

**CONCEPTUALIZING A NURTURING INNER CITY ENVIRONMENT
INFORMED BY THE NEEDS OF STREET LIVING:
Towards a multipurpose dream centre for the pavement dwellers of the Durban CBD.**

By

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COLLEGE OF HUMANITIES
DECLARATION - PLAGIARISM

I,, declare that

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.....

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DEDICATION

I dedicate this dissertation to the pavement dwellers of the Durban CBD.

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No one walks alone on the journey of life. Just where do I begin to thank those who joined me, walked beside me, and who stood strong with me along the way, continuously encouraging me to write this dissertation and to just keep on swimming?

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ABSTRACT

Within the context of a rapidly urbanizing population, both globally and nationally, this dissertation investigates how street living strategies can assist in conceptualizing a nurturing inner city environment. Responding to the dearth of implementable social policies in South Africa, this research sets out to explore methods for architects to enhance the life opportunities and choices of pavement dwellers by incorporating their livelihoods and aspirations in the design of the built environment.

The research was carried out by way of reviewing existing literature on the subject, relevant case studies and precedent studies. The theories and literature discussed guide the focus of this dissertation highlighting the importance of taking people's needs, interests, livelihood strategies and their circumstances into account. The discussion illustrates how the inner city environment, underpinned by theoretical analysis of Theory of Living, Complexity Theory and Critical Regionalism, can be nurturing to life. Quantitative and qualitative methods are used to gather social and architectural data, outlining the interaction between street living strategies and the built environment, illustrating how an inner city can cater to the needs and well being (positive orientation) of the community, or in other cases, fail to do so. This will be further understood through an examination of the pavement dwellers' complex and difficult life in the Durban CBD, and how this creatively assists the design of a nurturing multipurpose dream centre, as a solution to the needs of street living and a conceptualization of a nurturing inner city environment.

The outcome is the conceptualization of an inner city environment from which a set of principles and guidelines are established to inform the design of a new multipurpose dream centre in the inner city - the Durban CBD. A dream centre is possible because of the ability of "The architect [to] confront human needs and desires [and] mould the environment closer to the human dream" (Mumford, 1938: 403).

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CONCEPTUALIZING A NURTURING INNER CITY ENVIRONMENT INFORMED BY THE NEEDS OF STREET LIVING:
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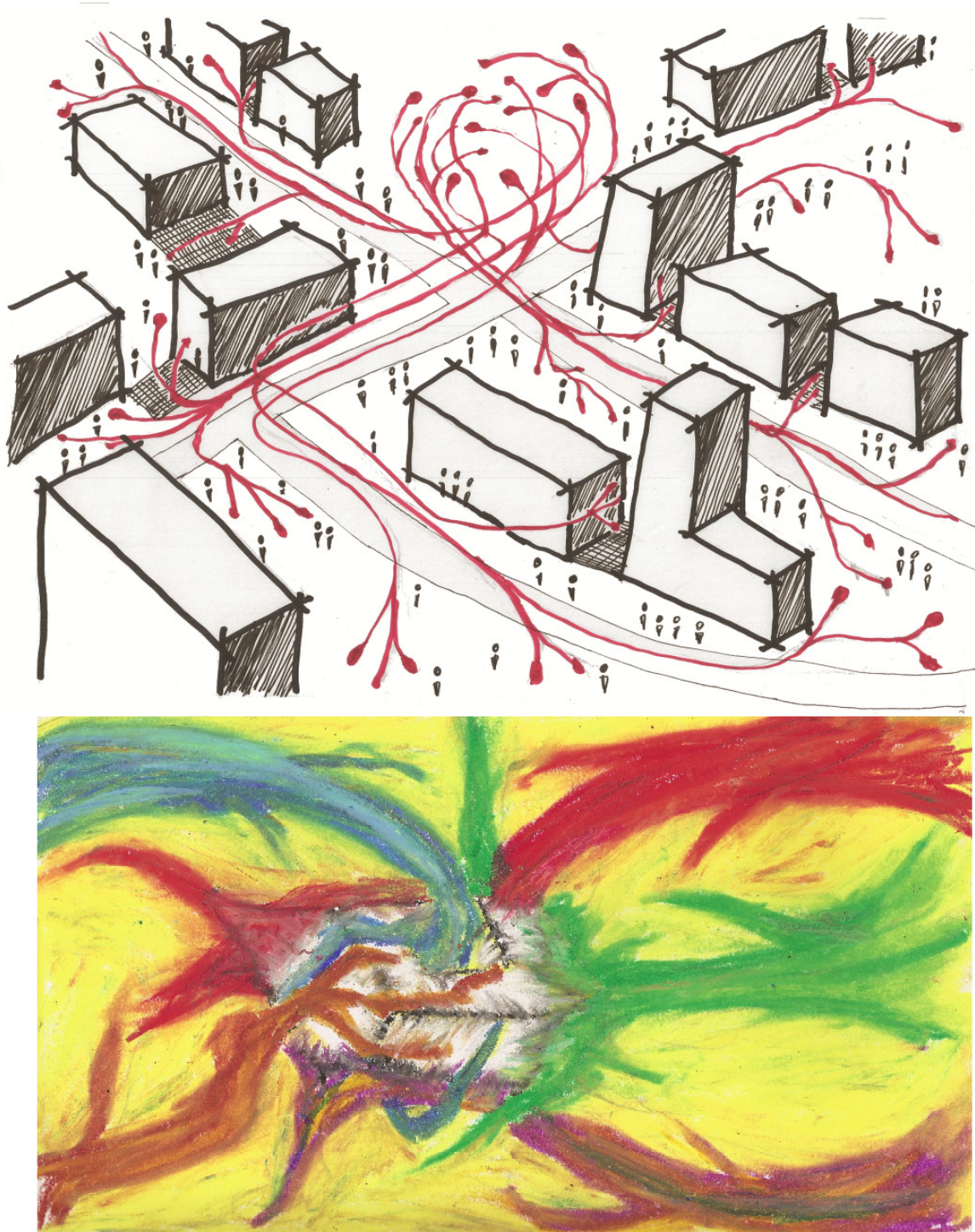


Figure i: CONCEPTUALIZING A NURTURING INNER CITY ENVIRONMENT INFORMED BY THE NEEDS OF STREET LIVING: Towards a multipurpose dream centre for the pavement dwellers of the Durban CBD. (Author, 2013)

CHAPTER ONE | INTRODUCTION

1.1 BACKGROUND

At present many world cities are experiencing exponential population growth, with rural urban migration playing a central role in this expansion. Since 2010 more than half of the world's population (3.5 billion people) has urbanized. Furthermore, predications suggest that 75% of the world's population will be inhabiting urban areas by 2050 (UN projection report: 2012). With many cities' built environments already experiencing strain, a continuation of these patterns means that pressures will only intensify. These strains affect formal and informal city dwellers but arguably it is the 33% of the world's urban dwellers living in slums and other informal ways that are most disadvantaged and left to create their own living strategies (<http://wiego.org>). Edgar Pieterse (2012) referring to these statistics said, "It is easy to get incredibly pessimistic and dark if you look at the figures and trend lines, it is profoundly depressing and you basically want to slit your wrists, but if you look into history you see all you need is a small group of innovators to make a change".

Historically, in every society throughout the world there has been a complex and interdependent relation between people's lives and the built environment. For example, Amos Rapoport (1969:17-21) explains how the nomadic life style of the Mongolians informed a mobile built environment of tents that permitted them to move across the grasslands with their buildings. Similarly, the urban life of Medieval Europe created a built environment centred on the symbol of their beliefs - the church (Mumford, 1939:54). These historical developments highlight the impact and complexity between the built environment and the lives in which the people find themselves.

One of the core problems arising in cities around the world today is the massive influx of new dwellers. These people overwhelm the planning capacity, resources and systems of city institutions and government bodies (Pieterse, 2012). The rapidly urbanizing population presents society, including architecture, with a double challenge of an inappropriate built environment and an inadequately planned built environment. These challenges are undoubtedly heightened by an inappropriate modernist paradigm which plans from the top down without consultation of the

people involved. Further to this, inadequate planning by governments and cities, especially in Third World countries, adds to the problem.

Within this new context of urbanization, architecture often fails to attend to the needs of all the people but rather reflects the short term interests of the social power elite (Mills, 1956). This power elite focuses on their own gain to the detriment of both the people surviving on the streets of the city and the quality of the built environment.

Locating these issues within the context of the rapidly urbanizing population in South Africa's dual cities, this dissertation's point of departure is the acknowledgement of "human feeling" (Alexander, 2003) found in the needs of dance, joy and sorrow of living (Ortega, 1962). Following on from that, architecture is understood in this dissertation as the supportive "stage" for living (Mumford, 1938:5). Hence the architectural challenge is to create a nurturing environment in terms of life and people's needs. This challenge is investigated in the context of the interrelationship between the prevailing street livelihoods, the needs of the pavement dwellers and the inner city environment. This dissertation explores how architecture can conceptualize a nurturing inner city environment through supporting and equipping pavement dwellers' needs for a better city life. In response to these needs this nurturing inner city environment is conceptualised through a 'multipurpose dream centre' in Durban CBD.

The site and schedule of accommodation guidelines for the 'multipurpose dream centre' arise from the analytical interpretation of the case studies of Durban's response to the needs of pavement dwellers and the precedent studies. To this end, the application of theoretical frameworks and literature reviews proved paramount. The data from the case study of the Anton Lembede district identified potential functions for a nurturing environment and the needs of pavement dwellers were isolated through observation and interviews. This data and the analysis of the precedent studies enhanced and complemented the conceptualization of a nurturing inner city environment and provided supplementary guidelines to nurturing design issues. They also informed potential functions of the Anton Lembede area and contributed to the site and schedule of accommodation guidelines.

1.2 MOTIVATION/JUSTIFICATION OF THE STUDY

The justification of this study is that there is inadequate and inappropriate social response to the massive global population shift into cities, with this leading to one third of all cities' populations having their needs and humanity overlooked. The burgeoning squatter camps, slums and informal settlements are the fastest growing segments of global cities. In these segments the people on the streets are inadequately provided for in terms of social services such as suitable housing, appropriate health care and an education and training which will equip them to better their lives in the 21st Century. This large presence of people on the streets surviving off the fringes of mainstream society, coupled with the lack of understanding of their needs, has created the conditions for a looming built environment catastrophe.

Through planning informed by the needs of street living, architecture has a role to play in addressing the challenges of the "ugliness and soul-destroying chaos of the cities and environments" (Alexander, 2003:2). This dissertation argues that the type of social change required to reverse the degradation of the inner city environment cannot be separated from the important social and spatial needs of people living off and in the streets.

The global trend in urbanisation and the resulting development of dual cities is evident in Durban's pavement dwellers and it is them that form the focus of this research investigation. The reason why street living is researched is because the largest growth in cities today is in the informal sector, under which street livelihood falls. It is in this sector that the city planners and architects have not supplied many supportive ideas and projects to deal with the street living.

1.3 DEFINITION OF THE PROBLEM, AIMS AND OBJECTIVES

1.3.1 Definition of the Problem

There is an inadequate and inappropriate architectural response to the needs of the rapidly urbanizing people, in particular the pavement dwellers, who find themselves excluded from a humane inner city environment. In this situation of increasing global urbanization all too often architecture reflects the abstract ideals of the social power elite which is the assumed norms and

standards of society. This results in the inner city environment being experienced as something alien or hostile to the people, in particular the pavement dwellers, living therein.

1.3.2 Aims

The aim of this study is to investigate and incorporate street living in the conceptualization of the inner city environment, with the goal of designing a nurturing inner city environment. Within this context of street livelihood, the aim is to conceptualize an architectural built form that responds to and incorporates the needs of the pavement dwellers of Durban.

1.3.3 Objectives

The objectives of this study are:

1. To illustrate the importance of a nurturing built environment.
2. To investigate the needs that arise from street living.
 - a. To explore the ways in which pavement dwellers live and adapt to their inner city environment.
3. To conceptualize a nurturing inner city environment through the exploration of pavement dwellers' street living strategies and the recognition of their human feelings and values.

1.4 SETTING OUT THE SCOPE

1.4.1 Delimitation of Research Problem

The limitation of this investigation is that it is not an in-depth analysis of the social, political and economic issues of street living strategies. This research does not set out to say that the living conditions of the pavement dwellers are good or healthy. Rather, it aims to discover the best manner in which to incorporate the livelihood strategies, needs and aspirations of the pavement dwellers into their inner city environment.

1.4.2 Definition of Terms

Architecture: Is any category of buildings typically designed and conceptualized by an architect. In this dissertation the aim of the "architecture" is to provide a stage for social issues to

be addressed creatively with tools, materials and skills from the local area for a specific community. It is then these "architectural" structures that will comprise part of the nurturing inner city environment.

Built Environment: The term "built environment" comprises of streets, squares, parks, and buildings. It also relates to 'private/public' spaces both internal and external where public access is encouraged.

City: A large centre of a population organized as a community that can involve and incorporate diverse cultures and different social groups. The word *city* is derived from the Latin word *civitas*, which denotes a community that administers its own affairs.

Community: In the context of this dissertation, "community" refers to a group of people with these shared values and opinions in terms of relationship to the built environment.

Culture: Is seen as the discrete ways in which different peoples organise their experiences and meanings in the world and how these experiences are symbolically represented. Culture is the framework in which a people or communities experience their reality.

Conceptualizing: Is a research phase that explores ideas on architecture, needs, livelihoods, pavement dwellers, nurturing and inner city. Conceptualizing is therefore understood as the formulation of a clear, appropriate and adequate framework to be applied to the design.

Interaction: This term refers to the relationship between people and their built environment. It can be viewed varyingly in different contexts: from everyday street activities to the covered shopping centre, to the neighbourhood.

Living: the term "living" used in this dissertation refers to the interpretative processes of the individual interacting with his/her environment and thus life is fundamentally a particular point

of view, a particular perception of reality and oneself. "Living" is the foundation of everything thus before architecture there is life.

Nurturing Built Environment: A nurturing built environment is a place where culture and perceptions of humans are taken into the design consideration so that the built environment supports people growing to their full potential. The built environment is made up of a group of designed elements that come together to form a human settlement. These elements include roads, architecture and the space between the solid objects.

Perception: Perception is the process of representing and understanding the environment. Cultural framework provides the foundation for the individual's perception of the world around him and her, and therefore, the act of perception always involves an element of interpreting reality in terms of the specific individual.

Planner: Planners refer to professionals working within the field of the built environment, and includes Architects, Urban Designers and Town Planners. Within this study it is assumed that all these professionals work towards improving the quality of life and life opportunities for all.

Sense of belonging/orientation: A community's sense of belonging to a particular section or district of a city is understood in terms of the ability of the community to orientate itself in the here and now and meet the challenges of the present.

Urban character: The types and functions that characterize the components of the built environment of a given area.

Street livelihood: Is the actual survival methods of the pavement dwellers. The livelihoods of the pavement dwellers remain within the boundaries of the constraints and opportunities offered by the particular context of living in the city.

Unplanned space: Is space that was not planned for in the city, giving the pavement dwellers space to fit in between the city, to survive. Hou (2010: 84) identifies eight types of unplanned spaces found in the formally underutilized, unused and neglected spaces.

Pavement dwellers: Pavement dwellers fall under the category of people who are homeless and take on street living strategies to create a source of income and to survive in the city. Pavement dwellers experience homelessness which is the condition of people who lack regular legal access to adequate housing. It has been described in a United Nations Report (1999) as a “condition of detachment from society characterized by the lack of affinitive bonds that link people into their social structures”.

1.4.3 Stating the Assumptions

This dissertation is based on the following assumptions:

Unless an analysis of the needs of pavement dwellers is taken into account a nurturing inner city environment cannot be conceptualized and this will be to the detriment of the city.

A nurturing inner city environment provides a stage for people to live a fulfilled life.

There is interaction between street living and the inner city environment.

Life is fundamentally an interaction between the individual and the environment.

Architecture is about supporting human feelings and values.

1.4.4 Research Questions

1.4.4.1 Key Question:

What is required of architecture to conceptualize a sense of nurturing in the inner city environment?

1.4.4.2 Secondary Questions:

1. What is the difference between a nurturing inner city environment and an abstract inner city environment?
2. How can architecture incorporate the needs of existing street living strategies in order to conceptualize a nurturing inner city environment?

3. What are the daily routines of pavement dwellers?
4. What environmental conditions inhibit livelihood strategies?

1.4.5 Hypothesis

It is hypothesized that in order for a nurturing inner city environment to be conceptualized the needs of street living must be taken into account.

1.5 THEORETICAL FRAMEWORK

1.5.1 Introduction

In this theoretical section the Theory of Living is addressed in order to establish the foundations upon which the research processes unfold. It also serves to inform which research issues are investigated. The theory offers an account of the manner in which the research phenomena are interrelated (Jaggar & Rottenberg, 1993). It is argued here that the underlying assumption of the Theory of Living, which permeates this investigation, meets the task of explaining how to conceptualize a nurturing inner city environment; with this being informed by an analysis of the needs of street living. To supplement the Theory of Living, the investigation draws on the Complexity Theory and Critical Regionalism.

1.5.2 Theory of Living

The Theory of Living, as unpacked by the Spanish philosopher Ortega (1964), provides the theoretical framework and underpinnings for the understanding of life in the inner city environment. In particular the life of the pavement dwellers is investigated within the Theory of Living. What is important is the life and *point of view* of each individual no matter their race or social status (Ortega, 1961: 89 - 92). Within South Africa this is emphasized by the South African Bill of Rights which highlights the value of an individual's self-worth and "the right to life" (Constitution Ch 2: 1996).

The Theory of Living presupposes the "co-existence" of the "I" and "circumstances" and thus at its theoretical core the individual's ideas are not isolated from his/her environment rather the individual emerges within a particular environment with his/her ideas (Ortega, 1964: 226-230). This fundamental relationship is visible in the concept that the "Mind *takes form* in the city; and

in turn, urban forms condition the mind" Mumford (1938:3). Similarly, Pallasmaa (2005: 40) expresses this concept as "I dwell in the city and the city dwells in me". The Theory of Living presupposes that in order to understand individual's needs, the circumstances of the individual must be taken into account.

In this dissertation the fact that all living cannot be separated from circumstances, is applied to the context of street living. Therefore, the life and livelihood of those living on the street can only be analyzed in terms of their essential relation to the inner city environment.

Phenomenology views science as an activity of the second order and not primary because any knowledge presupposes the life of the knower; before there is knowledge there must be someone living. Hence, knowledge flows from life and life does not flow from knowledge (Ortega, 1964). Similarly, science does not simply arise from abstract ideas but from the life and the reflections of thinking scientists. Knowledge takes place in life and follows the concerns of life – in philosophical terms being precedes essence (Sartre, 1958). Before there is theory, science or architecture, there is the life of the theorist, scientist, and architect or any individual regardless of their position in society (Ortega, 1964).

The importance of this insight in architecture (i.e., that life and living is before architecture) is that architecture should be in the service of life, in the service of people's lives and in creating a more nurturing stage for life. Architecture should not be grounded in abstractions confining life into a particular architectural design. If this is not considered, life becomes squeezed somewhat lifelessly into a particular built environment and over time a process of normalisation occurs in which people's lives and living conditions become less important (Jacobs, 1960).

The exuberance of life, the dance of life, should be celebrated, reflected and nurtured in the creations of architecture. In this dissertation 'the essence of the Theory of Living' is that the energies, passions, joys and sorrows of life influence the built environment and are influenced by the built environment (Pallasmaa, 2009).

Today when one thinks of reality one often remains prisoner of the early Greek philosophers, such as Plato and Aristotle. These philosophers built their idea of reality based on things, on what is external to one. This view of reality remains as a powerful tradition and the term "reality" is anchored in external things (Ortega, 1964). We refer to the interpretation of things as the basic reality of realism. We have two and a half thousand years of tradition which has permeated language and culture, bearing down on us informing and directing us to the belief that things are the only reality (Ortega, 1964). Because architecture deals with the real world (the built environment), it is only with great difficulty that architecture can break out of this inherited realism. However, an alternative perspective to the traditional one is offered by both Gibson (1986) and Aalto (1978) who suggest interpreting the impact of the built environment in terms of an understanding of processes and interaction of people and their emotional responses, thereby incorporating people into the built environment reality.

According to Ortega (1964) idealism opened the door to new beliefs by providing the means, through physics, engineering and technology, for humanity to improve its situation in the world. From this discovery flow all the modern technologies which architects have introduced into the built environment.

Fundamentally the idealism of modernity revolved around the conquest of space – the perception of the world in terms of analytical geometry as a "way of thinking" (Ortega, 1971: 54-56). Thus within the paradigm of idealism, architecture learnt to project ideas onto reality, fundamentally changing how reality is perceived and experienced. Under the mind-set of idealism, architecture can be encouraged to introduce the ordering and disciplined ideas of modernity onto the "stage" of human life (Mumford, 1938).

Ortega's (1969) critique of idealism is that "thought" is only one component of life and not complete reality. Breaking out of idealism, the belief that the foundation of reality is "thought", leads to the discovery that life makes itself; in other words that reality is what is created. There is no reality given in advance to humanity or the individual. What is given is the historic results of

previous generations' creation of reality and these creations are taken as the foundation of the living (Ortega, 1969).

Reality is at its core historical and therefore interpretative (Dilthey, 2002). Within the given historical situation life decides itself and thus life is not given to each individual as a thing but rather as a task which each individual must complete. The task is nothing other than the individual making himself or herself. With life as the central philosophical concept the issue is no longer coming to terms with challenges in life but in responding to the challenge of life – to make oneself. One does “A” then one becomes “A” and if one does “B” then one becomes “B” (Ortega, 1962). The individual is not autonomous and isolated but rather located within dynamic processes in their environment.

The importance of the insight that life and living precedes architecture is that architecture should be in the service of life, in the service of people's lives, in creating a more nurturing stage for life. Architecture should therefore not be grounded in the abstractions of orthodox planning which insists that people's lives should fit into the design as the standard norm; rather architecture must draw the energies, passions, joys and sorrows of life into design.

1.5.3 Complexity Theory

Complexity Theory is applied in this dissertation to the field of a nurturing inner city environment because the relationships in the environment are multidimensional and not one dimensional. Alexander (2003:4) argues that architecture typically deals with and "presents a new kind of insight into complexity" (Alexander, 2003:3) as it is one of the human endeavours in which one continuously deals with multidimensional issues.

Complexity theory enables multidimensional research as opposed to a simple cause-effect research to uncover the human dimension of the streets. The speculation on the complexity of reality also demonstrates the intricate connection between theory and methodology; not only does a particular theoretical outlook determine a particular methodology but the very

methodology itself impacts on reality determining what one measures and what one decides is measurable (Habermus, 1972).

Alexander (2003:4) argues that the essential problems of architecture are best addressed through complexity. The core issue of architecture which needs to be grasped is that value "cannot be separated from the main task of serving functional needs" (Alexander 2003: 3) and hence an aesthetics linking value to function is required.

The point of departure in Complexity Theory in this dissertation is from the fundamental perspective of life on the street. Architecture should connect with "the issue of human feeling" (Alexander, 2003: 3). The focus is on people living their lives and thus it is paramount to examine what life is like in the inner cities rather than presume what communities ought to be in terms of some planning theory. The behaviour of the city can be discovered by looking closely "at the most ordinary scenes and events, and attempt to see what they mean and whether any threads of principle emerge among them" (Jacobs, 1965: 23). Planning in terms of the complex observations of life in city streets enables life to be planned for rather than defining life in terms of the abstract "principles and aims [of] modern, orthodox city planning" (Jacobs, 1965: 24).

The Complexity Theory is focused on exploring diversity through; understanding processes, using induction, and finding small clues of city life through direct observation rather statistical averages (Jacobs, 1965: 454). Within architecture the need to understand processes arise because the context and circumstances determine what will happen to a particular building whether a building is part of the process of slumming or "unslumming" or part of generating diversity or not. In order to understand particularities of each situation the researcher must move from facts to generalizations (induction) and not from pre-existing theories to facts (Jacobs, 1965: 454).

The unique aspect, "the unaverage", of inner city life whether eye-catching micro-scenes, special stores, extraordinary theatres, or some social unique characteristic is a valuable interpretative tool as to what is happening and takes the researcher out of statistical averages (Jacobs, 1965: 454). It is at the micro-level of the city, from the point of view of each individual, that Alexander

(2003: 3) suggests that the "problems of design" must be confronted. Architecture must face the "fundamental questions of human feeling, spirit, beauty" (2003: 3) if it is to reflect and nurture human life in all its complexity.

The Complexity Theory does not start from "how the city ought to be, with a pleasing appearance of order" rather Complexity Theory uncovers the multidimensional order in the inner city itself (Jacobs, 1965: 23). Hence, Complexity Theory unpacks the diversity of the "innate, functioning order" that the inner city has (Jacobs, 1965: 23). In contrast to the complexity approach, the Orthodox Planning theory of Utopian modelling motivates planning around deductive cause-effect abstractions based on the "ought of" theory and not life and thus it can be vulnerable to a gross simplification in the understanding of the complexity of inner city lived life and livelihoods.

Complexity Theory is free of a simple two-variable science where one quantity (the independent variable) is dependent on the second quantity (the dependent variable) and can be scientifically explained in terms of it. Dr Weaver (cited in Jacobs, 1965: 442-446) lists three stages of development in the "history of scientific thought" from simplicity to complexity:

1. "Ability to deal with problems of simplicity (the two-variable science);
2. Ability to deal with problems of disorganized complexity (mathematical models dealing with billions of variables – "the whole structure of modern physics ... rests on these statistical concepts"); and
3. Ability to deal with problems of organised complexity (deals with more than two variables but more importantly "is the fact that these variables are all interrelated" and "*show the essential feature of organization.*")

Jacobs (1965: 446) suggests that "cities happen to be problems in organized complexity." The complexity is that cities present "*situations in which a half-dozen or even several dozen quantities are all varying simultaneously and in subtly interconnected ways... they are interrelated into an organic whole*" (Jacobs, 1965: 445). The ideas that cities are examples of organized complexity were utilized in this investigation as a theory to analyze the complex interaction between the pavement dwellers and the inner city environment.

1.5.4 Critical Regionalism

Critical Regionalism according to Foster (1983), Lefraivre (2003) and Frampton (1983, 1995 & 1996) is rooted in the interconnections and dialectical relations of a specific geographic place and the local community. Within this theory, the political and current cultural situation of a region is seen as central in informing the built environment. Hence, "Critical regionalism necessarily involves a more directly dialectical relation with nature than the more abstract, formal traditions of modern *avant garde* architecture allow" Frampton (1983:26). Critical Regionalism promotes social and geographic regional differences, calling for a unique design in the different culture, built and natural environments. Hence, Critical Regionalism "is an attempt to synthesize the rooted aspects of a region - the physical and culture and appropriate technology" (Matter, 1989: 1).

Foster (1983: xi) highlights the core component of Critical Regionalism as the reconciliation between overarching practices, skills of modern civilization and the specific nuances of local culture: "critical mediation of the forms of the modern civilization and of the local culture, a mutual deconstruction of the universal techniques and regional vernaculars". Critical regionalist Kelbaugh (cited in Matter, 1989: 1) articulates all the interconnection and relations of the lived individual's environment as: "Love of Place, Love of Nature, Love of History, Love of Craft, and Love of Limits." Critical Regionalism is a reaction against the abstract universalism of modernity with its "instrumental reason" and turns to a humanized conception of architecture within a particular situation focusing on the specifics of place and history (Frampton, 1983: 17).

Good Critical Regionalism, Frampton (1983: 53) argues, is a "bridge over which any humanistic architecture of the future must pass." This humanistic dimension embraces every segment of society whether it be those benefiting from the social institutions in the city or those on the social fringes of the city. The humanistic dimension with its focus on the human scale rather than the "bigness, or the problem of large" (Koolhaas, 1995) enables the architect to focus on a particular situation in order to design a nurturing inner city environment.

Architecture, from the perspective of Critical Regionalism and life, can never be a final perfect form of architecture as each situation and historical epoch is different. The perfect architecture, like Frankl's (1984:12) observations on meaning, can never be abstractly defined but must arise in a particular situation in particular conditions and therefore must always change without losing any of its permanence. Frankl (1984: 113) notes that there can never be the perfect chess move as such a move depends on the state of the particular game and the known qualities and preferences of one's opponents. Similarly, in architecture, there is no abstract perfect design or idea but rather a nurturing design or idea for a particular situation. There is no abstract living. There is no abstract best move. There is no abstract best architecture.

Another idea that probes the point of no abstract best architecture, within a Theory of Living, is Frankl's (1984: 125) description of "nothingbutness": nothingbutness simply refers to the modern tendency to analysis and reduce humanity to the circumstances of sociology, economics, politics or biology and ignore the individual who creates meaning within these abstracted circumstances, i.e., the individual is reduced to an abstraction, to "nothingbutness".

1.6 THEORETICAL DISCUSSION

The concept of a nurturing inner city environment is inspired by the Theory of Living. The Theory of Living establishes the meta-theoretical foundation on which this investigation incorporates Complexity Theory and Critical Regionalism to conceptualize a nurturing inner city environment informed by an analysis on the needs of street living. It is argued here that the underlying assumptions of the theories, which permeates this investigation, support the idea of a social and architectural intervention to improve people's lives by including people in the process.

The Theory of Living points to the overriding importance for architecture, as Alexander (2003) and Pallasmaa (2005) suggest, one has to draw on and display human experiences and feelings if architecture is to nurture a humanism of the richness of life's possibilities rather than abstractions.

1.7 RESEARCH METHODS AND MATERIALS

1.7.1 Introduction

For the purpose of this dissertation primary and secondary research was completed. Secondary research consisted of literature reviews and precedent studies. In addition to this, primary research was completed by means of social research, questionnaires, interviews, personal observations, sketches, photographs as well as case studies. The departure point for this research and the employment of the various methods remains the conceptualisation and designing of a nurturing inner city environment, with this only being possible through the identification of the needs and livelihood strategies of pavement dwellers.

The choice of these research methods were informed by three relevant theories, namely the Theory of Living, Complexity Theory and Critical Regionalism. The above mentioned theories motivated the researcher to investigate "the issue of human feeling" (Alexander 2003: 3) from the "point of view" (Ortega, 1961) of the pavement dwellers. The researcher acknowledges that the essential problems of architecture are complex and in response to this the Complexity Theory proved invaluable in guiding the researcher away from a simple cause and effect models. Furthermore, Critical Regionalism directed the researcher to grasp the interconnectedness of architecture, people, place and region.

The case studies employed both qualitative and quantitative research methods to ensure a comprehensive analysis of the pavement dwellers. The theories linked to the investigations in the case studies of a nurturing architecture facilitated the selection of when to use quantitative or qualitative methodology. The quantitative methods are utilized when there is a need to count or measure phenomenon and in order to attain a sense of the scale and representatives of the sample (Bryman, 1989: Berg, 2011). In contrast, qualitative methods were utilized to understand what lies behind the particular behaviour and to explore the meanings of individuals and hence how individuals feel about their situation (Berg, 2001).

1.7.2 Primary Research Methods

1.7.2.1 Case studies: The needs of pavement dwellers in Anton Lembede area; Durban Beach Shelter and Strollers Overnight Facilities

Case studies were conducted by critically investigating the existing street living behavior and shelters in Durban, South Africa. The relevance of these investigations of pavement dwellers' street livelihoods along Anton Lembede area in the Durban CBD is that the conceptualization and design of the nurturing dream centre needs to be appropriate in terms of the specific lifestyles and livelihoods found in the context of Durban's inner city. Nurturing architecture incorporates the real needs of living pavement dwellers and not simply abstract schemes independent of the specifics of place, people and environment. Hence this section speaks in terms of the pavement dwellers' needs within the framework sketched in the literature review and theory.

Anton Lembede Street runs east west and dissects the Durban CBD giving a comprehensive sample of street living. The case study on the needs of pavement dwellers in Anton Lembede area was conducted by utilizing both quantitative and qualitative methods.

The case studies chosen to supplement the Anton Lembede area study are the Durban Beach Shelter and Strollers Overnight Facility: these are current facilities that attempt to meet the needs of the pavement dwellers in the Durban CBD. These facilities were selected as they are samples of Durban's response to the issue of homelessness.

These case studies of the two shelters were conducted by visiting each identified site. Data was then gathered by the qualitative methods of observing both the people and the functioning of the shelter, in-depth interviews of key stakeholders as well as photographs and sketches. The aim of this then was to aid in the investigation of the conditions that the Durban CBD pavement dwellers experience in each of these overnight facilities. In addition to this, the architecture of the Durban Beach Shelter and Strollers Overnight Facilities was analyzed.

1.7.2.2 Semi-structured In-depth interviews

The individuals for the qualitative in-depth interviews were selected because of their knowledge of shelters and pavement dwellers. These interviews yielded valuable in-depth data about the street living needs and uncovered the complexities, subtleties and nuances in the lives and thinking of pavement dwellers and their use of shelters. The following were interviewed:

Deen Mohamed and Ruben Dhary, Chairperson and Secretary, respectively, of the Durban Beach Shelter NPO, Durban, South Africa.

The NPO has provided support facilities for the Durban pavement dwellers since 1999 and has served over seven million meals to these pavement dwellers. They were therefore approached to provide expert understanding of the challenges facing both shelters and their users.

Professor Rodney Harber, Harber Associates, Durban, South Africa.

Harber Associates planned the urban scheme for the Mansel Road development where the Strollers Overnight Facility is situated making them particularly relevant. Furthermore, the firm is founded on people-orientated, pro-poor and participatory built environment practices.

Manageress, Strollers Overnight Facility

The manageress was interviewed because of her personal experience of the shelters and because she manages the largest government shelter in Durban.

1.7.2.3 Focus groups

The focus groups had up to ten members and allowed for the explorations of the diverse and contested meanings and feelings of the pavement dwellers. Ruben Dhary assisted in setting up these focus groups and meals were provided for the participants when possible.

1.7.2.4 Survey questionnaire

A survey questionnaire was administered to a sample of 60 pavement dwellers, with the aim to measure trends and patterns of street living strategies. Ruben Dhary assisted in drawing the sample of pavement dwellers to be interviewed.

1.7.2.5 Observations

Personal observation was employed to study the daily lives and routines of the pavement dwellers. Observations were conducted at each of the shelter sites as well as on Anton Lembede Street and the intersecting side streets.

1.7.2.6 Photographs and Sketches

The lifestyle of the pavement dwellers, the nature of their livelihoods and their existing living conditions were documented in photographs and sketches as a means of gathering data. This data was then used to further interpret and supplement the case studies.

1.7.3 Secondary Research

1.7.3.1 Library studies

Library studies included books, journals, reports, documents, academic papers and the use of the internet to find information on pavement dwellers, street livelihoods and inner city environments. These resources provided a progression of the inner city environments in relation to livelihoods. Library studies also included identifying the relevant plans of the precedent studies.

1.7.3.2 Precedent studies – specific library studies

International precedent studies on award winning shelters and inner city environments were consulted. The data gathering methods of the precedent studies were similar to the holistic approach of the abovementioned case studies, however the precedent study was conducted primarily through library research. The Bud Clark Commons in Portland and The Bridge Homeless Assistance Centre in Dallas were selected as the precedent studies. They were chosen as they are examples of how architecture and city government have successfully responded to the needs and issues of the pavement dwellers. A further relevance of these buildings is that both the facilities operate successfully as a result of each building having specific multiple complementary functions.

1.8 CONCLUSION: CHAPTER ONE

This chapter has identified the research methodology, the constraints and the direction of the dissertation by defining the problems and scope of the research in terms of the theories. The research methodology has set a structure in which to gather data that will be interpreted in terms of these selected theories. In this thesis, these theories will provide the foundation for the exploration of what a nurturing built environment might entail.

2.0 CHAPTER TWO | LITERATURE REVIEW

2.1 INTRODUCTION

The intent of this literature review is to examine published works with relevance to conceptualizing a nurturing inner city environment informed by the needs of the pavement dwellers' street living. The literature review was focused on two sections namely the inner city environment and street living and livelihoods in the city. The value of this then is to expand on processes of nurturing and needs by discussing the inner city and street living. Furthermore, it is important to note that these sections are interlinking rather than isolated from each other.

The inner city environment illustrates theoretically, historically and realistically what a nurturing inner city environment is and is not. Furthermore, it shows that architecture has an impact on the community using the built environment. The argument is how to improve this impact positively. Street living and livelihoods in the city explores the pavement dweller's life and street livelihood strategies from the point of view of the pavement dweller, and hence presents a micro-analysis of this situation in order to understand the needs and challenges that the pavement dwellers face in the inner city.

2.2 THE INNER CITY ENVIRONMENT

In this section, concepts of the inner city environment are explored. The term inner city carries ideas of financial concentration with high rise buildings rising ever upwards interlinked with efficient clover leaf highways (Correa, 1989). The bright lights of the inner city have maintained a powerful hold over the imagination of people attracting them into a promised better life in the city (Robinson, 2004:569). This "image of the city" (Lynch, 1960) is a one sided portrayal and often only a reality for the elite, with a well planned design which suites them. In contrast, many people who live and generate their livelihoods in the inner city are unplanned for (Correa, 1989). This is the all too human reality of the powerless being excluded from the thinking and plans of the powerful. This dichotomy can be seen in the inner city with contrasts of wealth and poverty, job security and unemployment, dreams and nightmares, the well dressed and those in rags, modern steel and glass building and deteriorating buildings, traffic jams in the day time and empty streets at night.

For the purpose of this dissertation the understanding of the inner city has been located within several ideas: I dwell in the city and the city dwells in me; The history of the city and livelihoods, population explosion and the creation of the dual city, unplanned space, towards a city and architecture of life: Nurturing people where they are; and City orientation: Emotional security builds a nurturing build environment.

2.2.1 I Dwell in the City, and the City Dwells in Me

“The city and my body supplement and define each other. I dwell in the city and the city dwells in me” (Pallasmaa, 2005:40).

It is maintained here that life and the inner city environment reflects the social, cultural, political and economic life found in the architectural elements of a city. This is evident in both the materials and shapes of buildings as well as how the buildings and streets come together in the city’s plan. As Mumford (1938:3) suggests “The city ... is the point of maximum concentration for the power, life and culture of a community”. Expanding on this Beall (1997:3), notes that cities are the "physical symbols of the modern age of humanity." Arguably then, there is a deep connection and harmony between the political expression of culture and the city. This relationship between the city and human life is an interactive one in which “mind *takes form* in the city” and “urban forms condition mind” (Mumford, 1938: 3).

The insight that architecture reflects the human mind and the mind reflects architecture is paramount in understanding life in the inner city environment. This interaction reflects the complex relationship between the city dwellers and their surrounding inner city environment. Beall (1997:3) sees this complex interaction arising because “cities are literally concrete manifestations of ideas on how society was, is and should be”. This relationship can be used to enable architects to either conceptualize a built form that is detrimental to the health of the inhabitants or one that is nurturing to the inhabitants.

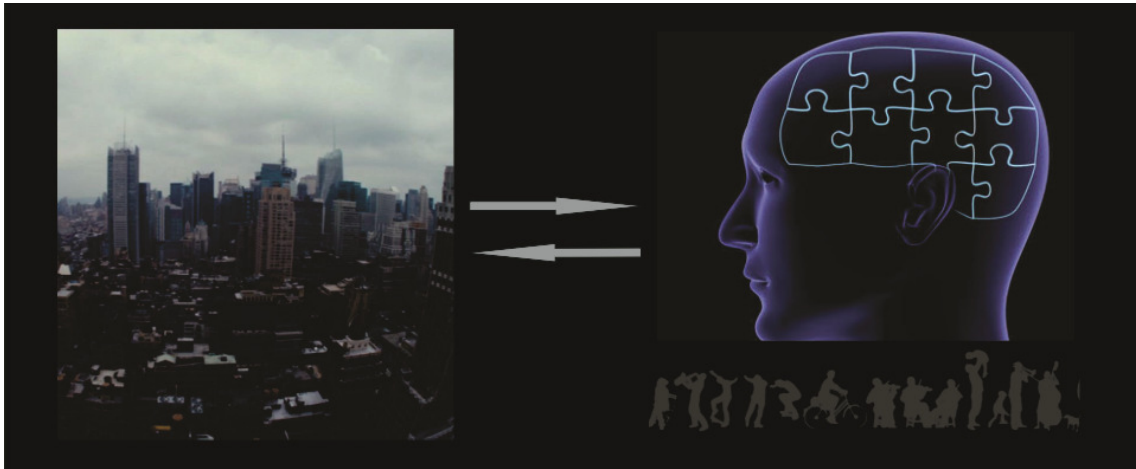


Figure 2.1: Image illustrating the idea of architecture reflecting the human mind and the mind reflecting architecture, showing the relationship is bidirectional and influential on each other, adapted from (<http://talkandpolitics.wordpress.com>)

In the inner city the "complex orchestration" (Mumford, 1938:7) of time and space is visible in the buildings and monuments and this is manifest in inner city life. The inner buildings "record the attitude of a culture ... [to] its existence" (Mumford, 1938: 5). Drawing on these concepts, it becomes evident that to some degree the inner city buildings are reflected in the inner city dweller.

The city is a human creation, "a conscious work of art" (Mumford, 1938: 5), and therefore the human mind is able to create a nurturing inner city environment "in boundary lines and silhouettes, in the fixing of horizontal planes and vertical peaks, in utilizing or denying the natural site" (Mumford, 1938: 6).

Within architecture, art should not be made purely for the sake of art, rather it should facilitate the ordering of the design and not be something apart from the lived experiences of the people using the buildings (Pallasmaa 2005:22). Art is not a "narcissistic" experience playing a "hedonistic" "game" separated from the lived reality of individuals in the here and now (Pallasmaa, 2005: 23). The emphasis here in interpreting architecture as art is to underscore the point of view proffered that architecture, history and society are human creations and these creations impact on the lived reality of individuals.

2.2.2 The Relationship between History of the City and Livelihoods

“The architect confronts human needs and desires with obdurate facts of site, materials, space, costs: in turn, he moulds the environment closer to the human dream... In the state of building at any period one may discover, in legible script, the complicated processes and changes that are taking place within civilization itself... (Architecture) externalizes the living beliefs, and in doing so, reveals latent relationships. With the help of his orderly accurate plans, the architect brings together a multitude of crafts, skills, and arts, creating in the act of building that species of intelligent cooperation which we seek on a wider scale in society: the very notion of planning owes more to this art than to any other” (Mumford, 1938: 403).

This section advances the argument that the city is a human creation over time and therefore the historical evolution of cities needs to be understood. As the social beliefs of the urban community change so do the architectural designs change, reflecting the community’s new aspirations. Maintaining a stance of historical awareness thus provides a guide to introduce a nurturing inner city in order to create a life worth living for all and in particular pavement dwellers.

Changes in the livelihoods, culture and design of these cities can be seen in the evolution of the western cities from the medieval town/city, through to the baroque city and on to the modern industrial city. Understanding the historical evolution of these city phases highlights that cities are not static but change through human living, through various historical interventions and interactions which take place.

The potential to create a more nurturing inner city becomes a historic possibility once people are aware that the environment of the city has always changed and will continue to change and hence is open to be guided by those living in the city. The city is a human creation arising and changing with specific historical conditions which are experienced by the living as a solid natural reality (Gouldner, 1976). Hence, the slum like conditions on the periphery of the city and in the inner city need not be something destined to last - even though this is the experience of those living on the street who cannot see their way out of living on the streets.

For the purpose of this dissertation, the historical evolution of the city into the cities of today has been understood in terms of the following:

Medieval Age: During this age it was the church that was the unifying civic nucleus of the town/city. Everything was on a human scale including the church which rose above the town as a symbol of the lived universe. The church was both the spiritual and economic centre. Mumford (1938: 54) outlines the medieval city in terms which capture its people's lives: "The central position of the church ... is the key to the layout of the medieval city: within its narrow area its towers ... are visible from every point, and the difference in size between its towering walls and the little houses that huddle at the base is a symbol of the relation between sacred and profane affairs".

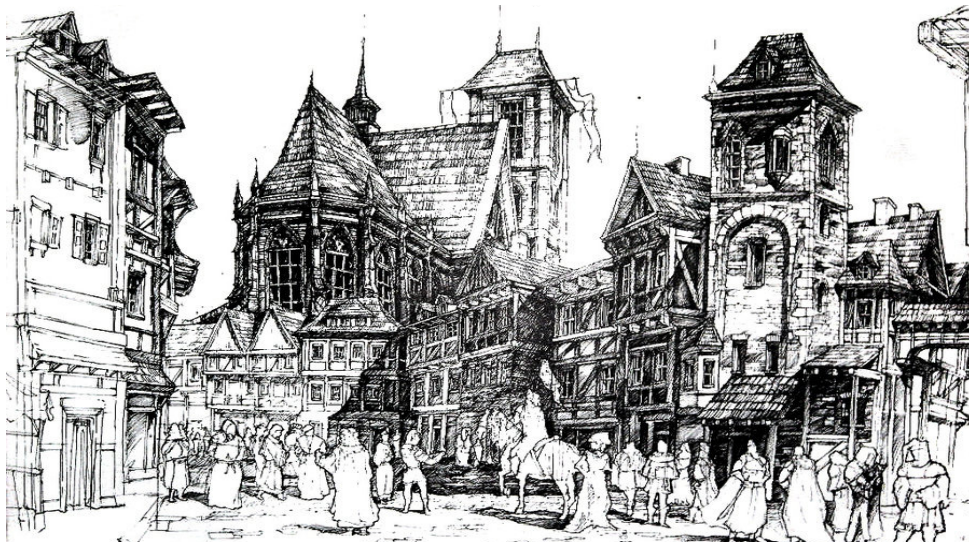


Figure 2.2: A medieval city with the church as a symbol of lived universe responding to the lives of the medieval city dwellers. (<http://fc02.deviantart.net>)

Baroque City: Later, the human scale Medieval City was sub-planted by the new values of the Baroque City and became characterised by sweeping avenues – long, straight and wide – a symbol of its power and domination over its citizens. With this evolution the church as the centre of communal life became replaced by the palace, exchequer, the prison, and the mad-house. Life under the domination of military power was reflected in the structure of the baroque city as follows: "The buildings stand on each side of the avenue, stiff and uniform, like soldiers at attention: the uniformed soldiers march down the avenue, erect, formalised, and repetitive: a classic building in motion. The spectator remains fixed: life marches before him" (Mumford, 1938: 87/88). In the baroque city the avenue conquers space and people.

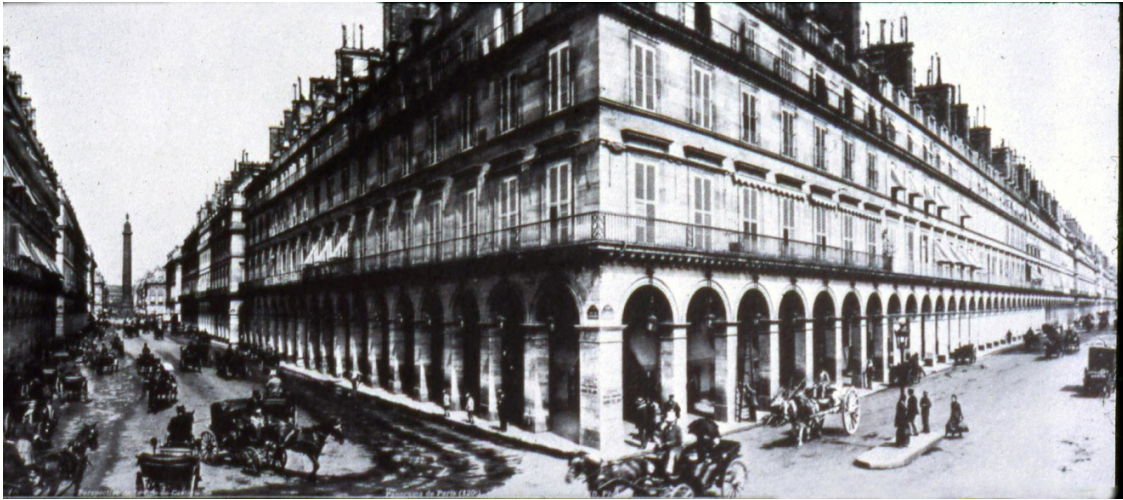


Figure 2.3: Baroque city: the strict and ridged similar buildings along the street, depressing the lives of the Baroque city dwellers. (<http://www.dpcdsb.org>)

The baroque city was an imperial order, with the architecture and urban planning conspiring to dominate the individual city dweller through the very design of its buildings and streets. The harmonious relationship between nature, culture, livelihood and power in the medieval city was transformed and the destruction of nature, the replacement of culture by abstractions and the visible and pervasive domination of power resulted from it. The baroque streets shout out power over nature, power over culture, power over livelihood and power over people. In addition to this, the introduction of carriages merely solidified the gulf between the power of the elites and the powerlessness of the poor.

The industrial city: The development of capitalist industrialism in the Nineteenth Century polarized cities between the housing for the elites and mass urbanization of the rest. Overall the early industrial cities, like the Global cities of today, are dominated by the majority of people who grind out a sub-human existence in the squalor of the industrial slums or worse slums of unemployment. Robinson (2004) outlines "informality, poverty, lack of housing and poor economic growth" as key characteristics of these cities.



Figure 2.4, 2.5&2.6: Industrial city images depicting cramped living conditions with no consideration to the lives of the industrial city dwellers. Top left (Mumford, 1938: 196), Top Right (<http://1.bp.blogspot.com>) and bottom (<http://photorator.com>)

With the development of industrial cities, buildings were divorced from human standards. Commenting on this Mumford (1938: 159) offers that “society itself was losing all sense of a common order: ... : fine architecture had become a matter of size and expense, while common building, divorced from human standards, became cheap, niggardly and cramped”.

A clear transition is evident from the value centred culture of the medieval city to the money centred culture of the industrial cities. Robinson (2004) suggests that architecture has mirrored this shift with things replacing the role of people as the centre of society. This attitude towards life creates the cultural framework for accepting slums as a necessary consequence of the progress brought by industrial capitalism. It is then in these conditions that “monumental architecture” arises, ignoring the human condition in urban slums (Mumford, 1938: 406).



Figure 2.7: Slums in between Mumbai's modern buildings (<http://photorator.com>)

Lost in this monumental swagger the architect loses touch with life and designs for the abstractions of money:

In the mid-nineteenth century the student of architecture began his apprenticeship with a study of the decorative elements in classic monumental forms ... (he was) capable of designing a Hall of Justice but without the capacity to design an honest dog-kennel, to say nothing of a human dwelling.

(Mumford, 1938: 406).

The western industrial city arguably continued the erosion of the values and crafts of individuals begun in the baroque cities. This decline is exacerbated in today's modern global cities in the mass housing projects and industrial slums. In these global cities architects have replicated the loss of human relations by designing cities for elites without considering the life of people. A symbol of the new inhumane systems in all cities can be seen in the growing domination of the city by modern highways (Jacobs, 1965).

The imperial order of streets in the baroque city, which dominated the individual, continued in the industrial city and continues today in the modern global cities. The city is subservient to the highways and the city dweller becomes a means to the city rather than an end in himself or herself (Jacobs, 1965). On the streets those with cars are seen as the new power elite in contrast to the powerlessness pavement dwellers (Solzenitzen, 1979). In the context of slums, the car is

like the modern baroque carriage which separated the then power elite from the powerless people.



Figure 2.8: Image of highways, which portray the entrance to modern day New York City, showing how it is designed for vehicles to enter, without consideration of life. (<http://blogs.reuters.com>)

2.2.3 Exponential Population Growth and the Creation of the Dual City

The last one hundred years of industrial development and economic growth has seen the exponential development of cities and urbanization throughout the world (Holston, 2007). The exponential population growth in the Third World has redefined the city through massive reorganisation of all social institutions and bureaucratic systems (Harvey cited in LeGates & Stout, 2003: 229). “The 20th century has been the century of urbanisation” (Harvey cited in LeGates & Stout, 2003: 229). Modern cities have been credited with absorbing as much as two thirds of the world’s population since 1950 (Davis, 2004).

Explosive urbanization with the concomitant widening of the gap between the haves and have-nots has led some urban planners to speak of a dual city (van Kempen, 1994). This type of dual urbanization and the potential for increased social discontent has led DeFazio (2002: 1) to predict that cities have and will become “explosive site[s] of social contradiction.”

An understanding of the history of the western city offers insight into the current rapid economic growth, population explosion and the rapid urbanization in the world. Preston & Williamson articulate the parallel process between western urbanization of yesteryear and the Third World urbanization of today as follows: “The rise of urbanization in the aggregated Third World is broadly comparable to the same process in the West over a century ago. What is unusual is the absolute increments of the Developing World urban populations, which clearly exceed any historical precedent. By the best accounts, urban population increase in developing countries is roughly double that experienced in the West at comparable levels of development.” (Preston & Williamson in Kasadra & Crenshaw, 1994: 68).

This rapid urbanization takes place as yet another population layer within the structure of existing developing cities. This growth includes the large rural to city migration which continues in the world today: “People don’t leave their farms for work in the city but rather there is no work on the farms so they have no choice but to go in search of work in the city” (Dessai, 1995: 157). The UN projects that in the forty years between 2010 and 2050 the current urban population which is over fifty percentage of the world's population (3.5 billion people) will have grown to seventy-five percent of the total population (UN Projection Report: 2012). This growth places the cities' built environment under increasing pressures. Hardoy & Satterthwate (1989) argue that the developing world accounts for two thirds of the world's new urbanites. These mushrooming developing world cities tend to be organized and planned for the formal dwellers; and thus the planning overlooks the urban slum dwellers who account for thirty three percent of the world's urban population. This dispossessed group is left to create their own informal strategies for survival.

The growing gap between the haves and have-nots in a polarized city is between the poles of: economic opportunity and economic misery, office workers and informal street traders, quality education and shoddy education, comprehensive health care and trusting in the elements, fashion oriented world and survival mode, formal housing and pavement dwellers, cars and unaffordable

public transport, adequate water and sanitation and the need to search for water and a toilet space behind a vacant lot, the day time bustle and the night time desolation (DeFazio, 2002:1).

This polarization is referred to in the literature as the dual city: the dual city separates those who have access to their constitutional rights as citizens from those who are busy surviving.

Pertinent example of the Dual city: Dhaka

Dhaka is selected as an example of a dual city because of its extreme polarity between the haves and have-nots. The attraction of job seekers to the promise of a better life in the city exacerbates the existing social divisions in the city. Notwithstanding this growing duality the city remains attractive when compared to the traditional subsistence of rural life. The example of Dhaka as a dual city outlines the real challenges facing pavement dwellers who find themselves in the urban category of the poorest of the poor.



Figure 2.9: Dhaka characterized by disparities in wealth and status with a trend towards increasing social inequality, slum dwellers on the one side of the river and large buildings on the other (<http://bp.blogspot.com>)

Dhaka is the largest urban area of Bangladesh with an estimated 20% (26 million people) of the country's 130 million people (UN-HABITAT, 2005:13). Over the last three decades the Bangladesh urban population has shown a 6% growth rate in contrast to the combined national growth rate of 1.5% (Perry et al cited in Uddin et al, 2007: 386).

The reasons for Dhaka's rapid population is the attraction to the city for work, shopping, business opportunities, basic services, the big city lights and the expectation that their needs can be met. Furthermore, Dhaka is the prime economic centre of Bangladesh and its own economic development, through the private sector and government intervention programmes, has been a catalyst for increased rural to urban migration. Because of the increased number of people battling poverty in Dhaka, its socio-economic issues have become the focus of policy in Bangladesh (Islam *et al.* 1997: 265).

Research has shown that Dhaka's pavement dwellers, who are estimated to be 14,999 (BBS: 1999: 191), are excluded from state support and are among the most deprived people in urban areas in terms of access to housing, education, employment, sanitation and health (NIPORT 1994, Thwin & Jahan 1996, Alamgir *et al.* 2000, Ray *et al.* 2001, NIPORT 2004).



Figure 2.10: Image of the dual city Dhaka inhabitants struggling to make a living. (<http://bp.blogspot.com>)

The formal property and housing markets in the cities in Bangladesh are small and because of this the informal sector has played a major role in the supply of housing needs for the urban low income population. (Ghafur, 2002: 7). The extreme poverty of Dhaka's pavement dwellers may be assessed in terms of their inability to afford the rentals of a shack or shelter in this informal housing sector. The pavement dweller is thus faced with a life without shelter and without regular employment. Their lack of skills compounds a state of poverty and further hinders their ability to improve their circumstances. The pavement dweller is the poorest of the poor and has

fewer income earning opportunities, which are lower-paid when they are available, than those available to squatters and slum-dwellers (Ghafur, 2002: 7).

2.2.4 Unplanned Space: The Neglected Space of Plans

In the dual city the have-nots, and in particular the pavement dwellers, occupy space for their livelihoods and accommodation in the unplanned space. In contrast, the wealthy have access to planned space. Historically high density planning for inner cities has been the norm because of the acceptance of the high value of inner city land. The high cost of this land therefore has made it economically unviable to build low density housing in these areas (Payne, 1977). Hence, inner city land was rarely left underutilized (Villagomez in Hou, 2010). In contrast, today planners plan for low intensity land use unintentionally allowing for the have-nots to occupy this neglected space (Villagomez in Hou 2010). It is the unplanned spaces including public space that offers a “life between buildings” Jan Gehl (1987) for the pavement dwellers. “In the city centre ... they occupy the urban public space whose meaning and value they transfigure” (La Varra in Hou, 2010: 83).

Holston (cited in Sandercock, 1998) explains that the homeless and urban poor construct their shelter from any legally or illegally available material and build these shelters wherever there is an opportunity, i.e., unplanned space. The pavement dwellers' livelihood strategy is based on this unplanned space, and from this space they attempt to engage society in order to generate income.

Arguably, the modernist planning approach has exacerbated the crisis in the dual cities, therefore a different approach is required (Villagomez in Hou, 2010). In response to this, planning needs to incorporate the complex life and livelihood strategies of the people affected by the social and economic crises. Hou (2010: 82) argues that planning in the future should develop a “deeper understanding of the complex social, economic and environmental systems that govern the world in which we live”. Critics of modernist planning suggest that these unplanned spaces offer opportunities for communal interaction even though the occupation of such space is perceived to “degrade the visual image” of the city (Portes in Kasadra & Crenshaw, 1991: 481).

In locating the unplanned spaces for the complex needs of the pavement dwellers Hou's, (2010: 84) typology of these unplanned spaces is a useful guide in understanding the potential for their redevelopment by the urban poor through adaptively reusing the different types of structures. Hou (2010) identifies eight types of unplanned spaces found in the formally underutilized, unused and neglected spaces. These unplanned spaces can be utilized and converted into the temporary and partial meeting of the urban poor's needs, such as informal shelters, informal trading, informal health care or informal recreation. All eight figures discussed below are from Hou (2010: 84).

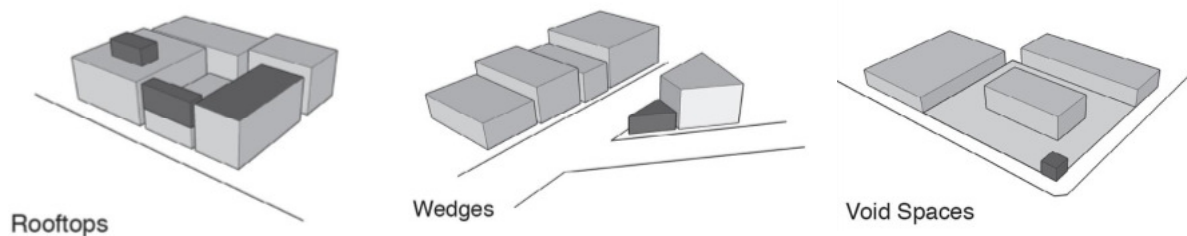


Figure 2.11: Rooftops - when there is no space to be found on the ground the urban poor find unplanned space on rooftops. Just as the western cities ran out of ground space (and the developing cities of today have run out of ground space) so they built up and utilized vertical space.

Figure 2.12: Wedges - occurs at forks in the roads as traffic does not always turn at right angles. The wedge shape often remains unplanned because of the difficulty of constructing irregular shaped buildings. These spaces are often used for informal trade.

Figure 2.13: Void Spaces - arise when planners plan a low density development leaving large void spaces between each building. The large void spaces offer the urban poor the prospect to densify the land to meet their needs.

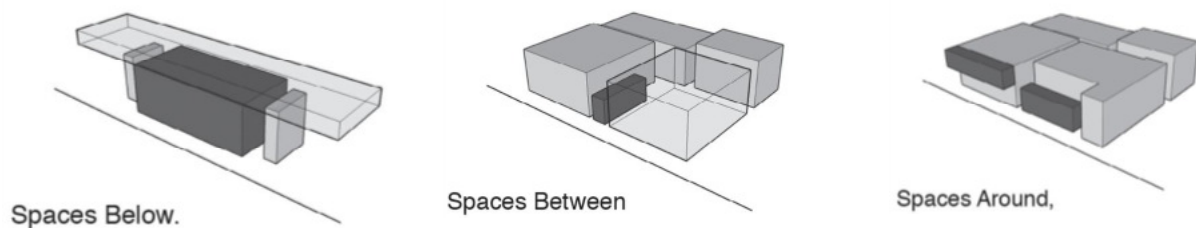


Figure 2.14: Spaces below - are found below large infrastructure such as overhangs, bridges and underpasses. These unplanned spaces provide shelter from the weather and an area for activities such as sleeping or informal trading.

Figure 2.15: Spaces Between - the spaces between buildings, such as small and expansive side setbacks or undeveloped land provide opportunities for informal shelter. These spaces are most common as building regulations require that buildings must not share boundary walls.

Figure 2.16: Spaces Around - occurs when the building does not meet the street edge. These spaces can be used by pavement dwellers for street living strategies.

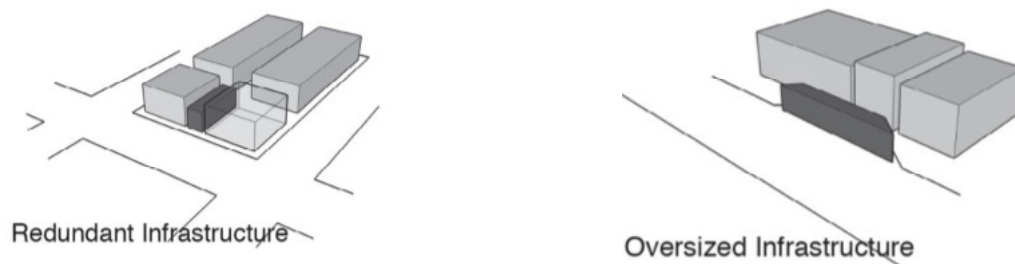


Figure 2.17: Redundant infrastructure - A deteriorated district often has dilapidated buildings which offer a better form of informal shelter compared to other unplanned spaces for the urban poor.

Figure 2.18: Oversized infrastructure - unplanned spaces along unused highways, awaiting future development, create opportunities for the urban poor to utilize these spaces for informal shelters. Similarly, abandoned industrial sites are often utilised.

Cities are historically dynamic and the unplanned spaces of the past take on new meanings from the point of view of the urban poor. They interpret and use these spaces as opportunities to seek daily, partial solutions to their needs.

2.2.5 Towards a City and Architecture of Life: Nurturing People Where They Are

"I confront the city with my body, my legs measure the length of the arcade and the width of the square, my gaze unconsciously projects my body onto the facade of the cathedral, where it roams over the mouldings and contours, sensing the size of recesses and projections my body weight meets the mass of the cathedral door, and my hand grasps the door pull as I enter the dark void behind. I experience myself in the city, and the city exists through my embodied experience. The city and my body supplement and define each other. I dwell in the city and the city dwells in me."

Pallasmaa (2005:40).

The key to grasping the idea of a nurturing inner city environment is, the recognition that planning should focus on the people, consider their location, and address their needs, aspirations and dreams. The nurturing plan differs from the modernist planning tradition in that it concentrates on people's needs and feelings. This plan does not form abstract ideas with the expectation that people must fit into it.

It is accepted in this dissertation that Ortega (1960 & 1962) has created a foundation for the understanding that life is the fundamental reality - the first principle - of everything else. His Theory of Living demonstrates that this fundamental reality, our human or social reality, is both "myself" (each of us) and "my" circumstances. Life is thus neither only in "my" head nor only the external reality, but an interpretative combination of both. It is within the framework of a Theory of Living that architects such as Pallasmaa (2005: 40) correctly argue that "I experience myself in the city, and the city exists through my embodied experience." This fundamental relationship between myself, my body, and the circumstances in life influences the individual to care for the city as they care for themselves. The development of my city is my development. The shift in this architectural thinking is away from the domination of the visual to a more inclusive multisensory experience of architecture. This includes occupying the interior of the building or the inner city environment. It follows that the inner city environment should be designed to be occupied by individuals with defined needs and not assumed needs.

The importance of a nurturing environment for inner city dwellers is that it must support them, and thus enable them to support the city. This support is nurtured through architecture, which recognises the daily needs of inner city living. In contrast, abstract designs which create a "narcissistic" "meaningless visual journey" (Pallasmaa, 2005: 22). Architecture inspired by

abstractions draws to the visual appearance of the building, rather than considering those who will occupy the building. As Robinson (2012: 337) suggests "Modernist architects and architectural theorists all tend to privilege the visual".

Eisenman's House VI, may be taken as a pure example of a building which expresses an abstract visual and sculptural form, It is based on a complex grid system and does not consider the needs of the inhabitants. It has a sizeable column which obstructs the diners at the dining room table, and a divide, splitting the building inappropriately which partitions the beds in the main bedroom, dividing the married couple from each other when they sleep. House VI "fails to fulfil one of the basic functions of a house, to shelter its inhabitants both physically and psychologically so that they feel secure and at ease" (Robinson, 2012: 339).

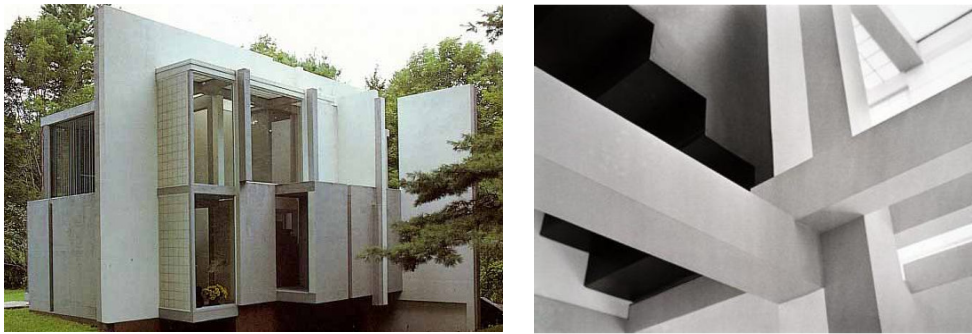


Figure 2.19 & 2.20: Abstract and sculptural structural form of Eisenman's House VI (<http://www.archdaily.com>)



Figure 2.21: Divide in the building splitting the bedroom inappropriately. (<http://www.archdaily.com>)

On the other hand it is incorrect to assume that all modernist designs are abstract and hostile to the occupants of the building. La Corbsier's Villa Savoye displays a graceful awareness of human needs (Robinson, 2012: 349): The building "can install feelings of confidence in humanity and humanistic ideals... [the dwelling encourages] certain kinds of movement and also certain kinds of dignified, civilized human interaction."



Figure 2.22 & 2.23: La Corbsier's Villa Savoye creating human interaction spaces signifying confidence in humanity. ([http:// www.archdaily.com](http://www.archdaily.com))

It follows, using the suggestions of Robinson, (2012), Pallasmaa (2005) and Alexander (2003) that the inner city environment should be designed to be occupied by individuals with defined needs, and these should be incorporated into the environment.

A nurturing environment is one in which architecture creates social opportunities, using creative buildings to meet the holistic needs of the inner city dweller. Nurturing buildings facilitate the reconstruction of the "cultural order" (Pallasmaa, 2005:22). The essence of a nurturing environment is that it must address the "lived space" of individuals. "Architectural space is lived space rather than physical space, and lived space always transcends geometry and measurability" (Pallasmaa, 2005: 63-64). This lived space is fundamental to both the inner city and a particular building. In a building, the visual must not monopolise the experiences of occupation, which include movement, touch, hearing and feeling (Peter Kivy cited in Robinson, 2012: 339).

Pallasmaa refers to the "nihilistic eye" as abstract architecture, which is not people centred: "The nihilistic eye (in architecture) deliberately advances sensory and mental detachment and

hence alienation. Instead of reinforcing a body centred integrated experience of the world, nihilistic architecture disengages and isolates the body. It does not attempt to reconstruct cultural order and makes a reading of collective signification impossible" (Pallasmaa, 2005:22).

Architecture must address occupation, communal identity, communication with each other and the environment. The inner city environment reflects different aspects of humanity, and community living (Pallasmaa, 2005: 45-46). The isolated, atomized, alienated individual of the 20th Century cities, imprisoned in a visually enticing form, often without substance, may yet be replaced by a more dynamic concept of individualism. This concept would not diminish human rights, but rather enrich the individual through new approaches to life and a new sense of identity without diminishing individual responsibility (Alexander, 2003). The long term goal of a nurturing architecture is to create a nurturing inner city environment.

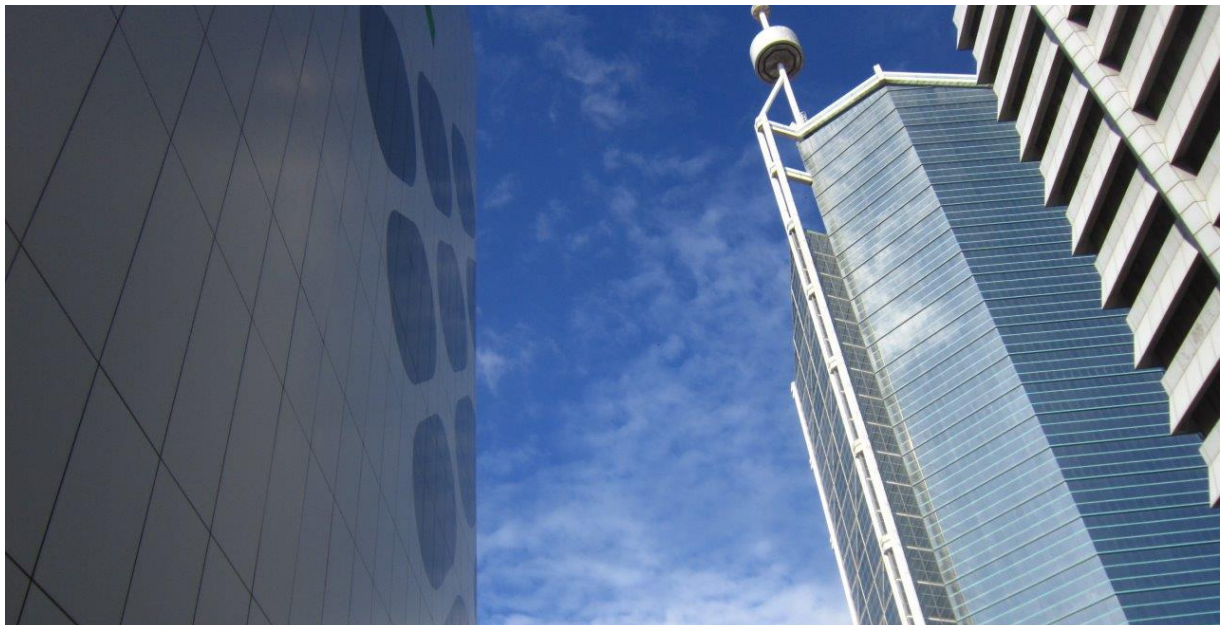


Figure 2.24: Nihilistic architecture in Durban CBD, "a self centred building". (Author, 2013)

The challenge facing architecture today is to rediscover the dynamic nature of life in practice, in contrasting to interpreting it through an abstract scientific framework (Alexander, 2003). The success of Modernism was its application of scientifically based technologies in building materials, within the abstract construction of pure method - mathematics, i.e., of lines and grids.

From the “life” point of view, the challenge for architecture is to replace space defined as a 'mathematical concept' with space as an 'existential dimension' (Norberg-Schulz, 1980:10).

Architecture must draw its inspiration from the life of individuals and not from science and abstractions. Just as Ortega (1960 & 1962) understood the end of idealism (which for him begins with the Father of Modernity, Descartes the 16th Century philosopher) to be the end of the domination of abstract idea, leading to the rise of the concept of living, architects understand the end of modernism to be the end of abstract architecture, and the end of the domination of physical space, leading to the rise of lived space (Norberg-Schulz, 1980:10).

A major cause of confusion in idealism is that the scientific grasp of reality has proved superior to every other interpretation of reality, however it remains a reality constructed by the human imagination (Ortega, 1962: 23). In the Theory of Living, science is not *the* reality, it is merely an interpretation of reality. The reality of abstractions, whether in mathematics or mathematical space, is a reality that presupposes the life of the scientist. Thus if one is to create knowledge one must begin with the reality of life (Ortega, 1960 & 1962). In architecture if one is to create a built environment it must begin with the needs of the people who are going to use the environment.

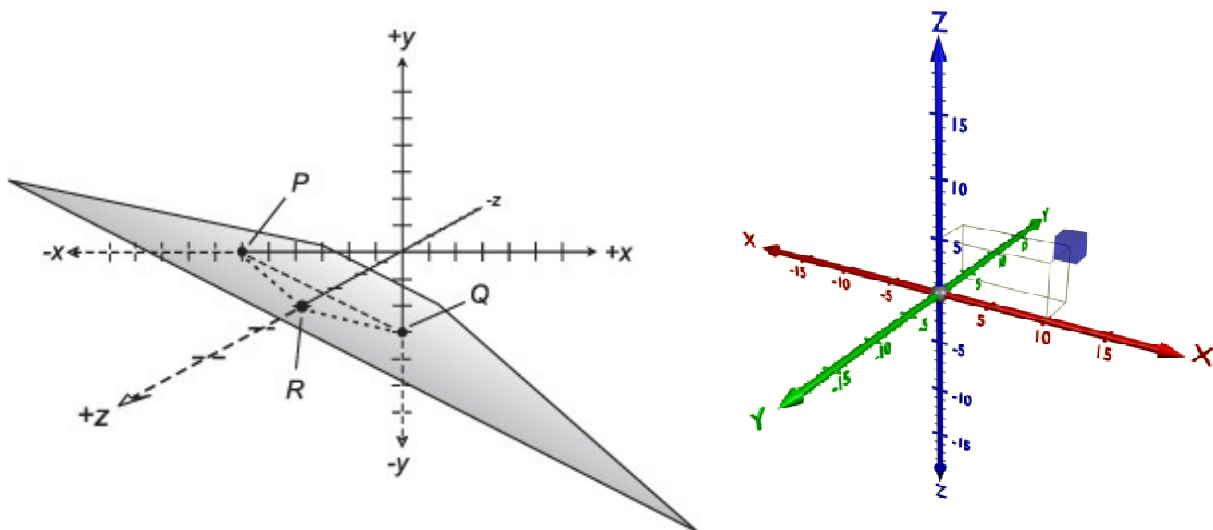


Figure 2.25: The scientific interpretation of space. ([http:// www.bp.blogspot.com](http://www.bp.blogspot.com))

Architecture in this dissertation is understood in terms of being occupied and in these terms of occupation. It addresses the challenge of designing the best or a better mode of living. Hence, timeless better architecture of today 'project[s] full images of life' (Pallasmaa, 2005: 56) which reflect the complexities of life by creating a diverse range of lived space for the diversity of needs in the society. Pallasmaa (2005: 56) poetically argues that 'a great architect releases images of ideal life concealed in spaces and shapes'. Hence, a nurturing environment is one in which architectural spaces and shapes speak to the lives of individuals and are therefore not an imposition onto the lived realm of the individual.

Nurturing architecture takes the "well being" of occupants of the building into consideration and therefore nurturing architecture ensures that "psychological factors must be taken into consideration" (Alvar Aalto, 1978: 30). The points of departure for a design that would encapsulate well being must include the "biodynamic functions", which incorporate meals, sleeping and working (Alvar Aalto, 1978: 29-30). Nurturing architecture is a means to promote life. Pallasmaa (2005: 63-66) suggests "A building is not an end in itself "but one that supports the individual to re-engage with the hustle and bustle of life thus "... Looking out of a window rather than looking at the window" can be more important. Nurturing architecture is "good meaningful architecture" when the life of the occupants and their actions and movement are understood (Gibson, 1986: 128).

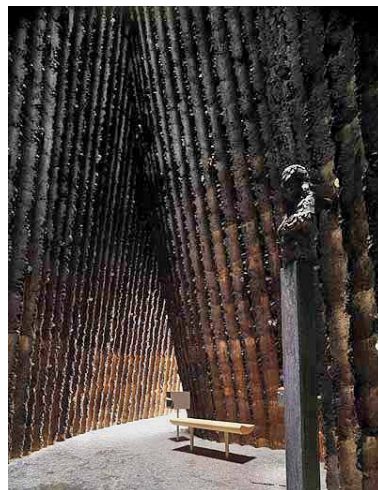


Figure 2.26, 2.27 & 2.28: Images of architecture that arouses feelings and is not an end in itself, the Bruder Klaus Field chapel by Peter Zumthor ([http:// www. all-art.org/Architectureimages](http://www.all-art.org/Architectureimages))

Architecture creates moods and feelings, a design must incorporate the best of these diverse moods and feelings in order to promote the well being of the occupants. "Architecture can arouse actual emotions such as fear, anxiety, joy, delight, awe, feelings of constriction and release, feelings of empowerment and hope, feelings of comfort and friendliness, feelings of alienation and discomfort, feelings of confidence or timidity" (Robinson, 2012: 348). The nurturing environment draws attention to the positive emotions in its supportive design.



Figure 2.29, 2.30, 2.31: The Jewish museum by Daniel Libeskind is designed to make one feel the sense of absence and discomfort allowing the museum to speak for the Jews. In this instance the feelings created are linked to the function of the building, making it successful ([http:// www. all-art.org/Architectureimages](http://www.all-art.org/Architectureimages))

Just as music arouses moods and feelings in the listener, so architecture awakens an emotional response when the user moves around, in and through a building (Robinson, 2012: 348). The music of architecture arises from our bodily movement, through the reality of shapes and spaces, as we pursue our day to day lives. Music carries the listener into a feeling world of imagination, beyond or behind reality, which can lead to physiological changes (Krumhansi, 1997: 336 - 352). In contrast, the music of architecture arises from the reality of where the individual is in the environment; architectural music carries the user of a building into a world of feelings through the physiological changes of bodily movement, touch, smell, sound and sight within and around the building. Such physiological changes through the engagement with reality of the design shapes and spaces can lead to a sense of inspiration. Good architecture can nurture the sense that life in the present is worth living. In this manner, architecture can provide the emotional

foundation to nurture self-actualization precisely because "I dwell in the city and the city dwells in me" (Pallasmaa, 2005:40).

Like music, architecture can arouse emotional feelings as we move around and through a building it affords or invites us into the various spaces. But the affordances we encounter in architecture are actual, not simulated, and the emotions they arouse are actual too, and not just the result of imaginings (Robinson, 2012:348)

2.2.6 City Orientation: Emotional Security Builds a Nurturing Inner City Environment

The design for nurturing life is achieved through orientation in the inner city. Orientation is attained from the following elements being present for the inner city dweller: Paths, Edges, Districts, Nodes and Landmark (Lynch 1960: 5). This orientation gives "a sense of emotional security" (Lynch 1960: 5). Lynch's writings on "imageability" use forms in the inner city environment to achieve "a harmonious relationship between the person and the outside world". The manner in which Lynch's (1960) five elements reinforce meaning, and the well-being of the individual, are explored to conceptualize a nurturing inner city environment.

Environmental images are the result of a two-way process between the observer and his environment. They are formed through living in the inner city environment (Lynch, 1960). The environment suggests relationships and stimuli to the observer, while the observer filters and interprets these and attaches meaning to his mental picture of the environment. Lynch's insights into the meanings, structure and identity of forms are used to further conceptualize a nurturing inner city environment that brings emotional security into the lives of the inner city dweller.

Paths were initially intended for the city dwellers as channels on which to move between and through spaces. Today these channels are often used for street livelihoods. The paths are often the vantage point from where we observe and experience space and are the most common element in a city (Lynch, 1960:47). They may physically be roads, paved paths or tracks marked into the grass by frequent use, and it is because of this frequent use that the pavement dwellers are attracted to making a living from the passers by. It is important to consider the form of a paths in terms of allowance for movement, and also, because they have an experiential element

to them, in terms of legibility and visual permeability. A path is designed according to its purpose, and people on the streets adapt that use to suit them, i.e., the paved side walk of a city is designed to allow a user to experience the inner city on foot and to move between the buildings easily arriving at the desired destination. The path secures direction for the user.



Figure 2.32: A photo showing the pavement as a path and its adapted use, Cape Town. (Author, 2012)

Edges are linear elements which bind particular spaces (Lynch, 1960:47). They may be impermeable like walls and cliff edges, or totally permeable or semi permeable. An example of a permeable edge is a change in surface from paving to grass. An example of a semi permeable edge is a fence with a gate which is visually accessible but is unable to be traversed. Edges are physical boundaries people can observe which allow them to distinguish the relationship between different spaces. The treatment of edges can give character to the city. For example, an edge where the pavement meets the road or park allows people to have a sense of direction.



Figure 2.33: Shows an edge when the road meets the pavement and then the park, Union Buildings Pretoria. (Author, 2012)

Districts refer to areas of a city where a person can mentally 'enter into'. Often they are areas with functional, textural and perceptive similarities - and districts are often defined in terms of entering into the area (Lynch, 1960:47). A park in a city space has a large influence on the mental image a person has of a district; Central Park in New York is a good example of this. The design and form of a district in the inner city environment influences peoples' understanding of location within the urban environment and gives the individual a greater sense of place/destination.



Figure 2.33: A depiction of a district created by New York Central Park. (<http://mw2.google.com>)

Nodes are places of convergence. They are strategic points within a city where an observer can enter. They are characterized by the activities or by the form which they take. In turn the node characterizes the district location, and creates a focal point of activity in an area (Lynch, 1960:47). A node is often a place where people meet and activities take place. At such a place a node can create a sense of "togetherness" in the particular group of people.



Figure 2.35: A photo of people gathering at a node in a square. (<http://4.bp.blogspot.com>)

Landmarks are points of reference which a person can identify from a distance. They are physical objects such as towers, signs and mountains, which allow people to orientate themselves. Often it is of a distinct size or form or use which allows us to pick a landmark out of a collection of things, and thus orientate ourselves by the relationship between ourselves, the landmark and its surroundings. A particular building within a city may act as a landmark within its surroundings. The physical orientation allows one to feel comfortable in the location. (Lynch, 1960: 48).



Figure 2.35: A photo showing the Bluff and the millennium tower as a land mark in Durban. (Author, 2013)

Paths, Edges, Districts, Nodes and Landmarks create a sense of emotional security through generating feelings of orientation, a sense of place, togetherness and comfort. Responding to this need for emotional security through utilizing these elements is vital if one is to conceptualize a nurturing inner city environment.

2.3 STREET LIVING AND LIVELIHOODS IN THE CITY

Through the Theory of Living it is seen that cities and architecture should be in the service of life, in the service of people's lives and creating a more nurturing stage for life (Ortega, 1962 and Alexander, 2003). Complexity Theory offers a perspective of cities as organized complexity, which accounts for the interrelations of multiple independent variables varying simultaneously. These enable life on the street to be comprehended as an organic whole from the perspective of the living pavement dwellers (Alexander, 2003 and Jacobs, 1965). When the framework of the Theory of Living, Complexity Theory, and Critical Regionalism are applied to the inner city environment it creates an interpretative framework for architecture to conceptualize a nurturing inner city environment (Alexander 2003, Pallasmaa, 2005, Norberg-Schulz, 1980, Robinson, 2012, Lynch, 1960). From the lived reality of the streets in the cities, this research reconstructs the city and draws lessons for planning from it.

The point of departure is the life in the city. The reality of how, when and where people live in the city is used in order to create the image of a nurturing inner city environment. This is used to conceptualize a more inclusive city development. Alexander (2003: 3) describes this nurturing process as "healing or making whole". The street view of life in the city is a crucial point of departure.

Niebuhr (cited in Jacobs, 1965: 123) refers to the false assumption that good buildings go with good behaviour: "The doctrine of salvation by bricks". There is no simple cause and effect between building better schools, parks and housing and creating "improved social conditions" such as "good neighbourhoods" (Jacob, 1965: 123). The city is life and processes on the stage of architecture not only the construction of the bricks.

This dissertation aims to inspire architecture to aspire to a greater nurture of the inner city environment. Such an aim is not simply the salvation by bricks, rather it seeks to convey the complex relation between the living and the architecture and architecture and the living.

Concomitant with the fundamental importance of the life in the streets is the need to interpret design literature in terms of life, the lived reality and social interactions of people on the city streets. Hence this dissertation connects with "the issue of human feeling" (Alexander 2003: 3) through launching into the "adventures of the real world" (Jacobs: 1965, 23) in the inner city so as to be able to investigate the needs of the inner city dweller, in the case studies:

“The way to get at what goes on in the seemingly mysterious and perverse behaviour of cities, is I think, to look closely, and with as little previous expectations as is possible, at the most ordinary scenes and events, and attempt to see what they mean and whether any threads of principle emerge among them.”

(Jacobs: 1965, 23)

The conceptualization of a nurturing inner city develops from literature reviews, observations and hands-on field work in the inner city. A concern for the vitality of life drives the concept that the inner city's spatial needs are diverse and complex.

2.3.1 Street Livelihood in the World Today

Today world cities are experiencing exponential population growth. This growth has already placed strains on the cities' built environment and these pressures will intensify. Life in the city is all too often only organized and planned for the formal dwellers, overlooking the urban poor and street livelihood (part of the informal sector). Working within the construct that there are dual cities, this section on street livelihoods, explores the life of the thirty three percent of the world's urban population who live in slums and on the pavements. Currently planning tends to consider one part of the dual city - the haves - whilst ignoring the other part - the have-nots. Yet, the point of departure of life enables one to observe that even the formal planning, if not engaged with the life of the haves, is an inadequate plan.

Street livelihood can take on many forms. In general it refers to the activities that people participate in and around the streets that can either bring in an income or enables survival; Economist's have termed street livelihood part of the informal sector (Nattrass, 1984: 2). These activities are often interlinked and reliant on specific city conditions. The informal strategies are generally created by pavement dwellers out of desperation to survive (Shoma, 2011). Those

living on inner-city streets or in privately provided shelter must fend for themselves and provide their own livelihood (Speak et al, 2004).

Informal employment around the world varies from 48% in North Africa to 72% in Sub-Saharan Africa. In South Africa 34% of all employment is from informal living strategies, 15% of the informal workers (500 000) are street vendor and between 45 000 and 85 000 of these are waste collectors (Wills, 2009: 2-3). In contrast, 93% of India and 62% of Mexico rely on informal living strategies (<http://wiego.org>).

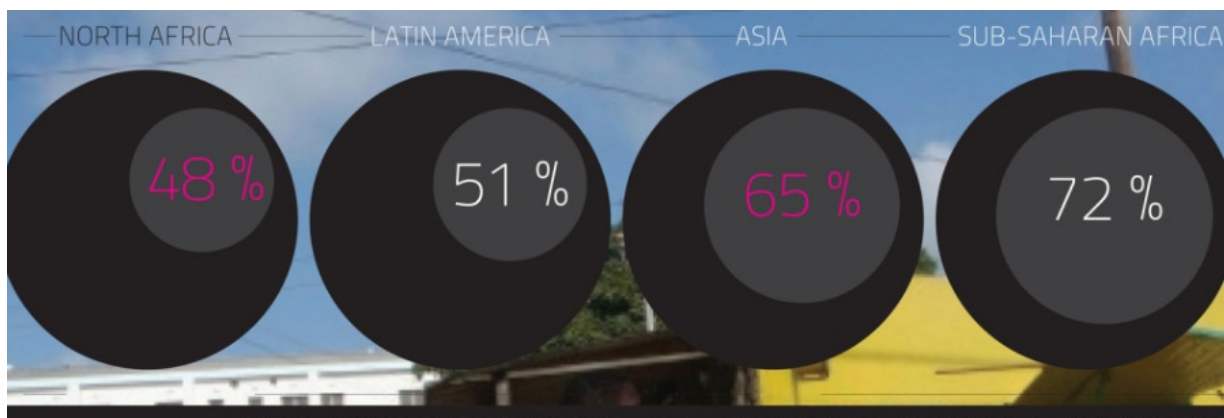


Figure 2.36: Image showing the percentages of informal employment around the world (<http://africancentreforcities.net>)

2.3.2 Homelessness and Pavement Dwellers

Pavement dwellers fall into the category of people who are homeless, and take on street living strategies to create a source of income and to survive. Pavement dwellers experience homelessness, which is the condition of people who lack regular legal access to adequate housing. The notion of homelessness means more than having to sleep “rough”. It has been described in a United Nations Report (1999) as a “condition of detachment from society characterized by the lack of affiliative bonds that link people into their social structures”. In contrast, the definition used in worldwide national and constitutional policies and strategies to transform homelessness tends to focus on lack of or inadequate shelter. For example, the South African constitution (1996: Section 26) focuses on "the right to have access to adequate housing," which has been implemented as the RDP housing strategy.

Homelessness is a wide and multidimensional concept, because it is defined from numerous perspectives, in respect of different circumstances, cultures and countries. Different classifications of pavement dwellers' homelessness are used in the literature, viz., "Rooflessness" (Daly 1994 cited in Tipple & Speak, 2009: 50), "sleeping rough" (*ibid*: 50) and "living on the street" (The Australian Institute of Health and Welfare 1999 cited in MaIntosh & Phillips 2000: 2).



Figure 2.37 & 2.38: Pavement dwellers experiencing homelessness (<http://cache.gawker.com>)

In 1999, in a global population of over 5.7 billion, some 1.1 billion people were living in inadequate housing conditions, it is estimated 100 million of these were homeless. This phenomenon is increasing rather than declining, and has not been solved in any country (<http://wiego.org>).



Figure 2.39: Inadequate housing conditions. (<http://cache.gawker.com>)

Homelessness is experienced as something static, but has different phases for the pavement dwellers. The concept of a "phase model" interprets the underlying complexity of the phases of homelessness which individuals pass through as they struggle to face their reality of living on the streets. The model highlights "the erosion of social links combined with a decline in self-image and personal well being" as the path trod by the pavement dwellers (Schurink, 2003). The study

by Olufemi (2002) concluded that homelessness involves the "detachment" associated with social exclusion.

2.3.2.1 Social Exclusion

The concept of social exclusion was developed by Edgar (2004) to provide a comprehensive understanding of the phenomenon of homelessness in its broader social and human context. Olufemi (2002) describes social exclusion as "dissociation, distancing, stigmatism, labelling and disconnectedness". Homeless people require "encouragement in terms of motivation, aid, participation and co-operation" (Olufemi, 2002) together with the provisions of shelter. Hence the solutions to homelessness must involve more than providing houses.

Homelessness understood as "a manifestation of social exclusion" is the "denial of a fundamental requirement of social integration" (Fitzpatrick, 2000). Inadequate housing should be dealt with in the broader terms of social integration. "Social exclusion makes it impossible for an individual to realise their potential, to be an active member of society, by getting and keeping a job or raising a family" (Fitzpatrick, 2000). Understanding homelessness, with the accent on the lack of a home leads to the policy response as though this is merely a housing issue. In contrast, homelessness in the context of social exclusion beckons a comprehensive social response. It must meet the challenges of the welfare and the social circumstances of pavement dwellers, including more adequate housing. "Consideration must be given to issues of social participation, personal security, control and empowerment included with the provisions of adequate shelter" (Edgar et al, 2004). Hence the architectural response to homelessness must reach beyond the necessary access to affordable accommodation and "aim to provide for the successful reintegration into mainstream society" (Edgar et al, 2004).

Research of homelessness and the pavement dwellers in developing countries such as: "Bangladesh, China, Egypt, Ghana, Peru, India, Indonesia and Zimbabwe" confirm "that almost all of them have virtually no welfare support in response to specific homeless needs" (Speak and Tipple et al, 2004).

2.3.2.2 Structural vs. Individual Causes of Homelessness

Two main causes of homelessness historically were identified in literature as structural and individual. The structural causes focus on issues within the society itself and are identified as the changing needs for labour in the economy and the fluctuations of the housing markets. The individual causes focus on the psychological profile of the homeless. They are identified as the personal characteristics such as alcohol dependency, substance abuse, social and behavioural problems and illnesses (ARURI, 2004). The complex relations and interaction between both the structural and individual factors are today taken as causes of homelessness (Fitzpatrick et al 2000; Schurink, 2003).

There is no one single cause of homelessness but a complex combination, hence the challenging task of tackling the problem. The complex chain of key issues caused by homelessness, and resulting in homelessness can be identified as follows: lack of employment, social isolation, ill health, lack of education and violence. The cycle of homelessness can be perpetuated by the very causes of homelessness. With homelessness, "privacy is impaired, social interactions are frequently strained, freedom of expression is lost, victimisation and stigmatism by society is common and the list goes on" (Lynch et al, 2000).

It is arguable that economics and access to the economy are an important component of poverty and unemployment (UNCHS, 2001). Consideration of economic issues raise the broader reality of the dual city - the duality with its "polarisation between highly skilled and well paying 'good' jobs and temporary, insecure and very low paying 'poor' jobs" (Fitzpatrick et al, 2000) creates the framework for increased possibility and probability of unemployment and poverty, and hence social exclusion of homelessness (Edgar et al, 2000). An inadequate income itself results from recessionary, localised, economic conditions or national depressions, or the change in the structural importance between economic sectors, with the decline of one sector leading to job losses, and inadequate public sector assistance (Erbele, Planning and Associates, 2000; Schurink, 2003).

An extreme case of socially imposed homelessness is found through forced evictions of squatters. As many as 40 large scale internationally forced evictions have been identified (UNCHS, 2001 - Habitat International Coalition). More than half of these evictions were initiated by municipal authorities and one in four by national governments. Some believe that this represents a small sample of war on the homeless. An example from South Africa is the experience of Richard Madlala who founded the KwaMadlala informal settlement in Lamontville, Durban; Madlala claims that this settlement has been raided 28 times over the years. The last demolition by eThekweni Slums Clearance Unit, in terms of a court order awarded on 28 April 2013, were announced to the unsuspecting pavement dwellers: "Phumai, phumani (get out, get out) We don't want you here". One resident said after the raid, "It is very tough. They forget that a shack is someone's home...I don't know what we did to deserve this" (Agizza Hlongware in *Daily News*, 12 May 2013).

2.3.2.3 Constitutional Rights to Housing

Adequate housing is recognised as a constitutional human right and as a basic human need in many countries. This can be seen in; The Universal Declaration on Human Rights (1948), South Africa's Bill of Rights (1996) and the Covenant on Economics, Social and Cultural Rights (1966). Even though there are widespread legal provisions for housing homelessness remains a worldwide problem (Position Paper on Housing Rights, UNCHS, 2001). There is a widespread violation of these rights. "Issues of discrimination, segregation and exclusion are linked to violations of the right to both adequate housing and issues of homelessness" (Lynch et al, 2000). Therefore, it is argued that being homeless is an extreme example of social exclusion, and a violation of numerous universal rights afforded to all human beings.

2.3.3 Livelihood as a Means to Life

The sustainable livelihood approach identifies what is possible rather than bemoaning how desperate things are (Ellis, 2000). Livelihood strategies are made up of survival income generation. This approach identifies the actual survival of the pavement dwellers as a demonstration of a sustainable livelihood strategy; hence a wider range of social solutions and options becomes available because of the micro-analysis of the approach which highlights the

range of subtleties, where interventions can nurture the pavement dweller. Within this micro-analytical framework, an architecture of nurturing inner city life can arise.

The sustainable livelihood approach is applied to analyze a range of survival strategies of the pavement dwellers. Sustainable livelihood emerged in the 1990s as a new approach to poverty alleviation and is defined as depending "on the capabilities, assets and activities, which are all required for a means of living. A person or family's livelihood is sustainable when they can cope with and recover from stresses and shocks and maintain or enhance their capabilities and assets both now and in the future without undermining environmental resources" (Chambers & Conway, 1992).

The pavement dweller finds it easier to cope with changes, stress and shock if he/she possesses some assets. At the economic level of the pavement dweller assets are anything that may be regarded as stocks of capital for direct or indirect use, such as "the right" to a site to beg or crafts or musical performance that generates income for survival. Traditionally assets are identified as five different types of capital: "human, physical, natural, financial, and social capital" (Carney 1998; Ellis 2000). Livelihood capital, such as a chicken can be stored, accumulated (laying eggs and hatching chickens), exchanged, or depleted (eaten) and used as income generation (Rakodi, 2002). A livelihood is sustainable when a pavement dweller has assets/capital and a choice of alternative income generating activities to pursue (Ellis, 2000). What is important in grasping an inner city dweller's asset/capital is that the key is access to the asset rather than legal ownership: for example, the pavement dweller can utilize abandoned property or an asset owned by a municipality.

The pavement dweller's income or resources provide them with a livelihood. The livelihood perspective offers an insight into the life of the individuals participating in a particular livelihood, with their limited assets, in an unstable and capricious economic environment. The livelihood perspective locates individuals at the centre of development, and this development framework provides a means for analysing available assets, types of opportunities, sources of vulnerability and the impact of social institutions and policies (Scoones, 1998; Ellis, 2000).

2.3.3.1 Street Livelihood in its Context

Detailed micro-analysis of livelihoods has uncovered the diversity and complexity of ways of street survival (Satterthwaite & Tacoli in Rakodi, 2002). The livelihoods of the pavement dwellers remain within the boundaries of the constraints and opportunities offered by the particular context. This is because context largely determines the resources accessible to the pavement dwellers, how they can use these, and hence their ability to obtain secure livelihoods (Meikle in Rakodi, 2000). The development of understanding urban livelihood has evolved from rural livelihood strategies, with a shift to incorporate non-natural resource-based livelihood strategies, such as income diversification (Ellis 1998; Tacoli, 1998; Rakodi, 2002).

Although focusing on the distinctive attributes, diversity and complexity of particular survival strategies, the literature notes that most urban areas have shared economic, political, social and physical characteristics. The common modern inner city context, globally, displays similar livelihood strategies between different international inner city pavement dwellers. In contrast, the pavement dwellers livelihood strategy and their national rural counterparts are often more dissimilar (Ellis, 1998; Tacoli, 1998; Rakodi, 2002).

At a national level, poor households within particular social and economic contexts have three main groups of livelihood choices. These are agricultural intensification, migration and income diversification (Scoones, 1998).

Agriculture choice: Rural livelihood is linked to the primary opportunities of self-employed agriculture. Other rural sources are wage labour, casual labour on large estates, and migrant remittances to urban centres. Rural livelihood can also fall outside the cash economy (Meikle in Rakodi 2002). In contrast, the inner city livelihood is in the cash economy (UNDP 1999) and hence the primary income generating activity is all types of temporary and informal wage employment. (Rutherford, Harper & Grierson in Rakodi, 2002).

Migration: Migration from rural areas to urban areas or mines is a key livelihood strategy among rural people in South Africa (Degefa, 2005). Migration involves work seeking for various

periods of time, usually from the rural household, which often depends on rural remittances for survival. Migrants are at the mercy of the demands of the labour market and when there is no work available migrants may still choose to seek work in urban areas. As newly unemployed, they are destined for a precarious life amongst the unemployed, partially employed and the informally employed (Ellis, 2000).

Diversification: The poor and unemployed rely on different income sources depending on the city, the season and specific inner city location. These activities are primarily in the informal sector. Diversification is often foisted onto the poor out of dire need (Ellis, 2000). Pavement dwellers can engage in a multitude of income generating activities in order to survive on the street.

2.3.3.2 Living Needs

The Durban pavement dwellers' survival strategies are complex and interwoven. The preceding sections describe a range of issues that arise within street living. This section attempts to shed light on the basic needs of life according to psychologist, Maslow's hierarchy of needs. He states that human beings are seeking beings and that needs are always arising, as one need is satisfied another need arises (Simonnes, 1996). Maslow believes that needs can be placed in a hierarchy of importance (Simonnes, 1996).

Needs are divided, by Maslow, into deficiency needs and being needs (ibid). The discussion of pavement dwellers is principally concerned with deficiency. The basic needs of the pavement dwellers are food, water, shelter, and clothing. The four basic needs are indispensable to human existence and the existence of pavement dwellers. These needs are the basic needs must be satisfied in order to survive. These are primary needs which must be met first. Being needs are higher up the hierarchy of needs and address the issues of self-sufficiency and self-realization.

2.3.3.3 Resources for Street Living

This dissertation adopts a dynamic perspective of the pavement dwellers which views them as active agents creatively making their living through their choices of a livelihood. The pavement

dwellers are not simply passive but respond to their challenging circumstances with a diversity of strategies which require a range of activities on their part. Hence, the pavement dweller must be viewed not simply in terms of poverty - the lack of money - but must be seen as a living person who has material and non-material assets such as health, willingness to labour, skills, knowledge, social network and the local natural resources (Rakodi, 2002).

This understanding of street living sketches a framework of the pavement dweller in developing inner cities that contrasts them with the developed world's welfare recipient who has access to social security, unemployment insurance, and other government funded safety nets. The importance of incorporating livelihood realities is that concrete life strategies emerge as potential points of nurturing, which can be developed into sustainable poverty reduction programmes driven by the inner city dwellers themselves. These nurturing interventions must be tailored to the particular context of an inner city environment and the pavement dwellers within each city.

This perspective emphasizes the importance of access through analyzing the interconnections between the range of resources available to the pavement dwellers. These include assets/capital which are essential to livelihood, organizations such as municipalities, and processes (cultural norms, incentives, policies and laws) which influence the access, control, and the use of assets (Scoones, 1998). Street livelihood structures are complex and usually revolve around the incomes, skills and services of all members of the family in an effort to reduce the risks associated with subsistence living (<http://www.iisd.org/casl/>).

Traditionally, assets are identified as five different types of capital: "human, physical, natural, financial, and social" (Carney, 1998; Ellis, 2000). A discussion of the different types of capital is necessary to gain insight into the life and livelihood of the inner city pavement dwellers. The issues raised in this discussion must be taken into account in order to conceptualize a nurturing inner city environment.

Human capital: The primary resource of the pavement dwellers is their own labour. Human capital includes available household labour in terms of education, skills, and health (Ellis, 2000).

Engagement in a street lifestyle depends on the pavement dweller's personal capability and competencies. The pavement dwellers often lack skills and education in the traditional sense and this lack hinders their livelihood work options in the inner city (Rakodi, 2002). Yet, at the micro-analytical level of a street, the pavement dweller possesses knowledge, creativity, skills (technical, negotiation etc) and independence. Pavement dwellers creatively define their living and working place. Pavement dwellers in Durban's inner city, as in other cities like Caracas (Marquez 1999), Northeast Brazil (Hetch, 1998), Cali (Apteker, 1998), Katmandu (Larsen, 2003) have knowledge of the area which they use in their day-to-day life in order to make a living.

Their movement patterns often change depending on weather, season and time and they have mental maps of the inner city's supplies, when resources are available and how to access them. This knowledge is acquired through experience and participation. A key to survival and the development of a sense of belongingness is the knowledge of the area, its activities and people such taxi drivers, shopkeepers, waiters and police. This human capital is used when identifying superior selling opportunities and choosing locations for pavement stalls (Rakodi, 2002).

Social capital: This capital refers to the social and cultural frameworks and networks which guides and defines social behaviour in terms of the accepted rules, norms and trust (Rakodi, 2002). This framework establishes the social definitions of what is and what is not worthy of pursuing in society and is a resource which an individual can utilize. Social networks provide arenas of social interaction which nurtures the individual's pursuit of goals (Rakodi, 2002). The analysis of social networks and relations between people and the communities they belong too provides valuable insight into their ability to survive (Beall in Rakodi, 2002; Ellis, 2000).

Similar types of social networks found in the wider society exist among pavement dwellers. The networks of pavement dwellers are mainly among each other. These supportive informal networks are buffers against restraints and limitations. The street is both a place of alienation, fear, violence and abuse as well as a place of solidarity, joy, freedom, adventure and socialization. Pavement dwellers develop a circle or networks of friends. As with any social grouping pavement dwellers' lives are characterized by hierarchies and power relations. Through

these hierarchies pavement dwellers are able to form part of a group ownership of a street (Katz in Holloway & Valentine, 2003; Giddens, 1994; Holt Jensen, 1999). These power hierarchies are complex, informal and invisible to outsiders and reflect age, gender, street experience, migration status and family. The social networks often provide access to resources and jobs through information and co-operation such as rotating begging at traffic lights and passing information along the network; for example when fish are biting or when tourist buses are on the beach front.

Financial capital: Finance capital refers to the money, such as savings or loans, which are available for the purchasing of goods for production and consumption. Money is a major resource for households when it is converted into productive goods (capital) or into goods for consumption (Ellis, 2000). The availability of financial capital for the different sectors of society, ranging from big business strategies to pavement dwellers' livelihood strategy "is mediated by contextual, social, economic, and policy considerations" (Ellis, 2000).

The challenge for pavement dwellers is the lack of financial services for either savings or obtaining credit to cater for their specific needs (Rakodi, 2002). These micro-needs of pavement dwellers can be met by institutions such as the Grameen Bank. The Grameen Bank offers micro-financing on the assumption that loans outperform welfare and charity to free the poor from poverty (www.grameen-info.org). The Grameen Bank believes that all people including the unemployed, the poor, pavement dwellers, women, and illiterates have potential to solve the challenges of their circumstances; hence the bank aims to harness their creativity so that through their own initiatives they can overcome their poverty. The bank's terms of the micro credit enables the destitute to build on their existing human capital and social capital and their identifiable skills to generate increasing incomes in each of the loan cycles, which are carefully monitored. The bank also pursues social goals such as ensuring that there is access to food, water and toilets in the vicinity of each branch. Today the Grameen microcredit is used in 43 countries worldwide (www.grameen-info.org).

Natural capital: Natural capital refers to natural resource such as land, water or trees and is categorised into renewable and non-renewable resources. Both types are used for human

survival. Natural resources can be referred to as environmental resources, and hence are conceived of as part of the environment (Ellis, 2000).

Pavement dwellers natural resources are the access to and use of both planned and unplanned spaces. Pavement dwellers acquire a detailed knowledge of the spaces from which to derive benefits. They use both the planned spaces of parks, parking lots, vacant plots, pavements and the beach (and the sea) and the unplanned spaces of rooftops, wedges, void spaces, spaces below, spaces between, spaces around, redundant infrastructure and oversized infrastructure for their livelihood strategies, entertainment and shelter.

Physical capital: Physical capital in economic terms is understood as producer goods and as distinct from consumer goods. Buildings, roads, tools and machines are physical resources. Consumption goods are used directly in sustaining life. In contrast a producer good is used directly or indirectly in creating outputs - products (Ellis, 2000).

A physical resource of the inner city becomes a resource of the pavement dweller through direct occupation of the resource. Examples of this include; abandoned buildings used to store, manufacture or craft goods for sale and the occupation of pavements as shelters or as premises for trading.

2.3.3.4 Vulnerability of the Pavement Dweller

Poverty in inner cities produces a range of vulnerabilities. The pavement dwellers are vulnerable to the challenges of their legal status, physical insecurity, uncertainty of income and employment, rises in the costs of food, materials and shelter, and poor sanitation and hygienic conditions (UNDP, 1999) (Chambers, 1989). Pavement dwellers are the poorest of the urban poor and have found it too financially difficult to live in the slums. They often find themselves at the mercy of the weather in the inner city streets. Much of pavement dweller's daily life is concerned with meeting the hourly challenges of survival in order to alleviate their basic needs of food, water, clothing (warmth), security and shelter.

Pavement dwellers who sleep on the streets find that even this space is often disputed (Marquez, 1999). In many countries pavement dwellers are often arbitrarily rounded up by the police and detained. Round ups occur frequently in cities prior to international conferences or events such as the Olympics or Soccer World Cup (Human Rights Watch, 2003).

A micro-analysis of the threats to their existence and the choice of particular livelihood strategies in the face of these threats is a means of identifying concrete aspects of their lives which need nurturing (Carney, 1998). The context of vulnerability affects the pavement dwellers choices and outcomes; however, it is important to understand the resilience and resourcefulness of the vulnerable despite them having to face multiple threats and traumas. This very resilience and creativity can be utilized as a foundation for building support systems around these individuals (Moser, 1996 in Rakodi, 2002).

2.4 CONCLUSION: CHAPTER TWO

The literature review examined published works with relevance to conceptualizing a nurturing inner city environment. At the outset it was focused on two sections namely the inner city environment and street living and livelihoods in the city. The aim of interrogating the relevant texts was to create a greater understanding of a nurturing inner city and how to begin conceptualizing a nurturing environment architecture.

Valuable information arose from the literature review and key among this was the idea that the individual and the city entertain a dialectic relationship with each other (Frampton, 1983). This highlights that people's lives impact on the environment and in turn their lives are influenced by the environment that they find themselves in (Pallasmaa, 2005:40). Further to this, it was found that the city is a human creation in history and that the evolution of cities can be understood historically (Mumford, 1939). This historical awareness is an aid in guiding the understanding that change continues and that this change can be positively or negatively influenced by architectural interventions.

Through the perusal of historical texts the evolution of cities since medieval times became evident (Mumford, 1939). This highlighted more recent patterns of urbanization and ultimately exposed the rise of dual cities (Holston, 2007). The development of dual cities emphasizes the widening gap between the 'haves' and 'have-nots' and contextualises the polarizing that is evident in many cities today (van Kempen, 1994). Considering this, it becomes clear that planning needs to accommodate the complex life and livelihood strategies of the people affected by socioeconomic inequalities and not only consider the elite.

To achieve "good meaningful architecture" the life of a building's occupants and their actions and movement must be understood by a design in order to realise nurturing architecture (Gibson, 1986). Architecture creates moods and feelings and it is the best of these diverse moods and feelings that a design must generate so as to promote the well being of the occupants (Pallasmaa, 2005). Furthermore, as it aids in fostering a "sense of emotional security" the role of orientation is central to create a design for nurturing life (Lynch, 1960: 5).

Through the review it became clear that the pavement dweller must be viewed not simply in terms of poverty but they must be seen as a living person who has material and non-material assets such as health, willingness to labour, skills, knowledge, their social network and the local natural resources (Carney, 1998). Exploring and recognising these different forms of capital that exists and their relevance to pavement dwellers aided in creating awareness of a wider range of social solutions (Ellis, 2000).

The Grameen Bank in Dhaka points out that there are two important aspects which need to be understood in dealing with pavement dwellers: firstly, is that pavement dwellers have abilities and capabilities which need to be built on, and secondly, that all people have potential to solve the challenges of their circumstances and it is this potential which must be harnessed (www.grameen-info.org). Considering these findings, which the Grameen Bank has proven, an architecture that nurtures inner city life can proceed.

3.0 CHAPTER THREE | FIELDWORK

3.1 INTRODUCTION

This chapter outlines the inner city environment and life and street livelihoods of the Durban pavement dwellers, by means of three case studies. The first case study examines Anton Lembede Street and the intersecting areas, as an interpretation of the pavement dwellers' street livelihoods in the Durban CBD. Subsequently, two sample cases investigate the way Durban formulates a response to the pavement dwellers' needs, specifically looking at the selected facilities, Durban Beach Shelter and Strollers Overnight Facility.

3.2 CASE STUDY: ANTON LEMBEDE DISTRICT

3.2.1 Introduction

The choice and relevance of this case study on pavement dwellers' life and street livelihoods along Anton Lembede district, in the Durban CBD, is that the conceptualization and design of the nurturing dream centre needs to be appropriate in terms of the specific life styles and livelihoods found in the context of Durban's inner city. This research addresses the "human feeling" (Alexander, 2003) found in the needs of living (Ortega, 1962) on the streets of Durban. In this case study, research is done on the human needs as one aspect of the "bridge over which any humanistic architecture of the future must pass" (Frampton, 1983: 53). The nurturing architecture is to incorporate the real needs of living pavement dwellers, and not simply an abstract scheme independent of the specifics of place, people and environment. The fundamental relationship between the individual's experience and his/her circumstances in the city (Pallasmaa, 2005: 40) are delimited as the livelihood needs of the pavement dweller and their circumstances in the inner city.

The research of this case study into the pavement dwellers' life and livelihood strategies in the Anton Lembede district was conducted using quantitative and qualitative data gathering methodologies. The quantitative research data was gathered using a survey questionnaire (see Annexure A: Questionnaire on Pavement Dwellers), and the qualitative data was gathered using observation, in-depth interviews, informal discussions and focus group discussions. Photographs

were taken and sketches of street scenes drawn (see Annexure C: Schedule of Qualitative Issues on Pavement Dwellers).

The findings on the pavement dwellers' needs are analysed and interpreted within the humanistic framework delineated in the Theory of Living and the literature review. The analysed findings of the specific needs of the pavement dwellers were utilized to inform the conceptualization of a nurturing architecture.

The research findings are divided into two sections: the first section describes the understanding of the Durban inner city pavement dweller; the second section depicts the major activities of the Durban pavement dwellers - here the activities range in diversity from car guards to fishing, from trading to prostitution. The data gathered from the questionnaire is presented in Annexure B: Questionnaire Findings and Analysis; these findings and analysis are combined with the data analysis and interpretation of the qualitative research below.

3.2.1.1 Background on Durban

Metro eThekweni development exemplifies the dual city divide between the "haves" and "have-nots" as discussed in the literature review (See Chapter 2: Population explosion and the creation of the dual city).



Figure 3.1: 'Poike pots' and high rise buildings, an image of the Durban dual city. (Author, 2013)

The development of the port of Durban arose in response to the European 19th century industrial cities' demands for raw materials from the colonies. From the outset the economic development of Durban proceeded along the divide between the coloniser and the colonised. The harbour of Durban expanded in the late 19th Century when it became the port of preference for the mining development on the Witwatersrand and the concomitant industrialization of South Africa in the early 20th Century. Apartheid built on the foundation of this colonial heritage of Durban exacerbating the colonial divide, and further entrenching a dual city in the economic and social structures and in the design of the suburbs, mass housing and peri-urban shack dwellers cordoned off, under apartheid laws, on the periphery of the city. Post -1994 eThekweni Metro, in confronting this legacy of duality inherited from colonialism and Apartheid, faces similar challenges today of dualism as any developing global city, including the daily arrival of new immigrants over the past decades. A city historically designed and built for a colonial elite numbering in the hundreds of thousands must learn to create an embracive architecture for new democratic citizens number in the millions (Franks, 2000: 27-32).

Since 1996 the Durban inner city population has grown by almost 20%. There has been job losses over the years in the Durban economy, for example the city lost 30 000 jobs in 1990s primarily in the clothing and textile industries and further job losses in the 10000's followed the economic recession since 2008. The dual city nature of Durban is encapsulated in the divide between formal and informal employment, with half the households having a family member that earns an informal income. Overall 34% of South Africans have an informal livelihood strategy (<http://wiego.org>).

3.2.1.2 Geographical Location

The data gathered was drawn from Anton Lembede Street and portions of intersecting roads ensuring that the whole area was represented in the sample.



Figure 3.2: Map showing the Anton Lembede area, Durban CBD, (near Esplanade and South Beach, where interviews were carried out (highlighted in orange). (Google, 2013)

3.2.1.3 Spatial Location of the Study

The research was conducted in both the planned and the unplanned spaces identified by Hou (2010): spaces between, wedges, void spaces, spaces below and spaces around Durban's inner city. Pavement dwellers in the inner city were interviewed around the commercial and residential blocks, and public spaces in the area such as parks.

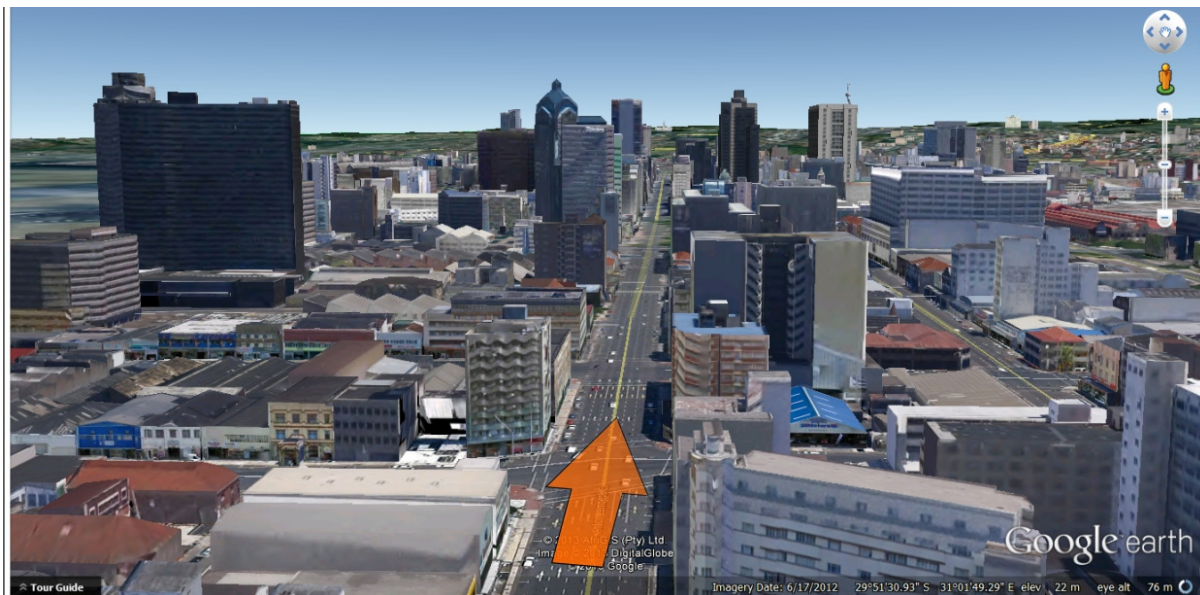


Figure 3.3: A 3D image depicting the length of Anton Lembede Street and context. (Google, 2013)

3.2.1.4 Survey Logistics

The researcher made contact with Deen Mohamed, the owner of the Durban Beach Shelter, who advised where pavement dwellers congregate and how to conduct a user friendly survey with them. The survey questionnaire, on the advice of Deen Mohamed (2013), was committed to memory so that pavement dwellers would not feel that they were being interrogated by the police. The data gathering took place throughout multiple visits, both during the day and the evening.

3.2.2 The Durban Inner City Pavement Dwellers

The broad definitions in the literature review are adequate to orientate the researcher in the field of pavement dwellers, but the research itself uncovers concrete complexities in the lived realm of the pavement dwellers. This underscores Jane Jacob's point that each observed situation reveals its own uniqueness (Jacobs, 1960). The findings of the Anton Lembede inner city pavement dwellers support Aptekar & Abebe's (1997) observations that pavement dwellers are not a homogeneous group, and furthermore their lives are in flux. The research survey findings demonstrate that pavement dwellers along Anton Lembede district have diverse African ethnic and cultural backgrounds.

It was found in analysing the questionnaire responses that living on the streets in Durban is a daily challenge for the pavement dwellers, and that this difficulty is compounded for rural men and woman because they have to adapt to an inner city context which is in stark contrast to their original rural context. The focus group discussions with the researcher and assistant revealed that the pavement dwellers understand the need to have a range of survival strategies. One respondent said, "When the washing of cars is going slow I try selling refreshments". The opportunities of street life are constantly changing, and pavement dwellers need to adjust and adapt to these changes. It was found that pavement dwellers' income generating activities range between the legal and illegal.

In analysing the data the research revealed that the pavement dwellers utilized human capital, social capital, physical and natural capital. This supports the observations by Giddens (1984 &

1990) that urban poor possess some resources. The findings of Bourdieu (1972 cited in Fontain & Schlumbohm, 2000) that there are different strategies chosen by the pavement dwellers to realize different livelihood goals, was corroborated by the research undertaken. The findings demonstrated that human capital, social capital and physical capital are the most important resources which pavement dwellers possess. The pavement dweller's human capital generates an income directly through wage employment activities, and indirectly through the producing of goods such as homemade food, wood work, arts and crafts. Another indirect use of one's own labour is the self-employment of small trading jobs: a barber, car washer, car guard or begging services (petty trade). It is important to note that surviving in the city is a result of a combination of activities. The findings demonstrated that physical capital, the unplanned urban space, is fundamental to all the trading livelihood strategies. Pavement dwellers in Anton Lembede district use the unplanned public space for a variety of economic purposes, and whenever possible the public spaces.

The interviewed pavement dwellers understood that all their income generating activity is their 'own work'. The respondents observed that "living on the streets is full time work". These findings confirm the observations of Heinonen (2000 in Heinonen & Apteker, 2003). The respondents said that work for them was not always available and that the work is rarely outside the informal sector. The pavement dwellers demonstrated that they were drawn to work by its rewards and benefits, and thus their behaviour responds to the opportunities in the informal market just as the formal sector workers respond to their opportunities.

The micro-analysis of the pavement dwellers living strategies in the literature review demonstrated that the chosen responses of pavement dwellers follow economic principles and hence this type of rational behaviour can be nurtured by interventions which provide support to the pavement dwellers. In other words, the intervention must aim at equipping the pavement dweller to respond with better skills or more appropriate behaviour. Each of the identified income generating activities, discussed below, can be improved through further training in the particular skill and training in basic small business systems, such as introductory finance, stock taking and observing market potential.

3.2.3 Street Living and Livelihoods in Anton Lembede District

This section outlines the observed life and livelihood activities of the Anton Lembede district pavement dwellers. It deals firstly with observations of life in the street and then, secondly with the livelihood activities. There are shelters housing the poor across the city, but pavement dwellers tend to find these prices too expensive and are forced to a life on the streets. The streets become the bedroom, wash place and work place. Overall, pavement dwellers prefer the inner city to slums on the edge of the city, as one respondent said, "too much time and money is spent travelling into the city to find work". The street living techniques and livelihoods are outlined below, using various relevant headings.

Life on the streets: It was observed that life on the streets in the Anton Lembede district has many challenges. The whole range of life activities can be observed taking place in the street: from working to being with friends, from eating to personal sanitation, from playing soccer to sleeping. These activities took place on the pavements, and in the spaces between, wedges, void spaces, spaces below and spaces around the commercial and residential blocks and streets.

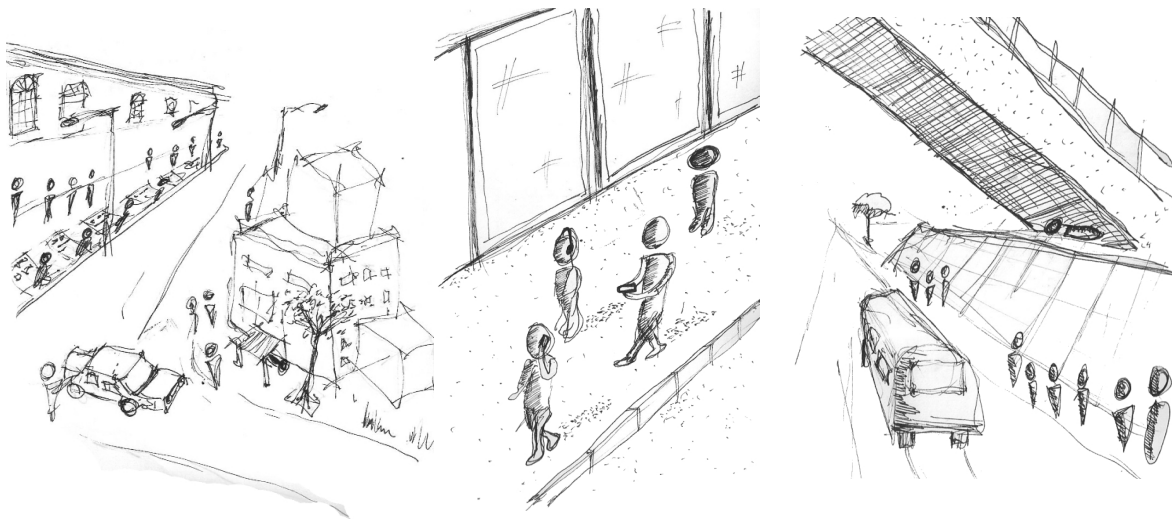


Figure 3.4: Sketches of pavement dwellers' life on the streets. (Author, 2013)

Getting the day's meal remains the major priority for many pavement dwellers in Anton Lembede district, and once food is taken care of, the concern shifts to a safe place to sleep. They attempt to meet their daily meal requirements from different sources: if income is unavailable from a livelihood strategy, they seek out leftover food from hotels in exchange for emptying garbage, carrying loads or cleaning. Pavement dwellers were observed searching for food in garbage bins and discarded vegetables from markets. One pavement dweller said that "I sometimes get food from NPOs or church". The pavement dwellers buy (whenever possible) foods usually from street café's and vendors. From observations it was seen that meals consist of bread with cup of tea for breakfast, and in good times a light stew for lunch or dinner from the vendors or small cafes/restaurants/shelters. The group discussion comments on food were: "The food costs too much in the city"; "I would like my money to cover two meals a day"; and one pavement dweller said "I am happy if I have enough food but angry and frustrated whenever I am hungry...".

As observed the Anton Lembede district pavement dwellers lack sufficient clothes for the varying weather conditions; and many were barefoot. The pavement dwellers tend to live, eat, work, play and sleep in the same clothes. Some of the pavement dwellers have collected old rags which are sewn together as blankets for use on cold days and during the night. The group discussions noted that personal hygiene on the streets was a challenge: "We have to go to the toilet in the abandoned buildings"; and "We need places to wash."

There are many means of measuring poverty, and sometimes a casual observation can reflect both the particular activity and a more general insight into the overall embracing conditions of poverty and the exploitation that accompanies it. One pavement dweller commented: "We need a place to charge phones. I must pay R5.00 each time to charge. Can't we find a place to pay less?"

Sport in the streets: It was observed on night drives through the Anton Lembede district in April that a number of enterprising young pavement dwellers were playing soccer in the empty side streets of the district. The group discussion remarks on sports were:

"I would like a place to play soccer. We use the empty streets at night."

"The police have not let us use the parks at night even though nobody else is there."

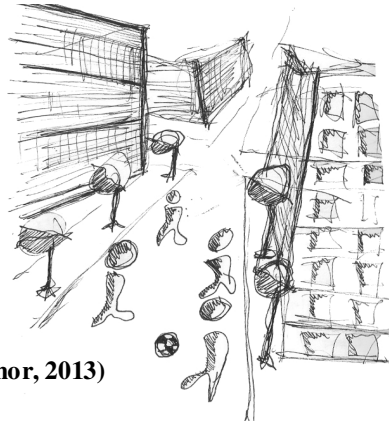


Figure 3.5: Playing soccer in the streets. (Author, 2013)

Sleeping in the streets and in between spaces: It was observed, in April 2013, on numerous night drives through the inner city, down Anton Lembede Street that there are many pavement dwellers sleeping in the streets. One late night, on such a journey, a number of the Anton Lembede side streets were visited. It was estimated that there were forty seven people sleeping on the pavements in the spaces around buildings and streets such as wedges, void spaces and spaces below.

It was found that the majority of pavement dwellers did not have adequate shelter and that they slept on the street. Many of them attempt whenever funds are available to alternate between shelters and the street, especially during bad weather conditions.

Sheltering pavement dwellers, in terms of the quality and quantity of the housing, is one of the numerous challenges that eThekweni faces. The steady influx of rural migrants in search of work aggravates the existing housing shortage in the metro.

In the group discussion one respondent volunteered that "it is safer to sleep in the streets than in the abandoned buildings"; another said; "We have found the safest places to sleep on the streets and we sleep together in groups. You cannot sleep alone on the streets"; and yet another said; "We have our favourite places we build roofs but the police and the building managers take our sheeting away so we have no roofs."

The groups' comments on shelters were:

"I sleep on the pavement opposite the abandoned buildings near the Beach Shelter and my dream is to spend one night there."

"I would like to expand the selling of my crosses so that I could afford to move into the shelter every night."

"The shelters are too expensive compare to the streets. But in the streets the night talks to one."

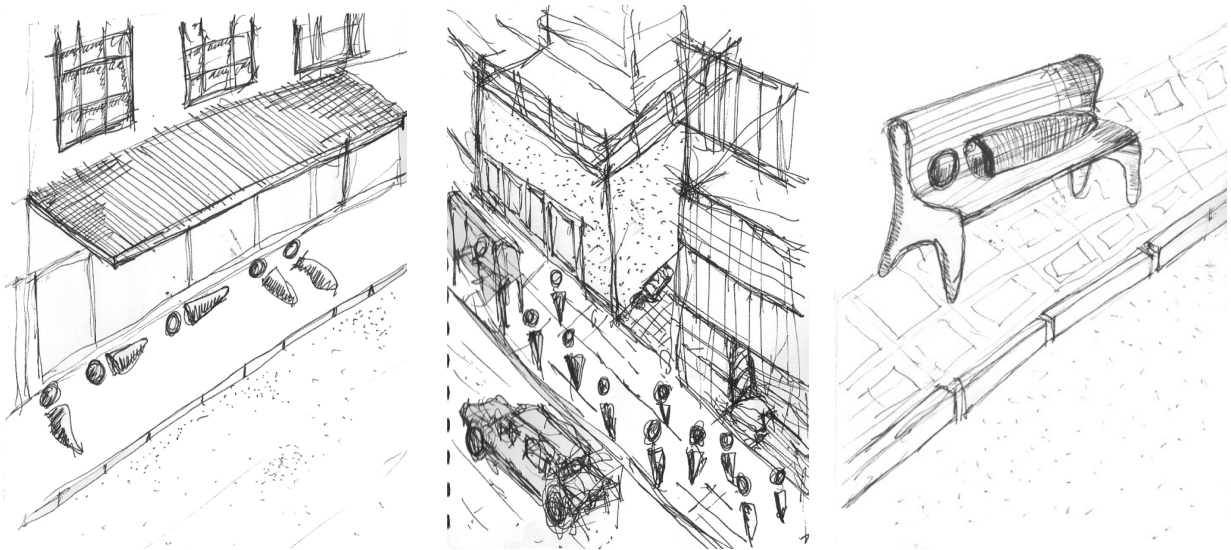


Figure 3.6: Sketches of pavement dwellers sleeping ruff in the Anton Lembede district. (Author, 2013)

Petty trade in the streets: The findings demonstrated that a 55% majority of the sample of Anton Lembede district pavement dwellers earned a living from street trading. This group is diverse and covers all manner of trading: from the selling of baskets to refreshments from fish to pots. The type of goods for sale on the street varies depending on the seasons and the holidays. The pavement dwellers who trade are not to be confused with the more successful street traders who have rented sites from the city and tent stalls set up as a viable market. These markets are often located in busy thoroughfares, such as the market leading from the city hall to Gugu Dlamini Park.

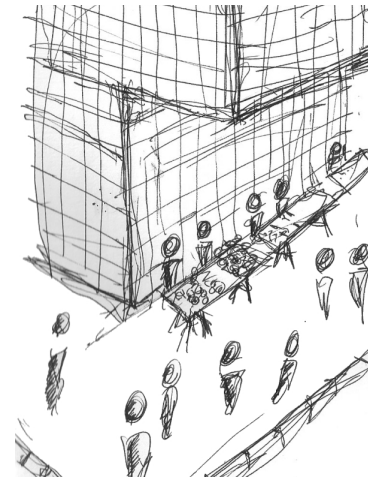


Figure 3.7 & 3.8: Photo of market on the way to Gugu Dlamini Park, in contrast to the sketch of pavement dwellers trading in unplanned space (Author, 2013)

These thoroughfares carry large numbers of potential customers who must walk through the strategically located market to reach their destinations. These street traders pay rent for their stalls and have some funds to sustain their trading. In contrast to having a market site provided by the city, the pavement dweller trader uses unplanned inner city spaces, including on the pavements. The unplanned spaces in the Anton Lembede district used are similar to those identified by Hou (2010) as spaces between, wedges, void spaces, spaces below and spaces around the commercial and residential blocks and streets. Trading takes place through the adapted use of inner city paths as there is a flow of potential customers. These paths function as connections between areas as identified by Lynch (1960).

Focus group discussions on training needs:

The focus group provided an animated discussion on how education and training would help them improve their income and improve the possibility of a steady income:

"Yes, if I had more training it would help."

"I would like to learn to make clothes to sell."

The group in the discussion felt that "computer training would help them get real jobs."

A taxi driver overhearing the group discussion volunteered: "All the people here need social skills training and basic literacy before any other training."

The group discussions provided suggestions for the type of business improvements which they needed:

"I would like to sell in the market on the way to Gugu Dlamini Park and not here on the pavement."

"If we had a safe place for a group and storage we could weave baskets right here."

"I have tried getting a loan from the bank for business because with a loan I can use the money to go into my home rural area and organise the women to make baskets. I need money to help them start weaving. But it did not happen."

"I can see that my shoe repair business is good. People need their shoes fixed. But I need a machine to help me."

"I have also enjoyed cooking if I could get training I am sure that I could get a job - because I have a sister in a hotel."

"I like the storage at Mansel market."

Labour in the construction sites: There is construction work available in Durban and from time to time some of the pavement dwellers are hired temporarily on the construction sites. The group discussion revealed that "sometimes we hear about the work too late and we miss it."

The group's remarks on employment were:

"I cannot find any job."

"We don't even know what jobs to look for. I went to the Department of Labour but nothing came of it."

"We need direction so that we can do jobs for ourselves."

Agriculture work in the rural areas and urban farming: As discussed in the literature on urban poor, pavement dwellers find agriculture work during the harvesting season. The group discussion said that "that a few of the pavement dwellers returned to their rural village to help mainly with planting and harvesting and sometimes they return to check up on the crop or vegetables and help with weeding. We have not heard of any one so lucky as to get paid for farm work."

The group discussion comments on urban farming were:

"I wish I could grow my own food here like my mother does at home in Nquthu."

"I am from the city but I like this idea."

Selling of cooked fish and fishing: The selling of cooked fish to pedestrians on the pavements in the Anton Lembede district was observed. One of the sellers volunteered that her fish came from "a friend who was lucky enough to regularly catch fish along the beach front and sometimes the fisherman would walk all the way to the Umgeni lagoon mouth to catch fish." The fish seller said "with more pots and a paraffin stove I could sell more fish"

Begging: The findings showed that 5% of Anton Lembede pavement dwellers were beggars, although this increased by a further 15% of "occasional" beggars. The pavement dwellers who where begging were young, elderly and disabled people in public spaces such as shopping areas, busy streets and at traffic lights and parking lots. Overall begging supplements the income for these pavement dwellers. The findings demonstrate that some of the pavement dwellers feel that begging, in the words of one respondent, "makes me feel uncomfortable". Another respondent said that "I go hungry before I beg - and any way begging is very difficult".

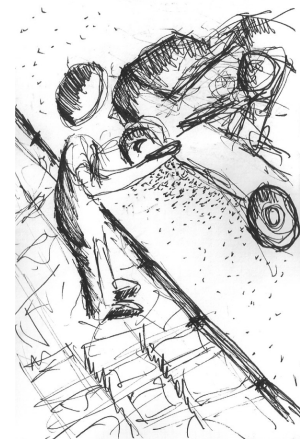


Figure 3.9, 3.10 & 3.11: Begging as means for survival on the streets (Author, 2013)

The different beggars use various marketing strategies for begging. Begging changes with the time of day and the findings shows that beggars prefer begging from perceived non-locals. Beggars in Anton Lembede district were observed stretching their arms out and using phrases such as "I am hungry", "Can you give me any food" and "I need money for night shelter". Beggars were observed engaging in singing a song, doing tricks or building sand castles on the

beach; other beggars were observed trying to explain to the public why they are begging; one beggar was observed acting like he was handicapped. The findings demonstrated that young pavement dwellers played on their youthfulness to evoke sympathetic emotions. Hetch (1998) states that success at begging is, unsurprisingly, inversely related to age. It was observed that beggars rarely are given money, though more often they are told "God bless you". Even in the face of aggression the Anton Lembede district beggars are not discouraged. Interviews indicated that the beggars earned barely enough to survive each day. One respondent said, "Each day I must begin again". Another said, "One day I will be able to afford a shelter".

Beggars were observed competing among themselves for prime sites; such competing was seen to lead to aggression and shouting. The research findings indicate that they try and negotiate over sites so as to reduce conflicts; it was observed that at some sites the beggars rotate their turn to beg. The group discussion said that beggars beg "because the beggars cannot do anything else" and "food and shelter are what beggars need."

Scavenging: Pavement dwellers were observed in the Anton Lembede district scavenging for food, old clothes and shoes for themselves and scavenging for plastics, cardboard and other equipment to sell. Scavenging is conducted throughout the day, but in particular in the late evening or early morning when the rubbish is full.

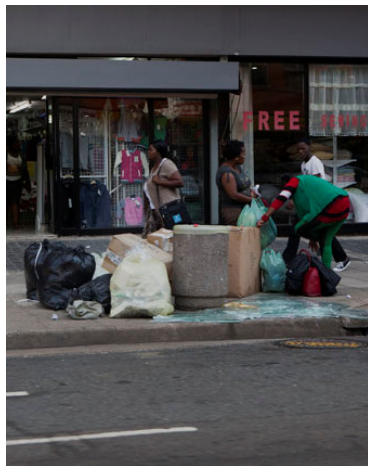


Figure 3.12, 3.13 & 3.14: Scavenging as means for survival on the streets. (Author, 2013)

Pick pocketing and theft: Although the respondents to the questionnaire did not mention crime, the issue of crime came up in the discussion groups where respondents agreed that Anton Lembede district pavement dwellers were involved in crime. The discussion group was questioned about the 20% sample of respondents, who did not volunteer what income generating activities they were engaged in. The discussion group said "We are sure that many of those are stealing from open car windows steal things like wallets, cell phones, bags and food and shopping parcels." The discussion group mentioned other petty crime activities in the streets, market places and bus stations: "stealing watches, pick pocketing and stealing cell phones". One respondent mentioned that "if there were more jobs people would have something to do and earn an income, then a lot of this hunger based crime would not be with us."

Prostitution and drug selling: In a group discussion the issues of prostitution and drug selling were seen to be intertwined. The respondents pointed that "prostitutes and drugs are more available at the beach end of Anton Lembede Street". They all felt that the problem is increasing. Prostitution takes many forms in Durban. Prostitutes are classified by the place of work, the money they charge and their social status: "street walkers, brothel or 'house' prostitutes and call girls" FSCE (2001). Similarly Konjit (1996 cited in Mekuria, 2004) classified prostitutes into "street- girls, the cubicles (kiosks) and the semi professionals".

The group respondents suggested that prostitutes often suffered from "a low level of education, the lack of work experience and lacked job skills" for jobs such as "cooks, cleaners and maids". A woman in the group said, "prostitutes sell the only thing they have - if they had something else to sell they would sell that. Sex is for survival". In contrast one group member said, "some prostitutions are educated and have other skills but the money from prostitution is better." Another women said "sex is used when the other income dries up". The group felt that "prostitutes needed help to make a new start".

Substance abuse - a way of life or a response to failures to meet basic needs: The group discussion revealed that "many pavement dwellers often only found leftover food from the rubbish bins. Sometimes they spend days without eating." One respondent added that "lack of

food was bad but not sleeping at night because of the threat of violence and in winter even Durban gets cold". Another respondent said that "it is difficult to get enough sleep at night and the next morning". Sometimes the pavement dwellers must adjust their sleeping patterns to fit in with getting leftover food from the restaurants.

It is in the context of hunger and sleepless nights that substance abuse needs to be understood. For example some of the respondents in the group said that "there is relief from their hunger in benzene and glue." Yet others said that "glue also makes them happy and is taken not only when they hungry". But the overall consensus of the group was that not many pavement dwellers were regular users. It was unclear from observations what the level of drug use and drug tracking is, though it is clear that it is a social threat.

Carrying packets and parcels: Some of the Anton Lambede district pavement dwellers wait at the bus and taxi stops and shopping centres where people sometimes require assistance with carrying their parcels and packets.



Figure 3.15 & 3.16: Carrying packets and parcels as means for survival on the streets. (Author, 2013)

Vehicle related activities: Observation in the Anton Lambede district revealed that pavement dwellers are involved in a range of income generating activities in relation to vehicles: washing, polishing and car guards. They assist taxi users by calling for taxis. Car guards were observed sitting in the vicinity of parked cars around a hotel watching the cars, one car guard said, "The money for this is too little and so often the driver gives no money, he just waves. What is my

hunger supposed to do with a wave." One respondent in the group discussion said that "car washing is tiring work but rewards more than other street jobs."

Scrap collecting: Collecting scrap is another survival job for pavement dwellers of Anton Lembede district. Scrap collectors can be heard shouting out for scrap as they move around the city streets. Among pavement dwellers scrap collecting is the most mobile group: they are on the move hunting for items to resell to their customers. They collect old and abandoned metals, cardboard, plastics, and shoes. One collector who was observed in the street said, "finding the scrap is difficult and the real difficulty comes - storing and selling it."



Figure 3.17 & 3.18: Scrap collecting as means for survival on the streets. (Author, 2013)

3.2.4 Anton Lembede Discussion

The research discussions are based on quantitative research of the survey questionnaire and on the qualitative research of observation, in-depth interviews, informal discussions and focus group discussions - with different groups of pavement dwellers. The interpretation and analysis draw on the theoretical framework and the literature review.

Both the literature review on livelihoods and the findings from the qualitative and quantitative research demonstrate that there is an inward migration into Durban from Africa and the rest of South Africa, with marked rural migration. The reality of Durban often challenges the belief in opportunities, as once in Durban, the new dwellers have to struggle to survive, to maintain themselves and to integrate into the inner city environment. This point is noted in the literature review in terms of the on-going threat of unemployment or underemployment. The research was interpreted and analyzed in terms of Durban's inner city pavement dwellers' daily lived experiences in pursuit of their livelihoods.

3.3 CASE STUDIES: DURBAN'S RESPONSE TO THE NEEDS OF THE PAVEMENT DWELLER

3.3.1 Introduction

The researcher chose the Durban Beach Shelter and Strollers Overnight Facility for the shelter case studies. These are current facilities that attempt to meet the needs of the pavement dwellers in the Durban CBD. These facilities are a sample of Durban's response to the issue of the homeless pavement dwellers. The case studies investigated the architecture and the conditions that the Durban CBD pavement dwellers experience in each of these overnight facilities. The facilities were examined from the point of view of the pavement dwellers, and how the architecture responds to this view. The contexts of the facilities were examined as the surroundings play an important role in the manner in which the architecture functions. These case studies demonstrate that there is a complex interaction between multiple social variables and the responses of the architecture. Hence, it is observed that changing any number of these social variables and/or altering the architecture can change the quality of the nurturing outcome. These case studies assist with conceptualizing a nurturing multipurpose dream centre.

3.3.2 STROLLERS OVERNIGHT FACILITY



Figure 3.19: The Strollers Overnight Facility, Durban. (Author, 2013)

3.3.2.1 Background

The Mansel Road urban planning scheme in the Durban CBD was designed by Rodney Harbour, and includes the bath house, Block AK (live and work units) and the boot markets. It was only later that the eThekweni municipality appointed Elphick Proome Architects to design the Strollers building on 55 Mansel Road. The whole scheme is on a sliver of land that runs between the railway lines and Umgeni Road.

The origins of the Mansel Road market started informally when women 'wholesalers' washed and sold blue drums on the pavements to rural traders travelling into town from long distances. The women sellers constructed their dwellings in the pavement market using black plastic sheeting and the blue drums. In 1998 this informal market was upgraded and combined with the beachfront markets, which were moved to the Mansel Road development scheme. "Each of the 44 relocated women drum sellers is provided with living quarters and a shop in a single unit" (Harber, 2013), in the urban design scheme in block AK. The market construction was used to "provide skills and management education; the success of the market and living quarters led the municipality to identify the need for Strollers" (Harber, 2013). The market has maintained its strong rural-urban links, with the cyclical migration of the women returning home, to the rural areas, every few months; the number of market traders is maintained by the continuous replacement of these women by other woman from home (Harber, 2013).



Figure 3.20& 3.21: The first image shows the entrance into Mansel Road with the bathhouse as the central focus. The second image shows block AK on the right with Strollers in the background. (Author, 2013)

The researcher observed that the Strollers facility is designed to be a mixed-use four story building. The ground floor operates with small commercial outlets, and the top three levels are for temporary overnight residential accommodation, particularly for those coming into town to trade at the market. SEWU (Self-employed Women's Union) motivated for the overnight accommodation plan for traders (Lund, 1998). Hence, Strollers is the city's response to the community needs and to their initiatives for improvement. The Strollers project is the first transitional housing in South Africa that has been conceptualised as a housing need that is addressed by public housing policy (Ethekwini Municipality Report, 2013).

Strollers provides 320 beds and 162 rooms. Strollers is a Section 21 company, set up by Metro Housing and reports to a board of directors. Day-to-day management is contracted out. It was observed that Strollers is managed more as a business, than a support facility; occupants must vacate every morning. The room fees cross-subsidise the operating costs.

One entrepreneur who operates in the market provides food for visiting traders – when a long-distance bus leaves its departure area the driver phones through the number of people on the bus so that when they arrive at Strollers the entrepreneur has a prepared meal waiting for the passengers (Dobson, 2007). Many intended beneficiaries cannot afford the rent of R72.81 a night and continue to sleep on the pavements at no cost. Given the additional costs of the accommodation some traders, often people from as far as the Eastern Cape and Lesotho, use the night market and do not sleep. They are ready to leave in the morning.



Figure 3.22 & 3.23: The blue drums and pillows for sale as part of the Mangel market, positioned close to the main entrance and the main market on the right. (Author, 2013)

3.3.2.2 Description and Analysis of the Building Environment

3.3.2.2.1 Location

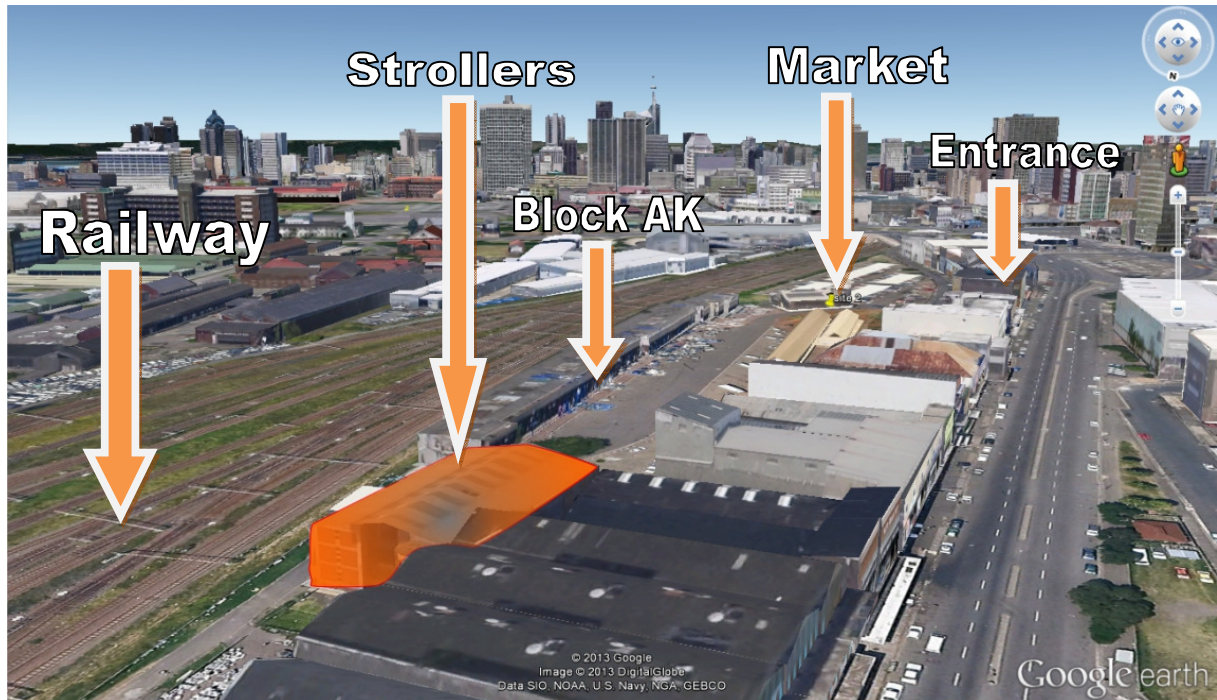


Figure 3.24: 3D view showing immediate context of Strollers in relation the city blocks and activities. (Google Earth, 2013)

Within the broader context, Strollers is well located near to the Durban train station, markets and bath house allowing for ease of transport and the ability to find employment, this location supports the needs of pavement dwellers. Yet within Mansel Road the facility is poorly positioned at the end of the road where the ground floor, small commercial outlets do not have a regular flow of customers; the customers are found closer to the entrance of Mansel Road, where the main markets are.

Analysis of the position in terms of Complexity Theory reveals that the position works on paper in an abstract plan, but not in the complexity of the relations in the environment which should take account of the movement of people.

The large waste dump close to the entrance of Strollers with its unpleasant odours floating through the air, show that in this particular case there has been little consideration for the lives of the individuals. In the Theory of Living consideration of life is fundamental at every point, and the challenge for architecture is to speak to the important diverse issues and their impact on human well being. The waste dump arouses "feelings" of discomfort (Robinson, 2012: 348) in the users of Strollers and works against the environment's attempt to be nurturing.



Figure 3.25 & 3.26: The empty commercial facilities on the ground floor can be seen on the left and the large waste dump close to the entrance of Strollers on the right (Author, 2013).

3.3.2.2.2 Response to the Needs of the Pavement Dweller

The Strollers Overnight Facility is a good initiative, yet for a number of specific reasons the building does not respond to the needs of the people. Consideration of these points increases our understanding of what constitutes a nurturing environment.

The architecture of the curved roof of Strollers responds to the curved roofs of the markets in a positive manner that links the building to the context. Although the building is large, there is an attempt to have the feeling of a human scale development by building low lying roofs over the external work space.

The architecture attempts to link Strollers to the context through the roof, which provides an emotional secure orientation to the pavement dwellers. In contrast, the users of the internal work spaces are overwhelmed in the courtyard by the large four story volume. There is an attempt to design on the humanistic dimension with its focus on the human scale. Yet from the Critical Regionalism perspective the building does strike one as out of scale for the situation and its use.



Figure 3.27 & 3.28: The Strollers overnight facility, on the left, utilising the context of the market's barrel vault roof, on the right, attempting to fit in with the area. (Author, 2013)

3.3.2.2.3 Night Accommodation, Work and Communal Needs

The bedrooms are very small with one window for natural light, ventilation and shared bathrooms. There are long dark corridors that link the rooms together with large spaces for fire hose reels that provide space for crimes to be committed: "these crimes included pulling people into the rooms off the corridor and then assault" Dean Mahomed stated. The work spaces have no windows and only a garage door for access; the garage provides both poor natural light and poor ventilation. There is not enough space for all the washed clothing to be hung up and dried, and the occupants are forced to hang up their clothes on the fence and walls.



Figure 3.29, 3.30 & 3.31: On the left one can see the long dark corridors, in the center the poorly lit work space is observed and on the right, washing is hung on the fence across the road. (Author, 2013)

Strollers provides economic opportunities, in the form of shops and small service industries, primarily the sewing of pillows. Strollers also provides pay public toilets, pay showers, pay lockers and pay laundry facilities.

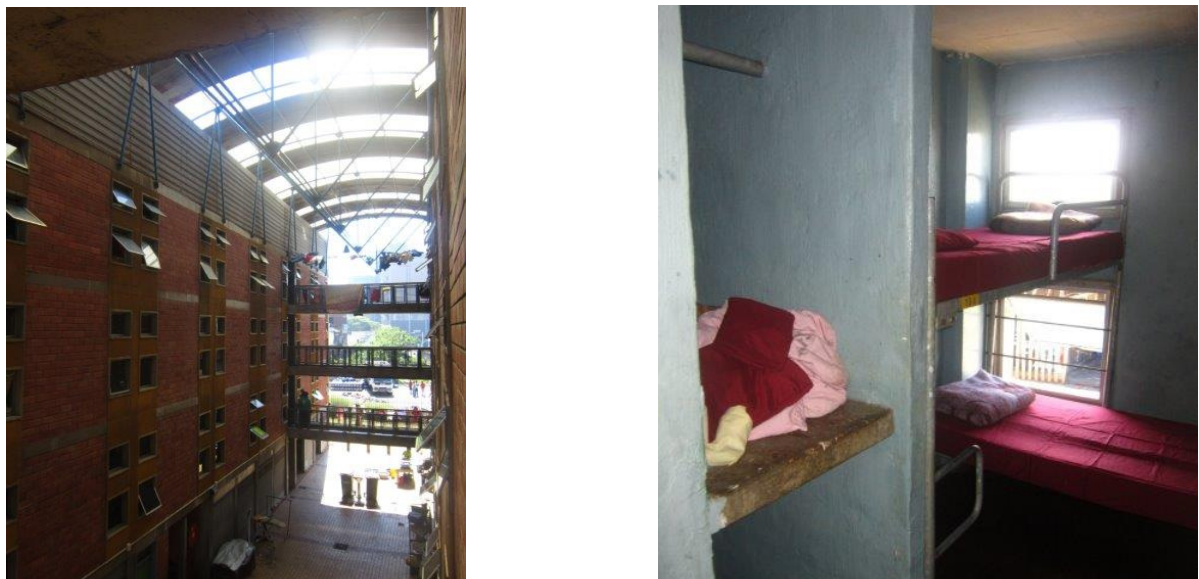


Figure 3.32 & 3.33: On the left the Strollers' living space lacks human scale and supportiveness. The bedrooms are mathematically worked out to squeeze the occupants in. (Author, 2013)

Strollers caters for physical space and provides for the measurability of space and yet the shelter, work and communal space do not speak to the architectural space as lived space, which for Pallasmaa (2005:63-64) is the emotional. The building's lived space lacks a supportive feeling

which is fundamental to the nurturing of a particular building. The space must speak to augment movement, touch, hearing and feeling (Peter Kivy cited in Robinson, 2012: 339): the dark corridor projects an emotion of darkness.

3.3.2.2.4 Affordability and Management

Both the shelter and work spaces are too expensive for the large majority of the Durban pavement dwellers to utilise. As noted, long distance traders choose to trade at night rather than pay what is seen as expensive accommodation. Others choose to sleep under the overhangs of the surrounding building, hence returning the area to a similar state of pavement dwelling before Strollers was built. Thus the Strollers is too expensive for the pavement, and some pavement dwellers choose to remain on the pavement.

Management felt that "the prime management task is to collect rent and to keep the building clean". There was no mention of providing services to cater to the needs of users, such as skills training, business planning and life orientation provided by the Grameen Bank, to support the individuals using the facilities (www.garmeen-info.org).

3.3.2.2.5 Suitability for the Strollers Overnight Facility

SEWU and eThekweni Municipality reduced the prime need of the traders on Mansel Road to a place to sleep and a place to work. Yet the rural traders do not choose to sleep in Strollers, preferring the cheaper pavement accommodation. The initiative was plausible, however Strollers attempt to solve human needs through only an architecture of bricks, which can never be achieved. This is a demonstration of Niebuhr, (cited in Jacobs, 1965: 123) who terms the salvation by bricks as the belief that a good building can solve social conditions and the human predicament. The architect Dobson reflecting on the fact that the traders choose to continue to sleep on the pavement rather than pay for the accommodation felt that "The establishment of Strollers missed that aspect" (Dobson, 2007). The accommodation need of rural traders has not been met by Strollers.

3.3.3 DURBAN BEACH SHELTER



Figure 3.34: The Durban Beach Shelter. (Author, 2013)

3.3.3.1 Background

The Durban Beach Shelter was established in 1999. At present the Durban Beach Shelter is located on 53 Cato Street in the Durban CBD on the site and in the premises of an old hotel. It is a registered Non Profit Organisation with a Public Beneficiary Organisation number and provides shelter for 150 per people who book in at reception each night. Deen Mohamed is the chairperson, Lando Mabaso is the administrator and Ruben Dhary is the secretary. Deen Mohamed (2013) has been an integral part of this study and has shed light onto many of the issues facing the Durban pavement dwellers.

The vision motivating Deen Mahomed (2013) and his team is to provide an authentic and sustainable shelter assisting those in dire straits. Their mission is to enhance the lives of those who are in need and who are destitute. The Durban Beach Shelter has had to move locations several times due to issues with the eThekweni municipality and funding problems. From the

start, the organisation has had clear policies, including not allowing the use of drugs, liquor and prostitution in the building. Originally the shelter offered assistance through a variety of support systems to the pavement dwellers, but these programmes were terminated due to funding problems: the programmes aimed to facilitate independence and self-sufficiency as well as allowing the pavement dwellers access to education, training and social welfare.

This case study highlights the lack of government response in Durban for funding facilities and programmes for the pavement dwellers and other urban poor. There is an urgent need for more funding as the Durban Beach Shelter management cannot afford the current rent.

3.3.3.2 Description and Analysis of the Building Environment

3.3.3.2.1 Location



Figure 3.35: 3D view showing the Beach Shelter in its context of the Durban city. (Google Earth, 2013)

The Beach Shelter is located in an old hotel in the Durban CBD and therefore is in close walking distance to the rest of the CBD. The surrounding context of the Beach Shelter, the strip club opposite and several car dealerships in Cato Street, does not complement nor aid in supporting the shelter.

The managers of the programme have been unable to find funding for a more adequate premises for their idea of a shelter elsewhere. They feel that the shelter needs to be on a larger site which is more integrated with public amenities, and with a ground floor outdoor area. Even so the pavement dwellers using the shelter are better off than those sleeping on the streets.

3.3.3.2.2 Response to the Needs of the Pavement Dweller

The building for the Durban Beach Shelter was originally designed to be a hotel and this hotel is unsuited for a nurturing shelter. The old hotel building is an example of modernism, with its abstract design and little support for the life of the people. The building has ribbon windows on each floor with sand stone tiles on the external walls in an attempt to make the building interesting.

3.3.3.2.3 Night Accommodation

As the building for the Durban Beach Shelter was originally designed to be a hotel, the interior spaces are inadequate for the current users. The old garage is used for the new combined kitchen and lounge/dining room where food is supplied. The original conference and lounge space on the first floor is used to sleep men on bunk beds, and they utilise one set of shared ablutions, whilst the handicapped men share a separate room. The large floor plate of the men's dormitory prevents good natural ventilation and light for the dwellers. All the women stay in dormitories that sleep six, and are located on the second floor. Each of the women dormitories are serviced by two showers, two wash hand basins and two toilets. On the third floor, there are family rooms with the bathroom on suite.

The shelter management has understood the need to provide separate sleeping areas for men, disabled men, women and families. The women's private sanitation needs are catered for with the

provision of separate showers, basins and toilets for every six women; in contrast, the men have one large communal ablution. The needs of the disabled men are cared for with the provision of special beds.



Figure 3.36: The original hotel's lounge is used as the men's dormitory. These beds are fully occupied every night with the Durban's pavement dwellers. (Author, 2013)



Figure 3.37 & 3.38: The photo on the left shows the separate disabled men's dorm and the photo on the right shows a female dorm. (Author, 2013)

The limitation of the physical space is accepted by the researcher because of inadequate funding. Within this limitation there is an understanding that different pavement dwellers have different needs to be cared for. Notwithstanding taking the individual's point of view into account, the overall modernist design and the hotel plan forces the shelter to squeeze the life of the pavement dwellers into an abstract architectural design as the norm into which they must fit.

3.3.3.2.4 Food Schemes and Social Care

The Durban Beach Shelter provides two meals, biscuits and tea, sanitary, security, recreational activities, social welfare assistance, and at one stage, provided skills and development programs. Dinner is from 6pm-10pm and the shelter gates close at 1.00 am. Through street and on premise food schemes the NPO has fed over seven million people. The NPO also assists single mothers with new born babies. The organisation has conducted over 21 burials when the next of kin could not be reached or traced.



Figure 3.39 & 3.40: The photo on the left shows the kitchen area and the photo on the right shows the dining hall, both operating out of the former garage. (Author, 2013)

The shelter offers a comprehensive and supportive feeding scheme, feeding people in the shelter and on the street. The care for new born babies and burials broadens the NPO's support system. The thrust of the literature review in the section on "Life in the dual city" speaks to the humanity of the pavement dweller. By treating the pavement dweller as a human being the shelter attempts to create a social and psychological nurturing environment.

3.3.3.2.5 Training Programmes Terminated

Currently due to insufficient funding the skills and development programme has stopped running. The skills once on offer before funds were depleted included: bakery lessons, sewing, computer literacy, mechanical and carpentry training. The long term aim is to have a day care centre for single mothers to leave their children whilst they seek employment.

Currently there are no programmes and no designed spaces to equip or educate the users to improve their life style or their ability to earn an income. Without such programs and spaces it is almost impossible for the users to better their knowledge and skills (Short History of Grameen Bank. grameen-info.org accessed 20 March 2013); the users are left to continue their lives in the same poor economic and social position whilst sleeping on the streets for the majority of the time. From the Case Study in the Anton Lembede district the researcher found that pavement dwellers living on the street had a lack of skills, and therefore could only look for menial work. With such programs and spaces the aim would be to facilitate the users into a sustainable way of life where they do not have to sleep on the streets and only use the shelter facility temporally. These types of programmes and facilities are necessary in order to address the pavement dwellers in terms of their current circumstances and present skills and coping mechanisms.

3.3.3.2.6 Affordability and Management

The Durban Beach Shelter is a place to stay for 150 individuals daily and 80% of them are regulars. Mr Mohamed requests a donation of R30 per night for the services, but only 60 % pay. The funds are utilized for operational costs such as rent, water, telecommunications, stationary, groceries, salaries, maintenance and travel. The organisation is battling financially as it only receives donations from the private sector and no funding from government. The eThekweni municipality does not provide any funds to the Beach Shelter. Mr R.M Lyster (2010) a practicing attorney commented on the shelter that "following my inspection in loco at the premises, I concluded that the Durban Beach Shelter is providing a vital, relevant and unique service in the city of Durban."

The Durban Beach Shelter has a caring and responsible management team. The accommodation and meals are affordable yet many of the pavement dwellers are unable to afford these prices. The continuation of this important facility for the Durban pavement dwellers is looking ominous due to financial problems.



Figure 3.41: These two photos are illustrations of many news paper articles praising Deen Mohamed and his organisation for what they do. (Author, 2013)

3.3.3.2.7 Pavement Dweller's Situation

Deen Mohamed (2013) describes five different levels of poor that stay at the Beach Shelter, all of which are pavement dwellers. The first level are travellers that do not intend on staying the night in Durban, but due to unforeseen circumstances they have to. This group of people is the smallest group and stay in the shelter as they cannot afford other accommodation. The second group of people are newly homeless and are seeking shelter. The third group is comprised mainly of beggars and car guards, this is the largest group and still show lots of hope. The fourth group of people is described by Deen Mohamed (2013) as "hobos" as this group has stayed on the streets for a long time earning money in whichever way possible and are losing hope. The fifth group are the people who have lost hope completely and do not subscribe to any social norms or uphold any manners or have personal integrity. This group of people are most often dangerous to themselves and others. He says you can tell who these people only by looking at them in the eye.

These five groups of pavement dwellers afford insight into the grouping of individuals, without diminishing their worth, so as to conceptualize the types of categories which a nurturing architecture is to speak to.

3.4 CONCLUSION: CHAPTER THREE

The Anton Lembede district findings demonstrate that Durban's pavement dwellers participate and experience life in a dual city. The findings demonstrate the uniqueness in the lives of the pavement dwellers and the complexities arising from this, which need to be understood. The research was interpreted and analyzed in terms of Durban's inner city pavement dwellers' daily lived experiences in pursuit of their livelihoods. It was found that the pavement dwellers understand the need to have a range of survival strategies.

The Durban Beach Shelter and Strollers Overnight Facility case studies investigate how these shelters address the needs of the pavement dwellers in the Durban CBD. Hence, the shelters are examined from the point of view of the pavement dwellers, and how the architecture responds to this view. It was found that there was not a nurturing response. Overall the architectural response to the context was poor. There is a complex interaction between multiple social variables and the responses of the architecture, for example the different types of facilities for men and women, was minimally evident, yet overall there is a lack of architectural support of their diverse needs. These findings demonstrate that Durban needs better and more adequate facilities, and it is this gap in architecture and provision of facilities that the conceptualization of a nurturing multipurpose dream centre will address.

4.0 CHAPTER FOUR | PRECEDENT STUDIES: MOVING IN THE DIRECTION OF A NURTURING ARCHITECTURE

4.1 INTRODUCTION

The Bud Clark Commons and The Bridge Homeless Assistance Centre are chosen as precedent studies in the American cities of Portland and Dallas, respectively. The relevance of these two precedent studies is primarily to explore how the architecture and the city government has responded to the needs and issues of the pavement dwellers. The secondary reasons, which determine the importance of these studies, is how each building combines the facility functions.

The precedent studies interweave the needs of the pavement dwellers with the design. It is this integration between social needs and architecture that calls for a holistic analysis of the president studies, rather than in terms of the disunited parts of the shelter case studies. Through this holistic analysis the view of a nurturing architecture comes into sight.

The concept of "I dwell in the city and the city dwells in me" (Pallasmaa, 2005:40) is understood by the architecture in the precedent studies to enable the buildings to form and inform the people, and the people to form and inform the buildings. This interconnectedness brings to light that the precedent studies are an example of a nurturing environment.

4.2 PRECEDENT STUDY: BUD CLARK COMMONS



Figure 4.1 & 4.2: The Bud Clark Commons, towards a nurturing environment. (<http://www.archdaily.com>)

4.2.1 Background

Bud Clark Commons was designed by Holst Architecture and constructed during 2011 in Portland, Oregon (Otte, 2012 : 62-65). It is an inclusive service centre, of 35 333sqm, that offers stability to the lives of the pavement dwellers. The Commons is named after a former mayor of Portland, Bud Clark. Under this mayor the city committed to providing for pavement dwellers. The eight-story structure of the Commons integrates transitional housing with a resource centre. The project has won many architectural awards, such as the American Institute of Architects and HUD Secretary’s Creating Community Connection Award (<http://www.aia.org>). The Commons offers three primary programmes: housing, day centre and shelter, which are accommodated vertically in the eight-story building (<http://www.huduser.org>).

The vision is to implement the “housing first” approach in order to establish permanent supportive housing. This was the springboard to manage the root causes of homelessness, such as unemployment, drug addictions and mental illness. The Commons has a humanistic vision, which aims to re-orient the vulnerable individual in life, and it is committed to assisting homeless individuals to meet their basic needs (Otte, 2012: 62-65). The Commons offers access to a continuum of treatment and services within dignified spaces.

4.2.2 Description of the Building Environment

4.2.2.1 Location

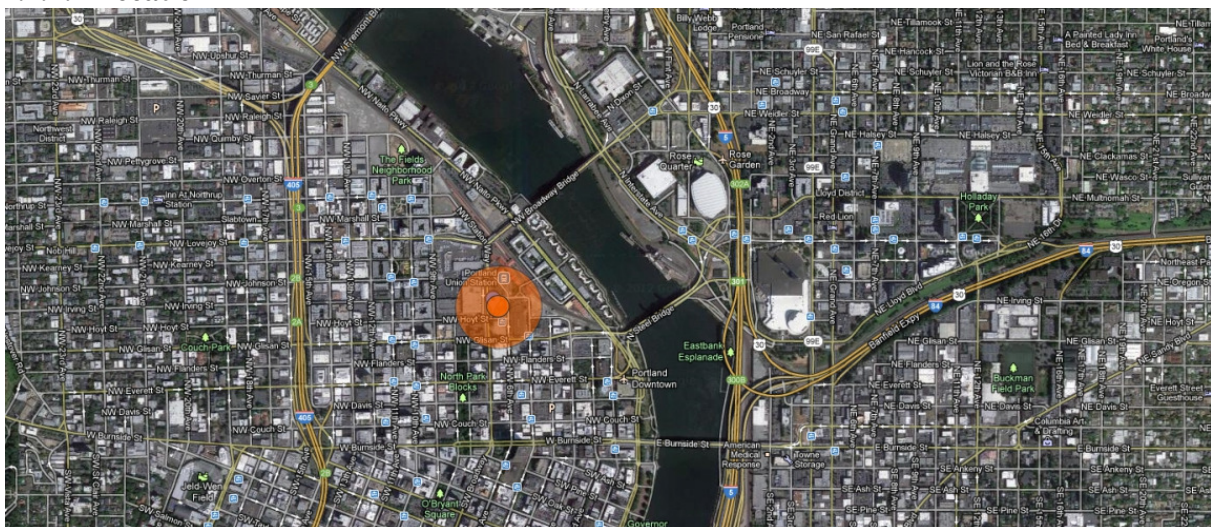


Figure 4.3: The location of the Commons in relation to the broader context of the city. (Google Earth, 2013)

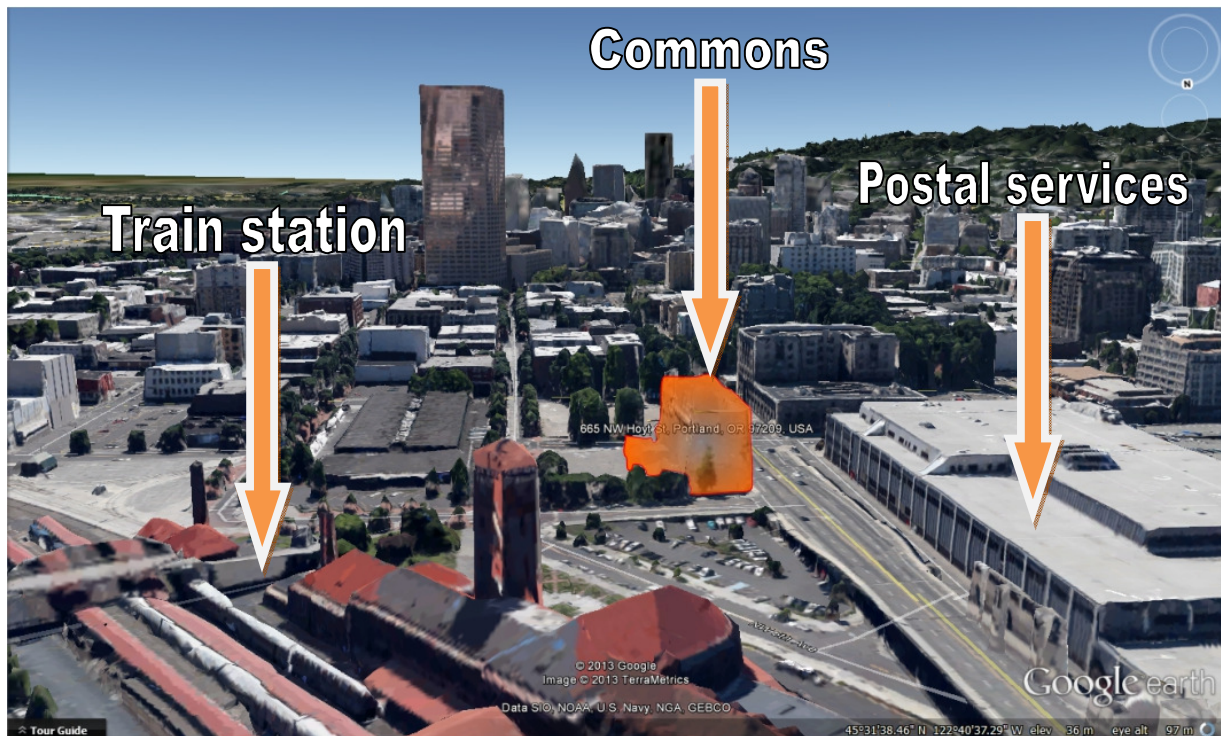


Figure 4.4: Context of the Bud Clark Commons and its relation to the inner city blocks and functions (Google Earth, 2013).

Special attention was paid to the site selection of Bud Clark Commons at 665 NW Hoyt Street, Portland Oregon. The context and location of the Commons enhances the users' inclusion in the city. The Commons straddles the boundaries of the Pearl District and the city's historic Old Chinatown neighbourhood (<http://www.huduser.org>). The site is visible from the downtown Broadway Bridge, and is in close proximity to other providers which cater to the pavement dwellers' needs (<http://www.dwell.com>). The context consists of the following: U.S post office, Portland greyhound, U.S customs and border protection, Portland union station, Bicycle transportation alliance, Harvey's comedy club, Willamette river greenway trail, Oregon state hospital, Portland and Rebound orthopaedic physical therapy (observed through Google Earth, 2013).

4.2.2.2 The Building Design

The floor-to-ceiling windows at street level on the building's western facade let in natural light and ventilation. The large windows connect the people inside the Commons with the inner city

environment. Through a Critical Regional approach the Commons contributes to the social and physical context of the inner city.

A nurturing atmosphere is created throughout the interior of the Commons with the contrast between wood panelling, colourful furniture and polished concrete floors. The Commons' three primary functions, housing, day centre and shelter, are on different floors of the eight-story structure (Otte, 2012: 62-65). Each of the primary functions has a separate entrance, and each function has a variety of facilities to meet the pavement dwellers' needs. Each of the three functions is described in turn below:

- **Housing:** The Commons' five upper floors house, in single studios for men and women, 130 permanent residents. Each studio is 33sqm and includes a bathroom and a kitchenette. The fourth floor offers communal space for socializing, television and internet access. In addition, every floor has balconies for outdoor gatherings. Living space is provided for the residents, on balconies and internal lounges (<http://www.dwell.com>).

- **Day Centre, Nurturing hub:** A multiplicity of facilities radiate from the central hub on the second and third floor: the Day Centre. There are sight lines in the Day Centre which connect staff to the users of the facilities. Programmes that run from the Day Centre's facilities range from a library to a learning centre, from a barbershop to art studio, from a garden balcony to lockers, from meeting spaces to counselling. Necessities such as clothing, meals, showers, and laundry facilities are provided. The Day Centre also assists in sourcing permanent housing. There is a wellness centre which offers basic healthcare, and a learning centre which offers general education, computer training and skills training (<http://www.dwell.com>).

- **Shelter:** The Commons' ground floor provides a 90-bed transitional shelter which is a temporary home for men, with special provision for veterans. The transitional shelter also offers storage areas, a kitchen, common space, exercise facilities and a courtyard. A meal a day is provided (<http://www.dwell.com>).

CONCEPTUALIZING A NURTURING INNER CITY ENVIRONMENT INFORMED BY THE NEEDS OF STREET LIVING:
Towards a multipurpose dream centre for the pavement dwellers of the Durban CBD.

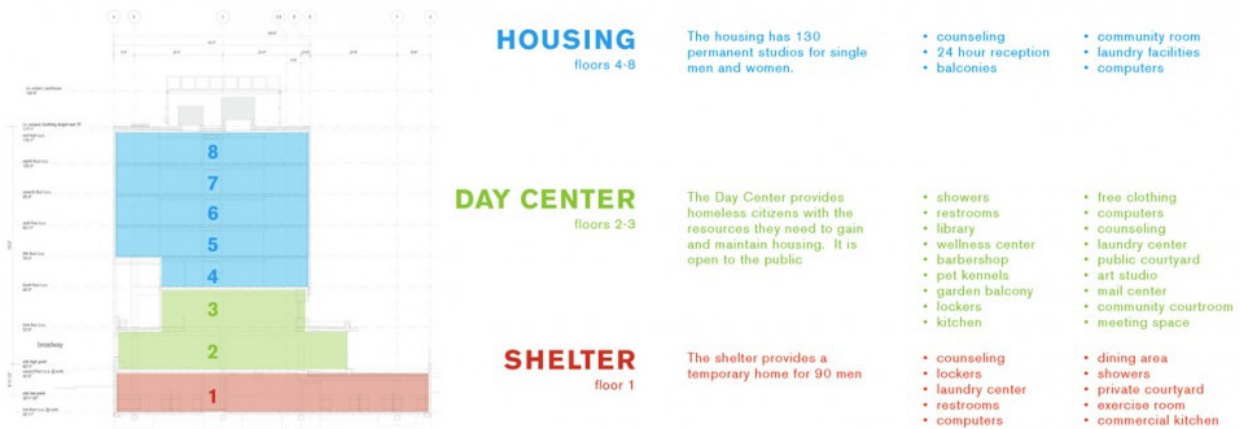


Figure 4.5: The Commons three major functions complementing each other and seen in section to be split vertically according to the functions. (<http://www.archdaily.com>)



Figure 4.6: The three major functions observed and understood in plan. (<http://www.archdaily.com>)

The Commons' design also promotes environmental sustainability and resource efficiency. The Commons is one of the most efficient buildings in America (<http://www.aia.org>). The building incorporates a range of technologies to create off grid energy. Water is recycled and indigenous plants are strategically positioned around the site.

Sustainability creates a healthy living environment that does not degrade other people's environment as the means to improve the social conditions in another. The Critical Regionalist approach is seen as it extends beyond the physical into the selection of indigenous plants.

4.2.3 Analysis of the Building Environment

The visibility of the Commons within its context shows how the city proudly tackles needs of its vulnerable pavement dwellers. The Commons relationship with its context is what Alexander (2003: 3) refers to "healing or making whole and building into a context". Analysis of the Commons' position in terms of Critical Regionalism reveals that there is a response to the context. The railway station offers a land mark, and the river provides an edge helping the orientation, and hence the emotional security of the pavement dwellers (Lynch, 1960).

Throughout the interior of the Commons the contrast between wood panelling, colourful furniture and polished concrete floors (<http://www.huduser.org>) is evident, with a relationship with the exterior. This contrast creates a language that speaks to the ease of the building, creating a joyful atmosphere with ease of occupying the spaces and moving in the spaces; coming alive in the spaces (Kivy, cited in Robinson, 2012: 339).



Figure 4.7& 4.8: Complementary colours and materials unify the building as a whole, inside and out. (<http://www.archdaily.com>)

The Commons has created a multiplicity of spaces, which even as simple defined space, gives a meaningful horizon to individuals who know too well the almost 'horizonlessness' of the endless pavement. Within the space of the Commons' Day Centre the pavement dwellers rebuild their lives. The Day Care Centre creates a more nurturing stage for life for the pavement dwellers (Ortega, 1962 and Alexander, 2003). The nurturing Day Centre with its various designated spaces creates a Pallasmaa type (2005:22) "culture order" for users which supports them in their

reorientation. The inviting open halls in the Commons creates an effective, robust and stable nurturing environment for the users, whether residents or visitors accessing services. Gibson (1986) argues that when the life of the users, their actions and their movement is understood, then there is "good meaningful architecture".



Figure 4.9: A nurturing environment where residents and visitors can meet. (<http://www.dwell.com>)

The Commons' three main programmes, housing, day centre and shelter, provide multiple nurturing facilities on a human scale to support and equip the life of the pavement dwellers. The Commons correctly addresses the many other needs of pavement dwellers in addition to shelter; Edgar et al. (2004) argue, "Consideration must be given to issues of social participation, personal security, control and empowerment included with the provisions of adequate shelter". The complex issues of homelessness require this type of multi-pronged approach initiated by the Commons. Hence, the nurturing architectural response to pavement dwellers must reach beyond the necessary access to affordable accommodation, and provide facilities which "aim to provide for the successful reintegration into mainstream society" (Edgar et al, 2004).



Figure 4.10, 4.11 & 4.12: From left, space for lockers and dining, secure outdoor socializing space and the entrance into the day shelter. All show the multi- pronged approach that reaches beyond the necessary and into nurturing. (<http://www.dwell.com>)



Figure 4.13, 4.14 & 4.15: From left, courtyard space with vegetation, residents planting vegetables and indoor exercise space. The Commons caters for the needs of the pavement dwellers. (<http://www.archdaily.com>)

The three programmes have a common goal of nurturing the homeless through three distinct starting points of where individuals are. Hence, this separation is architecturally expressed through separate entrances to these spaces. This allows the programmes to generate specific nurturing for each category of the pavement dwellers' needs, as well as the associated staff. The Day Centre functions as a nurturing hub and it reaches out "to where the people are". The core issue of architecture for Alexander (2003: 3) is that "value cannot be separated from the main task of serving functional needs" and thus Alexander (2003) argues that an aesthetic linking value to function is required. This aesthetic link between value and function is created in the Commons so that the building in its own small and important way has a role to play in addressing the challenges of the "ugliness and soul-destroying chaos of the cities and environments" (Alexander, 2003: 2). The Commons, through its programmes housed in this building, addresses the soul-destroying nature of the pavement dweller's excluded life. The Commons has integrated its social programmes into its nurturing design.

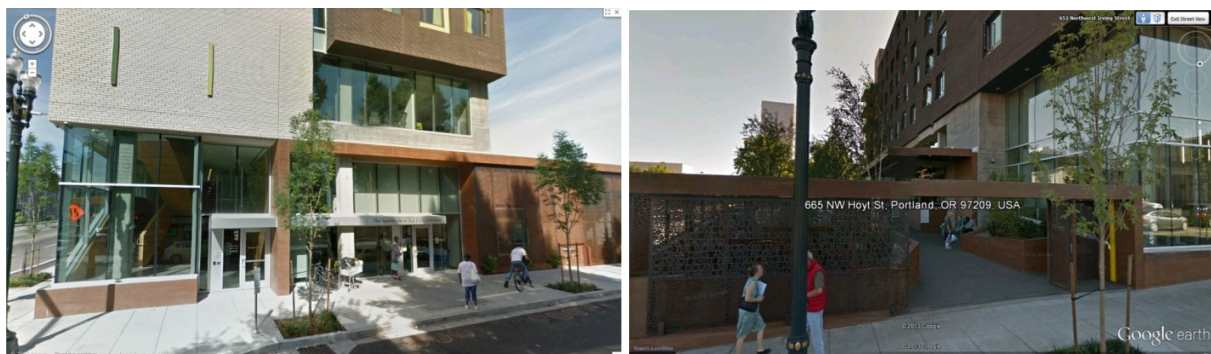


Figure 4.16 & 4.17: From a virtual tour around the building one can see how it responds to the street, these images show two of the main inviting entrances. (Google Earth, 2013)

4.3 PRECEDENT STUDY: THE BRIDGE HOMELESS ASSISTANCE CENTRE



Figure 4.18: A night time view of the glowing Bridge Homeless Assistance Centre. (<http://inhabitat.com>)

The award winning Bridge Homeless Assistance Centre (The Bridge) was designed by Overland Partners Architects and completed during 2008 in Dallas, USA (<http://openarchitecture-network.org>). It is composed of a six-building complex, which incorporated an existing warehouse. The 8,333sqm Bridge is located in downtown Dallas and provides shelter and services in a safe, nurturing, and respectful manner for more than 6000 users (Pulfer, 2009). The shelter facilities provided are: day-shelter, emergency night-time shelter, and transitional housing for the Dallas pavement dwellers. The services facilities provided are: healthcare, mental health and substance abuse services, employment assistance, laundry facilities, and library and computer access (Hill, 2010).

The research in support of funding for the Bridge revealed that it is less expensive for the government to provide shelter services for the pavement dwellers, than to leave pavement

dwellers to the mercy of police, jails, mental health facilities, emergency rooms, and emergency shelters. The Bridge balances the “heart” of care and support with the “head” of realism (Pulfer, 2009).

The project goals are: to improve the human spirit; to increase awareness of the environment; and to respond to the humanitarian crisis of the lack of shelter, healthcare, and education (Hill, 2010). The Bridge’s services have provided over 1500 job placements and over 1000 housing placements. It has a 93% success rate in housing placements (<http://inhabitat.com>). Local crime rate has reduced by more than 20%. The pavement dwellers in The Bridge are called guests, and a “guest giving back” weekly programme of community service has kept the neighbourhood litter free (<http://inhabitat.com>).

The Bridge won the “Best Architectural Entry” award in the International Rebranding Homelessness Competition, hosted by South Africa’s Tshwane Leadership Foundation in 2010 (<http://www.planetizen.com>). The award was for developing a new language, new vision and new approach to addressing homelessness and demonstrating a viable alternative model.

4.3.1 Description of the Building Environment

4.3.1.1 Location



Figure 4.19: The location of the Bridge in relation to the broader context of the city. (Google Earth, 2013)

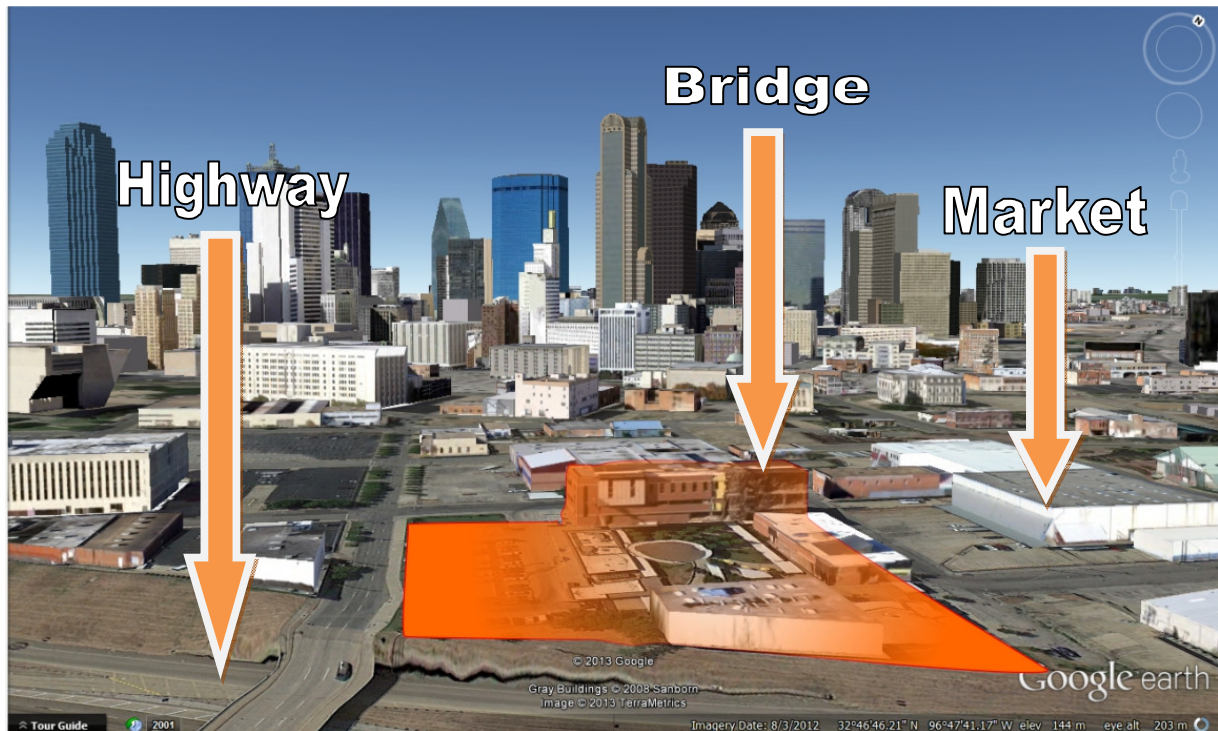


Figure 4.20: Map showing immediate context of the Bridge in relation the city blocks. (Google Earth, 2013)

The Bridge is located in the "warehouse district" of Dallas and is integrated into the CBD. The Bridge connects the pavement dwellers to transportation, green space, and public facilities. The surrounding context includes parking lots, the Interstate Highway, a school, a printing plant, a vacant warehouse and the Farmers' Market (observed on Google Earth, 2013). The Bridge complex covers a block of 3.4 acres, and is concentrated towards the north and east boundaries of the site to allow for expansion. The inner city edge is continued from the context to boundaries of the Bridge, where the building facades meet the sidewalk (<http://inhabitat.com>).

4.3.1.2 The Building Design

The complex consists of six buildings: the welcome building, the services building, the dining hall and kitchen, outdoor restrooms and showers, the sleeping pavilion and a storage building (Pulfer, 2009). The complex is organized around open and protected spaces that create an entry courtyard, main courtyard and resident courtyard. The courtyard is a landscaped area with a combination of vegetation and hardened surfaces (Pulfer, 2009). All the surrounding buildings have covered walkways. All buildings utilize many windows to bring in natural lighting,

connecting the people to the outside world. The materials selected were local, and primarily face brick with neutral colours selected throughout (<http://inhabitat.com>). The complex has multiple sustainable strategies, and The Bridge service building is lit up at night to serve as a symbolic beacon for the pavement dwellers (Pulfer, 2009).

A sense of ownership is created by involving the pavement dwellers with local artists in the painting of inspirational walls and window art throughout the Bridge (Pulfer, 2009). The Bridge's design contributes to the nurturing of the pavement dwellers through such features as natural light from floor to ceiling windows; the courtyards; the art work; blending with the context in the daytime; and a landmark at night through the lighting up of the Bridge as a “beacon” at night. The Bridge creates a new positive pavement dweller typology in contrast to the old negative shelter building typology.



Figure 4.21, 4.22 & 4.23: Above images point out the art work on the windows done by local artists in an attempt to create ownership of the building. (<http://inhabitat.com>)

The six buildings in the complex are:

- The Welcome Building located on the northeast side of the complex. The pavement dweller enters the complex as a guest through the welcome courtyard. The building houses laundry facilities, a post office, day care, a barber shop, a library, and classrooms.
- The three story Services Building is the metaphorical beacon of hope at night. Its primary functions are on the ground floor: medical clinics, health screening, counselling and training; the first floor space for supportive services for 1 500 guests has a dual corridor with four units deep under a high ceiling for functions such as legal aid, travellers' aid, job placement, housing

assistance, work-live housing and administration; and second floor space is for 350 longer-term residents with dormitories for men and women under an over sailing mono pitch roof. There are rooms for special needs guests such as the transgendered, convalescing, or elderly.

- The Resident Dining Building and Kitchen provides three meals a day and the kitchen has served 2.5 million meals to date. Non-Resident Dining Pavilion comprises of an indoor dining area and outdoor covered dining area, and it occupies the centre of the courtyard. The dining area is the social hub of the complex.
- Outdoor Restrooms and Showers are provided for all guests.
- The Sleeping Pavilion provides shelter for 300 pavement dwellers in a refurbished warehouse. The warehouse opens to the courtyard with garage doors allowing the pavement dweller guests, who have been living off the streets for many years, to feel at ease in their new context.
- The Storage Building provides lockers for guests' personal items and kennels for the dogs.

(<http://inhabitat.com>)



Figure 4.24: The ground floor plan indicating how the six building types are organized and how the various spaces relate to each other. (<http://www.archdaily.com>)

4.3.1.3 Programmes

The Bridge is organized to comprehensively address the needs of the pavement dwellers at one location. The aim is to keep people off the streets permanently. The Bridge's services assist individuals to find their way back to housing and employment. It provides the pavement dwellers with emergency shelter to transitional housing and permanent housing (<http://www>).

planetizen.com). It also caters to the needs of the pavement dwellers who are unemployed, mentally ill, addicted, abused in domestic settings or otherwise troubled. The service delivery model takes into account the diversity and complexity of the needs of the pavement dwellers. The model uses the basic needs approach to nurturing and offers shelter, meals and then care in health and mental health care, jail diversion and re-entry services, job-seeker services and housing-seeker services. The care services cater for 600 people per week (Hill, 2010).

4.3.2 Analysis of the Building Environment

The holistic architectural design of the Bridge complex ensures that the lives of the transitioning guests, the pavement dwellers, are provided for by the designed spaces and shapes. "Great architecture", for Pallasmaa (2005: 56) is an architecture that "releases images of ideal life concealed in spaces and shapes". The Bridge's utilization of many windows brings in natural lighting and ventilation connecting the pavement dwellers to the inner city context. The form of the building connects with the inner city forms. The building connects the pavement dwellers with transportation, green space and public facilities. The boundaries of the Bridge form an edge with the sidewalk creating orientation and hence emotional security for the pavement dwellers (Lynch, 1960). At night the Bridge functions as a landmark which is lit up like a symbolic "beacon" of hope, and is visible from the CBD. The Bridge's relationship with its inner city context is once again what Alexander (2003: 3) refers to as "healing or making whole and building into a context".

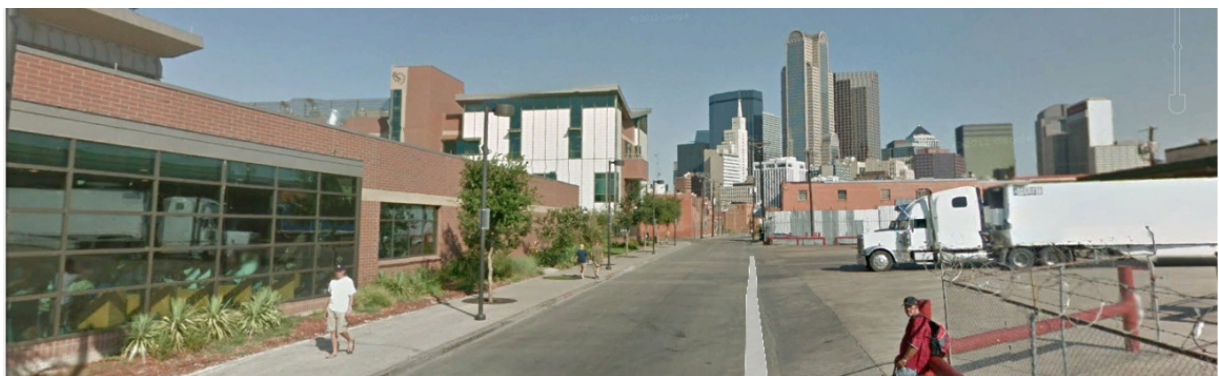


Figure 4.25: From a virtual tour around the building one can see the large windows for natural light and ventilation connecting the occupants to the inner city. (Google Earth, 2013)

The Bridge is on a human-scale with only one structure reaching a height of three stories, and this structure at night is the "beacon". The covered walkway around the courtyard accentuates the human-scale and caters to the needs of the users. The vegetation in the courtyard space softens the building and links to the vegetation on the green roof of the dining hall. The open and protected courtyard spaces create a safe and supportive outdoor area for the pavement dwellers that is an example of architecture creating an environment connecting with "the issue of human feelings" (Alexander, 2003: 3). The courtyards, with outdoor dining halls, create an embracing stable nurturing environment for the users of the centre's services.



Figure 4.26: Nurturing elements such as vegetation and covered walkways are utilized to create a nurturing courtyard that the surrounding buildings open onto. (<http://inhabitat.com>)

Throughout the interior of the Bridge there are high ceilings, natural light, face brick and neutral colours, which speak of a relaxed calming effect without being imprisoned. The spaces produce a comforting ease of being occupied and used (Kivy cited in Robinson, 2012: 339). This interior design reflects the centre's calm transitional approach to reaching out to where the individual is so he/she can be supported to go forward.

The sleeping pavilion provides shelter for 300 pavement dwellers in a dormitory which has roller shutter doors opening to the spacious courtyard (<http://inhabitat.com>) to assist the pavement dwellers to transition from their outdoor hostile street environment, to an indoor supportive

environment, and then into an independent life. This transitional approach enables the pavement dweller to feel at ease in their new context. "Good meaningful architecture", according to Gibson (1986: 128) is attained when the life of the users, their actions and their movement is incorporated into the design.



Figure 4.27, 4.28 & 4.29: From left, large dormitory that opens to the courtyard to help with pavement dwellers transition into indoor environments, work spaces and computer center, both with high ceilings and large windows for a supportive and relaxing environment. (<http://inhabitat.com>)

The Bridge complex houses diverse spaces for the different functions of the centre. The Bridge's programmes provide multiple nurturing facilities on a human scale to support and equip the life of the guest from being a pavement dweller to being a participating citizen of the city. The complexity of pavement dwellers' needs are addressed by integrated programmes of the Bridge supporting the pavement dweller's journey. For Alexander (2003:3) the complexities of life situations, such as the pavement dweller's situation requires that "architecture presents a new kind of insight into complexity".

The Bridge centre provides functions that reach out to the pavement dweller in a spirit of humanism. The building links its values to its functions and through the "Beacon" value of hope the aesthetics of the complex is linked to its functions. These functions are incorporated into the core design, which Alexander (2003: 3) understands to be the principal issue of architecture, "values [cannot] be separated from the main task of serving functional needs".

The Bridge's design aids in nurturing the pavement dweller and has added value to the immediate inner city context.

4.4 CONCLUSION: CHAPTER FOUR

Overall the precedent studies demonstrated the interaction between the "I and the city" and the "city and me" (Pallasmaa, 2005:40) in terms of the architecture, implemented programmes and identified needs. The pavement dweller needs are met by professional programmes which are housed in particular kinds of inspiring architecture (facilities); the space itself speaks to the needs through its inspiring designs. In the precedent studies, the architecture responds to the people's needs creating an nurturing environment and spaces where the various programmes connect with the pavement dweller in that nurturing space.

The precedent studies offer a comprehensive integration of architectural spaces and programmes for the nurturing of its users based on their specific needs. The needs are met by programmes (functions) which are in particular kinds of inspiring architecture, and the space itself speaks to the needs. The success of the Bridge and the Commons has impacted on the type of social engagement with pavement dwellers in the United States of America.

5.0 ANALYSIS AND DISCUSSION

5.1 INTRODUCTION

The analysis of Anton Lembede district case study identified potential functions for a nurturing environment from the types of needs mentioned by the participating pavement dwellers and observed by the researcher. The analysis of the Durban shelter case studies: Strollers Overnight Facility and Durban Beach Shelter, and the analysis of the precedent studies: The Bud Clark Commons and The Bridge Homeless Assistant Centre enhance and complement the conceptualization of a nurturing inner city environment derived from the analysis of needs undertaken in the above-mentioned Anton Lembede case study. The findings from the Durban shelter case studies and the precedent studies are analysed jointly to produce supplementary guidelines to nurturing design issues. These guidelines were combined with identified potential functions from the Anton Lembede case study to create the site and schedule of accommodation guidelines.

The below research analysis is based on the Anton Lembede district case study findings from the quantitative research of the survey questionnaire and on the qualitative research of observation, in-depth interviews, informal discussions and focus group discussions - with different groups of pavement dwellers. The analytical interpretation draws on the theoretical framework, the literature review, the case studies of Durban's response to the needs of pavement dwellers and the precedent studies.

5.2 STREET LIVING AND LIVELIHOODS IN DURBAN'S DUAL CITY ENVIRONMENT

The Anton Lembede district findings demonstrate that Durban's pavement dwellers participate and experience life in a dual city. In the developing world, Durban, like other global cities such as Dhaka, is divided between the 'haves' and the 'have nots'. The findings demonstrated that the Anton Lembede pavement dwellers live in an economic pole of deprivation of the dual city, with the on-going threat of unemployment or underemployment. The key survival strategies discovered in the research ranged from petty trade in the streets, such as selling baskets or refreshments; to temporary wage labour in the construction sites; carrying packets and parcels; car

guarding and washing vehicles; begging and scavenging; scrap collecting; pick pocketing and theft; prostitution and drug selling and substance abuse.

The investigation of the privileged 'haves' pole of the dual city fell outside the scope of research, but it was observed that the pavement dwellers were providing services for and/or living off these 'haves' of the dual city. The findings demonstrate the uniqueness in the lives of the pavement dwellers and the complexities arising from this, which need to be understood. The findings also demonstrate that the Anton Lembede inner city pavement dwellers are not a homogeneous group. The pavement dwellers have diverse African ethnic and cultural backgrounds. The pavement dwellers' lives are in flux: there are behavioural changes according to the time of day and seasons, as they move from site to site looking for survival opportunities. The focus group discussions revealed that the pavement dwellers understand the need to have a range of survival strategies, with income generating activities ranging between the legal and/or illegal. It was found that living on the street is a daily challenge.

The analysis below deals firstly with life on the pavement dweller, and secondly with the livelihood activities of the pavement dwellers.

5.2.1 Street living in Anton Lembede District

The pavement dwellers often find the Durban shelters too expensive, and are pushed into the unplanned spaces of the city. The pavement dwellers commonly prefer street living in Anton Lembede district to the shacks on the edge of the city, because of the expense of commuting to their place of 'work'. Life on the pavements was shown to involve a range of activities, including working, socialising, eating, personal sanitation, playing soccer and sleeping. These activities take place on the pavements and in the spaces between, wedges, void spaces, spaces below and spaces around the commercial and residential blocks and streets. For example at night soccer was observed on the side streets and pavement sleeping was observed both late at night and during the day. Lives on the pavements revolve around survival, particular the obtaining of food and finding a secure and free place to sleep. Pavement dwellers were observed searching for food in garbage bins and discarded vegetables from markets. The findings showed that they also obtained leftover food from hotels in exchange for emptying garbage, carrying loads or cleaning.

The basic needs of pavement dwellers for hygiene, shelter, food, clothing and physical activity will be discussed in terms of the support which the participants identified: this support is interpreted as potential function in a framework for a nurturing environment. The identified facilities are informed by the pavement dwellers' needs and are examined below in each category of the data analysed, with brief architectural solutions offered.

- **Life on the streets:** Based on observation, life on the streets in the Anton Lembede district was seen to have many challenges and interrelated complexities. Every aspect of life needs nurturing: there was a noticeable lack of hygiene facilities to which the pavement dwellers had access; the dominant issue of the day for the majority of the pavement dwellers to obtain food; and, it was observed that pavement dwellers slept and lived in the same clothes.

Identified facilities for life on the street: Provision of bath house facilities; kitchens to provide meals; and a facility where pavement dwellers can sew their own clothes.

- **Sleeping in the streets in between space:** Pavement dwellers were observed sleeping in groups in spaces deemed to be secure.

Identified facilities for sleep: An inner city shelter facility which provides both quality and quantity accommodation is needed.

- **Sport in the streets:** Night street soccer was observed.

Identified facilities for sport: There is a need for recreational facilities, such as soccer grounds or basketball courts.

5.2.2 Street Livelihood in Anton Lembede District

The interviewed pavement dwellers understood that their work is comprised of all income generating activity, and indeed that "living on the streets is full time work". These findings confirm the observations of Heinonen (2000 in Heinonen & Apteker, 2003), that street living is experienced as a full-time occupation. However, pavement dwellers indicated that employment

opportunities were not always available, and it was observed that such work is mostly within the informal sector.

The micro-analysis of the pavement dwellers in the literature review demonstrated that the chosen responses follow economic principles. The findings demonstrated that the pavement dwellers were drawn to work by its rewards and benefits, and thus their behaviour responds to the opportunities in the informal market just as the formal sector workers respond to their opportunities. Hence, this type of rational behaviour can be nurtured by interventions which provide support to the pavement dwellers. Accordingly, the intervention must aim at equipping the pavement dweller to respond with better skills or more appropriate behaviour. Each of the identified income generating activities, discussed below, can be improved through further training in the particular skill and training in basic small business systems, such as introductory finance, stock taking and observing market potential. The pavement dwellers use human capital (skills and knowledge), social capital (social networking), and physical capital (occupying spaces) in their survival quest. These findings confirm the observations by Giddens (1984 & 1990) that the urban poor do in fact possess operational resources.

The pavement dwellers' human capital generates an income directly through wage employment activities, and indirectly through producing goods such as homemade food, wood work, arts and crafts. Another indirect use of labour is self-employment in small trading: a barber, car washer, car guard or begging and services (petty trade). It is important to note that surviving in the city is a result of a combination of activities. The findings demonstrated that physical capital, both in planned and unplanned urban space, is fundamental to all the trading livelihood strategies.

The specific livelihood needs of observed income generation will also be discussed in terms of the support which the participating pavement dwellers identified, and this will be applied as a further potential function in a nurturing environment, as above in response to basic living needs. These types of support are interpreted within a nurturing framework, as to build and improve existing livelihood strategies. The identified facilities are informed by the pavement dwellers' needs and are examined below for each category of the data analysed:

- **Petty trade in the streets:** The prime trading activities in the street observed were the selling of goods. Fifty five percent of all income generating activities observed were street vending, which included the sale of baskets, drums, metals, cardboards, refreshments, pillows, cushions, fish, sea water, bottles, pots and dishes. Some street vendors sell a combination of these items. *Identified facilities for petty traders:* Three main support facilities were identified - business, banking and training. Business support facilities such as: new market facilities, storage facilities and stall facilities. Finance and banking support facilities: banking facilities to provide loans for marketing, for equipment and machinery and for sourcing supplies and to provide saving schemes, for example the access to financial loans and saving schemes of the Grameen Bank. This would enable their capacity to generate a steady income. Additionally, there is a need for training and education, including small business training, skills training to sew clothes and computer training.

- **Wage labour:** Approximately a quarter of the interviewed participants were employed in various capacities - electrician assistant, barber assistant, labourer in construction, car guard and security guard. This often was undertaken in an informal manner.

Identified facilities for wage labour: A facility for labour recruitment, job advertising and skills training.

- **Services:** The majority of services identified included carrying of packets and parcels, car washing and car guarding.

Identified facilities for services: A facility for the labour recruitment, job advertising and skills training.

- **Urban farming:** Some pavement dwellers were from a rural background and expressed the desire to cultivate an agricultural crop.

Identified facilities for urban farming: Urban farming sites are needed.

- **Begging and scavenging:** Fifteen percent of the sample said that they begged occasionally. *Identified facilities for begging and scavenging:* a facility with soup kitchens, additionally all income generating interventions would assist in overcoming begging demands.

- **Scrap collecting:** The pavement dwellers frequently collected various types of scrap materials for resale, which presented both sourcing and sale challenges, also providing minimal remuneration.

Identified facilities for scrap collecting: A waste centre, for both collection and recycling, is a clearly demonstrated need.

- **Illegal activities:** Issues of pick pocketing and theft, prostitution, drug selling and substance abuse were documented.

Identified facilities for illegal activities: A training and education facility and a provision for psychological assessment would serve to address some of the challenges provided by these activities.

As has been shown multiple facilities would be needed to provide a nurturing response to identified street living needs and activities, particularly livelihood strategies.

5.3 CONCEPTUALIZING A NURTURING INNER CITY ENVIRONMENT

The above Anton Lembede district case study addresses the identification of the needs of pavement dwellers and in terms of these needs a nurturing inner city environment is conceptualized. Additional insight into the nature of a nurturing design is obtained through the investigations of the Durban shelter case studies and the precedent studies. These case and precedent studies enhance and complement the conceptualization of a nurturing inner city environment derived from the Anton Lembede district case study. With the Durban shelter cases and precedent studies a nurturing inner city environment, or lack thereof, can be investigated in terms of existing buildings, and an assessment can be made whether these buildings do in fact nurture the pavement dwellers who use them. Hence, the conceptualization of a nurturing inner city environment in terms of the identification of facilities for pavement dwellers, undertaken in

the Anton Lembede district case study, can be augmented by identifying the nurturing design issues in the Durban shelter case studies and the precedent studies.

The Durban Beach Shelter and Strollers Overnight Facility were previously analysed in terms of their architecture, and how these shelters address the needs of the pavement dwellers in the Durban CBD. The shelters were examined from the pavement dwellers' point of view, and the appropriateness of architecture examined by the extent it addressed the identified needs of the pavement dwellers. The findings from these case studies demonstrated that the nurturing response is inadequate. Overall there is a lack of architectural support for the identified needs of the pavement dwellers. The analysis of the design of the shelters also highlights that there is little harmony between the architecture and the context, or between the architectural functions and the facilities offered to the pavement dwellers. Based on these findings an inadequate response has been highlighted. To move towards a nurturing architecture a multipurpose dream centre can arise based on supplementary guidelines to bridge this gap.

Conversely, the findings of the precedent studies on the Bud Clark Commons and The Bridge Homeless Centre demonstrate that architecture can "connect with human feeling"(Alexander 2003:3). Overall the precedent studies demonstrate the interaction between the "I and the city" and the "city and me" (Pallasmaa, 2005:40) in terms of the architecture, implemented programmes and identified needs. The pavement dwellers' needs are met by professional programmes which are housed in particular kinds of inspiring architecture (facilities), and in this manner the design of both the Commons and the Bridge attempts to address what Alexander (2003: 3) described as the core issue of architecture, that value "cannot be separated from the main task of serving functional needs". It is the functions of the Commons and the Bridge that adds to the architectural value of these designs. In the precedent studies the architecture responds to the people's needs creating an inspiring context for the integrated programmes to connect with the pavement dweller in that nurturing space.

These buildings address holistically the architecture, the programmes and needs. In terms of this holism they may be seen as nurturing. Nurturing is here understood in terms of Alexander's

(2003:3) idea of "healing or making whole" the social and environmental context of the building. The success of the Bridge and the Commons has impacted on the type of social engagement with the pavement dwellers in the United States.

Guidelines can be drawn up based on how issues were correctly or incorrectly addressed in the case and precedent studies to inform a nurturing multipurpose dream centre. These guidelines supplement the research findings of the Durban pavement dwellers. This will be conceptualized below by analyzing an inadequate response found in the shelter case studies comparatively to the adequate response found in the precedent studies. Subsequently supplementary guidelines will be formulated in response to the identified needs.

5.3.1 Location

Strollers is well located, within the broader context, near to the Durban train station, markets and bath house, as it facilitates ease of transport and employment opportunities. However, its position at the end of Mansel Road is poor as there are no frequent customers, for the commercial outlets. The Durban Beach Shelter operates out of an old hotel in the Durban CBD. This location allows for the pavement dwellers easy access into the inner city. There is an insufficient supportive context in the immediate vicinity with a strip club opposite the shelter and several car dealerships in Cato Street. As can be seen in these case studies the specific location does not adequately respond to the needs of the pavement dwellers although the larger context is appropriate.

Conversely, the setting for Bud Clark Commons and The Bridge Homeless Assistance Centre was selectively chosen in terms of functionality. The Commons is located on the boundary between the Pearl District and the historic Old Chinatown neighborhood, facilitating the users inclusion into the city. The building itself is visible from various points in the city, including Broadway Bridge, not hidden in the margin, but rather publicly acknowledged. Additionally, it is in close proximity to other homeless support systems, generating a combined nurturing hub.

The Bridge is well integrated into the Dallas CBD, through its chosen location in the "warehouse district". It is in close proximity to transport and public facilities, and has access to green spaces. The site also has additional space available, through concentration of buildings, should

expansion be needed. The Bridge facility is built along the sidewalk, creating an edge that links to the inner city edges.

Supplementary guidelines: The site selection should enhance the users inclusion in the life of the city. As Alexander (2003:3) has highlighted, the building's relationship to its context, has the power to create a holistic, healing environment. This is reiterated by the theory of Critical Realism, a building should respond clearly to its context (Frampton, 1995). Additionally, a site should be chosen with visible landmarks and designed with interactive edges, as this creates an orientation point for the pavement dweller, creating a sense of security (Lynch, 1960).

5.3.2 Analysis of the Buildings' External Environments

The Strollers' external environment in some aspects succeeds in engaging its users, however also leaves the user isolated. Through its barrel-vault design, imitating that of the surrounding markets, the architectural design of the roof at Strollers, does link into the immediate context, providing a sense of place and orientation. This endeavours to provide an emotional security for the pavement dweller utilising the facility. In contrast, in the courtyard, the large, four story volume overwhelms the user. There is a clear attempt to design on the humanistic dimension, focussing on the human scale. Yet, from a Critical Regionalism perspective, the building appears to be out of scale in the context and for its function.

As was indicated, The Durban Beach Shelter was previously a hotel. As shown, a building needs to be designed to cater for the needs of its users. Accordingly, the design of a hotel, is not suitable to provide a nurturing shelter, as it was designed to be a hotel, and now is utilised for a different function, a homeless shelter. It was originally designed to cater for upper class guests, and now provides a shelter for pavement dwellers, and this discrepancy is evident in the use of space. For example, the garage is now used as a dining hall, and there is not sufficient space elsewhere. The building was designed from a modernist perspective, abstract and unsupportive, even to the original upper class guests. The exterior is covered with sand stone tiles on the external walls and ribbon windows, however this serves an aesthetic function, rather than a

practical purpose. Each room and space should be designed to cater for its function, however there is standardised ribbon windows throughout.

The Bridge facility in its design, engages with its surrounding context to create a secure, nurturing space. It has numerous windows, which both allows natural light in, and connects the pavement dweller staying there, to the inner city context. The form and shape of the building is similar to the surroundings, connecting and joining the shelter into its environment. The boundaries of the Bridge meet the sidewalk to form a defined edge, orientating the pavement dwellers that stay there. Additionally, the building lights up like a symbolic beacon of hope at night, which can be seen as a landmark, visible from the CBD. The Bridge is built on a human scale, proportionate to its function, with only one of the buildings reaching three stories, and this structure is lighten up at night to form the 'beacon'. The covered walkways further accentuate the human-scale, and provides shelter for the users, catering to the relevant needs. The courtyard design plays a pivotal role in the external environment. The vegetation in the courtyard area softens the building and creates a connection to nature, and the green roof on the dining hall. The outdoor space is furthermore open and protected by the courtyard, creating a safe and supportive area. This is an illustration of what Alexander (2003:3) discusses as architecture responding and forming an environment that interacts with "the issue of human feeling". The outdoor dining halls in the courtyards further generate a nurturing and stable space for the people who use it.

Supplementary guidelines: The building should respond on a human scale to the context, and furthermore respond to the concrete pavement dwellers, rather than an abstract formula. The holism of the building should ensure that the life of the pavement dwellers are provided for by the designed spaces and shapes. "Great architecture", for Pallasmaa (2005: 56) is an architecture that "releases images of ideal life concealed in spaces and shapes".



Figure 5.1 & 5.2: On the left the Durban Beach Shelter (Author, 2013) designed in a typical modernist unsupportive way. In contrast, the Bridge Homeless Assistance Centre provides beacon of hope. (<http://inhabitat.com>)

5.3.3 Analysis of the Buildings' Internal Environments

The Stroller's internal environment is dark and poorly ventilated, with each bedroom only having one small window. Additionally, the work spaces have no windows and access is provided only by the garage. The design reflects that it has been built simply to create space, rather than a lived space with consideration for human needs. Accordingly, the internal atmosphere is cold and unpractical, lacking nurture, with long dark corridors and little human warmth.

The Durban Beach Shelter also fails to provide adequate natural light and ventilation, as there is a deep floor plate in the men's dormitory. The interior is not well maintained as it is under constant use contributing to a dismal environment. The modernist approach of the original design of the building is also inappropriate as it creates an environment void of 'humanness', blank and sparse.

The interior of the Commons is designed to be inhabited by and uplift people. There is a colourful contrast of wood panelling and furniture, with polished concrete floors, encouraging ease of occupation and movement, allowing the spaces, as described by Kivy (cited in Robinson 2012: 339) to come alive. The three primary needs of the pavement dwellers were identified and

catered for in the design, with permanent housing, daily assistance (eg. computer room), and nightly shelter, on different floors, with separate entrances.

In the Bridge, the high ceilings, natural light and neutral colours provide a calming environment, open and free for the users. There is light, unobstructed space that encourages occupation and is inviting, reaching out to envelop and uplift its inhabitants.

Supplementary guidelines: The building should be nurturing through natural light and ventilation, with a harmonious design spreading throughout the internal environment, which can be done with design and colours. The space should respond to the activity within it, with the form enabling its function. Gibson (1986) argues that when the life of the users, their actions and their movement is understood, it results in "good meaningful architecture".



Figure 5.3 & 5.4: On the left, the Strollers Overnight Facility (Author, 2013) is an example of a dark uninspiring work space on the other hand, the Bud Clark Commons inspires a sense of a well lit, nurturing space. (<http://www.archdaily.com>)

5.3.4 Food schemes and social care

Food schemes and social care provide an important framework to administer care to vital human needs, necessary for their nurture and survival. The Durban Beach Shelter provides such a service to the pavement dwellers that make use of the facility. It supplies meals and various other services which were outlined in the case study discussion, including recreational activities, social

welfare programmes and care for mothers and new born babies. Over the years, it has fed over 7 million people. The Strollers on the other hand does not supply meals, or any other additional social services. The Commons and the Bridge have feeding schemes and socially driven programmes, such as urban farming, psychological services and jail diversion, actively responding to the needs of the pavement dwellers. By acknowledging the human aspect and catering for the real needs of street living, these shelters strive to produce a social and psychological nurturing environment.

Supplementary guidelines: Pavement dwellers need access to social services and schemes that can facilitate the rehabilitation of their lives, in an uplifting environment.

5.3.5 Training programmes

The Strollers facility does not provide any form of training programs to the occupants. However, training programmes are an important tool that can be used to nurture and grow pavement dwellers.

The Durban Beach Shelter previously provided training, such as sewing, carpentry and computer literacy. Unfortunately, due to a lack of funding, the training programmes were terminated. This would be an ideal to strive to continue. As the Anton Lembede case study highlighted, one of the biggest barriers to improving their lives for the pavement dwellers is the lack of skills, forcing them to pursue only menial labour.

The Commons correctly addresses the many needs of pavement dwellers in addition to shelter, supporting and equipping their lives and needs in a more holistic approach. As is reiterated by Edgar et al. (2004), problems such as security and social participation are essential to address and encompass with the service of basic shelter, in order to empower the individuals. Accordingly, the Commons provide programmes in computer literacy and general education, with various skills creation such as cooking also offered. By offering training programmes, it provides a path out of street living. The aim is to keep the pavement dwellers off the street

permanently, rather than only provide transient accommodation. These needs are further addressed in the three-prong approach of their three main services.

The Bridge has a complex of different buildings to provide a diverse space for various functions, informed by the needs created from street living. It is equipped to enable a pavement dweller to increase their skills through various training programmes to become a participating citizen of the city. It offers different training, including basic education, computer literacy and art classes, to grow the skill set of the partakers.

Supplementary guidelines: The building should provide facilities to house training programmes. The aesthetic link between value and function should be such that the building in its own way has a role to play in addressing the challenges of the "ugliness and soul-destroying chaos of the cities and environments" (Alexander, 2003: 2). These functions should be incorporated into the core design, which Alexander (2003: 3) understands to be the principal issue of architecture, "values [cannot] be separated from the main task of serving functional needs". As such, training programmes need to be incorporated into the design and facilities offered.

5.3.6 Pavement Dwellers' Categories

It was found during the case study of the Durban Beach Shelter that there are five different groups of pavement dwellers: travellers, new pavement dwellers, beggars and car guards, 'hobos' and pavement dwellers that have lost hope (Mohamed, 2013).

Supplementary guidelines: The building should respond to the breadth of the different levels of pavement dwellers who will utilize the facility. This includes making the facility affordable to the different categories.

5.4 CONCLUSION: CHAPTER FIVE

The findings gathered of the daily life of Durban's pavement livelihoods in the Anton Lembede case study, coupled with the findings from the Durban shelter case studies and precedent studies provide the framework for conceptualizing a nurturing inner city environment which addresses

the needs of the pavement dwellers. This framework is outlined in the above guidelines, including location, the building's environment, food schemes and social care, training programmes and the different categories of pavement dwellers. The guidelines are an attempt to nurture pavement dwellers where they are, and hence create Durban's architecture of life.

A nurturing inner city environment can address the pavement dwellers' needs and assist in constructing a new meaningful order; but it is for the pavement dweller to reconstruct his or her own horizons of possibilities and expectations with the support of these facilities, thereby discovering a new life in contrast to the current vulnerable situation in which the pavement dweller is often trapped.

A more comprehensive combined guideline for conceptualizing a nurturing inner city environment is presented in the Conclusion and Recommendations.

6.0 CHAPTER SIX | CONCLUSION AND RECOMMENDATIONS

6.1 INTRODUCTION

The research within the theoretical framework conducted in the literature review, and the primary and secondary research, endeavours to address the problem statement of this dissertation:

There is an inadequate and inappropriate architectural response to the needs of the rapidly urbanizing people, in particular the pavement dwellers, who find themselves excluded from a humane inner city environment. In the situation of increasing global urbanization all too often architecture reflects the abstract ideals of the social power elite which is the assumed norms and standards of society. The results in the inner city environment being experienced as something alien or hostile to the people, in particular the pavement dwellers, living therein.

The hypothesis speaks within the parameters of the problem statement and states that:

in order for a nurturing inner city environment to be conceptualized, the pavement dwellers' street living needs must be taken into account.

The concept of a nurturing inner city environment is inspired by the Theory of Living. The Theory of Living establishes the meta-theoretical foundation on which this investigation incorporates Complexity Theory and Critical Regionalism to conceptualize a nurturing inner city environment informed by the needs of street living. It is argued that the underlying assumptions of the theories, which permeates this investigation, support the idea of a social and architectural intervention for improving living conditions, and these ideas are applied to the pavement dwellers' lives in particular. Similarly, the literature review supports the argument that ideas and living influence the built environment, and the built environment influences ideas and living in an interactive dynamism.

The theories provide the direction for the literature review, case and precedent studies to explore a nurturing inner city environment. The conclusions and recommendations arise from an analysis of this research, which proposes site and schedule of accommodation guidelines to charter the

course for an architectural intervention of a nurturing inner city environment for the pavement dwellers street living needs. This intervention is conceptualized as a dream centre in the Durban CBD.

6.2 CONCLUSION

The outcome of this research demonstrates the importance of a nurturing inner city environment for supporting and creating opportunities for the pavement dwellers in their day to day life. This inner city environment is largely comprised of the architecture within it, as such architectural interventions can be applied to create a stage for life.

The theoretical framework is built on the Theory of Living, which is used to inspire and interpret the concept of a nurturing inner city throughout this dissertation. The basic assumption outlined is that architecture should be in the service of life, informed first and foremost by needs of the people, rather than abstract planning (Ortega, 1969). Complexity Theory and Critical Regionalism is applied in conjunction to further examine an architectural response to street living needs. Complexity Theory (Alexander, 2003) highlights the multiplicity of human dimensions in relation to the built environment, requiring a holistic, diverse and multi-perspective approach, while Critical Regionalism calls for a unique design rooted firmly in the specific cultural and social context and for the geographic region (Frampton, 1983). This has led to an understanding that requires the reality of street living to be taken into account, with its diverse and multiple interrelations, within a defined location, in order to respond with a rich humanism, rather than a neutral abstraction.

At the outset, the literature review established the idea that "I dwell in the city and the city dwells in me", Palasmaa (2005:40), as a means to understand the relationship between people and the inner city environment. This insight shows that architecture can create a canvas upon which life is outplayed, and furthermore people's lives have an impact on this environment. Because of this complex interaction, it is possible to conceptualize and design environments that nurture. Historically, this was illustrated in a continued relationship between inhabitants and a city through time. A nurturing inner city environment is one that is planned in conjunction with the

people that inhabit it, and incorporates their needs, aspirations and dreams in its functionality. This can be practically applied for example by considering orientation, flow of movement, natural light and ventilation, and shapes and spaces created. Accordingly, as mentioned, abstract planning without consideration of people, does not constitute a nurturing environment. Subsequently, the inner city is analysed from the point of view of the pavement dweller, discussing street living and livelihood strategies. It is in terms of these two components of an inner city environment and the pavement dwellers' living needs that a nurturing inner city environment is conceptualized; and equally, an architecture that nurtures the pavement dwellers can be created. The investigations into the case studies and precedent studies bring the analyses of these relationships into sharp focus, creating a foundation for conceptualizing the guidelines for the dream centre.

The case study of the Anton Lembede district highlights the specific needs of the pavement dwellers in their particular context, that being within the Durban CBD. The needs that arise from the lifestyle of street living within a certain area need to be included in the conceptualisation of a dream centre, in order to appropriately address the realities experienced by those to whom it will cater for. It demonstrates the principles outlined in the theoretical framework, that a successful scheme cannot be simply abstract and independent of the specifics of place, people and environment. The buildings and social programmes in the case studies of the Strollers Overnight Facility and the Durban Beach Shelter were also assessed and interpreted in terms of Durban's response to the nurturing issues identified in the literature review within the relevant theories. This analysis of the case studies revealed that the shelter design solutions were inadequate for the needs of the pavement dwellers in the Durban CBD. The analysis of the design of the shelters demonstrated that there is little harmony between the architecture and the context or between the architectural functions and the facilities offered to the pavement dwellers. These findings demonstrate that Durban needs improved, and more adequate facilities, and it is this gap in the provision of facilities that the conceptualization of a nurturing multipurpose dream centre addresses.

The analysis of the precedent studies demonstrated that the environment in The Bud Clark Commons and The Bridge Homeless Assistance Centre is appropriate, by moving in the direction of a nurturing architecture. These two precedent studies demonstrate practically how nurturing architecture responds to the specific needs and issues of the pavement dwellers within their vicinity. In addition, the studies showed the importance of how each building combined the facility functions into spaces for social programmes to address street living needs. The buildings address holistically the architecture, the programmes and the needs of the pavement dwellers, by providing for both basic shelter needs and furthermore equipping them for life off the street, through education, skills training, mental and physical health and well-being. The spaces themselves cultivate this by being naturally ventilated and well lit, the choice of materials and colours provide a soft and inviting environment, the physical design makes it both visible and humanly orientated to publically acknowledge its position, and the position of the people.

In the resulting analysis and discussion, the Anton Lembede district case study was used to identify the needs of the Durban CBD pavement dwellers, in order to prepare an informed response. The conceptualization of a nurturing inner city environment in terms of the identification of facilities for pavement dwellers, is augmented by identifying the design issues in the Durban shelter case studies and the precedent studies. The precedent studies contrast the inadequacies found in the Durban shelter case studies, and provide an example of how to proceed toward a humanly orientated, life facilitating and nurturing architecture for pavement dwellers' street living. Countering these issues, supplementary guidelines were formulated to inform the site and schedule accommodation guidelines, which are outlined below.

The analysis articulated the point of view that a nurturing inner city environment can be conceptualized by ensuring that the lived space, the functions and the needs of the pavement dwellers speaks to values of the humanistic ideals of Ortega (1962), Frampton (1983), Alexander (2003) and Pallasmaa (2005). The humanistic dimension enables the architect to conceptualize a nurturing inner city environment, moving away from an abstract and isolated idea and design.

Within the framework of the theories and the literature review, the pavement dwellers' needs in the Anton Lembede district case study were investigated. This investigation coupled with the

nurturing design issues arising from the shelter case studies and the precedent studies are the foundation for the articulation of a multipurpose dream centre, informed by the needs of street living in the Durban CBD.

6.3 RECOMMENDED SITE AND SCHEDULE ACCOMMODATION GUIDELINES

The analysis from the case studies: Anton Lembede district, Strollers Overnight Facility and Durban Beach Shelter, and the analysis of the precedent studies: The Bud Clark Commons and The Bridge Homeless Assistant Centre, within the theoretical and literature review framework demonstrate that a comprehensive multipurpose design is required in order to meet the complexities and subtleties of the Durban pavement dwellers' needs. The proposed guidelines for a schedule of site and accommodation, i.e., guidelines for the different functions in the building and the selection of site, are in the service of life and address the pavement dwellers' particular situation and circumstances.

6.3.1 Schedule Accommodation Guidelines

The accommodation guidelines are for the conceptualization of *a multipurpose dream centre for the pavement dwellers of the Durban CBD*. The schedule of accommodation guidelines for the selection of the most appropriate and adequate functions to conceptualize the dream centre are as follows:

- *Education and training guidelines:* Spaces should be provided for the pavement dwellers to be equipped and prepared for employment and life orientation. These spaces would provide access to facilitators with telephones, internet, networks, links with business, recruitment agencies, Chamber of Commerce and other labour opportunities. The types of programmes, which could be conducted in the spaces, are social skills, job readiness training, career counselling and guidance, support networking, small business training, skills work shopping in computers, library skills, clothes making, cooking, interaction manners, crafts, writing, reading, support in distance learning and compiling personal profiles and relevant CV's.

- *Lodging guidelines:* Spaces should be provided where the pavement dwellers can be offered affordable meals and a safe place to sleep. These spaces would provide for dorms, family rooms, kitchens, dining / space to eat and lounges. Additionally, due to habituation, some pavement dwellers experience claustrophobia when sleeping indoors. Accordingly, a facility that provided secure outdoor sleeping spaces should be considered.
- *Bath house guidelines:* Spaces where the pavement dwellers can care for themselves and their personal hygiene and well being through access to showers, toilets and laundry facilities, should be provided.
- *Health care guidelines:* Spaces for the mental and physical healing of the pavement dwellers are needed. Facilities to provide primary health care, HIV/AIDS and TB interventions, pregnancy counselling, psychological support groups and rehabilitation for drug abuse and mental disorders, should be included.
- *Creativity hub guidelines:* facilities for creative expression could provide an opportunity for a humane framework of wellness and skills to enhance the training programmes. The creativity training in itself could equip some of the pavement dwellers for employment in the arts. The spaces for creativity could provide for the arts, music (singing, choir, instruments - whistle blowers, guitars, tambourine), drama workshops (mimes, plays, acting, stick throwing) and theatre (connection with general public).
- *Urban farming guidelines:* The concept of reaping what you sow can be carried out through urban farming, which both provides an opportunity for skill training and economic development and growth. This could include a food market for the agriculture farming produce, and an institutional energy market for the solar and wind farming. The urban farming space could provide for employment training, healing and self-sufficient food production with vegetable gardens and fruit trees.

- *Community hall guidelines:* Space for community meeting and interacting with the public is necessary. The community hall could also provide for disaster alleviation support for the temporary housing of people afflicted by natural disasters, flexible usage of space for theatre facilities offered to the public and storage facilities.
- *Restaurant guidelines:* A food outlet could offer both a service and hands-on training programmes for pavement dwellers' interested in pursuing opportunities as waiters, chefs and cleaners. It can also be a space to develop social interaction skills.
- *Sporting facilities guidelines:* Sport training in various activities such as soccer, volleyball, action cricket, skateboarding and surfing can be used for psychical and mental upliftment, teambuilding and social interaction skills.
- *Management facilities guidelines:* Spaces for the professional staff to manage and maintain the dream centre are important to incorporate in design guidelines. The management facilities could include staff accommodation, security, offices, a kitchen, boardrooms, staff lounge and car parking.
- *Public and private sector participation guidelines:* In order to foster public and private sector participation, facilities to provide certain services would be included, such as offices for social development agencies, job placement, SETA and banking. These could work towards the economic support and development of pavement dwellers.
- *Employment creation guidelines:* Spaces designed specifically for income generating activities are important. The dream centre should provide for small businesses, such as a car wash, shops, a clothes and furniture market, mechanical repairs, a hair salon and waste recycling centre.

The schedule of accommodation guidelines need to respond to the complex needs of street living. Thus, the function of the design should address issues such as economic, social, health

and well being development and upliftment, founded directly on the specific needs of those who would utilise the dream centre, and appropriately designed the Durban CBD context.

6.3.2 Site Selection Guidelines

Site selection is fundamental to multiple design decisions. A knowledge of the schedule of accommodation guidelines contributes to an understanding of the successful selection of a site for the multipurpose dream centre. The guidelines for the site selection are derived from understanding the needs of the pavement dwellers in Durban, and in understanding how the buildings in the case and precedent studies' relate to the site. Finding the most suitable site for the dream centre enhances the design by facilitating a holistic approach to complex issues. The selected site has an important impact on the pavement dwellers in terms of convenience, access, and quality of the environment. The primary site selection guidelines for the multipurpose dream centre should be:

- Located in the city and not on the periphery or peri-urban areas of the city.
- Close to public amenities and transportation.
- Connected to the inner city.
- Visible for the public to be aware of the building and the issues that the building is dealing with.
- Near to pedestrian traffic and major arteries.
- Large enough for a courtyard and approx. 20 000sqm of building, i.e., a portion of a city block.
- Bordering streets with two way traffic.
- Considered in terms of population dynamics and public interaction.
- Selected with consideration to historic issues.
- Selected in terms of centralized community business areas.
- Supportive of public health.
- Not limited to greenfield sites (could be a brownfield).

The site selection guidelines is more than purely identifying a site with the necessary physical characteristics as the site needs to respond to pavement dwellers' life and livelihoods.

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APPENDICES:

**ANNEXURE A: Research Survey Questionnaire on Pavement Dwellers
(Anton Lembede Area)**

Section of Anton Lembede where research took place: _____

Date: _____

1. What is your area of origin?

1. Kwa Zulu Natal
2. Gauteng
3. Eastern Cape
4. Mpumalanga
5. Free State
6. Other SA province
7. Other African (specify)

2. Are you single, married or divorced?

1. Single
2. Married
3. Divorced

3. Note gender by observation

1. Man
2. Woman

4. What is your age?

1. Under 20
2. 21 - 30 years old
3. 31-40 years old
4. 41- 50 years old
5. 51 - 60 years old
6. Over 60 years old

5. What is your educational background?

1. No formal schooling
2. Grades 1- 5
3. Grades 6-11

- 4. Grades 2.
- 5. Other

6. What are your reasons for living on the streets?

7. What are your income generating activities?

8. Have you suffered from crime?
1. Yes
2. No

9. Do you have any dependants?
1. Yes
2. No

10. What is your income?

11. How long have you been on the streets?
1. 1-2 years
2. 3-4 years
3. 5-6 years
4. 7-10 years
5. Over 10 years

12. Do you access to the following? (Environmental questions)
1. Ablution facilities
2. Employment
3. Assistance with work seeking
4. Shelter
5. Skills training
6. Education
7. Food and water
8. Other

APPENDIX B: Research Findings of the Street Livelihoods In the Anton Lembede District in the Durban Cbd

Introduction

The data was gathered from a sample of 64 pavement dwellers in the CBD, using a survey questionnaire. The researcher used two research assistants, Dean Mohamed and Rubin Dhary from a NPO. The purpose of the study of Durban's pavement dwellers is to establish their reasons for living on the pavements, area of origin, street livelihood and their immediate needs. The analysis of this data provides the framework to assess the pavement dwellers' needs and gain an understanding of the affected individuals and families in order to inform the conceptualization of a nurturing inner city environment and in particular a multipurpose dream centre.

Geographical location: a cluster sample of 64 was drawn from Lembede Street and portions of intersecting roads ensuring that the whole area was represented in the sample.

Spatial location of the pavement dwellers: The research was conducted in the planned and unplanned spaces identified by Hou: spaces between, wedges, void spaces, spaces below and spaces around Durban's inner city. Pavements in the inner city were interviewed around the commercial and residential blocks, public spaces in the area such as parks.

Survey logistics

The researcher made contact with Deen Mohamed, the owner of the Durban beach shelter, who advised where pavement dwellers congregate and how to conduct a user friendly survey with them. The survey questionnaire on the advice of Deen Mohamed was committed to memory so that pavement dwellers would feel that they were not being interrogated by the police. The data gathering took place during six visits and involved day and afternoon.

Number Interviewed

A total of 64 individual interviewees responded and were most co-operative, despite some expressing reservations. The reservation was due to wanting to know what will come of the questions.

Demography

Area of origin of pavement dwellers

Seventy four percent of pavement dwellers place of origin is South Africa: the provincial breakdown of the South Africans in the sample is - 35 persons from across the Kwa Zulu Natal province, including rural areas, 7 persons from Eastern Cape, 6 persons from Gauteng. Twenty six percent of pavement dwellers are non-South Africans: Tanzania (9 persons) followed by the second largest groups from the Democratic Republic of Congo (3), Kenya (3) and Burundi (2).

Gender/ Marital Status

Twenty five percent of the participants were females and 75% were males. Approximately 80% are single, 19% married and 1% divorced.

Age

Fifty four percent of the participants are 30 years or younger. Twenty three percent are between 31-40 years old and 17 % between 41- 60 years old. Six percent of people are over 60 years old.

Reason for Living on the Streets

Seventy percent of the participants cannot find formal employment and are seeking any work to survive from day to day on the streets. Thirty percent did not volunteer an answer.

Participants Educational Background

Approximately 27% had no formal schooling, 21% attended grades 1- 5, 39% attended grades 6- 11, and 8% had past grade 12. Five percent of the participants did not respond.

Income generating activities

Pavement dwellers are involved in the following types of income generating activities: Fifty five percent are street vendor selling a variety of items, which included baskets, drums, metals, cardboards, refreshments, pillows, cushions, fish, sea water, bottles, pots and dishes. Some street vendors sell a combination of these items. About a quarter (20%) of the people surveyed worked

for someone: electrician, barber, labourer, car guard and security guard. Five percent are beggars and street artists - though a further 15% said that they begged occasionally. Twenty percent of participants did not respond.

Crime against pavement dwellers

Fifty eight percent of pavement dwellers said that they are affected by crime and in contrast 42% said that they are unaffected. The crimes listed against them are muggings and violent attacks. Thirty percent of the pavement dwellers felt that police harassment was a crime. The pavement dwellers volunteered that police crime against them involved the confiscation of their money, their personal belongings and in the case of foreigners the destruction any legal refugee documents.

Any dependants

Forty nine percent of the pavement dwellers have children, yet only approximately 5% had the children living with them. Eleven percent of the respondents said they had no children. Thirty six percent of the respondents did volunteer an answer.

Income

Participants range of daily earnings are between R2.00 a day to R100.00. The average income is R5.00 a day per pavement dweller. Forty percent earn R20.00 a day. Thirty five percent of participants did not respond.

Time spent on streets

Only a handful of the pavement dwellers, 5 %, had been on the streets for less than one year. The different times spent on the streets by the pavement dwellers breaks down to as follows: between 1-2 years 30%, between 3-4 years 25%, between 5-6 years 6%, between 7-10 years 11%, over 10 years 23%.

Environmental questions

The sample of pavement dwellers provided a list of their needs:

- Ablution facilities: Only 8% of the respondents said that they have access to ablution facilities, in contrast 86% of the respondents said that they have no access and 6% did not volunteer an answer;
- Employment: An overwhelming majority of 92% of the respondents said that they need employment
- Assistance with work seeking: An overwhelming majority of 85% of the respondents said that they need assistance with work seeking.
- Shelter: An overwhelming majority of 88% of the respondents said that they need shelter;
- Skills training: An overwhelming majority of 90% of the respondents said they need skills training
- Education: Only 25% of the respondents said they would like to continue their education;
- Food and water: An overwhelming majority of 92% of the respondents said that they need food and water.

APPENDIX C: Qualitative Methods: Focus Group Interviews (Anton Lembede District)

Schedule of issues to be discussed

Life on the streets

- What are the challenges of being on the street?
- Where do you eat, work and play?
- Have you or do you know someone who has played sport in the streets? (Especially at night)

Sleeping in the streets

- Where do you sleep each night?
- Do you ever sleep in a shelter?

Trade in the streets

- Do you have work in the streets?
 - What type of work do you have?
- What are the challenges with your work?
- What do you need to help you earn more?

Training

- What types of training do you think are important for you?
 - training in general
 - skills training to sew clothes
 - computer training
 - social skills training
 - basic literacy and numeracy

Business facility support

- What types of business facilities would assist you with your work activities?
 - new market facilities

- storage facilities
- stall facilities

Urban farming

- If there was a place for you to grow vegetables would you?

Crime

- Do you suffer from crime?
- Do you know people who commit crimes such as pick pocketing and theft, prostitution and drug selling and substance abuse?
 - Why do you think that there is crime?

APPENDIX D: Qualitative Methods: In-depth Interviews (Anton Lembede District)

Schedule of issues for key stakeholders

History of shelter

- How was the need for such a facility/shelter identified?
- Who helped initiate the facility/shelter?
- What government funding support do you receive?
- What is the vision of the shelter?
- How long has the facility/shelter been running?

Shelter

- How many people does the facility assist?
- What types of programmes are offered to the users of the facilities?
- Are there any training and education programmes to help the users' transition out of street life?
 - If there are training programmes has the application of this training being monitored - in terms of the successes of the pavement dwellers?
- What additional facilities are required at the shelter so that the vision can be reached?

Shelter design

- Does the building design meet the needs of the different uses and users?
- Are there any improvements to the building that would assist you in your work?

Pavement dwellers

- Is it possible to identify different types of pavement dwellers?
- What encourages or what needs to be done to assist pavement dwellers to move off the streets?

Management

- What are the management successes?
- What are the management challenges?

General

- Are there an adequate number of shelters serving the Durban CBD?
- How could Durban do more for the pavement dwellers?

APPENDIX E: Qualitative Methods: Observations (Anton Lembede District)

Schedule of issues for observations

Life on the streets

- Activities on the pavements?
 - Selling of goods - types of goods?
 - Selection of site for trading? - types of trading?
 - Response of passer-bys?
 - Response of customer?
- Activities at the traffic intersections?
 - Style of begging?
 - Response to begging?
 - Are people supportive, angry or just ignore?
- Activities in the streets (at night)?
 - Sporting activities?
 - Socialising?

Socialising

- Any group activities? - what types of activities?
- Supportive or sharing behaviour? - e.g. sharing a cigarette"
- Site of social activity?

Movement in the inner city

- Observable patterns of movement from one part of Anton Lembede to another? - for example, routes taken from town to beach front?

APPENDIX F: Informed Consent



Title of research:

Conceptualizing a nurturing inner city environment informed by an analysis on the needs of street livelihood: Towards a multipurpose dream centre for the pavement dwellers of the Durban CBD.

Good Day

Introduction: I am a Masters student from the University of KwaZulu-Natal and I am doing research on street living and the built environment. Research is just a process to attain answers to a number of questions, and you may have information that would help me to get to such answers. I am requesting that you participate in this research study so that I can find out more about street livelihood.

What is involved in the study: I have a few questions to ask and photos to take. There are no risks to being involved, and no one is forced to take part. There will be no negative consequences either, if you decide not to take part. If you agree to take part, we hope that the information that we obtain will be used to improve architects understanding of a nurturing design. You can choose not to answer a particular question, and are free to withdraw from the enquiry at any stage.

Confidentiality: All efforts will be made to keep personal information confidential.

Contact details of researcher/s – for further information please contact:

Lucien Glass Student no. 206522810:

lucienlass@gmail.com

J.T. Ojo-Aromokudu (supervisor):

ojoaromokudu@ukzn.ac.za

THEORETICAL FRAMEWORK



THEORY OF LIVING

The theory of living, as mentioned in the previous chapter (1984), involves the interaction, exchange and interdependence from the understanding of life in the inner city environment. In particular, the life of the pavement dwellers is investigated within the theory of living. This is exemplified by the British Architect Bill of Rights which highlights the value of an individual's lifestyle and "the right to life" (1984).

The theory of living is based on the "interdependence" and "exchange" of the individual, which is the foundation of the theory of living. The individual's lifestyle is viewed in the context of the city and its inhabitants. The theory of living is based on the "interdependence" and "exchange" of the individual, which is the foundation of the theory of living. The individual's lifestyle is viewed in the context of the city and its inhabitants. The theory of living is based on the "interdependence" and "exchange" of the individual, which is the foundation of the theory of living. The individual's lifestyle is viewed in the context of the city and its inhabitants.

COMPLEXITY THEORY

Complexity theory is applied in this dissertation to the field of a nurturing inner city environment because the relationships in the inner city environment are complex and dynamic. The theory of living is based on the "interdependence" and "exchange" of the individual, which is the foundation of the theory of living. The individual's lifestyle is viewed in the context of the city and its inhabitants. The theory of living is based on the "interdependence" and "exchange" of the individual, which is the foundation of the theory of living. The individual's lifestyle is viewed in the context of the city and its inhabitants.

CRITICAL REGIONALISM

Critical regionalism is a concept that is used in this dissertation to describe the relationship between the individual and the city. The theory of living is based on the "interdependence" and "exchange" of the individual, which is the foundation of the theory of living. The individual's lifestyle is viewed in the context of the city and its inhabitants. The theory of living is based on the "interdependence" and "exchange" of the individual, which is the foundation of the theory of living. The individual's lifestyle is viewed in the context of the city and its inhabitants.



I DWELL IN THE CITY, AND THE CITY DWELLS IN ME

The city and the inner city environment are interconnected and interdependent. The theory of living is based on the "interdependence" and "exchange" of the individual, which is the foundation of the theory of living. The individual's lifestyle is viewed in the context of the city and its inhabitants. The theory of living is based on the "interdependence" and "exchange" of the individual, which is the foundation of the theory of living. The individual's lifestyle is viewed in the context of the city and its inhabitants.



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Towards a multipurpose dream centre for the pavement dwellers of the Durban CBD.

By Lucien Glass |
26th November
2013

THEORETICAL FRAMEWORK



THEORY OF LIVING

The Theory of Living, as proposed by the German anthropologist GERTH (1964), involves the interaction, penetration and interpenetration from the understanding of life in the inner city environment. It articulates the life of the pavement dwellers in interaction with the Theory of Living. As such, this is conceptualized by the British American scholar of British origin highlighting the value of an individual's life and the "right to life" (CONSTITUTION ON 21 1996).

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COMPLEXITY THEORY

Complexity theory is applied in this dissertation to the field of a nurturing inner city environment because the relationships in the new world of urbanity are highly complex and dynamic. It is in line with the urban environment of which the complexity of the new world of urbanity is highly complex and dynamic. It is in line with the urban environment of which the complexity of the new world of urbanity is highly complex and dynamic.

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CRITICAL REGIONALISM

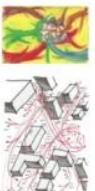
Critical regionalism is a concept that seeks to understand the relationship between the local and the global. It is a concept that seeks to understand the relationship between the local and the global. It is a concept that seeks to understand the relationship between the local and the global.

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I DWELL IN THE CITY, AND THE CITY DWELLS IN ME



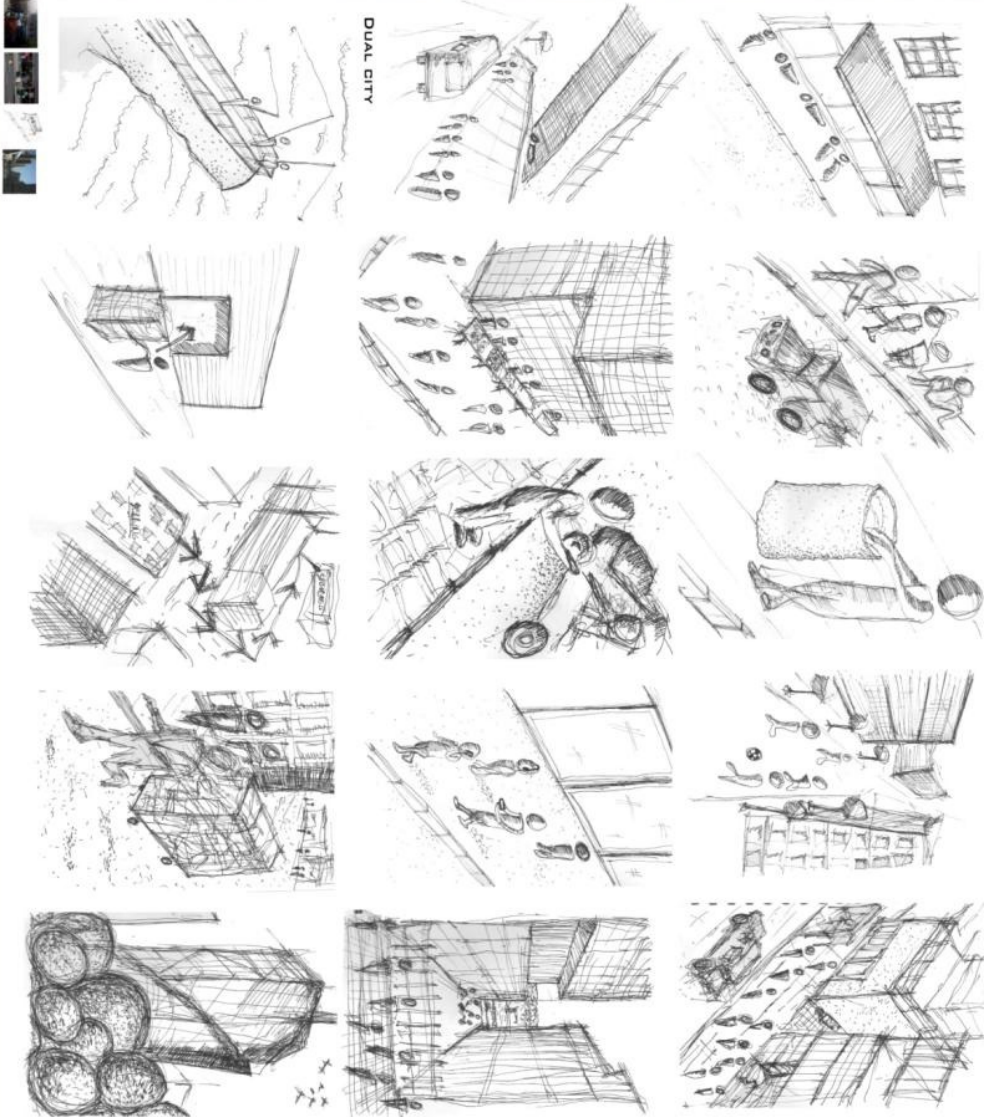
It is understood that what life and the inner city environment reflects the social, cultural, political, and economic life found in the architecture, landscape of a city, that is evident in every the architectural and urban design. It is understood that what life and the inner city environment reflects the social, cultural, political, and economic life found in the architecture, landscape of a city, that is evident in every the architectural and urban design.



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CASE STUDY: ANTON LEMBEDE DISTRICT STREET LIVING



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CASE STUDIES DURBAN'S RESPONSE TO THE NEEDS OF THE PAVEMENT DWELLER

DURBAN BEACH SHELTER

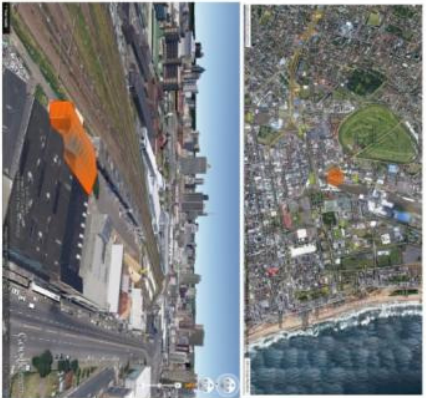


The Durban Beach Shelter was established in 1988. At present, the Durban Beach Shelter is located on 23rd Street in the Durban CBD on the site of the former Durban City Hall. The Durban Beach Shelter is a public shelter with a Public Sheltering Organisation (PSO) and provides shelter for 1000 people a day. At present, the Durban Beach Shelter is a public shelter with a Public Sheltering Organisation (PSO) and provides shelter for 1000 people a day. At present, the Durban Beach Shelter is a public shelter with a Public Sheltering Organisation (PSO) and provides shelter for 1000 people a day.

DESCRIPTION AND ANALYSIS OF THE BUILDING ENVIRONMENT
The Durban Beach Shelter is a public shelter with a Public Sheltering Organisation (PSO) and provides shelter for 1000 people a day. At present, the Durban Beach Shelter is a public shelter with a Public Sheltering Organisation (PSO) and provides shelter for 1000 people a day.



STROLLERS OVERNIGHT FACILITY



The Strollers Overnight Facility is a room inviting yet poor a number of services for the pavement dwellers. The Strollers Overnight Facility is a room inviting yet poor a number of services for the pavement dwellers. The Strollers Overnight Facility is a room inviting yet poor a number of services for the pavement dwellers.

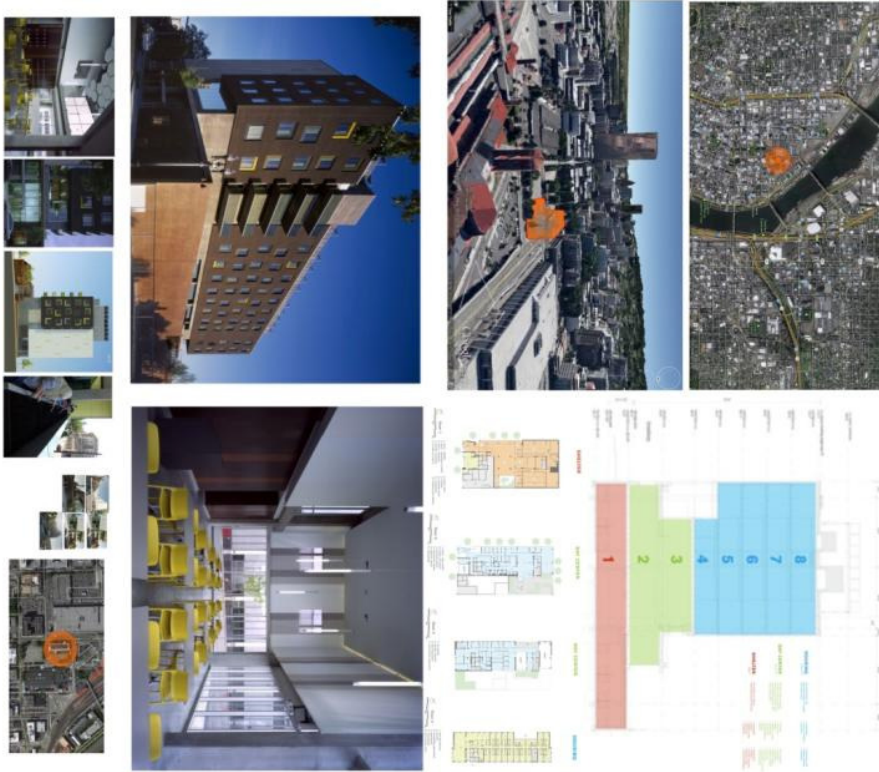
RESPONSE TO THE NEEDS OF THE PAVEMENT DWELLER
The Strollers Overnight Facility is a room inviting yet poor a number of services for the pavement dwellers. The Strollers Overnight Facility is a room inviting yet poor a number of services for the pavement dwellers.



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PRECEDENT STUDIES
MOVING IN THE DIRECTION OF A NURTURING ARCHITECTURE

BUD CLARK COMMONS



THE BRIDGE HOMELESS ASSISTANCE CENTRE



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THE SELECTED SITE

AWARENESS & INCLUSION



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ANALYSING THE URBAN CONTEXT



CONCEPT SKETCH DESIGN ANALYSIS

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ANALYSING THE SITE AND CONTEXT



LARGE FOOT TRAFFIC FROM TAXI RANK LEADING PAST THE SITE



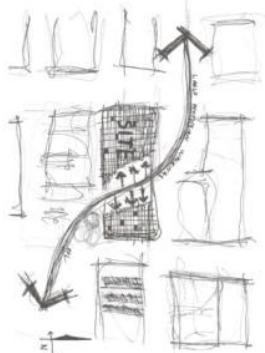
POTENTIAL LINKS AND CONNECTIONS



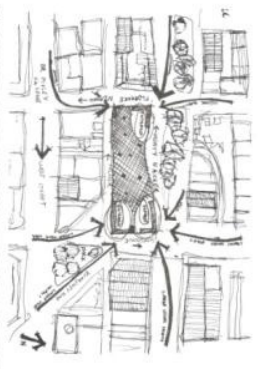
THE SURROUNDING CONTEXT



LINKS TO SURROUNDING GREEN AREAS



MAJOR THROUGH FARE IN SITE

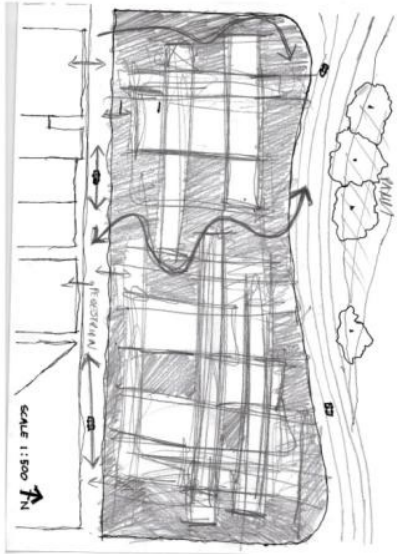


POSSIBLE ENTRANCE POINTS FOR THE SITE

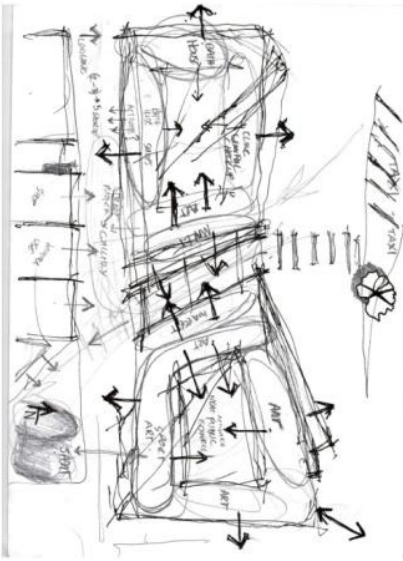
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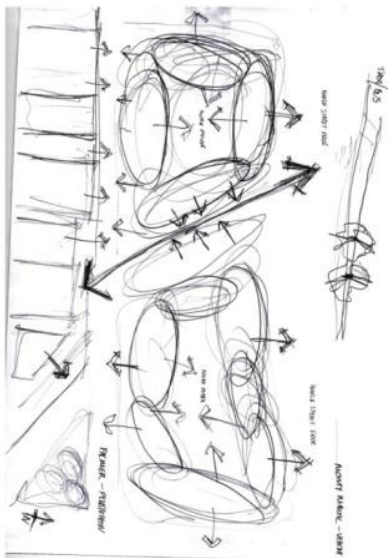
EXPLORING THE DREAM CENTRE SPATIAL DESIGN



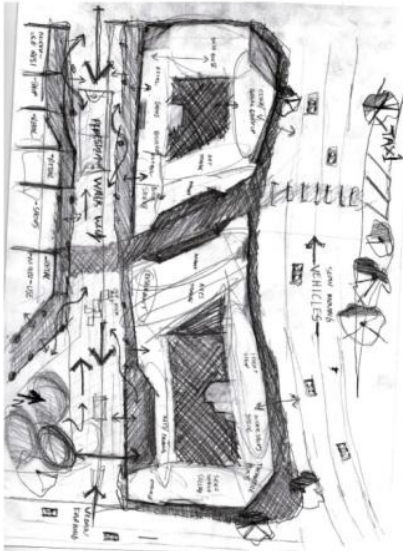
BREAKING UP SPACES



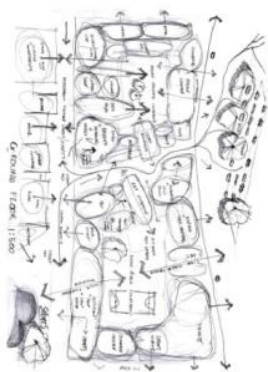
BRINGING FUNCTIONS TO THE COURTYARD



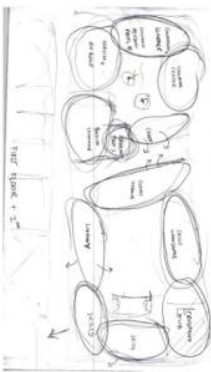
UNDERSTANDING THE COURTYARDS



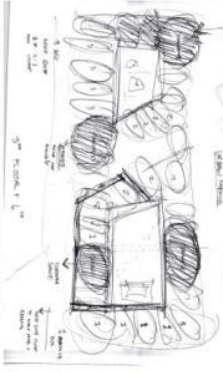
PLAN OF PUBLIC SPACES



GROUND FLOOR MORE PUBLIC



1ST FLOOR PHYSICAL AND MENTAL UPLIFTMENT



3RD FLOOR RESIDENTIAL

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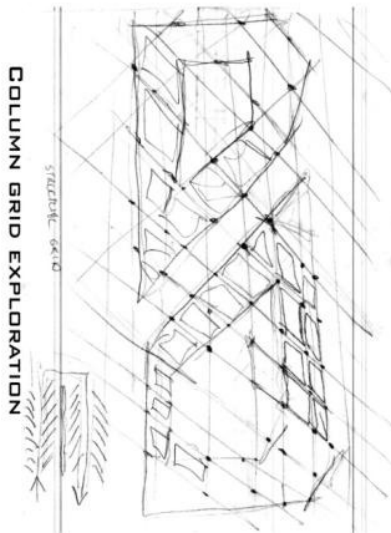
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EXPLORING THE DREAM CENTRE SPATIAL DESIGN

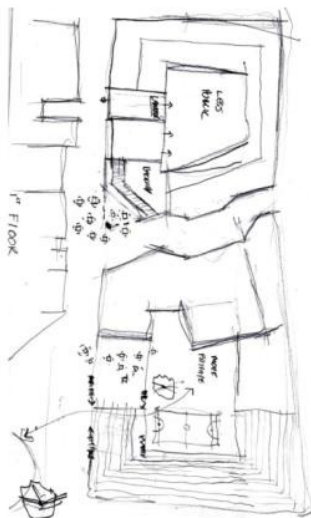
EXPLORING THE ORIENTATION AND GROUPING OF THE RESIDENTIAL UNITS



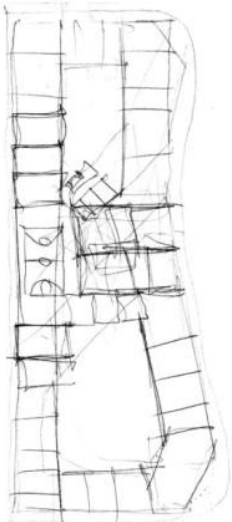
GROUND FLOOR EXPLORATION



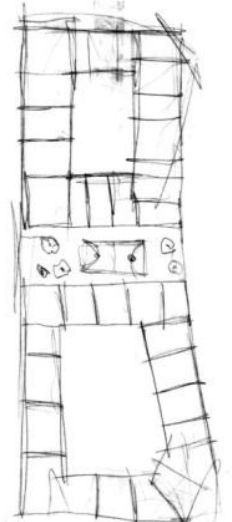
COLUMN GRID EXPLORATION



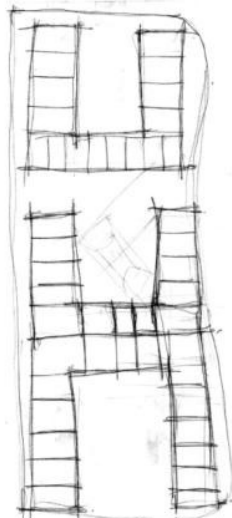
GROUND FLOOR EXPLORATION



RESIDENTIAL FLOORS EXPLORATION



RESIDENTIAL FLOORS EXPLORATION

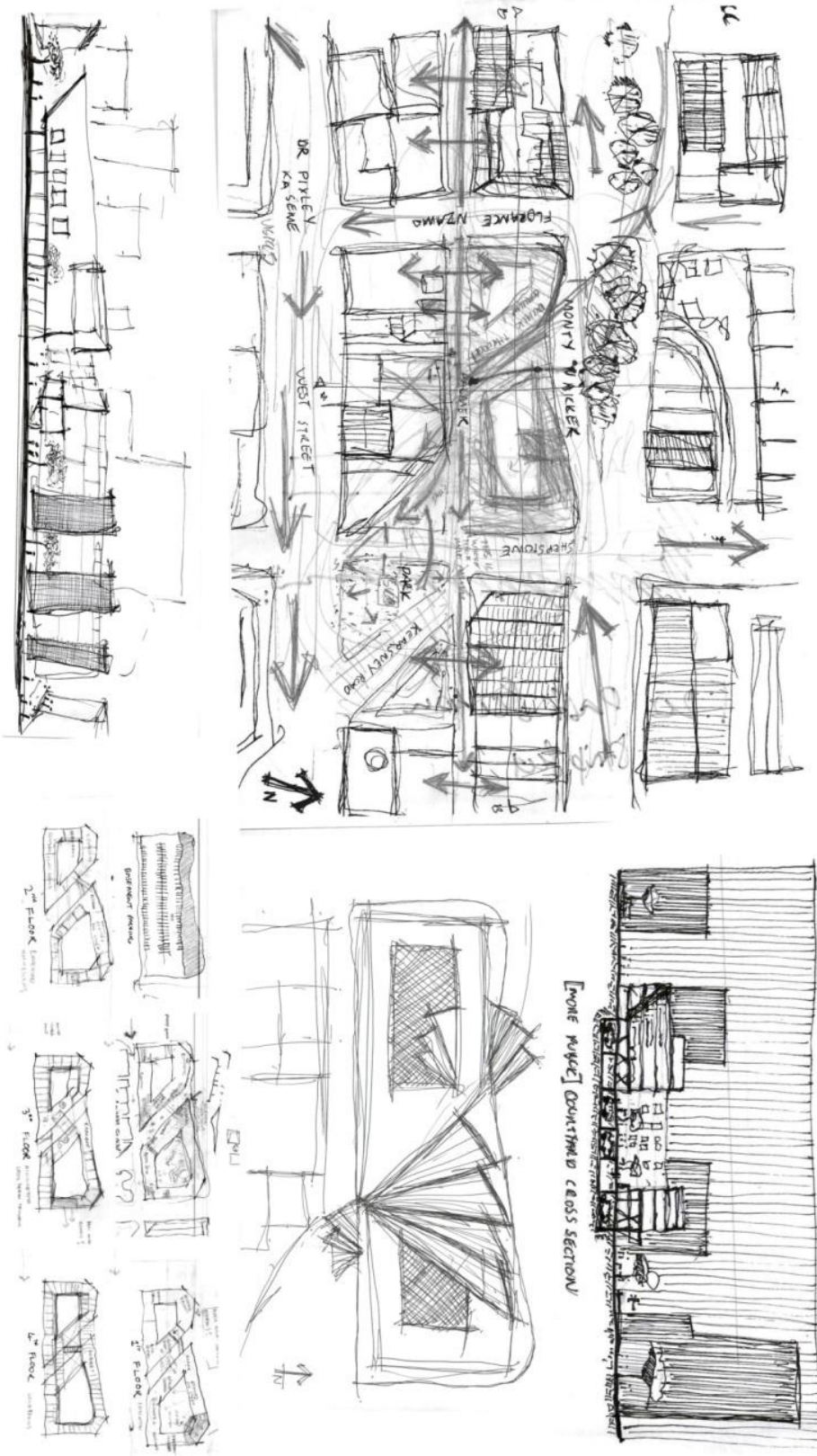


RESIDENTIAL FLOORS EXPLORATION

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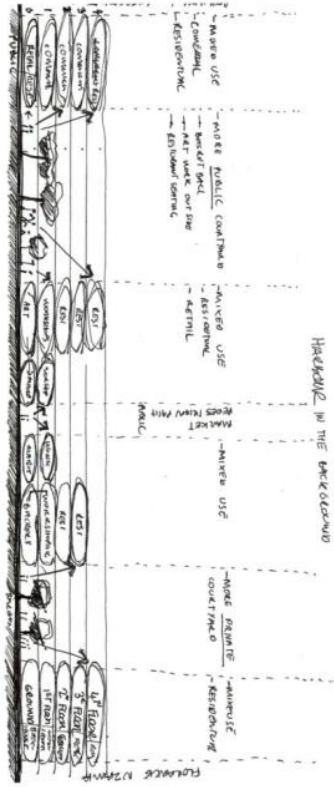
EXPLORING THE DREAM CENTRE SPATIAL DESIGN



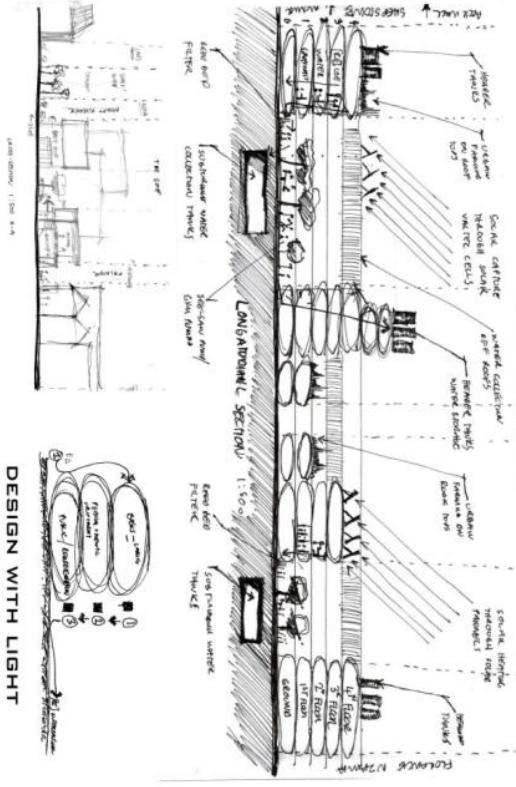
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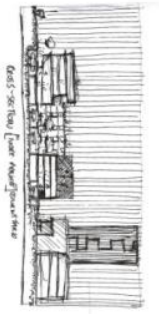
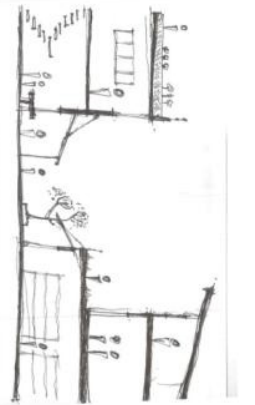
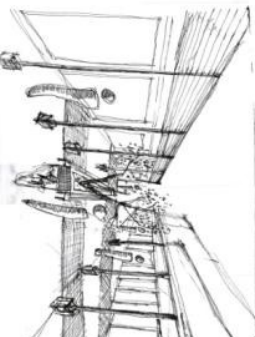
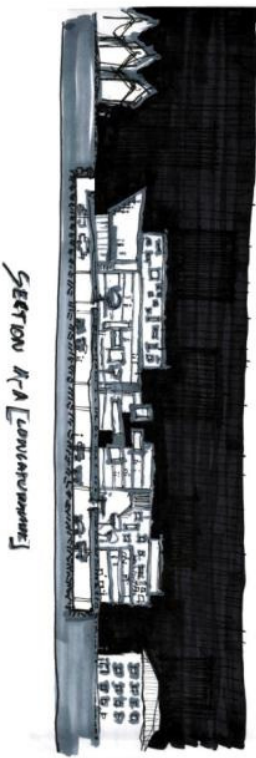
PUBLIC VS PRIVATE SPACE



LONGITUDINAL SECTION 1:500



DESIGN WITH LIGHT



CONCEPT SKETCH DESIGN ANALYSIS

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PUBLIC VS PRIVATE SPACE

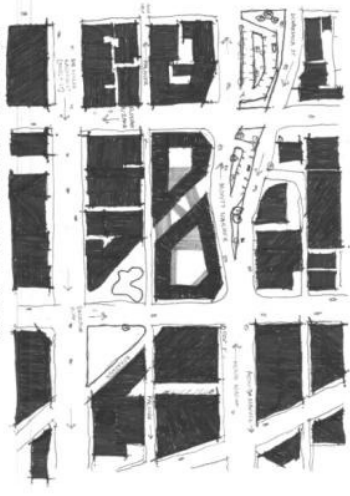
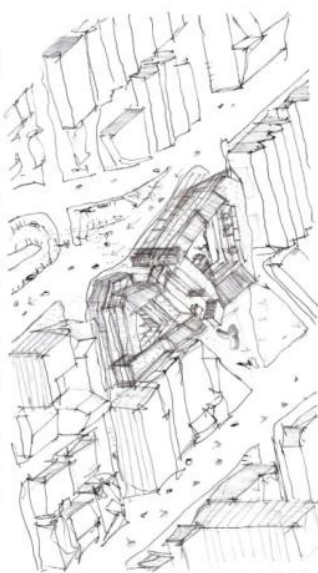


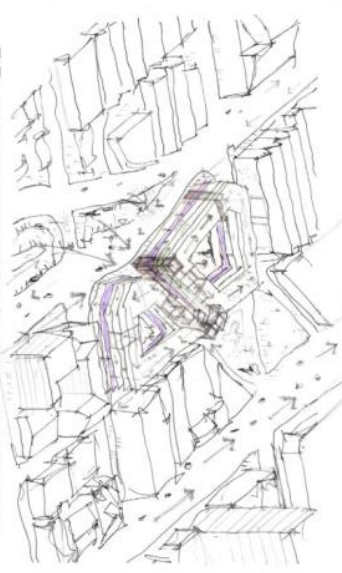
FIGURE GROUND OF AREA



3D OF DREAM CENTRE IN ITS CONTEXT



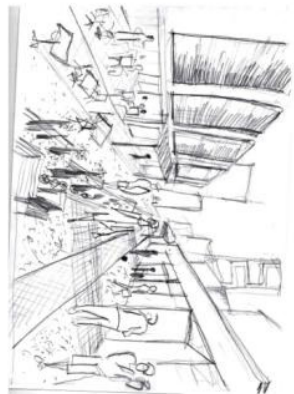
THE SURROUNDING CONTEXT



3D OF DREAM CENTRE IN ITS CONTEXT



CONNECTION INTO COURTYARD



THE ACTIVE PUBLIC STREET



STREET THROUGH SITE

CONCEPT SKETCH DESIGN ANALYSIS
CONCEPTUALIZING A NURTURING INNER CITY ENVIRONMENT INFORMED BY THE NEEDS OF STREET LIVING:
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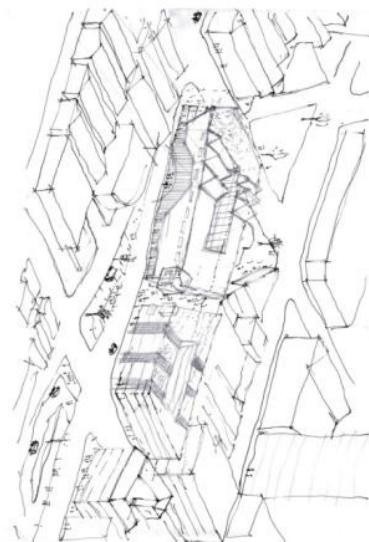
PROCESSES 3D SKETCHES



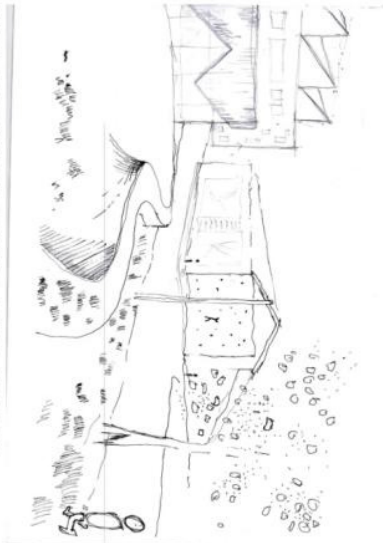
AERIAL VIEW OF THE SITE IN DURBAN



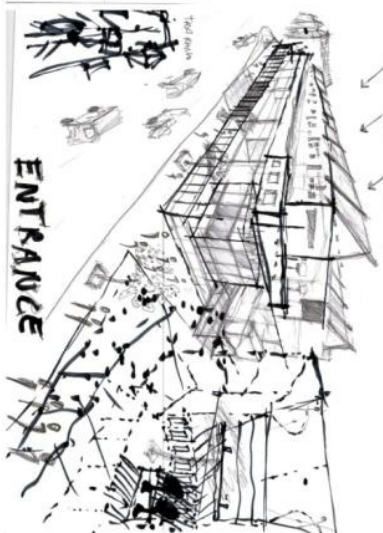
SOUTH EAST PERSPECTIVE



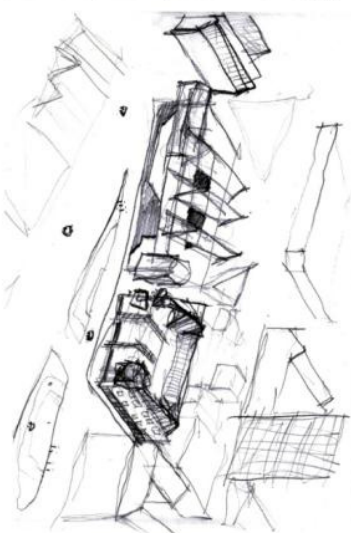
EXPLORING THE NORTH WEST 3D VIEW



PERSPECTIVE LOOKING INTO STREET SPORTS



EXPLORING THE THE ENTRANCE



EXPLORING THE NORTH WEST 3D VIEW

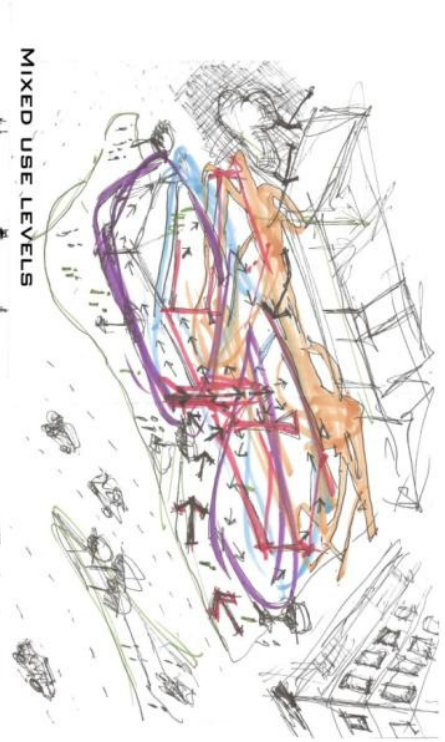
CONCEPT SKETCH DESIGN ANALYSIS

CONCEPTUALIZING A NURTURING INNER CITY ENVIRONMENT INFORMED BY THE NEEDS OF STREET LIVING:
Towards a multipurpose dream centre for the pavement dwellers of the Durban CBD.

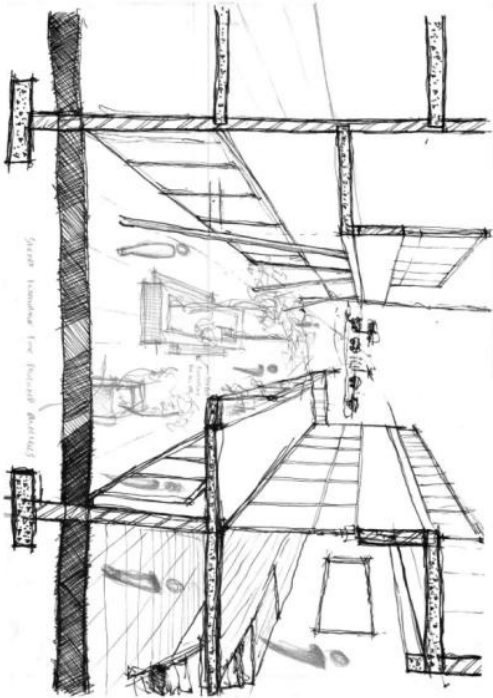
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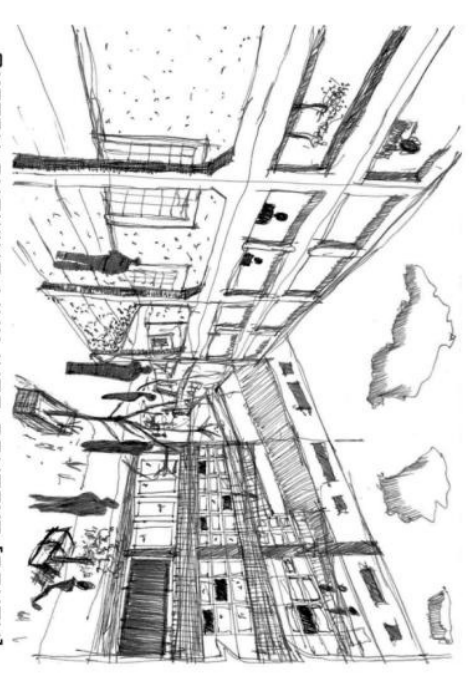
THE DREAM CENTRE IN PROGRESS



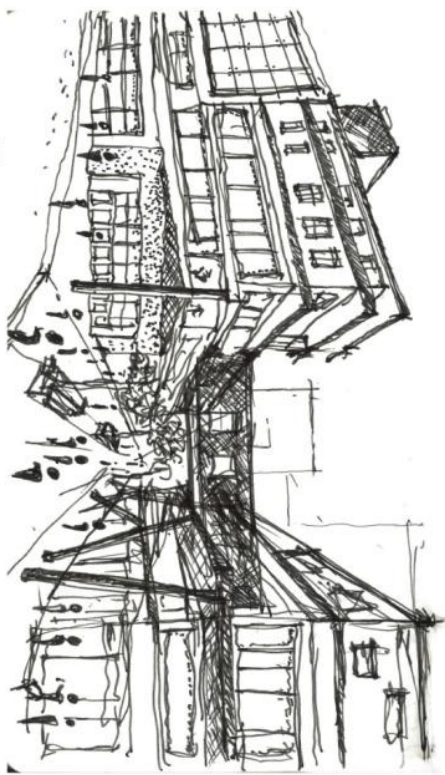
MIXED USE LEVELS



SECTION THROUGH ACTIVATED THOROUGHFARE [INTERMEDIATE SPACE FOR P.D.]



SKETCH SHOWING LINK INTO CONTEXT [SOUTH]



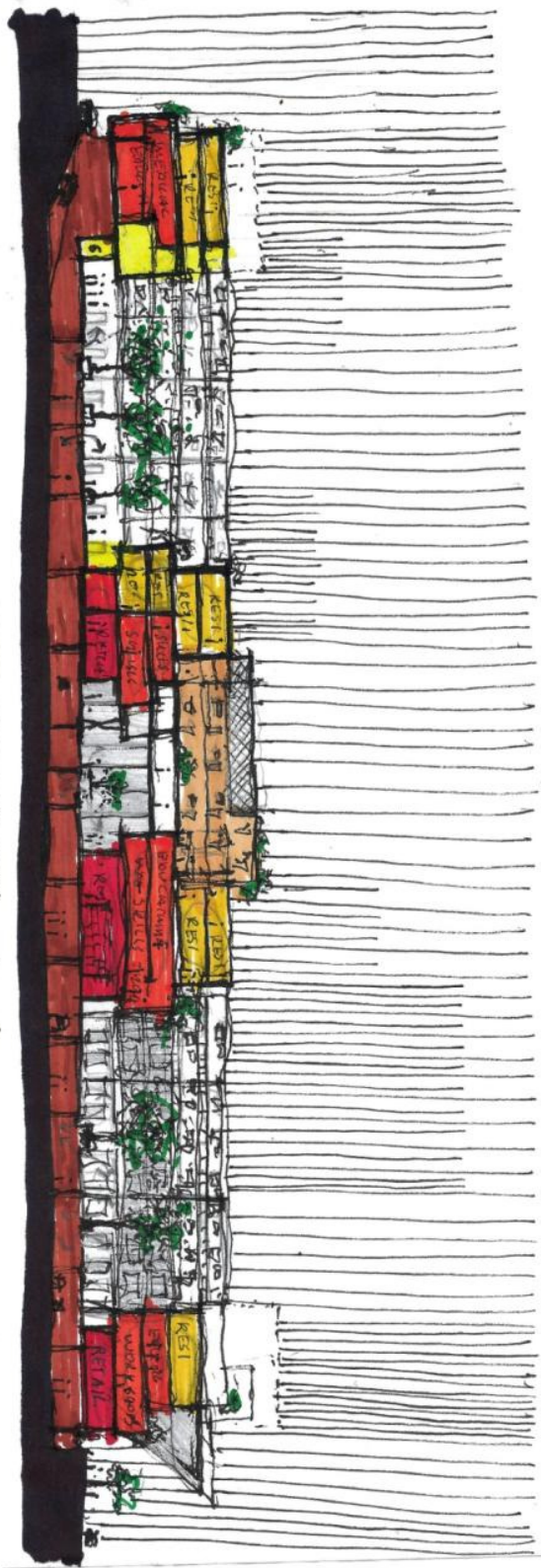
SKETCH SHOWING MAIN ENTRANCE

CONCEPTUALIZING A NURTURING INNER CITY ENVIRONMENT INFORMED BY THE NEEDS OF STREET LIVING:
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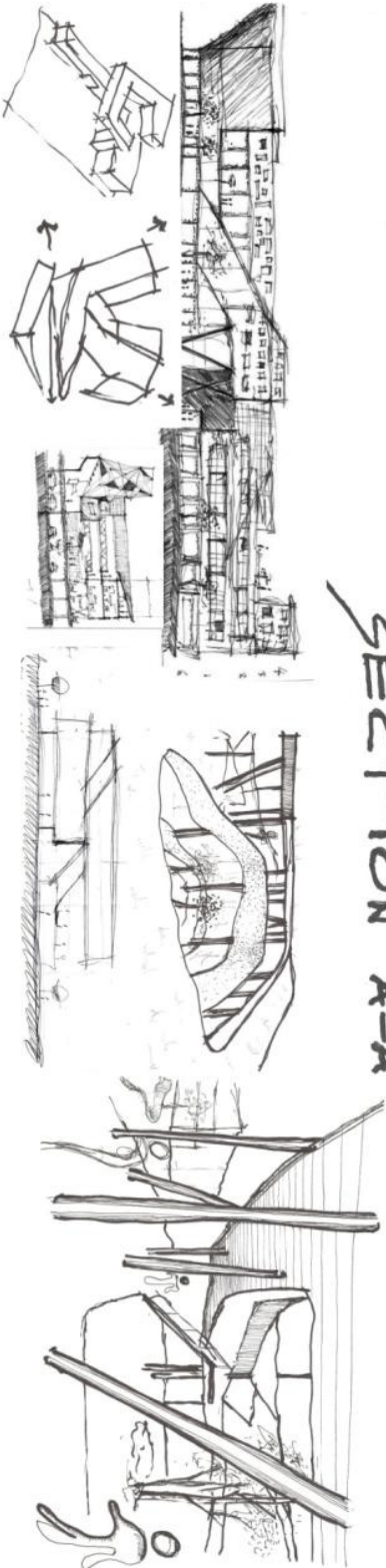


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THE DREAM CENTRE IN PROGRESS



SECTION A-A

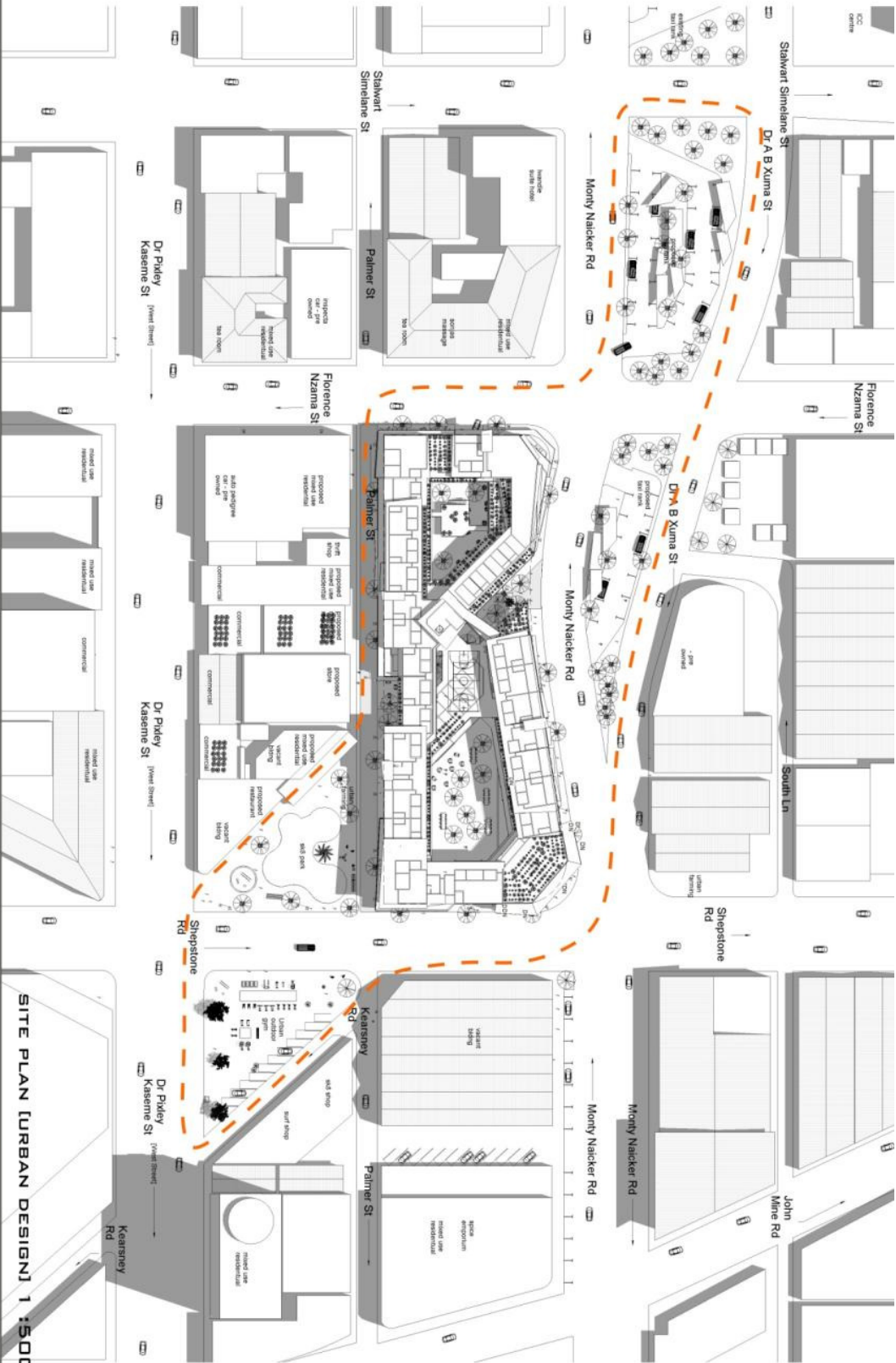


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CONCEPTUALIZING A NURTURING INNER CITY ENVIRONMENT INFORMED BY THE NEEDS OF STREET LIVING:
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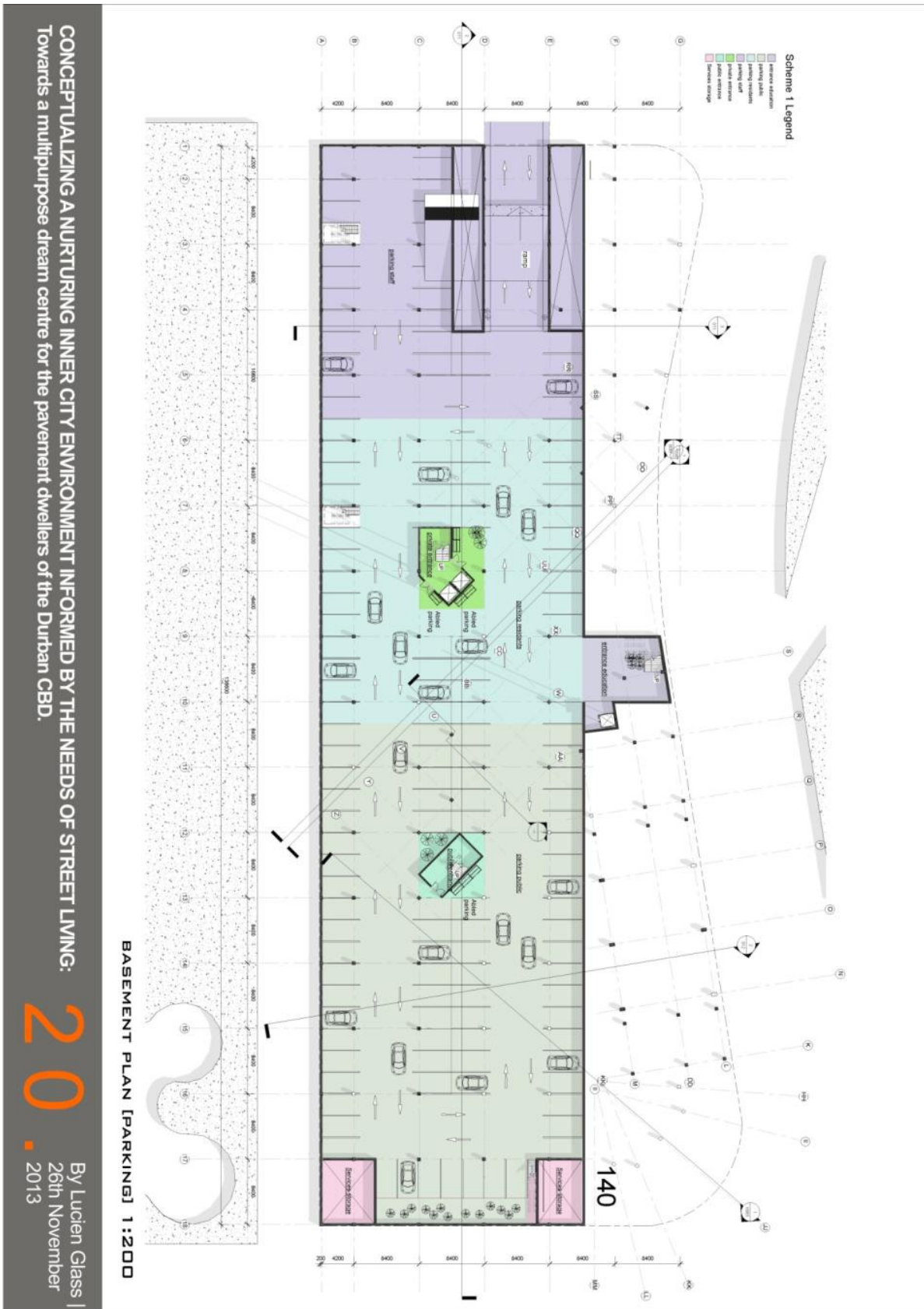
CONCEPTUALIZING A NURTURING INNER CITY ENVIRONMENT INFORMED BY THE NEEDS OF STREET LIVING:
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SITE PLAN [URBAN DESIGN] 1 : 500

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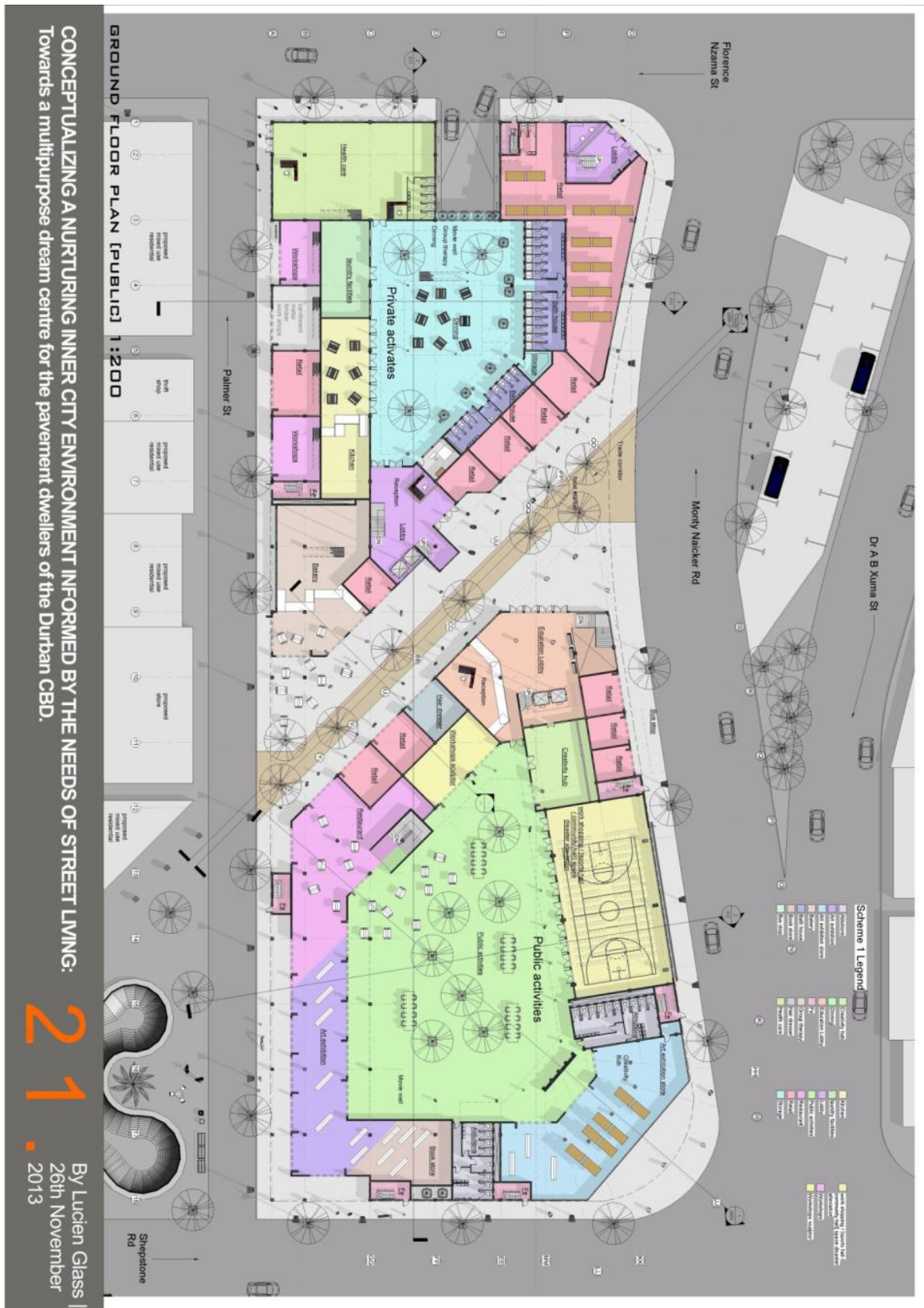


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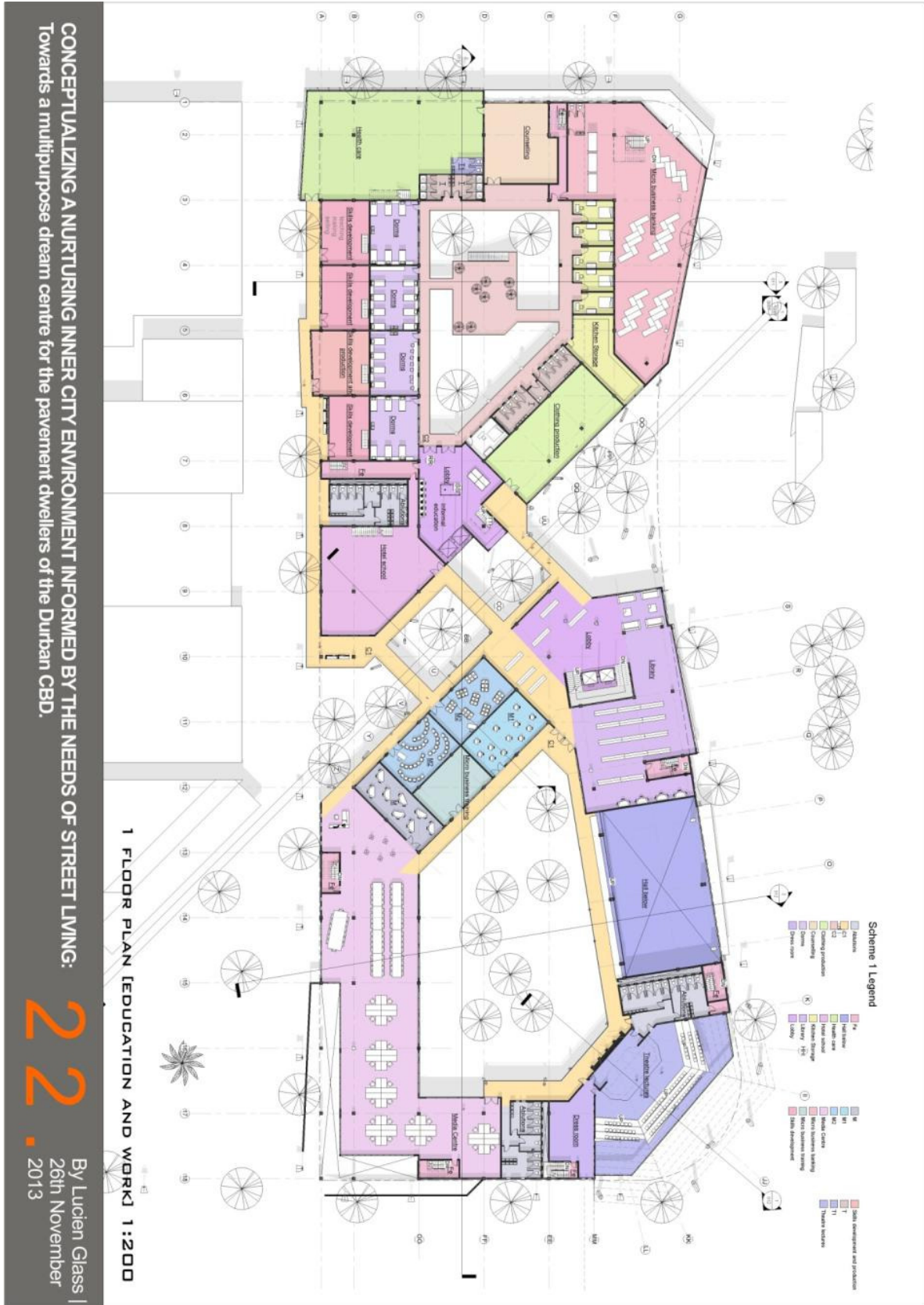
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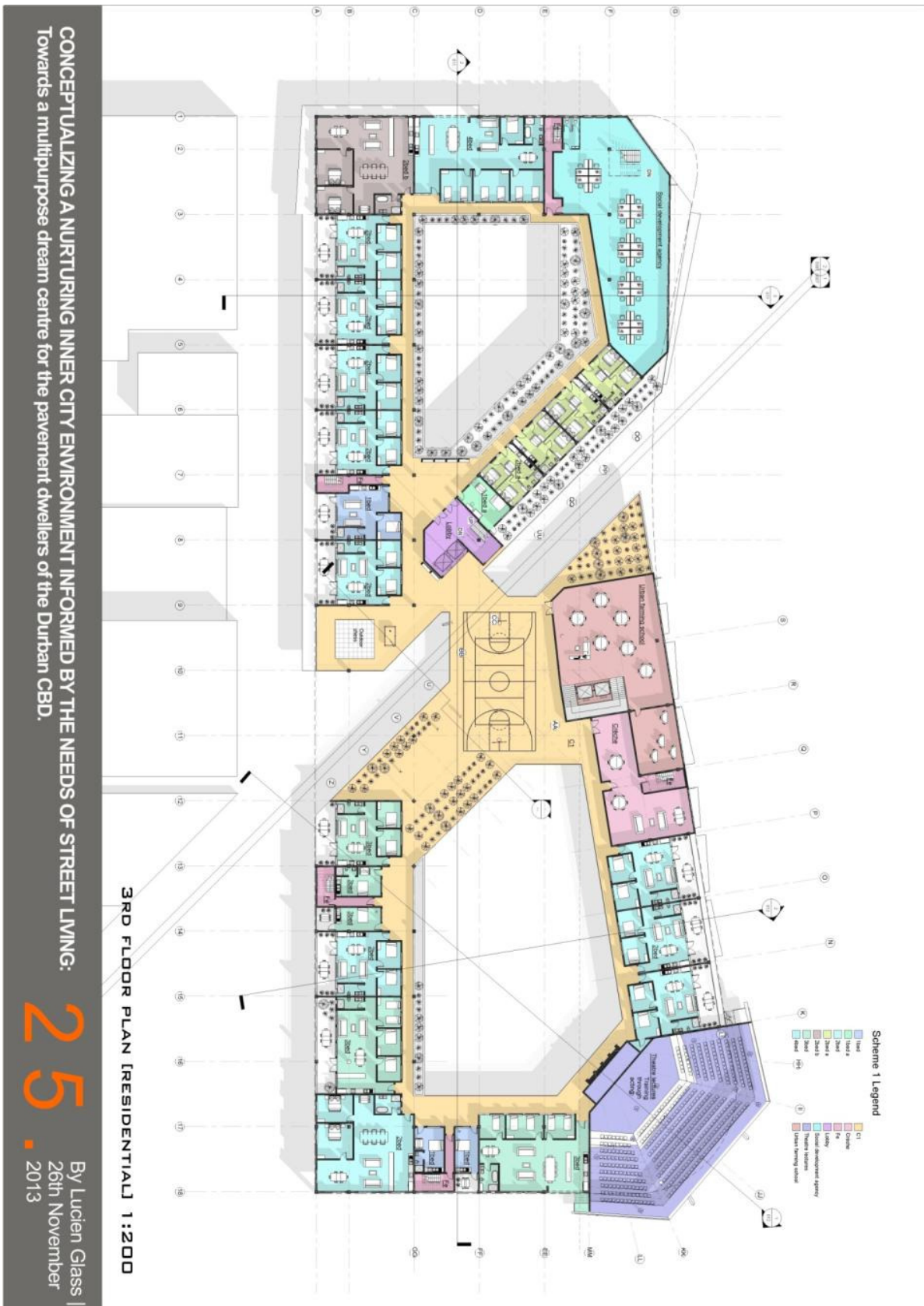
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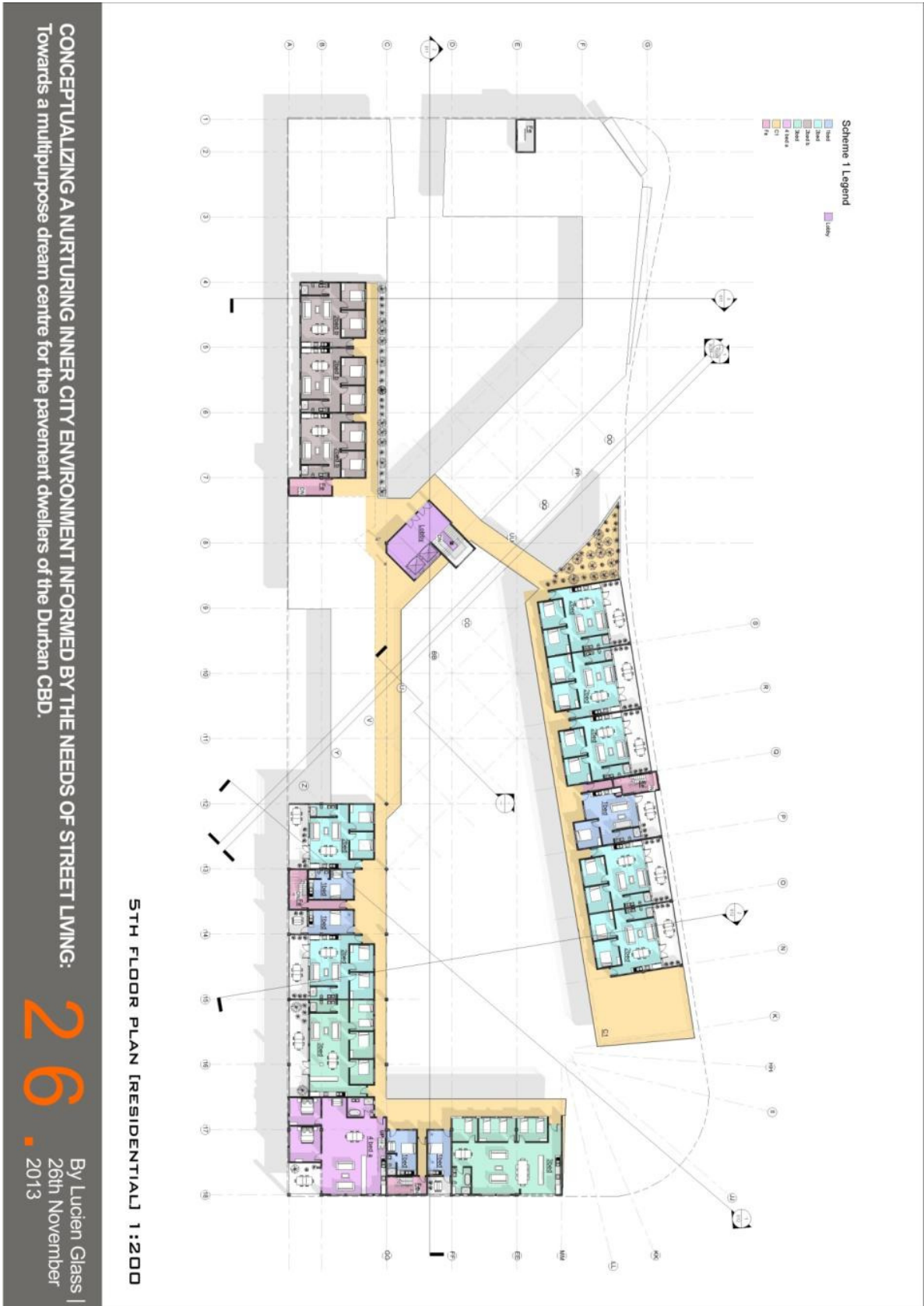
4TH FLOOR PLAN [RESIDENTIAL] 1:200



CONCEPTUALIZING A NURTURING INNER CITY ENVIRONMENT INFORMED BY THE NEEDS OF STREET LIVING:
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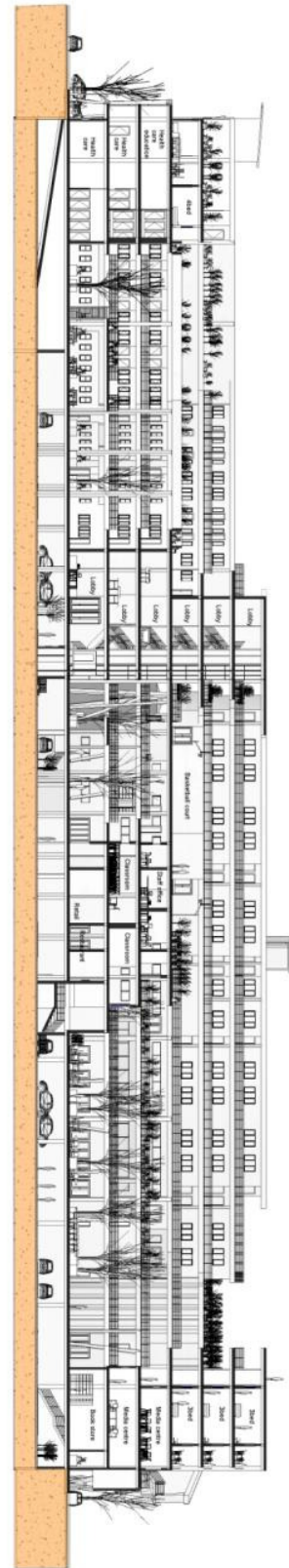
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SECTION A-A 1:200



SECTION B-B 1:200

CONCEPTUALIZING A NURTURING INNER CITY ENVIRONMENT INFORMED BY THE NEEDS OF STREET LIVING:
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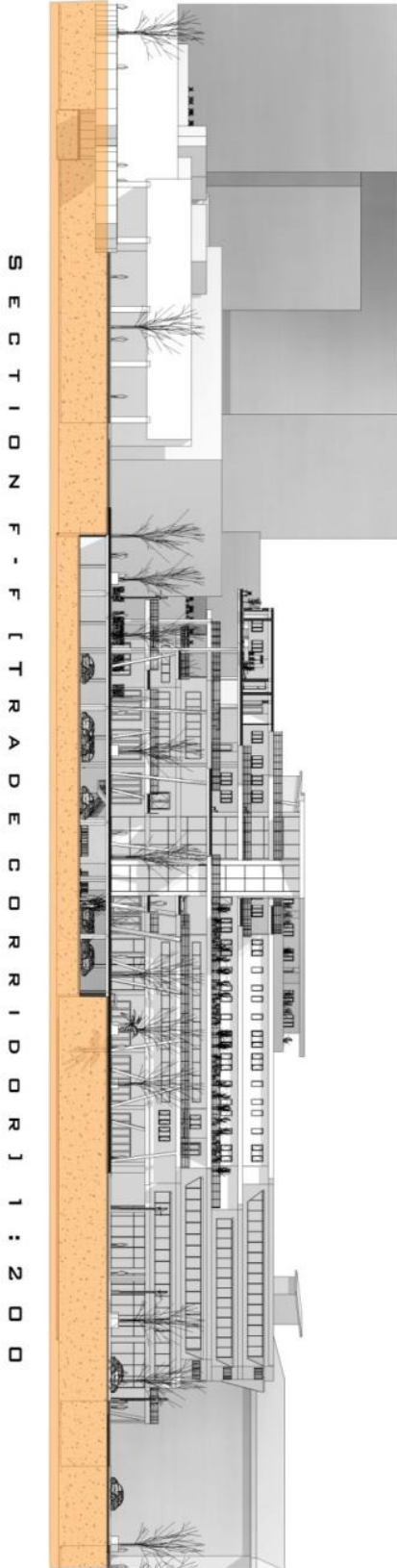
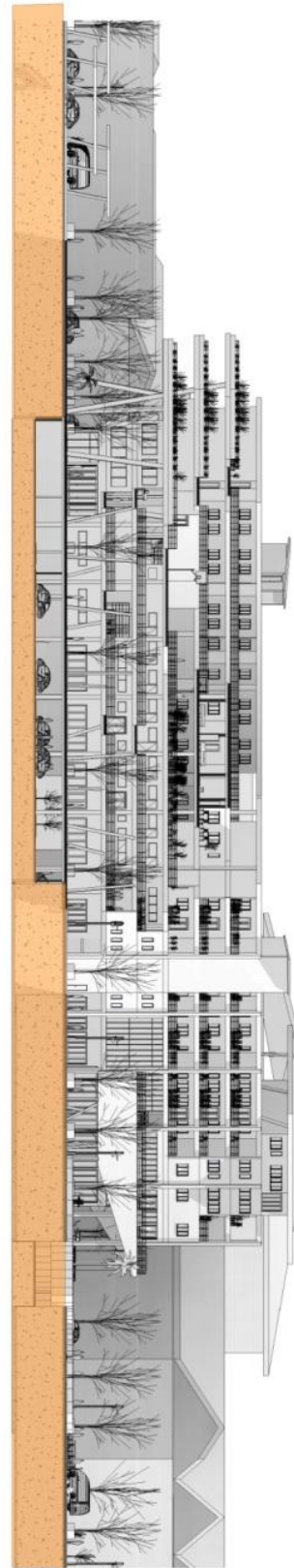
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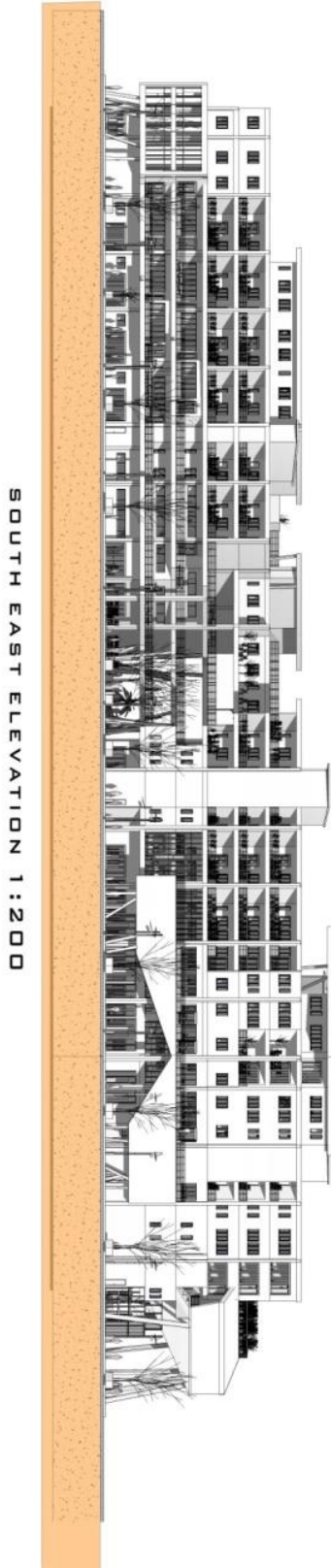
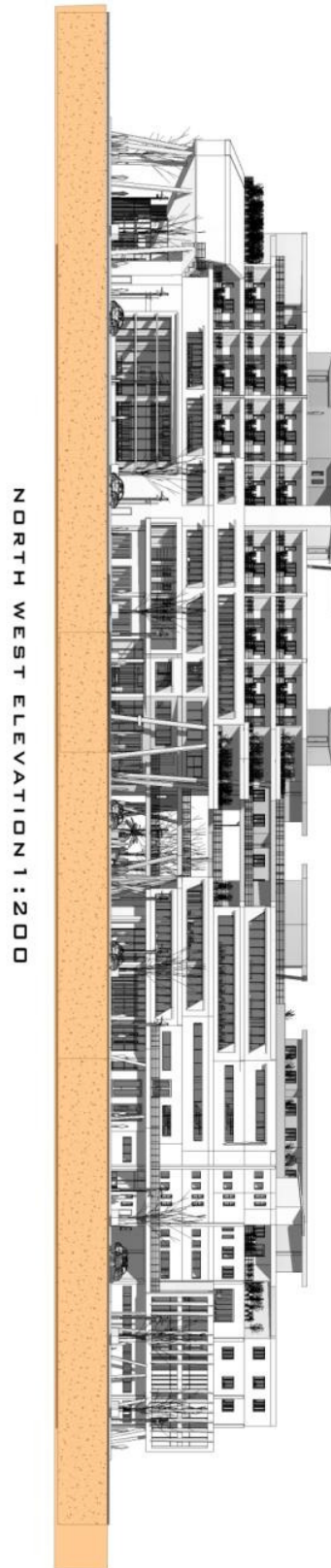
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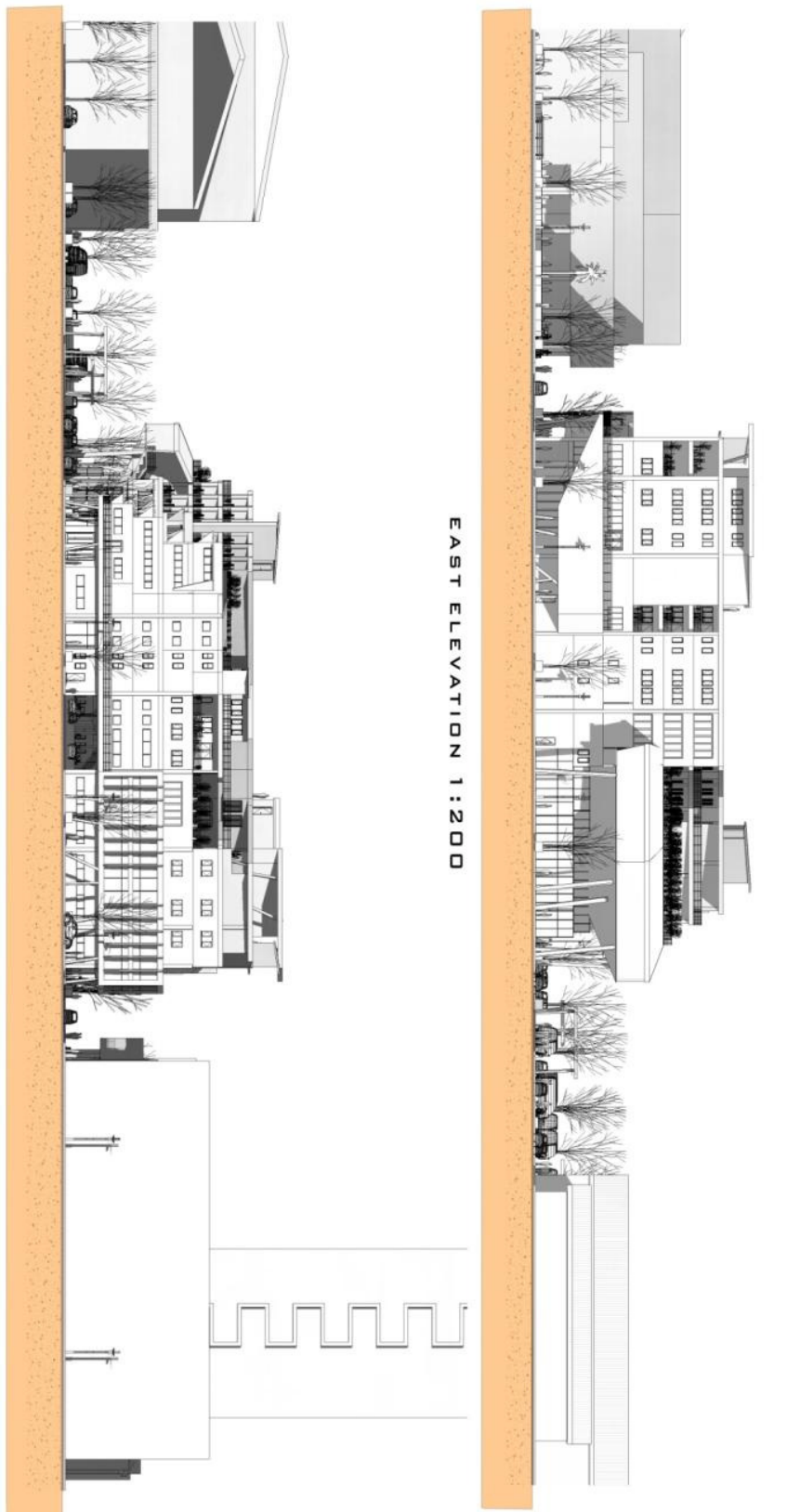
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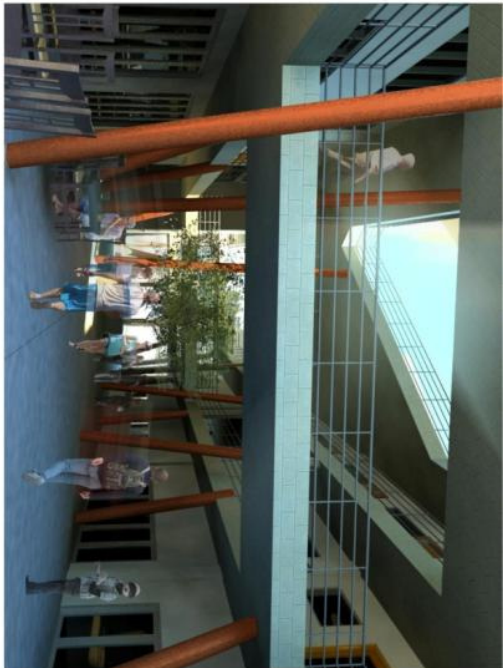
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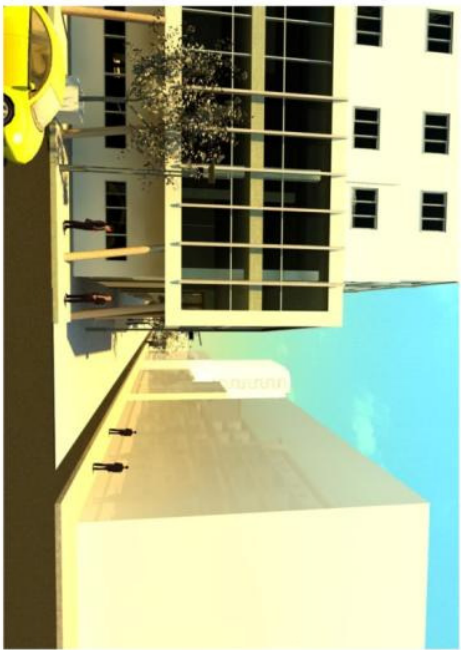
SOUTH WEST VIEW



FLORENCE NZAMA STREET



TRADE CORRIDOR



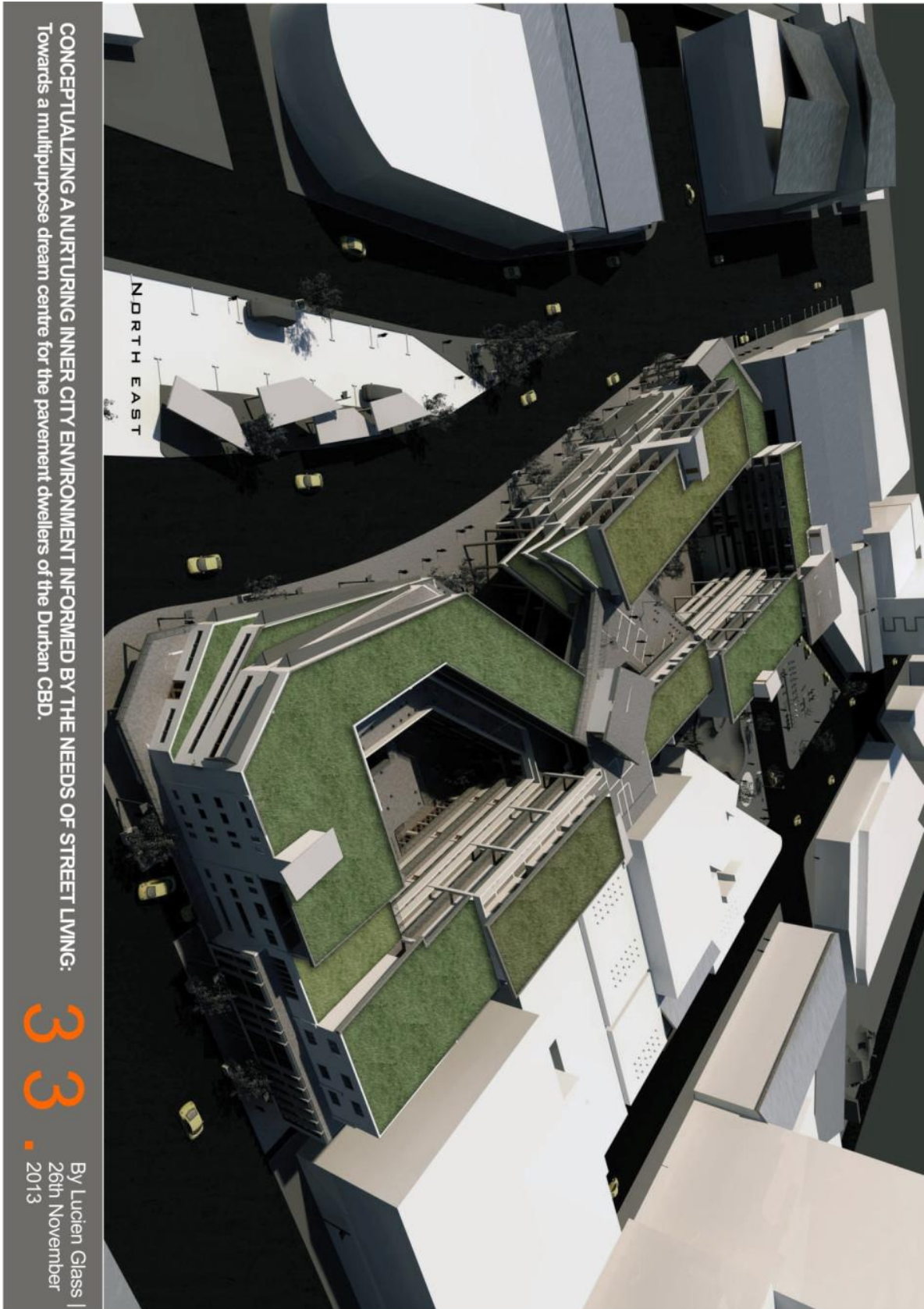
PALMER STREET

CONCEPTUALIZING A NURTURING INNER CITY ENVIRONMENT INFORMED BY THE NEEDS OF STREET LIVING:
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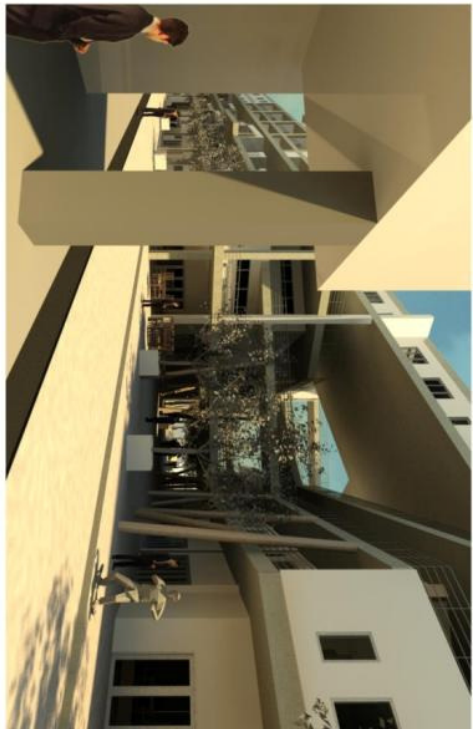
CONCEPTUALIZING A NURTURING INNER CITY ENVIRONMENT INFORMED BY THE NEEDS OF STREET LIVING:
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ENTRANCE THROUGH TRADE CORRIDOR



SOUTH ENTRANCE TRADE CORRIDOR



BIRDS EYE PERSPECTIVE

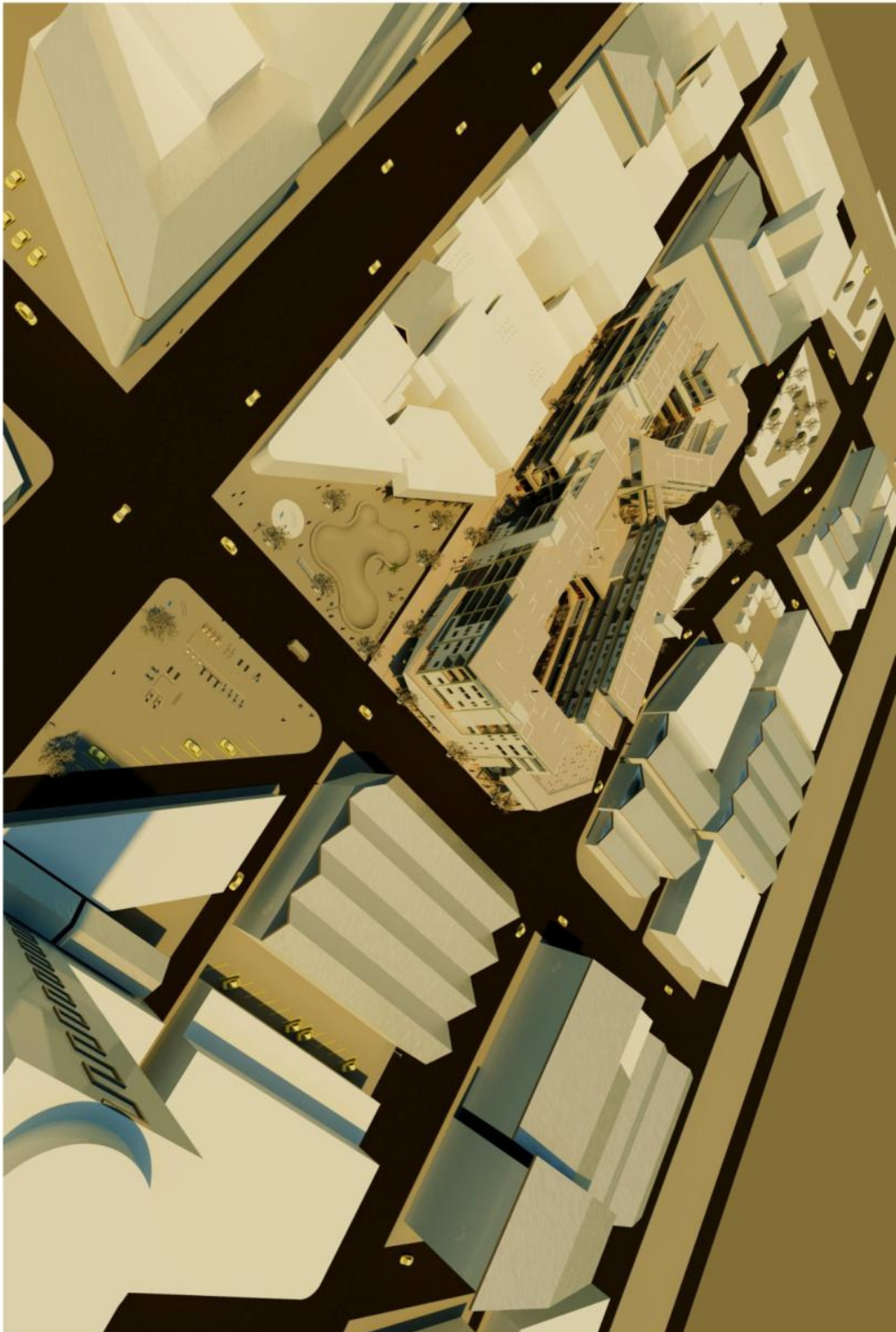


TRADE CORRIDOR

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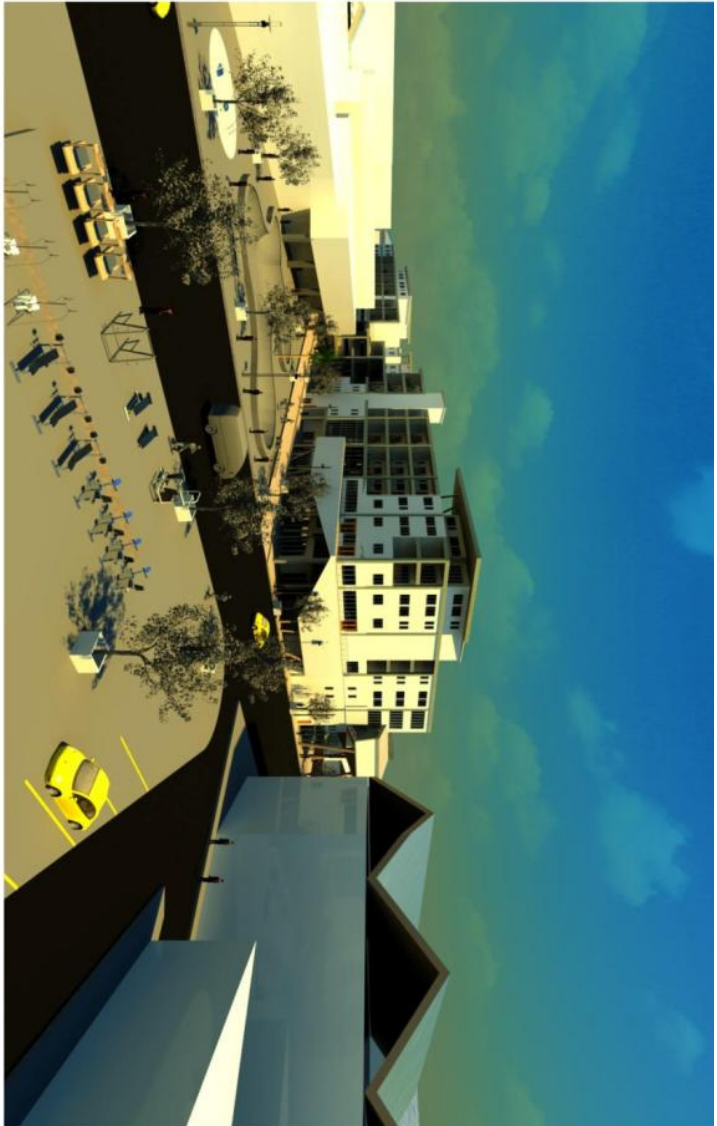
SOUTH EAST PERSPECTIVE

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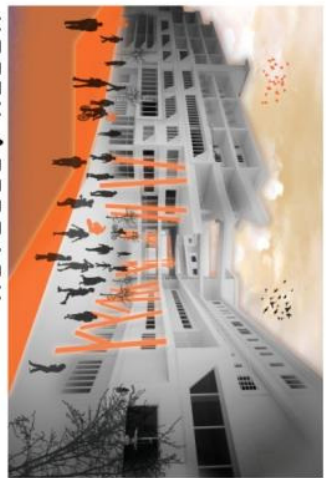
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SOUTH EAST PERSPECTIVE



VIEW ALONG NORTHERN EDGE



NORTH APPROACH



SOUTH APPROACH



PRIVATE COURTYARD

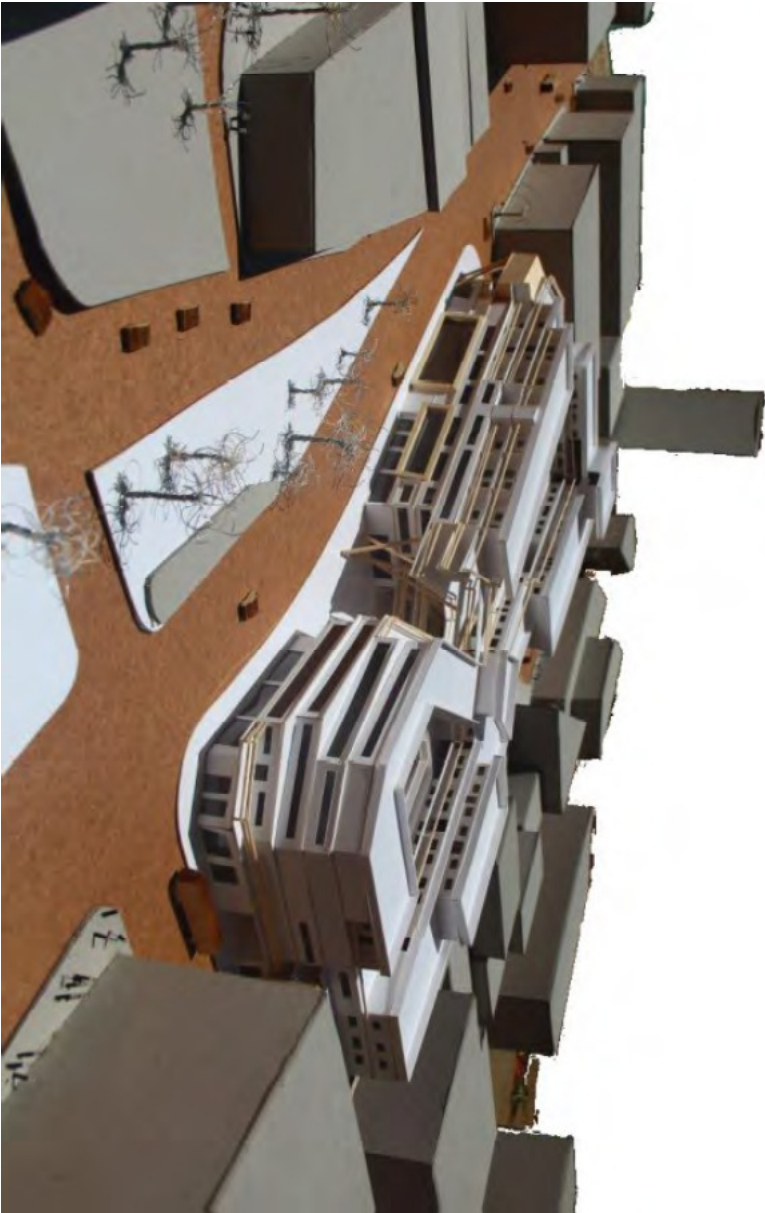
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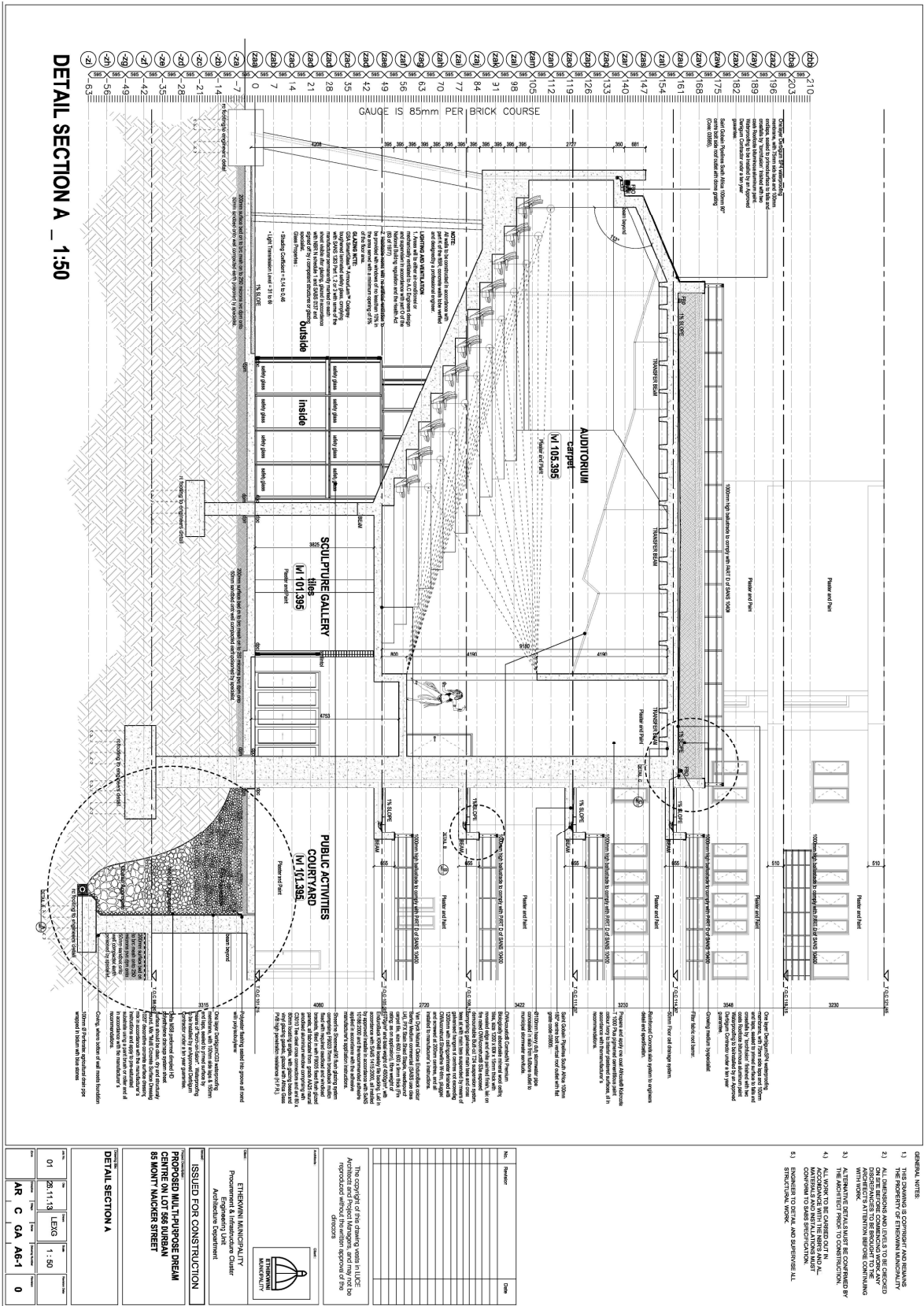
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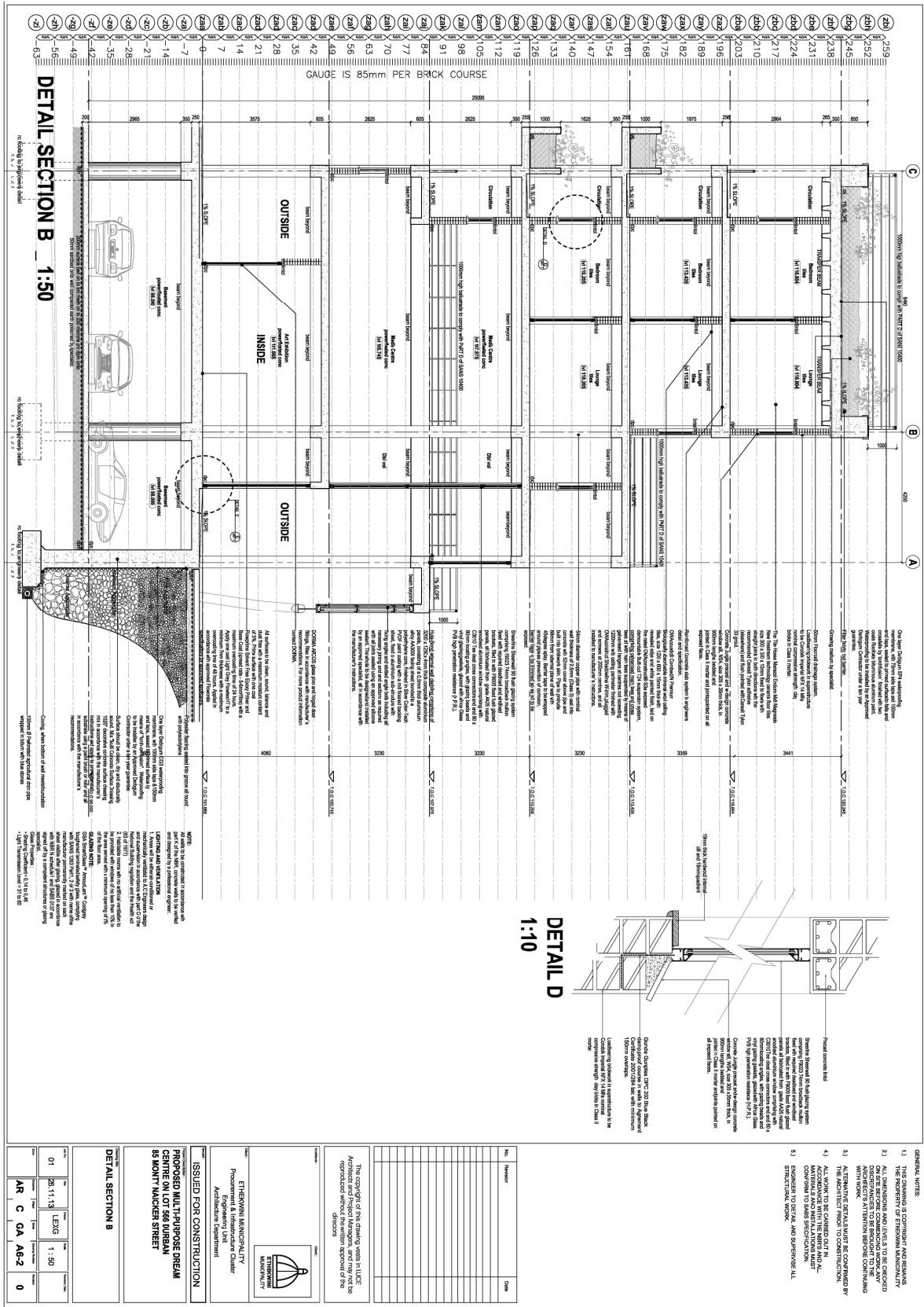
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ETHIOPKIN MUNICIPALITY
Procurement & Infrastructure Cluster
Architectural Department

ISSUED FOR CONSTRUCTION
PROPOSED MULTI-PURPOSE DREAM CENTRE ON LOT 568 DURBAN 85 MONTY NACKER STREET

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DETAIL SECTION B

