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locus of identity

Public infrastructure that forms loci for cultural identity

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Submitted in partial fulfilment of the requirements of the degree Magister of Architecture, MArch(Prof) in the Faculty of Engineering, Built Environment and Information Technology at the University of Pretoria

Pretoria , South Africa 2012

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Project summary

Programme:	Civic service/Public space/Public infrastructure
Site Description:	Victory field, Lusaka informal settlement, Mamelodi East
Client:	City of Tshwane (COT), Region 6 [East] in association with the SAESI(South African Emergency Services Institute), FPASA (Fire Protection Association of South African) and the South African Department of Health
Users:	Public service staff; fire & emergency,police and health care practitioners. Departmental and municipal staff. Small scale commerce & Informal traders supporting the general public.
Site Location:	Erf 32996, Lusaka, Mamelodi East
Address:	c/o Hector Pieterson Drive, Mathane Drive and Tshukudu Road, Lusaka, Mamelodi East, Tshwane, South Africa
GPS Coordinates:	25°43'26.78"S, 28°25'13.20"E
Architectural Theoretical Premise:	Civic infrastructure Architecture as community identity catalyst
Architectural Approach:	An investigation into the relationship between public interaction, community identity and civic architecture - the potential for necessary public infrastructure to strengthen the emergence of social infrastructure networks
Research Field:	Human Settlements and Urbanism

Figure 01. Image of everyday activity on selected site (Author)

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Thank you to God the Father and Christ Jesus
without whose blessing this opportunity would not have been possible

Thank you to my parents Arnold and Desiree` Pieterse
as well as my sisters Micheline and Bianca Pieterse
for their unconditional love and support throughout this journey

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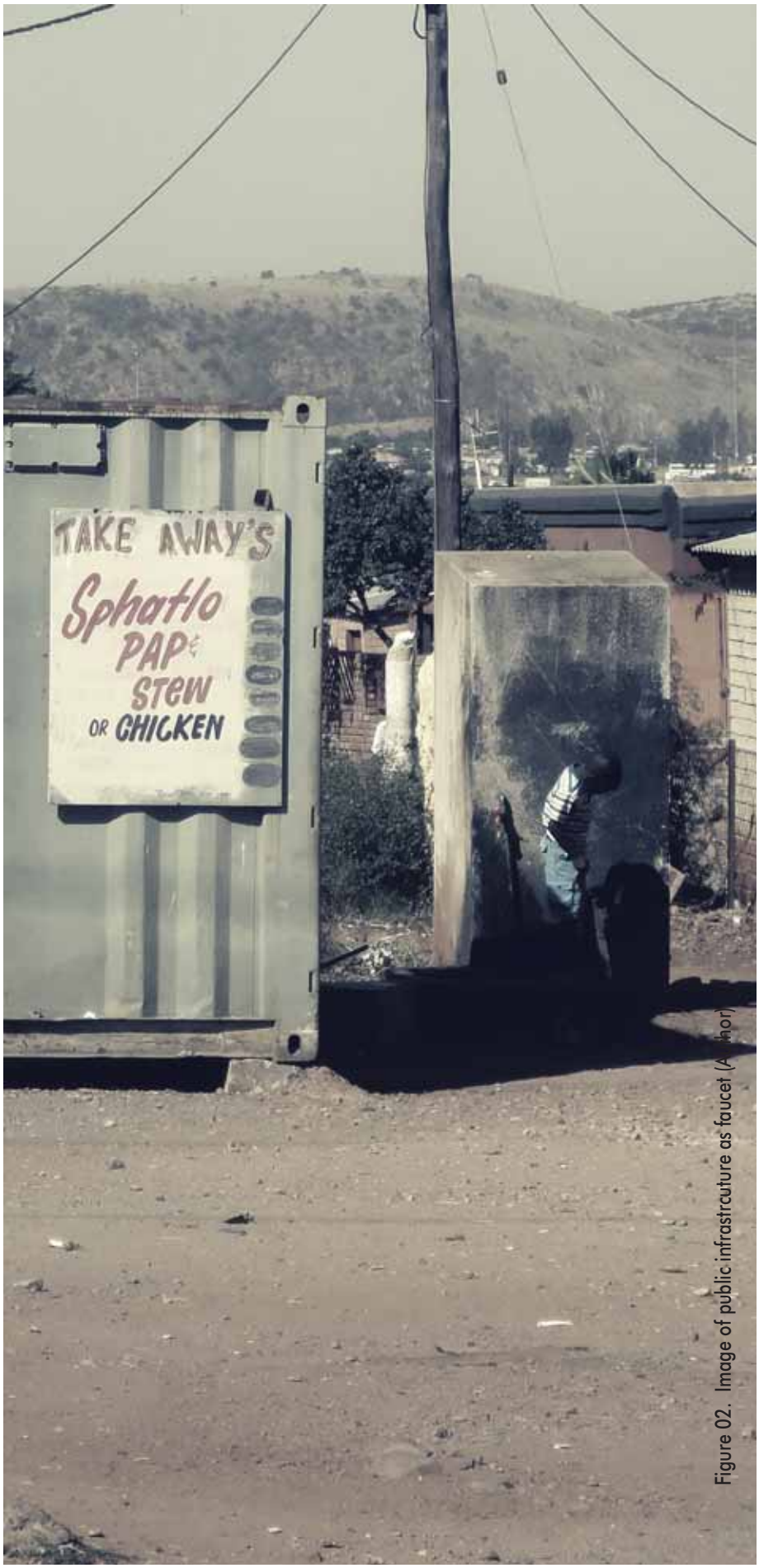

Figure 02. Image of public infrastructure as faucet (Author)

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ABSTRACT

This dissertation investigates the role of architecture in the emergence of community identity with specific reference to the spontaneous surfacing and expansion of informal settlements within the South African context and the need for fundamental public service infrastructure provision.

The aim is to understand and illustrate the significance of contextual infrastructure provision as catalyst in the emergence of social and cultural networks. In analysing the current innovative survival strategies induced by the community themselves, a theoretical premise will be established regarding the implications of an "African urbanist" approach to infrastructure and means of applying it in design.

The current rate of urbanization within the South African context has resulted in several human settlements expanding organically, attempting to meet the increasing housing demands whilst neglecting the provision of platforms for various interwoven layers of urban fabric and public services. These platforms are integral to the shaping of cultural and community identity.

The intent of the proposal is to provide an interface between the public and the built fabric that serves the needs of, as well as enhances the quotidian praxis within the Eastern Mamelodi precinct. The proposal intends to disclose an existing cultural language and identity by establishing physical loci that host and exhibit quotidian social practices unique to Mamelodi.

Through theoretical and contextual enquiry the study provides an understanding of the role as well as the necessity of infrastructure architecture manifested into an appropriate solution which will facilitate the corroboration of a unique cultural identity.

The primary informants of the architectural response are:

1. The current formation and appropriation of public space within the Mamelodi context; adaptable space that accommodates a variety of functions such as civic community gathering, informal and semi formal trade, light industrial and production as well as recreational activities.
2. An analysis of the existing built fabric of Mamelodi; a complex layering of constant growth and adaptability.
3. Programmatic requirements: Rapid response fire, police and emergency unit, public amenities (ablutions and water wash points), informal restaurant and shebeen (site enhancement), polyvalent civic gathering and recreation space laced together with liminal space that can be appropriated for informal emergence.
4. Amalgamation of public service and public space within a framework of social infrastructure provision.
5. Response to current as well as proposed contextual conditions relating to the 2010 GAPP, PRASA and Tshwane framework proposals (framework analysis and adaptation discussed in chapter 5)

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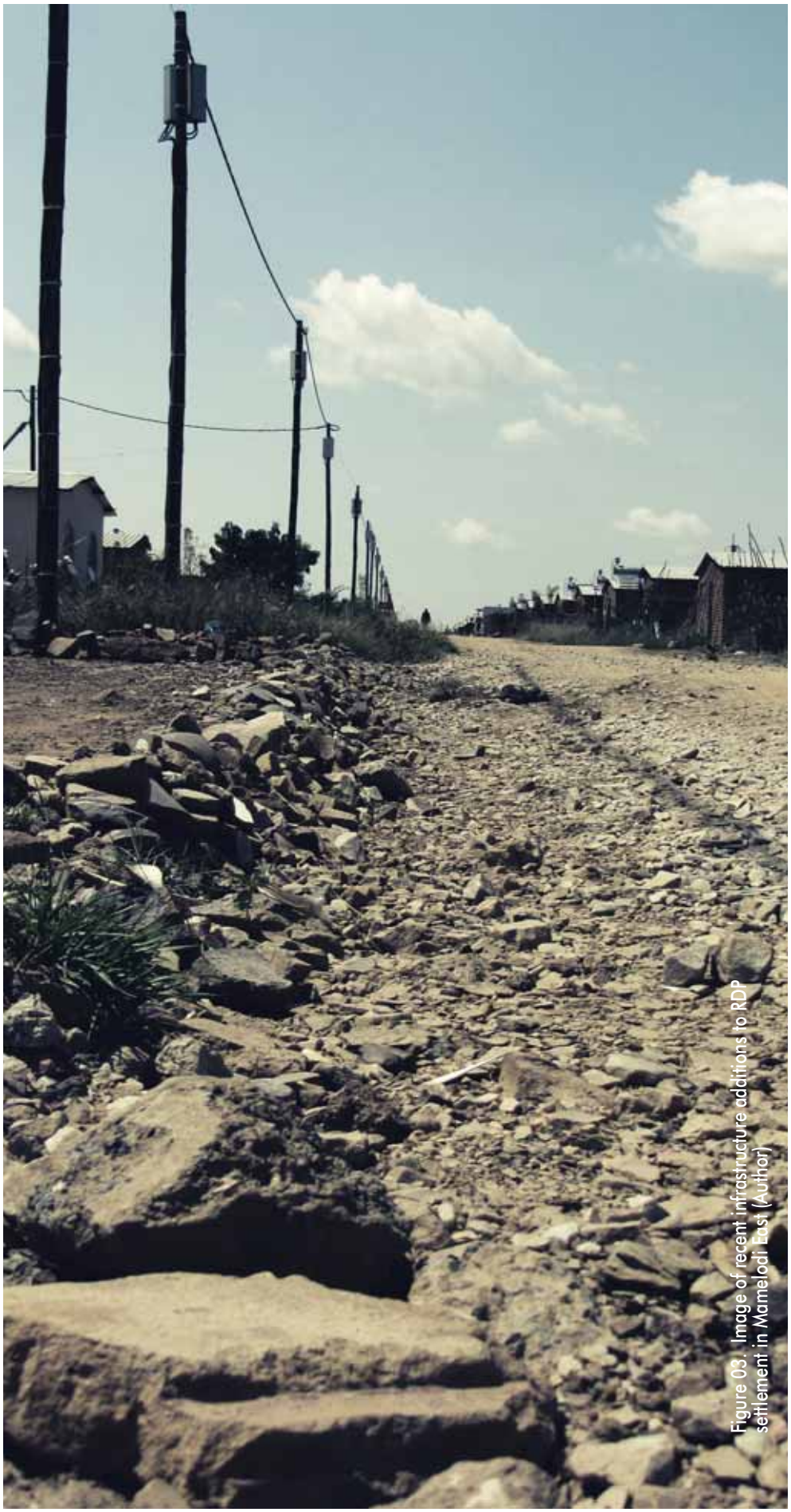

Figure 03: Image of recent infrastructure additions to RDP settlement in Mamelodi East (Author)

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PREFACE

Design is a process of constant iteration and reanalysis of decisions. Design is never a linear progression from theory through concept to design development. A plethora of external informants and influences surface as the process develops with change and alteration inevitable. The following dissertation document serves as an informant to the design process of the overall dissertation project. Each chapter signifies an integral portion of the iterative process, documenting the exploration and analysis of each relevant aspect.

Theory serves as the first portion of the document and defines the concept *"African Urbanism"* (Pieterse E, 2008) as a more appropriate approach to architectural development, arguing that architectural discourse should address ways in which to manifest infrastructure within the existing everyday African context. The section is also concerned with the introduction of everyday-urbanism, public space and green infrastructure providing a more resource efficient network solution whilst seizing the opportunity to create awareness around the current topic within the quotidian context.

The second portion of the document, **investigative analysis** illustrates an action research investigation where the current innovative means of sustitute infrastructure as well as the architectural and social impacts thereof are analysed to uncover specific contextual approaches to formal and spatial informants regarding the design development.

The section also addresses case studies of architectural projects (positive and negative) that implement sustainable infrastructure within existing urban fabrics.

The Final portion of the document **implementation** documents the experimentation and finding of form, spatial arrangement and structure that are pragmatically appropriate whilst relating to the concept of contextual infrastructure. The creation of a service space with an unexpected sense of place, a space capable of providing the necessary services within an existing urban context whilst strengthening current quotidian threads of urban fabric and social networks.

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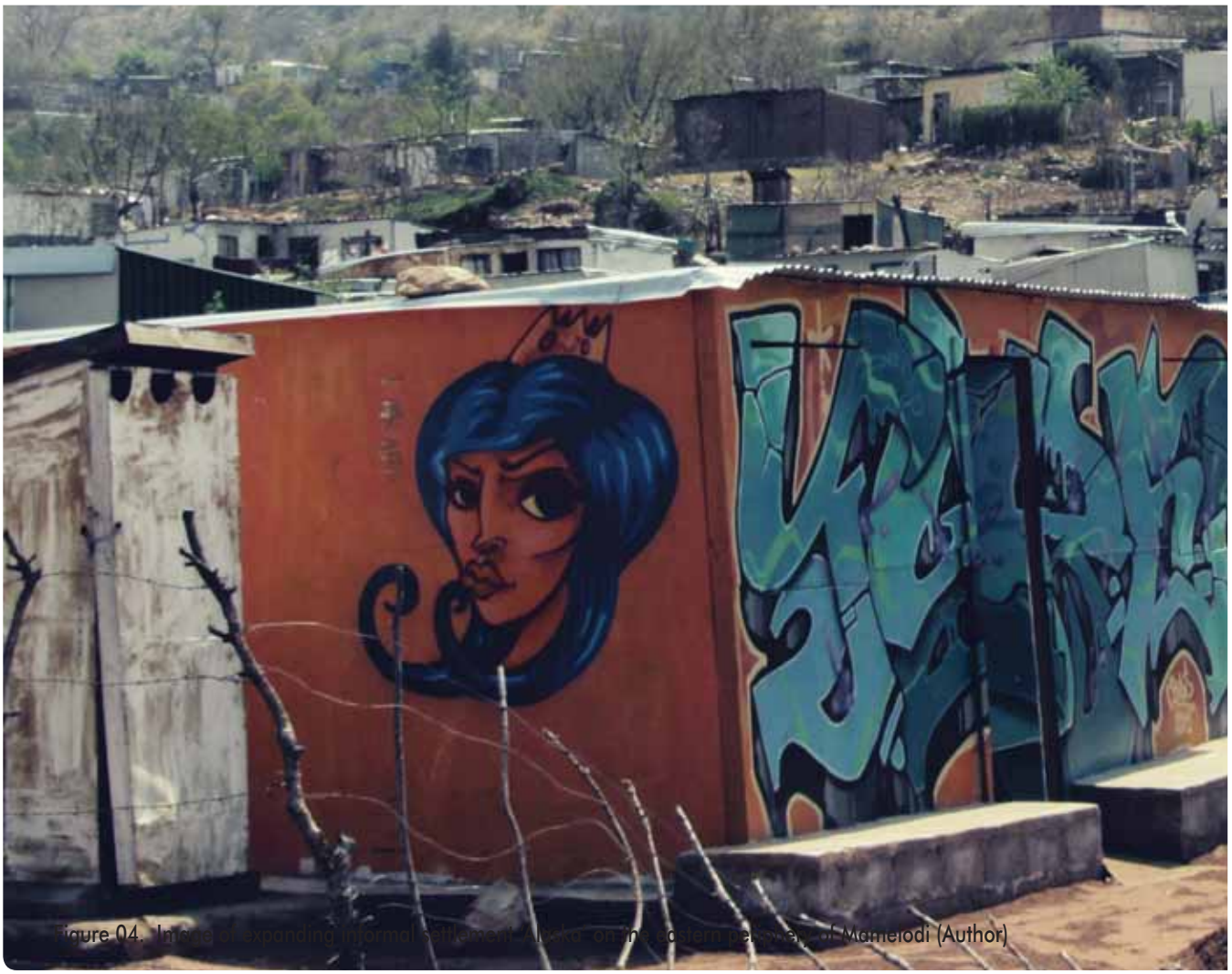

Figure 04: Image of expanding informal settlement - Misisi on the eastern periphery of Mamelodi (Author)

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#01
introduction

Sustainable human settlements are those that, inter alia, generate a sense of citizenship and identity, cooperation and dialogue for the common good, and a spirit of voluntarism and civic engagement, where all people are encouraged and have an equal opportunity to participate in decision making and development.

(Habitat Agenda,para. 32)

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introduction

This dissertation investigates the role of architecture in the emergence of community identity with specific reference to the spontaneous manifestation and expansion of informal settlements within the South African context and the urbanizing of these settlements through the processes of the Reconstructive Development Programme (RDP).

The understanding of urbanization within the African context has taken on a discursive shift over the past few years. The conventional understanding of 'urban fabric' constructed in systematic orders of various layers, programmed to function according to perpetual systems, has made way for a rapid organic and ungoverned urbanization process. An urbanism, illustrated by the South African urbanist Edgar Pieterse (2008); where people actively pursue a plethora of innovative strategies to not only survive under extremely difficult material conditions but also continuously fashion new ways of being and becoming as citizens and various overlapping collectives.

The current approach to infrastructure provision within the South African context is critically investigated to ascertain the pivotal level of influence regarding the engagement of infrastructure with the existing organic public realm.

The aim of the analysis is to establish what amount of structure and additional infrastructure is necessary to stimulate the emergence and corroboration of sociocultural identity and networks already present, and at which point it ineffectively disables the natural emergence of social public networks.

Figure 1.1

William Kentridge depicts Felix, a well meaning, if slightly ignorant artist, who awakens from his naïve reverie to a fuller grasp of this harsh reality in creating a 'new' South African identity. Once exposed to the life of another, Nandi -who serves as a metaphor of the everyday person, the process of rememberance and a quotidian existance after remembernce - Felix better understands the process intailed in creating an identity and emphasises the need to view the everyday life through the eyes of another.

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Figure 1.5. Single drawing (120 x 150cm) from a successive charcoal drawing (35mm) film 'Felix in Exile' William Kentridge 1994 (Caelenberge, 2008)

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The research and theoretical stance of the dissertation focuses on three interwoven topics, **public as well as social infrastructure** and **the everyday** with emphasis on their co-dependent relationship within the African context of urbanization. A quantitative analysis of the existing infrastructure as well as the needs thereof is carried out whilst a qualitative investigation of the everyday praxis is documented to emphasise the relationship between quotidian processes and infrastructure on an intimate scale.

Mamelodi, Gauteng has been chosen as the framework of research due to the current influx from surrounding rural environments, the rapid urbanization rate, mass housing projects and the fundamental need for contextual infrastructure development. (GAPP, 2010) An attempt to identify and explore these innovative strategies within the context of Mamelodi will be presented in this dissertation. The project investigates how architecture could contribute to the enhancement of an existing informal urban space.

It focuses on the provision of a concentrated infrastructural core, comprised of multi-layered networks and systems. The networks and systems aim to sustain the functioning of the space as well as the surrounding precinct, producing a catalytic effect of social infrastructure development.

The complex urban fabric of Mamelodi East is scrutinized with the following intentions:

1. To illustrate the cultural, political and future urbanization significance of the study area.

2. To understand the built fabric of the area in terms of development, adaptability and its role in supporting and sustaining the culture and identity of the area.

3. To identify the existing tangible infrastructural networks as well as the intangible social networks unique to the area, their origins, their systemic functioning, their physical loci, their social implications and possible threats to their survival during urbanization.

4. To establish Mamelodi's far reaching influence on settlement development within the larger African context.

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problem statement

The approach to infrastructure provision within the South African context is predominantly based on external, resilient 'mega' networks that provide basic amenities, disregarding the importance of public infrastructure and its relation to the existing, susceptible networks that currently hold the urban fabric together.

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research methodology

Quantitative and qualitative field research

Analysis of the proposed 2010 GAPP Tsosoloso framework for Mamelodi, the Prasa rail framework as well as the Tshwane upgrade proposal in relation to current conditions in Mamelodi interpreting the immediate as well as future influences on the current urban conditions.

Literature Study
Literature studies will be done on the following subjects in substantiation of the argument
African Urbanism
Everyday Urbanism
Social construction
Public Infrastructure

Contextual Analysis
A thorough analysis of the Mamelodi historical, physical, political and cultural context will be undertaken with the intentions;

_ To establish an in depth understanding of the local cultural and existing social networks unique to Mamelodi
_ To substantiate the argument of the critical needs expressed in this dissertation
_ To illustrate the significance of the study within the South African context
_ To discern opportunities for architectural intervention and response
_ To structure a baseline knowledge of the research area with the reader

Precedent and case studies
South African examples of public infrastructure and service architecture will be critically scrutinized in order to establish typological characteristics. (positive and negative)
The discussion of international examples will illustrate global trends, theories and design approaches.
Pragmatic precedents will be analysed to gain knowledge and establish context appropriate typologies on the subject of public infrastructure provision.

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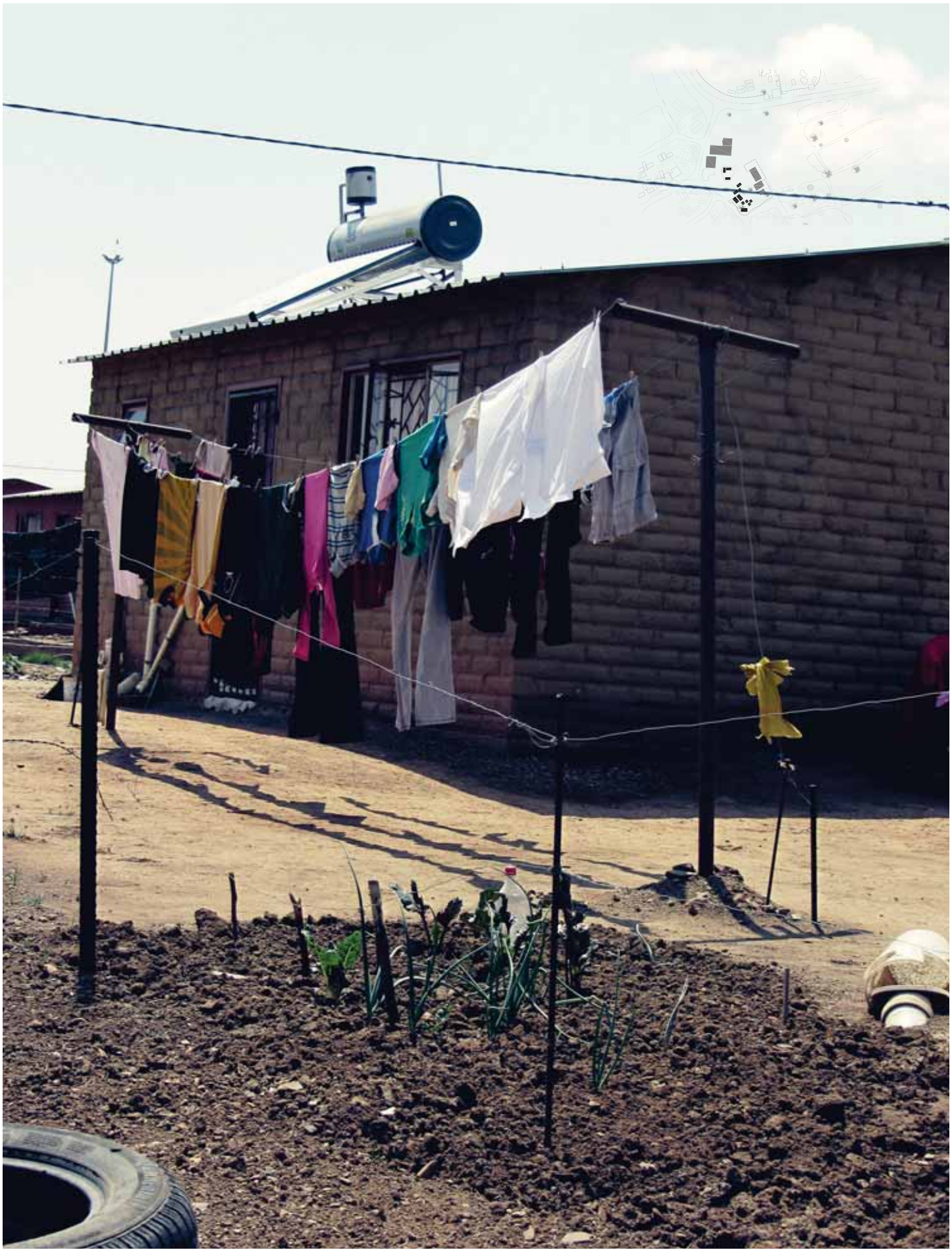

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#02 theory

AND ON THE EIGHTH DAY

someone said-
we'll have a city here
(town, township, settlement, whatever)
pointing at a blank spot in his eye,
his finger dripping decrees onto
whatever lay beneath it,

and you were standing just to one side
of where the decrees fell,
maybe you were reading a novel or
counting birds,
or thinking of how to fit utopia through
the eye of a storm,
but the decrees ran towards you
following the incline of the land,
they pooled at your feet, your face was
reflected in them-

what did you do?

Karen Press (Pieterse E, 2010, p. 64)

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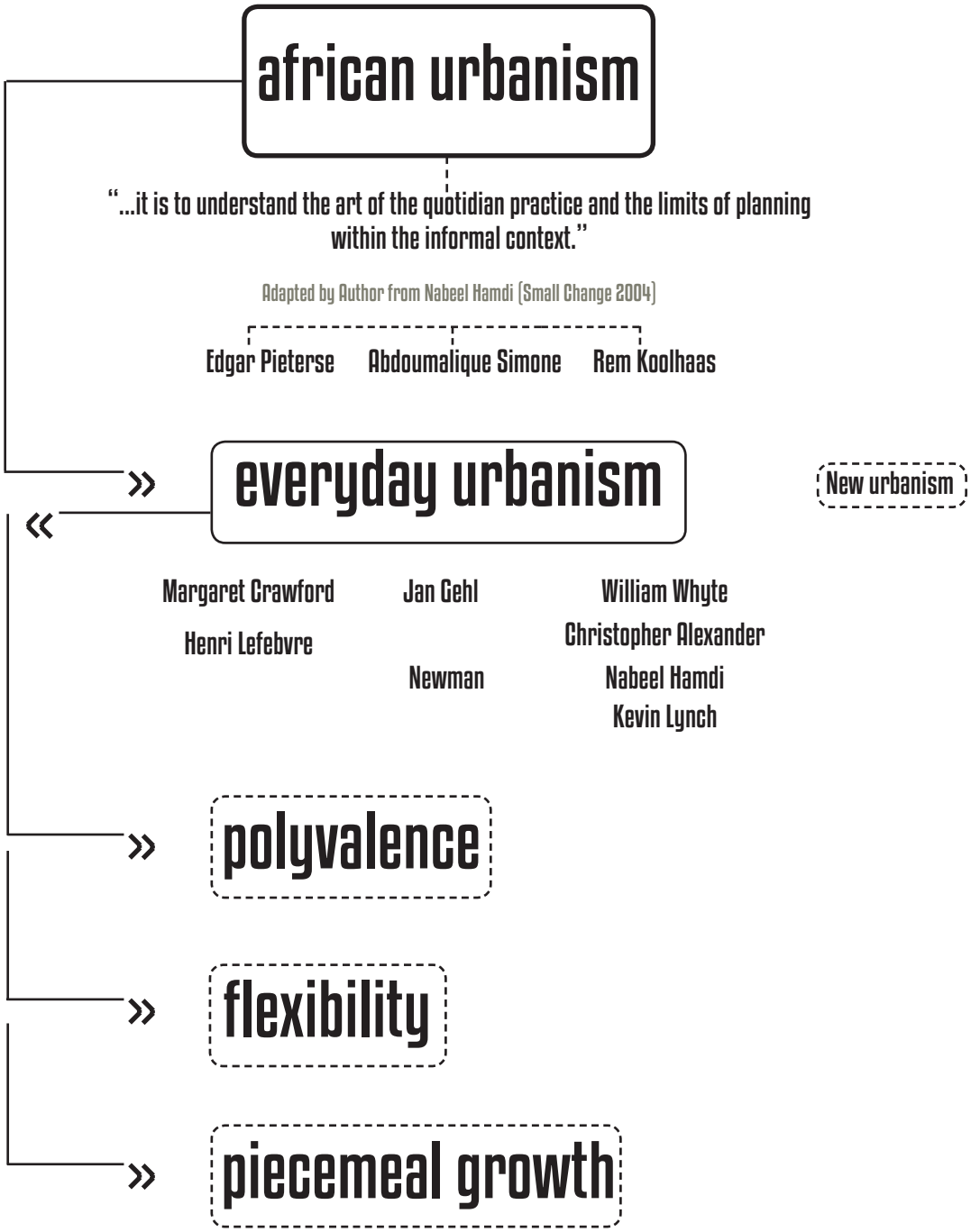

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african urbanism

Taking the African city for what it is; to start with recognising the significance of everyday practice.

As discussed by the South African Urbanist, Edgar Pieterse (Pieterse, 2008) It is within the micro detail of these quotidian practices that one can begin to decipher the alternative logics and dynamics of African urbanisms.

African Urbanism places emphasis on the distinct differences between the conventional planned means of urbanisation and the current impulsive typology of a rapid urbanisation structure. The alternative approach takes into account the unsatisfied fundamental needs which induce the formation of innovative strategies that currently dominate the infrastructure networks of informal settlements.

Infrastructure becomes the dictating factor to everyday activities. Commerce, entrepreneurial pursuits, as well as social networks and leisure activities are formulated within the space assembled around infrastructure.

Relating to the observation made by Koolhaas in his work ***Mutations*** - where infrastructure is transformed into public space - a small scale local example is a single faucet which transforms into a communal wash bay, a car wash, a drinking fountain, a shared kitchen and ultimately a space for gathering, sharing and interacting. Photo analysis by [Author]

soccer team laundry point with boundary fence as wash-line

local dish washing bay shared by 6 informal dwellings

buckets have formed part of the resource point used on a loan basis for carrying water home, washing cars and bathing with

located on a busy pedestrian path the faucet also serves as a public drinking fountain

In the rapidly expanding African context, infrastructure therefore does not play the same role as its counterpart in the western understanding of urban development. Infrastructure is not a by-product added to a preconceived space or structure. It is not the hidden workings of the city and architecture, removed from the public eye.

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...the embodiment of lagos's identity.

In the African context, infrastructure induces the emergence of the public realm. Koolhaas describes this phenomenon at the Oshodi station in Lagos as ***"They have turned infrastructure into a marketplace, non-place into productivity."*** (2005: 694) See figure 01.It is the forerunner to informal spatial development. The relationship is at a reverse ratio and it discloses an alternative approach to the enhancement and addition of infrastructure. This approach will ideally provide a network of systems that embrace and strengthen the current networks and will ultimately be adopted and accepted within its context improving the standards of living around it.

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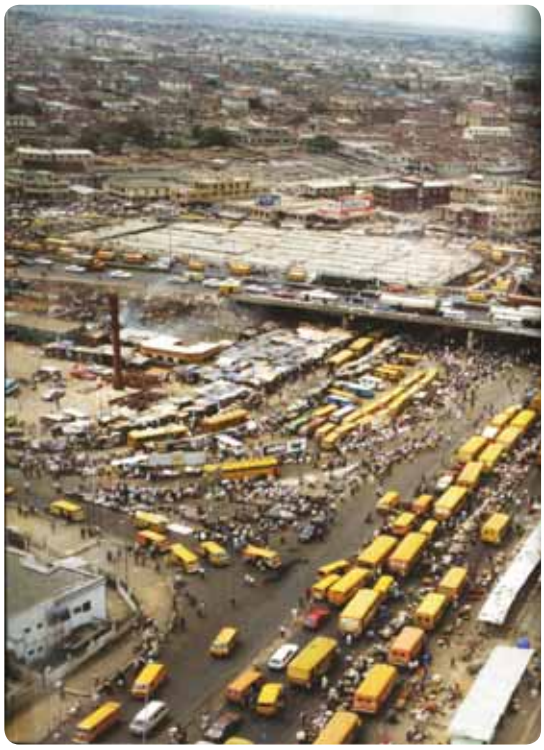

Figure 2.1. Image of Oshoti informal market in Lagos (Koolhaas, 2005)

In his work; Mutations, Rem Koolhaas discusses the African city Lagos and defines Oshodi (an informal market) as the embodiment of Lagos's identity.

Located at the intersection of a ring road, the city's north-south spine, an incomplete on-ramp and a railway, it has transformed infrastructure into public space comprised of a complex overlap of programmes; " a train station, urban and suburban bus stations, hauling stations, several different markets, auto garages, a school, at least one church, and hundreds if not thousands of service stalls."

Oshodi effectively belongs to no one but has been claimed by multiple interests, traders, councils, hawkers and agrebos (area boys).

Sustaining 24 hour state of flux, Oshodi continually remakes and replenishes itself through accumulation and exchange of goods and the movement of its individual mobile traders.
Book-ended by more permanent concrete markets, the swath of territorialised land has been divided into twenty to thirty parallel strips that vary in temporariness, permanence and flow. As it condenses towards the centre the market becomes more temporary and its linear organization makes it particularly succinct.

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everyday urbanism

Based on the ideas of philosopher Henri Lefebvre, everyday life is viewed as a repository of all kinds of meanings, ranging from the ordinary to the extraordinary, which is hidden within ordinariness. Everyday Urbanism is an accretional approach where small changes accumulate to transform situations. (1991:87) Margaret Crawford (Chase, 2008) argues that; although conventionally perceived as banal or ordinary, an investigation into the complexities of everyday life reveals a hidden richness of meaning within the ordinariness.

The physical domain of public activity that exists in the 'taken-for granted world' between the home, the workplace and the institution, constitutes what Lefebvre calls the 'common ground' or 'connective tissue' of all conceivable human thoughts and activities,(1991) binding daily lives together. It is repetitive, it is everywhere and it is nowhere, it is a place that has few characteristics that people pay attention to. (Chase, 2008:19) It is found within the nooks and crannies of existing urban environments. It is the crucial medium through which we enter into a transformative praxis with nature, learn about comradeship and love,acquire and develop communicative competence, formulate and realize pragmatically normative conceptions, feel myriad desires, pains and exaltations, and eventually expire. (Gardiner, 2000)

*"In short, the everyday is where we develop our manifold capacities, both in an **individual** and **collective** sense, and become fully integrated and truly human persons." (ibid: 2)*

Crawford further establishes that everyday urbanism is therefore not a large scale master planning of 'best practices': It is a focus on small changes that accumulate to transform situations. It is not interested in transforming greenfield sites into something new, but instead typically retrofits already existing situations to better accommodate everyday life. (Chase 2008:19)

The aim of everyday urbanism as investigated by Crawford is **refamiliarization** (ibid), making it more familiar. To domesticate urban space, creating a more inhabitable realm, replacing alienation with comfort.

Everyday urbanism acknowledges the multiple ways in which everyday life is decidedly structured by time, including natural time; day and night, weather, seasonal cycles, schedules of everyday life, business hours, the weekend and holidays. **It is radically empirical and highly specific rather than normative.** It begins with what already exists and then encourages and intensifies it. (ibid: 32)

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Figure 2.2. Photo collage by Author, depicting the everyday activities on and around the selected site in the three categories of public space activities defined by Jan Gehl. (Gehl, Life Between Buildings, 2011, p. 11)

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quotidian context case study _ energy concentrations

An investigation into the everyday activities of people, their location and concentrated public activity points was conducted to analyse the relationship between public space, public infrastructure, public interaction and everyday necessary activities.

The interrelated activities were categorised into four groups;

Transport/Public Commuting *(taxi, bus, train)*
Commerce/Trade *(formal & informal)*
Light Industry *(formal and informal manufacturing, repair, production, skilled service)*
Social Services *(accommodation of public activity, seating, gathering, movement, leisure)*

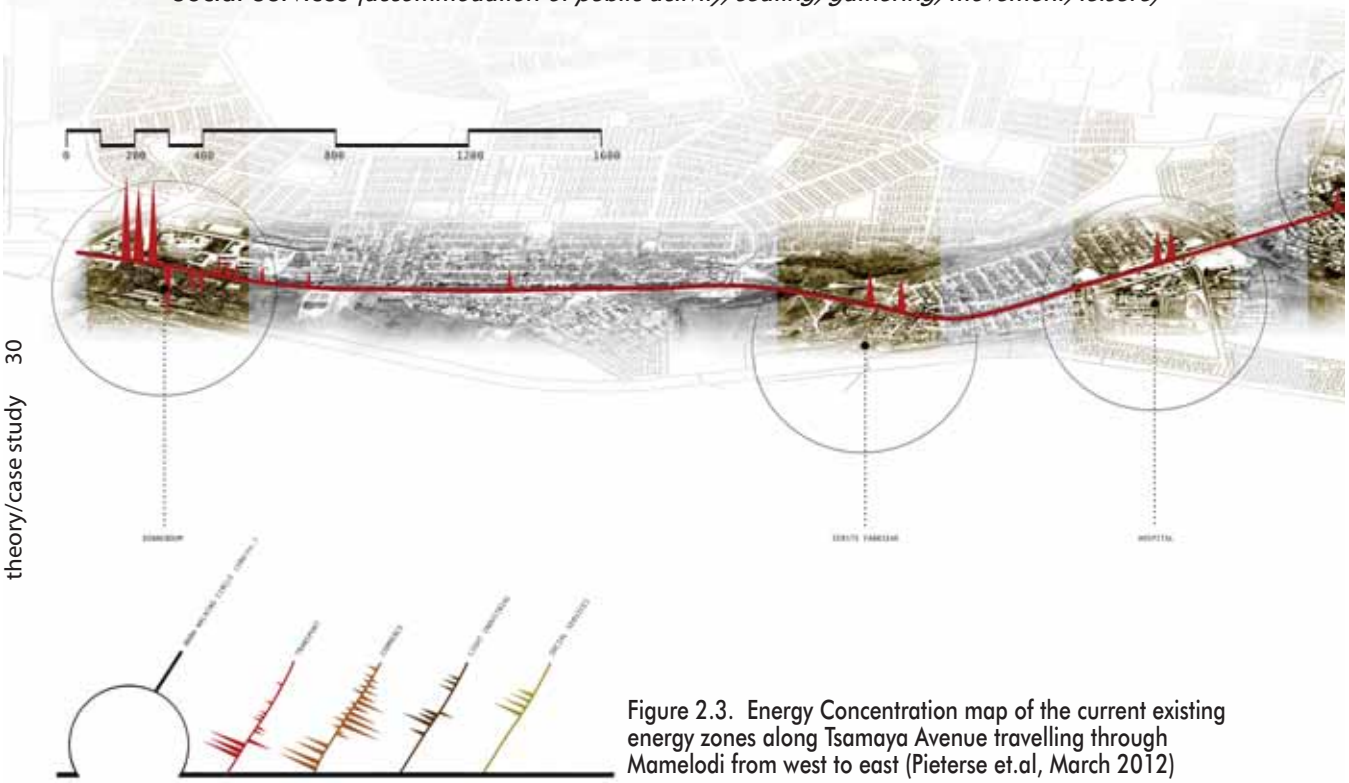

Figure 2.3. Energy Concentration map of the current existing energy zones along Tsamaya Avenue travelling through Mamelodi from west to east (Pieterse et.al, March 2012)

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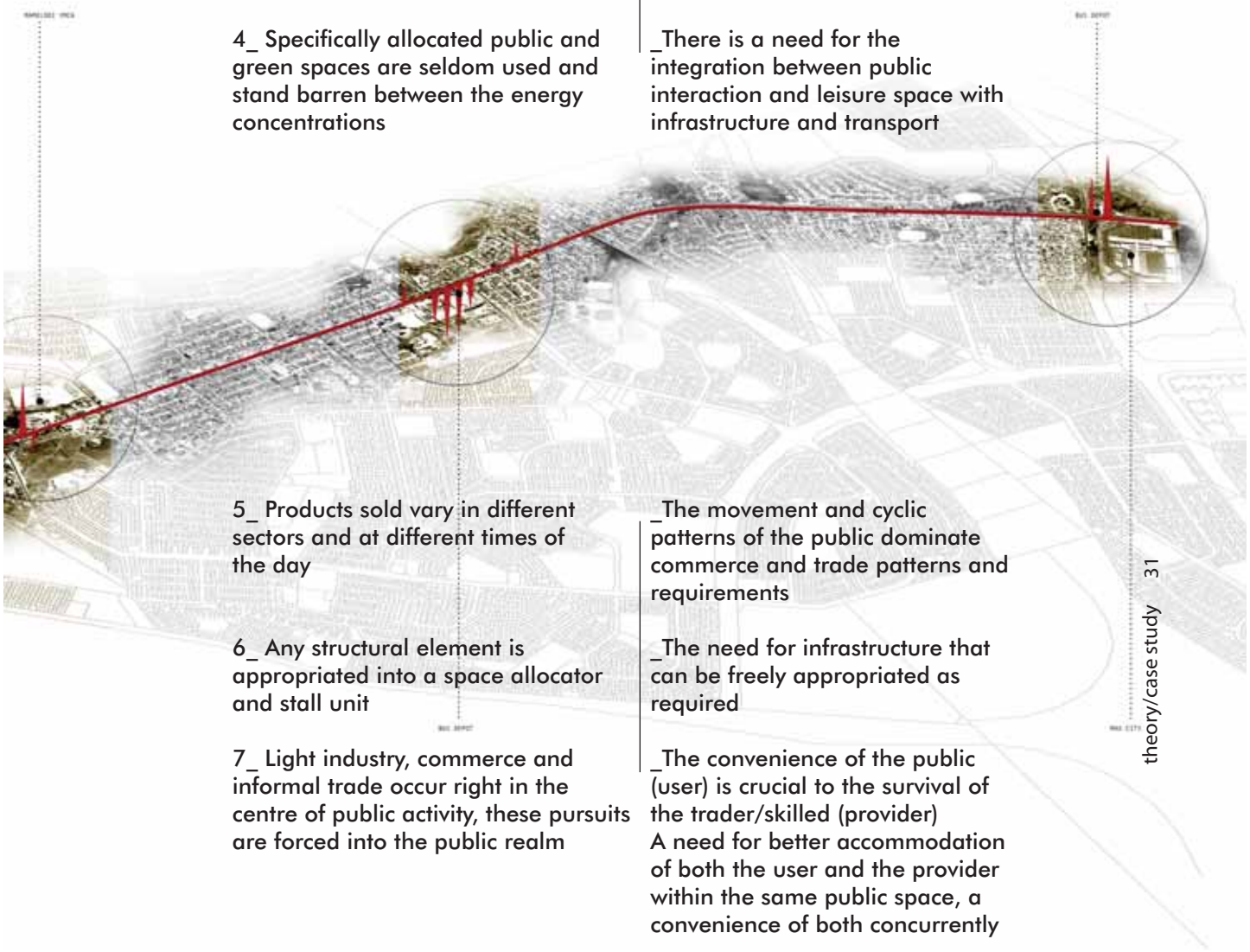
Multiple conclusions about the Mamelodi fabric can be drawn from the investigation

Findings	Deductions
1_ Pedestrian energy is dominant in streetscapes	_Streets have developed into a new form of public space
2_ Older buildings are better adapted for everyday uses	_Contemporary architecture does not respond to everyday needs of users
3_Trade and points of commerce are directly related to public transport nodes	_Public transport points have developed into typologies of public space with the highest concentration of public interaction
4_ Specifically allocated public and green spaces are seldom used and stand barren between the energy concentrations	_There is a need for the integration between public interaction and leisure space with infrastructure and transport



5_ Products sold vary in different sectors and at different times of the day	_The movement and cyclic patterns of the public dominate commerce and trade patterns and requirements
6_ Any structural element is appropriated into a space allocator and stall unit	_The need for infrastructure that can be freely appropriated as required
7_ Light industry, commerce and informal trade occur right in the centre of public activity, these pursuits are forced into the public realm	_The convenience of the public (user) is crucial to the survival of the trader/skilled (provider) A need for better accommodation of both the user and the provider within the same public space, a convenience of both concurrently

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public space _ a space where inhabitants can ***build a community*** and play out everyday activities.

Public space is depicted by Carr et.al (1992: 3) as a space where inhabitants can build a community and play out everyday activities. A life between private buildings as suggested by Jan Gehl (2011, p. 17) that offers the opportunity to be with others in a relaxed and undemanding way, being among others, seeing and hearing others, receiving impulses from others, imply positive experiences as opposed to being alone. *Le 56 Interstice* discussed in chapter five - Precedent Studies is an example where public space has been reclaimed and introduced into an abandoned liminal space between two high-rise buildings to cater for the human need of interacting with others.

In public space the individual is present and participating as opposed to passively viewing. One participates in a modest way but none the less participates. As illustrated by the African Urbanist understanding the informal 'unplanned' nature of Mamelodi has resulted in public life and therefore public space emerging between all built forms and predominantly along street-scapes. Explained by Lloyd (2003; 105-107) "An African view of the public realm is understood as "all space is public except when defined by ritual or private space. While in the western view "all space is private, except for specifically designated public areas."

This understanding challenges the conventional typology of public space, highlighting the potential to create a network of public space, linking together a hierarchy of public nodes and public street-scapes.

Lefebvre (1991:117) focuses on contemporary urban environments that are concerned with the experiential and qualitative expectations of its users where "urban citizens are not simply passive consumers, but are constantly engaged with the city, appropriating and re-appropriating the site and systems for their own ends." This relates to the current model of urbanization within the African context, where the urban environment is "practiced" (Koolhaas, 2005:694). The identity of Mamelodi can be found through an understanding of the use and appropriation of its liminal public space-placing public architecture at the core of the community's identity.

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The concept of everyday urbanism can therefore respond to the African Mamelodi context and serve as a catalyst for socio-cultural identity development, acknowledging the context, economic and social needs of the public. It will draw energy from existing networks and intangible structures to feed community upliftment and the process of urban development. The intention of the proposal is to identify existing quotidian spaces that hold a complexity of characteristics and transform them into loci of identity and ownership generation.

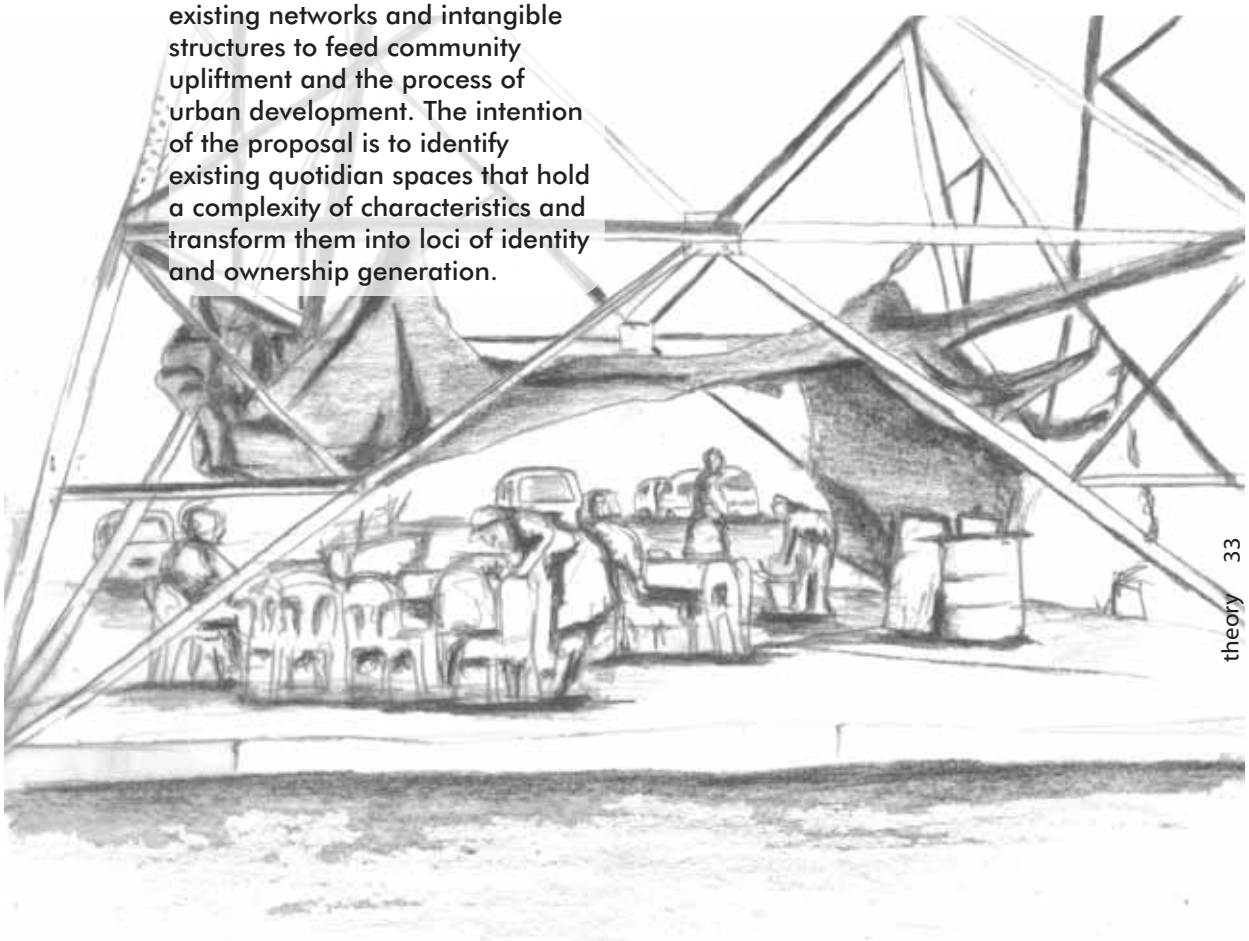

Figure 2.4. An informal restaurant that emerges beneath a power pylon at peak hour traffic times. (Author)

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community conciousness, respect and **aspiration**

Civic Consciousness, an awareness (consciousness) of one's community. (Sennet, 2003)

In its most primordial form civic consciousness means that the individual is aware of what is going on around him within his living environment. The ultimate ideal would lead to the citizen being involved in the life of the community understanding his role as individual in the community as a whole, seeking to contribute when he is able to do so. The starting block to this ideal is full awareness of one's community and the civic life in which we participate.

In Her work *The Human Condition* Hannah Arendt investigates phenomena of the Athenian democracy where the highest form of excellence (arête) was involvement in the life of the community, if one chose to not participate in that life you were referred to by the Greek term idios, the root of the word 'idiot'. Civic consciousness has therefore long been seen as an important aspect of what it means to be human. (Arendt, 1998)

According to sociologist Richard Sennet, to become civically conscious one is to be exposed to an active civic/public lifestyle on a regular basis ensuing the constant updating an awareness of those as well as the events around you. Being fully emerged within the community endeavours makes one a part of a whole , belonging to a group with relevant rights and responsibilities towards the citizens of the community.

As described by Carr et. al (1992:3) public space is a space where inhabitants can build a community and play out everyday activities, enhancing and driving the well needed civic consciousness through encounters between community members.

Due to the current lack of opportunities and facilities within the Mamelodi context, inhabitants are forced to commute long distances to the CBD (GAPP, 2010) resulting in development towards an urban fabric identified by leading urbanist Jan Gehl (2003: 14) as an invaded city, where traffic takes precedence and the urban fabric conforms to a singular use, neglecting the crucial need of public infrastructure and inhibiting the formation of public life and local civic consciousness. (see fig 05)

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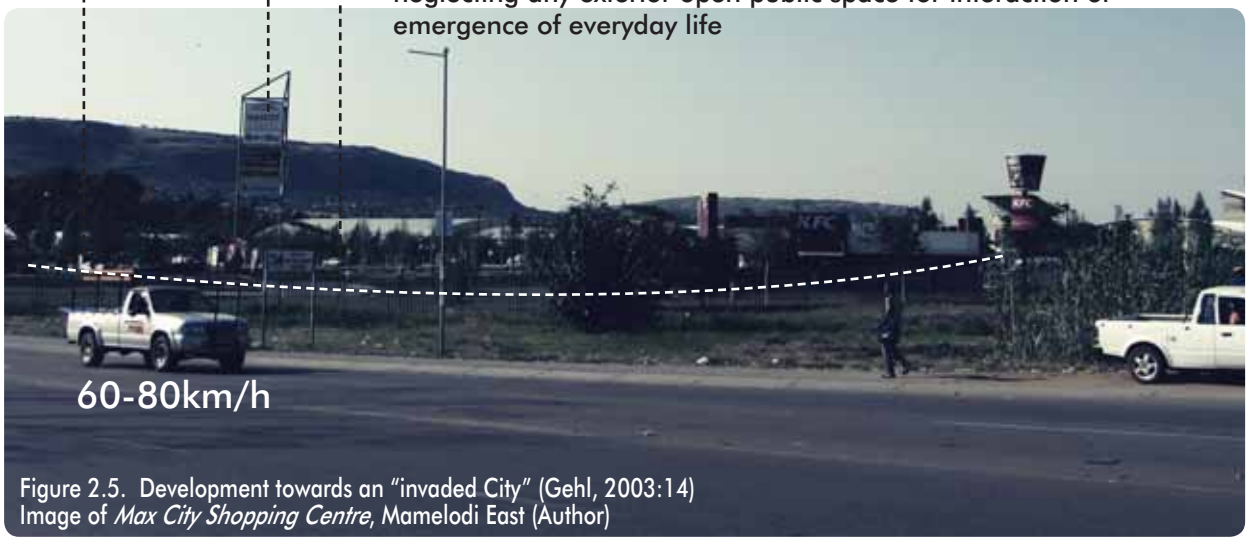

Figure 2.5. Development towards an "invaded City" (Gehl, 2003:14)
Image of *Max City Shopping Centre*, Mamelodi East (Author)

Figure 2.6. Characteristic of pedestrian city *Tshukudu street* adjacent to selected site

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...when 'I' can emerge as 'we', and also when 'we' is inclusive of 'them'...

An African understanding of the public realm as suggested previously by Lloyd (2003:105-107) views "all space is public, except when defined by ritual or private space." Despite the progressive inconvenient development towards an "invaded city", the informal areas of Mamelodi still present the characteristic African aspect of public space (see fig.06). By enhancing this eminence, it is proposed that an urban network of public space lacing together various communities can be defined within the Mamelodi context.

By combining a need (public service) and a context specific character trait, a proposal of placing public service and infrastructure within this public realm attempts to disclose the concept of full public accessibility to these services and thereby enhance civic consciousness. This promotes a model of an African city within the Mamelodi context where the urban environment is public and practiced (Koolhaas 2005:694) daily and communities are created through consciousness of one another in this interactive realm.

An inevitable result of civic consciousness is ***mutual respect***. Being aware of, belonging to and relating to those in your community extends a sense of belonging to a whole, as suggested by Sennett (2003).Mutual respect develops when we give recognition to someone else who may be doing or thinking something different but still working in unison as an ensemble.

Hamdi describes development as 'that stage you reach when you are secure enough in yourself, individually or **collectively**, to become interdependent; when 'I' can emerge as 'we', and also when 'we' is inclusive of 'them'. It empowers and opens doors; it makes you money and wins you ***respect***.' (Hamdi, Small Change, 2004: xvi)

*Figure 07: '**Viva Village**' located in the far eastern informal settlement of Mamelodi 'Alaska' where the action -instigated by a single man- of painting a shack has resulted in a recurrent tourist attracting community project where artist are invited to make their mark on a shack in the village. This extremely simple gesture has resulted in annual artist festivals generating an income for the community epitomizing the action of 'I' emerging as 'we' where individual informal inhabitants have now become a community and belong to a collective emanating a sense of home.*

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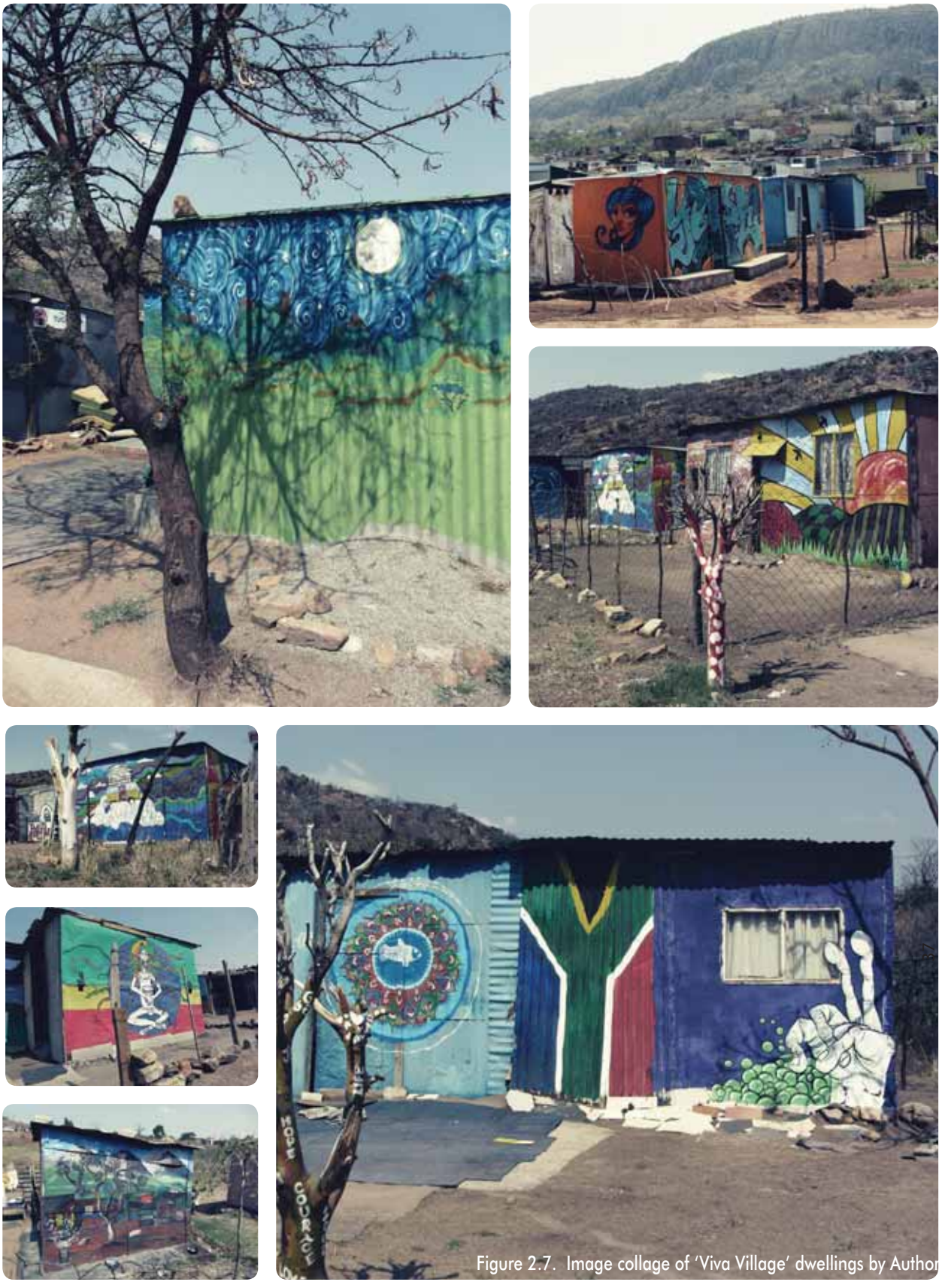

Figure 2.7. Image collage of 'Viva Village' dwellings by Author

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Despite the flagrant lack of infrastructure and unfortunate circumstances of its informal inhabitants, Mamelodi succeeds in growing, developing and functioning within the worldly flux of exchange.

"Development happens when you succeed in the face of adversity however small or limited the first steps may be" (Sennett, 2003: 2). This development as a whole strengthens mutual respect as well as the sense of social pride. This unique ability of a population to cope inevitably within an urban landscape of disorder provides the seeds of ***self respect*** which comes when difficulties are mastered, not when something comes easily. (ibid)

The art of mutual respect carries consequences for the people who practice it; exchange turns people outward (ibid) – a stance necessary for the development of character. 'A solid character' is a person who justly thinks of himself with respect: invoking self confidence. Such a character trait is evident within the Mamelodi context and was highlighted and confirmed in the personal community and cotext studies concluded y the author. This trait fuels ***aspiration*** to succeed and achieve. Even though the potential to achieve is inhibited by class and status, an underlying energy of aspiration drives a constant urge for personal progression.
Due to the democratic nature of our country, the value of equality and the aspect of an open society, the character of **aspiration** is a key factor why the Mamelodi context represents constant growth and development.

Anyone is able to build themselves up to a successful position within their environment regardless of one's social status or economic background. Any citizen competent and enthusiastic in his field of knowledge can pursue a successful career with assistance from governmental institutions and localised community members. This points up another important need for public space and civic consciousness; namely the need for stimulation (Gehl,2011: 21) In addition to imparting information about the social world outside, the action of seeing and hearing other people can provoke ideas and inspiration for action. We are inspired by seeing others in action, "Children for example, see other children at play and get the urge to join in, or they get ideas for new games by watching other children or adults." (ibid:21)

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Figure 2.8. Zapiro Cartoon_980719st - What do you want to be when you grow up?
Published in Sunday Times on 19 Jul 1998

Aspiration

_noun•(usually aspirations) a hope or ambition of achieving something (Oxford, 2012)

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...first we shape cities and then they shape us.

The example of most political leaders and members of the dominant party originating from disadvantaged rural environments strengthens the potential for citizens to aspire to success, but a more tangible network within ones immediate environment is required to sustain a constant stimulation and motivation.(G.Paradza et.al (2012)

This force of aspiration can be drawn through African urban development strategies to architecture, where new and future development needs to address the 'hunger' of the inhabitants to progress and succeed within their personal environments. Lewis Mumford posits architecture and city planning as the cultural practices that most prominently represent society's aspirations and spiritual essence. (Mumford, 1926)

An approach towards development and architecture where mutual respect is practiced between the informal community and the designer, where the community is recognised as the future of our country and developed with a spirit of progression and growth within their immediate context.

The author therefore concludes that an architecture of aspiration should embrace its context relating to current conditions and limits, but not be inhibited or remain stagnant due to these limits. It ought to identify the underlying potential and current success present in the environment and enhance the sense of aspiration needed to create stimulating, healthy communities.

The proposal attempts to entice, activate and induce a sense of community pride through architecture, where aspiration of a better local environment is fulfilled and a social network of encouragement, upliftment and support will further promote the larger aspirations of self fulfilment and actualization. "First we shape cities and then they shape us." (Gehl, 2011: 9)

"... in order to do something big – to think globally and act globally – one starts with something small and one starts where it counts. In your local community and immediate environment, It is about getting it right for now and at the same time being tactical and strategic about later. *(Hamdi, Small Change, 2004: xix)*

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Lack of respect, though less aggressive than an outright insult,
can take an equally wounding form.
No insult is offered another person, but neither is recognition extended; he or she is not *seen* ----as a full human being whose presence matters.

When society treats the mass of people in this way, singling out only a few for recognition, it creates a scarcity of respect, as though there were not enough of this precious substance to go around.

Like many famines, this scarcity is man-made;
unlike food, respect costs nothing.
Why, then, should it be in short supply?

(Sennett, 2003:4)

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inhabitable interfaces

Regarded as a mere space divider within the contemporary realm of architecture, the wall presents potential for programmable infrastructure to support the everyday context of a public space.

Modern architecture has lead to the primary concern of architecture to be the use and design of 'empty' space (Doordan 2001:201), resulting in the articulation of space with means of mundane walls focusing primarily on the enclosure of space and neglecting the potential hidden in the actual surface of the walls. Within the African context Koolhaas (2005:663) identifies the mutations of the use of dividing walls, he explains that "the property line, originally a conceptual and abstract legal division designed to divide, enclose and exclude, has materialized into a vertical wall, whose surface has become an attractor for use, contamination and the establishment of new economies. The wall has come to be taken for granted as an infrastructure that supports and serves a host of economies and small-scale industries."

Case Study_ Klong Toey Community Lantern

A community project completed in a dense informal settlement block of Bangkok by TYIN tegnestue architects of Norway illustrates the concept and success of inhabitable interfaces. The aim of the project was to provide a public escape within a densely populated urban fabric thus the need to occupy every inch of possible space lead to experimenting with creating every surface and interface as usable, habitable infrastructure.

The boundary fence line of the upgraded basketball court was developed into a two storey frame structure which separates the public walkway from the active court but serves as a stage for performances and public meetings, walls for climbing and seating both inside and on the edges. The public surface and infrastructure was designed as an open, adaptable space so that future communities can add and remove elements as required. (Figure 08)

The function of the dividing fence was transformed into a structure that now houses several functions making it tangible; where the mundane function of the fence is inhabited, adapted and experienced. By changing the perspective from which we view mundane architectural elements like fences, boundary lines and walls as suggested by Koolhaas, Cruz and Cage (2005) we can transform public architecture into something responsive, interactive and inhabitable - catalysing and enhancing the emergence of everyday life.

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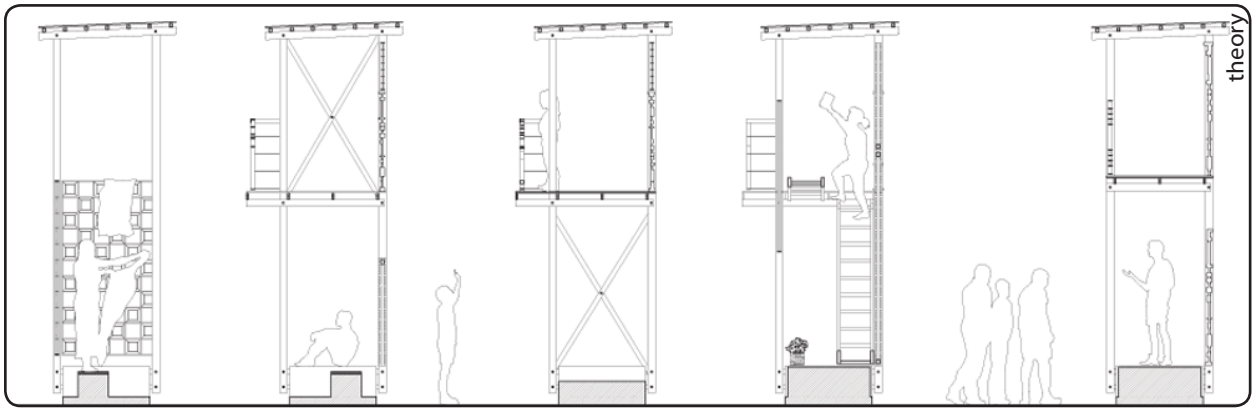

Figure 2.9. Photo collage of Klong Toey Community Lantern, public space (Marwaha, 2012)

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translation into architecture

The proposed architecture establishes a platform for both spontaneous and rehearsed events through the provision of freely appropriated space in correspondence with a formalised public service nucleus at the core. The nucleus serves as community support structure and catalyst for activity whilst the unprogrammed space for appropriation links a system of social loci into a social infrastructure network.

The following physical responses were generated from the theoretical argument:

Civic gathering space: The site currently hosts an array of planned as well as spontaneous civic events, ranging from soccer tournaments, community meetings and presentations to religious gatherings on the open expanse of the site. The architecture will be used to delineate the space, activate the edges as well as provide facilities and public infrastructure to sustain the polyvalent nature of the space. The 'square' structures the first platform of space that can be appropriated for various spontaneous quotidian practices.

Supporting liminal polyvalent space: Much of the way of life in Mamelodi (both past and present) is based on informality. The site already hosts a number of informal restaurants and points of trade that serve the pedestrians crossing the site en-route to and from the surrounding transport interchanges and their dwellings. The architecture therefore provides space, free for appropriation, which could be occupied by locals as they require. The polyvalent liminal space is the second platform for spontaneous event within the framework of community identity emergence.

Public Service nucleus: Although public space is-as it indicates- space for the practice of public life, there needs to be a component of ownership attached to it to instigate a sense of security and maintenance. The proposal therefore amalgamates the need for immediate public service and emergency response systems with the need for quotidian public space. The result of the amalgamation is the provision of a localized network of public service units located within the public realm at full accessibility, linking together a multilayered infrastructural network.

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Figure 2.10. Optional Activity _ Quick game of *Marabi* whilst waiting for lunch to be prepared in the *sphatlo zozo*

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Cities are densities of stories, passions, hurts, revenge, **aspiration,**avoidance, deflection, and complicity.

As such, residents must be able to conceive of a space sufficiently bounded so as to consolidate disparate energies and make things of scale happen.

But at the same time,

they must conceive of a fractured space sufficiently large enough through which dangerous feelings can dissipate or be steered away.

Urban residents are thus concerned about what kinds of games, instruments, languages, sight lines, constructions, and objects can be put in play in order to anticipate new alignments of social initiatives and resources, and thus capacity.

Abdoumaliq Simone
(2004, p.11))

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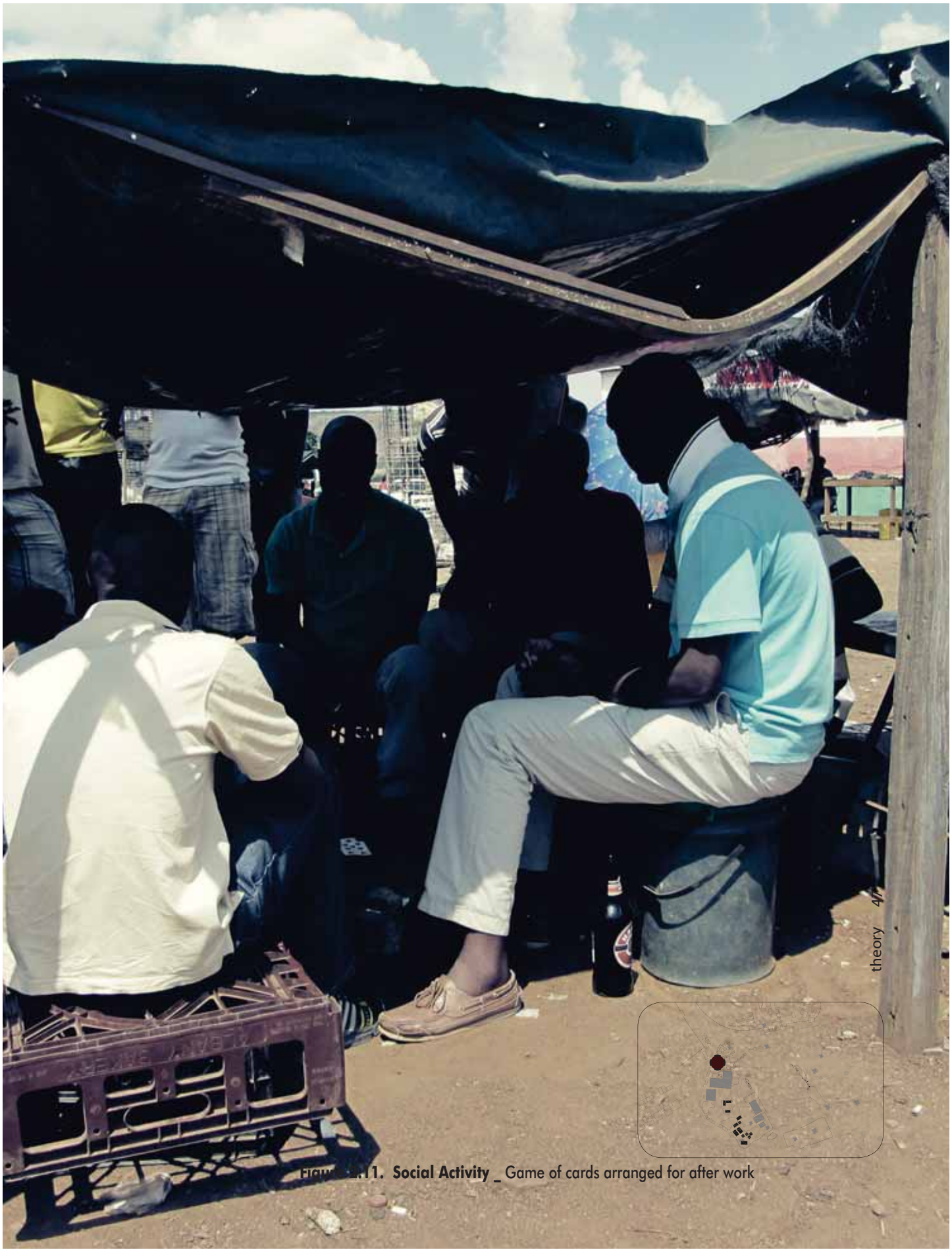

Figure 2.11. **Social Activity** _ Game of cards arranged for after work

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Figure 3.9. Locality Image of Mamelodi within South Africa (Author)

#03 **Context**
Mamelodi
History
Public infrastructure analysis
Lusaka ward 6
Analysis of Lusaka built fabric
Site context

#03.1 **Framework [macro]**

#03.2 **Framework [meso]**

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#03

context

Everyday space is often described as generic and generalizable. but, once you closely observe the people who inhabit it and the activities that take place there, it becomes highly specific.

(Margaret Crawford, 2008)

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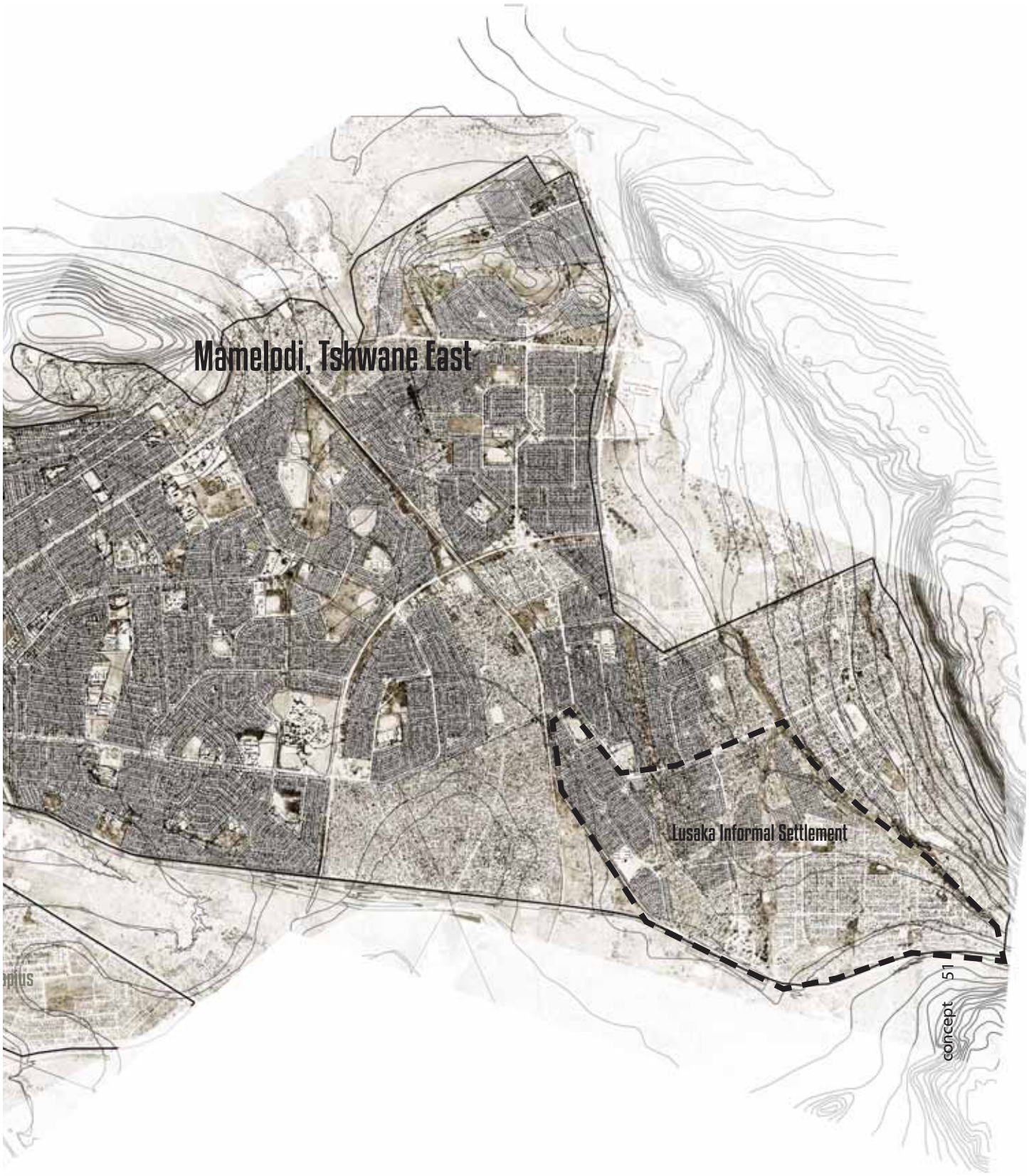

Figure 3.10. Areal view of the Mamelodi Boundaries indicating the district [Lusaka] under investigation (Author)

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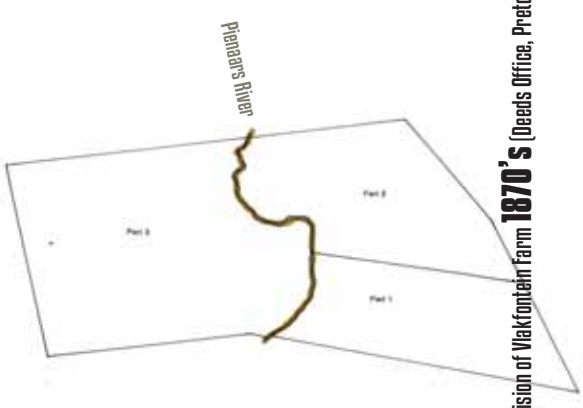

Subdivision of Vlakfontein Farm **1870's** (Deeds Office, Pretoria)

Mamelodi: Layout **1961** (City Council, Pretoria)

As one of the oldest 'townships' in South Africa, Mamelodi narrates a rich development history grown from the notorious influx control, Group Areas Act enforced during the apartheid regime in 1953.

Constituting a mere 16 houses then, it has developed to a current 106 670 households.
(GAPP, 2010:149)
At present, Mamelodi epitomizes the current context of expanding settlements in South Africa, accommodating the ever increasing housing needs of the impoverished.

The various phases of the Reconstructive Development Programme (RDP) together with the continual growth of self provision informal settlements around Mamelodi depict a unique multifarious environment.
The rapid ungoverned expansion of the settlement has lead to the inadequate supply of infrastructural networks with large zones on the eastern periphery functioning without any form of service infrastructure.

Due to the extensive housing demand, energy has been focused on the provision of housing units with little or no provision of public social infrastructure networks and systems.

The informal settlement of Lusaka is found in extension 6 of Mamelodi and located in ward 10 of Tshwane see (fig.3.2). Established <1994 and is currently undergoing restructuring and formalizing of housing units.

Site Location:
Erf 32996
Lusaka, ward 10, extention 6.
Mamelodi, Tshwane, South Africa

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Figure 3.11. An image timeline of the development stages of Mamelodi adapted by Author

As suggested by the historical growth pattern, the informal sector has continuously been uprooted and displaced further east as the process of formalization takes place from the west. A distinct difference in urban fabric is remarked at the crossing of the Pienaars river where the formal urban fabric dissolves into a maize of densely populated informal settlements and dirt roads.

It is at this dynamic point of transition - which constantly adapts and moulds to the needs of the people - where the proposal of this dissertation is rooted.

A point of flux where community identity is at the point of extinction or emergence.

An investigation into the infrastructural status quo of Mamelodi (fig 3.4) identified the need for public service provision in the east of Mamelodi. An interview with Mr. J. Pieterse, Pretoria Fire Chief Warden emphasized this need, as the only fire and emergency rescue station is located in Silverton at an average response time of 30-40 min with the main police station in the west of Mamelodi resulting in poor public service provision to the inhabitants of the east. (Personal communication April 2012)
Mr. Pieterse indicated that the densely knit urban fabric of the informal section of Mamelodi hosts an array of challenges with regards to fire fighting and emergency rescue as the road network is too narrow and cannot accommodate the large engines. The potential for an alternate approach was thus disclosed, inspiring a proposal of smaller scaled yet more frequent public service nodes.

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infrastructure and services

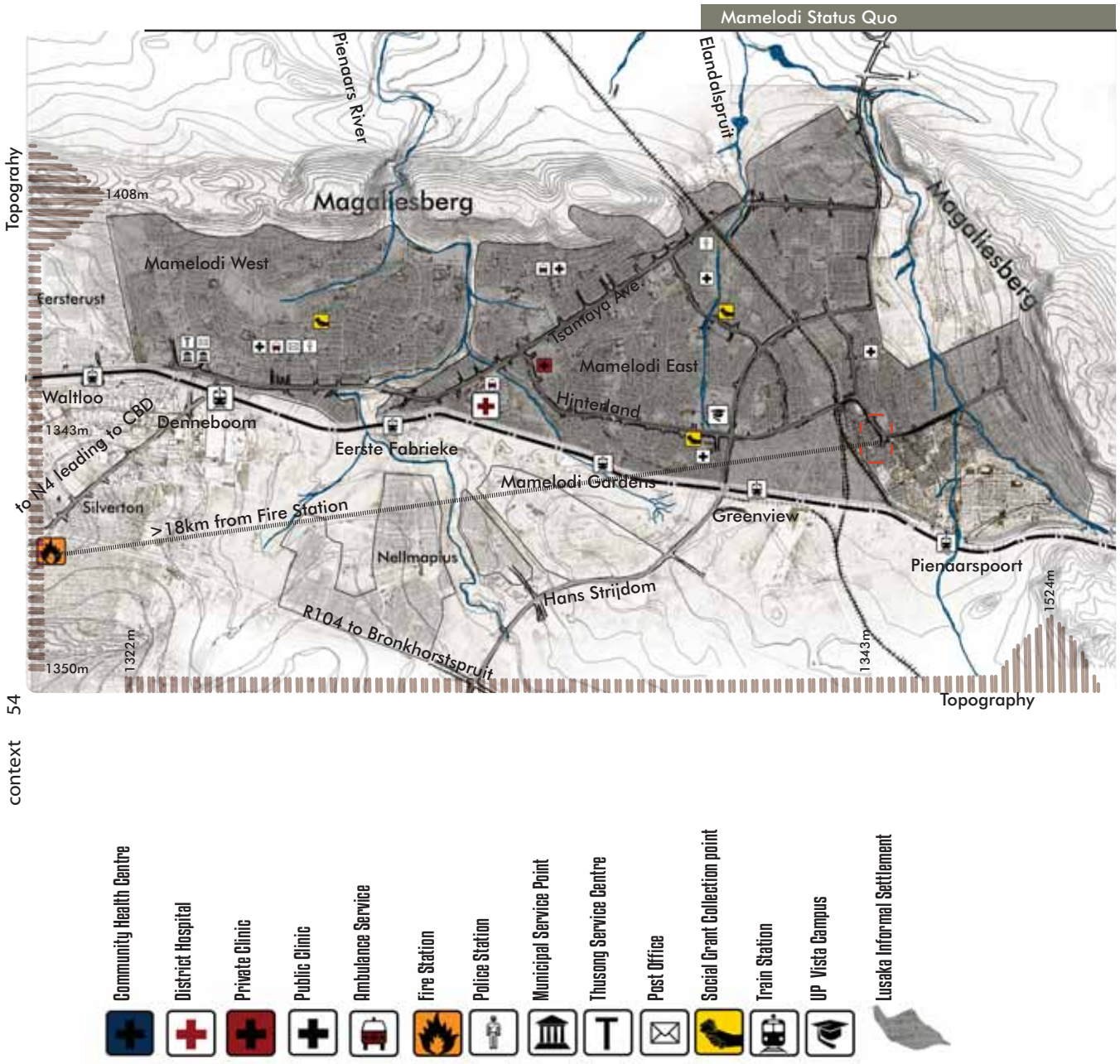

Figure 3.12. Public service infrastructure map of the entire Mamelodi (Author)

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What does infrastructure mean in the Mamelodi context?

Economic

business/commerce industry sustainability of precinct maintenance of networks

daily migration to CBD_informal trade_light industrial_irregular maintenance

Social

public service community structures public space intangible experiantial network

lack of public seriec_gangs/civil justice_few designed social spaces

Connectivity/Access

transport servitudes communications technological connectivity

independant taxi service_unreliable rail_RDP infratructure_BTS network stations

Services

water power sewage waste

water pollution_electricution_uncontrolled fires_contamination disease

Figure 3.13. Mapping of innovative infrastructure strategies implemented in conditions lacking necessary services.

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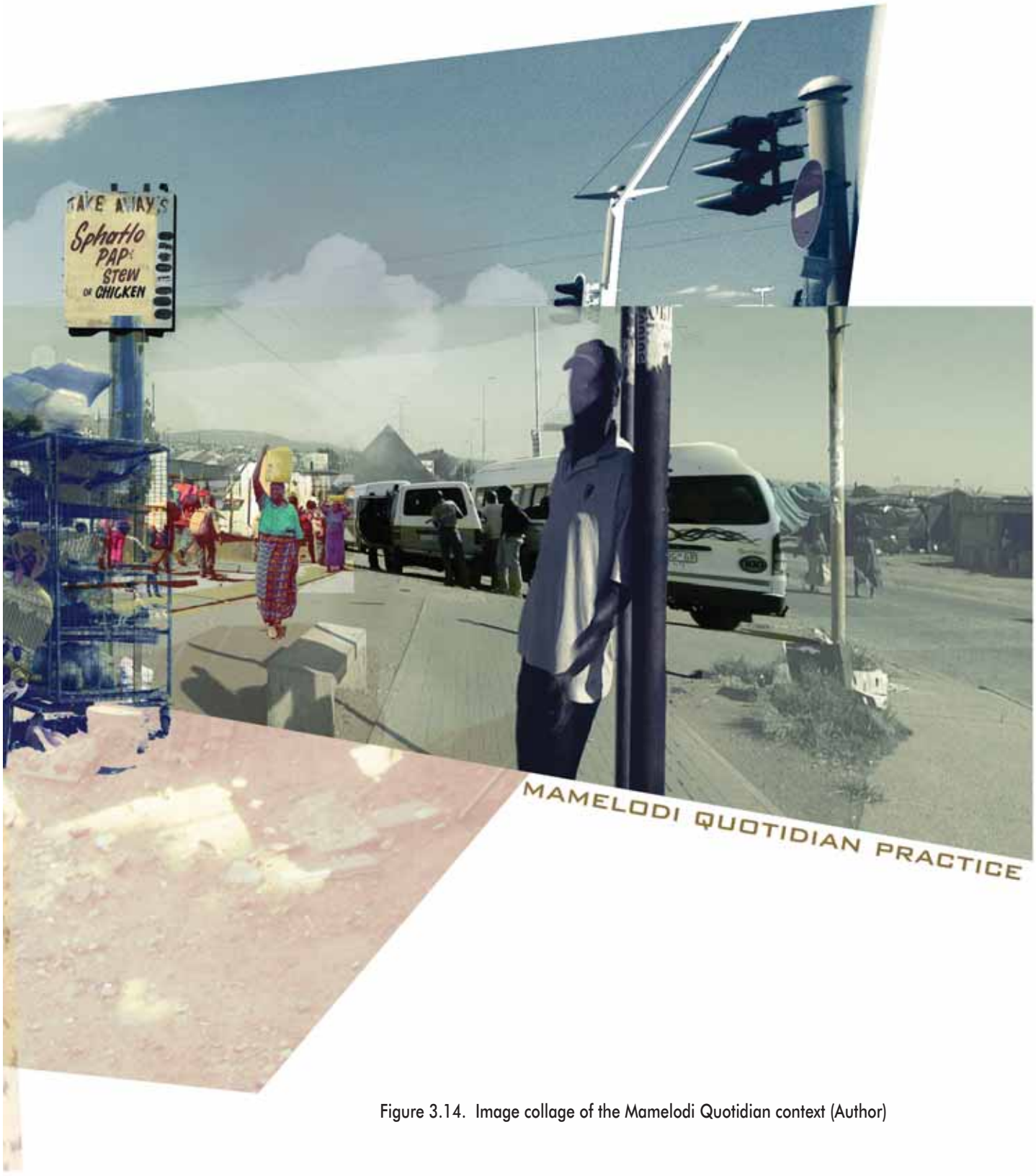

Figure 3.14. Image collage of the Mamelodi Quotidian context (Author)

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Lusaka, Ward 10

Location:
Lusaka, Ward 10, Extension 6
Mamelodi East, Tshwane
South Africa
25°43'26.78"S 28°25'13.20"E

The informal settlement of Lusaka is located amidst a very dynamic section of Mamelodi. It is surrounded by four different edge conditions and is undergoing different development patterns on each of these edges.
To the north it is defined by Hector Pieterson drive and the formal urban fabric of the community, boasting the newly completed Meetse a Bophelo Primary School designed by Humphreys Jooste.

The eastern border is a natural border and comprised of the Pienaars river (locally referred to as Moretele river). This is the ever expanding eastern edge of Mamelodi with a new informal settlement stretching up the Magaliesburg mountain range known as Alaska.
The southern and western boundaries are defined by the railway, separating the settlement from large open expanses of land falling in the Metsweding region to the south and a open wedge to the west cut off by railways. Informal settlement patterns have started formulating in the open expanse to the west but are unable to meet the Lusaka settlement due to the railway.

Due to its establishment prior to 1994 it falls within the RDP scope and is currently undergoing restructuring and formalizing of housing units.

The rapid ungoverned expansion of the settlement has lead to the inadequate supply of infrastructural networks with large zones on the eastern periphery functioning without any form of service infrastructure. The newly developed RDP housing together with its necessary infrastructure has resulted in service 'islands' within the settlement and these limited services are circulated to the neighbouring informal fabric by means of illegal "izinyoga" (Sotho for snake) connections.

Due to this extensive housing and infrastructure demand, energy has been focused on the provision of housing units and large mega infrastructure networks with very little or no provision for public social infrastructure development.

Figure 3.15. Aerial photograph of ward under investigation

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analysis of Lusaka built fabric

A sectional investigation through Hector Pieterson drive illustrates the complexity of the Mamelodi built fabric. A complex system of thresholds that determine different levels of interface, public engagement, safety, privacy, function/production, concealment/ disclosure of experience, permanence/adaptability and constant development layering.

Each individual layer reveals insight into unique networks of functioning and mechanisms that drive the development and adaptability of Mamelodi. The following analysis documents the various layers that constitute the public realm of Hector Pieterson drive with specific consideration for the spaces formed between thresholds, how they are programmed and how these programmes interrelate.

_Hector Pieterson drive

Two lane vehicular access route from west to east linking Hans Strydom to Lusaka settlement. Stop signs and speed bumps control the traffic to a certain degree but pedestrian movement across the road is not facilitated. Mathane avenue is the only vehicular route into the east of Mamelodi therefore accommodates high taxi traffic levels for most of the day.

_Drop off/Parking

There is no provision of formal drop off points or parking zones for taxis along the road. The absence of a kerb allows for the entire length of the road to be used for commuters to embark and disembark where necessary. The extended road reserve is therefore occupied by informal traders providing goods to people waiting, arriving and moving along the edge of the street.

_Line of street lights

The recently added line of street lights demarcates a once ambiguous threshold between road edge and pedestrian walkway. The lights facilitate in activating the street edge during the evenings where trading can now commence after sunset and assist in public security and safety with passive surveillance of pedestrian walkways.

The virtual line created by the street lights has provided an edge for the informal trader stalls and also assists in structural provision for informal shelters erected against the elements.

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_Public to Semi-public threshold

A definite threshold is created by the fences surrounding the on street houses but the public realm is more than often drawn right up against and into a semi-public zone behind these fences. Small business and commerce ventures are either erected on the fence line or drawn into the front yard of the dwelling extending the public realm into a more semi-public sphere. The fence businesses aim at seizing the attention of the passer by or accommodate easy access for vehicle orientated clients and focus on product sales (food, clothing, Spaza), whilst the yard initiatives create a demarcated working area off of the street and focus on service orientated enterprise. (Hairdressing, tyre repairs, tailoring)

The street fronting facades form a collage of construction materials ranging from the plastered brick building laced to the corrugated iron informal units with canopies of fabric and plastic, to dispersed loose standing gazebos of branches, planks and plastic bags.

_Dynamic dwellings

Concealed from the public eye, the private homes and back-rooms pose a complex fabric of adaptability and house a multitude of uses. Liberated from the street activity, these spaces function as the workings of the environment and are seldom mono-functional, constantly changing to accommodate programmatic requirements. Uses range from production/ manufacture workshops to additional housing and shebeens.

_Building additions

A spirit of self provision is present within the formal as well as informal sectors of the Mamelodi built fabric. Apart from the temporary and semi-permanent informal structures erected to accommodate the increasing housing demand, informal shed-like additions are made to existing RDP houses to accommodate the various business ventures. These less permanent additions constantly evolve and can be altered or removed without much trouble.

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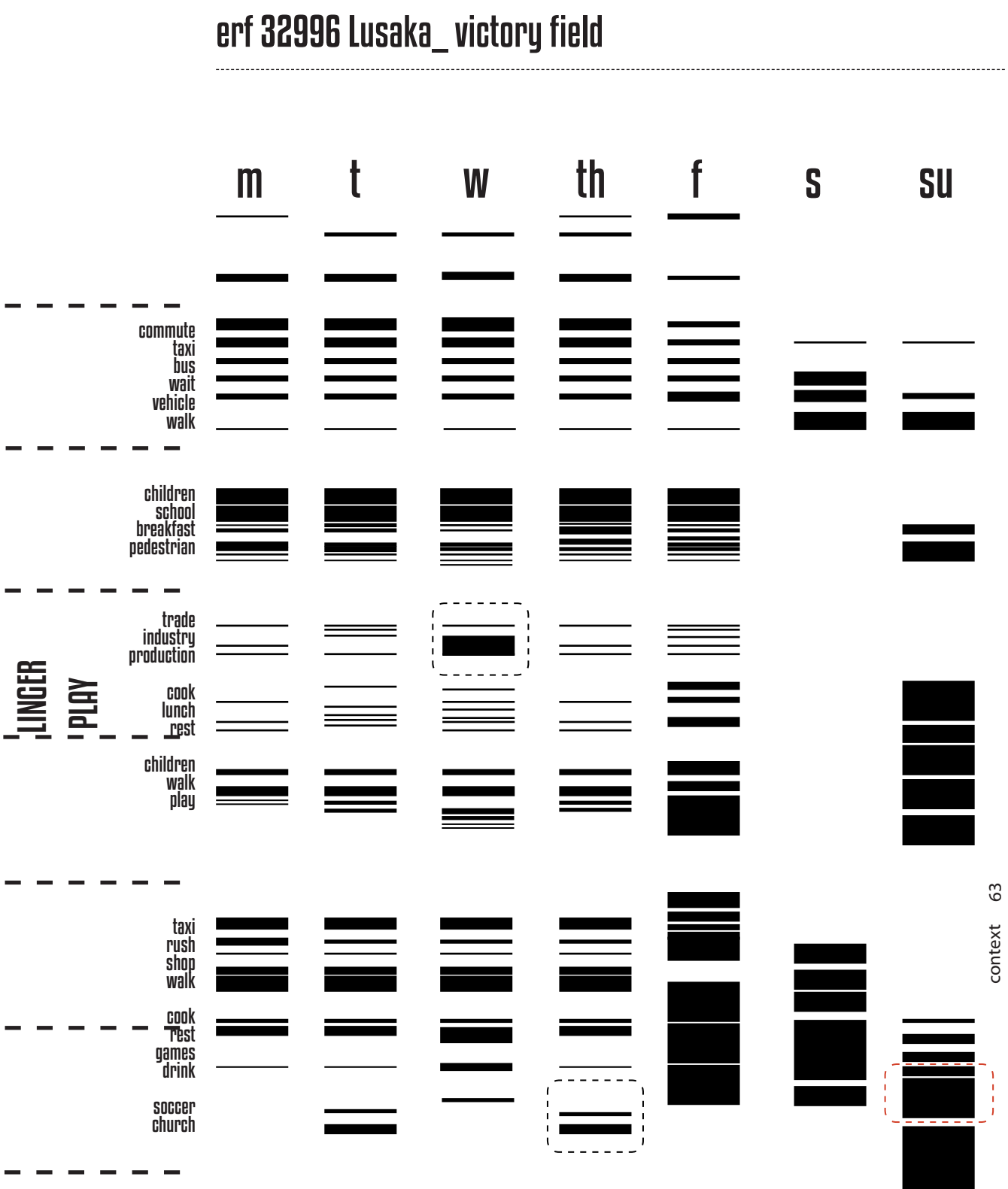

Figure 3.16. Mapping of activity concentrations on the selected site across the time-lapse of a week (Author)

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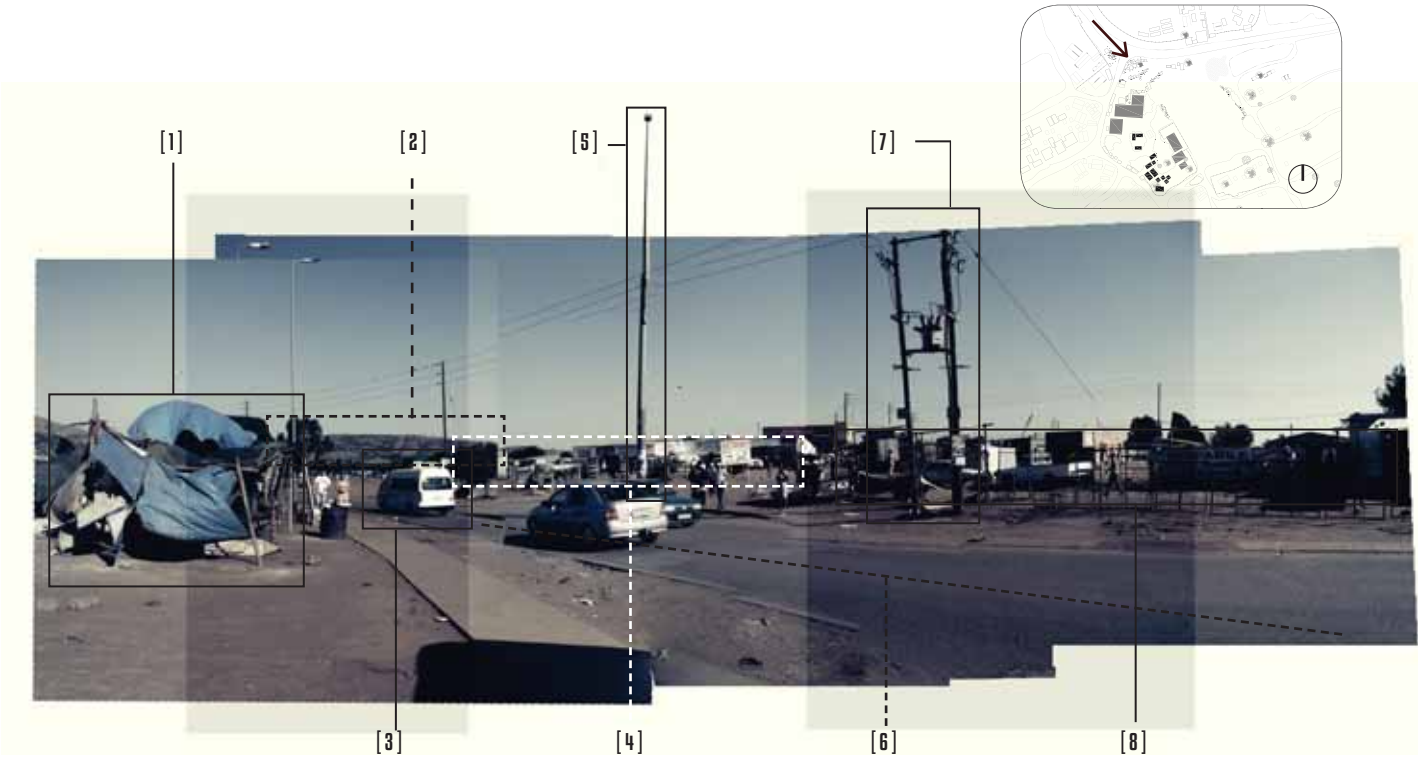

Figure 3.17. Collage images of site edge conditions (Author)

1. Informal trade - Natural emergence of everyday life, indication of high pedestrian traffic and a typification of township lifestyle.

2. Magaliesburg Mountain Range - backdrop to site, current means of orientation on and around site.

3. Taxi parking, drop off/pick up and car wash abundant on site.

4. Proposed position of site - The corner of the site is directly approached when travelling down Hector Pieterson drive/Mathane Avenue, the new proposed civic building therefore has an important role in announcing destination and serving as an orientation icon within the context.

5. Apollo light - serves as current icon to soccer field as well as security lighting for the entire site during the evening enhancing the public use of the site.

6. Mathane Avenue - Serves as the only vehicular access route into the East of Mamelodi crossing the Pienaars River. The road accommodates high volumes of taxi activity as well as pedestrian activity to and from the Eastern region.

7. Overhead power reticulation to neighbouring RDP development villages - the power boxes around the site are currently used by the informal traders and light industrial production entrepreneurs with illegal "izinyoga" connections.

8. Light industrial production and retail businesses line the edge of the road approaching the site drawing more public and pedestrians towards the site.

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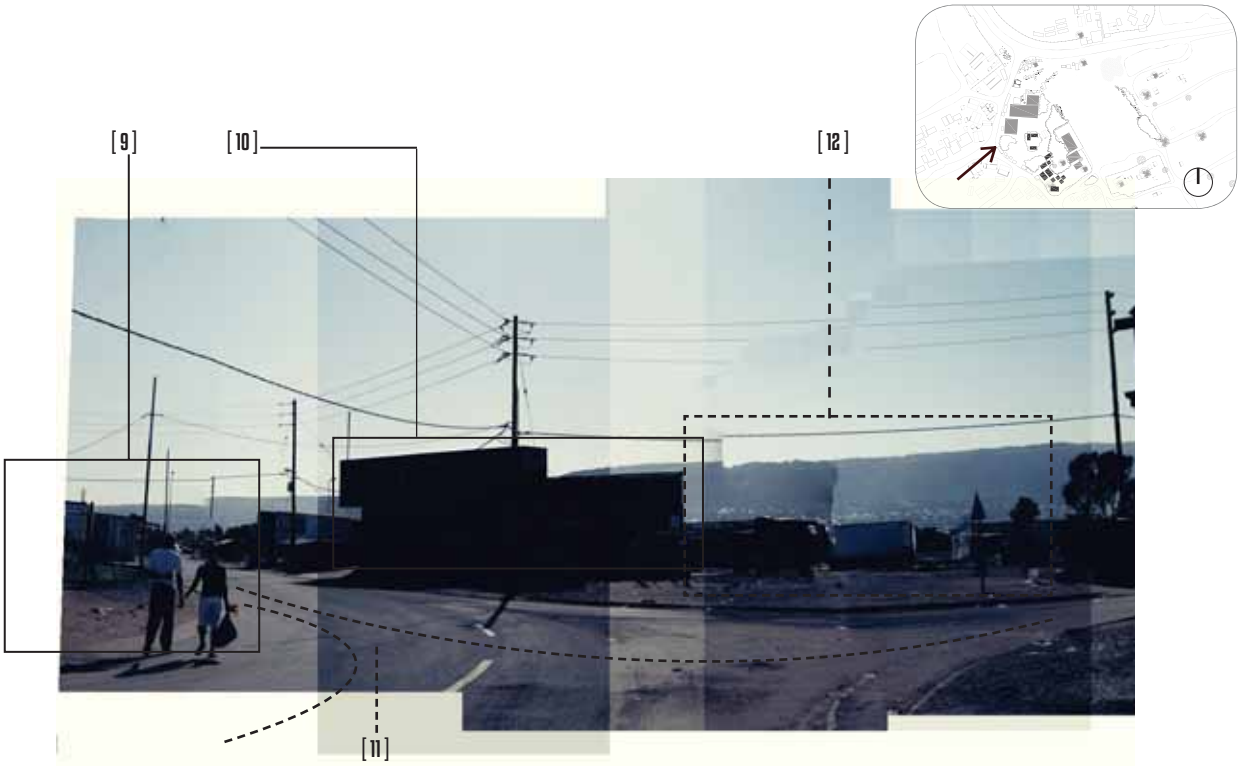

Figure 3.18. Collage images of site edge conditions (Author)

9. High volumes of pedestrian movement along the street has resulted in container based retail to develop on the corners of the intersection, catering for a variety of goods ranging from snacks, drinks, airtime and newspapers to second hand clothing and "muti".

10. Victory liquor store and shebeen. The only building in the context exceeding a height of 4 meters, serves as a current icon in the landscape and resulted in the name of the soccer field; Victory Field.

11. Tshukudu Road - Serves as a direct link from the Greenview station and therefore accommodates high volumes of pedestrian activity to and from the station.

12. The abandoned area behind the liquor store is sometimes used when large congregations assemble at the church and serves as spill out space for the members. When not in use and during the evening the space is regarded as dangerous and avoided due to the absence of light. The space also serves as a service yard to the liquor store once a month.

13. On the southern edge of the site a selection of informal housing units function as a temporary leasing ensemble. The initial inhabitants of the units have expanded and added on living quarters to the units and lease out the rooms with shared informal ablution services to short term residents seeking jobs or visiting the area.

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significance of site as an existing energy concentration

Cultural/social_ Social culture is an important part of township life. Encounters within the public realm, informal gathering of residents outside of private dwellings as well as small scale informal sports and recreation activities, is what imposes community relationship, forming an identity unique to that specific community. An intangible network of links and support is formed within these social loci connecting the individual to his neighbour substituting infrastructural networks and systems not provided by the municipality.

The site currently houses a locus of social interaction in the form of various spontaneous as well as organised public activities that occur en route to, around as well as on the current site. The informal trade, restaurants, shebeen, church and regular sport activities are indicative of a way of life unique to the area and symbolise an existing active public presence on the site that sustains the proposal and should be taken into consideration when deciding on programme and space allocation of the design.
Soccer, " a game of passion" (Harden, 2010:1)significant to the people of Africa. The enormous appeal of soccer- both as a sporting spectacle and as a timeless social phenomenon with the power to cross political, religious and social boundaries. (ibid) Soccer brings together Africans of disparate origins and circumstances, whether an impoverished match on a dusty street with a homemade ball, or clashes between top clubs and international sides, soccer is Africa's game.
"The beautiful game is a main priority and the most addictive drug on a continent where the harsh realities of daily life create a need for diversion over the weekend, during lunch breaks and at any other time when there is a minute and a few square meters to kick a ball around." (ibid: 8)

Architectural_ The site serves as a convergence point of a diverse selection of built forms. The complexity of the edges contributes to the social public character of the site. The built fabric around the site illustrates the rich history of growth, a unique cultural identity of current times as well as the immense potential for future development with the new Meetse A Bophelo school adjacent to the site.

Physical location_ The site falls on the primary vehicular access route leading to the eastern periphery of Mamelodi. This route serves as the only vehicular crossing over the eastern leg of The Pienaars River. Lusaka informal settlement. It forms a convergence point where the western boundary is comprised of 2009 RDP development housing, the northern boundary edges the new Meetse A Bophelo school completed in 2009 and the eastern and southern boundaries extend into the informal settlement of Lusaka. The site is situated on the corner of Tshukudu and Mathane road forming a destination alongside an active transport route.

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Figure 3.19. The Victory Field home team with their captain 'Terror' preparing for the Sunday tournament against the neighbourhood teams (Author March 2012)

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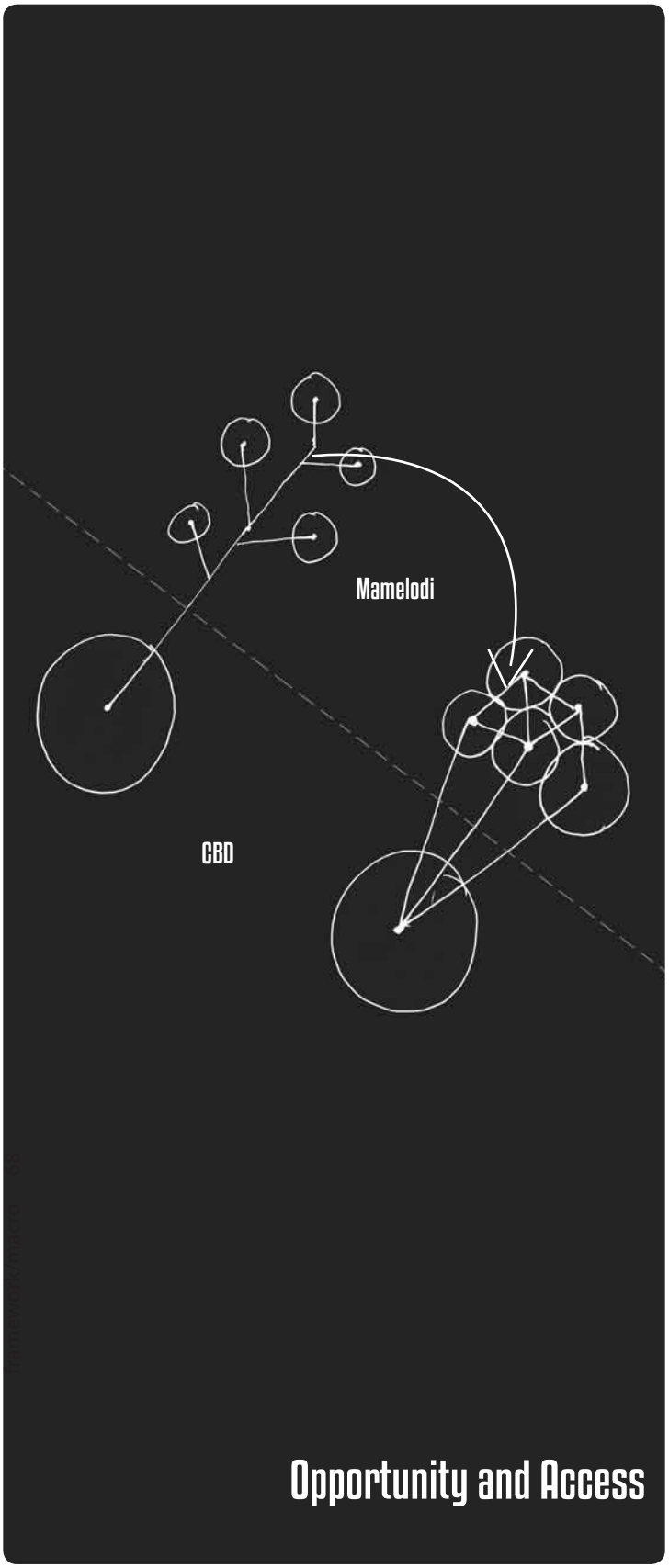

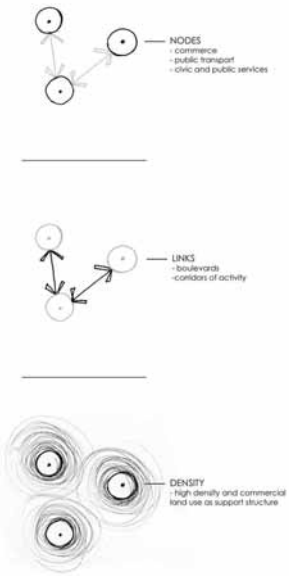

Figure 3.20. Tools used in analysing the Mamelodi urban fabric (Pieterse et. al 2012)

The structural problems within the Mamelodi context arise from the issues surrounding the historical urban sprawl brought about by the apartheid regiem.

Presently the majority of residents commute out of Mamelodi into the CBD and surrounding area on a daily basis to access opportunity for income generation.

This commute is expensive, congested and counter-supportive to local development.

The broad objectives of the framework study were therefore not only to establish better **access** to the city, but also to generate **opportunity** within the Mamelodi context itself.

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#03.1

framework [macro]

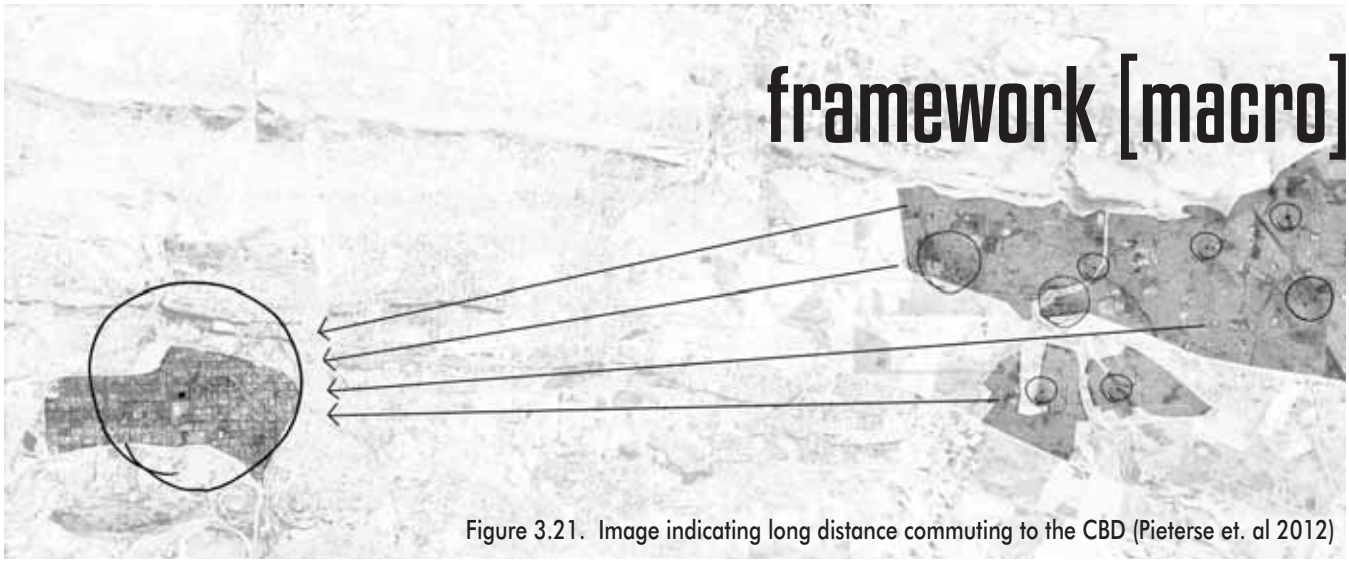

Figure 3.21. Image indicating long distance commuting to the CBD (Pieterse et. al 2012)

GOVERNMENT PUBLICATIONS CONSULTED

GAPP, 2011, Tsosoloso Programme: Mamelodi/Nellmapius Masterplan, Tshwane Metropolitan Municipality, Pretoria

LONGER TERM _focus on generation of local opportunity

TSHWANE METROPOLITAN MUNICIPALITY, 2011, Regional Spatial Development Framework (RSDF): Eastern Region, Tshwane Metropolitan Municipality, Pretoria

TSHWANE METROPOLITAN MUNICIPALITY, 2006, Integrated Transport Plan 2006-2011 (ITP), Tshwane Metropolitan Municipality, Pretoria

PRASA (then SARCC & Metrorail), 2007, Eerste Fabrieke to Greenview Railway & Station Infrastructure Upgrade: Planning and Preliminary Design Report, SARCC, Pretoria

SHORTER TERM _focus on generation of access as well as local opportunity

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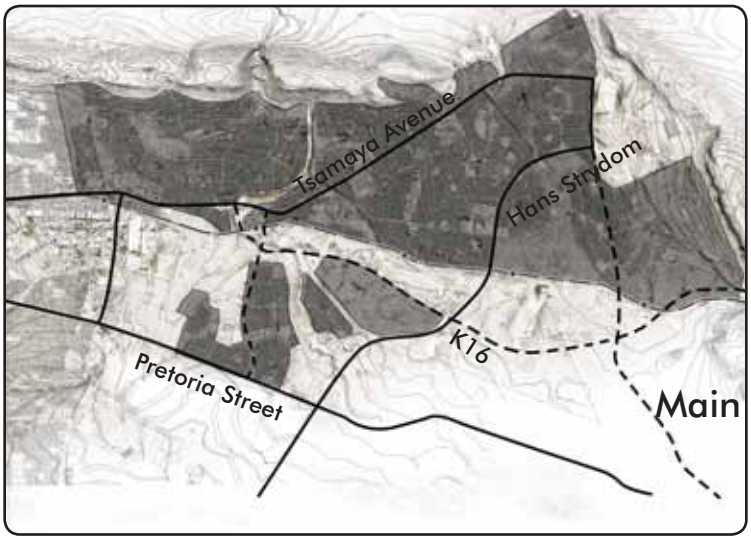

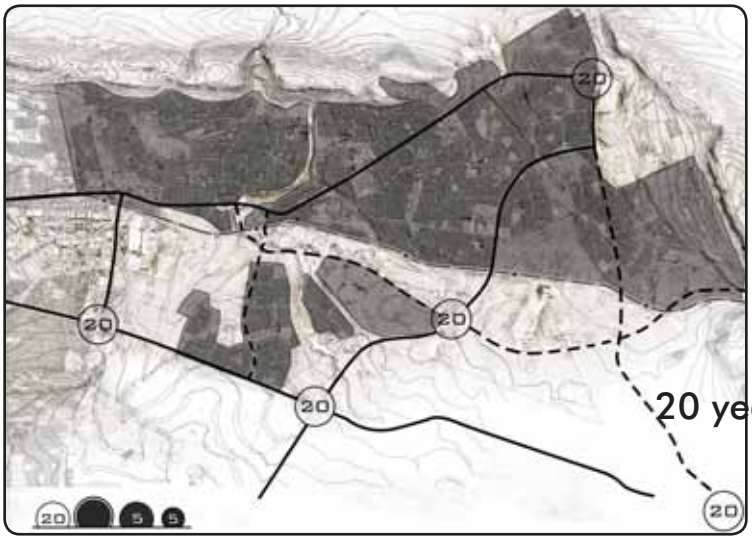

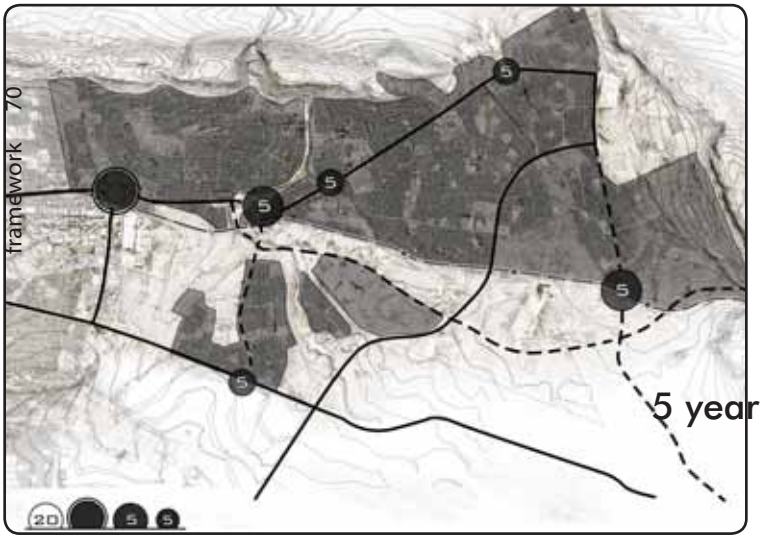

Figure 3.22. Diagramatic analysis of Tosoloso framework (Pieterse et. al 2012)

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Existing Roads

Proposed Roads

Tosoloso Framework [GAPP]

The GAPP framework primarily establishes connectivity through the incorporation of existing and future links
It then establishes where the main nodal points will manifest, predominantly located at the intersections of the main roads.

The nodal network is categorised into [Primary] twenty year and [Secondary] five year nodes depending on the feasibility and future potential of these points.(GAPP, 2010)

Some of the primary nodes planned along the 20-year time line were investigated and seemed far-fetched and unrealistic as current trends at these locations dont support or suggest any development of these nodes into activity concentrations.

The secondary nodes are based on points that are smaller in scale and fall along the identified access routes indicating enough momentum to exist within the following 5 years

There is a gap between now and the future.

The group analysis conducted on the Tosoloso framework concluded that the proposal neglects and therefore discloses the potential to address current activities and trends within the Mamelodi context attending to the immediate future whilst preparing for and accommodating the five year and twenty year proposed development.

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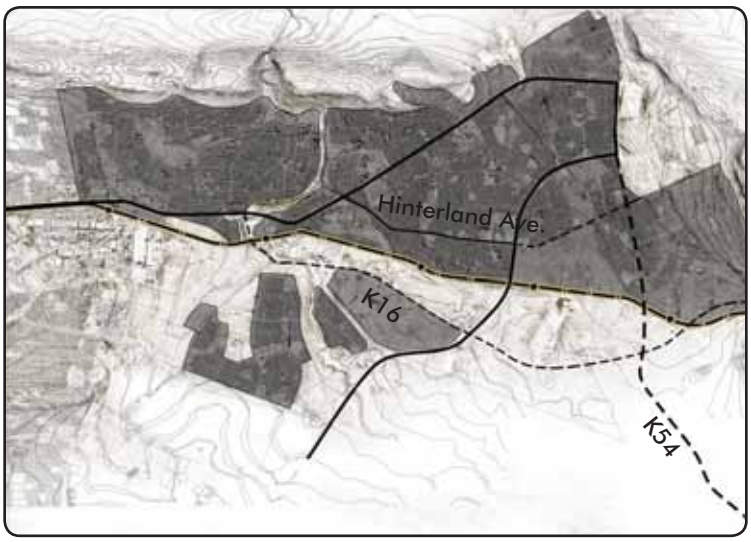
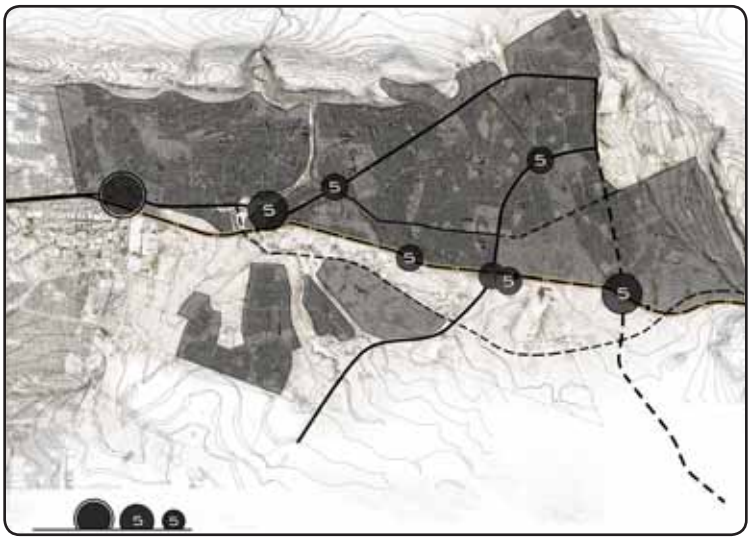


Rail as primary access route with secondary road network linking the inhabitants to the rail system



5 year Nodes including railway stations and the intersection points of the road network

Figure 3.23. Diagramatic analysis of Prasa frameworks (Pieterse et. al 2012)

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Tshwane Metropolitan and Prasa Frameworks

The Tshwane frameworks are more focused on the imminent future and propose a regeneration of the **rail system** with specific focus on a **secondary road network** around the rail system which the Tsosoloso framework does not include.

The nodal proposal of the Tswhwane frameworks focuses on the potential of the rail as a predominant public transport spine reducing the load on as well as the need for personal vehicular transport with a secondary network of various other public transport systems (current thriving taxi system) feeding into and off of the rail network, permiating a finer grain network of roads and links within the urban fabric.

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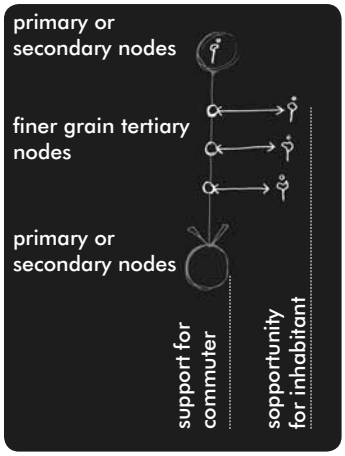
Bridging the GAPP

The group urban frame work proposal is a result of the ingtegration of the GAPP Tosoloso as well as the Tshwane and PRASA framework proposals.

The resulted framework identifies a study area located between Hinterland Avenue and the K16, focusing on the rail as the predominant spine of access to and from Mamelodi but also proposing a network of linkages of secondary and tertiary roads to the railway from within the dense urban fabric. These links are proposed to connect to secondary and tertiary nodes of commerse and civic activity creating more opportunities within Mamelodi resulting in a **finer grain network** of activity serving the community instead of vastly spaced nodes that have the potential to only develop over twenty years.
The proposal acknowledges the need for and accommodates the larger 5 year and 20 year nodes but focuses on the current individual who needs an opportinity within the context in direct interaction with others along their route to the larger nodes of opportunity.



Relating to Crawford's theory of everyday urbanism discussed in chapter three, a context emmersive approach was adopted in identifying the current energy points in Mamelodi with potential of developning into activity nodes.

An energy concentration mapping exercise was conducted resulting in the proposal of a tertiary nodal network based on the current context and potential of the urban fabric as well as the residents to ensure the activation as well as the success of these nodes and links.

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Figure 3.24. Imaging of proposed framework development (Pieterse et. al 2012)

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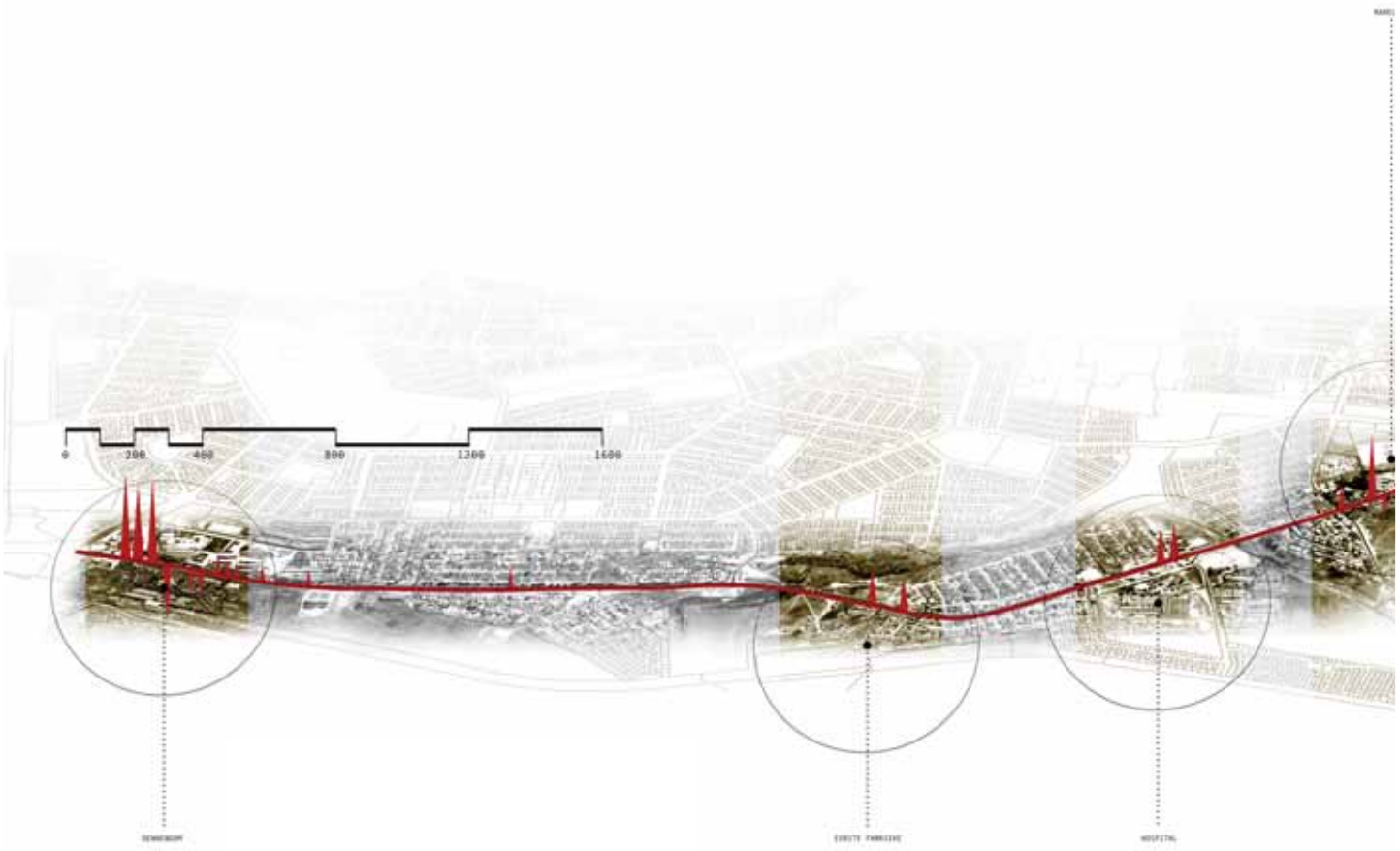

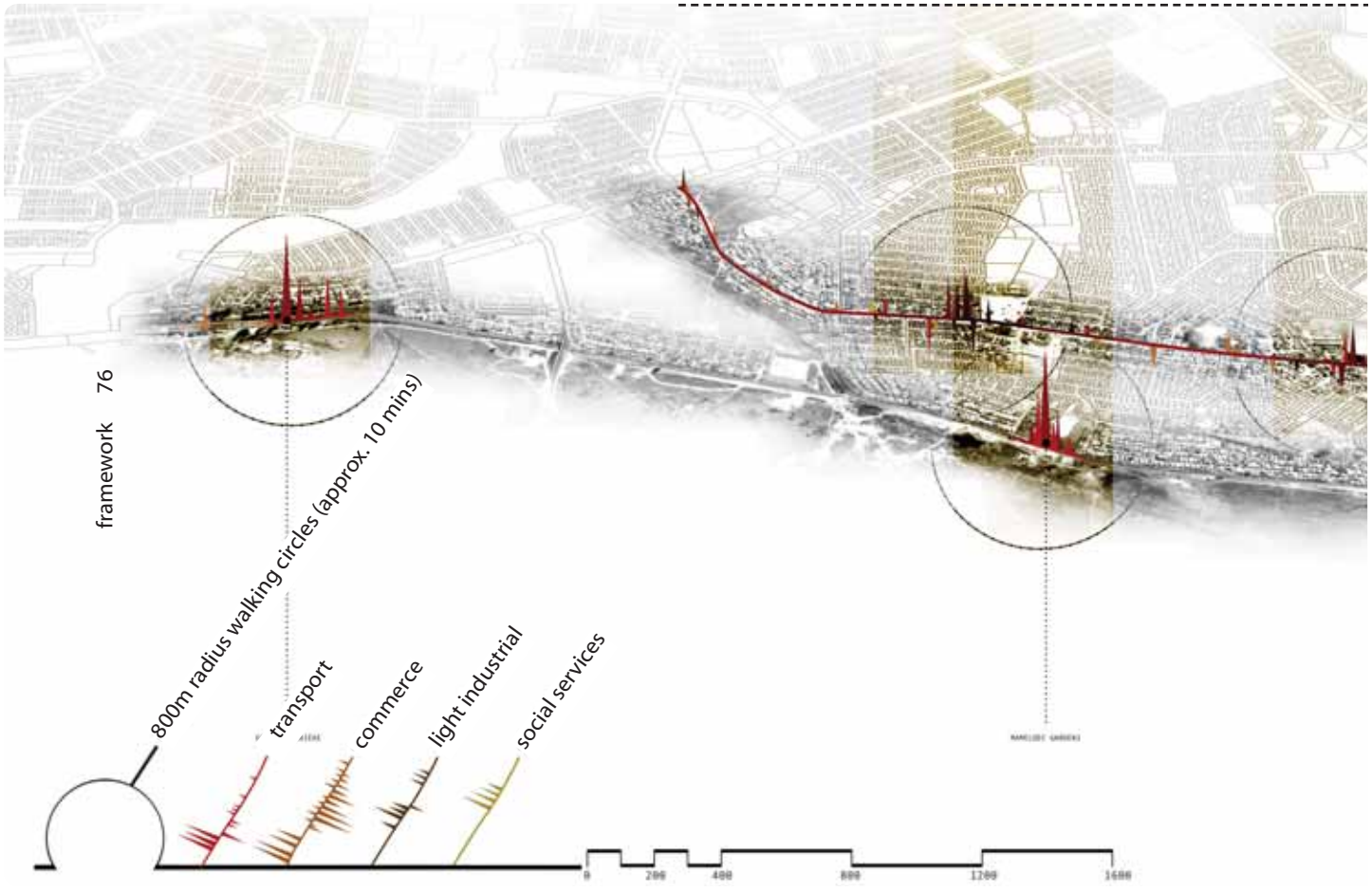

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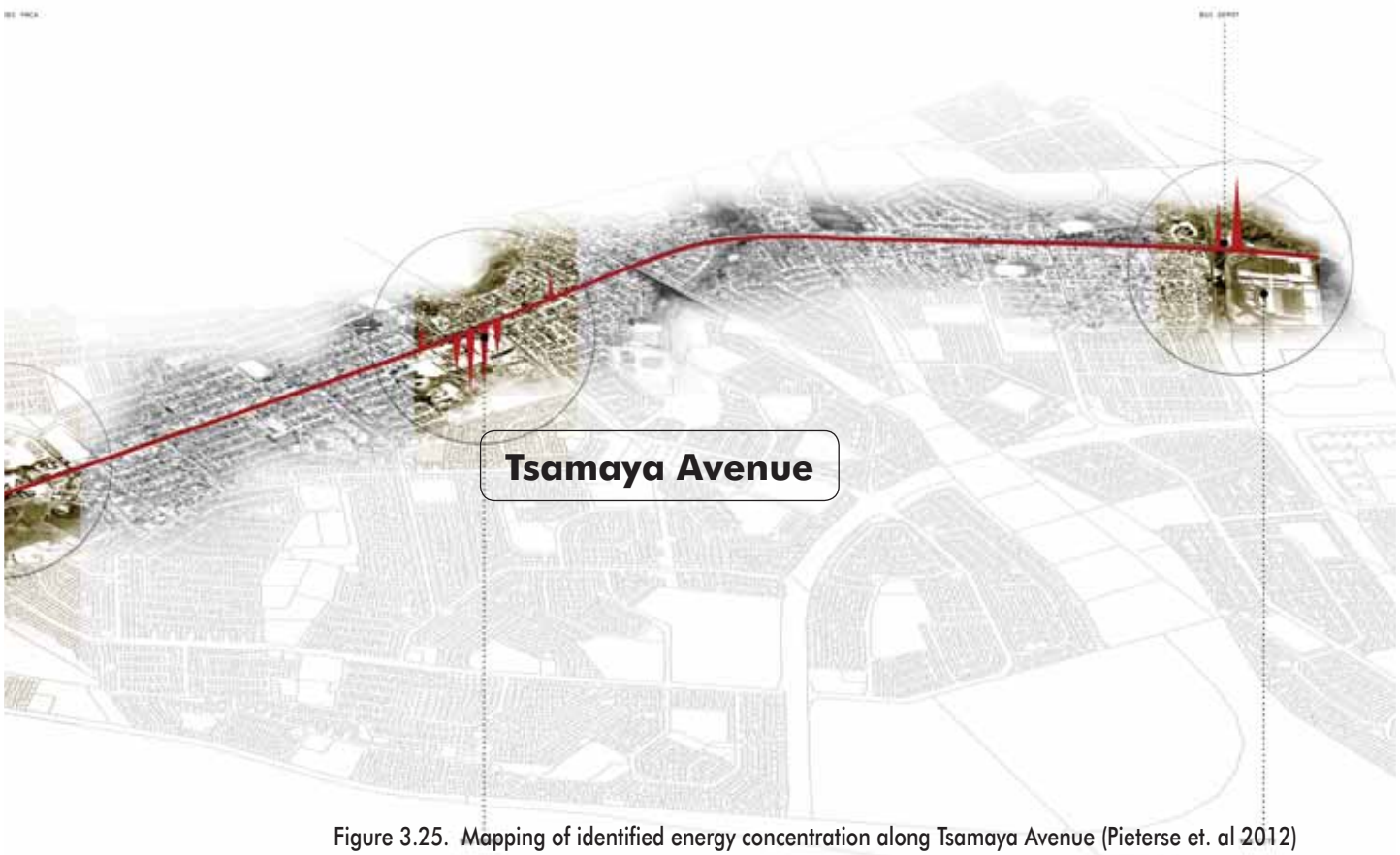
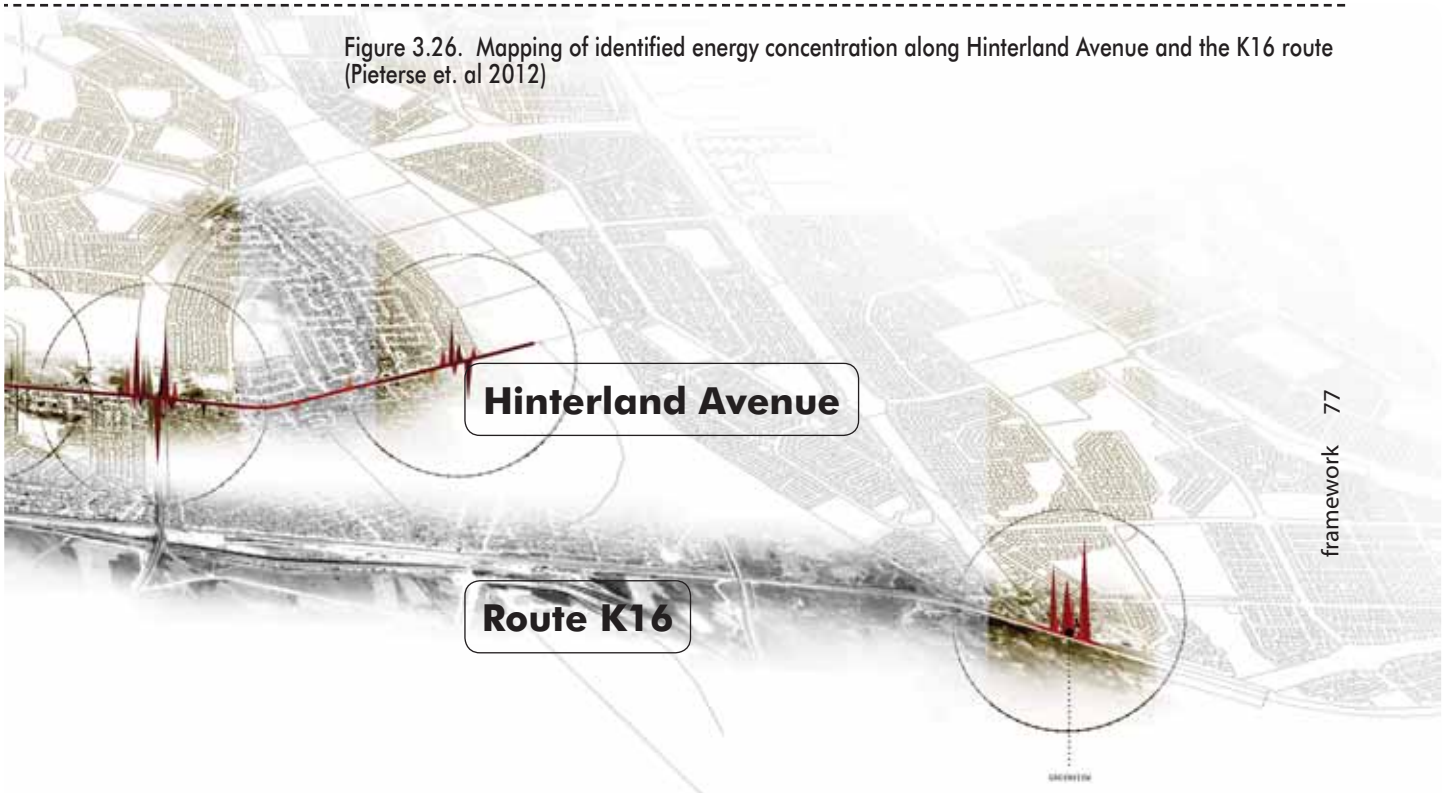


Figure 3.25. Mapping of identified energy concentration along Tsamaya Avenue (Pieterse et. al 2012)

Figure 3.26. Mapping of identified energy concentration along Hinterland Avenue and the K16 route (Pieterse et. al 2012)



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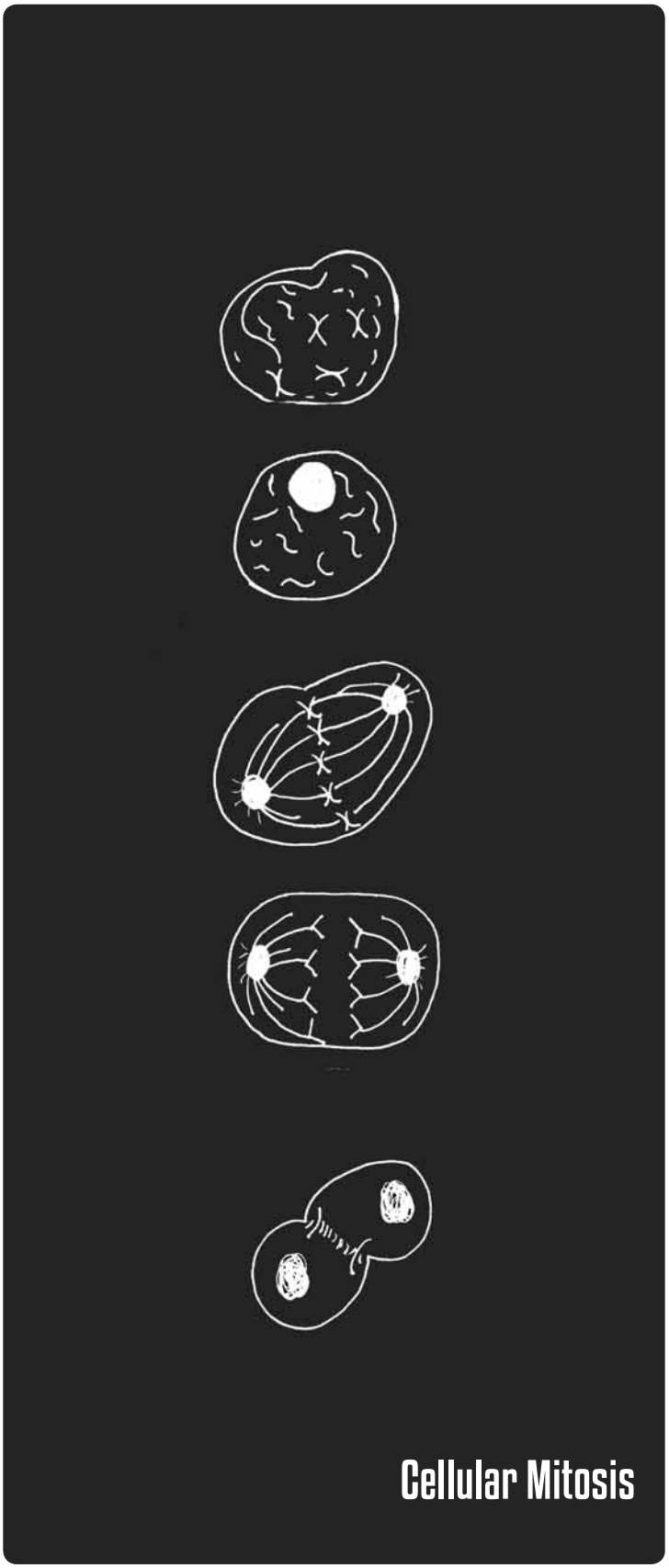

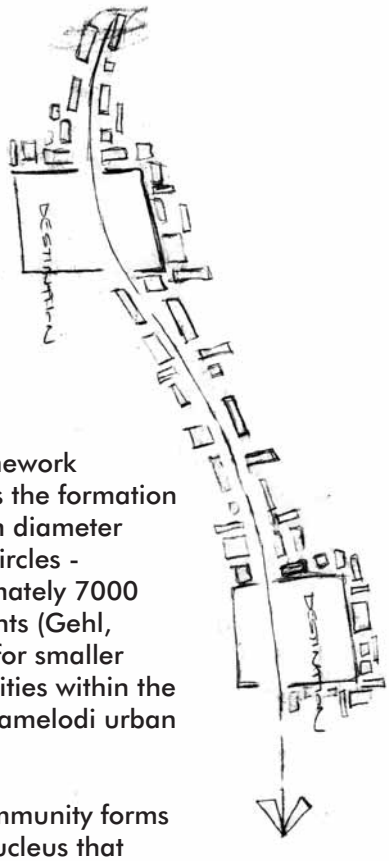

The framework proposes the formation of 850 m diameter density circles - approximately 7000 inhabitants (Gehl, 2010) - for smaller communities within the larger Mamelodi urban fabric.

Each cummunity forms a civic nucleus that provides levels of public infrastructure ranging from basic public service points to public space for the social well being and identity development of the individual communities

The organic growth of the community enlarges the density circle until it reaches its capacity and a new nucleus is formed to densify into a new cell. The two cells are linked by activated pathways linking communities into a greater whole.

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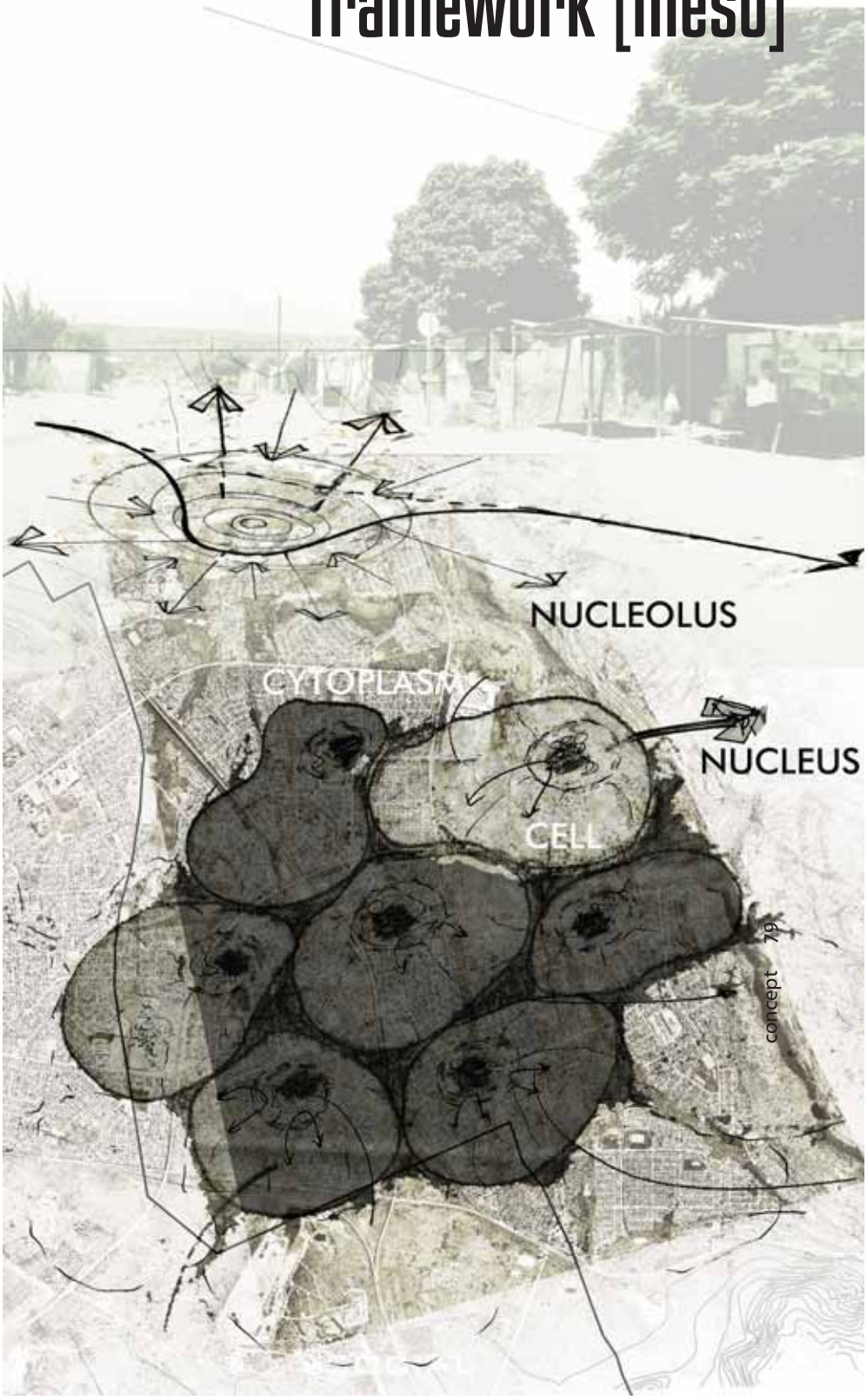
#03.2

framework [meso]



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Lusaka [meso] framework

The intention of the Meso framework for the proposal is two-fold.

Firstly it addresses the need for public infrastructure within the larger mamelodi context proposing an alternate approach to infrastructure provision by amalgamating a collective of services within an individual precinct emmersed in the public realm, improving accessibilty as well as awareness of public service.

Secondly, it involves the effectiveness of these public service nuclei on the community development and edentity of urbanizing settlements.

The proposed framework forms part of a proposed infrastructure framework of social public loci situated within demarcated density circles - a city within a city (krier, 2009) more regular and evenly disperced points of opportunity for the inhabitants fig. 3.27.

Each nucleus is then connected to a network of loci woven into the existing urban fabric of Mamelodi. The framework is founded in an analysis of the existing fabric which discloses current energy concentrations illustrating potential for development - *discussed in detail with regards to the specific site in the next chapter* - a retrofit of existing situations to better accommodate everyday life.

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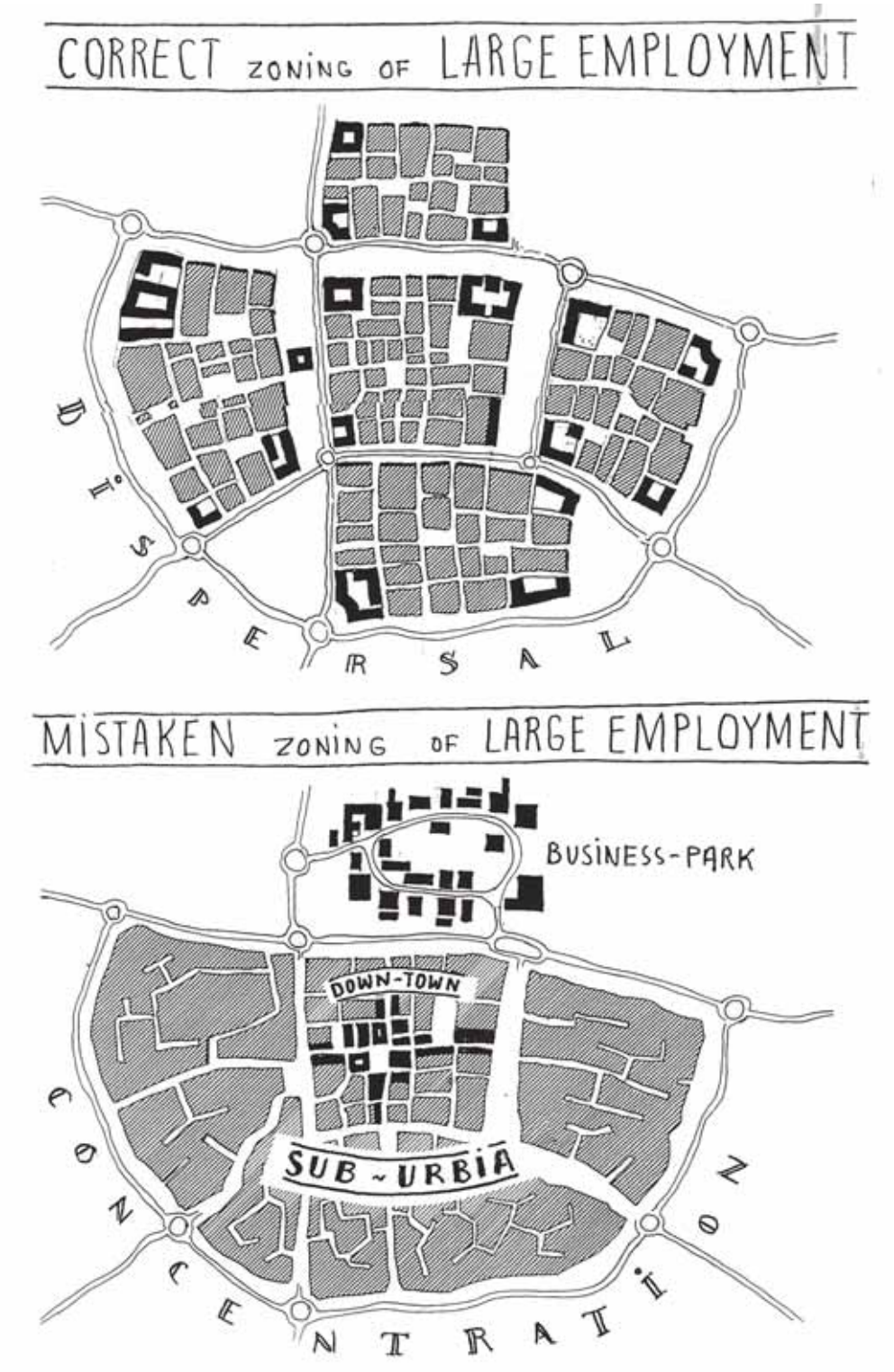

Figure 3.27. Image indicating the concept of several nuclei within a single community (Krier, 2009)

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Figure 3.28. Graphic representation of the design concept. (Author)

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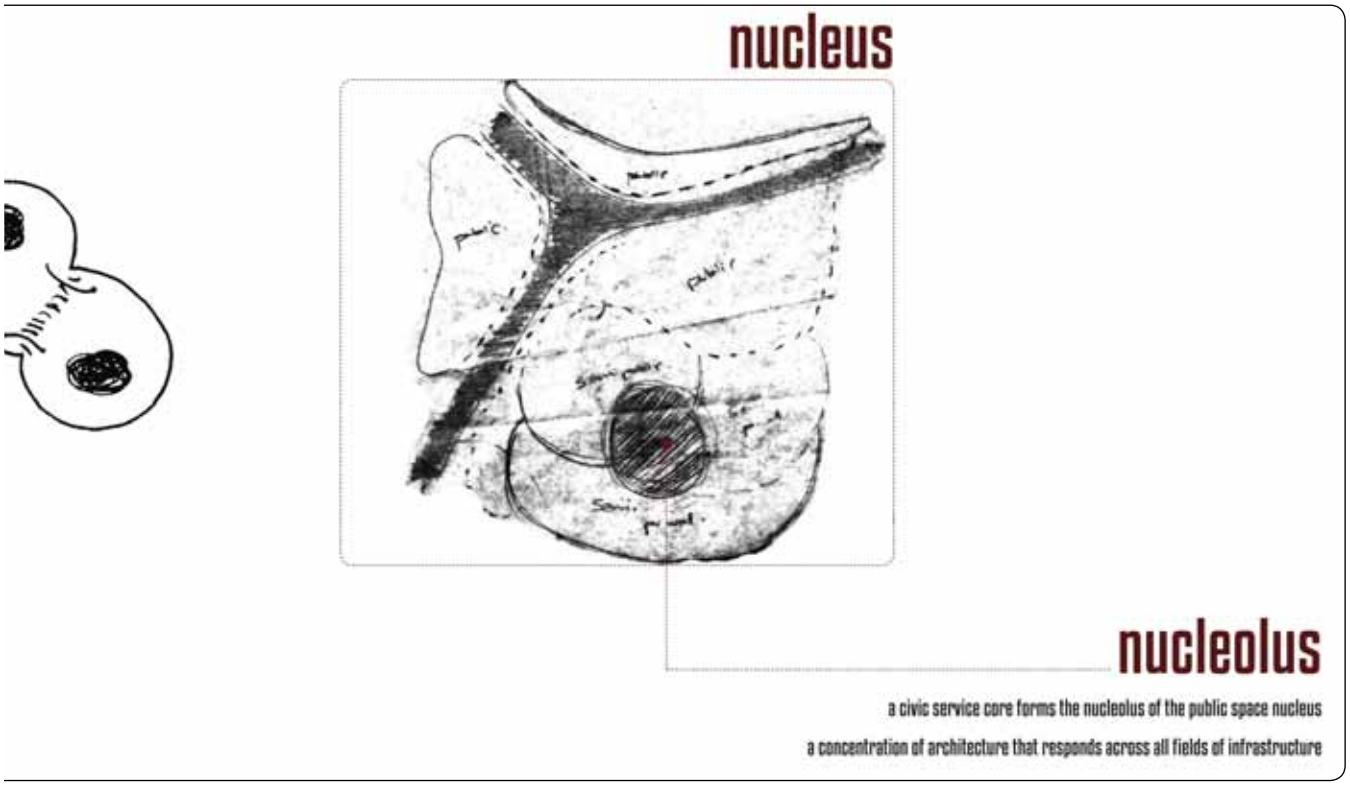
#03.3

concept



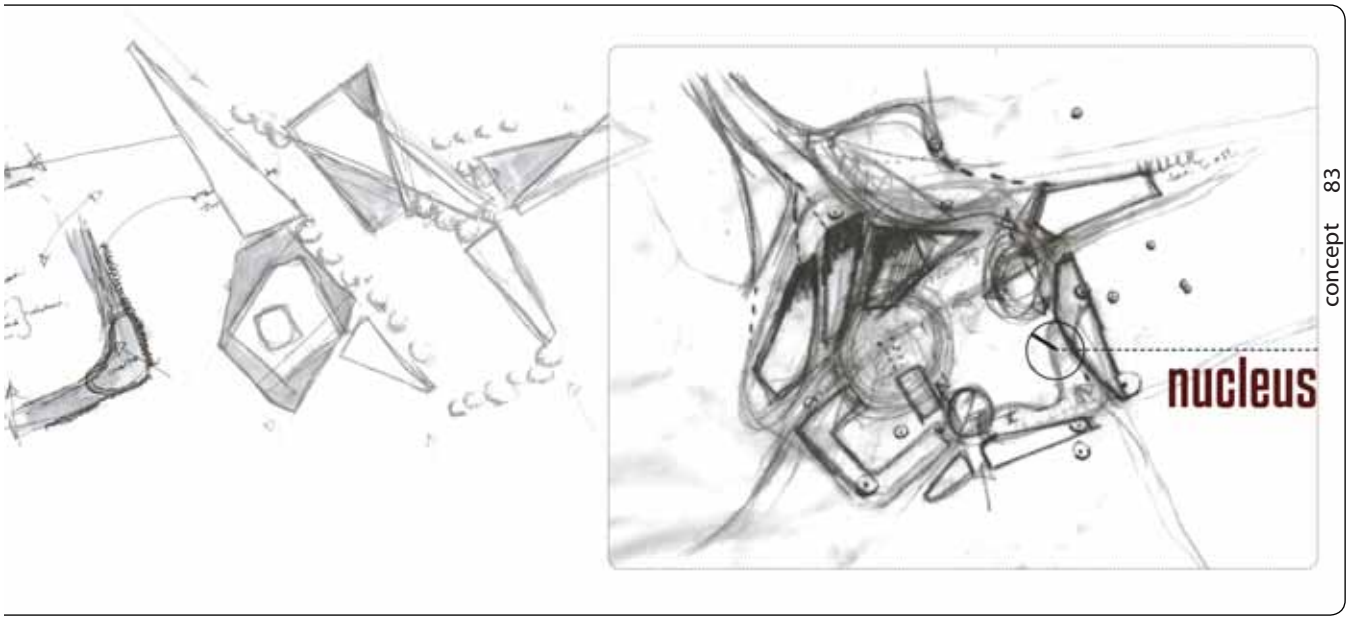


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Figure 3.29. A bicycle repair workshop erected daily alongside a school boundary fence.
(Author)

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time for a recharge before we move to design...

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Accommodating Emergence 97

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_ Moving away from isolated service points 99

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04
precedent study

A wise person once said
that you're only as creative
as the obscurity of your
sources.

Albert Einstein
(Think Exist, 2011)

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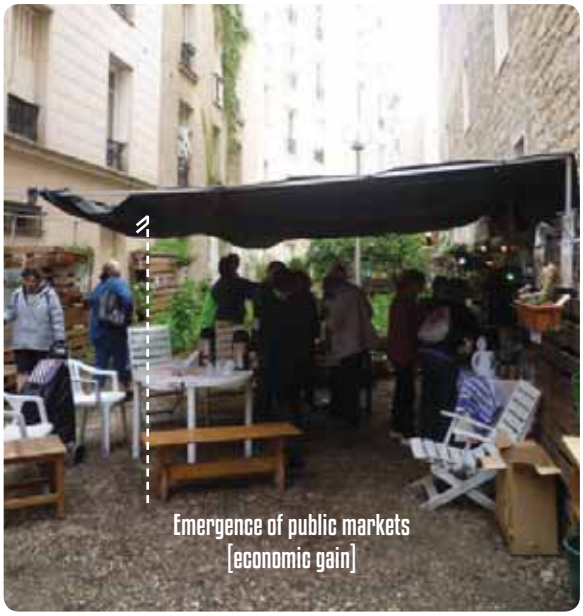

Figure 4.29. Image collage of reclaimed public space between existing buildings *Le 56 Interstice*
(from (autogeree, 2006) amended by author)

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Le 56/Eco-interstice

; *Emergent, community uplifting, context responsive*

[Reclaiming Public Space]

Atelier d'architecture autogérée (aaa) *'Studio for Self-Managed Architecture'*
St. Blaise, East of Paris

By employing 'Urban tactics' aaa aim to encourage participation of inhabitants in the self management of their transformed urban spaces. To overpower prejudices and stereotypes the propose nomad and reversible projects and initiate interstitial practices that explore the potential of the city– in terms of population, mobility and temporality. The area of this particular project falls within a very dense urban fabric with very little space allocated to public appropriation. The passageway in which the project was completed was previously abandoned and considered unalterable positioned between two high-rise units occupied by mobile devices and temporary installations.

The project engaged a partnership between local governmental structures, local organizations, inhabitants of the area and a professional association that runs training programmes in eco-construction. An extended construction time specifically managed into the programme allowed for the construction site to accommodate social and cultural activity emergence.

Designed as an ecological interstice the plot hosts a greenhouse with a green roof powered by solar panels. It includes compost toilets, a rainwater collector, cultivation plots, a compost laboratory, seed catchers and a wild bird corridor. City walls in this dense urban area become an opportunity for growth and new environmental awareness. User participation takes on different scales of proximity, relying on neighbourhood networks, friendships and individual skills bringing together community members

The project engages with the adaptability of space as well as the active involvement of community inhabitants. The designed transformation of the abandoned passageway is given back to the public realm, providing positive, interactive community space within the city - revealing the potential of small scale 'everyday urbanisms' in response to the context of the urban fabric. The project also displays the adaptability and appropriation of the public realm in both space and function.

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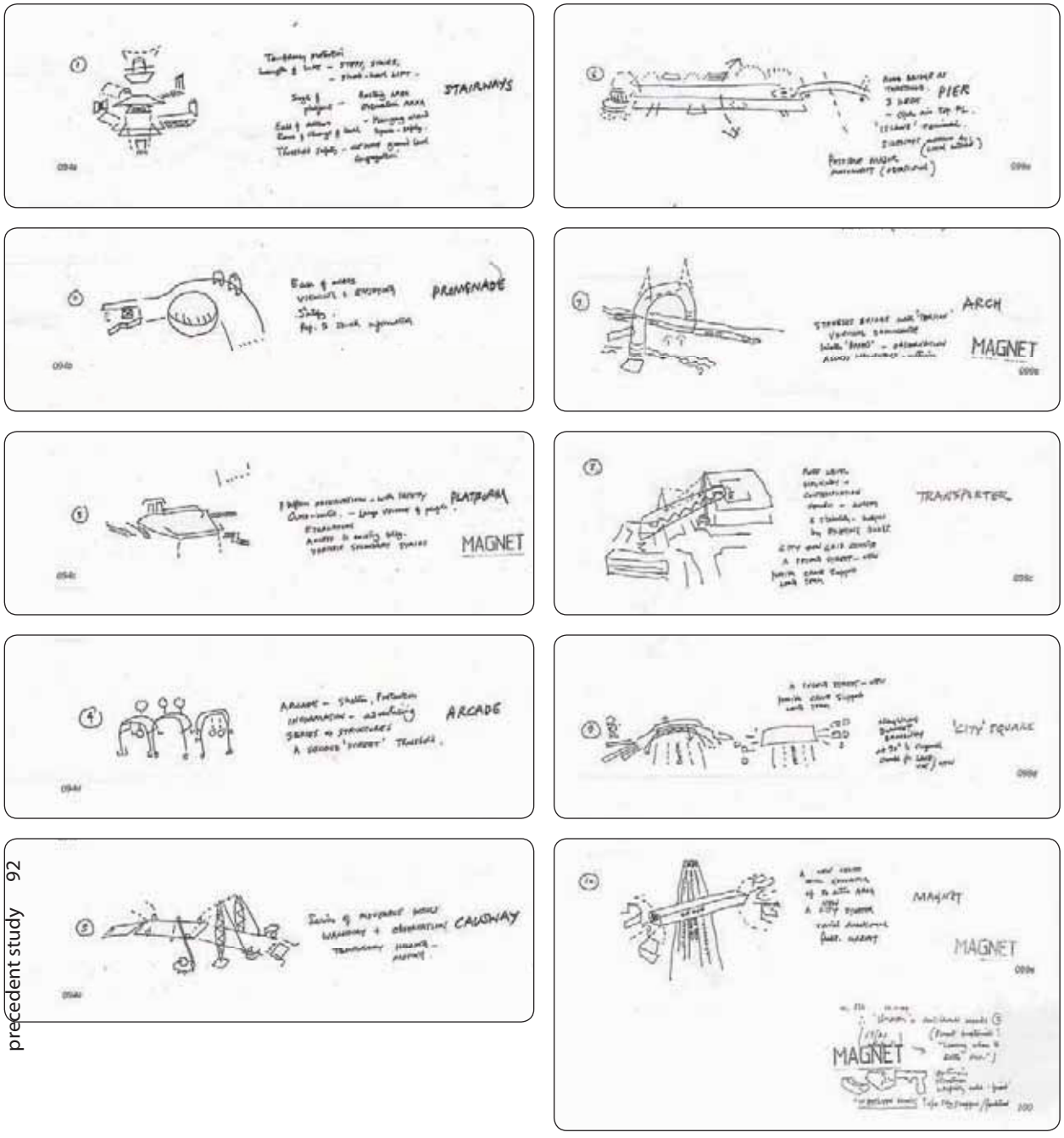

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Figure 4.30. Small intervention 'magnets' proposed by C. Price as public infrastructure and planning (Hardingham, 2003:100-101)

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Magnets

;Light-hearted and contextual

[Small (public orientated) **Interventions]**

by Cedric Price

Disclosing an alternative approach to public infrastructure design, Price proposes a series of short life structures termed Magnets. Funded by local authorities as intentions to initiate public movement and supply new types of public amenities. The designed magnets aim to generate new kinds of access, views, sanctuary, safety and delight.

They are designed to "overload" under-used or misused sites, to make them more delightful and playful. (Hardingham, 2003: 89)

These structures would ideally occupy space previously not associated with sites available to the public such as air space above roads, streets, parks, lakes and railways. This form of liminal public space relates to the investigations made in chapter three as well as the theoretical discourse where public space within the African context spontaneously emerges between activities and infrastructure occupying the 'left-over' space within the dense urban fabric, accommodating public interaction where possible.

The concept provides insight into a planning approach for the proposed project where the selected site already currently hosts an array of liminal public activities that can be enhanced and better accommodated with the provision of space that is flexible as well as highly contextual.

A contextual yet light-hearted approach intended by the concept allows for the architecture to surpass its function of successfully housing a programme but also accommodating an experiential level of the user, enticing the senses and allowing for a spiritual experience of the spaces with elements focused purely at public encounters, leisure time, views, sanctuary and belonging.

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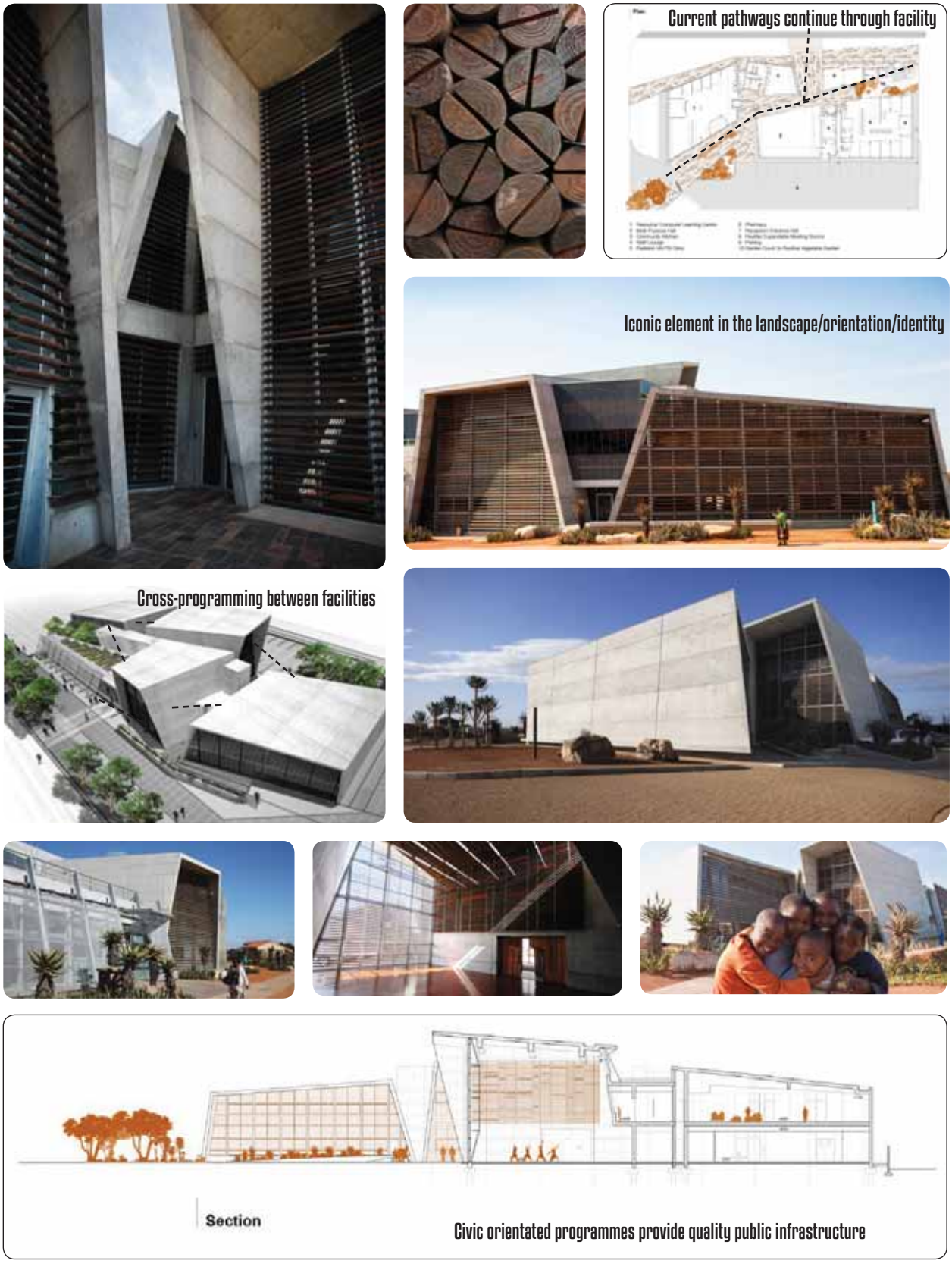

Figure 4.31. Image collage of contextual, aspirational architecture, *Field Architects* (from (Architecture, 2011) amended by author)

Figure 4.32. Opposite page, conceptual sketches by *Field Architects* (Architecture, 2011)

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Ubuntu Centre

;Context responsive yet ***aspirational*** *Architecture*

[Cross Programming Facility]

by Stan Field Architects
Port Elizabeth, South Africa

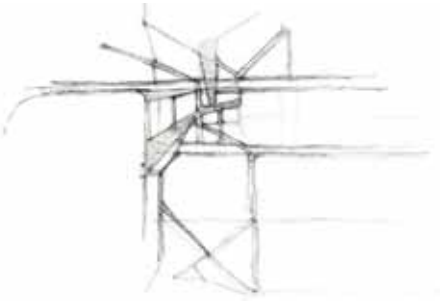
As a multifunctional cross-programmed civic facility the *Ubuntu Centre* provides paediatric HIV testing and treatment, counselling, education, and community empowerment. It provides access to a state-of-the-art facility in a beleaguered post-apartheid community. The design is a model for sustainable development that begins with environment and extends to the preservation of life. (Architecture, 2011)

By providing centrally located, free and accessible social services in a single facility the Ubuntu "I am because you are." Centre addresses current needs of the context whilst pulsating a spirit of aspiration de-stigmatizing not only the treatment of HIV but the perception of poor service prevision and inferior infrastructure design related to disadvantaged informal settlements. It provides a timely and practical template for sustainability on a societal as well as an environmental level. (Architecture, 2011)

The voids between the distributed masses form a continuation of the township pathways, allowing original pedestrian walkways to continue through the building uninterrupted, improving accessibility and creating an awareness by placing the facilities within and along the current public realm. A critical sense of community is created when full public access and ownership is granted within the design.

The pathways become active public spaces owned by the community and facilitate cross-programming of the various volumes that edge the spaces. The architecture attempts to minimize any social stigmatization of users, whilst fulfilling the centre's service based mission,

The design sends the message that every child, regardless of race or background, deserves access to world-class health and education. (Architecture, 2011)



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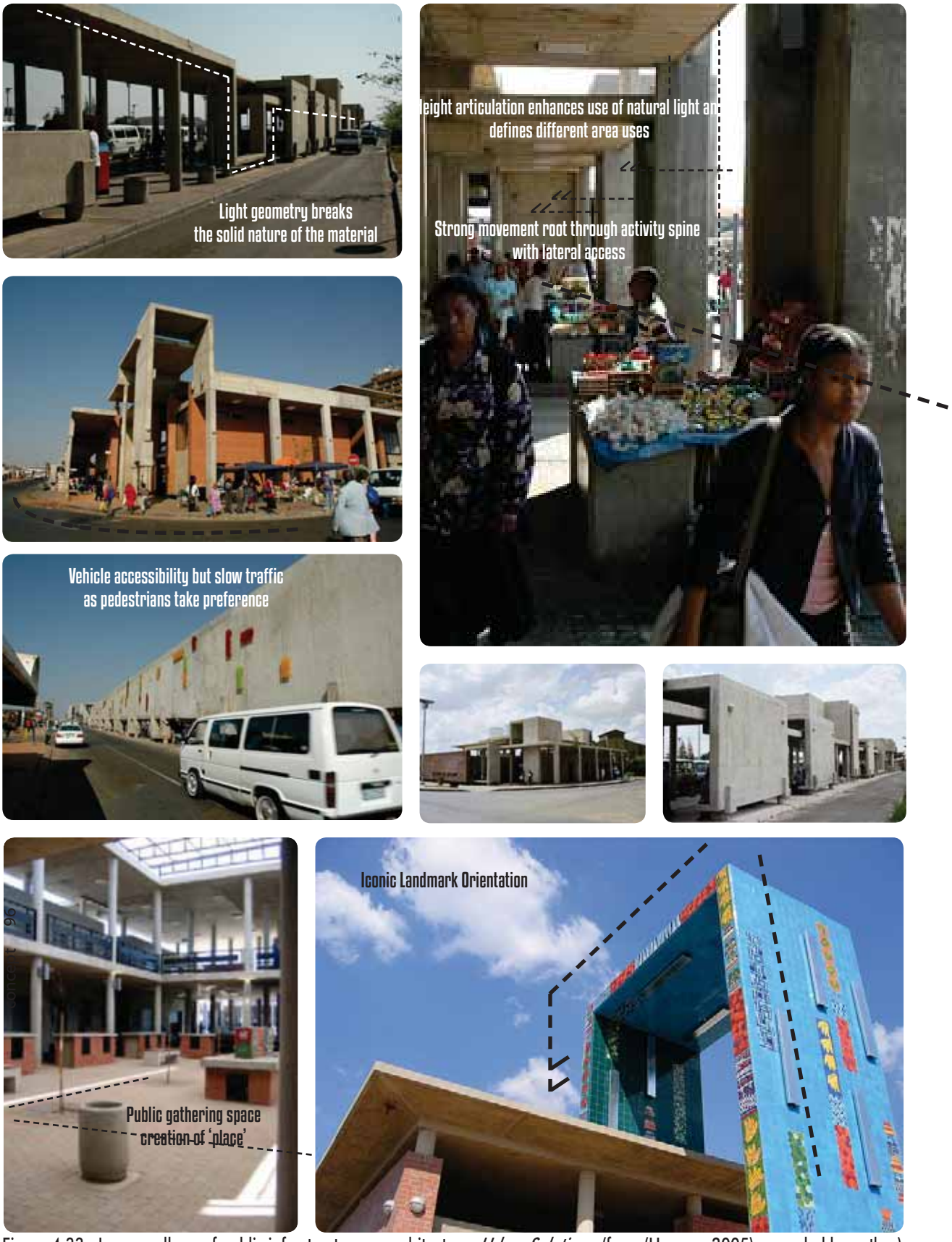

Figure 4.33. Image collage of public infrastructure as architecture, *Urban Solutions,* (from (Hansen, 2005) amended by author)

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Baragwanath Transport Interchange

;flexable, adaptable, movement orientated

[Accommodating Emergence]

by Ludwig Hansen
(Urban Solutions)
Soweto, South Africa

Focusing on the movement of large numbers of people as a design generator and ordering system, the *Baragwanath Transport Interchange* was selected to better understand the ordering, orientating and formalisation that is required around public infrastructure systems such as transport nodes that are traditionally of an informal nature.

An orientating spine along the length of the intervention is comprised of a covered arcade that stretches for over 1300 meters and is on average 50 meters wide. This spine arcade acts as a binding element onto which various functions and amenities are attached and from which they are serviced and accessed.

The linear proportion of the facility is spatially differentiated through functions clustered along its length accommodating as well as promoting the cross-programming of functions whilst maintaining an unobstructed pedestrian route throughout.

Public spaces are articulated with variations in height and break the continuous meander of commuters.

Certain areas along the spine are specifically designated to 'place making' equipped with infrastructure for markets, ablutions and seating, these areas cater for public relaxation and interaction whilst activating the entire facility with a variety of trading stall sizes and configurations for different trader needs.

The choice of material provides the robustness required for the public nature of the building whilst the light and sensitive geometry prevent the appearance of a heavy, solid concrete building. Colourfully mosaiced entrances and orientation points assist in the legibility of the facility. Professor Alan Lipman states that the building reflects **permanence** and respects the ritual of the daily commuter by mass transport. (Joubert, 2009 : 141)

The building acknowledges the importance and permanent role of a public infrastructure facility as a gathering and interactive place for a large number of citizens.

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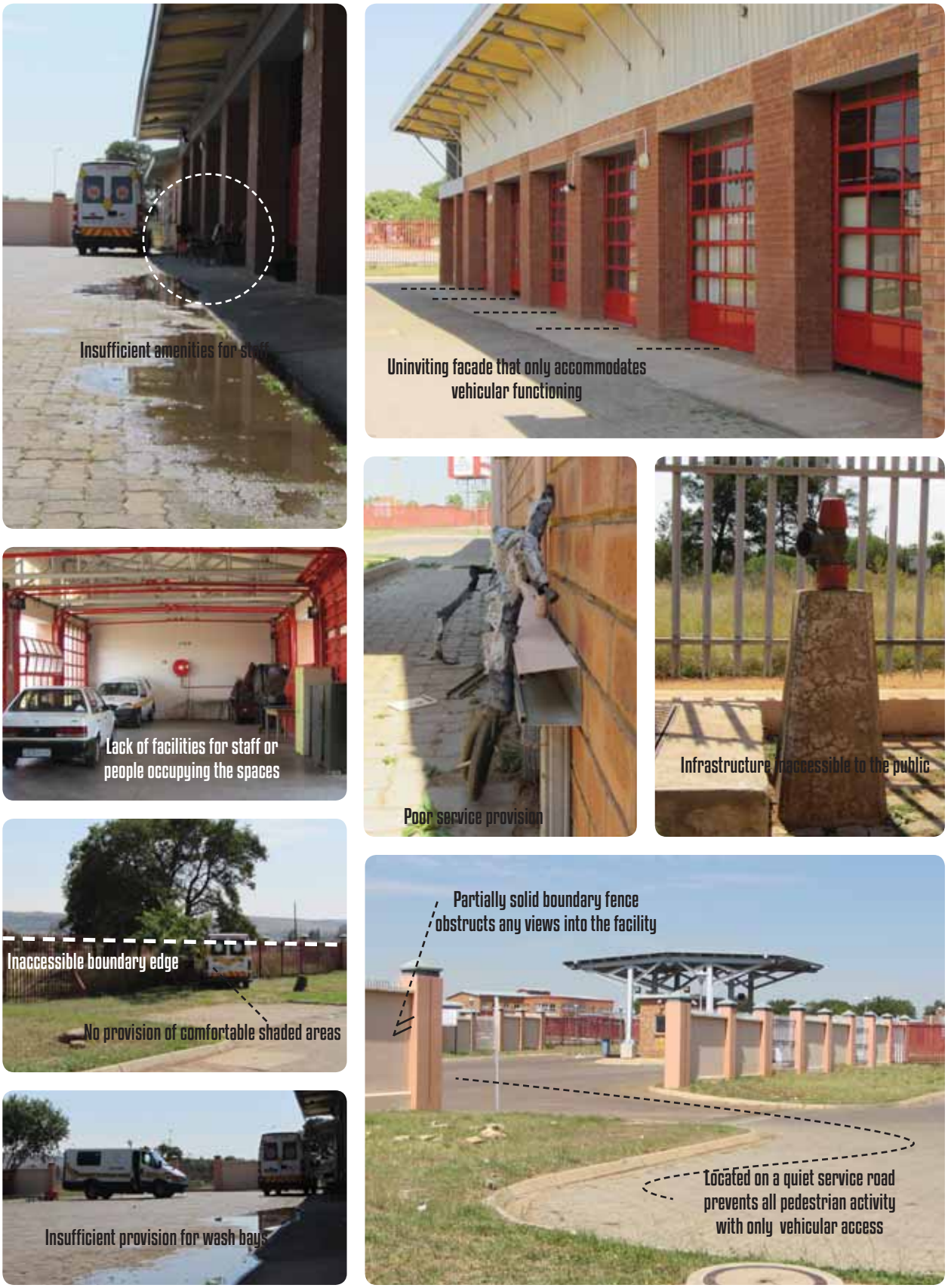

Figure 4.34. Image collage of existing public infrastructure, Mamelodi West emergency unit (Author)

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Mamelodi West Emergency Unit

;pragmatic, functionally orientated, isolated

[Moving away from isolated services]

by Tshwane Council (Region 6)
Mamelodi, South Africa

An investigation into current trends disclosed the disconnection between public service and the public realm.

Located on a quiet service road away from pedestrian movement or other public infrastructure, the facility represents an isolated island facility that houses an average of 5 public service staff daily that are completely removed from the social realm.

The occupied property is fenced off with only vehicular access through a singular, guarded entrance point. The building is designed for the pragmatic functioning and movement of emergency vehicles connected to an electronic service network excluding any design considerations for the staff or other people accessing the building.

The strictly mono-functional nature of the facility creates an environment that is constantly dormant and only comes alive at points when the vehicles are required for an emergency.

Very little people orientated design elements were included in the facility, a wash-up point and toilet facilities were included for the staff but seating, cooking, relaxing and conversing spaces were neglected.

The investigation presents an array of possibilities and potential for smaller concentrated units of public service provision namely;

Placing the unit within the public realm
_improve accessibility to public
_to accommodate localised public service seekers and emergency incidents that might approach the facility on foot
_create awareness around safety and available public services
_inform the community on who their qualified public servants are and thereby generate respect for them

Multifunctional
_allow related programmes as well as small enterprises and informal pursuits to occupy the same premises -24h activity, safety, shorter response time to incidents, economic sustainability
_accompany the facility with a public space that can accommodate the staff pause areas, client waiting areas and public interactive, awareness and educational areas

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#05.1 Final Design Documentation 140

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05
design

Peter Zumthor believes that a good building must be capable of absorbing traces of human life, of taking on a specific richness...

(Croft 2004, pg 22)

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concept development

As an amalgamation of the theoretical investigation, the design concept results in a design process that is manifested from the theoretical premise discussed in the previous chapters.

The proposal investigates the current means of public emergence within the informal South African quotidian context, where constant change and adaptation call for spontaneous and inventive means of infrastructure provision. A series of mapping by immersing oneself within the context of study, reveals the practices and rituals of the everyday that serve as design generators for the intervention.

In response to the experiential mapping of the context a series of interventions inspired by Price's small intervention 'Magnets' - discussed previously - were conceptually proposed for the site acknowledging and enhancing the everyday context. These interventions related to the 'everyday urbanism' of Crawford where interventions are dictated by the current context and a series of small scale interventions result in accumulative change improving the context as a whole.

context reveals the symbiotic relationship between formal and informal fabric of the Mamelodi context furthering the concept of cellular mitosis where certain formal 'nuclei' are required to sustain the emergence of the informal small enterprise sector 'cell body of growth' the two are then connected with services and the transfer of various resources 'cytoplasm'.

The design intention for the dissertation is to create a valid public space that provides infrastructure on several levels catering for the quotidian Mamelodi context and serving as a catalyst for community identity development.

The conceptual premise is one of movement, connection and interaction. The theme of movement is explored with the spatial order being one of articulated moments along a path as destination points along a route.

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Within the African context investigated in chapter three, a multifunctional, flexible product capable of appropriation and cross programming was concluded as most appropriate.

A variety of functions interrelated in a close coupled space engages the community on numerous levels without demanding participation. It was concluded that within the African urban context, public space ought to cater for several different types of users whilst allowing and catering for informal exploration and gradual discovery of unprogrammed space.

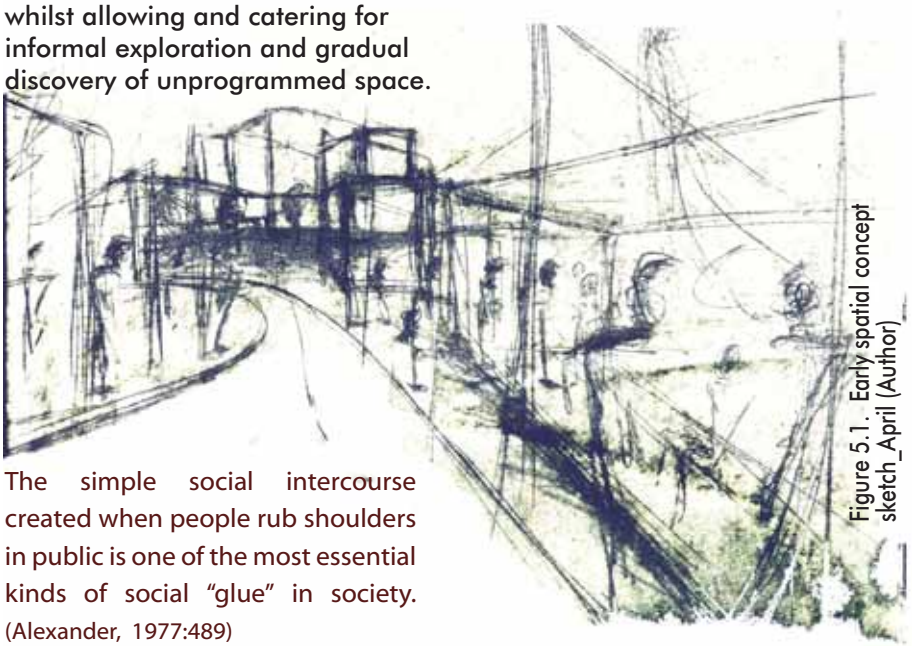

Figure 5.1. Early spatial concept sketch_April (Author)

The simple social intercourse created when people rub shoulders in public is one of the most essential kinds of social "glue" in society. (Alexander, 1977:489)

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design approach

The focus of the design approach is the ***user*** and thus attempts to provide for a number of broad categories of users inspired by the categories identified in the work of Jan Gehl, *Public Spaces and Public Life.*

The first user is the public service programme user **[Service Seeker]** who intentionally travels to the facility to make use of the service nodes.
The second is the **[Quotidian Man]** who arrives and departs from the facility on a daily basis as a commuter or seeks opportunity and income generation at the facility.
The third represents the **[Urban dweller]** who appropriates the larger intervention- space between the service buildings- of the facility without any specific intention of utilizing the public services rendered or commuting from the facility. The urban dweller seeks community engagement, public interaction and leisure activities.

The categories of users are further subdivided into umbrella categories that represent context specific users individually identified on the current site.

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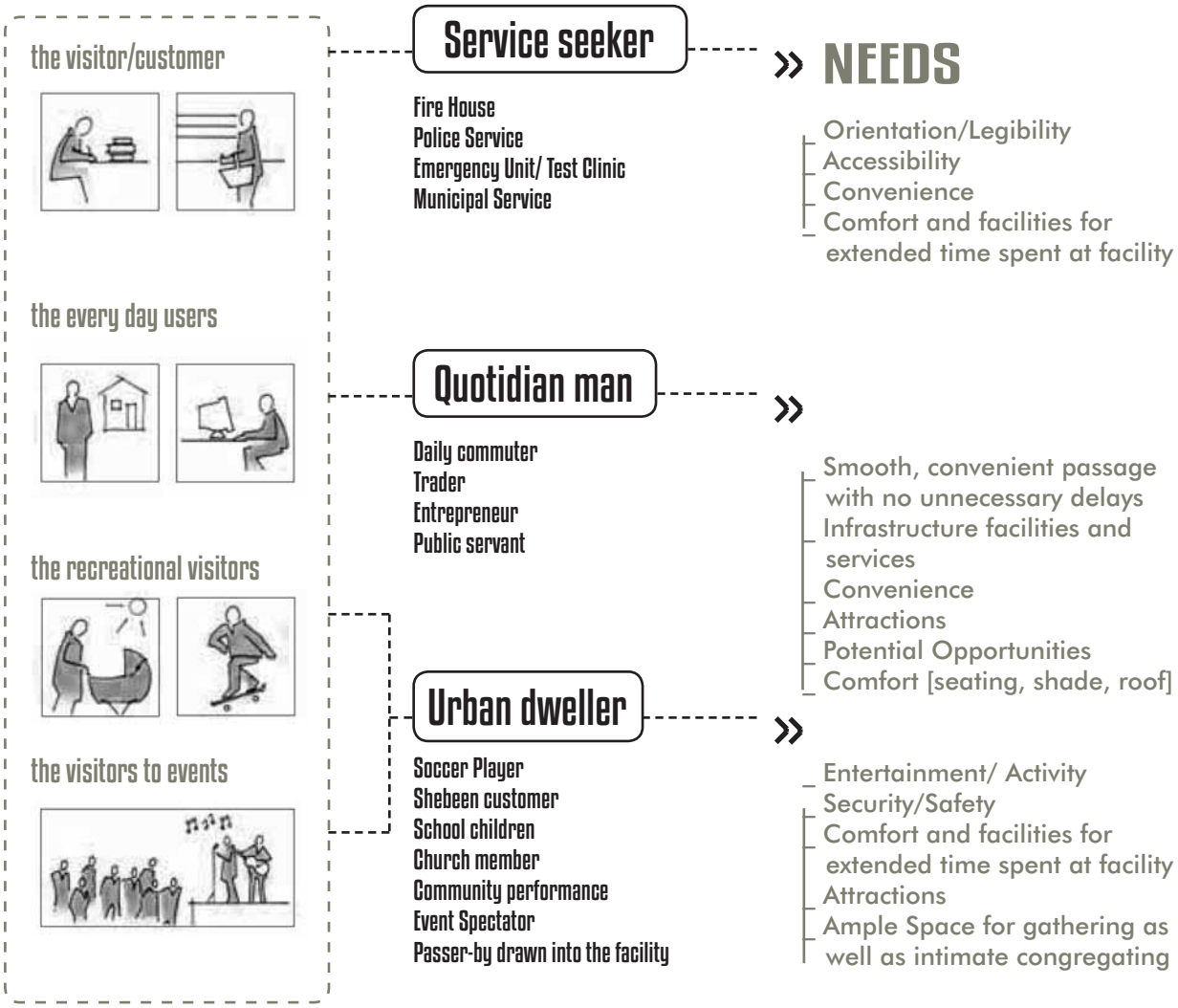

Figure 5.2. Users of public space
(GEHL Architects Aps, 2002)

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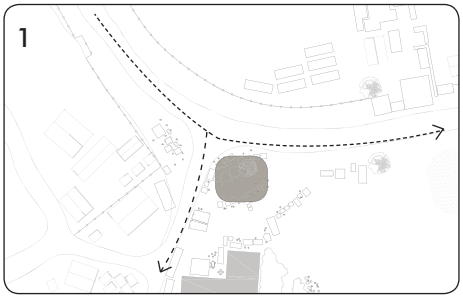
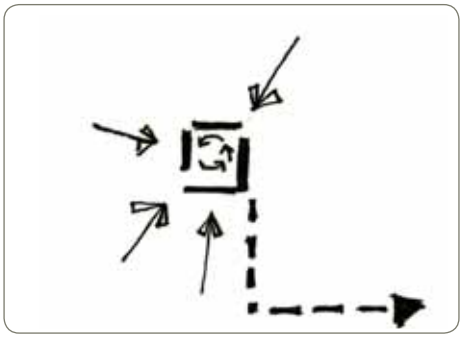
quotidian context design generators

graphic key of mapping exercise



Location and density of activity on site plan

Image of activity on selected site



Diagramatic representation of proposed small intervention

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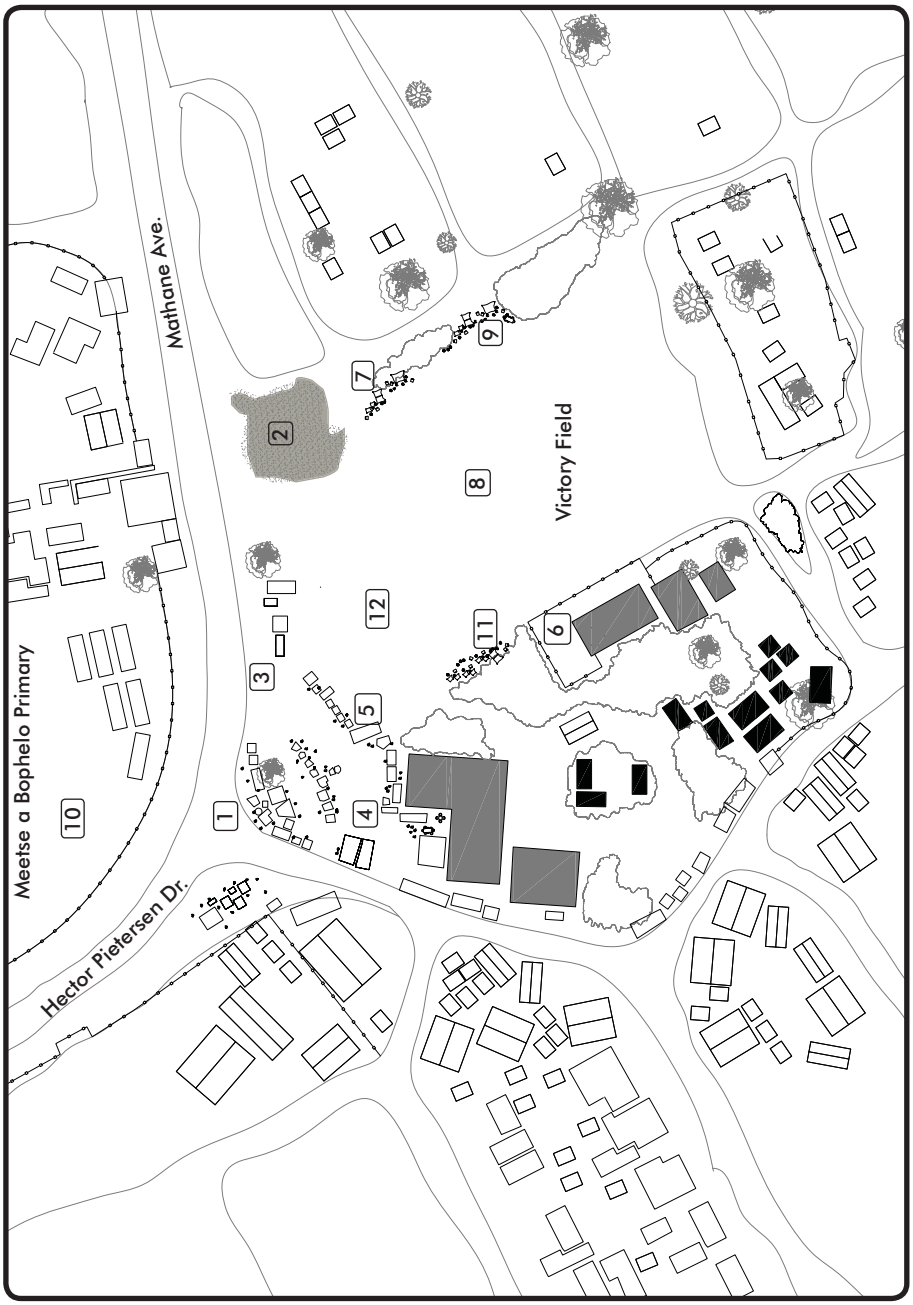

Figure 5.3. Reference plan of existing conditions on site to orientate and locate small interventions proposed (see Fig.5.4-5.9) (Author)

[Please note: The orientation of the drawing is on a landscape layout to assist legibilty]

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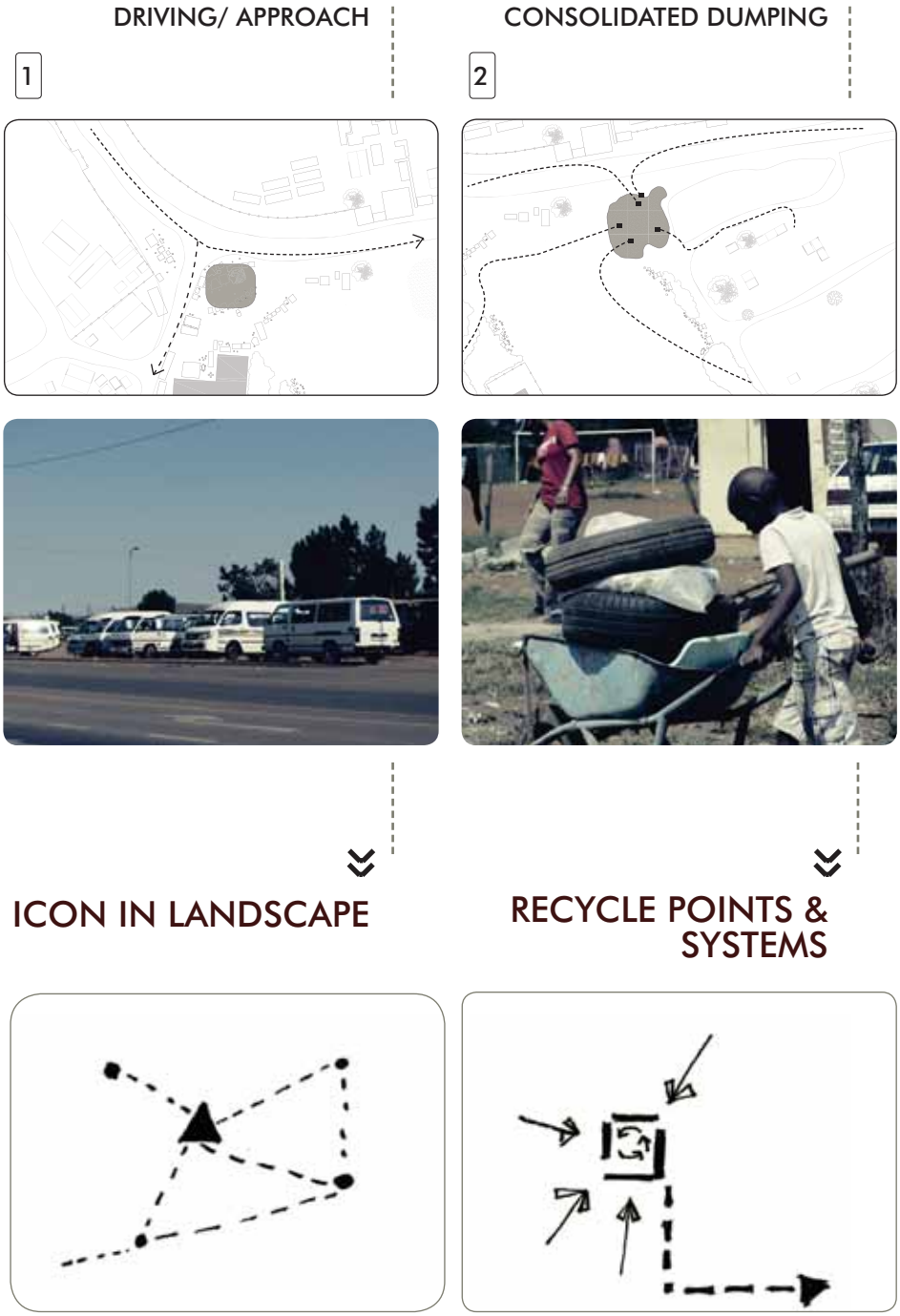

Figure 5.4. Mapping and analysis of site conditions with proposed interventions (Author)

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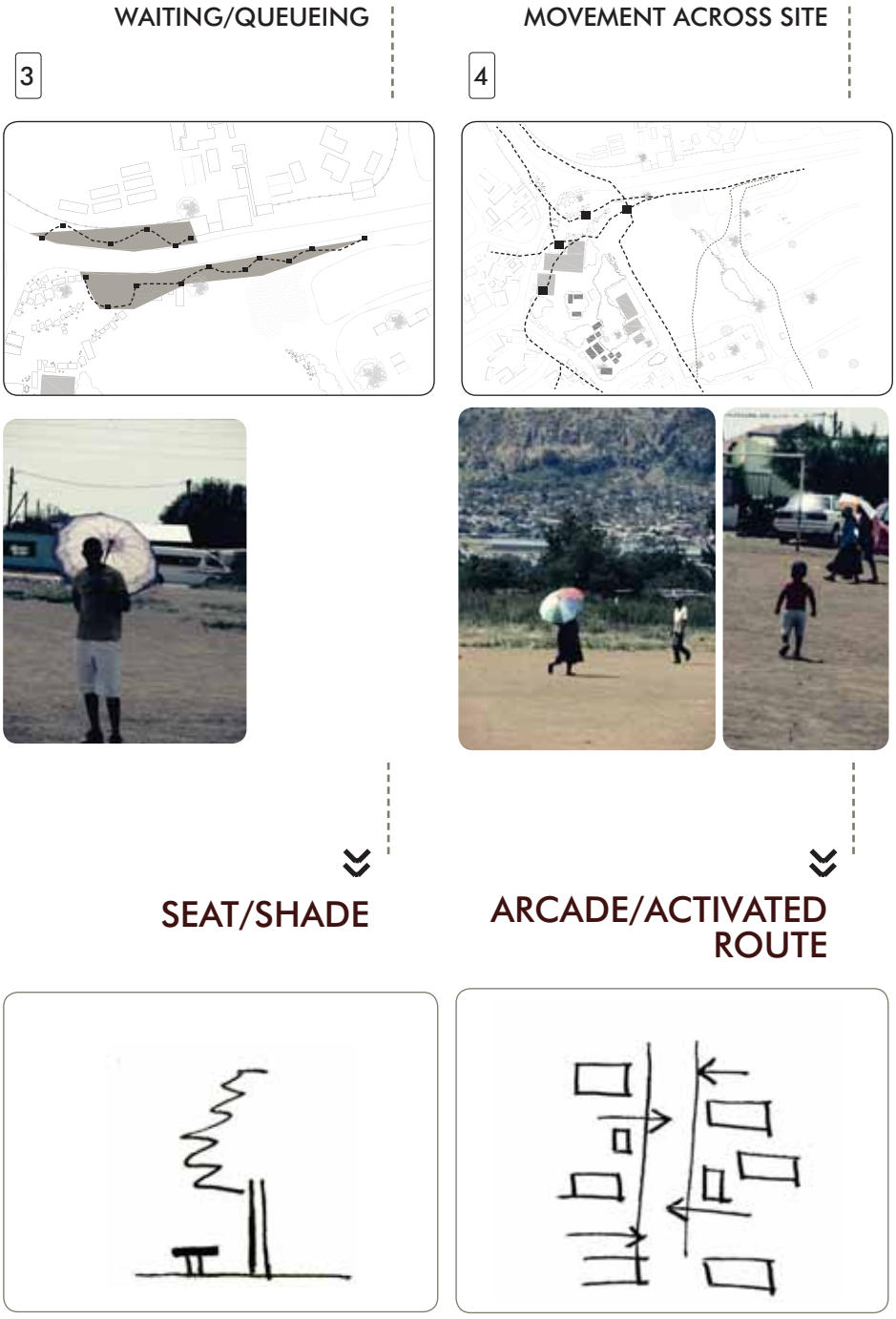

Figure 5.5. Mapping and analysis of site conditions with proposed interventions (Author)

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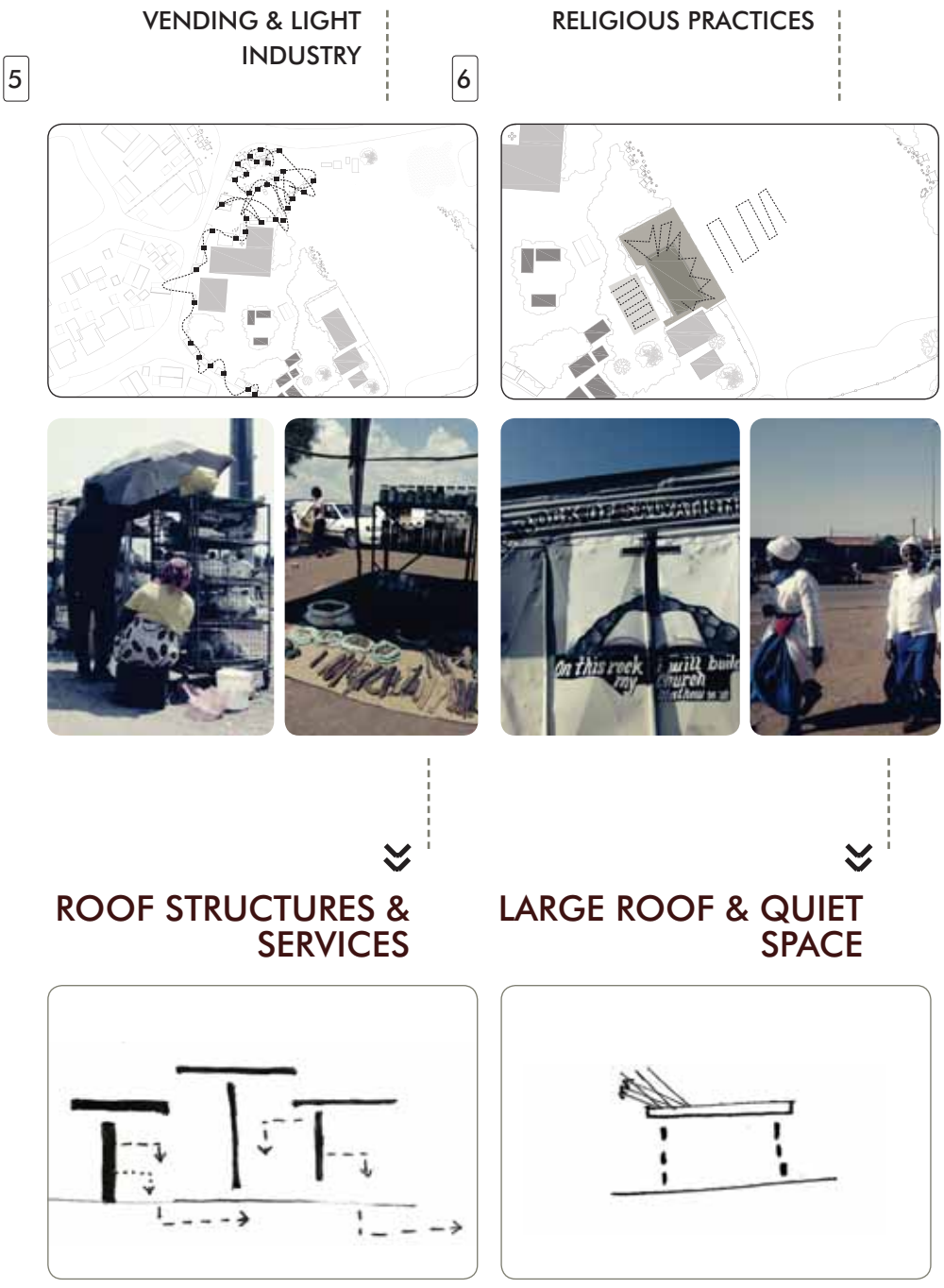

Figure 5.6. Mapping and analysis of site conditions with proposed interventions (Author)

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Figure 5.7. Mapping and analysis of site conditions with proposed interventions (Author)

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Figure 5.8. Mapping and analysis of site conditions with proposed interventions (Author)

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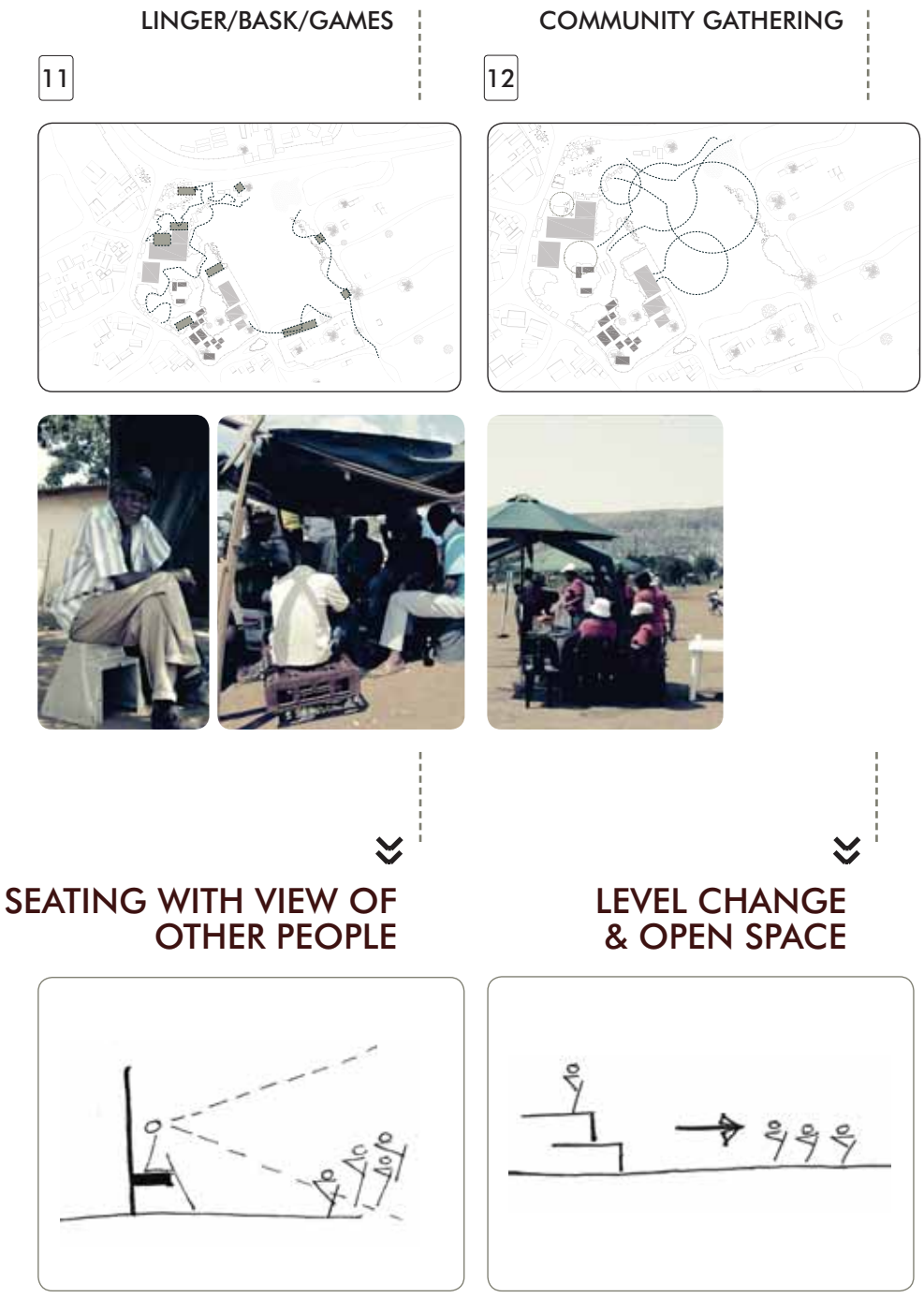

Figure 5.9. Mapping and analysis of site conditions with proposed interventions (Author)

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civic node

The proposed architecture is a direct response to the context and quotidian practice of the environment.

The civic complex is an amalgamation of the proposed 'magnets' (Hardingham, 2003) strategically positioned and linked to each other enabling the possibilities for cross programming, trans-programming and dis-programming (Tschumi, 2012) a public infrastructure depicted by Tschumi in Parc de la Vilette as a "discontinuous building but a single structure nevertheless, overlapping the site's existing features and articulating new activities" (ibid). A proposal that challenges the conventional building typologies of singularly programmed spaces. The magnets will serve as attractions within the public realm but also function as means of infrastructure to the emerging public urban fabric.

Due to the lack of formal amenities surrounding the site the concept of ownership and maintenance had to be addressed to enable a prolonged functioning and life-span of the proposed complex. The concept of public infrastructure was further investigated to a point where the need of public service within the context was analysed and a proposal of public service cores was introduced between the magnets to sustain and induce a spirit of ownership over the various spaces introducing 24 hour activity and surveillance to the public space.

The positioning of public service within the public realm challenges the conventional means of placing these integral 'public' buildings on the outskirts of communities, out of site and inaccessible to the inhabitants, disconnecting the community member from his community activity, functioning and fellow public servants.

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The design ought to function as a catalyst, promoting the following:

_Provide an orientation and ordering structure within the urban fabric as a central civic nucleus

_Establish a platform for social encounters and integration connecting the network of community members

_Facilitate improved and more accessible public infrastructure as well as place the public servant at the heart of the community creating awareness and respect for these needed professions

_Establishing community pride through participation and interaction

_Defining a multilevel public space in a area lacking civic infrastructure

A Public Service nucleus:
Although public space is-as it indicates- space for the practice of public life, there needs to be a component of ownership attached to it to instigate a sense of security and maintenance. The proposal therefore amalgamated the need for immediate public service and emergency response systems - identified in the context analysis - with the need for quotidian public space and has resulted in the provision of a localized network of public service units located ***within*** the public realm at full accessibility, linking together a multi- layered infrastructural network.

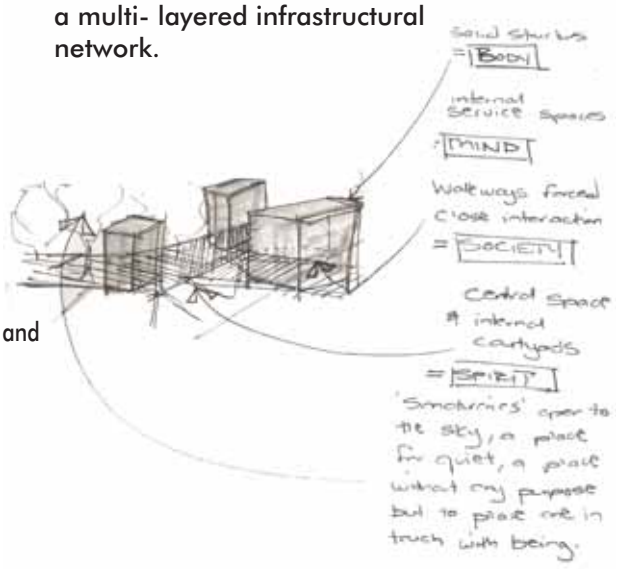

Figure 5.10. Conceptual sketch of nuclei and interrelated cytoplasm structures(Author)

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programme

The proposal attempts to develop a design intervention that aims at improving public service delivery whilst addressing the well being, social integration and identity of each inhabitant of the community. As indicated previously the scheme should act as catalyst for social growth formulating an identity of its users. The design should respond to the needs of the individual as well as that of the community.

The programme directly relates to the context analysis and needs (see fig 3.4 chapter 3) of the community under investigation. The concept of public infrastructure as connective tissue between communities becomes the medium by which communities grow and develop.

The concept of public infrastructure is understood at two levels on the site where the first level hosts the pragmatic programmes of necessary public service infrastructure (fire/ emergency/police/municipal) whilst the second level reveals inhabitable public surfaces that link together the large programmes and can be appropriated for planned as well as spontaneous quotidian public activities on the site.

The open spaces free for appropriation provide platforms for public activities while at the same time the public services are made public through the activities in the spaces that connect them.

"A lack of public resources is the most cited reason for the deterioration of the physical conditions" (UN-habitat, 2003:87)

Often over looked by urban society, the needs of the informal resident are vital for survival. As a constitutional equal within contemporary South Africa, the informal dweller has a right to access of services and public amenities within their individual environments.

According to the Disaster Risk Atlas of Tshwane by the City of Tshwane Management Services, the predominant disaster risk in the wards situated in Mamelodi is fire; in the form of informal settlement fires, urban fires and veld fires. (fig.5.12)

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Emergency call outs Mamelodi 2011

Months	JAN	FEB	MRCH	APRL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Call-outs	15	8	18	12	27	47	31	16	12	14	7	28

The emergency call outs recorded by the fire and rescue services include, vehicular accidents, pedestrian accidents, incidents of fire as well as injuries related to criminal acts

Of the 235 call outs for 2011, 98 were related to fire with each call out concerning a minimum of 4 shack fires averaging at 10 incidents per call out.

Figure 5.11. Emergency call-out incidents for Mamelodi in 2011 (Information obtained from The Department of Disaster Management , City of Tshwane, reproduced by Author)

Priority	Wards: 6	10	15	16	17	18	23	28	38	67
	Priority Disaster Risks									
A	Veld Fires	Informal settlement fires	Urban Fires	Informal settlement fires	Informal settlement fires	Urban Fires	Informal settlement fires	Urban Fires	Veld Fires	Urban Fires
B	Floods	Public health concerns	Informal settlement fires	Veld Fires	Veld Fires	Floods	Floods	Severe weather conditions	Floods	Special events
C	Severe weather conditions	Floods	Floods	Floods	Floods	Severe climate events	Severe climate events	Floods	Severe weather conditions	Floods
D		Veld Fires	Severe weather conditions	Severe weather conditions	Extreme weather conditions	Extreme weather conditions				Severe climate events

Figure 5.12. Disaster risks in Mamelodi (Graph made available by The Department of Disaster Management , City of Tshwane, reproduced by Author)

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Project aims and objectives

_ Establish a civic presence within the informal sector

_Provide necessary public services and basic infrastructure

_ The provision of a civic precinct that serves the community as well as improves social relations and the general well being of the individuals

_Unveil a community identity that will establish pride, respect and aspiration within the inhabitants

Client

Due to the civic service nature of the proposal a number of relevant government departments will serve as client. These include the Department of Public Service and Administration, Department of Police, Department of Housing, Department of Rural Development and Land Reform amongst others.

The region six municipal department will be responsible for the initial costs of the facility providing the complex as a public service node after which the various departments will be responsible for the occupation and implementation of the required services as well as the continuous maintenance and expansion of the project as the Mamelodi urban fabric develops.

The typical services to be offered include;

_A rapid response fire and emergency unit

_A satellite police and correctional services point

_A governmental service facility catering for health care, grant application and associated payouts, home affairs and social development as well as regional municipal service departments.

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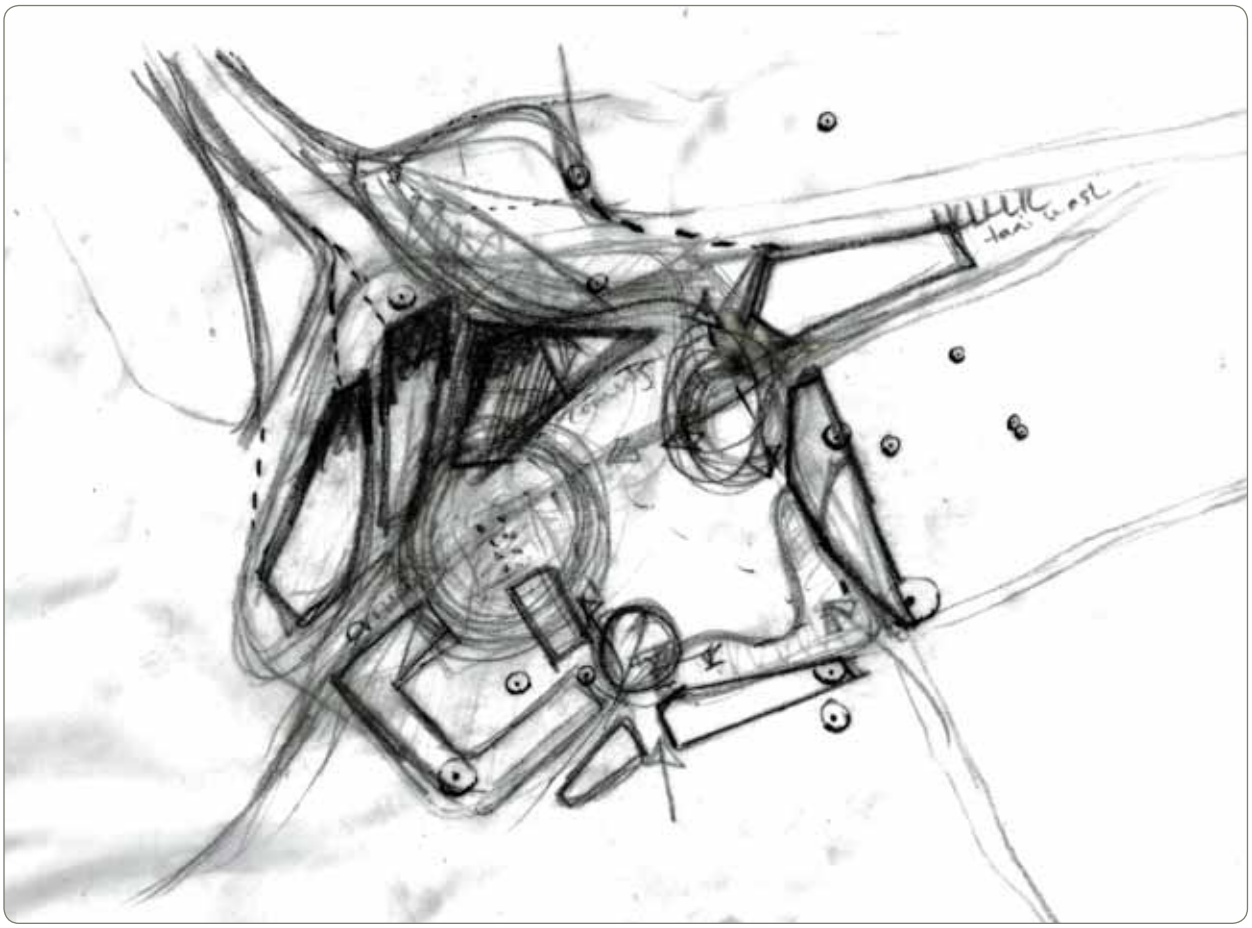

Figure 5.13. Concept sketch of orientation, layout and legibility of the site (Author)

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design development

1st iteration [breaking ground]

The intention of the first iteration model was to explore the notions embedded in the initial theory of everyday urbanism discussed in chapter three.

The model attempts to understand the activities that occur on the undeveloped site on a daily basis and position the small interventions -identified previously- for these activities in a relationship where they are able to cross-programme across the spaces between them and facilitate the marrying of various different users. Each edge of each proposed mass was appropriated according to the proposed programmatic requirements as well as the connection and interaction with the edges around it.

The model also investigated the connection between street edge and internal public courtyard and event space. The proposed market structure was placed on the street edge as an iconic element and activity zone that draws the public to the facility and then filters them into the internal public spaces. The edges of the soccer field as well as the courtyards were activated with public leisure, cooking and event facilities to ensure the spill-out of activity into these open areas.

The investigation of this model clarified that the multi-programmed nature of the proposal will result in a phased development process over a lengthy period of time rather than a singular attempt at developing the site. That the endeavour to marry a diverse range of programmes, users and conditions carries the potential to result in an almost 'chaotic' layout that lacks legible forms of orientation and hierarchy.

Conclusions

_Specific accommodation of all identified users and conditions is unrealistic and results in chaotic arrangements

_The connections between proposed buildings require more detailed investigation to be able to accommodate more activities as well as be freely appropriated

_Access to and the movement of users through the facility as well as the legibility of spaces and routes need to be defined so as to ensure the convenience and comfort of the user

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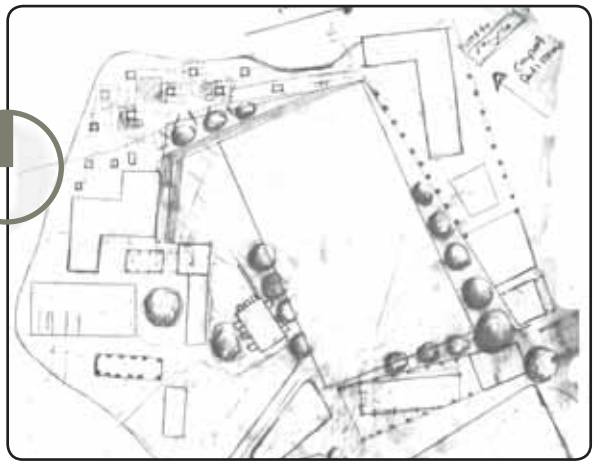

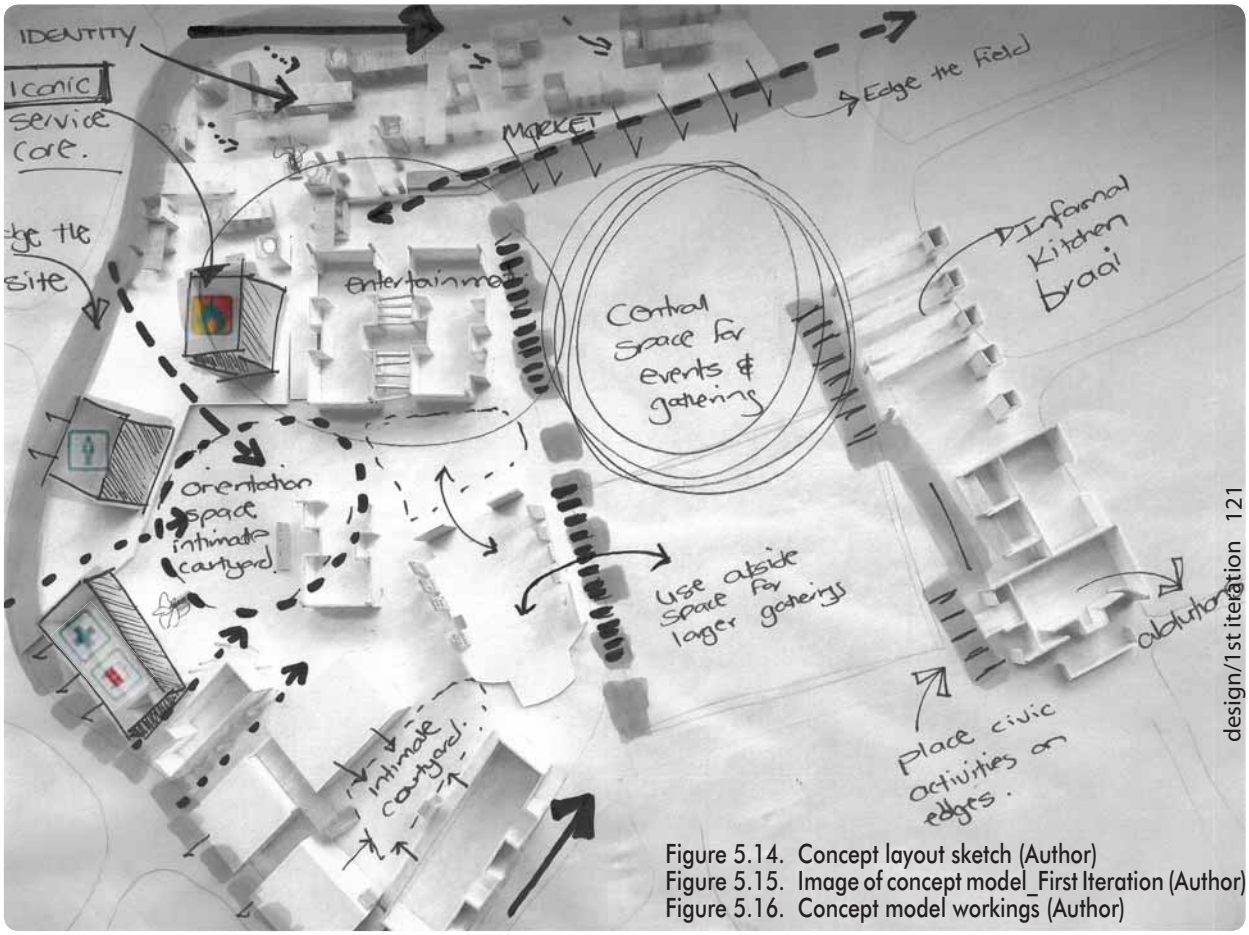

Figure 5.14. Concept layout sketch (Author)
Figure 5.15. Image of concept model_First Iteration (Author)
Figure 5.16. Concept model workings (Author)

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2nd iteration [embracing context]

In response to the lessons learnt from the first iteration, the second iteration attempts to better ground the layout of the facility within its context, by drawing from 'concrete' elements routines and patterns within the immediate environment. (Alexander, 1977)

The first major change stemmed from the amalgamation of various programmes on a singular site resulting in a haphazard almost 'chaotic' configuration. A re-investigation of movement and concentration zoning was conducted on the site with a series of mappings that highlighted prominent pathways, daily routes and areas of gathering (fig 5.18). The possibilities of movement routes on different levels was tested with movement between different planes via ramps.

This approach allowed for easier movement of the public with directional routes related to original pathways. A relation was drawn to Gehl's city planning principles (Fig 5.17) where a dominant movement route is facilitated but the articulation of solids and voids along the route enhancing possibilities of integration and assembly of people opening the facility and inviting the public towards the activity.

The spatial investigation of this iteration revealed that a building of this nature will be more successful leaning towards a linear orientation. The iteration made it clear that a linearly routed building edging the 'iconic' corner of the site would best serve the pragmatic nature as well as the process of movement on the site, thereby defining public space around and along it for the urban dweller user but not obstructing the everyday user (fig 5.2) accommodating several functions congruently.

The need to better resolve legibility as well as hierarchy of the facility was once again revealed. The facility needs to provide a balance between stable formal facilities for the provision of public service and allow for space to be appropriated for emergence, not design the emergence.

Conclusions

_A linear typology that facilitates movement is best suited

_A better understanding of each user and their requirement needs to be addressed and designed for An understanding of pedestrian movement through the building

_Finding a balance between for service provision and informal space for appropriation

Figure 5.17. City Planning Principles (Gehl, 2011)

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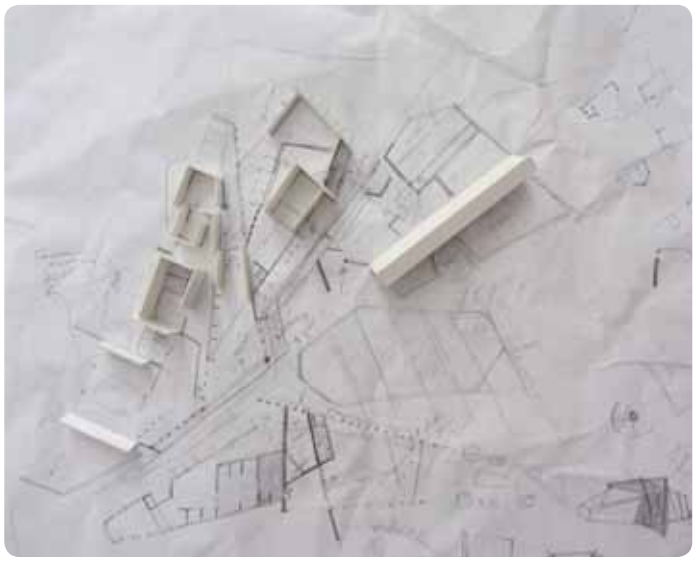


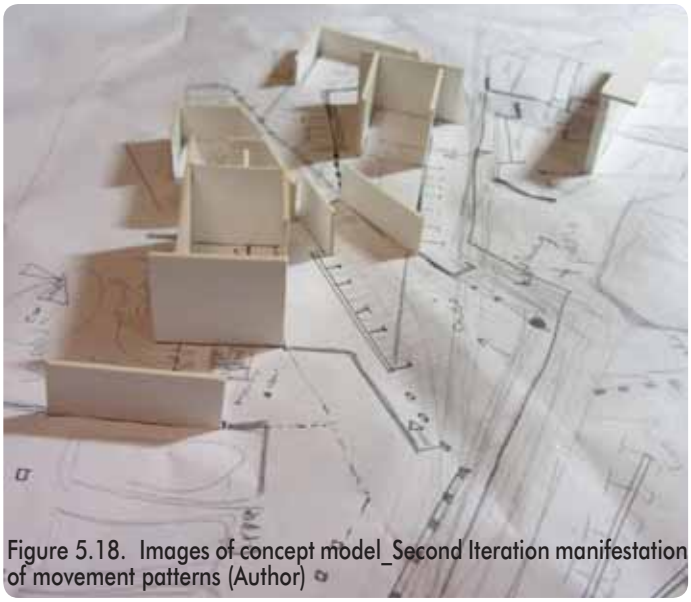
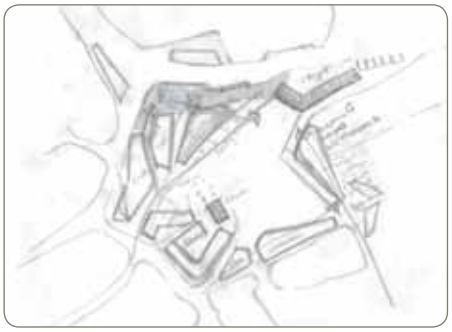
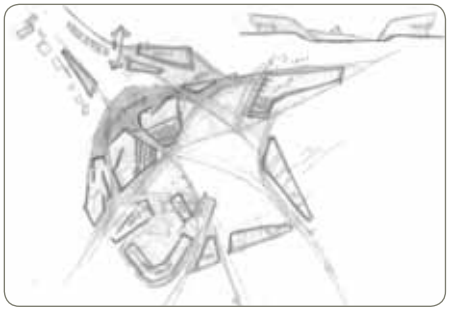


Figure 5.18. Images of concept model_Second Iteration manifestation of movement patterns (Author)





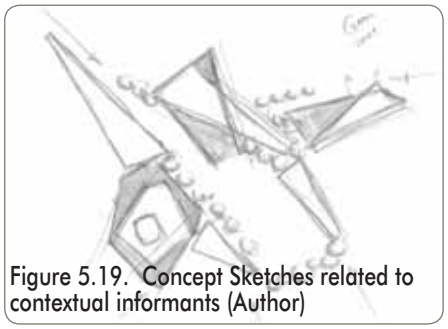


Figure 5.19. Concept Sketches related to contextual informants (Author)

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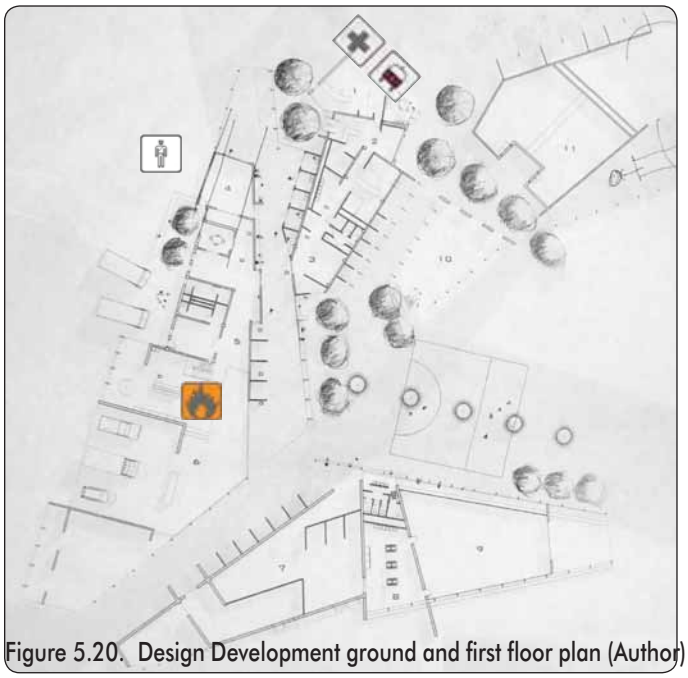

Figure 5.20. Design Development ground and first floor plan (Author)

In an attempt to create a language of unity between the building units the focus of the second iteration shifted to activating the liminal spaces between the proposed units forming a disconnected building facility with a sense of a singular *place.* A light frame (tectonic) element in resemblance of the emergence and adaptability of the informal sector enclosed and defined spaces for appropriation and public activity accompanied by "service points' of stereotomic concrete units providing necessary service and the formal programmes.

The model result was very formalistic, almost creating an object in the landscape - couter-supportive of the notion of context embracing - but was a useful step in the iterative process to finding the perfect balance between the stability of design and the creativity of emergence. (Hamdi, 2004: xviii)

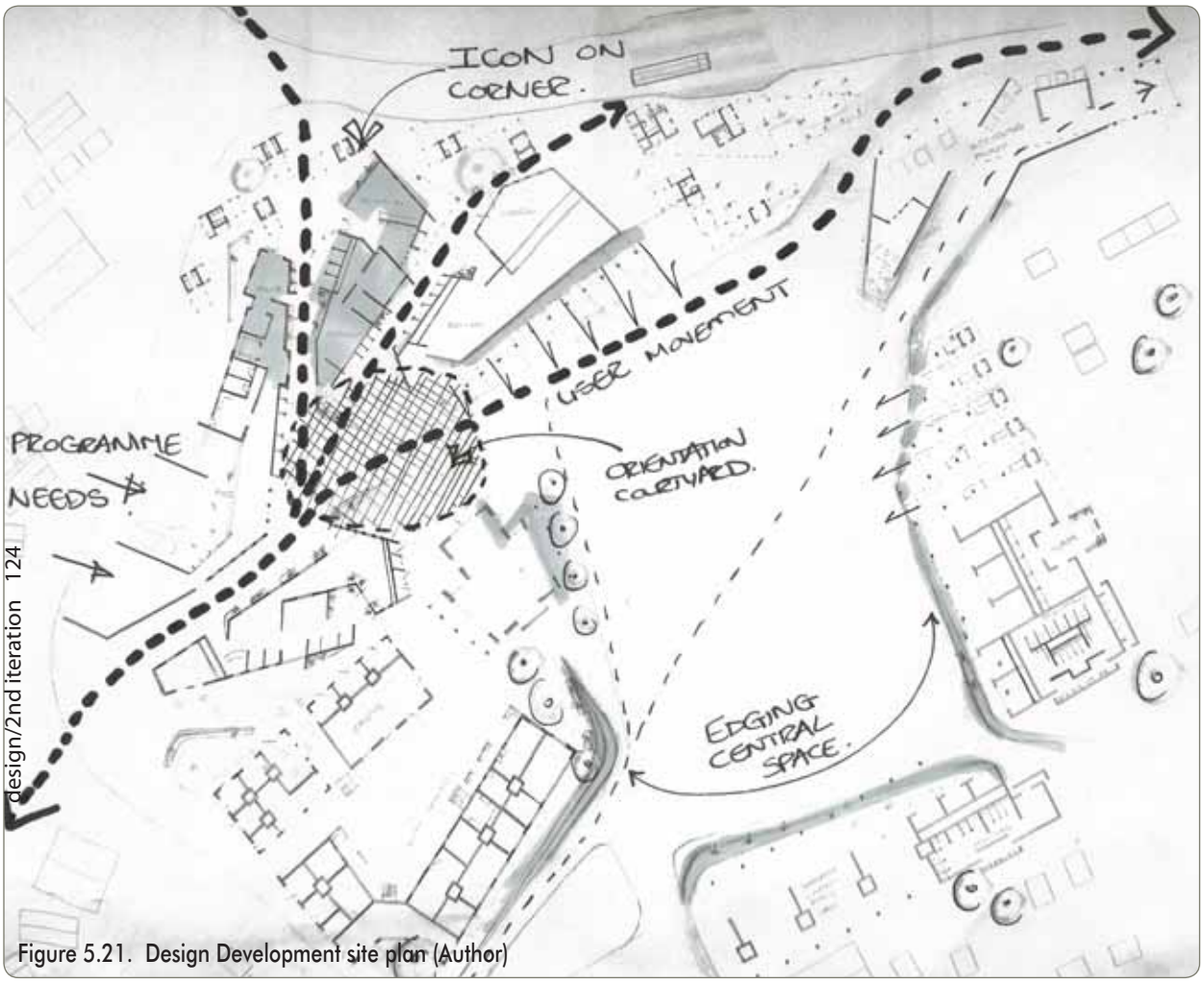

Figure 5.21. Design Development site plan (Author)

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Figure 5.22. Aerial perspective of proposed structure and interconnected spaces

Figure 5.23. Design development section through public space and public servivce building

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'[S]kilful [practitioners] understand the interdependence between design and emergence. They know that in today's turbulent environment, the challenge is to find the right balance between the creativity of emergence and the stability of design.'

F. Capra (Hamdi , 2004: xviii)

3rd iteration [balancing act]

The third iteration is an amalgamation of the lessons learnt in the previous two iterations. The focus of this investigation was to find the perfect balance between designing the formal programmed spaces and the designing of spaces for the emergence of the informal everyday activities. The aim was the marriage of these two conditions in a singular ensemble neither inhibiting or overpowering the other.

The main lessons drawn from the previous iterations were:

_Accommodating linear movement of pedestrians whilst articulating the edge conditions along the route creating possibilities for interaction, encounters and emergence.

Creating a sense of hierarchy and legibility of the facility accommodating the convenience of the user.

A route with designed edges that defines varying public spaces along and around it.

The final spatial iteration was tested against the needs of the identified users ensuring that the design is user and movement driven rather than form driven.

The concept of a nucleolus serving the community nucleus and enabling growth around it is more evident in this iteration. The formal [heavy] service cores facilitating the public service demands function as the 'iconic - nucleolus' elements within the landscape assisting legibility and orientation of the context as a whole, whilst the 'informal' [light] structure lacing the cores together allows for adaptability, flexibility. appropriation and everyday emergence.

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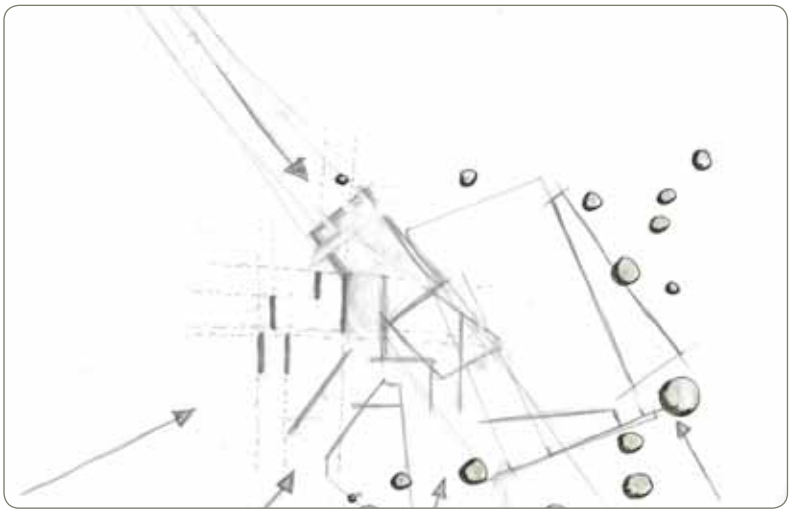

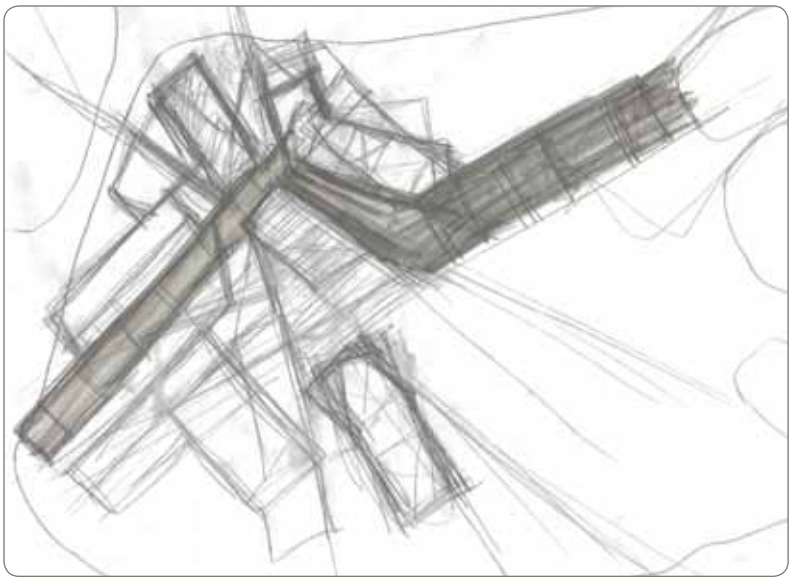

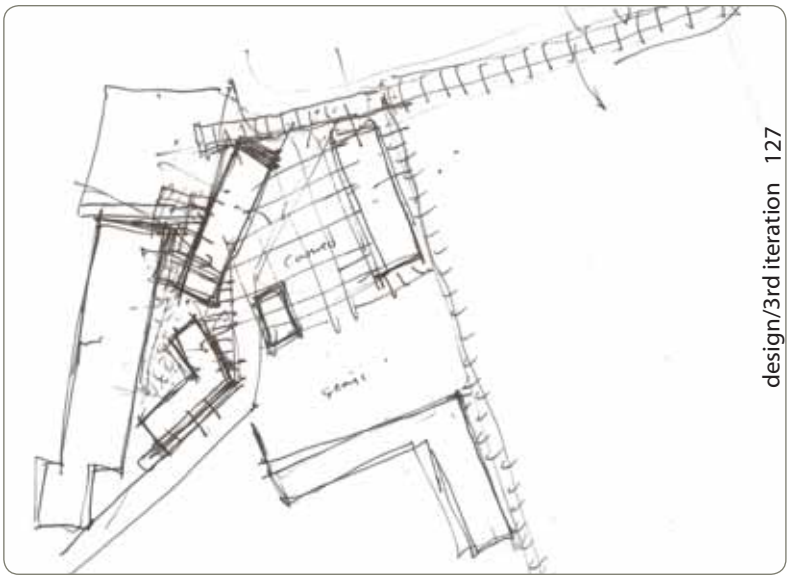

Figure 5.24. Conceptual Design Development site plans (Author)

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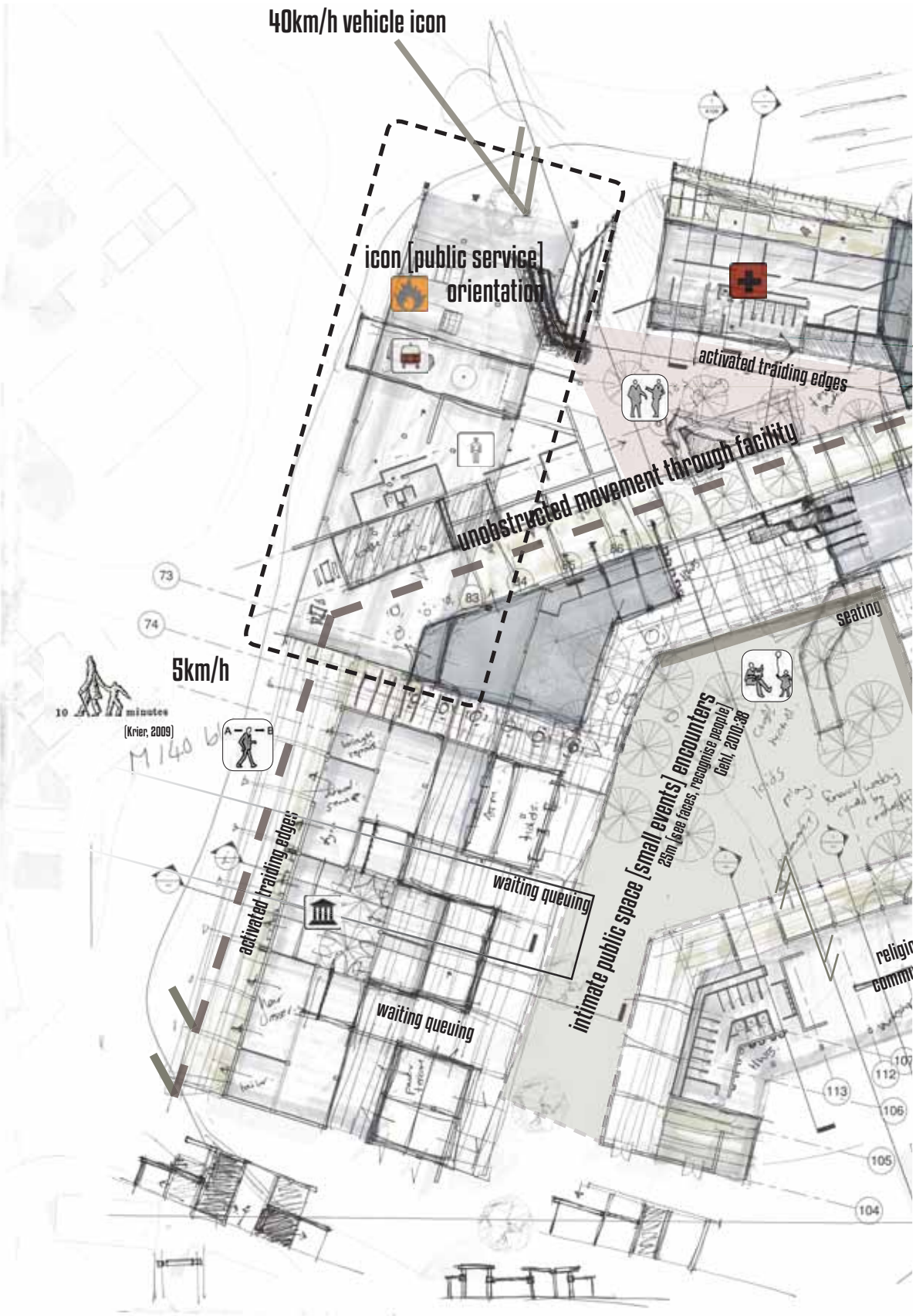

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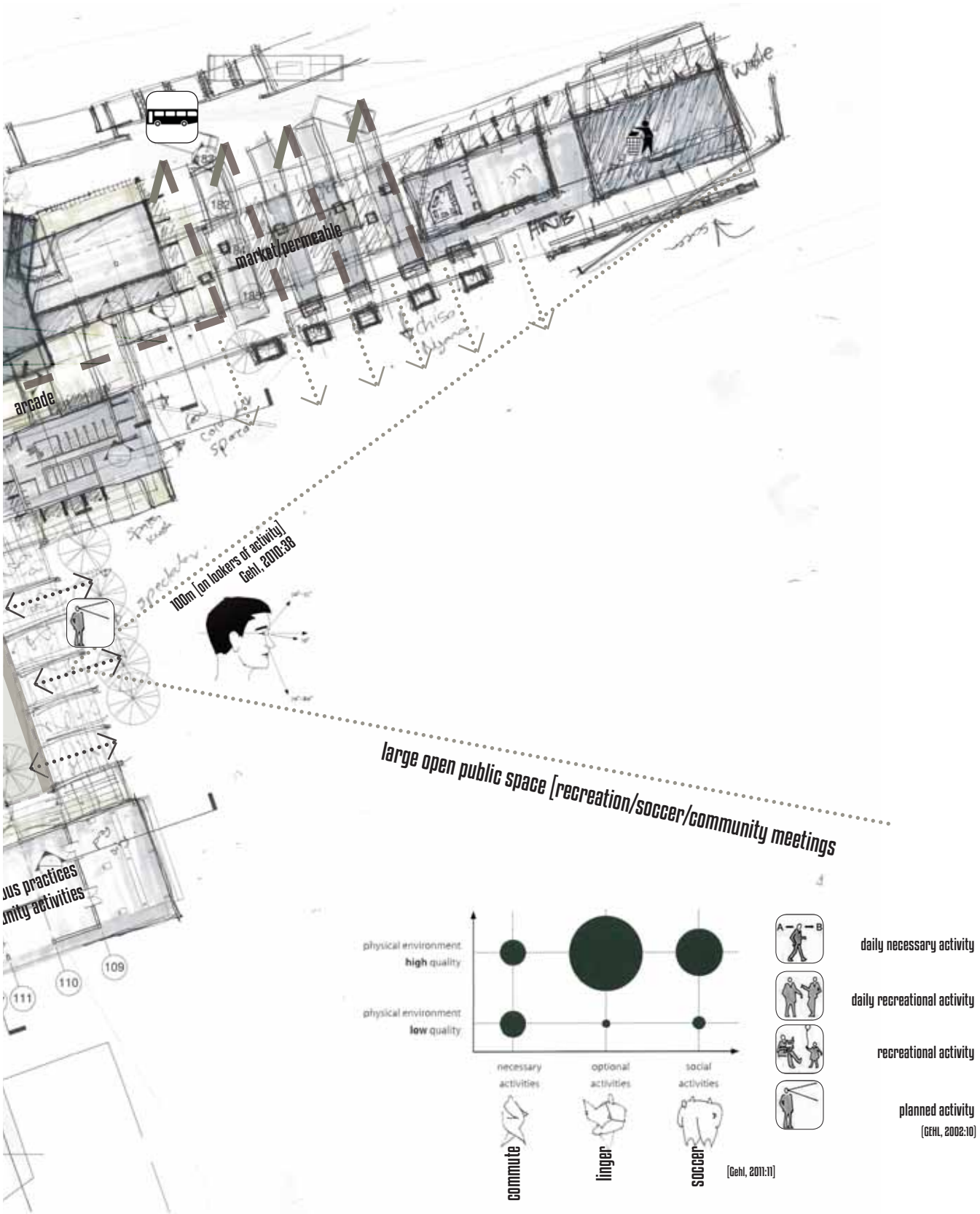

Figure 5.25. Working design development layout plan (Author)

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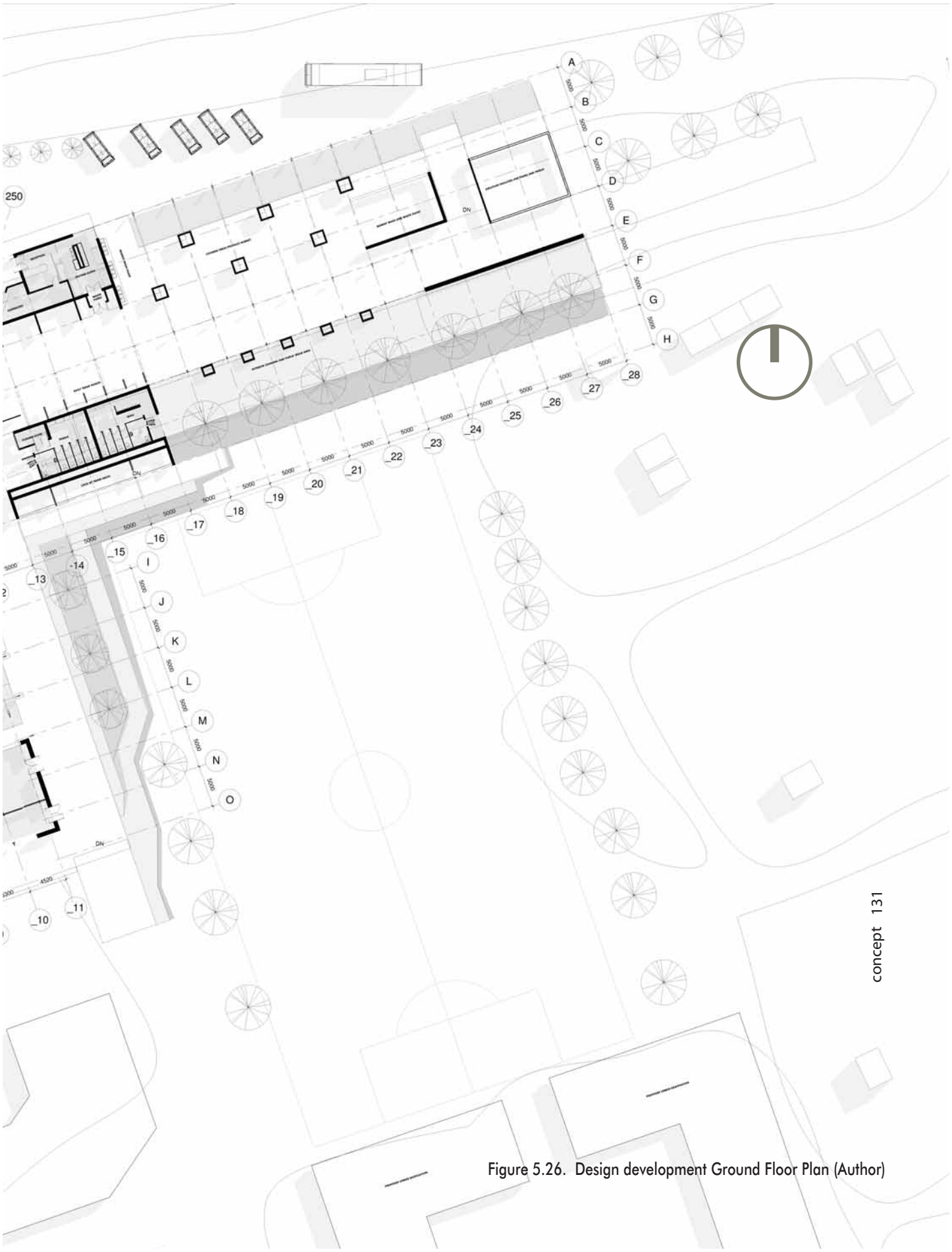

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Figure 5.26. Design development Ground Floor Plan (Author)

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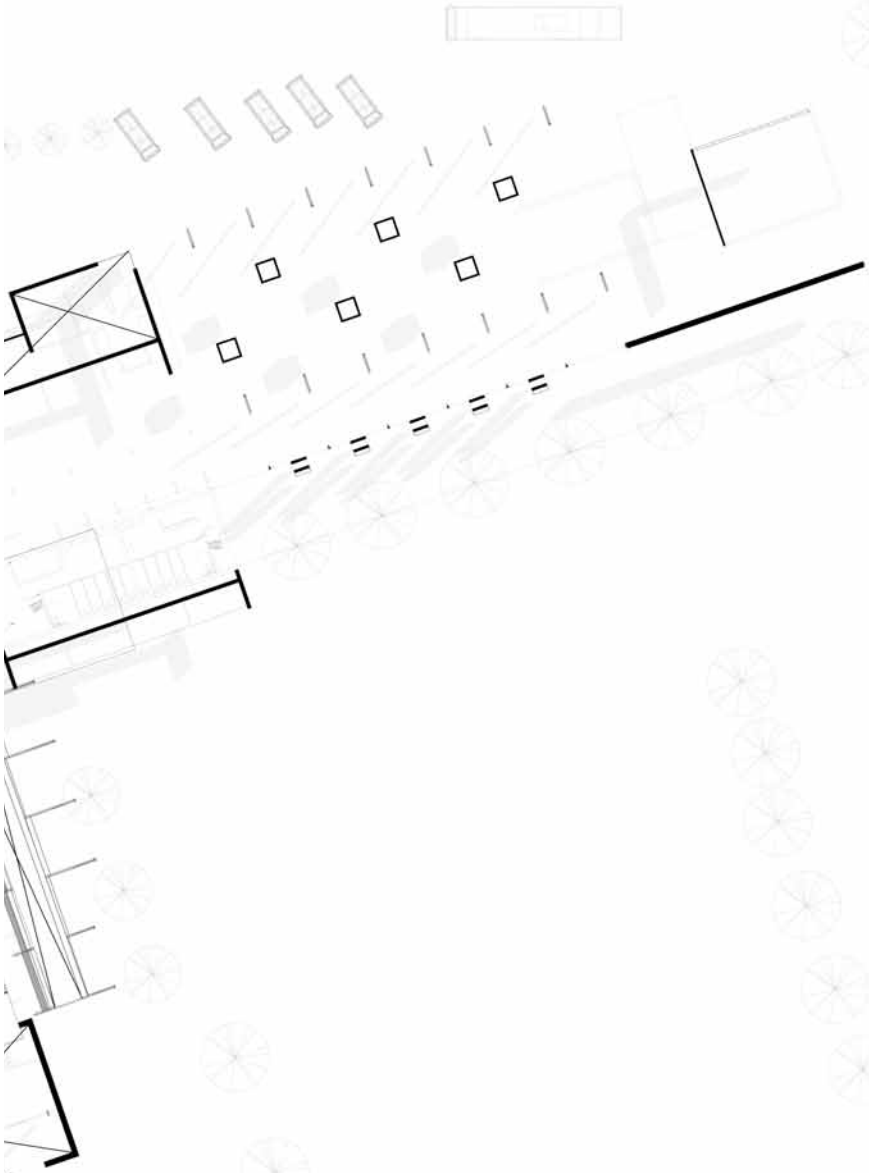

Figure 5.27. Design development First Floor Plan (Author)

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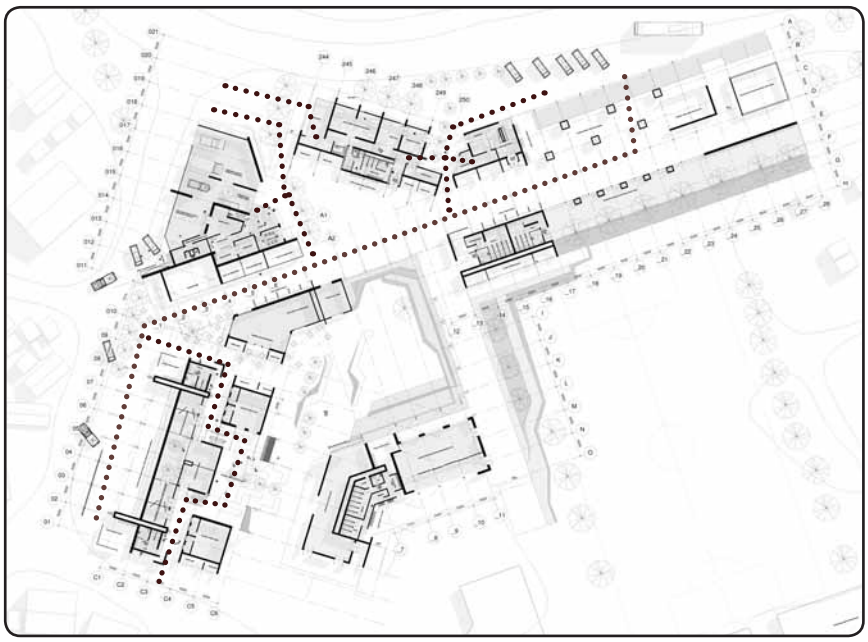

Service seeker

Fire House
Police Service
Emergency Unit/ Test Clinic
Municipal Service

Quotidian man

Daily commuter
Trader
Entrepreneur
Public servant

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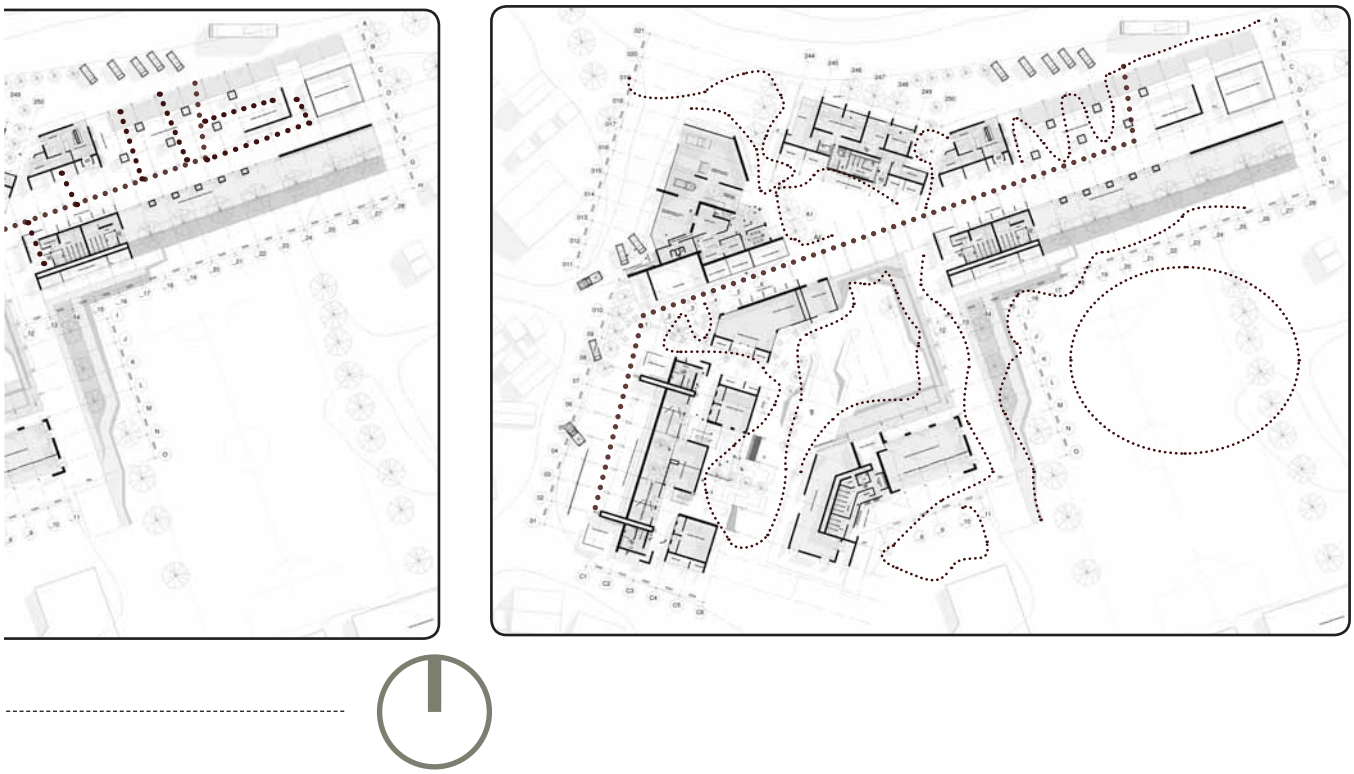

Urban dweller

Soccer Player
Shebeen customer
School children
Church member
Community performance
Event Spectator
Passer-by drawn into the facility

Figure 5.28. Different uses of spaces accommodated at the same time (Author)

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connection & mediation

Connection
By investigating the edge conditions of each building in the facility as well as the vertical plane conditions a premise was established where connection between spaces could be accommodated. Introducing a plinth under each building provides continuous surfaces for seating within the open spaces between the buildings. Raising selected walls to counter heights allows for emergence of informal trade or social games activity. Maintaining a fully accessible ground floor edge creates an entirely public ground floor surface assisting in the hierarchy of private facilities above ground. Accommodating views from the first floor over the entire site introduces passive surveillance especially from the pause areas of the public service departments on the first floor (24hour security for site) These physical as well as visual connections enhance mediation between users and conditions creating a sense of place at the facility.

Mediation
The mediation between different users, different programmes as well as different means of appropriation serves as an important design investigation. The various programmes were interrogated to ensure the provision of adequate spaces for all users.

The combination of activated urban edges articulated liminal spaces and the use of directional elements results in a design which allows for necessary infrastructual needs, as well as formal retail and ancillary functions laced together with deliberately unprogrammed space for appropriation by the informal sector as well as the public realm for communal activities. The facility was therefore not designed with finite boundaries but rather the amalgamation of inside, outside, formal and informal is all housed in a consolidating precinct.

"In the language of 'emergence', 'it's better to build a densely interconnected system with simple elements and let the more sophisticated behaviour trickle up. In this respect, good development practice facilitates emergence; it builds on what we've got and with it goes to scale."
(Hamdi, 2004:xviii)

Figure 5.29. Different uses of spaces accommodated at the same time (Author)

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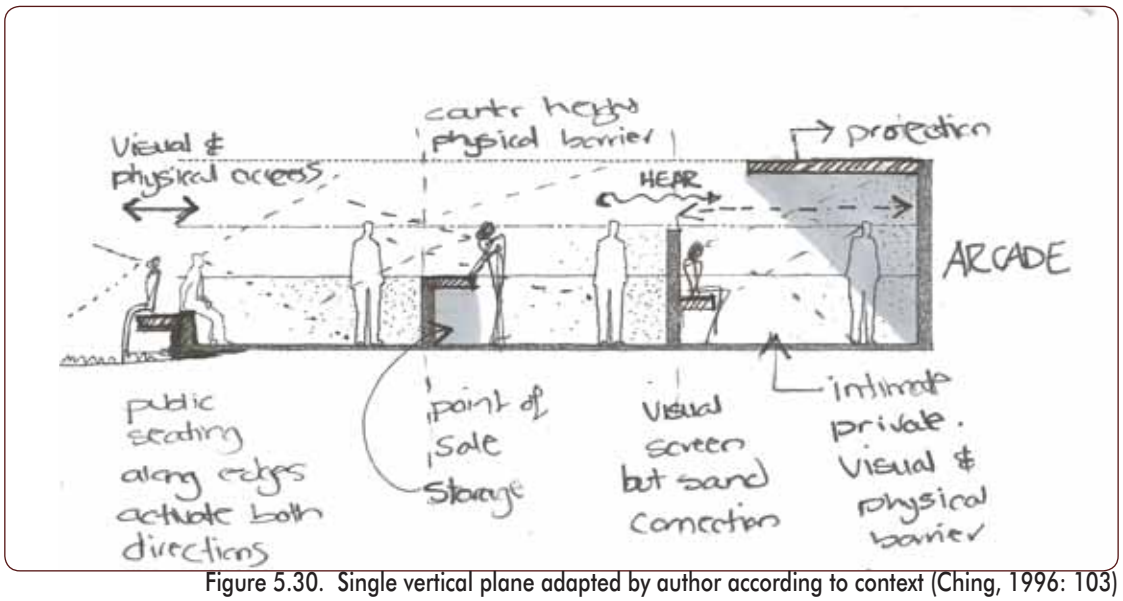

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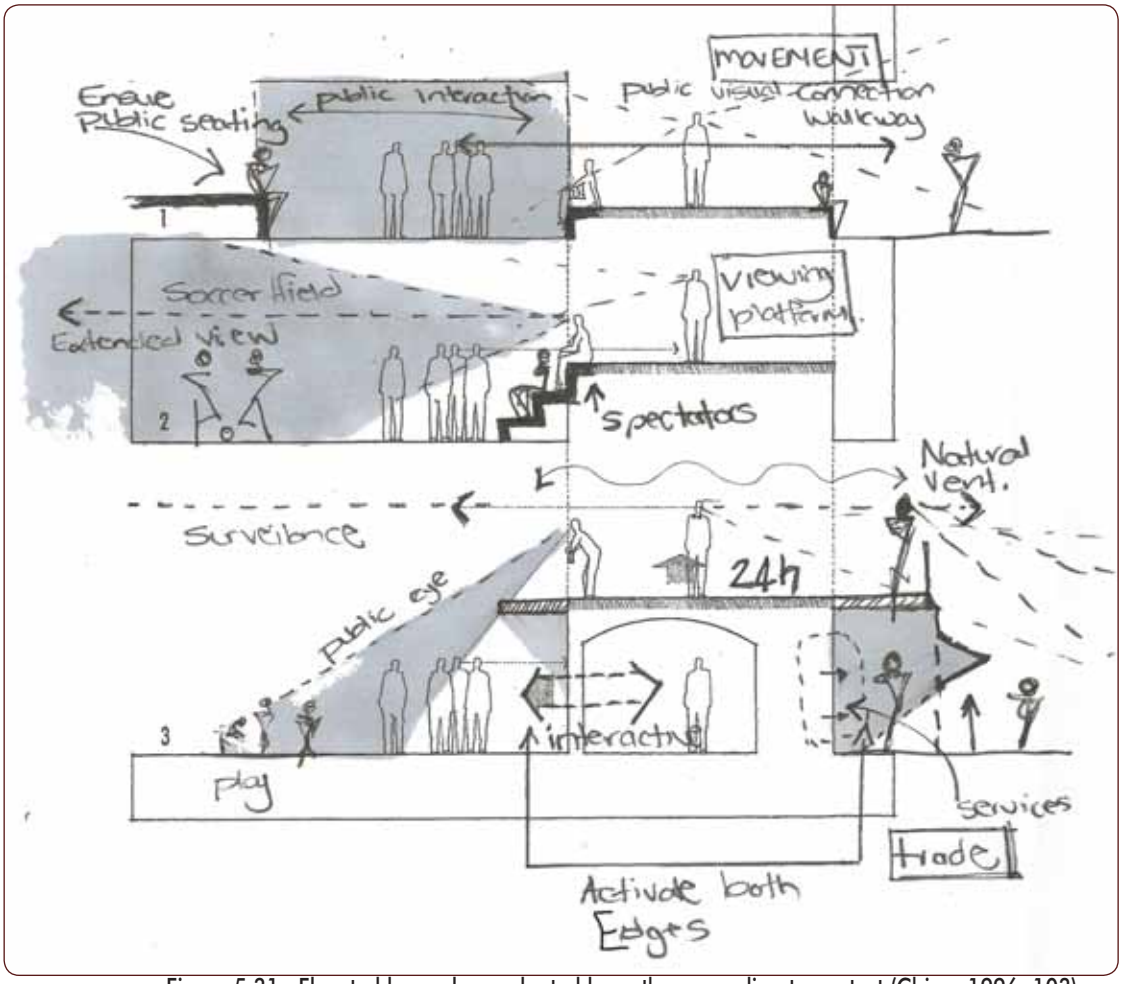

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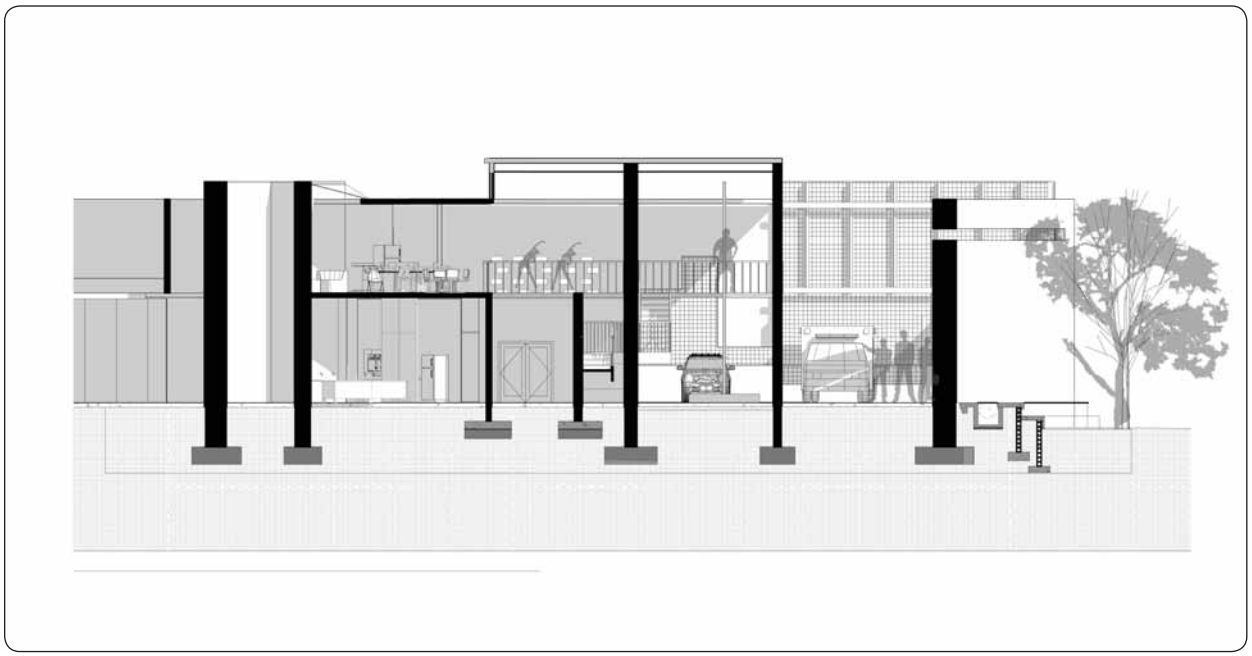

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Stereotomic Service Structures

Tectonic Informal Mediation

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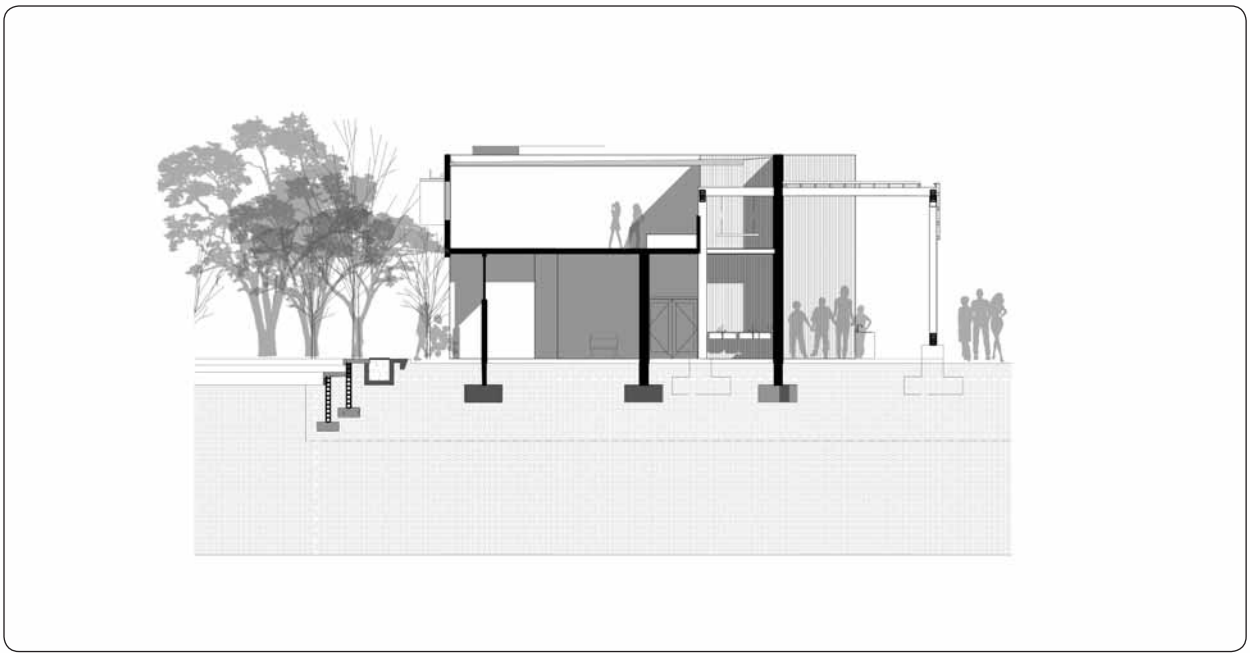

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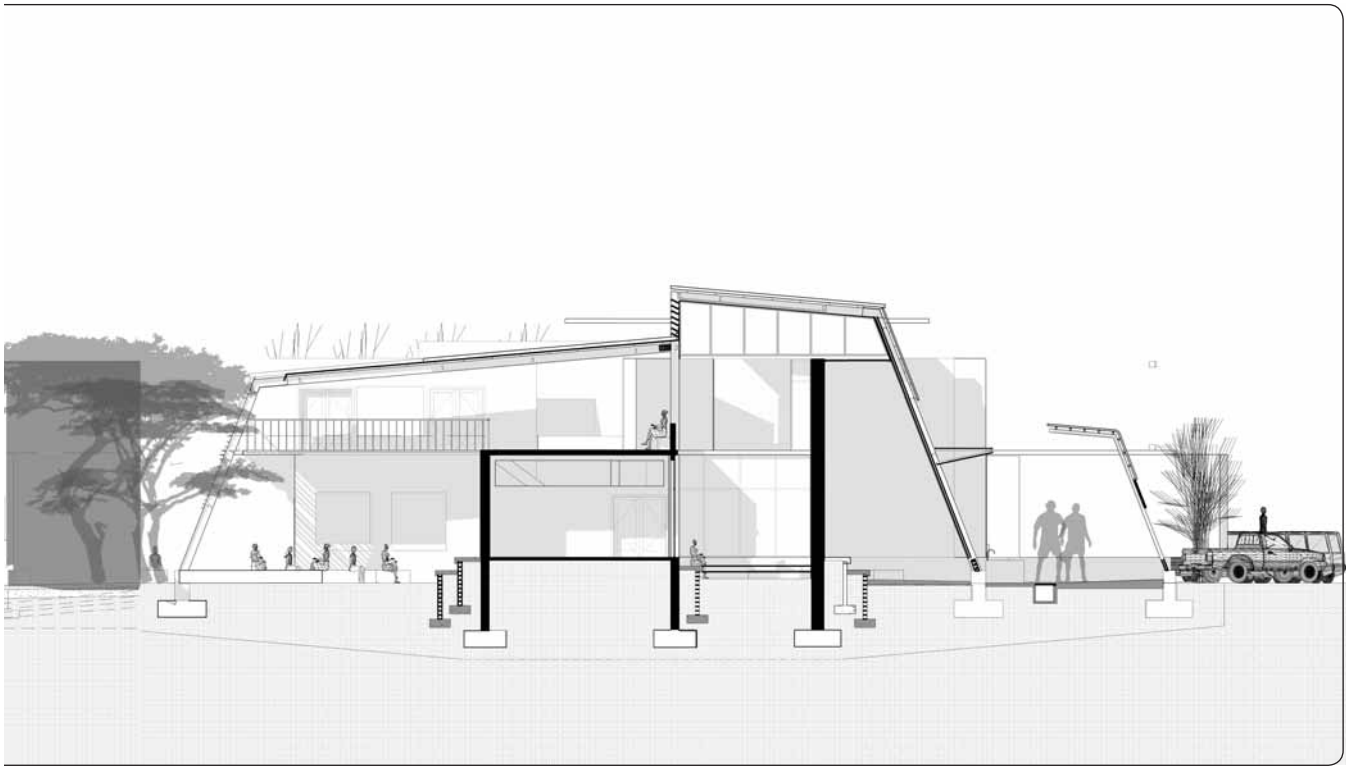

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final drawings

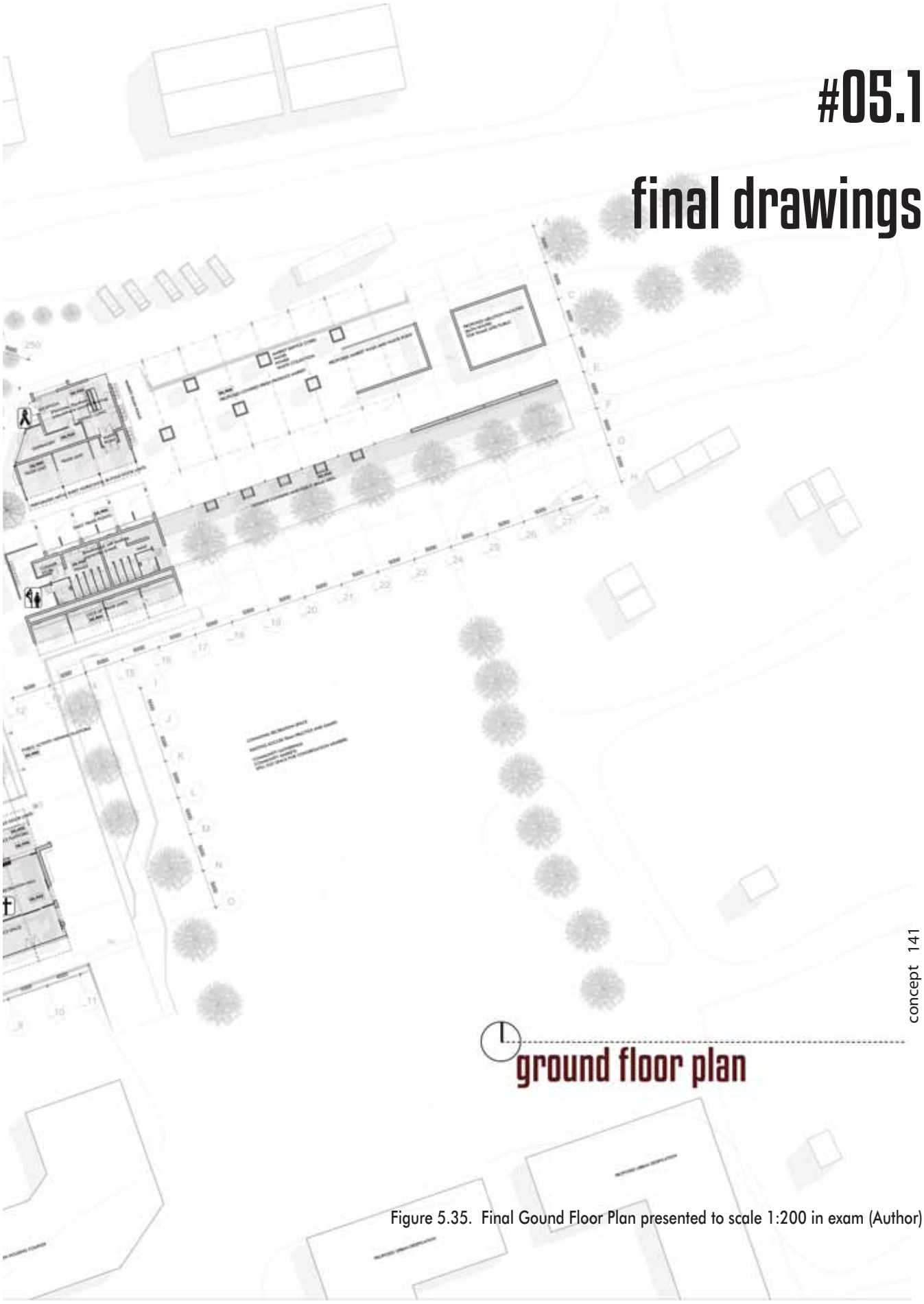

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Figure 5.35. Final Gound Floor Plan presented to scale 1:200 in exam (Author)

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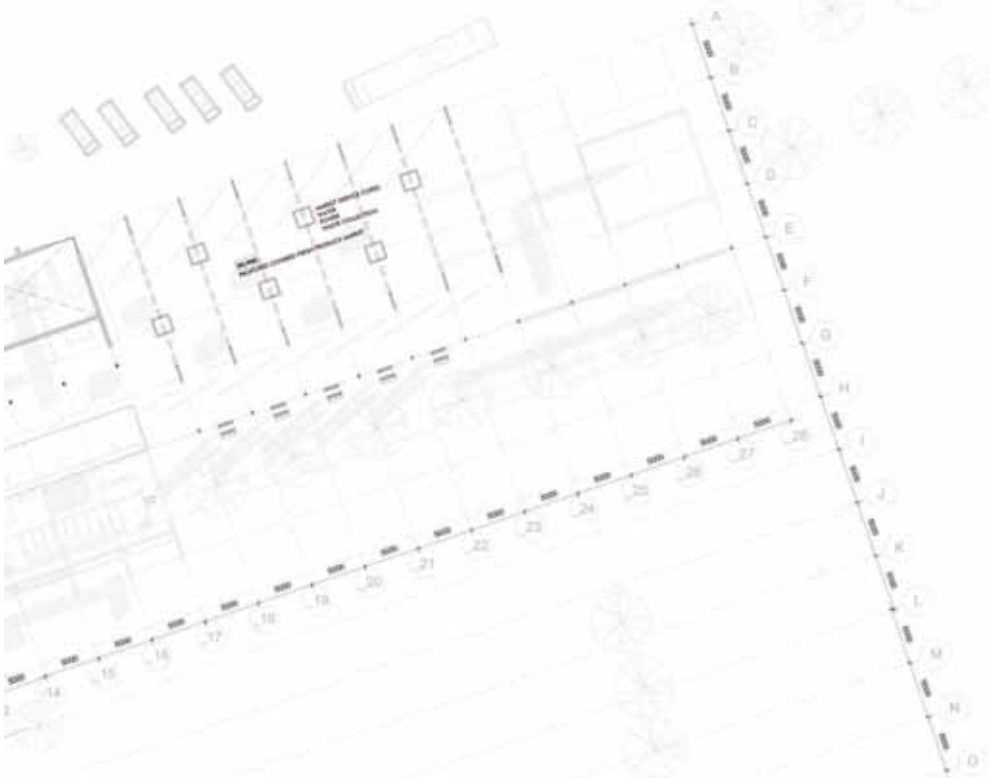

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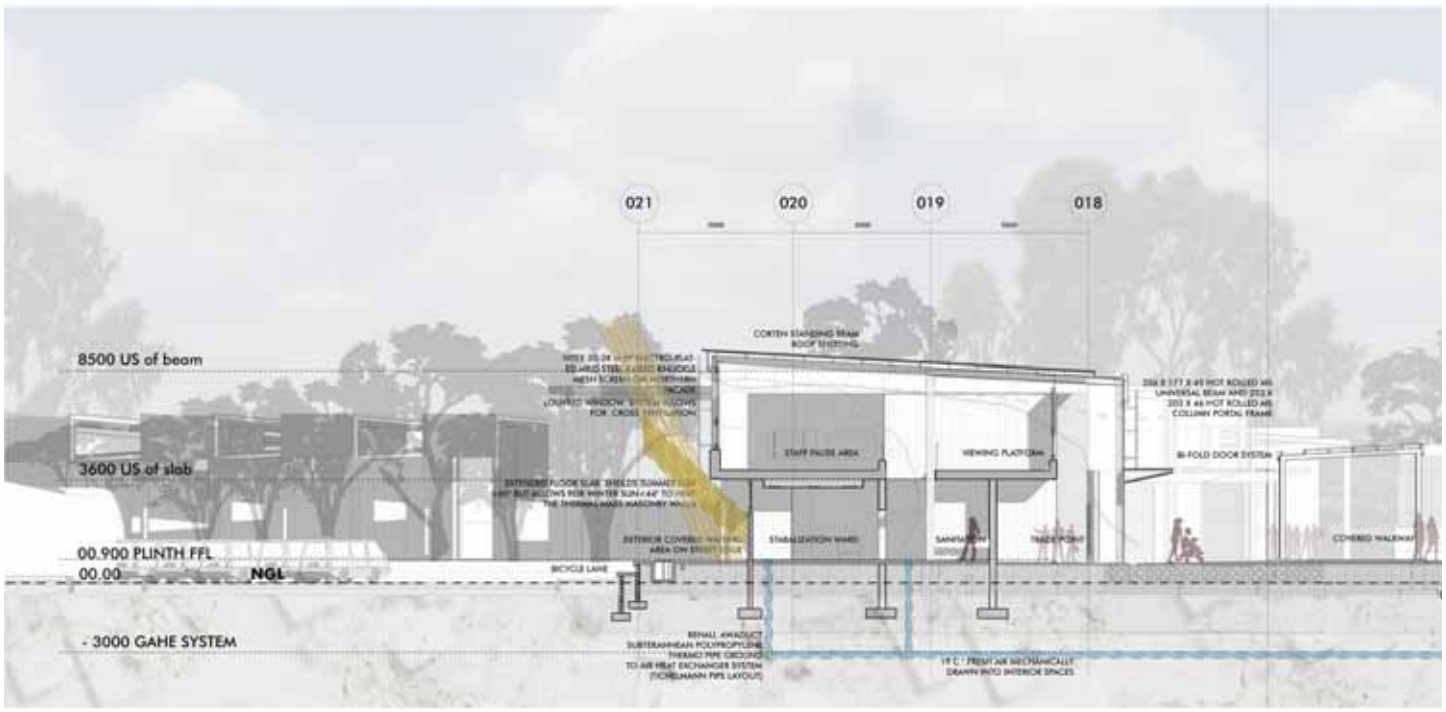

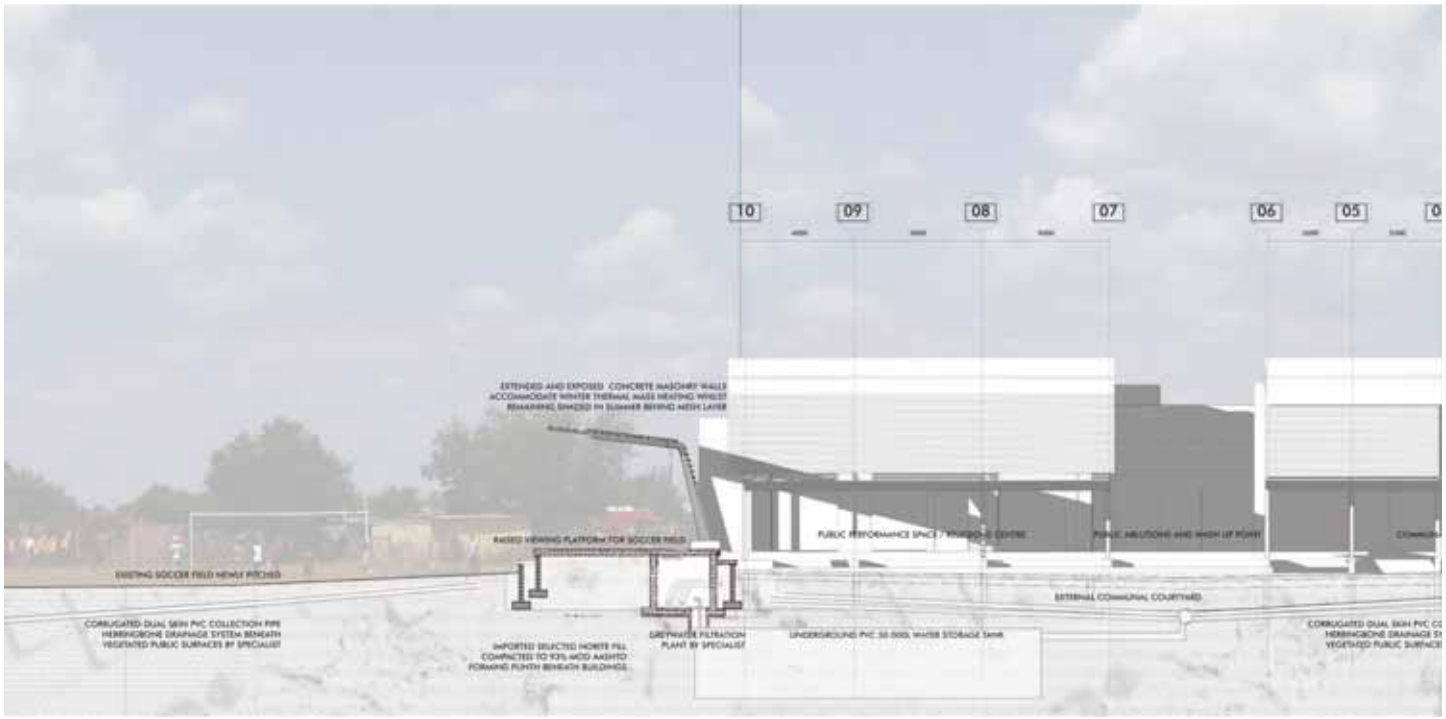

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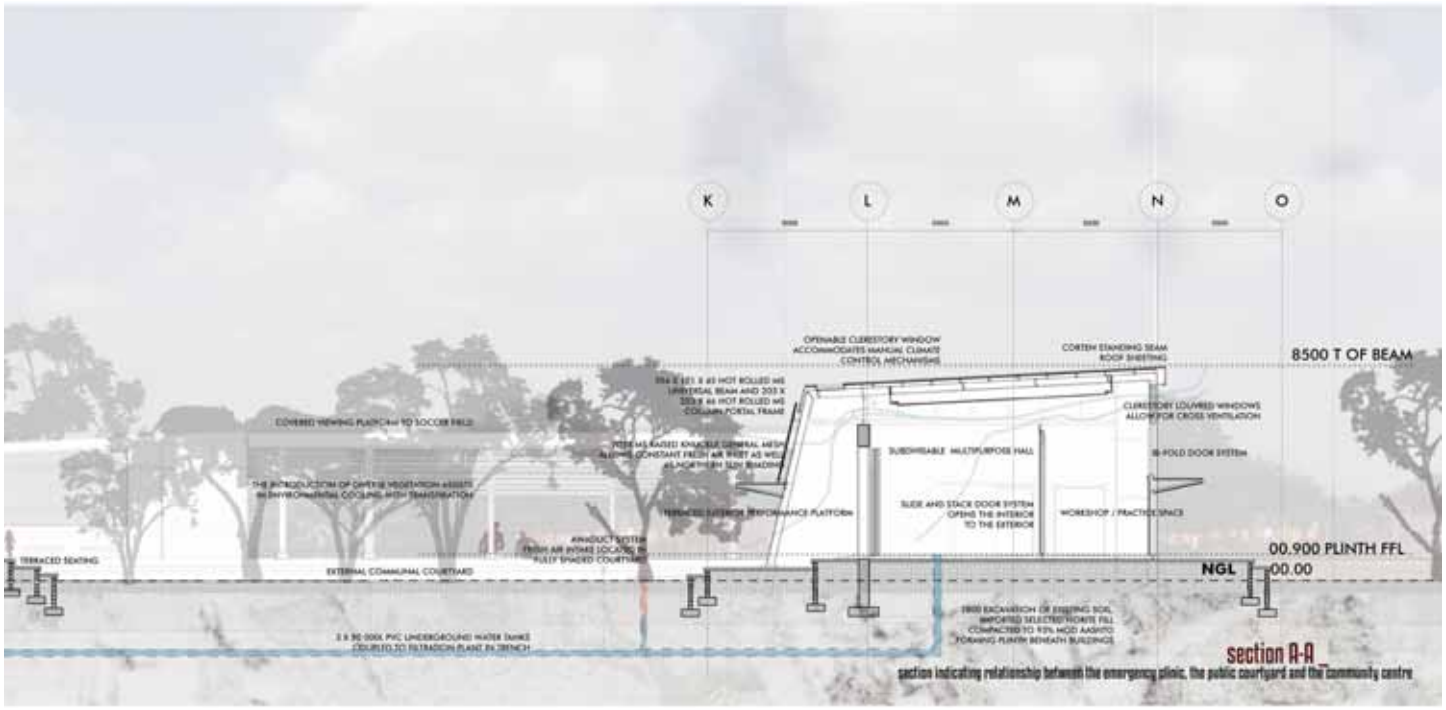

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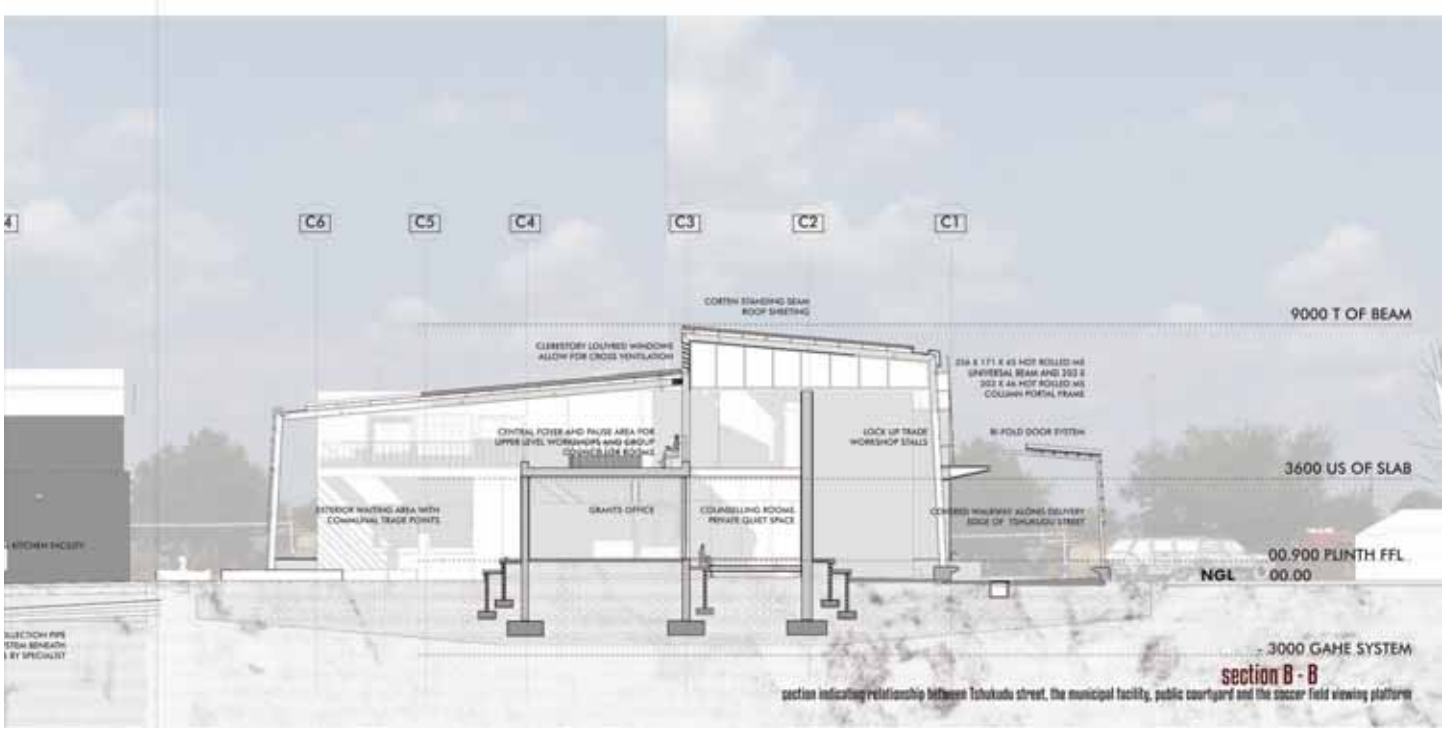

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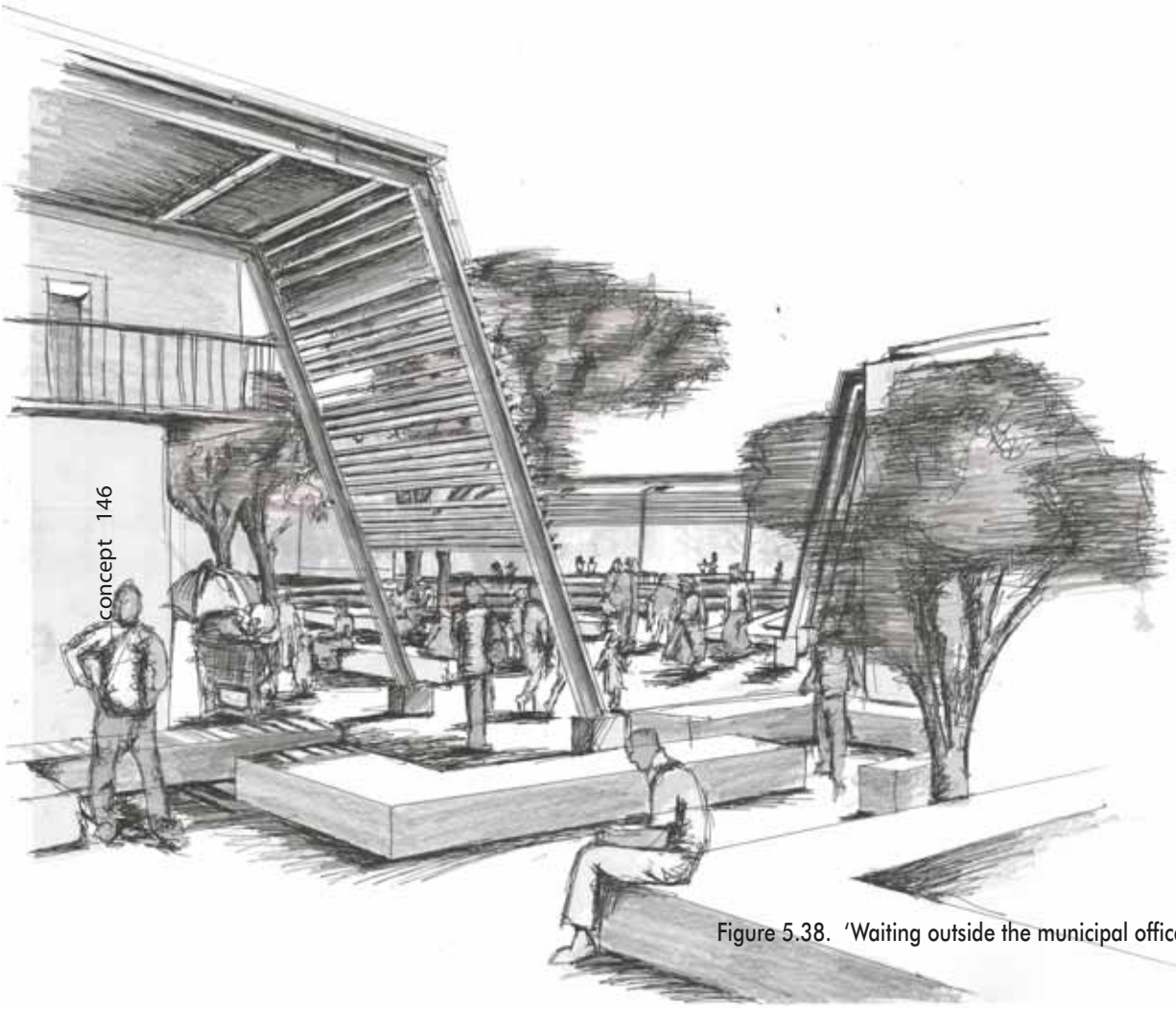

Figure 5.38. 'Waiting outside the municipal office...' (Author)

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conclusion

The design development of the facility required a continuous balance between the nature of the proposal as an identity catalyst for a developing context and the dynamic emergent quality of the current Mamelodi fabric.

The fundamental challenge of the design was the addition of a imperative need of public infrastructure on an existing public space which enhances and compliments the current quotidian practices without inhibiting or erasing the existing community networks in place.

The introduction of connectivity and economic infrastructure to stimulate and promulgate the urban threads of social infrastructure.

An exercise of designing for a collective, for a people, the public and their everyday liminal practices.

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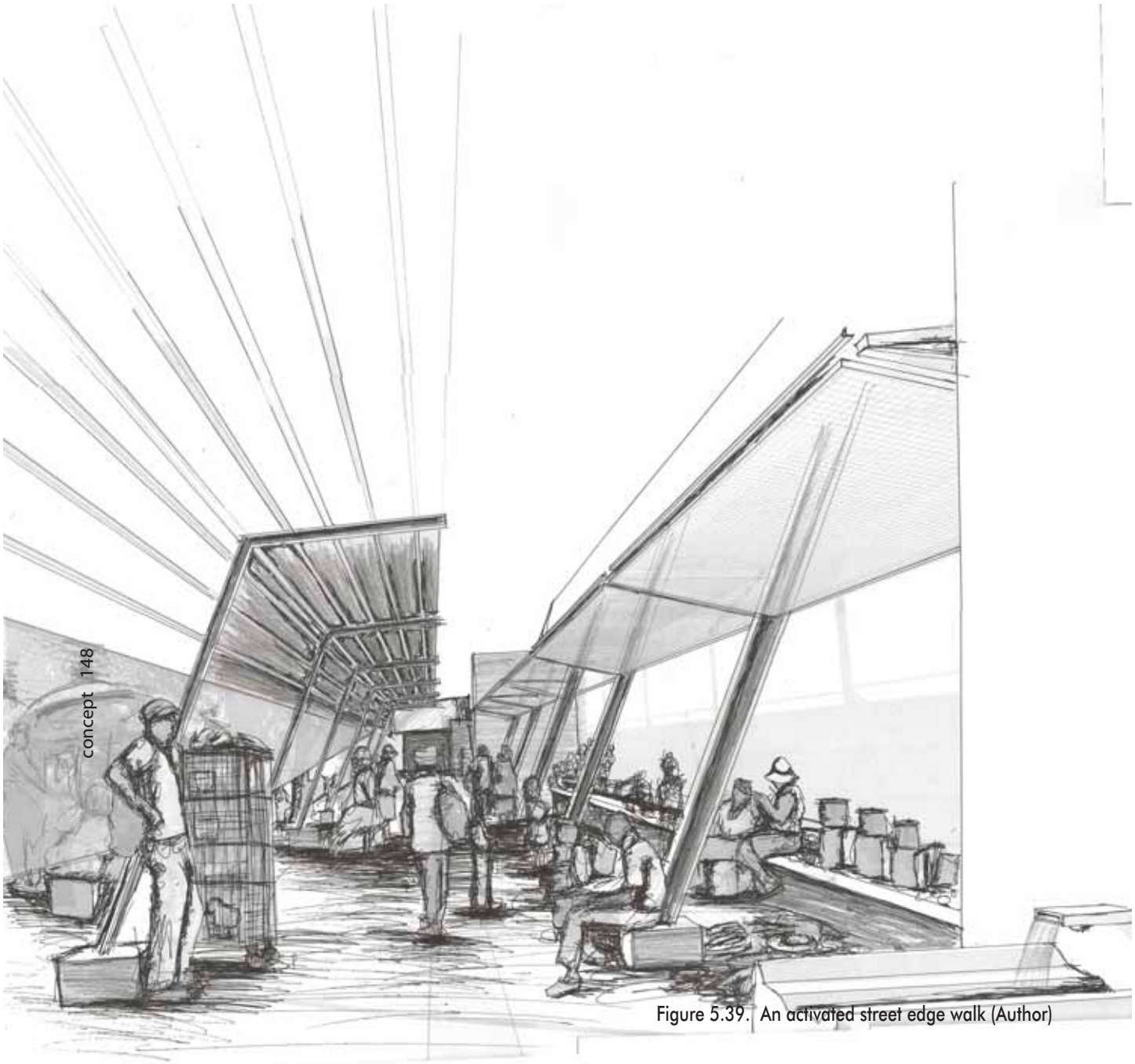

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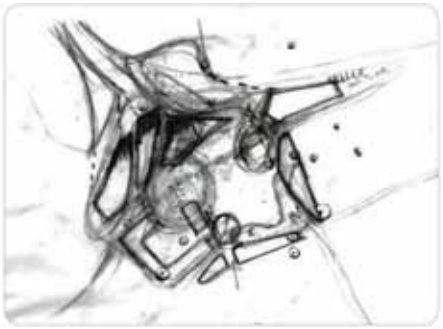

locus of identity

Public infrastructure that forms loci for cultural identity

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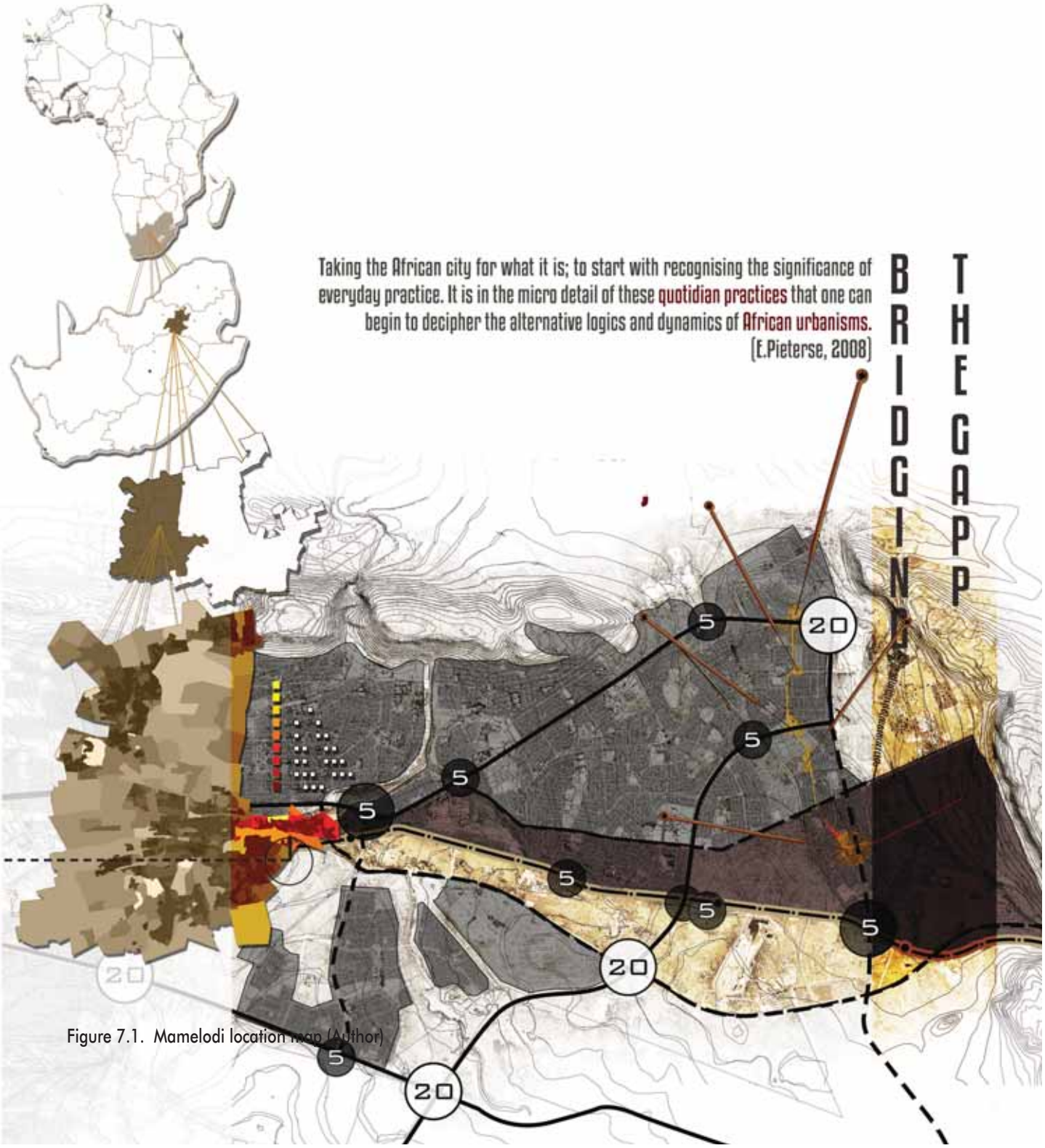

Figure 7.1. Mamelodi location map (Author)

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Figure 7.2. Material and programme collage (Author)

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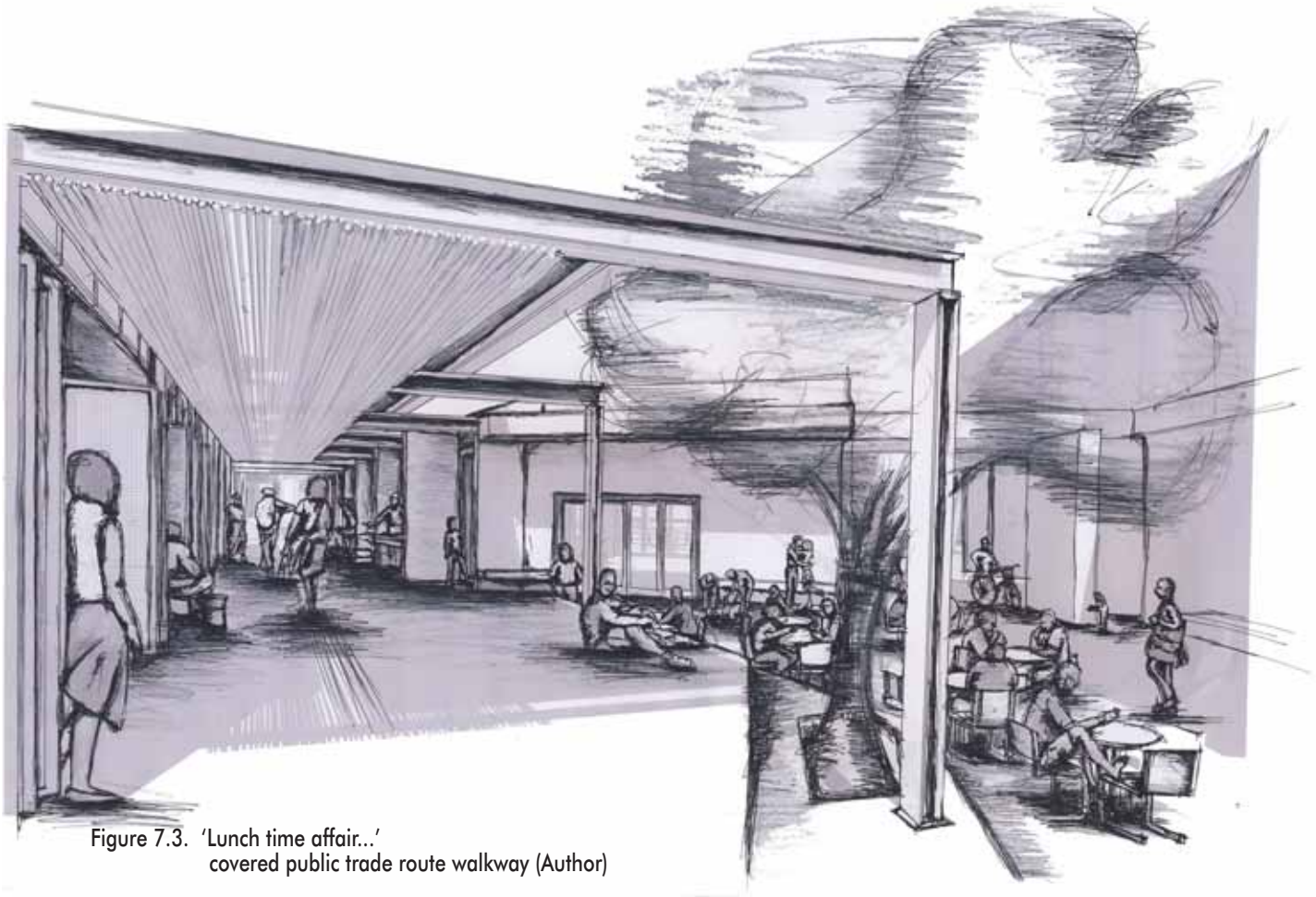

Figure 7.3. 'Lunch time affair...'
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#07.1

final model

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#07.2

final presentation

15 November 2012 _ 14:50

Figure 7.5. Photo collage of final presentation (Author)

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Locus of Identity

by Justine Pieterse

The proposal for public infrastructure that forms loci for cultural identity has been articulated clearly with a logical argument formulated supporting Justine's intervention.

Her strength lies in the logical deduction of her masters being a suitable intervention that can be of great benefit to the community.

The shortcoming is that the opportunity to dig deeper into her subject concerning public space, and its embedded power relations might have been missed. In the choice of site I am not sure whether the liminal line between a state of emergence, informal or formal, public and private has been captured?

I would like to see more clarification for her choice of site. She postulates that this is at the 'dynamic point of transition – which constantly adapts and moulds to the needs of the people' or 'A point of flux where community identity is at a point of extinction or emergence'. She makes site of the Pienaars river where the formal urban fabric dissolves into the informal. Perhaps I am missing a step in scales prior to your site analysis. It is the same scale that should measure your choice of site against your theory.

The relevance of the project in the question on how to cope with limited infrastructure with the resources available providing security and identity is important.

The credibility of the argument that African view of the public the public realm is that 'all space is public space except when defined by ritual or private space' is potentially hazardous zone, albeit interesting. I would have liked to see more translation in how the intervention interprets this?

Design proposal requires a clearer site plan on how it meets it immediate surrounds, or perhaps one or two extended sections that include the informal housing.

Technical Investigation; The structural detailing looks good - it would be nice if you could develop this language further.

Can you reinforce your public space in any way? The soccer field seems to be the main 'public' space – a space of democracy? How does your intervention build on this?

In a public space, where there seems little privacy or sanctuary, is there any space for retreat??

Project well done!

Unit 1, Ground Floor 155 Smit Street, Braamfontein, Johannesburg, South Africa 2001
tel +27 (0) 11.4030.647 / +27 (0) 72.5911.752 fax 086.2743.291
www.brandtarchitects.co.za

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#07.3

external examiner correspondence

design _ Dieter Brandt, *Brandt Associated Architects* [08/11/2012]

technical _ Andre` Eksteen, *Earthworld Architects & Interiors* [12/11/2012]

locus of identity_

I want to compliment the student on the exceptional programme choice and relevance of the chosen intervention. The concept of a catalytic development must however, be judged as to what extent it can replicate /morph into more that the original design. The spatial quality of the potential urban space is exciting but, I will be evaluating the technology as to what extent it can be “copied” to facilitate future growth or identity “building” in subsequent phases of development.

On the practical side I can only express my doubt as to whether the extreme Cantilevered Walkway Roofs are possible. I get the impression that the candidate fell in love with one of the precedents studies and couldn’t move past the abstract concepts of that scheme.

I do not see a any Bio-climatic Design Investigations. I do realize that this is a Public Space where the outside areas are the Relevant Spaces but Environmental Opportunities have not been realized. The concept has a strong Sustainable Value but aspects that certainly require some attention are things like Water Harvesting and Passive Power Generation. Landscaping and Light is incredibly important aspects to consider in the creation of urban public spaces.

As previously mentioned, I am not convinced that the candidate is in total control of the Tectonics but Spatially the Project has a huge Potential.

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