



FIGURE 4.1

Day 32, Long Road

(Lorraine Loots, 2013)

Chapter four

CONTEXT & SITE

4.1 PREFACE

The following chapter will investigate the contextual influences on the chosen site that most appropriately support and allow for the **restoration of reciprocity** between humans and nature through building. The dissertation will firstly be positioned within the urban framework that addresses the **discarded landscape of the West**, and deliberate on how it would contribute to the framework. Secondly, an urban analysis of the **South Berea precinct** will be done in terms of the historical, socio-ecological, cultural and ecological context and influences that will inform a Regenerative urban proposal for the **southern gateway into Pretoria**.

A comprehensive site analysis will then be done in order to identify the physical and intangible qualities of the site that will **inform site-appropriate design possibilities**. Most of these qualities will be of an ecological nature in order to promote bio-remediation to take place on site, although other aspects such as movement patterns, access, and social and cultural activities will also be considered.

4.2 THE URBAN FRAMEWORK

If one looks at the historical development of Pretoria it is clear that there has been a strong emphasis on development towards the east, which in time has resulted in an **unbalanced city** (Pretorius, 2011:3) unable to control its own growth, making Tshwane the largest metropolis in the world and with that, one of the most unsustainable. The perception of the west of Pretoria is that it is a landscape fit to be discarded, littered with mental institutions, prisons, old-age homes, homes for the disabled and burial places for the dead. The West has become the backyard of Pretoria, the graveyard of past industrial dreams.

From an internal approach, the area of investigation focused on the western part of Pretoria Central, moving west from Paul Kruger Street and terminating at the western outskirts of Atteridgeville. The northern and southern boundaries are determined by the two ridges that define Pretoria.

Four lenses were used to analyse the latent potential of this area, namely **ecology, heritage, public** and **economy**. After analysing its latent potential, it became clear that the West encapsulate immense cultural diversity and public energy, which can be utilised for the regeneration of their context. Vast tracts of land close to the CBD lie open for potential development. The West is rich in cultural

and historical narratives, which can be harnessed in the celebration of this unique and significant environment.

The vision for the West of Pretoria aims to revitalize marginal space, re-instill developmental energy and re-establish the area as an essential part of the city's future, to **ultimately restore developmental balance** to the city at large, and ensure its sustainable continuation. It will enable the people of the West equality in access to the city and enforce their claim to the opportunities it provides.



▲
FIGURE 4.2

The discarded landscape of the West timeline
(Author, 2016)

CHURCH SQUARE

FIGURE 4.3

Developmental trend towards the East ▶
(Author, 2016)

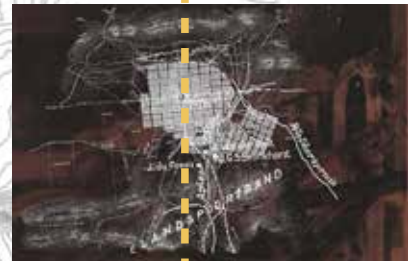
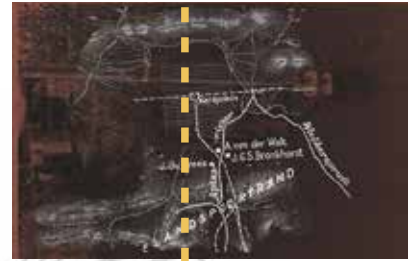
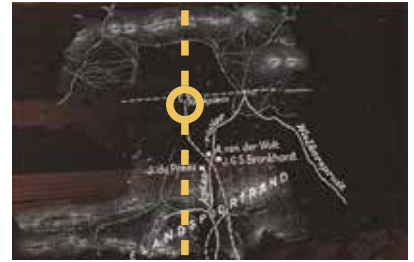
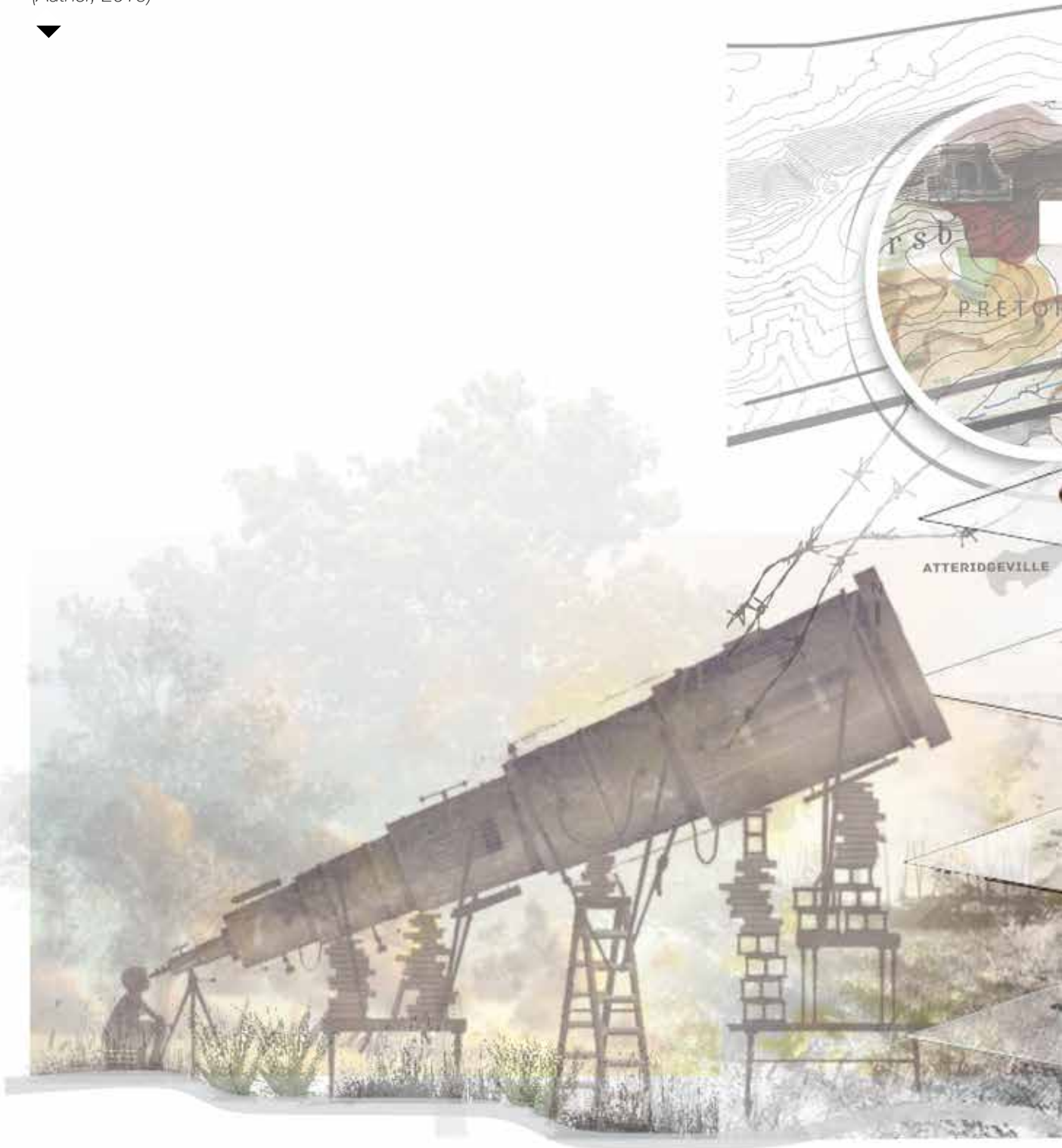
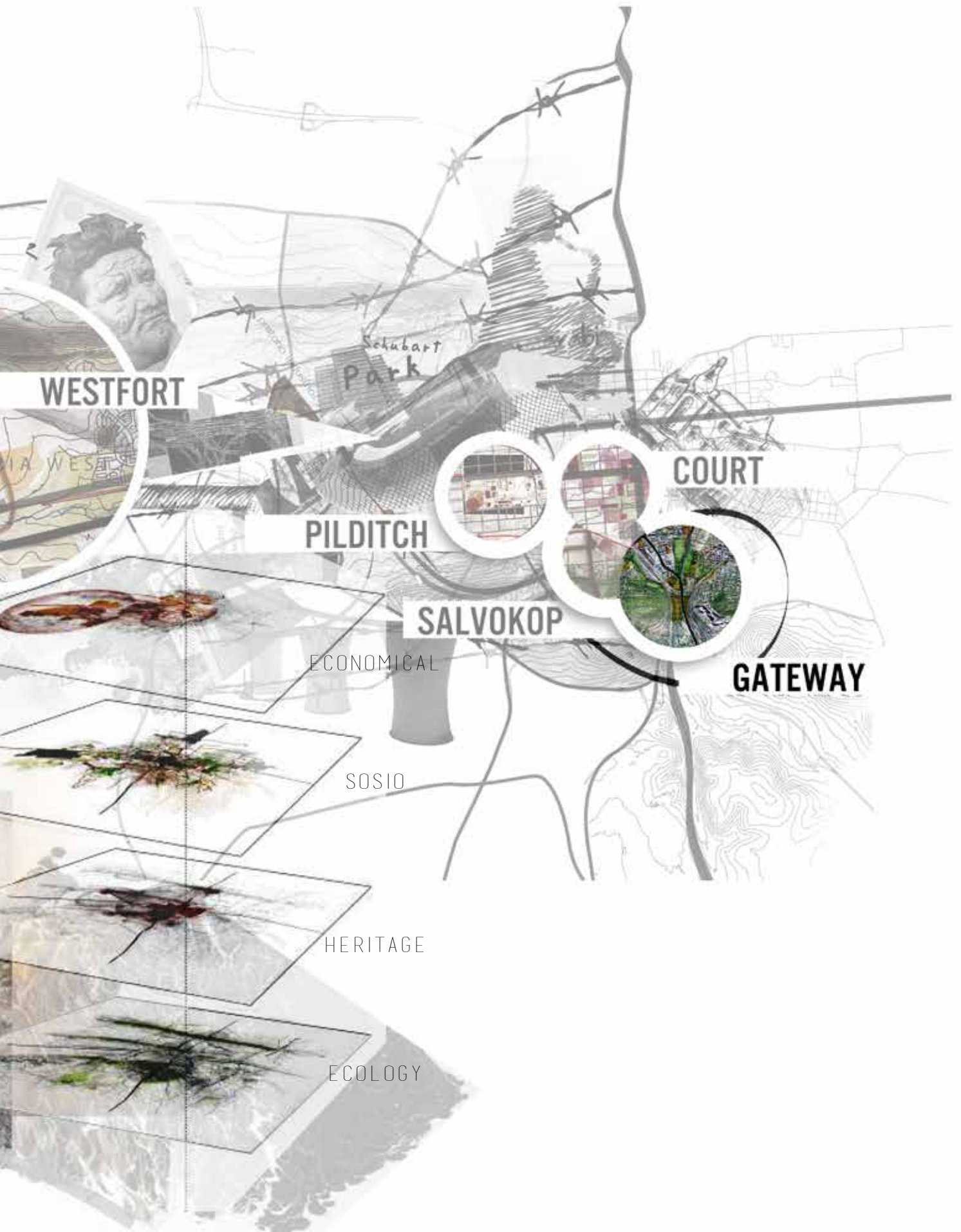


FIGURE 4.4

Urban Framework Approach
(Author, 2016)





Nine broader principles were compiled to be applied, within each site in order to achieve the **vision of depolarizing the West** (Pretorius, 2011:12). These include:

- Establish multi-functional uses
- Create civic space
- Regenerate the immediate context
- Celebrate significance
- Ensure densification
- Strengthening networks
- Promote developmental balance
- Celebrate everyday rituals
- Ensure accessibility

Strengthening networks



Ensure accessibility



Ensure densification

These principles are focused on, firstly, addressing the **natural ecological structure** evident throughout the city. Secondly, it focuses on the **heritage fabric** and its intended development, as well as the intangible active and dormant layers of memory. Finally, it addresses the **public sphere** of the city and the inhabitants' rights and access to the city, as well as the manifestation of the **informal economy** throughout the city (Pretorius, 2011:14).

The dissertation will contribute to the vision for the West by pursuing the **repair of neglected parts of the urban ecosystem** (Corner, 1991:34), which in turn will facilitate urban public health and well-being for all its inhabitants, and subsequently **restore reciprocity** between humans and their natural living environment in the West.



Celebrate
everyday rituals



Promote developmental
balance



Regenerate the
immediate context



Establish
multi-functional uses

Create
civic space

Celebrate
significance



▲
FIGURE 4.5

*Illustration of Urban Principles applied to urban foyer
(Author, 2016)*



FIGURE 4.6

Study area within the context of Pretoria
(Author, 2016)



GAUTENG
PRETORIA



4.3 URBAN ANALYSIS

OF SOUTH BEREA

4.3.1 HISTORICAL CONTEXT

Today, when visitors and inhabitants enter Pretoria through Elandspoord, they are oblivious to the fact that they are tracing the footsteps of stone-age man. Archaeological evidence indicates that, during the pre-colonial era, Elandspoord served as an access and exit gateway for crossing the valley to Wonderboompoort (Pelser 1998: 22). A small river, today known as the Apies River, which springs from the strong fountains in the dolomite ridge north of Elandspoord, snakes through the valley and exits north through Wonderboompoort, historically serving as a water source for the hunters and gatherers that resided more permanently along its spine.

However, as one enters Berea today, one is confronted by a vast amount of green open spaces that are inaccessible for public use and neglected in most parts (Pretorius, 2011:18). Even though it is considered to be the southern gateway to the city, this area has been neglected and not fully appropriated for its potential as an ‘urban foyer’ to the city. The current land uses in Berea are mainly residential, with some retail and office developments on the western side of the river, towards the Pretoria Gautrain station.



▲
FIGURE 4.7

*Photos of entrance into Pretoria & site
(Author, 2016)*





4.3.2 CULTURAL CONTEXT

The geographical area south of Pretoria was for decades spatially dominated by the **Fort Salvokop and Fort Klapperkop** and the Voortrekker Monument, lying on a west–east axis and projecting a strong spatial and visual dominance of Afrikaner values (Labuschagne,2010: 113). The dominance of the forts and monument from the colonial era motivated the decision to erect **Freedom Park** on the neighbouring Salvokop hill to rectify the spatial imbalance of monuments in the area. It lies on the spatial axis line of the **Voortrekker Monument** and the **Union Buildings**.

Freedom Park nestles unobtrusively around Salvokop’s gentle incline. The footpaths linking the various areas synchronize with the surroundings

to reduce any possible intrusiveness nature of the Park. Freedom Park with its surrounding natural landscape presents opportunities for pedestrian linkages to be made to the city through the Berea Precinct.

4.3.3 SOCIO - ECONOMIC CONTEXT

South Berea is characterized by a high-density **residential** demographic that has limited **informal and commercial activities**. The residents are predominantly lower-middle class, of a multicultural nature and divided into two distinct groups: a minority older white population relying



on personal vehicular transport, and a younger multiracial pedestrian-orientated population that relies on public transport and is mainly employed in the CBD. Some residents are owners of informal trading stalls along busy streets. The students who attend the educational facilities in Pretoria rely on train, taxi and BRT services for transport. Predominant pedestrian movement during peak hours is evident to and from **Pretoria Station** on a daily basis. **Nelson Mandela Drive** carries heavy vehicular traffic during peak hours to and from the inner city (Myburgh, 2014: 54-55).

Currently, land uses within South Berea are in a transitional phase where the emergence of retail

is replacing the previous low-density landuse. According to the 2011 Spatial Development Framework (Pretorius, 2011: 21), South Berea is demarcated for mixed land uses, including office space, retail, residential and institutional facilities: however, few of these intentions have been realised.

FIGURE 4.8

Image of Freedom Park, UNISA and Voortrekker Monument at city entrance.
(Labuschagne, 2010, adapted by Author, 2016)







▲
FIGURE 4.9

*Photos of entrance into Pretoria & site
(Author, 2016)*

4.3.4 NATURAL CONTEXT

Hydrology

The predominant water network of Pretoria is the **Apies River** that originates at two fountains located at Fountain’s Valley, and which consistently delivers about 26megalitres of water per day (Myburgh, 2014: 32). The route of the Apies River runs through South Berea and has historically determined most of the urban development in the inner city, such as main transport routes and the legibility of the urban structure. However, as the pace of life quickened and the demands of the growing economy increased, the Apies was forgotten to become the city’s main drainage ditch. Most developments turned their backs to the river, isolating one of Pretoria’s most important form givers.

Being located in such close proximity to the **Apies River** as well as the **slope of the Salvokop hill** (Labuschagne,2010: 116), South Berea has numerous **flood plains and natural basins** that are currently dried up but show evidence of being **natural wetlands**, indicating where flooding could occur during high-rainfall seasons.

Green networks

The chosen site, a deteriorating and unused green space, has been identified as the only access point to the **historical green belt** of the **Fountains Valley** and the rest of the **Groenkloof Nature Reserve** running alongside the Apies River (Van der Walt, 1967: 12).

The site is located in the transition zone of the Rocky Highveld Grassland and Savannah biome. Alien vegetation does exist within the precinct, but will be eradicated and replaced with indigenous vegetation from these biomes.

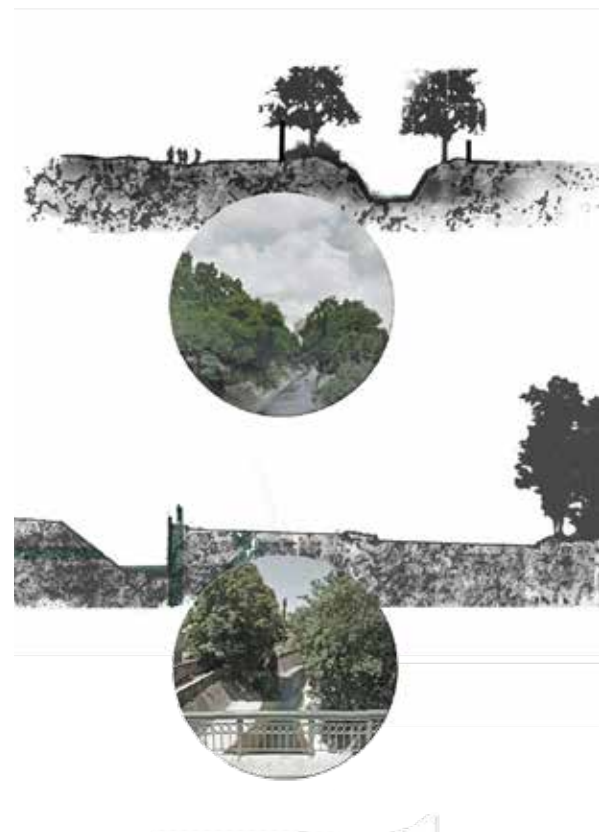


FIGURE 4.10 ▶

*Sections of Apies River conditions.
(Van der Walt, 1967)*

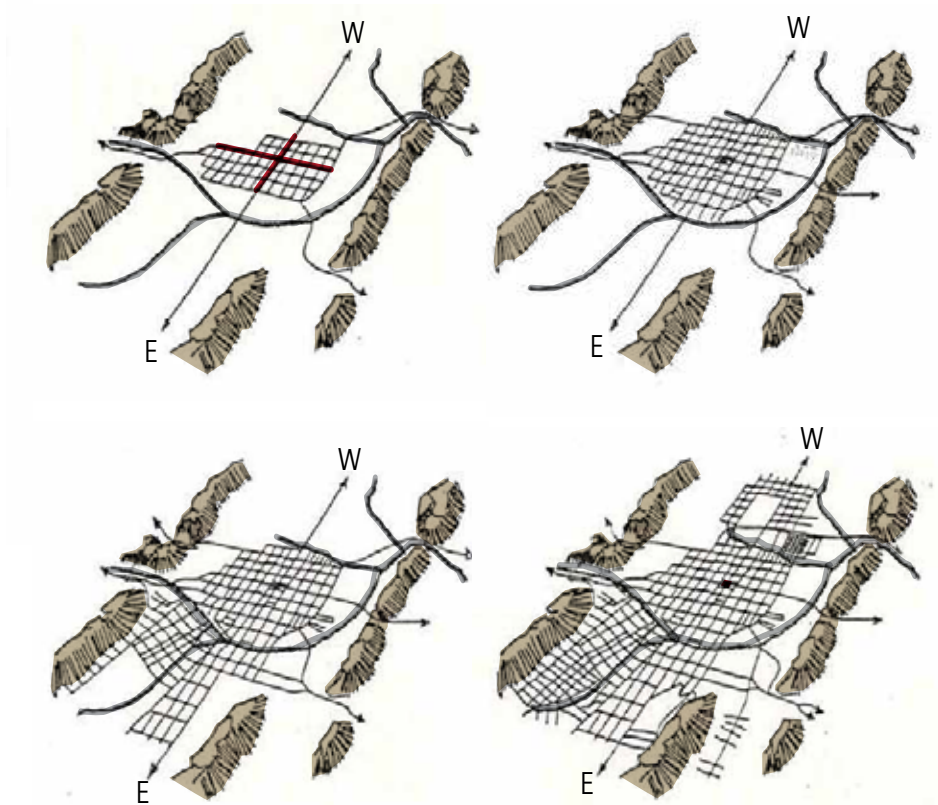


FIGURE 4.11

Topography of Pretoria. ►
(Labuschagne, 2010)

T_{opography}

The Apies River, which runs in a north-south direction, cuts through three east-west running ridges, namely Salvokop at Elandspoort, the Witwatersberg at Daspoort, and the Magaliesberg at Wonderboompoort. Due to the topography of the ridges the **urban grain** and structure is orientated in an **east-west direction** (Van der Walt, 1967: 6-7).

Unlike the rest of the inner city, the urban patterns of Berea are of a more **organic** and haphazard nature due to ecological influences such as the topography and river, creating a **unique urban grain**.

G_{eology}

The soil in proximity to the river consists of andesitic lava [T3dL] that weathers into a deep red loamy soil. This soil condition is also evident where natural wetlands occur around the contours due to the topography. Shale [T3dS] that weathers into clay also occurs in the precinct of the proposed site and in the riverbeds. This shale rock is usually encountered at a depth of 2m. At this depth the rock is soft, becoming harder with depth, being medium hard at 4m (Van der Walt, 1967: 6-8). This implies suitable conditions for minor and major structures. The impermeable nature of shale, however, creates problems in the operation of French drains in the Pretoria district.

FIGURE 4.12

Contextual mapping & analysis

(Author, 2016)





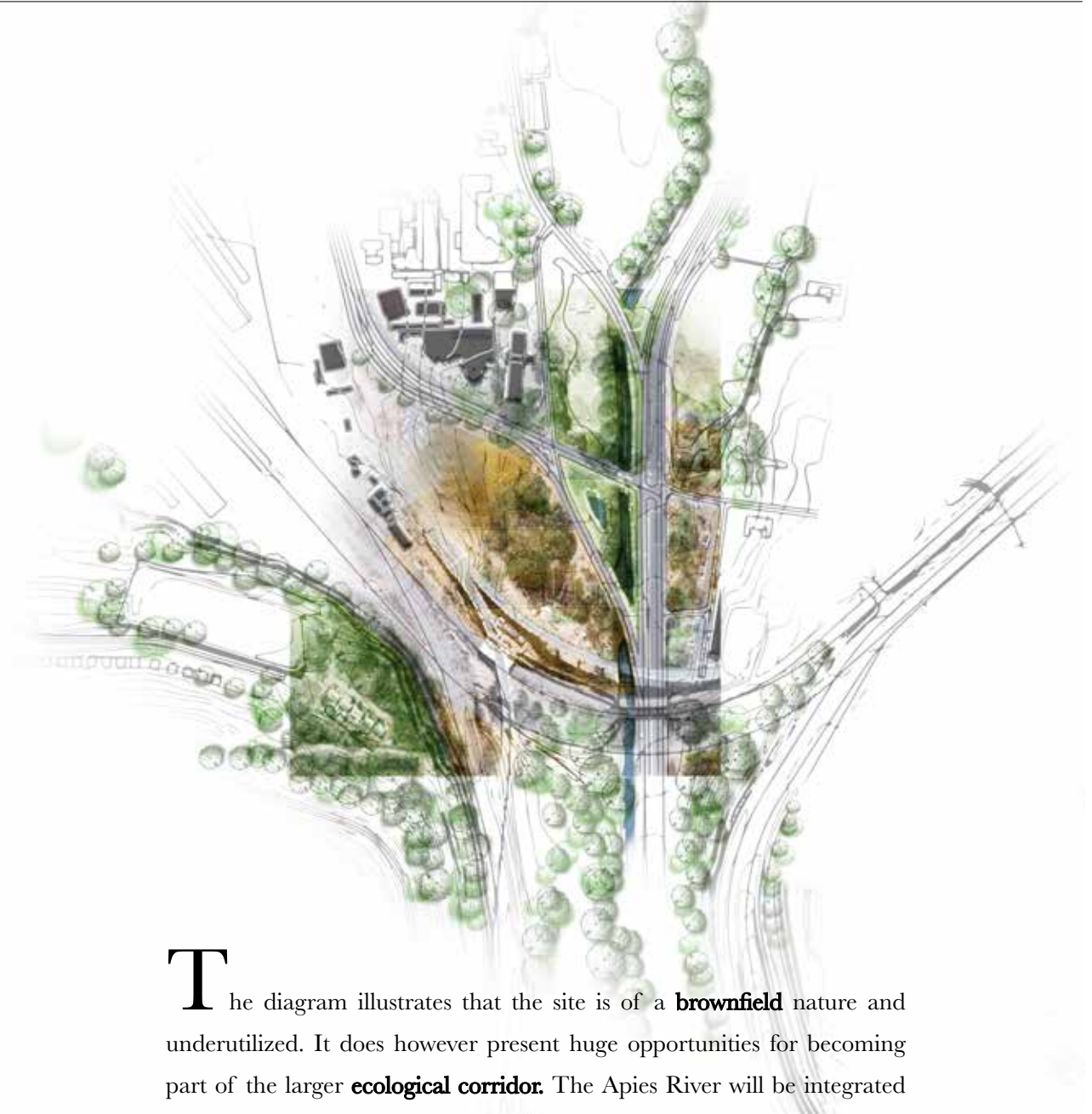
4.4.1 PHYSICAL LOCATION & DESCRIPTION

The chosen site currently functions as the **threshold between the urban and natural fabric of the city**. It displays dynamic edge conditions, with the Gautrain embankment on the southern edge, the Apies River and Nelson Mandela Drive on the eastern edge, an open edge leading to the Gautrain Station to the West, and Thabo Sehume Street on the northern edge leading into the CBD of Pretoria. It thus becomes evident that the site retains major prominence as it becomes a **nexus point where many urban, ecological and transport activities converge**. However, it has become an island that is disconnected from the surroundings, with minimal opportunities for access and engagement as it currently houses a Mercedes Benz dealership. The site is within 400m walking distance from the Pretoria Gautrain Station.

The urban fabric alongside Thabo Seshume Street, across from the chosen site, contains pathways for high levels of pedestrian activity, but is still undefined and illegible due to its lack of character (Myburgh, 2014: 33). **Berea City** is the commercial hub of the area, but serve only the vehicular traffic passing through. As a result, Berea City has become alienated from the **pedestrian-orientated society** in which it is located. Its urban edge is fragmented and the buildings are isolated elements, making reference to neither their natural context nor their man-made context.



4.4.2 SITE ELEMENTS



The diagram illustrates that the site is of a **brownfield** nature and underutilized. It does however present huge opportunities for becoming part of the larger **ecological corridor**. The Apies River will be integrated into the vision of **ecological reclamation**, together with the establishment of a symbolic man-made wetland dictated by the topography on site.



FIGURE 4.13

Ecology diagram (Author, 2016)

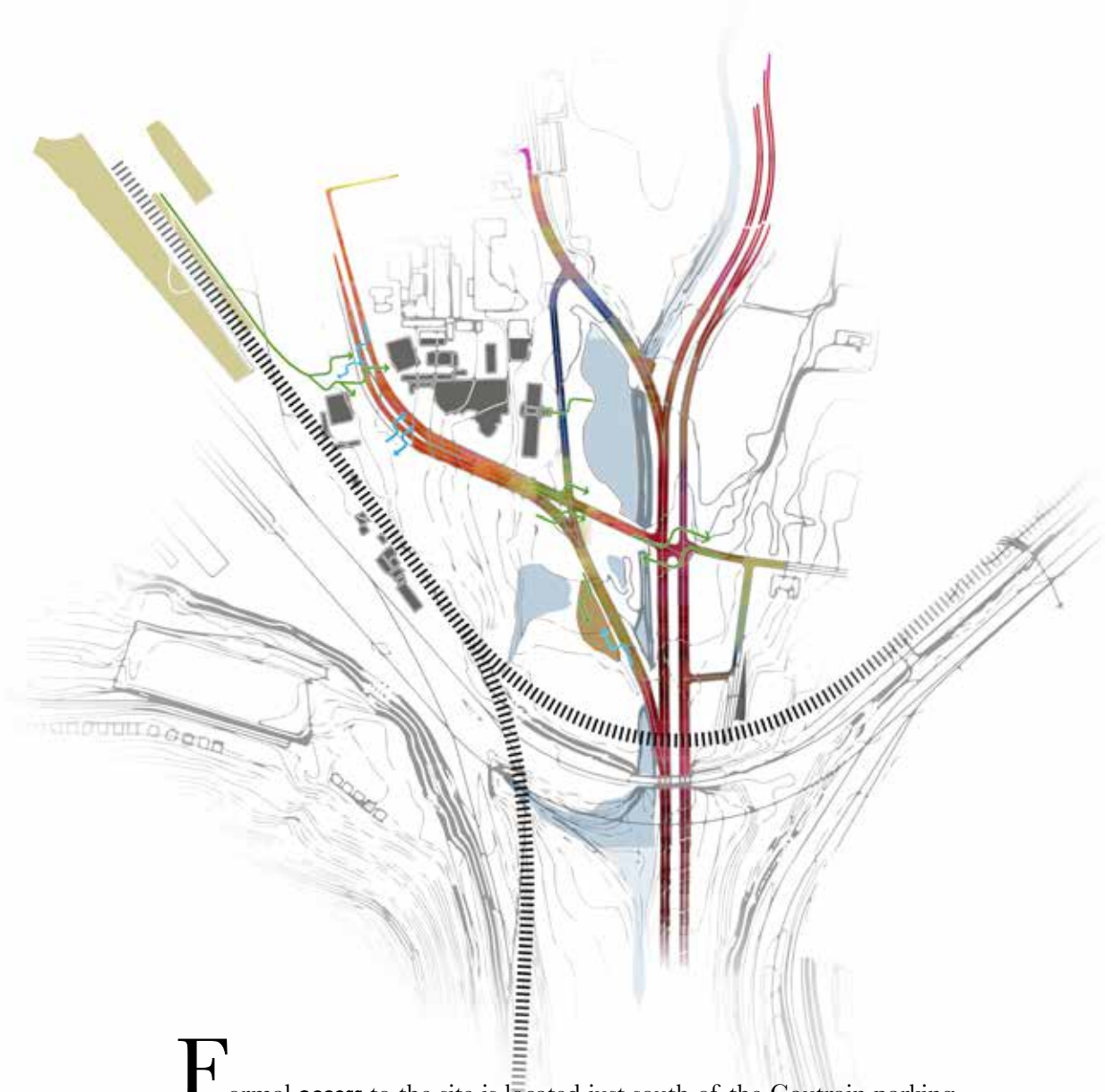


The **topography** of the site suggests that it is a **natural 'basin'** that provides the opportunity for containing energy. The topography ensures different views of the surroundings, presenting the opportunity to have different levels and vistas.



FIGURE 4.14

Topography diagram (Author, 2016)



Formal **access** to the site is located just south of the Gautrain parking entrance. There is however an **informal entrance** on the site on the eastern edge, where taxi's pick up and drop off pedestrians living and working close to the precinct. **Informal pedestrian crossings** are indicated with green arrows. The diagram also indicates the **intensity of vehicular movement** around the site.



FIGURE 4.15

Accessibility and movement diagram (vehicular and pedestrian)

(Author, 2016)



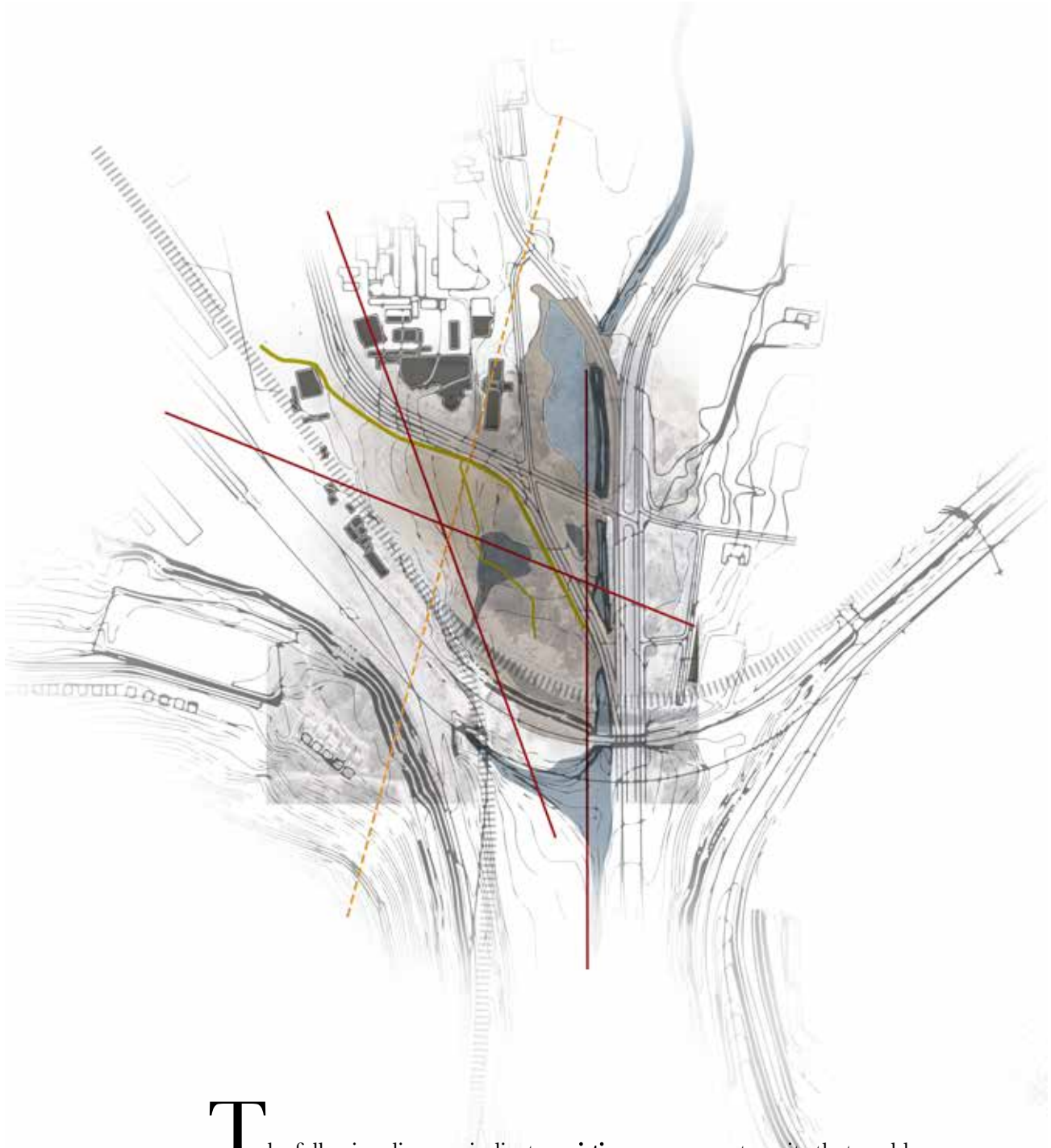


The south-eastern edge of the site accommodates **informal trading and social activity** during the day. It is evident that this might be due to the proximity of the Apies River, used for getting water and bathing, as well as the shade that is provided by the Gautrain bridge crossing Nelson Mandela Drive. This situation proposes immense opportunities for **harnessing existing energies, pedestrian routes and activities**.

▲
FIGURE 4.16

Cultural, economical & social activity diagram

(Author, 2016)



The following diagram indicates **existing axes** present on site that could inform design decisions. These include **pedestrian routes**, the direction of the **contours and topography**, and North as the ideal **solar orientation**.



FIGURE 4.17

Axial informants (Author, 2016)

4.5 SUMMARY

When the context on an urban and site scale is understood, it becomes clear that there are very distinct informants to guide the conceptual birth of the project. The design of the Wellness Centre, in the context of Pretoria, has three key outcomes that it needs to achieve to become a **nexus of reciprocity** between nature and humans in the area of South Berea and the rest of the inner city. It should address the **deteriorating and inaccessible state** of the ecology and natural features, so that these can become healed, celebrated and enjoyed. On the other hand it should address the **wellness of the inhabitant of the city** on a psychological and physiological level, in order for them to feel rooted and healthy within their environment, and finally be **reconciled with nature** and become an integral part of it once again.