A dissertation submitted to the Faculty of Architecture
University of the Witwatersrand in fulfillment of the
requirements for the Degree of Masters in Urban Design.
Johannesburg 1997
DECLARATION

I declare that this dissertation is my own unaided work. It is submitted for the Degree of Masters in Urban Design at the University of the Witwatersrand, Johannesburg.

It has not been submitted before for any other degree or examination at any other University.

M J WOLTERS
17 October 1997
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ABSTRACT

Johannesburg, like many other major cities in Third World nations is facing major urban influx. This urban influx is causing extreme pressure on the existing social and economic fabric. This in turn has resulted in fragmentation on a number of different levels - social, political, economic and physical. The spatial organisation of the city appears to be incapable of coping with this fragmentation. The means or method needs to be discovered where the fragmented elements of the city can be reunited and absorbed into the city system.

This dissertation seeks to discover how the dichotomy of first world settlement and third world settlement can be resolved using tools, either yet to be discovered, or already inherently within the system. It seeks to understand the relationship between the existing urban economy and social structures and the new informal economy and social structures that are emerging. What is the common element that binds these diverse aspects together into something that creates a new urban core.

While the third world cities are made up of remarkably diverse ex-colonial and neo-colonial populations, there is a certain commonality that binds them all together. The commonality that binds all of these units together is the requirement for public transportation. It is perhaps this element that is the uniting factor in addressing the fragmentation, rather than broad brush first world masterplanning. The problem with fragmentation is not only what causes fragmentation, but what are the basic elements that allow either the reintegration of this fragmented element of society to become part of the city itself, or a recognition of which elements do not need to be integrated, but by their isolation create yet another energy within the city.

With the extremely rapid rate that urbanisation is occurring, and the pace at which people are moving into the cities, levels of accessibility need to be resolved extremely quickly. Informal trading, as well as illicit trading is rapidly escalating out of control. A common purpose or duality of purpose needs to be discovered in order to integrate the new dynamics of the city into a single purpose, or at least a purpose that has sufficient overlaps to allow for general consensus. The intention is to learn from other precedents, rather than by attempting to reinvent the wheel.
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1. PART ONE  PROBLEM STATEMENT AND SCOPE

1.1 INTRODUCTION

"Explosive population growth and a torrent of migration from the countryside are creating cities that dwarf the great capitals of the past. By the turn of the century, there will be 21 megalopolis with populations of 10 million or more. Of these, 16 will be in developing countries including some of the poorest nations of the world. Some of Africa's cities are growing by 10.4% per annum - the fastest rate of urbanisation ever recorded". (Time Magazine Jan 1993 - pg 27)

It is important to understand the underlying principles and systems that are involved in the growth of these cities. Can City and Urban Design address this rapid urbanisation and growth, or are some new principles and design guides required to understand this phenomenon? The development of cities in the 'third' world has developed unique characteristics and side effects.

Several First World cities have suffered major influx of people - primarily because colonial powers have finally relinquished control to the indigenous population, and are faced with the resultant flow of people to the 'mother country' in order to secure education, etc. Prime examples of this have been Mozambique, Angola, Rhodesia (Zimbabwe) and the East Indies. These immigrants - or nationals - have set up enclaves in the mother countries where they can. These enclaves have attempted to emulate the culture and building form of the mother country developing mini towns within cities. In a large number of situations however, this has resulted in a ghetto type situation, and a population fragmented both in culture and spatial understanding.

1.1.1 The Third World is a complex melting pot of different cultures facing many problems. Problems of major urbanisation, formal and informal economies and problems of scarce resources, resulting in the fragmentation of the cities. This fragmentation has posed a problem for urban designers. How does an urban designer plan for and cope with the fragmentation? How do you design a robust framework that addresses the formal sector as well as giving access to the informal one.

1.1.2 This dissertation sets out to explore the causes of fragmentation, the types of fragmentation, and the developing cities that have apparently resolved the conflict, and to apply those lessons through comparative analysis, to Johannesburg. Given the different types of fragmentation, namely physical, political, social and economic, it is not the intention to restrict the dissertation to any one area in Johannesburg, but rather to the specific areas in which the phenomena of fragmentation and lack of access occurs. For the purposes of this document,
Insofar as they have been politically isolated (fragmented) from the CBD, the isolation and fragmentation has been a deliberate political decision taken during the apartheid era to keep different race groups apart and keep areas purified and 'white'. It is the intent throughout this document to constantly refer back to Johannesburg, comparing similarities and differences to arrive at a set of principles that can be tested using Johannesburg as a case study.

The development of a set of urban principles and a framework should allow for a philosophy that addresses the 'main stream' as well as the peripheral elements within the city. The intention is further to explore how the dynamic energy of the fragmented elements of the city can best be maximised to create opportunities for kinetic urban events, i.e., produce markets, etc.

A set of principles and rules are required that not only address the formal sector - but that which provide access to the city for the peripheral elements.

1.1.3 The dilemma of the urban designer is to design spaces that are not so specific as to exclude and fragment elements of the very population which the design is attempting to integrate into the urban system, or offer access to its facilities. The complexity of the developing city has a dynamic of its own. We need to harness this dynamic and design a mechanism that allows for maximum diversity with the minimum of structuring.

1.1.4 This dynamic is the melting pot where the first and third worlds meet. How this meeting point is handled is dependent on understanding the developing country, its historic background and cultural development. In order to understand what these requirements are, it is necessary to first gain an insight as to what a developing country is, what the pressures and formulating influences are. Only based on this understanding can a set of principles and an enabling framework be created.

1.2 URBANITY

Cities in developing countries have been placed under considerable pressure due to the rapid urbanisation that has been, and is, occurring. This urbanisation, by definition, does not imply urbanity, but rather a major influx of people into the cities. The people moving into the cities from the rural areas are certainly not urban, but rather people in search of work, (in search of) or a husband who has come to the city, or simply migrating because they have been evicted from their traditional places of work due to the economic climate.
1.2.1 This influx has had a resounding sociological, political and economic effect. "The price of a city's greatness is an uneasy balance between vitality and chaos, health and disease, enterprise and corruption, art and ingenuity." (Time Magazine - pg 34, Jan 1993). The cities are unprepared for the onslaught, the influx is incapable of handling the problem in the long term, is not geared up for the additional implications of massive influx, nor is the necessary capital or vision available.

1.2.2 Local authorities are often unable to control, or incapable of coping with the problem. "Ultimately the responsibility for making the cities livable rests with their governments and their people." Too often these governments become corrupt systems for dispensing benefits to agencies, employees and political supporters (Time Magazine - pg 34, Jan 1993). There has to be a will to govern and a will to make unpopular decisions. The current SA government is fully aware of the problems and indeed the solutions, but lacks the courage to make the necessary unpopular decisions.

1.3 POPULATION DIVERSITY

1.3.1 Growth in population does not mean an instantaneously urbanised people, and consequently traditional townplanning methods cannot necessarily address the problems. The resultant population growth in the cities has been accompanied by an informal sector infrastructure, and informal economic approach, since the economic activity tends by necessity, to be informal. The formal sector has not only been incapable of recognising this informal sector, but of incorporating it into its reckoning. The influx of people have therefore not been incorporated into the formal building process and certainly not into the formal economy.

1.3.2 The layers of 'urbanised people' in developing cities tend to fall into 3 categories (Dwyer DJ): those who have "lived there forever" "villagers" who still maintain their rural accommodation in addition to an urban address traders

but Turner characterises these layers into:
- Bridgewinders
- middle-upper classes
- consolidators

1.3.3 Johannesburg is characterised by being a city of many diverse cultures and nationalities - some through choice, some through necessity. The resulting cultural richness has not been allowed to reach its potential. "Yet the catalytic mixing of people that fuels urban conflict also spurs the initiative, innovation and collaboration that move civilization forward. The city is a place for replicating happy chances and making the most of unplanned opportunities (Lips.
1.3 By segregation and lack of integration the dynamics of cross-cultural interaction have not been allowed to develop. A culture that is purely interested in survival does not develop cultural richness. The meeting of these diverse cultures is the "melting pot" of Africa and the dynamic of the many cultures offers great potential richness to Johannesburg.

1.4 A substantial number of people are living within the city in spontaneous settlements. The local laws and by-laws have no means or method for addressing these settlements - and indeed, prior to the election of the "new government", no political desire to do so. Uncontrolled, spontaneous settlements can quickly paralyse a city and its economic development. Paralysis can occur due to land settlement in areas designated for other activities. Long and tedious processes are required to negotiate the removal and resettlement of spontaneous settlements. Often market forces, desirous of creating development, will relocate because the time frame of these negotiations are not conducive to economic timeframes. Planning in the conventional sense is inadequate, and ill equipped to deal with this problem, as a spontaneous settlement is precisely that - a settlement without major planning, either infrastructurally or economically.

1.4 JOURNEY OF EXPLORATION

This dissertation seeks to explore cities in the Third World which have become fragmented - fragmented into sectors that have little or no relationship to the existing "status quo", nor do these sectors have any historic, emotional, financial or political connection with the past - nor do they recognise any such connection, nor do they wish or desire to. This fragmentation - economic, physical, social and political - cannot be addressed by structure or traditional planning. Structure planning is aimed at a progressive incremental process aiming towards product rather than at a dynamic, changing and ever-flexible process. (Billbo) One of the questions this dissertation queries is - do all parts of the fragmentation need to be integrated into the city system (and indeed would it benefit the city)? Access by the urban poor to the city is critical - critical as part of the cycle that not only allows the city to re-invent itself, but crucial for the continuing existence of the urban poor. Urbanity should provide for the complete cross-section of society and resulting cultural interfaces and conflicts to create the dynamic and uniqueness of an urban place.

1.5 FRAGMENTATION / ISOLATION

1.5.1 Fragmentation can occur on a number of different levels:

* Physical - (separation of race groups into separate areas by law and designating certain areas like Soweto).
Political - (a deliberate political decision to separate people)

It is often in the interests of a government to keep the fragments separate. Vested interests and consequent deployment of available capital will dictate and shape development. The political rhetoric is seldom backed by private finance! South Africa and Johannesburg specifically, is not unique. The forces that have shaped this colonial country have many similarities to other colonial cities, the commonalty being the resultant fragmentation.

1.5.2 Historically cities have chosen to ignore the disempowered peoples and spend capital where vested interests have dictated the best returns (not only monetary) will occur. In the following chapters the intention is to establish the historic origins of the various fragments, and to further explore how typical or atypical Johannesburg is, in terms of these principles, and what can be done to in reunite the isolated elements - if indeed they need to be reunited.

1.6 FACETS OF JOHANNESBURG - THE ANIMAL

1.6.1 Political fragmentation

Johannesburg is a combination of a first and Third World city. First World in terms of the infrastructure. Third World in terms of the characteristics of a colonial city having gained independence and facing the problems of mass urbanisation brought about by the movement of rural people to the city, and the lifting of influx control (i.e. political attempts to control a situation already out of control). Crossroads of the Cape is a prime example of urbanisation, or rather the influx of people in spite of a political attempt to deny access. This political 'planning' is not unique to South Africa, but has been practised in many colonial cities.

1.6.2 Colonial Anarchieal

Political fragmentation in South Africa and especially Johannesburg, has been characterised by the physical layout of our city. Unlike Cape Town with its pre-industrial historic core, Johannesburg has been a mining town. The segregation and fragmentation has resulted in areas within cities, and the classic apartheid philosophy, legalised through acts of parliament, have further fragmented the elements of the city.

*Social - (not permitting cross relationships to develop, but favouring one social class over another)
*Economic - (exclusion of a group from formal economics and to spend more economic resources on one sector of the population)
*Cultural - (the dominant ruling sect looks after its own culture and people at the cost of others)
*Political - (a deliberate political decision to separate people)
1.6.3 Cultural Diversity

Planning and urban design in South Africa is confronted with a highly volatile decision-making context, which is likely to be influenced by unfamiliar cultural values. A number of anthropological precepts are examined in developing a culturally responsive approach to physical planning and urban design. (Boden - Town and Regional Planning No. 35 - (P 11-23 Sept. 1983)). It is extremely difficult and arrogant to superimpose a cultural "design" on a nation as diverse as South Africa. The American or European approaches are inappropriate for the local scenario and cannot be simply superimposed. A careful analysis and study of local conditions, and an understanding of the people needs to be adopted.

The different cultural diversities that constitute our cities - and Johannesburg in particular, create a richness that has up until now, been unexploited. There has been a great fear of creating a melting pot of cultural diversity, and indeed an active movement to protect cultural identities and locations, rather than one of integration.

1.7 FACETS OF JOHANNESBURG - A CITY FRAGMENTED

The definition of colonialism is the establishment and maintenance for an extended time, of rule over an alien people that is separate and subordinate to the ruling power. (Anthony King-Social Power and Development - 1976).

Johannesburg is a colonial city - not necessarily in physical terms, but certainly in terms of the philosophy that has dictated its town planning and politics. It doesn't have the traditional characteristics of an original settlement with a settler component, and a deliberate attempt by the ruling foreign settlers to create a separate entity - but was rather founded on the principles of separation and fragmentation. Economic infrastructure was concentrated in the predominantly white areas - the labour force was separated, and if needs be, relocated for convenience, with entire communities uprooted and relocated "for health reasons", resulting in a city that is totally fragmented, politically, economically and socially.

1.8 FACETS OF JOHANNESBURG - TODAY

1.8.1 Johannesburg has been faced with a massive influx of people from the informal sector. It has created a dynamic that is both exciting and frightening. Exciting from the point of view that Johannesburg is a unique city that is not only undergoing urban decay and decline, but simultaneously undergoing urban growth and revitalisation - (though not necessarily as the traditionalists would see revitalisation). The city has never been as utilised as it is today. The informal sector has "taken over the city", and endowed it with life and vitality (and crime!). Frightening from an urban design, tourist and business point of view. Design needs to allow
for a multi-faceted approach giving access to the poorest of the poor and the immigrant, and others. One of the problems facing the designer is to over design, thereby limiting the options a space is capable of fulfilling.

1.8.2 It is only too apparent to even a casual observer, that the "new South Africa" which is emerging through a rather difficult childbirth stage, is characterised by a multiplicity of social groups, each with its own world view and values. For urban designers and planners to cope with these conditions will not only require different techniques (Boden 1987), but also a better understanding of culture and its influence on the choices confronting urban designers, planners and client groups.

The formal sector and informal sector are at total odds. There has been no recognition as to the incorporation of the informal sector economy into the formal. No recognition as to the spontaneous housing settlements, and a great fear for the "unwanted" in the city!

The example of Spradley's (1970) study of hoboes and drunks in Seattle, was used in America to illustrate how groups meet the criteria for classification as a culture, and how different the wider society's perception of these people is from reality and from their peculiar world view. Only through this type of intensive analysis, and the understanding of the insider or "native point of view" (Geertz 1976) which this provides, can outsiders grasp the significance of various phenomena for members of cultures alien to the researcher, planner or urban designer.

Furthermore it appears that our fractured, pluralistic modern metropolitan societies display minimal consensus regarding perceptions of and meanings attached to the urban environment. How can the designer or planner then add to or modify the urban fabric without imposing totally alien or unsympathetic solutions? (Boden 1993)

1.8.3 The flight to the north of major business interest has followed similar trends in other cities, particularly in the United States, but what has ignored is where its prime source of labour is situated. Public transport is severely limited, and access of the labour force to their place of work is under pressure. The taxi industry that has surfaced in the last ± 6 years is a direct response of the private sector's (often informal) response to what should be public sector initiatives. The growth of Johannesburg and the fragmentation of the city is to a certain extent governed by its public transportation systems and economy.

1.9 PROCESS

Johannesburg has unique characteristics, but common threads with other developing cities. The process of this document is to analyse and compare the common threads and arrive at a
While there might be certain physical similarities between Johannesburg and other developing cities, I believe it is the principles and common characteristics of a developing 3rd world country (through comparative analysis), that ally Johannesburg with other developing cities that will create a framework, that best addresses the urban problems facing our city.

This analysis does not restrict itself to any particular site, but rather seeks to address the different situations of fragmentation. It serves to find a duality with other colonial cities facing and having faced similar dilemmas, and seeks to find a series of design principles that address the fragmentation of the city, where and if necessary. The process is intended to use comparative analyses to ascertain where the commonalities are, and where the precious unique aspects exist, to establish a value system capable of handling the dynamic and exciting city with its opportunity of becoming the "melting pot" of the cultures of Africa.

1.10 CONCLUSION

Johannesburg is at a fascinating crossroad of its development. It has the opportunity to become the economic flagship of Africa. The balance of Africa is looking at South Africa, and Johannesburg in particular, to take the lead.

The conditions necessary for the long term integrated and sustainable regeneration through intervention needs to be put into place. The principles for this integration of the fragmented city needs to be clearly defined and understood at all the different levels, Accessibility, both physical, political and economic; connectivity, locally and globally; land uses, conservation and the urban eco-system.

In order to understand the elements that fragment the city, it is necessary to explore the historic basis of other developing cities in general, in order to extrapolate the lessons and principles that have worked, and arrive at a basis to evaluate Johannesburg against, and develop an appropriate framework.
PART TWO

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2.3.3 Late Colonialisation
2.3.4 Post Independence
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2.12 CONCLUSIONS
2. PART TWO

"What is civilisation? I don't know, I can't define it in abstract terms - yet! "Great nations write their autobiographies in three manuscripts, the book of their deeds, the book of their words and the book of their acts. Not one of these books can be understood unless we read the two others, but of all the three the only trustworthy one is the last". (Kenneth Clark - Civilisation 1969)

2.1 INTRODUCTION

Towns and cities in both developing and industrial countries have been faced with massive urbanisation - with half the world's population living in developing countries. Much of the future development towards a fully urbanised world will be concentrated in the Third World - (D J Dwyer) Urban populations in developing countries are growing twice as fast as those in industrialised countries. By the end of the century the balance of the world's urban population will be in the Third World. "However growth in population does not mean urbanisation or automatically nor can traditional town planning methods necessarily address the problems - a more informal sector infrastructure and economic informal approach is required". (D J Dwyer - Pg 27).

This chapter sets out to explore developing cities; what are the characteristics and principles that make and define a "developing country" as opposed to a developed country?

2.2 DEVELOPING COUNTRIES

An explanation and definition of the term 'developing country' is necessary, in order to arrive at a set of principles and common themes.

Time Magazine has suggested that it is more appropriate to divide the globe into 5 worlds, not three. (Boden 1982). The First and Second World being the same as previously, but the Third World being subdivided on the basis of resource and existing infrastructure, being the necessary basis to build an economy.
TABLE 1

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>CHARACTERISTICS</th>
<th>EXAMPLES</th>
</tr>
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<tbody>
<tr>
<td>Third World (520 million)</td>
<td>Developing countries with vital natural resources and international trade</td>
<td>Taiwan, South Korea, Malaysia, Mexico, Brazil, Zambia, OPEC countries, South Africa</td>
</tr>
<tr>
<td>Fourth World (980 million)</td>
<td>Some modern infrastructure and raw materials</td>
<td>Peru, Liberia, Jordan, Egypt, Thailand, Dominican Republic, Guinea Bissau</td>
</tr>
<tr>
<td>Fifth World</td>
<td>Very few resources and little development scope</td>
<td>Mali, Chad, Ethiopia, Somalia, Bangladesh, Ruanda</td>
</tr>
</tbody>
</table>

The response of these worlds to urbanisation has been based on their ability and available resources to address the planning problems.

TABLE 2 Categories of environmental despoliation by urbanisation and degree of resource exploitation.

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>CHARACTERISTICS</th>
<th>EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Third World</td>
<td>High population urbanisation High resource exploitation</td>
<td>Maximum rate of despoliation</td>
</tr>
<tr>
<td>Fourth World</td>
<td>High urbanisation Moderate resource exploitation</td>
<td>Moderately high rate of despoliation</td>
</tr>
<tr>
<td>Fifth World</td>
<td>High urbanisation Few resources, little exploitation</td>
<td>Moderately low rate of despoliation</td>
</tr>
<tr>
<td></td>
<td>Low urbanisation Few resources, little exploitation</td>
<td>Low rate of despoliation</td>
</tr>
</tbody>
</table>

Clearly what has had a major influence on current available infrastructure and resources has been the level to which a country has been exploited and colonised and consequently developed for whatever reason.

Colonialisation has played a major role in most Third World or developing countries and as such it is perhaps important to consider the different types of colonisation and reasons for colonisation. Countries were colonised for different reasons - which has had an intrinsic influence on their current situation.
2.3 COLONISATION

"Colonisation varied enormously according to the complex mix of societies involved - and the
motive for colonial expansion. The methods of exploitation, exploration and means of
administration varied according to the colonial power involved". (Third World Cities - David
Dradakis-Smith - 1978).

2.3.1 Mercantile Colonial Cities
Characterised by being primarily dominated by private companies rather than by
governments, namely in the pursuit of spices, precious metals, etc. The Europeans were
confined to small areas of the city resulting in an ethnic structural organisation of the city. As
the companies were primarily interested in trade, there was little impact on the existing urban
system of the city.

With the industrial revolution however, greater profits and productivity were required which
had an immediate impact on the attitude of the colonial masters.

2.3.2 Industrial Colonial Cities
With the industrial revolution a greater demand for raw material and food developed. Local
communities (i.e. home based) were unable to supply the demand and consequently there was
a requirement not just for specific products but for land and the consequent acquisition of
resources - which occasioned land invasion and economic motivation in colonisation was
expressed in three areas - the effect on Culture (social, legal and religious); the effect on Technology (transport,
communication, etc., resulting in the destruction of existing urban morphologies and the
creation of new districts); and the effect on Political Control - namely the usurping of local
control over the indigenous community.

2.3.3 Late Colonial
After two world wars, Europe was naturally pre-occupied with its own affairs. A heightened
dissatisfaction with affairs in their own countries resulted in a major migration of blue collar
workers to the 'developing worlds', which in turn restricted available work for the local labour
force - thus resulted in an obvious dissatisfaction and in many case led to political uprisings,
and ultimately independence.

2.3.4 Post Independence
A major urban influx of people into the city in search of work opportunities. Europe, short of
labour encouraged the emigration of skilled labour, thereby stripping the colony of skills - but

40. Palaeotechnic Inferno

41. Model Industrial Village
Simultaneously, the local migrant labour - without unions or protection - was consequently easily exploited. This period saw the beginning of an informal sector economy.

Trends in colonial cities after independence have seen a major influx of people into the urban areas from their rural bases. Some of the expatriates returned to their native lands, stripping the cities of a valuable skills base, and a lack of work in the cities resulted in the development of an informal sector economy.

The trend in Europe, which was short of labour, was to encourage the emigration of skilled labour, thereby stripping the colonies of skills. Migrant labour - without unions and consequent protection, was vulnerable to exploitation, and because of lower costs, highly desirable, and it became economically viable for First World industry to look seriously at this cheaper labour pool.

2.3.5 Neo Colonialism (1960 - 1970's)

During this period the cost of labour in Europe had risen due to trade unions and political changes, resulting in a changed attitude to the use of 3rd world labour. Companies, to avoid union issues, shifted manufacture to Third World countries to keep production costs down. The large informal sector of the 3rd world assisted in maintaining low labour costs.

This new investment by the First World in developing countries resulted in a major urban influx of unskilled labour. There was an unprecedented incorporation of women into the labour force as they were non-union, docile and cheap. This incorporation of women and their families into the city resulted in demands for basic services such as housing, transport and social services.

With the development of public transport, migration patterns changed, with migrant workers "commuting" to their place of work, over far greater distances, and for shorter times. With little or no transport visitation to the rural areas, migrant workers would stay primarily in the city and visit the rural bases periodically. The development of public transport allowed for these visitations to be on a more frequent basis. The family structures of the migrant workers changed to accommodate the different life styles, as did the traditional roles of the husband and wife. The role of the woman as a keeper of the household and minder of children changed to one of being not only economically active, but to supporting the household.

2.4 Changing Role of Women

During the colonial period the traditional status quo was that the men entered into wage labour, while the women remained the main providers of the household.
In the post-colonial era, in the formal sector, this situation changed for a number of reasons:

- The changing urban diets reduced the need for surplus local crops, thereby freeing
  women from agricultural labour.
- Mass production superseded local crafts with cheaper products, further reducing income
  production of women.

The result of women being released from their traditional roles was the beginning of a
migration in search of work to sustain their households. The demand for women in the labour
market was high for the reasons explained in 2.3.5 - but women moving to the city had a
major impact on the erosion of traditional values with regard to parental control. The children
were often taken to the city with disastrous consequences or left with the grandparents with
equal disastrous consequences.

Many of the men were unable to find employment in the formal wage economy and were
forced to join the informal sector, often at the cost of their families. The women were
abandoned and forced to find domestic work in order to sustain their families or to move into
the informal sector that the males had abandoned due to lack of profitability.

2.5 COMMON CHARACTERISTICS OF DEVELOPING COUNTRIES

One of the major characteristics of developing cities is the relationship between the colony
and the colonial power. It creates a set of dynamic tensions which are the result of the
dominance of one nation over another, and the resultant changes in the culture of the
dominated society.

2.5.1 All these changes were products of a cultural contact between a sophisticated, industrialised
colonial power with its own economic motives, and with a traditional agrarian or craft based
economy.

2.5.2 Developing countries, while not demonstrating the same physical characteristics have similar
principles - Johannesburg, while not having the basic colonial layout, as for example, Cape
Town, has the same characteristic political principles of a colonial settlement, namely:

2.6 COMMON CHARACTERISTICS

- A desire to segregate the urban poor
- The informal sector and informal economy is not considered part of the formal economy
- Planning tends to be either top down or middle out - with foreign expertise being imported
  - as there is a belief that it is not locally available.
- The economic role of women is not recognised.
- Land tenure is not offered to the lower economic sectors
- Inadequate public transport restricted the movement and sphere of influence of the urban poor.
- A political will emerged to restrict access of the rural and urban poor to the city to limit the problem of urbanisation and the resultant problems.
- Massive influx of rural people to the city in search of work
- A pressure on the urban economy to provide immediate infrastructure.
- Differing levels of services and infrastructure with the urban poor having restrictive access, and the bulk of the services being directed at attracting development.
- City divided into various sectors, i.e. colonial city, workers city and industrial city - a city fragmented.

2.6.1 All products of culture contact situations between an industrialised colonial power and traditional agrarian or craft based economy.

2.6.2 Manifest certain comparable spatial characteristics both in terms of the relationship between different cultural settlements and within each settlement are, between its component parts, characterised by cultural pluralism.

2.6.3 Promulgate deliberate residential segregation 1960 until now, now attempting integration at national, cultural, social, economic and ethnic levels, with a history of mistrust and fragmentation.

2.6.4 All have a problem of housing, shortage of economic resources, underdeveloped communication systems, and a lack of institutional infrastructure required to deal with social, administrative and political needs.

2.7 LEVELS OF DEVELOPING CITIES

King divides the colonial or developing city into 6 levels of comprehension:

2.7.1 Global.
The traditional value systems of the culture are ignored and the cognitive knowledge and global assumptions of urban systems are assumed and absorbed fully. The culture transcends boundaries and assumes a global structure, reinforced by the electronic communication system.

The developing city common in India, UK, etc. in various forms, develops an anonymous system that could render one city indistinguishable from another, i.e., monopoly capitals. The science fiction writers have explored this city to the extreme - but perhaps the best example is...
the American Chain Hotel. It doesn't matter what country you are in - you know exactly what to expect, what you are getting and at what cost. Its position is irrelevant. There is security in an insecure world.

2.7.2 International - or imperial:
Colonialism has regarded people and raw mineral wealth as a resource that can be transported at will and at desire. As a result of these economic and political policies, people (and goods) have been transported without any recognition of culture, from one area to another and without consultation.

2.7.3 National or societal:
The function or status of this city is a result of its function, scale and locality. Its function and strategic importance may be based upon its economic or commercial importance, its position in an administrative, political or strategic capital. The role that the national or societal developing city takes is based on its status and relevance within the society and is also a result of its functions, i.e. communication systems - such as railways, ports or strategic land resources.

2.7.4 Urban
Social, physical and spatial development over time within the system, e.g. the Malays in Cape Town have developed a cultural base that has influenced all walks of life - from the architecture to the food - that have become an inherent part of the history and culture of the cape.

![Figure 2: Classification of Urban Types Adapted from Fox.](image-url)
Various cultures brought together - social hierarchy based on criteria of race and nationality.

2.7.5 Sector (Community)
- Social and spatial structures and relationships
- Urban forms not reproductive, but unique entities formed by combination of the dynamics of the differences.

2.7.6 Unit (Institutional)
The way a society structures itself is manifested by its dwelling units, its banking systems, its schooling, and how it organizes its social events, as well as how it delivers such elements as housing and residential components.

2.7.7 The society of a developing city operates at many different levels and layers, be it the macro level (global city), or the micro level of the unit. The developing city operates not only in relation to the levels described by King, but also in terms of segments.

2.8 COMPONENTS OF THE DEVELOPING CITY

The city tends to be in two or three segments - the original settlement, the colonial sector and the migrant segment. What unites (or divides the city tends to be the cultures of the city, (e.g. the mix of the nations and value systems); the technology of the dominant culture, (e.g. time, holidays), and thirdly, the power structure and the degree of social and ethnic segregation, or its composites such as Johannesburg.

As King says, the dominance-dependence relationship intercedes at two levels. First, the colonised society is dependent on the metropolitan. One consequence of this is that the colonial settlement is primarily devoted to political, financial - (namely export of raw materials), military and administrative functions. Their inhabitants keep order, administer justice, control aspects of the economy but not, as in the case in the industrial city, generate production, except for the production of materials for the ‘mother country’. Johannesburg, Angola, Mozambique are prime examples of this. It is this kind of phenomenon which Castells (1972), has in mind in his concept of ‘dependent urbanisation’: urbanisation takes place in the colonial society but the industrialization which historically has generated urbanisation in modern politically autonomous societies, takes place in the metropolitan society.

Significantly, the colonial urban settlement in the Indian colonial city consisted of the “cantonment” and the “civil station”. In the civil station of a typical, small town, lived those members of the colonial bureaucracy whose political, administrative and cultural functions are manifest in their designations, the ‘collector’, ‘magistrate’, ‘judge’, ‘district superintendent of
police', 'civil surgeon', 'missionary' and 'teacher'. In addition, there were representatives of European business interests as well as, in the later stages, those members of the indigenous society who either belonged to the colonial bureaucracy or who subscribed, economically and culturally, to the values of the colonial system. In the cantonment lived the army, the ultimate means of social control. The colonial urban settlement then, contained the 'managers' of the colonial system'.

2.9 URBAN MANAGEMENT IN COLONIAL CITIES

"The colonial city rarely has urban management as the planning authority is part of a vested interest". King (1976). The resources of a colonial city are primarily orientated toward the goals and objectives of the political agency that is holding the power and control. Johannesburg was systematically "colonialised" after 1940 by the Afrikaners - imposing a will of actively taking control. (The Broederbond being one of the agencies used). Planning tends to be orientated towards the attracting of development rather than what is best for the constituents of the city.

This tends to result in a different level of social, technical and political development. Energy, infrastructure and political involvement tend to be expended where they are most likely to have the best economic exposure and results - rather than addressing the actual problems of the city and the urban poor. This development is primarily geared to making the environment attractive to the First World at the cost of local development i.e. neo-colonialism.

The resultant dominance of the ideology of attracting development and expertise at the cost of local enterprise has resulted in a dependence on First World, and possibly inappropriate systems and solutions. Solutions that are not necessarily geared towards specific local needs - but are rather based on 'imported solutions' without the necessary understanding of the local philosophy or needs. The sophistication of the solution often transcends the localised problem - and results in inappropriate (and costly) mechanisms being implemented with a long-term physically, socially, and financially burdensome onus being placed on the local population, a burden they are often forced to carry long after the experts have departed.

A prime example of this has been the construction of sports stadia (for example) in rural areas, with highly sophisticated electronic equipment and management systems, totally inappropriate to the management structures and requirements of the area. After completion, without either the capital or expertise to operate these systems, they fall into disuse. Major capital has been consequently redirected into non-productive economic areas at the cost of potentially beneficial projects.
The city, with its complex of cultural pluralism but one where one particular cultural component has an overdetermined monopoly of political power (Rex 1970, p. 20). The extensive spatial provision within the colonial settlement area, as well as the spatial division between it and the indigenous settlement, are to be accounted for not simply in terms of cultural differences, but in terms of the distribution of power. Only this can explain why labour and urban amenities were available in the spacious, cultivated areas in the colonial settlement, but not in the indigenous town. The squatter situation is another element of control through political and economic segregation that governments were able to employ to control settlement. Control through granting or holding back of land resources.

2.10.1 Housing and Development Planning

Some form of toleration exists in many cities and, because of the basic illegality and insecurity of squatter settlements, gives the authorities a considerable degree of direct and indirect control over the inhabitants. For this reason, no matter how temporary or established a squatter community may be, almost all are vulnerable to legitimate demolition and clearance with minimal warning and little compensation.

Whilst the epithet 'spontaneous' is an improvement over 'uncontrolled' or 'temporary', going beyond physical appearances and attempting to convey some of the vigour of squatter life, it is an inappropriate description of the process of formation of squatter settlements. Most have been built up slowly over the years by a process of gradual infiltration - accretions based on kinship or village relationships. Even the well-publicised squatter "invasions" of Latin America are not as disorganised as they seem to be, and Turner (1968) has shown clearly the considerable amount of planning and selectivity which characterises such actions. However if access to land is denied and little or no planning is carried out, land invasion occurs - a direct solution to the lack of housing delivery.

2.10.2 Public Housing

In many developed countries the government is an important source of housing for the urban poor, but this is true of very few countries in the Third World. Only in relatively wealthy cities with controlled population growth, such as Hong Kong or Singapore, does the public sector provide houses for a substantial proportion of the population. Elsewhere, government investment in housing is limited and has invariably been wasted on expensive projects designed to impress electorates rather than meet any real needs. It is largely for this reason that government housing schemes, although relatively few in number, tend to be visually...
2.10 THE POLICY OF SEGREGATION

Indigenous and colonial parties are kept apart due to ‘better’ control and supervision - but differing levels of services are then applied to the segregated areas of the city.

The colonial city was a ‘container’ of cultural pluralism but one where a particular cultural section had the monopoly of political power (Rex 1970, p20). The extensive spatial provision within the colonial settlement area, as well as the spatial division between it and the indigenous settlement, are to be accounted for not simply in terms of cultural differences, but in terms of the distribution of power. Only this can explain why labour and urban amenities were available in the sparsely cultivated areas of the colonial settlement, but not in the indigenous town. The squatter situation is another element of control through political and economic segregation that governments were able to employ to control settlement, Control through to granting or holding back of land resources.

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townscapes
of developing countries. D Smith (1981). These schemes are more oriented towards gaining political acceptability rather than at real delivery. There has been a general movement away from the public sector building and developing mass housing for the poor. There have however been exceptions.

2.10.3 Government Housing - Westernised Responses

Whilst it is generally true that government investment in urban low-cost housing is limited, there have been many instances in various parts of the Third World of well-meant and well-intentioned attempts to house the urban poor. The extent and success of these schemes have varied considerably, but until the present decade they have usually followed established Western concepts of planning and design. In most Third World countries this is a direct legacy of colonialism which has affected the residential construction industry in numerous ways. The most direct is the accumulation of supply links with the former colonial power which means that most building materials are imported. (South Africa however, in the residential sector, is an exception to this. Importation is limited to "family goods"). In addition to being extensive, this also ensures that the western designs which predominated in the colonial era are retained after "independence".

2.10.4 Misplaced Philanthropy

Whilst a great deal of the low-cost housing investment in the Third World can be classed as "tokenism", there are many other projects with more generous motivations. However, the majority of such schemes fail to provide any real help to the urban poor because of inappropriate or inefficient approaches. In most cases the housing is simply too expensive as a result of the slavish imitation of western standards and techniques, without consideration of local circumstances or needs. Large subsidies are needed before much of the public housing in the Third World falls within the financial capabilities of the poor, and few governments are prepared to supply these. Instead, most prefer to restrict access to public housing units to those families able to pay a "fair" rent on a regular basis. Some governments go as far as to redefine the poor according to criteria which substantially reduce the amount of subsidy required.

Economic justification for large-scale public housing is, in fact, inextricably linked to political manoeuvring, and throughout the cities where such programmes exist, they are invariably construed to act as a placebo to the aspirations of the urban poor. However, the degree of political sophistication behind mass housing ventures varies considerably. In Caracas, Venezuela, the erection of the superblocks during the 1950's could be regarded simply as an extension of the previously noted desire of most governments to construct visual evidence of their "concern" for people.
2.10.5 Reactionary Attitudes

Although it is true to say that this sort of administrative indifference towards housing problems has been characteristic of many cities in the Third World, several urban authorities have implemented more vigorous policies. The most prevalent, but least useful of these policies, can be described as reactionary, or as Mangin (1967:69) has more colourfully termed it, 'the lancing sore (hard-nosed) view'. This approach seeks to eradicate the housing problem for cosmetic reasons and pays little attention to the real plight of the people actually involved. The reactionary measures employed vary enormously but may be usefully grouped into those which are 'preventative' or 'remedial' in nature. The Nationalist Party simply 'erased' the problem by the forced removal of people and resiting them in townships as a remedial method, and in order to prevent slums from occurring, used legislation to declare White areas. The vibrant area in Cape Town - District 6 - was seen by the Nationalists, not as a rich, vibrant community, but as a slum. It was declared a 'White' area - the community removed, and the area flattened.

2.11 JOHANNESBURG AS A COLONIAL CITY

In analysing Johannesburg as a colonial city against these precedents, there are certain immediate contradictions that become apparent. Firstly, Johannesburg is not normal in terms of its colonisation. Its colonisation is dualistic and fraught with different cultural and economic pressures.

South Africa has faced several 'waves' of colonialism and various colonial powers, from the Dutch and English to an economic invasion by other 'civilised' countries. With the Nationalist Party gaining power and ultimately "independence", there has been a situation of conflict between (English French, German, Dutch, Italian, etc) colonists as well as with the indigenous black and coloured people.

It has not been a simple conflict between two different cultures, but rather a "melting pot" of many different cultures - further complicated by the introduction of non-indigenous peoples such as the Cape Malays, who over the many years of occupation, have developed a vested interest in the country. The conflicts of formal and informal economies, of taxis and hawkers that exist in the country, are only beginning to develop, over the real issues of who are the colonists and who are the indigenous peoples?

2.11.1 Johannesburg as a First or Developing Colonialised City

Johannesburg is an anomaly in terms of categorising it in any simple level, as it is both a First World city in terms of its infrastructure, but a developing city in terms of the urbanisation growth, informal settlements and informal trading. From a political point of view it faces many of the problems of most post-colonial countries - the desire to encourage investment...
and capital injection, and the consequent dilemma as to whether to invest capital on infrastructure or attracting investment or to invest the limited capital on local needs and requirements.

The legacy of apartheid has resulted in a great reluctance of First World countries investing in what is perceived as an unstable country and economy. The economy which was built up on the supply of precious metals/raw materials to the First World is consequently very dependent on the First World, both for imports and exports. Disinvestment has resulted in major loss of jobs and economic depression. Johannesburg in particular was seen as a city whose financial basis was mining and the stock exchange, and is as such typical of many developing countries but particularly economically devastated by the apartheid era and declining precious metal prices. This has resulted in the restructuring of many of the mining industries and loss of jobs and a greater dependence for the workless and homeless in the informal sector. The search for employment has had a major effect on the family structure.

2.11.2 Women - the Changed Role

Increasingly the role of black women in Johannesburg has changed. The trickle that started with the search for a lost husband has now become a flood in search of work. The family structure has, to a large extent, been eroded, and the woman is now the dominant provider of the family, using the informal sector as a vehicle. The white and Asian women are increasingly entering the formal sector employment, and work which was traditionally male is being undertaken by women. With unemployment there is an increasing development of entrepreneurial skills and a consequent blurring of the formal and informal sector economies.

2.11.3 Characteristics

The segregation that existed between the formal and informal sector officially has now become less obvious, but the conflict between the ideals of the first and developing worlds has become politically problematic. Johannesburg is attempting to become a global city, while not addressing the different layers of society that form the community and the urban conglomeration called Johannesburg. Land tenure and treatment of illegal occupants of land is no different to any other developing country. The homeless and illegal tenants are systematically removed from areas on a regular basis. Only where it is politically expedient is the homeless issue addressed. Land tenure is still a distant concept for a great number of people, and the infrastructure for housing and the provision thereof, is a long and costly process.

2.11.4 Infrastructural Levels

While Johannesburg has the basis of a First World Infrastructure, the ongoing maintenance and upkeep of this infrastructure could well prove a major stumbling block. With so many other high profile (political projects) priorities, the existing infrastructure could well...
The control and management of the developing city is based on political objectives. The dichotomy facing Johannesburg is the desire to attract investment and the undesirability of offending the constituency that elected the current government, further complicated by the divergent nature of the constituency.

2.12 CONCLUSION

Johannesburg is caught in a unique situation. Having been part of a colonial scenario, it gained its independence from the colonial powers, only to gain a new master economically and politically colonised Johannesburg 1948 - 1988 in the form of Afrikaans domination, which further complicated the process. Post colonialism has, in the case of Johannesburg, gone through a double process. Firstly, independence was obtained from Great Britain by the Nationalist Government, resulting in a post colonial situation, and second with the minority Afrikaans Nationalist Governments losing political control to the majority in the general election in 1994, has allowed for the dismantling of the apartheid political imposition and allowed South Africa to be ruled by its indigenous peoples.
PART THREE  FRAGMENTATION

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3.12 CONCLUSION
PART THREE FRAGMENTATION

3. INTRODUCTION

The new South Africa, with its many different cultures and 11 official languages, is made up of a diverse spectrum of peoples. In the post colonial era of South Africa these parts are currently fragmented into very diverse segments.

The western city is also made up of different parts which participate in forming a single whole (M Bartle. 1993). Richard Sennett (1969), in his introduction to the essays by the German School (Weber, Simmel & Spengler) says "Cities are the eldest artefacts of life, cities are a set of social structures that encourage social individuality and innovation and are thus the instruments of historic change. The city urban spaces may be different, but the homogeneous spatial structure is the same, shaped by master planning which is defined by Bartle as having its 'primary origins in engineering and 'architecture, thereby gaining order, integration, balance and unity'. The western city is characterised by such homogeneity.

Cities in a developing country are, in contrast, made up of parts rather than a whole - a residential core, post independence centres, planned districts and illegal settlements. These are a series of segments that develop independently of one another, e.g. Mafikeng. This chapter consequently seeks to explore and define the different types of fragmentation and the causes.

3.1 Fragmentation of the Built Environment

The built environment is perhaps the most obvious area in terms of fragmentation. Fragmentation is defined as a 'part broken off, detached, isolated or an incomplete part'. The city of the developing world displays in the built environment, common areas of fragmentation.

The formal and informal sectors are not a single entity, but are distinct, separate units operating independently. Nowhere is this more obvious than with the informal traders who swamp the pavements of Johannesburg in direct competition with the formal retailers, making access to the buildings difficult. There is no legal system or legislation such as licensing that prevents this or gives the local authority control. There is little or no co-operation between formal and informal.

The zoning and town planning rules and ordinance create a functional fragmentation which in the case of a developing city is further exacerbated by the colonial nature of cities characterised by the indigenous settlement, the colonial settlement and the industrial sector.
The influx of rural people to the urban centre has added a further factor to this physical fragmentation.

Those people - with no access to formal accommodation - are forced to create their own, usually on the periphery of the city, on privately owned land. No legal tenure exists and the process tends to be that of building dwellings which in turn are broken down by the authorities. These areas have little chance of establishing any form of urban structure.

3.2 Economic Fragmentation

The economy of a city is orientated towards vested interest in terms of political Kudos, or in terms of attracting investment. The result is that accessibility to economic assistance for the provision of basic infrastructural services is beyond the urban poor. In the same city an area might be fully serviced, while adjacent 'developments' have no water, lights, roads, etc., unless there is a political will and a desire to provide this infrastructure.

The scarcity of economic resources and the desire to attract large scale corporate and foreign investment often results in major and costly projects that provide little or no benefit to the living standards of the constituents. (Billon - 1992)

A further element of economic fragmentation is the informal economy. Little or no attempt is made to incorporate and unite the two economies. There appears to be no acknowledgement that without the informal economy, the formal economy would be under even greater pressure. It is through the informal economy that many of the urban poor gain access to the formal economy and indirectly sustain and support it.

3.3 Social Fragmentation

By virtue of the split between the indigenous city and the colonial city, a cultural and social divide exists. The concept of a common culture and single vision (or at least a vision that has sufficient overlap between many visions) for the city does not exist. By contrast in the western city, the social fragmentation has been eroded by the passage of time and a common culture exists.

This social fragmentation is further underlined with the suppression of the informal sector - forcing this sector to become more clandestine. In many developing countries, informal trading is prohibited or limited to certain areas. As most of the informal sector (the segment operating at a level below the poverty line) there is even more reason for a low profile.

The Urban Design Group (UDG) - and Community will identify a Chairman and select a multi-disciplinary team which will match the issues to be investigated.

7. The Chairman will visit the community some weeks before the event to meet representatives, finalize briefing documents to be circulated to the teams prior to the visit, check on working and domestic arrangements, secure media attention and finalize budget details.

8. The UDAT visit takes place and is expected to succeed;

9. the Follow-up procedures commence (operation, enabling the initiative to move forward within the desired framework); and the Urban Design Group (UDG) Co-ordinating Committee maintains its ongoing role.

CONCLUSIONS

The UDAT Process will have assisted the community in identifying short and long term strategies, the response to the issues, priorities and opportunities that have been instrumental in galvanizing community action for the long term through the local Steering Group and Follow-up Committees; will have resulted in the development and implementation of multi-disciplinary strategies and identification of priority areas which will produce realistic, purposeful, and practical solutions that will in turn have generated a high level of community participation in programme implementation.
3.4 Political Fragmentation

In a multi-cultural society political control is often vested in one political clique ("tribalism"). This clique bias will tend toward its specific cultural base and electorate at the cost of the other ethnic groups. So the history of the White tribe in South Africa and the rule of the Afrikander was a prime example of a political minority dominating a majority and manipulating the political scenario to ensure continued fragmentation and dominance.

The accountability to the constituents of the city and the urban population, unless part of the ruling clique, are often the exception rather than the rule. Once political power has been obtained, the accountability is to whatever course will retain the power base.

There is a tendency to base the administrative organisation and planning on outdated masterplans which have been commissioned under different circumstances, and controlled by international planning. The systems analysis used is based on a First World database, which disregards local data or its availability. "If its local, its obviously not relevant, and what is happening internationally - as predicted by foreign consultants, is more relevant!"

The cross cultural phenomena cannot be handled by an "impartial" foreign data base, as there is little or no understanding of the local phenomena. Issues are based on global political experiences of the First World rather than the specific localised situation. This has resulted in totally inappropriate design and technology, being imported into the developing country. A high-tech runway or stadium in an area that neither has planes other than domestic light aircraft, nor the technological know-how to maintain and operate the facility. The imposition of the design makes no local references - nor does it question the validity of the commission.

The differences within the various cultures in terms of the socio-spatial structures and differing interpretation of culture, meaning and usage of communal space becomes problematic, when interpreted by a First World agency.

3.5 Role of the State in Fragmentation

"The state with its investments and laws and therefore its power of inclusion or exclusion, is one of the main causes of fragmentation. The state defines what is legal - dictates the rules governing access to the official city. It also sets standards, permits and licences. (Balbo - 1993)"

Through the laws passed by the state it can either integrate or totally isolate various segments of the population. The younger the state - the less historic 'baggage' it carries in terms of human rights and consequently the easier it is to isolate and fragment particular segments of the urban population through policy.
"As a matter of fact, fragmentation often results from the inability of the state to follow the rules it has adopted". (Balbo - 1993)

The political 'ticket' on which a government is elected is not the issue - the issue is how the state realises its power for whatever expedient reason. The state, either through a political decision, or a genuine socio-political reason, is often incapable of fulfilling promises due to fiscal restrictions, or a fear of the very electorate that placed it in a position of power.

The situation of informal traders in Johannesburg is a prime example. Law and restriction were promulgated to restrict and control informal traders - but as the enforcement of these restrictions might create a political embarrassment, they (the laws) were withheld until a suitable authority could be established to take responsibility.

Squatter settlements form a similar problem. If the state is not capable through the formal sector of providing mass housing, then the informal settlement (the people's response) has to be regarded with caution.

The role of the state lends therefore more towards fragmentation than consolidation. As long as the voice of the city is fragmented, the less likely it is that a united front will force the state into a pattern of having to negotiate with one body. Fragmentation maintains the state's ability to reform from settlement, or make a decision. The fragmented, informal sector can therefore only rely on itself, and must, in terms of economic security, ensure that it reads its market correctly.

3.6 The Informal Fragmented City

"The informal sector produces 'customised' goods and services, since consumers demand very specific goods and most of the time have very little money to spend. Informal activities can survive only insular as they are properly tuned to market demand. Thus localism is an essential feature of the informal economy and the organisations and control of local space, a primary condition for its survival". (Balbo - 1993). In contrast, formal retailing is based on mass production and mass turnover and has the necessary economy to finance its operations on a long term basis.

The informal city operates on a more direct basis. Long term credit and negotiations have little or no bearing on the day to day transactions. Many of the activities are based on survival strategies based on the household.

As Michael Scott (1997), comments, "Entrepreneurship however, is a generalised social role found in all societies which merely varies as the context changes. If entrepreneurship is seen
creative extraction of value from environments’, then the elements discussed in Mastering Enterprise - such as vision, opportunity spotting, risk and profit-taking; resource mobilisation and network development - may take a different (and sometimes invisible) form in different environments. While international agencies seek to disseminate developed countries’ models of best practice, there are equally interesting lessons to be learnt from indigenous wealth extracting methods.

The lesson to be learned from the informal city is ‘plural-activity’ - the family are involved in many things, many activities underway at any one time. Many resources are combined to discover new opportunities, not to do what everyone else is doing - but to discover a new opportunity and create a new cycle.

The informal city is a city fragmented from the formal city not only physically, but mentally. Planning of the city precludes the informal settlement, regarding it as a temporary element, not requiring formalised infrastructure and incorporation into the city fabric. The informal city’s position to the formal city, in terms of planning is irrelevant. In terms of the survival of the city however, it is crucial. As Balbo (1992) says, “the household must be adopted as a primary unit of analysis, not only for its obvious importance from cultural and social viewpoints, but also and foremost because the survival strategies which prevent the city from collapsing, despite all statistical evidence, are all centred around the household”. Income production is a product of both the formal and informal sectors.

3.7 Fragmented City of Johannesburg

The principles of fragmentation as described, apply to Johannesburg. The informal sector has shown enormous growth in the last 5 years, with all levels of trade, from the sweet sellers to the tailors and shoe repairers. Entrepreneurship has become a critical skill with less and less opportunities being available in the formal sector. There is little or no control by the State over how and what is traded. The informal sector has further reinterpreted the public space - public parks become a place to sleep rather than recreational areas.

3.8 Open Public Space Fragmentation

Why is this so? Victor Miranschuk, an architect designing a new village, writes: “ours is a country of hometowns without hearts, neighbourhoods without neighbours, communities without communion, parks without picnickers, sidewalks without walkers. There is little that is social about our society. We have planned it that way”. Peter Brown, his partner, sees a crisis of many dimensions: mounting traffic congestion, (gridlock, smog and pollution), diminishing affordable housing, uselessly remote, receding from the CBD, derelict or unused
open space, stressful social patterns, insecurity and wasted energy as freeways proliferate. The erosion of the tax base is a further disincentive as public facilities and infrastructure can no longer be afforded. They place much of the blame on conventional zoning - driving from one single purpose land use to another, so everyone has become almost totally auto-dependent. It worked in the 60's and 70's when there was plentiful cheap land, subsidised road and utility programmes, and plenty of typical American families. Now it is a lifestyle of inconvenience for the real victims - mothers, children and the elderly - in surroundings which are frequently plain ugly. So they are now backing the neo-traditional village. (Graham King - The Planner: 21 Sept. 1990).

As urban infrastructure becomes increasingly stretched, and budgets for maintenance directed to more ‘worthy’ or political causes, so the public spaces deteriorate. The increasing numbers of urban poor are forced to use a decreasing amount of available urban space. Joubert Park is a prime local example. With the growing urban growth and pressure on the residential areas of the CBD, Joubert Park is not only over-utilised, but undersized as a city urban green room.

There is a perception by the authorities that the ‘legal’ occupants of the city should not be concerned with the urban problems of illegal settlement - and lack of access to the facilities of the city. The question becomes - by the exclusion from the legal city and its rules is cut, not fragmenting and isolating a major and real part of the city? Rather than restricting and banning - there should be a recognition of need - and consequent incorporation.

3.9 Recognition of the Real City

The real city would perhaps be defined as the city in which we live and grind out an existence. The real city is about the production of wealth, either for one’s self or for others, but it is the harsh reality of life. The real city for most is about the day to day grind of attempting to sustain an income and consequently a family. It is not about a romantic vision of what a historic settlement should be, but what the reality actually is, where as an ideal situation would be both. There must be place for both the economic reality and romantic vision.

As Balbo says, "In the last twenty years or so, most of those concerned with urban problems in the Third World, both scholars and international organisations, have stressed the urgency of recognising the ‘real city, especially the major physical elements(i.e. illegal settlements) as well as the major economic one (i.e. the informal sector). Sites and services and upgrading projects, or the World Labour Programme, all aim to achieve this objective. However appropriate and inevitable, due to the size and limited resources of the ‘real’ city, this approach does not go without contradictions".
For one thing, fragmentation resulting from exclusion from the 'legal' city and its rules could be the only currently feasible solution to the seemingly unmanageable situation where the state has few or no resources to satisfy the considerable needs of a rapidly growing urban population. To live in the 'real' city means to be able to gain access, albeit at minimum levels, to the urban services at little or no cost; informal activities are certainly linked to the modern sectors of the economy, but they can exist insofar as they can locate in the 'real' city where plots are illegally subdivided and houses built without abiding by the standards so as to keep costs down, and where they are not subject to the fiscal, wage or union regulations which control formal activities. Furthermore, many inhabitants are connected illegally to water and electricity, through legal outlets which then often supply them to several families in their neighbourhood.

There are consequently two elements to fragmentation within the legal city. The fragmentation as a positive element - namely access to a city and an economy, and as a negative - you cannot choose or select your entry point or place of residence.

3.9.2 "Fragmentation might also be instrumental in creating formal or informal networks of mutual aid only explains the extraordinary fact that Lagos, Manilla or Rio de Janeiro do not collapse as one constantly expects. The remarkable human factor that unites and holds these communities together is a result of kinship through mutual suffering".

Finally, spatial fragmentation could also facilitate the founding of interest groups around local issues, leading eventually to active participation in the political urban areas. A diverse population, a cultural mixture of people - given a common misfortune or political injustice - will be forced to group and unite if they are to address a common threat. Non-active peoples will possibly unite into a potentially ‘alarming’ voice of opinion and action. PAGAD in the Western Cape is a prime example of this. A series of interest areas (namely drugs and crime), have united a diverse group with a common goal which has resulted in major participation - within and without the law - of a diverse mixture of cultural groups.

"The question must be asked whether in reality fragmentation is not only a mechanism of exclusion, but also and foremost a means of resource redistribution and political dynamisation, although unmentionable. "We need more slums" was the provocative title of an article published some years ago in the New Delhi newspaper, "The Indian Express", stressing how the illegal one offers the rural poor the opportunity of improving the quality of their lives significantly; by contrast it is the quality of life of the rich that is negatively affected, compelled as they are to put up with the waste, and crime". (Balbo - 1993). The middle-classes are caught in between - the rich can move where they wish, while the solid, middle-class citizen is restricted economically and is more affected by devaluation of property and the like. A prime example is the public outcry in Randburg, a suburb of Johannesburg's
northern suburbs, when a low cost housing project was proposed adjacent to a white middle-class area. It was argued that this would cause the property prices to drop to such an extent that people would be unable to sell and relocate.

3.10 Fragmentation - an energy to be exploited or consolidated?
Fragmentation creates an energy within the city. “The question must be asked whether in reality, fragmentation is not only a mechanism of exclusion, but also and foremost a means of resource redistribution and political dynamisation, although unintentional”. (Balbo - 1993)

There is a unique quality and energy to the meeting point between the formal and informal sector and the developed world and the developing world. Unique in the sense that it only happens in developing countries and has the potential to be a remarkably rich experience.

Previously Hong Kong, and to an extent, Singapore, have utilised this meeting point and cross-over to their advantage. They have utilised it as a tourist opportunity. Tourists can shop in the Third World sector immediately adjacent to the First World where they safely reside and experience both.

3.10.1 Informal Economy
Recognising the informal economy, and the role the informal economy plays in terms of supporting the formal economy the beginning of accepting the reality of the fragments of our society. The informal economy is geared towards subsistence, in most cases, and the protection and unity of the family unit. All members of the family and extended family combine and work towards the common financial benefit of the family on a sustenance basis. They all need to contribute in order to keep the family sheltered, clothed and fed.

3.10.2 The Family Unit
The family unit is one of the components that makes up the neighbourhood, characterised by the co-operation of living together and sharing labour necessary for existence. The very fundamental element of gemeinschaft is the relationship between people, homestead and land.

This relationship in developing cities has been systematically eroded and destroyed. The relationship of people, homestead and land has been exchanged for existence and subsistence. In the process of migration and urbanisation, there has been a systematic destruction of the fundamental elements that have held indigenous societies together.
The very elements that, over a period of time, built up layers of human society, are based on their historic memories of clan and culture. Fundamental laws governing behaviour within different tribes, based on custom are the basis of a society. (Tonnies)

This applies to a society that has developed over many years, which while subject to wars and plagues, has developed into a civilised society and structure. The fragmented society has been forced to isolate and separate these layers in order to exist. The language culture and creed of the city is being re-invented and re-established by the informal sector. The language, treasures and meaning of land and buildings, have had and are developing, new and different meanings - meanings relevant to subsistence rather than existence.

"The town with its languages, culture and creeds as well as land, buildings, and treasures, represents something which outlasts the sequence of generations". (Tonnies)

If the very base elements of the town/city are being eroded and fragmented, then the elements which should be timeless and untouched, become fragmented and consequently under pressure for re-interpretation.

In developing countries there has been a gradual erosion of the family unit, rather than a reinforcement of the unit. Little or no recognition has been given as to how the colonial and post colonial situation has systematically destroyed the family unit.

### 3.10.3 Diversity and Standardisation

One of the major problems with the situation that most developing countries are faced with is that erosion of the extended family and the family unit. The diversity within the economy is too limited to offer the opportunities required. This is further hampered by the insistence of standardisation. Standardisation of building regulations, health and educational requirements, space norms, etc.

Standardisation is an easy way of controlling general issues and assuming that from a bureaucratic aspect, little if any extra work is required. The question remains as to "what is the standardisation, and what level is being aspired towards"? The levels of water purification should be questioned as to whether the standard required is appropriate. Roads and service provisions suffer a similar fate. A major proportion of the economy is spent on following standards that could well be 'lowered'. The local situation and delivery requirements should dictate service levels and basic needs, as well as how and what should occur. If people and their habitat are too standardised, there is little room for diversity and individualism.
Diversity is one of the keystones of sustainability. Single use and highly specific standardised elements do not necessarily encourage or act as catalysts. The East has achieved a high level of ‘local tourism’ and consequential tourism through its development of the diverse nature of its economic sectors, and recognition of the different needs and requirements of the population.

3.11 CONCLUSION

Fragmentation has been used throughout history as a mechanism of control and political manipulation. The city first took form as the home of a god: a place where eternal values were represented and divine possibilities revealed. Though the symbols have changed, the realities behind them remain. We know now as never before, that the undisclosed potentialities of life reach far beyond proud algebraics and contemporary science. (L.Mumford 1987).

What happens when those gods no longer exist? What happens when those gods no longer have a relevance? "The city is a place where a small boy, as he walks through it, may see something that tells him what he wants to do with his whole life". (L Kahn - 1986), but what happens if those clues and symbols no longer exist? As service levels continue to drop and the political will to govern fluctuates, so the outcasts and the politically unacceptable remain on the periphery of the city. Until such stage as the politicians come to terms with not only the peripheral city, but the real city, and legislate it accordingly - fragmentation will exist. There will always be two cities - the formal and informal. For as long as the existence of the informal city is denied, the longer the consolidation of the total city will be delayed.

"Ultimately the responsibility for making cities liveable rests with their governments and their people. Too often governments become corrupt systems for dispensing benefits to agencies, employees and political supporters. If governments can learn again how to serve the public, they can regain a mighty power - the power that comes from harnessing the combined imaginations and enterprise of millions of human beings". (Time Magazine - 1993).

3.12 SUMMARY

Fragmentation in third world developing countries has resulted in the denial of access to the urban centres, economy and government of a large majority of people. The very people requiring aid and assistance are often used as political footballs, and are often ignored and marginalised in design and planning projects.
There are unique problems facing local urban designers in developing countries - unique to the third world - and little understood in the first. The challenge that faces the urban designer is to acknowledge and understand the theory and philosophy that has developed in all worlds and apply the theory, with reference to the local conditions and culture, and build on the foundation established.
PART FOUR
THEORY ON URBAN DESIGN IN DEVELOPING COUNTRIES

4. INTRODUCTION
4.1 RICH/POOR COUNTRIES
4.2 PERCEPTIONS - MUTUAL RECOLLECTION
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4.7 SUMMARY / CONCLUSION

By the millions they come, the ambitious and the down-trodden of the world drawn by the strange magnetism of urban life. For centuries the progress of civilization has been defined by the inexorable growth of cities. Now the world is about to pass a milestone: more people will live in urban areas than in the countryside. Does the growth of megacities portend an apocalypse of global epidemics and pollution? Or will the remarkable stirrings of self-reliance that can be found in some of them point the way to their salvation?
PART FOUR
THEORY ON URBAN DESIGN IN DEVELOPING COUNTRIES

4. INTRODUCTION

This chapter explores the design and theory that has been employed in developing countries. It sets out to ascertain which theories have worked, and which have failed, and why. The purpose of this exploration is to arrive at a set of design principles or a framework that can be applied to a local example.

"Architecture, planning and urban design must under normal First World conditions solve elusive problems, characterised by a multiplicity of possible interpretations. These qualities are exaggerated in developing countries, where the urban designers and/or their training are usually exotic to the operative cultures. Consequently cities like Ciudad Guayana and Dodoma are detached from local cultures and their spatial expressions. A method of reconnecting design proposals with their cultural context is needed so that meanings attributed by designers can be publicly debated before construction commences, and be validated or rejected". (Boden - Journal of Architecture and Planning - 9:4 - Winter 1992). A fine understanding of both the global world and the local conditions and a dialogue between the two needs to be established in order to create a solution that is appropriate.

4.1 RICH/POOR COUNTRIES

Developing cities can be categorised in many different ways as has been described in earlier chapters, but a further distinction within this categorisation is rich and poor. Not only in the sense of economy, but in terms of resources. A poor country can be poor economically - but have potential, either mineral, cultural, tourist or human resources potential which could effect the development potential - and the affordability of realising this potential in terms of the desirability and economic viability of developing the resource. The problem arises with the nature and physical form that that development takes. If foreign capital is funding the project, it tends to reserve the right to impose alien perceptions and standards on the local culture, the scheme and its suppliers.

Local expertise is not highly regarded - but rather a certain scepticism exists in terms of entrusting foreign funds to the 'incapabilties' of local expertise. Local expertise is seen as simply adding local colour and flavour, rather than adding anything meaningful to the overall contribution.
In the Future of Cities (pg 10) Martin Meyerson says, "In the Western World planning, like Utopia, has become suspect. Society is too complex and knowledge too inadequate to allow men purposefully to plan their world. But planning of cities have been exempt from this view. Firstly because it does not threaten the equilibrium of economic and political power. Cities to many appear to be governed failures of design of the market place, and because cities appear to some to be finite enough to comprehend and manage, the planning of cities has become institutionalised in western countries, with the obvious generalisations being made with regard to universalisation.

It would appear as if one schooled of thought would propose that it were totally acceptable to design a city - regardless of its origins and regardless of local culture, and social science is an exact science.

4.2 Perceptions

"An independent observer ... would easily conclude that urban design in the First World is in some disarray. Many of the achievements and innovations during the 1960's and early 1970's of theorists like Crane, Appleyard and Lynch, have been overlooked in a retreat into cosmetic "sensographic" approaches; ideological or self-induced "great manifestos are treated as dogma, and the commodification of signs and symbols continues, Buchanan, 1990 and Nyberg, 1988.

Scruton (1978), Poelit (1987), Nyberg (1988), and others argue that the fundamental difficulty lies with the disconnection of art and design from an adequate cultural base. Scruton (1979) has explained that whereas science provides an understanding of what is, and of cause-effect relationships, culture provides the means by which people acquire the ability to deal with circumstances. Emotion, beliefs and custom are harmonised through this process."

The benefits gained from each Rand or Daller (US), etc., apart, differs in terms of the interests that are being addressed. There is not only a political emphasis, but a technocratic long term direction that exists, regardless of the day to day politics.

"If urban design, therefore, needs to rediscover its cultural roots in the First World, it is even more essential in many developing countries. First World urban design occurs in an established, resourceful culture with fairly homogeneous values. It is replaced in developing countries by a multiplicity of loosely related cultures, very limited resources, and institutions often unprepared for change and scaling urbanisation."

The social scientists are not the only ones to propose free will and consciousness and are thus hard to predict (Hugh Strutton 1978). Their perception of events is different and there are endless chains, seamless webs - the result is obvious, but the way it was achieved, debatable. There are different values, classes, interests and tastes. The cost versus benefit..."
Space and the way space is utilised differs from culture to culture - the English city square in totally different meaning and relevance to the public space in Africa. To attempt to recreate spaces without redefining their meaning is to render them sterile or meaningless.

"A city without defined spaces does not offer any kind of promise ... urban space visualises a world which is general as well as local, and thereby helps the buildings which serve public and private dwelling to be rooted in the given environment. (Norbert Schutz - 1985, pg. 70).

The lack of contextually appropriate design prototypes for practical and educational use, general ignorance about the role of the discipline, and a cultural environment usually in transition from a Gemeinschaft society to a Gesellschaft state, producing radically conflicting perceptions and policy preferences (Appleby 1983). Available data are also inadequate, and there are obstacles in employing many first-world techniques to correct these conditions. The lack of uncertainty is therefore, greatly exaggerated. (Boden 1992).

"Every impulse towards the shaping and organisation of physical space stems from individual and social relationships. As for the 'complex paths' by which architecture and town planning tangle about changes in the social structure, I want to insist on this complexity; they are in no respect straightforward". (de Carle, G - 1991, pg. 54).

... as with design in developing countries are that the city is not made up of one homogeneous society, but of many different peoples and perceptions and the essence of a design framework is to identify these shared perceptions.

4.3 THE PLURAL SOCIETY

In a culturally divided society, each cultural section has its own relatively exclusive way of life, with its own distinctive systems of action, of ideas and values and social relations. "The ordering of space through buildings is about the ordering of the relations between people. We recognise society through the ways in which buildings - individually and collectively - create and order space". (Hillier & Hansen - 1981, pg. 114). Often, these cultural sections differ also in language, material culture and technology. (W.G. Smith, The Plural Society in the British West Indies, 1965, p. 81). In agreement with this notion Kirs, divides the cultural city into four sections:

Illustrations on opposite page
1 Figure ground of public space in 1677
2 Figure ground of public space today
3 One and two dimensional analysis of Cornhill to Lombard street in 1677
4 Same area as figure 3 today
5 Axial map of the city in 1677
6 Axial map of the city today
7 URBAN DESIGN QUARTERLY OCTOBER 1992
4.3.1 Government
Central to the concept of a colonial plurality is the concept that one society social group will dominate the others via governmental control. While certain administrative elements are delegated, the balance of power or controlling positions are monopolised. South Africa has been a prime example of this - a central government with bantustans carrying out the day to day execution of government, with consequential endorsement.

4.3.2 Kinship and the resulting spatial form:
Today's cities tend to make and remake themselves. The vibrant forces that alters distribution and connections of people and enterprise in the city create a dynamic quality in the physical city (Crane D. 1960).

The family unit and the interrelationships of the family are crucial to the role that people play within this dynamic quality. How does the family unit occupy the city - and to what extent does this form the structure within the city?

Of the institutions shared by all cultural sections, that of kinship is one of the most important. The principal subsystem of kinship is the family with its extended kin, and the primary need for the family is a form of shelter (Parsons, 1966. P:12). As cities are, at the lowest level of definition, aggregations of people, the provision made for shelter forms one of the most important physical-spatial units in the city. It is therefore appropriate to consider the institution of kinship and its effect on dwelling form and physical-spatial needs. (King, 1976).

The fragmentation of the family unit will therefore have a major impact on the spatial form and use of the city, as well as the recreational pursuits and educational development of the community. Land tenure is an important element that further influences the occupation and spatial configuration of the city. Lack of tenure can result in large peripheral land invasions and the consequent formation of informal settlements with resultant overcrowding and lack of facilities.

4.3.3 Religion
A further influence on the culture of the city is religion. Each cultural community will express its religious beliefs differently. In Johannesburg, there are many differing religious communities, Christian, Hindu, Jewish, etc, each with very specific spatial requirements in historically different sections within the city - subsequently exacerbated by the Group Areas Act and by the provisions of the forced settlement.

These different religious requirements have expressed themselves differently within the city, with a consequential different and separate spatial interpretation. The dominance of specific
religious segments of the community over others has had a major influence on the formation of city 'quarters' and fragmentation, either chosen or inflicted.

4.3.4 Economic institutions
The way of saving and dealing with money and assets. The colonial system has traditionally been the formal bank, shop or domestic house and investments, while the indigenous society has tended to utilise stockvels, local bazaars or property in the form of land.

The way money or assets are handled are a crucial part of the society, and the way society structures its formal lifestyle. Finance or the exchange of goods and wealth relate directly to the spatial use of the city. Johannesburg operates on two major different levels - the stock exchange which is an almost abstract exchange of wealth, and the street traders - which is a direct and immediate exchange, and at intermediate levels which becomes a combination of the two.

How that wealth and accumulation of assets is stored and maintained is an equally important factor in the physical structure of the city.

4.3.5 Education and health care
In many developing countries the control of education has been a deliberate policy of exclusion. Even within developed countries, education has been regarded as a privilege related to class and affordability. Access to education, beyond a certain level, has been controlled politically - except for the extremely talented.

Health care has similarly been controlled. Only the very wealthy in developing countries have had access to health care - at extreme cost. The people, who's financial need is far greater, have been denied this care. The developed countries with highly sophisticated social welfare systems have been forced to curtail the benefits offered - at the cost of the urban poor.

Social security and education have always been at the basis and heart of any political campaign. A political party wanting access to the majority has more often than not, gone the route of pensions, health care and education as a vote enticer.

The belief of a political and sociological ideal appealing to a common culture, uniting the people in a single goal is the dream of any political party. But what is a common culture?

4.4 Common Culture
All settlements involve the making of place, making it a differentiated area. Its meaning is necessarily based on cognitive schemata or ideals specific to the culture. "It must be habitable and useable in terms acceptable to the culture", communicating symbolically,
through the environment, it must be an ordering system which has meaning, priorities and preferences and communicates the schemata of the culture which are culture supportive, and reinforces the social order as opposed to creating chaos of technological orders related only to lifestyles and preferences.

Amos Rapoport - On The Cultural Origins Of Settlements: 'something must define what is that common culture that binds people together, and differentiates between culture and civilisation'.

Roger Scruton in The Significance or Common Culture (1979), defines culture as...... It is necessary however, to distinguish culture in the sense in which a man may possess more or less culture (culture as the outcome of a special process of education which may not be open to every member of a society), from culture in the sense in which different members of a society may under certain conditions be said to partake of a 'common culture', whatever the relative state of their education. I refer to a 'common culture', rather than to a 'low' or 'popular' culture (there are as many ways of referring to the phenomenon as there are theories to explain it). I do not mean to deny that a society might sometimes contain a 'culture' which is not truly 'common' to all its members, but I do mean to imply (and later argument will show) that culture is essentially something shared'.

Culture is gained (or lost) through upbringing and education. It is a shared meaning held in common by all members of a social group (Schnurier). A culture consists of dominant webs (ideas and habits) that generate in peoples minds - their behaviour and attitudes. The tradition of common culture has through generations elucidated how a member of a community will behave in any given situation, and has a set of rules for behaviour, even to the extent of knowing what you should feel in an emotional crisis.

For Amos Rapoport - culture becomes:
- a particular way of life
- a system of symbols, meanings and cognitive schemata
- a set of adaptive strategies for survival linked to ecology and resources

A world view embodying an ideal, "leading to systematic and consistent choices" attempting to give the world meaning, to humanise and order it through meaning devices. Settlements impose order on the larger domain but are themselves organised into hierarchies of space, centrality and structure. The human mind imposes order on the world, and ideas take on physical expression, re-coded with "mnemonic devices to reinforce expected behaviour". (Rapoport - 197)
4.4.1.2 The dilemma of a common culture

Mass urbanisation in South Africa, caused by the migration of the rural poor seeking to better their existence, and the repeal of legislation restricting the movement of people, has placed black suburbs under extreme pressure. An additional pressure was the establishment of the single quarters buildings/hostels within these suburbs for the migrant labourers. Not permitted to bring their wives and families with them, these sterile quarters have been a major source of dissatisfaction, resulting in violence and alienation. Traditional cultural lifestyles, philosophies and norms have been subjugated by the environment, with peoples from different cultural groups and backgrounds living in the same area, with the only common bond being one of existence. The multi-cultural backgrounds that these migrant workers were drawn from were not only local but from outside the country. Even the basics of communication were problematic, resulting in the development of a special language (a lingua franca of all languages). The only commonality was the situation they were all in. Further complicating the situation was the fact that some of the migrant workers were contract labourers, and would on expiry of that contract, would be replaced with a fresh bunch. Communities had little or no chance of forming any permanent structures.

The urban designer in South Africa is faced with a number of dilemmas. The cities are not a single entity, but made up of a large number of groups of peoples, all with different common cultures. Within these cultural groups there is further separation. The migrant labour system plus parochialisation, common to most developing countries, has largely destroyed the common culture, and the added complication of developing public transport, has further complicated the situation. A migrant labourer in South Africa would traditionally maintain his home in the rural area, and stay temporarily in the city with few visits 'back home'. The length of the stay would slowly erode the common culture, resulting in a new city orientated culture. With the ability to travel more frequently, (taxis, buses, etc) since early 1980's there was an opportunity to retain the rural common culture with little or no influence of the city culture. The easier it is to travel - and on a more frequent basis - the less is the influence of the city. If all your 'leisure' time is spent in the country, then the time spent in the city is purely financially orientated, and there is little or no necessity for cultural interaction and development. A conflict develops between a group - with the same original common culture selecting either to remain rural based or city based, and consequently a divergence of cultures develops - those city based, and those rural based.

4.4.1.2.1 The off-spring: the lost generation

With increasing migration of the whole family, two new generational types of child developed - those who remained in the rural situation without parental guidance - and those who came to the cities either to remain within circular marriages or to be sent back to the rural home. Within these circular marriages, the second or third husband would often reject the children.
from previous marriages. If these children were 'lucky', they would be sent home to be reared by their grandparents (who traditionally were not permitted to discipline the children), or find their way onto the streets.

In either case the common culture - dispersed and taught through education and upbringing, was diluted, resulting in a whole generation of people with little or no common culture, a culture in which extended family units are fragmented as they absorb the universalising culture of the city.

This has resulted in a section of the community being totally fragmented from society - with neither the ideology or customs of the society - or an understanding and 'buy in' of either. A generation that did not and could not understand why culturally and ethically certain behavioural patterns are wrong and unacceptable.

4.4.2 The implications of the loss of common culture

"The phenomenon of universalisation, while being an advancement of mankind, at the same time constitutes a subtle destruction, not only of traditional cultures, which might not be an irreparable wrong, but also of the creative nucleus of great civilisations and great cultures, that nucleus on the basis which we interpret life ... the ethical and mythical nucleus of mankind". (Ricœur)

In South Africa we have a diversity of cultural people. Planning and urban design are confronted with a highly volatile decision making context, which is very likely to be heavily influenced by unfamiliar cultural values (Boden 1993). Our approach to urban design has got to be on the level of public participation of a specialised nature. Pure public consultation and 'transparency' is insufficient, the community must be involved in the process, and in decision making. The urban designer must learn to manage the process, and assist the community in discovering, interpreting and defining cultural meaning and identity.

The urban designer must remove the "mantles of their own culture" and allow the community, through guidance, to arrive at their own conclusions. The methods required for this guidance include an understanding of the local community, its diversities and its ideals. Using historic precedence, the urban designer must encourage, allow and assist that community to discover its complexity and diversity. The city should promote through the urban designer a rich and complex mix of intense overlapping conditions and activities in space so that urban opportunities are maximised through intense interaction and high levels of population support. (Dewar & Uytentgoardt - 1991)
The task that faces us is the meshing of the various heterogeneous characteristics of South Africa, recognising the differences, and through public participation and dialogue, finding a road forward.

We have to re-establish the meaning of urban space ‘design within an appropriate framework’.

4.5 URBAN PLANNING IN DEVELOPING COUNTRIES

Substantial numbers of people are living within or on the edges of cities in spontaneous settlements. This has and will become one of the predominant urban forms of cities in developing countries (Time Magazine 1992).

4.5.1 Official policies

(D'Alpa 1973) identifies six problems with official policies:

I) lack of vision.
II) lack of power to act.
III) limited available financing.
IV) large landholdings held for speculative purposes.
V) high inflation.
VI) high tax delinquency.

Planning is seen as the playing of politics, masterplanning as paper planning developed by the First World, which is rigid and antiseptic, drawn up by overseas consultants with little or no understanding of the local culture or value system and which does not allow for spontaneous development. It lacks the financial aspects, as well as being orientated towards the dominance of land ownership, i.e. vested interest.

Robert Potter (1992) commented, “Regional and national planning imperatives (top down) and centre out must be viewed with caution; development projects must be based on principles of sustainability; a critical role is played by the state and local states in terms of policy - i.e. non-active collaborative policy, and there must be cognisance taken of the importance of the informal sector in the urban economy.

There needs to be an end to the era of direct association between urbanisation and western ideas of development. The new approach (Potter 1992) is not anti-urban, but involves a more positive evaluation of rural areas and ways of life. It should be country and people specific - not generalised.

Martin Meyerson in The Future of Cities, says “city planning claims as one of its purposes and competencies the preparation of long range, comprehensive plans for communities. In
practice however, city planning has either ignored the means (while still not pursuing fundamental changes), or it has concentrated on the efficacy of means to the exclusion of ends.

Planning in South Africa has tended to be a quest for control, with blueprints (or red prints) carried out by a central authority to a specific programme. This programme has tended to be of a political nature, rather than as an isolated method to address imbalances, a political programme in terms of maintaining the status quo.

4.6 Johannesburg In Context

The building of a new democratic and sustainable future for our urban systems and cities, should be understood as a collective endeavour which requires the formation of a common vision, including the mandates and specific visions to be undertaken by the different sectors of society. The role and objectives of different institutionalised forms must be clearly constructed to avoid duplication and over bureaucratisation of the delivery system. (Albonico, Boden - pg 154. 1995)

That South Africa and indeed Johannesburg is part of a developing country, and not part of the First World, is without question. Johannesburg has however the uniqueness of having elements of the First World in terms of infrastructure and maintenance thereof. With the new democratic dispensation, the available financial resources have, and are being, redirected towards more politically obvious areas, and areas with 'political correctness'. After years of segregation and isolation from the global world and an economy in ruins, available funding and the ability to borrow is limited. Johannesburg was regarded as a rich capital - rich both in resources and capital (but that is no longer the case). The question of how these unlimited resources are best utilised has become a political issue. Local expertise is low in regard and any project of significant value has its share of imported experts. This 'expertise' is often based on fly in fly out, and offer instant solutions, without any form of local consultation or transfer of knowledge.

Design is based firmly on First World principles with little or no recognition of local conditions being taken into account. "If it worked in East Africa, why shouldn't it work here?"

Johannesburg has rebuilt itself every 20 years, based on a financial dependency on mineral wealth, but with the new government and consequential new political dominance and lack of decision making, there is no direction. The local authorities are in a quandary - either with the resignation of top officials - or the wait and see attitudes of the balance, or existing incompetence and appointments of personnel to positions for which they have no experience, the decision making ability has been shelved.
A further complexity is the culturally divided society - divided in language, culture and technology, further complicated by the migrant population. As with other developing ex-colonial countries, the control of health care, education and housing has been a process of exclusion, as have financial institutions and asset control.

While Johannesburg does not necessarily represent a true colonial city in terms of physical layout, the socio-economic and political aspects of the city represent a colonial city in the developing world. While Johannesburg does not have the traditional settler/local areas and distinction, nor is it laid out in a colonial style - it nevertheless has the basic elements of a colonial city. It has a fragmented First and Third World (us and them) situation. It has major settlements of urban poor at the fringes of the city, it has a formal and informal economy. Education, religion, housing and public facilities are used as a political tool to manipulate the electorate.

The legacy the White Afrikaans colonialists have left their indelible mark. Major buildings and public spaces have been designed with separation of the population in mind. The necessary finance to reverse this trend is not freely available, nor is the political willpower to manage open spaces and restrict informal trading/taxis in place. The culture of boycott on the payment for service is a difficult trend to reverse and this has further exacerbated the financial situation of the local authorities.

The elements of colonialisation are with Johannesburg, they haven't necessarily been reflected in the art, architecture and historic planning. Forced removal policies have allowed Johannesburg to maintain the American city image - of a grid city - but without the character of the different quarters.

4.7 Conclusion

"Global redistribution is not an option for the Third World. The Third World cities are functioning as mechanisms for generating employment. How then can we increase their absorptive capacity? There is a limited number of jobs which can be generated in industry. The vast majority of migrants to the cities will have to find work in tertiary and bazaar activities. Any intervention we make on the urban scene should therefore aim to increase economic activities in these areas". (Charles Correa - 1989. pg 21)

The redistribution that has occurred in South Africa, like many other colonial developing countries, is the return of nationals to their mother land - as well as the families of the settlers! The urbanisation that has occurred has alarmed and frightened the minority that has 'successfully' controlled South Africa prior to independance.
PART FIVE  PRINCIPLES OF URBAN DESIGN

5.1 INTRODUCTION

5.2 COLLECTIVE PERCEPTIONS OF CITIES

5.3 THE MESSAGE SYSTEM OF CITIES

5.4 INTENSITY AND DIVERSITY

5.5 STRUCTURAL ELEMENTS OF THE CITY

5.6 URBAN MANAGEMENT STRATEGIES

5.6.1 Individuals
5.6.2 Equity
5.6.3 Intensity and Complexity
5.6.4 Integration
5.6.5 Community

5.7 URBAN GROWTH

5.8 CONCLUSION
5.1 Introduction

Vmy often we fail to recognise fragments of the new landscape because our view of the Third
World is both limited and egocentric. Although in the eyes of the well-to-do citizen, the
poorer struggling to shelter his family may be seen as an anti-social element, from any other
point of view his endeavour is as marvellous, intuitive and socially positive as a bird building
a nest (C Correa - 1989 pg 16).

As urban designers and as part of the structuring element of the environment, how does the
'professional' address these elements and design for them? Indeed he does and can?

A definition of what is urban design probably varies from person to person, as does the
potential role that an urban designer plays within the community as well as within the urban
environment.

Urban design
- has a public focus and multiple clientele
- values process equally with product, recognizing that at an urban scale participation
and pluralistic values require a different strategy from that for designing individual
buildings for specific paying clients.
- entails practitioners who tend to remain anonymous (Pittas, in Ferebee, 1982 - P.12)
- is concerned with the form of large portions of, or entire, cities. (Crane - 1980; Lynch

The more unstable the political and economic climate, the more the urban designer needs
to understand the problems, different viewpoints, and perspectives of the players in order to
best address the options to create robust design that is capable of handling a changing
scenario, and a changing interpretation of the urban condition.

One of the major problems with the interpretation of the city is, what is the mental image of
the city? If you are wealthy, there is one perception gained through total access. If you are
poor - the less you are likely to know about the holistic city due to lack of access.

The basic principles of urban design remain constant, and in relation to a developing country,
need to be studied in comparison with lessons learned and forgotten: by developed countries.
This chapter seeks to explore the principles of Urban Design.
5.2 The Common Perception Of Cities

Why is there confusion as to what the city is and should be?

"One reason is that there are many mental images of the city. If one is concerned with an area used by many diverse people, it may be difficult to set out the common problems, and these problems may not be central to the concerns of any one stakeholder group. Therefore, these techniques are more telling in smaller, more homogeneous communities, or in dealing with tourists, who are more dependent on overt visible clues. Yet, even in complex metropolitan areas, certain images are apparently very widely held." (Lyons - 1950)

The basis of good design is to establish the commonality of the mental images, based on local experience, not an imported and alien concept, nor politically motivated visions, both of which have little relevance to reality.

Our collective perception of cities depends not on the landscape of open spaces, but of the relationship of the built form to the open space. They lace a city with their voids - streets, alleys, avenues, marketplaces, plazas, underground shopping malls, parking spaces, arcades, kiosks, bric-a-brac, parks, playgrounds, waterfronts, railroad yards, tracks, rooftops, hills, valleys, ways, bridges, interchanges. In our imagination of cities it is these open spaces and their relationship to buildings rather than the buildings, that we remember. They are the places where people congregate to walk and shop and picnic, to play and bicycle and drive. It is these places that we use and in which we encounter each other; where we meet and enjoy and participate in that communal life we call 'city'. (The ColI-::'ive Perception of Cities - Lawrence Halprin). The design of these spaces is critical if we are to avoid open space being merely left over space after building.

The definition of these urban spaces, the logic and the uses are fundamental in the formation of an appropriate urban language. A city square in Italy has a completely different cultural usage as opposed to a square in South African towns or villages, and is utilised in a totally different way. The formal trader will view the space in one way while the informal trader will have a different rationale for the use of the space. (Habib, M: J - 1987 P.947. The Rev. - 1987: 42) The unit of any organic or human intercourse is to allow intuitive and action in a shared world, to provide a framework within which we can play out our dissonances against the background of a shared context.

The important issue is that there should be a recognition in a developing country that a common, shared perception of the city might be difficult to reach consensus on. There should be a recognition that the context is shared and must consequently allow for diversity. Dave Dewar and R Uitenbogard in SA Cities - Manifesto for Change (1981) say .... "It reflects a
belief that urban areas have their own logic which derives from their very raison d’être and from the needs of the people who live within them. These must be respected if urban settlements are to operate efficiently and if human living is to be facilitated within them. Policies and rating alignments will change, but the human issues raised by urban growth will not: they will not necessarily disappear with political change and they will have to be faced.

To what degree that political ideologies or the politically-pursued self-interests of particular factions fly in the face of that urban logic, urban insufficiencies and social and economic problems will result.

5.2.1 Government and Perception of the City

The shared context and microcosmic view of the city should not be formulated by government between the products of a deliberate emphasis on design and the inadvertent consequence of planning and driven by political ideology, but by the dreams and visions of its constituency, policies and strategies framed with other ends in mind. Problems will result through building is about ordering of relationships between people. We recognise society. Difficulties are not;

Politics and ruling alignments will change, but the human issues raised by urban growth will fly in the face of... (Hillier and Hanson - 1984). The meaning of a city is conveyed through the clues, messages and signals it sends out.

Creating a strong local network of services, retail, civic, and commercial uses is central to putting physical intensity and a human scale back into a neighbourhood. Human scale is the stoop of a rowhouse or the front porch of a home rather than the stronghold of a high-rise; it is a shop walking the beat rather than the helicopter overhead. Human scale in housing means creating homes with individualized detail, identity, and a sense of place. Human scale in economic means supporting individual entrepreneurs and local businesses. Human scale in community means a strong neighborhood focus and an environment that encourages everyday interaction. Too often the institutions that operate on a first-name basis are displaced by large anonymous organizations.

The 'idea' that each city has of itself is the guarantee of its continuity. It always represents the union between its past and its future; it has the same role that memory does in the lives of each person. This idea is guarded by the institutions citizens create. And through their specific ways of operating, institutions choose the image of the city in time. This is what Aldo Rossi means when he says the city itself is its own purpose.

But will these characteristics - this innate decency which takes centuries to create, and which presumably is one of the main failings of that process we call civilization, survive the jolting demographic changes that are taking place, and for how long?

Are the messages of the city still recognizable and comprehended?

So what do we learn from all of this? One irresistible urge to structure the world so that it fits our diagrammatic principles. What is wrong with suburbia? Why do we usually have to design it out as in the Essex Design Guild? Why do we have to build things into oppositions when we could resolve these elements? The basis of all this may be attempting to achieve some kind of warmhouse distribution which is always a myth. My favorite version of the plan of Milton Keynes is one which doesn’t attempt to actually distribute jobs, it just states a town and size, this many jobs, this is how you get about, rather than binding things down, which we have to do inevitably in the real world. In some ways it is a much more satisfactory notion to play with as a balance between imagination and reality that should make this game satisfying and exciting.
5.3 The Messages Of The City

If we believe that the clues and messages of the city (Rapoport) are necessary in order to allow people to comprehend and make changes, then the message system needs to be understood and used and built upon.

Scott-Brown (1965) describes city messages as existing on many levels. Functional, namely assisting in directions, place names, or they may be expressions and symbols for the city user - its culture values and aspirations, mysticism and philosophy, its institutions, its technology. These messages can also be of a general nature with a meaning to all or of a specific or personal nature. The message system of a city is a complex tapestry of interwoven levels of communication. Even elements such as roads give clues and messages. The rhythm of the street give a subconscious clue as to the nature of the street and acts not purely as a movement system, but gives clues and messages as to its nature.

People tend to think of paths, destinations and origin points; they like to know where paths came from and where they lead. Paths with clear and well known origins, and destinations have stronger identities and help tie the city together, and give the observer a sense of his bearings wherever he crosses them. Lynch K (1960: 54)

Lynch sees the messages of the city in three basic ways in his book "Image of the City", the meaningful facial characteristics of buildings, spaces, or other artefacts; by relative location or place within a known geographic area or a memorable sequence of physical events; and obviously, by means of verbal signs and other overt heraldry".

Crane defines the objectives of this intelligence apparatus as to:

- provide the citizen with necessary functional data
- give a psychic feeling of how the city reflects one's own and others' values
- reflect societal morality towards the environs and the man/nature interdependence
- organize the capacity for growth and change/permanence; clarify public city building processes
- provide ordered freedom for private city building and a structure appropriate for the exercise of choice and flexible individual use (1960).

The 'reading' of the urban environment by its inhabitants is fraught with the complications of class, education and cultural orientation. The messages are there, but the meaning attached to those messages might be confused and mixed. Highly literal implications and understanding might be placed on symbolic messages, leading to consequent misinterpretation.
The relationship between culture, world view, values, images, lifestyle and action (after Rapoport 1978).

<table>
<thead>
<tr>
<th>CULTURE</th>
<th>WORLD VIEW</th>
<th>VALUES</th>
<th>IMAGE/SCHEMA</th>
<th>LIFE STYLE</th>
<th>ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>An idea or a collective view, which creates a system of rules and values</td>
<td>Part of a world view</td>
<td>These embody the values and lead to certain specific choices</td>
<td>Associated</td>
<td>Activity proper, how it is done</td>
<td></td>
</tr>
<tr>
<td>A group with shared ideals and choices, and is either difficult to use or productive</td>
<td>Identities and choices</td>
<td>These choices and role allocations and associated activities requirements</td>
<td>Associated</td>
<td>Activity proper, how it is done</td>
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<td>Physical environment and is used to operate</td>
<td>Associated</td>
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</table>

People measure their self-knowledge by what the average person in their social environment knows of himself. What is commonly called self-knowledge is a very limited knowledge, most of it independent on social factors or what goes on in the human psyche (C. Jung - 1958).

The messages transmitted in the city are the cues that we wish our city to be judged by. Mixed messages result in confusion, as do oversimplified messages. Oversimplification/multiplicity of function is not however to be confused with cultural diversity and the potential richness of a multi-cultural society.

A multi-cultural society will by its very nature have many clues and messages - and in a well designed city a common or shared vision, or at least a vision that overlaps. This society will have a richness and clear set of messages. A society that has neither a shared vision nor a system of clues and messages, or has reduced the message system to a basic which only operates at a focussed level, will have a sterile environment. The richness and the many different levels at which the message system exist the city gives the city an inherent understanding logic for not only the local - but for the outsider.

In designing cities it seems necessary to encourage the use of as many clues and signs of human activity as possible - partly because multichannel capacity and redundancy is needed to enable many higher order expressions of congruence to develop. The clues can be read at whatever level you choose.
Stephen Carr (1967) produced a three stage model for responding to the city of the mind with a view to achieving a closer fit between this and reality:

- Collected information on the mental maps and schemata people have of the environment, and on current actions likely to affect these.
- Developed a programme of action and implementation which will strengthen these images via appropriate supports and constraints.
- Reviewed the effectiveness of the programme and modify actions or institute new steps.

He also produced a list of criteria for the production of a good environment:

- Increase the exposure of people to a variety of environmental settings and potential interactions.
- Stimulate and facilitate exploration of the environment.
- Increase perceptual accessibility (clarity and availability from many points) of city form.
- Structure city form to facilitate the various modes of structuring mental representations.
- Enhance the unique qualities of environmental settings.
- Increase the relative exposure of city elements and settings of highest common significance, both functional and social.
- Increase plasticity and malleability of city form in response to the actions of small groups and individuals. (Boden 1979: 140)

The city should promote a rich and complex mix of intense overlapping conditions and activities in space so that urban opportunities are maximised through intense interactions and high levels of population support. (Dever and Uytengsaard 1991)

The small groups - neighbourhoods within the city product - provide diversity and richness, and their interaction stimulates the environment.

5.4 Intensity And Diversity

Positively performing urban environments reflect a high degree of interaction between components and elements of city structure. The application of intensity and diversity can give rise to a far greater range of opportunities and facilities, integrated through all spheres of society - thus affording the poor easy access to opportunities and facilities, generated through the resources of the more wealthy. (Dever and Uytengsaard 1991)

The city is a great wealth of infrastructure - infrastructure that needs, especially in developing countries, to be utilised to its maximum. The intensity of the city has an enormous dynamic - but a dynamic that is only able to be realised if there is diversity. Single function intensity
tends to be cyclical, i.e. offices that die in the evening. The multiplicity and diversity of mixed
use - studio flats - living and working in the city, add to the excitement and consequent
sustainability of the city.

The greater the choice offered within the city, the greater the mixed use opportunities, the
more likely the city is to survive. The control of the space in the city is by contrast locked into
inequality. This inequality (C Correa - 1989) is directly generated by the grotesque skew of
the income profile. The richer the population, the greater their access, while in contrast the
poor have limited access and experience in the public realm.

5.5 Structural Elements Of The City
(Dewar and Uytenbogaardt 1991) define the elements that structure the city and consequently
give access as having the following hierarchy.

5.5.1 Public Space
The public space is the collective space in the urban system that is/should be integrated into
the city structure as a resource that is shared by all.

5.5.2 Public Facilities
These are the elements structured around public space ranging from schools/community halls
to universities and hospitals. These elements - part of the capital web - should be
strategically placed to maximise the use of public space, while minimising walking distances
and offering easy and convenient access by the constituent users. Public facilities potentially
offer an opportunity for private sector development due to the nodal attraction of these
elements.

5.5.3 Public Green Structures
Public parks, open spaces, and places of leisure, have the potential to create linear parks and
spaces that link and unite the city offering potential commercial opportunities.

The public open spaces that exist within Johannesburg are under threat. The relevance in a
Third World of parks and public spaces is not under question, but rather how these spaces are
used. Towards the latter years of apartheid in South Africa, and Johannesburg in particular -
because of crime and safety - the public realm became almost a wasteland. Now more than
ever, not only are these spaces being utilised, they have become critical with regard to the
overcrowding and limited open space available.

From the period of ± 1951, Johannesburg and the state has systematically stripped the city
of major open space. Park Station removed ± 20 city blocks of open space (Wanderers) and
never replaced it. The open space and green park system of Johannesburg is there, but not
in an obvious structured way. Access to these implicit and explicit spaces need to be addressed via transportation.

5.5.4 Movement Systems
Movement systems and/or public transport can either be politically and commercially manipulated or can provide the activity paths that connect the city. This is one of the prime structuring elements of the city as access both local and regional is pivotal to the functioning of the city. Movement systems will dictate residential areas, public realm as well as commercial development.

5.5.5 Commerce
Commerce is directly related to what is permitted to happen and where. Historic zoning conditions, coupled with market pressures will dictate where these activities occur.

Urban management strategies should focus on the collective structural elements of the city and urban life, and on the nodes, barriers and edges (the restriction of the urban sprawl). The resources of the new South Africa dictate that limited financial resources are available. What finance or energy is available should be concentrated to do “as much as possible with as little as possible”. Concentration of resources into meaningful interventions rather than a thin spread is likely to achieve meaningful results.

5.6 Strategies
The complex social networks which take root in urban areas, many of which have a defined geographic focus, are of profound significance. They provide the first, and frequently the only, form of social security and insurance; they are fundamental in processes of urban socialisation, and they radically affect the quality of life of urban dwellers. Again, the way in which urban management occurs can facilitate the strengthening of these ties or, in extreme cases, can shelter them. This realisation reinforces the need to promote intensive cities, as opposed to extensive ones. (Dewar and Uyttenbogaardt 1991)

South Africa, like most developing countries, has tended towards urban sprawl, rather than intensive development. As Crane rightly says, “the city should be a city of a thousand designers” - and design in this context not only means the built form - but the experienced form and consequent quality of life. Urban management strategies need to address the city - or urbanity - at various levels; Dewar and Uyttenbogaardt 1991 describe these levels as:

5.6.1 as individuals, with their specific needs to be urban.
5.6.2 as access elements, i.e. they allow through their structure enhanced access to activities and processes of urban life;

5.6.3 as diversity - the more interaction and urban opportunity, the more positive the urban environment (Dewar and Uytenbogaardt 1991). The need for access demands a high level of activities within tight areas. The environment created requires a complexity of support, i.e. highly specialised elements within a relatively small area. The more intense, diverse and complex an urban environment, the more accessible the city is to spontaneous and unexpected activities to occur.

5.6.4 as integrated part and elements of the city. "The essence of urbanity is that, with increasing agglomeration, individuals, groups and communities can benefit from a greater range of opportunities and facilities than can ... generated by their operating in isolation.

5.6.5 as community - The concept of community is a complex one. In essence, it relates to creating a sense of identity and belonging - a sense of absorption into urban life. Urban dwellers become part of many communities, many social alignments. In the course of their lives and the nature of these varies widely. No single conceptualisation is possible, nor is there a simple correlation between community and space or territory.

The urban environment must be sufficiently robust to create a mechanism that can absorb the multi-faceted cultural peoples into a homogeneous system.

Johannesburg in particular is facing the challenge of this phenomenon - a multi-cultural local and national scenario - as well as urbanisation from other African nationals. The city must be able to absorb and cope with the complexity of creating identity, while on the other hand cope with the critical balance of addressing the needs of the constituent population.

5.7 Urban Growth - Strategies

Individual space and private space has become more favoured than public institutions and collective spaces. (Dewar and Uytenbogaardt 1991). Public activities have become supportive rather than dominant. The residential stand alone function has become the informing factor and the systems that connect the residential components, the all important issue.

Whereas previously movement channels merely linked places of dominant activity, specialist roads are now the leading, dominant elements. Perhaps most importantly, today the emphasis is not upon creating a dynamic balance and tension between public activities and
institutions but simply upon separating them; each institution becoming an isolated, frequently introverted, event.

The urban shopping centre is a prime example of this. Rather than being an experience during the course of events, it becomes the main event.

There is an urgent need to focus urban management attention on the collective dimensions of urban life. Particularly important in this are the public spaces. Positively-made and celebrated public spaces are the essential social infrastructure of successful urban environments. They are the places through which people experience the city and engage, both formally and informally, in its collective life. They are the primary elements affecting the quality of cities as experienced by all people.

Urban growth, and the control of that growth is based on the concept of 'good city form', but ultimately, the responsibility for making cities livable rests with both their governments and their people. Too often those governments become corrupt systems for dispensing benefits to agencies, employees and political supporters. (Time Magazine - Jan 11 1993)

Devor and Uuttenbogaardt (1991), suggest five changes to conventional management to make the transition back to urban and public spaces as an informing and structuring element rather than the isolated residential components.

i) The first is to seek initially to implode urban growth rather than exploding it - compact the cities.

ii) The second is to seek to integrate urban activities and land uses, rather than attempting to separate them to the greatest degree possible.

iii) The third is to seek continuity of urban development, in order to allow the cities to operate systematically, rather than promoting fragmentation.

iv) The fourth is to expose more intensive activities by allowing them to respond to movement routes which connect local areas, rather than introverting them within local areas.

v) The fifth is to return to viewing collective spaces and places as the basic building blocks of urban systems, rather than focusing almost exclusively on the individual housing unit.
In the South African situation, with such devastating imbalances, and past policies, the current political focus has tended to be on the specific - rather than the general, for obvious reasons.

5.5 Conclusion

There are a number of intrinsic elements which inform the city - our city of Johannesburg - as to what the different users of the city want, need and share as their perception of the city, and in contrast, the message system, be it explicit or implicit, of the city.

The 'new city' has a number of different tenants and the 'old' are leaving, not liking the crime and lack of control of public spaces within the city. The city is however alive with a new vibrancy and mixed, intensive use, however this tends to be localised.

Cities are too often regarded simply as collections of smaller environments. Most traditional design ideas (shopping centres, neighbourhoods, traffic intersections, play spaces, etc) reflect this tendency. It is usually assumed that well-designed neighbourhoods, with good roads and sufficient shopping and industry, automatically produce an optimum settlement. As another example, many planners are likely to think that a beautiful city is simply the sum of a large series of small areas which are beautiful in themselves. (K Lynch/Rodwin - 1958 pg 203)

The developing city must not be seen as a series of parts that work and don't work. To isolate one area (precinct) and 'make it safe' is to exert extreme pressure on adjacent areas, and merely transfers and exacerbates the problem.

In South Africa - and Johannesburg in particular, we have neither developed a collective perception of the city (either socially or politically), or rationalised the message system that the city transmits.

The intensity and diversity within the city is localised and concentrated within specific areas. The balance of the city is a wasteland. There is no clear policy that unites this fragmentation into a cohesive and clear city wide scale. There is further a political fear that the diversity that is developing is a threat to financial investment.

The fragmentation that characterises most developing countries has become particularly highlighted in Johannesburg at all levels. Our planning, both physical and political, has become fragmented and deals primarily with resultant not causal elements.

William H Whyte in his paper (The Conservation Foundation, Washington DC - pg 61), says: "Who are the variables? For most businessmen, curiously, it is not muggers, dope..."
changers, or truly dangerous people. It is the winos, derelicts who drink out of half pint bottles in paper bags - the most harmless of the city's marginal people, but a symbol perhaps, of what one might become but for the grace of events. For retailers, the list of undesirables is considerably more inclusive; there are the bag-women, people who act strangely in public, 'hippies', teenagers, older people, street musicians, vendors of all kinds.

The preoccupation with undesirables is a symptom of another problem. Many corporation executives who make key decisions about the city have surprisingly little acquaintance with the life of its streets and open spaces. From the train station, they may walk only a few blocks before entering their building (or in the case of Johannesburg, drive directly into the basement parking of their building - never to walk the city), because of the extensive services within the building, some don't venture out until 10 to go home again. To them, the unknown city is a place of danger. If their building has a dacha, it is likely to be a defensive one that they will rarely use themselves.

Four others will either. Places designed with distrust get what they were looking for and it is in them, ironically, that you will most likely find a wino. You will find winos elsewhere, but it is the empty places they prefer: it is in the empty places that they are conspicuous - almost as if, unconsciously, the design was contrived to make them so.

Four proves itself. Highly elaborate defensive measures are an indication that a corporation might clear out of the city entirely" (William H Whyte The Conservation Foundation, Washington DC)

We glibly talk of layering the city into relationships that are lo-choice to its users in order to provide quality without necessarily understanding the levels of the users.

"A stimulating and complex environment can release a voracious response of individual and collective energy (Crane, 1960), "but if the majority of the users of the city are fragmented and isolated from the "main stream" and have no access, what energy are you releasing?"

We have developed a tendency in developing Countries to overdesign - to design a product, that is in First World countries has taken centuries to develop, that has the same characteristics and comfortable finished feeling, without going through the many differing cases.

In the next chapter, the intention is to lay the foundation for re-uniting the fragmented city and addressing the issue of robust minimalistic design that allows for incremental development, the slow layers of cultural development that allow the public domain to be utilised with varying degrees of intensity, without being a threat to the First World element.
PART SIX  FRAMEWORK CRITERIA

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6.2 URBAN SUSTAINABILITY
6.3 THE BASIC FRAMEWORK
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  6.4.1 Public Space
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6.5 THE FRAGMENTED JOHANNESBURG - CONCLUSION
6.1 Introduction

There is a syndrome common to most Third World urban centres. Each seems to consist of two
different cities, one is for the poor, another (impliedly) for the rich. Although these
two cities occupy quite separate territories, rich and poor enjoy a symbolic relationship is not
always understood by the rich, who often overlook the fact that they need the poor to run the
city - not to mention their own households. (C Comer, 1989 - pg 92)

The fragmentation that exists on two levels. The first is deliberate - political, economic and
social. The second is less obvious. It exists implicitly. The passive role of not
understanding, or being in a position to understand the different levels of access into the
urban situation, and in some instances, the lack of access.

Urban design operates at a general level as well as a specific. It is arguably a problem with
mixed design - at least on one design and over ambitious. Spaces and the public realm in
Europe have taken many generations to form and attain their richness. They cannot achieve
this overnight - nor should we in the developing countries, attempt to recreate a developed
urban situation overnight. The designer must be prepared to design relatively - with enough
design to suggest usage and occupation - but with sufficient flexibility to allow for common
interactions, and images, not necessarily controlled by the designer, but accommodated for
the design

Urban planners have for many years chased the "American dream" in their planning efforts. It
has long since been realized that this form of development is simply not sustainable due to
the fact that the necessary resources are beyond the means of most economies. Cities are
the centres where the economic wealth of our nations is generated and where the majority of
our population lives. Frameworks for our cities should include densification and the provision
of efficient public transportation systems. (EMP 7 Jan 96)

6.2 Urban Sustainability

Even improvements in any one of the basic needs (health care, accommodation or education)
are heavily dependent on improving the access of the poor to employment with fair and
adequate remuneration. Not to recognize this basic fact is to condemn many Third World
citizens to an unstable and uncertain future. (D Deschaux - Smith - 1987)

John Guntens (British Secretary of State 1994) identified 6 areas of a holistic approach to
urban design:
- Focus of the whole - the whole picture
- Perceptions of place - people don't view the world in bits but relate to the whole
- Ending of zoning - too much emphasis is placed on zoning rather than the promotion of mixed use
- Benefits of mixed use - our homes, workplaces, playing fields, etc, are part and parcel of each other.
- Urban design debate - What is right in one place will be totally unacceptable in another
- Design guides and site briefs - too much information of the wrong kind which are too detailed and inflexible.

Designing in the developing world is an organism with social, economic and physical characteristics which generate structures both responsive and otherwise. (F Amos - 1995)

6.3 The Basic Framework

The framework should address the following (John Montgomery - 1995):
- Mixture and diversity. Zoning issues should be put to one side in the interests of creating diversity within the city. (In fact, zoning issues should be seen in terms of a specific and localised context, rather than a broad-brush principle).
- Stimulation of vitality. Not only should there be mixed use, but the reintroduction of vitality and life to the city should be paramount. (Regardless of existing and outdated planning).
- Boosting of local business, whether formal or informal, or a combination of the two.
- Investing in cultural activities - people attractions.
- Reclaiming the public realm.
- Creating spaces for people.

6.3.1 This framework can be formalised into a strategy for:
   i) The Public Space
   ii) The Public Realm - or structure containing public space
   iii) Public Transportation
   iv) Employment - the town centre

6.4 Neighbourhood And Community

6.4.1 Public Space

Many of the urban parks and squares that exist today do not function properly because they were designed for a different age, population or culture. Our public spaces should meet the current demands of today. If illegal space invasion is an immediate issue, this should be addressed in a way which allows short term accommodation, but long term control. Design the space to allow for the immediate issues - but the design must be sufficiently flexible to
address the problem of squattling and hawkers without allowing it to become permanent, e.g. short term access.

6.4.2 The Public Realm

Monuments, civic buildings and public buildings. These buildings are structured as part of the public space, but also part of the capital web. The location of public buildings from schools to government buildings is crucial as part of access to the city.

The public library - serving an immediate function today as a place of study, must be like all public buildings, sufficiently flexible to adapt once the current need has been addressed at a different level, and the situation normalised.

Public buildings must be strategically placed within walking distance and public transport, and will by their nature attract people and consequently commercial activity.

6.4.3 Public Transportation

One of the major forms of access to the city is public transportation and consequently it is a major structuring element. Where one form of public transport ends - and another begins, is a point of energy transfer and potential commercial development.

The public transportation system especially in developing countries, gives access not only to work opportunities, but to leisure and access to public facilities. The movement system should be integral to the public realm and consolidate the access into - and out of - the city.

Public transportation (and in the case of South Africa - the taxis), are the only form of gaining access. These public routes are therefore critical in the location of strategic elements of the city. The colonial or "old" city is based on a combination of public and private transport. The new city is reliant on public transport. The relocation of business in Gauteng to the North is a prime example of a total dissatisfaction as to how people get to work, and where best to locate major facilities. Most of the major retail centres in South Africa are not located close to all modes of public transport.

Transportation is therefore one of the crucial issues in access to the fragmented elements of the city.

6.4.4 The Town Centre/Employment

The town or city centre should provide a focus for retail development where competing businesses are near enough to benefit from competition. They should attract local residents.
shoppers and visitors and create an economy of life, culture and entertainment, as well as employment opportunities.

Employment, and sustained employment, will structure the city. The informal sector is totally based on available ‘markets’. Where there is employment and consequently money - there will be a market.

Access systems of the city must be located in close proximity to the employment zones.

These access systems must not only relate to where people are employed, or find employment - but must be based on the way in which the family works. The urban poor are likely to have a very much more limited or confined experience of the city than the rich, who are not necessarily limited by public transport or foot. It is important therefore, to locate the neighbourhood elements along the transportation corridors - schools, clinics, shopping and other civic requirements should be anchored by public transport.

6.4.5 Neighbourhood and Community
Consolidated planning involves re-establishing the art of place making piece by piece. Neighbourhoods are part of a regional continuum. Clear connections to the region, between the neighbourhoods and within communities are essential. Clarifying the structure of neighbourhoods within the city and identifying their critical links - social, cultural, civic, economic and physical - to the region are fundamental steps in a consolidated process.
(Peter Calthorpe - 1995)

The residential component is the basic sustaining element of a city and preventing single use and consequential lack of economic activity.

6.5 The Fragmented Johannesburg - Conclusion
Public space in Johannesburg is either totally inappropriate for the use being made of it - or under threat. The public realm is isolating the very people who should, and wish, to patronise the facilities. The public realm closes at 16h30 - the very time most of the people who could, and wish to make use of its facilities, are available. The public transport is totally subsidised by private taxis, and (public transport) is regarded as being too expensive to extend fully to the north, thereby theoretically limiting business growth - or in reality adding major transportation costs to the low income groups. Employment - which should be developed along the major public transportation routes - has moved out of the city to the north ignoring the major existing residential components, which are primarily based to the east and west of the city.
Access to the city - and consequently to the economy - can only be achieved through a holistic and managed approach. The transportation routes into and out of Johannesburg need to be integrated and developed with mixed use and especially housing. Education and health care need to be consolidated along and into these corridors. With the changed role of the woman in the family and workplace, it has become more critical that the strategic elements creche, school, health care, shops and work be located either within easy walking distance - or on public transport routes.

The urban sprawl needs to be restricted - not only in terms of the urban poor - but in terms of quality of life. In the global city one is in touch with the entire world via electronic media - or equally by walking through the street to your parking place, and meeting with people.

Design must be proactive. It must be robust enough to allow for many different opportunities and activities to occur without being totally prescriptive and attempting to pre-empt all possible uses. The scales of intervention are subtle, but in order to design in the Third World, one needs to ‘fully design’ and then strip the design right down to its basics. ‘Minimalistic design’ requires the full exploration of scope and potential richness before stopping. It is necessary to go through a full and complex design process in order to arrive at a “simple” solution. The complexity and diversity of a simple, clear solution is not arrived at directly - but through exploration. The civic spaces that have developed in Europe and the East have not evolved overnight - but rather through centuries of change. The richness of these spaces comes from their ability to adapt to changing social situations - not through instant design. If people invent a use for an urban space that has not been anticipated, we should be joyful - not angry! The space should be robust enough to handle it.

The challenge is to design urban spaces that address the short term problems such as squatters, street hawkers and taxis, but that allow for ultimate growth into fully usable urban spaces. If the squatters sleep in the park, then the issue must be addressed. If those people are treated with respect and not feared, then short term solutions can be found that will create a force of people who will become urban watch dogs.

*Don’t lock the gates of the city parks at night - and close all the WC’s - address the problem*.

Time Magazine (11/93) has the following to say - ‘the cities obviously need more money. In many countries the help that urban areas receive from the national government has dwindled steadily. Moreover, during the past decade, foreign aid shifted more and more to rural problems, even as people moved to the city. Now, with urban areas producing half the world’s income, and governments nervous about rest of urban population, agencies such as the World Bank have begun to focus more on cities once again’.
In South Africa and Johannesburg specifically, while there is a recognition that the rural areas require major aid, both economically and educationally, there must also be a recognition of the economic aid required in the cities themselves. The interrelationship between the city, suburb and rural area is totally intertwined. The fragmentation that has occurred within the dense urban areas is an issue that needs to be addressed. It is my belief that the resolution of the fragmentation within the cities, and the addressing of some of the major problems within the cities, will have a greater impact on fringe city and the rural areas, rather than by dissipating the energies and attempting to do something in all areas simultaneously. It might well be that Johannesburg needs to be considered in a very similar way to London, (and indeed, many European cities) during the Second World War. The cities were under siege, but the limited resources, (be they economic, or manpower), were concentrated into areas that would prove the most effective and efficient. Short term solutions were found to address problems. There was an awareness that after 'this madness' was over, long term solutions would have to be found. The escalation of crime and disorder within the besieged Third World city, the invasion of the public parks, and the general inability of local authorities to perform, as well as the caution of government departments to do anything which might anger the electorate, are short term issues, and must be addressed and considered as such. The short term stopgap solution must take into consideration the ultimate long term goal.

The uniqueness of South Africa in terms of being a Third World country lies very much in its similar characteristics to other Third World countries, but with the major difference of being a colonial country that was recolonised with a secondary political regime that now requires a double set of redressing. The baggage carried by post-colonial nations is bad enough, but the baggage carried by a nation that has not only gone through post-colonialism, but has hard a superimposed legalised form of segregation enforced, is a country carrying incredible burden. In a country where precious minerals and human resources are its most valuable assets, to have the vast majority of the human resources lacking the necessary training, motivation or education, is a tragedy. If one considers the limited resources of the country and the extremely high levels of illiteracy and vocational training, it is not surprising that the crime levels are where they are at the moment.

The complexity and diversity of urban design required, needs to address the situation at all levels. It needs to be robust enough to handle the immediate situation, (namely the fragmentation and isolation of a large number of groups within the city fabric), but further needs to be able to project itself into the future, and deal with the desires and aspirations of the new generation of rainbow people coming through and into the system without having to retrace steps.
PART SEVEN  "IN THE BEGINNING THERE WAS LIGHT

7.1 INTRODUCTION

7.1.2 The Vision
7.1.3 Consolidating the Vision
7.1.4 General Principles

7.2 REJUVENATION AND INITIATIVES

7.3 SITE SPECIFIC

7.4 A TOUCH OF REALITY

7.5 CONCLUSIONS

SOUTH AFRICA
AFTER THE MIRACLE
The country has come a long way, but it still faces a heavy haul to peace and prosperity.
PART SEVEN "IN THE BEGINNING THERE WAS LIGHT"

7.1 Introduction

Of all the cities in South Africa, Johannesburg perhaps is the most unusual. It is a city that is
totally colonial in character, but unlike Cape Town and Durban, does not have traditional
quarters for sections of the population, as traditionally, Johannesburg has rebuild itself every
20 years, and has a reputation for self-destruction and rebuilding. It is colonial rather in terms
of its philosophy and attitude. Johannesburg is possibly unique in terms of being a Third
World city with first world infrastructure, as a result of two sets of colonial masters. This has
now changed. The 'new' urbanisation has created a fear of the city which has resulted in a
flight to the northern suburbs, in search of a safer place to conduct business. This vacuum
created by the flight to the north has been filled by street vendors, taxis, and a massive urban
influx. Johannesburg has become the melting pot between the First and Third World city.
Increasing crime and fear for the safety of staff and personnel had led many organisations to
make a decision to relocate in the decentralised nodes towards the north without regard to
transportation. This has led to the creation of wastelands within the city, and the very
elements from which the fleeing population has escaped, themselves relocating into these
nodes. Decentralised nodes such as Rosebank and Sandton, are now experiencing similar
problems as the central city, such as an influx of street children, hawkers, taxis, increased
crime and general invasion of public space.

The CBD has however, been given a new, unexpected lease of life - retail has never been as
powerful and dominant as it is at the moment. Major retail groups are systematically
moving back into the city recognising that its major market, due to access via public transport, is
located within the city. Public transportation is the predominant means of the urban poor to
access. In this sense public transportation refers not only to buses, taxis or trains, but the
complete network of the entire system. In this respect, Johannesburg is unique in terms of its
transportation system. The rail network is primarily an east/west industrial network, rather
than a domestic network that links the suburban systems. In many ways, it is this rail
transportation system that connects Soweto and many of the other satellite cities back into the
city that makes Johannesburg unique. The elite northern suburbs are connected to the city
primarily by bus, private taxi and private vehicle. It is precisely this factor that has
fragmented the northern suburbs from the CBD of Johannesburg. Both the urban poor and
rich have been systematically isolated. The public transport is seen as unreliable and
erratic by the 'northern suburbs' and unsafe and expensive by the 'others'.

Transportation plays an absolutely critical role in terms of the access to the city and to the
fringe city. If the majority of the people cannot afford private transportation, then their only
method of access to work (both formal and informal), is via public transportation, and in
terms of public transportation, is included the taxi, as it has filled in the gaps not provided for
by public transportation, and has become for many, the only means of transportation to areas outside the city.

If transportation nodes are the major access points into the city, one would automatically assume that these nodes would be strategically placed to give maximum access. The links between these transportation nodes would therefore, one would assume, be either of easy walking distance, or strategically placed close to major sources of employment. What has happened in the South African city is that transportation to the place of employment involves a fairly lengthy process, namely, a taxi to the train-station, a train into the city, and then a bus or a taxi to the place of employment. This has resulted in an exceptionally high period of time spent travelling. The more and more that companies decentralise, the greater and greater this problem becomes. The longer these distances become, the more fragmented and dispersed the city itself becomes.

7.1.2 The Vision
By the consolidation and connectivity of the various transportation intermodal connection modes, the fragmented city, with its existing infrastructure, has the opportunity of knitting the new and old elements together again. Intermodality can become an activity path, or a spine, that generates and reflects the complexity, diversity, common culture, and spirit of the emerging South African city. This activity path can be used to give access and meaning to the city at a number of different levels, creating opportunities that allow the social, political and economic fragmentation of the city to operate as a rich cultural whole, recognising the diversity of the population in a single vision. The spine can further become a catalyst that generates further opportunities to unify the fragmented elements of the city.

7.1.3 Consolidating the Vision
By encouraging development around nodes of transportation, be it rail, bus or taxi, one is minimising the amount of time spent commuting between home and work. Johannesburg has several different transportation nodes, each with a unique and different character. To dissipate the potential energies of each of these nodes, and attempt to either relocate or in fact duplicate these nodes in so-called safe areas, is to dissipate the very energies that make Johannesburg unique.

7.1.4 General Principles
There are several principles that emerge from this situation.

- That the levels of current problems can become potential, and should become potential opportunities.
• That the fragmentation that has occurred can be overcome by a series of informal and formal network of mutual aid and mutual self help.

• That the city itself must develop a data system (perceptual accessibility) that allows people to understand the system that makes our city legible, a shared vision.

• There must be a level of understanding of the meaning of access, and how access works at a political, natural and economic level.

• There must be a recognition of the plural activity, namely the combined resources of the family gaining access to an economy that allows them to exist, that doesn’t split the family up into a series of fragmented elements.

• The changing role of the woman must be recognised.

• It must be further recognised that the opportunities created in the entrepreneurial sector must not only be encouraged, but must be understood that there is a limited section of the population that will actually achieve employment within the formal sector.

• That the transportation system is the activity pass and spine along which all capital web elements should ultimately be located.

• Major development and consequently places of employment should be located along these activity spines.

There should be a further recognition, the following:

It is not the intention of this dissertation to design the street furniture and the intimate detail as to how the individual elements work, but rather to address the spaces and the relationship of the buildings to the spaces. It is rather to set up a series of guidelines as to how these spaces within the study area should work and indicate clues and messages as to the potential usages of these spaces.

This city has a number of different transportation nodes, each unique, and each serving a different function. An analysis of these transportation nodes and how they interconnect and relate to one another is absolutely crucial to the functioning of the city itself. How these elements are related and put together is explored in the following set of diagrams.

7.2 Rejuvenation and Initiatives

Gordon Childe in his book “What Happened in History” says the following, “progress is real if discontinuous. The upward curve resolves itself in a series of troughs and crests. But in those domains that archaeology as well as written history can survey, no trough ever declines to the low level of the preceding one, each crest out-tops its last precursor”.

THESE SHOULD BE A SPECIAL APPROACH — AN APPROACH THAT GIVES CLUES & MESSAGES AS TO HOW A SPACE IS USED.
PLAN OF JOHANNESBURG AND SUBURBS.
1897.
That the CBD of Johannesburg is in a trough of decline at this point of its history is not debatable. The question asked is fairly simple: Is this trend reversible, or will the city simply burn out like some vast star?

The section of dissertation seeks to explore the theory that the city has a new life and is on the upward curve, but it is a reinterpreted city that is emerging.

A plan of Johannesburg and its suburbs in 1977 (Figure 1) (exactly 100 years ago), shows the colonial Johannesburg very clearly. Its different locations, namely the Native location in Braamfontein, the Kaffir location at Station Plain, the Coolie location to the north of Fordsburg, and the CBD within the Randjesfontein boundaries. Even as long ago as 1897, the city was clearly fragmented, and the railway lines, even then separating the CBD of Johannesburg from Braamfontein. In contrast to this (Figure 2), the Johannesburg of today still reflects the fragmentation but a fragmentation where the various locations, through 40 years of Nationalist rule have been systematically removed from the city, and dislocated to townships surrounding the city. The major park systems, such as Kruger’s Park - or what became known as Wanderers, Joubert Park, the Union Grounds, Market Square and other green pockets throughout the city have been systematically stripped and eroded. The flight from the CBD to the northern suburbs, has emptied a great number of buildings in the centre of Johannesburg of their tenants, and even today there is talk of some prestigious buildings being mothballed, and vast sections of the Carlton Centre being closed down. Absentee landlords have further led to the general decay of buildings within the CBD, leaving with unpaid rates and taxes - and no concern for the state of their buildings. Many of these buildings have been abandoned. This situation has further exacerbated the plight of the local authorities. With a ‘tradition’ of non-payment of rates and taxes, this desertion reduces the tax base even further.

In spite of this doom and gloom, there are a number of individual initiatives that are currently occurring within the city (see Figure 3). These include:

- The Newtown Precinct, consisting of arts, culture and entertainment.
- Metro Mall - which is a transportation node situated to the immediate south of the Queen Elizabeth Bridge, Park Station - which is a multi-modal transportation node, consisting of bus, taxi and rail and a limited amount of retail.
- The proposed new constitutional court located to the north of Johannesburg in Braamfontein on the site of the old Fort.
- Joubert Park - an initiative involving the upgrading and restoration of existing facilities.
- The upgrading of Jack Mincer Square, immediately to the south of Joubert Park into a transportation node and taxi rank.
The investment of ABSA of some R200m+ for an extension and consolidation of their new headquarters, bringing them in line with Bank City (FNB) and Standard Bank.

The initiative by Anglo American, called the South East City Project, which consists of the revitalisation of the Carlton Centre, mixed use development, residential precinct, new retail and commercial areas, small business and generally an environmental upgrading.

The upgrading of Faraday Station into a multi-modal transportation node and a mixed-use precinct.

Westgate station, to be similarly developed.

And various housing initiatives to the West of the M1.

Various casino applications

Within these initiatives are a series of street trading and pedestrianised routes, namely: Hoek Street connecting Park City to Jack Mincer Square, the pedestrianisation of Eloff Street, Kerk Street, President Street, Main Street and Commissioner Street. The importance of these street trading opportunities are that they highlight the changing face of Johannesburg. The city has once again become an important retail centre. The major chain stores have upgraded and increased in size their facilities within the CBD. Johannesburg’s retail life is not limited purely to the local population, but attracts people from all over the African continent. This new retail life is especially evident on a Saturday morning when the city becomes a shopping centre.

In spite of these initiatives, and the growing recognition that Johannesburg has become a major retail centre, there is no single vision within the city, nor is there any co-ordination between the various major initiatives that are occurring. There is further limited co-ordination of the informal trading that is occurring, nor any real control.

The city has fragmented itself into very clearly defined zones on a social, economic, political and infrastructural basis. Land invasion, be it through informal trading, informal taxi ranks, or actual informal housing is beginning to happen in pockets throughout the city. Certain street corners have become prime crime spots where spasmodic police activity merely reduces the day to day incidents, but never eliminates the ongoing problem. There is a very clear demarcation of first world and third world within the city that divides the north east sector of the city incorporating Park Station, Hillbrow, Bertrams. As one moves eastwards from Park Station, the city becomes more crowded, more filled with taxis and traders. The Johannesburg Art Gallery has now become an island within a sea of taxis and traders.

Johannesburg has become a series of islands, pockets of development that isolate themselves from the city structure and are inward looking. Residential access to the city is limited, primarily to the Fordsburg area, as well as Hillbrow, with a limited amount of
The City has, over a period of time, lost its major urban spaces. These open spaces have been "borrowed" by the state.

Major Urban Spaces (1921)
THE OPEN SPACE SYSTEM OF THE CITY

- THE OPEN SPACE SYSTEM OF THE CITY HAS NO CONNECTIONS - IT IS A SERIES OF ISOLATED SPACES... NOT EVEN LINKED BY PUBLIC TRANSPORT.
"There is no relationship between where you arrive and where you can live."

"The Fragmented Elements of the City"
residential around Park Station. Within the post-colonial fragmented city of Johannesburg there is one constant element. That constant element is public transportation. Transportation, the arrival and departure points within the city are the one structuring element that could tie the city together and should begin to give the clues and cues within the city as to what the city is about and the dictionary as to the message system.

In Figures 5 and 6, the main access points into the city are identified. What is of particular note is that the capital web of the transportation system is concentrated primarily in the south-east sector of the city, and little or no facilities are provided outside this transportation box, nor does it appear that expansion is planned. Some years ago the 'mass transport' studies were commissioned, but other than copious transport reports being published, little has transpired.

The city has an inherent open space system, but it is an implicit system, rather than explicit. There is no legible system that connects and unites the various elements within the system. The open space system relies primarily on access via private transportation, rather than public transportation. The system is not fully integrated as one of the layers of Johannesburg. The residential components of this city, primarily Fordsburg and Hillbrow, another fragmented layer of the city, is equally not connected into the system (Figures 7/8) Where people work, where they play, where they amuse themselves are not connected in a coherent and logical basis, or as a series of legible layers.

Johannesburg is made up of a series of transportation boxes, with some better defined and served than others. Public transportation however, is better served on an east/west axis rather than north/south. (Figure 10). What the transportation boxes highlight is the very separate entities of the elements within Johannesburg. Namely; the academic island; the medical island; the residential islands; the CBD itself; the satellite industrial islands and mixed commercial use areas. The planning of Johannesburg has not been a coherent and systematic series of layers, but has been a series of impositions and masterplan solutions by services engineers that ignore the layers 'above and below. If the 'solution' requires major demolition, then so be it!

The city grain has inevitably been affected by these impositions. And while recognising that Johannesburg is a city founded on the discovery of gold, and that large tracts of land have consequently been isolated and set apart from the city, this does not excuse the sterilisation that has systematically occurred. If one looks at the implications of the two basic superimposed transportation systems, the freeway system and the rail system (Diagrams 12 and 13), the major gaps caused by these impositions in the city's figure ground become very apparent, large tracts of land have become sterilised and the undermining has further complicated development of these areas.
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THE TRANSPORT NODES ARE NOT RELATED TO RESIDENTIAL TRANSPORTATION. TRANSPORTATION HAS FRAGMENTED THE CITY, NOT UNITED IT. THE TAXIS HAVE "FILLED THE GAP" LEFT BY FORMAL TRANSPORT.

FIGURE 13
Noise, air and environmental pollution adjacent to these facilities has further devalued the land and development has become undesirable. The situation is not without precedent however, as this sterile land also creates an opportunity for large scale intervention because of its consolidated size. It is not necessary to consolidate city blocks, but rather, like Standard Bank, to use large sites already available. Barcelona using remarkably similar railway tracts, used precisely the same scenario as a means of generating urban renewal. It seems tragic that (Figures 12 and 13), two major points of access into the city are surrounded by sterile urban wastelands. The message symbols and signals that are given by these areas, are certainly not those of entry and departure from a vibrant and exciting city, nor do they give any clues as to what the city is about.

There are different means of transportation available which give access to the city, namely bus, plane, car, train or taxi. Arrival in Johannesburg is consolidated into five basic areas - Faraday Station, Westgate, Market Square, Metro Mall and Park Station. None of these intermodal arrival or departure points have any coherent message systems. There are little or no clues as to what the city is about, or where you find employment, somewhere to stay, or the like. Nor do these transportation nodes offer the traveller a plethora of choices in terms of accommodation and information. There is no clue as to the space that you need to orientate yourself towards in order to understand and begin to comprehend the city (how do you find the city square or any other civic space?). If you are a foreign visitor, the problem is exacerbated. Unless you are given verbal directions as to how to find your way around the city, the city clues are garbled and confusing. There are no clear diagrams that indicate how you use the transportation system of the city, (if indeed there is one). The cities of Europe have developed a remarkably comprehensive set of diagrams that allow access to the city at all levels and regardless of language, makes them "user friendly".

Johannesburg seems to lack the idea of a big city. All the elements of a major city are there; the post offices; the civic spaces; civic centres; the banks; the commercial elements and the shopping centres, but they all seem to operate at a different level and not connected. Each layer of the city is comprehensive, but is not related necessarily to the other layers. It is as if each layer has been designed by a separate group of designers, with no recognition or cognisance of the previous layer or the layer to follow. (Figure 16). Equally important, are a series of inter-transportational nodes that are missing. Nodes that connect to the residential, educational, medical, mining areas, and places of tourism.

The transportation nodes have the ability to be the structuring elements for the city, as well as the elements that begin to inform in terms of the city messages, cues and clues as to what happens in the city. At present there is a tenuous link between these transportation nodes. They are totally fragmented one from the other. While there has been a recognition that the
EDUCATION  a MEDICAL  a CIVIC

RESIDENTIAL

METRO MAIL

PARK STATION

UNION STATION

MIXED USE

LINKAGES

RESIDENTIAL

ORIENTAL PLAZA

CULTURAL

WEST Coupons

INDUSTRY

V.D.BULL PARK

PHARMACY
energy that is generated by connecting these nodes can be harnessed, this has tended to be on a small and isolated basis, rather than considering the system as an integrated whole.

If the planning of the city and the structuring of its elements was based on these transportation nodes and recognition given that these nodes are the access points to the city for the majority of people, then the potential and energy set up by this framework is enormous, and the potential exists to connect the city’s initiatives into a coherent whole. Each one of these transportation nodes has a unique character. Park Station, while being a destination point is equally a thoroughfare. Both Faraday and Westgate however, are destinations being the end points of the rail system and points at which you change to an alternative mode of transportation.

Westgate is particularly fascinating. It is not only a destination node in terms of the train, it is one of the main access points to the city from Soweto. While it does not have the same passenger flows as Park Station, it is a nodal point that has possibly the most potential and capacity for growth. Its location in the south/west corner of the city, close to the freeways and intersection of all the freeways, close to the main bus and taxi route into the city, makes it a node of considerable importance. Westgate station has the ability to become one of the major anchors within the structure of Johannesburg.

Transportation and the concentration of major people movement, creates an opportunity. With the lack of public transportation that exists throughout this country, the existing nodes should be exploited. These nodes are capable of not only bringing goods into the city, but similarly, transporting those goods to a close proximity to the homes of people who have bought those goods.

The reason I have selected Westgate as a study area, is therefore because of its importance within the transportation system, its connection to Soweto, and its main undeveloped potential development opportunities. In the new South Africa, given the limited financial resources available, it is not isolated projects that are going to regenerate the city but a logical and coherent layering system, that starts with transportation. The paths and routes that connect these nodes equally offer and create opportunities to set up systems at a macro level that connect major elements, and allow the the spiderweb and finer grained intervention to happen in between. Westgate is not only an arrival destination point, it is also, in terms of the transportation system and the access system of the city, a beginning point of the city.

7.3 Site Specific - Westgate Station

Westgate Station is located strategically at the point where the M1 freeway develops its spaghetti like integration with the other main arterials that feed and connect the city to other major centres. It is also the major connector between the south, Soweto and the city itself. It
This wasteland is like the aftermath of a major war.

The street traders don't use the kiosks provided - they are in the wrong place!
LAND OWNERSHIP

NOTE: ALL THE STREETS BELONG TO THE CITY

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is an area that is surrounded by wastelands of mining land, which themselves are in the process of redevelopment. Historically, this was also one of the sites for a so-called native compound. Being the end of the railway line, it is also a point of consolidation of taxi and bus interchange. The City Health Department is located in this area. The scale of the buildings within this area is governed by the soil conditions and cost of land.

There is a major movement of people through this site (Figure 24), primarily in the morning in a northerly direction, and in the evening back towards the precinct itself. This activity takes place between 6.30 and 7.30 in the morning, and culminates in the evening at between 4.30 and 5.30. During the day there is a slow but steady trickle of people using the facility. The people arriving at Westgate Station, either proceed into the city by foot or transfer to bus and taxi, and in the evening the situation is reversed. The area is currently hostile, and not geared toward an easy flow of pedestrians and interchange, with major traffic/pedestrian conflict areas occurring all around the site.

The area is characterised (Figure 25) by an exceptionally hard edge to the east, open but protected space towards the west, the freeway system towards the south with its problems of air and sound pollution, and difficult penetrations and ease of access into the city itself. There is currently a conflict of movement between the bus and taxi zones, and many visual barriers prevent this space from becoming a people space. The area is also a gateway to the city both through Bezuidenhout Street as well as West Street, but neither of these gateways or exits are recognised or celebrated in any form. The station itself being a gateway presents no clues or cues as to its strategic position.

The land ownership in this area is extremely complex (Figure 26), with land being owned by South African Rail Commuter Corporation, Rand Mines Properties, Johannesburg City Council, private land as well as a church trust. The church is situated on the northernmost boundary of the site, and has little or no protection, privacy or enclosure. There is little or no control of informal trading - with hawkers stands being set up on an ad hoc basis throughout the site, and there is further evidence of land invasion beginning to occur in this area further adding to the degradation and down-run atmosphere of this area. There is little evidence of either maintenance or a cleansing programme. It is little wonder therefore that people feel little or nothing for this particular space. In terms of the topography of the area being at a slightly higher point of Johannesburg, many of the roads running north/south culminate visually at this point. The current problem being that the culminations of these particular routes are not articulated. It is a portion of the city that has been left entirely to its own means. There has been further a remarkable short-sightedness in terms of the planning around this site. The servitudes that have been registered over Rand Mines Properties land, in terms of a bus and taxi route in and out of the city, have been done on an economy of scale, rather than best addressing the needs of the city, the transportation node and the site.
Developing the city nodes & message system.

- What connects these gateways and icons?
- How do you orientate yourself?

Develop the city grid system.

Structuring and unlocking of undeveloped land.
Open space cannot become simply parking.

Gateway
Westgate
Address of transport node
Orientation point
Address of church
Clove of west street
West street

City landmarks
Message system of the city
Due to mining activity, there is a restriction limiting development.

All building on this site is limited to two stories.

Land value is reduced.

While this might be prime land in terms of visibility, its value is reduced because of the limitations & restrictions.

Therefore, if you ignore land boundaries, major opportunities open up. The bus and taxi banks can be moved to the east & west of the site.

Building limitations existing.
The servitude appears to have been registered in terms of having the least impact on Rand Mines Properties land, as opposed to what is best for this particular site. This has created a number of restrictions, problems in terms of a facility which is geared towards mass transportation.

What further complicates the issue (Figure 2) is the fact that all of this land is undermined. The implications of this is that all the land to the south of Anderson Street is severely compromised. The land between Anderson and the Church is limited to 2 storeys, thereafter for a distance of 30 metres it is limited to 1 storey, 30 - 60 metres to 2 storeys, 60 - 90 metres limited to 2 storeys with one basement, and this restriction is held until 240 metres where there are no building limitations. Further major limiting factor is the current restriction of residential components within these areas. The implications of these major mining restrictions are to severely limit the potential land value and development rights within these sites. This also has the effect of giving the land a RO value. While these limitations are severe, they should also be seen as potential opportunities in terms of unlocking land for opportunities other than strictly commercial. (Figure 3a)

There is an opportunity to create a land bank that allows all the owners of the land to pool their land in exchange for land held by the government or local authority in other strategic locations. This allows for the development of a concept of developing what is necessary on land rather than what is needed to be developed in terms of realizing perceived land values. (Figure 3b)

There is a new type of city emerging; a city that is about vitality; a city about trading; and more importantly, a city that is about access into the formal and informal economy. However access to the formal economy is severely restricted which has resulted in more and more informal economic activity. It is logical that the centres of these informal activities locate themselves at the transportation nodes located through the city. The problematic scenario is that transportation nodes are by their very nature geared towards commuters, and the periods in which commuters use these facilities. Retail opportunities are therefore limited, for argument's sake, in the morning to the provision of buying something for breakfast and/or lunch, and in the evening - buying something for the entire family for supper. This trend changes slightly over the weekend, when these nodes become a place for buying something slightly more substantial - like fridges, stoves, furniture and the like. The question that needs to be answered is in terms of making these spaces sustainable - what happens between these peak hours? (Figure 3c)

A new type of activity needs to be identified. An activity that bases itself on transportation, which allows both the formal and informal trader to co-exist on a mutually beneficial basis. This infill-trading must equally attract people from the surrounding areas, and in itself become a tourist attraction. The public open space system (Figure 3d), therefore becomes a series of

![Development of the road systems as part of the public realm.](image-url)
HOW DO WE BORROW THIS SPACE?

- OPPORTUNITY TO PROVIDE RESIDENTIAL & MIXED USE FACILITIES - LOW COST.
- MAXIMISE THE POTENTIAL OF PEOPLE MOVEMENT

BUILDING RESTRICTIONS - OPPORTUNITIES

THE CHURCH NEEDS ITS SPACE
different spaces - spaces orientated towards the commuter who is intent either in getting to work or directly to home, the person living in the immediate area wishing to either buy lunch or simply wander around in an interesting atmosphere, or thirdly, the tourist wishing to see what the language and spirit of the city is all about. One of the major problems with public open space in South Africa, and Johannesburg in particular, has tended to be ownership. Somebody needs to take ownership and control of the public spaces. If one looks at Venice, at the spaces created by the doges, there was a remarkable system. The public spaces or in those terms, private spaces, had their champions, their churches, the public squares, but you were only permitted in the area under the benevolent eye of the landlord. While these spaces contributed to the social standing of the regal owner, they nevertheless, became an important part of the tapestry of the city, which not only gave access - but also by the sponsorship of these benevolent dictators - gave safety.

If therefore the notions of land ownership are set aside, and the principle of design is allowed to run its course in terms of what is good for the particular node, then a number of issues emerge (Figure33), namely that in order to free up the design, the servitude registered over the Crown Mines land is inappropriate, and should in fact be opened up to reduce the restrictions, and consequently free up more land for the provision of bus and taxi ranks. By placing the bus and taxi ranks on either side of the site to the east and to the west, one creates more public space, that is then available for use by both the formal and informal sectors. If the land owners choose not to come to the party, the result is not only severely restricted development, but a remarkably short sighted vision in terms of the unlocking of the land both to the east and to the west. Given the nature of the mining land to the east of the development, it is only possible to develop 2 storeyed buildings on this land. While this land has exceptionally high visibility, and its location in terms of its position within the city is excellent, the costs of developing anything higher than 2 storeys would be prohibitive. It would make sense therefore, that the land swap be considered. This land swap would further be the key that would unlock the open space located within the clover leaves of the M1, and allow for some form of access to open space that is currently not accessible.

(Diagrams 36 to 40), explore the potentials unlocked by the freeing up of land boundaries. By the creation of logical transportation nodes, unrestricted by land ownership, one is able to create a series of spaces that relate specifically to each of these specific transportation facilities. One is able to create a series of precincts that have different functions. The Church is able to gain its festival, a sense of enclosure and a sense of place. While the pedestrian routes, both into and out of town, are able to be reinforced. The closure of Ridout Street to the north of the site, enables the informal trading to extend beyond the parameters of the site. It is important that the site not be seen in total isolation to the rest of the city, but rather be seen as a mechanism that allows the site to reach out to the city and create the necessary connections that link this transportation node within the system of other
Focal Point
These focal points should be
more than icons - but should
be points of interaction.
Fountains/Drinking Water...

Create the connection
into the existing system.

Precinct Information
System.

City Gateway

Formal & Informal Trading

West Street

By opening out the
pavement this area can
be softened.

Public Space - Connecting back into the City.

City Gateway

This system must
connect into the City.
WHAT IF THE LAND OWNERS DON'T JOIN TOGETHER?

THE CONSEQUENCE OF THE LAND OWNERS NOT UNITING IS TO CREATE A WASTELAND - THE HONEY- POT OF MUTUAL CO-OPERATION AND OPPORTUNITY IS LOST - SO IS THE OPPORTUNITY TO CREATE A UNIQUE ACCESS POINT.

ALL LOSE OUT - RMP.

WHAT OF THE PEDESTRIAN?

TAXI, BUS & INFORMAL TRADERS HAVE TO SHARE A LIMITED SPACE
• All the activities will be condensed into a smaller restrictive area.

• Remains a hard edge

• Limited growth for bus & tax

• Lost opportunity for gateway

• Gateway can occur

• This edge can be softened

What if only one land owner doesn't co-operate.
transportation nodes. What is equally important are the functions that occur within this precinct. It is not only necessary to provide for informal trading, but for the formal, given its proximity to easy means of transportation. The residential component is equally critical, and should be provided in close proximity to the station itself. As this is the direct connection between peoples point of residence and place of work, daycare and educational facilities should be provided within the immediate precinct.

Access to the city should be provided for at a number of different levels. There should be access to the public spaces - not only in terms of the local traders, but also in terms of the foreign traders flocking to our cities. If Johannesburg is to be a truly international partner, it should not only give access at the formal level to its foreign traders, but also at the informal level. The trading pattern of the area should be orientated not only to providing immediate services to the commuters, but given the proximity of transportation should be recognised as a method of not only transporting goods into an area, but equally transporting out. What is meant by the above is that the railway system linked as closely as it is to the vehicular transportation system, should be seen as a means of access for traders importing goods into the city. We need to recognise that access into the city is not only about getting into the city itself, but equally getting out of the city with your purchases in a comfortable manner.

The journey into the city on a Saturday morning used to be a pleasurable occurrence. It used to be the opportunity for the entire family to dress up in their finery and to visit the city's retail outlets and spend their money in a cautious, careful and selective manner. This element seems to have returned to the city, admittedly in a slightly different way. There is an opportunity however to use the intermodal transportation links as destination points. What this entails is the recognition of the different types and users of the facility. As has been previously mentioned, during the week you have the commuter who is hell bent on either getting to or from work. During the periods between the rush hour there is an opportunity to change the focus of this retail. The argument that given the access to rail, and the proximity to City Deep and the market areas, this would become an ideal expansion for a fresh market trade. Allied to this market trade is the potential of the office areas in the immediate proximity to become an area of local interest. This would imply markets not only geared towards for example like the Krus Street markets where you can purchase your lunch and/or supper, but also markets which started orientating themselves around textiles, clothing and furniture. Given the potential for informal trading, the formal trading areas should be designated - but developed as very much of a long term scenario that closely follows and supplements the informal traders. Informal trading within the city has always been an indication as to where the true retail market is. Informal trading has not followed the formal trading trends, but rather the other way round. There is an opportunity to create a market place that is truly representative of the differing needs of the diverse population of South Africa.
FRAMING THE EDGES.
The precedent for using public spaces in a different way is not a new one. Hong Kong, the centre of the textile industry in the East, has long used its public spaces for different markets at different times. Indeed certain streets within the city are closed to traffic in the evening, and become vibrant and exciting markets that operate from early evening until the early hours of the morning. These are then packed away, and the streets return to the ownership of the public realm and become willed with cars, having served their night time purpose. Johannesburg has the ability to become precisely this sort of market, operating during the day as one type of element, and for example at night, becoming another and/or over the weekends becoming that exciting retail experience that many of us experienced as children. By becoming all of these different animals, and offering the additional bonuses such as medical care, day care, education and residential, this precinct has the ability to become vibrant, and truly representative precinct, and truly a market place within southern Africa.

If this is to be achieved, then a series of fine level layers need to be put in place. These layers need to address the broad framework as described previously as well as to begin to address the basic fundamentals required in order to give this area the robust character and starting point that it will require. There is a temptation to over-design and to design for all possible eventualities, but in fact, what should happen is that the spaces should evolve over time and the framework should allow for all potential eventualities to occur. South Africa is in a situation where it is in the euphoria of post-colonial freedom. The dynamics of this particular situation will tend to be relatively short-lived. The framework must be robust enough to cope with South Africa not only into the new millennium, but South Africa taking up its rightful position as the leader of the rest of Africa, if this is indeed the position that South Africa, and Gauteng in particular, wishes to take.

7.4 A Touch of Reality

Perhaps at this point one should return to basics. Given the existing financial restraints, and attempts to maximising the financial return and limited resources, what we should be doing is to maximise the intervention, maximise the benefit, for the least possible financial commitment. Our priorities should be remarkably clear, and should be based on giving access to the city at a remarkably basic level. The assumption is based on the theory that with the passing of time, the richness and consolidation of the various spaces will follow. This assumption is only valid if the necessary framework is in place. This transportation node has the potential to become one of the catalysts within the city that begin to extend towards the other transportation nodes, and thus create corridors for activities that become the spiderweb that link the city together, not only in a single directional means, but become the anchors in which the web latches onto and allows for the finer grain infill to happen in between. The area currently operates on a number of different levels. It operates on a commuter based rail orientated level, and on the next level, you have the bus and taxi commuter ranks. The
There is a remarkably good precedent for this in Thoyouandou ‘n Venda, where there is a totally open shopping centre, which has as its anchors not only the traditional tenants, but transportation. The wide avenues that connect these various majors, make space not only for pedestrian movement, but for the informal sector adjacent to the formal trading sector. What this creates is a hierarchy of ordered space, which allows for both the formal and informal to not only trade adjacent to one another, but in fact, encourages competition. The intention therefore of the utilisation of the open space within this area is to create a sector where ordered and organised informal trading can occur, as well as providing for the formal trader without impediment to the flows of commuters.

The informal open spaces would operate in many ways similarly to the Greenmarket Square in Cape Town, which operates on a first come, first serve basis, and provided you can pay a small deposit for your space, you are able to trade for the entire day. While the payment is nominal, and is made to the managers of the area which goes towards offsetting the maintenance costs, it has the added advantage of introducing an element which used to be called the Park Warden, and as such takes the element of free-for-all out of the situation.

Like the conductors on a bus or train, it is only through this local control and personal intervention that a sense of pride will develop in a precinct. It is therefore important that each of the elements within this precinct have its own conductor or park warden that is responsible for the area, and is equally answerable for it. By dividing the precinct into manageable smaller precincts, and giving localised control over those precincts, the benevolent dictatorship that will inevitably occur should be to the common good.

By defining both these domains and areas of responsibility and limiting them in size, the task becomes manageable. Different elements of the infrastructure from the informal trading to the formal trading, to the transportation elements, can therefore be handled with different levels of expertise.
South Africa boasts vigorous cottage industries alongside its more obvious hi-tech corporate enterprises. This duality is even more evident within the CBD of Johannesburg. There is enormous potential to develop both industries simultaneously. In his book 'Global Paradox', John Naibitt argues that the demand for increased flexibility and quickness of response is compelling large firms to downsize in order to compete effectively in a diversified global market. Small firms by contrast are finding that affordable information technology is in flexible tools of production are greatly increasing their range of operations, creating hitherto undreamed of access to new markets in the process creating unexpected competition for the established multi-nationals. The bigger the world economy, the more powerful its smaller players.

Both Malaysia and Singapore are rapidly moving towards a new vision: a 21st century of sustainable urban development based mainly on energy efficient, decentralised and pedestrian orientated urban sub-centres connected to the main city by mass rapid transport systems. This underlies the fact that increasingly the transportation nodes are the key to unlocking, not only access to the city, but the connectivity between the city and its hinterland.

7.5 Conclusions

In order to extend their markets into new areas, multi-national corporations are finding it increasingly necessary to adapt themselves to the particular demands of local consumers, which means bending their activities and production lines to suit local cultures as well as other regional factors. In meeting these new demands, the shape of the multi-national corporations is rapidly changing from a centralised institution to the corporate headquarter in the north to a more flexible confederation of smaller and semi-autonomous units, better able to respond to local conditions. Architectural Review, (P.69 - Sept. 1994). South Africa is emerging from a period of double, if not treble colonisation. For it to be viewing the global market at this stage of its development is ambitious to say the least.
Extremely rapid urbanisation, unstable or under pressure urban economies, and an ill-designed and ill-managed state role, are characteristics that have resulted in the fragmentation of the Third World cities, and indeed, some First World cities. Attempts to address this fragmentation and specifically the informal settlements within the city have generally not been successful. Attempts to apply First World masterplanning in these scenarios aimed at a static finished product, do not take cognisance of the dynamics and changing values of these communities. However, there is an opportunity to harness the unique character of the city and create an energy that could begin to address the stitching together of the fragmented elements.

As Marcel Balbo says "...... to be effective, urban management and planning need to understand the relationship between the functioning of the urban economy and society, and the spatial fragmentation of the city, whose segregative efforts should be compared with its possible distributive ones".

Johannesburg is a unique city. It is a First/Third World city that is experiencing precisely this fragmentation. Major urbanisation has resulted in different infrastructural levels, dislocated communities which have exacerbated by years of apartheid and a general lack of resource. Access to the traditional urban economy has been denied, and as a result a large and formal market has developed.

The intent of this dissertation was to explore the different types of fragmentation that have occurred, not only within Third World cities, but in Johannesburg specifically, and through a comparative analysis, apply these lessons to Johannesburg. What has been learnt through this journey of exploration is that the one element that appears to tie the entire scenario together, is the element of transportation. As much as developers and so-called lower property prices on the periphery of the city attract office park development, it is the method in which people get to work, service buildings and live, that ultimately dictates where major commercial activity will locate itself. While elements of the fragmented city have relocated themselves to the suburbs, namely the informal trading and the vagrants, it has primarily been a case of following where the trade is going. For the majority of the population however, the corridors of transportation remain the easiest points of access. The available infrastructure in most Third World cities, and certainly within the South African scenario, are located along and within these transportation corridors. As Balbo says in his concluding remarks; "......if spatial fragmentation is one way of achieving greater equity, we need to be very careful in fostering solutions which aim at making the city more integrated, homogeneous, legal. Similar objectives might become consistent with the conditions of the industrial (post-colonial) city, but contradictory to the ways of the functioning of the city in those developing countries, which so far have been able, among many difficulties, but with unexpected flexibility, to accommodate (for better or for worse) an absolutely astonishing number of people".
The lessons that have been learnt along this journey, have been the lessons of not only accommodating the extreme influx of people into the city, but more importantly, the totally ingenious way in which these people have resorted to securing an income. (Both legally and illegally). But perhaps the most important lesson that has been learnt on this journey is just how important transportation is, and more importantly, how many subsidiary industries exist as offshoots to this. These industries exist on the very basic subsistence level of selling a single sweet to the guy selling leather goods, watches, drugs and whatever. The transportation corridors have provided not only the legal access to the city, and an attempt to adhere to the legal systems of the city, but it has also provided an illegal access to the city in areas that state or local authority has lost control of.

The decentralised nodes that are occurring on the fringe of the city are systematically dissipating the energies that are building up within the city itself. An important lesson that I have learnt through this journey is that it is through the consolidation of energy and attention that is resulting in greater access. The more dispersed this energy, the less its impact. To a certain extent it is very similar to that energy of a shopping centre with its critical mass of consolidating a large number of similar traders in similar areas. The greater your freedom of choice, the more likely you are to be drawn to an area. By dissipating these energies outside the city itself, one is dissipating the ability and drawing attraction or magnetism of the unitary elements. The greater the consolidation, the greater the magnetism.

In the same terms, our mindset needs to change. Elements which we have regarded as being a threat, should be regarded as an opportunity, and a means should be discovered of harnessing the informal sector economy in the same way that the formal sector has been rationalised. By spreading the economic net further and further, the burden becomes less oppressive, and the necessary requirements by the local authorities to find money for capital expenditure on basic elements are funded from a broader section of the community.

There has been a recent blitz - as announced in the newspapers - on the so-called reclaiming of Hillbrow. This is almost a contradiction in terms, as Hillbrow for many years has been one of the few points of access into the city that has provided our fragmented population a place of haven. It might not necessarily be a haven in First World city terms, and the overcrowding and resultant problems of this overcrowding might not be ideal, but it has nevertheless provided basic facilities. To talk of reclaiming this area, is not only arrogant, but is also missing the main point.

It is estimated that an unacceptably high level of our population is illiterate, and if one accepts this statement, then the message system of the city needs to relate at a remarkably basic level. However, having said that, this does not preclude the city from becoming a remarkably rich place. It merely reiterates the fact that there are a number of stages through which the city must progress before it gets to the point where it can become a competing First World city. A city needs to address all of its constituents, not only the wealthy, but the vast majority of people who live, work and die within the
The wealthy are capable of taking care of themselves. But for the vast majority, living from hand to mouth is the order of the day.

The cycles of the city where one area falls into decay, while another area rises, very much like the Phoenix from the fire and is rejuvenated, is part of the life cycle of the city. While the rejuvenation is important, it is however the cycles of decay which are precisely the areas that give easy access to the city. In the same terms, both are interdependent on one another. The cycle requires that there is an uprise in one area for there to be a decline in another.

As Bullo says, "Especial fragmentation is one way of achieving greater equity, we need to be very careful in fostering solutions which aim at making the city more integrated, homogeneous, legal". Similar objectives might be constituent with the conditions of the industrial and post-industrial city, but contradictory to the way of the functioning of the city in those developing countries which so far have been able, among many difficulties, but with unexpected flexibility to accommodate for better or worse an absolutely astonishing number of people. It is this method of accommodating people by whatever means, that gives the richness and variety to our cities. The slums are just as important as the affluent suburbs, as access needs to be given at all levels.

The rights of the citizens need to be recognised at all levels - to those who live so-called legally, to the people who live on the periphery and the fringe.


Rapoport, A. (?) Culture and the Urban Order. Agnew, I Mercer & Soper, D.


