Reconciling informal and formal trade through architecture:

Towards a street traders center in Isipingo, Durban.

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DECLARATION

I hereby declare that this dissertation is my own unaided work except where it has been otherwise acknowledged. It is being submitted to the School of Architecture, Housing and Planning, University of KwaZulu-Natal, Howard College campus, in partial fulfillment of the requirements towards the degree of Master of Architecture. This dissertation has not been submitted before for any degree or examination at any other university.

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DEDICATION

I dedicate this work to my family, your support and motivation throughout this journey was incredible.

ABSTRACT

Most third world inner cities commercial streets are characterised by the coexistence of formal western forms of trade and informal trade. Pavements, sanitary lanes and streets have been occupied by informal traders selling items such as fruits, vegetables, clothes, cell phones, bread, meat etc., alongside formal business such as supermarkets, fast food outlets, clothing retail. This phenomenon has created problems associated with contested public spaces. The social problems include street traders' accusations for causing proliferation in crime and pressure on sanitation facilities. The business related problems include the clogging of streets by human and motor vehicle traffic. Another major business related problem is the stiff competition for customers that informal traders pose to established formal businesses. The most common policy to vending is to create formal off street market where it is prevented from causing congestion or contaminating elite areas.

The research intends to inform the design of a builtform that promotes a potentially fruitful intermingling and coexistence of informal street Vendors and formal Shop owners that do business within the same locality. To achieve this, the research carried out investigations on current literature that dealt with the underlying dynamics of informal and formal trade, matching behavioural patterns of formal and informal trade and a supportive built environment and how these dynamics can influence the design process. The key findings from the literature were tested against precedent and case studies to see their validity in the global and South African context. Qualitative interviews were conducted with a number of professionals and participants in the inner cities commercial landscape that had a better understanding of the trade environments.

The research findings lead to a built form that recognises that successful urban spaces derive their qualities from complex sets of interactions between behavioural goals of people and the qualities of the physical environment. Approaches towards creating successful commercial environments for coexistence of formal and informal traders need to establish and support interdependence between the two discrete groups. The built formed to be designed with a certain 'open-endedness', to be able to absorb the unforeseen activities of city life. The research also outlined a framework that can be applied in the design phase of a street traders centre in Isiphingo Rail, Durban, South Africa.

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CHAPTER ONE

INTRODUCTION

1.1 INTRODUCTION

1.1.1 Background

Trade is part of business activity and business is a term used to define all activities performed by business enterprises. This includes the basic activities of buying, manufacturing, processing and selling. Trade in the urban context exists in a formal and informal form. Sinclair (1978: p 84) describes the informal sector as an institution that is made up of economic activities that are not registered and regulated by the state or local government in a context where similar activities are regulated. In most cases the informal economy is dominated by the poor who are cannot find employment in the formal job market and they resort to informal trade activities to try to earn a living e.g. by begging, hawking and vending (Meier, 1976, p 376). For decades the coexistence of these two forms of trade has been a major trend in retail in developing countries. Public spaces, streets and pavements have been occupied by informal traders selling items such as fruit, vegetables, clothes, cellphones, snacks, meat etc., alongside formal business such as supermarkets, fast food outlets, and clothing retail. From the researcher's observation, most trade hubs in South African cities have become what others describe as "untidy" because of the proliferation of street trading.

Most post-colonial third world countries, urban centres and cities were shaped by the "modernist" planning legislation of the colonialist administrations in the 1930s and 1940s."*The planning system was concerned with maintaining the property values of the elite and excluding 'less desirable' low-income residents, ethnic minorities and traders from their areas*"(UN Habitat, 2010, p 10).The modernist planning system was criticised for its top-down processes, and the mono-functional and sterile urban environments that it produced. It denied equal access to opportunity for everybody. The independent "democratic" governments are in the process of rectifying the injustices of past regimes, and becoming part of the global community. Unfortunately, most of their developmental objectives still overlook the needs of the marginalised citizens in favour of strategies and policies that will attract private international investments into cities, investments that will presumably promote economic growth. Hence, informal trade activities have not been fully accepted and are seen as an impediment to progressive world-class cities, leading informal traders to operate on the fringes of the law and society (Crossa, 2009, p 55).

Recent studies have challenged the notion of viewing the informal sector as not being important. They have shown that the informal sector has been resilient and is fast expanding in many third world countries, esp. Africa. (Verick , 2006). Scholars have advocated for the concept of "inclusive development", the concept emphasises equal access to opportunity for everyone, especially access to markets, resources, and a fair regulatory environment. The concept has been adopted from all fields including planning and architecture to invent theories and strategies to change the attitudes of other economic participants towards street traders and create platforms for the poor to legally participate in the economy.

South Africa is one of the countries that have embraced the *inclusive growth concept* whereby there is equal access to opportunities for all citizens regardless of economic class, gender, sex, disability and religion. The most common policy towards informal trading by most local governments is to create off-street markets where it is legalised, stabilised, contained and prevented from causing congestion or contaminating formal business operations (Bromley, 2000; Cross, 2000). However, some street traders abandon these allocated trading spaces and prefer to operate from the streets, positioning themselves at a specific point, in most cases in close proximity to certain formal retail outlets at certain times and selling certain types of goods. There have been alternative attempts in the formalisation of street vending through the design of special facilities such as shelters and bays along pavements in inner-city commercial streets.

1.1.2 Motivation/ Justification of the Study

The previous sub section highlighted the exclusivity of the urban trade landscapes. Street trade is a phenomenon that will not go away but continues to grow (Venturi, 1977), and actively finds its way into the urban trade landscapes in developing countries especially African cities. The coexistence of informal and formal trade has created problems associated with contested public spaces. The social problems include the accusation of street traders for causing the spread of crime and pressure on available infrastructure and sanitation facilities. Formal business institutions complain about the problem of streets clogged by human and motor vehicle traffic. Another major business related problem is the unfair competition that informal traders pose to formal retailers.

Street traders see public space as a pivotal element, a profitable setting for them to earn an income, therefore having access to public space is of great importance. This notion has been given little consideration in development policies. The research bases its argument on the fact that there is a lack of understanding of the identity and lifestyle of street traders and the way they assess and evaluate the preferred environment (environmental perception). This has led to the failure of strategies that have been tested, aimed at accommodating street traders on the commercial landscapes of cities.

The research advocates for solutions that see man as an active participant in his daily environment and paying attention to the behavioural adaptations people make to what is put in place for them; these include minatory, psychic, situational, social and physical adaptation. Making these human processes explicit can inform appropriate solutions for successful integration of informal trade on the urban business landscape.

1.2 DEFINITION OF THE PROBLEM, AIMS AND OBJECTIVES

1.2.1 Definition of the Problem

Informal trade in third world countries is growing at a rapid rate. The formally derived built form is seen as hegemonic i.e. it is conceived and crafted to suit a universalistic generalised social experience and is less supportive towards informal trade activities. Such a built form is obsolete for most of today's liberated citizens with a wide range of social strata and differing lifestyles. The urban poor, whose needs are given little consideration, are now taking it upon themselves to adapt the physical nature of the built form that defined the formal urban landscape e.g. street trading on pavements. This adaptation manifests itself within and around the existing buildings and is in close proximity to formal/regulated trade. The presence of street traders on the pavements obstructs the operations of formal shops in that; they block the display windows (visual merchandising) of formal shops, they cause congestion on pavements and degrade the quality of the environment in inner cities.

It is from this observation that the research seeks to define a new architectural built form typology that is generated by the understanding of the dynamics underlying informal and formal trade and discovering and matching the behavioural patterns of the two forms of trade. This will produce a built form that integrates the street traders and promotes a fruitful intermingling of the two forms of trades.

1.2.2 Aims

This research seeks to explore the relationships and tensions that exist between informal traders and formal business enterprises that operate in the same locality. The researcher intends to create a built form that promotes a potentially fruitful intermingling and coexistence of informal street vendors and formal shop owners that do business within the same locality. This would be one of the many routes towards "socio-economic inclusive development".

1.2.3 Objectives

The research is based on the following objectives:

- To gain understanding of the underlying dynamics of informal and formal trade in markets and CBDs.
- To investigate behavioural patterns and a supportive work environment
- To understand how the dynamics of informal trade and formal trade influence the design process.
- To design a street traders' centre in iSiphingo based on the findings of the research.

1.3 SETTING OUT THE SCOPE

1.3.1 Delimitation of Research Problem

The research will briefly present a background analysis of the origin of formality and informality within the urban business landscapes. The origin of this is mostly linked to economic inequalities among groups in a population. Economic inequality in turn, manifests as a result of factors like policy reforms, plutocracy, neoliberalism etc. The analysis of the origin of economic inequality will focus on regions that have a similar set of defining issues to the South African context, i.e. countries with post-colonial cities that have neoliberal policies - this will include countries in Latin America and Asia.

The research takes a pro-poor stance and the first step will be to re-assess the general world perception towards street vendors as unwanted urban elements. This involves understanding the lived realities of the urban poor in terms of access to opportunity, exclusion fromparticipating in the economy and how they have responded to the issues they face in the urban environment.

The research will then put forward an argument that the current pro-poor projects aimed at supporting informal traders in urban business landscapes are project based, meaning that they offer a single outcome or possibility for all street informal traders'. These interventions should be able to support and maintain the diverse survival strategies of informal traders. The research then moves on to the main discussion of discovering a strategy that outlines how the understanding of the dynamics underlying informal and formal trade and matching the behavioural patterns of the two forms of trade, can be used to define a new architectural built form typology that fosters a fruitful coexistence of both forms of trade and underlines a basic equality.

1.3.2 Definition of Terms

The following are the key terms that will be used throughout the research; they are defined to give a better understanding of their meaning as they are used in the research.

Key terms

Inequality: is the difference found between the economic well-being of individuals who belong to various population groups (en.wikipedia.org).

Elite: a small group of powerful people that control wealth and political power in society. This group holds a higher and more influential position than the ordinary people and exercises greater privilege than the rest of the population.

Informal trader also referred to in this research as **"street trader" or "street vendor":** means any person that carries on a business as a street vendor, hawker and for the purpose of this study includes any person who trades in a public place.

Informal trading: is the selling of goods and services exchange which occur outside of state controlled or money based transactions and are not recorded for taxation purposes. (businessdictionary.com).The research also defines these as those trading activities that happen in a space deemed to be public property.

Formal trading also referred to in this research as **"shop owner":** the selling of goods and services that are recognised as a source of income on which income taxes must be paid. Opposite of informal (businessdictionary.com).

Urban spatial structure: is the arrangement of public and private space in the cities and the quality of connectivity and accessibility between different types of spaces (en.wikipedia.org).

1.3.3 Stating the Assumption

- The current built form on the urban trade landscape is hegemonic i.e. designed to suit the needs of a certain class of people, where the needs of the poor are generalised and given little consideration. The spatial practices and behaviour of informal traders e.g. street traders are seen as the adaptations that people make to what is put in place for them.
- The dynamics of formal and informal trade and the matching of the behavioural patterns of the two forms of trade can be used to define a new built form that is better suited to underline a basic equality and reconcile formal and informal trade.

1.3.4 Hypothesis

This study examines the relationship that exists between informal and formal trade. Uncovering the business culture and "space knowledge" of both forms of trade in urban trade hubs can offer clues in developing innovative ways that can inform the socio-economic inclusive built form within the urban context.

1.3.5 Key Question

- How do the dynamics of informal and formal trade inform the design processes that intertwine the two forms of trade and strive to create equal opportunity?

Secondary Questions

- What is the nature of informal street traders and formal shop owners, and the relationship between the two?
- What culture or adaptive strategies have been developed by the two types of trades for the survival of their businesses?
- How have these cultures shaped their (the street traders and adjacent shop-owners) activity systems and their work environment?
- How do these dynamics influence the design process?
- How does architecture mediate the tensions or take advantage of the beneficial links between informal and formal enterprises?

1.4 KEY CONCEPTS AND THEORIES

1.4.1 Introduction

To support the hypothesis and respond to the key question, the following theories and concepts have been selected to systematically outline how the understanding of the relationship between formal (shop owners) and informal trade (street traders) operating in close proximity, and the creation of a working environment that influences the adaptive behaviour of participants, can be used to generate a meaningful built form.

1.4.2 Concepts

The research views street traders operating in city central business districts as a social group that is exposed to police raids, fines for vending violations and confiscation of goods as local authorities attempt to eradicate their activities.Despite the many state initiated obstacles, they devise a means of generating income by engaging in a variety of activities. The following concepts will assist the research in understanding how the marginalised groups in urban centres navigate restrictions and (re)configure urban spaces to curve out a space for them selves in order to ensure their survival.

1.4.2.1 Bayat's "quiet encroachment"

The work of most researchers, including Morales, 2000; Kettles 2004; and Ha 2009 have looked at street trading as a means of coping with spatio-economic injustices. This view is supported by Bayat's concept of "quiet encroachment". The concept relates to the street venders' scope of action, their daily practices, the way they engage in a variety of activities to create spaces that allow them to generate income in the midst of state-initiated restrictions.

Bayat defines quiet encroachment as "the silent, protracted but pervasive advancement of the ordinary people on the propertied and powerful in order to survive and improve their lives" (Bayat 2004, p 90). Selling without permits, avoiding payment of tax, and selling goods in areas where vending is prohibited, can all be viewed as forms of such quiet encroachment.

1.4.2.2 Concept of strategy and tactics

Vendors use location-specific tactics to navigate their way around the restrictions and maintain their businesses (Duneier 2000; Stoller 2002). This space knowledge of street traders can be explained using De Chateau (1984, p. xix) distinction between strategies and tactics. The vendors use mobility, and spatial and temporal tactics to allow them to momentarily circumvent the state's restrictive strategies, such as those that limit their access to public space.

According to de Chateau, tactic is seen not as subordinate to strategy but opposite to it. Strategy presumes control, while tactic is an adaptation to the environment, which has been created by the strategies of the strategy. Strategy is a product of control, control is never perfect and situations upon which the strategy was constructed are always changing, which constantly makes aspects of strategy obsolete. Tactics are in a constant state of reassessment and correction, based directly on the observation of the actual environment.

1.4.2.3 The concept of appropriation

Appropriation is a process of mutual adaptation between the architectural space and the inhabitant. The space conceived by the architect somehow influences the user and conditions his behaviour. To adapt to this space, the user tries to overcome imposed conditioners, transforming them formally and conductively. The architectural space changes from what the architect intended it to be. It becomes a product of creation and re-creation carried out by the user, a process of adapting and re-adapting.

1.4.2.4 Concept of culture and lifestyle

Schein (2009) and Hofstede (Hofstede & Hofstede, 2005) conceptualised culture as a group's mental programming. Schein (2009, p 351) and others', culture is the integrated pattern of learned behaviours of a group -it is observed through shared ceremonies, thoughts, languages, knowledge, beliefs and values. It requires learning, which is developed overtime as the group deals with its own internal integration and survival problems (Schein, 2009). Schein's view of culture guides this study as it has greater relevance to street vending because of its emphasis on social learning.

Street enterprise as a whole constitutes a business culture because as a collective force, it has a distinct membership and well learned behavioural patterns and ways of doing business. This affirms street vending and formal retailing as cultures. In this research, "space" is

considered as a container of human actions and is also seen as a cultural environment. The research investigates the coexistence – and sometimes clashes – of differing cultural models and the power relations governing the appropriation of space as in the example of street traders.

1.4.2.5 Identity and environmental perception

Identity is the distinguishing character or personality of an individual or a group. The social identity theory defines identity as the individual knowledge of belonging to a certain social group as well as the values and emotions they convey to him or her.(Rapoport,1967, p 30). According to the social identity theory, identity could be defined by age, clothing, cosmetic appearance, race and sets of lifestyle attributes. (Walmsley,1988). The "place identity theory" views identity as the individual's perceptions and comprehensions regarding the environment- it can be influenced by memories, thoughts, values, interpretations, ideas, and related feelings about specific physical settings as well as type of settings. Combining the definition of identity given in the two theories above leads us to the working definition for this research that examines identity in relation to how it is manifested through places and objects, in addition to how it is examined through aspects of lifestyle expressions such as behaviour and activities.

Perception is the awareness through senses (Rapoport, 1977: p 48). Environmental perception is the most direct sensory experience of the environment while actually being in it. It is affected by set memory, cognitive schemata and culture (Rapoport, 1977). Rapoport points out two interpretations of environmental quality. The first one is the simpler one that relates to aspects such as air or water pollution and effects of overpopulation and depletion of resources. The second one is the more complex one that relates to difficult to define and more variable, qualities of the natural and manmade environment which give satisfaction to people, their sensory quality, the positive and negative effects on human feelings, behaviour or performance and its meaning (Rapoport, 1977: p 87). The latter interpretation captures the psychological and socio cultural aspects of the environment and will be more useful in assessing the preferred environment for informal and formal retailers in inner cities. The appreciation of an environment or evaluation of environmental quality varies and is influenced by previous experiences of individuals, their adaptation levels, deprivation and what?

1.4.2.6 The concept of supportiveness

The research seeks to define a built form that supports lifestyles. This chapter explores Rapoport's cultural and specific approach to Environment Behaviour Study as a methodology for creating lifestyle supportive environments.

Rapoport defines the concept of "supportiveness" by answering the following three questions:

- What is being supported?
- What is supporting it?
- How is it being supported?

The first question refers to components of culture and their expression, lifestyle being the most useful one. The second question concerns the specifics of physical units or systems of setting. The answer to the last question specifies various mechanisms: instrumentally supportive elements, latent characteristics such as meanings which communicate status or identity, and financial, economic or physical security.

1.4.3 Theories

1.4.3.1 Theories of space production

The research seeks to create equality between two competing socio-economic groups (the informal traders and the shop owners) who exist side by side on urban streets. It has already been noted that the formal traders (shop owners) are supported by state institutions and the powers that have produced the current urban spaces; hence the informal traders are viewed as "intruders" or unwanted elements in a planned system. This observation shows that the elite use spatial what? to produce a particular type of space according to market needs, in so doing they shape people's social relations and relations of production that sustain the existing order.

Various interpretations of socio spatial theory have been developed- most of them are inspired by Lefebvre's theory of production of space and his vision of a new type of social space in the contemporary city .Lefebvre criticises the way space is produced in a capitalist

system through an analysis of the production of space and its history. His main hypothesis is that social space is socially produced and every society produces its own space.

The theory is based on a triad, in which spaces are classified as physical, mental and social. These are identified by three moments which are **perceived** (refers to spatial practice), the **conceived** (relating to representations of space) and the **lived** (representational space).The first type is created throughthe collective mental and practical actions of many people over a long period of time, an example of which isancient cities. The second type of spaces (the conceived spaces),are conceived by architects, planners, urbanists and social engineers."They are produced within domination of capitalism, and spaces are designed according to the preferences of the elites.Thesespaces are not shaped as a result of cultural accumulation and diversity of daily life practices. Therefore, they exclude the free use of people and limit their accessibility. Lefebvre recommends that spaces need to be saved from all types of power and be appropriated by people.Finally, the representational space is the space as lived and experienced through its associated images and symbols.

1.4.3.2 Environmental behaviour relations Theory

The city should be analysed, not as a spatial object,but as the home of man i.e. a complex of interest groups, value systems, routines and activity set in the built environment (Ley, 1967). Ley's statement advances the theories of Environmental Behaviour Studies (EBS).Lang (1974) terms EBS as "designing for human behaviour" and centres it around human adaptive possibilities and limits. According to Lang, it is the study of the adaptations that people make to what is put in place for them: the monitory, the psychic, the situational, social, and physical adaptations.

Rapoport's interpretation of EBS theory grew because of the same concern that planning disciplines are neglecting social, and cultural factors, individual perceptions and preferences, group norms and dynamics, and expectations in the planning and design of our human environment. Rapoport the domain of EBS is defined by the following three questions:

- What are the biosocial, psychological and cultural characteristics of human beings, as members of a species, as individuals, and as members of various groupings. In design what should influence the characteristics of the built environment?
- What effects do what aspects of what environments have on what groups of people, under what circumstances and why?

- Given these two way interactions between people and environments, what are the mechanisms that link them? (Kent, 1967).

Rapoport's (1969) EBS theory is applicable as an approach to the study of informal and formal trade practices in urban trade landscapes because it views settings and "places" as being culturally defined. Cities, dwellings, rooms of various kinds, parks, streets and the many building types as well as the settings of which they are composed, are all culturally defined (Rapoport, 1977). User groups are at least partly a function of culture. How people behave and their social structures are all culturally highly variable and can be seen as specific expressions of culture. The lifestyle of the participants in informal and formal trading are a component of culture. As Rapoport (1977) states, lifestyle as a variable of culture becomes useful for the study of a great variety of environmental-behaviour relations.

1.4.3.3 Place attachment

Place attachment is defined as a "person-place" bond that results from specifiable conditions of place and characteristics of people.As street traders prefer certain spots or locations in public spaces, these are areas that have certain qualities that are deemed good for their business/motives. We see a bond between the users and places or settings.The kind of attachment observed is a *place dependence* one based on function whereby the place is valued based on its ability to satisfy the needs or behavioural goals of an individual or group compared to other places (Williams, et al., 1992). There is also a relationship to place based on cognition, as a person associates significance, purpose, symbolic role, or value with a physical setting, which is referred to as *place meaning.* This leads us to a point where places are seen as a product of physical form, activity and meaning (Montgomery, 1998).

1.5 RESEARCH METHODS AND MATERIALS

1.5.1 Research Methods

As the research is centred on gaining in-depth understanding of the reported experience of informal traders and shop managers/owners operating their businesses alongside each other in and urban environment, in particular the tensions and the beneficial links between the two, the research approach is a qualitative one. It seeks to record the experiences of the participants in the urban business arena. The researcher also values the input of other parties involved in the planning, research and management of urban public spaces and informal

traders e.g. the local authorities (eThekwini Municipality), and other agencies especially advocates for inclusive economic development in cities (AsiyeeTafuleni).

1.5.2 Primary Data

This is data that is gained first hand, through direct interaction with local South African case studies in the informal urban context and interviewees that are directly affected by the selected case studies on a daily basis. Case studies will form a major portion of the primary data gathered and analysed in the research. One-on-one interviews with people who have been exposed to the chosen case studies for a longer period of time and have a better understanding of it than the author, will be discussed as part of the case studies to support the information gathered by the author. The interviews are seen as a critical part of the analysis of the case studies as they give first-hand explanation of any of the findings deduced by the author.

The research process outlined above will give an opportunity for the researcher to present information deduced from these findings which will (in turn) be tested against the secondary data gained from published sources that deal with informal and formal trading activities on urban streets.

The following sections outline how the case studies and interviewees were selected and analysed.

1.5.2.1 Case studies

The case studies in the research were selected because they meet certain characteristics. These were carried out in order to have a first-hand understanding of the relationship between formal retailers and street traders doing business in the same locality. They had to be buildings and infrastructure in an urban commercial environment that was cohabited by formal and informal trading activities.

1.5.2.2 Qualitative Interviews

Qualitative interviews also give a first-hand explanation of any critical observations deduced by the author and expose the gap between the understanding of urban informality from the top-down vs. the bottom up standpoint. The qualitative method (compared to the alternative quantitative method which seeks to understand the average rather than meaning and experience) gave an in-depth and rich description of the informal urban context through

direct interaction with people that live in the informal urban context or experience it on a daily basis, and professional practitioners that have engaged these communities.Though the use of in-depth structured interviews with voluntary participants, it is the intention of the researcher to ask a series of questions directed at gaining an understanding of local authorities and civil society experiences of urban business enterprises, especially informal trade and the urban built environment.

Street traders: (Isipingo Block E&F Street Traders Organisation). The researcher seeks to investigate their understanding of the motivating factors behind their choices to participate in the street trading activity, the relationship they have with the formal business enterprises adjacent to them, the spatial, political, economic and socio-cultural factors affecting their activities as well as the rights they currently possess and the resultant culture or adaptive strategies for their business survival. The sampling includes 40 street vendors at Isipingo Rail Market. The sample comprises 20 men and 20 women and also covers different age groups of between 18 -70years of age and different types of street trading, from stationary or resident traders to mobile or itinerant traders.

Shop owners/ managers:by interviewing formal business enterprises the researcher seeks to discover their views about street vendors operating in close proximity to their shops and how they think architecture can best solve their current problems. The sampling includes 20 formal shop owners/managers and covers shops of varying sizes and types from supermarkets to fast food outlets operating adjacent to informal vendors.

Local Authorities (eThekwini Municipality): This study seeks to understand the comprehensive process that led to the establishment of markets in Durban and invasion by street traders in the light of the unique spatial, political, economic, and socio-cultural context of the study area. It is therefore necessary to conduct a set of semi-structured interviews with representatives from the study area. Respondents for these interviews were chosen based on their job role and their knowledge of street trading in Durban.

Civil society (AsiyeeTafuleni): the researcher also sees the need to gain views from members of civil society with interests covering informal activities, human rights and issues relating to street trade.The interviewees include: a staff member from a non-governmental organization (NGO) with offices in Durban.

1.5.3Secondary Data

This includes data that has been refined and looked at by other researchersin the fieldrelated to the issuescovered by the research topic. The secondarydata will include the following:

1.5.3.1 Literature review

This was used to collect opinionsof other researchers and specialists that have written material on the issues at hand. The sources of the information in this section include published books, journals, past dissertations, and articles sourced from the internet. The structure of the literature reviewed, chapters 2, 3, and 4, is determined by the three main interrelated sub questionsoutlined under the key questions and they are also informed by the theories and concepts in terms of the data that was deemed relevant to the research.

1.5.3.2 Precedent studies

Precedent studies were selected from existing international buildings. The selection criteria for the studies differed and this was done to make sure that all of the material discussed in the theoretical framework was covered.

1.6 CONCLUSION

This chapter has established, by means of the research background and methodology, research and design parameters for the dissertation. Techniques used by the author have been documented and the information collected has set out the theoretical and conceptual framework which will be referred to and drawn upon throughout the dissertation.The other chapters are laid out in the following way;

*Chapter 2: Underlying dynamics of urban informal and formal trade.*In this chapter, the researcher looks at economic inequality (especially the notion of equality of opportunity) and the evolution of formality and informality in the world economy, paying more attention to third world countries. The formal and informal traders are identified as subcultures within urban environments. Through the analysis of their daily activities and behaviour patterns and points of conflict,their motives and specific characteristics/ identities, are identified.

Chapter 3: Matching behaviour patterns and a supportive trade environment. This chapter discusses the origins of formal and informal trade structures on the urban landscape.It begins with outlining how the imported modernist planning ideologies created cities that are divorced

from their inhabitants. The chapter motivates that cities should be a social construction sustained by particular groups reflecting values, routines and activity set in the built environment. The subject of Environmental Behaviour Settings (EBS) is then introduced as an approach that pays attention to behavioural, social, and cultural factors, individual perceptions and preferences, group norms and dynamics, and cultural values and expectations in the planning and design of our human environment.

Chapter 4: Dynamics of informal and formal trade influence on design process.

The chapter introduces the behaviour settings approach to design. Using the information gathered from the previous chapters, the recurrent pattern of activities that constitutes the two groups (street traders and shop owners), is established. The chapter discusses different interpretations of "open ended design" in architecture as a way of promoting humanisation of the environment and the development of cultural landscapes. The chapter also discusses ways of designing environments for coexistence of diverse lifestyle groups. Lastly, the chapter discusses methods of designing to support the different behavioural patterns of informal traders through the concept of affordances.

Chapter 5: Designing for lifestyle cohabitation

This chapter presents a precedent study that was selected from existing international buildings from across the world. The key objective here is to observe how people outside South Africa have dealt with the different theories that were discussed in the previous chapters.

Chapter 6: System interdependency as a driver for inclusive built form

This chapter presents the findings from the fieldwork that was done in the Isipingo Rail area. Informal and formal traders who participated in the research confirmed that there was interdependence between the two forms of trade and conflict was mostly encountered in their spatial practices. Planning and architecture can assist in creating trading environments for informal and formal traders to coexist harmoniously.

Chapter 7: Analysis and discussion of findings and discussion

This chapter brings together all the findings to form one body of work that gives answers to the main and sub questions.

Chapter 8: Conclusion and recommendations

This chapter discusses some recommendations that are meant to aid urban design professionals in developing built environments that are informed by service culture, perceptions of the environment and preferences of formal and informal traders in inner cities. Basing its arguments on the research findings, the recommendations are meant be used to develop a design brief that will lead towards the conception of a street traders' centre in Isiphingo, Durban, South Africa.

CHAPTER TWO

UNDERLYING DYNAMICS OF URBAN INFORMAL AND FORMAL TRADE

2.1 INTRODUCTION

The literature reviewed in this chapter is about economic inequality (especially the notion of inequality of opportunity) and the evolution of formality and informality in the world economy, paying more attention to third world countries. Amongst a wide range of factors that cause economic in equality, neoliberalism (globalisation and policy reforms),is understood to be the major contributor to economic inequality in developing countries and South Africa. These situations result in power and wealth being, to a higher degree, concentrated within corporations and elite groups, so that as a result the "underclass" segment of society is the most affected. Informalisation in the economy then occurs as the marginalised sectors of the population devise survival mechanisms, where earning opportunities are scarce. The chapter further discusses the literature on the identities or distinguishing characteristics of informal trade and formal trade practices, paying particular attention to the way they shape the environment on contested urban trade landscapes.

2.2 ECONOMIC INEQUALITIES AND THE RISE OF FORMAL AND INFORMAL SECTORS

2.2.1 Introduction

Economic inequality, also referred to as wealth inequality or the wealth gap, is defined by Keeton, (2014) as "the difference found in various measures of economic well-being among individuals in a group, among groups in a population, or among countries". Economic inequality is relevant to notions of equity, equality of outcome, and equality of opportunity.

Kuznets (1954) initiated an argument that inequality is unavoidable in the process of economic development. His reasoning was based on the fact that the cycle of economic growth initially leads to increasing levels of inequality, where the rich are economically advantaged and benefit more than the poor. As economies develop, larger portions of poor populations move from agriculture into other sectors of the economy and their skills base expand. Therefore a stage is reached where inequality falls. Empirical evidence proved the validity of this argument in the 1960s and 1970s but recently, researchers like (Keeton, 2014) are observing increasing levels of inequality in developed countries. Common factors thought to impact economic inequality include: labour market outcomes, globalisation, policy reforms, extra-legal ownership of property, more aggressive taxation, plutocracy, increased technology, ethnic discrimination, neoliberalism etc. (Keeton, 2014).

2.2.2 Neoliberalism in developing countries and economic inequality

Neoliberalism can be simply defined as a political ideology founded on policies such as privatisation, deregulation, and globalisation and tax cuts. The common thread held by many critics of neoliberalism is that power and wealth are concentrated within transnational corporations and elite groups. The critics mention that the poor segment of society is not given attention in this system as they face systematic structural exclusion (Young ,2007).

Hart (2002:20-21; 2008) and Marais (2011:99-107), have identified certain neoliberalist trends in the growth of the South African economy. The post-apartheid government has adopted neoliberal economic policies and privatised virtually everything, reducing taxes for the wealthy, eliminating capital controls and deregulating their financial sector (Brett, 2006). Hart (2008:689) points out the proliferation of NGOs; the "responsibilisation" of education, health care and local government; privatised forms of security that characterise South Africa's economic and political landscape, as the signs of neoliberalism. This country has a system where all South Africans are required to become entrepreneurs and are forced to take responsibility for their own welfare. Miyauchi (2014) argues that there is uneven distribution of benefits during this period of expansive economic development and a lack of adequate entrepreneurial opportunities characterises South African society. Poverty has increased in South Africa during the past 18 years under the neoliberal government. The unemployed population has increased and society is more unequal than it was under the racist Apartheid regime, (Miyauchi, 2014). His argument is backed up by reference to statistical data, showing that between 1994 and 2006, the number of South Africans living on less than $1 a day doubled from 2 million to 4 million, by 2002, eight years after the end of Apartheid. In 2002, the unemployment rate for black South Africans had risen to 48% (Miyauchi, 2014).

2.2.3 The concepts of 'formal' and 'informal' sectors in the economy

The formal sector: Definition and characteristics

The concept of formality in the economy (or formal sector) is the widely understood one and generally accepted. The formal economic sector is comprised of economic activities and the employment of waged labour within a framework of rules and regulations, usually devised and implemented by the state, on working hours, minimum wages, health and safety at work, or the social security obligations of employers and employees (www.fundsforngos.org).

Characteristics of the formal economy are summarized below:

Employment *(the people engaged in the informal sector)*

- The system of employment is highly organised and has clearly written rules of recruitment, agreement and job responsibilities.
- Members are held together by a contract.
- There is a formal management-employee relationship dictated by a hierarchy.
- Working hours are fixed and members are expected to respect them. members also receive fixed salaries in addition to incentives.

The enterprise*(activities in the formal sector)*

- Is registered and adheres to set rules and regulations, usually devised and stipulated by the state.

The Habitat*(built form)*

- authorised use of public or private land
- legal rental of land
- built structures and meet the requirements set by the local authorities.

The Informal sector: Definition and characteristics

The concept of the informal sector was brought into usage in 1972 by the International Labour Organization (ILO) in its Kenya Mission Report. It was defined as a "way of doing things characterised by ease of entry; reliance on indigenous resources; family ownership; small scale operations; labour intensive and adaptive technology; skills acquired outside of the formal sector; unregulated and competitive markets". Informalisation in the economy is understood by most researchers as a process characterised by an increase in the size of profit and income-generating activities which take place outside the purview of the state (Castells and Portes, 1989; Hart, 2005). There is extensive literature on the causes of informalisation, but within this research, two strands of thought in particular stand out. The first view was coined from research by (reference), conducted largely in Africa, which characterises informal activities as a product of underdevelopment. Based on this perspective, the increased development of a country's economy, through expanded capitalist activities and industrialisation, will also lead to greater formalisation of economic activity. The second strand of thought on informal economic activity portrays informality as a rational response

by economic actors to the state's regulatory attempts. This view states that economic actors resort to informality in situations where high costs for formal market entry are imposed by the state, often through burdensome registration requirements, licensing fees, high taxes, or strict labour and environmental regulations. Hernando De Soto (1989), in the study of Peru's informal economy, provides a clear, widely-used application of this perspective. His study follows small and medium sized Peruvian entrepreneurs as they migrated from rural to urban areas in the second half of the twentieth century; the country's institutional arrangements, he says, led entrepreneurs to rapidly become extra-illegal, as the costs of entering and remaining in the formal realm were too high (De Soto, 1989, p. xvii).

Graaf (2010), looks at the informal sector of labour market activities and categorises them into two different groups. One category views the informal sector as a manifestation of the coping behaviour of individuals and families in an economic environment where earning opportunities are scarce. The other category views the informal sector as a product of the rational behaviour of entrepreneurs who desire to escape state regulations.

The following is a summary of the characteristics of the people, the activities, and the kind of built structures that define the informal sector.

Employment (*Characteristics of the people engaged in the informal sector)*

- Absence of official protection and recognition
- Non coverage by minimum wage legislation and social security system
- Predominance of own-account and self-employment Absence of trade union organisation
- Low income and wages
- Little job security
- No fringe benefits from institutional sources

Enterprise (*Characteristics of the activities in the informal sector)*

- Unregulated and competitive markets
- Small scale operation with individual or family ownership
- Ease of entry
- Reliance on locally available resources
- Family ownership of enterprises
- Labour intensive and adapted technology
- Absence of access to institutional credit or other support and protection

Habitat (*Characteristics of the informal sector regarding land and housing)*

- Unauthorised use of vacant public or private land
- Illegal subdivision and/or rental of land
- Unauthorised construction of structures and buildings
- Reliance on low cost and locally available scrap construction materials
- Absence of restrictive standards and regulations
- Reliance on family labour and artisanal techniques for construction
- Non-availability of mortgage or any other subsidised finance

(http://www.gdrc.org/informal/1-is_characteristics.html)

2.2.4 Conclusion

Economic inequality in post-independence South Africa is seen in the uneven distribution of benefits during economic development. Neoliberalist ideologies adopted by the post-independence government play a big role in increasing unemployment, poverty and preventing the poor from participating on the economic landscape. The informal sector in the South African context is largely a result of the poor finding the means to make a livelihood in an environment where opportunities are scarce. In most cases, their activities don't comply with the governing authorities' regulatory policies.

2.3 THE CONCEPT OF RETAILING

2.3.1 Introduction

This section reviews literature on urban trade, retail as a concept, and the roles of a retailer (both formal and informal).This information will assist us in understanding how street traders and shop owners have a tailored their trading activities to influence consumer behaviour.

2.3.2 Retailing as a concept

Retailing is defined by Madaan (2009), as a distribution function which includes the activity of buying products from suppliers and selling goods or both, to customers for their personal, family or household use. The activity can be carried out from the store location as well as non-store locations. Madaan sees the practice of retail as a science and an art. It becomes a science in the sense that the decision making about merchandise store operations, promotions etc. is based on researched information and the use of technology. The art side of retail is in that it is an activity aimed at offering innovative and personalised solutions to

the problems of consumers and making the shopping experience complete to the extent possible (Madaan, 2009).

2.3.3 Functions performed by the retailer.

A retailer performs the **Transactional**(buying, selling and risk taking), **Logistical** (Assorting, storing and sorting), and **Facilitating** (Financing, grading and marketing information) functions. These are further explained by Madaan (2009) in the following specific functions.

- **Breaking bulk** – manufacturers produce products in bulk quantities to keep production and transport costs low, yet on the other hand products are consumed in small quantities. So the retailer plays the role of breaking the bulk quantities into smaller quantities for household and personal consumption.

- **Holding stock and risk taking –** retailers keep an adequate inventory of merchandise so that it can be made available to customers as per demand. The stocking process as Madaal (2009) states, is a complex activity and it includes demand measurements to procurement i.e. which goods need to be stored in what quantities and when.
- **Creating place and time utility –** place utility is bridging the physical distance that exists between place of product manufacture and the location where the product is eventually consumed. The retailer offers a final contact point with customer. Time utility is also about bridging the inevitable difference in the point of time at which a product is consumed. To create time and place utility, products have to be stocked at appropriate places in adequate quantities so that the waiting periods for end consumers can be minimised.

- **Assortment of products and services –** whole sellers have comparatively homogeneous product assortment offerings. The retailer, in order to make retailing convenient, offers the customers a heterogeneous mix of products which are procured from wholesalers or manufacturers. More so, by building different products, brands and/or services together, there is better-perceived value and customer satisfaction.

- **Extending other services –** Customers see stores as a community and stopping as an experience. So retailers extend many other services like the display and demonstration of the specialised products providing information, matching needs of shoppers with product offerings, gift wrapping, delivery, installation after sells service, financing the product, guarantees and warrantees, parking facilities etc.

- **Creating demand and sell of merchandise –** retailers are at the forefront when it comes to demand for the marketer's product. In many cases retailers perform an active role using persuasive techniques to encourage customers to make purchases.

2.3.4 Business success factors and challenges

The urban trade environment is very competitive. Business survival depends on the firms' understanding of challenges and opportunities in the trade environment. According to Segal (1999), in the field of trade, area analysis outlines the following as the essentials for business:

- Understanding the geographic extent and characteristics of store patronage,
- Assessing performance spatially,
- Performing competitive analysis
- Evaluating market penetration and market gap analysis,
- Target marketing,
- Merchandising,
- Developing and exploiting demographic profiles, and
- Site suitability and site selection studies. (Segal 1999).

To succeed in the retail sector, retailers must be creative and be responsive to market dynamics. Madaan (2009) argues that the success of any business is dependent upon traffic building. It means the number of "footfalls" in the case of physical retail points. There are a variety of ways to accomplish this. Grewal et al (2010), on the other hand, suggest that retailers must manage the following levers of retail success:

- **Store factors:** these are to do with the type of retail and retail environmental factors. Store factors are important because customers consider both functional benefits and the overall experience offered by the physical store in making decisions about where to shop. Differentiation based on retail atmospherics is one way retailers add value to

the shopping experience and therefore store patronage intentions. Environmental cues such as music, colours, and people are examples of factors that affect consumer experiences (e.g., Baker, Parasuraman, Grewal & Voss, 2002).

- **Service factors** concern how much attention is paid to customer service and are a key driver of retail success. "Convenience" is an important service factor in retail business. It may be one or a combination of decision convenience, access convenience, transaction convenience, benefits convenience, or post-benefits convenience (Gewal, 2010).
- **Merchandise management** involves finding and stocking merchandise that meets the targeted consumers' needs; and ensuring that adequate stock of the appropriate merchandise is available when and where it is required by customers.
- **Price** should be based on the value of what is being offered in the mind of the target customers. Retailers should understand what the customer will give up in exchange for the offering. Important aspects of the price include the monetary price, the time, and the effort which the customers give up to acquire the product.
- **Supply chain management** involves the efficient and effective integration of manufacturers, suppliers, warehouses, stores, and transportation companies to ensure that the right products and quantities reach the customer at the right price and service levels.
- **Appropriate technology** at any level in the supply chain can contribute to retail success. Retailers that employ appropriate technology are more likely to perform well and be competitive (Grewal et al., 2010).

2.3.5 Conclusion

Formal and informal retailing or trading activities have some generic similarities. The two forms of tradeare aimed at earning profit by realising sales. Merchandising, which involves attracting, engaging and getting shoppers to patronise their shop or stalls, is the main objective. The difference between informal trade and formal retail outlets is in how they select priorities and manipulate individual elements of what? Grewal et al (2010) believe that the six levers affecting retail success are, store factors, service factors, merchandise management, price, supply chain management and appropriate technology. In most cases, formal retailers have the space and the capital to invest in specialists, technology and in improving their retail atmospherics. These privileges are limited or absent for most informal retailers especially in the case of street traders in third world countries.

2.4 FORMAL AND INFORMAL TRADE ACTIVITIES

2.4.1 Introduction

The literature reviewed in this section focuses on the different definitions, types of formal and informal traders, the institutional mechanisms and socio-spatial contribution of the two forms of trading in urban areas. The aim is to establish a working generalisation of the characteristics of the people involved in the two forms of trade and the factors that influence the choice of their preferred working environments. This section also seeks to reveal the relationship (commonalities and conflicts), between the two business practices.

2.4.2 Specific characteristics of formal trade

As mentioned in earlier in the literature on the characteristics of the formal sector, formal trade enterprise is understood as an enterprise whose trading activities are registered and which adhere to a framework of rules and regulations, usually devised and implemented by the state**.** Categorising formal trade under organised or modern retail, Madaan (2009) highlights professionalism as the main feature in this kind of trade. Professionalismis in the form of specialist consultants or employees' involvement in the decision making in all important aspects such as site suitability and store design and layout, merchandising, store operations, supply chain, promotional activities and the use of technology etc.Types of formal retail include convenience stores, mom and pop stores, departmental stores, supermarkets, and specialist stores.

Organisational Culture

Commercial organisations have a variety of cultures (Steel 1973;Moleski, 1986; Abel, 2000; Florida, 2002). Formal organisations exhibit an autocratic interaction pattern, with a clear hierarchy of authority. Decisions and codes for action are systematised and enforced from the top down in the hierarchy of authority. The organisation prescribes schedules, repetitive tasks and activities, so each person in such a system has a clear set of routines and obligations to which he or she continuously returns and thus there are both space requirements and architectural symbols, denoting status (Ley, 1967; Lang, 2010). The repeated performance of a limited range of prescribed actions and interactions and the use of common vocabulary quickly define an organisational *lifestyle* and eventually a *subculture* (Lay, 1967). The membership of the organisation shows a considerable degree of self-selection. Certain pre-existing traits selectively draw individuals to certain organisation

affiliations and not others. Formal organisations have a homogeneous nature of formal organisations. that formal organisations is an *elite subculture* comprising of middle to upper class citizens. Elites by definition are those in control of political and economic, and cultural institutions. This means that the city planning system and urban administration policies are likely to favour formal business enterprises.

Store factors: (Site, Accessibility and ambiance of the physical environment)

The trading site or business location is the most important factor for big formal retail enterprises. According to Anshujan (2009),business location decisions are influenced by the following factors:

i. Supply chain – land cost, labour cost, transport cost and community factors
ii. Demand factors – customer convenience, labour skills, site suitability, image, expansion potential.

Most big retail enterprises, like departmental stores, supermarkets, and other specialist shops, employ business suitability analysis expertise to determine the appropriateness of a given area for a particular use (Anshujan, 2009). This helps in the understanding of the geographic extent and characteristics of shop patronage, spatially assessing performance, performing competition analysis, evaluating market gap penetration and market gap analysis, target marketing, merchandising, developing and exploring demographic profiles, site suitability and selectivity studies etc. (www.directionsmag.com).

Craig and Turkey (2004) mention that the ambiance of shop, architecture, ergonomics, variety and excitement are of importance to formal retailing firms in motivating the shopper to patronise and linger longer in the shop. In simpler terms, this is about the design of the space, entrances, circulation system, atmospheric qualities and the materiality. Two techniques are common in formal retail visual merchandising, the interior and exterior merchandising. Interior merchandising is also known as in-store design, where the internal space of the shop is tailored around the kind of product being sold, for example, a bookstore requires many shelving units to accommodate small products that can be arranged categorically while a clothing store requires more open space to fully display the product. The space is also meant to promote an enjoyable and hassle free shopping experience. Technology is demonstrated in the use of light and sound to create ambiance or atmospheric qualities, lighting is manipulated to dramatise the space, compliment the merchandise as well as emphasise key points throughout the store (refer to Figure 2.4.1). Sound and audio

played in stores usually reflect what the target market would be drawn to or developed through the enterprise that is being targeted

Figure2.4.1:Interior merchandising: Dramatised space to compliment the merchandise

Source:www.pinterest.com; Retrieved: March, 2016

Exterior merchandising, also known as window displays, is the orchestration that happens on the facades or entryways, also referred to as storefronts. Storefronts are used as a billboard for the store, often employing large windows that allow shoppers to see into the space and the products inside.

Figure 2.4.2: Exterior displays of formal retail allowing the shoppers to see into the spaces and the products inside.

Source:www.pinterest.com. Retrieved: March 2016

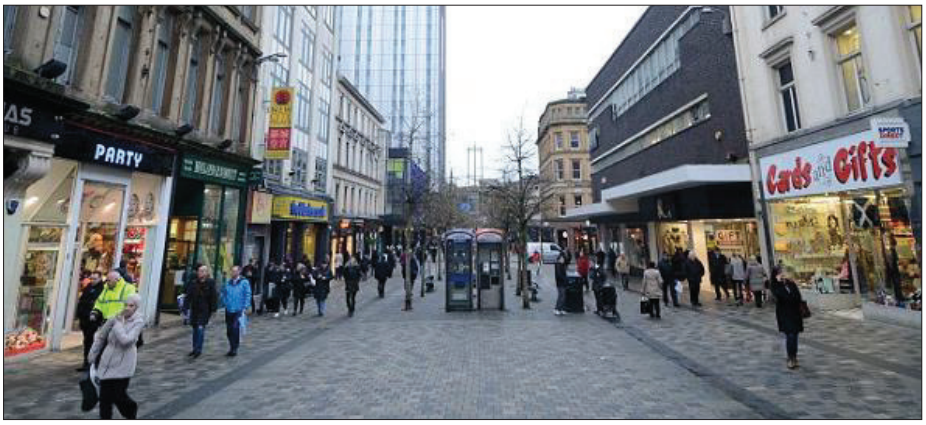


Figure 2.4.3: Exterior displays of formal retail allowing the shoppers to see into the spaces and the products inside.

Source:www.pinterest.com: Retrieved: March 2016

Formal business enterprises are identified by behavioural patterns that are highly organised and held together by a contract, which detects the codes of conduct, and behavioural norms. Most formal enterprises, from big firms like departmental stores to small corner shops, invest in interior and exterior merchandising and employ professional advice in decision making on business site suitability, market gap analysis etc.

2.4.3 Specific characteristics of informal trade

The literature on informal trade activities reviewed in this section focuses on defining and discussing the characteristics of informal trading, types of informal traders, the institutional mechanisms and socio-spatial contribution of informal trading and formal trading central urban centres.

Specific characteristics of Urban Informal trade/street trade activities

Group culture: Informal enterprise subgroup culture is categorised by most researchers under *communal or social groups*. Lay (1967) attributes the formation of this group to chance or choice. They are formed by chance in the circumstances of biography beyond an individual's control, such as his or her pre-given culture, social status, ethnicity, age, and the space he or she occupies. Membership of a social group implies levels of cognitive and behavioural consensus and the conscious and unconscious suppression of individualistic traits. Repeated interaction with others in the routine of daily life leads invariably to a shared

set of expectations, mutual communication which encourages consensus and if continuous, may define a distinctive subculture.

It has been shown that street traders all over the world are exposed to the state's attempts to restrict or ban their activities through means like police raids, fines for vending violations and confiscation of goods. Duneier (2000) views street trading as a mechanism to cope with spacio-economic injustices and also as a space-producing activity. This view is based on the fact that street traders do not have the power to influence city administration decision making processes, the only resource they have is the location specific tactics to overcome restrictions and maintain business. Deal & Kennedy (2000) refer to every day practices that reflect "how vendors do things around here" as a culture.Brown and Rammidi (2014) proposed the model of service culture among street vendors as tabulated below, following research on street venders in Botswana. In their observation, he service culture (everyday practice of delivering value to customers)that prevails among street vendors ranges from humane clues as evidenced in practices and values in encounters with customers and interaction with each other, to mechanic clues evidenced in the orchestration of their physical environment.

Elements of service culture in street enterprise

PRACTICES: Humane and mechanical	**CORE VALUES: Indiscernible clues**
• Courtesy behaviours • Orchestrated physical environment • Responsiveness and attention giving • Extended/brief service encounters • Close proximity to customers • Rewarding of loyalty: Give extras • Health and sanitation • Emotional benefits	• Collectivism • Trust • Group harmony • Compromise • Patience • Cooperation • Empathy • Friendship

Table 2.5.1. Model of service culture among street vendors.

Source:Brown and Rammidi , 2014

Mobility and flexibility in their everyday operation

Yatmo (2008) categorises informal traders into two groups: traders who are stationary and operate from fixed points on public thoroughfares, with either permanent structures such as a kiosk, or non-permanent structures that are easily assembled and dissembled, such as a mat and a tent. Some street traders walk around with goods or services, continuously changing locations to sell their goods or offer their services. The most common types of itinerant vendors are those with a pushcart, although other tools may also be used, such as trolleys.

Access to Markets and Market Relations: The market for street vendors is largely the pedestrians on pavements and footpaths. Mitullah (2005) mentions some cases where street vendors have built customer relations and their markets have expanded beyond pedestrians. This happens when the trader has done business in one spot for a long time. Some street vendors are mobile e.g. hawkers, who look for customers in offices and homes. Most traders are limited by high transport costs and low profits prohibit them from accessing better markets (ibid).

Trading sites: Most researches agree on the view that the greatest challenge faced by informal traders with regards to sites of operation is the right to trading space. Street traders have no tenure to most of the land they occupy or are not allocated land by urban authorities. Part of the interest of this research is to find out what influences the street traders to make choices for their trading sites. Mitullah (2005) observes that most traders target sites with high foot traffic. “They locate themselves along main roads and streets, near shopping centres or at corners where they can be seen by pedestrians and motorists” Mitillah (2005).In some instances (when allowed to do so), they intentionally locate themselves near the entrances of malls and supermarkets to tap into the large flow of customers.

Services, infrastructure and health hazards: Although street foods offer a potential benefit, the fact that street vendors are largely poor and uneducated cannot be ignored (Department of Health & FAO, 2001; 6). Lack of skills, coupled with the ignorance of street vendors, compromises the safe handling of food. Lack of knowledge concerning the safe preparation of street food might result in major public health risks. The Food and Agriculture Organisation, the World Health Organisation (1995:2) and Von Holy (2004a:15) recommend that government intervenes in order to minimise the risk of food-borne diseases. Sources of potential problems listed by the FAO/WHO include the lack of infrastructure and

services such as potable water supply; the large numbers of vendors that hamper effective control; and the diversity, mobility and temporary nature of the industry (Von Holy, 2004a:15). Inadequate public awareness of the hazards posed by certain street foods, because of lack of consumer education, compounds the problem of the ignorance of the vendor with regard to the safety aspects of food handling and its microbiological status. Further, there are insufficient resources for inspection and laboratory analysis (Von Holy, 2004a:15).

The FAO (2001) agrees, explaining that even in developed countries, consumers suffer from food-borne diseases, with up to twenty people per million perishing from such illnesses each year. This is supported by the fact that even in a highly-developed country like the United State of America; some seventy six million cases of food poisoning are reported every year. These result in 325000 hospitalisations and an estimated 5000 deaths (FAO, 2001:3). The incidence of food-borne diseases in developing countries is believed to be slightly higher than in the first world, but FAO explains that this is difficult to estimate because of faulty reporting mechanisms (2001:3). Business Day reports a survey in the United Kingdom which revealed a poor standard of hygiene in places where food is sold for public consumption (Mathews, 2002:16).

Accessibility and ambiance of the trading environment

Street traders use different structures for display. These include, tables, racks, wheelbarrows, handcarts, bicycle seats and on the groundcover over a mat to display their goods. Others simply carry their commodities in their hands, or on their heads and shoulders. There are also those that hang their goods such as clothes on walls, trees, fences and an advanced group that construct temporary shades with stands for displaying their goods. Many authors have researched the rationale behind street vendors' choices of locations and the goods display structures which they use. Other researchers like Hossain (2004) in Bangladesh, Leeming (1977) in Hong Kong and Owens and Hussain (1984) perceive street trading activities as trade generators of cluttered street scenes in the cities of developing countries. According to Rajagopal(1999), it is the ambiance of this so called "chaotic environment" that encourages customers and tourists to find a different shopping experience at the street market.

Figure2.5.1: Structures for displaying goods tailoredaround the consumers' sensory experience of touch, feel, pick and appearance.

Source:www.alamy.com; Retrieved: March 2016

Brown &Rammidi's (2014) study of manifestations of service culture among street vendors in Botswana affirms the observation that the vender's temporary architectural arrangement shows careful orchestration, where the physical environment is designed to shape customer experiences. Shades are mounted to shield customers from direct sunlight. The temporary structures enhance the space with decorations and products are arranged for self-service. (Rhainlander et al, 2008) extends this to the way structures display goods. The display arrangement is tailored around the consumers' sensory experience of touch, feel and pick and appearance in choosing their products.(Brown & Rammidi, 2014). Boseo et al, (2011) and Terraviva (2006) mention that vendors care about and enhance their 'immediate' service environment and this practice offers a unique experience to the customer. Examples are the traders who offer cooked food. They provide chairs and tables for their customers to dine and menu boards are mounted to communicate the meal for the day.

Figure 2.5.2: Creative use of crates used for storing and transporting merchandiseor used as structures for displaying goods.

Source: www.alamy.com; Retrieved: March 2016

The nature of services and commodities of trade.

The services provided by street traders range from transport, foodstuff(both fresh and processed), hairdressing and barbering, to photography, pay phone, mechanical repairs, music, security, designing, manufacturing and all types of repairs(Mitullah, 2005) . Emslie (2007) points out that traders have mastered the skill of selling much needed products to target customers and how to emphasise commonality with the mainstream markets and where the differences lie. The choice of services or commodities of trade also happens as a response to consumer beliefs, behaviour and culture (Steenkamp &Burgess 2002). An analysis of street vendors by Rajagopal (2009) in Latin America, and Brown &Lammidi (2014) in Botswana, has shown that street traders' products and services have high ethnic value and are appreciated by consumers. The products are perceived as rich in cultural identity compared to the products found at formal retail outlets and restaurants. This trend is also seen at food markets in most countries where shopping and eating out on street markets has become a leisurely shopping behaviour (Rajagopal, 2009).

Figure 2.5.3: Street food market in Hugo Ortega's Street Food of Mexico. Vendors' service includes provision of seating and dining space for customers.

Source:www.americanethnography.com ; Retrieved: March 2016

Figure 2.5.4 : Informal traders selling ethnic products resembling the culture of the people. Muthi Market at Warwick Junction, Durban, South Africa.

Source:www.pixoto.com; Retrieved: March 2016

2.4.4 Commonalities and Conflicts in business practices

Issues of encroachment and clutches over the edges

Perhaps the most discussed conflict between street traders and formal retail is the contested pavements in the inner cities. While shop owners perceive pavements as channels of movement for shoppers and passers-by, street traders see them as settings to mount their business workstations. This act of physical obstruction and placing structures unlawfully over city streets or any public property is called "encroachment". Street traders are the major cause of encroachment in developing countries. They encroach on the larger part of the pavement and in some cases they end up encroaching onto the road. Encroachment leads to a variety of problems especially in densely populated inner cities. The problems include the following:

- Depriving pedestrians of the right to use pavements, which are exclusively made for them.
- Pedestrians are compelled to walk in the road, increasing the chance of an accident and reducing vehicular traffic speeds, leading to traffic congestion.

Exterior merchandising uses the storefronts as a billboard for the store, often using transparent facades that allow shoppers to see into the space and the products inside. The goal is to attract passers-by hence it has to be seen from as far as possible. It becomes a major concern for the shop owners when encroachment happens in front of these types of edges as street traders block the shopfronts (Refer to Figure 2.6.1 and Illustration 2.6.1).

Fig 2.6.1Typical situation on commercial streets in innercities where street traders cause obstructions to shopfront displays and to pedestrian movement.

Source: by author.

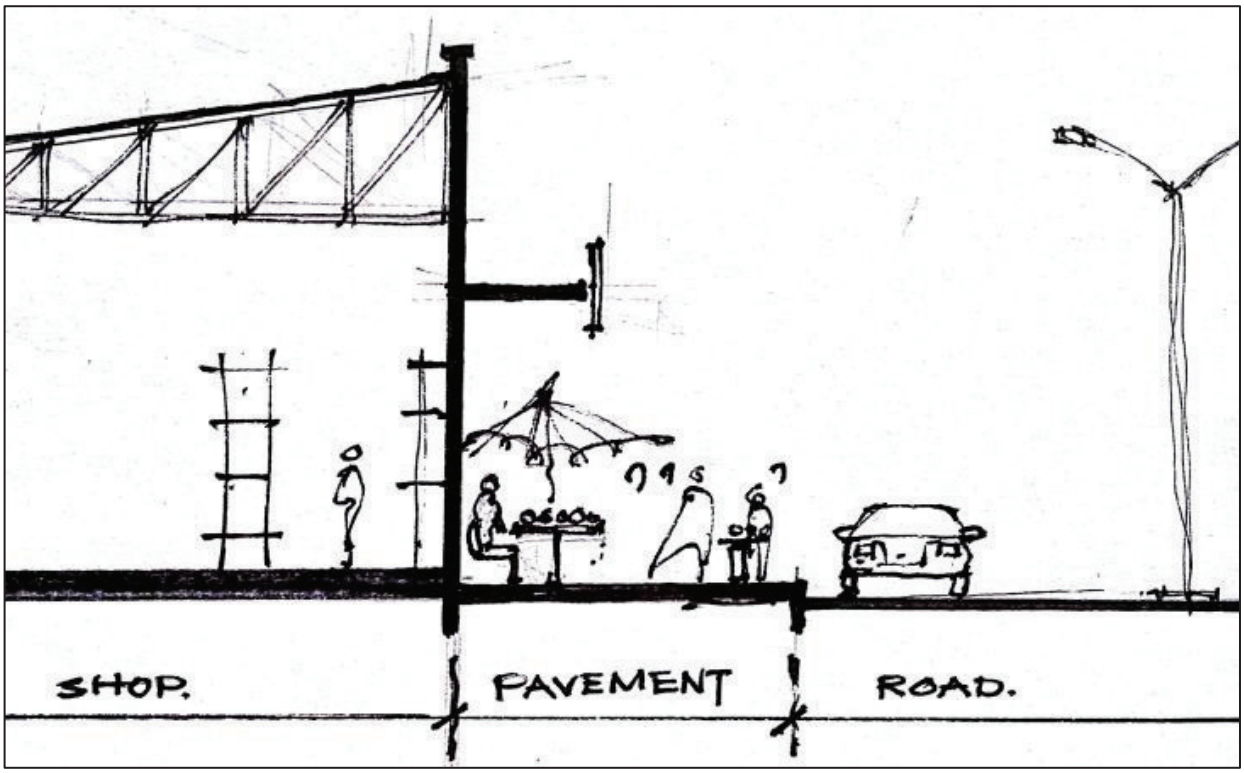


Illustration 2.6.1 Typical section through a pavement encroached by street traders.

Source: by Author.

Views on the competition which exists between the two forms of trade

Researchers in most ThirdWorld cities have shown that there is an unfair competition for formal traders. In Jere's (2014) research on street traders in Johannesburg, he mentions the claims made by formal retail enterprises that informal traders usually sell cheap counterfeit goods, thus taking away business from them. It was also pointed that informal traders created unhealthy competition in the sense that most of them do not abide by the regulations and they can trade at any time and under any conditions, yet formal businesses must abide by strict regulations, during stipulated trading hours, and adhere to labour relations, safety and hygienic standards (Jere, 2014). Informal traders also enjoy an unfair advantage in terms of other costs of business such as rentals, electricity and water bills as well as insurance. However, other studies show that formal businesses still managed to withstand competition from informal traders (Madaan, 2009).

Waste management issues and environment degradation

Most researchers have shown that street trading activities have a negative impact on the quality of urban cleanliness in third world countries (Adedeji, Fadamiro and Adeoye,

2014).The main cause is the improper disposal of refuse. It leads to blockage ofdrainage channels,unwarranted floods, and littered urban roads etc.(ibid).

2.5 CONCLUSION

The chapter has penetrated the economic inequalities that existin Third World cities; more attention was paid to inequalityof opportunities. The concepts of formality and informality in economic activities developed because of the existence of activities that conformed to the regulations set by the city authorities (the legal ones) and those that do not (the illegal ones). The formal trade sector exhibitsan "orderly" or organisedway of doing business that conforms to bylaws set by the elites, hence it is regarded as legal. These enterprises areguided by a contract that detects theirbehaviour codes, material culture and architecture. Informal trade activities exist in inner cities as creations of the urban marginalised, consciously or unconsciously coming together and inventing specific tactics to overcome the restrictions imposed on their economic activities by the government and those in power. Informal trade has been identified as one of the main sources of employment and it is estimated that this provides between 20 and 75 percent of employment in many African countries. A range of benefits are associated with informal trading including:

•Creation of employment
• Ease of access - requires very little capital
• Can improve security as there are more 'eyes on the street'
• Convenience, as goods and services can be easily accessed
• Can improve street life and the vibrancy of an area or street
• Reduced transport impact as local access is provided to services and goods
• Increased city efficiency as densities and trade are increased
• Improved resilience through diversity in the local economy

Formal and informal retailing or trading activities have some generic similarities. The two forms of trade are dependant on the foottraffic on city footpaths and pavements. Since the aims of retail is to earn profit through realising sales, merchandising involves attracting, engaging and encouraging shoppers to patronise their shop or stalls is the main objective. The difference between informal trade and formal retail outlets is in how they select priorities and manipulate individual elements. Grewal et al (2010) outline six levers affecting retail success namely; store factors, service factors, merchandise management,

price, supply chain management and appropriate technology. In most cases, formal retailers have the space and the capital to invest in specialists, technology and in improving their retail atmospherics. These privileges are limited or absent for most informal retailers especially in the case of street traders in Third World countries.

There are recurring practices and patterns of routines that are noted in the discussion of the characteristics of street traders and shop owners. Their activities define their lifestyles and the groups' identities (the distinguishing characteristics of the group), hence the two forms of trade can be studied as subcultures. Each subculture consists of individuals who share similar biographies, concerns and goals, social status and values. These shared elements provide standards for the group's perception and cognition of the urban built environment

CHAPTER THREE

MATCHING BEHAVIOUR PATTERNS AND A SUPPORTIVE TRADE ENVIRONMENT

3.1 INTRODUCTION

This chapter penetrates the spatial structure of the commercial street in the inner city, and studies the social worlds that lie behind it (the formal and informal traders), how they evolved and what conflicts and injustices exist and how can they be solved through built form. To achieve this, the chapter begins by reviewing literature about the modernist influence on the evolution of today's inner city urban form in the Third World. The injustices of modernist master planning are discussed using Lefebvre's theory of space production. The conflicting sets of lifestyle attributes between formal and informal traders that were discussed in the previous chapter, are studied as expressions of identities by the two groups.

3.2 EQUALITY AND PRODUCTION OF COMMERCIAL STREETS IN INNER CITIES.

3.2.1 Introduction

To understand the spatial conflicts between informal and formal trading practices in inner cities, it is important to understand the space production processes of colonial cities. Colonialism played a big role in introducing European planning models, particularly in those parts of the world under colonial rule. In these contexts, planning of urban settlements was frequently connected with the 'modernising and civilising' mission of colonial authorities, but also with the control of urbanisation processes and of the urbanising population.

3.2.2Modernist master plan thought and the commercial street

The "modernist planning "concept emerged in the 19th century because of technical and ideological considerations. "The elite were more concerned with inventing a planning system that maintains their property values and excluding 'less desirable' low-income residents, ethnic minorities and traders from their areas"(UN Habitat, 2010). Le Corbusier is one of the practitioners who was very influential in advancing modernist master planning objectives. In his ideas, an ideal 'modernist' city was conceived as a neat, ordered and highly controlled urban environment. Untidy elements like slums, narrow streets and mixed-use areas, were not wanted. The move was to create areas dedicated to specific purposes and

to remove the conflicting uses. The resultant city had separated work, home, marketplace and social life zones. Streets were designed to facilitate movement between these different uses. (Natrasony & Alexander, 2010).

In Sub-Saharan Africa, modernist planning ideas were brought by the British, German, French and Portuguese colonialists. Most African colonial cities are shaped by the planning legislations and zoning ordinances that were based on European planning laws of the 1930s or 1940s.Today's South African inner cities are characterised by the grid planning system which is a product of the influence of early modernist practices (Refer to Figure 3.2.1).The typical layout of a grid plan system consists of streets and rectangular city blocks. These form the basic unit of a city's urban fabric. Buildings sit along the perimeter of the block, with their access points facing the street. Semi private courtyards and service alleys are located at the back of the buildings, (Refer to Illustration 3.2.1). In most cases city blocks are subdivided into a number of smaller land lots in private ownership and they are usually built-up to varying degrees and thus form 'street walls' of public space, (Refer to Illustration 3.2.2).

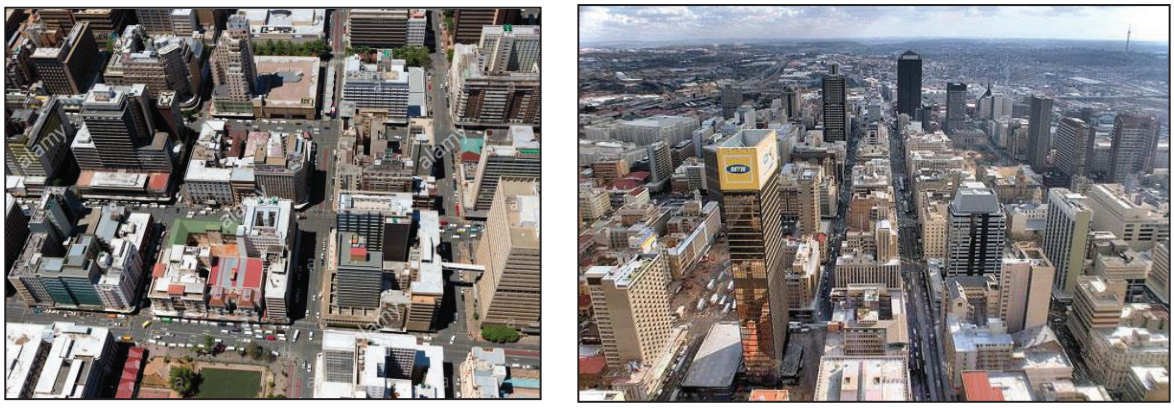


Figure 3.2.1 Arial views of Central Business Districts (CBDs) of the cities of Durban (left) and Johannesburg (right), showing the influence of the grid planning system.

Source:www.alamy.com; Retrieved May 2016

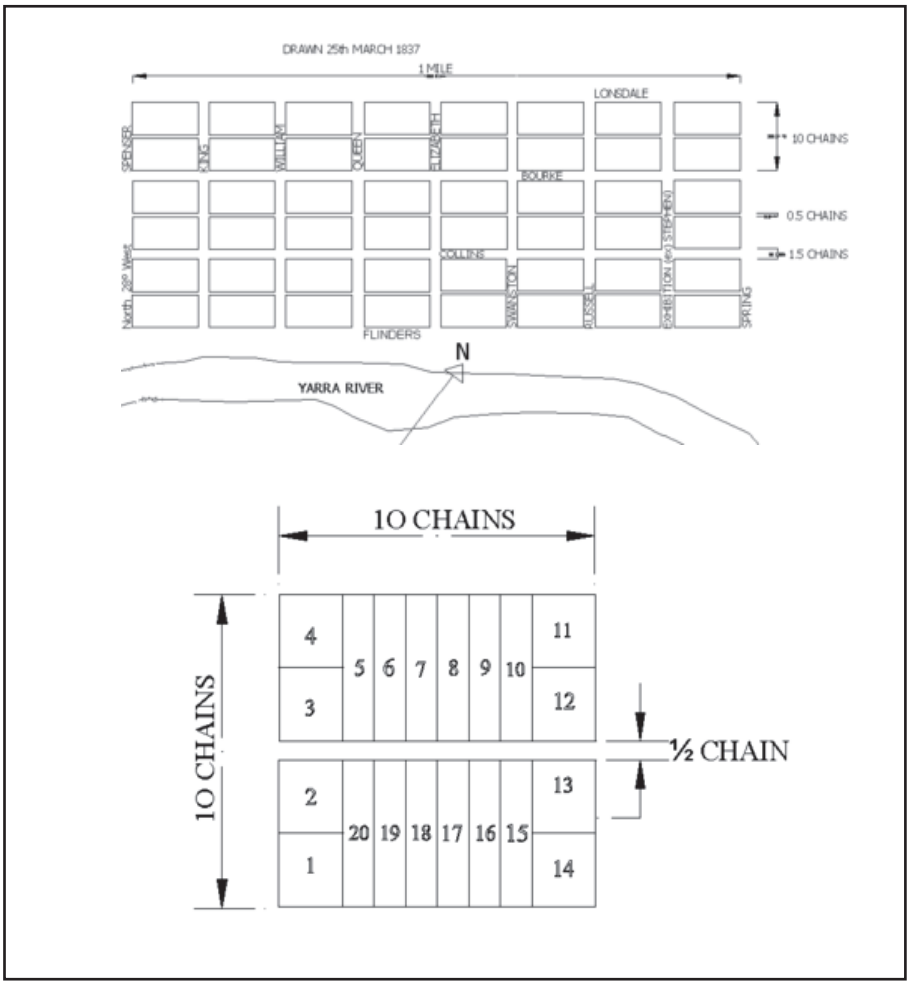


Illustration3.2.1 Typical Grid plan system: The rectangular sub divided "City Blocks" and "Street"

Source:www.wikipedia.org; Retrieved May 2016

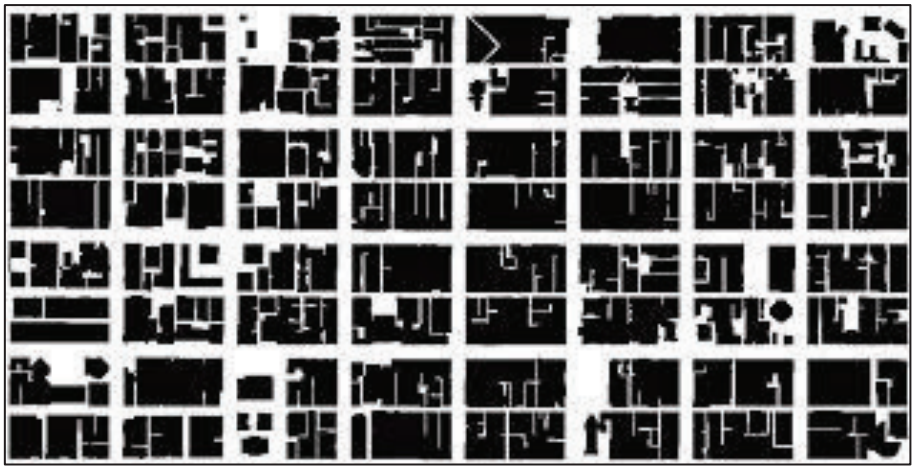


Illustration 3.2.2: Figure ground image of a typical grid planned city.

Source:Sima,2011

Most critics of the modernist planning system point out its top-down processes, and the mono-functional and sterile urban environments that it produced (Hall, 1988, Harvey, 1993; Cooke, 1999). The common observation is that inner-city environments are divorced from the reality of rapidly growing third world cities. Yet, in many parts of the world, and particularly in developing countries where modernist planning was largely implemented, it persists. Governments have not reformed their planning systems. Harvey (1993) suggested an immediate need for a logical alternative for dealing with such cities. He pointed out with discomfort that the overall logic of modernism emphasised functionalism, impersonality and efficiency, and it disturbed the connection between identity and peace in local communities.

3.2.3 Conceptualising the Street

The street in the grid system is simply the space sandwiched in between adjacent city blocks or buildings (Moughtin, 1992), to facilitate movement between the blocks. According to this definition, the street form is the street space bound by building facades on both sides. Other definitions view the street as not an area but a volume e.g., Rudofsky (2003) advances an idea that the description of the street should consider its context. The viability of the street is dependent on the right kind of architecture and the right kind of humanity. This way of perceiving the street has provoked many researchers to criticise the modernist conceptions of the street.

Private and public interface

The research is concerned about the conflict that happens on the pavements; the edges of the city blocks where the line between the private space (the block/lot) and the public space (the street), lies. Different densities and building types in synergy with the mix of functions in the city block present different types of interfaces between public and private property on street edges. These types are determined by the degree of privacy needed and the flow of pedestrian life (Dovey, 2015).The impermeable/ blank type and the direct/ opaque type involves an entry directly onto the street but without transparency. Direct/transparent is the one we are most familiar with as a shopfront (Refer to Illustration 3.2.3).

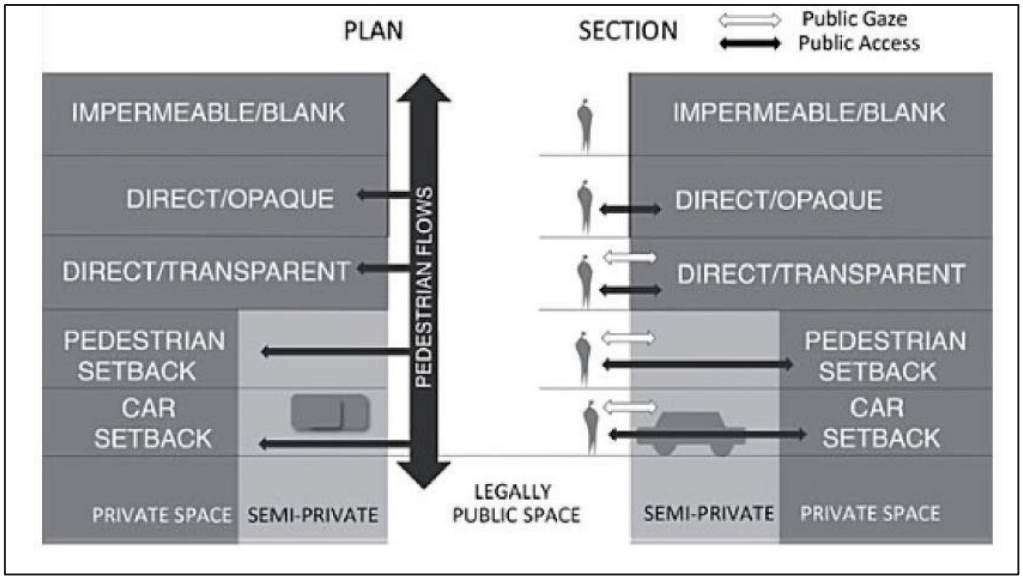


Illustration 3.2.3 Types of interfaces found in inner cities. The black and white arrow represents access and visibility respectively with a plan on the left and a section on the right.

Source: Dovey& Wood (2015)

a) Impermeable / blank edge b) Direct / transparent edge

Figure 3.2.2 Examples of interfaces along commercial streets

Source: www.880cities.org; Retrieved May 2016

The street as a lived space and space appropriation

Henri Lefebvre became well known for criticising the way space is perceived and produced in the modernist system through an analysis of production of space and its history. Lefebvre presents his argument in what he terms a spatial triad (three aspects of our spatial existence). It consists of the following:

- The **perceived space**
- The **conceived** spaces: - are conceived by the elite. They are manifestations of capitalism and neo-capitalism e.g. the Modernist Master Plan.
- The **lived** (representational) spaces: - are produced as the emotional attachment that develops through imaginary and lived experiences.

According to Lefebvre's view, the modernist top-down creation of spaces is no longer applicable to the current world. He advocates for a space production system e.g. planning and architecture to consider social factors like culture, values and the social production of meaning. These directly affect people's spatial practices and perceptions. His main hypothesis is that social space is socially produced and every society produces its own space. Soja (2010) refers to this lived space as "The third space". According to him "it is a social space which is a social product that is a space created by society under oppression or marginalisation that want to reclaim the space of inequality and make it into something else" (Soja, 2010). Thus, the third space theory explains some of the complexity of poverty, social exclusion and social inclusion. Examples would be the popular restructuring of space by excluded urban communities in the commercial streets of African inner-cities (Refer to Figure 3.2.3).

The process of the restructuring of space by excluded communities is referred to by Lefebvre et al as space appropriation. Aishwarygorind (2012) conceptualises the appropriation of space as a process of mutual adaptation between the architectural space and the inhabitant. The space conceived by the architect somehow influences the user and conditions his behaviour. So as to adapt to this space, the user tries to overcome imposed conditioners, transforming them formally and conductively. The architectural space changes from what the architect intended it to be. It becomes a product of creation and re-creation carried out by the user, a process of adapting and re-adapting.

Figure 3.2.3: Restructuring of space by excluded communities (space appropriation).

Source: unknown

As noted in Soja's "Live Space" theory, the motive of appropriating space is a manifestation of the way in which marginalised people respond to the restrictive structures of economic and political forces in their societies. The process is explained by Bayat's (2004: p 90) concept of "quiet encroachment". Bayat defines quiet encroachment as "the silent, protracted but pervasive advancement of the ordinary people on the propertied and powerful in order to survive and improve their lives" (Bayat 2004: p 90). Selling without permits, avoiding payment of tax, and selling goods in areas where vending is prohibited, can all be viewed as forms of such quiet encroachment.

Concept of Strategy and Tactics

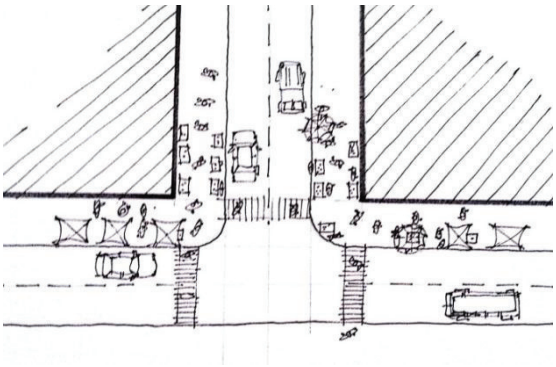
Vendors use location-specific tactics to navigate their way around the restrictions in order to maintain their businesses (Duneier 2000; Stoller 2002). This space knowledge of street traders can be explained using De Certeau's distinction between strategies and tactics. The vendors use mobility, spatial and temporal tactics which allows them to momentarily circumvent the state's restrictive strategies, such as those that limit their access to public space.

According to de Chateau, tactic is seen not as a subordinate to strategy but opposite to it. Strategy presumes control, while tactic is an adaptation to the environment, which has been created by the strategies of the strategy?. Strategy is a product of control, control is never perfect and situations upon which the strategy was constructed are always changing, which constantly makes aspects of strategy obsolete. Tactics are in a constant state of reassessment and correction, based directly on the observation of the actual environment. The concept assists in explaining the choice of spaces and sites that are appropriated by street traders, and how.

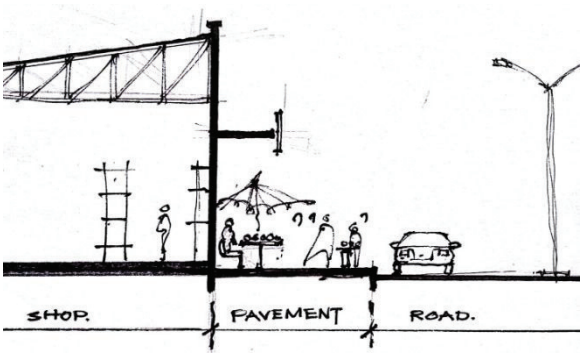
Frank and Stevens (2007), investigate the spaces that are appropriated for informal activities on urban landscapes. According to their observation, appropriation happens in spaces that are far from behavioural control and aesthetic maintenance. These spaces inspire other potential uses (Mutiah,2011). These spaces are called "Loose Spaces" (ibid), they are defined as 'spaces that have been appropriated by citizens to pursue activities not set by a predetermined program' (Frank and Stevens, 2007). The looser the space the more it provides possibilities for appropriation and the tighter the control the more it restricts one's behaviour in public spaces (Mutiah, 2011). Informal activities, especially street vendors, are seen to be happening in loose spaces along commercial streets and sidewalks in inner cities. However, their presence in urban space is mostly regarded as illegal due to their occupation of those pre-programmed spaces (Yatmo, 2008).

Muthiah identifies three categories of loose spaces on commercial streets in the inner cities and likely to be appropriated by street venders. (Refer to Figure 3.2.4)

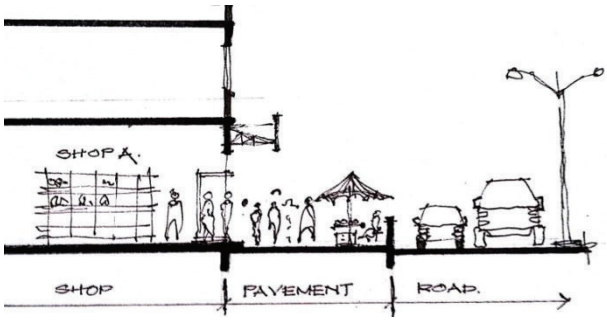
- The threshold – steps on shop entrances and spaces between shops
- Street corners – intersections of streets
- Vacuum space – spaces in front of blank walls or closed shops.



a) traders on street corners



b) traders on spaces in front of blank walls or closed shop



c) Traders in front of shop entrances

Figure 3.2.4 Types of loose spaces on inner-city streets that have been appropriated by citizens.

Source: by Author

3.2.4 Inclusive approaches to urban planning

Since the emergence of growing criticism of the modernist planning system, some countries have made noticeable efforts to develop alternative approaches. Inclusive or participatory approaches aspire to bring marginalised voices to new levels by facilitating their involvement in the design, implementation, and outcomes of city planning and the built-form. Substantial literature suggests that by redistributing power and establishing more reciprocal relationships between "insiders" and "outsiders," participatory approaches build ordinary people's capacity to analyse and transform their lives and thus provide them with practical means to facilitate empowerment (Chambers 1994, 1997).

Different degrees of formalisation of street trading:

- in demarcated sites painted on the sidewalks
- in foldup stands, erected on the sidewalks
- in lockable stalls, carved in a shop's wall
- in linear markets, covered with a roof on pedestrianised streets.

(Elias & SANTRA, 2011)

3.2.5 Conclusion

This section derives understanding of the various concepts of street and adopts a definition of "street form" that considers the total environment of a street generated by its inhabitant's needs and activities. According to this definition, street form will reflect the lifestyle of a community during a particular period. The phenomenon of street traders coexisting side by side with formal business enterprises in Third World inner cities is a result of spatial inequalities in modernist planning legislations and ordinances that shape our cities. The modernist built-form supports the values and activities of a certain class of people and excludes the poor. Marginalised citizens find ways to create their own space to make a living in the city through finding loose spaces in the streets and appropriating them to pursue their informal trading activities. In the restructuring of space, the street traders' (users') space sets into practice a creative strategy in the selection of sites, altering, personalising and designing the architectural space which they inhabit. This is dependent on the characteristics of users, their lifestyles, motives, preferences and perceptions of space. Postmodernist participatory planning is more open towards the informal sector and it is expected to solve the problems

of the informal sector by becoming formal. The design of successful intervention models requires professionals to understand the bond between the users and places or settings.

3.3 THE THEORY OF PLACE ATTACHMENT

3.3.1 Introduction

The above section shows us a "space" being transformed into "place" as humans claim it and believe it has value. We observe space being constructed and reconstructed or appropriated overtime by different groups of people. The production of place is dynamic and is influenced by social dynamics, cultures, lifestyles and identities, human perceptions, cognition, histories and economies. Perceptions of place are ever changing, depending on context and time. This section seeks to understand the phenomena of street traders and shopowners coexisting alongside each other, as a case of two cultural or lifestyle groups with differing identities, motives and environmental perceptions, coexisting in a place or setting (Refer to Illustration 3.3.1).

Figure 3.3.1A scenario of street traders and formal shop owners doing business side by side on inner-city commercial streets.
Source:by Author

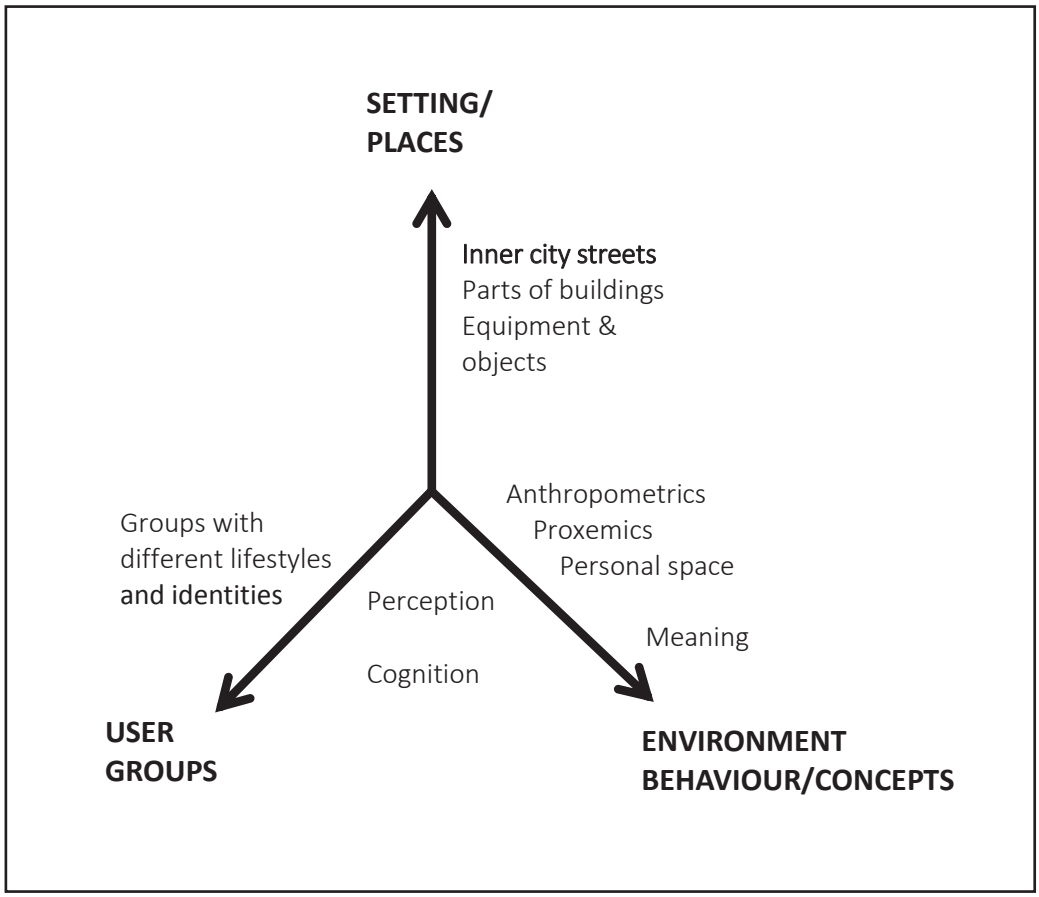


Illustration 3.3.1 The scope of environment behaviour information relevant to the research.

Source: by Author. Adapted from Moore, 2006. p 215

Environment behaviour phenomena: encompasses different aspects of human behaviour in relation to everyday physical environments, e.g. proxemics, privacy, etc.

User groups: users are those who rely on the public spaces or buildings for passive and active engagement. The reliance can be social or economic. The study is interested in street traders, "formal" shop owners and shoppers on commercial streets in innercities. The researcher acknowledges that people have different needs and use patterns and are affected in different ways by the quality of the environment.

Settings/places: this component of the model includes all scales of settings from room scale to the region, the nation and the world. The scale of rooms of buildings to groups of buildings is of interest to the architect.

The study of street traders and formal traders in identified urban contexts considers a part of a city as an urban setting/place; the habitat selection is an ecological and ethological concept. This is connected to environmental quality and preference which involves a perceptual aspect (e.g. complexity) as well as a symbolic aspect (e.g. status). The different lifestyles and preferences between the two forms of traders involve cultural variables while the decision making involves cognitive aspects. This requires a discussion about the relevant concepts and their applicability in this research.

3.3.2 Place attachment

Street traders prefer certain spots or locations along the streets, and as noted inChapter 2, these are generally areas with high foot traffic where they can realise more sales, and areas which are less monitored by law enforcement agents. There is a bond between users and ideal locations of trade, a phenomenon referred to as *place attachment*. Williams (1992) defines place attachment as "a "person-place bond that evolves from specifiable conditions of place and characteristics of people". The kind of attachment observed in the case of urban formal and informal retailing is based on the function of the place - *place dependence*. Here, "the place is valued based on its ability to satisfy needs or behavioural goals of an individual or group compared to other places"(Williams, et al., 1992).There is also a relationship to place based on cognitions, as a person associates significance, purpose, symbolic role, or value with a physical setting, which is referred to as *place meaning.* This leads us to a point where places are seen as a product of physical form, activity and meaning (Montgomery, 1998).The following section examines the psychological dimensions (identity and environmental perception) in the place making process.

3.3.3 Conceptualising "culture" and "Lifestyle"

Rapoport (1967, p 30) sees lifestyle as an expression of "**culture**". In his definition of culture, Rapoport states that it is a group's adaptive strategies within their ecological setting which become encoded in cognitive schemata, symbols, and some vision of an ideal, and which are then passed on to new generations. These, in turn, lead to particular ways of living and behaving, including designed environments as settings for the kind of people which a particular group sees as normative, and the particular lifestyle which is significant and typical, distinguishing this group from others. Because of the complexity of the concept of culture in the study of built form, Rapoport's approach dismantles "culture" and uses the expressions of culture (see illustration 3.3.2).

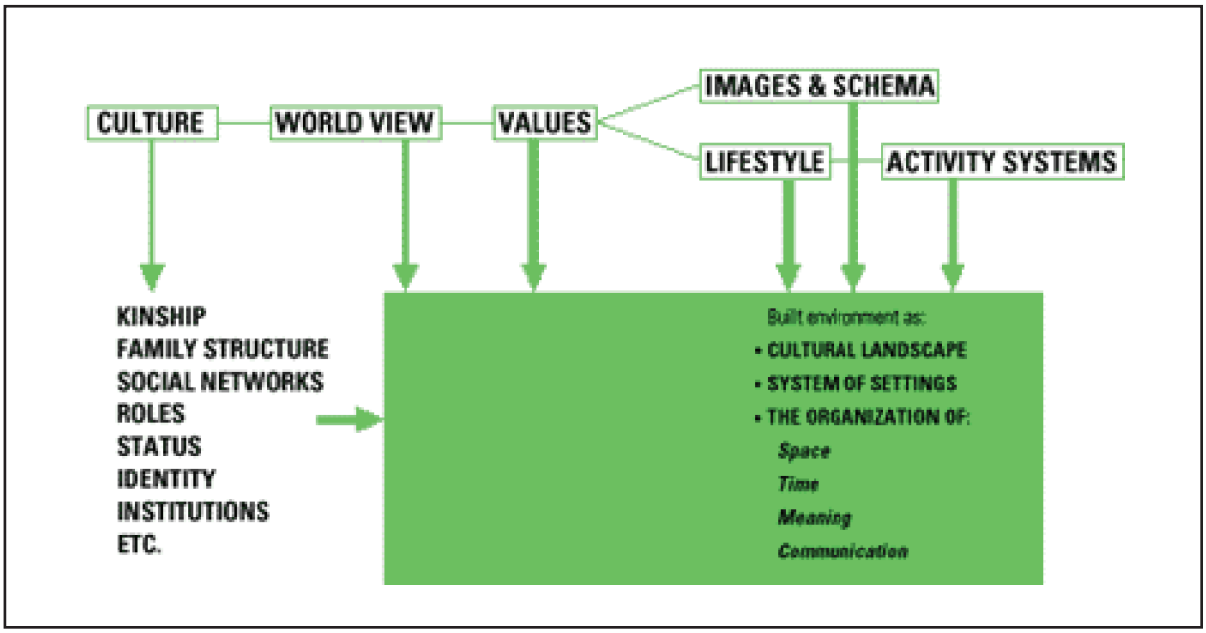


Illustration 3.3.2 AmosRapoport's dismantling of culture.

Source:https://www.cmu.edu/ARIS_3/rapoport/ch03_rapoport.html

Rapoport uses values to study environmental preference and choice and the concept of "Lifestyle" for the study of a great variety of environmental behaviour interactions.

Lifestyle is generalised to be a way of living of individuals, families (households), societies, which manifests in coping with the physical, psychological, social, and economic environment on a day to day basis. (www.businessdictionary.com). Michelson defines it using the configuration of roles which individuals choose to emphasise out of a large number of possibilities open to those of similar "basic" characteristics. It thus affects the allocation of resources, time and space, social activities, leisure and recreation. People sharing given lifestyles are more comfortable living together than those who have different lifestyles and thus tend to cluster together and also select different environments which provide appropriate settings. From these definitions, formal and informal traders can be seen as lifestyle groups. They express their lifestyles through activities, attitudes, interests, opinions, values, and allocation of income. The expression of lifestyle attributes defines an identity of an individual or group. It becomes necessary to define "identity" and how it influences a group's environmental perception.

3.3.4 Identity and environmental perception

Identity is the distinguishing character or personality of an individual or a group. The social identity theory defines identity as the individual knowledge of belonging to a certain social group as well as the values and emotions which they convey to him or her. (Rapoport,1967). According to the social identity theory, identity could be defined by age, clothing, cosmetic appearance, race and sets of lifestyle attributes. (Walmsley,1988).The "place identity theory" views identity as the individual's perceptions and comprehensions regarding the environment (reference).It can be influenced by memories, thoughts, values, interpretations, ideas, and related feelings about specific physical settings as well as type of settings. Combining the definition of identity given in the two theories above leads us to a working definition for this research that examines identity in relation to how it is manifested through places and objects. In addition the research looks at how it is examined through aspects of lifestyle expressions such as behaviour and activities.

Castells approached the concept of identity from three categories namely; legitimising identity, resistance identity and project identity. *Legitimising identity*: is seen in the behaviour of dominant groups or institutions of society as they extend their domination e.g. urban elites. *Resistant identity* is seen in the groups who are being devalued or stigmatised by the logic of domination, thus building trenches of resistance and survival on the basis of principles of different forms or opposed to those permitting the institutions of society e.g. the urban poor. *Project identity* is seen when social actors, utilising whatever cultural materials are available to them, build a new identity that redefines their position in society. These notions are relevant in the study especially the legitimising identity and the resistant identity. Following the de Chateau concept of strategies and tactics, formal trade is the dominant institution and portrays a *legitimising identity;* it is supported and well accommodated/ designed for in the modernist master plan. Informal trade, on the other hand, is characterised by a *resistance identity* where people have built trenches of resistance by claiming spaces illegally and employing survival tactics.

Individuals or groups with different identities have different feelings about things or environments. This research is about creating an environment that integrates two groups with varying identities, in other words it seeks to create places that meet the two groups, with people's perceived notions of environmental quality, colour and form preferences. It becomes necessary to understand the concept of "perception".

Perception is awareness through the senses. Environmental perception is the most direct sensory experience of the environment while actually being in it. It is affected by set memory, cognitive schemata and culture (Rapoport, 1967). Rapoport points out two interpretations of environmental quality. One is the simpler one that relates to aspects such as air and water pollution and consequences of overpopulation and depletion of resources. The second one is the more complex one that relates to difficult to define and more variable, qualities of the natural and manmade environment which give satisfaction to people, its sensory quality, the positive and negative effects on human feelings, behaviour or performance and its meaning (Rapoport, 1977:p 87). The later interpretation captures the psychological and socio cultural aspects of the environment and will be more useful in assessing the preferred environment for informal and formal retailers in inner cities. The appreciation of an environment or evaluation of environmental quality varies and is influenced by previous experiences of individuals, their adaptation levels, deprivation and familiarity. Other scholars like Appleton (1975) believe the human appreciation of landscape is influenced by survival mechanisms.

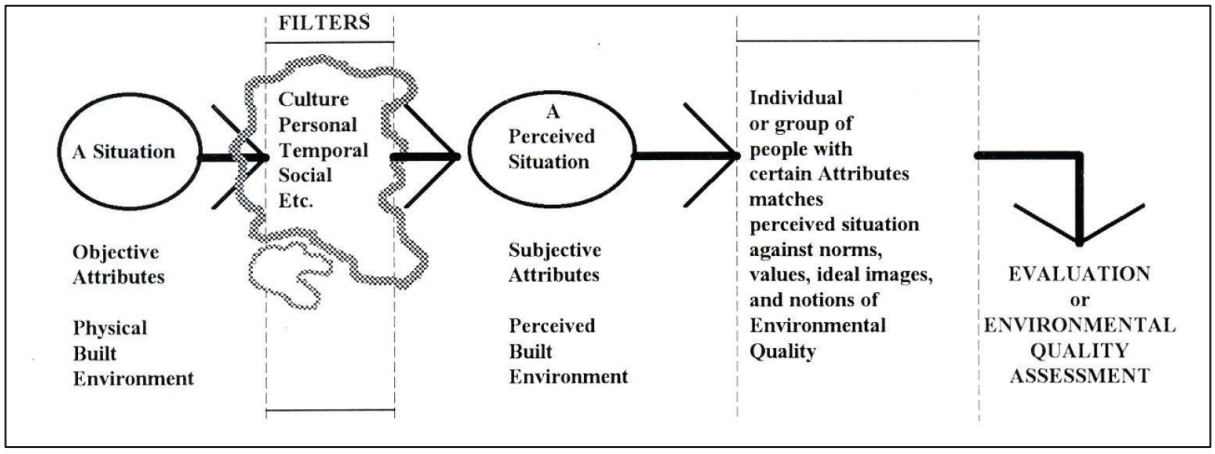


Illustration 3.3.3Environmental quality of physical and perceived built environment

(Source: Khattab, 1993: after Rappoport 1977)

At this point, we examine the literature on the notion of taste and beauty preferences. Taste is defined by Blondel (1705-1774), an eighteenth-century French architect and architectural theoretician, as the "fruit of reasoning, a sequence of appreciation and fast judgment"..Aesthetic satisfaction forms the immediate perception of landscape features, their shapes, colours, spatial arrangements and other visible attributes. These act as sign

stimuli which are indicative of environment conditions favourable for survival (Appleton, 1975: p 2). Plunter (1982) approaches landscape aesthetics from a view that focuses on landscape interpretations. He is concerned with the meanings that individuals ascribe to the environment. He focuses on physical settings, people and patterns of behaviour and meanings given to and derived from those settings. (Walmsley, 1988: p 74).An example can be an individual choice of house location which can be influenced by its proximity to certain desired facilities e.g. industry, offices and shops; a street trader locating himself at the entrance of a departmental store could be good for his business because of high foot traffic volumes going in and out of the store. Other scholars like Lowenthal (1982) ascribe the value landscapes because of the memorable events attached to the environment.

3.3.5 Conclusion

Ideally an environment should communicate its users' identity, the information about the type of activity that is appropriate to various places, information about the intensity with which it is conducted e.g. crowding and about the comparative significance of places. This is the case in inner cities; appeal for a site for business depends on the traders' perception of the environment. This research will be concerned with identifying which environment elements are perceived to be suitable for the two groups (the informal and formal traders) and which combinations are attractive. The rationale behind this is simple: if we can discover what the two groups find pleasing and attractive, then we can identify what the conflicts are over the taste and design environment in order to accommodate both tastes or find a neutral taste.

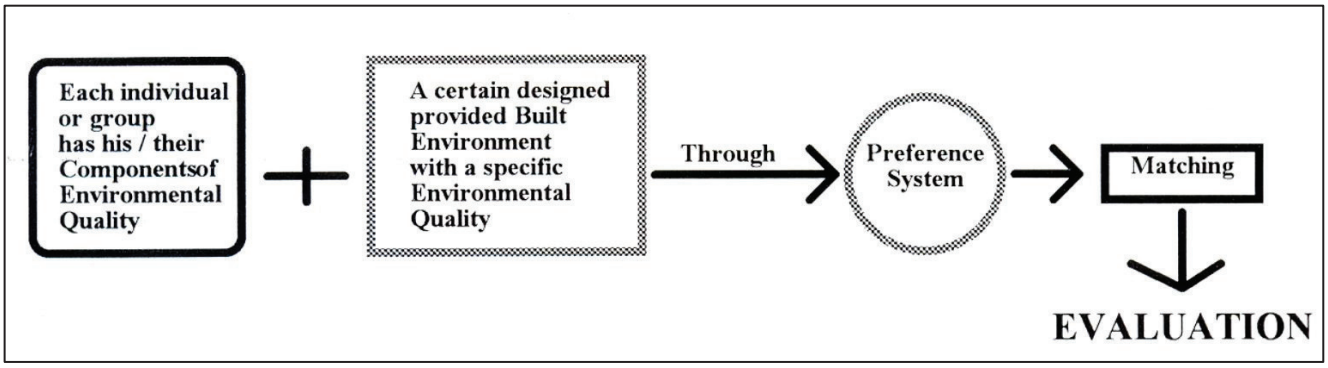


Illustration 3. 3.4 Evaluative scheme of built environments

Source: Khattab, 1993: after Rapoport1977

3.4 A SUPPORTIVE BUILT ENVIRONMENT

3.4.1 Introduction

Designed environments have to match certain environmental quality criteria in order to achieve a "supportive" environment and hence offer people satisfaction with their environment. The following section looks at different definitions of the concept of supportiveness and how it applies to contested environments.

3.4.2 The concept of "supportiveness" and "affordances"

The concept of "supportiveness" emerges in architecture as a way of defining the relationship between an environment and its occupants. Habraken uses the term "supports" to refer to physical structures that provide a framework on which dwellings can be subsequently assembled, altered or demolished (Mthethwa, 2001:p19). The second meaning of supportiveness is found in the works of Turner et al. They define the concept of supportiveness as the institutional approaches that facilitate action by people themselves in creating a "meaningful" environment e.g. core housing. Supportiveness can also refer to invisible supportive elements such as the formulation of policies that govern public infrastructure production e.g. bottom up approaches to housing (Mthethwa,2001: p20). The research seeks a definition for a built form that supports lifestyles. This chapter explore Rapoport's culture specific approach to EBS as a methodology for creating lifestyle supportive environments.

Rapoport defines the concept of "supportiveness" by answering the following three questions:

- What is being supported?
- What is supporting it?
- How is it being supported?

The first question refers to components of culture and their expression, lifestyle being the most useful one. The second question concerns the specifics of physical units or systems of setting. The answer to the last question specifies various mechanisms: instrumentally supportive elements, latent characteristics such as meanings communicating status or identity, and financial, economic or physical security.

The concept of "affordances"

As a component of a supportive environment, the concept of "affordances as defined by James Gibson in 1976 is "what the environment offers the animal, what it provides or furnishes, either good or ill" (Maire and Fadel, 2007). Brown & Blessing (2005) advanced Gibson's view of concept of affordance to challenge functional reasoning in the field of engineering design. They considered the affordance of a device to be a set of potential human behaviours that the device might allow. Functional reasoning assumes that the behaviour intended by the designer is actually the behaviour of the device. As a consequence, the focus of reasoning is narrowed down to the function which the device should have rather than could have (Maire and Fadel, 2007). In architecture, buildings have many affordances, including affording shelter to occupants from weather elements and exterior environments, affording aesthetics to occupants and outsiders, and affording storage of goods. Miare & Fadel (2009), see "meaning" in architecture as a form of affordance. This view is justified by the outcome of studies on form and meaning in architecture that reveal a connection between an environmental setting and the observer. The observers' views of physical form and architectural elements vary and are influenced by their experiences, beliefs, aesthetic preferences, etc. For example, an exterior wall of a building, while sheltering the occupants from the outside environment, can also be designed to be a leaning surface for outsiders or a backdrop surface for a street trader's stall on the outside.

3.4.3 Supporting lifestyle diversity

Because built environments are created to support desired behaviour, Rapoport looks at the relationship between activities and architecture as mediated by "culture". Activities are considered as direct expressions of lifestyle, and ultimately culture. Activity theory considers an entire work/activity system beyond just one actor or user. It accounts for the environment, the history of a person's culture, role of the artefact, motivations and complexity of real activity. The system includes the object and objectives, subject, mediating artefacts (signs and tools), rules, community and distribution of labour. Rapoport's ABS theory analyses the activity itself, how it is carried out, how it is associated with other activities and combined into activity systems and the meaning of the activity.

Systems of settings, according to Rapoport (1967) p 40, comprise a milieu with an outgoing system of activities, where the milieu and the activities are linked by rules as to what is

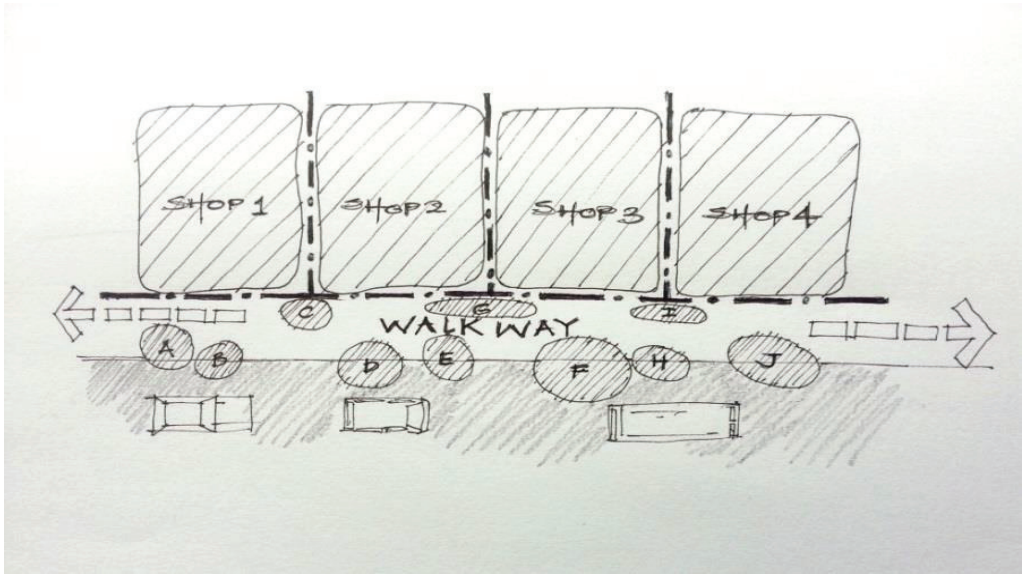
appropriate and hence permitted or prohibited. These rules, while always specific to setting and situation, also vary for different groups, i.e. with culture (ibid). The physical attributes are cues that act as mnemonics, reminding people about the situation and hence about appropriate behaviour, making effective co-action possible. Settings provide the appropriate environment for these behaviours and activities. Settings and their boundaries are culturally defined, often in a cognitive way.

The commercial street as a behavioural setting

This section is based upon the understanding of the above definitions of activity system and system of settings. The street can be conceptualised as a behavioural setting which consists of standings, namely the recurrent patterns of behaviour or activities, a milieu which is a particular pattern in the world and which consists of time periods. The same milieu may be used for different behaviours at different times (Lang, 2010). Lang categorises behaviour settings into two contrasting types: the places and links. Places are sites of localised standing patterns of behaviour and links are the channels of movement that draw them into a system that serves a purpose out of a set of purposes. Links often include parts of movement (Lang, 2010). Applying this approach to this research, the researcher sees the pavements as the "links": or the movement channels. The traders on the pavements are seen as "places" or "activity settings" on the links. The formal shops housed in the city block along the pavements are seen as "activity settings" as well (Refer to figure 3.4.1).

The activity itself and how it is performed, how associated into systems and its meaning are not organised only in space. They also vary and are organised in time. This involves the differential sequencing of their activities in time as well as in space, their tempos (number of activities per unit time) and their rhythms (the periodicity of activities related to different cycles: lifetime, annual, seasonal, profane time/sacred time, festivals, work-day vs weekend, day and night etc).This temporary component introduces the possibility that the organisation in time can be substituted for organisation in space (Rapoport, 1977). This can influence the methodology of studying the change of trading locations, the variations in trading times and type of commodities offered during different times of the day following the changing street foot traffic patterns (Weber, 2012).

(a) Highlighting "places" along a walkway on a CBD Street.



(b) The walk along a city block is supposed to be a *"link"* but full of *"places"*

Figure 3.4.1: (a) and (b), Identifying *links* and *settings* or *places* along a commercial street.

Source: by Author

3.4.4 Conclusion

Success of an environment, whether residential or city centre, depends on the meaning it has for residents. Meaning is the result of action and movement i.e. involvement. And this is

signified by visible signs of action. Preference is partly affected by action and involvement. How one understands the environment, its meaning and affective impact, may all be related to action and the ability to make an impression on the environment.

3.5 CONCLUSION

City planning and urban design in many African cities are based on Western and colonial standards that ignore the informal economy. Marginalised citizens find ways to create their own space to make a living in the city through finding loose spaces on the streets and appropriating hem to pursue their informal trading activities. In the restructuring of space, the space of street traders (users) sets into practice a creative strategy in the selection of sites, altering, and personalising the design of the architectural space which they inhabit. The relationship between specifiable conditions of place and the characteristics of people is understood through the "place attachment" theory. The trading site or business location is the most important factor for formal and informal retail enterprises. Sites that attract maximum shop/stall patronage are the most preferred. In the world of retailing (formal and informal), the trading site is valued based on its ability to satisfy the needs or behavioural goals of an individual or group compared to other places (Williams, et al., 1992).

Upon this understanding, interventions for supporting informal traders shouldprobably not aim at relocating traders out of these congested (and business) zones, but rather to accommodate and regulate them precisely there because those are the locations that are deemed profitable for their business activities. If new markets are to be built then the right spatial qualities should be created that match the environment evaluative criteria of the informal traders. The understanding of the concept of affordances, and design interventions should be more than just designing spaces for basic needs but should also provide opportunities for the space to acknowledge the alterations and adaptations which it undergoes.

CHAPTER FOUR

DYNAMICS OF INFORMAL AND FORMAL TRADE INFLUENCE ON THE DESIGN PROCESS

4.1 INTRODUCTION

The above literature has shown that the urban form is an urban cultural landscape, and the city should be perceived as a series of areas of varied cultural and subcultural character. The design challenge involves an understanding of the various groups involved, their values, lifestyle, activity systems, symbols and all other variables that have been discussed above. This chapter reviews literature on resolving conflicts between subcultural groups through design. According to Rapoport (1997: p 365), this motive seems to imply levels of homogeneity and heterogeneity with neutral areas elsewhere. Another issue in this research is that we are dealing with dynamic rather than static processes. The groups involved constantly change in their culture, values and way of life. The concept of affordances and supportiveness raised awareness that the objective for creating buildings and urban designs is to provide environments that allow desired activities to take place. Therefore, built form has to allow these changes to take place. The chapter is structured in this way; firstly, it discusses different interpretations of "open ended design" in architecture as a way of promoting humanisation of the environment and the development of cultural landscapes. Secondly, the chapter discusses ways of designing environments for coexistence of diverse lifestyle groups. Lastly, the chapter discusses methods of designing to support the different behavioural patterns of informal traders through the concept of affordances.

4.2 OPEN-ENDED DESIGN

4.2.1 Introduction

Habraken, in the early 1960s, was influential in developing an architectural open building design paradigm. His approach was targeted at promoting efficiency and inhabitant-oriented diversity in residential architecture (www.wikipedia.com). In this view the building is divided into support (structure) and infill (interior fittings and removable parts). The infill elements are more related to the user's behaviour in using the building. These parts of the building were to be changed and improved by the inhabitants over time, while the support elements are designed to last for a long time without interfering with the changing infill (Ncube, 2014: p 45). This type of structure allows more dynamic buildings that adapt to their inhabitants and give them opportunities to have their own personal preferences.

Open-ended design is interpreted by Rapoport as a design method which determines certain parts of the system allowing other parts, including unforeseen ones, to happen spontaneously (Rapoport, 1968: p 300-366). Open ended design was advanced as a way of challenging the notion by most technocrats that personal expression by groups is messy and ugly and haphazard, and that everything should be planned and controlled (Rapoport 1968: p 356). In his view, for humanisation of the environment to take place and specific cultural landscapes to develop, the unexpected needs to be able to happen and change (Ibid). Like Habraken's interpretation, the objective is to allow meaning through personalisation, for the expression of different values, needs and lifestyles in the environment. Successive groups of inhabitants can easily restructure the organisation of space, time, meaning and communication. Any environment to be designed will be constrained in some way. The big question here is:

- What is the least that needs to be planned, designed or fixed to lead to specified results?

This forms the "framework", the fixed component in the design and the major design element in the open design approach. The framework must be strong enough to accommodate and guide change and a great number of variations, which retain a unified system. Deciding on a valid framework for various contexts needs to be done carefully as it determines the success of a design scheme (Rapoport, 1968: p 356). Frameworks also need to be structured in a way that considers the use, value and perception of the intended users of the environment. It should respond to the user groups variations (ibid). Establishing a valid framework requires a study of the variations that exist within the user groups. The concept of openness was advanced in the works of metabolists like Koolhas, Lacaton and Vassal, and Van Klingeren. The common theme in their work is "flexibility in architecture".

4.2.2 Designing for diverse lifestyle cohabitation

The theory of place dependence discussed in chapter three raises the argument that the place is valued based on its ability to satisfy the needs or behavioural goals of an individual or group compared to other places (Williams, et al., 1992). In creating a built form for the coexistence of diverse lifestyles or identity groups with varied needs and values, Rapoport (1970: p 356) makes the following recommendations: "it is necessary to identify the unique features of whatever groups exist and the corresponding variety of environments. Architects need to understand why they are different, in what ways they differ and which are the critical differences – and which differences are secondary".(Rapoport, 1970: p 366).Studying the commonalities will reveal the common or overlapping characteristics which will provide the overall urban structures and common elements while the uniqueness provides the specific variabilities (Refer to Figure 4.2.1).The main concerns that arise in this discussion are about what the framework or the neutral/common space should contain.

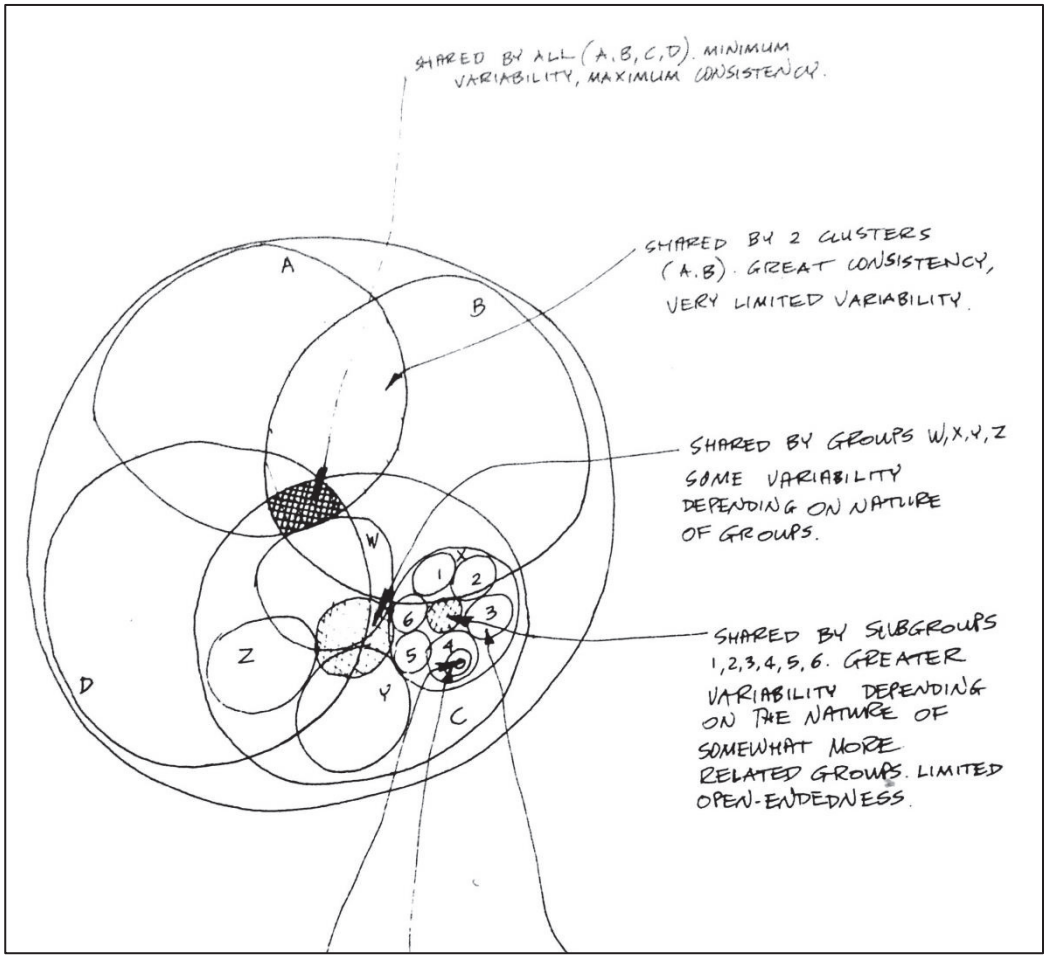


Illustration 4.2.1-Related variability of groups and subgroups.

Source: Rapoport 1977; p 364

The Collective form concept

Maki and Ohtaka in the 1960s explored new concepts in contemporary cities to deal with the problems of coexistence and conflict of heterogeneous institutions and individuals.In their argument, the theory of architecture has naturally evolved towards creating a perfect *single* building. Architects and planners are accustomed to conceiving of buildings as separate entities and therefore we suffer from an inadequacy of spatial languages to make meaningful environments. In his text, Maki introduces the concept of *collective form*—for him this is not simply a collection of unrelated individual buildings but collections of buildings that have reason to be together. One of the approaches Maki proposes for *collective form* is the mega structural form, which is a form composed of several independent systems that are capable of expanding or contracting. Though systems are engaged in contact, each maintains its identity and longevity as it engages with other systems. Loer (2013: p 21) argues that the collective form concept can be the ideal approach towards aiding the political process of abolishing social segregation through architecture. Developing strategies to organise interdependence between formal shops and informal traders two conflicting groups) and accommodating them in a larger entity, the concept can be adopted for future socio-inclusive commercial precincts and malls in cities. Similar to Rapoport's approach to designing for cultural pluralism, the establishment of interdependency is crucial at the point where systems meet.

Establishing the framework: design of links in architecture

According to Rapoport, the framework is the fixed component in the open design approach. It must be strong enough to accommodate and guide change and a great number of variations, which retain a unified system. In designing for cultural diversity, frameworks need to be structured in a way that considers the use, value and perception of the intended users of the environment. It should respond to the variations among user groups (Rapoport, 1970: p 363).

Maki uses the "link" to design a valid framework. Loer (2015:p 44), referring to Maki's work, describes the process of designing links in architecture as the act of making comprehensive links between two discrete things or making unity for diversity. Maki summarises the design of linkage in five operational categories: to mediate, to define, to repeat, to make a sequential path and to select.

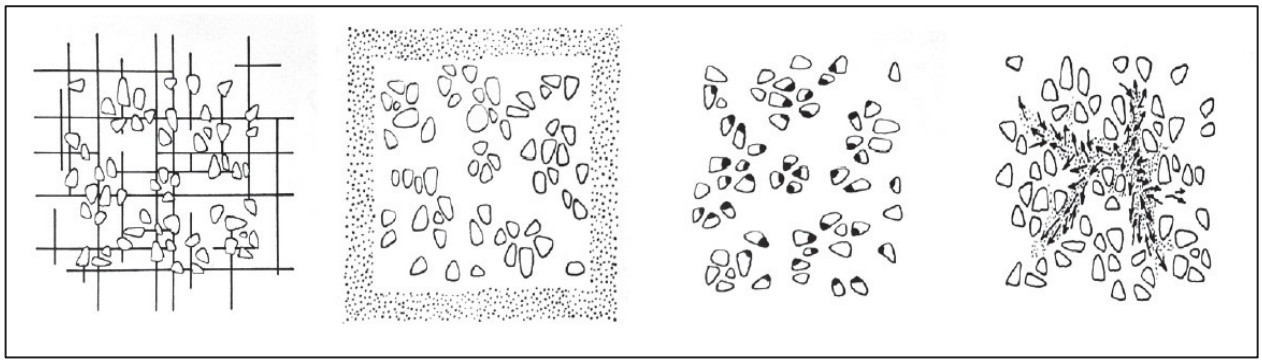


Fig 4.2.1Fumihiko Maki's linkage diagrams: to mediate, to define, to repeat and the sequential path
(Source: Loer, 2015: p 43)

To mediate – to connect with intermediate elements or imply connections by spaces that demonstrate the cohesion of masses e.g. a stoep in front of the house as a mediator between private and public.

To define – to surround a site with a wall, or any physical barrier e.g. medieval city wall or a ring road as a tool for definition.

To repeat – to link by introducing one common factor in each of the dispersed parts of a design or of an existing situation.

To make a sequential path – to arrange buildings or part of multi-use buildings in a sequence of useful activity. Further to reinforce such a path by any means necessary to propel persons along a general designated path.

To select – to establish unity in advance of the design process by choice of site. The possibility of the designer to select his own site for the establishment of a link.

The design of the link in the "collective form" theory by Maki seem to be applicable on a city or town scale, certain aspects of the concept are applicable at individual building scale e.g. using the link to make a sequential path and influencing pedestrian movement along a designated path. Combining the two approaches to designing an environment for coexistence of diverse lifestyles can be useful in this research. Rapoport's approach emphasises achieving an environment that meets the values and preferences of the users while Maki gives a practical solution to the design process.

4.2.3 The movement system as a design tool

It has been shown in the previous chapters that street traders and formal retail outlets are strongly dependent on foot traffic along the streets and walkways. Merchandising (display and making products available for sale) by both groups is oriented towards the foot traffic on the pavements. (Refer to Illustration 4.2.2). This qualifies the pedestrian movement system as a "link" to be used as design tool to create a valid framework for environments where street traders and formal retailers are meant to coexist.

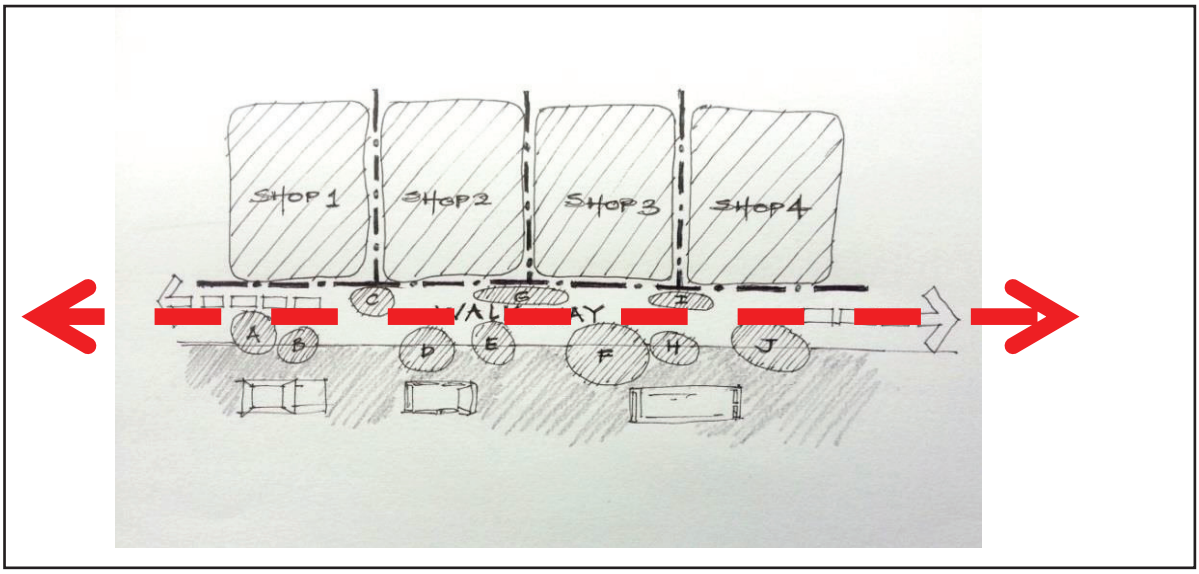


Illustration 4.2.2: formal retailers and informal traders as settings on the street dependanton pedestrian traffic on the walkway

Source: by Author

Major projects that are based on movement systems include planning schemes in the form of highway strips or some generalised movement systems with places linked to it, urban design schemes e.g. LaRambla, Barcelona, and some commercial buildings. The intention is to influence behaviour; the intended behaviours could be to direct people for strategic reasons, or providing a particular 'experience', or for health and safety reasons, in shopping/retail environments they are often focused on exposing most of the shops and vending activities to potential customers who walk along the foot traffic paths.

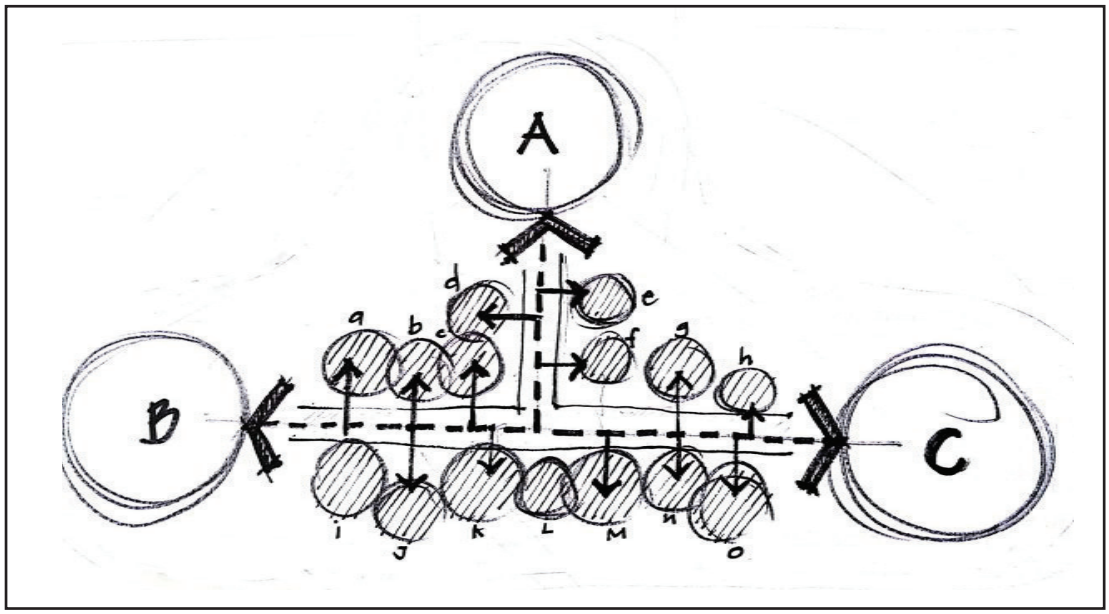


Illustration 4.2.3: The link used as a sequential path, where A, B and C are magnetic functions influencing foot traffic movement. a, b, c, d…etc. are small functions dependant on the footfall along the path.

Source: by author

Fig 4.2.2 Example of a sequential path as a framework in urban design: La Rambla, Barcelona

Source:https://en.wikipedia.org : Retrieved June 2016

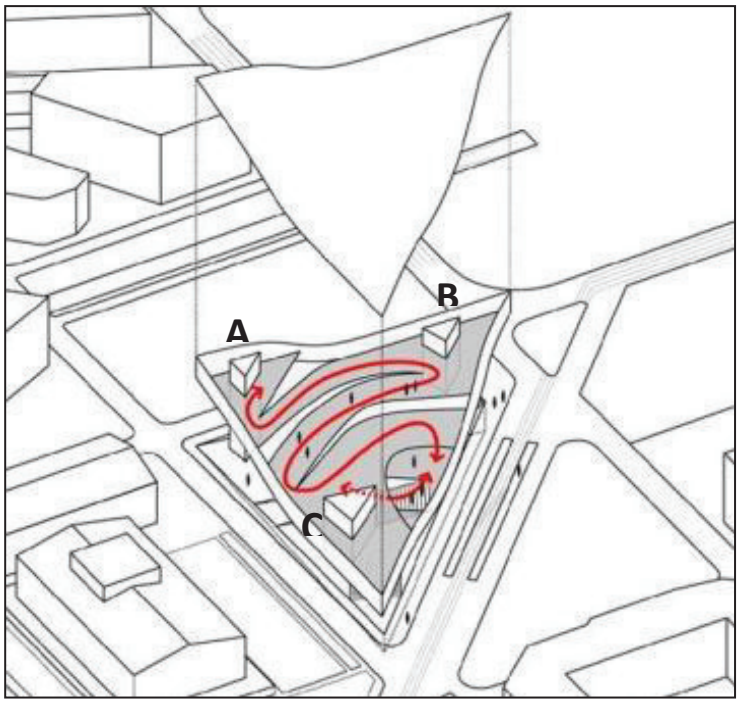


Fig 4.2.2Example of a sequential path as a framework in building design: JDS Architects. Proposal for Encants market. Access points A, B, C act as magnets influencing movement patterns of shoppers.

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Source: www.jdsa.eu/bar: Retrieved June 2016

4.2.4 Conclusion

The open-ended design approach offers a possible solution to a design for coexistence of formal and informal traders. Formal retail components of the building can easily be designed compared to the informal component that does not have a fixed programme. The open-ended approach presents buildings as adaptable containers for a variety of activities. Certain parts of the building are free from architecture, allowing transformation and appropriation to happen.

Using Rapoport's approach to design for cultural pluralism and the collective form concept can be the ideal towards aiding the political process of liberalisation i.e. abolishing social segregation through architecture. Developing strategies to organise interdependence between formal shops and informal traders (two conflicting groups) and accommodating them in a larger entity, the concept can be adopted for future socio-inclusive commercial precincts and malls in cities.

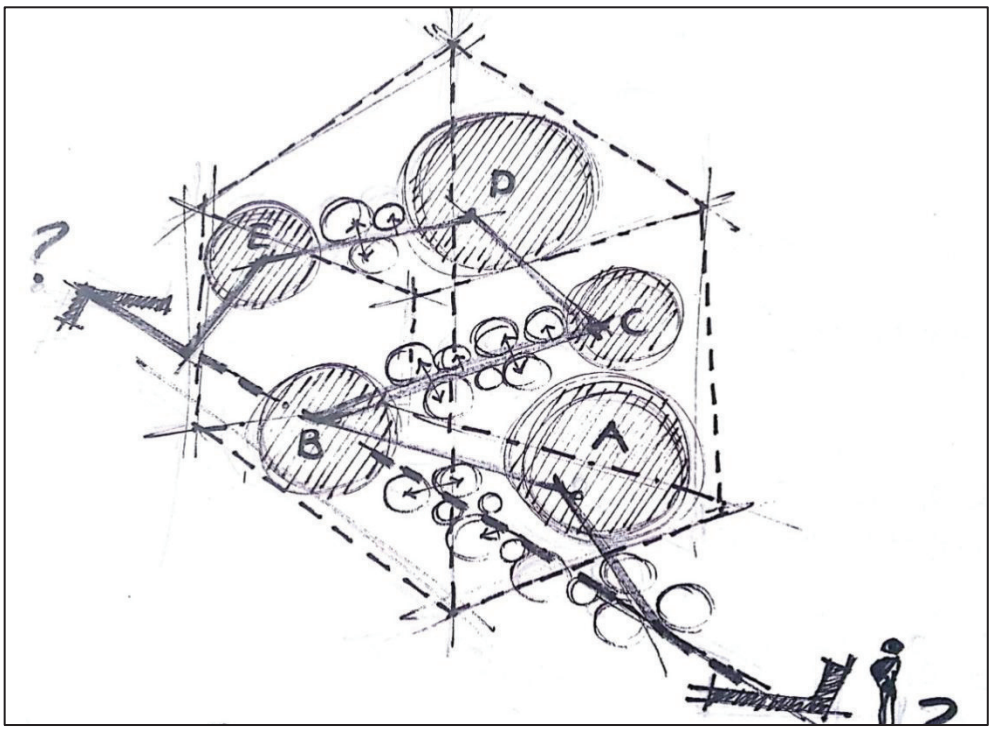

Fig 4.2.3: Integrated experience on multiple level buildings. Where A, B, C, D magnet functions influence pedestrian movement patterns which smaller systems can depend on.

(Source: by Author)

4.3 ENVIRONMENT OF AFFORDANCES

4.3.1 Introduction

Location of trading site is a crucial determinant of a street vendor's income, and a move of even a few meters can drastically reduce their daily earnings. The location on pedestrian routes and good pedestrian access are thus crucial to the success of street markets. Researchers in the domain of inclusive design of streets have shown that it is possible to accommodate street vendors on-street with good pedestrian access and coexist harmoniously with various forms of formal trading. The aim of this section is to develop space sharing methods for providing inner-city walkways and streets and building interfaces with due provision for street vendors.

The research considered the "affordance" of elements of the built form to be a set of all potential human behaviours that the elements might allow. Buildings have many high level affordances including affording shelter to occupants from the exterior environment,

affording aesthetics to occupants and passers-by, affording storage of goods, and affording comfort to occupants through climate control. “Meaning” can also be considered an affordance dependant on physical form and architectural elements and the experiences, preferences, values and beliefs of the user. It has been noted that the street as a public space is a space of difference and needs to be designed to enable multiplicity of activities. The following section reviews literature on efforts made to design city blocks and movement paths or streets meaningful to the street traders.

4.3.2 Street traders behaviours and design propositions

Street trading encompasses many diverse typologies of informal exchanges happening on the streets. The question here is: “Among all these diverse typologies, how then does one establish a set of human behaviours for which to design?” Chu (2010:p 48), in the design proposal for informal traders at Ben Than Market, approaches this problem by analysing the typologies of street vending and the street traders’ body relationship to the street and to the customers on the pavements as well as how the vending furniture is used. Following the criteria in Illustration 4.2.3, street vending is narrowed down to fixed and itinerant, and to four categories of vending furniture usage- mat/ ground vending, vertical/hanging, shelving and kiosk/stand. These are further broken down into the categories of stand, sit, and squat. Design propositions can then aim at affording these behaviours to happen in public spaces (refer to Figure 4.2.4).

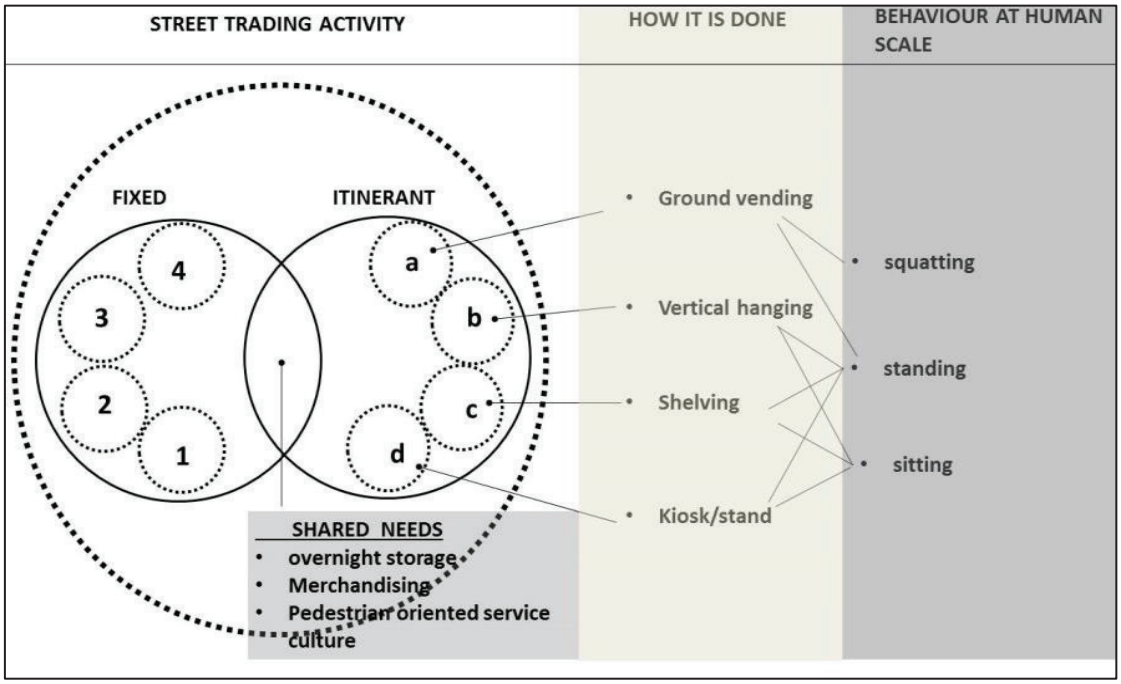

Illustration 4.2.3. Generalised diagram showing common typologies of exchange in "street trading" and the behaviours at human scale for which to design

Source by Author; after Chu (2010: p 43).

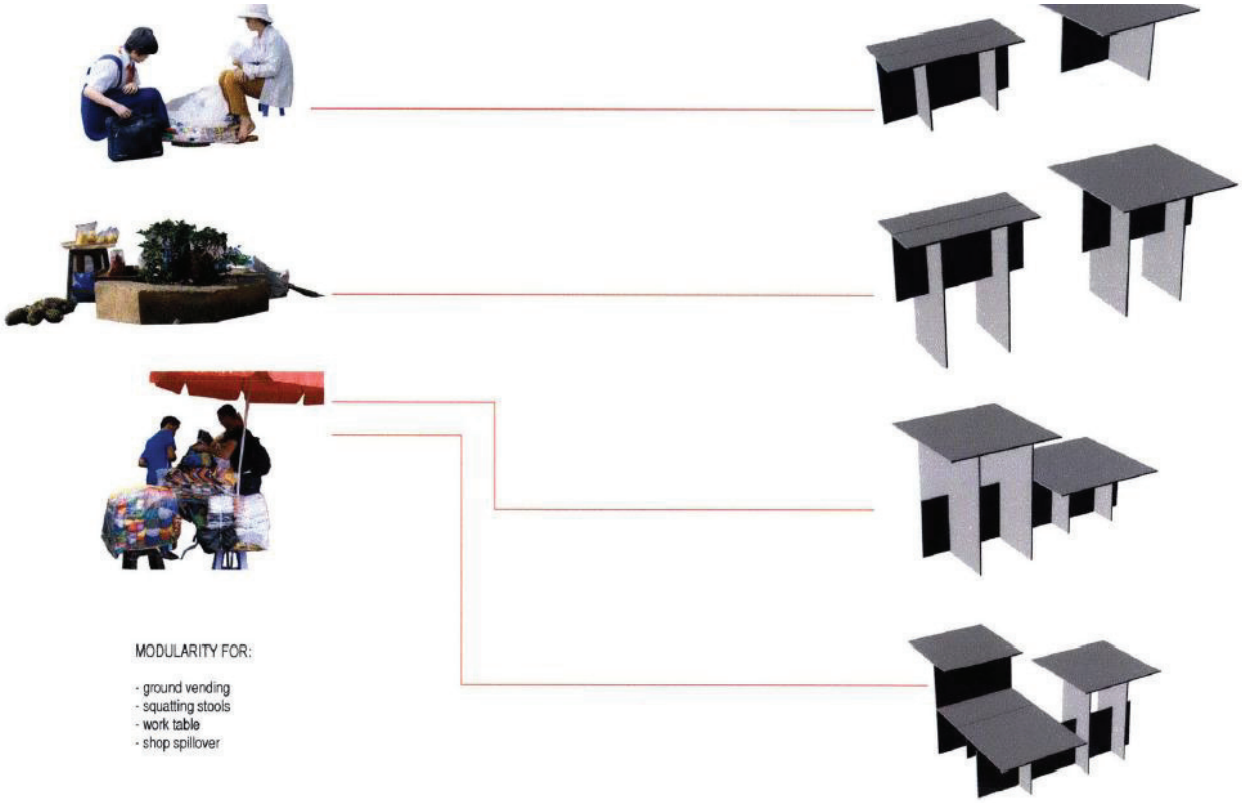

Fig4.2.4 . Design propositions for street traders informed by trader's body relationship to the street and to the customer

Source (Chu ,2010: p 46)

Fig 4.2.5: Platforms for street traders using mats. Jamalpur market, Ahmedabad, India

Source :Centre for Urban Equity (CUE), 2014

4.3.3 Street space sharing strategies

The Centre for Urban Equity, University of Ahmedabad, did an inclusive design guide for street vendors in India. In their work, inclusive design means making use of existing space through better space management or time-sharing (e.g. evening and Sunday market). Their works suggests that the most common problems caused by street traders on commercial pavements are a result of unorganised layouts. If traders in these spaces are rearranged, better space sharing between street traders, formal retail outlets, pedestrians and other street users, can be achieved.

The "street" definition adopted in chapter three of the research advances an idea that the street should be viewed as a volume not an area. The viability of the street, especially for retailers and merchandising, is dependent on the right kind of architecture, its vertical and horizontal context and the right kind of humanity. Space sharing in this case should mean "harmonious co-existence of street traders and formal shops". Space sharing should eradicate the known conflicts between formal and informal trading practices. (Refer to Illustration 4.2.4). What modifications can be done on street facing facades of buildings to afford other street oriented activities like street trading to happen along the street?

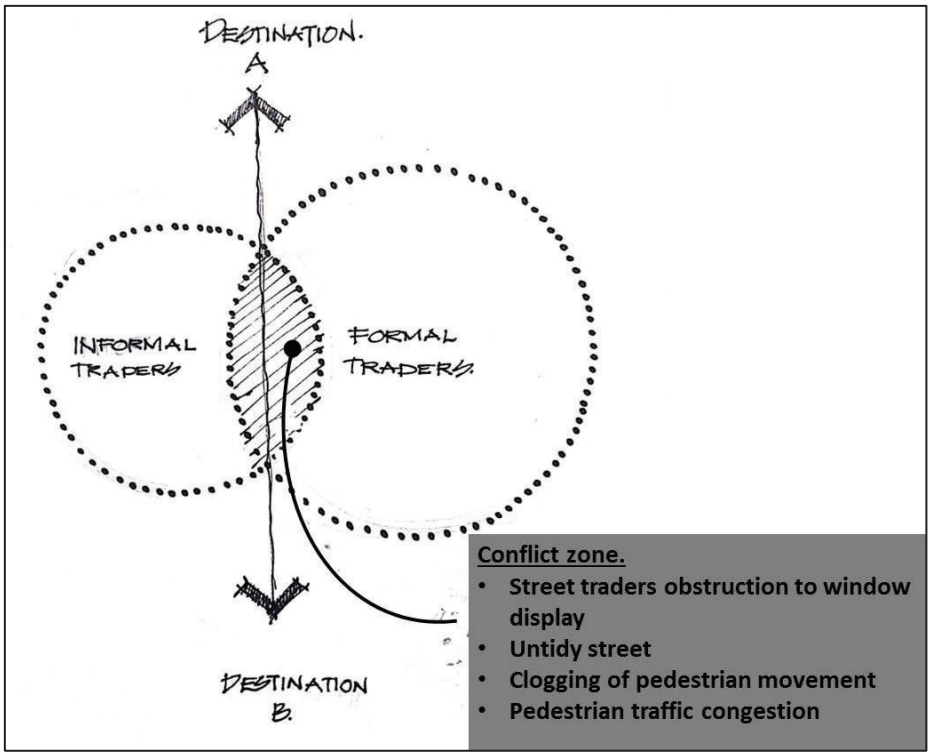

Illustration 4.2.4. The area of conflict between formal and informal traders

Source :By Author

Dovey (2015), inspired by Gehl and Jacobs, advocates for interfaces to be added to the list of urban design analysis as they offer the possibility of space sharing in innercities. Public-private interface porosity is described by Dovey (2015:p) as a quality whereby private space becomes an extension of the street and vice versa. Benjamin and Lacis argue that this quality is a resource in the midst of poverty. The validity of this argument is evident in the way street traders make use of doorways, gateways, stoeps, windowsills and fences of buildings or property along the commercial streets. In recent years, urban design codes are enforcing eradication of blank interfaces in most cities by increasing public-private porosity. Building typologies and functions that don't require display spaces along their facades can design the impermeable/blank interfaces along streets to offer affordances for other potential uses e.g. sitting or bays or stalls for street traders (Refer to Fig 4.3.1).

Fig 4.3.1Spar Gmunde, grocery store exterior with integrated street furniture

Source: www.archivitamins.com: Retrieved August 2016

Fig 4.3.2Store front gallery facade challenges the distinction betweenpublic & private space.

Source: www.pinterest.com:Retrieved June 2016

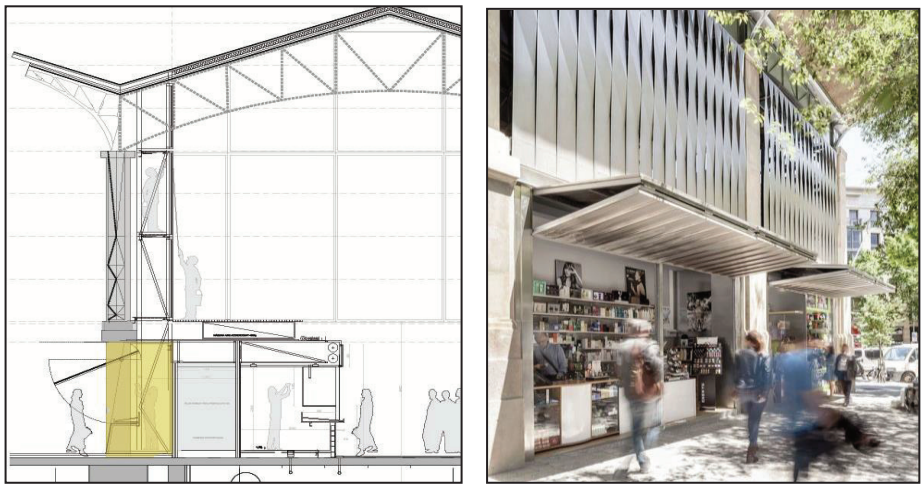

Fig 4.3.3 Lockable stalls curved into the city block walls

Source:www.pinterest.com

Fig 4.3.4 A street lined with lockable stalls

Source: www.pintretest.compinterest check spelling

This approach only works in cases where the property owner whose operations don't need exterior display space e.g. supermarkets, wholesalers or manufacturing, offers the blank facades of their shop to be designed to accommodate street vendors. One poses a question about the kind of public–public interface space sharing that can be done on direct/transparent interfaces to accommodate street traders, at the same time enabling effective shopfront display for the shops.

Not all street traders require fixed stations as assumed in the section above. Most of the street traders are illegal, unstable and dynamic. Their survival strategies have been

understood through the concept of strategies and tactics. They continuously move around to avoid law enforcement officers. Designing an environment for such activities are not easy. Yatmo and Atmodiwirjo (2011) are amongst the few who have contributed towards the literature on designing for this type of street vendor. Their work builds on the concept of open-ended design and Bunschoten's concept of metaspaces and public gallery. Public gallery in their understanding is a fluid form of public space that evolves over time, gaining different, definitions of public space and ways of participation in it. He views street venders as players who continuously manoeuvre within public space. The space allows more freedom.

Pushing up a floor or more above street level creates what Renzo Piano calls the "urban layer", whereby the ground floor is devoted to public activity. The ground floor becomes a hybrid space filled with retail, restaurants, galleries and performance spaces and street trading accessible to all.

4.3.5 St.Lawrence Market, North Building, Toronto

Source: www.pinterest.com.

4.4 CONCLUSION

The characteristics of formal and the informal traders differ in that the former is a more organised system and has clear set rules of operation and programming that makes it easy to design for while the latter is the opposite and is difficult to design for. Open ended design is a design method which determines certain parts of the building allowing other parts, including unforeseen ones, to happen spontaneously. The approach can be used to conceptualise a built form that houses fixed and ever-changing activities. The framework in

open design is the component that least needs to be designed or fixed to lead to specified results.

Creating an environment for harmonious coexistence of formal and informal traders involves the establishment of interdependence between the two discrete groups. Unique features of formal retailers and street traders that exist and the corresponding variety of environments, need to be identified. One needs to understand why they are different, in what ways they differ, what are the critical differences – and which differences are secondary. Studying the commonalities will reveal the common or overlapping characteristics, which will provide the overall built form and common elements while the uniqueness provides the specific variabilities (Rapoport, 1970).

Retail activities (street traders and formal retail outlets), are strongly dependent on the foot traffic along the streets and walkways. This qualifies the pedestrian movement system to be used as a design tool to create a valid framework for environments where street traders and formal retailers are meant to coexist. Access to high volumes of footfall is a key factor in the success of formal and informal trade institutions. Using linkage as a sequential path i.e. arranging parts of multi-use buildings in a sequence of useful activity with the explicit intentionto influence behaviour, will propel foot traffic along a designed path and equally expose shops and vending activities to potential customers on the foot traffic paths.

Space sharing in the chapter was interpreted to mean “harmonious co-existence of street traders and formal shops”. Space sharing should eradicate known conflicts between formal and informal trading practices. What modifications can be done on street facing facades to afford street trading to happen along the street without inconveniencing the operations of formal retailers? Innovative examples of street sharing strategies include the use of transforming walls, street furniture integrated into walls and lockable stalls curved into walls of buildings.

CHAPTER FIVE

DESIGNING FOR DIVERSE LIFESTYLE COHABITATION

5.1 INTRODUCTION

This chapter presents a precedent study that was selected from existing international buildings from across the world. The key objective here is to observe how people outside South Africa have dealt with the different theories that were discussed in the previous chapters.

5.2 OPEN DESIGN APROACH:ELS ENCANTS MARKET, BARCELONA

Architect:b720 FermínVarquez

Client:The Barcelona City Council

Project year: 2013

5.2.1 Introduction and Justification

The precedent was selected because it was conceptualised using most of the theories discussed in the previous chapter. The aim of the design was to create a successful market. The success of a marketplace lies in the design matching the preference system of all types of traders. The market is also a product of "open-ended design approach" – in which certain components of the building are fixed and others are intentionally left open for the inhabitants to appropriate them to suite their preferences. The precedent was successful in manipulating the concept of "the sequential path" to create an ideal trading environment.

5.2.2 Location and Historical background

Figure 5.2.1: Location ofElsEncants Market, Barcelona, Spain

Source:www.www.customaps.com: Retrieved August 2016

Figure 5.2.2: Arial view ofElsEncants Market, Barcelona, Spain

Source: wwww.dreamstime.com: Retrieved August 2016

ElsEncants market is located in Avinguda Meridiana, Barcelona in Spain. The famous informal market in Barcelona is famous for antiques and reclaimed goods. Its main characteristics are its informality and transitoriness (www.publicspace.org: accessed August 2016). The market has operated from different locations in Barcelona and maintained the same mane for more than five centuries. It has also retained an informal and unregulated character. The last site of operation was a vacant ground measuring around fifteen thousand square metres, on a hollow which didn't sit well with its context. In 1928, at a time when the city was preparing to host the World's Fair, the market was relocated to the Plaça de les Glòries, a square which needed urban design attention.

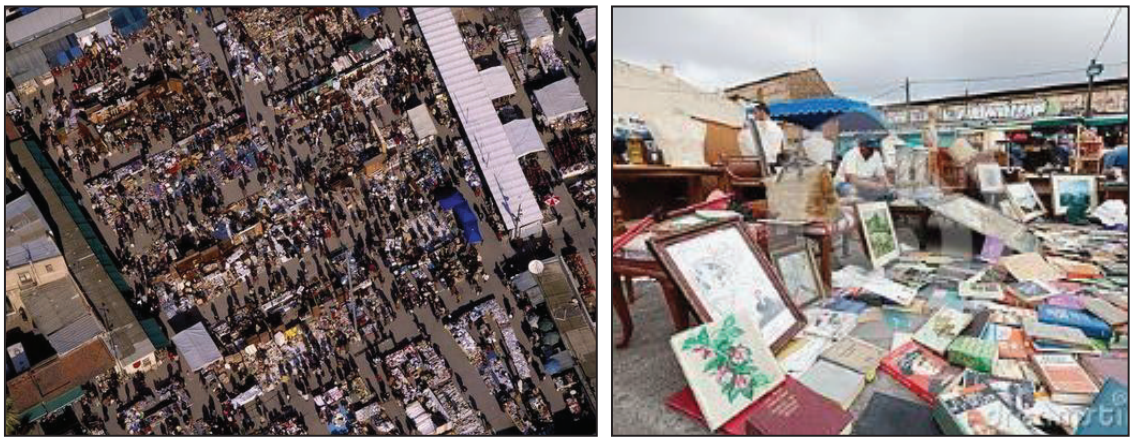

Figure5.2.3Theold ElsEncants market

Source: www.dreamstime.com: Retrieved August 2016

The area around the ElsEncants underwent many changes to secure the value of the properties around which included prominent buildings like the national Theatre of Catalonia, the Design Museum and the Torre Agbar skyscraper. This presented uncertainty for the future of the rundown installations of the ElsEncants. In 2008, the Barcelona City Council decided to incorporate the ElsEncants into the new Les Glories. This decision was initially aimed at upgrading the existing ElsEncants installations to satisfy present day urban design standards. The new market site is half the size of the old one. The biggest challenge was to work out a way of accommodating all the stallholders from the old site.

The designer aspired more than just to create a building that is new, functional and attractive. The building had to be compatible with user group identity, lifestyle and preferences. The motives, group concerns, and environment quality perceptions of informal traders were taken into consideration. This was achieved through involving all stakeholders, including the users, in the decision making processes (www.dreamstime.com).

5.2.3 Open Ended design Approach

The building was conceptualised as an architectural container encompassing visual coherence and programmatic flexibility. Part of the building is free form architecture, allowing room for change or transformation adaptation and transformation and appropriation. The material used and the aesthetics are directly related to programmatic flexibility.

The framework: the sequential path

Foot traffic movement pattern was identified as a pillar for the survival of informal vendors and shops. The designer's explicit intention was to influence foot traffic patterns and direct people's movement for strategic reasons. This was achieved by arranging the activity settings in a way that creates a certain shopper's movement pattern. The architect used the settings in two forms: magnets and those that exist along the movement path.

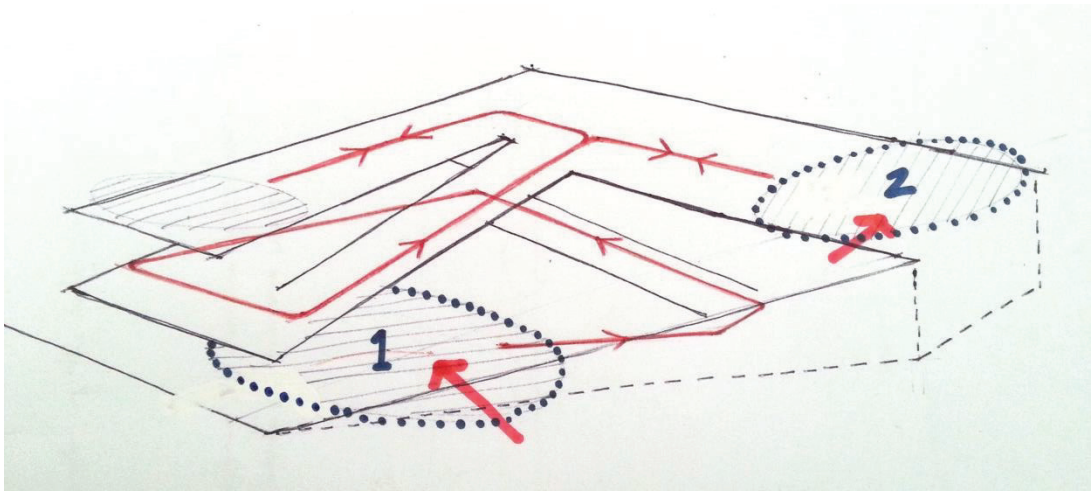

Illustration 5.2.1: The *sequential path* as a framework for the design

Source: by Author

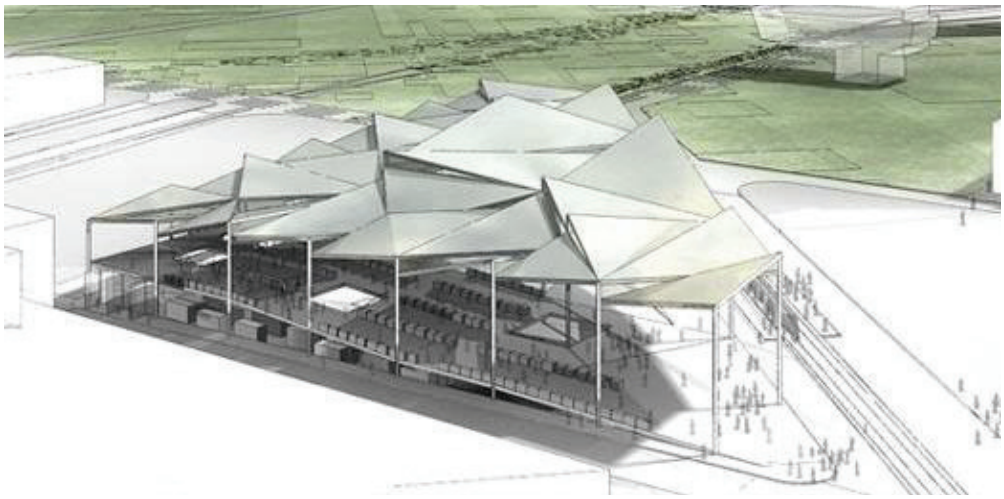

Figure 5.2.4The old ElsEncants market

Source: www.dreamstime.com: Retrieved August 2016

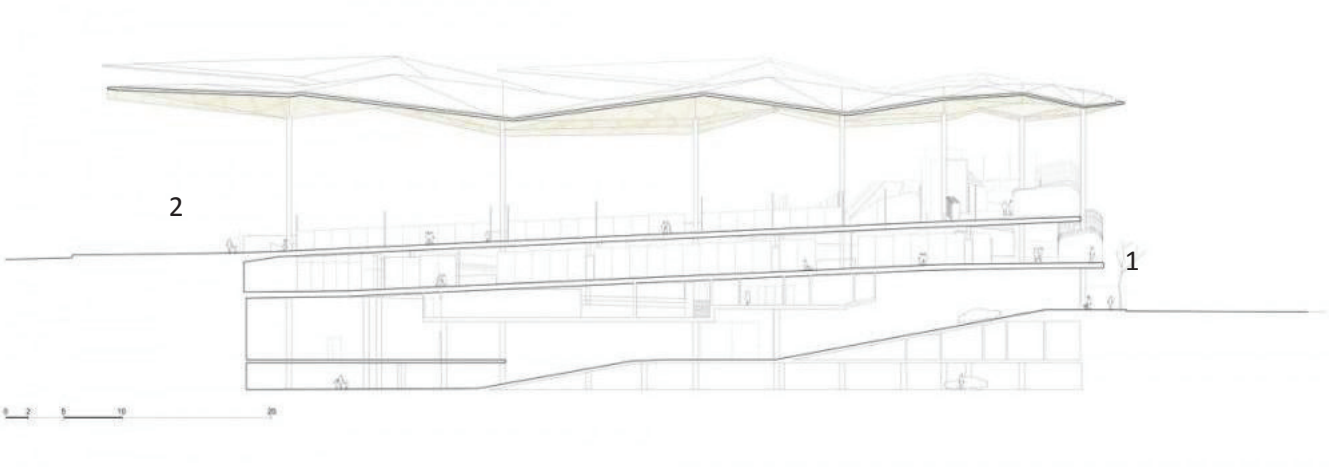

Figure 5.2.5: Cross Section through the Market

Base Source:www.archdaily.com:RetreaRetrieved August 2016

Access point 1 and 2 shown in illustration 5.2.1 are the magnets or destination points for shoppers within the building. "1" is a lower access point and "2" is the upper entrance point. Pedestrians are drawn in from the two entrances, move through a continuous multi-level platform or commercial plaza, and activate or feed the different parts of the programme (Refer to Illustration 5.2.2). The main objective of the project is to mimic the experience of shopping on a pedestrian street and maintain the open character of the traditional market (www.archdaily.com). It's a different approach from the conventional shopping centre structure made up of several floors.

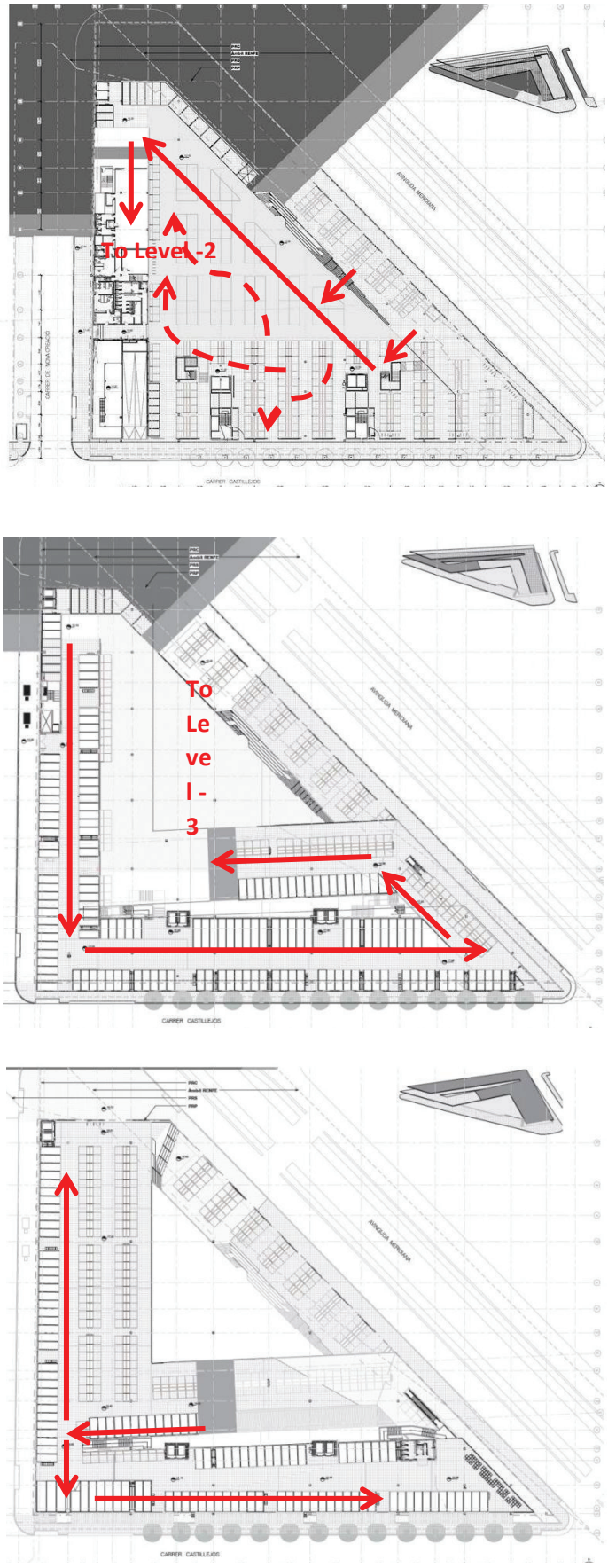

Illustration5.2.2: Floor Plans and the Pedestrian movement along the *sequential path*.

Base Source:www.publicspace.org.RetreaRetrievedAugust 2016

5.2.4 An environment of affordances: flexibility and open aesthetics

While the form of the building serves the purpose of influencing pedestrian movement patterns to activate all parts of the market, it also allows some of the parts to be changed and appropriated by the users. The designers did not try to sanitise the market too much. The materials and aesthetics used are directly related to programmatic flexibility. The market appears to have a variety of options for traders:

- Open floor areas – the architect left these unplanned. These areas are open for traders to freely appropriate them using their tactics to suite their behavioural patterns. Goods are laid out by the traders in an ad-hoc manner, sometimes using tables, sometimes using the floor (Refer to Figure 5.2.6)
- Areas with roller door storage boxes at the back and tables at the front. (Refer to Figure 5.2.7).
- Aisles of lock-up shops.(Refer to fig 5.2.8)

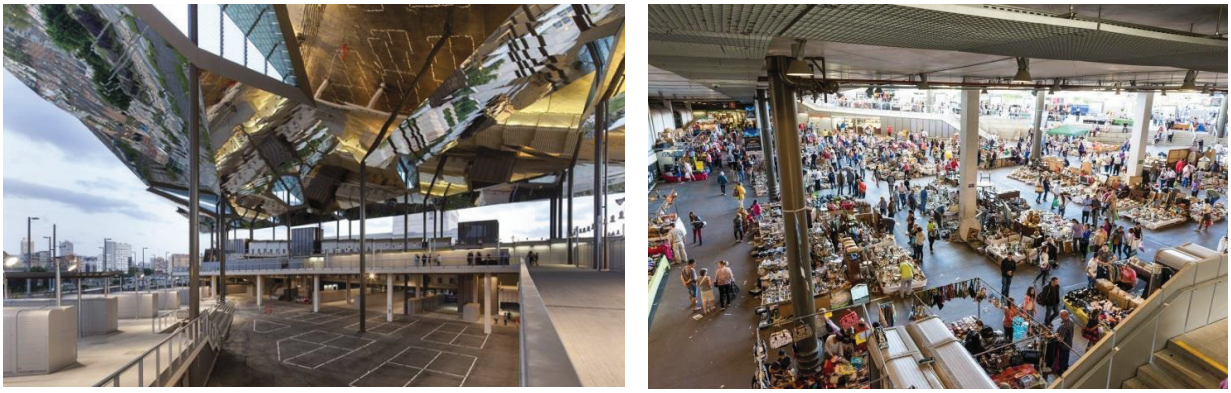

Figure 5.2.6: the open floor areas

Source: www.publicspace.org: Retrieved August 2016

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Figure 5.2.7 Areas with roller door storage boxes and tables at front

Source: www.archdaily.com (date of retrieval?) check dates in all cases.

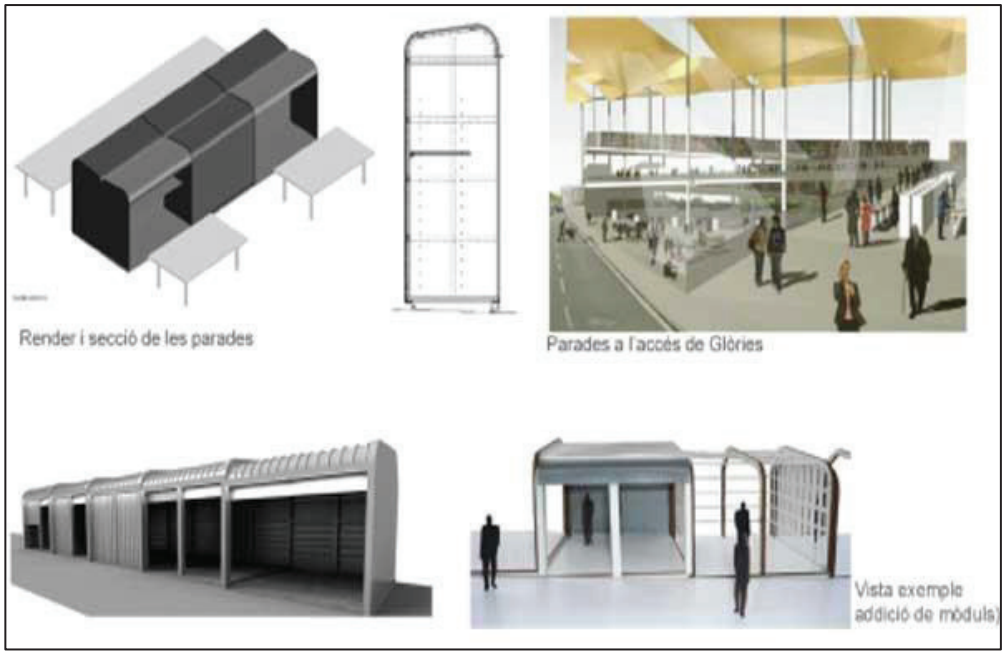

Figure 5.2.8 Mobile cabins and cabinets made from lightweight metal

Source: www.archdaily.com

The roof of the market is a 25m high, giant porch which acts as a cover sheltering the market from the weather elements. The architect adds that the roof also plays the role of linking the building and the city. Its reflective soffit material reflects the surrounding buildings, parks and traffic and the bustling activity of the market. The over scaled height of the roof is a usual mechanism of representation of large facilities like markets or train stations.

Figure 5.1.9: view of the market from the street.

Source: www.publicspace.org

5.2.4 Conclusion

The design of the Encants market resembles the open ended design approach as recommended by Rapoport et al in the previous chapter. The framework built on using the link as a design tool was successful as the new Encants market has doubled the number of its visitors (http://architecture.mapolismagazin.com).date of retrieval

CHAPTER SIX

SYSTEM INTERDEPENDENCY AS A DRIVER FOR INCLUSIVE BUILTFORM

6.1 INTRODUCTION

6.2 METRO MALL TRANSPORT FACILITY AND TRADERS' MARKETJOHANNESBURG , GAUTENG

Architect: Urban Solutions – Architects and Urban Designers
Client: Johannesburg Municipality
Construction date: 2003

6.2.1 Introduction and Justification

The development aimed at accommodating and supporting different programmes or activity settings within the same megastructure. It had to support the informal economic activities that existed on the site before the development, at the sometime creating a formal interchange and formal retail spaces. The built form had to reconcile the two (seemingly conflicting) formal and informal trade activity systems. This is the main reason for the selection of the building as a relevant case study for this research. As shall be highlighted later in this section, the building bares a lot of the design principles that have been discussed in chapter four.

6.2.2 Location and Social context

The building is located in Newtown, Johannesburg, South Africa close to the Johannesburg CBD. The city authorities decided to develop the site into a trade-hub and formal transport interchange as the site was being used informally for the same purposes. This meant that the built form had to find a balance between integrating itself with the formal context whilst supporting the informal activities that took place on the site before it was developed. It is a collective form in the sense that, accommodating different elements with different identities, it attempts to integrate them under the same roof. The Metro Mall, on three levels and taking a whole block, is designed to accommodate 25 buses serving 35 different routes, with holding facilities for 3 000 taxis, servicing an estimated 500 000 commuters daily. There's space for some 800 traders, inside and outside the building. (http://journalism.co.za)

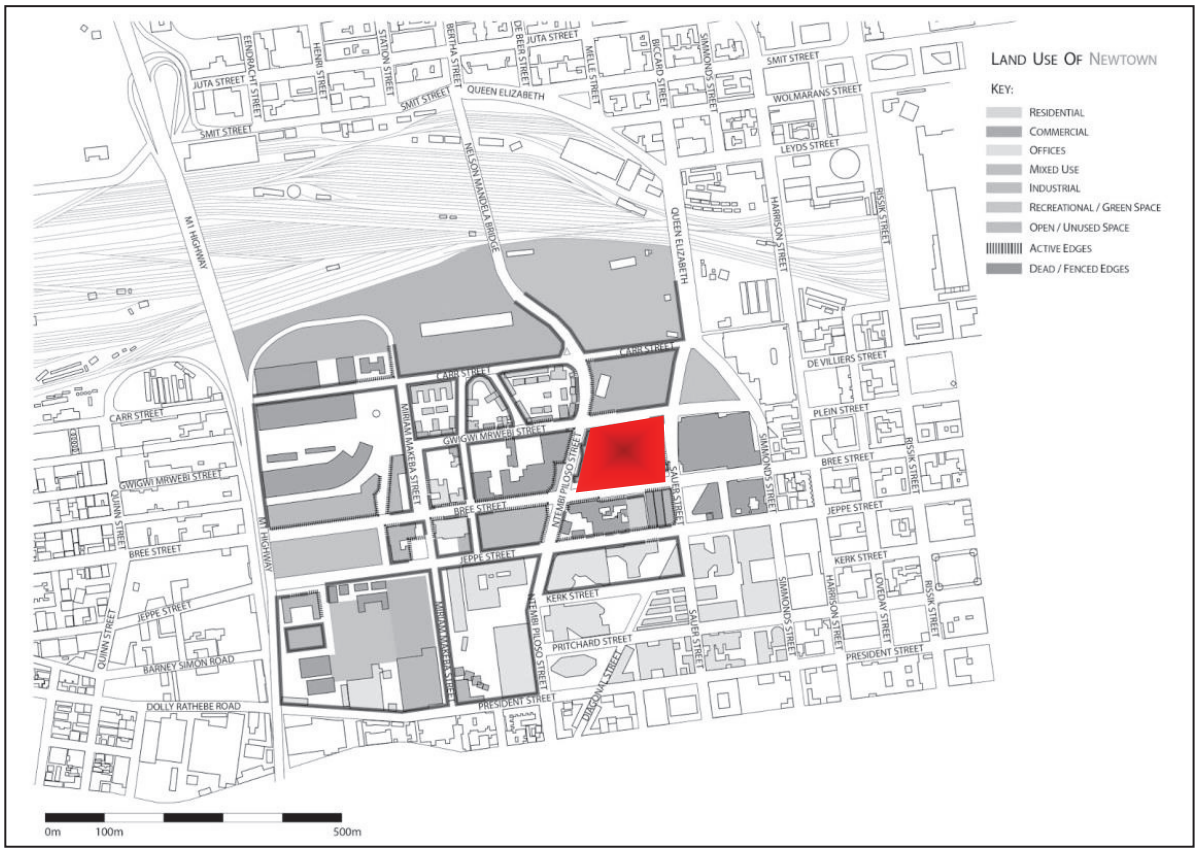

Figure6.2.1: Location of the development within the Newtown cultural precinct.

(Source: www.rudi.net/images)

6.2.3 Participatory approach

The project team had to engage with the users of the site during the design stages of the project to understand the dynamics of informal trade activities. The design team had to understand informal trading activities, how they are carried out and how they are associated with other activities. By looking at the relationship the participants in informal activities have with the location, the design team was able to understand the various tactics that they have adopted and developed to find a space for themselves within the formal city. The "street" came out as the most important part of the formal city that the informal traders could manipulate to suit their needs. The design approach follows the character of the streets that accommodate informal traders. The city is a network of movement corridors, where traders take advantage of movement to sell their wares, and spaces are contested, especially along dense movement routes (Ncube, 2014). This meant that whilst they meant to incorporate formal functions within the building and link the built form to its formal context, they also had to make sure

that the building did not take away the important movement corridors that the informal traders were able to take advantage of (Ncube, 2014, p 64).

6.2.4 The Megastructure: Movement system as a design tool

Transport facilities are located in the core of the building and this has benefits as it keeps the taxis away from the street edge thus reducing the traffic that might be caused by the taxi rank. The commercial retail component is located along the streets (illustration 6.2.1). Offices and other ancillary spaces are located above the street level looking down onto the streets. Pedestrian movement system as a design tool is shown through the use of the sequential path concept. This is the systematic way that the different components of the building are integrated within a mega structure. The architect understood that informal traders depend on foot traffic movement to sell their goods and the highest volumes of foot traffic are experienced along the pedestrian or street edges. This idea is reintroduced in the design in a formal way. The building has internal streets that feed the layers of informal trader's spaces and formal retail stores (illustration 6.2.1). The taxi rank facility acts as the destination point and magnet that pulls people in. The pedestrian traffic is channelled through the internal streets from the entry points to the taxi rank and vice versa. The high volumes of traffic flow along the internal streets provides an ideal business environment for the informal and formal traders along the path.

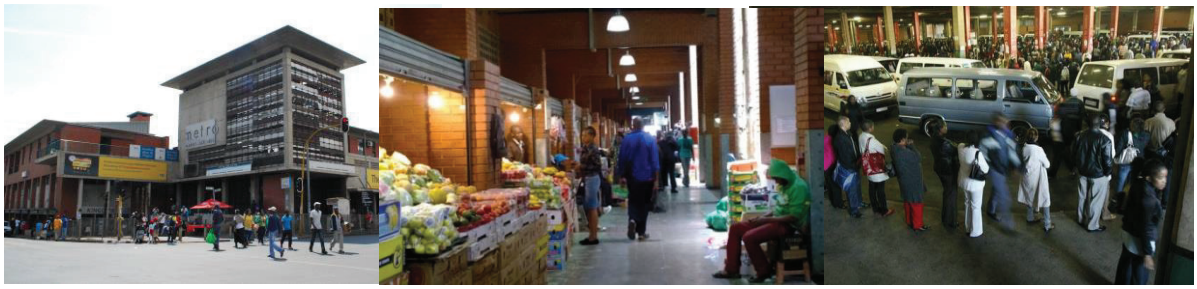

Figure 6.2.2: Experience from the entrance through the internal streets to the taxi rank

(Source: by Author)

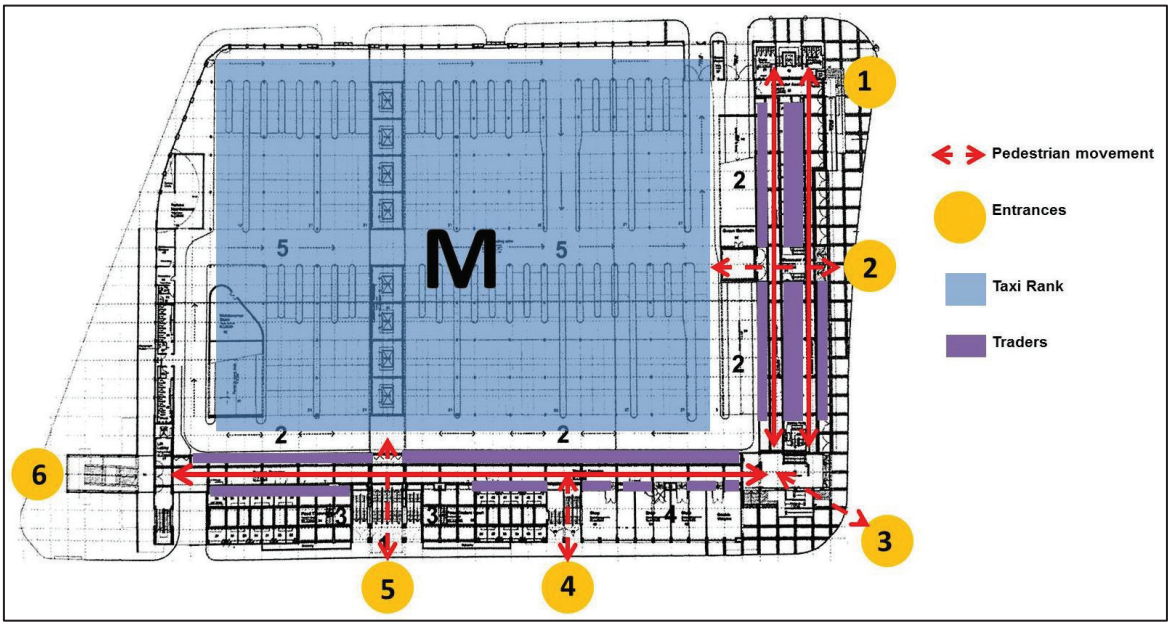

Illustration 6.2.1: Plan of the building showing the configuration of spaces

(Source: www.rudi.net/images)

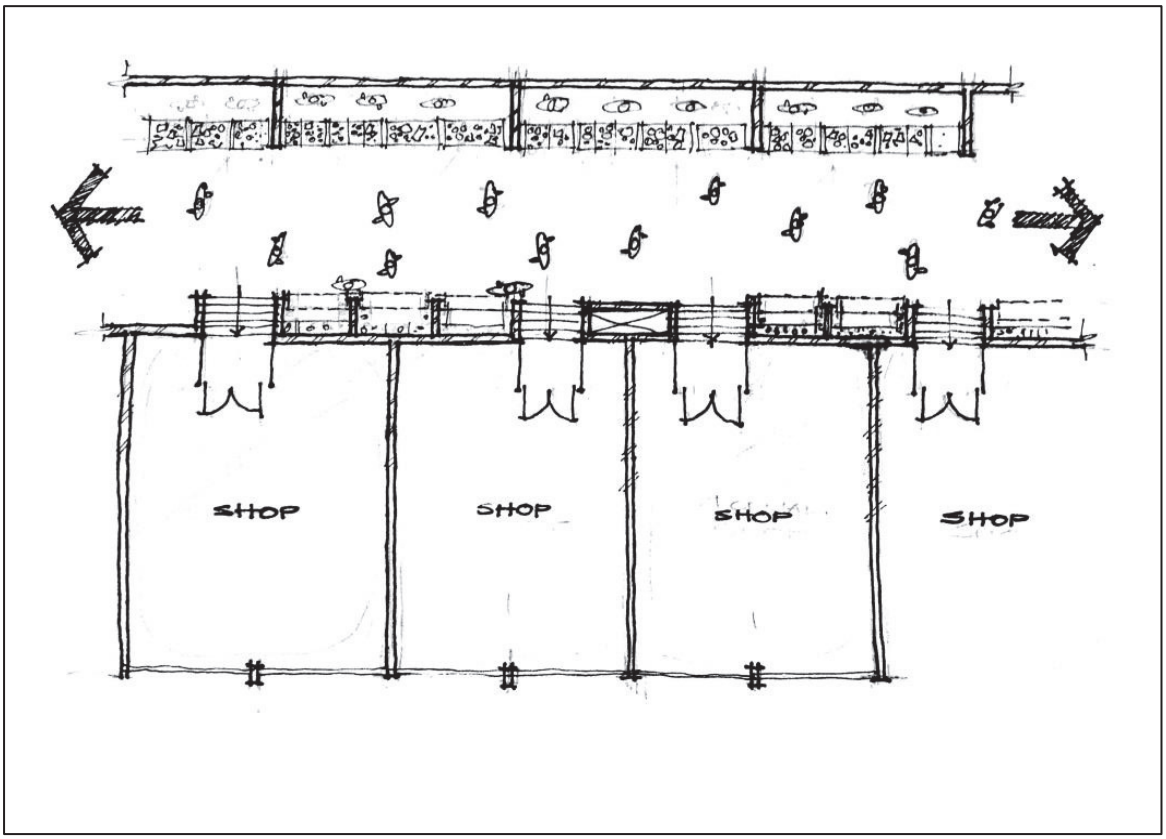

Illustration 6.2.2: Retail shops and vendors' space sharing along the internal streets

(Source: buy Author)

6.2.5 Provision for traders

In addition to the creation of the foot traffic rich interior streets, an ideal enironment for street traders' vending activities, traders are given a variety of retail areas to choose from, a floor stall with a concrete counter is the most basic. Larger cubicles with roller shutters are intermediate, and larger service shops accommodating fast food stalls and hairdressers are the advanced option.

Figure 6.2.4: Views of the internal streets

(Source: by Author)

6.2.6 Conclusion

The designers were tasked with the challenge of finding a balance between making the built form formal enough to link into its existing formal context whilst making it informal enough to accommodate the informal traders that occupied the site before the building was developed.

To achieve this, the design establishes interdependence between the functions to be accommodated in the building. The taxi rank acts a magnet that draws pedestrians into the building. Formal and informal traders are lined up along the streams of pedestrian paths to have equal access to potential customers. The spatial relationship between formal retailers and street traders observed from the streets was mimicked and used as a strategy for creating an environment where the two institutions can harmoniously coexist. The support structure itself lacks flexibility. It doesn't allow informal traders to apply their tactics of urban informality to rearrange the space in a way that suites their behavioural patterns.

6.3 LESSONS FROM A CONTESTED COMMERCIAL STREET: PHILA NDWANDWE ROAD: ISIPINGO RAIL

6.3.1 Introduction

This mainly involved conducting qualitative surveys to understand the following:

- social background and needs of street vendors
- the basic systems of street trade activities
- the opinions of formal traders and pedestrians about street vending and its usefulness

6.3.2 Location and historical background

Isipingo is a town approximately 15kilometres south of Durban's CBD. It is accessible through the R102 and N2 freeway. The area was inhabited by the Khoisan in the 1800, the Zulus in the 1820s and as a sugar production area in 1843 (Hellal-Bhora, 2013).

The Apartheid planning system created divisions in the area. The Isipingo beach area along the east coast was secluded and habited by only whites (refer to Figure 7.. Isipingo rail and Isipingo beach to the west of the N2 freeway where the Indians, who were forcefully removed from other parts of KwaZulu-Natal. Rapid urbanisation pressured the white population to relocate to surrounding areas such as Amanzimtoti, leaving behind most of Isipingo to Indian domination. The group realised the economic potential of the area, taking advantage of its accessibility and the increase in the volume of people into the area. By 1919, the Indian community had formed the Isipingo Indian Society, later to become the Indian Civic Association (Hellal-Bhora, 2013).Trading began with fruit, vegetable and livestock but led to the arrival of tailors, supermarkets and eventually current trends that include industrial activities. The rail facility stimulated further economic opportunities due to the large volumes of people it brought into the area, and the local municipality began investing in the area by providing housing for the residents. Hence, Isipingo became a convenient economic and social hub, and has since become a thriving town centre.

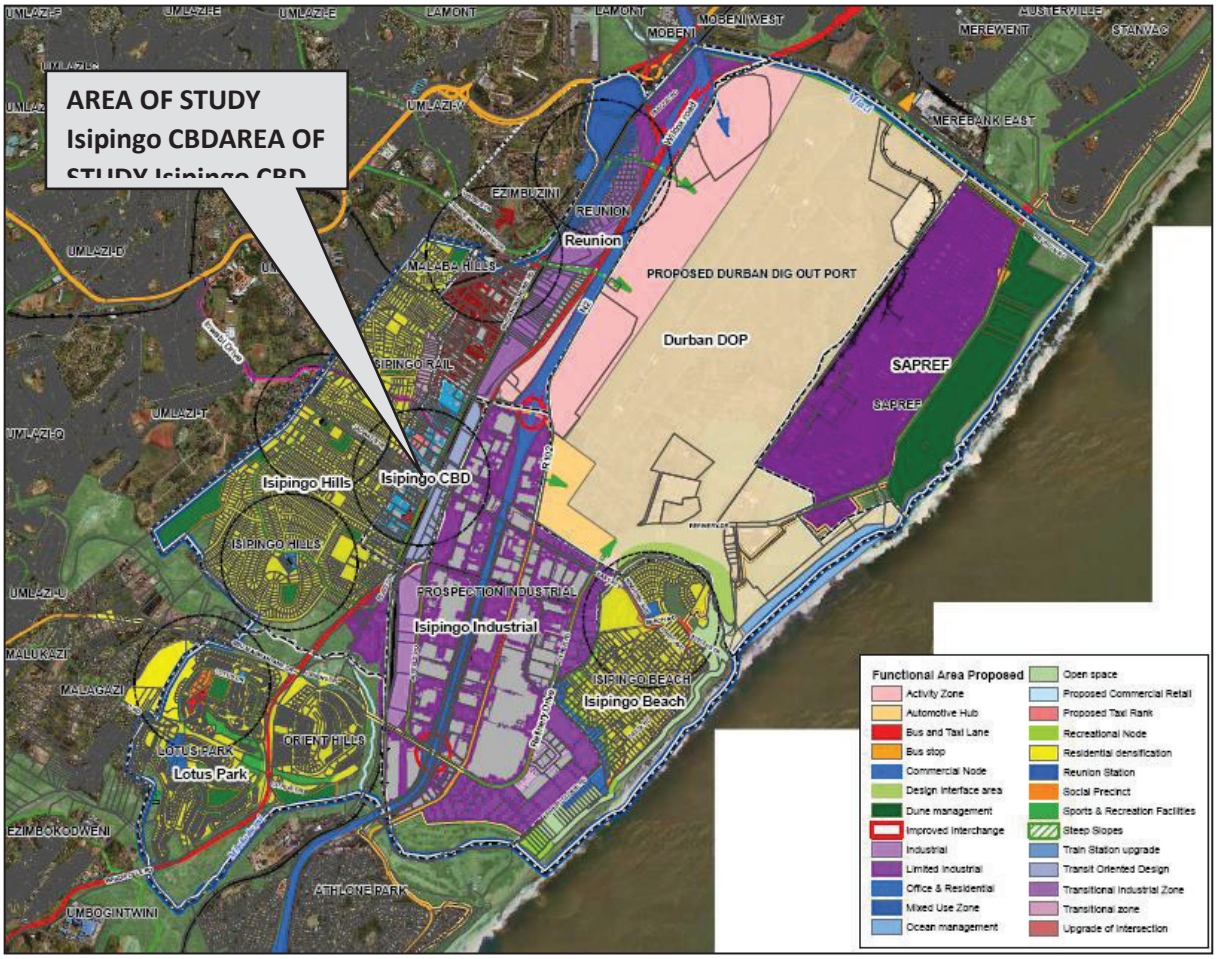

Fig 7.1.1 Location of study"Isipingo Rail"

Source: eThekwini Spatial development framework, 2016

The Isipingo town centre is located in the area commonly known as Isipingo Rail. Isipingo Rail represents a major commercial and activity node, providing services to Umlazi, kwaMakhutha, Folweni and adjacent tribal communities. Metro-wide planning studies have in the past referred to it as one of the most important commercial centres in Durban. The situation in the area can be described as a dense and somewhat chaotic commercial and retail development, and the streets are heavily congested with shoppers, commuters (rushing to change modes of transport), informal traders and parked taxis. On first glance, it is apparent that the Isipingo town centre is not the most attractive urban environment. Refer to photographs below.

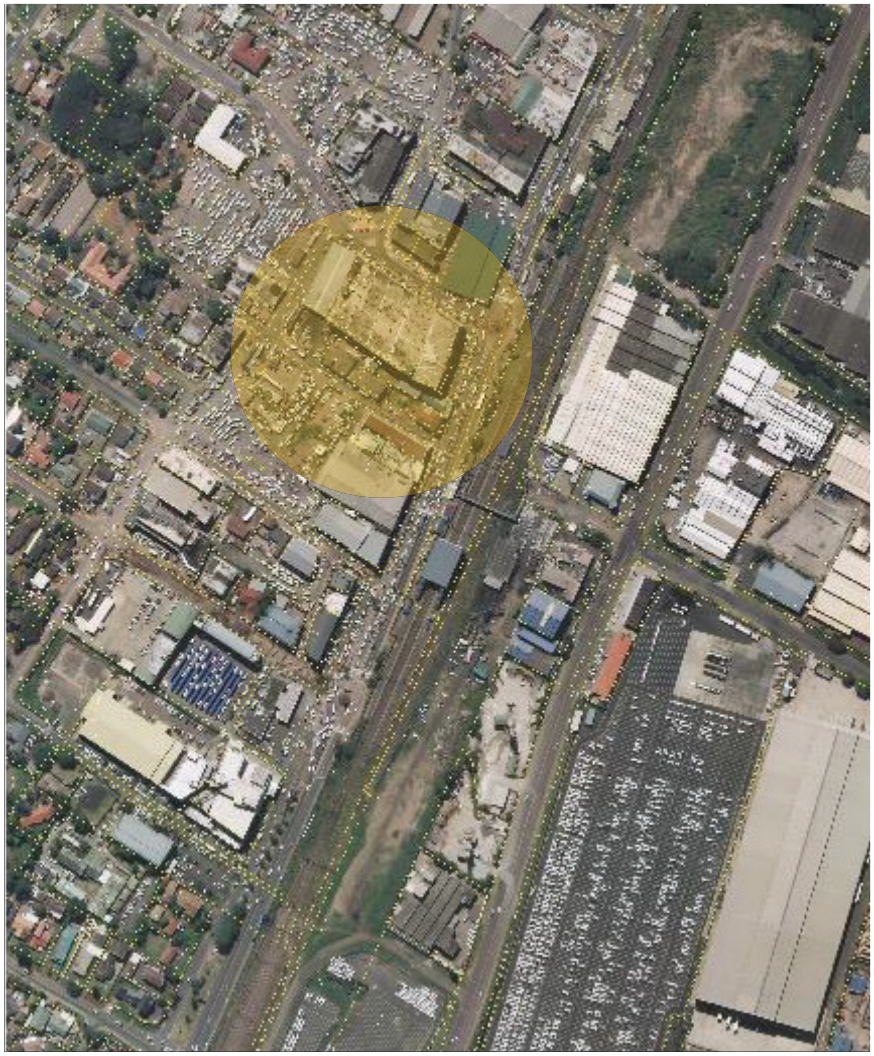

Fig 7.1.2: The scope of the study area

Source: Google Earth – Arial View

Figure 7.1.2 above, shows the extent of the case study area. The core study area is a block surrounded by the main links in the CBD, namely Phila Ndwandwe road in the East, Jadwa street in the North and Alexandra Avenue in the South.

Fig 7.1.3: Chaotic streetscape: The photograph above illustrates pedestrians patronising the informal traders along Old Main Road.

(Source: by Author)

Isipingo has experienced substantial expansion in its commercial / retail land use, drawing business not only from its rural hinterland but also large numbers of commuters who use Isipingo as a mode transfer facility, particularly between the taxi and rail system to eThekwini Central Business District and surrounds.

7.1.3 Discussion of findings

Findings from the street level show that there are different groups which comprise business owners and residents. The street vendors carry out different activities on the shared street and sidewalks, from walking and standing to bargaining between vendors and passers-by. The street is used for trading, as well as a way for pedestrian flow. Street intensity was observed to change at different times, following the rhythm of formal activities.

The heaviest pedestrian traffic flow is experienced in the morning (between 7am and 10am) and in the evening between 4 and 7pm) as people go to and from work along the green routes as seen in illustration 7.3.1. The informal vending activities begin as early as 6am following the increasing foot traffic of people going to work. Transient traders are seen selling breakfast to pedestrians going to work (cooked mealies and fat cakes, hot dogs, chips…etc). At 9am fixed vendors along Phila Ndwandwe are seen setting up: tomatoes, potatoes, green vegetables, traditional herbs etc. From 1pm – 2pm transients appear again on the pavements, with traders selling lunch to the residents and workers such as hot dogs, burgers, braaied meat and pap etc. Most formal retail shops open at 9am and close at 7pm.

The data analysis for the study area is classified into three sections:

- Street trader behavioural patterns, typologies of exchange
- The contextual analysis which includes the location of street vendors in relation to formal shops and pedestrian movement and the characteristics of the area occupied by street vendors.
- The opinions of other street users about street trading are expected to reveal the problems regarding and usefulness of the presence of street traders on the streets.

Street traders

This section discusses the findings regarding trader behavioural patterns, typologies of exchange, selection of trading sites and the implications of their spatial practices on other street users and formal traders. The observed behavioural patterns of the traders and their times of trade are summarised below.

Typologies of exchange	Types of goods sold	Activities involved	Times of work
Hanging rack	• Clothing and cosmetics	• On site storage • Display • Engagement with client • Overnight storage and transportation of goods	9am -7pm
Fixed stand	• Vegetables • Cosmetics • Clothing • Herbs	• On site storage • Display • Engagement with client • Overnight storage and transportation of goods	9am-7pm
Folding table	• Vegetables • Cosmetics • Clothing • Herbs	• On site storage • Display • Engagement with client • Overnight storage and transportation of goods	9am-7pm
Snack stand	• Fast food	• On site storage • Display / Food preparation /cooking • Engagement with client	5am – 10am 1pm-2pm 5pm-7pm
Ground plane	• Vegetables • Cosmetics • Clothing • Herbs	• On site storage • Display • Engagement with client • Overnight storage and transportation of goods.	

Table 6.3.1: Types and behavioural patterns of traders along PhilaNdwandwe Road
Source:by Author

Unlicensed itinerant traders were not comfortable with sharing their experiences. One that was interviewed mentioned that he prefers locations along busy street pavements where there is no control by security or shop owners. He then appropriates the space to display his merchandise on a mat; tables or by just simply putting it on the ground. These semi-fixed elements attract the passers-by who stop, look at and then buy the products.

The situation along the busiest street edges (Phila Ndwandwe Road), shows that the footpaths are wide enough, on an average about two and a half metres, for the pedestrian flow observed; but due to the presence of street vendors and other impediments, the actual space available is less and varies considerably. Often the pedestrians are forced to use the carriageway, as there is little or no space for them along the walkways. Detailed spatial configuration from street intensity at the three most active segments demonstrates that there are three spatial characteristics of space used by street traders. They are a) the edges– steps or entrance to the shop and space in between shops b) street corners - intersection of the streets c) space in front of blank walls or closed shops (refer to Illustration 7.3.1).

Opinions of formal traders about street trade.

Managers of big supermarkets and wholesalers within the study area do not see the presence of street traders in front of their shops as a threat to their business. This is because; they sell quality products in bulk, they have built a good reputation in the area, they are well- known brand names, are reliable and offer good customer service such as warranties and guarantees. They are a destination point for most pedestrians around the main commercial streets in the Isipingo Rail area. For some of the businesses, shopfront display (exterior merchandising),is not essential to their type of business therefore they are not affected by street trader spatial practices in front of their shops. The only negative opinion expressed by some of the shop owners was the issue of poor waste management practised by street traders.

Small to medium formal traders (hardware, grocery stores, boutiques and fast food outlets) expressed negative opinions about the presence of street traders in front of their shops. Complaints by most respondents included; unfair competition, obstructing shopfront displays/ exterior merchandising, poor waste management, clogging pavements and growing

crime rate. One retailer expressed concern that the behaviour of street traders is hostile to the elite class of shoppers.

In the case of fast food takeaways, according to one manager, a major draw card was that, "…we provide a conducive environment in which customers can sit down with their families to have their meals unlike these guys selling unhealthy food from dirty street pavements with no facilities for customers to relax while they enjoy their meals."

Contextual analysis

This section explores the spatial relationship between street trade and the formal retail market in its wider area and pedestrian traffic, looking at:

- Surrounding land uses (including generators of pedestrian traffic)
- Nearby landmarks that draw people to the area
- Understand spatial linkages (informal trade, formal trade and the customer's role in the urban retail hierarchy)

The aim here was to establish interdependency between formal and informal trade.

Transport nodes in the form of taxi ranks and large formal shops around the block (Jwayelani Supermarket, Cambridge Supermarket and Pick 'n' Win Supermarket), act as "magnets", influencing the movement pattern of pedestrians around the block as they act as a destination for most of the pedestrians interviewed on the streets. Street traders study the environment, especially the pedestrian behaviour patterns, and position themselves along the busy foot traffic routes.

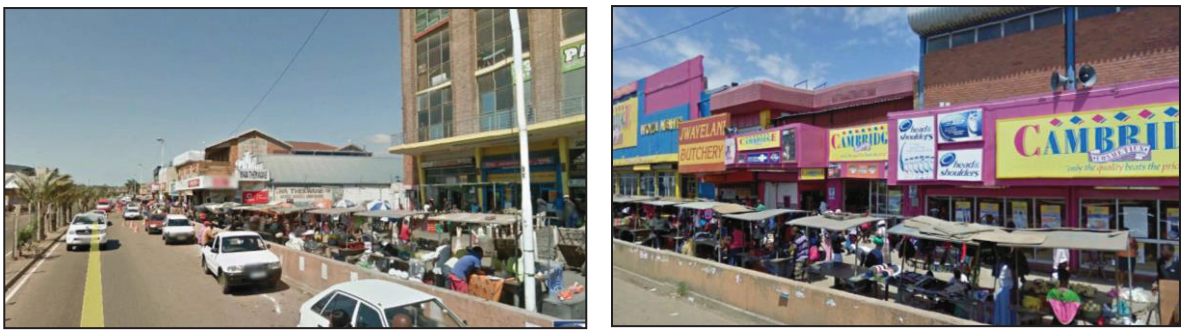

Figure 6.3.4: Areas in front of big formal retail outlets along Phila Ndwandwe Road
Source: by Author

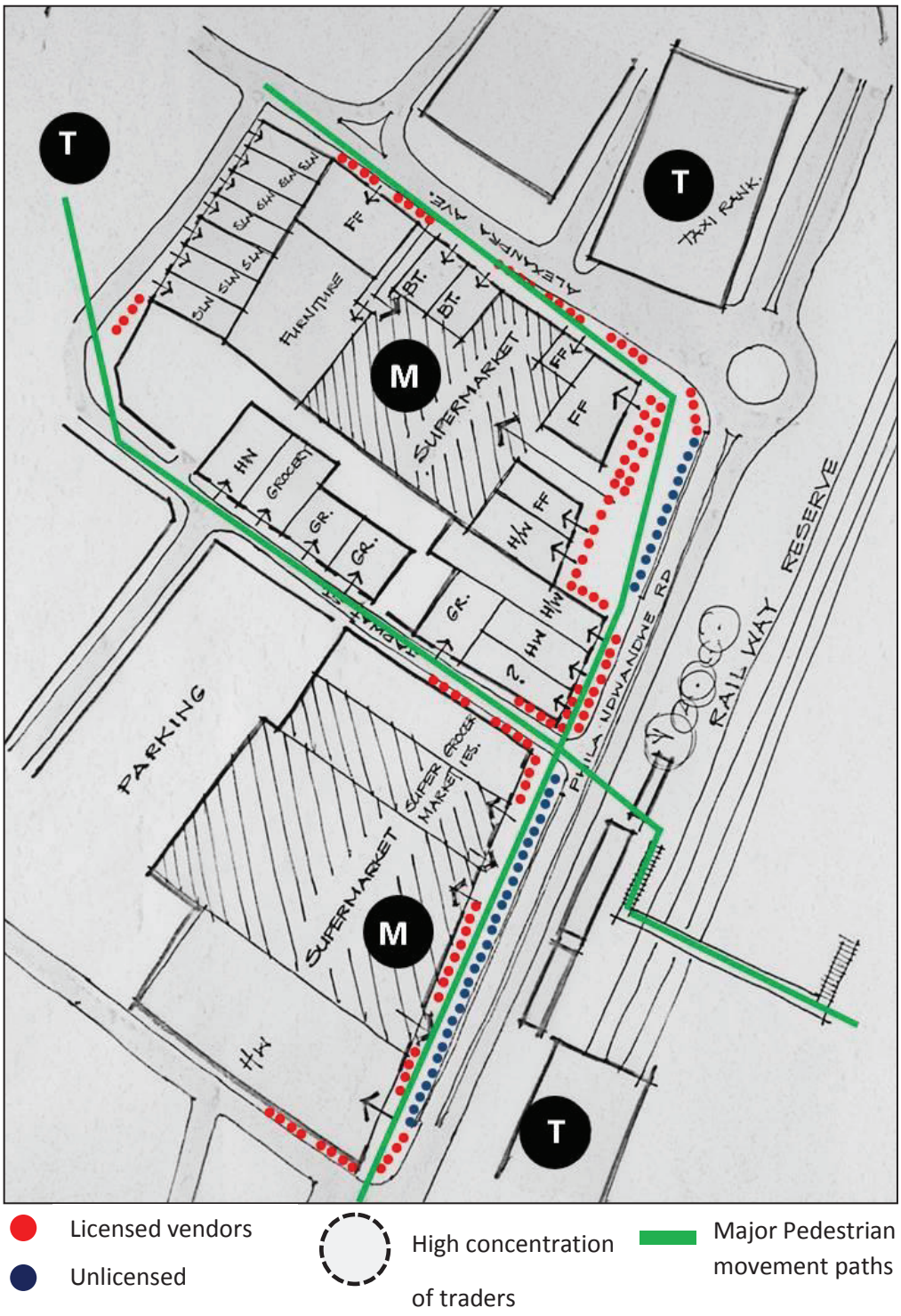

Illustration 6.3.1: Spatial structure and street life intensity: the illustration shows the major formal retail shops and transport hubs that influence the pedestrian movement patterns in the area of study.
(Source: by Author)

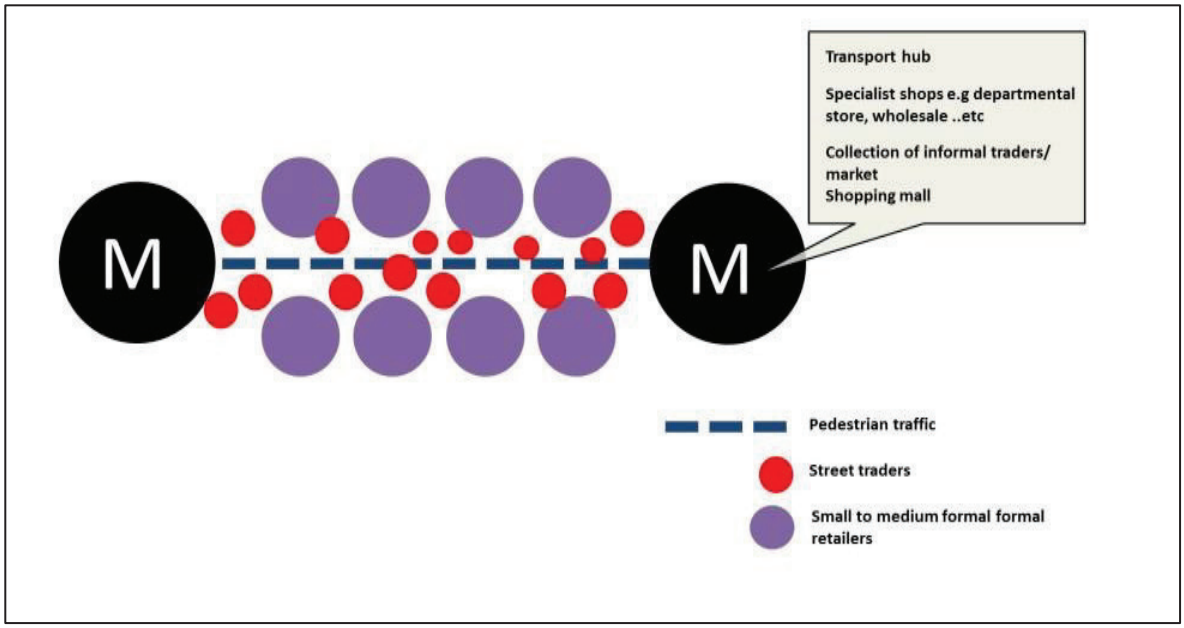

Illustration 6.3.2: Transport hub "M" are major destination points for most pedestrians in the study in the area. Small shops and street traders compete over the access to the pedestrian foot traffic along the link. You have repeated formal in figure above/2 full stops in front of etc.
Source: by Author

6.3.4 Conclusion

The case study was done in an area where traders have minimal design interference. Street traders observe the natural behaviours of street traders in urban commercial streets. The results show that traders have knowledge about where to trade and which areas are more profitable than others. They have devised tactics to escape police raids and the issuing of fines. This observation proves the validity of the concepts discussed in the previous chapters e.g the concept of "strategies and tactics". A special component of this study was to establish the type of interdependence that exists between street traders, small shops and large formal retailers. The end of the last section showed that big supermarkets in the area act as magnets that pull people to the area, and they generate and influence certain movement patterns. Small shops and street traders scramble for access to the foot traffic paths that are created.

CHAPTER SEVEN

ANALYSIS AND DISCUSSION OF FINDINGS

7.1 INTRODUCTION

The research hypothesis acknowledged that the study of the relationship that exists between informal and formal trade, and the uncovering of the business culture and "space knowledge" of both forms of trade in urban trade hubs, can inform the socio-economic inclusive built form within the urban context. The hypothesis was supported by the fieldwork that was done in the Isipingo Rail area. Informal and formal traders who participated in the research confirmed that there was interdependence between the two forms of trade and conflict was mostly encountered in their spatial practices. Planning and architecture can assist in creating trading environments for informal and formal traders to coexist harmoniously.

7.2 UNDERLYING DYNAMICS OF INFORMAL AND FORMAL TRADE

In the first chapter, the research looked at economic inequality (especially the notion of equality of opportunity) and the evolution of formality and informality in the world economy, where more attention is paid to Third World countries. Amongst a wide range of factors that cause economic inequality, neoliberalism (globalisation and policy reform), is understood to be the major contributor to economic inequality in developing countries, including South Africa. These situations result in power and wealth being held by transnational corporations and elite groups; as a result, the "underclass" segment of society is the most affected. This notion is evident in Third World cities. Our urban environments are shaped by the "modernist planning" concept, a product of the elite who were more concerned with inventing a planning system that maintains their property values, excluding 'less desirable' low-income residents, ethnic minorities and traders from their areas(UN Habitat, 2010).

Graaf, (2010) categorises the informal sector range of labour market activities into two different groups. On the one hand, the informal sector is viewed as a product of the coping behaviour of individuals and families in environments where opportunities to earn a living are scarce. On the other hand, the informal sector is a product of the rational behaviour of entrepreneurs who desire to escape state regulation. In most cases, their activities do not comply with the regulatory policies of the governing authority. Informal economic activities conducted in urban environments manifest in the form of built structures and spatial practices that do not comply with the legislation that shapes our cities.

The word “informal” in architecture has a lot to do with the experience that an individual has and the guidelines he has set, to consider any given structure as an informal form of architecture (Taishete, 2015). Modernist planning systems have mostly been criticised for their top-down processes, and the mono-functional and sterile urban environments that they produced (Hall, 1988, Harvey, 1993; Cooke, 1999). The observation is that inner-city environments are divorced from the reality of rapidly growing third world cities.

While the formal understanding of the city undermines the informal reality, informal trade activities continue to grow in urban areas, in the process restructuring city spaces for their own use (space appropriation). This phenomena is explained by Soja’s theory of the “third space” in which he values the qualities of spaces that are appropriated by marginalised communities as they reclaim the space of inequality. These spaces are rich in culture, and values where the social production of meaning reflects people’s spatial practices and perceptions. As the post-modernist participatory approaches aspire to create more inclusive urban environments, planning and architecture should be informed by people’s spatial practices and perceptions.

7. 3 BEHAVIOURAL PATTERNS AND A SUPPORTIVE ENVIRONMENT

Designed environments have to match certain environmental quality criteria in order to archive a “supportive” environment and hence people’s satisfaction with the environment.
Rapoport defines the concept of “supportiveness” by answering the following three questions:

- What is being supported?
- What is supporting it?
- How is it being supported?

The first question refers to components of culture and their expression, lifestyle being the most useful one. The second question concerns the specifics of physical units or systems of setting. The answer to the last question specifies various mechanisms: instrumentally supportive elements, and latent characteristics such as meanings which communicate status or identity, and financial, economic or physical security.

Upon this understanding, the research interest is the relationship between the characteristics of formal and informal traders and the conditions of the spaces that get appropriated. This is discussed using the "place attachment" concept, which is defined as the "person-place bond that evolves from specifiable conditions of place and characteristics of people. The kind of attachment observed in the street traders' *Place dependence* one based on function. The place is valued based on its ability to satisfy the needs or behavioural goals of an individual or group compared to other places (Williams, et al., 1992). There is also a relationship to place based on cognitions, as a person associates significance, purpose, symbolic role, or value with a physical setting, which is referred to as *place meaning.*

Following this line of thought, the field study was aimed at analysing the types and conditions of spaces that are preferred and are appropriated by street traders on the urban landscape and how they are contextually and spatially related to formal shops. In support of common observations in the literature review, it was discovered in the field study that spaces that are likely to be claimed by street vendors are:

- The threshold – steps on shop entrances and spaces between shops
- Street corners – intersections of streets
- Vacuum space – spaces in front of blank walls or closed shops.

Mutiah (2011) referred to these spaces as "loose spaces" (ibid), they are defined as 'spaces that have been appropriated by citizens to pursue activities not set by a predetermined program' (Franck and Stevens, 2007). The looser the space the more it provides possibilities for appropriation and the tighter the control the more it restricts one's behaviour in public spaces (Mutiah, 2011). Informal activities, especially those practised by street vendors, are seen to be happening in loose spaces along commercial streets and sidewalks in inner cities. However, the presence of street vendors in urban spaces is mostly regarded as illegal due to their occupation of those pre-programmed spaces.

The fieldwork done along a commercial street in Isipingo revealed that there is a spatial relationship between formal retail outlets and street traders. Location of street traders on commercial streets is contextually related to formal businesses of different kinds. Big supermarkets, departmental stores, wholesale shops and transport hubs act as destination points for most of the pedestrians on the streets. They influence the movement patterns of most pedestrians on the pavements of commercial streets. Street vendors locate themselves

along the busiest foot traffic paths and most of them prefer to be closer to the entrances of the busiest shops.Design of a supportive environment for street traders should start by recognising that busy and congested places are areas in which street traders want to trade; and those in need of high levels of urban management. The aim must therefore be not to relocate traders out of these congested (and business) zones, but rather to accommodate and regulate them precisely there. Creation of markets should happen in a profitable environment with good foot traffic volumes or strategies of influencing foot traffic to patronise the market should be part of the key objectives.

7.4 ENVISIONING A SUPPORTIVE ENVIRONMENT FOR THE CO-EXISTENCE OF FORMAL AND INFORMAL TRADERS

Open design approach as a solution

The characteristics of formal and informal traders differ in that the former is a more organised system and has a clear set rules of operation and programming that makes it easy to design for while the latter is the opposite and is difficult to design for. Open ended design as interpreted by Rapoport (1968) is a design method which determines certain parts of the building, allowing other parts, including unforeseen ones, to happen spontaneously. The framework in open design is the component that least needs to be designed or fixed to lead to specified results.

The process of creating a built form for the coexistence of diverse lifestyles or identity groups was discussed using Amos Rapoport's approach to designing an environment for cultural pluralism and Fumihiko Maki's concept of dealing with challenges of coexistence and conflict of heterogeneous institutions and individuals. The two approaches stress that the establishment of interdependence between the groups of people or institutions for which the space is being designed, is crucial for the design of a valid framework.

Establishing a framework based on a pedestrian movement system

The design of a valid framework is the act of making comprehensive linkage between two discrete things. The process of establishing interdependence between formal shops and informal traders and accommodating them in a larger entity, involves identifying the unique features of formal retailers and street traders that exist and the corresponding variety of environments, an understanding why they are different, in what ways they differ, which are

the critical differences – and which differences are secondary. Studying the commonalities will reveal the common or overlapping characteristics, which will provide the overall built form and common elements while the uniqueness provides the specific variabilities (Rapoport, 1970 p 300).

It has been shown in chapters two and three that street traders and formal retail outlets are strongly dependent on foot traffic along the streets and walkways. Merchandising (display and making products available for sale) by both groups is oriented towards the foot traffic on the pavements. This qualifies the pedestrian movement system to be used as a design tool to create a valid framework for environments where street traders and formal retailers are meant to coexist. Access to high volumes of footfall is a key factor in the success of formal and informal trade institutions. Using this linkage as a sequential path i.e. arranging parts of multi-use buildings in a sequence of useful activity. Further, to reinforce such a path by any means necessary to propel persons along a general designated path. The explicit intention is to influence behaviour; the intended behaviours could be to direct people for strategic reasons in the case of shopping/retail environments. They are often focused on equally exposing the shops and vending activities to the potential customers who walk along the foot traffic paths.

Environment of affordances

"Affordance" of elements was defined as a set of all potential human behaviours that the elements might allow. Buildings are designed to afford shelter to occupants from the exterior environment, affording aesthetics to occupants and people who are observing it from the outside, affording storage, affording comfort. Modernist planning systems have mostly been criticised for their top-down processes, and the single functional and sterile urban environments that they produced. The built form created by modernist planning systems does not afford informal activities like street vending. It has been noted that the street as a public space is a space of difference and needs to be designed to enable multiplicity of activities. The research reviewed literature on efforts to make city blocks and movement paths or streets meaningful to the street traders. Firstly the research had to find valid criteria for establishing street trader behaviours that are to be afforded or designed for. The second part explored a way of street space sharing strategies.

Street trading encompasses many diverse typologies of informal exchanges happening on the streets. Analysing the typologies of street vending and the street traders' body relationship to the street and to the customers on the pavements as well as how vending furniture is used, should give clues as to the street traders' behaviours and body positions to be designed for e.g. hanging racks, ground vending, kiosk, stand, sit, and squat.

7. 5 CONCLUSION

Inclusive design means making use of existing space through better space management or time-sharing (e.g. evening and Sunday markets). The fieldwork survey showed that common problems caused by street traders on commercial pavements are a result of unorganised layouts. If traders in these spaces are rearranged, better space sharing between street traders, formal retail outlets, pedestrians and other street users, can be achieved.Space sharing in this research was interpreted to mean "harmonious co-existence of street traders and formal shops. Space sharing should eradicate the known conflicts between formal and informal trading practices. What modifications can be done on street facing facades to afford street trading to happen along the street without inconveniencing the operations of formal retailers? Innovative examples of street sharing strategies include the use of transforming walls, street furniture integrated into walls and lockable stalls curved into walls of buildings.

CHAPTER EIGHT

CONCLUSION AND RECOMMENDATIONS

8.1 INTRODUCTION

The chapters above discussed various theories and concepts based on primary and secondary data. The findings were helpful in explaining the different issues regarding the research problem. This chapter seeks to bring together all the findings to form one body of work that gives answers to the main and sub questions.

The research came about because of the observation that the Western model; the formally derived built form, is conceived and crafted to suit a universalistic, generalised social experience. Such a built form is obsolete for most of today's liberated citizens in South Africa and other Third World countries, with a wide range of social strata and differing lifestyles. The urban poor, whose needs are given little consideration, are now taking it upon themselves to adapt the physical nature of the built form that defined (the now obsolete) formal urban landscape e.g. street trading on pavements. The current planning and architectural interventions for street traders lack the understanding of the dynamics underlying informal and formal trade. The research sought to define a new architectural built form typology that promotes a potentially fruitful intermingling and coexistence of informal street vendors and formal shop owners that do business within the same locality and underlines a common and equal foundation.

To response to the key question, the main objectives formulated were meant to gain understanding of the underlying dynamics of informal and formal trade at markets and in CBDs, to investigate the behavioural patterns and learn how these can influence the design of a supportive environment.

8.2 GENERAL DESIGN PRINCIPLES

Place–making in this research is understood as a concept where value and meaning in a particular setting are created through social and political processes. Value is achieved through actively involving all the people that make up a community in the design process to help ensure that the result meets their needs, preferences and innovation in the face of lack. Streets are understood to be places of importance and collective ownership by citizens; they provide places of identity, social and cultural interaction and economic exchange. The design, management and programming of public spaces should therefore be based on facilitating creative patterns of activities and connections (cultural, economic, social, and ecological) that define a place and support its ongoing evolution.

It was discovered in the research that street traders have devised and mastered their own systems and behavioural patterns of activities within the operations of their business. These have been refined and well understood overtime and have developed into a lifestyle. These innovative ideas range from overnight storage to vending space management and cleaning and litter collection. Successful interventions in these cases should embrace and facilitate creative patterns of activities and connections (cultural, economic, social, and ecological) that define a place and support its ongoing evolution.Consequent upon this understanding, the following design principles become necessary.

There are a number of basic design principles that will need to be considered when preparing proposals for an infrastructure that reconciles formal and informal trading activities. These include the overall design approach, location of trading sites, spatial relationships between street trading sites and shops, space standards, traders' behavioural patterns, and the choice of materials and structures.

8.2.1Design approach

The characteristics of formal and informal traders differ in that the former is a more organised system and has a clear set of rules of operation and programmes that makes it easy to design for them, while the latter is the opposite and is difficult to design for. Open ended design is a design method which determines certain parts of the building, allowing other parts, including unforeseen ones, to happen spontaneously. The framework in open design is the least component that needs to be designed or fixed to lead to specified results. The fixed component will accommodate the ancillary facilities that are needed or shared by the traders e.g. public ablutions, storage facilities, centralised waste management centre…. etc.

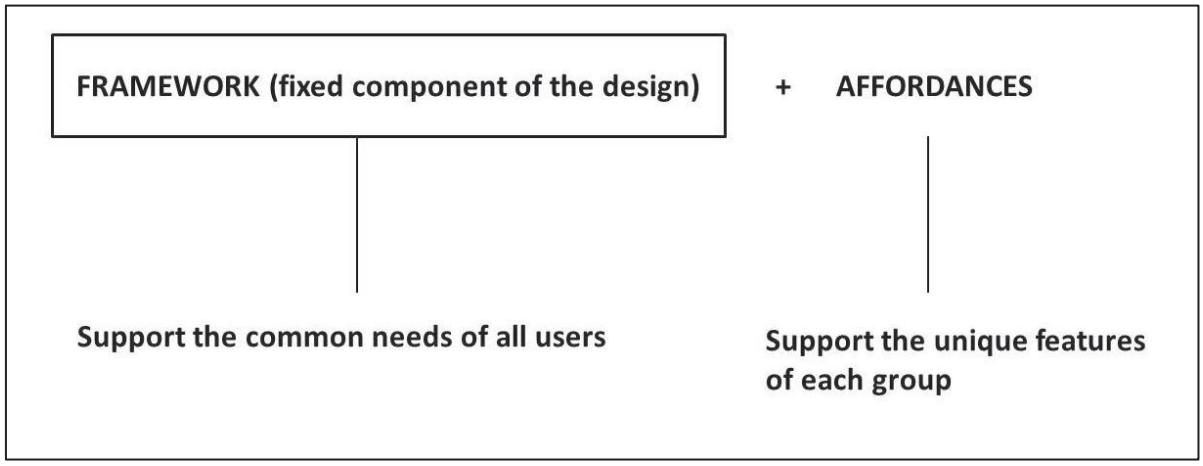

Illustration 8.2.1 : Open end design approach
Source:by Author

8.2.2 Location of street trading sites

Trading sites or business location is the most important factor for formal and informal retail enterprises. Sites that attract maximum shop/stall patronage are the most preferred. The researcher understood this bond between the users and places or settings through the place attachment theory.Design of an appropriate environment should start by recognising that busy and congested places are both areas in which street traders want to trade; and those in need of high levels of urban management. The aim should therefore not be to relocate traders out of these congested (and business) zones, but rather to accommodate and regulate them precisely there. Creation of markets should happen in profitable environment with good foot traffic volumes or strategies of influencing large volumes of footfall into the market should be part of the key objectives.

8.2.3 Spatial relationship between formal shops and street traders

The layout of the building is a very important design component as it is necessary to create a profitable environment for retailers and vendors. A successful method of achieving this is by understanding the dependency between the two.

Decide on the formal retail shops that have strong pull qualities e.g. departmental stores and supermarkets or a group of traders. Since these are destination points for many pedestrian shoppers, they can be used as “magnets” to pull the pedestrians into the market and influence movement within the building (for enclosed markets) to achieve a desired pattern. Smaller formal retail outlets and vendor trading spaces can then be designed along the predetermined footpaths (refer Illustration 8.2.2).

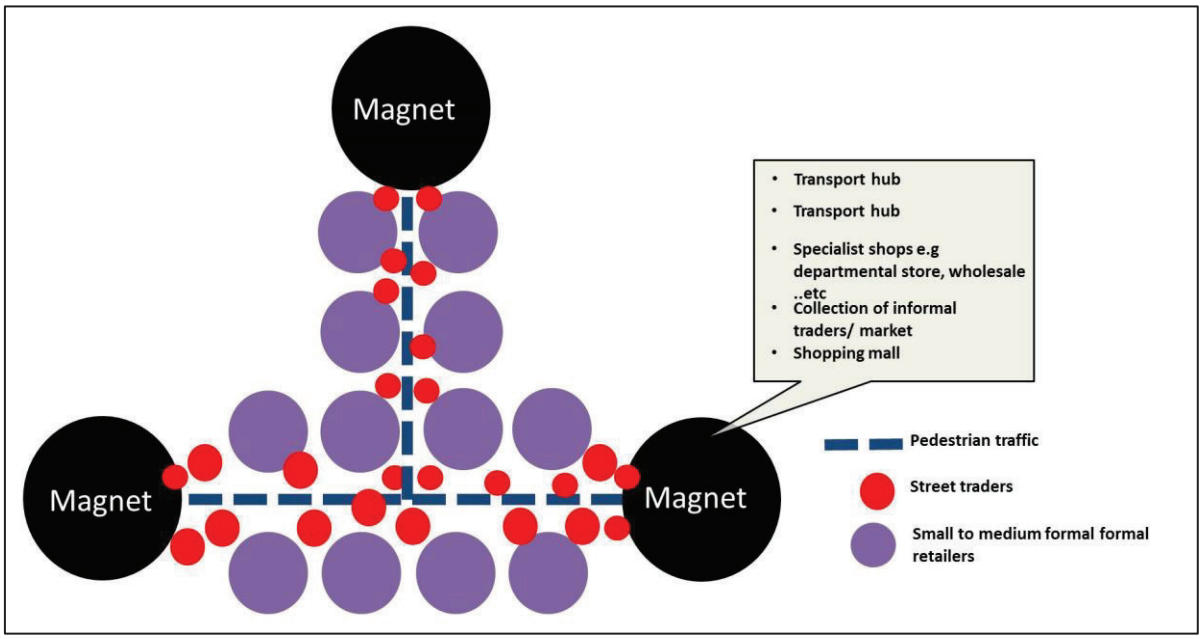

Illustration 8.2.2:Spatial relationship between formal and informal trade
Source:byAuthor

To better the chance of consumers entering the tenant’s shop, it is necessary to have a layout where all the tenants are exposed to the consumers who walk past. The layout consists of two lanes of shops with a path between the lanes. The two anchor tenants are situated at the ends of the path. This is to guide the consumers to walk the distance between the two anchor tenants. This will give the tenants and the vendors the exposure they need to possibly have prospective income.

8.2.4 Space sharing in street markets

Building elements should serve more than one purpose, especially the ones at the public-private interface and should be a key principle in creating an inclusive built form. Creating spaces for street traders along the public-private interface on a commercial street should not

inconvenience the formal shop's merchandising practices. The research showed that visibility is one of the key principles in visual merchandising and that the practice of street trade on pavements blocked the visibility of most shopfront displays. Provisions for street markets on city streets may adopt a wide range of solutions, one of them is to provide facilities for hawkers alongside existing roadway and building frontages. In this case, traders' stalls are arranged in a way that do not block the visibility of formal shops shopfronts or display widows for pedestrians and motorists.. One way of achieving this is to provide niches between shops along the building facades, leaving the rest of the walkway to pedestrians. This affords informal and formal traders equal visibility and opportunities to attract customers (refer to Illustration 7.3.1).

The second recommended alternative to prevent vendors from blocking the exterior merchandising of formal shops is by arranging vending stalls on the outer edge of the pavement perpendicular to the shopfront (refer to illustration 7.2.2).

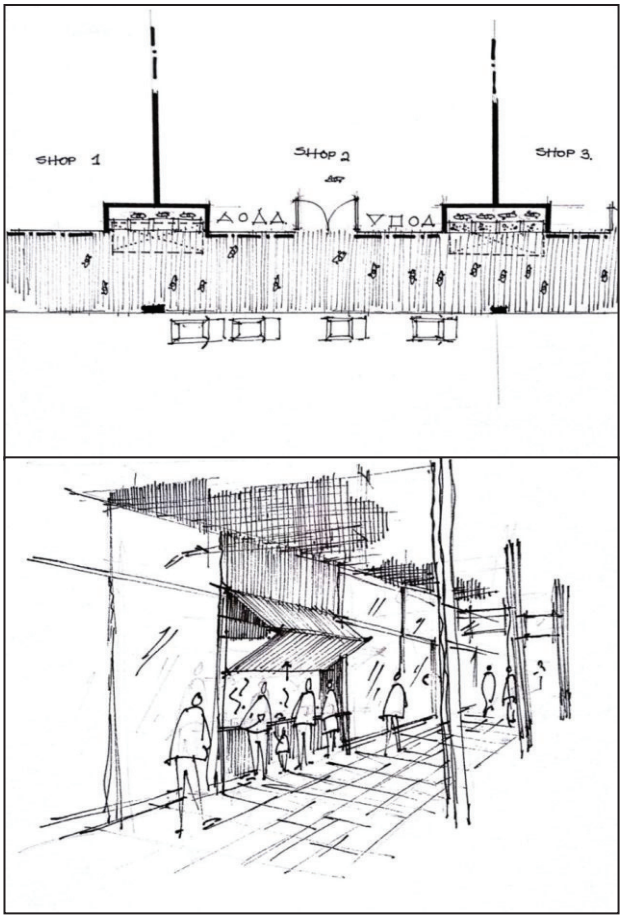

Illustration 8.2.3Provisions for street traders along the building edge
Source: by Author

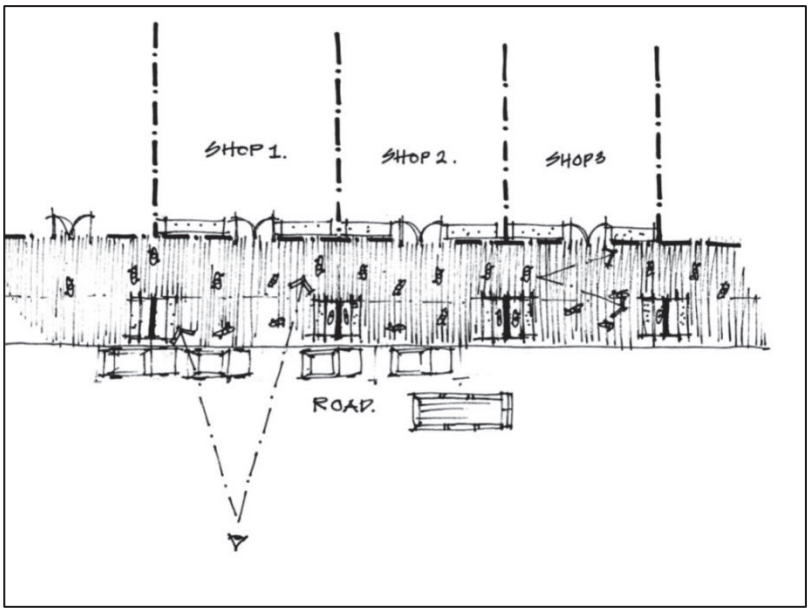

Illustration 8.2.4Povisions for street traders along building edges
Source: by Author

8.2.5 Designing street vending provisions

Different stall designs will be required to cater for different types of goods and the different service cultures of traders. These varying design propositions can be provided within a standard enclosure. When analysing the typologies of street vending, role players should consider the body's relationship to the street and to the customer. Using this, informal trading can be narrowed down to the STAND,SIT and SQUAT typologies of human behaviour and these can be broken down further into four affordances that can be provided for, namely vertical/hanging, shop shelving units/ seating and kiosk/stand.

8.2.6 Materials and Aesthetics

The process of choosing materials and the method of construction for markets should consider the ease of maintenance and the need to minimise running costs. Material choices should also be determined. In the open design approach, which is highly recommended in interventions for informal traders, certain areas are designed to last for a long time while others are designed to be flexible and allow changes to programmes or for spaces to happen. Light materials, which are easy to install and uninstall, can be used to make stalls e.g. prefabricated materials.

8.2.7 Ancillary facilities

Design of markets should be anchored to support facilities like toilets and water points, waste management and storage facilities which are very important for their operations. The concept of collectivism, which is key to the resistance to informal trade enterprise, should be used to drive design approaches for markets. Ancillary facilities are affordable and easy to manage when shared. In an open design approach these can form part of the framework.

Storage

Storage facilities are some of the much needed components for a successful market. Interviews showed that most street traders prefer to have secure overnight storage facilities where they can store unsold goods. These facilities can be located and managed from one central point at the market. This also applied to street markets, design of affordances and vending bays along building edges and pavements should be accompanied by provision of overnight storage facilities.

Solid waste collection

Waste management is one of the areas that need special consideration when dealing with markets and street traders. Most of the dissatisfaction with street trading enterprise was their poor waste management practices. The idea of having onsite compactors for treating solid waste produced in markets may not be viable for a low capital enterprise. Investigations should be done of having organised and centralised waste processing facilities on CBD blocks serving more than just one building. The conventional method of dealing with solid waste in markets is to arrange for it to be taken by local authorities from the waste management department.

8.3 CONCLUSION

The recommendations discussed above are meant to aid urban design professionals in developing built environments that are informed by service culture, perceptions of the environment and preferences of formal and informal traders in inner cities. These research findings will also be used to develop a design brief that will lead towards the conception of a street traders' centre in Isiphingo, Durban, South Africa.

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APPENDICES

INTERVIEW SCHEDULE FOR INFORMAL TRADERS

COLLEGE OF HUMANITIES: MASTERS/PHD

RESEARCH INTERVIEW QUESTIONS

Interviewer: ThandoNyathi (215074686)

Interview schedule for traders:

1. **Date** …… **Interview Location**……

2. **Introduction**
   My name is Thando Nyathi, I am currently studying a Masters in Architecture at UKZN, and am conducting research around the topic. **Reconciling informal and formal trade through architecture:**Towards a street traders'centre in Isipingo, Durban.

3. **Observed Details**
- Gender
- Goods sold
- Locality
- Display facility in use
- Age

4. **Personal Details**
- Nationality
- Where you born in Isipingo?
- How many years of education have you completed?
- What type of educational institution(s) did you attend?
- Can you read and write?
- Ethnicity
- Religion
- Days worked per week

5. Introductory questions

- Tell me about how you conduct your work?
- Why do you sell the goods you do?
- Who are your main customers?
- When are your busiest periods of the day and week?
- Had you done any other job before becoming a street trader?

6. (Predominantly) Social contextual Information

- Marital status?
- Where do you live and why?
- Do you receive any help/support from any of your family members (nuclear/extended)?
- Who do you support with your earnings?

7. (Predominantly) Economic contextual Information

- Do you work for yourself or for someone else? Why?
- What were your total takings yesterday?
- What was your total profit?
- What would you do to earn a living if you were not a street trader?
- Would you prefer to trade from a secure location with shelter and storage facilities (or a formal shop)? Why?
- Do you make any other payments to government?
- Do you receive any support from government for your work as a street trader, e.g. water, storage facilities, and toilet facilities?
- Do you buy goods from other street traders?
- Why?
- Where (else) do you buy goods from?
-

8. (Predominantly) Spatial contextual Information

- Have you previously traded at any other location(s)? If yes, where?
- How did you gain access to your present trading space? Do you make any payments and to whom?
- How do you ensure your present trading space is always available? Do you make any payments and to whom? Does your present location suit you compared to your previous site(s)? Why?

10. Problem related questions

- Do you have any conflicts among yourselves as traders (individually and collectively), over what issues, and how do you resolve such?
- Do you have any conflicts with formal shop owners(individually and collectively), over what issues, and how do you resolve such?
- Are there any particularly powerful traders and landlords?
- How do you go about resolving your collective problems as traders?
- Have you ever experienced any of the following problems?
- Generally, with whom do you have problems/conflicts most often?
- Do you have any other types of problems?
- How do you solve these problems?
- What are the main advantages of being a street vendor here?
- What would most help your work?
- How could trader's rights be strengthened?
- What are your future ambitions with regards to your occupation?
- Is there anything else you would like to say about your work?

Name…… **Mobile No/Email**……

INTERVIEW SCHEDULE FOR LOCAL AUTHORITIES

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

COLLEGE OF HUMANITIES: MASTERS/PHD RESEARCH

INTERVIEW QUESTIONS

Interviewer: ThandoNyathi (215074686)

Interview schedule for Local Authorities (eThekwini Municipality.Small Businesses Support Unit).

Introduction

My name is Thando Nyathi, I am currently studying a Masters in Architecture at UKZN, and am conducting research around the topic. **Reconciling informal and formal trade through architecture:**Towards a street traders'centre in Isipingo, Durban.

Introductory questions

What is your job role, i.e. what are you responsible for? And how long have you been in your current position?

Could you please elaborate on the functions of this Department with respect to the informal economy and public space, i.e. what is this Department responsible for?

Main questions

1. What are the main challenges of managing the informal economy and public space in eThekwini Metro and Isipingo?

Prompts;

- What would you consider are the main characteristics of a good city?

- What are the current plans for the management of the informal economy in Lagos?

- Which ministries and/or departments have responsibilities regarding the informal economy?

- My main interest is street trade, how are you and/or your department involved with street trading activities?

- What are the main problems you face in your job/department; funds (timing/disbursement), political support, public compliance etc?.

2. How are public spaces inIsipingo managed?

Prompts;

- Which ministries and/or departments are in charge of managing public spaces?

- What are the plans for public spaces in eThekwini Metro?

- Are public private partnerships made use of in managing public spaces? Why?

- Are contractors hired in the clearing/upkeep of public space? Why?

3. Which regulations govern public spaces and street trading activities?

- How long have they been in existence?

- What prompted their enactment/creation?

- How were they formulated?

4. How are decisions made at this level of government?

Prompts;

- What is the ministerial/departmental structure, how many ministries/departments are there, what is the organisational structure (structure of responsibility) within them?

- How are political will and technical expertise exercised in decision making processes?

- What are the main sources of government funding; central government allocations, internally generated revenue, etc.?

- Do market fees form part of internally generated revenue (IGR)? How significant are they in IGR?

- What is the annual budget of this level of government?

Prompts;

- How would you describe Isipingo Rail before 2000 and how would you describe it now?

- Was there any consultation with the traders? How?

5. What is this government's long term vision for the town of Isipingo?

Prompts;

- What is your ministry's/department's strategy to achieve this?

- What is your personal view about Isipingo, public spaces in Isipingo and the informal economy in Isipingo?

6. Some multilateral organisations such as the UN-HABITAT are advocating for the establishment of rights for all city inhabitants including street traders, such as the right to directly participate in the management of cities and the right to use and create urban space to meet their needs. What is your opinion on this in the light of the situation in Isipingo Rail, ethekwini Metro and South Africa as a whole?

Name…….....…… **Mobile No/Email**……

INTERVIEW SCHEDULE FOR FORMAL TRADERS

COLLEGE OF HUMANITIES: MASTERS/PHD RESEARCH

INTERVIEW QUESTIONS

Interviewer: ThandoNyathi (215074686)

Interview schedule for formal retailers:

1. **Date**…… **Interview Location**……

2. **Introduction**
   My name is Thando Nyathi, I am currently studying a Masters in Architecture at UKZN, and am conducting research around the topic. **Reconciling informal and formal trade through architecture:**Towards a street traders'centre in Isipingo, Durban.

3. **Observed Details**
- Type of retail. Convenience stores/ Mom and Pop stores/Departmental stores/ Supermarkets/Special stores
- Locality
- Shop front display in use

4. Introductory questions

- Tell me about how you conduct your work?
- Why do you sell the goods you do?
- Who are your main customers?
- When are your busiest periods of the day and week?

5. (Predominantly) Economic contextual Information

- Do you work for yourself or for someone else? Why?
- What were your total takings yesterday?
- What was your total profit?
- Would you prefer to trade from a secure location with shelter and storage facilities. (or a formal shop)? Why?

- Do you make any other payments to government?
- Do you receive any support from government for your work as a street trader, e.g. water, storage facilities, and toilet facilities?
- Do you buy goods from other street traders?
- Why?
- Where (else) do you buy goods from?

6. (Predominantly) Spatial contextual Information

- Have you previously traded at any other location(s)? If yes, where?
- How did you gain access to your present trading space? Do you make any payments and to whom?
- How do you ensure your present trading space is always available? Do you make any payments and to whom? Does your present location suit you compared to your previous site(s)? Why?

7. Problem related questions

- Do you have any conflicts among yourselves as traders (individually and collectively), over what issues, and how do you resolve such?
- Do you have any conflicts with informal shop owners(individually and collectively), over what issues, and how do you resolve such?
- Generally, with whom do you have problems/conflicts most often?
- Do you have any other types of problems?
- How do you solve these problems?
- What would most help your work?
- How could trader's rights be strengthened?
- What are your future ambitions with regards to your occupation?
- Is there anything else you would like to say about your work?

Name……..……..…… **Mobile No/Email**……

PART TWO

BACKGROUND RESEARCH ON ISSUES

CHAPTER 1

INTRODUCTION

CHAPTER 2

THE DESIGN BACKGROUND AND PROPOSAL

CHAPTER 3

SITE SELECTION, SURVEY AND ANALYSIS

CHAPTER 4
DESIGN DEVELOPMENT AND RESOLUTION

CHAPTER 1.0: INTRODUCTION

1.1 Introduction

The design of a street traders centre seeks to provide an appropriate infrastructure for integrating street traders in Isipingo Rail into the city fabric. The built form aims at creating an environment for harmonious coexistence of formal retail and street traders. This is to be achieved through establishing interdependence between the two forms of trade, rethinking the boundaries between private and public property, challenging the conventional notions of space, relationships between human body, the street and the vending furniture. The building is envisioned to offer a hybrid experience of modern shopping and traditional market place.

1.2 Project description

Our cities commercial environments are shaped by formally derived built form that is conceived and designed to suite a universalistic generalised social experience and less supportive towards the urban poor. Such built form is obsolete to most of today's liberalised citizens with a wide range of social strata and differing lifestyles. Street trading on pavements within and around the existing buildings occurs because of the poor claiming their space in the formal urban landscapes. Street trading activities have been blamed for obstructing the smooth operations of the formal retailers housed in city blocks by: -clogging of pavements, exerting pressure on sanitation facilities, stiff competition to formal business etc. traders are seen as out of place elements in the modernist city and are regularly evicted in street clearing operations. The most common policy to vending has been to create formal off street markets where it is prevented from causing congestion and contaminating elite areas (Bromley, 2000; Cross, 2000). Likewise there have been attempts to formalise street trading through the design of special facilities such as shelters and bays along the streets. Studies show that many of these interventions are not successful as traders always return to the pavements adjacent to the formal retail outlets .This is partly because of lack of understanding of the place-person relationship between the street traders and their preferred trading sites.

For successful reconciling of formal trade and informal trade, the built form must form and environment in which the two forms can harmoniously coexist. The design need to be structured in a way that considers the use, value and perception of the intended users of the environment. It should also respond to the user groups variations.

1.3 THE NOTIONAL CLIENT

1.3.1 Introducing the client

The project is to be realised through a private public partnership. The arrangement involves Ethekwini municipality and a private party enter into a joint venture to develop the Street traders centre.

The private-publicpartnership approachensures that there is a strong financial incentive to complete construction on time and within budget. Another advantage of adopting this approach is that risks are allocated to the party best able to manage a particular risk.

1.3.2 The Brief

The vision behind the project is to provide an appropriate infrastructure for integrating street traders in Isipingo Rail into the city fabric. The Street traders centre is a shopping centre that aims at creating an environment for harmonious coexistence of formal retail and street traders. Therefore, the centre must be able to satisfy the varied needs, values and behavioural goals of the participants in the two forms of trade.

The primary users of the facility are going to be the public, the formal and informal traders. The shopping centre must contribute to the improvement of the Isipingo Rail central business district especially the immediate context in its urban design framework. The building and site must exploit the potential of the landscape and the context and be able to engage with the street edge and must be easy and universally accessible.

The complex must be able to incorporate the following functions: Formal retail spaces, street traders lock up shops, mobile cabins and open floor areas, food courts, office spaces, and short stay accommodation for traders. Supportive facilities include a waste management/holding centre, security station, ablutions, change rooms, and day care centre. The complex must also be environmentally sustainable.
Some of the key tasks that the building would have to fulfil are:

- Being a public building
- offer all traders with equal opportunities for merchandising
- all public spaces and accommodated activities should be visible with a clear articulation of circulation

- the environment should be safe and clean
- Encourage transparency
- Must be accessible
- The building should be easily identifiable and a landmark in the city
- The building should improve pedestrian movement and connections to the city nodes.

1.3.3 Schedule of accommodation

The schedule of accommodation was determined by:

- Studying the interdependency between street traders themselves, between different types and scales of formal retailers, and between informal traders and formal retailers.
- The relationship between the "shops and street traders" and the shoppers behaviour and movement patterns.

This was done through the analysis of precedent and case studies.

Ground floor	**Space**	**Quantity**	**Size**	**Total Area**
• Informal traders food court	• prep areas • communal Dining area			
• Formal food outlets	• storage • prep area • pay point • eating area			
• Storage facility	• guard station • store rooms • ablutions and lockers			
• Shortstay accomodation lift lobby				
• Office lift lobby				
First Floor level	**Space**	**Quantity**	**Size**	**Total Area**

• The Path	• Demarcated vending bays • Mixed trading space			
• Security station		1		
• Flea Market Space	• Flexible trading spaces			
• Food court	• Prep area • Eating area			
• Indoor Vegetable Market	• Cold storage • Male ablutions • Female ablutions • Hall management			
• Super Market	•			
• Waste management centre	• Waste sorting & holding area • Waste collection area			
• Delivery yard	• Barrow storage • Workshop			
• Public ablutions	• Male ablutions • Female ablutions			
Second Floor level	**Space**	**Quantity**	**Size**	**Total Area**
• Small business studios				
• Formal retail space				
Third Floor	**Space**	**Quantity**	**Size**	**Total Area**
The Path	• Demarcated vending bays • Mixed trading space			
• Centre management offices	• reception • boardroom			

	• open plan office • Kitchenette			
• Offices for eThekwini informal economy	• reception • boardroom • open plan office • Kitchenette			
• Day care centre	• Babies room • Classroom • Play area • Storage • Kitchen • Dining area • Ablutions • Wash area			
Forth floor & fifth floor	**Space**	**Quantity**	**Size**	**Total Area**
Short stay accommodation	• Bedrooms • Kitchen • Lounge • Ablutions • laundry			

CHAPTER 2

THE DESIGN BACKGROUND AND PROPOSAL

2.1 INTRODUCTION

The design is based on two key theories namely the Environment behaviour theory and the Place Attachment Theory. The Theories will be briefly discussed in more detail below and how they relate to the design proposal.

2.2 THEORATICAL FRAMEWORK

2.2.1 Introduction

The proposed building is informed by a study of street traders and formal traders in identified urban context that considered a part of a city as an urban setting/place; the habitat selection is an ecological ethological concept. This is connected to environmental quality and preference, which involves a perceptual aspect (e.g. complexity) as well as symbolic (e.g. status). The different lifestyles and preferences between the two forms of trade involve cultural variables while the decision making involve cognitive aspects. This requires a discussion about the relevant concepts and their applicability in this research.

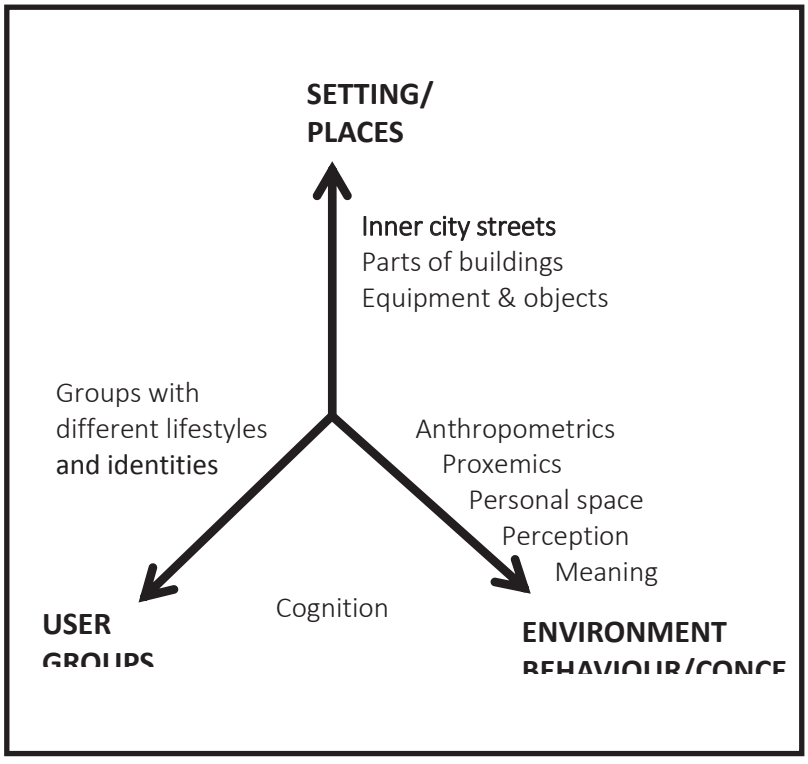


Illustration 3.3.1 The scope of environment behaviour information relevant to the research.

Source: by author. Adapted from Moore, 2006

Environment behaviour phenomena: encompasses different aspects of human behaviour in relation to everyday physical environments, e.g. proxemics, privacy, etc.

User groups: users are those who rely on the public spaces or buildings for passive and active engagement. The reliance can be social or economic. The study is interested in the Street traders, the "formal" shop owners and shoppers on the commercial streets in innercities. The research acknowledges that people have different needs, use patterns, and are affected in different ways by the quality of the environment.

Settings/places: this component of the model includes all scales of settings from room scale to the region, the nation and the world. The scale of rooms of buildings to groups of buildings is of interest to the architect

2.2.2 Place attachment

Williams (1992) defines place attachment as a "person-place bond that evolves from specifiable conditions of place and characteristics of people. The kind of attachment observed in the case of street traders is based on the function of the place - *Place dependence*. Here, the place is valued based on its ability to satisfy needs or behavioural goals of an individual or group compared to other places (Williams, et al., 1992).Street traders prefer certain spots or locations along the streets, these are generally areas with high foot traffic on which they can realise more sales, and areas with are less monitored by the law enforcement agents. There is a bond between the users and ideal locations of trade. The success of this design lies in creating an environment that satisfies the preference system of its users.

2.3 CONCEPTUAL FRAMEWORK

2.3.1 The concept of "Supportiveness" and Affordances

The concept of "supportiveness" emerges in architecture as a way of defining the relationship between an environment and its occupants. Rapoport defines the concept of "supportiveness" by answering the following 3 questions:

i. What is being supported?
ii. What is supporting it?
iii. How is it being supported?

- The first question refers understanding the lifestyle, the behaviour the perception and preferences of the lifestyle groups to be accommodated in the facility. The second question concerns the specifics of physical units or systems of setting. The answer to the last question specifies various mechanisms: instrumentally supportive elements, latent characteristics such as meanings communicating status or identity, and financial, economic or physical security.

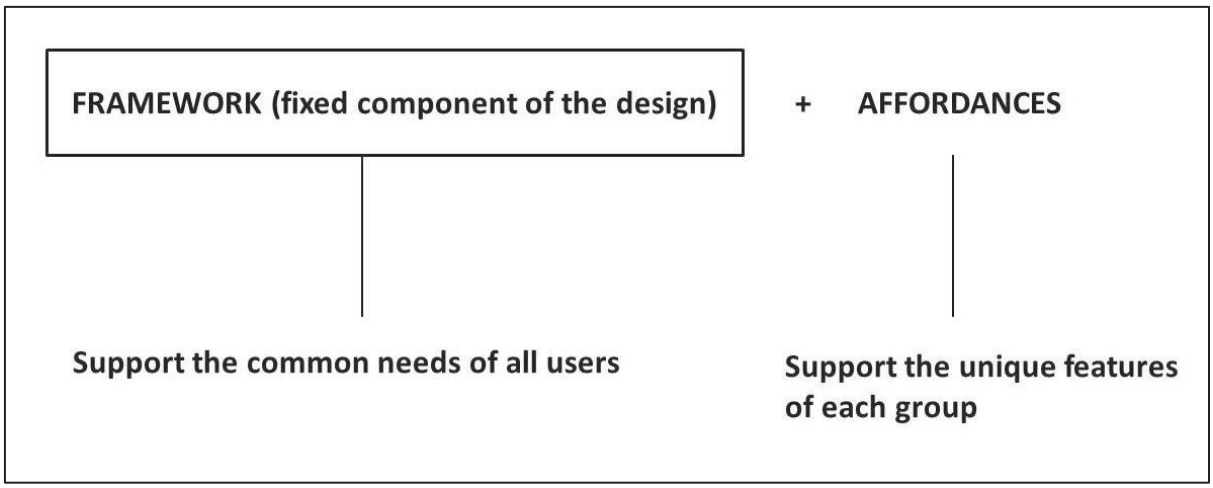
The concept of "affordances"

This research considers affordance of a device to be a set of all potential human behaviours that the device might allow. Functional reasoning assumes that the behaviour intended by the designer is actually the behaviour of the device. As a consequence the focus of reasoning is narrowed down to the function the device should have rather than could have.(Maire & Fadel, 2007). In architecture buildings have many high level affordances including affording shelter to occupants from exterior environment, affording aesthetics to occupants and passers-by, affording storage of goods, affording comfort to occupants through climate control.

- Upon this understanding, elements of the proposed building such as walls and columns while serving their designated structural and partitioning functions, they should also be designed to be useful to street traders.

2.3.2 Open ended design Approach

The conceptualisation of appropriate the built form for harmonious coexistence of formal and informal traders has to be founded on establishing interdependence between the two forms of trade. The characteristics of the formal and the informal traders differ in that the former is a more organised system and has clear set rules of operation and program that makes it easy to design for while the latter is the opposite and is difficult to design for. Open ended Design asinterpreted by Rapoport (1968)is a design method which determines certain parts of the buildingi.e the framework allowing other parts, including unforeseen ones, to happen spontaneously. The framework in open design is the least component that needs to be designed or fixed to lead to some specified results.

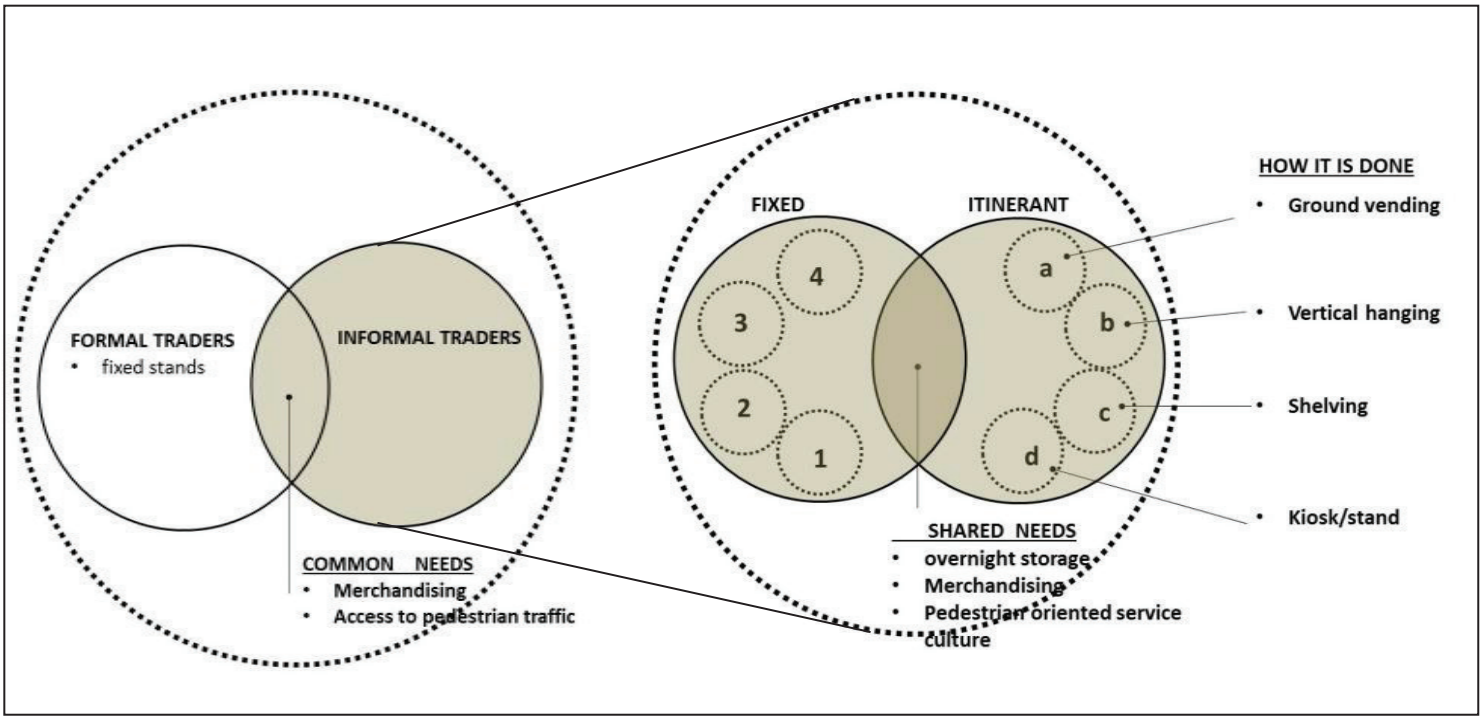


Common needs between informal and formal traders

Source:by Author

Common needs between street traders and formal retailers

A valid Framework is built from studying the commonalities between the groups that are being designed for. Doing so will reveal the common or overlapping characteristics, which will provide the overall built form and common elements while the uniqueness provide the specific variabilities.



Common needs between formal and different types of informal traders

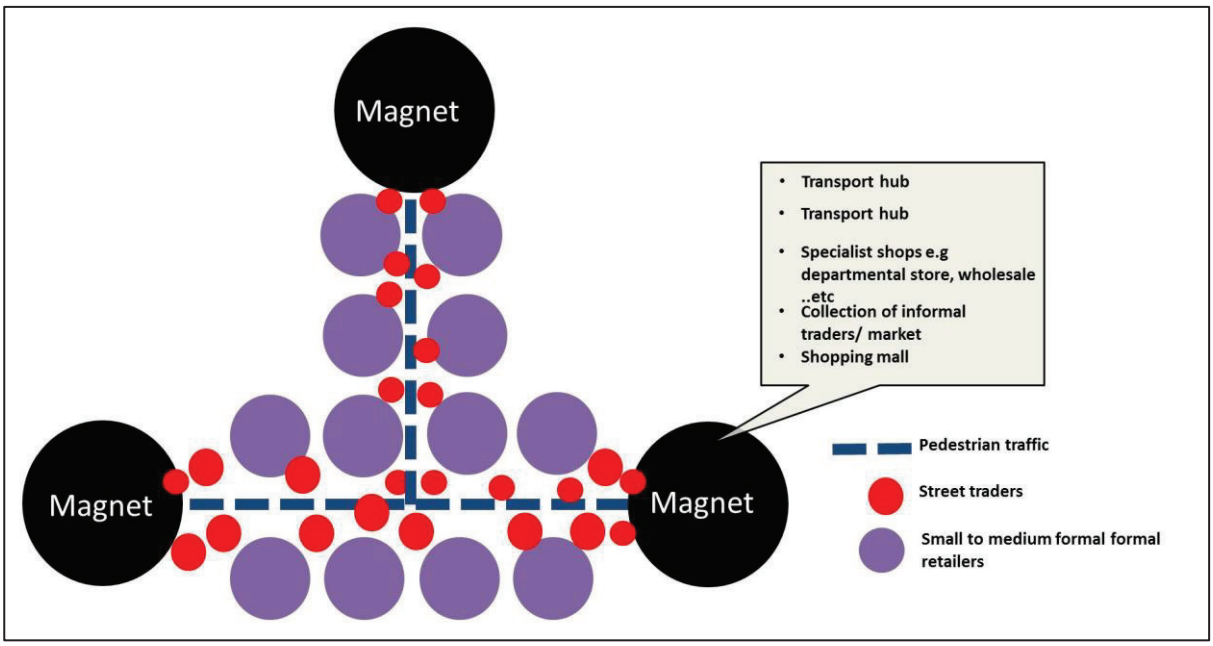
Source:by Author

Spaces that can be incorporated into the framework are:

- Public ablutions
- The public circulation spaces and cores (visually and physically connected to all shops and traders stations)
- Security station
- Service passages
- Storage facility
- Delivery area
- Waste management/holding centre

Interdependency between street traders and formal retailers

The is conceived as a container of two discrete systems: each systems should be able to maintain its identity while engaging with the other system. The establishment of interdependence between the groups of people or institutions being designed for is very crucial for the design of a valid framework.



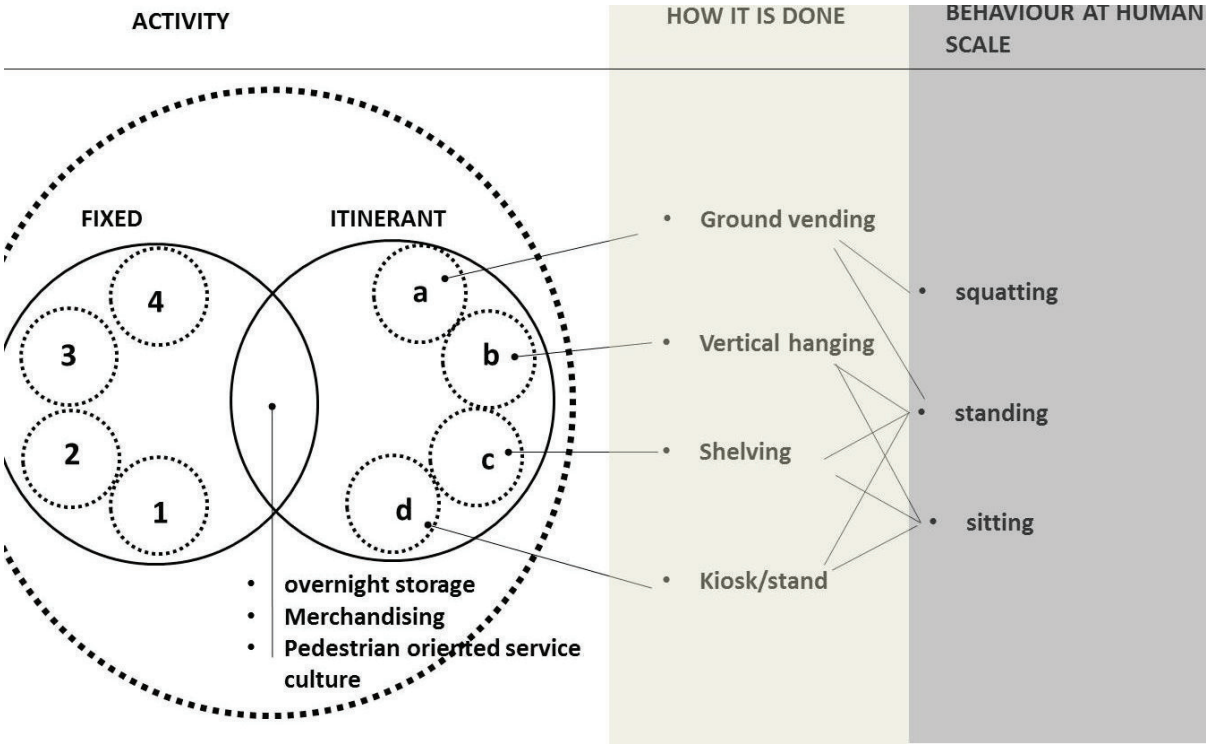
Spatial relationship between Formal and informal trade
Source: by Author

Upon the understanding of the spatial relationships between formal and informal traders, linking the two forms of trade can be achieved by creatively manipulating this relationship.Arranging parts of a multi-use building in a sequence of useful activities. Reinforcing the path by locating anchor tenants or magnets to influence a desired movement pattern that gives all shops and vendors access to the pedestrian footpath

Creating an environment of affordances

- **What are we affording?**

To cater for a variety of street traders behaviours found of site, an analysis of the behaviours of street traders found in and around the site. STAND, SIT and SQUAT (street traders body positions) and Hanging, Shelving, Mobile Kiosk, Ground mat (handling of goods) are to be afforded in appropriate locations in and around the building.

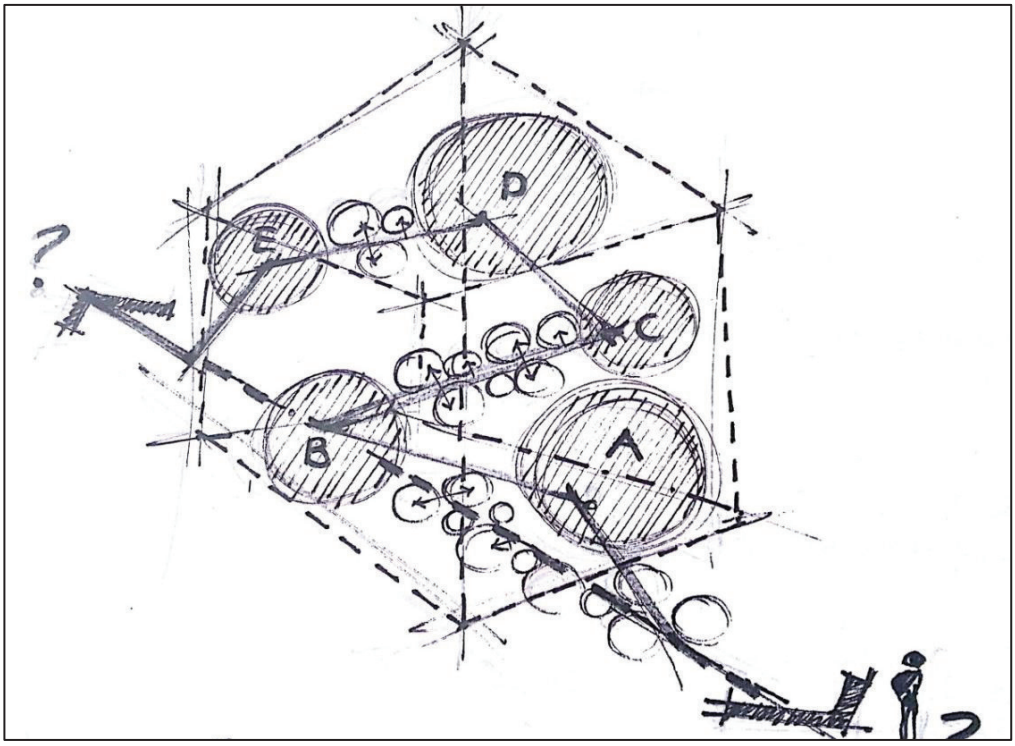


Spatial relationship between Formal and informal trade
Source:by Author

The program of the proposed built form incorporates flexible spaces that can be changed and customised to suite the user's needs. The design process will also include design of loose fit installations for traders made on site using affordable and available materials and skills.

2.4 CONCLUSION

The theoretical and conceptual framework brings together all the important issues related to the challenge of designing an environment for harmonious coexistence of formal retailers and street traders. The proposed design approach is one that fixes certain components of the building, creates flexible loose fit spaces and leaves open for users to appropriate. one of the main objective of the design is to draw enough pedestrians into the building to support the trade activities that it accommodates.



The collective form:
Source:by Author

The building is conceptualised as a **collective form** which is an interrelated ensemble of activity settings, each setting maintaining its own identity as it engages with the other system.

CHAPTER 3

SITE SELECTION, SURVEY AND ANALYSIS

3.1 INTRODUCTION

This chapter presents information about the three potential sites for the proposed street trader's centre in Isipingo Rail. The site selection process aids the understanding of the geographic location, historical and social context as well as the climate of the site. The potential sites are evaluated against the vision, the aims of the architect and the function of the building.

3.2 SITE SELECTION CRITERIA

The following factors were considered important in the site selection criteria:-

Pedestrian access

The most important factor in the site selection criteria is pedestrian access, the success of a street traders centre as retail facility relies in the volumes of foot traffic that passes through it. The building should have access to the major pedestrian paths in the CBD.

Area Base Intervention

The site should have street traders and formal retailers taking place on or around it. These will automatically be the beneficiaries of the intervention. This will be the act of providing a solution where it is needed. As a way of appropriately integrating street traders in the city fabric, the building should meet the street traders preference system, site location is one of them.

Zoning:

The site must zoned to allow mixed use development as the proposed building will accommodate, retail, offices and residential functions.

3.3 POTENTIAL SITES

The research used Isipingo Rail, Durban as a study area. Isipingo is a town 19kmout of Durban, forming part of the Ethekwini Metro. Three potential sites that fulfil the criteria set above have been identified in Isipingo rail. They all have the potential to accommodate a Street trader's centre.

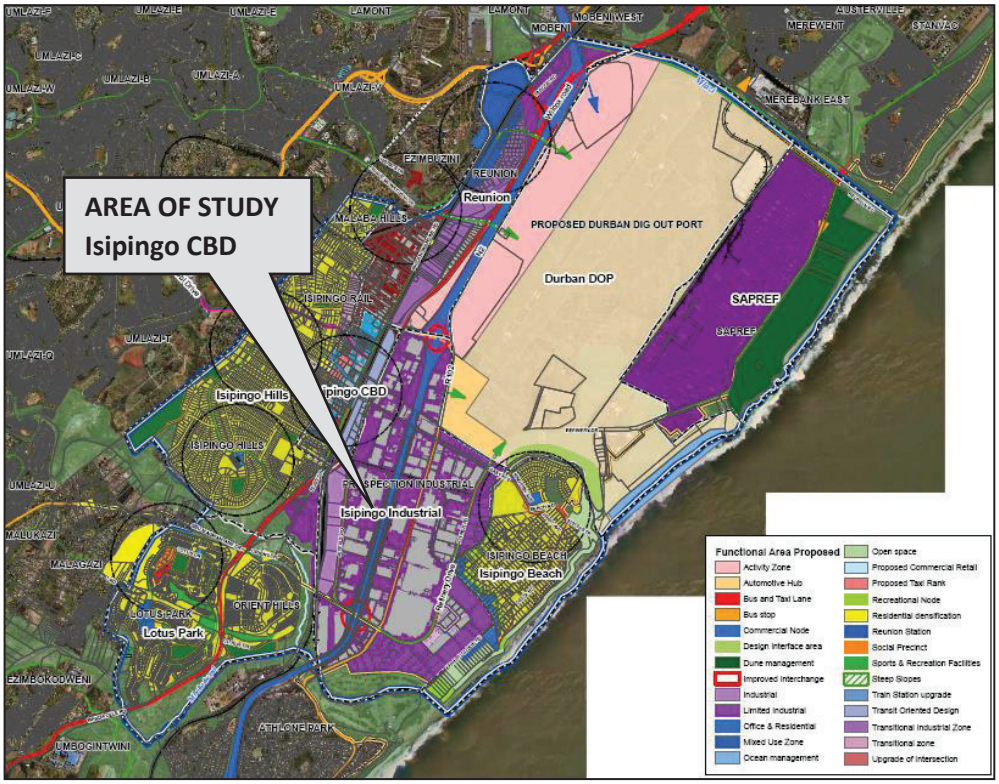


Fig 7.2.1 Location of study "isipingo Rail"

Source:

The list below identifies the chosen potential sites and their locations

Site 1: Intersection of Jadwat Street & Phila Ndwandwe Road

Site 2: Watson Road & Jadwat Street

Site 3: Alexandra Avenue & Tomas Lane

Fig 7.2.1 Location of potential sites in Isipingo rail

Source:by Author

3.3.1 Site 1: Jadwat Street & Phila Ndwandwe, Isipingo Rail

The site is located along the busiest pedestrian and vehicular routes on isipingo rail. The site is located at a point where all the routes from all transport nodes (taxi ranks and train station) merge. It is this high volume of foofall that attracts street traders. The area is now congested and looks chaotic at first glance because of the proliferation of street traders and small retailers operating form run-down buildings (see figure……..). The street traders have taken over the pavements in front of formal retail outlets causing clogging of pedestrian traffic and littering of the street.

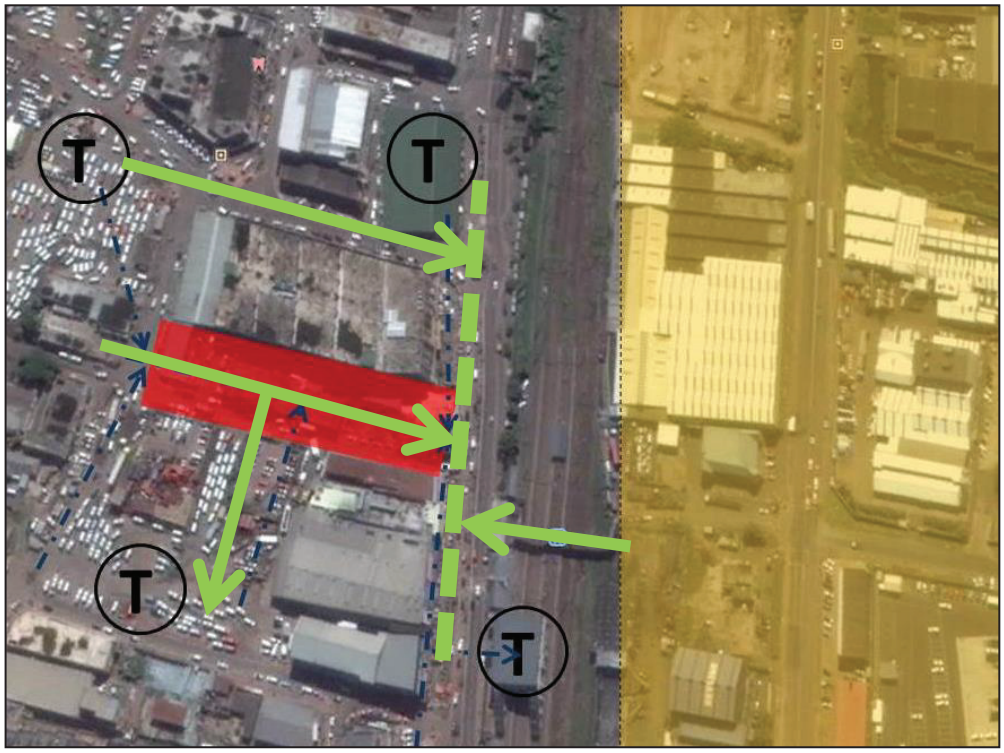


Fig 7.2.1 Location of Site 1

Source:by Author

Fig 7.2.1view of the site from Phila Ndwandwe street

Source:www.google-earth.com

FACTORS	RATING	Analysis
Access	Very good	Strategically situated along the main pedestrian routes
Public Transport	Very good	Very close to Major transport nodes such as taxi ranks and Railway station
Traffic	Very good	all roads around the site have high traffic volumes during the day and subside during the night
Orientation	Very good	the frontage of the site faces South
Size of site	good	Well bounded by roads and adjacent buildings
Urban Context	good	Situated with the Isiphingo central business district With high pedestrian activity Close proximity to major nodes
Site Exposure	good	Is exposed to the pedestrian route along Jadwat Street

3.3.2 Site 2:Wtason road &Jadwat street, Isipingo rail

The site is currently vacant and is being used informally as a parking area with a couple of informal traders. It lies along the street that connects the busy commercial spine (Phila Ndwande road) to one of the taxi rank.

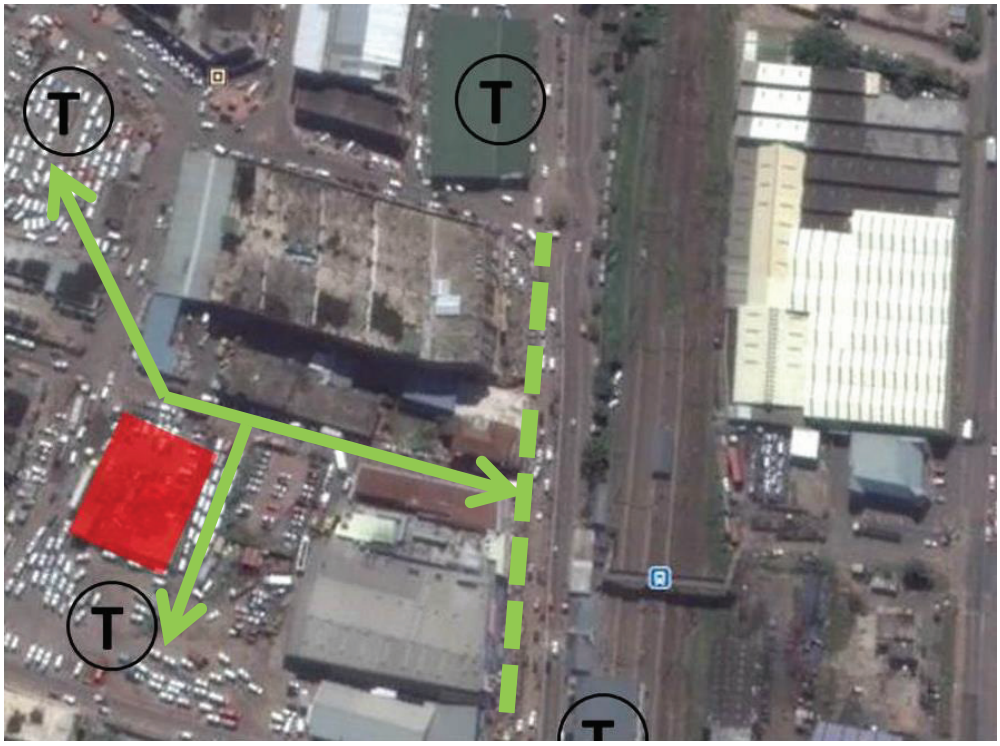


Fig 7.2.1 Location of Site 2

Source:by Author

Fig 7.2.1 View of the site from Jadwat Street

Source:by Author

FACTORS	RATING	DESCRIPTION
Access	good	Situated off the main commercial spine
Public Transport	Very good	Very close to Major transport nodes such as taxi ranks and Railway station
Traffic	Very good	all roads around the site have high traffic volumes during the day and subside during the night
Orientation	bad	The site has 5 street edges to address
Size of site	Very good	Well bounded by roads and adjacent buildings
Urban Context	good	Situated with the Isiphingo central business district With high pedestrian activity Close proximity to major nodes

3.3.3 Site 3: Alexandra Avenue & Tomas Lane

The site is boadered by three taxi ranks and is rich in pedestrian activity. Currently the site is accommodating a mixed use building that is is a good state, possible one of the good looking buildings in isipingo rail. There is a lot of street trading activity happening alongside small formal retail oulets (see Fig…….). The short comings of this site is that it is off the commercial spine of isipingo rail and it functions in isolation to the rest of the CBD.

Fig 7.2.1 Location of Site 3

Source:by Author

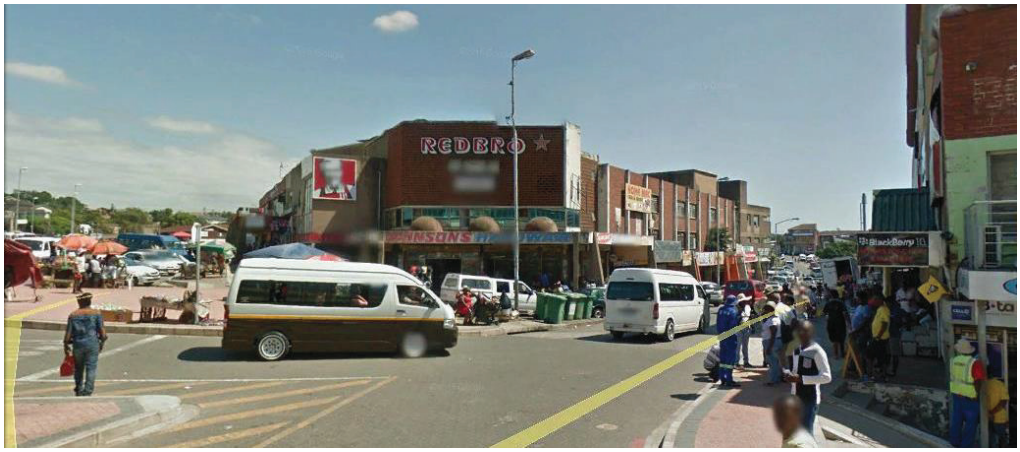


Fig 7.2.1 Street view of the site

Source:by Author

FACTORS	RATING	DESCRIPTION
Access	Very good	The site is rich in pedestrian activity
Public Transport	Very good	Very close to Major transport nodes such as taxi ranks and Railway station
Traffic	Very good	all roads around the site have high traffic volumes during the day and subside during the night
Orientation	bad	The site has 5 street edges to address
Size of site	Very good	Well bounded by roads and adjacent buildings
Urban Context	bad	Situated off the main commercial spine of Isiphingo Rail

3.4 SELECTED SITE ANALYSIS: Site 1: Intersection of Phila Ndwandwe and Jadwart street

3.4.1 Historical Background of the Area

Isipingo is a town 19kmout of Durban, it is part of the Ethekwini Metro. The town developed as an apartheid town and is characterised by socio-political and economic issues similar to those of other colonial cities in the 3rd world countries. The issues include: the state induced racial zoning, the absence of socialist principles of equality and wide gap between the rich and the poor. (Moodley, 1997). Like any other apartheid towns, Isipingo town residents face different kinds of difficulties e.g. decreasing socio-economic status, high densities and squatter settlements, increasing unemployment etc. (Moodley, 1997), and most visibly increasing informal activities (most of it in the form street trading) in public spaces. Today Isipingo Central Business District exhibits a dualistic economic landscape comprising of a formal western and informal 3rd world economic structure (Informal street traders existing alongside formal traders/shop owners). By means of observation, unmanaged street trading activities are seen to be causing degradation and is compromising the spatial quality of public spaces e.g. clogging of streets by human and vehicles, proliferation of crime and pressure on sanitation facilities. It demonstrates a need for well-informed strategies of integrating informal trade into the city's trade landscape.

3.4.2 Macro Context Analysis

The site is a walking distance away from all the major facilities including transport nodes the hospital and the industrial area in Isipingo. It is located at the heart of the main commercial street (Phila Ndwandwe road), where all the major pedestrian routes meet. It is also located directly opposite to the only pedestrian access to the industrial area, a bridge that crosses the railway reserve it enjoys good flow of high volumes of footfall for most of the day.

Major proposalsfor the area as stated in the eThekwini Spatial Development Plan (2016) include pedestrianizing Jadwat Street, introducing a new pedestrian bridge over Phila Ndwandwe street and the railway land and refurbishing the existing Transport Hubs .The site chosen site will directly benefit from by these developments.

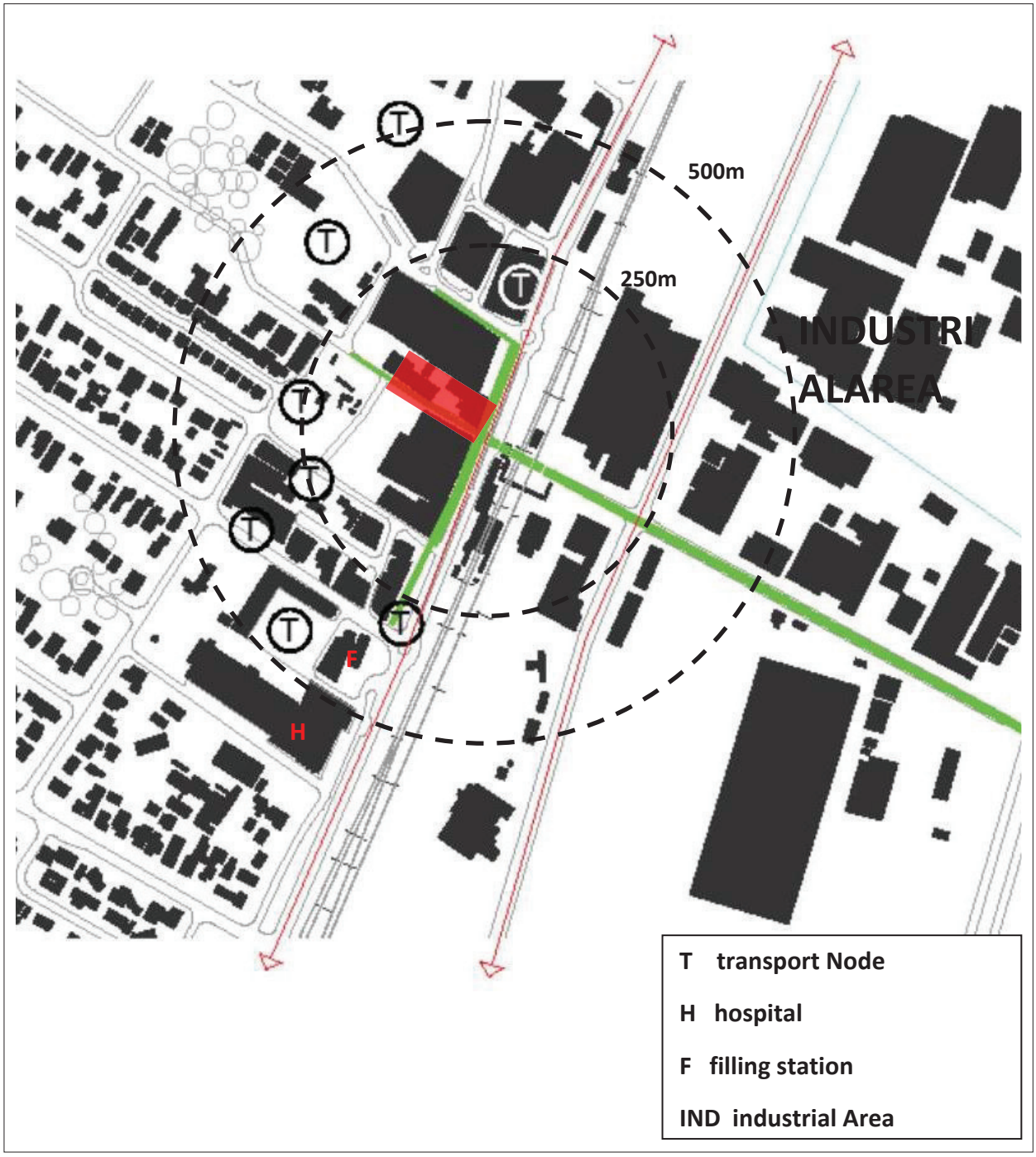


Illustration 2.4.2.1 - Macro context around site
Source: by author

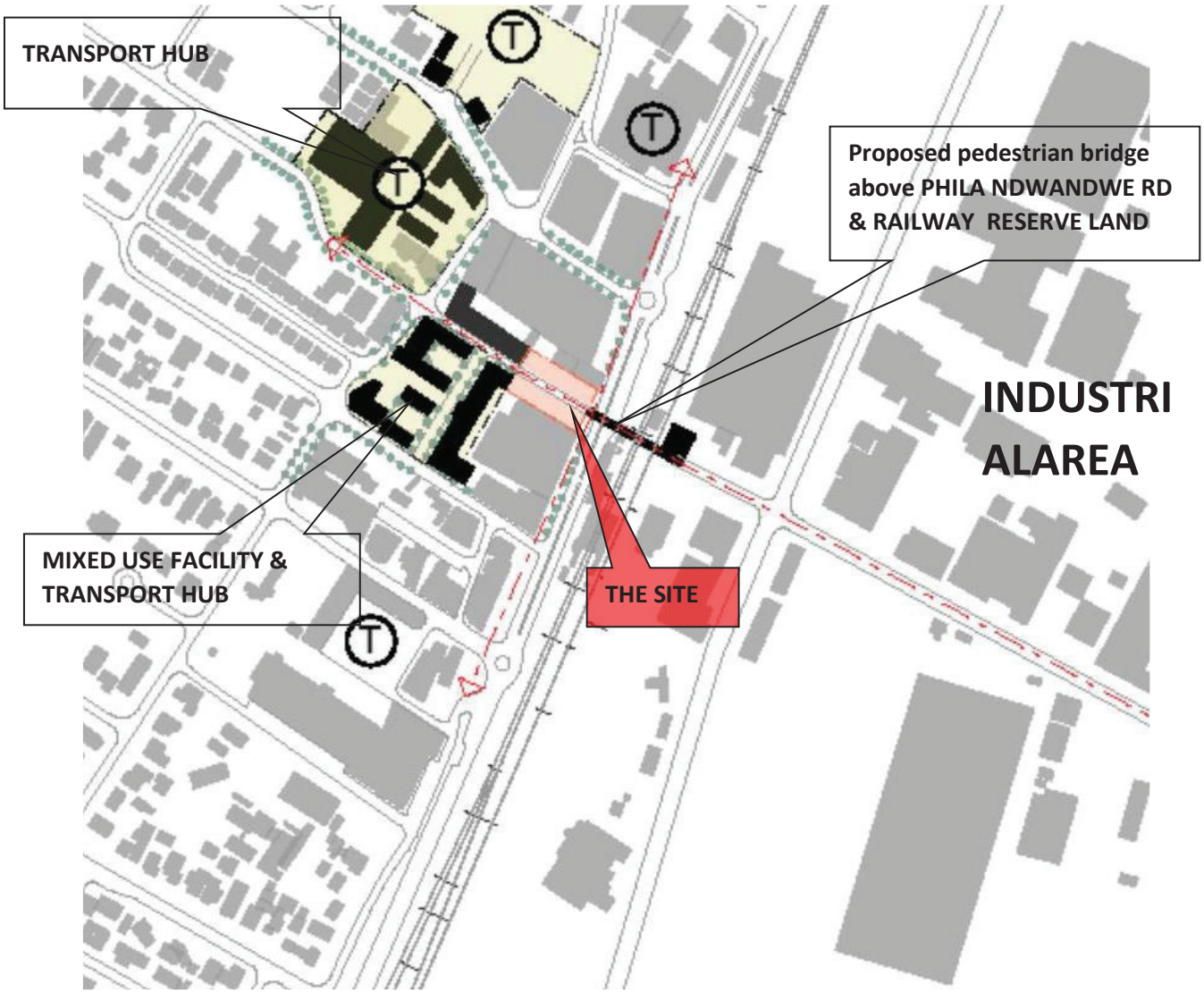
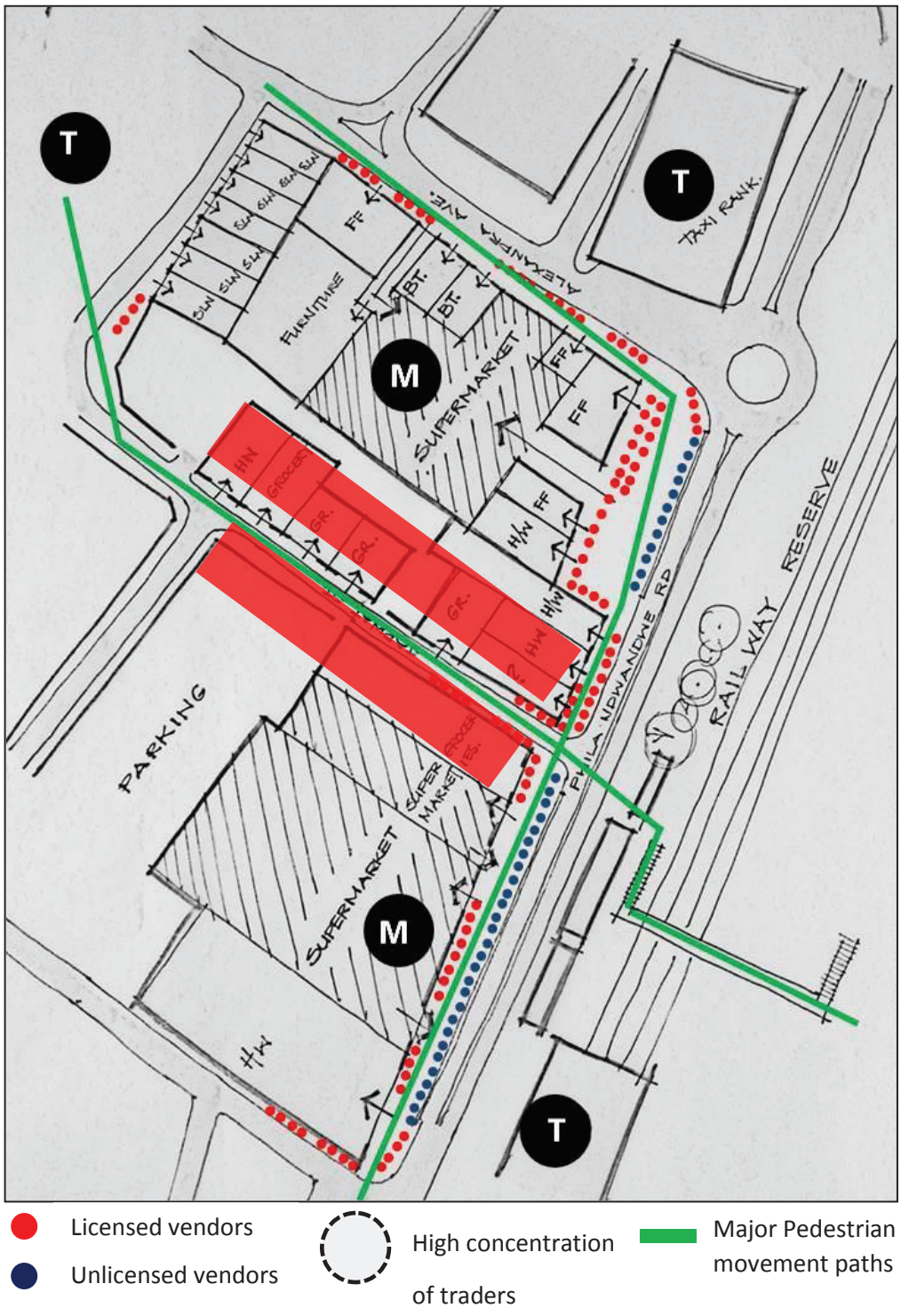


Illustration 2.4.2.1 – Major Proposals
Source: by author

3.4.3 Micro Context Analysis

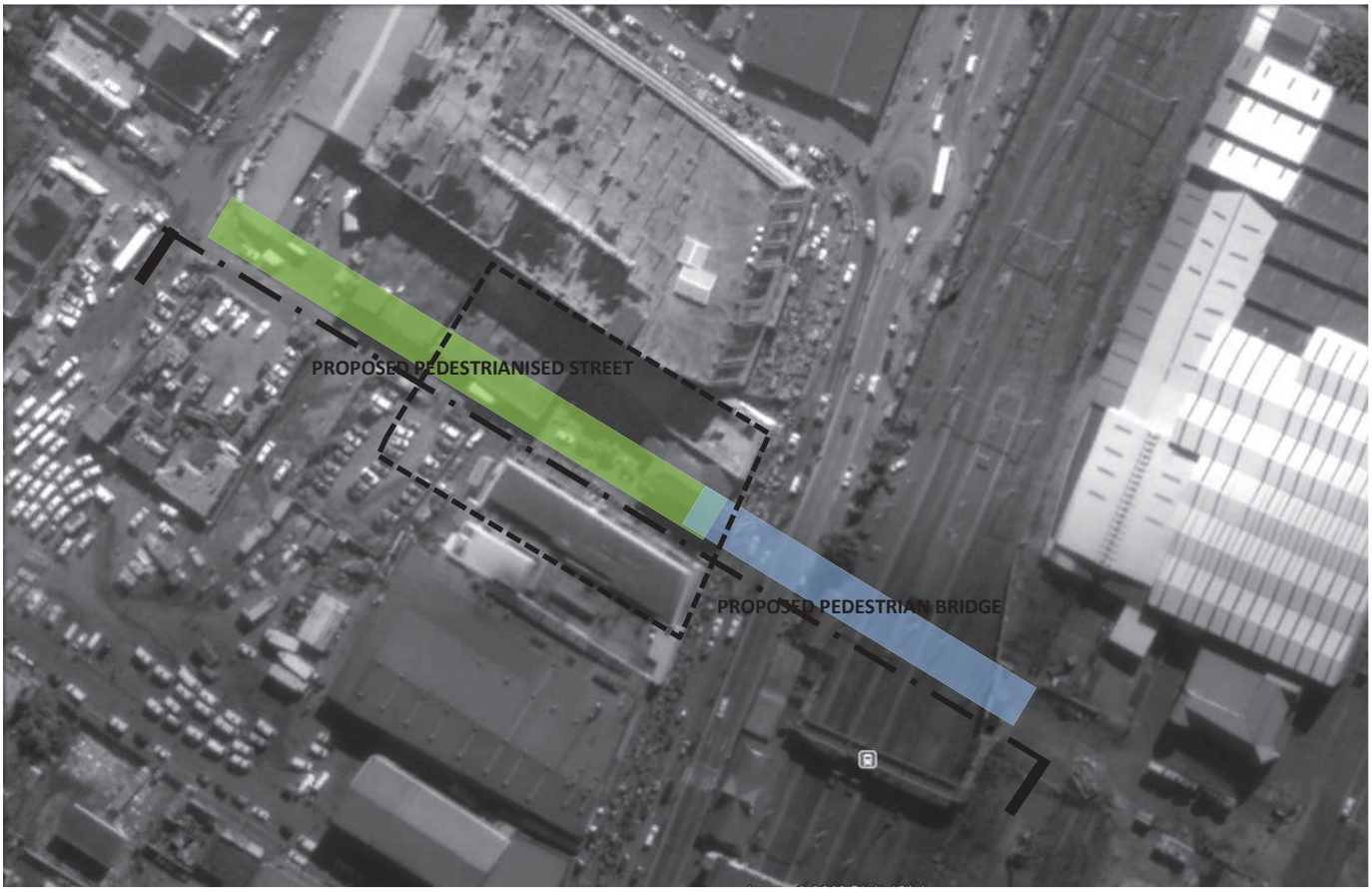
The existing structures on the site are rundown low-rise buildings accommodating predominantly retail activities. Street traders have taken over the spaces in from of closed shops and blank walls. Formal retailers in and around the site complain about the high rate at which the physical quality of the area is deteriorating. One hardware shop owner who has been operating his business next to the site for over 20years mentioned that the proliferation of crime and chaotic street vending activities scaring away rich people from visiting the area.

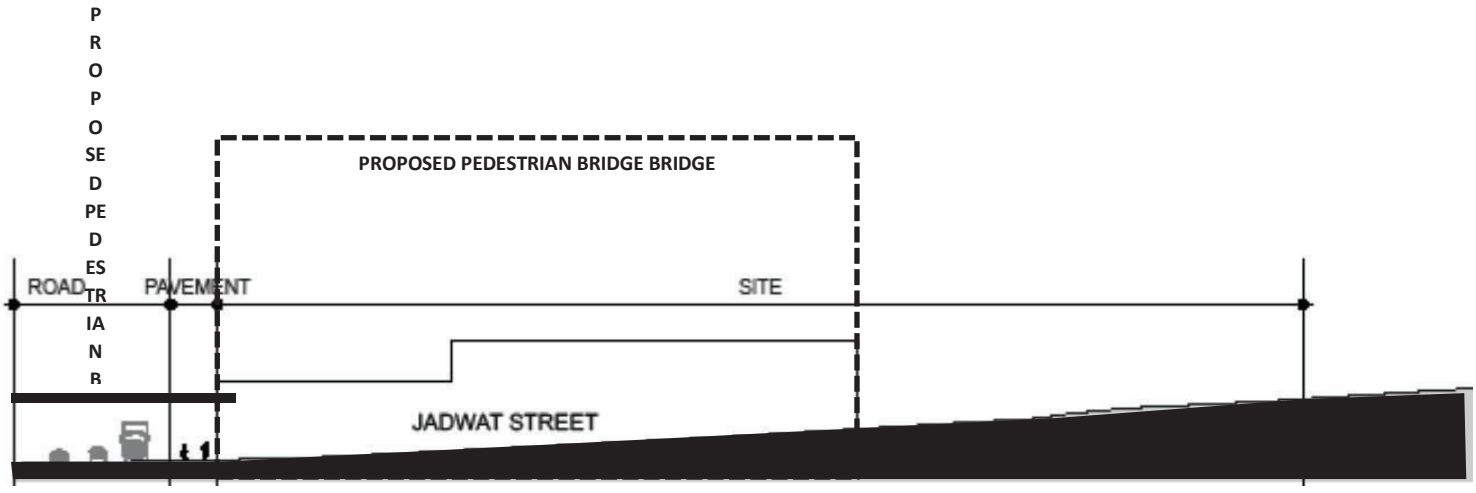


Activities at street level

Source: by author


JUST ON
JUST ON


PROPOSED PEDESTRIANISED STREET
PROPOSED PEDESTRIAN BRIDGE


PROPOSED PEDESTRIAN BRIDGE
PROPOSED PEDESTRIAN BRIDGE BRIDGE
ROAD
PAVEMENT
SITE
JADWAT STREET

CHAPTER 4
DESIGN DEVELOPMENT AND RESOLUTION

PROJECT DESCRIPTION

Problem statement : Our cities commercial environments are shaped by formally derived built form that is conceived and designed to suite a universalistic generalised social experience and less supportive towards the urban poor. Such built form is obsolete to most of today's liberalised citizens with a wide range of social strata and differing lifestyles. Street trading on pavements within and around the existing buildings occurs as a result of the poor claiming their space in the formal urban landscapes.

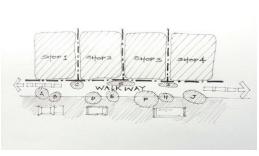
Street trading activities have been blamed for obstructing the smooth
- operations of the formal retailers housed in city blocks by:
- clogging of pavements,
- exerting pressure on sanitation facilities,
- stiff competition to formal business etc.
  therefore traders are seen as out of place elements in the modernist city
  and are regularly evicted in street clearing operations.

Aim: The design of a street traders centre seeks to provide an appropriate infrastructure for integrating street traders in Isipingo Rail into the city fabric. The built form aims at creating an environment for harmonious coexistence of formal retail and street traders.

The initiative is born out of
•an understanding of the underlying dynamics of informal and formal trade in markets and CBDs.
•an investigation of the behavioural patterns and a supportive work environment
•the understandingof how the dynamics of informal trade and formal trade influence the design process.

Objectives: to increase trading employment and investment oppotunities for the urban poor.
- to provide an appropriate infrastructure for integrating street traders in Isipingo Rail into the city fabric.
-the environment should be safe and clean
- Encourage transparency
-Must be accessible
-The building should be easily identifiable and a landmark in the city
-The building should improve pedestrian movement and connections to the city nodes.

CONCEPTUALISING THE STREET AS A BEHAVIORAL SETTING



The figure highlights behavioural settings along a commercial street in the CBD. The traders and shops on and along the pavements are seen as “places” or “activity settings” located on
the links.

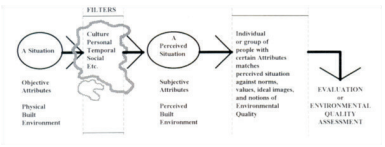
key concepts

1. Place dependance

There is a bond between the users and ideal locations of trade, a phenomenon referred as Place dependance. Here, “ the place is valued based on its ability to satisfy needs or behavioural goals of an individual or group compared to other places ” (Williams, et al., 1992).

2. the concept of “perception”

The appreciation of an environment or evaluation of environmental quality varies and is influenced by previous experiences of individuals, their adaptation levels, deprivation and familiarity.



the concept of supportiveness- Rapoport defines the concept of “supportiveness” by answering the following 3 questions:

1. What is being supported?....refers to culture and their expression.
2. What is supporting it?.... refers system of settings
? How is it being supported?...referes to instrumentally supportive elements e.g. meaning

The Notional Client
The project is to be realised through a private public partnership. The arrangement involves Ethekwini municipality and a private party enter into a joint venture to develop the Street traders centre.

The eThekwini Municipality Informal economy Policy encourages and supports opportunities for informal traders on the sites that are properly managed and monitored through effective intergration from different municipal departments.

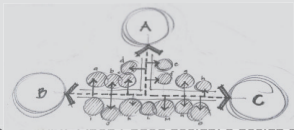
Ground floor	Space	Quantity	Size	Total Area
·Informal traders food court	· food prep areas · communal Dining area			
·Formal food outlets	· storage · prep area · pay point · eating area			
·Storage facility	· barrow ramps · store rooms · ablutions and lockers			
Res Section /Office lift lobby				
·The Path	· Demarcated vending bays · Mixed trading space			
·Security station				
Flea Market Space	· Flexible trading spaces · Food court · Fast food outlets · Eating area			
	· Departmental Store			
·Waste management centre	· Waste sorting & holding area · Waste collection area			
·Delivery yard	· Barrow storage · Workshop · Public ablutions · Male ablutions · Female ablutions · Small business studios · Formal retail space			
Third Floor				
The Path	· Demarcated vending bays · Mixed trading space · Centre management offices · reception · boardroom · open plan office · Kitchenette			

1. DESIGNING FOR COHABITATION OF DIVERSE LIFESTYLES

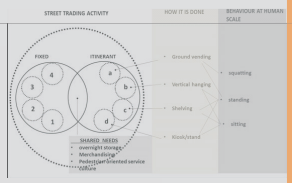
key theorists:

Fumihiko Maki, 1928. discovering the interdependence between the two discrete systems.

A building is conceived as a container of discrete systems: each system should be able to maintain its identity while engaging with the system. the establishment of interdependency between the groups of people involved is vital.



Amos Rapoport, 1966, Open Ended design: a design method which dertemines certain parts of the building i.e the framework allowing other parts, including the unforseen pones to happen spontaniously.



P E A M B L E

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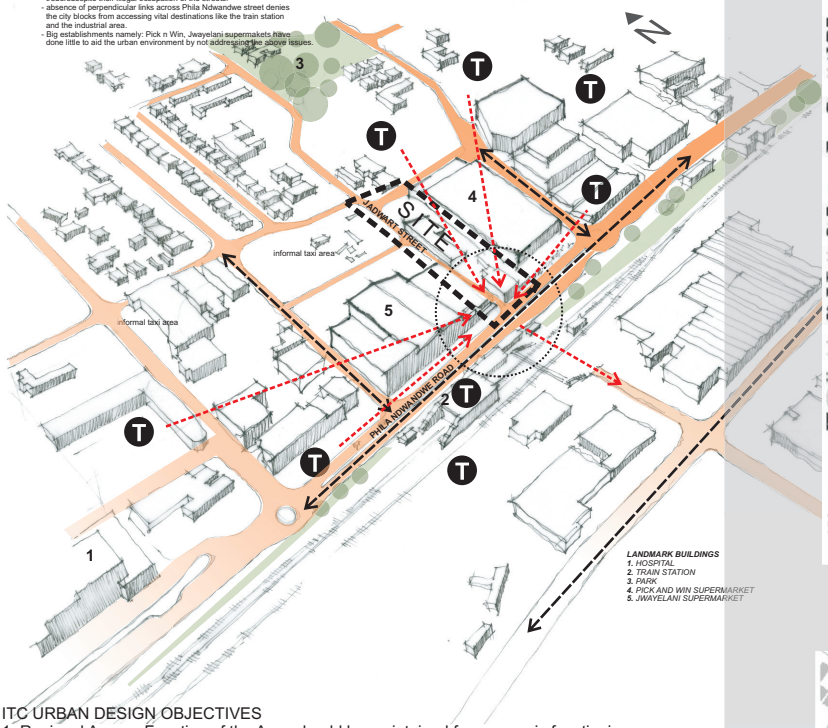
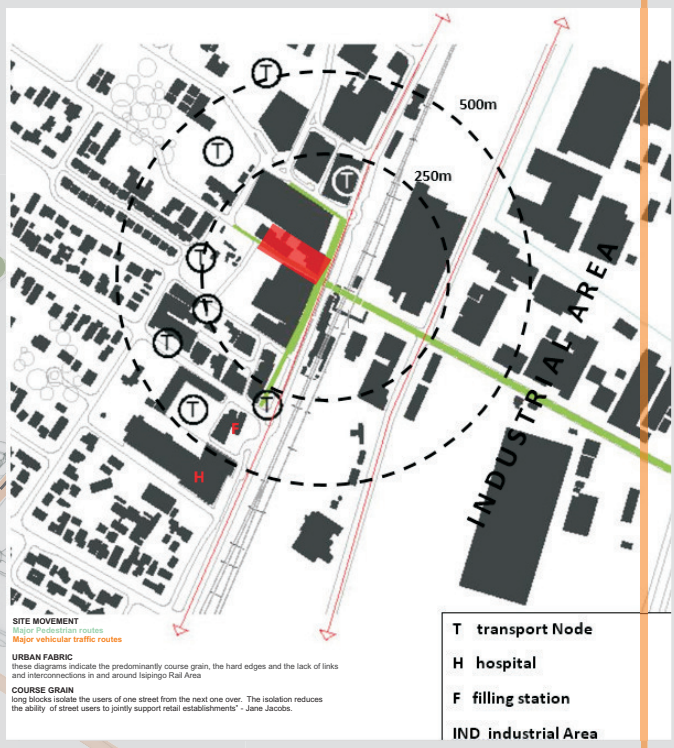
Isipingo is a town 19km out of Durban, it is part of the Ethekwini Metro. The Town Centre is regarded as a significant regional node within the southern corridor of Durban located along the R102 and the southern rail system. Isipingo is regarded as the second largest public transportation hub after Warwick with mini bus taxis being the dominant mode of transport within this area.

The lack of a clear internal circulation system, a shortage of basic facilities, coupled with fragmented ownership patterns has led to incremental and un-coordinated growth.

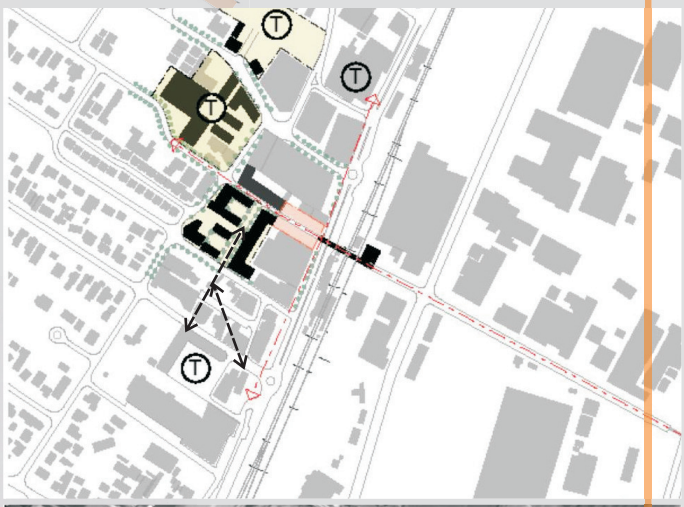
Negative pedestrian environment due to:
- very narrow pedestrian walkways which create bottlenecking to pedestrian mpovement
- the current conditions along the streets doies not carter for informal tredersdespite their illegal occupation of the streets.
- absence of perpendicular links across Phila Ndwandwe street denies the city blocks from accessing vital destinations like the train station and the industrial area.
- Big establishments namely: Pick n Win, Jwayelani supermakets have done little to aid the urban environment by not addressing the above issues.

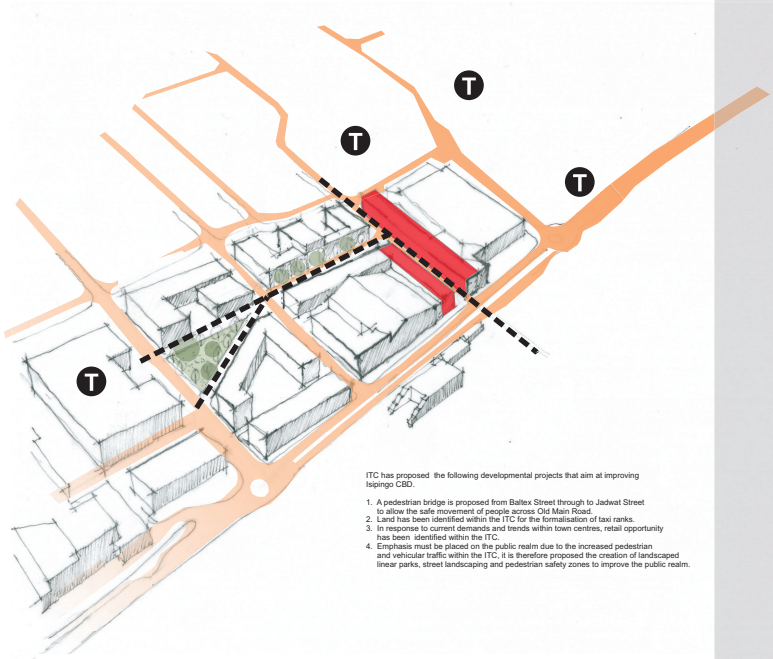


LANDMARK BUILDINGS
1. HOSPITAL
2. TRAIN STATION
3. PARK
4. PICK AND WIN SUPERMARKET
5. JWAYELANI SUPERMARKET



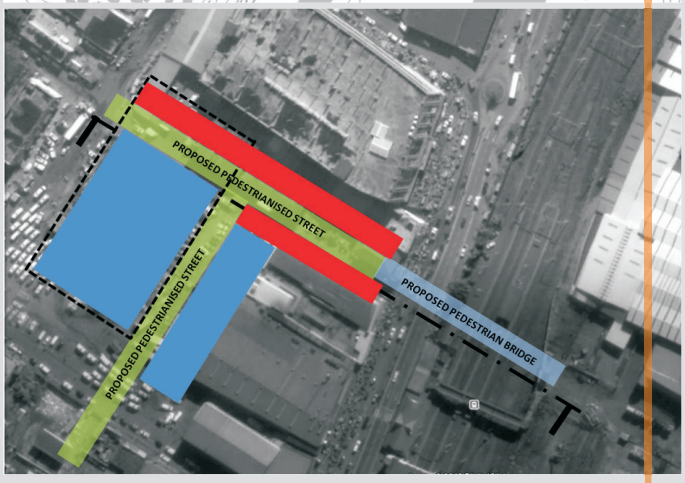
ITC URBAN DESIGN OBJECTIVES
1. Regional Access Function of the Area should be maintained for economic functioning
2. To improve localized connectivity and movement for both vehicles and pedestrians.
3. To improve walkability - Residents should have access a basic level of urban service within a 5- minute walking radius
4. To improve the general Public Transport Accessibility and utilization.
5. To ensure that Regional Freight Movement associated with the N2 and Prospecton Road are accommodated.
6. To improve access to urban social opportunities Spatial intervention in Isipingo should

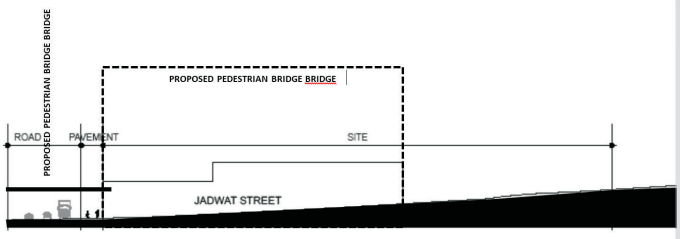




ITC has proposed the following developmental projects that aim at improving Isipingo CBD.

1. A pedestrian bridge is proposed from Baltex Street through to Jadwat Street to allow the safe movement of people across Old Main Road.
2. Land has been identified within the ITC for the formalisation of taxi ranks.
3. In response to current demands and trends within town centres, retail opportunity has been identified within the ITC.
4. Emphasis must be placed on the public realm due to the increased pedestrian and vehicular traffic within the ITC, it is therefore proposed the creation of landscaped linear parks, street landscaping and pedestrian safety zones to improve the public realm.





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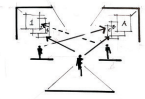
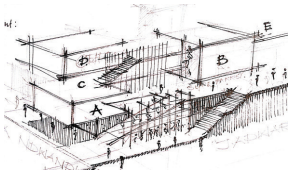
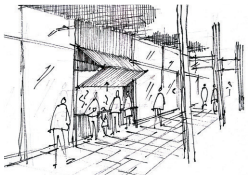
DESIGN PRINCIPLES

1. legibility:
Equal opportunities for visual merchandising

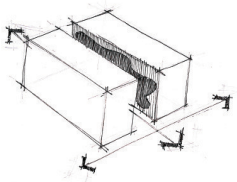




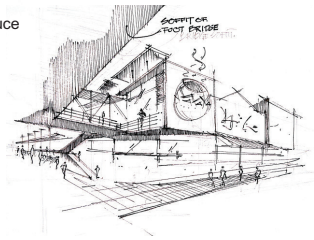
2. Socio-economic inclusiveness:
creating opportunities for informal traders within the city fabic.



3. permeability:
improve pedestrian movements and connections to key nodes and vusual links.

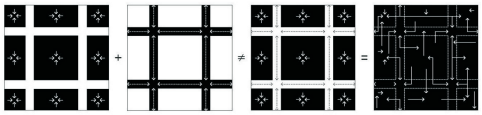


4. safety:
make use of natural surveillance to reduce crime in and around the building.

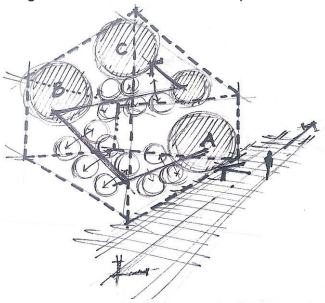


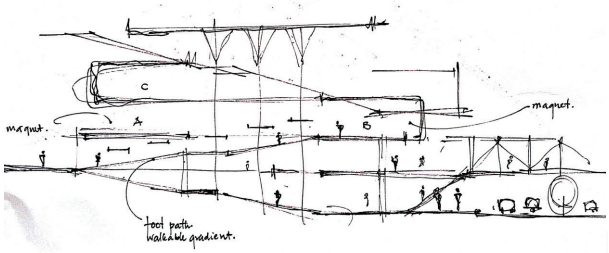
CONCEPT DESIGN

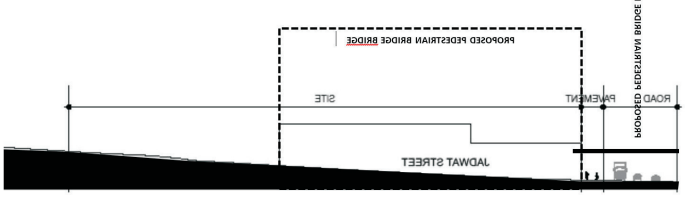
at macro level: Combining architecture with infrastructure
Dessolving the borders between architecture and infrastructure: makes the architecture highly contextual and profoundly human.



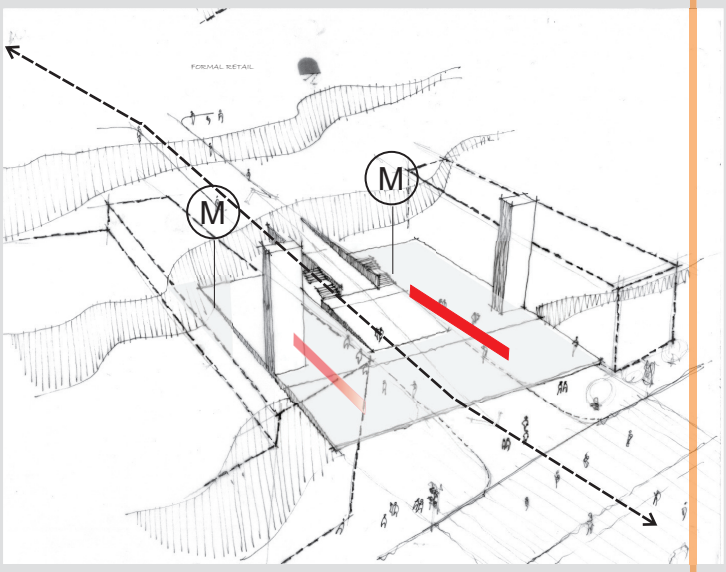
at micro level: Influencing desired movement patterns inside the building through the use of MAGNETS and a path with affordances.

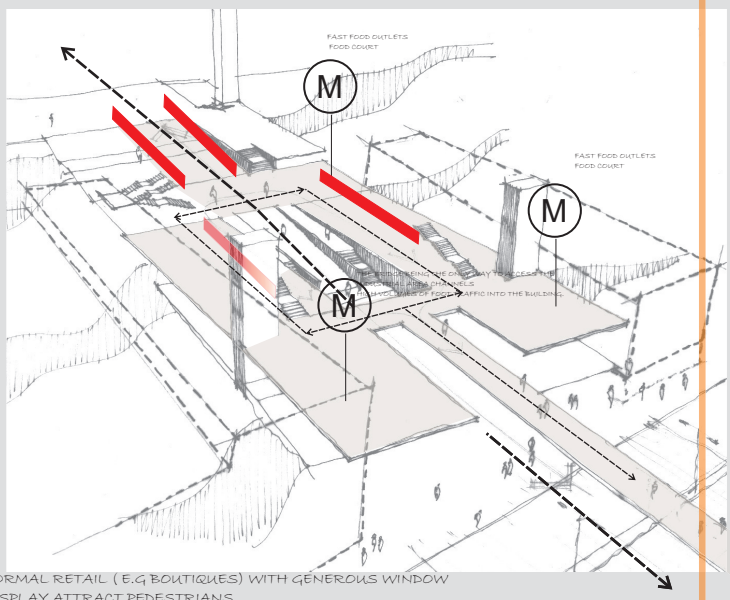




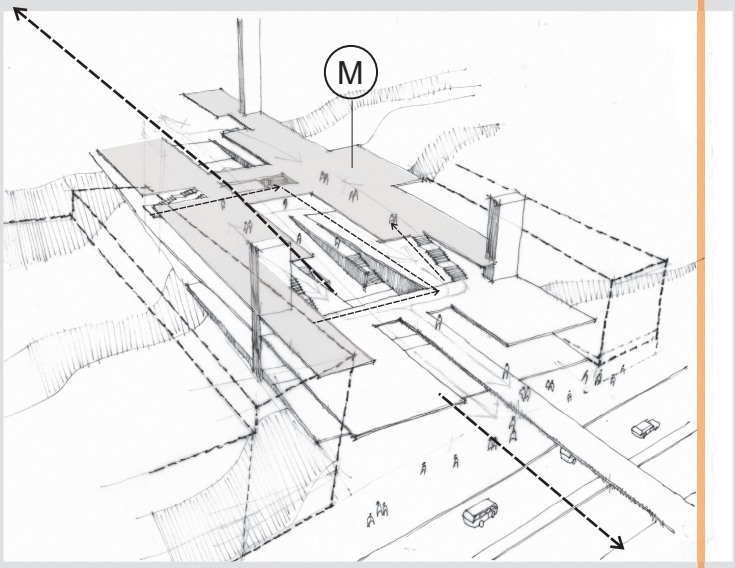


CONCEPT EXPLORATION





FORMAL RETAIL (E.G BOUTIQUES) WITH GENEROUS WINDOW DISPLAY ATTRACT PEDESTRIANS.



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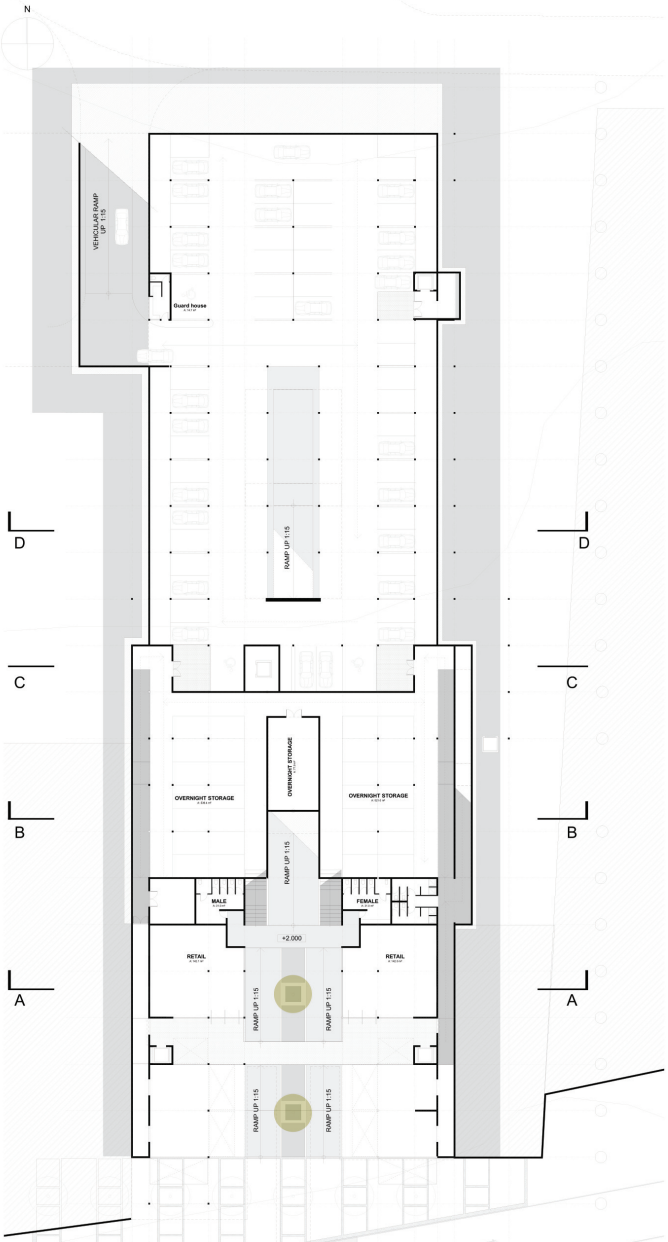

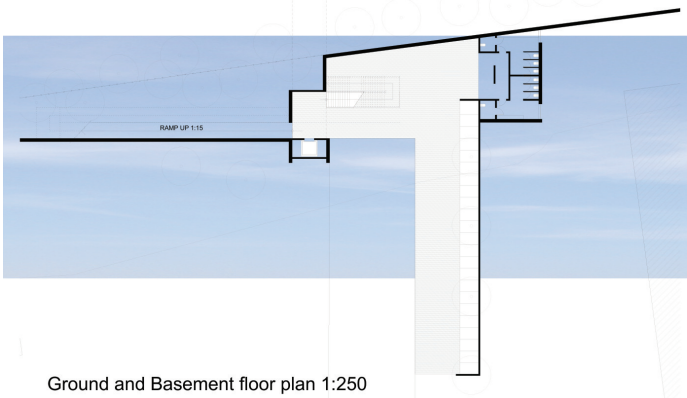

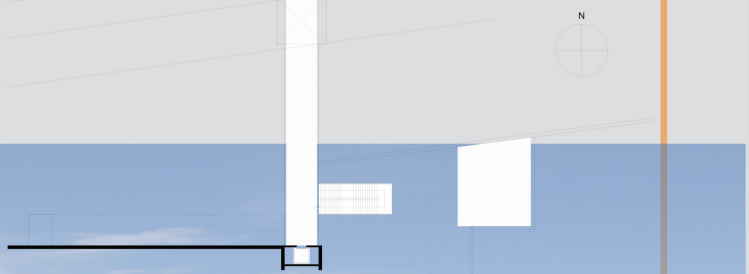

Ground and Basement floor plan 1:250

First floor & Bridge level Plan 1:250

FLOOR PLANS AND ELEVATIONS

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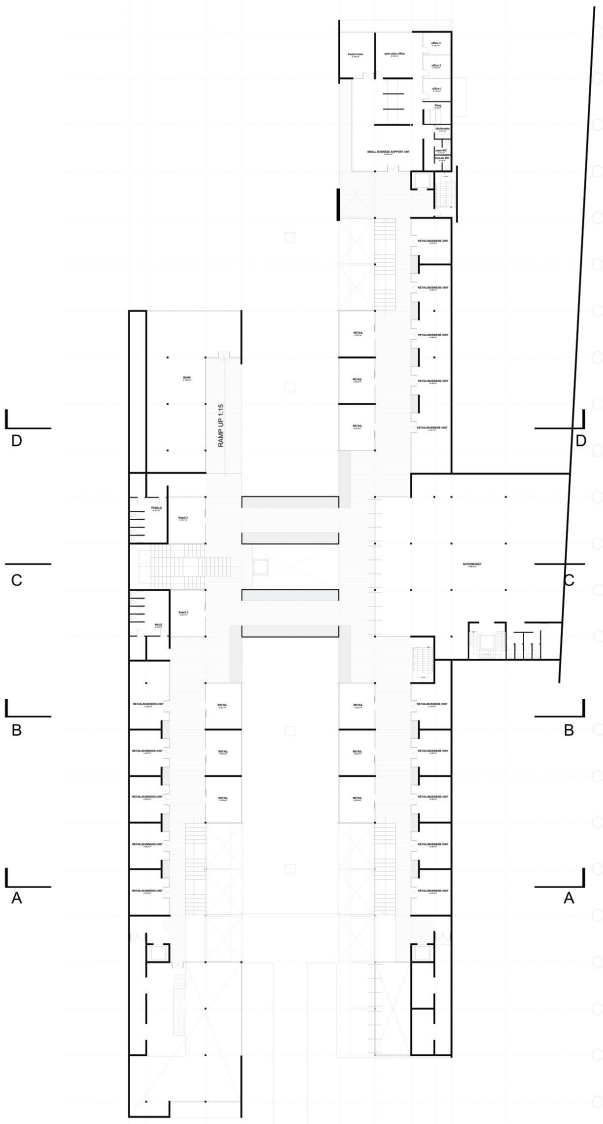
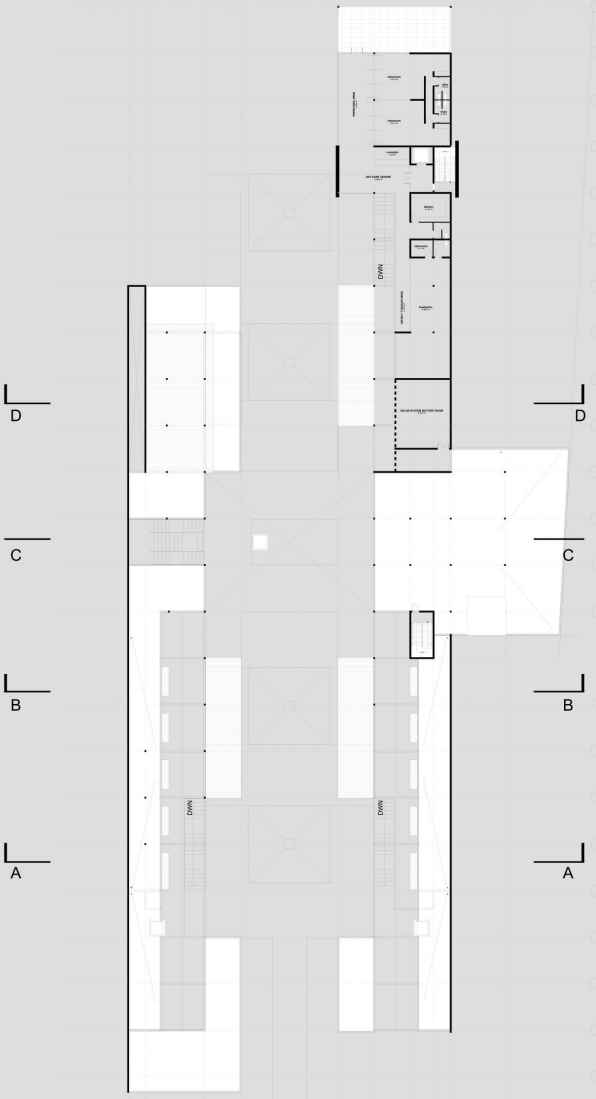
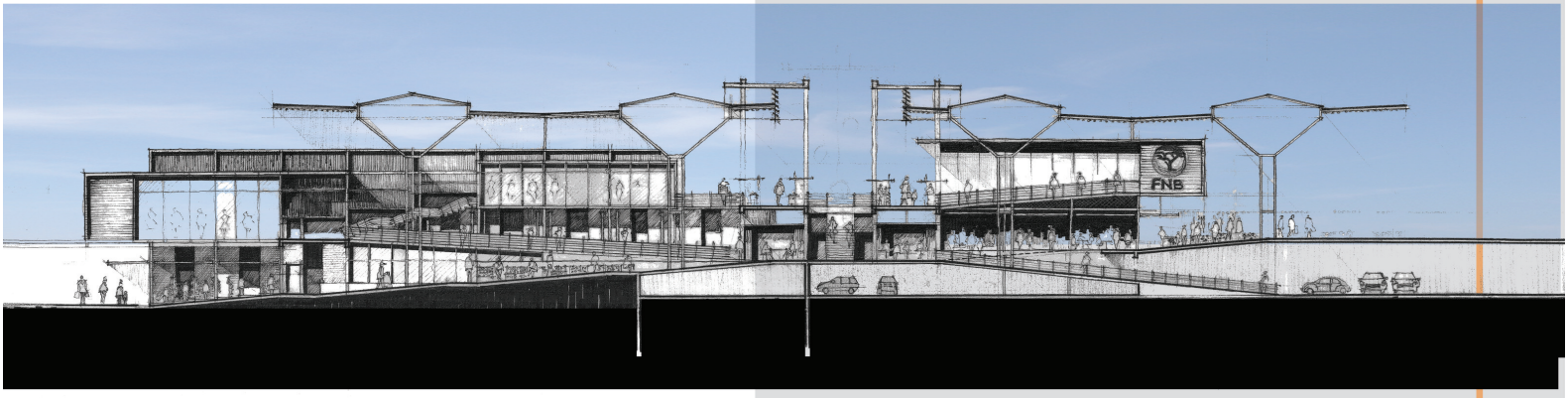


Third Floor Plan 1:250



Fourth Floor Plan 1:250



FLOOR PLANS AND ELEVATIONS

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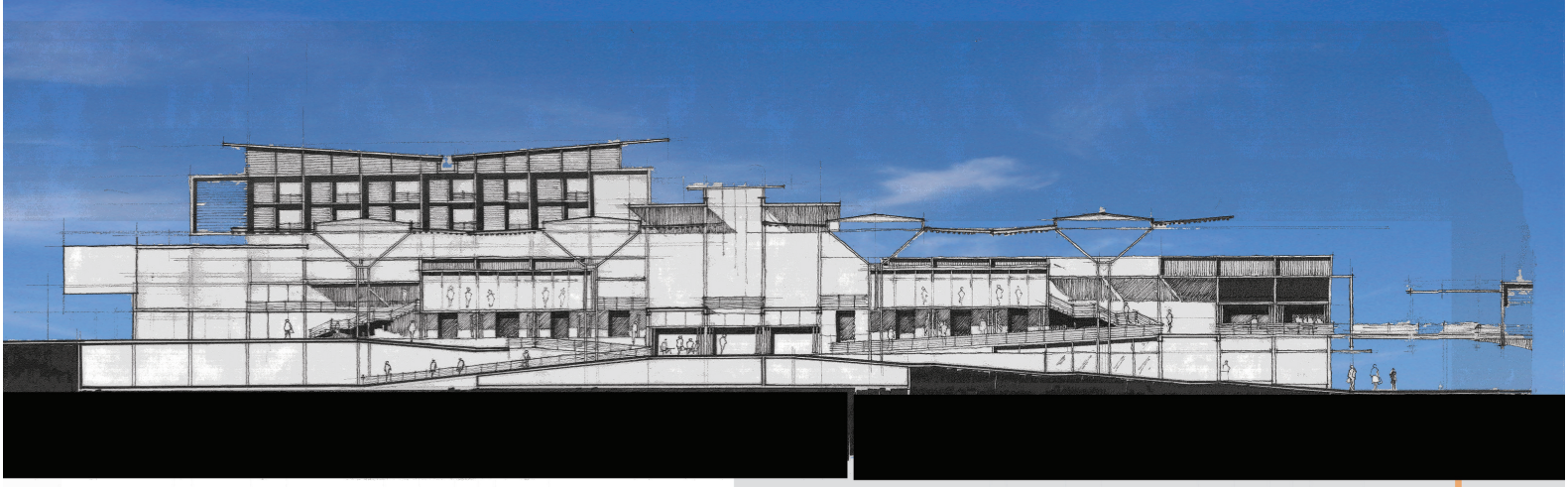

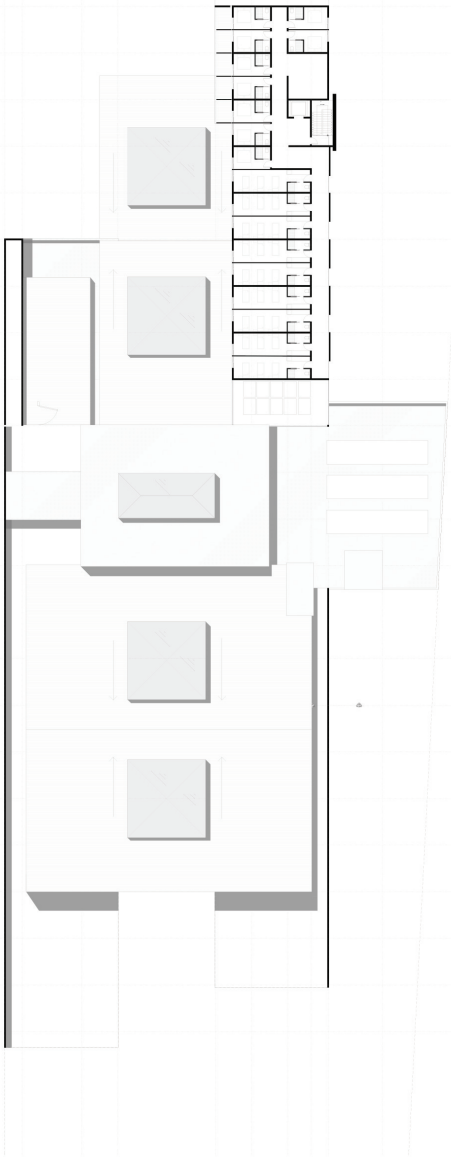

Fifth & Sixth Floor Plans 1:250

Roof Plan 1:250

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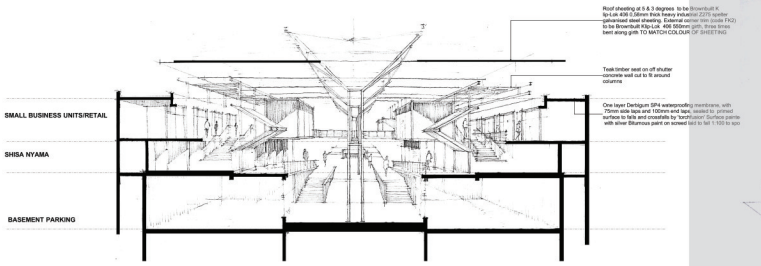
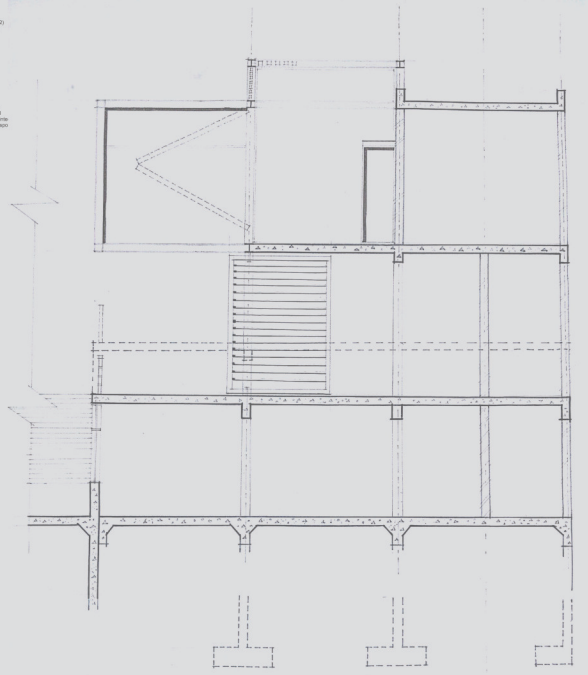
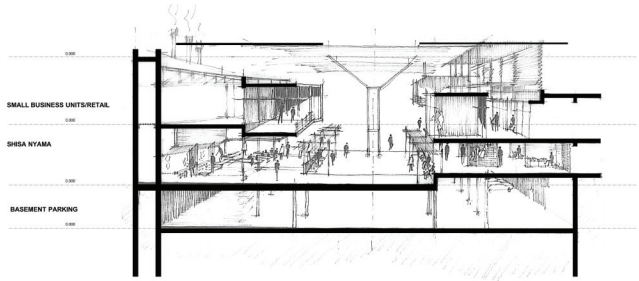
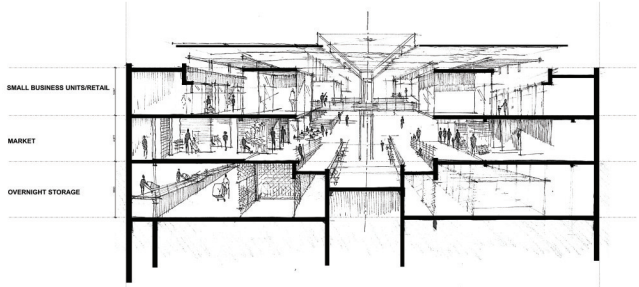


SECTION A-A

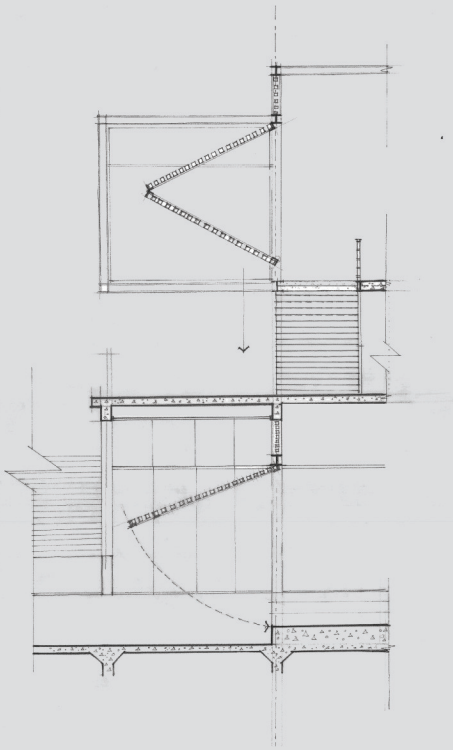


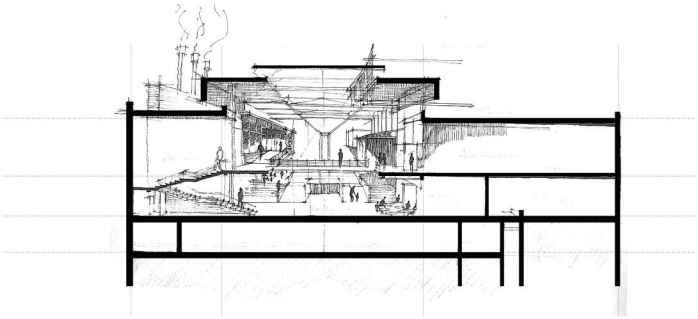


SECTION B-B



SECTION C-C





SECTION D-D

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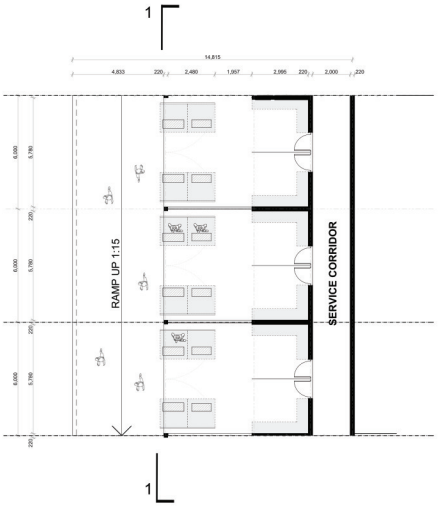
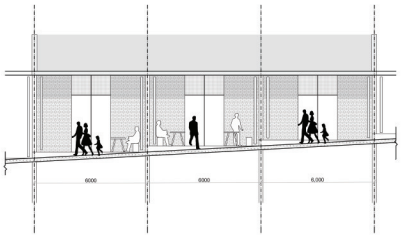
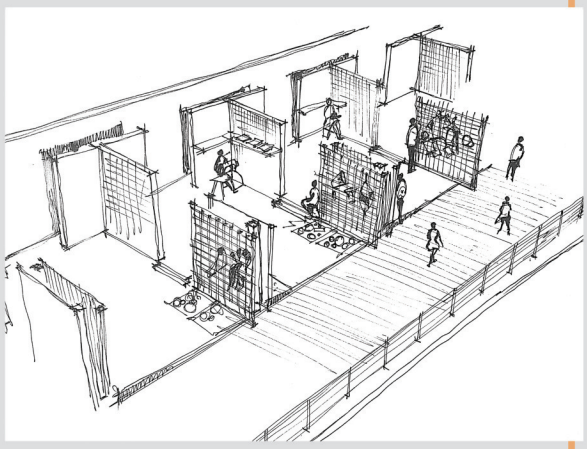
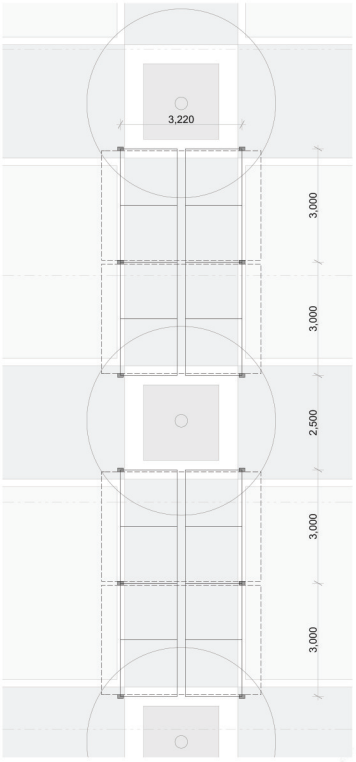
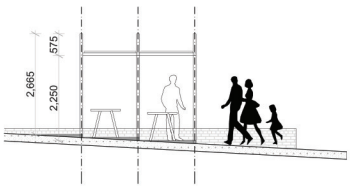
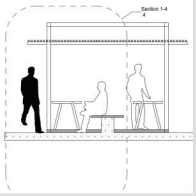


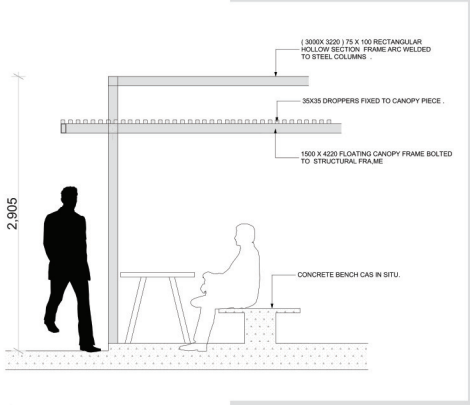




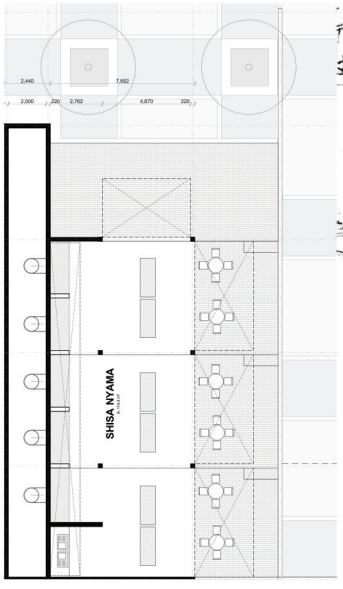


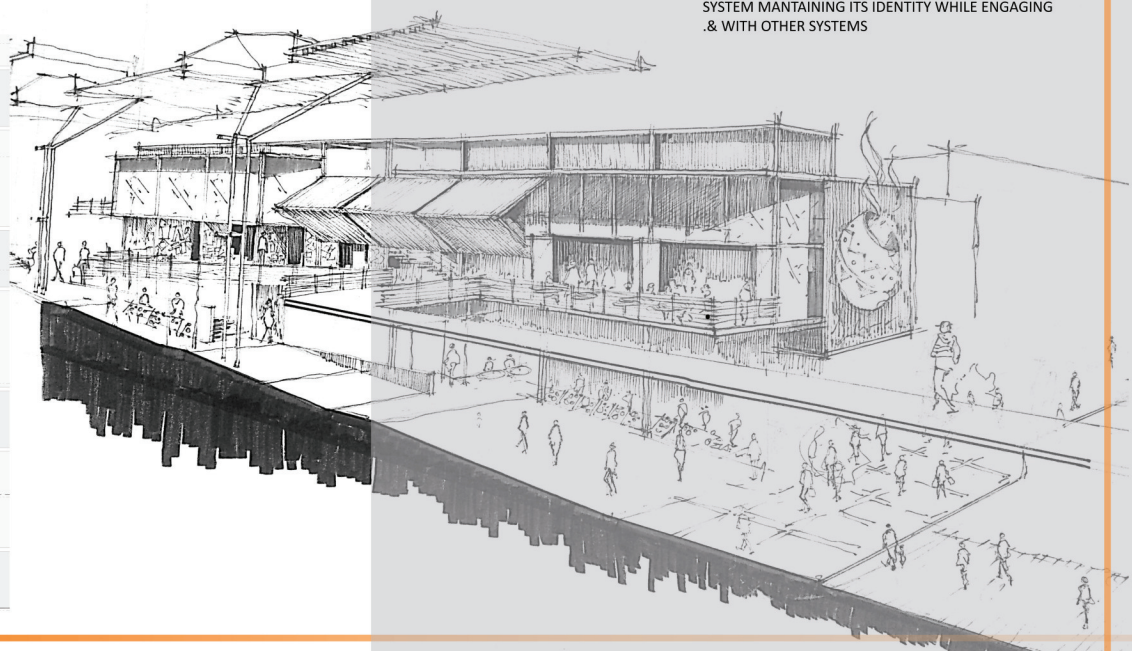






HBUILT FORM AS A CONTAINER OF DIVERSE SYSTEMS, EACH SYSTEM MANTAINING ITS IDENTITY WHILE ENGAGING .& WITH OTHER SYSTEMS





PROVISIONS FOR INFORMAL TRADERS

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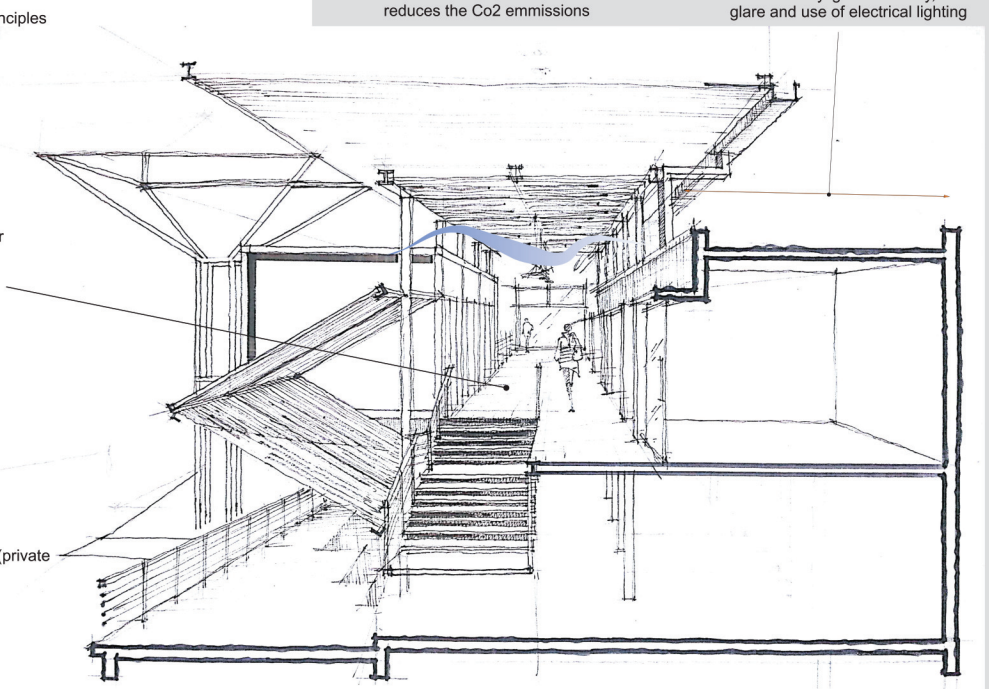
ENERGY AND COMFORT FUNDAMENTALS
The building design has been driven by 5 basic principles

- narrow footprint
- shaded courtyards not atria
- focus on urban comfort
- abundant user control

USE OF PV SYSTEM
reduces the Co2 emmissions

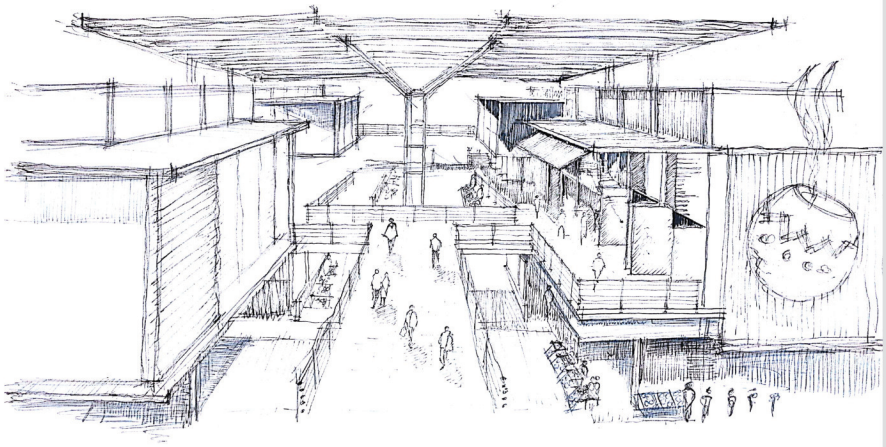
NARROW FOOTPRINT
The narrow footprint allow for abundant balanced daylight availability, reducing glare and use of electrical lighting

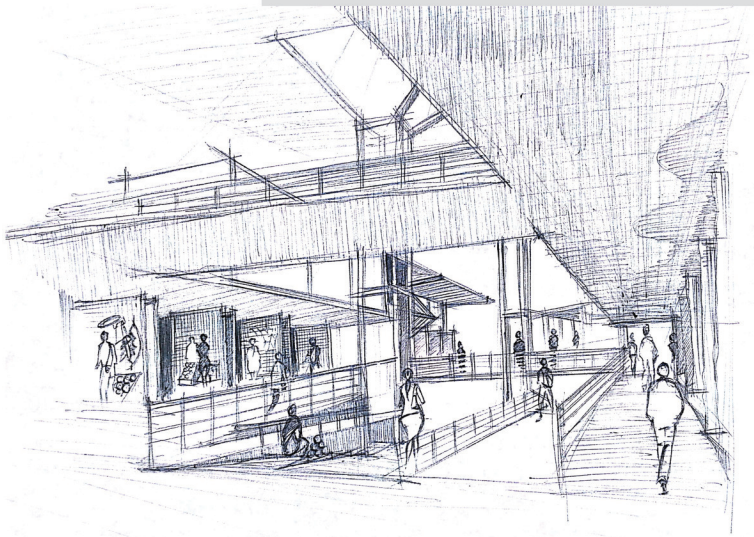
SHADED CORRIDORS NOT ATRIA
Extenalised corridors and walkways reduces the air conditioned volume.



FOCUS ON URBAN COMFORT
-shaded and naturally ventillated outdoor spaces (private and public) provide tempered outdoor conditions

ABUNDANT USER CONTROL
user controlled windows and blinds for modification of space and comfort-results in broader range of comfort acceptance. smaller air conditioning control zones





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