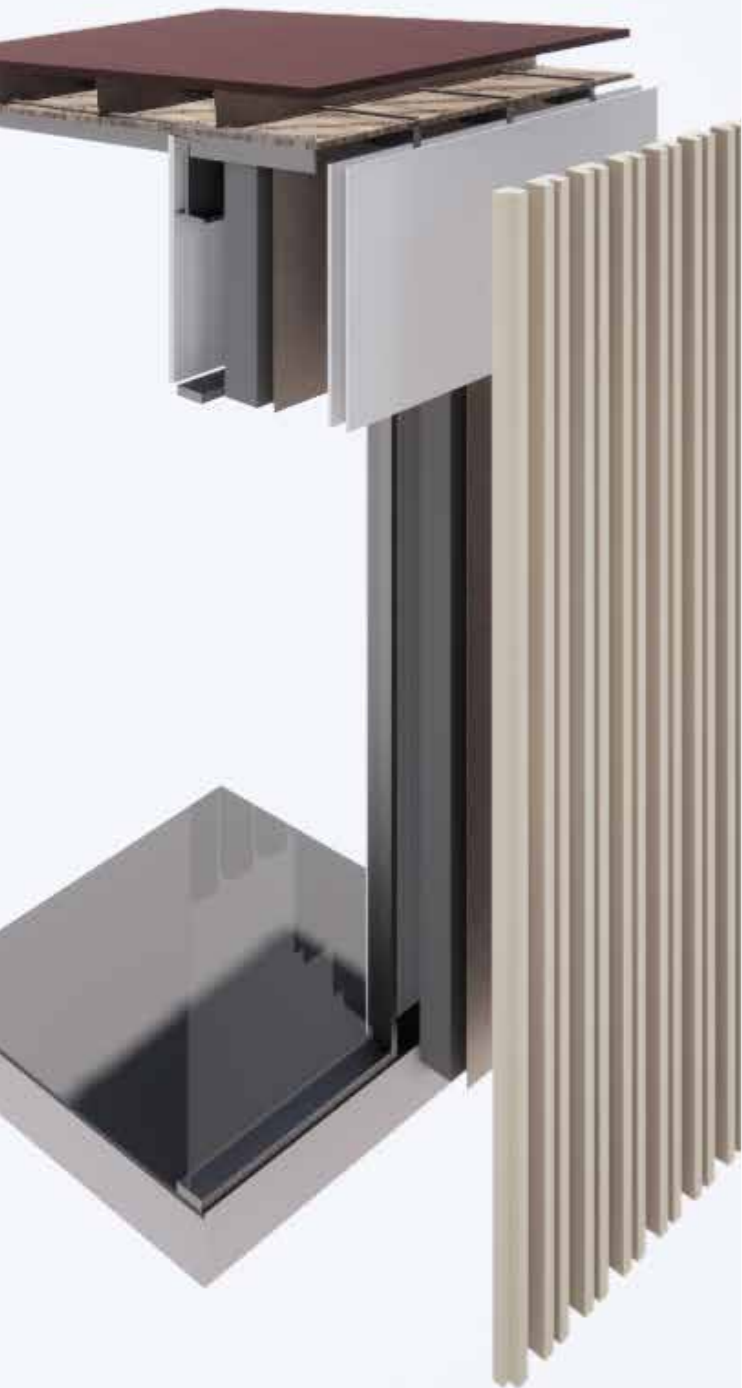


Fig.8.45Roof screen detail (Author, 2019)

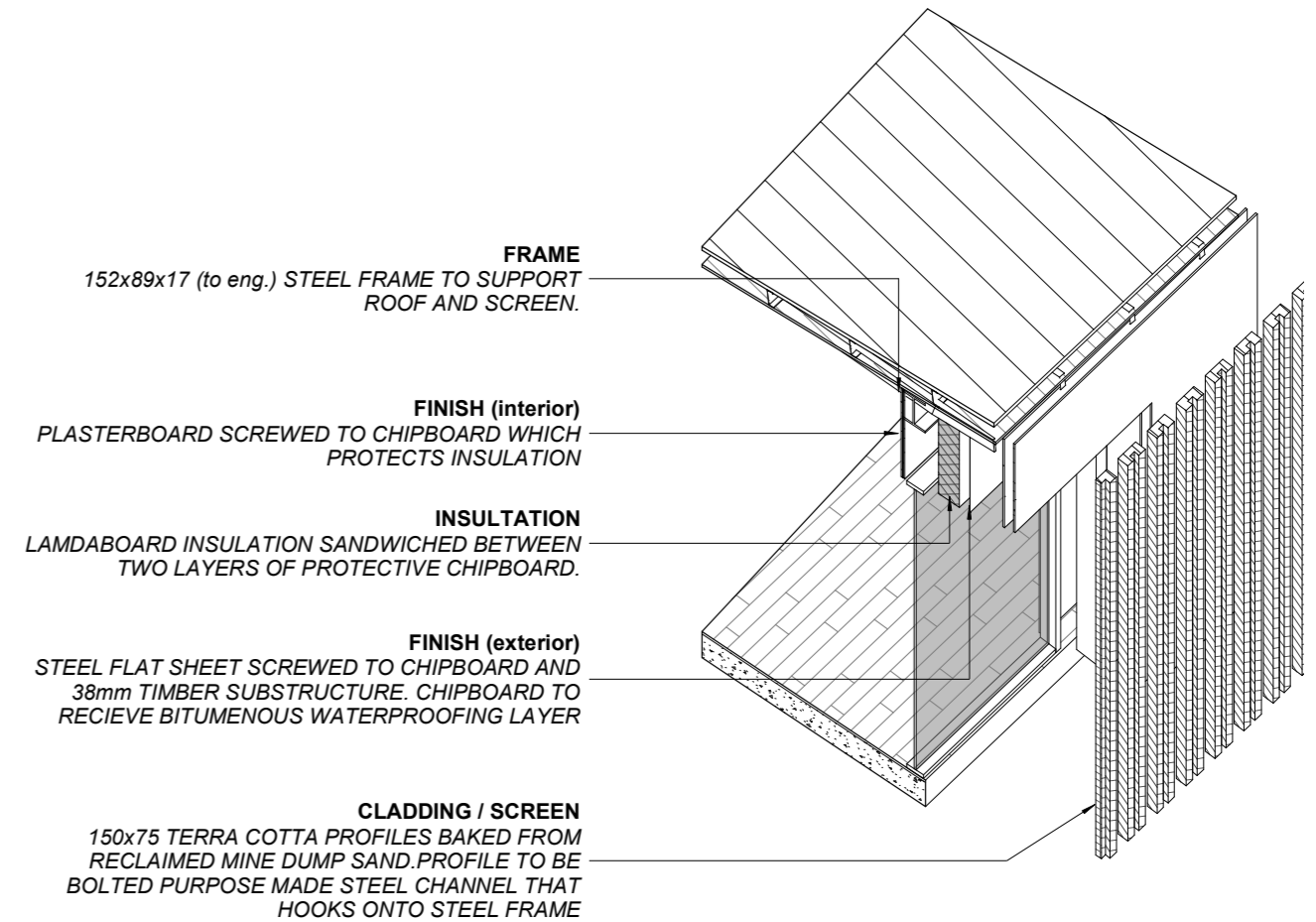


Fig.8.46Screen detail (Author, 2019)

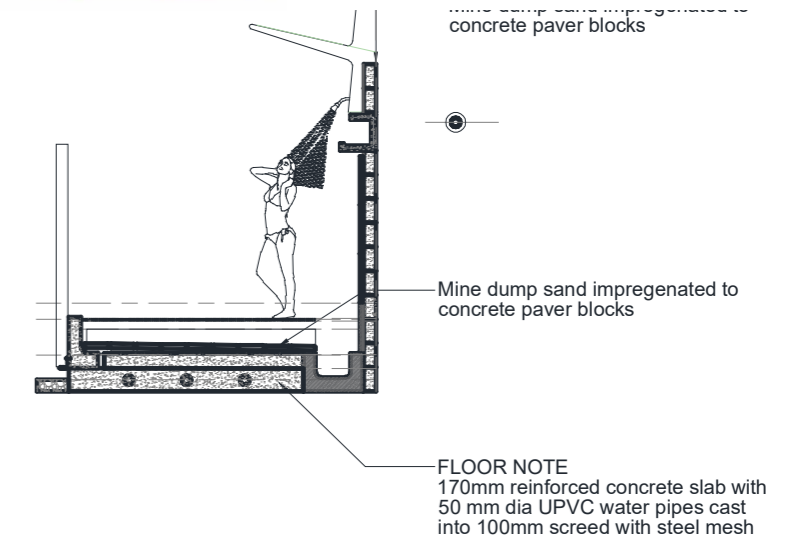


Fig.8.47 Shower detail under floor heating (Author, 2019)

## 8.16. Internal Environment Control

### PART D\_Heating + Cooling

The main contributor to heat loss within a hydrobath is evaporation and ventilation causing high energy consumption.

The strategy to harvest energy, the choice of material, rammed earth is used to support the buildings thermal comfort requirements

Body cooling after heat treatments ensures a good supply of blood to the skin and internal organs, helps to flush out toxins and closes skin pores.

Similar to the sauna/banya heat and cold contrast therapy, the cooling-down process accelerates the supply of blood to the skin and internal organs, facilitates toxin flush out and closes the skin pores to prevent dehydration. An essential part of thermal bathing is cooling the body down—this is important for enjoying spa facilities safely and maximizing health benefits.

Seasonality plays an important role in controlling temperature fluctuations, during summer the buildings courtyards assist with cooling through natural ventilation, reducing external heat loads. Heat loss due to evaporation and ventilation

#### Humidity control

Due to the high moisture in steam rooms must be constructed of waterproof materials. One option is foam building boards with reinforced cement coating that will create a waterproof tank, prior to being finished with other water-resistant materials, such as porcelain tile, large custom ceramics, granite, or even acrylic (Cavanah, 2016).

Thermal insulation provided by foam boards saves not only energy by reducing the working hours of steam generators and the amount of heating required, but it also reduces the maintenance costs of this equipment (Cavanah, 2016).

#### Indoor air quality

It is important to balance the ventilation system to ensure a slight negative pressure to minimize the loss of steam/climate (Cavanah, 2016, p. 115). Proper ventilation in the pool area helps minimize evaporation and controls condensation. In addition, it removes chlorine smells and other contaminants from the air and creates a comfortable environment for bathers, staff and spectators (Cavanah, 2016, p. 114). Fans should provide four to six air changes per hour and have variable speed controllers to

balance airflow and ensure a slight negative air pressure in the room (Cavanah, 2016, p. 115). Exhaust ducting must be smooth, not flexible, to avoid condensation. The minimum number of air changes required in the plant room is four per hour. The temperature should not fall below 10° C or rise above 30° C (Cavanah, 2016, p. 99).

#### Condensation Control

The air conditioning system is a vital part of clean room technology. A typical example uses a low turbulence displacement with an even speed of moving air (0.45m/sec) to produce a laminar flow, ahead of which any germs and particles released are propelled out of the room. An additional directed jet with the flow directed towards the operating area allows air turbulence to be minimised.

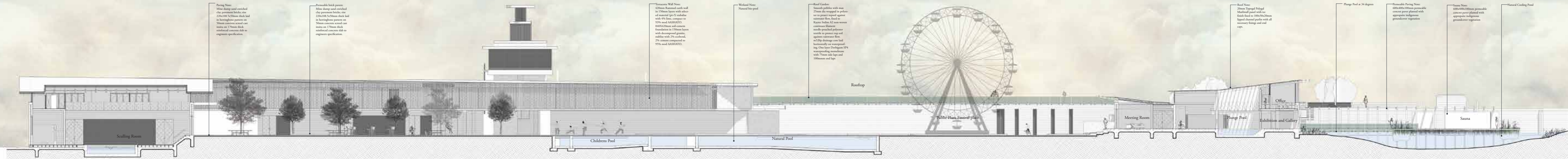
The ability to produce a desirable humidity within a space that is optimal for human habitation and swimming, by absorbing and releasing humidity, balances to a level that is comfortable. The ability to adjust the density by using different aggregates and thereby produce different structural and thermal properties (Ciancio & Beckett, 2015). Condensation Control

Steam room ceiling must be flat to stop condensation and dripping, ventilation that enables the proper flow of oxygen and condensation.

Exhibition and Gallery | Exhibition and Gallery | Natural Pools | Public Plaza/ Multifunctional public space | Hydrotherapy | Sauna

Fig.8.49 Eastern Elevation (Author, 2019)

SECTION B\_Structural logic+ Assembly



The Urban Catharsis  
Strategies for the adaptation of Johannesburg's privately-owned public spaces along the mining belt-approach to adapting mining landscapes for leiscuescapes of Johannesburg south.

SECTION B-B  
SCALE 1:50

Fig.8.48 Section B-B (Author, 2019)

Fig.8.51 Eastern Elevation (Author, 2019)

SECTION A\_Structural logic+  
Assembly

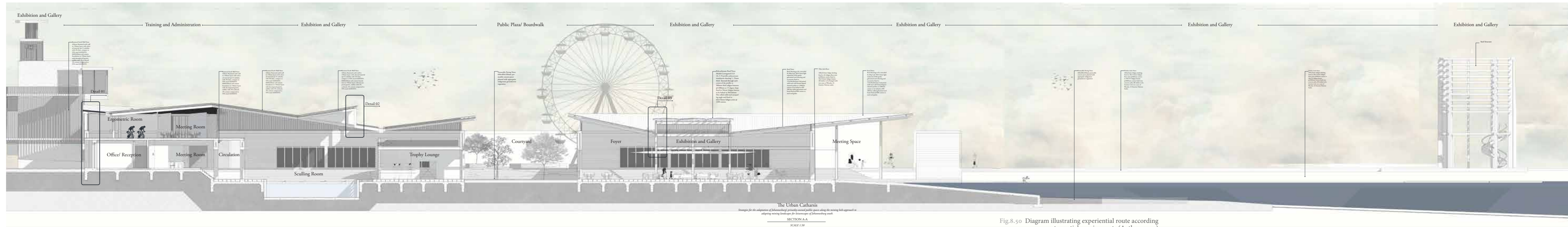


Fig.8.50 Diagram illustrating experiential route according to spatial requirements (Author, 2019)

### 8.17. Sauna heating + cooling

Due to the nature of the programme and inherent need for high energy consumption. The hydopath has a high energy demand. The strategy to harvest energy, the choice of material, rammed earth is used to support the buildings thermal comfort requirements

Body cooling after heat treatments ensures a good supply of blood to the skin and internal organs, helps to flush out toxins and closes skin pores.

Similar to the sauna/banya heat and cold contrast therapy, the cooling-down process accelerates the supply of blood to the skin and internal organs, facilitates toxin flush out and closes the skin pores to prevent dehydration. An essential part of thermal bathing is cooling the body down—this is important for enjoying spa facilities safely and maximizing health benefits.

Seasonality plays an important role in controlling temperature fluctuations, during summer the buildings courtyards assist with cooling through natural ventilation, reducing external heat loads. Heat loss due to evaporation and ventilation

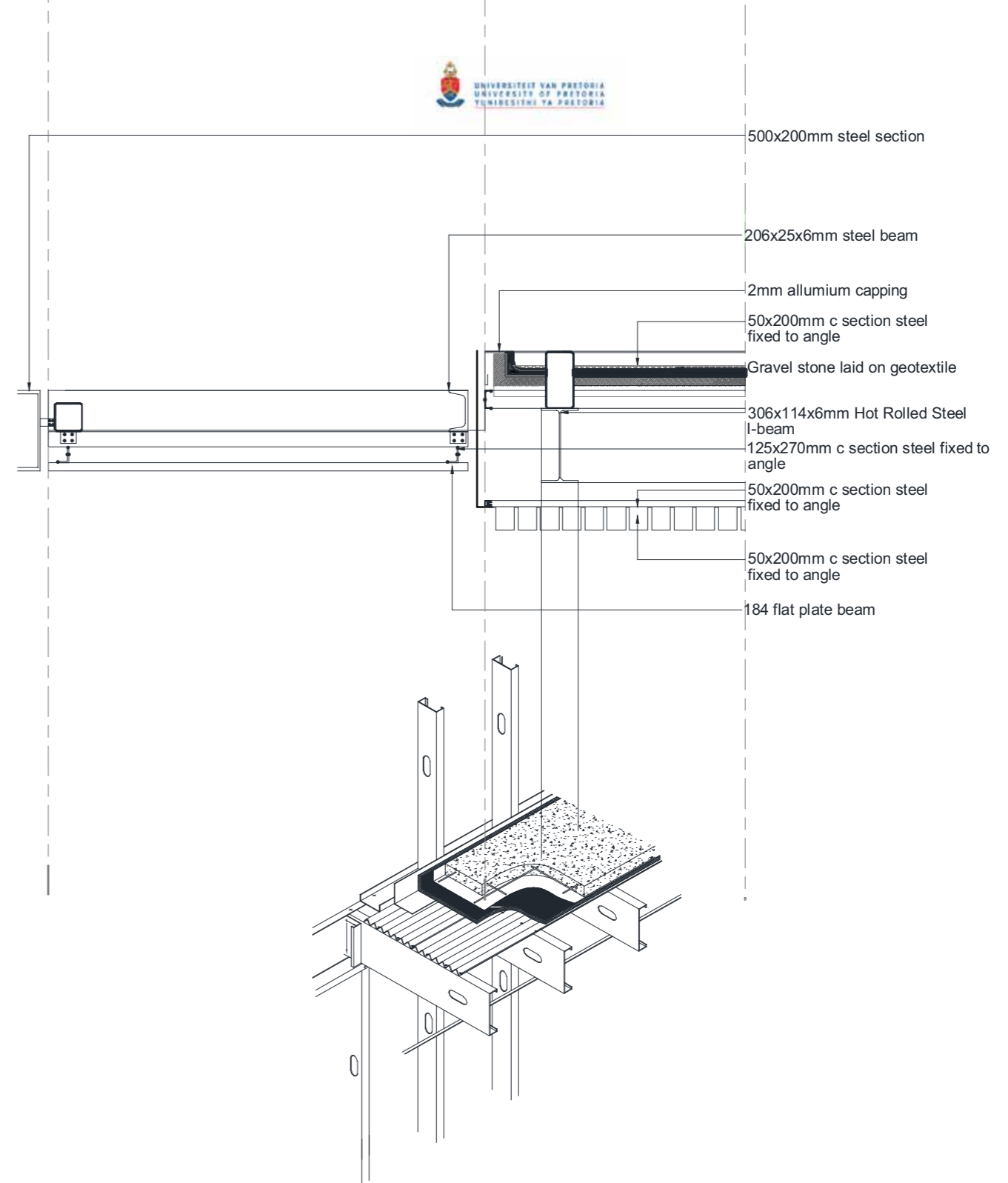


Fig.8.52 Detail of pergola (Author, 2019)

Fig.8.53 Underfloor additional lightweight floor to tower(Author, 2019)

### 8.18. Detail Components

The canoe gallery and exhibition space allowss for the exhibition and

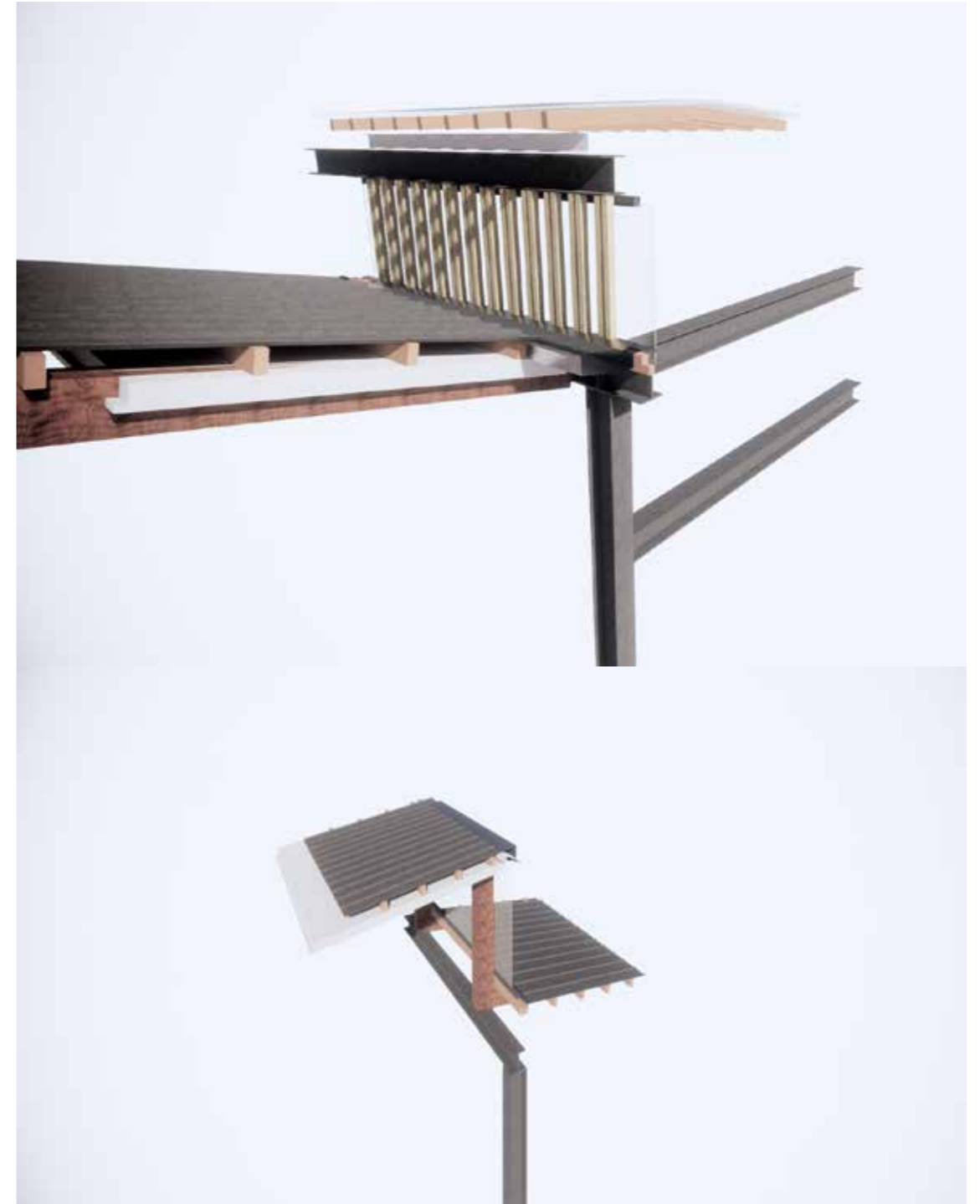


Fig.8.54 Detail of pergola (Author, 2019)

Fig.8.55 Underfloor additional lightweight floor to tower(Author, 2019)



### 8.19. Detail Components

Due to the nature of the programme and inherent need for high energy consumption. The hydopath has a high energy demand. The strategy to harvest energy, the choice of material, rammed earth is used to support the buildings thermal comfort requirements

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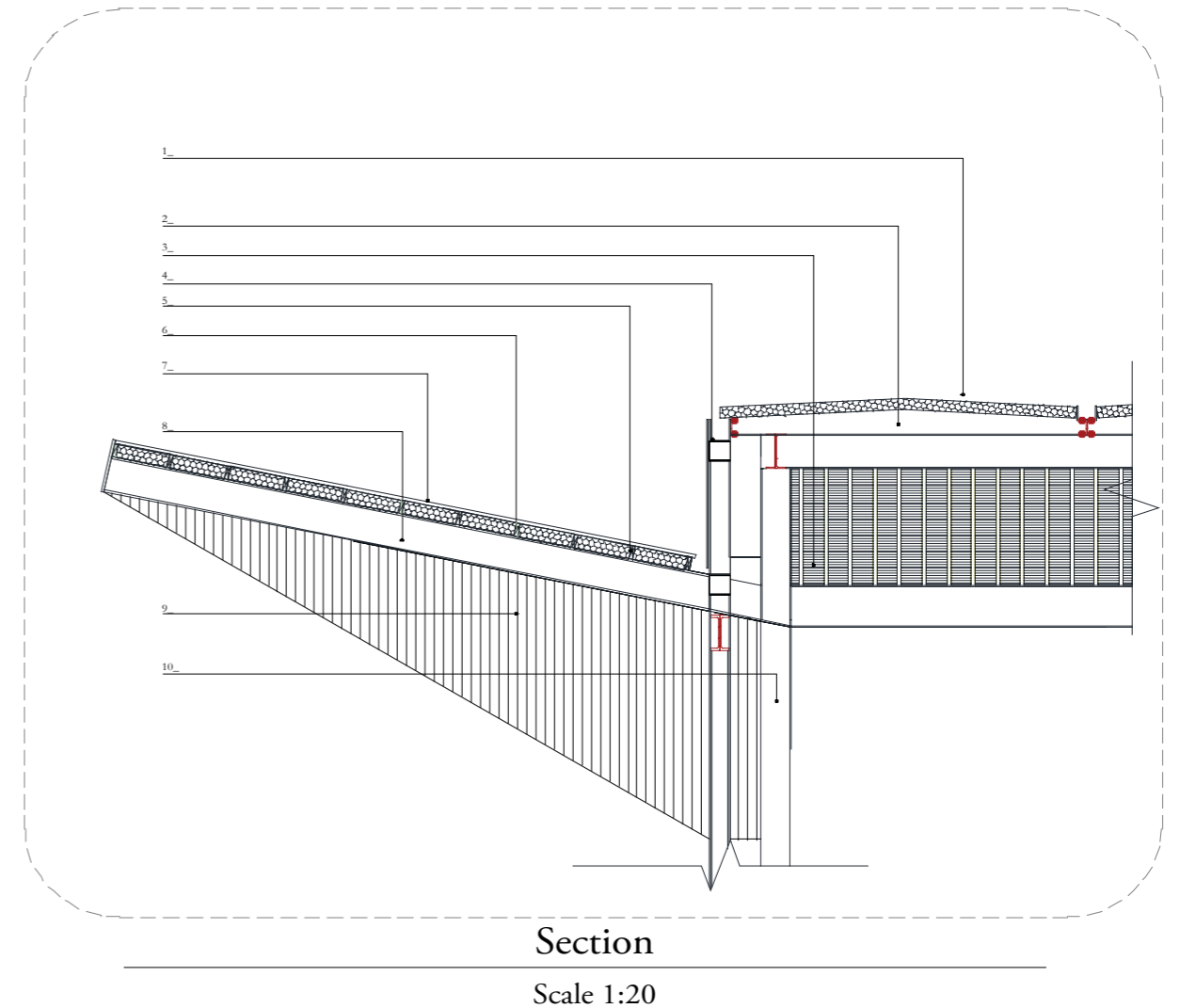


Fig.8.56 Detail of pergola (Author, 2019)

## 8.20. Detail Components

Due to the nature of the programme and inherent need for high energy consumption. The hydopath has a high energy demand. The strategy to harvest energy, the choice of material, rammed earth is used to support the buildings thermal comfort requirements

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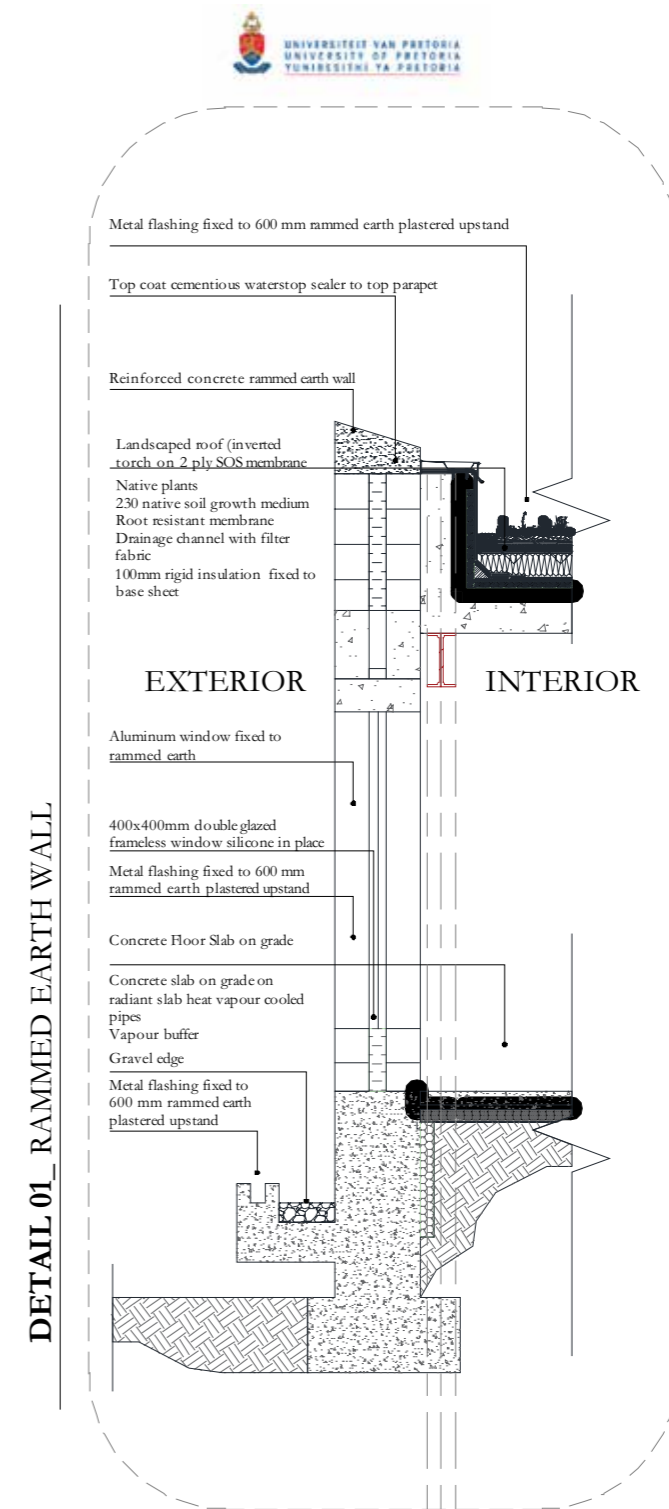


Fig.8.57 Detail of pergola (Author, 2019)

## 8.21. Detail Components

Due to the nature of the programme and inherent need for high energy consumption. The hydopath has a high energy demand. The strategy to harvest energy, the choice of material, rammed earth is used to support the buildings thermal comfort requirements

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Seasonality plays an important role in controlling temperature fluctuations, during summer the buildings courtyards assist with cooling through natural ventilation, reducing external heat loads. Heat loss due to evaporation and ventilation

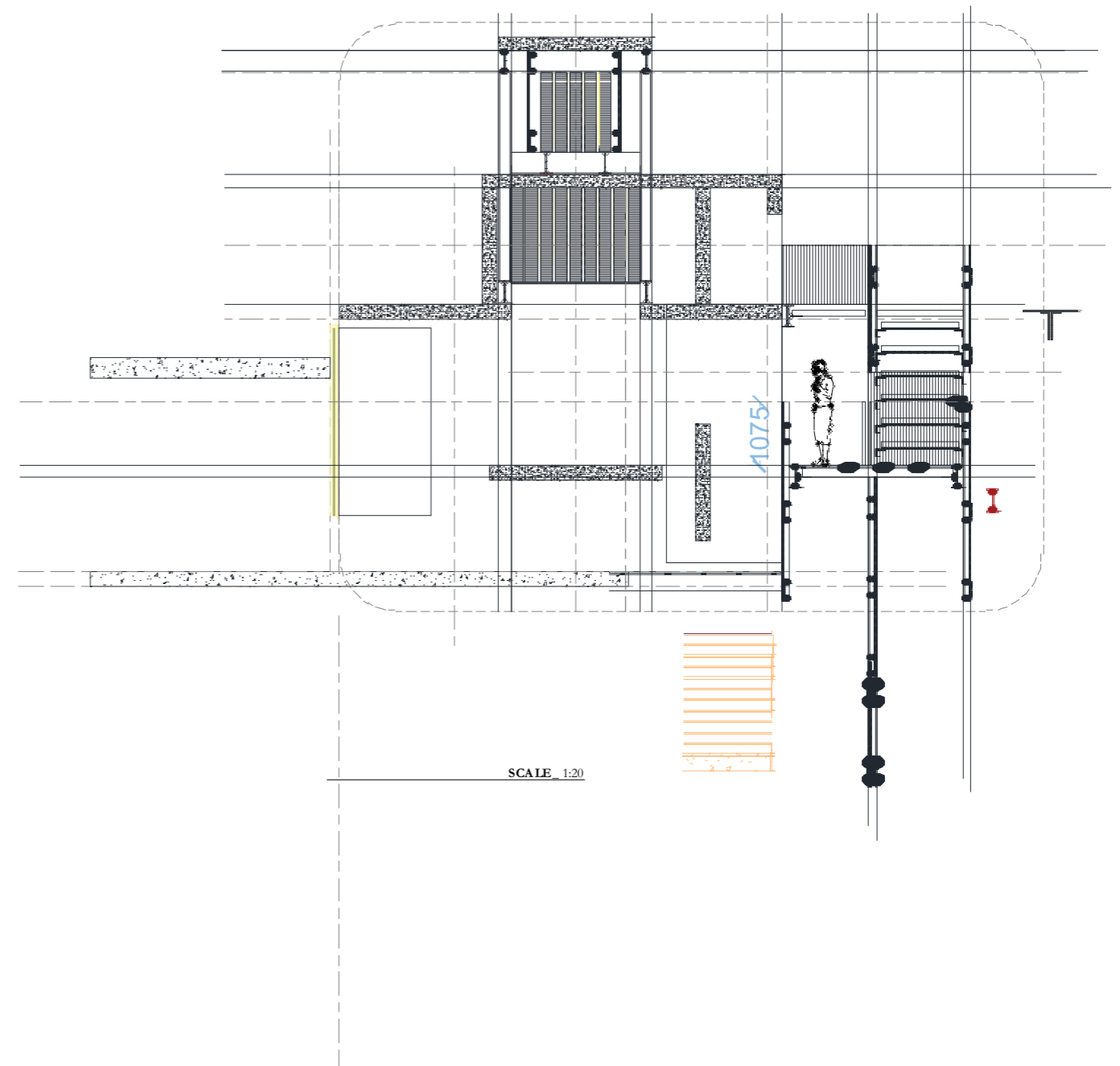


Fig.8.58 Detail of pergola (Author, 2019)

Fig.8.59 Underfloor additional lightweight floor to tower (Author, 2019)

## 8.22. Detail Components

Due to the nature of the programme and inherent need for high energy consumption. The hydopath has a high energy demand. The strategy to harvest energy, the choice of material, rammed earth is used to support the buildings thermal comfort requirements

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Seasonality plays an important role in controlling temperature fluctuations, during summer the buildings courtyards assist with cooling through natural ventilation, reducing external heat loads. Heat loss due to evaporation and ventilation

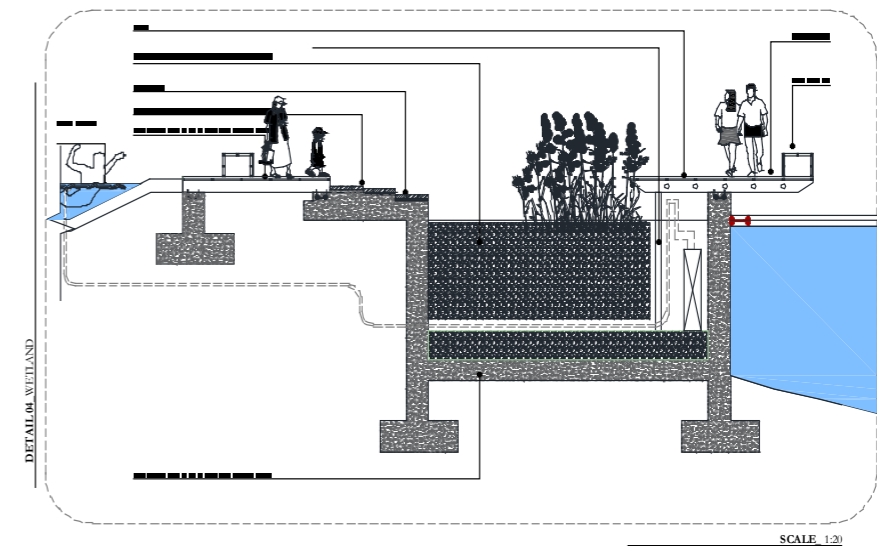


Fig.8.60 Detail of pergola (Author, 2019)

Fig.8.61 Underfloor additional lightweight floor to tower(Author, 2019)



## SBAT Analysis

Ec

### Economic

The addition of supporting facilities in context provides a larger consistent base of users to the precinct, thereby increasing financial economy and resilience of the precinct.

S

### Social

Support for facilities for daily and event driven activities provide an environment in which social cohesion is encouraged.

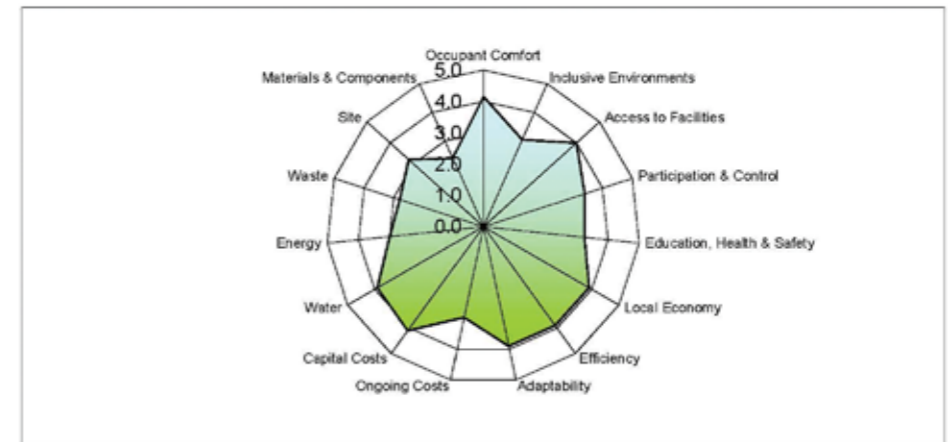
En

### Environmental

The intervention as a water-based landscape focuses highly on creating energy efficient systems thereby contributing to the ongoing debate of slime dam remediation and the extension of its use.

## SUSTAINABLE BUILDING ASSESSMENT TOOL (SBAT- P) V1

PROJECT		ASSESSMENT	
Project title:	The Urban Catharsis	Date:	23-Oct-19
Location:	Wemmer Pan, Johannesburg	Undertaken by:	Helga Fernandes
Building type (specify):	Community/Industry	Company / organisation:	
Internal area (m2):	2012	Telephone:	Fax:
Number of users:	471	Email:	
Building life cycle stage (specify):	Design		



Social	3.6	Economic	3.8	Environmental	4.7
Overall		3.5			

Fig.8.62 SBAT analysis after intervention (Author, 2019)

## Conclusion

The intention of the dissertation was to question current approaches to the conversion of former productive landscapes into landscapes of leisure applied to sites surrounding the Johannesburg mining belt. These sites of conversions are embedded with narratives of city of gold, fantasy, escape and leisure as illustrated in the case studies. The existing condition illustrates how communities surrounding mining residue, specifically to the south have experienced a landscape often distressed by the by-products of mining waste. The future potential to regenerate these landscapes lies in resilient strategies that are conceived with the inclusion of existing and potential stakeholders, programmes and ecological potentials as opposed to the current mono-functional and often top down interventions.

Until the mid-20th century approaches to these conversions were focused on the creation of extreme leisure-scapes, in a tabular rasa style, often negating threat to health and welfare that these wastelands have inflicted on surrounding communities. Recent frameworks, fortunately, critique this former thinking by including, in their approaches, the necessity for remedial strategies as a prelude to the development of leisure-scapes. This dissertation is a continuum of this critique in that it takes into consideration the importance of leisure and recreation to the socio-political welfare of the surrounding communities as well as the significance of sustainable leisure-scapes to the image of the city.

In considering the theoretical approach of leisure as a cathartic human experience, the dissertation proposed a water based programme which exhibits the characteristics of remediation of both the human body as well as the natural landscape. The design approach is largely directed by a series of programmes, both new and proposed, which seamlessly tie the site into a water based recreational landscape.

Through the combination of current social dynamics, ecological and economical debates surrounding the remediation of sites surrounding mining residue, the dissertation intends to shed light on the numerous states of neglect and reprocessing along the mining belt and the effect on social fabric surrounding the community.

The Santarama Miniland as a repository of memory and narrative, presented an ongoing tale and discourse of memorialisation merged with escape. The form and typology of escape present the ephemeral experience of the amusement park as an escape. The urban catharsis, at this scale, is a critique of the typology of leisure and escape. The contribution of the research lies in the potential to explore the cultural significance of sites of similar condition, like Sanatarama Miniland into sites which over time develop into sites that are conditioned to addressing the component of leisure and recreation in the city-making image. It is a proposal of an everyday escape to be enjoyed by the everyday people of the South.

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