

THE INVISIBLE OBJECT

Civic place in Atteridgeville



The realm between the
extraordinary and the mundane

Kathleen Louise Nel

2016



“Isolating such potential qualities of delight inherent in the most ordinary forms is the task of the designer since once isolated they may become more important elements in his vocabulary than the accepted formal disciplines of volumetric containment.”

*- Cedric Price
(Price and Obrist 2003:11-12)*

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 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.

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Kathleen Louise Nel



DECLARATION

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2016

PROJECT SUMMARY

The Invisible Object

Volume 2 of 3

Site

Ramohoebo Square

Mareka street

Atteridgeville

City of Tshwane

Gauteng

South Africa

25°46'05.4"S 28°04'41.0"E

Programme

Public Space

Cinema and Performance Arts

Client

Department of Arts and Culture (DAC)

Research Field

Human Settlements and Urbanism

Heritage and Cultural Landscapes

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To the studio crew, thank you for all the late nights, the motivational talks, the complaining sessions.

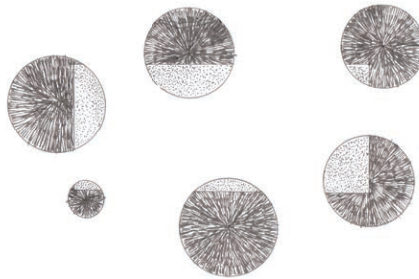
To Deborah Bukasa, my incredible friend, I could not have done this without your support. Silindzile Shongwe, thank you for sharing your views on life and architecture with me. Hendrik Loubser, thank you for your support and help throughout the years.

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ABSTRACT

The Invisible Object

CIVIC PLACE IN ATTERIDGEVILLE



Ramohoebo Square, the heart of Atteridgeville, currently lies dormant. This document explores the possibility of introducing a new pattern of events to expose the extraordinary in the midst of the mundane.

Conventional approaches to township architecture are challenged as a means to return *place* to the citizens of Atteridgeville. This study is dedicated to recreational space guided by an underlying theme of the surreal in an attempt to celebrate and enhance the quotidian by allowing for moments of serendipity and reverie.

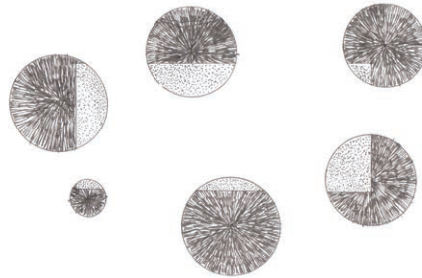
An argument is developed towards changing attitudes and preconceived ideas towards townships and the bodies who occupy them by proposing a new perspective on old systems.

Fig. 01. Borderlands: psychological borders and barriers. An integral part of investigation. (Nel & Sadiq 2016).

KHUTSHWAFATSO

Selo se se sa bonagaleng

BONNO LE KAGO YA ATTREDIGEVILLE



Ramohoebo Square, e gona kwa boteng ba Atteridgeville, mme e itlomollogilwe e bile ga e diriswe. Lekwalo le, le rata go seka seka ka kelothoko, mekgwa e lefelo le le ka dirisiwang ka gone go re le manonthothlo a lone a itsewe, mme gore le tsoswe boswa.

Mekgwa e etlwaelegileng ya thulaganyo kago mo Attridgeville, ga e thotloetse gore baagi ba kgale ba Attridgeville gore b aka boela moroga go nna foo gape. Tlhatlhobo ya lekwalo le, e lepane le ditulo tsa go goinntsha bodutu le go roba monakedi. Tlhatlhobo e, e tshageditse ke molaetsa wa go iteka go ipela le go ka tokafatsa temogo, ditiro le metshameko ee tlwaelegileng, mo lefelong le le didimetseng, le le roroetsang monagano.

Lekwalo le, le susumetsa gore go tswanetse go fetolwa maikutlo, mekgwa le menagano ka ditorotswano tsa batho batsho, ka go eletsa kgotsa gore methale ya kgale e tlogelwe.

MANIFESTO

Habitus

... systems of durable, transposable dispositions, structured structures predisposed to function as structuring structures, that is, as principles of the generation and structuring of practices and representations which can be objectively 'regulated' and 'regular' without in any way being the product of obedience to rules, objectively adapted to their goal without presupposing a conscious aiming at ends or an express mastery of the operations necessary to attain them and, being all this, collectively orchestrated without being the product of the orchestrating action of a conductor.

Bourdieu (1977:53)

There is an innate potential for architects to transform the mundane into something extraordinary. This simple quality allows designers to contribute to society in an exceptional way. The spaces we create determine the everyday interaction between the body and space, and essentially manipulates the way *habitus* occurs.

By being cognisant of this quality and assuming a dialectic stance, the designer ensures that the intricacies of the milieu are embedded in the intervention, resulting in beautiful spaces which contribute to society at an emotive level. In this way, the experiential takes precedence such that spectacular places for people to dwell are the outcome.

PREFACE

An overview

The underlying notion driving this study is the normative position of the author, and the questioning of the role of young South African architects in the continuum of this discourse. This questioning developed into a response to the conditions discovered in Atteridgeville, which is reinforced by a personal desire to create beautiful architecture:

Those of us who have been trained as architects have this desire perhaps at the very centre of our lives: that one day, somewhere, somehow, we shall build one building which is wonderful, beautiful, breathtaking, a place where people can walk and dream for centuries.

Alexander (1979:9)

Perhaps, if we adopt this approach, we will create beautiful spaces which give back to the community, and maybe, provide relief from the tyranny of the mundane. The simple and incredibly valuable aspects of what it is to be human are often neglected in the name of progress. Sven Ouzman (2002:7) suggests we “produce a critically aware and socially responsible practice that allows us to properly imbibe the spirit of a place and its people and so be agents for innovation, compassion and radiance.” This document demonstrates how this may be done for Atteridgeville.

PREAMBLE

Structure of document

VOLUME I - BORDERLAND

Kathleen Nel + Ali Sadiq

VOLUME II - THE INVISIBLE OBJECT

Kathleen Nel

VOLUME III - RESIDUAL TERRITORY

Ali Sadiq

Volume I presents the study of Atteridgeville, followed by a development proposal, to situate the succeeding volumes. Each volume serves as a recording of the investigation taken by the author. The arguments made are expressed through the incorporation of appropriate literature, a graphical expression of thoughts, and the translation of this synthesis into a spatial proposal.

The choice of literature, artwork and the author's own sketches reinforce the arguments made, and are vital to the understanding of the document. The discussion of architecture oscillates between an expression of space and the question of representation. The intention is to look at this relationship closely, interrogate the architectural object as well as the impact of space on the body and subsequently the relationship between bodies. An argument is developed towards changing attitudes and preconceived ideas towards townships and the bodies who occupy them by proposing a new perspective on old systems.

This document is divided into six themes, with precedent studies as breaks in between:

Part One, *Prelude*, presents the academic outline of the document summarising the context and dissertation intentions.

Part Two, *Body*, investigates the role of the body in a South African context, in the past and how this is changing.

Part Three, *Space*, presents the study of place, uncovering the layers of the site guided by theoretical arguments.

Part Four, *Experience*, presents the programmatic considerations as a response to the conclusions drawn from the preceding study.

Part Five, *Making Place*, presents the spatial investigation of the conceptual intent.

Part Six, *Technè*, presents the process of bringing the building into being (on paper).

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1. PRELUDE

Introduction

This chapter introduces the problem statement specific to this volume, in response to the research conducted in Volume I. The context is briefly discussed, followed by the listing of issues identified and the statement of dissertation intentions.

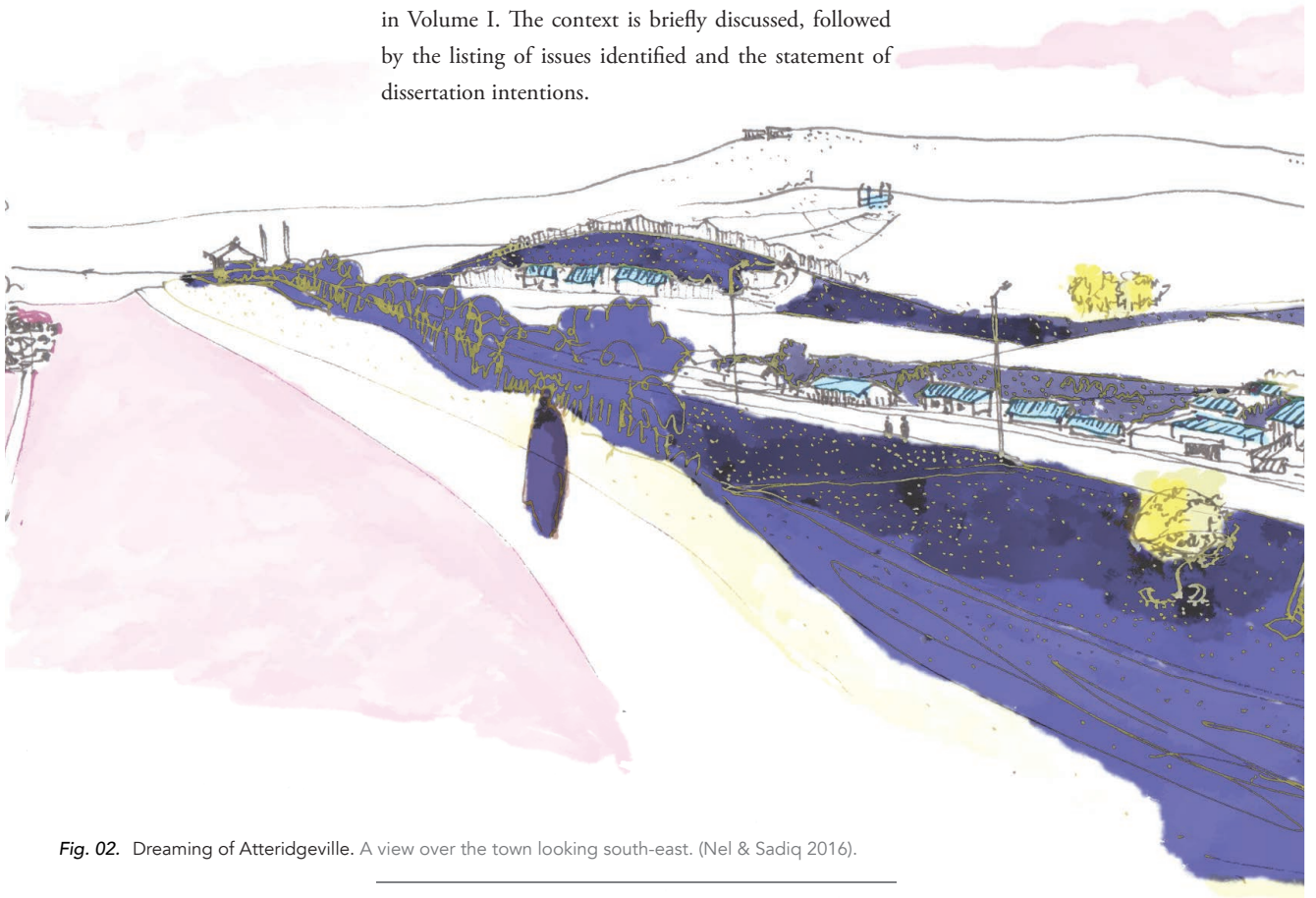


Fig. 02. Dreaming of Atteridgeville. A view over the town looking south-east. (Nel & Sadiq 2016).



STATE OF PLACE

Contextualising the problem

After more than two decades as a democracy, South Africa is still tainted by the apartheid legacy. This is evident socially, economically and spatially and it is embedded in the grain of our cities.

The urban fabric continues to deteriorate, which is apparent in the continued urbanisation and city sprawl, as well as the remnants of the apartheid urban structure. Sadly, development schemes adopted since 1994 such as *The Reconstruction and Development Programme* (South Africa: 1994), have many characteristics which resemble the inappropriate planning schemes of the past.

The RDP was a socio-economic framework developed by the ANC in 1994 to counter the effects of apartheid (South Africa: 1994). Although the intentions stated were noble, the implementation of certain aspects has proved unsuccessful. The low-income house (RDP house), for example, has been criticised for being of lesser quality than the apartheid-era NE51/9 design (see Volume I), in terms of design and construction quality. RDP houses continue to be badly located, away from socio-economic opportunities and they perpetuate issues that are meant to be resolved by the plan (Coetzer 2013:173,221-2).

These factors need to be investigated and examined under a new lens. This dissertation aims to interrogate current trends, and formulate an holistic approach that proposes new ways of thinking about old ideas. Conventional development schemes often aggravate tensions inherent to these spaces, rather than mediate between the built form of the past and the needs of the citizens, both present and future.

Atteridgeville has a unique character - socially and spatially. The township is studied as a means of investigating contemporary issues of space and dwelling in a township setting. As a township, it displays many characteristics inherent to this setting, but contradict many. The macro-analysis and approach is presented in Volume I of this series, while this document proposes a single intervention as a response to this research.

Through an exploration of this dynamic, multiple architectural issues are addressed as part of the dissertation, which will be elaborated through the course of this document.

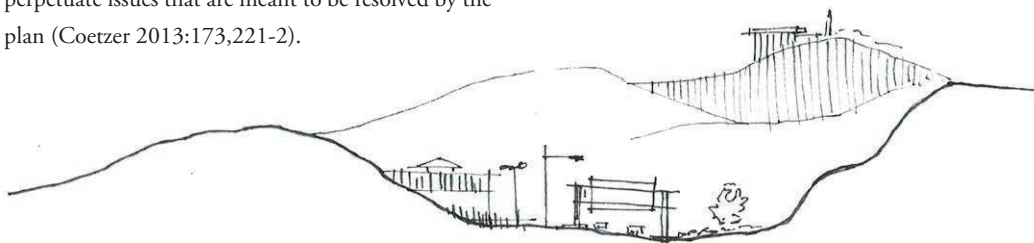


Fig. 03. Valley Section: Maunde Street. The undulating terrain of Atteridgeville and sense of place due to its location.

GENERAL ISSUE

Death of the civic realm

Rapid urbanisation and a demand for housing has resulted in the neglect of shared space. Cities and towns become fragmented, lacking the essential elements to promote healthy environments for living. This has led to a focus on private ownership and the needs of the individual, resulting in a gradual decay of the supporting shared spaces. Contemporary public space has morphed into the shopping mall. Energy is drawn from any remaining shared communal space and the built fabric deteriorates as a result.

Ouzman (2002:28) explains that the urban structure of townships does “little to foster that sense of community” present in traditional settlements. This is exacerbated as socio-economic issues such as housing, transport and medical facilities are the first to be addressed in redevelopment schemes. These facilities often do not provide the required supporting public spaces. If they are considered, they are seldom embedded in the urban fabric, and remain disconnected. Consequently, the daily life of the working class community is undermined.

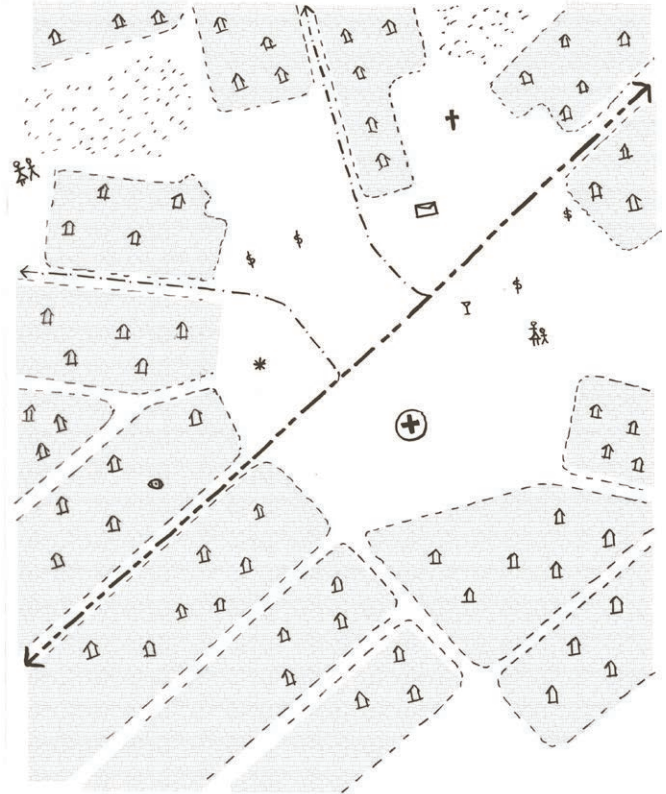


Fig. 04. Ramohoebo Square. Dense housing frames an unfinished, empty public square.

URBAN ISSUE

Exodus + Energy Efflux Fading Public Realm

In the past, dormitory towns were designed according to Modernist planning principles, which promoted mono-functional zones. This principle was taken further by apartheid segregationist schemes which informed the city planning principles of the time. Those strategies removed supporting structures such as commerce and recreation, thereby limiting choice and opportunity.

As a segregated township, Atteridgeville presents conditions synonymous with its identity: decaying public space and privatisation. This problem is further exacerbated by the fact that it's location allows for an exodus of township-dwellers to the Pretoria Central Business District (CBD). Most recreational and commercial needs are provided for outside of Atteridgeville. However, due to the success of

public transport schemes (especially minibus-taxis) an energy efflux occurs as Atteridgeville struggles to harbour the energy required to create and sustain a vibrant community. The lack of public 'anchors' within Atteridgeville itself can only amplify this problem.

Traditionally, civic spaces and buildings have provided anchors in cities, but these are quickly being lost to privatised space. There are very few collective spaces left which appeal to the active citizen. Ouzman (2002:28) highlights that segregated townships have lost valuable community spaces, and areas of "discussion and decision, such as the men's court, have been replaced by more restrictive community halls and bus stops."

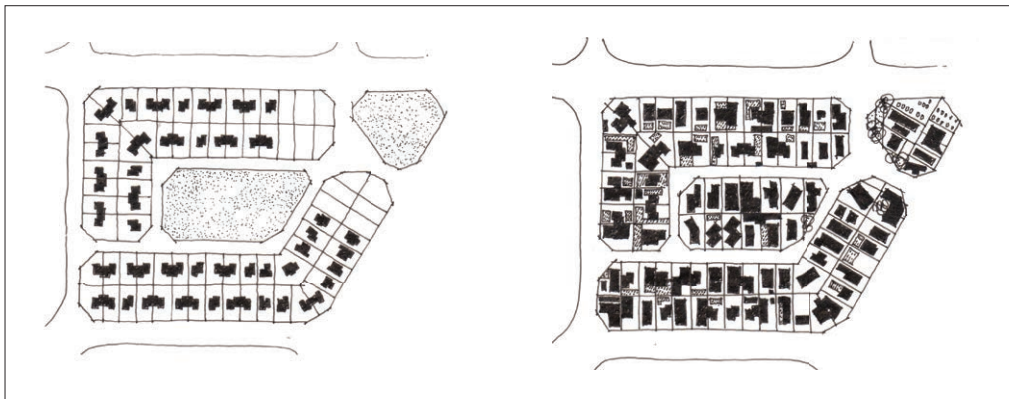
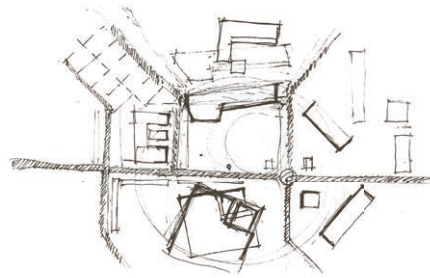


Fig. 05. Block study in Atteridgeville: initial block layout(left) vs. today(right). The comparison of housing density and public space are clearly visible. Parks were claimed for additional housing and ad-hoc growth on individual plots is the norm. (Nel & Sadiq 2016 adapted from Stals 1998:80).

DISSERTATION INTENTIONS

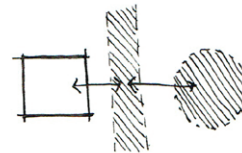
*Contest the conventional
Celebrate the quotidian*



This document concentrates on the death of the public realm within contemporary South African cities, with a specific interest in townships, such as Atteridgeville. The intention is to interrogate conventional typologies. Traditional public spaces are expected to deteriorate further due to growing populations and urbanisation. With limited public investment and high population densities in townships, public finances are mostly allocated to public infrastructure and housing, thereby aggravating these conditions.

The growth and success of townships is important in developing countries, yet they continue to be treated as something undesirable, which cannot be fixed. Townships in South Africa form the most negative aspect of urbanism implemented in apartheid city planning. They remain part of our urban fabric however, and as such, should be recognised as separate entities, independent of the CBD.

The culmination of this investigation will create a means to celebrate shared space and the everyday through architecture - designed to ground citizens in their collective space. This will be explored within the context of townships, so as to shed light on the notion of suburbs as disjointed settlements. The investigation is guided by the theory of the body and space, and also the surreal and the extraordinary.



The author intends to pay homage to the history of public gathering and expression in Atteridgeville, while challenging existing public space typologies, and conventional interventions in the township context.

Fig. 06. First impressions of Ramohoebo square. Hard and soft edges in the public 'heart' of Atteridgeville.

Fig. 07. Third Space. Diagram indicating a mediation between privatisation and an intermediate third space.

RESEARCH DISCUSSION

Activity-driven third space

In his book *The Great Good Place*, Ray Oldenburg (1989) identifies the *third space* as the anchor within cities - the lived and social space, which holds a community together.

The proposition is that the spaces neglected due to inappropriate development resort under Oldenburg's *third space*. Pressures from the requirements of contemporary society has transformed this diverse collection of places into shopping malls, which draws energy away from open spaces and creates congested nodes. Not only do these malls push out local businesses, they are often aesthetically unappealing, expressing the little investment put into townships. Unsustainable modes of living and fragmented cities is the result. This phenomenon is evident in Atteridgeville.

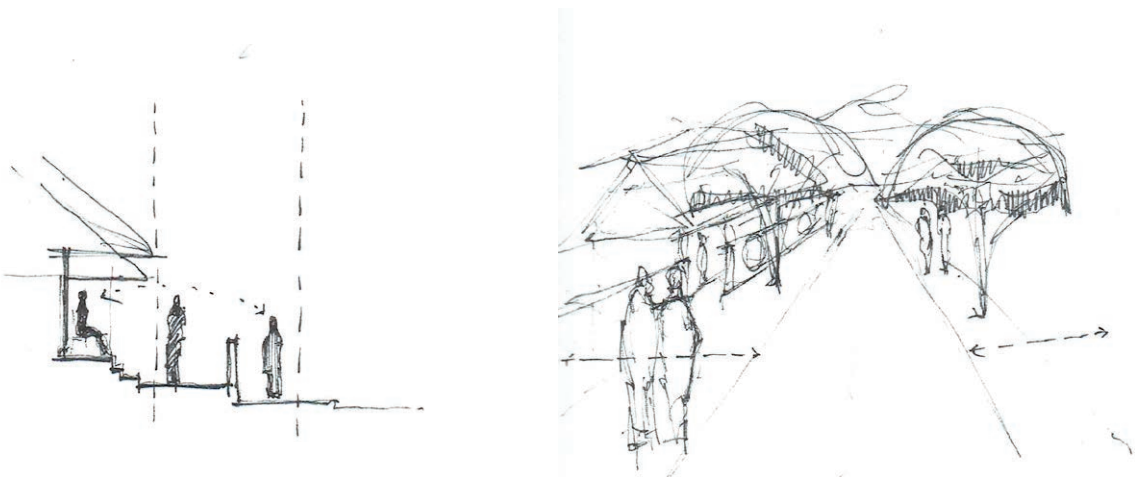


Fig. 08. The in-between (left). The realm between the public and private is where social interaction occurs.

Fig. 09. The street (right). High pedestrian traffic characterises the street of Atteridgeville.

RESEARCH DISCUSSION

Township Architecture

Contemporary interventions in townships often take on one of two forms: firstly, imported models are imposed onto the fabric of a township. This typology is often out of scale and inappropriate, exaggerating existing adverse conditions within the public realm as they negate social constructs and context. They aim to make a statement and dominate their environment rather than mediate between the existing fabric and social practices. These schemes are usually implemented in the name of progress, coming in the form of a 'one-size-fits-all' solution.

Secondly, these interventions often manifest as patronising architecture, which aims to respond to the contextual conditions. This often results in 'romanticised' poverty as the architect attempts to respond to context through an aesthetic imitation of circumstance rather than of *place*.

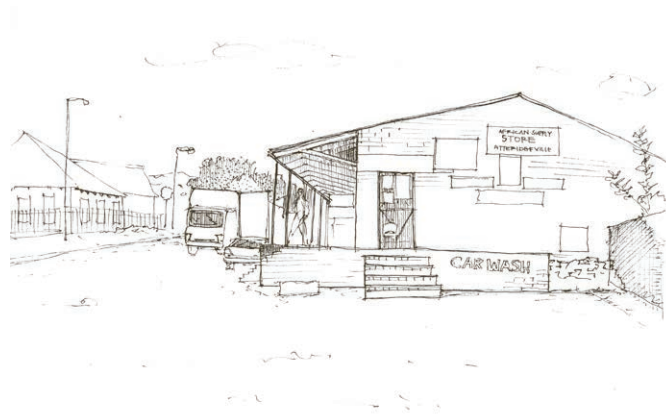
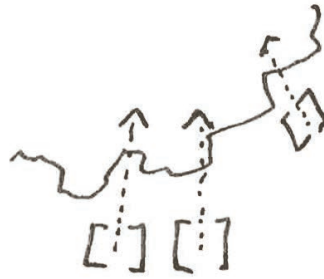


Fig. 10. Typical store typology in townships. A diverse set of programmes exist in conjunction with formal trade including car-washes and informal stalls, rather than functioning as mono-functional spaces.

RESEARCH METHODOLOGY

Understanding Atteridgeville Bridging the gap



The research aims to develop an understanding of the public realm of Atteridgeville. Part I of the series presents a historical study of the model township as a basis to ground present day observations. This is followed by a larger vision into which the individual intervention is placed.

The study of current conditions manifest as a qualitative and quantitative mapping of the development and transformation of the urban fabric and social structures.

The interpretation of the findings will lead to an understanding of the deteriorating public space.

This will be supported by theoretical studies and precedents to clarify and interrogate current trends.

The programme brings into focus the celebration of the mundane. The purpose is to investigate everyday recreational activities and develop an appropriate reading of the spatial and social complexities to produce an architectural interpretation derived from these conditions.

The dissertation uses a graphical investigation as the principal method of understanding context and theory. This is done through photography, collage and sketching.

Fig. 11. In search of mediation. Reading spatial and social complexities.

DELIMITATION

Suburbia *Death of the public realm*



The scope of this study is limited to the realm of the everyday experience of body and space. The objective is to understand the deterioration and use of public space in complex environments, specifically developing townships and suburbs in the South African context.

Existing conditions identified will inform the development of new responses. This dissertation does not aim to address larger socio-economic problems, but rather contest current models of intervention.

The exploration of an architecture that addresses context through the celebration of the *third place* will guide the exploration, while the in-between and the surreal are used as major informants and design generators.

Fig. 12. Approaching Suburbia. Tree lined avenue entering Atteridgeville.

RESEARCH QUESTIONS

Summary

Can public infrastructure be a catalyst for the development of townships into self-sufficient environments?

This dissertation investigates the value of *third place*, and how this notion could be used to challenge conventional interventions in township-suburb environments. The intention is to develop a sensible and appropriate response which incorporates the needs of the everyday user while balancing their emotive experience with the intellectual intentions of the designer.

The objective is to develop an architectural response that could dignify the lives of everyday users when considering the overwhelming mundane conditions of suburbia.



Fig. 13. *The unseen.* Painting of F.E. McWilliam's sculpture *Eye, Nose, and Cheek* (1939).

2. THE BODY

Where it all began

The *body in space* is used as a theme in the following chapter. This is done to understand the effects of our disconnectedness with the world, and the alienation associated with the modern era. The analysis of the occupation of space at an existential level provides the premise for the study of the body in the South African context.



Fig. 14. A celebration of the everyday and the body in space.
Sketch of Raphael's *The marriage of the virgin* (1504).

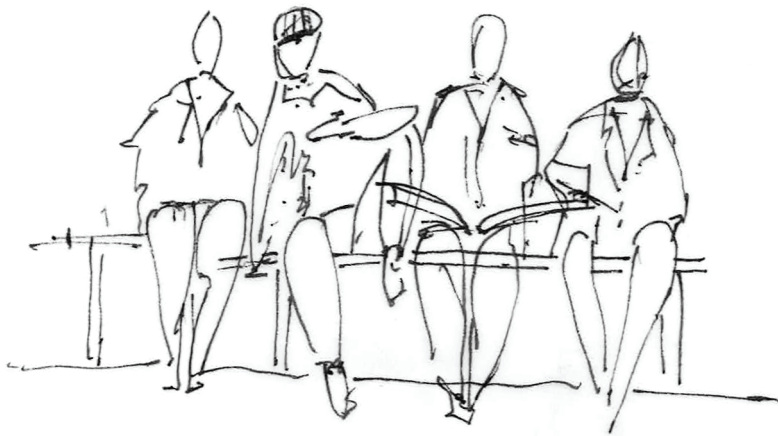


Fig. 15. *Storytelling (top)*. Four old men.

Fig. 16. *Stores on Ramohoebo Square (bottom)*.

OLD MAN

Where it all began

The first visit to Atteridgeville set the tone of this dissertation. First, what came as a surprise, was the overtly suburban nature of Atteridgeville. We all have preconceived ideas of what *should* be happening in townships, and how we should intervene as architects. My academic career has exposed me to new ways of thinking, but these often focus on socio-economic developments. There is a specific response to what townships need, and sometimes these interventions become white elephants, crippling communities rather than empowering them, and at times, a romanticised poverty aesthetic is adopted.

When visiting Ramohoebo Square, the chosen site for this investigation, we met four old men sitting beneath the canopy of the small shops on the northern edge of the vacant site. They spoke of what was: the SS Mendi memorial statue placed at the centre of the square with a rock garden, and before that, a traffic circle. A tinge of nostalgia filled the air as we spoke to the four men reminiscing of what once was, gazing into the distance, over the empty square.

This simple interaction with Atteridgeville residents made it clear to me that storytelling is a vital interaction between people, and it is being replaced by activities that prevent such honest interactions. Being able to share stories and emotions about a place or time that I could never have experienced is so valuable, and this creates relationships that “link people to people, people to places, people to stories, people to knowledge, and so forth.”¹ This awareness reminded me that for this to occur, we need places to frame these experiences, encourage them, and presence us in the moment.

Having an understanding of place is crucial to developing an appropriate response. The investigation presented in this dissertation is built on this premise, along with the notion of challenging conventional approaches when working in townships in a democratic South Africa.

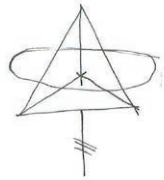
We long for a unified identity, and this exploration aims to find informants that could perhaps guide us in the right direction.

1. Ouzman (2002) describing heritage.

WHAT?

“The absolute place”

Foucault (Jones 2006:229).



The philosophy of space has influenced architectural thinking through the ages. This dissertation grew from a fascination with the body in space and a recurring interest in the relevant texts, including but not limited to Heidegger, Foucault and Lefebvre. This chapter will explore themes of the body and dwelling, in an attempt to understand the relationship between the body and built form in the context of Atteridgeville.

The body is the point of departure - our perception of where and how the body occupies space provides an awareness of our place in the world and how this affects our roles in society. Michel Foucault (1986:24) considers the body to be an “involuntary prison” where we are held captive in our own bodies. It is the point from which all is experienced:

... as soon as my eyes are open, I can no longer escape I cannot move without it... I cannot leave it there where it is, so that I, myself, may go elsewhere... Where I am. It is here, irreparably: it is never elsewhere. My body, it's the opposite of a utopia: that which is never under different

skies. It is the absolute place, the little fragment of space where I am, literally, embodied. My body, pitiless place.

- Foucault (Jones 2006:229).

Our role in society is described by Aristotle (350BC) in *Nicomachean Ethics* as the *zoon politikon*: man, the social being that participates in society through his **connection to the city and the people**. Hannah Arendt (1958:7-10) emphasises the importance of this participation in *The Human Condition*. She explains that it gives the citizen validity. The *active citizen* has **his place in the world**. He can make his mark, and so the body has value in space.

Continuing this thought, it must be acknowledged that power, ownership and identity determine the occupation of space in our daily lives. This relationship is constantly changing as these determinants are questioned and reinterpreted. As individuals and a society, we are required to adapt to these developments - technological, social and political.

Fig. 17. *Moments of interface*. The coming together of things.

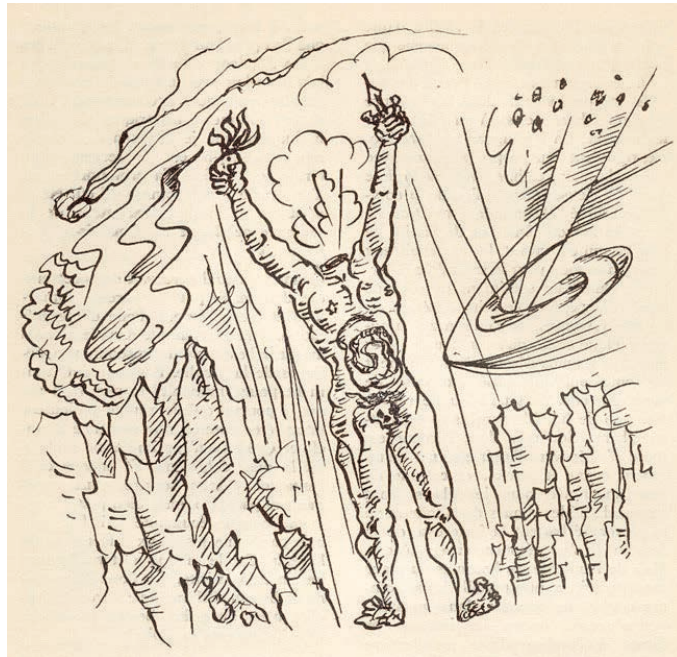


Fig. 18. *Mon Corps, Topie Impitoyable*. Drawing by André Masson for Georges Bataille's journal: *Acéphale* (1936-39).

The desire to be heard, and a desire to be part of community has always existed. However, the way in which this happens is changing.

WHERE?

“the little fragment of space where I am”

Foucault (cited in Jones 2006:229).

The rise of social media and online interaction has allowed our engagement with others to occur in virtual space - an abstract environment devoid of the physical body. What is real and what is not is no longer relevant; instead what is the most current, absurd or entertaining has more value - the spectacle. Alienation is the consequence. It is a distraction and escape from our increasingly mundane lives.

Two symptoms of this development is of interest: the illusion of the collective and a need for constant stimulation.

Lefebvre (1991:203) states that there is a relationship between each member of society and space, but also an identification of the individual versus the other - and so space becomes the intermediary where this interaction occurs. What is the consequence when this intermediary space becomes digital?

Although Lefebvre's text is pre digital-era, he offers valuable insight into the relationship between space and the body. The shift to the digital age has had a major impact on our bodies' relationship to space. Perhaps this concern may not appear as urgent in



lower-income townships, since access to this realm is less prominent. However, a negative impact is still felt. Residents take part in an exodus, losing touch with their place of residence, but an aspiration to be part of the growing capitalist society

which dwells in the digital realm will potentially sever the relationships which still exist.

The way in which we dwell in space is constantly changing, and so the way we make space should change. We have a responsibility to recognise the nuances of the human body, societies and cultures and return them to a realm where the body can reinstate itself as part of a physical community. Ouzman (2002:29) describes this as the “need to commune with something more than the one-dimensional everyday.”

Despite South Africa's liberation as a democratic republic, contested spaces continue to be neglected. They form part of the valuable intermediary space of interaction, yet carry a stigma that is a difficult one to overcome. Should we recognise these spaces as independent, self-sustaining entities and facilitate this change, or should we remove them from our built fabric entirely to erase the memory of the past?

Fig. 19. *The road out of Pheli.* Tree-lined avenues.

WHY?

“There would be no space at all for me if I had no body”

Maurice Merleau-Ponty (1945)

Being physically disconnected from the physical world is having an enormous impact on the way we socialise and the way we view our own bodies in space. Casey (1998:197) states that “once space is dissociated from the particular bodies that occupy it, it is bound to be emptied of the peculiarities and properties that these same bodies (beginning with their outer surfaces) lend to the places they inhabit – or that they take away from places by internalisation or reflection. The inward partitioning of space, its incarceration in bodies-in-places, gives way to space as the ‘infinite theatre of movement’: an essentially empty theatre.”

The body’s physical presence is becoming less apparent in the everyday since it is possible for communities to exist in a digital realm, where members may never physically interact.

Foucault (1986:23-25) discusses the body as an essential factor necessary to analyse the description of space, as well as the need for the body to be present, occupying space to create these realms. We cannot remove the body and locate this as only a mental experience, or we lose our sense of engagement with the world, and those who form a part of it.

Our body is the point from which we engage with

the world and those around us, but it is that which we use to orientate ourselves. It is what determines our cognisance of the world.

Taking these perspectives into account, it is of the author’s opinion that a digital realm of engagement, a ‘single-space’, undermines the value of the body in space but also exaggerates our need to be heard. We are all equal players on an imaginary chess board and the freedom we have been afforded is perhaps a burden. Our ability to acknowledge our own existence and our own mortality has always translated into a need to assert ourselves within this existence; but the migration to this ‘single space’ is unprecedented and has an impact on how bodies occupy the physical realm, and the role of the architect.

A body so conceived, as produced and as the production of space, is immediately subject to the determinants of that space ... the spatial body’s material character derives from space, from the energy that is deployed and put to use there.

Lefebvre (1991:195).

HOW?

In virtue of idleness A capacity for boredom



"A generation that cannot endure boredom will be a generation of little men, of men unduly divorced from the slow processes of nature, of men in whom every vital impulse slowly withers, as though they were cut flowers in a vase."

- Bertrand Russell (1930:65)

The physical world is slowly being pulled out from under our feet. Our quest for knowledge and our understanding of our immediate surroundings has been dulled to a mere acceptance of what we are given. Constant stimulation is allowing the wool to be pulled over our eyes as boredom and curiosity recedes.

Fig. 20. A place to be idle. Sketch during visit to an Atteridgeville school.



Fig. 21. Searching for place. Mapping the intangible on Ramohoebo square (March 2016).

THE BETRAYAL OF THE BODY

Interlude

*Because so much of ones identity is locational -
you are where you are - physical separation from
a place also serves to erodes one's identity.*

Ouzman (2002:29)

The intention is to derive a framework based on the occupation of the body and an interpretation thereof in the context of South Africa's townships, specifically Atteridgeville. First, the implications of the body during apartheid will be discussed. This is followed by an investigation of what made Atteridgeville unique during apartheid and presently.

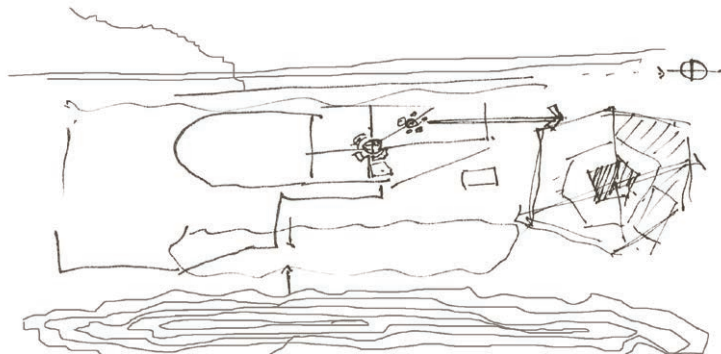
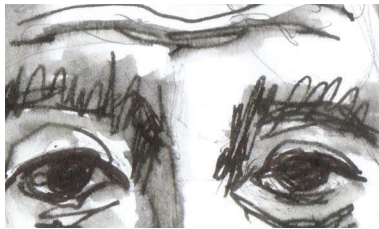


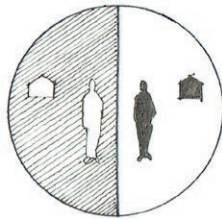
Fig. 22. Atteridgeville Layout. First impressions (Feb).



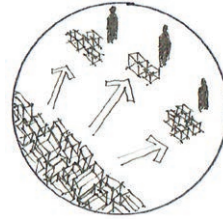
"The life-environment, the shell as supplied by the City Council had been Western and complements a pure Western living pattern." - Coertze (1969:139), unpublished thesis on Atteridgeville, cited by Stals (1998).

Fig. 23. The betrayal of the body.

STATES OF BEING



Betrayed body



Branded body

Rapid industrialisation accelerated the establishment of black townships for political and economic gain. Calderwood (1955:1) states that the development of these townships was seen as an important factor in creating a stable and efficient labour force. Black citizens were seen as an expendable commodity to maintain white supremacy and economic prosperity (Stals 1998:14).

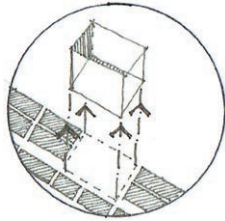
The policies of the apartheid government did not make a break with the past. Lord Milner's reconstruction era attempted to create a united white government which was built on separatist intentions (Worsfold 1913). *The Natives Land Act* (Act No. 27 of 1913) marked the beginning of official territorial segregation. The National Party took this further upon taking power in 1948.

The Population Registration Act (Act No. 30 of 1950) provided a system for classifying people according to race. Interracial marriages and relationships were illegal, and families were broken apart if it was deemed that a parent and child were of a different race. This was further exaggerated by *The Reservation of Separate Amenities Act* (Act No. 49 of 1953) which determined the use of public facilities, transport and services. The body of the "non-European" was branded and stigmatised. The carrying of the pass book ensured that this discrimination was inscribed on the everyday lives of the non-white body.

Fig. 24. Betrayed body (Nel & Sadiq 2016).

Fig. 25. Branded body (Nel & Sadiq 2016).

STATES OF BEING



Displaced body

The Group Areas Act (Act No. 41 of 1950) was built on the *The Natives Land Act* (Act No. 27 of 1913). These laws intended to separate races. The apartheid ideology led to a spatial transformation of South African cities, and the physical implementation of these laws led to the displacement of the *black body*.

The structuring of daily life changed, forcing inhabitants to adapt to a new, urban way of living. The legislation prevented black urbanisation and denied the black population the right to own property. This led to massive forced removals to remote rural areas organised according to race and ethnicity.

The location of the townships ensured large traveling distances to the CBD, completely disabling the township-dweller. All formal work and commercial opportunities were located far from residential areas. Basic amenities and recreational facilities were often discarded as part of the township planning (Stals 1998:16).



Abandoned body

The permanence of black and 'non-European' urban dwellers was not recognised. Property could not be owned independently and the already minimal investment into townships in the form of housing, infrastructure, education and other essential services were cut back to reduce the attraction of cities to people from rural areas. The only large-scale investment came in the form of hostels for single black men. These facilities made no provision for supporting structures or recreational facilities - creating subhuman environments (Turok 1993:3).

Housing schemes were developed according to minimalist considerations for the 'native'. State funds expended by December 1953 indicated an average of 1276 pounds per unit for European housing and only 312 pounds per unit for 'native' housing. (Stals 1998:36). This is approximately R500 000 for European housing and R134 000 for 'native housing, in current monetary terms.

Fig. 26. Displaced body (Nel & Sadiq 2016).

Fig. 27. Abandoned body (Nel & Sadiq 2016).

STATES OF BEING

Condemned body

The segregation of residential areas according to race sometimes extended to ethnic groupings within the black community. The apartheid spatial planning took many aspects into account to ensure a clear-cut marginalisation of the black body. The ideal location for native housing meant one which did not interfere with white city boundaries. Areas were separated by buffer zones, often incorporating natural features such as rivers and mountain ranges, or man-made elements such as industrial belts (Stals 1998:14-16).

Another precautionary measure taken by the apartheid government in most townships, was placing military installations and airfields in close proximity to the townships to enforce a militant presence. Radial planning of many townships was for the sole purpose of facilitating military interventions, as well as creating few access points to seal off a township during times of unrest (Stals 1998: 16).

This approach extended from an urban to domestic scale. The social infrastructure was minimal or non-existent as township citizens were recognised as essentially rural. Poorly built houses, lacking internal doors, ceilings and services of no more than 50m² on minute plots were rented to township inhabitants (Stals 1998:16).

Faceless body

Township planning did not readily take the personal needs or identity of individuals into account. R.M. Frean (1960:6) commented on the appearance of these endless expanses of houses:

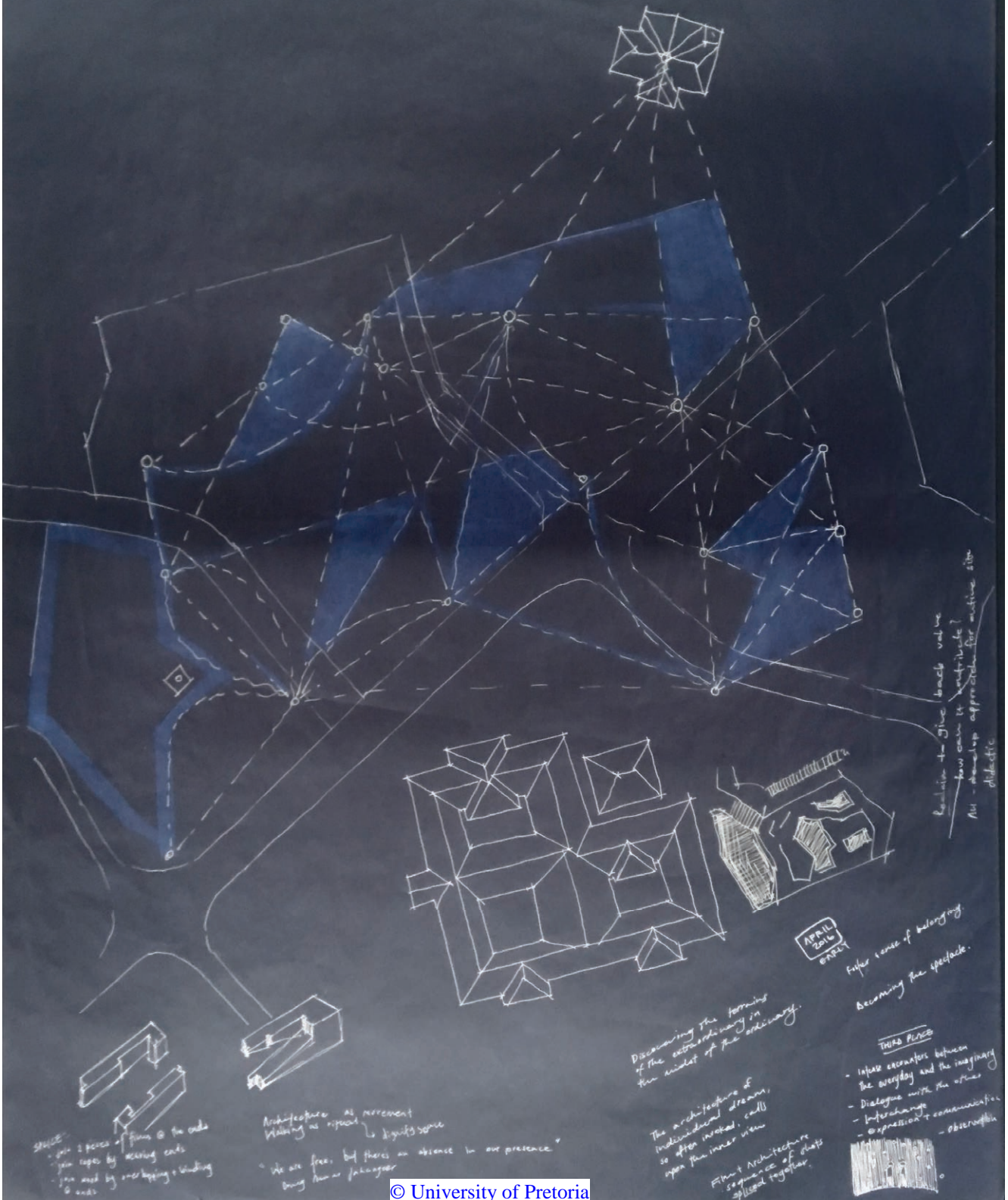
...a vast, uniform carpet of tiny houses spread over the veld. The town has no form that one can grasp, no direction, just dreariness on all sides. The houses were so similar that one can only tell the house from the children.

Deppe (1994:5) states 'the scheme had been a Eurocentric one with no attempt to interpret an African sense of place. Connel (1947 cited by Stals 1998:21) goes on to say:

I have been strongly impressed with one outstanding fact about Native housing, and that may be summed up as the extraordinary contrast between the charm and vitality of traditional architecture and the drabness and monotony that usually characterises the urban Native townships.

According to Connell (1947 cited by Stals 1998:22), the use of the grid street pattern did not resemble the intimate scale that appears in the African village morphology. The new, vast town planning prevents any sense of community from being retained, making individuals feel insignificant.

*Fig. 28. Mapping connections (opposite).
movement and overlap on site.*



SCALE
- join 2 pieces of film @ the ends
- join ropes by weaving ends
- join wood by overlapping & binding @ ends

Architecture as movement
Walking as ritual
↳ dignity sense
"We are free, but there is an absence in our presence"
being human / foreigner

Discussing the forming
of the extraordinary in
the midst of the ordinary.

The architecture of
individual dream,
so often muted, calls
upon the inner view
First Architecture
sequence of plans
spliced together.

APRIL
2016
@RRL
Foster sense of belonging
Becoming the spectacle.

THIRD PLACE
- Intersectors between
the everyday and the imaginary
- Dialogue with the others
- Interchange
- expression & communication
- observation

Reclaim the five levels value
How can it contribute?
All - develop appreciation for native site
Abstract

PHELI

Suburbia

Atteridgeville (Phelindaba, or Pheli) has many unique characteristics which has grown from the initial planning stages. Planned in 1934, long before the National Party took power, it is tainted by a separationist ideology, yet carries a very different story to so many townships littered across our landscape (Stals 1998: 7-10). A thorough investigation of this is covered in Volume I of this series but certain aspects will be highlighted in here.

Based on the aforementioned research, Atteridgeville's location clearly indicates its identity as a township for separate development. Located 14 kilometres from the CBD, its isolation is evident. Abutted by a police dog training unit as well as the old steel factory (ISCOR) the town planners' intentions are clear. There are however a few exceptions, which, may not have been intentional.

Designed as a model township, Atteridgeville received substantial social and economical amenities which was not a common feature in townships (Stals 1998:19). With regard to planning, Atteridgeville received far better treatment than other townships. This may have been because the harsh rules determining what 'natives' required, had not yet been established.

The government at the time seemed to be more optimistic as to what was economically viable in the development of these townships. Only after establishment did they realise this 'mistake' and the over-expenditure, which resulted in a more 'economical' approach to townships post-1954 (Stals 1998:17-21).

Our attitude towards areas such as Atteridgeville will have an impact on the future of our cities. It brings us back to the question raised previously: should we recognise these spaces as independent, self-sustaining entities and facilitate their success as such, or should we remove them from our built fabric entirely to erase the memory of the past?

Atteridgeville appears to be on a trajectory towards suburbia. The urban planning, monotony and mono-functionality ensure that townships suffer from the same urban conditions as suburbs. There is minimal consideration for recreation and commerce and these areas are not economically or socially sustainable. They function as domestic entities which depend on separate commercial, cultural or economic areas. This is apparent in the daily exodus which occurs in Atteridgeville. It is but a place to lay one's head.



Fig. 29. But a place to lay one's head. The road to Pheli.

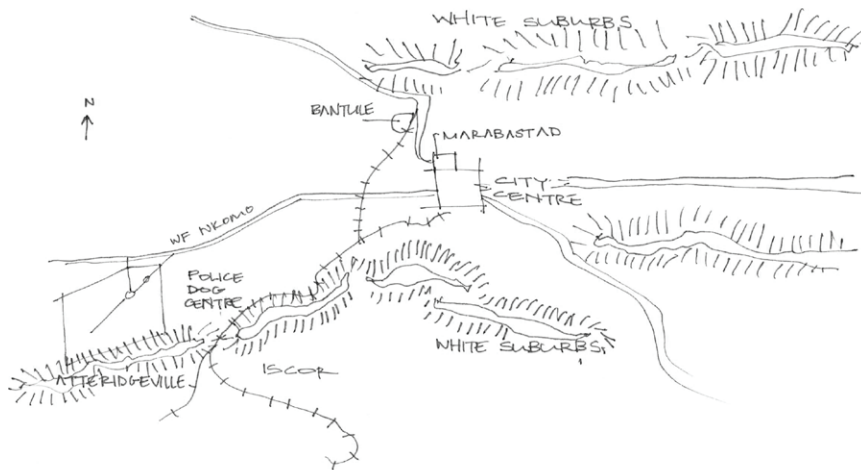


Fig. 30. Apartheid city planning: discussed in preceding text (adapted from Dauskardt. 1989:111).

Nestled between a river and a ridge, the garden city plan laid across the undulating terrain. The sense of place due to the topographical features is unavoidable.

SUBURBIA

Where to from here?

As part of the larger investigation, it is assumed that there is an aspirational trend which will affect many townships through their life cycle. The asymptomatic movement towards suburbia is especially evident, as discussed in Volume I. Atteridgeville carries a strong identity and sense of the collective which is apparent in the pride and care residents take in their own property.

In a capitalist society, the aspiration of owning private property does not yield. This is treated as a symptom in a developing nation. Suburbia is not ideal. It limits inhabitants' choices and access to a diversity of activities. If we acknowledge this trend, we may be able to reroute the development towards a more sustainable model where individuals may thrive socially and economically.

There is a generic response to the treatment of townships, from a political standpoint as well as a professional and academic one. The exploration of low-income, displaced townships has not been researched thoroughly. South American case studies display a more sensitive, well considered approach to these environments, for example the work of Elemental's Alejandro Aravena.

Although there has been a change of regime, it is noticeable that our new democratic government continue to implement apartheid spatial strategies

under a different name. Massive housing schemes crop up all over our country, and yet continue to disenfranchise those who are intended to be uplifted.

Low-cost housing developments continue to be removed from all opportunities found in the inner city. Cheap land, far removed from work and recreational opportunity, is developed into vast, monotonous low-cost housing estates. The research and study of Atteridgeville reveals that these schemes often do more harm than good. The majority of the township resident's income is spent on transport and a disservice is being done to the majority of South Africa's citizens.

When there is investment into these areas, it is often ill-considered and unsympathetic to the conditions the inhabitants are faced with. Multi-purpose halls and transport interchanges seem to be the 'go-to' solution. They indicate a false sense of progress and do not consider the everyday, as they are predominantly market-driven. For example, the white elephant of a taxi-rank in Saulsville is unused and does not serve the community.

The intention of this dissertation series is to contest this notion. The schemes our government implement are similar to those utilised by the apartheid government. Those in need are further disadvantaged.



Fig. 31. Suburbia. Typical suburban setting in Atteridgeville.

THE MUNDANE AND THE EXTRAORDINARY

"THE POETIC IS THE OPPOSITE OF THE EXPECTED; IT IS SPONTANEOUS—A CRUCIAL CRITERION FOR THE SURREALIST NOTION OF THE MARVELLOUS, THAT WHICH UNEXPECTEDLY AROUSES WONDER WHEN WE CHANCE UPON IT, OR WHEN IT CHANCES UPON US."

- Caws 2004



The Madrid Atocha Station (rebuilt in 1982 by Alberto de Palachio Elissagne after being destroyed by a fire) is an example of how public spaces, however mundane the activity associated with them may be, were celebrated. The working class were liberated from their everyday activities. This quality is unfortunately lacking in the majority of public spaces worldwide, especially since the shopping mall has replaced many such public spaces.

Fig. 32. Atocha Station, Madrid, Spain (Carlos Alberto Mejía Peralta 2007).

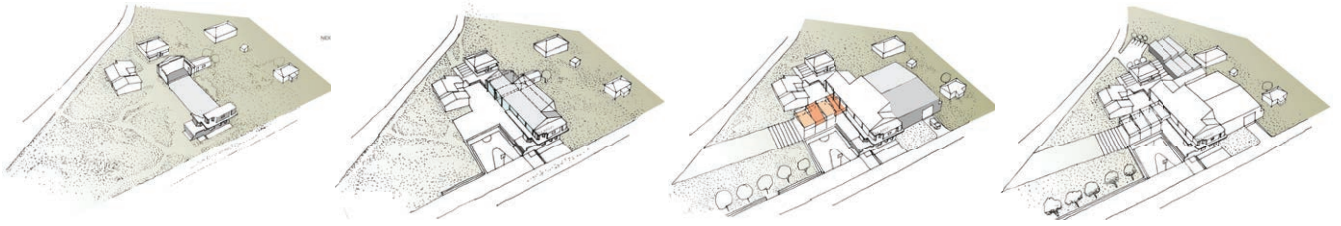


Fig. 34. Phased development. Lindsay Bremner Architects, 26'10 South Architects
(Deckler 2009:53).

LINDSAY BREMNER ARCHITECTS 26'10 SOUTH ARCHITECTS, 2002-2009

THE SANS SOUCI
KLIPTOWN, SOWETO, SOUTH AFRICA

Sans Souci, previously a dance hall and stable converted into a community cinema in 1948, fell into disrepair in the early 1990s and then burned down in 1995. Sans Souci (translates to “without a care”) was one of the few cinemas available to black people during the apartheid era. Interviews conducted by the architects revealed that Sans Souci held immense value in the memory of the community. Residents shared that the rebuilding of the facility would “bring increased opportunities for employment, education, recreation and entertainment.” The architects responded by developing a scheme for a community-based heritage project. (Deckler, *et al* 2006:51-3).

The architects propose that film screenings, production, dance and film festivals, and dance training will allow visitors and residents to participate in uncovering the history of Kliptown and the original Sans Souci, as the incremental scheme is constructed. The goal is to give cinema a new meaning through event and intervention. (Deckler, *et al* 2006:53).

PRECEDENT | PUBLIC INFRASTRUCTURE



Fig. 33. Sunset Dance
Graupner, A. 2006



Fig. 35. Open air cinema screening, Vorster L. (n.d.)

AUTHOR'S NOTES

Unfortunately this project remains unbuilt, but the lessons to be learnt are valuable. The focus on public space in conjunction with a cultural programme gives the project a richness inherent to the context. Responding to the needs of the community, the architects developed a sensitive proposal, taking the sentiment of the future users of the space into consideration, the result being deeply tied to the cultural and social informants on site.

The proposal ensures the emphasis lies on public space such that the contribution does not rely solely on the proposed programmes, but becomes part of the urban fabric. Sans Souci reveals the value of cultural and recreational facilities in developing townships.



Fig. 36. Site Development. Lindsay Bremner Architects, 26'10 South Architects.

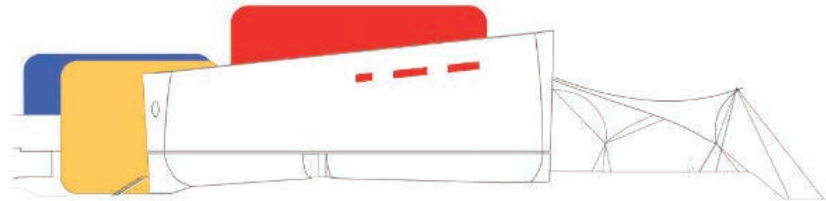
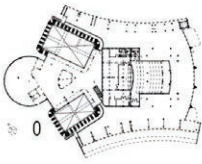


Fig. 37. Soweto theatre plan. Afritects.

Fig. 38. Soweto theatre elevation. Afritects.

AFRITECTS, 2012

SOWETO THEATRE
JOHANNESBURG, SOUTH AFRICA

Afritect (2012) discusses the contrast between traditional theatres and those in the apartheid-oppressed Soweto. Traditionally, theatres are sealed boxes, which exclude the outside world, while in Soweto, theatre often took the form of a nomadic performance, as there were no dedicated venues- “any ‘box’ would have to do.” This did however develop into an atmosphere lending itself to relaxation and accessibility. A need had been identified in Soweto - a formal theatre to serve the community, and provide opportunities to aspiring performers. The response could however not be generic, as it needed to respect the existing performance culture in Soweto and truly be of place. The intention was to contest the traditional theatre typology - **“monolithic, impenetrable, secretive-mass”**.

The brief called for three separate performance spaces, seating 430, 180 and 90 patrons. The design highlights each of these spaces, allowing their internal workings to be identifiable from the exterior as “highly visible beacons in the landscape, enticing the audience in.” The layout of the theatre took the highly serviced nature of theatres into account by separating the elements into wing walls flanking the black box, containing the services spaces (ablutions, storerooms, kitchens, etc.). This allows for street-like foyer spaces meandering around the performance spaces.

The three theatres share backstage facilities, as well as a foyer, which functions as a public space to be utilised as an additional performance space, gathering space and pause area. This foyer is covered by a tensile structure. The eastern and western façades are said to be defined by **“curving fortress walls”, complimented by their “distinctive, top-heavy profile.”**

**Summarised from information provided by Afritect (2012) on Archdaily, 16.06.2012.*

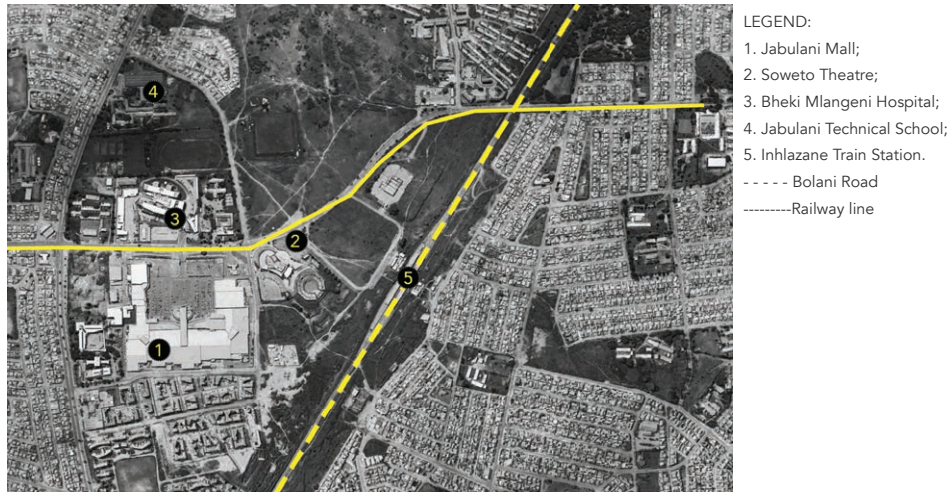


Fig. 42. Sharpeville and Jabulani, Soweto (adapted from Google Maps 2016).

AUTHOR'S NOTES



Fig. 39. Internal view of theatre

Fig. 40. Soweto theatre at sunset

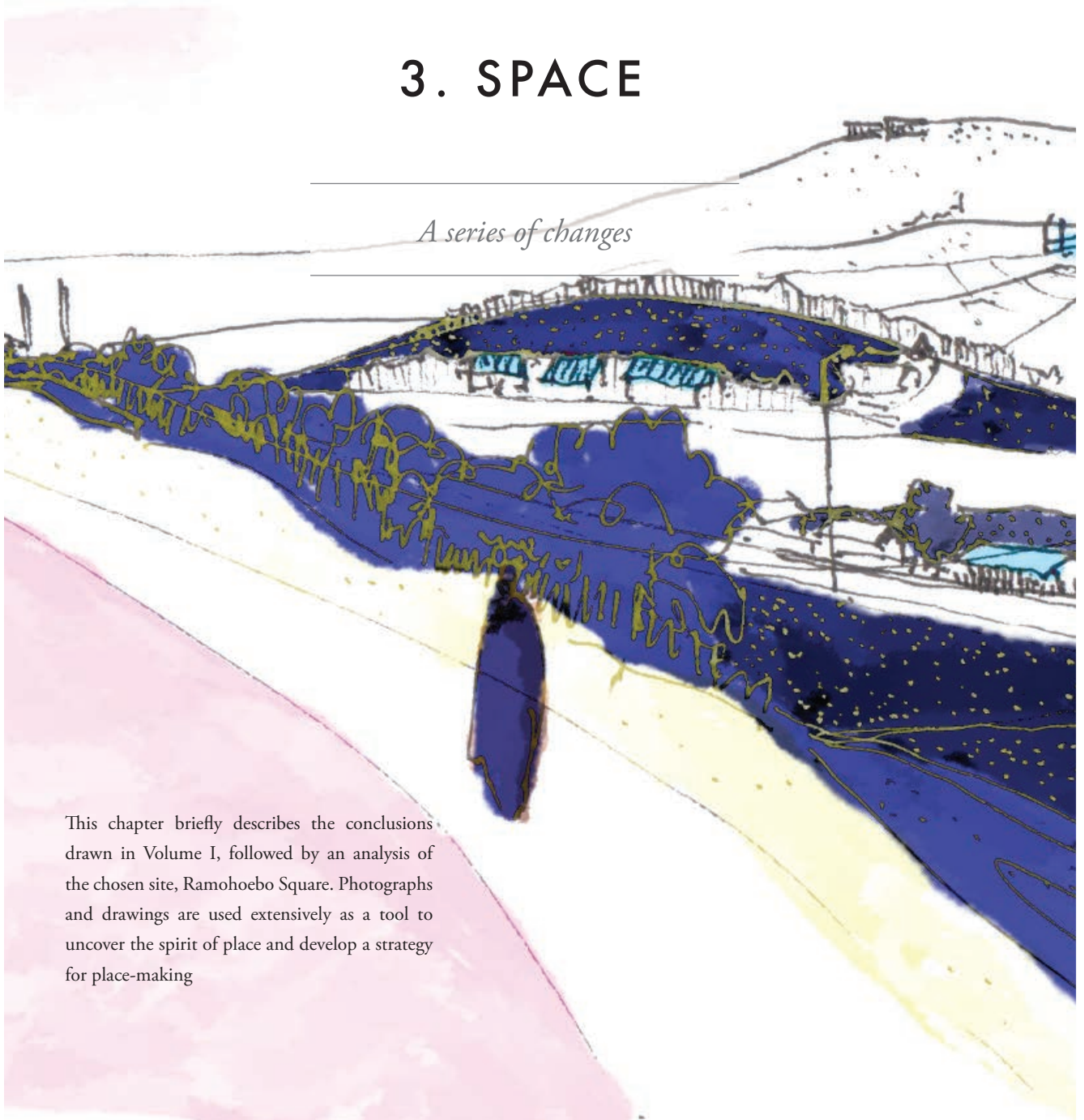
Fig. 41. The peculiar forms of the theatre.

The architects at Afritect describe clearly that the intention was to contest traditional theatre, and respect the context and community. Unfortunately, the architecture manifests as a garish representation of this sentiment. A touch of ‘romanticised poverty’ (discussed in previous chapter) is eminent. There is merit in the use of colour but unfortunately this peculiar-shaped object-in-space appears to be more insensitive to the context. The curved form does not prevent this structure from having an inaccessible, monolithic feel and a definite point of entry cannot be distinguished. The architects themselves (Afritect 2012) describe the wings as “curving fortress walls” which is highly inappropriate. The internal spaces are reminiscent of public bathrooms.

The architecture does not seem to give back to the community. It is located beyond the large Jabulani Mall, separate from the residential area. The large site does not contribute to the daily lives of the residents, but instead it’s monofunctionality results in the site being rather desolate. These aspects are valuable when considering public facilities. They should be tied into the built fabric so that their contribution is larger than the performance hosted, and finally they should be of place, and respectful to their place in the landscape without being patronising.

3. SPACE

A series of changes

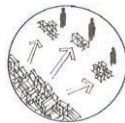
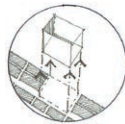
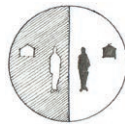


This chapter briefly describes the conclusions drawn in Volume I, followed by an analysis of the chosen site, Ramohoebo Square. Photographs and drawings are used extensively as a tool to uncover the spirit of place and develop a strategy for place-making

Fig. 43. View over Atteridgeville. Looking South-east.. (Nel & Sadiq 2106).

Fig. 44. A series of changes. (Nel & Sadiq 2016).

BORDERLAND



An area of overlap between two things

VISION

In-between spaces detached from a collective vision

LEGEND

- 1 Saulsville Hostels
- 2 Saulsville Cemetery
- 3 Atteridgeville Cemetery
- 4 Maunde Street Gateway
- 5 SS Mendi Memorial
- 6 Atlyn Mall
- 7 Tshwane South College
- 8 Empty Plot (Khoza st)
- 9 Moroe St Park
- 10 WF Nkomo - Green Strip
- 11 Mbolekwa Sports Complex
- 12 Municipal Offices
- 13 Service Delivery Dept.
- 14 Taxi Rank
- 15 Shopping Mall
- 16 Engen Service Centre
- 17 Ramohoebo Square
- 18 Empty Plot (Matshiga st)
- 19 Swimming Pool
- 20 Empty Plot (Maunde st)
- 21 Reservoirs
- A School Grounds
- B Natural Buffer
- C Dolomitic Land



Fig. 45. A new collective vision. These sites form part of the vision developed for Atteridgeville. Proposals are described in depth in Volume I (Nel & Sadiq 2016).

VISION

A summary

Volume I of this series comprises the historical, theoretical, quantitative and qualitative study of Atteridgeville, and is concluded by a proposal for an incremental development scheme after identifying 21 potential sites of development

The analysis revealed the suburban-township state of Atteridgeville, and the symptoms thereof, most notably, the aspects of dependency on Pretoria, and sprawl.

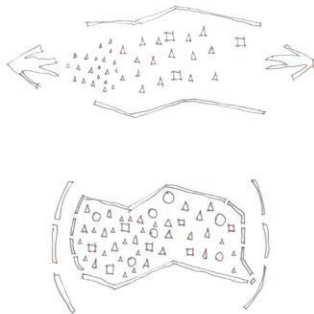


Fig. 46. Dependency + Sprawl vs. Contain (Nel & Sadiq).

The focus of the study, and subsequent choice of intervention, is that of public space and public buildings. The vision (Figure 45, previous page) proposes an incremental approach, taking the existing network of urban green-spaces into account, in an attempt to strengthen and build on their essence.

Three main issues were identified, and used to test the potential sites for development: 1. definition, 2. barrier, and 3. neglect.

Three additional categories were considered as themes to adhere to, in order to form an integrated, holistic vision, and be incorporated in the design process for the individual intervention. These themes were developed in response to many successful spaces found throughout Atteridgeville. They are: 1. Interface, 2. Activity, and 3. Connect.

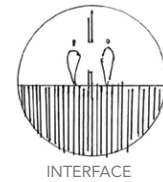


Fig. 47. Definition

Fig. 50. Interface

Fig. 48. Barrier

Fig. 51. Activity

Fig. 49. Neglect

Fig. 52. Connect

*All figures from Nel & Sadiq 2016)



Fig. 53. Point 1 | cafe. Section illustrating micro-economic connection to street. (Nel & Sadiq 2016).

The image above is an example of a typical street in Atteridgeville which has been manipulated to adhere to the three themes: activity, interface and connect. The goal is to understand the dynamic that exists between the private and public realm and build on the existing network, rather than take a *tabula rasa* approach. This strategy will be used to inform the response to the chosen site.

The responses developed were guided by the study of public spaces and the everyday user in Atteridgeville. The main issues identified are summarised in the diagrams below.



Fig. 54. 01. Public realm: neglects activity of the everyday user (Nel & Sadiq 2016).

Fig. 55. 02. Renewal Schemes: economically and aesthetically driven (Nel & Sadiq 2016).

Fig. 56. 03. The user: not supported by public buildings (Nel & Sadiq 2016).

Fig. 57. 04. Location well-connected sites are occupied by monofunctional buildings (Nel & Sadiq 2016).



SURVEY

Mapping *Photographic essay*

A series of mapping exercises are presented to reveal the intricacies of the site at a functional level - exploring access, programmes on site, movement patterns, etc. This study is taken further, as a qualitative analysis through a graphical study making use of photographs and sketches.

A photographic essay is a collection of images ordered in such a way that a story is told, a series of events is illustrated or emotions and concepts are conveyed. The same techniques used in conventional writing is employed, but translated into a visual language.

The following pages invite the reader into Ramohoebo Square - the empty heart of Atteridgeville - providing a window into the site. The intention is for the reader to take a similar journey through Atteridgeville as the author, in order to better understand the intervention which follows.

OUDSTAD NO. 17

Ramohoebo Square

As discussed previously, Atteridgeville was designed as a 'model' township. This means care was taken in the planning and provision of schools, churches, recreational facilities, parks and businesses was essential.

The radial spine can be seen in Figure 58 (opposite). The intention was to connect the two commercial nodes (Mareka street), both located around traffic circles. The main approach into Atteridgeville, was and still is from the north-eastern corner from WF Nkomo street and is characterised by a row of cedar trees. Secondary radial routes emerged from these circles, while the main north-south axis (Komane street) was intended to house administrative and health facilities.

The Pretoria City Council (PCC) made a decision to centralise a commercial hub, distinct from the commonly appearing *spaza* shops which had sprung up in residential areas. The intention was to create a controlled commercial area to 'allow a reasonable amount of competition'. The goal was to protect black businesses and allow for profitable trade within Atteridgeville, while the trade in Pretoria was protected for the white community. (PCC 1943:160).

Due to the Council's optimistic plans for a model township, their financial resources fell short and no buildings for trade had been erected by 1955. Instead, in 1943, permission had been granted to convert 12 houses for commercial use and by 1945, 15 houses had been approved for conversion to business premises. The library, which had been moved from Marabastad, was relocated to a three-roomed house due to lack of financial resources (Coertze 1969:22).

Ramohoebo square is nestled between the undulating landscape of Atteridgeville. Stals (1998:76) states that in 1998 both nodes were 'still underdeveloped regarding both sense of place and underutilisation of space. Visually both nodes have little appeal. The few constructed buildings are positioned regardless of any spatial importance or potential. "

Very little has changed in the last 18 years.



LEGEND

- Main commercial node: shops, sports stadium and community centre were later added.
- Ramohoebo Square: trading and administrative centre. Includes post office, shops, offices, etc.
- Commercial node connected by Mareka Street.
- Ramohoebo square connected to Church street (now WF Nkomo) by Seeiso street.

Fig. 58. Portion of Native Residential Areas plan of Atteridgeville from March 1954. Two major commercial nodes are highlighted. (Original image PCC1948:24).

INCOMPLETE

Unrealised dreams

"Despite all this potential for activity the area was deserted ... one could not help but feel depressed by the face of 'unfinishedness.'" Ramohoebo Square in 1998

(Stals 1998:76)

Today, in 2016, Atteridgeville still displays the same traits. Much public space has been neglected or lost to housing developments. The vast, undefined 'public' space of Ramohoebo Square remains. The original intentions have not been realised, which is seen when comparing Figures 58 and 59. The form of the public square or traffic circle was not fully implemented. Rumour has it that there used to be a traffic circle with the SS Mendi Memorial and a rock garden at the centre, but today the empty square remains underutilised and undefined.

Ramohoebo Square is currently 'framed' by a variety of buildings. The largest, the Atteridgeville Clinic - a primary health care facility providing HIV, AIDS and TB-related treatment - is situated on the southern side of Mareka street. The burnt remains of the Sekgamorogo Shopping Centre lies on the west. To the north of the square sits a small commercial complex which includes DM Classics fashion

designer, a small supermarket, pharmacy, Dr MS Mnthatha's offices, a car parts store and a bar. A large government-run crèche is behind this centre and a primary school to the west. South-east is the post office, the United Reformed Church and a secondary school. Multiple smaller programmes about these structures including a dry cleaner. Finally, to the east is Vintage Corner, a *shisa nyama* (a commercial open-fire barbecue), car wash and bar with a crèche and hardware-type store behind it.

On an average day the square is quiet. The traffic passing through moves by slowly and the open area often gets used as a bus stop. During April site visits, the site was undergoing maintenance, and the burnt remains of Sekgamorogo Shopping Centre were finally demolished in July.

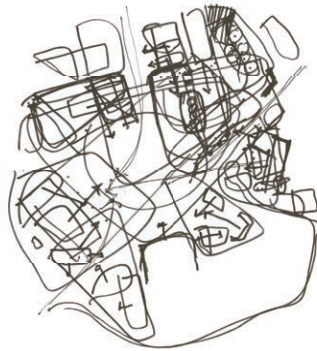
Figure 59, a recent aerial photograph, clearly indicates that the site is still derelict and undefined.



Fig. 59. Aerial photograph of Ramohebo Square. (adapted from Tshwane GIS 2009). See Fig. 63 for key.

REVIVE

Public Buildings



The chosen site is an example of a space intended to include commercial activities in the original planning, which was never executed. As a result, the site lies dormant, lost, and incomplete.

As it stands, Ramohoebo square is not a truly civic space and cannot sustain or maintain the vitality of the community. The public spaces that connect public buildings physically and programmatically are disconnected from the public life.

The following pages follow the investigation of the site through photography and drawing as a method to understand the dynamic and opportunities on site, as well as the theory considered relevant as part of the development of an approach to revive the site.

Fig. 60. Anchors and magnets.
Areas of overlap on Ram Square.

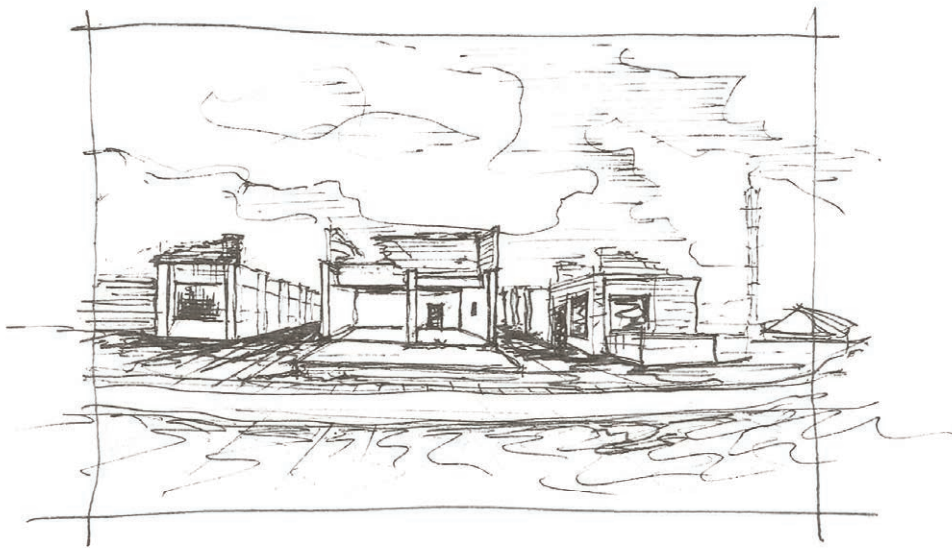
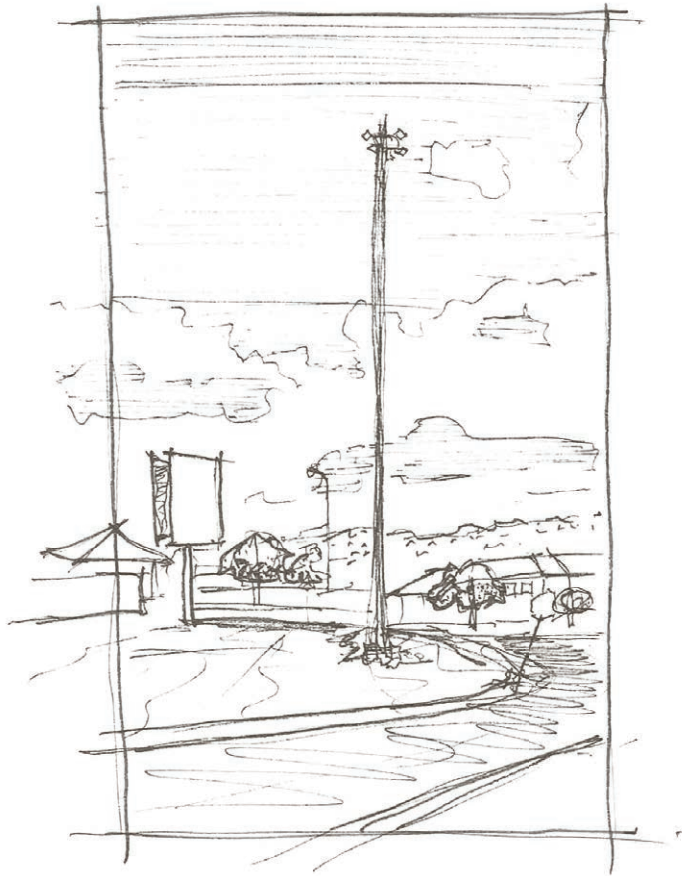


Fig. 61. Neglect. View towards Atteridgeville Clinic over the empty square.

Fig. 62. Loss. Burned down mall on site (April) demolished in July.

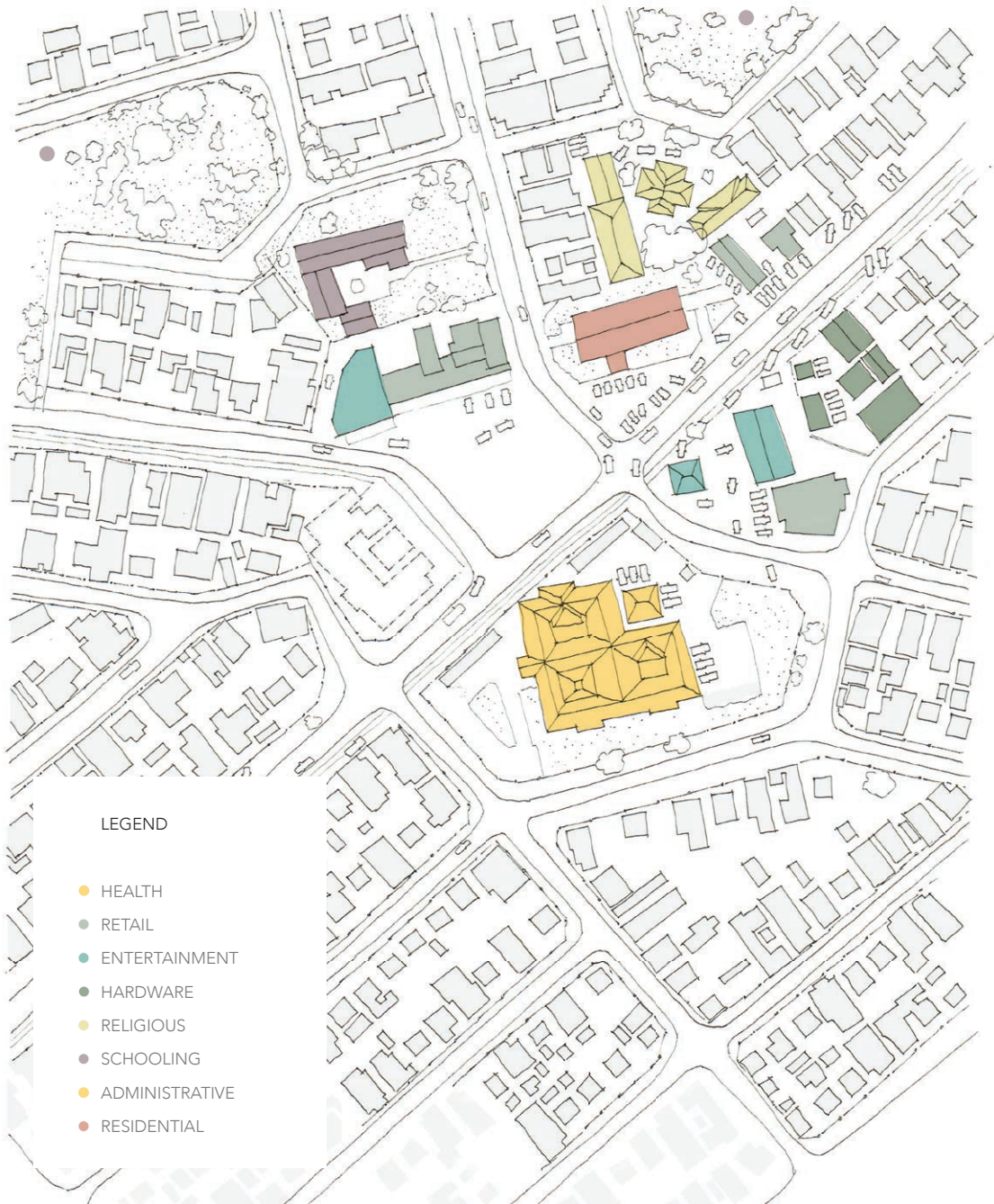


Fig. 63. Ramohoebo Square and surrounds - Noli Map.

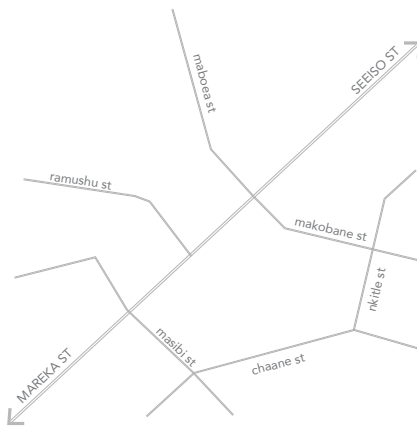


Fig. 64. Street Plan.

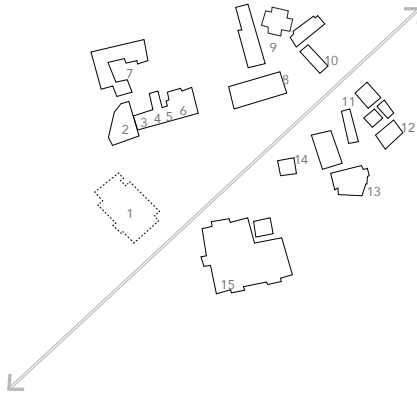


Fig. 65. Existing buildings.

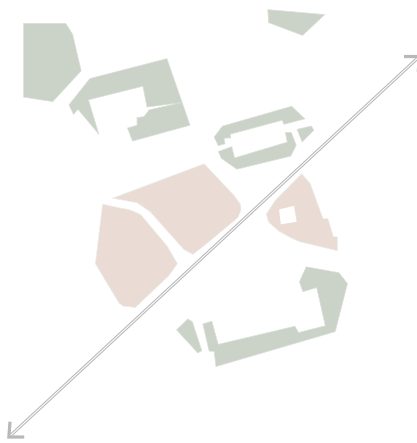


Fig. 66. Hard + soft surfaces.

The mapping exercise reveals the dense suburban grain which surrounds the empty square. The original plans for a commercial node were never fully realised, however a few establishments do exist.

The burnt down shopping mall has caused a loss of energy on the site, as the majority of commercial activities are hosted on the eastern periphery of Atteridgeville, at Atlyn Mall on Khoza street. The post office is regularly used, but the majority of the activity occurs in the evenings at the entertainment venues, Devine Lounge and Vintage Corner. The clinic to the south is well used but offers very little to the public realm as the entire premises is fenced off.

Atteridgeville has very little to offer it's residents in terms of recreation. Since many of the neighbourhood parks were lost to housing developments, empty plots such as this offer potential for diversifying the amenities available to residents.

- 1. Sekgamorogo Shopping centre
Burnt down remains of the centre were finally demolished by July 2016.
- 2. Devine Lounge
A popular entertainment venue
- 3. Lunch Bar Supermarket
- 4. Spares Shop
- 5. Dennie Manthata Classic
Fashion designer
- 6. Dihlareng Pharmacy
- 7. Government crèche
- 8. Atteridgeville Post Office
- 9. United Reformed Church Complex.
- 10. Dry Cleaners
- 11. Christian Bookstore
- 12. Hardware and construction store
- 13. Small informal crèche
- 14. Vintage Corner - carwash, diner, bar.
- 15. Atteridgeville clinic

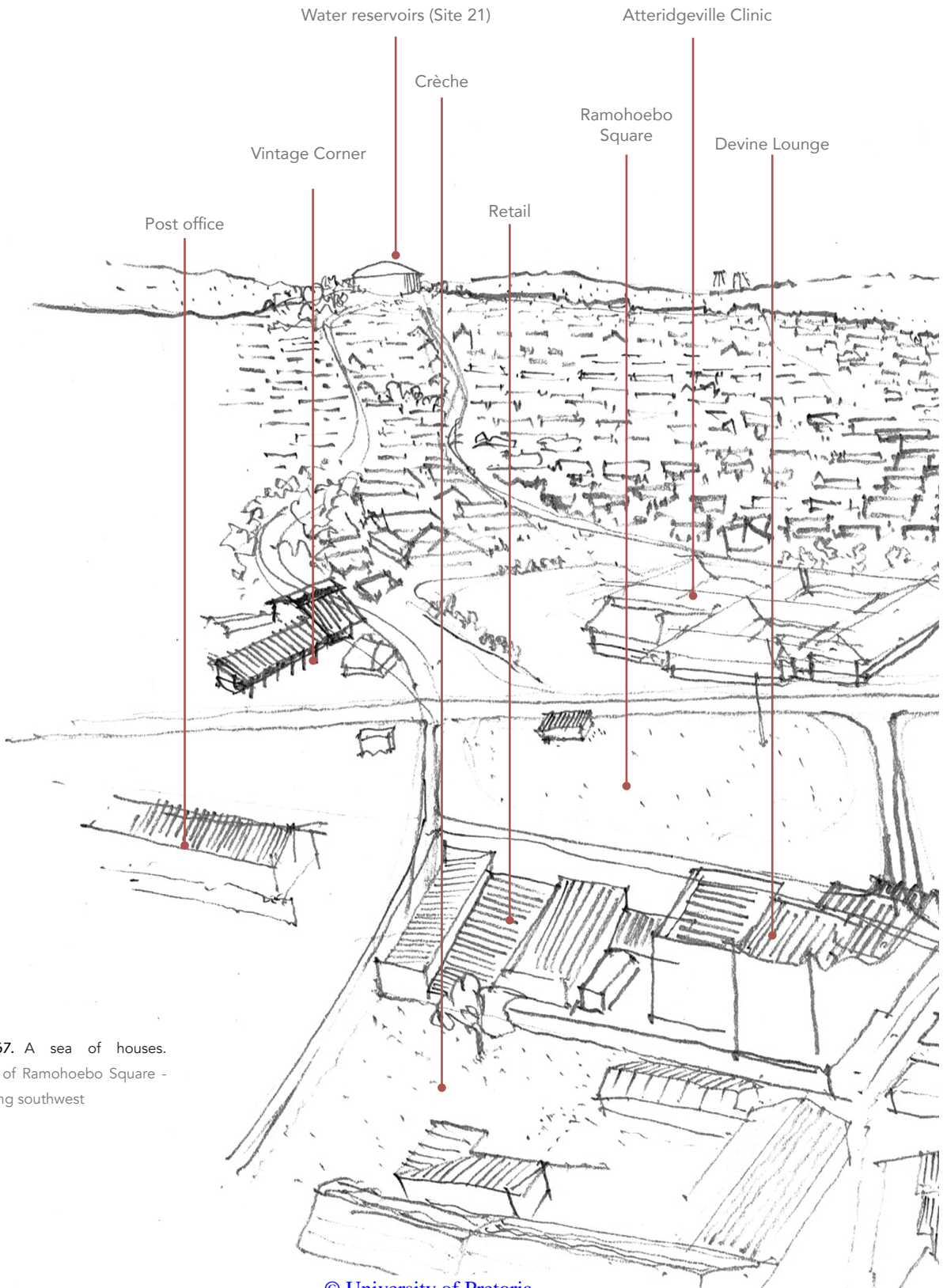
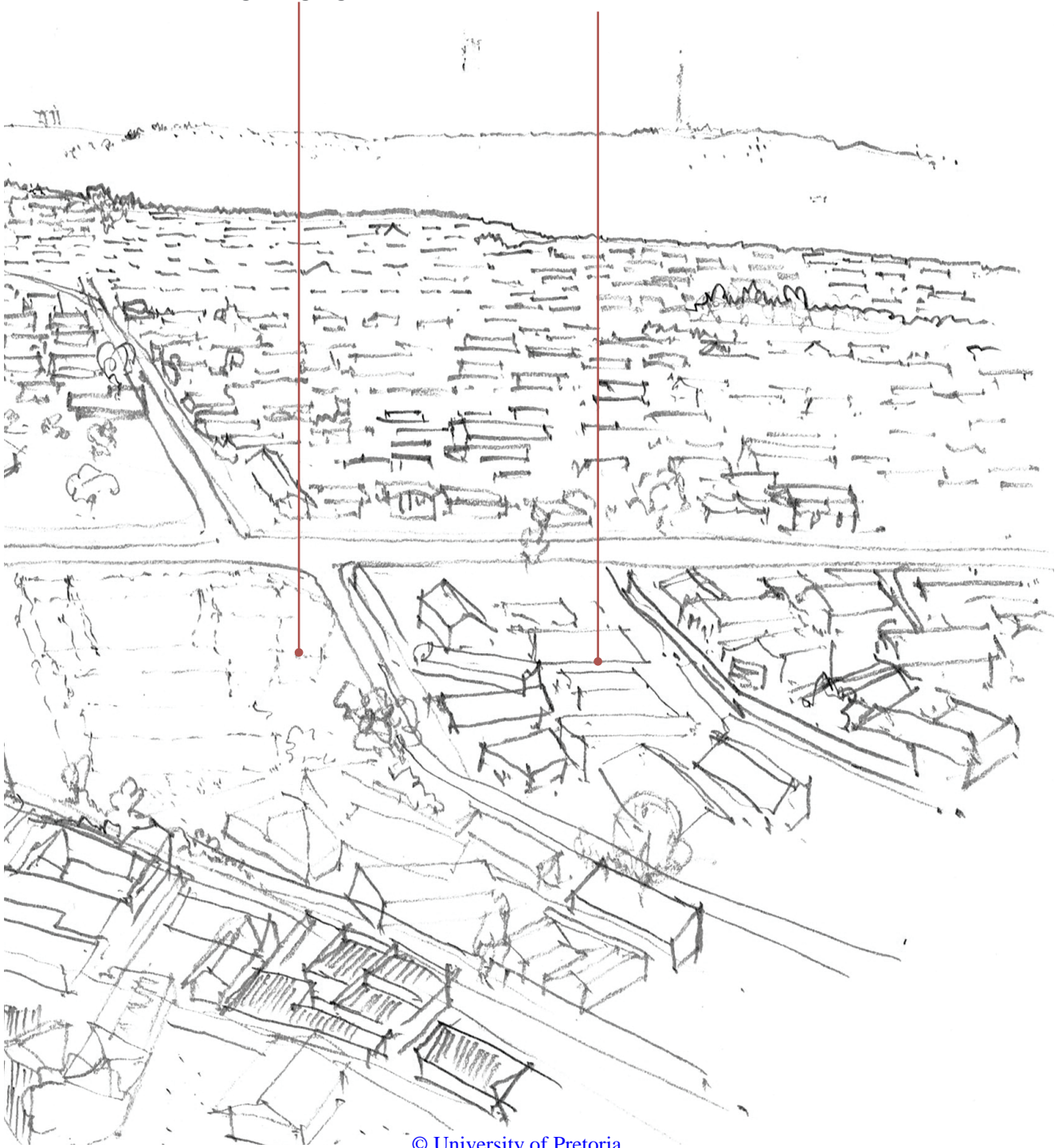


Fig. 67. A sea of houses.
View of Ramohoebo Square -
looking southwest

Sekgamorogo's ghost

Residential



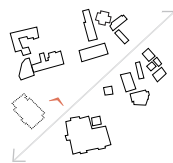


Fig. 68. The Square. Looking north (February 2016).

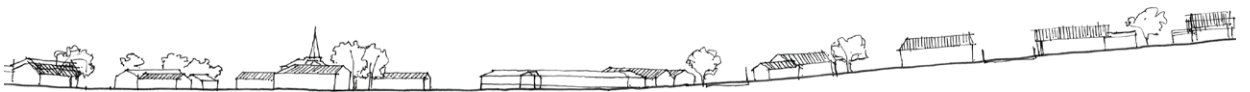


Fig. 69. Section from the church up the hill.

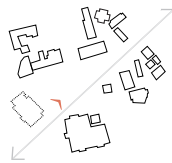


Fig. 70. Post office (left) and Vintage Corner (right) (February 2016).



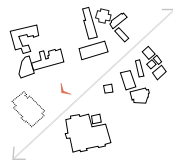


Fig. 71. Remnants of Sekgamoro Shopping Centre (February 2016).



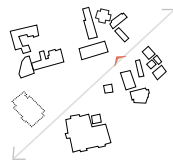


Fig. 72. Church, day care and dry cleaners (February 2016).



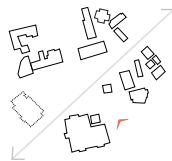


Fig. 73. Clinic (left) Vintage Corner (right) on Mokobane street (February 2016).

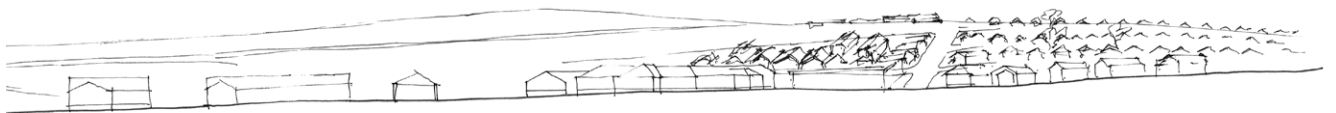


Fig. 74. Hills and houses. View towards Masibi st.

03 | SPACE

Fig. 75. Focused Panorama highlighting points of interest (March).

Fig. 76. Panorama sketch of Ram Square starting at the clinic. (March).



RAMUSHU ST

Clear suburban character with tree-lined streets. Streets are always full of energy with many pedestrians, small street-side stalls or businesses fronting onto the street.

SEKGAMOROGO SHOPPING CENTRE

The remains of the old centre edge the square, signifying the neglect of communal spaces in Atteridgeville. The site is however not inhabited by any vagrants. The remnants of the mall were demolished in July 2016.

DM CLASSICS

A view of the dilapidated stores on the southern edge of Ramohoebo square, including a hardware store, grocer and pharmacy.

DEVINE LOUNGE

South-western corner of Ramohoebo Square - a popular entertainment venue.





POST OFFICE

The Atteridgeville post office, which receives considerable traffic, is in front of the United Reformed Church, a beautiful church which offers an intimate environment in contrast to the vast open space of the square.



VINTAGE CORNER

Formerly, Rams Square Cafe owned by the notorious 'King of Bling' William 'Mashobane' Mbatha - a popular entertainment venue in Atteridgeville.



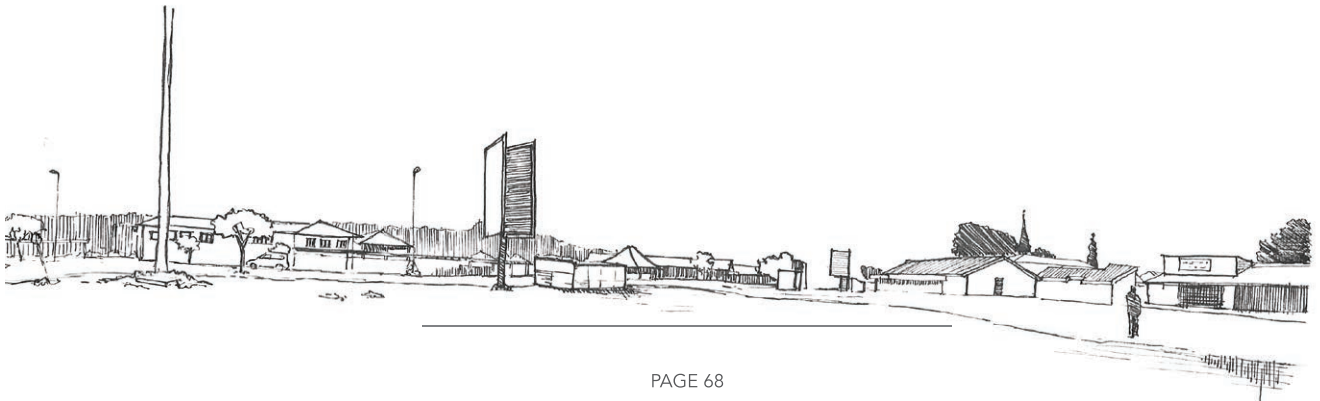
SQUARE

Neglect with a view of the suburb



CLINIC

The Atteridgeville clinic with the rising rows of houses behind.



SUBURBIA

Streets of Atteridgeville



Fig. 77. Suburbia (April 2016).

INDETERMINACY

Patterns and ghosts

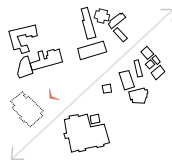
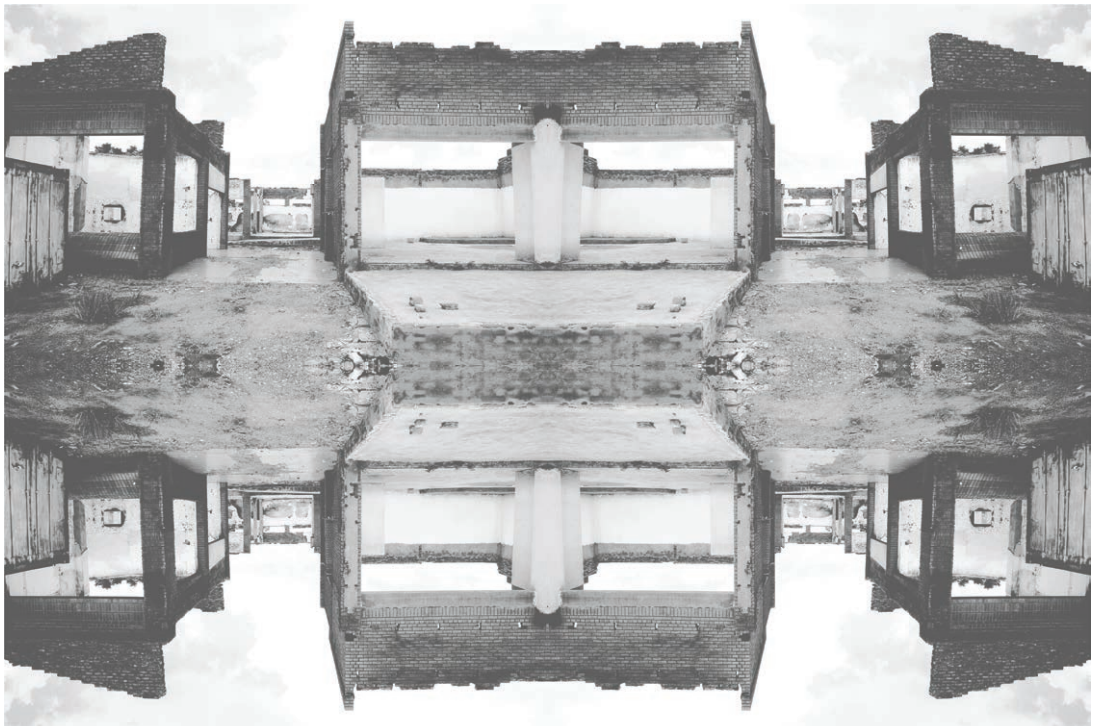


Fig. 78. Patterns and Ghosts (April 2016).

PATTERNS

Uncovering ghosts on site

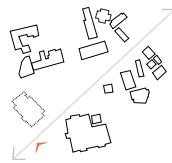
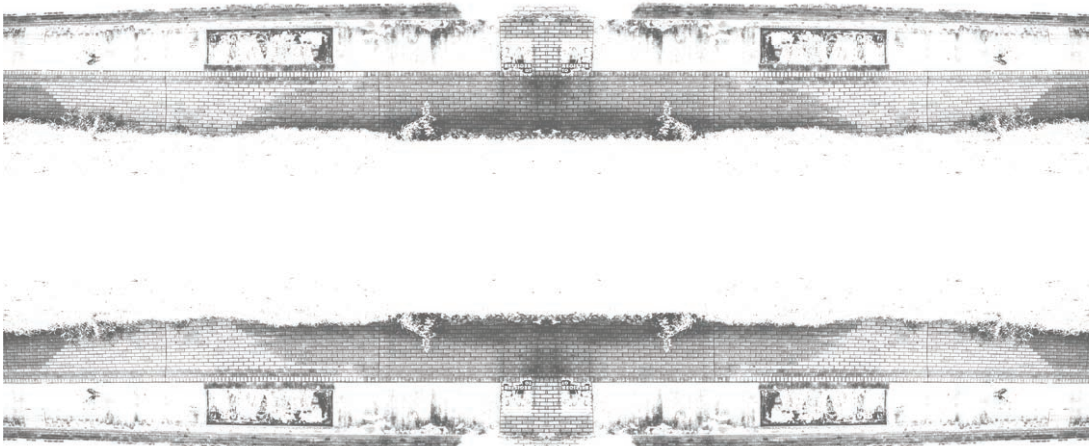


Fig. 79. Patterns (April 2016).

NO DUMPING

Neglect

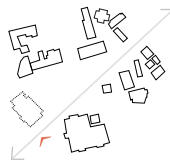


Fig. 80. No dumping (April 2016).

UNEASY

Abandonment

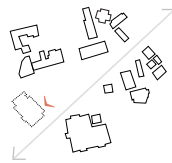


Fig. 81. Uneasy (April 2016).

INTIMACY

The tree and the steeple

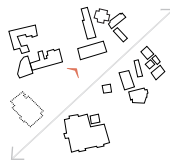


Fig. 82. Intimacy (April 2016).

VACANT

Potential

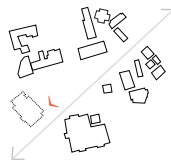
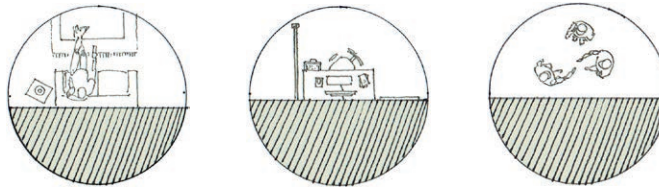


Fig. 83. Vacancy 01 (July 2016). Fig. 84. Vacancy 02 (July 2016).



THE STREET

*As third place,
and maybe first and second*



Third place:

public places on neutral ground where people can interact. These are identified by Ray Oldenburg (1991) as essential spaces for community and public life in his book *The Great Good Place*. First place is the home and second place is related to work.

The vital dynamic that exists on the streets of Atteridgeville presents many opportunities. The reason for its existence may be the loss of dedicated public space, but it also speaks of the sense of community amongst residents.

The streets have been identified as the predominant third space in Atteridgeville. This third place not only functions as a vital neutral ground for social interaction but also the space where businesses spill out or the street becomes an extension of the private, social realm. This is a prominent characteristic in townships throughout South Africa. The large road reserves in Atteridgeville create many such opportunities, as an allowance for this space already exists.

This dissertation aims to investigate what the street lacks as a true civic space. The proposed public space and public buildings should provide for an 'active citizen' of a vibrant neighbourhood by reclaiming the lost space of Ramohoebo Square to establish the heart of Atteridgeville

The boundary of the house serves a purely aesthetic purpose. Gates are left unlocked, and display identity rather than security. The division between public and private spaces is blurred, complimenting the concept of the third place.

The photographic study, site visits and sketches have revealed an unfortunate abandonment of public space. However, a vibrant social dynamic exists in Atteridgeville. This investigation will be taken further to develop a site-specific response.

Fig. 85. First, Second and Third Place. (Nel & Sadiq 2016).



An investigation into the occupation of the street in Atteridgeville:
(Live - Work - Play)

- Fig. 86. Third Place 01 Live.
- Fig. 87. Third Place 02 Work.
- Fig. 88. Third Place 03 Play.

THE VERY NARROW WALL

Broader theoretical approach

Atteridgeville has been identified as a 'borderland' due to the segregationist nature of its development. It holds many positive attributes, possibly due to the formal development of the model township, as discussed by Stals (1998) in her extensive study of a possible connection between physical space and social cohesion.

If a borderland is to be considered as an area of overlap between two things, we begin to see the importance of this interstitial space - the third space. The in-between space, which is between public and private, is where important activity occurs.

Caroline Dionne (1994:2) discusses the border as a place to dwell using the analogy of Humpty Dumpty sitting on a very narrow wall.

... a limit - a point, a plane, a body; a certain Humpty Dumpty sitting on a very narrow wall - that separates both. It is in between and therefore cannot be fixed; it moves, it transforms itself, or at least it appears to be fixed, but only for a certain time, because the mind always oscillates between the two sides... The limit is always becoming; it is the site of events.

Activity is what is hidden inside things, and at the surface of things. The border becomes the place in which to dwell. This relates to preceding topics of discussion related to the body's physical occupation of space and will continue to be used to investigate existing conditions and devices for creating new interstitial spaces.

Dionne (1994:2) continues to discuss systems, stating that the beauty of any system, no matter the complexity, is that it circumscribes a closed, self-sufficient world rejecting the unnecessary. The 'modern' tendency is to create a new system by stepping outside of the existing to create an antagonistic system beside the former, creating yet another system through their union. Dionne suggests that this can be avoided if one chooses to 'enter a system, work within its limits (precisely at the limit) and create a new component (a critique) that induces a slight movement.'

There is a need to investigate the border, the nuances of the in-between, and find a place to dwell there.

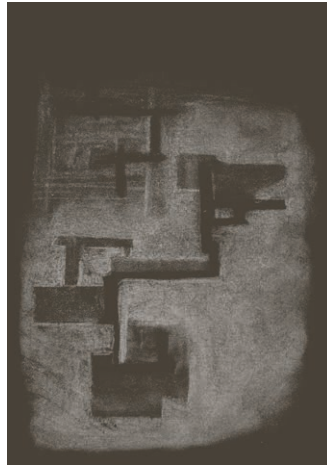
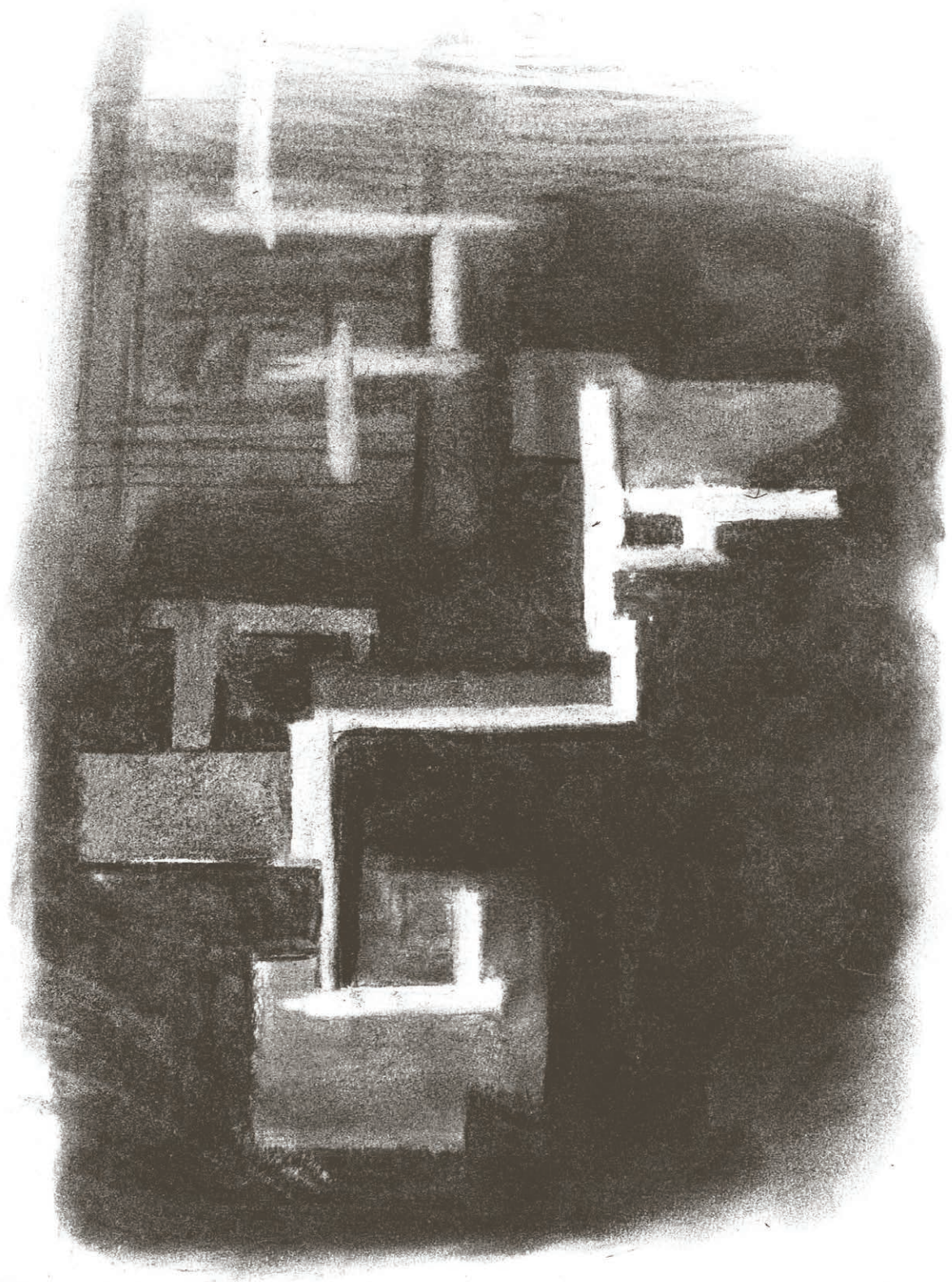


Fig. 89. Inversion.

Fig. 90. The very narrow wall (opposite).



THE INVISIBLE OBJECT

'hands holding the void'

*Discovering the terrains of the
extraordinary in the midst of the ordinary*



There has been a steady “decline of being into having and having into merely appearing.” (Debord 1967). The way in which we interact with one another, and even with ourselves, has deteriorated and our capacity for imagination and dreaming has been lost to our fast-paced lives inundated with an overwhelming amount of information.

What makes Giacometti’s sculpture (opposite page) so incredibly beautiful is that it is the prerogative of the viewer to imagine the invisible object in the hands of the woman - she grasps the void. It is the ability to seek beauty for its own sake which allows us to find the time to wonder and wander.

Surrealist art exhibited a fascination with the discovery of magical things within the mundane. The development of society has created a more mundane environment in which to dwell, and the suburban nature of Atteridgeville has exacerbated this condition. Architecture and the arts could be seen as a means to create the void for us to discover this invisible object.

Fig. 91. The invisible object (Hands), Giacometti (1935).

Fig. 92. The invisible object, (opposite) Giacometti (1935).



*"I search gropingly
in the void to grasp
the invisible white
thread of magic ...
from which the facts
and the dreams
escape..."*

*Giacometti 1933 (cited
by Marcus 2001:215).*

Giacometti, Alberto
Swiss, 1901 - 1966
The Invisible Object (Hands
Holding the Void) 1935.

DISLOCATED CONNECTIVITY

In search of patterns



*connections
movement
activity
programme
density
site
form
place*

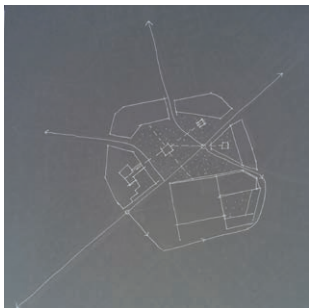
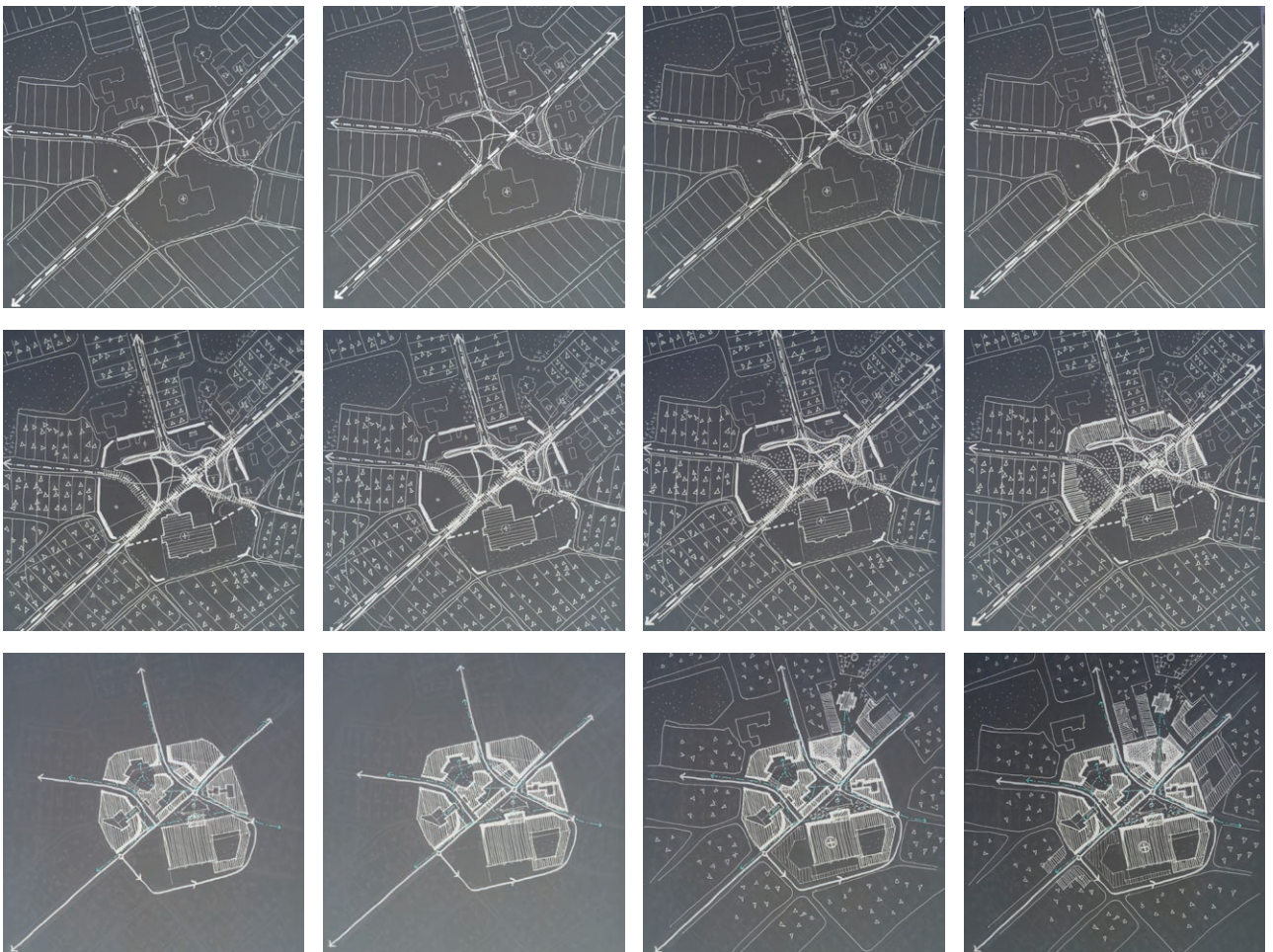


Fig. 93. A series of connections. The diagrams explore layers of movement, points of connection, activity, etc. in an attempt to reveal patterns on site (March).

"The more living patterns there are in a thing - a room, a building, or in a town - the more it comes to life as an entirety, the more it glows, the more it has this self-maintaining fire, which is the quality without a name."
- Christopher Alexander (1979:123).





Vehicular Movement Patterns | Programmes on site | Pedestrian Movement



Residential density | Proposing defined edges and zones of opportunity | Surface treatment considered for pedestrian areas.



Defining a public square | Imposing a courtyard typology | Outward growth and densification



Busiest junctions | Greenery - trees and grass | Highlighting important movement patterns



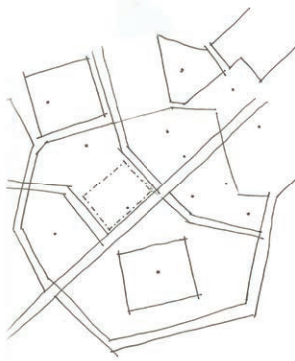
Proposing precincts | Open public space | Fixed programmes to anchor open space

AUTHOR'S NOTES

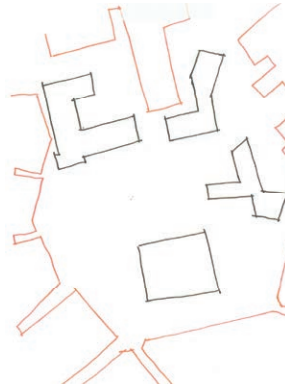
These early explorative diagrams investigate the existing layers on site, and the potential uncovered by superimposing new layers. The objective was to understand how the site currently functions by building upon each layer to create a palimpsest, revealing the connections between old and new. With each layer, relationships were established, creating new patterns for the site. This exercise was intentionally done without a programme in mind to interpret what the site 'calls for'.

The main concerns identified fall under the three aspects identified in Volume I: lack of definition, neglect, and barriers. The new layers imposed were derived from the three lenses: interface, activity and connection. The exercise revealed the enormous potential lying dormant in Ramohobo Square and the potential to have a larger impact on the greater Atteridgeville. There is an opportunity to create a rich precinct hosting a diverse set of programmes. This study will take various forms outlined in the following pages.

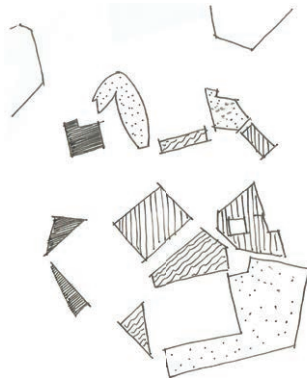
LAYERS



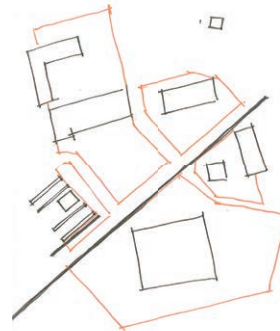
BOUNDARY



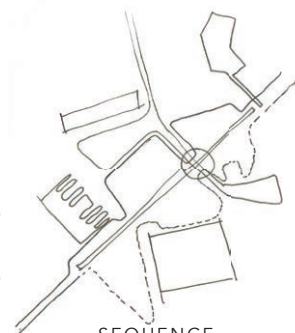
DENSITY



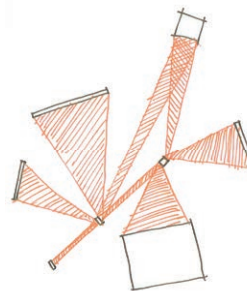
NATURE



STRUCTURE



SEQUENCE



CONNECTION

Fig. 94. Layers. An exploration of various layers on site to understand territories and connections.

INDUCE A 'SLIGHT MOVEMENT'

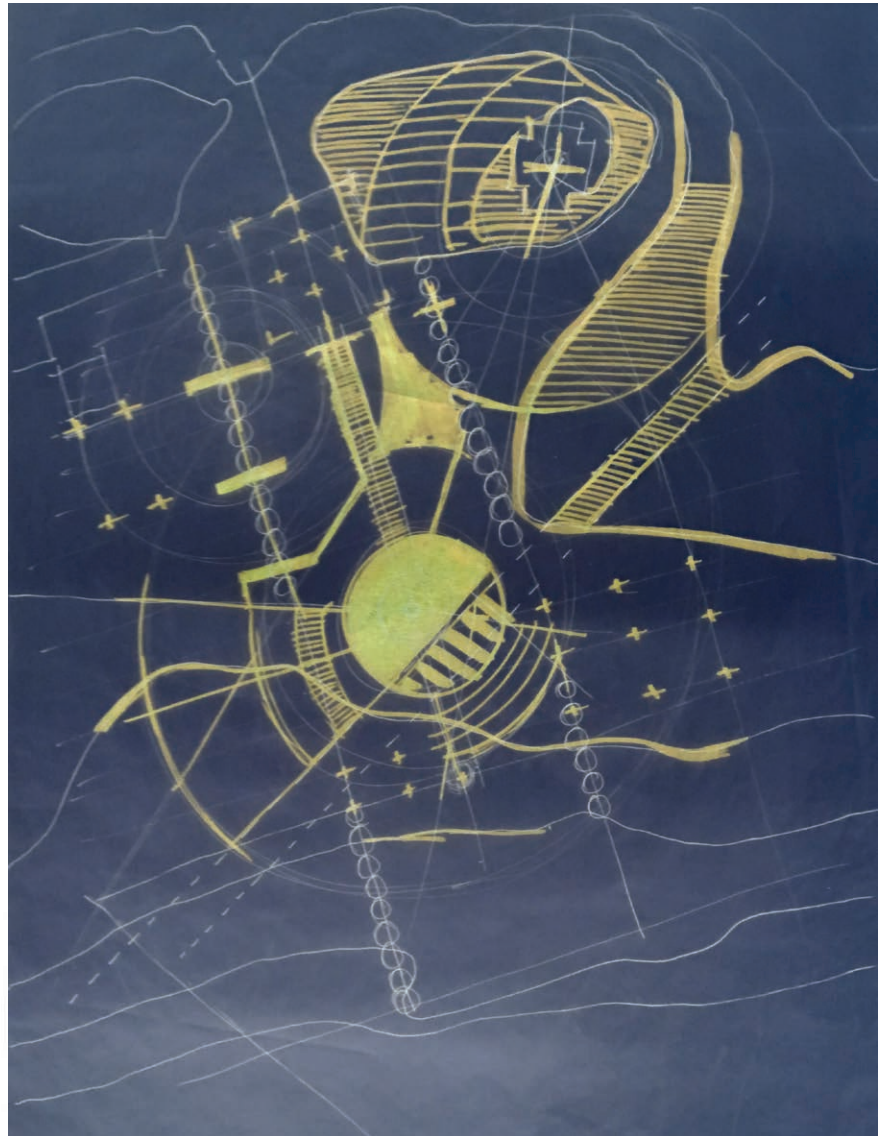


Fig. 95. Series of Order (left). Methods to create legibility on site.

Fig. 96. Grids and anchors on site (right).

HIERARCHY + ORDER

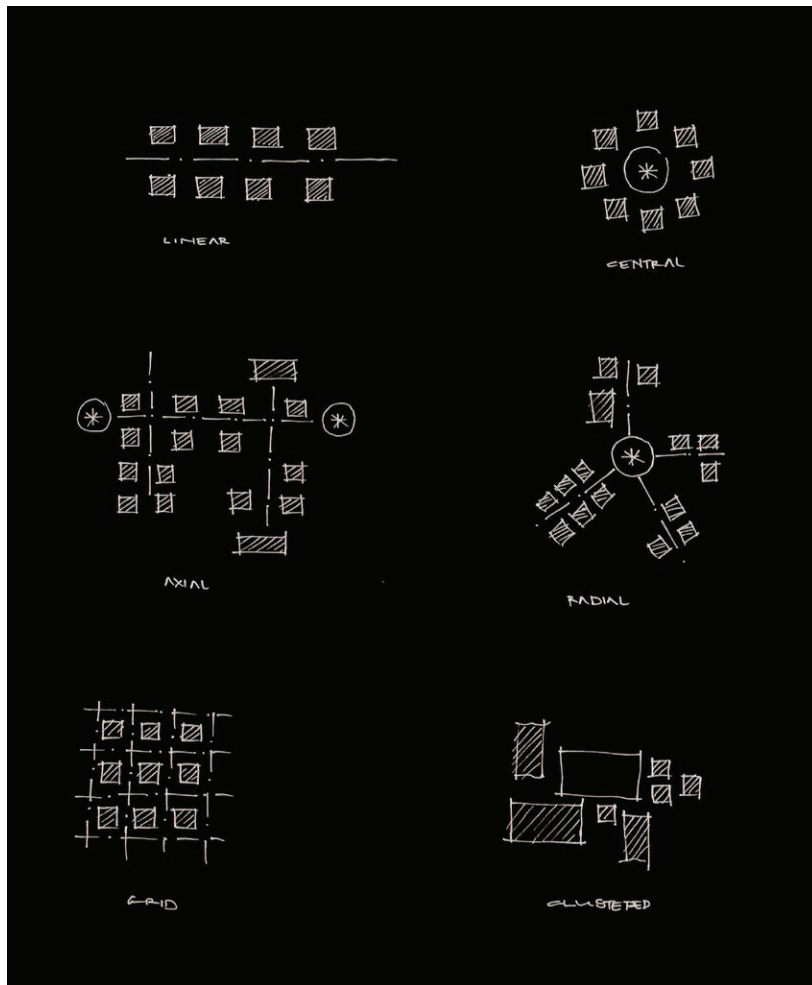


Fig. 97. Urban configurations

The search for a new structure for Ramohoebo square led to the investigation of alternative spatial configurations of urban development. The above diagrams indicate typical formations which are explored in the following pages using models and drawings.



Fig. 98. Carving out territories on site (March).

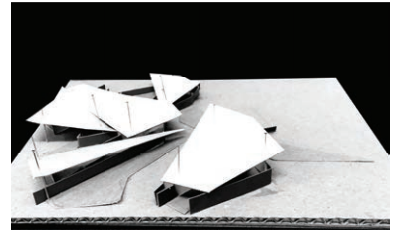
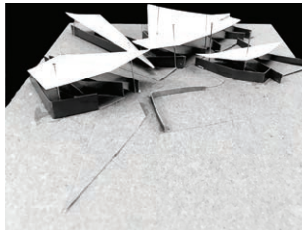
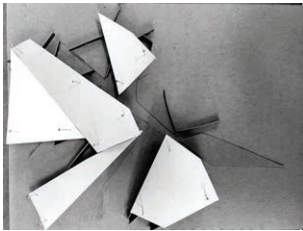


Fig. 99. Pockets of space (March).

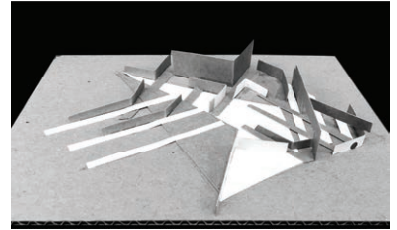
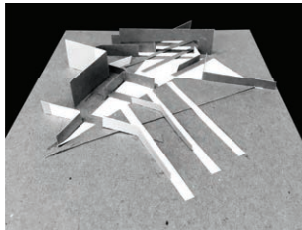
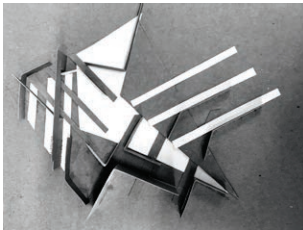


Fig. 100. Exploring vertical and horizontal planes (March).

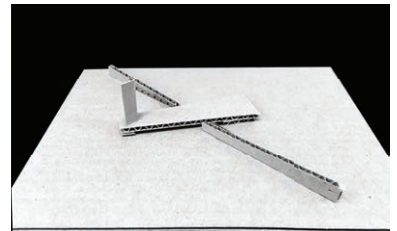
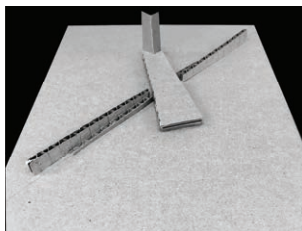
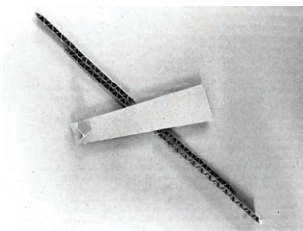


Fig. 101. Landmarks (March).

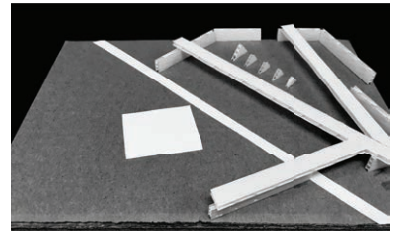
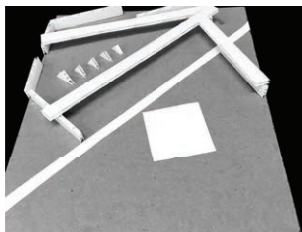
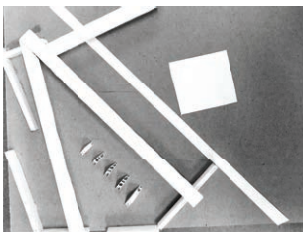
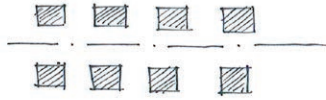
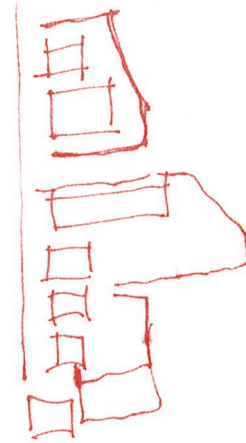


Fig. 102. Planes (March).



*"Our perception of built space has to do with the common activities that it shelters; with that ritournelle whistled by our body, every day, in the successive depths of this rhythm-space. We inhabit and tame architecture in order to make it belong to us, who belong to it. We render it familiar and eventually construct a meaning dancing a ronde within the walls."
(Dionne 1994:16)*



The physical exploration of planes through models led to a deeper understanding of the palimpsest exposed by the mapping exercise. The images to the right show the investigation of a linear typology responding directly to the street edge in search of opportunities presented by a linear, rather than centric model. Learning from conditions on site allows for a sensitive and appropriate approach.

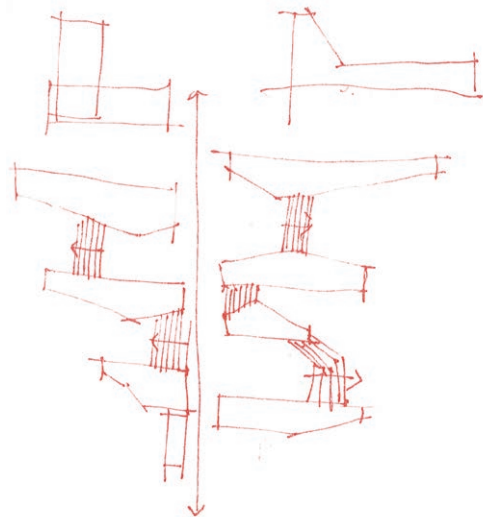


Fig. 103. Exploration of a linear model rather than centralised space.

Fig. 104. Mimicking the street perpendicular to the main axis.



Fig. 105. Testing of configurations on site (Mar.-Apr.).

CONNECTIONS

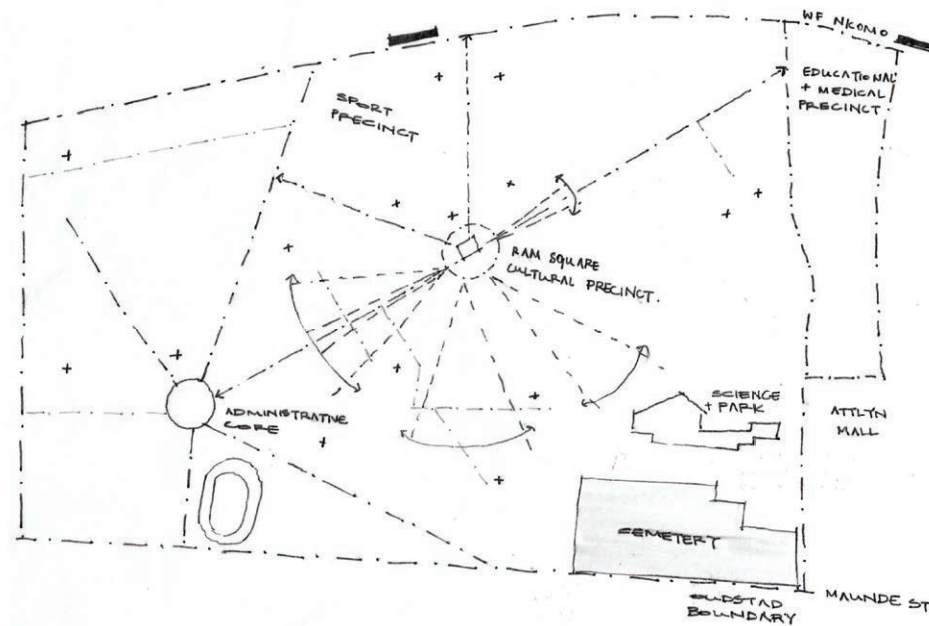


Fig. 106. Views and connections. From Ramohoebo Square to the 21 sites identified in Volume I.

Lying at the heart of Atteridgeville, Ramohoebo Square is well connected to the larger, administrative core and the main entrance to Atteridgeville at W.F. Nkomo street. This site will form a valuable recreational core as part of the larger vision proposed in Volume I.

CONDITIONS

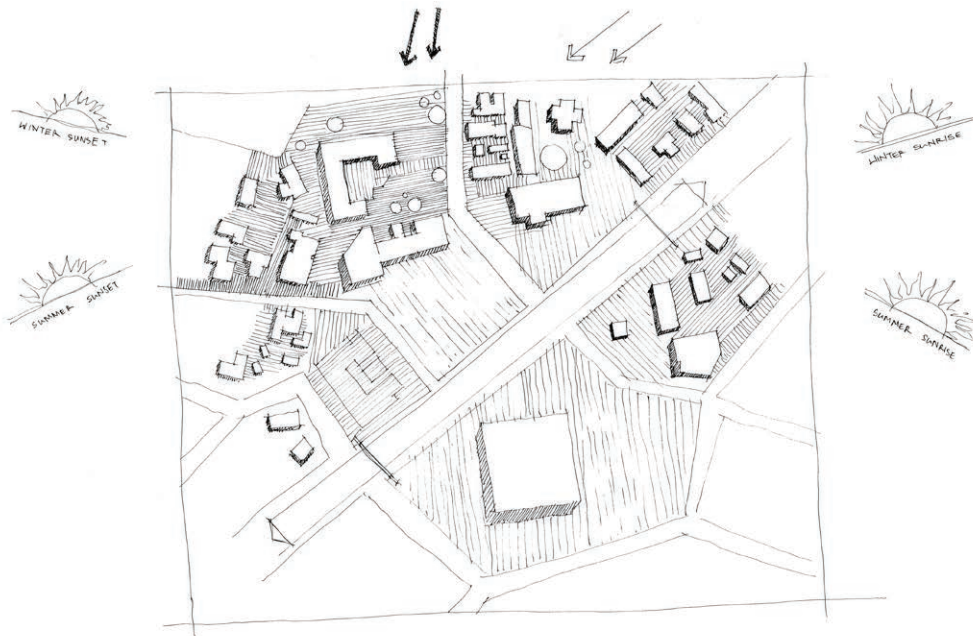


Fig. 107. Mapping quadrants and climatic conditions on site.

The above diagram illustrates the potential to tie the separate quadrants of the node together, responding to the main Mareka street running through the site. As it stands, the empty square is bare and dusty, without any alleviation from the elements. Exposed to noise and wind the site is seldom occupied except by those passing through.

IN SEARCH OF THE QUALITY WITHOUT A NAME



"Places which have this quality, invite this quality to come to life in us. And when we have this quality in us, we tend to make it come to life in towns and buildings which we help to build. It is a self-supporting, self-maintaining, generating quality. It is the quality of life. And we must seek it, for our own sakes, in our surroundings, simply in order that we can ourselves become alive."

*- Christopher Alexander
(1979:53-4)*



Fig. 108. A view of the church (March).

Fig. 109. Sketching 'the quality without a name.'

REFUGE

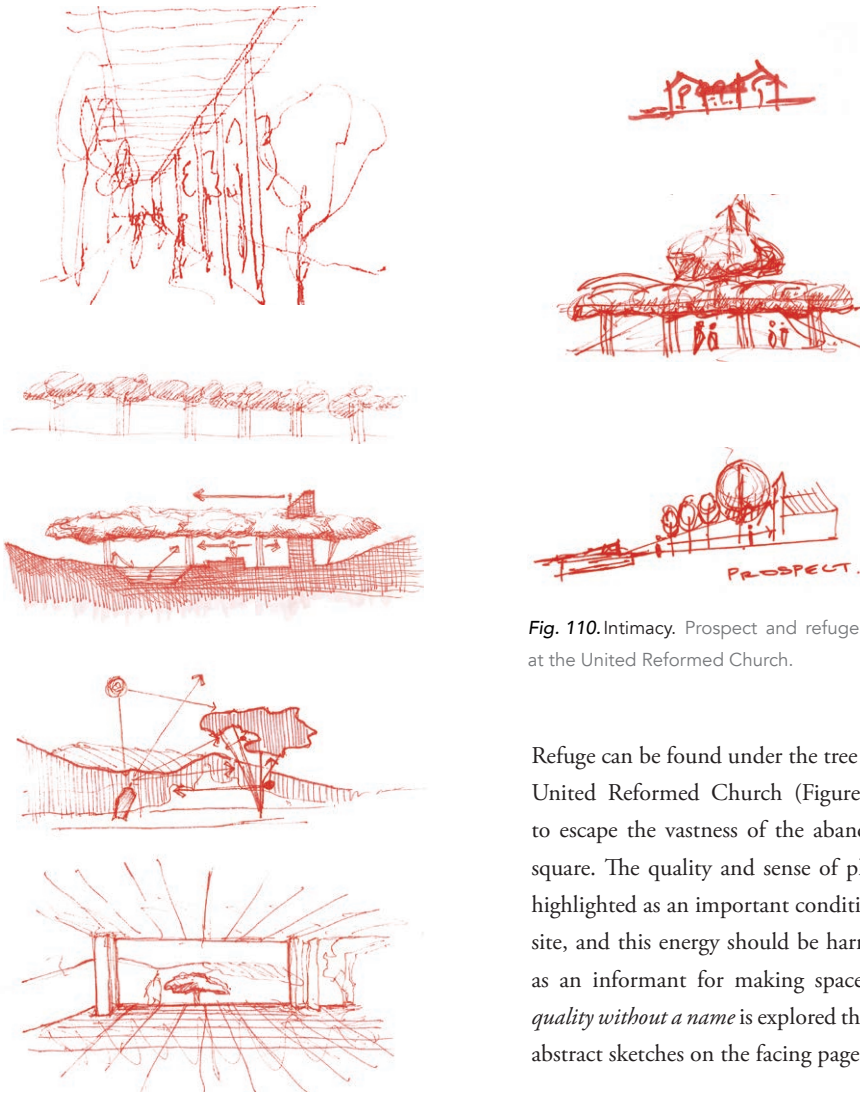


Fig. 110. Intimacy, Prospect and refuge at the United Reformed Church.

Refuge can be found under the tree at the United Reformed Church (Figure 108) to escape the vastness of the abandoned square. The quality and sense of place is highlighted as an important condition on site, and this energy should be harnessed as an informant for making space. The *quality without a name* is explored through abstract sketches on the facing page.

Fig. 111. The use of trees to define space or as foci.

4. EXPERIENCE

Programme intentions

Theoretical, conceptual and contextual drivers informing programme selection are introduced to the reader in this chapter.

Programmatic consideration stems from a desire to create space that allows the user to 'get lost' and be immersed in the experience of just *being* in that space, freely. Specific activities or programmes enhance this experience or prepares one for it.

Set programmes to be introduced are to be seen as *anchors* which ground and support the adjacent spaces. The focus is on the in-between. This being said, the programmes are secondary to the experience and the investigation is not the interrogation of conventional typologies, but rather of their impact on the spaces they support.

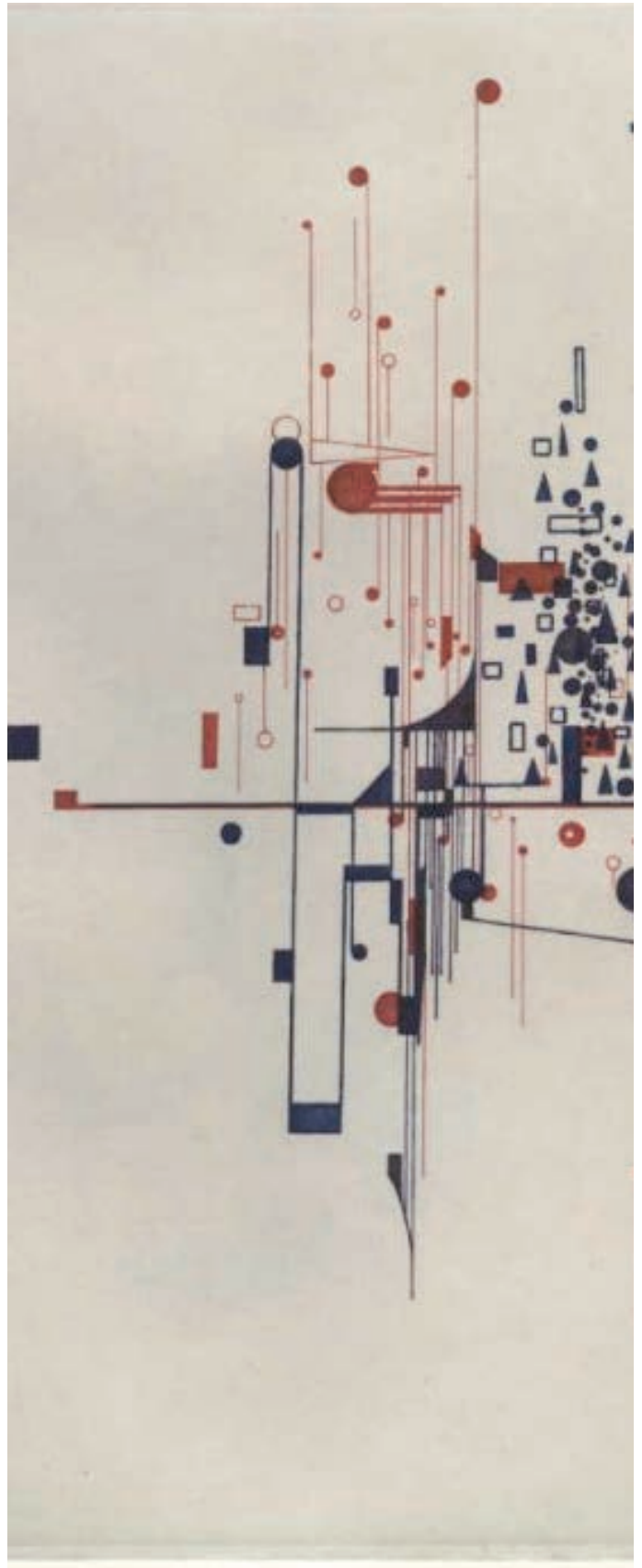


Fig. 112. Roman Hauenstock-Ramati. Score for Konstellationen (1971).



VISUALISING EXPERIENCE

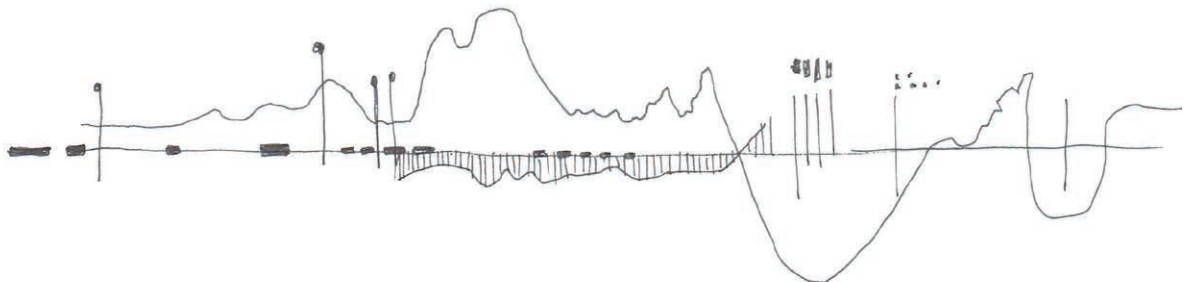
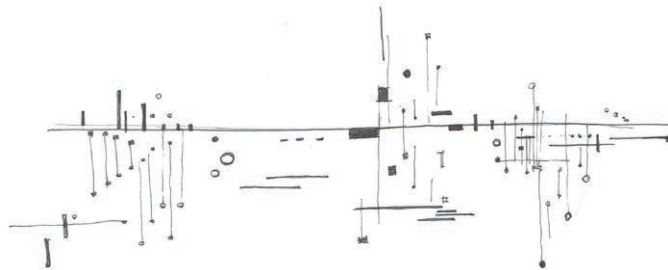
Getting lost



Fig. 113. Bleeding of the intangible. Finding order and chaos in Ram Square.

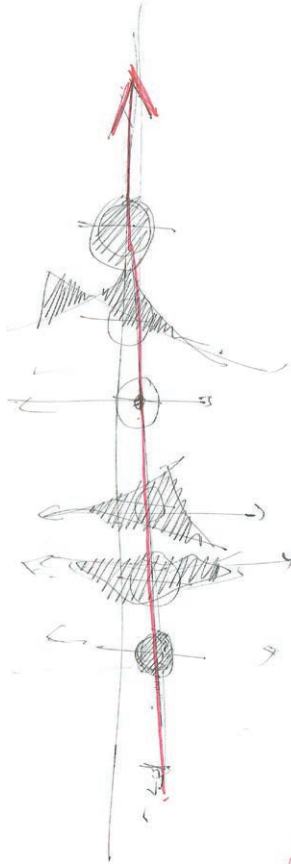
Fig. 114. Scores for experience - getting lost 01

Fig. 115. Scores for experience - getting lost 02



ANCHORS

and the in-between



The art of visualising music, illustrated by Roman Hauenstock-Ramati's Score for Konstellationen (Figure 112) inspired me to develop a graphical representation of experience - moving through space, getting lost, slipping in and out of an experience, an activity, a space or the subconscious.

This depiction revealed the value of a place in which to do nothing (varying scales of nothing). It is just as valuable as the places to do something.

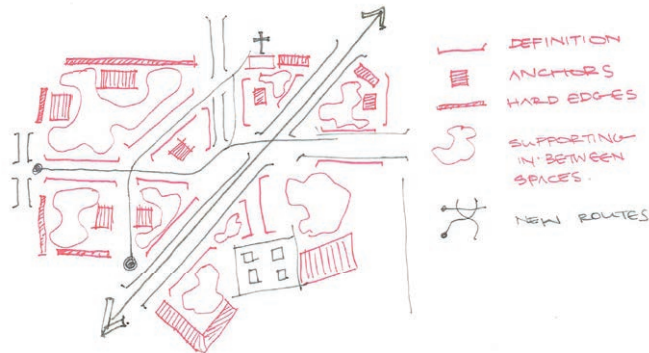


Fig. 116. A map for getting lost.

Fig. 117. Anchors, routes and the in-between.

WATCHING THE WORLD GO BY

Christopher Alexander

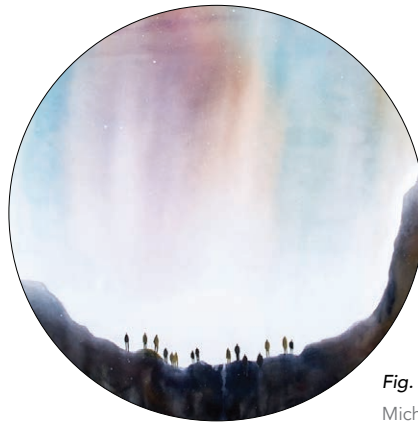


Fig. 118. Entrance (cropped).
Michelle Blade (2014)

"...events which repeat themselves are always anchored in the space. I cannot imagine any pattern of events without imagining a place where it is happening.

[...]

Consider for example, the pattern of events which we might call "watching the world go by."

We sit, perhaps slightly raised, on the front porch, or on some steps in a park, or on a cafe terrace, with a more or less protected, sheltered, partly private place behind us, looking out into a more public place, slightly raised above it, watching the world go by.

I cannot separate it from the porch where it occurs.

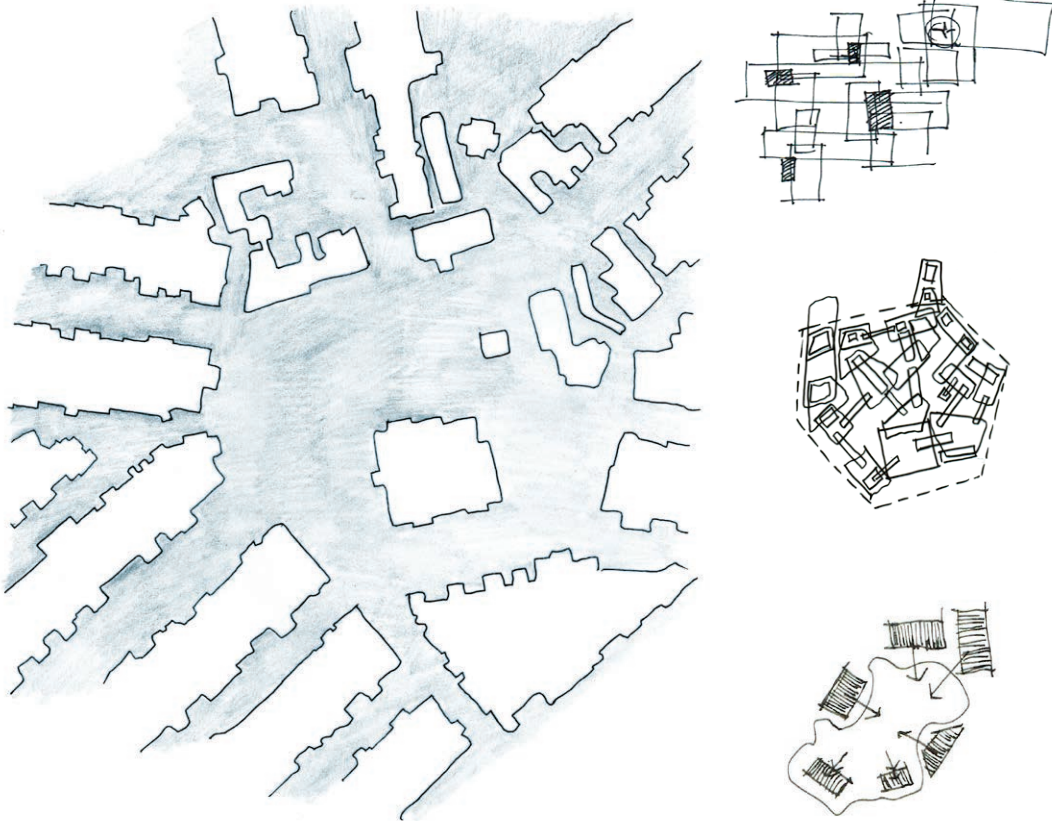
The action and the space are indivisible. The action is supported by this kind of space. The space supports this kind of action. The two form a unit, a pattern of events in space."

*Christopher Alexander
(1979: 69-70)*

THE PORCH

A pattern of events

cannot be separated from the
space where it occurs.



Clockwise (from left)

Fig. 119. Mapping the negative.

Fig. 120. Overlap

Fig. 121. Overlap on site

Fig. 122. Breaking boundaries

The images above reveal the relationship between anchors, supporting spaces and the routes that define them. This investigation was a means to develop a complexity on site based on these simple principles in response to Alexander's dissection of the porch and a pattern of events in space.

THE STORYTELLER

Pleased to meet you



Fig. 124. The Storyteller. Illustrations by Turk, 2015.

"Familiar though his name may be to us, the storyteller in his living immediacy is by no means a present force. He has already become something remote from us and something that is getting even more distant..."

[...]

It teaches us that the art of storytelling is coming to an end.

[...]

[T]he securest among our possessions, were taken from us: the ability to exchange experiences.

One reason for this phenomenon is obvious: experience has fallen in value. And it looks as if it is continuing to fall into bottomlessness."

-Walter Benjamin (1969:83)

THE FORGOTTEN ART

Haven't seen you in a while

"The storytelling that thrives ... is itself an artisan form of communication, as it were. It does not aim to convey the pure essence of the thing, like information or a report. It sinks the thing into the life of the storyteller, in order to bring it out of him again.

Thus traces of the storyteller cling to the story the way the handprints of the potter cling to the clay vessel."

- Benjamin (1969:91)

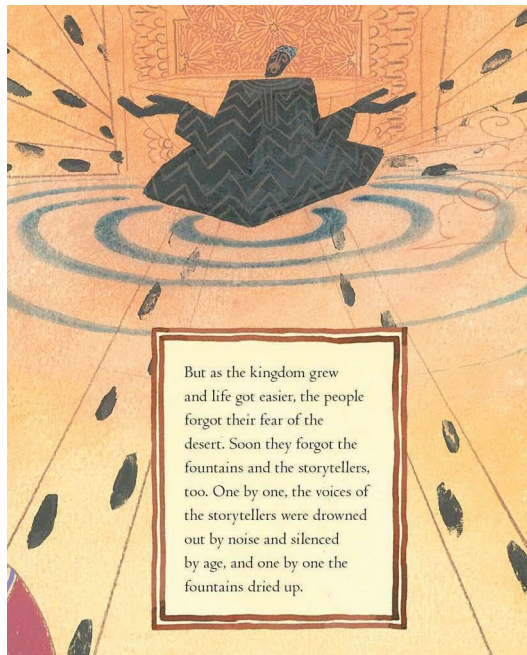


Fig. 125. The Storyteller.
Illustrations by Turk, 2015.

The 'artisan form of communication' described by Benjamin (1969:91) is dwindling. The storyteller struggles to exist in a world where productivity and instant gratification are sought after. We lack the slowness required to lead us to stillness. To listen.

There is a beauty in getting lost in another's voice; to be transported to another place and time. We lack this mystical depth in our everyday lives.

A CAPACITY FOR BOREDOM

The lost art of stillness

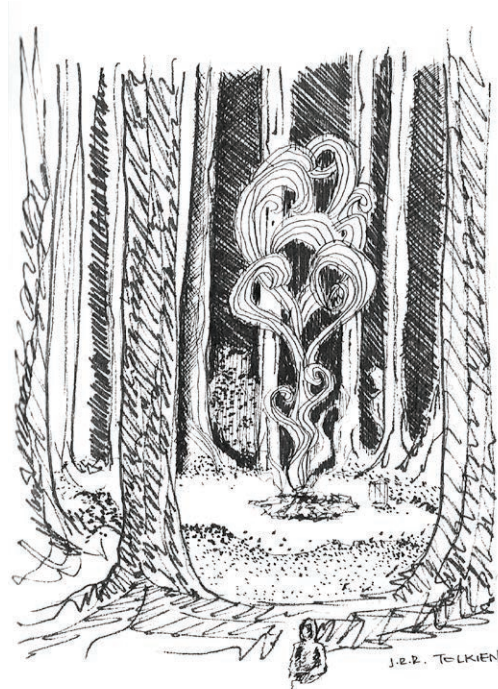


Fig. 126. Sketch of Tolkien's illustration The Trolls.

"The more self-forgetful the listener is, the more deeply is what he listens to impressed upon his memory.

- Walter Benjamin (1969:91)

SLOWNESS

In praise of idleness

*If sleep is the apogee of physical relaxation,
boredom is the apogee of mental relaxation.*

Walter Benjamin (1969:91)



Fig. 127. Labyrinth. The art of getting lost.

Going nowhere ... isn't about turning your back on the world; it's about stepping away now and then so that you can see the world more clearly and love it more deeply."

*- Leonard Cohen
(Iyer 2014:13)*

Our capacity for boredom is a valuable one, but our understanding and respect thereof has waned. Boredom is inherent to creativity and discovery, and securing our connection to the slowness of nature. By denying ourselves of this slowness, we deny ourselves the opportunity to be truly present. Benjamin (1969:91) describes boredom as “the dream bird that hatches the egg of experience.” Understanding the value of boredom in this light, is vital.

To restore our capacity for boredom, perhaps we need spaces that encourage slowness and ‘nothingness’, spaces that may reconnect us to the rhythms of the natural world and promote being *present* as we move through thin layers of experience.

THE POET

Producing poets



Fig. 128. The storyteller. Illustrations by Turk (2015).

"It seems to me that the artist's struggle for his integrity must be considered as a kind of metaphor for the struggle, which is universal and daily, of all human beings on the face of this globe to get to become human beings... The poets (by which I mean all artists) are finally the only people who know the truth about us. Soldiers don't. Statesmen don't. Priests don't. Union leaders don't. Only poets.

[...]

[This is] a time ... when something awful is happening to a civilization, when it ceases to produce poets, and, what is even more crucial, when it ceases in any way whatever to believe in the report that only the poets can make..."

- James Baldwin (1962)

PHELI

Language and poets



Pheli - The Narrative History by Magashe Titus Mafolo was written in 2015 to celebrate the 75th Anniversary of Atteridgeville. One of the most notable aspects of this account was the eminent figures mentioned - members of Pheli who played vital roles in the community, ranging from a teacher to a political figure. The culture of recognising these pillars of a community continues.*

Mafolo's text is mentioned to illustrate the value of storytelling. In an interview with the SABC, Mafolo emphasises the importance of engaging with literature, especially local literature and also the value of encouraging youth to participate in creative writing (SABC 2015a).

James Baldwin (1962) argues that society is no longer producing *poets*, and this should be a cause for concern. Mafolo expresses a similar concern:

Unfortunately, these young people are denied the important knowledge of their own history, the wisdom found in the idioms and proverbs that make many African communities produce such vibrant and far-sighted individual leaders like Alfred Mangena, WF Nkomo, Nelson Mandela, Oliver Tambo, Es'kia Mphahlele, Steve Biko and others.

This predicament has repeatedly been a contentious issue in the South African context. Disputes regarding the language of instruction have again become relevant in 2016. Without delving too deeply into this topic, it is important to bring to the forefront the relationship between language and identity and reiterate Mafolo's sentiment on the value of literature.

*Annually, teachers are honoured with an event at the Saulsville Arena filled with festivities including awards and performances.

*Attridge Tribute is an organisation established to honour Mrs Atteridge, with a focus on sharing and promoting local history and protecting the spirit of Atteridgeville.

LITERATURE

Stories and place



Fig. 129. The storyteller. Illustrations by Turk (2015).

Sven Ouzman (2002:3-29) explains that architecture creates a place for storytelling, connecting the intangible past to the built fabric of today. It becomes of that place, by the people who know it so intimately. A constant framing and presencing of place and the stories attached to that place is necessary. To achieve this, Ouzman recognises the value of embracing place and not focussing too narrowly on the subject matter. The importance of these “outdoor classrooms” is that they also become good places at which to think, spaces “for contemplation [where] one is physically removed from home, office ... and the other insidious attention-grabbers.” These spaces encourage introspection, about the past but also “one’s own development and trajectory,” but more importantly, stories appeal to every member of a community, especially children.

By story, I do not mean a weak narrative but a robust entity borne out of the soil and history of a particular people that are of a particular landscape... Wilhelm Bleek called this and other similar stories literature.

Ouzman (2002:10).

Unfortunately these places for storytelling are hard to come by. As has been discussed, public spaces are often neglected. For example, the library in Atteridgeville was removed to give way to a petrol station. The only cinema and theatre that used to provide entertainment in Atteridgeville were both converted to churches.

NARRATION

Stories and people

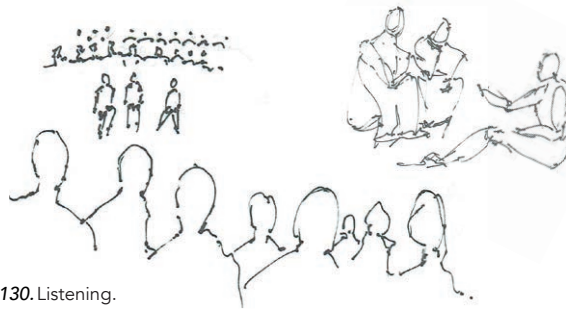


Fig. 130. Listening.

Gibson Kente, or 'Bra Gib' is identified as an example of an important storyteller. Recognised as the founding father of Black township theatre, he produced more than 20 plays and three television dramas between 1963 and 1992. This social issues apparent during these turbulent years in South Africa were featured in his work. Kente was one of the first South African's to openly address poverty, crime and the politics of townships. He revolutionised African theatre. Kente also played a key role in launching the careers of prominent figures such as Brenda Fasié and Mbongeni Ngema, and wrote music for Miriam Makebe Letta Mbulu (McGregor 2004).

Kente trained and inspired many black actors and singers during a time when "black creativity was viewed as a threat and suppressed by the apartheid state." Despite the limited resources available in

townships, Kente succeeded in creating musicals and plays revealing "the fears, hopes, joys and tribulations of black urban communities" (McGregor 2004).

Another example of such a person is the talented jazz musician from Atteridgeville - Linda Kekana. In a recent interview (SABC 2015b), Kekana explains the value of honouring musicians and artists, as these figures have a voice, and the potential to contribute to their communities.

Despite the awful conditions endured in townships during apartheid, countless creatives were nurtured in these environments and contributed immensely to their communities. Kekana and Kente are both examples of these important role models who demonstrate the value of performance and expression.

EXPERIENCE

The body in space

Each space should offer the user a way to lose themselves, whether through seclusion, immersion, or observation of the spectacle.



Every action is a means to pay homage to the poets of Atteridgeville, in the everyday.

Fig. 131.366 Days of the Apocalypse (cropped). Michelle Blade (2012)

THE PROGRAMME

Intentions



The investigation concentrates on the death of the public realm in a suburban context. These spaces form an integral part of successful cities, and it is necessary to recognise townships and their capacity to develop as self-sufficient entities, rather than ones dependant on an external force.

The intention is to develop a scheme where the everyday is celebrated - one which grounds citizens in their collective space. This will be used to pay homage to the history of public gathering and expression in Atteridgeville while challenging existing public-space typologies and conventional interventions in townships.

Pragmatically, the programmes respond to the need for recreation spaces in Atteridgeville. The loss of public and recreational spaces has altered the dynamic of a vibrant community despite ongoing attempts to keep the spirit alive. Although there are many schools in the area, there is little exposure to the arts and artistic expression, and there is no space to host such activities.

The programmes include a theatre, cinema, library and writer's refuge in conjunction with existing programmes on site, which will support a defined public space. The combination of these programmes will be located in the empty heart of Atteridgeville, Rams Square.

This is an attempt to create a place to 'get lost' and lose oneself within the mundane. It is a place to find the extraordinary and through those activities of the everyday and pay homage to the celebrated poet of Atteridgeville.

Fig. 132. Day 112 (cropped). Michelle Blade (2012)

IMMERSION

The Library

Books offer their readers an opportunity to fully immerse themselves in a world beyond their own. Reading requires us to use our imaginations and succumb to the sensation of being fully consumed by the written word. The library becomes a place to slip into, away from the mundane. A place that inspires awe and wonder.

The configuration of the library is important to capture this experience. The transition from the very public edge should draw one through nature, into the literary world. Windows may offer glimpses into the space, enticing passers-by, but once inside, the library offers an all-consuming experience. Vertical views are offered to the sky, enhanced by the elegant forms of trees, while horizontal views remind you that you are sharing this experience with others.

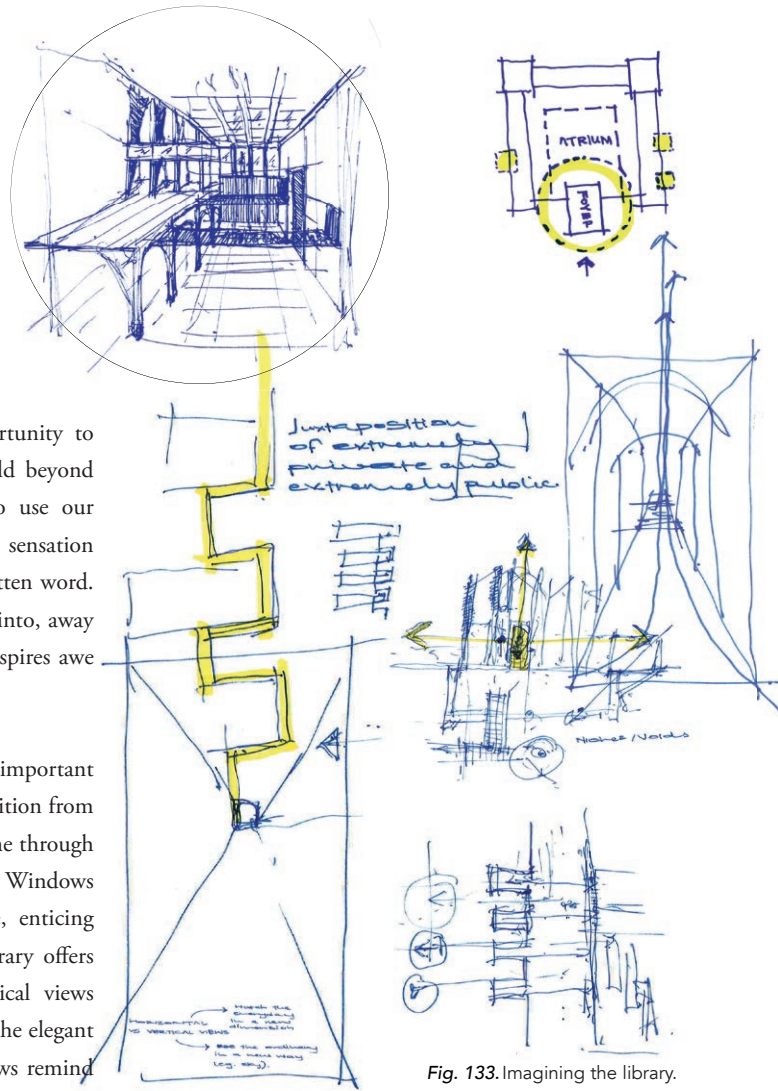


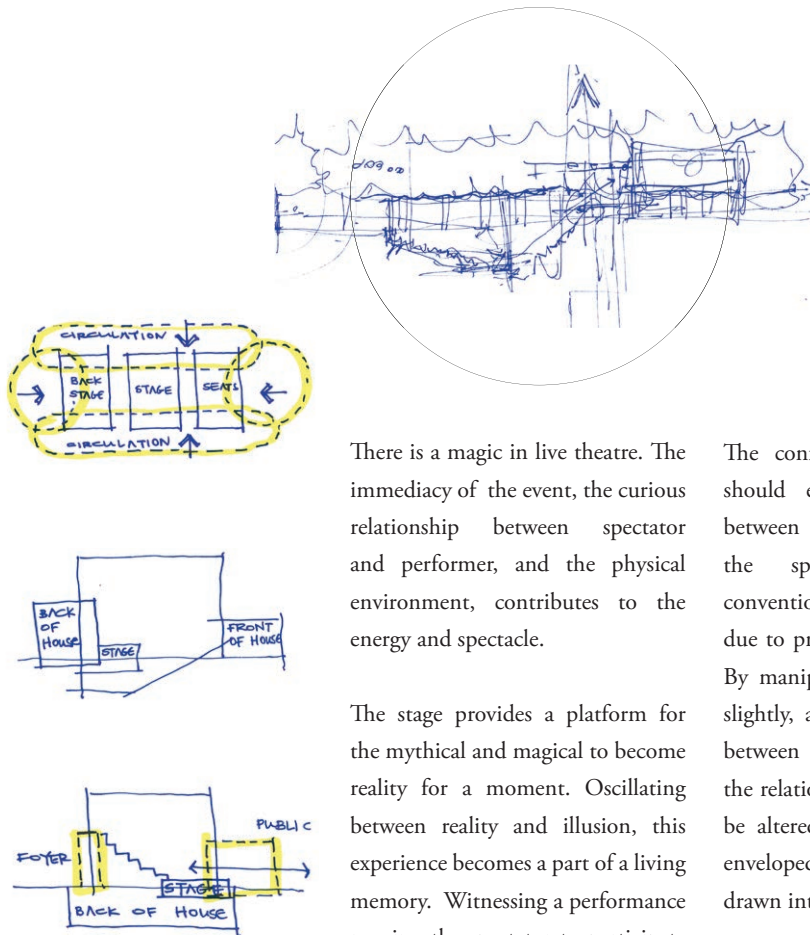
Fig. 133. Imagining the library.

Fig. 134. Library configuration.

Fig. 135. Views and connections.

SPECTACLE

The Theatre



There is a magic in live theatre. The immediacy of the event, the curious relationship between spectator and performer, and the physical environment, contributes to the energy and spectacle.

The stage provides a platform for the mythical and magical to become reality for a moment. Oscillating between reality and illusion, this experience becomes a part of a living memory. Witnessing a performance requires the spectator to participate and surrender to fantasy. As you abandon your defences, each sensation is heightened in the darkness of the house.

The configuration of the theatre should encourage a relationship between the mundane and the spectacle. Theatres are conventionally selfish in nature due to programmatic requirements. By manipulating the configuration slightly, allowing for an oscillation between observer and observed, the relationship to the everyday can be altered. The spectator is then enveloped by the experience as she is drawn into a new world.

Fig. 136. Exploring immersion

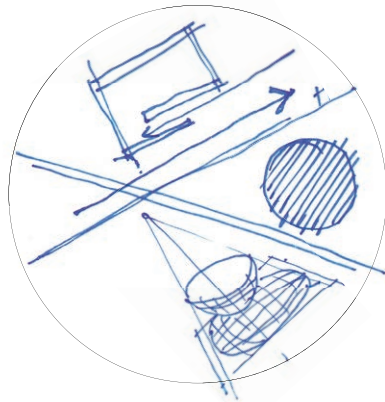
Fig. 137. Theatre configuration

Fig. 138. Traditional theatre

Fig. 139. Public theatre

PROJECTION

The Cinema



"Cinema, as the art of appearances, tells us something about reality itself. It tells us something about how reality constitutes itself."

- Zizek (2006).



Fig. 140. Imagining cinema

Fig. 141. Cinema configuration

Cinema offers the viewer an entirely different, and enigmatic experience. Rather than having a 'lived' experience, the magic arises from the projection, as if produced in a dream and projected from the dreamers' eyes. Light streams from a single aperture, producing images which consume the room and offers an incredible shared experience.

Cinematography allows an artist to transform his dreams, memories and thoughts into moving images and symbols. There is a distortion of time through the use of montage, as imagery is manipulated beyond reality to capture an experience. Captivated

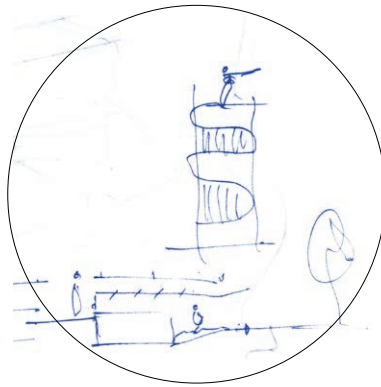
by the flickering images, we are invited into the mind of an artist.

In *A Pervert's Guide to Cinema*, Zizek (2006) dissects and analyses films to reveal that film is about more than just the narrative. It is "beyond the 'story' that we witness. What provides the density of cinematic enjoyment is material form beyond interpretation."

The configuration of the cinema will allow the viewer to slip into this world seemingly unnoticed. Circulation is intertwined with everyday movement so that one can stumble into the world of the dreamer.

SECLUSION

The Writers' Refuge



"If you talk to a man in a language he understands, that goes to his head. If you talk to him in his language, that goes to his heart"

- Nelson Mandela
(cited by US Postal Service 1996).

Like the ivory tower, the poet finds refuge in the midst of the everyday.

A place to contemplate.

A place to observe.

A place to do nothing.

The poet is secluded, but he plays an important role.

His contribution is literature.

Recognising the value of language within culture and identity, the poet spends his time writing and re-writing, translating, and telling his own stories.

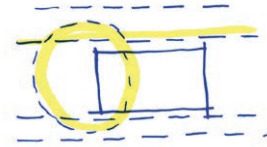
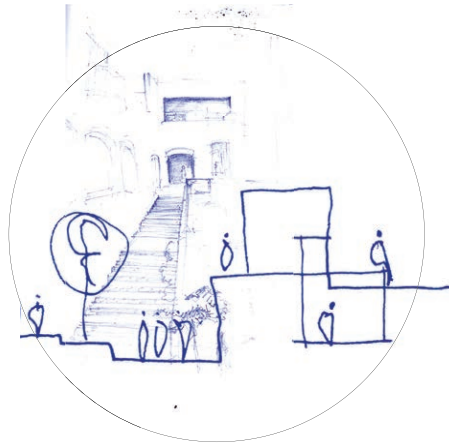
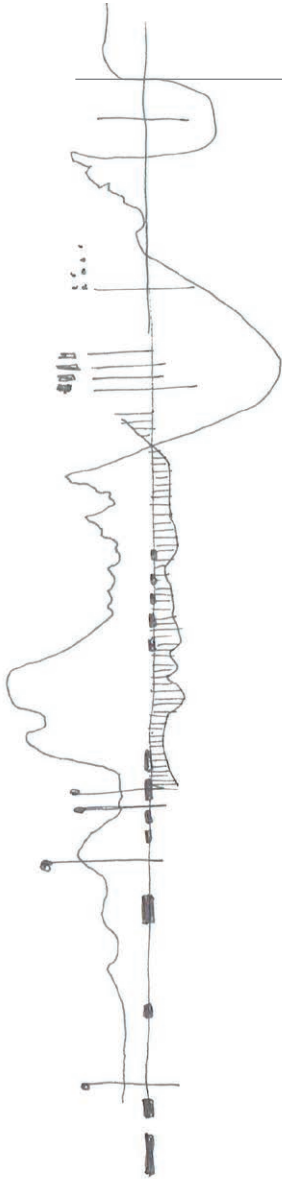


Fig. 142. An Ivory tower

Fig. 143. Refuge configuration

TRANSCEND

Recital Hall



"How shall I say it? Music makes me forget my real situation. It transports me into a state which is not my own. Under the influence of music I really seem to feel what I do not feel, to understand what I do not understand, to have powers which I cannot have ... And music transports me immediately into the condition of soul in which he who wrote the music found himself at that time. I become confounded with his soul, and with him I pass from one condition to another."

- Leo Tolstoy 1889

Music allows us to transcend our environment and connect to another's spirit. There is beauty in the translation of emotion into sound, so that someone else may be touched by it. This experience resonates with us long after the music ceases.

The recital hall is included to provide another opportunity to lose oneself in an experience. The configuration allows for passers-by to catch a glimpse (visually and aurally) of the performance, and occasionally allow the music to spill out, engulfing the adjacent public spaces.

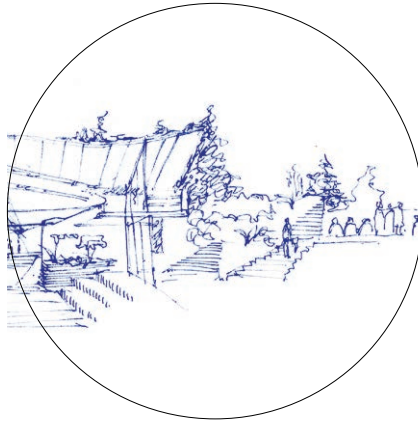
Fig. 144. Music as experience

Fig. 145. Imagining the recital hall

Fig. 146. Configuration of recital hall.

A PLACE TO DO NOTHING

Public Park



PUBLIC SPACE
STREET TYPOLOGY
+ RELIEF FROM GRID

The purpose of the public space is to introduce a new pattern into the desolate heart of Atteridgeville.

Responding to contextual informants, Oldenburg's theory of the *third place* is interrogated and tested alongside the formal programmes. The public space becomes the summation of all the preceding topics discussed. It supports the mundane but becomes the threshold one crosses into the extraordinary.

For this to be successful, familiarity has to exist in this realm. Surrealism plays on

images and symbols familiar to the viewer, distorting them and creating surprising juxtapositions. This technique will be utilised to heighten the experience of the supporting programmes. The public space is screened from the busy Mareka street, providing a refuge for the everyday city-dweller.

The everyday is revealed in a new light.

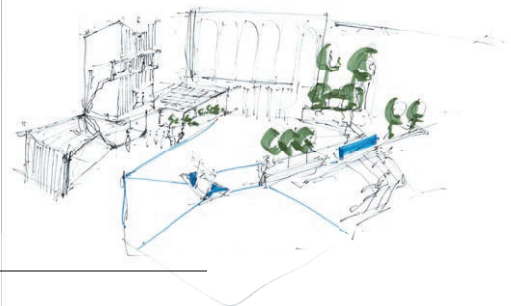


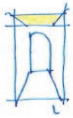
Fig. 147. Imagining public space

Fig. 148. Configuration of public space

Fig. 149. Early drawings of the square

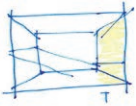
SUMMARY

Primary



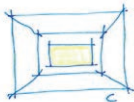
LIBRARY

The library will accommodate a children's library, informal study area, private study nooks, an information centre and a large collection of periodicals, newspapers and books. The library will serve the greater community with a focus on the schools.



THEATRE

The theatre will seat up to 600 people. The seating arrangement is flexible to allow for different performance requirements and open up into the public realm. The facility will serve the schools in Atteridgeville providing a space for performance art as part of the curriculum, and be sophisticated enough to accommodate professional performances.



CINEMA

Two cinemas will be provided accommodating 120 people each. The programme will allow screenings of a wide variety of film genres.



PUBLIC SPACE

The central plaza serves as a spill-out space for all the anchor programmes. The space allows users to dwell freely without being required to pay to access it.



RECITAL HALL

In the spirit of the Atteridgeville Jazz culture, a recital hall will host an array of formal and informal musical performances, with an opportunity to leak out into the public realm. 120 seats are provided as well as a small standing gallery for 25 people, to be sold at a lower price.



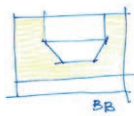
WRITERS' LOUNGE

Approximately 10 people will be accommodated in this space. A kitchenette, ablution facilities, and a writing space will be provided.

SUMMARY

Ancillary

The remaining programmes proposed for the cultural precinct have been selected to contribute to the overarching thread of recreation. These programmes are introduced to create a diversity of activities for the everyday user.



BLACK BOX THEATRE

This experimental theatre consists of a simple, unadorned performance space, with black walls and a flat floor. The emphasis is on the actors - a blank space for the freedom of expression.



BOOK STORE | CAFE

To create a comfortable atmosphere to casually immerse oneself in books and conversation, this space offers a range of comfortable spaces for the everyday user to enjoy or purchase a good book.



SHISA NYAMA

The shisa nyama-style restaurant allows for the social nature of eating to contribute to the vibrancy of the new precinct. The public square becomes an extension of this space for larger events.



ADMINISTRATION

Hosting the box office as the frontage, the purchasing of tickets becomes an event itself, spilling into the public square. The administrative facility ties into the adjacent civic precinct related to the church on the east.



Fig. 150. Stratification. Detail at Scarpa's Brion Tomb (2013).

CONCLUSION

Alive and free

South Africa offers very few public spaces that allow a user to freely dwell in space. Often, the spaces that are designed with recreation in mind require an entry fee, or the consumption of goods. A well-designed public space a user can frequent freely is hard to come by. In response to this observation, it is proposed that a true civic space is returned to the citizens of Atteridgeville, as a strategy for place-making in suburbia.

The research in Volume I revealed the lack of available and suitable facilities for the creative arts. The programme selection is in response to this need, especially considering the value of cultivating creativity in children (Robinson 2006). The intention is that these facilities are shared between local schools to promote the art of self-expression.

Secondly, in response to the initial objective of Volume I, these programmes are introduced to restore dignity amongst the residents of Atteridgeville and strengthen civic pride. The introduction of well-designed recreational facilities will draw energy into Atteridgeville, with the potential of hosting many great events, rather than perpetuating the energy efflux which is so evident.

The third objective is in response to *The timeless way of building* Christopher Alexander speaks of so eloquently. *'The quality without a name'* is continually sought after in this exploration. The programme selection contributes to this search, and responds to the quote below, to generate a pattern of events that is 'alive' and may 'let our inner forces loose and set us free.'

In order to define this quality in buildings and in towns, we must begin by understanding that every place is given its character by certain patterns of events that keep on happening there.

[...]

The specific patterns out of which a building or a town is made may be alive or dead. To the extent they are alive, they let our inner forces loose, and set us free; but when they are dead, they keep us locked in inner conflict.

- C. Alexander (1979:x)

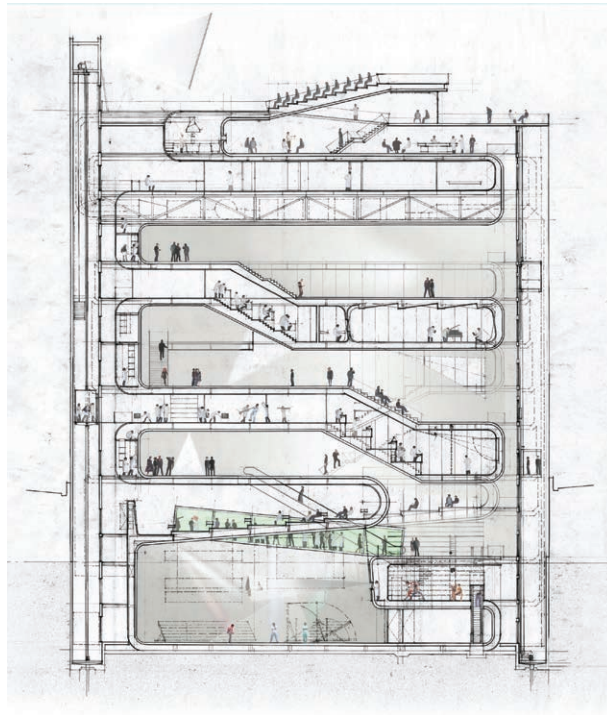


Fig. 151. Section through the Eyebeam Museum of Art and Technology, 2001; courtesy of DS+R

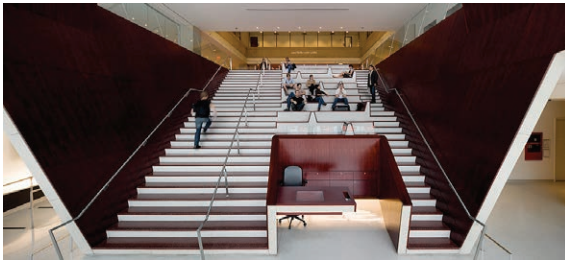
DILLER SCOFIDIO + RENFRO, 1979 - REINTERPRETATIONS OF THE STAIR

In an article part of the series Reinterpretation (Holt & Looby 2016), a single construction component is identified and traced through the work of an architect or firm. The article, *The Suspension of Disbelief*, focuses on the use of the stair in Diller Scofidio + Renfro's (DS+R) work who are defined as "an interdisciplinary design studio that integrates architecture, the visual arts and the performing arts."

Holt & Looby (2016) argue that the built forms of DS+R explore the human condition conceptually and this notion is explored by focusing on the stair - an element of construction which facilitates activating an individual and engaging with space and "enacting the essence of theatricality in the built environment." The stair becomes more than a mere device to enable vertical circulation, but acts as a form of communication, "enabling and activating space either as an attractor or as a visual platform." The stair is the device to incubate ideas used in theatre that produces a tectonic resolution to conceptual moments that sought to expose and question everyday life, but manipulating the stair is a difficult task due to associated regulations.



DS+R create an amphitheatre-like space in the High Line Part I (2009-2011) which expands the stair and landing, creating views toward the street below becoming an “in-between space for the everyday citizen to contemplate the ordinary in a new dimension.” (Holt & Looby 2016).



The foyer of the Julliard School (2009) includes a staircase which morphs into seating. This device allows for informal gathering, meeting and a place to view the street.



An inverted staircase on the street forms the entry to Alice Tully Hall (2009) creating a point at which the public can sit and observe the happenings inside the lobby.

“Unifying across all of these projects is that the viewer begins at the top of the landing and descends into a prescribed view of everyday life below — playing with a sense of vertigo, instability and vulnerability through the suspension of the stair positioned downwards.” (Holt & Looby 2016).

Fig. 152. The Sunken Overlook at 10th Avenue, The High Line; New York, N.Y.; photo by Iwan Baan

Fig. 153. Julliard school; photo by Iwan Baan

Fig. 154. Julliard school; photo by Iwan Baan

AUTHOR’S NOTES

Diller Scofidio + Renfro explore the human condition, voyeurism and the everyday in their body of work. The projects highlighted display the interrogation of the stair so as to achieve new ways to exhibit the aforementioned subjects. The projects also highlight that conventional architectural elements, such as the stair, can be utilised in a variety of ways creating new opportunities for interaction.



Fig. 155. Section through the The Zizek house, Antonas, A. 2011.

ARISTIDE ANTONAS, 2011

THE ZIZEK RESIDENCE - THE HOUSE FOR DOING NOTHING

Philosopher Slavoj Zizek (2008) begins his book *Violence* with the dilemma proposed by Sartre (1946) in *Existentialism and Humanism*. The story revolves around a young man during World War Two. His mother is ill and he is torn between tending to her and joining the Resistance. Zizek proposes that there should be a third option - withdrawing to an isolated place to work and contemplate, away from the situation at hand providing an “intellectual solitude” from which one could “wait and see” (Leopold 2011).

Leopold (2011) discusses that Zizek’s house comments on the impossibility of “stepping back”, away from life for a moment. Our busy lives coupled with access to the global network through an internet connection prevents us from retreating to the cave, as Nietzsche’s Zarathustra once did. Antonas (2011) describes the house as follows:

The responsible house seems to be formed by a negation to this “city sharing” condition. Its prototype is not produced out of sharing an existing finite land but out of an image of a house in an “exotic” infinite landscape similar to the video game interfaces we encounter in the Internet. There is no finite surface to share determining this project: the land it is proposed for could be any land. In an Internet city the sharing options for the space seem based to a possibility of infinitely extending the available field: the online and offline space that “we” will occupy in the future would be a space that can never be “itself” and will always be infinite, composed as an interior: at the same time it will always be a conscious representation of something always already missing.

Antonas (cited by Pohl & Najera, 2011) continues:

The apartment is structured as a unified single space divided by mobile elements and curtains. A swimming pool is supposed to give a rhythm of a body’s temporality. Printers and a good connection form the material part of the common world and the invisible public sphere. All services are performed through the existence of a “courtier” system that distributes products to the units on demand.

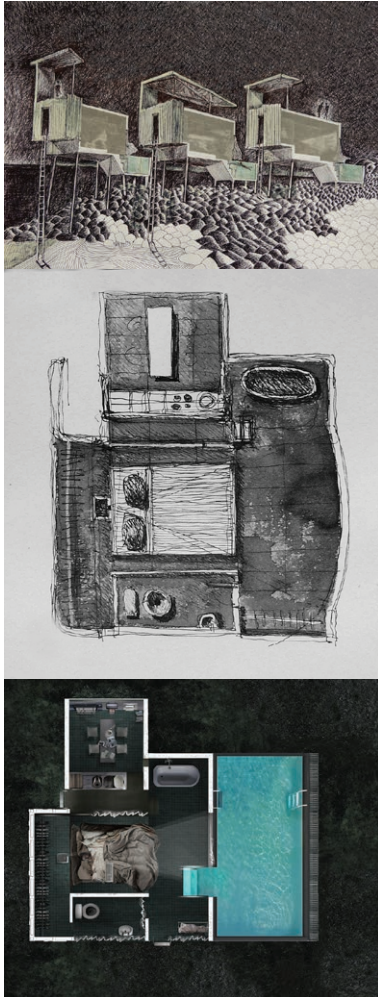


Fig. 156. Drawings of The Zizek house, Antonas, A. 2011.

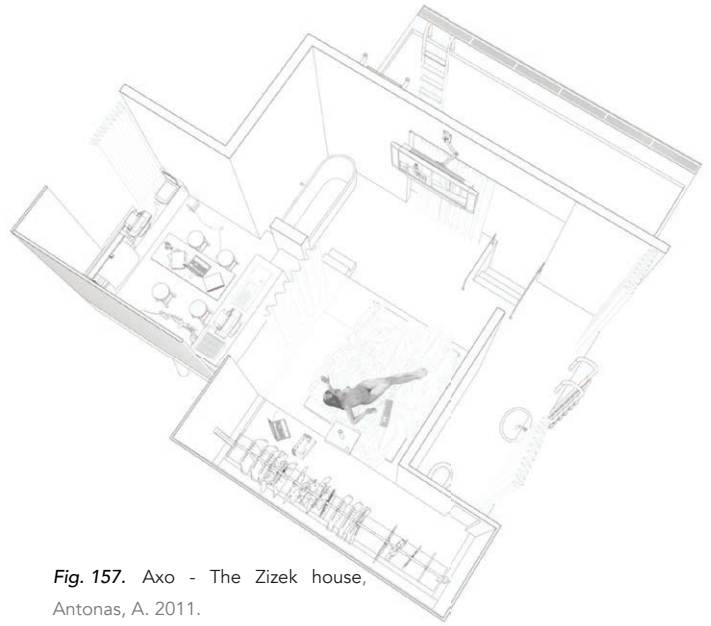


Fig. 157. Axo - The Zizek house, Antonas, A. 2011.

AUTHOR'S NOTES

This precedent proposes that seclusion, and stepping away from society is a means to reflect on one's situation and connection to the larger community, but more importantly to reconnect with oneself. The pool for example, is an opportunity to engage with "the rhythm of a body's temporality." (Antonas 2011).

Zizek's House by Aristide Antonas is discussed as a precedent to strengthen the argument presented in the preceding chapter.



5. MAKING PLACE

Concept to design refinement



THRESHOLD CONSULTANT
Catalytic influence
relationship of private & public
edge condition
multiplicity of sections of building - present
impact the permanent condition
programme vs secondary
emphasis on everyday!
Don't lose connection to urban realm

Fig. 158. Maquette - Iteration VI.
(June 2016).

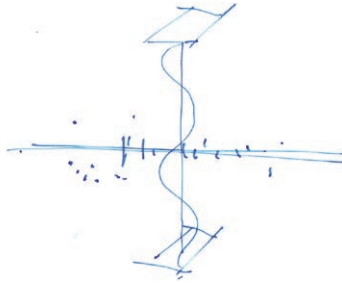


Fig. 159. Maquette - Iteration VI.
Avenues connecting precincts
(June 2016).

The preceding chapters have described the theoretical, programmatic, contextual and conceptual informants which underpin the dissertation intentions, and guide the design development. This chapter will present the synthesis of these components alongside the physical exploration of these notions. Although this process is not linear by nature, the body of work is arranged chronologically so the reader may be guided through the author's decision-making process. This is a process of using the *measurable* to create the *unmeasurable*.

PREMISE

Finding the way



The underlying notion which has driven this study starts with the normative position, and questioning the role of young South African architects in the continuum of this discourse. This question developed into a response to the conditions discovered in Atteridgeville, which is reinforced by the desire to create beautiful architecture:

“Those of us who have been trained as architects have this desire perhaps at the very centre of our lives: that one day, somewhere, somehow, we shall build one building which is wonderful, beautiful, breathtaking, a place where people can walk and dream for centuries.”

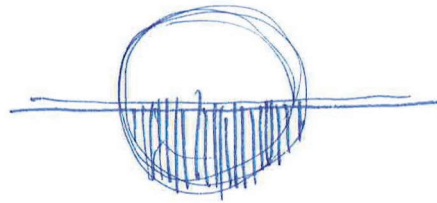
- Alexander (1979:9)

By investing this type of emotion into the design process, there is potential to create beautiful spaces which achieve what Alexander describes. Perhaps, if we adopt this approach, we will create beautiful spaces which give back to the community, and maybe, it will provide relief from the mundane. In light of our rushed lives in the name of progress and development, the simple and incredibly valuable aspects of what it is to be human are neglected. The study up until this point has investigated extensive theories and approaches to ensure the integrity of the project is upheld.

Fig. 160. Negotiating terrains.

REVERIE

Conceptual ideas, notions, scenarios



The design concept is an amalgam of the preceding literature review and contextual study. The aim is to translate these conceptual notions and scenarios into spatial approaches and devices by refining a conceptual response to inform space-making decisions.

The subject of investigation is the everyday. The extensive mapping and theoretical study acts as design generators and informants in an attempt to celebrate and enhance the quotidian by allowing for moments of serendipity and reverie.

The introduction of the selected programmes provides a new pattern of events to be hosted by a new surface for the extraordinary in the midst of the mundane.

Fig. 161. The realm between the mundane and the extraordinary.



MAKING SPACE

This iteration was the first formal response to the site. The exploration was informed by the act of 'making space' and containing activity in a large empty site within a dense suburban neighbourhood. The large recessed plaza provides a covered gathering space open to the public while the programme spaces define the outer limits of the site.

As an interpretation of a courtyard typology, this scheme severs a direct relationship with the street, preventing opportunities for cross-pollination between sites.

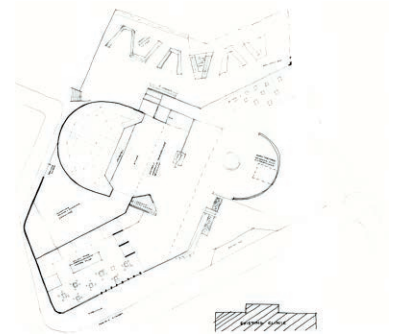
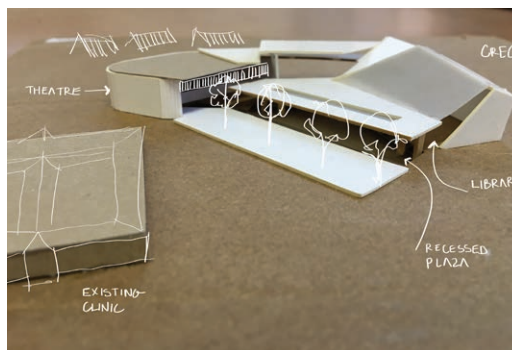
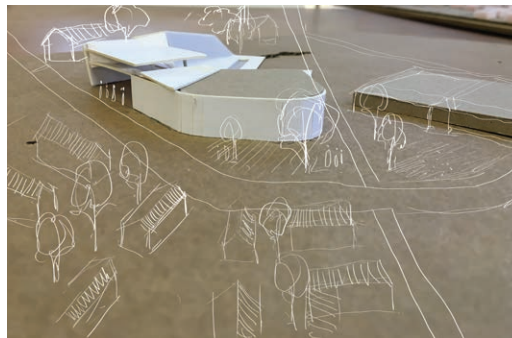
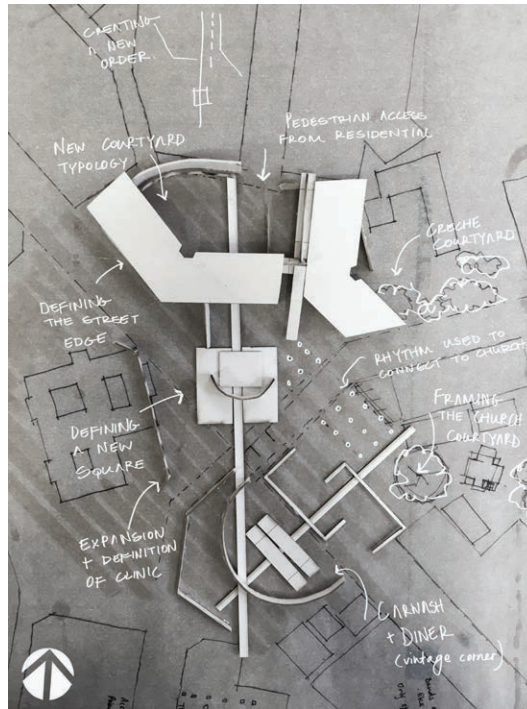


Fig. 162. Iteration I maquette 01 (Mar).

Fig. 163. Iteration I maquette 02 (Mar).

Fig. 164. Iteration I maquette 03 (Mar).

Fig. 165. Plan interpretation (Apr).



ROUTES + LEGIBILITY

This conceptual model exposes the search for a new order on the site. Responding to the existing forms, new connections were created across the ground plane, while using the vertical plane to create pockets of space on the vacant site. This exploration was mostly suggestive of the design intentions, but reappears later in the design process due to the success of these new connections and legibility.

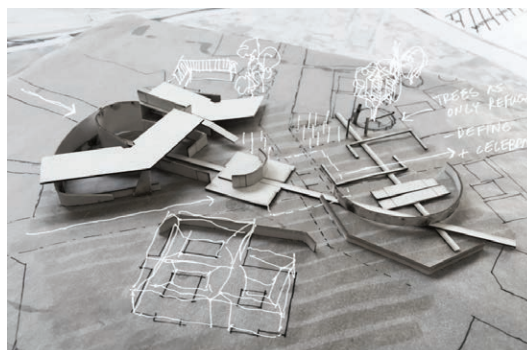
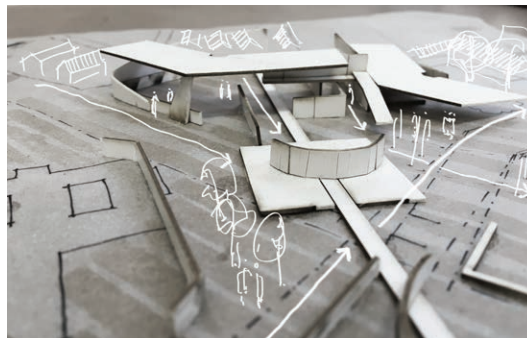
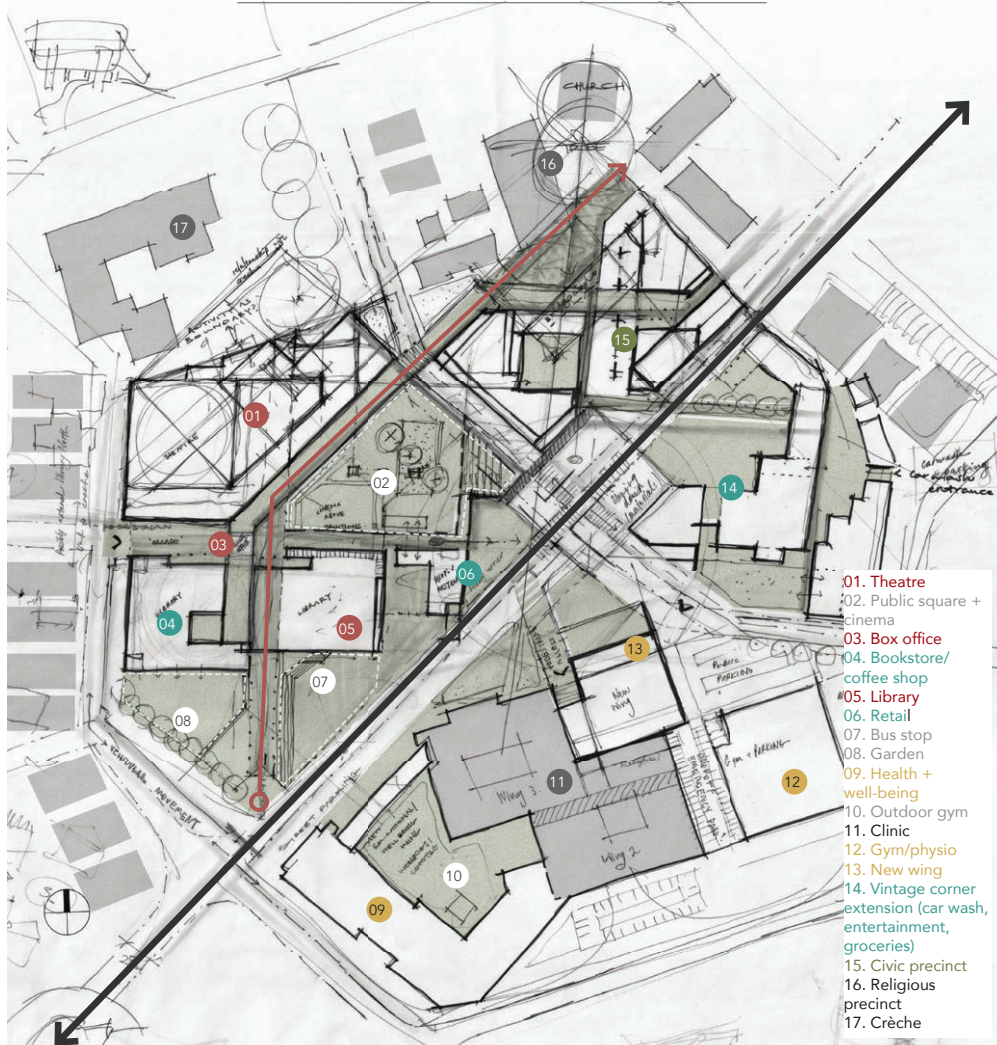


Fig. 166. Iteration II maquette 01 (Apr).

Fig. 167. Iteration II maquette 02 (Apr).

Fig. 168. Iteration II maquette 03 (Apr).

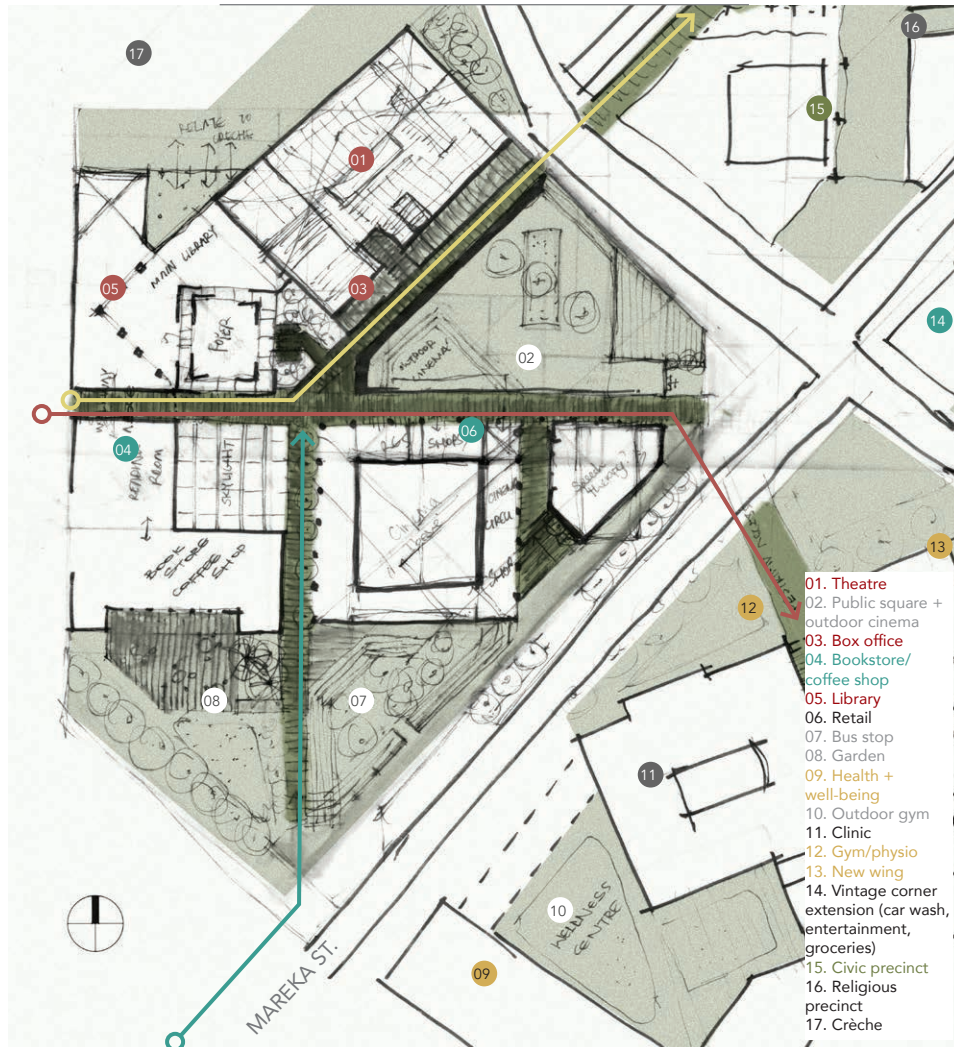
SITE STRATEGY



Culture
 Existing
 Public
 Culture
 Retail
 Civic

Fig. 169. Iteration III. The above iteration is informed by an adapted street typology creating a new route between the cultural precinct and the church. The public square is screened from the busy street edge and smaller gardens and courtyards are provided. Existing programmes are retained, allowing for growth and densification. The intention is to create a clearly defined civic node

SITE INTENTIONS

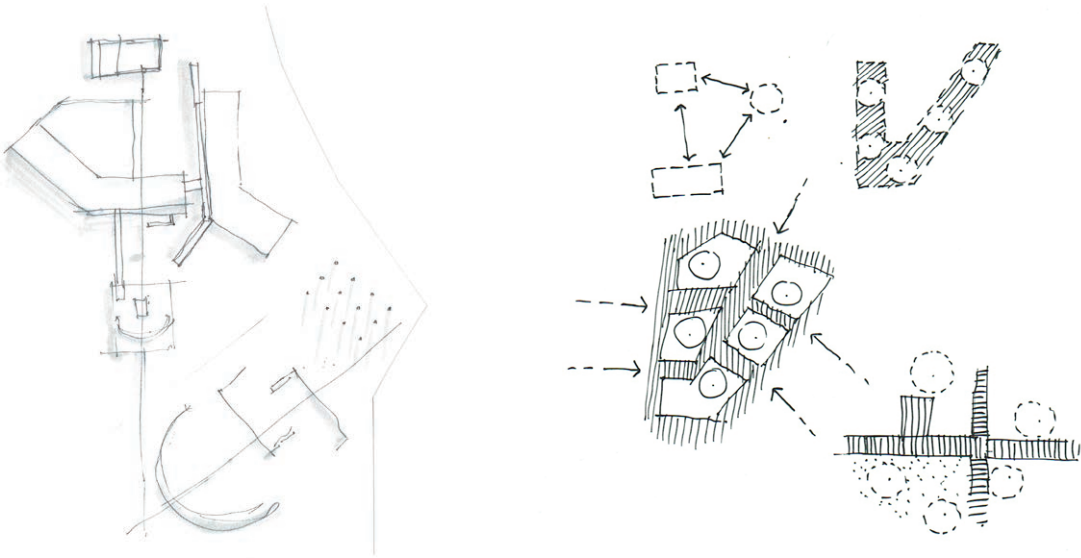


Culture
 Existing
 Public
 Culture
 Retail
 Civic

Fig. 170. Iteration III. The articulation of edge conditions is vital to successfully connect the various supporting spaces. The relationship between light and greenery is used as a tool to tie spaces together. Surface treatment in the public spaces will aid in defining the new routes, and blur the boundaries between inside and outside. The new configuration and extension of the clinic allows for an integration into the series of public spaces. These decisions were informed by the *activity, interface and connect* intentions identified in Volume I.

REFLECTION

Fragmentation and mediation



The design development has investigated the relationship between the different programmes with one another and with the existing programmes on site. The challenge was to understand whether a single form containing all the programmes framing a large public space was appropriate or whether a series of forms dispersed independently across the site connected by narrow avenues would be more appropriate. At this stage, Iteration II was referred to in order to develop a mediation between the fragmented schemes of Iteration III, and a legible ordering system. The notion of public intimacy was the main informant leading to the decision to create a campus typology for the various programmes with a layering of public spaces.

Fig. 171. Sketch of early maquette

Fig. 172. Interrogating street typologies.

INDOOR STREETS

Routes and the third place

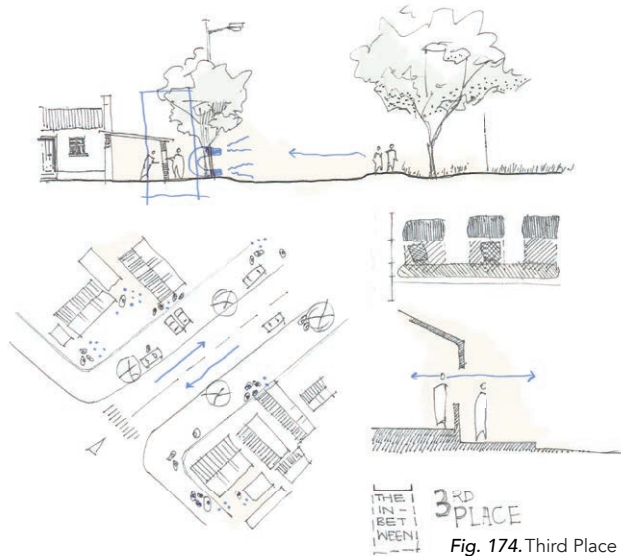


Fig. 174. Third Place in Atteridgeville.

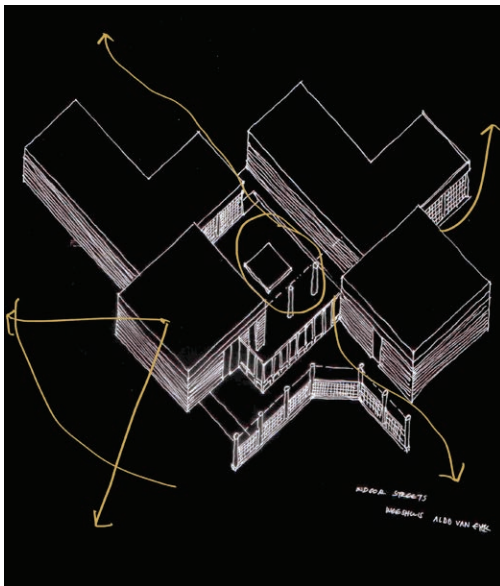


Fig. 173. Sketch of van Eyck's indoor streets.

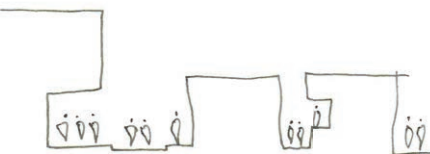
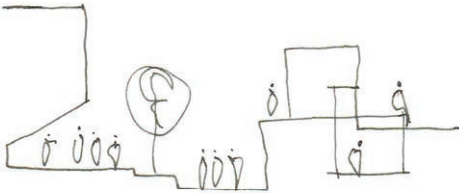
To discover an appropriate typology, the *third place* condition identified in Atteridgeville was reconsidered. How could this articulation of the private and public realm in relation to the street be recreated at a larger scale for public buildings?

This thinking was in-line with the approach taken by Aldo van Eyck for the Amsterdam Orphanage. Van Eyck created many in-between conditions in the building, which interrupts the hierarchy of spaces. A large, decentralised node with many points of interaction provided a non-hierarchical scheme for the orphanage (Righini 1999:127-9).

This led to the thorough investigation of pockets of space along a route using the metaphor of the indoor street on the following pages.

THE ROUTE

Understanding relationships



These diagrams present an interpretation of spatial relationships between programmed spaces, contained activity adjacent to the public and un-programmed support spaces. How these spaces interact with the street and thresholds determines the integration into the existing context.

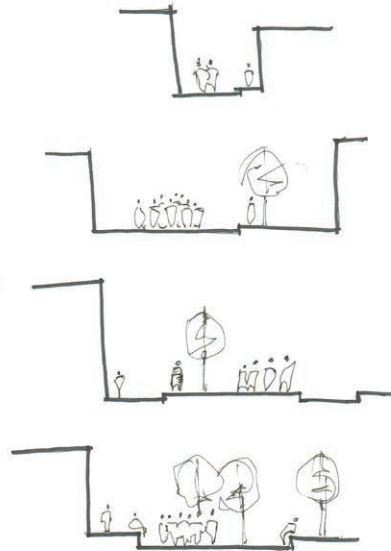
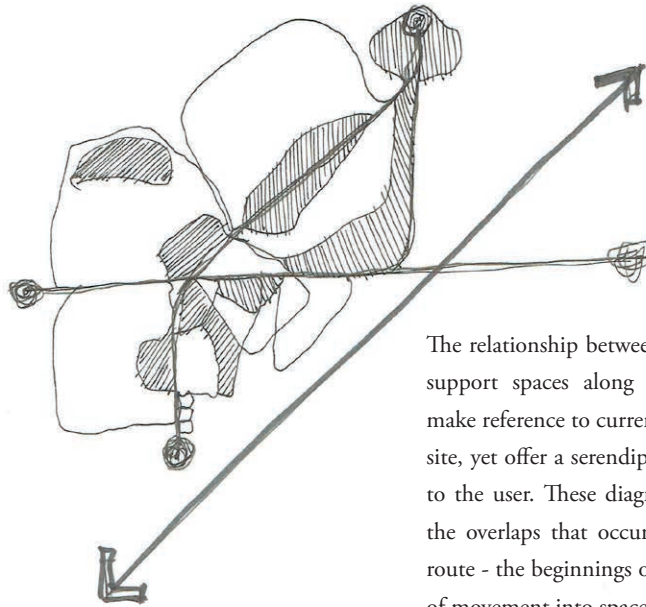


Fig. 175. Interaction on the street (May).

Fig. 176. Shared spaces (May).

SERENDIPITY

Movement as space



The relationship between buildings and support spaces along a route should make reference to current conditions on site, yet offer a serendipitous experience to the user. These diagrams interrogate the overlaps that occur along the new route - the beginnings of the translation of movement into space.

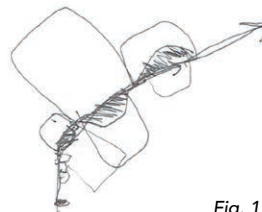
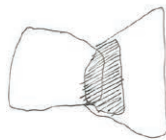


Fig. 177. The route (May).

LAYERS

Understanding relationships

Creating a geography of real and imagined spaces allows the designer to develop relationships with the site allowing for a richer interpretation of existing conditions. The diagrams on this page form part of the analysis of the grid and the street of Ramohoebo Square as an attempt to uncover the latent potential of the empty portion of site.

The existing urban structure is identified (1) and then the presence of the active programmes is indicated (2,3). An island of potential energy is outlined and relationships or overlaps suggest gathering spaces and alleys (4,5,6). A mediation of scale is proposed, followed by a new collection of places.

By uncovering these layers, it was evident that a new structure was required to bring these elements together. The image on the opposite page presents a new pattern to be superimposed onto the site developed from the existing patterns identified.

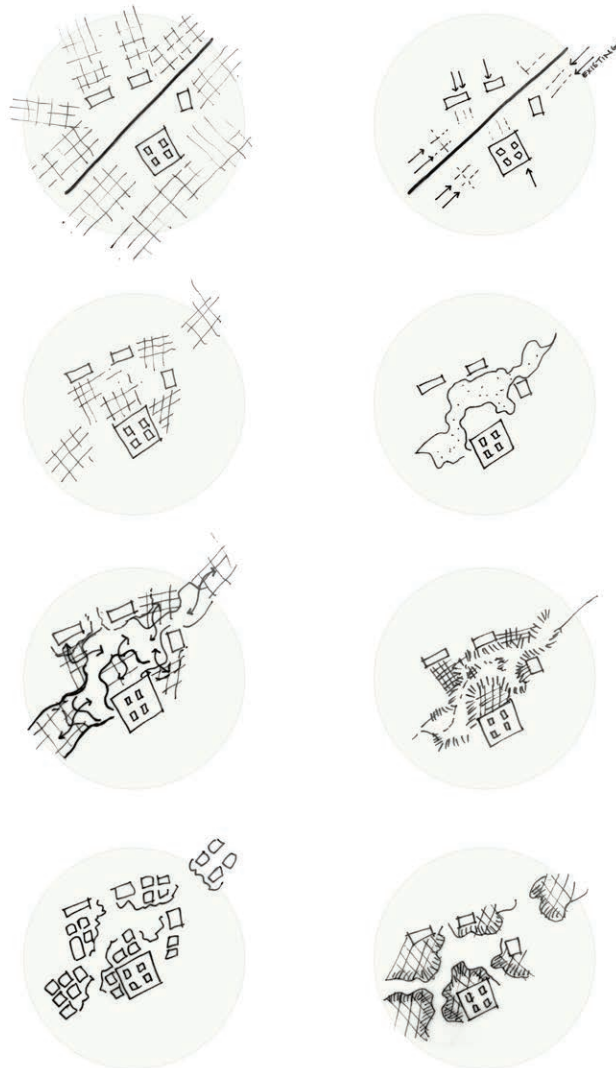


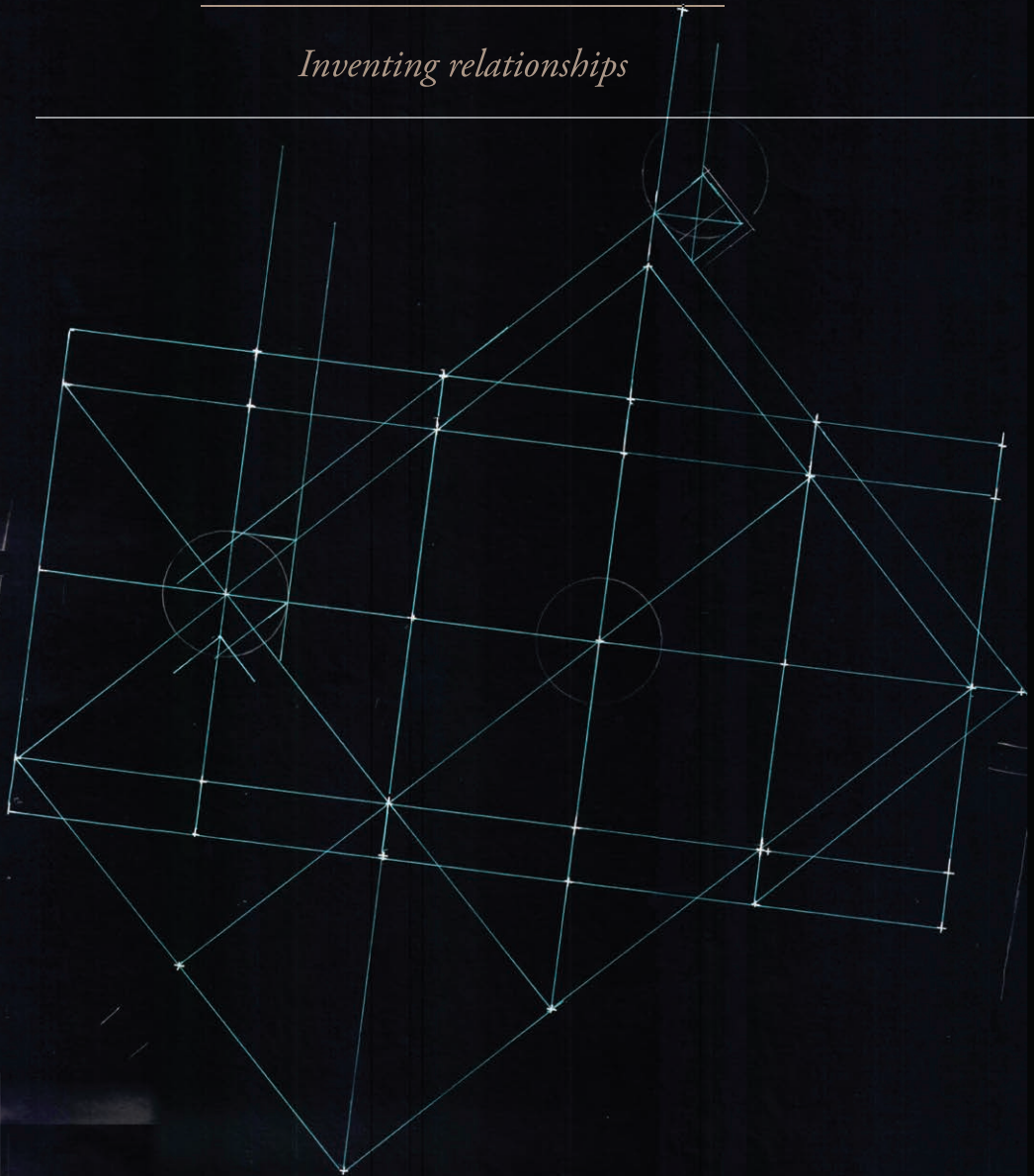
Fig. 178. Structure and overlap (May).

Fig. 179. New Patterns (opposite), (May).



LAYERS

Inventing relationships



TO ACHIEVE ANYTHING WE HAVE TO INVENT RELATIONSHIPS.
CARLO SCARPA (1976)



FINDING GHOSTS

Unlocking potential on site



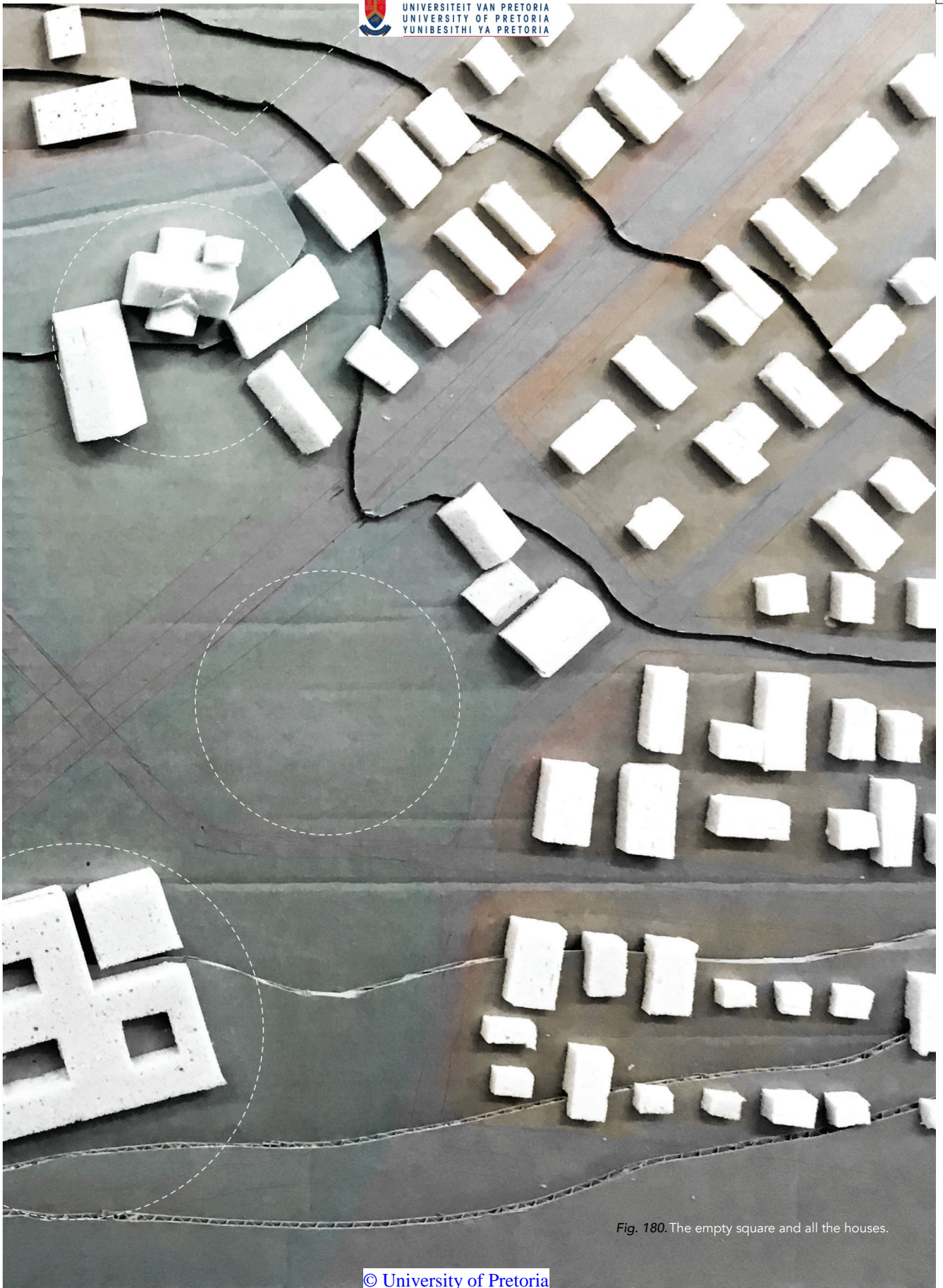


Fig. 180. The empty square and all the houses.



Fig. 181. Pattern and mass (May).

INTIMACY

Massing patterns

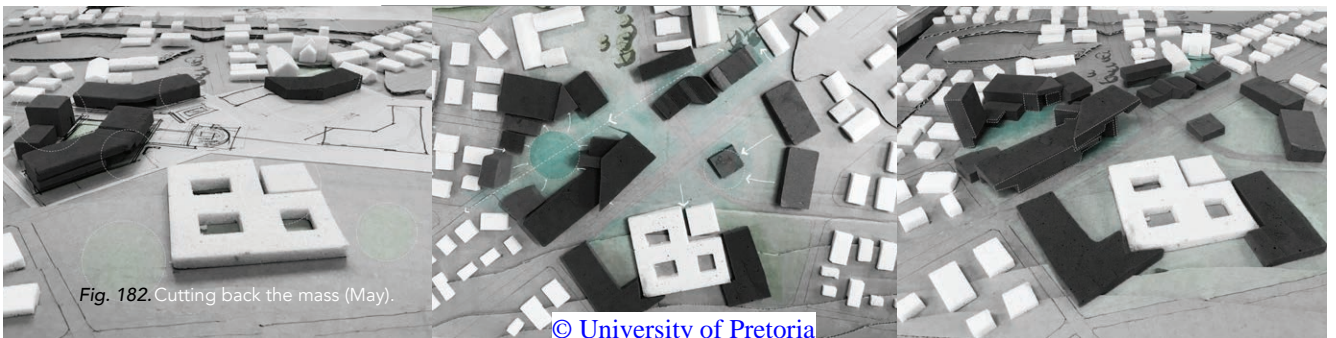


Fig. 182. Cutting back the mass (May).

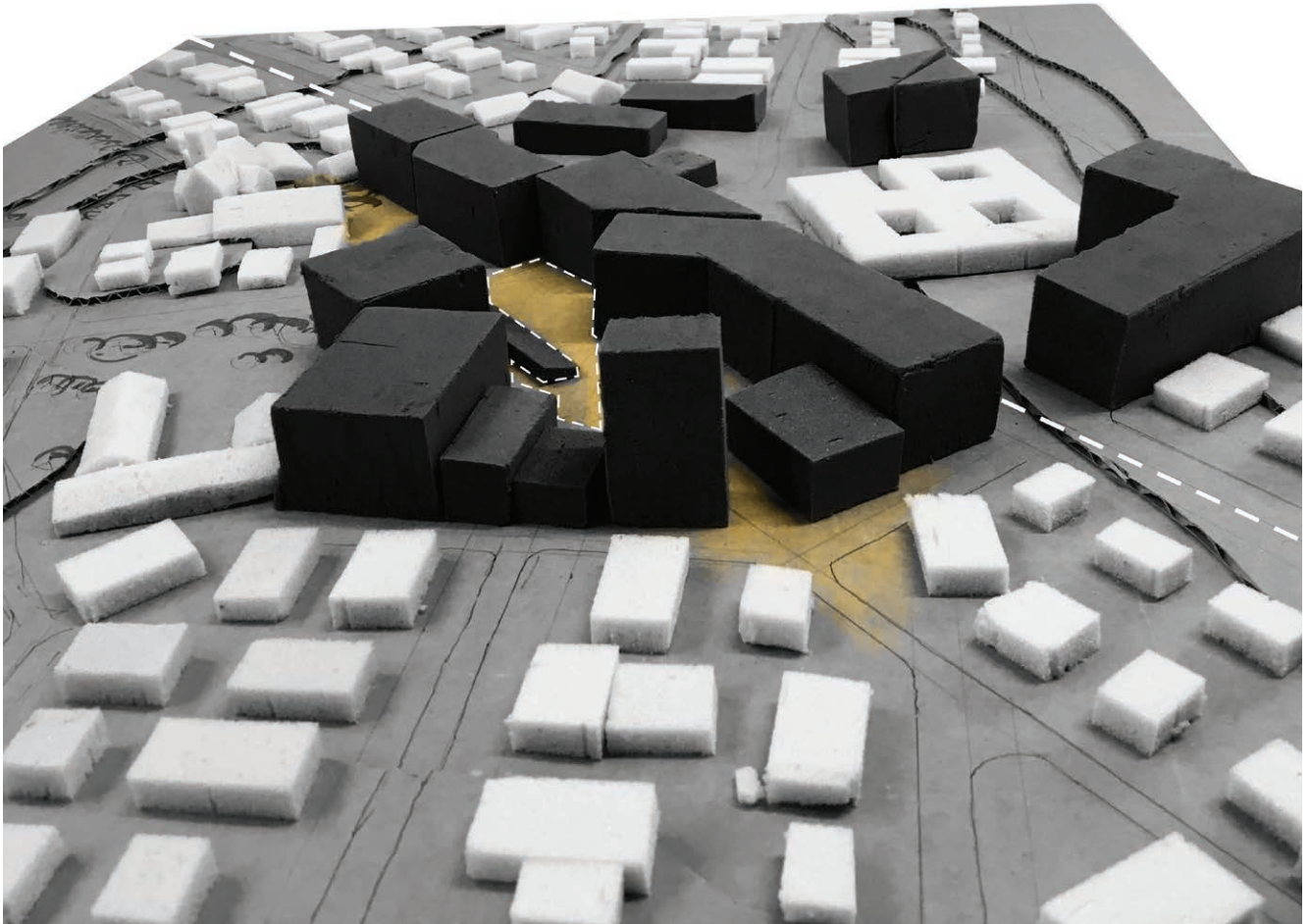
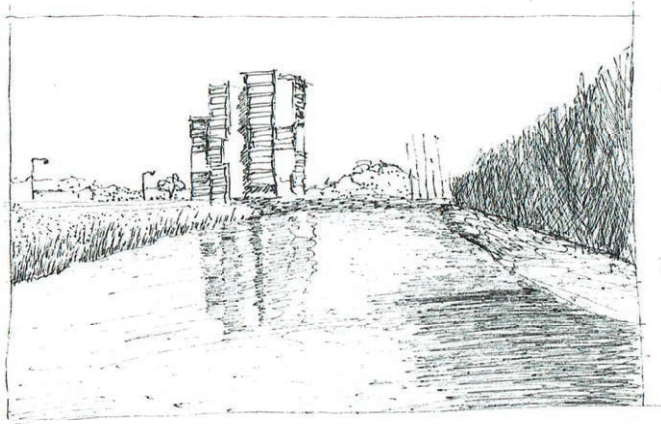


Fig. 183. Intimacy and mass (May).

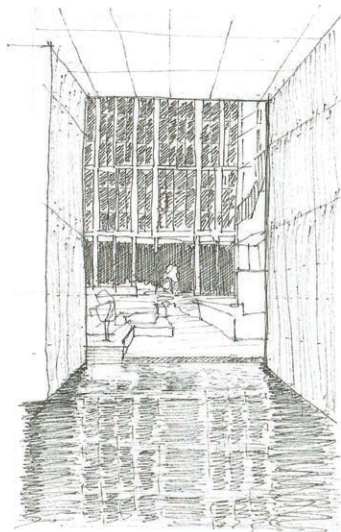
Models were used as a physical interpretation of the new pattern proposed for Ramohoebo Square. The massing exposes the areas which offer intimate and exposed experiences in relation to the programmed space. A clear connection has been established with the eastern civic precinct while pauses are offered along the route.



FINDING FORM

Public buildings

The following images form a study of public buildings understood through drawing. These buildings were selected based on scale, programme, their contribution to the public realm and form.



COURTYARDS

Testing typologies

The diagrams to the right represent the early configuration of the site. The original mass model was manipulated to develop an articulated courtyard space. The metaphor of the 'indoor street' is constantly referenced to create harmony across the site, and define the relationships between the various programmes.

Main public entrances to the square are placed to respond to the programmes outside of the new cultural precinct, making reference to the relationships established by the new patterns imposed onto the site. This allows for an easily accessible public space, although it is protected from the busy Mareka street. The intention is to provide a space by which the user is immediately aware that they have crossed the threshold into a new experience.

The various programmes have been arranged according to a hierarchy of intimacy as one moves to the northern portion of the site, while the edge conditions offer a more vibrant interaction.

The proposal for the courtyard responds to a need identified during the contextual study. Currently the streets of Atteridgeville host a variety of activities but this precinct would cater for places of gathering and facilitate happenings not possible on the sidewalk or street. The configuration allows for a 'slowing down' before entering the new precinct which responds to the conceptual intentions.



Fig. 185. Courtyard 01 (May). Grading experience from the public to the private

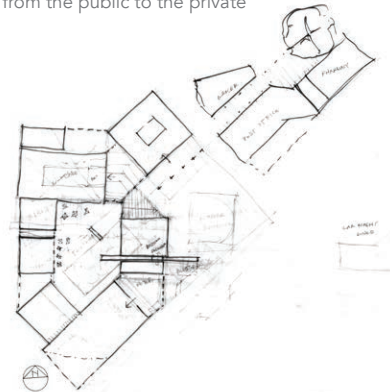


Fig. 186. Courtyard 02 (May). Clear definition of courtyard space and potential for points of permeability.

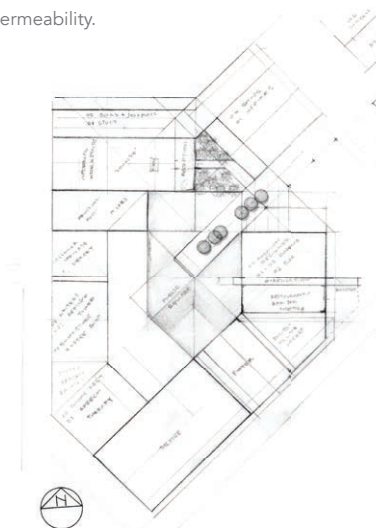


Fig. 187. Courtyard 03 (May) - programmatic considerations in response to courtyard typology.

05 | MAKING SPACE

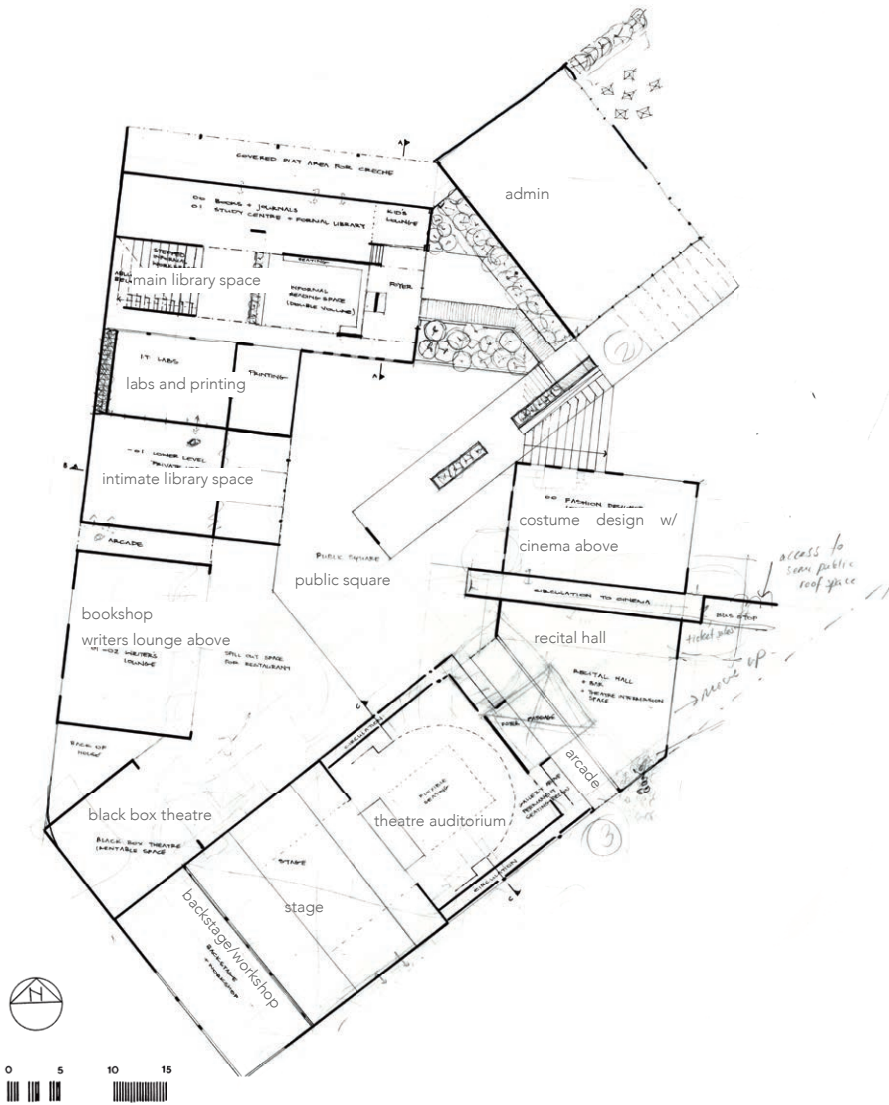


Fig. 188. Iteration IV (June). Translation of mass model into plan diagram establishing relationship between programme and space.

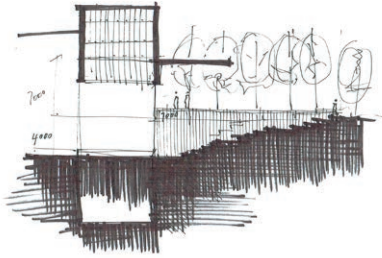


Fig. 189. Theatre diagram: scale and public interface.

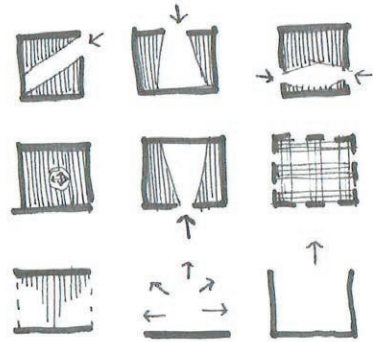


Fig. 190. Light and the contribution to spatial qualities enhancing the experience of getting lost.

DRAWING

Exploring space making

These images form part of the investigation of place making based on the preceding design informants.

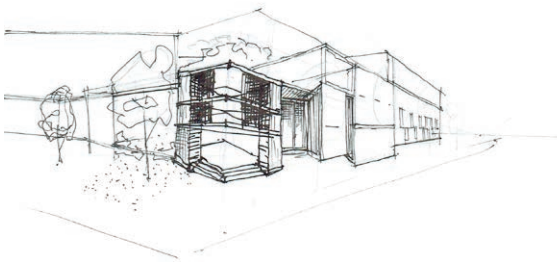


Fig. 192. Investigating the corner on the street.

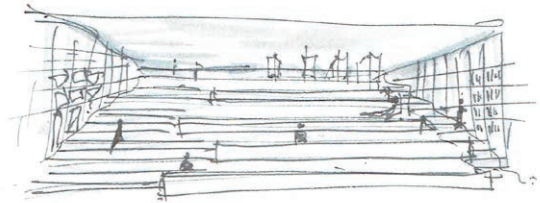


Fig. 191. Testing the manipulation of stairs into space.

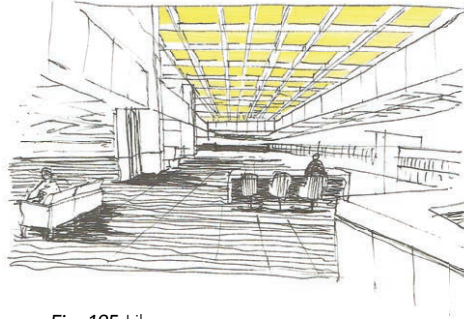


Fig. 195. Library spaces

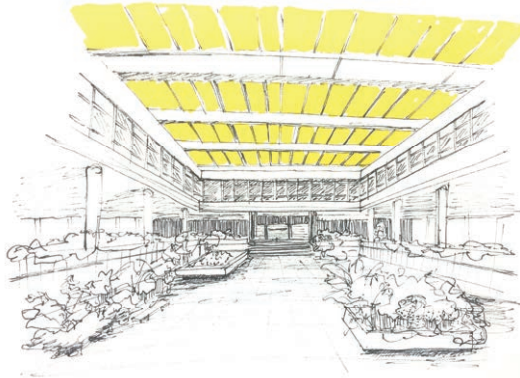


Fig. 194. A place to do nothing amongst light and plants

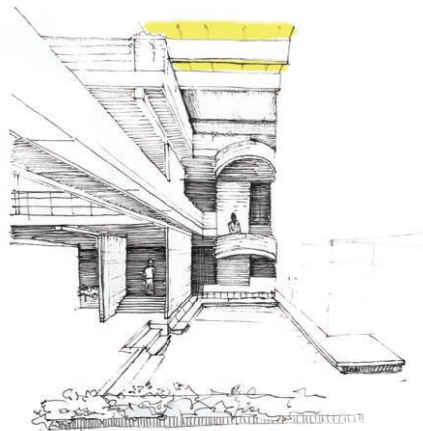


Fig. 193. Layering space in the library

Views, light and thresholds

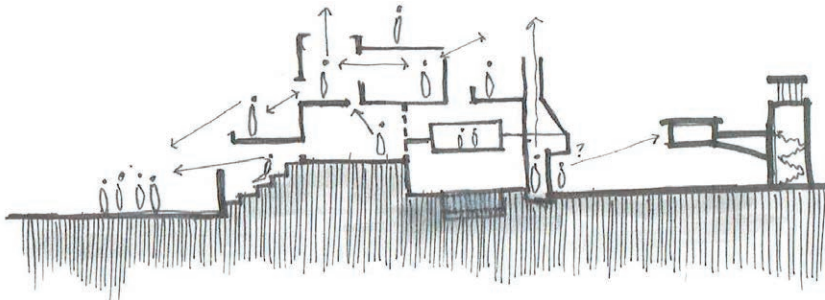


Fig. 196. The exploration of relationships in volume.

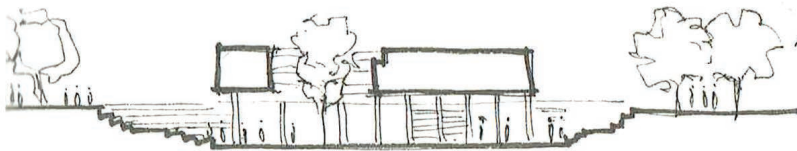


Fig. 197. A recessed realm.

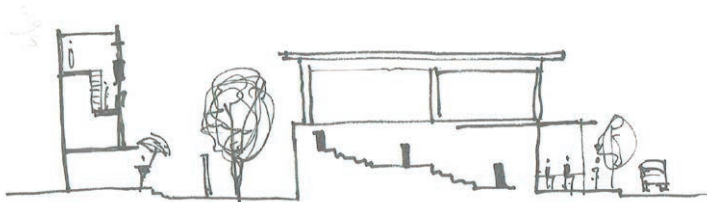


Fig. 198. Thresholds.

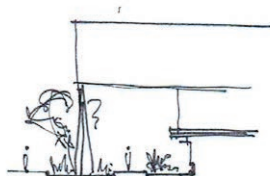


Fig. 199. Heavy shelter.

Volumetric exploration

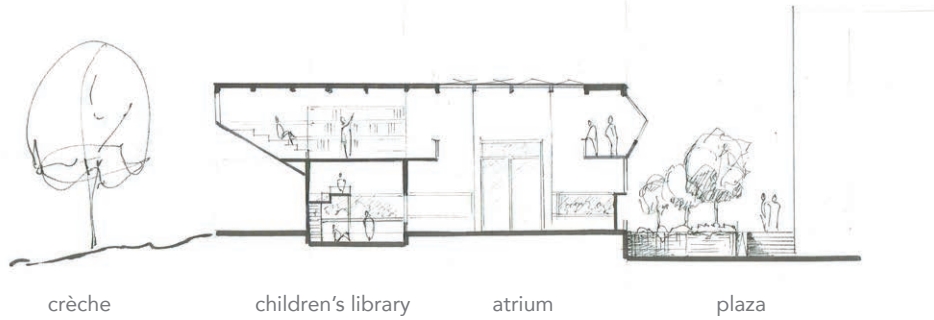


Fig. 200. Volumetric exploration of library spaces and thresholds.

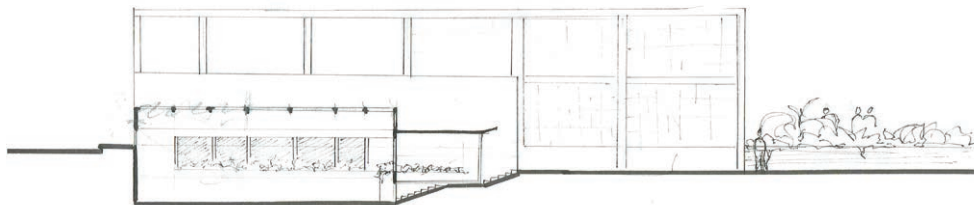


Fig. 201. Volumetric exploration of lower library offering quiet refuge.

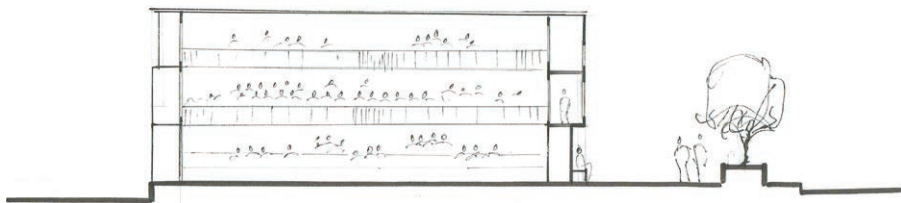


Fig. 202. Volumetric exploration theatre auditorium scale in relation to street edge.

“A great building must, in my opinion, begin with the unmeasurable, must go through the measurable in the process of the design, but must again in the end be unmeasurable. The design, the making of things, is a measurable act.

[...]

What is unmeasurable is the psychic spirit. The psyche is expressed by feeling, and also by thought, and I believe it will always remain unmeasurable.

[...]

To accomplish a building you must start in the unmeasurable and go through the measurable. It is the only way you can build, the only way you can bring the building into being - it is through the measurable. You must follow the laws, but in the end, when the building becomes part of the living, it must evoke unmeasurable qualities. The design phase involving quantities of brick, methods of construction and engineering is over, and the spirit of the buildings existences takes over.”

Louis Kahn (1930:11)

ITERATION V

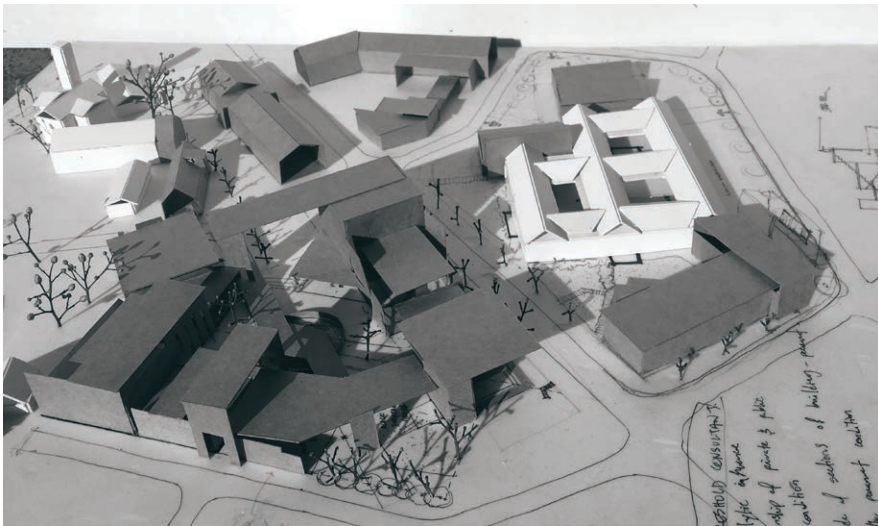
Introduction to final scheme



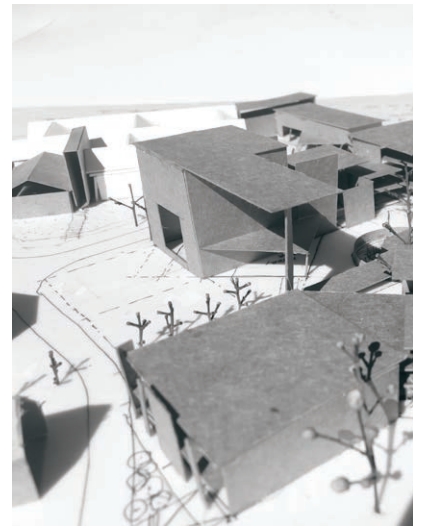
INTERSTICE CONSULTANTS
Catalytic entrance
relationship of private & public
edge condition
multiplicity of sections of building - present
aspect the program condition
programme is secondary
emphasis on everyday!

- 1. health
- 2. commercial
- 3. civic
- 4. cultural

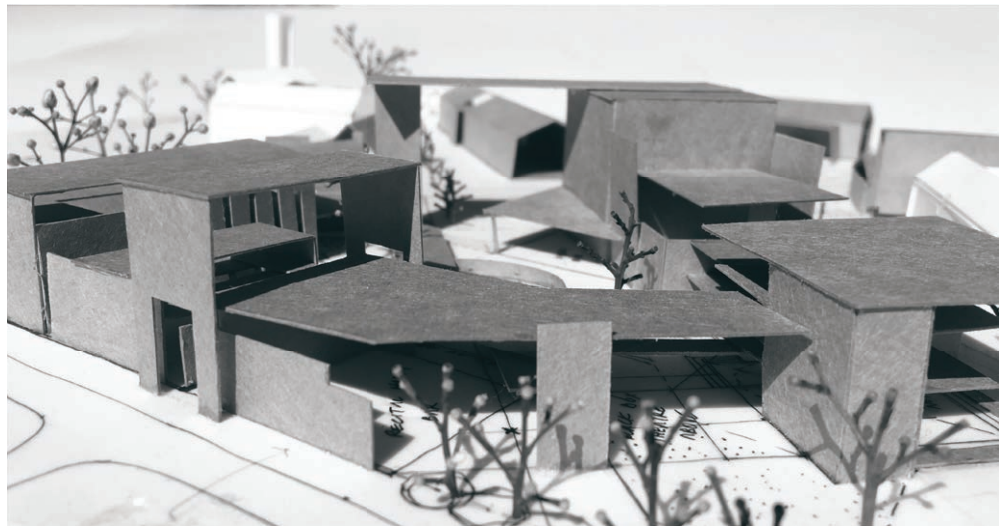
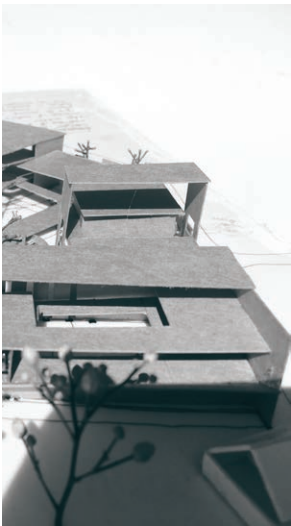
Fig. 203. Maquette. Iteration V. June 2016.



Defining a new complex.



Layering space.



Articulation of scale.

Fig. 204. Defining a new complex (June)

Fig. 205. Layering space (June)

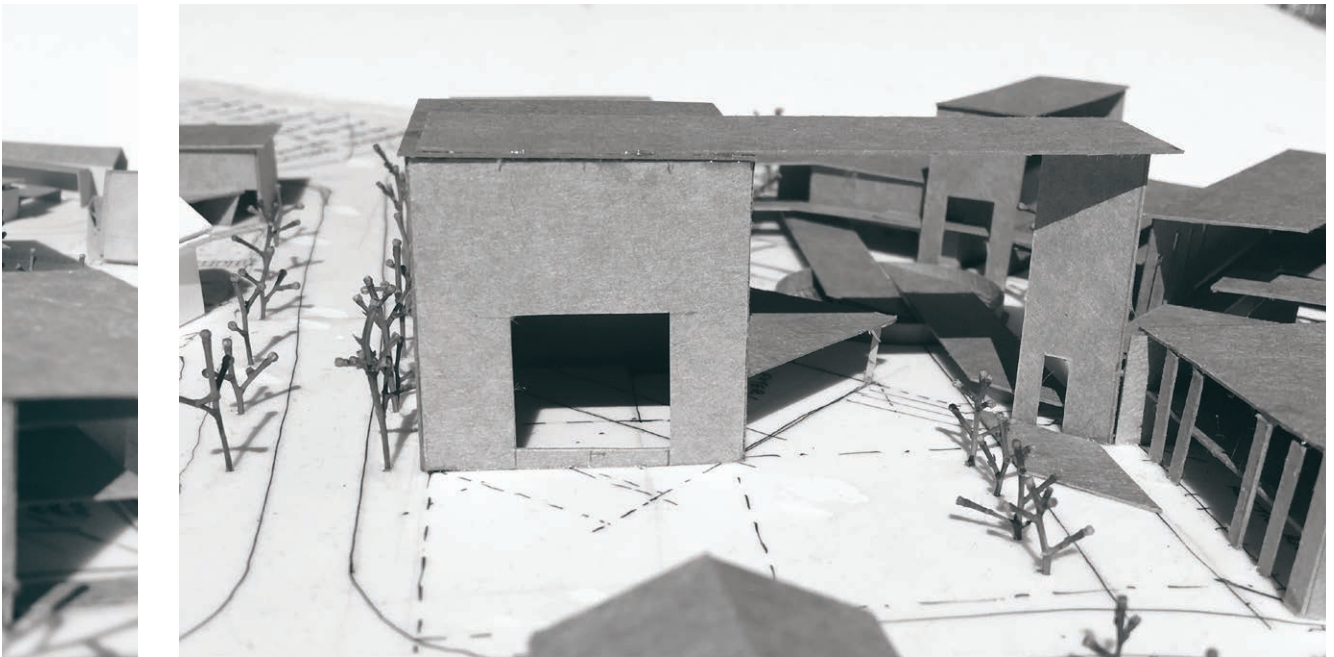
Fig. 206. Articulation of scale (June).



Definition of public avenues.



Defining an entrance.

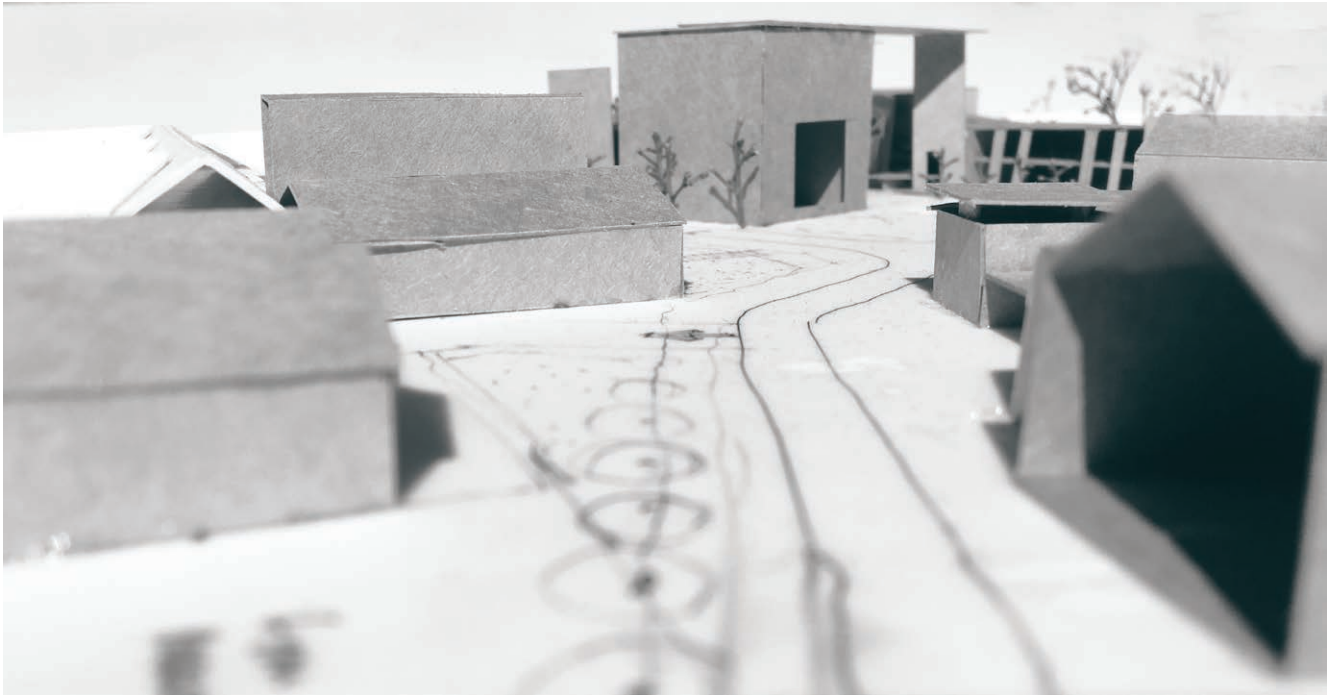


Legibility of the public entrance.

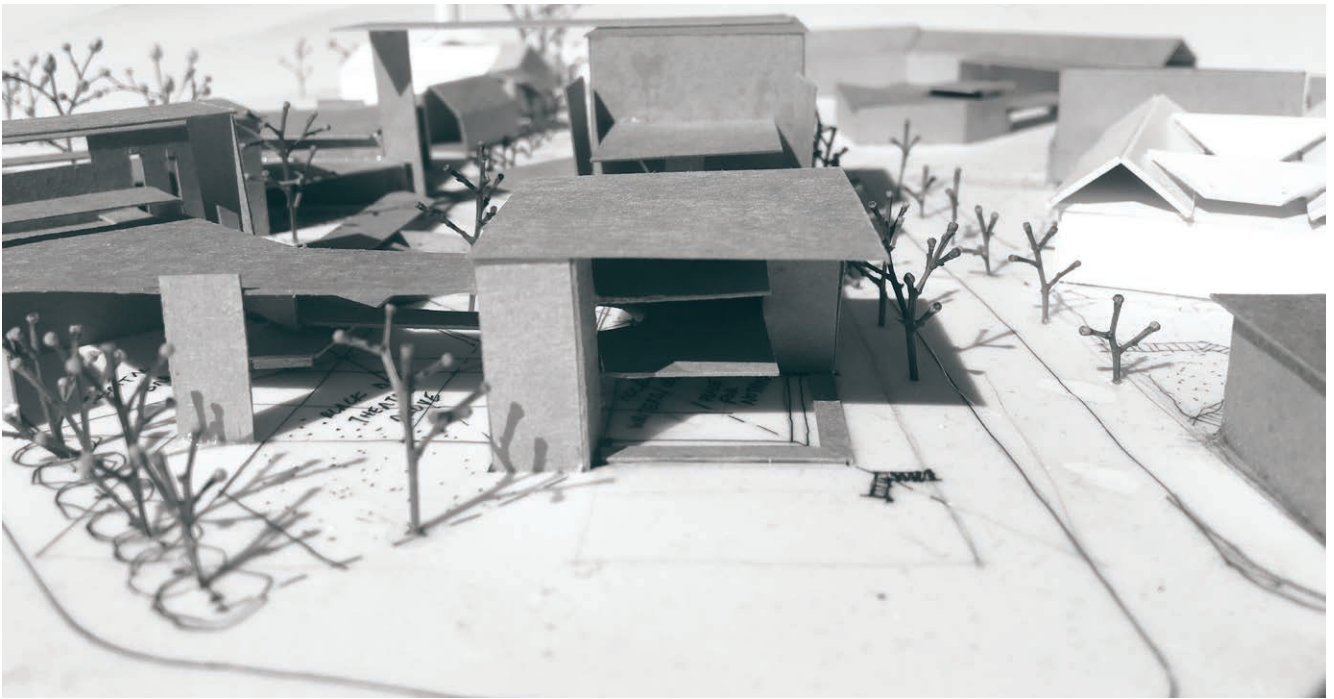
Fig. 207. Definition of public avenues (June)

Fig. 208. Definition of public avenues (June)

Fig. 209. Legibility of public entrance (June).



Prominence of social anchors.



Cutting the corner.

Fig. 210. Prominence of social anchors (June)

Fig. 211. Cutting the corner (June)

CONFIGURATION

Lessons from model building

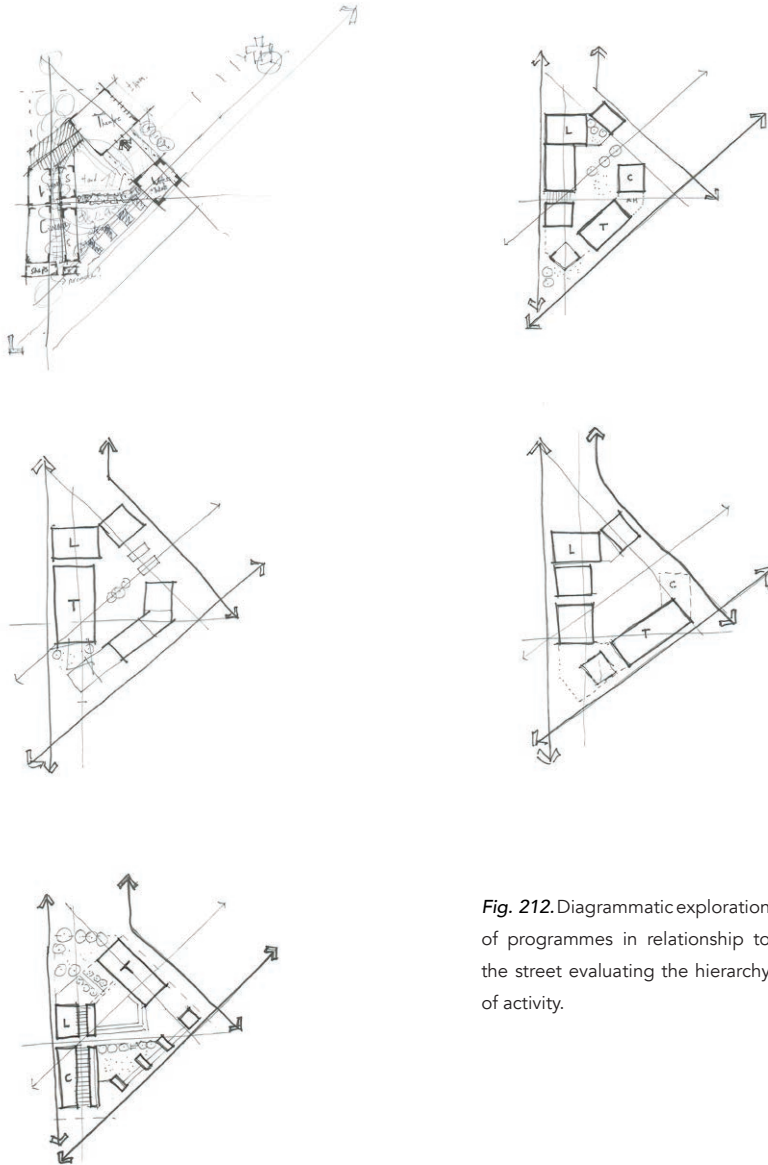


Fig. 212. Diagrammatic exploration of programmes in relationship to the street evaluating the hierarchy of activity.

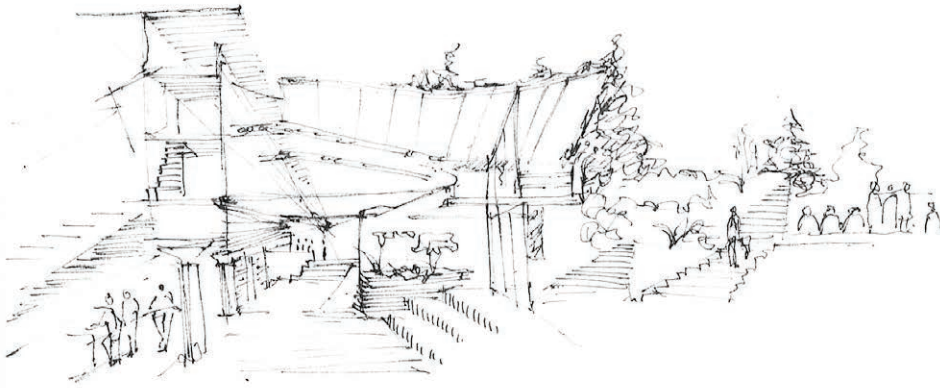


Fig. 213. Inducing slowness.

The preceding maquette exploration demonstrates the value of civic anchors in a suburban context. The public square provides refuge from the busy street. Connections are created across sites, tied together by a new surface - inviting a new *pattern of events* to occur.

The configurations explored in the diagrams on the opposite page test the value of a protected public square, responding to the programme requirements and the street edge. The street edge is defined, clearly indicating a change of pace as one enters the site.

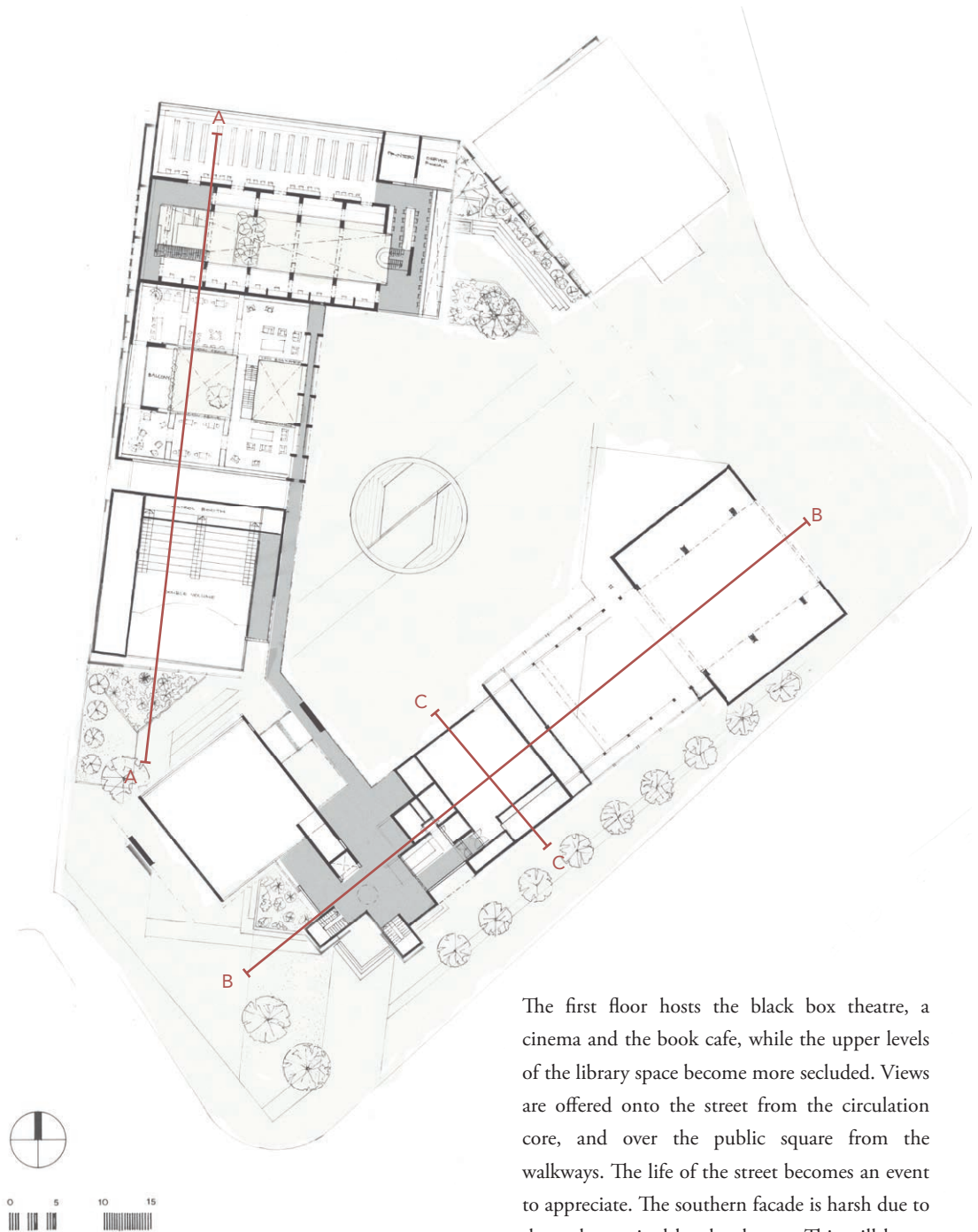
This *slowness* experienced upon entering the campus allows the user to be truly present, attuned to the spirit of the collective. The new heart of Atteridgeville offers visitors a place to *get lost*; within pockets of familiarity, unexpected aural and visual stimuli prompt reverie, enabling the site to become a repository of dreams and memories.

The following pages develop the maquette formally through the use of plans and sections in an attempt to develop a spatial expression of the conceptual intentions.



The plan above demonstrates the investigation of a new urban-courtyard typology. The pattern imposed onto the site is exposed in the surface treatment of the ground plane, creating routes which traverse boundaries and connect experiences. These connections are enhanced by providing space for nature, highlighting our connection to the rhythms of the natural world. A variety of entrances is provided, each preparing the user to slow down upon entering the space.

Fig. 214. Ground Floor Plan. Iteration V (June).



The first floor hosts the black box theatre, a cinema and the book cafe, while the upper levels of the library space become more secluded. Views are offered onto the street from the circulation core, and over the public square from the walkways. The life of the street becomes an event to appreciate. The southern facade is harsh due to the scale required by the theatre. This will be an important aspect to consider and refine.

Fig. 215. First Floor Plan. Iteration V (June).

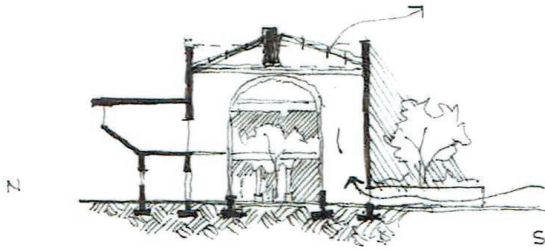


Fig. 218. Library ventilation

These images demonstrate the investigation of the library volume. The intention is to create an open, well-lit volume with a large atrium enhancing the height of the space and the connection to the sky. Views across the atrium connect users to one another and focus the experience on the tactile qualities of the space. The stereotomic mass of the masonry construction is contrasted by the emphasis on the verticality. This exploration considers skylights spanned between each arched wing (approximately five metres across). Solar heat gain is a serious concern in this regard, so double-glazing with a substantial air gap is considered, with baffled panels below to reflect and diffuse light.

Initially a concrete structure was considered. This would have resulted in a heavy, wasteful structure, and not achieve the desired aesthetic. An alternative option would be to use brickwork as permanent form-work, and the concrete would be cast in phases to prevent buckling.

The concrete floors on each level become lighter towards the atrium and de-materialise as bridges are suspended between the brick work, almost floating between openings. This reinforces the lightness and verticality of the atrium space.

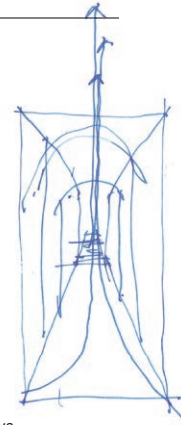


Fig. 219. Views.

To control thermal comfort, cool air is brought into the building by taking advantage of the constant temperature below ground (18°C at 600mm below ground level) using earth tubes. Openings on the northern facade will allow air to enter from the predominant direction for cross ventilation. Heated air will collect at the highest point, with controlled extraction. The thermal mass of the masonry and concrete allow for the flywheel effect. Heat will be retained in the structure and night flushing will rid the building of heat in summer, or it could be utilised in winter months. Finally, the use of a planted atrium will also aid in the thermal comfort and contribute to the overall experience.

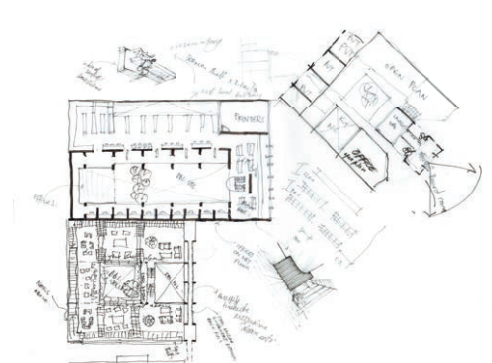


Fig. 220. First floor plan of library and restaurant.

FOOD + BOOKS

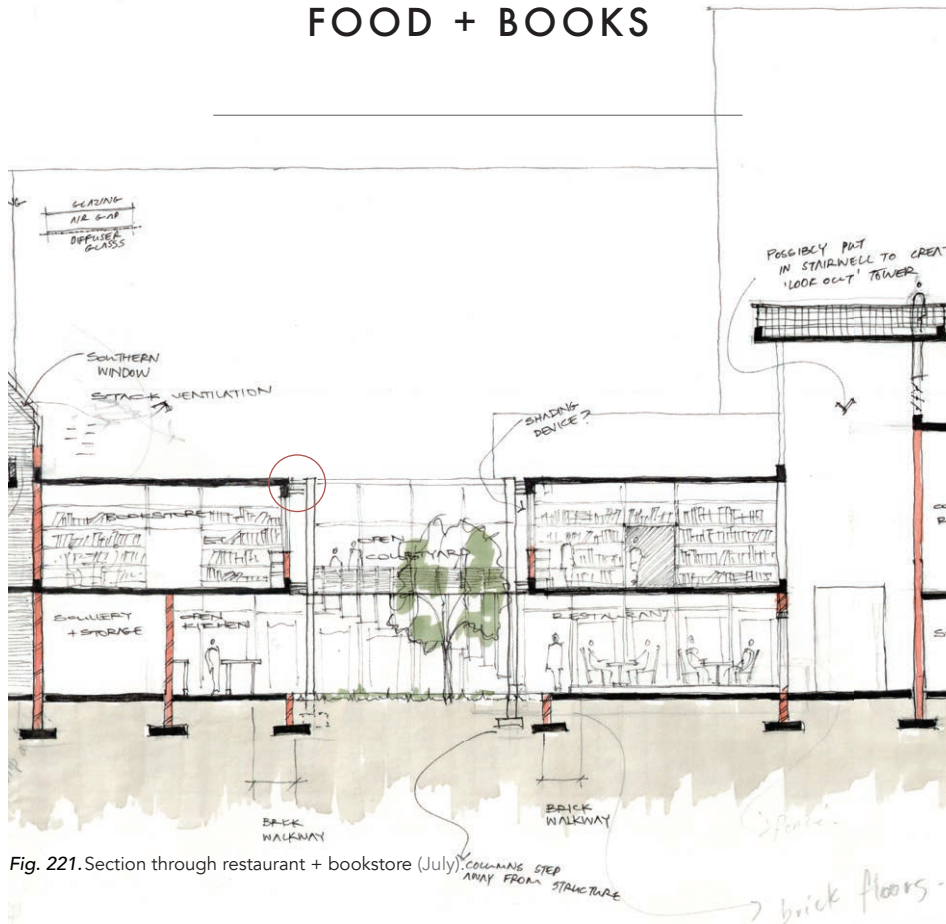
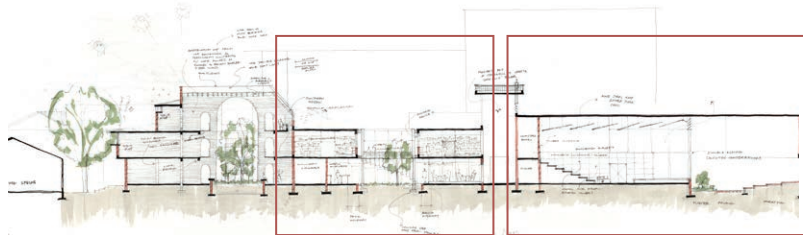


Fig. 221. Section through restaurant + bookstore (July)

The restaurant is hosted at ground level, allowing for a direct connection to the public interface on the east. An open courtyard allows for an outdoor space, more intimate than the larger square. Similar to the library, as one gets closer to the central courtyard space, the heaviness of the brickwork lightens through the use of concrete

columns, and this junction is highlighted. The courtyard allows for stack ventilation to occur on both levels.

The bookshop is elevated from the street level providing quiet spaces with a view over the square.



RECITAL HALL

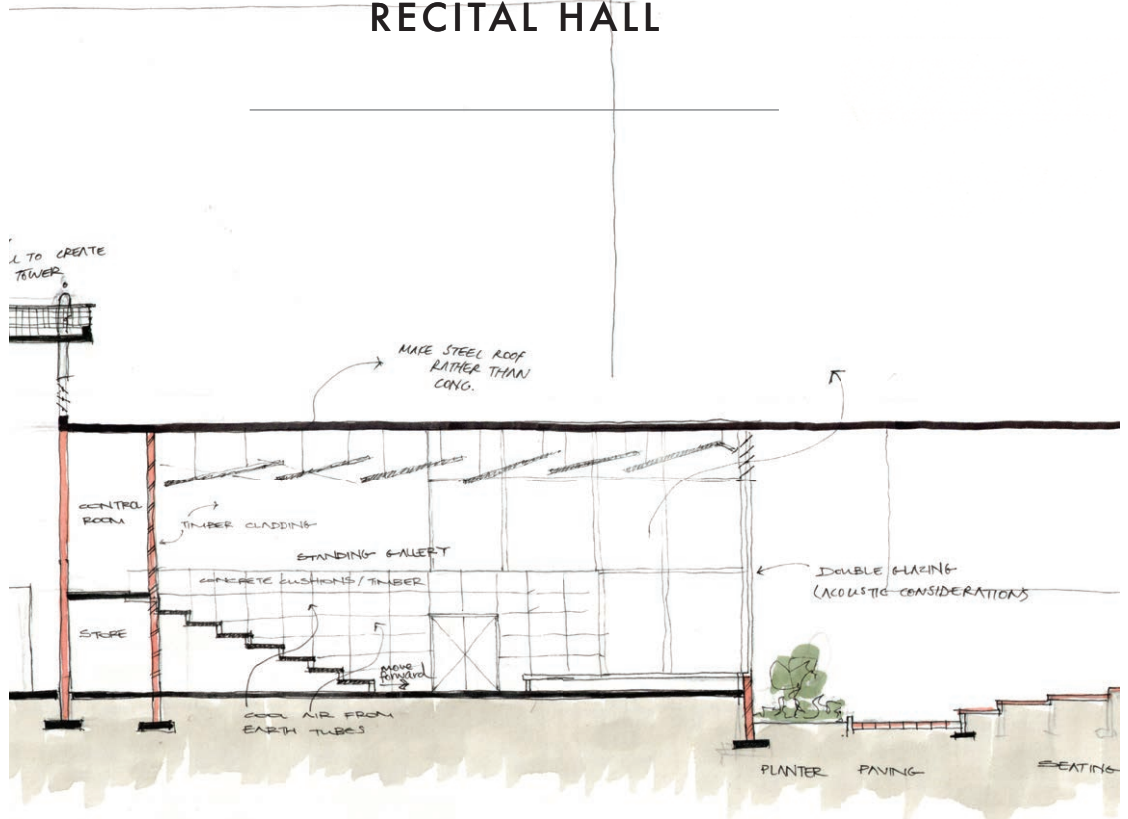


Fig. 222. Section through recital hall (July).

Floors -

The recital hall is a simple, rectangular space that opens into a courtyard. It is vital that the box is acoustically sound so that outside noise does not interfere with a private performance. The walls should increase to at least a 330mm cavity wall, aided by the variety of adjustable acoustic panels. Since a visual connection is desired, glazing is proposed on the southern facade. This would require at least two 6mm laminated glass planes

separated by a 150mm cavity with absorptive panels within the frame.

Side walls will host reflective acoustic panels while the back of the hall should be absorptive. The central aisle of overhead acoustic panels should be reflective and the outside, absorptive.

CINEMA

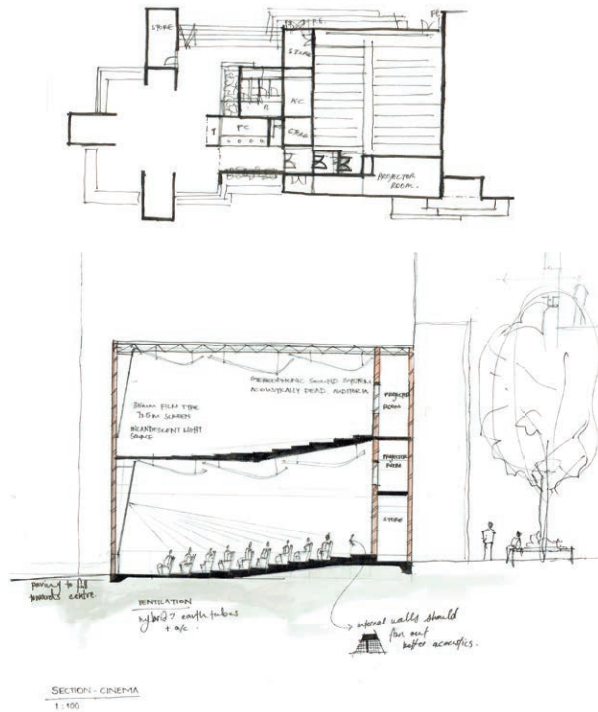


Fig. 225. Plan and section through cinema (July).

The cinema requirements include a stereophonic sound system in an acoustically dead auditorium with zero reverberation. The side walls should not be parallel, which will be catered for using acoustic panelling. Thicker walls are necessary for sound isolation, rather than cavity walls. Also, corner echoes are a concern, and will be resolved through the use of an appropriate material, for example carpeting.

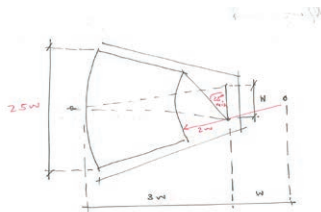
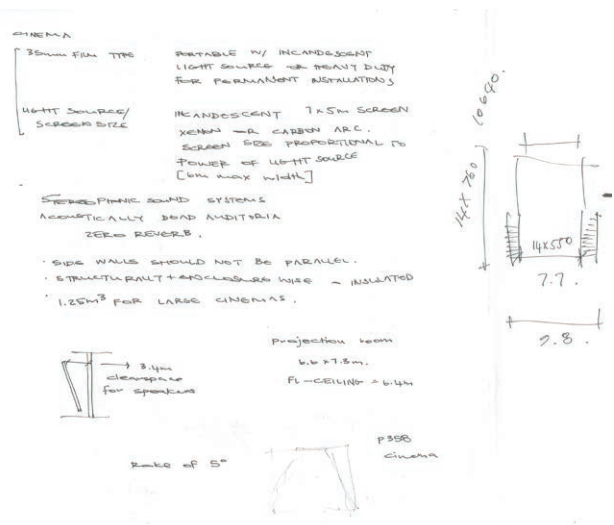


Fig. 226. Cinema requirements.



THEATRE

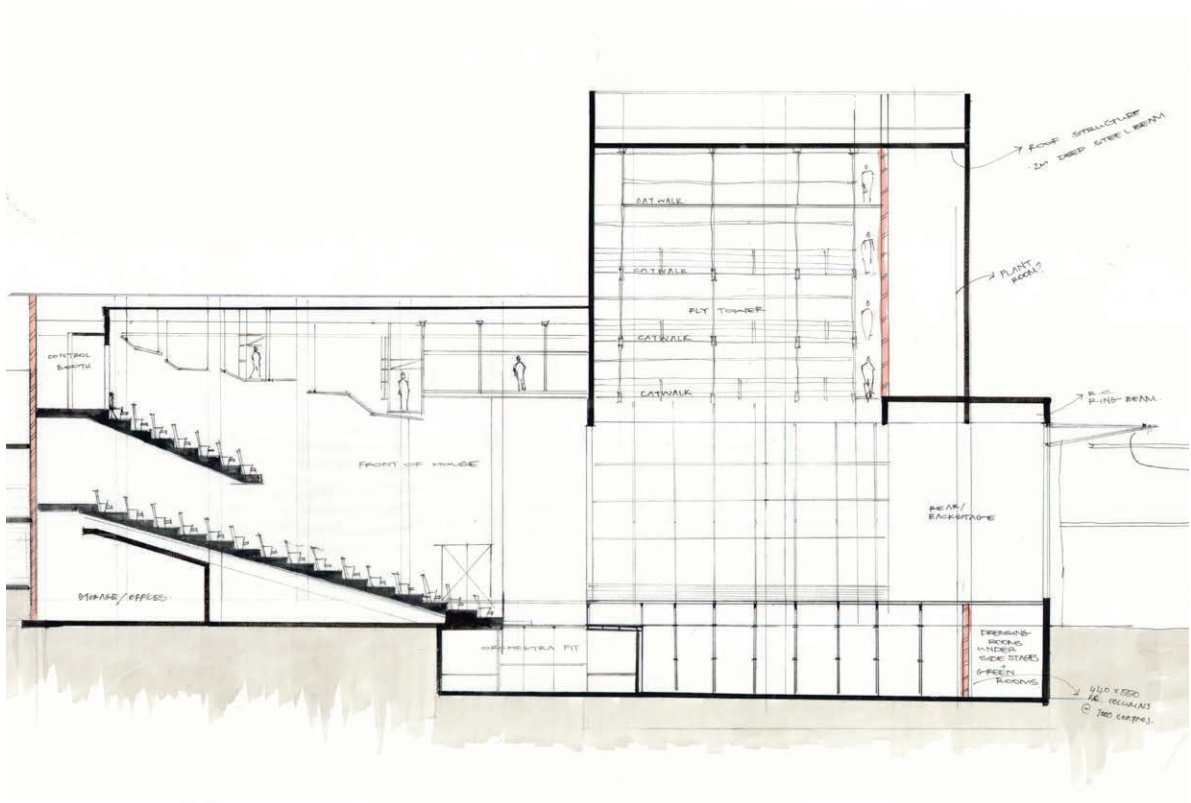
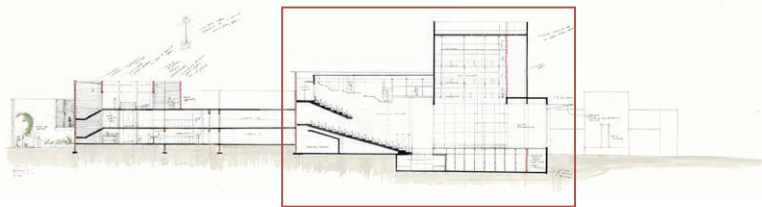


Fig. 227. Section through theatre (July).



Section BB. Iteration V (July).

PERSPECTIVES



Fig. 229. View of black box theatre and entrance.



Fig. 230. View of towards the library.

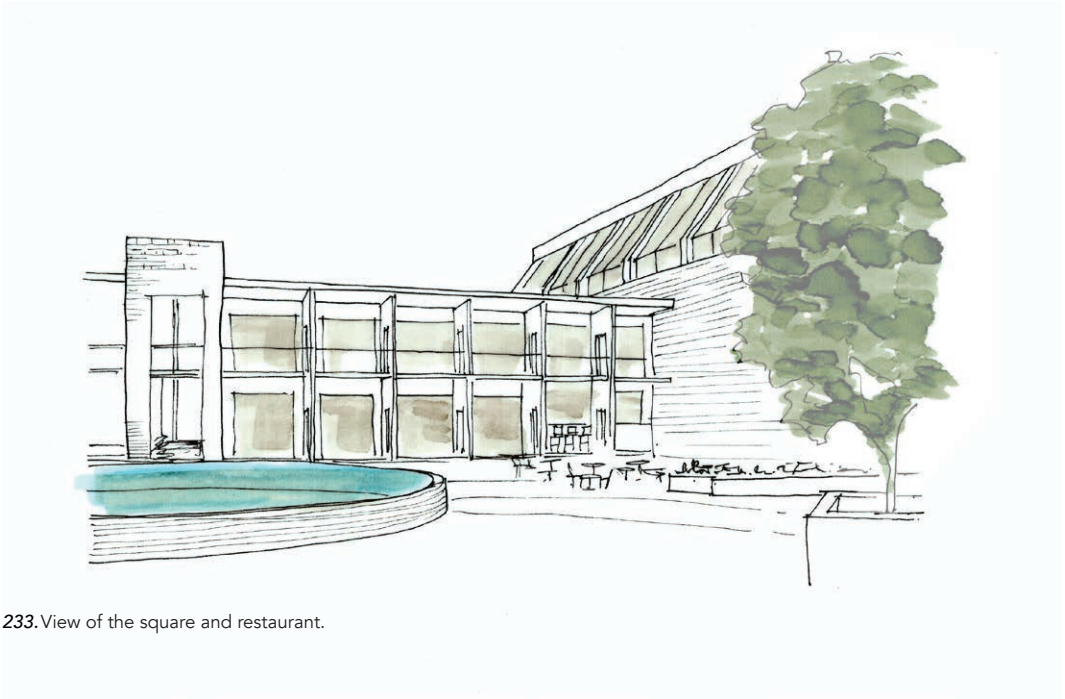


Fig. 233. View of the square and restaurant.



Fig. 231. The arcade.

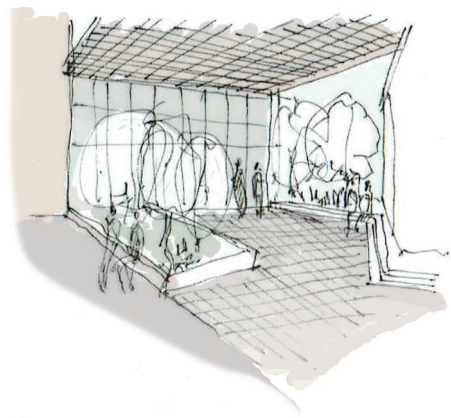


Fig. 232. Library entrance.

FINAL SITE INTENTIONS

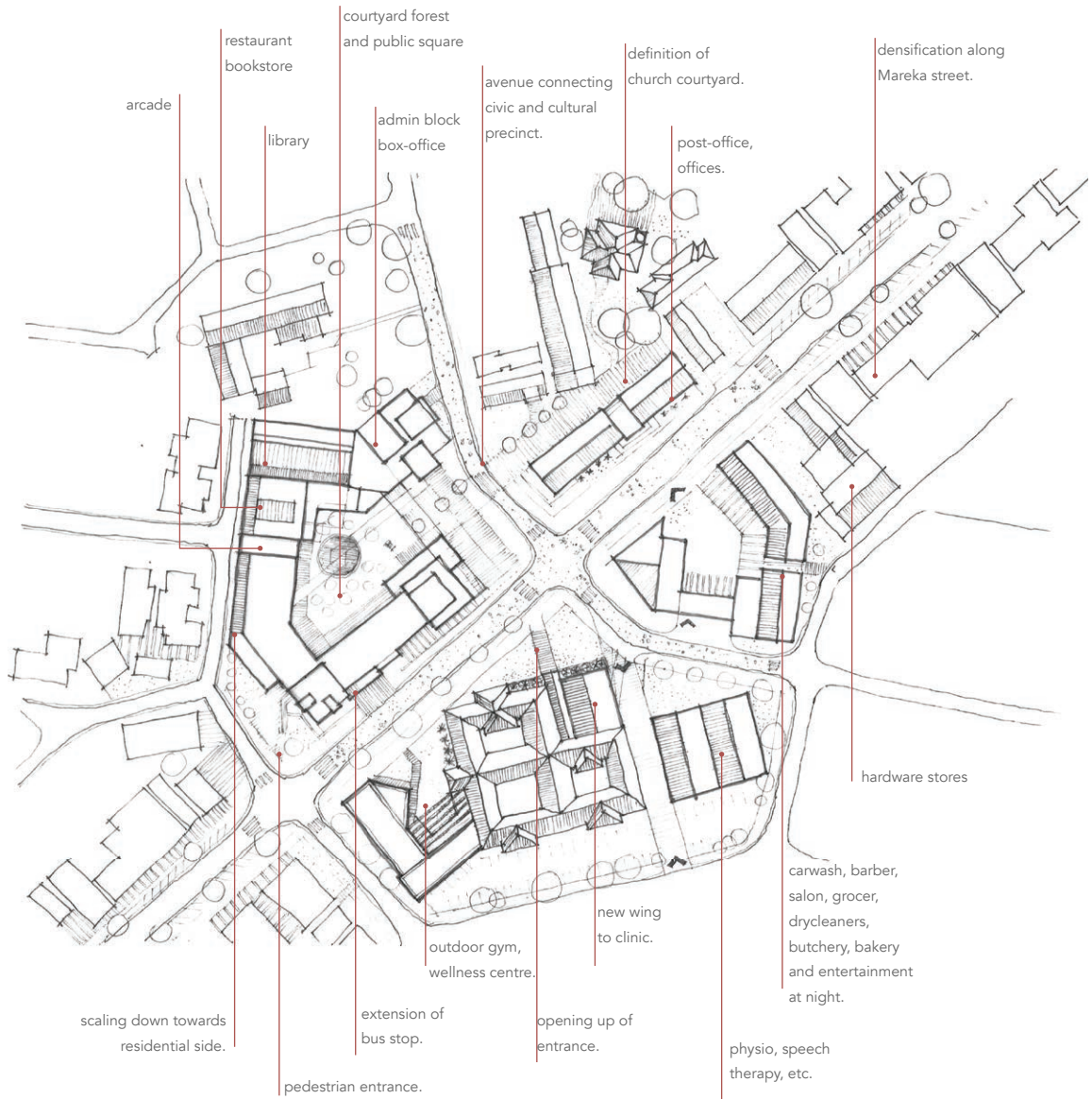


Fig. 234. Site intentions refined - larger square (Sept.).

REFINING EDGES

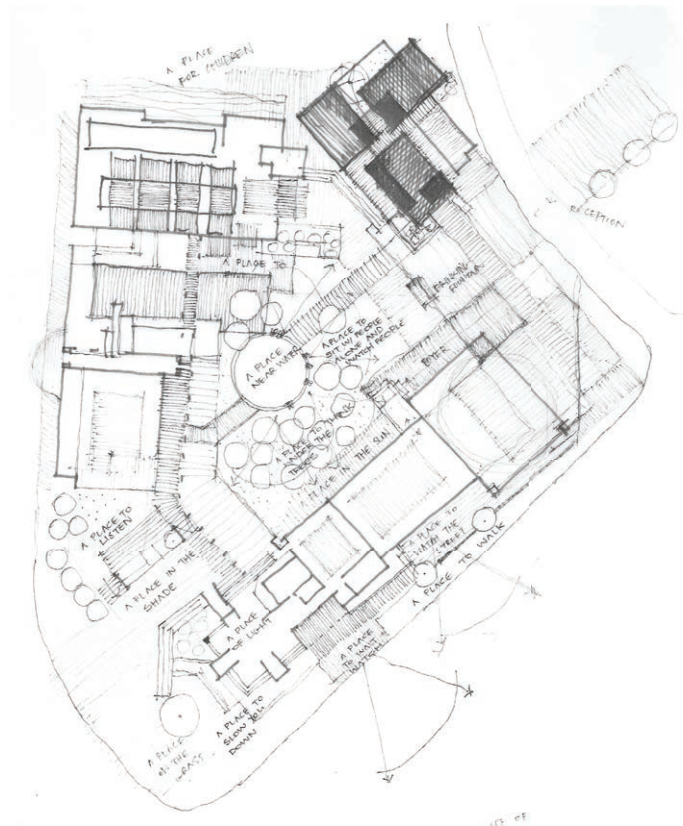


Fig. 235. Site intentions - refined edges (Sept.).

The diagrams on this spread illustrate the refining of the site intentions. At a large scale, it is envisioned that densification of the square, definition of the separate quadrants, and articulation of public space will encourage growth along the main street, connecting Ramohoebo square to the larger south-western node and W.F. Nkomo to the north-east.

At a smaller scale, the relationship between the street edge and building were interrogated and manipulated to strengthen the conceptual intentions and vision

intentions of Volume I, in response to the three themes: activity, interface and connect.

The restaurant was pulled out into the public square, routes beside programmed spaces were widened to create opportunity for pause, the bus stop was accentuated and the route along the southern facade was defined with vertical articulation and surface treatment. The open corner to the south is enhanced by planting and the avenue to the civic precinct is highlighted.

THE STREET

Designing elevation

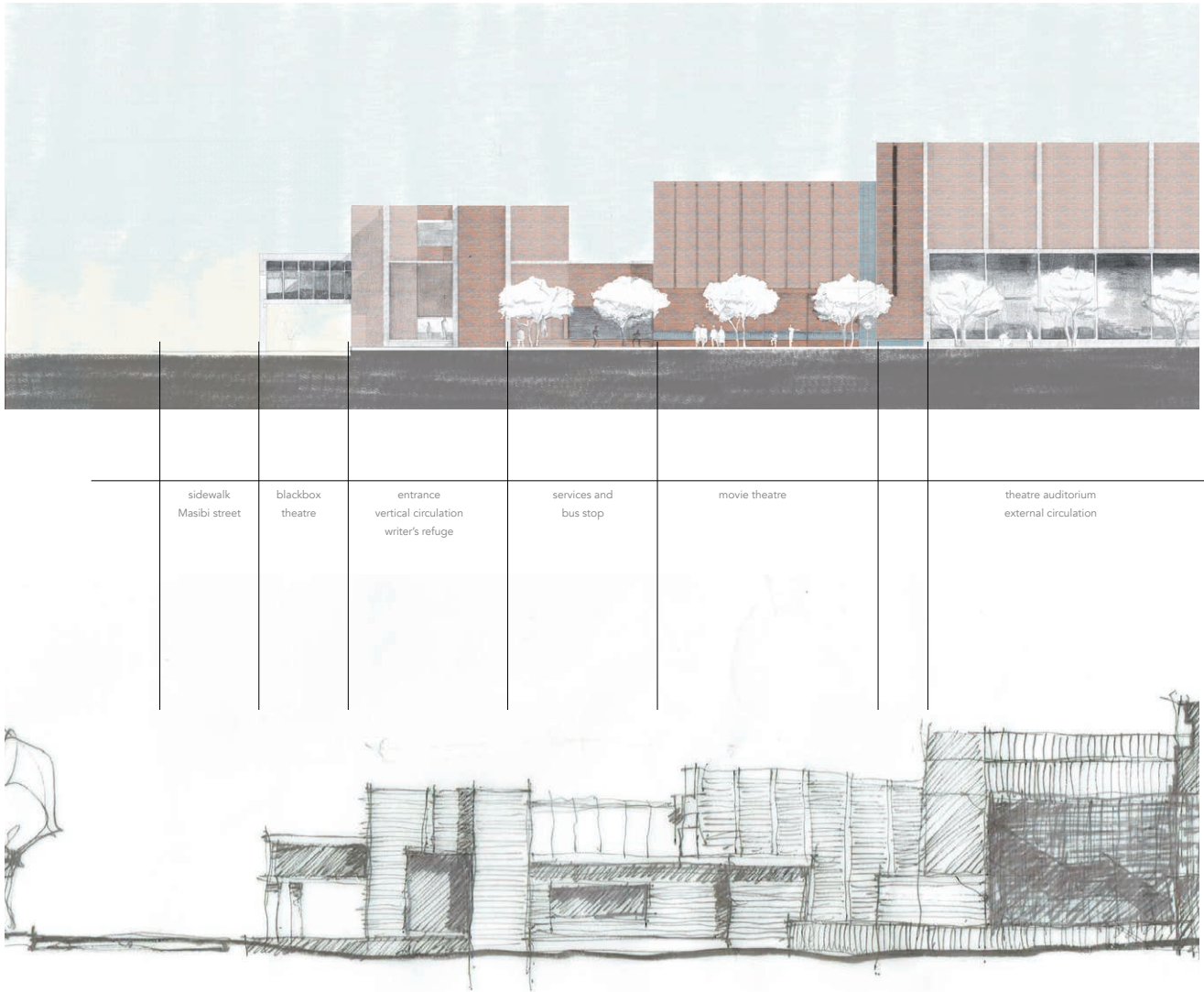
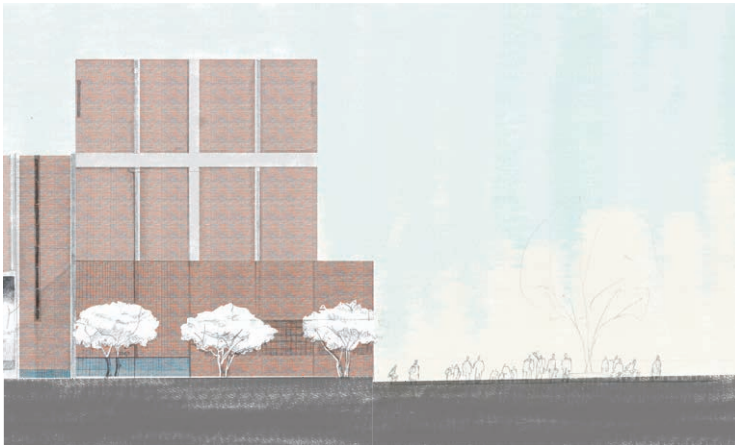


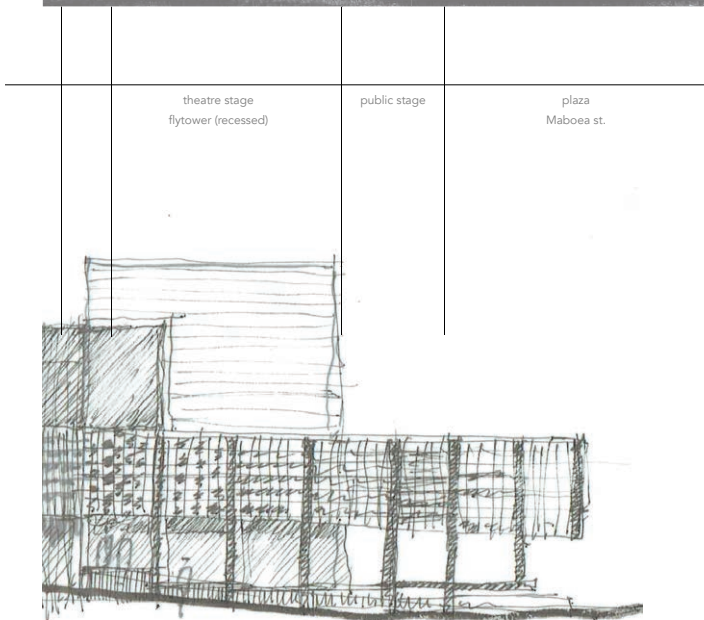
Fig. 236. Mareka street elevation. Iteration V (Jul).

Fig. 237. Mareka street elevation (Oct).



The southern facade on Mareka street hosts the most selfish programmes: the theatre and cinema. Both programmes require large volumes and solid exteriors due to the ‘black box’ nature of the activity within.

To address this issue, the modularity and human scale of the brick module was exploited. The articulation of the facade reduces the perceived scale. Stepping back of larger portions, the flytower especially, ensures one is not confronted by the tower whilst walking beside the building. The circulation of the theatre auditorium is exposed on the south to create a visual connection between the passer-by and audience member for a moment.



Trees are proposed to line this avenue, bringing down the scale and contributing to the experience and combat the heat island effect. Ceramic tiles or glazed bricks are introduced to break the vast wall of brickwork, introducing colour and reminders of internal conditions. The movement of water from the roof to the street level is highlighted to begin the relationship with water across the site.

Despite these considerations, the structure appeared too heavy. The second elevation explores breaking-up the structure further through the introduction of a pergola structure. The bus stop is enlarged the bus stop to accentuate pause spaces along a route. This iteration is unsuccessful and will be explored further.



CARLO SCARPA

BRION CEMETERY,
SAN VITO D'ALTIVOLE,
TREVISO, ITALY

Fig. 238. Brion Tomb, 2013.

“Layering exists in a realm of complexity and implies a capacity of being interpreted that goes beyond itself and creates references to the world at large instead of narcissistically contemplating itself alone. A building becomes a cumulative composition made up of elements of varying materials and provenance. In contrast to the architectural monolith, which demonstrates a sheer three-dimensional volume made from one material and negates the »hollowness« of architecture that is implied by its function, layered architecture celebrates the parts and the process of its genesis. Instead of the compositional unity of a monolith, layering features a compositional balance of elements.”

(Schultz 2014:6)

1978



Fig. 239. Carlo Scarpa's Brion Tomb, 2013.

AUTHOR'S NOTES

I have been fascinated by Scarpa's architecture from the moment I saw a photograph of the water feature at the Brion Tomb (Figure 238). I then lost myself in Scarpa's world of intricate detailing. Although I still find it impossible to comprehend his work, despite numerous visits to his projects, I continue to be inspired by the art of putting things together. The layering, material palette, complexity and magnificent composition allows me to get lost and feel connected at the same time. There is a familiarity in his work.

The intention is to learn from this master and devise similar techniques to create connections across the site and create the same magic Scarpa seems to so effortlessly create.



1958
CARLO SCARPA
OLIVETTI SHOWROOM, VENEZIA, ITALY

Fig. 240. Carlo Scarpa's Olivetti showroom,
Venice, 2013 (all images on spread).





Drawing inspiration from the elegant execution of detailing by Carlo Scarpa, the design of surfaces and connection will form an integral part of the technical exploration of this scheme.



CARLO SCARPA
FONDAZIONE QUERINI STAMPALIA:
RESTORATION, VENEZIA, ITALY

"It is the liquidity in our eyes that causes us to dream... by providing a means of access from thoughts to dreams, can one be convincing."
Bachelard (1942:ix)

1961-63

Fig. 241. Carlo Scarpa's Olivetti showroom, Venice, 2013 (all images on spread).

There is a desire to create a relationship between memory and dreams throughout the scheme. This will be explored through the use of water and routes to invent new links across the site.

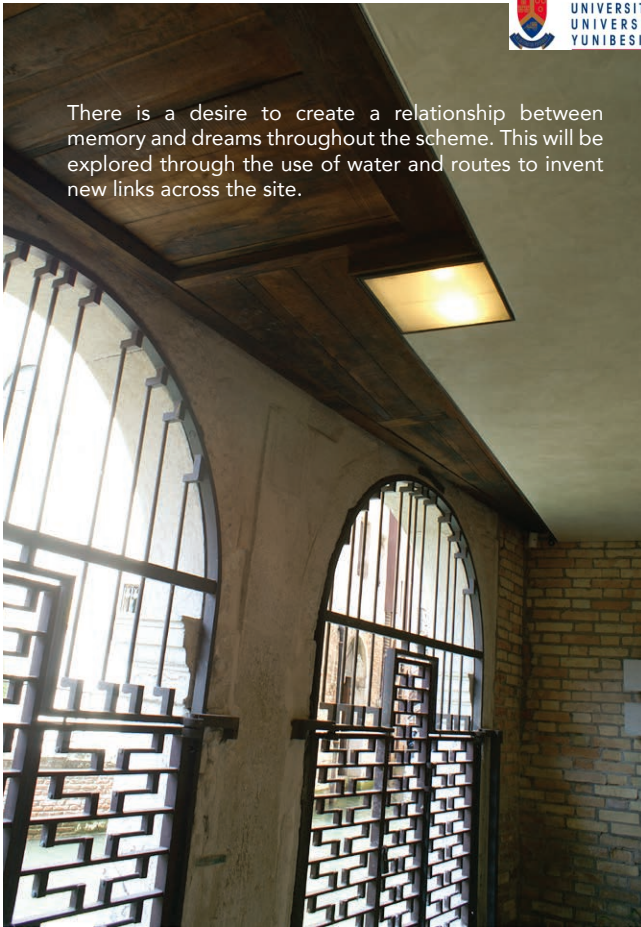




Fig. 242. View of the library from the garden, Wright & Wright.

WRIGHT & WRIGHT, 2020

LAMBETH PALACE LIBRARY EXTENSION

Wright & Wright's proposal for the first new addition to Lambeth palace, one of the United Kingdom's oldest libraries. The historic home of the Archbishop of Canterbury, the Lambeth Palace Library has had a publicly accessible collection since 1610. This library is the main archive for the Church of England and is the second-largest collection of religious texts in central Europe after the Vatican (Winston 2016).

The project is described as “an occupied wall’ with an eight-storey tower at its centre.” The red clay brick structure pays homage to the surrounding Palace buildings which forms a screen enclosing a pond, and protects the garden from pollution and traffic noise. The top of the tower offers views towards the Palace of Westminster while the main public reading room faces outwards towards the palace's gardens. Large areas of glazing allow for maximum natural light (Winston 2016).



Fig. 243. Views of the library from the street, Wright & Wright.



Fig. 245.
Library.



Fig. 244.
Library.

AUTHOR'S NOTES

Wright & Wright's design displays a sensitivity to context despite the large scale required for the library addition. The use of face brick creates a monolithic structure but the articulation of the surface through the manipulation of brick courses breaks the facade into smaller portions. The lighter elements hosted at the top of the eight-story tower allows the structure to de-materialise as your eye follows it skyward, creating a beacon of light.

The architects argue that libraries will continue to be valuable spaces in cities despite the rapid pace at which technology develops. They describe libraries as the new 'cathedrals' of the city (Winston 2016). It is a reminder that cities and spaces for the everyday city-dweller should remain a priority.

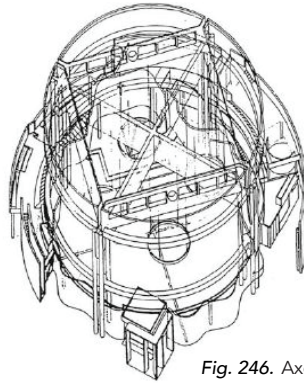


Fig. 246. Axo of the church.

KAMMEYER, ROZENDAL, CARTER-BROWN

THE CATHEDRAL OF THE HOLY NATIVITY, PIETERMARITZBURG, SOUTH AFRICA

The national competition for the design of the Cathedral Church of the Holy Nativity in Pietermaritzburg was won by Heinrich Kammeÿer and Norbert Rozendal. The cathedral was required to bring together the High and Low Churches of St Peters and St Saviours. The design considered an entire cathedral complex including worship facilities and supporting programmes which were required to respond to the pedestrian walkway and the unbuilt shopping mall. It was vital for the cathedral to be integrated into the urban fabric and respect the existing architecture (Theron 2015: 50-2).

Considering the vast scale of a cathedral - a large, mostly empty space, it is given back to the people in the dense fabric of the city. The structural solution responds to the intention of creating a 'container' - a large brickwork 'drum' is carried on heavy concrete beams - a square inside a circle providing a unified, free volume below. "The geometric purity and simplicity of the drum, gives way to an increasing complexity as one moves towards the outside: a transition of space and symbol."(Theron 2015: 52).

Theron (2015:52-3) describes how the structure carrying the roof becomes part of a universal language. The cross makes reference to religious symbolism, but spatial orientation as well (the four cardinal points) while making reference to St Peters and the street. The architects not only acknowledge the spiritual connection, but also the Cathedral's connection to it's human counterparts and context.

Each time a person visits the Cathedral, they are made aware of the climate which is a part of a higher order. Light is used to emphasize the separation of elements. Windows are purely to modulate light, this modulation becomes an expression of the window itself: the aesthetic lies in the making. (Kammeÿer quoted by Theron 2015:53).

Theron (2015:52-4) explains how Rozendal and Kammeÿer explored detailing to heighten the experience of visiting the Cathedral. The intention was to communicate the human scale through detailing and also making the various parts or forms of the Cathedral visually obvious. The structure was to be read as a complete experience rather than just a supporting element. To achieve this, the columns step away from the wall, and each subsequent layer is treated independently: the walls, beams and balustrades.

A centre is created for the convergence of a diversity of values and influence (Theron 2015:55)

The theme of hidden spaces or “spaces behind” is repeated throughout the Cathedral complex suggesting that there are hidden spaces revealed only through exploration. The roofscapes, walls, fenestration and structure hint of this. The garden and sky are revealed, suggesting an extension of the architecture. Even the building is revealed bit by bit.



Fig. 247. Stairway.

Fig. 248. Thresholds.

Fig. 249. Rhythm.

All photos by Theron & Kammeÿer. 2015



Fig. 250. Courtyard.

AUTHOR'S NOTES

Theron exposes the sensitivity and control adopted when responding to a highly symbolic and spiritual programme. The cathedral's requirements with regard to scale were achieved by manipulating materials, structure and light to ensure a human scale, in a super human-scale structure. The result: awe-inspiring volumes making reference to the spiritual and physical world. The cathedral does not function as an isolated object in space, but makes a contribution to the community through well designed intermediary spaces. When considering public spaces and public buildings, which are vital in our developing cities, this Cathedral offers many valuable lessons.



6. TECHNÈ

The craft of building

The exploration of programme and spatial experience is driven by the relationship between the mundane and the extraordinary. Spatial and aesthetic inspiration is drawn from the existing conditions in Atteridgeville. The goal is to translate these qualities into something inspiring, so that merely entering the precinct becomes an escape - an invitation to lose oneself in the space.

The investigation into the craft of construction is context-driven. Form, material consideration and threshold resolution are inspired by existing conditions. These elements are manipulated and enhanced to achieve the theoretical and conceptual intentions. There is a search for complexity in the scheme from an urban scale through to the smallest detail. Individual materials are to be honoured, with an emphasis on connections.

Six informants; namely scale, the fence, paving, light, water and the border; are used to guide the technical development of the scheme. This is reinforced by the three overarching themes: connect, interface and activity. These principles are used to create a sense of familiarity (the mundane) in the civic realm, but present it in a new light to create something spectacular. The intention is to demonstrate a poetic interpretation of simple construction technologies and systems thinking to ensure maximum comfort and delight.

I. SCALE

The programmatic requirements demands that a large scale be introduced into the fine grain of Atteridgeville. The use of face brick is to make reference to existing public buildings, but also to take advantage of the modular scale of a brick. This is to be complimented by the articulation and celebration of structural elements, as well as secondary systems.

II. FENCE

The fence in Atteridgeville is not implemented for security measures, but instead serves as an adornment. An interpretation of this threshold will be used to define spaces in a similar manner to manipulate the layering of spatial experience.

III. PAVING

The surface treatment of driveways has been exploited in various areas of Atteridgeville. There is an emphasis on the extension of the street into the home. This will be utilised as a language to articulate the horizontal plane, exposing patterns on site.

IV. LIGHT

Light will be used to define and delineate space according to the various levels of 'loss' associated with each programme. Solar control will be considered to ensure the most natural and comfortable conditions for each space.

V. WATER

The control of water throughout the site will be used as a means of creating connections between various spaces in association with memory and dreams.

VI. BORDER

The building will be used to highlight support spaces along a route recognising the border as the place to dwell.

DEVELOPMENT

Fig. 251. Strategies for the site (right). This diagram indicates the potential to utilise passive strategies. Considering the large volumes of the selected programmes, as well as the occupancy, it is proposed that hybrid systems are used to reduce the dependence on mechanical systems. The first consideration is earth tubes, taking advantage of the constant temperature below natural ground level. Depending on the season, the pre-heated or -cooled air will be circulated through the volumes from below. The diagram also indicates how the edge conditions create spaces to protect users from the elements. Thermal mass will be used to keep spaces cool during the day, and night flushing will expel the radiant heat in the evenings during summer.

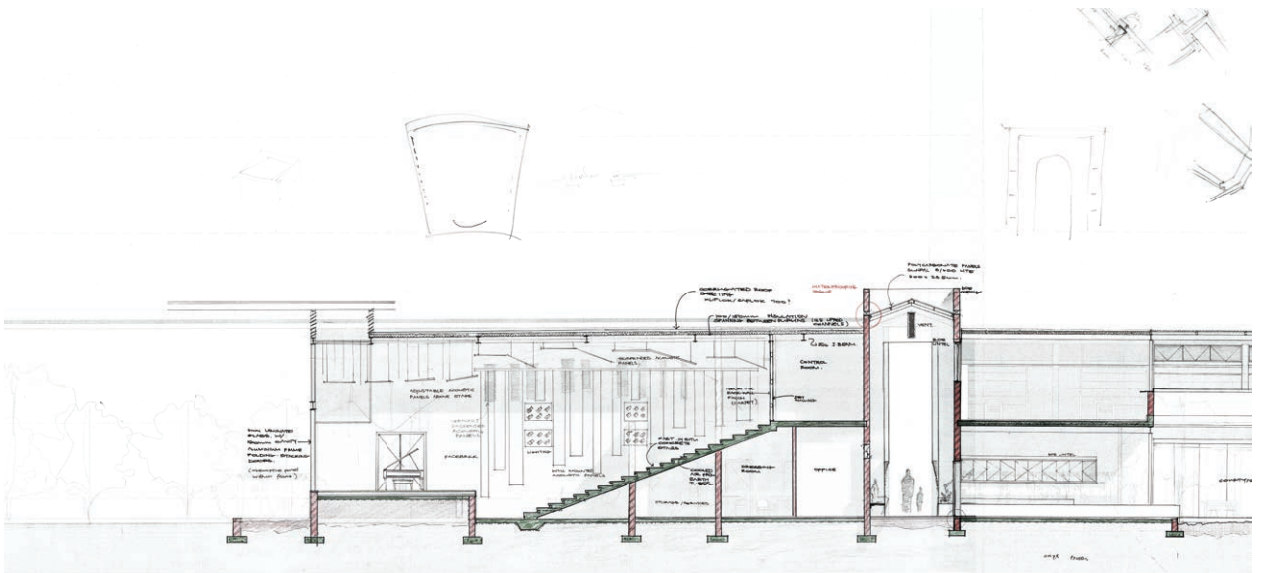
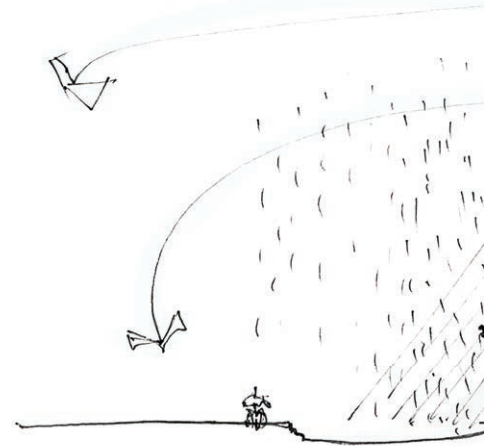
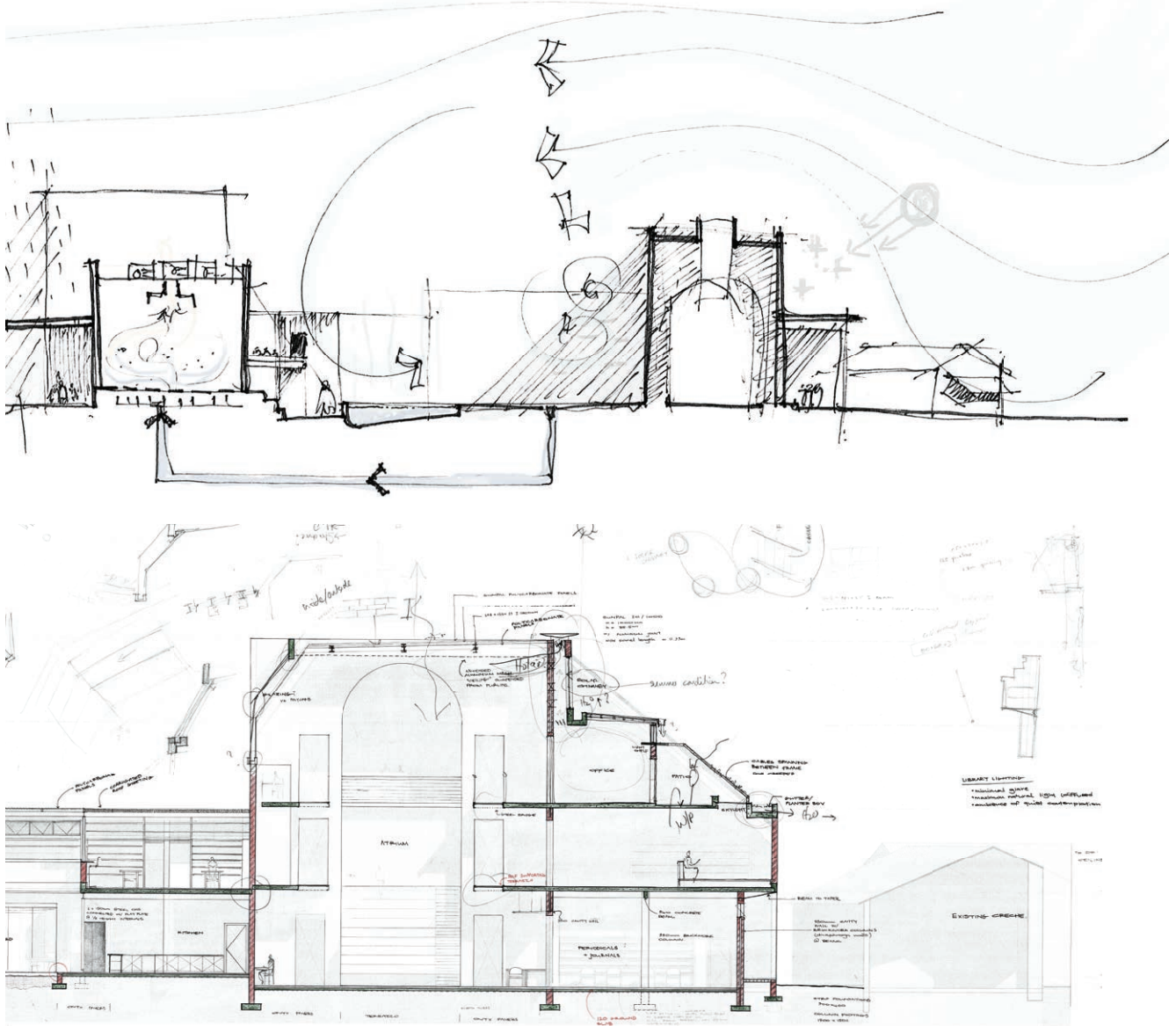


Fig. 252. North-south section through recital hall, restaurant, library (Sept.). This section was used to explore the requirements for each programme. A steel roof system was tested in this iteration, as opposed to a concrete flat roof of previous iterations. Suspended and wall mounted acoustic panels are considered for the recital hall, as well as a new roof to allow for stack ventilation, incorporating a heat exchange system to pre-heat water for use in the dressing rooms and radiant heating in walls where required.



The northern facade of the library was interrogated in this section. The goal was to step down the scale towards the crèche, and provide an undercover stoep for the children. The second storey accommodates the offices, so a balcony is proposed to cater for staff. The first storey hosts the majority of the books, thus a more robust structure should be considered. A solar chimney with a mild steel cap painted black, is proposed as a heat store to create a draft, and extract heat from the large atrium space as well as the offices. The skylight presents many issues, considering solar heat gain and quality of light. This calls for a more detailed resolution.

EXPLORATION

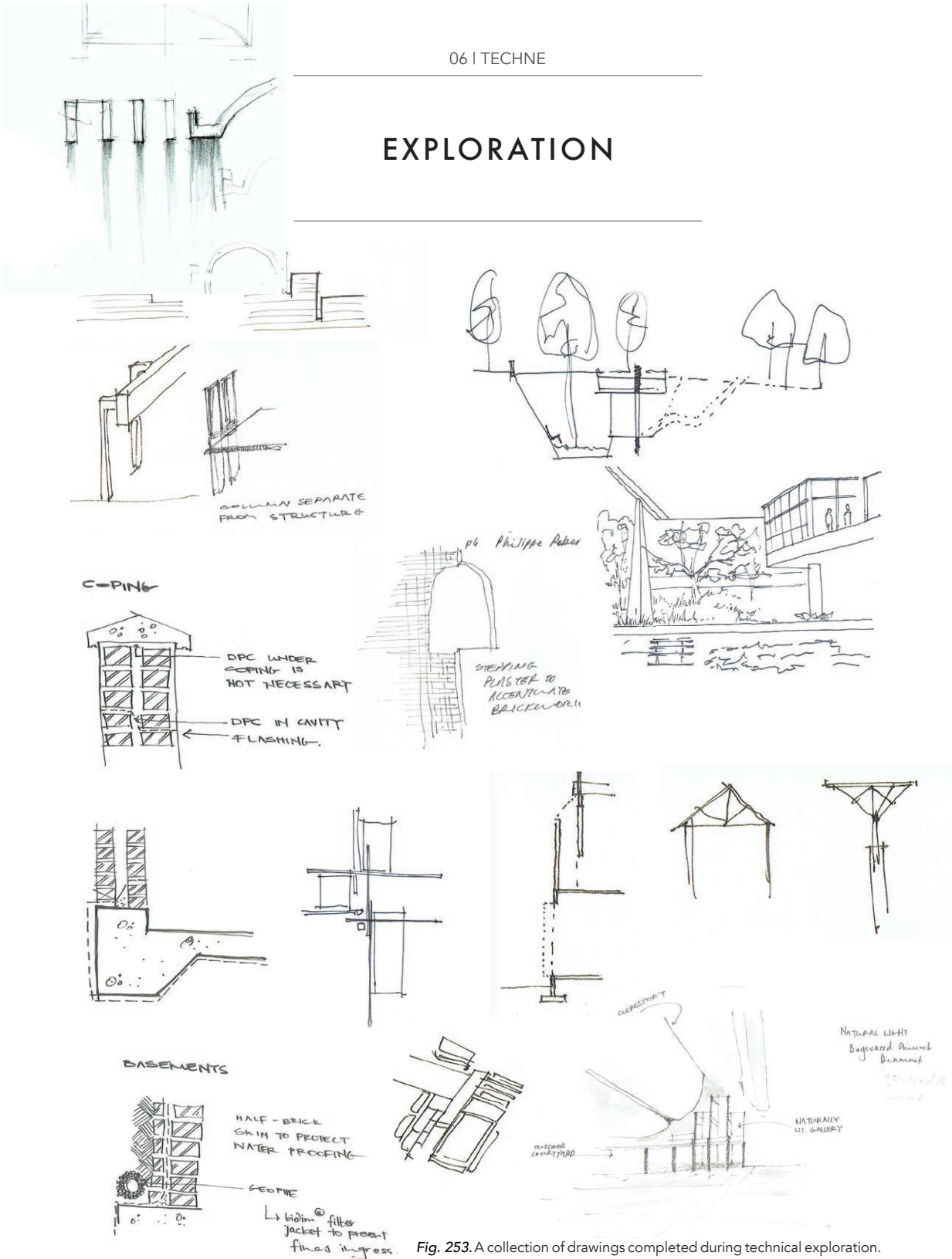


Fig. 253. A collection of drawings completed during technical exploration.

BRICKS

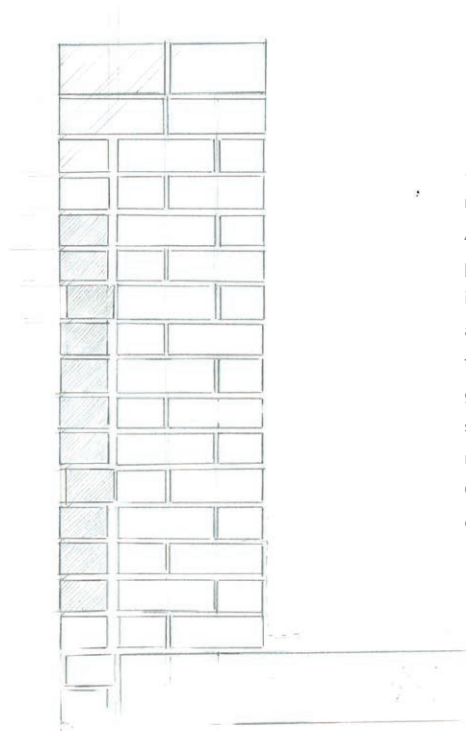


Fig. 254. Face brick was chosen as the primary material due to the modular form and tactile quality. As mentioned previously, the scale required for the performance spaces create large imposing masses in a fine-grain suburban fabric. The intention is to accentuate the horizontal lines by recessing every fifth brick course to bring down the scale. The use of glazed bricks and ceramic tiles will accentuate certain spaces which fragment the brick mass, or highlight the relationship to natural elements, for example, water. Openings are highlighted by sloping the sills and exposing the thickness of the masonry walls.

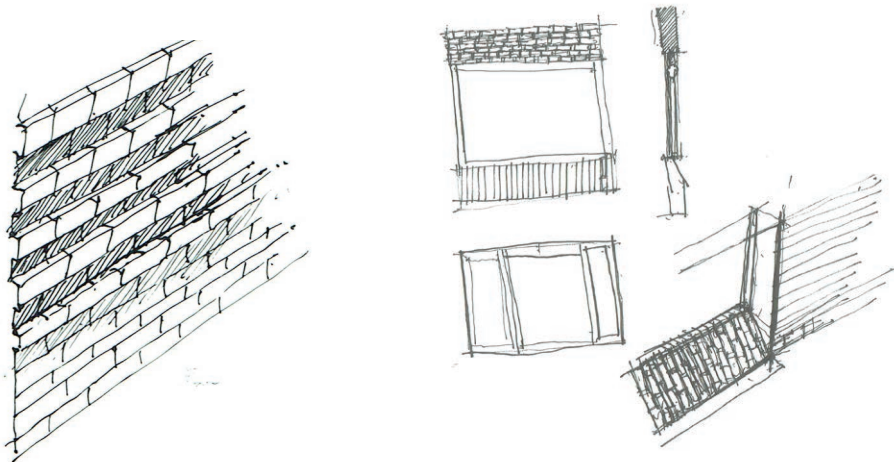


Fig. 255. Articulating bricks.

LIBRARY + RESTAURANT

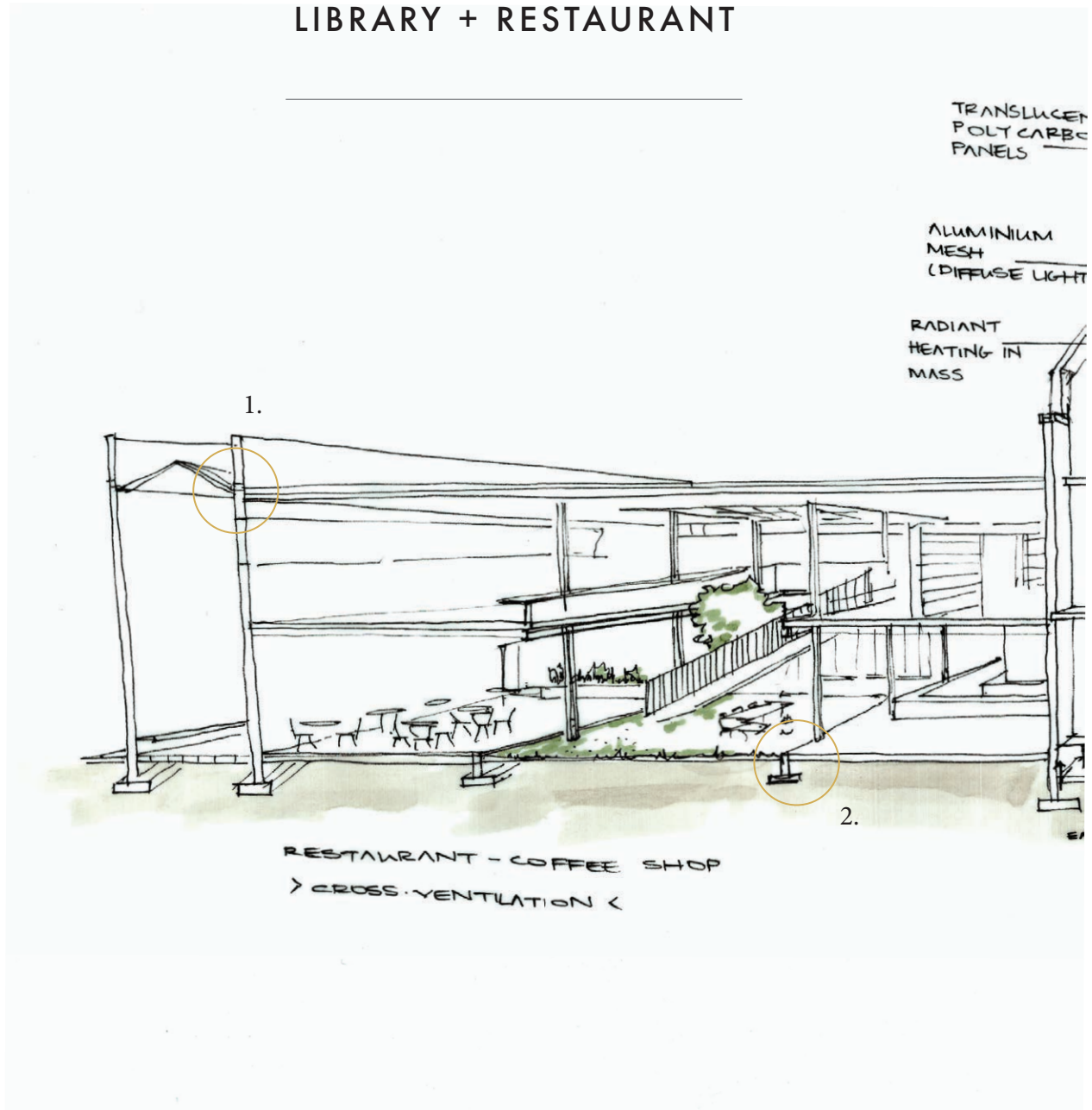
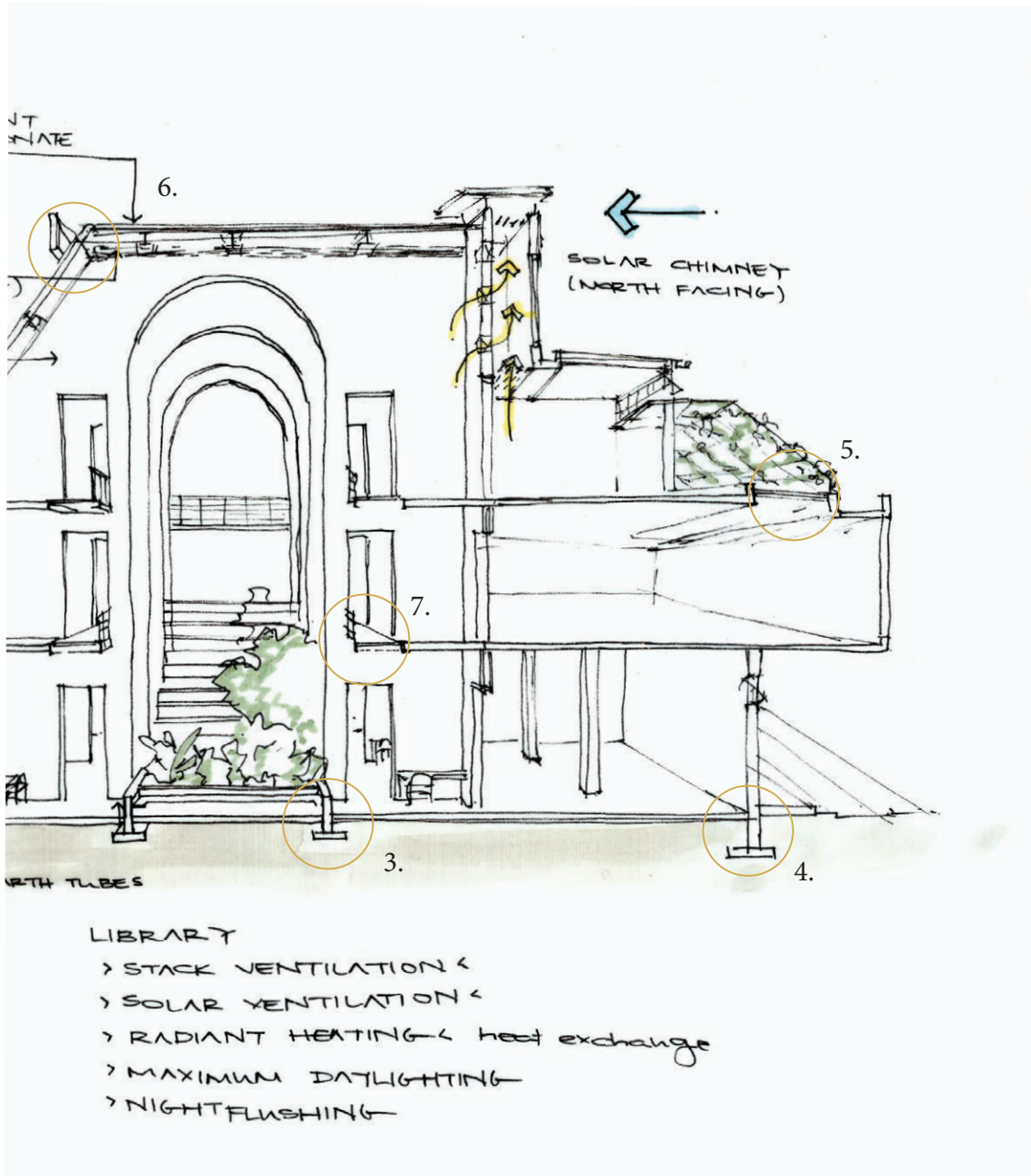


Fig. 256. Sectional Perspective (Aug). The above sectional perspective explored the desired spatial quality, thermal comfort and structural considerations. Each aspect will be explored individually in the pages to follow.



1 + 2

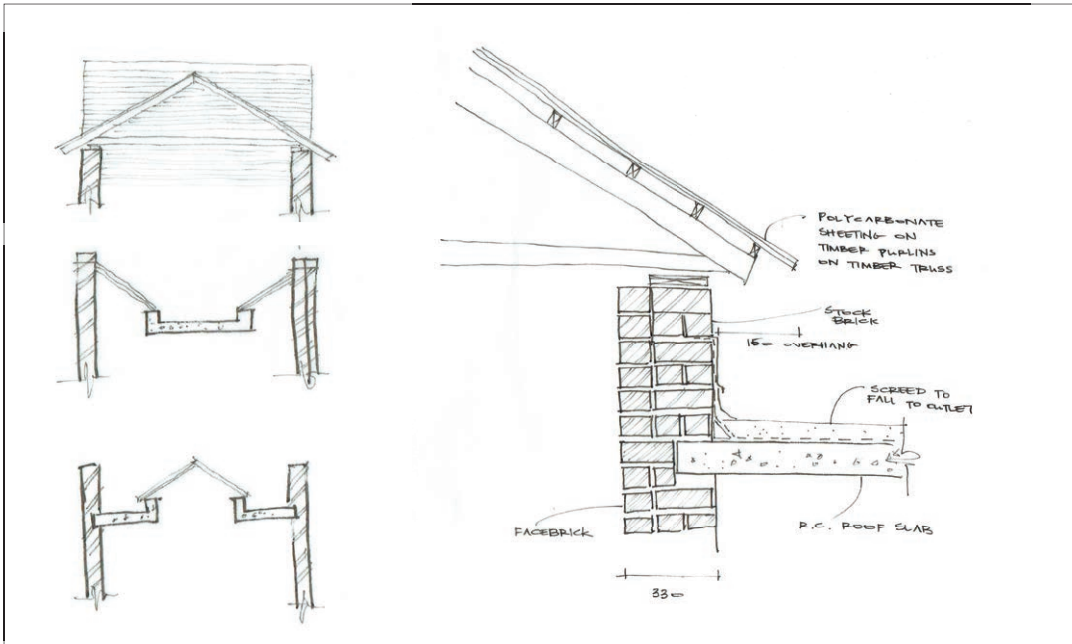
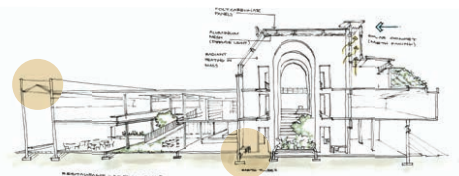
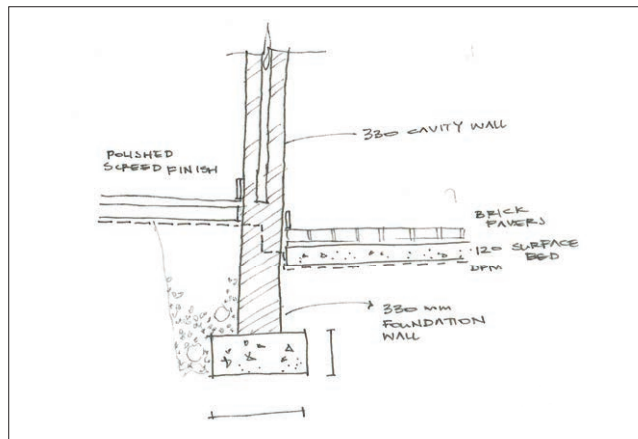


Fig. 257. Arcade skylight. The arcade separating the recital hall and restaurant will welcome pedestrian users from the west of the square. The high, narrow volume with filtered light slows pedestrians down upon entering the square. The intention is to hide the pitched skylight from street views using a parapet, but make reference to the pitched roofs of the neighbouring houses once entering the space. Water will drain directly onto the adjacent flat roofs.

Fig. 258. Foundation - restaurant and library. This sketch does not take into account a movement joint between the two spaces. It is proposed to have two 220mm walls connected by a movement joint instead.



3; 4; 5

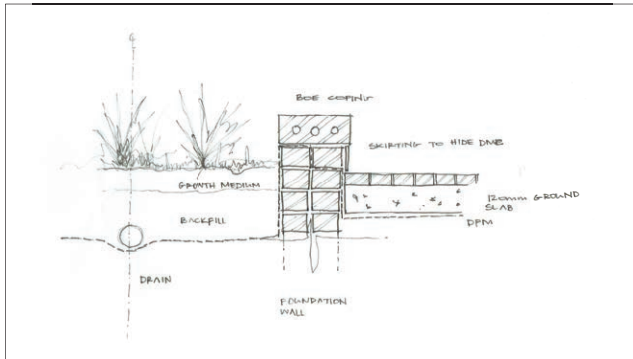


Fig. 259. Planter-box-seat in library. The atrium hosts a series of planter-boxes along its length. This detail investigates the potential drainage issues: considers waterproofing the entire box, and inserting a drain to remove the water from the building. The floor finish at this threshold is brick pavers, linking internal and external spaces.

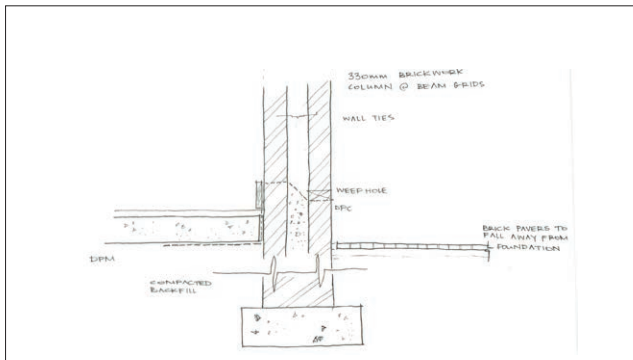


Fig. 260. Foundation detail - library and covered stoep. A 330mm cavity wall with brickwork columns spaced according to the beams.

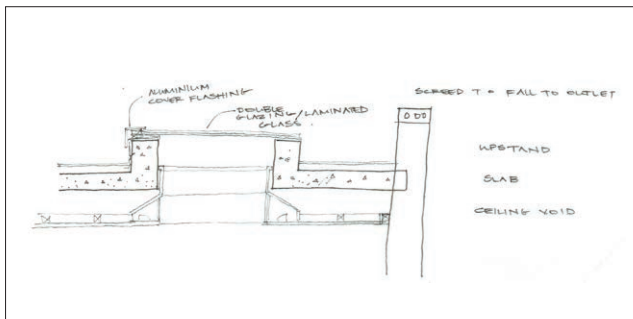
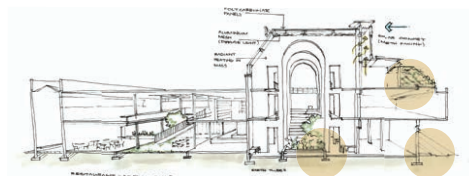


Fig. 261. Skylight at office balcony. The quality of light in the first floor library space was poor in previous iterations. It is proposed to include a skylight at this point, with a planted screen above filtering the light, connecting users to the sky and nature from within the library.



6

Fig. 262. Roof monitor. These diagrams explore the option of clerestory windows above the atrium. Cross-ventilation and stack-ventilation is permitted, as well as reducing the solar heat gain by removing the fully glazed atrium. This approach reduces the scale required along the aisles, but this stepping of the volumes is undesirable.

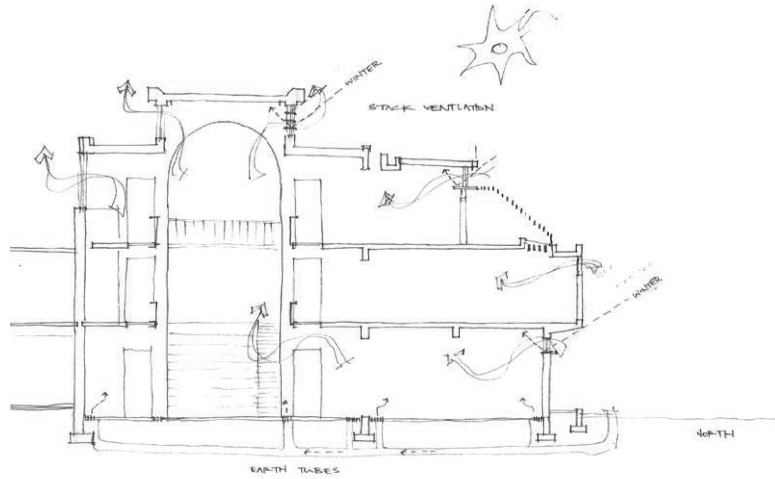
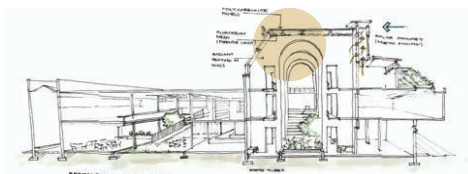
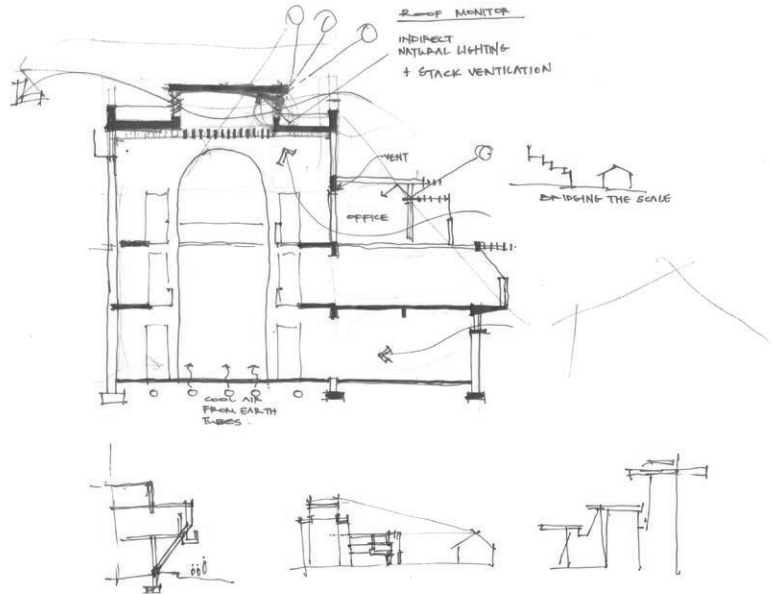


Fig. 263. Roof monitor 02. It is proposed that a heat exchange system is utilised, collecting the heat from the air at extraction points, and the solar chimney (where applicable). This heat and the heat from the kitchens will be used to preheat water which will run through the library walls for radiant heating during the winter months.



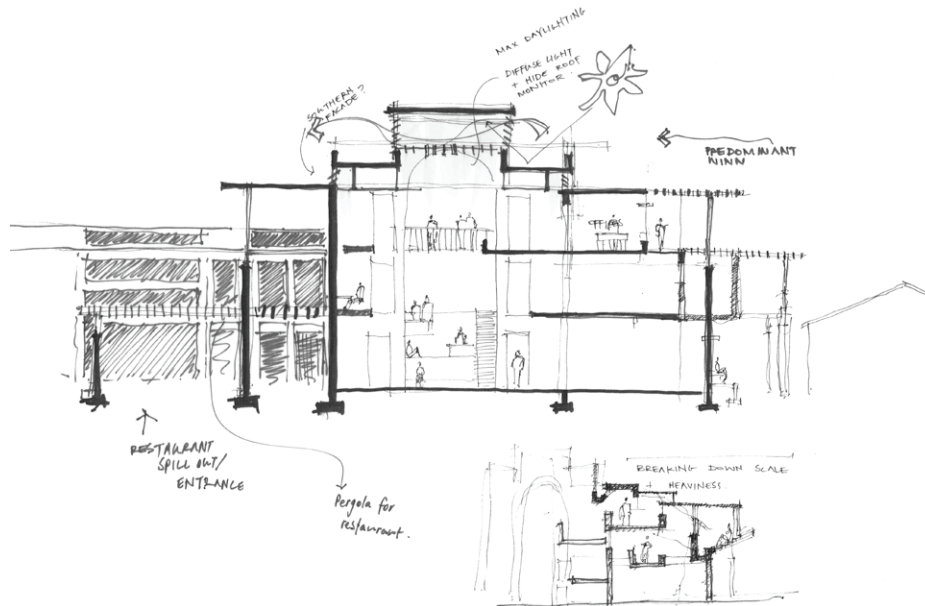


Fig. 265. Clerestory above atrium. This sectional exploration considers a roof-monitor above the atrium, which will allow for stack ventilation to occur. The reflected and diffused light will provide a gentle, even lighting throughout the atrium space. Secondly, the roof planes on the north and south are explored to reduce the scale.

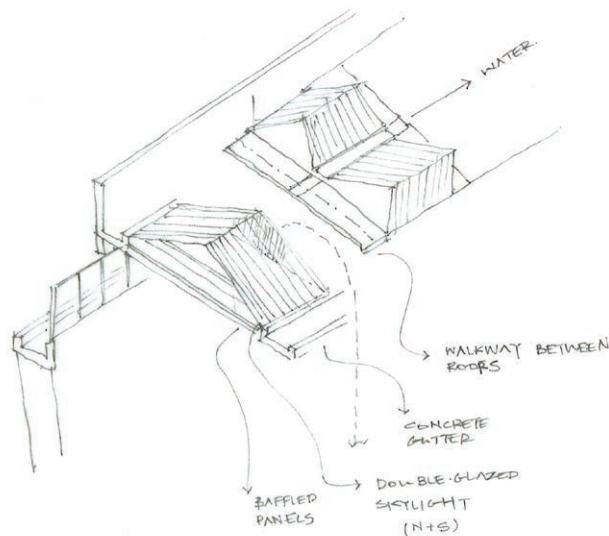


Fig. 264. Lighting. The above diagram explores alternative skylight solutions above the library atrium. Water drainage and maintenance are aspects to consider, and so it is proposed that walkways are placed above the brick arches with concrete gutters on either side of the pitched skylight. The connection between the southern window to the structure is a cause for concern.

7.

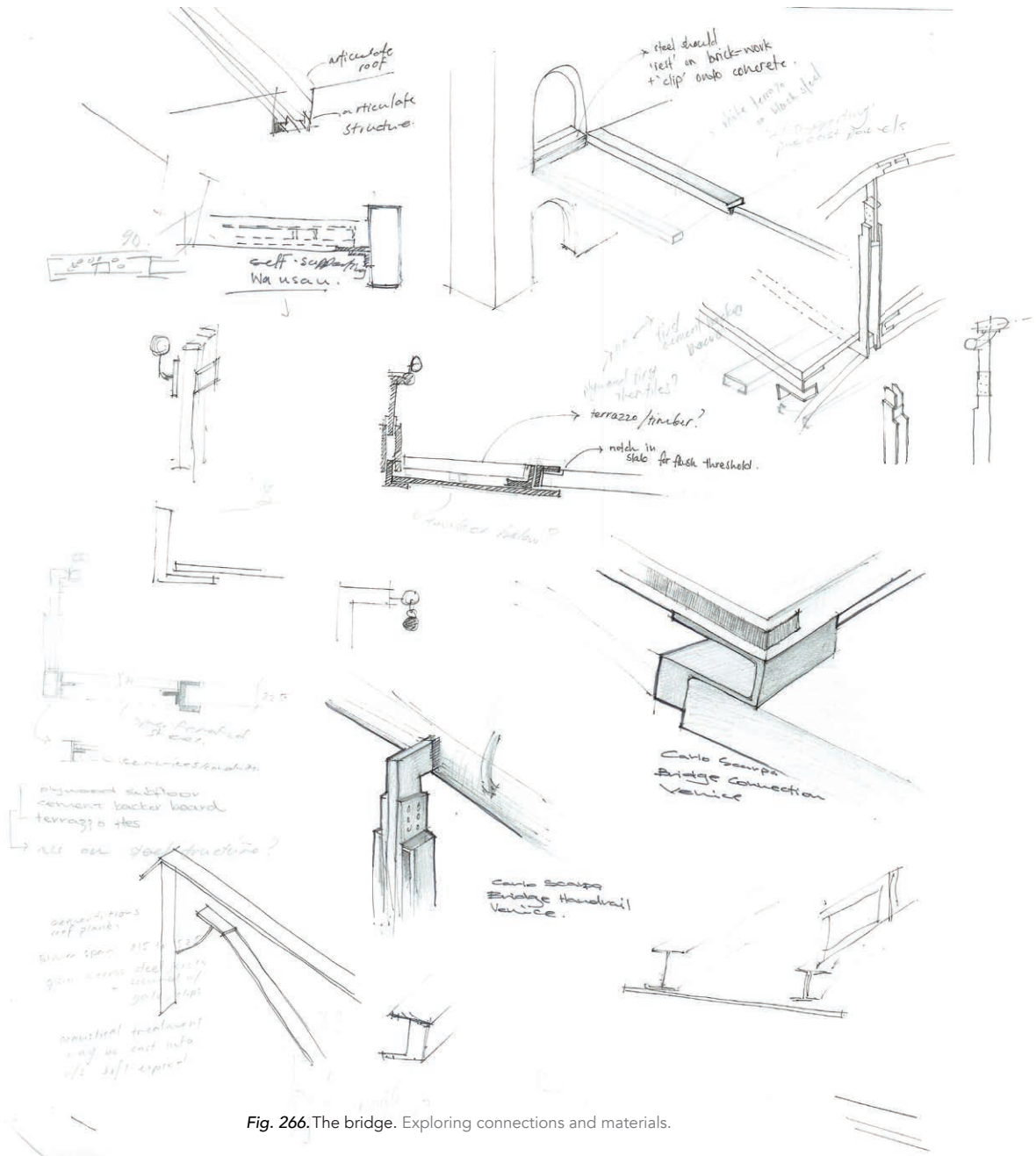


Fig. 266. The bridge. Exploring connections and materials.

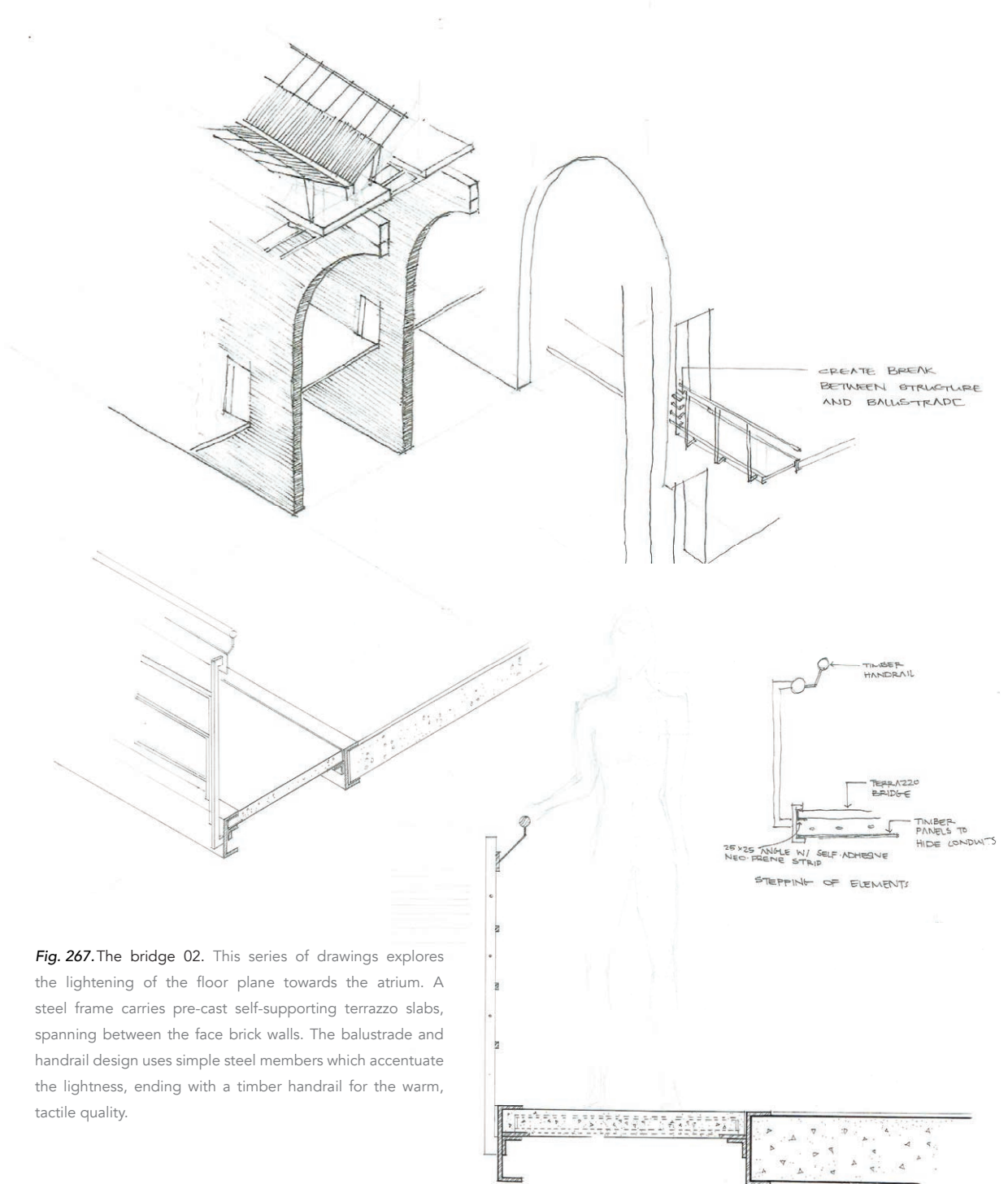


Fig. 267. The bridge 02. This series of drawings explores the lightening of the floor plane towards the atrium. A steel frame carries pre-cast self-supporting terrazzo slabs, spanning between the face brick walls. The balustrade and handrail design uses simple steel members which accentuate the lightness, ending with a timber handrail for the warm, tactile quality.

THEATRE

Fig. 268. Structure. Reinforced concrete ring beams and columns for the theatre design. Each volume is treated individually. 1020mm reinforced concrete ring beams will be used to carry the flytower, along with 425mm stiffener beams. The seating will require at least 1020mm beams due to the large span.

Fig. 269. Seating. The seating configuration should allow for vents where cooled air from the earth tubes may pass over viewers. The tactile quality of the seating areas and circulation routes is considered - timber will be used here.

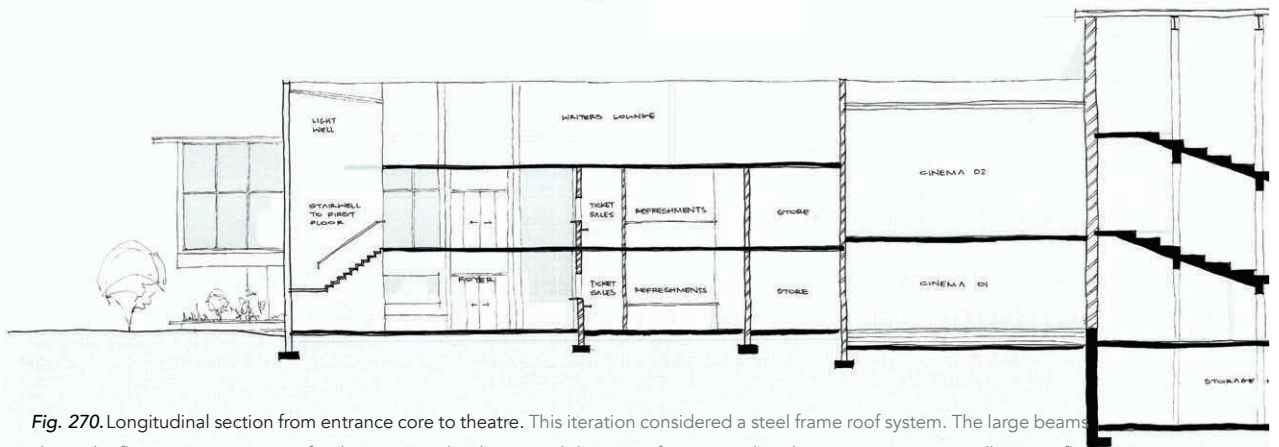
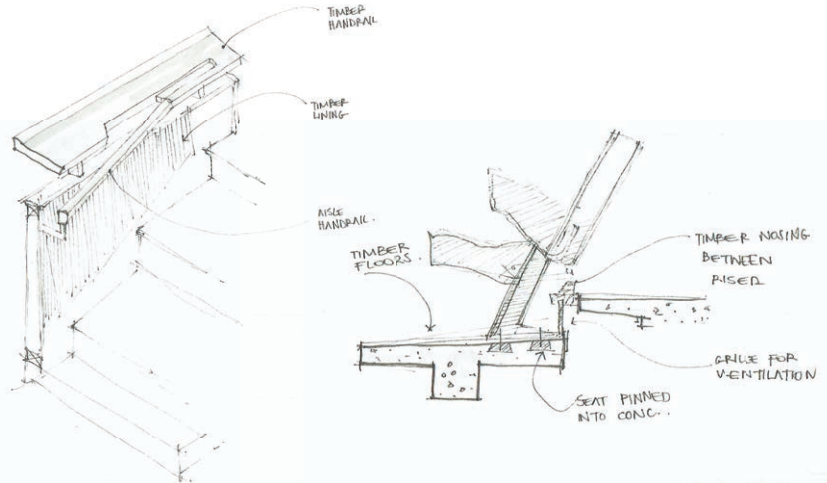
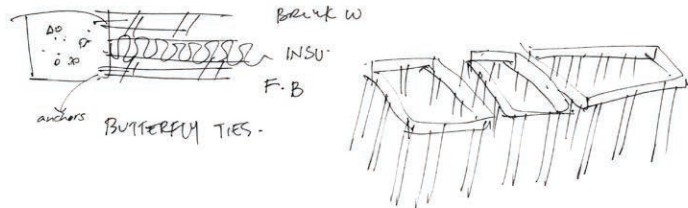


Fig. 270. Longitudinal section from entrance core to theatre. This iteration considered a steel frame roof system. The large beams above the flytower are necessary for the immense loads incurred during performances, but the remaining spaces will receive flat roofs instead to aid in thermal and acoustic control.

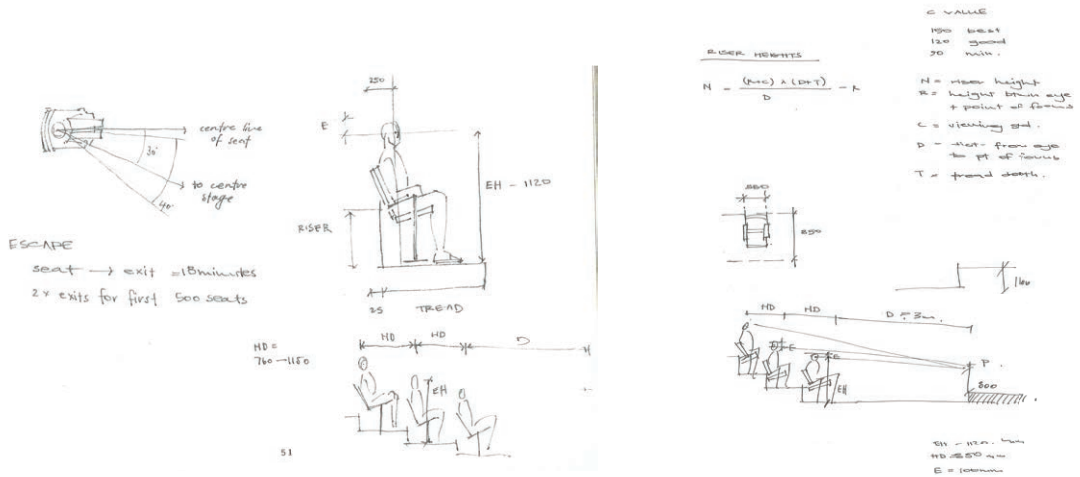
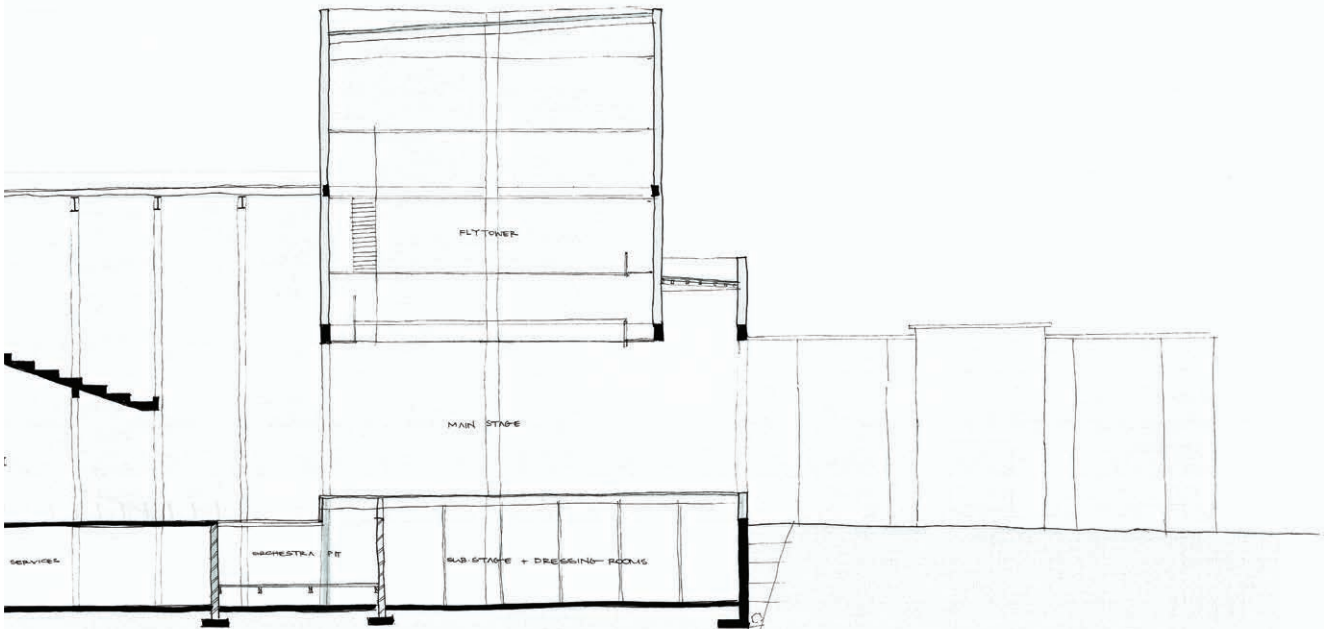


Fig. 271. Auditorium seating requirements in theatres. The above considerations were taken into account when designing the seating for the theatre.



EDGES

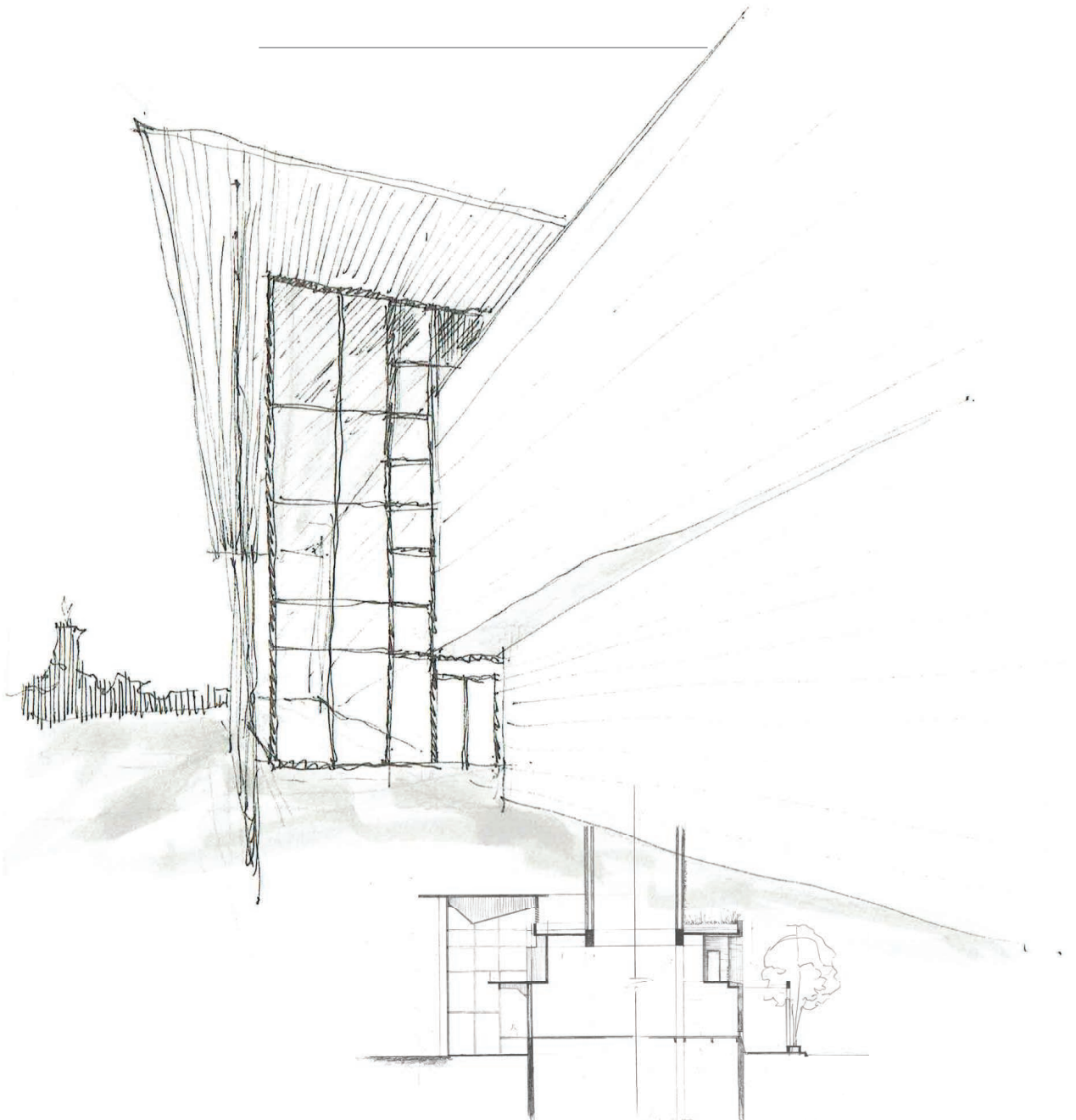


Fig. 272. Proposed foyer and entrance to theatre. The intention of this entrance is to break the scale of the large performance space by using lighter materials. This will also put visitors on display, as will be done in the circulation cores.

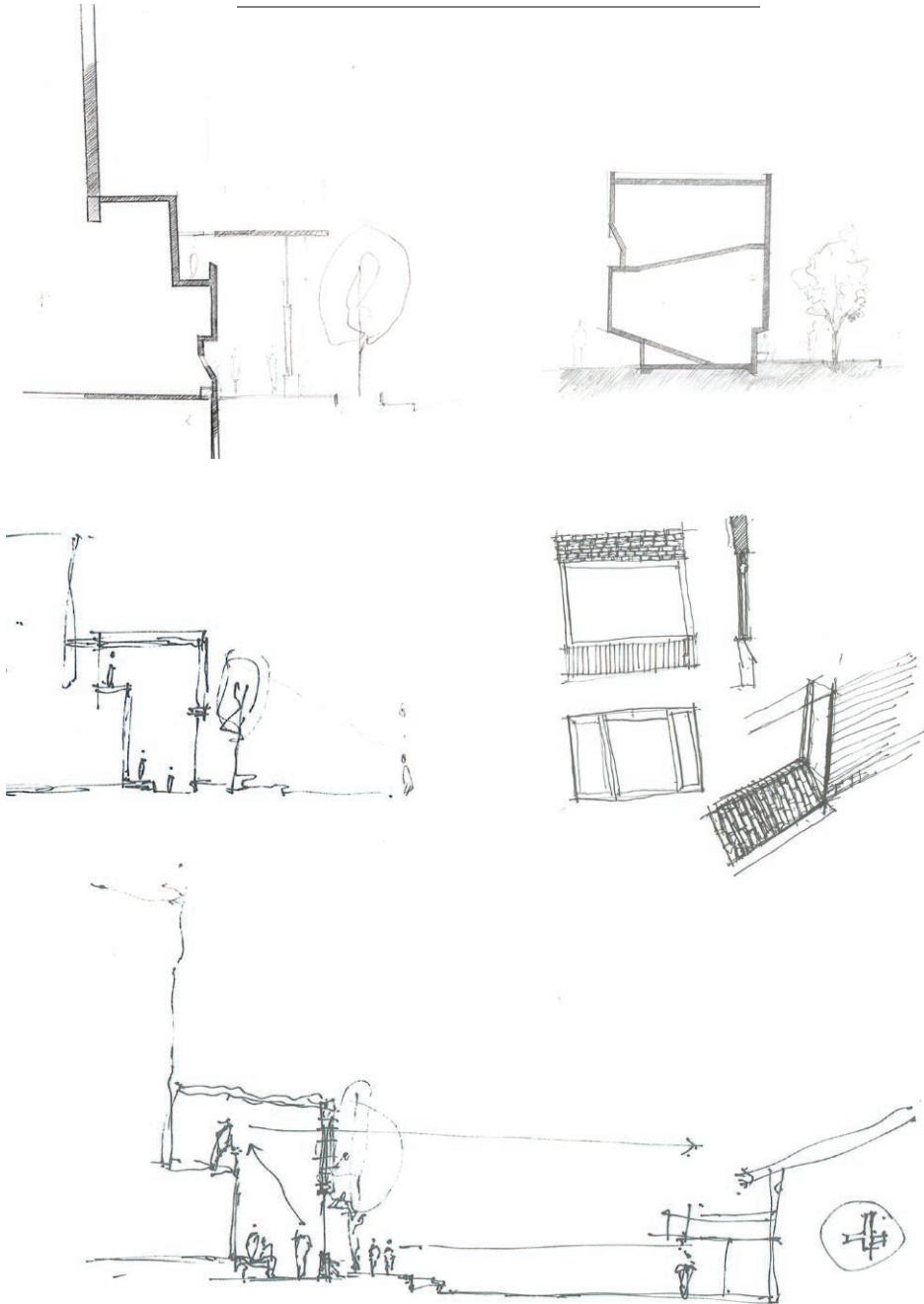


Fig. 273. Negotiating the southern facade. The large scale of the theatre presents many problems on the street edge. Considering the surrounding suburban scale it was necessary to re-look at the way the scale was being addressed. It is proposed that an actors balcony be exposed, linking performers to passers-by. A pergola-like structure will frame the space, protecting pedestrians and defining a walking route. Views into the theatre will be offered to curious children. This portion will also be clad in black, reflective glazed bricks, making reference to the black box inside.

ELEVATION

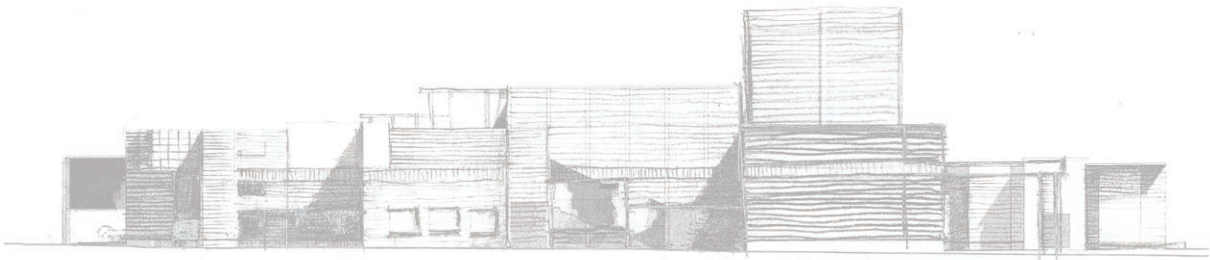
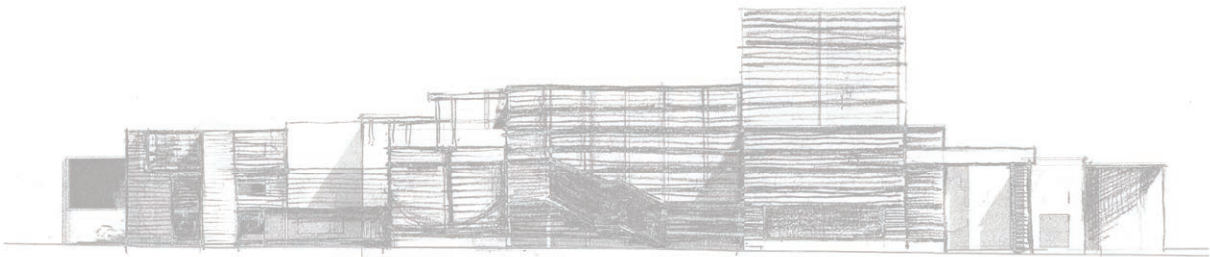
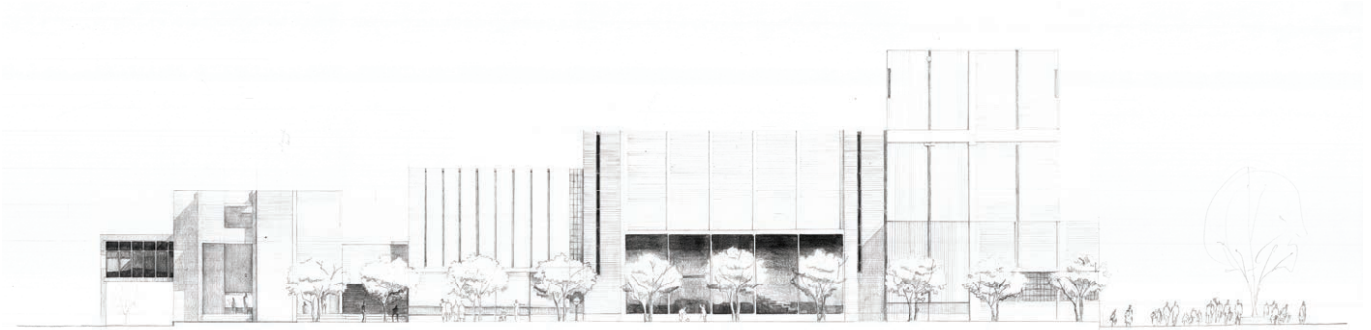


Fig. 274. Negotiating the southern facade. Testing materials and composition (Sept.).



FINAL ITERATION

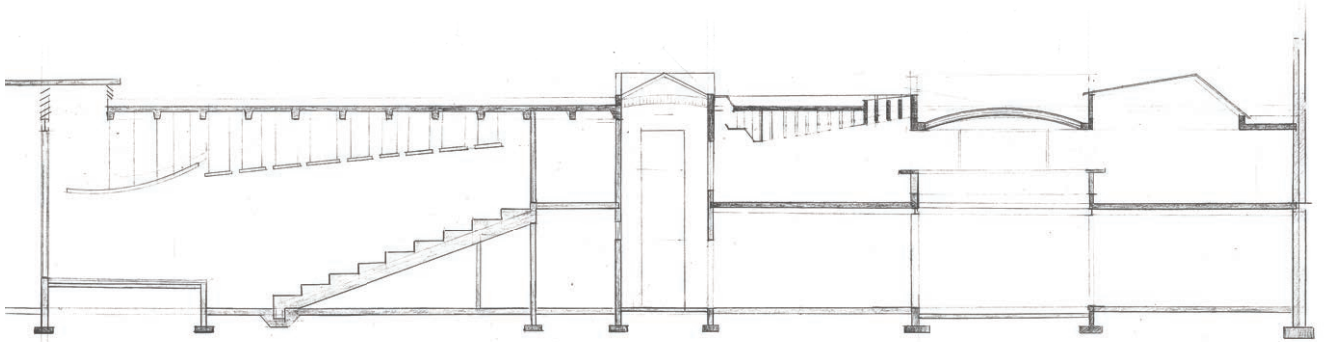
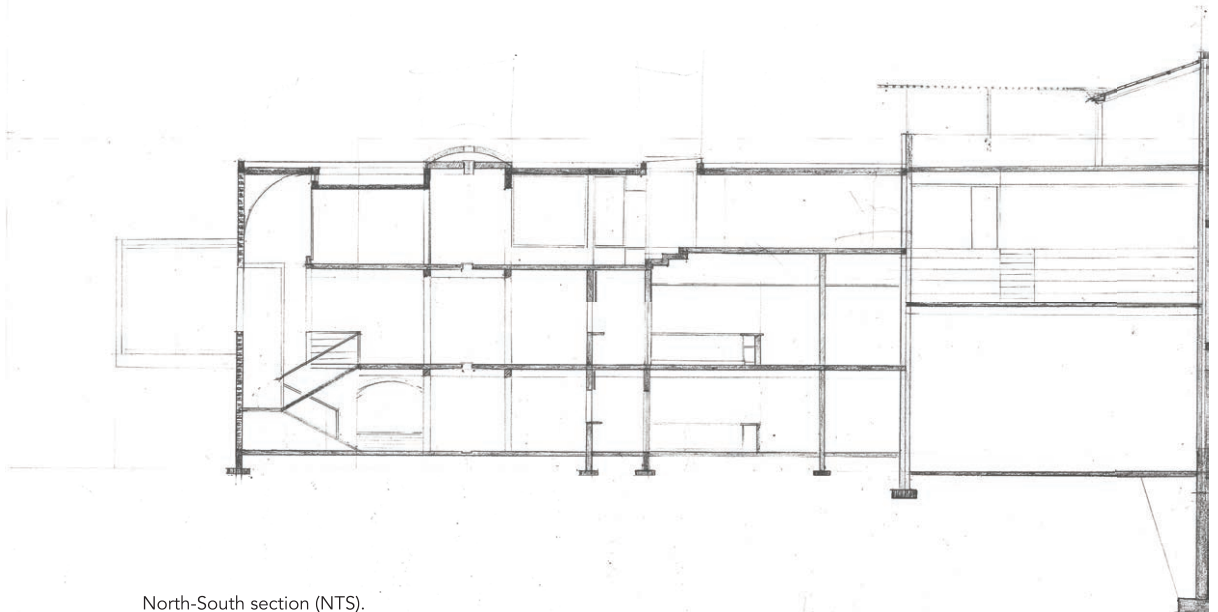
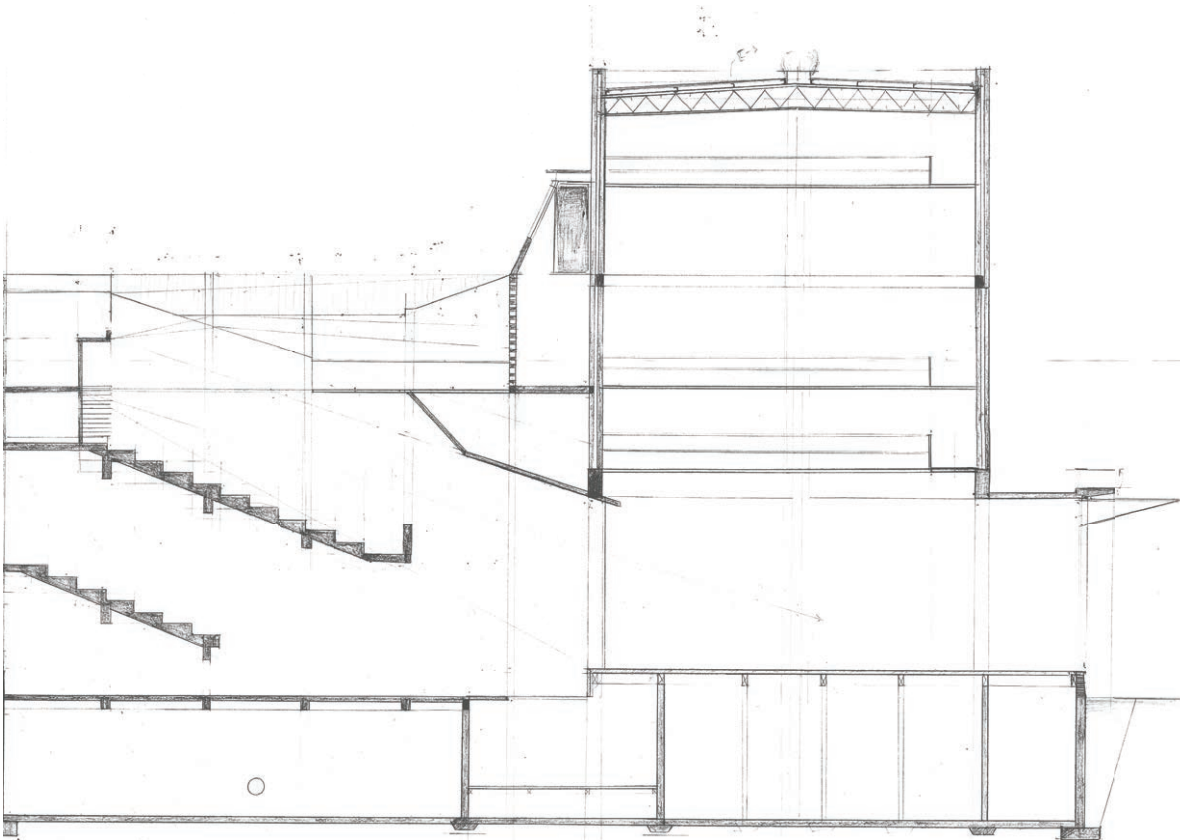
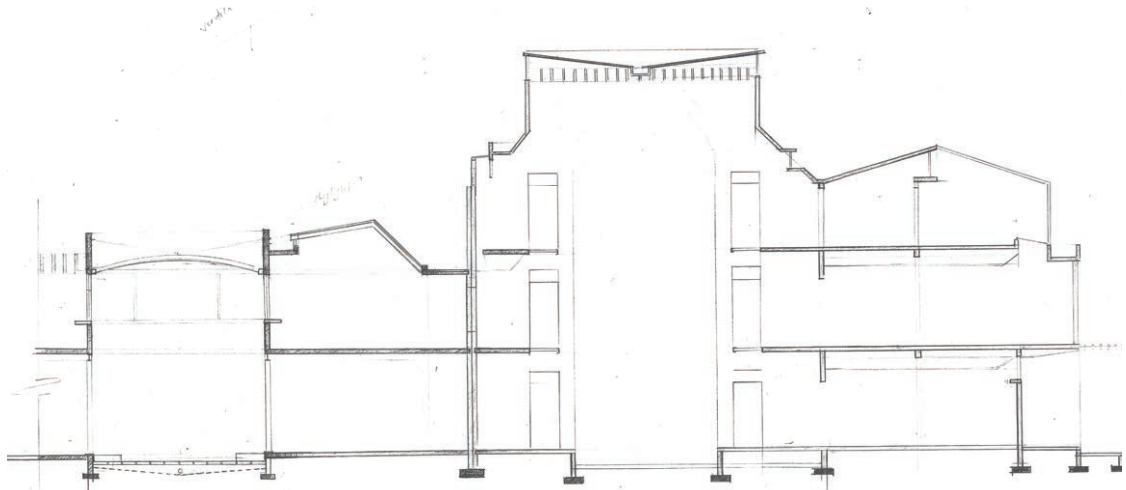


Fig. 275. Final design sections (Oct). These sketches indicate the final exploration of the two longitudinal sections. The focus of the exploration was the admission of light into different spaces to create the experiences outlined in the original intentions. Considerations of materiality were considered, specifically regarding acoustic control in the performance spaces. Composition and proportion determined the final resolution to ensure a clear language is carried through the entire scheme, and the repetition of forms and rhythms is used to create 'memories' as one moves through the various spaces.



North-South section (NTS).





CONCLUSION

CONCLUSION

Final presentation and reflection



Fig. 276. Portion of final section.

CONCLUSION

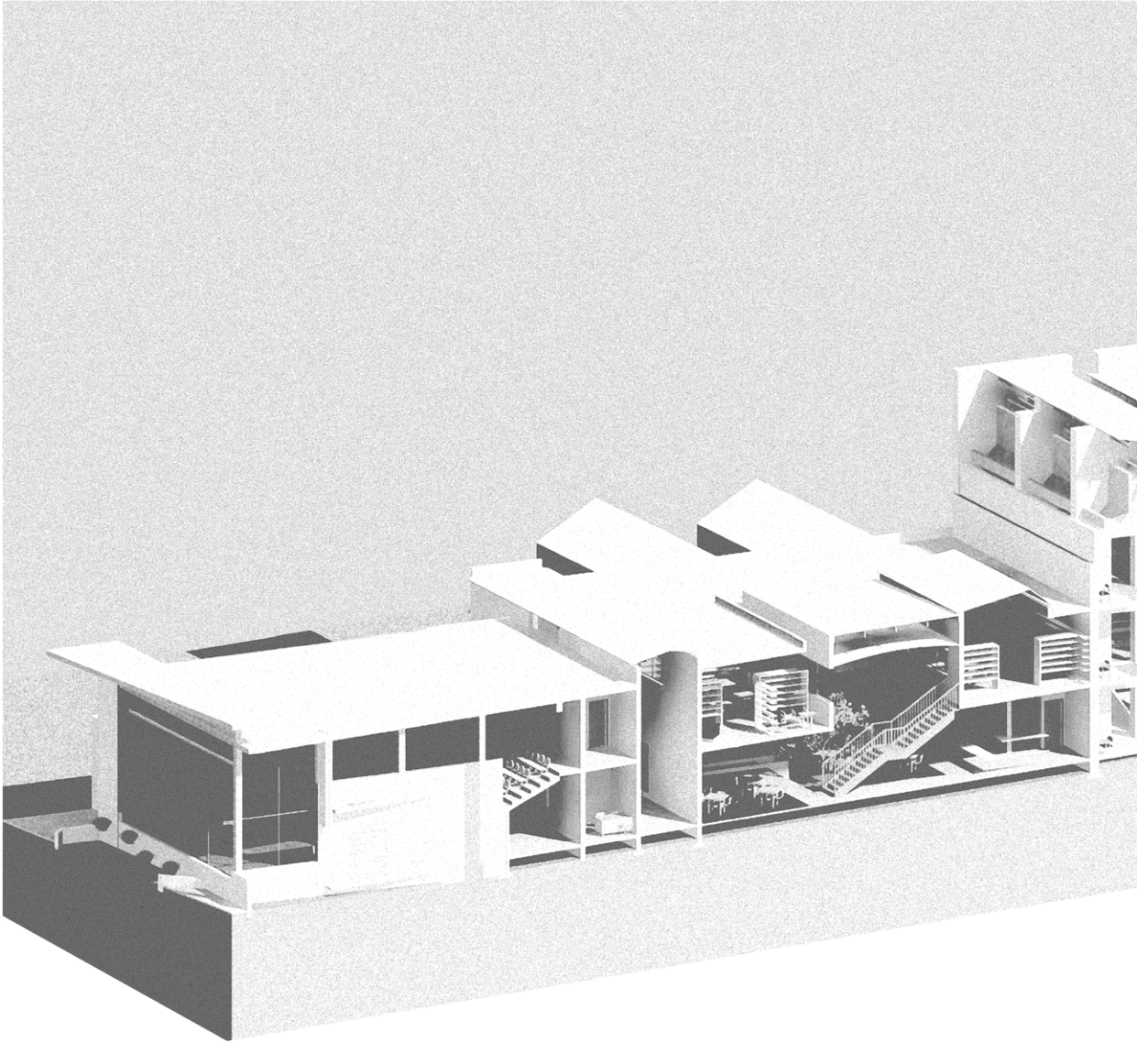
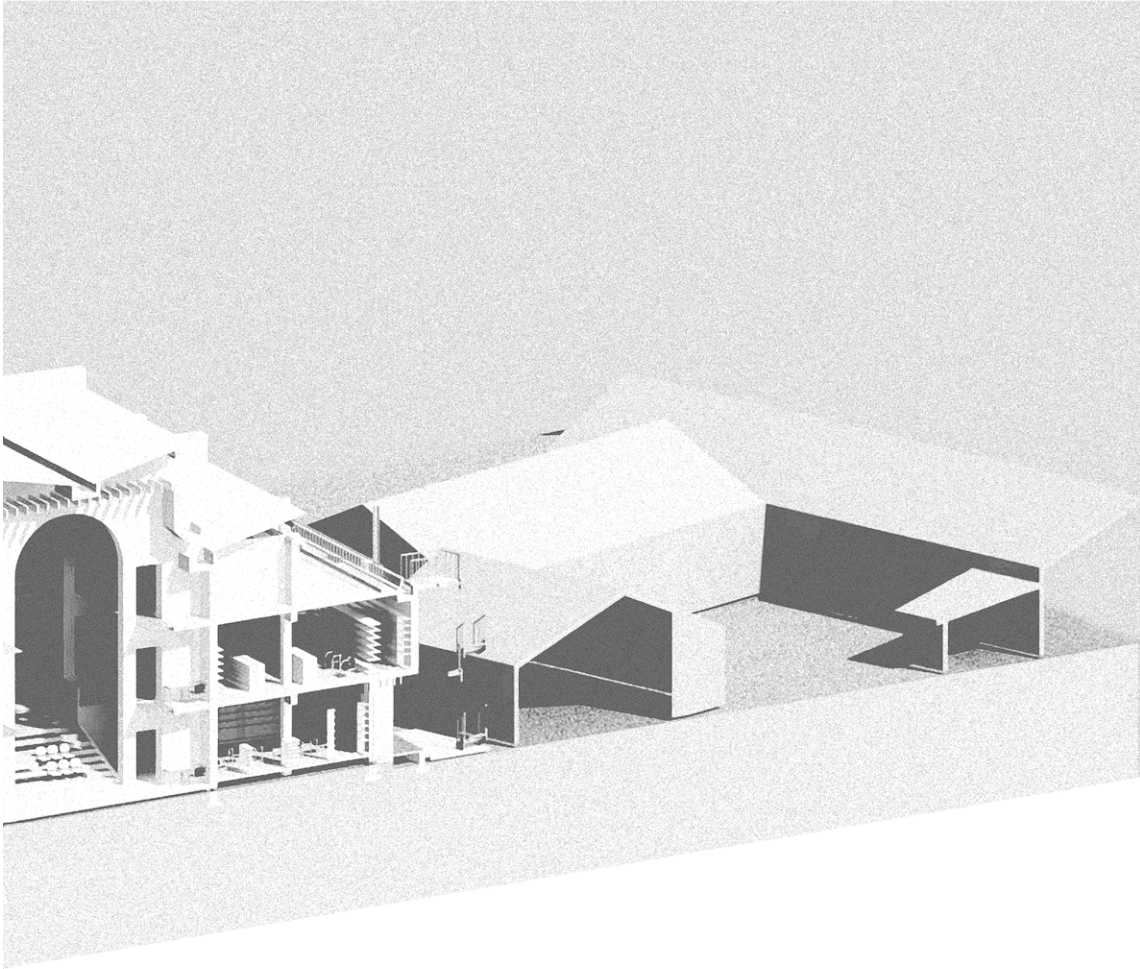


Fig. 277. Sectional model illustrating the various volumes

CONCLUSION



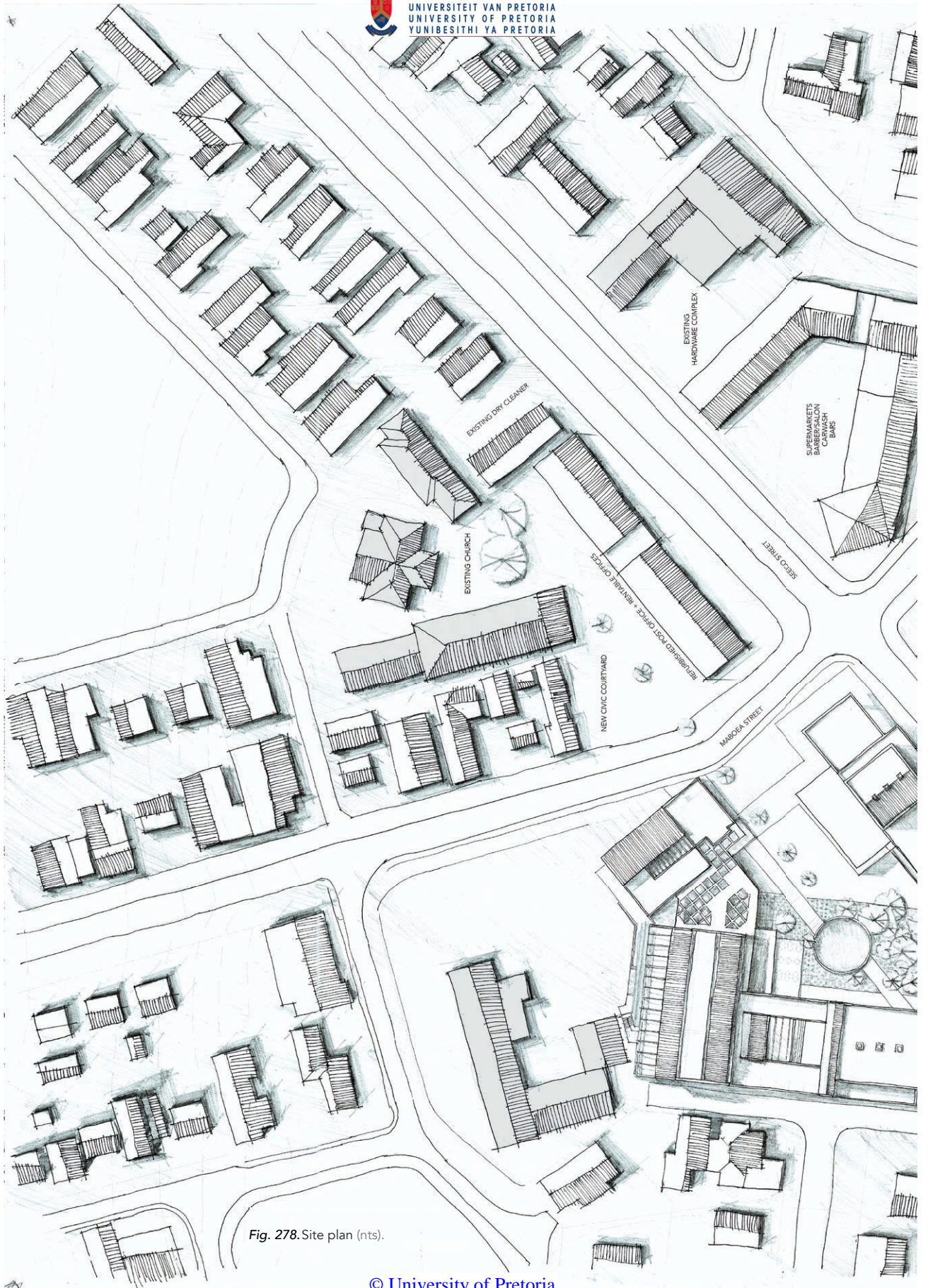
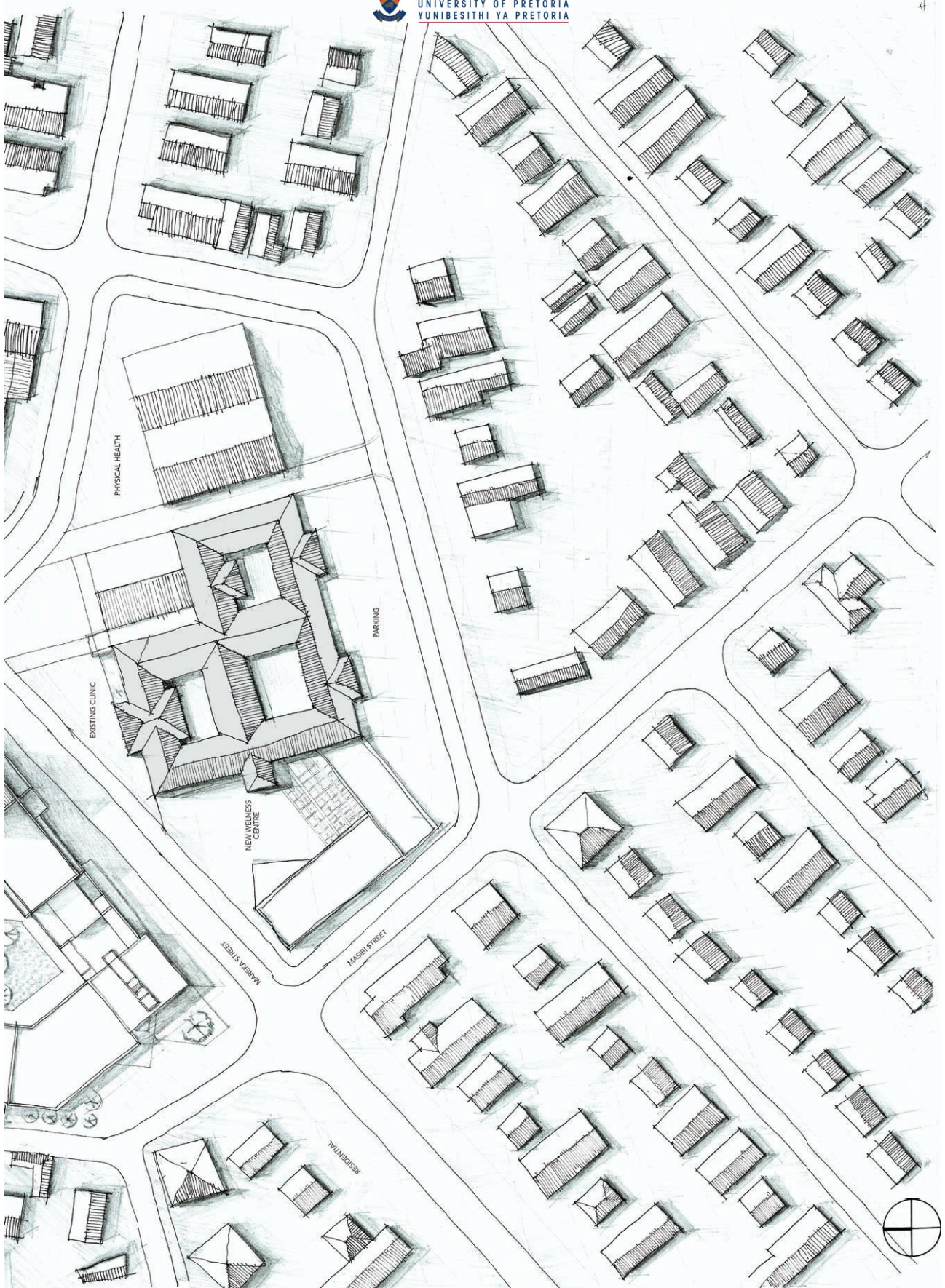


Fig. 278. Site plan (nts).





CONCLUSION

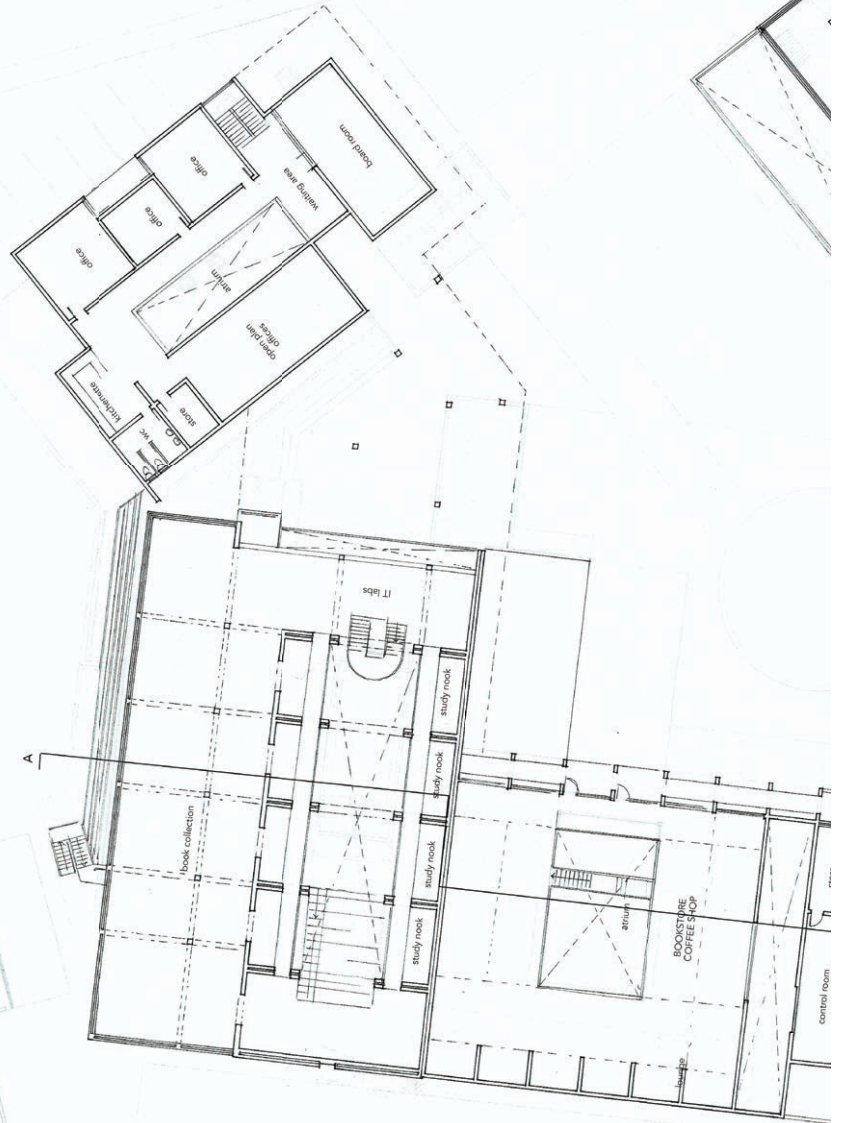
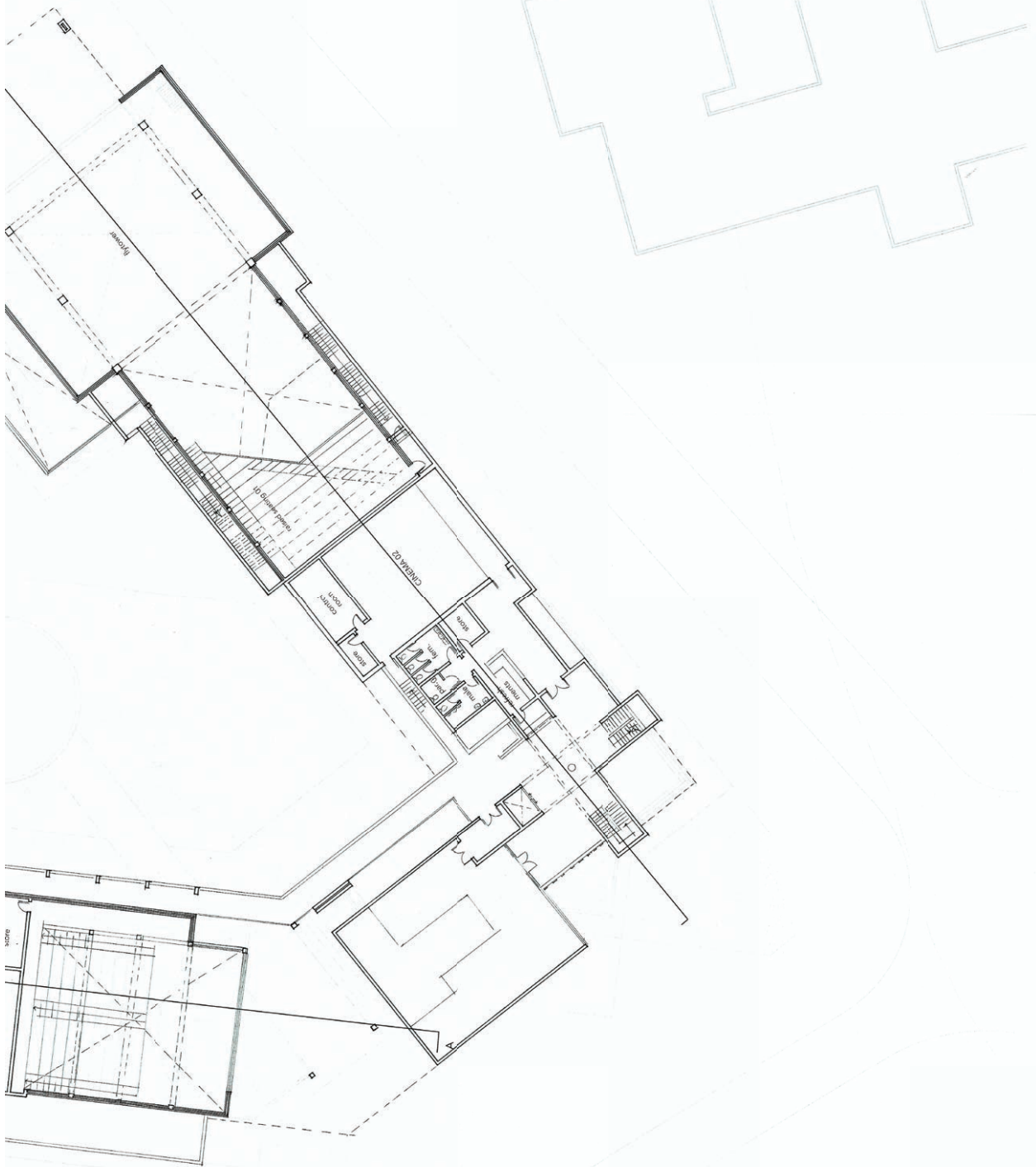


Fig. 280. First floor plan (nts).



CONCLUSION



CONCLUSION

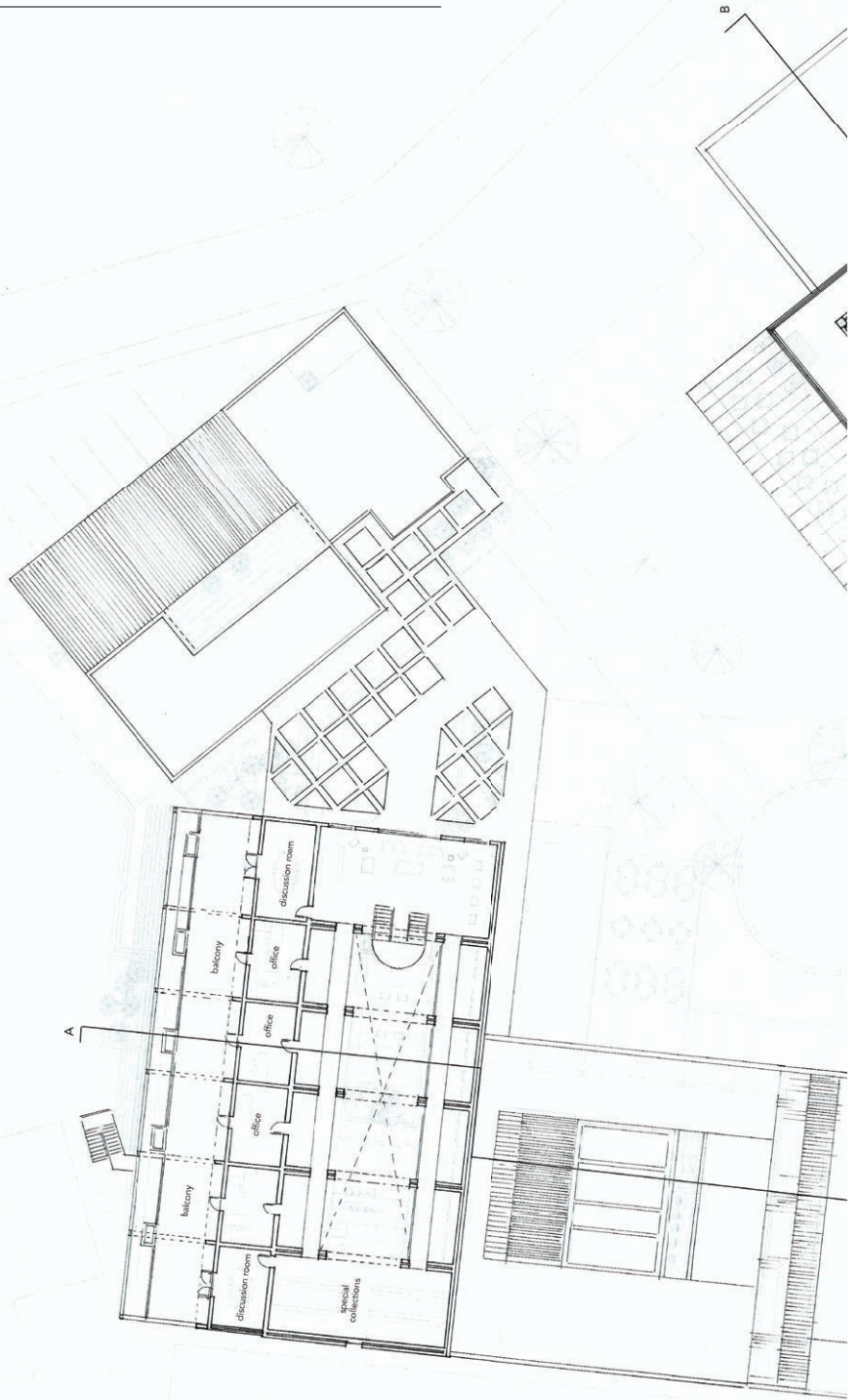
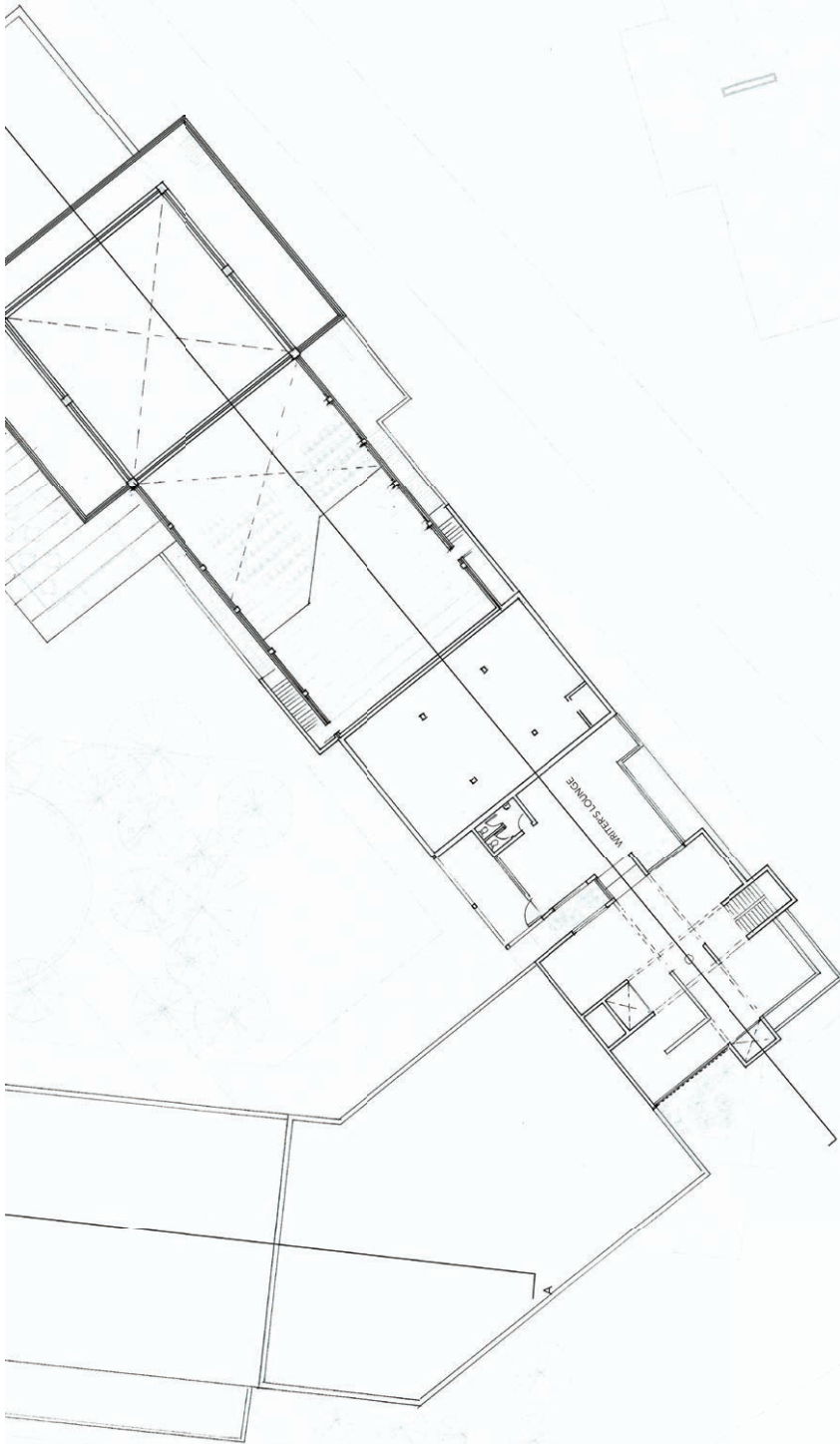


Fig. 281. Second floor plan (nts).

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CONCLUSION

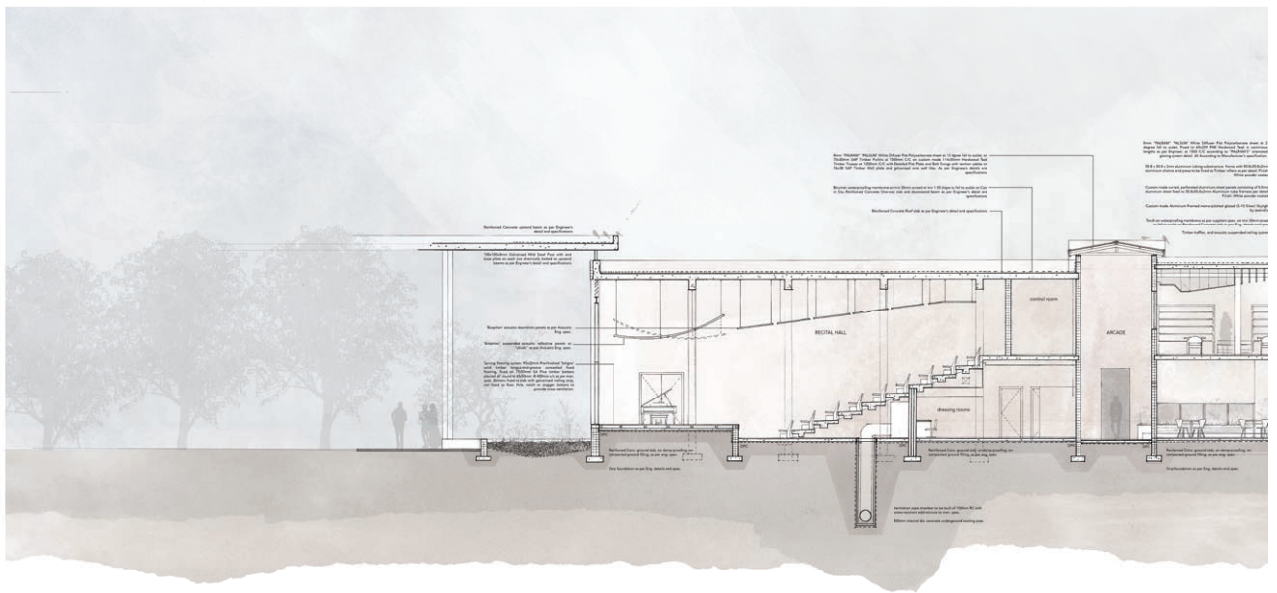
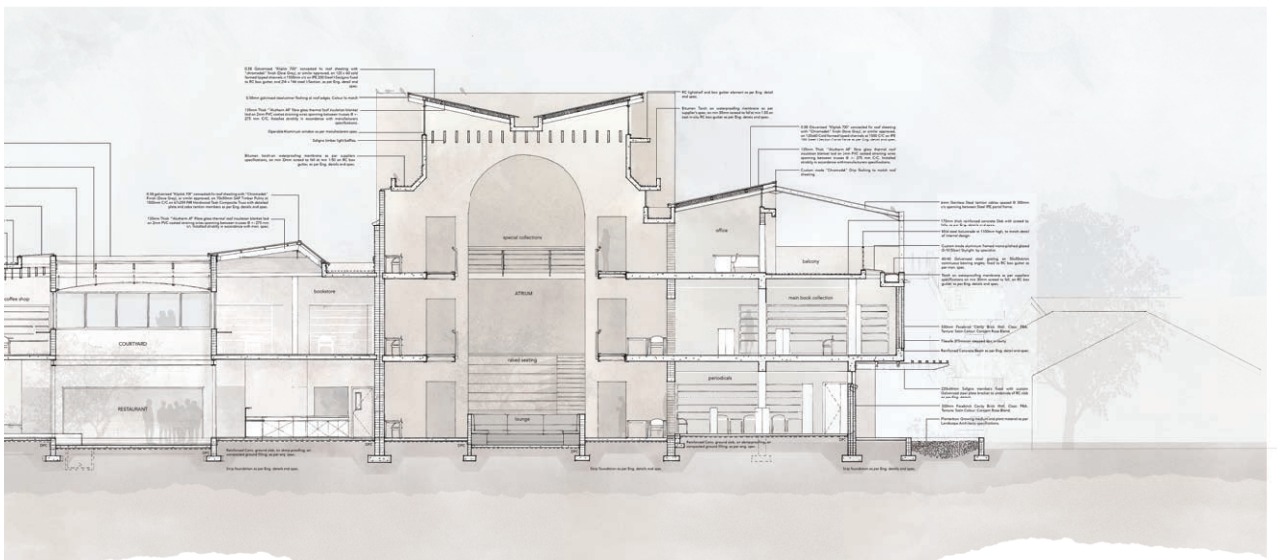


Fig. 282. Technical section AA (nts).

CONCLUSION



CONCLUSION

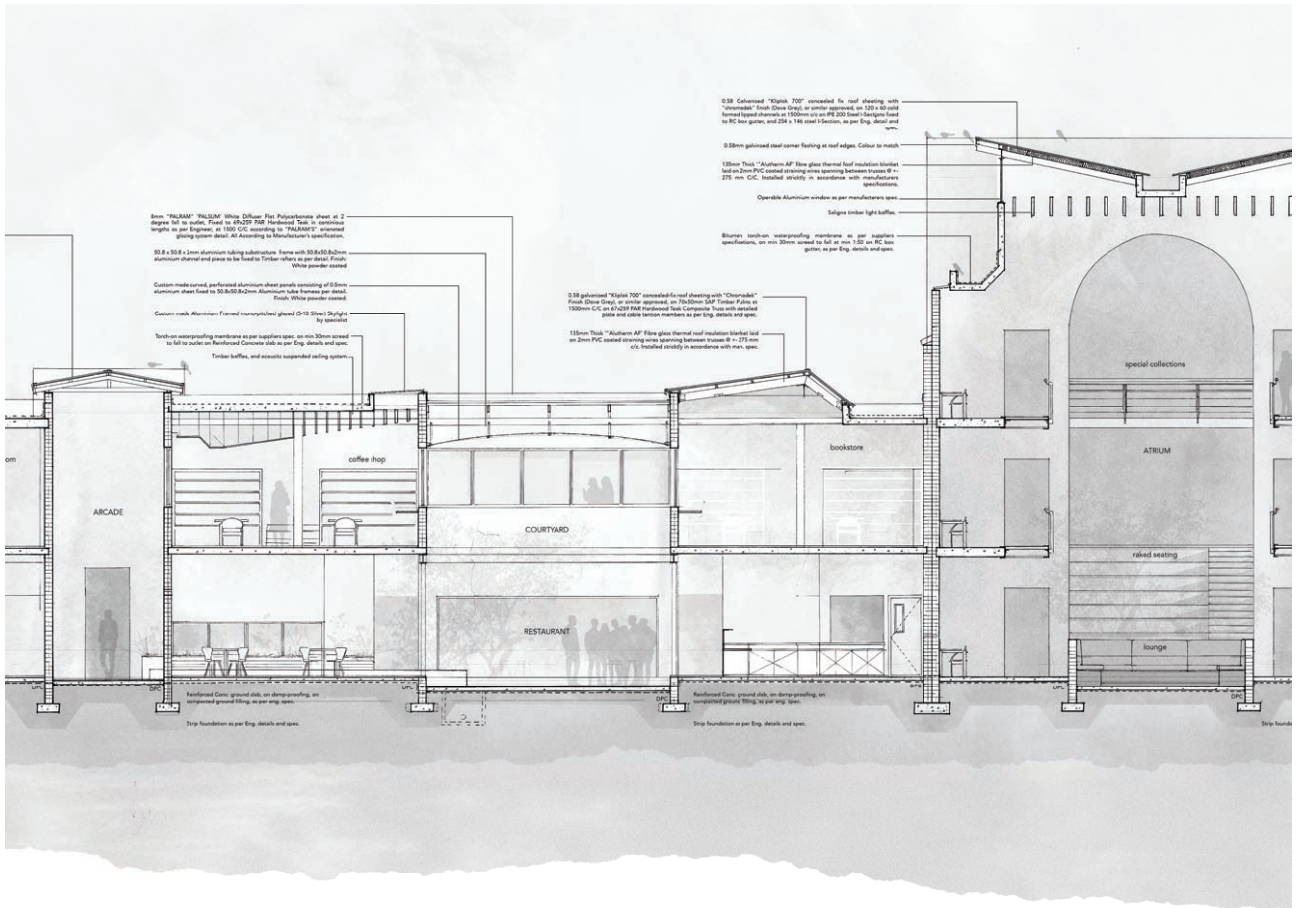


Fig. 284. Section AA - restaurant and coffee shop (nts).

CONCLUSION

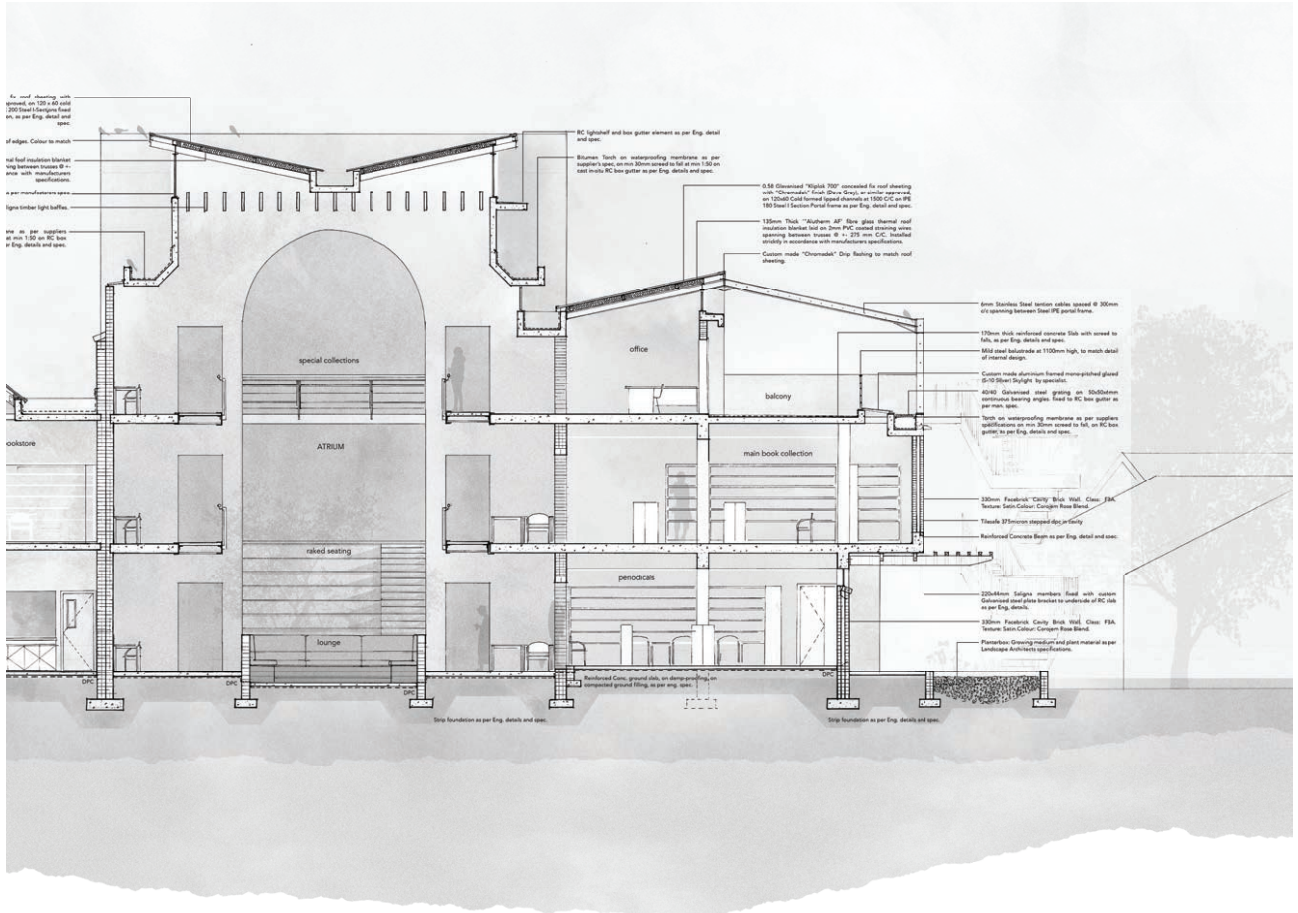


Fig. 285. Section AA - library (nts).

CONCLUSION

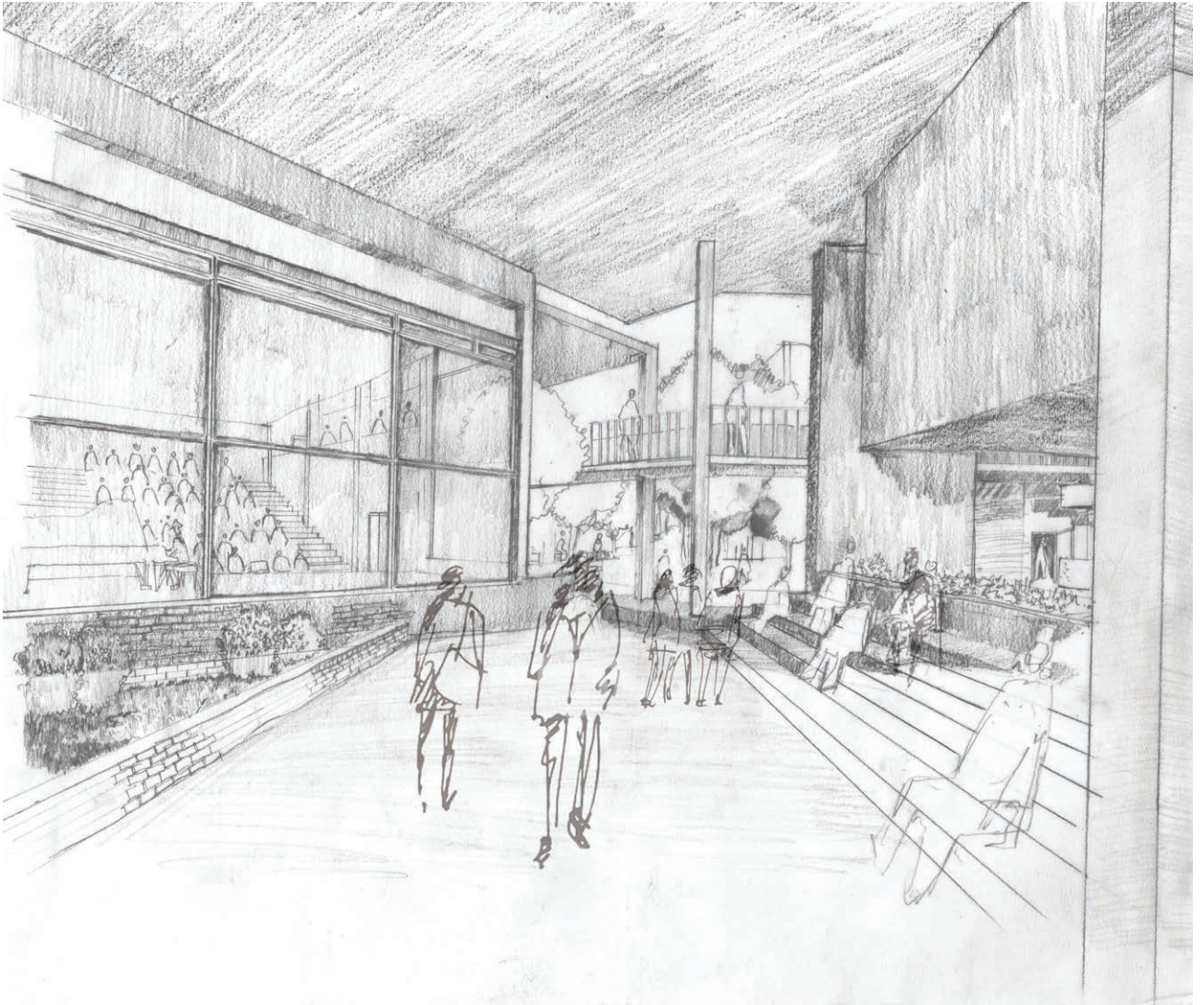


Fig. 286. Perspective - recital hall amphitheatre.

CONCLUSION

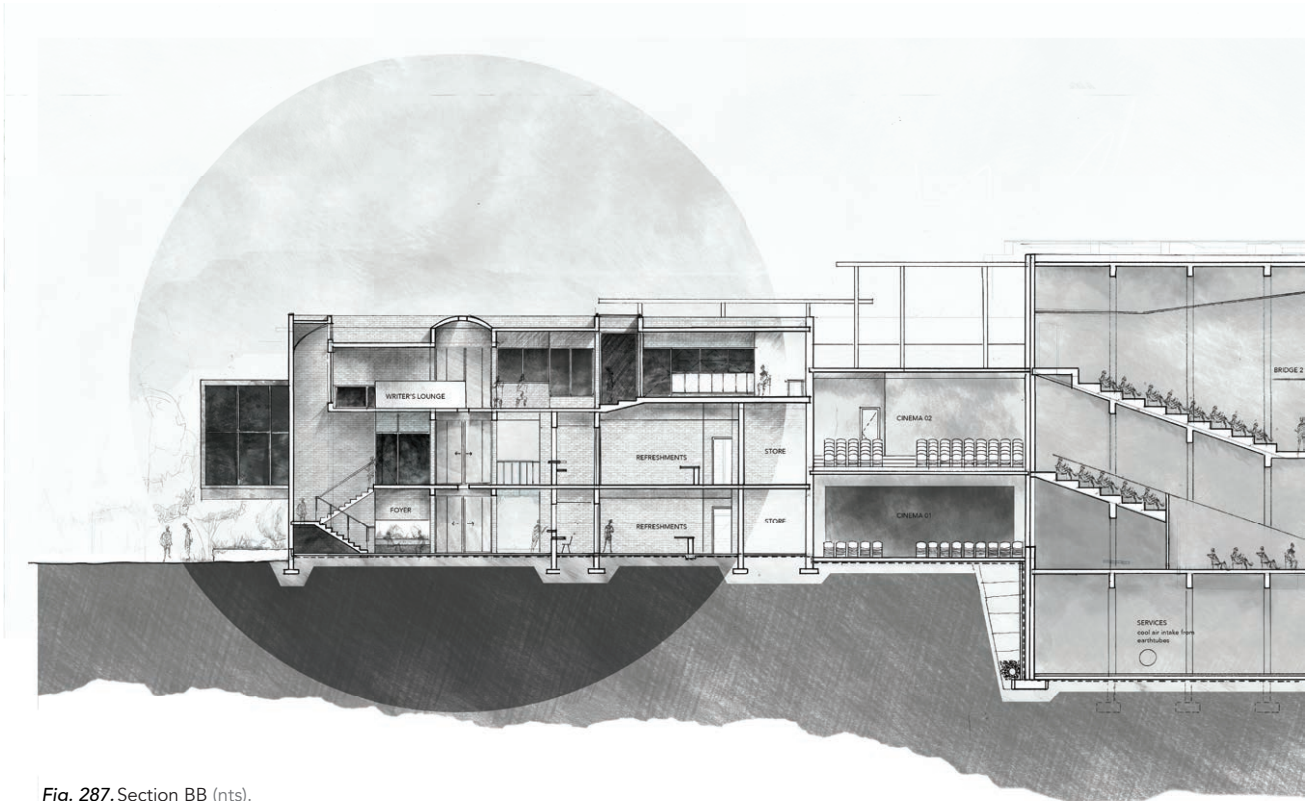


Fig. 287. Section BB (nts).

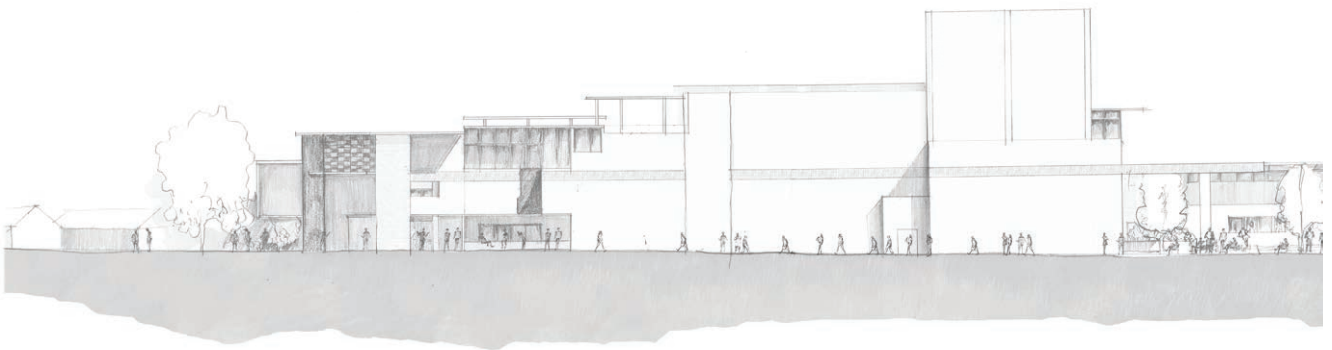
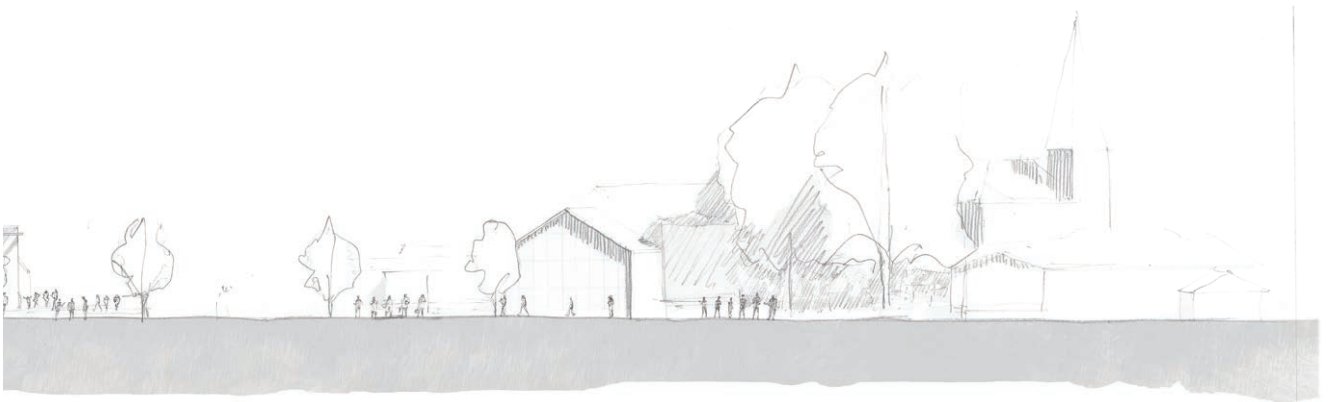
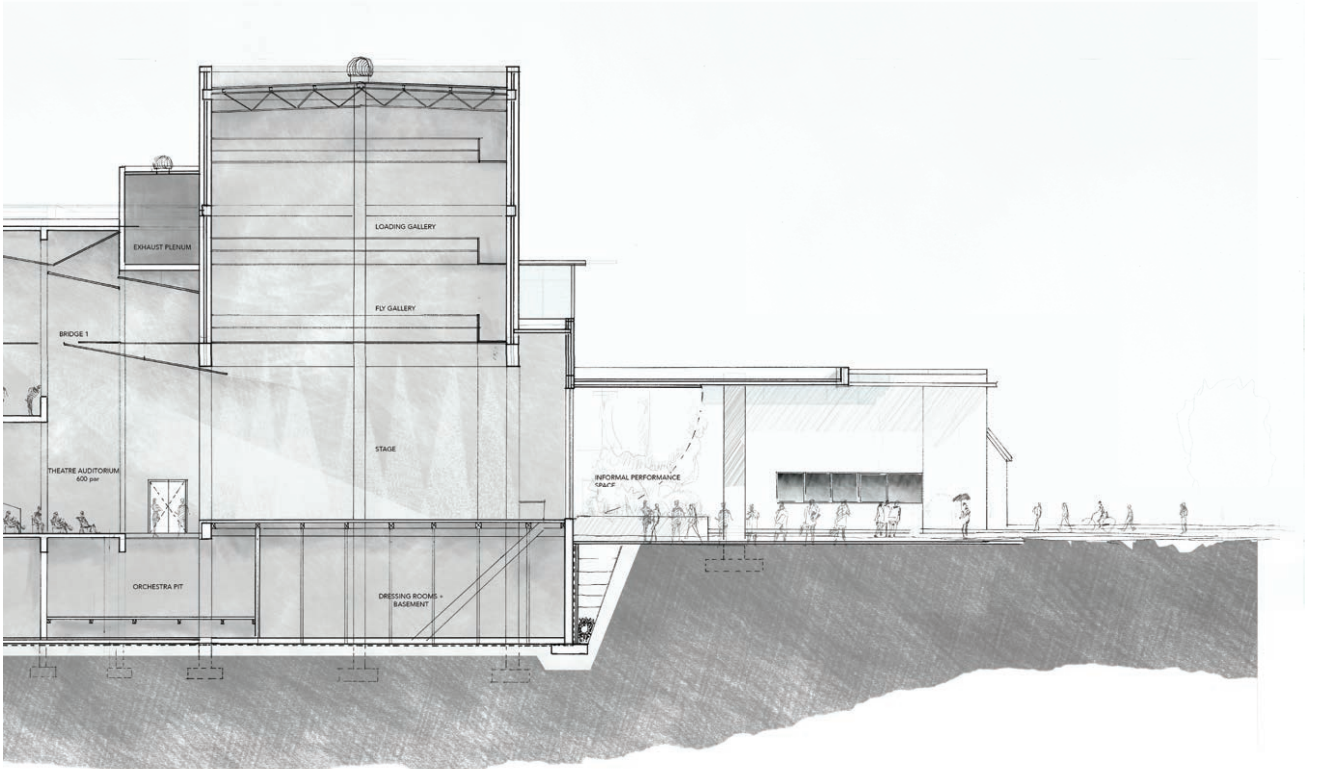


Fig. 288. South elevation (nts).



CONCLUSION



CONCLUSION

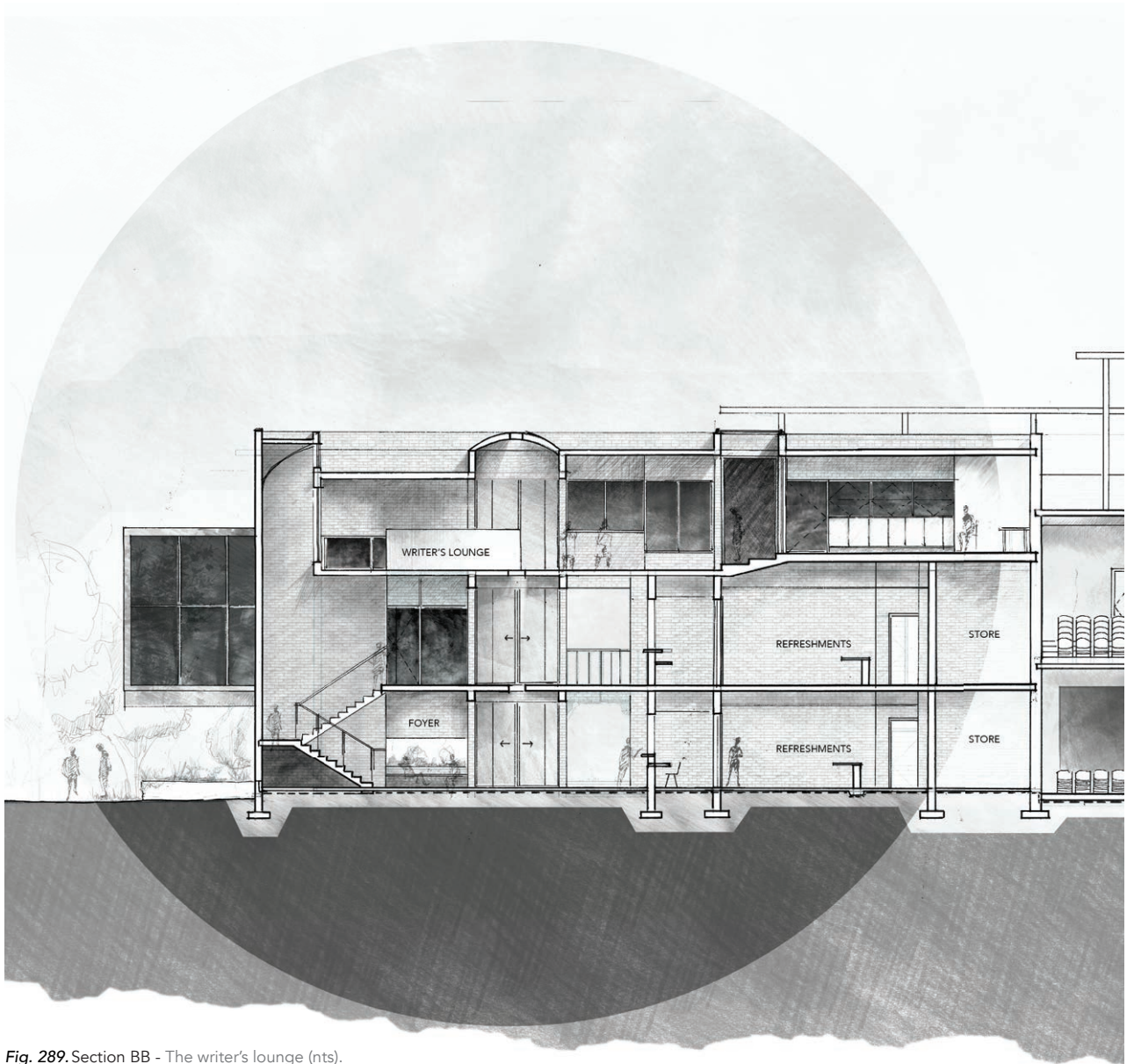
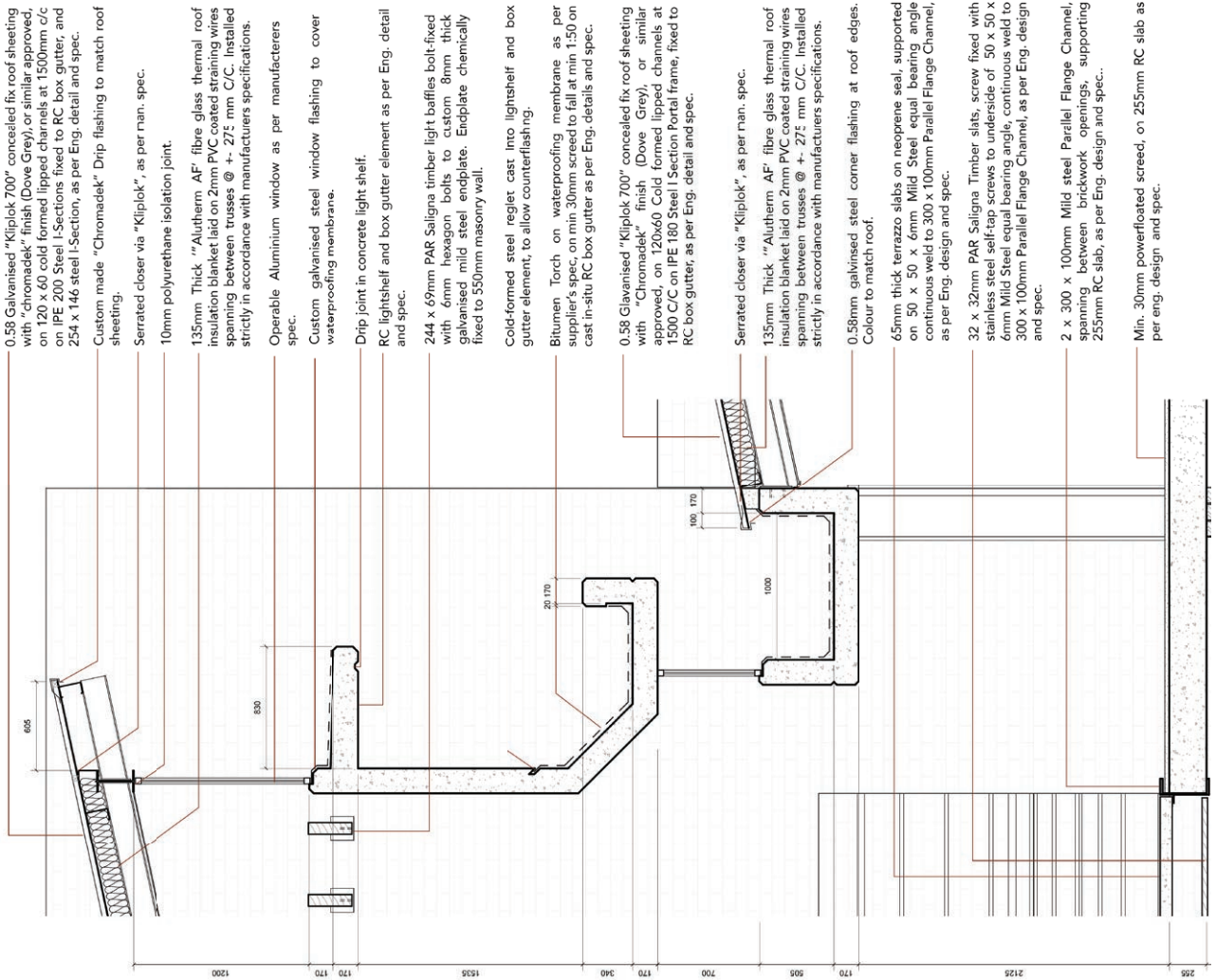


Fig. 289. Section BB - The writer's lounge (nts).



Fig. 290. Perspective - outside the restaurant (nts).

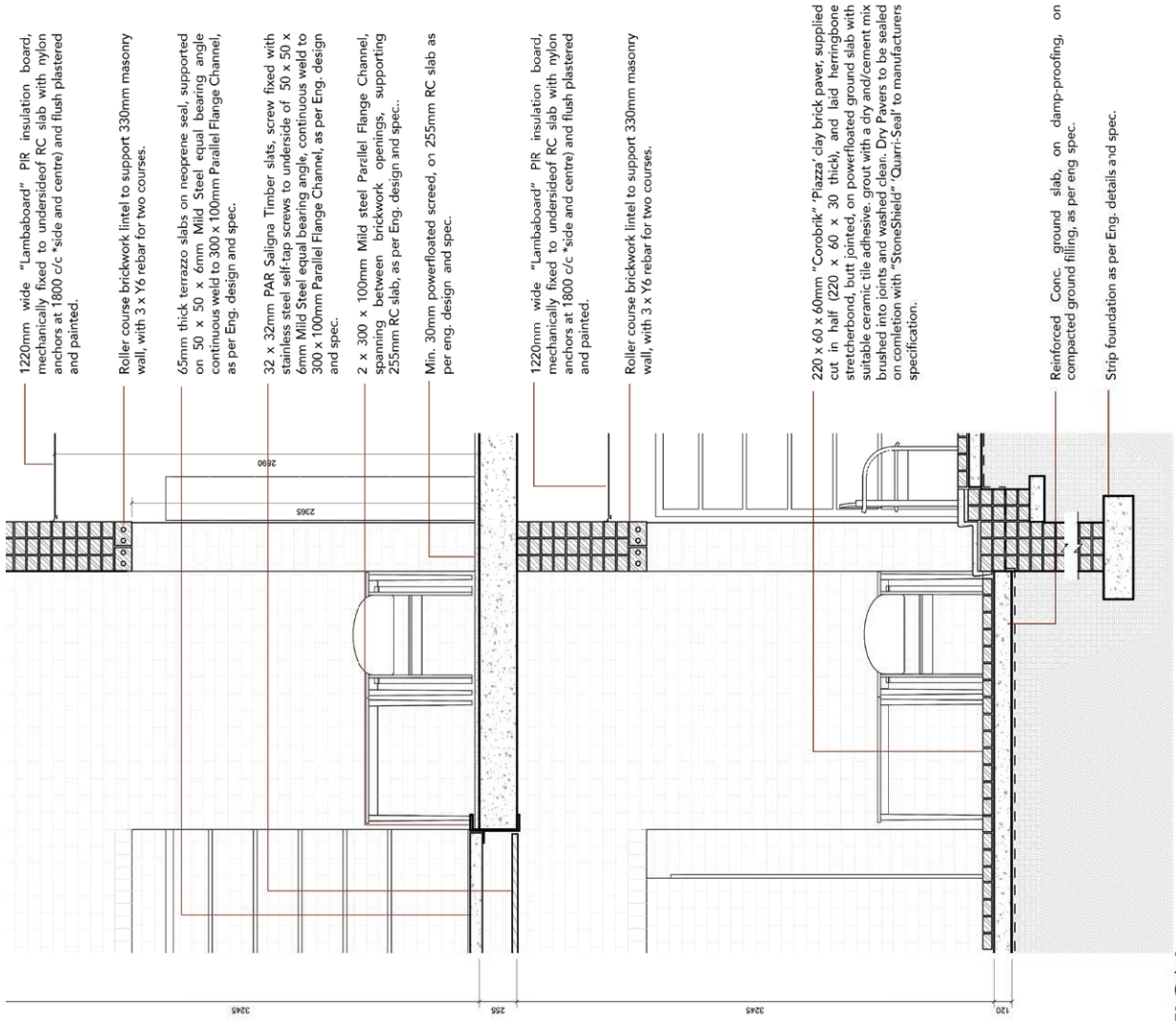
CONCLUSION



- 0.58 Galvanised "Kliplok 700" concealed fix roof sheeting with "Chromadek" finish (Dove Grey), or similar approved, on 120 x 60 cold formed lipped channels at 1500mm c/c on IPE 200 Steel I-Sections fixed to RC box gutter, and 254 x 146 steel I-Section, as per Eng. detail and spec.
- Custom made "Chromadek" Drip flashing to match roof sheeting.
- Serrated closer via "Kliplok", as per man. spec.
- 10mm polyurethane isolation joint.
- 135mm Thick "Alutherm AF" fibre glass thermal roof insulation blanket laid on 2mm PVC coated straining wires spanning between trusses @ +/- 275 mm C/C. Installed strictly in accordance with manufacturers specifications.
- Operable Aluminium window as per manufacturers spec.
- Custom galvanised steel window flashing to cover waterproofing membrane.
- Drip joint in concrete light shelf.
- RC lightsheif and box gutter element as per Eng. detail and spec.
- 244 x 69mm PAR Saligna timber light baffles bolt-fixed with 6mm hexagon bolts to custom 8mm thick galvanised mild steel endplate. Endplate chemically fixed to 550mm masonry wall.
- Cold-formed steel reglet cast into lightsheif and box gutter element, to allow counterflashing.
- Bitumen Torch on waterproofing membrane as per supplier's spec, on min.30mm screed to fall at min 1:50 on cast in-situ RC box gutter as per Eng. details and spec.
- 0.58 Galvanised "Kliplok 700" concealed fix roof sheeting with "Chromadek" finish (Dove Grey), or similar approved, on 120x60 Cold formed lipped channels at 1500 C/C on IPE 180 Steel I Section Portal frame, fixed to RC box gutter, as per Eng. detail and spec.
- Serrated closer via "Kliplok", as per man. spec.
- 135mm Thick "Alutherm AF" fibre glass thermal roof insulation blanket laid on 2mm PVC coated straining wires spanning between trusses @ +/- 275 mm C/C. Installed strictly in accordance with manufacturers specifications.
- 0.58mm galvanised steel corner flashing at roof edges. Colour to match roof.
- 65mm thick terrazzo slabs on neoprene seal, supported on 50 x 50 x 6mm Mild Steel equal bearing angle continuous weld to 300 x 100mm Parallel Flange Channel, as per Eng. design and spec.
- 32 x 32mm PAR Saligna Timber slats, screw fixed with stainless steel self-tap screws to underside of 50 x 50 x 6mm Mild Steel equal bearing angle, continuous weld to 300 x 100mm Parallel Flange Channel, as per Eng. design and spec.
- 2 x 300 x 100mm Mild steel Parallel Flange Channel, spanning between brickwork openings, supporting 255mm RC slab, as per Eng. design and spec..
- Min. 30mm powerfloated screed, on 255mm RC slab as per eng. design and spec.

Fig. 291. Detail wall section - library (nts).

CONCLUSION



1:20 SECTION

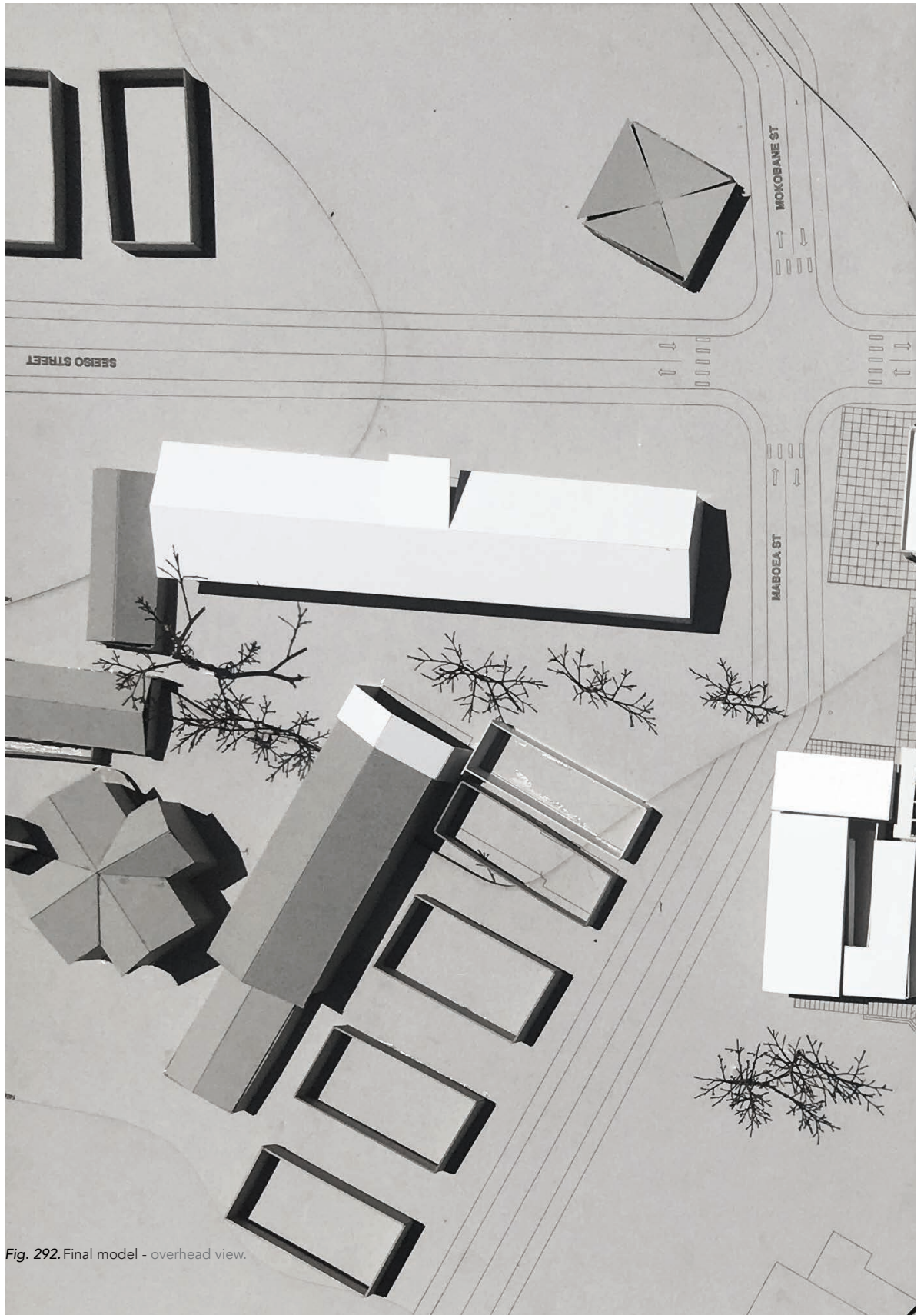


Fig. 292. Final model - overhead view.



CONCLUSION

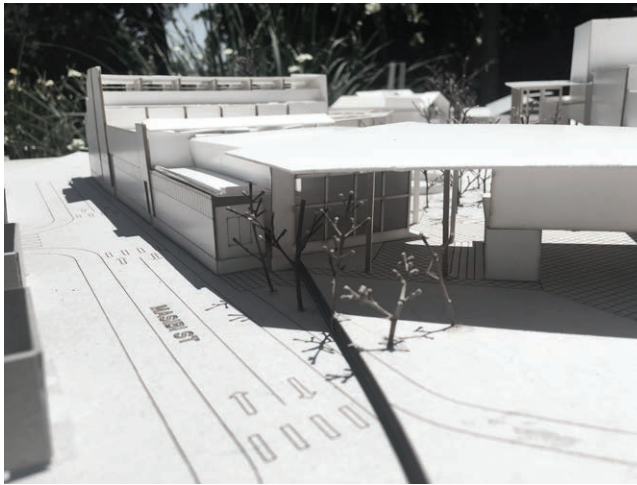


Fig. 293. Final model. Corner of Masibi street (recital hall + black box theatre).

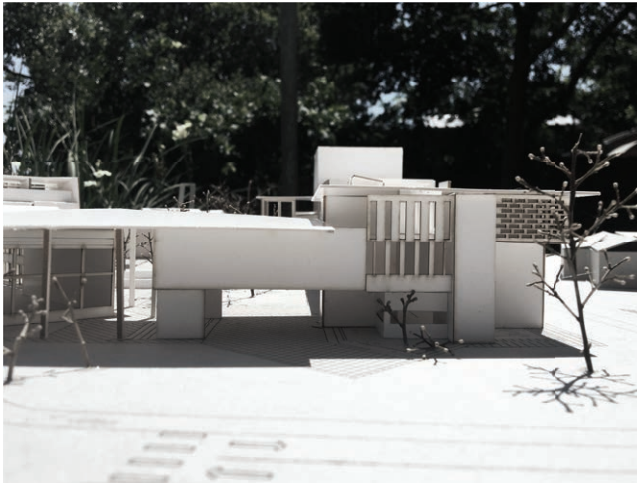


Fig. 294. Final model. Corner of Masibi street.



Fig. 295. Final model. Mareka street (southern facade).

CONCLUSION



Fig. 296. Final model.
Corner of Masibi street
(entrance).

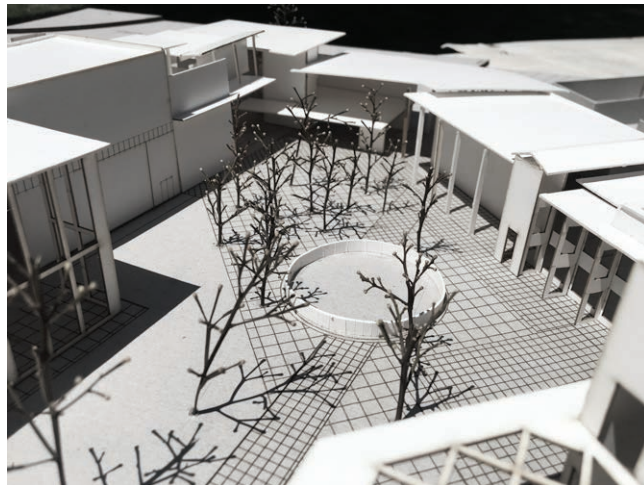


Fig. 297. Final model.
Courtyard



Fig. 298. Final model.
Library entrance



Fig. 299. Memories. Brion Tomb entrance. 2013.

REFLECTION

This proposal reveals what may come from a scheme which grew from place. The result: a collection of memories to produce a new memory.

This investigation stemmed from a desire to create beautiful architecture. Not a superficial beauty, but one that touches the user at an emotive level.

If not getting lost in space, the user can be lost in thought or event. The new complex provides an opportunity to participate visually, or become part of the spectacle. The scheme encourages all levels of activity — from the extremely private to the extremely public. The user may wander through all the levels of privacy, allowing this new platform to become an extension of the existing *third place*. With a collage of places to get lost, the user is welcomed to cross the threshold and enter a realm beyond the mundane.

Although it is difficult to evaluate the *appropriateness* of a scheme for a township, the intention was to challenge what is ordinarily proposed in these dormitory towns. The goal was to interrogate the typologies typically implemented so as to start a conversation about the impact of architecture in South Africa.

This has been a difficult journey. Challenging the norm was often met with resistance and criticism. But, despite this, I believe important questions were asked and I have learnt so many valuable lessons to take forward.

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LIST OF REFERENCES

ARTICLES

- FOUCAULT, M. 1986. Of Other Spaces, transl. by Jay Miskowiec. *Diactitics*, 16(1), Spring: 22-27.
- MARKUS, R. 2001. What does the mask cover? Giacometti's "The invisible object" (1934). *The metamorphosis of marginal: from antiquity to present time*. Tel-Aviv: Tel-Aviv University, Faculty of the Arts, pp 213-224.
- KAHN, L. 1930. The value and aim in sketching. *T Square Club Journal*, 1(6), May.
- THERON, P. 2015. The cathedral of holy nativity, Pietermaritzburg. *Boukin: A retrospective introduction* (1). Pretoria: University of Pretoria, pp 50-56

BOOKS

- ALEXANDER, C. 1979. *The timeless way of building*. New York: Oxford University Press.
- ARENDT, H. 1958. *The human condition*. Chicago: University of Chicago Press.
- BACHELARD, G. 1983. *Water and dreams*, transl. E.R. Farrel. Dallas: The Pegasus Foundation.
- BENJAMIN, W. 1969. *Illuminations*. New York: Schocken Books.
- BOURDIEU, P. 1977. *Outline of a theory of practice*, transl. R. Nice. Cambridge: Cambridge University Press.
- CASEY, E. 1998. *The fate of place: a philosophical history*. California: University of California Press.
- CAWS, M.A. (ed.) 2004. *Surrealism*. London: Phaidon Press Limited.
- COETZER, N. 2013. *Building Apartheid: On Architecture and Order in Imperial Cape Town*. Oxford: Routledge.
- DEBORD, G. 1970. *The society of the spectacle*, transl. D. Nicholson-Smith. Michigan: Black & Red.
- DIONNE, C. 1994. Lewis Carrol, a man out of joint: the anonymous architect of Euclid's retreat, in Perez, A. and Parcel, S. (eds.) *Chora Volume four: intervals in the philosophy of architecture*. London: McGill-Queen's University Press, pp 1-24.
- IYER, P. 2014. *The lost art of stillness: adventures in going nowhere*. New York : TED Books/Simon & Schuster.
- JONES, C.A. (ed.) 2006. *Sensorium*. Cambridge: MIT Press.
- LEFEBVRE, H. 1991. *The production of space*, transl. D. Nicholson-Smith. Oxford: Blackwell.
- MAFOLO, M.T. 2015. *Pheli - The narrative history, 75th anniversary of Atteridgeville*. [S.I.]:[S.n.].
- MERLEAU-PONTY, M. 1945. *La Phénoménologie de la perception*. Paris: Gallimard.
- OUZMAN, S. 2002. Radiant landscapes and ancient mindscapes, in Villiers, A., le Roux, S. (eds.) *Nine landscapes*. University of Pretoria: Dept. of Architecture, pp 7-33.

CONCLUSION

- OLDENBURG, R. 1989. *The great good place*. New York: Paragon House.
- PRICE, C. and Obrist, H. 2003. *Re:CP*. Basel: Birkhäuser Architecture.
- RIGHINI, P. 1999. *Thinking Architecturally: An introduction to the creation of form and space*. Cape Town: University of Cape Town.
- RUSSEL, B. 1930. *The conquest of happiness*. New York: H. Liveright.
- SCHULTZ, A. 2014. *Carlo Scarpa - Layers*. Stuttgart: Edition Axel Mengesv.
- SCARPA, C. 1976. Furniture (Address delivered at the Academy of Fine Arts, Vienna), in Dal Co, F., et al (eds.). 1985. *Carlo Scarpa. The Complete Works*. Milan: Electa/Rizzoli.
- TOLSTOY, L. 1890. *The Kreutzer Sonata*, transl. by Frederic Lyster. Berlin: Bibliographic Office. (23) [no pagination].
- TUROK, I. 1993. *Urban planning in the transition from apartheid*. Glasgow: University of Strathclyde, Centre for Planning.
- US POSTAL SERVICE. 1996. *At home in the world: the peace corps story*. Washington: Peace Corps.
- WORSFOLD, W. 1913. *The reconstruction of the new colonies under Lord Milner*. London: K. Paul, Trench, Trübner.

DOCUMENTARY

- ŽIŽEK, S., et al (2006). *The pervert's guide to cinema*. London: P Guide.

INTERVIEWS

- MAFOLO, M.T. 2015a. Interviewed on SABC News, SABC television. July 24.
- KEKANA, L. 2015b. Interviewed on SABC News, SABC television. August 28.

GOVERNMENT DOCUMENTS

- SOUTH AFRICA (1994) *The White Paper on Reconstruction and Development*. (Notice No. 1954 or 1994) Government Gazette 353:16085, November 15. Reference WPJ/1994. Cape Town: South African Parliament.

ONLINE

- AFRITECT. 2012. The Soweto Theatre / Afritects. [Blog] *Archdaily*. Available at: <http://www.archdaily.com/243942/the-soweto-theatre-afritects> [Accessed 28 August 2016].
- ANTONAS, A. 2011. The house for doing nothing. [Blog] *Antonias - Accumulation of entries describing a person*. Available at: <http://antonas.blogspot.co.za/2011/07/house-for-doing-nothing.html> [Accessed 1 May 2016].
- LAMBERT, L. 2011. Heterotopic architectures: Zizek residence by Aristide Antonas (in dialogue with dpr-barcelona). [Blog] *The funambulist*. Available at: <http://thefunambulist.net/2011/07/01/heterotopic-architectures-zizek-residence-by-aristide-antonas-in-dialogue-with-dpr-barcelona-2/> [Accessed 1 May 2016].

CONCLUSION

- NAJERA, C.R. and Pohl, E.B. 2011. A house for doing nothing - Political attitudes from secluded places. [Blog] *dpr-barcelona*. Available at: <https://dprbcn.wordpress.com/2011/07/01/zizek-house/> [Accessed 10 May 2016].
- HOLT, M. and Looby, M. 2016. Diller Scofidio + Renfro: The Suspension of Disbelief. [Blog] Architizer. Available at: <http://architizer.com/blog/diller-scofidio-renfro-the-suspension-of-disbelief/> [Accessed 5 June 2016].
- MCGREGOR, L. 2004. Gibson Kente - South Africa's father of township drama. [Online] The Guardian. Available at: <https://www.theguardian.com/news/2004/nov/10/guardianobituaries.southafrica> [Accessed 22 May 2016].
- WINSTON, A. 2016. Wright & Wright unveils first addition to London's historic Lambeth Palace in over 180 years. [Blog] *Dezeen*. Available at: <http://www.dezeen.com/2016/09/09/wright-wright-lambeth-palace-new-addition-library-london-historic-home-archbishop-canterbury/> [Accessed 2 October 2016].

STATUTES (NOT EXTANT)

- SOUTH AFRICA. 1913. *The Natives Land Act* (Act No. 27 of 1913) .
- SOUTH AFRICA, 1923. *The Natives Urban Act* (Act No. 21 of 1923).
- SOUTH AFRICA. 1950. *The Population Registration Act* (Act No. 30 of 1950) .
- SOUTH AFRICA. 1950. *The Group Areas Act* (Act No. 41 of 1950).
- SOUTH AFRICA. 1953. *The Reservation of Separate Amenities Act* (Act No. 49 of 1953).
- SOUTH AFRICA. 1979. *The Slums Act* (Act No. 76 of 1979)

TALKS

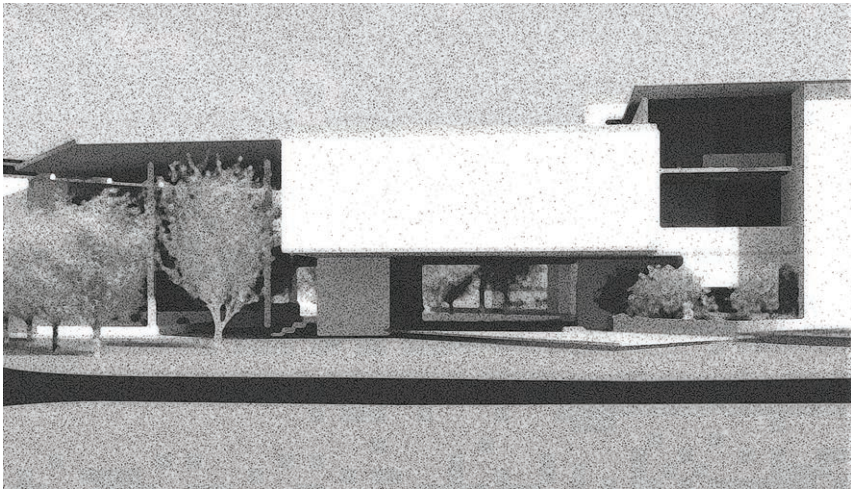
- BALDWIN, J. 1962. *The artist's struggle for integrity*. Recorded at Community Church New York. Broadcast: WBAI: 29 November. Available at: <https://soundcloud.com/pacificaradioarchives/bb3641-james-baldwin-the-artists-struggle-for-integrity> [Accessed July 2016].
- ROBINSON, K. 2006. *Do schools kill creativity?* TEDTalk, TED: Ideas worth spreading. February. Available at https://www.ted.com/talks/ken_robinson_says_schools_kill_creativity?language=en [Accessed June 2016].

UNPUBLISHED

- NEL, K., SADIQ, A. 2016. *Borderland: Volume I*. Unpublished dissertation. University of Pretoria, Pretoria
- STALS, M. 1998. *Fragmentation and Unity: The search for the design of the 'model' township. The case of Atteridgeville, Pretoria*. MProf dissertation. Katolieke Universiteit Leuven, Leuven.
- DEPPE, J. 1994. *Form, Space & Power. - A brief historic narrative on the townships of Pretoria*, (unpublished manuscript), University of Pretoria, Pretoria.

APPENDIX A

Renderings



APPENDICES

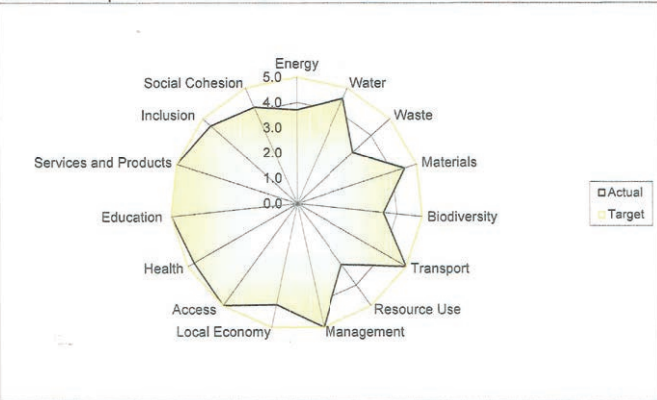


APPENDIX B

Calculations

SBAT

SUSTAINABLE BUILDING ASSESSMENT TOOL RESIDENTIAL

SBAT REPORT		Achieved
		4.3
B1 Project	0	
B2 Address	0	
SB3 SBAT Graph		
SB4 Environmental, Social and Economic Performance	Score	
Environmental	3.8	
Economic	4.4	
Social	4.7	
SBAT Rating	4.3	
SB5 EF and HDI Factors	Score	
EF Factor	4.0	
HDI Factor	4.6	
SB6 Targets	Percentage	
Environmental	77	
Economic	88	
Social	94	
SB7 Self Assessment: Information supplied and confirmed by		
Name	Date	
Signature		
SB8 Validation: Documentation validated by		
Name	Date	
Signature		
SB9 Validation Report Version	IVR	

APPENDICES

RAINWATER COLLECTION

RAINWATER YIELD CALCULATION			
MONTH	AVE. MONTHLY PRECIPITATION (l/m ²)	AVE. MONTHLY PRECIPITATION (m ³)	YIELD
January	132,0	0,132	568,06
February	68,0	0,068	292,64
March	69,0	0,069	296,94
April	54,0	0,054	232,39
May	13,0	0,013	55,95
June	7,0	0,007	30,12
July	3,0	0,003	12,91
August	5,0	0,005	21,52
September	20,0	0,020	86,07
October	7,0	0,007	30,12
November	10,0	0,010	43,04
December	108,0	0,108	464,78
	496,0	0,496	2134,54

RAINWATER CATCHMENT AND COLLECTION				TO USE
TYPE	AREA (m ²)	COEFFICIENT	YIELD m ³	
Permeable paving	1700,0	0,70	1190,0	
Corrugated iron (existing)	0,0	0,80	0,0	
Corrugated iron (new)	1125,0	0,90	1012,5	
Flat roof	2362,0	0,95	2101,0	
Green Roof	0,0	0,50	0,0	
Grass	0,0	0,78	0,0	
	5187,0	4,63	4303,5	3113,5

RAINWATER YIELD CALCULATION (ROOF YIELD ONLY)								
MONTH	AVE. MONTHLY PRECIPITATION (l/m ²)	AVE. MONTHLY PRECIPITATION (m ³)	YIELD m ³	DEMAND m ³	MONTHLY BALANCE	VOL. IN TANK	VOL. IN TANK (START WITH SEP)	
January	132,0	0,132	410,98	40,94	370,04	636,39	1529,64	
February	68,0	0,068	211,72	40,94	170,77	807,17	2336,81	
March	69,0	0,069	214,83	40,94	173,89	981,06	3317,87	
April	54,0	0,054	168,13	40,94	127,19	1108,24	4426,11	
May	13,0	0,013	40,48	40,94	-0,47	1107,77	5533,88	
June	7,0	0,007	21,79	40,94	-19,15	1088,62	6622,50	
July	3,0	0,003	9,34	40,94	-31,60	1057,02	7679,52	
August	5,0	0,005	15,57	40,94	-25,38	1031,64	8711,17	
September	20,0	0,020	62,27	40,94	21,33	0	675	
October	7,0	0,007	21,79	40,94	-19,15	-19,15	655,85	
November	10,0	0,010	31,14	40,94	-9,81	-28,96	626,89	
December	108,0	0,108	336,26	40,94	295,31	266,36	893,25	
			1544,30	491,33				

TANK SIZE **675,0**

APPENDICES

WATER DEMANDS

TYPE	NO. OF PEOPLE	DAILY NO. OF USES	TOTAL DEMAND			% REDUCTION	PORTABLE WATER REQUIRED	PORTABLE WATER CONSUMED DAILY	GREY WATER PRODUCED DAILY	BLACKWATER PRODUCED DAILY		
			STANDARD LITRES PER USE	STANDARD TOTAL PER DAY	REDUCED LITRES PER USE						REDUCED TOTAL PER DAY	
Library & writers & all cleaning staff												
Toilets male (staff)	0,00	0,00	0,00	0,00	1,50	0,00						
Toilets female (staff)	5,00	2,00	8,00	80,00	4,50	45,00						
Toilets male (public)	21,00	8,00	170,00	504,00	4,50	283,50						
Toilets female (public)	15,00	0,25	8,00	30,00	4,50	16,88						
Urinals (staff)	48,00	1,00	8,00	384,00	4,50	216,00						
Urinals (public)	18,00	2,50	0,80	36,00	0,30	13,50						
Showers	33,00	1,75	0,80	46,20	0,30	17,33						
Wash hand basins	0,50	1,00	72,00	23,20	2,50	12,60						
Janitorial duties	200,00	2,00	1,00	400,00	0,50	200,00						
SUBTOTAL	9,00	5,00	10,00	450,00	7,00	315,00	119,90	0,43	527,60	315,00	212,60	592,20
Ground maintenance & office												
Slaughter	0,00	3,00	400,00	0,00	300,00	0,00						
Grounds*	1,00	3,00	250,00	750,00	200,00	600,00						
Vegetation upkeep	1,00	3,00	10,00	30,00	8,00	24,00						
Outer cleaning	1,00	1,00	10,00	10,00	10,00	10,00						
Sundries	0,00	3,00	5,00	0,00	4,00	0,00						
Cleaning	0,00	2,00	0,35	21,00	0,35	21,00						
Office*	30,00	1,00	2,00	30,00	1,00	15,00						
tea/coffee	13,00	4,00	0,25	20,00	0,25	20,00						
dining	20,00	2,00	0,00	0,00	1,00	0,00						
Kitchenette - butcher**	0,00	4,00	0,35	0,00	0,35	0,00						
tea/coffee	0,00	2,00	0,00	0,00	1,00	0,00						
dishes	0,00	4,00	0,25	0,00	0,25	0,00						
dining	0,00	4,00	0,25	0,00	0,25	0,00						
SUBTOTAL	0,00	4,00	0,25	81,00	0,25	690,00	0,20	646,00	21,00	625,00	24,00	
Cinemas & theatres												
Toilet use*	22,00	1,00	8,00	176,00	4,50	99,00						
Toilets male (public)	73,00	1,00	8,00	584,00	4,50	328,50						
Toilets female (public)	51,00	1,00	0,80	40,80	0,30	15,30						
Basin use*	200,00	1,00	1,00	200,00	0,50	100,00						
Wash hand basins	0,00	1,00	0,20	0,00	0,20	0,00						
Cooking	0,00	0,00	8,00	0,00	4,00	0,00						
Toilets	0,00	3,00	8,00	0,00	3,00	0,00						
dry staff**	0,00	1,50	8,00	0,00	3,00	0,00						
night staff**	0,00	1,00	8,00	0,00	3,00	0,00						
occupants	0,00	1,00	8,00	0,00	3,00	0,00						
Wash hand basins	0,00	5,50	1,00	0,00	0,50	0,00						
Cleaning	0,00	4,00	5,00	0,00	4,00	0,00						
Laundry	0,00	1,00	25,00	0,00	25,00	0,00						
SUBTOTAL	0,00	1,00	25,00	1030,80	25,00	542,80	0,46	542,80	214,30	328,50	0,00	
Coffee shop & Rest.												
Kitchen	50,00	3,00	1,50	225,00	1,50	225,00						
cooking	1,00	3,00	40,00	120,00	35,00	105,00						
dishes	0,00	3,00	8,00	0,00	4,00	0,00						
Toilets	0,00	1,50	8,00	0,00	3,00	0,00						
dry staff**	0,00	4,00	8,00	0,00	4,00	0,00						
night staff**	0,00	2,00	8,00	0,00	4,00	0,00						
occupants	40,00	2,00	1,00	80,00	0,50	40,00						
Wash hand basins	50,00	2,00	0,35	35,00	0,35	35,00						
tea/coffee	1,00	3,00	5,00	15,00	4,00	12,00						
Cleaning	0,00	1,00	12,00	0,00	12,00	0,00						
SUBTOTAL	0,00	1,00	12,00	425,00	0,12	417,00	0,30	417,00	237,00	180,00	0,00	
GRAND TOTAL												
TOTAL (m3)	4,30	4303,00	4,30	130,88	2769,60	2,77	2133,40	0,30	2133,40	787,30	1346,10	616,20
AVE. MONTHLY DEMAND	0,64	130,88	0,64	84,24	84,24	0,64	64,89	0,30	64,89	23,95	40,94	18,74



APPENDICES

WATER REDUCTIONS

TYPICAL + REDUCED DEMANDS IN LITRES PER USE					
ITEM	USE	AVE. LITRES PER USE	REDUCTION	REDUCED USE	BRAND NAME
Private whb	handwash	1	aerator	0,5	generic
Public whb	handwash	1	aerator + demand tap	0,25	generic + cobra
Shower	16ℓ/min @ 4.5min	72	5.6ℓ/min @ 4.5min	25,2	lio gio
Toilet	flush	8	dual flush	3 or 6ℓ/flush	vaal ecoline
Dishwasher	single wash	30	green machine	25	generic
Dish washing	hand wash	2	aerator	1	generic
Washing machine	10ℓ/kg	10	recycle rinse water	7,5	generic
Tea/coffee	cup	0,35	n.a.	0,35	n.a.
Urinal	flush	0,8	waterless	0	vaal lavatera sweetpea\

ELECTRICAL REQUIREMENTS

ELECTRICAL DEMAND - REDUCED						
EXTERNAL						
ITEM	QUANTITY	WATTS	HOURS	kWh PER DAY	ANNUALLY	daily night time demand
street lights	6	20,00	0	0,00	0,00	
paving lights	20	2,90	11	0,64	232,87	0,64
tree uplighters	13	18,00	11	2,57	939,51	2,57
				3,21	1172,38	3,21
SERVICE YARD						
pumps - 40psi (32ℓ/m)	0	1200,00	1,4	0,00	0,00	
electrical outlets	6	10,00	2	0,12	43,80	0,12
				0,12	43,80	0,12
Library/writing room/offices/all other internal						
electrical outlets	133	30,00	9	35,91	13107,15	
lighting	192	15,00	2	5,76	2102,40	
				41,67	15209,55	
PUBLIC ABLUTIONS						
internal lighting				9,00	3285,00	9,00
external lighting					0	
geyser 450ℓ	1	2500,00	7	17,50	6387,50	
				26,50	9672,50	9,00
Theaters						
ITEM	QUANTITY	WATTS	HOURS	kWh PER DAY	kWh PER ANNUM	
internal lighting				3,33	1215,38	3,33
					0	
Stage					0	
spotlights	30	190,00	0,7	3,99	1456,35	
outlets	45	10,00	1	0,45	164,25	
HVAC	3	3500,00	2	21,00	7665,00	
barfridge	0	0,00	0	0,00	0,00	
display fridge	0	0,00	0	0,00	0,00	
baking oven	0	0,00	0	0,00	0,00	
misc	0	50,00	4	0,00	0,00	
Media						
Sound	3	3000,00	0,7	6,30	2299,50	3,15
effects	3	500,00	0,7	1,05	383,25	
lighting effects	3	500,00	0,7	1,05	383,25	
passage lighting	96	2,00	8	1,54	560,64	
water heating						
geyser 450ℓ	0	0,00	0	0,00	0,00	
				38,71	14127,62	6,48

APPENDICES

ELECTRICAL REQUIREMENTS (cont.)

Cinemas/media room						
ITEM	QUANTITY	WATTS	HOURS	kWh PER DAY	kWh PER ANNUM	
internal lighting				5,00	1825,00	5,00
media					0	
projector	2	1000,00	15	30,00	10950,00	30,50
sound	2	5000,00	15	150,00	54750,00	21,43
passage lighting	32	2,00	15	0,96	350,40	
outlets	20	10,00	15	3,00	1095,00	
HVAC	2	3500,00	15	105,00	38325,00	52,50
dishwasher	0	870,00	4	0,00	0,00	
fridge	0	0,00	0	0,00	0,00	
misc	0	50,00	4	0,00	0,00	0,00
bar fridge	0	0,00			0,00	
water heating					0	
geyser 450l	0	0,00	0	0,00	0,00	
				293,96	107295,40	109,43

Restaurant & coffee shop						
ITEM	QUANTITY	WATTS	HOURS	kWh PER DAY	kWh PER ANNUM	
internal lighting				3,00	1095,00	3,00
external lighting					0	
appliances					0	
internet	1	6,00	24	0,14	52,56	0,07
computers	1	80,00	9	0,72	262,80	0,10
kettle	2	1600,00	3	9,60	3504,00	
stove/oven	2	2000,00	5	20,00	7300,00	
microwave	2	600,00	1	1,20	438,00	0,60
dishwasher	1	870,00	4	3,48	1270,20	1,74
fridge	2	200,00	6	2,40	876,00	
misc	0	50,00	4	0,00	0,00	0,00
bar fridge	0	0,00	0	0,00	0,00	
machinary					0	
water heating					0	
geyser 450l	2	0,00	0	0,00	0,00	
				40,54	14798,56	5,51

Computer room/ study nooks						
ITEM	QUANTITY	WATTS	HOURS	kWh PER DAY	kWh PER ANNUM	
appliances					0	
internet	1	6,00	24	0,14	52,56	
computers	20	400,00	9	72,00	26280,00	
outlets	30	10,00	8	2,40	876,00	
misc	1	50,00	8	0,40	146,00	
bar fridge	0	296,00	0	0,00	0,00	
				74,94	27354,56	
TOTAL				519,66	189674,37	133,76

0,56

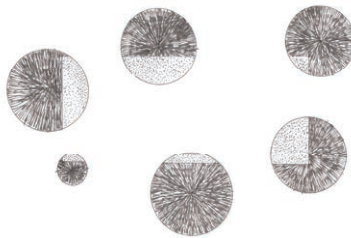
APPENDICES

PV CELLS REQUIRED (cont.)

daily demand	519,66	
pv cell factor	1,30	
actual daily demand (kW)	675,55	kWh/day
actual daily demand (w)	675552,56	W/day
irradiation pretoria	5,46	kWh/day
PV cell power	290,00	Wp
panel weight	18,00	kg
panel size	1,65	m ²
total panels needed	426,65	qty.
actual no of panels	427	round up
total area needed	704	m ²
total weight	7679,64	kg dead load
unit price	4324	R
total panel price	1844820,80	
Battry sizes	11,60	kWh
Number req.	45	qty.
unit price		R
Total PV cost		R
current eskom prices		1,47 R/kWh
annual eskom tarrif (estimate)		363034,85 R/annum

BORDERLAND

Atteridgeville



A study of Atteridgeville

Kathleen Nel
Ali Sadiq

2016

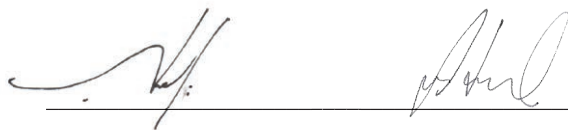
Fig. 01. Borderlands: an area of overlap between two things, a district near the line separating two areas.

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 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.

Kathleen Nel and Ali Sadiq





DECLARATION

Kathleen Nel & Ali Sadiq

Submitted in partial fulfilment of the requirements for
the degree Masters in Architecture (Professional).

Department of Architecture

Faculty of Engineering, Built Environment
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University of Pretoria, South Africa.

Study leader

Mathebe Ramasele Aphané

Course coordinator

Dr Arthur Barker

Pretoria, South Africa

2016



PROJECT SUMMARY

Borderland

Volume 1 of 3

Site

Atteridgeville
City of Tswane
Gauteng
South Africa

Research Field

Human Settlements and Urbanism
Heritage and Cultural Landscapes

2016



ABSTRACT

The civic survey

Volume I forms the first of three volumes produced during the course for the academic year 2016. This document introduces Atteridgeville, an inconspicuous residential suburb on the western outskirts of Pretoria. Tucked away behind industrial and natural buffers, the township remains inhibited due to the planning strategies of the apartheid regime.

The intention of this volume is to structure a shared vision of the authors for the development of townships in current-day South Africa. This investigation is taken further in the case of the proceeding volumes to demonstrate the normative position of the authors on the essence of democratic civic space.

Presenting the analysis of current conditions of Atteridgeville in the form of a charticle*, this volume arises as the synthesis of the essence of peripheral townships into an urban vision. The intention is to provide an historic overview of the development of the study region, the authors' analysis thereof resulting in a contextual and theoretical approach to township architecture.

Identifying twenty one sites for urban intervention, the vision reconciles brown field sites, derelict and neglected areas, public spaces of unrealised potential and space left over after planning.

The title, *Borderland* is derived from identifying Atteridgeville as a series of complex dichotomies, resembling the nature of townships in democratic South Africa:

Rural | Urban
Township | Suburb
Mundane | Extraordinary

*Charticle: A mix between an 'article' and a 'chart'. A document which relies on a mixed medium of text and illustrations to convey a holistic overview.



ACKNOWLEDGEMENTS

A word of thanks

The authors would like to acknowledge the support and guidance of the Architecture Department at the University of Pretoria. Firstly, Dr. Arthur Barker for the freedom to explore and the encouragement to leave no rock unturned.

Mathebe Aphane for receiving our views and providing a fresh perspective on paper architecture situated in South African locations. Your constant endorsement and invite to share the passion for Atteridgeville is reflected in all three volumes.

The process of research and documentation thereof was conducted under the counsel of Marianne de Klerk. To Marianne, your mentorship goes beyond the dissertation and will always be held with the highest esteem.

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To Helga Roper and Juan Gilfillan for accommodating us during the protests. Your support and kindness is appreciated.

Finally, to Marissa Stals; her dissertation published in 1998 titled *The Search for the Design of a 'Model Township' The Case of Atteridgeville, Pretoria* provided an alluring insight into the thinking that resulted in today's Atteridgeville. Her thorough documentation prevented a magnitude of assumptions.

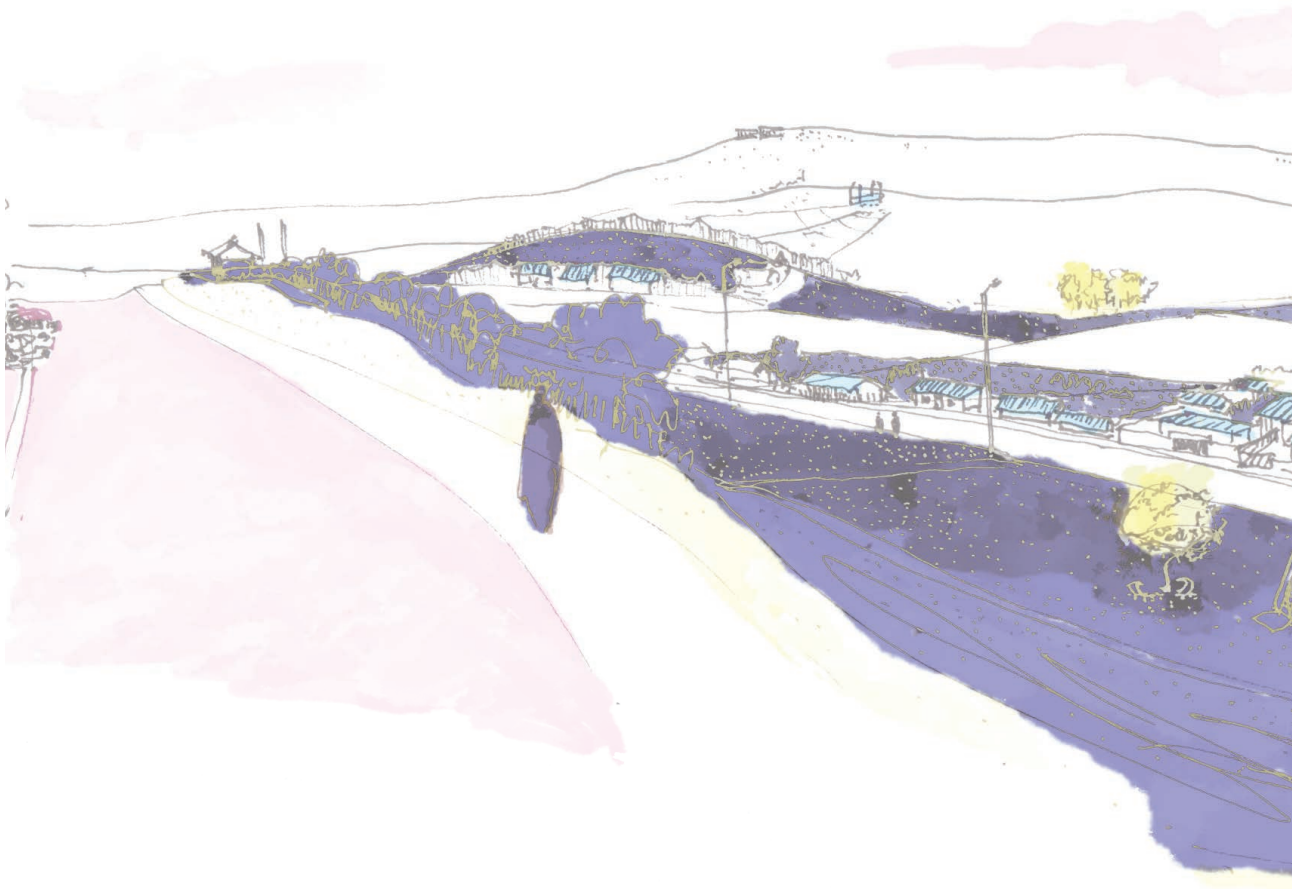


Fig. 02. View over Atteridgeville | looking south-east towards Kwaggasrant

PREFACE

Asymptotic suburbia

Atteridgeville serves as a complex laboratory for the exploration of uneven development in a democratic South Africa. Borderland, a series of dichotomies, is a representation of the questionable state of development in our townships, suburbs and cities.

The following study explores Atteridgeville through a series of changes: an experimental township taking an **asymptotic journey towards suburbia**. This investigation led to an approach which questions and contests conventional schemes for township development.

For example, the Tshwane Vision of 2055: the vision identifies the nature of dormitory townships as inefficient cities, however proposes no solutions to remedy these issues. Instead, it focusses on attracting tourists to townships and township residents to cities. Social anchors and quality of life of township residents are not paramount to the discussion (City of Tshwane 2013).

At an urban level, the interest lies within *urban greenspace* - “outdoor spaces that offer recreational social, cultural and environmental benefits to city dwellers” (Dee 2001:12). These spaces are regularly neglected in large redevelopment schemes despite their critical importance for the well-being of inhabitants.

The intention of this document is to evaluate the underlying structure of Atteridgeville and respond to various changes. The proposed vision considers an **incremental approach** in response to the existing network of urban greenspaces so as to strengthen them and build on their vitality.

The goal is to recognise Atteridgeville as a **self-sustaining entity** such that the community has all aspects of live, work and play in their own back yards. The individual projects to follow will serve as examples of how architecture can be utilised for this purpose.

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1. HISTORY

Understanding borderlands

INTRODUCTION

Premise

The history of South African labour towns has been one of turmoil, and under-developed semi-urban locations created for non-white residents to orbit urban cores. In a democratic South Africa, dormitory townships continually struggle to rid themselves of the spatial legacy of apartheid. **Issues of dependency** and lack of cohesion in urban development has fuelled an organic yet unsupported growth.

Interventions in such locations, although few, are often out of scale and perpetuate the problem of dependency. **Imported models** that invite foreign investment, promise job creation and job opportunities often disable the local business owner and remove liquidity from the micro-economy. These models take more than they give and rarely focus on skills development post employment.

The **challenge** is identified as **changing the perception** people have of townships in a democratic South Africa. Townships carry a stigma of an undesirable location that cannot be 'fixed.' Currently these developing urban environments are becoming vehicle-centred suburbs with **disconnected amenities**. This notion is contested and alternative solutions are considered to capitalise on the social diversity and healthy population densities of townships. Incremental urban design strategies are utilised to encourage diversity of land use, create civic anchors, entice social cohesion and provide places of recreational retreat.

Fig. 03. Atteridgeville photomontage (opposite page).

HISTORY

Overview

“Cities are amalgams of buildings and people. They are inhabited settings from which daily rituals - the mundane and the extraordinary, the random and the staged - derive their validity. In the urban artefact and its mutations are condensed continuities of time and place. The city is the ultimate memorial of our struggles and glories: it is where the pride of the past is set on display.”

Kostoff 1991:16

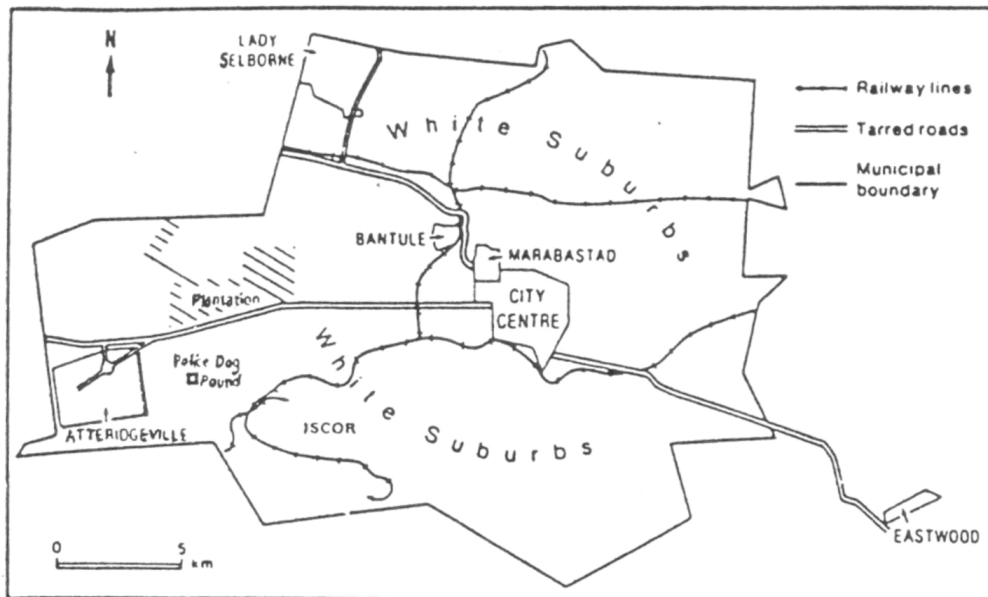


Fig. 04. Atteridgeville municipal location, the major Black freehold townships and the primary transport routes in Pretoria, 1947 (Dauskardt, 1989:111).

“The role of the townships was crucial in the formation of the Apartheid City. They were the embodiment of a complex process characterised as functional inclusion, spatial separation and political exclusion... Together they reflect in a peculiarly explicit manner the singularity of the Age of Apartheid.” (Chipkin 1998:167)

The 1930s saw a massive growth in the black population of Pretoria, increasing further in the 1940s due to the demand for industrial workers. Due to legislation, the new urbanites could only settle on peripheral land to the city as housing was provided for those ‘legitimately’ in Pretoria (Dauskardt 1989:109). Due to the growth of Black freehold townships, there was an increased urgency to create a municipal township for these ‘illegal’ residents away from the white areas (Junod 1955:79).

Atteridgeville, the first municipally constructed, controlled, and administered location for black labourers in Pretoria, was created at the cost of dislocating established communities from freehold land into rented council housing (Stals 1998:44). Established in 1939, the first residents were removed to Atteridgeville from Marabastad by the local authority in 1940 (Junod 1955:79). This was done according to the *Native Urban Areas Act* (Act No. 21 of 1923) and *The Slums Act* (Act No. 76 of 1979) to rid the White areas of ‘unwanted’ black urbanites.

Atteridgeville’s initial planning was based on imported colonial models, in the form of the Garden City (see page 22). Although Atteridgeville was established before many of the acts enforced by the apartheid Government, the various laws promulgated to enforce their ideology disrupted the positive aspects of the original Garden City planning.

Stals (1998:8) identifies that the inhabitants of Atteridgeville had “adapted to this enforced way of life in a seemingly less agitated manner than the inhabitants of several similar townships had.” Her hypothesis was that the ‘uniqueness’ that characterises Atteridgeville with regards to urban qualities may have had an influence on the “way of life” of the inhabitants.

The following study begins with an investigation into the spatial history of Atteridgeville and the *series of changes* required to understand the background of Atteridgeville and to develop a thorough understanding its the context, historically and spatially.

LOCALITY



South Africa



Gauteng



Tshwane



Pretoria



Atteridgeville

Established in 1939, Atteridgeville was the first municipal-built township in Pretoria. The five Black freehold settlements - Schoolplaats (1875), Marabastad (1888), Lady Selborne (1905), Eastwood (1905) and Bantule (1912) were consolidated and their inhabitants relocated within the Pretoria City Council (to be

referred to as PCC) jurisdiction to a location outside the *white* city. The selected site is situated behind natural, industrial and military buffers at a distance of 14km west of Church square. Today, Atteridgeville is Pretoria's closest township.

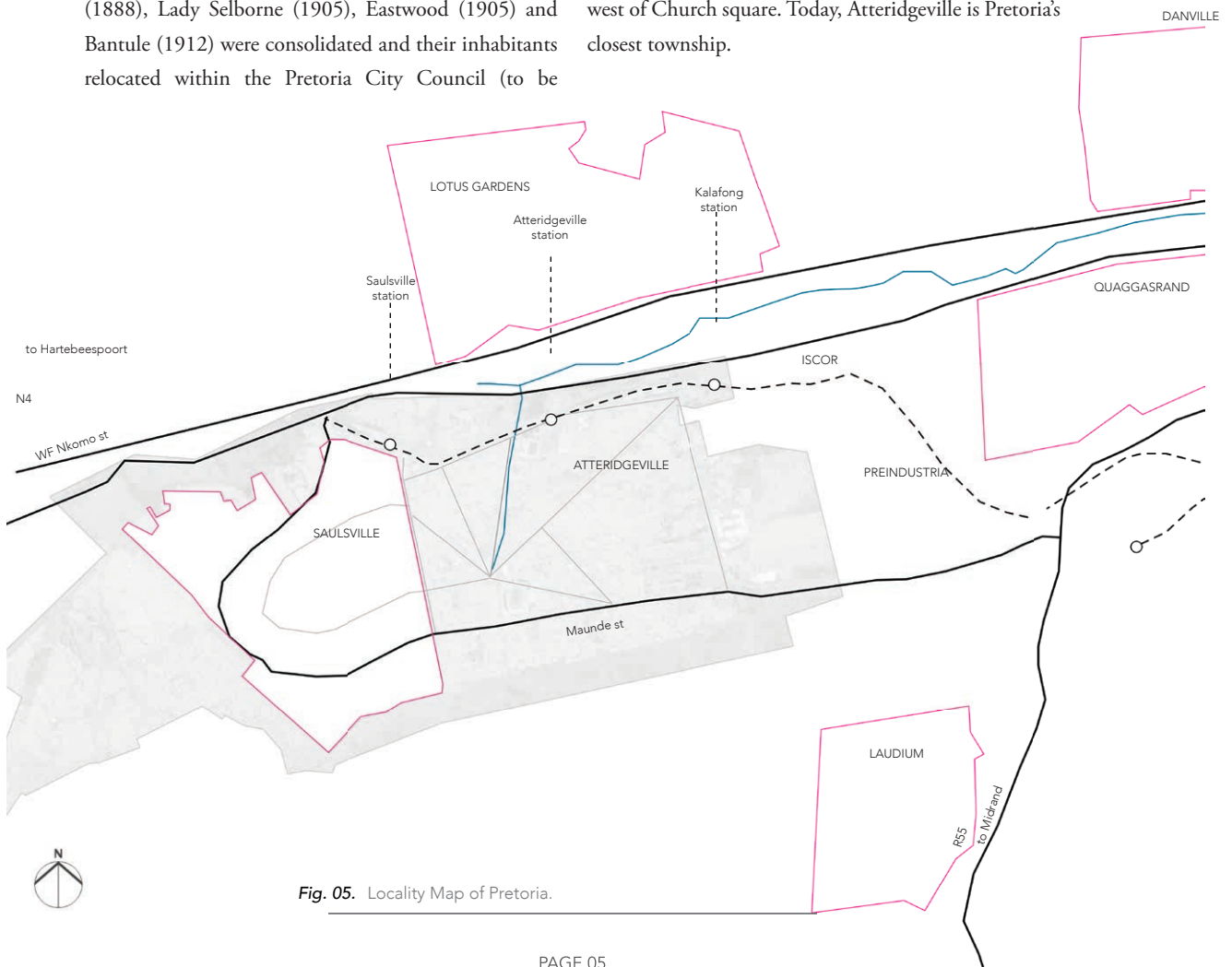
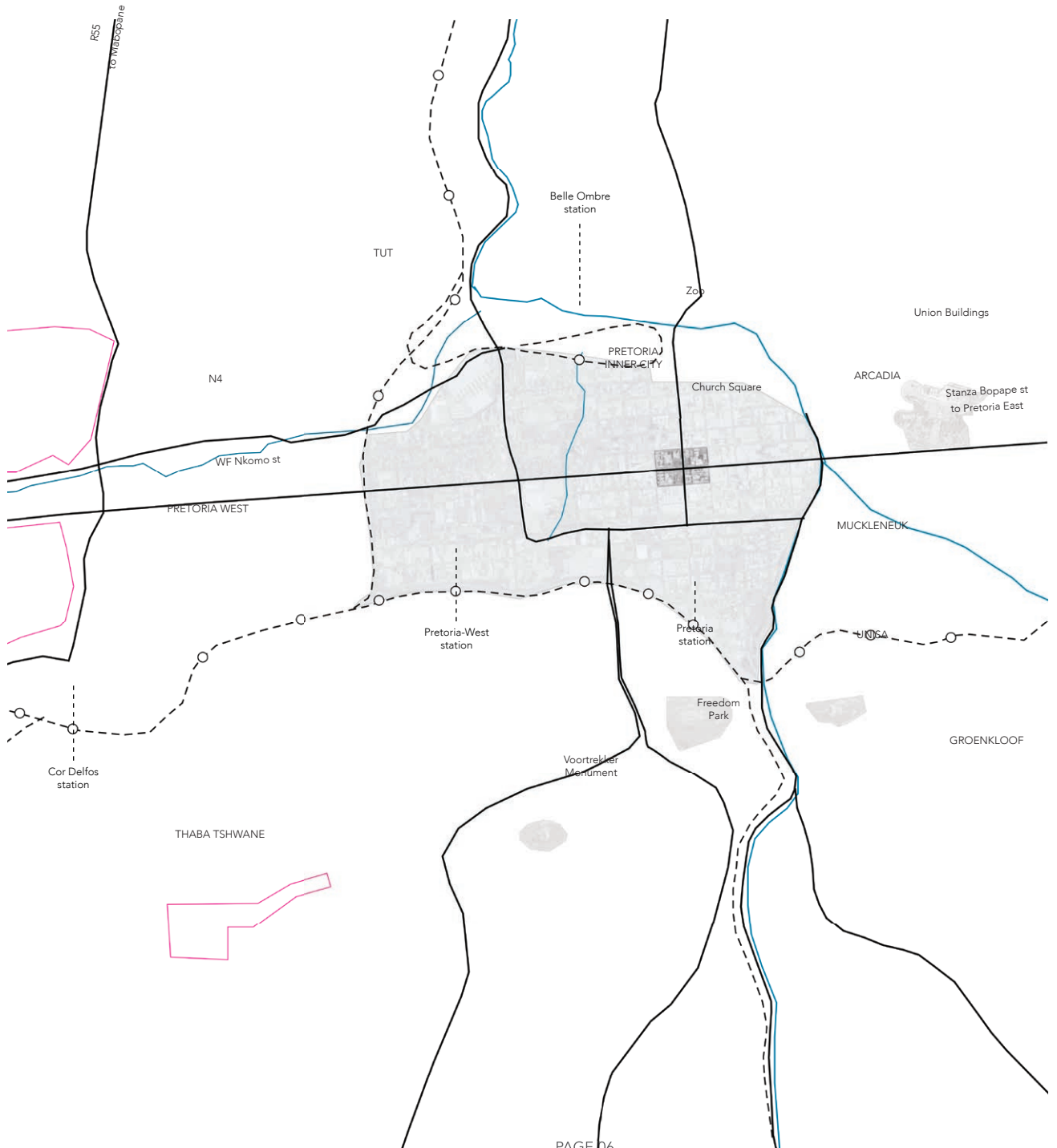
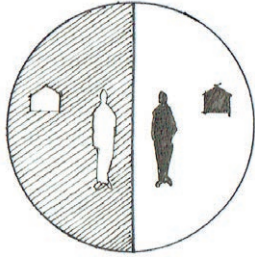


Fig. 05. Locality Map of Pretoria.





PRE 1950



1852

Pretoria established

1923

Natives Urban Act (Act No. 21 of 1923)

1928

ISCOR established

1934

Slum Act
ISCOR starts production

1939

Atteridgeville established
Waterkloof Ridge established

1940

First 50 families moved to Atteridgeville

1943

Public Library moves from Marabastad to
three-roomed house in Atteridgeville

1946

Soup Kitchen established

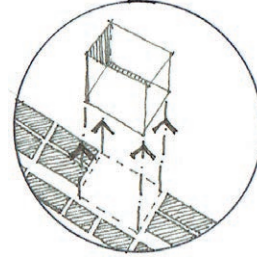
1947

PUTCO boycott 50% fare increase

1948

National Party takes seat in government

POST 1950



1950

Group Areas Act (Act No. 41 of 1950)
Population Registration Act (Act No. 30 of 1950)

1951

14 km bicycle route
Atteridgeville to Pretoria CBD

1953

Separate amenities act
391 ha. extension - Saulsville established

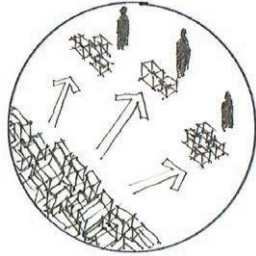
1956

338 NE51/6 three-roomed houses were for sale

1958

Lady Selbourne declared as a White area
Railway line begins to serve Atteridgeville
(previously economically unsuitable)

PRE 1994



1960

Laudium established (Indian township south of Atteridgeville).

1976

Soweto uprising

1977

Academic boycott of South Africa
Pretoria township school uprising

1979

30 year leasehold becomes 99 year leasehold
(signs of permanence)

1983

Atteridgeville receives municipal status

1986

Ga-Rankuwa established (Tswana homeland)
Civil unrest present until 1988

POST 1994



1994

ANC takes seat in government

1996

Approx. 200 000 residents in Atteridgeville

2008

Xenophobic attacks in South Africa

2011

Population = 169 633
(Atteridgeville + Saulsville)

2016 -

The future of Atteridgeville?

Fig. 06. Events that shaped South African townships from 1852 to 2016.

GARDEN CITY

Wait, but why?

The British Garden City theories developed in Europe had an enormous influence on the city planners of South Africa. These theories were seen as comprehensive redevelopment strategies for neighbourhoods in post-war periods. Suburbs were laid out to create neighbourhood units with supporting civic and green spaces, industry and agriculture. Due to the rising demand for housing, this seemed to be an appropriate model for township development.

Ebenzer Howard (1898) recognised the negativity of overcrowding in cities and developed a scheme to accommodate the working class on a concept that combined town and country. This idealist approach was based on a very rigid plan which allowed for

criticism and easy esconcement. The Garden City movement influenced Patrick Geddes and his planning for Tel Aviv, Israel in the 1920s. Geddes' approach recognised a need to acknowledge the individuality of inhabitants and social life, developing a sensitive approach of intervention known as '**conservative surgery**' (See page 68).

Finally, the Garden City model was first implemented in South Africa in Pinelands, Cape Town in order to combat the Spanish flu epidemic of 1918. This model was repeated due to the rising demand for housing. The problem however, was that the model could be manipulated easily to enforce control over the inhabitants, as was seen in Atteridgeville.

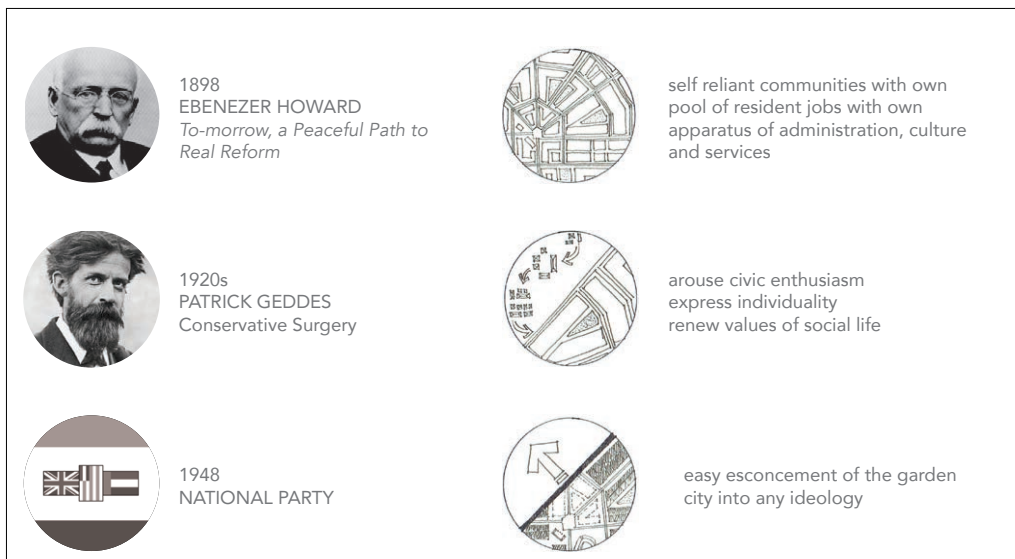


Fig. 07. Summary of town-planning principles.

PLANNING

Zone and remove

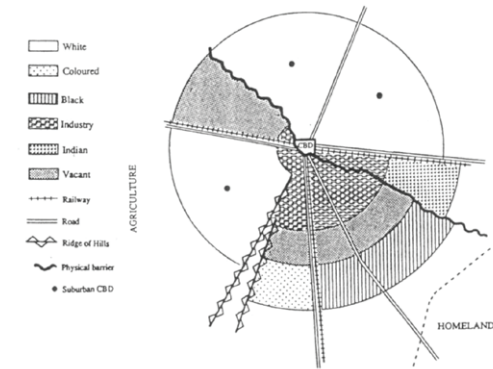


Fig. 08. Crude Urban Zoning, the Apartheid City way (Turok, 1993:4)

In her chapter *The Politics of Spatial Apartheid*, Stals (1998:12-20) describes the planning strategies that governed the development of Atteridgeville. Separated by natural and industrial buffer zones, townships were placed beyond the last White frontier. The Black settlement was to be placed beyond the police canine training facility and ISCOR, which were situated at the western most point of Pretoria.

The figure-ground (left) study indicates the original layout of a neighbourhood along Seeiso street. The development shows the adaptation of the original fabric. In order to accommodate new densities post 1994 the Reconstruction and Development Plan (South Africa 1994) proposed that neighbourhood green spaces were sacrificed to erect new homes. It is also noteworthy that a high density housing model does not exist in Atteridgeville. The placement of houses on plots is uneconomical and can still be seen in new developments in 2016.



Fig. 09. Comparison of Marabastad and Atteridgeville Noli maps.

Compared to Marabastad, Atteridgeville's densities were less than half per house hold. Notice the deterioration of the residential fabric in Marabastad post 1939, as can be seen in Fig. 09.

DIVIDE

A dormitory town

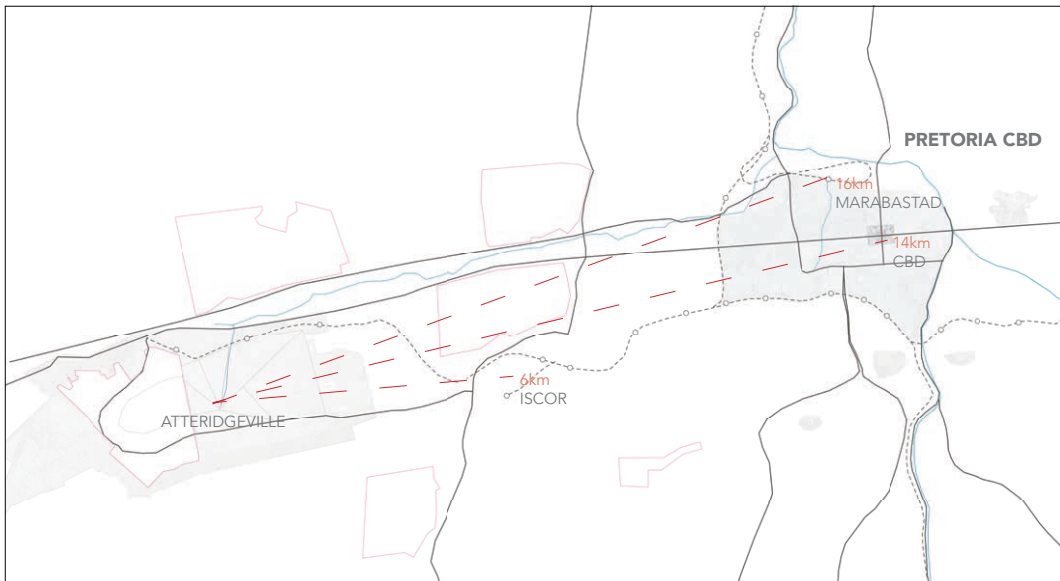


Fig. 10. Location plan indicating traveling distances from Atteridgeville to work and commercial opportunities.

Atteridgeville suffers an unfortunate duality—the identity and qualities of a township and suburb. Despite the holistic approach of the Garden City model, the removal of amenities, recreation and commercial facilities created a purely residential precinct—typical of townships in South Africa. Today, Atteridgeville’s positive growth and structure exacerbate this condition, hence the identification

of Atteridgeville as a suburb. The dependence on the Pretoria’s CBD creates a massive energy efflux aggravating the dormitory nature of this town. The existing urban structure which had made provision for amenities, provides an ideal opportunity to take a Geddes approach of *conservative surgery* to reclaim and revive what has been lost (see page 68).



Fig. 11. What the Garden City model intends vs. the implementation by the apartheid city planning model.

HOUSING

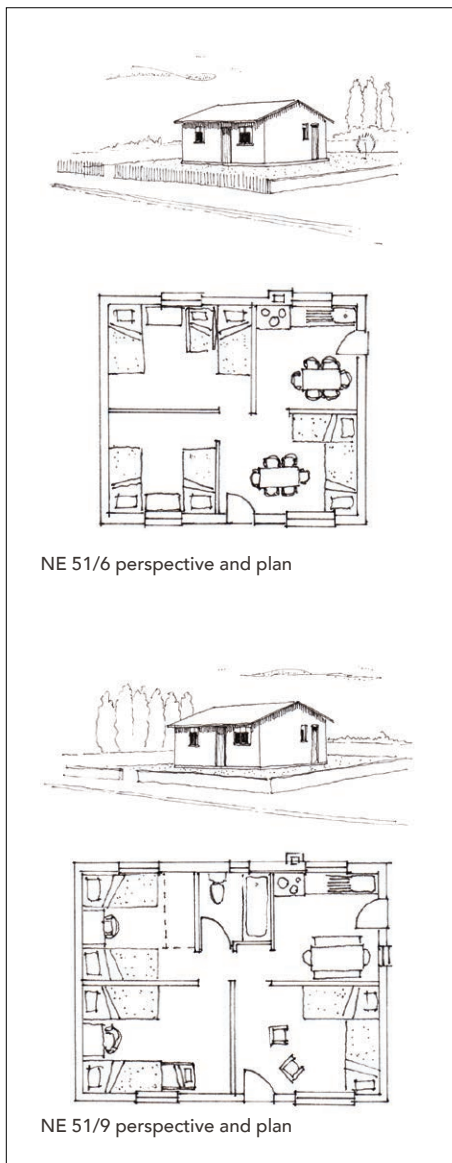
Phases

1939-1952

The National Building Research (NBR) under Paul Connell, was responsible for the provision of housing for the different needs and conditions of the newly urbanised Black population. A total of nine housing typologies were explored in order to support the requirements of the relocated families. These ranged from free standing homes to duets. They were however devoid of interior doors, ceilings and services. Until democracy in 1994, government ownership was retained of all homes in Atteridgeville (Stals 1996.17).

1950-1960

Due to the Great Depression post WWII, funding cutbacks by the PCC forced NBRI to find a sub-economical solution to the housing crisis. The outcome was Douglas Calderwood's NE51/6. The brief called for a cheaper house to construct but a large enough house for the rent to be higher. This house featured extensively in the later developmental phases of Atteridgeville and can still be found today in its original form. These free standing units could sleep eight persons, which corresponded to population density of 7.04 in Atteridgeville in 1949. The NE51/9, became the successor to the NE51/6 and featured an internal water closet and broom cupboard (Stals,1996.18).



For a thorough analysis of the housing typologies and implementation scheme, refer to Stals (1998:51-59).

Figure 09 illustrates this information graphically.

Fig. 12. Comparison of NE51/6 and 51/9

PEOPLE AND PLACE

Surge and loss

Atteridgeville's radial street planning and urban layout are intrinsic to the context. Situated in a valley on the western portions of the Magaliesburg mountain range, the radial layout meanders through the Daspoort and Timeball hilltops creating a series of serene neighbourhoods. The original planning concentrated commercial and administrative cores around traffic circles with high streets connecting these cores diagonally to the edges. From these high streets a series of neighbourhood parks ordered the layout of the surrounding houses and churches. Legibility and hierarchy are achieved with engineering emphasis placed on road networks. High streets measure a width of 25 meters while the neighbourhood streets do not exceed 7 meters (see sectional studies from page 58).

Prior to 1939, non-White South Africans were permitted to own land on freehold locations. After establishing Atteridgeville, the government deemed it illegal for residents to purchase land. Instead, property could be leased for a period of 30 years from the local council. There was an amendment to this law in 1979 which extended the period to 99 years, in Atteridgeville. This immediately gave Atteridgeville a sense of permanence, enticing the younger generations to obtain work in order to preserve their family homes. In 1994, a final amendment was made to permit residents to obtain full-title of their homes. Today, property ownership is seen as an investment in the original Atteridgeville.

Forced removals in surrounding freehold townships and backyard-living quickly increased densities in the model township beyond that which was planned for. Unfortunately, there was no experimentation with medium/high density living units in Atteridgeville, instead, green spaces which were used to anchor neighbourhoods were sacrificed to cater for the desperately needed living units.



Fig. 13. Typical residential block in Atteridgeville.

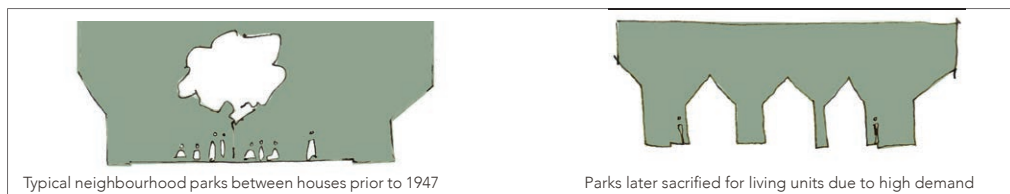


Fig. 14. Typical section through neighbourhood in Atteridgeville pre and post 1947.

GROWTH

Density and phasing

Due to the pre-war establishment of Atteridgeville, provision had not been made for future financial difficulties and the initial scheme was more optimistic than feasible. This chapter offers an overview of the development stages in Atteridgeville from its founding in 1939 to the 1980s, and again in 1998.

406ha was allocated for Atteridgeville and 5800 plots were laid out. This scheme included space for public amenities including schools, churches, recreational amenities and neighbourhood parks. In 1953 this same area underwent a re-layout which provided 6278 plots. The council had foreseen further development of an additional economic housing scheme in the north-western area of the township.

The rectangular residential plots were 12.195 x 24.39m - a total area of 297m². The intention was that owners should build sub-economic houses themselves which were to be similar to the ones provided by council. If a bigger stand was required, two of these plots could be consolidated. Due to financial problems, this scheme was only realised in 1952. The National Building Research Institution (NBRI) had only started official research regarding the planning of black townships after 1947. Standards and formulas for 'white' town-planning had been adapted for Atteridgeville. Every 2.4ha was allocated for 1000 inhabitants which included the allocation of public recreational facilities and parks (Stals 1998:50).

1532 houses had been constructed by 1950. This had happened in two phases: between 1940 and 1943, 980 houses had been built and between 1945 and 1959, 552 houses had been built (Stals 1998:51) (refer to page 28 for phasing diagram).



Fig. 15. Historical aerial photographs of Atteridgeville (1954).

GROWTH

Density and phasing

Between 1940 and 1942, the first three primary schools were constructed. After the second phase of houses, two more schools were constructed, including a high school. In 1946 a soup kitchen had been established providing pre-school and school children a midday meal (Stals 1998:58). Trading facilities had only been erected by 1955 due to the Council's limited financial resources. Permission was thus granted to convert 12 houses for commercial purposes in 1943, and by 1945, 15 had been approved. The polyclinic was completed in 1951, followed by the post office. Recreational facilities were also provided such as the sports stadium and four parks, two of which provided recreational facilities for young children (Stals 1998:58-69).

In 1953, another 391ha to the west of Atteridgeville, known as Saulsville. This scheme was approved in 1959 and would include hostel dwellings for single men. By 1960 the Atteridgeville/ Saulsville area housed 8,156 families and 6,400 single men - a total population of 45 196 inhabitants in 7553 dwellings (Coertze 1969:49).

In 1954, 372 plots were allocated for self-built houses, but by 1956 only 34 houses had been built. Council then decided to construct 338 NE51/6 three-roomed houses and make them available for rent (Stals 1998:58-69).

1952 South African Industrial Research Annual Congress, Calderwood's address stated that Atteridgeville would be the site of the NBRI experimental prototype housing project. By 1962 there were a total of 9,830 housing units (Stals 1998:58-69).

Between 1968 and 1978 housing provision had been frozen, and Soshanguve (Sotho-Shangaan-Nguni-Venda) was the focus of township development. However, hostels were provided in Atteridgeville during that time. Since 1969, only 1,154 new houses were built, with the majority after the 1980s (Stals 1998:58-69).

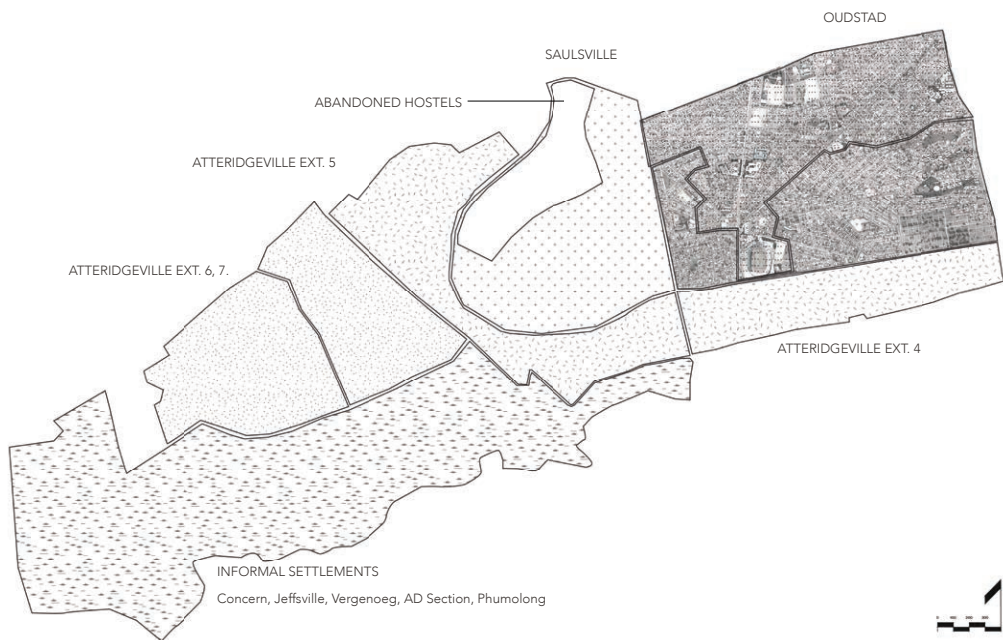


Fig. 16. Phasing developments of Atteridgeville.

ATTERIDGEVILLE TODAY



Fig. 17. Aerial photograph of Atteridgeville 2016



FIGURE-GROUND STUDY

Circumstance

The images below represent figure-ground studies of four settlements in the Tshwane region. This analysis demonstrates the development patterns based on the flexibility of the urban fabric.



Fig. 18. Muckleneuk - Block study 2016



Fig. 19. Atteridgeville - Block study 2016

Muckleneuk:

The difference of density of wealthier suburbs surrounding the Pretoria city bowl is immediately evident. In addition to the larger homes (compare to Mamelodi lot size) the amount of available green public space per residence is incomparable to any township development. Green spaces and public buildings that offer residents a break from the day-to-day are more abundant in these suburbs.

Atteridgeville:

Permanent additions/extensions to dwellings is commonplace in Atteridgeville. Backyard-living is prevalent as some households lease these units to earn an income. Multiple double-storey residences are found. Corner homes were initially laid out to accommodate a small retail or home run business—these homes are usually larger and can be seen in their figure ground study. In this example, the neighbourhood park was lost due to the necessity for building more homes, however, other public spaces can be located around Atteridgeville.

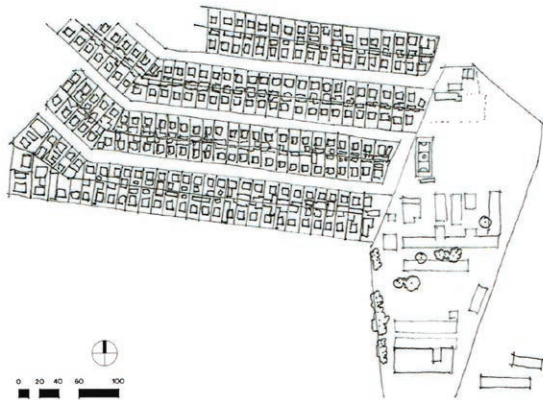


Fig. 20. Mamelodi - Block study 2016

Mamelodi:

The figure-ground study reveals a high concentration of backyard units. The economic distribution of the RDP houses has resulted in 'matchbox houses' centred on small lots. This provides little opportunity for expansion or growth of family, preventing any sense of permanence, as units do not support family life. Corner homes do not show opportunity for commerce as seen in Atteridgeville's planning. With exception of the school grounds, there are no public spaces.



Fig. 21. Jeffsville - Block study 2016

Jeffsville:

The informal settlement of Jeffsville is located within the boundaries of Atteridgeville. Road networks are primarily single-lane dirt roads, limiting major vehicular access, however street lights are provided. Units are typically single rooms constructed from salvaged material, furnished with the bare essentials. This gives an indication of the transient nature of informal settlements, impacting security issues. There is no legibility or hierarchy in the built fabric, as any open land is occupied by living units. The units shown above share a boundary with the Saulsville Cemetery, completely disconnecting it from the south. With the exception of the cemetery, there is no public space.

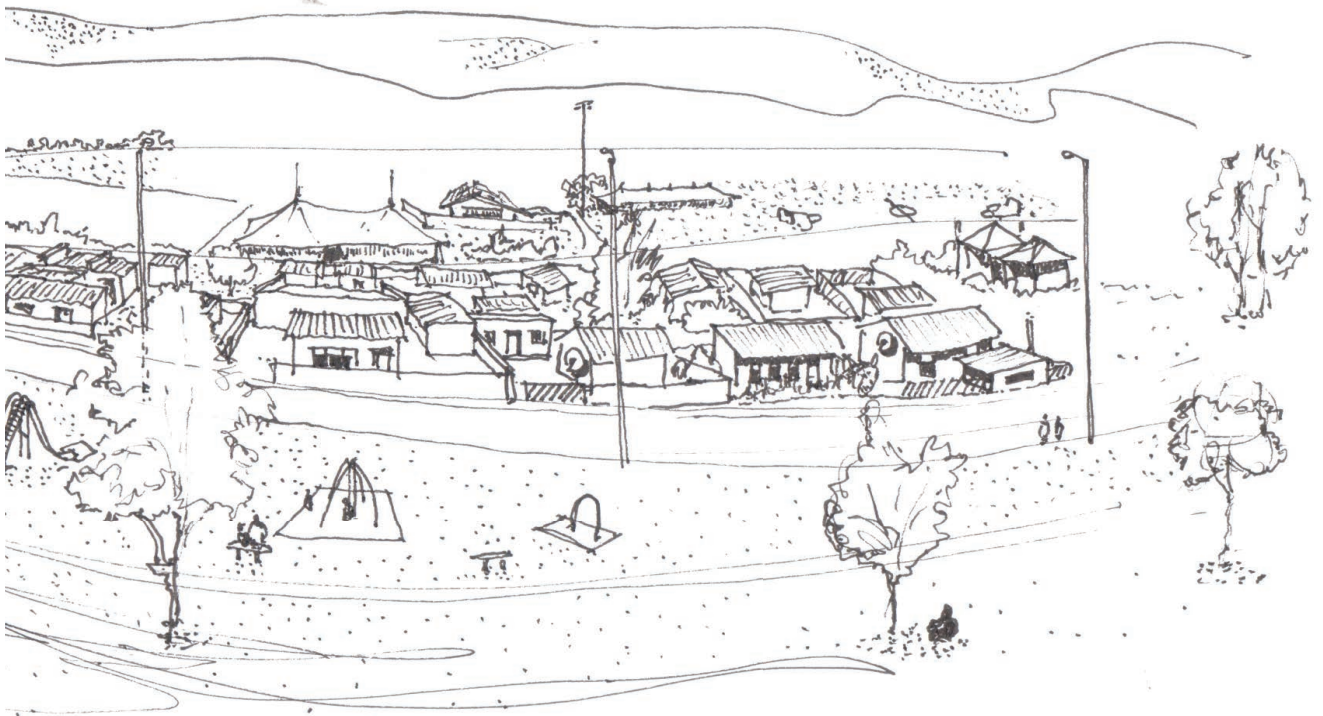
SUMMARY

Important aspects identified from historical study



Fig. 22. Looking over Atteridgeville.

1. model township
2. little civil unrest
3. strong collective identity
4. dormitory town | apartheid intervention
5. retains clear identity



- | 6. no ethnic segregation
- | 7. no military conflict
- | 8. topography - genius loci
- | 9. amenities + public space provided

OULDSTAD

In-between spaces detached from a collective vision

LEGEND

- 1 Saulsville Hostels
- 2 Saulsville Cemetery
- 3 Atteridgeville Cemetery
- 4 Maunde Street Gateway
- 5 SS Mendi Memorial
- 6 Atlyn Mall
- 7 Tshwane South College
- 8 Empty Plot (Khoza st)
- 9 Moroe St Park
- 10 WF Nkomo - Green Strip
- 11 Mbolekwa Sports Complex
- 12 Municipal Offices
- 13 Service Delivery Dept.
- 14 Taxi Rank
- 15 Atlyn Mall
- 16 Engen Service Centre
- 17 Ramohoebo Square
- 18 Empty Plot (Matshiga st)
- 19 Swimming Pool
- 20 Empty Plot (Maunde st)
- 21 Reservoirs
- A School Grounds
- B Natural Buffer
- C Dolomitic Land



Fig. 23. A new collective vision. Sites which form part of the vision developed for Atteridgeville. Proposals are described in depth v in Volume I (Nel & Sadiq 2016).



2. CIVIC SURVEY

Quantitative analysis

*The spatial manifestation that
structures daily life*

This chapter provides a quantitative study and mapping exercise. This is in recognition of Geddes' *Civic Survey* methodology, which is based on the premise of “diagnosis before treatment”. The survey covers aspects of geology, geography, climate, economy and social amenities of the region as a means of understanding the “place as it stands, seeking out how it has grown to be what it is, and recognising alike its advantages, its difficulties and its defects” (Geddes 1947:24).

The study focuses on Atteridgeville Proper, or Oudstad, the original phase of development (see aerial photograph on previous page).

Fig. 24. Atteridgeville photomontage (opposite page).

TRANSPORT

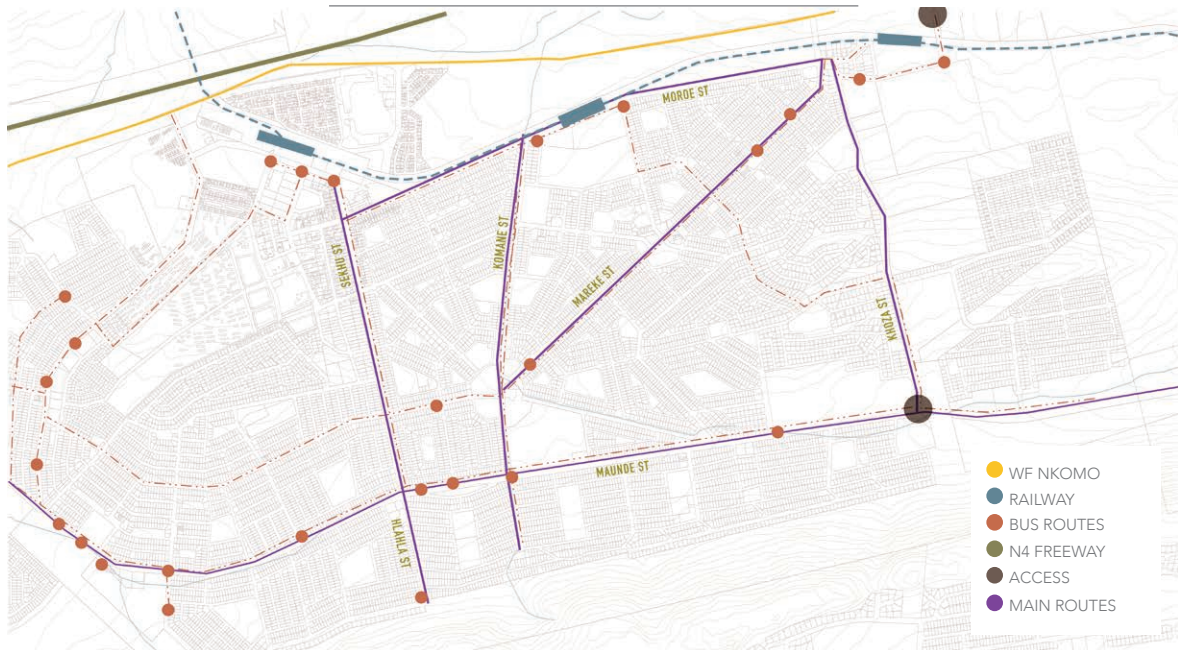


Fig. 25. Road and rail analysis indicating public transport facilities.

Atteridgeville is connected to Pretoria to the east by road on WF Nkomo and the N4 freeway, and Maunde street which joins the R55 and the Mabopane-Centurion Development corridor (MCDC). By rail there are the Saulsville, Atteridgeville and Kalafong stations on the northern edge of

Atteridgeville. The main routes indicated are characterised by 25m wide roads lined with trees. The existing bus stops and routes ensure that without having access to a personal vehicle the residents of Atteridgeville are mobile.

AMBULATION

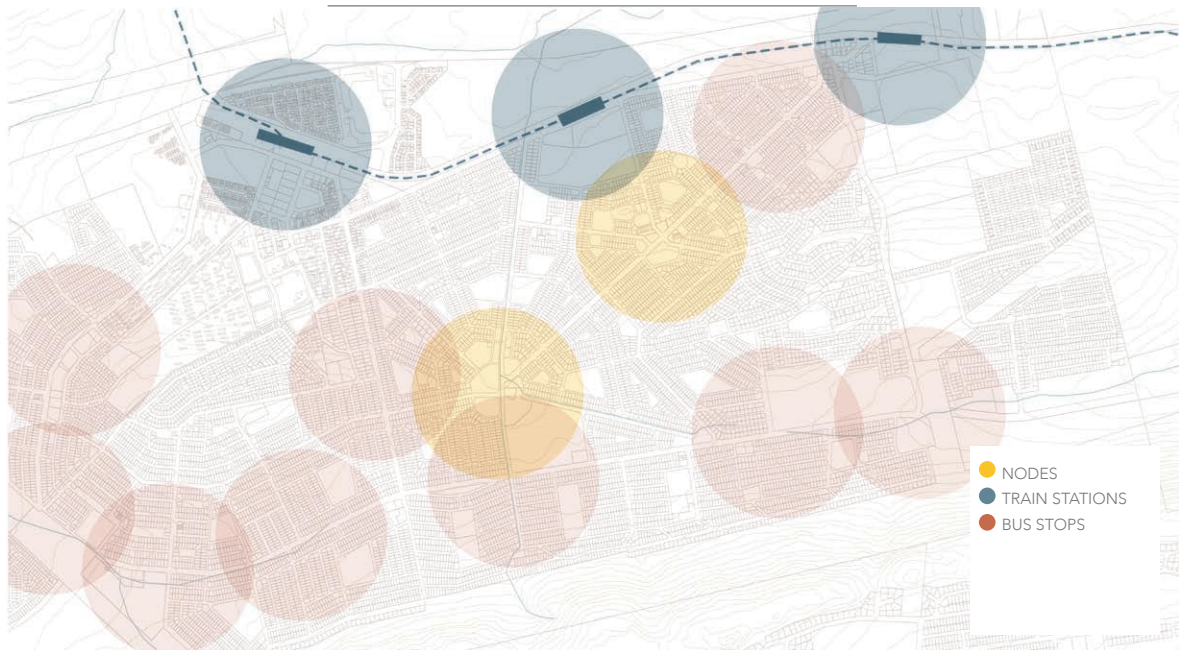


Fig. 26. Ambulation, nodes and public transport analysis. Circles indicate five minute walking radius.

The radial plan of Atteridgeville, with the hierarchy of roads, allows for a clear understanding of the urban structure. It also provides an ideal framework for public transport systems. The diagram above compliments the transport routes. As can be seen, the five minute walking radii around

each bus stop allows for the majority of residents to walk no more than five minutes to reach a bus stop or train-station. Currently, the public transport routes are sufficient, but there is an opportunity to integrate them further as part of an urban green-space system.

EDUCATION

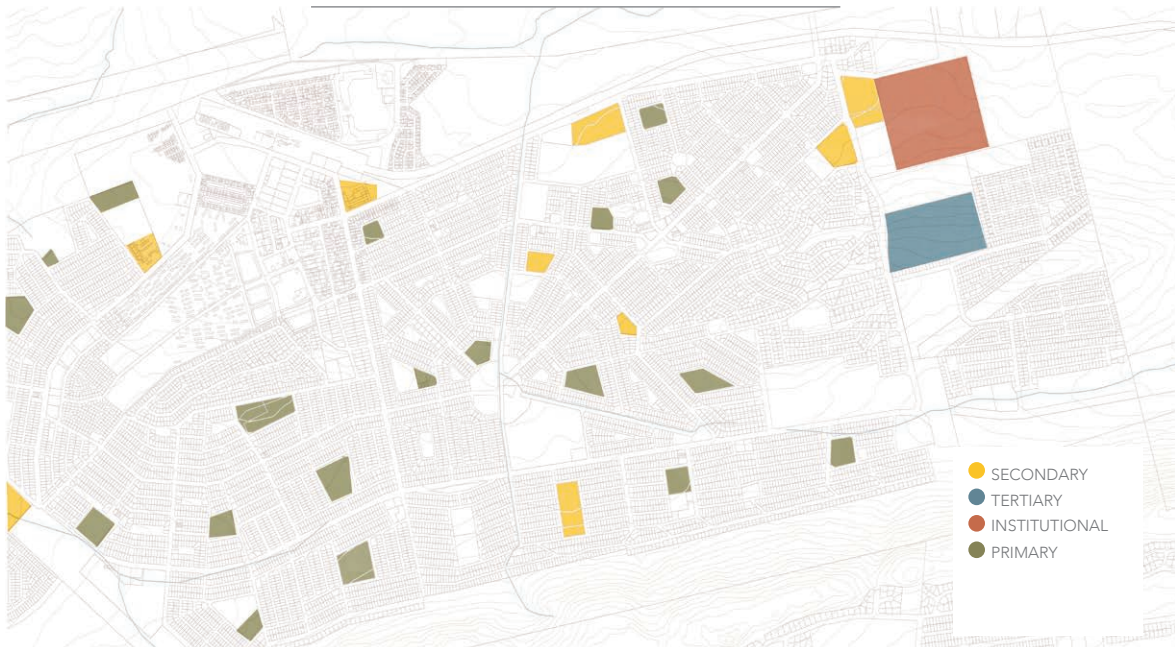


Fig. 27. Map indicating primary, secondary and tertiary education facilities.

A number of government educational facilities are adequately distributed in Atteridgeville proper. These range from primary to tertiary. Training and technical colleges can also be found on the south along Maunde street. These include a Special Education Training Centre and the Association for people with disabilities. Along Khoza street, Kalafong Teaching Hospital provides practical posting to medical students and collaborates with the University of Pretoria's Faculty of Health Science. A total of ten primary

schools and seven secondary schools serve the immediate neighbourhoods and provide children with exposure to sport and permaculture as a part of extramural education.

A number of specialised educational facilities can be found in Atteridgeville proper. Zodwa Special School for Mentally Handicapped and Holy Trinity Primary School provide an alternative to the National Curriculum, furthermore there are a number of adult education facilities.

MUNICIPAL

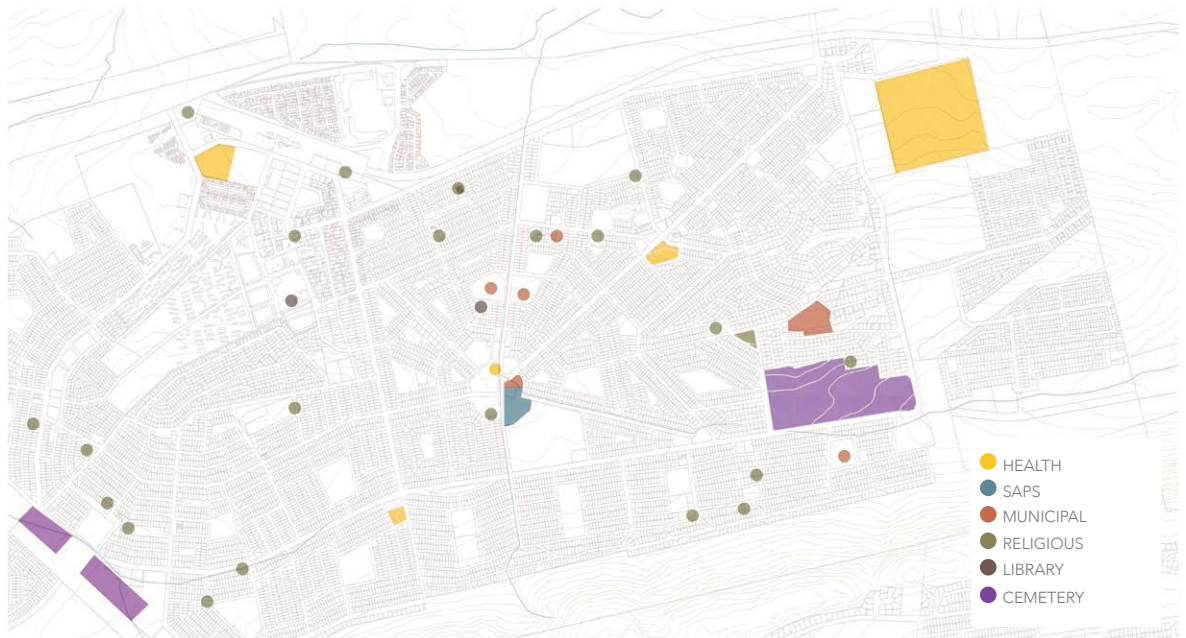


Fig. 28. Municipal mapping.

As previously discussed, Atteridgeville's initial planning made provision for public services and amenities but due to financial implications after WWII the development was frozen.

Currently there are two hospitals, namely Kalafong Academic Hospital and Tshepong TB hospital, three permanent clinics and two temporary clinics in the informal settlements. There are 54 operational churches, which is not sufficient for the needs of residents. Many gatherings are held in alternative facilities, including homes. There are only three community halls and they are over-utilised and require upgrading. There

is only one library in Saulsville. Both are small and require upgrading. The schools are in need of library services.

The main node hosts the police station and a Magistrates' Court which leads to the Municipal Administrative Offices and Engineering Services along Komane street. There is however, no fire station. There are two cemeteries, the first established in 1939 (south-east), and the second in Saulsville. The cemeteries are too small, and lack maintenance and parking.

RECREATION



Fig. 29. Recreation facilities.

Few green spaces, such as parks, remain, and those that do are generally undeveloped or neglected. Moroe street park to the north is fenced off and lacks integration with the larger urban environment. A few smaller parks have been developed with playing equipment for children. Previously, the small parks served each neighbourhood as playgrounds that the houses opened up onto.

Due to the neglect of these open spaces some dumping does occur. Municipal facilities include the Lucas Moripe stadium used for professional sports training (including the Mamelodi Sundowns), and a variety of school athletics events, and Atteridgeville swimming pool adjacent to the stadium. Mbolekwa sport complex to the north makes provision for soccer, soft-ball, tennis, basketball, netball, etc. The Saulsville Arena hosts the majority of large scale

events, for instance the annual awards ceremony for teachers from the community. In the case of Saulsville Arena, weatherproofing, acoustic consideration and static scale limit the types of activities that such buildings promise. Ga Mothakga Resort lies to the north and includes large public pools and slides for children. Finally, Atlyn Mall on Khoza street provides the majority of commercial trade, east of Atteridgeville.

The open green-spaces have unfortunately deteriorated due to neglect but provide ample opportunity to form part of a larger defined network. Secondly, sport and recreation facilities are ample, but there is also a lack of integration with everyday living and should become part of a network of 'urban greenspaces' (Dee 2001:12).

HISTORICAL+CULTURAL INTEREST

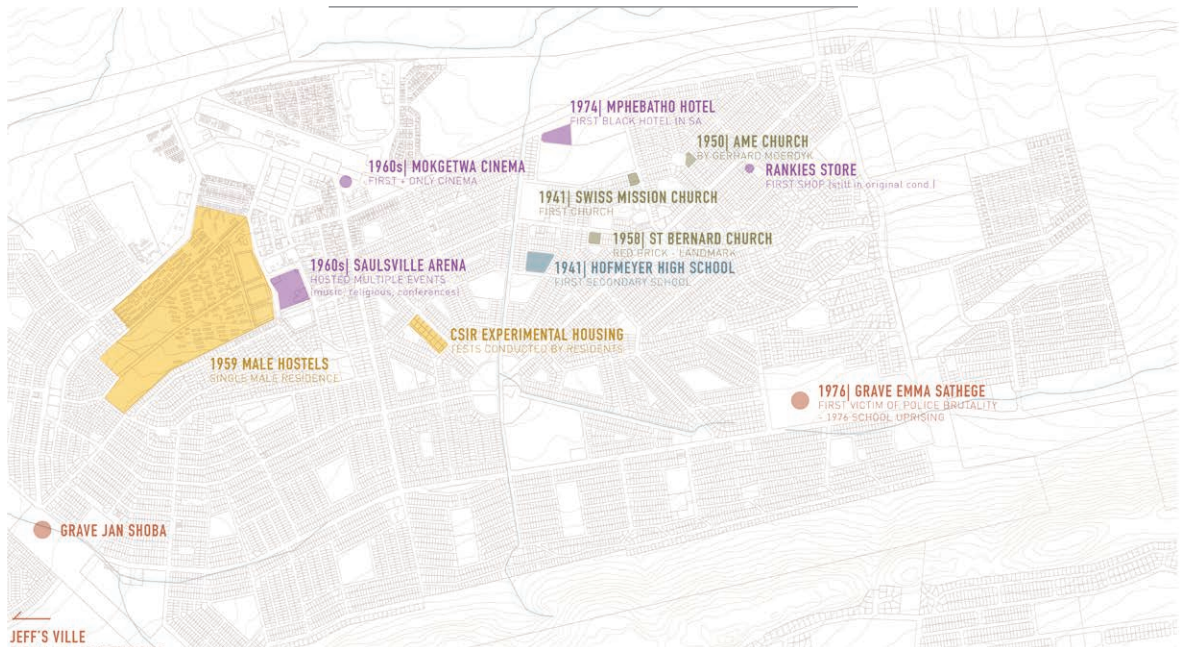


Fig. 30. Cultural and historical points of interest.

Atteridgeville hosts a diverse set of tales, and many influential and successful figures. The intention of this map is to highlight some significant aspects of Atteridgeville's heritage in order to recognise its contribution to The Struggle for democracy.

Atteridgeville has recently celebrated its 75th anniversary. In his book *Pheli - The Narrative History*, Magashe Titus Mafolo (2015) Mafolo introduces the history of the township and the conditions that sculpted the figures he mentions.

He continues to highlight the significance of the schools, theatre and run-down library which migrated from Marabastad into a three-bedroom unit in 1948. He also mentions the churches' involvement with music, supporting the youths' interest in participating in the spectacle as the

church bands marched down the high streets.

When democracy was ushered in, there was hope for the South African township, however after reading *Pheli - The Narrative History*, it becomes clear that the conditions of townships have not improved in over two decades. Civic spaces do not exist in the make-up of the urban fabric, provision for mixed zoning has not been implemented, commercial activity is scarce and the citizen is still expected to work elsewhere if they wish to remain in urban locales.

This unsustainable model is questioned and a proposal will be considered accordingly.

URBAN GREEN SPACE

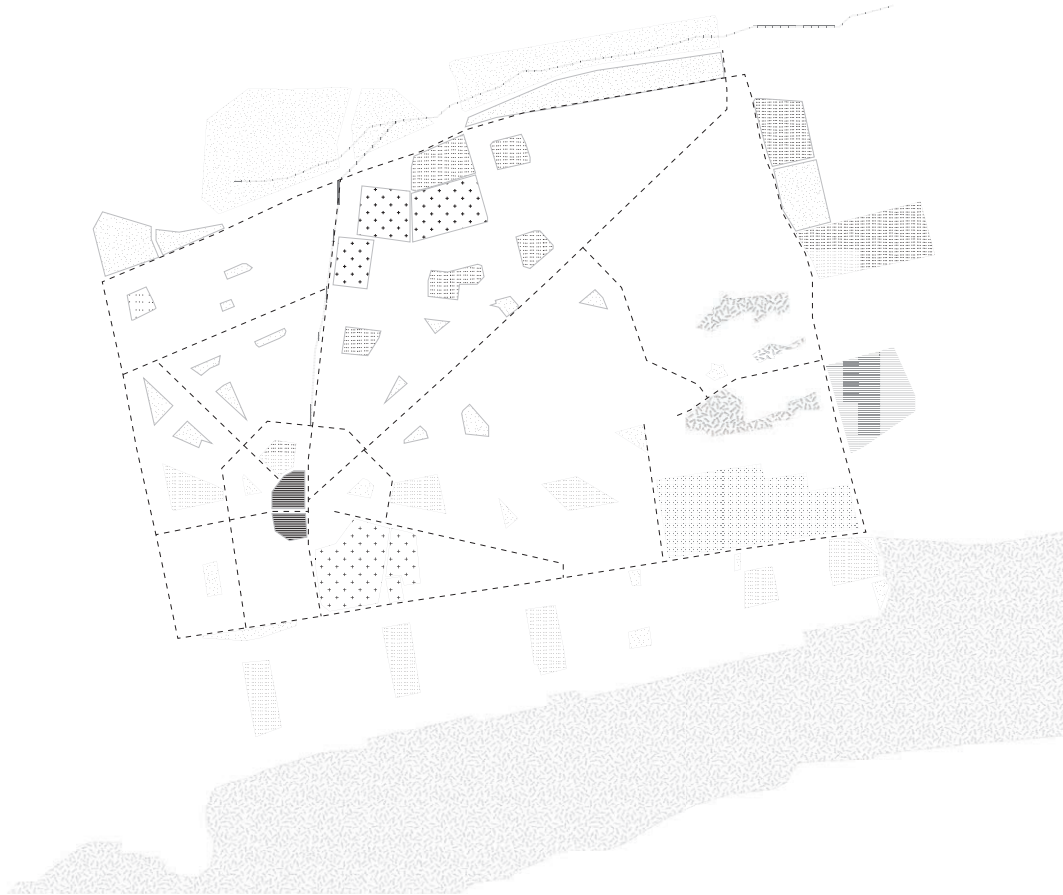


Fig. 31. Urban greenspaces of Atteridgeville.

At an urban level, the interest lies within *urban greenspace*:
...outdoor spaces that offer recreational, social,
cultural and environmental benefits to city dwellers
(Dee 2001:12).

These spaces are regularly neglected in large redevelopment schemes despite their critical importance for the well-being of inhabitants. The figure ground study in chapter 1 shows how successful these spaces are when supported by residential activity.

The open green-spaces have unfortunately deteriorated due to neglect but provide ample opportunity to form part of a larger connected network of neighbourhood parks. Also, sport and recreation facilities are well utilised, which can help support the system of *urban greenspaces*. Unlike Mamelodi, Atteridgeville has an existing series of neighbourhood parks that can bring back the urban greenspaces as described by Dee (2001:12).

CONCLUSION

The quantitative reveals the richness of the available assets in Atteridgeville. This chapter is used as a resource to develop an the urban vision. In summary, the analysis has lead the authors to conclude that the richness and diversity of Atteridgeville can be attributed to the harmony of the garden city layout and the serene topography in which it is situated, creating a tight-knit community and a creatively adapted urban fabric to meet the needs of the residents.

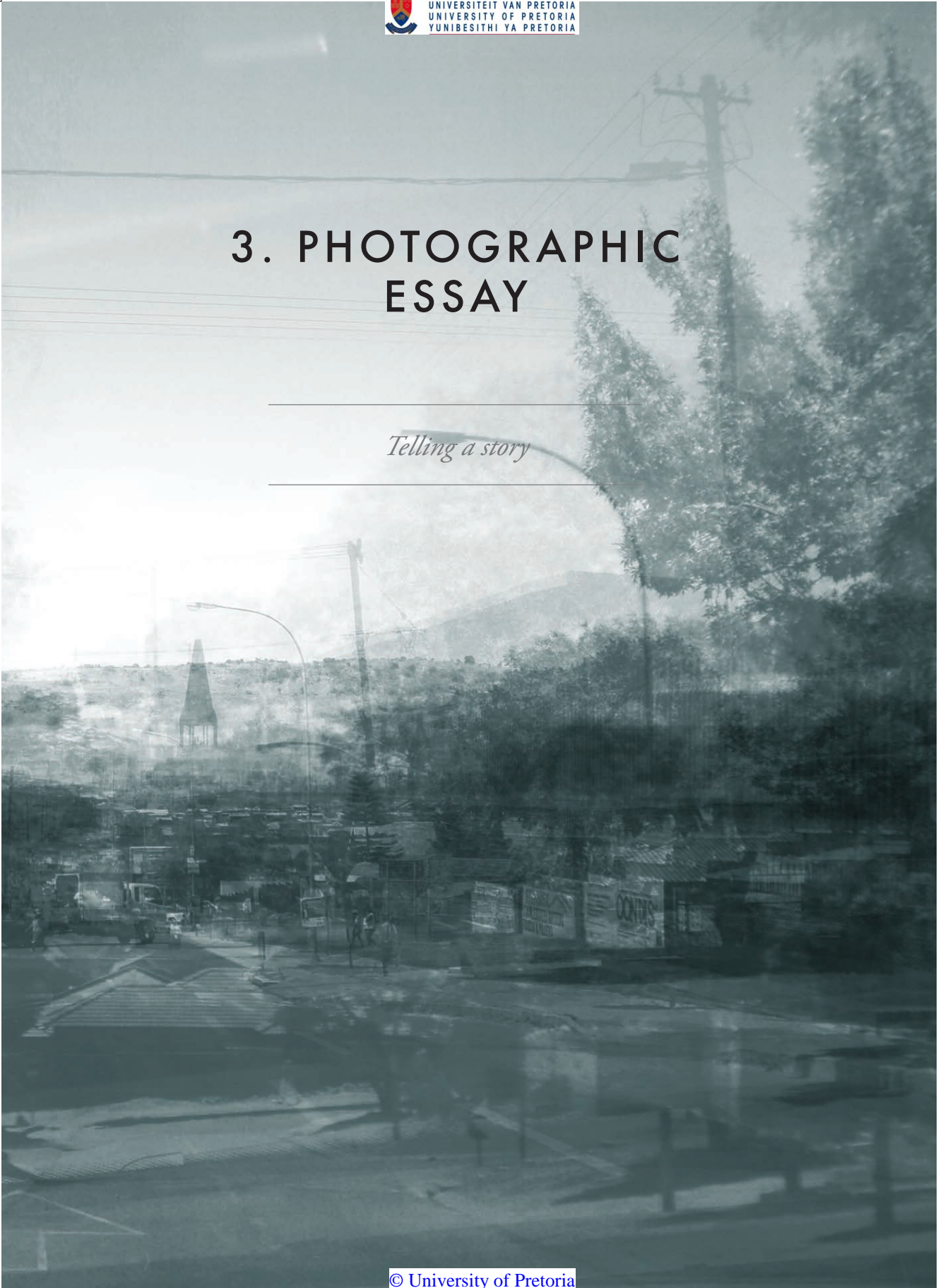
The infrastructure planning and engineering principles upon which the garden city layout was implemented has set Atteridgeville ahead of other townships, making it the most accessible and connected location to orbit Pretoria.

In 2015 Mafolo's book served as a commemoration of the adversity of the township, marking the 75 year anniversary since the establishment of Atteridgeville. However, there are countless opportunities to make Atteridgeville overcome remnants of the legacy of apartheid in the urban fabric. Issues of dependency, separation, diversity of land-use and lack of collective destination should be addressed. Today, the authors question the trajectory of townships suffering from the legacy of apartheid such as Atteridgeville in a democratic South Africa.



3. PHOTOGRAPHIC ESSAY

Telling a story



A photographic essay is a collection of images ordered in such a way that a story is told, a series of events is illustrated or emotions and concepts are conveyed. The same techniques used in conventional writing is used, but translated into visual images.

This photographic essay is a series of photographs taken in Atteridgeville during transect walks conducted by the authors. This serves as a means to invite the reader into Atteridgeville and understand the context as thoroughly as possible. The images are ordered such that the reader may take a similar journey through Atteridgeville as the authors, in order to better understand the qualitative analysis to follow.

This provides a photographic archive of the state of Atteridgeville over the course of 2016.

Fig. 32. Atteridgeville photomontage (opposite page).

03 | PHOTOGRAPHIC ESSAY



Fig. 33. Streets of Atteridgeville 01.

03 | PHOTOGRAPHIC ESSAY

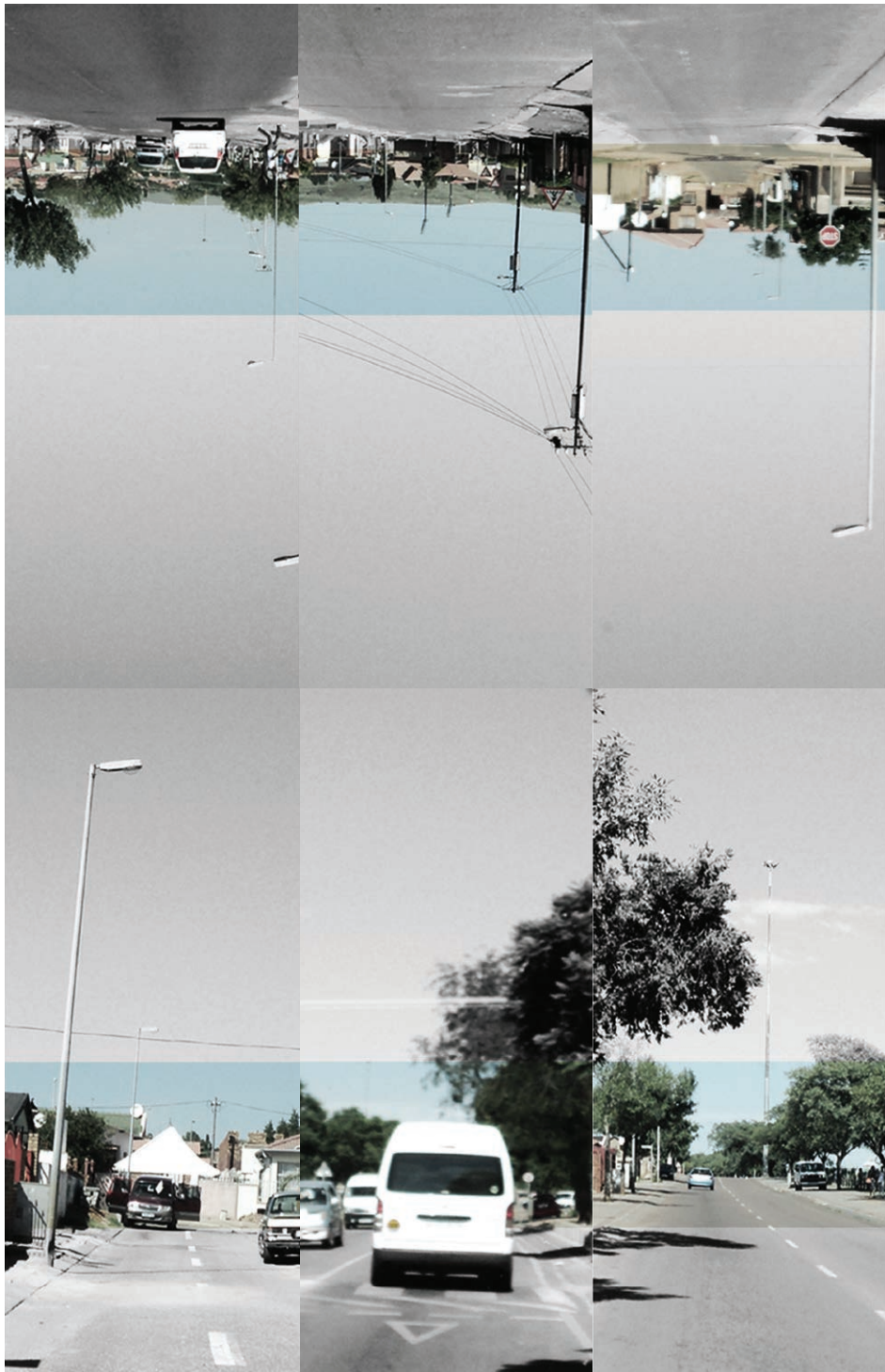


Fig. 34. Streets of Atteridgeville 02.



Fig. 35. Looking south-east towards Atteridgeville from Leratong Hospice (Atteridgeville West).



03 | PHOTOGRAPHIC ESSAY



Fig. 36. East view from Lucas Moripe Stadium.



Fig. 37. South-east view from Lucas Moripe Stadium



Fig. 38. Atteridgeville public swimming pool, with Lucas Moripe Stadium in background.



Fig. 39. Atteridgeville public swimming pool.

03 | PHOTOGRAPHIC ESSAY



Fig. 42. Looking south down Hlahla street.



Fig. 40. Icecream vendor riding now Mareka street.



Fig. 41. View down Ramushu street.

03 | PHOTOGRAPHIC ESSAY



Fig. 44. Southern view towards mosque from Ramohoebo Square.



Fig. 45. Mareka and Masibi street intersection.



Fig. 43. Atteridgeville Clinic on Mareka street.

03 | PHOTOGRAPHIC ESSAY



Fig. 46. Southern view of Atteridgeville Clinic on Ramohoebo



Fig. 47. Looking east over Ramohoebo Square.



Fig. 48. View of the burnt remains of Sekgamorogo Shopping



Fig. 49. View towards Atteridgeville Post Office from Ramohoebo Square.

03 | PHOTOGRAPHIC ESSAY



Fig. 50. Recycling next to Atteridgeville Clinic.



Fig. 51. Church and drycleaners on Seeiso street.



Fig. 52. Sekgamorogo Shopping Centre.



Fig. 53. View towards CBD down Mabothe street.

03 | PHOTOGRAPHIC ESSAY



Fig. 56. Looking east Tladi street.



Fig. 55. View towards CBD down Mabothe street.



Fig. 54. Segoapa street.

03 | PHOTOGRAPHIC ESSAY



Fig. 57. Atteridgeville Cemetery on Shilote street.



Fig. 58. Atteridgeville Cemetery looking east.

03 | PHOTOGRAPHIC ESSAY



Fig. 60. House on Thindisa street.



Fig. 59. West on Mankopane street.

03 | PHOTOGRAPHIC ESSAY



Fig. 61. North-west on Seabi street.



Fig. 63. West on Thindisa street.



Fig. 62. Looking east at Holy Trinity High School.

03 | PHOTOGRAPHIC ESSAY



Fig. 65. Classrooms of Holy Trinity High School on Khoza



Fig. 64. Looking north-east at Holy Trinity High School on Khoza street.

03 | PHOTOGRAPHIC ESSAY



Fig. 66. Laudium reservoir from Maunde street.



Fig. 67. Atteridgeville Reservoirs - west towards stadium.



Fig. 68. Atteridgeville Reservoirs - south-east.

03 | PHOTOGRAPHIC ESSAY

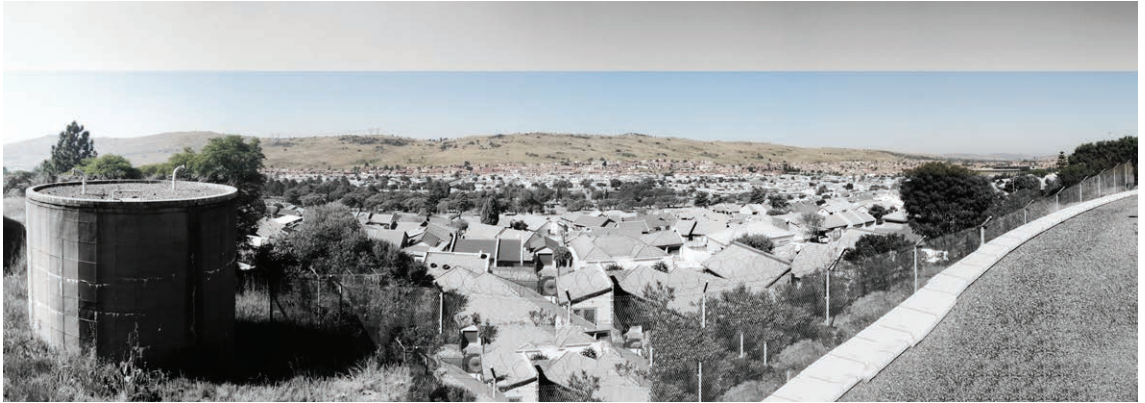


Fig. 69. Atteridgeville Reservoirs - south.



Fig. 70. Atteridgeville Reservoirs - north.



Fig. 71. Atteridgeville Reservoir - north.



Fig. 72. Atteridgeville Reservoir - east.



4. CHARACTER

Qualitative analysis

Following on the photographic study, the qualitative analysis delves deeper into the qualities that make up the character of Atteridgeville. The analysis begins with a reflection on the character of space and the predominant user of the public sphere.

The qualitative analysis develops into a study of the layers that constitute the street, highlighting the identified thresholds and their connection to the street. In an attempt to reveal the success of the semi-public realm, the street analysis studies the Municipal, Public, Trade and Residential typologies found in Atteridgeville proper, or Oudstad.

The study identifies the sidewalk as an anchoring device that the semi-public realm attaches to. The success of the semi-public threshold relies on the ability of the private to connect to this realm.

Fig. 73. Atteridgeville photomontage (opposite page).

CHARACTER

Genius Loci

Landlocked between a series of hilltops and valleys, the suburb of Atteridgeville has a unique sense of place combining a dynamic urban locale with a serene topography. Uniformity of scale, pristine gardens and swept streets exemplify the parallel development of

suburbs located within Pretoria (see below). Pride and ownership resonate in the original neighbourhood streets, offering a glimpse into how Atteridgeville is pioneering the unprecedented territory of a born-free South Africa.



Fig. 74. View towards CBD down Mabothe street.



Fig. 75. Section of Maunde street.

ISSUES

Access and choice

The analysis revealed that Atteridgeville suffers many symptoms of township conditions. For example, the public and private interventions are often grand schemes that neglect the needs of the inhabitants and signify a false sense of development. Secondly, the relationship between public space and the

public has been severed due to the implementation of new boundaries and barriers; or the design of the structure itself is 'selfish' and is not integrated with the larger urban fabric. These are all essentially issues regarding access and choice of public facilities.

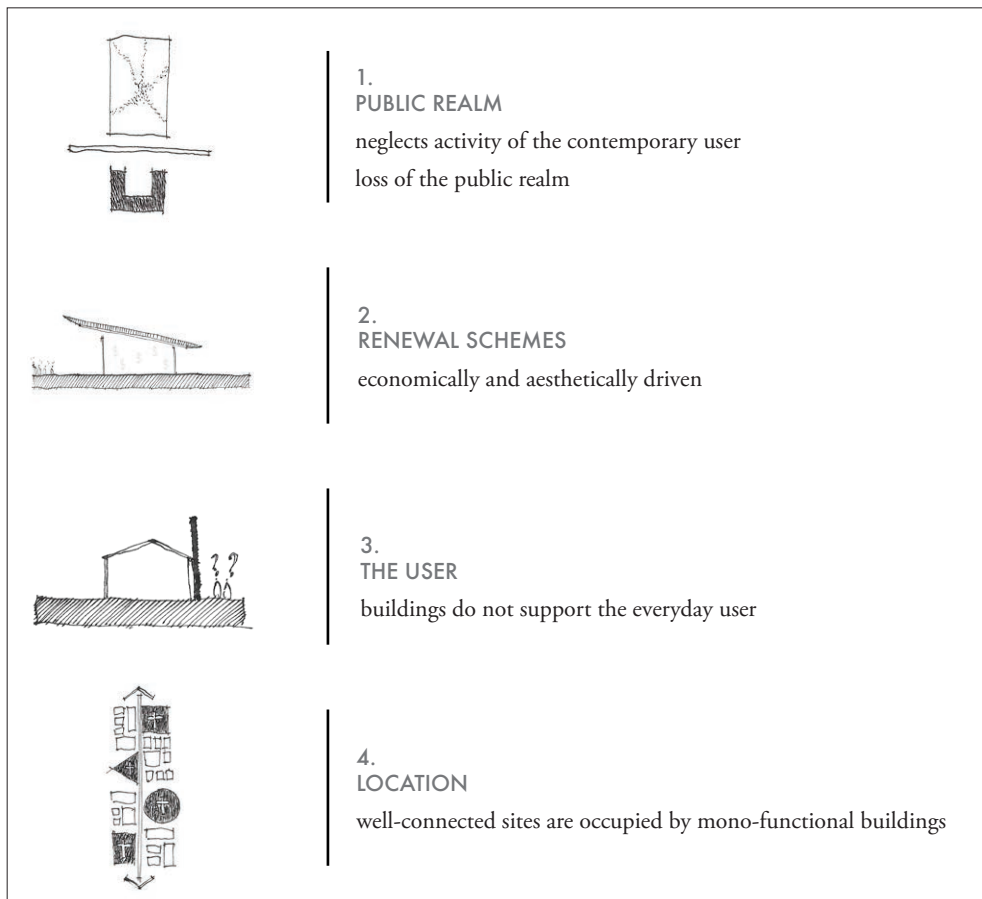


Fig. 76. Diagrams illustrating issues identified with regards to public buildings in Atteridgeville.

THE MAN AND THE STREET

The following study is an investigation of the occupation of space in relation to the street. Various characters were identified in conjunction with how this space is utilised, how barriers influence the condition, and the types of activity or business conducted.

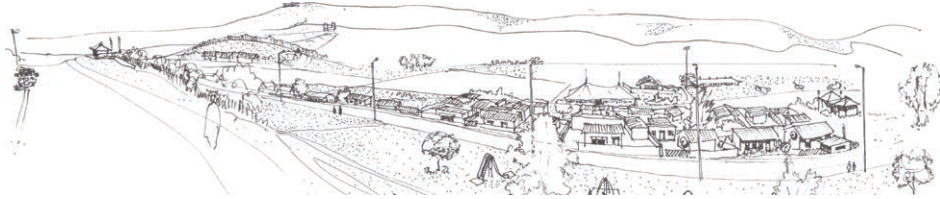


Fig. 77. View of Atteridgeville from Kgere street in (West of Atteridgeville).

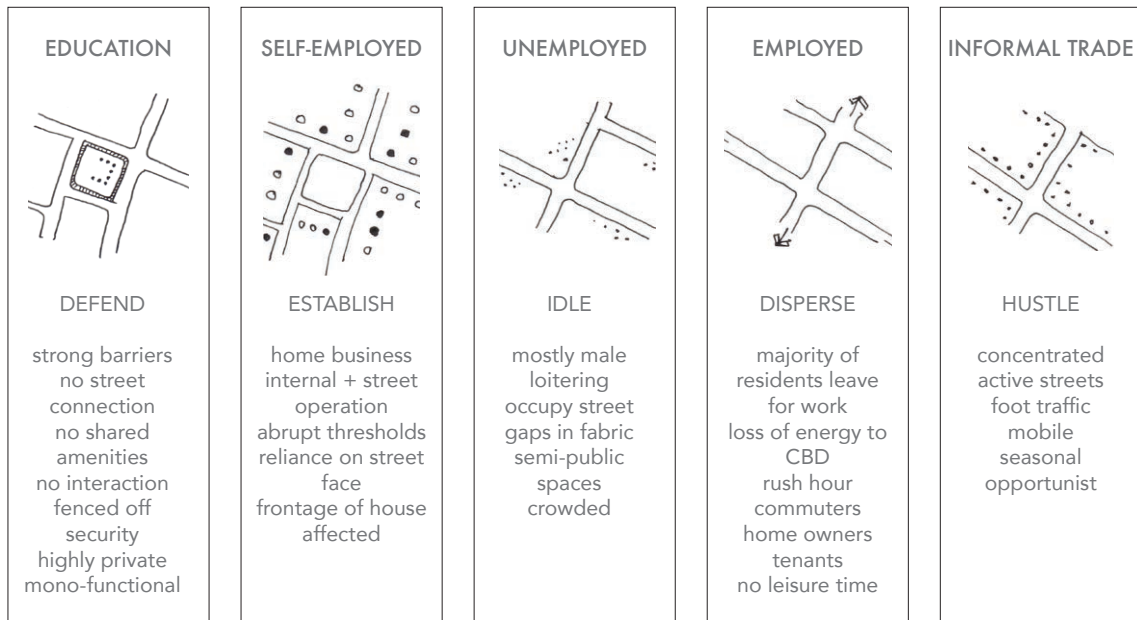







Fig. 78. Diagrams demonstrating the occupation of the streets of Atteridgeville.

LAYERING

The streets

Based on the observations expressed thus far, the authors embarked on a thorough analysis of the relationship between private and public space and boundaries. It was observed that this becomes the *third place* of Atteridgeville, and since the depletion of *urban greenspaces* (Dee 2001:12), an understanding of this dynamic becomes an important informant since the proposed interventions will both be public in nature.

The intention is to document how space is defined and then determine the ramifications of this definition. The following key is utilised in a sectional analysis according to the various typologies found in Atteridgeville:

-  PRIVATE
-  BARRIER
-  PEDESTRIAN
-  SEMI-PUBLIC
-  GREEN

Municipal

PRIVATE BARRIER PEDESTRIAN SEMI-PUBLIC GREEN

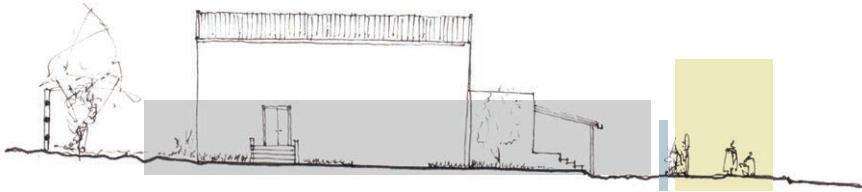


Fig. 74

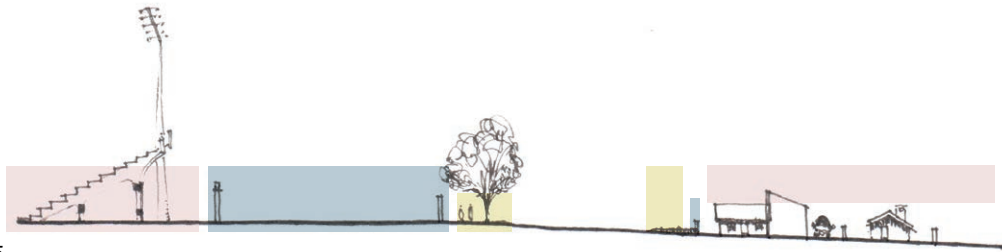


Fig. 75

Fig. 79. Section through church (ex-theatre). The church's entrance is defined by the portico at the street edge, which also brings down the scale. Separated only by a palisade fence, a visual connection to the street is maintained. This building hosted the theatre but has since been converted to a church.

Fig. 80. Section through Lucas Moripe Stadium across Pilane street. The scale of the stadium is not bridged in relation to the residential scale. The high concrete wall prevents a connection to the public realm. There is potential to intervene in the large area between the stadium and Pilane street which could mediate the scale and create a public interface.

Fig. 81. Section through spaza shop and Moroe street park. A connection between the park and the street has been severed since the inclusion of two layers of barriers. The walkway is shaded which offers a pleasant walking route on both sides of the street. The residential side has developed into a semi-public zone due to the commercial activity attached to the street edge of the living unit.

Fig. 82. Section through children's' playground on Morula street. This section demonstrates the value of parks in neighbourhoods. A visual connection allows for passive surveillance, and the lack of barriers allows for an active edge. Ample seating is provided, with the hill and hospice as the backdrop.

Fig. 83. Pocket park on Molope street. This park serves as a communal garden in the neighbourhood. The absence of fences allows for unhindered visits, and the visual connection from street-facing houses allows for passive surveillance.

04 | CHARACTER

Public

PRIVATE BARRIER PEDESTRIAN SEMI-PUBLIC GREEN



Fig. 76



Fig. 77

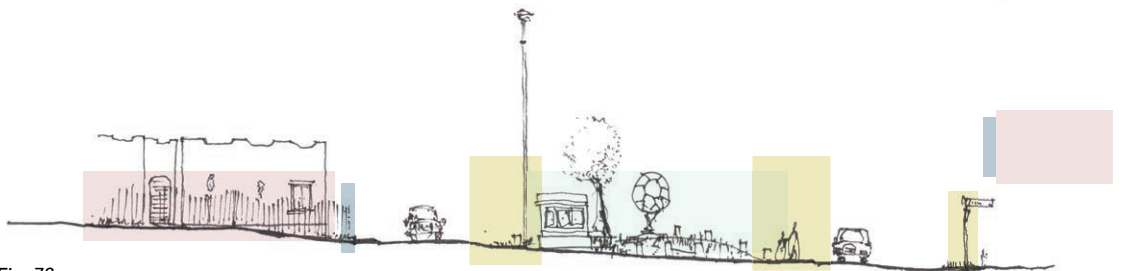


Fig. 78

Trade

PRIVATE BARRIER PEDESTRIAN SEMI-PUBLIC GREEN

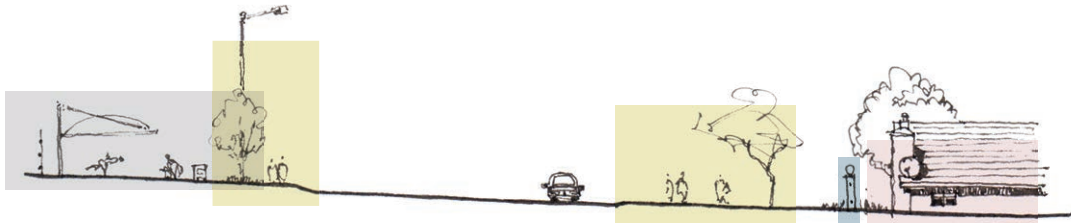


Fig. 84. Carwash on Mareka street. The extremely wide sidewalks on the main roads, such as Mareka street, allow for a variety of activities to take place. Here a car-wash allows for an active interface on the street, while the residential edge is permeable as boundary walls serve as ornament rather than security.



Fig. 85. Hair salon on Mareka street. A street facing shop-front is attached to the house using a shipping container. Similarly to the car-wash, an active street edge is created, which contributes to the success of public infrastructure such as bus stops. The threshold between public and private on the street edge is generally blurred allowing for maximum activity, interface and connection.

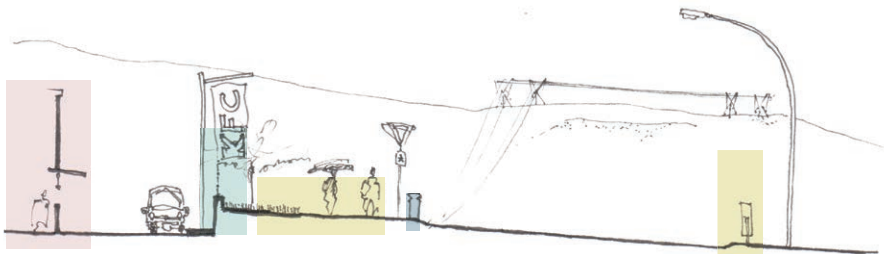


Fig. 86. Section at Atlyn Mall through Khoza street. Atlyn Mall is disconnected from the street due to the hard edge created by the security provision and stepping down of the site. The activity of the mall is confined within its boundaries, giving very little to the public space in Atteridgeville.

Residential

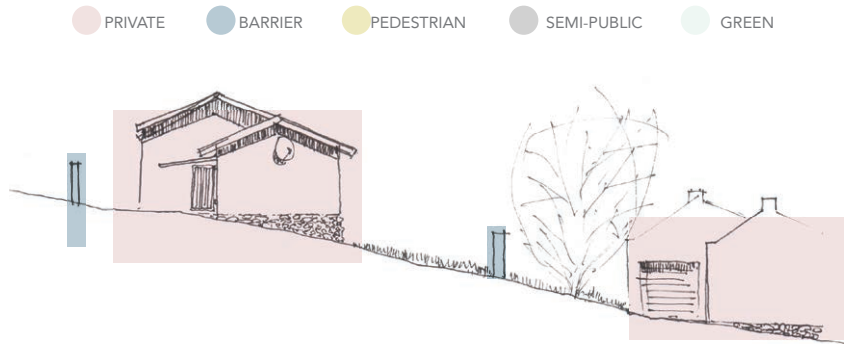


Fig. 87. Typical hillside home. This section illustrate how the NE51/6 houses do not take the 1:8 slope into account. The design of the NE51/6 was not flexible, as topography was not a consideration during implementation.

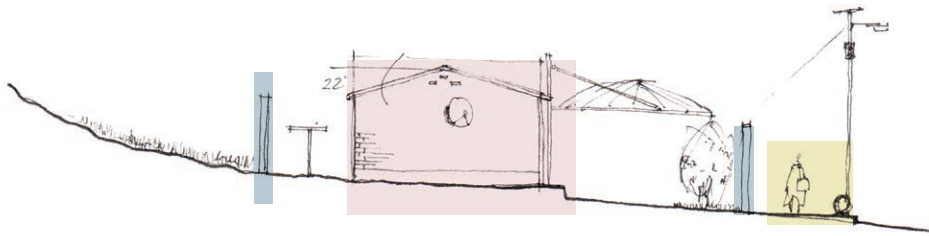


Fig. 88. Hillside home. The front and back conditions of the hillside homes highlight the uneconomical placement of the house in the plot. The house offers very little connection to the street without the residents' additions, and the connection to the hill is minimal.

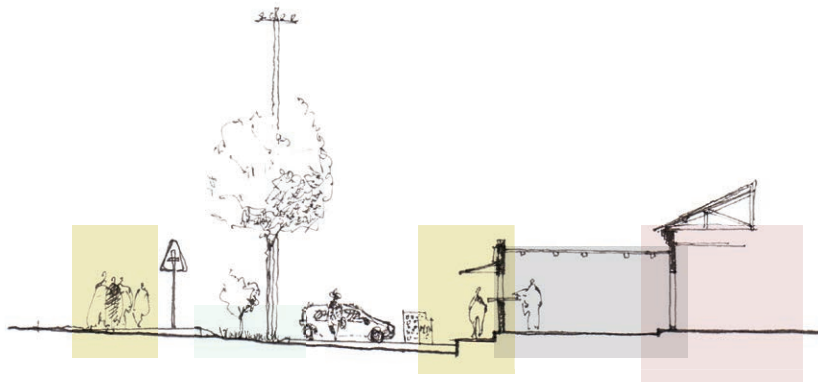


Fig. 89. Home-run business on Mareka street. Businesses often form the threshold between the private living-unit and the street edge. Here, on Mareka street, the large road reserves allow for an ample interface as entrepreneurs take advantage of the high foot-traffic. Parking has unfortunately taken priority, pushing pedestrians directly adjacent to the street.



5. THEORY

Approach

This chapter introduces the urban approach taken by the authors, which informs the direction taken for the development of a vision for Atteridgeville.

First, themes have been identified as a guide to inform the overall urban approach as well as the individual design interventions. This is done to maintain a holistic and succinct scheme but it can also be seen as a summary of the intentions for Atteridgeville.

The theory which follows ranges from Leon Battista Alberti's understanding of a city in the 1400's to Hannah Arendt's views of the active citizen in the 1950s. Also included is Patrick Geddes' approach to intervening known as 'Conservative Surgery' from 1886 and Ray Oldenburg's 'Third Place' concept of 1989. These concepts are discussed to introduce the reader to the theoretical background which informs the vision to follow. They were selected and honed based on the findings uncovered in the preceding chapters. Their relevance to Atteridgeville is explained such that their propositions are contextualised and are made authentic to place, contesting the notion of purely imported models or generic responses, which result in *township architecture*.

Finally, an approach has been developed taking all the preceding discussions into consideration. An attitude towards Atteridgeville has been established and objectives have been put in place which is to be followed by the final vision.

Fig. 90. Atteridgeville photomontage (opposite page).

THEMES

Informing theory, choice and approach

1.
DWELLING
encourage holistic use of space

2.
LONGEVITY
through incremental change

3.
CULTURE | MEMORY
preservation: topography + spatial legacy + spirit

4.
URBAN FABRIC
diversify programme + contain sprawl

5.
CIVIC SPACE
street activity | legibility | amenities | surveillance

6.
APPROPRIATION | INTERPRETATION
rdp house model | public space | apartheid planning

7.
SUPPORT STRUCTURES
agriculture | recycling | industry | craft

8.
IMAGEABILITY
legibility | coherence | radial plan | landmarks

LEON BATTISTA ALBERTI

Civic Space



Fig. 91. Etch of Alberti

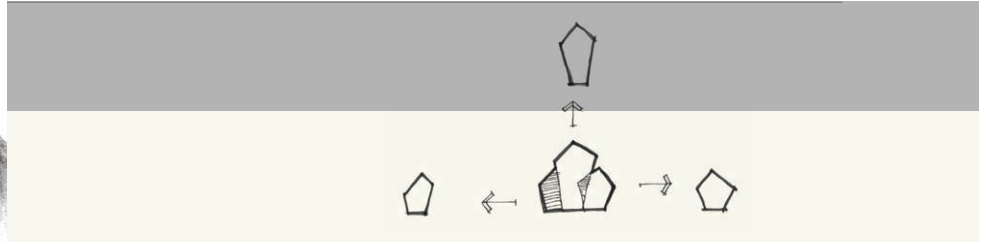


Fig. 92. Diagram illustrating the city as a series of rooms in a house.

In Alberti's *De Re Aedificatoria* (1485) the city is the place in which individual citizens pursue virtuous activities; more than that, for the first time the city is considered to be a collection of buildings and of open spaces consciously designed and related to one another, a collection that allows the citizens to bring order to their society through their participation in its affairs. Alberti states that all citizens rely on the city and the public services it provides. He puts emphasis on the relationship between buildings to one another and the spaces between them, in conjunction with the relationship to the citizen (Kostof 1991:69-70;131).

Alberti's approach offers insight on the relationship between the citizen and his participation in the built environment. By being cognisant of this approach, and taking into consideration the analysis presented by Stals (1998), the relationship between Atteridgeville's urban planning and social dynamic is clear. The intention is to build on and enhance this existing relationship.

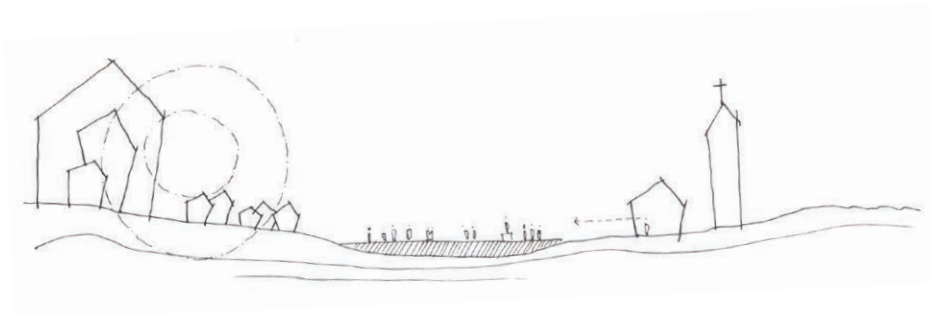


Fig. 93. The relationship between the built environment and the citizens.

HANNAH ARENDT

The active citizen

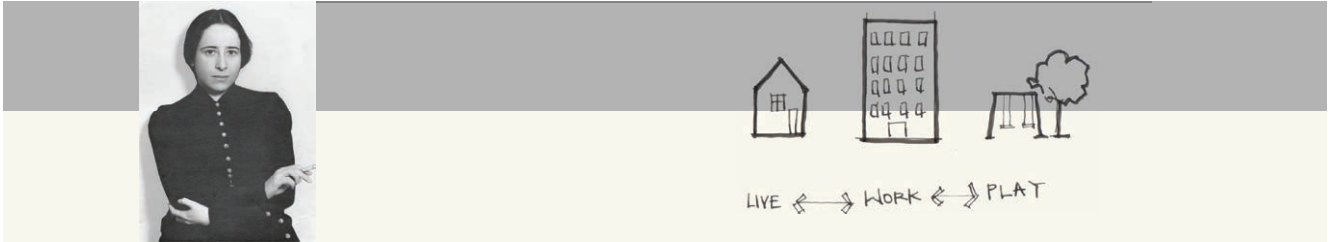


Fig. 94. Photograph of Hannah Arendt

Fig. 95. The value of including live, work, and play in cities.

In *The Human Condition*, Hannah Arendt (1958) explores the origins of democracy and brings an understanding of these theories of political philosophy to the modern era. Arendt argues that it is necessary to reassert politics as a valuable realm of human action, which has been devalued in modern human affairs. She scrutinises what this may entail, with the intention of reinstating the life of public and political action. Arendt argues that **vita activa** is the fundamental condition of human existence, which consists of three fundamental categories: labour, work and action (Arendt1958:7).

Labour corresponds to the basic necessities of human existence and biological processes. These are essentially the practices necessary to maintain life itself. These activities are characterised by a 'never-ending' nature, an action which creates nothing of permanence as its products are quickly consumed. This activity is based on **necessity** and occurs (should occur according to Arendt) in the *Aristotelian oikos* - the **private realm** of the household, as opposed to the *poleis*, the public realm of the political community (Arendt 1958:127).

Work, in contrast, relates to the 'unnatural' aspects of human existence - the fabrication of commodity-related things. Arendt identifies this quality inherent to homo faber - man the maker, a creature of physical and cultural walls separating man from nature. Work subsequently becomes **part of the polis**, rather than labour's private nature (Arendt1958:7).

"**Action**, the only activity that goes on directly between men...corresponds to the human condition of plurality, to the fact that men, not Man, live on the earth and inhabit the world. While all aspects of the human condition are somehow related to **politics**, this plurality is specifically the condition ... of all political life" (Arendt1958:7).

Arendt argues that politics is the continuous action of citizens engaging and exercising their capacity for agency and action, and thus freedom:

...freedom...is actually the reason that men live together in political organisations at all. Without it, political life as such would be meaningless. The *raison d'être* of politics is freedom, and its field of experience is action (Arendt 1960).

PATRICK GEDDES

Conservative surgery

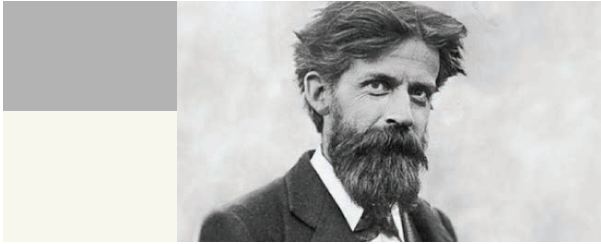


Fig. 96. Photograph of Patrick Geddes

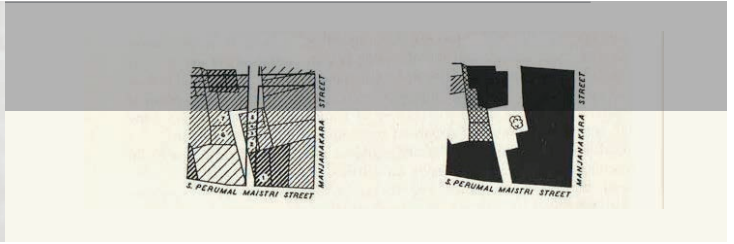


Fig. 97. Geddes' conservative surgery.

Patrick Geddes is recognised for being an innovative Scottish town planner in the late 19th century. His pioneering approach of conservative surgery was developed in 1886 when Geddes and his wife purchased a row of slum tenements in Edinburgh. The row of tenements was converted into a single dwelling, “weeding out the worst of the houses that surrounded them...widening the narrow closes into courtyards” resulting in an improved access to natural light and ventilation. Certain houses were maintained and restored. Geddes believed this approach was more economical and humane as it contested the ‘sweeping clearances’ which was common at the time, so as to implement formal gridiron urban structures of colonial town designs.

The heritage of the gridiron plans goes back at least to the Roman camps. The basis for the grid as an enduring and appealing urban form rests on five main characteristics: order and regulatory, orientation in space and to elements, simplicity and ease of navigation, speed of layout, and adaptability to circumstance.

(Geddes 1947:15)

Geddes (1947:24) criticised this tradition as much for its “dreary conventionality” as for its failure to address in the long term the very problems it purport to solve. According to Geddes’ analysis, this approach was not only “unsparing to the old homes and to the neighbourhood life of the area” but also, in “leaving fewer housing sites and these mostly narrower than before” expelling a large population that would “again as usual, be driven to create worse congestion in other quarters”.

Geddes (1947:24) subsequently developed an approach based on **‘diagnosis before treatment’** which considered careful analysis and evaluation of the existing urban fabric, geology, geography and social structures before intervening. This observational technique led to a sensitive and well-considered approach.

This school strives to adapt itself to meet the wants and needs, the ideas and ideals of the place and persons concerned. It seeks to undo as little as possible, while planning to increase the well-being of the people at all levels, from the humblest to the highest (Geddes 1947:24)

THE SUBURB

Attitude for Atteridgeville

The condition of *borderlands* best characterises Atteridgeville due to the dichotomies identified in this *suburban-township*. Hosting higher densities than other suburban regions in Tshwane, almost no social space is provided free of charge. The developing dormitory town will continue to morph into a suburb if social anchors are not introduced to guide its development.

Atteridgeville provides a glimpse into surrounding townships' future development. This notion is challenged, and an approach has been developed in response to conventional township interventions in order to remedy the spatial legacy of apartheid. It is envisioned that this approach would lead to townships developing as self-sustaining entities capable of providing their residents with public space beyond the sidewalk.



Fig. 98. Suburbia 01.

GOAL

Civic Space

The intention is not to re-invent Atteridgeville as a metropolitan or urban hub, but instead to support the residents, work with existing networks and inject new opportunity, activity, energy and civic participation into the existing fabric. This approach comes from a contestation of the current trends of development that focus its efforts on individual schemes coupled with absurdly long-term organic development spines. The goal is to penetrate the fabric of Atteridgeville and locate strategic sites for intervention. This network of small scale interventions will act as a safety net for development, encouraging members of the community to participate in their region's development.

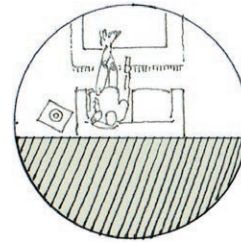


Fig. 99. Suburbia 02.

RAY OLDENBURG

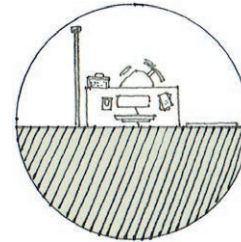
Third Space

Ray Oldenburg's (1991) theory on the essence of place identifies three principal social environments. These respective domains include, home, work, and the place on the corner. Recognising that home and work environments are static in their nature, Oldenburg hypothesises that dynamic societies exist when there is a social investment in the latter place. These places become social anchors which people aspire to occupy.



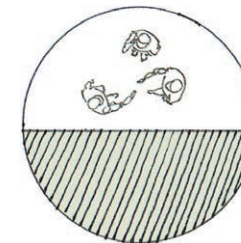
HOME

Atteridgeville's working class endure a daily exodus to their second place: work. This loss of the majority of the adult population to work opportunity leaves behind children and the elderly. With little to no amenities provided to these residents, the success of third place relies on the return of the citizens with disposable income.



WORK

This is a favourable moment in a democratic South Africa to respond to this issue. As townships gradually develop economically, they transform into suburbs. In order to intercept this mutation, an investment in the third place is of paramount importance to alleviate the dependency of townships on larger metropolitan locales. To instil pride and a relief from the mundane, third place environments need to be encouraged beyond the street and pavements.



PLAY

Fig. 100. First, second and third place.



Fig. 101. The merging of elements.

PSYCHOLOGICAL CITY WALLS

Enticing diversity

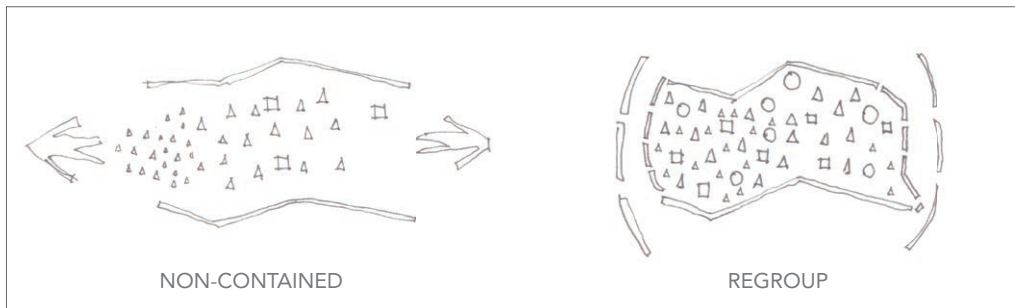
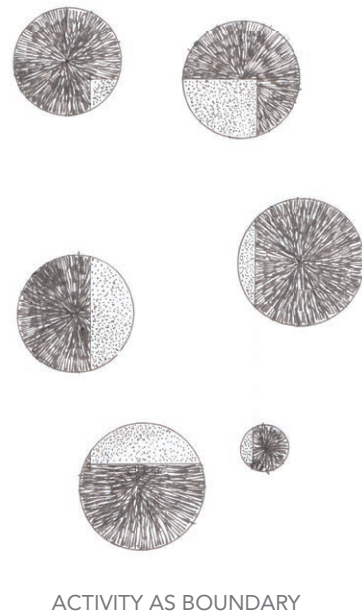


Fig. 102. Mediating between township-suburb conditions and creating a self-sustaining entity.

The removal of amenities and restricted trade laws made it impossible for townships to become resilient. The problem of dependency is perpetuated by the lack of diversity in the urban context. The monotonous suburban fabric does not cater for a diversity of activities or a variety of land-use. Atteridgeville's lack of social destinations and limited recreational facilities has resulted in an non-contained /dispersed identity.

In order to combat these external conditions, a series of incremental additions of activity could remedy the problem. Presented as psychological city walls, the intention is to implement a series of social destinations on identified sites in Atteridgeville to encourage a diversity of land use. This concept of activity as a boundary inspires a contained vibrancy within the suburb. The anticipated result is that townships become anchors in their own right. This is in reaction to new-urbanism tendencies that aim to resolve complex socio-economic ills with an individual node of intervention.



ACTIVITY AS BOUNDARY

Fig. 103. Psychological city walls.



6. VISION

Urban approach

The urban vision proposes an incremental development strategy in order to diversify the urban fabric, and alleviate the monotony of the suburban condition. The identified locations include brown field sites, private property, the sidewalks of the high streets and municipal lots reserved for commerce and infrastructure.

This holistic approach aims to address the notion of *stepping-stone residences* that townships are synonymous with. The high densities in townships is seen as an advantage. The intention is to provide successful civic spaces and public buildings, reducing the dependency of residents on larger metropolitan areas to sustain their livelihoods.

The vision introduces twenty-one sites for potential to reinforce this incremental development strategy. From this vision two sites are selected to demonstrate the potential of well-connected, small-scale interventions for the tight-knit fabric of South African townships.

Fig. 104. Atteridgeville photomontage (opposite page).

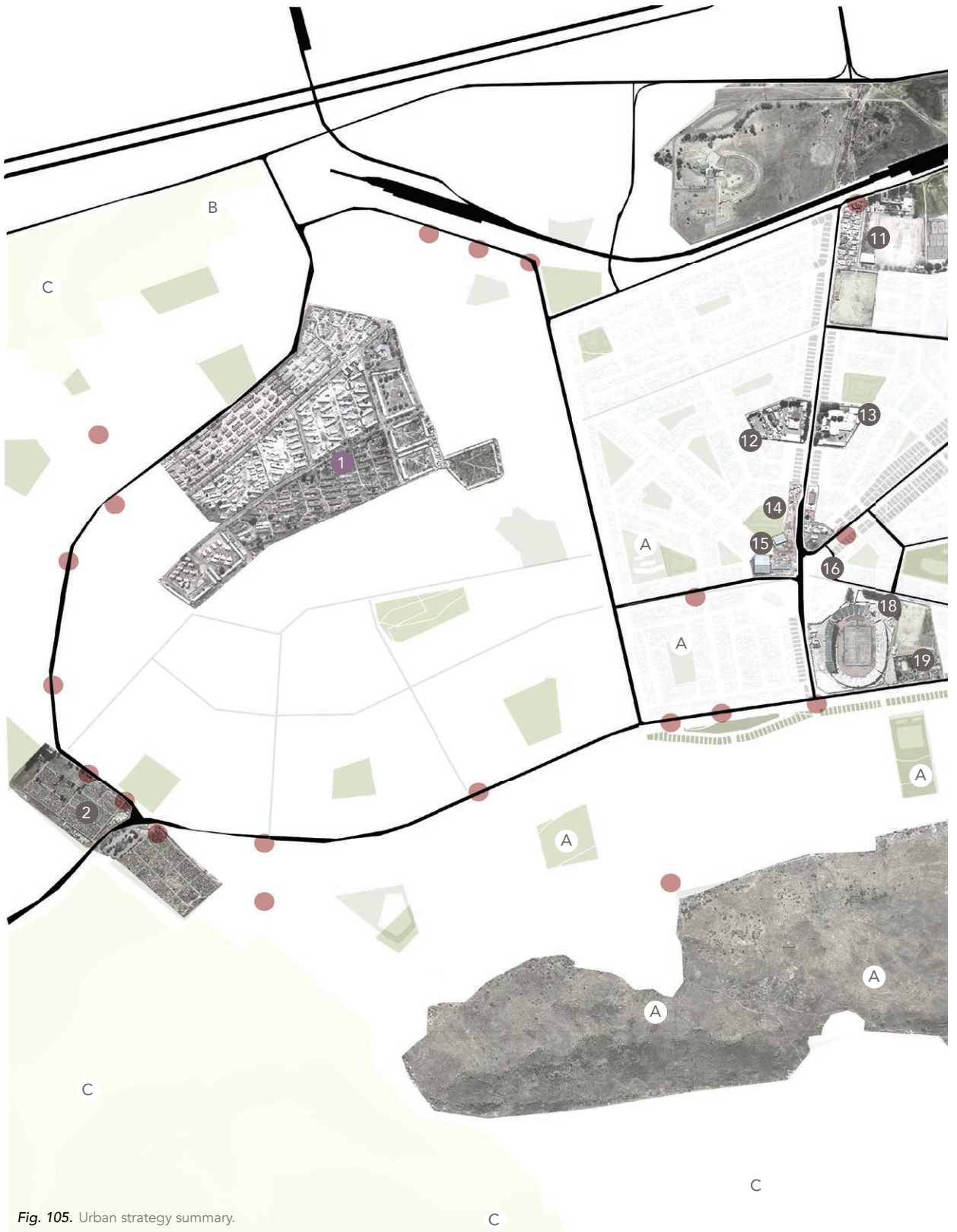
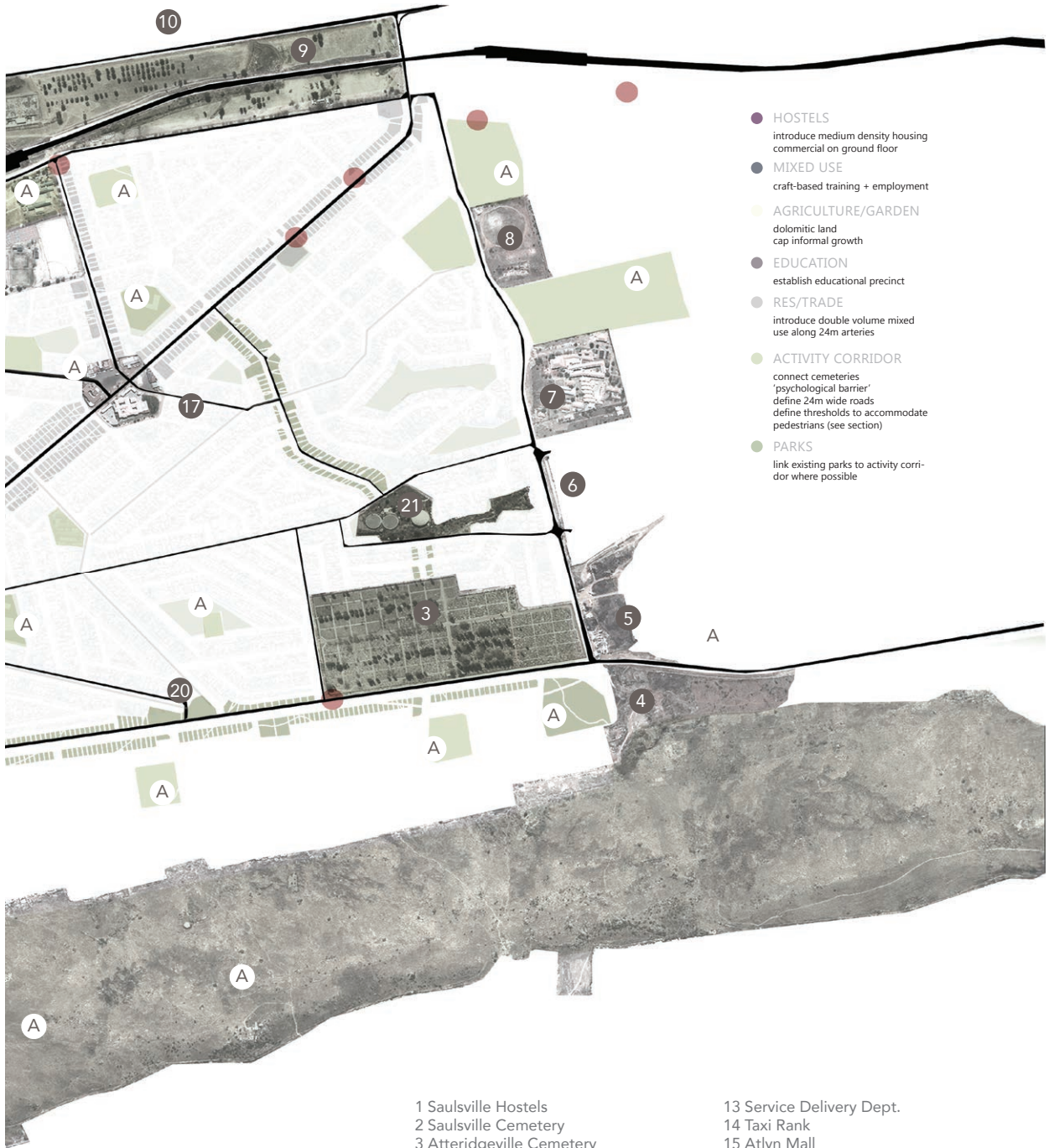


Fig. 105. Urban strategy summary.

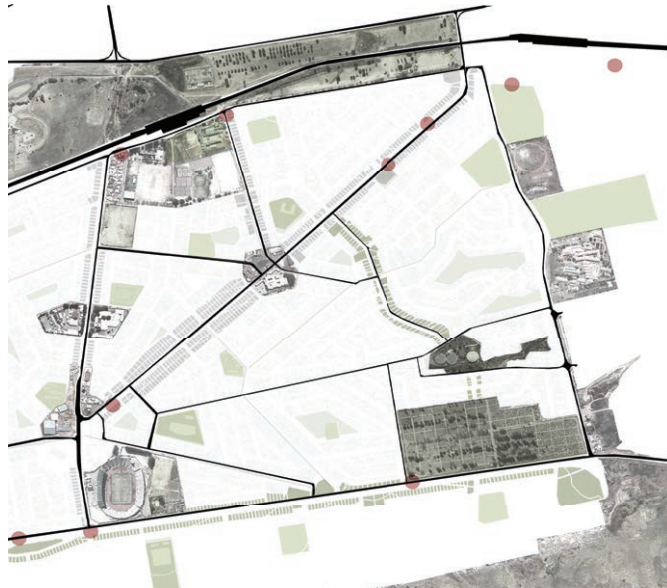


- HOSTELS
introduce medium density housing
commercial on ground floor
- MIXED USE
craft-based training + employment
- AGRICULTURE/GARDEN
dolomitic land
cap informal growth
- EDUCATION
establish educational precinct
- RES/TRADE
introduce double volume mixed
use along 24m arteries
- ACTIVITY CORRIDOR
connect cemeteries
'psychological barrier'
define 24m wide roads
define thresholds to accommodate
pedestrians (see section)
- PARKS
link existing parks to activity corri-
dor where possible

- | | |
|----------------------------|-----------------------------|
| 1 Saulsville Hostels | 13 Service Delivery Dept. |
| 2 Saulsville Cemetery | 14 Taxi Rank |
| 3 Atteridgeville Cemetery | 15 Atlyn Mall |
| 4 Maunde Street Gateway | 16 Engen Service Centre |
| 5 SS Mendi Memorial | 17 Ramohebo Square |
| 6 Atlyn Mall | 18 Empty Plot (Matshiga st) |
| 7 Tshwane South College | 19 Swimming Pool |
| 8 Empty Plot (Khoza st) | 20 Empty Plot (Maunde st) |
| 9 Moroe St Park | 21 Reservoirs |
| 10 WF Nkomo - Green Strip | A School Grounds |
| 11 Mbolekwa Sports Complex | B Natural Buffer |
| 12 Municipal Offices | C Dolomitic Land |

CONNECT

Third Space



"...whether born under divine guidance or speculative urge, the pattern will dry up, and even die, unless the people forge within it a special, self-sustaining life that can survive adversity and the turn of fortune"

(Kostoff 1991:16).

Fig. 106. Urban strategy - Connect.

Starting at the urban scale, the framework attempts to draw connections between the 21 proposed sites, attempting to encourage outdoor activities. Residents can walk between these points along a route.

These connections already exist, and in order to preserve them, conclusions were drawn with regard to the transitions from the public sidewalks to the semi-private commercial outlets on the high streets. These currently provide the primary interface of activity.



Fig. 107. View over Atteridgeville | looking south east

INTERFACE

Reconfiguring thresholds



Fig. 108. Urban strategy - Interface.

By renegotiating thresholds to capitalise on the existing energy on the street edge, new developments are encouraged, drawing in passers-by away from the street.

This provides for parking opportunity at the street edge, shielding pedestrians from the traffic. The theme of *interface* aims to encourage formal development along the street fronts. It is envisioned that these commercial outlets become the first to develop, which encourages a higher density along these high streets.



Fig. 109. Section illustrating micro-economic connection to street.

ACTIVITY

As boundary

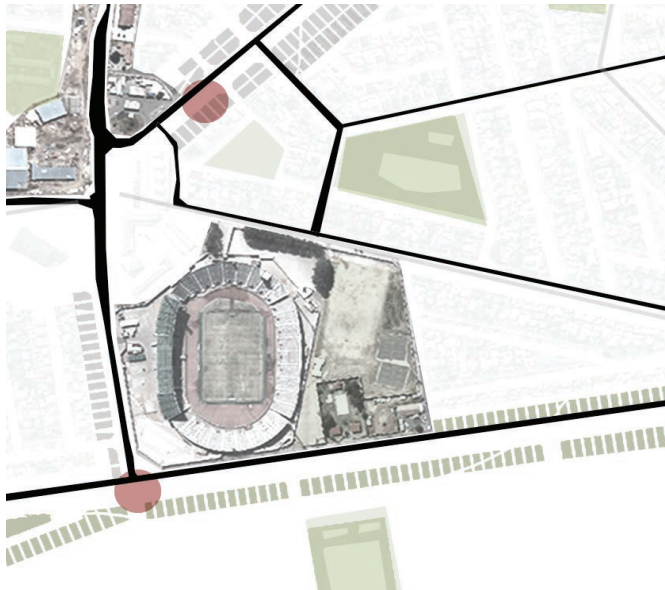


Fig. 110. Urban strategy - Activity.

Focused primarily on brown field sites, the concept of *activate* aims to diversify the urban fabric with new developments that reinvigorate social space. The example below indicates the secondary parking lot to the stadium, which is seldom used. An urban market with detachable stalls, with an open-plan configuration, provides an opportunity for daily trade whilst maintaining the usability of the parking lot during match days.

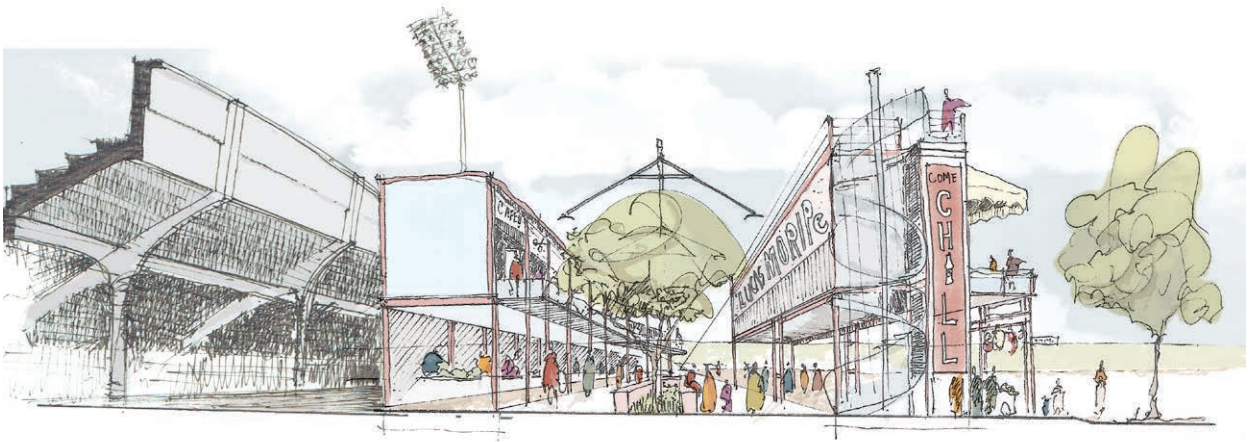


Fig. 111. Reconfiguration of Lucas Moripe Stadium parking lot: remove existing boundaries, establish trade and activate edge.



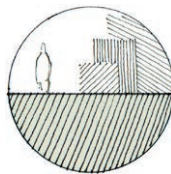
06 | VISION

TWENTY-ONE SITES

Case studies



DEFINITION



BARRIER



NEGLECT

Twenty-one sites have been selected as case studies. This was determined by three categories: barriers, neglect and definition. It is envisioned that these sites would form part of a larger, incremental approach to development. Each site's current condition is identified, a proposal is offered and is supported by a rationale. This process was driven by the vision intentions: connect, activity and interface.

Two of the following sites will be selected and used in volumes two and three for the individual students' dissertations.

Fig. 112. Definition, Barrier and neglect - categories of analysis.

01 SAULSVILLE HOSTELS

Mashao street

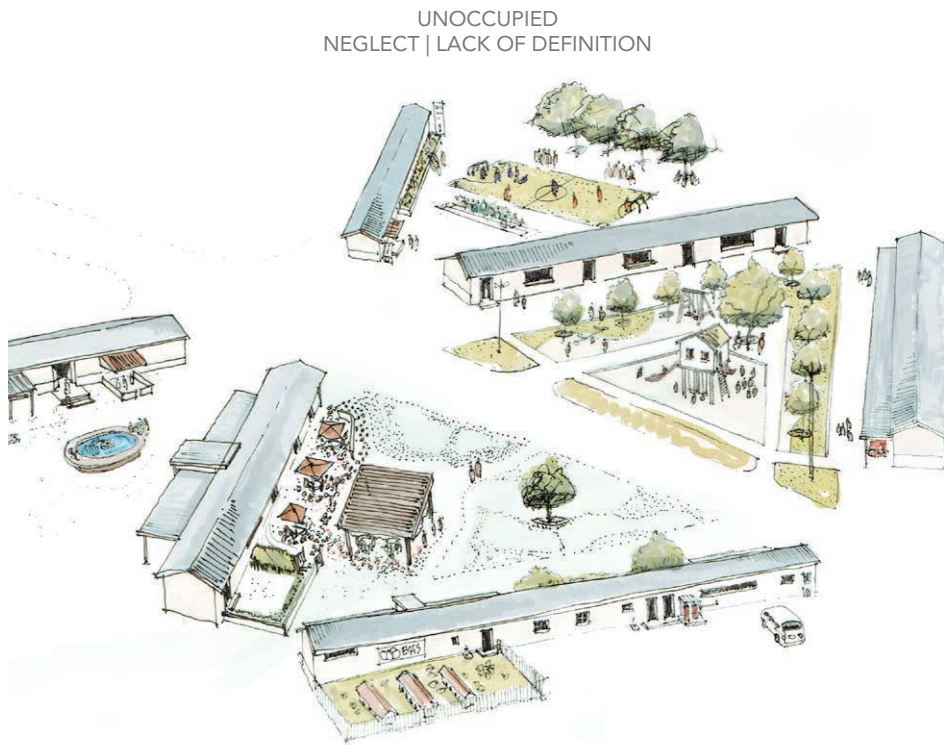


Fig. 113. Case study 01.

PROPOSAL

densification

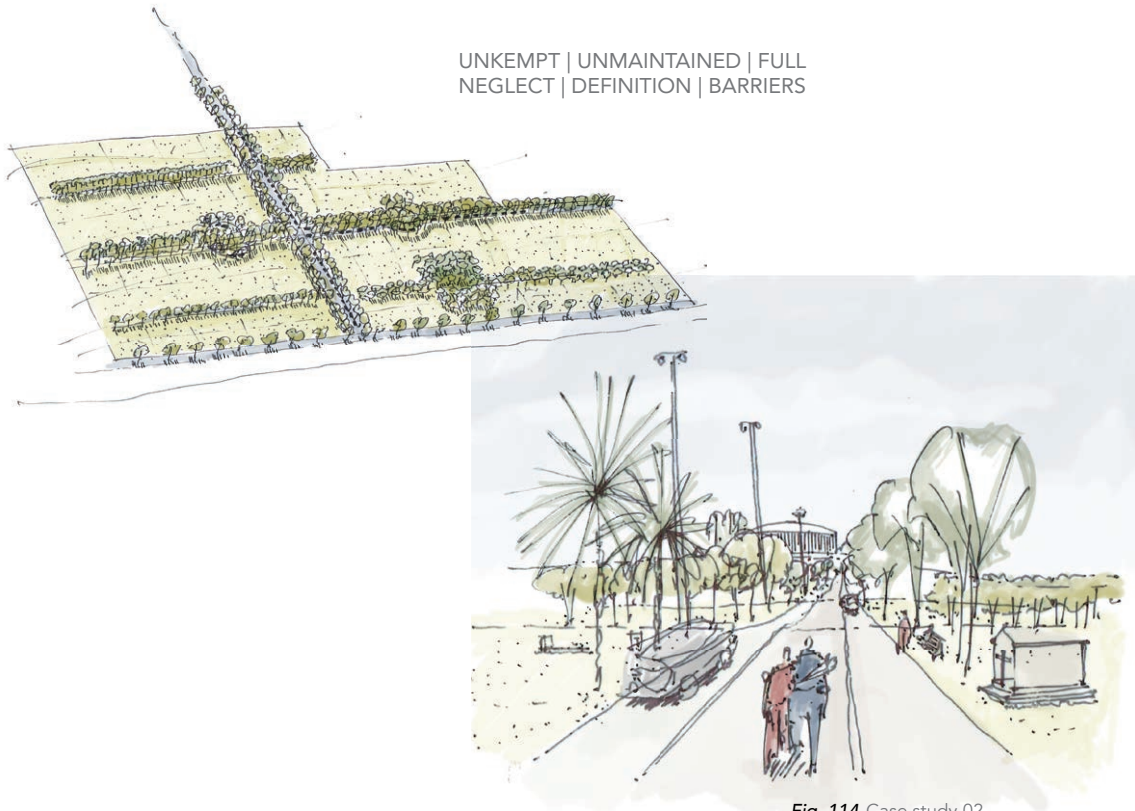
mixed use | residential + light industrial
craft-based employment and training

RATIONALE

close proximity to successful train station
large, unused prominent site
opportunity to establish pedestrian-friendly area
responding to massive informal growth to west

02 + 03 CEMETERIES

52 Makhaza street + 453 Maunde street



UNKEMPT | UNMAINTAINED | FULL
NEGLECT | DEFINITION | BARRIERS

Fig. 114. Case study 02.

PROPOSAL

cemetery as destination
establish as public park
reconnect to people

RATIONALE

promote + knowledge ritual of visiting graves
no longer purely a burial space
redefine as memorial space
integrate with residential fabric

04 GATEWAY

465 Maunde street

UNKEMPT | UNMAINTAINED | UNOCCUPIED
NEGLECT | LACK OF DEFINITION | BARRIERS

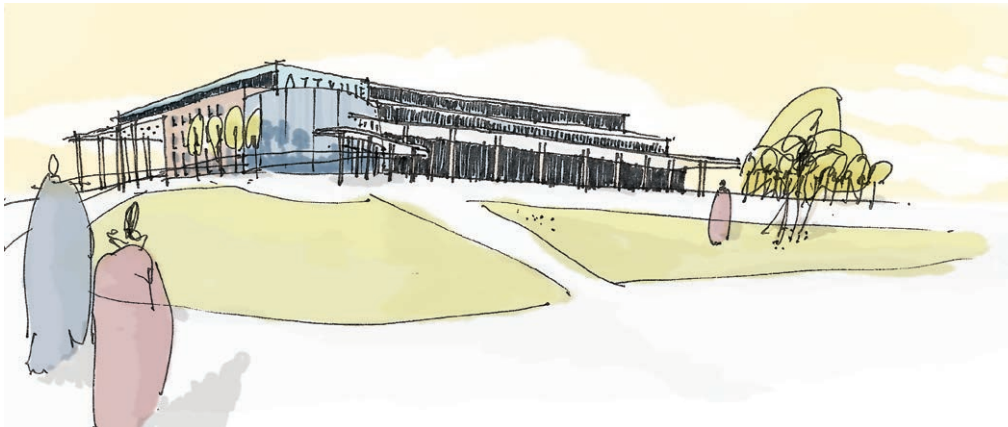


Fig. 115. Case study 03.

PROPOSAL

establish as proper gateway
reinforce public avenue towards Kalofong hospital
modal interchange supporting surrounding townships

RATIONALE

celebrate entrance to atteridgeville (oudstad)
respond to visitors

05 SS MENDI MEMORIAL

86 Khoza street

UNKEMPT | EMPTY SITE
NEGLECT | DEFINITION | BARRIERS



Fig. 116. Case study 04.

PROPOSAL

relocate war memorial from Ga-Mothakga
linear route from cemetery to monument
public park | civic space
relocate urban market from school up the road

RATIONALE

reinforce cemetery as memorial space
celebrate the unity during war
promote public space for pedestrian

06 ATLYN MALL

76 Khoza street

UNATTRACTIVE TO PEDESTRIAN | UNFRIENDLY STREET EDGE
DEFINITION | BARRIERS



Fig. 117. Case study 06.

PROPOSAL

street furniture
reduce vehicular speed
lighting for 24-hour activity

RATIONALE

encourage active edge
promote pedestrian movement

07 TSHWANE SOUTH COLLEGE

47 Khoza street

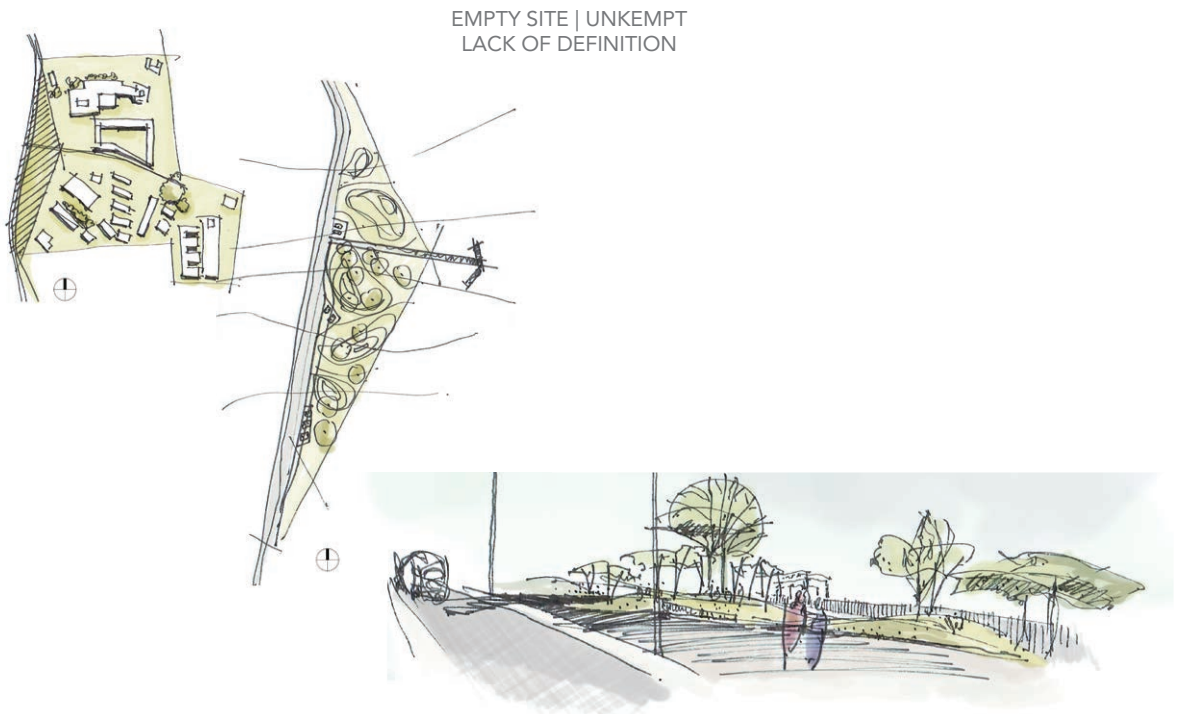


Fig. 118. Case study 07.

PROPOSAL

lighting | landscaping | street furniture
activity as barrier
limit vehicular movement to street

RATIONALE

define to contribute to pedestrian avenue
organise movement | prioritise pedestrian
promote public space for pedestrian

08 EMPTY PLOT

51 Khoza street

GAP IN SPINE | EMPTY | UNKEMPT
DEFINITION | BARRIERS | NEGLECT

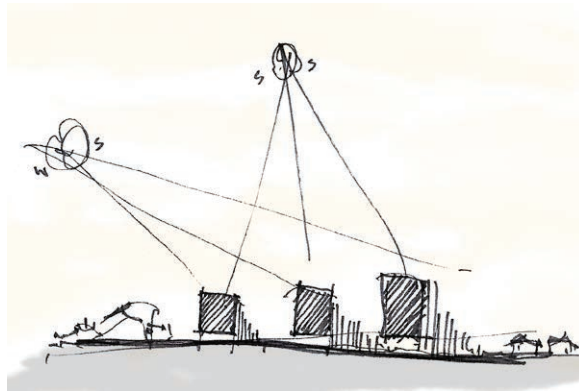
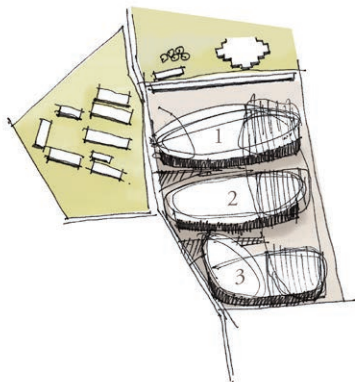


Fig. 119. Case study 08.

PROPOSAL
student housing
restaurants | trade
densification

RATIONALE
encourage active civic space
promote pedestrian movement
promote safe 24 hour activity

09 MOROE STREET PARK

1 Moroe street

SELDOM USED | NO CONNECTION TO RESIDENTS
BARRIER



Fig. 120. Case study 09.

PROPOSAL

lighting | landscaping | street furniture
remove barriers
activity as barrier

RATIONALE

disconnected from public
safety issues
promote 24 hour use

10 GREEN STRIP

WF Nkomo street

EMPTY | UNKEMPT
LACK OF DEFINITION | BARRIERS | NEGLECT

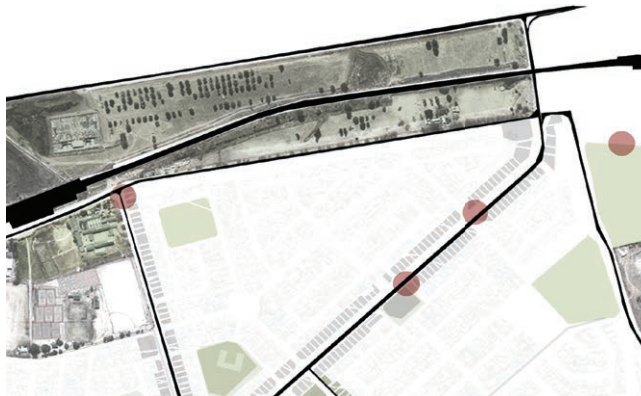


Fig. 121. Case study 10.

PROPOSAL

maintain natural greenery
small bus stop and pit-stop
picnic area

RATIONALE

create safe pickup area along main road

11 MBOLEKWA SPORTS COMPLEX

146 Sekhoho street

WELL UTILISED | BADLY MAINTAINED | SUBSTANTIAL EMPTY LAND
BARRIER

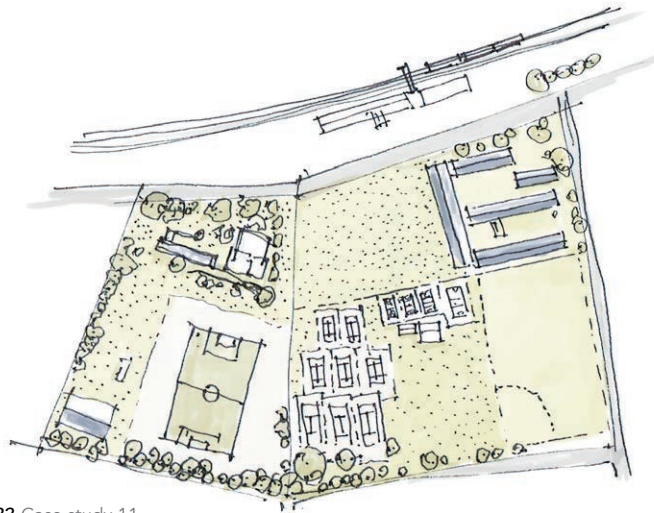


Fig. 122. Case study 11.

PROPOSAL

encourage indoor evening activities
(club soccer + cricket)
relate to street

RATIONALE

need to expose public facilities to community
establish identity within sporting community
promote competition amongst schools
awareness of healthy body and mind

12-16 ADMINISTRATIVE CORE

Khomane street

12 + 13

Municipal Offices + Service Delivery
34 + 69 Komane Street

ILL-CONSIDERATION OF PROGRAMMES |
NOT INTEGRATED AS PART OF INTENDED
ADMINISTRATIVE CORE
BARRIERS | NEGLECT

PROPOSAL

move municipal services to core
introduce banks to centre

RATIONALE

reinforce administrative core
pedestrian friendly civic centre
remove vehicles from core

14

New Taxi Rank
50 Komane street

WHITE ELEPHANT | NOT WELL UTILISED
BARRIERS | NEGLECT

PROPOSAL

form part of administrative core
introduce commercial activity
mixed use

REASONING

ill-considered proposal
not appropriate for context

15 + 16

Attlyn Mall + Engen Service Centre
52 Komane Street + Mareka Street

ILL-CONSIDERATION OF PROGRAMMES |
CIVIC SQUARE CONGESTED
DEFINITION | BARRIERS

PROPOSAL

move mall and garage north
active street edges

REASONING

promote activity spine along Komane street
remove vehicles from core

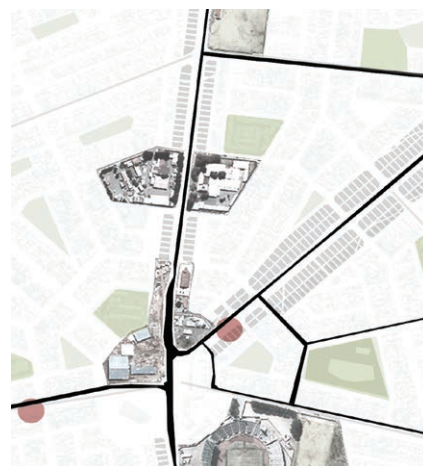


Fig. 123. Case study 12.

17

RAMOHOEBO SQUARE

(see Volume II)

1A Mareka street

UNESTABLISHED | FEW PUBLIC FACILITIES | MODAL INTERCHANGE | LOST SPACE
NEGLECT | LACK OF DEFINITION

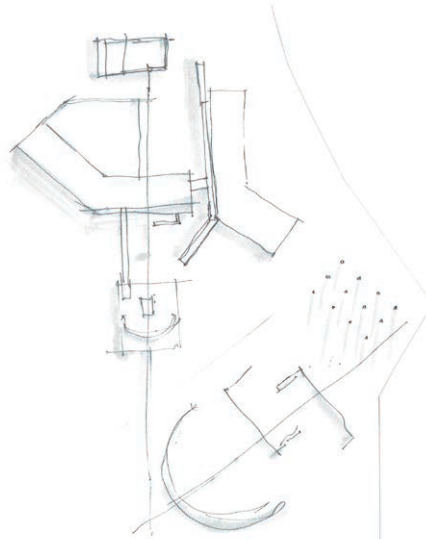


Fig. 124. Case study 17.

PROPOSAL

take advantage of diverse activities on site
defined public realm | 24-hour activities
create destination | active civic space

RATIONALE

not utilised by people
high pedestrian movement on adjacent streets
flat site - good pause area
planned heart of the city
dead site with bad street edge
revive space

18 LUCAS MORIPE STADIUM

22 Matshiga street

ADJACENT EMPTY PLOT UNUSED
DEFINITION | BARRIERS | NEGLECT

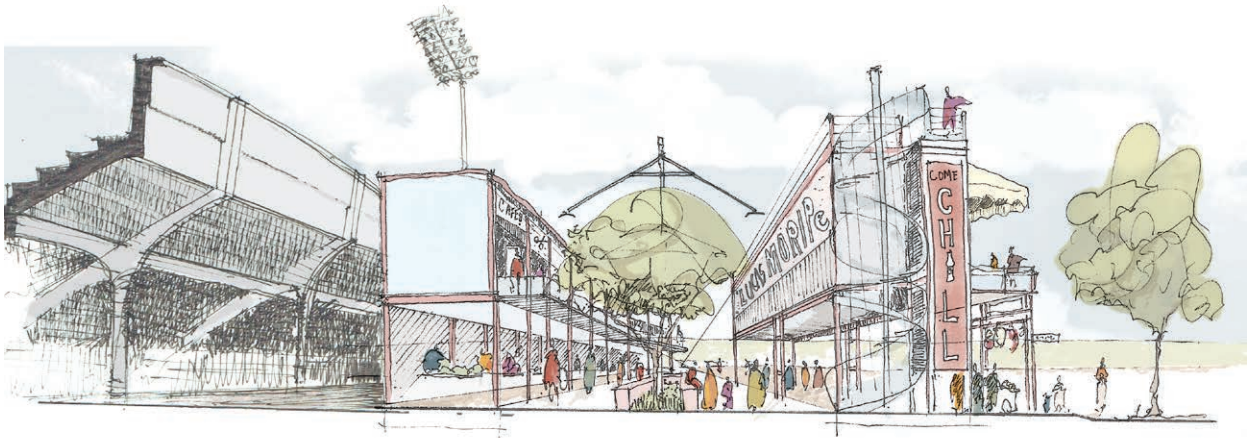


Fig. 125. Case study 18.

PROPOSAL
market as barrier

RATIONALE
stadium does not contribute to surroundings
creates harsh | dead edge
diversity is necessary during times without sporting activities

19 PUBLIC SWIMMING POOL

273 Maunde street

POOL IS WELL USED YET 'ISOLATED' | EMPTY UNDERUTILISED GROUNDS
BARRIER

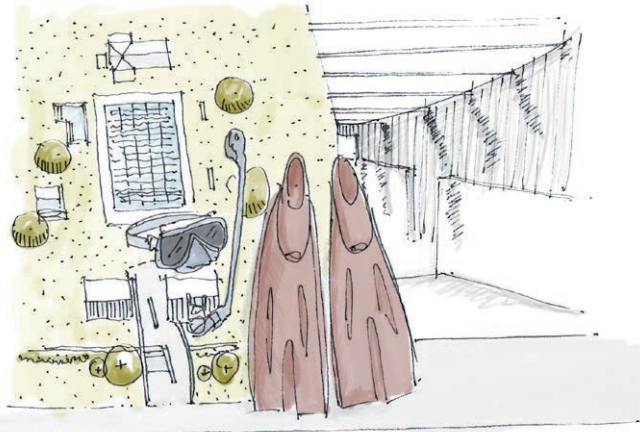


Fig. 126. Case study 19.

PROPOSAL

- introduce indoor sporting facilities
- integrate with pool
- remove boundaries
- inviting active edges
- indoor swimming pool

RATIONALE

- need to expose public facilities to community
- establish identity within sporting community
- promote competition amongst schools
- awareness of healthy body and mind
- promote competition amongst schools
- awareness of healthy body and mind

20 EMPTY PLOT

Maunde street

UNUSED
DEFINITION | BARRIERS | NEGLECT

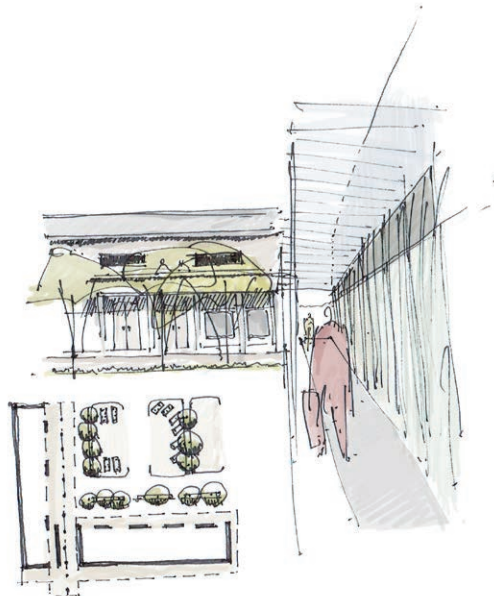


Fig. 127. Case study 20.

PROPOSAL
doctors' complex

RATIONALE
diversity of services necessary

21 RESERVOIRS

(see Volume III)

Thindisa street

HILL AS PERIPHERY CONDITION | INFRASTRUCTURE DOES NOT RESPOND TO
PUBLIC REALM | LOST SPACE
BARRIER | DEFINITION

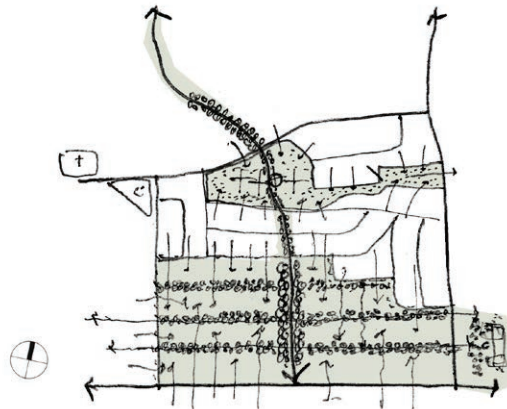


Fig. 128. Case study 21.

PROPOSAL

stitch cemetery, mall, schools, residence
green destination
appeal to schools
highlight 'sense of place'

RATIONALE

celebrate context
need for shared amenities for schools
reclaim space

A SCHOOL GROUNDS

28 schools

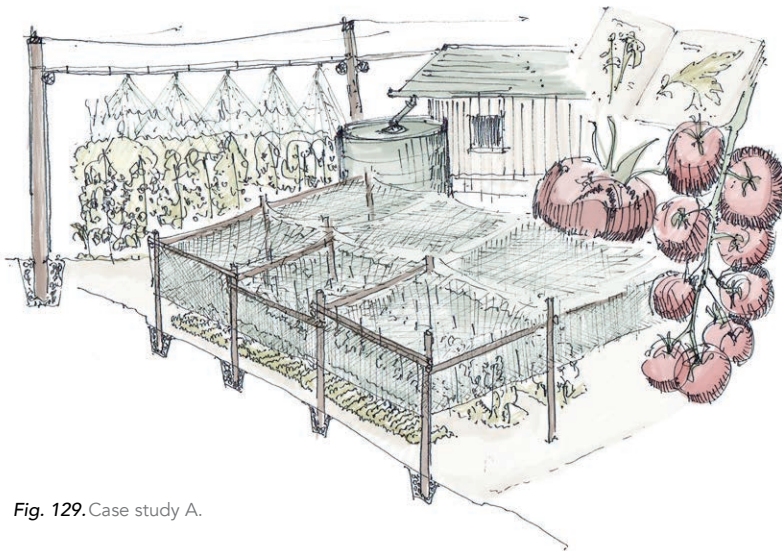


Fig. 129. Case study A.

PROPOSAL

mini urban agriculture

RATIONALE

foster sense of responsibility amongst children
expose children to environmental and social issues
promote sustainable living
reinforce ideas of existing 'urban market'
sports facilities will be shared amongst schools at complex
after school activities and competition
idea of school belonging to community
contest idea of multi-purpose halls

B NATURAL BUFFER

WF Nkomo (west)



Fig. 130. Case study B.

PROPOSAL

small scale farming
small plantations
(roses, flowers, fruit, herbs)

RATIONALE

diversity of activities
aimed at retired citizens

C INFORMAL GROWTH

West of Saulsville



Fig. 131. Case study C.

PROPOSAL

large scale agriculture

RATIONALE

barrier to cap informal growth

psychological boundary

reinforce ideas of garden city

dolomitic land is not safe for development

self-reliant community



Fig. 132. Contour model of Atteridgeville and surrounds.

CONCLUSION

The way forward

Volume I provides the historical, theoretical, quantitative and qualitative study of Atteridgeville, and is concluded by a proposal for an incremental development scheme after identifying 21 potential sites of development. Various strategies were employed to analyse the existing conditions and develop an approach and methodology for intervention.

The study revealed the suburban-township state of Atteridgeville, and the symptoms thereof, most notably, the aspects of dependency on Pretoria. The focus lay in the recreational spaces of Atteridgeville, and the culmination of the study proposes an incremental approach, taking the existing network of urban green-spaces into account, in an attempt to strengthen and build on their essence.

This document serves as the departure point for the individual schemes. This was done to acknowledge and learn from Atteridgeville's rich heritage and its community, and to develop a clear argument derived from place.

A new approach to township architecture is proposed; one which recognises townships as self-sustaining entities that may receive the same facilities as wealthier neighbourhoods. It is also considered that the asymptotic journey to suburbia is potentially dangerous as it perpetuates many of the underlying issues of a dormitory town.

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LIST OF REFERENCES

BOOKS

- ARENDR, H. 1958. *The human condition*. Chicago: University of Chicago Press.
- DEE, C. 2001. *Form and fabric in landscape architecture: a visual introduction*. Abington: Spon Pres.
- GEDDES, P. 1947. *Town planning in Kapurthala: A report to H.H. the Maharaja of Kapurthala, 1917*, in Tyrwhitt, J. : *Patrick Geddes in India*. London: Lund Humphries, pp24
- HOWARD, E. 1898. *To-morrow: A peaceful path to real reform*. London: Swan Sonnenschein & Co.
- KOSTOF, S. 1991. *The city shaped: urban patterns and meanings through history*. London: Thames & Hudson.
- TUROC, I. 1993. *Urban planning in the transition from apartheid*. Glasgow: University of Strathclyde, Centre for Planning.
- MAFOLO, M.T. 2015. *Pheli - The narrative history, 75th anniversary of Atteridgeville*. [S.I.]:[S.n.].
- OLDENBURG, R. 1989. *The great good place*. New York: Paragon House.

JOURNALS

- DAUSKARDT, R.P.A. 1989. Local state, segregation and transport provision: The Atteridgeville bus boycott. *The South African geographical journal*. 71(2)1947: 109-114.
- ARENDR, H. 1960. Freedom and politics: A lecture. *Chicago Review*. Spring 14(1): 28-46.

THESES

- STALS, M. 1998. *Fragmentation and Unity: The search for the design of the 'model' township. The case of Atteridgeville, Pretoria*. MProf dissertation. Katolieke Universiteit Leuven, Leuven.

GOVERNMENTAL PAPERS

CITY OF TSHWANE. 2013. *Tshwane Vision 2055*. Available online: [http://www.gis.tshwane.gov.za/Documents/Online%20version-%20CoT%202055%20vision\[smallpdf.com\].pdf](http://www.gis.tshwane.gov.za/Documents/Online%20version-%20CoT%202055%20vision[smallpdf.com].pdf) [Accessed 3 May 2016]

JUNOD, H.P. 1955. The Bantu population of Pretoria, in Engelbrecht, S.P. (chairman) *Pretoria: The City Council of Pretoria*, pp 61-85.

STATUTES (not extant)

SOUTH AFRICA. 1913. *The Natives Land Act* (Act No. 27 of 1913) .

SOUTH AFRICA, 1923. *The Natives Urban Act* (Act No. 21 of 1923).

SOUTH AFRICA. 1950. *The Population Registration Act* (Act No. 30 of 1950) .

SOUTH AFRICA. 1950. *The Group Areas Act* (Act No. 41 of 1950).

SOUTH AFRICA. 1953. *The Reservation of Separate Amenities Act* (Act No. 49 of 1953).

SOUTH AFRICA. 1979. *The Slums Act* (Act No. 76 of 1979)