



## CHAPTER 5\_SITE ANALYSIS

### 5.1 Introduction to Salvokop

On the south side of Salvokop lies Freedom Park, a controlled, powered and pedigree landscape worth millions. On the northern side, lies a large wasteland, enigmatic and abandoned, seemingly worth nothing (see illustration 103). The 'Proposed Salvokop Framework' has been diagrammatically summarised in terms of the theory and terms used in this dissertation in illustration 104. This illustrates the different types of landscapes and proposed interventions on the site. The large wasteland, adjacent to the Pretoria Station railway lines is the site that has been chosen to further test this investigation, due to numerous aspects, as pointed out earlier, these include its mysterious quality, its abandoned state, the diversity of wastelands that exist on the site and its intriguing history. The 'Proposed Salvokop Framework' visualises parts of this wasteland to remain open space in the city. This wasteland is to become a healthy node that forms part of the green open space network proposed on page 51. A design will be proposed and a sketch plan will be developed for the chosen site. Due to the important emphasis on the spatial and experiential level in this dissertation, the site analysis focussed primarily on discovering and uncovering the character and its richness. The aim was first to map and investigate the poetry and character of the site, and second to understand the site in terms of geology, vegetation, movement patterns and history.



Illustration 103: Salvokop analysis of pedigree and enigmatic landscapes

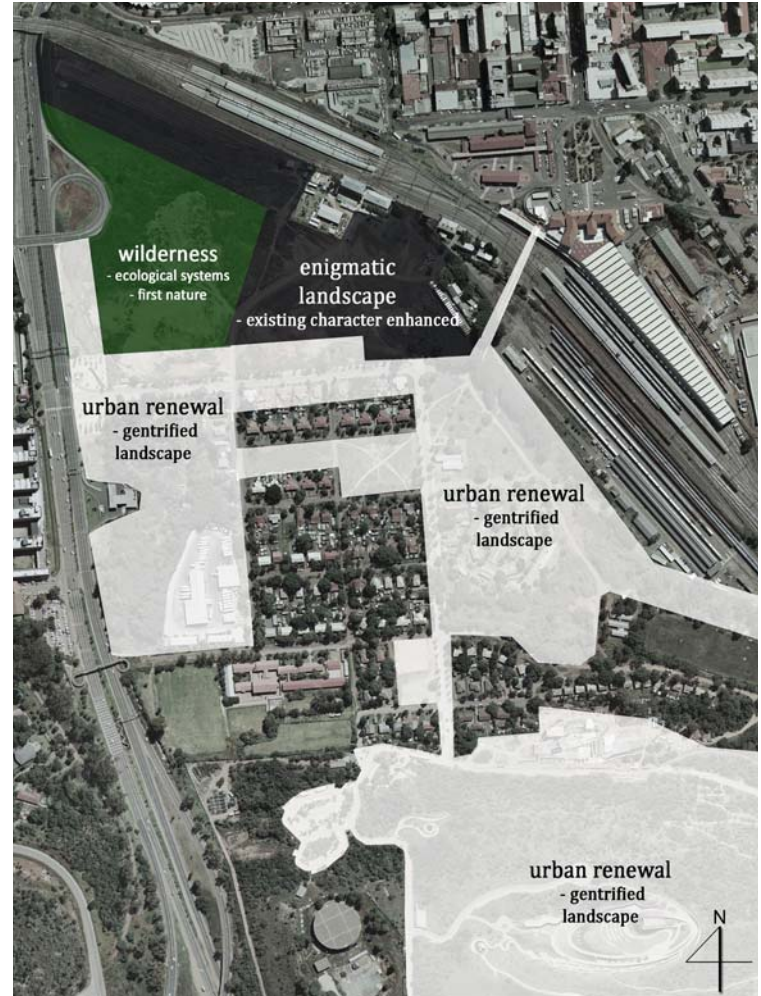


Illustration 104: 'Proposed Salvokop Framework' summary in terms of the authors theory



### 5.2 Wastelands in Salvokop

A zoomed in analysis of the site’s specific types of wastelands was done. As stated previously, a combination of waste, wasted and wasteful sites are present in Salvokop. Waste and dumping on the site consists of building rubble and domestic waste

which will need to be dealt with. Waste that can be reused and recycled should be kept on site to be utilised and adapted to the proposed landscape design. These include rusted waste bins, glass bottles, bottle tops, timber, broken bricks, concrete blocks and concrete manhole covers.

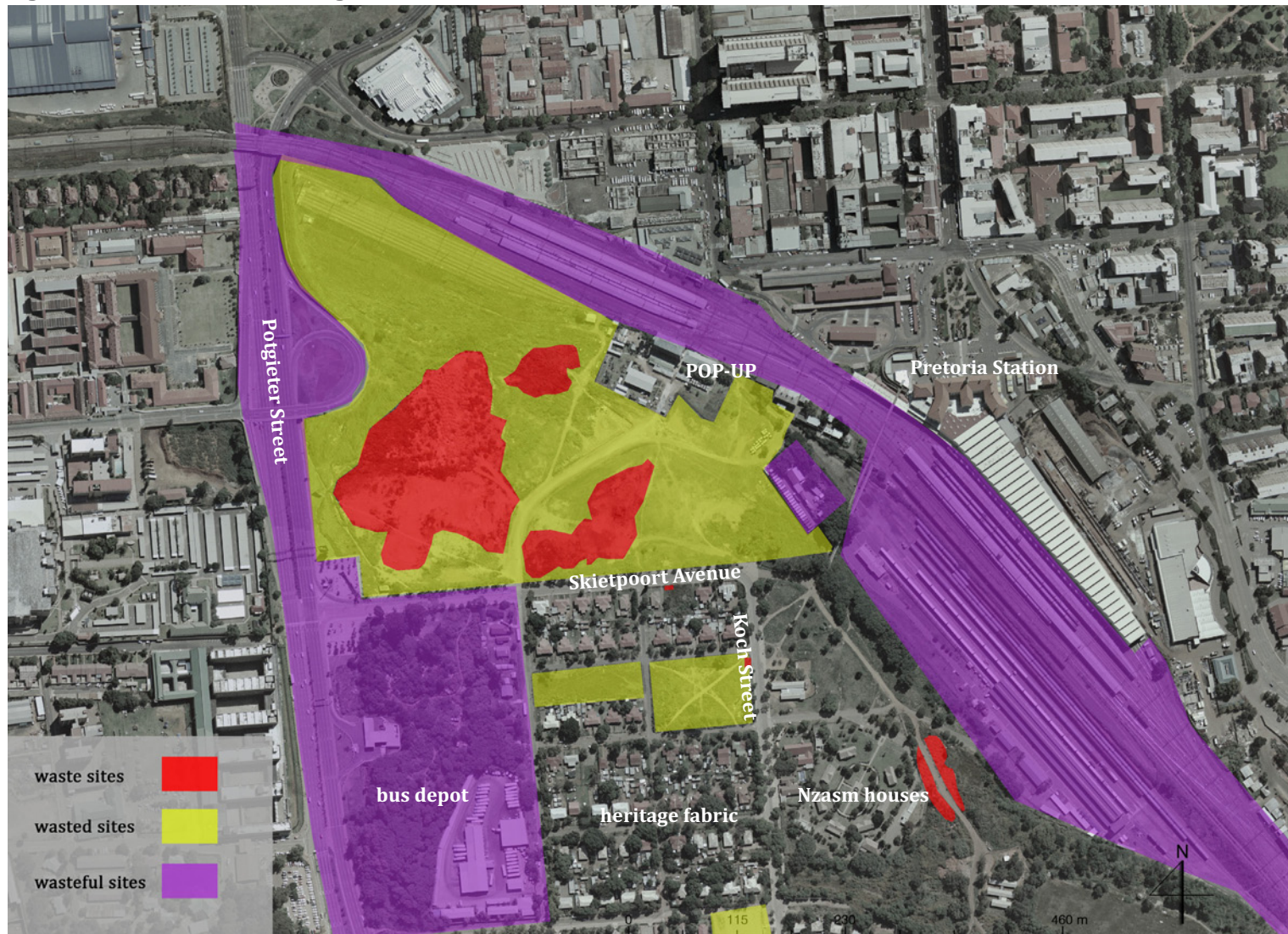


Illustration 105: Wastelands on the site

### 5.3 Intuitive response to Salvokop

Upon first visit to the site, an intuitive drawing revealed the first impressions of the site. Illustration 106 is a drawing that provides hints of the site's experience, emotion and character. On returning from the first visit with photographs, collages were composed to further expose the character (see illustration 107 and 108).

#### 5.3.1 Intuitive drawing

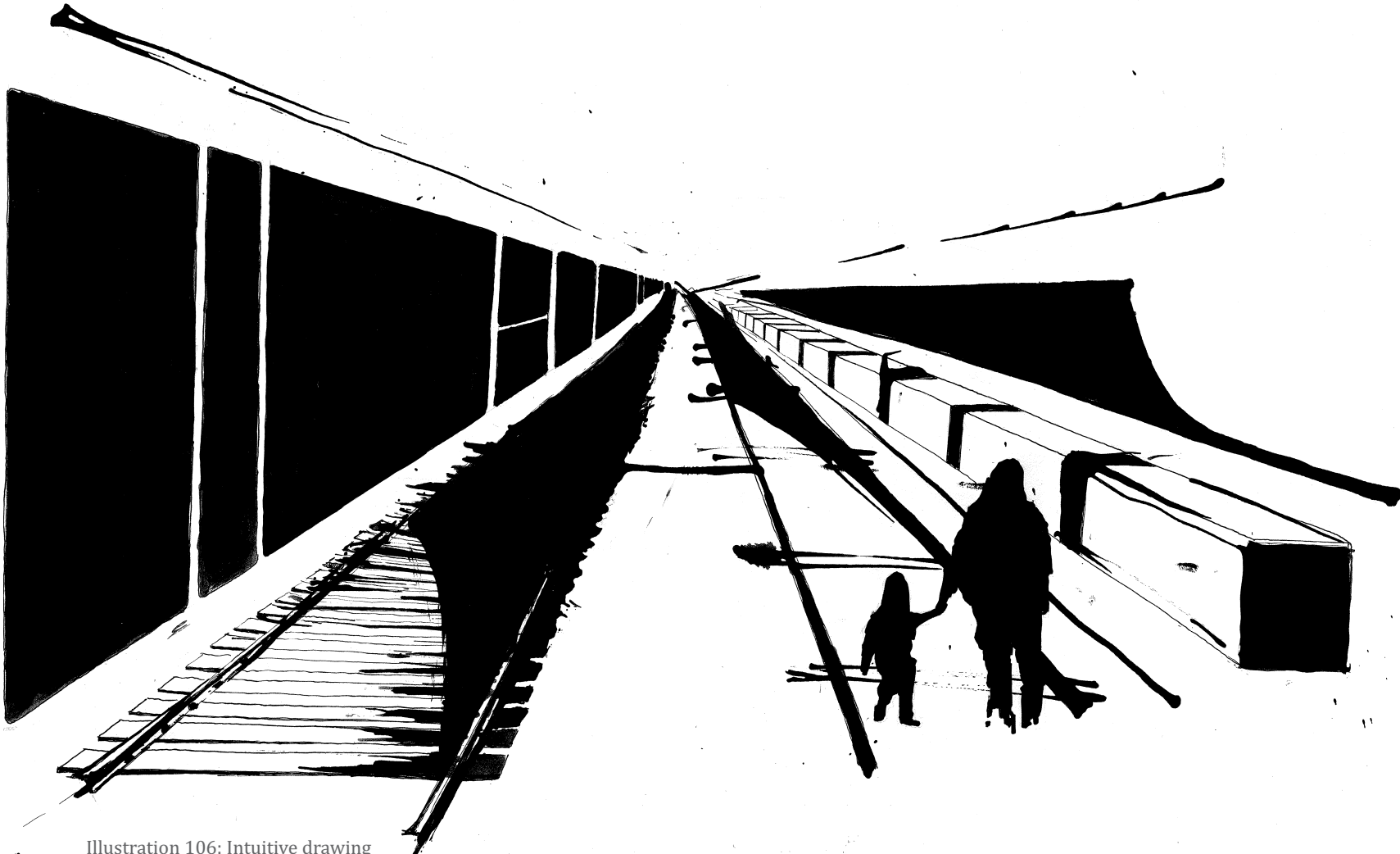


Illustration 106: Intuitive drawing



5.3.2 Salvokop collages

Wastelands are “spaces of freedom that are an alternative to the current profitable reality” and “... offer a sense of freedom and richness of unexpected possibilities” (Ignasi de Solà-Morales, 1995: 120). “Art’s reaction, as before with “nature” is to preserve these alternative, strange spaces” (ibid, 1995: 122).

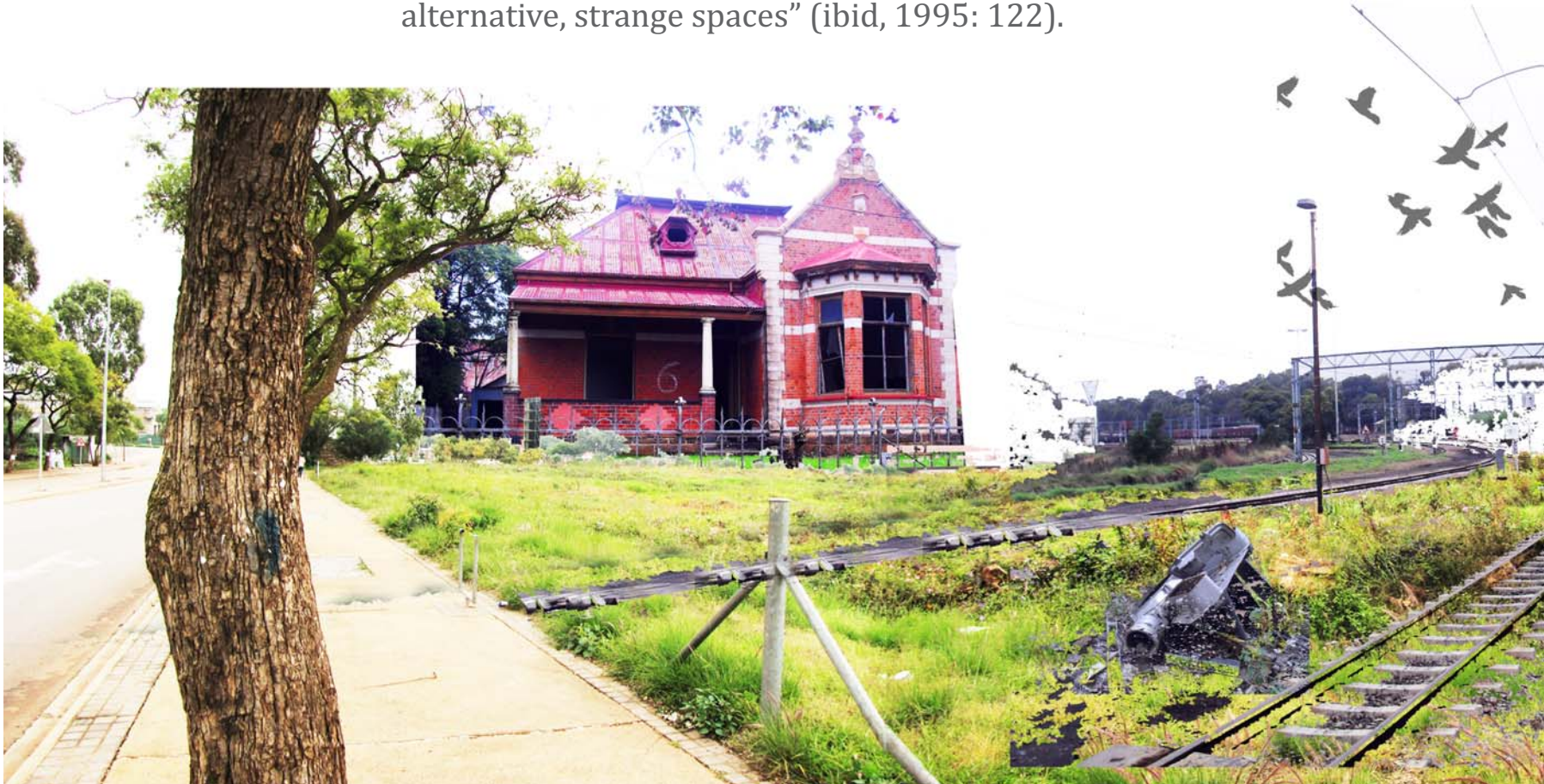


Illustration 107: Poetry of forgotten places, Salvokop collage





“Conversion of derelict land into parks in the IBA Emscher often led to destruction of that mysterious atmosphere between decay and revitalization that had made the sites so attractive” (Tate, 2001: 119).

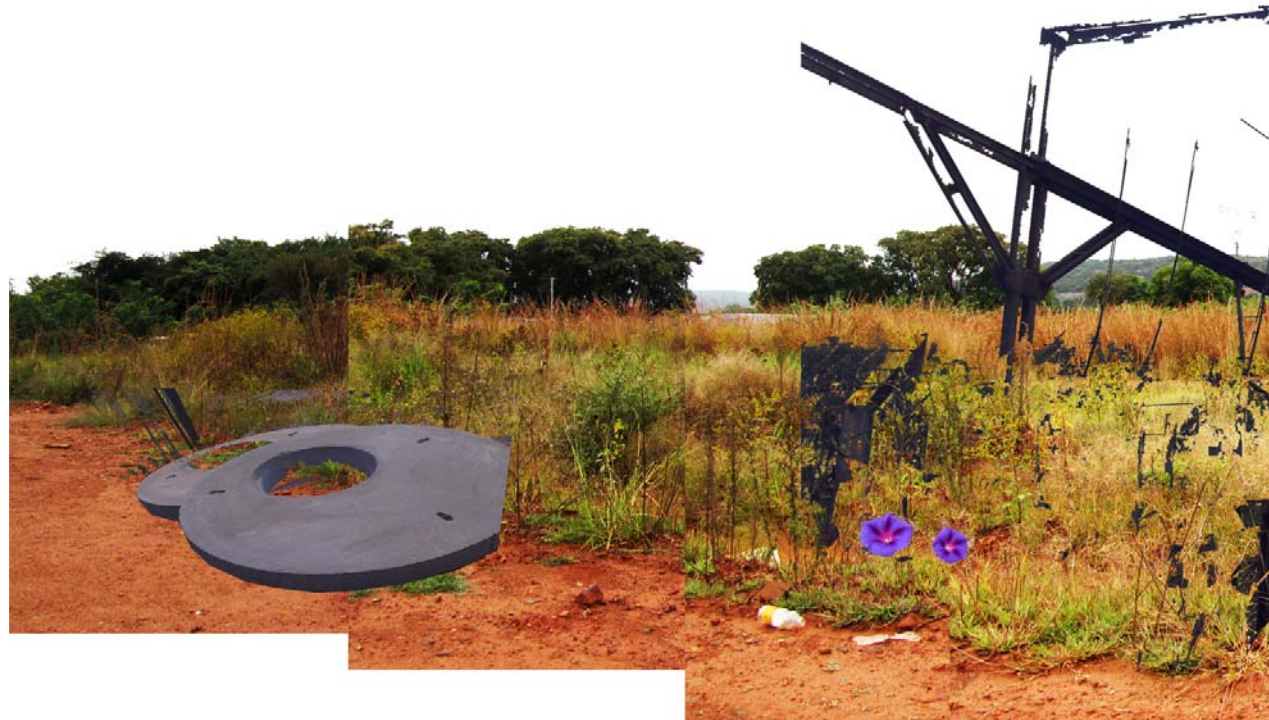


Illustration 108: Poetry of forgotten places, Salvokop collage





### 5.4 Experiential map

An intuitive investigation was done showing the experiential and intangible aspects of the site. Illustration 109 demonstrated positive and negative feelings while walking through the site. This image illustrates overall positive and negative spaces, and reveals spaces with potential and challenging spaces.



Illustration 109: Intangible experiences on the site



### 5.5 Mapping of the poetry and character

In order to respond on a spatial level to the site, the existing intriguing, mysterious character and poetry needs to be mapped.

This exercise will point out the areas with potential that can be later focussed on in the design process (see illustration 110 - 113).



Illustration 110: References to photographs of poetic spaces on the site





Illustration 111: Character of Salvokop





Illustration 112: Character of Salvokop



Illustration 113: Character of Salvokop



### 5.6 Movement pattern analysis

Illustration 114 illustrates pedestrian, vehicular and railway movement patterns on the site. The site is characterised by two major transport axis' that hug Salvokop; the Potgieter highway on the west and the railway lines that run from north-west to south-east.

The pedestrian and some of the vehicular movement patterns in Salvokop are chaotic, unorganised and unpredictable. This aspect of the site especially on the wasteland gives it a mysterious uncontrolled character. The unpredictable nature of these movement patterns should be retained and enhanced as far as possible in the proposed design for the wasteland.



Illustration 114: Movement on the site

## 5.7 Geology analysis

A geotechnical investigation on the northern part of Salvokop, the site under investigation, was undertaken by VGI Geologists as part of a feasibility study done. The following geological features and aspects were uncovered

- The site is underlaid by dolomite and chert at great depth.
- The entire subsurface profile consists of Timehall Hill Shale (see illustration 115).
- The site has therefore no risk of sinkhole or doline formation.
- Extensively underlaid by fill material both above and below the surface and more locally buried concrete.
- Northern extremity appears to be a buried railway marshalling yard.
- Rehabilitation will be necessary prior to development by rubble removal or dynamic compaction).

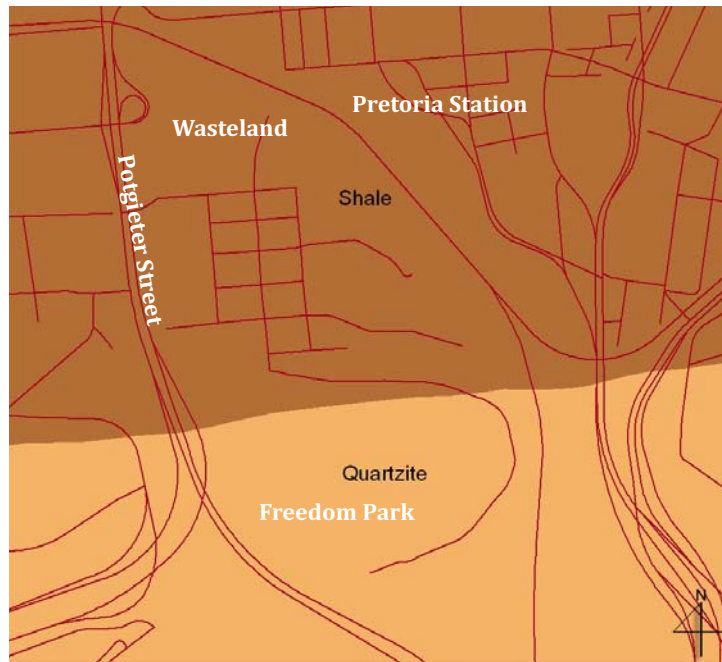


Illustration 115: Geology types in Salvokop

The following facts are necessary when making design decisions in terms of rehabilitation, planting, soil and waterways. The site was transformed by human activities (bulldozer activities) and currently serves as a dumping site for domestic waste. Dumping on the site consists of household waste and building rubble. This type of waste consists of contaminants such as dioxins, cadmium, lead and hydrocarbons. According to Jacques Gerber, an ecologist, these are easy to deal with. Gerber recommended site clearance and the removal of the top 150mm of soil on the site. Dioxins are a class of chemical contaminants that are formed during combustion processes such as waste incineration, forest fires, and backyard trash burning. Cadmium is a metallic element that is released into the soil when household or industrial waste, coal or oil are burned. With the removal of the top layer of contaminated soil on the site, the design proposed must deal with the contaminated soil in creative ways instead of transporting it to another site.

In addition, existing waterways and slopes (see contours on illustration 116) should be retained and maximised in the design to retain as much water on the site and recharge groundwater, which will also contribute to retaining the existing character of the site and creating a sustainable landscape.

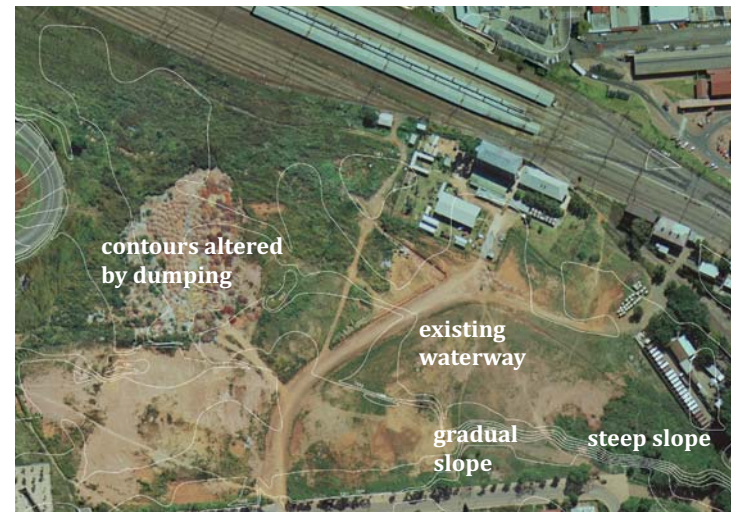


Illustration 116: Existing contours on site



## 5.8 Vegetation analysis

In terms of vegetation the site is environmentally disturbed and is classified as ‘disturbed urban temperate bushveld’ (see illustration 117). Some small portions of the site are overgrown by grass species characteristic of disturbed areas, the most dominant grass species being Kikuyu. A contextual study of the area was done by Newtown Landscape Architects. The results of this study can be seen in chapter 11, page 208-212. The site consists of indigenous trees, exotic species and alien invasives. Any indigenous trees and endemic species will be retained. Category three species will also be retained while category two and one alien invasives will be removed. Many of the large trees add to the character of the site and must therefore be retained. Groundcovers and shrubs will be removed as these are more than 60% invasive and exotic species, many of which are poisonous. There are several bush clumps with indigenous species, although invasive alien species have already started to transform the vegetation into exotic bush clumps. According to Siebert (2002: 4) of the 40 species recorded for this area, 30 (75%) are exotics (see Table 1, page 187-190). Ten percent (10%) of the exotic species have potential use, while 40% of the indigenous species are valuable to the local community. The high frequency of Category 1 alien invader species (22%) is an indication of an area of extremely low ecological value. Development in the most disturbed area should be encouraged. From an ecological point of view, the area has low environmental status, although it could be transformed into an indigenous, sustainable living area if waste dumping is stopped, invader species are controlled and more indigenous species are planted. Invasive alien street trees can be replaced by indigenous street trees, such as *Olea europaea*, *Combretum erythrophyllum*, *Rhus lancea*, *Harpephyllum caffrum*, *Ekebergia capensis*, *Trichilia emetica*, *Erythrina lysistemon*, *Acacia robusta* and *Acacia karroo* (Siebert, 2002: 5). A planting philosophy and specie list will be proposed for the rehabilitation and design of the area. Illustration 118, maps out the existing trees on the site.

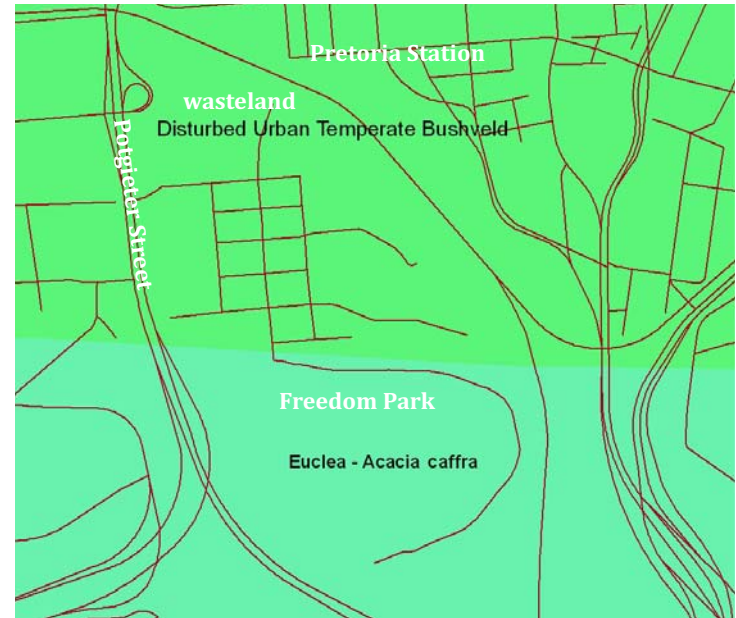


Illustration 117: Vegetation types in Salvokop



Illustration 118: Existing trees on site

### 5.9 The history of Salvokop

Bordered by the southern edge of the city grid and adjacent to Pretoria Station, Salvokop is one of two suburbs in Tshwane with an important railway heritage. The timeline below illustrates the changes the area went through from 1939 to 2007. The wasteland in Salvokop was previously used as a railway maintenance yard. This was demolished in 1971 and has remained vacant and abandoned for 40 years. In addition, illustration 120 is a timeline that shows the history of the railway lines and how it has been in a state of continual flux from 1902

up until the present. These timelines should inform the design proposed due to the memory and past being so important in the approach followed in this dissertation. The railway timeline with its linearity and constant change should influence the form for the proposed design.

#### 5.9.1 Salvokop timeline



Illustration 119: Salvokop timeline





1991



2001



2007

5.9.2 Salvokop railway timeline

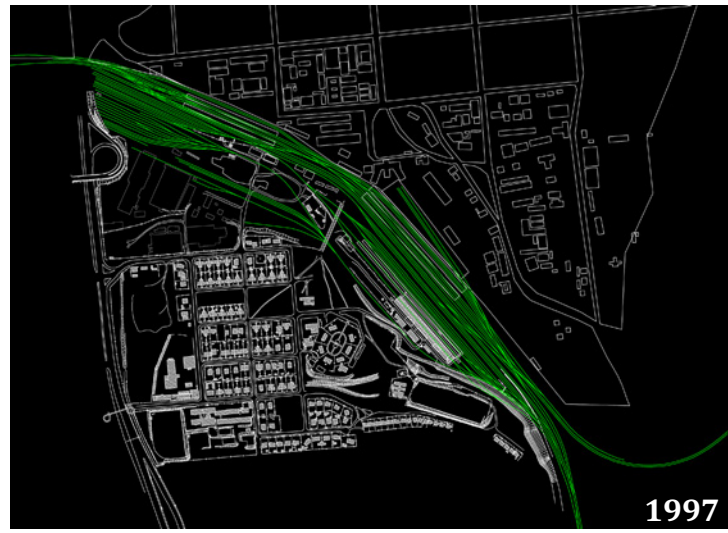
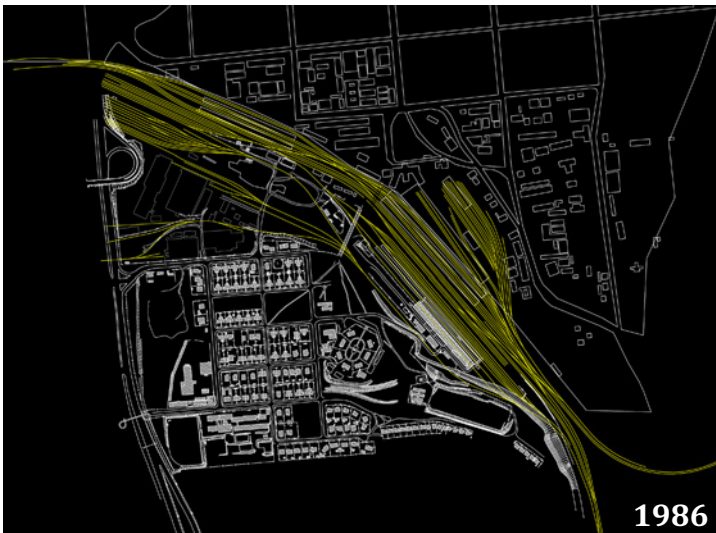
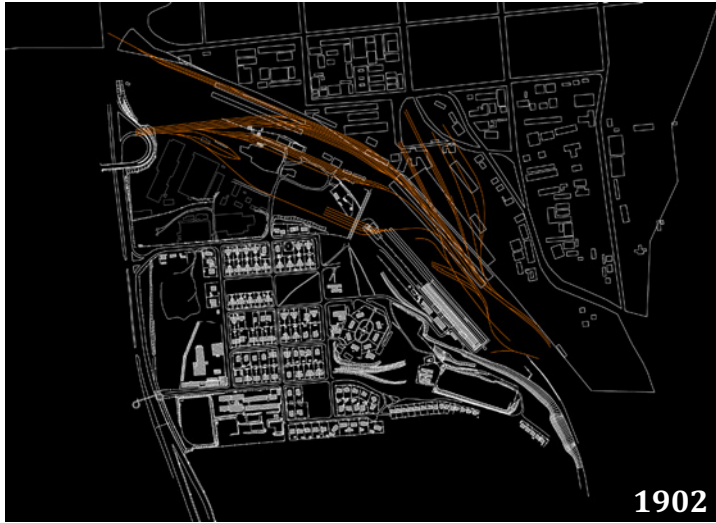
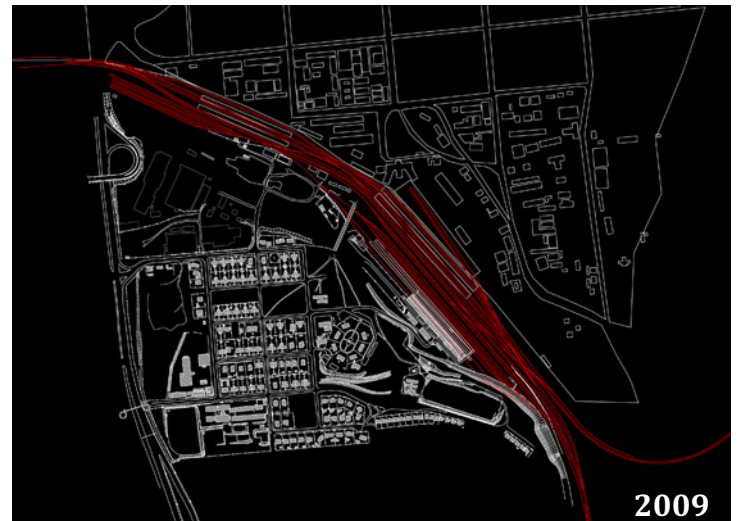
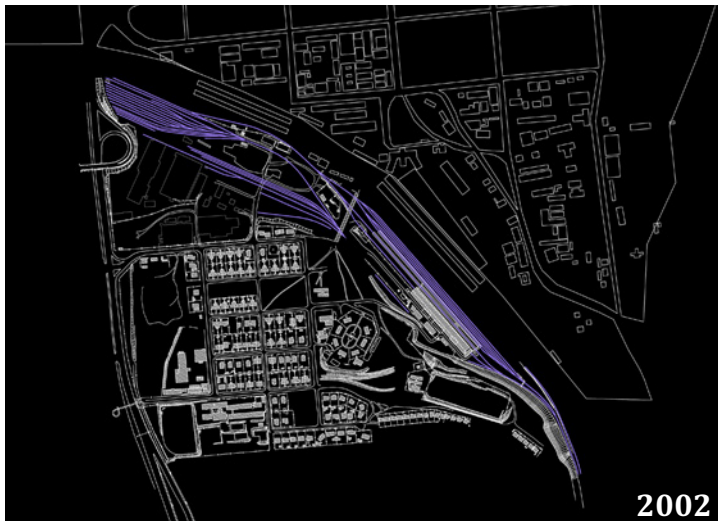
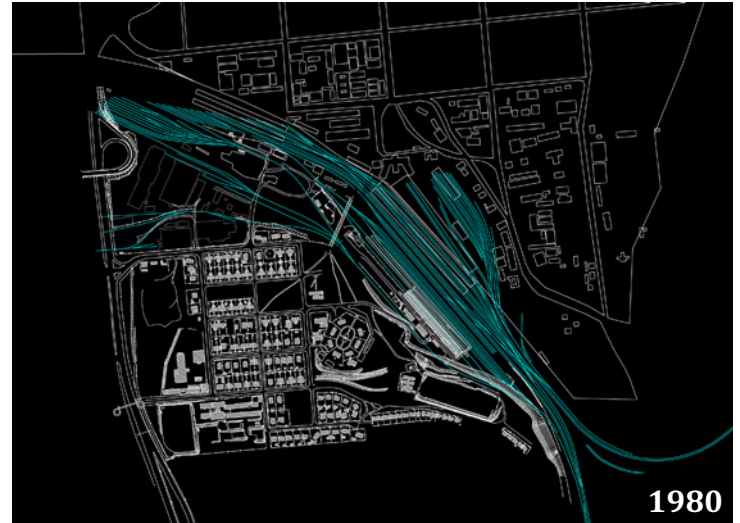
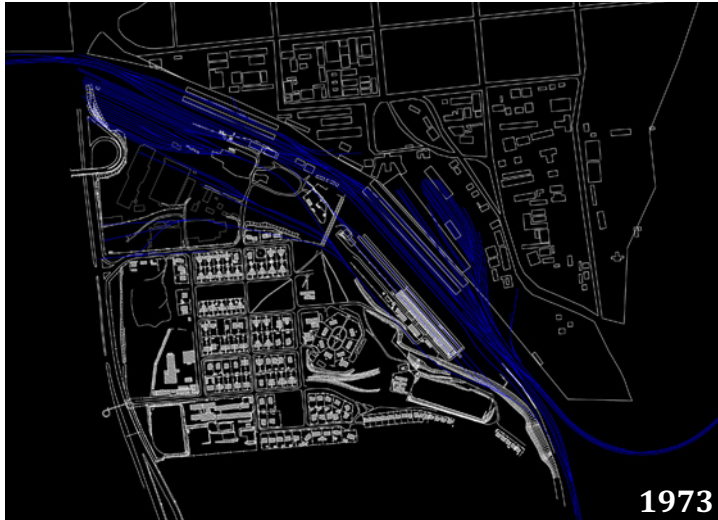


Illustration 120: Railway history 1902 - 2009





## 5.10 Conclusion

In conclusion, site analysis is key to a well-designed project. The analysis done in this chapter informs the preceding design and design process. Although abandoned and seemingly worth nothing, the analysis of the wasteland revealed the exact opposite. This site is full of moments, unpredictable surprises and a hidden history that needs to be enhanced. The site analysis done facilitates the understanding of the site and its special character. With this analysis and information the author is able to respond to the existing potential of Salvokop and begin developing a proposed design.