



Fig 65. Broken down bus on site.

WERF[TAAL]  
SITE ANALYSIS

03

# SITE ANALYSIS

## Definition

Site analysis is an outside-in process where the design environment is investigated to determine what language or 'taal' the design proposal wants to speak. In other words, how the design proposal will fit best.



Fig 66. Nolli of Olievenhoutbosch. Tshwane.gov.co.za.GIS 2012



## The Site

The site is centrally situated on the eastern border of the existing formalised and serviced part of Olievenhoutbosch; between the two main entrances to the township and adjacent the R55 road.

## R55: Opportunities

This road connects Sandton to Pretoria-West and links with the N14 that is used by the residents to travel to Centurion. This road is the primary route used by the community for travel but also the connector between more developed communities such as Sandton and Centurion. As one travels on the R55 South towards the entrance of Olievenhoutbosch, the proposed site is gradually revealed to the passer by. The site is stretched out on a hill which further emphasises views to and from the site. The location of the chosen site thus plays a vital role in the enlightenment process of the rest of society, who are often detached from the challenges and efforts that occur within townships such as Olievenhoutbosch.

## R55: Problems

As the analysis process and understanding of Werftaal (the site specific conditions) developed, it became evident that the R55 road divides the existing developed community on the East from the proposed future development on the West and that the site is ideally situated for the establishment of a pedestrian bridge that will link the old and new communities of Olievenhoutbosch.

## Other influences

The site is ideally situated near schools, taxi ranks and pedestrian routes and motivates pedestrian movement along the proposed green educational strip that spans across Olievenhoutbosch from West to East. The site is currently a greenfield site but subtly communicates certain characteristics and traits that can only be perceived on the site.

# SENSORY ANALYSIS AND ORIENTATION\_

## Panoramic view toward site from R 55

A sensory analysis is of crucial importance, as it creates an understanding of visual impact, views to and from the site, traffic noise, general weather conditions, available materials and movement patterns.

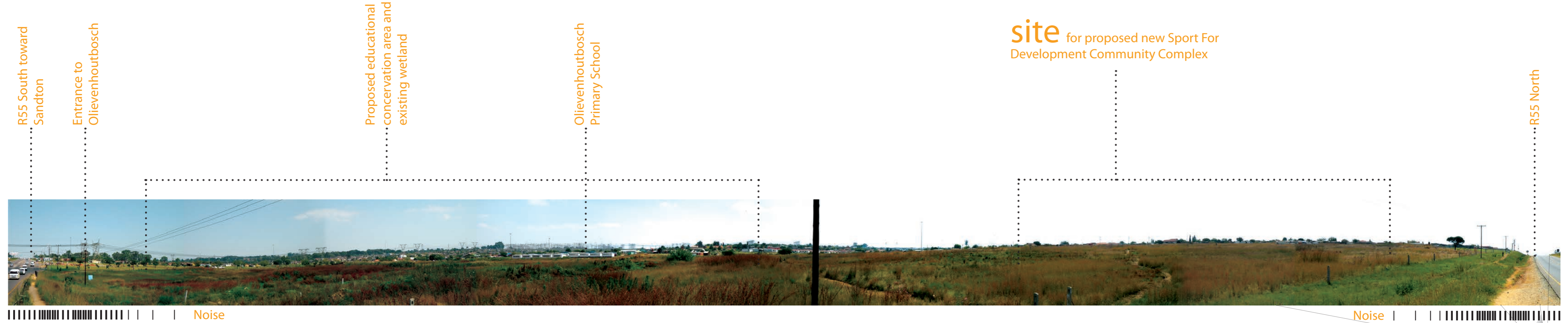


fig 68. Panoramic view towards site from R55.

# SENSORY ANALYSIS AND ORIENTATION\_

## Panoramic View From Site

The famous American writer and poet, Gertrude Stein, understood that a view offers much more than an elevated visual connection to the surrounds.

Views provide the building with opportunities to conceal and reveal itself at certain strategic points, thus creating an architectural promenade<sup>1</sup>.

<sup>1</sup> Architectural promenade refers to the progression in spatial experiences. It reveals and conceals certain elements and spatial qualities to emphasise their importance and inherent qualities.

Midrand

Open Air Zionist Church

R55 Bridge

Entrance to Olievenhoutbosch

Proposed Educational  
Conservation Area And  
Existing Wetland

Olievenhoutbosch  
Primary School



fig 69. Panoramic view from site.

'I LIKE A VIEW BUT LIKE TO SIT WITH MY BACK TOWARDS IT.'  
(STEIN 1998: 127)

# TOPOGRAPHY + ORIENTATION\_

The topographic characteristics of the site is a major design generator that will inform orientation, response to views, internal climate of the built structure, pedestrian movement, access and the protection of areas of natural value.

Entrance to Olievenhoutbosch

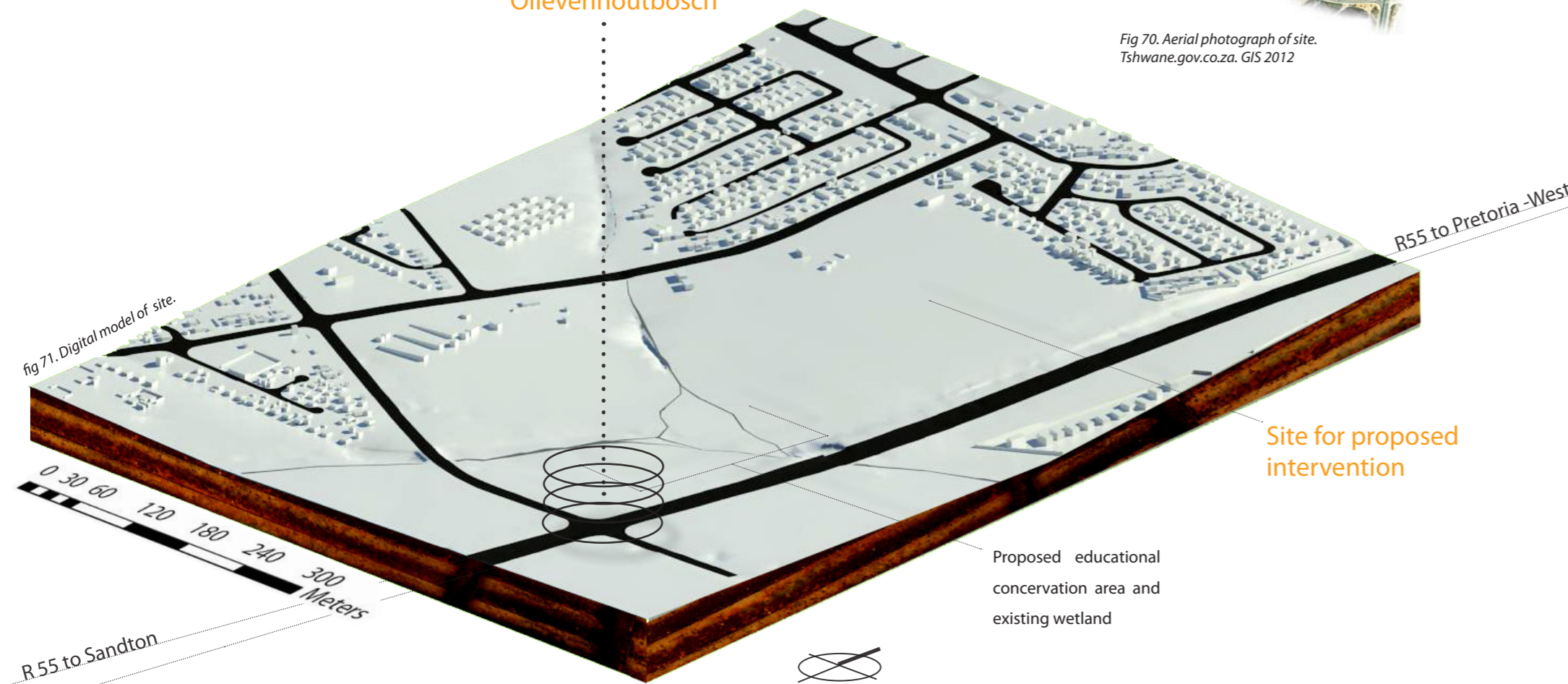


Fig 70. Aerial photograph of site. Tshwane.gov.co.za. GIS 2012

# TRAFFIC FLOW\_

Vehicular Access To Site

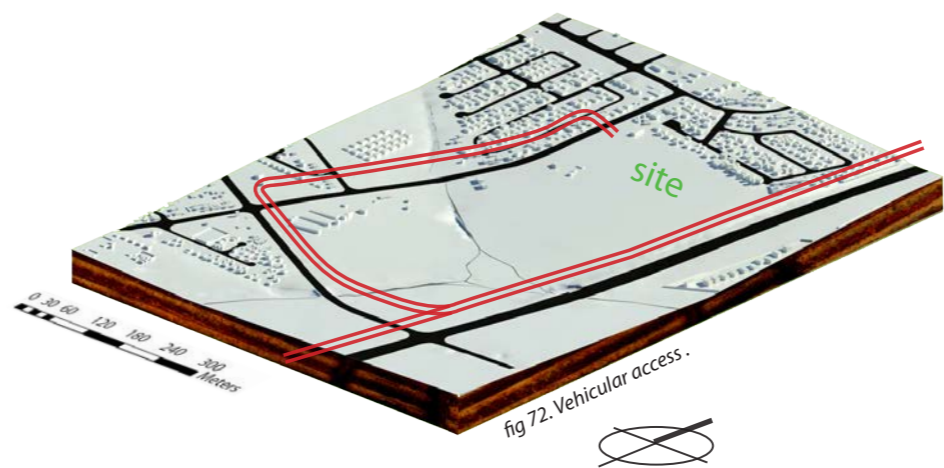


fig 72. Vehicular access.

Taxi Ranks And Pedestrian Walkways

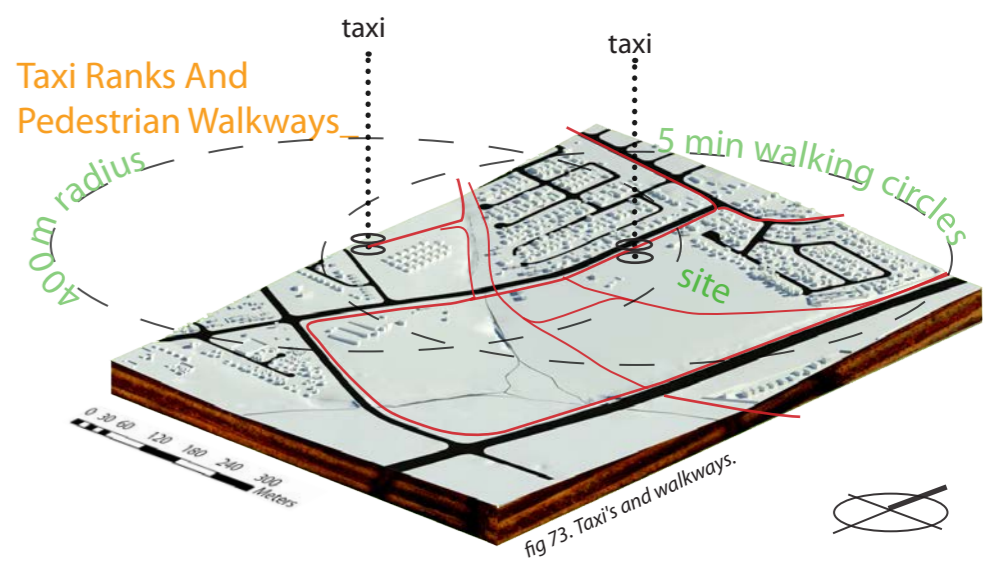


fig 73. Taxi's and walkways.

# LANDSCAPE\_

Hydrology and Primary Groundcover

The grass plays a vital role in the prevention of erosion on the slopes of the site. The presence of water on site should be optimised for controlled irrigation of sport fields and gardens but currently suffer under severe pollution.

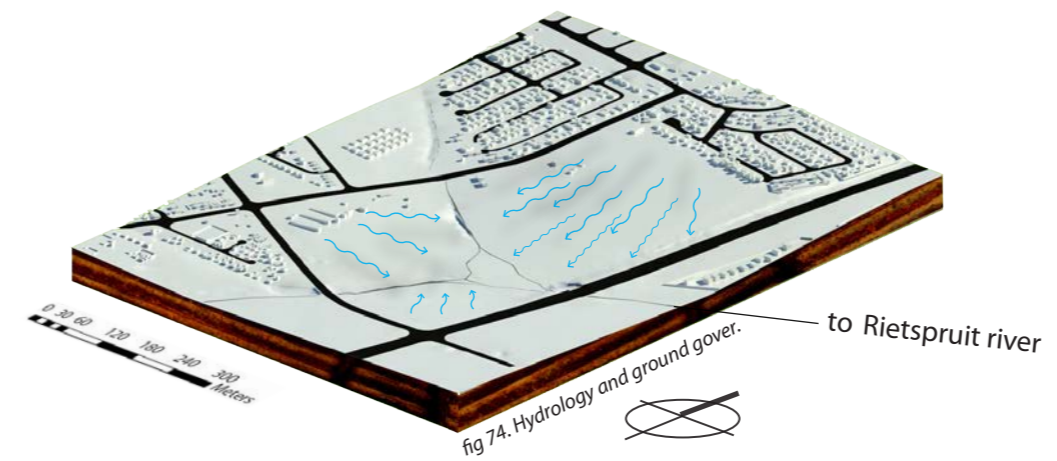


fig 74. Hydrology and ground gover.



fig 75. Existing ground cover



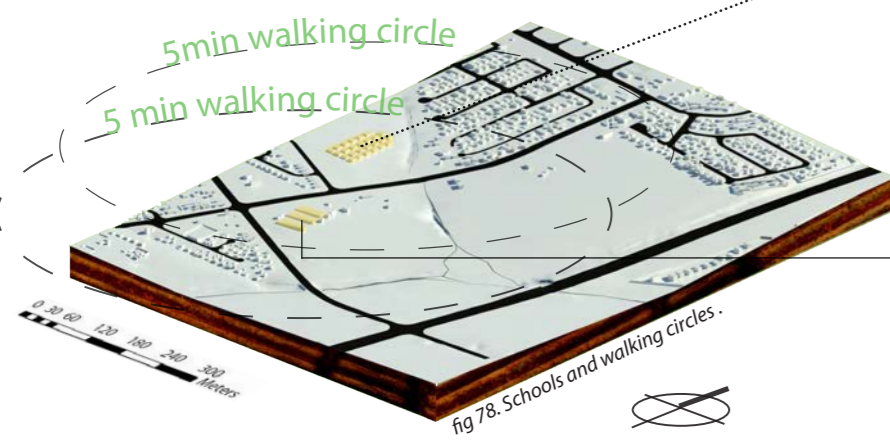
fig 76. Water pollution



fig 77. River

# LOCAL SCHOOLS\_

Both Philena Primary School and Olievenhoutbosch Primary School have no formal sport facilities or designated play areas. The chosen site for intervention is within walking distance of both these schools.



## Olievenhoutbosch Primary

Number of students: 913

Classes: 22

Teachers: 24

(Interview by Jenni Bremner and Johanna

Theunissen with Principal Shikwambane. 7/6/2011)



fig 80. Olievenhoutbosch Primary school

## Philena Primary School

Number of students: 1,447

Classes: 27

Teachers: 40

(Interview by Jenni Bremner and Johanna

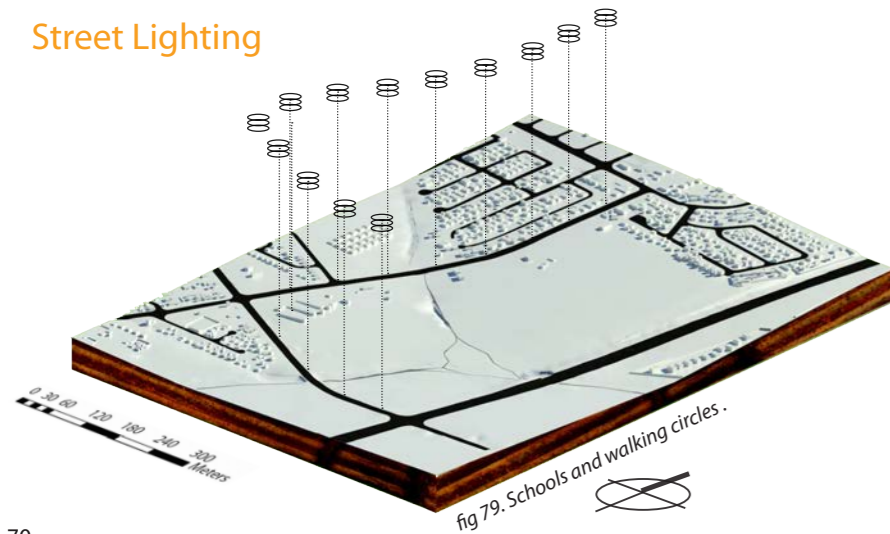
Theunissen with Principal Shikwambane. 7/6/2011)



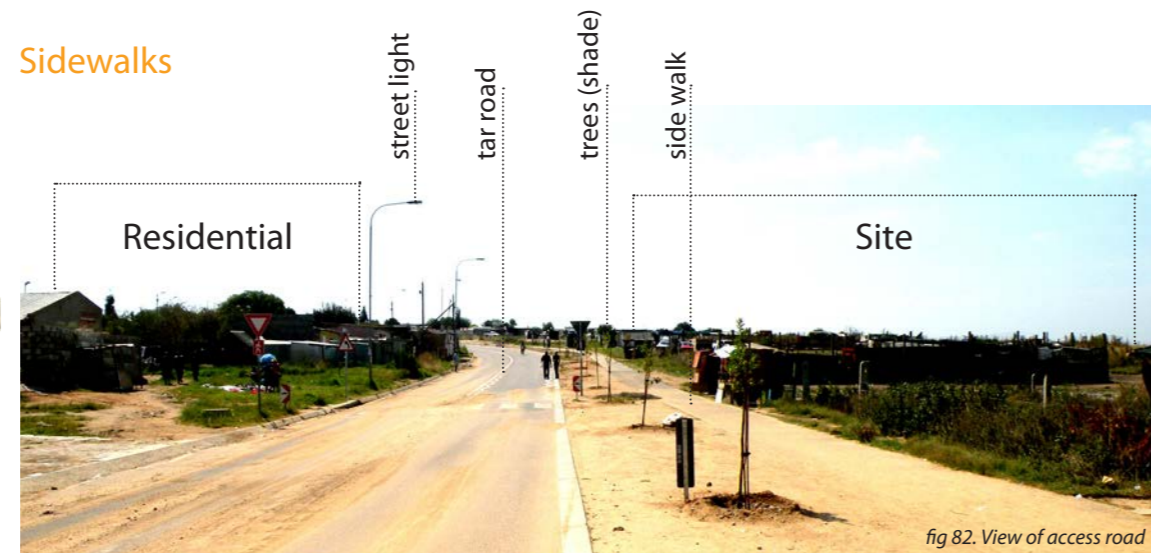
fig 81. Philena Primary School

# SECURITY + SAFETY\_

## Street Lighting



## Sidewalks



# CLIMATE\_

Macro Climate - (Irene, Centurion. Aproximately 13 km from Olievenhoutbosch)

Year	T	TM	Tm	PP	V	RA	SN	TS	FG	TN	GR
1991	-	-	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-	-	-
1995	-	-	-	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	54	0	51	6	0	4
1999	-	-	-	-	-	-	-	-	-	-	-
2000	16.4	23.5	10.4	-	11.6	90	1	52	18	0	2
2001	16.6	24.2	10.4	646.92	11.3	75	1	39	21	0	3
2002	-	-	-	-	-	-	-	-	-	-	-
2003	18.3	26.3	11.6	423.17	12.0	45	0	35	3	0	3
2004	17.1	24.8	11.1	981.19	11.0	56	1	55	25	0	0
2005	-	-	-	-	-	-	-	-	-	-	-
2006	17.1	25.0	11.2	-	11.1	78	0	52	7	0	1
2007	17.7	25.8	11.1	607.02	11.5	47	0	37	6	0	0
2008	17.7	25.5	11.6	-	10.4	67	0	54	0	0	0
2009	17.0	24.6	11.2	-	11.1	70	0	57	6	0	0
2010	-	-	-	-	-	66	0	53	10	1	0
2011	16.9	24.8	11.0	-	10.3	90	1	71	12	0	1
2012	-	-	-	-	-	-	-	-	-	-	-

- T : Annual average temperature (°C)
- TM : Annual average maximum temperature (°C)
- Tm : Annual average minimum temperature (°C)
- PP : Total annual precipitation of rain and / or snow (mm)
- V : Annual average wind speed (Km/h)
- RA : Total days with rain during the year
- SN : Total days with snow during the year
- TS : Total days with thunderstorm during the year
- FG : Total days with fog during the year
- TN : Total days with tornado or funnel cloud during the year
- GR : Total days with hail during the year

fig 83. Climate. ([http://www.tutiempo.net/en/Climate/Pretoria\\_Irene/682630/](http://www.tutiempo.net/en/Climate/Pretoria_Irene/682630/))htm

# EXISTING STRUCTURES\_



fig 84. Shack



fig 85. Concrete Remains



fig 86. Taxi Rank



fig 87. Church. 71

# WERF [TAAL]\_\_

## Exploring Found Architecture

In the term 'Lyf[Taal]', 'lyf' refers to body and 'taal' refers to language thus- the tangible and intangible. If we overlay this concept on the site itself, the author states that 'lyf' refers to the physical characteristics of the site that are easy to measure and document. This includes topography, micro climate, street lights, orientation, plant species, movement, access, current structures, zoning, adjacent buildings and programs as analysed above.

The 'taal' refers to language. It is the intangible subtle monologue that the site expresses within elements that can only be experienced on site. It is the generative potential of elements on site.

Due to the greenfield status of the selected site and the minimal permanent built structure surrounding it, the 'Werf[Taal]' chapter identifies an unseen level of design generators that inspires the development of a FOUND ARCHITECTURE.

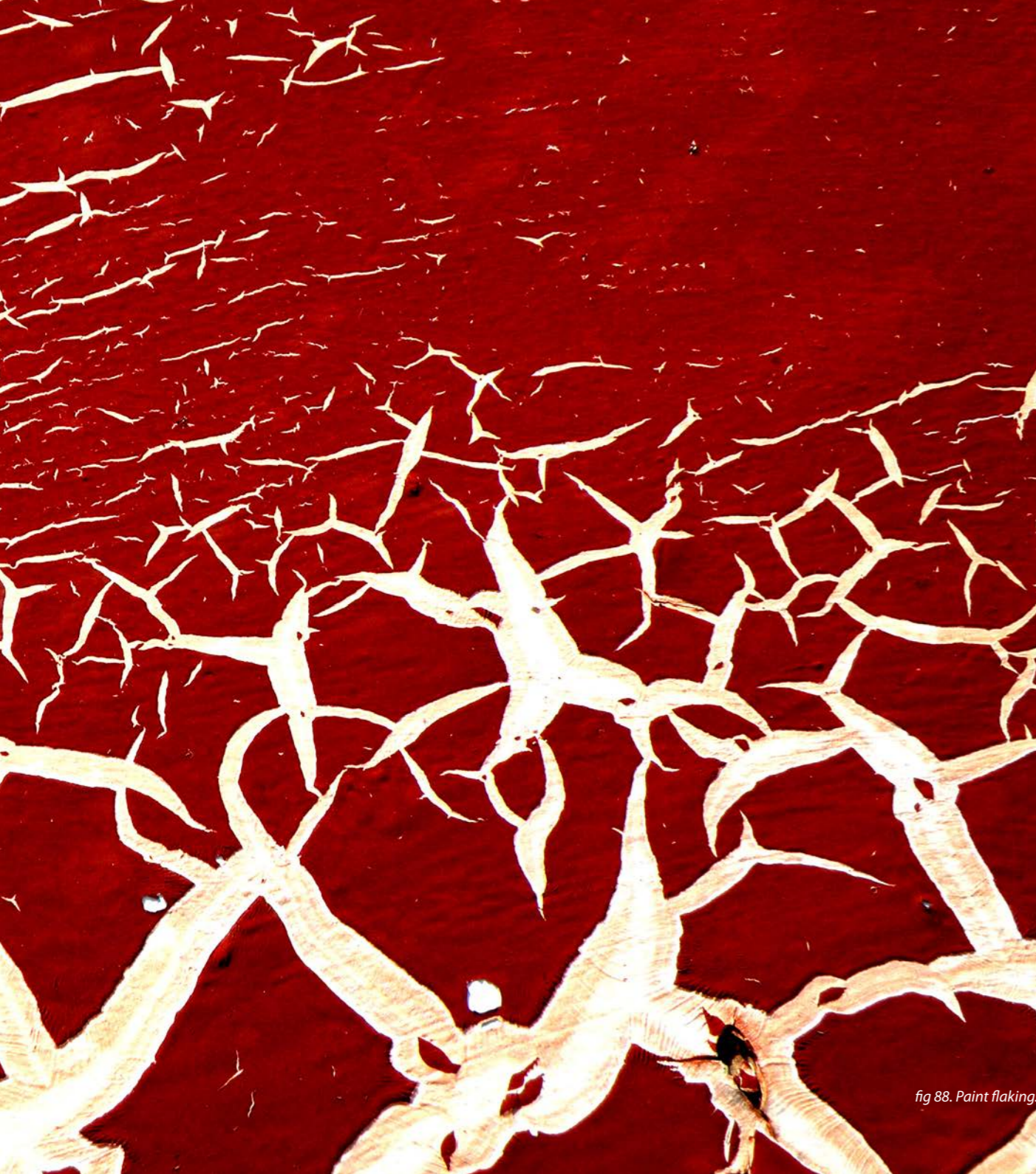


fig 88. Paint flaking.

### Forgotten Movement

- time
- decay
- heat
- colour
- feel

### Captured Memory

- process
- ritual
- identity

### Skin

- projection
- marriage
- joining
- lines
- capture

### Movement

- texture
- noise
- layers

### Reveal

- expose
- erode
- robust

### Earth

- grains

### Texture



fig 89 a\_. Rusted wheel.

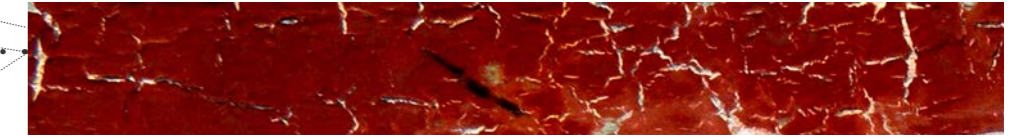


fig 89 b\_. Texture on bus.



fig 89 c\_. Sand.



fig 89 d\_. Paint flaking.

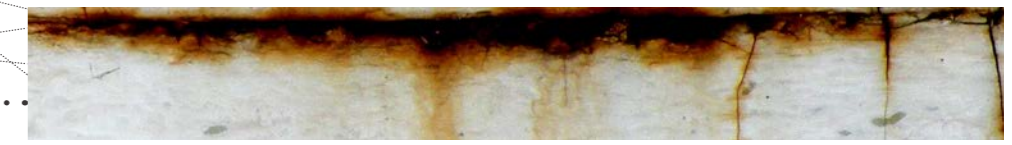


fig 89 e\_. Rust.



fig 89 f\_. Grass



fig 89 g\_. Rust and paint.

# WERFTAAL\_\_



fig 90. Beauty in the imperfection .

## Beauty In The Imperfection

What is striking about the existing informal taxi rank is the slanting manner in which the sign posts protrude out of the landscape. The sign posts have been influenced by the presence of people on the site, the taxis and their movement patterns. This pattern of people is what gives the sign posts their unique aesthetic quality. The author is intrigued by this unique quality of human influence and how it developed a form of beauty in the imperfection.

## Wayfinding

The existing sign posts on site communicate the importance of wayfinding. Wayfinding refers to the ability of the user to orientate themselves in a new or unfamiliar environment.

Wayfinding becomes a very important design generator and must be incorporated in the building design.



fig 94. Wayfinding.



fig 91. Routes .

## The Site as Liminal Space

The site is currently used as a transitional space. People walk through the site to shorten their walk to and over the R55 road. The taxi rank is also a space where transition takes place between modes of transport.

The integrity of the site as liminal space will enable the architectural intervention to become a place where people walk through and not to.

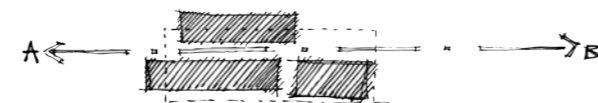


fig 95. Site as liminal space.



fig 92. Shack on site.

## Found Architecture

Throughout the community of Olievenhoutbosch shacks and shanties are constructed with found materials. This direct use of found materials is what inspires the critical evaluation of a site language (werftaal) to reinterpret architectural generators that are found on site and recreate a FOUND ARCHITECTURE.

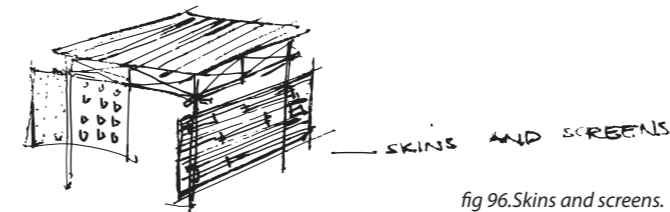


fig 96. Skins and screens.

## Skins and Screens

Skins and screens are wrapped around internal skeletons to give the existing structures on site their physical form. Skins and screens are used to protect the structure and inhabitants from harsh environmental elements and often create a collage of textures and colour that give the facade its aesthetic appeal.

Screens are often able to move, twist and change to manipulate the quality of space.



fig 93. Shack on site.

## Conclusion

The 'Werf[Taal]' chapter is an attempt by the author to understand the language of the site and interpret it to create a found architecture.

This will produce a design that is indigenous to the community and the natural environment. It allows local labour to contribute to the construction process, creates a sense of ownership and effectively prolongs the lifespan of the building.



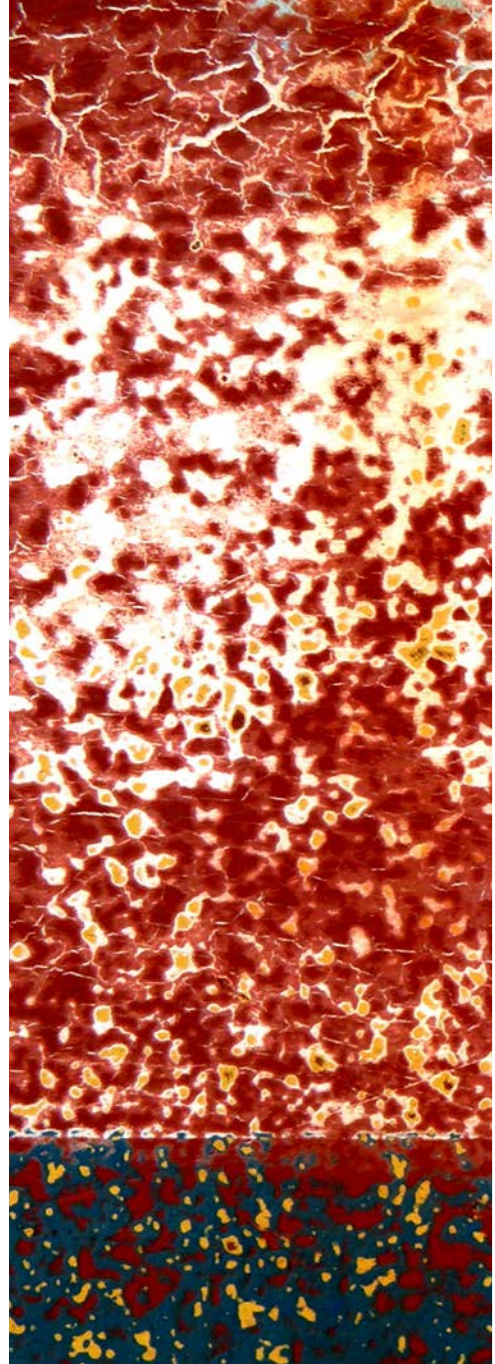


fig 97 a. Old bus surface.



fig 97 b. Cracking paint.



fig 97 c. Rust stain.



fig 97 d. Corroded steel.



fig 97 e. Grass.



fig 97 f. Footprint in the sand.

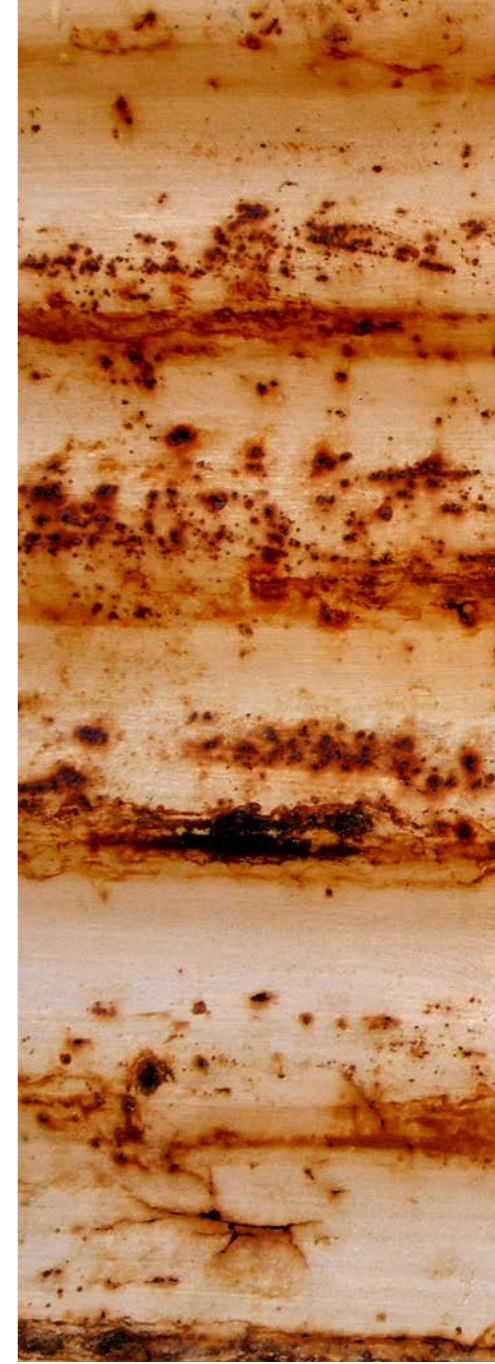


fig 97 g. Sheet metal.



fig 97 h. Framed view of child dancing.