SECTION 2: BACKGROUND

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2.1 BACKGROUND, TOWNSHIPS

In this section I present a general overview of South African townships. I will present a background, then look at the formation of townships; their role in the city and the way development is currently approached within them. I conclude with a strategy for township renewal that is relevant to my research enquiry.

The word township has evolved in South African language as an automatic reference to black residential areas. Townships has a specific legal understanding in South African land titles, as a designated area divided into specific erfs or stands, with no racial connotations. The word has however evolved as a specific reference to a unique settlement pattern that epitomises the polar dichotomy of the South African urban landscape. Maluleke (2009) describes townships as an odd mixture of squalor, poverty and community. Townships have however began to evolve, but we question whether ‘enough’ physical, social and economic change is evident in the post apartheid townships of South Africa.

About 40% of South African households are located in townships (SA Stasts 2011). This equates to approximately 4.6 million households. The number of people living in townships has more than doubled since 1996. Townships as a settlement typology remains one of the largest containers of South African people. As cities of the south rapidly urbanise, there is a good chance that townships could emerge as the leading settlement type in terms of density and households. Furthermore, according to Stats SA, 50% of the metropolitan population of South Africa already live in townships. This value varied across the different metropolitans, Ekurhuleni has 70%, the highest number of metropolitan houses within townships. This figure is overwhelming, considering that townships lag far behind the urban core areas and CBD’s in terms of infrastructure, social amenities and economic opportunities. The levels of poverty within townships remain high, with spending of less than R2500 per month attributed to roughly 80% of township households. Average household incomes in townships have remained static, in comparison to the rest of South Africans. Fig. 2.1.3 indicates the weak rise of annual income in Soweto in relation to the country, this is typical with most townships. Township urban renewal and development is a crucial aspect of our fledgling democracy, and if not prioritised could lead to the perpetuation of the underprivileged being trapped in environments that offer little opportunity for meaningful change.
Urbanization is described as the movement of people from rural areas to urban areas (UN Habitat 2009). It reflects the proportion of urbanized people to rural people. Our cities are experiencing unprecedented urban growth. “More than half of the world’s population now lives in towns and cities, and by 2030 this number will swell to about 5 billion. Much of this urbanization will unfold in Africa and Asia, bringing huge social, economic and environmental transformations.” (United Nations Population Fund, 2015). Cities of the Southern Hemisphere are fast becoming synonymous with over population, poverty and inequality. “Nowhere is the rise of inequality clearer than in urban areas, where wealthy communities coexist alongside, and separate from, disadvantaged communities and informal settlements.” (United Nations Population Fund, 2015). The South African landscape is testament to rapid urbanization. As cities swell with numbers, so too does the demand for housing and services. The unsustainable practice of low density housing settlements are causing townships to sprawl. The cost of land and infrastructure provision to service these areas is becoming highly challenging. In an age of diminishing resources, sustainable solutions to housing and service provision must be prioritised. We need to pursue more compact forms with higher densities, and look to reduce the distances people need to travel to live, work and play. Informal settlements are some of the densest dwelling environments, but the poor quality of life afforded to its residents cannot be accepted. Squatters are still mushrooming 20 years into post democracy. The State is failing to keep up with the demand for housing, as people gravitate towards urban areas for better work opportunities. Informal settlements and poorly planned state provided housing settlements have latched onto existing townships. The poorly functioning public environments have no structure and identity. It is estimated that the South African population is currently 50 million (SA Stats 2011). It will increase to approximately 138 million by 2060. South Africa is currently 51% urbanized. It is estimated that by 2060, it will be 80% urbanized (World Bank 2015). The reality is that the natural growth rate plus added migration from Southern African countries means that township planning must be re-imagined in the face of rapid urbanization.

**BY 2060, 75% OF THE WORLD POPULATION WILL BE URBANIZED, THE MAJORITY OF THIS URBANIZATION WILL OCCUR IN THE SOUTHERN HEMISPHERE. 75% OF THE URBANIZED WILL BE TRAPPED IN POVERTY**
2.2 MODERNISM APPROPRIATED

This section looks at the planning theories that contributed to the formation of South African townships. The rationale of using technical solutions to addressing planning problems as propagated by the modern movement served the protagonists of the apartheid township well. This technical approach allowed them to sidestep the social and ethical issues surrounding separate development. The post World War II housing programmes that swept across Europe were driven by the Modern Movement. Ebenizer Howard’s Garden city, Frank Lloyd Wrights Broadacres and Le Corbusiers Radiant city were forms of Utopian spatial and social engineering aimed at improving the human condition. They sought solutions to the poor conditions in the post war industrial cities. They intended to create new cities that addressed the challenges of housing, public space, transport and green space.

The scale at which these proposals were made, was conducive for spatial and social change at a city scale context. Though these Utopian cities were never fully realised as they were intended to be, their principles played a profound role in shaping cities across the world in the 1900’s. Howard’s vision heavily influenced a number of garden cities, most famous being the British towns of Letchworth and Welwyn. Broadacres city was adopted as template for American Suburban Development. The ‘Neighbourhood Model’, influenced by Broadacres, was developed by Clarence Perry. This model was adopted because its scale, as opposed to the grand Utopian plans, was manageable and could be easily implemented. These movements became the rational basis with which South African planners began to construct a planning solution to satisfy the aims of grand Apartheid. The township is the spatial manifestation of the politicians and planners efforts.

The oldest township in South Africa is New Brighton in Port Elizabeth, established under colonial rule between 1902 and 1903. Pernegger (2007) indicates that the ‘colonial township’ can also be found in cities like Nairobi and Lusaka, having been inspired by colonial town planning. “The model sought to separate class groups which coincided with race. The privileged white colonial; the colonized middle class which comprised of some Indians and black Africans who worked for the bureaucracy and the poor native Africans who served as labour to the elite.” (TTR, 2007) “A number of townships were established in South Africa by the municipalities in the early twentieth century, such as Langa in Cape Town, Lamontville / Chesterville in Durban and Meadowlands in Joburg” says (Pernegger, 2007:6). These were planned on the outskirts of the city and separated by a green belt. The discovery of gold and diamonds had led to massive industrialisation in South African cities. Native black labour was required to drive the growing cities. Urbanisation of the native blacks into the cities challenged the system of cities only being for white people.

Mabin and Smit (1997) explain that the city was conceived of as the domain for white people. The challenge they faced was how to retain Black labour in the city without threatening white privilege. The Native (Urban Areas) Act of 1928 states “the natives should only be allowed to enter urban areas which are essentially the white man’s creation when he is willing to enter and minister to the needs of the white man and should depart there from when he ceases to so minister.” (Haarhoff, 1948:70).

This served as a measure of control of white capital and dominance. A legislative requirement for separate residential areas or ‘native locations’ for black Africans was required. The New Town Movement in the United States and Britain served as international precedence. It proposed separating town settlements with green park lands. The movement intended for new settlements to be spatially large and independent. South African planners used this rationale to create racially separate neighbourhoods. Mabin and Smit (1997) outline the directives of the Social Economic Planning Council regarding separation of communities “the Union has a large and growing permanently urbanised non-European population. The council therefore, urges that in the lay out of new townships, the re-planning of existing ones and...
the erection of state subsidised housing schemes, full use should be made of the principle of planned neighbourhoods protected from other neighbourhoods by ‘green belts’ of cultivated and park land” (Social and Economic Planning Council’s 5th Report on regional and Town Planning, 1944). Colonial townships paved the way for the apartheid township, establishing the ideal of separate development.

In 1948 the National Party ascended to power. It was in this era going forward that the legal basis for separate development was developed. Bantustans were established to be the home of the Black African outside of the areas controlled by the whites. The Group Areas Act of 1950 stipulated separate residential areas for Blacks, Indians and Coloureds within the white territories. The Bantustans were to be the permanent homes of the Black Africans and the urban townships were planned as dormitory spaces of temporary residence. Most of the well known townships such as Soweto, Lenasia, Kwanashu, Daveyton, Mamelodi, Natsalspruit, Thokoza and Kwa Thema amongst others were established during this time according to Morris (1981).

The state embarked on a massive programme of institutionalized segregation. The state planners at the time looked abroad at the ‘modern movement’ that was sweeping across Europe in the post war years. Haarhoff (2011) explains that the modern movement provided a rationale based in technical substantiation for the efficient housing of the native labour force. The State, by appropriating modernism, were able to justify their own political ideologies in the massive housing programme that sought to create segregated townships. “The Modern Movement was frequently used during the 20th century to support political aspirations and symbolize modernism” (Haarhof 2011:184). The design of the appropriate model native township was locally, a leading debate and practical exercise.

University students at the University of Witwatersrand explored solutions under the tutelage of staff such as Rex Martinssen. They looked towards modernism as a vehicle for rational approaches to local problems. Martinssen commented after visiting Europe as a student himself that “the influence of men like Gropius.... must be good because their work has its basis in a rational approach to the problem” (cited by Haarhoff :2011 South African Architectural Record, 1930:1969).

The housing programmes, coupled with the planning research required large capital. This spending was supported by the Secretary of Native Affairs, W. Eiselen (subsequently the main street in Daveyton was named after him), when he explained that control of the urban natives could only be achieved through properly planned Townships (cited Haarhoff, Chipkin 1998). The state tasked the National Building Research Institute with developing standards for the housing programme. University graduates like P. H. Connell, whose was part of a thesis titled, the ‘Model Native township’, and D.M. Calderwood, responsible for authoring ‘Native housing for South Africa (1953)’ were recruited to develop research for the housing programme. Haarhoff (2011) points out that they based their research on international precedent, influenced by works of Lewis Mumford and Patrick Geddes. They drew from Ernst May’s satellite towns and from Clarence Stein’s ‘neighbourhood concept’. The neighbourhood unit served as a template for suburban development in America. This model was successful because it was promoted at a manageable scale at which developers could implement it. It was based on the ideal of living away from the city, but being connected to the countryside in a self- contained unit. “The neighbourhood unit was the building block adopted for the design of townships, where residential dwellings are clustered into discrete ‘cells’ or neighbourhoods that focus inwardly onto centrally located community facilities in the belief that this promotes a sense of community. The Cells are not integrated but are simply linked by movement infrastructure” (Dewan 2000: 210).

These models were adopted as it appealed to the policies shaping the state at the time. The model had the potential to achieve social segregation, but were based in a resolute modernist technical
approach to the housing of people. The research planners recognised that the provision of single storey developments would manifest into a monotonous sea of dwellings. They propagated the use of imaginative layouts and landscaping that would transform the settlements into landscaped parks. Spaces were allowed for parks and higher order social and economic facilities. Fig. 2.2.7 indicates the plan for KwaMashu township. The residential areas are indicated in brown, while plan for other higher order facilities are highlighted in red blue and green. A CBD area was planned along with nine smaller centres for trade and activity. Many of the original township plans set aside land for additional land uses. The reality though is that many of those land parcels were never developed to achieve the desired intent for the township. “Local economies could never develop because of low wages and large amounts of money leaving the townships to pay for rents, fees and services (Pernegger 2007:10).” Townships were expected to be administered by the black African residents, the revenue earned was not adequate to maintain and develop the township. Suburbs in the white areas benefited from tax revenues from economically viable commercial and industrial areas. Neighbourhoods prospered, and private individuals also prospered contributing to overall positive growth. The vacant parcels of land in townships along with the free standing residential units contributed to unsustainable low density environments.

Calderwood was responsible for the iconic apartheid minimum standard NE 51/ housing typologies as rational response to the housing crisis. The 51/6, 51/8 and the 51/9 were adopted by the housing authorities and installed across their housing programmes. They can still be seen across most of the townships today. Townships were thus developed with very specific spatial guidelines, substantiated through modernist principles supplemented by state agendas. Some of these are as follows, according to the Township Transformation Timeline publication:

- The site should be an adequate distance from the white town.
- It should adjoin an existing African township so as to reduce the number of areas for Africans.
- It should be separated from the white area by a buffer, where industries exist or are planned.
- It should have land to expand away from white areas.
- It should be within easy distance of the town or city for transportation purposes by rail.
- It should have one road that connects it to the town.
- It should be connected by open buffer areas.
- It should be a considerable distance from main and national roads.
- Ethnic groupings should be segregated.
- Minimum standards should apply for African and coloured housing.
- The NE 51/ series was adopted as the housing typology.

(COGTA 2009, 41)
The following is a spatial analysis of the various settlement patterns that can be found in our cities. Figure 2.3.1 schematically describes the varying urban forms. The CBD core is described as the historical centre at which earliest settlement occurred. This centre which initially served as the market centre, evolved into the central business district. The Benoni CBD is an example of this spatial manifestation. The CBD is surrounded by the oldest residential areas, historically reserved for white South Africans. As cities grew and technology evolved, industry developed and located spatially close to the CBD. Most of the work opportunities became available in the core areas. The road and infrastructure network developed around the core and served to reinforce the centre. Transport networks became crucial for bringing in and taking out goods, services and labour. Newer development that occurred happened outside of the core areas. These are described as fringe developments. This type of concentric development is consistent with the iconic concentric zones map indicated in fig. 2.3.2 It is a model of urban development presented by the Chicago School of Urban Sociology. The model was published by Ernest Burgess and his colleague Robert Park in 1925. The model suggests that cities naturally grow outwards from the central core.

The commercial core is surrounded by a zone of industry followed by a zone of apartments for the working class. Beyond this are the middle class suburban homes followed by the more affluent commuters. What is interesting about the model is that it spatially locates the working class in close proximity to the core, recognising the value of proximity to the working class. Townships developed outside of the urban core. Native Blacks were seen as temporary workers in the urban areas, with their permanent place of residence in the rural areas or within the homelands. As the numbers of unskilled labourers from the rural areas increased in the cities, the then government needed urgent solutions for the shortage of accommodation. Settlements formed close to the working opportunities. The government wanted the areas close to the urban cores to be reserved specifically for white people. At the time, a policy for separate development was formulated which was enforced through the Group Areas Act (1950). Separate housing developments were promoted for the various racial groups, namely Black African, Coloured and Indian. On the East Rand, the Indians were moved to Actonville; the coloureds were moved to Reiger Park and the Black Africans were moved to Daveyton. The majority of the large well established townships were formulated and designed around this period. These areas were typically located away from the central CBD and its surrounding suburbs, with industrial areas, mining land and tracts of land unsuitable for development acting as buffers between the various racially separated township developments and the urban cores. Townships were thus pushed to the periphery of the city.
The institutionalised segregation perpetuated by township planning deviates from the traditional Chicago school model leaving a fractured urban form with poor integration.

With the advent of Democracy, more people streamed into the core areas searching for living and work opportunities. This invariably caused cities to expand outwards. As the urban core areas grew, decentralised commercial centres and suburbs began emerging. The private motor vehicle and also highly efficient highway systems supported this type of growth. This development has happened to the detriment of many of the historical CBD areas, as commercial focus has shifted to new nodes and precincts. These developments tend to further compound the apartheid settlement plans.

It has pushed new nodes and economic opportunity further away from disadvantaged communities. The East Rand Mall node in Boksburg is an example of a decentralized node. It has fast become one of the most successful activity nodes in Ekuruleni. The shopping centre boom outside of the urban cores has traditionally located away from low income settlements. Township areas which traditionally linked to the core areas via main arterials or passenger rails experienced further spatial disconnection. Alternate public routes via the CBD’s became necessary to connect work seekers to the new nodes. Townships may be disconnected from the city, but the nodes that support public transport routes servicing townships, that have emerged within the urban core areas, are flourishing within the cities. These interchanges are a microcosm of the townships within urban core areas. Much private development has occurred to service the needs of the commuters. Newer taxi ranks have emerged in proximity to shopping centres. An example is the rank located in Benoni town that formed adjacent to the Lakeside Mall, and close to the metro rail station. A new thriving node has emerged here, to the detriment of the main CBD area. In recent years, increased spending capacity of township residents have prompted developers to build shopping centres adjacent to or within the older more established townships.
Many of the well located older residential areas close to the urban cores have fallen into decline. People seeking to be closer to work opportunities have moved into these areas. Property values have dropped, allowing many township residents to relocate to these areas. The proximity to better economic, educational and social amenities, coupled with the reduced traveling costs makes these areas ideal for relocation. Crime and drugs have plagued these areas, and lack of investment is causing a steady decline. Residents and businesses have moved to more attractive suburban locations. Many of the middle income residential neighbourhoods, historically dominated by white families, have benefitted as decentralized nodes have formed in and around them. The racial make-up of the areas has however become much more diverse in recent years. Wealthier families have moved out of the urban core areas altogether. Estates and gated communities have sprung up away on the periphery of the city. These fortresses are spatial manifestation of economic segregation as the wealthy and privileged seek to distance themselves from the challenges of urban degeneration, spatial integration and social ills. In northern Johannesburg - Dainfern, Steyn City and Diepsloot is a good example of the contrast in settlement typologies prevalent in the city. Informal settlements are a common feature of our urban landscape. They represent the other spectrum of economic segregation. They typically form on vacant land adjacent to economic opportunities, or as extensions of existing townships. The government has undertaken a strategy of relocating these settlers to new state housing settlements. The demand for housing in the formerly disadvantaged areas is ever increasing. State provided houses have sprung up in an around the historical townships, and continue to be developed, contributing to the urban sprawl. Informal settlements still occur in these areas as the government struggle to keep up with the huge housing demand.

The biggest challenge for townships is still spatial separation. This spatial legacy remains in our cities today and is a prevalent feature of the post-apartheid city. A shortage of state owned public land close to economic nodes has forced most housing developments for the disadvantaged to continue on the peripheries. “The location of a township relative to the economic system that it depends on is crucial” (SA CITIES 2009:48).
The movement network that links townships to the urban core areas is thus a crucial structural feature. It is significant for my enquiry in that it forms the link between people and opportunity; on a macro scale the major arterial links those on the fringe to the core; and on a micro scale, the interface between township residents and the major arterial becomes a rich opportunity for growth and development within the settlement. Because of the dependency of residents on public transport, much of the higher order facilities within townships are already orientated close to the major arterial. These arterials have however traditionally been designed for fast moving delivery of labour from dormitory locations to places of employment.

Figure 2.3.9 is adapted from the CSIR 2002 publication that documents the different Township settlement typologies. Type 01 represents the township located close to the urban core. Alexandra Township is a typical example. The settlement is well located and subsequent infill development brings it closer to the central area associated with work and economic opportunity. The residents are in reach of higher order social facilities but in many cases these opportunities do not cater specifically for the needs of the township residents. The township as an urban form remains distinctly separate from the central activity area, there is poor connectivity in terms of road networks. Type 02 represents the typical peripheral township like Daveyton and Soweto. They are spatially distant from the urban core but remain within the city limits. Economic and social opportunities are limited due to the distance from the core. They are connected via a major arterial and residents commute daily using predominantly public transport. Type 03 represents the rural township that is situated outside of the city limits. They are far removed from the urban cores. Many metropolitan areas have extended their city limits to include these settlements, so that public spending on infrastructure and services can cater for their development. Orange farm is a typical example of this typology.

Figure 2.3.10 Eiselen street in Daveyton is the major arterial that links the peripheral settlement to the urban core areas. (Sketch by Author)
2.4 TOWNSHIP URBAN RENEWAL

In this section I focus on the development trends that have been adopted relating to township Urban Renewal. Urban renewal is a concerted effort made by various role players, be they private or public, in the upgrade of a geographic area or space. Figure 2.4.1 alongside illustrates renewal initiatives into three broad categories. This renewal may be manifested in physical form, but the impact is also felt in social and economic terms. On the following pages, I will briefly outline the three categories in terms of their implementation and relevance in townships today. Turok (2001) explains that urban renewal is initiatives for specific areas, rather than provincial or national policies. He refers to area-based planning that stimulates change in a geographical area, specific to the context of that area. These are focused on social, economic and physical development. The South African Cities Networks (2010) outlined urban renewal under the following three categories:

1. Upgrades of urban core areas like inner cities experiencing deterioration and capital flight.
2. Upgrading of squatter / informal settlements.
3. Exclusion areas, subject to social, economic and political exclusion. These are comprised of two types; excluded by design and excluded by decline.

The definitions presented by SACN (2010) suitably contextualise township urban renewal in category three, namely, areas excluded by design. However, the upgrade of informal settlements is also relevant as most townships have large associated burgeoning informal settlements. Township urban renewal is thus aimed at redressing the deficiencies manifested in townships. Township urban renewal was placed on the national agenda in 2001 by Thabo Mbeki. He presented the national urban renewal programme in the state of the nation address, as a vehicle for redress of poverty and underdevelopment. Fig. 2.4.2 alongside from the SA CITIES NETWORK 2010, outlines four different desired outcomes necessary when approaching Urban Renewal in townships.
The installation of basic services to townships is one of the primary forms of renewal. Many townships lack basic infrastructure like roads, stormwater disposal, sewer disposal and electricity. The older townships have the basic infrastructure in place, the problem arises from the expansion of the townships in the form of informal settlements and state provided housing. The newer extensions of state provided housing in most cases have water and electricity, however roads are lacking in majority of the areas. The informal settlements are approached with site and service schemes whereby residents from informal settlements are relocated, and housing provided later. The housing backlog, is the primary concern for the state and financial priority lies here. It is estimated that the current housing backlog is just over two million, and it is reported that the cost to eradicate this backlog is close to eight hundred billion rands (Department of Human Settlements, 2014). Poor infrastructure further impacts on the potential for economic development. “It is argued that improving services will not just have social benefits, but economic spin offs too, and that without adequate provision of infrastructure such as electricity, telecommunications and water, economic development and SMME development will be severely impeded (Harrison, Todes, Watson, 1997:51).” The provision of infrastructure in townships is crucial to its economic development; to the social development of its residents, and to the development of the physical environment. Such provision by the state creates a platform possible for positive investment within the townships. Much of the unrest witnessed in many of the townships is due to Governments’ failure to address issues of basic service delivery.
2.4.2 TOWNSHIP ECONOMIES

The township economy has been described as the secondary economy according to Harrison et al (1997). It offers great potential in the areas of retail and small scale manufacturing activities. Economic development, locally, has typically concentrated on established economic nodes, thus marginalising low income areas according to Harrison et al (1997). Nonetheless, the opportunity for developing township economies has become crucial for its sustainability.

The South African Economy is split between the formal and the informal economy. The informal economy caters for a vast number of people who remain locked in it. It is their only means of survival. The township economy is a dichotomy of the formal and informal. Retail and service markets within townships compete with external markets, residents in many cases preferring to acquire goods and services from the core urban areas. This can be attributed to better choice and pricing. It is for this reason that the trade and service offering within townships must be competitive and target locational and convenience advantages. Development of the formal retail sector requires growth of small businesses. The Training for Township Renewal publication (2009) by the Department of Treasury outlined the following relating to Township economic development:

- Enhance the need for township workers in external job markets.
- Encourage better earning households to remain in the township and attract additional residents.
- Encourage economic exchange between township markets and markets outside of the township.
- Capture the buying power of local residents at shopping nodes.
- Contribute to the range and price competitiveness of goods/services.
- Creation of property investment opportunities and increase the number of jobs within townships.

Economic investment in the past tended to avoid townships due to violence and crime, and an underlying sense of instability. However, the recent emergence of a new black middle class has prompted investors to re-look at their stance towards townships. “The change in socio-economic status of many township residents moving into the low-middle and middle-income group however resulted in townships becoming viewed as important new emerging markets for national retailers” cited by (Donaldson & Du Plessis, 2013:297). This emerging group is playing an important role in shaping our environments. Haferburg (2013) commented that the only racial integration taking place in our cities is happening in the suburbs and townhouse complexes, and once again this emerging market is responsible for the change. Cities and suburbs in terms of spatial arrangement have catered for the living, working and social requirements of the new middle class. Interestingly enough, the larger percentage of emerging black middle class have chosen to remain in the townships.

Donaldson, et al. (2013) describes them as black diamonds, due to the huge unearthed potential they possess. Potential for initiating social and spatial change as well as spending potential. They have remained in townships for specific cultural, social, spatial and economic factors. Townships are characterized by poor infrastructure, mono-functional environments and lack of higher order services, and there exists the opportunity to provide the same living, working and social amenities for these shape shifters that have chosen to remain there.

(Turok & Watson, 2001:120) argue in the paper on divergent development that “spatial planning and economic planning have traditionally been pursued in isolation from each other”. They comment that development trends need to have socio-spatial and economic integration as its goal. Infrastructure investment in townships serves to stimulate economic growth while addressing social needs. We must however be careful as noted by (Donaldson and Du Plessis, 2013:297) that the “spin offs from private investment benefits the local communities; that sensitivity towards informal trade is exercised and that a flexible system for land-use management that can respond to both private and public sector investment is applied.” There has been an increase in the number of retail shopping centres in townships. To date there still remains mixed views regarding the impact of these centres on townships. The most common view is that these centres rob the local traders and street hawkers of the majority of the business. The locals are unable to compete in terms of price and variety. Another argument is that these centres make available the variety of goods and services desperately needed by the majority of the township residents. Prices are better and the proximity to homes reduces the associated travelling costs. Shopping centres have become successful drivers of township economies. One of the challenges is better integrating their urban forms into the township fabric and making them more responsive to the street environments in which they are located.

Tomlinson et al (2001) comments that a healthy neighbourhood economy has eight qualities: The first is purchasing power, with a balance between good incomes and low costs which makes the neighbourhood affordable. The second is local buying which enables money to circulate within the area. The third is local ownership; residents are thus offered a share in the neighbourhood and better control over their economic future. Fourth, local jobs provide income for residents and attract people from outside the neighbourhood on a daily basis. The fifth is local reinvestment; this ensures that money saved and spent by locals gets reinvested in the development of the neighbourhood. The sixth is local sources, needs of the neighbourhood are addressed by local people improving employment and convenience. The seventh is opportunity and diversity, which allows new businesses to emerge and prosper. The eighth is local infrastructure that supports social and economic activity within the neighbourhood. (Harrison, et al. 1997:49) point out that “the strategies required for improved economic development are support services and spatial interventions which create favourable conditions for trade, such as the development of economic activity nodes, linked to major transport interchanges on broader spines and corridors”. 

SECTION 2: TOWNSHIP URBAN RENEWAL
2.4.3 CORRIDOR AND NODAL DEVELOPMENT

Nodes and Corridors have emerged as effective tools for the re-dress of urban spatial, economic and social challenges faced by modern cities. The development concept is an old one and according to Primus and Zonneveld (2003), proposals for linear city development initially occurred about a century ago when concentric industrial cities were linked along movement routes. In the case of South African Townships, the previous sections outline the role that movement routes play as structuring elements, in cities and also at a local level within township settlements. It should be noted that nodes and corridors are employed together as they complement each other, but each is unique in terms of characteristics.

“A node can be described as an activity center, or an area where traffic, money, information, or other flows come together” (UCD, Urban Design Principles 2014). Nodes are usually located at points of highest accessibility. Traditionally, the downtown of a city was the centre or node. Cities of today are polycentric, implying multiple nodes. A node can have a specialty like education, shopping or entertainment. It is important in urban design principles that each node should have a unique character, or sense of place. This allows the users of nodes to have an intuitive recognition of place. Nodes however should not offer singular function, they should have a variety of functions but a speciality is what contributes to a unique character. Legibility in an urban environment would mean that there is a hierarchy of nodes that allows users to orient and navigate within the urban fabric. A node can be used to infer importance to a place when establishing legible structure within an urban environment.

Corridors are movement routes between locations, are employed as important restructuring elements that serve to integrate spatially separated areas. The corridor itself further acts as a stimulus for a linear form of development. Corridors incorporate mobility in the form of public transport and are usually used to link activity nodes, be they at a metropolitan or local scale. The adjacent land uses to the corridor are important in establishing the type of development that is promoted around the route or link. The definition of an activity corridor is “a linear strip of land or area, connecting large activity nodes, traversing urban or inter urban areas, surrounding a major transport facility or facilities providing an appropriate level of mobility and accessibility to adjacent areas, and containing a high concentration of population and mixed land uses (Andersen and Burnett 1998:2).”

The corridor is a conceptual linear idea in which movement, land use and economic activity is framed. Nodes and corridors have gained favour in recent times as design tools in planning and urban design principles. Within the context of townships, they have application both at a metropolitan scale and at a local scale. Figure 2.4.6 from the SA cities network on Restructuring townships demonstrates how, on a city scale, nodes and corridors are applied when approaching spatial integration of townships. The aim is to develop spatial advantage for townships by focusing development of economic nodes in strategic places. The first example indicates new nodes being placed between the township and the urban centre on primary movement routes. The routes are conceived of as strategic corridors that link the nodes. The aim is to reduce distance to economic markets from townships. The second example locates the economic node beyond the township, this creates movement through the township to access the node. In so doing, the township becomes spatially integrated with the urban fabric. It also encourages movement towards the township, as opposed to the traditional unidirectional flow of people away from townships. The third example creates corridors that link new nodes to secondary nodes, which intersect with the township. The examples all serve to benefit townships by improving their spatial advantage.

Figure 2.4.5 Nodes and corridors (Marrian, 2001)

Figure 2.4.6 Node and corridor development. (SA Cities Network, 2010)
The node and corridor concept applies, as mentioned at a local scale within townships. Most townships lack distinguishing physical character due to the monotonous housing typologies built. The lack of higher order infrastructure and planning structure makes the urban fabric illegible. The aim in many townships is to establish a sense of place through the identification of nodes. Nodes should be supported by public transport and be highly accessible. The locating of higher order facilities be they institutional like courts or hospitals, or economic like shopping centres can serve as anchors of nodes. Connectivity and accessibility of these give them a locational advantage and they can serve to attract people. The main streets that support high volumes of taxi movement serve as corridors or activity routes within the townships. Where other routes intersect with these, opportunity for smaller nodes occur due to the passengers that gather at these points. Informal trade invariably gravitate around these intersections to access the movement of passing trade. “Wherever there are people travelling, there is a need for goods and services” (SA Cities Network, 2010). Figure 2.4.7 demonstrates the relationship between movement roots as places, and movement routes as links in a network. It is important to establish a hierarchy of nodes within the township in order to achieve legibility. Smaller nodes can thus contain retail and commercial opportunity for basic goods and services, while the larger nodes provide specialist activity, shopping and services. Figure 2.4.8 indicates the relationship between movement routes and intersections that become nodes or activity centres. Activity corridors and nodes can be planned as catalysts for economic development within townships, with high density housing supported by public transport systems. Donaldson and Du Plessis (2013) explain that nodes and corridors should be the focus of public expenditure in settlement renewal, hence creating a framework for private sector investment. Private investors cannot be forced to invest into townships, however, if public expenditure serves to create nodes that are well structured and accessible with a mix of land uses, the growing demand for goods and services will attract investors. Planning frameworks are required to make land accessible to businesses and entrepreneurs. (Donaldson and Du Plessis, 2013:298) explain “a more flexible system of land-use management may be more desirable in a URP node of this nature, particularly when dealing with private investment and a range of different public investments in a single project area.” There is however a concern around the impact such development will have of local informal trade. Any form of development and investment must serve to benefit residents of the area.

**CONCLUDING STATEMENTS**

A large percentage of South African citizens reside in townships. It is estimated that through rapid urbanization, with specific reference to cities of the south, the number of city dwellers is set to increase. In South Africa, a proportionate impact of this urbanization will occur in townships. The majority of township dwellers are within the lower income earners, however economic opportunities outside of townships have afforded many residents to establish themselves in the middle income class. Anticipated population growth within townships makes the case for improved development of townships in terms of social, spatial and economic opportunities that benefit all residents.

Townships were historically planned as dormitory settlements with limited higher order infrastructure. Their spatial separation from urban core areas have created daily mobility challenges for residents with serious time and cost implications. Most townships are linked to the urban core areas by major vehicular and rail movement networks. The road links have emerged as important corridors for spatial integration, but it also evident that these activity spines within townships play a crucial role in the day to day functioning of the settlements. Urban renewal within townships has identified nodes and corridors as important structuring elements to achieve legibility. The unsustainable practice of low density state provided housing has contributed to sprawl and poor legibility within townships. Capitalizing on the reliance that township residents have on the activity spines and redeveloping them as main streets becomes a strategy for creating positively performing public space within townships. The aim is to focus residential, retail and social infrastructure development along the activity and mobility spines in order to achieve the qualities of a main street. This then becomes a strategy for sustainable growth that encourages legibility and introduces the qualities of city and urbanism within townships.