Submitted in partial fulfillment of the requirements for the degree of Master of Interior Architecture. (Professional)

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University of Pretoria
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DECLARATION

In accordance with Regulation 4(e) of the General Regulations (G.57) for dissertations and theses, I declare that this thesis, which I hereby submit for the degree Master of Interior Architecture (Professional) at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at this or any other tertiary institution. I further state that no part of my thesis has already been, or is currently being, submitted for any such degree, diploma or other qualification.

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

Anneke Wallendorf
## PROJECT SUMMARY

<table>
<thead>
<tr>
<th>Project title</th>
<th>Interface, Activating a transitional space between private retail interiors and exterior public streets in Robert Sobukwe Street, Sunnyside.</th>
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Baie van die geboue langs Robert Sobukwe Street is opgeknap in 'n poging om die gebied, insluitend die Sunny Park Mall te herstel. Hierdie opknappingswerk het die algemene persepsie van die straat verbeter, maar nie die algehele toeganklikheid tot die binneland ruimtes agter die fasades nie. Die gebou fasades is 'n versperring tussen buite en binne ruimtes met min integrasie.

'N afname in die voetganger aktiwiteit van die kleinhandel straat winkels het plaasgevind as gevolg van opknappings in ander gebiede. Oorweging teenoor gebruikers te voet het het verskuif van die openbare straat na die ontwerp van private interieurs.

Deur die begrip van gedrag van die gebruiker, kan 'n intervensie strategie die ruimtelike behoeftes van beide die openbare en private gebruikers aan te pas, te ontwerp wat voldoen aan beide kante.

Hierdie intervensie maak gebruik van die beginsels van weg bevinding, aktiwiteite en grense tussen die twee partye, gebaseer op die private behoeftes vir okkupasie en openbare behoefte aan interaksie te bou.

Dit bied 'n strategie om buiteruimtes in ag te neem en die spasie nie te beperk tussen die mure en die bestaande geboue nie. Om ruimte uit te brei, skep 'n oorgang toegewy aan die beoefening van die behoeftes van beide gebruikers as voordelig vir die ontwikkeling en volhoubaarheid van hierdie konteks.
ABSTRACT

Many of the buildings along Robert Sobukwe Street have been renovated in an effort to regenerate the area, including the Sunny Park Mall. These renovations have improved the general perception of the street but not the overall accessibility to the interior spaces behind the facades. The building facades are a barrier between exterior and interior spaces with little integration.

A decline in the pedestrian activity of the retail street stores has occurred due to these renovations in other areas. Consideration towards pedestrian users has shifted from the public street to the design for private interiors.

Through the understanding of user behaviour, an intervention strategy can be formed to align social needs with the spatial needs of both the public and private users to inform a design which satisfies both.

This intervention utilises the principles of way finding, activities and thresholds to build an interface linking the two environments based on the private needs for occupation and public need for interaction.

It provides a strategy to incorporate exterior spaces into a design and not limit the field to the space between the walls of existing buildings. To extend the space and create a transition dedicated to engaging the needs of both users is beneficial to the development and sustainability of this context.
# TABLE OF CONTENTS

## 1. OVERVIEW

<table>
<thead>
<tr>
<th>PART 1: PROBLEM DEFINITION</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.1. Urban Context</td>
<td>3</td>
</tr>
<tr>
<td>1.1.2. Street</td>
<td>4</td>
</tr>
<tr>
<td>1.1.3. Interior</td>
<td>5</td>
</tr>
<tr>
<td>1.1.4. Problem Statement</td>
<td>6</td>
</tr>
<tr>
<td>1.1.5. Research questions</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PART 2: METHODOLOGY</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2.1. Action phase: Working hand</td>
<td>9</td>
</tr>
<tr>
<td>1.2.2. Looking back on action: Reflection</td>
<td>9</td>
</tr>
<tr>
<td>1.2.3. Awareness of essential aspects: Theory</td>
<td>9</td>
</tr>
<tr>
<td>1.2.4. Creating alternative methods of action: CAD</td>
<td>9</td>
</tr>
<tr>
<td>1.2.5. Trial</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PART 3: DESIGN BRIEF</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.3.1. Objectives</td>
<td>11</td>
</tr>
<tr>
<td>1.3.2. Interior Concern</td>
<td>11</td>
</tr>
<tr>
<td>1.3.3. Client Profile</td>
<td>11</td>
</tr>
<tr>
<td>1.3.4. Delimitations</td>
<td>11</td>
</tr>
<tr>
<td>1.3.5. Assumptions</td>
<td>11</td>
</tr>
<tr>
<td>1.3.6. Outline of study</td>
<td>12</td>
</tr>
</tbody>
</table>

## 2. CONTEXT

<table>
<thead>
<tr>
<th>PART 1: URBAN FRAMEWORK</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1.1. DTI campus</td>
<td>18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PART 2: ROBERT SOBUKWE STREET</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2.1. Context</td>
<td>23</td>
</tr>
<tr>
<td>2.2.2. Open public spaces</td>
<td>24</td>
</tr>
</tbody>
</table>

## 3. INTERVENTION STRATEGY

<table>
<thead>
<tr>
<th>PART 1: SOCIALISATION OF SPACE</th>
<th>33</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1.1. Investigation</td>
<td>37</td>
</tr>
<tr>
<td>3.1.2. Socialisation</td>
<td>37</td>
</tr>
<tr>
<td>3.1.3. Maintenance</td>
<td>37</td>
</tr>
<tr>
<td>3.1.4. Resocialisation</td>
<td>37</td>
</tr>
<tr>
<td>3.1.5. Remembrance</td>
<td>37</td>
</tr>
<tr>
<td>3.1.6. Social to Spatial</td>
<td>38</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PART 2: URBAN EXPLORATION</th>
<th>40</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2.1. Orientation</td>
<td>41</td>
</tr>
<tr>
<td>3.2.2. Signage</td>
<td>44</td>
</tr>
<tr>
<td>3.2.3. Identity</td>
<td>45</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PART 3: CULTIVATE AND CONSERVE INTERACTION</th>
<th>48</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.3.1. Comfort and relaxation</td>
<td>50</td>
</tr>
<tr>
<td>3.3.2. Precedent: The High Line</td>
<td>50</td>
</tr>
<tr>
<td>3.3.3. Passive Engagement</td>
<td>52</td>
</tr>
<tr>
<td>3.3.4. Precedent: Softwalk initiative</td>
<td>52</td>
</tr>
<tr>
<td>3.3.5. Active Engagement</td>
<td>54</td>
</tr>
<tr>
<td>3.3.6. Precedent: St George’s Mall Street</td>
<td>54</td>
</tr>
<tr>
<td>3.3.7. Discovery</td>
<td>56</td>
</tr>
</tbody>
</table>
**LIST OF FIGURES**

1. **OVERVIEW**
   - Fig. 1.1: Aerial view of Robert Sobukwe Street  
   - Fig. 1.2: Street view of intervention site  
   - Fig. 1.3: Intervention site  
   - Fig. 1.4: ALACT Model (Korthagen & Vasalos, 2005)

2. **CONTEXT**
   - Fig. 2.1: Urban framework map  
   - Fig. 2.2: DTI location  
   - Fig. 2.3: Kotze Street Station September 2014  
   - Fig. 2.4: BRT Station Map  
   - Fig. 2.5: Robert Sobukwe Street context map  
   - Fig. 2.6: Section of Robert Sobukwe Street  
   - Fig. 2.7: Retail Typologies  
   - Fig. 2.8: Movement, trader stalls and occupied spaces  
   - Fig. 2.9: Open public spaces map  
   - Fig. 2.10: DTI campus  
   - Fig. 2.11: Sunnypark Mall  
   - Fig. 2.12: Sunnyside Galleries  
   - Fig. 2.13: Toni’s Liquor  
   - Fig. 2.14: Alan’s Place  

3. **INTERVENTION STRATEGY**
   - Fig. 3.1: New York experiment (Winter, 2010)  
   - Fig. 3.2: Softwalks Initiative (Knitel, 2012)  
   - Fig. 3.3: Pitt Street Mall (Anita, 2013)  
   - Fig. 3.4: Pallet tower, Seattle (Lazar, 2012)  
   - Fig. 3.5: Købmagergade shopping street (KBP, 2013)  
   - Fig. 3.6: Street furniture, Sunderland (PAULA, 2010)  
   - Fig. 3.7: Time Square (Rubio, 2011)  
   - Fig. 3.8: The Rocks, Sydney (Anita, 2013)  
   - Fig. 3.9: Social to Spatial phase Model  
   - Fig. 3.10: The High Line at the Rail Yards (Baan, 2014)  
   - Fig. 3.11: The High Line Map (Friends of the High Line, 2014)  
   - Fig. 3.12: The High Line (Baan, 2014)  
   - Fig. 3.13: The Softwalks Initiative, New York (Knitel, 2012)  
   - Fig. 3.14: Softwalks Initiative The Planters (Knitel, 2012)  
   - Fig. 3.15: Softwalks Initiative The chair (Knitel, 2012)  
   - Fig. 3.16: Softwalks Initiative TheCounter (Knitel, 2012)  
   - Fig. 3.17: ST George’s pedestrian street (Grove 2010)  
   - Fig. 3.18: The pedestrian street of down town cape town (Sam, 2011)  
   - Fig. 3.19: ST George’s Mall (Apple, 2010)  
   - Fig. 3.20: Pop-up cafe, 66 Pearl Street (Thoi 2010)  
   - Fig. 3.21: Pop-up cafe (Thoi 2010)  
   - Fig. 3.22: Pop-up cafe signage, (DOT 2011)  
   - Fig. 3.23: Sidewalk facing pop-up cafe (DOT 2011)  
   - Fig. 3.24: Facade concept sketches  
   - Fig. 3.25: Store Front for A&A, Ground floor plan (Manning, 2010)  
   - Fig. 3.26: Store Front for A&A, Gallery Elevations (Manning, 2010)  
   - Fig. 3.27: Storefront for Art and Architecture, (ArtandArch, 2011)  
   - Fig. 3.28: Storefront for Art and Architecture interior, (The Editors, 2012)  
   - Fig. 3.29: Storefront for Art and Architecture, New York, (Warchol, 2013)  
   - Fig. 3.30: Window and door concept sketches  
   - Fig. 3.31: Ceiling and floor concept sketches  
   - Fig. 3.32: Parkhurst Shops canopy  
   - Fig. 3.33: Parkhurst Shops roof structure  
   - Fig. 3.34: Parkhurst Shops site sketches  
   - Fig. 3.35: Parkhurst store interior fit out  
   - Fig. 3.36: Parkhurst store interior empty  
   - Fig. 3.37: Parkhurst entrance courtyard  
   - Fig. 3.38: Parkhurst facade  
   - Fig. 3.39: Parkhurst roof and entrance detail  

4. **INTERVENTION SITE**
   - Fig. 4.1: Existing  
   - Fig. 4.2: Stripping back  
   - Fig. 4.3: Making good  
   - Fig. 4.4: Site Typologies  
   - Fig. 4.5: Naledi general plan  
   - Fig. 4.6: Naledi  
   - Fig. 4.7: Naledi typical section  
   - Fig. 4.8: Naledi Day lighting Summer Solstice

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5. INTERVENTION DESIGN

Fig. 5.1: Orientation Plan 1:200 104
Fig. 5.2: Orientation and directional signage 104
Fig. 5.3: Identification signage 104
Fig. 5.4: Orientation Plan 1:200 104
Fig. 5.5: Sunnyside identity mood board 105
Fig. 5.6: Existing materials on Robert Sobukwe Street 105
Fig. 5.7: Retail store display entrance 105
Fig. 5.8: Service store seated entrance 105
Fig. 5.9: Retail facade display 105
Fig. 5.10: Restaurant entrance with outdoor seating 105
Fig. 5.11: Aluminium Profile ceiling 105
Fig. 5.12: Steel framing. Galvanized finishes 105
Fig. 5.13: Porcelain floor tiles. 105
Fig. 5.14: Activity map 106
Fig. 5.15: General Plan 1:200 107
Fig. 5.16: Section P1-1 1:20 108
Fig. 5.17: Perspective view of screen corridor 108
Fig. 5.18: Storefront closed position 108
Fig. 5.19: Storefront open position 108
Fig. 5.20: Model 1 Layout plan 1:50 109
Fig. 5.21: Sections through moving display shelves 1:20 109
Fig. 5.22: Sections through fixed storefront display 1:20 109
Fig. 5.23: Section of sliding screen 1:20 110
Fig. 5.24: Moving Screen elevation detail 1:1 110
Fig. 5.25: Moving Screen section detail 1:1 110
Fig. 5.26: Moving Screen signage elevation detail 1:1 110
Fig. 5.27: Moving Screen signage section detail 1:1 110
Fig. 5.28: Model 1 Ceiling Plan 1:100 111
Fig. 5.29: Natural Day Lighting 111
Fig. 5.30: Evening Lighting 111
Fig. 5.31: Night Lighting 111
Fig. 5.32: Section P1-2 1:20 112
Fig. 5.33: Perspective view of outdoor room 112
Fig. 5.34: Model 2 Layout plan 1:50 113
Fig. 5.35: Public bench plan view 1:10 113
Fig. 5.36: Public bench section 1:10 113
Fig. 5.37: Public bench section detail 1:5 113
Fig. 5.38: Section extended roof 1:10 114
Fig. 5.39: Model 2 HVAC plan 1:50 114
Fig. 5.40: 3D view of HVAC in hair dresser 114
Fig. 5.41: Section P1-3 1:20 115
Fig. 5.42: Perspective view market and fold up seating 115
Fig. 5.43: Model 3 Layout plan 1:50 116
Fig. 5.44: Section Trader Stall 1:10 116
Fig. 5.45: Folding screen elevation 1:20 117
Fig. 5.46: Folding screen plan framing 1:1 117
Fig. 5.47: Folding screen section 1:20 117
Fig. 5.48: Folding screen section detail pivot and joints 117
Fig. 5.49: Folding screen elevation detail 1:1 117
INTRODUCTION

Streets in urban environments are the intermediate spaces connecting users to the city. Their building facades characterise the outline of the built city and provide the link between the building interiors and the street edge. This relationship is very important but often overlooked as the physical spaces are dealt with in separate disciplines. Therefore a disconnect exists between the private interior spaces and the public street. When either environment is changed it has a direct influence on the other.

This chapter identifies the background to this problem with reference to the context of Robert Sobukwe Street, Sunnyside. The objectives and methodology describe the scope of the project and determine the potential for a spatial intervention to respond to the condition.
Sunnyside, Pretoria

Sunnyside is an eastern suburb of Pretoria which underwent major development in the 1950’s and 60’s to a high density residential zone with mixed use areas to manage the expansion of the CBD (Kruger, 1991:9). The area is in a process of regeneration stimulated by the establishment of the Department of Trade and Industry (DTI) in 2005 and the renovation of the Sunnypark Mall in 2009.

1.1.1. URBAN CONTEXT

The retail typology of ground floor spaces along high streets has evolved over many years to become popular pedestrian destinations and connections to various parts of the city. The active engagement of experiences and observations within these streets provide the users with characteristic spaces, which, according to Anderson (2012:34), “build the collective urban memory”. The forms of these streets are evidence to the growth over time and history of the area. They no longer function as traditional connecting spaces or gathering places, however, as shopping and entertainment facilities have been siphoned off the street (Trancik, 1986:65).

The renovation of city centres and the introduction of the shopping mall has threatened the pedestrian shopping street and rendered it almost obsolete. The contradictory typology of the mall is isolated from the urban context, which removes pedestrian activity from the street and disconnects the user’s association to the place. Paul Goldberger refers to it as ‘the privatisation of the public realm’ (Goldberger, 1996:171), where malls take the place of streets in the commercial life of cities. This occurrence deteriorates the commercial and social value of the high street stores.
Robert Sobukwe Street

Robert Sobukwe street is the commercial main street of Trevenna, Sunnyside. The existent typology of ground floor retail signifies the historic function of the street, providing pedestrian walkways and adjacent storefronts.

1.1.2. STREET

The building owners are affected by the renovations and react by prioritising the use of their properties to gain the most profit. These attempts include competitive rent rates and the subdivision of retail spaces. The aim is to increase the tenant occupation but leads to a high rate of tenant turnover due to the inability of smaller business to afford the competitive rates. This inhibits retail stability and decreases the tendency to provide public functions within the building as they do not generate an income (Anderson, 2012:28). These influences reduce the presence of pedestrian activity on the street which lowers the number of potential consumers. This results in a cyclical problem that inevitably leads to a fragmentation of the street activity and a disconnect between the individual stores. In a situation like Robert Sobukwe Street where one building houses several stores, this becomes evident in the dissociation of the storefront facades.
Storefronts

The site consists of three buildings located on Robert Sobukwe street between Greef and Meintjies Street. These buildings have retail shops on the ground floor and residential flats on the upper floors. The buildings are: Naledi, Alan’s place and Sunny Rock Flats.

1.1.3. INTERIOR

This problem is further perpetuated by the responsibility of tenants to create a successful business within the rented interior space. The relatively temporary interior installations which are placed in the stores are only concerned with their immediate spatial occupation and limited by the physical barrier of the facade.

They do not consider the interface to the adjacent exterior space which provides access and way-finding information for the user to engage and experience the space. Peter Buchanan recognises a problem with facades which produce ‘repetitive, boring elevations, prefabricated for speedy erection’ that are designed for the private interests of the owners (Buchanan, 1988:180). With no identifying features, these stores are absorbed into the buildings edge providing no interaction or connections.
1.1.4. PROBLEM STATEMENT

The inherent relationship between interior spaces and the public street has been neglected in the regeneration of Robert Sobukwe Street. This phenomenon has inadvertently manifested as a physical barrier restricting the potential for a transitional interface to provide urban places for social occupation. This investigation intends to identify latent opportunities on site and enable public functions to promote private sustainability.
1.1.5. RESEARCH QUESTIONS

The research question for this project is developed from the three environments of investigation. The main question concerns the fundamental priority of the project which falls within the interior scale. The sub-questions refer to the each environment considered in the project.

How can a spatial intervention utilize the basic needs of the private interior store and the public street to create an interface which reconnects the experience of the two spaces?

• Interior: What are the needs of the store owners and tenants?

• Street: What are the needs of pedestrian users in Robert Sobukwe Street?

• Urban context: What are the contextual requirements of a public urban place in the South African context?
Part 2: METODOLOGY

Looking Back on Action

Awareness of Essential Aspects

Creating Alternative Methods of Action

Trial

Action

Fig. 1.4: ALACT Model (Korthagen & Vasalos, 2005)
INTRODUCTION

A reflective process based on the ALACT model (Korthagen & Vasalos, 2005) will be utilised to investigate the identified issues of the site and through an iterative design process, propose a solution. This model is a cyclical model (Figure 1.4) which provides a basis for systematic reflection. It consists of five phases: [1] action, [2] looking back on the action, [3] awareness of essential aspects, [4] creating alternative methods of action and [5] trial. Different methods are used to execute each phase in relation to the intervention and theory components.

1.2.1. ACTION PHASE: WORKING HAND

The action phase of the process uses the working hand method to build models and experiment on various spatial forms. This method is described in Thomas Heatherwick: Making (Heatherwick & Rowe 2012) by a series of examples of how a design question is asked and answered through a three-dimensional exploration of space and material on varying scales. When the idea of ‘making’ relates to the research questions, it is apparent that there are several spatial and design questions which can be asked to inform different three-dimensional explorations forming part of the iterative design cycle.

1.2.2. LOOKING BACK ON ACTION: REFLECTION

The working hand process identifies many spatial and design possibilities but is limited to my own understanding because of the intuitive nature used. The ‘What’ Model by Rolfe (Surgenor, 2011:9) is used to look back on this method and explicitly identify the intentions and spaces created.

WHAT spaces are created?

SO WHAT are the implications of created spaces?

NOW WHAT are the outcomes and next step?

1.2.3. AWARENESS OF ESSENTIAL ASPECTS: THEORY

Identified theories, which apply to the research question and site environment, are used to establish essential aspects within the design typology and context. This component is separated into literature reviews and precedent studies. The literature reviews are used to consider the subjects of public space, social and physical needs of users, urban interiors and organising space to form a theoretical framework that defines design guidelines. The precedent studies are evidence of how these theories have been implemented in real world situations, and to what extent they successfully influenced the users.

1.2.4. CREATING ALTERNATIVE METHODS OF ACTION: CAD

The alternative method used is computer-aided design (CAD), due to the parameters of the project such as presentation and communication. CAD tools make it possible to visualise the design in its context and when using three-dimensional models it can more accurately communicate design details such as materiality and technical elements from different perspectives. In the more realistic CAD generated models it clear to notice elements in the project which need attention and revision.

1.2.5. TRIAL

The trial phase takes the information generated from each phase and tests it within the project. This continues into an action which begins a new cycle in the process.

CONCLUSION

The iterative process of these cycles drive the intervention process which will result in the final design artefact. They take into consideration spatial organisation and a theoretical framework which can be applied to understanding the physical and social conditions of the site. These will be used to determine a programme and develop the systems required while inspiring the desired character and user experience necessary to reach the objectives.
‘[The city] is continually challenged and reconstituted through the immediacy of our occupation and movement through its spaces’

Kate Church (Hinkel, 2011:29)
1.3.1. OBJECTIVES

The objective of the project is understanding the existing functions and activities that take place on Robert Sobukwe Street and the relation these have to their adjacent interiors.

Through this understanding, the aim is to create and improve the user experience of the stores and pedestrian street by providing a transitional interface connecting the interiors to the street and the wider urban context.

An opportunity exists to blur the boundaries and thresholds currently in place to create better access through way finding and encourage users to occupy and participate in the urban fabric of Sunnyside by providing the necessary amenities and opportunities.

This is intended to highlight the beneficial relationship between the private store owners and public street users on physical and social levels, which has the potential to generate change by introducing new experiences and identity to this environment.

1.3.2. INTERIOR CONCERN

The buildings and street edge do not require changes as frequently as the interior spaces which leads to the supposition that the interior designer should be concerned with the interface between the spaces to promote better user experience and ensure the potential of the environment is reached as other disciplines have less involvement in existing sites over the long term.

The scale at which the design occurs in this project is of the interior realm as it directly relates to the comfort, usability and functions of users.

1.3.3. CLIENT PROFILE

For the purposes of this project, it will be assumed that a single client has purchased all three properties along the site. The building typologies will remain in place, with residential units on the upper floors and rentable retail space on the ground floor. The retail spaces will be connected through the proposed design to resemble a strip centre which is regulated and controlled by the building owner. The owner and tenants of the spaces will have responsibilities to manage the store facades with regards towards their businesses and the placement of seating elements in the specified areas. The municipality will be responsible for the provision and maintenance of other services and furniture as described by the Streetscape Design Guidelines (City of Tshwane 2007).

1 Strip centre: An attached row of stores or service outlets managed as a coherent retail entity. The tenants offer a narrow range of goods and services usually targeted to a local neighbourhood. (Evans & Evans, 2007:394)

1.3.4. DELIMITATIONS

The intervention will focus on the different functions of the street edge and their relationship to the building interiors. The site is comprised of buildings with retail outlets on the ground floor and residential units on the upper floors. The intervention will be limited to designing within the retail and exterior spaces with no intention of designing within the residential spaces.

1.3.5. ASSUMPTIONS

It is assumed that the urban framework, specifically the TRT transportation system is completed and is successful in fulfilling the aims.
1.3.6. OUTLINE OF STUDY

Chapter 1 an overview of the project
Part 1 defines the background problems and problem statement, which inform the research questions.
Part 2 the methodology describes the process applied to the project
Part 3 the design brief outlines the objectives and client profile of the study.

Chapter 2 understanding the context
Part 1 contains the location and description of the site and context, including the Mandela Development Corridor framework and transport route.
Part 2 identifies retail patterns and pedestrian movement displayed with an investigation of the existing public spaces on Robert Sobukwe Street.

Chapter 3 the intervention strategy
Part 1 looks at the Socialisation Model to explain individuals behaviour and explores this in terms of a new model to identify the spatial and social needs of users in the context of the project.
Part 2 Urban Exploration discusses way-finding devices in this context as a tool for gathering information and establishing an identity.
Part 3 Cultivating and conserving interaction proposes categories of activity to provide the spaces with function as a platform to interact with the site.
Part 4 Spatial engagement investigates the physical elements of a spatial intervention which have the potential to facilitate engagement.
Part 5 Recognition describes the components used to analyse the environmental image of a place that determine its influence and success.

Chapter 4 the intervention site
Part 1 the site is analysed with respect to the needs identified in chapter 3
Part 2 outlines the problems and potential of the site to establish intervention principles.

Chapter 5 the intervention design

Chapter 6 conclusion

Chapter 7 references
CONCLUSION

This project identifies the occurrence of a disconnect between interior and exterior spaces of retail streets with an introduction to this condition in Robert Sobukwe street. This problem adversely affects users in both environments by neglecting their needs in this context.

The research questions underline the basis of the project which will investigate the potential for a transitional interface within the building facade to connect the spaces and address the user needs to promote a sustainable environment.

The research methodology employs a reflective approach with different methods that establish the process of understanding the specific problem and implementing a designed solution based on the physical and social aspects determined by the objectives.

The client profile outlines the responsibilities of the assumed building owner and municipality towards the services and maintenance of the site.
INTRODUCTION

This chapter identifies the site which consists of three buildings located on Robert Sobukwe Street, Sunnyside, Pretoria. An urban framework and transport system are outlined as a catalytic opportunity for collaboration between the wider context of Sunnyside and the site specifically. The street environment is explored through the functions, qualities and aesthetics of the existing public spaces and their impact on the user experience.
MANDELA DEVELOPMENT CORRIDOR
INTRODUCTION

A City of Tshwane initiative called the Mandela Development Corridor (MDC) is an extensive movement framework to connect the north and south districts of the city (Fig. 2.1). The objective is to ‘accelerate higher and shared economic growth and development’ (GAPP Architects and Urban Designers, 2009:1).

The framework intends to reintegrate the areas by focusing on public spaces, broader mixed uses, pedestrian proximity, public transport, urban management and informal traders, (Ludwig Hansen Architects, 2005).

“... Making significant inroads towards the rejuvenation of the inner city. Our vision is to create a new node and entrance into the city in line with the City’s vision.”

Sedise Moseneke (Encha Group Ltd, 2010)
2.1.1. DTI CAMPUS

A decisive project in establishing the framework was the new Department of Trade and Industry (DTI) campus, completed in 2005 (Fig. 2.2). It was proposed that this campus would act as a catalyst for the re-development of the area (Ludwig Hansen Architects, 2005).

The intervention site of this project is located in the immediate area of the DTI campus, however, by observation, the intended catalyst effect of the DTI has not been realised on the intervention site refer to “DTI CAMPUS” on page 25.

This dissertation project is relevant by aiding in the objectives of the MDC and DTI campus by providing a supplementary catalyst, which enhances the retail and pedestrian activity on the corner of Robert Sobukwe Street and Meintjies Street.

Fig. 2.2: DTI location

2.1.2. TRANSPORTATION: A RE YENG

The Tshwane Rapid Transit (TRT) integrated public transport network, currently being built throughout the City of Tshwane as a part of the MDC framework to improve socio-economic development. This project is being implemented in three phases. The Inception Phase, which was scheduled to be completed April 2014 (City of Tshwane, 2012), connects the inner city to the northern and eastern suburbs, and will run through the centre of Sunnyside. The stations are still in construction and have not been completed on schedule (Fig. 2.3). The other two phases connect the CBD to further locations: Phase 1 connects Akasia to Menlyn and the Future Phase connects Shoshanguve to Mamelodi. Phase 1 is scheduled to be completed in 2016 and the Future Phase to begin construction from 2016.

On completion, the Inception Phase will have the largest and most important influence on the project. The BRT Station is located on the corner of Kotze Street and Meintjies Street (Fig.
2.4). This station links the city centre to Pretoria East. It is ideally situated to access Robert Sobukwe Street and to become a catalyst for pedestrian movement along the quieter side of the street. This transportation node increases the public use of the street and creates a higher demand for public facilities in the area.

Operating times
Monday - Saturday 05:00 - 20:30
Sunday - Public Holidays 07:00 - 19:00

The operating times of the buses are essential to the programming of the project. It determines the time frame for which pedestrian activity to and from the station can be expected.

CONCLUSION

These objectives of the MDC are directly aligned to the intentions of this project but on a larger urban scale. The outcomes of both projects provide better experiences of the city by generating economic sustainability through the provision of public space and pedestrian movement. The influx of the BRT users will populate the street and introduce a new user group as potential consumers for the proposed retail and services.

As existing points of interest on the street, the DTI campus and the Sunny Park Mall are likely possible destinations for pedestrians of the MDC and BRT. It is crucial to this project that the intervention provides thresholds that create a distinct experience and communicate the functions of the interior retail to persuade users to occupy these spaces.
Key of Fig. 2.5

High pedestrian traffic
These areas provide the public with important services and access routes to main facilities such as mall and transport.

Low pedestrian traffic
The movement of people along this section of the street is notably less and more in a through fare capacity as opposed to purpose or use of the space.

FUNCTIONS IN PLACE FOR LONGER THAN 5 YEARS
Based on images taken from Google Earth Streetview, 2009.

FUNCTIONS CHANGED IN LAST 5 YEARS *
Based on existing functions currently occupying spaces, documented by author, 2014.
Fig. 2.5: Robert Sobukwe Street context map
INTRODUCTION

Previously Esselen Street, this street is the main street of Trevenna, Sunnyside. The area was originally built as a residential zone but after the expansion of the 1960’s the houses were replaced with multi-story apartments and office blocks that performed a retail typology on the ground floors (Swanepoel, 2012:2). This typology has remained the same to the present day; however, the quality of the street has deteriorated.

Parts of the street have been renovated to contribute to the regeneration of the area. This has affected the smaller businesses and street stores as indicated (Fig. 2.5). This figure indicates the state of change over the last five years.
2.2.1. CONTEXT

The larger context of Robert Sobukwe Street is important to this project as it contributes to the user experience approaching and leading from the intervention site. It informs the function and character required to respond to the context.

The building typologies found along Robert Sobukwe are very similar, with ground floor retail stores and upper floor residential or commercial functions (Fig. 2.7). With the exception of a few, most buildings range between four or seven storeys and provide overhangs above the sidewalks (Fig. 2.6).

The ground level building edge is comprised mostly of glazed shopfronts with varying building facade types on the upper levels.

The sidewalk and street display typical characteristics of an urban activity street with the street edge, trees, open walkway and undercover store entrances. There are also informal trading stalls located on some areas of the street (Fig. 2.8).
2.2.2. OPEN PUBLIC SPACES

The following spaces have been identified on Robert Sobukwe Street as open public spaces (Fig. 2.9). They share the quality of being recessed from the building line and providing larger space than can be used on the sidewalks. They are selected to illustrate the functions and qualities of the open spaces and depict the existing aesthetics found in context. The instances where renovations have occurred are analysed based on the consideration shown relating to the public space.

Fig. 2.9: Open public spaces map
DTI CAMPUS

Location
Corner Robert Sobukwe Street and Meintjies Street

Function
This space leads to the entrances of several stores on the ground floor of the DTI. It does not promote user occupation by lack of providing elements of practical use for pedestrians.

Quality
This space is the largest open area along the street edge and has a decorative features like a fountain, the edge of which people sit on, and additional planters and trees. It was constructed in 2009, it is only enclosed on the back corner, but due to the size of the space it is perceived as open and clearly defined through the use of bollards and the floor surface patterns. Accent lighting is also provided within the space near the building edge along with clear signage indicating the offices located in the building.
SUNNY PARK MALL

Location
On Robert Sobukwe Street between Steve Biko Road and Greef Street

Function
This space serves as the street entrance to the mall. It was renovated in 2009 and includes opportunity for public use with planters as temporary seating. Through it is clear that this is not sufficient as users bring their own plastic chairs to provide seating and shelter from the additional trees.

Quality
The space is open to the street corner and defined by the mall facade. Due to the relatively recent renovation, the quality of the space is much higher than other parts of the street. It incorporates several planters, additional trees as well as accent lighting.
SUNNYSIDE GALLERIES

Location
Corner of Robert Sobukwe Street and Troye Street

Function
This space currently has no dedicated function, however there are informal trading stalls located near the street edge.

Quality
This space is open to the street but enclosed by the surrounding building. It has built objects which can be used by public for seating which incorporate planters with additional trees and sign post displaying the advertising of the adjacent retail spaces.

Fig. 2.12: Sunnyside Galleries
Function
This space serves as the entrance for multiple stores. It is difficult to determine the functions of this space as it functions as a parking area, outdoor seating and unused space by the different stores.

Quality
The space is open to the street but closed on all other sides. The building behind the space is only one story which is unusual in this context but makes the space feel more open. It does not have building overhangs or any other form of shelter. The store on the far right has been renovated with new paving on the section in front of the store which looks odd compared to the rest of the space which still has mismatched, damaged paving.

Location
60 Robert Sobukwe Street
ALAN’S PLACE

Location
57 Robert Sobukwe Street

Function
This courtyard is an open space of which a fenced off portion is used for seating by Dukes Restaurant with no other elements provided for users. It also serves as the entrance to other stores and the residential flats.

Quality
The space is enclosed by taller buildings on three sides. It is separated from the street and the pedestrian walkway by bollards which make it feel isolated. The building was renovated in 2009 which improved the surface quality of the building facade but no consideration was made to the open space. Drainage channels were added but lowered the quality of use of the space as they are poorly installed and pose tripping hazards. There is no additional lighting which limits the use of the spaces to daylight hours despite the restaurant and residential entrance which function at night.
SUMMARY

These public spaces have a lack of user consideration present in the current condition of the street. They provide little to no seating and offer no other structures to indicate function or facilitate occupation. People have resorted to bringing their own plastic furniture to sit along the street and in its undefined spaces.

The Streetscape Guidelines (City of Tshwane, 2007) states that a general activity street must provide seating and litter receptacles and recommends that banner poles, bandstands, drinking fountains and public restrooms also be provided. The public has to leave the street to find these activities in places like the mall. The guidelines also include a lighting outline, where all pedestrian areas should be purposely well lit; this is only evident in the mall and DTI spaces, and are not considered in any of the others. Other considerations for the activity of these space is referred to in “Cultivate and Conserve Interaction” on page 49.
CONCLUSION

This chapter provides an overview of the urban framework and transport system which will impact the number and type of users accessing the site.

The context of Robert Sobukwe is discussed in terms of the movement and functions of the street. The existing open public spaces are identified to highlight current the lack of consideration for these spaces.
INTRODUCTION

This chapter provides a definition of a street to understand the environment of this intervention. As this project is based on the experience of this environment, the intervention strategy will be approached from a user perspective. The Group Socialisation model is explained to understand the social behaviour of these users when entering a new community which is then extrapolated into a new Intervention Model for this project.

The first phase discussed is Urban Exploration, which defines the need for way finding devices within an urban context. Next is Cultivating and conserving interaction which uses functional categories to identify possible needs and opportunities within certain spaces. Spatial engagement looks at the occupation of the space and elements to create thresholds which facilitate occupation. The final phase describes the needs for identity within the context to promote a successful space.

This model identifies user needs for the proposed phases by the use of literature reviews and precedent studies.
THE STREET IS...

According to Mehta (2013:12), a street is comprised of seven elements. These elements define the characteristics which can be enhanced to create a sustainable public space. The following figures outlines these elements and how they can influence the user experience.

1... a social entity and its design reflects some social and cultural motives

2... three dimensional such that the buildings containing and defining the street spaces are as important as two dimensional surfaces of street

3... a link between buildings but also provides a link between people and facilitates communication and interaction.

‘[Public street space] is based on a social, psychological and spatial exploration of what makes streets good for people... Streets provide a platform for a range of social behaviours and experiences.’

(Mehta, 2013:2)
by and large is accessible and public, even though there have always existed some privatized streets.

...two parts, one for movement of people, one for movement of vehicles.

...a connector, and is also a bounded space in and of itself.

...in scale, it is intermediate urban space between building and other large spaces.
INTRODUCTION

The objective of this intervention is to create and improve the user experience of stores and street spaces. To do this requires an understanding of the sociological conditions which govern human behaviour. The theory of Socialisation describes the process of participation an individual and group experience when transitioning to a new community or environment.

The Group Socialisation model proposed by Moreland and Levine (1994) discusses the theory and explains the process between the two components which changes systematically over time and highlights the active social influence of each on the other. The model underlines this phenomenon by the use of five distinct phases (Moreland & Levine, 1994:310-311) with reference to the role transition of each member from one phase to the next.

3.1.1. INVESTIGATION

This initial phase includes the individual as a prospective member looking for a group who will satisfy their personal needs, while the group attempts to identify individuals which could contribute to their group goals. This search for information is the first exchange between the parties and determines a level of commitment by each which leads to the role transition of entering the group where the individual becomes a member.

3.1.2. SOCIALISATION

This second phase involves the assimilation of the individual and the group. Each attempts to adapt and change the other, in order further the contributions made to achieving the needs and goals. The success of this phase is dependent on the accommodation of the group towards the individual which establishes acceptance into the group and the role transition of the individual advances to full member.

3.1.3. MAINTENANCE

This is the crucial phase in the process where the individual and the group engage in what is referred to as role negotiation. This happens when the group finds a role for the individual to maximise their contribution to the group goals and the individual finds the role for the group to maximise their contributions to their personal needs. The success of this stage determines the length of the sustainable relationship. Once the commitment to the other decreases the role transition of divergence occurs where the individual becomes less significant within the group.

3.1.4. RESOCIALISATION

This phase revolves around the attempt to restore the relationship to a beneficial state. If the individual and group can successfully contribute to the goals, the phases of socialization and maintenance will begin again, which is referred to as the role transition of convergence. However if this does not occur, the alternative is the role transition of exiting the group.

3.1.5. REMEMBRANCE

This is the final phase of the process whereby the relationship ends. Both parties recall the contributions made by the other to their goals and engage in an evaluation of their relationship and the influence each had over the other. The commitment between the individual and the group will then stabilise at some level depending on the extent of the relationship.

‘Any analysis of architecture’s relationship with the city is, to a great extent, a social analysis.’

(Anderson, 2012:23)
3.1.6. SOCIAL TO SPATIAL

A parallel of the relationship between the single user and the group and can be drawn to establish the relationship between a single user and a spatial environment. By designing an intervention which accommodates this process of user behaviour, on the social and spatial level, the relationship of the user to their environment can become a successful experience.

The model proposed by Moreland and Levine (1994) mentions two distinct users. For the purpose of this investigation the individual will refer to the pedestrian users whose personal needs include the social environment and services provided by the retail stores. The group will refer to the retail stores and tenants whose group goals include occupation of their immediate and adjacent spaces for the purpose of their business and making profit.

The following diagram (Fig. 3.9) depicts the correlation of the social phases of the model and the spatial phases proposed by this investigation. It also outlines which of the intervention principles of the project are most applicable to each phase and will be further discussed in the remainder of the chapter.
Fig. 3.9: Social to Spatial phase Model

- **Social phase**
  - INVESTIGATION
  - SOCIALISATION
  - MAINTENANCE
  - RESOCIALISATION
  - REMEMBRANCE

- **Spatial phase**
  - URBAN EXPLORATION
  - CULTIVATING INTERACTION
  - SPATIAL ENGAGEMENT
  - CONSERVING INTERACTION
  - RECOGNITION

**Way Finding**

- **Activity**

- **Thresholds**

- **Experience**
‘In the process of way-finding, the strategic link is the environmental image, the generalised mental picture of the exterior physical world that is held by the individual’

(Kevin Lynch, 1960: 4)
INTRODUCTION

This is the initial phase of a pedestrian user’s experience of the site. It is a process of exploring the environment to collect information. The pedestrian perspective views the city in the form of the physical and non-physical dimensions of the public street as cultural, social and economic spaces (Mehta, 2013:1). For this reason it is important that clear instruction is provided as a user must be able to comfortably navigate this environment, highlighting the need for way finding devices.

Way finding is an aspect of the built environment which includes the architectural and graphic realm (Galindo, 2012:1). Orientation within physical spaces provides navigational clues and uses signage as visual information to direct users to, from and around the site. These contribute to the communication of an identity of function and place which determines whether or not to initiate interaction with the spaces and stores who supply the information.

3.2.1. ORIENTATION

As an influential author in this field, Kevin Lynch (1960:6) describes the concept of ‘building the cities images’ as a decisive tool in providing distinctions and relations between the user and the environment. He suggests that the original function of this image was based on the need for way-finding and emotional associations based on the environment. This image acts as a map for the direction of movement and on the larger scale it serves as a frame of reference for the user to collect information (Lynch, 1960:126).

A key component in this image is the legibility of the environment and the ‘ease with which its parts can be recognised and organised into a coherent pattern’, (Lynch 1960:3). If the environmental image is clear and structured, it can give a user the opportunity of choice and the basis for obtaining more information. Five elements of the image, identified by Lynch (1960:41), which are used as systems of orientation, are paths, edges, districts, nodes and landmarks.
‘Paths are the channels along which the observer customarily, occasionally, or potentially moves’.

(Lynch, 1960:41)

**Paths**

These are the fundamental elements used by pedestrians as transport to explore the urban context. Paths provide the routes on which users travel to, from and around the site. In this type of context the route is generally long and straight as they run parallel to the vehicular road. According to Gehl (1987:143) this situation should be avoided as it can cause boredom before the user has reached their destination. By sub-dividing and interrupting the routes, interesting and natural stages can be created which help to strengthen the images of that environment by providing separate characteristics.

‘Districts are the medium-to-large sections of the city, which the observer mentally enters “inside of” and are recognizable as having common, identifying character.’

(Lynch, 1960:41)

**Districts**

A district is characterised by many components within the environment which provide a distinct identity by means of thematic consistency. This helps to create a sense of place by appealing to the physical and psychological senses of the user (Gehl, 1987:183). These districts enable the user to orientate themselves with in the larger urban context and contribute to building the city’s image. They provide boundaries which can become larger transition zones between different districts and function within the environment.

‘Simply concentrations, which gain their importance from being the condensation of some use or physical character, as a street-corner hangout or an enclosed square.’

(Lynch, 1960:41)

**Nodes**

These junctions are beneficial in providing navigational information and opportunities of choice for the user. They are reference points created by the intersection of two or more paths which begin to communicate the spacial distribution and hierarchy of the space (Golledge, 1999:20). The formation of nodes is not only a spatial definition but can also be the results of concentrated activity in a certain space (Lynch 1987:76). These nodes connect the different functions on a site and can provide links to other nodes within the larger context.
‘Important organizing features, particularly in the role of holding together generalized areas, as in the outline of a city by water or wall.’

(Lynch, 1960:41)

Edges

The edge is the element which has the most focus in this intervention. Edges can be a disruptive influence and become isolating barriers. It is essential that they project continuity and visibility along a path but does not require them to be impenetrable (Lynch, 1960:64). They can also be used as paths and provide opportunities for transitional zones. This is described by Gehl (1987:149) as the ‘edge effect’. It describes the potential for users visually explore the interior space while still surveying the exterior. A sense of protection is achieved which supports longer occupation of the space.

Landmarks

‘Another type of point-reference, but in this case the observer does not enter within them, they are external’.

(Lynch, 1960:41)

Landmarks are elements which are characteristically unique to be singled out from the surrounding context with the intention of being memorable and easily identifiable. They are effective in promoting orienting, directioning and homing behaviours (Golledge, 1999:17) Spatial significance can be highlighted by creating many clear lines of site to the landmark or by creating contrast to immediate surrounding elements (Lynch, 1960:80).

By implementing paths, a district and landmarks in the intervention, an image of the site can be created. This image will aid users in navigating from the bus station and other parts of the street to the site. The smaller paths, nodes and edges will facilitate movement within the site through the different stores and open areas. Design implementation
The previously mentioned elements of orientation provide spatial indications of way-finding which require graphic way-finding elements to support them as the most direct way for users to access information regarding their location and surrounding functions.

Gibson (2009:47) describes signage as the narrative told by the building spaces and tenants to reveal the destination, how to use a space and the information of the activities within a space.

The following description identify different categories (Gibson, 2009:48) of signs and their applications in context.

### 3.2.2. SIGNAGE

#### Identification signs

These provide the initial impression of a destination as they appear at the start and end of paths to show entry and exit directions. They indicate the transition through different spaces and can contribute to the environmental image by displaying design characteristics specific to the site.

#### Regulatory signs

These are simple signs to explain the rules of a certain space. They must comply with any legal regulations which apply such as the necessary size and location. They can add to the experience if well considered and integrated into the rest of the way-finding system.

#### Directional signs

Once a user has entered a space, directional signage presents the movement option and circulation scheme. This type of signage should be obvious and recognisable to ensure easy understanding and navigation.

#### Orientation signs

This signage provides an overview of the entire site in order for the user to identify their location within a larger context as well as list all the activities and services within the immediate vicinity.

---

‘The unifying language of a way finding system creates a public narrative of how people witness, read and experience a space.’

(Gibson, 2009:46)
‘Citizens navigate urban space through a system of public space which is based on a built semiotic language that guide their movements and therefore feature heavily in our experience of the cities spaces’.

Kate Church (Hinkel, 2011:31)

3.2.3. IDENTITY

The orientation and signage of a space, as previously mentioned, contribute to the image of an environment which forms the initial identity perceived by a user. The five elements, referred to in 3.2.1 Orientation, are ways of directing a user to the site, while the signage offers navigational information on where to go next. These systems are interconnected images, actions and signs that provoke a specific response (Johnston, 2012). They are part of a semiotic language which a user interprets to understand and guide them through a space (Church, 2011:31). This semiotic language and its interpretation form the basis for identity of a space.

As this project investigates a physical space from a social perspective, the theory of ‘Semiotic Social Space’ by James Gee (2005) will be discussed. It will establish the role of a semiotic language in producing an identity for the retail spaces by outlining their needs.

James Gee defines the term ‘Semiotic Social Space’ as a feedback process for the creation of an identity (Gee, 2005:218). The purpose of a space is the starting point in the process and becomes the generator. These generators set out the content and signs of a space and their possible relations to each other. This can be used to describe the retail tenants and their objectives to make a profit by providing goods or services to the public.

An internal strategy emerges to define the content of a space based on the requirements of the generators, such as the need for a good physical space to accommodate a retail store. This is tenant based need and should be facilitated by the tenant and the building owner.

According to Kingaard (2007) the layout of retail store is based two key factors: the store design and store layout. The store design involves the atmosphere, image, interior design and exterior design factors. A good retail space should be designed to maintain a comfortable user environment. This includes a well-ventilated space for good air quality and avoids the possibility of bad odours building up. Lighting is also an important aspect to a retail space to allow easy visual access the products being sold and can be used to create particular store atmospheres which may improve the user moods and buying habits (MSG Experts, 2014). The lighting should be emphasised from the point of entry to make the user aware of the new retail space.

The store layout is based on space allocations related to the manner of use and behaviour exhibited by the consumers. The display of merchandise is a central principle to retail design and should be strategically placed to entice consumers to visit the store (Kingaard, 2007). The location of certain merchandise, such as necessity items, can be used as a tool ensure the users have to travel past other
items which may catch their attention. The elements in the space, furniture, lighting and fittings should be adaptable to accommodate regular changes in layout and display to keep that attention and encourage excitement. Related departments should be placed near each other to complement each other and make identification and navigation effortless for the users. Another important consideration is security, the spaces should be openly laid out to allow for observation to avoid shoplifting and support a safe and comfortable space (Kingaard,2007). The response of consumers to these principles of an internal strategy constitutes the external reaction.

The final aspect of a ‘semiotic social space’ are the ‘portals’ that provide a user with access to the function of the space and ways of interacting with it. It is important to know how these portals are used and what influence they have on the interaction as these questions can become external generators that must be considered by the internal strategy. These portals are discussed in Part 3, as a method of cultivating and conserving the interaction of the pedestrian users.

The external reaction is the way a user ‘thinks about, values, acts and interacts’ with the space (Gee, 2012:220). This reaction forms a repetitive pattern and its regular manner of use determines the recognisable function of the internal strategy. The external reaction will occur by the pedestrian users as consumers.

An identity is a significant part of a site. It reads as a semiotic language which must convey the meaning and function of a space. In this case the identity of the stores is the important to ensure that pedestrian users can identify with them in a positive manner.

If the stores meet the needs outlined here, they should provide an inviting and comfortable space for the pedestrian users to occupy. This is important for the progress and sustainability of the retail on the site.

**SUMMARY**
CONCLUSION

A user experience begins with the exploration of their context. This experience should be made comfortable and enjoyable through the use of good way finding devices.

Orientating oneself in a large urban context is overwhelming and requires spatial clues to allow a comfortable navigation of a space.

These clues should be complimented with visual signs to further add information available to the user. Navigating through these spaces made easier, the user must identify what they are looking at.

The identity of the retail stores is crucial at this point to display their functions and businesses. This can be achieved through the implementation of the needs to create a good store.
INTRODUCTION

‘Living cities, therefore, ones in which people can interact with one another, are always stimulating because they are rich in experiences, in contrast to lifeless cities, which can scarcely avoid being poor in experiences and thus dull, no matter how many colours and variations of shape in buildings are introduced.’

Jan Gehl (2011:21)

This part includes the description of phases two and four, socialisation and resocialisation respectively. They are discussed as one due to the fact that they occupy the same physical space and perform the same functional activities during the separate phases.

This interaction is dependent on the space providing place for the pedestrian users to occupy and connect to their environment. It calls for the user to become absorbed into the space and participate in the available activities, making it an active public space.

In order to achieve this level of participation, the needs of the pedestrian users are essential to outline a programme for the spaces. Needs in public space (Carr, Francis, Rivlin & Stone, 1992:221) identifies these needs and proposes functional categories of experiences to satisfy these physical and social needs. These experiences consist of activities which enable the conditions for public spaces to be used beyond their basic functions.

‘These elementary relationships between the form of space and its use suggest that the proper way to formulate the relation is to say that space is given to us as a set of potentials, and that we exploit these potentials as individuals and collectives using the space’

Bill Hiller (Carr et al. 1992:247)
3.3.1. COMFORT AND RELAXATION

These are fundamental user needs. They are associated with the role of amenities, refer to Chapter 2 Open public space. It provides places for users to rest and pause from their routine. Thus having a direct correlation to the length of time users stay in the space.

This is also relevant to the arrangement of shelter during certain times of day and different seasons. In order to lengthen the time spent in these spaces it is important to consider relief from or access to the sun. A time lapse study, done by Howitz and Klien in 1977 (Carr et al. 1992:222), traces the patterns of people sitting on outdoor public steps. The film depicts the moving path of the sun which defines the positions in which the users choose to sit. By understanding the site specific climate, comfort can be achieved by manipulating the space to utilise sheltering elements which respond to weather.

Another crucial function of comfort and relaxation is access to seating. Gehl (1987:162) refers to it as ‘sittable’ space which is a prime attraction in a public space. The orientation and placement of seating is essential in creating physical, social and psychological comfort and enabling opportunities for related activities such as reading, talking, resting and privacy (Whyte, 1980:222).

Comfort also requires a sense of security and protection from perceived threats and exposure. A key to achieve this involves creating openness and visual access within the spaces. Visibility barriers are a cause for safety concern and can become a reason for users to avoid the space (Carr et al. 1992:232).

3.3.2. PRECEDENT: THE HIGH LINE

NEW YORK, JAMES CORNER FIELD OPERATIONS ANS DILLER SCOFIDIO + RENFRO INAUGURATED 2009

<http://www.thehighline.org/>

Function Theory

The High Line is a park built on the historic, elevated freight railway tracks running through Manhattan. The last train to use the High Line was in the 1980’s after which it was scheduled for demolition. A community group, ‘Friends of the High Line’, was formed to campaign for the line to be preserved and reused public open space (Smith, 2013).

The park is 1.6 kilometres long featuring different sectors of landscapes and activity (Fig. 3.10). It has numerous entrances along the park and access to the High Line shop, food and beverages, restrooms and elevators. It is designed to provide a comfortable outdoor experience. The programme also includes guided tours of the park, art exhibitions and workshops to foster productive dialogue with the community and urban context, field trips and festivals (Friends of the High Line, 2014).

‘It is important to look at what is happening on a human scale. It is important to have more social cities, develop community gathering and raise quality of intervention in design.’ (Nancy, 2013)
The function to specifically create open space which is dedicated to the pedestrian user by focusing on elements such as seating, views and visual access to the environment, and multiple options for public use.

The designation of way finding through the use of paths, nodes districts and visual access to the city landmarks is important to communicating location and orientation which makes for comfortable navigation.

The project has been a real success in the effort to redevelop the surrounding area and providing public space for its community (Nancy, 2012). It features many public functions such as seating, open and secluded, designated pathways with views of the park, cityscape and The Hudson River (Fig. 3.12). It also includes interactive elements such as a rotating beam, periscopes and talking and viewing tubes (Mullaney, 2014).

The designers of this park have created a public space focused providing experiences for pedestrian users to interact with the city and each other. It is supported by the Friends of the High Line organisation who ensure that it is maintained and constantly offers new activities and entertainment (Friends of the High Line, 2014). The way finding devices are successful in providing information about the spaces, the context and the activities through both the physical devices and that of social media and advertising (Fig. 3.11).
3.3.3. PASSIVE ENGAGEMENT

This category involves an indirect user experience which is achieved by an immediate encounter with the environment. The activities overlap with those of the comfort and relaxation category but require the user to consciously participate in the setting. It is described as ‘indirect’ or ‘passive’ as the user activity is focused on observing rather than doing (Carr et al. 1992:233).

One of the most popular observation activities is that of people-watching. It can range from watching the passing scenes of the pedestrian traffic to the opportunity of watching performers and other activities in the surrounding spaces.

To facilitate these occasions of observation, spatial opportunities are required to encourage staying in the spaces. Gehl (1987:149) refers to staying as a key concept in supporting the voluntary functions of standing and sitting as opposed to the compulsory action of stopping for unrelated purposes. Attractions to these spaces include the use of distinctive physical or natural features and the additions to the aesthetic qualities of the spaces such as public art or landscaping (Carr et al. 1992:234).

The Softwalks Initiative is dedicated to the improving the pedestrian experience in New York (Knitel, 2012). The designers observed the use of scaffolding on raining days for shelter and noticed that on other days they are an obstacle to pedestrians (Fig. 3.13). They used this opportunity to create a ‘do-it-yourself kit’ to let people turn the scaffolding into functional public space which appeal to user desires to sit, chat and appreciate the interesting environments (Chan, 2012). It is a successful endeavour to make the streets of New York more accessible and aesthetically pleasing (Design Indaba, 2013).

‘The lived experience is categorised by immediacy, visceral affects and fragmentary moments that draw on alternative sets of spatiotemporal information.’

Kate Church (Hinkel, 2011:30)

3.3.4. PRECEDENT: SOFTWALK INITIATIVE

NEW YORK, BLAND HOKE AND HOWARD CHAMBERS, 2012
<http://citysoftwalks.com/press/>
The functions of these components are in line with needs of users identified in this investigation. The modular system is a successful way to ensure that the components can be repeated in different locations to achieve the same effect. They also start to create a sense of identity within these otherwise irrelevant spaces.

The idea of using the existing infrastructure to host the intervention aligns within the environmental potential field in which this investigation takes place. The urban context has potential to facilitate public places and activity if considered from an opportunistic point of view.

The initiative was built on three core ideas. The first is that small change can lead to big effects within an urban context. The second is the concept is the advantages of innovation within existing infrastructure. The last is the idea of making place and designing for people in public space (Design Indaba, 2013).

Strategy
This green initiative uses the existing scaffolding as support stations for modular systems of DIY kits which contain parts such as a chair (Fig. 3.15), a counter (Fig. 3.16), planters (Fig. 3.14), screens and lighting. These components are easily latched on to the structures to create fun and lively ‘pocket parks’ (Belsky, 2012).

The components are adaptable, functional and can be implemented on a large scale in any context with the structure to hold them. They provide spaces for people to interact with the surroundings and enjoy experiences which make them part of the city while improving the currently unsightly sidewalks.

Application
The functions of these components are in line with needs of users identified in this investigation.

The modular system is a successful way to ensure that the components can be repeated in different locations to achieve the same effect. They also start to create a sense of identity within these otherwise irrelevant spaces.

The idea of using the existing infrastructure to host the intervention aligns within the environmental potential field in which this investigation takes place. The urban context has potential to facilitate public places and activity if considered from an opportunistic point of view.
3.3.5. ACTIVE ENGAGEMENT

This is a multi-component approach to creating a direct experience in which the users connect with the physical space each of other users, strangers or members of their own groups (Carr et al. 1992:235).

Social activities are an essential component to the success of a public space. According to Gehl (1987:14), these are resultant activities which rely on the quality and presence of others in the spaces. They are a direct consequence of people moving and being in the space. Research by William Whyte (Carr et al. 1992:234) has concluded that some spaces, although social and occupied, are not ideal for interaction. They can be altered by the addition of unusual features or occurrences, such as an entertainer, artist or sculpture which results in ‘triangulation’ whereby that feature ‘provides a linkage between people and prompts strangers to talk to each other,’ Whyte (Carr et al. 1992:234).

‘The character of social activities varies, depending on the context in which they occur.’

(Carr et al. 1992:234)

3.3.6. PRECEDENT: ST GEORGE’S MALL STREET

CAPE TOWN, CAPE TOWN PARTNERSHIP, 2009
<http://www.capetownpartnership.co.za/tag/st-georges-mall/>

The St George’s Mall Street is located in the city centre of Cape Town and has always been one of the main arteries through the city. The street was closed off from traffic in 1992 to become a dedicated pedestrian street (Fig. 3.17). It is now a thoroughfare which connects Foreshore to the Company gardens (Grove, 2010).

This street relatively long, spanning several blocks with retail and commercial buildings on its edge. It is in walking distance to public transport routes and residential areas. The mall provides a wide variety of stores which spill out into the street. It also hosts many restaurants, informal traders, art galleries and users are kept entertained by the variety of street performers, including dancers, drummers and artists (Taj Cape Town, 2011).

The lively activity of the street is extended to the road sides and alleys which makes travelling through the space a complete experience a defined sense of place (Apple, 2010).
This is an example of a successful public street in the South African context. It is clear that facilitating outdoor space is important to promoting the use of these streets. The use of functions, such as the informal traders promotes activity and interaction while also contributing to the identity of the place. This is further achieved by the use of art and performance in the spaces to keep users entertained.

The retail topology of this precedent is significant to this project and proves the potential for using the street to create occupation opportunities which improve the success of the adjacent business.

**Strategy**

The strategy for this public space is outlined by the Cape Town Partnership group which aims to capitalise on the users who look for places to ‘chill out’ by creating a high quality urban environment to become a destination for locals and visitors (Grove, 2010).

They place emphasis on the need for activity on weekends and after hour times to promote the use of these spaces (Fig. 3.19).

Access and security are key factors in sustaining the activity while well managed, cleansing and urban management are necessary to achieve the desired experience of the public spaces (Grove 2010).

**Application**

This is an example of a successful public street in the South African context. It is clear that facilitating outdoor space is important to promoting the use of these streets.

The use of functions, such as the informal traders promotes activity and interaction while also contributing to the identity of the place. This is further achieved by the use of art and performance in the spaces to keep users entertained.

The retail topology of this precedent is significant to this project and proves the potential for using the street to create occupation opportunities which improve the success of the adjacent business.
3.3.7. DISCOVERY

Discovery serves as an investigation of public space based on the need for stimulation and enjoyment. It occurs on the edge and in between spaces designated to other activities. This category does not necessarily provide distinctive activities but rather satisfies the human need for exploration and curiosity. The movement of users through these spaces is the significant experience which is required to capture and sustain their interest (Carr et al. 1992:238).

These interests can be satisfied by the influence of spatial qualities on a user. The planning of physical elements within these spaces can provide the user with a sequence of changing vistas and contrasting views which, as observed by Krier (1988:24), create a sense of anticipation long before reaching the interior.

‘It is not enough merely to create spaces that enable people to come and go. Favourable conditions for moving about in and lingering in the spaces must also exist.’

(Gehl, 1987:131)

‘If the edge fails, then the space never becomes lively.’

Christopher Alexander (Gehl, 1987:152)
Comfort and relaxation are basic needs which users will instinctively look for in a space. The ability to naturally pause and sit or stand to observe your surroundings while feeling secure is fundamental in public space. This can be achieved by dedicating certain space to the user, with various options of shelter from the elements, and providing visual access to the environment. The intervention site holds potential for these activities as the street sidewalks are broad and have overhangs to provide shelter with visual access to most of the street.

Passive engagement involves comfort and relaxation but requires participation within the space. The main activity identified in this category is that of people watching. In order to do this places for staying are required. This can be achieved through the use of the existing space and infrastructure to encourage users to participate in the space. The use of a modular and adaptable system is successful in that it can be moved and changed by the tenants to create diversity and excitement in the space.

Active engagement is all about the social activities. These are always changing and are not necessarily planned but impact the use of the space to a great degree. These interactions can be promoted by providing open spaces for people to occupy and encouraging social events and entertainment. A key activity in the South Africa context is that of informal traders and markets. They bring colour and life to a space, attracting users from all sides. The retail typology of hair dressing in the Sunnyside context is very popular and acts as a catalyst to social interactions. The customers tend to bring others with them and sit in the street to wait. This can be capitalised on as a source for user participation if activities in the nearby spaces are available.

Discovery is an intuitive activity for moving through and investigating the environment. It requires spatial sequences to be different and to lead to the next space. They are significant in highlighting thresholds by giving the user visual connections to new spaces which can be achieved through the use of changing vistas.

Interaction can achieved through many spatial and social considerations. It is underlined by the understanding of the user needs in particular places and providing the facility for them to act accordingly.

The Sunnyside context is full of potential for these interactions which have already started occurring in other parts of the street. By designing spaces specially for activities such as places to sit, tables to work and play and informal trading stalls, in the right locations, the existing users will naturally interact and participate in all spaces they can.
This phase concerns the ‘role negotiation’ between pedestrian users as potential consumers and their engagement with the retail spaces and functions. It is the intention of this intervention to facilitate the threshold of these spaces to optimise this engagement and promote a sustainable relationship.

The spatial organisation of elements within these thresholds realises the functional requirements of the retail tenants (refer to Part 2 Identity) which includes the potential for user occupation of their stores in order to supply their services. To do this involves redefining the physical boundaries of the retail spaces as well as the influence held over the perceived edges and exterior spaces.

The activities identified for cultivating the initial interaction along these adjacent exterior spaces are important in creating the sequential experience leading up to the interior. They should be considered to inform the retail programme to ensure a continual user experience and provide appropriate destinations.

‘Contact through experience between what is taking place in the public environment and what is taking place in the adjacent [shops] can be a marked extension and enrichment of possibilities for experiences, in both directions.’

(Gehl, 1987:123)
Occupation is one of the main issues with the existing site. The exterior and interior spaces are scarcely populated which makes them seem uninviting and does not encourage new activity. By introducing the experiences and activities outlined in Part 3, the spaces should become active and in doing so create the potential for engagement with the interior spaces.

The increase in public presence needs to be supported by the designation of appropriate exterior experience to adjacent retail activity. This is determined by the proposed categories in Part 3 and the location of activities. The current conditions of some transitional spaces are not organised to respond effectively in identifying the interior functions.

The spatial qualities are essential in facilitating occupation by expressing spaces on a human scale to contrast the large undefined street space (Brooker & Stone, 2010:40). The ability to directly experience the space is related to the accessibility and dimensions of the contained elements. This provides the users with a more comfortable space to engage in and increases the possible perception of surrounding details such as the store advertising and entrances.

‘Occupation’ describes the manner in which a space is used, inhabited and appropriated. This includes issues of habitation, enclosure, containment, organisation and function.’ (Brooker & Stone, 2010:26)

3.4.1. OCCUPATION

3.4.2. PRECEDENT: POP UP CAFE EXPERIMENT

MANHATTAN, RG ARCHITECTURE, 2010
<http://blog.archpaper.com/wordpress/archives/8545>

Function Theory

This programme was initiated in 2010 by the Manhattan Department of Transportation (DOT), to solve the spatial problem of narrow sidewalks in New York. The culture of sidewalk cafes is a very popular feature but is very limited by the space available in the urban streets. The DOT identified potential to reclaim road space and dedicate it to public use (Thoi, 2010). Parking spaces were used to host a platform providing seating, tables and planters located in front of two existing restaurants (Fig. 3.20). The platform was designed by RG Architecture who had previously had success with this type of experiment in San Francisco’s Park(ing) day event.

These ‘cafes’ do not sell any food or beverages but provide an outdoor facility for the consumers of other restaurants in the area. In return for the additional space, the restaurants are tasked with funding and overseeing the spaces (Klayko, 2010). This leads to a very beneficial relationship as the restaurants have more customers and
the space is properly maintained (Fig. 3.21). The occupation of these spaces drastically improved with the implementation of the pop-up cafe and proved to not only serve the local restaurants but other businesses in the area. The owner of the restaurant Fika explained, ‘It’s also the visibility, you can see from far away that something good is happening here’, (Kazis, 2010). The project was very successful to the extent that it was expanded the next year to include twelve sidewalk extensions (Fig. 3.23).

Strategic
This installation is semi-permanent, it is used in the summer and times of the year when pedestrian activity is high and put into storage for the remainder of the year. According to Sadik-Khan (Klanko 2010) the tangible benefits of the pop-up cafes can reach 14% increase in business.

Although the programs are paid for by the private businesses, they are treated solely as public space. Using the space is completely free and supported.

The DOT has developed this program and now provides guidelines for the private businesses to ensure that it functions correctly (DOT .2011). Key points are the signage, accessibility and visual connections maintained with the context. It is very important to make users aware that the space is not restricted to restaurant consumers but free to all (Fig. 3.22).

Application
This precedent highlights the social and economic benefits of spaces being occupied. It is a principle of supplying pedestrians with the space they enjoy, so they can spend money on the businesses which will maintain and continue to provide the space. This relationship should be explicit and exploited to achieve a sustainable relationship between users.

The concept of limited space is not necessarily an issue in the South African context, but the understanding that it is valuable is important to initiate use of these spaces.

‘The concept is simple: street space is limited and valuable.’ (Klayko 2010)
3.4.3. THRESHOLD

This intervention aims to expand the existing thresholds and create a space that introduces the interior retail space while remembering the street experience. A user should feel an association to both spaces and their context while travelling through the threshold as the physical and visual connections are an extension of their functions (Gehl, 1987:123).

The designed elements of a threshold should be informed by the functions of the interior spaces and the street edge. Both sides should influence it to ensure that a balance can be found to enable a sustainable relationship between the two.

The thresholds provide a transitional space for pedestrian users to occupy which satisfies the needs of the retail tenants to promote their business and services. This transitional space is achieved by the manipulation of the elements penetrating the interior and exterior to form a space within a space (Krier, 1988:69).

This focuses the need for the organisation of physical elements to enhance the spatial relationship of the stores to the street.

‘The interior space and the urban space are very closely related. As soon as an architectonic system takes on a physical form, point, line, plane and patterns take effect on the inner and outer surfaces of a system.’

(Krier, 1988:43)

In his book, Architectural Composition’, Rob Krier (1988) identifies these elements in relation to the ‘art of composing spaces’. For the purposes of this project the elements of facades; windows and doorways; and ceiling and floors will be discussed as they form the envelope in which the proposed intervention will take place. These will be considered as the main design elements used to contribute to solving the needs of the retail tenants and spaces.
Facade

The facade is a ‘built border’ which marks transition from the public exterior to the private interior (Krier, 1988:137). It is an edge determined by the elements behind it which informs the ordering of the space. White (1999:192) refers to facades in urban contexts as ‘enclosing fabrics’ which establish character and contribute to the identity of a place.

As a principle in this intervention, the identity is an important factor in establishing the site as district (refer to 3.2.1. Orientation page 41) within its urban context. This role of the facade is taken further by Buchanan (1988:205) who suggests that facades should not only enclose space and express the interior but also address and articulate exterior spaces to create ‘outdoor rooms’. These rooms provide defined space for the cultivation of interaction and user occupation.

The composition of a facade shapes the character of the adjacent spaces and determines the level of influence. By ordering a facade as a collection of smaller intermediate sections, elements such as windows can be articulated to frame spaces on the interior and exterior which become separate inhabitable places (Buchanan, 1988:206). This creates an opportunity for a rhythm based on the proportions which can be used to create focus points.

The level of focus placed on the facade details is influenced by a user’s reasons for looking at it (White, 1999:192). If these reasons extend beyond the basic action of noticing the facade and include opportunities to engage with it, the level of attention significantly is increased which further exposes the functions of the interior spaces.

Fig. 3.24: Facade concept sketches
3.4.4. PRECEDENT: STOREFRONT FOR ART AND ARCHITECTURE

NEW YORK
STEVEN HOLL ARCHITECTS, 1993

Function Theory

This facade renovation completed by Steven Holl Architects intended to puncture the facade and introduce questionability to the idea of the site. By opening the gallery to the exterior in such a manner the narrow interior space exposed to utilise the facade as part of the gallery (Fig. 3.27). They attempted to break down the isolation from the public and the misconception of art as an exclusive field. The functions of the store includes exhibitions and series event based programmes to expose the idea of architectural, artistic, social and political ideas (Storefront, 2013).

The design uses only the facade planes to create numerous possibilities for direct interaction with the space on both sides (Fig. 3.25). It is dynamic in the sense of character to adapt to the interior functions and become part of the exhibition which is pushed into the street. The project uses a system of twelve panels that pivot open vertically or horizontally to the street (Fig. 3.26). These planes offer different functionality to users from either side which visually and physically connects the two.

'[Holl] considers how meaning is assigned to an environment and how this meaning may not be embodied in the environment but merely in our perceptions of it.'
(Coates, Brooker and Stone, 2009:125)

Strategy

The programme of art, exhibition and publication is meant to generate a dialogue and collaboration across geographic, ideological and disciplinary boundaries (Manning, 2010). It serves as a public forum to create awareness and interest in contemporary design. The street facade clearly indicates the current situation within the interior and encourages opportunity for public to engage with it, without having to enter the space. Seating and other services are provided by at the discretion of the tenant.

The spatial qualities of the interior are directly influenced by the exterior (Fig. 3.28). The space is visually extended which improves the user comfort and connection to the outside. The moving planes create changing views for users and opportunity for the artists (Fig. 3.29). The idea of user psychology also plays a role in the in the character and qualities they associate its success as a place (Brooker, Coates, Stone, 2009:125).
This design uses physical, social and programmatic perspectives to achieve a connection from the interior to the exterior. The meaning and identity of the places is successfully rooted within these perspectives.

It combines various activities within the facade and gives users the option to naturally interact with the spaces created.

It serves both the interior and exterior needs in one simple spatial design benefiting all users involved.
‘The conception of an interior space, every opening, whether door or window, means the violation of a wall. These violations however, give the room its direction and its appropriate meaning.

(Krier, 1988:96)

Windows and doorways

Windows serve the needs of the pedestrian and interior user by framing parts of the environment to form constantly changing pictures. They are connective devices which visually link the interior space to the exterior. They also perform practical functions that apply to the needs on the interior spaces as a source of light and outdoor air, which can be manipulated to enhance the interior atmosphere.

There is a user desire for windows to provide interaction and intrigue and to inform of the functions on either side rather than producing mere blank reflections (Buchanan, 1988:205). This adds a layer of functionality to the window and the facade in which it sits. It offers opportunities to support the need for exploration and stimulation (refer to 3.3.7. Discovery page 56) by providing views into new spaces.

Doors and entrances are part of the threshold which allows movement from one space to another. They can be obvious and direct as through one specific spatial opening or they can be intermediate approaches such as a corridor.

A space can be significantly influenced by the spatial proportion of an entrance or doorway, as observed by Gehl (1987:144), the experience of a large space is amplified when the entrance approach takes place through a small space. They prepare the user for the expected change in spatial experience when users According to Cullen (1961:182), users have an instinctive habit to relate the position of their body to the environment they are in. This behavioural characteristic is applicable to the experience of entering new spaces as it elicits a conscious reaction to the new situation. This reaction can be exploited as a tool through intentional design of thresholds to passively draw users into new spaces.
‘Planes define and organise in that they control the visual and physical limits of a space.’

(Brooker & Stone, 2007)

Ceilings and floors

These elements are considered by Krier (1988:88) to be the most important surfaces of an interior space. They are a form of container which have the potential to emphasise or imply spaces through their structure and surface treatment.

These inform the spatial qualities of a design from the interior to exterior while constructing a platform on a human scale. Using the separate planes of the ceiling and floor can create directional clues and promote progression through the space.

The ceiling as a spatial element controls the height and proportion of the volume experienced by a user and can explain the hierarchical order of functions along a buildings edge (White 1999:193). As a structural plane, a ceiling can be used to provide shelter and passive comforts while being a host to practical services such as lighting, HVAC and signage systems.

The floor has a significant impact on the physical and perceived experience of an environment. The form of the floor plane is responsive to other architectural elements in terms of the dimensions, level changes and entry positions within the facade (White 1999:193).

The surface can be used to define the boundaries and transitions of functional spaces such as the interiors, paths and in-between through the use of varying materials. These materials applied over a large scale will affect the character and identity of a space as a fundamental element a user’s field of vision.

Fig. 3.31: Ceiling and floor concept sketches
3.4.5. PRECEDENT: PARKHURST HIGH STREET SHOPS

JOHANNESBURG
KATE OTTEN ARCHITECTS,
2011

Function Theory Typology

This project titled ‘engaging the edge’ was designed as part of the renovations of Parkhurst, Johannesburg. It is in reaction to the development on the high street which saw many residential houses converted into shops, boutiques and street side cafes. The area now has its own urban culture within the suburbs.

The focus of the project was to create a distinct edge between the boundaries of the residential and retail spaces. The use of the walkway roof canopy (Fig. 3.32) emphasises the movement sequence along the street and joins the separate structures into one complete edge (za_architecture, 2011). The intent is to provide pedestrian accessed shops which rely on the experience rather than a ‘car-centric’ model of retail.

Strategy

The space is realised between the set back houses and shops giving the street edge an appropriate scale. The canopies are placed at a higher level to allow proper signage and ensure greater visibility while creating visual clues to the entrances of stores by polycarbonate panels allowing light to fall and indicate location of the doors along the street edge (Fig. 3.33).

The ceilings on the interior have been removed to expose the trusses and building structure (Fig. 3.36). The structural framework of the roof is used to emphasise elements, such as corners and joints, and to hide services. This framework is repeated as security gates to the entrances but as it relates to the rest of the building, it is not offensive or overpowering (Fig. 3.38).

Entrance courtyards are created at intervals to draw users from the street into smaller, intimate areas filled with planters and seating for a comfortable experience (Fig. 3.37).

The design uses innovation to speak to the new environment of the Parkhurst, and has been described as ‘a suburban street with an edge’ (za_architecture, 2011).
Chapter 3: Part 4: Spatial Engagement

The design imposes an identity for the entire site by the materiality, details and signage provided. It is very clear once you have stepped on the sidewalk that you have entered a designated space.

The large window displays then give tenants space to advertise their individual identities and make the most of the daylight available.

The site appears to be well maintained and looked after as a singular space.

Application

The design imposes an identity for the entire site by the materiality, details and signage provided. It is very clear once you have stepped on the sidewalk that you have entered a designated space.

The large window displays then give tenants space to advertise their individual identities and make the most of the daylight available. The site appears to be well maintained and looked after as a singular space.
Experientially, spatial volume, building facades, free standing elements, and ground planes are perceived holistically, dynamically. Our understanding of a place is composed of moving and stationary perspectives that register elements and qualities in a rapid succession of immediate experiences, immediate memories, and immediate expectations.'

(White, 1999:193)
This phase is concerned with the consolidation of all the social and spacial theories into an environment to provide a single, holistic experience. This experience should leave all users with a sense of recognition to which an environmental image can be associated (Lynch 1960:7). It is the memory by which users will recall and evaluate their experience.

For the pedestrian user, the evaluation of this experience is an influential factor in their commitment level to the place. This commitment will determine the likelihood of the users to return to the space which in turn affects the overall occupation of the spaces.

The retail spaces and tenants depend on the occupation of spaces by the pedestrian users which means their evaluation of the experience will be based on the reaction of pedestrian users to the stores. The level of commitment dedicated to the success of these spaces will be influenced by the ability to continually adapt to the needs of pedestrian users.

INTRODUCTION

The environmental image plays a crucial role in the creation and maintenance of a sustainably successful place. It is explained by Lynch (1960:8) as consisting of three components:

- ‘identity’ as being distinct from other things, its recognition as a separable entity;
- ‘structure’ as a spatial or patterned relation of the object to the observer and to other objects; and
- ‘meaning’ object must have related meaning to observer, whether practical or emotional.

Edward Relph (1976:105) takes this theory further by adding subcomponents to the experience of an identity as distinctive focuses:

- ‘physical component’ being a built or created environment which offers its own characteristic possibilities for experience; and
- ‘activities and function’ as being creative or destructive or passive and being communal or individual.

This, however, does not constitute a complete analysis of the components, as the less tangible component of ‘sense of place’ must also be considered (Relph 1976). This is the abstract character of the space which connects the other components. It is difficult to analyse this concept but as Relph (1976:106) states, ‘at the same time it is naively obvious in our experience of places and constitutes the very individuality and uniqueness of places’.

These components are identified separately in the attempt to analyse the environmental image of a city but in reality they are all interrelated in one place and form a single perspective view of an experience.
SUMMARY

The environmental image is the experience a user takes and remembers the place by. It is essential then, to the sustainability of the retail business, that this image be a positive one. By creating a specific identity and relating it to the functions and activities participated in, the user can construct a holistic and strong memory of the site.

Sunnyside does have a sense of place as a whole but when experiencing individual stores and spaces their identities are unclear and do not provoke a strong image, this can be improved by implementing the previously mentioned activity categories and ensuring they correspond to the intended identity, structure and meaning.

‘Changing or interrupting routine behaviours, opening up possibilities and creating different modes of spatial engagement ... these tools are not mutually exclusive and rarely exist in isolation but rather are filters or lenses in considering possible devices to uncover or reveal that which is often rendered invisible.’

Kate Church (Hinkel, 2011:32)
CONCLUSION

This chapter takes a comprehensive look at physical and social needs of pedestrian users and retail tenants in an urban context. The influence which these have will determine the success of the project.

The addition of the way-finding elements will improve the user understanding of the context by providing informational clues as how to use the spaces.

Interaction can be encouraged through the use of providing various activities for users which lead to them engaging in functions of the site.

This engagement is promoted by the organisation and design of the physical elements which form the spatial experience.

All of these considerations contribute to the environmental image of the site and by using the tools outline by the Recognition stage can determine the sustainability and success of the intervention.
INTRODUCTION

A site analysis looks at the typology, structure and spatial qualities of each building to understand the significance of the space the design will occupy. This leads to the classification of problems and potential which inform the approach to the intervention.
INTRODUCTION

This site analysis identifies the typologies found along the entire site and provides the general plan of the spaces, outlining the movement and orientation of the site. Each building is then approached separately, describing the programme and providing insight to the atmosphere by explaining the current functions, systems and a spatial qualities. The spatial volumes and daylighting are also described.

This is followed by a description of the problems and opportunities of the existing site which are described using the intervention strategy model from the previous chapter as intervention principles for the investigation of this project.
STRUCTURAL SYSTEM

The three buildings have similar structural compositions. Column and slab construction are the core structures with the services located on the back elevation serving ground and upper floors.

This intervention will focus on the ground floor. The existing facade and some internal walls will be removed and replaced with new work. The materials being removed can be reused for the new work.

4.1.1. STRUCTURAL SYSTEM

The three buildings have similar structural compositions. Column and slab construction are the core structures with the services located on the back elevation serving ground and upper floors.

Masonry walls cover the back and sides of the buildings, while the front facades are composed mainly of windows and the ground floor of glazed shop fronts.

4.1.2. EXISTING SITE

SIGNAGE

As a pedestrian arrives on the site, there is no indication what stores or services may be available other than the individual signage. The direction and height of this signage is a problem as it is aimed at the motor vehicles and not easily accessible to the pedestrian users along the path of movement.

The signage in most storefronts is overwhelming in content, colour and text. When walking past it tends to blend together and become insignificant in communicating the function of the interior.

Confusion is also caused by incorrect signage which occurs as a result of the change in function or closing of stores and the signage is not removed or clearly indicated.

ORIENTATION KEY

- Paths
  - The existing path is located parallel to the street edge and is the main movement of the site for pedestrians to travel to other places.

- Edges
  - The edges of the building follow a line except for the open space and parking entrance.

- Districts
  - The main node on this site are the two street corners. The eastern corner is busier as it is closer to the mall and busy side of the street.

- Landmarks
  - There are currently no landmark features on this site.

- Nodes
  - The site could not be considered a district as there is nothing separating it from the surrounding context.

Main movement on street edge
4.1.3. TYPOLOGY

The intervention site consists of the ground floor of three buildings, Naledi, Alan’s Place and Sunny Rock, located on Robert Sobukwe street between Greef and Meintjies Street. These buildings have retail shops on the ground floor and residential flats on the upper floors. The following typologies (Figure 2.16) refer to the functions currently found on the site and their influence on the pedestrian users.

**RESTAURANTS**

There are currently six eating facilities along the site. The largest being Dukes Grill Restaurant and Stevovo’s Fast Food and Take Away which are located on the western side of the site. From observation, Stevovo’s restaurant is the busiest during the day and responsible for the pedestrian activity on that corner. The other restaurants are smaller take away stores which have customers around lunch and later afternoon. These restaurants currently offer seating for customers on the interior and in some cases a few tables outside, such as Dukes Grill which provides outdoor seating. These areas do create some communication and thresholds towards the exterior users but feel isolated and do not cater for users that are not consumers.

**INTERNET AND COMMUNICATION PROVIDERS**

There are a large number of internet cafes along Robert Sobukwe Street which offer various services such as internet usage, public phones and copying facilities. These stores have many customers and it is clear that it is an important service to many of the people in the area. This function is limited to the interior spaces and does not provide much advertising or communication to the pedestrian users.
HAIR AND BEAUTY SALONS

This service is definitely significant to the area based on the amount of these stores located along the entire street. There are currently four hair and beauty salons on the site which account for most of the activity and colour encountered along the street. These salons have customers inside the store with others waiting outside as there is not enough space, however there is no seating to accommodate them. These stores have the potential to provide anchor spaces which are occupied and stimulate public activity.

FASHION AND ACCESSORIES

These stores are the smaller but have high turnover. They do not have essential services and are limited by size making competing with the mall difficult. The appearance and advertising of the stores is restricted and has little impact on the user experience. The store boundary is limited to the facade which does not provide any transitional space but a direct threshold. This type of threshold prohibits chance explorations of stores as it forces a conscious decision to enter the space. The products offered by these stores are not essential which highlights the importance for bringing in chance users to sustain the businesses.

GENERAL STORE

There are three of these stores providing food and general supplies to the surrounding community. This is an important service catering for many of the residences in the area. These stores have the same distinct thresholds as the fashion and accessory stores but due to the nature of the products sold, they provide necessary services to many residential user in the area and do not rely on attracting passing pedestrian users.

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4.1.4. NALEDI

General access routes

Entrances are located on the front facade for public and the back for private use

Visual barriers

Building facade

Ventilation fans

Services

Typical movement occurs along the street edge

Fig. 4.5: Naledi general plan
1. East view of building
2. Facade materials
3. Windows on upper floors
4. Building corner
5. Ground floor facade and street view
6. Sidewalk and level changes
7. Stevovo’s entrance
8. Stevovo’s exterior seating
9. View down Greef Street from street corner
10. Interior of Internet shop
11. Interior Cell store
12. Sidewalk
13. Ceiling overhang and facade

Fig. 4.6: Naledi
The proportions of the sidewalk and overhang are well suited for providing shelter along the edge of the facade.

It does not however provide space to stay as it causes obstruction of the walking path. There are no other sheltered spaces for this function.

**Daylighting**

A day lighting study was done using a model of the existing site. These figures show the typical situation of interior light during the summer and winter solstices.

The interior spaces are very long and so are not fully lit by natural light. They require additional lighting depending on the retail function.

The current overhang is sufficient in limiting the light and heat gain in summer and introducing it in the winter months. It is suited for the climate of the context.
Spatial Qualities

Facade

Fig. 4.10: Naledi north facade

Fig. 4.11: Naledi spatial qualities
4.1.5. ALAN'S PLACE

General access routes

Entrances are located on the front facade for public and the back for private use

Services

Ventilation fans

Visual barriers

Building facade

Typical movement occurs along the street edge

Fig. 4.12: Alan's Place general plan
The proportions of the sidewalk and overhang are well suited for providing shelter along the edge of the facade.

It does not however provide space to stay as it causes obstruction of the walking path. There are no other sheltered spaces for this functions.

**Daylighting**

A daylighting study was done using a model of the existing site. These figures show the typical situation of interior light during the summer and winter solstices.

The interior spaces are very long and so are not fully lit by natural light. They require additional lighting depending on the retail function.

The current overhang is sufficient in limiting the light and heat gain in summer and introducing it in the winter months. It is suited for the climate of the context.
Spatial Qualities

Fig. 4.17: Alan’s Place north facade

Fig. 4.18: Alan’s Place spatial qualities

Facade

Fig. 4.17: Alan’s Place north facade
4.1.6. SUNNY ROCK

Fig. 4.19: Sunny Rock general plan

General access routes

Entrances are located on the front facade for public and the back for private use

Services

Ventilation fans

Visual barriers

Building facade

Typical movement occurs along the street edge
Chapter 3: Part 2: Urban Exploration

Chapter 4: Part 4: Sunny Rock

Fig. 4.20: Sunny Rock

1. West corner view
2. Overhang structure
3. Facade materials
4. Windows on upper floors
5. Overhand and windows
6. North corner view
7. East corner and parking gate
8. Exterior seating
9. Damage to drainage
10. Chi Chi's hair salon
11. Exterior extension of internet store

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The proportions of the sidewalk and overhang are well suited for providing shelter along the edge of the facade.

It does not however provide space to stay as it causes obstruction of the walking path. There are no other sheltered spaces for this function.

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Fig. 4.21: Sunny Rock typical section

Fig. 4.22: Sunny Rock Day lighting Summer Solstice

Fig. 4.23: Sunny Rock Day lighting Winter Solstice
Spatial Qualities

Fig. 4.24: Sunny Rock north facade

Fig. 4.25: Sunny Rock spatial qualities

Facade

Fig. 4.24: Sunny Rock north facade

Fig. 4.25: Sunny Rock spatial qualities
4.1.7. BUILDINGS ASSESSMENT

The Sustainable Building Assessment Tool was used to do an approximated assessment of the existing site.

The site scored high on access to facilities due to the assumed implementation of the urban framework and transportation however this does not refer to public amenities such as restrooms and seating which are not present on the site.

The occupant comfort and inclusive environments reflect the lack of control and consideration towards the site users.

The energy, water and waste consumption data is not available however the intervention does make recommendations to implement sustainable solutions.

Education, health and safety are not considered functions of this site but can be accessed through the internet stores.
SUMMARY

Many of the issues on the site have occurred due to bad planning and design and a lack of maintenance. It is clear that the responsibility for fixing these issues has not been taken.

The physical characteristics of the site however offers many opportunities for intervention as the column and slab structure allow the facade to be adapted while the high store turn over has lead to relatively temporary installations which are easily removed and reused.

The current daylighting is sufficient for passive heating and cooling purposes. The interior spaces have the potential to provide successful and comfortable environments with the additions of better lighting and ventilation which is currently not adequate.

The social nature of Robert Sobukwe Street can improve the sustainability of this site if the users are specifically designed for.
INTRODUCTION

This section discusses the site in terms of the phases of the intervention strategy. The aim is to outline the problems and potentials and how they can be used as intervention principles. These principles establish the framework for the design intervention and provide guidelines for the required changes to the site.

4.2.1. WAY FINDING

ORIENTATION

The linear nature of the site is associated with the movement of users, motor vehicles on the street and pedestrians on the sidewalk. The paving indicates this by providing a path from one street corner to the other which is defined by the difference in surfaces and the use of bollards. This establishes a route along the site and functions as a barrier to prevent motor vehicles from parking on the sidewalk. These are typical elements found in this type of context but the placement and execution are an issue on this site. The bollards are located too far into the sidewalk which disconnects the movement and relation of the storefront to the pedestrian path. This creates a perceived barrier and does not encourage the pedestrian to leave the main path and explore the site. The paving surface has not been maintained and the poor addition of drainage channels makes it uncomfortable and hazardous to users.

SIGNAGE

As a pedestrian arrives on the site, there is no indication what stores or services may be available other than the individual signage. The direction and height of this signage is a problem as it is aimed at the motor vehicles and not easily accessible to the pedestrian users along the path of movement. The signage in most storefronts is overwhelming in content, colour and text. When walking past it tends to blend together and become insignificant in communicating the function of the interior. Confusion is also caused by incorrect signage which occurs as a result of the change in function or closing of stores and the signage is not removed or clearly indicated. This immediately reduces the public’s interest in the space.

IDENTITY

The constant changing of the stores and functions within the rentable space provided limits the ability to form a retail identity within this urban context. The standard glazed facades create a visual barrier preventing any connection with the interior spaces. There is no distinct originality or character about the built space to attract people or create a memorable place which is a problem on Robert Sobukwe Street as a whole.

By comparing the current condition of the stores to a Google street map from 2009 (Google Maps, 2009), it can be deduced that in the last 5 years, three quarters of the stores on this block alone have closed, changed or been rebranded as something new. This occurrence alone is not the source of the issue but rather the superficial changes to the stores which can go unnoticed by the pedestrian user. If the replacement stores are not clearly identified they will not become a specific destination. This further detracts from public attention and hinders any development towards a retail identity.
4.2.3. ACTIVITIES

The existing activities in the public space of the site are limited to the outdoor seating of the restaurants, these are however closed off for customers only. No other seating is provided along the street. There is an informal traders stand on the corner of Greef and Meintjies but it is not in regular use. The site does not provide any public restrooms, except in the restaurants which are reserved for customers. Refer to “2.2.2. Open public spaces” on page 24.

There are no other spaces designed to facilitate activities, but the amount of space available on the site leaves potential to intervene.

4.2.2. THRESHOLDS

FACADES

The corner diagonally across from the mall is decisive in attracting the public from the eastern side of the street. The corner diagonally across from the DTI is visible from the A Re Yeng bus station and forms part of the route to entering Robert Sobukwe Street from the station. It is currently very quiet and isolated. The barrier created by these corners is significant in attracting users from other parts of the street. They also set the tone for the remaining store fronts along the building line which form a solid and overpowering barrier.
The buildings all have overhangs along the facades which protect the interiors from sun and provide shelter for the public from the weather. They span approximately 1.5 m - 2.0 m over the pedestrian walkway and provide an element of transition towards the interiors. This provides a temporary sheltered threshold but does not offer space for users to occupy for longer periods of time without being in the way of the store entrances or walkways. Therefore there is no place for lingering or public gathering without disturbing others during hot or rainy periods. The street gradient slopes down to the western side causing level changes from the sidewalk to interior spaces. These floor changes vary between different stores and become a difficulty in that they are not all clearly defined or marked. Some stores have exterior steps to allow for the difference in floor levels. This starts to create a transitional threshold however they are not well considered.

CEILING AND FLOORS

Some raised areas have a ramp to access the stores; however there is a second step to take when entering the interior, making the ramp insufficient. The paving on the sidewalk is uneven and damaged. It does use different materials to distinguish the user paths in some places.

Fig. 4.31: Facade barriers

Fig. 4.32: Floor level changes

WINDOWS AND DOORWAYS

The storefronts are composed of glazed panels and double door entrances in the centre of the stores. The stores do not have any openable windows or control over the interior climate. The entrances to the stores are not emphasised in any way. The facades will be removed and these elements will be incorporated into the new design as part of the main focus.
SUMMARY OF PRINCIPLES

WAY FINDING

Orientation
The site has existing paths and nodes along the street edge. The district of the site block is not clearly separated from the context and contains no distinguishable landmarks. The facade edge of the building does not provide opportunity to view the interior spaces and creates a visual barrier.

Signage
There is no navigational signage on the site. It only has the individual signage of the stores which is not clearly indicate the function.

Identity
The retail stores do not convey and identity to the pedestrian users on the individual level or the site scale.

ACTIVITIES

Comfort and relaxation
The site provides a limited amount of shelter and pausing spaces. It does not provide any available seating for observing the context.

Active and passive engagement
There are no dedicated spaces to facilitate interaction. The site has an informal trader stall which is inactive due to the lack of users in the area. The site does encourage participation in any spatial form.

Discovery
The edges of the current facades do not offer any changes or sequences. The straight line allows a user to view the end of the street with no interesting objects to catch attention in between. This can become boring before the corner is reached.

THRESHOLDS

Occupation
As there are no activities along the street the spaces have no reason to be occupied. Few people used the bollards on the street to sit and wait for customers of the hair dressers.

Facade
The facade is a single plane separating the interior from the exterior. In contrast to the lightweight glazing, the overwhelming signage in the storefronts create a solid visual barrier.

Windows and Entrances
There are currently no windows and the entrances disappear into the barrier of the facade minimizing the engagement of the space.

Ceilings and Floors
The existing ceilings and overhangs are adequate in providing an outline of the building edge and providing spatial definition on a human scale but have the potential to offer more influence over the threshold and orientation of the site. The floor levels from the interior to exterior are different and do not promote movement away from the street edge.
CONCLUSION

The site analysis identifies the general typologies of the site with a closer look at each building in terms of their programme and systems, spatial qualities and daylighting.

The problems of the site are identified in terms of the intervention strategy to provide the outlines for principles used in the intervention design in the next chapter.
5.1.1 WAYFINDING

ORIENTATION

The main path will not be changed as it is a pedestrian route but the spaces around it change and enable the development of new secondary paths of movement.

The edge of the buildings have been changed to facilitate exterior spaces of shelter and to create variation for users to explore.

The original nodes are still in place but the addition of the extended ceilings and edge changes have made way for smaller activity nodes to form within the site.

Landmarks have been added to the upper walls of the buildings enclosing the open space and the western corner. The use of art and media will be used to create the attractions.

The entire block, a single strip centre now becomes a district separated in part from the street.

SIGNAGE

Fig. 5.1: Orientation Plan 1:200

Fig. 5.2: Orientation and directional signage

Fig. 5.3: Identification signage

Fig. 5.4: Orientation Plan 1:200
RETAIL

The retail identity is an important element in obtaining a sustainable retail environment. Users need to be able to clearly distinguish the function of a store from the pedestrian sidewalk to determine if they will enter the space. This concept drove the design to consider different approaches to identifying the stores by means of signage in the visual sense but also the spatial context relating to the stores. This context is determined by the transitional spaces and governs the user experience.

The retail store display entrance uses a corridor in which a user becomes part of the interior by proximity to the open entrances. The retail facade display provides a direct visual connection to the interior of the store, creating an immediate understanding of the function and identity.

Service stores utilise the social nature of certain functions, such as the hair salons, as key points to attract users and provides seating to encourage lingering. The restaurants are highlighted by the available public seating at the entrances. These are existing points of interest on the site and are improved to handle larger numbers of users.

The material strategy for this project comes is based on materials that were found on the site and the surrounding context. Many of the older buildings are being renovated and traces can be found of previous materials such as the mosaic tiles but they have been chipped away and replaced. The DTI building has bought some of this back in the details of that site. This strategy will be to incorporate these with the some of the previously found materials on the site. The sidewalk will remain the material that it currently is however with adjustment where needed to facilitate the design and fix the bad condition it is currently in. This is determined by the Streetscape Design guidelines set out by the City of Tshwane.

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CHAPTER 5: PART 2: CULTIVATE AND CONSERVE INTERACTION

5.2.1 ACTIVITY CATEGORIES

Fig. 5.14: Activity map
5.2.2 PROGRAMME

Fig. 5.15: General Plan 1:200
This shopfront provides users with a clear indication of the interior function and current events through the use of moving shopfront elements.

During operating hours the stores open the facade to create a corridor of screens which line the exterior pathway. This is combined with the receding movement of the corresponding display cases to the interior creating a space between the interior and exterior.

When the stores are closed the elements are returned to a linear facade position. The screens become a security barrier for the internal display cases as they can be opened and used by the store for merchandise shelving.

The screens lining the corridor have the potential for advertising and outdoor sales for the stores. This configuration pushes the boundaries of the space and extends the retail presence to the exterior.

The corridor is extended from the existing step to align with the edge of the designated pedestrian walking space. The intention is to create a distinct user decision to engage or not, by presenting the corridor, and by association, the transitional space to the retail as a direct alternative.
CHAPTER 5: PART 3: SPATIAL ENGAGEMENT

Supply and fix Luxalon® Multi-Panel System as manufactured by Hunter Douglas Architectural Products.

The system will consist of box-shaped linear panels fixed to an adjustable suspension system which allows for individual panels to be removed by hand. System to feature open joins between the panels that can optionally be closed by clipping in join profiles.

Luxalon® Multi-Panel Ceiling, featuring a 20 mm open join and consisting of:

- 130B, size 130x15 mm, rollformed from 0.6 mm Aluminium strip
- 180B, size 180x15 mm, rollformed from 0.6 mm Aluminium strip

JOIN PROFILE
Recessed U-shaped join profile, width 20 mm, manufactured from 0.2 mm Aluminium. Join profile to allow for easy clipping into the open joint, without the use of additional tools.

SUSPENSION
Rows of 0.5Fe/0.95 Alu rollformed carriers shall be installed centre on centre by means of adjustable suspensions. Carriers will be joined by means of carrier splices. Carriers provided with prongs to hold panels in a module which is a multiple of 50 mm.

COATING
The coating will consist of a tough and durable 2-layer polyester finish in nominal thickness of 20 microns, applied in a continuous coil-coating process ensuring uniform coating and absolute adhesion.

All materials shall be installed in strict compliance with all local codes, ordinances and manufacturers recommendations including specific additional requirements as may be called for in the specifications or shown on the drawings. (Hunter Douglas, 2014)
The lighting strategy for this intervention is based on testing a revit model of the existing site and an analysis of that model using the LEED Daylighting Analysis tool. The programme of each space, including exterior paths and open space, determined the lighting requirements. This plan indicates an example for retail and restaurant situations with the placement of lighting in the transitional spaces as permanent features of the site, to be maintained by the owner.

The retail tenants will have control over the final decisions and luminaires used in the furnishing of their rented store space. The use of the panel ceiling makes the installation and maintenance of the lighting a limited but simple process. This is a response to the existing conditions of the lighting.

The use of downlighters along the path and under the benches is aimed at creating ambient and general light for evening and night times as general street lights are not desirable to the residential tenants of the upper floors.
5.3.2 OCCUPATION

OUTDOOR ROOM

The facade of this section is pushed to the limit of the sidewalk to create an outdoor room. The pedestrian path crosses through the space and forces all users to enter the transitional zone and become an active member of the space. The store entrances are recessed to allow for more space and a connection between the functions.

The provision of seating encourages users to remain in the space the service of the hair salon promotes activity in the space. This becomes an occupied space and acts as a catalyst for other activities.

The screens forming the edge of the space are permeable mesh screens that allow for visual connection to the rest of the urban context while enclosing the space. These screens also have the potential for advertising to pedestrian users as well as the passing motor traffic.

The storefront displays as one approaches this space are designed to provide vistas into the retail spaces by the use of rotating windows. These not only provides further connections from the exterior but improves the retail tenants control over the interior environment.

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The stores are very narrow and deep and only have openings on the front facade. This limits the potential for natural cross ventilation, however new windows and openings have been introduced to provide the stores with outside air and a degree of control over the environment.

The installation of individual air conditioning systems will allow each stores requirements to be met.

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5.3.3 TRANSITIONAL SPACES

FOLDING FEATURES

This corner of the site will be activated by the introduction of the public transport and should become a hub for activity and information. The retail space has been reduced to make space for these possibilities with additional functions such as designated seating, market stalls and multiple screens for informational signage. The space provides shelter and activity for users to encourage interaction and active experiences.

Seating is provided as part of the storefronts and serves the function of security as well. The retail tenants have control over the seating opportunities which adds a layer of communication between the interior and exterior users. The screens fold down when the stores are open to create the seating and visually open the storefront.

Public restroom services are inserted on this corner to cater for the bus and pedestrian users as there is no other existing facilities in the area.
FOLDING FACADE

Fig. 5.45: Folding screen elevation 1:20

Fig. 5.46: Folding screen plan view framing 1:1

Fig. 5.47: Folding screen section 1:20

Fig. 5.48: Folding screen section detail pivot and joints

Fig. 5.49: Folding screen elevation detail 1:1

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This dissertation considered the relationship between interior, retail spaces and the exterior, public street and how they can be connected through an intervention to provide spaces for social occupation that promote sustainability.

The urban framework in which Sunnyside fits is proposed as a catalyst aligned with the aims of improving the economic and social growth of the area. The existing culture and functions of Robert Sobukwe Street are identified as having the potential to support the objectives of the intervention.

The social behaviour of users is utilised as a tool for an intervention strategy by developing a spatial model based on the theory of Socialisation. This model explores the sequential phases of experience for users interacting with the site. The user needs identified through the theory provide the guidelines for the analysis of the site and the determination of the intervention principles.

Way finding devices for orientation with in the larger context of the street and the site itself are used to provide information for users to navigate their experience. This is supplemented by the insertion of a signage strategy to compliment the spatial orientation design. The needs of the retail stores are used to create an identity to portray the function and provide meaning to the stores.

Categories of activities are applied to the plan of the site to provide an understanding of what experience should occur in each space. These are used to provide spaces for interaction with the site and other users to encourage occupation within the thresholds.

Thresholds are created through the manipulation of the building facade and its adjoining elements. These form the main spatial designs of the intervention. They facilitate the connection between the interior retail and public exterior spaces through the organisation of the windows, entrance, ceilings and floors. The final user experience is determined by the combination of the interventions which form environmental image and as such become the system for the Interface.

This study contributes a new approach to dealing with urban street retail conditions from an interior perspective. It highlights the opportunities for this field to use spatial design as a tool to enhance the experience by considering social theories and behaviour as generators. The processed followed allows for the iteration of design through physical and theoretical investigation.

The public nature of the existing site and context could be used to test the theories proposed by this design by conducting social and spatial experiments. The reactions of users could be observed by the insertion of objects into the site, such as seating and tables, and an evaluation of the success and use of the objects could be documented as further recommended research of this study.
LIST OF SOURCES


