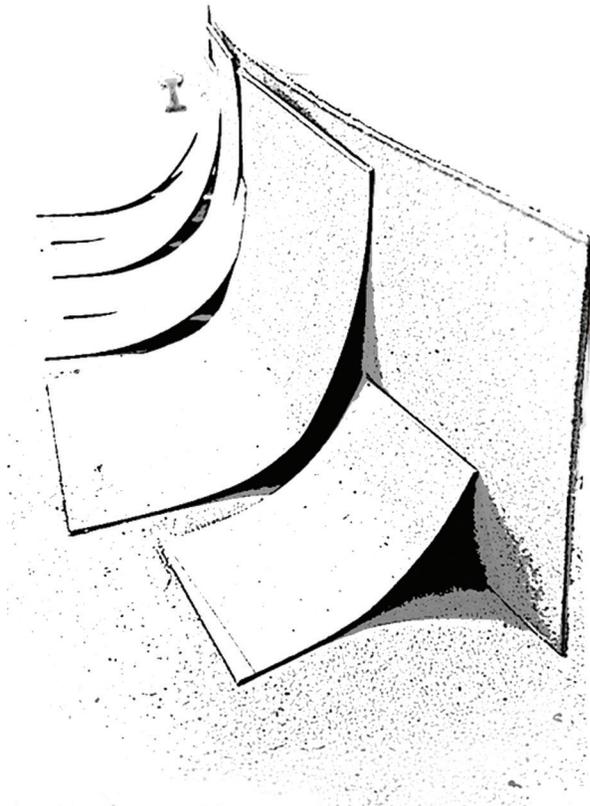


AN EVERYDAY CARNIVAL:
DESIGNING FOR FREEDOM OF EXPRESSION WITHIN A MULTIFUNCTIONAL LANDSCAPE
AT LOFTUS VERSFELD STADIUM



by carmen van den einde

STUDY LEADER/ MENTOR	IDA BREED (DR.)
COURSE COORDINATOR	ARTHUR BARKER (DR.)
CO-COORDINATOR	JOHAN N. PRINSLOO

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

PRETORIA, SOUTH AFRICA
2015

The University of Pretoria

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

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

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

Carmen van den Einde

a special thank you to

Johannes van den Einde, my loving husband
My son, Isaac, the most friendly little boy who brings so much joy

My supporting parents, Johan & Hannelie van As
My sisters: Klara (always a helping hand), Maggi, Minette and Brigitte

Theresa, Isaac's Nanny and second Mommy
Jeanette (my always reliable friend) and Roelanda, Riana, Ami

My co-students: Sue, for being my project's biggest fan and a good friend
Marike for your encouragement, Bridge, Suné, Kyrstyn and Mikael

And last but not least, two very supporting lecturers this year, who has
both taught me so much! I appreciate your effort and support throughout
the year!
Ida Breed
Johan N. Prinsloo

ABSTRACT

This dissertation is an effort towards a better understanding of public open space within Pretoria [Tshwane]. The author identified a lack of freedom of expression within the Pretoria parks and that people actually have a need to be able to express themselves.

The study investigates Carnavalesque as a means of human expression, as well as Loftus Versfeld stadium which occasionally, during sporting events, allows for freedom of expression. Loftus Versfeld provides this incredible experience which unfortunately occurs on only a few weekends within a year. The site becomes derelict and the stadium becomes a white elephant and monofunctional space.

A focus is also on the future predicted growth of the area surrounding the Loftus Versfeld stadium and investigates resilient landscapes for the future.

The design objective is to create a multifunctional resilient landscape where people are able to express themselves freely. The proposal also finds a balance between a programmed and unprogrammed landscape as well as a robust and ecological landscape.

SAMEVATTING

Met hierdie verhandeling is gepoog om publieke oop ruimtes in Pretoria [Tshwane] beter te verstaan. Die skrywer het 'n gebrek aan vryheid van ekspressie geïdentifiseer in Pretoria se parke en dat mense 'n behoefte het om hulle op een of ander manier te kan uitdruk.

Die verhandeling het Carnavalesque (feesviering) ondersoek as 'n menslike manier van uitdrukking rondom Loftus Versfeld wat per geleentheid, tydens sportgeleenthede, die kans bied vir vryheid van ekspressie. Loftus Versfeld bied hierdie ongelooflike geleentheid, maar ongelukkig slegs 'n paar naweke per jaar. Die terrein raak vervalle en die stadion word dan 'n wit olifant en monofunksionele ruimte.

Fokus is ook geplaas op die toekoms en voorgestelde groei in die area rondom Loftus Versfeld stadion en die aanpasbaarheid van landskappe in die toekoms.

Die objektief van die ontwerp is om 'n multifunksionele, aanpasbare landskap voor te stel waar mense in staat is om hulleself vryelik te kan uitdruk. In die voorstel is ook gepoog om 'n balans te vind tussen 'n geprogrammeerde en ongeprogrammeerde landskap en terselfertyd 'n robuuste of veerkragte, ekologiese landskap te skep.

TABLE OF CONTENTS

PART 1: INTRODUCTION

Chapter 1: Introduction	001
Chapter 2: Carnavalesque and Public Space	019

PART 2: DEVELOPMENT OF THE BRIEF

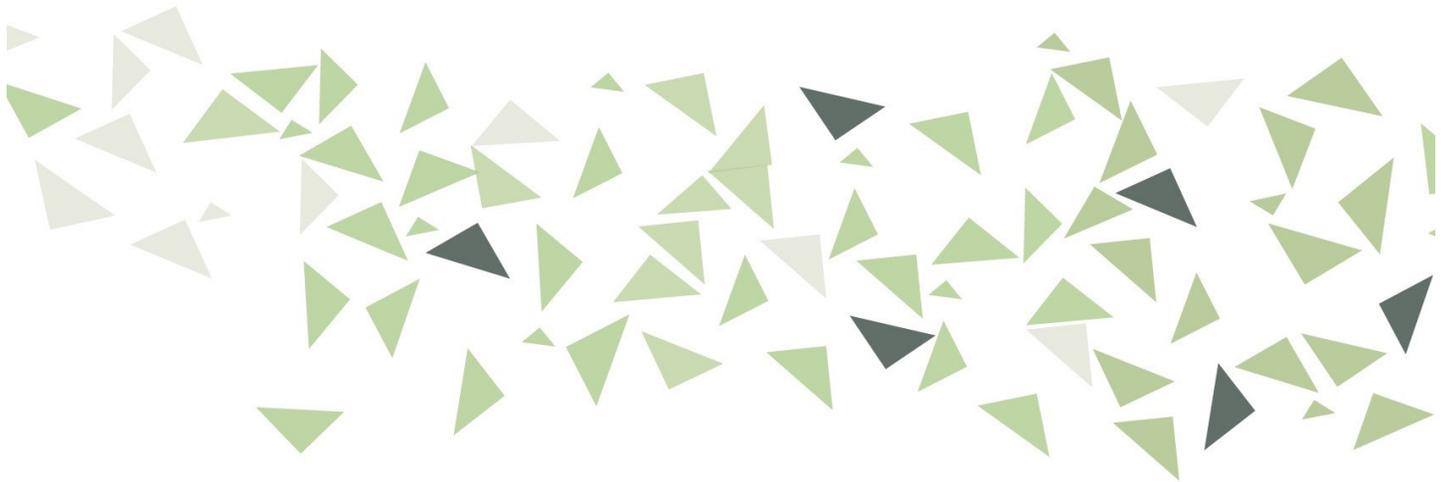
Chapter 3: Context & Context Analysis	029
Chapter 4: Stadium Landscapes	069
Chapter 5: Multifunctional Landscapes	087
Chapter 6: Resilient Landscapes	097
Chapter 7: Urban Framework	117

PART 3: DESIGN PROPOSAL

Chapter 8: Design development	127
Chapter 9: Technical investigation	173

REFERENCES

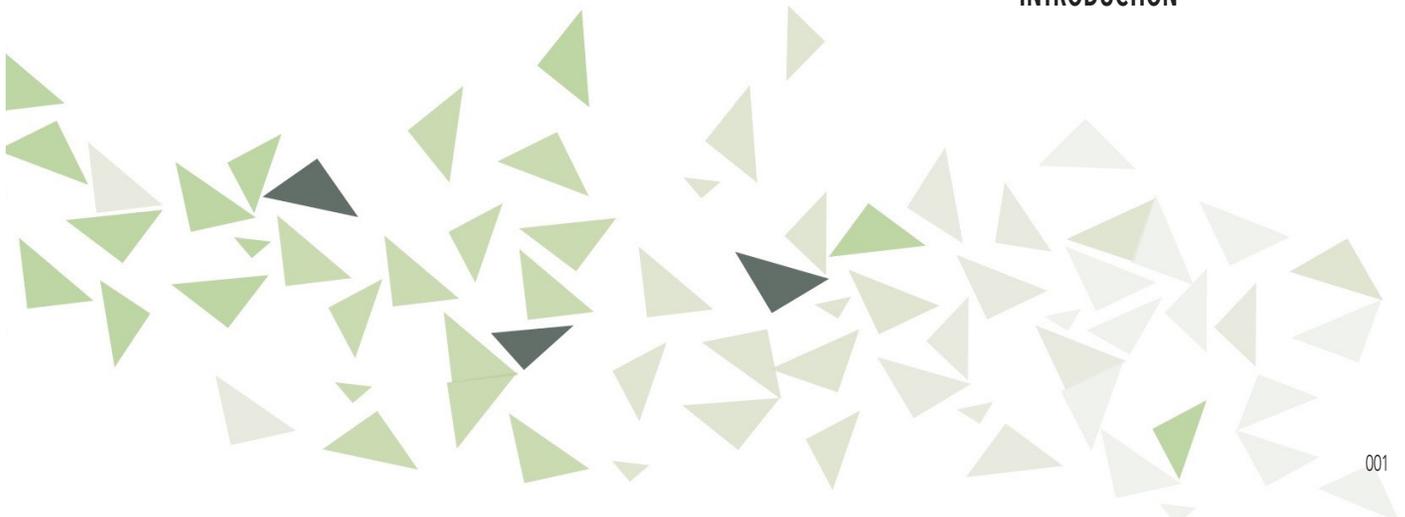
APPENDICES



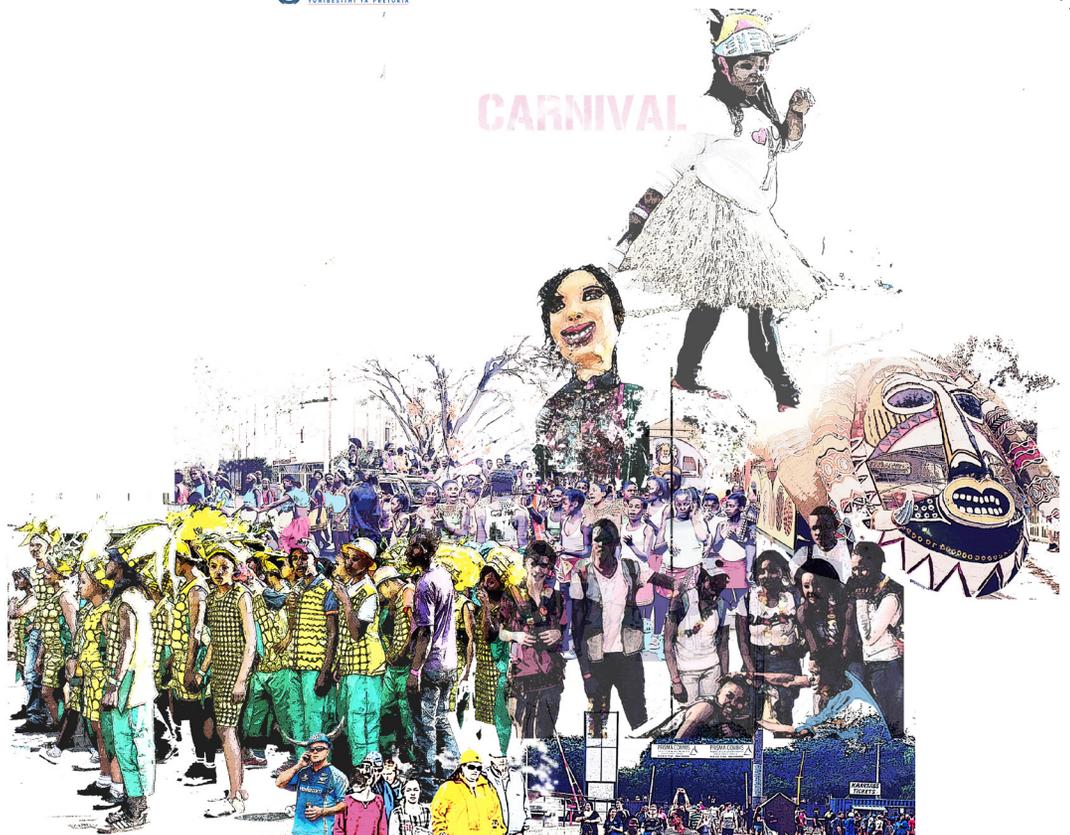
PART 1

CHAPTER 1

INTRODUCTION



CARNIVAL



RUGBY



SOCCER



Figure 01.01: Loftus Versfeld sport events (Author, 2015)

PRELUDE

We are on our way to the semi-final Curry Cup rugby match today, between the Vodacom Blue Bulls and the DHL Western Province. Earlier this year, the Bulls did not play so well and few people attended the games, but it was not long before they picked up their pace and had a few victories ever since. And now, playing the semi-final match of the Curry Cup - we are excited, everyone is excited.

We have a quite a drive to make to the stadium because we live towards the north-western side of Pretoria, about 30km away. We approach the city from the west, driving through the streets of the Pretoria CBD, the Jacaranda trees are blooming beautifully. Through the streets of Sunnyside, in anticipation for the match, roughly an hour early for the game, we are expecting to see many other excited spectators around the stadium.

There is an endless amount of cars parked on the sidewalks and people walking through the streets surrounding Loftus. Some people were grilling (braai) next to their cars near the Walker Spruit, another with a jacuzzi in his bakkie, people playing loud music and showing off their team spirit by screaming and waving flags.

We parked at the University of Pretoria and thus walked from the eastern side of the stadium. A short-cut

between the Municipality depot and the Pretoria High School for Girls has opened only for match days. Once we entered Loftus' grounds, a beer tent and some gas barbeques were standing there. People kept moving towards the stadium in big groups, from all angles - some dressed up, some with friends or family, but everyone excited and ready for a serious match. We had to walk to the other side of the stadium since our seats were on the western stand.

We walked past the practice fields, and there were masses of people around – people playing ball, drinking beer, people standing on the balconies of the stadium and other people showing off their team by having dressed up boldly. It was buzzing. We passed the media trucks that were getting ready to broadcast. When we arrived in Kirkness street to the west, the same madness was seen, masses of people walking down the street and the fantastic smell of boerewors and coffee tingling one's nose. People are laughing, singing, dancing, screaming and having load of fun. Finally we got to our entrance and the madness just moved into the stadium with us.

Our son, one and a half years old, first time at a rugby game completely soaked up this excitement and was screaming of excitement with everyone else. What an event to attend but unfortunately only so few times in a year...

01.01 INTRODUCTION OF THE PROBLEM

South Africa has a general lack of well developed public open space. Private developments exist, but are exclusive and ironically often unused and unoccupied for the majority of time.

One such place is Loftus Versfeld stadium and its surrounding grounds and was chosen as a site for this dissertation.

It is situated in Arcadia, Pretoria, on the corner of Park and Kirkness Streets. North of the site is the Pretoria High School for Girls and towards the eastern side is the Gautrain and Metro rails as well as the University

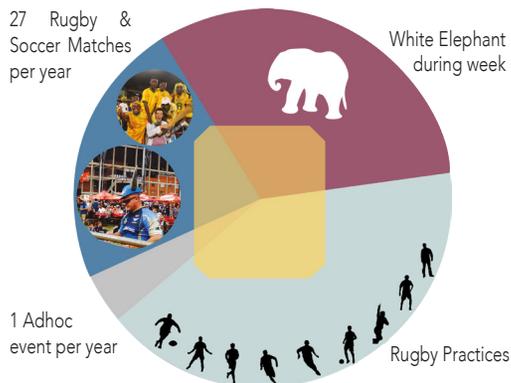


Figure 01.02: Loftus Versfeld stadium as white elephant (Author, 2015)

of Pretoria

Other sport facilities such as tennis courts, smaller rugby fields and netball courts are situated on and around the site on private land. An avenue of trees creates an axis towards the University of Pretoria's grounds, which also creates a visual division between

Loftus Versfeld and the Pretoria High School for Girls.

At the time of the study, the stadium was used only for approximately 27 sport matches (soccer and rugby) that are played per year and only one ad hoc event takes place at Loftus Versfeld stadium per year. These events usually take place on Fridays or Saturdays, and for the rest of the week, the stadium stands empty. Practices take place everyday on the fields south of the stadium, which is the only space that is used.

A number of other green spaces and urban parks within the study area. Like Loftus, 90% of those parks or open spaces do not attempt to contribute to a resilient future city and human health and well-being. This site could become an important multifunctional node in the predicted future dense residential area. It can also contribute to urban resilience and be an important destination to Pretorians and other town-dwellers.

Resilient systems that also include human expression can revitalise these spaces and make them relevant for the future in terms of environmental and human health.

Today's problems cannot be solved if we still think the way we thought when we created them.

~ ALBERT EINSTEIN

01.02 RESILIENCE

A rapid population growth occurred in the eighteenth century, during the Industrial Revolution, and cities became larger. Sixty percent of the world's population is predicted to live in cities by the year 2030 (UN Habitat, 2010). In South Africa, currently 61% of the population lives in urban centers (UN Habitat, 2010). Urban areas consume 75% of global natural resources and urbanisation modifies the features and ecology of landscape (Uslu & Shakouri, 2013). Population growth in cities caused cities to become much more reliant on natural resources (Grant, 2012:2).

Rapid growth of cities places massive stresses on the urban environment and its biodiversity. This includes alteration of habitat, such as loss and fragmentation of natural vegetation; an increase in regional temperature and the degradation of air quality and reduced urban quality of life and human well-being (Tratalos et al, 2007:308). On the positive side, due to urbanisation, people have easier access to basic services and it becomes much cheaper to travel to hospitals and schools because of shorter distances. Yet in SA, all services are still not as accessible as it should be (see Chapter 2). People will, however, keep living in cities and even more people will start to live within cities. It is therefore necessary to consider human well-being without continuing to rely on unsustainably exploiting natural resources (Grant, 2012:3).

A city's ability to be resilient is influenced by urbanisation factors. Resilience is termed as the "capability of an urban environment to absorb external shocks and to grant water, food and energy supply. The city should be able to attain 'sustainability' at a global scale, 'health' at a local scale and 'well-being'

at a proximal one" (ICLEI, 2013). Resources are finite and there are limits to what ecosystems are able to produce. Therefore ecosystems need to be managed and planned for in the long term. Healthy ecosystems are the key to resilient cities, influencing and affecting human well-being (TEEB, 2011:1).

Resilience is supported by 'green infrastructure' which is supported by 'ecosystem services'. This approach forces one to recognise interconnections between and within ecosystems and thinking and acting at all scales (Grant, 2012:59). Green spaces in cities can improve physical and psychological human health.

Once urban landscapes become places that support resilience, it can start to change public perceptions and values (Breed, 2013) - (see Chapter 2).



Figure 01.03: People depending on a healthy environment (Author, 2015)

Multifunctional landscapes are central to the green infrastructure approach to land use planning (Landscape Institute Position statement, 2009). In developing resilient landscapes, multifunctional landscapes may play an important role in helping to deal with challenges (Kato & Ahern, 2009:799) that we face because of rapid population growth.

In general, designed landscapes are mainly mono-functional, serving beauty and tranquility alone (Grant, 2012:60). Landscapes should have the ability to consider various objectives which includes recreation and cultural human needs as well as ecological needs.

01.03 HUMAN NEED FOR EXPRESSION

Throughout the ages cultural expression has formed part of urban environments and are often associated with public open space. Carnivals, for example, have become events where people have been able to express themselves and dealt with stresses and changes over time. Ironically, as urbanisation increased, carnival started to phase out. Within European cultures, carnival took its decline in the 17th century and lost its centrality in people's lives.

The universal character of sport is similar to that of carnival where people can connect and express themselves in urban space. Human health and well-being in urban environments are important. Sport allows people to take part in physical activity as well as to express themselves – whether people play or support the activity. In South Africa, the power of sport to connect people, similar to carnival, was experienced in two important events:

1. According to John Nauright in his book *Sports, Cultures and identities in South Africa*, Nelson Mandela and the ANC-led government viewed sport as a key area of reconciliation in the 'New South Africa' and also the main cultural activity through which the new national identity could be promoted or generated. Mandela was seen by millions of people when he supported South Africa in the 1995 Rugby World Cup in a Springbok jersey. The image was quite contradictory as rugby has been a racially segregated sport during apartheid. It is clear that from apartheid to post-apartheid, sport played a significant role in the South African society and can therefore have an enhanced significance in the future of the country, uniting differences.

Figure 01.04: Nelson Mandela in 1995 when the South African Springbok Rugby team won the World Cup (IB Times, 2015)

2. The 2010 FIFA Soccer World Cup was one of the largest sporting events in the history of South Africa (Yarborough, 2014). The spirit of Ubuntu was promoted by Fifa in order to get people away from the perception of poor and corrupted Africa. "This was one of the first images of people ignoring the travails of everyday life and supporting the same team" (Yarborough, 2014). The tournament has been said to have left a very positive impact on the youth in South Africa. Where there were bullying and vandalism before, youth appeared to play more fair and with respect. As time goes by after the 2010 FIFA World Cup, unfortunately, this carnival spirit has become less apparent.



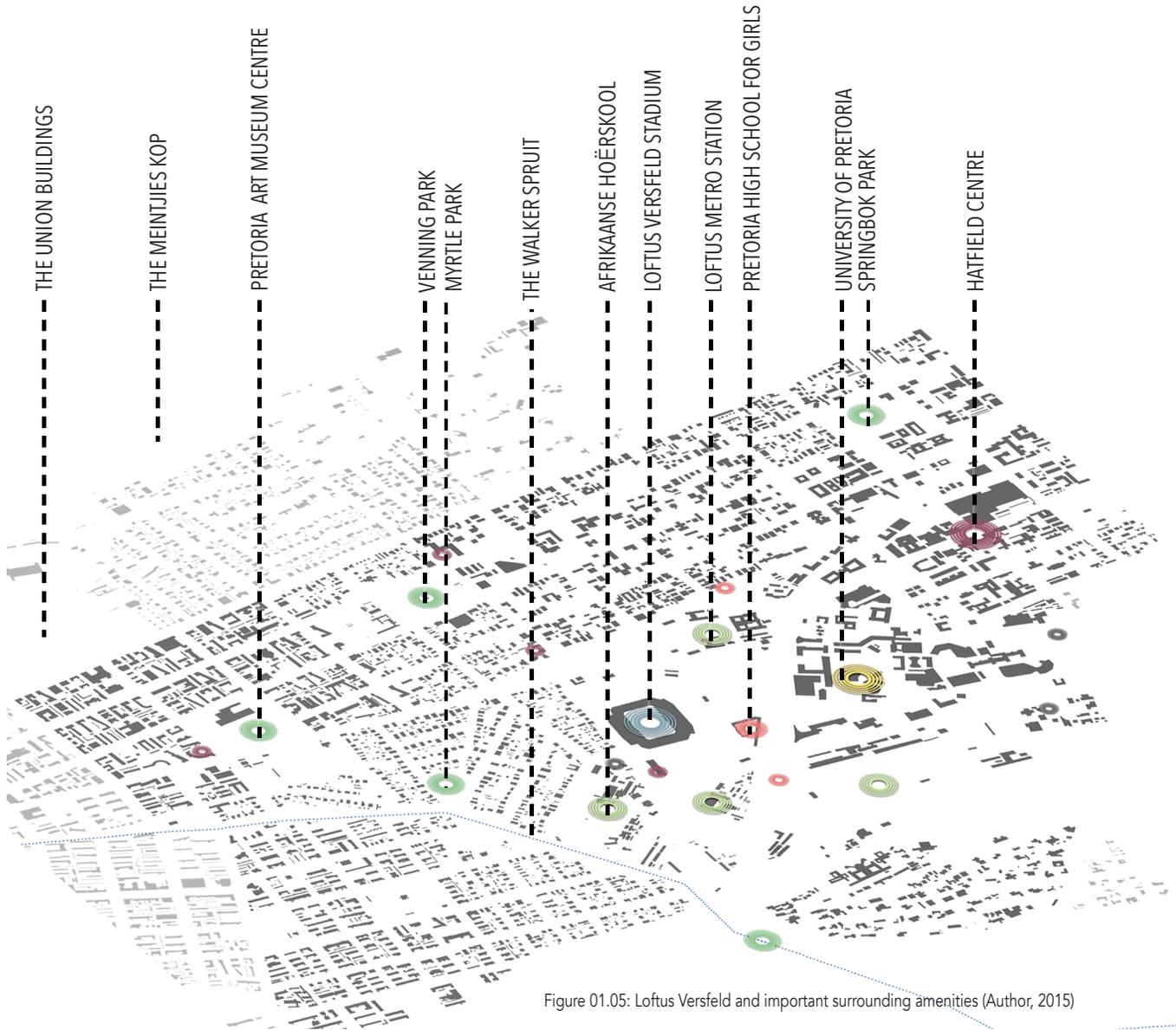


Figure 01.05: Loftus Versfeld and important surrounding amenities (Author, 2015)



01.04 PRELIMINARY SITE CHALLENGES IDENTIFIED

- Most of the northern side of the stadium is very rarely used and only accessible on event days for parking.
- The property is not integrated – there are many different sections with fences around and no connections between them.
- Limited access and integration with surrounding properties and land uses - the stadium stands out as a large mass compared to its surroundings.
- Limited infrastructure for pedestrians and cars during games.
- Limited public transport pick-up/drop-off points.
- Many required ecosystem services are not considered - such as water harvesting, recreation, tourism, sense of place, aesthetics.
- Lack of biodiversity – disturbed landscape and not much opportunity for habitat creation for wildlife.

Figure 01.06: Loftus Versfeld's grounds (Author, 2015)

01.05 REAL WORLD PROBLEM

How can Loftus Versfeld, currently a private mono-functional stadium landscape become a public multi-functional landscape in a fast-growing urban context and contribute to the resilience of the city?

01.06 THEORETICAL QUESTION

How can the phenomenon of the carnivalesque inform a landscape design process in order to generate a public space that is liberated from constructive programming and encourages freedom of expression?

01.07 HYPOTHESIS

The study hypothesizes that the concept of carnivalesque through its link to sport has potential to address the much required need for free human expression and a multifunctional resilient landscape around Loftus Versfeld Stadium.

01.08 SUB QUESTIONS

1. What are the requirements for stadium landscape design?
2. What are the results of urbanisation and the potential of green infrastructure and ecosystem services with regards to resilience and human well-being?
3. What do carnivals around the world have in common and how can the spirit of carnival influence landscape design? How does the concept of carnivalesque relate to the concept of sports?
4. How can people express themselves freely within a park or public open space and how can landscape facilitate human expression?

01.09 AIMS & OBJECTIVES

The aim is to create a multifunctional stadium precinct that can become a catalyst for development in a larger green infrastructure network. The landscape will reflect the concept of carnivalesque and improve physical, psychological and spritual human well-being. The landscape will also contribute to a resilient city for the future.

Based on this, the aims of this dissertation are to investigate ways to:

1. Create a healthy environment that will support human well-being for the future city by giving opportunities to residents to interact with, take advantage of and enjoy the services that nature provides in two ways:
 - a. Plan and design for green space multifunctionality.
 - b. Create a site that speaks of Carnivalesque and that allows for free and uninhibited cultural and physical expression.
2. Create green infrastructure – build urban ecological networks and manage connectivity that is crucial for biodiversity coexistence in cities.
3. Maximize resilience through the use of ecosystem services such as regulating, provisioning, supporting and cultural services.

01.10 RESEARCH METHODOLOGY

The research methodology and approach can be seen in figure 01.06. Social health and ecological health is focused towards greater resilience through carnivalesque which acts as the catalyst.

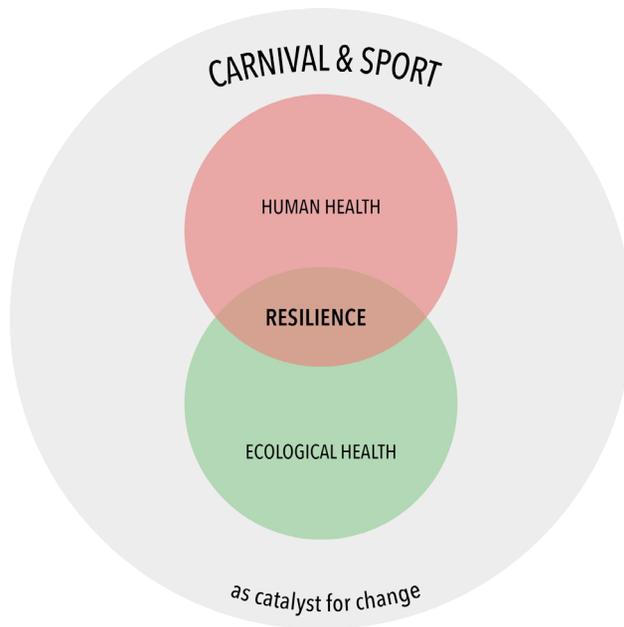


Figure 01.07: The concept of carnivalesque will be used to create multifunctionality and resilience socially and ecologically (Author, 2015)

01.11 RESEARCH METHODS

The research conducted will use different methods of data collection. The following methods were used for specific research topics within the greater research project.

A. RESEARCH PHASE: LITERATURE REVIEW

- Books on Ecosystem services and urban biodiversity.
- Books on history of the specific area and site.
- Published documents on ecosystem services and urban biodiversity.
- Published document on the heritage value of the site.
- Published document on human expression and carnivalesque.

B. RESEARCH PHASE: INTERVIEWS WITH AFFECTED PARTIES

- Headmistress of Pretoria High School for Girls: Mrs. McNair.
- Clydesdale Village Association Coordinator: Liesl Dyson.

- Blue Bulls coordinator at Loftus Versfeld: Hugo Kemp.

- Informal interviewing and questioning of people during rugby and soccer matches at Loftus Versfeld Stadium.

C. DESIGN PHASE: CONTEXT AND SITE ANALYSIS

- Photographing of site.
- Documenting of site during events at Loftus Versfeld as well as during a normal weekday.
- Collection of aerial photographs from Google Earth as well as the University of Pretoria Archives for historical photographs.
- Mapping of context and site specific data.

D. DESIGN PHASE: INVESTIGATION OF PRECEDENTS

- Practical examples – case studies of real world projects and how they addressed urban issues and similar challenges as revealed by this study.

01.12 LIMITATIONS

Pretoria High School for Girls (PHSG) did not allow for any pictures to be taken on their grounds and did not provide access to any site information.

01.13 DELIMITATIONS

The study area is focused on the street block that includes the stadium in terms of the design intervention.

Contextual influences and connections have been considered where applicable.

01.14 ASSUMPTIONS

- It is assumed that the Loftus Park development will not be implemented as per the proposal of the Abland developers (see page 54).
- It is accepted that the new BRT system will be operational in terms of the design proposal.
- It is assumed that the Metro station building crossing the railway will be implemented as per Michelle Kotzé's masters dissertation proposal.
- It is assumed that the future densification be as predicted for 2037.

01.15 CLIENT PROFILE

In the early 1900's, the Loftus stadium and surrounds was leased to the BBRU (the Blue Bulls Rugby Union) and the property was to be developed for sporting facilities. The proposed landscape for Loftus Versfeld Stadium, will be the property of the BBRU. The Clydesdale Association, The University of Pretoria as well as the Pretoria High School for Girls, will have benefits to the park, since they are surrounding the park and are seen as stakeholders. Because of a lack of multifunctional public space and a need for community space in

Pretoria, the City of Tshwane's Public Works and Tourism Departments will sponsor the building or development of the park to contribute to the health of the community surrounding Loftus Versfeld stadium. More events and concerts will be held at the stadium and will greatly benefit from the park, thus the BBRU will sponsor the other half of the park's costs. The revenue of the park will therefore be equally divided to the BBRU and the City of Tshwane to sustain the park. Client profile:

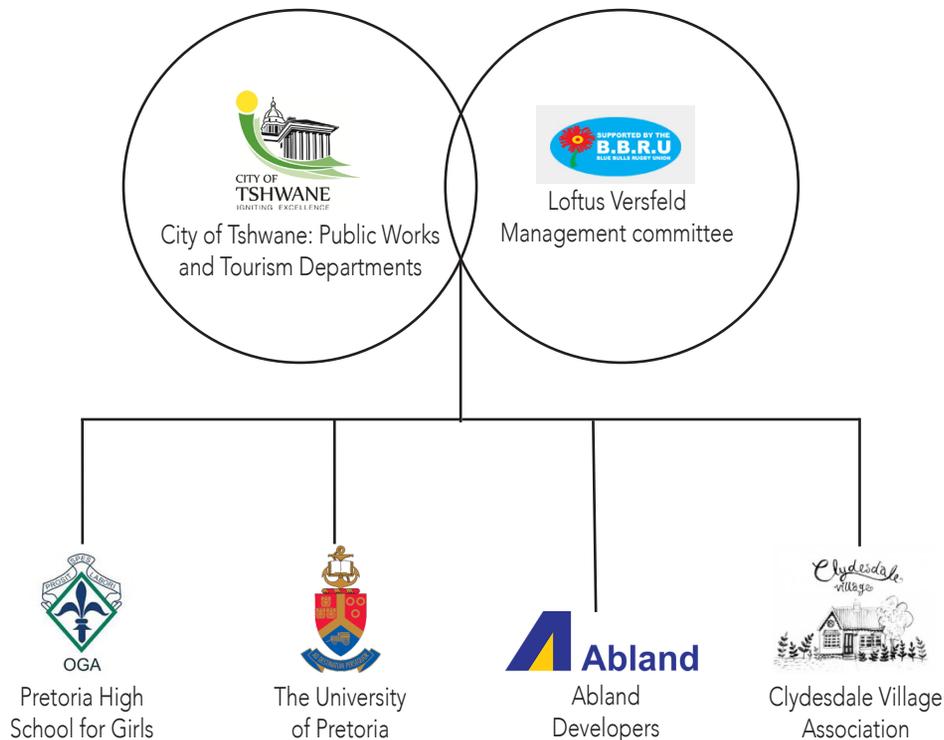


Figure 01.08: Client profile (Author, 2015)

01.16 PROGRAMME

The concept of carnivalesque and green infrastructure calls for a multifunctional program on site that is designed to allow people to express themselves more freely and to use spaces for more than one activity.

Since this is a stadium landscape, certain functional requirements of the Loftus Stadium precinct has to be included and must be acknowledged within the design programme, such as:

- Ticket sales
- Service delivery access
- Turn-stiles and gates
- Large open spaces or plazas for large crowds to congregate
- Easy access to public transportation systems

Requirements for a resilient landscape and green infrastructure:

- Habitat
- Water harvesting
- Productive land - agriculture and fruit trees

Loftus Park - Abland Development brief:

- Rugby Museum and Exhibition
- Brewery
- Market Plaza
- Zero depth water feature
- Commercial development
- Office space

Typical activities around public parks and stadiums:

- Rugby & soccer fields
- Hockey & cricket fields
- Open lawn - unprogrammed
- Jogging route
- Canoeing
- Wall climbing
- Skateboarding
- Big screen display area
- Market Plaza

An open programme - unprogrammed landscape - that can accommodate different programmes will be developed in the final design.

01.17 CHAPTERS REVIEW

PART 1 - INTRODUCTION

Chapter 1: Introduction

Introduction to the problem, site and conceptual approach to the study.

Chapter 2: Carnavalesque

This chapter will be an essay about the idea of “carnavalesque” and human expression and the importance of this concept for the study.

PART 2 - DEVELOPING THE BRIEF

Chapter 3: Context

The context and study area will be discussed and analysed in this chapter and conclude with guidelines toward design decisions.

Chapter 4: Stadium Landscapes

Stadium landscape design will be specifically investigated within this chapter. Minimum requirements and examples of good stadium landscapes.

Chapter 5: Multifunctional Landscapes

Multifunctional landscapes will be discussed and the current site will be analysed in terms of multifunctionality.

Chapter 6: Resilient Landscapes

Steps to achieving a resilient landscape will be discussed in this chapter. Green infrastructure and ecosystem services will be discussed further in order to achieve this.

Chapter 7: Urban Framework

The urban framework will summarise and conclude this part of the book by providing an urban framework.

PART 3 - DESIGN RESOLUTION

Chapter 8: Design Development

The design development process as well as the final design will be discussed.

Chapter 9: Technical Resolution

The technical investigations and resolutions will be shown and discussed.

