DECLARATION

COOKING SCHOOL + URBAN FARM FOR THE REINTEGRATION OF PAROLEES
questioning striated spaces in the city of bloemfontein

Dissertation submitted in partial fulfilment of the requirements for the degree
Master of Architecture (Professional)
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All the work contained in this document is my own except where otherwise acknowledged.
PREAMBLE

AN OVERVIEW OF THE DISSERTATION, FROM INSPIRATION TO REALISATION

This dissertation is an investigation into the boundaries – physical and social - that build, and simultaneously, break down our society and cities. Crime is part of our daily life in South Africa, but why do so many of our people find themselves in situations where they feel as though they have no other option? The social boundaries between society and those who were previously incarcerated are typically significant and can hinder the reintegration process.

An interest in the criminal justice system inspired this dissertation. The project proposed is a Cooking School and Urban Farm for the reintegration of parolees, or ex-offenders. Education is one of the most powerful tools we have at our disposal, yet it is often not used efficiently. Here, it is proposed as a tool to assist parolees with successful reintegration into society in an attempt to reduce recidivism rates. This will be largely dependent on the willingness of society to adapt and reduce prejudices which they may have towards parolees. In order for this to happen, the project cannot focus solely on the education of the parolees, but must extend to include the community at large.

The site proposed is located at the northern end of President Brand Street, one of the founding streets of Bloemfontein. The site is also the terminating point of the President Brand Street Conservation Area, specifically declared as a heritage area, on 17 September 1988. Democracy and the influence which politics has on the spatial layout of the city are of particular importance, and are thus investigated accordingly.
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INTRODUCTION

COOKING SCHOOL + URBAN FARM FOR THE REINTEGRATION OF PAROLEES.
BLOEMFONTEIN, SOUTH AFRICA

Because crime is such a major factor of daily life in our South Africa, the project originated out of an interest in the criminal psychology and its sociological function. It is easy to sit and complain about the situation, but it is more worthwhile to try to understand the problem on a human level and look for possible solutions. As a privileged middle-class citizen many of the crimes people commit, often due to poverty, are unjustifiable for me, but, I have never been in a situation where I was hungry or without a place to stay. I can therefore not judge the decisions people in different circumstances make, but can only hope to gain an understanding. I strongly believe that education is the most successful tool we have to help people in our country and improve overall conditions. Bloemfontein is the judicial capital of our country and it is thus a feasible location for an attempt to modify and improve the parolee reintegration system. The educational institution chosen is a cooking school. Cooking is not only therapeutic, but also offers a number of life skills – planning, preparation, communication, opportunities for entrepreneurship, and self-confidence to interact with others. The urban farm was a natural addition to this typology. Gardening and small-scale farming are useful skills for self-sufficiency, and have also been used as an aid in rehabilitation programmes and in prisons across the world. Skills in both cooking and farming not only give people the skills to provide for themselves, but they also create opportunities for people to use their own initiative and undertake entrepreneurial ventures, regardless of how small they begin. Agriculture is one of the primary contributors to the Free State economy and there are numerous opportunities for involvement in all spheres of the industry. The project will use education as a tool to improve parolees’ chances of successfully re-entering society and, optimistically, reduce their chances of recidivism.
A summary of the research which underpins this dissertation. An outline of the main problem statements which arose in each of the four categories of investigation, namely: typology, topology, morphology and tectonics, as well as the components of research.

**Initial Investigation**
An investigation into the plight of the Department of Correctional Services and incarceration in South Africa - the struggles encountered, largely due to overcrowding, and consequently unfavourable conditions in these institutions.

**Part 01: Problem Statements**
Part 01 highlights the main problems which have been identified in each of the four categories of research, namely typology, topology, morphology + tectonics. These problems were further investigated in Part 02, where research was conducted in order to establish design tools which were used during the design process.

**What Typology**
The combination of typologies needs to come together as one, functional design, with meaningful spaces created for each user.

**Where Topology**
Because of the site’s prominent position within a conservation area, the response has to be contextually sensitive.

**How Morphology**
The building is intended to comment on the socio-political spatiality of the city and existing public urban spaces.

**How Tectonics**
The building is conceived as a “place holder”, there is thus a conscious effort to reduce the use of permanent structure as much as possible. This is not possible everywhere.
PART 02 EXPLORATION + GROUNDING

PART 03 DESIGN + TECHNICAL SYNTHESIS

PART 04 REFLECTION + EVALUATION

PART 04 reflects on the project as a whole. The intention of this part is to analyse the successful parts of the project, and what made them successful, as well as looking at the less successful parts and offering possible improvements.

PART 03 is the culmination of the initial problem statements identified, the design tools established through research, and the design solutions proposed, supported by the technical design investigation.

PART 02 forms the research component of the dissertation. Through a combination of case studies, precedent studies and literary reviews, along with site analyses, design tools were established as guidelines for the design process.

See the following page for a complete graphic summary.
idea

touch-stone → concepts

claiming space unforcefully
questioning boundaries
transitional space

glossary

context investigation

Oranjezicht City Farm
Babylonstoren Organic Farm
Company’s Gardens
C.U.T. Hospitality School
Silwood School of Cookery
Culinary Art School
Savonneire Heymans
Department of Public Works

+ quantitative + cognitive site analyses
+ critical + creative literary review

case studies
precedent studies
RESEARCH DESIGN

A BRIEF OVERVIEW OF THE ORIGINS OF THE DISSERTATION. THE SPECIFIC RESEARCH METHODS DESIGNED + USED TO ACQUIRE THE NECESSARY KNOWLEDGE + INFORMATION

The research for this design dissertation was designed around the exploration of four problem statements which embody the essence of design: what to design, for whom? Where to design it? How to acknowledge and include the influence of the gestalt, and finally, how the design will be constructed? For the purpose of this document, these questions will relate to research which will influence the logic of type (typology), topos (topology), form (morphology) and structure (tectonics). The research stemmed from an interest in the criminal mind and why people do what they do. Upon investigation it was found that the system of incarceration and parole in our country is far from what it should be. This led to the decision to propose an attempt at improving the rate of successful reintegration of parolees in order to try and reduce recidivism and thus lessen the amount of people in prison. The Department of Correctional Services was an obvious choice of client but the site was a more challenging decision and many options were investigated before finding a fitting site, the northern end of President Brand Street. From here, various sources of knowledge were explored in an attempt to develop a suitable design methodology for this specific project. The sources of knowledge explored include the following research methods:

- The touchstone – a physical representation of the main ideas driving the project. From this,
- three concepts were developed – these are slightly more developed ideas which form a measure stick which can be used throughout the process to check whether the project is still achieving what it set out to achieve
- The conceptual framework that was followed generated out of a brief investigation into precedent and case studies
- This conceptual framework highlighted a few key words which will be used throughout the project
- Once an overall idea was obtained, more specific precedent and case studies were researched and analysed in more detail
- Both quantitative and cognitive analyses of the site were completed before a
- critical and creative analysis of literature was completed in order to establish design tools which will be of assistance in completing this design dissertation
PART 01

PROBLEM STATEMENTS

PART 01 HIGHLIGHTS THE MAIN PROBLEMS WHICH HAVE BEEN IDENTIFIED IN EACH OF THE FOUR CATEGORIES OF RESEARCH, NAMELY TYPOLOGY, TOPOLOGY, MORPHOLOGY + TECTONICS. THESE PROBLEMS WERE FURTHER INVESTIGATED IN PART 02, WHERE RESEARCH WAS CONDUCTED IN ORDER TO ESTABLISH DESIGN TOOLS WHICH WERE USED DURING THE DESIGN PROCESS.
1.1 CLIENT

The client is a collaboration between two government departments and a private investor.

The Department of Correctional Services is the regulating body which controls and organises the systems of incarceration and reintegration. The proposed intervention aims to reimagine the current processes of reintegration and community service and will thus form part of the Correctional Services system.

The department will therefore be responsible for the administrative functioning of the complex, determining which parolees are eligible for admission to the school and maintaining the legalities involved during the admissions process and throughout the parolees’ attendance at the school.

The Free State Department of Economic Development, Tourism, Environmental Affairs and Small Business is a provincial government department which aims to make economic and environmental management systems available in order to ensure economic development and poverty reduction in the province.

The department’s environmental objectives include ensuring that development in the Free State complies with the latest sustainable practices as well as guaranteeing that the community is aware of, and understands, the principles of responsible environmental conservation.

With regards to economic development, the department focuses on promoting shared partnerships and the identification of empowerment opportunities as well as assisting these small business start-ups.

This department will offer support to the private investor during the beginning stages of establishing the restaurant as well as assisting with training and basic principles of running a successful business.
1.2 USERS

The project will accommodate three users, namely: the parolees, the community and a facilitating body which mediates the interaction between the two groups. Each user has their own unique problems.

The PAROLEES require a space somewhere between the confines of a prison cell and the freedom of the city.

In order for the COMMUNITY to become actively involved in the project, the development as a whole needs to offer them a new and exciting experience and create a space in which they feel safe.

The FACILITATORS require a space which allows for interaction with, and between, both groups as well as individual counselling.

Successful reintegration relies on a number of factors, including, but not limited to:

- A society which is willing to let go of prejudices which they may have towards the marginalised group and a willingness to start interacting with these groups.

- Parolees who are dedicated and committed to the programme and strive to be successful, and, finally

- A committee or organisational body capable of facilitating this interaction and providing the necessary assistance during the process to ensure that the end goal is always kept in sight.
A SPACE SOMEWHERE BETWEEN THE CONFINES OF A PRISON CELL AND THE FREEDOM OF THE CITY
TRANSITIONAL SPACE

“... apart from possibilities of social participation through activities such as education and work, social integration depends also on a personal network of active social relationships. Resocialisation turns out to be a complex interrelation between social changes of integration and participation on the one hand and, on the other, to intersubjective relationships of acknowledgement and recognition between human beings.”

(Bereswill, 2010: 206)
1.3  **TYPOLOGY**

As a result of the complex combination of users, the development as a whole requires an intricate combination of varying levels of public and private space. Whilst some of the functions depend on public interaction for their success, other functions require almost complete privacy.

**PROBLEM STATEMENT:** The combination of various typologies needs to come together as one, functional development, with meaningful places created for each unique user profile.

**AIM:** To design a functional complex which creates meaningful spaces that allow for interaction, not only between the parolees and the community, but also between different members of the community.

1.4  **TOPOLOGY**

The site forms the northern node of President Brand Street, one of the oldest streets in Bloemfontein, which is predominantly characterised by large scale monumental buildings connected to justice, the legal system and politics. Due to its location, the site is of great importance in the area. However, it is perhaps due to this importance that no one knows how to approach the site and it has therefore remained unused for many years.

**PROBLEM STATEMENT:** The site forms the terminating point of one of the most historically significant streets in Bloemfontein. It is therefore crucial that the proposal is contextually sensitive.

**AIM:** To utilise the site in an appropriate manner; to serve the community whilst sensitively acknowledging the historical importance of the surrounds.
1.5 **MORPHOLOGY**

President Brand Street is characterised by symmetrical, stereotomic architecture. Many of the buildings are raised on a plinth and often include tower-like hierarchical elements. The rich history of the area is embedded in the combination of rich textures and the iconic double row of trees on either side of the road. Closer to the site, in Zastron Street, the buildings are generally higher with modernist influences and repeated geometries, compared to the more domestic scale of Kellner Street.

**PROBLEM STATEMENT:** The building is intended to comment on the socio-political spatiality of the city and existing public urban spaces.

**AIM:** To design a building which acts as a mediator between the grandeur of President Brand Street and the amalgamation of architectural styles surrounding the site, whilst commenting on the use of space in the democratic city through effect and appropriate boundaries.

1.6 **TECTONICS**

The development is proposed as a contrast to the existing rigidity of President Brand Street and is therefore characterised by lightweight, tectonic elements which create transparent areas and blur the boundaries between inside and outside, semi-private and public. The influence of agricultural or shed architecture is also apparent.

**PROBLEM STATEMENT:** Because the building is conceived as a place holder, there is a conscious effort to reduce the use of permanent structure as much as possible. For this reason, the majority of the development is constructed using light-weight steel which can be de-assembled and re-erected elsewhere, should the need arise. This temporality will, however, not be possible everywhere.

**AIM:** To design a functional building which creates both a connection with and contrast to the existing context.
PART 02

EXPLORATION + GROUNDING

PART 02 FORMS THE RESEARCH COMPONENT OF THE DISSERTATION. THROUGH A COMBINATION OF CASE STUDIES, PRECEDENT STUDIES AND LITERARY REVIEWS, ALONG WITH SITE ANALYSES, DESIGN TOOLS WERE ESTABLISHED AS GUIDELINES FOR THE DESIGN PROCESS.
The research section of this document will begin with a brief discussion of the “touchstone”, or physical representation of the main ideas and concepts behind the project.

The touchstone was a pair of gears where the teeth of the cogs were letters which read "PREJUDICES ARE MOST DIFFICULT TO REMOVE FROM THE HEART WHOSE SOIL HAS NOT BEEN LOOSEMED BY EDUCATION". This creative piece encapsulated the overall driving force of the project; to create a process of integration through which the blurring of boundaries results in a positive end result for all. The letters interlock in order to turn the gears, and the boundaries become less defined, as two separate entities work together to achieve a goal. A single gear has no function and thus the need for interaction between two entities is highlighted. The gears symbolise the process through which the parolees will go – growing from strength to strength as they become equipped with the necessary tools to adapt to various situations, just as one would change gears.

The words which were chosen to form the teeth were intended to highlight the quintessence of the project; education is a vital component to improve numerous problems faced by our society. This is not limited to the education of the parolees, who will hopefully be able to use this recently acquired education to find employment, but this also applies to the general public with whom the parolees will interact.

From the touchstone investigation, three concepts were developed: ‘claiming’ space in an unforceful manner, questioning boundaries and finally, transitional space, or liminal space.

Fig. 03: The driving force behind the touchstone - breaking down prejudices and blurring boundaries
The first concept, **CLAIMING SPACE IN AN UNFORCEFUL MANNER**, developed as a contradiction to the means in which political expressions of space are usually made. This concept is concerned with the idea that making a powerful spatial impact need not rely on over-powering, intimidating architecture. Many successful spaces are defined by small-scale interventions which the users do not necessarily recognise as thresholds. The activities which take place within the space are what define the success of the space.
**Questioning Boundaries** is a concept which is applicable in a number of areas of the project and refers to physical, social and political boundaries. The first connection is between the spatial boundaries of prison compared with the spatial boundaries of President Brand Street and the city in general. As the parolees move from a place of many rigid boundaries to a place where there is more freedom but is governed by a completely different set of social boundaries they will need to adapt accordingly. The second important boundary to be noted is the social boundaries that form between different groups of society – resulting in the formation of marginalised groups. The touchstone aimed to highlight the effect which the removal of these boundaries can have, on physical spaces as well as social groups. The final boundary brought into question, is the political boundaries which are created by the state; the opaque boundaries between the people and the state which governs them and the effect that politically-influenced boundaries have on the spaces which the public inhabit.

**Transitional Space** has an obvious, direct connection to the parolees who are experiencing a considerable transition from prison returning to life within society. This concept also makes a strong connection with the site as it is connected to President Brand Street and the city as well as the slower pace of Westdene and is thus lacking a clear identity.
In *Boundaries and Borders* (Jenkins, in Jackson, 2015:11-16), Richard Jenkins suggests a three-way difference between various boundaries. He states that symbolic or subjective boundaries produce “boundaries-in-practice” or boundaries between interaction, which consequently produce objective, social boundaries. Jenkins discusses the opinion shared by many, that social boundaries can only be formed when what people think and what they do coincide. Barth (in Jenkins, 2015: 14-15) is of the opinion that boundaries are created and recreated through interaction across them. He states that group boundaries are osmotic and the interactions across the boundary do not only serve to create the boundary, but also constantly reproduce the groups on either side of the boundary. Through continual redefinition of the boundary, the group is constantly reproducing its identity.

Ultimately, boundaries – physical or social – are where one thing ends and another begins. Each side of the boundary is simultaneously inside and outside to somebody (Barth, in Jenkins, 2015:16).

In this document, the term “boundaries” refers to any form of separation between groups of people – be it social or physical – as well as any intervention which defines a space. A boundary here is thus a defining point; something which highlights difference.

Similar to boundaries, striations result in the fragmentation of the city. From a pavement to a palisade fence, striations affect the way people move and experience the city. Some striations may be more difficult to recognise than others. Zoning regulations for instance, which determine what types of spaces develop, and where they develop, have a big impact on the cities which we inhabit.
Buildings which are connected to the government and legal functioning of our country – including the City Hall, The Supreme Court of Appeals, The Old Presidency and the Raadsaals.

Large scale buildings, of which many examples can be found in President Brand Street. These buildings represent the stability and rigidity of the time, at the conception of the town, and are characteristically symmetrical with a sandstone finish.

In between space, not completely belonging to whatever is on either side of the space; semi-isolated. This can be a physical space defined by boundaries or it can be a period of time that someone experiences during their lifetime when they either decide, or are forced to make a number of changes and thus lose perspective of exactly where and who they are; their identity and purpose may be momentarily questioned.

Like TRANSITIONAL SPACE; the space/place/time between one’s former role in society and one’s new, evolved role; a transitional threshold between distinct spaces which makes one actively aware of the space. This heightened awareness leads to questioning, which ultimately has the possibility to transform the occupant.

A space within the city which all members of society can access and enjoy freely, where people come to relax and are not restricted in their actions.
241 CORRECTIONAL FACILITIES IN SOUTH AFRICA

TOTAL CAPACITY: 118 154 PRISONERS

PLACES RESERVED FOR AWAITING TRIAL DETAINNEES: 25 000

CURRENT PRISON POPULATION: +/- 160 000 PRISONERS

OVERCROWDING 137%

MAJORITY OF SENTENCES BEING SERVED: 10 - 15 YEARS

DAILY COST OF INCARCERATION PER PRISONER: R329

AVERAGE COST PER SENTENCE: R 1.2 - R 1.8 mil.
At present, there are approximately 4000 parolees in the Free State, with roughly 500 new parolees released each year (Suki Mothekhe, 2015; personal communication). The only form of community service is street cleaning. In addition to this, there are between 1200 and 1600 people on probation in the province each month – under correctional supervision but not ordered to complete community service. In Bloemfontein alone, there are around 1500 people on parole or under house arrest (Dirk Venter, 2015: personal communication). The Department of Correctional Service’s Social Reintegration Centre, near the Central Park Shopping Mall in the central business district (CBD), has the capacity to house twelve parolees who have been granted day parole. These parolees are expected to go out and look for employment during the day but must return at a certain time each night where all twelve day parolees are locked in a single cell. This is a temporary facility and parolees only stay for six months. For the majority of the day, the employees at Social Reintegration travel around town checking-in with parolees who are under house arrest in and around the greater Bloemfontein area. The centre also provides opportunities for weekly counselling with psychologists. There are currently about 1400 parolees on the system in Bloemfontein alone.

These statistics highlight the magnitude of the problem. As more and more parolees are released each year the system gets increasingly difficult to control and interaction with parolees becomes more difficult. Whilst cleaning the streets does benefit the community, to some extent, it does not equip the parolees with any skills which they can use to find employment.

In numerous prisons across the United States, and more recently, locally, at Leeukop Prison, near Johannesburg, gardens and gardening programmes have been started within the prison. In the USA, the Planting Justice and Insight Garden Program have initiated garden projects in a number of prisons, all with resounding success (Rogers, 2014: video). Statistics show, that the recidivism rate of prisoners who were involved in the projects was reduced to 10%, compared to 60% for prisoners who were not involved in the gardening projects. One of the biggest highlights for the prisoners was the opportunity to eat fresh, organic food compared to the standard prison meals. There were also long term benefits for ten prisoners at San Quentin State Prison, just outside San Francisco, who were employed by Planting Justice upon their release. Closer to home, Rolene Strauss, the current Miss World, has started a similar project at Leeukop Prison. In a news insert on eNCA (eNCA, 2015: broadcast), the prisoners expressed how much they are enjoying having something to care for whilst enjoying an outdoor activity. Allowing prisoners the opportunity to get involved in these activities has tremendous benefits for their process of rehabilitation. Reconnecting with nature and nurturing something as small as a plant have both relaxing and healing effects, as well as the obvious skills which one gains.

The urban farm will therefore offer more than just skills which can be utilised to find employment. Working and maintaining the farm will also give the parolees some time for personal reflection and healing.
‘Idlanathi’ - or, ‘EAT WITH US’, IS A PRISON RESTAURANT AT POLLSMOOR MAXIMUM SECURITY PRISON IN CAPE TOWN. DINERS CAN EXPERIENCE THE THRILL OF GOING INTO THE PRISON, WHERE LOW SECURITY PRISONERS PREPARE A NUMBER OF LIGHT MEALS, AS WELL AS OFFERING CATERING SERVICES.

(Heil, [n.d.] online)
HOW WILL THIS COMPLEX COMBINATION OF FUNCTIONS OPERATE?

The proposed project aims to function as a self-sustaining development. This is crucial as the Department of Correctional Services does not have the funding to support the project once it has been established and the parolees do not have money to pay to attend a school such as this.

World Wide Opportunities on Organic Farms, or WWOOF, is a non-governmental volunteer help exchange programme. In exchange for help with the various tasks necessary for running and maintaining organic farms, hosts offer food and accommodation. A typical “shift” is four to six hours for which helpers will receive three meals and a place to stay. Work may include laying pipes, fixing farm roads, sowing seeds, piling alien firewood or even porcupine proofing vegetables. The period of “employment” varies from a few days to up to six months depending on the amount of work to be done. As of 2012 WWOOF was officially registered as a volunteer organisation in South Africa (WWOOF, 2015: online).

Because the parolees are often unemployed, either before or due to their incarceration, finances are often the biggest dilemma in getting their lives back on track. For this reason, the school will operate on a system similar to WWOOF. The parolees will receive a free education in exchange for manual labour and the successful running of the urban farm and restaurant. The produce from the farm will supply the restaurant and the profits made here will pay the teaching staff and be re-invested into the farm and school. Weekly or monthly markets and the renting out of the multifunctional space and foyer as a function venue will also bring in revenue. The students can also cater at these events in order to increase revenue. Although the parolees will not earn money, they will gain training and experience with which they can apply for jobs in either the food and hospitality or agricultural industry.

HOW FEASIBLE IS A CITY FARM IN THE FREE STATE, WHERE THERE ARE AN ABUNDANT NUMBER OF FARMS JUST OUTSIDE THE CITY?

Organic, healthy foods tend to be much more expensive than the majority of fresh foods found in supermarkets and thus exceed many people’s budgets. By bringing the farm into the city, the middle-man is removed and more people gain direct access to healthy foods. By reducing transport needs, these foods can be made available to a larger portion of the community for a fraction of the price charged in supermarkets. Irrespective of the aforementioned, consumers get to see the process and where their food came from; shopping for fresh vegetables can thus become an educational process where gardening and nutritional tips may be picked up and taken home. The activity of coming to the market and selecting your produce also allows for interaction between people who would not normally interact.
The farm is laid out in a strict geometric pattern with cobbled pathways that lead to the central open area. Pathways between rows of vegetables are much narrower and are covered in 'mulch' — dead plant matter applied between plants in order to keep the soil moist.
The Oranjezicht City Farm (OZCF) in Cape Town is a successful city farm in South Africa. The site’s historical importance dates back to 1701 when it was the largest farm in the Upper Table Valley and provided fruit and vegetables for the expanding settlement, colony and sailors passing through the cape. Over the years the farm was consumed by urban expansion and ‘Oranje Zigt’ farmlands were converted to a housing collective. By 1957 these houses were destroyed to clear a path for a bowling green, which, more recently, fell into disuse and disregard.

The OZCF is run by community members who are concerned about small-scale food production and bettering the use of public green spaces (OZCF website, 2015: online). Not only does the city farm increase access to fresh vegetables, it also serves as an educational source and promotes relationships between individuals, garden communities and NGOs. The city farm aspires to promote outdoor activities and healthier lifestyles whilst simultaneously adding to the skill sets of youths and adults seeking employment in urban food production and the food industry in general. The positive benefits of this type of endeavour include: skills, education, social cohesion and beautification of the environment.

Because the farm is so small, it is not a commercially viable farm, but produce is available to purchase at the weekly markets and mid-week self-harvests. Herbs and vegetables are also sold to local restaurants in the area.

2.4.1 case study  | ORANJEZICHT CITY FARM
CAPE TOWN, SOUTH AFRICA
CNDV AFRICA LANDSCAPE ARCHITECTS

The Oranjezicht City Farm (OZCF) in Cape Town is a successful city farm in South Africa. The site’s historical importance dates back to 1701 when it was the largest farm in the Upper Table Valley and provided fruit and vegetables for the expanding settlement, colony and sailors passing through the cape. Over the years the farm was consumed by urban expansion and ‘Oranje Zigt’ farmlands were converted to a housing collective. By 1957 these houses were destroyed to clear a path for a bowling green, which, more recently, fell into disuse and disregard.

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Because the farm is so small, it is not a commercially viable farm, but produce is available to purchase at the weekly markets and mid-week self-harvests. Herbs and vegetables are also sold to local restaurants in the area.
Fig. 11: BABYLONSTOREN SITE PLAN

Fig. 12: Inside the greenhouse tea room

Fig. 13: A thriving vegetable garden, with steel lattice for climbing plants

Fig. 14: Textures and shallow channels create subtle thresholds

Fig. 15: Fish help to purify water
Babylonstoren is an organic farm in Paarl, South Africa. The farm was developed seven years ago and has been flourishing ever since. The simple, geometric layout has clear walkways with accompanying pause areas throughout, allowing visitors to meander their way through the greenery at their leisure, or until they find themselves at the tea room. As the images show, the tea room is a greenhouse where light lunches and teas are served daily, with an accompanying garden experience.

A number of alternative organic methods are used for pest control and fertiliser throughout the farm, including ducks which go out to work each day in different areas of the farm and insect hotels to attract pests away from the produce.

Fig. 13 illustrates a steel lattice on which pot plants are hung and climbing trees are grown to create a covered walkway and gathering space. These types of areas are found throughout the farm. Plants are grouped by type but flow freely from one into the next, with intersections highlighted by covered gathering areas, ideal for discussions on group tours.

As Fig. 14 highlights, textures are used to create subtle thresholds which define areas of growing medium and walkways. In the stone-fruit portion of the farm, the outer shells of the pips of many seasons of fruit forms the walkways and one is immediately aware of the change in area due to the sudden change in the sound of footsteps.
THE COMPANY’S GARDENS IS A SUCCESSFUL, PUBLIC GREEN SPACE WITH STRONG HISTORICAL CONNECTIONS.

Fig. 17: A view of Table Mountain from the gardens. Spaces are defined by soft thresholds, such as paving, low planters and changes in vegetation. The height of trees and density of their leaves have a big influence on the type of space which is created.

Fig. 18+ Fig. 19: The vegetable garden was established in June 2014

Fig. 20: Gravel walkways between planter beds with railings to keep visitors out. Some beds are covered in

https://www.google.co.za/search?q=company%27s+gardens&espv=2&biw=1538&bih=839&source=lnms&tbm=isch&sa=X&ved=0CAYQUAoAWoVChMIkJXM_OP9xwIVxkAUCh31sQVC#imgrc=_5bif0slSrgddM
https://www.google.co.za/search?q=company%27s+gardens&espv=2&biw=1538&bih=839&source=lnms&tbm=isch&sa=X&ved=0CAYQUAoAWoVChMIkJXM_OP9xwIVxkAUCh31sQVC#imgrc=_5bif0slSrgddM
https://www.google.co.za/search?q=company%27s+gardens&espv=2&biw=1538&bih=839&source=lnms&tbm=isch&sa=X&ved=0CAYQUAoAWoVChMIkJXM_OP9xwIVxkAUCh31sQVC#imgrc=_5bif0slSrgddM
2.4.3 case study COMPANY’S GARDENS CAPE TOWN, SOUTH AFRICA

The Company’s Garden, adjacent to the South African Parliament in Cape Town, was established by the Dutch East India Company in 1652 and can be seen as the reason for the establishment of the city. The site is a National Heritage site and is surrounded by numerous historical landmarks, including the Houses of Parliament, the Planetarium, St George’s Cathedral and the National Library of South Africa. In 1848, the gardens were opened to the public and today’s facilities include: grassed lawns, public toilets, benches, footpaths, a restaurant and enclosed areas.

In June 2014 the City of Cape Town’s Heritage Resources Management Branch collaborated with City Parks to establish a vegetable and herb garden. The design pays reference to the original Dutch quadrant layout of the Company’s Garden and aims to highlight the necessity for urban food gardens, specifically in unused spaces in the city. Woolworths has teamed up with City Parks to provide financial support as well as assisting with one-day educational programmes.

Recently, new signage, which explains the layout of the gardens and the history of the surrounding precinct, has been installed at the main entrances to the gardens so that visitors are orientated and informed at all times (City of Cape Town website, 2015: online).
### 2.4.4 vegetables that will grow in Bloemfontein

<table>
<thead>
<tr>
<th>SUMMER</th>
<th>AUTUMN</th>
<th>WINTER</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>bean</td>
<td>beetroot</td>
<td>carrot</td>
<td>asparagus</td>
</tr>
<tr>
<td>beetroot</td>
<td>broad bean</td>
<td>garlic</td>
<td>aubergine</td>
</tr>
<tr>
<td>brocolli</td>
<td>carrot</td>
<td>pea</td>
<td>beetroot</td>
</tr>
<tr>
<td>brussel sprout</td>
<td>garlic</td>
<td>radish</td>
<td>bell pepper</td>
</tr>
<tr>
<td>cabbage</td>
<td>leek</td>
<td></td>
<td>carrot</td>
</tr>
<tr>
<td>carrot</td>
<td>lettuce</td>
<td></td>
<td>dwarf bean</td>
</tr>
<tr>
<td>cauliflower</td>
<td>onion</td>
<td></td>
<td>garlic</td>
</tr>
<tr>
<td>celeriac</td>
<td>parsnip</td>
<td></td>
<td>marrow</td>
</tr>
<tr>
<td>leek</td>
<td>pea</td>
<td></td>
<td>parsley</td>
</tr>
<tr>
<td>lettuce</td>
<td>radish</td>
<td></td>
<td>pea</td>
</tr>
<tr>
<td>onion</td>
<td>swede turnip</td>
<td></td>
<td>radish</td>
</tr>
<tr>
<td>parsnip</td>
<td>swiss chard</td>
<td></td>
<td>runner bean</td>
</tr>
<tr>
<td>pumpkin</td>
<td>turnip</td>
<td></td>
<td>spinach</td>
</tr>
<tr>
<td>runner bean</td>
<td></td>
<td></td>
<td>turnip</td>
</tr>
<tr>
<td>tomato</td>
<td></td>
<td></td>
<td>tomato</td>
</tr>
</tbody>
</table>
Fig. 21: SKETCH PLAN

From a morphological standpoint, it is difficult to question the boundaries in spaces such as the kitchen because the functionality of the space depends on the strict layout. However, the connection between the kitchen and dining area presents an opportunity to reassess the necessary boundaries and create spaces for interaction.
In order to understand the requirements of a cooking school, a case study, precedent study and interview were conducted.

The Department of Hospitality Management (Hotel School) is situated on the Central University of Technology campus in Bloemfontein. The department shares classroom facilities with the Tourism students and has a comprehensive kitchen set up for their use.

A fine-dining restaurant, run by the students, is adjacent to the main kitchens with a smaller, more informal restaurant in a separate building in close proximity. The main kitchen area is divided into a hot section on one side with a hot and cold section on the other side. A small pastry kitchen, designed to accommodate three to four chefs is accessed through this kitchen. This kitchen functions as the kitchen for the fine-dining restaurant and runs as a professional kitchen. An interesting point to note here is the floor drains which make cleaning the kitchen and spills a lot easier. A small passage leads to the chef’s office, which is next to the stock controller’s office, and the dry storage and walk-in fridge is situated just behind this office so that a close eye can be kept on what enters and leaves the store.

(Zote, 2015: personal communication).
Fig. 25: The site is located in the middle of a large open piece of land, with only one house on the opposite side of the road. As the sketches indicate, the courtyard was used to create transitional space between the harsh openness of outside and the ‘private’ space inside.

Fig. 26: The extensive glass facades in the educational kitchens open the space up to the courtyard.

Fig. 27: The chef’s table

Fig. 28: View of the entrance at night

Fig. 29: Blurred boundaries between the courtyard and educational kitchens
Situated in a vast and empty setting, The School of the Culinary Arts in Tijuana, Mexico, is a clean, simple building. Because the surrounding, barren context does not give many clues, the architects decided to create two volumes which face each other and form a transitional space in the middle. While this does not provide many design tools for the proposed dissertation, it is useful to look at how the courtyard functions as a semi-private space for the students and how intimate outdoor spaces were included as pause areas adjacent to kitchens. In the courtyard it is interesting to note how the various floor finishes define the space. Subtle interventions such as sections of timber decking inserted between the concrete flooring create areas of interest. Central trees with accompanying seating also create circles of presence as people are naturally drawn to gather in these areas and enjoy the shade.

With regards to the accommodation list, the school is comprised of large, open plan kitchens which are only defined by the columns which divide the space. These kitchens have expansive glass façades and are clearly visible from the courtyard. There is a large demo kitchen, where those outside can also look in and enjoy the demonstration. The ablutions are designed to include lockers for students to store their clothes while they are in their chef’s whites. The typical functions such as offices, a library and cafeteria are also included.
The Savonnerie Heymans complex, completed in 2011, was the winning submission in a European competition organised by the developer. The public housing scheme takes a strictly sustainable approach and aims to create a diverse, neighbourhood atmosphere between the 42 low-energy units. The multiplicity of the programme, which includes a crèche, a café and a park, reflects the dynamic group of people living here.

The complex is characterised by glass-enclosed bioclimatic loggias which not only provide an acoustical thermal barrier, but also serve to create a semi-public threshold as residents move from the public space to the privacy of their homes (MDW Architecture website, 2015: online).
2.5 | OVERVIEW OF ACCOMMODATION LIST

PUBLIC SQUARE + MOVEMENT THROUGH SITE

PUBLIC FUNCTIONS

urban farm
- publicly accessible
- visibility from entrances
- northern sun
- secure storage

weekly market
- publicly accessible
- visibility from entrances
- sunny gathering spaces
- storage spaces - southern sun

southern portion of site, receiving northern sun
more public, active, noisey portion of site
visible to a variety of users
higher volumes of traffic
RESTAURANT
- publicly accessible
- semi-public space
- northern sun
- “back-of-house” delivery access
- connection to cooking school

PRIVATE | SEMI-PRIVATE FUNCTIONS

COOKING SCHOOL
- semi-private + private spaces
- private student spaces
- connection to restaurant
- connection to housing

PAROLEE HOUSING
- private
- northern sun
- connection to counselling
- connection to school
- outside areas

COUNSELLING CENTRE
- semi-private space
- easily accessible from main movement route
- quiet spaces

shared services + storage
## 2.5.1 Accommodation List

### The Cooking School

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>People</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Learning</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cooking kitchen</td>
<td>[12]</td>
<td>119 m²</td>
</tr>
<tr>
<td>baking + icing kitchen</td>
<td>[12]</td>
<td>66 m²</td>
</tr>
<tr>
<td>demonstration kitchen</td>
<td>[12]</td>
<td>68 m²</td>
</tr>
<tr>
<td>computer lab + library</td>
<td>[12]</td>
<td>47 m²</td>
</tr>
<tr>
<td>theory classroom</td>
<td>[48]</td>
<td>66 m²</td>
</tr>
<tr>
<td>foyer</td>
<td>display space</td>
<td></td>
</tr>
<tr>
<td><strong>Administration</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>director's office</td>
<td></td>
<td>25 m²</td>
</tr>
<tr>
<td>reception + admin staff</td>
<td></td>
<td>25 m²</td>
</tr>
<tr>
<td>lecturer's office</td>
<td>x4 11 m²</td>
<td>44 m²</td>
</tr>
<tr>
<td>stock controller's office</td>
<td></td>
<td>17 m²</td>
</tr>
<tr>
<td>librarian’s office</td>
<td></td>
<td>13 m²</td>
</tr>
<tr>
<td>boardroom + kitchenette</td>
<td></td>
<td>28 m²</td>
</tr>
<tr>
<td><strong>Service</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>staff ablutions</td>
<td></td>
<td>27 m²</td>
</tr>
<tr>
<td>student ablutions</td>
<td></td>
<td>40 m²</td>
</tr>
<tr>
<td>dry store</td>
<td></td>
<td>17 m²</td>
</tr>
<tr>
<td>cold store</td>
<td></td>
<td>8 m²</td>
</tr>
<tr>
<td>freezer room</td>
<td></td>
<td>8 m²</td>
</tr>
<tr>
<td>medical room</td>
<td></td>
<td>8 m²</td>
</tr>
<tr>
<td>laundry</td>
<td></td>
<td>5 m²</td>
</tr>
</tbody>
</table>

### The Restaurant

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>People</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dining</strong></td>
<td>main seating area</td>
<td>[90]</td>
</tr>
<tr>
<td></td>
<td>outside area</td>
<td></td>
</tr>
<tr>
<td></td>
<td>bar</td>
<td>waiting area</td>
</tr>
<tr>
<td></td>
<td>private dining room</td>
<td>[24]</td>
</tr>
<tr>
<td><strong>Kitchen</strong></td>
<td>hot area</td>
<td></td>
</tr>
<tr>
<td></td>
<td>cold area</td>
<td></td>
</tr>
<tr>
<td></td>
<td>pastry kitchen</td>
<td></td>
</tr>
<tr>
<td></td>
<td>staff rest area [outside]</td>
<td></td>
</tr>
<tr>
<td><strong>Service</strong></td>
<td>staff ablutions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>patron ablutions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>manager’s office</td>
<td></td>
</tr>
<tr>
<td></td>
<td>dry store</td>
<td></td>
</tr>
<tr>
<td></td>
<td>cold store</td>
<td></td>
</tr>
<tr>
<td></td>
<td>freezer room</td>
<td></td>
</tr>
<tr>
<td></td>
<td>store</td>
<td></td>
</tr>
</tbody>
</table>

| Total              | 393 m²                             | 730 m² |

---
## THE PAROLEE HOUSING + COUNSELLING

### LIVING AREA
- lounge | dining: $19 \text{ m}^2$
- kitchen: $9 \text{ m}^2$
- bedroom [2]: $18 \text{ m}^2$
- bathroom: $4 \text{ m}^2$
- balcony: $16 \text{ m}^2$

### CARE TAKER’S HOUSE
- gathering area: $29 \text{ m}^2$
- laundry: $22 \text{ m}^2$

### OUTSIDE AREA
- balcony x6: $4 \text{ m}^2$

### COMMUNAL SPACE
- gathering area: $29 \text{ m}^2$
- laundry: $22 \text{ m}^2$

### COUNSELLING
- entrance | waiting area: $12 \text{ m}^2$
- reception: $12 \text{ m}^2$
- counsellor’s office [2]: $30 \text{ m}^2$
- group counselling: $33 \text{ m}^2$
- computer lab: $76 \text{ m}^2$

### SERVICE
- staffroom + kitchenette: $17 \text{ m}^2$
- document storage: $7 \text{ m}^2$
- ablutions: $11 \text{ m}^2$

### THE URBAN FARM

### NURSERY
- growing area: $144 \text{ m}^2$
- tool storage: $12 \text{ m}^2$

### GREEN HOUSE
- growing area: $264 \text{ m}^2$
- tool storage: $24 \text{ m}^2$

### GREEN WALKWAY
- walkway: $312 \text{ m}^2$
- info pavilion: $48 \text{ m}^2$

### FARM AREA
- public square: $3000 \text{ m}^2$

### PUBLIC SQUARE
- equipment store: $36 \text{ m}^2$

### EQUIPMENT STORE

### FARM STALL
- cold storage: $9 \text{ m}^2$
- food display | sales area: $63 \text{ m}^2$
- public ablutions: $36 \text{ m}^2$

### TOTAL BUILDING AREA
- structure + circulation: $720 \text{ m}^2$
- total building area: $3115 \text{ m}^2$
Fig. 37: Location of the Free State within South Africa

Fig. 38: The Province of the Free State

Fig. 39: Developed area of Bloemfontein 2015

FROM 1846

01. Warden's House
02. Fort Drury
03. New Fort Location
04. First Street
05. First Parliament Building
06. Catholic Cathedral
07. Anglican Cathedral
08. Dutch Reformed Church

1846 - 1860

09. New Government Buildings
10. Train Station

Fig. 40

Fig. 41

Maitland Street
Wes-Burger Street

Fig. 42
2.6.1 historical development from 1846 - 1946

DEVELOPMENT OF THE CITY

1880 - 1900
11. Anglican Cathedral [new tower]
12. Bauman Square
13. Warden Square
13a. City Library
14. Fourth Parliament Building
15. Executor’s Office
16. City Hall
17. Rambler’s Club

1900 - 1920
22. High Court
23. Appeals Court
24. The National Museum

1920 - 1946
25. Fire Station
26. City Hall
27. Trinity Methodist Church

Maps adapted from: van der Westuizen, 2011: 90-93.
Fig. 45: Aerial view of Bloemfontein city centre. Adapted from Google Maps 2015.
2.6.2 Bloemfontein city centre | Macro Site Analysis

Proposed Site
- Zastron Street
- Hertzog Square

Department of Correctional Services: Social Reintegration
- Fichardt Street Market
- Central Park Mall
- Long Distance Taxi Rank + Permanent Stalls for Vendors
Fig. 46: average min + max temperatures in Bloemfontein (www.weather-and-climate.com)

Fig. 47: average precipitation [rain | snow] in Bloemfontein (www.weather-and-climate.com)
2.6.3 Bloemfontein | Climate

According to SANS 10400, Bloemfontein is located within climatic zone 1, the cold interior.

Approximately uniformly about 1300m above sea level, the province experiences weather characteristic of an interior plateau - abundant sunshine, summer rains and cold, dry, winters.

As illustrated by the graphs, January, February and December are the warmest months while June is typically the coolest month. The city experiences dry periods between the months of May and October while March is the wettest month. (www.weather-and-climate.com)
In order to fully understand the context within which the site is located, a brief overview of the history of the area will be given.

The construction of a large presidential house, completed in 1885, can be accredited as the initiator of the beginnings of President Brand Street. Following this, the Fourth Raadsaal and the building of a bridge over the “channel” (Bloemspruit), established the street as an important opportunity for institutionalisation. The High Court was constructed in 1909 and the Appeals Court in 1910, consequently the same year that Bloemfontein was selected as the judicial capital of the Union of South Africa (Schoeman, in van der Westhuizen 2011: 94).

The judicial importance of President Brand Street was strengthened in 1911 when it was decided that the National Museum should be erected in close proximity, but not in President Brand Street itself in order to maintain the elite function of the street.

As research shows, the street was one of the first in the founding of Bloemfontein (Schoeman, in van der Westhuizen 2011: 94). The buildings are all of great importance and represent the visions of the government at the time. In 1989 President Brand Street was the first conservation area declared in South Africa (du Preez, 2014 in Herholdt 2014).

These buildings were built for the legal and political functioning of the city and were, or are still, intended to serve the people. At present, however, these buildings form a backdrop for the city life that takes place on the pavements in front of them.

Fig. 51: Historical map of Bloemfontein city centre indicating development of President Brand
Fig. 52: The architecture and rich textures of President Brand Street
The architecture of President Brand Street is typically stately with classical influences. This “architecture of power” is characterised by symmetry, in both the site development and landscaping design and on the elevations of the buildings. The rigid stability is expressed through the rich textures of sandstone and red face brick, while the iconic double row of trees which line the pavements provide a much softer threshold.
Fig. 53: The striations of President Brand Street
2.6.5 president brand street  |  MESO SITE ANALYSIS

The striations of President Brand Street vary greatly in type and degree of defining space.

The use of small scale street lights to illuminate pavements in a different manner to that of the street changes the atmosphere and creates a more human scale adjacent to the somewhat intimidating scale of the buildings.

With regards to the architecture, plinths serve to create a connection to a more relatable scale, while the symmetry and repetition serve as constant points of orientation.

The shadows formed by the trees which line the street blur the boundary between vehicular and pedestrian traffic. Ironically, the softening of this edge is created by the very elements which define this edge.

The pavements on either side are defined by soft thresholds and small interventions - some of which go almost unnoticed yet they have an effect on the way in which people use the space. For instance, the subtle changes in paving direction define spaces within the space.
President Brand Street may be viewed as one of the most historically prominent architectural streets in South Africa. Any addition to this street, and the conservation area within which it falls, needs to be carefully considered in order to avoid detracting from the existing context.

The approach taken, for the new Department of Public Works building by Roodt Architects in 2011, was to take guidelines and design tools from the context in order to create a site-specific contemporary building which sensitively acknowledges the surroundings. These guidelines include the use of materials common in the area – sandstone and red face brick, the massing and scale and the connection between the building and the street.

In order to create a more human scale, the street façades are scaled down while the higher portion of the building is located centrally, creating the impression of a smaller volume (Roodt Architects website, 2015: online).

A CONTEXTUALLY SENSITIVE, CONTEMPORARY INSERTION, WITHIN THE HISTORICAL CONTEXT OF PRESIDENT BRAND STREET
2.6.6 context investigation | RECENT ADDITIONS

BLOEMFONTEIN, SOUTH AFRICA
ROODT ARCHITECTS, LEBONA ARCHITECTS + NEETHLING ARCHITECTS
2011

It is important to note that any addition to President Brand Street will have to be approved by a Heritage Committee before approval is granted. The fact that the site is currently vacant and not adding to the striking quality of President Brand Street, added to the fact that the proposed project is “temporary”, with the majority of the materials being recyclable, will be beneficial in this regard.
Colonial town planning was concerned with the power-spatial relations and allowed colonialists the opportunity to intentionally make some places more powerful than others. It has been suggested that the gridiron plan, where streets were arranged on axes with the most prominent buildings positioned at the end of these axes, lead to a very specific socio-political civility (van der Westuizen, 2011:91).
2.6.8  context investigation

**EXISTING PUBLIC SPACE**

**HERTZOG SQUARE** is an existing public space within President Brand Street. The square is frequented by pedestrians who stop for lunch or simply to rest and is predominantly, if not exclusively, used by passers-by. This is not to say that the square is not serving its intended purpose. On the contrary, it is one of the most populated areas in President Brand Street, but it serves a different purpose to that of this dissertation. Hertzog Square lacks a combination of functions and thus does not draw visitors in from across the city but merely relies on passers-by who wish to sit and enjoy lunch or rest whilst waiting to go somewhere within the city. It is not a destination space. This results in a singular user and therefore creates no opportunities for interaction between people from different walks of life.
PROPOSED SITE
exisitng pedestrian route
Zastron Street
President Brand Street
Kellner Street
Kloof Street
visible change of scale

Fig. 63: Aerial view of site indicating heights of surrounding context
As illustrated by the sketches, the site is surrounded by a number of architectural styles, which are all vastly different to that of President Brand Street. There are a number of instances of modernist-influenced buildings which generate interesting rhythms. Zastron Street, which runs along the southern edge of the site, consists of predominantly larger buildings with commercial functions on ground floor and residential on the higher floors. There is also a high volume of traffic and related noise here. On the northern side of the site, Kellner Street is much more small scale, with many buildings which were originally residential, having been converted to house new commercial functions. This street is much quieter than the southern side of the site.

There are two established pedestrian paths over the site at present; one adjacent to the supermarket – a direct continuation of the President Brand Street pavement – and the other is a diagonal path which crosses the site and spits pedestrians out in between the existing trees on the southern side of the site.

If one looks at the overall prominence of trees and greeneries around the city it is immediately evident that President Brand is one of the greenest streets in the city. With a double row of trees on each side, it is hard to miss the contribution that these trees provide to the atmosphere and character of the area. None of the streets in the surrounding area have greeneries of significant importance. However, if one looks at Westdene, the neighbouring suburb, to which the northern portion of the site connects, one notices that the majority of streets in this formerly residential neighbourhood have a fair amount of trees lining them. What is interesting is that 2nd Avenue, the most prominent street in this area, is the only street without any trees. From an ecological point of view, the site is a transitional space for the importance of greeneries.
2.6.9 quantitative  | MICRO SITE ANALYSIS

The approach to the site from President Brand Street is adjacent to a vacant building, which was previously a supermarket.

This "entrance" is framed by two pine trees which create a minor connection with the double row of trees in President Brand Street. From this point on there is no existing vegetation of significance.
A SECONDARY PEDESTRIAN ROUTE CUTS DIAGONALLY THROUGH THE SITE AND EXITS INTO KLOOF STREET, AS CAPTURED ABOVE. THERE ARE A FEW MINOR LANDSCAPING INTERVENTIONS HERE, HOWEVER. THE PAVED AREA JUST ABOVE THIS IS AN EYESORE AS THERE IS A LARGE AMOUNT OF RUBBISH COLLECTING HERE. AN UNSIGHTLY END TO THE EMACULATE LAWNS OF PRESIDENT BRAND STREET.
2.6.9 quantitative | MICRO SITE ANALYSIS
There is an abundance of northern sun on the site as the longest street facade is almost directly north orientated. The slope of the site falls approximately 7m form the north western corner towards the south -eastern corner and the gardens will consequently be terraced across the site. This slope also provides an opportunity to use varying levels to create thresholds of privacy.

At present, one third of the site is occupied by a car park and the remaining areas are vacant, characterised by unkempt grass with the odd tree. On the western side of the site the presence of a 6-storey residential block cannot be ignored while 7-on-Kellner and the lodge on the eastern side are of much smaller scale.
2.6.9 quantitative | PANORAMIC VIEW OF SITE + NORTHERN CONTEXT

Fig. 72: Panoramic view taken from the north western corner of the site
When one drives past or walks through the site, it is not immediately apparent that it is essentially the northern node and terminating point of President Brand Street. It is in fact more apparent when one is positioned at the Nelson Mandela and President Brand Street intersection. From here, one sees the complete “green horizon” – the double rows of trees on either side of President Brand Street with the greenery of the site filling the gap between. From this position it is clear that the site is the terminating node of the street but as soon as one moves closer and into Zastron Street, this realisation is lost. When we walk or drive past the same places, spaces and things every day we begin to notice less and less. Because Zastron Street is a one-way street, from the city out toward the airport, and the old supermarket building, adjacent to the site in the south western corner, extends relatively far out onto the street, the site is often not even noticed when one drives in this direction. Kloof Street, which forms the southern boundary of the site, also adds to the “removing” of the site from President Brand Street.
Due to this perceived disconnection from President Brand Street, coupled with the fact that the northern portion of the site is immersed in a wholly different scale and function, the site is somewhat lacking in identity.

When one looks at the broader context of the site, more specifically President Brand Street, the grand scale and solid nature of the architecture is immediately apparent. The vast majority of buildings here are set back from the street boundary with manicured gardens in front. This allows visitors and passers-by a view of the entire building upon arrival and they are immediately confronted with the stateliness of the architecture here. These buildings are typically symmetrical, balanced and non-transparent. They form the street's solid façade; an overwhelming backdrop for the life which takes place on the street in front of it. In addition to this very clear boundary, there are a number of other interventions which define the space. Some of which do not seem like boundaries but have a definite effect on how the space is experienced and used – the double row of trees on either side of the street, for instance. One would not think of this “soft intervention” as a form of restriction but the trees have a major impact on the atmosphere of the street. They also influence where people walk on the pavement and where they stand and wait, in the shade – they contribute to the factors which control the pedestrian movement in the space.

These buildings were built to represent the government at the time and the power which it represented, leaving no room for doubt or concern. Since then, the governing system of our country has undergone many changes. Presently, everything is constantly changing and certainty, in any aspect of life, is never guaranteed. Because of the site’s location, it is viewed as a very important site, which could possibly be used for a major government or political building. However, this has not been realised and the site pays no tribute to the grandeur of President Brand Street whatsoever.
If one travels north on President Brand Street the need for development of the terminating point of the street is immediately apparent. At present, the street culminates in unrealised potential.

Fig. 73: View of the proposed site from the President Brand Street and Nelson Mandela Street intersection.
SMOOTH SPACE
CREATIVE
NOMAD

"loose space" - citizen’s recognise the opportunity to decide and control how the spaces is used
these spaces become the vibrant hubs of cities

UNRESOLVABLE CONFLICT

SPACES OF REFUGE
new system of governance
suspension of existing political order

FRAGMENTED CITY
boundaries = recognition of another form of space

STRIATED SPACE
STATE BOUNDARIES

voluntary: gated communities
involuntary: refugee camps

in African cities, the connections between these spaces become the most important
2.7 MORPHOLOGY

In order to establish design tools and guidelines for the form giving of the project, a literary review regarding the spatial influences in the surrounding context was conducted.

The proposed cooking school and urban farm comments on the shift in society's political views by creating a contrast to the stateliness of the architecture of the past. The building is proposed as a “temporary” place-holder project that occupies and makes use of the site until such time as there is a desire or need to use the site for a more typical, grand, stately building. As a whole, the project is a form of temporal spatial justice which comments on the socio-political use of space in the city. The focal point of the morphological research is therefore the impact of the government or state on the spatial layout of cities and the public spaces that are produced, by the state, for citizens to inhabit. Who has an influence in the way these spaces are made, and can citizens claim any rights to urban public space?

The work of French philosophers, Gilles Deleuze and Felix Guattari (1988) forms the starting point for this research with their discussion of the smooth and the striated, or nomad and state spaces. These “striated” spaces are characterised by boundaries, borders and constant points of orientation; a somewhat restricting environment. Because the city is constantly being made and remade by the numerous overlapping social discourses which comprise a city, conflict is an inevitable occurrence. In many instances, conflict cannot be resolved. This can result in the development of “spaces of refuge” (Misselwitz and Altay, 2010: 24/25), spaces, delineated by either physical boundaries or constructed social boundaries, with control of who’s permitted to enter. Within these spaces, the existing political order of the city is suspended. The “members” of these spaces establish their own form of governance to which they adhere. This raises a common debate with regards to cities – what is “the right to the city” and who has “the right to the city”; who is permitted to go where and who’s permitted to do what within the city context (Harvey, 2008: online)?

Ironically, these places of escape, or refuge, from the system and striations of the state more often than not result in the urban space becoming more fragmented. What type of boundaries and restrictions are necessary for the creation of successful public space in South African cities today? How can minority groups, who are typically left out of the “democratic” decision on how space should be used, have a say in the spaces they inhabit and relax in?
In order to understand the work of Gilles Deleuze, it is necessary to understand a few of the terms which he uses to make his case. Firstly, he refers to the “nomad”, a term for which he gives no definition other than to say the nomad is aggressively creative and exists in contrast to the state. The “state” assumes the more submissive role of consolidator and, according to Deleuze, along with Felix Guattari, discusses two contrasting creations of space which are created through the application of the state and the nomad opposition; the striated and the smooth. Striated space is that which is created by the state; space that is homogenous and defined by boundaries, walls, streets and, pavements. These “striations” serve as constant orientation within the space. Deleuze compares this to woven fabric, with threads of warp and woof (Deleuze 1988, in Marcussen, 2008).

On the contrary, the nomad, the creative, creates “smooth” spaces. Here, he refers to the Mongolian nomads who live in deserts or steppes - areas which are too humid to be deserts but too dry to support much vegetation - and identifies this type of landscape and topology as smooth. In these spaces there are no separating lines which define different areas or changes in areas, no perspective or contours. Points of orientation and landmarks are constantly changing and the identification of space is based on “haecceities” or the undefinable “thingness” that makes a place or space what it is. The way in which these people make space, and clothes, among other things, is compared to felt: numerous fibres compressed and entangled in layers to create a whole. In a similar way Noble (2010) suggests that cities are not just created but rather produced, and consequently reproduced through the overlapping and layering of numerous, diverging social discourses (Mediating Public and Private: Three models of ‘public space’, 2010).

My interpretation of the work of Deleuze leads to the understanding that if we are left to ourselves, without political interference/guidance from the state, the spaces which we would naturally create or inhabit are vastly different to those which result from state intervention. Open areas within the city such as those which taxi drivers often assume ‘ownership’ of and start using for their own purpose can be called smooth. These spaces are without restriction from the state and leave room for the public to interpret them and appropriate them as they seem fit.
President Brand Street is perhaps the archetype of striated space. The street developed solely due to the political and legal requirements of the state and is thus characterised by “power architecture” and monuments (points of orientation) and various layers of striation or boundaries. Although these buildings were, or are still, intended to serve the people, the space which they create leaves no room for individual interpretation and “nomadic-like” place making or experience of space. As Barbara Jekot (2008) mentions in her article, *Reinterpreting Public Places and Spaces: a selection of Krzysztof Wodiczko’s Public Artwork*, (2008: 34) because it looks strangely monumental, memorial architecture and architecture built for ceremonial purposes often traumatises humans. These imposing buildings become speechless backdrops for the people living on their steps.

In contrast to the traditional method of viewing or organising society according to a hierarchical system – where the state would be the most powerful at the top and those whose opinions are often pushed aside and least considered would be on the bottom – Deleuze and Guattari argue that society actually functions in a way that can be compared to the rhizome (1988 in Marcussen, 2008). Their rhizome theory suggests that everything and anything can, and is, connected to each other. There is no beginning or end, but there is definitely a middle. It is from this middle that the rhizome begins to grow. Any part of the rhizome may be removed and reattached to a different part of the whole. Contesting the hierarchical notion, where each part depends on the other and if one is removed the entire structure collapses, the rhizome can function completely on its own. Deleuze and Guattari use this metaphor to describe their view of society – where they suggest there is a constant, incalculable number of connections taking place between people, things and places. According to *A Thousand Plateaus* that which we see is a minor portion of the connections and interactions which are constantly taking place around us.

President Brand Street highlights the hierarchical way of thinking to which Deleuze and Guattari propose their contradictory rhizome theory. The pure scale of the buildings expresses how the state was, and perhaps still is, viewed as much more powerful and important than the people on whom it depends in order to exist and have a function.
Although the gathering of diverse groups of society offers obvious benefits - innovation, cultural interchange and instigation of social change - the social differentiation, poverty, conflict, as well as the environmental degradation which occurs as a result of the establishment, functioning and expanding of cities, come with a high cost (Görgens and van Donk [n.d.]). This multiplicity is bound to result in conflict, which is often difficult to resolve. Misselwitz and Altay (2010) recognise this and add that cities are losing their capacity to transform conflict into civility. In their article, REFUGE: Architectural Proposals for Unbound Spaces (2010: 24, 25), they recommend that a new type of civic space needs to be developed, both above and below the state and political structures. When instances of conflict occur, and cannot be resolved, parties involved may seek refuge. It is important to note that refuge, here, does not refer explicitly to the spaces of refuge to which we have become accustomed – refugee camps created for/by people fleeing their homeland in search of safety. Spaces of refuge, here, are defined as any spaces which result due to unresolved conflict, or where any group feels alienated by the spatial system and thus encapsulates themselves – that is, creates a space where intruders are kept out and the boundaries contain or control those inside. These spaces become clearly defined by boundaries, often physical boundaries, and have an impact on the urbanity of cities as they create a more fragmented urban texture. In his 2008 article, The Right to the City, David Harvey touched on this idea, saying that the developing world is witnessing cities being separated into different parts, where each fragment forms a “microstate”. Each fragment seems to live and function on its own, using whatever it may be that it has been able to grab in the daily struggle for survival. The main defining point of these spaces of refuge, and the point which is most relevant to this argument, is that these spaces become governed by new systems of control and new behavioural norms. The existing political order of the city is suspended, either by choice, as in gated communities, or by enforcement, as in refugee camps. All forms of this type of space, however, acknowledge the presence of the spaces.
which they shut out. The act of establishing a boundary is recognition of the other form of space; although it may not necessarily be defined by a physical boundary, it is nevertheless definable, perhaps through ‘haecceities’.

The solution offered, civic space established above and below the state devices and political structures, may assume more than one form (Misselwitz and Altay, 2010: 24, 25). This space may be a traditional, physical intervention, a public square or building or it may be process-oriented, which aims at initiating public debates and encouraging participation in the planning process. Simple, spatial architectural solutions often generate the opportunity for political or legal debates to be reopened and readdressed with new vision and thoughts.

‘LOOSE SPACE’ is formed when citizens who inhabit the space recognise the opportunity in it and use those opportunities for their own benefit, (Franck and Stevens, 2006: 02). The activities which are carried out in public spaces are strongly influenced by the type of public space that people find themselves in. The surrounding architecture and boundaries which create the space are the most influential factors on the type of space created. According to Gehl (1987), building heights, placement of entrances, multifunctional spaces, accessibility for pedestrians, cyclists and vehicles and visibility from immediate surrounds are some of the most critical spatial components which influence the pedestrian activity across the site and into public spaces (Gehl 1987, 2011, in Campos, 2012: 126). When there are many striations or boundaries which indicate what activities the space allows, the space becomes more restrictive and the possibility that loose space will occur is limited. In the same train of thought, Sennett argues that “incomplete form” is necessary for “open city life” (2007, in Burdett and Sudjic, 2007: 294). This “incompleteness” however, should result as incompleteness in the understanding of what the object is rather than an incompleteness of structure or design. Another important factor to consider is the connection between the sizes of the public space or squares and the sense of place you wish to create. Consideration must be made for the number of people which will use the space or which the space aims to accommodate in order to ensure that the space does not feel empty (Gehl 1987, 2011, in Campos, 2012: 126) and thus incomplete, not, however, in the sense of desirable incompleteness. Considering these prerequisites for the possibility that space will be loosened, one can easily see how taking these stipulations into consideration may result in an ordinary, boring space which dissolves into the city without any identity. How to give these spaces character and personality is one of the biggest challenges (Tomas 1996, in Breed, 2008: 216).

At present, the site lacks identity and goes almost completely unnoticed. It is “incomplete” and the vastness provides no human scale. There is thus a strong need to activate the street edges in order to make passers-by aware of the activities on the site and draw them in to the public space. Once on site, visitors should be given options as to how they would like to move through the site as

Fig. 75: View of the central portion of the site from the northern boundary
Once people realise and act upon the opportunity to create loose space, these spaces become the **vibrant hubs of the city** as people come here to express emotion, to relax and observe, to protest or even to celebrate. The liveliest public spaces are created when moving and stationary activities are combined (Gehl 1987. 2011, in Campos, 2012: 126). A good example of this, in Bloemfontein, is the Fichardt Street Market and surrounding streets – Oos-Burger and St Andrews Streets as well as Peet Avenue on the southern side of the ‘spruit’. This is arguably one of the liveliest, most vibrant areas of the city centre. While there are permanent structures set up for informal vendors, the size of the market area is simply too small for the amount of vendors who trade here. Because there is a large volume of pedestrian traffic in the area - people who work in the city walk to the bus station on the roof of Central Park Mall - there is a good combination of dynamic and static activities. Whilst informal vendors set up fruit and vegetable stalls and “braais” on the pavements, people are rushing past these vendors on their way to the bus. Some pedestrians stop to chat or buy something from one of the stalls but there is a constant vibrancy about the area, except on Sundays.
Fig. 77: Highlights some of the most congested streets in Bloemfontein. The congestion both causes and is caused by the volume of activity in this area.

Fig. 78: Above captures the vitality of Fraser Lane, adjacent to Central Park Mall and the bus station. Pavements are filled with pedestrians and vendors throughout the day.
One of the main reasons why these places allow for such freedom of expression is the anonymity that comes with urban public spaces (Simmel, in Franck and Stevens, 2006; PAGE). Unlike small communities where everyone knows each other and is thus conscious of their behaviour, and to some extent restricted in their actions, these “loose spaces” allow for true freedom. Another key to the success of these spaces is the way in which they are “opened”. Opening the space does not merely mean setting the building back from the street and hoping that “public space” develops in front of the building. Sennett (2007, in Burdett and Sudjic, 2007: 294/295) warns against this. He says that the space left in front of buildings is not public space but simply serves to remove the building from the street and passers-by are inclined to walk past and avoid these carved out spaces. According to Sennett, bringing the building forward into the context of the surrounding buildings is much more successful. Whilst this does result in the building fading into the context to a certain extent, he reasons that it is this very fading away and indistinctness that forms the ‘incompleteness’ previously mentioned, and thus allows opportunity for the city to be opened. It is this very openness that allows for opportunities for democratic engagement.

As previously mentioned, the majority of buildings in President Brand Street are set back quite a distance from the pavement – increasing the ‘stately’ look and feel of the buildings. However, this also removes the buildings from the life on the street. The gardens and spaces in front of the buildings form a ‘buffer zone’ between the people and the government. These spaces make the governing and control of the city seem unreachable for regular citizens. With the exception of the City Hall, these spaces serve solely a visual purpose as no one enters these spaces to enjoy them. The garden in front of the City Hall is used as an occasional resting spot for passers-by. This may be due to the site’s corner location and subsequent improved visibility and accessibility.
Fig. 80: Although there are designated areas for trading at the long distance taxi rank on the corner of Fort and Power Streets, just two blocks from here, informal traders have seen the opportunity to utilise any space available, regardless of the size of the space and the implications on the circulation in the area.

Places of public interaction typically develop along prominent circulation routes. These spaces, however, usually only attract one user - the passer-by. Creation of public spaces which attract various users, and various social classes, relies on the creation of a “destination space”.

Fig. 81: Peet Avenue, on the southern side of Central Park Mall is a relatively narrow street which is solely used by informal traders and as a pedestrian circulation route.
In the majority of prisons in South Africa there are a number of gangs which 'run' the prison. These gangs establish systems and rules which are highly respected and never questioned, for fear of punishment (Ross Kemp, 2006: video). The gangs assume control of the prison and the existing legal system is suspended. Ironically, this occurs within the most striated space in our cities: a space where the sole purpose is enforcing a system of control and adherence to the law.

Fig. 82
Prisons are, in all probability, the most striated places in any society; from concept to realisation the aim is to contain a group of people within boundaries. Although the aim of prisons is to maintain tight control of activities at all times, in many instances there is a momentary occurrence of loose space and the prisoners assume control of the prison, the system of governance is suspended and the prisoners develop their own rules which determine how things function. Contradictory as this may seem, it occurs in almost all prisons across the world. Prisons, and the system of incarceration, are developed and run by the state (except in a few private prisons but the system according to which the prison is run remains the same). The physical boundaries and striated space is constructed by the state, which should thus seemingly be in control of the operations of the space and the system. However, more often than not, this is not the case, especially in South Africa. In the majority of prisons in South Africa, and across the world, prisoners adhere to their own system of governance (Hopkins, 2013: online newspaper article), often determined by the gang which ‘runs’ the prison. The general rules of society are disregarded as new forms of gaining respect and being accepted come into being. Ultimately, prisoners develop spaces similar to the spaces of refuge discussed earlier, spaces which run according to their own rules, where the accepted rules of society and the state are suspended – a space where the wardens are excluded and the prisoners can ‘take control’ of something. The two vastly different spaces are in constant tension as they are created within each other. This is one of the reasons parolees have such difficulty re-entering society – they are required to return to a society governed by the rules and regulations of the state, a system with which they have lost touch. Therefore the need arises to create a space where boundaries are questioned and there is room for interpretation. But where should these spaces be situated within the city context? And, more importantly, how should they be defined?

Fig. 82 (opposite page) + Fig. 83 (this page)
Photographs, by renowned photographer, Mikhael Subotzky, of prisoners at Polsmoor Prison overstepping the boundaries and testing the rules and regulations within the prison.

http://www.subotzkystudio.com/die-vier-hoeke/dvh-12/
As is the case in President Brand Street, Jekot suggests that the places where real public urban spaces should develop are often concealed by monuments and memorials and other places which we are too afraid to visit.

In *Space as Ritual: rethinking strategies in the African city*, Van Rensburg discusses ideas of Doreen Massey, a contemporary urban theorist who proposes three proposals for challenging the current interpretation of space as a fixed entity. Firstly, Massey proposes that space is a result of interrelations, on all scales. Her second proposal is that space allows for multiplicity. And finally, space is always being made and remade and is constantly incomplete. As a concept, space can thus be seen as a temporal condition. The events which occur within a space become the definition of the space, even though it remains in the same place geographically.

In prison, the outside yards become different types of space for each prisoner, while the space remains geographically the same. The activities which take place result in each person having a different experience of the space.
For some of the inmates, the outside yard is a space to enjoy a game of soccer. A space to “relax” and enjoy some exercise.

For gang leaders, the outside yard is a space to do business, issue instructions and recruit new members.

For the warders, the outside yard is an extremely high-risk area at work. Warders need to remain vigilant and focused at all times.

For non-gang members, the outside yard can be a stressful as they may fear being recruited by one of the gangs.
Unlike Western societies, where disjointedness defines space, in African cities boundaries are blurred and connections between spaces become paramount in defining spaces. Here, the experience of space is completely different as fixed boundaries are replaced by elastic edges, allowing for constant variation, between both public and private spaces. In contrast to Apartheid era cities, in today’s South African cities streets and public spaces are easily adaptable and constantly being occupied by different groups in different manners, territoriality becomes a temporary idea. The system organises itself and permits the citizen to occupy a supple, changeable city. The best examples of urbaniy, as defined in *Loose Space: possibility and diversity in urbaniy* (Franck and Stevens, 2006: online) are cities with public spaces where each individual has the freedom to do as they please, whilst identifying the presence and rights of others who also wish to use the space; spaces where people from all walks of life meet as equals (Peñalosa, 2007: 311-313). Social hierarchies are forgotten as a combination of members of society gather, to do business or just relax. Both the highest and lowest-ranked employees have exactly the same rights to the usage and enjoyment of the space. In *Politics, Power, Cities*, Peñalosa (2007) stresses the need for at least one, and ideally more, ‘grand’ public space; spaces of such distinction that even the wealthy elite cannot avoid visiting and enjoying them.
How does one create a space where everyone feels welcome, a space which people from all classes can easily access?

Purcell (2003, in Görgens and van Donk, [n.d.]) outlines the defining points of “the right to the city”. The right to participation is the first crucial factor. Participation in the true sense of the word, where the citizen’s voices are heard and directly taken into consideration rather than being adapted by the state; thus echoing Deleuze’s statement that the state consumes the nomad’s innovations and adjusts them to suit itself. Even in democracies, the ruling party does not solely represent the people; the party represents its specific view and perspective (Noble, 2010: 54). The right to appropriation of public space is another key factor. The space should allow citizens unrestricted use and enjoyment of it. Appropriation of public space, in this instance, is directly opposed to the capitalist way of viewing or developing “public space” as private property which may attain a certain value.

Urban sociologist, Robert Park, once said that the city is our most constant, and generally most successful, attempt to remake the world in which we live (Park, in Harvey: 2008). Because we have made and remade the city to suit our needs, values and everything we desire, it can be said that in making the city, we have been, or have been attempting, at least, to remake ourselves. The city is thus a representation of the things we, as society, value and the relationships we establish, with others and with nature. David Harvey (2008: online) elaborates and says that if the above is true, then the right to the city is far more meaningful than the right to access, participation and appropriation, as discussed by Purcell. The right to the city, according to Harvey, is the right to change and remake ourselves through changing the city to be more as we please. This right is not individual, but is established in groups since collective power is the main instigator of the processes of change in urbanisation.

At present, Harvey (2008; online) states, that the right to the city is typically in the hands of a small portion of society who comprise the political and/or economic elite. This exclusive group is afforded the opportunity to shape the city to their heart’s desire, while those who inhabit the city and frequent the public spaces are left without a voice. Pooley (2000, in Breed, 2008: 215) reiterates this idea – public spaces come to represent the wealth and achievements of a few elites. Jekot (2008: 42) highlights the major problem with the above mentioned statement: the democratic process cannot be successful and genuine, public spaces cannot be created if only a portion of society is included in the debate. All potential speakers must be included.

One method through which minority groups can make their voice heard or claim temporary control of public space is through street art. Bengtsen and Arvidsson offer insight on this topic in their article, Spatial Justice and Street Art (2014). If, for a moment, one overlooks the question of legality and illegality, street art can be used as an informative example of how minority or marginalised groups may temporarily re-appropriate private or public property, which already belongs to someone and serves some purpose; and in so doing, create a temporary instance of spatial justice. In these occurrences, street art becomes a tool which highlights the spatial interdependencies of the law and justice. In everyday life, the law exists and is constantly around us, yet we do not see it. When instances of street art occur, they attract attention and change the space around them, creating public space within space. But, just as quickly as they appear, they are about to disappear as the law intervenes to remove the artwork and restore the space to its original condition. The ephemeral quality of this form of expression is what gives it the power to begin an ongoing debate with the law, to start a process of place-taking, temporality, alternation and, finally, withdrawal. The creation of street art initiates an ongoing process of appropriation and dispossession of public space. This unsuccessful attempt to reach closure, one of the key principles of democracy, is what fuels the debate (Noble, 2010: 54). While the law is clearly present when it is removing street art or restoring public spaces to their original state, it is just as present when it is absent (Bengtsen and Arvidsson, 2014: 128). When street art, or graffiti appears, and the law withdraws, the artworks loudly proclaim the absence of the law.
Not only do these artworks initiate a debate, they also inspire conversation between different people and groups who comment on the art when they are in the space. Jekot (2008: 33) proposes that this may benefit people’s abilities to help them improve their predicaments. By learning to discuss opinions and thoughts constructively, with strangers, people improve their skills for conflict resolution and decision making, or forming of opinions and taking a stand. Art has the power to rejuvenate public spaces and encourage interaction.

These particular artworks are predominantly found on striations within the city – walls, pavements, and signage - striations created as a result of legal restrictions and zoning, which define public space.

In this ongoing process, spatial justice is achievable, but only temporarily.
The spaces which Jekot describes are typically the places where street art is made, in the shadows and alleyways, often in places we are afraid to go. This yet again cements the idea that if the public chose, public spaces would be created in very different locations and places compared to where the public spaces created through the striations of the state can be found. Although the boundaries, existing and new, attempt to control where people gather, it is ultimately the choice of society and cannot be predicted or controlled. All architects and town planners can do is consider loosening the striations of their designs in order to give some form of control of how the space looks and functions back to the public.

According to Misselwitz and Altay (2010: 24/25), architects justify their role in planning and building based on the premise that they can combine and influence the numerous forces and stakeholder interests and steer them in the best interest of the community at large. However, spaces of refuge, discussed earlier, bring this role which architects have assumed into question; if users disregard the spaces created for them and cordon off their own spaces of encapsulation and new governance, how effective can architects really be creating public space?

In his 1986 work, Claude Lefort, referring to the French Revolution as an example, explains that the revolution resulted in democracy, represented by an open space. While the “figure of the king” was removed, the place and position that he occupied is still present and it is this “empty space” that comes to represent power. Put differently, democratic power or control cannot be exemplified by one singular identity or figure. There is no symbol of authority. Power is thus de-personalised and de-territorialised. A democratic society cannot be reduced to a singular representative, nor can it be controlled or detained.

Making specific reference to South African cities and the effect democracy has on the spaces we make, Noble (2010: 54, 55) states that democracy is a delicate question which produces an open-ended picture of the public. He adds that the rigid striations which designate public and private are becoming extraneous. What Noble suggests, to improve this condition, is analysing each situation where the public and private overlap in its context, and formulating a unique solution. A reimagined design process, where there is continual discussion between all parties involved, could see widespread interactions between public and private, and could benefit all.

While Noble acknowledges the importance of public urbanity, and the tendency of these spaces to be grouped in certain areas in the city, he questions the rigid boundaries which create and define these spaces and consequently determine their character. The public character of these spaces is connected to varying forms of use, subjectivities, identities and opinions. These spaces do not simply exist, but are created and recreated by the overlapping social dialogue, all the time.
“PUNISHMENT HAS DIFFERENT PURPOSES, SUCH AS RETRIBUTION, DETERRENCE AND REHABILITATION.”
Görgens and van Donk [n.d.] argue that establishing collective rights requires a strong, stable state that has the capability of constructing the conditions necessary for groups of citizens to actively control and play a part in the process of development. If we have any possibility of achieving any of these goals we need to return to a “stable state”, a government which is certain of its power and does not have to erect monumental buildings to assert its dominance but one that can allow the public to be actively involved in the creation of the spaces that they use. In the current state of our cities in South Africa it is impractical to think that we can remove all boundaries and establish equal rights to public spaces overnight. A starting point may, however, be to remove some of the boundaries which we regularly encounter and slowly introduce a more uninterrupted or uninfluenced form of democratic control over public spaces. If people feel a sense of ownership over a space they immediately become protective of it. If it is “theirs” they have no reason to steal or attempt to take possession of it. In this specific situation, the urban farm may be successful if the community has some rights to the space. If one portion of the farm provides for the community, the need to claim the produce and land which belongs to the state will be reduced.

In complete contrast to the existing, the proposed Cooking School and Urban Farm ‘gives’ the space back to the community. The most prominent site in the street, and some may argue, in town, is given to the people and thus brings about a revolutionary use of space which results in the people being viewed as more important than the power which governs them; the quintessence of democracy. The proposal can thus be seen as a prolonged instance of street art; an insertion into the city which creates public space, for the people, within the existing space for an ephemeral period of time, over which the users have a great deal of control. For the relatively short lifespan of the project, it will generate spatial justice as parolees, who have been full-circle through the legal system return to where their journey began, to benefit from the very system that determined their punishment. The sentencing and punishment for crimes committed is thus not merely focused on punishing someone, but rather helping them so that they may have a better chance at successfully avoiding recidivism.

“Punishment has different purposes such as retribution, deterrence and rehabilitation. When the court sentences an offender to imprisonment it is not guided only by the law that stipulates the minimum or the maximum sentence that must be imposed but also the objectives of the punishment that the judge thinks the sentence imposed must achieve.” Mujuzi, 2011

Some members of the public may have reservations about this cycle and see it as “rewarding” people who have done wrong, but this is not the case. The success of the entire project depends on creating a mind shift for the general community so that they may begin to see the programme and education offered as a way of helping the community at large.
This research has revealed the following design tools:

- Public space for today’s society requires fewer restrictions and striations which indicate the intended use
- The space should rather allow for users to interpret and use space as they choose
- Setting buildings back from the boundary does not automatically result in public space forming in front of the building
- Public spaces are more lively when stationary and moving activities are combined

The research also highlighted the following questions which should be considered:

- What boundaries are necessary for society to function – what boundaries were necessary when our cities were built vs. what is necessary for the functioning of our current society?
- What will define spaces if boundaries are removed?
- What effect does the removal of boundaries have:
  1. Removing boundaries in the city
  2. When prisoners are released from the boundaries of prison
  3. Removing boundaries between different groups of society/creating a space where they can interact without the restrictions of boundaries
- What boundaries do/would people naturally establish without the interference of the state?
connect

- acknowledge existing boundaries and the need for striations in the city
- make reference to the existing historical architecture

centred + symmetrical
balanced + aligned
rigid
solid | opaque

uncertainty about activities which take place behind solid walls

contrast

- question applicability of boundaries, created centuries ago, for South African cities today
- introduce contemporary materials

off-centre
skewed, with reference to context
flexible
light | transparent

understandable, clear definition of activities which take place
2.9 \hspace{1em} \textbf{LOGIC OF TECTONICS}

The overarching structural design concept is temporality. Because the project is proposed as a 20 to 30 year project, a conscious effort has been made to make the project as recyclable as possible. Consequently, a large amount of both mild steel, for structural purposes, and light weight steel, used as infill panels, has been used throughout. In some instances, facebrick infill walling is used as in interpretation of the solid plinths in President Brand Street. This concept also ties in with, and allows, the design concept, contrasting the existing stereotomic nature of President Brand Street, to become a realisation.

The influences of agricultural, or shed architecture, are also evident throughout.

\textbf{2.9.1 SITE + TOPOGRAPHY}

The micro site was discussed in detail in the site analysis section of the design dissertation but a few main points which have a direct influence on the technical resolution of the project will be highlighted.

The most important consideration is the 7m fall from the north-western corner down towards the south-eastern corner of the site. The farm will make use of this slope and be terraced into numerous levels and walkways across the site. This slope is also beneficial for a gravity fed irrigation system.

\textbf{2.9.2 CLIMATE}

According to SANS 10400, Bloemfontein is located within climatic zone 1, the cold interior. The city experiences hot summer days with frequent afternoon thunderstorms and cooler, dry winters.
2.9.3 STORM WATER RUN-OFF + COLLECTION
Natural methods of storm water control will be employed wherever possible. These will include building swales, or low lying, vegetated areas where water is collected and slowly filtered into underground pipes and towards a storm water collection tank.
The driveway and staff parking is paved with permeable pavers in order to avoid large amounts of storm water rushing towards the building during summer downpours. The project also collects rainwater via pitched roofs with gutters and downpipes as well as flat roofs. All of which lead to harvesting tanks used for irrigating the farm.

2.9.4 GABION RETAINING WALLS + STORM WATER CONTROL
Gabion walls are not only used as retaining walls, but also serve to funnel water into a concrete channel that runs along the bottom of the wall and to the water collection tank.

2.9.5 OVERVIEW OF MAIN STRUCTURAL SYSTEM
The primary superstructure structural system will consist of a steel column and beam structure which will carry the composite suspended floor slab system as well as the roof structure. The steel structure will comply with SANS 10160 for loads and be designed according to SANS 10162 regulations for steel structures.
The infill walls on ground floor will be face brick with light weight steel infill walls on first and second floors. Many parts of the building will be cladded in corrugated sheeting.
2.9.6  FLOORING SYSTEM

VOIDCON suspended slab system is used throughout the project. This system comprises galvanised steel profiles which are laid in position and the concrete is poured into it. This flooring system not only reduces the amount of concrete required, but also serves as a permanent form of shuttering and provides tensile reinforcement.

2.9.7  WALLING SYSTEM + ROOF

Light weight steel construction comprises only light, cold-formed studs, spaced much closer together than mild steel structural elements. Wall panels consist of top and bottom rails with studs placed at 450, 600 or 900mm centres (Wegelin, 2009: 196). This construction method was chosen because all materials required, including galvanised cold-formed steel, mineral wool and gypsum board, are recyclable.

For exterior applications, the “Etics wall” by Silverline Group, has been selected. This 180mm thick wall has a 60 minute fire rating and a relatively high R-value of 3.76, compared with that of a standard brick wall which has an R-value of 0.18. This is crucial as Bloemfontein is in climatic zone 1, the cold interior. The interior walls will be 130mm, with a 2.9 R-value and a 60min fire rating.

The light weight steel frames are cladded with fibre cement sheets on either side. Depending on the required use, the walls can either have a face layer of plasterboard applied, which can be plastered and painted for an interior finish, or they may be cladded in a material of choice.

2.9.8  KITCHEN DETAILS

The floor finish in all the kitchens throughout the project, including the restaurant, will be ‘Foodsafe Flooring’ by Robex SA. This methyl methacrylate, or MMA, resin is ideal for kitchens and food production areas as it prevents the build-up of impurities and bacteria, and resists cracking.

Because the cooking classrooms are designed as ‘showrooms’ which are open to the public, there are large sections of glazing. In order to comply with SANS 10400 XA regulations, the following steps were taken:

All glazing will be double glazing

The concrete floor slab is insulated

The building has a green roof, with 145mm insulation (as per SANS guidelines for climatic zone 1).

The required kitchen exhausts are also installed in order to maintain a desirable quality of air while the classes are being used and the ovens and stoves are in use.

Three case studies and an interview were conducted in order to gain knowledge and understanding of the requirements of various types and sizes of kitchens.
The fine dining restaurant at the Department of Hospitality Management at C.U.T. has a fully equipped commercial kitchen. Hot and cold sections are split and the pastry kitchen is completely separate from all cooking spaces. It must be noted that in ideal conditions, the storage and cold rooms are directly accessible from the kitchen (Zote, 2015: personal communication).

Fig. 87: The pastry kitchen is designed to accommodate three to four chefs

Fig. 88: ‘The pass’ is the last stop before food leaves the kitchen. This is where the chef will plate and check the food before calling for service. This counter needs to be accessible to both chefs and waitrons.

Fig. 89: SKETCH PLAN
Lettuce Eat is a small restaurant on the Central University of Technology’s campus in Bloemfontein. The restaurant is run by the students at the Department of Hospitality Management and can seat approximately 40 patrons inside with additional seating on the patio. Light lunches are the specialty here. There is ample storage for crockery in the kitchen as well as a separate scullery. Patrons can see into the kitchen through a large window above “the pass” – where food is plated and checked before it is sent out.

Fig. 91: Dry storage is limited to secure shelving along the wall opposite the cold room.

Fig. 92: The pastry section is separated from the kitchen as the heat and moisture have negative effects on baking ingredients and methods.
The educational kitchen at C.U.T. Dept. of Hospitality Management is relatively small. There are eight cooking stations, with additional space for food preparation along the walls of the kitchen. Technical aspects to consider are the need for storage within close reach of cooking stations - under cook tops and shelving or hanging space on walls. It is imperative that the space is ergonomically designed to avoid accidents and injury in the kitchen. Each chef should have easy access to the work station, food storage area and a sink or prep bowl. The kitchen is also fitted with double island canopy extractors.

Produce is not stored for a long time here and the necessary ingredients are predominantly brought in for classes as they are required (Zote, 2015: personal communication).

The demonstration kitchen, adjacent to the educational kitchen, allows for personal interaction between lecturers and students.
Silwood School of Cookery is situated in Rondebosch, Cape Town. The school was established in an existing house which was converted to serve the new function. There are approximately 50 full time first year students with roughly 20 second years, who have class once a week, and 20 third years who spend their last year completing an internship at one of the numerous restaurants or wine farms in the region. Facilities at the school include a baking kitchen, which has twelve ovens and just as many gas stoves and stainless steel counter tops; an icing kitchen, where there is only stainless steel counter tops; and many electrical points and a cooking kitchen, where there are twelve cooking stations and students are paired up to share a gas stove and an oven whilst each has a working space and prep bowl. The second years have their own kitchen where they have class once a week and there is a separate scullery and laundry room which services all of the kitchens. The demo kitchen can seat 50. Other facilities at the school include a storage room for storing all the catering equipment which the school uses and hires out as well as a library, with desks for approximately 26 students and a few computers for research. There are separate ablution facilities for guests, staff and students. The headmaster, admin staff, person in-charge of finance, staff in charge of catering and recipes and the second year lecturer all have either their own office or share an office with one other person (Chemaly, 2015: personal communication).
Completed in 2012, 17 Glen Avenue, Cape Town, was envisioned as a “sculptural extension of the landscape”. In time, the surrounding trees and plants on site will allow the building to completely disappear within the surrounding context (StudioMAS website, 2015: online).

**Design applicability:** Details for the full length aluminium window frames in the cooking school
Simple systems and materials were applied throughout the design in order to create a human shelter, which is intrinsically incorporated into a much greater eco-system.

The large curving wall was inspired by the free-flowing form of Lion’s Head, as well as the curvature of the boundary road.

Fig. 105: The curved wall was inspired by the forms of Lion’s Head and the curvature of the boundary road (StudioMAS website, 2015:online).
PART 03

DESIGN + TECHNICAL SYNTHESIS

PART 03 is the culmination of the initial problem statements identified, the design tools, established through research, and the design solutions proposed, supported by the technical design investigation and development.
TRANSITIONAL SPACE
- in-between
- not belonging to the past or future, but
- disoriented in the present
- in limbo

QUESTIONING BOUNDARIES
- questioning the striations of the city
- perceived vs. physical
- permanent vs. adaptable
- social boundaries between diverse
groups of society
3.1 design exploration | CONCEPTUAL DEVELOPMENT
The touch the structure model was a culmination of the three conceptual models. The exploration removed boundaries from street level by creating a 'raised plinth' – thus claiming space without creating an overwhelming presence on street level. This correlates with the idea of removing a marginalised group from the shadows and reintegrating them back into society.

In the architectural realisation, this became the educational kitchens which are the ‘showrooms’ on the southern border of the sight and are clearly visible from the street.

The model combined solid, stereotomic elements, with light-weight, tectonic elements which hint at defining spaces but are not restrictive. This was later translated into the stereotomic connection made with the solidity of President Brand Street and the addition of light-weight materials which contrast the rich textures and history of the area.

Finally, transitional space was expressed through the multitude of heights used in the model. Levels are not easily defined and the ‘in-between’ becomes the norm. This informed the ‘in-between’ spaces on the site – courtyards and gathering spaces at vary levels throughout the development.
After numerous sites were considered, Erf 206, the terminating node of President Brand Street, was finally selected. The site was primarily chosen for the direct connection to the legal system, and is also coincidentally in the same street as the Free State and Northern Cape Department of Correctional Services – the department responsible for the administration of the project.
The initial design ideas took the diagonal line of the site boundary into consideration and combined it with the existing pedestrian movement routes.
Initially, THE RESTAURANT was placed in the north for ease of access from street parking in Kellner Street.

THE COOKING SCHOOL was placed in the south with the housing on first and second floors where they would receive northern light.

PUBLIC SEATING + GATHERING SPACE

FURTHER DEVELOPED IDEAS NOT TO SCALE
This proposal resulted in too many access points to the site - the restaurant access was not connected to the main circulation route.

FOOD STORAGE behind the restaurant - connected to the student walkway between the restaurant and cooking school.

FARM SPACE became limited between the two buildings.

PUBLIC SQUARE around the base of the pod with a small cafe on lower ground floor - the changes in levels here created difficulties and the space became removed from the farm rather than connecting the two.

PUBLIC SEATING + GATHERING SPACE.

FURTHER DEVELOPED IDEAS NOT TO SCALE.
The initial responses to the site considered the existing pedestrian circulation routes – both through and around the site - the visibility from the streets with the highest volumes of traffic and the slope of the site, and implications thereof. These explorations, combined with the preliminary accommodation list - derived from the case and precedent studies – indicated that the site was too small to accommodate a feasibly sized farm. It was thus decided to incorporate the open site adjacent to the original site, and consolidate them into one larger site.
In the first design proposal, the southern portion of the site was developed as a grand stepped entrance with abundant seating in front of the cooking school. The restaurant was situated in the far north, along the Kellner Street edge and the housing in the western portion of the site. The idea behind this layout was that the housing would be in the quieter, more private portion of the site while the restaurant was easily accessible from the parking in Kellner Street.

This, however, was not an ideal resolution as the public and semi-public and private and semi-private functions on site were not grouped in a practical way. The green walkway – an interpretation of the double row of trees which line President Brand Street – which serves as the pedestrian entrances from both the northern and southern sides of the site, and is thus the most public space, was adjacent to the housing – a private area. Situating the restaurant on the northern side also meant that restaurant patrons would also have no reason to move through the farm and experience the gardens. From a practical perspective, the restaurant and cooking school need to have shared access to certain areas, including the delivery access and refuse removals, and most importantly, food storage areas. It was thus decided to combine these functions in one building while the housing and counselling remained a separate entity.
The morphological research provided insight into the creation of successful public spaces. Upon evaluation it became clear that the grand entrance and paved public space on the southern side was also not the best solution. Setting buildings back from boundaries does not mean public space will develop in front of them but rather removes the building from the street. Because this area will be shaded for a large portion of the day, it is also not ideal for growing vegetation or farming. Therefore, the decision was made to move a portion of the building onto the street façade and thus create increased visibility from the street – a fundamental consideration in the creation of public spaces.

3.4 design development

FIRST PROPOSAL

The morphological research provided insight into the creation of successful public spaces. Upon evaluation it became clear that the grand entrance and paved public space on the southern side was also not the best solution. Setting buildings back from boundaries does not mean public space will develop in front of them but rather removes the building from the street. Because this area will be shaded for a large portion of the day, it is also not ideal for growing vegetation or farming. Therefore, the decision was made to move a portion of the building onto the street façade and thus create increased visibility from the street – a fundamental consideration in the creation of public spaces.
THE GREEN POD was envisioned as a contrast to the symmetry and rigidity of President Brand Street. The pod is purposefully placed off centre so that only a portion of it is visible from President Brand Street. During the day, the climbing plants which grow on a steel lattice, which is fixed to the main structural system, appear solid - like the buildings in President Brand Street. At night, however, the pod is illuminated from inside and filtered light shines through the vines, creating the illusion of a light weight floating box - in complete contrast to President Brand Street.
With the knowledge gained from the first design exploration, the second attempt was much more successful.

The housing and counselling centre were relocated to the northern side of the site, in Kellner Street, where there is less traffic and a more residential scale. The practical kitchens became “showrooms” on the southern boundary of the site and three greenhouses create a connection with the height of the buildings in Zastron Street. These greenhouses will be used for growing produce which requires a more humid, warmer climate.

The housing units were divided into units for six people with bedrooms shared between two and two bathrooms in each unit. A private walkway was developed as a link between the housing units and the school and restaurant so that students may move between the two without coming into contact with the public.

The main public space in this design is around the base of the “pod” which houses the demonstration kitchen. The cooking school and pod cut into the topography so that the building is all on one level and the practical kitchens are just slightly raised above the street level on the southern side.

However, these changes in levels created a disjointed public space which encroached on the cooking school’s semi-public area.
3.5 design development  |  SECOND PROPOSAL

CONCEPTUAL HOUSING + COUNSELLING PLANS
NOT TO SCALE

CONCEPTUAL RESTAURANT + COOKING SCHOOL PLAN
NOT TO SCALE
HOUSING units connect with smaller scale of Kellner Street

COOKING SCHOOL visible from Kloof Street

GREEN HOUSES pick up the height of the multi-storey buildings in Zastron Street

SITE cut into terraces, rather than sloped

RESTAURANT
The green walkway is comprised of a steel structure with timber floor joists and purple heart decking. The columns are 254 x 254mm H-beams and are spaced at 6000mm c.t.c.. The walkway is 4000mm wide and the I-beams used are 203 x 133mm. The green screens on which the plants grow can be adjusted in order to attain beneficial sun angles for growth and are fixed to the main structure with hinges at the top and bottom. Drip irrigation is used throughout and vines will be grown one mesh between the top I-beams to form a green “roof” which shades the walkway.
DESIGN DEVELOPMENT OF THE POD

COOKING

SCHOOL

RESTAURANT

HOUSING
3.6 TOWARDS A FINAL DESIGN

ENTRANCE FROM PRESIDENT BRAND STREET
3.6 DESIGN DEVELOPMENT

COUNSELLING + HOUSING NORTHERN ELEVATION
NOT TO SCALE

SKETCH PLAN: HOUSING FIRST FLOOR
NOT TO SCALE
3.7 AERIAL VIEW OF SITE FROM SOUTH EASTERN CORNER

UPPER FIRST FLOOR - HOUSING

UPPER GROUND FLOOR - COUNSELLING CENTRE

GROUND FLOOR - GREEN HOUSES + MARKET SPACE

LOWER FIRST FLOOR - RESTAURANT

LOWER GROUND FLOOR - COOKING SCHOOL
COOKING SCHOOL | lower ground floor plan 3.8

NOT TO SCALE
Perspective view of courtyard from first floor landing.

View towards President Brand Street from the restaurant.
GREEN HOUSES | ground floor plan 3.9

access to greenhouses + nursery above

farm equipment store

produce store

public ablutions

farm stall

public square/market area

entrance from President Brand Street

NOT TO SCALE
COUNSELLING CENTRE  | upper ground floor plan 3.10

- computer lab
- group counselling
- waiting area
- staff room
- doc. store
- recep.
- counsellor office
- entrance from main circulation route through farm

NOT TO SCALE
upper first floor plan

upper second floor plan
<table>
<thead>
<tr>
<th>FINAL DESIGN</th>
</tr>
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<tbody>
<tr>
<td>UPPER FIRST FLOOR - HOUSING</td>
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<tr>
<td>UPPER GROUND FLOOR - COUNSELLING CENTRE</td>
</tr>
<tr>
<td>GROUND FLOOR - GREEN HOUSES + MARKET SPACE</td>
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<tr>
<td>LOWER FIRST FLOOR - RESTAURANT</td>
</tr>
<tr>
<td>LOWER GROUND FLOOR - COOKING SCHOOL</td>
</tr>
</tbody>
</table>
AERIAL VIEW FROM SOUTH WESTERN CORNER
VIEW OF STUDENT COURTYARD from first floor landing
VIEW OF HERB GARDEN from entrance to counselling centre
VIEW OF GREEN HOUSES + GARDENS from beneath green walkway
PART 04

REFLECTION + EVALUATION

PART 04 REFLECTS ON THE PROJECT AS A WHOLE. THE INTENTION OF THIS PART IS TO ANALYSE THE SUCCESSFUL PARTS OF THE PROJECT, AND WHAT MADE THEM SUCCESSFUL, AS WELL AS LOOKING AT THE LESS SUCCESSFUL PARTS AND OFFERING POSSIBLE IMPROVEMENTS.
As mentioned before, the typology was the generator of this dissertation. Finding an appropriate site was challenging and many options were considered. The combination of functions was the ultimate cause of the site predicament; the social reintegration component requires a site which the public visits on a regular basis while the farming component requires a site of feasible size. Sites large enough for farming are typically found on the outskirts of the city – areas with little daily public activities, while the city centre offers minimal space for farming but an abundance of public activity.

The proposed site satisfies both requirements – a large enough area, within the city, with the possibility for public interaction. Once the site was decided upon, an investigation into the surrounding context led to the exploration of the striations in the city. This provided a much deeper grounding and reasoning for the project and broadened the field of research. Both the morphological and technical developments were guided by these findings and the questions which arose all centred on boundaries – both physical and social.

This process of development has reconfirmed and strengthened my personal architectural manifesto: that responsible architecture is vested in the appropriate response to the site – both morphologically and topologically – combined with a conceptual underpinning.

The proposed project aimed to create a space where boundaries can be questioned and redefined by the users, for the users. It is unrealistic to attempt to remove all boundaries; and this would certainly lead to undesirable conditions, but the types of boundaries which we create - in cities as well as social groups - can be questioned and readdressed.
5.1 REFERENCES


Breed, I. The dimensions of space in the urban environment: three methodological approaches for designers that encompass the dynamics of urban space, South African Journal of Art History [online], vol, 23, no. 1, pp. 214-224. Available at <repository.up.ac.za/bitstream/handle/2263/9627/Breed_Dimensions%282008%29.pdf?sequence=1&isAllowed=y> Accessed on 15 April 2015


Chemaly, J. 2015. (Third year student at Silwood School of Cookery) Telephonic Interview about the facilities that the school offers. 01 March 2015.


Deutschlander, G. 2015 (Tour Guide at Babylonstoren) Personal communication about the requirements for maintaining the organic farm. Cape Town, 09 July 2015


Mothekhe, S. 2015. (data capturer at Department of Correctional Services, Regional Commissioner’s Office Free State and Northern Cape Region) Personal Communication about the number of parolees in the Free State. Bloemfontein, 11 March 2015.


Oranjezicht City Farm website. Available at <http://www.ozcfco.za/> Accessed on 02 December 2014


Venter, D. 2015. (Department of Correctional Services, Social Reintegration Bloemfontein) Personal Communication about the facilities and counselling offered at the Social Reintegration Centre in Bloemfontein, 11 March 2015.

Zote, K. 2015. (Junior Lecturer at the Department of Hospitality Management (Hotel School), Central University of Technology) Personal discussion during a tour of the school. Bloemfontein, 17 March 2015.
JULIA CHEMALY | telephonic interview
THIRD YEAR STUDENT AT SILWOOD SCHOOL OF COOKERY
01 MARCH 2015

JL: Jessica Lawrence JC: Julia Chemaly

JL: How many students does the school accommodate?

JC: Approximately 50 first years, who have class at the school full time, 20 second years who do internships at various restaurants in cycles of two months, (they have class one day each week at the school) and about 20 third years who spend the year completing a full time internship at a restaurant that they get placed at.

JL: What facilities and classrooms do you have at the school? How many people can fit in each and what type of equipment is necessary?

JC: Baking kitchen - stainless steel countertops
   12 ovens on one side of the kitchen
   About 18 gas tops on the other side

Icing kitchen - no ovens or stoves
   Stainless steel counters with many electrical points

Cooking kitchen - small lockers for each student to store their bowls and whisks, etc.
   12 cooking stations
   2 students share a gas stove and oven
   Each student has a prep bowl on their side of the shared counter

Second year kitchen - smaller than others
   Demo Room - one cooking station that all students can see
   Can seat 50 people

Scullery - separate from kitchens
   Four double sinks

Laundry room - for washing all linen
   Storage room - store table cloths, cutlery, crockery, glasses, written record of who takes what

Library | computers - desks for 26 students
   Computers for students to do research
   Tests are written here

JL: How many staff members are there? Does each have their own office?

JC: Finance lady - has her own office
   2 admin staff - applications, orders, etc.
   Share an office, close to the headmaster

Headmaster - own office
   2 staff - in charge of catering services
   Organise events, rentals of equipment
   Recipe changes for the school
   Share one office

Second year lecturer - office near to second year kitchen
   There is also a staff room and relaxing area

JL: How many people (kitchen and front of house) would usually be necessary for a service of 60-75 patrons?

JC: There would usually be between 12 and 15 people in the kitchen (including the head chef, sous chef, chefs and dish washers) plus three or four waiters, with a maître d. There are normally also two barmen.
JL: Jessica Lawrence  KZ: Ketelwa Zote

JL: How many students does the school accommodate?

KZ: Approximately 70 including the tourism students with whom we share theory classrooms

JL: What facilities and classrooms do you have at the school? How many people can fit in each and what type of equipment is necessary?

KZ:

Educational Kitchen - 8 cooking stations
preparation space and sinks against the walls
a fridge - for short term storage
lots of storage beneath cooktops and against walls

Demo kitchen - a small space where 12 to 15 students can gather around and watch the lecturer prepare meals

Commercial kitchen - a fully equipped commercial kitchen - hot and cold processes are separated and the pastry kitchen is completely separate in order to avoid humidity and heat

Stock controller - An office adjacent to the dry store and cold room to monitor what leaves the store.

‘Lettuce Eat’ - small restaurant run by the students which serves lunch, equipped with all the necessary equipment and a separate scullery and storage area

JL: How does the programme work?

KZ: Students attend classes at the school and are required to complete 6 month internships at hotels and restaurants in and around Bloemfontein.

JL: Any practical considerations for kitchen design?

KZ: Although it often seems crammed, too much space can be a nuisance as moving around with food and hot equipment is dangerous. Ensure that there is sufficient storage within the chef’s reach.
JL: Jessica Lawrence  SM: Suki Motheke

JL: How many parolees are there at present in the Free State?

SM: In January 2015 there were 4016 and in February 2015 there were 3955, so approximately 4000 at present. Plus minus 500 new parolees are released each year.

There are also between 1200 and 1600 people on probation every month, but they are just under correctional supervision. They do not have to do any community service.

JL: What forms of community service do these parolees do?

SM: Predominantly street cleaning. Many end up back in prison after they are released. The parolees who are granted day parolee stay at Social Reintegration and are allowed to go and look for jobs during specific time periods. They have to return to Social Reintegration every night.
JL: Jessica Lawrence  
DV: Dirk Venter

JL: What does this facility offer?

DV: The facility houses 12 day parolees, each for a period of 6 months. During this time the parolees are required to seek employment. They must return every night. This is also where weekly counsellor's visits are held.

JL: How are these day parolees accommodated?

DV: All 12 parolees share one cell, with bunk beds, similar to prison. They have a small kitchen where they can prepare food but we also provide food.

JL: Is the facility also full?

DV: Yes, as soon as one group has completed their 6 months another group comes in.

JL: What type of work do the employees at social reintegration do?

DV: The majority of the day is spent checking in with people who have been placed under house arrest. The officer’s will travel to the various houses, predominantly in Botshabelo and Thaba Nchu, to check that they are abiding by the conditions of their house arrest and assess the person’s progress towards successful reintegration. There are approximately 1400 people under house arrest so this takes up a lot of time.