THE ROLE OF URBAN DESIGN IN

SOUTH AFRICAN CORRIDOR DEVELOPMENT

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A thesis submitted in partial fulfilment of the
requirements of the University of Greenwich
for the degree Doctor of Philosophy.

JULY 2003

ABSTRACT

The joyous advent of democracy in South Africa in 1994 brought real promise of an improvement in the life chances for millions of marginalised South Africans. There was reason for many citizens to have great faith in the new order after decades of sustained struggle. Effective state intervention and the spatial reorganisation of society seemed a realistic prospect in a country blessed with abundant natural resources and an established industrial base. The power of the state to affect change at the grassroots level was however soon compromised by the substitution of the populist *Reconstruction and Development Programme* with the neo-liberal *Growth, Employment and Redistribution Strategy* (GEAR) by mid 1996. South Africa was now part of the international community and the new government's gaze was directed away from its popular support base. The radical and risky policy shift was influenced by demands of an international investor community and by the dictates of international donor organisations. Announcement of the policy shift was a low profile affair and few citizens had any real comprehension of the impact the shift would have on the capacity of the new ANC government to deliver on its electoral promises.

Change in the macro economic policy reverberated within the lower tiers of government and in local authorities. Urban development policy was repeatedly rewritten; first in response to the dictates of the socialist RDP in 1994, and again in response to a neo-liberal GEAR in 1996. In 2000 the fragmented urban management system of appointed officials was replaced by an elected metropolitan government system. This initiated a third, profound shift in the policy context as each metropolitan government sought to formulate its own, context-specific policies. The most recent shift is significant since it has resulted in massive organisational upheaval and restructuring. However, it has opened new laboratories, which generates new opportunities for more responsive and accountable policy-making and planning. These new opportunities emerge against a backdrop in which the comedy of policy shifts that have occurred during the past nine years have resulted in little action and a growing crisis on the ground.

Despite the policy shifts, corridor development has remained a constant feature of post apartheid urban development frameworks. Initially it made sense as a mechanism to physically integrate fragmented cities. It fitted a populist agenda, had political currency and was an easy sell. After the adoption of neo-liberal strategies it would receive another label; that of an accessible armature for private investment. Importantly, the latest policy shift in 2000 offered an opportunity to consider the city in a holistic and integrated fashion. This represents the belated death of the Apartheid City, which was characterised by fragmented, sub-regional councils linked to racially defined urban enclaves. New metropolitan governments arguably have greater capacity to facilitate and co-ordinate action in the extended corridor zone than has ever been possible. Effective implementation of a regional capital web of minimal public investment now becomes a distinct possibility.

The recent adoption of a metropolitan government system and the associated strategic urban management approach offers an opportunity for reflection and for the construction of an informed vision of the role of urban design in corridor development. Whilst the corridor concept has survived, its purpose has become confused. While not discarding the corridor idea, many proposals that originated during the early post apartheid years are being questioned by new metropolitan governments. The new crisis is largely the result of the private sector having shown reluctance to invest in marginal zones of the city. Since corridors were originally conceived as devices which aim to link marginal zones to the core of opportunity, their capacity to facilitate change is limited by the sustained lack of market interest.

While the market remains reluctant to invest in the areas of greatest need in corridors, requirements for improved mobility and access amongst the urban poor have escalated dramatically as millions of migrants from the rural hinterland and the African sub-continent flock to the urban peripheries. Migrants squat on the verges of highways or crowd into the backyards of apartheid-era townships. They are effectively constructing their own informal corridors along lines of access. This dynamic adds to the emerging crisis associated with an uninterested private sector.

This thesis responds to the crisis from an urban design perspective. It evaluates the actions of urban designers in the corridor context during the past decade, and tests the perceptions of ordinary citizens who are affected by corridor development. While doing this it questions the predominance of generic approaches to corridor development and draws on insights gained from international fieldwork in Malaysia, Australia and Peru. Finally, it presents a strategic approach that indicates ways in which urban design may realise its potential to become an enabling discipline in the participatory development of the post apartheid integration corridor.

ACKNOWLEDGEMENTS

For Amálie

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CHAPTER 1: INTRODUCTION

1.1. INTRODUCTION

This CHAPTER explains the background to the research, its objectives and scope, the methodology adopted and the structure of the remainder of the thesis.

1.2 THE BACKGROUND TO THE RESEARCH

1.2.1. THE GROWTH OF INTEREST IN CORRIDOR DEVELOPMENT IN SOUTH AFRICA.

Politicians and urban managers in post apartheid South Africa have been faced with four major challenges:

- *urban integration*: how to enable the integration of a fragmented society through appropriate development practice within a radically modified and constantly changing legal and urban management framework.

- *urban sustainability*: how to reconfigure the fragmented and highly unsustainable spatial structure of South African cities.

- *urban growth*: how to accommodate the millions of migrants flocking to the cities, both from rural areas inside South Africa and from the continent.

- *globalisation*: how to balance the dual aims of accommodating neoliberal, macro-economic growth strategies and pressing basic needs issues.

Cities represent the most visible and one of the most enduring legacies of apartheid. Eliminating the spatial and other symptoms resulting from decades of state-sponsored segregation activity represents an enormous task.

In many post 1994 public policy documents *corridor development* is presented as an obvious *integrating* mechanism, a panacea or a paragon of integrating practice (NdoT, 1999; NdoT, 2001; DoH, 1997; SMDF, 1998; GSDF, 1996)

Economic strategists have been actively encouraging the government to adopt the corridor concept[1] as part of the Spatial Development Initiative Programme (Jourdan,1998). A selected number of sub regional corridors were proposed as pilot projects and received dedicated funding and resource allocation from the National Department of Transport (NdoT, 2001). Apart from this central political aim, development corridors are considered to provide a range of top-down benefits:

- **first**, they provide a mechanism that allows planned/managed new development to stitch across apartheid style buffer zones, thereby generating a physically integrated city (Thorne, 1996; Comrie & White, 1999; Dewar & Uytenbogaardt, 1991).

- **second**, they present opportunities to provide the urban poor with employment (through industrial development), housing and public facilities within the accessible corridor zone (Green et al, 1996; Southworth, 2003; Jourdan, 1998).

- **third**, they present an opportunity to focus national funding and resources in defined geographical locations rather than having to spread it across the whole geographical area of each of the many fragmented cities and towns (Green, et al 1996, NdoT, 1999; 2001).

- **fourth**, they present an opportunity for agripolitan[2] communities to remain in peripheral locations while providing good access to central locations along rapid mass transit routes (Van den Berg, 1994).

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[1] Dewar in Tomlinson, 1994:231 '*The resolution lies in breaking the pattern of fragmentation. The key to this in turn lies in promoting a hierarchy of interconnected continuous routes or, preferably, systems of movement modes, to carry both public and private transportation; in orienting development to these interconnecting systems and using housing policy to reinforce them through higher density housing; and in allowing more intense activities to respond to the flows along them, resulting in linear corridors of activities or 'activity spines' (Dewar in Tomlinson, 1994:231).*

[2] *Agropolitan society* refers to that sector of the community that derives its major income from small scale, and informal, home based agriculture.

- **fifth**, they represent a legible and marketable site for global investment (MCDC,1999; Jourdan, 1996, 1998).

- **sixth**, they provide symbolic proof that the government is making a conscious effort to integrate a fragmented society. In this sense, *the corridor* represents a political Utopia which overwrites the segregated Utopia of the apartheid city (NdoT, 1999).

SELECTED EXAMPLES OF
INCIPIENT POST APARTHEID
CORRIDORS LINKING TOWNSHIPS
AND CITIES/TOWNS IN SOUTH
AFRICA

1. Philippi-Wetton-Lansdowne
   Corridor (Cape Town)
2. Mdantsane - East London Corridor
3. Germiston - Daveyton Corridor
4. Mabopane - Centurion -
   Development Corridor
5. Tembisa - Kempton Park
   Development Corridor
6. Barralink: Soweto-Johannesburg
   Development Corridor

MAP OF SOUTH AFRICA

FIGURE 1.1.: THE GEOGRAPHY OF INCIPIENT POST APARTHEID CORRIDORS LINKING TOWNSHIPS AND CITIES/TOWNS IN SOUTH AFRICA

White CBD   Indian CBD   CBD frame   Industrial

RESIDENTIAL AREAS

W White Group Area   African Area   Indian or Coloured Group Area

I Indian   C Coloured   T Township   P Privately developed

• Hostel   A1 Municipal Township

Socio-economic status (White Group Areas)   H High   M Middle   L Low
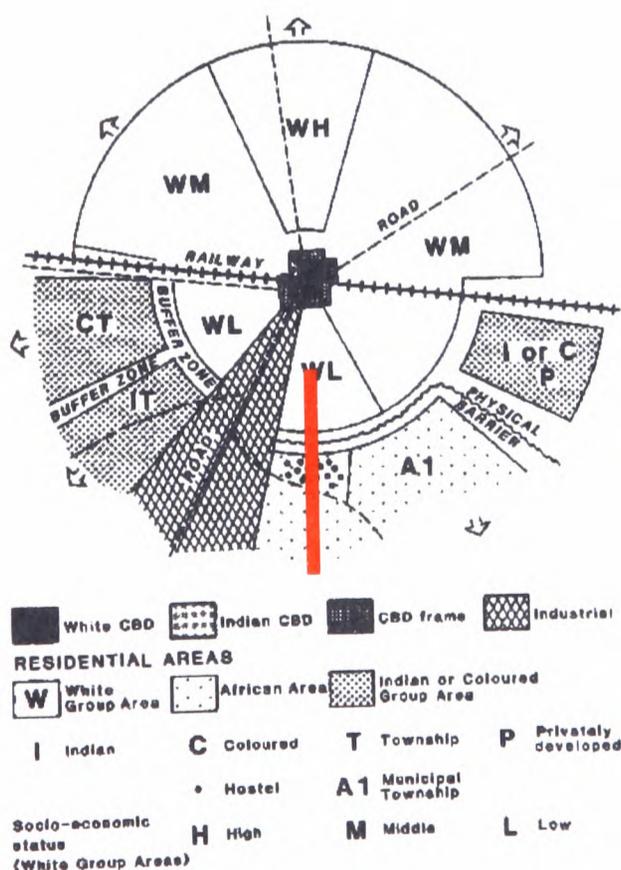
Figure 1.2. The notional alignment of a typical integrating corridor superimposed over a diagram of the now defunct model apartheid city. The extent of the divide varies from one city/town to the next and can be as much as thirty kilometres (Adapted from Christopher,2001:105).

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1.2.2. LIMITS TO THE POTENTIAL OF CORRIDOR DEVELOPMENT TO FACILITATE INTEGRATION

The six perceived benefits listed above are often mutually exclusive or may compromise each other due to a lack of cross-sectoral integration, as will be indicated in the contextual analysis presented in CHAPTERS 3, 4 and 5.

The inseparable terms *integration* and *participation* are widely used and have become central planks of affirmative public policy at various levels and within various public departments in post apartheid South Africa (Development Facilitation Act, 1996; Abbott,1996; Lyons et al, 2000; Ambert 2001).

The physically discernible dimension of urban integration in South Africa makes it the most symbolic of all integration processes. This physical level is by necessity the level where built environment professionals have become instrumental in trying to facilitate *integration* and *participation*. Control-driven education and the experience acquired during four decades of modernist and centralised apartheid planning has however provided practitioners with the wrong set of tools to deal effectively with the task at hand. The limiting, positivist mindset of most urban managers and professionals was shaped during a thoroughly undemocratic pre-1994, era when the task was simply to regulate urban form and growth according to centralised policy- and form prescriptions (Oranje, 2001; Barberton et al, 1998; DCD,1999). While being effective in supporting the aims of politicians, these adopted institutionalised methods were both uncritical and unresponsive to the needs of citizens.

When measured against international/modernist planning practice, the focus on sectoral models was in many respects ratified during the first three decades of apartheid (Tomlinson, 1994; DCD,1999). This served to divert some attention away from the detrimental and long lasting impact that apartheid planning would have on South African society. Moreover, the model had much in common with *The Town Planning Scheme* employed in Britain and in many of its colonies (Simon, 1992, 1996; DCD, 1999). Only with the independence of much of Africa's countries and the demise of modernism did international scorn begin to fall on white South Africa's determination to continue with its social and spatial segregation policies. It took another two decades of political struggle

before South Africa would be converted into a society with a constitution that considered all citizens to be equal.

While most countries adopted a more humanist approach to urban development since the early seventies, the political agenda of apartheid had ensured that a strict modernist land management system would remain central to South Africa's planning for a much longer period (Oranje, 2000; Southworth, 2003. DCD, 1999). The highly restrictive policy framework made it impossible to use participatory *development practice*[3] methods effectively in the South African context.

Since the planning profession was little more than a puppet of the apartheid state, built environment practitioners of all persuasions were bound by the associated planning and legal frameworks. Variables associated with regional and local contexts and the needs of people had little influence on the way in which segregation policy was applied or in the way in which professionals were educated (Tomlinson, 1994). Despite the collapse of apartheid, an entrenched technical-rational approach has clearly continued to influence practice during the early stages of urban reconstruction, mostly because practitioners have little experience of strategic and participatory approaches.

Based largely on the legacy of apartheid planning and an unfolding new, neo-liberal agenda, there are four factors that generate concern about the way in which the corridor approach has been prescribed/implemented during the early post apartheid years:

- **first** (lack of integration), the dualist and broadly stated government agenda of simultaneously facilitating bottom-up and top-down development processes in the corridor zone has not been adequately considered. In order for stakeholders and practitioners (including urban designers) to assess their role in the development of the dualist corridor zone, greater integration between the two approaches is needed (Ambert, 2001).

- **second** (symbolic/physical versus social), the strong symbolic value of the physical link between fragments of the apartheid city, commonly referred to as integration corridors, has made it particularly popular amongst

politicians. While focusing on the power of the grand integration project with its associated large scale infra-structural elements, they have failed to give sufficient consideration to the real livelihoods struggles of many citizens who populate vast sections of peripheral corridor space.

- **third** (process/scale), under the direction of a neo-liberal macro economic policy and a strategic urban management framework that directs public investment towards circumscribable five year projects, metropolitan planners, economists and transport engineers have dominated the process by placing excessive emphasis on the provision of civil engineering infrastructure. This front loaded management approach minimises opportunities for local intervention. Well considered minimal grids and incremental development may support small-scale economic activities, urban agriculture and livelihoods generation at the local scale. Urban design is most enabling at the local and sub regional scale; it therefore has an important role to play by actively seeking to inform higher order urban strategies and to assist in unlocking local opportunities (Schaug, 2003; Dewar in Tomlinson, 1994).

- **fourth** (debate/reflection), some corridors have been mooted at a national level. *Spatial Development Initiatives* (SDI's) is a concept of transcontinental highways advocated by international donor agencies. The rapid co-option of the idea by economists and politicians has provided little opportunity for reflection and debate on its relevance (Wood, pers com 2002).

These concerns need to be evaluated within a framework that defines the nature and purpose of an urban corridor. CHAPTER 2 initiates this process by aiming to formulate an inclusive and contemporary definition of the urban corridor based on international evidence. The analysis draws on historical precedent that is compared to and supplemented by current definitions provided by practitioners during interviews in South Africa.

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[3] See Annexure 1: Glossary of Terms for a definition of a *development practice* approach.

1.2.3. THE POTENTIAL OF URBAN DESIGN TO CONTRIBUTE TO CORRIDOR DEVELOPMENT IN SOUTH AFRICA.

Urban Design has emerged as a vehicle for facilitating more humanist approaches to urban development (Bentley,2002; Hayward & Mc Glynn,1993; Shirvani, 1985; Barnett, 1982; Moudon & Attoe, 1995; Sandercock, 1998; Dewar & Uytenbogaardt, 1991). Many of the concerns related to corridor development raised in *subparagraph 1.2.3.* are supported by post-modern urban theory. The consciously flexible definition of urban design has however resulted in a struggle to find a foothold in developing countries where theory is poorly disseminated and local knowledge is seldom captured in an accessible form (Southworth, 2003; Schaug, 2003).

Laburn Paert (in Hamdi, 1996:87-99) argues that traditional planning approaches and education in South Africa need to be balanced with a *development planning* approach. The approach, which supports concepts such as partcipation, flexibility and enablement is deemed more appropriate to South Africa's developing-country context than imported[4] planning methods and is closely aligned to the responsive aims of urban design. This re-emphasises concerns about the validity of planning in post-modern societies expressed by numerous scholars (Sandercock 1998; Hamdi and Goethert, 1997; Friedmann 1998).

Urban design has never been considered a profession. Rather it is an approach to urban development that transcends disciplinary boundaries. In some countries it has assumed a distinct identity and it has managed to inform public policy (Mackay, pers com 2002; Barnett, 1973; Hamnett& Freestone, 2000; Troy,1996). Urban design schools in the United Kingdom, the United States and more recently in Australia have been influential in establishing informal, cross-disciplinary associations of like-minded professionals. This cross disciplinary dynamic has not developed in any of South Africa's cities except Cape Town, where the only post-graduate urban design course is offered (Southworth, 2003, Low, 2003). There is an urgent need for assessing and communicating the scope of urban design intervention in other centres if urban design is to play a more significant part.

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[4] The South African planning system has been greatly influenced by British planning practice (Tomlinson, 1994)

The relative scope for urban design intervention is investigated at two levels:

- **First,** to indicate how the political economy, legal frameworks and sociological variables influence power relations within corridor contexts. This will assist in determining the relative power base of urban design, i.e. its power to initiate or control and its ability to be an effective participatory partner.

- The **second** aim is to indicate how contemporary urban design vocabularies and urban design skills as defined within an international urban design discourse and as noted during international field work translate to the practice of urban design in post apartheid South Africa.

The investigation of the relative scope of urban design action, and its influence in corridor development, will inform the urban design strategy presented in CHAPTER 8.

1.3. OBJECTIVES

Based on the analysis presented above, the research is driven by three key objectives:

(i)   The **first** objective is to develop an understanding of the political, social, economic and spatial **context** of corridor development to which urban design needs to respond. This will draw on theory, will be supported by international case studies and South African fieldwork and will require judicious translation between contexts.

(ii)   The **second** objective is to analyse the power relations and scales associated with corridor development processes and to determine appropriate levels and scope for urban design intervention.

(iii)   The **third** objective is to present a critique of urban design methods and tools used in corridor development, both in South Africa and in international case study contexts, and to indicate if, when, where and how these may be used in the South African corridor context.

(iv)   The **fourth** objective is to propose an integrated strategy for urban design in corridor development in South Africa. The strategy will be based on the findings of research related to the first three objectives. The strategy needs to be presented in a form that is accessible and useful to both metropolitan governments and urban design practitioners.

1.4 RESEARCH STRATEGY

1.4.1. SUPPORT FOR A REFLECTIVE RESEARCH METHODOLOGY

The research approach is biased towards reflective learning and is informed by Schōn's (1985, 1987) *Reflective Practitioner* approach. Schōn considers research an open-ended learning process that acknowledges the complex processes which shape everyday society. Related texts that expand the debate are *Action Science/ Inner Contradictions of Rigorous Research* by Argyris et al (1985, 1980) and *Action Planning* by Hamdi and Goethert (1997).

A preference for a reflective approach extends the aims of a *development practice*[5] approach to urban design. The approach accepts that knowledge is best gained in the process of doing and that conventional modes of research are too narrow, thus ignoring the non-linearity of urban development processes. If the process by which new knowledge is collected, synthesised and presented ignores these processes, it will be of little value to society. While pre- packaged theory is useful for the analysis of urban conditions and for presenting a range of options for testing, it does not provide built environment professionals and development practitioners with effective tools to deal with pressing real-life problems. The urgency of problems in developing countries, where many activities take place beyond the control of formal institutional structures necessitates this approach. Theory is predominantly generated in the industrialised world, where debate occurs within institutionalised confines. When theory and education focuses on developing world issues it is often written from a western perspective or without adequate translation (Schauch,2003; Sharif in Hamdi,1996). John Turner's accounts of his experience in Peru's *pueblos jovenos* during the 1960's contributed greatly towards emphasising this fact. In

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[5] See Annexure 1: Glossary of Terms

Freedom to Build (1972) Turner provides a frank account of the failed attempts of a British educated practitioner to implement preconceived methods of housing delivery in a developing country context.

> 'We had assumed that the role of the professional was to organise the self-build process. Then we realised that the people knew perfectly well not only what to build, but how to build it; that we had been guilty of the liberal authoritarian view that all local autonomous organisations tended to be subversive.' (Turner, 1972 p 138).

While the *reflective practitioner* approach is concerned with learning through praxis rather than through focused academic research, it encourages researchers to extract knowledge from those who have been involved in development projects rather than relying on second hand 'book knowledge'. The reasoning behind this is that urban managers, built environment professionals and *development practitioners* do not have an incentive to record their own experiences in an accessible form, but that they are often keen to share their wisdom with others when prompted. The topic and questions of this research evolved from experience of corridor development in South Africa where the author was an urban design consultant (Comrie & White, 1999). This provided grounded knowledge of the subject while also raising questions about the role of urban design in corridor development in South Africa. It is therefore possible to appreciate the value of adopting a reflective approach when doing urban design research.

While a reflective approach provides a mechanism for yielding practical and strategically important guidance for application in the development of corridors, the research relies on urban theory to develop an understanding of the political, sociological and economic forces that shape the context of practice in a rapidly changing South Africa. Theory therefore assists in defining the context and predicting the outcomes of urban design action while research that encourages reflection provides a more grounded set of ideas for guiding urban design practice.

1.4.2. GEOGRAPHICAL AND DISCIPLINARY SCOPE

The reason why urban designers may be hesitant to engage with corridor communities undoubtedly relates to the enormous scale at which they are often proposed. Where do you start when corridor development affects tens of thousands of people, with many of them in a state of accelerated sociological and economic transience? The geography may equate to

that of an entire city region, a far cry from the manageable sub-regional and local contexts where urban design has traditionally staked a claim.

Developing an understanding of urban design's possible new regional role is of crucial importance. It would therefore be inappropriate to deny the real scale and scope of corridors, since the concerns raised in subparagraph 1.2.2 relate mostly to a lack of interdisciplinary integration and the propensity for urban design to revert to *generic solutions*[6] when faced with this level of complexity. It may well be found that the metropolitan level may not be the appropriate level for urban design to engage, yet an understanding of the higher order urban management framework needs to be developed if the discipline is to define its role more accurately.

Punter and Carmona (1996:127) note that designers are constantly shifting between *operational, responsive and inferential* modes and that *'they cannot afford to lock themselves into any one design tradition, and that they need to look broadly at the full range of qualities that society wishes to extract from the built- and natural environment'*. Since this research is concerned with praxis, it is important to relate the research to these modes of practice.

Academic research in any design discipline, including urban design by necessity leans towards *operational* and *inferential* modes, since the tensions between stakeholders and unpredictable *responses* required by real life processes are difficult to assess. Theory considers broad social processes but does not provide directly translatable solutions to the wicked problems that result from the many day-to-day struggles between capital and society and between the production and consumption of urban space.

The action research approach of Reason and Bradbury (2001: xxv) recognises the problem of inherent exclusivity and describes three levels at which a researcher concerned with real life and real time social processes may define the scope of his/her involvement:

- *First-person action research* addresses the ability of the researcher to foster an inquiring approach to his or her own life, to act with awareness and to choose carefully and to assess effects in the outside world while acting. First-person research brings

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[6] see Annexure 1: Glossary of terms.

inquiry into more and more of our moments of action- not as outside researchers but in the whole range of everyday activities (Ibid).

- *Second-person action research* addresses our ability to inquire face to face with others into issues of mutual concern, for example in the service of improving our personal and professional practice both individually and separately. Second-person inquiry starts with interpersonal dialogue and includes the development of communities of inquiry and learning organisations (Ibid). This level of research begins to lean towards a responsive approach.

- *Third-person research* aims to extend these relatively small-scale projects so that, rather than being defined exclusively as 'scientific happenings', they are defined as political events (Toulmin and Gustavsen, 1996). Third-person strategies aim to create a wider community of inquiry involving persons who, because they cannot be known to each other or to the researcher face-to-face (say in a large geographically dispersed corporation or corridor-zone), have an impersonal quality. Writing and reporting on the process of outcomes of inquiries can also be an important form of third party inquiry (Ibid).

In the extended corridor zone, conditions clearly exist that correspond with third-person research. The researcher is not in a position to cover the broad range of bases in a comprehensive manner and is therefore obliged to consider two strategies:

- **First**, to extrapolate findings generated at the first and second person levels of research by considering the corridor to be a set of nested physical and social domains.

- **Second**, to view the problem at an urban management level by considering the power relations between the various actors and then to assess the scope for urban design intervention

The methods adopted in this research ambitiously accept both strategies since they are considered mutually reinforcing. The scope of academic research necessarily limits the effectiveness of the first strategy, whilst excessive emphasis on the second reduces the potential of a study of this type to develop urban design methods that consider ways in

which ordinary citizens may contribute to the sustainable development of the corridor zone.

1.4.3. BRACKETING THE RESEARCH IN SPACE
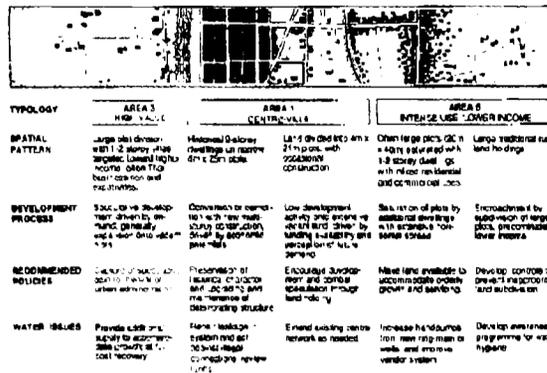
Figure 1.3: Identifying typologies as a basis for analysis and intervention (Hamdi & Goethert, 1997:55)

Another way of making research that deals with such a complex topic more manageable is to link the sociological component of the research to typology. The corridor as introduced in South Africa after 1994 represents a regional type of identifiable scale/s. This provides the opportunity to give direction and focus to the research by using typology and scale. This is a logical point of departure that was actively used in this research (see CHAPTERS 4, 6 and 7). The approach has both advantages and disadvantages: by dividing the corridor into manageable zones for research purposes, it compromises the researcher's ability to view the corridor as an integrated whole while simultaneously offering an opportunity to highlight the contextual differences that exist between the various sub-regions of the corridor. The problem of scale is however not limited to this academic research and translates to the problems encountered in the strategic management of corridor development in real life situations. Other researchers such as Hamdi & Goethert (1997) and Davidson & Payne (1983) have indicated that there are close matches between typology and socio-economic profiles in developing country contexts and that it represents a valid basis for enquiry.

Past experience of corridor development in South Africa suggests that the corridor typically transverses five identifiable urban typologies in trying to achieve its integrating aim (Comrie & White, 1998).
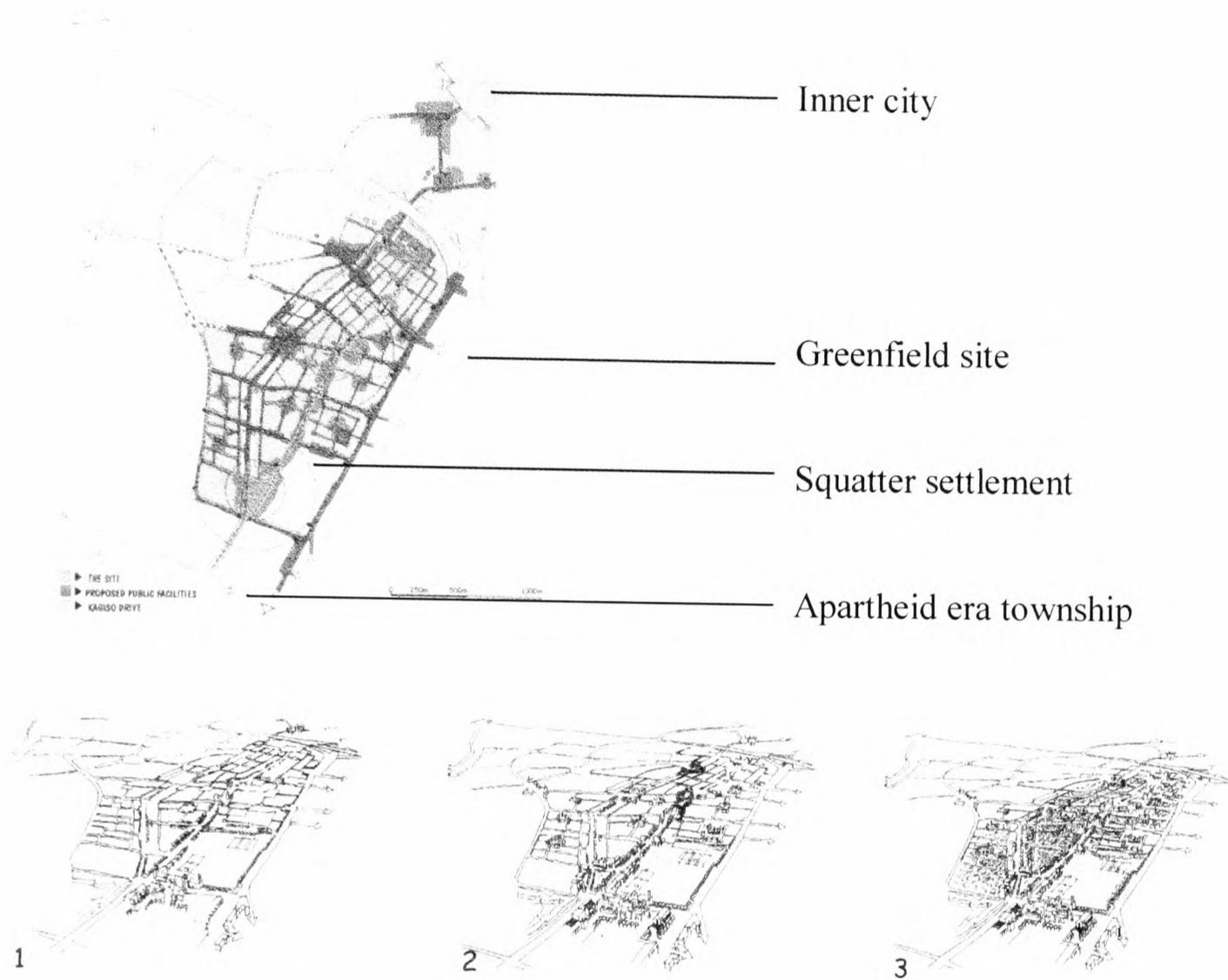
Figure 1.4: Kagiso Link Urban Integration Project; Johannesburg, South Africa. A project in which the author was involved and which stitches across different urban typologies (Comrie and White, 1998).
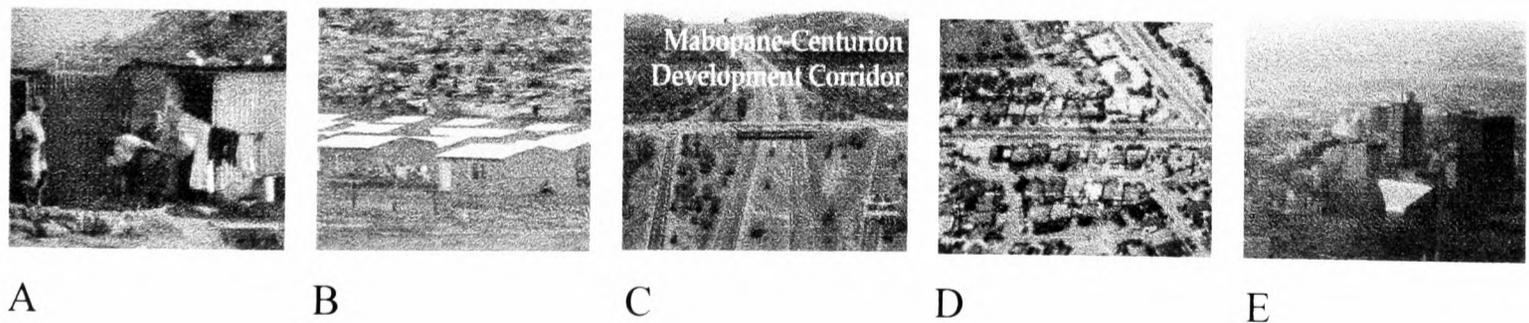
- **Typology A**: The semi-subsistence, agripolitan zone at the outer periphery of the corridor.
- **Typology B**: The township zone of mono-functional dormitory housing established under apartheid.
- **Typology C**: An in-between, green field zone maintained as a so called buffer zone during apartheid and which has often become the zone of illegal squatting.
- **Typology D**: Previously white suburban zones that are gradually being transformed into grey areas due to the emergence of a black middle class.
- **Typology E**: The inner city areas of perceived opportunity to which the corridor connects and onto which it is focused.

An analysis based on these typologies enables the researcher to measure the relative impact of and local responses to the introduction of generic corridor elements. Within the scope of this research and after reflecting on fieldwork visits, it was considered appropriate to focus on TYPOLOGIES A - D since compact inner city zones represents an already integrated destination beyond the physical confines of the integrative corridor.

These typologies have been used to indicate cultural diversity and transience within the geography of corridors (CHAPTER 4), to indicate the geography of basic needs in corridor space (CHAPTERS 4 and 7), to relate existing urban design approaches to corridor space (CHAPTER 6) and to indicate the critical geography of participatory development in corridor space (CHAPTER 7).

1.5. METHODOLOGY
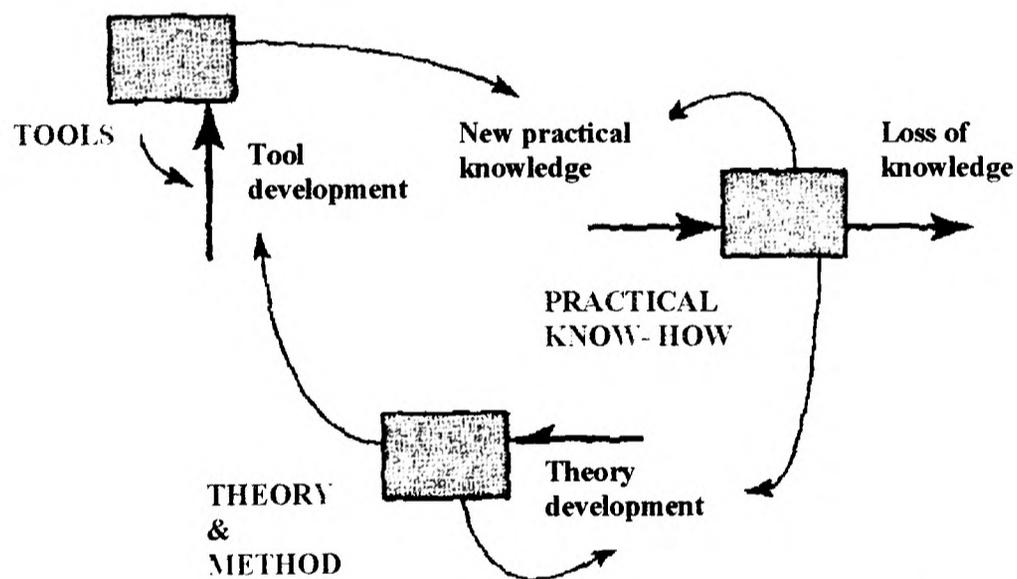
Figure 1.5: Diagram of the knowledge-creating process: Reason & Bradbury (2000:240)
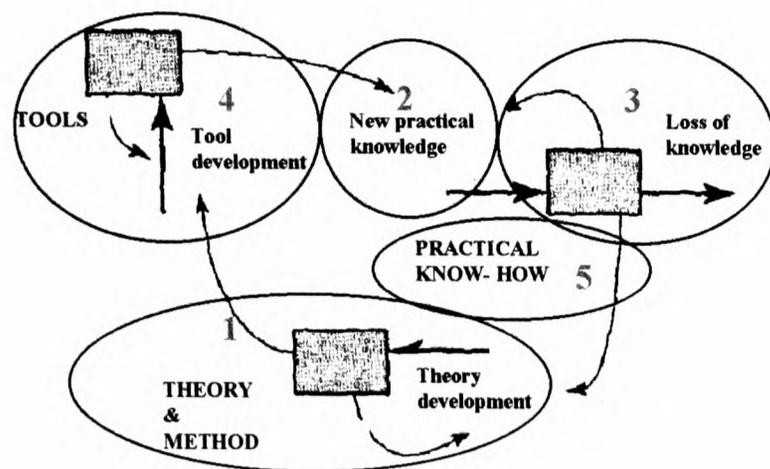
1. Formal education, desk study.

2. Fieldwork in Perth, Kuala Lumpur, Lima, Cape Town and Pretoria. Asking practitioners to reflect on their experiences

3. Through excessively rigorous methods. Through gatekeepers.

4. Through attending action planning events in the UK, through inspiration of and exposure to action planning methods

5. Through past involvement in urban design practice in South Africa and action planning workshops conducted as part of this research.

Figure 1.6: Reason & Bradbury's knowledge-creating process adapted to indicate the knowledge creating process of this research.

The research method is not linear but consists of an open-ended series of loops similar to the process followed in design (Figure 1.6.). Eraut (1994), Schön (1983) and Reason & Bradbury (2001: 242) refer to the way in which a mature action research process typically unfolds as a series of non-sequential loops and how this informal process may be used to improve education and research that has become over-reliant on technical-rational methods.

The structure of a research document however requires that it be a rationalised set of themes and conclusions, which misrepresents the fuzzy or open-ended process of learning. This becomes more significant when considering that the research is concerned with developing-world urbanisation dynamics, where urbanism and urban management is constantly being redefined because of the confluence of hyper migration and neo-liberalism in what has been referred to as theatres of (capitalist) accumulation and zones of (cultural) diffusion (Armstrong & McGee, 1971). In an interview with Babar Mumtaz[7] who has significant development practice experience in developing countries, it became clear that urban design must redefine its position within each new context, and that it is only possible to prepare an urban design brief retrospectively in real life situations. For this reason any research of this type that is concerned with praxis is effectively flawed and must therefore be considered a learning process that yields guiding ideas rather than a conclusive strategy. Case studies become important tools for gathering grounded knowledge and were chosen to assist in resolving theoretical concerns.

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[7] Babar Mumtaz is director of the Development Planning Unit at University College of London.

The stages presented below sets out the general direction of a non-linear knowledge gathering process:

STAGE 1: PROBLEM STATEMENT AND RESEARCH OBJECTIVES

The problem statement and listing of objectives are contained in subparagraphs 1.1, 1.2 and 1.3 of this CHAPTER and takes the form of a series of concerns and an expression of interest in the role of urban design in corridor development. Concerns and the interest in the particular problem are based on knowledge gathered in six ways:

- **First**, reflection by the author on past experience of corridor development in South Africa (Comrie & White, 1999).

- **Second**, by reviewing a range of national, regional and local/metropolitan legal documents or planning frameworks that refer to corridor development in post apartheid South Africa (see list of policy and urban design frameworks in the bibliography).

- **Third**, by reviewing seminal literature that highlights the state of the world and the relative position of South Africa (Castells:1996,1998; Potter & Lloyd Evans 1998; Beavon in Lo et al 1998; Sassen, 2000; Hutton & Giddens, 2000; Harvey, 2000).

- **Fourth**, by reviewing literature that relates to the political economies and planning systems of selected international case study countries and South Africa (Australia: Hamnett & Freestone, 2000; Friedmann, 1998; Hillier, 1999; Troy, 1996/ Kuala Lumpur: Kaur & Mecalfe, 1999; Raslan, 2000; Brookfield, et al (1991)/ South Africa: Tomlinson 1994; Marais, 2001; Liebenberg & Stewart, 1997; Abbott, 1996; Bond, 2000/ Lima: Starn, 1995; Flindel Klaren, 2000, Skinner, 1981, Turner, & Fichter, 1972)

- **Fifth**, reflection on the semi-structured interviews conducted with development practitioners who are either working in, or who have worked in corridor contexts in South Africa, Peru, Perth and Kuala Lumpur (see Annexures for sinopsis of interviews).

- **Sixth**, guest editing of a special issue of Urban Design International on Urban Design in South Africa, which provided the opportunity to ask urban designers to reflect on the practice of urban design in post apartheid South Africa (Schaug, Southworth, Low, Sanders, Bakker &Young, Lipman, Lloyd and Nicks. All forthcoming 2003).

STAGE 2: INTERNATIONAL CASE STUDY SELECTION, INTERNATIONAL FIELDWORK AND TRANSLATION OF DATA

Since the planned corridor concept is new in a South African urban development context, valuable lessons may be learnt from corridor development in contexts where they have reached a level of maturity and/or where urban design has had an influence on their development.

During the literature review (stage 1) and through discussion with supervisors Lima, Kuala Lumpur and Perth were selected as case studies. The matrix below motivates the issues-based selection.

Figure 1.7: Motivation of international cases.							
	AUTONOMOUS CORRIDOR SPACE	URBAN DESIGN INFLUENCE IN CORRIDOR DEVELOPMENT	RAPID URBANISATION/ SETTLEMENT IN CORRIDOR SPACE	CORRIDOR AS MECHANISM TO IMPROVE SUSTAINABILITY	DUALISM, FRICTION BETWEEN MODERN AND TRADITIONAL	CORRIDOR AS MAGNET FOR PRIVATE INVESTMENT	CORRIDOR RETROFIT IN SUBURBIA
SOUTH AFRICA Since mid 1990's	**need to consider**	**Need to define**	**Need to consider**	**High on agenda**	**Problematic**	**Part of neoliberal vision**	**Remnants of Anglo Saxon culture**
LIMA (PERU) Since early 1970's	◆		◆		□		
KUALA LUMPUR (MALAYSIA) Since early 1970's (formal)and historic type	□	□	◆	□		◆	◆
PERTH (AUSTRALIA) Since early 1970's		◆		◆		◆	◆
KEY ◆ high priority □ medium to low priority							

- **Villa El Salvador , Lima, Peru (see Annexure 6 for Fieldwork Report)**

The Villa El Salvador case was selected because of the lessons that could be learnt from its autonomous, people driven development and from the use of an enabling, minimal grid. CHAPTER 3 will indicate how mass migration of the poor in South Africa has created conditions that are, as in the case of Lima, forcing large sections of the population into modes of semi-autonomy. Villa El Salvador is located adjacent to the Pan American

Highway and forms part of a corridor that is developing spontaneously because of the access provided by that highway. Like South Africa, Peru also has a history of exclusion and social fragmentation that continues to impact on power relations in the city.

- Kuala Lumpur, Malaysia (see Annexure 4 for maps and fieldwork report)

The Kuala Lumpur case is of relevance to this research because of the city's dualist corridor growth models and because of the social fragmentation with associated power struggles that continue to characterise Malaysian society. The city offers the unique opportunity to compare and evaluate a planned corridor (outward looking/wealthy communities/sanitised/investor friendly) and an unplanned corridor (inward looking/poor communities/spontaneously developing/ marginalised). These corridors run parallel to each other and generate a high level of transience in the older, unplanned corridor. Dualism and socio-economic transience also characterises South Africa's evolving political economy.

- Perth, Australia (see Annexure 5 for maps and fieldwork report)

The Perth case is relevant to this research because of the suburban context that characterises much of Perth's North -Western corridor. The suburban contexts in corridor spaces are equally prevalent in South Africa because of a similar Anglo-Saxon influence and New World context. It is particularly the efforts to achieve high levels of sustainability through planned corridor development and the resultant efforts to intensify suburbs that are of relevance.

STAGE 3: THE CONSTRUCTION OF AN EVALUATIVE AND THEORETICAL FRAMEWORK

The research is conducted with a coherent view of the corridor n mind. It is sensitive to the diverse forces that influence the urban designer's power base when operating in the corridor context. The various definitions of the corridor presented by others and the synthesised working definition of a corridor in South Africa presented by the author (see Chapter 2) suggest significant disciplinary overlap and opportunities for conflict and compromise. Urban design needs to become aware of these variables and needs to evaluate its own purpose in relation to these while remaining conscious of its ultimate aim to give physical direction to urban growth and change. Movement issues provide a common basis for disciplinary interest in corridor development while the level of interest and the relative power base is influenced by three key themes. The three key themes that inform the evaluation of relative urban design roles are:

- The influence of South Africa's <u>political economy</u> on corridor development is evaluated and the relative potential of urban design to be an enabling discipline is considered in **CHAPTER 3**.

- The influence of <u>identity, transience and social heterogeneity</u> on corridor development and the relative potential of urban design to be an enabling discipline is considered in **CHAPTER 4**.

- The <u>influence of a strategic urban management</u> approach on corridor development and the relative potential of urban design to be an enabling discipline is considered in **CHAPTER 5**

The thematic evaluation of relative urban design roles provide the context for urban design action. Responsive action is evaluated at two levels:

- First, The scope for <u>formal urban design</u> approaches to be an enabling force in the participatory development of corridor space in post apartheid South Africa is considered in **CHAPTER 6**.

- Second, the scope for a <u>participatory approach</u> to urban design in corridor development in which the urban designer potentially becomes an active participant at the local scale is considered and tested in **CHAPTER 7.**

After a literature review the following selected theories were matched with the three themes and the two key opportunities for urban design action identified above:

	FENCED THEMES	KEY WORDS	SELECTED THEORY
CHAPTER 3	South Africa's political economy	- Neo-liberalism - Hegemonic project - Democracy	Urban Dualism - Marais (2001) - Barberton, Blake & Kotze (1998)
CHAPTER 4	identity, transience and social heterogeneity	- Modernity - Traditional - Transient - Marginal Man	Basic needs hierarchy Identity & Modernity - Giddens (1991) - Maslow (1954,1999)
CHAPTER 5	strategic urban management	- Corridor as project - Rapid urbanisation - Market space - Action space - Municipal budgeting	Neoliberal Metropolitan Government - Borja & Castells (1997) - Devas & Rakodi (1993)
CHAPTER 6	formal urban design	- Principles - Vocabulary - Minimal grid - Power	First Principles - Punter (1990). - Schurch (1999). - Crane (1960) - Dewar & Uytenbogaardt (1991) - Calthorpe (1986,2000) - McGlynn (1993)
CHAPTER 7	a development practice approach	- Control - Autonomy - Action - Learn - Method	Participation, flexibility and enablement Hamdi & Goethert (1997) - Wates (2000)

The evaluation of relative urban design roles and the judicious translation and use of relevant theory provides the opportunity to formulate an appropriate and contemporary strategy for urban design in South African corridor development.

STAGE 4: LIMITED TESTING OF A DEVELOPMENT PRACTICE METHODOLOGY

The application of the evaluative framework presents indications of the potential of urban design to be *an enabling discipline in the participatory development of the post apartheid integration corridor*.

Ideas are tested in the laboratory of the Mabopane Centurion Development Corridor and are presented in CHAPTERS 6 and 7 and in Annexure 7. Testing involves:

-   determining the geography of empowering urban development, based on Maslow's hierarchy of basic needs and on the availability of urban land.
-   matching appropriate levels of participation as defined by Arnstein (1969) and later by Hamdi & Goethert (1997) and Wates (2000) with the geography of basic needs.
-   proposing an appropriate participatory methodology for testing
-   performing a pilot participatory exercise that involves students from Technikon Northern Gauteng and from the University of Pretoria.
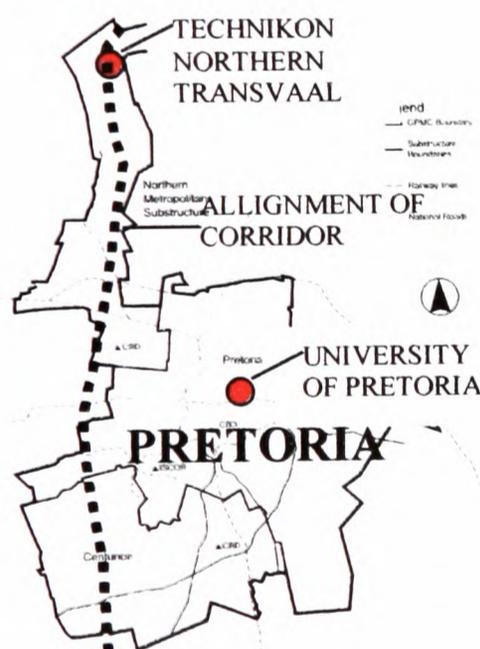
Figure 1.9: Location of tertiary institution that were involved in the action research process in relation to the MCDC Corridor. The laboratory of the MCDC corridor was selected because the corridor extends across the full range of urban typologies noted in subparagraph 1.4.3.

STAGE 5: PRESENTING A STRATEGY FOR URBAN DESIGN ACTION

The strategy presented in CHAPTER 8 draws on the evaluation of the relative power base of urban design as defined in preceding chapters while considering the tools that are available to South African urban designers. It also considers shortcomings and potential for urban design to improve its capacity to play a more active part in corridor development.

STAGE 6: REFLECTION ON THE LEARNING PROCESS AND CONCLUSION

CHAPTER 9 presents a subjective self-assessment of how the four research objectives presented in subparagraph 1.3. have been met and recommends opportunities for further related research.

1.6. STRUCTURE OF THE THESIS

The contents of CHAPTERS are related to the *evaluative framework* that is presented and motivated at the end of CHAPTER 2.

- **CHAPTER 1**: (INTRODUCTION) Introduces the research, explains the background to the study, outlines the central research questions, sets out the scope of the research, the methodology adopted, and the value of the research.

- **CHAPTER 2**: (DEFINITION OF THE URBAN CORRIDOR) Gives thematic direction to the research by presenting a definitional, historiographic and morphological analysis of urban corridors. The analysis is based on a literature review and fieldwork findings.

- **CHAPTER 3**: (POLITICAL CONTEXT): Considers corridor development in post apartheid South Africa within the context of a transient political economy and determines the need for urban design to either challenge or satisfy political agendas.

- **CHAPTER 4**: (SOCIOLOGICAL CONTEXT): Considers corridor development in post apartheid South Africa within a context of transient urban communities and determines the relative need for urban design to satisfy ordinary people's needs.

- **CHAPTER 5:** (POLICY CONTEXT) Considers corridor development in post apartheid South Africa in a neo-liberal urban management context and determines the relative scope for enabling urban design.

- **CHAPTER 6:** (URBAN DESIGN PLAN AND PRINCIPLE) Considers formal/universal urban design approaches to corridor development based on plan and principle and relates these to the findings of the contextual analysis presented in CHAPTERS 3, 4 and 5.

- **CHAPTER 7:** (PARTICIPATORY URBAN DESIGN) Considers a development practice approach to urban design and relates it to the findings of the contextual analysis presented in CHAPTERS 3, 4 and 5.

- **CHAPTER 8:** (URBAN DESIGN STRATEGY) considers the findings from the preceding CHAPTERS and presents an integrated strategy for effective urban design action in South African corridor development.

- **CHAPTER 9:** (CONCLUSION) Sets out the overall conclusions of the research and identifies areas for further research.

Table 1.10 indicates the how the strategy relates to the various chapters of the thesis.

FIGURE 1.10: HOW CHAPTERS RELATE TO EACH OTHER AND TO THE RESEARCH OBJECTIVES

DEFINE THE PROBLEM	**CHAPTER 1:** INTRODUCTION		
	CHAPTER 2: DEFINING THE URBAN CORRIDOR		
	FIRST EVALUATION: DEFINE RELEVANT THEMES OF THE EVALUATORY FRAMEWORK		
EVALUATE THE CONTEXT OF URBAN DESIGN ACTION	**CHAPTER 3** POLITICAL CONTEXT (GLOBAL FOCUS)	**CHAPTER 4** SOCIOLOGICAL CONTEXT (LOCAL FOCUS)	**CHAPTER 5** POLICY CONTEXT (LOCAL FOCUS)
	SECOND EVALUATION: DEFINE THE POLITICAL, SOCIOLOGICAL AND POLICY CONTEXT OF CORRIDOR DEVELOPMENT		
CONSIDER TOOLS FOR PRACTICE	**CHAPTER 6:** EXISTING VOCABULARIES: URBAN DESIGN PLAN AND PRINCIPLE (GENERIC AND FORMAL VOCABULARIES)		
	CHAPTER 7: AN ALTERNATVE, DEVELOPMENT PRACTICE APPROACH		
	LIMITED TESTING		
	CHAPTER 8: PRESENTING A STRATEGIC FRAMEWORK		
	CHAPTER 9: CONCLUSION		

1.7 ANTICIPATED OUTCOME

The anticipated outcome of the research is the contribution to knowledge at two levels:

- *the primary outcome*: presentation of a strategic framework which assesses and communicates the potential of urban design to act as an enabling discipline in the participatory and sustainable development of the post apartheid integration corridor while considering the key external forces that influence the capacity to act and enable.

- *the secondary outcome*: the presentation of ideas from a knowledge-generating process that introduces an international audience to the challenges associated with South African corridor development and which may be particularly relevant to urban design praxis in the developing world.

CHAPTER 2: DEFINING THE URBAN CORRIDOR

2.1. INTRODUCTION:

2.1.1. AIMS AND SCOPE

This CHAPTER sets out to answer the question 'What is an urban corridor'. There are two reasons why this question needs to be answered

- **First**, this question was frequently asked during the course of my research. Many and widely differing answers were provided, each influenced by factors such as context, precedent or disciplinary focus. How people and institutions define urban corridors influences theory, strategies, policies and ultimately praxis and it is therefore important that its various definitions be considered as an introduction to the research.

- **Second**, the analysis is used to inform selection of themes that will be considered in CHAPTERS 3, 4 and 5 which collectively aim to assess and presenting the context for urban design in corridor development in South Africa.

2.1.2. METHODOLOGY

It has often been noted that urban design, which is an evolutionary is distrustful of theory because of its responsive ethos and because it values the specificity of context. Urban design is therefore reluctant to be tied down by directives and thrives at the margins of development practice (Cuthbert, 2001; Goodey 1997; Schurch, 1999). This attitude amongst urban designers was confirmed during a range of interviews, and particularly with urban designers in South Africa who find it difficult to translate the already limited body of western theory to South Africa's developing country context (Thomashoff, White, Wood, Jordaan pers com 2002).

Based on this analysis, it is hardly surprising not to find a comprehensive set of urban design ideas or an analysis that deals specifically with urban corridors. It is however not uncommon to find inferred reference to the nature and merits of corridor development in urban design frameworks and in urban design texts (Dewar & Uytenbogaardt, 1991;

Alexander, 1977; Thorne, 1996; Barton et al, 1995; Calthorpe & Fulton, 2000) or as part of theory presented in associated fields, most notably transport engineering (Cervero, 1998; Maiorana, 1994). This is contrasted by the positivist promotion of ideas on the *linear city* in the early eighteen hundreds and early nineteen hundreds as documented by Fehl (1998) and the criticisms of ribbon development presented during the 1960's (Hall, 1988; Ash,1966; Doxiades, 1968). These criticisms have mostly revolved around simplification of the urban form production process and disregard for social and political dynamics. While many interviews with urban designers suggested this, only one urban design text was found that considers the modern corridor a reincarnation of a naturally occurring, pre-industrial urban typology (Dewar & Uytenbogaardt, 1991). Potter & Lloyd Evans' (1998) observation that pre-industrial typologies are becoming increasingly relevant under conditions of rapid urbanisation and endemic poverty presently experienced in the developing world suggests that the type must not be discarded because of the failure of linear cities and ribbon developments in the industrialised world. Recent development trends, both in the industrialised and developing worlds indicate a resurgence of notional linear typologies, as part of a neo-liberal form production process. The type has been proposed on all continents as Cervero's study *The Transit Metropolis* (1998) indicates and is closely related to the normative aim of achieving sustainable urban form. (The *neo-liberal* and *sustainable city* form production process is discussed in CHAPTER 5 which deals with strategic urban management).

The analysis presented above firstly indicates that, given the topic of this research, no comprehensive theoretical framework for analysis is readily available and secondly, that it is easy to hold a confused or sectoral/discipline based view of the nature and purpose of corridors. This CHAPTER acknowledges these concerns and therefore aims to construct and communicate an understanding of the nature of urban corridors by referring to recorded examples and to a wide range of international cases. The analysis is based on:

- contemporary definitions provided by practitioners during interviews
- a literature review

2.2. A COMPARISON AND ANALYSIS OF EXISTING DEFINITIONS OF THE URBAN CORRIDOR

2.2.1. INTRODUCTION

This section analyses and compares contemporary definitions of the urban corridor. Since many of the definitions are from primary sources, and originate from within the urban design discipline, it provides an opportunity to construct a contemporary, discipline-based definition.

2.2.2. CONTEMPORARY DEFINITIONS OF THE URBAN CORRIDOR

Table 2.1. contains twelve contemporary definitions of the *urban corridor*. The majority of definitions are derived from primary sources, thus reflecting current perceptions.

TABLE 2.1. DEFINITION OF A CORRIDOR	SOURCE	KEY WORDS
Corridors are locations in both urban and rural areas along which new development can be located to benefit from existing or potential future access to effective public transport by road or rail. Corridors have been promoted as a means of integrating transport and land use planning so as to accommodate new development in ways which minimise private car use and enhance transport choice and accessibility.	Friends of the Earth **United Kingdom**	▪ Armature for new development ▪ Enhanced choice & access. ▪ Access to public transport ▪ Integration of transport and land use planning
Corridor or linear band development should not be confused with ribbon development. Whereas ribbon band development is typically one property thick each side of the road, the linear band is as thick as wide as possible while maintaining excellent accessibility to the public transport spine.	Barton, H; Davis,G and Guise, R, 1995 p101) **United Kingdom**	▪ Linear band development ▪ <u>not</u> ribbon development ▪ access to public transport spine
In the context of the Integrated Development Plan for the GPMC, the term 'corridor' refers to a transportation spine of some nature(usually road or rail) which link certain important activity nodes in the urban structure and along which it is proposed to stimulate a range of development activities aimed at better utilisation of the transportation and other infrastructure with the specific aim of enhancing land use and transport (GPMC, IDP, 1999:ii).	Greater Pretoria Metroplitan Council, Integrated Development Plan (1999:ii) **South Africa**	▪ transportation spine ▪ linkage of activity nodes ▪ stimulate development ▪ integrating(enhancing) land use and transport

Spontaneous or planned development along activity spines which link metropolitan nodes. Corridor development differs from ribbon development in that ribbon development occurs in an uncontrolled and piecemeal fashion along major arterial routes on the urban periphery and contributes to sprawl.	*Cape Town Metro Metropolitan Spatial Development Framework (1991)* **South Africa**	▪ spontaneous(non plan) or planned ▪ differs from ribbon development ▪ contains sprawl ▪ controlled
Activity Corridors are linear, mixed use elements of urban structure containing an intense concentration of facilities such as retail, office, entertainment, work, industrial production, community facilities and housing amenities, focused on a series of transportation routes acting in concert. Such corridors are often characterised by areas of agglomeration as opposed to narrow bands of activity(Green et al 1996 I).	*Centre for Scientific and Industrial Research (CSIR, 1996)* **South Africa**	▪ linear ▪ mixed use ▪ agglomeration, ▪ not narrow bands/ ribbons
The term **corridor** *has been defined in a transportation context as 'a strip of land between two termini within which traffic, topography, environment and other characteristics are evaluated for transportation purposes.*	*Maiorana, JJ 1994:2* **United States**	▪ strip of land ▪ coordination of traffic, topography, environment
An urban corridor is a naturally occurring morphological element and must be distinguished from arterial spines and high streets at one level and regional corridors at the other. It should comprise several parallel routes of movement intervention in a complex way (preferably with public transport on these routes) – buses and rail with taxi's in between both on the parallel and cross routes and be extra-oridinarily complex in its activity and density profiles tending towards sustained intensity. It is a multi-stranded egalitarian, uncontested interwoven sinew and nerve of the city and its lifeblood.	Erky Wood Planner & Urban Designer, Johannesburg **South Africa**	▪ Morphological phenomenon ▪ Parallel routes, multi stranded ▪ Movement ▪ Public transport route/s ▪ Cross routes ▪ High density
A development area from A to B	*Hans Wilreker Architect &Urban Designer, Johannesburg,* **South Africa**	▪ Development ▪ Route

It depends on scale. It has greatest clarity (comprehensibility) at precinct scale as a linear spatial construct – a linear organisation of a variety of symbiotic activities (cause and effect, catalyst and response). The corridor is a naturally occurring city element, which is a function of linear movement. Projects I have been involved with typically manipulate these various elements of activity, movement and the transactional spaces in-between.	*Fritz Thomashoff Architect & Urban Designer:* *Pretoria,* **South Africa**	• Scale dependent • Linear organisation • Naturally occurring • Movement • Activity • Transactional spaces
Corridors are <u>natural</u> development forms which has been around for centuries (and which has been inhibited by modernist planning). Intense urban linear development with the following main elements: • *Connectivity between nodes* • *Density and continuity* • *Multinodal transportation* • *significant diversity of land uses* • *absence of inhibitors accessibilty and mobility*	*Gerrit Jordaan Architect & urban Designer, Pretoria* **South Africa**	• Linear development • <u>Natural</u> development forms • Inhibited by modernist planning • Connectivity between nodes • Density and continuity • Multinodal transportation • Significant diversity of land uses • Absence of inhibitors • Accessibilty and mobility
A seam which is highly accessible, supported by public transport, and spatially able to support and sustain areas of intensive, mixed use development. This refers to 'corridor' within a metropolitan or local area context.	*Suzanne Du Toit Architect & urban Designer, Cape Town* **South Africa**	• Seam • Public transport • Intensive development • Mixed use
An activity/development corridor is a linear strip of land connecting large activity nodes, traversing urban or inter-urban areas, surrounding a major transport facility or facilities, and providing an appropriate regional level of mobility and accessibility to adjacent areas and containing a high concentration of people and mixed land uses.	*Mark Oranje Planner & university professor, Pretoria* **South Africa**	• Linear, • Activity nodes, • Public transport, • high density, • mixed use, • accessibility, mobility.

An analysis and comparison of the thirteen definitions provides the following insights:

- **First**, some definitions consider the corridor a *planned* armature for development while others consider it a *spontaneous* or *natural morphological* process which has been denied by modernist planning. This also indicates that the corridor is not a modern invention of planners but a historic type.

- **Second**, most definitions consider the corridor an appropriate urban type that improves access to a greater range of opportunities.

- **Third**, some definitions are at pains to stress that corridors are not ribbon developments, clearly in response to the negative perceptions of ribbon development in the United Kingdom and the United States.

- **Fourth**, scale, linearity, integrated public transport infrastructure, activity nodes and a variety of land uses are recurrent themes related to the typology of the corridor. Significantly, three definitions emphasise *transverse* connections and the *width* of corridors. The word 'seam' suggests that lateral or perpendicular connections are as important as the main linear arteries.

A synthesis of the definitions presented above and the broad review of the corridor presented in this thesis requires the formulation of a working definition of the corridor that relates to urban design roles in contemporary South Africa:

> *An integrative urban corridor in South Africa is a context for local urban design action that relates to the broadly linear energies generated by both old and proposed new movement systems initiated by others at a regional scale. In post apartheid South Africa corridors aim to improve access by physically linking up segregated parts of the city. The associated fragmentation is not only physical but also socio-economic and socio-political.*

Based on this definition it is clear that present and potential future energies are variables that need to be assessed within each of the diverse sub regions of the corridor for local urban design action in corridor space to be effective.

2.3. HISTORIOGRAPHIC REVIEW OF THE URBAN CORRIDOR

2.3.1. INTRODUCTION

An historic review of corridors and associated urban types are necessary since historic types continue to influence current praxis. In urban design, which relies heavily on empirical data collected in the context of a painfully slow urban form production process, history and associated morphologies remain important references.

The contemporary definitions of corridors listed in subparagraph 2.2.3. indicates that both *planned* and *unplanned* traditions of corridor development are relevant to urban design praxis.

Appendix 2 which is included at the end of this thesis represents an original and referenced chronology of linear and associated urban forms which was compiled in a piecemeal fashion during the course of this research. The chronology vividly highlights traditions, and served a practical purpose by providing a handy catalogue for reference during the writing up stage of this thesis.

The review indicates the existence of the following traditions or types:

- **First**, pre industrial, un-planned and informally planned (unselfconscious[1]): The agents for development are communities, often traders and merchants in pre-industrial society. This type is manifested through vernacular, communal- or anarchist traditions in which the state exerts little influence over development or in which it extends certain freedoms to agripolitan communities. *Examples: Silk Route, Middle Eastern suqs, European market towns, Malaysian rural village.*

- **Second**, contemporary un-planned and informally planned (unselfconscious): The agents for development are the urban poor in developing countries who use the edge of roads for entrepreneurial activities and/or to gain improved access to roads leading to formal opportunities of the city. *Examples: Lima, linear villages of the Indian subcontinent, increasingly South African cities e.g. the N1 leading into Cape Town. Cairo - Alexandria corridor.*

- **Third**, utopian (self-conscious): Though this tradition started well before the dawn of Modernism, the utopias were mostly conceptualised in the functionalist era of twentieth century Modernism. In the context of this research, Utopian types are commonly

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[1] The terms *unselfonscious* and *self-conscious* used in this analysis are borrowed from Christopher Alexander's *Notes on the Synthesis of Form* (1964, chapter 6). *Self-conscious* design is the province of professionals, and is communicated through abstract principles and schemata. The *unselfconscious* process relies on '*design being evolutionary rather than anticipatory*', and on '*the existence of traditional taboo as well as slow movement of technical process*'

referred to as *Linear City* models. *Examples: Soria y Mata's Ciudad Lineal (1892), Garnier's Cite Industrielle (1904); Miultin's de-urbanist Plan for Magnitogorsk (1929), Le Corbusier's Cité Linéaire industrielle (1944), Friedrich's Lineare Ordnungstruktur (1930), The MARS Plan for London (1937).*

- **Fourth,** strategically planned (self-conscious): A contemporary approach in which the agents for development are the state and developers, aided by professional planners and/or urban designers. Associated strategies seek greater integration between transport- and land use planning. This type is most commonly, but not exclusively, found in industrialised countries where corridors act as catalysts for industrial development or sustainable development. Though displaying distinct typological features, this type should be distinguished from the early, functionalist types of the first half of the twentieth century. Contemporary definitions of urban corridors as found in planning literature mostly refer to this type. *Examples (see annexure A): East Thames Corridor; England, Delta Metroplis; Holland, Malaysian Multi-media Super Corridor, Maputo Corridor; South Africa, Curitiba Corridor Plan;Brazil.*

- **Fifth,** theoretical (speculative) are usually conceptualised by a professional *avant-garde*. Whilst mostly unbuilt, the ideas challenge existing practices, stimulate debate and contribute towards planning and urban design praxis. *Examples (see addendum A): Potteries Thinkbelt (Cedric Price et al, 1964), A Pattern Language (Christopher Alexander,1977); Capital Web (Crane, 1960, 1964)*

- **Sixth,** empirical approaches (speculative/participatory) which test and communicate the legibility , spatial integration potential and sustainability of corridors while aiming to inform their design. *Examples(see addendum A): The View from the Road (Appleyard, Lynch & Meyer,1969), Learning from Las Vegas (Venturi, Scott- Brown et al); The Townscape Theorists (Cullen, 1961).*

- **Seventh,** the corridor as mega-project (self-conscious) where central government or state funds are invested in massive infra-structural development with fixed budgets and deadlines. *Examples: Boston's Central Artery Project (The Big Dig) and Malaysia's Multimedia Super Corridor.*

In the following section each of the seven categories are briefly discussed and illustrated by using appropriate examples.

2.3.2. PRE-INDUSTRIAL UN-PLANNED- AND INFORMALLY PLANNED TRADITIONS OF CORRIDOR DEVELOPMENT.

An analysis of pre-industrial urbanism suggests that linearity is synonymous with early, unplanned settlements, particularly in arid climates where trade was an important part of livelihoods generation. Linear settlement patterns were a logical response to the trading opportunities provided by transcontinental trade routes such as the Silk Route, the most important commercial route of the ancient world (Kheirabadi, 1991; Dewar & Uytenbogaardt, 1991; Browne, 1976).

Figure 2.1. Morphology of an Iranian City (Kheirabadi, 1991:46).

Figure 2.1.1. The Silk Route with associated urban settlements. (Kheirabadi, 1991)
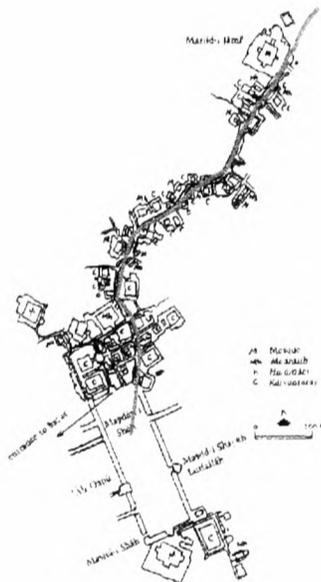
Figure 2.1.2. Bazar of Isfahan anchored by the Friday Mosque and Shah Mosque. Extended market within an integrated city. (Kheirabadi, 1991)
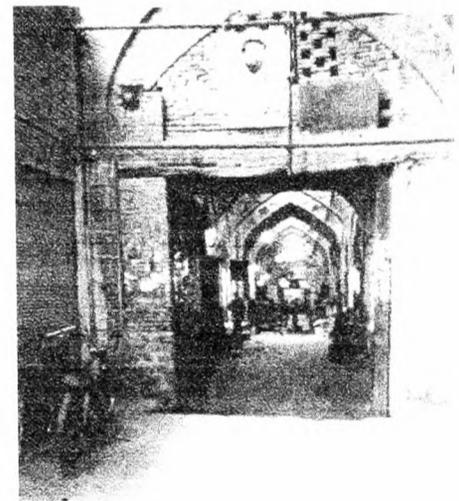
Figure 2.1.3. Inside the Rāstih-bāzār, Isfahan (Kheirabadi, 1991).

agricultural settlement

agricultural settlement with newly built *caravanserai*

early commercial settlement

integrated commercial town
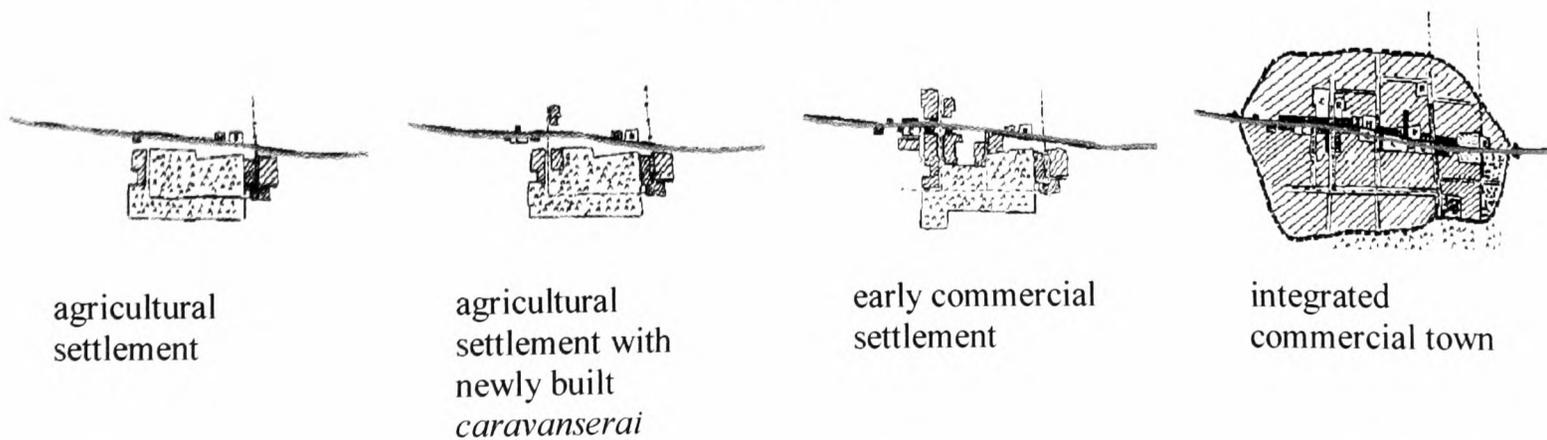
The close relationship between small scale agriculture and trade characterise the early stages of pre-industrial development, but soon specialisation resulted in the production of a wide range of surplus goods. The agricultural land gradually gave way to more commercial, residential and public uses. Apart from trade directly on the route, caravans traversed the route whilst distributing the goods. The intensity of trade activity along the route generated and sustained the primacy of the Silk Route.

Souks represent a mature versions the linear type in the Middle East. The pedestrianised souk typology provides a highly integrated context in which the central movement spine acts as the glue of the system. Slow moving traffic and the intimate scale allow for effective small-scale trade. Browne (1976) describes how the delicate balance which existed in the ancient suq of Isfahan has been threatened by the introduction of the private motor car and wholesale enterprise, which draws the energy out of the central spine.

921 ROMAN/ANGLO SAXON	16ᵗʰ CENTURY SAXON	1553 MARKET TOWN IN TUDOR TIMES	16ᵗʰ CENTURY LINEAR EUROPEAN VILLAGE
Towcester, England. Village founded by the Romans. Stone wall by Anglo – Saxons. Incremental linear extension along route connecting the village with others.	The Manor of Birmingham in Saxon times: town and communal land (Cadbury Bros, 1943)	Birmingham in Tudor times. Linear extension of the market town along regional roads. Cottage and field. (Cadbury Brothers Limited, 1943).	German Woodland Village. Each family worked a strip of mixed land within a small community overseen by a chieftain (Moholy-Nagy, 1968).

Figure 2.2. Pre-Industrial Linear Typologies

Pre-industrial European settlements displayed a similar linear pattern that stretched along routes between main centres. Agricultural production often took place on communal land while the development of *market towns* were controlled by guilds. This indicates that development was not an entirely spontaneous process. In England the guilds had to acquire permission from the king to hold markets on prescribed days (Cadbury Bros, 1943).

The typology of German woodland villages is the result of each family in the village being allocated a narrow strip of land. According to Moholy-Nagy(1968), production in each village was overseen by a 'chieftain' or lord of the manor, who was in charge of the market

and guaranteed seed and help in time of crop failure. The typology of narrow lots stretching back from a distinctly urban streetscape of houses is similar to that still found in rural Malaysia today. The rural village typology in Malysia recognises water as valuable resources and permits each household equal access along a narrow river frontage. Despite the forces of industrialisation, the pre-industrial *status quo* was sustained in Malaysia by Malay nationalism until 1969 when riots broke out in which indigenous Malays started to challenge immigrant Chinese's control of commerce and business (Brooksbank, 1983; Kaur & Metcalfe, 1999).

The author's field observation in Kuala Lumpur indicates that, while urbanisation is rapid and irreversible, traditional settlement patterns are still prevalent. The informally planned nature of the Malaysian village typology is the symptom of an age old communal tradition built on harmony and equal access to natural resources (Brooksfield, 1983).
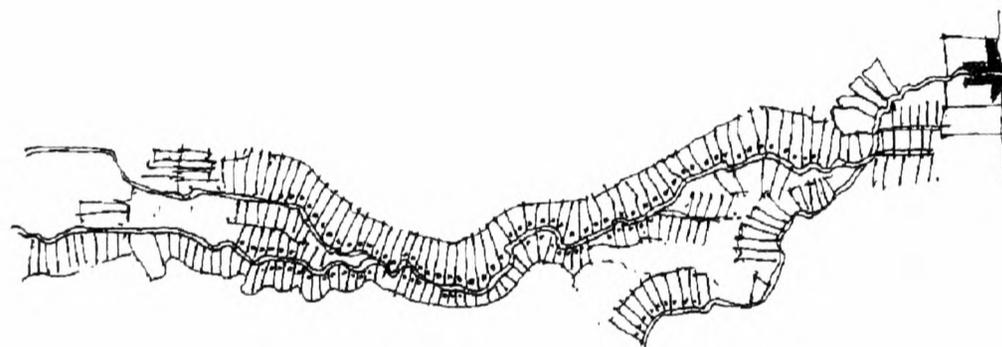
Figure 2.3.1. Linear typology of a traditional Malay village with elongated agricultural lots stretching back from a narrow river frontage (adapted by author from 1:50 000 topographical map)

Figure 2.3.2. Malay homestead (photo by author, 2001).
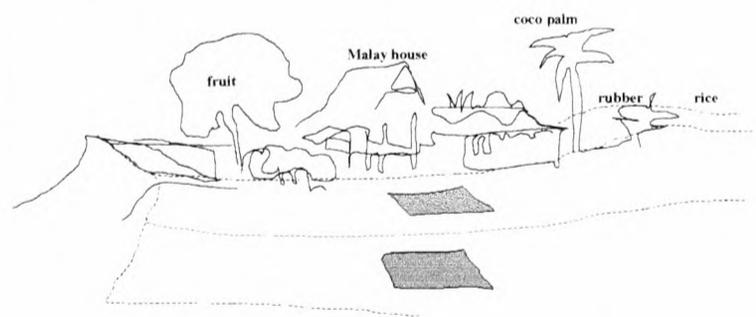
Figure 2.3.3. Fruit trees, rubber, coco palm and rice paddy on a single elongated lot.(drawing by author, 2001)

In 'Lace of Country Streets' Alexander (1977 Chapter 5) refers to this type as a logical extension of an *unselfconscious* rural tradition (see further discussion in subparagraph 2.3.7). Lionel March (1968) of Cambridge University's *Land Use and Built Form Studies*

Unit showed that a one house deep market town pattern, if fully developed into squares of roughly a mile each, could work for millions of people.

The discussion has thus far centred on pre-industrial traditions outside Africa. Were there any indigenous traditions of corridor developments in Southern Africa, the focus area of this research? Experts on African and Southern African urbanism concur that compact settlements, including linear settlements, were non-existent before the European colonialism and that prevailing tribal systems encouraged isolated 'homesteads' (Hull, 1976; Peil & Sada, 1984; Lye & Murray 1980). Occasionally larger temporary settlements such as the Zulu king Dingaan's circumferical city of 30000 warriors called *Mgungundlovu* and the famous *Great Zimbabwe* were established either for purposes of defence or ceremony (Peil & Sada, 1984). When hostilities subsided, subjects returned to their homesteads. These 'cities', were not first increments of an active city building process as found in medieval Europe where fortifications typically evolved into permanent towns and cities. Isolated examples of early African urbanism existed on the East Coast where Arabic traders generated settlement patterns similar to those found in the Middle East. Here trade was also the catalyst of linear urban form in trade centres such as Zanzibar, Sofala, Gedi and Mogadishu (Hull, 1976).

2.3.3. CONTEMPORARY UNPLANNED- AND INFORMALLY PLANNED CORRIDORS

Peter Hall (1988) uses the term *City of Sweat Equity* to describe an urban condition, which exists in many parts of the developing world. According to O'Connor (1983:16) Africa provides unparalleled opportunities to see *'cities in the making'*. Urban populations have increased dramatically and have generated conditions in which millions are struggling to secure a livelihood. Informal networks similar to those found in pre-industrial Europe abound in these cities. The informal dynamic is particularly evident in Latin America, Africa and Asia where up to 70% of the cities are considered informal (Dietz, 1998).
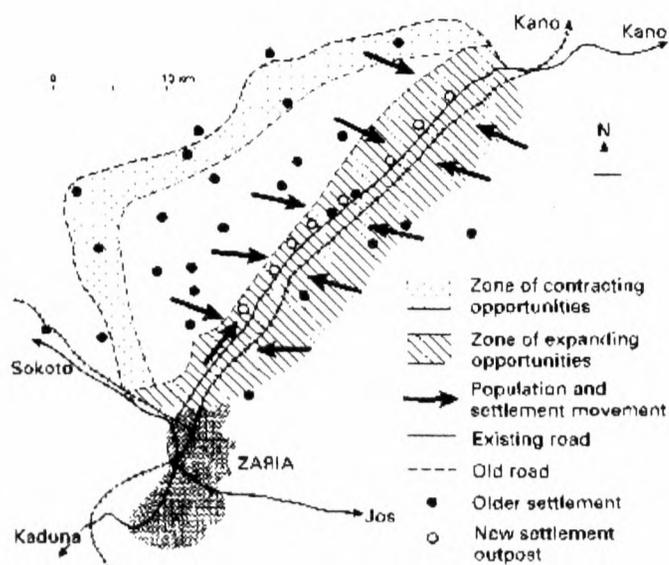
Figure 2.4. Population shifts along the old and new Zaria–Kano road sections, Nigeria (Simon, 1996:68)
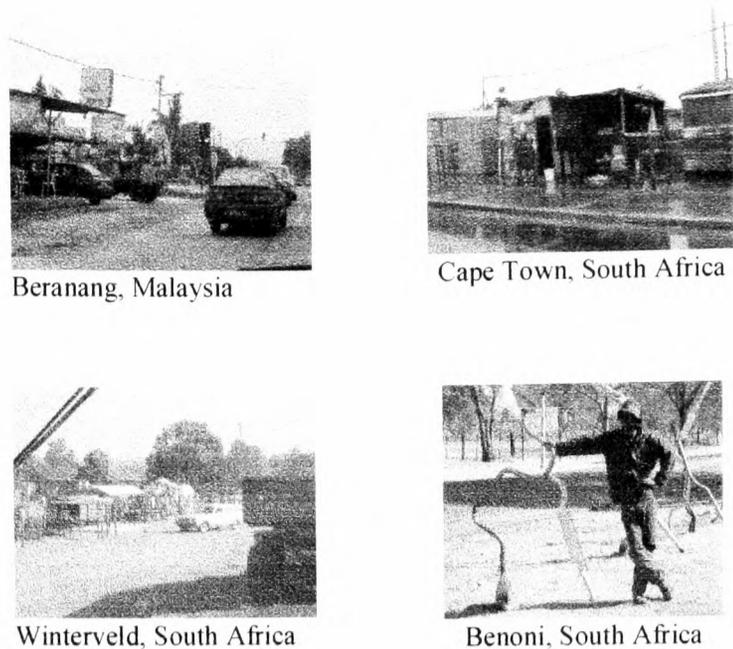
Figure 2.5. Cities in the making: spontaneous trade along transport routes in Malaysia and South Africa (photos by author).

A combination of forces generates an entrepreneurial spirit that, as in many pre-industrial economies, attracts people to the edges of national and provincial roads in the 'unpoliced' peripheries of African cities. Simon(1996:68) illustrates such an informal migration of people from an old to the new Zaria – Kano road in peri-urban Nigeria. The reason for this is twofold: first to gain improved access to the main centres lying furter down the road and second to utilise improved trading opportunities along the road's edge. During fieldwork similar informal road-edge activities were observed in the peripheries of Malaysian, Peruvian and South African cities (figures 2.5 and 2.9). Gaoyo's (1996: 221) observation that *'African street traders are still influenced by their traditional way of living, which has always been to subsist and to work at a leisurely pace rather than to strive for financial gain or to work excessively hard'* is highly contestable. Urban life in all developing countries limit both a welfare and subsistence option and demands equal inputs from the urban poor in order to generate a livelihood. For many the informal economy is the only route towards achieving this aim (Dietz, 1998; Farringdon, 1999).

South American examples (figure 2.7; 2.8 and 2.9.) show how informal settlements on the peripheries of primate cities such as Lima and Caracas have evolved rapidly into dense autonomous settlements. An analysis of the Peruvian case documented by Skinner (1976), Turner (1972) and Flindel-Klaren (1999) illustrates how political conditions in the 1970's shaped a climate in which the urban poor were *'free to build'*. Fieldwork in Malaysia

indicated the prevalence of an informal roadside culture which, like in South Africa, is prevented from being consolidated by a market driven land management system. The potential of informal roadside settlements to grow and to evolve into compact corridors is thus directly dependent on the political economy. This close relationship between political economies and corridor development is discussed in Chapter 2.
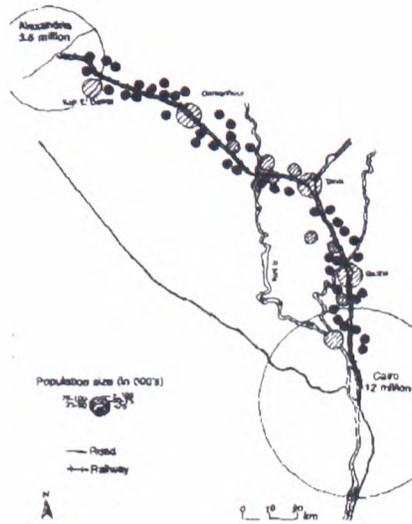
Figure 2.6. The Cairo-Alexandra Corridor. Along the road from Cairo to Alexandra, which extends for 220km, lie five large cities and a number of small and medium scale towns and villages. These urban centres are interrelated and affected heavily by the connecting route and the two major poles at each end. They have experienced high rates of spontaneous growth during recent decades both in population and in area. If these settlements continue to grow at the same rate, an extensive megalopolitan area may appear along the corridor. Such a metropolitan area would house almost half of the Egyptian population.
(Rakodi, 1997:147)

Figure 2.7. Caracas, Venezuela: Dramatic, unplanned corridor (Castells, 1983)

Figure 2.8. Freedom to build: Power vested in people (Drawing by Juan Tokeshi of the Lima Based NGO DESCO (2001).

Figure 2.9. Incremental growth in Villa El Salvador, Lima, Peru (photos by author).

SETTLEMENT	INFORMAL TRADE	CONSOLIDATION	FORMALISATION
Pachacutec, Lima - First generation urbanites - Shelter, livelihood	Pachacutec, Lima - Modest trade, livelihood - Entrepreneurial	Villa El Salvador, Lima - Community, betterment	Villa El Salvador, Lima - Surplus - Capitalist - Second generation
Year 1	Year 1	Year 2-10	Year 10-30

2.3.4. LINEAR CITY UTOPIAS

In typical modernist *functional city* fashion, Korn (1953) and Collins (1959) display a strong belief in the universal potential of *self-conscious* linear urban form to improve urban life. Both lament the lack of recognition which the Spanish engineer Soria y Mata, whom they considered the father of linear planning, had received for his radical *Ciudad Lineal:* a pre-modernist plan for the extension of Madrid (1892).

1892 CIUDAD LINEAL, MADRID

1937 MARS PLAN, LONDON
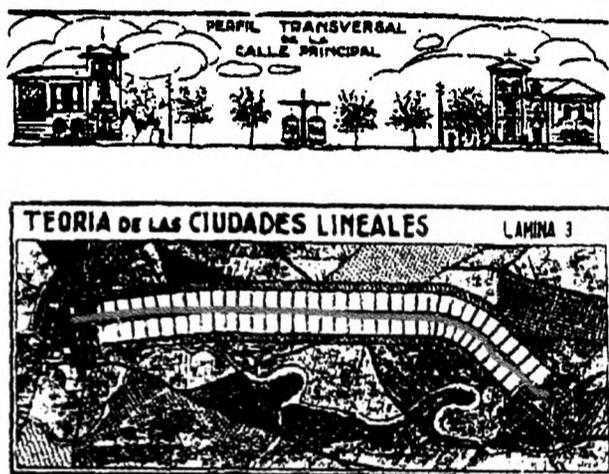
Figure 2.10. Diagram of the Ciudad Lineal envisaged for Madrid by Arturo Soria y Mata. The section shows the central traffic spine and the plan shows an urbanised belt connecting two existing nodes (Fehl, 1998).
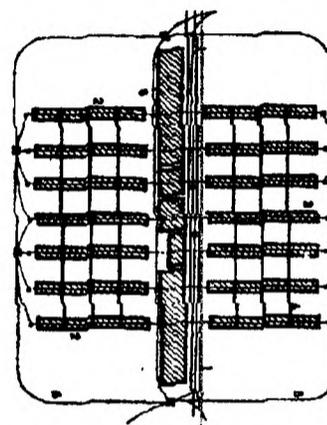
Figure 2.11. Korn et al: MARS Plan. 'Double comb' system. A diagrammatic transport grid with the main artery along the work area, the local arteries serving the district units of 600 000 and the ring line serving distribution centres on the outside of the town (Korn 1969).

Very little came of the functionalist *Linear City* of Soria y Mata and subsequent generations of planners (Fehl, 1996, Collins, 1959). While originally mooted as radical yet realistic by their authors, which include influential figures such as Le Corbusier *(Cité Linéaire industrielle; 1944/45)* and Frank Lloyd Wright (*Broadcare City;1932*), a retrospective analysis demotes the *Linear City* to the status of unbuilt utopias.

In *The Linear City Fad,* Ash (1966) notes that their authors, mostly modernist architects dabbling with city design, simply misunderstood the complexities and ambiguities of urban life in which informal networks and energy flows denied such sterile, rational solutions. In *A City is Not a Tree,* Christopher Alexander (1966) famously attacked the rationalist paradigm of planning for failing to deal with ambiguity and overlap. Doxiades (in Lewis 1968:49) made a simple series of sketches in which he illustrated what he considered to be the problem with *linear cities.* The sketches show that, when a pure linear system is

intersected by a transverse connection, a new node is created which rapidly grows to compete with- and weaken or dominate a rigidly planned and preconceived linear system. The only guarantee for the protection of a linear system is provided by topographical constraints, where movement-energy and space is contained, as is the case of Edinburgh (linear ridge) or Caracas (deep valleys).

DOXIADES   CHRISTOPHER ALEXANDER

(1968)   (1966)

LINEAR DISTORTION   **'A CITY IS NOT A TREE'**

LINEAR FORM TRANSFORMED INTO A
POLYCENTRIC ARRANGEMENT

RATIONAL PLANNING   REALITY

UPSIDE DOWN TREE   SEMI-LATTICE
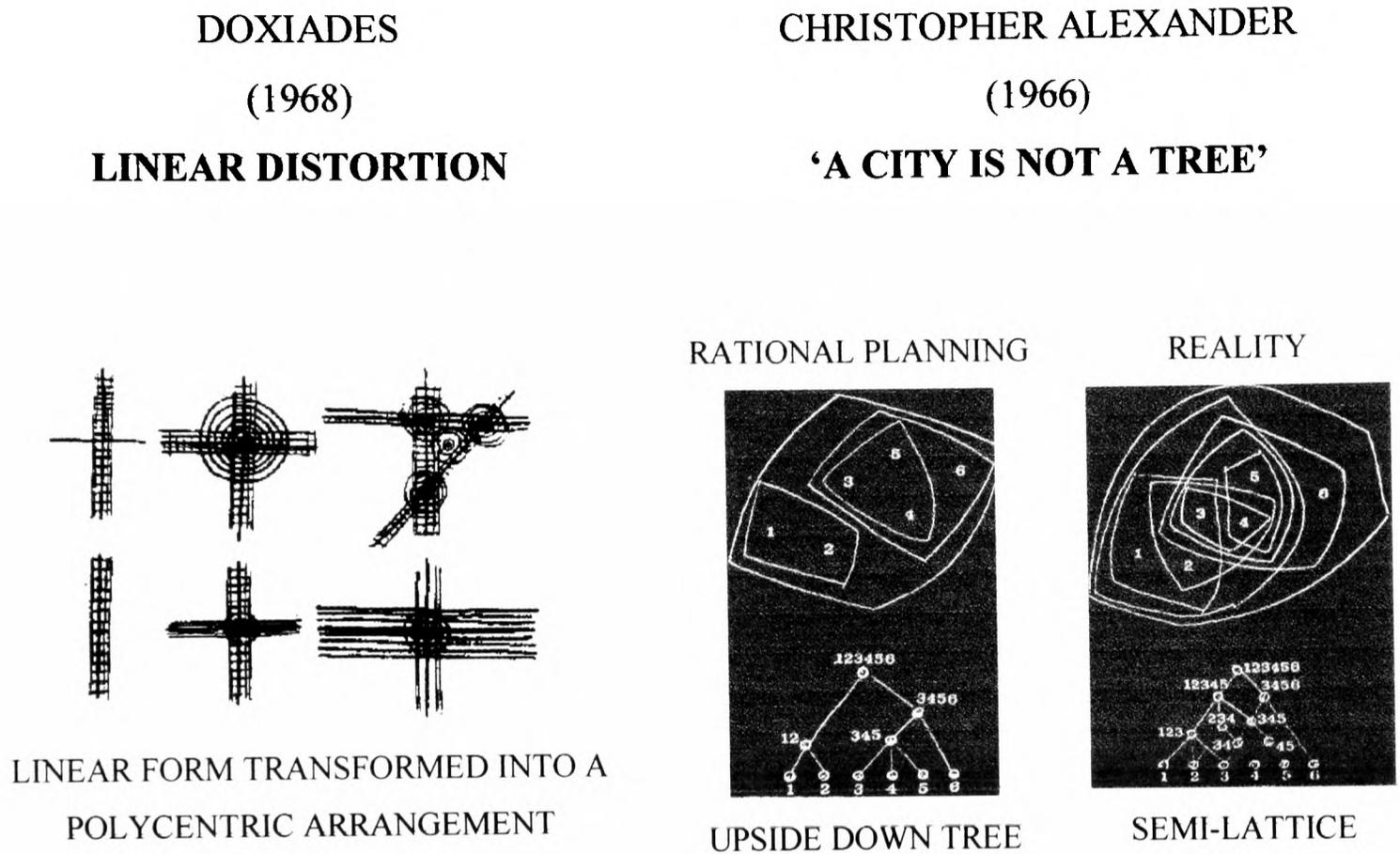
Figure 2.12. Doxiades' and Alexander's analysis of linear distortion and open-endedness.

2.3.5. STRATEGICALLY PLANNED CORRIDORS
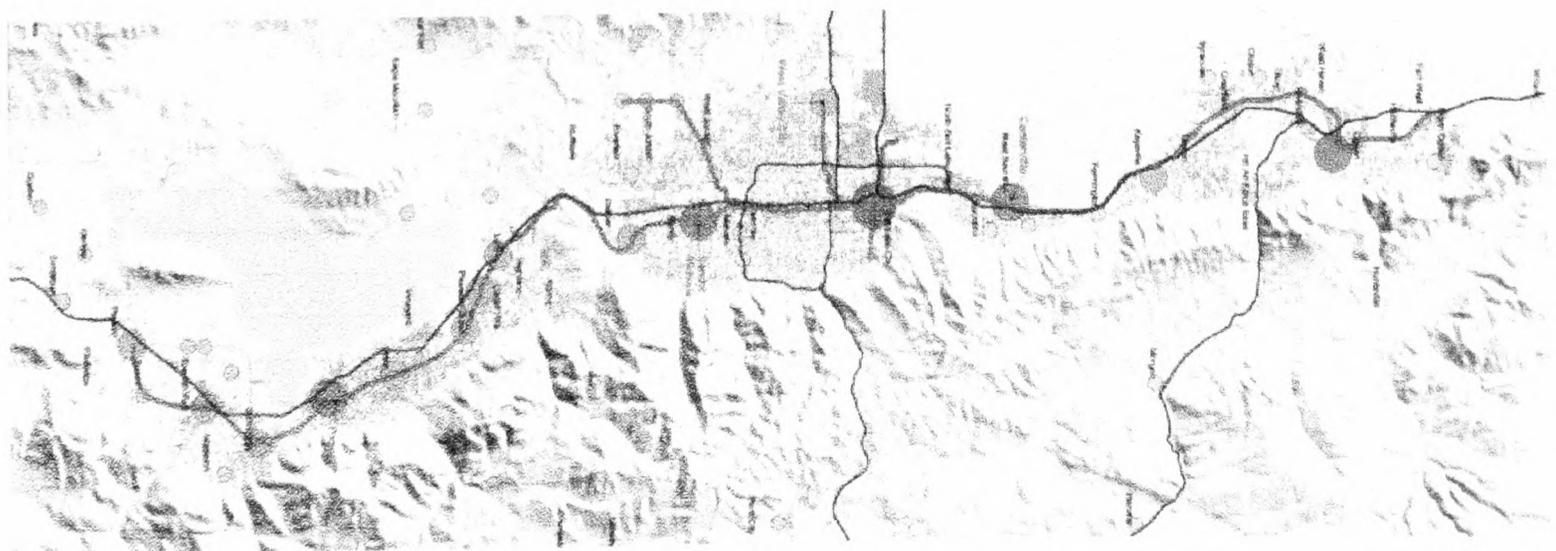
Figure 2.13. Strategically planned growth centres along a hundred mile corridor in the greater Salt Lake City area (Calthorpe & Fulton, 2001: 153)

1940's Speculative *ribbon development* can be considered the first strategically planned corridors. Their post war design was aimed at a growing middle class of nuclear family's, each wealthy enough to own a motor car. Opportunistic, developer driven *ribbon developments* were soon discredited because of the associated congestion and poor environmental quality. Hall (1988:315) describes this phase of urban history as *The Revolt Against the Highway*, which resulted in a shift towards urban mass transport. Stockholm and Copenhagen were pioneers of strategically planned corridors from 1945 onwards. Today Stockholm is arguably the best example anywhere of co-ordinated planning of rail transit and urban development (Cervero, 1998:109). Stockholm's General Plan shifted the focus from the *linear city* to a *polycentric* extension along mass transit routes. After almost six decades of strategic development the relationship between transit and the surrounding community in Stockholm is quite unique. Rail stations are physically and symbolically the hubs of communities.
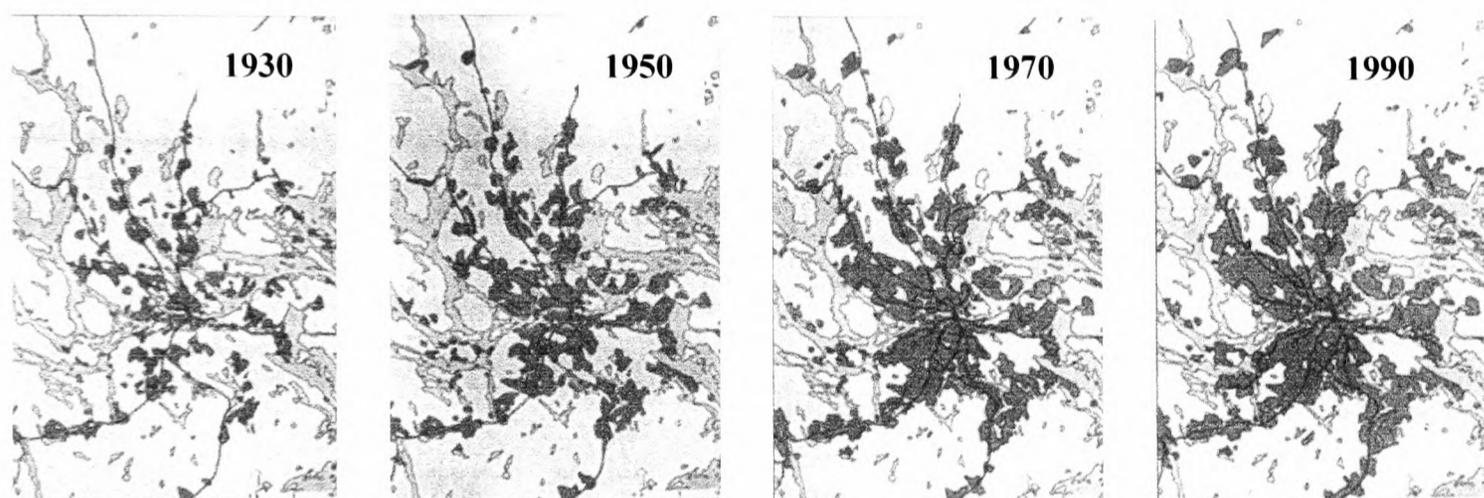
Figure 2.14: Evolution of a transit metropolis. Stockholm, 1930 – 1990 (Cervero: 1998: 114).

The evolution of Stockholm (figure 2.14.) indicates that the pattern of linear extension had in fact existed before 1945, when the architect Sven Markelius's *General Plan* was adopted. Mass transit made it possible to extend a traditional pattern in proportion to population increase. Today about half of Stockholm's 720 000 people live in planned *satellite towns* (Cervero, 1998:109). Stockholm's transit metropolis was however not without its problems. The same functionalist ideals which spawned the *linear city* concept had influenced the design of first generation *satellite towns* ((1945-1957). Built on a monumental, Le Corbusier- style scale, with buildings set on vast *super blocks*, these new towns were roundly criticised by for being institutional and sterile.

By the 1980's many industrialised and developing countries had adopted the corridor approach under widely varying social and economic conditions. The NdoT(2001) cite the following as primary reasons for its current popularity in metropolitan level strategic planning in South Africa:

- **First**, sustainable development: the type allows for integrated land use and transport policy.

- **Second**, Shrinking public budgets under neo-liberal conditions favours focused infrastructural development along corridors over blanket investment.

- **Third**, post modernism has blurred the boundaries between professional disciplines and has resulted in a loss of centralised planning control. This can be read as an acknowledgement that the corridor as a 'naturally occurring urban event' as defined by the South African urban designers Wood, Jordaan and Thomashoff (pers com 2002) has been restrained by modernist planning.

Australia (Melbourne, Perth, Sydney) Brazil (Curitiba, Porto Alegre) South East Asia (Singapore) the Netherlands (Delta Metropolis) and the United States (Salt Lake City area) present well-known cases of strategic corridor development (Hamnett & Freestone, 2000 ; Brooksfield, 1983; Cervero,1998; Calthorpe & Fulton, 2001). Curitiba's road and bus (versus rail based) case study has had a significant impact on post apartheid planning in South Africa and is the point of reference in many urban development frameworks (MSDF,1991 [Cape Town]; ISF,1991[Johannesburg]; MCDC, 1997[Pretoria]) in which it is commonly referred to as the *'what works best scenario'*. Because of the impact of the Curitiba case, which has recently come under increasing criticism because of associated authoritarianism, it is discussed in relation to South Africa's political economy in CHAPTER 2.

2.3.6. THE CORRIDOR AS MEGA PROJECT
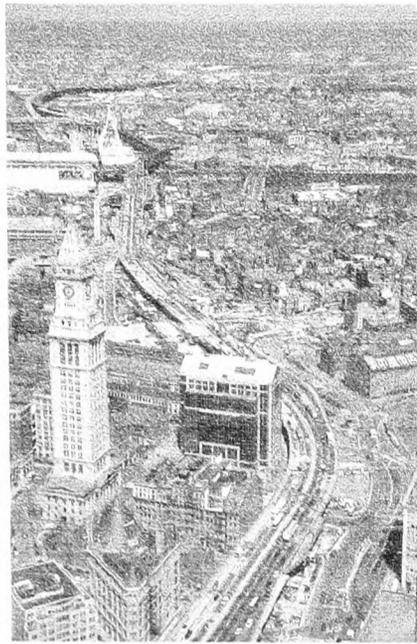
Figure 2.15.

Boston's Central artery Project under construction in 2001(The Big Dig, 2002).

Boston's Central Artery Project is the largest, most complex and technically the most challenging (highway) project ever attempted in American history. The Central Artery tunnel enables the separation of the two competing forces of mobility and accessibility in the corridor. When completed, the 7.5 mile long corridor will consist of 161 miles of highway, mostly below grade and 150 acres of parks and open space at grade. The parks and open space will re-integrate two halves of a city by replacing the continuous barrier of the highway. The project's active focus on completion within fixed budgets and time frames deviates significantly from the notion of corridors as *'perpetual works in progress'* (The Big Dig, 2002, Butina Watson in Hayward, S and McGlynn, S eds. 1993).

A similar but more modest approach to physical urban integration was encountered during fieldwork in Perth, Australia. A section of the highway which passes the inner city zone was depressed to allow for the integration of suburbs towards the west of the highway. Unlike Boston, the reclaimed land over the highway was not developed as a linear parkland/corridor, but as an extension of the urban grid of the inner city. Both examples show that high land values and market demand around functional and popular inner city area justify the high cost of depressing mobility spines in industrialised countries.

BEFORE
AFTER
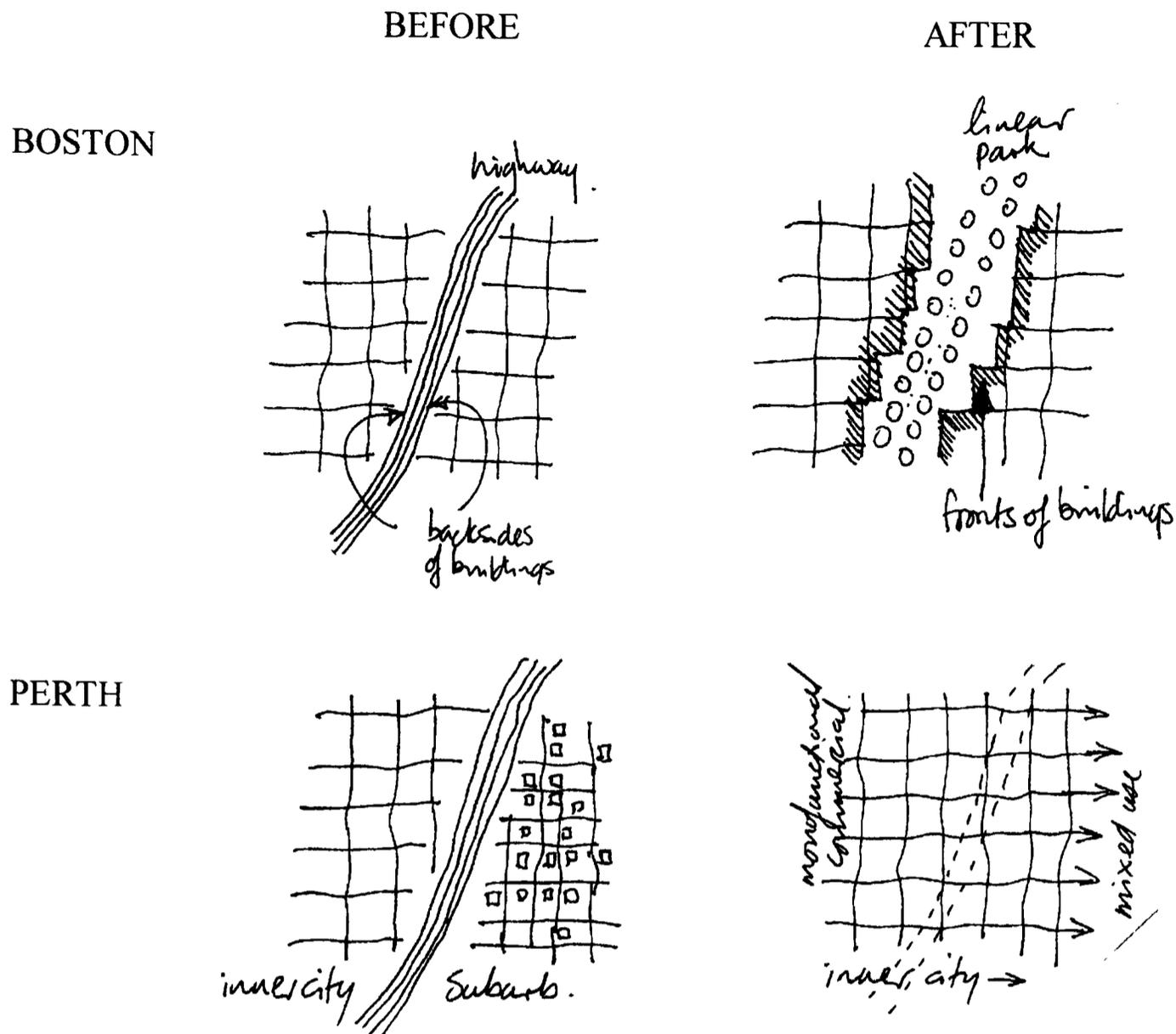
BOSTON

PERTH

Figure 2.16. Different ways of reclaiming lost space in Boston and Perth.

Another example of the corridor as mega-project which rivals the magnitude of Boston's *Central Artery* is Malaysia's *Multimedia Super Corridor (see Annexure 4: Fieldwork Report Kuala Lumpur)*. Significantly, this example is in a developing country which aims to achieve industrialised country status by 2020 (Kaur & Metcalfe, 1999). The grand corridor project is the brainchild of Malaysia's autocratic prime minister Mohammad Mahatir and stretches for fifty kilometres between the Kuala Lumpur International Airport and the Kuala Lumpur City Centre (Mohamad,1998). At the time of the author's study visit in September 2001vast amounts of federal funds had been invested in highway infrastructure, a mosque, a presidential palace and a series of monolithic government buildings. Development is overseen by the Multimedia Super Corridor Corporation (MSCCDC, 2000). The massive initial investment by the federal government is aimed at attracting international private investment. The field observations indicate that, apart from being a sterile self-conscious environment, there has been very little interest from private

investors. With no freedom of the press and no freedom of speech in Malaysia, the tax paying citizens of Malaysia are being lead to believe that they are building a world-class city which will ultimately outdo Singapore as the economic powerhouse of the region (Mohamad, 1998).
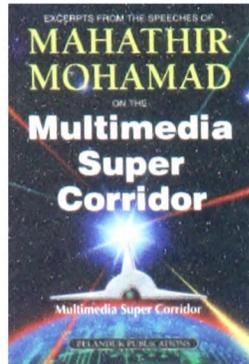
Figure 2.17. The corridor as political project. Book by Malaysia's prime minister. 'The Concept has spread across the international community like wildfire. I think there is not a single country does not know the MSC. I hear people talking about the MSC all the time, wherever I go, even in Mongolia.' (Mohamad, 1998:7).

While the corridor as a *mega project* may match the resource base of an industrialised country, the Malaysian case may prove a costly experiment. Globalisation has prompted the 'can do' development of an instant corridor and the world's tallest building as marketing exercises in Kuala Lumpur. Beyond these window dressing exercises, Malaysia displays all the symptoms of a developing country. The inability of such projects to facilitate trickle down to the poor has been criticised since the 1960's, but this view continues to be dispelled by neo-liberal developing world economies (Barberton, Blake & Kotze 1998; Wisner, 1988; Wood, pers com 2002).

Figure 2.18.
Government buildings under construction in Kuala Lumpur's Multimedia Super Corridor (photo by author).

Figure 2.19.

Divergence in Kuala Lumpur. Informal market in the foreground and global posturing via the Petronas Twin Towers in the background (photo by author).

2.3.7. THEORETICAL APPROACHES TO CORRIDOR DEVELOPMENT

Theoretical corridors are typically conceptualised by a professional *avant-garde* or by analysts of historic urban form. The ideas are provocative and challenge existing practices, stimulate debate and contribute towards planning and urban design praxis.

POTTERIES THINKBELT
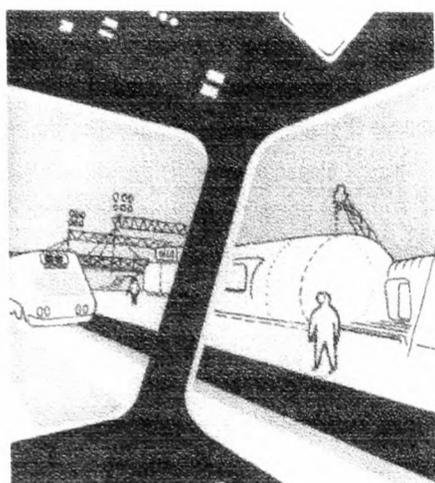
Figure 2.20.1: Potteries Thinkbelt (Price, 1966:483).

CITY COUNTRY FINGERS
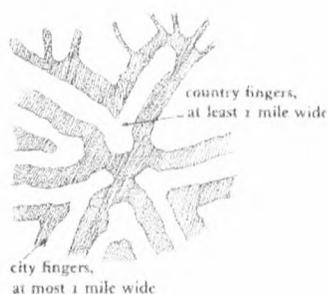
Figure 2.20.2. Keep interlocking fingers of farmland and urban land, even at the centre of the metropolis. The urban fingers should never be more than 1 mile wide, while the farmland fingers should never be less than 1 mile wide. (Alexander, 1977:29).

LACE OF COUNTRY STREETS
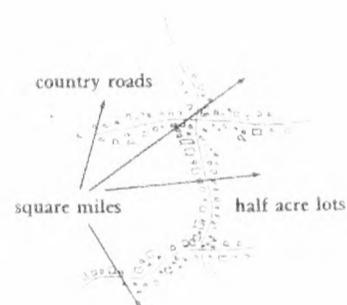
Figure 2.20.3. In the zone where the town and the country meet, place country roads at least a mile apart, so that they enclose squares of countryside and farmland at least one square mile in area. Build homesteads along these roads, one lot deep, on lots of at least half an acre, with the square mile of open countryside on farmland behind the houses. (Alexander, 1977:31).

Cedric Price's *Potteries Thinkbelt* (1964) propose radical possibilities through the benefits of technological progress while Christopher Alexander (1977) proposes an '*entirely new attitude to architecture and planning*' based on an observation that '*most of the wonderful places in the world were not made by planners and architects but by people*'.

The Potteries Thinkbelt is a twenty to twenty five year university for North Staffordshire, largely science based including a range of variable housing available equally to local residents and students with associated communal rail based facilities, and links to both a national and international academic grid.

In A Pattern Language (1977) Alexander et al proposes *Lace of Country Streets* (chapter 5) as part of his pattern language. The pattern presents an unplanned tradition of corridor development that challenges the validity of existing suburbs. The suburb is dismissed as an '*obsolete and contradictory form of human settlement*' *(1977:30)*.

Influential theoretical contributions originate almost exclusively from universities in wealthy countries, where leftist dissent is nurtured within a cocoon of academic privilege. Barker (in Hughes & Sadler 2000:2) acknowledges the fact that expansion of British universities in the 1960's provided the necessary patronage for their non-plan pursuits and that it was based in a context where people were becoming richer and choosier.

Whilst supporting a *non-plan* approach, Hamdi et al (1996) display an acute awareness of the gap between *non-plan* traditions in the industrialised and developing worlds. Here privilege, wealth and choice is limited. Cities are perpetual works in progress, the pace of which demands active participation from development practitioners. Titles such as *Educating for Real (Hamdi,1996), Action Planning for Cities (Hamdi & Goethert,1997) and Housing Without Houses(Hamdi, 1991)* capture the spirit of an approach which acknowledges the need to focus professional efforts on immediate needs rather than on a radical reinvention of past traditions or a radical projection of future possibilities.

2.3.8. AESTHECIST AND EMPIRICIST APPROACHES TO CORRIDOR DEVELOPMENT

The movement-aesthetecists take an alternative view by which design is related to the sensory experience of corridor space. Bentley(2002:266) describes it as the '*motation approach to urban space as an open choreographic score*'. Proponents of this movement use illustrations which capture frames of the corridor experience. Alternatively, environmental psychologists ask city users or students to produce their own representations of what they experience or recall of an experience of moving down a route or corridor, which then becomes the basis for further analysis and form prescriptions. The approach

considers urbanites consumers of urban space, which entitles them to improved levels of user satisfaction.

Appleyard, Lynch et al and Halprin are important exponents of a movement that contributed towards shifting the boundaries of planning and architecture to include environmental psychology. In *The View from the Road (Appleyard, Lynch et al, 1969)* and *Cities (Halprin,1972)* they analysed the sensoric/visual experience of moving down vehicular movement routes such as Boston's Northeast Expressway. Their ideas were originally influenced by Gordon Cullen's *Townscape (1961)*, which Bentley(1999: 124) describes as the most widely read design book in planning circles. While *Townscape* captures and analyses movement at the pedestrian scale, *The View from the Road* is concerned with the highway experience in the motor age.

Venturi and Scott Brown's *Learning from Las Vegas (1973)* presents a similar aesthetecist approach while Francine Houben of the Dutch architecture and planning practice *Mecanoo* has recently re-introduced *mobilitheitsesthetiek* (movement aestetics) as a radical possibility in the corridors of Holland's newly proposed Delta Metropolis (Houben, 1997, 2001). Houben's approach differs from Lynch, Appleyard and Venturi's empirical approach. It recognises the imminence of massive investment in buildings on green field sites along corridors in a country where there is very little alternative place to build. Houben suggests that if these corridors are going to be developed to high densities anyway, developers may just as well be encouraged to build within a holistic framework that creates pleasant corridor spaces at no or marginal additional cost. In *Composition, Contrast, Complexity* Houben (2001) notes that many local authorities have enthusiasticly joined the debate, which has in turn resulted in joint and co-ordinated *mobiliteitsesthetiek* commissions for stretches of Dutch corridor-routes such as the Zuydersee- and Louis Coperus routes.
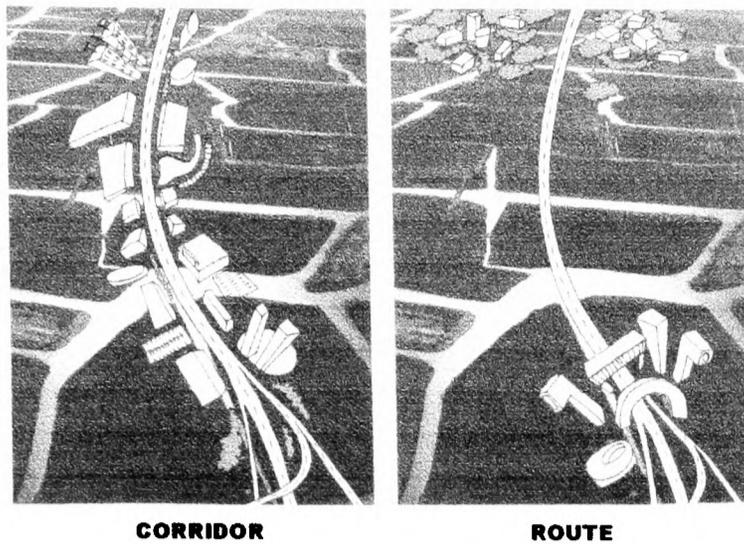
Figure 2.21.
Mobility Aesthetics. Corridors as untapped source of visual entertainment for the highway user (Houben, 2001).

2.3.9 CONCLUSION : HISTORIOGRAPHIC REVIEW OF THE CORRIDOR

The analysis suggests that interest in corridor development may be classified into a range of types and that scholars have often chosen to focus on one or more dimension of corridor development. Both the *definitional* and *historiographic* review of urban corridors indicate categories of corridors to the left and right of an approach which aims to give people greater control over the development of their cities. There is also a clear differentiation between what Alexander (1987) calls *self-conscious* and *unselfconscious* traditions of corridor development.

2.4. AN ANALYSIS OF THE TYPOLOGICAL AND GENERIC ELEMENTS OF URBAN CORRIDORS

2.4.1. INTRODUCTION

To facilitate the negotiation of a path between *self-conscious* and *unselfconscious* traditions of corridor- development, an analysis of the typological and *generic elements* [2]of planned corridor-models is necessary. The use of generic corridor elements in regional sub corridor plans is substantial when considering urban design frameworks presented in the the United States (Calthorpe & Fulton, 2000), Australia (Western Australian Planning Commission 1996, 2000) Malaysia (City Council of Kajang, 1999) and South Africa (MCDC,1999; City of Cape Town, 1999). The generic elements used in the post 1970

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[2] See Annexure 1: Glossary of Terms for a definition of *generic elements*

development of Curitiba's (Brazil) six finger, spider web plan have been particularly influential in South Africa (MSDF, 1999; MCDC, 1997). The generic elements used in the United States is part of the new regional paradigm that is developing within the *New Urbanist*[3] movement.

Front-loaded and expert-centred ideas on the physical structure of corridors and the need for using generic elements in corridor development, as presented in various studies of the parastatal *Centre for Scientific and Industrial Research* and the *National Department of Transport* in South Africa provide proof that corridor development is considered a science by influential bodies who are closely involved in policy formulation (Naude, 2000; Green, Hennesy & Katzshner 1996; NDoT, 2001).

National roads departments and provincial- or metropolitan governments, which typically base strategic planning on five year budgetary cycles, require planning departments to motivate and quantify large scale infra-structural needs in advance of their delivery (IDASA, 2001, City of Cape Town, 1999). Apart from more subtle strategic considerations such as access, mobility and sustainability, corridors become convenient mechanisms for packaging and ordering publicly funded infrastructure. This results in the formulation of 'corridor menus' which prioritises the delivery of generic elements.

Figure 2.22. Extract from the menu of priorities associated with the five year Business Plan for the Wetton Landsdowne Philippi Corridor (City of Cape Town, 1999)

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[3] See Annexure 1: Glossary of terms for a definition of New Urbanism.

2.4.2. THE MAIN GENERIC ELEMENTS OF PLANNED CORRIDORS

2.4.2.1. THE GENERIC CORRIDOR PLAN

Table 2.1. defines key corridor concepts presented in regional planning and transport engineering literature in South Africa. A review of frameworks and research papers indicates the active adoption of generic elements in corridor development frameworks (Naude, 2000; Kleynhans, 2000; WAPC, 1996, 2000; Green & Emslie, 1999; Turok & Watson, 2001; City of Cape Town, 1999).
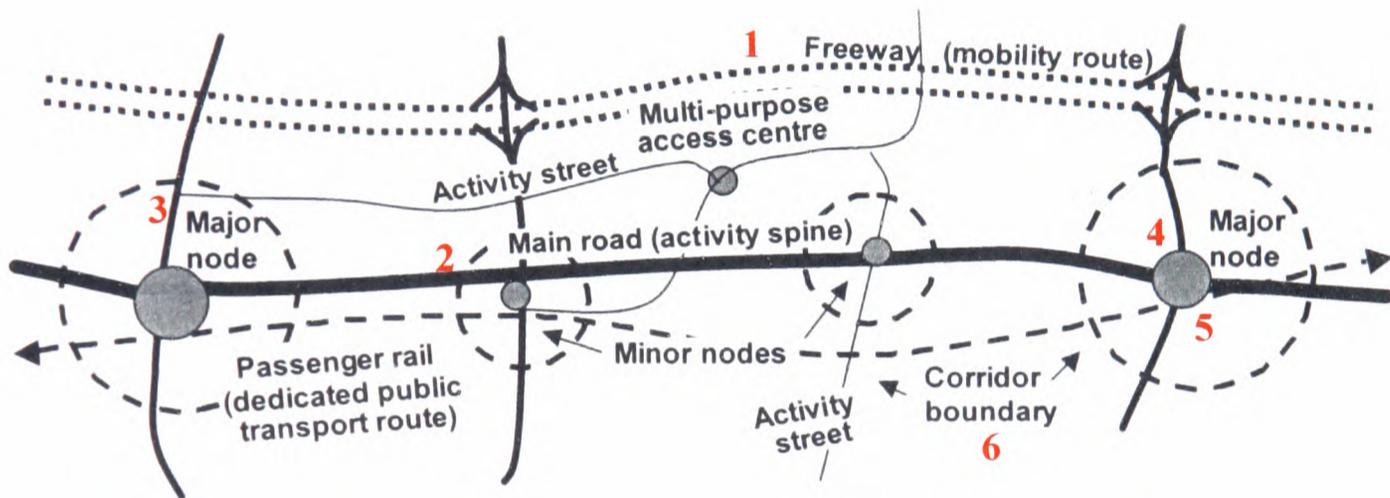
Figure 2.23. Conceptual arrangement of generic corridor elements (adapted from Naude, 2000: 3)
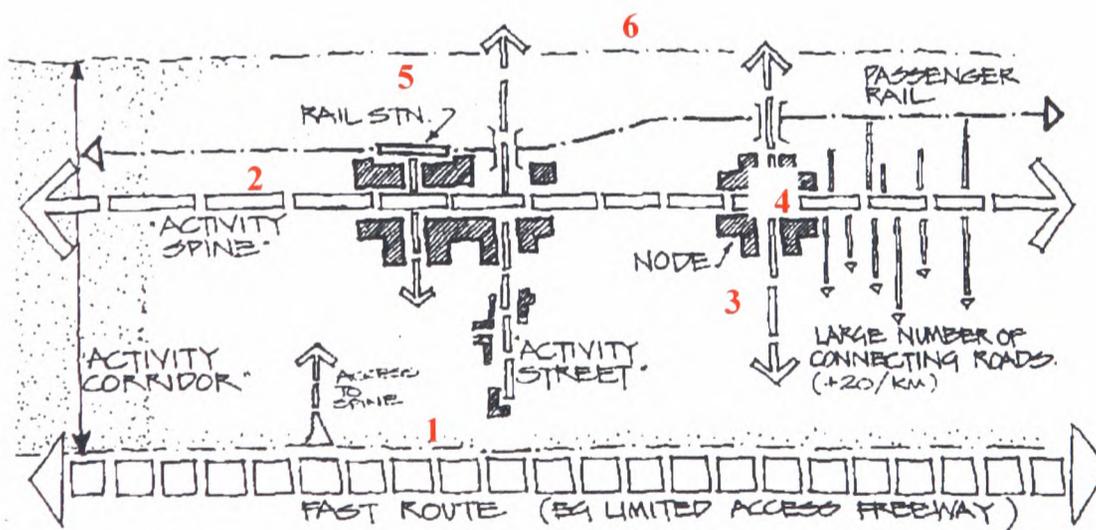
Figure 2.24. Idealised Activity Corridor (Chittenden &Associates, 1990)

KEY TO FIGURES (PREVIOUS PAGE)

Mobilty spines (1)

- *'Limited access mobility routes (parallel or radial) for both fast moving private transport (e.g. a freeway) and public transport on a separate, dedicated right of way (e.g. a railway or busway), with frequent connection to the activity spine or main road' (Naude, 2000:3).*

- *The mobility spine has regional significance and satisfies the traffic engineer's aim of achieving optimal traffic flows between development nodes. Typically the design of a mobility spine is based on extruded section with an optimally planned amount of lanes in each direction. Where the optimal amount of lanes are projected to allow for future traffic increases, adjacent strips of land are reserved for the construction of additional lanes. In urban design terms the mobility spine becomes an edge unless it is depressed as in the case of Boston's Central Artery where it becomes a seam. The mobility spine is connected to the activity spine at regional intervals.*

Activity spines (2)

- *'An activity spine accommodates different travel modes, handles relatively large amounts of traffic and provides for connectivity or contact along its length as well as between passing traffic and roadside establishments. A range of high-density land uses (such as retail, office, commercial uses, selected industrial development and industrial) should be located directly next to and abutting onto an activity spine' (Naude:2000)*

- *this refers to the central road or high street of the activity corridor which carries the major road-based public transport and consequently provides the best locations for business and community facilities as well as high density housing. The road gives direct access to a range of high intensity land uses including retail, cultural and residential (Green et al, 1996)*

- *'a route found in proximity to the mobility spine' (MCDC:1997)*

- *'links urban nodes with each other' (MCDC:1997)*

- *'the routes are intended to provide for efficient and safe regional and local traffic movement whilst integrating community through development frontage wherever possible' (WAPC, 2000:21)*

Lateral connectors (3)

- *Higher order roads which link the activity spine and mobility spine (MCDC, 1997).*

Urban Nodes/ Activity Nodes (4)

- *An activity node is a place of highest accessibility where both public and private investment tends to concentrate. An activity node offers the opportunity to locate a large range of activities, from small to large enterprises, often associated with mixed-use development. Transport interchanges, bus stops, railway stations, should coincide with the nodes along the activity spines in the corridor (Naude,2000:3).*

- *Are defined as 'places of the highest accessibility and advantage where both public and private investment tend to concentrate' (MCDC, 1997),*

- *Magnets that attract economic activity (MCDC, 1997).*

- *In Western Australia's Liveable Neighbourhoods, the nodes are at the centre of mixed use, walkable neighbourhoods.*

| Inter modal transfer points/ nodes **(5)** | - | *Creates opportunities for economic activities because of intensified pedestrian activity (MCDC, 1997)* |

| Urban Edges/ corridor boundary **(6)** | - | *Aimed at preventing urban sprawl and* |
| | - | *Creating seams of interface with commercial agriculture and/or urban agriculture (MCDC,1997)* |

The generic elements indicated in figures 2.23 and 2.24 are organised in response to factors such as scale, budget, existing development or topograpghical constraints. The strategic approaches in industrialised countries are often based on the assumption that major infra-structural elements associated with mobility (railway lines, highways and mobilty spines) need to be developed first in order to stimulate the commercial land market. In developing countries where the commercial land market is weak and the public sector poorly endowed, the process is often reversed and rail-based mass transit is often replaced by taxi, taxi-bus and bus transport (figure 2.25.).
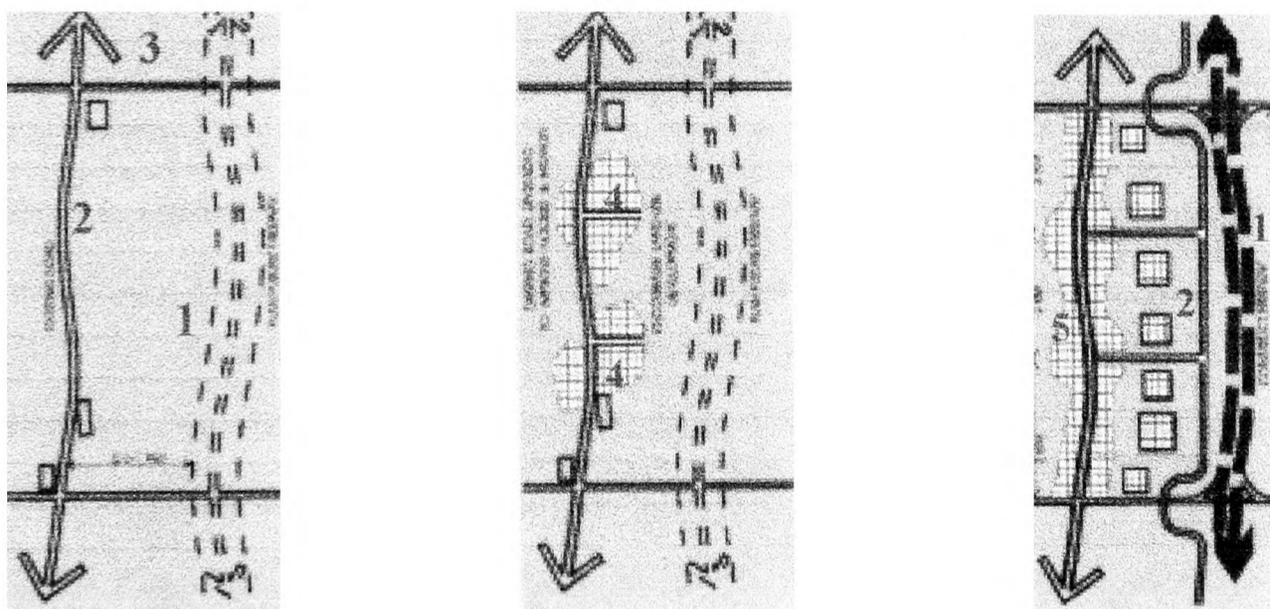
Figure 2.25. 'reverse chronology' of development of generic elements in developing countries (MCDC,1999:7). (1) highway (2) mobility spine (3) lateral connector (4) activity nodes (5) activity spine.
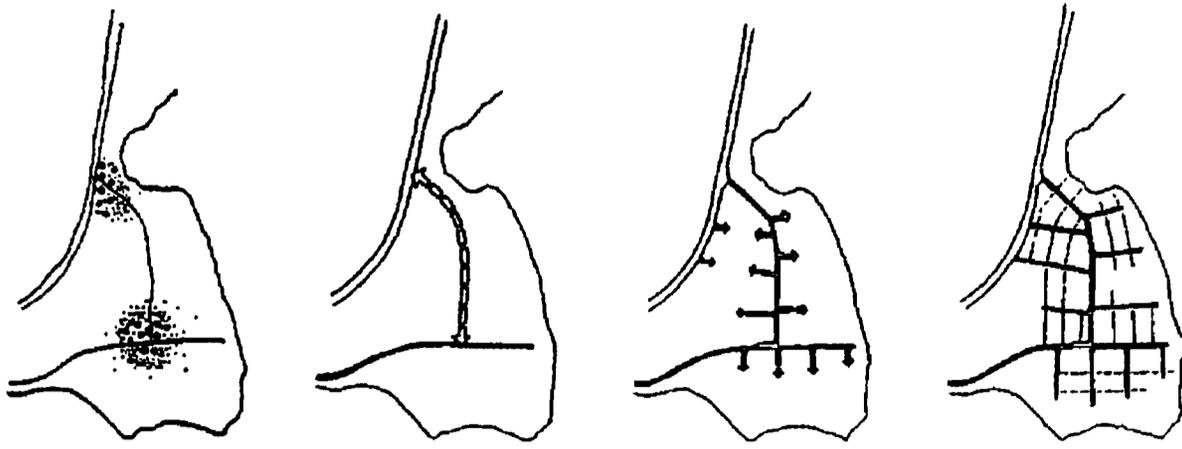
Fifure 2.26. Incremental growth in a developing country. Services, utilities and land titles follow rather than precede development(Hamdi 1991)

2.4.2.2. THE GENERIC CROSS SECTION

Bullock (in Martin & March, 1972:105) notes that *'the self conscious designer'* , in order to reduce his/her task to manageable proportions, attempts to pick out sub-systems and attach a nomenclature, and then manipulate areas of the design in relative independence of each other. The cross-section often represents such an independent sub- system within the set of generic corridor elements.

The activity spine of corridors has been variously represented as a **generic section**. This is the result of a strategic need for activity spines to *'accommodate different travel modes, handle relatively large amounts of traffic (including public transport) and provide for connectivity or contact along its length as well as between passing traffic and roadside establishments'* (Naude, 2000). The cross-section of activity spines typically becomes the subject of conflicting interests. Architects and urban designers concerned with local scale development will use the section to facilitate human scale, pedestrian interface and spatial enclosure while traffic engineers and regional planners are primarily concerned with traffic flows (Green, Emslie et al, 1999; Simon, 1996).

Figure 2.27. represents a list of **generic sections** that indicate its perceived importance as a structuring device in corridors.

Figure 2.27. Generic Corridor Sections

La Ciudad Lineal (1892)

The cross section was extruded to become the plan.
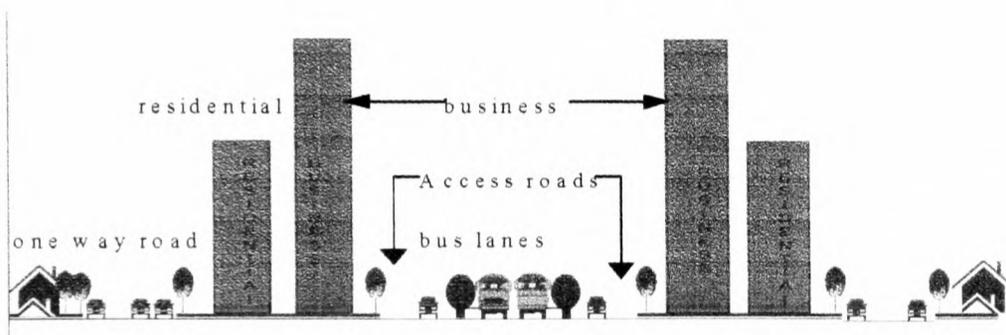
Curitiba (1965 -)

'The cross section recognises the interdependence between transport and land use planning' (Kleynhans, 2001:38).
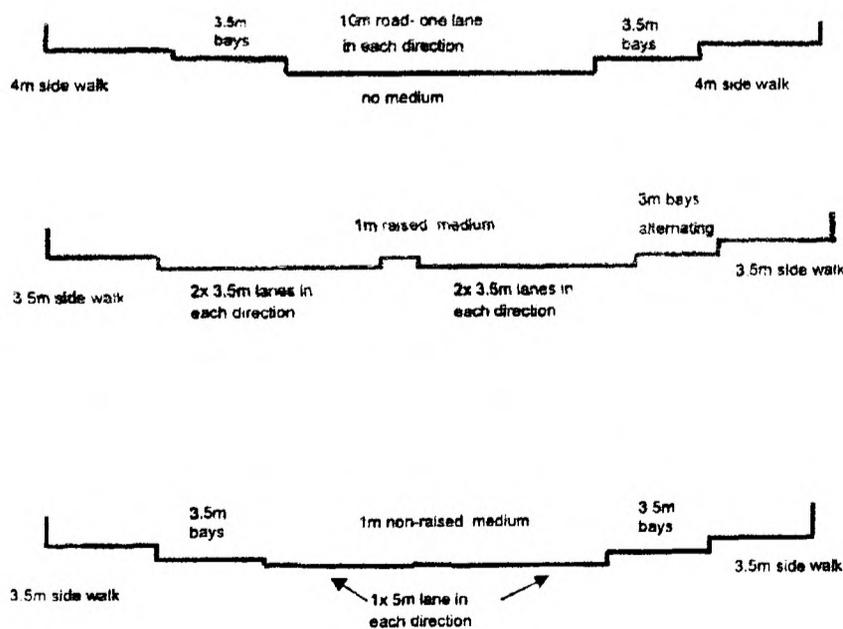
Halt Road, Cape Town (1999)

Proposed alternatives for retrofitting transport infrastructure and sidewalks within an existing 25 metre wide road reserve of the Upper Halt Road Corridor. In this case the first(top) section is preferred by the urban designers while acknowledging the fact that traffic engineers will opt for the second alternative. The third alternative is accepted as a compromise (Green, Emslie et al 1999: 7)
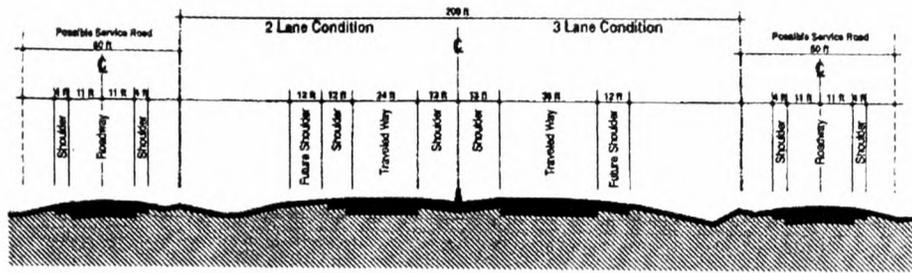
DESIRED URBAN TYPICAL SECTION
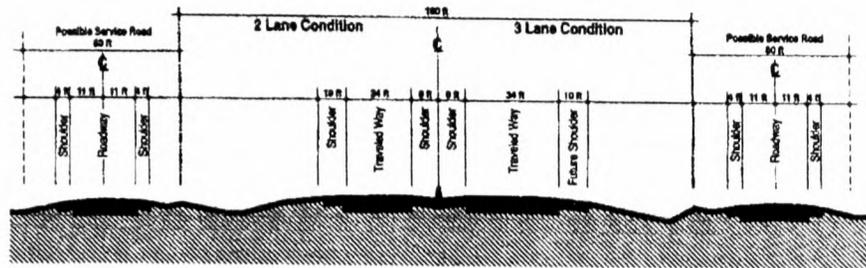
MINIMUM URBAN TYPICAL SECTION

EXHIBIT 1B
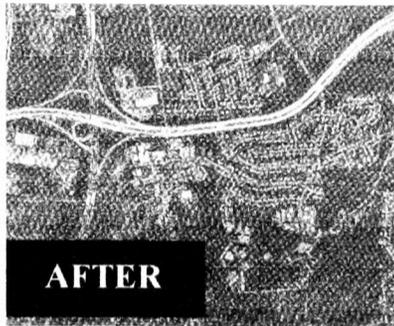
Raleigh, North Carolina, Southern Beltway before and after 1969
(Maiorana, JJ 1994:20)

The Cross Section and Corridor Preservation

Maiorana (1994) indicates the extent to which rational determinism dictates the reservation of urban land for future roads infrastructure in planned corridors in the United States. Similar approaches aimed at maintaining roads standards are employed in many countries, including South Africa.

The section is consciously 'generous' to allow for the reservation of contingency space.

The approach shows little integration with surrounding land uses.

2.4.2.3. GENERIC CORRIDOR SCALES

Corridors in South Africa have sometimes been proposed at a grand scale. The proposed Mabopane Centurion Development Corridor stretches over a distance of more than fifty kilometres and is indiscernible to the eye. Others such as the Philippi-Lansdowne-Wetton Corridor which stretches over a distance of some twelve kilometres seems more realistic and improvements resulting from a focused public investment drive are clearly discernible in space.

Despite this, scale seems irrelevant in a corridor development process that considers corridors a *perpetual work in process*, while some rationalists link the success of urban sub-systems to *size* while using the *multiplier effect* and *critical mass* to support their arguments (Martin & March, 1971). Green et al (1996:3-16) reverses the argument by noting that the viability of corridor development in South Africa remains unproved at the scale envisaged.

Where development of corridor-infrastructure is linked to five year public budgets and assumes the characteristics of a project with measurable outcomes, an emphasis on scale becomes inevitable. The NDoT (2000) identifies three primary **scales** of corridors on the basis of management structures and their ability to attract investment:

- **First**, corridors at a *provincial* scale. The corridor stretches between two or more metropolitan areas. Foreign-, central government-, and provincial funds are typically invested in the extended corridor-zone.

- **Second**, corridors at a *metropolitan* scale. Development of the corridor is managed and funded by metropolitan government.

- **Third**, corridors at a *local* scale. It typically develops around a major suburban street in the fashion of English high streets and American strip developments.

Scale is also measured by using somewhat arbitrary and questionable sets of quantitative indicators (NDoT, 2000: 2-96). Variables including *resident population, number of jobs, predicted annual retail sales* and *length* are used to classify corridors as *small, medium* or *large* and to motivate investment in one proposed corridor over another (see Chapter 6).

2.4.2.4. GENERIC CORRIDOR WIDTH

Some scholars argue that a corridor has an optimal width. This clearly disregards the open-endedness of urban-morphological processes and is as controversial as most of the deterministic instruments of modernist planning. Delimitation of width was highly prevalent during the *Linear City* movement which proposed an optimal linear band of development as in Miulthin's 1931 plan for a linear Stalingrad (Collins, 1959: 87). Alexander's *City Country Fingers* 'pattern' indicates that *urban fingers should never be more than one mile wide (Alexander, 1977:29)*. More recently, Barton et al (1995) consider one kilometre a sustainable corridor width.

Others have supported their views by relating width to convenient walking distances within a pedestrian friendly corridor. According to Naude (1991: 3-3) *corridor width* is related to the notion of *lateral threshold*, which is determined by the number of people within walking distance of the *activity spine*. The average maximum convenient walking distance

is indicated as 800 metres to 1 kilometre (10-15 minutes). A rule of thumb therefore is that the maximum effective zone for an activity corridor is considered to be approximately 2 kilometres, i.e. 1 kilometre on either side of the activity spine.

The habit to express ideal corridor width in 'ones' unwittingly generates suspicion. Green et al (1996:i) is sceptical of notional width and notes that corridors are often characterised by areas of agglomeration as opposed to narrow bands of activity, which negates the necessity to emphasise its width. Under certain conditions, and particularly when the corridor becomes a retrofit, it would seem more sensible to consider the corridor as a loose fitting series of agglomerated *stable local districts* as proposed by the Western Australian Planning Commission (1996) at Jindalee and by Thorne (1996) at Baralink, Johannesburg (Figure 2.28).

Turok & Watson (2000) warns that in a context of minimal resources typically found in developing countries, discretion is supplemented by control. Frameworks which are intended to be open to discretionary adaption then become blueprints in the hands of uncritical bureaucrats who were schooled in the previous system of centralised control.
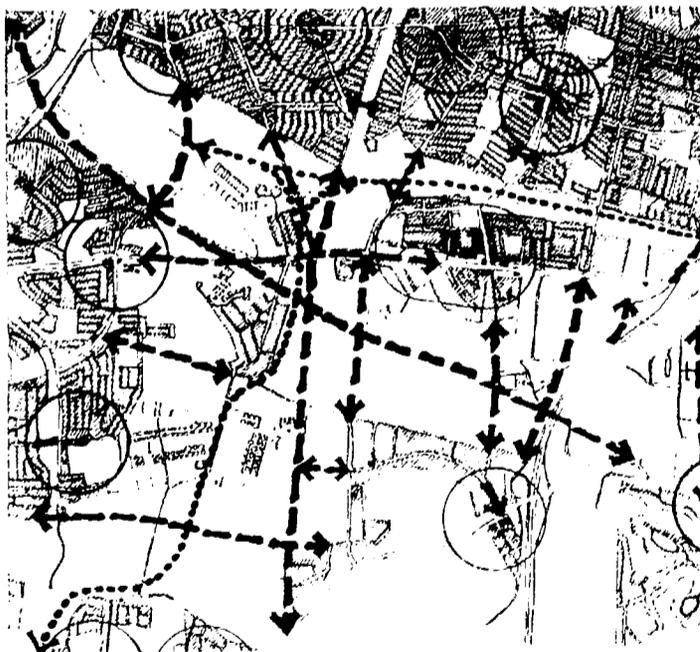
Fig. 4. Desired lines of connection on the Baralink site.

Fig. 7. Grid layout showing the proposed Local Distict network

Figure 2.28. Thorne, S (1996:18) Corridor as series of stable local districts rather than limited parallel routes: Baralink, Johannesburg, South Africa.

2.4.2 CONCLUSION: AN ANALYSIS OF THE TYPOLOGICAL AND GENERIC ELEMENTS OF THE URBAN CORRIDOR

The analysis raises concerns over what Wood (pers com, 2002) calls approaches *'driven by generic responses looking for generic problems'* an *'undeniably powerful city element used regardless of context and in lieu of thought'*. An analysis of the various definitions that were provided by urban designers during fieldwork indicates that corridors are often considered viable and appropriate responses in the post apartheid South African context. Because of the scale at which corridors are proposed, their 'construction' have however become politicised and their development mandated by power elites. During the immediate post apartheid era governments departments, notably the National Department of Transport and the Department of Trade and Industry have considered themselves custodians of the corridor development process. The strategic focus was strongly influenced by the engineering disciplines who have shown a strong preference for quantitative methods (Wood, pers com 2002). Within a free market land management system that pushes the poor out to the extreme periphery of the city there has been little scope for spontaneous, non-strategic corridor growth of the type described in many definitions.

Urban design, which *'thrives at the margins'* as suggested by Goodey (1997) and which values qualitative methods, reflexivity, responsiveness and human scale (Bentley et al, 1985; Barnett, 1982; Shirvani, 1982) is bound to be frustrated by a dominant discourse which favours the generic over the real. The struggle between the generic and the real and between large-scale, strategic and small-scale actions is considered in CHAPTERS 6 and 7 which deals with urban design methods.

2.5. CONCLUSION AND PRESENTATION OF AN EVALUATIVE FRAMEWORK

2.5.1. A SUMMARY OF THE DIVERGENT VIEWS OF CORRIDORS

The analysis presented in this CHAPTER was based on three themes. The question *What is an urban corridor?* was answered by referring to existing definitions, by conducting a historiographic review and by analysing the typological and generic elements of urban corridors. The analysis indicates how different people and organisations view the urban corridor. The different views may be classified into five dominant types:

- First, the **technocratic view** by which the corridor is defined as a quantifiable, physical type. According to this view the principle aim of the corridor is to facilitate mobility and access via well planned and standards based transport infrastructure. Because traffic engineers enjoy considerable control during the initial stages of corridor design, many technocratic, transport-related definitions and descriptions exist. (NdoT, 1999, 2001; Pedersen, 2001; Maiorana, JJ: 1994: 2; Cervero, 1998).

- Second, the **sustainable view** by which the corridor is defined as a vehicle for achieving sustainable urban growth and for intensifying existing low density and mono-functional settlements (Calthorpe & Fulton, 2000; Newman & Kenworthy 1999; Barton et al, 1995; Morris & Kaufman, 1998).

- Third, the **neo-liberal, political view** by which corridors are defined as strategic national and regional scale armatures for private investment with associated trickle down benefits for the poor (Jourdan, 1996, 1998, NdoT, 2000).

- Fourth, the **autonomous/incremental view** by which corridors are considered naturally occurring types that develop their own logic. It is considered that this view of corridors in developing countries will yield significant benefits in terms of empowering poor communities (Simon, 1996; Hamdi, 1991; Romero (undated); Kheirabadi, 1991, Jordaan, 2002, Thomashoff, 2002).

- Fifth, the **aesthetecist view,** which is a simplified view that is concerned primarily with the aesthetic appeal or the environmental psychology associated with corridor space (Houben, 2001; Halprin 1972; Appleyard, Lynch & Meyer, 1969; Venturi, Rauch & Scott Browne, 1973)

2.5.2. CONSTRUCTING AN EVALUATIVE FRAMEWORK

The evaluative framework relates to three key points that emerge from the definitional and historiographic analysis of the urban corridor:

EVALUATE THE CONTEXT FOR ACTION AND DEFINE APPROPRIATE URBAN DESIGN ROLES WHILE CONSIDERING A WORKING DEFINITION OF THE URBAN CORRIDOR

The working defintiion of an urban corridor was presented as:

> *An integrative urban corridor in South Africa is a context for local urban design action that relates to the broadly linear energies generated by both old and proposed new movement systems initiated by others at a regional scale. In post apartheid South Africa corridors aim to improve access by physically linking up segregated parts of the city. The associated fragmentation is not only physical but also socio-economic and socio-political.*

Based on this definition it is clear that present and potential future energies are variables that need to be assessed within each of the diverse sub regions of the corridor for local urban design action in corridor space to be effective.

EVALUATE THE CONTEXT FOR ACTION AND DEFINE APPROPRIATE URBAN DESIGN ROLES WHILE RECOGNISING BOTH SELF-CONSCIOUS AND UNSELFCONSCIOUS TRADITIONS OF CORRIDOR DEVELOPMENT.

The five views of corridors presented in the previous section of this chapter indicates that definitions are strongly influenced by disciplinary bias and contextual variables. It suggests that corridors are sites of disciplinary, economic and political struggles. An integrated strategy for corridor development is unlikely to entirely satisfy sectoral interests. Rather, it is likely to represent an overlap or compromise, both in the way it is conceived and managed. The urban designer is likely to find him or herself in a position where s/he constantly has to negotiate and adjust his/her viewpoints while considering the working definition of a corridor presented in subparagraph 2.2 of this chapter. The working

definition may be expanded to include lessons from the historiographic review. The review suggests that a positivist approach to corridor development needs to be tempered by an awareness of the fact that some of the most successful examples of corridor development in history are unselfconscious and driven by people's own actions. The working definition may be supplemented with the following definition.

> *Corridors in developing countries are often unselfconscious events driven by the many small-scale actions of poorer urban communities rather than by the actions of urban managers and built environment professionals.*

Urban design needs to consider its role both in terms of the former, self-conscious tradition associated with the working definition and the latter, unselfconscious definition that became evident after conducting an extensive historiographic review of the corridor. Recognition of an unselfconscious tradition suggests that urban designers may choose to support a view by which greater autonomy is extended to urban communities in selected corridor contexts. This thesis will evaluate the viability of such an approach and will motivate its viability before a strategy that considers both self conscious and unselfconscious traditions is presented in chapter 8.

EVALUATE THE CONTEXT FOR ACTION AND DEFINE APPROPRIATE URBAN DESIGN ROLES WHILE RECOGNISING THE NEED FOR A CHANGE OF FOCUS AMONGST SOUTH AFRICAN URBAN DESIGNERS

The definitional analysis suggests that too many South African urban designers have reverted to using generic corridor plans and sections of the type presented in subparagraphs 2.4.2. There are often practical reasons for this, not least lack of resources and time. This research offers the opportunity to propose a well-considered strategy for urban design that is less generic and more responsive to our own unique urban contexts. Punter and Carmona (1996:127) note that designers are constantly shifting between *operational, responsive and inferential* modes and that they cannot afford to lock themselves into any one design tradition, and that they need to look broadly at the full range of qualities which society wish to extract from the built and natural environment. In order to develop a more balanced approach to urban design practice in South African corridor space, this research aims to strengthen the responsive dimension of practice by defining the nature of the context to which they need to respond.

Since corridors are typically conceived at a regional scale, the context is more complex and more strategic than when urban design operates at the usual sub-regional and local scale.

STRUCTURE OF THE EVALUATION

The evaluation of the context for urban design action is presented in the next three chapters.

- CHAPTER 3 considers South Africa's **political economy** which determines a range higher order opportunities and constraints.

- CHAPTER 4 considers the main **sociological variables** present in corridor contexts and aims to define how people relate to each other, to the state and to the market. This is an important component of a thesis presented in an industrialised country since it serves to inform a reader that may be unfamiliar with subtle local variables.

- CHAPTER 5 considers the **urban management model** in South Africa and defines the policy context and relative power base of urban design in corridor space.

In the *aims and scope* section of each of these CHAPTERS, appropriate themes will be defined that relate specifically to corridor development. The findings of these CHAPTERS represents the evaluate framework of this thesis. The possible use of the various urban design tools presented in CHAPTER 6 and 7 will be measured against the contextual findings of CHAPTERS 3, 4 and 5 (evaluative framework) and will act as a filter for the urban design strategy presented in CHAPTER 8.

CHAPTER 3: A REVIEW OF SIX KEY DIMENSIONS OF SOUTH AFRICA'S POLITICAL ECONOMY THAT INFLUENCE CORRIDOR DEVELOPMENT

3.1. INTRODUCTION

3.1.1. AIMS AND SCOPE

This CHAPTER is the first of three CHAPTERS that are jointly concerned with defining the context of corridor development in post apartheid South Africa. The CHAPTER considers South Africa's *political economy* in a global context and relates it to corridor development.

3.1.2. METHODOLOGY

The six themes presented in this CHAPTER were selected after a desk study of the influence of political economies on urban development. Theories presented by South African authors Marais (2001) and Barberton et al (1998) and by international scholars Devas & Rakodi (1993) informed the thematic analysis. The Lima and Kuala Lumpur case studies[1] also informed the analysis by providing an indication of the spatial outcomes of different political economies .

The six themes of the analysis presented in this chapter are:

- **First**, *Urban Dualism*, which refers to the parallel existence of large formal- and informal economic sectors.

- **Second**, *Good Governance and Technical Rationalism*, which refers to the bias towards quantifiable 'measurables' and 'deliverables' in urban development under neoliberal conditions.

- **Third**, *Market Lead Development/ Divergent Development* which refers to a bias towards the requirements of an international clientelle whose investment needs require substantial trade liberalization.

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[1] See Annexures 4 and 5 for Fieldwork Reports

- **Fourth,** *mass migration/ urbanisation* in the South African context refer to the changes in urban- and cross border settlement patterns after the end of apartheid and to the global preference for a urban/capitalist culture over a traditional rural/subsistence culture. The net results of these forces have been excessive strains on public funds and the overburdening of urban infrastructure.

- **Fifth,** *metropolitan government,* which refers to the post 2000 era when fragmented municipalities in South African cities were consolidated into unified regulatory bodies as found in many cities around the world. The system vests powers in metropolitan governments, which allows them sufficient independence to compete in a neo-liberal world economy.

- **Sixth,** *structural adjustment,* which refers to the politically induced process of devaluing local currencies in order to create favourable exchange rates for foreign direct investment and to stimulate the export of locally produced goods. Structural adjustment impacts significantly on the urban poor since the prices of imported basic food stuffs and fuel are increased disproportionally while public spending is curbed.

The analysis of the complex set of events, rules and conditions which constitute a country's political economy is a task fraught with difficulty. When the country under review is as transient as post 1994 South Africa, the task becomes even more difficult (Barberton et al, 1998, Marais, 2001). It is however important to contextualise the corridor since development at the scale of corridors are sites of political and economic struggles of which form is largely a by-product. If urban design is to empower people by assisting in the provision of the right kinds of spaces at the local or sub-regional scale, it needs to formulate strategic actions in response to the political economy.

Whilst the five themes are discussed separately, they represent an interwoven set of causal links. Repetition and cross referencing are therefore unavoidable features of the analysis.

3.2. URBAN DUALISM

3.2.1 INTRODUCTION

Urban dualism is recognisable in most developing countries (Devas & Rakodi, 1993; Potter & Lloyd Evans, 1998; Simon, 1992; Gilbert,1996; Castels, 1998) and particularly in South America, South East Asia and Africa. It is manifested *inter alia* by the parallel existence of formal as well as informal sectors, the spatial segmentation of these sectors, different levels of infrastructure provision to these sectors and an associated spatial separation of low income areas from middle- and high-income areas.

The creation of new inequalities may be considered an unexpected or ironic outcome of South Africa's transition to democracy and needs to be viewed within a broader historical context.

3.2.2. URBAN DUALISM CONSIDERED WITHIN A WIDER HISTORICAL CONTEXT

The race-based inequalities of apartheid South Africa are well documented. There are however clear indications that a combination of forces have created new pressures on the poor, which results in an increase rather than a decrease of inequality (May, 1999; Barberton et al, 1998). The African National Congress (ANC) actively pursued a socialist agenda from its formation in 1934. For over four decades repressive acts such as the *Land Acts, the Group Areas Acts* and *Education Acts* were actively challenged by those outside the white power block (Bond, 2000).

The ANC and other liberalisation movements had always anticipated a radical change of government, a seizure of power, which would instantly improve conditions for the poor and land-less. The end of the Cold War and the demise of communism and socialism in the late 1980's created conditions that favoured a *negotiated* rather than *revolutionary* transition to democracy in South Africa. In what is now widely considered a *'grand act of appeasement'*, the socialist *Reconstruction and Development Programme* (RDP) became the ANC's 1994 election manifesto. Widely lauded, it captured the spirit of the anti-apartheid struggle and guaranteed new rights and freedoms for ordinary people. Figure 3.2. (adapted from Liebenberg & Stewart, 1997: 94) indicates the scope of the paradigm shift

as charted by the RDP. The early post apartheid paradigm clearly represents a *basic needs* approach to human- and urban development.

RDP's POLITICAL AIMS	PRE 1994 (ACTUAL)	POST 1994 (ENVISAGED)
point of departure	Things	People
Mode	Blueprint	Process
key word	Planning	Participation
Goals	Preset/closed	Evolving/open
decision making	Centralised	Decentralised
analytical assumptions	Reductionist	Systems/holistic
methods/rules	Standardized/universal	Diverse/local
Technology	Fixed package	Varied basket
Professionals' interaction with clients	Placating, controlling	Enabling, empowering
client seen as	Beneficiaries	Actors
force flow	Supply push	Demand-pull
Outputs	Uniform, infrastructure	Diverse, capabilities
planning and action	Top down	Bottom up

Figure 3.1: Normative Paradigm Shift in South Africa's Political Economy

The RDP proved short lived and had little impact on socio-economic conditions. By June 1996 it had been overwritten by the *Growth, Employment and Redistribution Policy* (GEAR). GEAR is South Africa's neo-liberal macro-economic strategy drawn up in '*somewhat secretive conditions*'. The secrecy is ascribed to a fear of popular revolt against the ANC's sell-out to global capitalism (Bond, 2000:39; Marais, 2001:162 ; Liebenberg & Stewart, 1997:9).

In a chapter titled "*The Evolution of ANC Economy: A Short Walk to Orthodoxy*[2]", Marais (1996: 122-152) analyses the series of events which transformed a communist/socialist liberation movement into a government that now subscribes fully to the rules of global capitalism. Bond (2000: 23-46) and Barberton, et al (1998:40-62) present similar analyses. The authors display broad consensus on the historic events which lead to the introduction of GEAR. The ANC's inability to deliver on its sweeping pre-election promises and

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[2] A play on *Long Walk to Freedom*, Nelson Mandela's biography.

international pressure are given as the main reasons for the ANC's economic capitulation. At the time of writing in 2003 the ideological aims of the RDP (Figure 3.1.) had been severely compromised and, despite various official denials, conditions now reflect the inequalities of *urban dualism* found elsewhere in the developing world. In an ironic twist, home-grown inequalities of apartheid has been replaced by a new set of externally imposed inequalities that are class-based rather than race-based.

Marais (1996:232) notes that the chances of the neo-liberal agenda being suspended in the medium to long term are slim and that in the unlikely event of it happening, such a suspension would be linked to global rather than local political events. The reason given for this is the ANC government's extraordinary ability to achieve and sustain hegemony. *Hegemony* refers to the capacity of a ruling class to nurture the active consent of broad sections of society. The ANC started the *hegemonic project*, which is based on consensus building within the institutions of civil society, long before the end of apartheid. Nelson Mandela's critical role in nurturing broad based consensus, which cuts across race and class, is legendary. The *hegemony project* has therefore reached a high level of sophistication and vigour. From a humanist perspective conditions can at best be described as *'top down but flexible and adaptive'* (Liebenberg & Stewart, 1997: 9). By August 2002 the ANC government under Thabo Mbeki had taken the neo-liberal agenda a step further by masterminding the New Economic Plan for African Development (NEPAD), a continent wide strategy for global competitiveness.

This analysis indicates that *urban dualism* is an outcome of the ANC's hegemonic project and that it is likely to remain a defining symptom of South Africa's urban contexts.

3.2.3. THE INFLUENCE OF URBAN DUALISM ON CORRIDOR DEVELOPMENT

Parallel existence of formal as well as informal sectors, the spatial segmentation of these sectors, different levels of infrastructure to these sectors and an associated spatial separation of low income areas from middle- and high-income areas have been identified as the defining characteristics of *urban dualism*. These forces are likely to impact significantly on corridor development in South Africa, particularly when considering the geographical spread of a corridor such as the 50 kilometre long MCDC corridor that aims to link established parts of Pretoria with its semi-subsistence hinterland.

Green & Hennesy (1996: 2-6) note that:

> 'the general consequence of these patterns are that low income people are usually situated on the peripheries of cities in developing countries. Furthermore the economic and social interaction opportunities of low-income people are strongly constrained by where they are settled, and by the quality and user cost of the public transport network. On the other hand the formal sector is focused on the production and growth of marketable output for wider markets, which means high rates of resource consumption and utilisation as well as fast, long haul interaction between specialised and segregated urban environments.'

Green & Hennessy's analysis indicates that there is a relationship between *urban dualism*, *mobility* and *access*. Mobility and access are important variables in the corridor debate. Whilst trying to bridge the spatial gap between segregated sections of the apartheid city, the corridor concept has generally struggled to integrate the two parallel and seemingly incompatible systems associated with *urban dualism*. Within the dualist equation, mobility (upper circuit) and access (lower circuit) constantly compete for space and resource allocation.

Fieldwork in Kuala Lumpur (Malaysia) and Lima (Peru) provides an indication of how *urban dualism* is variously expressed in corridor space. Despite the fact that both Malaysia and Peru are developing countries, their diverse political economies have had very different causal effects on the development of corridor space:

- **Kuala Lumpur** presents a scenario where an instantly planned and self-conscious corridor runs parallel to an evolutionary and unselfconscious corridor. The two 'circuits' seem to acknowledge their incompatibility but this is reinforced by a regime that is bent on maintaining the pristine, marketable image of the planned Multimedia Super Corridor (upper circuit).

- The **Lima** case represents a merging of circuits where both the upper and lower circuits compromise their respective functions of access and mobility. Unlike the Malaysian case, the government has generally been weak and the ideological focus of subsequent regimes has been inconsistent, thus forcing the urban poor to wrest a higher level of autonomy for themselves (Dietz, 1998; Flindel Klaren, 2000). This has resulted in an assertion of popular autonomy in corridor spaces through an unchecked overflow of activities from the lower to the upper circuit.

Figure 3.2. provides a graphic illustration of the varying degree to which urban dualism is manifested in the corridor spaces of Malaysia and Peru. The Malaysian case demonstrates how the opposing (upper- and lower circuit forces) remain segregated due to political control while the Peruvian example indicates how the circuits are fused when political control is weak.

Interviews with Naude and Thomashoff[3] in Cape Town and Pretoria respectively confirmed that much of the debate around the strategic planning of corridors in South Africa revolves around the dual aims of achieving *mobility* and *access*. Mobility is a much simpler concept than access and there is a common misconception amongst technocrats that improved mobility will automatically lead to improved access. Simply stated it is considered that introduction of roads and rail will automatically improve people's life chances (access). Certain basic needs first have to be satisfied before this is true, unless of course travel on public transport is free or very cheap. In developing countries with dualist political economies those who have already satisfied their basic needs requirements is likely to benefit most from improved mobility. This explains why the very poor continue to cram into slum areas of the inner city rather than squatting on the periphery.

Indications are that, as in Malaysia, political control is often used to segregate the upper circuits (elite/mobility) and lower circuits (poor/access) in South Africa. Cape Town provides an example where physical barriers have been erected along the N1 highway leading into Cape Town. It is a desperate attempt to protect the highway's mobility (upper circuit) from being compromised by 'illegal' efforts to use the highway as a springboard towards improved access by trading directly on it (lower circuit). It is therefore not surprising to see points of forced exit through barriers at frequent intervals. In lower energy peripheral areas such as the Winterveld the overflow remains largely unchecked and is fast approaching the 'fused' circuits conditions witnessed along Lima's Pan American Highway (figure 3.2).

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[3] Andries Naude is a planner at the Centre for Scientific and Industrial Research Council in Stellenbosch, outside Cape Town. He has advised the National Department of Transport on corridor development. Fritz Thomashoff was an urban design consultant on the development of a framework for the Mabopane Centurion Development Corridor.

KUALA LUMPUR
Multimedia Super corridor

Vacant/controlled

Vacant/controlled
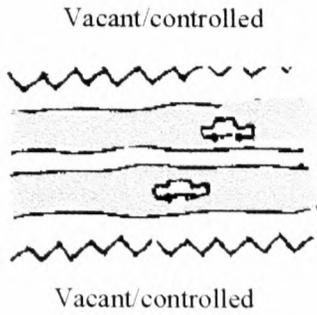
- Upper circuit
- Mobility
- Marketable zone
- Closed verges
- Cars

KUALA LUMPUR
Bangi – Beranang corridor

Semi-formal shops

houses

houses
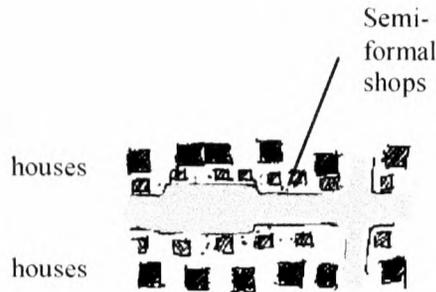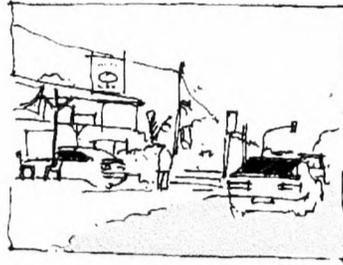
- lower circuit
- access
- trading zone
- cars/people/trucks
- open verges
- marginal control
- moderate congestion

LIMA
Pan American Highway

TRAFFIC IN   MEDIAN   TRAFFIC OUT

'informalistas'

shops

shops
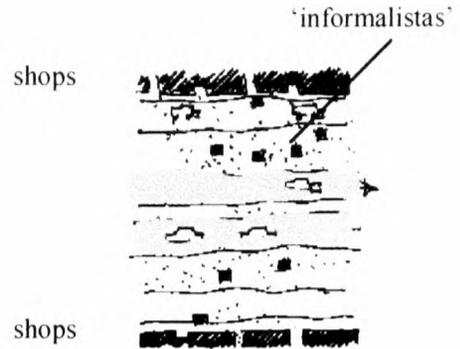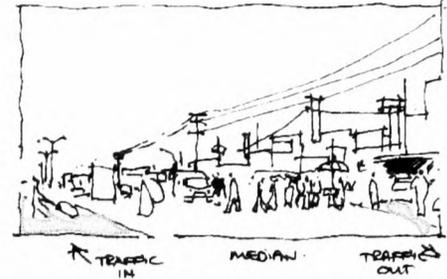
- fusion of circuits
- compromise between access and mobility
- cars/people/trucks
- open verges
- autonomous
- extreme congestion

CAPE TOWN:
N1 highway

break   DI N1 HIGHWAY

Informal housing

barrier

Informal housing
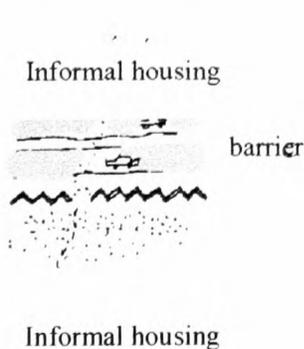
- high energy periphery
- loss of control and spontaneous settlement on highway verges
- retrofitting of barrier
- frequent forced access through barrier

PRETORIA:
N13 mobility spine

VACANT
white owned smallholdings

VACANT
white owned smallholdings
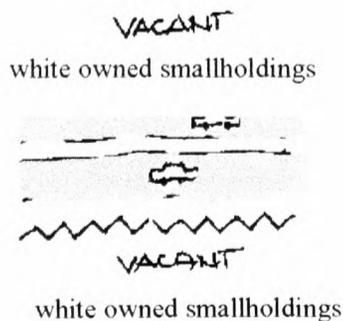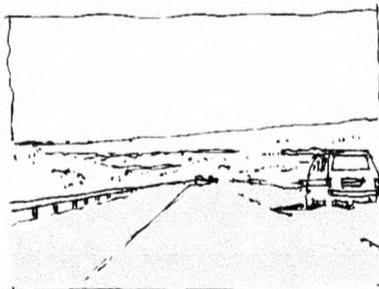
- low energy periphery
- planned mobility spine
- sustained control of adjacent land uses

WINTERVELD
Central artery

Informal houses

Informal trading stalls   Informal houses
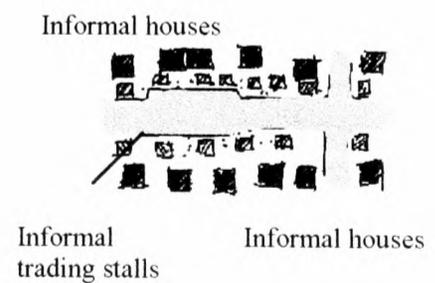
- free settlement area
- limited control
- gradual increase in informal roadside trading

Figure 3.2 : the manifestation of urban dualism in corridor space

3.2.4. CONCLUSION : THE INFLUENCE OF URBAN DUALISM ON CORRIDOR DEVELOPMENT

The analysis indicates that inequalities associated with *urban dualism* is likely to generate uneven local responses to physical/infra-structural corridor elements. The Urban dualism associated with developing countries also suggests that mobility does not necessarily lead to improved access and that this needs to be considered within the context of each proposed corridor. The basic needs requirements of resident corridor communities is an important variable in evaluating mobility and access. Fieldwork findings suggest that, under conditions of extreme poverty, roads that are classified as mobility spines may be spontaneously converted into activity spines with active trading on its verges (pre-industrial corridor typology). World's best practice in terms of the up front provision of generic corridor elements that prioritised mobility needs to be critically reviewed in relation to dualist urban contexts.

3.3. TECHNICAL RATIONALISM

3.3.1 INTRODUCTION

Technical rationalism has had an indelible influence on urban development in South Africa. Both the country's pre- and post apartheid political economies have encouraged and sustained technical rationalism in three important ways:

- **First**, Tomlinson (1994), Dewar (1995) and Oranje (2000) note that while the post-modern paradigm did much to discredit the *functionalist determinism* of modernist planning elsewhere, its systematic application was artificially sustained in pre 1994 South Africa because it fitted apartheid's aims of spatial segregation. This means that a *pseudo modernism* was practised in South Africa long after the demise of mainstream modernism elsewhere.

- **Second**, due to the gradual rather than sporadic overhaul of the decidedly technocratic apartheid state machinery, South Africa's transition to democracy was *negotiated* rather than *revolutionary*. No pool of alternative skills were immediately available to replace Machiavellian, apartheid-style technocrats who comfortably retained their posts during the 'soft transition'. This also meant that there was no immediate pressure on technocrats to change their

inward-looking methods (Marais, 1997; Barberton et al, 1998:109). Oranje (2000:15) notes that, through lack of an alternative, technically minded consultants were themselves involved in crafting a new planning system. His experience was that '*while they were technically very competent, they were not always equally well endowed with vision and heart*'. With the rationalisation of local governments in 2000 and the ongoing restructuring attitudes may begin to soften (see CHAPTER 5).

- **Third,** South Africa's neo-liberal economy favours a rules-based system of '*good governance*' aimed at efficiency, stability and growth (Marais, 1996:234, Oranje, 2000). Old style technical rationalism in a new guise clearly suits the ANC's rules-based agenda (Oranje, 2000).

3.3.2. THE INFLUENCE OF TECHNICAL RATIONALISM ON CORRIDOR DEVELOPMENT

There is abundant evidence to suggest that the three factors (subparagraph 3.2.1.) that have perpetuated- or are sustaining *technical rationalism* in urban development are equally applicable and perhaps more applicable to corridor development than to other forms of urban development in South Africa. During interviews hard-nosed resistance to criticism of the 'corridor concept' was displayed by some bureaucrats and senior planners. Rather than facilitating reflection as anticipated, some interviews evolved into an all out defence of the corridor concept by interviewees (see Annexure 3: South African fieldwork report). Central to their defence is a strong belief that Curitiba's decidedly technocratic and top-down corridor solution could be retrofitted to South Africa's cities. The technical-rational underpinning of the Curitiba model is emphasised by the following quote:

> *It is important to realise that what is often perceived as grassroots green activism in Curitba was in reality the ideas and actions of an elite group of benevolent urban planners. There was little public participation in terms of the development of the framework and the approach was very much a top down development left to technical specialists.*
> *(CSIR, CR-96/015 p 6-14)*

Ketso Gordhan, the Director General of the Department of Transport has had a strong hand in promoting corridors in South Africa. His convictions were largely based on what he saw in Curitiba:

> *Gordhan made a trip to Curitiba where he was, according to an informed source, hugely impressed with the corridor city and what had been achieved through the integration of land uses, roads and transport planning. He returned to South Africa convinced that this type of integrated planning was the way forward. (NdoT, 2001: 2-66).*

This is a significant observation since many planners seem to base their understanding of the corridor on the Curitiba model. Green & Hennessy (1996:iv) notes that many assume that because Brazil is a developing country, the Curitiba concept is very relevant to South Africa. The model features prominently in many policy documents and frameworks related to the corridor development and vast number of officials and development practitioners have undertaken publicly funded pilgrimages to Brazil (pers com Kleynhans, van der Merwe, Nicks; MLH,1995; NDoT, 2001). A planner in Pretoria noted that there is 'no other example of a corridor worth considering' while Cape Town's Metropolitan Spatial Development Framework (MSDF,1991) makes outright reference to the Curitiba model as the '*What Works Best Scenario*'. The underlying message is that if the National Department of Transport considers Curitiba to be the benchmark, then why waste energy and resources in pursuing other alternatives? An equally plausible explanation is that the rational clarity of the Curitiba model appeals to the old school of modernist/rational planners who continue to occupy management positions in the state machinery.

The National Department of Transport (NdoT) are the official custodians of strategic corridor development in South Africa. The NdoT (2001:2-66) supports corridors because they bring '*rational economies into the system and result in a smaller transport subsidy*'. In any context it could reasonably be assumed that a national department of transport would firstly be concerned with mobility and optimal, quantifiable efficiency. Technical rationality is intrinsic to achieving this goal.
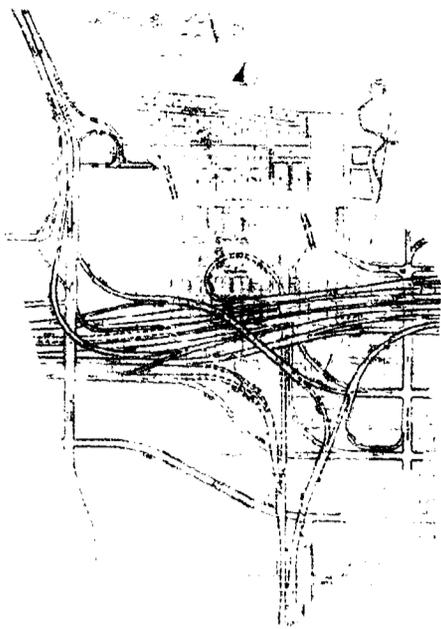
Figure 3.3. Technical rationalism exemplified. 1967 Pretoria Freeway Scheme. The proposed routing of the N4 Highway through the northern edges of the inner city values the mobility of the car owning elite above all else (Meyer Pienaar Tayob, 1999:30)

During interviews with urban designers, most displayed a high level of frustration with the deterministic views of public sector planners and traffic engineers. Typically, a Johannesburg urban designer noted that *'the system is not alert to moral and intellectual campaigning'*. This frustration is however not unique to South Africa as is evident in the *Revolt Against the Highway* movement in the United States (Hall 1988) and the *Non-Plan* lobby in the United Kingdom (Hughes & Sadler, 2000).

Oranje (2000:9) points to the paradox of 'good governance' in post apartheid South Africa: *'Whilst professing a new inclusiveness and attentiveness, the urban development strategy is plan and policy led, with only limited scope for discretion'*. A review of policy documents and development frameworks mirror the rational determinism encountered during interviews. Rationalism is not only sanctioned, but is linked to normative principles and are effectively made compulsory by the provisions of the *Development Facilitation Act (1995)*. The DFA represents an unassailable legal framework for urban development in South Africa. Typically the following statement is found in the introduction to official urban development frameworks:

"Legal Obligations: In terms of the Development Facilitation Act, no 67 of 1995 read with the provisions of the Local Government Transition Act, 1996, local authority structures within the ambit of the Province are obliged to prepare Integrated Development Plans........."

Integrated Development Planning is a central plank of the DFA (Development Facilitation Act of 1995). The IDP (Integrated Development Planning) process uses a centrally-managed 'participation' process to allocate metropolitan budgets in five year cycles (see

Annexure 3 for a summary of the policy instruments). The prescribed methodology for arriving at the five year budget encourages the floating of strategic projects for consideration by representative public forums (DPLG, 2001; Coetzee, Kestell & Barbir, 2002). Because of their highly technical content and the specialist terminology that accompany them, such proposals *'float over the heads of regular citizens'* and are approved without much popular opposition (Thomashoff, Schoonraad pers com 2002).

In the world of 'bankability' a framework for a postcolonial plurality of smaller plans as originally invisaged by the ANC has been relegated to a comprehensive quasi-business plan. Oranje (2000:11) notes that the IDP process is a stale, modernist, technical, endeavour which is somehow aimed at reaching the minds, the hearts and the souls of people.

Strategically planned development nodes and corridors contain measurable infra-structural components that fit comfortably with the 'deliverables' and 'bankables' required by the Development Facilitation Act. By implication it requires local government to build a development strategy around technical models. Public transport infrastructure becomes an important 'axis of quantifiable delivery'. Despite claiming to have introduced an integrated and participatory policy framework, the neo-liberal urban management model clearly favours mobility over access and infrastructure delivery over basic needs in the *urban dualist* equation. What it effectively says is that mobility will lead to access and that large infrastructure will improve livelihoods. Seldom are more pressing issues such as access to affordable land and shelter adequately addressed. A plausible explanation is simply that up front provision of large scale infrastructure and roads provide politicians with tangible evidence that sound progress is being made in the integration of cities. Given the recent use of quantitative models to rank corridors for the purpose of deciding on budgetary allocations suggests that very little has come of the political promises and the grand technocratic visions (See CHAPTER 5 subparagraph 5.4.2. for a review of the quantitative, rank order methods).

3.3.3. CONCLUSION: THE INFLUENCE OF TECHNICAL RATIONALISM

This analysis indicates that most corridor development processes in South Africa are managed in a way that remains largely oblivious to the subtle elements of unselfconscious corridor development. The condition is the result of both a centrally imposed logic and of

ingrained technical-rationalist attitudes amongst politicians, urban managers and planners. Technical rationalism generates an interest in a generic approach to corridor development that denies the high level of socio-economic transience and heterogeneity that will be illustrated in CHAPTER 4. A strategy for urban design in corridor development needs to consider the compromises associated with a dominant technical mindset while also considering ways in which the balance can be shifted towards a more people centred approach.

3.4. MARKET LED DEVELOPMENT

3.4.1. INTRODUCTION

South Africa's neo-liberal economy assumes higher returns from internationalised trade than that which the national and continental economy offers. This translates to a political-ideological bias towards the requirements of large corporations in a variety of sectors[4] (Marais, 1996; Bond, 2000, Padayachee, 1997). Foreign investment is considered to be the main catalyst of a projected level of growth that will ultimately benefit all sectors of the community. Some commentators regard the bias as a risky experiment:

> *The ANC government has evidently been charting a risky course. On the one hand, it insists on a self imposed structural adjustment programme, in line with the demands of big business and the international financial institutions but is at odds with the RDP. On the other, it tries to continue wooing its traditional mass base with populist slogans and budgetary gestures. The government, caught between the realities of global economics and its commitment to social reconstruction, dances a delicate minuet, first with one and then the other' However, increasingly it seems that the former has become the belle of the ball and the latter a scorned wallflower (Barberton, Blake and Kotze, 1998: 48).*

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[4] Prominent are mining, construction, information technology financial services and some manufacturing and retail corporations.

3.4.4.1. SOUTH AFRICA'S RELATIVE POSITION IN THE NETWORK SOCIETY

The confidence of South Africa's politicians in pursuing a neo-liberal economy is largely based on the country's established position in the global economy. The country's strong natural resource and industrial bases provide it with a competitive edge in the region and indeed the continent. This has motivated its frequent description as part of the world's network society (Castells,1998: 122; Potter & Lloyd Evans,1998; Rogerson, 2000; Beavon,1998). In many texts South Africa is considered a major exception in Sub Saharan Africa (Borja & Castells, 1997; Simon, 1992; Tomlinson, 1994). While describing dire socio-economic conditions in Sub Saharan Africa, Castells specifically excludes South Africa from his debate on *The Rise of the Fourth World*:

> *South Africa is clearly different from the rest of Sub Saharan Africa. It has a much higher level of industrialisation, a more diversified economy, and it plays a more significant role in the global economy than the rest of the continent. South Africa accounts for 44 percent of the total GDP of all Sub-Saharan Africa and the Johannesburg stock exchange is the tenth largest in the world (Castells, 1998:122).*

The focus of industry is the Gauteng Province, which houses the twin cities of Johannesburg and Pretoria and which is 95% urbanised; 33% of South Africa's formal employment is provided in Gauteng which is also responsible for 40% of the National GDP and 9% of Africa's GDP (Beavon, 1998). Economists argue that full participation is the only way for the country to sustain its position in a new economic order, which Castells (1996) famously describes as *The Network Society*.
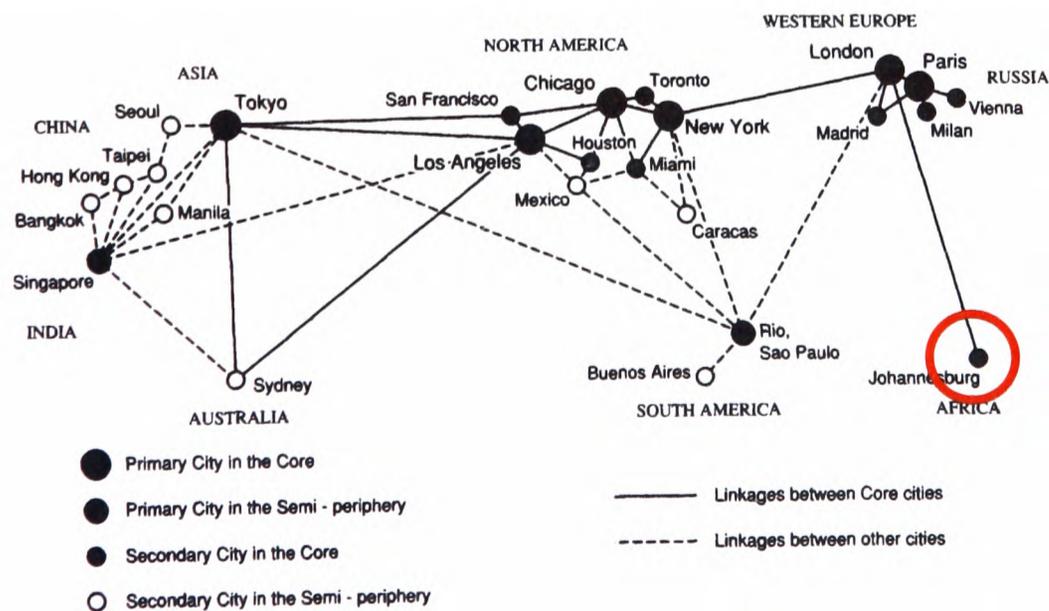
The global network of world cities (adapted from Friedmann, 1995).

Figure3.4: Johannesburg as 'Secondary city in the Core' in the hierarchy of world cities (Potter, 1998)

3.4.1.2   TRICKLE DOWN STRATEGY: SPATIAL DEVELOPMENT INITIATIVES (LARGE SCALE CORRIDORS) AS A MANIFESTATION OF SOUTH AFRICA'S NEO-LIBERAL ECONOMY

Spatial Development Initiatives (SDI) are overt manifestations of macro scale, neo-liberal development policy in Southern Africa. An SDI has the following defining characteristics:

- **First**, they are *national and sub-continental 'corridors'* which aim to attract international investment through a wide range of incentives. Advanced long-haul transport infrastructure is a defining character of an SDI.

- **Second**, they are manifested as *twelve national corridors* in which vast amounts of public funds are invested according to a 20/80 principle. The 20/80 principle assumes that a 20% share of state investment in infrastructure and marketing will generate conditions which are attractive enough to be 'rewarded' with an 80% share of private/international investment.

- **Third**, they are *physically identifiable* projects which enable the state to bid for World Bank and IMF funding and to market them as attractive and physically recognisable investment locations.

The following extract from a marketing brochure for the Lubombo SDI illustrate the market oriented aims of SDI's:

> *The countries taking part in the Lubombo SDI (South Africa, Swaziland and Mozambique) have well developed guidelines and procedures for promoting investment in their countries. Each offers incentives for investors, logistical support, modern banking systems, streamlined foreign exchange control, assistance with work permits (for managerial staff), trade co-operation and investment support agencies (Lubombo SDI, 2002: 37).*
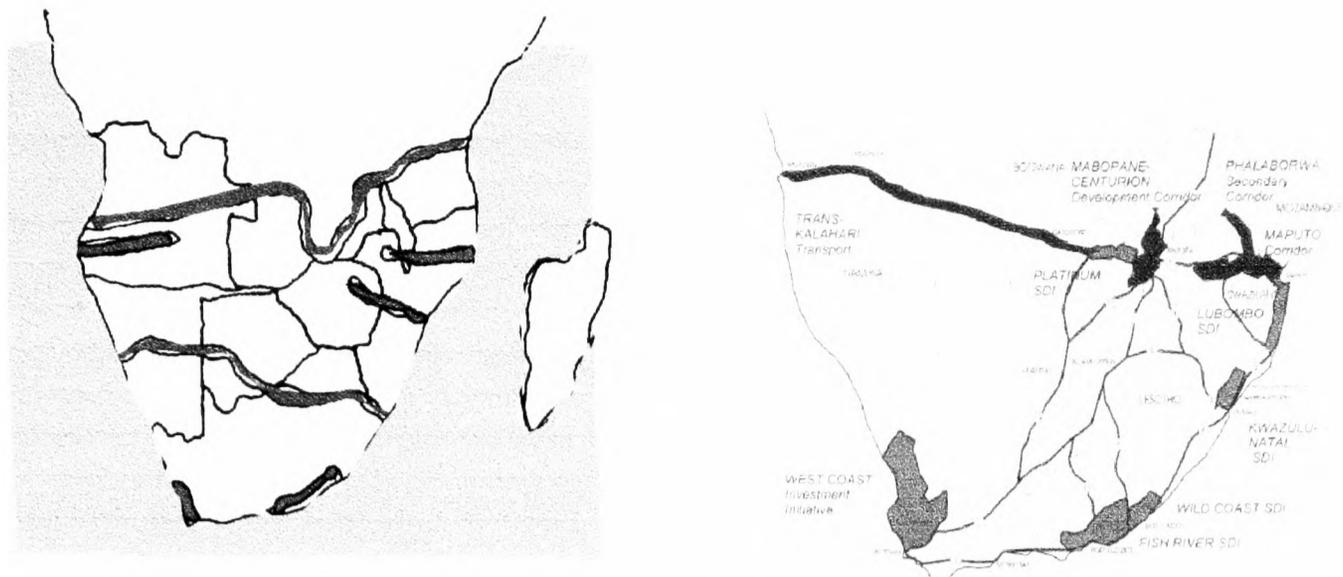
Figure 3.5: Spatial Development Initiatives in Southern Africa (left) and South Africa (right)
Source: Department of Trade and Industry (left) and Kleynhans, (2000: 66)

While selected regional and metropolitan scale corridors have been developed under the custodianship of the National Department of Transport (NDoT), the development of Spatial Development Initiatives are managed by the Department of Trade and Industry. Whilst Spatial development Initiatives are often referred to as corridors, their purpose is ultimately to present marketable packages for global investment.

Despite claims to the contrary, Spatial Development Initiatives have little cause with current problems of crushing poverty and their scale removes them from the reality of everyday human interactions. They are primarily concerned with macro-economic growth. In the short to medium term SDI's, which are the sum total of roads, rail and a vigorous marketing campaign therefore needs to be distinguished from metroplitan- and local scale corridors which represent the context for a whole range of human interactions.

The national scale or 'show case' corridor is not unique in a developing world context. In Peru the technocratic President Belaunde Terry tried to defuse a crisis surrounding land distribution in the urban centres, and particularly in Lima, by promoting his *La Marginal*. *La Marginal* became an obsession for Belaunde during his two terms[5] in office. It was a proposal for a grand north south highway along the eastern slopes of the Andes. Apart from being *'an easy sell'* to the public, *La Marginal* would *'stimulate employment, and act as a magnet for international financing from aid agencies'* (Flindel-Klaren, 2000:333). It was an easy sell to the public because it promised improved access to rural areas and

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[5] Belaunde Terry was president of Peru from 1963 to 1968 and again from 1980 to 1985

accelerated agrarian reform. The same political agendas underpin the promotion of Spatial Development Initiatives across sub Saharan Africa. Flindel-Klaren (Ibid) notes that overspending on public infrastructure such as the design of *La Marginal* (which took precedence over all other programs) and other publicly funded projects pushed the budget into the red and eventually resulted in a 44 percent devaluation of the Peruvian currency. The promises could not be realised and the state could not afford to sustain the process. A combination of disillusionment with the government and corruption charges related to an oil deal contributed to resentment that lead the military revolution of 1968. Despite early failures such as *La Marginal*, national corridors remain high on the political agendas of Latin American countries. In his book *The Open Veins of Latin America* the Uruguayan writer Eduardo Galeano notes that his continent's infrastructure was developed solely to suck its wealth into the ports, and thence into the colonial and neo-colonial economy. As in Sub Saharan Africa, Latin American governments invest massively in new roads to the ocean, but fail to provide links to villages and market towns (Monbiot, 2001).

These experiences indicate that the *upper circuit* national corridor is a high risk, over-politicised affair that offers little by way of improving the life chances of the millions of poor citizens who operate at the *lower circuit* of developing country economies. As Monbiot (2001) and Wood (pers com) note *'bigger and faster roads drain the life from the local economies'.*

3.4.2. THE INFLUENCE OF MARKET LED DEVELOPMENT ON CORRIDOR DEVELOPMENT

It is important to note that, if they meet their stated aims, decentralised Spatial Development Initiatives will draw much of the economic energy away from existing city regions (including corridor regions) while creating new decentralised work opportunities. Spatial Development Initiatives are already diverting critical government funding for reconstruction away from city regions.

Despite the strong competition from national Spatial Development Initiatives, the metropolitan- and local corridor frameworks aim to compete for investment by providing 'world class' transport infrastructure and a comparable range of business incentives. The following quotes from the Mabopane Centurion Development Corridor marketing supports the argument:

The construction of the PWV 9 highway link is absolutely necessary and a critical success-factor as this road will be the catalyst for creating the right economic climate for the entire MCDC area (GPMC, 1999:2).

and

Accelerated Foreign Direct Investment (FDI) inflows and increased trade are vital to promote maximum sustainable economic growth and trade (GPMC, 1999:15).

Some regional corridors aim to benefit from their intersection with Spatial Development Initiatives by proposing the development of an 'urban port' at the intersection. Prospective investors in the MCDC are urged to consider '*the advantage of a dual launch pad to the world via the ports of Walvis Bay(Atlantic Ocean) and Maputo (Indian Ocean)* (GPMC, 1999: 10).
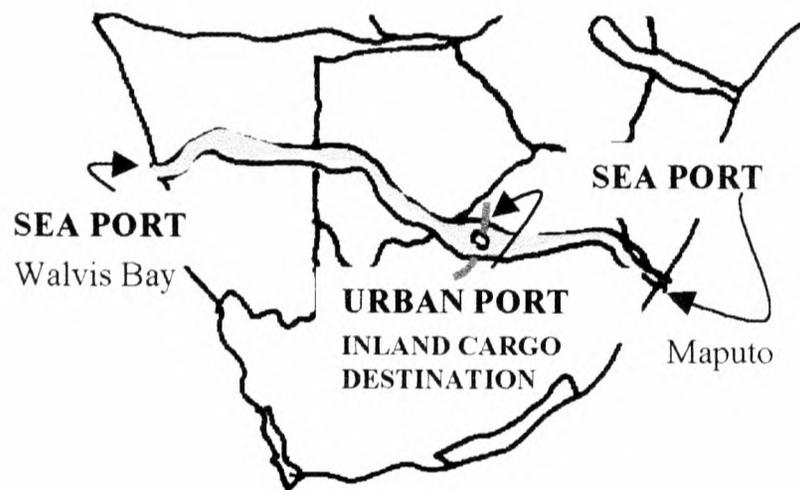
Figure 3.6. Location of an urban port at the intersection of a national corridor and a regional corridor. In this illustration the national (grey) corridor is the Walvisbay-Maputo Corridor and the regional corridor is the MCDC Corridor (red).

3.4.3. CONCLUSION (THE INFLUENCE OF MARKET LED DEVELOPMENT).

The largest impact of a neo-liberal, market led development paradigm is the preference given to marketable projects. Corridors become commodities that need identifiable physical dimensions in order to boost their marketability. This further encourages the up - front investment of public funds in large-scale infra-structural projects, i.e. highways, rail networks and ports. Such infrastructure need to be built to international standards in order to compete effectively in a global market and to draw the right clientele, i.e. the heavyweight investors from Europe and the United States. This further perpetuates the

technical/rational mindset discussed in the previous section and draws economists directly involved with central policy formulation into the equation.

These macro-economic forces are beyond the comprehension of urban designers and it cannot be reasonably expected of a discipline that is firstly concerned with local mediation of built form to have a functional comprehension of them, or could it? Calthorpe and Fulton (2000) argue that it is vitally important that we begin to comprehend market dynamics at the regional scale. They call for a regional paradigm in the urban design discourse that corresponds to the realities of exploding edge cities under global market forces.

'the clinching factor is that the global economy is regional' (Calthorpe Associates).

While this may be true of industrialised countries, the fact is that neo-liberalism remains an experimental exercise in South Africa's developing country context and that it still needs to bear fruit. The challenge for urban design is to find a way to negotiate a path between real needs of poor populations in corridor space and the longer term political promises that currently diverts much public investment into large infra-structural projects.

Figure 3.7. below illustrates the extent of the mediation between a neo-liberal and a basic needs agenda in post apartheid corridor space.

Neo-liberal agenda		Basic needs agenda
Things (roads rail)	Mediate/compromise	People
Planning (SDIs)	Mediate/compromise	Participation
Preset/closed	Mediate/compromise	Evolving/open
Centralised decisionmaking National government	Mediate/compromise	Decentralised Community level
Reductionist (large scale)	Mediate/compromise	Systems/holistic
Standardized/universal (world bank)	Mediate/compromise	Diverse/local
Fixed package (investor friendly)	Mediate/compromise	Varied basket
Controlling	Mediate/compromise	Enabling, empowering
Beneficiaries (investors)	Mediate/compromise	Actors
Supply push (export oriented)	Mediate/compromise	Demand-pull
Uniform, infrastructure	Mediate/compromise	Diverse, capabilities
Top down (controlled at national level)	Mediate/compromise	Bottom up

Figure 3.7: corridors as sites of normative compromise
(adapted from Liebenberg & Stewart, 1997: 94)

3.5. THE VESTING OF POWER IN METROPOLITAN GOVERNMENT

3.5.1. INTRODUCTION

This section is a forerunner to the more detailed analysis of a strategic urban management approach presented in CHAPTER 5.

The neo-liberal agenda is aggressively pursued in South Africa's cities, where the old system of appointed officials has been abandoned in favour of elected mayors and mayoral committees as found in most liberal democracies (Borja & Castells, 1997; Marcuse & Van Kempen, 2000). Cities effectively became mini governments on 5 December 2000 when the first democratic local government elections were held across South Africa, some six years after the first national democratic elections in 1994.

3.5.2. THE INFLUENCE OF METROPOLITAN GOVERNMENT ON CORRIDOR DEVELOPMENT IN SOUTH AFRICA

The adopted neo-liberal system of local government has significant implications for urban development;

- **First**, the major cities Johannesburg-Pretoria, Cape Town and Durban compete for local- and foreign investment and have all spent large amounts of public funds on image-enhancing projects such as international conference centres[6] and bids for international events[7]. Each city also competes with the others by claiming to provide a better climate for investment. Minimal objection against the location of large-scale developments in potentially sensitive or undesirable areas is a significant outcome of the flexible investor friendly approach (Buthelezi, 2001).

> *Johannesburg has launched a plan that will gradually reshape the city's economy and geography and ultimately transform it into a world class business centre with services and standards of living on a par with the capitals of the developed world (Sunday Times, June 30, 2002 'Focus on Johannesburg').*

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[6] The Durban International Conference Centre, Cape Town International Conference Centre and Johannesburg International Conference Centre have all been constructed or are in the process of construction.

[7] Unsuccessful 2005 World Cup Soccer Bid, failed 2004 Olympic bid (Cape Town), host to 2002 International Conference on Sustainable Development (Johannesburg), host of 2003 Cricket World Cup.

- **Second,** *public private partnerships (PPP's)* have become the driving force behind developments which are often located in areas other than those proposed in spatial development frameworks. The private partners of both housing and commercial developments tend to dictate location, since both international and local investors have a wide choice of alternative investment opportunities, both inside and outside South Africa. The trends in major private property development reflect a combination of market forces and institutional practices. Turok and Watson (2001:122) note that *'they create a cumulative process of investment and development in well-off areas as growth feeds upon itself'.* Green & Hennessy relate the paradigm to corridor development (1996: v):

> *'The question of viable corridor development on the scale envisaged remains unproven. In their enthusiasm about corridor development, many planners often ignore or misjudge the prevailing retail and other economic development trends. Principal among these is the ongoing trend towards the development of shopping malls and hypermarkets, and the tendency for these to be located in upmarket or at least middle income areas.'*

Figure 3.8. illustrates the trend described by Watson & Turok and Green & Hennesy in greater Pretoria and Cape Town.

PRETORIA

temba

winterveld

mabopane

soshanguve

garankuwa

mamelodi

5

4

pretoria

6

6

2

1

centurion

3

north

6

6
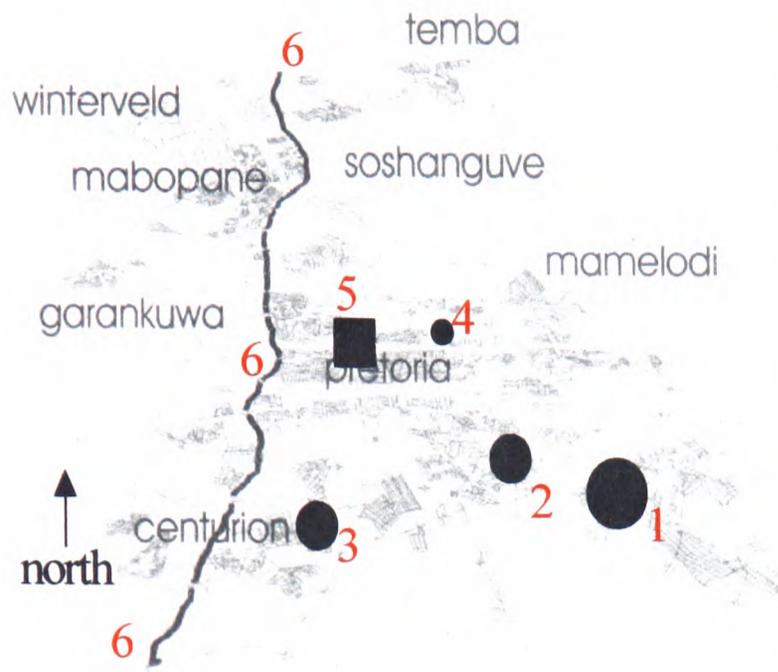
Capitalist investment away from
the zones of poverty in Pretoria. The
North and West are the historical zones
of underprivilege (Garankuwa,
Mabopane, Winterveld, Soshanguve,
Temba)

Key

1-4 indicates the location of large
suburban shopping centres in the
historical zone of privilege, with
diagrammatic indication of relative size.

5 indicates the position of the inner city,
a site of capital flight and disinvestment

6 indicates the alignment of the proposed
Mabopane Centurion Development
Corridor

CAPE TOWN
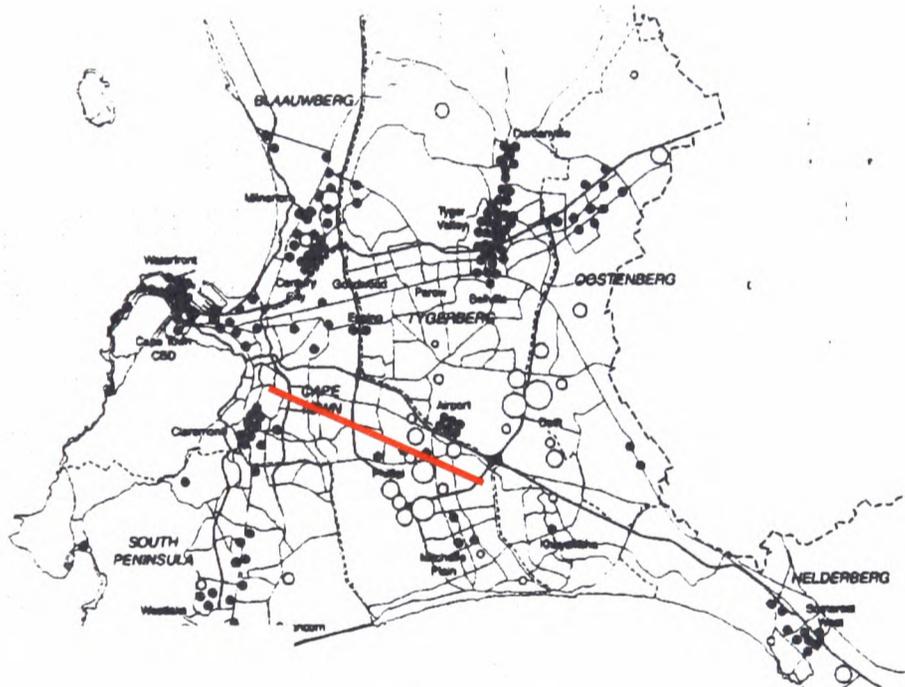
○   Low Income Housing Projects

●   Major private investment in non-residential property

━━   Approximated alignment of the Wetton Lansdowne
Corridor

Figure 3.8: The geography of divergent development in two South African cities

- **Third,** the rationalisation process associated with the restructuring of local government in 2000 has resulted in great institutional upheaval and job insecurity amongst officials at all levels. The number of municipalities were reduced from 843 to 284 (IDASA, 2001: 13) leading to large-scale redundancies. This must be distinguished from the perpetuation of *technical rational methods* as described in subparagraph 3.3, which relates to the immediate post apartheid phase.

The insecurity and fatigue amongst officials were mentioned in several interviews (see interview synopsis, Annexure 7). Interviews conducted during the period April to August 2002 coincided with a phase when officials at all levels of local government were required to resign from their positions in smaller councils and to re-apply for positions in the new, rationalised metropolitan governments (Thomashoff, Hendricks, Southworth, van der Merwe, pers com 2000). This had been anticipated for some time and generally planners and other officials have experienced low morale. Despite these temporary upheavals, the carefully timed transition at metropolitan level, six years after the formal ending of apartheid, may facilitate much needed change in the attitudes amongst state and metropolitan planners. The counter argument is that, because councillors are elected along party lines, the *hegemony*[8] achieved by the ANC at national level has now been transferred to the metropoles[9].

- **Fourth,** strong leadership and vision may benefit cities under the new metropolitan government system. This statement must be considered against the backdrop of centrally prescribed urban management under apartheid and a fragmented system of ineffective smaller municipalities during the interim phase (1994-2000). A single tax base now makes it possible for metropolitan governments to take a strategic view of the city and to commit public funds to catalytic projects. Relative metroplitan independence will result in some cities doing a better job than others, thus providing valuable opportunities for South African cities to learn from and influence each other as part of a national reflexive project.

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[8] See discussion on the ANC's hegemonic project in CHAPTER 4.
[9] Cape Town remains an exception since both the provincial and the metropolitan elections have been won by the National Party/ Democratic Alliance.

In interviews with Moegsien Hendricks (2002) and Ben van der Merwe (2002) it was noted that, while corridors were believed to be effective mechanisms for reconstruction during the interim urban management phase (1994-2000), public funds were not sufficiently committed to projects other than those at the sub-metropolitan level. The list of competing priorities was simply too formidable. The fragmented management of cities before 2000 resulted in the tentative involvement of the National Department of Transport in corridor development. Because of its centralised position, the National Department of Transport could never be expected to respond effectively to local needs and to integrate the diverse agendas of local stakeholders. Metropolitan governments may at last be able to commit effective, interdisciplinary teams of the type proposed by Dewar[10].

3.5.3. CONCLUSION: THE INFLUENCE OF A NEO-LIBERAL URBAN MANAGEMENT SYSTEM

The analysis indicates the evolutionary urban management context in which this research is set and the dramatic decentralisation of control that accompanies South Africa's transition to democracy. The planning profession is clearly in turmoil (Oranje, 2000; Tomlinson, 1994; Schoonraad, pers com 2003), which impacts significantly on the practice of urban design, particularly when considered a discipline that aims to bridge the gap between architecture and planning. Because of its strong democratic bias, urban design has clearly been given little breathing space under the dictates of centralised apartheid planning. Despite the level of uncertainty, the post apartheid urban management climate promises new opportunities for urban design to respond appropriately to regional contexts (Wood, Nicks, pers com 2002).

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[10] Lecture, University of Pretoria, August 2002. *'We must encourage interdisciplinary thinking'.*

3.6. MASS MIGRATION AND RAPID URBANIZATION

3.6.1. INTRODUCTION

A human flood is drowning Gauteng. They often strike in the early hours of a cold winter's morning. Groups of men armed with bags of chalk and a flag assemble on empty land. They mark out plots with the chalk, sometimes leaving space for a soccer field. In a matter of hours they will have mapped out their new home. They then erect the flag - often the national colours - name the camp after a prominent political leader and quickly bring in as many women and children as possible.

These are the shock troops of a movement that is fundamentally transforming South Africa's industrial heartland. Thousands of people are pouring into Gauteng every month - most estimates put it as high as 20 000 - creating new settlements, swallowing up empty tracts of land and placing an unbearable strain on public resources (Mail & Guardian, 19/05/1997).

This quote points to the crisis that has beset urban development in South Africa. While the government is pursuing a neo-liberal agenda that has required radical restructuring of metropolitan governments and the painstaking formulating of policy instruments that support urban integration, people are faced with immediate problems that require action.

The crisis is partly brought on by massive migration to cities, a new reality which is not all to do with the legacies of apartheid. The migration is brought on by a number of factors:

- **First**, the end of apartheid has seen the lifting of legislation such as the *Group Areas Act* and other influx control measures, which prevented large sections of the population from settling freely in cities. Since 1994 many black South Africans who were previously excluded from cities have settled in both formal and informal settlements on the peripheries, the cities and in the inner cities (Alexander, 2000). Substantial squatter settlements have however started to mushroom on the peripheries of urban townships as early as 1980, long before the official end of apartheid (May,1999; May & Rogerson, 1995). This was the start of South Africa's *green revolution,* which refers to a condition under which rural livelihoods were becoming increasingly unsustainable (Castles and Miller: 1993:3).

- **Second**, war, famine and political instability in countries such as Zimbabwe, Mozambique and the Democratic Republic of the Congo has seen many flee their countries in search of better life chances in South Africa. Surveys by the Human Sciences Research Council (HSRC) show that by 1995 there could have

been as many as 9.5 million non-South Africans living in the country. This means that by then one out of every eight people living in South Africa could have been an illegal alien (Hart, 1996:29). Qualitative fieldwork in the Winterveld and sociological studies by Rogerson (1998) and Crankshaw (1996) have highlighted the problems associated with illegal immigrants, particularly their difficulties of being integrated into local informal communities.

- **Third**, in many underdeveloped countries migration is one aspect of the social crisis that accompanies integration into the world market and modernisation (Castles & Miller, 1993:3). The perception of South African cities, and particularly Johannesburg, being places of opportunity is significant amongst foreigners and rural South Africans. Because of Africa's detached geography and the barrier provided by the Sahara desert to the north, those affected by push factors find it easier to migrate southwards towards South Africa than northwards towards the perceived opportunities of Europe. Increasing hostility towards aliens and strict European immigration control are added incentives for crossing over South Africa's extended and largely unpoliced borders (Hart, 1996).
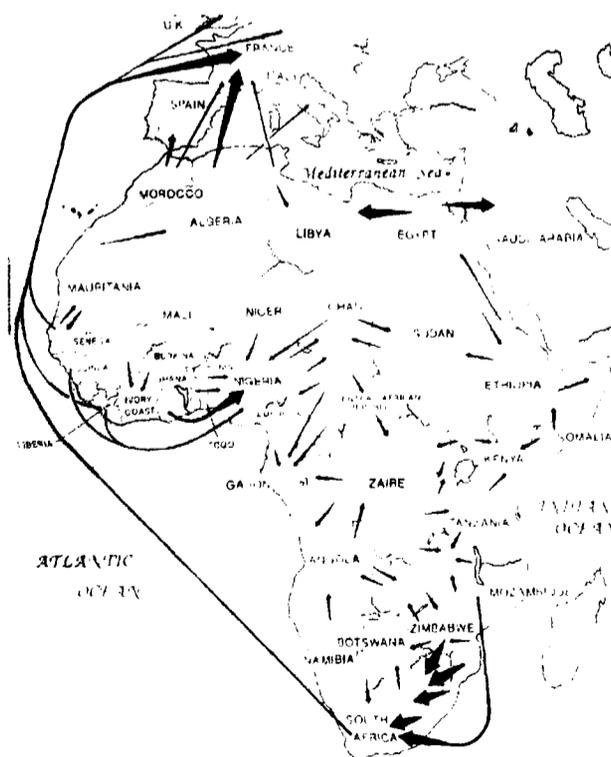
Figure 3.9: Pattern of Migration in Africa (Castles & Miller, 1993)

3.6.2. THE INFLUENCE OF MASS MIGRATION AND HYPER URBANISATION ON CORRIDOR DEVELOPMENT IN SOUTH AFRICA.
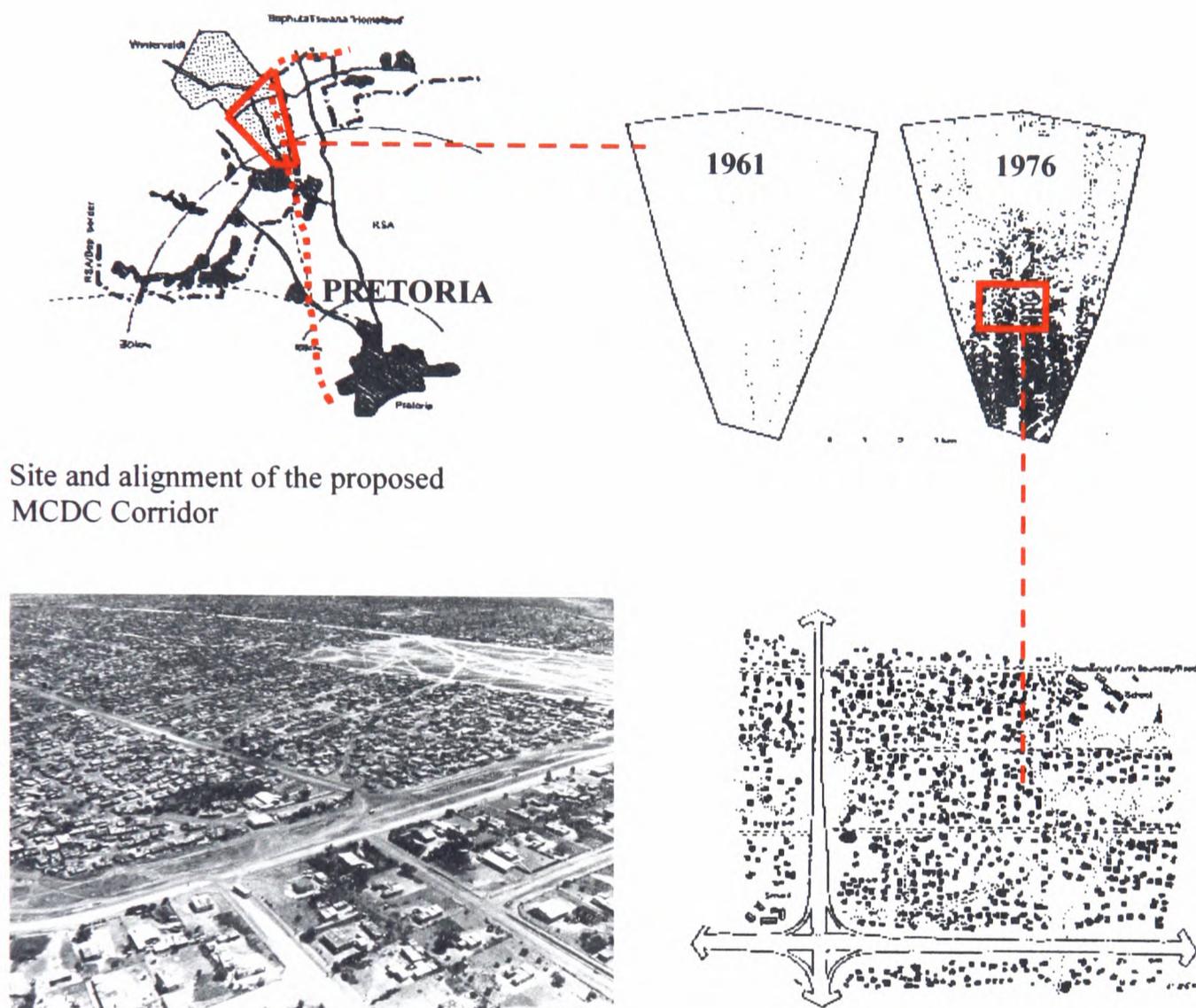
Site and alignment of the proposed
MCDC Corridor

Figure 3.10: Rapid, informal population increase in the Winterveld region north of Pretoria, which lies within the zone of the proposed MCDC Corridor (adapted from Goldberg, 1996:9).

3.6.3. CONCLUSION: THE INFLUENCE OF MASS MIGRATION AND RAPID URBANISATION

The analysis indicates that, apart from- and largely because of the advent of democracy in South Africa, mass migration places huge burdens on the resources of metropolitan governments. Accommodating new migrants of a poor and uneducated background equals and potentially outweighs the need to integrate a historically fragmented urban society. Provision of minimal infrastructure places exceptionally high burdens on municipal budgets. The high level of transience and poverty denies classic definitions of social

homogeneity and neighbourhood as a basis for participation. It also denies planning and urban design approaches that relate directly to the real estate market, most notably the New Urbanist approach. Since many migrants settle within the accessible corridor zone (De Clerq, 1994) the effects of mass migration is of particular significance to this research. The contextual variables associated with migration is a prime motivating factor for adopting a *development practice*[11] approach to urban design in marginal sections of corridor space.

3.7 STRUCTURAL ADJUSTMENT

3.7.1. INTRODUCTION

Structural Adjustment refers to the politically induced process of increased living costs, market driven increase in consumer prices, privatisation, and reduction in the size of the civil service. Of these, job scarcity associated with privatisation and increase in consumer food prices have the greatest effect on the poor, as studies in Latin America have shown (Dietz, 1998; Flindel-Klaren, 2000). Since the early 1980s, governments in the Southern African region have more or less voluntarily (and with more or less heavy-handed encouragement from international financial institutions) embarked on programs to liberalize their economies (Bond, 2000).

Various sources argue that the urban poor and indeed citizens from all economic classes are not in a position to *'comprehend, accept or reject the package of reforms in wholesale fashion'.* It is therefore easily employed without popular consent (Drakakis-Smith, 1994; Dietz, 1998; IDASA, 2000). Citizens can reasonably be expected to recognise only the associated threats to their livelihoods (the poor) or a noticeable decrease in their standard of living (lower to middle and middle classes).

In 2000 IDASA conducted a popular survey which included the question *"Do you have any knowledge of the government's structural adjustment programme?'.* Predictably, only 13% of respondents answered that they had. IDASA notes that, because it downplayed social redistribution in favour of economic growth, GEAR (the neoliberal macro-economic policy) never gained the public currency of the RDP (the ANC's basic

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[11] See Annexure 1: Glossary of terms for a definition of *development practice.*

needs driven electoral manifesto). Indeed, by claiming that GEAR was simply a means to implement the socialist goals of the RDP, the government never actively publicised the adjustment program that was the cornerstone of its macro-economic strategy. It is in this context that South Africans' low public awareness of GEAR and structural adjustment must be understood.

Adam Przeworski (1991) notes that a democratic transition generates externally imposed circumstances. These include economic uncertainty and new rules for formal involvement in the political game which are recognised or 'sensed' by citizens as the symptoms of structural adjustment. Civil society may accept the associated threats to their livelihoods because of their belief or hope that a *democratic* system offers opportunities for economic and social advancement. The poor behave *rationally* in a new democracy if they accept uncertainty and comply with formal rules – but only up to a point. This point is the threshold where the material welfare floor collapses. At this point, poverty equates with survival and rational behaviour becomes redefined and redrawn.

Rationality in this context refers to the increasingly uniform expectations of standards of decency, democracy and the rules of law under the homogenising forces of globalisation. Dietz (1998) and Drakakis-Smith (1994) note that *structural adjustment* severely undermines people's faith in the ability of governments to improve their livelihoods and forces them into modes of communal self-organisation and co-operation (autonomy). Noticeable symptoms are a burgeoning black market/informal economy, corruption and rent- and service boycotts and rising crime rates. These symptoms are all discernible in South African cities (see Annexure 7: fieldwork report and Bond, 2000; May, 1999).

In his February 2002 *State of the Nation Address* President Mbeki introduced the concept of "*Vukuzenzele*", the culture of personal responsibility, united social action and volunteerism. This is an admission by the state that it is unable to deliver promised *social goods* and an indication that it is sensing the growing ground swell of popular resistance against the symptoms of structural adjustment.

3.7.2. THE INFLUENCE OF STRUCTURAL ADJUSTMENT (AUSTERITY MEASURES) ON CORRIDOR DEVELOPMENT IN SOUTH AFRICA

Intra-urban corridors often transverse a series of socio-economic spaces in order to fulfil their perceived aim of socio-economic integration. Integration in the corridor zone would, amongst other things, mean a decrease in inequality between populations of the different socio-economic spaces. Corridors such as the Mabopane Centurion Development Corridor (MCDC) and the Wetton-Landsdowne corridor are primarily located in zones of poverty and are purposefully aligned to assist in the alleviation of the poverty. If *structural adjustment* is said to affect the livelihoods of the poor most, then these corridor zones should clearly display the effects.
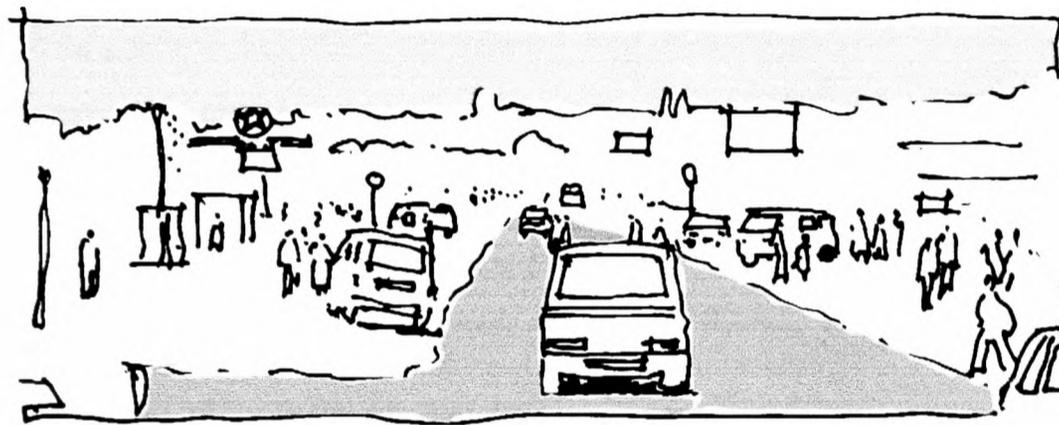
Figure3.11: A weekday morning in Soshanguve. Indications of the high level of unemployment with people flooding street spaces in residential areas. Note that there are no formal shops along this road (drawing by author).

Baseline statistics supplied by the Human Science Research Council (HSRC, 1998) indicate that Soshanguve, which straddles a significant portion of the MCDC Corridor has the lowest employment level in the Gauteng Province, with 42% of its population between the ages of 15 and 64 unemployed. According to Udjo, Orkin & Simelane (2000), the overall rate of unemployment in South Africa has increased dramatically since 1994 (Figure 3.12). If these indicators represent an average level of unemployment in South Africa, then peripheral corridor spaces that have received a continuous influx of job seeking migrants, will have an even steeper increase in the proportional level of unemployed.

	1995	1996	1997	1998
Official definition[12]	16.4	20.3	22.0	25.2
Expanded definition[13]	28.3	34.4	37.4	37.5

Figure 3.12: National unemployment rates (%)
source: udjo, orkin & simelane (2000)

3.7.3. CONCLUSION: THE INFLUENCE OF STRUCTURAL ADJUSTMENT

Mass migration (discussed in the previous section) and structural adjustment collectively create extremely difficult and unpredictable contexts for practice in zones of poverty. Western notions of democracy with associated free participation at the local level become problematic. Large sections of corridor populations are illegal and homeless, and thus unaccounted for in institutional/democratic terms. Questions such as WHO participates, WHEN they participate and WHERE they participate remain largely unresolved. It also raises the issue of basic needs and of transient identities that will be discussed in the next CHAPTER. When people's most fundamental basic needs are not met they are unlikely to want to enter into discussions about the alignment of large-scale infra-structural projects as is required by institutionalised participatory models. This is however a qualified statement. The poor section of the population that is affected most by structural adjustment is but one of the socio-economic types found in a typical integrative corridor. While all are affected by structural adjustment, other corridor communities such as suburbanites and established township dwellers may benefit more directly from engaging in appropriate forms of institutionalised participation. All this points to a need for flexibility and local engagement since the fourth dimension of time (rapid contextual change) has a significant impact on the development of marginal corridor spaces.

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[12] definition based on questionnaires which use the following criteria (a) did not work during the last seven days (b) want to work but are unable to start work within a week of the interview.

[13] Definition as for the official definition but expanded to include (c) have taken active steps to look for work or to start some form of self-employment in the four weeks before the interview.

3.8. CONCLUSION

This CHAPTER is the first of three CHAPTERS that are jointly concerned with defining the context of corridor development in post apartheid South Africa. The table below synthesises the findings from the analysis of the six themes related to South Africa's political economy and indicates how this may be used to inform an appropriate strategy for urban design in South African corridor space (see CHAPTER 8).

VARIABLE (WHY?) CONTEXTUAL VARIABLES THAT RELATE TO SOUTH AFRICA'S POLITICAL ECONOMY.	RESPONSE/ACTION (WHAT ?) APPROPRIATE URBAN DESIGN RESPONSE
1. URBAN DUALISM Inequality, uneven local responses, dysfunctional relationship between mobility and access. Fusion of upper and lower circuits	- Context for practice is a compromise position. - Incremental approach to development. - Careful consideration of the status of roads. - Judicious use of best practice. - Reconsider the viability of pre-industrial typologies.
2. DOMINANCE OF A TECHNICAL/ RATIONAL MINDSET	- Be prepared to cajole with technocrats. - Recognise the importance of having urban design champions. - Aim to become more active/influential at a regional, policy making level. - Judicious translation and use of generic corridor elements. - Support the lobby for greater interdisciplinary integration.

VARIABLE (WHY?) CONTEXTUAL VARIABLES THAT RELATE TO SOUTH AFRICA'S POLITICAL ECONOMY.	RESPONSE/ACTION (WHAT ?) APPROPRIATE URBAN DESIGN RESPONSE
3. MARKET LED DEVELOPMENT Focus on outward looking projects	- Accept the likelihood of being involved in finite projects rather than open ended projects. - Accept that the scale of proposed developments require that urban designers understand regional dynamics. - Urban design involvement at two levels; 1. The strategic level when projects are first mooted. 2. As part of interdisciplinary teams once projects have been approved mostly contract based and related to the activities of a PPP. - Maximise the catalytic potential of projects.
4. METROPOLITAN GOVERNMENT Neo-liberal urban management system	- Consider the vacuum created by a planning profession in turmoil as an opportunity to strengthen the urban design ethos within public institutions and in education. - Consider the metropolitan wide strategic planning approach as an opportunity to strengthen interdisciplinary co-operation. - To assist in making five year strategic frameworks more than budgetary frameworks but part of a well considered spatial vision. - Utilise the new opportunity to look at cities in a holistic fashion where local interventions may become part of a nested hierarchy of scales. - Utilise new opportunities to consider cities in a holistic fashion where local interventions respond to a wider hierarchy of urban scales.

VARIABLE (WHY?) CONTEXTUAL VARIABLES THAT RELATE TO SOUTH AFRICA'S POLITICAL ECONOMY.	RESPONSE/ACTION (WHAT ?) APPROPRIATE URBAN DESIGN RESPONSE
5. MASS MIGRATION AND RAPID URBANISATION	- Accept that focused investment in limited infrastructure will not significantly improve livelihoods in the short term. A parallel empowering strategy needs to be developed. - Accept that urban design wisdom as conceived in the industrialised world fits uneasily with the uncertain and transient context associated with mass migration. New strategies or hybrid strategies need to be developed. - Accept that building social capital is as important as creating empowering spaces. - Think incrementally. - Engage with communities as a way of overcoming the inadequacies of institutionalised participation.
6. STRUCTURAL ADJUSTMENT	- Accept that, given reduced life chances, participants will not always act rationally and in ways expected by stable western democracies. - The aims of institutionalised participation will be compromised if basic needs issues are not adequately considered. - Accept that people will continue to rely on informal networks and traditional value systems until certain basic needs are met. (Structural adjustment extends this phase). - Acknowledge that structural adjustment has significant impact in corridor space because of the large proportion of poor residents.

CHAPTER 4: THE URBAN-SOCIOLOGICAL CONTEXT OF CORRIDOR DEVELOPMENT IN SOUTH AFRICA

4.1. INTRODUCTION

4.1.1. AIMS AND SCOPE

This CHAPTER is the second of three CHAPTERS that jointly aim to define the context for the practice of urban design in South Africa's post apartheid corridors. This CHAPTER: URBAN-SOCIOLOGICAL CONTEXT considers the influence of heterogeneity and transience.

The aim of the **first part** of this chapter is to indicate the extent to which South African urbanites are caught in a to-and-fro, between *tradition* and *modernity* and between authority and free participation. These are subtle forces that have an enormous impact on power relations and which play a significant part in defining the context for urban design praxis in South Africa. The three contested corridor zones; the outer zone (agripolitan zone), intermediate zone (townships zone) and inner zone (suburban zone) are used as the basis for the analysis.

The aim of the **second part** of the chapter is to indicate the variable impact of identities on corridor development by analysing two international cases, i.e. Perth, Australia and Kuala Lumpur, Malaysia. These cases are used to illuminate the South African case.

PART I: **THE INFLUENCE OF IDENTITIES IN THE SOUTH AFRIC CORRIDOR CONTEXT**

4.1.2. BACKGROUND

The higher order framework for urban development as dictated by South Africa's political economy was discussed in CHAPTER 2. This CHAPTER deals with an important sub-theme of South Africa's political economy. It aims to answer the question: *How does and should cultural specificity and tradition influence corridor development in South Africa?* The urban corridor is typically a zone that stretches from urban to semi-rural, and which aims to integrate the low energy, semi-rural system with the established high-energy urban system. Identities in the extensive corridor zone are caught between the to-and-fro, between the traditional and the modern. Corresponding tensions are reflected in the national debate in post-apartheid South Africa where two seemingly incompatible political agendas co-exist; a **modern, democratic** agenda that supports reconciliation, nation building and internationally defined good practice on the one hand and a **traditional** agenda that supports an African Renaissance and Pan Africanism[1] on the other (Oranje, 2000; Barberton et al, 1998).

An analysis of the real and perceived impact of tradition is an important component of a research project which is presented in a foreign country since general comparisons and assumptions are easily made around issues of identity. A common assumption that became evident from various debates in the United Kingdom, is that *post-colonial* and *post apartheid* means/should mean a desire on the part of Africans to shun modernity and to return to a state of communal co-operation and vernacular forms that existed before colonialism. Authors such as Peil & Sada (1983) and Wisner (1988) have noted that the overt manifestation of tradition in the urban contexts of a rapidly urbanising Africa is a symptom of transience rather than of the conscious importation of tradition. The author's experience as a practitioner in South Africa indicates that it is common for the growing number of middle class black South Africans to consider suggestions of return by outsiders as patronising. This analysis will however indicate that traditional attitudes remain enormously influential amongst rural to urban migrants and that it is a powerful force that

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[1] Pan-Africanism is a reactionary movement which has championed the notion of a distinct African identity built around a strong emotonal commitment to unity based on racial consciousness and the common experience of colonialism Oranje, 2001: 4).

needs to be considered by built environment practitioners if they are to achieve their enabling and integrative aims.

Another misconception is that democracy is a neutralising force which permeates all levels of society and that institutionalised participation is desirable and feasible at all levels and at all times once people have cast their democratic votes. It is often new democratic governments themselves that are guilty of this ignorance. Democracy has come to many developing countries in a sporadic fashion, yet its ethos remains patient and evolutionary. The democratic networks and modes of practice take time to permeate all levels of society, a fact that is mostly disregarded in the interest of bureaucratic expediency.

Notions of free and equal participation disregard the high level of transience that characterises South African society. Chipkin (1996:227) notes that democracy not only means free competition of ideas, but a radical opportunity for reconfiguring of social forms. Dietz (1998) notes that, when the social welfare floor is weak, as in the case of many Latin American and African countries, rational behaviour and democracy as perceived in the North is seriously compromised (see discussion on the impact of structural adjustment in CHAPTER 3). The pace of transformation will undoubtedly be slower amongst rural migrants who are involuntarily locked into modes of communal co-operation. South African urban managers relate current methods to an ideal end state that matches their strategic vision, thus conveniently assuming the existence of a playing field in which civil society is made up of two relatively homogenous and static stakeholder blocks; the one white and wealthy and the other black and poor. It is particularly the latter block that has been simplified and homogenised in urban management strategies. The projected ideal dominates current practise, without sufficiently considering ingrained inequalities and the different levels of transience from the traditional to the modern and from rural to urban (Oranje, 2002).

4.1.3. METHODOLOGY

The methodology of this CHAPTER comprises three parts:

- **First**, the construction of a theoretical framework for analysis which draws on Giddens' (1991) notions of *the modern* and *the traditional* contemporary urban society.

- **Second**, relating Giddens' notions of *the modern* and *the traditional* to corridor development in South Africa and investigating the way in which these forces contribute to the context for participatory and enabling urban design in corridor space. A combination of fieldwork data and secondary sources are used to support the arguments.

- **Third**, indicating the extent to which identities have influenced corridor development in selected international cases and proposing how this may influence the formulation of strategies for participatory and enabling urban design South Africa. A subjective analysis of identity and corridor space in Australia and Malaysia is based on fieldwork findings and is related to the political economies of these two countries.

4.2. THEORETICAL FRAMEWORK: *THE TRADITIONAL* AND *THE MODERN*

Giddens (1991:15) notes that modernity produces certain distinct social forms, of which the nation-state is the most obvious. The *nation state* and *modernity* are thus inseparables in urban-sociological terms.

How far can and should development practice go in considering *tradition* in a modern urban form production process? Post modern urban theory, democratic constitutions and policy frameworks often dictate that agents of development should adopt 'optimally inclusive methods' that accommodate multiple identities (Harvey, 1989, 2000; Castells, 1997). South Africa's Reconstruction and Development Programme is no exception and contains the following central principle (RDP 1994:5):

> *Principle III: A people driven process.* Our people, with their aspirations and collective determination, are our most important resource. The RDP is focused on our people's most immediate needs, and it relies, in turn, on their energies to drive the process of meeting these needs. Development is not about the delivery of goods to a passive citizenry. It is about active involvement and growing empowerment.

The next question that one may reasonably ask is: *How much of the 'aspirations and collective determination' will relate to traditional, hierarchical attitudes and how much of it will relate to modern, multiple identities?*

Giddens (1991: 1) notes that it is difficult for the modern nation state, which is essentially post-traditionalist, to accommodate tradition and that the connections are more complex and problematic than was previously realised. A rethinking of the nature of modernity must go hand in hand with a reworking of basic premises of sociological analysis. Modern institutions differ from all preceding forms of social order in respect of their dynamism, the degree to which they undercut traditional habits and customs, and their global impact.

The degree to which traditional habits are undercut in Africa is tempered by resentment over the repression of such habits under colonial rule. There has been an espoused desire amongst many African leaders to reclaim African identities and to re-introduce African values under the banner of *Pan-Africanism*. Following on the Arusha Declaration of 1967 Tanzania famously experimented with a brand of African socialism which Hodd (1988:43) describes as *'a pragmatic philosophy, aiming to combine the traditional moral obligation of mutual support with the imperatives of nation building'*. Its scholarly president, Julius Nyerere, was suspicious of the role of cities and foreign technology in achieving *Ujamaa*, or African socialism. His development approach focused on villages (rather than cities), on agriculture and on socio-cultural relations, the roots of which lay in communal, pre-colonial African life. The policy of *Ujamaa Vijijini* aimed to bring peasant producers together in villages for co-operative production. At first the policy was voluntaristic, stressing that the peasants themselves should initiate, control and run their villages. Later 'viligization' was actively enforced by the state (Slattery,1985:12; Nyerere, 1966:162-71). Following its independence in 1980, Zimbabwe similarly adopted a rural development strategy by establishing development centres in proximity to tribal trust land (Drakakis-Smith, 1997:18).

Figure 4.1: Location of Tribal Trust Land in Zimbabwe (Drakakis Smith, 1997: 18).

By the time apartheid had collapsed, the socialist rural development strategies of other African countries had proven a failed experiment, not least because of the end of the cold war and the onslaught of global capitalism. Because of these realities and because South Africa's transition was negotiated[2] and greatly influenced by global capitalist agendas, South Africa *'now boasts a constitution that exemplifies many of the most hallowed political traditions of modernity'* (Marais, 2000: 303).

Despite a politically induced preference for modernity in post apartheid South Africa, many authors have pointed to the continued cleavage between *modern* and *traditional*. In his book *Citizen and Subject*, Mamdani (1996) notes that this cleavage ranks as the most fundamental, unresolved contradiction in much of post-colonial Africa. Marais (2001:303) notes that millions of South Africans continue to live under the rule of traditional chiefs operating in the ambit of customary law. At the root of the chief's power is an admixture of ethnicized tradition, inherited authority and clientelism that fits uneasily with the principles of individual rights and democratic processes that underpin the new political system. The upshot has been a growing series of compromises and concessions to traditional leaders. At the time of writing there was escalating friction between the ANC government and traditional leaders on *'market friendly clauses'* contained in land reform bills. Despite

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[2] The negotiated phase refers to the time between Nelson Mandela's release in 1990 and the first democratic elections in 1994, when a transitional government was in place.

growing tensions, development strategies remain overwhelmingly geared towards the aspirations of private enterprise (Barberton et al 1998).

4.3. SOCIO-ECONOMIC DIFFERENTIATION IN SOUTH AFRICAN CORRIDORS

4.3.1. INTRODUCTION

Figure 4.2. indicates sociological differentiation linked to typology as found in the laboratory of the MCDC corridor. The MCDC corridor contains the full range of typologies found in the post apartheid South African city and therefore becomes a useful case study for analysis. The methodology, which uses typology to generate sociological profiles and to direct urban development was motivated in CHAPTER 1.

Four of the typologies that were identified during fieldwork and are shown in figure 4.2. occupy the majority of the land associated with integrative corridors:

- Typology **G**: The agripolitan fringe, characterised by subsistence lifestyles.
- Typology **D**: Lower and lower-middle income suburbs with transient communities.
- Typology **C**: Apartheid style township with informal backyard shacks
- Typology **F**: Vacant land, which is increasingly becoming sites of illegal land invasions as will be discussed in CHAPTER 7.
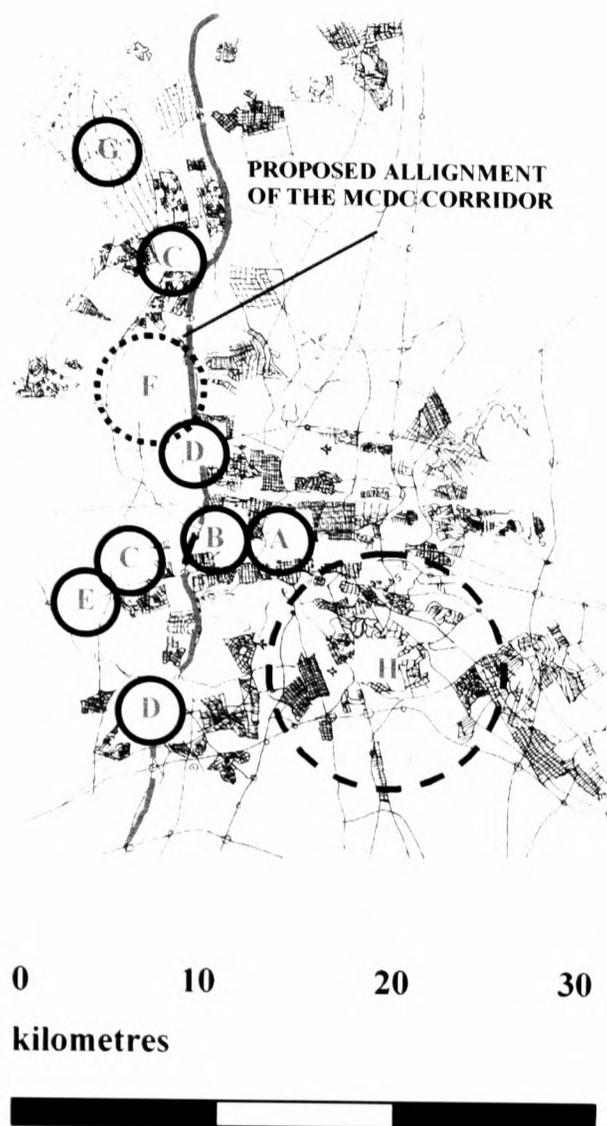
KEY

A: Inner city. Large influx of informal traders. Area of capital flight.

B: Slum on the western edge of the inner city. Previously an area cleared of Indian and Black residents by the apartheid government.

C: Apartheid style township with informal backyard shacks. Established communities.

D: Lower to Lower-middle income suburbs. Black and white residents. Typical suburban subdivision and mono-functional residential land use

E: Sprawling informal (shack) settlements. Recent migrants including vast numbers of illegal aliens from neighbouring states.

F: Apartheid era buffer zone. Industry and white owned smallholdings. Land reserved for commercial investment/urban port.

G: Agripolitan fringe. Evidence of subsistence culture.

H: Middle- to high income suburban zone with recently constructed office developments and American-style shopping centres (whites & the new black elite)

Figure 4.2: Socio-economic differentiation in Pretoria and in the MCDC Corridor zone

4.3.2. AN ANALYSIS OF THE FIRST CONTESTED ZONE: THE AGRIPOLITAN FRINGE

4.3.2.1. INTRODUCTION

This section considers sociological variables associated with the agripolitan fringe, the first of the three contested zones that were identified and linked to typologies (Typology G) in subparagraph 4.3.1.

Extended family (interviewees) with a
student(interviewer)
from Technikon Northern Gauteng

demarcated communal footpath

wattle & daub house

Thomas Hunsvi: an illegal
immigrant from Zimbabwe.

Urban agriculture next to the landlord's shed. Landlords
assume a political role in the agripolitan fringe in a way
similar to that of household heads in the traditional Tswana
culture.

Thomas Hunsvi's modest home
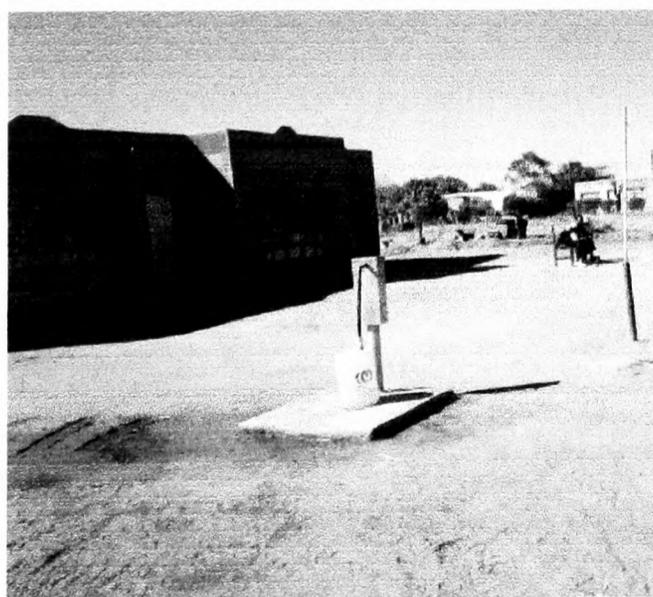
water stand pipe

pit latrines

wattle & daub house

Figure 4.3. Images of the Winterveld region
(agripolitan zone of the MCDC Corridor).

Figure 4.4: Extract from an aerial photograph of Pretoria's agripolitan fringe. Relatively low densities enable a subsistence lifestyle.

4.3.2.2. MEDIATION BETWEEN *THE TRADITIONAL* AND *THE MODERN*: THE INFLUENCE OF RURAL-TO-URBAN MIGRATION ON IDENTITIES AND POWER RELATIONS IN THE CORRIDOR ZONE

The influence of rural-to-urban migration on urban identities deserves attention since corridor zones in South Africa have been receptors of large numbers of migrants who infuse cities with traditional identities. Since 1994 urban boundaries have been extended by using fingers (corridors) that reach out and aim to connect peripheral, informal communities with the formal urban system. In the 'continuity and change' equation change is presently the dominant force in much of the corridor zone. In CHAPTER 2 we have considered the macro level 'pull-forces' that have resulted in rural urban migration and rapid urbanisation in South Africa. This section considers the impact of this process on identities by relating the associated infusion of traditional values to corridor development.

Figure 4.5. Traditional, rural subsistence culture. Molepolele Tswana Village in 1913: Tswana settlements retained their traditional agri-pastoral character into the twentieth century (Lye, F and Murray, C 1980: 57).
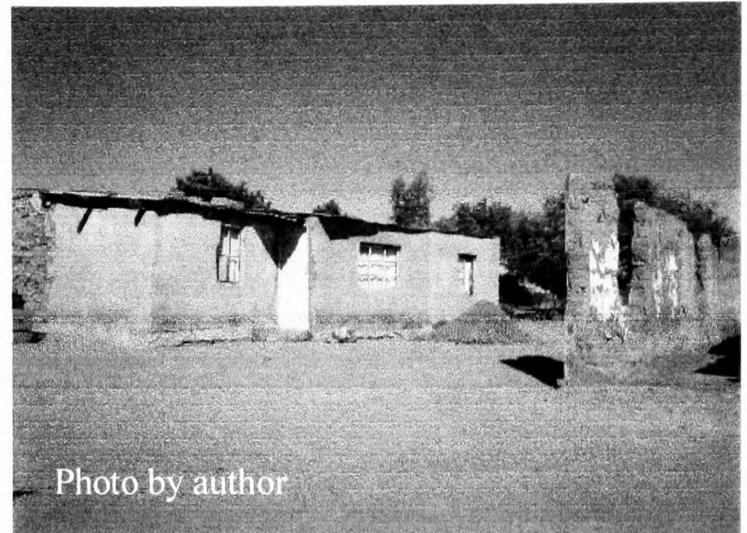
Figure 4.6. Hybrid homestead in Winterveld (2002). Wattle and daub walls and a sheet metal roof. Change from rotund to rectangular forms is considered an improvement since it allows for lateral extension.
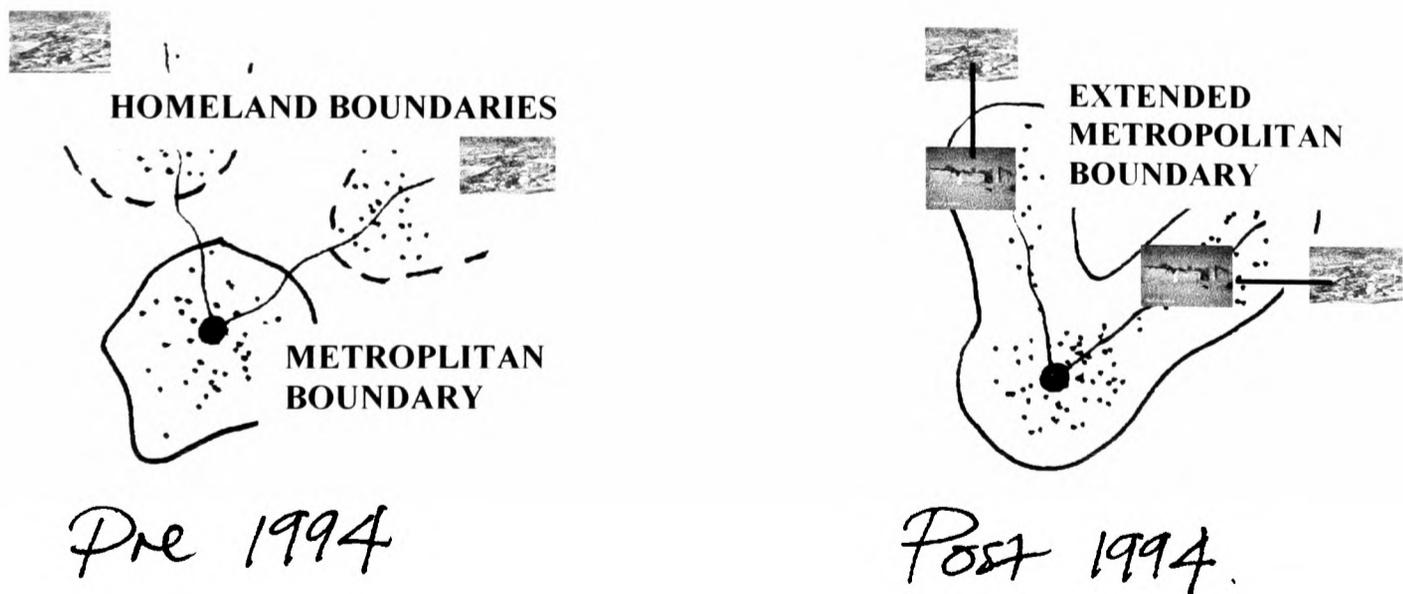
Figure 4.7: Pretoria's extended rural - urban continuum

FIGURE 4.8: DIFFERENT SPATIAL RELATIONSHIPS OF CITIES TO TRADITIONAL AREAS

PRETORIA
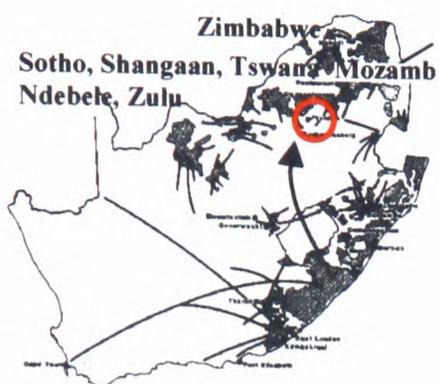
Intimate spatial relationship with traditional African tribal areas (shaded).

CAPE TOWN
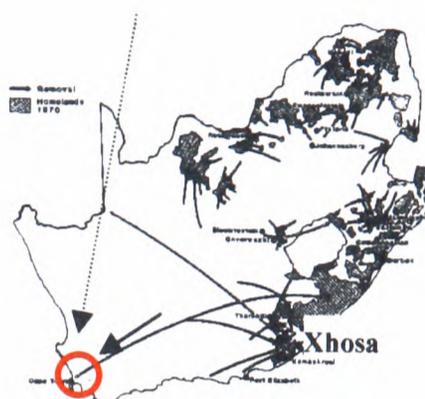
Distant spatial relationship with traditional African tribal areas (shaded).
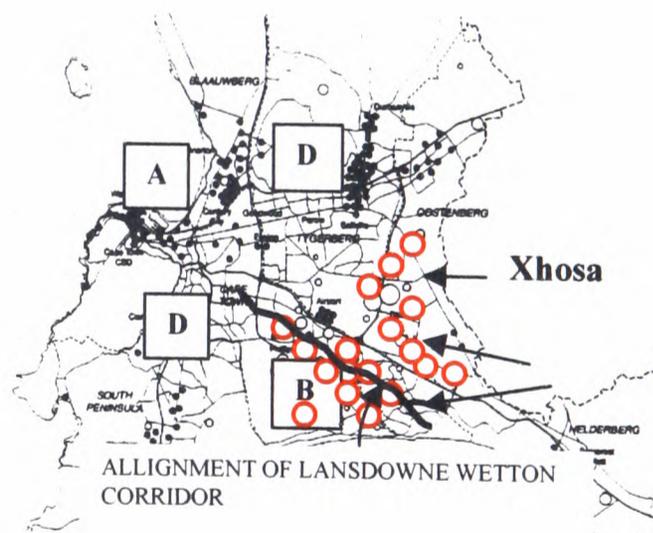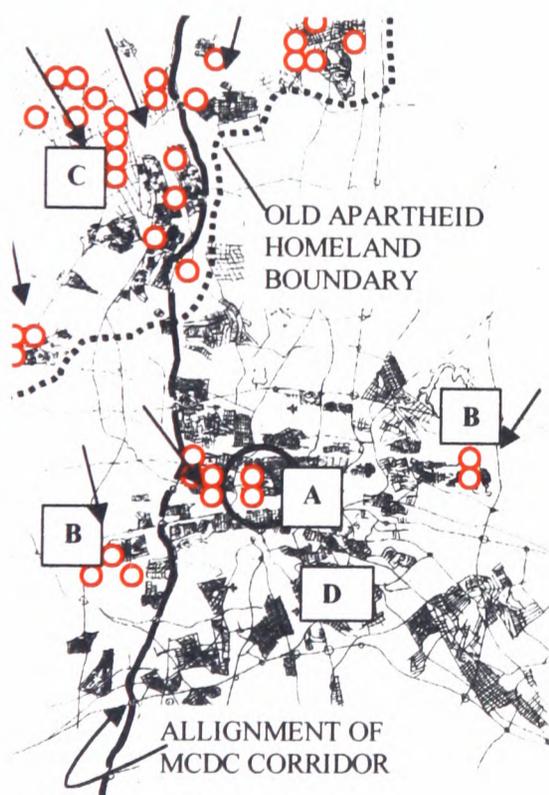
Adapted maps of Pretoria (left) and Cape Town (right) based on fieldwork observation. The maps show the location of new migrants/informal settlements i.e. the zones of infusion of traditional values in relation to proposed corridors and in relation to A: the inner city, B: the old apartheid townships, C: the area beyond the old apartheid homeland boundary and D: the suburban zone of affluence

Though the formalising of the power of traditional authority is exerted almost exclusively in rural areas, free and rapidly escalating movement between rural and urban areas means that traditional attitudes are being transferred to urban areas where it limits the viability of a progressive, democratic society, at least in the short to medium term (Marais, 2000:302). The famous sociologist Robert Park considers the short-term frustrations associated with migration as the beginnings of a favourable long-term outcome:

> *Migrations, with all the incidental collision, conflicts, and fusion of peoples and cultures which they occasion, have been accounted among the decisive forces in history. Every advance in culture, it has been said, commences with a new period of migration and movement of populations (Park in Sennett, 1969:131).*

Theorists differ in their opinion of the extent to which the traditions of new arrivals are sustained in cities, not least because each context presents a unique set of social, political and economic variables. There is agreement on the fact that cities are by definition heterogeneous and diverse and tend to replace communal values with individual values within a relatively short space of time. This was famously described in the *gemeinschaft* and *gesellschaft* theories of Ferdinand Tonnies, who lamented the loss of community in cities (Tonnies, 1957). Factors such as the scale of migration to a city, the city's level of primacy and distance from rural places of origin all influence the rate at which tradition-conscious migrant societies are transformed and absorbed into a more secular urban society. Redfield and Singer (in Sennett, 1969:216) note that such transformations need to be understood in relation to the entire pattern of urbanisation within a specific society.
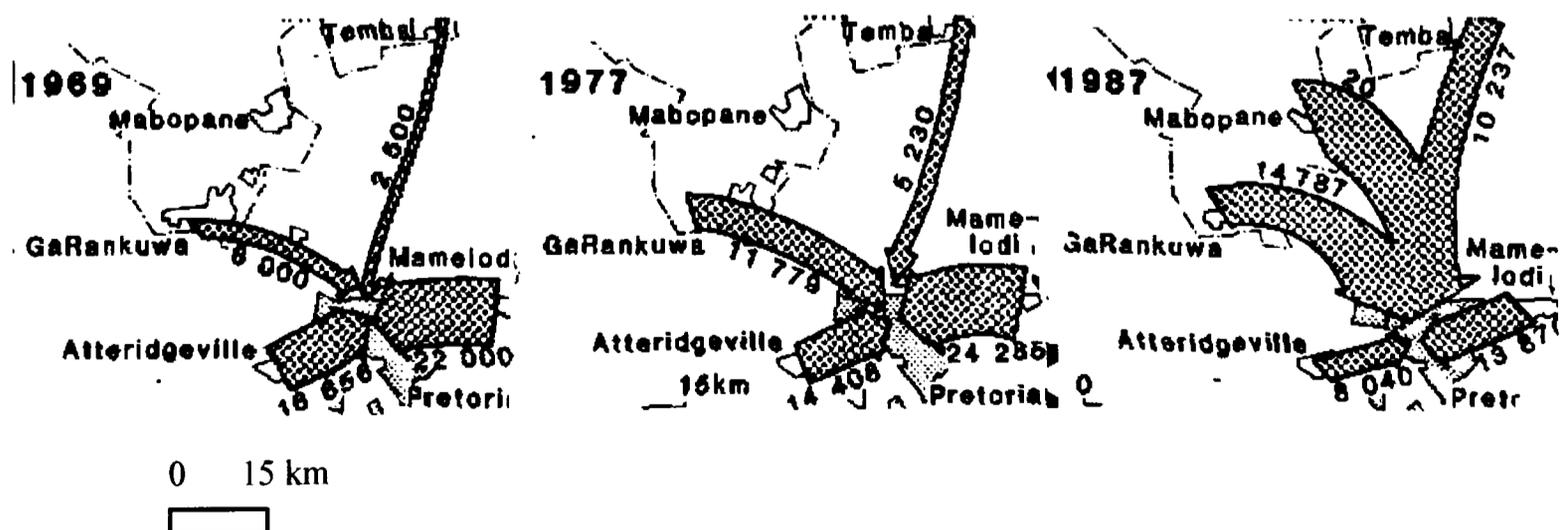
Figure 4.9. Daily commuting pattern from homeland areas to Pretoria (Christopher, 2001: 92)

A comparison of Pretoria and Cape Town highlights some of the contextual variables (figure 4.8). Because of Pretoria's proximity to traditional (homeland) areas, the urban-traditional continuum is stronger than in Cape Town. Pretoria also experiences a great influx of daily commuters who literally and figuratively oscillate between *the traditional* and *the modern* while migrants to Cape Town have been permanently uprooted.

The high rate of post 1994 rural-urban migration in South Africa compounds the problem of integrating migrants, since an established, modern and secular urban society is not capable of counterbalancing and transforming the habits of a tradition-conscious migrant population to conform with politicians' and planners' expectations. The main agent for transforming traditional, communal values into modern, individualist values is education and formal employment which generates higher levels of independence (Green Paper on Planning: DOCD, 1999). With unemployment rates approaching 40% in South African cities, reliance on communal co-operation is sustained (Crankshaw, 1996; Chipkin, 1996). Mass migration in South Africa and indeed in the entire post colonial Africa approaches the status of *secondary migration*, which is defined by Western theorists as *'the invasion of a culture-civilization by alien colonists or conquerors'* (Redfield and Singer in Sennett, 1969:216). The secondary pattern produces not only a new form of urban life in conflict with local (Euro-centric) values, but generates new and collective (Afro-centric) urban identities.

Drakakis-Smith (1987: 32) notes that in the developing world, migration is typically not an individual affair or a defection, even when only one person migrates. Usually it is the consequence of a collective decision based on information provided by previous migrants from the same rural community. The consensus approach creates obligations which results in a 'spatially extended rural-urban social field' which in turn sustains dimensions of *the traditional* within a new, hybrid urban identity.

4.3.2.3. REMNANTS OF A ROOTED AFRICAN IDENTITY AND ITS INFLUENCE ON POWER RELATIONS AND THE USE OF SPACE IN THE POST APARTHEID CITY

The preceding section has indicated that, through migration, there has been a significant infusion of African identities into South African cities since 1994. The dimensions of an African identity has been thoroughly researched and its subtle dimensions have been well documented. Kinship, inherited authority, dominance of males over females, reciprocity, delegation of power, respect for elders, belief in ancestral powers, tight knit communal organisation and ties to the land have all been identified as defining characteristics of an African identity and was confirmed during fieldwork in the Winterveld region (see Annexure 7: South African Fieldwork Report). Many of these characteristics led to practices which are considered corrupt and irreconcilable with democratic principles. While constitutions are overtly democratic, identities seriously affect the way in which many Africans relate to urban space and the power structures in Africa's new democracies. It also clearly affects people's ability to act rationally in the way it is perceived in an individualist western/modern society (Davidson,1979; Peil & Sada, 1984; Wisner,1988; Hull, 1976).
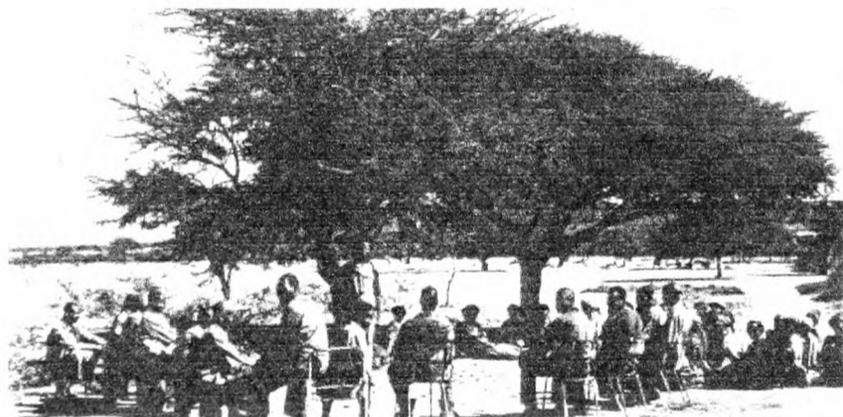
Figure 4.10: a typical post apartheid scene; a mid week meeting of elected elders in White River to discuss a mooted agri-village concept (Housing in Southern Africa: March 1999)

The actions linked to an African identity not only impact on local development but affects the integrity of higher order political structures and the effectiveness of a strategic urban management system that is based on a city-wide and institutionalised participation process (see Annexure 3: Review of the South African Planning System). While democratically elected leaders may be considered to act 'irrationally' and 'irresponsibly' when considered strictly from a democratic *good practice* perspective, a tradition-conscious electorate will mostly respect such decisions. The clearly identifiable pattern of one-party states and long

serving, often corrupt, post colonial African leaders provide evidence of the impact of such traditional principles as *respect for elders* and *delegation of power*. This inevitably ratifies similar attitudes in lower tiers of government, in metropolitan government and ultimately amongst community leaders. Even when states have introduced the democratic vote and have secured the conditions for political competition, pluralism, and the protection of human rights, democracy remains far from consolidated (Marais, 2000).

Hastings Banda	**Daniel arap Moi**	**Kenneth Kaunda**	**Mobuto Sese Seko**	**Robert Mugabe**
President of Malawi 1964 -1994	President of Kenya 1978 - 2003	President of Zambia 1964 - 1991	President of Zaire 1965 - 1999	President of Zimbabwe 1980 -
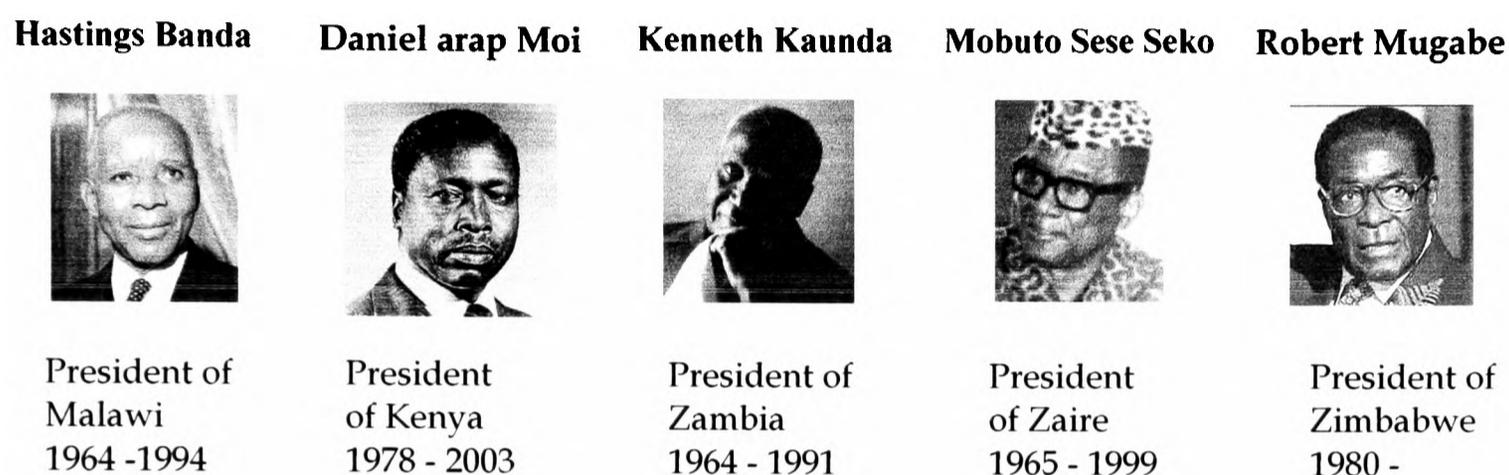
Figure 4.11: A recent history of autocracy in sub Saharan Africa

According to the Institute for Democracy in South Africa (IDASA, 2001) Southern Africa contains four emerging liberal democracies. As of 1999, based on ratings of political and economic rights, South Africa, Botswana, Malawi and Namibia were all rated as "free" and thus fell in this category. Larry Diamond (1999a) defines liberal democracies as those that combine genuine political competition with a full range of political freedoms and civil rights. Yet even these countries run the risk of eventually degenerating into what Diamond (1999b) calls semi-democracies because the existence of single dominant political parties limits competition in practice. The *transitions* from authoritarianism toward democracy in Southern Africa were driven by a unique set of external and internal circumstances and actors which were often more interested in gaining economic and political control than to listen to the voice of the grassroots. Many also consider the final capitulation of the apartheid state and the subsequent negotiated constitution as much an outcome of external economic pressure as the result of the internal, revolutionary struggle (Sisk, 1994; and Bratton & Van de Walle, 1997).

Because of the continued existence of external and internal forces, there is an ambivalent attitude towards *the traditional* at a national political level, which ultimately affects urban development. Despite an acute awareness of African customs amongst politicians, the ANC was not particularly interested in explicitly taking a '*traditionalist turn*' at the time it came to power. It was more interested in nation building to prevent the perpetuation of a dualist white/rich, black/poor society and to eradicate poverty by creating a climate conducive to foreign investment.

4.3.2.4. ARGUMENTS FOR MINIMISING THE INFLUENCE OF THE *TRADITIONAL* IN POST APARTHEID URBAN MANAGEMENT STRATEGIES

Apart from downplaying tradition in the interest of nation building as argued by politicians, other more subtle reasons have been given for minimising the importance of tradition in urban development.

- **First**, people come to cities in the hope of securing work and of generating improved livelihoods. The agenda is not consciously one of transplanting traditional values and of shifting rural boundaries closer to the city. In the absence of employment opportunities, a whole range of social ills plague the city. Urban managers have therefore been concerned with economic- rather than social integration and have preferred to encourage the emergence of a post-colonial subject that is capable of bargaining and improvising rather than a passive, recipient of public goods (Chipkin,1996). Urban managers have reverted to strategic approaches which are seen to be most effective in generating spatially integrated and thus enabling spaces. Dewar and Uytenbogaardt's polemic and hugely influential book *South African Cities: A Manifesto for Change (1991)* fits this mould by supporting a regional approach to urban reconstruction (see CHAPTER 6 for a discussion of their regional, *capital web* approach).

- **Second**, cities of sub Saharan Africa are recent and essentially modern events. They are arenas where close interaction and improved access to knowledge leads to progress. Progress is maximised in democratic space; that is, the space granted by democracy to plural and diverse political and social competition in which the

outcome is not predetermined. The Pretoria academic Mark Oranje (2000:5) notes that this is a plausible reason for downplaying the importance of tradition since African tradition favours communal knowledge over universal knowledge, thus minimising the capacity of Africans to compete and to become integrated into a modern world. He notes that post-colonial does not denote 'return' or a specific phase in time, but rather a liberated state of 'seeing' and 'acting' on the various layers, idioms and metaphors which have been imprinted on the continent. Through its nationalist policy of separate development in dedicated homelands and townships, the apartheid state denied access to modernity by *'restoring ethnically homogenous, rural African communities'* in remote homelands or puppet states. Now that new freedoms exist, diversity and access to a universal body of knowledge should be embraced. Democracy guarantees a much greater level of freedom for individuals than those which existed during and before colonisation.

- **Third**, the lack of African urban precedent. The concept of 'return' for millions of new African urbanites is complicated by the absence of traditional market towns[3] in pre-colonial Africa.

> *African society remained essentially agrarian and private land ownership was an alien concept. Nearly all human habitations in Africa possessed a certain sacred quality. The land beneath them belonged not to the living, but to the dead, the ancestors. Thus, even in town there was a sense of country (Hull, 1976:42).*

and

> *Social change and development are often led by cities, and the post-independence period in Africa. The growth in the number and size of cities has been a particular phenomenon of the twentieth century (Peil & Sada, 1984: 1).*

The absence of a substantial urban tradition in sub Saharan Africa means that mushrooming twenty-first century cities are huge laboratories in which progress will be achieved through risk and experimentation, not by a search for a non-existent indigenous urban culture.

4.3.2.5. ACTIVE ENGAGEMENT AND BUILDING TRUST

For the poor and illiterate flooding to the cities the new freedoms and detachment from community is intimidating. Migrants are intimidated not only by the urban context, where space has been separated from time and by universal principles, but by the liberal mindset of an urbanised and educated black elite that is at the forefront of a new class struggle of *insiders* and *outsiders* (Marais,1998). Access to improved education is seen as the most important vehicle towards identity formation and knowledge creation, which may in time overcome the limits of tradition. Seepe (2002:1) considers the problem from a different perspective: he notes that the project of identity formation and knowledge creation demands of us to go beyond simply removing barriers which exist in the public discourse and in legal frameworks. It requires a process of unmasking the neutral and universal which requires introspection on the part of experts.

In an article titled *'Putting Community Participation into Development Work: The Impossible Case of the Winterveld'* De Clerq (1994) outlines the difficulties encountered by development practitioners in relating to traditional attitudes in a peripheral location of the Mabopane Centurion Development Corridor. The sociologist Owen Crankshaw (1996) recounts similar problems in the Gauteng township of Bekkersdal while Barberton, Blake and Kotze (1998: 268) note the following:

> *'Many South Africans have an inordinate respect for people in authority. They see the holders of certain positions as having rights to do things and to enjoy privileges different from ordinary people. As a result, they are disciplined not to question the behaviour, decisions or treatment meted out by the police, magistrates, church ministers, headmasters and teachers, doctors, lawyers, government officials and consultants'.*

Fieldwork conducted in the Winterveld (see Annexure 7) indicates that many residents declined to answer questions and referred students (interviewers) to landlords who held delegated power according to African tradition. Residents were often fearful of community leaders who typically become 'strong men' (autocrats/gatekeepers) once elected. Schaug (2003) recounts similar experiences in Houtbaai in the Western Province. Students who were themselves mostly from the Tswana ethnic group admitted to finding it difficult to probe older members of the community. Most students belonged to the upwardly mobile group of South Arican blacks who had access to education and whose parents could afford

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[3] A limited number of market towns such as Zanzibar, Mombassa and Gedi were established on the African East coast, but these were developed by migrant Arab traders rather than by an indigenous African culture.

to pay for their secondary education. There was a clear hesitancy amongst these students to engage with informal communities. The exercise required that each student post two stickers on an aerial photograph which indicated houses and shacks that they later had to visit to interview the occupants. The area covered by the aerial photograph was clearly divided into quarters of middle class houses and temporary shacks. Students were given a free choice to select houses/shacks. The result was that all the stickers were posted in a cluster over the zone of middle income households in the area shown on the photograph below (fig 4.9). When inquiring about this, students mentioned safety concerns and animosity towards immigrants while others privately admitted that it was plain snobbery.
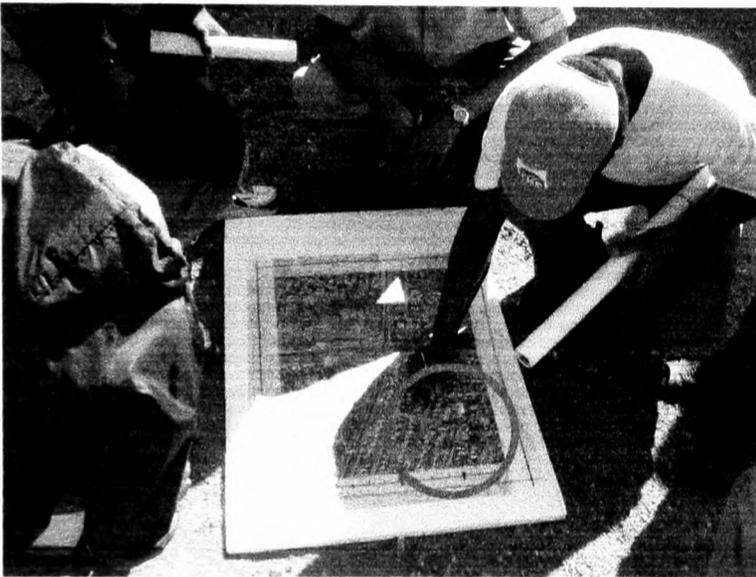
Figure 4.12: Photo taken on a reconnaissance trip in the Winterveld. Students from Technikon Northern Gauteng selecting houses for an action research project (see CHAPTER 7).

picture by author

The fact that the poor and uneducated often do not want to engage seems to be related to traditional patterns of authority and distrust of outsiders, while the student's unwillingness to engage may be related to emerging class differentiation and distrust. Distrust obviously impacts on a much wider scale than was encountered during my limited research. While it will be difficult for any outsider to make full sense of the traditional and abstract influences on personal behaviour, a lack of **trust** is central to the problem. This can be taken to a deeper level of sociological analysis. Maslow's (1999:71) notions of *'avoidance of knowledge as avoidance of responsibility'* amongst certain cultures, whereby acquisition- and divulging of knowledge from- and to outsiders is equated with disrespect towards leaders and elders on whom special powers have been bestowed.

Expert systems of the type generally employed by urban managers rely on trust without encouraging it. These systems are supported by technical knowledge and often violently penetrates many aspects of social life in the interest of the educated classes and of achieving good practice (Giddens, 1991:18). Social integration is largely brought about by

trust and trust can only be facilitated through education and active engagement (Green Paper on Planning, DoCD, 1999). Risk taking is central to modernity, but such risks need not compromise the many opportunities for education and engagement which may be encountered along the way.

4.3.2.6. LIMITATIONS ON OPPORTUNITIES FOR ENGAGEMENT

Interviews with urban designers and a review of various urban design frameworks suggests that the capacity for active engagement, and by implication for building trust is impaired by two dimensions of post apartheid urban management policy:

- **First**, the use of a centrally managed, institutionalised participation process as prescribed by the *Development Facilitation Act (DoCD, 1996)*.

- **Second**, the use of packaged sets of sociological data provided by expert sociologists.

Note: This section refers to South Africa's institutionalised participation process in the context of the discussion of modern and traditional value systems in the agripolitan fringe. CHAPTER 5 contains a more detailed discussion on the wider impact of a strategic urban management approach.

Figure 4.13 indicates the stages of a cyclical and scheduled public participation process. The main aim of the process is to seek public consent for the allocation of budgets for the construction of large public/municipal projects, including the provision of corridor infrastructure. The diagram, which is adapted from the process described in the framework for the MCDC Corridor (MCDC, 1997:2) shows the temporal engagement of consultants who are expert advisors rather than active participants.

MOVE ON TO NEXT PROJECT

INFORM
EXPERTS
INPUT
INTRODUCE
MEET
INTRODUCE

EXPERTS
PRESENT
WORK GROUP
COMMENT

EXPERTS
WORK GROUP
LAST OPPORTUNITY FOR COMMENT
TELL COMMUNITY

WORK GROUP
5 YEAR PLAN
SATISFIES AUTHORITIES
RETREAT

PACKAGED SOCIOLOGICAL DATA

DELEGATION OF RESPONSIBILITY

FEEDBACK TO COMMUNITY

PLENARY MEETING

QUESTIONNAIRES

SHOW COMMUNITY
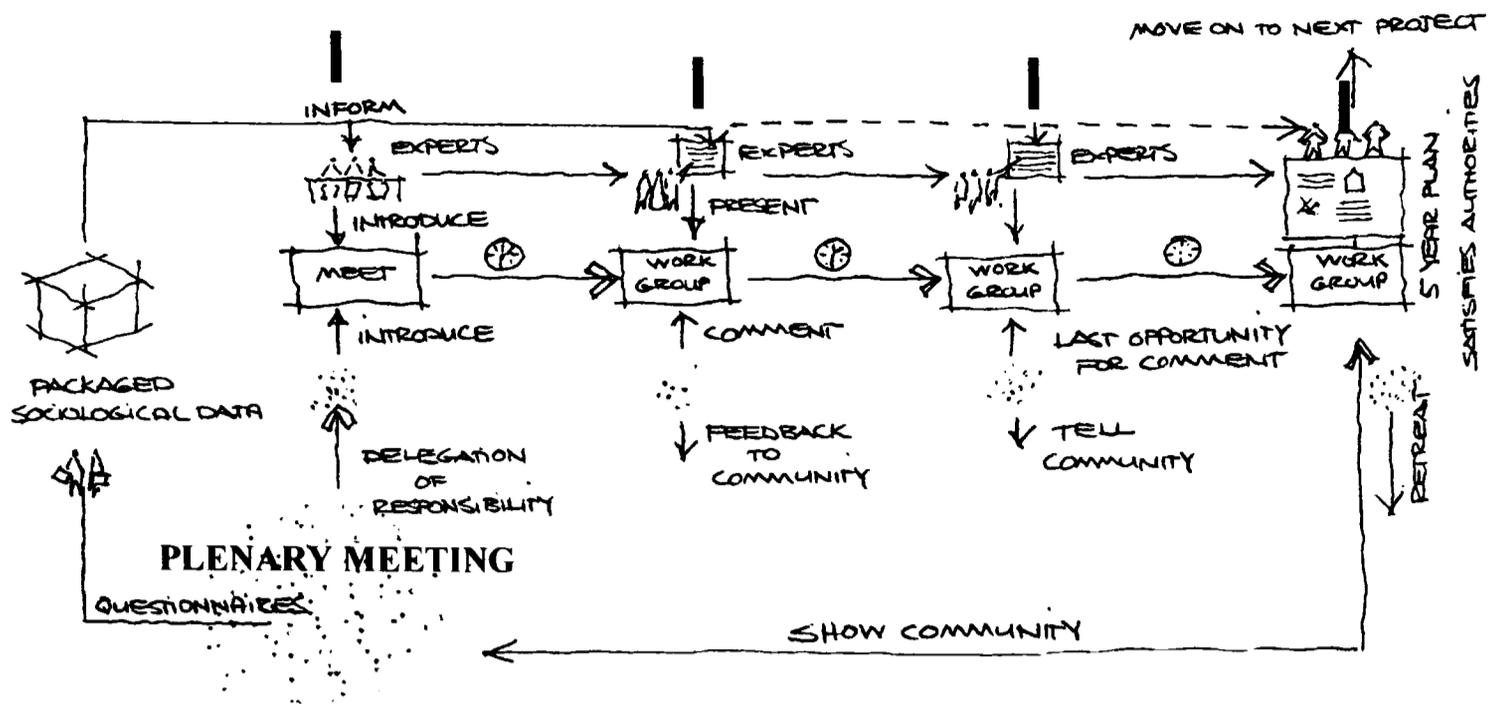
Figure 4.13: Scheduled engagement. The impact of the Development Facilitation Act's (1995) prescriptive public participation methodologies on interpersonal relationships.

Mpho Putu (pers com, 2002) of the Institute for Democracy in South Africa and Thomashoff (pers com, 2002) note that, while the process is well intended and meets the formal requirements of democratic urban management, it seriously undermines the potential for building trust by bracketing socio-economic groups in space and by strengthening the hand of the power elite. While aiming to be democratic, such practices are part of a linear decision making process that unwittingly sustains the traditional pattern of delegation in traditional African society. The methodology prescribes that working group members be elected at a plenary meeting and that the elected members are then given the responsibility to attend a limited number of scheduled workshops with development professionals (pers com Sonyane, White, Thomashoff 2002). While these members are expected to consult with local communities and give feedback, there is no guarantee of engagement. While the procedure may be appropriate in areas of the city where democracy has been consolidated (typically the apartheid style townships and in middle class suburbs), it excludes the possibility of real engagement in the transient inner city and peripheral areas where there is a high level of distrust

4.3.2.7. CONCLUSION: THE INFLUENCE OF TRADITIONAL VALUE SYSTEMS ON THE CONTEXT FOR PRACTICE IN THE AGRIPOLITAN FRINGE.

Two conclusions may be dawn from the analysis:

First, the *agripolitan fringe* represents a challenging context for practice. Strong links with rural hinterlands and uncertain aspirations towards modernity create confused identities. Differences are pronounced in the fringe and local residents are often reluctant or hesitant urbanites who are suspicious of the expert systems associated with democratic processes. The graph presented by Eraut (figure 4.14) suggests that design specialists who apply finesse and good practice in a detached or universal fashion may contribute to the alienation of transient communities. What is needed are less self-conscious generalists (reflective practitioner) who are willing to listen and learn before acting.
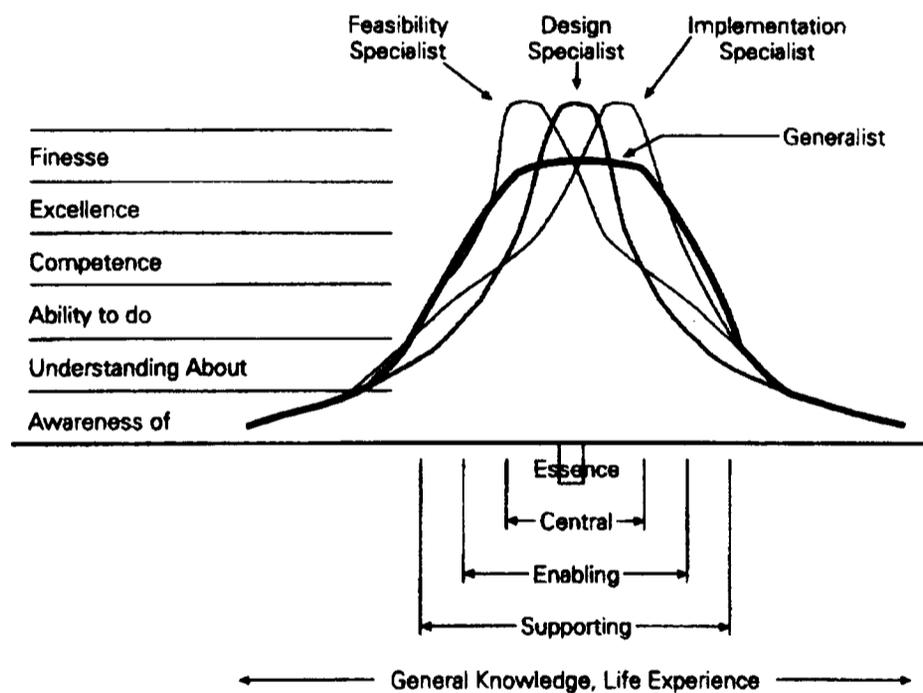
Figure 4.14. Eraut's (1994:219) relationship between experts and generalists.

- **Second**, the analysis suggests that engagement and building of trust is an important way of initiating agripolitan communities to democracy, something which institutionalised processes aims to enforce indiscriminately. Apart from satisfying basic needs, participatory urban development has an important educational role to play in the agripolitan fringe.

4.3.3. AN ANALYSIS OF THE SECOND CONTESTED ZONE: SUBURBIA

4.3.3.1. INTRODUCTION

This section considers sociological variables associated with suburbia, the second of the three contested zones that have been identified and linked to typologies (Typology D) in subparagraph 4.3.1.

Strategic urban corridors in South Africa may pass through previously exclusive white, suburban contexts as happens in the case of the Mdantasane-East-London-Corridor and Pretoria's MCDC Corridor where it affects suburbs to the west of the inner city. These zones too will be altered by the integrating forces of the corridor, despite the fact that most public funds are directed towards the marginalised zones. In-situ change occurs against the backdrop of a suburban culture that has traditionally been averse to change (Sennett, 1971; Richards, 1973; Palen 1995). As in other countries with an Anglo-Saxon, post war suburban culture, change is often aggressively opposed. Outside interference is considered a threat to the simplified lifestyles which suburbanites communities have 'earned'. The struggles in suburban corridor space typically revolve around densification and intensification. An interview with Perth town planner Phillida Rooksby indicated the emergence of anti-densification lobbying groups in Perth's northern suburbs while Patrick Troy's book *'The Perils of Urban Consolidation'(1996)* outlines the general level of resistance to change amongst Australian suburbanites. Urban designer Gerrit Jordaan (pers com 2002) experienced strong resistance to proposals for densification and intensification from South Africa suburbanites in Menlo Park, Pretoria.

Figure 4.15: Low angle aerial view of an upper middle income South African suburb (affluent settled)(Holt,1999).

4.3.3.2. SOCIO-ECONOMIC DIVERGENCE IN SOUTH AFRICAN SUBURBS

Studies such as Richards' *The Castles on the Ground: The Anatomy of Suburbia* (1973) indicates that suburbanites are prone to stereotyping. According to Sennett (1971) *'modern American society freeze men in the adolescent posture- a gross simplification of urban life in which, when rich enough, people escape from the complexity of the city to private family circles of security in the suburbs- the purified community'*. More recent studies such as that by Palen (1995), indicate that suburbia and suburbanites have long since evolved into a hierarchy of types. Narrow definitions associated with incipient, post war phases of suburban development are now being challenged[4]. With the collapse of inner city zones, the decentralising effects of improved communications and the resultant increase of service sector employment some suburbs have attracted new forms of investment while others have stagnated or declined. These dynamics have been well documented by authors such as Joel Garreau in *Edge City:Life on the New Frontier (1991)* and Mark Peel in *Good Times Hard Times: The Past and Future in Elizabeth, Australia (1995)*.

Based on the changes in suburban culture, Palen (1995) distinguishes four contemporary suburban types:

- **First:** *Affluent Bedroom.*

They come closest to the traditional stereotype of suburbia. Such places rank at the top in terms of resident income levels, degree of home ownership and proportion of residents employed as professionals and managers.

- **Second:** *Affluent Settled*

Suburbs are past their period of growth and may even be losing population. Housing stock is old but in good repair. Affluent settled communities tend to have a wider range of economic activities and are less purely residential than affluent bedroom suburbs. Decentralised shopping centres and office parks are dotted around highway interchanges which serve these suburbs.

- **Third:** *Low-income Growing*

Low-income growing suburbs are often the home of upwardly mobile white collar and blue collar workers. These communities are much less likely to fit the stereotype of suburbia.

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[4] Ray Grindroz (American New Urbanist). Lecture given at the Prince's Foundation, London, Nov 2002.

- **Fourth**: *Low Income Stagnant*

Low income stagnant suburbs are suburbs by definition but do not fit the suburban stereotypes. They are essentially satellite cities rather than suburbs, and they have the full range of economic activities associated with the city. They also have the full range of problems such as crime and drugs associated with central cities.

When Palen's four categories of contemporary American suburbs are translated to the Pretoria metropolitan area, it displays the pattern as illustrated in figure 4.17 (top left image). The map indicates the clustering of *Low Income Growing* and *Low Income Stagnant* suburbs in the western part of the city, which corresponds with the alignment of the proposed MCDC corridor. The Pretoria case is a microcosm of suburban change occurring in South African cities.

During the apartheid era, the zones that are now defined as *Low Income Stagnant* traditionally housed blue collar workers and low income civil servants employed mostly by the parastatal Iron and Steel Corporation (ISCOR), by the apartheid military and by the government departments of the apartheid state. After 1994 these organisations either collapsed or were radically transformed. In 1994 the apartheid military was integrated with *Umkontho We Sizwe* (Spear of the Nation), the ANC's military wing and in 1998 the local ISCOR plant was closed. Because of affirmative action the traditionally white state departments were radically transformed. This resulted in significant demographic changes in associated dormitory suburbs to the west of the inner city[5].

The political orientation of an ageing group of whites who still make up the majority of the population of the *Low Income Stagnant* areas, such as Pretoria West and Pretoria North are typically conservative and often overtly racist, but they have little power to influence external forces that generate population shifts in 'their neighbourhoods' (Thomashoff, pers com 2002; fieldwork findings, Acacia 2002). The subsequent 'white flight' has resulted in decreasing property values in these zones and has created an opportunity for an upwardly mobile black sector to leapfrog into the suburban ring.

A search of the City of Tshwane's GIS database[6] indicates that the average value of property in the *low income stagnant* area is half of that in the *low income growing* area and

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[5] The author is familiar with the history of this part of Pretoria through having lived and studied in the city for twenty five years.

[6] The database is available online at www.pretoria.gov.za/maps/pta

less than a quarter of that in the *affluent settled* area. Figure 4.17 indicates the result of a study in which the author recorded surnames from the metropolitan council's GIS database. By using surnames as a guide it was possible to determine that, of the 59 erven in a section of the corridor zone surveyed, 26 were occupied by white families, 31 by black families and 2 by Indian families on 26 November 2002. The figures indicate that lower property values in the *low income stagnant* western suburbs provides a feasible base for upwardly mobile blacks to settle in a more accessible zones of the city. Private commercial investment is however occurring away from this zone, in the South Western sector in proximity to the *affluent settled* and *affluent bedroom* suburbs as was discussed in CHAPTER 3 (the influence of market led development) .

The location of the old working class suburbs in proximity to black townships are not accidental, since industries were geographically positioned to act as buffer between black and white residential areas (Christopher, 2001). Their position within the alignment of the retrofitted post apartheid corridor generates a new influx of people and associated energies, which demand appropriate responses and engagement with transient and heterogeneous suburban communities. The phase of transience and demographic change offers a window of opportunity to negotiate more sustainable suburban forms as will be discussed in CHAPTER 6.
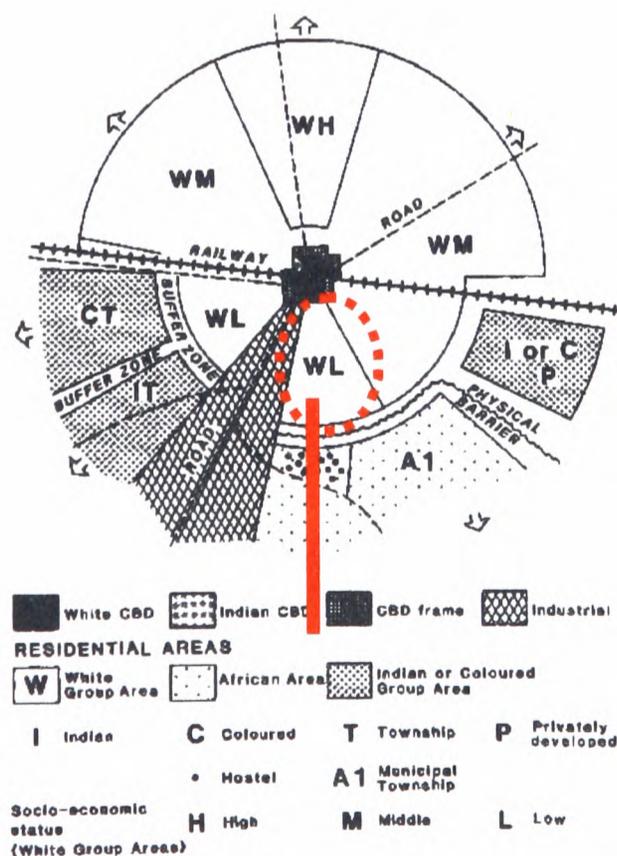
Figure 4.16 Model apartheid city. White lower income suburbs (WL) were consciously placed between the inner city and the municipal black townships (A1) in close proximity to industry (cross hatched). The red line (own adaption) shows the typical alignment of a post apartheid corridor (adapted from Christopher, 2001:105).

MAP OF GREATER PRETORIA
(CITY OF TSHWANE)

SURNAMES FROM LEFT TO RIGHT IN
THE SELECTED STUDY AREA

KEY

⎯⎯⎯⎯ Alignment of MCDC corridor

🔵 Affluent bedroom suburb

🟣 Affluent settled suburb

🔴 Low income stagnant suburb

🟠 Low income growing

● = white surname ● = black surname ● = Indian surname

●Lengoabaia ●Bosman ●Van Aswegen ●De Jonge ●Duoante ●Green ●Tsauke ●Zwane ●Mashaba ●Mkwanazi ●Mokate ●Mmusi ●Du Preez ●Smal ●Tshauke ●De Villiers ●Masanabo ●Thomas ●Lourens ●Lubile ●Mkhaatshwa ●Mosilela ●Makhudu ●Pillay ●Perrin ●Trindade ●Laubscher ●Famigliette van Staden ●Flemmink ●Moima ●Makhubela ●Kau ●Byleveld ●Elliot ●Dludlu ●Mofokeng ●Swart ●Masipa ●Phyfer ●Pretorius ●Jansen ●Nkuna ●Mntambo ●Nchabeleng ●Gelane ●Deysel ●Jacobs ●Amurseeth ●Mthembu ●Kubyana ●Kaszas ●Mokone ●Heck

*Figure 4.17: Post apartheid demographic
change in a Pretoria suburb.*

4.3.3.3. THE IDENTITY OF SOUTH AFRICA'S NEW BLACK SUBURBANITIES

When concerned with deep integration one may ask how much the changes in demographics influence suburban identities? Do South Africa's new black suburbanites also *escape from the complexity of the city to private family circles of security in the*

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suburbs- the purified community' as Sennett noted in 1971 or are they forming more cohesive communities in the African tradition?

Semi-structured interviews conducted by students from the University of Pretoria in the suburb of Acacia as part of this research (see Annexure 7) indicates that blacks residing in suburbia have gained access through conventional market mechanisms and that they share the individualist material values generally associated with suburbia. Like the classic suburbanite, they proudly consider the modern commodities that surround them symbols of their success. For them there is very little attraction in a return to traditional communal co-operation as the quote from the South African Sunday Times (below) suggests.

> *'Mchethe, a human resources executive, describes his neighbour as 101% Afrikaner and the sweetest neighbour he has ever had. If he goes on holiday he always brings a present. He does the same. Mchethe's modern double storey Mediterranean-style house, with its expensive Italian furniture, a well stocked pub and walls adorned with oil paintings speak volumes of the family's success'.*
> Sabelo Ndlangisa; The South African Sunday Times, 30 June 2002.

The indications are that, despite radical political transformations, suburban identities are today much the same as they were during the days of apartheid, the only exception being that race differences have been replaced by class differences in a context where black intra-racial inequalities are on the rise. The Economist (Vol 345p 23; 1997) notes that, since 1990, the gap between rich and poor blacks has widened dramatically, as may have been expected under conditions where a limited number of blacks have in the past had access to quality education. For blacks, the Gini coefficient[7] rose from 0.35 in 1990 to 0.51 in 1951.

Many authors have noted that public policy favours the middle classes because it is constructed from within the ideological framework of civil servants who mostly belong to that class (Castells, 1978 ; Dietz, 1998; Markovitz, 1987). With a new black elite which embraces modern ideals increasingly dominating the civil service in post apartheid South Africa, chances are good that the status quo of individualist values will be sustained in the suburbs.

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[7] A Gini coefficient of zero means that income is evenly spread across the population while a coefficient of one means that it is entirely skewed in favour of a high income sector.

4.3.3.4. CONCLUSION (IDENTITY IN SUBURBIA)
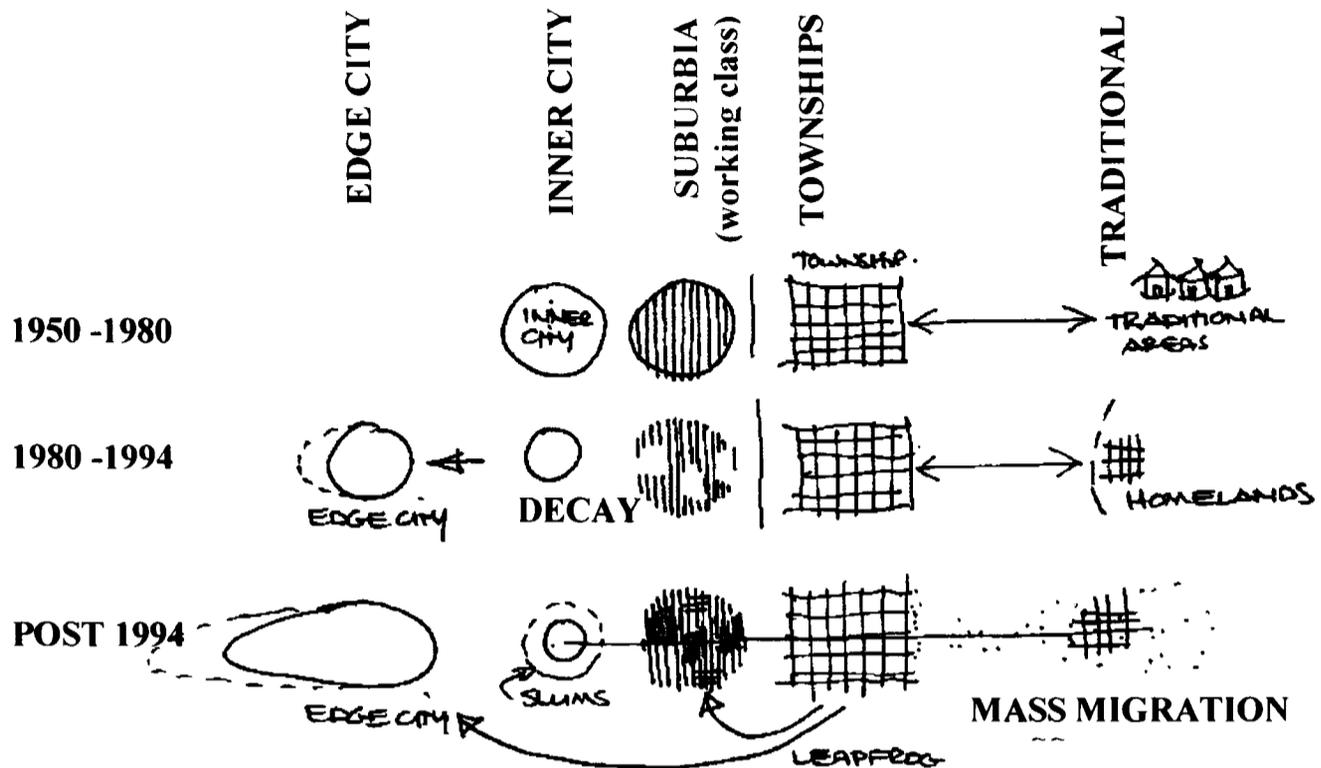
Figure 4.18: a chronology of suburban change. The voids created in older, white collar suburbs during the era of industrial decline (1980 - 1994) is now being filled by a rising black middle class that benefits from formal employment opportunities created by the post apartheid state's affirmative action policies (post 1994).

The analysis indicates that identities in the suburban corridor contexts have been changing for some time. Piecemeal change has been brought about by two overlapping events:

- **First**, by post-industrial decline of suburbia in close proximity to industries. Since the industries have declined, the *raison d'être* of these suburbs has diminished, thus creating a vacuum in the corridor zone.

- **Second**, new freedoms extended to black South Africans has resulted in a situation where upwardly mobile blacks are filling the suburban vacuum. The accessible locations provide significantly improved access to urban opportunities.

The net result is a leapfrogging pattern and a transient suburban context characterised by a heterogeneous community that generally support a modern value system.

4.3.4. AN ANALYSIS OF THE THIRD CONTESTED ZONE: TRADITIONAL, APARTHEID STYLE TOWNSHIPS

4.3.4.1. INTRODUCTION

This section considers sociological variables associated with *black townships*, the last of three contested zones that have been identified and linked to typologies (Typology C) in subparagraph 4.3.1.

The word *township* refers to the previously homogenous and sterile expanse of detached, state owned and state built black housing typically found on the outskirts of South African cities and towns. These were established by the apartheid state in the 1950's and 1960's, all housing stock was initially owned by the local municipality. With the gradual easing of restrictions on ownership since 1983, tenure has now largely been transferred to previous tenants. Today almost all township housing is privately owned. McCarthy (2002:13) notes that, because many townships such as Atteridgeville and Mamelodi in Pretoria and Soweto in Johannesburg are relatively close to- and well connected with formal work opportunities, second and third generation township residents are now lesser victims of apartheid and in a much better position than the millions of new migrants who are struggling to cope. Spontaneous gentrification of townships indicate that residents are indeed taking pride in their environment and that they are consolidating and expanding their properties (Crankshaw, 1996).
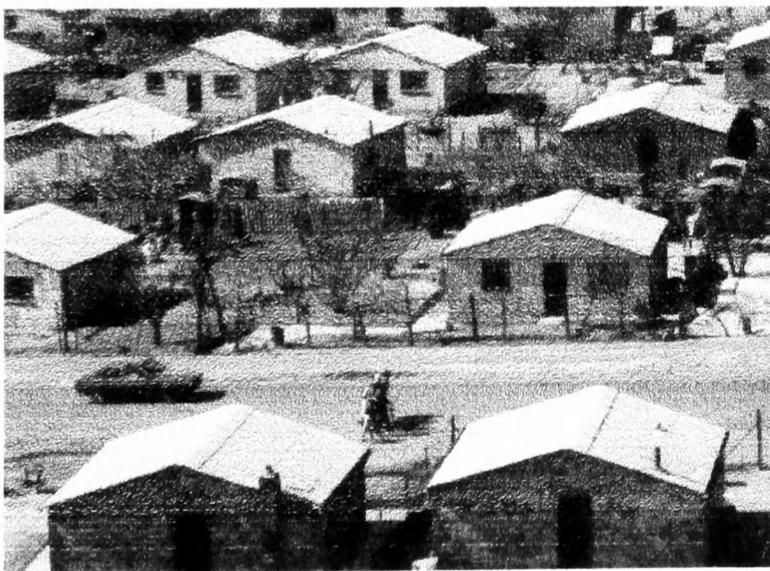
Figure 4.19. A cluster of '51/9' apartheid era township housing. The same two bedroom prototype was used in all townships throughout the country for almost the whole duration of apartheid (1951-1990). The houses were all owned by the state until the early 1980's. The only other type of housing that was found in townships were single migrant hostels.

4.3.4.2. CLASS, POWER AND CONFLICT IN SOUTH AFRICAN TOWNSHIPS

A closer investigation of the political economy of townships shows that class and power has now been stratified because first- and second generation township dwellers have distinct advantages over new migrants. The stratification is mainly the result of improved

access to formal education for siblings of first- and second generation township dwellers. This sector of South Africa's population has experienced the greatest upward occupational mobility of all sectors since the end of apartheid. In particular there has been substantial upward mobility into the skilled trades, routine clerical and sales jobs and semi-professional jobs such as policing, nursing and teaching (Hindson and Crankshaw, 1990).

As noted earlier in this CHAPTER, post apartheid development policies tend to conceptualise 'the community' in homogenous terms. This is particularly true of the township context, which has been considered as black and marginalised vis-à-vis white suburbs, which have been considered white and privileged. These notions of homogeneity are now outdated. Crankshaw (1996:54) notes that South African developers have learned through bitter experience, that new social divisions within African townships are extremely volatile and quite capable of derailing upgrading and other development projects. In a sociological study of the township of Bekkersdal, Crankshaw illustrates that power structures are closely related to emerging typologies in and around townships. While this is emergent, it is part of the legacy of the selective urban opportunities extended to blacks under apartheid. Only those blacks with proof of employment in cities were permitted to live in the formally demarcated townships. The number of 'cookie cutter' houses built by the state was strictly dictated by the pool of labour that was required in each city. The vast majority of blacks thus had no choice but to remain in rural areas. The children and grandchildren of first generation township dwellers therefore have a distinct advantage over recent migrants because they have acquired education and skills way beyond that of their rural cousins. This 'privileged sector' today live in formal township housing or in newly built houses close by. Township housing has been privatised and are subject to market forces that are similar to those which exist in suburbs. The upwardly mobile occupants of formal township houses therefore dominate the decision-making organs of the public sector or become elected representatives and ultimately act as gatekeepers who protect the interests of their peer group. By contrast those living in shacks are generally poorly educated, unemployed and find it hard to understand the expert systems that rule their lives.

Figure 4.20. indicates the typologies that are typically found in South African townships today. The emerging typologies are illustrated in relation to Atteridgeville, an established township towards the west of Pretoria and within the proposed alignment of the MCDC corridor.

Figure 4.20. Post apartheid demographic transformation of a South African township

ALIGNMENT OF MCDC
CORRIDOR

INNER CITY

GREATER PRETORIA METROPOLITAN AREA

ATTERIDGEVILLE

CITY CENTRE

MCDC
CORRIDOR
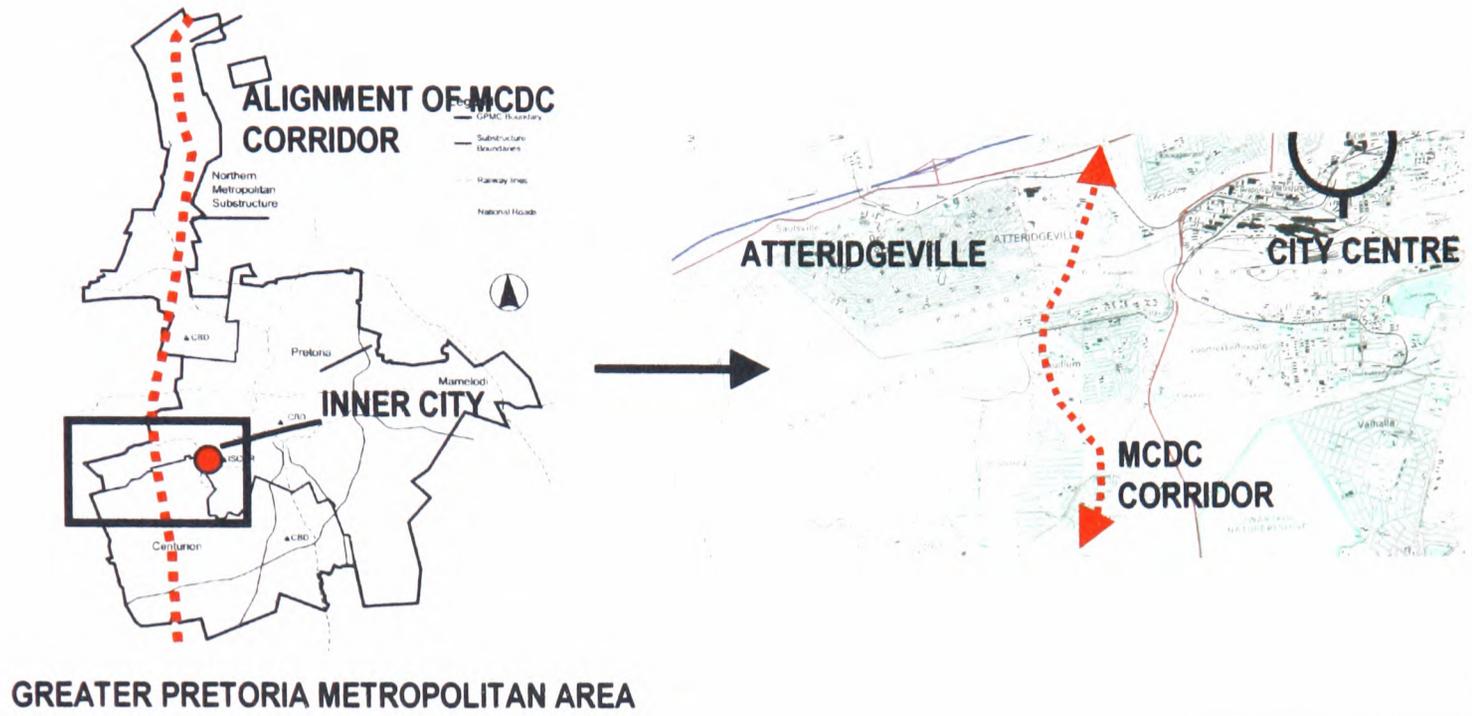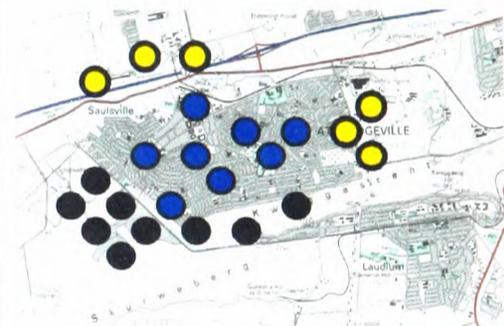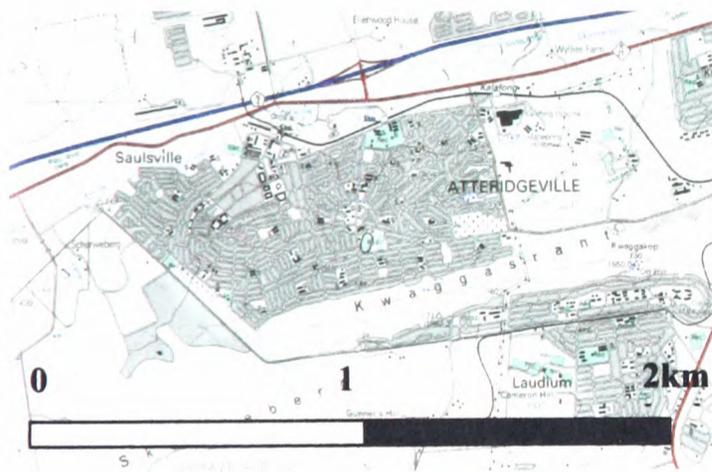
PRE 1994	POLICY CHANGE	POST 1994
  ATTERIDGEVILLE		 ● Backyard shacks (behind owned houses) ● Newly constructed and state subsidised private housing on the periphery of townships. ● Free standing shacks on (land invasions on the township periphery).
95% rented municipal houses	Encourage private ownership	Privately owned houses (since 1983) **Continued on next page**
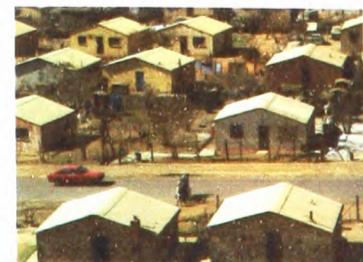
Continued from previous page PRE 1994	POLICY CHANGE	POST 1994
5% Single sex (male) hostels for migrant workers	Promote conversion of hostels to family units	Privately owned family units (since 1995) *converted hostel*
	Easing of influx control measures	● Backyard shacks (behind owned houses)
	Loss of control over levels of sub-continental and rural to urban migration	● Free-standing shacks on (land invasions on the township periphery).
	In-filling of apartheid buffer zones, market led development	 ○ Newly constructed and state subsidised private housing on the periphery of townships.

The table indicates that, due to the loss of state control, two dominant informal types (backyard shacks and free standing shacks) have gradually been established in and around townships while upwardly mobile Africans who occupy newly constructed private houses in good locations represent a new township elite. Before 1994 townships were clearly much more homogenous than they are today. According to Crankshaw's study, by 1996 the two informal types had made up almost 80% of the population of Bekkersdal while new privately owned housing had made up only 2.5%. The occupants of original, apartheid era housing stock now comprise only 17% of the total township population. These figures indicate that the formal/controlled apartheid townships have been radically transformed into informal/uncontrollable contexts.

The typological divisions are reflected in the identities and local power structures of post apartheid township communities. Like most sub-regions of functional cities, townships have become contested zones. The educated, upwardly mobile group who occupy old township housing stock and private sector housing arguably have more in common with the white middle class than with the masses of new rural to urban migrants and illegal immigrants who populate the township fringes and backyard shacks. Predictably, Crankshaw's study shows that 78% of the occupants of the formal houses (old stock and new private sector built stock houses) are urban born and had an average income which is three times that that of informal group. The study also indicates the divisions in the level of contact which established residents and recent migrants have with rural homesteads. 68% of hostel dwellers and 47% of those living in informal shacks maintain rural contacts while this applies to only 6% of those living in formal housing.

The social divisions become clear when attitudes are measured. As with fieldwork conducted for this research in the Winterveld (see Annexure 7), Crankshaw's studies indicates high levels of tension between established township dwellers and squatters. The following excerpt from an article in the Johannesburg newspaper *The Star* animates the friction amongst residents in Alexandra township:

> *'When their property values were threatened by land invasions, the property owners (of formal housing stock) took the law into their own hands and set about dismantling and burning shacks and were stopped only when the squatters retaliated with gunfire. Property owners were reported as saying, 'Enough is enough. We are looking at our long term investments. We believe we must act now. These people are here to destroy what we have worked hard for.'*
> *(The Star, 26 February 1996).*

While established township dwellers clearly value individuality and have modern, capitalist attitudes, migrants seem reluctant to acknowledge their urban futures. They remain partially locked into communal tradition while being exposed to modernity. This phenomenon is similar to that found in the *pueblos jovenos* of Lima where communal co-operation and solidarity remains strong (see Annexure 6). Crankshaw (Ibid p 229) notes that new migrants typically deny the permanence of their move to cities. Researchers are told that urban shacks are simply places to live while they earn money to consolidate their rural homestead. The pattern of urbanisation and associated sociological change elsewhere indicates that urbanisation is typically an irreversible trend and that the state of denial amongst migrants is a symptom of physiological suffering, fear and identity crisis in the face of the challenges of urban modernity.

4.3.4.3. CONCLUSION (TOWNSHIP IDENTITIES)

In the urban development context the insecurities of migrants generate reluctance and even fear of engaging with development practitioners (Barberton et al, 1998). Crankshaw's study shows that the reluctance is not only related to development practice, but are instilled by the hostilities of a second and third generation township elite that values modernity and individuality above tradition and who intimidate new migrants with their advanced knowledge. Maslow (1996) indicates that a lack of modern *knowledge* underpins the fears of migrants and though such problems are generational and temporary, they are real and part of the sociological urban development context. The challenge for development practitioners is to become sensitive to the shifting sociological patterns and associated power structures in townships.

4.3.5. CONCLUSION: PART I THE INFLUENCE OF IDENTITIES IN THE SOUTH AFRICAN CORRIDOR CONTEXT

The analysis of identities associated with the different typologies found in the extended corridor zone indicate that people are likely relate very differently to the expert systems associated with democracy in post apartheid South Africa. For most urban managers integration under a democratic constitution and within a strategic urban management framework means that everyone must/will relate to policy frameworks and institutionalised participation methods in a similar way (see CHAPTER 5). The typology based analysis of this CHAPTER points to the inherent weakness of applying good practice methodologies in equal measure. Gatekeepers and strong men subvert the system in the most needy areas

while suburbanites and formal township dwellers aim to reinforce the status quo. There are clearly subtle power struggles which expert systems fail to detect because the institutionalised participation requires them to engage only with elected representatives.

A strategy for responsive urban design in corridor space needs to acknowledge the subtle variables associated with identities. By giving preference to inferential and operational modes of practice these inequalities will be reinforced. The table below summarises the findings of the analysis and are used to inform the strategy for urban design in South African corridor development presented in CHAPTER 8.

WHERE ? (context of action)	WHAT? (urban design action)	WHY? (dimension of identity)
Agripolitan fringe Photo by author	Give preference to a development practice approach to urban design. (see glossary of terms for definition of development practice)	- People are suspicious of expert systems. - More continuous forms of engagement will build trust and help to build democracy. - It will minimise the subverting influence of gatekeepers and 'strong men'. - It will make it possible to gauge the real level of transience in each sub context.
Suburbia 	International norms of good practice/ guidelines are more appropriate here than in the agripolitan fringe.	- Residents have a modern value system and can relate to standards and good practice.
	Consider each suburb on its own merits. In poorer, decaying suburbs a participatory approach may be both more appropriate and more feasible than in affluent bedroom suburbs.	- Significant socio-economic differentiation has occurred between and within suburbs.
	Cajole with suburbanites to improve the sustainability of suburbs.	- People with modern, individualistic values fail to see the long term benefits to society and resist intensification efforts.

		continued next page
WHERE? (context of action)	**WHAT?** (urban design action)	**WHY?** (dimension of identity)
Township and associated illegal typologies 	Insist on a thorough sociological analysis of each township and its associated backyard shacks and peripheral squatter settlements before formulating an urban design strategy.	- There are severe internal power struggles that are not obvious to an outsider.
	Be prepared to develop a hybrid approach that contains both principles of good practice (first principles) and a development practice approach.	- The socio-economic profiles vary significantly between the formal township and its associated squatter settlements.
	Beware of the fact that residents of informal settlements may be averse to outside interference.	- They have no legal land rights and/or are illegal immigrants.
	Work closely with the local authority.	- Identities are linked to the pattern of illegal and legal land ownership in and around townships. Urban design intervention and engagement with residents is subject to the likelihood of land transfers.

PART II : THE USE OF INTERNATIONAL CASES TO ILLUMINATE THE SOUTH AFRICAN CASE

4.4. CASE STUDY ANALYSIS: INDICATIONS OF THE VARIABLE IMPACT IDENTITIES ON THE DEVELOPMENT OF CORRIDORS IN AUSTRALIA AND MALAYSIA

4.4.1. INTRODUCTION

This section contains a case study analysis which indicates the variable impact of identities on the development of corridors in Australia and Malaysia. *Note: The selection of each of the international case studies was motivated in CHAPTER 1 and the field work reports for Perth and Kuala Lumpur are presented in Annexures 4 and 5).*

Local corridor cultures in Australia and Malaysia bear a resemblance to those found in sections of corridor space in South Africa. Since development of corridors have reached a level of maturity in these countries, valuable lessons may be learnt from the analysis which may influence strategies for development of South Africa's incipient corridors.

> *'Problems can not be solved by thinking within the framework in which they were created'* Albert Einstein

> *A journey to the other side of the globe remains a disorienting experience, and an opportunity for reflecting on current pre-occupations with a significantly different perspective. In terms of urban design, as with any discipline directly concerned with the shape of the world, the stimulation and perspective afforded by cultural shifts is invaluable (Hayward, 1993:137).*

Under conditions in which almost all nation states strive towards modernity, corridors are often considered universal types which allows for easy translation of generic principles. In the words of the Johannesburg urban designer Erky Wood (pers com.) *'they easily become knee-jerk pet responses which focus on product rather than process'.* The comparative analysis provides an indication of how corridor development has been influenced by the prevalence of high modernity in Australia and by highly politicised aspirations towards modernity in Kuala Lumpur.

While both Australia and Malaysia are Commonwealth countries and the planning system of both countries is derived from Britain, their urban development status and associated identities have resulted in radically different spatial outcomes. It is notable that despite the

vastly different political economies of South Africa and Australia, they presently have a comparable urban management system. While Malaysia is still urbanising and desperately striving towards achieving industrialised status by 2020 under the Vision 2020 programme, Australia is a fully developed and urbanised country intent on strengthening its position amongst an industrialised elite. Corridor development is not incidental and is, like in South Africa, closely linked to central political agendas.

It is not within the scope of this research to present a detailed analysis of the political economies of these countries but rather to capture themes and issues which may be relevant to corridor development in South Africa. Figure 4.22 provides a demographic comparison of Australia, Malaysia and South Africa.
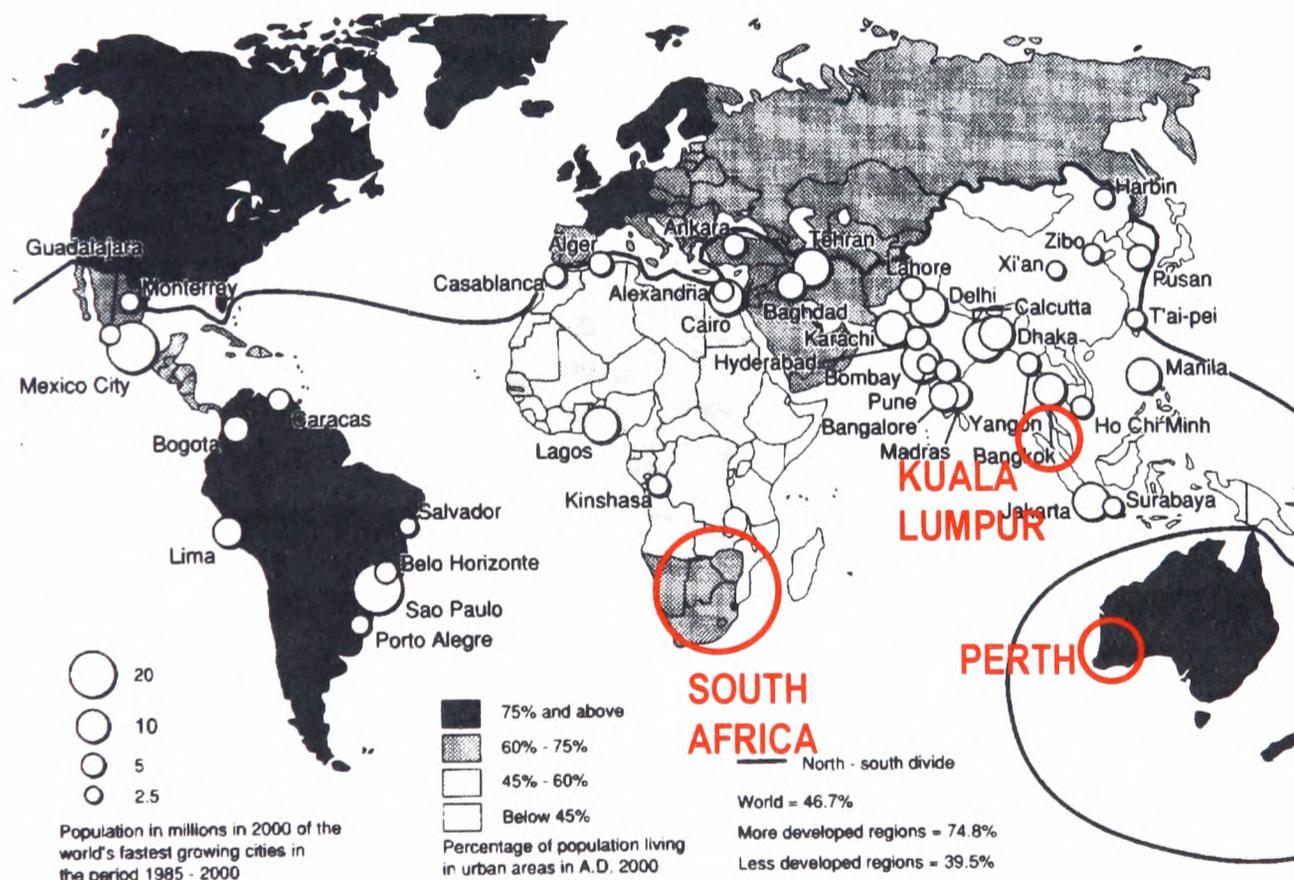
Figure 4.21: World map adapted from Potter & Lloyd Evans (1998). The black line indicates the separation between the industrialised world (the North) and the developing world (the South).

FIGURE 4.22 : STATISTICAL COMPARISON OF CASE STUDY COUNTRIES[8]

	AUSTRALIA	MALAYSIA	SOUTH AFRICA
CASE STUDY	PERTH'S NORTH WESTERN CORRIDOR	BANGI BERANANG CORRIDOR (KUALA LUMPUR)	MCDC CORRIDOR (PRETORIA)
	Map of Perth (see Annexure 5 for larger version)	Map of Kuala Lumpur (see Annexure 4 for larger version) ① = Multimedia Super Corridor ② = Beranang Bangi Corridor	Map of Greater Pretoria and alignment of the MCDC corridor
Colonial allegiance	British Commonwealth State	British Commonwealth State	British Commonwealth State
Level of urbanisation	95%	50%	60%
Annual urban growth rate	1%	1.91% 7% in the period 1975-1995	Varies. National average 0.2% Johannesbrg/Pretoria 5%
Level of industrialisation	Industrialised	Developing country Aim for industrialised status by 2020	Developing
Ethnic composition	Caucasian 92%	Indigenous Malay 54%	Black 75.2%
	Asian 7%	Chinese 35%	White 3.6%
	Other 1%	Indian 10.5%	Colored 8.6%
			Indian 2.6%
Level of inequality Gini index	Low: 35.2%	Moderate to high 49.2 %	Very high: 59.3%
Corridor concept adopted in (Year)	Perth Corridor Plan 1972	From 1977 with the construction of the KL Seramban Highway.	Early 1990's
Rate of unemployment	6.4%	2.8%	30%
People HIV positive	14 000	49 000	5.2 million
Main purpose of corridors	To facilitate sustainable growth	To integrate clusters of rural Malay villages with the city	Confused scenario. Competing aims of growth and social integration
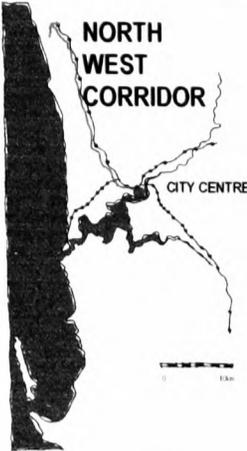
[8] Compiled from data collected from the following sources. Australia: Australia Immigration Service, 2002;
Malaysia : Kaur & Metcalfe 1999 ; South Africa: South African Municipal Demarcation Board: 2002

FIG 4.23: ISSUES-BASED COMPARISON OF CASE STUDY COUNTRIES

ISSUE	PERTH	KUALA LUMPUR 1	KUALA LUMPUR 2
	NORTH WESTERN CORRIDOR	MULTIMEDIA SUPER CORRIDOR	BERANANG – BANGI CORRIDOR
Long term influence of the political economy on urbanisation and corridor development	Stable western democracy with a functional opposition party system. Predominantly an urban society. High levels of accountability. Most jobs in service industry. Increasingly directs itself towards South East Asian markets.	Often described as a hard democracty/ soft dictatorship. Virtual one party state with the United Malay National Organisation in power since independence from Britain in 1957. Surge towards a modern economy and urban society under Mohamad Mahatir since early 1980's. Economic upsurge in the 1980's. Spectacular growth. Experienced crash in 1997. Mahathir refuses to introduce austerity measures proposed by the World Bank.	
	Outcomes: Well established/entrenched bureaucracy. Managed densification and intensification and planned/designed extensions to city.	Outcomes: ' - Catch-up' strategy results in wholesale commitment to western knowledge. Ironically the urban vision is outdated since it is clearly built around 'city of towers' and 'garden city ideas' - Grand scale urban projects. - High levels of urbanisation since early 1970's	
Influence of the current urban management system on corridor development	Neo-liberal. High level of public private partnership involvement. The real estate market has a significant influence on development trends.	Centrally managed by Kuala Lumpur City Hall and significantly influenced by the wishes of prime minister Mohammad Mahathir. Positivist and prescriptive. Structure planning system imported from Britain.	Through lack of resources the federal government prepares structure plans. Local officials have little influence over decision-making despite superior knowledge of local conditions. Little vertical accountability.
Contextual differences in levels of participation Within corridor zones	Consultation Charette/ inquiry by design process favoured.	None Autocratic Prime Minister's vision. Internal Security Act denies dissent.	Placation Consultation. Structure plans displayed for comment before passed. Low response rate.
Levels of physical integration achieved through corridor development.	High Integrated, responsive and incremental extension of urban grid. Stable local districts.	Low Zoned Coarse grid	Good in historic linear villages. Poor in new speculative developments
Levels of social integration achieved within corridor zones	Inconsequential. High percentage of jobs in service industry, low levels of unemployment and poverty. Australia does not have a rural history, hence no large internal migration.	Pursuit of western norms, knowledge. Rapid decline of indigenous cultures. Conscious efforts to integrate Malays into Chinese dominated business sphere.	Towns remain predominantly Chinese while Malays vacate rural kampungs and migrate to the city. Rapid decline of indigenous Malay cultures. High levels of urbanisation.
Level of technical design in corridor development	High. Frequent reference to world's best practice.	High Foreign consultants.	High Structure plans based on British town planning principles gradually wipes out organic linear villages.
Influence of the compact-/ sustainable cities debate.	High The main purpose of the corridor. Reduced vehicle dependence. Immediate impact on sustainability.	Medium-low. Focus on grandeur and easy vehicular access rather than sustainability. Garden City typology.	Low Ad hoc, sprawling or isolated high rise housing developments. Radical departure from mixed use Chinese vernacular (shop houses).
Level and scope for Urban design in corridor development	High. Strategic approach. High level of insurgent urban design practice. Cohesive group of urban design practitioners.	Low Master planned, rigidly zoned.	Low Structure plans dominate. British influence remains.

4.4.2. IMPRESSIONS OF THE INFLUENCE OF AN AUSTRALIAN IDENTITY

Back-to-back visits illuminated the vast socio-economic and socio-political differences between Malaysia and Australia and allowed for a useful comparison of the perceived impact of national identities. Hayward (1993:137) notes that *'comparisons are misleading and always offensive to somebody. Yet we make comparisons. We have to make sense of what we see through what we know'*. In this case the author knew that both Australia and Malaysia had often been compared to South Africa; Australia with the sanitised old South Africa and Malaysia with the vibrant, aspirational new South Africa. While visiting these countries it was found that there was indeed a sense of familiarity about both, which arguably makes comparisons with Australia and Malaysia self-referential.

Figure 4.24 was presented at a research seminar after returning from the fieldwork visits; in Australia's context of high modernity, corridor space becomes an analogy of a managed shelving system while Malaysia's dualist political economy yields a series of compromising, ad hoc responses. While generic elements such as roads (passages) and land (shelves) are planned elements which are present in both, national and local identities generate different responses in and around them.
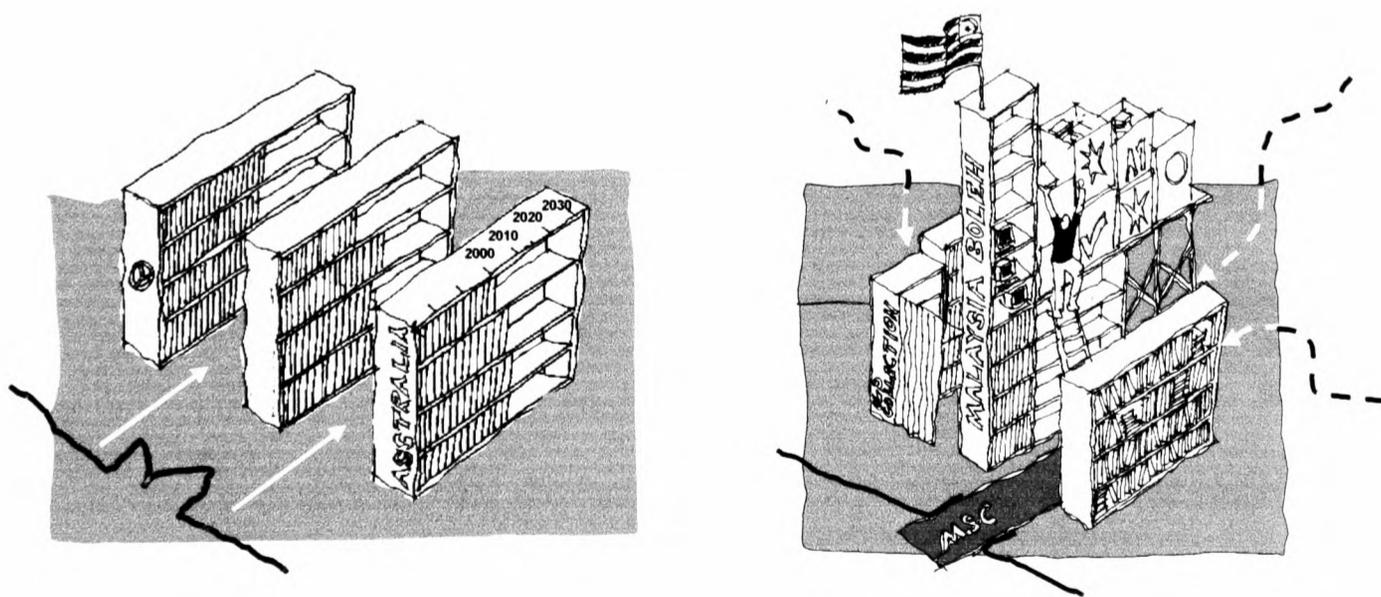
Figure 4.24. Intuitive Impressions of corridor space
Australia (left) and Malaysia (right). Cartoons by author.

FIGURE 4.25. A COMPARISON OF THE INFLUENCE OF NATIONAL IDENTITIES ON CORRIDOR SPACE IN AUSTRALIA AND MALAYSIA

AUSTRALIA PERTH'S NORTH WESTERN CORRIDOR	MALAYSIA MULTIMEDIA SUPER CORRIDOR BERANANG BANGI CORRIDOR
DESCRIPTIVE TERMS: BEST PRACTICE, CLOSED SYSTEM, CONTROL, DEEP BUREAUCRACY, FORMAL, STRATEGIC PLANNING, STRONG INFLUENCE OF THE REAL ESTATE MARKET, QUANTITATIVE ANALYSIS, TRANSPARANCY, NORMATIVE	**DESCRIPTIVE TERMS:** DUALISM, AD HOC, COMPROMISE, 'CAN DO', SCHIZOPHRENIC, STRUCTURE PLANNING. POOR FIT BETWEEN POLICY AND NEED
CONTROL Corridor spaces in Perth are disappointingly sterile and are perhaps controlled excessively. Low densities do not support continuous mixed use.	**SCHIZOPHRENIC IDENTITY/ TRANSIENCE** Corridor space is duplicated in a parallel system. An iconic planned Multimedia Super Corridor serves as a red carpet for outside investors while a parallel, ad hoc corridor satisfies real present needs.
QUANTITATIVE ANALYSIS, PRE-PLANNED Access to the country and thus to the urban system is *controlled*. This allows for *quantifiable analysis* of demand and supply in corridor space and a capacity to fully control land use.	**LOSS OF CONTROL, UNPREDICTABLE** Access to the urban system seems uncontrollable and levels of urbanisation are unpredictable. National boundaries are porous which results in large scale illegal migration from Indonesia. It is difficult to control land use patterns (Chau, pers com 2001).
TRANSPARANCY, SOCIAL JUSTICE Urban design frameworks have been carefully documented and have been reproduced in high quality format and for public consumption. *Transparancy and accountability* are high priorities.	**POOR FIT BETWEEN POLICY AND NEED** Urban design frameworks such as that for the Beranang - Bangi Corridor have only been introduced recently, are generic rather than specific and are crudely presented. Their use seems to be an aspiration to good practice rather than being active instruments for urban change. Interviews with a local planner working in the corridor zone suggested that structure plans based on the British planning system remained the principal guiding document for controlling development.
NORMATIVE & PARTICIPATIVE *Normative principles* are actively employed and the methods used by professionals are communicated to a wider audience. Urban design has a high profile. Charettes and enquiry by design workshops allow for public engagement in the design process.	**PRESCRIPTIVE** Public participation as promoted in contemporary development practice discourse is not feasible in a country that places restrictions on free speech and public gatherings. Structure plans are posted in public venues for comment, but according to Kajang town planner Nazim Bin Shaari few comments are ever received.
CONTROL, QUANTIFY Capacity in the corridor zone has been quantified and green field spaces are reserved and prepared in anticipation of future expansion.	**DUALIST, SELECTIVE LOSS OF CONTROL** In the ad-hoc leg of the parallel corridor system development is in-situ, shambolic and piecemeal while it is controlled and sterile in the iconic corridor.

4.4.3. THE INFLUENCE OF AUSTRALIAN IDENTITIES VIEWED WITHIN A WIDER HISTORIC AND SOCIO POLITICAL CONTEXT

Giddens (1991) notes that the construction of identities is a reflective project which needs to be considered within a wider historic context. A random search of Internet sources that uses the keywords *Australian Identity* yielded a number of sites that refer to a definitive list of what Australians consider to be core elements of their own identity. These are also presented in biographic/patriotic scripts such as Phillip Knightley's (2000) *Australia: A Biography of a Nation*. The existence of such a definitive list suggests that Australians' perceptions of themselves have been canonised over time. The essence of an Australian identity is impressed on secondary school pupils in a subject called *Australian Identity* and are commonly found in transcripts of political speeches. The list typically includes (1) egalitarianism, with no discernible class structure; (2) a strong belief in 'fair play' and 'strong go'(competetiveness); (3) a healthy scepticism of authority; (4) an essentially non-discriminatory attitude towards one another so far as racial, ethic, natural and religious differences are concerned and (5) basic stability and institutional security.

In his BBC television documentary *Australia: Beyond the Fatal Shore* the well known art critic Robert Hughes (2001) notes that Australians' obsession with defining their own identity is the symptom of being a colony which suffers from severe problems of self identification. In a young country like Australia where an immigrant Caucasian population far outweighs indigenous populations, culture is almost entirely derivative. Australia's continued allegiance to the British monarch, which was recently reconfirmed by public referendum is testimony to Australians' nervousness and insecurity. Republicans who oppose continued Anglo-Saxon influence and who lobby for cultural detachment from Britain lament the fact that Britain remains the dominant reference in terms of popular culture, law, parliament and public service. Woodgush (pers com 2001) argues that while Anglophilia is still dominant in the more conservative cities such as Perth and Adelaide, American cultural imperialism has upstaged British culture in the more liberal east coast cities. Others, most notably Hughes, question the assumption that Australia is as an 'egalitarian, classless society'. An interview with local town planner Phillida Rooksby (pers com 2001) indicated that urban space in Perth is clearly segregated along class lines. The wealthy live in the north and towards the west while blue-collar workers, mostly of eastern European and southern European extraction live in the south and east. Peel (1995) documented similar class segregation in Adelaide.

The author's observations in Perth confirmed Robert Hughes' findings, particularly with regard to the 'lingering nostalgia' which is clearly manifested in neoclassical built form. Such nostalgia partially explains the popularity of New Urbanism as a mechanism for facilitating the development of coded forms. Developers clearly exploit the popular preference for such forms.

4.4.4. CORRIDOR SPACE IN AUSTRALIA AS A SYMPTOM OF HIGH MODERNITY AND A DERIVATIVE IDENTITY

Fieldwork observations indicate that urban identities associated with high modernity as defined by Giddens (1991) and a lingering nostalgia for European forms as noted by Hughes (2001) have had a significant impact on corridor development in Perth. Figure 4.26 (below) aims to illustrate these findings.

FIGURE 4.26. THE IMPACT OF HIGH MODERNITY AND A DERIVATIVE IDENTITY ON THE DEVELOPMENT OF CORRIDOR SPACE IN AUSTRALIA

A

DIMENSIONS OF MODERNITY	IMPACT OF ASSOCIATED IDENTITIES ON CORRIDOR SPACE.
1. INDIVIDUALITY	Deep rooted preference for suburban forms which accommodates individuality (Troy, 1996). Corridors are essentially elongated, mono-functional suburban contexts with a central public transport route. Very little evidence of spontaneous mixed-use development around transport interchange points and not sufficient densities to support this. New Urbanist frameworks aim to address the problem.

An interchange along Perth's northern corridor in the vicinity in the borough of Sterling. Land use is predominantly suburban. (Picture courtesy: City of Stirling)

A

DIMENSIONS OF MODERNITY	IMPACT OF ASSOCIATED IDENTITIES ON CORRIDOR SPACE.

2. HIGH LEVEL OF SPECIALISATION

Deep bureaucracy. Arguably over-design of- and overspending on urban infrastructure, most notably roads. Extraordinary close relationships between long term visions and actual development, most clearly illustrated in the consistent development of Perth over three decades to match Perth's 1972 corridor plan.
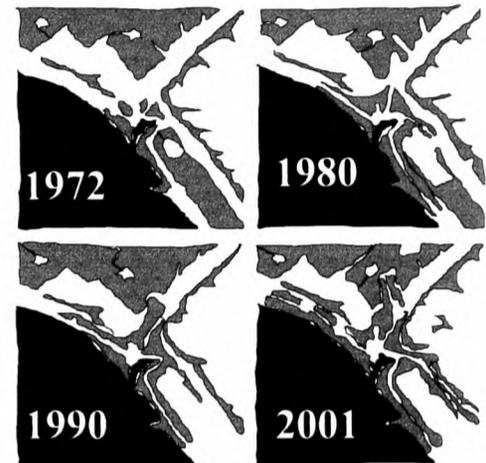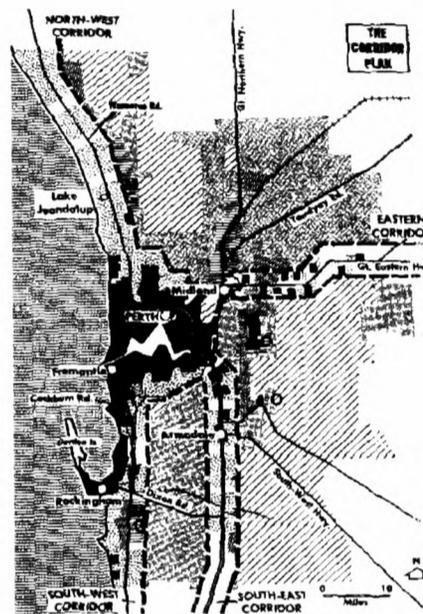
1972 Perth Corridor Plan
(source; Hamnett & Freestone, 2000)

Perth's actual corridor development pattern from 1972 to present (drawing by author based on Hamnett & Freestone, 2000)

2. GLOBAL COMPETITIVENESS

High aspirations towards achieving world's best practice. Policy based on expectations associated with high modernity. Prioritisation of effective energy use as part of the sustainability city debate. Policy geared towards transforming unsustainable suburban form as manifested in The Australian Sustainable Cities Initiative and Perth's Liveable Neighbourhoods initiative (Newman & Kenworth, 1999; WAPC, 2000).

Perth's award winning Liveable Neigbourhoods Initiative, regarded by its authors as world's best practice (pers com Mackay, 2001).

B

DIMENSIONS OF ANGLOPHILIA	IMPACT OF ASSOCIATED IDENTITIES ON CORRIDOR SPACE.
1. Nostalgia	Proliferation of neo-classical typologies and styles, particularly in pre - packaged, suburban developments. Jarring agendas: Perth's dense new suburbs; *'World's best practice'* manifested as compact, sustainable forms combined with a *'lingering nostalgia for European forms'.*
2. British culture, law, parliament public service, standards.	Manifested in the high level of bureaucratic specialisation and the level of control. The high level of specialisation has created a niche for urban design as custodian of sustainable sub regional development. Urban design leans towards a being a positivist discipline since it relies heavily on quantitative analysis and formulaic methods.
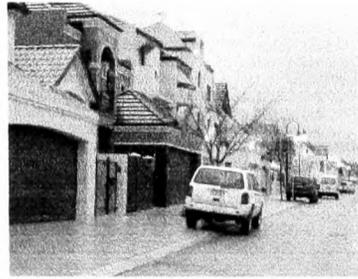
4.4.5. FIELDWORK IMPRESSIONS OF THE INFLUENCE OF A MALAYSIAN IDENTITY

The table and series of impressions shown on the following pages provide an indication of the influence of a rapidly evolving Malaysian identity and of associated dualism on the spaces of the Multimedia Super Corridor and the Beranang-Bangi-Seminyi corridor. This expands the qualities presented in figure 4.25 (comparison between Australian and Malaysian Identities).

TABLE 4.1. INCREMENTAL DEVELOPMENT IN KUALA LUMPUR

THE BERANANG BANGI CORRIDOR AND THE MULTIMEDIA SUPER CORRIDOR

1957 - 2003

PHASES OF DEVELOPMENT

Phase 1: (illustration : top left)

Gradual expansion of Kuala Lumpur into the surrounding agricultural hinterland. Large scale abandonment of traditional Malay subsistence agriculture as a rsult of the 1957 National Economic Plan (NEP). The NEP encouraged Malay involvement in trade and industry, those sectors of the economy traditionally dominated bt Chinese.

Phase 2: (illustration top right)

Modern new towns based on British precedent established along corridors extending from Kuala Lumpur; westwards towards Port Klang and southwards towards Beranang. Traditional Malay villages under increased pressure of redevelopment despite government acts to protect Malay kampungs.

Phase 3: (illustration bottom left)

Asian economic boom of the late 1980's and early 1990's changes the urban landscape dramatically. Mahatir's vision 2020, which aims to establish Malaysia as an industrialised nation by 2020 is unveiled. The Multimedia Super Corridor is established as a drawcard for international investment. Modern tower blocks begin to dominate the skyline and (unfortunate) mass housing in the Singapore fashion is considered a sign of progress. A new international airport is built. Development pushes ever further into the agricultural hinterland.

Phase 4: (illustration bottom right)

Asian crash of 1997 places a damper on development. By 2002 Malaysia had partially recovered from the shocks but felt the effects of a downturn in the international economy.
The Beranang Bangi structure plan aims to establish transverse connections between the MCC and the Beranang Bangi Corridor. A new phase of lateral growth between corridors is entered.

KEY TO SITE ELEMENTS

1. Port Klang: modern port built by the British administration between 1911 and 1914.
2. Kuala Lumpur City Centre. First permanent buildings date from 1880. Site of the world's tallest buildings; the Petronas Twin Towers.
3. New Kuala Lumpur International airport completed in 1998. It serves to anchor the Multimedia Super Corridor at its southern end. Clearly over-designed in functional terms, it is intended as an impressive gateway to Malaysia and as a transport hub in the subregion. It is purposefully located 70 km from the city centre as part of the vision to open up a new and controlled development axis or corridor.
4. Multimedia Super Corridor. Malaysian prime minister Mohamad Mahatir's much publicised pet project launched in 1995. It is part of a political vision to create the world's best location for investment in high tech industries. High levels of infrastructure. Vast and sterily; a late twenty first century garden city. At the time of my fieldwork visit in 2001 there was a low occupation and seemingly little interest, typically characterised by political denial.
5. Beranang. Decaying rural village 60 kilometres from Kuala Lumpur. Subject of an intensive sociological study by Brooksfiekd et al (1983).
6. Rubber and coco-palm plantations, previously Malaysia's principal source of income.
7. Linear Malay villages containing linear plots and vernacular Malay pole houses. Subsistence agriculture.
8. Railway line.
9. Modern towns along corridors (high rise housing)
10. Vibrant corridor with ad hoc typologies and illegal roadside trading. The ramshackle road passes through Chinese towns with shop houses. Buildings in severe state of decay.

TABLE 4.2. TWELVE SYMPTOMS OF AN EVOLVING MALAYSIAN IDENTITY AND ITS IMPACT ON THE DEVELOPMENT OF CORRIDOR SPACE

1

Traditional Malay house   Traditional Chinese Shop at Kajang   New building for high tech industry at Cyberjaya

Top: row of Chinese Shop houses   Modern shopping centre

Bottom: workshops and roadside restaurant.

Observation 1: Corridor space in Malaysia is dualist. There is overlap between traditional' and 'the modern' (field observation).

2

Sanitised inner city precinct

Old and new

Pavement traders in front of shops.

Highway at Putrajaya (Multimedia Super Corridor).

Congested road along the Beranang-Bangi Corridor. There is active but discontinuous trading along the verges.

Observation 2: There is a juxtaposition of new formal (high tech/ high standard) : informal/ poorly maintained infrastructure (field observation).

3

New prime-ministerial palace at Putrajaya

New civil servants' housing at Putrajaya. An effort to convert Malay residential vernacular into bricks and mortar.

Observation 3: There is a politically induced effort towards introducing a new 'bricks and mortar' Malay-Islamic iconography into the design of modern structures, regardless of their scale, while many authentic timber Malay structures are in a sad state of decay (field observation).

4
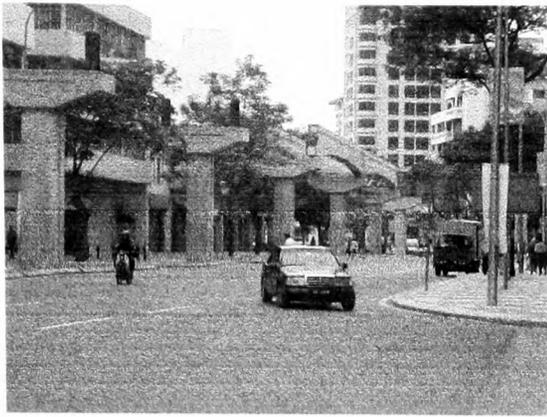
Ad hoc development of Kuala Lumpur's light rail. Construction is temporarily halted in this section due to budgetary problems.

Roads are upgraded by developers in a stretch of the Beranang Bangi Corridor directly in front of their development. Development rights are subject to improving the roads which results in a ad hoc series of improvements along the length of the arterial.

Observation 4: Development is piecemeal and ad hoc (Bin Shaari, pers com 2001, field observation).

5

Semi-formal roadside trading is illegal but laws are not enforced. This restaurant is on the main artery of the Beranang-Bangi corridor.
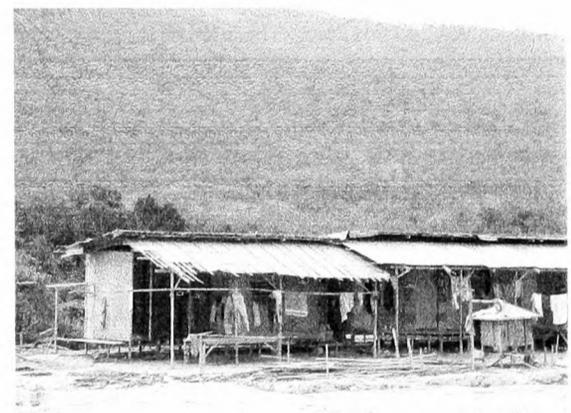
Mr Chau, a retired headmaster from Tampin took me to meet illegal aliens who live in these informal houses close to Tampin. They are from Indonesia (Borneo Island) and work on a nearby mass housing project. For as long as there is a demand for their labour and as long as the local Malays remain reluctant to do much physical work their presence will be tolerated by the authorities.

Obsevation 5: Boundaries to the system are porous and there are many informal settlements on the urban periphery. The corridor zone is clearly a contested space with informal and illegal activities happening amongst regulated activities (Chau, pers com 2001, field observation).

6   *Observation 6*: Local planners are struggling or pretend to be effectively enforcing a British *structure planning* system in the dualist margins of the urban system. While clearly being inappropriate to this context, they stick to it for the sake of perceived progress and the ideal of achieving industrialised country status by 2020 (Bin Shaari, Abd Manaf, pers com 2001).

7
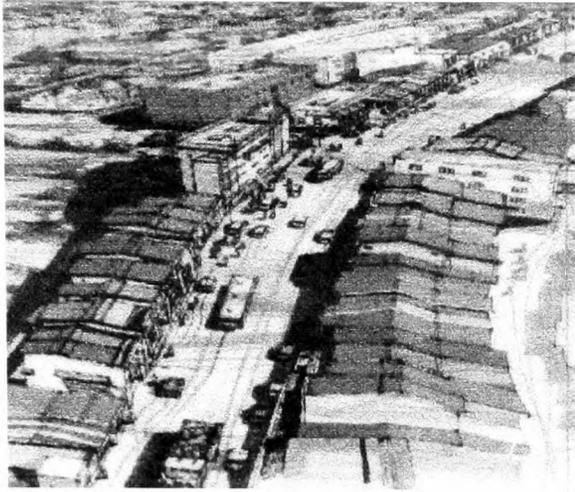
Extracts from a toothless urban design framework for the Beranang Bangi Corridor. It presents a valiant effort to reintroduce the Chinese shophouse typology to the edges of the main artery but without relating it to the wider movement system or to policy instruments. Local town planner Nizam bin Shaari calls it interesting but useless. He does not have time to make sense of it and prefers to stick to enforcing the legally binding land use plan.

Observation 7: There is very little comprehension of the purpose of urban design amongst the planners interviewed. There seems to be an impression that it is all about street furniture and tree planting. Apart from a few seductive drawings, frameworks are crudely presented and without any clear strategic focus (City Council of Kajang, 1999, Bin Shaari. Abd Manaf, pers com 2001).

8

Vision of a modern Malaysia. Propagandist billboard with strong man Mohamad Mahathir pictured left and the governor of the Seramban province right. The text reads educated- effective-efficient-electronic. Representatives of Malaysia's three main ethnic groups pose before a series off high tech symbols.

Another of Mahathir's Mohamad propagandist texts (Mohamad, 1998). This book relates specifically to the Multimedia Super Corridor which he initiated himself. "The MSC is a giant test bed for experimenting with not only multimedia technology, but also, and more importantly, the evolution of a new way of life in the in the unfolding age of information technology".
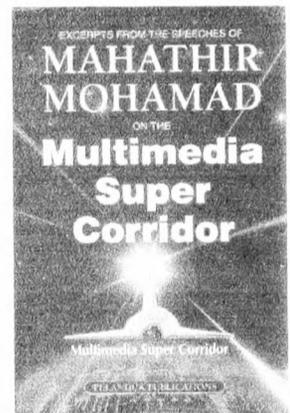
Observation 8: There are high aspirations towards modernity and international competitiveness in the central political arena. Enclaves of the city frequented by tourists are sanitised and aim to present a good face to the world. A red carpet is laid out for foreign investors, both literally and figuratively. The new Kuala Lumpur Airport and the Multimedia Super Corridor collectively represent an over-scaled high tech portal and grandiose processional route while various investor friendly incentives have been launched (Mohamad,1998)

9

Some of the many speculative high rise apartment blocks along the highway south of the inner city. The typology tries to rival that found in neighbouring Singapore which has achieved industrialised country status.

The Petronas Twin Towers. The highest buildings in the world at the time of the fieldwork visit in 2001. It projects a vision of 'can do' associated with the national slogan *Malaysia Boleh*: 'Malaysia can do"

Observation 9: The excessive scale of new structures are seen as symbols of progress and are aimed to impress outsiders. They convey a message of 'can do' (Chau, pers com, 2001; Mohamad, 1998).

10   *Observation 10*: Officials are aloof and come across as being cautiously self-assured during interviews, not wanting to admit that the city is a juggernaut. They are clearly aware of the draconian *Internal Security Act* by which people are summarily prosecuted for criticising the state (Kaur & Metcalfe, 1999, observation).

11
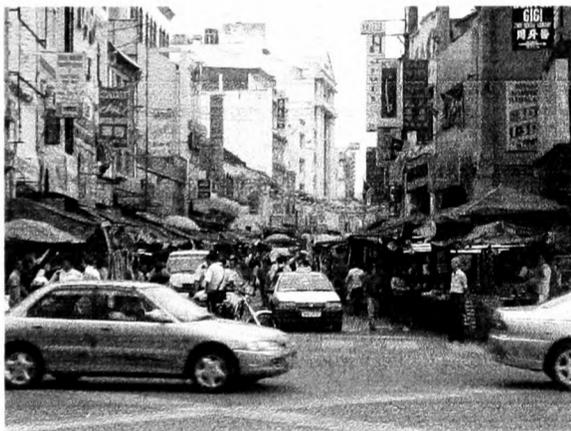
Bustling Chinese busuiness centre

Malay homestead. These are still found in Kampungs in the inner city zones and are very prevalent in the Beranang Bangi corridor zone.

Observation 11: Despite political claims of an integrated society, Chinese and Malay seem to go their own way, each occupying a different niche of the market and city (observation, Kaur & Metcalfe,1999).

12
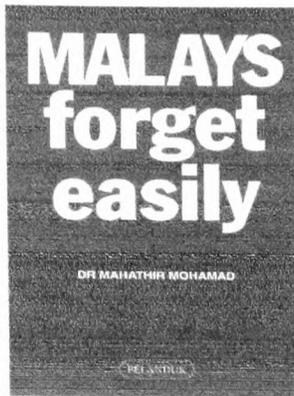
One of the many propagandist books by Malay prime minister Mohamad Mahatir in which he attacks Malays for their lack of thrift. The title refers to Malays taking their post-independence privileges for granted. He indirectly warns of the risk of Malays being overrun and once again being made powerless by the commercially active Chinese sector of the population.
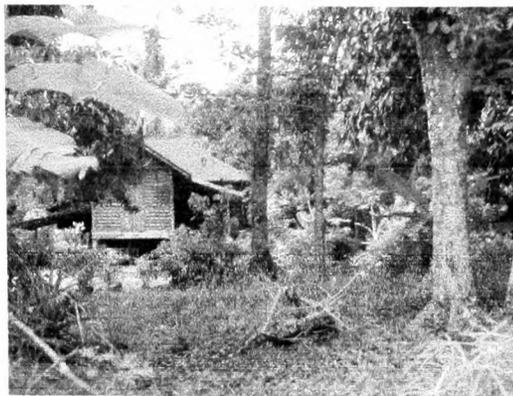
A timeless way of living at Bangi
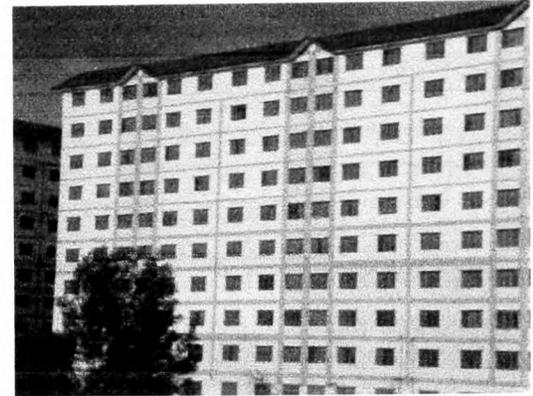
The faceless, universal new way at Kajang
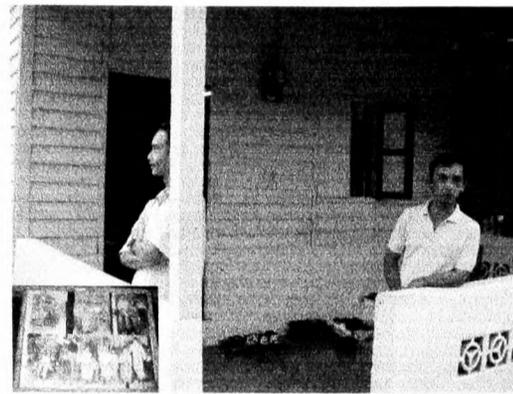
reluctant converts to modernity

converts to modernity

March towards modernity. The thrust is very obvious to an outsider. Within the space of a generation millions of Malays have abandoned their laid back rural lifestyles for an education, a job and a cramped flat in the city. The drive is continuously reinforced by politicians and not least by the articulate prime minister Mohamad Mahatir. Many are confused. The family pictured left (woman are reluctant to be photographed) have made a trade off. The one son was sent to school and university. The other (left on picture) stays at the rural homestead and will one day look after his parents.

Observation 12: Malays interviewed were found to be thoroughly confused about their identity. They are passionate about their culture and traditions but are marched towards a vision of modernity by a central political vision (interview with Malay families in Tampin, observation).

4.4.6. MALAYSIAN IDENTITY CONSIDERED IN A WIDER HISTORIC A SOCIO POLITICAL CONTEXT

The Malaysian case clearly shows that identity is a reflexive project and that *the traditional* cannot be summarily replaced with *the modern*, despite concerted efforts on the part of politicians to speed up change in selected zones of the city.

Malaysia's modern history bears striking resemblance to that of South Africa. In his book *Ceritalah; Malaysia in Transition* Karim Raslan (2000) notes that the parallels between the two countries are more numerous than they would seem at first instant. Most importantly, both countries are multiracial. Secondly, the pattern of development has long been skewed towards a minority. More recently both countries have aimed to institute internationally

accepted standards of practice in contexts where many are struggling to satisfy the most basic physiological needs.

In social science literature published before 1960, Malaysia is typically portrayed as an exemplar of a pluralistic society where the major ethnic groups are alleged to live in harmony with each other. Gomes (in Kaur & Metcalfe :84) notes that, since there were not many inter-ethnic interactions at the time, this may not have been far from reality. Like apartheid, the infamous *divide and rule* policy of the British colonial administration prevented integration of the different ethnic groups. *Divide and rule* policies resulted in the segregation of the three major races into ethnic enclaves, each occupying a distinctive niche within the social and economic framework. Malays mostly remained in the rural areas as subsistence farmers or peasants. The Chinese who flocked into the country to work the tin mines in the mid 1800s and early 1900s settled in the mining areas which eventually grew into urban and commercial centres such as Kuala Lumpur, Ipoh and Taiping, while the Indians were 'imprisoned' in the plantations.

Foreign domination had made the Malay an economically marginalised group. First the Europeans, then the Chinese and Indians, colonised their land and pushed aside the indigenous *Bumiputra* (sons of the soil) way of life. The Bumiputra lost their birthright and they refused to accommodate or even engage with other cultures. Consequently modernity developed around them but excluded them. As the Chinese and Indians became citizens of empire, the Malay communities remained loyal to their sultans. Thus, upon independence from Britain in 1957 the Malays were left with a capital constructed and owned by the Chinese minority. This created an adverse situation, with which they have tried to come to terms ever since (Munro, 2002).

In 1969 bloody race riots broke out on the outskirts of Kuala Lumpur. The normally placid *Bumiputras* not only asked for a greater stake in the Malaysia's urban economy, but wanted to see a Malaysian identity re-established. The riots of 1969 therefore significantly altered the urban development path. Malays received preference in terms of state employment and access to universities. Robertson (1984:236) notes that it is now almost platitude to remark that despite a level of economic empowerment, the major obstacle to urban development in Malaysia is the consolidation of major ethnic divisions within the population. Malaysia is the paradigm of the plural society and the fact that the entire population can be categorised as Malay, Chinese or Indian impinges constantly on the daily lives of ordinary people.

Roberson (ibid) notes that *'they mix but do not combine.....with different sections of the society living side by side, but separately, within the same political unit'.* As a national predicament, Malaysian pluralism is still blamed vociferously on the British, but it is painfully evident that forty five years of independent statehood have done little to dissolve the monolithic distinctions.

Robertson (Ibid) notes that a new emphasis on Malay identity following the 1969 riots has sustained racial divisions. The Malay language and Islam are the main bases of the Malay identity, which finds expression in the self-conscious notion of *adat*, Malay culture and morality. This reinforces the Malays as a national grouping apart from other races. According to Wilson (1967), in subjective stereotype, Malay-ness is *halus*, refined, while anything else is either *kasar*, coarse, or *kotor*, dirty.

4.4.7. THE INFLUENCE OF A STRONG POLITICAL DRIVE TOWARDS MODERNITY ON CONTEMPORARY MALAY IDENTITIES

Prime Minister Mahathir Mohamad's Vision 2020 was unveiled in 1991 and placed Malaysia on an aggressive path towards modernity. According to this vision, all actions would be focused on making Malaysia an industrialised nation by 2020. For his vision to be realised he needed a new kind of Malay, a self confident Malay who is prepared to take on not only the Chinese but the world, guided by a new national motto 'Malaysia can do' (Malaysia Boleh). This bears striking resemblance to South African president Thabo Mbeki's NEPAD (New Economic Plan for African Development), which was unveiled in 2002.

Recent accounts and field observation suggest that the emergence of a large economically integrated and urban Malay middle class and the drive towards modernity has altered the self conscious-identity of urban Malays. This has resulted in renewed attempts to arrest the decline of the Malay identity, which was so aggressively pursued and supported by Malays after the 1969 riots. Kaur and Metcalfe(1999: 95) note that:

> *'The focus on, or one could even say obsession with culture and morality in general could be seen as an attempt to arrest what many in Malaysia see as a decline in morality stemming from the country's rapid industrialisation and the growing influence of Western cultures'*

They go on to note that, in terms of inter-ethnic interactions, the questions is whether we are witnessing the demise of ethnic politics in Malaysia (ibid: 69). The fact that ethnicity still figures prominently in everyday social interactions in Malaysia and that people are still divided and identified on the basis of race indicates that the country has not really seen the end of ethnic politics. Some commentators have argued that Malaysia's economic boom has served to divert attention away from ethnic problems that may rise again at times of economic contraction or stagnation.

4.4.8. PARALLEL AND DIVERGENT CORRIDOR DEVELOPMENT AS SYMPTOMS OF MALAYSIA'S DUALIST IDENTITY

As with South Africa's neo-liberal Spatial Development Initiatives (see Chapter 3) corridors are often considered marketable armatures for investment and growth under Malaysia's Vision 2020. This is manifested in the iconic Multimedia Super Corridor which stretches between the recently built Kuala Lumpur International Airport and the futurist Kuala Lumpur City Centre.

There is however a corridor type which predates the neo-liberal corridor. With the emphasis on urbanising the Malays as part of the New Economic Plan of 1971, corridors became armatures for urban growth and a mechanism for incorporating rural Malays into the urban system. Since the end of the Second World War a corridor had already developed spontaneously between Kuala Lumpur and its port, Port Klang, some twenty kilometres to the east of the city centre. Expansion beyond the Klang Valley Corridor is for the most part recent. Since the early 1970's the expansion in urban activities has progressed further south, past Semenyih towards Beranang and into traditional Malay areas reserved for Malays under the controversial Malay Land Reservation Act of 1932. This corridor is today commonly referred to as the Beranang-Bangi Corridor.

My observation was that ad hoc commercial speculative development on the *Land Reservation Areas* of the Beranang-Bangi Corridor is now commonplace. Notwithstanding rapid growth, and perhaps because of the rapidity of growth along accessibility routes into the city, large areas of rural land remain intact, much of it still under agricultural use and located between the radiating corridor-extensions of the urban footprint. This created a gap for the clearance of plantations and the establishment of the Multimedia Super Corridor between the fingers of the Klang Valley Corridor and the Beranang -Bangi Corridor.

In their book *The City in the Village: The in situ Urbanization of Villages, Villagers and their land around Kuala Lumpur* Brookfield et al *(1991)* describe the impact of the rapid urbanisation processes on rural identities. As an introduction to their study they confirm what I had witnessed during my own fieldwork: they note that initial travel around the metropolitan periphery revealed many Malay villages which appeared to have their traditional characteristics in tact, despite being only a few kilometres away from the moving urban frontier. Many villages along transverse country roads that meet up with corridors are still in the traditional Malay style, i.e. houses on stilts with wooden walls and floors. Though retaining the original shape, roofs are now made of corrugated iron or fibrous cement. Fruit trees provide canopies of shade from the sun. Vegetables of many kinds are grown to supplement the daily diet of people in the households. At the back of the houses are rubber trees, which are hardly tapped.

Brookfield et al note that, if the calm and somewhat slumberous ambience of these villages had given the impression that they had not reacted to the advancing urban expansion, we would have been misled. A great deal of change was in progress. Most importantly patterns of land ownership had changed. Communal land ownership had given way to individual land ownership in the Kuala Lumpur Federal Territory. Malays could pawn it, mortgage it or sell it for cash. Local chieftains lost control of the means of production and of their capacity to sustain Malay tradition. In their naiveté many Malays were and are still exploited financially by an astute Chinese business class. Modernity with its emphasis on the individual had clearly penetrated the rural hinterland where spaces remained traditional but attitudes had become radically altered. There is no chance for individuals to opt out of modernity and to remain traditional since the traditional system depended on a communal support network which has now collapsed. In semi-structured interviews with Chau and bin Shaari (see Annexure 4) it was noted that, for many the transition has been bitterly difficult. It has taken more than three generations of hard lessons, together with some protective action on the part of the government, before Malay peasantry have been able to adapt reasonably to the new conditions. During fieldwork a Malay family was visited in a remote *kampung* (village) close to the rural town of Tampin. The father was torn between modernity and tradition. While the one son remained on the land and could not speak English, the other had been sent to university, was fully conversant in English and was wearing American clothing and accessories.

The dualism of a shifting identity is discernible in the corridor spaces (figure 4.27). While some Malays have succumbed to the advances of land speculators, particularly in the stretch closest to the city, others have clung to their land. The result is what Nizam bin Shaari (pers com, 2001), the resident town planner of Kajang calls piecemeal corridor development. The corridor strip is therefore highly disjointed. Narrow, ramshackle roads flanked by intimate vernacular forms unexpectedly open up into dual carriageway systems flanked by blighted car parks and impersonal, multi-storey concrete structures only to narrow down into another intimate strip of indefinite length. In spatial urban design terms it is the antithesis of cohesiveness and integrated urban form.

FIGURE 4.27: TWO WORLDS
DUALISM IN THE PARALLEL CORRIDORS OF KUALA LUMPUR

highway and high speed link

NORTHERN ANCHOR: PETRONAS TWIN TOWERS

congested single carriageway

high rise apartment blocks.

CAN DO   MAKE DO

NEO-ISLAMIC
&
HIGH TECH

VERNACULAR
&
SPECULATIVE
COMMERCIAL

new sub standard mass housing at Kajang

High tech industry at Cyberjaya

TWIN TOWERS

CYBERJAYA

PUTRAJAYA

BERANANG

BANGI

decaying traditional Malay house at Beranang
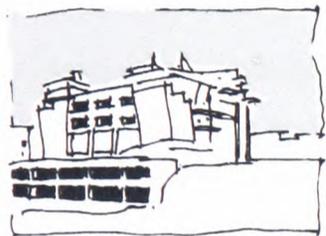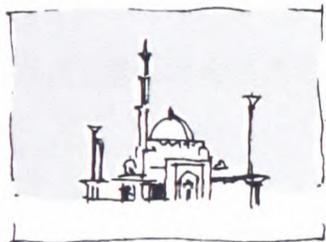
National Mosque at Putrajaya

AIRPORT

decaying Malay shop houses at Bangi

MULTIMEDIA SUPER CORRIDOR

BERANANG BANGI CORRIDOR

Prime Ministerial Palace at Putrajaya

'Illegal' Roadside trading along the Kajang - Bangi road.

SOUTHERN ANCHOR
KUALA LUMPUR INTERNATIONAL
AIRPORT

New town for civil servants at Putrajaya

Illegal Indonesian migrant shacks at Tampin.

4.4.9. CONCLUSION: CASE STUDY ANALYSIS

Two important conclusions can be drawn from the analysis of the Malaysian case:

- **First:** The study indicates that politicians who actively seek to portray an image of *modernity* to an international clientele have the capacity to initiate the development of over-scaled and master planned corridors which are consciously detached from local traditions. Tradition and small-scale vernacular is clearly considered backward and an impediment towards achieving industrialised-country status.

- **Second:** The study indicates that the access provided by an arterial leading into a rapidly urbanising city has the power to transform identities by stealth. Land speculators, who aggressively bargain for land in proximity to movement arterials have little cause with local identities while the affected rural populations sometimes try desperately, but ultimately in vain, to limit the progress of modernity that is closely associated with post industrial urbanisation.

4.5. CONCLUSION (PART 2: AUSTRALIAN AND MALAYSIAN CASE STUDIES)

'people are trapped in history and history in them' James Baldwin. Notes for a Native Son, 1955

The purpose of considering the Australian and Malaysian cases was to acknowledge the mature status of selected corridors found in each and to relate their development patterns to South Africa's incipient corridors.

The comparative analysis shows how people have responded very differently to policy frameworks that derive from Britain and that conform to international standards of good practice. It has been indicated how a modern culture associated with Australia generates conditions in which people generally accept expert systems. Because of this Perth's corridors have developed in a way that closely matches the *1972 Perth Corridor Plan*. When such a system is applied indiscriminately to a transient, developing world context it yields significantly different results. In Malaysia its effectiveness was compromised by local struggles between the modern and the traditional. The analysis presented in this CHAPTER indicates that the manifestations of this struggle is clearly visible in Kuala Lumpur's divergent corridor spaces. It has also been indicated that corridor space is

important livelihoods generating space for the poor in Malaysia. Many Malays trade and live on the verges of the mobility spine. By contrast a modern society like Australia values the corridor concept for its capacity to support an efficient movement system.

For better or worse, *the modern* is winning the struggle in Malaysia because of intense and sustained political pressure. This is however a patient discourse which has resulted in (impatient) politicians abandoning the historical corridors (such as the Beranang-Bangi Corridor) in favour of a rigidly controlled, sanitised and iconic Multimedia Super Corridor. What this effectively means is that, if pull forces do not work, public money will be used to push a powerful image of modernity. For many Malaysians the leap required by an impatient political discourse is simply too great. The result of all this is that the duality and inequalities are becoming increasingly pronounced. When stepping off the sanitised tourist track where most of the Federal Territory of Kuala Lumpur's public investment is now focused we find a world that is neglected and left to its own devices and where rigid policy crafted by and for a modern society is severely compromised.

What relevance does all this have to the South African case? PART I of this CHAPTER indicated the high prevalence of transient identities in the agripolitan fringe that are closely associated with that found in Malaysia while South Africa's traditionally white suburbanites and the growing black elite share the modern value system of contemporary Australians. The one group demand the enforcement of standards of good practice while the other will consider its symptoms a tyranny that diminishes their already slim life chances. A compromise to the political visions of rapid conversion to *modernity* is unavoidable.

Despite a strong political pursuit of modernity, South Africa's demography (see figure 4.23) suggests that the urban development pattern will lean strongly towards Malaysia's compromise scenario. High unemployment (currently at 30%) will lock people into traditional modes of co-operation for much longer than politicians would like to see. Different geographies require flexible policy instruments that satisfy the needs of both modern and transient sectors of the urban population. While a positivist/ operational approach may suit zones of high modernity, a more engaging/ reflexive approach is needed in zones of transience.

The next CHAPTER considers South Africa's evolving urban management system in order to assess the relative scope for urban design to formulate a strategy that responds appropriately to the urban sociological variables presented in this CHAPTER, and to the dualism associated with South Africa's political economy presented in CHAPTER 3.

CHAPTER 5: CORRIDOR DEVELOPMENT AND URBAN DESIGN IN A STRATEGIC URBAN MANAGEMENT CONTEXT

5.1. INTRODUCTION

5.1.1. AIMS AND SCOPE

This CHAPTER is the last of three CHAPTERS that jointly aim to define the context for the practice of urban design in South Africa's post apartheid corridors. Its aim is to consider the influence of South Africa's evolving strategic urban management system on corridor development.

The analysis presented in the previous two CHAPTERS indicate transient and dualist corridor contexts that require a flexible urban design approach. The aim of the CHAPTER is to assess South Africa's evolving urban management system in terms of its capacity to accommodate such an approach. The research recognises the limited power base of urban design and its limited capacity to influence higher order legal frameworks. The aim is therefore not to propose an alternative urban management approach but to determine the scope for manoeuvre within the existing legal framework and the realistic potential for urban design to improve lives.

5.1.2. METHODOLOGY

The CHAPTER is presented in two parts:

- The **first part** indicates why and how corridor development is supported by a strategic urban management approach and then assesses the relative scope for urban design involvement. Six key characteristics of a strategic urban management approach presented by Borja & Castells (1997) provides a theoretical framework for the assessment.

- The **second part** constructs a translated *powergram* of urban design in corridor development by considering the roles of the various actors associated with South Africa's institutionalised strategic urban management model. The powergram is based on McGlynn's powergram (Hayward & McGlynn, 1993:6).

5.1.3. BACKGROUND

5.1.3.1. URBAN DESIGN IN A STRATEGIC URBAN MANAGEMENT CONTEXT

Devas & Rakodi (1993:76) note that various urban management models are used in developing countries. These range from continued use of rigid master planning models to experimentation with flexible action planning approaches (Devas & Rakodi, 1993:76). Democracy in South Africa saw a rapid series of policy changes aimed at transforming a hierarchical and compartmentalised urban management system into a more representative and accountable, city-based strategic model that conforms with international standards of best practice, and particularly those prescribed by international donor agencies (DoH, 1997: 9).

There are valid questions about how such increasingly market-oriented models can be reconciled with the legitimate role of political participation in developing countries (Devas & Rakodi, 1993;76). In the context of this research it also raises questions about the prospects of active urban design involvement. Different urban management models offer different opportunities and constraints for the practice of urban design. It is beyond the scope of this research to consider a broad range of alternative urban management approaches and to evaluate the appropriateness of each in the South African context. Rather, South Africa's incipient strategic urban management model termed *Integrated Development Planning* will be evaluated to assess the relative scope for urban design in corridor development.

5.1.3.2. EMERGENT NEW OPPORTUNITIES FOR URBAN DESIGN

The American urbanist Jonathan Barnett (1973) reminds us of the relativistic role of urban design:

> *The day to day decisions about the allocation of government money according to conflicting needs and different political interests, or the economics of real-estate investment, are in fact the medium of city design, as essential to the art as paint to the painter. To produce meaningful results, both from a practical and artistic point of view, urban designers must rid themselves of the notion that their work will be contaminated by an understanding of these decisions. It is not always necessary to approve ; it is essential to understand.*

While Barnett's note may suggest a limit to the urban designer's power base, the South African scenario indicates that, if anything, urban designers need to become aware of their enhanced powers. Despite the often lamented grip of the commercial land market and the associated urban dualism discussed in CHAPTER 3, the strategic urban management system that was adopted in South Africa in 2000 offers significant new opportunities for urban design practice:

- **First,** the Development Facilitation Act (DoCD, 1996) and the associated Local Government Transition Act (1996) have enabled significant delegation of political power to South Africa's five metropolitan regions[1]. A decentralised management system that supports a more direct and responsive regional approach to urban development has now been created. Urban design will benefit from this since it had little scope or power to influence centralised national policy under the previous planning system that focused almost exclusively on land use management.

- **Second,** spatial development frameworks have officially replaced structure plans and master plans as an important instrument of the newly proposed strategic urban management system (DoPLG, 2002). Urban designers have much greater affinity for the flexibility associated with a framework than for frustrating fixes and technocratic jargon associated with master plans and structure plans.

> *The Town Planning Scheme imported from the United Kingdom was at the heart of the pre-2000 town planning system and was strictly enforced. It was based on the erroneous assumption that it is possible and desirable to predetermine the land use of all land parcels (DCD, 1999:6).*

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[1] Cape Town, Pretoria, Durban, Port Elizabeth and Johannesburg.

- **Third,** detachment from central prescription allows for various pilot projects to be undertaken within the more responsive policy and spatial development frameworks. Successful projects may leverage both private and public interest and may heighten the awareness of the value of responsive urban design (Nicks, 2003).

- **Fourth,** the strategic approach allows for the formation of interdisciplinary teams that often become involved during the early, strategic stages of a five year urban management cycle where they assist in lobbying support for public investment in a range of mooted projects. Under the previous system, built environment professionals had an exclusively non-strategic, executive function and operated within the strict confines of their different professions. By contrast the new decentralised management system offers significant opportunities to challenge or balance the still prevalent technical-rational and modernist mindset that was described in CHAPTER 3.

- **Fifth,** cities will become much more concerned with their image and the quality of urban space as they aim to compete with other cities. This provides patronage for a new civic tradition in which the quality of public space is valued (Buthelezi, 2000).

- **Sixth,** universal though they are as a phenomenon, urban or metropolitan agglomerations do not lend themselves to uniform treatment since their reality is multiple and complex. This applies equally to South Africa's five metropoles than to any other city in the network of world cities. This recognition has brought great new demand for urban design skills (Wood, Nicks, pers com 2002).

- **Seventh,** while this may sit uncomfortably with many of the aims of the market and is often contradicted by preferential treatment of projects mooted by big investors, official policy supports a drive towards achieving greater sustainability in South African cities (DoCD, 1996).

Borja and Castells (1997:155) note that we also need to recognise the weaknesses of a strategic approach. The most common weaknesses are (1) generating unrealistic expectations or the danger of strategic plans becoming utopian (2) over-generic objectives (3) little executive commitment by agents and (4) an exclusively political perception of the plan. Because it involves a flexible structure, a relatively open process and a global agreement which has the force of a political contract but not a legally binding one, it calls

for very strong management and leadership. For this reason a strategic approach will prove successful in one city and disastrous in another.

5.2. RELATING KEY OBJECTIVES OF A STRATEGIC URBAN MANAGEMENT APPROACH TO CORRIDOR DEVELOPMENT

Borja and Castells (1997) present a set of key objectives that may generally be associated with a strategic urban management approach. Some of the opportunities for urban design presented above are reinforced by their analysis. The key objectives that are mirrored in South Africa's Urban Development Framework (DoH, 1997) are:

- **First**, city governments will become political agents which have the capacity to facilitate the establishment of private public partnerships on a cyclical basis and which will view the development of the city in a non-sectoral manner.

- **Second**, cities will engage in large-scale development projects, often linked to international events in an effort to boost the international profile of their cities.

- **Third**, public investment in infrastructure will be limited and will largely be aimed largely at leveraging significant further private investment.

- **Fourth**, urban development strategies will be geared towards achieving greater sustainability (efficient energy use and improved accessibility).

- **Fifth**, urban space will be configured to stimulate local economic development.

The definitional analysis of the corridor presented in CHAPTER 2 indicates that the corridor may satisfy a number of these objectives, thus raising its political currency and explaining its popularity amongst urban managers and politicians in post apartheid South Africa. These universal matches are over and above the very strong symbolism associated with the physical integration of fragmented South African cities. The table below provides an indication of the matches between strategic objectives and what urban corridors have to offer.

FIRST KEY OBJECTIVE OF A STRATEGIC URBAN MANAGEMENT APPROACH	HOW CORRIDOR DEVELOPMENT MAY MEET THE STRATEGIC OBJECTIVE
City governments will become political agents which have the capacity to facilitate the establishment of private public partnerships on a cyclical basis and which will view the development of the city in a holistic manner.	The undeveloped or underdeveloped spaces around existing highways leading into cities (apartheid era buffer zones) are convenient and accessible armatures for investment. With many of the highways already in place and dating from the apartheid era, city governments actively use the imageability of the highway to attract private partners by labelling the highway spaces as development corridors on spatial development frameworks. Where stations have been established along a public transport route, these may serve as development nodes.

Figure 5.1. Cover of the marketing brochure of the MCDC Corridor (Pretoria) that uses the image of an existing highway as an armature to attract private investment. The inferred accessibility becomes the main draw card.

SECOND KEY OBJECTIVE OF A STRATEGIC URBAN MANAGEMENT APPROACH	HOW CORRIDOR DEVELOPMENT MAY MEET THE STRATEGIC OBJECTIVE
Cities will engage in large-scale development projects, often linked to international events in an effort to boost the international profile of their cities.	An entire corridor or nodes within proposed corridors may be identified for this purpose. The Multimedia Super Corridor in Malaysia indicates how an entire corridor in a developing country context is managed as a mega-project (See annexure 4). The figure below indicates how nodes have been identified as high profile projects in South Africa's Gauteng Province.
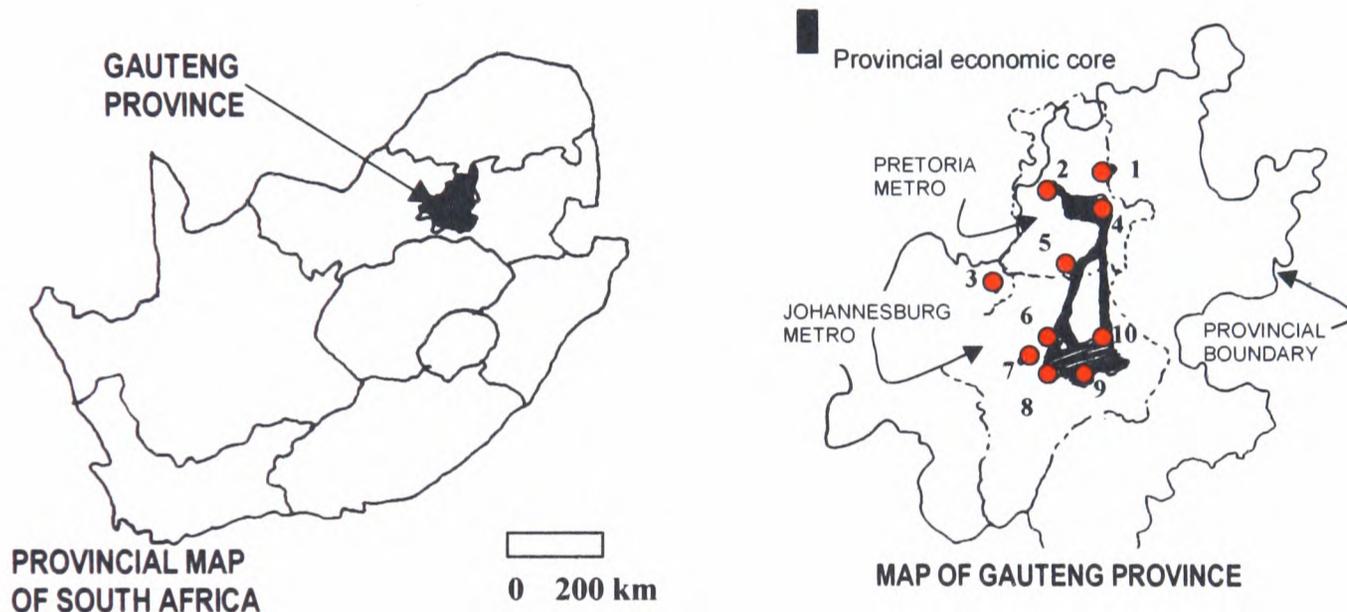
Figure 5.2. Location of ten strategic development projects in Gauteng. (1) Dinokeng Crater (2) Gauteng Auto Cluster (3) Cradle of Humankind (4) Innovation Hub (5) Rapid Speed Train (6) Constitution Hill (7) Newtown Cultural Precinct (8) City Deep Mine (9) Wadeville Alrode Industrial Development Zone (10) Johannesburg International Airport. (Holtzhausen , 2001).

THIRD KEY OBJECTIVE OF A STRATEGIC URBAN DEVELOPMENT APPROACH	HOW CORRIDOR DEVELOPMENT MAY MEET THE OBJECTIVE
Public investment in infrastructure will be limited and will largely be aimed at leveraging significant further private investment.	In its extended linear form the corridor presents a capital web of minimal public investment based largely on public transport infrastructure. With the new focus on a regional development approach urban designers and particularly those who subscribe to a market driven New Urbanist approach have found new patronage from neo-liberal city governments and have increasingly become active in proposing linear growth patterns based on a fine network of walkable catchments. The approach can be traced back to David Crane's capital web theories of the early 1960's. Both Crane's capital web approach and the more recent regionalist approach of New Urbanists like Peter Calthorpe encourage linear regional urban form while establishing a framework for more detailed urban intervention at the local scale. This suggests a new emphasis on physical urban form. CHAPTER 6 provides a critique the capital web and New Urbanist approaches. Apart from these more considered approaches which acknowledge a hierarchy of scales, the focus on public investment in infrastructure has undoubtedly resulted in the widespread and often unresponsive proposal of a minimal set of static, generic corridor elements and sections as described in CHAPTER 2, subparagraph 2.4.2.

Public open space network

Commercial sub centres
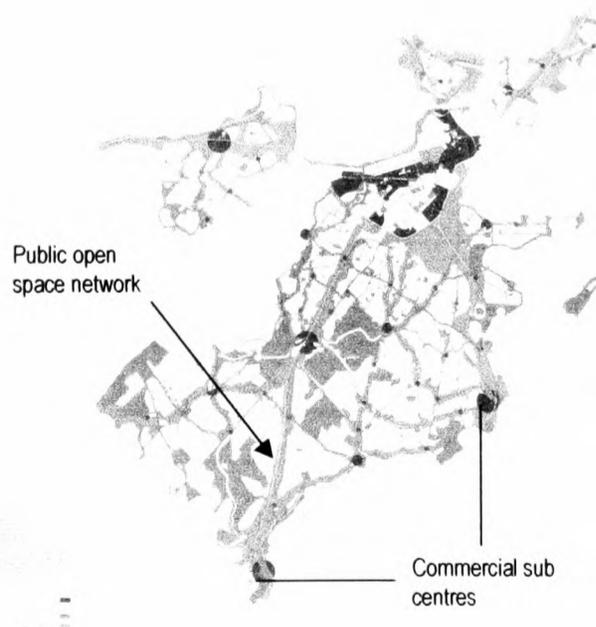
Figure 5.3. David Crane's capital web, a proposed linear network of minimal public investment originally proposed for Boston (pictured here) and later translated to fast growing developing country cities such as Chandigargh (Barnett, 1998:225).

FOURTH KEY OBJECTIVE OF A STRATEGIC URBAN MANAGEMENT APPROACH	HOW CORRIDOR DEVELOPMENT MAY MEET THE STRATEGIC OBJECTIVE
Urban development strategies will be geared towards achieving greater sustainability (efficient energy use and improved accessibility).	In CHAPTER 2 it was noted that this is today one of the key motivating factors for introducing planned corridors in both developing and industrialised countries. Achieving sustainability is no longer voluntary. It is a normative objective of the constitution. In South Africa the Development Facilitation Act (DoCD, 1996) requires city governments to prepare spatial frameworks that demonstrate sustainable practice at a metropolitan planning level. The compactness and energy efficiency of the corridor plan makes it an easy sell.

FIFTH KEY OBJECTIVE OF A STRATEGIC URBAN MANAGEMENT APPROACH	HOW CORRIDOR DEVELOPMENT MAY MEET THE STRATEGIC OBJECTIVE
Urban space will be configured to stimulate local economic development.	Of the five stated objectives this is perhaps the most easily compromised objective. In theory corridors reach out to poor communities and aim to integrate them into mainstream society on both a physical and and socio-economic level. In reality most actions are driven by the invisible hand of the market or are dominated by higher order political agendas. For corridor developments to achieve this objective it needs to seriously consider land market dynamics.

5.3. NEW OPPORTUNITIES FOR URBAN DESIGN IN A FIVE YEAR STRATEGIC URBAN MANAGEMENT CYCLE.

The term Integrated Development Planning (IDP) is commonly used to refer to South Africa's strategic urban management process.

Figure 5.4. indicates four key phases or events within the typical five-year strategic urban management cycle. The diagram is based on a review of the methodology initiated by the Municipal Systems Act (DoPLG,2000) and which is explained in a series of five step-by-

step *Integrated Development Planning Guide Packs* prepared by the Department of Provincial and Local Government (DoLG, 2002, 2002a). Phases A, B and C represent opportunities for provisional or temporal urban design involvement during the mooting and approval of projects while Phase D indicates opportunities for more continuous involvement in the design and development of approved projects. The diagram clearly illustrates the emphasis on identifiable projects and measurable outcomes. Projects may be of a physical or non-physical[2] nature. Each of the four phases will be related to corridor development and to the associated scope for urban design involvement.

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[2] Aids alleviation programmes, food programmes and education are pertinent examples

FIGURE 5.4. A SIMPLIFIED REPRESENTATION OF SOUTH AFRICA'S STRATEGIC INTEGRATED DEVELOPMENT PLANNING PROCESS (Adapted from DoPLG, 2002).

STAGE **A**: identification and presentation of community needs

STAGE **B**: identification, provisional design and presentation of strategic projects

STAGE **C**: review and prioritisation of projects within an intensive, 37 week budgetary cycle

STAGE **D**: preparation of integrated frameworks, detailed design and implementation of prioritised projects

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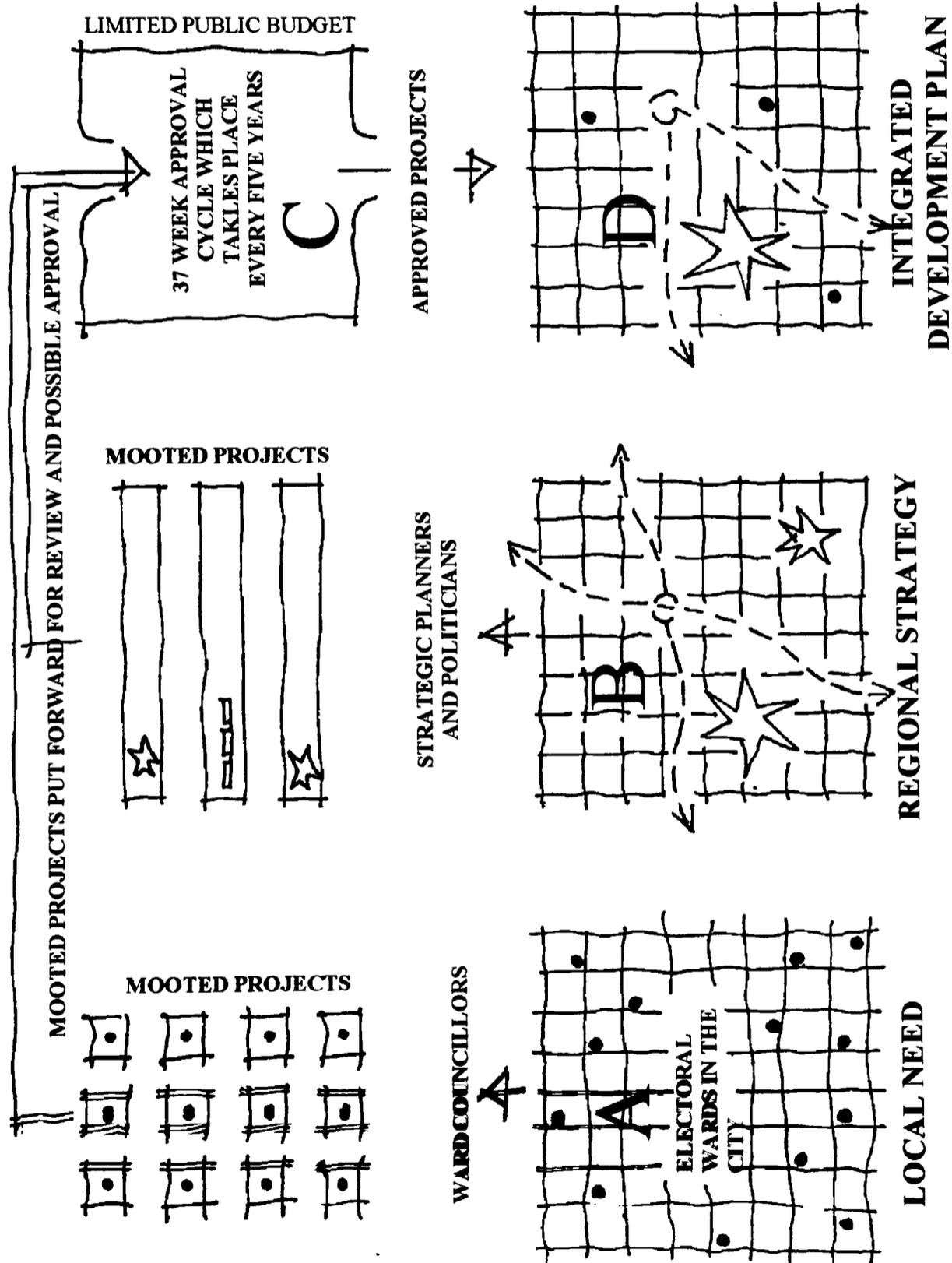
STAGE A: Identification and presentation of community needs.

It is unlikely that the corridor concept will be identified as an empowering force at this level. The urban management model is based on electoral wards of approximately 10 000 people each. These are considered the minimal units of a representative structure in which ward residents are involved in an institutionalised participation process by which a list of local needs is compiled for possible budgetary approval within the mentioned five year cycle. This remains a highly placatory process which is partly necessitated by a lack of resources. A ten member committee and a ward councillor are elected within each of the wards during each five year management cycle. The committee is assisted by facilitators who manage the institutionalised process that determines local need. Predictably, the lists mostly indicate a need for housing, education and improved health care amongst poorer communities.

The urban management model excludes direct urban design involvement at this level. CHAPTER 7 considers an alternative development practice approach which recognises the lack of and temporality of engagement with communities.

STAGE B: Identification, provisional design and presentation of strategic projects.

Strategic planners employed by metropolitan government play a central role in identifying and presenting strategic, metropolitan wide projects for approval during the five year strategic urban management cycle. Since corridor development satisfies many of the objectives of a strategic approach, corridors and/or nodes within corridors are often mooted as projects during this broad brush stroke stage. They are mooted at a variety of scales, from those linking up with provincial and national corridors to more intimate linkages between disparate parts of the apartheid city. These proposals are often quite radical in their effort to undo some of the fixes of the unsustainable and inequitable apartheid city. A review of spatial urban development frameworks suggests that this has created a new

interest in the spatial hierarchy of the city and the need for urban design to unlock local opportunities by becoming involved at a regional level.
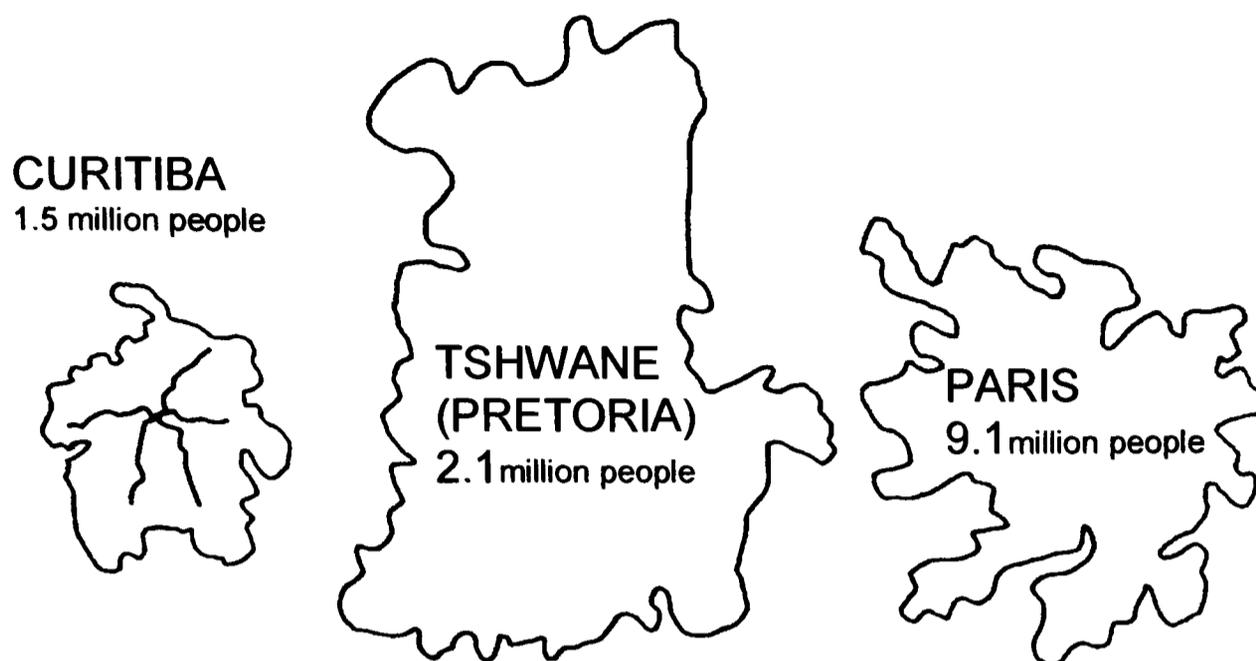
Figure 5.5. Unsustainable urban form: comparative size and population of a South African city (City of Tshwane: 2002).

TABLE 5.1. COMPARATIVE DENSITIES IN SELECTED CITIES (CITY OF TSHWANE, 2002)			
	METRO	CITY	
	Density (people per hectare)	Density (people per hectare)	Serviced area per capita
Buenos Aires	36	148	67
Santiago	3	103	97
Sao Paolo	86	86	115
Singapore	48	48	208
London	40	40	250
Rotterdam	19	29	344
Tshwane (Pretoria)	9	16	625

STAGE C: Reviewing and prioritising projects within an intensive, 37 week budgetary cycle

Annexure 3 presents a detailed analysis of the 37-week cycle. A steering committee, officials, specialists and elected representatives (the IDP Representative Forum) oversee and/or are involved in the process. Ultimately the aim is to determine **priority projects** through consensus and to **allocate budgets**. The City of Tshwane, which has an estimated population of 2.1. million people had an elected forum of more tan 200 people during the 2001 cycle (Nkosi, 2001:1).

According to the IDP Guide (DoPLG., 2002) which outlines the activities of the 37 week strategy phase, the most important levels of involvement according to a *Why What, How, Who* strategy are (see Annexure 3 for a complete list of activities) :

a) Compiling information (activity 1.1)

b) Performing a spatial analysis at municipal level (activity 1.4)

c) As members of a Project Task Teams involved in designing and presenting project proposals (activities 3.1, 3.3, 3.4, 3.5.).

d) Evaluating proposed projects in relation to the five year Integrated Spatial Development Framework (ISDF) and other parallel programmes such as the 5 year financial plan (The ISDF largely a planning/urban design exercise concerned with land use management).

e) Amending and presenting an ISDF which considers the cumulative effect of proposed projects and programmes

This indicates that there is no more than a few weeks available for each of the activities. It is clear that the ultimate aim of this STAGE is budgetary approval and checks for conformation with normative policy frameworks under the veil of transparency. While this is difficult to prove, there are reason to question the capacity of an elected representative forum comprising of non-specialists to challenge the ideas prepared by specialists.

This stage also calls for prioritisation and comparative evaluation of various projects. With the limited time available for quantitative analysis, some lamentable scientific methodologies are being developed to test and rank proposals. This also relates to corridor development as will be discussed later in this CHAPTER (subparagraph 5.4.2).

The visualisation skills of urban designers suggest that they may play an increasingly important role during this phase and that effective communication of ideas which relate to spatial development may assist in making the 37 week cycle more democratic.

STAGE D   Preparation of integrated spatial development frameworks and implementation of prioritised projects.

Integrated Spatial Development Frameworks indicate the spatial distribution of approved projects within the five year strategic urban management cycle. It originates as a draft framework which indicates desirable projects as conceived by metropolitan planners, is then debated, reworked and approved during the 37 week IDP cycle and finally consolidated and integrated with associated frameworks[3]. The approved integrated spatial development framework (ISDF) deals specifically with city wide physical/infra-structural projects and indicates the spatial distribution and relationship of approved projects. It is a legally binding document which steers major physical development for the remainder of the five-year budgetary cycle.

While likely private partners have tentatively been identified during previous stages of the four-stage cycle and during the course of the previous five year budgetary cycle, private partners are now formally engaged and dedicated teams are assembled to design, manage and implement the various projects.

During this stage the management and participatory involvement becomes more discretionary and less prescriptive than the preceding three stages of the IDP process. The approved projects may correspond directly with strategic corridors, e.g. nodes or arterials within the alignment of corridors. There is a remote chance that, if corridors are of a modest enough scale, the entire corridor may be classified as a capital project.

A review of the *Integrated Spatial Development Framework* for the City of Tshwane (City of Tshwane, 2002/2003) indicates a strong new emphasis on urban cores (nodes) and activity spines versus a dominant corridor. This is clearly in response to the need to

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[3] for example the critical five year budgetary franework and higher order provincial spatial development frameworks

propose a democratic series of investment projects that benefit the entire city rather than sectoral interests. Key nodes that have been proposed at a provincial level clearly influence the alignment of sub regional corridors by acting as regional anchors.

MAP OF GAUTENG PROVINCE
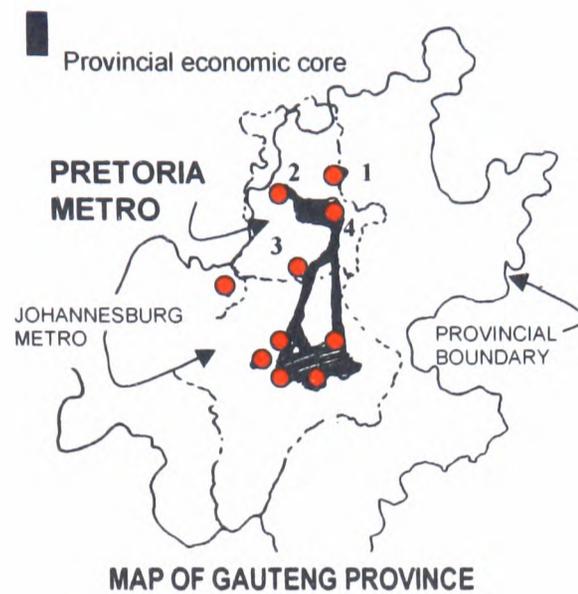
Figure 5.6. The Pretoria Metro (Tshwane) within the geography of the Gauteng Province. Four provincial projects fall within the boundaries of the Pretoria Metro (1) Dinokeng Crater (2) Gauteng Auto Cluster (3) Rapid Speed Train (4) Innovation Hub (adapted from Holtzhausen , 2001).

ALIGNMENT OF THE REGIONAL SCALE, MID 1990's MCDC CORRIDOR

NODES AND ACTIVITY SPINES (STRATEGIC PROJECTS) AS INDICATED IN THE LATEST INTEGRATED SPATIAL DEVELOPMENT FRAMEWORK (2002/2003)
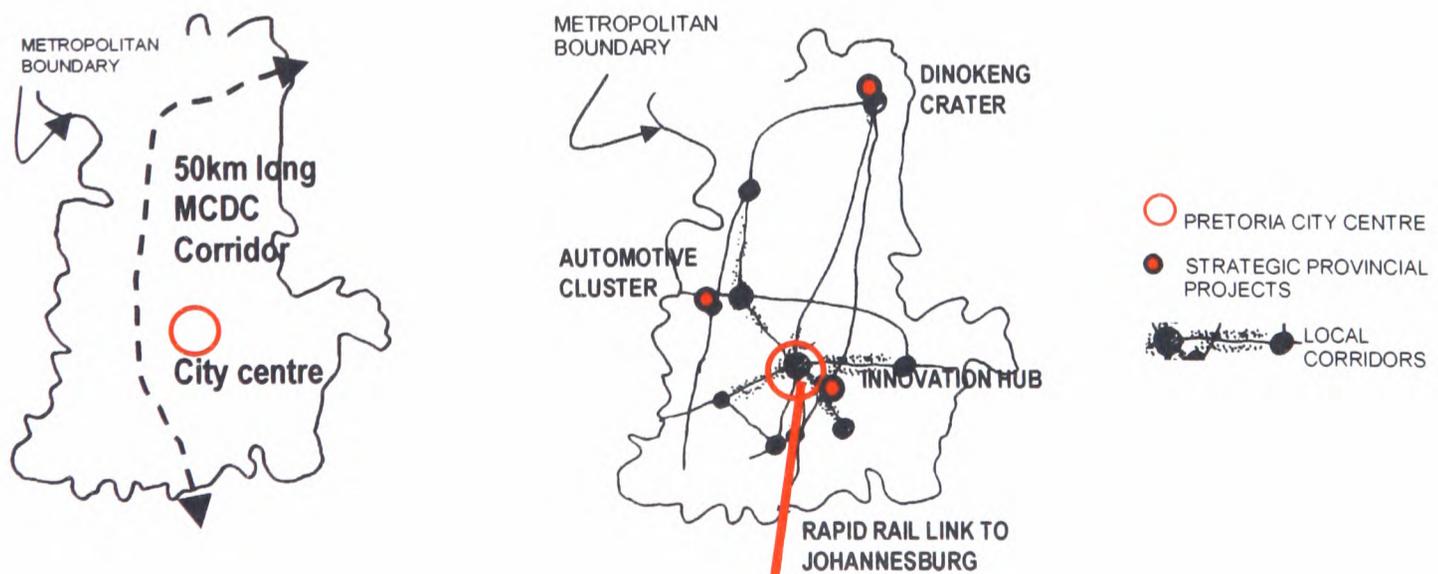
Figure 5.7. The spatial impact of a shift towards sub-regional projects as indicated by the Integrated Spatial Development Framework for the City of Tshwane (Pretoria). Provincial projects act as regional anchors (Redrawn from The City of Tshwane, 2002/2003).

URBAN CORES (NODES)

The ISDF for Tshwane provides specific urban design guidelines for intensification around railway stations, which are defined as *urban cores*. An urban core is roughly the area within a radius of 1500m around railway stations.

Development within the urban core is aimed at achieving the following:

- High intensity development (high floor space ratio, coverage and height).
- Pedestrian friendliness.
- Outward development (i.e, development oriented towards the street as opposed to introverted malls).
- High architectural quality (it is not specified what this means).
- Mixed land use development even at the level of individual sites and buildings.
- Buildings should be placed as close to the street boundary as possible and in order to define and shape (zero lining).
- Active ground floor functions.

ACTIVITY SPINES

It is proposed that urban cores be extended into high density, mixed use activity spines along already existing activity spines, until such time as regional and/or local spatial development frameworks specify which routes should be developed as activity spines.

These activity spines can be developed either as gradual extensions of the urban cores or in the beads on a string form.

5.4. PRIORITISATION STRATEGIES FOR CORRIDOR DEVELOPMENT IN A CYCLICAL URBAN MANAGEMENT SYSTEM

The analysis of South Africa's four-stage urban management system suggests that it is greatly influenced by a strategic objective to prioritise key projects. Only a selected number of generic corridor components or associated functions will be prioritised as discreet and measurable projects within any one five year budgetary cycle. The situation is complicated further by the fickleness of a strategic approach. There is no guarantee that a corridor or corridor-elements that have been approved during one budgetary cycle will

receive approval during the next cycle. This sits uncomfortably with the patient space-time continuum associated with urban corridors as described in CHAPTER 2 *(Definitional Analysis)* but is a fact that planners and urban designers will have to accept as the context for practice. Once projects have been selected they become discreet entities. The *when*, *where* and *how* of other elements within the corridor becomes irrelevant until preparation for the next budgetary cycle commences.

This suggests that much energy now needs to be spent on the effective prioritising of projects at a regional scale and that ways need to be found to bridge the cyclical gaps associated with a strategic approach. The new urban management context suggests that urban design cannot afford to entirely dismiss the concept of *project* in favour of *process* as it has traditionally done. Neither can it be averse to the policies associated with strategic planning that forces us to think regionally.

Within a strategic urban management context urban design needs to develop an approach which carefully considers the following key regional spatial issues:

- **First**, effective scales of intervention

- **Second**, appropriate urban hierarchies and the relationship between key elements

- **Third,** the relationship between physical form (the projects) and sustainability

Careful consideration of these key issues are particularly important if urban design wishes to play a part in determining the outcome of the crucial 37 week *review and approval cycle* of the IDP process. Only by lobbying support for appropriate projects through effective communication can the right framework for urban design at lower levels of the spatial system be negotiated. Without these skills genuine risks exist that opinions will continue to be swayed in favour of isolated, over-scaled and potentially wasteful projects.

Each of the three key aspects of a new strategic urban design approach will be discussed below:

5.4.1. SCALES OF URBAN DESIGN INVOLVEMENT

The table below indicates the range of scales at which corridors have been proposed during the immediate post apartheid years (1994-1999). With the advent of metropolitan government and a new strategic urban management approach in 2000, many of these pilot projects have now been abandoned or are under review. Despite this they represent important pilot projects that offer valuable lessons in terms of feasible scales of involvement and of the capacity of urban design to provide strategic direction at a regional scale.

Levels 1 and 2 indicate national and provincial corridors. These have largely been the domain of politicians and economists and have been mooted by the National Department of Trade and Industry in an effort to attract international investment. They represent little more than the opportunist use of the marketing potential of existing highways and the accessible land that flank them. *Level 3: metropolitan scale/ regional scale* indicates the first feasible level of urban design involvement. *Level 4: sub regional scale* indicates a level of active urban design involvement by progressive urban designers employed by metropolitan and local government during the immediate post apartheid years. It becomes feasible to identify the corridor as a 'project' for the purpose of informing strategic investment within a five-year budgetary cycle at this scale. Further down the hierarchy it is possible to identify a series of pilot projects at a local scale that is more closely related to the traditional urban design roles.

TABLE 5.2. LEVELS OF STRATEGIC CORRIDOR DEVELOPMENT IN SOUTH AFRICA

LEVEL 1 : STRATEGIC NATIONAL LEVEL SPATIAL PLANNING FRAMEWORK SHOWING ALLIGNMENT OF PROPOSED CORRIDORS
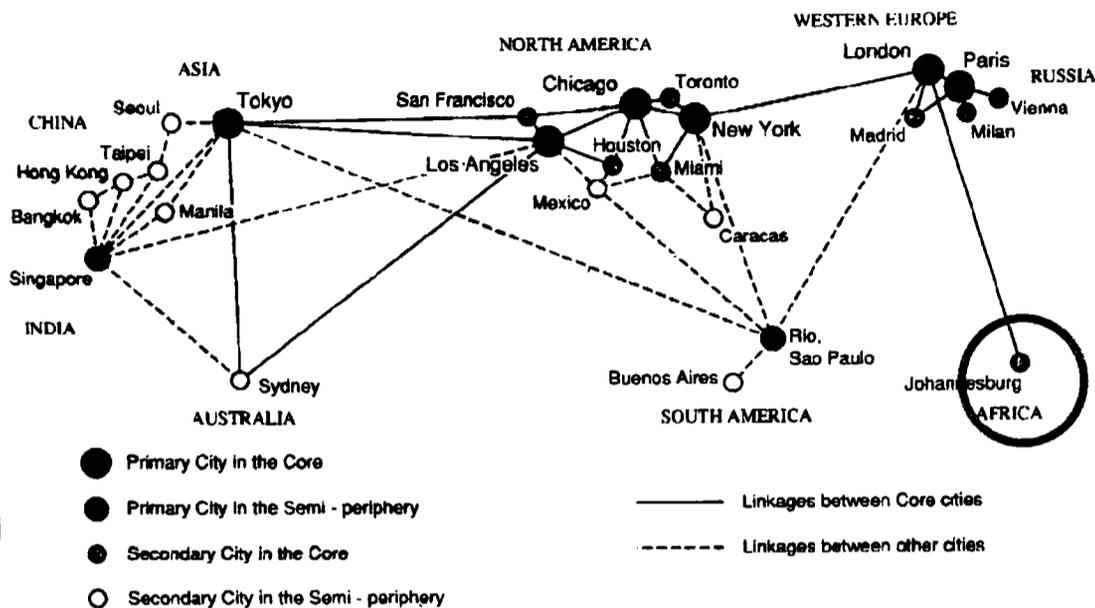
Figure 5.8. South Africa in a network of World Cities (Potter & Lloyd Evans, 1998)
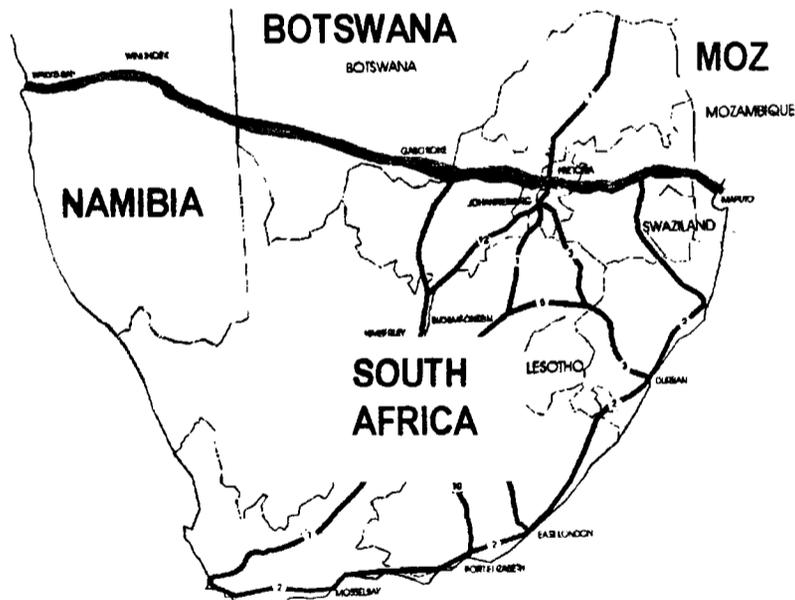
SOURCE: PRETORIA METROPLITAN COUNCIL

Figure 5.9. Example of a sub-continental corridor. The Walvisbay - Maputo Corridor stretches across four countries, from port to port and through South Africa's economic heartland. It is characterised by high levels of public investment in long haul transport infrastructure and port facilities and is directly aimed at attracting direct foreign investment (large scale industry). These projects fall well outside the sphere of urban design influence.

LEVEL 2: STRATEGIC PROVINCIAL SCALE SPATIAL PLANNING FRAMEWORK
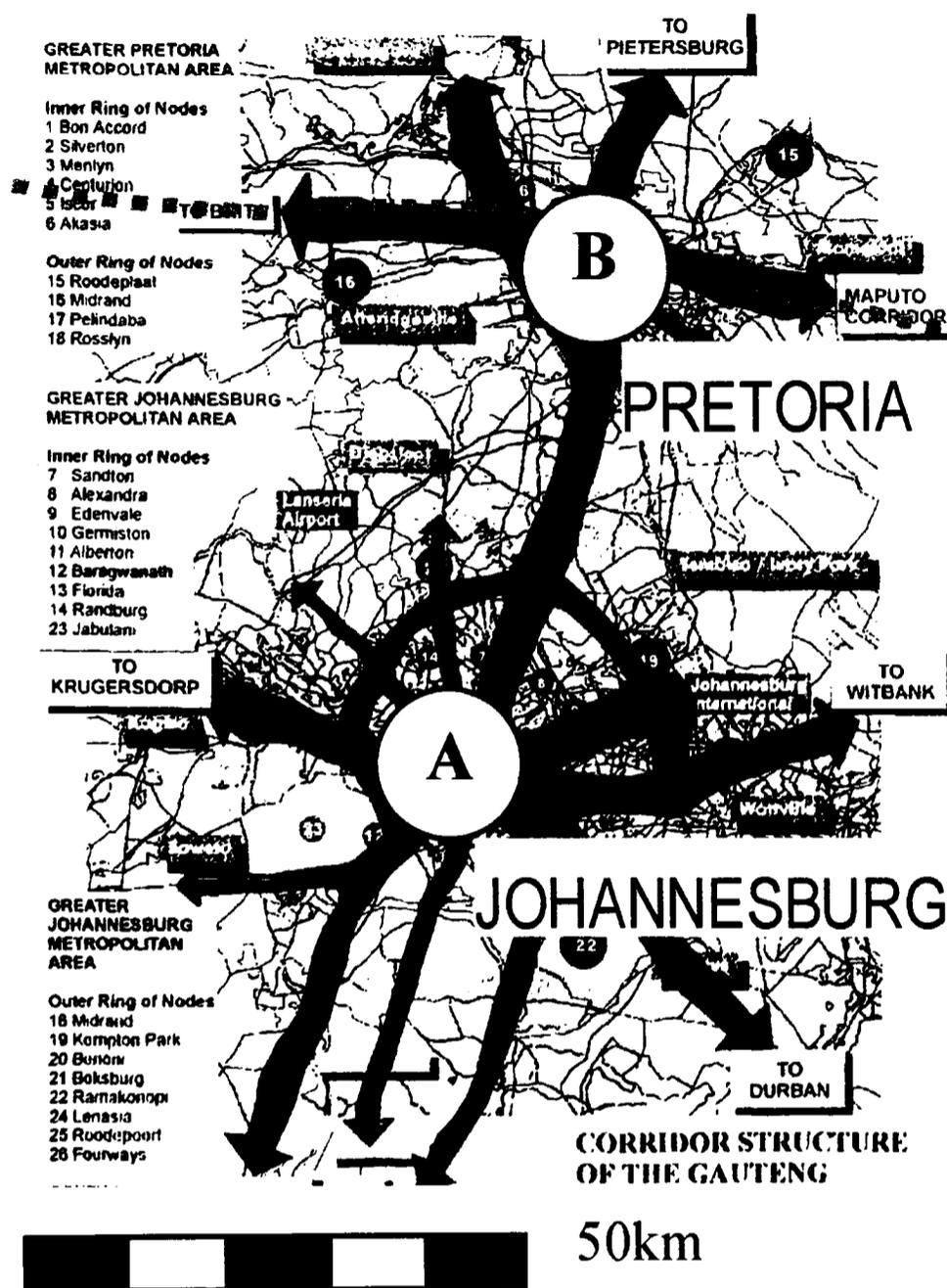
Figure 5.10. Strategic corridors of the Gauteng Province urban system indicates a crude brush stroke approach to focused spatial development in the province. Existing highways within the province and between the dual cities of Pretoria and Johannesburg anchor the system of radial corridors (Gauteng Spatial Framework, 1996). As with the national and international corridors the pattern was determined at a higher political level and largely through the input of macro economists. It indicates the marketable area for outside investment along primary access routes rather than an intention to actively develop edges and nodes. While there is very little scope for effective urban design involvement at this level, its impact cannot be ignored at the next, metropolitan level where urban design does begin to play a part. One of the requirements of metropolitan frameworks (see next level) is that it must be integrated with the provincial framework during the 37 week review and approval cycle (DoCD, 2000).

LEVEL 3: STRATEGIC METROPOLITAN/REGIONAL SCALE SPATIAL PLANNING DEVELOPMENT FRAMEWORK
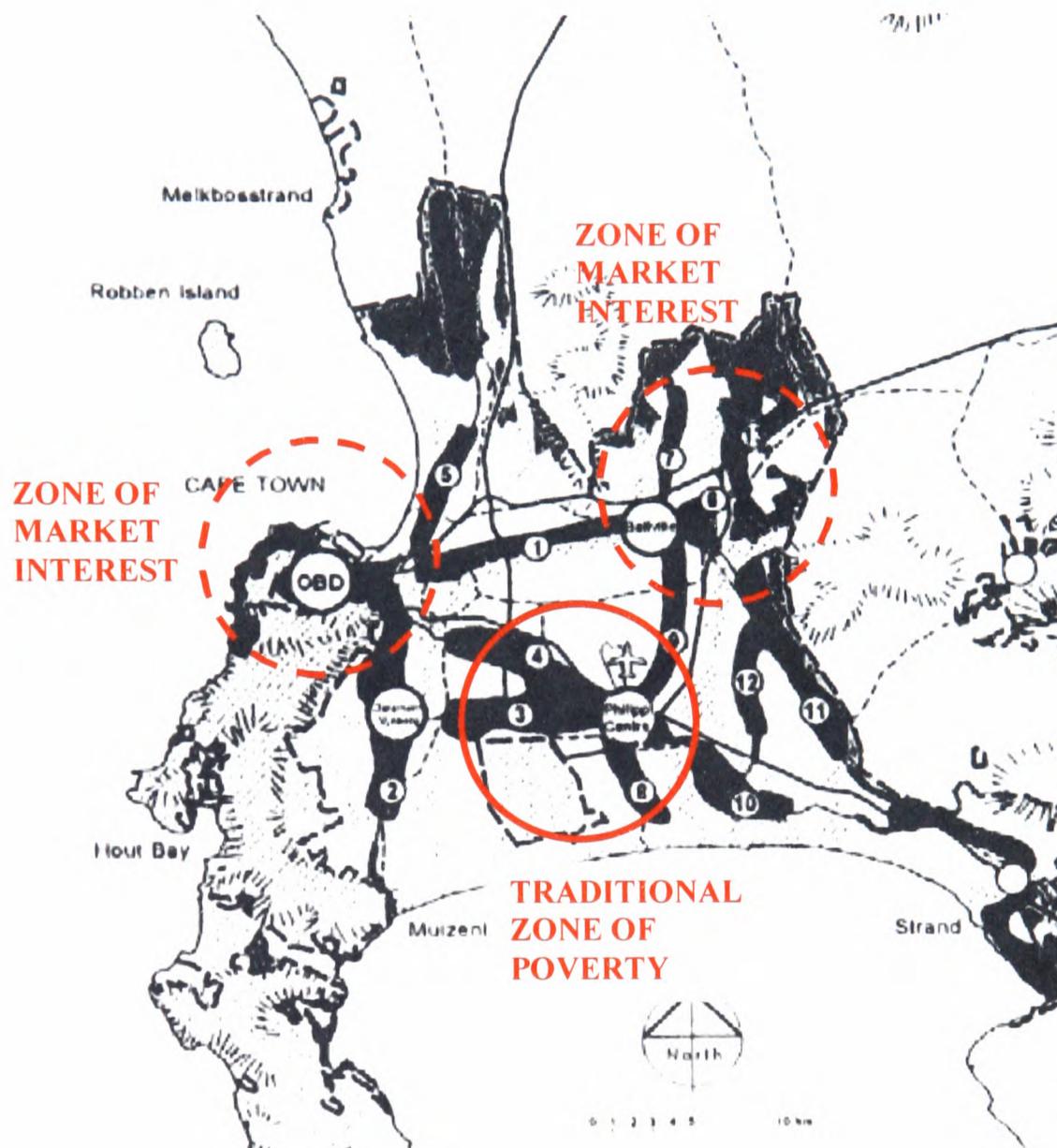
Figure 5.11. Strategic corridors of the Cape Metropolitan area (MSDF 1991). During the early 1990's the twelve corridors presented here were promoted within the greater metropolitan region. A similar framework was presented in Johannesburg (ISF, 1991). Urban designers were closely involved in the preparation of strategic frameworks at this level. Curitiba's radial corridor model strongly influenced the Cape Town proposal. The pattern aimed to build spatial bridges between the various traditional zones of poverty and the wealthier areas.

While the proposal had strong symbolic value the market failed to respond. Lack of dedicated public funding, uncommitted officials and a fragmented and sectoral urban management pattern further hampered efforts to effectively implement the ideas across the city (Southworth, Hendricks, pers com 2002). Only one of the corridors shown here (no 3) received dedicated funding. It became a pilot project managed by a dedicated team of officials and was sponsored by the National Department of Transport. It benefited from significant public investment in transport and service infrastructure and received allocated funding for the active development of a series of public spaces.

LEVEL 4: SUB-REGIONAL SCALE FRAMEWORK
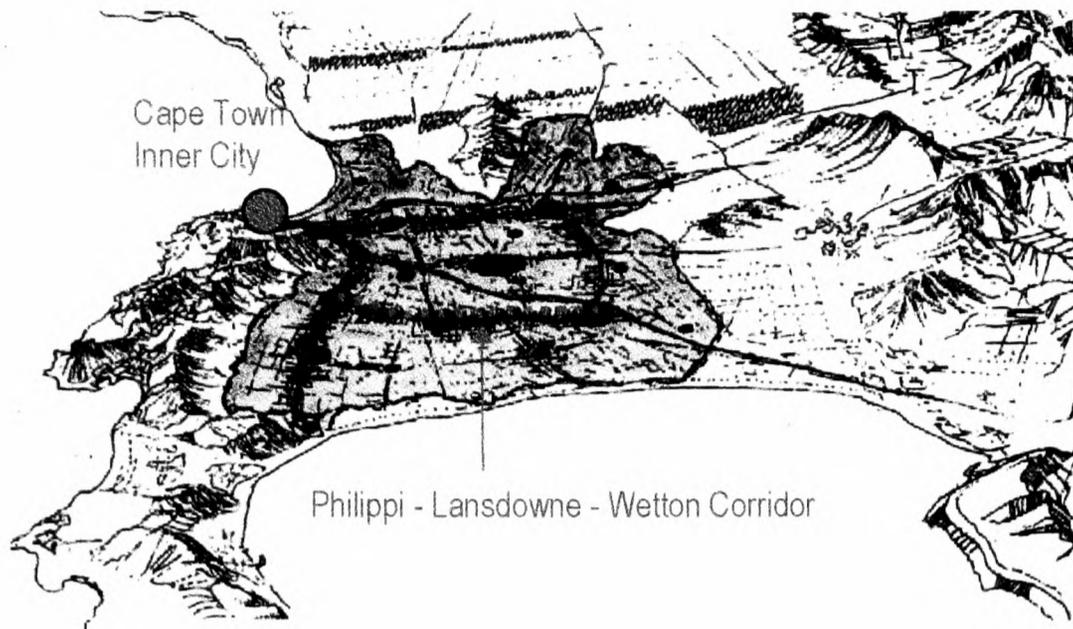
Figure 5.12. Extract from the regional Municipal Spatial Development Framework showing the alignment of corridors in a management quadrant of Cape Town (City of Cape Town, 1999). Note that the alignment of corridors differs from the twelve proposed at a metropolitan level (see previous page). This indicates the dysfunctional urban management relationship between the toothless interim metropolitan council and that of the regional council before metropolitan elections were held 2000.
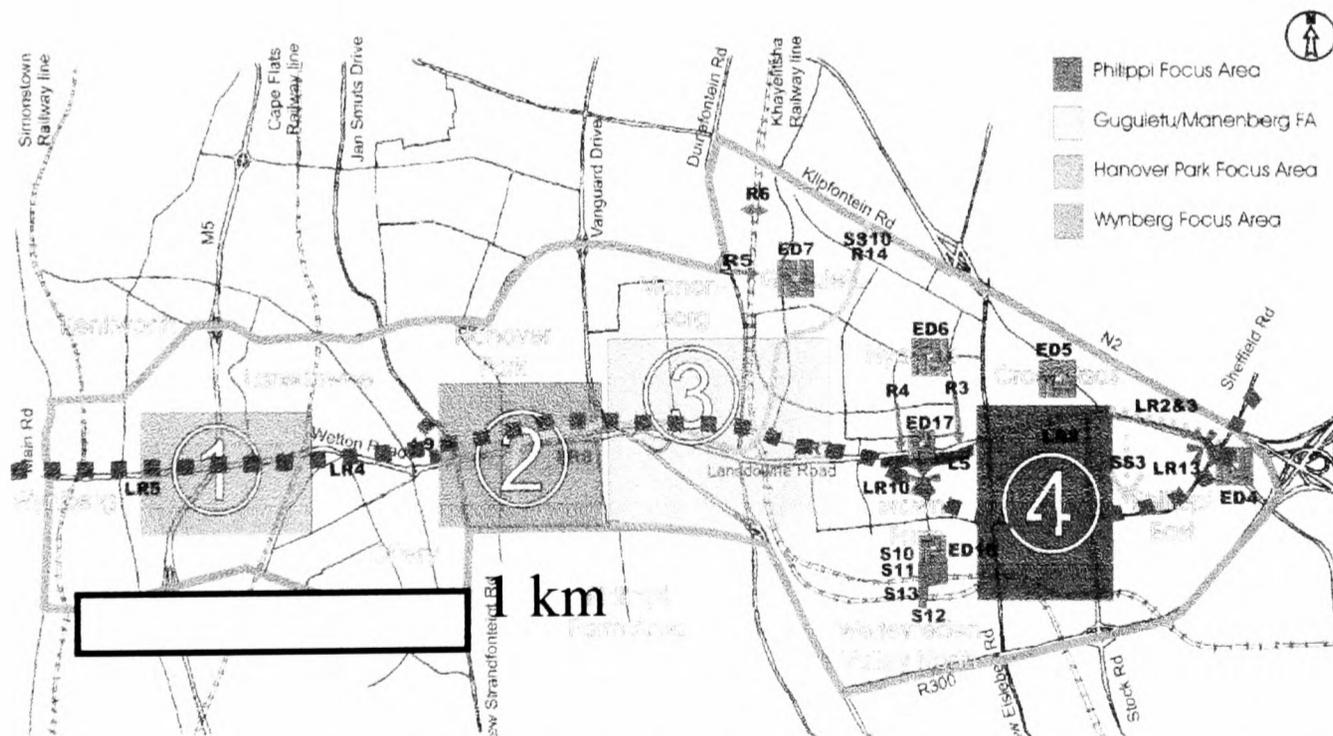
Figure 5.13. Enlarged map of the Philippi - Lansdowne - Wetton Corridor showing four focus areas and the location of a number of key projects which include community centres, informal trading facilities, low cost housing projects, public bath houses and a range of other facilities (Source: City of Cape Town). Urban designers of the City of Cape Town's spatial planning division were actively involved in preparing an urban design framework at this level. Many of the identified projects have been built because of dedicated national funding. See CHAPTER 6, subparagraph 6.6.3. for a more detailed discussion of this case study.

Examples of projects shown: S 12 = station transport interchange; ED 16, 17 = informal markets; L9 = sportsfield; L 13 and L10 = transport and civic nodes.

LEVEL 4: SUB-REGIONAL SCALE FRAMEWORK (SMALLER TOWN)
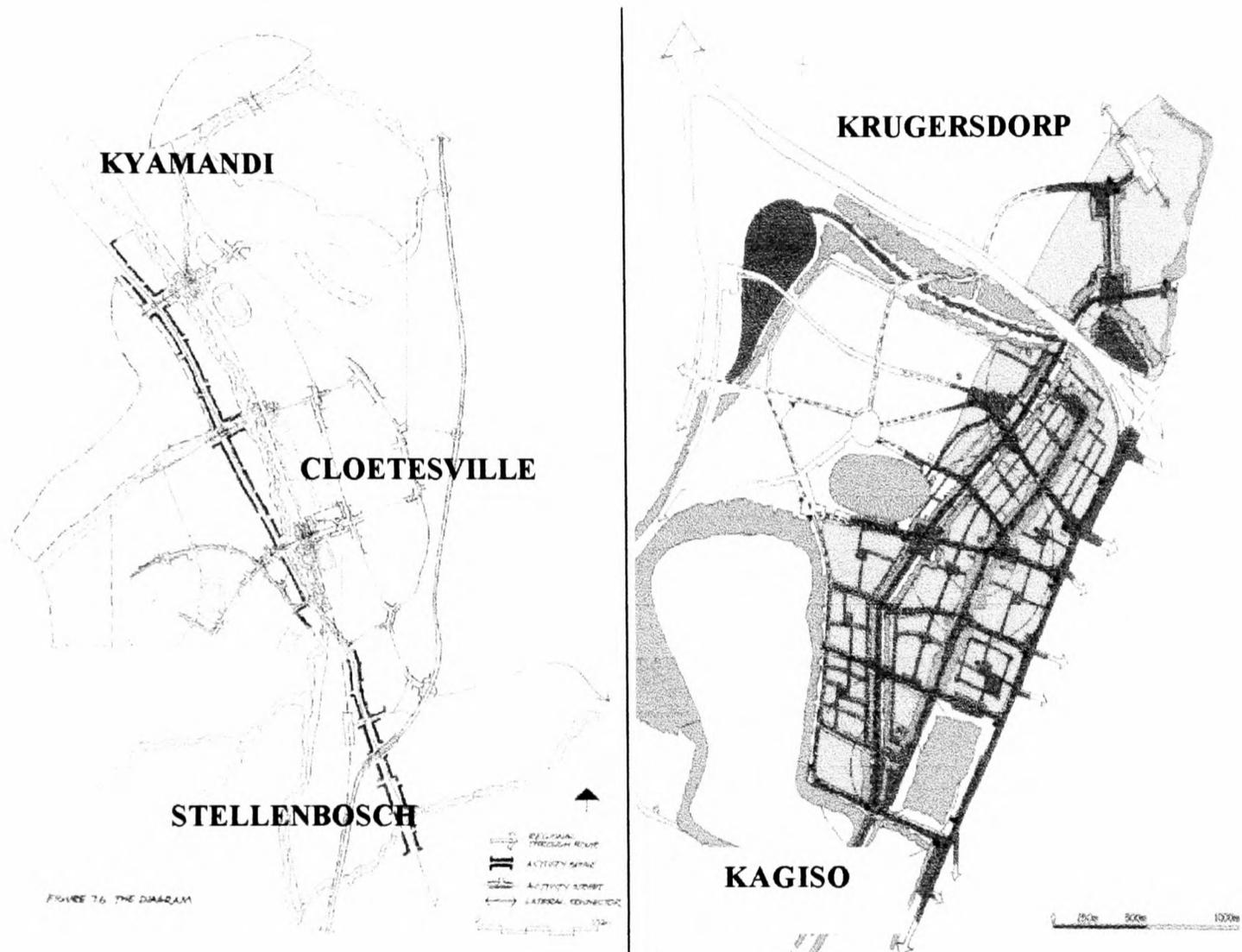
Figure 5.14. The sub-regional corridor has also been proposed in smaller towns to act as direct links between the major segregated elements resulting from apartheid planning. These become valuable pilot projects, lessons from which may be translated to sub regional contexts of larger cities. Smaller local councils however seldom have the resources to invest in these marginal zones. Proposals such as the two shown here are often used to leverage limited national or provincial funds for infra-structural investment or to unlock housing subsidies.

The linkage framework on the left is for the town of Stellenbosch, 50km outside Cape Town and the proposal on the right is for Krugersdorp, 40km outside Johannesburg.

Source: Stellenbosch (left) : Chittendon Nicks De Villiers Urban Designers (Nicks, 2003)
     Krugersdorp (right) : Kagiso Link (Comrie & White ,1999)

5.4.2. URBAN HIERARCHY

Of all the built environment professionals in South Africa, urban designers are perhaps best equipped to deal with the complexities of overlap and urban hierarchy. While planners may increasingly come to value hierarchy within the new strategic paradigm, the still prevalent modernist and technical-rational mindset as discussed in CHAPTER 3 will prevent large sections of the planning profession from effectively considering development beyond the rigid confines of traditional land use planning. The transport engineering profession is even further to the right in this equation. To illustrate this point and before considering the City of Cape Town's hierarchical approach, it is useful to briefly refer to two rather disconcerting prioritisation models for corridors that have been developed by planners and engineers in South Africa.

DEL MISTRO'S ELECTRONIC MODEL
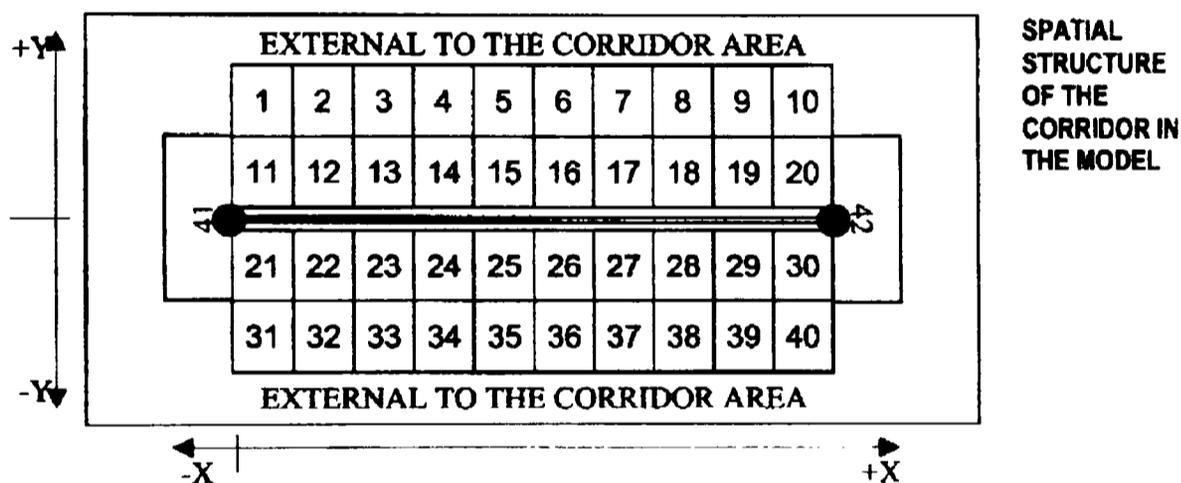
Figure 5.15. 'Del Mistro's 'Electronic Model' consisting of an optimal number of 42 zones. Variables such as land use and the proportion of the population in each zone that is in the low, middle and high income groups are used to calculate the feasibility of the proposed corridor by comparing the output of alternative corridor projects (NdoT, 2000: xiv).

One of the biggest problems facing public agencies concerned with corridor development in South Africa is the fact that higher order roads cross metropolitan boundaries and therefore fall within the jurisdiction of the National Department of Transport rather than that of metropolitan governments. Since many of the corridors initiated during the 1990's are of a metropolitan- or regional scale, they typically include a higher order mobility spine as part of their generic make-up. Based on this and because of a patent lack of signs of

action on the ground, the NdoT has been inundated with requests to provide minimal roads infrastructure.

The budgetary crisis and subsequent need to prioritise or rank corridors in terms of their potential to meet strategic objectives has resulted in a study called *Development of an Integrated Urban Corridor and Strategy Development Process for Transport Authorities and Provinces* which was commissioned by the South African National Department of Transport (NdoT, 2001). The statement that the study will assist in the assessment of *'whether the corridor will materialise as planned by the horizon year'* (NdoT, 2001: xii) indicates that the authors clearly consider the corridor a measurable project. The report includes a proposed 'electronic model' (figure 5.15.) which *'produces reports that will be useful in preparing the motivation for the corridor proposal'.* The model, which theoretically isolates corridors in space, uses a simplified quantitative method to represent the corridor being planned. It consists of 42 internal zones and external zones located symmetrically about the central transport spine.

The model is conceived in the typical technical-rational tradition associated with engineering disciplines. It considers the profitability of public transport in corridors by calculating *'the trip making patterns and related public transport cost and income; as well as the total cost of municipal infrastructure and the nett municipal income derived from it'.* The model which suggests that investment in transport infrastructure within corridors be based on profitability and projected Gross Geographic Product (GGP) discounts present needs and effectively discriminates against zones of poverty.

Ultimately the model generates a series of quantitative reports which is considered sufficient to assist transport authorities and provinces in comparing and prioritising public investment in roads infrastructure associated with corridors.

THE CENTRE FOR SCIENTIFIC AND INDUSTRIAL RESEARCH's
QUANTITATIVE, RANK ORDER METHODOLOGY

NO	SEGMENT NAME	SOCIAL NEED (Proximity to Low Income Areas)	PRELIMINARY OVERALL ECONOMIC POTENTIAL	PUBLIC TRANSPORT ORIENTATION (PTSM Flows)	PRIORITY RATING
		WEIGHT= 1.0	WEIGHT= 1.25	WEIGHT= 1.0	
1	Umgeni Road South-R102	L	M	H	6.5
2	North Coast Road South-R102	L	M	H	6.5
3	North Coast Road North-R102	M	M	L	5.5
4	Phoenix Highway	M	M	L	5.5
5	Verulam-Tongaat-R102	M	L	L	4.3
6	La Lucia-Mt Edgecombe-M41	L	H	L	5.8
7	KwaMashu Highway East-M25	H	M	M	7.5
7	KwaMashu Highway West-M25	H	L	L	5.3
8	Malandela Road-M21	H	L	L	5.3
9	Inanda Road North-M21	H	L	M	6.3
10	Inanda Road East-M21	M	H	L	6.8
11	Umgeni Road West-M19	M	H	L	6.8
12	Brickfield-Alpine Roads-M10	M	M	L	5.5
13	Sparks Road-M15	M	M	L	5.5
14	Jan Smuts-Berea Roads-M13	L	H	M	6.8
15	Umbilo-Gale-Sydney Roads-R102	L	H	H	7.8
16	South Coast Road-R102	M	M	H	7.5
17	Umlazi Spinal Road-M30	H	L	L	5.3
18	Isipingo Old Main Road	M	M	L	5.5
19	Higginson Highway-M1	M	M	L	5.5
20	Bellair Road-M10	H	L	L	5.3
21	Queensburgh Main Road-M5	L	L	L	3.3
22	Edwin Swales Central-M7	L	M	L	4.5
23	Sarnia Road Central-M5	L	L	L	3.3

TABLE 12.1: SUGGESTED PRIORITISATION SCHEME (Segment number order)

Note: H is assigned a value of 3, M is assigned a value of 2, L is assigned a value of 1.

Figure 5.16. Proposed prioritisation scheme for 23 mooted corridor projects in the Durban Metropolitan Area (CSIR, 2000:84).

In an effort to devise a practical approach to allocate limited public funds, the Durban Metropolitan Council commissioned the *Centre for Scientific and Industrial Research* (CSIR) to formulate a methodology for prioritising corridor projects. The CSIR's *Land Use Corridors and Nodes Study* (CSIR; 2000) uses statistical data to determine a score for each of 23 mooted corridors in the City. The scores are then used to rank the corridors in terms of their priority. Social need, economic potential and public transport orientation of citizens within each of the corridors are used as the primary criteria. Two deficiencies spring to mind; first, the isolated manner in which corridors are evaluated fails to consider complexity and overlap as noted by Alexander in his *'a city is not a tree'* argument (see Chapter 2, subparagraph 2.3.4). Second, despite efforts to quantify social needs, an analysis based on cold statistics is reminiscent of the failed social engineering projects associated with modernism and apartheid. In their defence, the CSIR notes that the study needs to be evaluated within a wider context. There is however the real danger that, due to time constraints associated with a five-year budgetary cycle, metropolitan governments will come to rely increasingly on such scientific rank order methodologies and without evaluating them in a wider context.

THE CITY OF CAPE TOWN'S HIERARCHICAL MODEL

Recent Spatial Development Frameworks such as the City of Cape Town's Municipal Spatial Development Framework (muni-SDF; 1999) has developed a hierarchy of scales for public investment that is linked to historic space (including spontaneous corridors) and strategic new spaces. A minimal- and hierarchical grid based on public transport interchange points is used to guide more equitable investment pattern across the whole City. It provides a much more integrated model for prioritising locations for development than the previous two models that isolate each corridor before weighing them.

The proposed hierarchy suggests reduced dependence on the private motor car by making the entire city-region accessible by public transport. This deviates from previous approaches such as that contained in Cape Town's MSDF (1991), which makes exclusive use of corridors as physical and symbolic links to disadvantaged areas. The approach recognises that a more extensive public transport grid improves access to work opportunities for the poor and that all opportunities are not based in the city centre, which has been the focus of most post apartheid corridor proposals.

David Dewar[4] calls the minimal approach of overlaying a hierarchy of nodes over the existing urban grid 'dumb but effective' since it guarantees a more equitable spatial distribution of public resources in South African cities where radical transformation is desirable but not affordable. The grid is adapted to correspond with existing public transport interchange opportunities and to create new interchanges across the City. The strategy proposes one level 1 public transport interchange (metropolitan hub), four level 2 public transport interchanges (regional hubs) and sixteen level 3 public transport interchanges (5 minute walking distance between these local hubs). Figure 5.17 (below) indicates how the adjusted grid generates the opportunity for three level 2 interchanges along the Philippi - Wetton - Lansdowne Corridor. While the hierarchical grid recognises the existence of the corridor, it also recognises that the corridor is but one of a number of competing strategic projects in the City. Significantly, it recognises the existence of a

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[4] Public lecture at the University of Pretoria, August 2002

decentralised private investment pattern in which the traditional inner city has lost its capacity to act as a magnet for anchoring investment and movement flows.

These represent important historical investments which cannot be ignored. However, new public investment must seek to balance the distribution.

CBD INACCESSIBLE TO BULK OF CITY

INTERCHANGES AND CENTRES ALONG HISTORIC INVESTMENT ROUTES

THE DISTRIBUTIONAL PROBLEM

ONE LEVEL 1 ZONE WITH A LEVEL 1 INTERCHANGE

FOUR LEVEL 2 ZONES EACH WITH A LEVEL 2 INTERCHANGE

SIXTEEN LEVEL 3 ZONES EACH WITH A LEVEL 3 INTERCHANGE

APPLICATION & WARPING OF CONCEPT

THE CONCEPT FOR DISTRIBUTION OF AN EQUITABLE INTERCHANGE HIERARCHY

Existing interchanges

CBD/ Level 1 Interchange

Level 2 Interchange

Level 3 Interchange

Interchange zone of access

FIGURE 2: THE CONCEPTUAL APPROACH

CAPE FLATS = ZONE OF POVERTY

OLD CITY CENTRE

LOW ANGLE AERIAL VIEW OF CAPE TOWN

OLD CITY CENTRE

NEW ACCESSIBLE INTERCHANGE

1. Existing situation. Movement focused on the opportunities of the old city

2. Conceptual application of a hierarchy of interchanges to Cape Town

3. The concept adjusted to existing infrastructure and the geography of need.

Figure 5.17. A hierarchy of development scales proposed for Cape Town (Muni SDF 1999:23).

Dewar and his associates' regional, hierarchical approach has an equivalent in the industrialised world, albeit one that is almost exclusively concerned with urban expansion under pressure of vigorous market forces rather than facilitating a more equitable investment pattern within the existing urban footprint. Calthorpe Associates' *New Urbanist* regional model for sustainable suburban growth proposes the introduction of an integrated set of centres and sub-centres (Calthorpe&Fulton, 2000). 'Smart Growth' as it is called responds to the need for suburban expansion on undeveloped sites and is conceived at a regional scale. While also being concerned with hierarchy, it requires significant investment in the up-front provision of transport infrastructure.
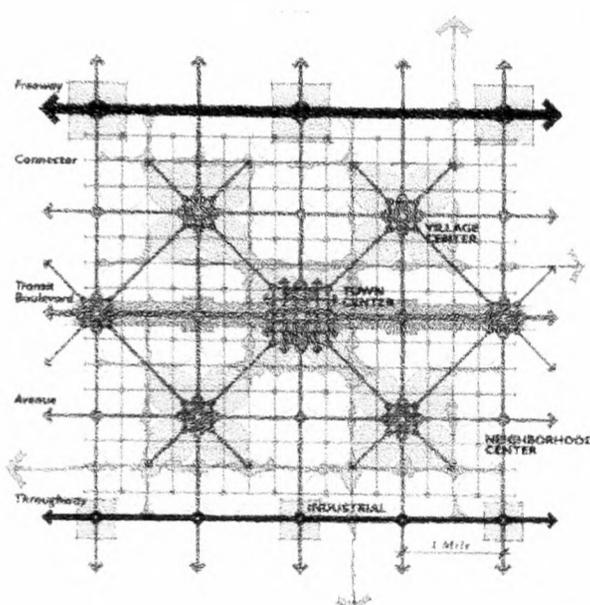
Figure 5.18. Calthorpe Associates' hierarchical regional network based on 5 minute walkable catchments (Cathorpe Associates, 2003).

Figure 5.19. The proposed urban network translated to the 20 000 acre St Andrews expansion area north of Perth, Australia (Calthorpe Associates, 2003).

Calthorpe's regional model is based on the belief that:

> *The only realistic way to think about our evolving world is in terms of regions. Because only the larger, more diverse entity of the region has the multifaceted strength required to compete in the global market' (Calthorpe & Fulton, 2000).*

The promise of greater regional prosperity and evidence of sustained suburban expansion[5] justifies the initial investment in a well considered hierarchical grid. This potential

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[5] Calthorpe points to the fact that the population of California is projected to expand by 12 million people in the next twenty years, with many opting for a suburban lifestyle.

involvement of urban design at this regional scale is reconsidered in CHAPTER 6 (urban design tools).

5.4.3. THE RELATIONSHIP BETWEEN SUSTAINABILITY AND STRATEGIC FIVE YEAR PROJECTS

Within a strategic urban management context urban design needs to develop an approach that carefully considers sustainability. During the 37-week approval cycle of the *Integrated Development Planning* process sustainability becomes a key evaluating criteria.

Normative criteria are set at a national level, which needs to be honoured at a metropolitan level. While national government legitimises decentralisation of power to metropolitan governments, it continues to perform checks on the use of key normative criteria. Sustainability is such an unassailable normative criteria that is influenced by Agenda 21 and contained in national development frameworks such as the Development Facilitation Act (DoCD, 1996) and the Urban Development Framework (DoH, 1997). Not only does this requirement encourage the introduction of corridors with associated higher densities and integrated transport and land use, but is often quite specific as the following clauses suggest :

SELECTED EXTRACTS FROM THE URBAN DEVELOPMENT
FRAMEWORK (DoH, 1996).

Subparagraph 2.2.

Urban Development Goal: To tackle spatial inefficiencies which give rise to long travelling distance and times which negatively impact on the accessibility of work and other opportunities by promoting urban densification in conjunction with more efficient public transport.

Subparagraph 3.2.2.3.

Undoing the Apartheid City will focus on:
- *Linking the component parts of the city through high density activity corridors*
- *Developing and integration of apartheid developed buffer zones.*

Subparagraph 3.2.2.4.

The dual strategy of concentrating investment in both developed and emergent nodal points and activity corridors in the urban system have great potential for spatial integration of the apartheid city.

Normative checks that are conceived at a national level and are influenced by international norms of good practice are bound to see the continued promotion of corridors with associated nodes and activity spines within metropolitan *integrated spatial development frameworks*. Whereas entire corridor regions were considered projects during the early apartheid years, the need to link projects to public budgets in five-year cycles will now see a far greater emphasis on the manageable development of nodes and defined stretches of activity spines within broadly defined corridor zones. The 2002 City of Tshwane ISDF illustrates the point by limiting *nodal projects* to within 1500 metres of stations and encouraging densification and mixed use within these targeted zones (see page 179).

Nodes, activity spines and the densities within them become key strategic considerations for urban design action that aims to meet the stated criteria of a sustainability agenda. Densification is commonly associated with aims of achieving greater sustainability and has received wide attention in the urban design discourse. There is abundant empirical evidence to suggest that a dense settlement pattern integrates land uses and saves time and energy (Owens, 1986; March, 1968). Others suggest that a higher density is empowering since it makes public transport viable and therefore improves access to a range of other opportunities in the city (Dewar & Uytenbogaardt, 1991; Thorne, 1996).
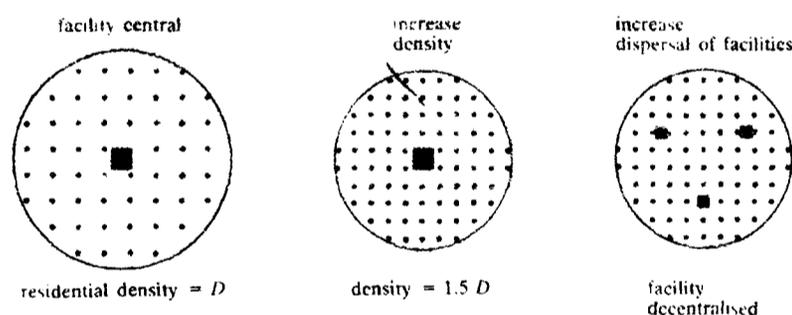
Figure 5.20. Increased densities accompanied by decreasing physical separation of activities as illustrated in Energy, Planning and Urban Form (Owens, 1986:33).

It is not uncommon to find reference to an 'appropriate' urban density expressed as people per hectare (NdoT, 2001: 3-13; March 1968; pers com Nielson 2001). Notions of idealised *densities* are either empirically derived or based on an analysis of mature dense settlements, which often fail to recognise that these settlements were once incipient and may originally have had a comparatively low density. Rapoport (1977), Burgess (in Jenks & Burgess, 2000) Schoonraad (in Jenks & Burgess 2000), Schurch (1999) and Troy (1996) note that *density* is not a universal principle but rather a symptom or response which differs greatly from one socio-political and cultural context to the next. The urban designer

Meehan (in Ferebee 1978:254) notes that density seems to be rather irrelevant when one examines two housing developments with identical per unit area density which have totally different perceived density characteristics. Zoning ordinances typically control, to no avail, the site planning and layout of houses utilising limited, quantitative definitions of density.

Preconceived, quantitative notions of *density* clearly fail to deal adequately with transience and incrementalism, which are intrinsic to any city-building process. This suggests that, if such an 'appropriate' *density* is preconceived in an effort to meet universally determined strategic aims, it may yield unsatisfactory local responses because it limits basic needs options or lifestyle choices. This is particularly true in South Africa's transient urban peripheries where people often rely on a semi-subsistence culture to sustain livelihoods (Schoonraad in Jenks & Burgess, 2000:219). Fieldwork in Peru (Villa El Salvador) and South Africa (Winterveld) indicates that, when rural migrants are allowed to settle freely on the urban fringe, the settlement pattern is initially relatively sparse to allow space for urban agriculture and for the expansion of the original shack dwellings. This however becomes consolidated into a dense and integrated urban form within a relatively short space of time, depending on such critical factors as the ability of settlers to secure tenure on the land and to satisfy basic needs.

TABLE 5.3. PROPOSED RESIDENTIAL DENSITIES CONTAINED IN CORRIDOR DEVELOPMENT FRAMEWORKS (source: NdoT, 2001: 3-12)

Reference	Densities immediately on the Corridor and at public transport nodes.	Within a hundred metres of the corridor.	Within one kilometre of the corridor.	Outside the corridor
Metropolitan Spatial Development Framework (Cape Town; 1995).	-	100 du/ha	40 -100 du/ha	
Mabopane Centurion Development Corridor (1997).		60-80 du/ha	30 -70 du/ha	less than 40 du/ha
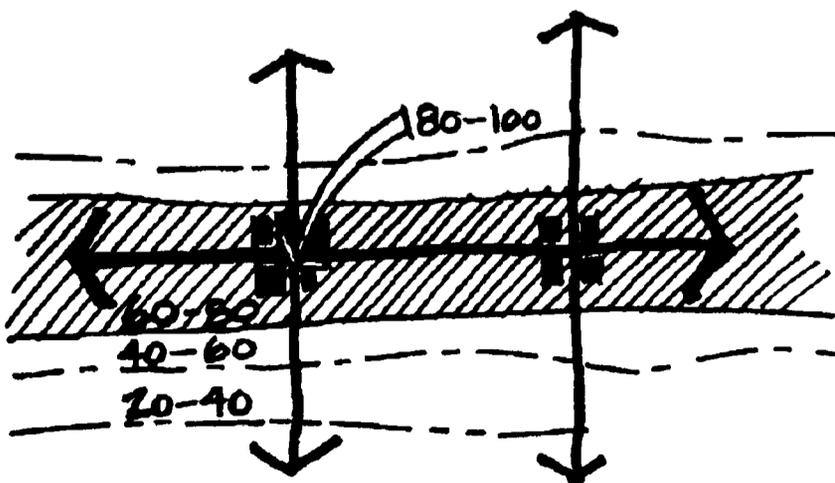
Figure 5.21. Reference to 'appropriate' densities in the corridor zone expressed as dwelling units per hectare (NdoT, 2001: 3-13)

Stephen Thorne (1996) (the South African urban designer responsible for the Baralink Framework which aims to integrate Soweto with Johannesburg) relates densities to wider opportunities in the city. To deal with the issue of transience, he proposes a flexible density threshold which will support public transport and yet acknowledges the need for lower densities on the periphery where it has a livelihoods function. Higher densities will occur nearer the centre of local districts, with lower densities towards the edge. He also acknowledges that if densities are too high, it will result in a breakdown of social infrastructure (figure 5.22).
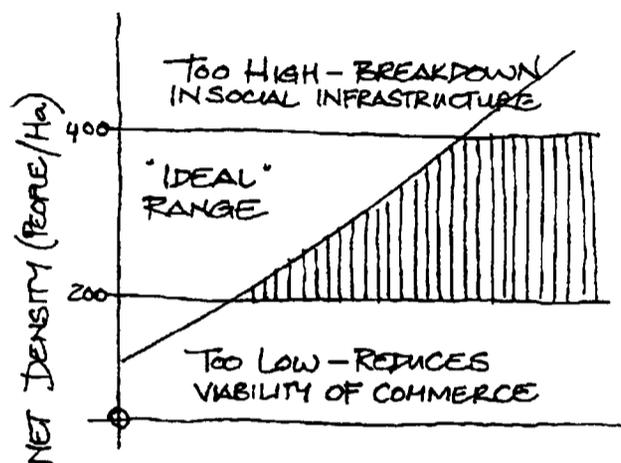
Figure 5.22. Thorne's range of optimal densities for the South African city. Typically densities should range between 120 and 400 persons per hectare, giving economic viability to a range of uses, whilst not over-extending the physical and social infrastructure (Thorne, 1996).

Criticism of an excessive emphasis on density not only relates to the urban poor as the Australian geographer Patrick Troy notes in his book *The Perils of Urban Consolidation(1996)*. Troy discusses local responses in relation to Australia's strong centrist aims to compact cities, and particularly to radically transform suburbia (see discussion on Australia's commitment to world's best practice in CHAPTER 4). Schoonraad (in Jenks & Burgess, 2000) expresses similar reservations based on an assessment of anti-urban lifestyle preferences amongst suburbanites in South Africa while Jordaan (pers com 2002) has experienced strong opposition to densification amongst suburbanites in his *Corridor Study for Atterbury Road, Charles Street and Lynnwood Road* in Pretoria. Australian planner Rooksby (pers com, 2001) notes that various anti-densification lobbying groups had been established in Perth's corridor zones.

All this suggests that densities need to be crafted to the region and that, while densities undoubtedly need to be increased in the nodes and activity spines of South Africa's incipient strategic corridors , it cannot be linked to universal criteria or dictated by rule of thumb methodologies. By considering appropriate scale, hierarchy and sustainability in an integrated manner, urban design has an opportunity to provide clearer strategic direction. It is obvious that a node or artery which is peripheral in the urban hierarchy and part of an

incipient corridor zone will be subject to lower land values and will sustain lower densities than a more central node in a mature corridor zone. There is a dynamic relationship between scale, hierarchy and density which suggests that density needs to be reviewed within each five year urban management cycle and within the context of each strategic 'project'. This may become a key function of a new regional urban design approach.
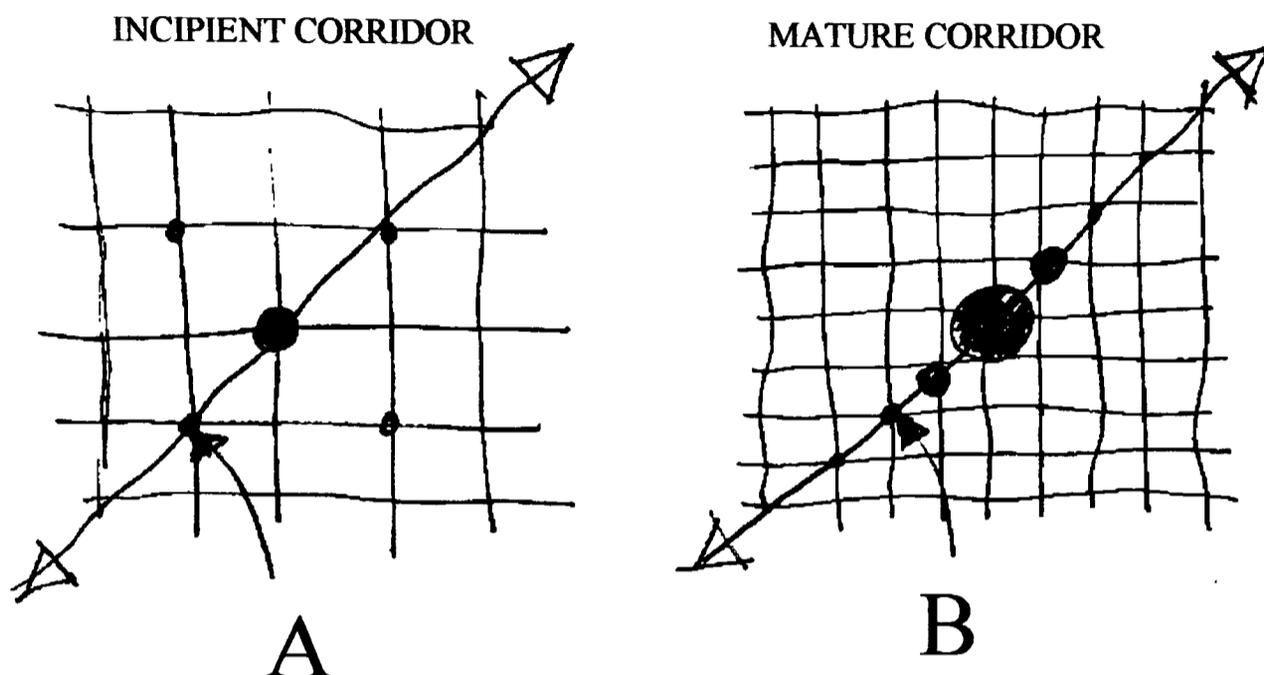
Figure 5.23. Scale, hierarchy and level of maturity of an urban corridor is likely to support different densities in nodes which are equidistant from the core. In this case a node at point A (left) will support much lower densities than a node at point B.

5.5. CONCLUSION TO PART 1: CORRIDOR DEVELOPMENT AND URBAN DESIGN WITHIN A STRATEGIC URBAN MANAGEMENT CONTEXT

A review of South Africa's emergent strategic urban management approach yields three significant results:

- **First**, that there is a strong emphasis on circumscribable projects and that these projects will be identified, proposed, approved (or rejected) and executed in five year cycles.

- **Second**, that such projects will be conceived at a regional scale and that each mooted project will be measured against competing projects within the region. Normative and budgetary considerations will be used to favour one project over

another. Occasionally questionable rank order methodologies will be used to expedite the process.

- **Third,** that corridors will remain popular because they conform with national norms of sustainable practice. They will however consist of the broad alignment of smaller strategic projects that can be managed in five-year cycles. Most frameworks that have recently been produced indicate that such projects will be focused on identifiable nodes and activity spines within corridors.

When this is related to urban design in corridor development it suggests involvement at two levels:

- **First,** at a regional level where projects are first mooted and put forward for approval by the Representative Forum in five year cycles.

- **Second,** at a local project level once specified five year projects have been approved and budgets have been allocated. All indications are that such projects will focus mostly on specified nodes and activity spines within corridors.

While the second level of involvement relates closely to traditional urban design roles, the first role suggests a new regional urban design focus. Urban designers in Cape Town and Perth and New Urbanists such as Peter Calthorpe have begun to indicate how scale, hierarchy and sustainability become key instruments of the new regional urban design approach. If urban designers are successful in informing the outcomes of the five year strategic urban management cycle, they are likely to open up opportunities at lower levels of the urban hierarchy which are highly supportive of sustainable urban design practice. Pertinent weaknesses that needs to be considered as part of a new urban design strategy may also be identified within a strategic urban management approach:

- **First,** pressures brought about by limited budgets and a relatively short approval cycle may result in questionable methodologies being used to prioritise projects.

- **Second,** while communities are consulted during *Stage A* of the IDP process (see figure 5.4) the process is clearly very diluted and placatory. This weakness prompts a consideration of the scope for an alternative development practice approach that will be considered in CHAPTER 7.

- **Third**, a great deal of energy will be spent on considering and preparing project proposals for approval, with only a limited number of these likely to succeed[6]. This may lead to disillusionment and fatigue on the part of urban managers, professionals and citizens who are all participants during the exhaustive budgetary approval cycle.

- **Fourth**, the approval of five year projects will result in an awkward stop-start sequence of city building that denies any continuous and spontaneous urban development tradition. While supporting corridor development for its sustainability attributes, the strategic approach is geared towards the market and ignores the very strong spontaneous corridor tradition so often found in developing countries as well as on the margins of South African cities.

5.6. PART II: CONSTRUCTING A POWERGRAM OF URBAN DESIGN IN SOUTH AFRICAN CORRIDOR SPACE

5.6.1. INTRODUCTION

The prevalent strategic management approach of metropolitan government imposes certain constraints that affect urban design's capacity to achieve its strategic aims. This section aims to determine the relative power of urban design to initiate, control or influence development in the post apartheid urban corridor context.

McGlynn's (1993) *powergram of urban design* is considered *'a very generalised allocation of power appropriate to the majority of cases in British development'* (Punter & Carmona, 1996:38). The evaluation framework is useful for provisionally translating and comparing power relations based on the South African scenario.

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[6] More than 800 projects were proposed during the 2002 budgetary cycle of the City of Tshwane (Nkosi, 2003:1)

5.6.2. REVIEW AND TRANSLATION OF Mc GLYNN'S POWERGRAM.

McGlynn's (1993) generalised *powergram*, though based on a British urban development context, has occasionally been used uncritically in the South African context. It features prominently in the introduction of Thorne's (1996) *Baralink Framework* under the heading *Process of Developing a Meaningful Framework*. The fact that the model has been adapted by others like Punter & Carmona (1996:138) inside Britain itself to more accurately reflect urban design's relative power base in that country suggests that it would be irresponsible to use McGlynn's powergram indiscriminately in South Africa's developing world context. An attempt will be made to motivate and present a translated *powergram* that relates specifically to the South African corridor context.

ACTORS ELEMENTS OF THE BUILT ENVIRONMENT.	SUPPLIERS.		PRODUCERS.					CONSUMERS
	LAND OWNER	FUNDER	DEVELOPER	LOCAL AUTHORITY Planner	LOCAL AUTHORITY Highway Engineer.	ARCHITECTS	URBAN DESIGNERS	EVERYDAY USERS.
STREET PATTERN	–	–	○	○	●	–	○	○
BLOCKS	–	–	–	–	–	–	○	–
PLOTS - subdivision or Amalgamation.	●	●	●	○ (link)	–	–	○	–
LAND/BUILDING USE	●	●	●	●	⊕	○	○	○
BUILDING FORM. Height/Mass.	–	●	●	●	–	⊕	○	○
· Orientation to Public Space.	–	–	○	⊕	–	–	○	○
· Elevations.	–	○	○	●	–	⊕	○	○
Elements of architectural detail/materials)	–	○	●	⊕	–	⊕	○	○

KEY: ● POWER - either to initiate or control.
⊕ RESPONSIBILITY - legislative or contractual.
○ INTEREST/INFLUENCE - by argument or participation only.
– No obvious interest.

Figure 5.25: McGlynn's original powergram for urban design. (Hayward & McGlynn, 1993:7)

TABLE 1: POWERGRAM (Source: McGlynn, 1993)

ACTORS / ELEMENTS OF THE BUILT ENVIRONMENT	SUPPLIER		PRODUCER					CONSUMER
	LAND OWNER	FUNDER	DEVELOPER	PLANNER	HIGHWAY ENGINEER	ARCHITECT	URBAN DESIGNER	EVERYDAY USERS
STREET PATTERN	-	-	O	O	●	-	O	O
BLOCKS	-		-	-	-	-	O	
PLOTS - SUBDIVISION AND AMALGAMATION	●	●	●	O		-	O	-
LAND/BUILDING USE	●	●	●	●	★	O	O	O
BUILDING FORM - HEIGHT/MASS	-	●	●	●	-	★	O	O
- ORIENTATION TO PUBLIC SPACE		-	O	★	-		O	O
- ELEVATIONS	-	O	O	●	-	★	O	O
- ELEMENTS OF CONSTRUCTION	-	O	●	★	-	★	O	O

KEY
- ● POWER - EITHER TO INITIATE OR CONTROL
- ★ RESPONSIBILITY - LEGISLATIVE OR CONTRACTUAL
- O INTEREST / INFLUENCE - BY ARGUEMENT OR PARTICIPATION ON
- - NO OBVIOUS INTEREST

Figure 5.26: McGlynn's Powergram directly adopted in Thorne et al's 1996 Baralink Framework (Soweto).

Actors / Elements of the built environment	Suppliers		Producers					Consumers
	Land owner	Funder	Developer	Local authority — Planners	Local authority — Highway Engineers	Architect	Urban designer	Everyday Users
Street Pattern	—	—	O	O	✪	—	⊕	O
Blocks	—	—	—	O	—	—	⊕	—
Plots - subdivision & amalgamation	●	●	●	✪	—	—	⊕	—
Land/building use	●	●	●	✪	O	O	⊕	O
Building form - height/mass	—	●	●	✪	—	⊕	⊕	O
- orientation to public space	—	O	●	✪	—	⊕	⊕	O
- elevations	—	O	●	O	—	⊕	O	O
- elements of construction (details/materials)	—	O	●	O	—	⊕	O	O

Key: ● , Power to initiate; ✪, power to control; ⊕, responsibility to the client; O, interest/influence - by argument or participation; —, no obvious interest. *Note:* This is a very generalized allocation of power appropriate to the majority of cases in British development, but circumstances will vary according to who employs the urban designer (it is assumed here the developer does), how interventionist the funder or planner is, etc.

Figure 5.27: A Powergram for Urban Design as adapted by Punter & Carmona (1996: 138). More categories describing power relations have been introduced and the power to initiate is considered to be vested more strongly with developers. The new category 'responsibility to the client' is used to more accurately describe the role of urban designers in an urban development context where the free market has come to dominate.

McGlynn's assessment that *'circumstances will vary according to who employs the urban designer'* suggests a need to translate the *powergram* in response to these variables. Punter and Carmona (1996:138) provide an example of how the *powergram* may be translated to describe the influence of the planner practicing in Britain more precisely. They note that *'as the public sector has progressively withdrawn from all aspects of development, and as deregulation of planning has proceeded apace in Britain, so the client has been increasingly narrowly defined as the person or institution who pays for the development'.* The preceding section of this CHAPTER which outlines South Africa's strategic urban management paradigm suggests that the pattern is hardly any different in South Africa. Table 5.4. indicates how the power base is shifting in South Africa

TABLE 5.4. SHIFTING CONTROL OF SPATIAL DEVELOPMENT IN SOUTH AFRICA		
STRATEGIC AIM OF METROPOLITAN GOVERNMENT (see PART 1 of this CHAPTER)	**STRENGTHENS THE HAND OF THE PRIVATE SECTOR**	**STRENGTHENS THE HAND OF THE PUBLIC SECTOR**
1. Promotion of public private partnerships	✔	Loose traditional power base, control of land use.
2. Promotion of large scale development projects	✔	Respond favourably to sporadic approaches by private sector for large scale investment.
3. Focused investment in public infrastructure	✔ Not passive. Demands public investment in infra-structure which improves access and mobility to large scale development projects. Will become a partner only when development potential is enhanced.	Negotiate feasibility of infrastructure with private partners and the IDP representative forum. The power to initiate highways and railway lines vested with national and provincial government.
4. Supporting and regulating small scale business	✔ Regulation limits competition from a growing informal sector in well-located areas.	Aims to regulate and collect taxes
5. Efforts to achieve greater sustainability in South African cities	Not central to the aims of large developers.	✔ Qualified Mandate from national normative frameworks such as the Development Facilitation Act. Often faced with a compromise position when aiming to attract/satisfy large private investors.

This shift in the power base is reflected in the commissions received by urban designers. Figure 5.28 is based on questionnaires and interviews conducted as part of this research. It is particularly the larger practices that have seen a significant increase in commissions from the private sector. Cape Town urban designer Simon Nicks (pers com 2002) notes that they now identify a significant number of projects themselves, which are then taken to developers before presenting the local council with a development proposal that includes an urban design rationale.

The vigorous promotion of private public partnerships and strong support for large scale projects in site specified locations outweigh the influence of broadly stated normative principles such as poverty alleviation and sustainability (2003, Thomashoff pers com). Wood (2002, pers com) notes that their urban design practice[7]; one of the oldest, largest and most influential in South Africa, has witnessed a dramatic change in its client base since 1994. Others such as Thomashoff, Wilreker and Jordaan (2002 personal communication and/or questionnaires) who practice in Johannesburg and Pretoria in South Africa's economic heartland have experienced similar shifts.

		PRE 94	POST 94	LOCATION OF PRACTICE
WOOD	L	▬ ▬ ▪	■ ▪ ▮	JOHANNESBURG/ PRETORIA
THOMASHOFF	S	Not in practice	■ ▪ ▪	
WILREKER	M	Not in practice	■ ▪ ▪	
JORDAAN	M	▬ ▬ ▪	■ ▪ ▪	
DU TOIT	S	Not in practice	▪ ▪	CAPE TOWN
NICKS	M	▬ ▬ ▪	■ ▪ ▪	

KEY

● PRIVATE SECTOR CLIENT		● PUBLIC SECTOR CLIENT		● JOINT VENTURE	
L	LARGE PRACTICE	M	MEDIUM PRACTICE	S	SMALL PRACTICE

Figure 5.28. the shifting and expanding client base of urban design in South Africa

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[7] GAPP Architects and Urban Designers based in Cape Town and Johannesburg.

5.6.3. ADAPTED POWERGRAMS FOR URBAN DESIGN IN CORRIDOR DEVELOPMENT IN SOUTH AFRICA

PART 1 of this CHAPTER indicated opportunities for urban design in corridor development at two levels:

- **First**, at a *regional level* where projects are first mooted and put forward for approval by the Representative Forum in five year cycles.

- **Second**, at a *local project level* once a number of five-year projects have been approved and budgets have been allocated. All indications are that such projects will focus mostly on specified nodes and activity spines within corridors.

Figure 5.29 and figure 5.30 present *powergrams* for each of these levels. The first powergram (figure 5.29) indicates the potential of urban designers in metropolitan government to influence corridor proposals and to moot projects within them. Urban designers now typically form part of an inter-disciplinary spatial planning team which allows them to operate as strategists at the regional level as well as spatial design experts at a more local level. This indicates that a combination of planner-urban designers and architect-urban designers will be ideally suited to maximise the combined power base of urban design during the strategic phase.

The second *powergram* (figure 5.30) which is based on approved projects that will be executed during the current five year cycle indicates the involvement of outside urban design consultants who have a responsibility to the public-private- partnership client. Their role is closer to traditional urban design roles as defined in an international discourse since they deal with the arrangement of conventional elements of the built environment: streets, blocks, and built form responses. These are directly applicable to defined and approved nodes, activity spines and lateral connectors in corridor space. Patronage is extended through the metropolitan spatial planning division who may insist on the involvement of urban designers. This now happens routinely in Cape Town where there is a particularly strong urban design presence in local government. In cities such as Durban and Pretoria where there is a weak urban design base, the opportunities are more limited, particularly when there are not urban designers within the spatial planning unit who cajole and create opportunities lower down the hierarchy of scales.

FIGURE 5.29 : POWERGRAM FOR URBAN DESIGN DURING STRATEGIC PLANNING PHASE (REPEATED EVERY FIVE YEARS AS A METROPOLITAN WIDE BUDGETARY EXERCISE)

ACTORS → / STRATEGIC/ GENERIC CORRIDOR ELEMENTS ↓	National and Provincial government (normative frameworks and national department of transport)	Metropolitan government (politicians and strategists)	Land owners in a free market economy	The voters and elected ward committees (approx 10 000 people per ward = minimal democratic unit)	IDP elected representative forum (approximately 200 members per city)	Urban designer in metropolitan government (spatial planning divisions = planners, architects, urban designers)	Urban designer in private practice
The corridor concept	◉ sustainable practice	◉	—	—		☼ influence	—
Mobility spines (highways & rail)	◉ provincial network	☼	☼ supply & demand	—	—	☼ influence	—
Activity spines	—	◉	☼ supply & demand	—	◘ approve/reject	◉ moot/champion	☼
Nodes Inter-modal Interchanges	—	◉	☼ supply & demand	☼ may be on wish list	◘ approve/reject	◉ moot/champion	☼
Lateral connectors	—	◉	☼ supply & demand	☼ may be on wish list	◘ approve/reject	◉ moot/champion	☼

KEY   ◉ power to initiate   ◘ power to control (approve or reject)   ☼ power to influence/interest   — no obvious interest

FIGURE 5.30. POWERGRAM OF URBAN DESIGN DURING THE FIVE YEAR STRATEGIC PROJECT PHASE

actors→ built elements of approved projects↓	Strategic phase — IDP forum (decisions carried forward)	suppliers — Land owners	public private partnership — developers	public private partnership — Spatial panning division	public private partnership — transport engineers	form giving consultants — architects	form giving consultants — urban design consultants	everyday users
Street pattern	☼	—	▨	▨	▨	—	▣	☼
Blocks	☼	—	▨	▨	▨	—	▣	☼
Plots - Subdivision & amalgamation	—	◉	▨	▨	▨	—	▣	☼
Land/building use	—	◉	▨	▨	▨	☼	▣	☼
Building form - Height/mass	—	—	▨	▨	▨	▣	▣	☼
- orientation to public space	—	—	☼	☼	▨	▣	▣	☼
- elevations	—	—	☼	☼	—	▣	☼	☼
- elements of construction (details and materials)	—	—	☼	☼	—	▣	☼	☼

KEY

◉ power to initiate

▣ responsibility to the client (public private partnership)

☼ power to influence/interest

— no obvious interest

▨ initiate and control jointly (public private partnership)

CHAPTER 6: AN EVALUATION OF URBAN DESIGN TOOLS USED IN CORRIDOR DEVELOPMENT

6.1. INTRODUCTION

6.1.1. AIMS AND SCOPE

This is the first of two CHAPTERS that consider tools for urban design practice in corridor space. The aim of this CHAPTER is to review urban design approaches based on *plan* and *principle* and to relate these to the findings of the contextual analysis of CHAPTERS 3, 4 and 5.

6.1.2. METHODOLOGY

During the course of the research it was found that urban designers use a wide variety of design tools when involved in corridor development. These need to be evaluated and related to the contextual variables presented in preceding CHAPTERS of this research.

The analysis deals firstly with *plan* and then with *principle*. The theoretical separation of plan from principle is a practical decision that relates to the scale at which corridors are conceived. A strategic view of the corridor often requires radical intervention around public transport interchanges, on defined greenfield sites or in disjointed urban contexts. All this has generated a new interest in the qualities of plan.

The section on **plan** considers four prevalent urban design approaches:

- **First**, the *dynamic city/capital web* approach that was conceptualised by David Crane and his associates at the University of Pennsylvania during the 1960's.

- **Second**, the city as a *movement system* (space syntax) that was conceptualised by Bill Hillier and his associates at the University College of London .

- **Third**, the city as a series of *sustainable local districts* or *pedestrian sheds* as conceptualised by graduates of Joint Centre for Urban Design in Oxford and applied in Perth, Australia and Johannesburg South Africa.

- **Fourth,** a *nested hierarchy of corridor-scales* used by Calthorpe & Associates in California and by the spatial planning unit of the City of Cape Town (this expands the discussion presented in the previous CHAPTER).

- **Fifth,** a *retrofit approach* that is used used to densify, intensify and integrate greyfield sites in corridor space.

- **Sixth,** an *incremantal approach* that promotes the gradual provision of generic corridor elements

The second section on **principle** critically relates the principles used in urban design in corridor space in South Africa to the synthesised vocabulary of British and American urban design presented by Punter (1990) and to the emerging vocabulary of sustainable development presented by Barton et al (1995).

The analysis of *plan* and *principle* presents an opportunity to assess their value in the South African context. The assessment will be used to inform the formulation of a strategy for urban design in South African corridor space (see CHAPTER 8).

6.2. BACKGROUND: THE USES OF PLAN

6.2.1. INTRODUCTION

> *Appropriate **plans** are not impositionary as much as enabling: they create opportunities to which people can respond but they do not attempt to pre-determine the form of the response. They increase rather than decrease choices. They transcend political, ideological and technological stereotype.*
> *(David Dewar & Roelof Uytenbogaardt; South African urban designers, 1991)*

> *He (the planner/urban designer) can organise the town as a network of mutually related building planes and lay down scales and extent, determine closed spaces, outline green areas, give context to buildings and reach conclusions about main lines of development. Moreover, all this can take place without violence to the accidents of life, the influence of the inhabitants or variations in dwelling patterns (Habraken, 1972:69)*

These quotes suggest the validity of *plan* when considered an enabling or supportive and not an impositionary device. The design of flexible plans (or frameworks as they are often called) has increasingly become the domain of the urban designer within a strategic urban management context. How urban design relates to planning and to other disciplines however remains a particularly difficult problem, particularly since urban design *'thrives at the margins of development practice'* (Goodey,1997). The *powergram* presented in CHAPTER 5 indicates that interdisciplinary learning is improved by a strategic urban management approach, since members of the spatial planning unit (which typically includes planners, urban designers, urban geographers and the like) are encouraged to join efforts during defined stages of strategic, five year urban management cycle.

Schurch (1999: 9) notes that, because urban design, as it is generally regarded today, has emerged in the historically brief period of the post-Second World War era, attempts to define it are inevitably fundamental, superficial or cursory. An evolutionary field which has so many generic professional and related roles is always going to struggle to find words to communicate its purpose. Many brave attempts at defining the purpose of urban design do however attempt to emphasise the fact that to be able to be an urban designer, one has to possess *physical design* skills or the ability to give direction to physical growth or change. This is a central skill which sets the urban designer apart from geographers, sociologists, economists, and a range of others who have a stake in the development of the city but who generally tend to be more analytical in their approach.

> *Urban design is the generally accepted name for the process of **giving physical design direction** to urban growth, conservation and change (Barnett, 1982:12).*

Reference to physical design brings the use of *plan* into the discussion. Hall (1992:1) notes that *plan* cannot be separated from action or process in an urban development context. As a *noun* it can either mean *a physical representation of something* -as for instance a drawing or map; or it can mean *a method for doing something*. When we talk about a *plan* for a building, suburb or indeed a corridor the two meanings are combined and the distinctions become blurred.
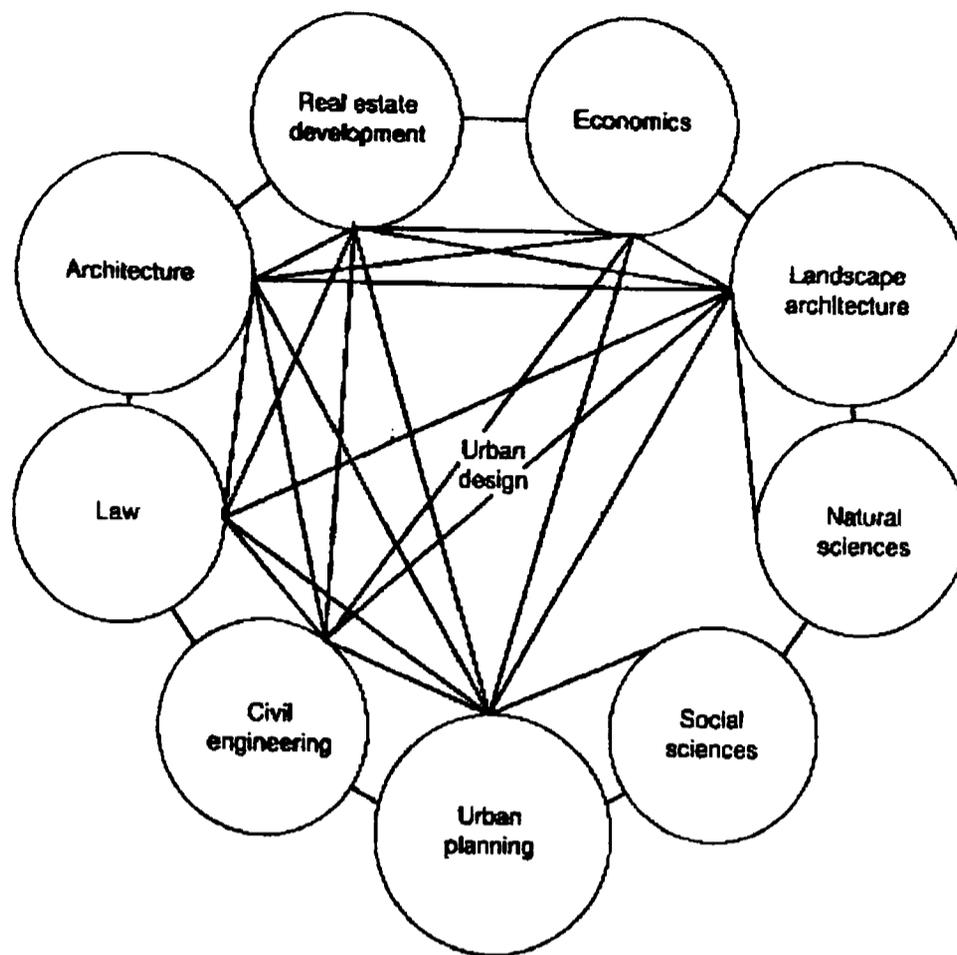
Figure 6.1. A diagram of urban design and related fields (Scurch, 1999).

It must be recognised that apartheid planning generated conditions in which great parts of the city are **physically** separated. CHAPTER 5 has indicated that strategic planning in South Africa is greatly concerned with politically motivated methods for doing something about bridging these physical gaps. Such politicised plans are conceived at a scale where spatial complexities are often difficult to comprehend or where real urban land market dynamics are ignored. Politicians speak of integration, often physical integration, without comprehending how this may actually be achieved in a free market context. For them it is more important to be seen to embrace the right normative concepts. It has also been shown how such rather vague political preconceptions then need to be executed as series of five-year projects and with minimal public funds. It is urban designers and other built environment professionals who have to meet these politically induced challenges.

The scale of the grand political plan represents a frustrating terrain for urban designers since the word 'space' is routinely used by strategists in a way that suggests both *method for doing something* and *a physical representation of something* when such strategists clearly do not have the time or capacity to analyse or comprehend real spatial dynamics in the city (pers com Wood, White, Thomashoff, 2002). This implies that acquisition of physical design skills is not sufficiently valued and that strategists assume skills or capacities which they do not have. Occasionally design has been granted special privileges

by authorities at the highest level. This happened in Australia where prime minister Paul Keating established The Task Force For Urban Design in Australia (Troy, 1996) and in Curitiba where an authoritarian mayor with an architecture and planning background effectively 'bolted down' the corridor with its associated generic structural elements (Green et al 1996). Such privileges are however exceptional and in most contexts urban design is at most an equal partner alongside the range of disciplines illustrated in figure 6.1.

The Pretoria urbanist Marinda Schoonraad (2000:228) notes that current research on African cities *'focuses too much on socio-economic and political issues and not enough on their physical implications'*. The Australian urban designer Alexander Cuthbert (2001:301) makes a similar observation about the practice of urban design: *'Planning professions have been reluctant to recognise physical design largely because of an ideological commitment to social science based disciplines as the foundation for urban planning practice'*.

While being aware of this gap in the world of development practices, fieldwork in South Africa has indicated that urban designers have often aimed to assert their position in relation to higher order strategic threats by consciously focusing on physical design while leaving political and socio-economic issues to strategic- and social planners. The indications are that, in order to exert their self-proclaimed status as providers of *physical design direction to urban growth,* urban designers have become strategists and not enablers. Through their high level of physical design expertise they have distanced themselves from engaging with ordinary citizens. This concern which is animated by Eraut's graph (Figure 6.2) is provisionally noted here in relation to the role of *plan* and will be reconsidered in Chapter 7.
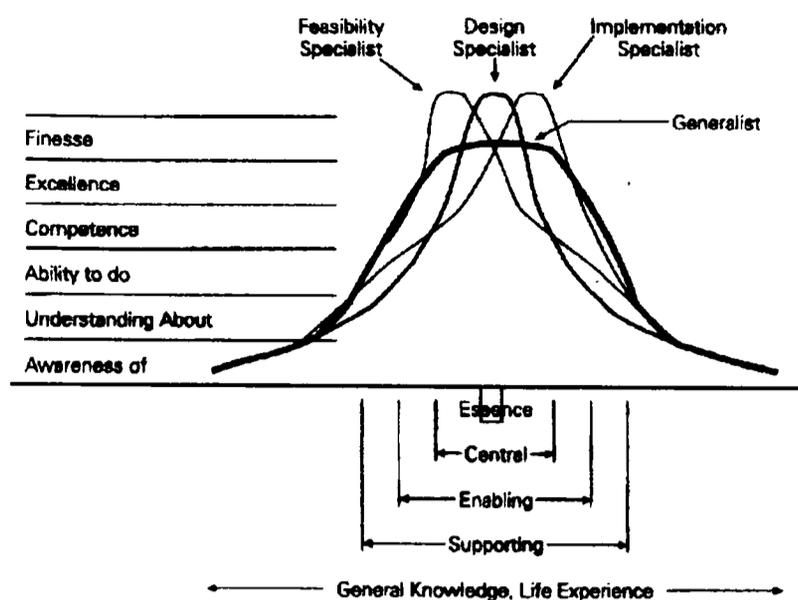
Figure 6.2. This graph presented by Eraut (1994:219) suggests that self-conscious and self proclaimed design specialists have limited capacity to enable and support while generalists have greater capacity to become enablers and supporters.

6.2.2. MOTIVATION FOR THE USE OF *PLAN* IN THE POST APARTHEID CITY.

Those involved with the drafting of metropolitan scale plans in South Africa note that a broad brush stroke approach is necessary to undo the legacy of the grossly dysfunctional and unsustainable Apartheid City (see CHAPTER 5). Barbir, Coetzee and Serfontein[1] therefore call their five year strategic plan for the City of Tshwane *'a radical turn around plan'*. Strategic metropolitan planners readily admit that their plans are *radical* at a time when the word is frowned upon in the international, post modern urban development discourse. The radical, plan-driven nature of South Africa's post apartheid restructuring effort therefore differs significantly from urban development trends in most of the industrialised world. The international urban design discourse is mostly concerned with local and piecemeal intervention in a metropolitan/regional context that is comparatively static.

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[1] At a seminar presented at the University of Pretoria, August 2002.
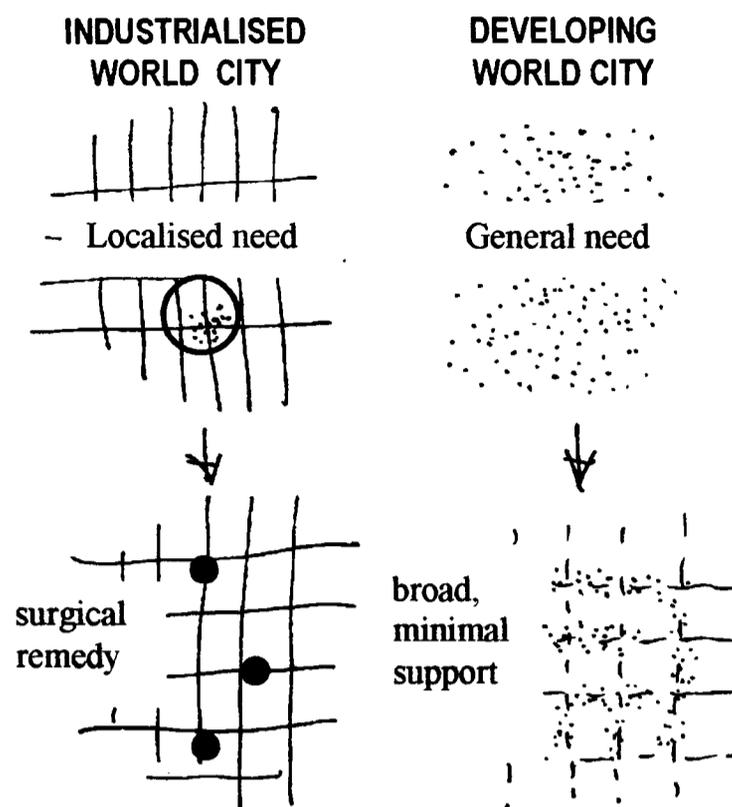
Figure 6.3. A generalised comparison between the Northern and Southern City: local remedy vis-à-vis wide support

The value of participatory urban design will often be illustrated by using case studies that relate to identifiable contexts/enclaves of poverty such as an American or European housing estate[2]. Moreover, cases will often be set in countries with functional social welfare systems where substantial cross-subsidisation between wealthy and poor citizens is possible and/or in stable western democracies where the average per capita income is many times that of South Africa.

The inappropriateness of such surgical methodologies in developing world contexts need to be recognised. A handful of authors such as Koenigsberger (1964) Hamdi (1996) and Mumtaz (1982, 1983) who belong to the *development planning* school have made valuable contributions to developing alternative strategies for the South. The accounts of a number of urban designers presently working in South Africa's urban peripheries suggest that experimental pilot projects provide important insights and that lessons from such projects may be fed into the larger project of defining appropriate urban design roles in the South (Southworth, 2003; Lipman, 2003; Nicks, 2003). International scholars such as Punter & Carmona (1996:132) and Barton et al (1995) have noted that in the North there is also a

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[2] Refer Bentley's account of the Angel Town Community Project in Bentley 1999: 252 and several cases presented by Tony Gibson

need for greater introspection since urban design theory is often overly concerned with built up areas while little consideration is given to appropriate forms of spatial development on greenfield sites.

While South Africa's *plan-driven* discourse may seem inappropriate in more established urban contexts, the politically motivated importance of the *integrative plan* can not be ignored or bypassed. Despite its inherent crudeness and experimental nature, the *integrative plan* is considered central to the politically-motivated reconstruction process and will remain a key instrument of strategic integration projects. Urban designers may not always feel comfortable with the fixes imposed by strategic agendas, yet there is little sense in pursuing a non-plan lobby. This will only strengthen the already dominant hand of technocrats. There is a far greater need to find ways in which we can mediate and uncover the empowering attributes of *plan* at the sub-regional and local scale (Wood, personal communication 2002). The term plan as used in this context relates to Habraken's (1972) notion of generating *supports*, an activity that relies heavily on considered design input.

Upon accepting the challenge to engage in the process of improving *plan*, it is necessary to consider whether it is capable of '*transcending political, ideological and technological stereotype*' as suggested by Dewar and Uytenbogaardt (1991). Many in South Africa argue that, despite clear indication of the over-politicised nature of post apartheid strategic plans, the context is more conducive to the development of meaningful urban space than it has ever been (Wood, White, pers com 2002, Nicks, 2003; Low,2003). It is also important to realise that disciplinary- and scale gaps will always exist and that urban design needs to utilise its capacity to consider *plan* in responsive manner while enriching it with important empowering attributes such as incrementalism, hierarchy and a well considered movement system.

6.3. THE NATURE OF SOUTH AFRICA'S POST APARTHEID, SUB-REGIONAL AND LOCAL PLANS.

6.3.1. INTRODUCTION

Fieldwork in South Africa indicates that urban designers were mostly hired by private developers to create spatial visions for large scale developments before 1994. This trend has continued and many additional commissions now come from metropolitan government and through public-private enterprise where the public partner (metropolitan government) will typically insist on the involvement of an urban designer (Southworth, pers com 2002). This represents a logical step in the politically-induced process of urban restructuring which commences with a radical restructuring plan which is conceived at a metropolitan scale. This suggests that the sub-regional and local plans, which are now commonly referred to as urban design frameworks, have become a core responsibility/opportunity for enabling urban design in post apartheid South Africa.

Dewar & Uytenbogaardt (1991) note that *physical plans* have been used extensively and successfully to guide and not necessarily to control urban growth and have long been a central tool of urban management. There is very little evidence that it is any different today and particularly in fast growing and transient cities where frequent expansion into greenfield sites and the absence of resident communities necessitates well considered plans. In South Africa the high prevalence of vacant space between segregated fragments calls for what Wood (pers com, 2002) calls stitching plans. *Non-plan* and autonomy are also denied by market-driven land management policies, which makes it impossible to escape the notion of the defined *land parcel,* particularly in the most accessible and most contested spaces of the city.

Fieldwork in Peru suggests that, under conditions where a high level of autonomy has been extended to an urban population, people may themselves opt to organise space by introducing a minimal grid. The South African Homeless People's Federation[3] actively trains *barefoot planners* and *barefoot architects* within land-less communities to prepare and implement plans on sites which the organisation has identified for illegal land invasions. Apart from acknowledgement of the organisational capacity of plan by

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[3] The South African Homeless People's Federation is a NGO which has international ties and which extends legal and other forms of aid to the land less and homeless.

grassroots communities, there are also new calls for the recognition of the importance of plan or at least the importance of physical design amongst international urban design scholars. In a recent article titled *Splitsville, USA: Why the Practice and Teaching of Urban Design is Coming Apart,* Michael Sorkin (2002) expresses concern over the lack of appreciation for the enabling capacity of plan and of well considered spatial principles in a discipline where fuzzy humanist rhetoric seems to have eclipsed all else in a race for political currency. Roger Simmonds (pers com 2002) notes that there are signs of a growing backlash against the excessive encroachment of the sociological dimension of urban design on the identity of the discipline and that urban design schools in the United States in particular are consciously aiming to reconstruct their identities around advanced physical/spatial design skills and knowledges. This is perhaps due to the strong and sustained influence of the Congress for New Urbanism which has demonstrated that there is wide and growing patronage for physical urban design skills (Calthorpe & Fulton, 2001).

6.3.2. AN EMPHASIS ON THREE-DIMENSIONAL URBAN DESIGN SKILLS IN SOUTH AFRICAN URBAN DESIGN EDUCATION.

The University of Cape Town's policy to permit only candidates with a first degree in architecture to enter its two year *Master of City Planning and Urban Design* course indicates the extent to which physical design skills are valued by South Africa's only urban design school. Notably, the course is closed to planners unless they have supplemented their planning degree with a three-year Bachelor of Architectural Studies degree. Architects admitted to the course complete a foundation course in city planning, hence the inclusion of 'City Planning' in the degree title (Schaug, 2003; Hendricks pers com 2002). This indicates a high level of scepticism about the ability of non-architects to be good urban designers. Many will undoubtedly question this policy, yet it must be acknowledged that as a result the frameworks prepared by the City of Cape Town's *Spatial Planning Division* are accessible to the lay person and clearly shows how urban design responds to familiar contexts. It may be argued that the use of legible drawings that can be understood by a wide audience is an extension of democratic principles. The Cape Town urban designer Simon Nicks (pers com 2002 and 2003:14) notes that visualisation popularises urban design and makes the debate more accessible.

Other metropolitan councils in South Africa that are typically dominated by planning professionals have prepared *spatial frameworks* clearly without understanding the spatial

implications or without being responsive enough to existing man made- and natural spatial opportunities and constraints. A comparative analysis suggests that physical urban design skills has an important role to play in the drafting of strategic, metropolitan urban development frameworks. While being called 'spatial', these frameworks clearly lack spatial detail.

The Johannesburg planner-urban designer Erky Wood (pers com 2002) notes that it is not either-or and that an attack on planners will not solve the problem. While physical design skills may be an important requirement it needs to be supplemented with strategic inventiveness. Architect-urban designers are often ignorant about policy and have much to learn from planner-urban designers or geographer- urban designers. He notes that the exclusive architect-urban designer preference is a hangover from the sectoral modernist and apartheid planning paradigm when many liberal architects-urban designers saw the planning profession as immoral and illegitimate. What is clearly needed is patronage for an integrated approach which recognising the importance of physical design skills within a wider pool of skills offered by built environment professionals.
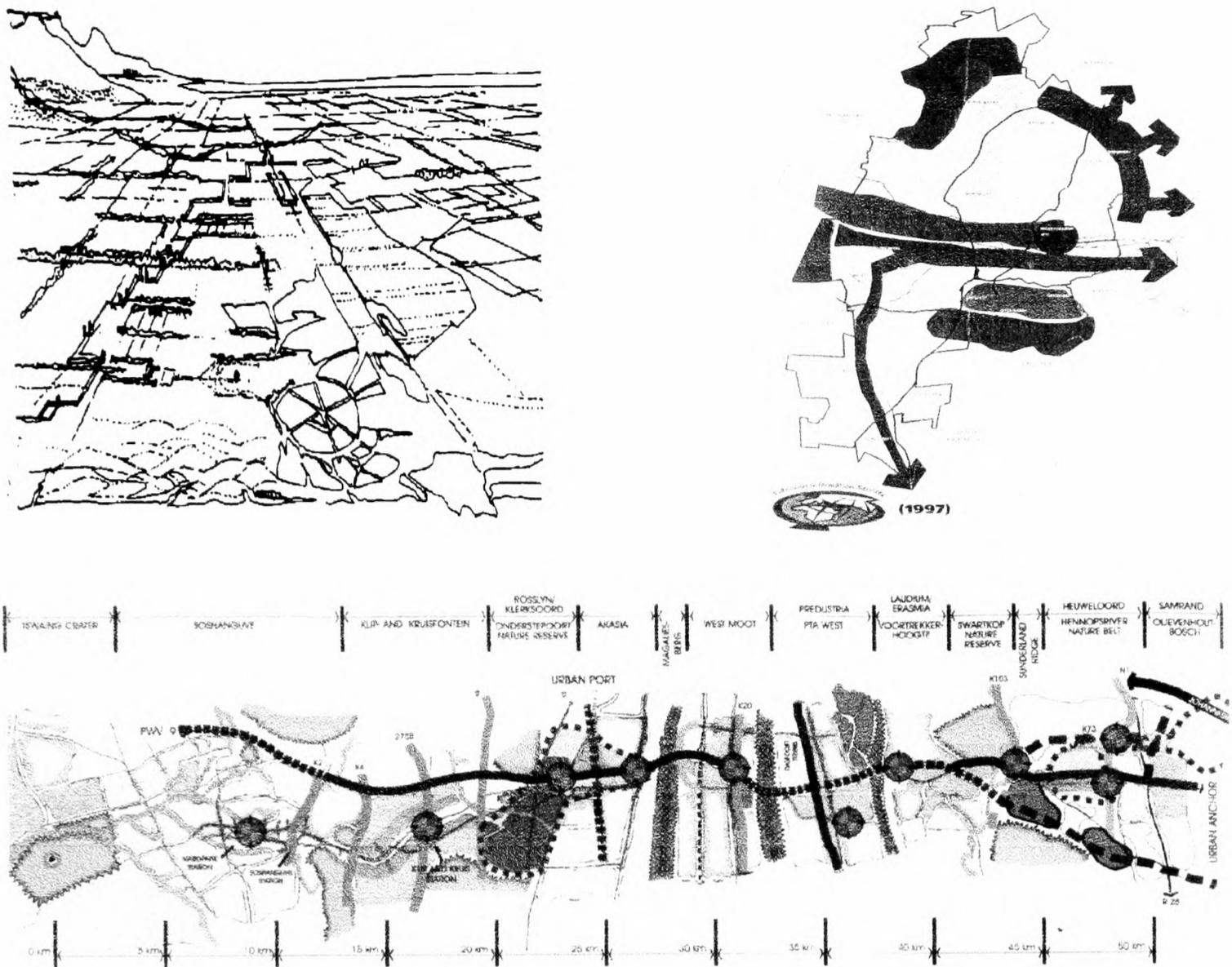
Figure 6.4. Strategic plans translated into legible and recognisable images by urban designers of the City of Cape Towns spatial planning division (top left) and some of the typically flat and convoluted images of spatial development presented by other cities: Johannesburg (top right) and Pretoria (bottom).

6.3.3. THE DYNAMIC CITY IDEAS OF DAVID CRANE AND ITS INFLUENCE ON URBAN DESIGN PRAXIS AND CORRIDOR DEVELOPMENT IN SOUTH AFRICA

6.3.3.1. INTRODUCTION

The American urbanist David Crane has had a significant influence on the South African urban design discourse. There is a clear relationship between Cape Town[4] and Johannesburg's[5] spatial planning frameworks and Crane's *Capital Web* theory. Crane was professor of architecture and urban design at the University of Pennsylvania during the early 1960's where he influenced a generation of pioneering South African urbanists that include Roelof Uytenbogaatdt and Glen Gallagher (pers com Southworth, White 2002).

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[4] Municipal Spatial Development Framework (1997)
[5] Interim Strategic Framework (1991)

Both Uytenbogaardt and Dewar would become influential in establishing urban design as a discipline in South Africa and would later invite Crane to be visiting professor at the University of the Witwatersrand (Johannesburg) and at the University of Cape Town.

During fieldwork interviews in South Africa, Crane was often cited by urban designers who are today at the forefront of urban design practice (Wood, Thomashoff, White, Senior, Southworth, Schoonraad, pers com 2002). This points to the insurgency of Crane's ideas, which is particularly evident in the development of the post apartheid, sub regional urban design *plan*. Wood notes that, though conceived in the early 1960's, Crane's *Dynamic City* and *Capital Web* ideas are today more relevant than ever since *'it accommodates the complexities associated with rapid growth in the developing world while most urban design theory conceived in the industrialised world is concerned with piecemeal growth and focused regeneration'.*

6.3.3.2. THE ELEMENTS AND INFLUENCE OF THE DYNAMIC CITY IDEA

Public open
space network

Commercial sub
centres
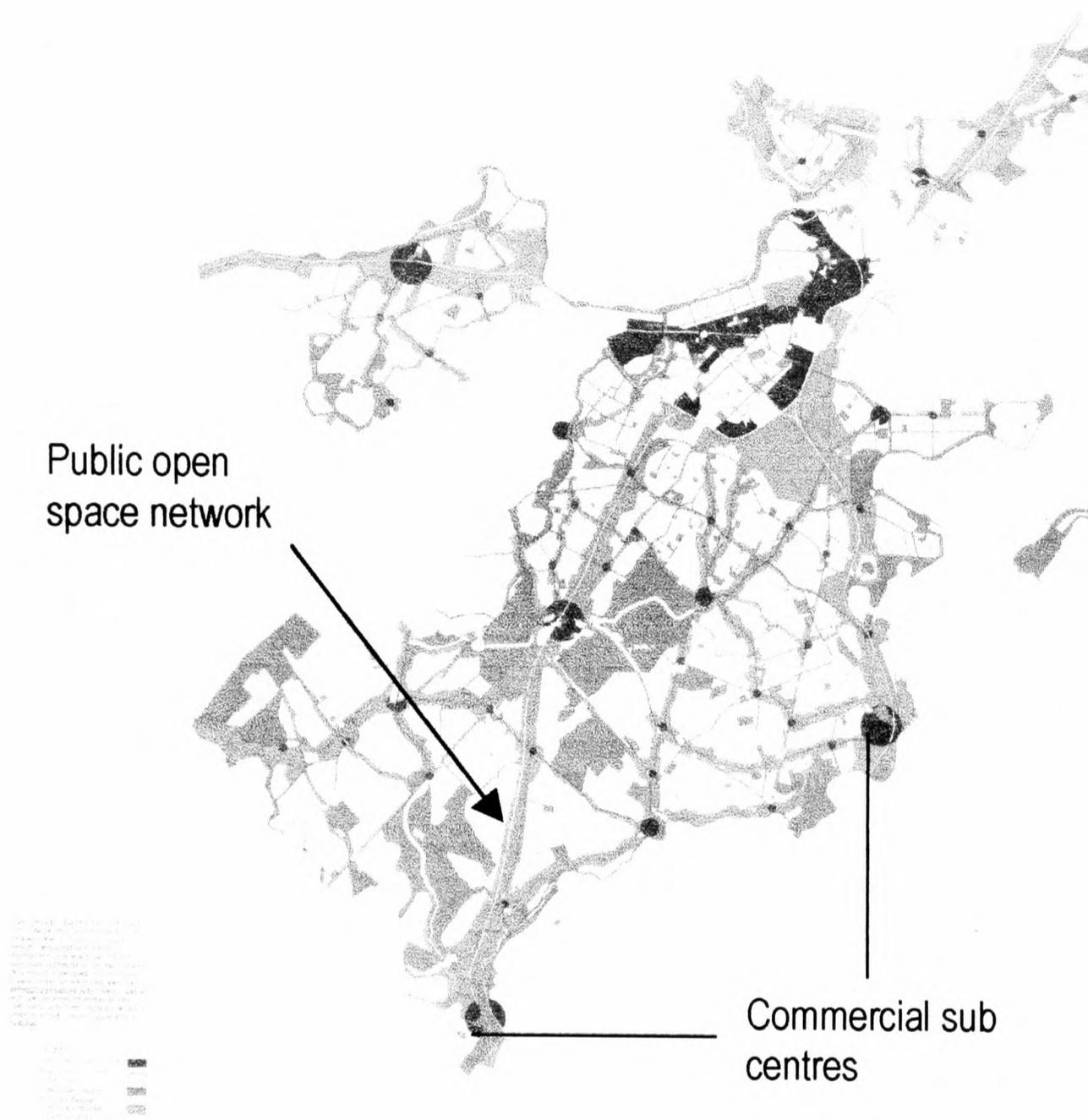
Figure 6.5. A map illustrating the capital web concept developed for the 1965-75 general plan for the city of Boston. Commercial sub-centres are linked by continuous public facilities and open spaces, giving control of the public environment. Residential neighbourhoods fill in the sectors in between (Barnett, J 1982:225).

The *Dynamic City* idea comes from three basic *truths* about the contemporary city: rapid acceleration of change in city life forms and unequal physical progress; interdependence of life and structures over great space-time scales of change distribution; and complexity multiplicity and power of the *City of a Thousand Designers*. The first two *truths* introduce the idea of time as a fourth dimension of design (Crane, 1960:162). Hamdi (1995:51) notes that *flexibility* became a widespread design buzzword in the 1960's due to rapid changes in family size, composition and structure and in people's expectations. This undoubtedly

influenced the work of Crane and his associates at the University of Pennsylvania, who, apart from working in the laboratory of Philadelphia, spent much time 'reconsidering' the Indian new town/city Chandigargh. The word *flexibility* acquires a new relevance in South Africa due to the scope and scale of socio-political change and the because of rapid urbanisation.

The promise of *The Dynamic City* lies in a philosophy of *hierarchical change in permanence*, or a recognition of selective change and an organisation of parts related to life spans. City form should contain successive layers and scales of parts where change and stability seduce and sweeten each other. If specialisation is sought too early, the product is vulnerable and the creative potential of *The Thousand Designers* is lost. In practical terms it means that *The Dynamic City* calls for the principles of capital 'designing' and town 'building' (versus capital 'budgeting' and town 'planning'). By capital designing, local government is asked to design and build core facilities in an ordered space time sequence as a basic control and as optimal restriction to the *Thousand Designers* while it creates continuing growth and change.

The Johannesburg practice of Glen Gallagher has extended Crane's vocabulary to include the more comprehensible terms *'IF-THEN'* as part of their flexible approach of *conditional incrementality* (pers com Wood, 2002). During the 1980's and early 1990's Roelof Uytenbogaardt developed a series of minimal footprints that indicate a concern for spatial hierarchy and which introduced the *capital web* concept to the South African urban design discourse. The concept was employed by Uytenbogaardt in the hypothetical design[6] of various unrealised new towns and urban extensions in South Africa (see figure 6.6.1-6.6.5). He would also analyse the inherent *capital web* of pre-industrial cities such as Isfahan in Iran and Jaiput in India. The web suggests locations for minimal investment of public funds in an arrangement that is considered to guarantee richness and variety through the complimentary actions of *a thousand designers* over time. Uytenbogaardt drew on his analysis of *the family of events* associated with cities such as Isfahan where successful urban spaces evolved spontaneously around movement axes. Similar *Capital Web* proposals were presented by the practice of Glen Gallagher for the new town Arandis in Namibia and for the redevelopment of Newtown in Johannesburg. Crane (1961:162) and Uytenbogaardt (1991) note that a *capital web* is only an honest beginning for the *Dynamic*

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[6] hypothetical because of the limited scope for alternative design afforded by central state control under apartheid

City since urban design drawings only partly convey the time dimension or the flexible concept of experimentation and wider participation.

The late Uytenbogaardt became the most influential urban design scholar in South Africa. He passed the hierarchy- based, *capital web* tradition on to a younger generation of urban designers and influenced his colleague David Dewar, who continues to inspire a younger generation of urban designers (see figure 6.6.5.).

Figure 6.6.3: Uytenbogaardt's analysis of the public space structures of Jaiput, India. (Dewar & Uytenbogaardt, 1991:42).

Figure 6.6.1.
Crane's theoretical Capital Web. 'A honest beginning for the Dynamic City' (Crane, 1960:162).

Figure 6.6.2.
Uytenbogaardt's analysis of Isfahan's bazaar route (Dewar & Uytenbogaardt, 1991:56).
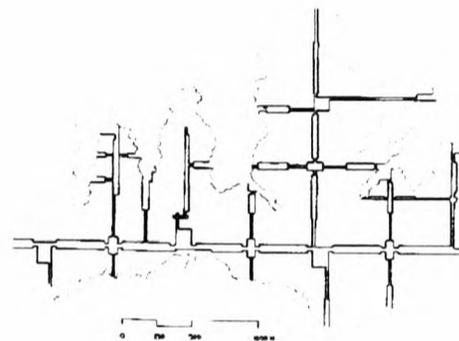
Figure 6.6.4.
Uytenbogaardt et al's network of public spaces (capital web) proposed for Marianhill, Natal, South Africa (Dewar & Uytenbogaardt, 1991:58).
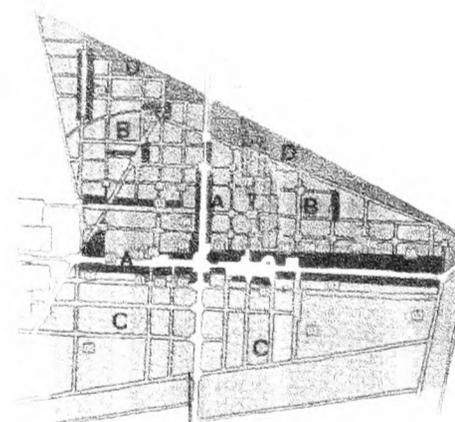
Figure 6.6.5. Indications of the influence of Crane and Uytenbogaardt's *Capital Web* theories on a younger generation of South Africa urban designers. The figures represents excerpts from the Housing Generator Competition for South African Cities(1998). Du Toit, Gordon, Southworth and Lees' proposal for Cato Manor, Durban (left) and Comrie, Gouws and White's proposal for Watville, Johannesburg (right).

6.3.3.3. THE INFLUENCE OF THE DYNAMIC CITY IDEA ON THE DEVELOPMENT OF CORRIDOR PLANS IN SOUTH AFRICA

In CHAPTER 2 it was noted that David Dewar and the University of Cape Town's urban design school has been credited with introducing the corridor concept to South Africa. Dewar and Uytenbogaardt's *South African Cities: A Manifesto for Change* (1991) provides the theoretical motivation for the corridor. There is little doubt that Crane had planted the original seed since Dewar and Uytenbpgaardt's conceptions of the corridor are closely aligned with Crane's original *capital web* theory. After being frustrated throughout the 1960's, 1970's and 1980's for not being able to test Crane's seemingly appropriate theories in a stifling apartheid context, the dawning of the apartheid era promised new freedoms.

Apart from referring to international cases such as Isfahan and Jaiput, Dewar and Uytenbogaardt indicated the empowering nature of the incrementally developed corridor by referring to Cape Town's integrated southern spine, where a high level of growth and energy had been concentrated over several decades, despite the existence of prohibitive planning laws (figure 6.7.).
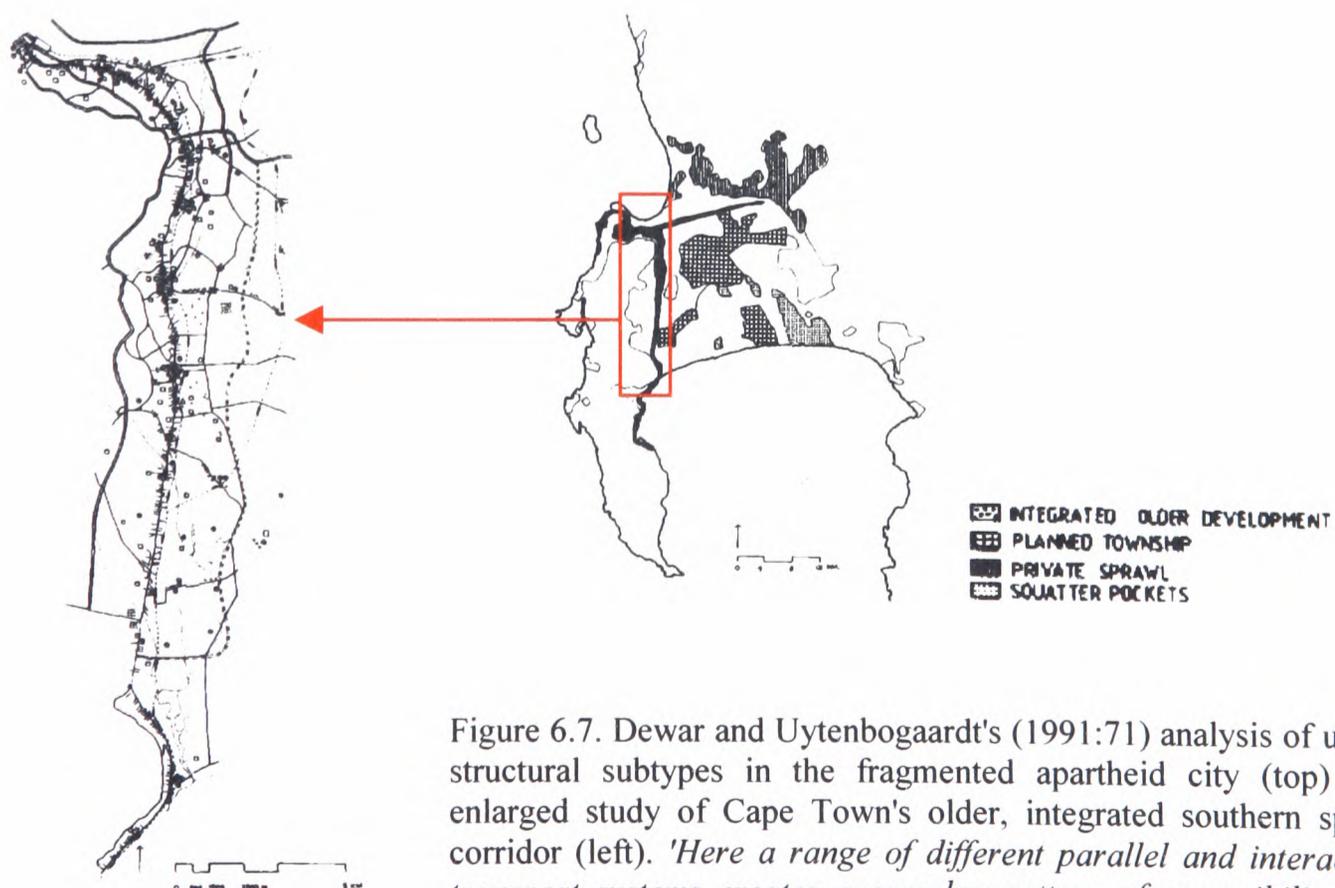
Figure 6.7. Dewar and Uytenbogaardt's (1991:71) analysis of urban structural subtypes in the fragmented apartheid city (top) and enlarged study of Cape Town's older, integrated southern spine/ corridor (left). *'Here a range of different parallel and interacting transport systems creates a complex pattern of accessibility and therefore a wide range of opportunities and activities: this maximises reinforcement and choice'*

Dewar and Uytenbogaardt (1991:48) motivates the use of continuous urban fabric in the following quote:

a relatively continuous form of dense urban fabric allows the need for access to nature, to privacy and community to be met. It blurs artificial boundaries between areas; it increases exposure to new experiences; and it promotes interdependence between local areas; areas are not entirely dependent on their own resources and own facilities and people have new choices. Finally, an intense and relatively continuous urban fabric is a precondition for a viable and efficient public transport system.

The *dynamic corridor* as conceived by Dewar and Uytenbogaardt is not based on the static generic elements of *activity spine*, *mobility spine* and *nodes* that typically form the basis of a top down strategic solution (see CHAPTER 2) but on an extended minimal grid that generates its own internal energy and demand. Within the grid the multitude of lateral connectors provide many small scale opportunities that rely on the energy created by the main public transport axis. The fine, enabling grid generates conditions that allow the designer to step aside and see how supply and demand and the everyday interaction of citizens transform and consolidate urban space in a way that characterised pre-industrial corridor development.
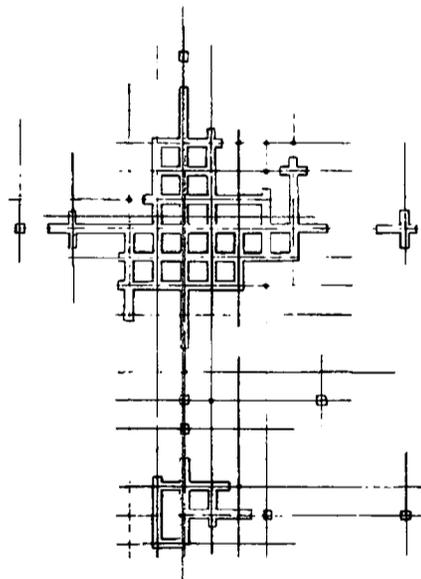
Figure 6.8.1. (left): Crane's 'reconsidered', dynamic grid for Chandigarh. An alternative plan for Le Corbusier's plan of 1952 (Crane, 1960).

Figure 6.8.2. (right): Uytenbogaardt's conceptual diagram of a network of activity systems 'in different stages of becoming' (Dewar & Uytenbogaardt, 1991:49).

6.3.3.4. EVIDENCE OF SUCCESS OF THE DYNAMIC CITY IDEA IN LIMA.

Note: Annexure 6 contains a condensed historical review and a visual analysis of the development of Villa El Salvador from 1971-2002.

There is no evidence in any of their writings that Dewar and Uytenbogaardt was/is aware of the Villa El Salvador case. It is a useful contemporary precedent that indicates how the

capital web may become an enabling device. The case is particularly relevant to South Africa since the rate of change and level of urbanisation experienced post 1994 bears close resemblance to the situation in Peru during the early 1970's. During the Belaunde and Velasco eras, rural-to-urban migration escalated dramatically and widespread poverty resulted in a condition where people were forced into communal co-operation (Flindel-Klaren, 2000; Dietz, 1998; Skinner, 1981). For lack of a better example David Crane (1960 a) analysed Le Corbusier's grid-plan for Chadigargh in the early 1960's and lamented the fact that a preoccupation with zoning had denied the city the opportunity to develop in a more spontaneous, people-driven manner. This research presents a fresh opportunity to review the *capital web* idea in relation to Lima.
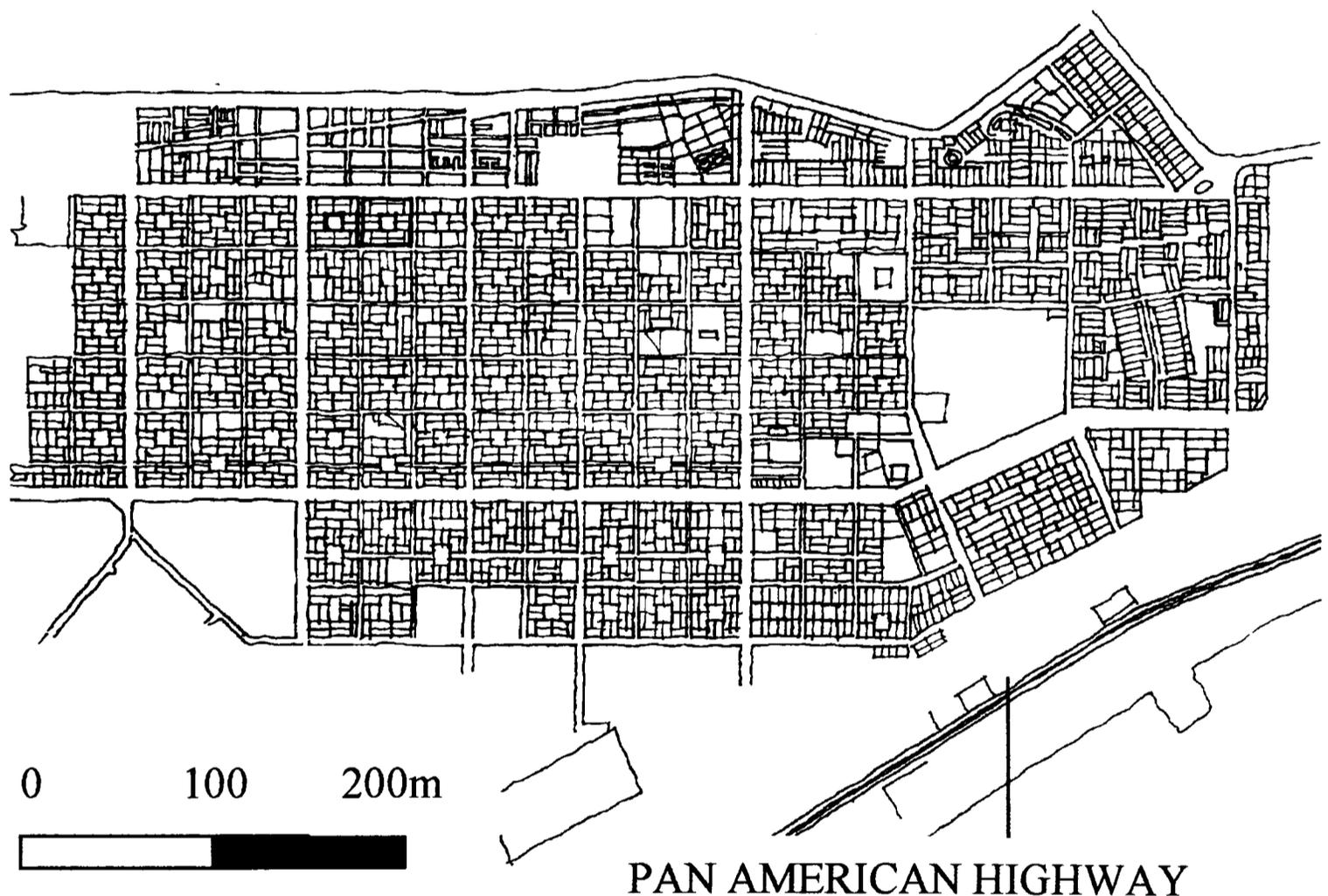
Figure 6.9. Villa El Salvador's capital web
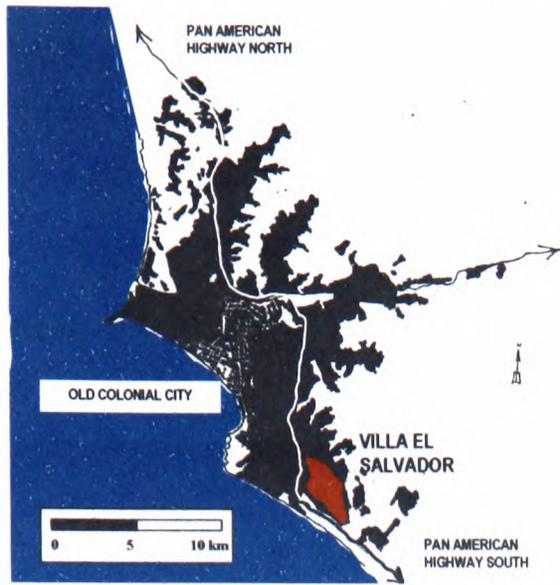
Figure 6.9.1. Location of Villa El Salvador in relation to Lima and the Pan American Highway (drawing by author)
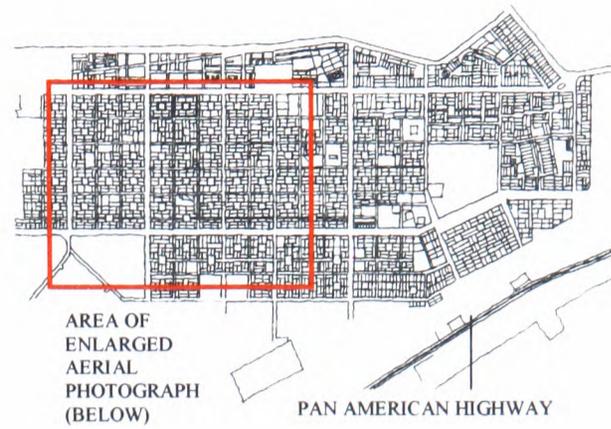
Figure 6.9.2. Plan: Miguel Sotelo Romero's 1971 modular plan for Villa El Salvador which, according to Romero, was produced in a very short time (Redrawn by author from Romero; undated)
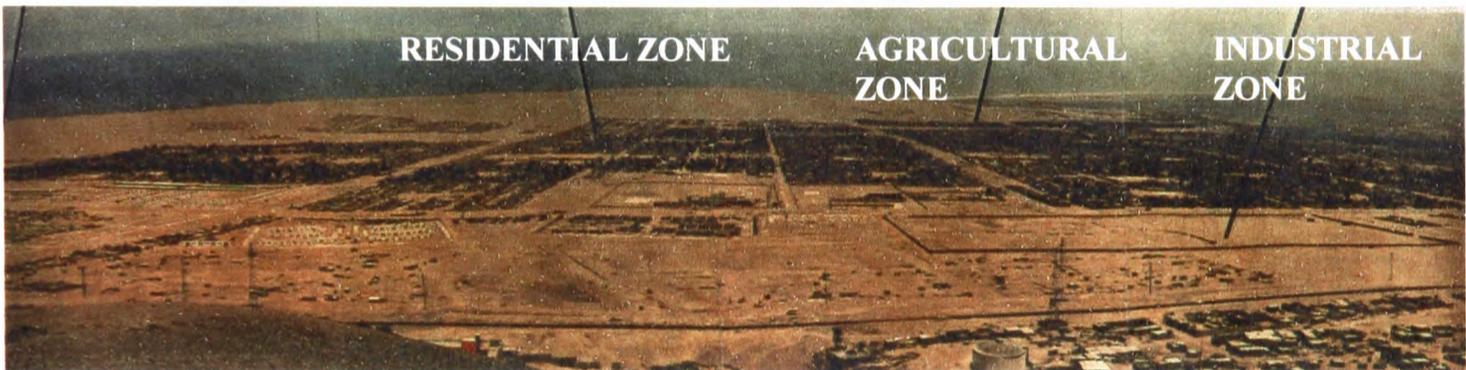
Figure 6.9.3. View of Villa El Salvador from the Andean foothills a few years after the resettlement of squatters from the Pamplona site invasion in 1971 (Romero: undated).

Figure 6.9.4. Aerial photographs showing the minimal grid and consolidated Villa El Salvador in the late 1980's.

Figure 6.9.5. Activity systems 'in different stages of becoming' in Lima suggests that Crane's dynamic city ideas are achievable in the developing world. The photo on the left is of Pachacutec, a recently settled pueblos jovenos, while the two pictures on the right indicates continuous consolidation in Villa El Salvador some thirty years after its establishment (Pictures by author 2001).

The scenario presented on the previous page and in Annexure 6 provides evidence of the value of a robust grid in close proximity to a mobility spine. The case of Villa El Salvador indicates that the minimal grid as conceived by the Peruvian architect Miguel Sotelo Romero for Villa El Salvador and which resembles *Crane's Dynamic City* ideas may yield some extraordinary results over time, particularly if an enabling environment exists for long enough. Thirty years of autonomous city building on a simple and robust grid has generated all the qualities which is valued in the contemporary urban design discourse. The Oxford Brookes Urban Design School's widely acknowledged urban qualities; *robustness, permeability, variety, legibility* and *personalisation* have all developed spontaneously in Villa El Salvador through people's own efforts. The case shows that these qualities do not have to be analysed within the context of the classic European city but that they may emerge spontaneously if development is not excessively controlled.

6.3.3.5. CONCLUSION: CAPITAL WEB

It may be argued that the project-driven nature of post apartheid strategic plans may limit the opportunity for the *capital web* idea to work. Citizens cannot become the main actors in the continuous development of a *'city of a thousand designers'* if locations and time spans of development are subject to five-year budgetary cycles. More importantly, accessible land in corridor space is mostly privately owned and its development is subject to market forces and the whims of powerful investors.

The counter argument is that it can work, even in a relatively small geographical area, as long as that area is well connected to an efficient movement system. This is clearly demonstrated by the Villa El Salvador case where, although the site is remote, it is accessible and people have been given greater choice to respond freely to the energy of the grid. This suggests that there is great promise in a regional vision that accommodates a series of sub regional capital webs. The idea warrants testing within the five-year strategic urban management context, if only as a series of sub-regional pilot projects. This will provide more lasting solutions to South Africa's urban problems than focusing all effort on isolated locations where the market chooses to invest.

The acceptance/testing of the concept by metropolitan governments is the first prerequisite of a capital web approach. The second prerequisite is the active engagement of grassroots communities. In Peru the grassroots seized the opportunity and actively developed the

spaces associated with the capital web. South Africa's urban populations may not respond in a similar way. To date they have not revolted against the lack of life space created by market-driven policies. This is largely the result of the ANC's successful hegemonic project (see CHAPTER 3). In the next CHAPTER it will however be indicated how grassroots organisations such as the *South African Homeless People's Federation* are gradually beginning to seek alternative routes to securing livelihoods. Autonomous building on a well considered urban grid has therefore neither been given political space to be tested, nor has civil society organised themselves in ways that will make autonomous communities a feasible option. Full autonomy was a relatively short-lived and isolated experiment in Peru. The confidence that is still witnessed amongst poorer communities in Lima's *pueblos jovenos* (young towns) today is the legacy of the radical turn in Peru's political history that occurred during the late 1960's and early 1970's when people were given the political space to demonstrate their abilities.

Skinner (1981) notes that the Peruvian government eventually sought to curb the powers of autonomous urban communities who began to seriously challenge the central power of successive weak governments. This suggests that only small political windows of opportunity may exist for communities to fully demonstrate their capacity to build the city of a thousand designers. The Villa El Salvador case however indicates that subsequent governments recognised the skills demonstrated by grassroots communities. Under conditions of democracy that have long since replaced the military system of the early 1970's, residents of more recent young towns such as Pachacutec (see Annexure 6) have been given the political space to develop their own environments in a semi-autonomous fashion. The idea certainly deserves to be tested in the South African context and particularly in remote but well connected areas.

6.4. PLAN AS A RESPONSE TO THE CITY AS A MOVEMENT ECONOMY

6.4.1. INTRODUCTION

Many of the definitions of corridors listed in CHAPTER 2 refer to *movement* and *access* while CHAPTER 3 has indicated how the upper and lower circuits of a dualist political economy has made the zones flanking mobility spines contested spaces. It was also noted how traffic engineers and national departments of transport (technocrats) have come to

consider corridors their domain. In most contexts this has resulted in a situation where little thought is given to how people may spontaneously respond to improved access and/or mobility. Whatever these struggles, it is clear that the linear distribution of movement systems and particularly of public transport systems have had a significant influence on the typology of corridors.

In this section the empowering capacity of well-considered movement systems that integrate local places with the wider city will be considered.

6.4.2. THE SPACE SYNTAX OF CORRIDOR PLANS

It is outside the scope of this study to present a comprehensive review of the space syntax methodology. A brief description of relevant aspects will be presented here.

Space syntax is a patented[7], quantitative tool that measures the level of integration of each line of movement in a defined urban context. The wider the area measured, the more accurate the measurement for each movement line within the system will be. The basis for measurement of integration values is an *axial map*. The *axial map* represents the straight and uninterrupted movement lines that exist amongst the footprints of buildings, mostly along streets and pedestrian routes. The axial map is only concerned with publicly accessible movement lines.

Once the axial map is prepared, either by hand or on computer, it is processed by a computer programme. The output is a colour-coded version of the axial map that indicates the integration value of each axis or movement line. Red (hot) indicates the most integrated movement line and blue (cool) the least integrated.

In cities there are many edges, bridges and barriers that influence the level of integration of each line of movement. The more integrated the route is, the more attractive it will be for shops or pavement stalls that rely on passing traffic. On a larger scale it will determine ideal locations for functions such as shopping malls that rely on good access.

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[7] The space syntax software has been developed, patented and registered by the University College of London's Space Syntax Unit.

Hillier (1996:42) notes that *place,* which is so highly valued in urban design needs to be analysed within a wider spatial context. A pre-occupation with local place gets priorities in the wrong order because places are what they are as a result of their relationship to the wider city. This means that a node that is typically indicated on a generic corridor plan as a dot or circle will not develop to expectation if the internal logic of the surrounding grid does not support its spontaneous development. This supports *'the city is not a tree'* observation of Alexander (see CHAPTER 2, subparagraph 2.3.4) and the concerns raised about the rank order methodologies that have been used to isolate corridors in space before measuring their viability (see CHAPTER 5, subparagraph 5.3).

Most appropriate to a study of the *space syntax* of the corridor is the *'natural movement within an extended grid'.* Natural movement is the proportion of movement on each line that is determined by the structure of the urban grid pattern itself. Hillier however recognises that 'the pattern itself' needs to be weighted or biased in a manner that acknowledges areas of higher density or the magnetic forces of major traffic interchanges.

These ideas become most interesting when related to the work of Dewar and Uytenbogaardt in Cape Town. Uytenbogaardt (and earlier Crane) recognised that the sub-regional grid generates internal energy while Dewar's later work that consider city wide scales of development moves to the opposite side of the equation. According to this vision a limited number of traffic interchanges become powerful magnets and energy generators in the urban system (Muni-SDF,1999). A review of Uytenbogaardt's early work and Dewar's later work (after the death of Uytenbogaardt in 1998) suggests that they understood natural movement systems and supported plans that are not excessively concerned with place. This does not mean that that they do not value *place* but that they recognise that many successful *places* in historic cities are a by-product of an enabling grid that concentrates human energy and investment in defined locations. This suggests that, if urban designers are interested in enabling the development of successful places, they need to present an appropriate minimal grid or *capital web.* Space syntax is a useful tool for testing arrangements within such a web or grid, since it provides an indication of where the internal energies are likely to be focused. It is particularly useful in pedestrianised contexts (low private car ownership) such as the peripheral zones of the post-apartheid corridor.

Space syntax may be applied to the corridor in three ways:

- **First**, as a tool for analysing mature corridor spaces and to relate human actions to the findings and predictions of the space syntax analysis (research application).

- **Second**, to perform an analysis of corridor plans prepared by others (research application)

- **Third**, as a tool to test alternative arrangements of the movement systems of an evolving corridor plan (practical application).

- **Fourth**, a combination of the first three applications where practical application is preceded by an analysis of successful spaces.

A limited example of the possible application of the tool in a corridor context will be presented here. Fieldwork observation in Villa El Salvador and preparation of a *space syntax axial map* provides an opportunity to measure real human actions against the vision of the architect Miguel Romero and the predictions of an axial map. It also provides an opportunity to test some *research applications* of *space syntax* in relation to a planned corridor space that, in the case of Villa El Salvador, has reached a level of maturity.

Figure 6.10. indicates that, if Romero had used *space syntax* as a design tool, he may have been able to predict the magnetism of the most integrated route. Instead, he emphasised the shorter, transverse routes. According to Romero's vision, the shorter and wider routes would attract most activities and buildings of a slightly larger scale would eventually frame landscaped boulevards. According to Peruvian architects Juan Tokeshi and Mario Lopez (pers com, 2001) this miscalculation did not however distract from the success of the settlement. The fact that a narrower but more integrated street has since developed into a high street has created intimate trading spaces. Traders have located their informal businesses in locations other than those originally conceived by the Romero but in accordance with a space syntax analysis. This points to the accuracy of the tool when used in a context of low private car ownership.
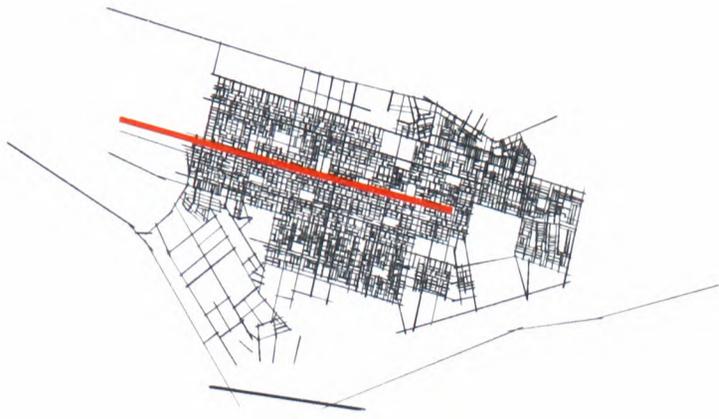
Figure 6.10.1. Axial map of Villa El Salvador. The smallest grid block in Villa El Salvador is only 90 metres by 25 metres, which results in a very fine texture. The most integrated local route is indicated in red.

Figure 6.10.2. Space syntax measurement showing levels of integration. In reality the highway would be most integrated in the city (Lima) and country (Peru) and would be shown as red in a city-wide analysis. The local measurement however provides an accurate indication of the internal hierarchy.

Figure 6.10.3. Relationship between the most integrated local route and the Pan American Highway.

Figure 6.10.4. Spontaneous clustering of activities around the most integrated route, which has now become Villa El Salvador's high street.
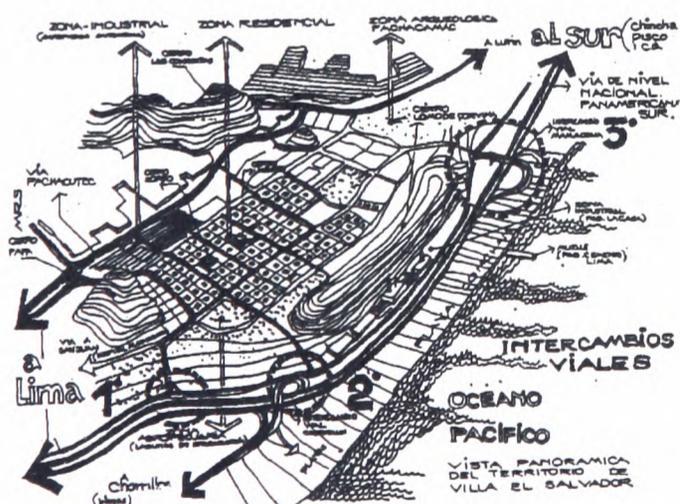
Figure 6.10.5. Miguel Romero's vision for Villa El Salvador in 1971. The figure shows that Romero misjudged the flow implications of the most integrated route and that he chose to emphasises the shorter, transverse routes.

Figure 6.10.6. Intense activity along Villa El Salvador's most integrated route (Pictures by author: 2001).

Figure 6.10. Space syntax analysis of Villa El Salvador

6.4.3. CONCLUSION : CITY AS MOVEMENT ECONOMY/SPACE SYNTAX

The use of *plans* in a way that responds to the city as a movement system acknowledges the existing and evolving energies within the urban system. Unlike the *capital web* idea, it does not rely primarily on minimal public investment, but on the market generated by humble means, i.e. by access and passing foot traffic which represent the most important market for the grassroots. Initially, the alignment of routes are more important than their physical construction. If carefully considered, the alignment/syntax of movement systems become empowering devices and catalysts for urban growth in corridor space. Space syntax may therefore become a useful supplementary tool to test and inform the arrangement of the corridor grid or of parts of the urban grid.

When related to the strategic urban management model and to the *powergrams* of urban design presented in CHAPTER 5, space syntax may be used both during the strategic phase to assist the motivation of corridors and their alignments and during the more detailed project phase where it may be used to inform desirable and empowering grid layouts or the location of functions that rely heavily on passing foot traffic.

6.5. THE CORRIDOR PLAN AS AN INTEGRATED COLLECTION OF STABLE LOCAL DISTRICTS

6.5.1. INTRODUCTION
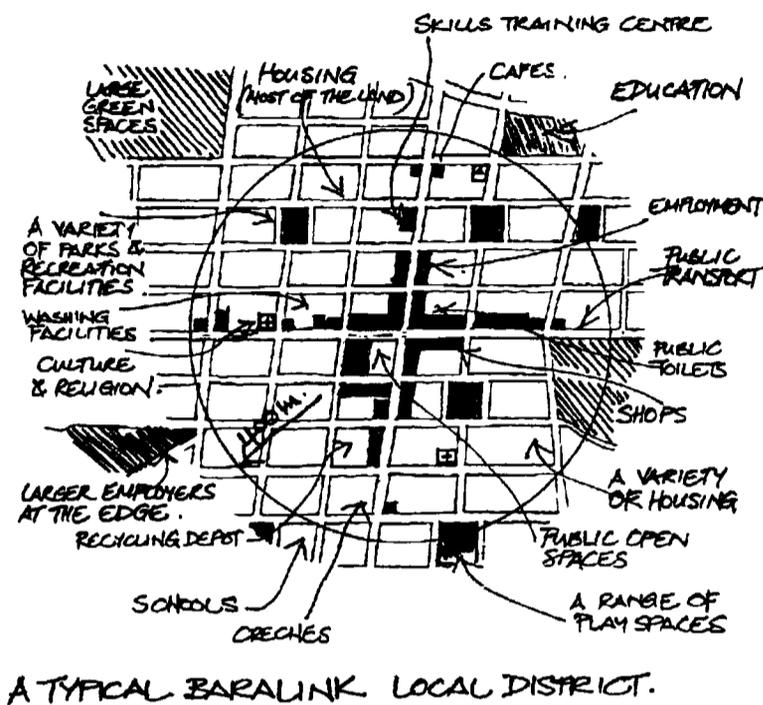
Figure 6.11. Centres of Stable Local Districts occur on city-wide lines of movement. Around these centres an appropriate mix of housing, retail and commercial land use, recreational spaces, cultural, educational and transport infrastructure should occur, to generate a higher degree of sustainability (Thorne, 1996).

A third approach to the use of plan in corridor development belongs to a movement that Sorkin (2001) calls the *neo-quant* urban design movement. The approach has been strongly influenced by the ideas of Bentley et al (1985) at the Joint Centre for Urban Design in Oxford and by Peter Calthorpe[8] in the United States (Van der Ryn & Calthorpe, 1986; Calthorpe, 2000). Graduates of the Joint Centre for Urban Design in Oxford[9] have been applying the idea of walkable neighbourhoods /*Stable Local Districts*. It is broadly based on a convenient walking distance of five minutes in corridor plans in Perth, Australia and in Soweto, South Africa while members of the Congress for New Urbanism have been experimenting with similar suburban growth models in the United States. The roughly circular *Stable Local District* (SLD) has a radius of 400 metres, contains a mix of uses and is linked to a family of surrounding stable local districts via a well considered movement system. The 400 metre radius suggests a five minute walkable catchment. SLD's are therefore popularly called *pedestrian sheds* or *ped sheds* in Australia (pers com Mackay,

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[8] Principal of Calthorpe Associates Urban Designers and a founding member of the Congress for New Urbanism.

2001). As with the capital web idea, it suggests a fine-grained enabling framework but pays much more attention to the balance and viability of functions within each stable local district. The SLD is typically reinforced by the idea of *perimeter blocks* that improves urban street quality and considers the core of each SLD as an opportunity for speculative commercial development.

6.5.2. A REVIEW OF THE APPLICATION OF THE STABLE LOCAL DISTRICT CONCEPT IN SOUTH AFRICA AND AUSTRALIA

According to Mackay and Woodgush (pers com, 2002) the *stable local district* idea has found favour in Australia because it allows for public-private partnerships to concentrate their efforts in a selected number of stable local districts and because a web of stable local districts across the city may contribute to the development of dense and sustainable urban form. In Perth it also has the potential to succeed on the back of the already successful public transport system that provides access to clusters of outlying stable local districts and an resurgent inner city that acts as an effective anchor. Against the predictions of many, Perth's citizens have chosen to abandon their cars in favour of using the metro system (Newman & Kenworthy, 1999: 233). While this chapter is concerned with plan, CHAPTER 7 will indicate how different arrangements of SLD's and movement systems have become the subject of a charette participation process.

Figures 6.12, 6.13 and 6.14. indicate how the *stable local district* idea has been applied in corridor space in Australia and South Africa. While Australian urban designers use the stable local district model to facilitate a more integrated and sustainable growth pattern at the furthest ends of corridors, South African urban designer Stephen Thorne uses it to stitch across corridor space. The use of 400m radius ped sheds generates a similar urban grain in the two cases.

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[9] Stephen Thorne and Paul Wygers in Johannesburg and Munira Mackay, Malcolm Mackay and Evan Jones in Perth

FIGURE 6.12: THE STABLE LOCAL DISTRICT CONCEPT EMPLOYED IN PERTH, AUSTRALIA (WAPC, 2000:76)
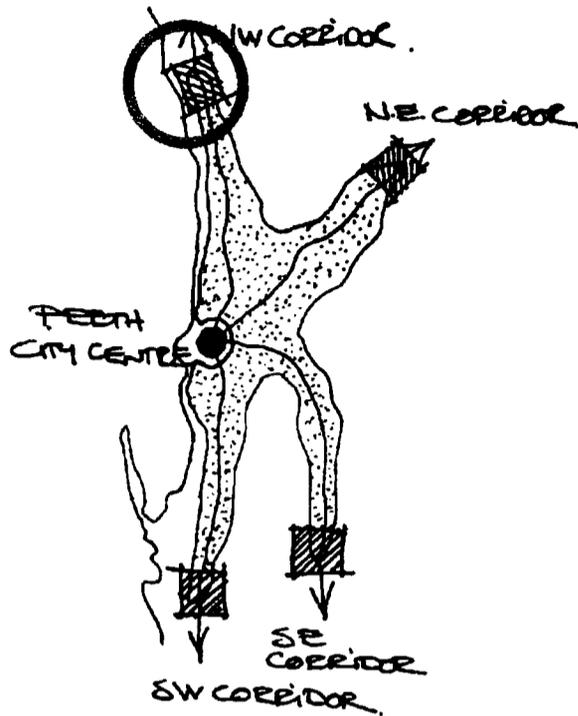
Diagrammatic map of Perth's four corridors with 'end zones' where the Western Australian Planning Commission's *stable local district* concept is being proposed. The four phases illustrated in this table applies to the circled end-zone.
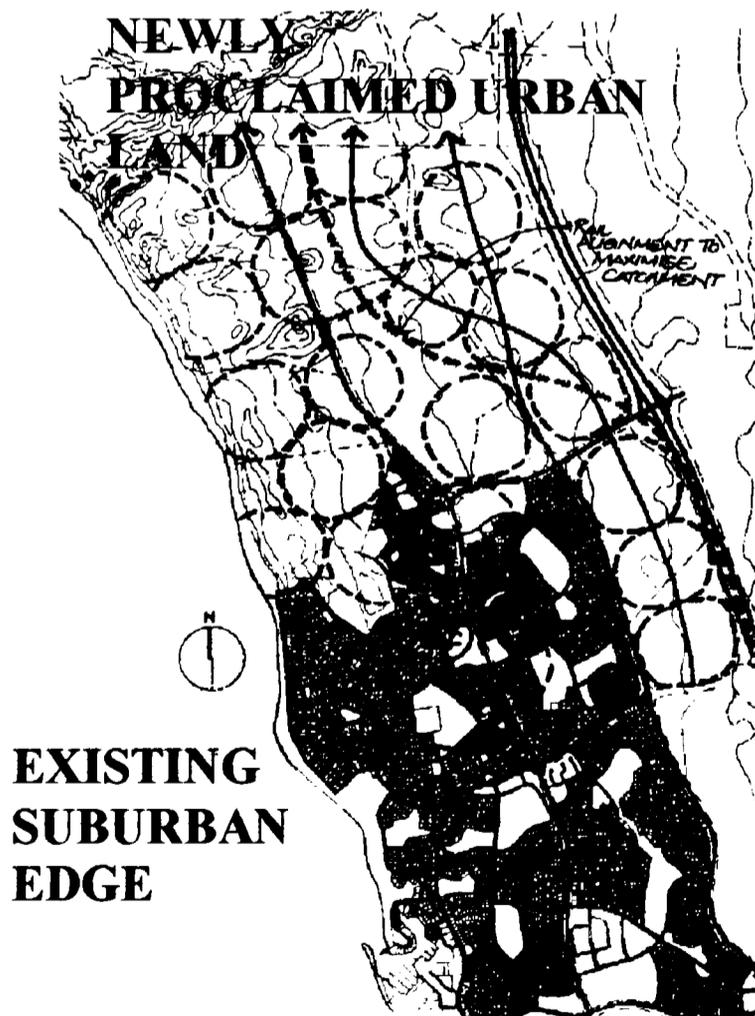
PHASE A:

Context and site analysis to identify key opportunities presented by the site and its context.
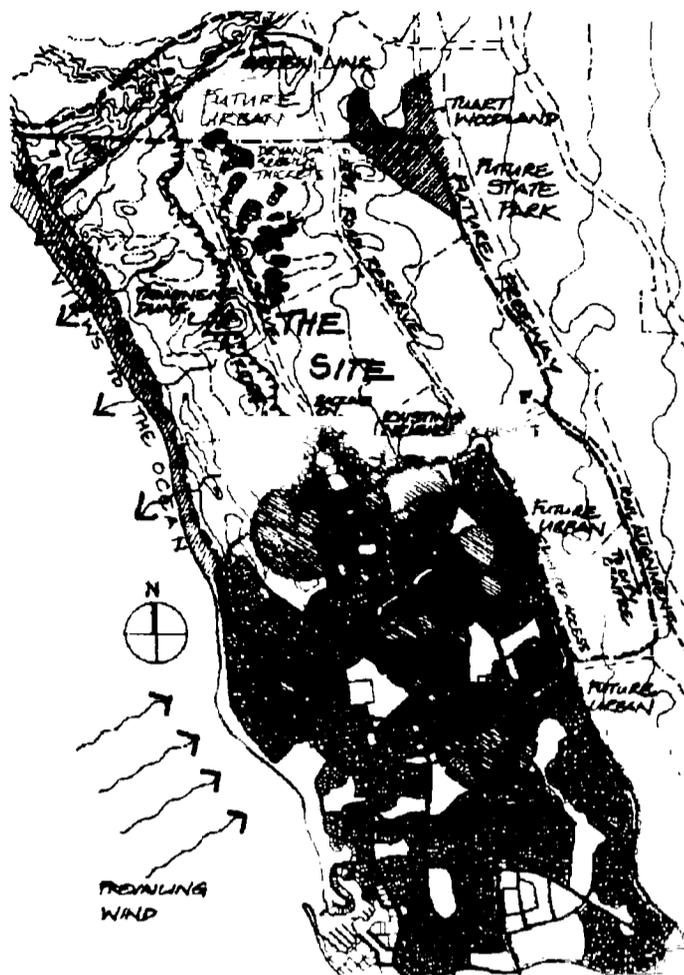
Phase B

Freeways, arterial routes and public transport routes are linked from existing areas through the site.

Walkable catchments, represented as circles of about 400-450m radius show the theoretical distance pedestrians reasonably cover in five minutes.

Phase C

In an iterative design process, neighbourhoods are realigned and adjusted so that neighbourhoods are clustered to form towns and town centres

PHASE D:

Focal points and centres are identified for later design and detailed development. At this stage rough land use allocations are made.
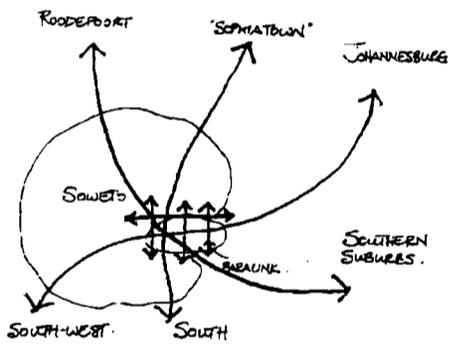
SUB REGIONAL SITE OF URBAN DESIGN INTERVENTION IN RELATION TO THE LARGER REGION (THORNE, 1996: DIAGRAM 1.1)
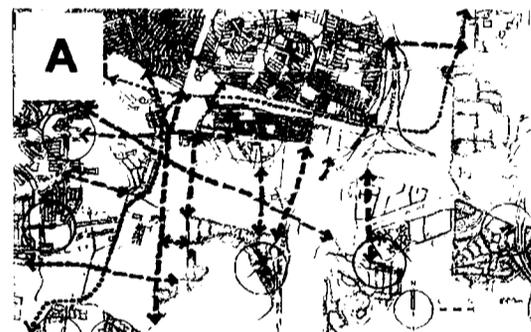
A: DESIRED LINES OF CONNECTION WHICH STITCHES ACROSS A VOID OF THE APARTHEID CITY

B: PROPOSED STRUCTURE

C: GRID LAYOUT SHOWING THE PROPOSED LOCAL DISTRICT NETWORK

Figure 6.13. The stable local district concept employed in Johannesburg, South Africa (Thorne, 1996).

The internal arrangement of the SLD's proposed in Australia and South Africa respectively display a similar vision of a range of functions; including different forms of housing and concentrated small- to medium scale commercial functions around the main intersections.

PERTH (AUSTRALIA)   BARALINK (SOUTH AFRICA)
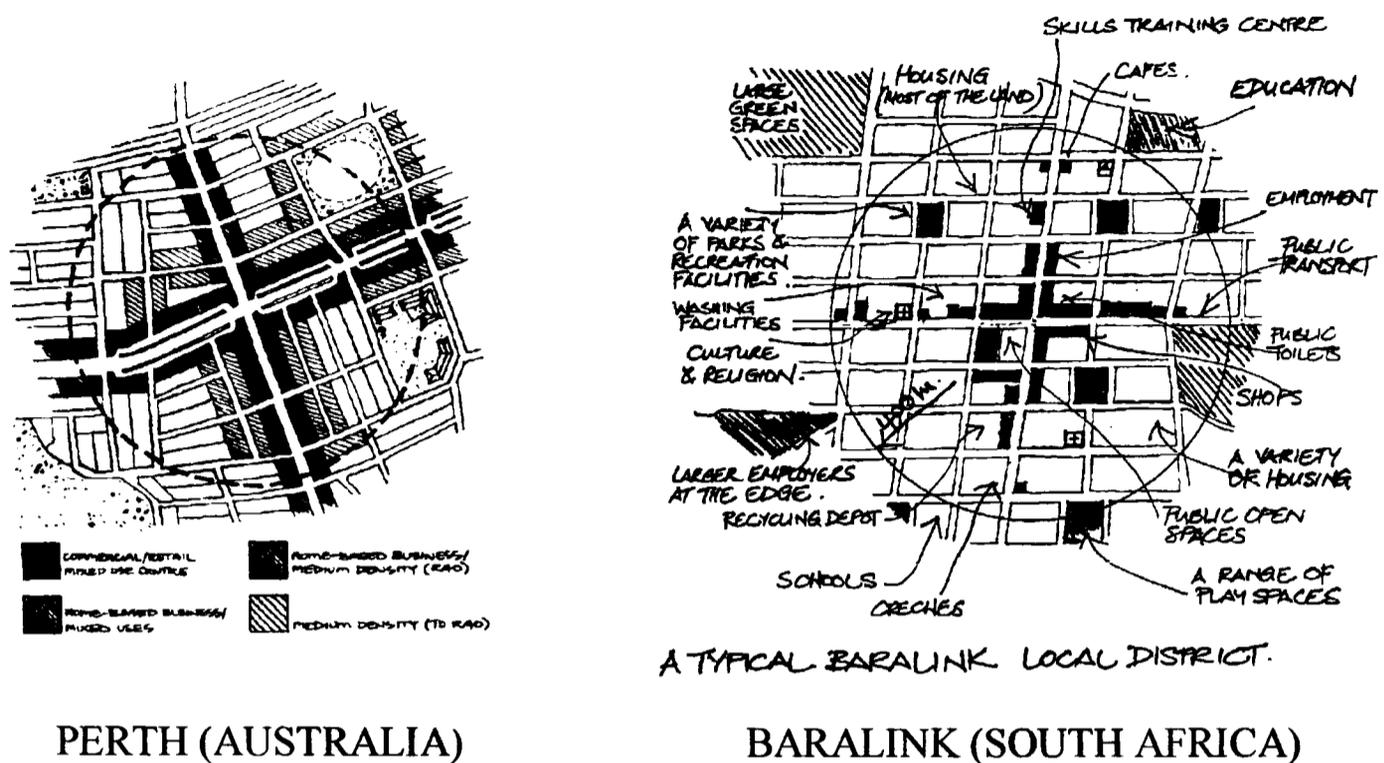
Figure 6.14. Detail resolution of stable local districts in Perth and Baralink

6.5.3. CONCLUSION (STABLE LOCAL DISTRICTS).

The review indicates the use of the same generic SLD idea in two countries with vastly different political economies and in local contexts with different basic needs profiles. The real test is whether the introduction of a robust grid can attract the mix of land uses and the equitable distribution of urban resources envisaged. In CHAPTER 3 and CHAPTER 5 it was noted that the neo-liberal investment pattern and large-scale projects continue to draw the lifeblood out of the local, fine-grained system. This is not only true of South Africa with its rampant shopping centre culture; the new satellite city developing at Joondalup in Perth's north western corridor is clearly compromising the viability of the SLD concept in that city. Urban designers have to commit themselves to a sustained effort to make the SLD idea work.

Paul Nielson, a planner at the City of Waneroo (pers com 2001) is cautious about the short-to medium term viability of a blanket stable local district approach. The test lies in the ability of the approach to survive the incipient stages. His caution relates specifically to the potential of making pockets of small, stable local district based businesses economically viable. As it is, small businesses dotted around suburbia are struggling to survive because of the shopping centre culture that is emerging in Joondalup in the North Western corridor. He acknowledges however that the proposed fine grid is intended to generate a dense settlement pattern that may ultimately come to support small business. He notes that, since planners had managed to get people to make a radical lifestyle change by getting them out of their cars and onto the new metro during the 1990's, the stable local district idea is not unrealistic, particularly since it is not radical. The fine, integrated grid is a welcome departure from the introverted suburban typology of the past two decades.

A recent review of the Perth case study by John Punter (unpublished, 2003) indicates that the somewhat utopian SLD experiment has suffered significant setbacks since my own fieldwork in 2001. An over-deterministic approach amongst planning officials is cited as a major cause of the declining popularity of the SLD corridor growth model in Perth. Because of market pressure the emphasis has gradually shifted away from evenly spread clusters of SLD's towards a more conventional activity spine approach. This is clearly evident in the diagram presented by Calthorpe (see figure 5.19 page 192) where the continuous activity spine is re-introduced as a major structuring element. Punter notes that while the stable local districts are still indicated in the Calthorpe plan, the concept has become severely compromised since there is not enough energy to sustain commercial activities in both the activity spine and the various proposed stable local district cores. This suggests that the concept has been compromised long before it was given an opportunity to prove its capacity to improve urban life in Perth's corridors. Despite these setbacks, the stable local district concept remains an attractive methodology that is actively concerned with long term sustainability. Punter (2003:1) notes that 'there is an urgent need for a stock of exemplar design methodologies capable of delivering a broad range of sustainabilty benefits'.

Figure 6.15. Scene at Perth's central metro station. A radical lifestyle change occurred in Perth during the 1990's when the many suburbanites chose to abandon their cars in favour of using the newly introduced metro.
(Photo by author).

Unlike the Villa El Salvador case, where the value of a sub-regional capital web has been demonstrated, neither the Australian nor the South African stable local district examples have developed to a sufficient level to demonstrate its success. In South Africa the continual redrafting of strategic frameworks during the decade 1990-2000 has resulted in the eventual scrapping of Thorne's stable local district based framework and the incorporation of the Baralink site into the much cruder Johannesburg's Strategic Metropolitan Development Framework. It is this very lack of commitment from urban managers that poses the greatest threat to a concept that requires patient but consistent application. Despite its many positive attributes, the idea has clearly not been given the political space to be tested in any of South Africa's cities.

When related to the two primary levels of urban design involvement associated with a strategic urban framework, the stable local district approach requires good fit between the initial strategic and the latter project-driven phases. It is also not a strategy of half measures because it needs to be actively championed during subsequent five-year strategic cycles and at both the regional and sub-regional level to make the idea to work.

The concept also needs to be adapted to fit the project driven-nature of local strategic plans. Rather than proposing a blanket stable local district approach, clusters of stable local districts may initially have to be proposed around transport interchanges where the associated infra-structural elements may be defined as five-year projects. Once the benefits are realised through the use of pilot projects, the concept may gradually be expanded to adjoining sites until a critical mass of stable local districts is achieved.

6.6. THE ROLE OF PLAN WITHIN A NESTED HIERARCHY OF CORRIDOR SCALES

6.6.1. INTRODUCTION

In the previous CHAPTER a *well considered hierarchy of scales* was considered as a way to prioritise public investment in the city. It was indicated how urban designers employed by the spatial planning unit of a cities may use *hierarchy* to influence the outcomes of decisions taken during the initial approval phase of a typical five year urban management cycle. This section considers hierarchy at the sub regional level where urban design has traditionally focused its efforts.

Punter & Carmona (1996: 139) note that many ill-conceived definitions consider urban design a rather limited discipline, which operates at an intermediate scale between the long term aspirations of planning and the short-term activities of the architect/developer in the development of individual sites. They note that *'the relationships are more complex and that there is a direct relationship between scale and time, the large-scale spatial strategy being a long-term proposition, while the short-term, small-scale site brief is usually prepared for more or less immediate consumption and action. Subsequently urban design needs to be more relativistic, but more definite than planners' prescriptions'.* This suggests that the generic elements of plan will need to be supplemented by a consideration of hierarchy and of space-time dynamics.

Plan can not be conceived in an isolated manner when urban design is as concerned with integration as is the case in South Africa. Each scale of development responds to the larger context and influences lower order action. Whether the city is considered a collection of capital webs, a movement economy or a series of stable local districts, each intervention has a relative weight in terms of its potential to support economic opportunity or to facilitate access to a wider range of opportunities. This suggests that each plan, regardless of scale, needs to be considered in terms of its spatial and social fit.

6.6.2. THE EXPRESSION OF A HIERARCHY OF SCALES IN SUB REGIONAL CORRIDOR PLANS

CHAPTER 2 has indicated how many of the *Linear City* ideas have failed because they simplified hierarchical relationships or were excessively concerned with either the optimal corridor section or the optimal corridor plan. The root of the problem was an exaggerated emphasis on idealised form and a near total disregard of socio-economical variables and the fourth dimension of time. The discussion on *capital web, space syntax* and *stable local districts* suggest that a better theoretical understanding of hierarchical relationships has since developed and that it is actively employed in different parts of the world. A review of other, hastily conceived contemporary corridor plans however suggest a continued preoccupation with a one dimensional, linear arrangement (MCDC, 1997; NdoT, 2000). The technocratic *Curitiba Plan* has been particularly influential in this regard. In CHAPTER 2 it was noted that the 'success' of *the Curitiba Plan* is not due to urban form prescription alone but to an authoritarian land management regime which turned the corridor into a controlled 'filing system' rather than an enabling context. There are alternative cases such as the *Phillipi-Lansdowne-Wetton Corridor* in Cape Town that indicate how a well considered hierarchy of scales at the sub regional and local level relate to a city-wide framework while at the same time allowing for a range of small scale projects and ad-hoc local interventions. Despite its spatial detachment from the main movement axis, the Villa El Salvador case presents an example of how a minimal local grid, which contains a hierarchy of scales has proved extremely robust. The hierarchical sub-regional plan of the *Philippi-Lansdowne-Wetton Corridor* and Villa El Salvador will each be discussed in the following section .

6.6.3. CASE STUDY: A PLANNED HIERARCHY OF SCALES IN THE PHILLIPPI-WETTON-LANSDOWNE CORRIDOR

The *Philippi-Lansdowne-Wetton Corridor Project* (PLW Corridor) presents an important precedent of planned corridor development in South Africa. Unlike many corridor-plans that overemphasise the implementation of large civil engineering, infra-structural elements, the PLW corridor plan is more detailed. It is at once responsive and generative. Its responsive features relate to the greyfields site while the generative features relate to the need for creating a better mix of land uses. Hendricks and Southworth (pers com 2002)

note that the emphasis on a hierarchy of scales has been strongly influenced by the University of Cape Town's urban design school.

It is important to emphasise the fact that the Philippi-Lansdowne-Wetton Corridor 'project' received dedicated funding from the National Department of Transport during the 1990s. Urban managers were therefore able to introduce infra-structural improvements at a rate and to a standard that has not been possible anywhere else in South Africa (NdoT, 2000). Because of the dedicated funding the process of introducing a *capital web* of minimal public investment was accelerated. It indicates what is possible if such funding is used in a responsible and thoughtful manner. Most importantly, 'the project' indicates how dignified places may be created if politicians value design and are patient and trusting enough to permit a level of experimentation. Others will note that it is also an indication of the ability of champions associated with a resident university to uniquely change the discourse in a specific city (White, pers com 2002).

CHAPTER 5 has indicated how the introduction of the corridor idea has been mandated at the highest political level in South Africa. It shows how national frameworks initiate corridor proposals at a provincial scale, how provincial frameworks then initiate corridor proposals at a metropolitan scale and finally how metropolitan frameworks initiate corridor proposals (and nodes) at a sub regional scale. While budgetary crises have seen most cities fail to progress beyond planning for corridor development at a sub regional scale, the dedicated funding granted to the PLW Corridor Project made it possible to develop design approaches suited to contexts further down the hierarchy of urban scales. Figure 6.16. indicates the different levels within the advanced hierarchy. It shows how the sub-regional corridor guides development at the local scale; from the grid, to a precinct and finally to responsive built form. Urban designers in both metropolitan government and private practice (urban design consultants) contributed to the project and supported the same ethos[10]. Once urban design becomes active at this scale it becomes possible to demonstrate its empowering capacity. It is however all too easy to miss the fact that local success relates to its fit with a wider hierarchy of scales.

A well-considered hierarchy of urban scales allows public investment in each infra-structural element associated with the corridor's capital web (constructed using public funds) to be motivated in terms of its fit and empowering capacity. The spaces around

transport interchanges and the short transverse connections between stations, bus stops and taxi ranks are recognised as particularly important empowering spaces within the sub regional corridor. These are designed as robust spaces that accommodate small beginnings but are intended to eventually develop into fully-fledged urban cores and high streets. Such is the importance of these transverse connections that, when working up the hierarchy of scales their alignment may determine or influence the location of stations, taxi ranks and bus terminals.
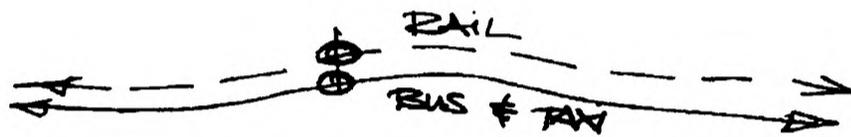
SCENARIO 1

The usually compact arrangement of interchange points limit access to informal opportunities
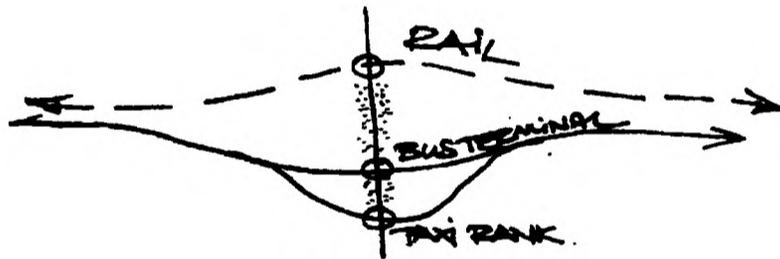
SCENARIO 2

Optimal separation between interchange points generate foot traffic and informal trading opportunities as would happen in the pre-industrial souk.

Summary of strategic corridor scales as presented in CHAPTER 5

METROPOLITAN SCALE | REGIONAL SCALE | SUB REGIONAL SCALE

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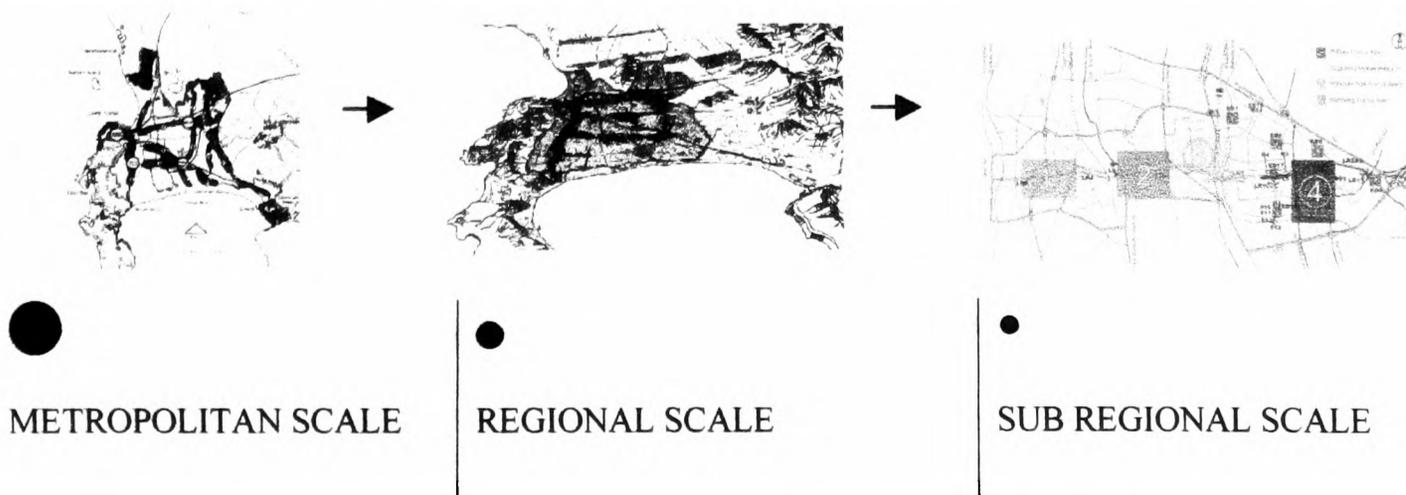
[10] An ethos established by the University of Cape Town Urban Design School.
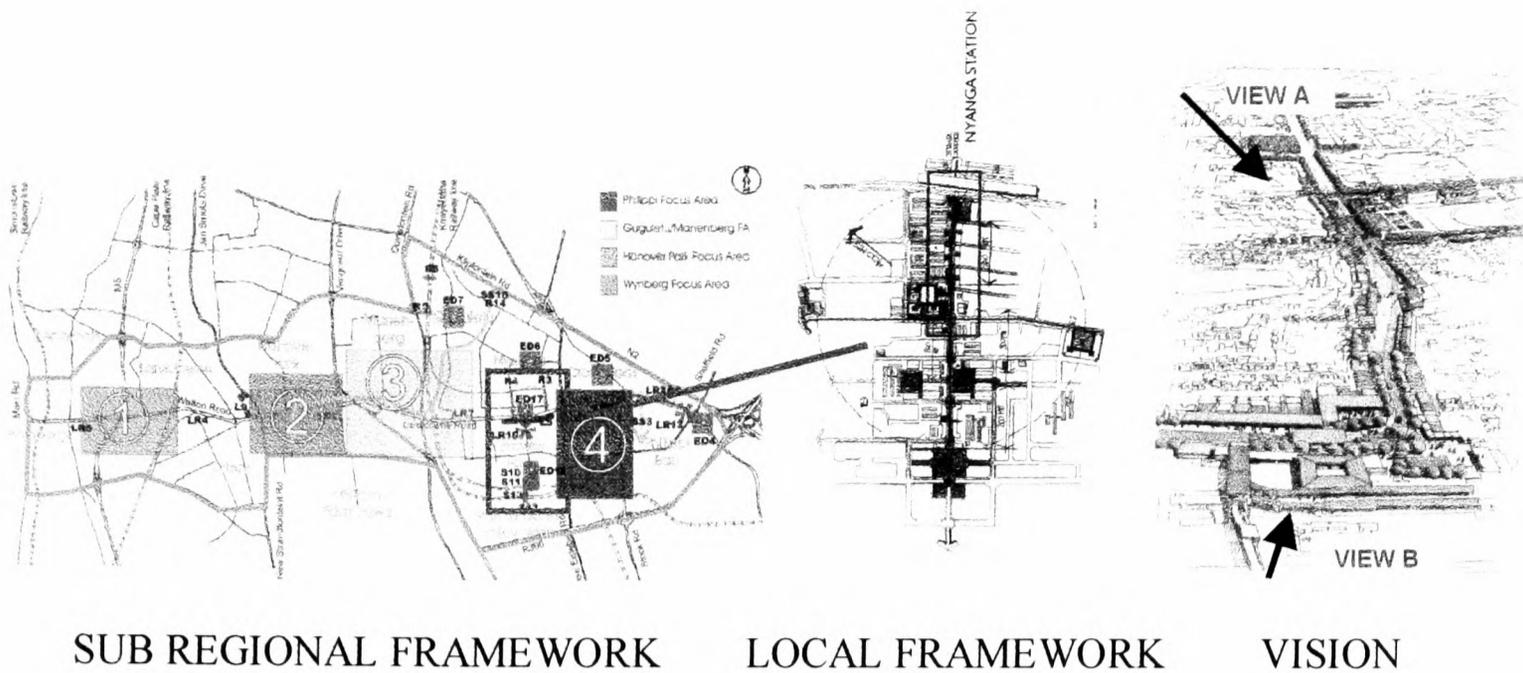
SUB REGIONAL FRAMEWORK   LOCAL FRAMEWORK   VISION

VIEW A: BUILT FORM RESPONSES

VIEW B: BUILT- FORM RESPONSES
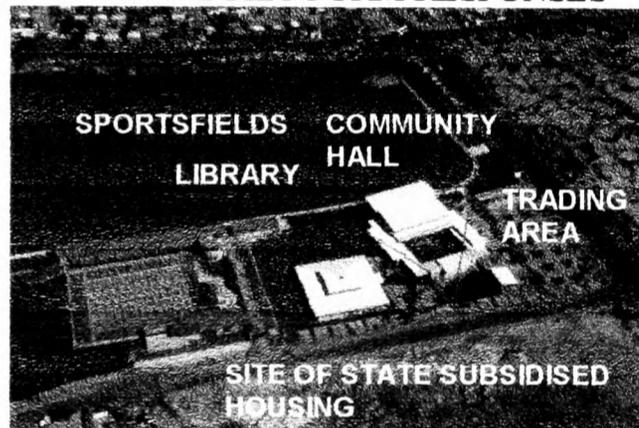
Source (all images on this page): City of Cape Town; Planning and Environment Department, 2002

Figure 6.16. Hierarchy of scales in the Philippi-Lansdowne-Wetton corridor

Transient situation in 2002. Active informal trading along the edges of Emms Drive.
(source: City of Cape Town).
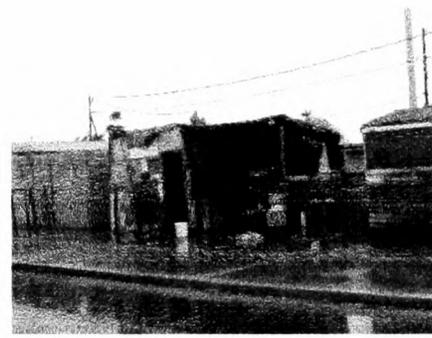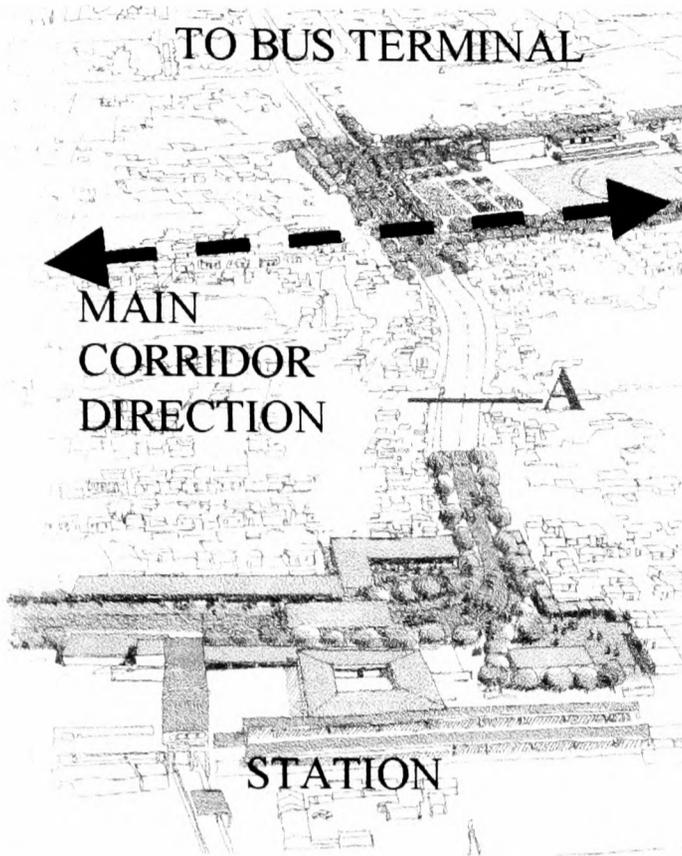
Photo taken at A: Informal corn-on-the-cob sales outlet in 'undignified spaces' along Emms Drive
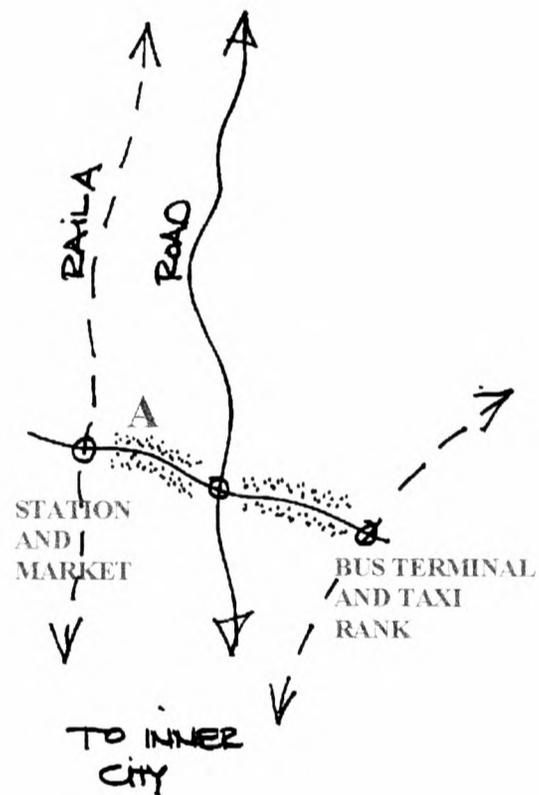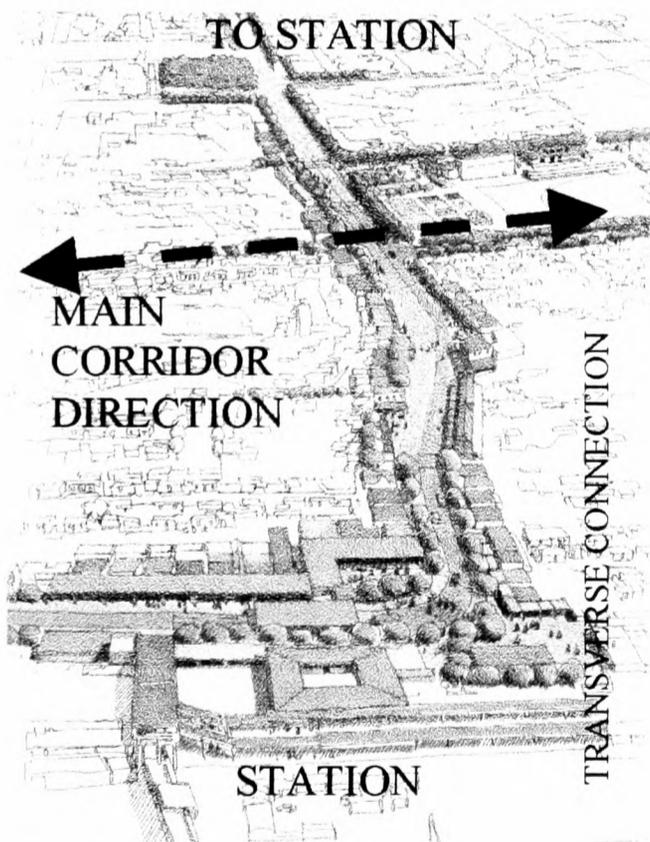
Vision of a future high street scenario (source: City of Cape Town).

Figure 6.17. Illustrations showing a recognition of the importance of a transverse connection in the Philippi-Lansdowne-Wetton Corridor.

6.6.4. CASE STUDY: A PLANNED HIERARCHY OF SCALES IN VILLA EL SALVADOR (LIMA).

ONE IDENTITY SQUARE CONSISTING OF
24 FAMILY LOTS OF 18m x 6m

COMMUNAL
SPACE

ONE URBAN MODULE
CONSISISTING OF 16 IDENTITY SQUARES

COMMUNAL SPACE

CITY 'IN THE PROCESS OF BECOMING'

A PROPOSAL FOR THE LAYOUT OF A HOUSE
ON A TYPICAL 18m x 6m LOT
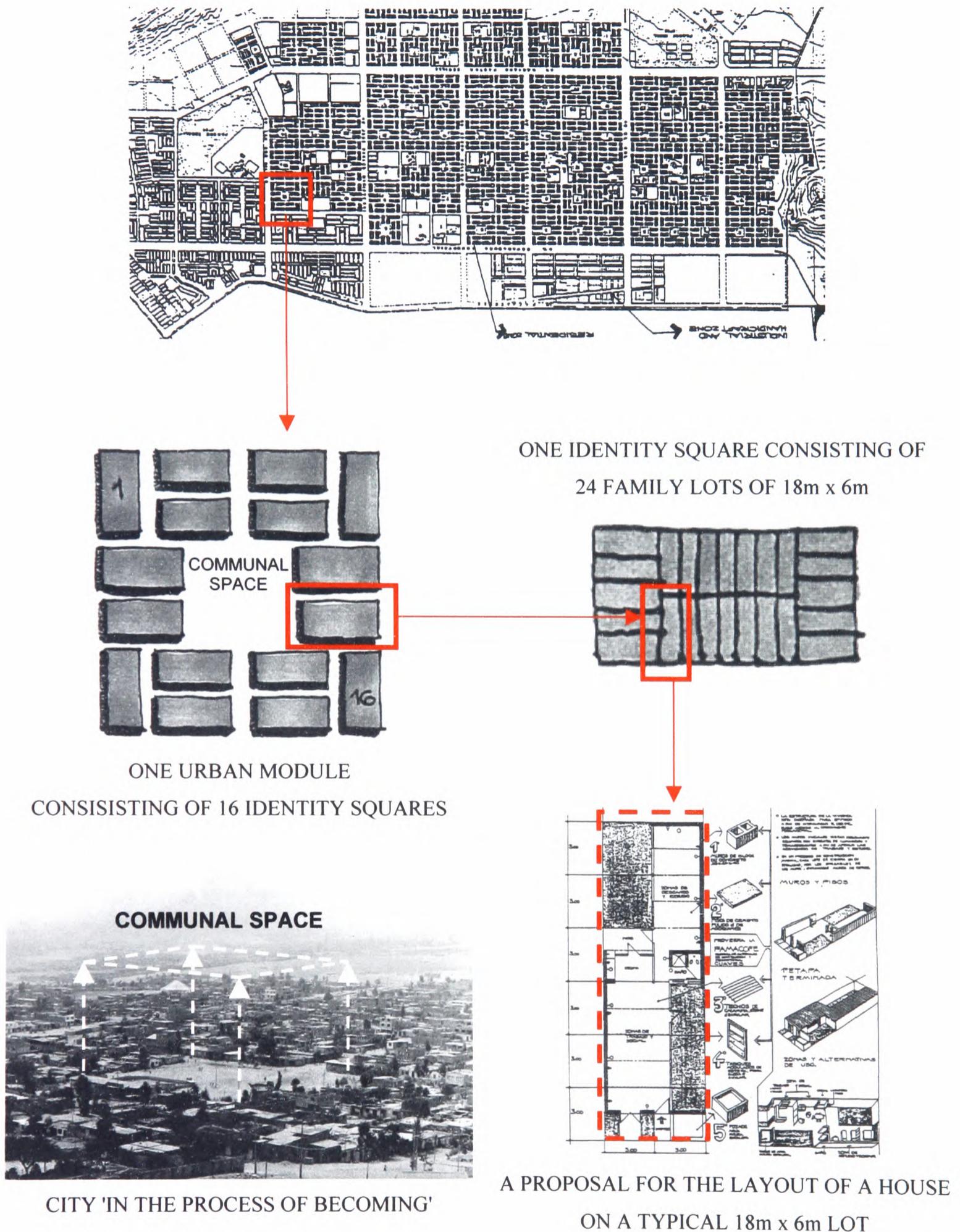
Figure 6.18. The modular hierarchy of Villa El Salvador
(all drawings and photos on this page from Romero, undated)

The autonomous dynamic associated with the Villa El Salvador case was related to the *capital web* idea considered earlier in this CHAPTER. Here the same case will be used to indicate the value of hierarchy at the local scale. At Villa El Salvador a whole sub-region was constructed on a modular grid of which the smallest unit is the 3 metre module within a 18 metre (6 x 3m modules) by 6 metres (2 x 3m modules) lot. The regimented and seemingly cumbersome grid has yielded an astonishing level of variety over three decades of self-help building. The grid can however not be viewed in isolation; it again needs to be considered within the context of an autonomous management system that relates directly to the hierarchy of the grid (Skinner, 1981).

Villa El Salvador was founded because of an enabling political context associated with military rule. Velasco, who came to power in 1968 was however not a military dictator but a populist/socialist who staged a coup with the aim of empowering the land-less majority who had been denied access by a prolonged Spanish-colonial hacienda system (Flindel-Klaren,2000; Dietz, 2000). Villa El Salvador was swamped by thousands of land invaders who seized the opportunity to gain a foothold in the city when Velasco came to power.

The military system gradually collapsed and democracy returned to Peru after twelve years of military rule in 1980, but not before Villa El Salvador had developed into a vibrant, confident community. A glance at the structure suggests that the settlement was originally ruled in a rather militaristic fashion. An autonomous line command system was devised based on square commands (representing 16 family lots) which reported to block commands (representing a 16 X 16 families), which in turn reported to directive command representing four blocks and which finally reported to the mayor of the autonomous settlement (Skinner, 1981). This hierarchical structure was directly related to the divisions within the urban grid so that the autonomous order was expressed in the urban typology. The autonomous hierarchy of the early years was made possible by the fact that every invader who settled here was effectively equal to every other invader. They belonged to the same Peruvian socio-economic sub class. Though of diverse ethnic backgrounds, all *Limeños* were desperately poor and struggled with the same livelihoods issues. The seemingly militaristic line-control system was therefore aimed at achieving effective communication and organised pooling of limited resources rather than vesting power or establishing lines of authority (Skinner, 1981).

After the return to democracy in 1980 Villa El Salvador was politically reintegrated into the city and subsequently became valued internationally for its robustness and social fibre. The foundations of the first 9 years of autonomous existence continued to sustain its vibrancy and growth during subsequent decades of mostly vertical extension and lateral consolidation. Entrepreneurship ultimately led to socio-economic stratification,, the symptoms of which became expressed in built form. Hotels, schools, discos, churches and even a university were later built[11]. Today Villa El Salvador has a fine grained, mixed-use texture, with most of the permanent, non-housing types introduced in the post-Velasco, post-autonomous era. It is however important to realise how energy was channelled and organised on the back of a robust, enabling grid and how spatial order and socio-political freedom were successfully juxtaposed. Few will doubt its success as a piece of inspired urbanism. Pope John Paul II declared Villa El Salvador *City messenger of Peace* and the King of Spain recognised it by awarding it the *Prince of Asturias* (pers com Lopez, Tokeshi, 2001). The success is perhaps just as much due to the robustness and hierarchical logic of the enabling grid than to the freedoms extended to its residents.

While Romero's original grid was conceived hastily and somewhat accidentally, it points to the empowering capacity of a simple hierarchical grid in a context of extreme poverty.

6.6.5. CONCLUSION: HIERARCHY OF CORRIDOR SCALES

The two cases presented differ in one significant way. While urban managers actively controlled development on the hierarchical grid of the Cape Town case, the Peruvian case indicates what may happen when the local authority is effectively non-existent but a grid is introduced during the settlement phase. The real lesson for urban design is that large capital investment is not needed to make settlements vibrant and functional. What is important is the timeous and careful consideration of a hierarchy of scales and of associated energy flows.

Sub regional corridors typically contain large infra-structural elements, the arrangement of which is mostly left to transport engineers who consider their alignment and the position of associated interchanges at a provincial and regional scale. There clearly needs to be a better interface between scales and a greater overlap of responsibilities. Many will argue

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[11] Personal observation during a visit to Villa El Salvador in October 2001.

that this means that the powers of unilateral national and provincial roads departments need to be curbed. It however also means that urban design needs to show that it can motivate alternative alignments for regional corridor elements. A careful consideration of hierarchy is the key to achieving this aim. The alignment of each infra-structural element and the location of each interchange influence the way people respond to associated spaces at the local level. Urban design therefore has an important role to play in considering and presenting alternative hierarchies and alignments of corridor elements before strategic projects are tabled for approval. This opportunity exists at the beginning of a five-year budgetary cycle when large infra-structural components (including those associated with corridors) are presented to the IDP representative forum for approval. The responsibility for demonstrating the impact of regional infra-structural elements on sub regional hierarchies needs to lie with the spatial planning division of metropolitan councils.

The next stage of involvement is the championing of a minimal grid at the project stage of the five-year strategic cycle. Investment in design time to establish appropriate sub regional and local grids is of key importance. The design of a hierarchical plan needs to be defined as a strategic project in its own right.

6.7. RETROFITTING THE CORRIDOR PLAN IN ESTABLISHED SUBURBAN CONTEXTS (GREYFIELDS SITES)

6.7.1. INTRODUCTION

Vast established areas of the South African City are affected by proposed corridor development. Suburban contexts within corridor zones have become the subject of intensification efforts as dictated by the Development Facilitation Act (1996). This brings normative principles of good practice to the doorstep of the aloof suburbanite. In CHAPTER 3 it was noted how suburbanites have traditionally been averse to such interference, but also how post war suburbia has gradually evolved into different sub-types and even semi-ghettos and ghost towns[12]. Some suburbs in the post-industrial city are decaying at an alarming pace and are in dire need of reconstruction.

This section will investigate how plan is used to improve the sustainability of existing suburban contexts in corridor space.

6.7.2. THE USE OF PLAN AND COMMUNITY CODES TO INTENSIFY AND DENSIFY SUBURBAN CORRIDOR CONTEXTS.

Nowhere is the aim of transforming suburbs pursued more vigorously than in Australia and on the American West Coast. These are high modern societies that are bent on achieving *world's best practice* (see CHAPTER 3). Despite the dramatic socio-political changes that accompanied the fall of apartheid, many South African suburbs remain near perfect replicas of those found in Australia and the United States. Normative frameworks in both Australia and South Africa call for greater sustainability, which suggests that translation of ideas may be possible. Australia's plan-based intensification methodology has reached a high level of sophistication and is now being written into legally enforceable community codes (Nielson, pers com 2001).

The form and low densities of suburbs make them famous unsustainable urban types. In Perth, Australia the aim of the urban corridor is ultimately to improve sustainability in a quantifiable manner by imploding existing suburbs and to permit only dense, more

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[12] Particularly in the industrial heartland of the United States as pointed out by the new urbanist Ray Grindroz during a lecture at the Prince's Foundation in December 2002.

integrated forms of urban expansion. Contemporary corridor plans have both a *transformative/implosive* and *sustainably expansive* capacity.

The Western Australian Planning Commission's Liveable Neighbourhoods Initiative (2000) proposes a step-by-step, plan-based methodology for intensifying land use and for integrating movement systems in existing suburbs. The difficulty of the task is suggested by the fact that the proposed plan deals only with the zone of transience between the existing, unsustainable suburban footprint and the new sustainable footprint at the end of an existing corridor. The ultimate purpose seems to be to achieve a fit or overlap between the existing, introverted footprint and a new integrated footprint. Figure 6.19 and 6.20 indicates how the methodology has been applied in Butler-Alkimos at the furthest end of Perth's north-western corridor (WAPC, 1996). The Calthorpe inspired *stable local district* concept is once again used to motivate spatial re-organisation of roads and the introduction of a greater range of land uses.

Direction of corridor growth

A: Urban form resulting from conventional design policies.

B: Urban form resulting from the Western Australian Community Code principles.
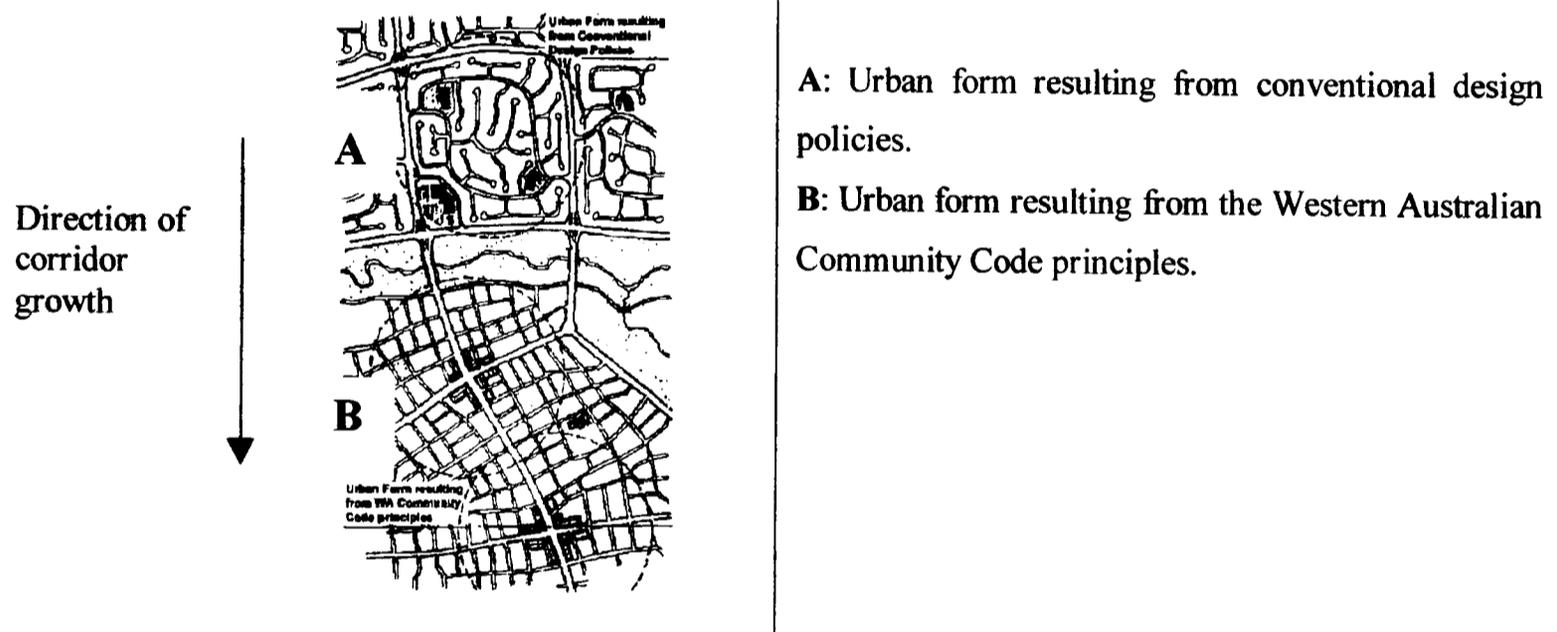
Figure 6.19: Promotion of an integrative suburban grid in Australia (WAPC, 1996)

EXISTING SUBURBAN PATTERN
BUTLER -ALKIMOS, PERTH

The Jindalee Enquiry By Design Workshop of 12-16 August 1996 indicated various deficiencies (WAPC, 1996:9 and pers com Mackay, Woodgush, Nielson, 2001):

- A poorly connected street system, separated land uses and resulting dependence car/vehicle use.
- Connection between one zone and another is mostly by car via arterial roads.
- Inadequate responsiveness to local site features.
- Back fencing along arterial roads.
- Limiting statutory control with limited opportunity for design flexibility.
- Poor walking proximity to services, shops, public transport, schools and parks.

PROPOSED STRUCTURE
BUTLER -ALKIMOS, PERTH

An Alternative Proposal based on the Western Australian Community Code Planning Principles (WAPC, 1996:10 and pers com Mackay, Woodgush, Nielson, 2001).

- Analysing the site to determine unique features
- Linking up existing sub-regional routes.
- Introducing 'ped sheds' of minimal mixed-use functions within five-minute walking distances (circled in red). Use existing non-residential facilities as anchors where possible.
- Preparing alternative scenarios for public comment and participation in enquiry by design workshops.
- Seek approval, budgetary support and change the statutory in relation to the specific site.

Figure 6.20: Suburban intensification and densification in Perth (WAPC, 1996).

6.7.3. THE USE OF SMALL SCALE INTENSIFICATION INITIATIVES IN SUBURBAN CORRIDOR CONTEXTS

The Western Australian Planning Commission has recognised that sub-regional restructuring needs to be combined with densification and intensification at the level of the individual site. The approach recognises the fact that Australia will not witness radical departure from a suburban culture as noted by Troy (1996), but that better spatial typologies are possible, often with minimal intervention. Often it will simply require a more flexible statutory framework (see Chapter 4). Change is proposed at two levels:

- **First,** within existing suburban contexts where intensification may be facilitated by providing statutory approval for the introduction of home based businesses in front of houses and along certain integrator streets.
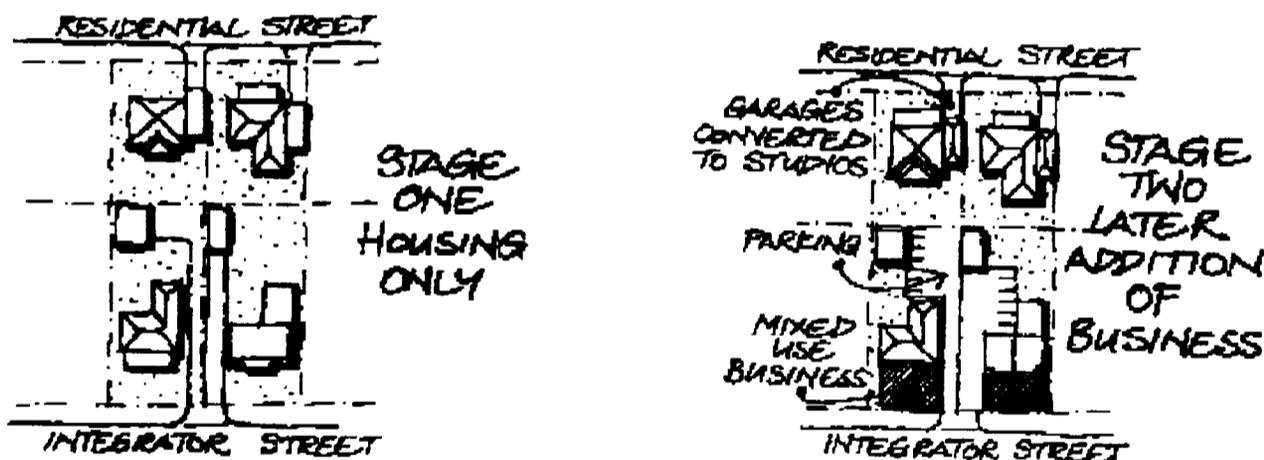
Figure 6.21. Minimal statutory intervention is necessary to enable the spontaneous introduction of home-based businesses along integrator routes.

- **Second,** by proposing that new sites are deep enough and houses (the initial structures on each site) are placed in a position that permits easy incorporation of home based business at a later stage.
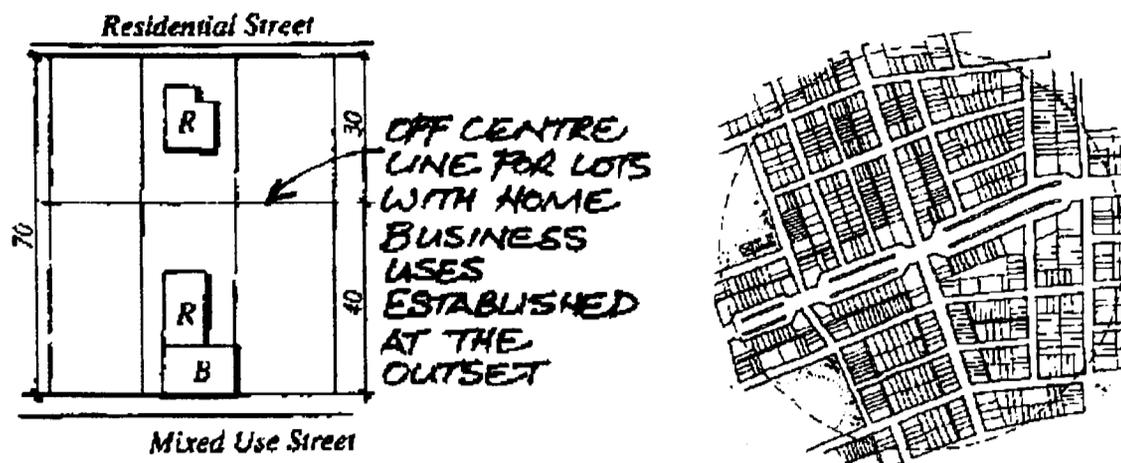
Figure 6.22. Appropriate stand depth in relation to proposed mixed use street (bottom) and residential street (top) within a diversified grid offering greater opportunity for choice (right).

6.7.4. THE LARGE PRIVATE DEVELOPER DRIVEN PROJECT IN THE SUBURBS

Reorganisation of suburban space is not only piecemeal and localised. Large investors now routinely demolish acres of suburban housing to make way for large new developments. Corridors are by definition accessible zones which makes it possible for developers to justify the demolition and reorganisation of large parts of suburbia in corridor space. Despite criticisms that it is sapping inner city zones of its vitality, metropolitan governments are keen to expand their tax bases and often look favourably on such approaches from large investors.

It is particularly adherents of the New Urbanist movement that have concerned themselves with radical intensification motivated by large private investment in suburban space. Because of the dominance of an existing suburban grid and the energy created by an adjacent mobility spine, proposals are firstly aimed at reorganising the suburban plan so that the large development blends into the surroundings and makes effective use of the accessibility of the site.
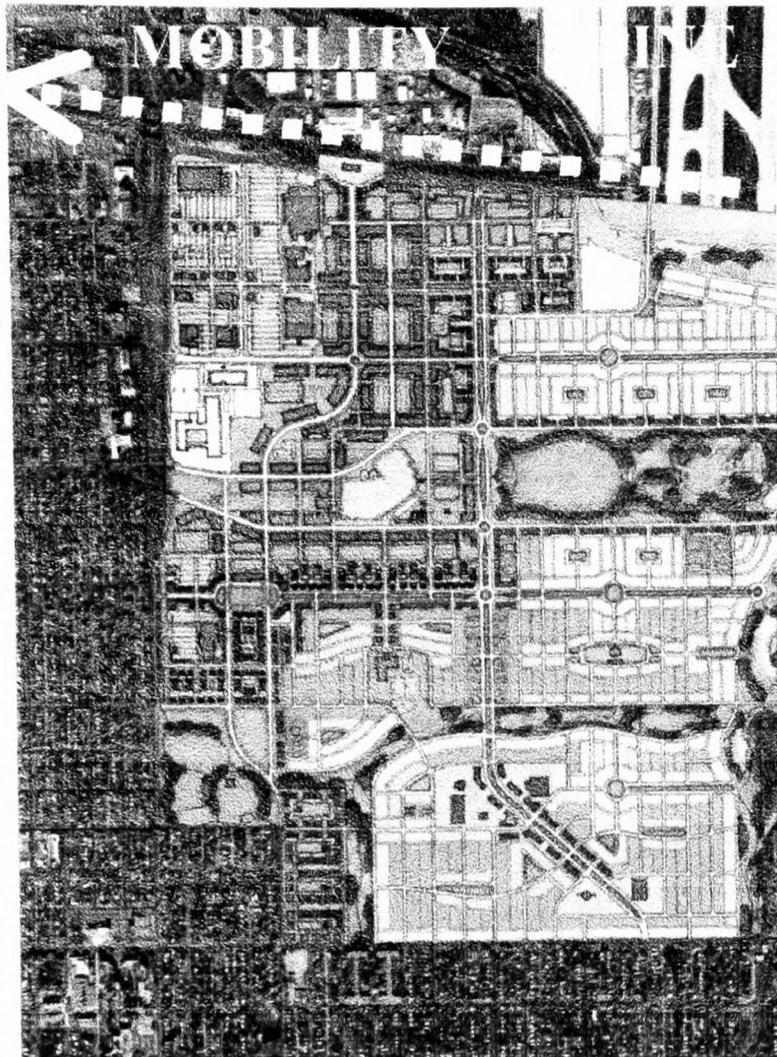
▲ Figure 6.23: The Melrose Arch Precinct, Johannesburg. A vast suburban zone adjacent to the highway was cleared to accommodate the new mixed-use private development. The New Urbanist framework was designed by Paul Murrain, Paul Wygers and Ludwig Hansen (picture by author).

◄ Figure 6.24: Denver Colorado. Radical intervention in a suburban context adjacent to a mobility spine (adapted from Calthorpe & Fulton, 2001:226).

6.7.5. CONCLUSION: RETROFITTING THE CORRIDOR PLAN IN AN ESTABLISHED SUBURBAN CONTEXT.

The cases presented aim to transform historic suburban layouts characterised by low-density and introverted, maize-like plans. These plans are as prevalent in South Africa as in other New World countries. The alignment of a corridor that corresponds with existing suburban zones introduces new forces. The corridor concept is supported by the principle of sustainable and accessible land use. For urban managers this means the active pursuit of densification and intensification policy. While densities may be increased by using 'plan' and 'code' at the level of the individual lot, the act of densifying is left to the individual homeowners. Suburban communities themselves often become the greatest hurdle in overcoming the spatial fixes. Anti-densification lobbies have sprung up all over Australian cities (Troy, 1996; Woodgush, Camilleri, Rooksby, pers com 2001). Jordaan (pers com 2002) recounts similar experiences in Pretoria, South Africa. At a different level large investors are buying up suburban houses and sweeping aside large swathes of suburbia to make way for new developments. Change is at once painfully slow and radical, depending on the location of suburban land in relation to mobility routes.

Urban designers have been involved in both types of intervention. They have written codes for intensification at the local level and have played a large part in assisting developers to reorganise suburban land for large private development. In the case of large developments they have also become involved in negotiating the interface with adjacent suburbs by using a charette process. The normative and project-driven nature of a strategic management approach will see continued support for both types of intervention.

6.8. RETROFITTING THE CORRIDOR PLAN IN INFORMAL SETTLEMENTS

6.8.1. INTRODUCTION

As in almost all international cases, squatter settlements are considered illegal in South Africa and authorities actively try to prevent their establishment or curb their growth. This applies particularly to well-located sites that have a high commercial land value. In the liberal political context of Hout Bay, which is well connected to Cape Town via a mobility route, an exception has occurred. Imizamo Yethu is an informal settlement of 2700 households that gradually came to be recognised by authorities and which has become the subject of politically mandated upgrading efforts (Nicks, 2003).

Figure 6.25: The Imizamo Yethu informal settlement developed next to a mobility route as a dense mass of shacks (Nicks, 2003).
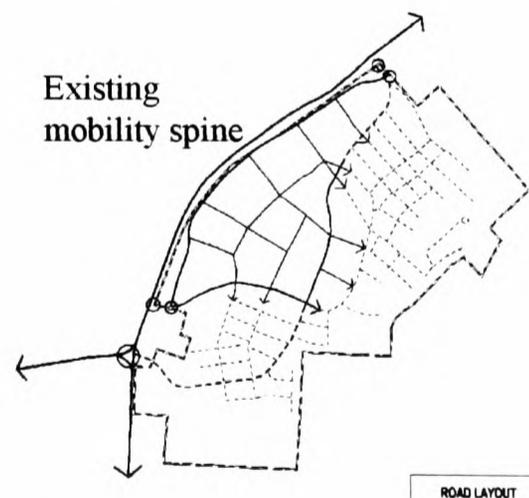
Figure 6.26. Urban designers recognised the internal logic of the settlement and retrofitted a minimal grid which extends through the adjacent site(Nicks,2003).

6.8.2. INTRODUCING A MINIMAL NETWORK OF ROADS

Foremost amongst the urban design actions was the introduction of a minimal and negotiated network of connector roads that will improve the robustness and permeability of the settlement (figure 6.26). Nicks (2003) notes that little has however happened on the ground because of political procrastination and because of the fact that many of the liberal residents have since turned fearful. This fear is the result of a new stream of illegal residents who have learnt that informal settlers in Hout Bay are being catered for rather than being expelled. Because of the rarity of the official recognition of the settlement, it may ultimately come to offer considerable opportunities of demonstrating the potential of urban design to integrate such settlements with corridor networks.

6.8.3. CONCLUSION

Squatter upgrade projects are highly politicised. It is unlikely that catering for large numbers of squatters will ever be part of the strategic vision for any city that is linked to a neo-liberal, free-market economy. Limited recognition is however viable in more remote areas of corridor space where land values are relatively low. These corridor spaces will be defined as *action space* in the next CHAPTER that deals with a development practice approach to urban design. The exceptional Hout Bay case indicates how urban designers may utilise their design skills to reconfigure and extend the local grid during the early stages of an upgrade project. During a five-year strategic urban management cycle, the IDP Representative Forum may approve such upgrade projects. Their redevelopment will largely be dependent on public funds or donor funds (NGO involvement) and will be supported by residents' own sweat equity contributions.

6.9. INCREMENTAL CORRIDOR PLANS

6.9.1. INTRODUCTION

The grand scale and process-driven nature of an urban corridor has resulted in a need for 'bracketing' its development in space and time and to consider its development in an incremental fashion. It takes the concept of hierarchy a step further by actively considering the fourth dimension of time.

Corridor plans have typically been formulated in relation to (1) a sequence of budgetary cycles, (2) a desire to achieve sustainable urban form and (3) a sequence of large, private sector driven projects. All three these factors, and particularly the five year budgetary cycles with its associated spatial development frameworks inevitably generate a stop-start pattern of both public and private investment in corridors. By conceiving its design as series of five-year increments from the outset designers may present a more accurate vision of its development over time than by using only a well considered hierarchy of urban scales.

The incremental plan is not equally relevant in all corridor contexts. The Villa El Salvador case with its simple minimal grid-plan indicates that preconceived incrementality need not be a central component of *plan* to generate favourable long term results in a context of rapid urbanisation and great need. Most importantly the case indicates consistent piecemeal development despite a lack of public investment in large infra-structural components. All that was needed to sustain the energy of the settlement was good access to urban opportunities provided by the adjacent Pan American Highway. The flexibility associated with a minimal grid is a much more appropriate concept within the settlement itself. The Perth case has shown the extent to which the scale and scope of infra-structural development can be anticipated and be planned for in a modern, post-industrial society.

Autonomous cases such as Villa El Salvador become valuable tools for post-rationalising the way in which a multitude of small scale actions *'builds the ant heap'* while long standing planned examples such as the Perth case indicates how deep bureaucracy and time *'assembles and organises the filing cabinet'*. While this is not recognised by many politicians and urban managers, South Africa's dualist political economy requires that it becomes 'both-and' scenario as discussed in CHAPTER 3. This section contains a brief analysis of the uses of the incremental corridor plan at the sub regional scale where it may typically be employed to decide on phasing of important components of the capital web.

6.9.2. THE INCREMENTAL DEVELOPMENT OF THE CAPITAL WEB

It has been noted that generic corridor elements such as a mobility spine, activity spine and lateral connectors often form the basis of a top-down, technocratic corridor development process. The MCDC Corridor Framework which proposes corridor development at a regional scale aims to indicate delivery of generic, publicly funded elements, in a three-

stage process as illustrated in figure 6.27. This relates to the huge scale and unwieldy nature of the MCDC Corridor in which the up front provision of roads is prioritised.

During interviews with planners in Pretoria frustration was expressed over the delays in approval of the PWV 9 highway extension, which is deemed crucial for unlocking the potential of the corridor region (van der Merwe, 2002; Kleynhans, 2001). This suggests that the construction of higher order roads as indicated on the generic corridor plan is considered critical to the overall success and progress of the corridor. The neo-liberal view is that a healthy corridor context can only be created when urban managers succeed to lure large investors. A full hierarchy of roads and associated bulk infrastructure is therefore proposed.
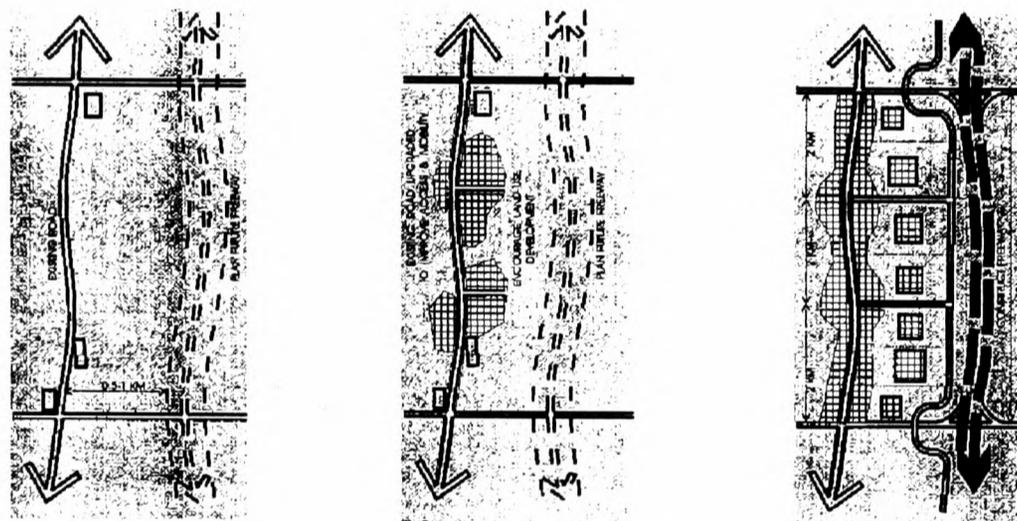
Figure 6.27. An incremental growth scenario based on the gradual introduction of generic corridor elements (MCDC, 1999: 95).

6.9.3. THE INCREMENTAL DEVELOPMENT OF THE INTERMEDIATE AND LOCAL SCALE ELEMENTS OF GENERIC CORRIDOR PLANS

The intermediate hierarchy of scales proposed for the Philippi-Wetton-Lansdowne corridor in Cape Town differs from the regional approach of the MCDC Corridor. Increments are anchored to discernible elements of the sub regional context and acknowledge real/existing rather than predicted energy flows. The relatively short stretches of pedestrian routes between public transport facilities are considered opportunities for constructing visions of incremental development. First, the corridor plan does not deny the need for mobility spines and activity spines, but does not over-emphasise their importance. Second, the freeway is not considered a critical generic element of the pedestrian-oriented city.

Because it considers *hierarchy* and the fourth dimension of *time,* many aspects of the PLW *plan* become a by-product of the *process.* This is the reverse of an overly generic approach to plan. The urban designer Barbara Southworth (pers com 2002) notes that, because of this, the urban design framework has, where necessary, proposed a reverse sequence by downgrading mobility spines in order to improve permeability and access (figure 6.29.).

Figure 6.28. How a Public Transport Interchange Becomes a Place over Time
(City of Cape Town)
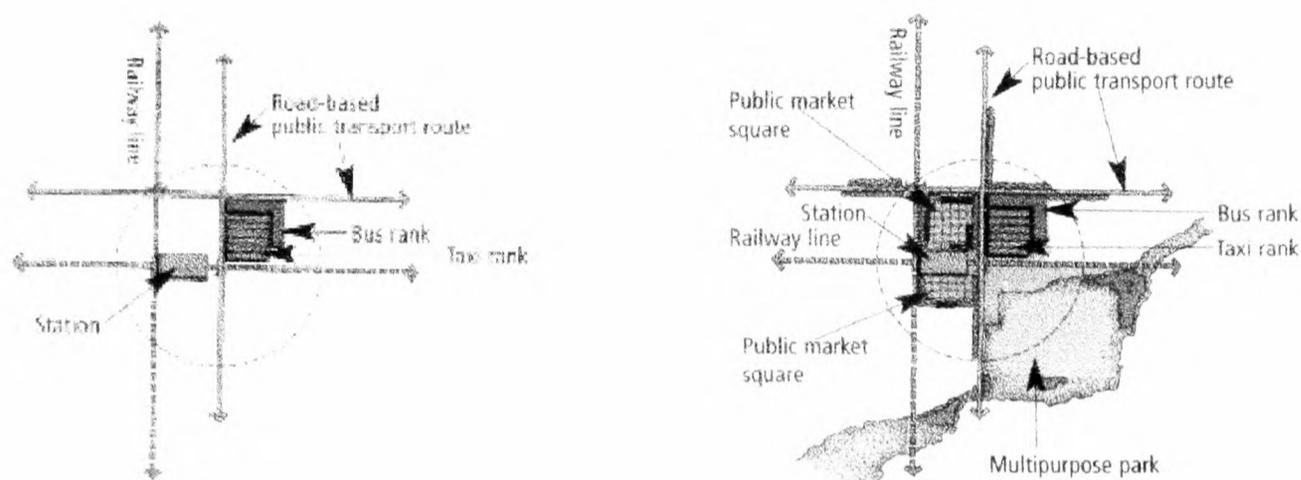
A public transport interchange provides the Point people connect to the city's public transport system.

The activities genereated by people moving through the public transport interchange are accommodated by a framed urban space.
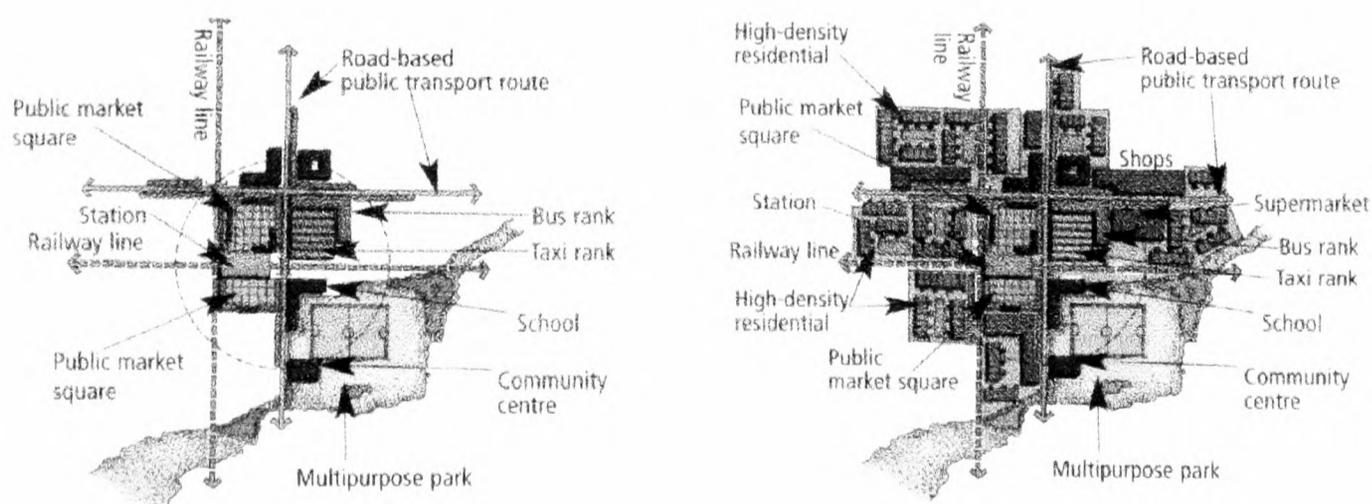
A cluster of social facilities and green space associated with the public transport interchange and urban space.

The public sector starts responding to public investment. The centre becomes the focus for urban renewal and building programmes.
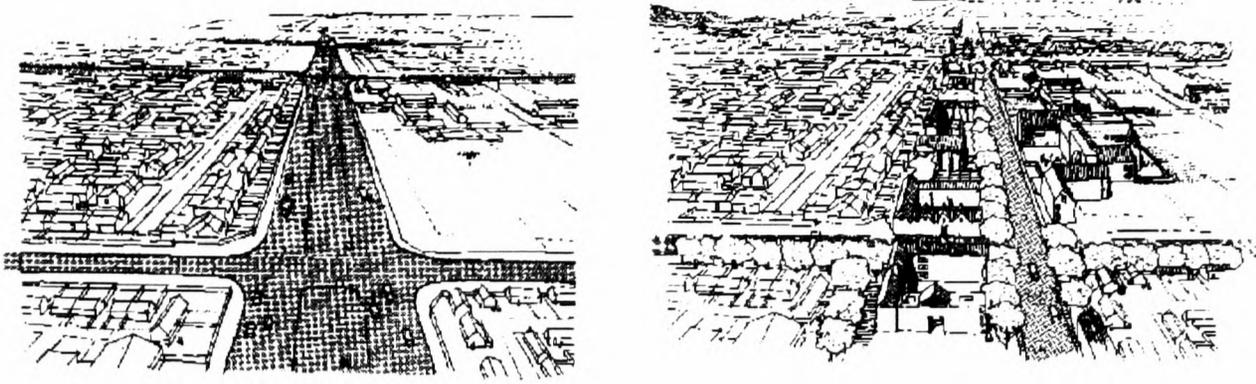
Figure 6.29. Proposal for reverse incrementalism in Cape Town. Reclamation of an underutilised road to become an integrator and activity spine (muni-SDF, 1999: 62).

6.9.4. VISUALISATION OF INCREMENTS AS A TOOL FOR COMMUNICATING A LONG TERM VISION OF CORRIDOR DEVELOPMENT

Seldom does urban development religiously follow a predetermined pattern, yet built environment professionals, developers and citizens find it comforting to see their visions represented in an accessible form. The broadly linear spatial framework of corridors provide a convenient armature around which to construct such an incremental vision. The incremental perspective, -plan or -model recognises the fact that citizens do not have the capacity or time to struggle through the process of unpacking the vision of built environment professionals and politicians; nor do they have the capacity to translate a myriad of decisions arrived at through public participation into a comprehensible spatial form. This is particularly true of the corridor, which is typically conceived at a vast, sub regional scale and where few are likely to grasp the full extent of the ambitious strategic project.

An overview of urban design frameworks suggests that urban designers are well aware of this weapon in their armoury and that the space-time relationship is therefore commonly expressed as a sequence of drawings (muni SDF,1999; MSDF,1991; MCDC,1997; Comrie & White, 1997).

The incremental development drawings and or model typically constructed on the basis of a vision denoting NOW, SOON and LATER has therefore become a powerful tool for communicating incremental change. Apart from capturing the logic of *plan* with its associated energy flows, it makes plans accessible to the layman and acts as a mental reference and handy communication medium for development practitioners. When the

success of corridors rely on private investment in key projects, incremental drawings animate commercial opportunities for investors. Urban designers may also use the incremental drawing as an empirical device by which spatial relationships are tested and adjusted. CHAPTER 7 will indicate how the NOW, SOON, LATER methodology is used in *action planning* workshops for determining need and articulating a vision of local development.
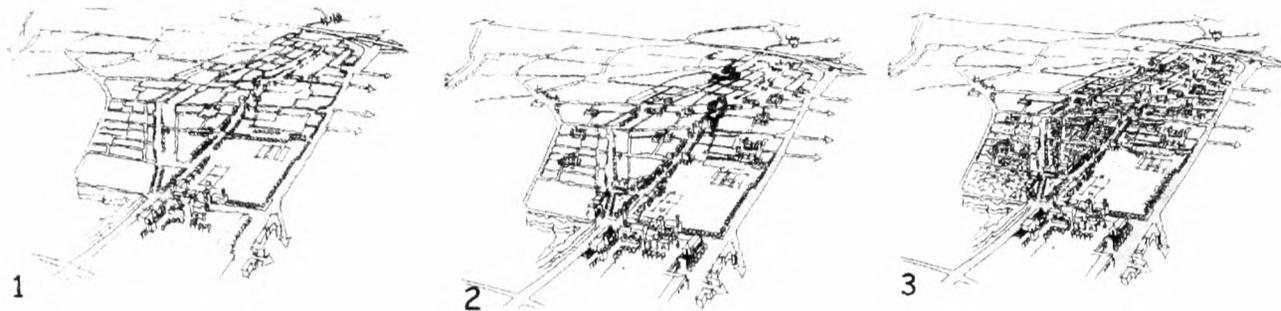
Figure 6.30. Three-stage incremental drawings of the Kagiso Link proposal in Krugersdorp, South Africa. The drawings served a variety of purposes; most importantly they were used as a communication medium during public participation sessions and to support an application for public funding of critical infra-structural components (Comrie & White, 1997).

6.9.5. CONCLUSION: INCREMENTAL CORRIDOR PLANS

The analysis indicates that an incremental approach to corridor development represents a powerful medium for communicating a vision for the future development of corridor space. Its greatest value in a strategic urban management context is the acknowledgement of budgetary cycles. Incremental plans make it possible to prioritise public spending while linking the decision-making process to future spatial outcomes.

6.9.6. SUMMARY OF PART 1: URBAN DESIGN TOOLS/ INSTRUMENTS USED IN THE DEVELOPMENT OF CORRIDOR SPACE

Part 1 considered the use of six urban design instruments that have been used in urban design in corridor development in different contexts. Of all of these only the *capital web/minimal grid* approach has been promoted by academics in South Africa. Figure 6.31 shows that other instruments have found only limited and/or localised application. With the new emphasis on metropolitan wide planning and regional urban design, wider use of these dynamic instruments will become necessary.

The level of patronage for urban design in metropolitan government and the way universities prepare practitioners for their new roles are important issues. The exclusive use of dynamic instruments in Cape Town suggests that other cities are missing crucial opportunities during a phase of radical urban reconstruction in South Africa. Without adequate creative design and visualistion skills spatial planning units within metropolitan governments will not be able to utilise dynamic instruments such as *hierarchy of scales* and *considered increments of development.* Instruments such *as stable local districts* and localised *capital webs* need to become the subject of project-related pilot projects within a strategic urban management framework. Simplified problems such as a circumscribable and relatively static *urban villages* juxtaposed over an existing suburban footprint runs the risk of generating a limited perception of the urban designer's role. The real context for empowering urban design is clearly much more complex and dynamic.

Table 6.31. summarises the relationship between corridor development and the various urban design tools reviewed in this CHAPTER. The summary is used to inform the urban design strategy presented in CHAPTER 8.

FIGURE 6.31

URBAN DESIGN APPROACH	BEST SUITED TO GREYFIELDS/ GREENFIELDS SITES	IS THERE A TRADITION OF USING THIS URBAN DESIGN INSTRUMENT IN SOUTH AFRICA?	DOES THE APPROACH ADVANCE MARKET INTEREST?	DOES THE APPROACH ADVANCE THE INTERESTS OF THE URBAN POOR?	WHEN MUST THE APPROACH BE INTRODUCED IN A STATEGIC URBAN MANAGEMENT CYCLE
1. CORRIDOR AS A CAPITAL WEB OF MINIMAL PUBLIC INVESTMENT	BOTH	YES, a very strong tradition championed by the University of Cape Town urban design school	NO Primarily concerned with minimal public investment	YES Promotes a *City of a Thousand Designers* idea.	Uneasy fit with a project-based strategic approach that creates a lack of spatial continuity and little opportunity for spontaneous action.
2. CORRIDOR AS A WELL INTEGRATED MOVEMENT SYSTEM	BOTH	NO	YES Can be catered to market interest by determining accessibility (passing foot ttraffic)	YES Ideally suited to areas of low private vehicle ownership	At a metropolitan and local scale,.i.e as part of metropolitan and local spatial frameworks.
3. CORRIDOR AS A SERIES OF STABLE LOCAL DISTRICTS (MIXED-USE CELLS)	GREENFIELDS AND INTERFACE	LIMITED Used in the shelved Baralink framework	LIMITED Concerned with creating a new suburban model that denies concentrated large scale private investment	LIMITED Caters mostly for communities with sufficient disposable income to support a local mix of land uses	Uneasy fit with a c project based strategic approach that creates a lack of spatial continuity. Idea needs to be tested via pilot projects.
4. CORRIDOR AS A NESTED HIERARCHY OF GENERIC ELEMENTS AT DIFFERENT SCALES	BOTH	LIMITED Actively used by urban designers in Cape Town	YES Long term benefits. Commercial developments will be better integrated and more accessible	YES The empowering capacity of each spatial intervention is measured within a holistic framework	Consistently and at all scales. Needs to become ingrained in the urban development ethos of each city.
5. CORRIDOR AS A SERIES OF RETROFITTED LOCAL GRIDS	GREYFIELDS	LIMITED Initiated by large private developers/ limited number of informal settlements	YES The approach responds directly to the demands of a developer or or a consortium of developers.	LIMITED Occasionally used to create an integrated network of roads in squatter settlements	Selective use as and when mandated by private developers. In the case of squatter upgrade projects, when squatter settlements are recognised.
6. CORRIDOR AS A SERIES OF WELL-CONSIDERED DEVELOPMENT INCREMENTS	BOTH	LIMITED Too few people with creative skills in metropolitan councils	YES By visually animating investment opportunities	YES By making the impact of strategic decisions more comprehensible	Consistently and at all scales. Needs to become ingrained in the urban development ethos of each city.
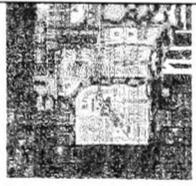
6.11. PART II : THE USE OF URBAN DESIGN PRINCIPLES

6.11.1. INTRODUCTION

No definitive set of urban design principles has been formulated for use in corridor space. Contexts are too varied to make this a feasible proposition. *Principles* can however be related to the plan-driven approaches described in PART 1. The *stable local district* idea is constructed around the pursuit of permeability, mixed use, robustness, and pedestrianisation. The code-driven model effectively aims to control or guarantee these qualities. Other approaches such as the *capital web* is more open ended; it is concerned with regional and sub-regional accessibility and aims to exercise limited public control, thus facilitating greater citizen control.

When leaving corridor development aside and looking at the general urban design discourse, a series of principles of urban design are recognisable. Principles are used to inform both the analytical and design phases of urban design practice. McGlynn (in Hayward & Mc Glynn, 1993:7) notes that principles often become mere rhetoric; good intentions that may be impossible to translate into physical form because of contextual variables. In the context of this research the defining principles of urban design needs to be evaluated and related to the more specific role of urban design in South African corridor space.

There have been efforts to compile synthesised and jargon free lists of urban design principles which suggests universal application, at least amongst Anglo-Saxon cultures (Punter, 1990; Schurch,1999). The drawing up of such lists may be ascribed to:

- **First, the fact that** *'urban design thrives at the margins of development practice'* *(*Goodey, 1997). The lack of- and even irrelevance of theory has often been noted in relation to a discipline that greatly values reflexivity and experience. Both the *marginality* and the *reflexivity* of urban design has resulted in a constant search to find ways of articulating its purpose (Cuthbert, 2001; Schurch, 1999).

- **Second,** an effort to compensate for the lack of definitions which can adequately grasp the role of- or give clear direction to urban design practice. A list of principles therefore serves a definitional purpose which aims to capture the spirit in which urban design is taught and practised at different scales and in different socio-political contexts.

Punter (1990) has summarised various fundamental principles, commandments and checklists proposed by different organisations and by different individuals in the United Kingdom and the United States (Table 6.2). Significantly he notes that two seminal works, *Jane Jacobs' The Death and Life of American Cities* (1961) and Lynch's *Good City Form* (1981), are directly or indirectly the sources of many of the principles when compared. This suggests a level of *universality* within the urban design discourse, at least in its use in Anglo-Saxon or Northern cultures. With an absence of a strong scholarly tradition in the South, pitifully little home-grown theory is available. An influx of theories from the North therefore makes it difficult to stage a substantial project for disseminating local urban design knowledge (El- Sherif in Hamdi, 1996:111).

Because English is the national language and strong economic and political ties exist between South Africa, Britain the United States and because of a neo-liberal inclination towards *good practice*, knowledge from the North maintains a monopoly in South Africa's urban development discourse. The urban design discourse too is constantly being influenced by imported knowledge. As noted earlier, the Pennsylvania School[13] has maintained a South African connection for several decades now and the Oxford Brookes School has greatly influenced urban design praxis in South Africa in recent years[14]. With the foreign qualifications and the foreign literature comes an infusion of ideas on how to make our cities better places. This brings into question the issue of relevance, compatibility and translation of urban design principles.

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[13] Initially through the work and teachings of pioneering urban designers Roelof Uytenbogaardt and Fabio Todeschini (Cape Town) and Glen Gallagher (Johannesburg) and of a subsequent generation including Floris Smith, Mike Smuts*, Lucien Le Grange*, Richard Cooper* and Iain Low . David Crane (a professor at Pennsylvania) link became stronger than the Pennsylvania link and those market with an asterisk subsequently studied under Crane at Rice University in Houston.
[14] Through Stephen Thorne, Paul Wygers, Abigail Goldberg and Pierre Swanepoel and the involvement of Paul Murrain in the development of the Melrose Arch precinct in Johannesburg.

Harvey (2000: 244) notes that translation is a difficult concept ;*'to attempt to translate is to experience a failure at once radical and felicitous; radical, for it throws into question our sense of ourselves, our languages, of others; felicitous, for it releases us momentarily from the prison of our own ways of thinking and being'*. This suggests that translation is such an intimidating task that adopting imported principles become a next best alternative, particularly when this is mandated by politicians' insistence on the active pursuit of *best practice*. For the urban designer in the developing world who wishes to be responsive to a developing world urban context, the use of derivative principles becomes problematic. In CHAPTER 4: *Sociological Context*, it was noted how the urban designer working in South Africa must develop a capacity to deal with transience and to mediate between the traditional and the modern. It was also noted that a concept such as democracy, which automatically becomes part of the context for problem solving in the North still needs to be constructed in large parts of Africa, including South Africa. These issues are hardly of any significance in high modern societies and stable western democracies. Principles imported from the North therefore needs to be viewed critically in relation to our own evolving urban contexts.

The Johannesburg urban designer Erky Wood (pers com, 2002) is wary without being dismissive of the use of first principles. The term *first principles* is used to describe the unquestioned use of principles as a point of departure. He notes that:

> *Any authentic response must be driven by the uniqueness of the issues identified but, yes, the closer the responses are to first principles, the better. Bear in mind that first principles themselves must never be allowed to become an urban design tool box. Too many responses are driven by a generic solution looking for a generic problem. I don't like the word problem because it is too value laden. Too many times problems are defined to fit known solutions and first/generic principles are very vulnerable to this.*

These introductory notes suggest that we need to critically review urban design principles in relation to context and that we need to accept the challenge of translation.

6.11.2. THE ORIGINS AND USE OF URBAN DESIGN PRINCIPLES IN SOUTH AFRICA

Urban design principles clearly develop from schools of thought which typically originate from influential educational institutions or persons. Any consideration of the relevance of principle therefore needs to be related to existing schools of thought.

Punter (1990) notes that most urban design principles are derivative. My own involvement in urban design education and practice in South Africa and interviews with urbanists in South Africa, Australia and Peru suggest that principles may be imported in three ways:

- **First**, directly through literature.
- **Second**, indirectly through praxis that involves champions who have studied or have worked abroad.
- **Third,** indirectly through case study analysis.
- **Fourth,** through exchange programmes and visiting professors/lectures.

The influential published work of institutions such as MIT, The Oxford Brookes School and The University College of London's *Space Syntax Unit* provide ideas which have been generated in the immediate contexts where these schools are located. Boston, Oxford/Reading and London have become useful laboratories for testing urban design thought which may apply equally to other European and American cities. Works such as *Learning From Las Vegas*, *Good City Form*, *Responsive Environments* and *Space is the Machine* have a clear bias towards urban analysis and intervention in industrialised countries. There is also a clear overlap and cross fertilisation of ideas as the Northern debate feeds upon itself. Much of the analysis and many of the principles acknowledge the need to improve existing contexts within mature cities. By contrast the relatively young African and South African cities remain unconsolidated and suffer from severe structural problems. This has prompted Barbir, Coetzee and Serfontein (lecture, 2002) to call for a *'radical turn around plan'*[15], as noted in the introduction to the discussion of *'plan'*. Under these circumstances there is little opportunity for well considered, piecemeal intervention or to base principles on the deficiencies of the modernist city. CHAPTER 3 POLITCAL ECONOMY has indicated that the context of urban practice is one of blighted, low density sprawl populated by masses of transient populations that generate conditions approaching emergency status.

Despite the serious questioning of the value of universal principles there are enclaves such as historic inner city zones, the new concentrations of capital flight in South African edge

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[15] Barbir, Coetzee and Serfontein (2002)

cities and wealthier suburbs where these find ready application. This has been partially illustrated in part 1 of this CHAPTER. Because of active patronage from large developers who increasingly consider a New Urbanist urban design approach an important value-adding excercise, the identity of urban design in South Africa has become distorted (Schaug, 2003). Powerful investors in South Africa have embraced New Urbanism and have made it possible for Murrain et al[16] to use universal New Urbanist/ urban village concepts to formulate a development framework and spatial codes for the development of the private sector driven Melrose Arch precinct in Johannesburg. Bank City and Sandton Square in Johannesburg and Cape Town's Victoria and Albert Waterfront are other pertinent examples (figure 6.32). These comfortably rank as the biggest projects ever undertaken in South Africa and provides patronage and exposure to urban design in the grand manner.

Do urban designers have the will to work on these profitable, high profile projects the one moment and in an impoverished highly politicised zone of poverty the next? In Murrain's words (pers com, 2003) *'it is not either or'.* Urban designer Erky Wood of GAPP, who has been involved with Bank City and the large private sector driven Hullets-Tongaat development outside Durban notes that working on such projects are *'without doubt more fulfilling from a design junkie point of view'* (pers com 2002).
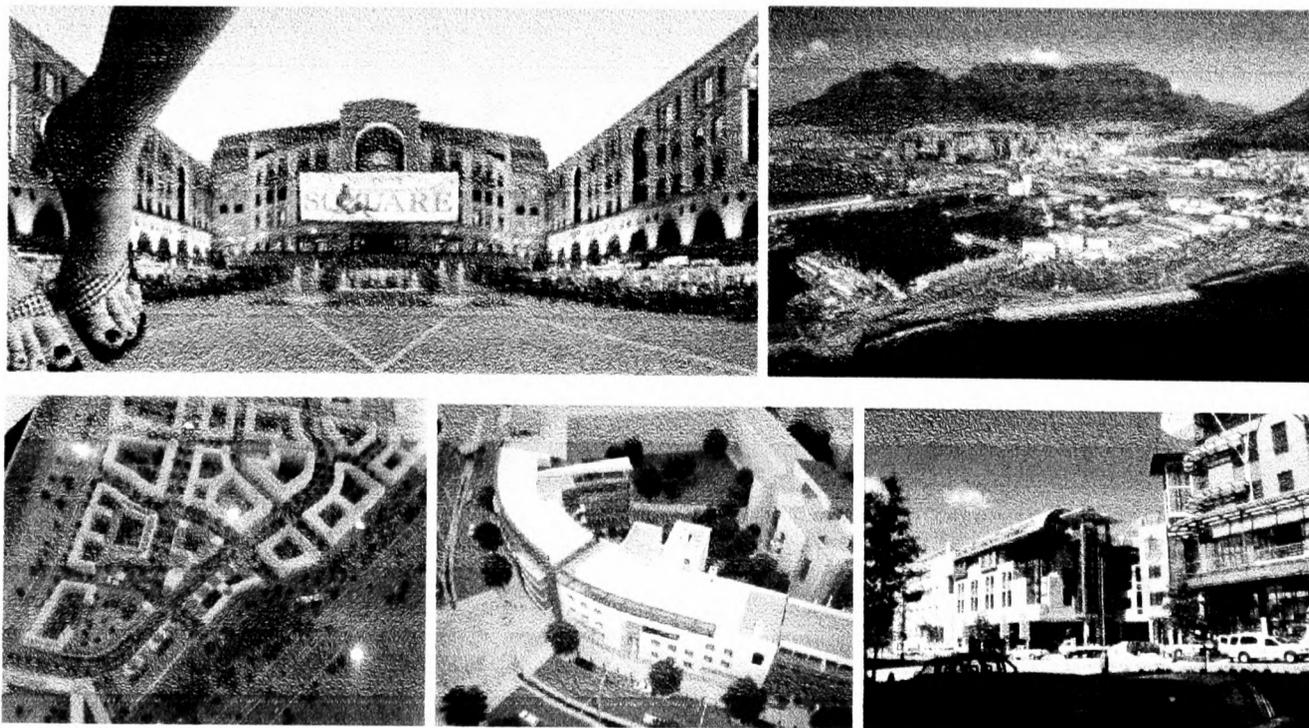
Figure 6.32: Decentralised urban design in the grand manner; Sandton Square Johannesburg (top left), The V&A Waterfront, Cape Town (top right) and the New Urbanist Melrose Arch precinct in Johannesburg at conceptual stage (bottom centre and left) and in its completed state in 2002 (right). (Sandton Square and V&A Waterfront images from promotional web sites. Melrose Arch images by author.)

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[16] Urban design consultant, past lecturer at the Joint Centre For Urban Design, Oxford and presently associated with the Prince's Foundation in London

Wood's comment highlights the challenges facing urban design praxis in South Africa. While urban designers often choose to become involved in the comfortable and often nostalgic *'design junkie'* side of urban design, the real challenge lies in confronting the problems of the incipient African city. These are the spaces where the market has shown little interest and where we need to develop our own reflexive principles or find ways of critically translating principles from the European bastions of knowledge (Hamdi, 1996; Lloyd, 2003; Schaug, 2003). Like on so many other terrains, apartheid has been severely limiting to urban design praxis since it denied opportunity for meaningful engagement across disciplines and with ordinary citizens. The preconceived, centrally controlled development of the South African City meant that the laboratory which supports the reflexive project was effectively closed for experimentation and for testing of urban design thought. Outside the universities (in universities the discourse is necessarily one of disciplinary integrity and academic rigour), the identity of urban design in pre 1994 South Africa was effectively built around Euro-centric endeavours in which untested, imported principles found ready application.

6.11.3. BRAVE NEW FRONTIERS: FORMULATING AN URBAN DESIGN VISION THAT RESPONDS TO THE REAL CHALLENGES OF THE POST APARTHEID CITY.

Long before the end of apartheid scholars began to ponder the likely nature of the post-apartheid South African City. It was particularly in the field of housing that foreign funded NGOs began to experiment with a variety of alternatives (Bond, 2000 Abbott, 1996). While the debate surrounding the post-apartheid city was very active in the liberal universities, the reflexive project was not possible, thus rendering the discourse visionary at most. It was a particularly difficult time for urban design education since most forms of engagement with marginalised communities amounted to little more than creating false hope under conditions of continued state control (Tomlinson, 1994; Abbott, 1996). A review[17] of urban design theses completed at the University of the Witwatersrand's graduate urban design school during the 1980's and early 1990's indicates that many students proposed theoretical models for the redevelopment of marginalised zones of the city.

Notably, theses from the early 1980's considered black townships indefinitely segregated enclaves which needed to become the subject of physical, in-situ intervention (Vermeulen, 1981; Van Rensburg 1984). Others chose to focus on spatial dimensions of the zones of white privilege where praxis was possible and where graduates had a better chance of testing their ideas once having graduated (Human, 1981; McInery 1985). Towards the end of the 1980's and early 1990's, within a post modern paradigm and sensing political change, the focus began to shift towards sub regional models for integration and the physical plan became tempered by sociological concerns (Broomberg, 1990; Lloyd, 1988;

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[17] Selected Unpublished Master of Urban design Theses completed at the University of the Witwatersrand, Johannesburg. The titles of the theses are (listed by date):

1. Human, TJD., (1981) *Urban Design Aspects of Mixed Use Developments* : Case Study Rosebank
2. Vermeulen, GK., (1981) *An Urban Design Framework for the Provision of facilities in Urban Black Townships, with particular reference to Katlehong, Tokoza and Vosloorus*
3. Janse van Rensburg, EG., (1984) *Urban design Guidelines for Space Creation in an Urban Black Residential Environment.*
4. Mc Inery, P.,(1985) *An Approach to Place Making in Residential Environments.*
5. Lloyd, RWT., (1988) *Public Man, Urban Space and the City of Opportunity.*
6. Britz, BJ., (1990) *Conceptual Approaches to Urban Design and their Applicability to an Evolving African City.*
7. Broomberg, P.,(1990) *Urban Design and the New South Africa.*

Britz,1990). Significantly Roger Boden, who subsequently chaired the post graduate course in urban design at the University of the Witwatersrand completed a PhD thesis at the University of Washington in Seattle in 1991 titled *The Urban Designer as Interpretant-A Case Study from a Developing Country.* The title captures the mood of the times. There was a will to make urban design more participative but genuine engagement remained difficult if not impossible. Boden recognised that, while political horizons were shifting, huge obstacles in terms of open engagement still existed. The townships were inaccessible zones of conflict and terror. It was therefore proposed that *interpretation* of cultural habits and preferences become a second best alternative and temporary substitute for accommodating real choice. The danger of such an indirect approach, which inevitably relies on secondary data, is that it overstates *tradition* in a South African urban context where there has been a sustained shift towards *modernity* (see discussion on African identity in CHAPTER 3).

As it turned out Boden's work became largely irrelevant. The ground shifted faster than had been anticipated. With the unbanning of the ANC and the release of Nelson Mandela in 1990 and the first democratic elections in 1994, *interpretation* and *inference* made way for radical opportunities for engagement across class and race (Marais, 2001). CHAPTER 7 deals with the relationship between democracy, participation and urban design in post 1994 South Africa.

6.11.4. THE UNIVERSITY OF CAPE TOWN'S INSURGENT PRINCIPLES OF POST APARTHEID URBAN RECONSTRUCTION.

At the University of Cape Town a different course was charted by Roelof Uytenbogaardt and David Dewar. For almost three decades and up to the time of this research their approach consistently hinged on their plan-based *Capital Web* approach, which was discussed in the first section of this CHAPTER. Since active engagement was not possible, the empowering capacity of *plan* would be actively investigated and taught. The school's resolve and the efforts of its champions has since made it insurgent at a higher political level. This insurgency has gradually created the necessary space for the testing of a rather old set of urban design principles in post apartheid South Africa.

While the late Uytenbogaardt was also an award-winning architect who had a craftsman-like and strongly regionalist approach to his work, Dewar is an economist/planner revered

for his capacity to formulate and articulate strategies. The combination of strategy and strong visualisation skills was powerful (White 2003, personal communication). Uytenbogaardt would famously encourage his students to *'draw their words'*. Uytenbogaardt was also considered a man of principle who stuck to a definitive set of *first principles* throughout his career. By contrast Dewar is a prodigious speaker and writer (pers com White, 2003). He is the author or co-author of 9 books and over 200 monographs and articles on city and regional planning[18]. Significantly, Dewar contributed an influential series of articles[19] during the last decade in which he articulates a series of strategic actions/commandments that are primarily aimed at combating poverty. The following list of actions are noted in a chapter titled *Urban Planning, Shelter and Economic Development* (Tomlinson, 1994:230-242):

- First	Compact the city and implode growth
- Second	Maintain a fixed, permanent edge between urban and rural areas
- Third	Encourage decentralised wholesaling systems
- Fourth	Promote a greater mix of land uses
- Fifth	Use transport routes to integrate urban areas and to create activity spines
- Sixth	Create low overhead opportunities for small entrepreneurs to manufacture and trade in the most viable locations within the city
- Seventh	Use the process of housing delivery to stimulate employment generation and wide income circulation.

Table 6.1. Dewar's seven principles of empowerment through design in the South African city (Dewar in Tomlinson 1994).

The list of actions was proposed during the mid-1990's when Dewar was chairing a working group responsible for drafting the Green Paper on Planning (DCD, 1999). From the outset, and based on their active support of a *capital web* approach, Dewar and Uytenbogaardt (1991) considered the corridor an appropriate mechanism for the reconstruction of South African cities. Under the proposed action *'use transport routes to integrate urban areas and to create activity spines'* Dewar (in Tomlinson,1994) notes:

> *The resolution lies in breaking the pattern of fragmentation. The key to this, in turn, lies in promoting a hierarchy of interconnecting continuous routes or, preferably, systems of movement modes, to carry both public and private transportation; in orienting development to these interconnecting systems and using housing policy to reinforce them through higher density housing; and in allowing more intensive activities to respond to the flows along them, resulting in linear corridors of activities or activity spines.*

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[18] Information supplied on the website of the University of Cape Town

It is significant to note that Dewar does not propose *top down* delivery of urban corridors based on the use of generic elements as has been suggested in more technocratic frameworks produced in other parts of the country. The corridor emerges as an enabling context through a hierarchy of scales which matches the provision of infrastructure with changing needs in South Africa's highly transient urban contexts (see discussion on hierarchy of scales in Part 1 of this CHAPTER.

How does this all relate to the international discourse? Punter (1990) presents a synthesis of urban design principles which integrates the Anglo- American discourse over the past four decades. The comparative analysis yields ten principles that capture the vocabulary associated with the urban design discourse. The synthesised list presents a useful basis for comparison with the urban design discourse in South Africa. Table 6.3. aims to identify matches between Dewar's seven principles and those presented by Punter.

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[19] Refer to bibliography

TABLE 6.2. THE VOCABULARY OF URBAN DESIGN (redrawn from Punter, 1990)

	Kevin Lynch 1982	Jane Jacobs 1961	Bentley Alcock McGlynn Murrain Smith 1985	Tibbalds 1988	HRH The Prince of Wales 1989	Holyoak 1985	Urban Design Group 1987	Wates 1988	Buchanan 1988
1	Vitality (include biological and ecological)	Appropriate activity before visual order	Responsive environments	Places before buildings	The place		Responsive forms	Urban environment in broadest sense	Place making Public realm
2	(see sense)		Visual appropriateness	Respect history	Harmony and context	(i)retain the best (ii)respect the street line			Dialogue with context and history: recontain street
3	(see fit)	Mixed use mixed age mixed rent Concentration	variety	Encourage mixed use		More than one use	Mixed use		
4	(see vitality)	The street	human scale	Scale enclosure	Enclosure in scale with context				
5	access	Permeability (short blocks)	permeability	Encourage pedestrian permeability			Public access		Public space and movement systems
6	Control	Social mix and consultation	personalisation	Social mix and consultation	Community	Acceptable personalisation	consultation	Individual responsibility, professional enablers local action/control	
7	Sense(clarity with which it can be perceived)		legibility	legibility	Hierarchy	Visual accessibility reflect use			respect conventions articulate meanings connect inside and out
8	Fit (adaptability)	Robust spaces	Robustness and adaptability						
9	(see efficiency)	Gradual not cataclysmic money		Small scale change					
10		Activity richness	richness	Visual delight	Materials and decoration	Visible construction integral ornament	stimulating		Natural, rich materials good weathering decoration
	Two meta criteria efficiency(relative cost) justice (social equity)	Automobile attrition			Signs and lights		Protection Security comfort		

Punter's synthesised ten commandments.	Dewar's seven principles and two principles from the 1999 Draft Green Paper on Planning (influenced by Dewar).	
1. place making, outdoor rooms, the place, etc		→ will follow from incremental building on a minimal grid
2. visual appropriateness, respect history, etc		→ will follow from incremental building on a minimal grid
3. variety, mixed use	**Fourth**: Promote a greater mix of land uses	
4. the street, human scale, in scale with context, etc.	**First**: Compact the city and implode growth **Second**: Maintain a fixed, permanent edge between urban and rural areas	
5. consultation, control, community	Statutory requirement, Development Facilitation Act (1995)	
6. permeability and access	**Fifth**: Use transport routes to integrate urban areas and to create activity spines. (mobility and access)	
7. sense, legibility		→ will follow from a well considered capital web
8. robustness, fit	**Green Paper on Planning 1**: Minimalism	
9. small scale change	**Green Paper on Planning 2**: Incrementalism	
10. visual delight, richness		→ will follow from incremental building on a minimal grid
-	**Third**: Encourage decentralised wholesaling systems	
-	**Sixth**: Create low overhead opportunities for small entrepreneurs to manufacture and trade in the most viable locations within the city	
-	**Seventh**: Use the process of housing delivery to stimulate employment generation and wide income circulation.	

Table 6.3. Comparing Punter's synthesised Anglo American principles of urban design with Dewar's principles

The comparison indicates that the Anglo-American principles lean towards intervention based on historic precedent while Dewar's home grown principles are concerned with appropriate new beginnings or supports, with radical restructuring and with local empowerment combined with limited market supply and limited public funds. The two principles presented by Wates (see table 6.2) seem most appropriate in the South African context because they suggest transformative action and not desired physical qualities. According to Mc Glynn (in Hayward & McGlynn, 1983:7) many principles that are supported in the North represent a response to the decline of the public realm. Such a realm has never been well-established in Africa and is becoming increasingly irrelevant, at least when measured against European precedent. In CHAPTER 4 it was noted that cities in Africa are recent phenomena. The colonial cores and post-war downtowns are being radically transformed by a combination of capital flight and by a sudden and massive influx of poor migrants (Sanders, 2003; Peters, 2001). While accommodating informal activity, this places the urban tax base under severe pressure and creates a radically different space - time dimension to that experienced in present day Europe. It seems

ludicrous for urban design in post apartheid South Africa to aim to introduce neo-classical typologies or urban qualities associated with the colonial city. It may justfiably be asked if urban design has any value if it fails to recognise the radically different context for practice. Principles must be constructed through a reflexive project rather than being derivative.
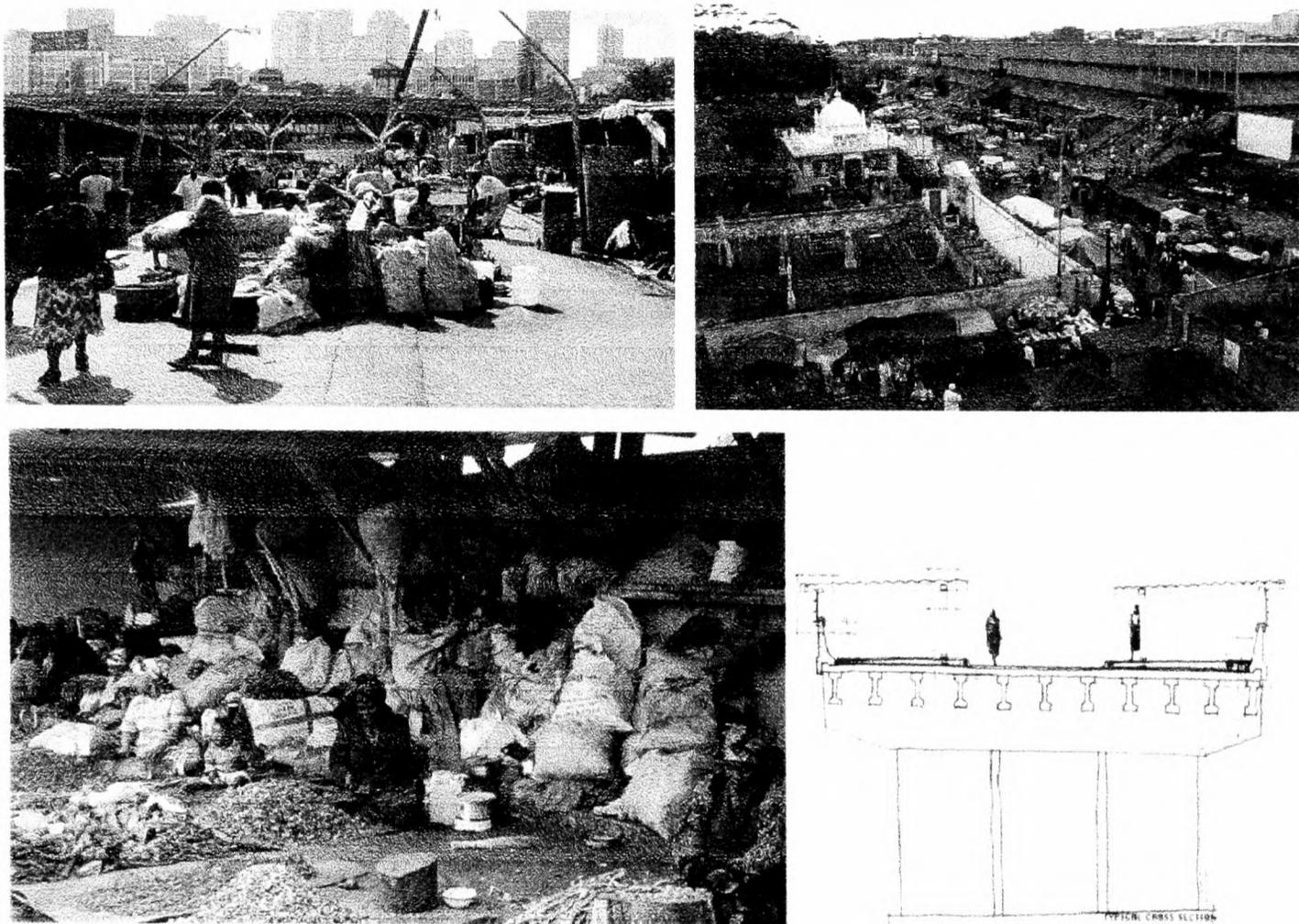
Figure 6.33: Dramatic post apartheid transformation in Durban, South Africa. Symptoms of poverty and mass migration to cities. The two bottom images show how defunct road space has been transformed to accommodate informal traders through minimal design intervention (Source: Peters, 2001).

When one considers Dewar's principles they mostly describe actions, not qualities. *Minimalism* and *incrementalism* are dynamic principles that suggest a context for spontaneous action. Catering for such actions will generate a uniquely South African reflexive project. Qualities such as personalisation, visual delight, variety and even legibility are relatively unimportant when the emphasis is on creating empowering spaces. Such qualities are likely to follow spontaneously, particularly when money is spent gradually as is likely to be the case. Other more appropriate principles such as robustness and permeability require testing in corridor space and needs to be related to the pursuit of hierarchies of scales presented in PART 1 of this CHAPTER.

6.11.5. INCREMENTALISM AND MINIMALISM AS CORE PRINCIPLES OF AN EVOLVING POST APARTHEID PLANNING PARADIGM.

Through sheer persistence Dewar and Uytenbogaardt's ideas ultimately became insurgent within the national policy context. Dewar became actively involved in policy making as consultant to the City of Cape Town and later, as noted before, as chairman of a task team that formulated the Green Paper on Planning (DPC 1999: 30). The Green Paper proposes a new planning paradigm, which is based on the core principles of *incrementalism* and *minimalism*.

- *Incrementalism* is considered necessary because of the enormity of the task of transforming the dysfunctional city. It suggests that appropriate planning systems evolve. They cannot and should not be copied.

- *Minimalism* recognises that spatial plans should not attempt to be comprehensive, but should take the form of public actions and investments. Frameworks should define the minimum public actions necessary to achieve the goals and objectives of the plan.

It has been noted that urban design principles are generally derivative, yet the concepts of *minimalism* and *incrementalism* recognises South Africa's unique circumstances and particularly those which exist in the marginalised zones beyond the traditional urban fringe.

Second in order of relevance and closely matching *minimalism* and *incrementalism* are the principles of *mobility* and *access* (Dewar's fifth principle). An analysis of urban design frameworks concerned with corridor development indicate that, if not carefully considered, [*minimalism and incrementalism*] and [*mobility and access*] may become competing principles. The reason for this is a lack of disciplinary integration and the prospect of mobility and access becoming motivating factor for the construction of yet more roads while postponing introduction of minimal grids that stimulate local development. By considering *hierarchy* first and thus determining priorities, this problem may be resolved.

Findings presented in preceding CHAPTERS emphasise the fact that in most cities the provision of roads infrastructure has enjoyed disproportionate attention in generic corridor plans (Wood and Thomashoff, pers com 2002). When hierarchy was actively considered at

a metroplitan and sub regional scale, as in the case of Cape Town's Philippi-Lansdowne-Wetton Corridor, room is created to test a range of other urban design qualities at the sub regional and local scale.

6.11.6. URBAN DESIGN PRINCIPLES AND THE SUSTAINABLE CITY DEBATE

In a later text Punter and Carmona (1996:132) note that the very useful set of principles proposed by institutions such as the Joint Centre for Urban Design in Oxford *'is primarily relevant to built up areas, and particularly to the problems of in town development'*. This matches the earlier concerns based on a North-South comparison (subparagraph 6.2.2) and the comparison of Anglo-American urban design principles and Dewar's home grown principles (Table 6.3). The principles of *environmental sustainability* proposed by Barton, Davis and Guise (1995) provide a much better match with Dewar's seven proposed actions, despite being formulated in a Northern context. The design considerations relating to *spatial form* and *movement* are the most appropriate and it is not surprising to see Barton et al (1995:4) refer to corridor development as an appropriate response in larger conurbations *'where the cluster approach does not work well because the disposition of existing development is too scattered'*. Efficiency of public transport operation and a higher proportion of public transport trips are obvious benefits. The approach however differs from Dewar's view of the detail resolution of *plan* since it makes no reference to a minimal grid (Capital Web) while focusing on route, node and a somewhat arbitrary reference to an ideal width of one kilometre. When translated to the South African context it too runs the risk of generating excessive interest in the construction of new roads.

PRINCIPLES OF SUSTAINABLE URBAN FORM AS PROPOSED BY BARTON ET AL (1995):	MATCHES WITH DEWAR'S PROPOSED ACTIONS (1994).
Density related to nodal points	Maintain a fixed, permanent edge between urban and rural areas
	Compact the city and implode growth
Reduce the need to travel	Promote a greater mix of land uses
Reduce the need to travel	Encourage decentralised wholesaling systems
Design for pedestrianisation Recover road space for public use	Create low overhead opportunities for small entrepreneurs to manufacture and trade in the most viable locations within the city.
Design for pedestrianisation	Stated by Dewar during at a lecture at the University of Pretoria, August 2002
	Reverse decentralisation
Density related to nodal points	*Increase densities*
Reduce the need to travel	*Increase mixed use developments*

Table 6.4. A comparison between the principles put forward by Barton et al (1995) and Dewar (1995)
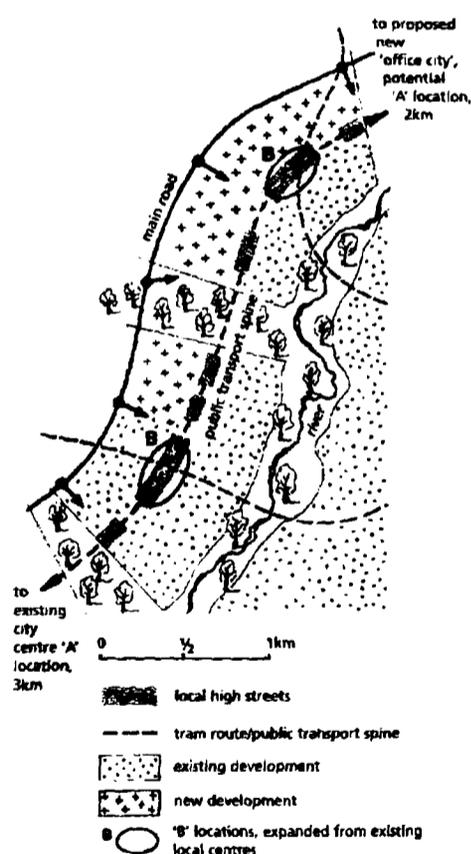
Figure 6.34. conceptual corridor principles proposed by Barton et al (1995:102). Its organic form differs from the detailed resolution based on a minimal grid as proposed by Dewar & Uytenbogaardt (1991), yet the underlying principles related to sustainability are the same.

6.11.7. CONCLUSION PART 2 : URBAN DESIGN PRINCIPLES

The discussion on principle is necessarily less conclusive than the discussion on plan. Academic research emphasises appropriate principles but falls short of finding ways to effectively validate them. The duration of a research project is simply too short to consider real space-time dynamics and causal affects. International precedent provides some answers but the laboratory of the South African city has been open for too short to be able to draw accurate conclusions.

A discipline that thrives at the margins is reluctant to be pinned down by principle yet this seems like a contradictory statement when considering that frequent articulation of principle has become an important way of defining the purpose of urban design in the North. The context of practice, though changing, is arguably more certain in the North. It is particularly the radical shifts in urban management policy during the last ten years that has made the context of practice in South Africa difficult to assess. The latest adoption of a strategic urban management approach has generated a very recent re-organisation of furniture in the urban laboratory.

Uncritical use of a derivative set of principles will close down the reflexive project that has only recently been given breathing space in the South African urban development context. Some principles, most notably a well considered hierarchy of scales has found political space to be tested in the South African corridor context and stands out as an important principle. Peruvian precedent lends further support. Notably it does not feature in Punter's synthesised list of Anglo-Saxon principles, possibly because regional hierarchies have already been established in most Northern cities. Other principles that suggest space for individual action seem appropriate in a context of rapid urbanisation, poverty and limited public funds. These include *minimalism, incrementalism, access* and *mobility*; principles that are all supported by a hierarchical approach and which may be applied across a range of scales, from the regional to the local. Next on the list are *densification* and *mixed use*, which are principles directly associated with the sustainable city debate.

Principles such as *robustness* and *permeabilty* that are concerned with appropriate spatial arrangements needs to be tested at the strategic project level. *Variety, personalisation* and *legibility* are principles at the bottom of the league in a context where need for empowerment is an overriding objective.

Principles such as *local action and control* (Wates, 1988) and *consultation* (Jacobs, 1961; Tibbalds, 1988) suggest that people must be given opportunity to mediate during the process and have to be given opportunities to decide what principles and urban qualities are most important to them. This seems particularly appropriate in a democratic, post apartheid South Africa. CHAPTER 5 indicates that the opportunity for actively supporting participation in urban design in South Africa has been compromised by an institutionalised participation process. This concern is considered in the next CHAPTER which deals with an alternative, development practice approach to urban design.

CHAPTER 7: AN ALTERNATIVE, DEVELOPMENT PRACTICE APPROACH TO URBAN DESIGN IN SOUTH AFRICAN CORRIDOR DEVELOPMENT.

7.1. INTRODUCTION:

7.1.1. AIMS & SCOPE:

This is the second of two CHAPTERS that analyse tools for urban design practice in corridor space. The aim of this CHAPTER is to consider the development of corridors from an alternative *development practice*[1] perspective and to present the findings of a limited and qualified testing exercise conducted in Soshanguve, South Africa.

BACKGROUND

CHAPTER 3 outlined central political support for a neo-liberal discourse that aims to create equity through growth. The strategic vision is based on a positivist vision of prosperity, a stable economy and improved livelihood for all. Ultimately it is an outward-looking strategy that seeks to attract substantial foreign direct investment by presenting the right image to the outside world and by providing the right investment climate for foreign investors. CHAPTER 5 indicates that the project-driven strategic urban management approach adopted in 2000 supports the ANC government's central political aims. Strategic, city-wide development frameworks and associated five-year projects are considered primary vehicles for leveraging prosperity in the regions (see also *Annexure 3:* A Review of the South African Planning System).

All this happens against the backdrop of sustained urbanisation and growing inequality in vast sections of the city. Two weaknesses of strategic plans noted in CHAPTER 5 are that they are often over-politicised and over-generic. Because of the scale at which they are conceived corridor 'projects' are particularly vulnerable to these weaknesses (Hendricks, 2002; Oranje, 2002 pers com). The combination of an outward looking and selective focus generates an urban management vacuum in the margins and a growing crisis on the ground.

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[1] See Annexure I: Glossary of Terms

A *development practice* approach (see glossary of terms) recognises the emergent crisis which is found in many developing world contexts. It is an alternative and even provocative discourse that focuses on generating appropriate tools for knowledge generation and action on the ground. While recognising core technical skills of built environment professionals, the approach points to the need to develop supplementary tools that recognise real and escalating need of the poor in developing-world cities. It calls for a more localised and engaging methodology that recognises real need and the skills and knowledge vested in civil society. By recognising this and consistently aiming to build social capital it may assist in building hedges against the risks associated with the market.

Development practice skills are difficult to acquire in the classroom environment and the approach is necessarily suspicious of the conclusive nature of a *good practice* approach. Fieldwork interviews in South Africa (see Annexure 7) have indicated that many built environment professionals are suspicious of a *development practice* approach. This may be expected since the approach requires practitioners to admit that their professional knowledge is not up to the task. The positivist, technical-rational mindset that characterises the professions and the increased patronage that large investors provide (urban design in the grand manner) fuel these sentiments.

This limited research into the validity of a combined urban design/ development practice approach in South Africa is new and consciously provocative. While not discarding more conventional and more positivist tools for urban design practice as discussed in CHAPTER 6, this CHAPTER considers how an alternative or supplementary *development practice* approach may inform a strategy for urban design action in corridor space.

7.1.2. METHODOLOGY

This CHAPTER is presented in five parts:

- The **first** part indicates how poor urban communities have responded to the void generated by a neo-liberal urban management system while drawing on fieldwork data and lessons from the Peruvian case.

- The **second** part indicates the uneven and shifting geography of need in South African corridor space and thus the spaces where a *development practice* approach is most applicable. Maslow's (1962) basic needs hierarchy is used to inform the analysis.

- The **third** part considers appropriate forms of participation as defined within a development *practice* approach and relate these to the geography of basic needs in corridor space (as defined in the **second** part).

- The **fourth** part contextualises the participatory methodologies presented in the third part by describing and presenting the outcomes of a limited action planning exercise conducted in the Winterveld/Soshanguve region of the MCDC Corridor (Pretoria).

- The **fifth** part motivates the integration of metropolitan-wide strategic approach as discussed in the previous CHAPTER with the *development planning* approach considered in this CHAPTER.

7.2. HOW A STRATEGIC URBAN MANAGEMENT SYSTEM LIMITS OPPRTUNITIES FOR ENGAGEMENT
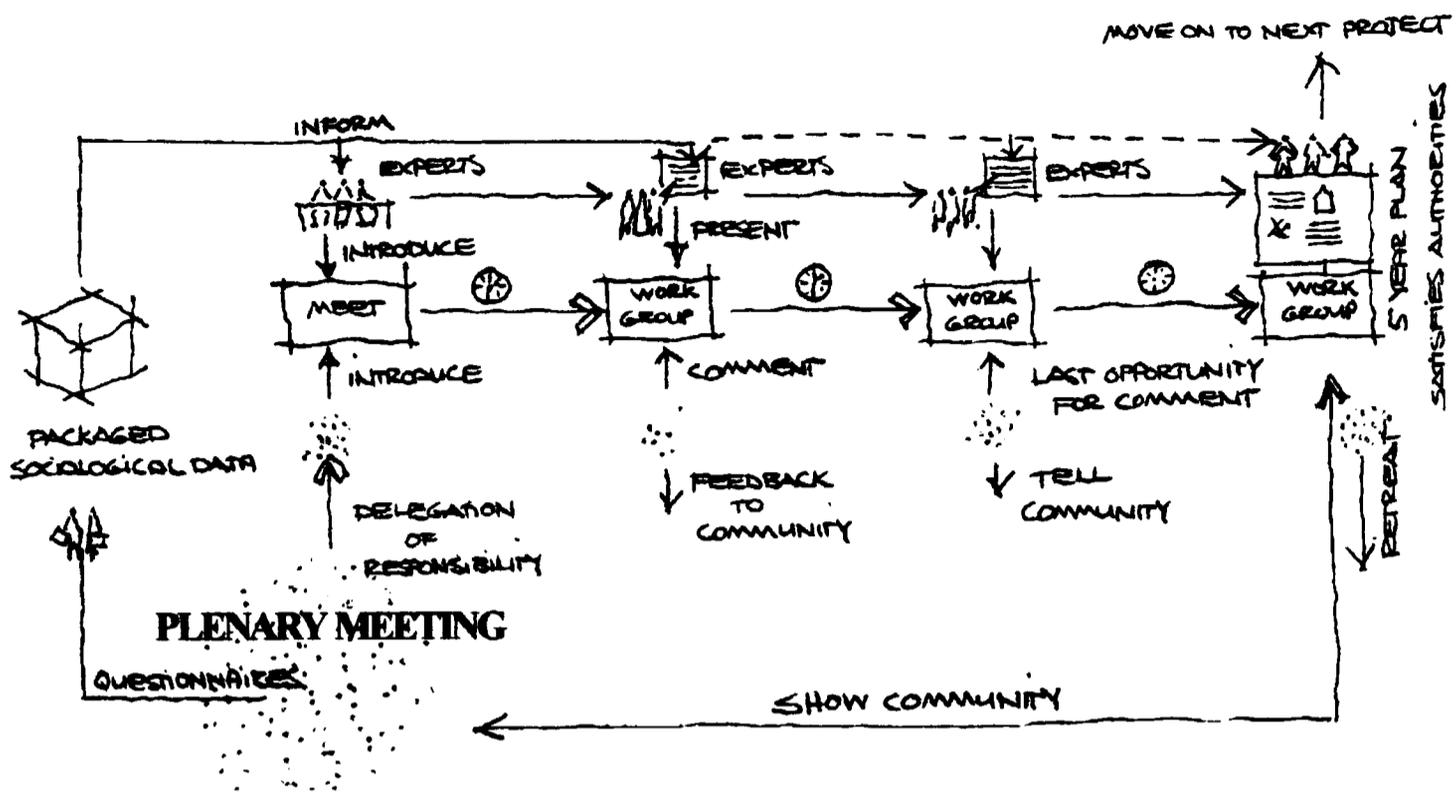
Figure 7.1. The institutionalised participation model used in South Africa from 1995 to 2000.

The *Development Facilitation Act* (DocD,1996) introduced a system of urban management to South Africa which *'is developed by local authorities in consultation with stakeholders'*. The DFA is aligned with international best practice. It meets the objectives of strategic planning and of the constitution by introducing a institutionalised participation process to motivate municipal spending.

In CHAPTER 5 it was indicated how local government manages the institutionalised participation process in five-year cycles. Figure 7.1. indicates that engagement during the IDP process is temporal and the process sterile, a-spatial and discontinuous. Morojele (2000:26) notes that, under neo-liberal conditions, there are signs that real participation is being relegated to the margins. A comparison of the divergent aims of the immediate post apartheid *Reconstruction and Development Programme* and the more recent *Growth, Employment and Redistribution Strategy* as discussed in CHAPTER 3 (table 3.8) support this view. While a wide range of stakeholders spend much time engaging in the mandatory IDP process, there is precious little connection between the process and the outcomes. This is clearly indicated by the case of the Tshwane Metro. At the time of writing 820 capital projects were identified by communities at ward level and put forward for approval by the IDP representative forum on standard proforma 'templates'. Realistically only a small percentage of these stand a chance of being approved by the forum (Nkosi, 2003:2). While

the IDP process commences as an organised and advertised mass meeting, it rapidly evolves into an exclusive forum where officials and consultants engage with a group of elected representatives (Morojele, 2000; Barberon et al, 1998). Once projects are approved by the representative forum they may once again become the subject of a wider participatory process; how, when and where this happens is up to the different metropolitan councils.

After the first metropolitan government elections in 2000, the minimal unit for participation became the *electoral ward*. An elected ward councillor, assisted by an elected ten-member ward committee, represents each ward. Andrew Sonyane (pers com 2002), the secretary of Ward 10 in Soshanguve, acknowledges that the system is flawed because there is very little scope for meaningful engagement and for taking local needs and concerns to scale. The wards each consist of at least 10 000 people and are simply too large for citizens to engage in any meaningful way. Fieldwork in the Winterveld provides evidence that poor citizens have by now come to realise that elected committee members do not have any real power to improve livelihoods at the local level. Both Putu and Sonyane (pers com 2002) noted that, apart from a shortage of funds, elected members are almost without exception elders, who see society in a vertically ordered way and to whom powers of authority have been delegated according to tradition (see discussion on the limited scope for democratic process in CHAPTER 4). The process is also frustrating for the delegated members since they are themselves often in the process of adapting to the value system of a modern, urban world.

The IDP process is an effort by high ranking politicians to prove that it has instituted mechanisms which conforms with democratic clauses of a post apartheid constitution and which makes participation in the urban development process a basic human right. The institutionalised participatory budgeting approach has cleverly been devised not only to project an image of democracy, but also to cope with limited funds (Ambert, 2001; Schoonraad 2002, pers com; Liebenberg and Stewart, 1997).

> *In the overwhelming majority of cases, the participatory aspects of the planning process are expedited by means of a couple of mass meetings, generally advertised in the English medium newspapers, where findings of the technical process are reported and individuals present are probed about their vision for the future development of their area. Overall, little attention is given to the need to relate the technical aspects of municipal planning to issues which community members experience. Constituents remain excluded from the strategy formulation process and are not exposed to the real budgetary allocation process (Ambert, 2001).*

International scholars such as Reason & Bradbury (2001:7) note that institutionalised participation in developing countries often aim to meet the conditions of international donor organisations as an end in itself. Real local potentials and outcomes are not sufficiently valued. The institutionalised IDP participation process in South Africa has indeed been criticised for being highly placatory and it is not uncommon to find references to participation fatigue (Ambert, 2001; White, pers com 2002; Thomashoff, pers com 2002). This relates to what Cooke and Kothari (2001) calls *The New Tyranny*. A case for such tyranny can be made by referring to perceptions of stakeholders as is illustrated in the Table 7.1. The impressions are based on:

- **First**, the author's own involvement in urban design practice[2] in South Africa since 1996,

- **Second**, fieldwork in the marginalised Winterveld region and in Acacia, a middle class suburb.

- **Third**, semi-structured interviews conducted in South Africa and particularly interviews with Mpho Putu (2002) of the *Institute of Democracy in South Africa(IDASA)* and Andrew Sonyane, secretary of Ward 10 in Soshanguve (township).

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[2] As urban design consultant associated with the Kagiso Link urban integration process. As an individual (private) participant in The Pretoria Inner City Partnership's extensive public participation process for the rejuvenation of Pretoria's Inner City, as an urban design student involved in various projects at the University of the Witwatersrand (1994,1995) and as a participant in a public participation process related to the construction of regional roads in the East of Pretoria.

TABLE 7.1. EVIDENCE OF INSTITUTIONALISED PARTICIPATION AS TYRANNY IN POST APARTHEID SOUTH AFRICA			
STAKEHOLDERS CATEGORY	**WHY THEY CONSIDER THE CENTRALLY MANAGED PARTICIPATION PROCESS A FORM OF TYRANNY**	**DO THEY ENGAGE AND IF THEY DO, WHY?**	**SOURCE OF DATA**
Civil society: the urban poor - Squatter communities - Backyard shack dwellers	- The process has been hijacked by power groups in the communities. - Where traditional values predominate power is delegated to elders.	**Initially:** keenness, hope, belief in the new government. **Now:** fatigue, realise that lines of accountability are blocked. Traditional values dictate that 'subjects' abide by the decisions of the power elite and of elders.	- Reflection on personal experience - Putu, Sonyane pers com (2002). - Barberton et al (1998) - Morojele (2000) - Schaug (2003)
Civil society: middle and upper classes. - Residents of suburbs - Second generation townships dwellers	- Often consider participation an outdated socialist concept which fits uneasily with their pursuit of individual material wealth. - According to Giddens *'the suburban man is frozen in the adolescent position'.*	**Initially and now** Because they don't struggle with the lower rung of basic needs issues they don't bother, unless they think proposals are being made which will potentially affect their capital assets.	- Reflection on personal experience. - Jordaan pers com 2002 - Crankshaw in *Social differentiation in a South African Township* (1996) - Sennett in *The uses of Disorder* (1971) - Giddens in *Modernity and Self Identity* (1991) - Troy in *'The Perils of Urban Consolidation'* (1996) - Hillier in *'Going Round the Back'.* (2000)
Local authority officials	Will not admit this publicly but will confess privately that it is increasingly considered a bureaucratic formality (rubber stamping) with much of the hard work done by outside consultants.	**Initially:** Their official duty. **Now:** Still their official duty, but by now a much more streamlined process.	- Own experience - Thomashoff (pers com, 2002) - Morojele (2000 :26) - Parnell et al (2002)
The state.	Politicians, ultimately being manipulators and therapists, will never admit this. Conforms with international good practice. Strategic outlook dominates.	**Initially:** The ANC's socialist outlook, democratic promise and affirmative action. **Now:** placation and political currency. Hegemonic project.	- Morojele (2000) - Barberton et al (1998) - Marais (2001) - Bond (2000)
Development practitioners	Not effective. Not enough time and resources. No meaningful engagement. Technocratic outlook often make them ill-equipped to 'listen for a change'. Cultural barrier. Unprofitable.	**Initially:** Their job description or driven by 'moral capital' **Now:** Their job description	- Own experience - Pers com Nicks, Thomashoff, van der Merwe, White, Jordaan, 2002. - Barberton et al (1998) - Schaug (2003)

When measured against Arnstein's (1969) influential *ladder of participation,* South Africa's IDP process will clearly be placed on the rungs associated with tokenism. This may be more acceptable or appropriate in one society than in another. In South Africa, where democracy is still being constructed (see CHAPTER 4) consultation and placation reduces the opportunity for building trust.
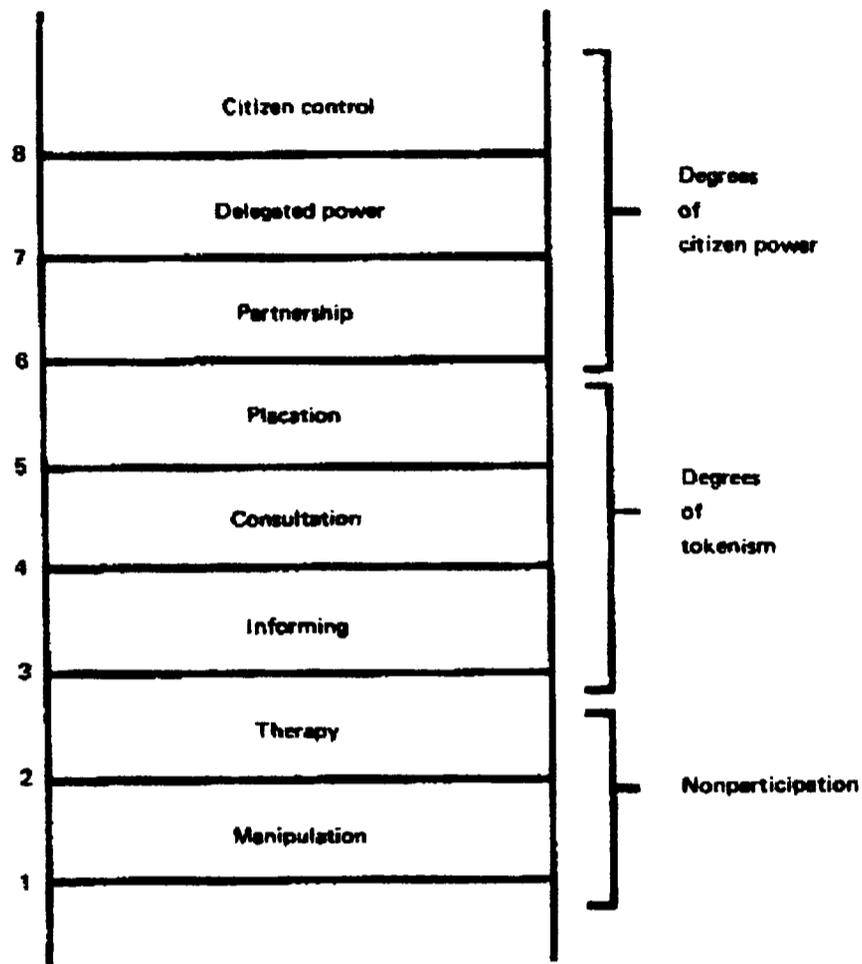
Figure 7.2. Eight Rungs on a Ladder of Participation (Arnstein, 1969:216).

Hamdi (in Lyons et al 2000:2) notes that, while participation has colonised development thinking over the years, the focus and contextual variables have become confused. The South African government's active persual of *best practice* as conceived in the industrialised world has resulted in the importation of a system developed in post cold war Germany (see further discussion in subparagraph 7.3.1.). Hamdi (Ibid) notes that the confusion is however often one of convenience and that two distinctly different types of participation may be identified:

- **First,** there is participation which is about empowerment, democratic reform and civil society, building political capital for the poor and vulnerable.

- **Second,** there is participation which is predominantly a strategic budgetary process that unlocks private sector initiative and capital- a neo-liberal plot to enable the market to play a bigger role in the supply of housing, services, utilities and the like.

A development practice approach is concerned with the former while recognising the uphill struggle it faces in challenging the latter. The approach is however not anarchist or revolutionary and prefers to tackle the problem through the examples that small scale actions provide.

7.3. GRASSROOTS RESPONSES TO THE LACK OF OPPORTUNITIES FOR MEANINGFUL ENGAGEMENT/PARTICIPATION.

7.3.1. THE RISE OF AUTONOMOUS COMMUNITIES IN POST APARTHEID SOUTH AFRICA.

Despite the ANC's *hegemonic project* (see discussion in Chapter 3), which has largely managed to successfully quell popular dissent, cracks are beginning to appear at the margins of South African urban society. People are becoming increasingly sceptical of the potential of institutionalised participation to improve livelihoods. The land reform programme limps along painfully and basic needs are not being met in a post apartheid policy context which points upwards rather than downward (table 7.1. and Marais, 1997; Liebenberg & Stewart, 1997). The state is not oblivious to this. Sensing growing dissent amongst grassroots communities, Thabo Mbeki called for *"Vukuzenzele"*, the nurturing of a culture of personal responsibility, united social action and volunteerism in his 2001 *state of the nation* address. By implication it calls for parallel action to supplement its faltering strategic approach. Some would call this spin since a genuine pursuit of parallel action calls for certain freedoms, most importantly access to well-located and affordable urban land, something which a neo-liberal economy will actively resist (Barberton, Blake & Kotze, 1998; Bond, 2000). Others consider it political insecurity associated with the adolescent state of South Africa's transformation. Wisner (1988) argues that calls for volunteerism and self- help in Africa are often simply ploys by governments to justify a reduction on public spending.

Policy moves indicate a growing tendency towards capital intensive, project based delivery. The latest participatory methodologies have been crafted with the assistance of the *German Agency for Technical Cooperation* (GTZ) and potentially further limits any realistic opportunity for the IDP to be a dynamic and flexible instrument (DPLG, 2002, 2002a). Hamdi & Goethert (1997:95) note that the *Goal Oriented Project Planning Approach (ZOPP[3])* of GTZ has failed to achieve its full potential because of overly directive moderators and disinterested local partners. ZOPP is also considered best suited for relatively sophisticated participants in detail structuring of projects.

Figure 7.3. Flow chart of the 37 week participatory project approval cycle of the GTZ inspired Integrated Development Planning process adopted in South Africa in 2002. (DPLG, 2002).

A recent spate of organised land invasions on the peripheries of South African cities indicates how the poor and land-less are responding to the growing urban management vacuum. Land-less communities will identify vacant, well-located state owned land and will painstakingly plan an invasion. It is almost without exception women who do the planning, a fact which indicates a demise in adherence to traditional value systems in urban areas, since women have a subordinate position with regard to land rights under African customary law (Barberton et al, 1997). When referring to Park (in Sennett, 1969:131) it is

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[3] German acronym for Zielorientierte Projektplannung.

suggested that it is the *marginal man* (sic) who has created the great creative sparks of urban history. Marginality brought on by migration and alienation generates an 'unstable character' capable of improvising rather than conforming.

Cases such as *Kanana* (derived from the Biblical promised land) and *Agrinette Hills;* both situated along national highways leading into Johannesburg, *The Victoria Mxenge Housing Development* and the *Ruo Emoh Project* outside Cape Town have been reported in various sources (Mail & Guardian, 19 May 1997; Mitlin in Lyons, 2000: 12; Barberton et al, 1988:211). The following report in the Johannesburg newspaper The Mail & Guardian (17 May 2003) describes an invasion:

> *The 370 shack settlement was formed on the night of March 20, 1997 when Madwayi led three women and four children onto their chosen patch of land.....by the afternoon they had mapped out, with whitewash, plots for 25 shacks, leaving room for roads, a school, a creche, a playground and a community hall. As new residents streamed in the homeless and unqualified surveyors, architects and builders - whom Madwayi calls the technical team- mapped out additional stands.*

The Development Bank of South Africa (2002:1) notes that, since residents take a great deal of pride, the houses are substantial and of a quality not inferior to those provided by the formal private sector.

The actions of the land invaders and the description of the standard of housing mirrors descriptions of an almost identical process which took place in Peru during the early 1970's (Starn et al, 1995: 371-376; Skinner,1981; Turner, 1972; Tokeshi, pers com 2002). History shows that entire urban sub-regions such as Villa El Salvador was constructed in an autonomous process and with hardly any assistance from the state (see Annexure 6: Fieldwork Report: Lima).

Figure 7.4. Barefoot architects of Victoria Mxenge in Philippi, Cape Town. (Barberton Blake & Kotze 1997:221)

What is noteworthy is the 'barefoot' architect and informal urban design dynamic that accompanies such invasions. Many will undoubtedly see this as threatening, *'serving to undermine professionals and to do them out of their jobs'*, as Hamdi (1991:42) notes in relation to support for self-help expressed by John Turner during a lecture in London after his return from Lima in 1969.

The invaders themselves have little sympathy with these sentiments for they have proven that they can deliver the goods. People's Dialogue[4] describes the attitudes of invaders as follows :

Professional interventions are kept to a bare minimum. This is because People's Dialogue shares the Federation's understanding that training is not a top-down process whereby experts educate the uninformed. In the alliance's terms, training is a process whereby people's organisations unearth or rediscover available knowledge and experience within poor communities. In this way the gathering and sharing of information is not only a knowledge building exercise, but is also a powerful mobilising tool. External interventions, especially interventions from highly trained professionals or bureaucracy-bound officials, are inclined to minimise the knowledge and the experience that people are able to generate themselves. What is more, knowledge generated from within a people's process is usually more appropriate to people's needs and priorities than externally-devised stratagems and programmes

This sobering statement suggests sophistication and a vision of permanence in the planned invasions, which differ from the ad hoc nature of squatter settlements. An analysis of the history of the three cases mentioned above suggests that the methods of land invaders are partly informed by precedent from India and Sri Lanka and partly by the existence of a sophisticated autonomous management structure and grassroots savings scheme, which is

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[4] www.dialogue.org.za

not immediately obvious to an outsider. The *South African Homeless People's Federation,* which was established in 1991, is a formalised network of autonomous community-based organisations, each with their own identities and decision-making structures. Most affiliated organisations in the Federation operate in broadly similar ways, but they all have their own internal rules. Nevertheless, these organisations are united by a common development approach, which has the following characteristics (Mitlin in Lyons et al, 2000:14; Barbertan, Blake & Kotze 1998).

- **First**, all member organisations are rooted in shack settlements, backyard shacks or hostels.

- **Second**, all organisations are involved in savings and credit, managed at grassroots level by the members themselves.

- **Third**, whilst men are not excluded, the vast majority of Federation members are women.

- **Fourth**, all organisations are involved in struggles for security of land tenure and affordable housing.

- **Fifth**, invaders will have linked up with members of other successful invasion projects and will have learnt to deal with the hostile authorities, the police and have developed effective legal support mechanisms for dealing with eviction orders.

The question is ultimately how tolerant the state and local government is towards such autonomous actions, particularly since strategic planning, institutionalised participation, and good governance provide justification for quelling dissent. In all three cases presented here the state and/or local government eventually came to recognise and even to assist in the development of invaded sites. The Development Bank of South Africa (2002:01) notes that *'the Department of Housing and Land Affairs gave a ministerial instruction that security of tenure be provided forthwith to the residents of Kanana'.* The recognition of informal settlements is usually a low profile- and drawn out affair since it is in the interest of both the government and the land invaders not to draw too much attention to what may be branded anarchist projects (Schaug, 2003). It would be unwise for the government to provide tacit support since it would be in opposition to its neo-liberal policies and may scare away foreign investment. In some cases and in an effort to appease opposition parties

and the international investor community, it will openly criticise the *South African Homeless People's Federation* for providing support and training to prospective land invaders (Mail & Guardian, 17 May 1997). For some this ambivalence merely suggests a weak state without clear direction i.e. the existence of a climate which has seen the rise of many autonomous communities across Latin America while for authors like Turner (1972, 1977) this represents a viable and valid alternative project based on flexible, dynamic and incremental growth.

7.3.2. LIMITS TO AUTONOMY: LESSONS FROM THE PERUVIAN CASE

Since Peru's autonomous urban communities predate those now emerging in South Africa by some three decades, important lessons may be learnt from them. Skinner (1981) performed a detailed analysis of the autonomous development of Villa El Salvador in Lima during the early 1970's. He notes that the rise of autonomous settlements within a context of official tolerance is a symptom of populism rather than of anarchy. Velasco's regime, which came to power in 1968, espoused an ideology of popular participation, while simultaneously trying to establish an authoritarian model of decision-making. He notes that this is a familiar form of populism in Latin America, of which the Peruvian is but one example. If governments actively oppose escalating autonomy, they risk losing their social base of support because the government appeals directly to the masses. The South African government's support base similarly lies amongst the poor masses, which partly explains veiled tolerance towards land invaders in peripheral urban zones. It is therefore performing the same juggling act as successive Peruvian governments:

> *The government, caught between the realities of global economics and its commitment to social reconstruction, dances a delicate minuet, first with one and then the other' (Barberton, Blake and Kotze, 1998: 48).*

The net result of trying to accommodate diverse interests was that the autonomous power bases in Lima's *pueblos jovenos* grew to such an extent that it began to pose a serious threat to the power and effective functioning of central government. This inadvertently led to the collapse of the populist regime in Peru. Similar collapses occurred in Brazil and Argentina. The collapse was primarily caused by a weakened government which was unable to manage and overcome economic crisis (Skinner, 1981:140).

The ultimate result was that both the popular masses and subsequent governments began to toe the line more carefully. SINAMOS[5] (literally without masters in Spanish), the organisation to which the Velasco government delegated the power *'to achieve active participation of the national population in the tasks demanded by economic and social development'* itself became too powerful and its headquarters ultimately became the target of popular attacks. The organisation, which aimed to empower the masses, was effectively of the masses (since its members were elected from within the *pueblos jovenos*) and which aimed to achieve developmental goals in the *pueblos jovenos,* was subsequently closed down. The closing down occurred a mere seven years after the revolution of 1968 (Flindel-Klaren, 2000: 338). While the local government has gradually wrested back control of the management of urban land under subsequent democratic regimes, there is an appreciation on the part of authorities of the advanced developmental knowledge that is vested in Peruvian society. According to local architects Maria Luisa Alvarado and Mirie Arroyo Diaz (pers com, 2001) a new settlement such as Pachacutec on the northern outskirts of Lima that has been planned by local government will be completed in a similar incremental fashion as Villa El Salvador (A detailed description and images of fieldwork in Pachacutec is presented in Annexure 6). Based on his experiences in Peru, Turner (1972) notes that *'communities 'not only know what to build but also when to build and how to build'.* Alvarado and Diaz also note that the state now seems less nervous about the threats of autonomy and actively recognise community skills. The leniency displayed by the Peruvian government is partly supported by the fact that migration to Lima is showing signs of levelling off.

Though there are many comparisons between South Africa and Peru, there are also distinct differences, which call for considered reference.

- **First:** metropolitan and provincial government acts as a buffer between the state and the popular masses in South Africa while autonomous communities in Peru directly challenged the central state. With the population spread over five cities[6], there is not the unified challenge to national policy as has typically been experienced in Latin America's primate[7] cities.

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[5] Accronym for Sistema Nacional de Movilization Social
[6] Johannesburg, Pretoria, Cape Town, Durban and Port Elizabeth
[7] Defined by Potter & Lloyd Evans (1998) as the phenomenon by which a single city within a country expands dramatically and acquires a vastly superior economic and political position within the country.

- **Second**: South Africa has an established and functional industrial base and an abundance of natural resources that strengthens the welfare floor.

- **Third**: the ANC's extraordinary capacity to achieve *hegemony* as discussed in CHAPTER 3 stands in stark contrast to the weak governments and populist regimes that ruled Peru during the late 1960's and 1970's when autonomy first emerged.

- **Fourth**: South Africa commands a notoriously dominant position[8] on the continent, which allows it to benefit from neo-liberal policy by skimming off some of the continent's surplus. Political opportunism makes the pursuit of neo-liberalism more active in South Africa than in any other African country.

- **Fifth**: the reluctance of urban communities to accept democracy/equality under the sustained influence of a traditional African value system (see discussion in CHAPTER 4). The vertical power hierarchy differs significantly from the horizontal structures typically found in Latin America.

A consideration of these distinct differences suggests that it would be unwise to pre-empt a trajectory for South Africa's emergent autonomous communities by referring solely to the Peruvian case. It is doubtful whether the urban management vacuum that is emerging in South Africa will ever reach the levels associated with Peru's successive weak governments. It does however indicate that autonomy will be tolerated by a semi-populist state-, and will effectively allow itself to develop up to a point. This is the point where autonomous organisations begin to assume political and economic responsibilities beyond its set out developmental goals.

Despite the differences listed above, there are important lessons to be learnt from the Peruvian case on issues such as enablement, flexibility and the generation of self-esteem. It is also significant that later, stronger governments in Peru, notably that of Fujimori took many of the positive lessons that emerged from the preceding autonomous phase and incorporated it into the development of new planned settlements such as Pachacutec (see Annexure 6 for a description of the Pachacutec case). During fieldwork in Lima it also became obvious that the incremental typologies of the *puebles jovenos* and the spaces

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[8] As initiators an custodians of the neo-liberal New Economic Plan for African Development (NEPAD).

themselves become beacons of hope. It was inspiring to see how the minimal grid-plan was a large contributing factor in the successful development of autonomous, peripheral-urban settlements. The grid defined highly efficient geographies of participation and self-help.
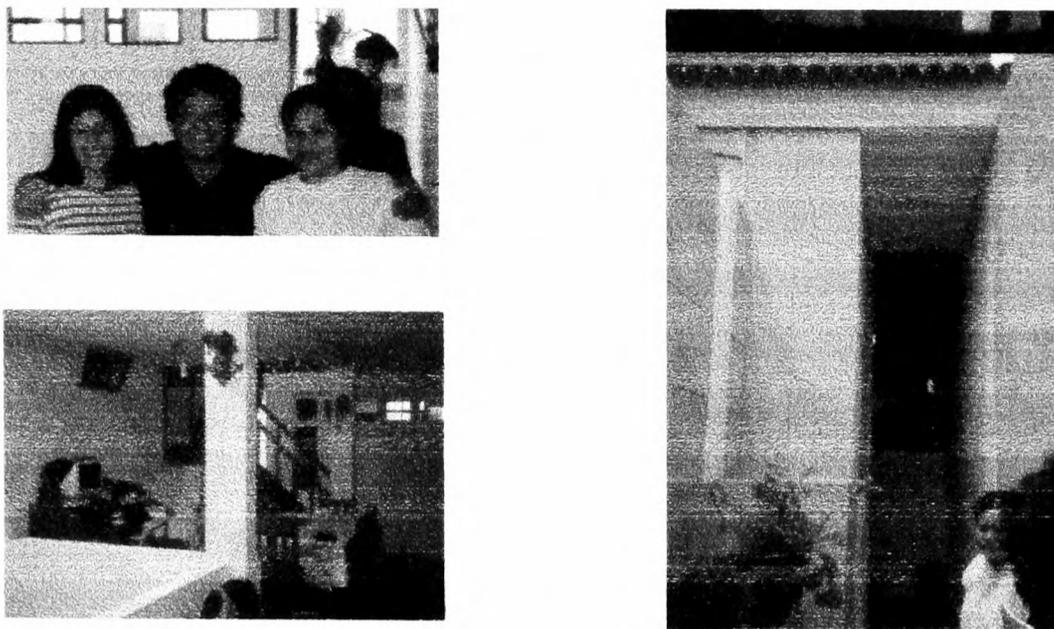
Figure 7.5. Achievement of self esteem and self actualisation. The Pulacke Tores family of Lima built their four-storey house with great detirmination over a period of twenty- five years. Señor Torres did most of the work himself and with the occasional help of family and friends (pictures by author).

One of the greatest benefits of autonomy in residential development amongst poor communities is the sense of achievement and pride that different stages of development towards mature autonomous settlements represent. This in turn provides social capital and much needed socio-political stability (pers com Lopez, 2001). The beacons of hope do not apply only to new migrants but to those who have reached different benchmarks in their march towards self-esteem and self-actualisation. Right across Lima's peripheral-urban landscape *pueblos jovenos* can be seen in different stages of development. It is a city that is patiently 'in the process of becoming'. Figure 7.6. shows hand-drawn images by architect Juan Tokeshi of the Villa El Salvador NGO, DESCO. They indicate the typical stages of material advancement in a *pueblos jovenos*. All settlements start out as a collection of shacks and evolve into proud permanent structures with a high level of structural integrity.

NOW | SOON | LATER

Source: Desco, 2001
Drawings by Juan Tokeshi

RESIDENTIAL

Sea of shacks at Pachacutec 2001

Intermediary phase of house building at Villa El Salvador

Completed house at Villa El Salvador

TRADE

beginnings of a high street

consolidation of a pavement shop in a side street of Villa El Salvador

consolidation along an integrated route

consolidated high street shops in Villa El Salvador

YEAR 1

- Physical needs dominate
- Shack constructed of palm leaf mats

YEAR 2

- Need for safety and security dominates
- Installation of basic services
- Light weight timber

YEAR 3-20

- Need for self esteem dominates
- Consolidation + first permanent structure
- Adequate construction to accommodate later construction of stories above.

- **YEAR 6-30**

- Need for self esteem and self actualisation dominates.
- Vertical extension of unit
- Skills and knowledge of construction vested in community

PROFILE

Homogenous in terms of livelihood and basic needs requirements. Equal participants.

PROFILE: Gradual differentiation of profiles. Different ideas and dreams.

PROFILE

Figure 7.6. Spaces of hope: incremental development in Lima's autonomous settlements

7.3.3. TENTATIVE RECOGNITION OF EMBEDDED AUTONOMY IN MARGINAL GEOGRAPHIES OF THE SOUTH AFRICAN CITY

Although clear policy directions have been set, some South African policy instruments remain flexible. Signs of tentative recognition of a limited number of autonomous settlements may dispel some of the doubts about the government's sincerity when it publicly encourages volunteerism. It is evident that sectoral policy, particularly in housing and individual land tenure – has shown adjustments in its mechanisms of implementation in the past five years (Moss, 2001:1). The immediate post-apartheid years saw an emphasis on state initiated delivery as part of the ANC's electoral promise. The sustainability of the mass housing delivery process and the environmental quality of housing settlements are however increasingly being questioned (Schaug 2003; White, pers com 2002).

Statistics indicate the extent of the livelihoods crisis and the futility of excessive control. According to data from the national census[9], South Africa had a total population of 40.6 million in 1996. Of this total, only 9.1 million (27.5%) was formally employed. With a massive 4.6 million or 33.8% of the employable section of the population unemployed, there is an urgent need for communities to become directly involved in the provision of their own homes rather than to remain passive recipients of capital subsidies. The state has therefore gradually come to recognise the need to utilise the manpower of the vast unemployed section of the community and to make subsidisation conditional. The following statement[10] by Sankie Mthambi-Mahanyele, the minister of housing illustrates the new policy direction:

> *'Savings and sweat equity contributions by prospective homeowners, which have not been encouraged enough, are now the central thrust of our subsidisation programme'.*

There is also caution from the left. Some have warned that the approach may be compromised by the Aids pandemic and under conditions of extreme poverty, people need to first satisfy their physiological needs, which is the first rung of Maslow's (1962) basic needs hierarchy.

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[9] Data supplied by Statistics SA

[10] Extract from a May 15, 2002 speech published on Dispatch Online: www.dispatch.co.za

> *In many of the poor communities the people simply do not have the energy to do physical work because their diet is so deficient in proteins and vitamins. You cannot expect someone who takes in barely enough kilojoules to get through the day, then spend eight hours doing hard physical labour on a building site. So before you can get a community to start building houses for themselves, you have to ensure that people receive nutrition and are healthy (Housing in Southern Africa: November 1999:19).*

Apart from a growing emphasis on self-help, there is also recognition that participation and flexibility should be extended beyond the individual lot. The 1999 *Draft Green Paper on Development and Planning (DPC, 1999)* notes that it is necessary to initially delay the system of plot subdivision in poorer areas of the city in order to stimulate local co-operation. It suggests that subdivision should only occur on a substantial green field site or within a squatter upgrade project once the residents have been consulted and have participated in achieving an appropriate layout for- or rearrangement of the settlement. This is qualified by an insistence (as may be expected from a green paper prepared by planners) that the final layout remains the responsibility of facilitating *'professionals in the field of the built environment'* to who powers have been delegated to approve land use changes. The Green Paper also proposes that *'civic organisations should be able to apply for certification from local authorities on the basis of decision making expertise among members and, if certified, should be empowered to allow changes if there are no objections'*. This suggests a radical departure from the previous planning system that was greatly influenced by the British *Town Planning Scheme*. Figure 7.7. shows a pilot project designed by the Cape Town urban design practice Chittenden Nicks De Villiers. The idea of delayed subdivision was tested with great success and was influenced by similar projects in India
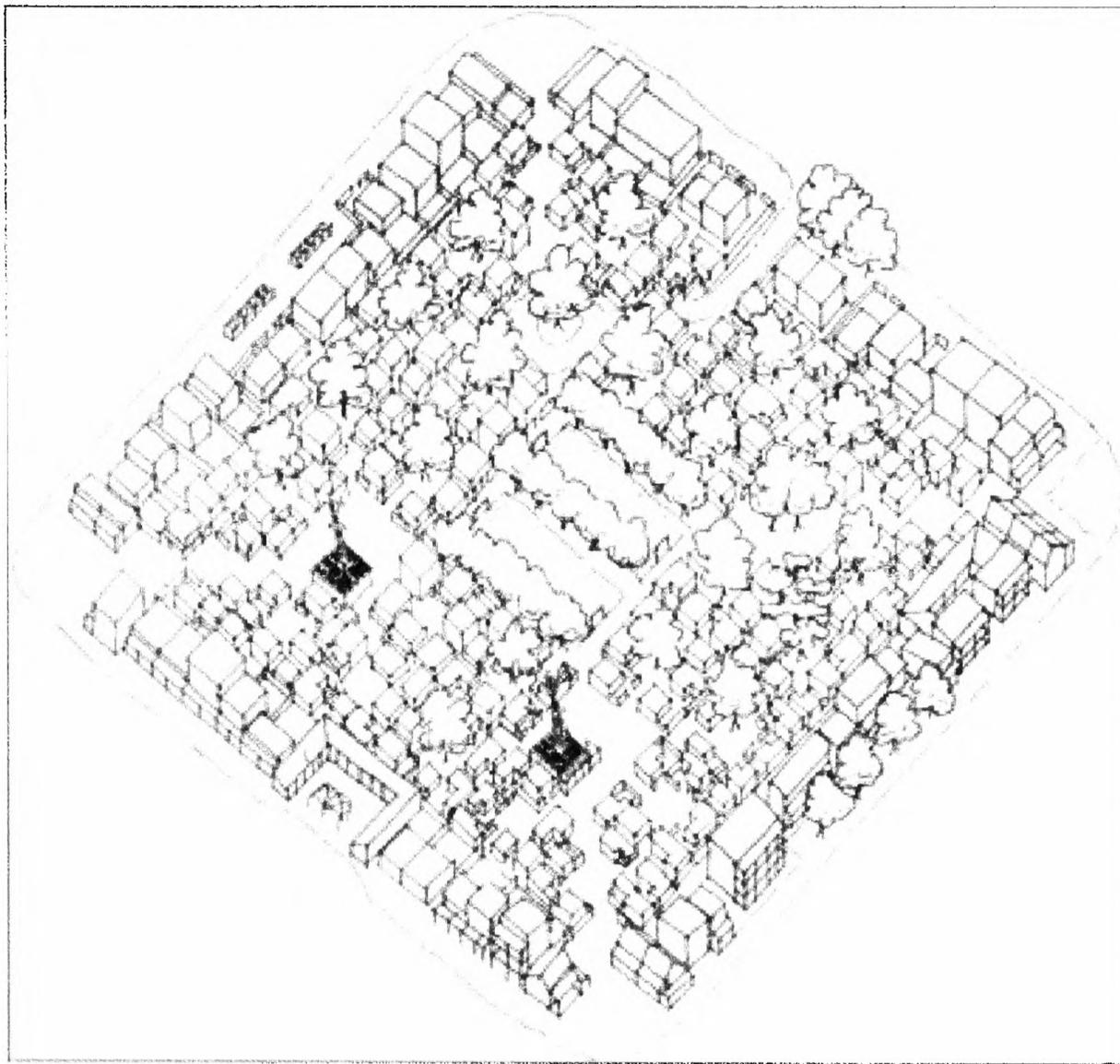
Figure 7.7.   Semi-autonomous Land Settlement Pilot Project

The proposals for a semi autonmous land settlement project whereby only bulk services are installed prior to residents occupying the site and then the project as a whole is upgraded over time as public and community finances permit is based on a courtyard rather than a street layout.   This layout approach has been inspired by the work of Charles Correa in India. It has been strongly supported by the women councillors who have recently taken over the housing and community development portfolios in Council and have always been concerned about child safety in inappropriately designed residential streets which favour motor vehicles over pedestrians (Nicks, 2003).

The arguments presented here indicate that, despite the many criticisms of excessive state control and of the state's role in directing a placatory and institutionalised participation process, there is growing convergence of opinion on the urgent need for communities to be engaged and to engage themselves in the provision of housing. Demonstration by communities that they have the capacity to organise, save and plan, have made some state departments and metropolitan governments responsive to the need for flexibility, participation and enablement. The problem now rather seems one of integrating the disparate views of different public agencies, each involved with the delivery of infrastructure at a different scale or level (NdoT,2001). The Peruvian case has indicated that successful precedent of people- driven processes is an important force in negotiating an alternative discourse.

The advent of metropolitan government in 2000 creates opportunities to consider inter-departmental integration at a more manageable scale, particularly since the post-apartheid state devolves both service delivery and democratic power to metropolitan government. This suggests that it is up to local government to decide what level of autonomy it is prepared to extend to homeless communities.

The paradigm shift opens up exciting new opportunities for experimentation and for recognising what Oldfield (in Parnell, et al 2002:92) calls *'embedded autonomy'.* Importantly, it creates opportunity for context-specific responses within a variety of spaces in South African cities. Metropolitan councils that remain locked into a conservative/technocratic mindset may benefit from the lessons learnt and the methodologies developed in more progressive cities as part of a national yet decentralised reflexive project.

7.4. THE GEOGRAPHY OF *ACTION SPACE*[11] IN THE POST APARTHEID CITY.

7.4.1. INTRODUCTION

Within the context of this research emerging windows of opportunity for a development practice approach needs to be related to the geography of corridors.

Hamdi & Goethert (1997) who promote a *community action planning*[12] approach to urban development that is suited to *cohesive, highly organised, lower income* and *non-cohesive, transitory communities* note that urbanites are not all equally keen to participate in every context within a city. Some sections of the urban population make ideal participatory partners while others may be extremely reluctant. Reconnaissance of an urban context may yield a varied geography of interest as illustrated below.

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[11] see Annexure 1: Glossary of terms
[12] see Annexure 1: Glossary of terms

The Inner ring has structured communities who make ideal participatory partners, but also contain transitory communities with little cohension and with the highest needs.

Transitory Communities

Ideal Participatory Partners

Reluctant Communities

SCHEMATIC URBAN PATTERN

The Outer ring has structured communities but who are more reluctant as participatory partners.
Squatter communities are also found, who vary from ideal to transitory.

Figure 7.8. Spatial relation of communities and participatory partners
(Hamdi & Goethert, 1997:111)

When Hamdi & Goethert's analysis is translated to the geography of a South African corridor it generates an approximated pattern as shown in figures 7.9.1 and 7.9.2. The pattern was constructed by synthesising primary data collected during interviews, field work observations and active research in the Winterveld and Acacia regions of the City of Tshwane (see Annexure 7 South African Fieldwork Report). In figure 7.9.2. and in the remainder of the text, the notional zone of market interest is referred to as *market space* while *action space*[13] refers to the zone where greater levels of autonomy and grassroots control become possible. The analysis indicates how, under neo-liberal conditions, *market interest* and *grassroots interests* represent new segregated enclaves of development in post- apartheid corridor space.

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[13] also see Annexure 1 Glossary of terms for a more detrailed definition of *action space* and *market space.*

PRE 1994

APARTHEID STATE

POST 1994
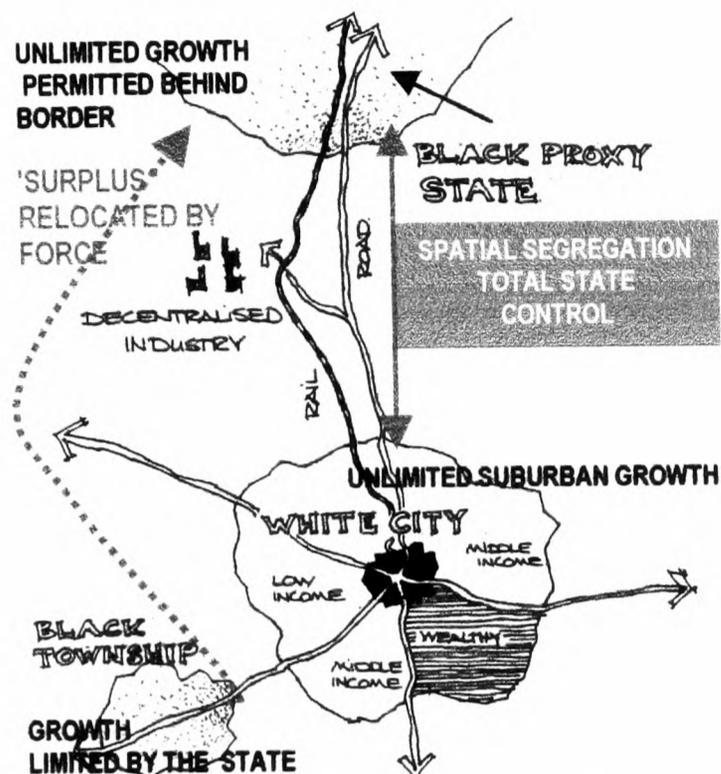
NEO-LIBERAL STATE

Figure 7.9.1. Total exclusion based on race as enforced by the apartheid state.

Note: The threshold of market interest indicated in figure 7.9.2. and in a range of illustrations presented in this CHAPTER is notional.
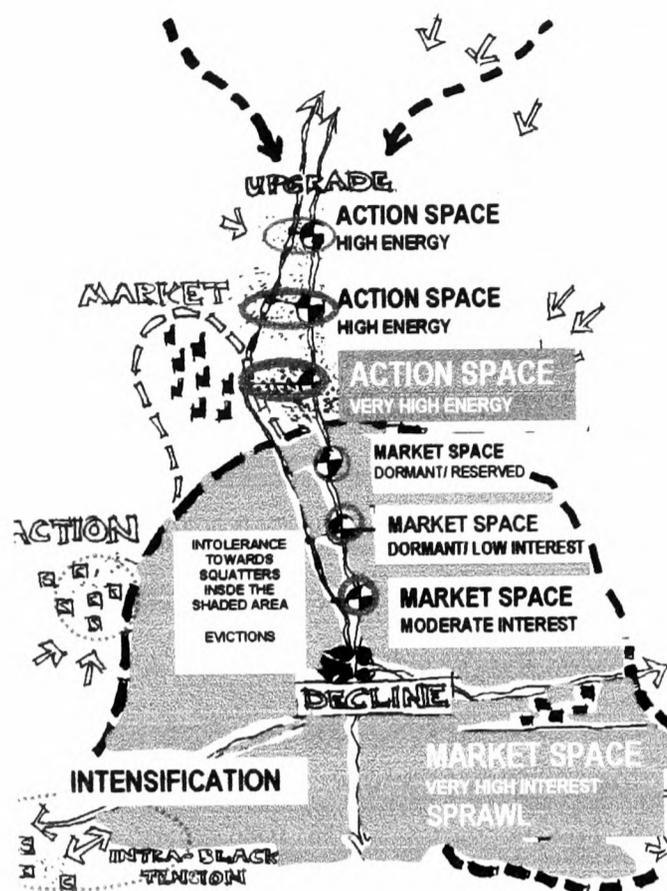
Figure 7.9.2. : A compromise position informed by the neo-liberal state. The market limits opportunity for access to affordable land and action within the zone dominated by private land speculation (shaded area) According to the Land Tenure Act(1997) squatting is normally only tolerated on publicly owned land which lies beyond the zone of market interest. The greatest scope for action in the corridor zone therefore exists at an intermediate distance from the core. The emerging pattern of successful land invasions suggests that most energy of autonomous communities will be focused immediately beyond the zone of market interest indicated as 'very high energy' on the map.

Hamdi & Goethert (1997) argue that the recognition of embedded autonomy and the devolution of power by the state do not necessarily generate *action space* because there are contextual variables. Development practitioners need to become aware of the opportunities and constraints that exist in each urban context. Analyses of development trends in developing world cities in general and in South Africa in particular indicate that neo-liberalism generates a decentralised investment pattern, which not only leads to segregated

pockets of privately initiated developments of the type described by Watson & Turok (2001) and Castells (1996), but to the reservation of accessible greenfields sites. This dynamic clearly limits the geography of *action space* in South Africa and replaces politically induced racial segregation with market-driven socio-economic segregation .

The tentative recognition of autonomy suggests that the ANC government aims to negotiate an alternative discourse which responds to immediate needs but without encouraging a dramatic escalation of land invasions. There is no indication that radical land reform programmes of the type pursued by Velasco in Peru is envisaged by the ANC government, despite growing calls for such reforms by opposition parties[14] (Barberton et al 1998, Marais, 2001).

For any development practice approach to be effective it needs to seriously consider local land market dynamics.

> *Practitioners have displayed an unhealthy disregard for urban land markets. Without up to date and reasonably accurate knowledge of what is happening (in local land markets) it is impossible to plan for and promote urban development (Devas & Rakodi, 1993:126).*

South Africa's free market economy dictates that most of the land invasions which have been tolerated by metropolitan government remain in marginal locations, typically at the extreme fringes of the city and adjacent to highways that lead into the city. *The Land Tenure Act* (Act no 62 of 1997) extends a limited number of rights to people that invade on open land. The *Act* requires that each case be dealt with on its own merits by the courts and that legal eviction notices be served only after due consideration by the courts. The *Act* however only applies to peripheral urban locations (called peri-urban locations) where *market space* begins to give way to *action space* (Ngoveni & Minnaar, 2000:2).

Urban design, which is primarily concerned with the mediation of built form, cannot afford to ignore the politics and economics of housing and the management of technology and resources (including the proper distribution of land materials and money). It is particularly knowledge of the unequal access to land that forms a crucial part of the context for urban design in peripheral corridor space. The tentative recognition of autonomy at the margins of the urban system suggests that a development practice approach may be relevant within

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[14] The most prominent of which are the South African Communist Party, the Pan Africanist Congress and the Congress of South African Trade Unions.

a strategic urban management framework. It does not mean that a strategic approach must be subverted, but that metropolitan-wide strategic frameworks need to recognise the need for a more flexible and less product-driven approach in peripheral locations.

The dynamics associated with access to land discussed above represents the first variable that determines the likely geography of a *development practice* approach to urban design in corridor space. The identity and attitudes of local urban communities represents the second variable. In CHAPTER 4, which considered the role of *the traditional* and *the modern* in South African cities it was noted that efforts by policy makers to throw a homogenous net over South African township communities is inappropriate and that planners should take note of the transience and social fragmentation that exists within these communities.

Crankshaw (1996) demonstrates the level of heterogeneity amongst South Africa's urban black communities while Schaug (2003) presents a similar and grounded account of his work as an urban designer in squatter settlement of Hout Bay outside Cape Town. The outcome of Crankshaw's sociological analysis is summarised in Table 7.2.

TABLE 7.2. AN ACCOUNT OF HETEROGENEITY AMONGST SOUTH AFRICA'S BLACK URBANITES BASED ON THE WORK OF CRANKSHAW (1996).

PROFILE	QUANTITATIVE DATA			POLITICAL AND SOCIAL DYNAMICS		
TOWNSHIP TYPOLOGY AND POWER BLOCK	DATE OF OCCUPATION	POPULATION	AGE & STATUS	POLITICAL AFFILIATION	ATTITUDE TOWARDS OTHER POWER BLOCKS	LEVEL OF INTEREST IN PARTICIPATION RELATED TO DEVELOPMENT
Council houses Freehold titles granted 1985	1945-1960	1400 houses 7200 residents	First generation/older generation. Unskilled.Low wages.Income often from backyard tenants alone.	AZAPO[15]	Pride Strong western orientation. Antagonistic towards squatters.	Varies. Vested interest, security of tenure. Often fearful that housing development will lure away their backyard tenants.
Hostels	1960's	450 beds	First stop for new migrants. No local authority control since 1989. Majority unemployed.	ANC or not affiliated	Temporary Little power Rural customs	No interest. Temporary and often illegal immigrants who fear deportation.
Backyard shacks (in backyards of council houses, average 4 per stand)	1975 onwards	6000 shacks 14 000 people	Children of first generation house owners(36%) or recent migrants (64%). Low income	AZAPO or not affiliated	Mixture between western and rural cultures . Under control of landlords, no tenure/rights.	Varies Illegal immigrants :not interested Children of first generation home owners interested.
Peripheral squatter settlements Spooktown, Silver City , Mandela Park, X – city	1988 onwards	5000 shacks 19 270 people	Recent in-migrants	Sectorised Between ANC(Xhosa) AZAPO (SeTswana) and IFP[16]	Territoriality. Frequent attacks on other squatter sectors. Inter-factional violence.	Varies Recent rural migrants not interested: Main aim to save money to send back to rural families.
Private sector houses	1985 onwards	200 houses 800 people	Second generation, often children of first generation occupants of council houses. Skilled/employed. Middle class.	AZAPO	Urban born Strong western orientations Highly antagonistic towards squatters.	Low Individualistic. Similar to white middle class.

[15] AZAPO is an acronym for Azanian People's Organisation
[16] IFP is an acronym for Inkatha Freedom Party .

Table 7.2. indicates the risk of simplifying matters. There is a tendency amongst politicians and urban managers to continue to view South African urban society as either privileged or marginalised. The material divide between white and black remains pronounced, but what is often discounted is the growing intra-black material divides. Crankshaw and Schaug's grounded accounts and fieldwork in the Winterveld and Soshanguve (see Annexure 7) indicate the extent of intermediary power struggles within black communities. What is significant to note is that each of the power blocks may be associated with a local urban typology. This becomes a powerful tool for documenting the geography of interest in participatory development (see figure 7.17. presented later in this CHAPTER).

7.4.2. THE GEOGRAPHY OF ACCESSIBLE URBAN LAND IN CORRIDOR SPACE

This section presents a more detailed analysis of *access to urban* land, the *first variable* that informs the geography of a development practice approach in corridor space. The influence of the variable is then demonstrated by relating it to the MCDC corridor in Tshwane (Pretoria).

Hamdi (1991:38) identifies two distinct ways in which scholars with a physical design background have responded to the unequal geographies of opportunity in the city. First there are anarchist-activists like John Turner (1972, 1977) and Colin Ward (1987, 1982) who have consistently challenged institutional arrangements and the political context in which urban development and particularly housing delivery is set. Second there are visionary pragmatists like Habraken (1972), Barnett (1982) and Dewar & Uytenbogaardt (1991) who'se primary concern is with the sustainable supports generated by thoughtfully considered built form.

In *Action Planning* Hamdi & Goethert (1997:51) note that the approaches need not be opposing or exclusive but that it is in fact crucial to any developmental approach that they be combined. This is particularly true in contexts characterised by dramatic change of the type experienced in South Africa. The key to developing appropriate, context-specific approaches is active engagement, since much of the knowledge which is necessary for this is embedded in local contexts. Action and engagement can ultimately inform strategy by generating much-needed, context specific precedent. Hamdi & Goethert (1997:51) note that, while engaging actively in the city building process at an appropriate level,

development practitioners *'will gain insight into the organisational capacity of communities, the responsiveness of planners and government authorities, the appropriateness of standards and city-level planning procedures, the potential of partnership, and the resistance of those in charge to change or adapt'.*

The *development practice* approach therefore seems particularly appropriate to the South African context where experimentation and engagement of both professionals and the homeless is urgently needed, and particularly in geographies defined as *action space*. CHAPTER 4 has indicated that engagement is necessary in a context where people are potentially confused about their own identities while interviews with urban designers have indicated the level of ignorance regarding a development practice approach. Examples of the effective use of the approach is therefore urgently needed.

It has been noted that, despite a call for volunteerism, the South African government does not have the political will or financial capital to acquire well-located urban land for semi-autonomous development projects. Profit-driven land speculators will continue to utilise opportunities to tighten their grip on urban land markets (Parnell, et al 2002; Barberton et al 1997). Tentative recognition of autonomy is limited to pockets of state owned land, and then only in the most remote locations. It is unlikely that Turner's (1976:41) appeal that *'only if there are centrally guaranteed limits to private action can equitable access to resources be maintained and exploitation be avoided'* will succeed in any significant way. A development practice approach that is concerned with immediate action needs to take a pragmatic view of this.

The race-based inequalities of apartheid South Africa have been replaced by the inequalities associated with neo-liberal urban management systems. Rakodi (1993:118) notes that:

> *state-interventionist aims of appropriating urban land for disadvantaged groups, trading land for development rights or freezing land prices have fared poorly when put into 'the real market' of developing countries today. Few of them have been given more than superficial support and there is little reason to believe that future prospects are substantially different.*

This suggests that *action space* is not an unrealistic proposition but that it is likely that its geographies will be at the margins of the city. The finger-like extensions of corridor- space

as proposed in many post apartheid urban integration frameworks aim to link such marginal spaces with the real zones of opportunity in the city but without adequately considering the uneven geographies generated by real land-market dynamics. The often over-politicised corridor idea is seldom measured against the powerful forces of the local land market.

Through their struggle for improved livelihoods poor urban communities have developed a very good understanding of local land market dynamics. The geographic location of illegal- but well planned land invasions such as *Pamplona/Villa El Salvador* in Peru and *Kenana* and *Agrinette Hills* in South Africa suggest that invasions follow a logic that generates a minimum market (and thus central political) resistance and by which their geographies tend to be in marginal locations along primary access routes into the city. Mashabela's (1990) study *Mekhukhu: Urban African Cities of the future* indicates the geography of informal settlements thirteen years ago, when apartheid was still in place but fast losing its grip. Mashabela's regional map (figure 7.11) indicates the location of informal settlements far from the centre yet directly adjacent to major roads leading into the city. All these settlements are located on public land and have since mushroomed into much larger informal and essentially autonomous settlements.
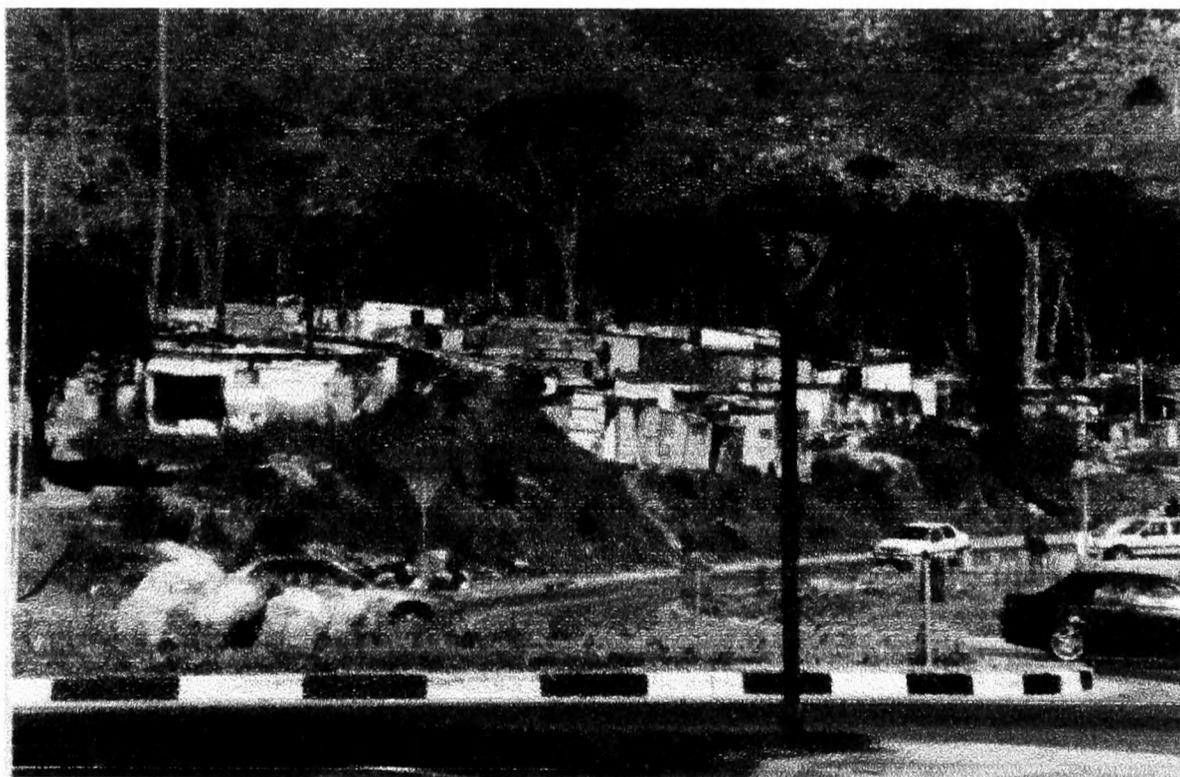

Figure7.10: Typical informal road-side settlement. The mushrooming Imizamo Yethu informal settlement along the M63 arterial road outside Cape Town (picture by Erik Schaug, 2003)
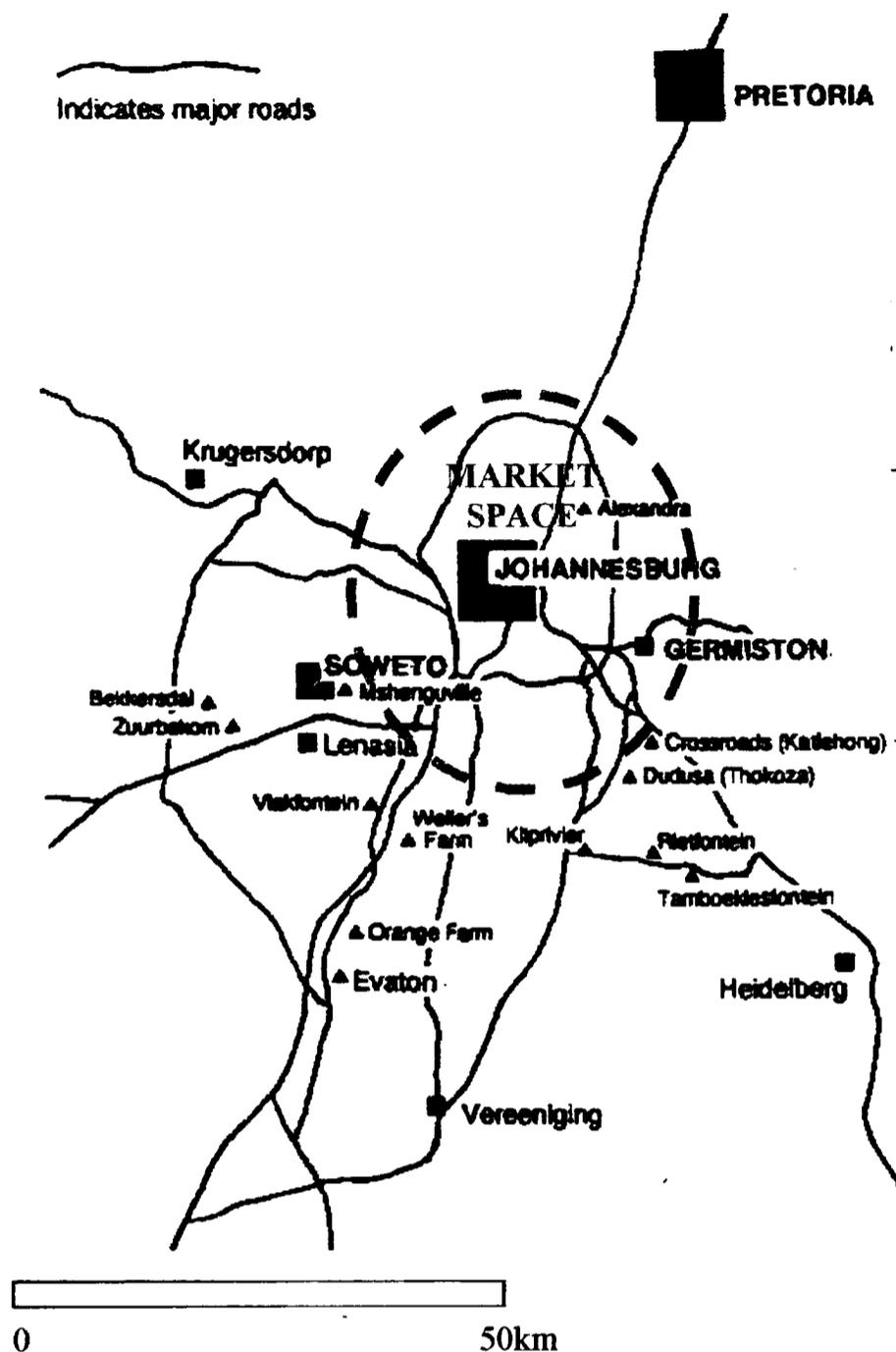
Figure 7.11: Map of informal settlements outside Johannesburg in 1990 (marked ▲). The map shows the typical location of settlements adjacent to major roads. All the settlements that have survived are located on state land at least 20 kilometres from the centre of Johannesburg (i.e. outside market space). Extra urban corridors of autonomous settlements are clearly emerging (adapted from Mashabela, 1990:vi)

Organisers of land invasions are well-informed and are clearly mindful of the fact that courts will refrain from issuing eviction orders only in peripheral locations where squatters receive a level of protection from *Land Tenure Act of 1997*. Even when they are not aware of the provisions of the *Act*, they will refrain from invading well-located areas because they know that the chances of eviction are good (pers com Putu, 2002). Another tactic that is commonly employed is to stage small-scale, pilot invasions on vacant land to test the response/tolerance of the authorities. From the pattern of successful invasions alone development practitioners can guage the extent to which autonomy is pushing aside conventional planning practices. There is also clearly a line of optimal feasibility (see

figure 7.12.) for informal settlements that have been recognised by the grassroots. This optimal position is finely balanced between the geography of tolerance extended to the grassroots and the urban space claimed by the market (reserved/expensive land). It is the point where an informal yet urban livelihood becomes feasible.
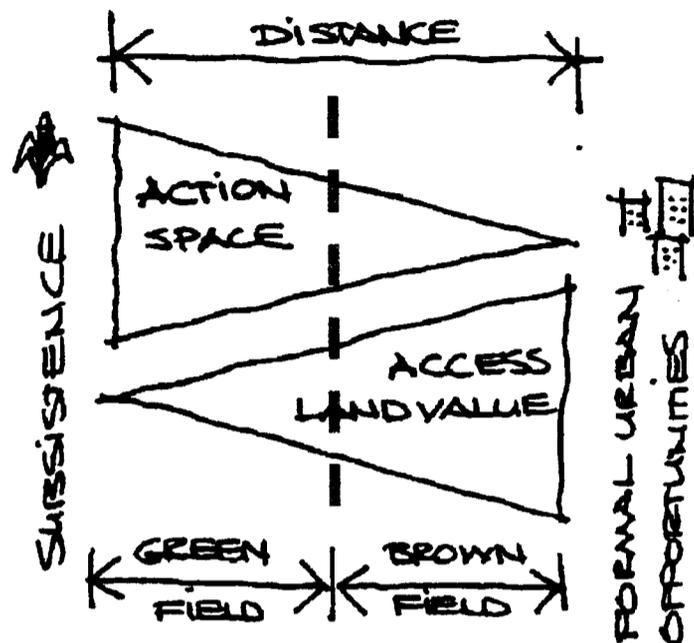

Figure 7.12. Optimal geographic position for a rural migrant seeking to maximise individual choice and access to urban opportunities

Much of the blight of the apartheid city relates to the piecemeal development of urban land (Dewar, 1995). An emergent pattern of scattered, semi-legal settlements perpetuates the problem. It is also necessary to prevent the spill-over of settlement from the lower circuit to the higher circuit and the eventual clogging up of access routes as discussed in CHAPTER 3 (see also figure 7.13.and 7.34.). Rather than ignoring the evolving pattern it needs to be recognised by introducing a publicly funded minimal grid (see CHAPTER 6). However illegitimate it may seem within a neo-liberal urban management framework, some form of spatial strategy is required in *action space*. The strategy simply recognises the fact that marginal corridor space is developing spontaneously and that it will benefit enormously from considered design input.

Figure 7.13. Spill over of informal activities and fusion of the higher order- and lower order circuits along Lima's Pan American Highway.

This picture was taken along the northern stretch of the highway in the vicinity of Pachacutec where new pueblos jovenos were recently established.

CHAPTER 6 has indicated that minimal grids could become enabling urban design interventions that create crucial supports for semi-formal developments. For the proposed minimal supports to become feasible it is particularly important that state land be identified and consolidated along access routes where an irreversible pattern of semi-legal[17] land invasions is evident. This is most crucial at the shifting interface between *market space* and *action space*, i.e. the current optimal position for an informal settlement The point is indicated as *'action space: very high energy'* in Figure 7.9.2.

An analysis of land ownership and land values may be taken to another level of analysis by exploring it at a local scale and particularly around each inter-modal interchange[18]. It is particularly the simplified *'beads on a string'* corridor concept that fails to recognise the variables that exist around each node. In industrialised countries like Sweden and Australia nodes have been developed in a way that closely match a pre-determined vision. In developing countries the dualism associated with *market space* and *action space* creates hierarchies that needs to be related to each node or proposed interchange (see discussion on a considered hierarchy of corridor plans in CHAPTER 6). Figure 7.14. shows how land values have been researched and mapped for the purposes of developing different nodes and transverse connections in Ismailia, Egypt (Davidson and Payne 1983). The analysis provides data in an easily accessible form. The statistical map makes it possible for the urban designer and others involved in a participatory urban development process to make informed decisions about the geography of *action space*.

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[17] Semi legal refers to informal settlements that are eventually tolerated by metropolitan governments, despite initial threats of eviction.
[18] In South Africa this is typically a train-taxi or bus-taxi interchange
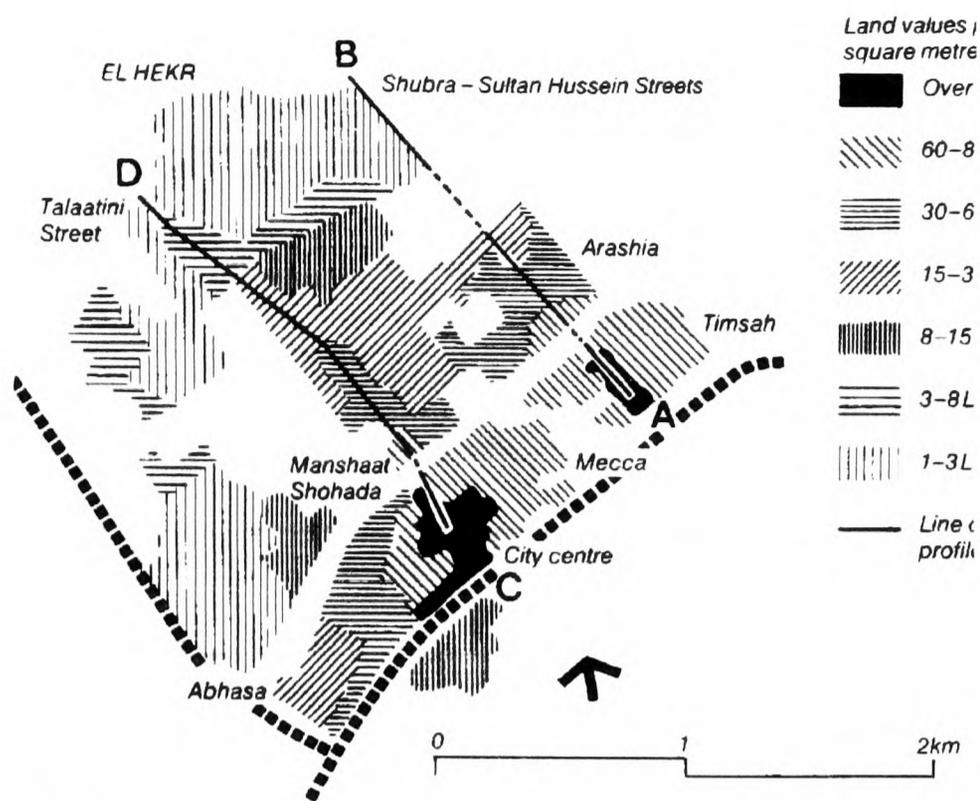
Figure 80 (*above*)
Land value areas: Ismailia 1977

Figure 81 (*below*)
*Land value profile examples: Isn*
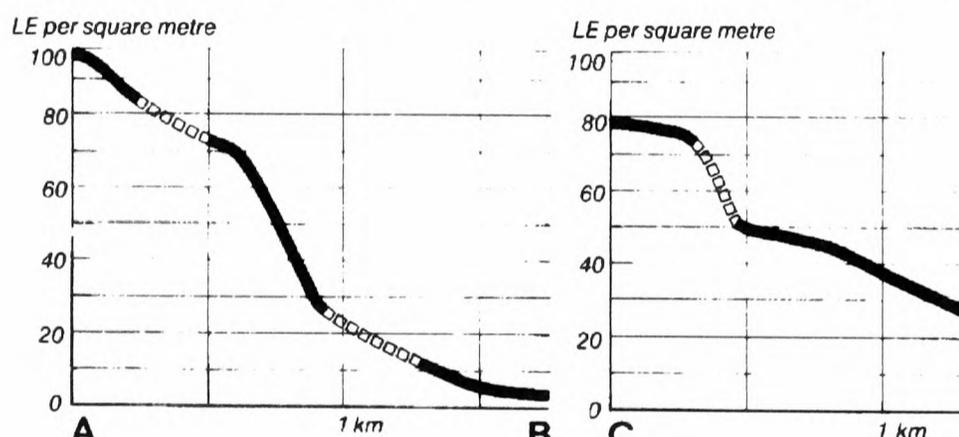
Figure 7.14. Map and graphs of land values of sites within two development axis in Ismailia, Egypt (Davidson & Payne, 1983:119)

By accepting the challenge of defining the geography of *action space* urban design may increase its capacity to become an empowering discipline. Currently research into land values and ownership is mostly left to the public sector or large private developers, with most urban designers waiting passively for commissions. Barbara Southworth, principal urban designer of the City of Cape Town (pers com 2002) notes that, within the new urban management framework, individuals and non-governmental organisations are encouraged to initiate urban development within the more flexible frameworks. This suggests that active investigation of land markets becomes an important extension of a development planning approach to urban design.

7.4.3. THE GEOGRAPHY OF BASIC NEEDS IN CORRIDOR SPACE

CHAPTER 4 presents an analysis of the socio-economic and socio-political context of post apartheid corridor development. The analysis indicates the level of heterogeneity and transience that typically exists in South African corridor contexts. It also indicates that the pattern differs significantly from one corridor context to the next. The Mabopane-Centurion Development Corridor (MCDC) that stretches northwards from Pretoria represents the most ambitious of all post apartheid integration corridors. It aims to integrate a fragmented and divergent range of socio-economic contexts over a considerable distance and in a context that continues to receives a great number of poor and land-less migrants (figure 7.16.). This case study is used to illustrate the relevance of *identity* and *basic needs* to a development practice approach in South African corridor development.

The psychologist Abraham Maslow (1987:28) distinguishes between *conscious* and *unconscious* needs. He states that *'on the whole, in the 'average person', they are more often unconscious than conscious'*. He provides evidence of the crucial importance of *unconscious* motivation, which is not important to overhaul at this stage. Maslow insists that the differences between communities in any two contexts are mostly exaggerated and that *basic needs* are more common among humanity than are superficial desires and behaviours associated with cultural specificity. What is clearly different is the level of achievement of basic needs amongst different sections of the urban community and between different geographies within the city. He acknowledges that in any particular culture an individual's *conscious* motivational content will be significantly different from the *conscious* motivational content of an individual in another society. However, it is the common experience of anthropologists that people, even in different societies, are much more alike than we would think from our first contact with them. What this suggests is that in most societies, the prioritisation of basic needs is the same.

Figure 7.15. Maslow's (1962) Basic Needs Hierarchy

Maslow's triangle of basic needs (figure 7.15.) indicates a progression from higher order to lower order needs that exist in each individual. When a higher order need is satisfied, the next tier on the basic needs triangle becomes a priority. Once [physiological] needs have been met, needs for [safety and security] becomes the next hierarchical priority, then a need to [belong and love], then [self-esteem], and finally [self actualisation].

Fieldwork in the MCDC Corridor-region (Annexure 7) indicates that it is a context characterised by transience and by a range of *identities* that are caught in the to-and-fro between *the traditional* and *the modern*. The context provides a useful laboratory for indicating a geography of needs based on Maslow's hierarchy. Figure 7.16. represents an approximated geographical distribution of need.

PROPOSED ALLIGNMENT OF THE MCDC CORRIDOR

NOTE: REFER TO CHAPTER 4 FOR EXPLANATION OF THIS MAP

PHYSIOLOGICAL NEEDS DOMINATE

PROPOSED ALLIGNMENT OF THE MCDC CORRIDOR

SELF ACTUALISATION AND SELF ESTEEM DOMINATES
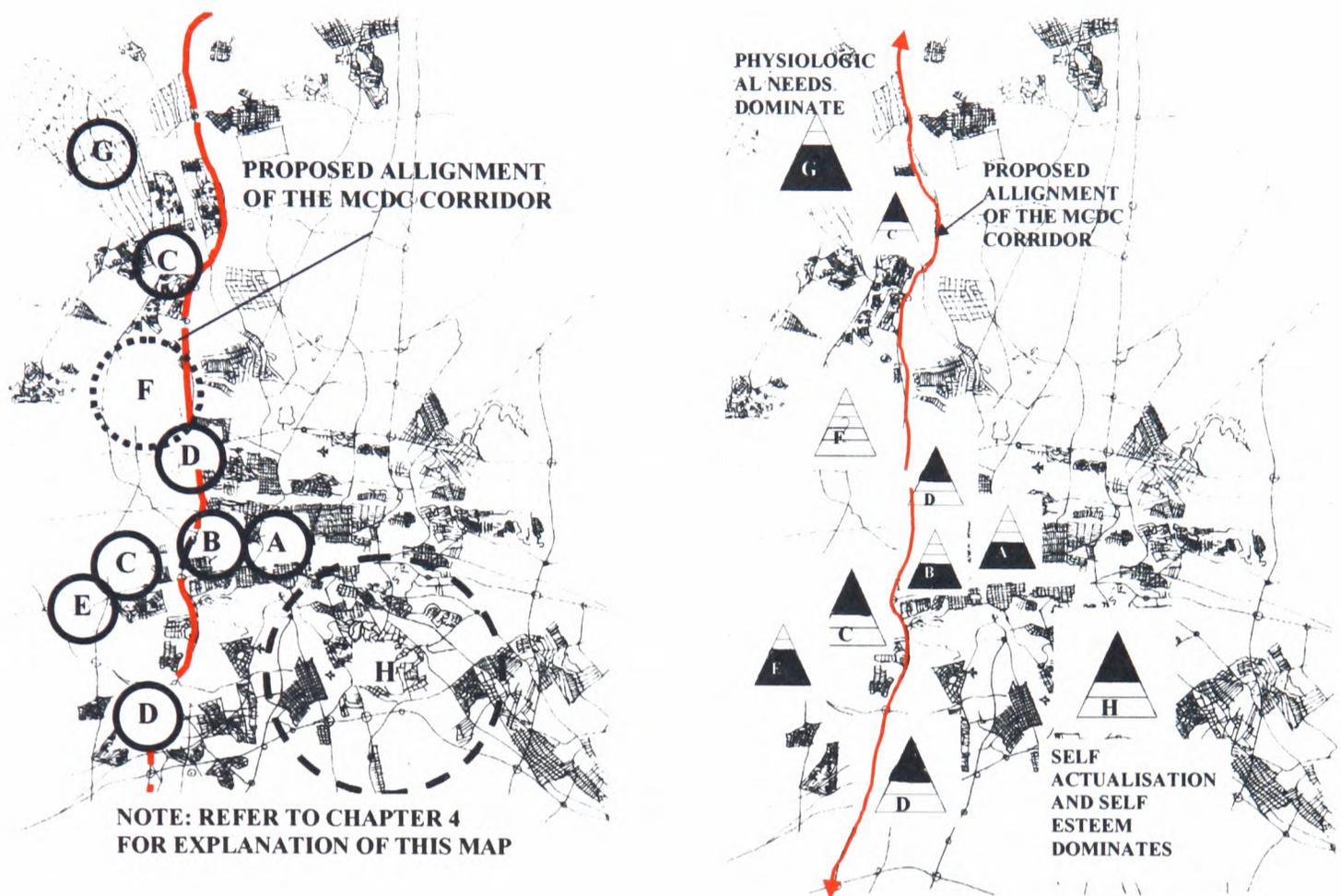
KEY TO SYMBOLS

MASLOW'S BASIC NEEDS HIERARCHY

SELF ACTUALISATION
SELF ESTEEEM
BELONGING & LOVE
SAFETY & SECURITY
PHYSIOLOGICAL NEEDS

A — Physiological needs, safety, security

B — Physiological needs, safety, security

C — Self actualisation Self esteem

D — Self actualisation Self esteem

F — Vacant land

G — Physiological needs, Safety, security Belonging

H — Self actualisation Self esteem

(A) Inner city. Large influx of informal traders. Area of commercial disinvestment.

(B): Slum on Western edge of inner city. Previously an area cleared of Indian and Black residents by the apartheid government.

(C): Apartheid style township with informal backyard shacks. Established communities.

(D): Lower to Lower-middle income suburbs. Black and white inhabitants. Typical suburban subdivision and monofunctional residential land use

(E): Sprawling informal (shack) settlements. Recent migrants including illegal aliens.

(F): Apartheid era buffer zone. Industry and white owned smallholdings. Land reserved for commercial investment/urban port.

(G): Agripolitan fringe. Evidence of subsistence culture.

(H): Middle- to high income suburban zone with recently constructed office developments and   American style shopping centres (whites & the new black elite).

Figure 7.16. Application of Maslow's basic needs hierarchy in the Mabopane Centurion development corridor

The use of Maslow's basic needs hierarchy in the MCDC Corridor indicates that *need* does not increase progressively from the centre to the periphery along a typical South African integration corridor. If devices such as a *capital web* and other *plan-driven* solutions are to become empowering at the margins of the urban system, the uneven geography of need in corridor space needs to be acknowledged. A development practice approach to urban design that encourages engagement will generate a greater sensitivity towards these variables.

7.4.4. USING TYPOLOGY TO DETERMINE THE GEOGRAPHY OF A DEVELOPMENT PRACTICE APPROACH TO URBAN DESIGN IN CORRIDORS

The relationship between sociological profiles and typology in South African cities indicated by Crankshaw (1996) (Table 7.2) has been recognised by Hamdi & Goethert (1997:55) who have used it as a basis for various international *action planning* exercises. The methodology is used as an assessment tool. It maps the spatial distribution of *basic needs* and predicts the likelihood of local communities becoming successful partners in a *development practice* approach. The illustrations on the following pages indicate how this methodology may be applied in the laboratory of the Mabopane Centurion Development Corridor.

FIGURE 7.17. DOMINANT TYPOLGIES IN THE TRANSIENT FRINGES OF THE SOUTH AFRICAN URBAN SYSTEM

TYPOLOGY A subsistence

Typology A is found in the Winterveld at the furthest point of the corridor. Subsistence culture with approximately one water stand pipe per 50 families. Note incremental, lateral extension of units. Units built of sun dried clay bricks with sheet metal roofs. Some units date from the 1930's and the residents maintain strong ties with the rural hinterland.

PARTICIPATION RATING : RELUCTANT PARTICIPANTS, UNCOMMITTED TO URBAN LIFESTYLES

TYPOLOGY B squatters

Typology B is more recent phenomenon and is found as a high density arrangement at the most accessible point i.e. along access routes leading into the city or as attachments to the typical apartheid township. Also in high risk areas such as flood planes close to urban opportunities. High prevalence of illegal immigrants. Temporary and built of corrugated sheet metal since occupants anticipate eviction or relocation.

PARTICIPATION RATING: TRANSITORY, THUS UNCOMMITTED

TYPOLOGY C township

Typology C is the typical apartheid township dating from the 1950's with a uniform grid of minimal standard '51/9' houses. The same pattern was repeated in all cities. Shack dwellers typically rent backyard shacks. Since the early 1980 when security of tenure was first transferred to blacks living in townships, the typology has become more diverse. Most townships are fully serviced.

PARTICIPATION RATING: GOOD , BUT POOR RELATIONSHIP WITH ADJACENT SQUATTERS

TYPOLOGY D vacant land

Typology D is typically found in the buffer zone of the apartheid city, i.e. the zone separating the 'white city' from the remote black areas. Post apartheid dynamic depends on market interest and ownership. If the land is owned by the state or the municipality, it often becomes the subject of planned land invasions or of an unfortunate type of monotonous, state initiated and private sector built low-cost housing (centre). Only occasionally are such sites the subject of a well considered urban design framework. The illustration on the right is an extract from the Kagiso Link Urban Design Framework (Comrie & White, 1998).

PARTICIPATION RATING : GOOD, IDEAL PARTICIPATORY PARTNERS

RURAL strong
traditional value
system

STRONG TIES

SUBSISTENCE

TYPOLOGY A
Strong sense of
community

TYPOLOGY C
aspire to
modern values

ACTION SPACE

ACTION DOMINATES

CORRIDOR SPACE

RURAL INTERFACE + TRADITIONAL VALUES

TYPOLOGY D
Bridgeheaders, ideal
participatory partners

**THRESHOLD WHERE LAND INVADERS
LOOSE PROTECTION FROM THE LAND
ACT (1997)**

VACANT,
well located
urban land
reserved by
and for the
market

TYPOLOGY B
Recent migrants, high risk of
being evicted and high tension
between residents of typology B
and typology C

MARKET SPACE

MARKET DOMINATES

TYPOLOGY C
second generation urbanites
high aspirations towards
modern values, weak rural
ties

SUBURBAN
TYPOLOGIES

**CORE OF COMMERCIAL INTEREST**

Shopping Centre Culture

*Figure 7.18. Typologies and associated value systems as found in
the Mabopane - Centurion Development Corridor*
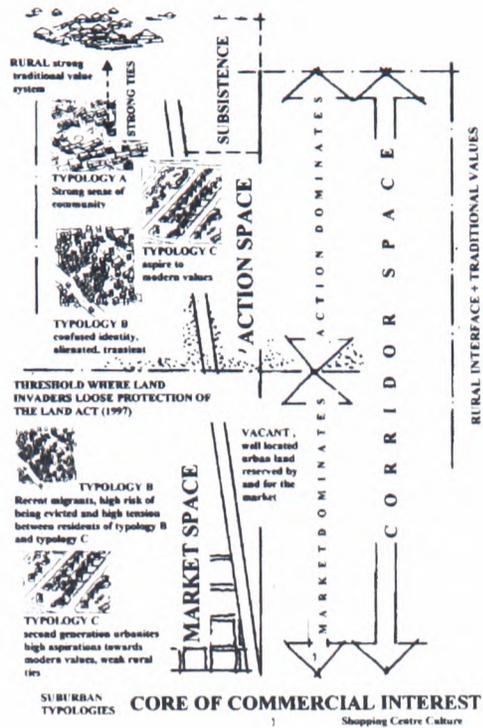
Figure 7.19.1. Theoretical analysis of the distribution of market- and action space in the post apartheid corridor zone (see previous page for a larger version)
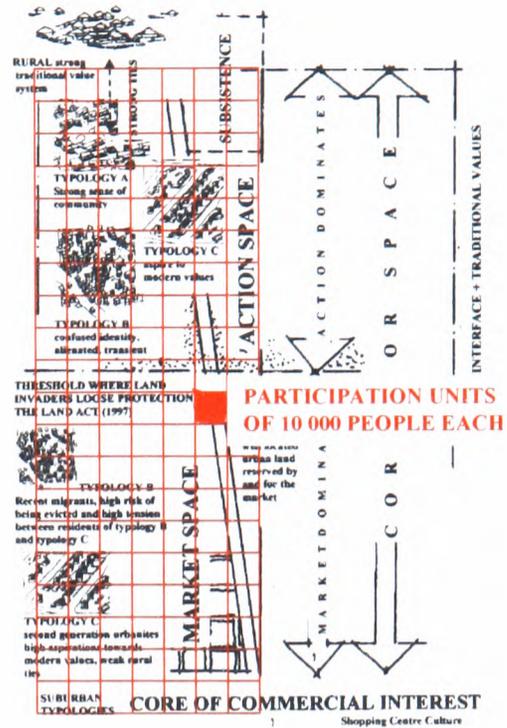
Figure 7.19.2. Placatory system of participation promoted by the National Department of Local Government. Arbitrary grid of participation units based on election wards of 10 000 people each.
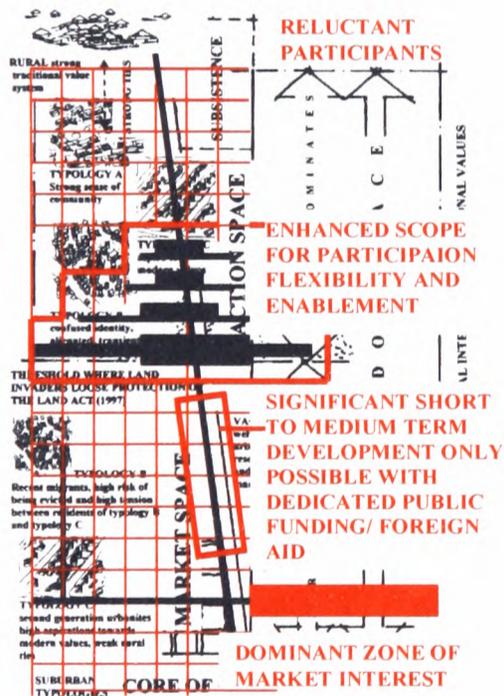
Figure 7.19.3. Immediate distribution of energy related to movement and access to land suggests functional units of participation which respond to local need and development patterns.
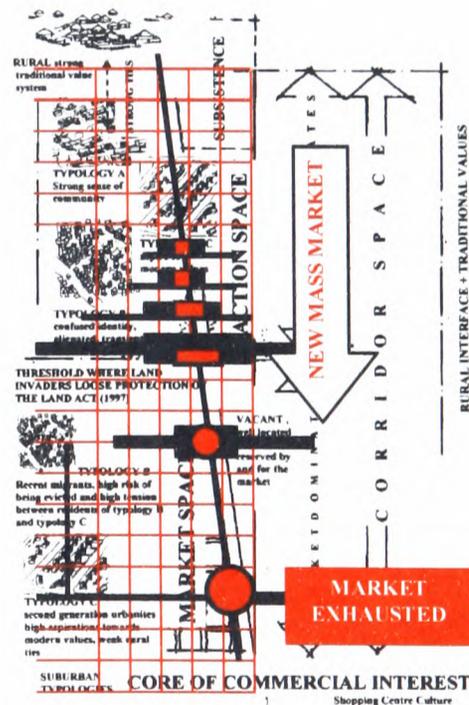
Figure 7.19.4. Future, emerging geographies of action and mediation in which commercial role players aim to exert influence.

Figure 7.19. a proposed geography of participation in corridor space

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The spatial analysis presented in the preceding diagrams provides an indication of the unequal distribution of good participatory partners. Apart from indicating appropriate contexts for a development practice approach, it indicates where the use of more conventional urban design approaches may be appropriate. Shifting settlement patterns and associated typologies create a range of spaces in which people may choose to participate at different levels if given a free choice. The analysis points to the dangers of applying generic, same size fits all solutions; both in terms of the use of physical corridor elements and of institutionalised participatory methodologies.

7.5. THE USE OF MINIMAL GRIDS IN A DEVELOPMENT PRACTICE APPROACH TO CORRIDOR DEVELOPMENT

The timing of the introduction of a planned grid needs to be carefully considered in relation to the ad hoc nature of squatter settlements. Since semi-legal land invasions are becoming increasingly prevalent along primary access routes, the issue is of great significance. In most contexts squatter settlements typically develop into a dense mass in which cramped spaces between shacks are both semi-private, utility spaces and controlled routes. Land invaders seldom settle with a vision of permanence; the aim is merely to acquire a foothold in the city (Crankshaw, 1996). Ultimately they do almost all become permanent settlers, not least because of a lack of viable alternatives (Mashabela, 1990). This makes upgrading extremely difficult and impossible to achieve without relocating households at great cost and/or without causing anguish amongst squatter communities.

Recent experience in South Africa has showed that organised land invaders are themselves aware of the need to introduce a minimal grid. Unlike previous generations of squatters, land is now often invaded with self-assurance and with a vision of permanence. In settlements like *Kenana* and *Agrinette Hills* the barefoot planners came armed with bags of chalk to mark out stands and ensure an orderly settlement pattern (Mitlin in Lyons, et al 2000).

Because invaded land is mostly unproclaimed and not integrated with a wider road system invasions typically occur along highways that lead into the city. From here taxis that run along the illegal highway route provide access to the city. It is a logical make-do scenario. If local government recognises the escalation of autonomous settlements and facilitates the introduction of an appropriate grid timeously, it not only facilitates improved physical

integration and access, but provides useful minimal units for participation and semi-autonomous settlement. Local government will be hesitant to mark out such a physical grid before squatting occurs, since this in itself presents squatters with an open invitation. The Villa El Salvador case has however indicated that such a grid can be introduced very rapidly, with the consent of squatters and not necessarily on the initial invasion site (Sotelo Romero, undated).

The Villa El Salvador grid (figure 7.22.) comprises blocks of 24 lots each, which form the minimal units of participation. The minimal participatory unit is not only concerned with the pooling of resources and with the incremental development of residential units within the blocks, but also with later conversion of parts of blocks to other uses that will eventually benefit the greater community. According to the architect Juan Tokeshi (pers com 2001) the later stages of redeveloping blocks, squares, boulevards and streets in a participatory manner is a stimulating process and one that local communities actively embrace. During the later consolidation phase urban design input is greatly valued by a settled community, much more so than during the incipient phases when basic needs issues such as access to jobs, food and need for basic shelter dominate.

Low density, low plot coverage single storey

Medium density, medium plot coverage single storey

Street line easy to upgrade

Street line difficult to upgrade

High density, high plot coverage 2-3 storey

0   100
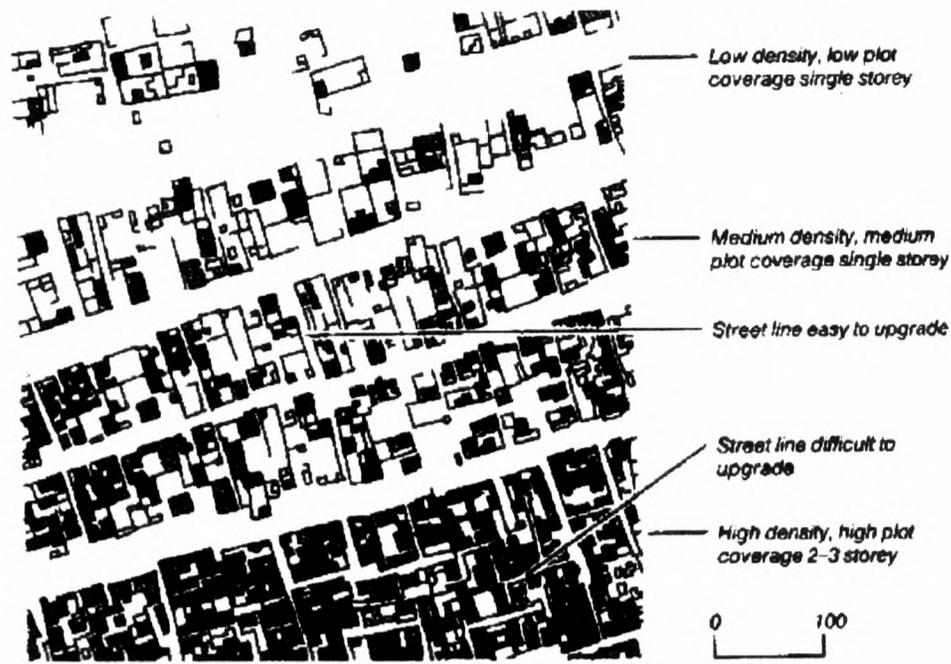
Figure 7.20: Analysis of layout and densities which indicates the potential for upgrading different sections of informal settlements. (Davidson, Payne, et al 1983: 76)

Initial development

Intermediate development

Consolidated development
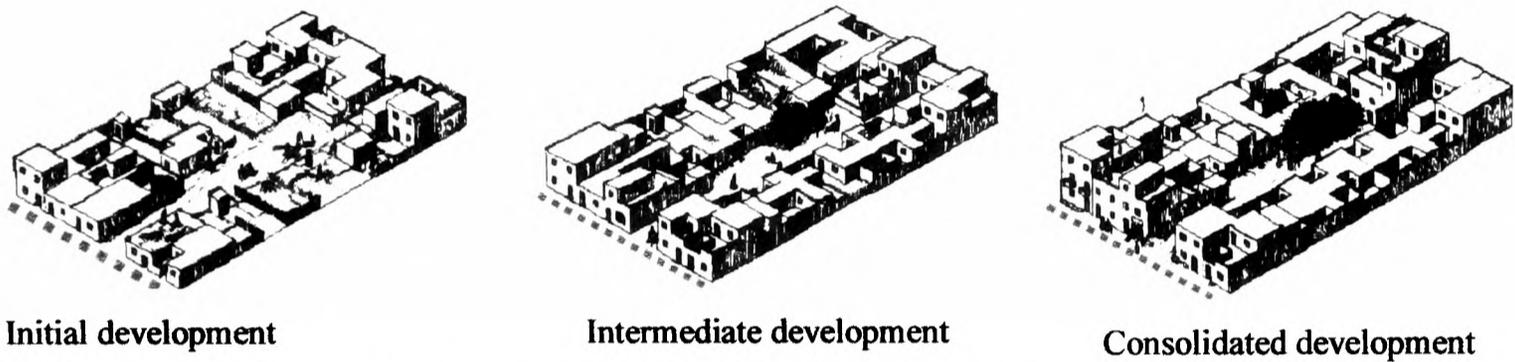
Figure 7.21.: The urban block as unit of participation and semi-autonomous development within a minimal grid that improves permeability and robustness. The images presented here are part of a proposal for the development of a low income settlement in Ismailia, Egypt (Davidson, Payne, et al (1983: 76). During the later stages the street interfaces are redeveloped and urban design may begin to influence the creation of positive urban spaces.

THE INTEGRATION BETWEEN THE COMMUNAL ORGANIZATION AND THE TERRITORY

1ª URBAN MODULE

2ª 16 IDENTITY SQUARES OF 24 LOTS EACH ONE

3ª ORGANIZATION OF CUAVES

GENERAL ASSEMBLY RES. TEAM

DIRECTIVE COMMAND

GENERAL SECRETARY

SECRETARY OF WATCHING

SQUARE COMMAND

HEALTH PRODUCTION EDUCATION SERVICES COMMERCE

THE RESIDENTIAL TEAM IS THE BASIC CELL OF THE ORGANIZATION

Figure 7.22. The minimal grid of Villa El Salvador generates participative community units each consisting of 24 households. 364 Households within the module have a say over the development of the central square where a community centre has often been developed alongside a mini soccer pitch.
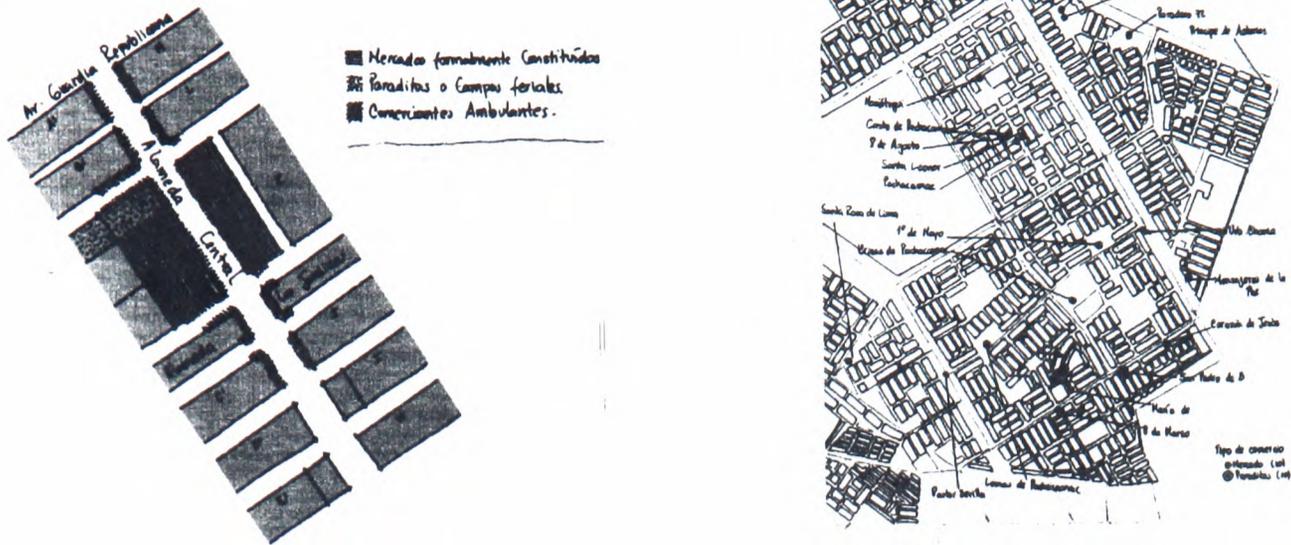
Figure 7.23. Proposals for urban design intervention in the later stages of the development of Pachacamac, the northern sector of Villa El Salvador (DESCO, 2001).

Figure 7.24. Architect Juan Tokeshi (right) of the Catholic NGO, DESCO at a sewerage water recycling plant and newly landscaped boulevard in Villa El Salvador (right). The boulevard was a dusty plain for almost three decades. This and a series of other boulevards were indicated on Sotelo Romero's original plan of 1971 and were consciously kept vacant for more than three decades. There is also an effort to improve streetscapes, introduce more civic buildings and to provide informal traders with improved facilities.

7.6. THE INCREMENTAL DEVELOPMENT OF ACTION SPACE

The analysis presented thus far in this CHAPTER indicates how a geographical and typological analysis may determine the context of a *development practice* approach in corridor space. This type of analysis could inform the development of more responsive metropolitan-wide strategic frameworks.

Once appropriate contexts for a development practice approach have been determined within the total geographical region of the city, it is necessary to continue to consider the high level of transience and the different levels of consolidation and associated needs within these contexts. This section considers incremental development of action space at the local scale. The drawings presented on the following pages have been influenced by

the minimal grid of the Lima case and by the concept of incrementalism proposed in development practice theory (Hamdi, 1991; Hamdi & Goethert, 1997). Incrementalism (meaning '*one point or level on a scale*'[19]) considers current needs within a wider vision. It is particularly relevant in a context where most decisions hinge on a rather crude five-year strategic plan.

Architects and urban designers who posses skills to combine visualisation techniques with a consideration of the fourth dimension of time have a valuable role to play in communicating an incremental vision. A *Planning for Real* methodology allows local residents to become involved in constructing an incremental NOW-SOON-LATER vision. Here the development practitioner is a participant and enabler, not an expert. The methodology, which typically makes use of scale models was tested during fieldwork in Winterveld Soshanguve (see Table 7.3. presented later in this CHAPTER and Annexure 7: Fieldwork Report: South Africa).

Five scenarios that indicate different increments of development are presented. The scenarios relate to the critical, high-energy interface between *action space* and *market space* and combines incrementalism with a minimal grid discussed earlier. The scenarios and associated increments are both subjective and theoretical. The purpose is simply to indicate the potential value of a localised incremental development process in corridor space. The level at which it is proposed differs from the regional incremental approach presented in CHAPTER 6. It is acknowledged that in real life situations the many actions of local residents will and must create different outcomes. The pattern of available land for this type of development will also be more disjointed than that presented here.

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[19] Chambers Study Dictionary, 2002

FIGURE 7.25. DIFFERENT DEVELOPMENT SCENARIOS IN ACTION SPACE

SCENARIO 1: NO PUBLIC CONTROL
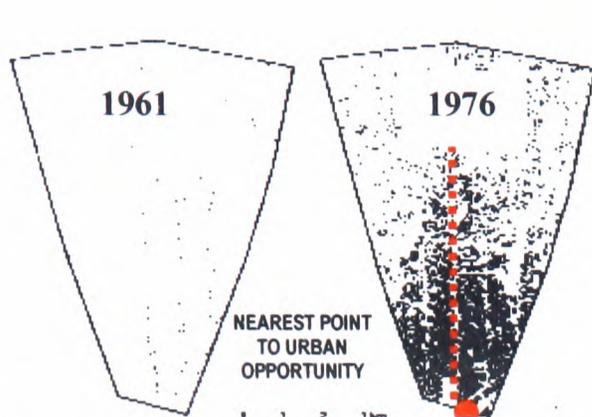
Precedent of rapid, informal population increase in the Winterveld free settlement region north of Pretoria under apartheid (left). The survey provides evidence of a gradually densifying informal settlement pattern towards the point of greatest access to urban opportunity for the poor (adapted from Goldberg, 1996:9).
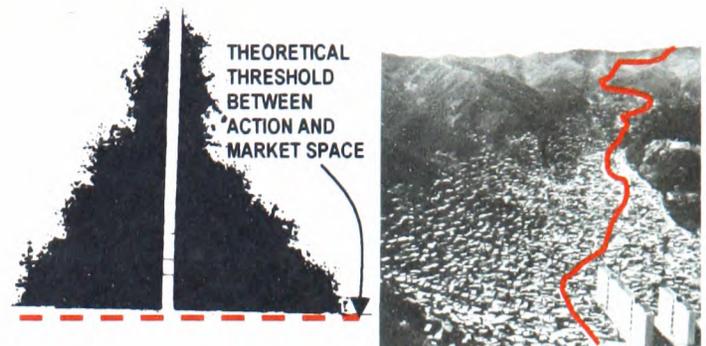
DESCRIPTION OF 'IF -THEN' SCENARIO 1

If there is no design involvement the likely result is a low level of *permeability*, a low level of *robustness* and overburdening of the central artery as is evident in Caracas' *barriadas* pictured right (Castells, 1983)

SCENARIO 2
CONGESTION ASSOCIATED WITH FREE SETTLEMENT ON A MINIMAL GRID
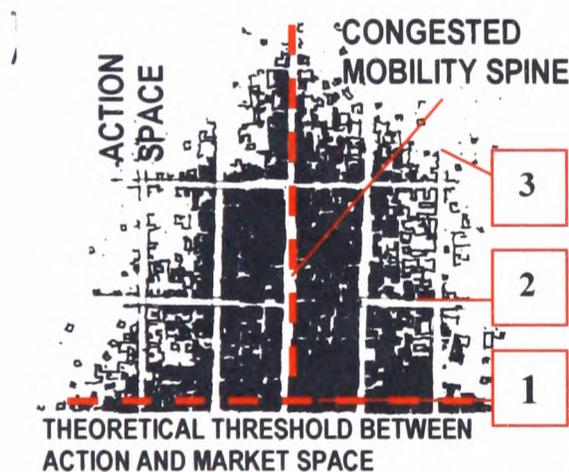
1 = high density :difficult to mediate/upgrade
2 = medium density
3 = low density : easiest to mediate/upgrade

DESCRIPTION OF 'IF-THEN' SCENARIO 2

If a minimal grid is provided but the size of the settlement immediately within the zone of action space is not controlled, access for residents at 3 becomes limited.

SCENARIO 3
SOME CONTROL WITH LIKELY SPILL OVER INTO RESERVE
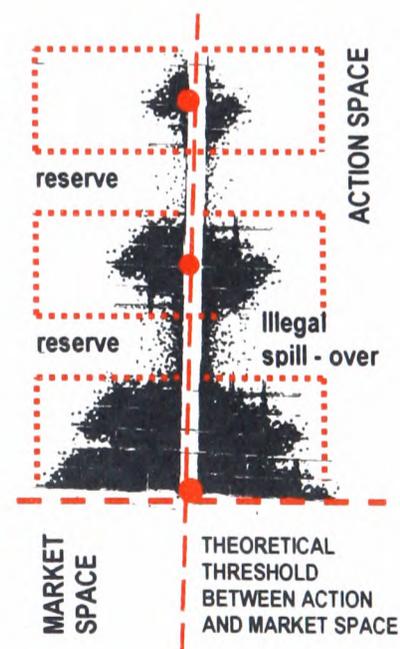
DESCRIPTION OF 'IF-THEN' SCENARIO 3

Scenario 3 presents a likely scenario where semi-autonomous development is clustered in a series of nodes (the string of beads scenario) but where gradual spill-over and market opportunities along the central corridor spine results in a compromise position.

SCENARIO 4: WELL CONSIDERED MINIMALISM AND INCREMENTALISM
CORRIDOR NODES AS ZONES OF LEARNING AND KNOWLEDGE TRANSFER
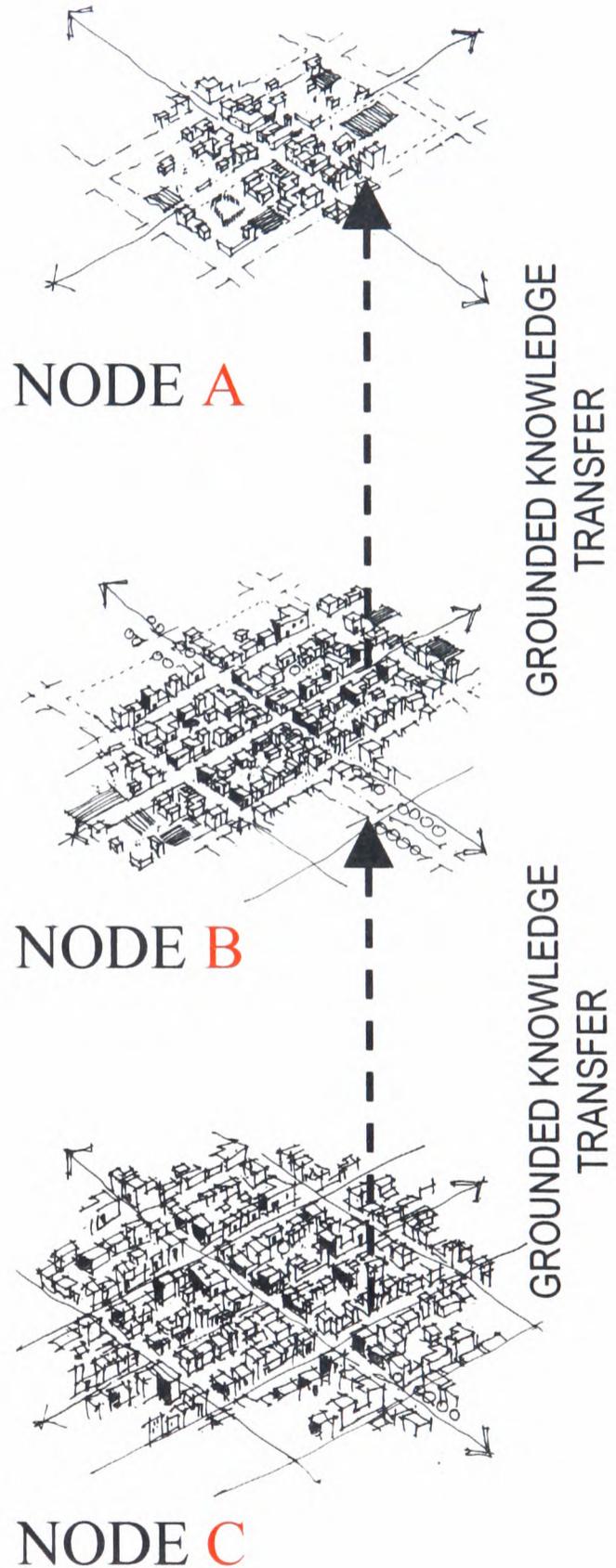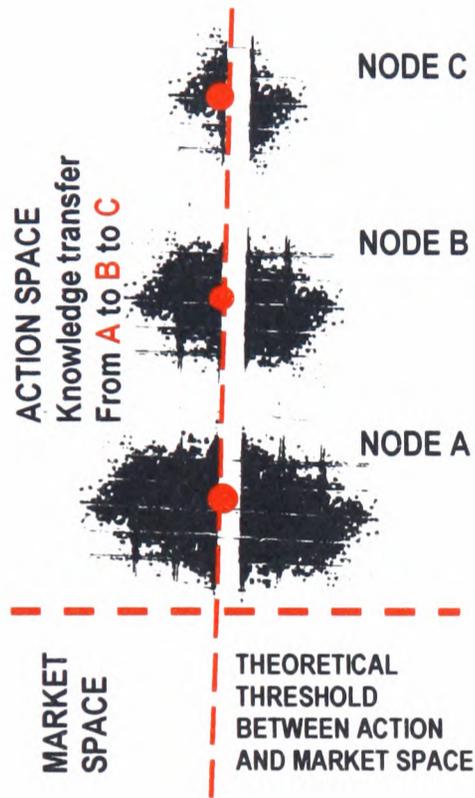
**DESCRIPTION OF 'IF-THEN'
SCENARIO 4**

In this scenario metropolitan government becomes an active partner in the process and realises the importance of introducing minimal grids. The importance of pockets of development, possibly with access to urban agriculture in the intermediary zones is realised. Lateral spread away from the central artery may delay congestion of central mobility spine and also the need for constructing an alternative route.

SCENARIO 5

WELL-CONSIDERED MINIMALISM AND INCREMENTALISM
INTERMODAL INTERCHANGE POINTS AS UNITS OF PARTICIPATION AND ZONES OF LEARNING AND KNOWLEDGE TRANSFER
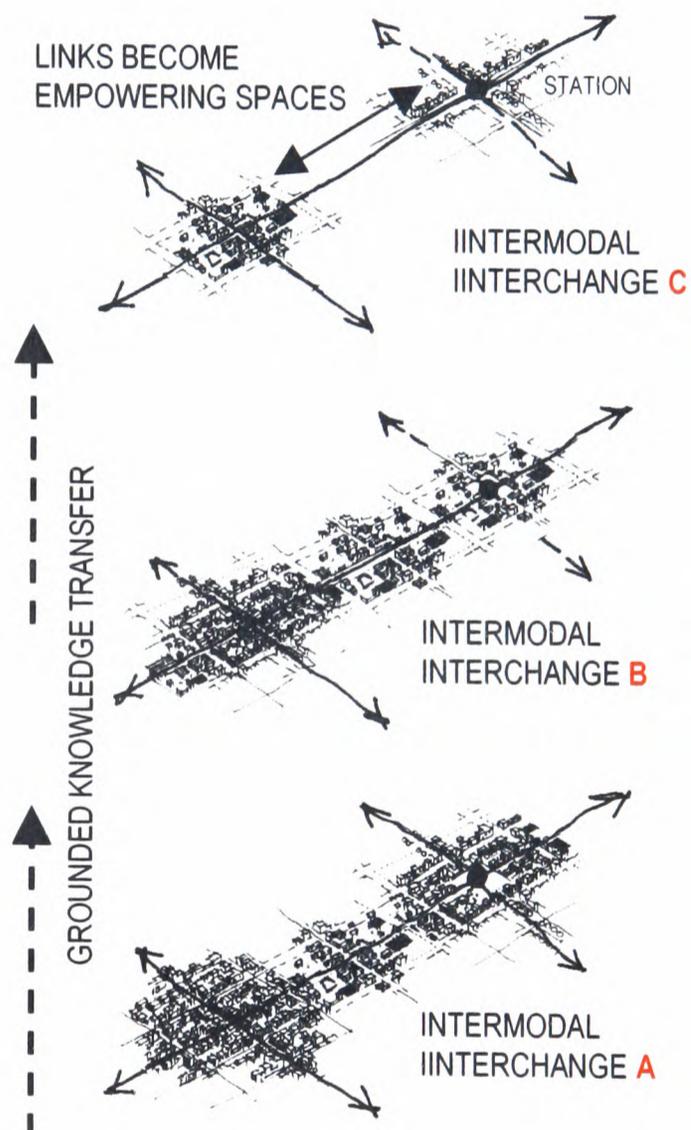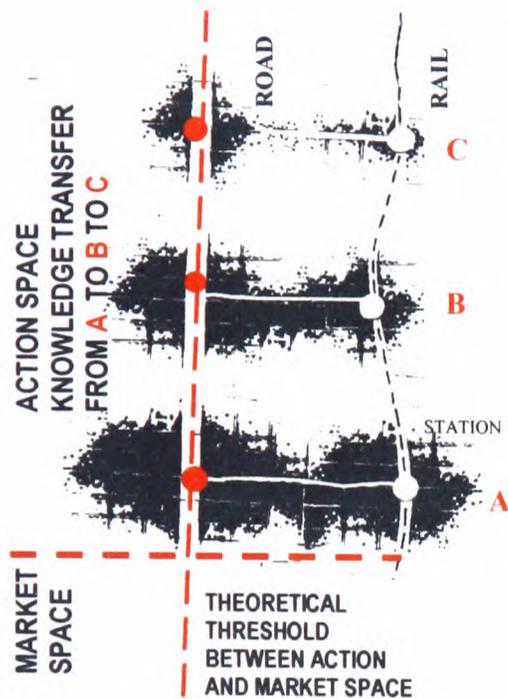
DESCRIPTION OF 'IF-THEN'

SCENARIO 5

If intensity of development can be spread without disproportionate decrease in accessibility, the robustness of the plan is greatly enhanced. This scenario is similar to scenario 4, but places greater emphasis on lateral spread and the active development of high streets along the transverse connections between the intersections with the mobility spine and the stations. It also recognises low rates of private motorcar ownership and the need to create lateral, empowering spaces in which informal trade can take place. More residents have physical access to urban opportunities than in any of the other scenarios.

The scenarios and associated increments indicate that increments are not only physical developments, but that they become zones of active knowledge transfer. The greatest value of such an approach is that it builds social capital and balances an over-politicised and over- generic strategic approach. The current strategic approach, which is essentially a passive budgetary process, would typically focus on a few isolated/static projects (e.g. a station, school or clinic) within such a context while ignoring the skills, energy and good will that exist amongst local communities. The viability of one or more semi-autonomous urban blocks becoming a defined project within a five year strategic budgetary cycle needs to be seriously considered. Figures 7.26 - 7.28. presents a hypothetical scenario of how this approach may be used to inform local spatial development. The main expense will be on basic infrastructure and the active use of development practitioners to enable participation and an appropriate development pattern for each semi-autonomous block. Only as a second or third step is it necessary to introduce permanent public facilities that are now commonly mooted and approved as early strategic projects. Because a library or school is clearly identifiable and its construction is guaranteed within a five-year cycle, it has become popular with politicians. The concept of less visible but defined, semi-autonomous block/s needs to be recognised as projects that meet immediate basic needs of the poor and homeless more directly.

Figure 7.26: The relationship between the sub-regional minimal grid and defined, semi-autonomous block developments.
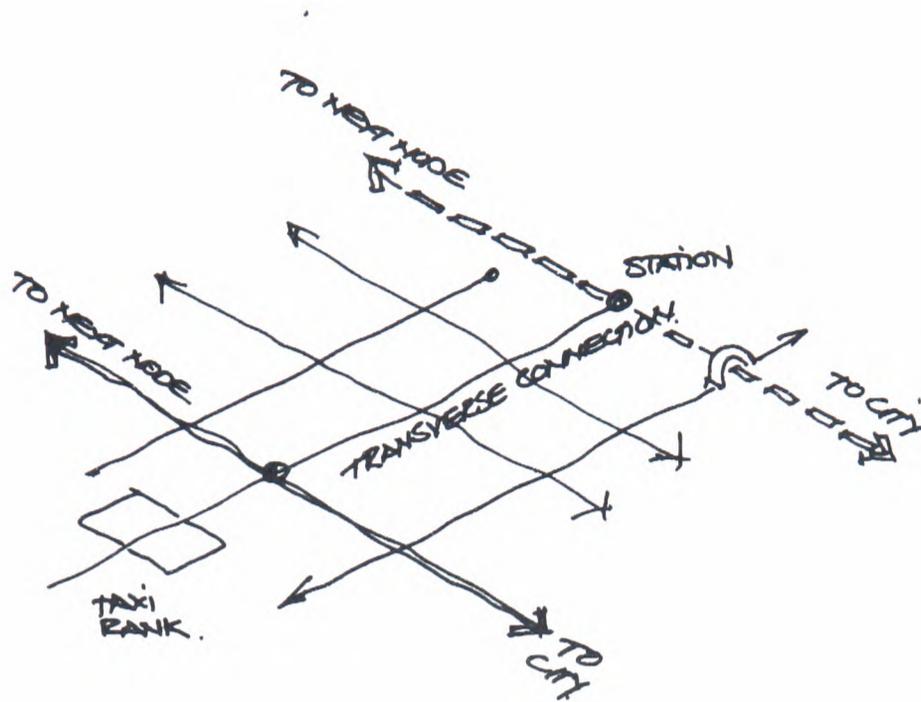
The minimal, sub-regional strategic framework is constructed with incremental development in mind. The hierarchy and alignment of corridor-elements is carefully considered. Here the value of introducing a transverse connection between interchange points is recognised.
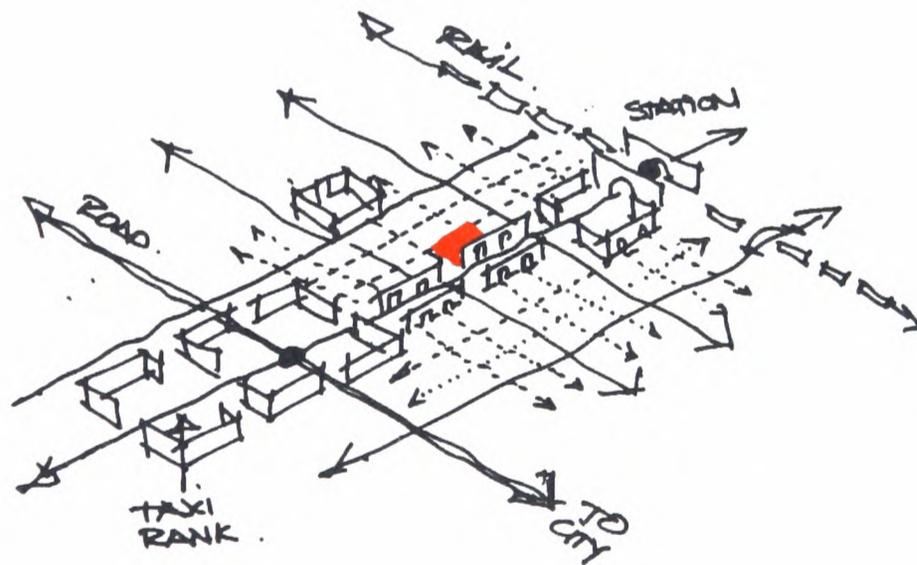
Future public spaces are identified. Here a station precinct, a main road precinct a taxi rank and a future high street are identified. Budgets will be allocated to the development of these spaces and to the surfacing of roads in subsequent budgetary cycles. Initially bulk services will be provided. A pedestrian grid is introduced as the next level in the hierarchy of urban scales. The pedestrian grid defines the size and location of future, semi-autonomous block developments.

Figure 7.27. The identification and approval of semi-autonomous development blocks in subsequent five- year budgetary cycles.
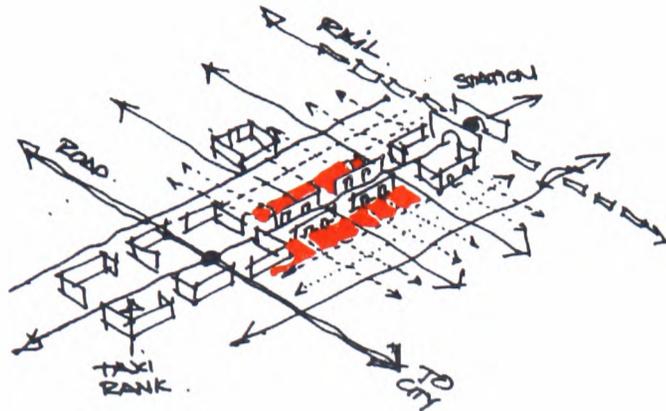
2005 - 2009 BUDGETARY CYCLE

The first series of semi-autonomous development blocks are identified. Resources are approved for their participatory development over the next five years.

Development of the first approved blocks may be considered pilot projects. Development practitioners become partners in the process.
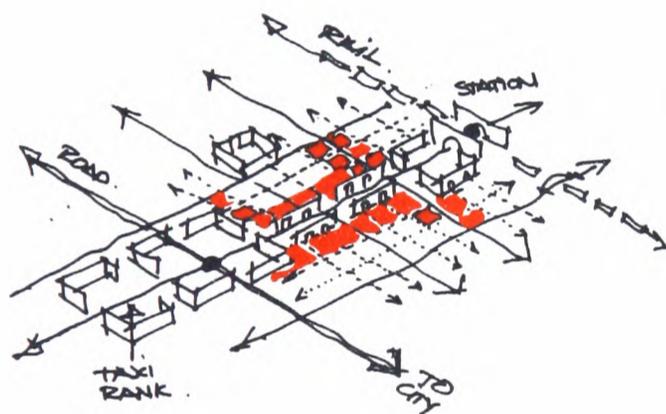
2010 - 2014 BUDGETARY CYCLE

Blocks approved during the previous cycle receive further funding. They are consolidated and key public facilities are provided.

New blocks are identified and approved for development during the next budgetary cycle.
Skills and knowledge acquired during the initial development of other blocks during the previous cycle are transferred.
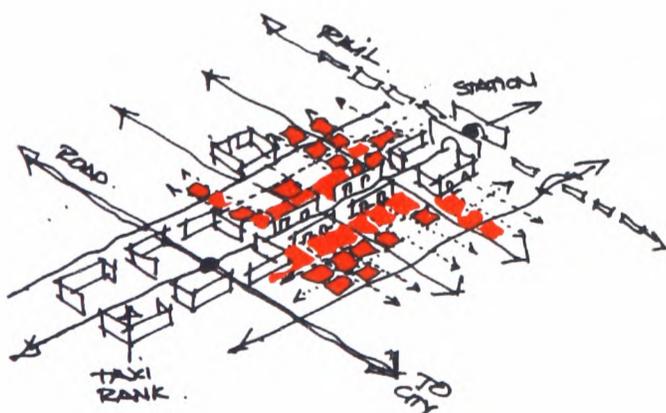
2015 - 2019 BUDGETARY CYCLE

Consolidation of previously approved blocks continue.

New blocks are approved for development during the next five years. Skills transfer between older and newer blocks continue.

Gradual funding for key public projects. Surfacing of the high street, a library on the station plaza, formalisation of the taxi rank, a permanent station building, etc.

By now much of the node has been developed by people themselves. They will be very proud of it.

Figure 7.28: Vision of how the incremental, semi-autonomous development of a residential block may correspond with five year budgetary cycles.
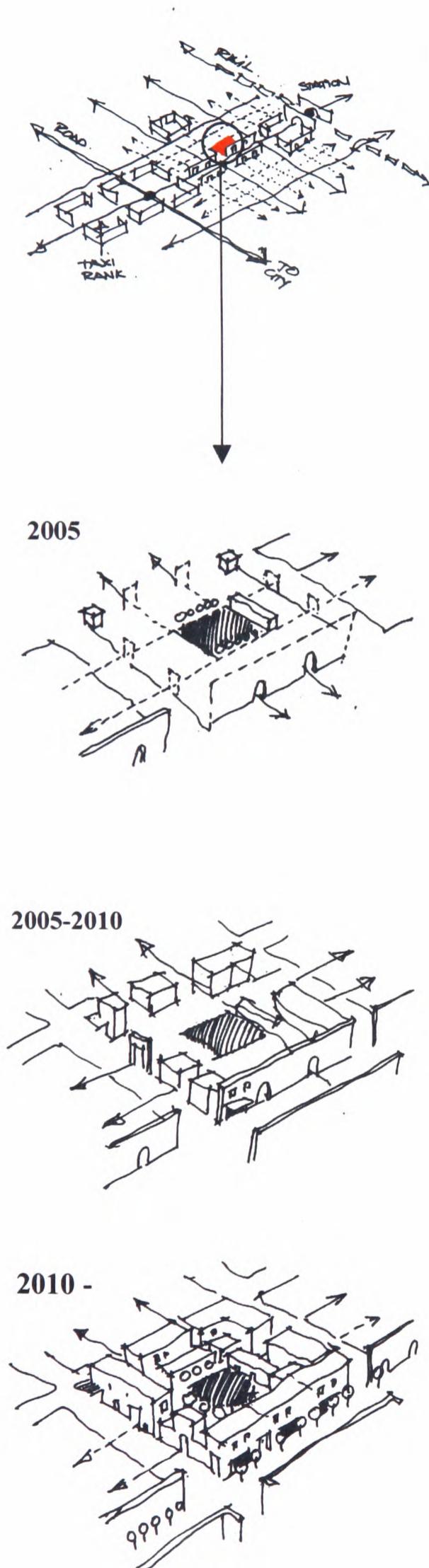
STRATEGIC APPROVAL PHASE

A series of semi-autonomous block developments are approved within a metropolitan budgetary cycle. Assume that the block coloured red is approved as a project in the 2005 cycle. It may be one of several blocks that are approved. The number of blocks approved depends on the available budget. Development practitioners are allocated to each block.

FIRST FIVE YEAR STRATEGIC CYCLE

Development practitioners prepare a minimal framework for each block. A community is identified to engage in a participatory development process. There are various ways to identify a participatory community. In Peru a lottery system is used. Waiting lists often encourage corruption amongst officials.

The minimal framework is workshopped with the prospective residents. Planning for Real methodologies are very appropriate. Large-scale models will ensure that all is in agreement about the location and layout of units. The framework shown here indicates pedestrian routes, a central open space and the edge of the block where shops will be established in future. The line of shops are defined in the sub-regional framework (see figure 7.26).

SECOND FIVE YEAR STRATEGIC CYCLE

Projects are approved at a metropolitan level. These projects are not arbitrary and correspond with the minimal framework prepared by development practitioners and the semi-autonomous communities during the previous budgetary cycle.

Semi-autonomous building commences. Public funds is approved water-, sewerage- and electricity connections. In this case a central lawn and creche is also built. Some shops are built. The high street is still populated mostly by informal traders.

THIRD FIVE YEAR STRATEGIC CYCLE

More projects are approved during subsequent budgetary cycles and semi-autonomous building gradually fills up remaining gaps in the block.

Skills acquired during the construction of the block are used to develop other nearby blocks and lessons learnt here are used to inform their development.

7.7. CONTEXTUALISING PARTICIPATION IN CORRIDOR SPACE

7.7.1. INTRODUCTION

The geography of basic need, minimalism and incrementalism, which are core principles of a development practice approach have now been related to South African corridor space. The final section of this CHAPTER investigates how appropriate community participation processes may actively support these localised processes.

When considering the broad range of theory on participation that is available, it is necessary to identify topics that relate directly to a development practice approach. This section deals firstly with appropriate levels of participation and secondly with appropriate participatory methodologies.

7.7.2. APPROPRIATE LEVELS OF PARTICIPATION

Many texts on *appropriate levels of participation* have been based on the *ladder of participation* put forward by Arnstein in 1969. Figure 7.29. illustrates Hamdi & Goethert (1997) and Wates' (2000) separate adaptations of Arnstein's ladder into evaluative matrices. Figure 7.30 is a combination of Wates and Hamdi & Goethert's matrices that is used to assess appropriate levels of participation in the South African corridor context. The matrix yields significantly different results if applied to different urban management and socio-economic contexts. If the aim is for communities and authorities to plan and design together as is the case with approaches such as *community planning* and *action planning*, an analysis of real conditions is necessary (both of the urban management system and of people's own attitudes). The Hamdi/Wates matrix provides a tool that indicates whether or not local conditions support effective community participation. This is more detailed than the geography of basic needs analysis that was based on Maslow's hierarchy and which was presented earlier in this CHAPTER. According to the Hamdi/Wates matrix both the urban management context and people's attitudes and needs are important variables in determining appropriate levels of participation. Some poor and needy sectors of society may be reluctant participants for a variety of reasons. In South Africa it is mostly suburbanites and the large numbers of illegal immigrants who belong to this group. My fieldwork in the Winterveld and Acacia supports this statement (see Figure 7.17 and Annexure 7).

This suggests that, while the aim of metropolitan government has been to institute a democratic policy framework that supports participatory development, this needs to be related to local contexts if participation is not to remain a form of tyranny as discussed in subparagraph 7.2 of this CHAPTER.

FIGURE 7.29. MATRIXES OF APPROPRIATE LEVELS OF PARTICIPATION THAT HAVE EVOLVED FROM ARNSTEIN'S LADDER OF 1969

ARNSTEI'S LADDER OF PARTICIPATION	HAMDI & GOETHERTS EXPANDED MATRIX (1997)	WATES' MODIFICATION TO THE HAMDI MATRIX (2000)

ARNSTEI'S LADDER OF PARTICIPATION
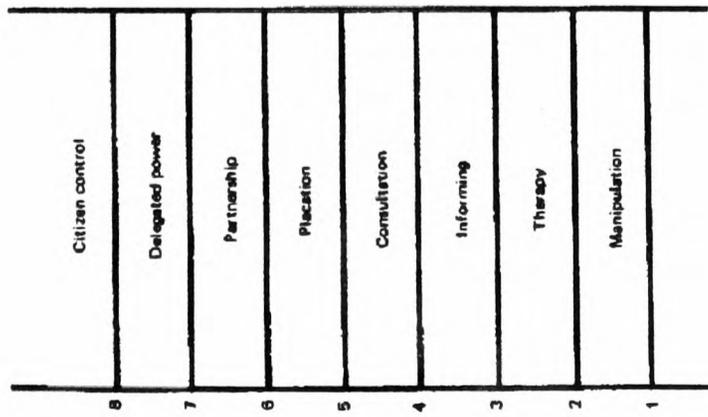
HAMDI & GOETHERTS EXPANDED MATRIX (1997)
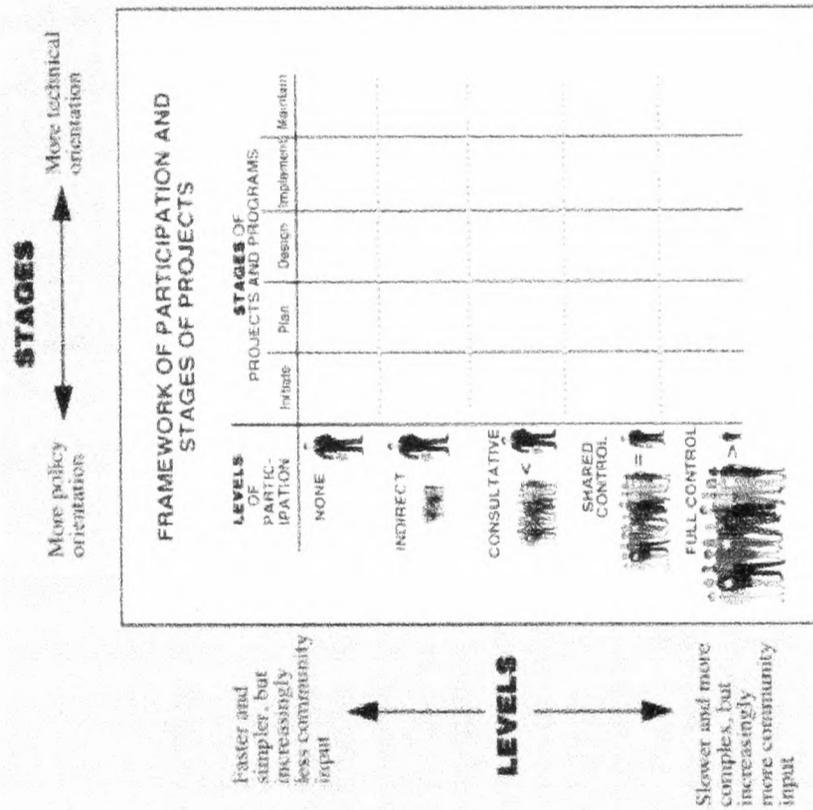
Five levels of involvement

As an aid for examining tools and techniques, the stages of a programme are linked in a matrix to their appropriate levels of participation. The level or degree of participation, ranging from no participation to full control by a community, is on the vertical axis. On the horizontal axis are the phases, or stages of projects and programmes. The matrix allows examination of the levels of participation and helps us to understand where community involvement would be most necessary, or where community would be better served through other methods, albeit with limited community input (Hamdi & Goethert, 1997).

WATES' MODIFICATION TO THE HAMDI MATRIX (2000)

Four levels of involvement

'a simple illustration of how different levels of participation are appropriate at different stages of a project. Most community planning operates in the shaded areas. Any party may initiate action but the crucial ingredient is joint planning and design, shown in the dark square. Implementation and maintenance will either be carried out jointly by the the authorities after consulting the community' (Wates, 2000: 10).

		MORE POLICY ORIENTATION		MORE TECHNICAL ORIENTATION		
		PROJECT STAGES				
(H & G) = Hamdi & Goethert **(W)** = Wates **(B)** = Both		**INITIATE (B)**	**PLAN (B)**	**DESIGN** **(H & G)**	**IMPLEMENT** **(B)**	**MAINTAIN (B)**
LEVEL OF COMMUNITY INVOLVEMENT	FULL CONTROL **(H&G)** SELF HELP **(W)** Community control	Community initiates Action alone	Community plans alone		Community implements alone	Community maintains alone
	SHARED CONTROL **(H&G)** PARTNERSHIP **(W)** Shared working and decision making	Authorities and community jointly initiate action	Authorities, development practitioners & community jointly plan and design		Authorities and community jointly implement	Authorities & community jointly maintain
	CONSULTATIVE **(H&G)** CONSULTATION **(W)** Authority ask community for opinions	Authorities initiate action after consulting Community	Authorities plan after consulting community		Authorities implement with community consultation	Authorities maintain with community consultation
	INDIRECT **(H&G)** INFORMATION One way flow of information Public relations	Authorities initiate Action	Authorities plan and design alone		Authorities implement alone	Authorities maintain alone

Figure 7.30. A combined matrix of levels of participation using the adapted version of Wates (2000) and Hamdi & Goethert (1997). The red area indicates the vital ingredients of joint action.

Figure 7.31. (below) indicates an approximated translation of the *level of participation matrix* to the South African corridor context. The geographic region of the Mabopane Centurion Development Corridor is again used as a laboratory for testing real and feasible levels of participation. The table draws on previous analyses presented in this CHAPTER and indicates a diverse range of needs, identities and likely attitudes towards participation which recognises the requirement for participatory methodologies to be crafted in a responsive manner. When Wates's critical area of *joint action* as indicated in figure 7.31. is applied to each of the six sub regional corridor typologies, it suggests that *joint action* is only possible in selected areas but also that new opportunities may emerge as the corridor moves through different cycles of development. In *market space* urban design is likely to be more product-driven and closer to European concepts of space making than in the highly transient periphery.

FIGURE 7.31.	TYPOLOGY	GEOGRAPHIC LOCATION IN RELATION TO CORRIDOR SPACE	BASIC NEEDS PROFILE	CLOSER ANALYSIS OF SUB-TYPES WITHIN DIFFERENT GEOGRAPHIC	APPROPRIATE LEVEL OF PARTICIPATION
TYPOLOGY A	subsistence		G	FIRST SETTLERS DATING FROM THE 1930	
				CROWDING ON THE SOUTHERN BORDER DATING FROM THE 1970's	
TYPOLOGY B	squatters		B	SQUATTERS IN THE MARKET SPACE ZONE WHERE THEY ARE LIKELY TO BE EVICTED	
				SQUATTERS IN THE ACTION SPACE ZONE WHERE THE STATE IS LIKELY TO BE TOLERANT AND ASSIST	
TYPOLOGY C	township		C	OLD TOWNSHIPS IN RELATIVELY ACCESSIBLE AREAS DATING FROM THE 1950's	
				REMOTE TOWNSHIPS BEYOND HOMELAND BORDER (DATING FROM THE EARLY 1980'S)	
TYPOLOGY D	Vacant land		D	EXCITING PROSPECTS IN THE MOST VIABLE CONTEXT FOR ACTION. LAND INVASIONS SITES	
				LIKELY ZONE FOR LATER MARKET INTEREST HELD IN RESERVE BY THE MARKET	
TYPOLOGY E	Suburbia		E	WHITE CIVIL SERVANTS & BLUE COLLAR WORKERS AND NOW HOME TO A LARGE SECTION OF THE RISING BLACK MIDDLE CLASS	
				WHITE MIDDLE AND UPPER CLASSES AND THE OF ELITE BLACK BUSINESSMEN & CIVILL SERVANTS	
TYPOLOGY F	Core of commercial interest		EXCLUSIVE Contested zone	CORE OF BUSINESS INTEREST AND OF CAPITAL FLIGHT FROM THE INNER CITY. FRAGMENTED AND EXCLUSIVE OFFICES, SHOPPING CENTRES	
				FUTURE INTEREST IN THE MASS MARKET ON THE PERIPHERY ONCE THERE IS 'A SENSE OF STABILITY'	
				FUTURE INTEREST FOR THE SAME REASONS AS ABOVE LIKELY ZONE OF STATE & DONOR SPONSORED SOCIAL HOUSING	
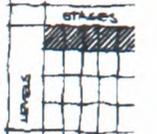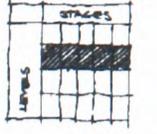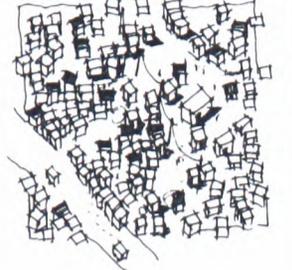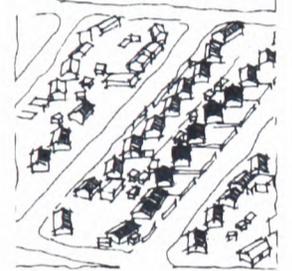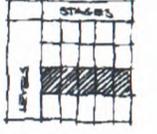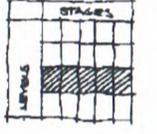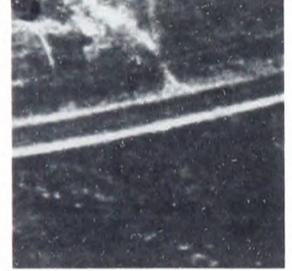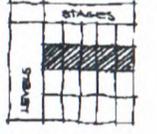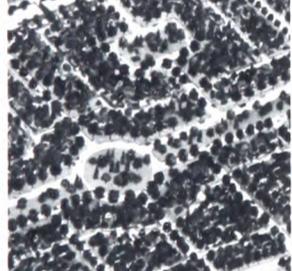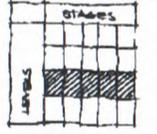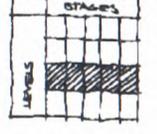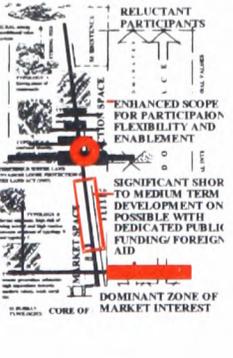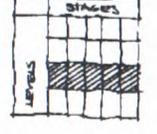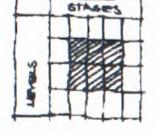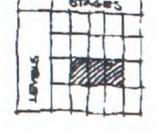
7.7.3. APPROPRIATE PARTICIPATORY METHODOLOGIES

7.7.3.1. INTRODUCTION

The different basic needs profiles and attitudes towards participation found in corridor space suggest that different and appropriate participatory methodologies need to be developed. While being compiled mostly with the assistance of British architects, planners and urban designers, Wates'(2000) compendium of methodologies for community planning contains the subtitle *'How people can shape their cities, towns and villages in any part of the world.'* This suggests universality of knowledge related to the subject. The statement is supported by a belief in *'the existence of general principles which apply to most situations'(Ibid,11)* The list of 47 principles is accompanied by the qualification ' *adopt and adapt as appropriate'.*

Fifty-three methodologies are described for possible use in a variety of contexts, each requiring different resources (including time) and expertise. Many of the methodologies draw strongly on visualisation skills, which Romice (2000: 311) considers an acquired skill. The creative and informed use of this skill which is nurtured by an architectural and urban design education is considered an effective way of combining several principles of effective participation. The use of drawings and models in the *Planning for Real*[20] tradition may for instance *avoid jargon, provide personal initiative, communicate, make it possible to learn from others, be visionary yet realistic, allow for going at the right pace, provide shared control,* which are some of the 47 principles of participation listed by Wates.

Romice (2000:311) challenges the notion of universal methodology based on the use of visualisation methodologies. She notes that there are contextual differences in the way people relate to their use and that the methodology does not stand alone as a universal. It has been found that responses differ among groups of perceivers and that each group needs to be considered in the process of designing and developing appropriate methodologies (Hubbard, 1994, 1996). During fieldwork amongst squatter communities in the Winterveld it was found that people were often unwilling to produce mind maps.

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[20] Planning for Real is a methodology registered by the Neighbourhoods Initiatives Foundation. It uses the neighbourhood as the basis of a participatory process and relies heavily on a range of programmed visualisation tools including models of existing and proposed structures.

When even the most basic visualisation methodologies are found to be inappropriate in certain urban contexts, much more complex methodologies such as the centrally conceived IDP/ZOPP methodology (discussed in subparagraph 7.3.1) becomes highly questionable.

The analysis put forward by Romice suggests that methodologies need to be tested and that they need to evolve through a creative, participatory process. This also relates to increments of development in *action space* as smaller contexts for learning and knowledge transfer.

7.7.3.2. ACTION RESEARCH: DEVELOPING AND TESTING A PARTICIPATIVE METHODOLOGY

An academic study of this type does not provide the continuity and active engagement necessary for testing participatory methodologies in South Africa's corridor contexts. The proposals made thus far provide only conceptual ideas. Asking development practitioners to reflect on real experiences provides a much better indication of real opportunities and constraints. Interviews with urban designers indicated that, while most supported the principle of participation, none were actively involved in developing participatory methodologies. Rather, they were aiming to conform with institutionalised participation methodologies. Some explicitly stated that the canvassing of public opinion is best left to expert facilitators. The following response to a question on the role of urban design in participatory development reflects wider opinion amongst urban designers (Du Toit, questionnaire response 2002):

> *The designer's primary skill is not directly around meaningful participation and development of real skills and real sense of ownership. While we need to be active in the participative process, we often use people who work specifically in participation/ facilitation/skills development. This permits for (i) the facilitator to be of a similar cultural backround or at the very least to have the correct language skills and (ii) to take participation way beyond information sharing into real concerns of what are keen needs, what are the priorities, who funds, where is there top up funding, who manages once the participation team moves on.*

Implicit in this statement is firstly an acceptance that professionals struggle and will always struggle to deal with ordinary people because of cultural differences and secondly

that there is a preference for a once-removed strategic approach rather than an engaging development practice approach. Others criticised the institutional frameworks which forced them to use placatory participatory methods. They engaged in this wasteful process of participation because it was part of their contract (Author's own experience and Thomashoff, White pers com 2002). Jordaan (pers com 2002) notes that the electoral ward of 10 000 people, which is the prescribed unit of institutionalised participation in South Africa is unfortunate when considered from an urban design perspective, since the geography of wards do not relate to patterns of spatial development in any meaningful way; it simply acts to dilute public opinion on important developmental issues. Participation in areas of poverty seems to be embraced more actively on the isolated architectural project level (typically a library, taxi rank, informal market, etc.) which is detached from the institutionalised participation process and where the stakeholder group is limited in size (De Beer & Smuts, 2001; Lipman, 2003).

Based on the evidence of lack of meaningful urban design engagement in the development of appropriate, non-institutionalised participatory methodologies, it was decided to embark in an educational project that represents limited testing of a development practice approach. The exercise is based on the premise that the educational model is flawed because it does not nurture an engaging development practice approach suited to the development of action space (Laburn Paert in Hamdi 1996; Bakker & Young, 2003). If translated to the corridor context it means that the educational model prepares students for practice in market space rather than action space. Strategic and generic models more suited to *market space* is then often applied wastefully in *action space*. Through more engaging forms of education some of the cynicism encountered during interviews may be dispelled and champions of more engaging and meaningful forms of participation may emerge.

The exercise was conducted in three nodes of an area defined as *action space* in the MCDC corridor (figure 7.32.). *Annexure 7: Fieldwork Report South Africa* contains a detailed account of the process while table 7.3 contains a summarised step-by-step account of the same process:

*Figure 7.32: Location of the three fieldwork nodes in Soshanguve....*

NODE 3

NODE 2

SOSHANGUVE

NODE 1

PROPOSED ALLIGNMENT
OF THE MCDC CORRIDOR

25 KM
RADIUS

PRETORIA
CITY
CENTRE
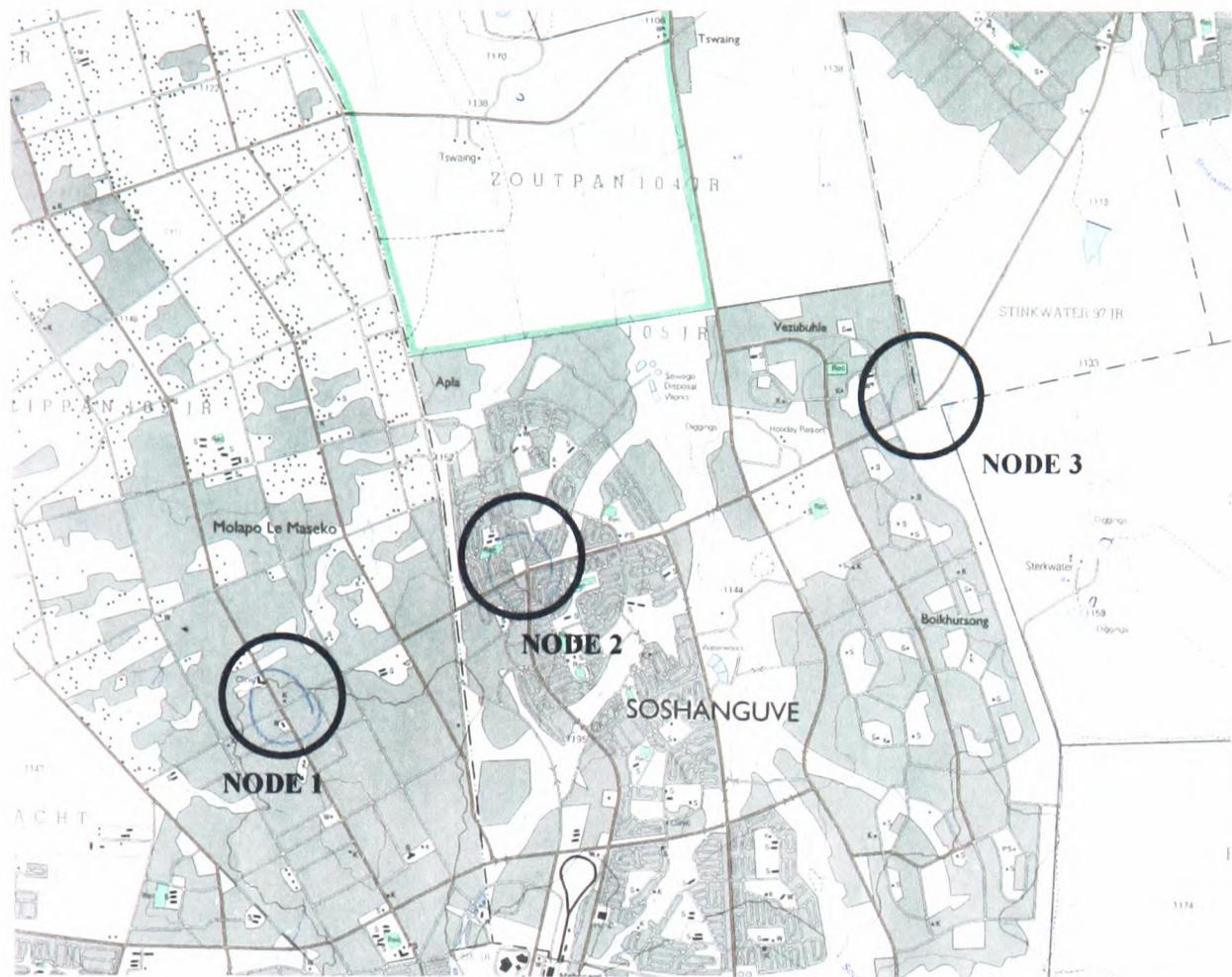
TYPOLOGY AT NODE 1: SUBSISTENCE
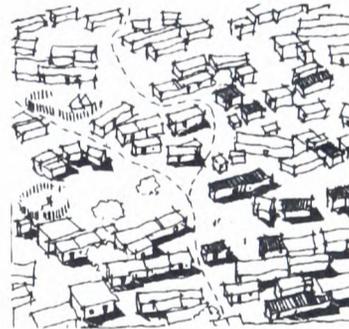
TYPOLOGY AT NODE 2: TOWNSHIP
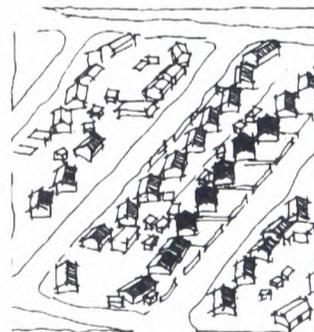
TYPOLOGY AT NODE 3: SQUATTERS
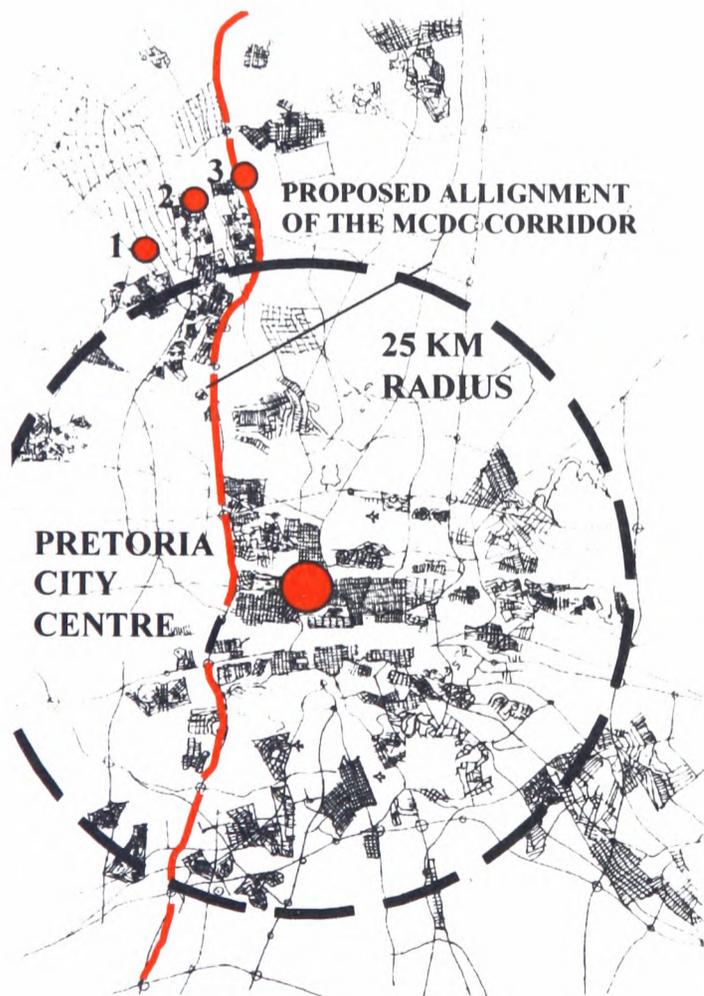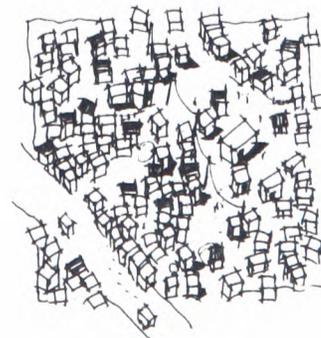
|	TABLE 7.3. RECORD OF A CUSTOMISED TWELVE-STEP ACTION PLANNING PROCESS			
	WHAT ?		**WHERE ?**	**WHY ?**
PREPARATION	**STEP 1** Adopt a combination of a five step participative *action planning* methodology (Hamdi & Goethert, 1997; Mumtaz,1983) and a Planning for Real methodology (Tony Gibson/Neigbourhood Initiatives Foundation). The five steps of the action planning methodology used are: (1) Reconnaissance (2) guiding concept (3) action programme (4) role casting (5) monitoring and feedback			Based on the assessment that action planning is appropriate to a rapidly urbanising, transient, developing country context and that planning for real provided the opportunity to learn about the power of visualisation methodologies in corridor space.
	STEP 2: Collect maps, aerial photographs, frameworks of the Mabopane Centurion Development Corridor context.		City Council, aerial survey company, government printers. Urban designers.	Needed for reconnaissance stage. To configure alignment and position of generic corridor elements in corridor space.
	STEP 3: Critically review and translate methodologies for use in an exercise involving students.			To formulate a provisional *action planning* methodology which can be employed while involving students as role players.
	STEP 4: Approach educational institutions to canvas support and have studio time set aside for the exercise.		- Technikon Northern Gauteng - University of Pretoria	The selected corridor space is within the hinterland of these institutions. To establish an urban design task force (Wates,2000) and for students to learn something about urban process and participation with me.
	STEP 5 Allocate sites of appropriate scale for students to engage with local communities. Consciously select different typologies.			To correspond with proposed corridor nodes and of a scale which will allow students to engage effectively with local communities.
	STEP 6 Introduce students to Dewar's 8 principles of sustainable development in South Africa. See discussion on urban design principles: CHAPTER 6.	 South African urbanist David Dewar		To achieve the added objective of testing the validity of generic urban design principles in the corridor context.

	WHAT ?		WHERE ?	WHY ?
ACTION RESEARCH	**STEP 7** Study aerial photographs, maps collectively with students and embark on a one day reconnaissance trip.		- Winterveld (largely subsistence culture) - Soshanguve (township and squatters) - Acacia (suburbia)	Action planning step 1 (Mumtaz, 1983). Orientation, to draw mind maps and to allocate each student two households for later interviews (students placed yellow stickers on enlarged aerial photographs to identify houses/shacks).
	STEP 8 Students return to allocated households , document houses/shacks, interview households and draw up local profiles. Residents are explicitly told that the interviews are for academic purposes only.		- Same as above	To assess basic need, attitudes towards power structures, tradition, densities, urban agriculture etc.
	STEP 9 Monitoring and feedback (recorded on video)		Studio	Collective learning.
	STEP 10 Simulated Planning for Real event Including; - Preparation of NOW, SOON, LATER scenarios based on need while keeping Dewar's principles of sustainable urban development in mind. Building of now soon, later models in three one hour sessions with time for recording (video and photographic) and reflection between each session.	 NOW SOON LATER	Studio	- To test spatial manifestation of basic needs requirements as found in specific corridor contexts in relation to the likely introduction of generic corridor elements I.e, nodes, mobility spines, activity spines etc.
REFLECTION	**STEP 11** Reflection on the process		- during an informal meeting and as an ongoing process in the minds of participants.	- to show recording of NOW SOON LATER increments in an integrated fashion and to provide opportunity for collective learning
	STEP 12 Utilisation of lessons learnt in subsequent student projects		- by students of the University of Pretoria in the Salvokop project recorded in Urban Design International. (Bakker, Young & Le Roux, forthcoming)	Students and lecturers had realised the value of a grounded and incremental approach to city building.

Figure 7.33. A visual record of the typology-based action planning process conducted in the Winterveld area.

		GROUP 1	GROUP 2	GROUP 3
Reconnaissance				
CORRIDOR CONTEXT		SUBSISTENSE 'TRADITIONAL'	FORMAL 'MODERN'	SQUATTERS 'TRANSIENT'
INTERVIEWS		interview in progress	interview in progress	interview in progress
RECORDS OF GROUNDED KNOWLEDGE			Mind map	Mind map
CONSIDER BASIC NEEDS	**TRANSLATION OF KNOWLEDGE TO SITE**	Status quo • Shacks • Vernacular style houses	Status quo • Single family houses (formal)	Status quo • Shacks • Illegal immigrants
	NOW	• infrastructure	• Home extensions • Corner shops	• Basic service infrastructure
	SOON	• High density housing • Taxi rank	• Shopping centre • Cinema • Creches • Montesouri school	• Beginnings of high street • Housing and trading space • station
	LATER	• More housing • Public facilities • Fresh produce market		• More housing • Formal shops • Public facilities • Sports stadium
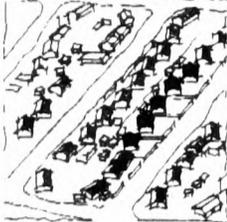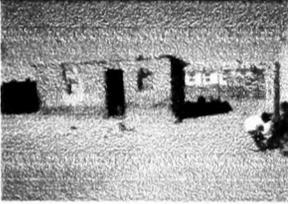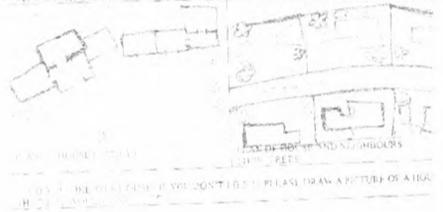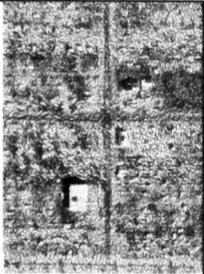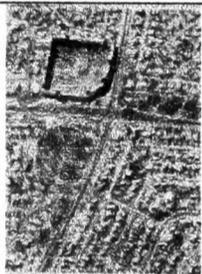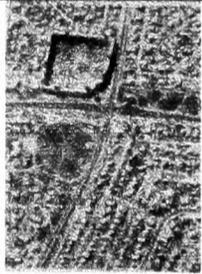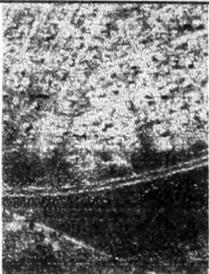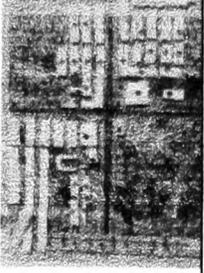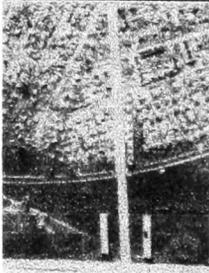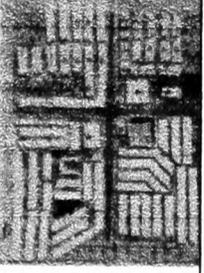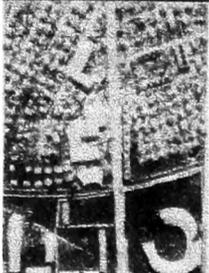
7.7.3.3. REFLECTION ON THE VALUE OF THE ACTION RESEARCH PROJECT

The process, which tested the methodology and was aimed at learning, indicated the suitability of *action planning/ planning for real* methodology in a transient corridor context. Valuable lessons were learnt about identity, levels of transience, differential basic needs, attitudes towards participation and effective scales of participation. Many of these lessons have been fed back into arguments presented in preceding CHAPTERS of this thesis, particularly CHAPTER 4, which dealt with sociological issues. Table 7.4. aims to communicate the value of the process.

Table 7.4. The value of the Winterveld/Soshanguve planning for real exercise

WHAT ?	WHY? (EVIDENCE) See also detailed report in Annexure 7
1. Engage in a way which bypassed gatekeepers on the one hand and indicated the internal power structures of local communities on the other.	Students engaged directly with the community during STEP 8 and gave feedback (feedback recorded on video).
2. Link responses to basic needs requirements to space and time.	By translating basic needs issues information into NOW, SOON, LATER increments during STEP 10
3. Realise the power of visualisation techniques.	By using enlarged aerial photographs as the base and by constructing four dimensional models. It was found that participants soon developed a grasp of spatial dynamics by relating action to recognisable features in the landscape (which were easily recognisable from the aerial photographs)
4. Confirm that there is a relationship between typology and basic needs.	By comparing the very different responses from respondents in the three nodes. This was found to be the case despite the nodes being in very close proximity to one another.
5. That many of the critical answers needed for responsive urban design may not be found in books or strategic frameworks	It is impossible to predict the uneven socio political landscape and different responses discovered during this limited fieldwork exercise.
6. Contribute actively to a process of building trust.	At no stage did anyone assume that they knew the answers to the future of these transient settlements. It was not the usual process of presenting designs by experts and then asking for comment. Everyone seemed unselfconsciously absorbed in the spontaneity of the process. The models helped greatly to make participants less self-conscious.

WHAT?	WHY?
7. While recognising that ideas have been put forward by others, to creatively develop a methodology which is suited to local circumstances.	As indicated in steps 1-12 of Table 7.3.
8. Shed new light on the relevance of- and local responses to generic corridor elements in peripheral locations of South African cities.	Before the *Planning for Real* exercise commenced the generic elements as indicated in the MCDC Corridor Framework were drawn onto the aerial photographs and explained to participants. There was an opportunity to respond directly to the opportunities and threats at a level where the impact of elements become real and tangible. Strategic maps are normally presented for comment at a scale where it is impossible to gauge their impact. The methodology therefore represents a form of democratisation.
9. That enormous scale gaps exist between strategic, city wide proposals and local needs.	The project driven nature of strategic plans suggests that one or two large projects (e.g. a clinic/school) and some of the generic elements of the metropolitan scale corridor will typically be 'delivered' within a five year budgetary cycle in the entire area of the fieldwork study. Limited formal housing will typically be delivered on consolidated parcels of land that have been put out to tender. Metropolitan planners will be oblivious to the local struggles and different basic needs profiles encountered in the three nodes since they are all clustered into a single electoral ward in which the settled node 2 has the greatest say. Node 2 has an employed and educated population while nodes 1 and 3 are populated by transient, uneducated and tradition conscious groups that are often reluctant to engage in formal political activities.

It would be inappropriate to pretend that the methodology and the findings of the limited action planning exercise are conclusive. A development practice approach suggests ongoing engagement through later stages of development in real life situations. The findings presented in Table 7.4. however indicates value of such an approach, even when based on this very limited testing exercise.

7.7.3.4. APPROPRIATE PARTICIPATORY METHODOLOGIES FOR USE IN MARKET SPACE

Market space has been defined as well-located spaces of the corridor in which the large scale and private sector investor market receives preferential access to urban space under neo-liberal conditions. Examples of this type of development were presented in CHAPTER 5. Decisions of the investor market however affect the lives of a whole range of urban communities. As in other New World cities, large-scale investment in South Africa has recently occurred in what was previously exclusive middle to higher income suburbs. Large developments of the type described in CHAPTER 6 have often occurred without, and possibly because of a lack of public consultation in South Africa. Fieldwork in Australia has indicated the active use of the participatory *charette and/ or enquiry by design* processes at a sub regional and local scale to involve affected communities in the process (see Annexure 5: Fielwork Report: Australia).

Australia is an industrialised country with large middle class communities and without many of the problems associated with *action space*[21]. Here the entire corridor region may be classified as *market space*. Sophisticated participatory methodologies have been developed in an effort to balance commercial interests. Apart from responding to the global lobby for planning to incorporate appropriate participatory methodologies, this is in keeping with Australia's strong support for policies that support social justice and best practice (see discussion on Australian identity; subparagraph 4.4.3 CHAPTER 4).

The *design charette* process has been vigorously promoted in Australia by Melbourne-based urbanists Chip Kaufman and Wendy Morris of the practice Environmentally Sustainable Design (ESD). The method has been used extensively to decide on desirable location and alignment of generic corridor elements in Perth's north western corridor, where it was combined with an *Enquiry by Design* methodology (Mackay, Woodgush pers com 2001). Wates (2000: 187) describes the *design charette* as an intensive design session, originally just for architecture students but more recently including the public and professionals. The term is now widely used in the United States and Australia to describe any intensive, group caucusing effort in which built environment students or professionals are involved .

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[21] See Annexure 1: Glossary of Terms

Munira Mackay (pers com 2001) of the Western Australian Ministry of Planning notes that, at the site or precinct level, partners of public private partnerships (PPP's) are encouraged but not legally bound to engage in participatory design exercises. The experience to date is that, through the work of a few champions inside the Ministry of Planning, the approach is beginning to find favour amongst developers. It however remains the responsibility of the Ministry to initiate and sustain the resource intensive processes. Active championing of the cause, personal skill and commitment have all played an important part in establishing the method. As it gains momentum, the core group of formally trained urban designers face the problem of becoming overburdened by an escalating demand for their design and facilitating skills. Many charette-driven participatory processes are at different stages of development and in different areas of the city, each stage requiring sustained participation from skilled urban designers in metropolitan/local government.

The process indicates that decision on alignment of large generic corridor elements can be decided through a well managed participatory process. Too often hastily conceived spatial frameworks end up becoming blueprints. It is particularly poorly integrated and standards-based decisions on the development and alignment of public transport infrastructure that continue to hold sway in South Africa. The qualitative Australian approach provides evidence of an alternative, participatory methodology for use during the strategic phase of a typical five-year urban management cycle.

The three illustrations below (figure 7.34) are from the *Jindalee Enquiry by Design Workshop (WAPC, 1996)*. Options were presented, debated and adjusted through a participatory process. A five-day workshop/ *charette* was held to consider and design the relationship between corridor elements, existing development, impact on nature, etc. Only provisional alignment of the key elements was identified as a project within the metropolitan-wide strategic framework. Affected communities were provided with comprehensible options that made it possible for them to influence the final alignment of these elements. This indicates that strategic planning is not about presenting a framework to which civil society and the market must respond but one that allocates resources, which enables these sectors to play an active part during the conceptual design stage.

The effective translation of such an approach to the South African context is compromised by a lack of champions/enablers in local government. Mackay (pers com, 2001) notes that

preparation for a workshop like the one at Jindalee may take as long as eight months. The long-term benefits however justify the time spent on preparing for charettes. If patronage for urban design in local government is actively sought in South Africa, the charette process may prove equally successful. Exposure to the Australian precedent may serve to further this cause. The methodology in which urban designers play a key role because of their visualisation skills needs to be seriously considered and in the very least tested as a more democratic alternative to the current system by which national and provincial roads departments continue to control the alignment of major transport infrastructure (Barbir, pers com 2002).

OPTION 1   OPTION 2   OPTION 3

THE SITE

KEY

A = rail
B = mobility spine
C = activity spine

MAP OF PERTH
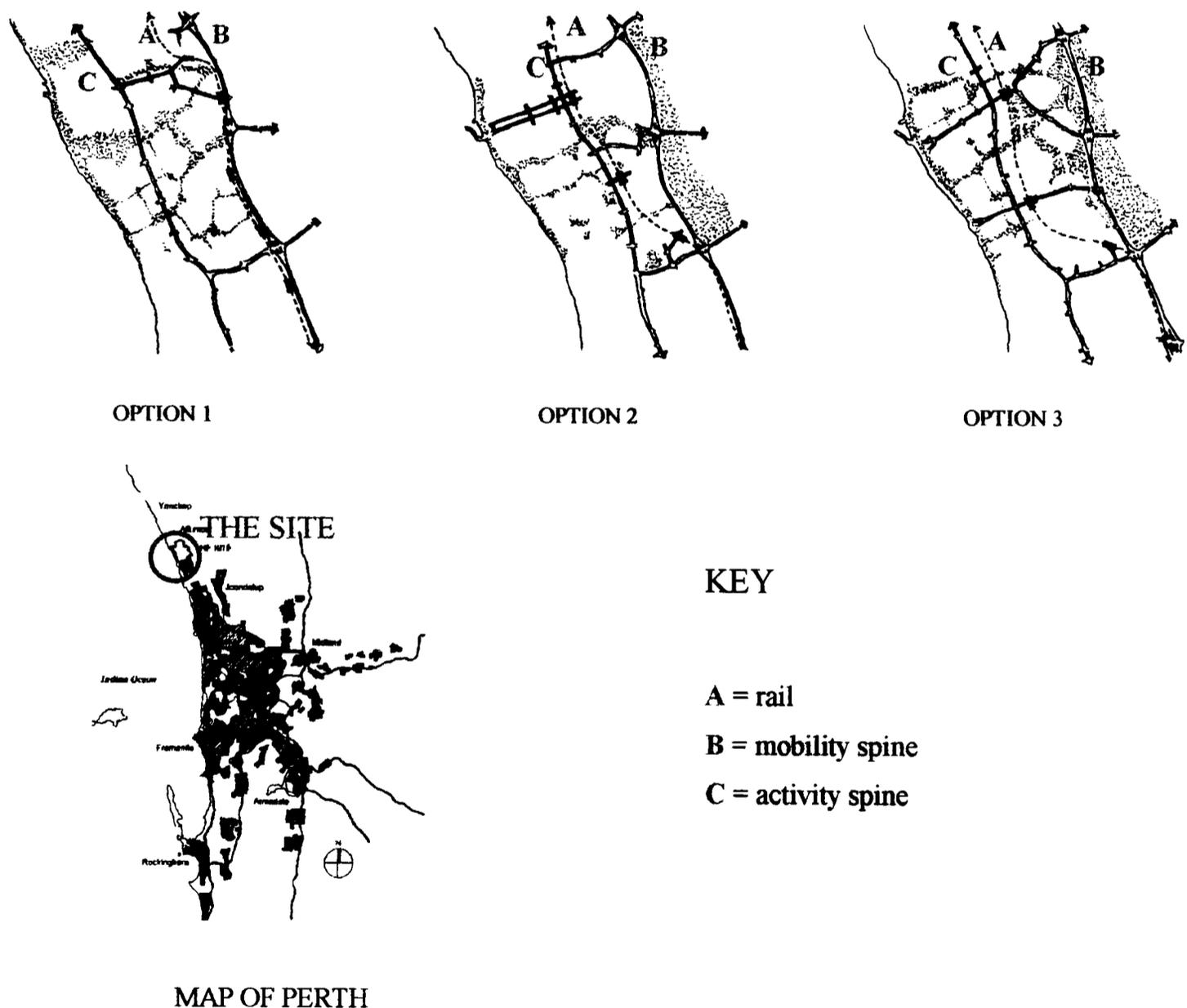
Figure 7.34. Three options presented for resolution at a design charette/ inquiry by design workshop (WAPC, 1996).

7.8.   TAKING THE BENEFITS OF A DEVELOPMENT PRACTICE APPROACH TO SCALE

Much of the discussion presented in this CHAPTER supports a more localised approach to corridor development. It challenges and questions the grand scale of decision-making associated with strategic plans. South African town planner Tom Wanklin, who has been involved in the development of the Mdantsane - East London Development Corridor, which is located in one of South Africa's poorest regions, pleads for a 'both-and' approach to corridor development. As with fieldwork associated with this research in the Winterveld he found enormous scale gaps and learning opportunities which the dominant, strategic approach fails to recognise:

> *These people live in their environment. They don't see or experience the corridor; their needs are much more immediate. Urban planning is often a matter of grandiose schemes. The challenge is to put these into practice. There should be simultaneous future planning and immediate action (quoted in Lamont 1999:10).*

The critique of action planning and the small beginnings it represents, has centred around its inability to scale up. A series of small, ad hoc interventions are designed to solve local problems but fail to engage the big strategic agendas. Notably, it has not influenced significantly the thinking behaviour or organisation of professional bodies or institutions (Hamdi, 2001:1). Devas (in Devas & Rakodi, 1993:87) notes that one obvious problem with the action planning approach, is precisely its primary concern with action, to the possible detriment of an adequate strategic planning framework with which to guide the more specific actions.

The regional and sub-regional plan-driven urban design methodologies presented in CHAPTER 6 may support a development planning approach. A well- considered capital web, minimal grids and a hierarchy of corridor scales will define appropriate units of participation and/or semi-autonomous development at the local scale. A methodology such as the one proposed in this CHAPTER, which determines the geography of action space by using key variables such as market interest and basic needs, will ensure that a development planning approach is only used where it is appropriate, i.e. where urban land is accessible to the poor and where a level of autonomy may be extended by tolerant metropolitan governments. Pilot projects may play a key part in validating the approach.

7.9. RECONSIDERING THE URBAN DESIGNER'S POWER TO BECOME AN ACTIVE PARTNER IN THE PARTICIPATORY DEVELOPMENT OF CORRIDOR SPACE.

CHAPTER 6 indicates that the City of Cape Town's Department of Urban Design, Planning and Environment has taken the lead in urban design praxis in corridor space in South Africa. Here local government has been bold in experimenting with local scale intervention and in demonstrating the value of urban design, albeit in a way which relies excessively on the enabling capacity of the *capital web*. It has however been noted that experimenting at the local scale demands an extraordinary amount of resources. Australian urban designer Munira Mackay's concerns about the lack of urban design skills (knowledge and numbers) in local government is echoed by Cape Town urban designer Barbara Southworth's (2002:13) assessment that *'there is a real danger that the programme may outgrow the capacity of the administration to manage it'*. In view of this it is suggested that:

> *'professionals external to local government, communities and representatives should play a fuller role in the programme; demanding and initiating similar projects. External professionals cannot merely wait for local government to take the initiative and benefit from the work generated'.*

To be able to take up this challenge within a market led, neo-liberal economy, development practitioners need to develop a thorough understanding of *land markets* on the one hand and of *basic needs* on the other. If one considers the distrust of professionals amongst poor communities as discussed in subparagraph 7.3.1., it also becomes necessary for greater levels of engagement and, as suggested in CHAPTER 3, it requires bureaucrats who have been schooled in the technical-rationalist tradition to soften their approach and to appreciate the value of local knowledge and of experimentation and reflection.

7.10. CONCLUSION (CHAPTER)

This CHAPTER aimed to present an alternative, development practice approach to urban design in corridor space. A consideration of the approach was based on the existence of an uneven socio-political and socio-economic landscape in the extended spaces of South African corridors. It was also noted that a more engaging approach deserves consideration because of growing evidence that institutionalised participation linked to a strategic urban management approach is developing into a form of tyranny.

The terms *market space* and *action space* were devised to indicate zones within the extended corridor region in which either *the market* or *basic needs* considerations dominate. Diagrams were presented that indicate that the line between *market space* and *action space* is a dynamic, shifting line and it was proposed that the geography of each needs to be determined as part of a strategic urban management approach. It was indicated how use of Maslow's hierarchy of basic needs may be used to assist in performing the analysis. The same diagram was used to show that all citizens within extended corridor zones may not have the same level of receptiveness towards participatory processes. Hamdi & Wates' matrixes of ideal and reluctant participatory partners were used to inform the analysis.

Once action space was defined and its geography assessed within a case study site, the principles of minimalism and incrementalism were considered as key principles of a development planning approach. The strategy was supported by findings from the Villa El Salvador case study in Peru. It was indicated how the combination of a minimal grid and active support for an incremental approach to development of corridor nodes may generate opportunities for knowledge transfer between nodes and thus for building social capital. It was also indicated how timeous introduction of a minimal grid and an emphasis on lateral connections will prevent the overburdening or clogging up of the mobility spine at the interface between action space and market space.

A limited and qualified fieldwork exercise was conducted in the Winterveld/ Soshanguve area of the MCDC Corridor. The purpose of the exercise was to indicate the validity of a development practice approach in corridor development. It was indicated how the approach might become not an alternative approach, but rather supplementary to the plan-driven urban design approaches presented in CHAPTER 6. A lack of appropriately qualified/

inclined development practitioners arguably represents the greatest stumbling block in adopting an approach that requires active and ongoing involvement.

Finally, while not strictly related to the discussion of a development practice approach in corridor space, it was indicated how urban managers may introduce a more participatory approach to decide on the alignment/location of major infra-structural elements such as roads, rail, taxi ranks and stations. The assessment is based on the charette/enquiry by design methodologies used in Western Australia.

The findings of this CHAPTER will be weighed against the more conventional approaches to corridor development as discussed in CHAPTER 6 and will inform the development of an integrated strategy for urban design in corridor space presented in CHAPTER 8.

CHAPTER 8: AN INTEGRATED STRATEGY FOR URBAN DESIGN IN SOUTH AFRICAN CORRIDOR DEVELOPMENT

8.1. AIMS AND SCOPE

The aim of this CHAPTER is to present an *integrated strategy* for urban design in South African corridor space. The strategy is constructed using the findings presented in previous CHAPTERS and comprises three parts:

- The **first** part divides the corridor into a series of sub regions and presents a strategy for each. The strategy for each sub region considers eight key variables presented in previous CHAPTERS

- The **second** part considers the strategies presented in the first part and summarises the key strategic objectives of urban design in corridor development.

- The **third** part considers the institutional and disciplinary challenges of urban design, based on the key objectives presented in the second part.

8.2. METHODOLOGY

In preceding CHAPTERS of this thesis conclusions were drawn that serve to inform an integrated strategy for urban design action in corridor space. These are summarised and referenced below.

- CHAPTER 3 considered South Africa's political economy and identified opportunities for possible urban design action that relate to the six key dimensions of South Africa's political economy.

  Strategic focus: Possible actions (WHAT) and contextual variables (WHY) were presented in the conclusion of CHAPTER 3.

- CHAPTER 4 considered the socio-economic variables associated with South African corridor space, identified the different geographies for action and proposed possible urban design roles in suburbia, townships and the agripolitan fringe.

  Strategic focus: Possible actions (WHAT) and contextual variables (WHERE and WHY) are presented at the end of PART 1 of the CHAPTER.

- CHAPTER 5 considered the relative power base of urban design in South Africa. The dominant strategic urban management framework was used to inform the development of two *powergrams* for urban design. The first relates to the *strategic phase* and the second to the *project phase* associated with a typical five-year budgetary cycle.

  Strategic focus: to determine (1) the relative power base of urban design (WHAT) and (2) the capacity of urban design to influence, inform or control corridor development during the two stages associated with a strategic urban management cycle (WHEN).

- CHAPTER 6 considered the various tools/ methods that have been used by urban designers in corridor development. Table 6.31 summarises the qualities of each of the six tools analysed and indicates how each tool corresponds to the needs of the market and different urban communities.

  Strategic focus: Tools for use by urban designers (WHAT) are related to different corridor contexts or parts of corridor space (WHERE and WHY).

- CHAPTER 7 identifies the theoretical geography of *market space* and *action space* in extended corridors and proposes where a development practice approach may be more appropriate than a conventional urban design approach.

  Strategic focus: It determines the WHERE and WHY of a development practice approach.

The findings of each CHAPTER relate to the findings and contextual variables of previous CHAPTERS while gradually constructing a strategy for urban design in corridor development. The purpose of this CHAPTER is to present an integrated strategy in a compact and accessible format that may be used to communicate research findings to metropolitan councils, urban designers and other interested parties. Importantly the strategy aims to

- **first,** bring conventional urban design approaches and an alternative development practice methodologies to bear together.

- **Second,** indicate the relationship between city wide, regional and sub-regional urban design roles.

CONTEXT   FILTER   STRATEGY

CHAPTERS 3&4 CHAPTER 5 CHAPTERS 6&7 CHAPTER 8 THIS CHAPTER
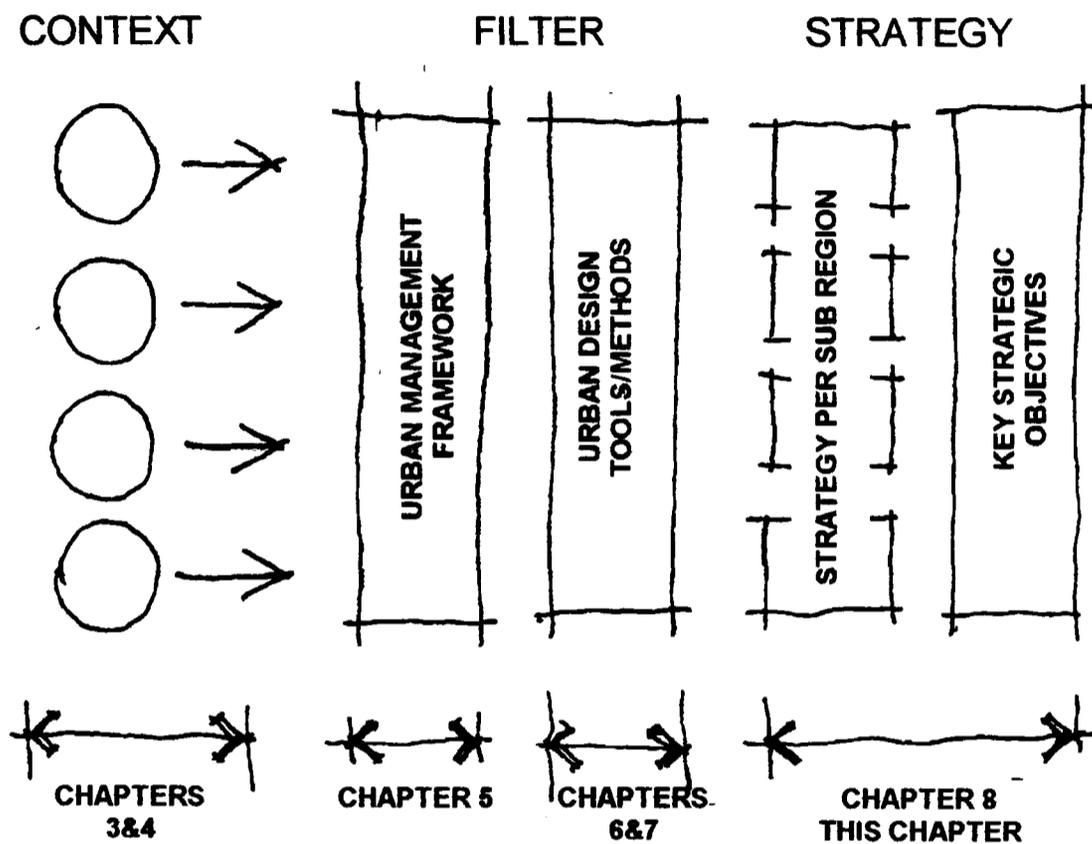
Tables 8.1 and 8.2 integrate the findings of previous CHAPTERS into matrixes that indicate the different contexts for urban design action in corridor development. They also define the key variables associated with *action space* and *market space*. Tables 8.3 to 8.11 is more detailed; it presents a strategy for each of the nine sub-regions associated with South African corridor development. The first three sub-regions presented are located in *market space* while the last six sub-regions are located in *action space*.

CONTENTS OF THE TABLES

Down the left hand side of each of the tables are listed the regional and sub-regional typologies associated with corridor development (WHERE). The relationship between typology and basic needs was indicated in CHAPTER 4 and is used to anchor the matrix.

The key strategic actions for each sub-regional typology is listed next (WHAT) followed by a reason for each action (WHY). Next the initiators and key actors who play a role in the development of each sub-region of the corridor are identified (WHO). The matrix then shows what role urban design has to play during the *strategic* and *project phases* associated with a strategic urban management approach (WHEN). These *phases* were identified in CHAPTER 5 (see figure 5.4.). Finally the matrix indicates which of the urban design tools/approaches identified in CHAPTERS 6 and 7 are most suited for use in each sub-region of the corridor and during the strategic and project phases.

DEFINITION OF TERMS USED IN THE TABLES

The term *metropolitan government* that appears in most of the tables in the column *'WHO/ Initiator'* refers to the elected representative forum and/or mayoral committee that decides what nominated/mooted projects will receive dedicated funding during a typical strategic five year cycle. This is a necessarily a very powerful organ.

The terms *spatial planning unit*, *urban designers* and *development practitioners* in the *WHO* column relate to different urban design groupings or roles:

- The *spatial planning unit* comprises a multi-disciplinary core group that is responsible for the preparation of a five year *Integrated Spatial Development Framework*. The *framework* indicates the location of key projects in the city and is used to seek approval for the development of these projects from the *IDP Representative Forum*. Due to a lack of urban design skills in most cities, planners presently dominate spatial planning units. Core visualisation- and creative design skills make urban designers important team members.

- The term *urban designers (consultants)* in the WHO column refers to urban design consultants in private practice who mostly become involved at the sub- regional or local project level and on a temporal/contract basis. Their main skills are physical/spatial design skills that is mostly informed by plan- and principle driven methods. They assume a level of expertise.

- The *development practitioners* in the WHO column refers to enablers who have acquired urban design skills but who direct their energies towards actively involving communities in the design process. Architects and urban designers who have a reflective approach to practice are best suited to the task.

TABLE 8.1. OPPORTUNITIES FOR URBAN DESIGN INVOLVEMENT IN MARKET SPACE

WHERE?		WHAT?	WHY?	WHO?		WHEN?	HOW?
REGIONAL CONTEXT	SUB REGIONAL CONTEXT	STRATEGIC ACTION	STRATEGIC GOAL	MAIN AGENT OF DEVELOPMENT OR CHANGE	DESIGNERS AND KEYACTORS	URBAN DESIGN INVOLVEMENT	APPROPRIATE URBAN DESIGN TOOLS
				Initiators	I = influence C = control limited control = LC	S = strategic level P = project level	SEE STRATEGY FOR EACH SUB-REGION TABLES 8.3. to 8.5
MARKET SPACE	Suburbia	Densify and intensify in and around nodes and activity spines	1. Focus public investment 2. Sustainable urban form 3. Attract private investment	- Public and/or private sector	- Spatial planning unit (metro) I - Urban designers I - Residents I/C	P	
	Well-located township	Densify and intensify in and around nodes and activity spines	1. Focus public in-vestment 2. Sustainable urban form 3. improve urban character 4. Cater for a modern value system	- Metropolitan government	- Residents C - Urban designers I	S P	
	greenfields site	1. new high density nodes 2. new activity spines	1. Bridge the physical gaps of the apartheid city 2. Support a high density and mixed use urban growth pattern. 3. Often high profile provincial projects aimed at leveraging foreign investment	- public private partnership	- spatial planning unit (metro) I - urban designers I	S P	
					- spatial planning unit (metro) C - urban designers I - transport engineers C	S P	

TABLE 8.2. OPPORTUNITIES FOR URBAN DESIGN INVOLVEMENT IN ACTION SPACE

WHERE?		WHAT?	WHY?	WHO?		URBAN DESIGN INVOLVEMENT	APPROPRIATE URBAN DESIGN TOOLS
REGIONAL CONTEXT	SUB REGIONAL CONTEXT	STRATEGIC ACTION	STRATEGIC GOAL	MAIN AGENT OF DEVELOPMENT OR CHANGE	DESIGNERS AND KEY ACTORS		
				INITIATORS	I = influence C = control LC = limited control	S= strategic level P= project level	SEE STRATEGY FOR EACH SUB-REGION TABLES 8.6 to 8.11
ACTION SPACE	remote township	- improve access - improve a greater mix of land uses	- integrate established communities	- metropolitan government	- residents C - spatial planning unit (metro) I - urban designers I	S P	
	agripolitan fringe subsistence culture and	- confirm legal status	- social/economic integration	- metropolitan government	- metropolitan government LC - development practitioners I	S P	
	squatter settlements	- engage and build trust	- fear/lack of trust - acknowledge high level of transience	- metropolitan government	- metropolitan government LC - development practitioners I	S P	
	mobility spine activity spine	Introduce rail and/or road that links peripheral settlements to cores of urban opportunity	- physically integrate the apartheid city - improve mobility and access - sustainable development	- national/provincial department of transport	- Spatial planning unit (metro) I - Urban designers I	S	
				- metropolitan government	- Spatial planning unit (metro) I - Urban designers I	S P	
	greenfields site	- intr. transverse connections	- trading opportunity - empowering space	- metropolitan government	- metropolitan government LC - development practitioners I	S P	
		- intr. autonomous blocks	- recognise limited resources - build social capital	- metropolitan government	- metropolitan government LC - development practitioners I	S P	

8.3. A PROPOSED STRATEGY FOR URBAN DESIGN INVOLVEMENT IN MARKET SPACE

8.3.1. INTRODUCTION

Market space is a term that has been developed in the context of this research (see figure 7.18 CHAPTER 7). It refers to those geographies in urban corridors where the market dominates or shows active interest because of the supportive climate created by a neo-liberal urban management system. The three tables presented on the following pages propose a strategy for urban design involvement in each of the geographies associated with market space:

- **first,** corridor sub region 1: suburbia

- **second,** corridor sub region 2: well-located township

- **third,** corridor sub region 3: new high density node or activity spine in market space (greenfields site).

TABLE 8.3. CORRIDOR SUB REGION 1: SUBURBIA LOCATED IN MARKET SPACE

WHERE ?		WHAT ?	WHY ?	WHO ?		WHEN ?	HOW ?
REGIONAL CONTEXT	SUB REGIONAL CONTEXT	STRATEGIC ACTION (CORRIDOR RELATED)	STRATEGIC GOAL	INITIATOR	DESIGNERS AND KEY ACTORS	STRATEGIC OR PROJECT LEVEL	KEY URBAN DESIGN TOOLS
Refer to: CHAPTER 7 *Figure 7.18*	Refer to: CHAPTER 7 *Figure 7.18* *Figure 7.17*		Refer to: CHAPTER 3 Conclusion CHAPTER 4 Conclusion	Refer to: CHAPTER 5 *Figure 5.4* *Figure 5.30*	Refer to: CHAPTER 5 *Figure 5.29* *Figure 5.30*	Refer to: CHAPTER 5 *IDP process* *Figure 5.4*	Refer to: CHAPTER 6 *Figure 6.31* CHAPTER 7 *Table 7.4*
MARKET SPACE	**SUBURBIA**				I = influence C = control LC = limited control	URBAN DESIGN ROLE	
		Densify and intensify in and around nodes and activity spines. Urban Development Framework (DoH., 1997)	1. Focus public investment. 2. Sustainable urban form 3. Attract private investment	1. Public sector: link node- and activity based redevelopment projects to strategic framework. 2. Private sector: large developers are often initiators of new urbanist redevelopment projects.	Spatial planning unit (metropolitan council) (I/C)	STRATEGIC LEVEL: Indicate location of redevelopment, Support or reject mooted large scale projects.	Motivate location and extent of suburban redevelopment by using: 1. Hierarchy 2. Stable local districts (retrofit) 3. Codes for densification of individual lots
					Urban designers (consultants) (I/C)	PROJECT LEVEL: Employed by large scale developer	1. New Urbanist design codes. Brief often calls for use of Anglo-American urban design principles.
		Participation	Normative principle *Development Facilitation Act* (DocD,1996).		Residents (I) in and/or adjacent to redevelopment site.	Strategic level oppose or support proposals	Enquiry by design.

TABLE 8.4. CORRIDOR SUB REGION 2: WELL-LOCATED TOWNSHIP

WHERE?		WHAT?	WHY?	WHO?		WHEN?	HOW?
REGIONAL CONTEXT	SUB REGIONAL CONTEXT	STRATEGIC ACTION (CORRIDOR RELATED)	STRATEGIC GOAL	INITIATOR	DESIGNERS AND KEY ACTORS	STRATEGIC OR PROJECT LEVEL	KEY URBAN DESIGN TOOLS
Refer to: CHAPTER 7 *Figure 7.18*	Refer to: CHAPTER 7 *Figure 7.18* *Figure 7.17*		Refer to: CHAPTER 3 Conclusion CHAPTER 4 Conclusion	Refer to: CHAPTER 5 *Figure 5.4* *Figure 5.30*	Refer to: CHAPTER 5 *Figure 5.29* *Figure 5.30*	Refer to: CHAPTER 5 *IDP process* *Figure 5.4*	Refer to: CHAPTER 6 *Figure 6.31* CHAPTER 7 *Table 7.4*
					I = influence C = control LC = limited control	URBAN DESIGN ROLE	
CLOSE TO MARKET SPACE	WELL- LOCATED TOWNSHIP	Densify and intensify in and around nodes and activity spines. Urban Development Framework (DoH., 1997)	1. Focus public investment 2. Sustainable urban form. 3. Improve urban character 4. Acknowledge the existence of a modern value system in older, well located townships	1.Metropolitan government Note: Very limited short term interest from large private investors.	Spatial planning unit (I/C)	STRATEGIC LEVEL: Propose township upgrade projects around nodes/ activity spines in spatial framework	Motivate public investment in townships by using: 1.Hierarchy 2.Incremental redevelopment. 3. Stable local districts (retrofit) 4. Codes for densification of individual lots.
					Urban designers (I)	PROJECT LEVEL: Metropolitan government contract.	Local regeneration framework
		Participation	Normative principle *Development Facilitation Act* (DocD,1996)		Residents (I) and neighbouring communities (I) affected by redevelopment.	Both strategic and project level	Enquiry by design workshops

TABLE 8.5. CORRIDOR SUB REGION 3: NEW HIGH DENSITY NODE OR ACTIVITY SPINE IN MARKET SPACE (GREENFIELDS SITE).

WHERE ?		WHAT ?	WHY ?	WHO ?		WHEN ?	HOW ?
REGIONAL CONTEXT	SUB REGIONAL CONTEXT	STRATEGIC ACTION (corridor related)	STRATEGIC GOAL	INITIATOR	DESIGNERS AND KEY ACTORS	STRATEGIC OR PROJECT LEVEL	KEY URBAN DESIGN TOOLS
Refer to: CHAPTER 7 *Figure 7.18*	Refer to: CHAPTER 7 *Figure 7.18* *Figure 7.17*		Refer to: CHAPTER 3 Conclusion CHAPTER 4 Conclusion	Refer to: CHAPTER 5 *Figure 5.4* *Figure 5.30*	Refer to: CHAPTER 5 *Figure 5.29* *Figure 5.30*	Refer to: CHAPTER 5 *IDP process* *Figure 5.4*	Refer to: CHAPTER 6 *Figure 6.31* CHAPTER 7 *Table 7.4*
					I = influence C = control LC = limited control	URBAN DESIGN ROLE	
MARKET SPACE	NEW HIGH DENSITY NODE OR ACTIVITY SPINE	Propose and develop new high density nodes and/or activity spines in market space. Urban Development Framework (DoH., 1997)	1. Bridge the physical gaps of the apartheid city. 2. Support a high density and mixed use urban growth pattern . 3. Often high profile projects aimed at leveraging local and foreign investment.	Public or private sector, depending on the level of market interest in the location of the node or activity spine. Limited publicly owned land in market space weakens the hand of metropolitan government.	Spatial planning unit of metropolitan government	STRATEGIC PHASE: Indicate the appropriate location of decentralised development in market space . Support or reject proposals for node-based development by large developers.	Motivate location of nodes in marker space by using: 1. Hierarchy 2. City as movement system (access and mobility). 3. If sufficient resources are available, the stable local district concept may be tested.
					1. Urban designers (consultants)	PROJECT LEVEL: Employed by development agency	1.To complete the hierarchy of scales and inform spatial development at the sub regional and local level. 2. Use urban design codes
		participation	Normative principle. *Development Facilitation Act* (DocD,1996)		Mostly spatial planning unit, urban designers and developers and possibly affected communities (no residents in greenfields sites)	Strategic and project level	3. Enquiry by design/ charette

8.4. A PROPOSED STRATEGY FOR URBAN DESIGN INVOLVEMENT IN ACTION SPACE

8.4.1. INTRODUCTION

Action space has been defined as marginal corridor zones where many poor migrants live and where the market has shown reluctance to invest (see figure 7.18 CHAPTER 7). The six tables presented on the following pages propose a strategy for urban design involvement in each of the six distinctive geographies associated with action space:

- **first,** corridor sub-region 4: remote township in action space (greyfields site).

- **second,** corridor sub-regions 5 and 6: agripolitan fringe/subsistence culture and squatter communities in action space.

- **third,** generic corridor elements: new mobility spine and activity spines in action space (greenfields site).

- **fourth,** generic corridor element: new nodes in action space (greenfields site).

- **fifth,** generic corridor element: transverse connections in action space.

- **sixth,** clusters of semi-autonomous block developments in action space (state owned land).

TABLE 8.6. CORRIDOR SUB REGION 4: REMOTE TOWNSHIP IN ACTION SPACE (GREYFIELDS SITE).

WHERE ?		WHAT ?	WHY ?	WHO ?		WHEN ?	HOW ?
REGIONAL CONTEXT	SUB REGIONAL CONTEXT	KEY STRATEGIC ACTION (corridor related)	STRATEGIC GOAL	INITIATOR	DESIGNERS AND KEY ACTORS	STRATEGIC OR PROJECT LEVEL	KEY URBAN DESIGN TOOLS
Refer to: CHAPTER 7 *Figure 7.18*	Refer to: CHAPTER 7 *Figure 7.18* *Figure 7.17*		Refer to: CHAPTER 3 Conclusion CHAPTER 4 Conclusion	Refer to: CHAPTER 5 *Figure 5.4* *Figure 5.30*	Refer to: CHAPTER 5 *Figure 5.29* *Figure 5.30*	Refer to: CHAPTER 5 *IDP process* *Figure 5.4*	Refer to: CHAPTER 6 *Figure 6.31* CHAPTER 7 *Table 7.4*
					I = influence C = control LC = limited control	URBAN DESIGN ROLE	
MARKET SPACE	REMOTE TOWNSHIP IN ACTION SPACE	1. Improve access 2. Introduce a greater mix of uses around nodes and activity spines (intensification). Urban Development Framework (DoH., 1997)	1. Integrate fragments of the apartheid city. 2. Local economic development	Metropolitan Government Very little interest from the private sector other than provision of housing to those who can secure bonds.	Spatial planning unit (I/C)	STRATEGIC LEVEL: Influence decisions on public investment in regeneration projects around nodes and activity spines.	Motivate public investment by using 1. City wide hierarchy of scales 2.Incremental vision of redevelopment. 3. City as movement system
					Urban designers (I) (consultants)	PROJECT LEVEL: 1.Finite metropolitan government contract. And/or 2. Do research and initiate own projects	1. Local redevelopment frameworks that tie in with the higher order hierarchy. 2. Present incremental vision
		Participation	Normative principle. *Development Facilitation Act* (DocD,1996)		Residents and neighbouring communities affected by redevelopment (I). Good participation rating (see Chapter 7).	Both strategic and project level	1. Enquiry by design workshops for alignment of infrastructure. 2. Action planning/ planning for real for block and street redevelopment.

TABLE 8.7. CORRIDOR SUB REGIONS 5 AND 6: AGRIPOLITAN FRINGE/SUBSISTENCE CULTURE AND SQUATTER COMMUNITIES IN ACTION SPACE.

WHERE ?		WHAT ?	WHY ?	WHO ?		WHEN ?	HOW ?
REGIONAL CONTEXT	SUB REGIONAL CONTEXT	STRATEGIC ACTION (Corridor related)	STRATEGIC GOAL	INITIATOR	DESIGNERS AND KEY ACTORS	STRATEGIC OR PROJECT LEVEL	KEY URBAN DESIGN TOOLS
Refer to: CHAPTER 7 *Figure 7.18*	Refer to: CHAPTER 7 *Figure 7.18* *Figure 7.17*		Refer to: CHAPTER 3 Conclusion CHAPTER 4 Conclusion	Refer to: CHAPTER 5 *Figure 5.4* *Figure 5.30*	Refer to: CHAPTER 5 *Figure 5.29* *Figure 5.30*	Refer to: CHAPTER 5 *IDP process* *Figure 5.4*	Refer to: CHAPTER 6 *Figure 6.31* CHAPTER 7 *Table 7.4*
					I = influence C = control LC = limited control	URBAN DESIGN ROLE	
MARKET SPACE	AGRIPOLITAN FRINGE/SUBSISTENCE CULTURE IN ACTION SPACE.	Confirm legal status of settlement (likelihood of settlement being recognised . *Land Tenure Act(1997)*	Danger of creating false hope.	Metropolitan government High risk, no private sector interest.	Spatial planning unit of metropolitan government (I/C)	STRATEGIC LEVEL Identify upgrade projects and seek funding approval from the representative forum	Motivate/ Visualise by using: 1. Hierarchy of scales 2.Incremental redevelopment. 3. City as a movement economy
		engage build trust	Build democracy Acknowledge alienation and high level of transience. Fusion of traditional and modern value systems.		Development practitioners. (NGO's/ consultants) (I) metropolitan government contract or Do research and moot redevelopment projects.	PROJECT LEVEL Contracts linked to defined projects that have been mooted and approved at a strategic level.	Relate to higher order hierarchy of scales Minimal grid Incremental development
		Participation	Normative principle *Development Facilitation Act* (DocD,1996)		Residents of informal Settlements Occasionally representatives of donor agencies. Note: residents of this zone may be reluctant participatory partners. See Chapter 7.		Define appropriate units of participation. Define appropriate standards Action planning Planning for Real

TABLE 8.8 GENERIC CORRIDOR ELEMENTS: NEW MOBILITY SPINE AND ACTIVITY SPINES IN ACTION SPACE (GREENFIELDS SITE).

WHERE ?		WHAT ?	WHY ?	WHO ?			WHEN ?	HOW ?
REGIONAL CONTEXT	SUB REGIONAL CONTEXT	STRATEGIC ACTION	STRATEGIC GOAL	INITIATOR	DESIGNERS AND KEY ACTORS		STRATEGIC OR PROJECT LEVEL	KEY URBAN DESIGN TOOLS
Refer to: CHAPTER 7 *Figure 7.18*	Refer to: CHAPTER 7 *Figure 7.18* *Figure 7.17*		Refer to: CHAPTER 3 Conclusion CHAPTER 4 Conclusion	Refer to: CHAPTER 5 *Figure 5.4* *Figure 5.30*	Refer to: CHAPTER 5 *Figure 5.29* *Figure 5.30*		Refer to: CHAPTER 5 *IDP process* *Figure 5.4*	Refer to: CHAPTER 6 *Figure 6.31* CHAPTER 7 *Table 7.4*
					I = influence C = control LC = limited control		URBAN DESIGN ROLE	
ACTION SPACE **NEW MOBILITY SPINE IN ACTION SPACE (GREENFIELDS SITE)**		Introduce mobility (rail and or road) that links peripheral settlements to the core/s of urban opportunity Urban Development Framework (DoH., 1997)	1. Physically integrate the apartheid city 2. Improve mobility and access. 3. Sustainable development: focus development around a key public transport route.	National Department of Transport Metroplolitan government	Spatial planning unit in metropolitan government		STRATEGIC LEVEL Integrate visions of national and metropolitan government. Do not overspecify/ overdesign roads and rail (balance technocratic view)	Motivate when and where mobility and activity spines are needed by using: 1. City wide hierarchy of scales 2.A vision of Incremental development 3.City as movement economy.
		participation	Normative principle *Development Facilitation Act* (DocD,1996)		1.Development practitioners 2. Other interested parties/ stakeholders		PROJECT LEVEL Develop intimate knowledge of local conditions and of needs of communities.	1. Use sub regional hierarchies to influence alignment and timing in a bottom-up way 2. Use enquiry by design/ charette process to influence regional alignment (Australian case).

TABLE 8.9. GENERIC CORRIDOR ELEMENT: NEW NODES IN ACTION SPACE (GREENFIELDS SITE).

WHERE ?		WHAT ?	WHY ?	WHO ?		WHEN ?	HOW ?
REGIONAL CONTEXT	SUB REGIONAL CONTEXT	STRATEGIC ACTION	STRATEGIC GOAL	INITIATOR	DESIGNERS AND KEY ACTORS	STRATEGIC OR PROJECT LEVEL	KEY URBAN DESIGN TOOLS
Refer to: CHAPTER 7 *Figure 7.18*	Refer to: CHAPTER 7 *Figure 7.18* *Figure 7.17*		Refer to: CHAPTER 3 Conclusion CHAPTER 4 Conclusion	Refer to: CHAPTER 5 *Figure 5.4* *Figure 5.30*	Refer to: CHAPTER 5 *Figure 5.29* *Figure 5.30*	Refer to: CHAPTER 5 *IDP process* *Figure 5.4*	Refer to: CHAPTER 6 *Figure 6.31* CHAPTER 7 *Table 7.4*
					I = influence C = control LC = limited control	URBAN DESIGN ROLE	
ACTION SPACE	*NEW ACTIVITY SPINE OR NODE IN ACTION SPACE (GREENFIELDS SITE).*	Establish decentralised, high density nodes. (string of beads concept) Urban Development Framework (DoH., 1997)	1. Support the viability of mass transport system. New nodes bridge the gaps of a fragmented apartheid city. 2. Sustainable growth pattern 3.Allow space for urban agriculture between nodes by concentrating development in nodes	Metropolitan government	Spatial planning unit in metropolitan government (C)	STRATEGIC LEVEL Seek approval of metroplitan funds for investment in infrastructure associated with nodes.	Motivate when and where nodes are developed in corridor space by using the following methods: 1.City-wide hierarchy of scales 2. An incremental vision of development 3.City as movement economy
					Urban designers (early phases)	PROJECT LEVEL Contracted by metroplitan government Sub regional design to influence alignment and timing of the introduction of regional corridor elements during the next strategic cycle.	Frameworks for development of nodes. Complete hierarchy of scales and vision of incremental development at a sub regional level
					Interested parties (no residents during early stages)		1. Visualisation 2. Enquiry by design/ Charette
		Participation	Normative principle *Development Facilitation Act* (DocD,1996)		Development practitioners (later phases)		See development of semi-autonomous blocks (Table 8.11.)

TABLE 8.10. GENERIC CORRIDOR ELEMENT: TRANSVERSE CONNECTIONS IN ACTION SPACE.

WHERE ?		WHAT ?	WHY ?	WHO ?		WHEN ?	HOW ?
REGIONAL CONTEXT	SUB REGIONAL CONTEXT	STRATEGIC ACTION	STRATEGIC GOAL	INITIATOR	DESIGNERS AND KEY ACTORS	STRATEGIC OR PROJECT LEVEL	KEY URBAN DESIGN TOOLS
Refer to: CHAPTER 7 *Figure 7.18*	Refer to: CHAPTER 7 *Figure 7.18* *Figure 7.17*		Refer to: CHAPTER 3 Conclusion CHAPTER 4 Conclusion	Refer to: CHAPTER 5 *Figure 5.4* *Figure 5.30*	Refer to: CHAPTER 5 *Figure 5.29* *Figure 5.30*	Refer to: CHAPTER 5 *IDP process* *Figure 5.4*	Refer to: CHAPTER 6 *Figure 6.31* CHAPTER 7 *Table 7.4*
					I = influence C = control LC = limited control	URBAN DESIGN ROLE	
ACTION SPACE		Arrange transport interchanges so that transverse connections are optimised. (Perunvian, Cape Town case studies)	1. Generates pedestrian movement and supports informal trade along edges. 2. Logical position of high street that develops incrementally	Metropolitan government	Spatial planning unit in metropolitan government (I)	STRATEGIC LEVEL 1. Include transverse connections in spatial vision and seek metropolitan funds to support incremental development. 2.Acknowledge importance of interchanges to act as anchors for the transverse connections.	Motivate arrangement of generic corridor elements (mobility spines and activity spines) to optimise of transverse connections 1. Use hierarchy of scales and city as movement economy to motivate. 2. Visualise incremental development
					Urbban designers (early phases)	PROJECT LEVEL 1. Link transverse connections to the associated minimal grid. Inform decisions at a metropolitan level during subsequent budgetary cycles	1. Local Minimal grid 2. Link to higher order hierarchy of scales 3. Visualise Incremental development
	Participation		Normative principle *Development Facilitation Act* (DocD,1996)		Development practitioners (later phases)	Inform decisions at a metropolitan level during subsequent budgetary cycles	See development of semi-autonomous blocks (Table 8.11).

(rotated left margin text) TRANSVERSE CONNECTIONS IN ACTION SPACE.

TABLE 8.11. CORRIDOR SUB-REGION 7: CLUSTERS OF SEMI-AUTONOMOUS BLOCK DEVELOPMENTS IN ACTION SPACE (STATE OWNED LAND).

WHERE ?		WHAT ?	WHY ?	WHO ?		WHEN ?	HOW ?
REGIONAL CONTEXT	SUB REGIONAL CONTEXT	STRATEGIC ACTION	STRATEGIC GOAL	INITIATOR	DESIGNERS AND KEY ACTORS	STRATEGIC OR PROJECT LEVEL	KEY URBAN DESIGN TOOLS
Refer to: CHAPTER 7 *Figure 7.18*	Refer to: CHAPTER 7 *Figure 7.18* *Figure 7.17*		Refer to: CHAPTER 3 Conclusion CHAPTER 4 Conclusion	Refer to: CHAPTER 5 *Figure 5.4* *Figure 5.30*	Refer to: CHAPTER 5 *Figure 5.29* *Figure 5.30*	Refer to: CHAPTER 5 *IDP process* *Figure 5.4*	Refer to: CHAPTER 6 *Figure 6.31* CHAPTER 7 *Table 7.4*
					I = influence C = control LC = limited control	URBAN DESIGN ROLE	
ACTION SPACE	NEW HIGH DENSITY NODE OR ACTIVITY SPINE	Introduce semi-autonomous block development in peripheral corridor locations where the market shows little interest. (Peruvian precedent)	1.Acknowledge the backlog in public housing delivery, the rate of migration to cities, high levels of poverty and the inability of the poor to secure access to housing through conventional market mechanisms. 2. Response to the state president's call for volunteerism. 3. Response to the minister of housing's support for self-help	Metropolitan government	Spatial Planning unit in metropolitan government (I)	STRATEGIC LEVEL 1.Seek approval for development of peripheral nodes as groups of semi autonomous block developments 2. Seek to have development of autonomous blocks approved in clusters (initially as pilot projects). 3. Request that metropolitan funds be allocated to the purchase of land around peripheral nodes and for the introduction of a minimal grid.	Link block developments to : 1. The city wide hierarchy of scales. 2. City as a movement economy 3.Incremental vision of growth (gradual money) 4. Minimal grids around nodes
		Participation	Normative principle *Development Facilitation Act* (DocD,1996)		Development practitioners (involvement from the outset)	Contracted by metropolitan government in five year cycles Feed lessons back into strategic cycle.	1. Active and ongoing involvement and engagement with identified communities 2. Learning in Action 3. Action Planning 4.Planning for Real

8.5. SUMMARY OF THE MAIN STRATEGIC OBJECTIVES

The strategies for each of the nine corridor sub-regions presented above highlight a number of strategic objectives:

- **first,** urban design needs to recognise the dominance of the market in neo-liberal economies and needs to be aware of the associated socio-economic dualism. The sub-regions in *market space* and *action space* each require significantly different responses.

- **second,** urban design in each sub-region of the of the corridor needs to respond to the *strategic(city wide)* and *project(sub-regional/local)* cycles associated with South Africa's strategic urban management model

- **third,** integration is needed between *strategic level* and *project level* urban design. Lessons learnt at the project level during a five year cycle needs to influence the next strategic level budgetary process. Urban designers need to think across scales and need to comprehend the new importance of *the region* as a vehicle for economic growth in post industrial societies.

- **fourth,** a city-wide hierarchy of scales is necessary to prioritise investment in defined strategic projects. This is a key function of the spatial planning units associated with metropolitan governments.

- **fifth,** urban design at the project level needs to respond to the city-wide hierarchy of scales and to a city-wide incremental vision rather than to preconceived, generic corridor elements alone. Private urban design consultants who become involved at the project level need to think well beyond the local site and need to be provided with accessible information to improve hierarchical fit.

- **sixth,** that generic corridor elements (nodes, mobility spines, activity spines and transverse connections) need to be incorporated into the hierarchy of urban scales and need to form part of the incremental vision for development (space-time).

- **seventh**, that more conventional urban design approaches needs to be supplemented with a development practice approach in action space. This corresponds with the need for greater autonomy to be extended to poorer communities in peripheral locations.

8.6. KEY INSTITUTIONAL AND DISCIPLINARY CHALLENGES

The summary of main strategic objectives presented above suggests that significant institutional and disciplinary challenges lie ahead.

The development of frameworks that actively consider hierarchy and incremental development at both the city-wide and project level requires significant resource allocation. Hierarchy, incremental development and stable local districts are methods that require creative skills, reflexivity and good comprehension of space-time dimensions. These are acquired skills commonly associated with urban design. Some concepts are new and will require testing and translation.

To overcome the problems associated with overly generic and overly technocratic methods, metropolitan governments need to increase the urban design capacity of the now very influential *spatial planning units (see inclusion in 'Initiator' column of most tables)*. Cities such as Cape Town and Perth have developed hierarchical and incremental frameworks that provide clear guidance to urban design at the sub-regional and local scales. This creates a clear vision and effective allocation of resources. In the majority of other cities the hangover of a technocratic mindset continues to see the allocation of public funds to a range of isolated projects, often based on questionable scientific assessment/prioritisation methods. Not only is there an urgent need for greater numbers of urban designers, but for a stepping up of a lobby that promotes urban design. The role of precedent and champions are crucial to expand the influence of urban design. The Cape Town and Perth cases indicate how the resolve of a handful of urban designers has seen this objective being achieved. It also indicates how urban design has become influential at a regional scale where hierarchies are best considered. It is a sad state of affairs that the Johannesburg- Pretoria metropolis; the fastest growing in Africa does not have a resident urban design school. Part of the challenge is certainly to establish urban design schools here and in other major urban centres.

An alternative, development practice approach that has been proposed for use in marginal corridor locations (action space) requires a new type of urban designer that is willing to 'learn in the process of doing' while actively engaging with communities in an incremental, city building process (figure 7.26 CHAPTER 7). The neo-liberal urban management model currently in use largely denies this approach by reserving most urban land (even peripheral land) for the market. Metropolitan governments need to acquire peripheral urban land or recognise illegal communities in peripheral locations before initiating a limited number of pilot projects. These projects need to be mooted by the spatial planning unit and are urgently needed to provide precedents of the value of people driven approaches that have been used with great success in Latin America. The development practice role for urban design responds to a growing realisation that the state cannot cope with the crisis associated with the huge influx of poor migrants while the private sector remains largely disinterested in investing in marginal locations. The research has indicated that few urban designers are adequately prepared for this complex, more engaging form of practice. Urban design education in South Africa cannot afford to focus only on the enabling capacity of plan and on a network of minimal public investment. It has to support an approach that actively builds democracy and social capital through engagement.

CHAPTER 9: CONCLUSION

9.1. INTRODUCTION

This CHAPTER presents the final conclusions of the research. The conclusions are presented in four parts:

- The **first** part considers how the research objectives have been met and presents the key findings related to each of the four research objectives.
- The **second** part considers the achievements and shortcomings of the research methods used.
- The **third** part presents recommendations for urban design practice and opportunities for further research.
- The **fourth** part presents the key contributions to knowledge.

9.2. MEETING THE RESEARCH OBJECTIVES

The following research objectives were stated in the introductory chapter:

(i)   The **first** objective was to develop an understanding of the political, social, economic and spatial **context** of corridor development to which urban design needs to respond. This will draw on theory, will be supported by international case studies and South African fieldwork and will require judicious translation between contexts.

(ii)   The **second** objective was to analyse the power relations and scales associated with corridor development processes and to determine appropriate levels and scope for urban design intervention.

(iii)   The **third** objective was to present a critique of urban design methods and tools used in corridor development, both in South Africa and in international case study contexts, and to indicate if, when, where and how these may be used in the South African corridor context.

(iv)   The **fourth** objective was to propose an integrated strategy for urban design in corridor development in South Africa. The strategy will be based on the findings of research related to the first three objectives. The strategy needs to be presented in a form that is accessible and useful to both metropolitan governments and urban design practitioners.

KEY FINDINGS RELATED TO THE FIRST RESEARCH OBJECTIVE

The **first** objective was *'to develop an understanding of the political, social, economic and spatial context of corridor development to which urban design needs to respond. This will draw on theory, will be supported by international case studies and South African fieldwork and will require judicious translation between contexts'.*

The urban corridor was first defined by drawing on a wide range of sources, including the opinions of South African urban designers. The analysis highlights the danger of oversimplifying the corridor by emphasising its physical attributes, particularly its linearity or by assuming the corridor to be a universal type that comprises series of defined generic elements. There is growing evidence that the symbolic importance of the integration corridor, a politically-inspired reaching out between the white centres of privilege and black margins of underprivilege, is not being matched by real spatial outcomes. The main reason for this is the fact that the market has been reluctant to invest in locations suggested in politically-inspired corridor plans.

Not only is the investor market generating tensions in corridor space; a deeper socio-economic and socio-political analysis indicates how forces such as levels of local economic development, identity, levels of transience and migration generate tensions and significantly different spatial outcomes, both when comparing corridors in different countries and sub-regions in a particular corridor. A universal, physical or technocratic view of its development poses perhaps the greatest danger to the ultimate success of a process that aims to meet an ambitious set of objectives.

The stated research objective generated findings that suggest that urban design needs to adopt a reflexive approach that is sensitive to the socio-political and socio-economic

variables that exist in corridor space. These variables create significant tensions and/or energies that influence the viability of each sub-regional and local corridor project.

KEY FINDINGS RELATED TO THE SECOND RESEARCH OBJECTIVE

The **second** objective was *'to analyse the power relations and scales associated with corridor development processes and to determine appropriate levels and scope for urban design intervention'.*

The second objective accepts the challenge that resulted from pursuing the first objective; the need for urban design to respond to the variables associated with each sub-region was acknowledged by developing an appropriate methodology for analysing socio-economic and socio-political variables in South Africa's extended corridor zones.

Maslow's hierarchy of basic needs was linked to sub regional urban typologies. The typologies are very distinctive in South Africa and proved an effective way of generating a geography of basic need in the corridor region. The MCDC Corridor was used as a theoretical laboratory. The findings indicated how a basic needs analysis needs to be combined with active research into local land market dynamics to indicate where and when development or redevelopment of corridor space is possible.

The terms *market space* and *action space* were coined to describe two distinctive zones of a South African corridor that stretches from suburbia to the agripolitan fringe. Market space is the theoretical zone where the market, supported by a neo-liberal urban management system holds sway. While it may not be actively investing here, the market will reserve such well-located land for future development, thus creating gaps and tensions in what is often incorrectly conceived as a continuous, linear urban form. Access to urban land in *market space* is all but impossible for the urban poor unless the government announces radical reforms to its distinctly neo-liberal land management approach. Beyond *market space* lies *action space*. It is a context where land may become more accessible to the urban poor if metropolitan government mediates in the process. It is also the context in which illegal roadside communities are presently flourishing for lack of any viable alternative. Market space and action space, and the different sub regional contexts within each, require significantly different urban design responses.

The evolving strategic urban management system was then examined to assess the relative power base of urban design. This was presented as *powergrams* based on McGlynn's powergram and was related to the *strategic* and *project* cycles associated with South Africa's strategic urban management model.

The second objective was met by creating a framework for determining what urban design tools and methods (see third objective) are most appropriate for use in the different sub-regions associated with South African corridor space.

KEY FINDINGS RELATED TO THE THIRD RESEARCH OBJECTIVE

The **third** objective was *'to present a critique of urban design methods and tools used in corridor development, both in South Africa and in international case study contexts, and to indicate if, when, where and how these may be used in the South African corridor context'.*

Fieldwork in Australia, Peru, Malaysia and South Africa presented opportunities to visit corridor spaces and to conduct semi-structured interviews with urban designers and planners who have been closely involved with the development of corridors in these countries. Various urban design tools/methodologies/rationales that deal with the regional, sub-regional and local development of corridors were identified. These varied from flexible, hierarchical and incremental methods (Peru, Australia, Cape Town) to rigid master planning approaches (Malaysia). Some focused on the development of the sub-region under conditions of weak government (Peru) while others were developed at a city wide and regional scale under the auspices of a functional metropolitan government. A combination of findings from the field visits and a subsequent desk study of frameworks associated with each of the case study contexts presented the opportunity to measure each in terms of its viability in the South African context.

The various urban design approaches that were identified during the fieldwork and desk study were then related to the traditional urban design roles and vocabularies and to what South African urban designers consider their purpose to be. The combination of data that resulted from pursuing the second and third objectives made it possible to relate the

various methodologies to the contextual variables associated with South African corridor space and to preconceived urban design roles. This then made it possible to:

- **First**, suggest which methodologies are most appropriate in the different contexts associated with South African corridor space.

- **Second**, motivate that urban design needs to supplement a traditional concern with local regeneration with a new regional and sub-regional focus.

KEY FINDINGS RELATED TO THE FOURTH RESEARCH OBJECTIVE.

The **fourth** objective was *'to propose an integrated strategy for urban design in corridor development in South Africa. The strategy will be based on the findings of research related to the first three objectives. The strategy needs to be presented in a form that is accessible and useful to both metropolitan governments and urban design practitioners'.*

The research findings presented in the earlier part of the research (CHAPTERS 3 and 4) and in response to the first research objective suggest that South African corridor space is varied and diverse. Pursuit of the second research objective indicated that South Africa's strategic urban management model presents defined windows of opportunity for urban design action. Conventional urban design involvement at the local and sub regional scale is now supplemented by an opportunity to view the city holistically in five-year cycles. The integrated spatial development framework becomes a key opportunity for urban designers in local government to motivate public investment in locations where most enabling energy will be released. It also opens up opportunities for urban design to become effective lower down the hierarchy of urban scales.

Urban designers have developed various methodologies for use in corridor space that were identified and analysed in response to the third research objective. The knowledge gained from pursuing the first three research objectives is synthesised, translated and combined into a series of matrices that satisfies the fourth research objective. In Chapter 8 a rationale for urban design action within corridor space is presented. The rationale is based on answering six questions:

WHERE?	Region and sub-region of the corridor
WHAT?	Strategic action (normative principle)
WHY?	Strategic goal/aim
WHO?	Initiators, designers and key actors
WHEN?	Stage of urban design action (related to a strategic urban management framework).
HOW?	Appropriate urban design tools.

The various matrices presented in CHAPTER 8 indicate the proposed variation of urban design methods in response to the contextual variables associated with each of the sub regions of an extended corridor. A carefully considered hierarchy of scales is shown to be a key urban design tool that needs to affect development decisions across the whole corridor region. The matrices also show how a development practice approach becomes increasingly relevant towards the margins where people struggle with basic needs issues. The strategy indicates how imported methodologies such as the *stable local district* idea (Australia) and the use of a *minimal grid* of *semi-autonomous* blocks (Peru) need to be tested through pilot projects in defined locations.

9.3. ACHIEVEMENTS AND SHORTCOMINGS OF THE RESEARCH METHODS

Figure 1.6: Reason & Bradbury's knowledge-creating process adapted to indicate the knowledge creating process of this research.

1. Formal education, desk study.

2. Fieldwork in Perth, Kuala Lumpur, Lima, Cape Town and Pretoria. Asking practitioners to reflect on their experiences

3. Through excessively rigorous research methods. Through gatekeepers.

4. Through attending action planning events in the UK, through inspiration of and exposure to action planning methods

5. Through past involvement in urban design practice in South Africa and action planning workshops conducted as part of this research.

In CHAPTER 1 the research approach was defined as reflexive and open-ended (figure 1.6). This section will consider how the methods adopted served to achieve the research objectives.

A desk study aimed at defining the urban corridor and raising key questions preceded fieldwork in Malaysia, Australia, Peru and South Africa. Semi-structured interviews were considered the most appropriate methodology for extracting knowledge from practitioners who have been involved with corridor development. The choice of case study contexts were presented in CHAPTER 1. Findings from semi-structured interviews were supplemented by observation, a review of urban design frameworks collected in the field and a pilot study (community based project). Each of the methods used are evaluated below:

SEMI-STRUCTURED INTERVIEWS

Semi-structured interviews proved an effective method for extracting grounded knowledge from practitioners in Australia, Peru and South Africa. The majority of interviewees were self-critical and placed their roles in a wider context. Often the method led to other

research opportunities; notably introductions to other key players and the arrangement of site visits. In the South African context insecurities associated with restructuring of metropolitan government resulted in officials being overly defensive about the corridor concept. In Malaysia the semi-structured approach was least successful because of the county's *Internal Security Act* which prohibits any form of criticism of the authoritarian state. While all approaches have their shortcomings, the Malaysian approach to corridor development is disconcerting. The directives in terms of corridor development have been set at the highest political level by an authoritarian premier. Officials follow the dictates and are reluctant to level any form of criticism at the state's unilateral view of the corridor. This made the semi-structured interviews an ineffective method for extracting knowledge. Incidental conversations with more accessible Malaysians outside the state bureacracy proved for more rewarding and highlighted the problems of forced conversion from traditional to modern lifestyles.

FIELD OBSERVATION

Field observation was used with varied success. In Lima visits to a range of corridor sites made it possible to witness incremental development and the dramatic and inspirational impact of many small-scale actions over time. It also indicated the effectiveness of a robust, minimal grid. In Malaysia observation highlighted the dualism associated with a neo-liberal political economy. Visits to spaces of the parallel running Multimedia Super Corridor and Beranang-Bangi Corridor provided an opportunity to witness how centrist political aims in developing countries may steer corridor development within one city in different directions.

Of all the case studies the Australian case offered the least opportunity to learn directly from observation. The *stable local district* idea, though powerful on paper, is not yet visible in space. Observation however confirmed the high level of control exerted by planners under conditions of high modernity and in pursuit of best practice. Observation shows how the somewhat sterile transit corridors that have developed in Perth over more than three decades have followed a predetermined growth plan. Given this consistency it will be very useful to observe the development of corridor space in Perth according to the new, urban design-driven *stable local district* model in years to come. The model

exemplifies a new, regional approach to urban design advocated by Peter Calthorpe and the Congress for New Urbanism.

Field observation in South African corridor contexts highlighted the positive outcomes of the active pursuit of a hierarchical approach to corridor development in Cape Town. This highlighted the strategic capacity of urban design and the impact of urban design champions. Observation in the extensive MCDC corridor context (Pretoria) indicated little improvement after a decade of ineffective post apartheid planning. It points to an over-politicised and overly technocratic view of the corridor during the immediate post apartheid years. It also highlights the very pronounced and growing socio-political fragmentation that exists in extended corridor spaces. Comparisons between the different spatial outcomes in Cape Town and Pretoria suggest that there is scope for spatial planning units of the relatively independent metropolitan councils that were established in 2000 to learn from each other.

REVIEW OF URBAN DESIGN FRAMEWORKS

Semi-structured interviews conducted in the various countries offered the opportunity to collect frameworks and other printed material that highlight the strategic visions of metropolitan governments. These range from the very crude and provisional, as in the case of Malaysia, to being extremely sophisticated as in the case of Perth and Cape Town. The frameworks supplemented information collected via semi-structured interviews and observation. Not surprisingly, the frameworks became important references during interviews in Perth and Cape Town where they animate the links between budgetary cycles and spatial development. In Peru, with its notoriously weak public service, frameworks were of little consequence and were replaced by simple minimal grids while the Malaysian case indicated the use of frameworks for the sake of achieving good practice and without understanding their flexible nature.

The frameworks were particularly useful in informing the discussion on the value of *plan* presented in CHAPTER 6 and highlighted how strategic corridor proposals respond to visions of sustainable growth and prosperity in both industrialised and developing countries.

PILOT STUDY: ACTION PLANNING EXCERCISE

The necessity of a development planning approach to urban design in defined contexts of South African corridor became increasingly clear as the research progressed. The approach suggests a *learning in action* methodology that attaches less value to *plan* than to more conventional urban design approaches. The effectiveness of an approach that extends greater autonomy to grassroots communities and uses a simple minimal grid was highlighted by fieldwork in Peru.

Part of the research was conducted in the spirit of a development planning approach. Confined academic research of this type cannot realistically test a methodology that needs to be based on real projects with real action that happens incrementally over extended time frames. It is precisely this reluctance to be captured and measured that makes the approach unpopular in a strategic urban management context where preference is given to identifiable and measurable projects. The pilot action research project presented in CHAPTER 8 however, gave strong evidence of the value of such an approach. It provides opportunities for effective engagement and building of trust and brings practitioners in touch with basic needs issues. The limited action research project was very rewarding and highlighted subtle variables such as the level of transition between traditional and modern lifestyles, friction between township and squatter communities, the limiting influence of gatekeepers and the fear of illegal immigrants to engage with outsiders. It also highlighted the value of visualisation techniques and gave an indication of the resources needed to stage an action planning event.

9.4. RECOMMENDATIONS FOR PRACTICE AND FURTHER RESEARCH

This section aims to answer the question: *How will the research serve to influence/improve urban design practice in South Africa?*

Providing new tools for practice

In the introductory chapter it was noted that the topic of this research emerged from the author's own involvement as an urban design consultant in a corridor development project. The objectives of this research arose from an understandable inability of urban designers to deal effectively with the complexity of South Africa's urban integration problems and

particularly to effectively integrate spatial plans with political agendas and the influence of socio-economic variables. Pressures brought about by finite contracts result in urban designers falling back on generic solutions that ignore the high levels of socio-economic differentiation that exists in corridor space. Three years of full-time research presents a luxury that few practitioners have; the opportunity to critically review corridor development in a wider socio-political and socio-economic context and to critically review a range of alternative urban design methodologies.

The principal contribution to urban design practice is the presentation and motivation of an approach that starts at the region and is informed by active engagement at the local level. It is an up to date vision that meets the aims of a new strategic, city wide urban management approach adopted in South Africa in 2000, while not losing view of real issues on the ground. The approach suggests that more conventional approaches to urban design and an alternative development practice approach need to be brought to bear together in order to achieve genuinely enabling corridor contexts. The urban design strategy presented in CHAPTER 8 provides direction in this regard. The strategy challenges the institutionalised participation model and the use of limited, generic corridor models and provides ideas on how participatory units may be assembled in a way that makes active engagement possible. The approach accepts the reality of a dominant market in the most accessible parts of the city and does not fall into the habit of lamenting the lack of patronage for urban design. It has been noted that opportunities for urban design are greater than ever in South Africa. The challenge is rather one of using the limited urban design resources effectively than seeking patronage. The findings of this research assist in doing this by indicating methods that resepond appropriately to the diverse socio-political and socio-economic contexts associated with corridor development.

Institutional and disciplinary challenges

Key institutional and disciplinary challenges were presented at the end of CHAPTER 8. The capacity of urban designers to implement the proposed strategies were assessed. It was noted that the adoption of appropriate but resource-intensive methods such as the stable district approach and a development practice approach will demand a significant increase in urban design skills, both in terms of numbers and appropriate knowledge. A consideration of disciplinary challenges also has a bearing on urban design education; too

great an emphasis has been placed on the enabling capacity of plan and too little emphasis on the potential of urban design to enable people to shape their own environments.

Dissemination of new knowledge

The findings of this research need to be disseminated in an appropriate way. Many of the ideas need to be tested in the field. Only by being aware of these methods can spatial planning units lobby for public funds to be allocated to pilot projects during the budgetary phase of a strategic urban management cycle. The urban design strategy suggests that metropolitan government is an important initiator of urban design action. A seminar series aimed at urban managers, mayoral committees and members of the new spatial planning units will be the most effective way of disseminating the proposed strategy.

Recommendations for further research

Opportunities for further research follow from the body of research presented in this thesis. These are discussed in order of priority:

- **First,** there is urgent need for research into the roles of the various practitioners who make up the new and influential *spatial planning units* of metropolitan governments. This research has indicated that planning professionals, with little spatial design skills, play a large role in formulating the critical *integrated metropolitan spatial development frameworks*. Corridor plans that emerge from such departments remain technocratic in nature and minimise opportunity for effective urban design further down the hierarchy of scales. Research is needed to indicate how the incorporation of urban design skills may improve the situation.

- **Second,** there is need for research into the formulation of an effective strategy to moot and have pilot projects approved. Such a strategy is needed to enable the testing of alternative urban design approaches presented in this research. There is a tendency to view all development within the current strategic paradigm and to actively pursue the unilateral dictates of good practice presented by international donor organisations. The complexity of the South African situation requires experimentation and the constant pursuit of a range of alternative methods. Pilot projects will generate important precedents of approaches that are potentially less politicised and more responsive than those otherwise nurtured by a strategic urban management model.

- **Third,** the methodology by which socio-economic variables in the regional corridor context is assessed needs further refinement. The use of Maslow's methodology to assess basic needs in this research presented a crude start and remains theoretical. The analysis of socio-economic variables needs to be combined with an effective way of assessing and communicating current land market dynamics. Further research from within the urban design discipline may enable metropolitan governments to assemble and present this information in a way that is accessible to urban designers who become involved in corridor development further down the hierarchy of scales. Metropolitan governments have suggested a new initiating role for urban design as part of the new project-driven urban management approach. Access to socio-economic data and land market dynamics will improve urban designers' chances of meeting this challenge.

9.5. KEY CONTRIBUTIONS TO KNOWLEDGE

The research is considered to have made the following key contributions to knowledge:

In South Africa:

- **First,** it provides evidence that the corridor concept in South Africa faces the prospect of failure because politicians and technocrats have simplified it into a series of generic/physical corridor elements or a symbolic gesture that does not adequately consider local opportunities and constraints.

- **Second,** it indicates how an urban design approach that is responsive to the socio-economic and socio-political variables associated with the various corridor sub-regions will help to make it a genuinely empowering device.

- **Third,** it recognises the strengths and weaknesses of the South African urban design discourse and uses this as a basis for moving forward.

- **Fourth,** it critically reviews a series of urban design methodologies that have been used in corridor development internationally and motivates their selective use in the South African context.

- **Fifth**, it utilises existing urban design knowledge (South African discourse/ fieldwork findings) and new knowledge (international case studies/ semi-structured interviews) to propose a more integrated and robust strategy for urban design in South African corridor development.

Internationally:

- **First**, it indicates the value of a qualitative research methodology that encourages urban design practitioners to reflect on their past experiences.

- **Second**, it indicates the value of using international case studies to illuminate the influence of socio-political and socio-economic variables on the development of corridor space.

- **Third**, it indicates the potential for both conventional urban design approaches and an alternative development practice approach to be utilised in a complimentary fashion in developing countries.

- **Fourth**, it indicates the need for urban design to utilise the opportunity offered by a strategic urban management model to expand its influence to the regional scale. If this is not recognised, opportunity for effective urban design further down the hierarchy of scales, where urban design is most effective, will be significantly reduced.

- **Fifth**, it contributes to making knowledge about the South African situation available to a wider audience and presents findings that may be particularly relevant to cities characterised by high levels of socio-economic and socio-political transience.

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ANNEXURE 5

FIELDWORK REPORT: PERTH, AUSTRALIA.

LOCATION OF FIELDWORK SITE
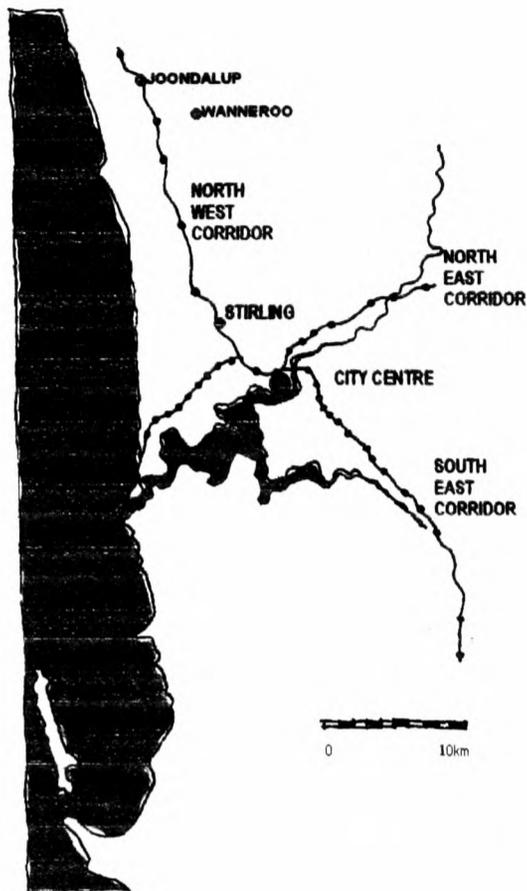
Perth's four corridors correspond with the alignment of the metro. The map indicates the position of local councils in the North West Corridor where interviews were held. (City Centre, Stirling, Wanneroo and Joondalup).

Location of Perth in the Western Australian state

i) DATE OF FIELDWORK: 02 - 10 September 2001

ii) METHOD:

Interest in Perth's corridors was raised by a study of Hamnett & Freestone's (2000) The Australian Metroplis. The network of contacts in Perth was set up by Professor Jean Hillier of Curtin University's Planning Department. Hiller also suggested that, while Perth has four distinctive corridors, I was likely to gain most by concentrating on the North Western Corridor. Interviews were arranged from Oxford with various practitioners who have been involved in the development of the North Western Corridor. While the development of the city is overseen by the Ministry of Planning (The Western Australian Planning Commission), it has a second tier of local governments called 'cities' e.g. the City of Wanneroo. Several of these are located within the North Western Corridor. Interviews were arranged from Oxford with practitioners in each of the cities in the corridor and with an urban designer working for the Ministry of Planning.

Because of Perth's effective public transport system, observation of the corridor spaces was relatively straight forward but also predictable and rather sterile.

Because of the system of social justice and transparency in Australia, it was easy to obtain copies of well-presented frameworks, which were freely available to the public.

iii) SUMMARY OF SEMI-STRUCTURED INTERVIEWS

⇒ **Ms Phillida Rooksby**

Ms Rooksby is a planner at the City of Sterling, an established part of Perth's North West Corridor and which is relatively close to the inner city.

According to Rooksby the North Western Corridor received dedicated Commonwealth (national) funding from its inception in 1966 when corridors became part of the national urban growth strategy. Like elsewhere in Australia, state planners moved out of their central offices to co-ordinate development in growth corridors. The light rail, which is a central feature of the corridor was introduced in the early 1990's and has undoubtedly resulted in the rapid extension of the corridor at its furthest end. Within older areas like Sterling the impact has however been minimal, clearly because zoning has remained unchanged.

Despite the obvious manifestation of the corridor in Perth's plan, Rooksby noted that in the mature areas such as Sterling, the corridor is largely invisible, even to the planners. Surrounding suburban contexts are the same as anywhere else and remains largely unchallenged. She does however note that the Sustainable Neighbourhoods Initiative recently launched by the Ministry of Planning is likely to have a significant impact on the redevelopment of the region. She noted that public participation is promoted but that it has variable results. It is notable that it is often the wealthier residents in the coastal belt who object or aim to influence development, not because they are interested in community values but in protecting and increasing their individual property rights. A recent workshop in an older part, close to the corridor artery had a disappointingly poor turnout.

⇒ **Mr Paul Nielson**

Mr Nielson is Coordinator of Planning Development at the City of Wanneroo (see map above).

According to Mr Nielson, the corridor concept effectively started with the Stephenson Hepburn Plan of 1955, which determined the original freeway alignment. The north western corridor developed rapidly after WWII. Development is based on the (now unsustainable) 1/4 acre lot. The so called ex serviceman's Australian Dream.

Significantly, and opposite to what is happening in South Africa today, a decision was taken to divide the city into a series of local governments. By doing this, the Western Australian State consciously sought to diminish the power of a single and dominant metropolitan government. Because of the fragmentation, this creates significant management problems in the corridor context. Local planners within the different local councils are bound by higher order decisions, which relate to city-wide infrastructure (most notably roads and the metro. This requires frequent interaction and consultation with the Western Australian Ministry of Planning. Some councils (or cities as they are called) have better relations with the Ministry of Planning than others, thus diminishing the opportunity for effective integration.

Mr Nielson referred to the Sustainable Neighbourhoods Initiative of the Ministry of Planning as an influential document with a significant urban design bias but that its success remains untested. The focus on achieving sustainable densities of around 20 people per hectare has been significant. He also noted that planners in Western Australia are becoming increasingly conscious of urban design and of New Urbanism, particularly because of the influence of champions in the Ministry of Planning. Mr Nielson presented drawings from participatory enquiry by design workshops which had recently been conducted in Wanneroo. The trend started with prime minister Paul Keating's Urban Design Task Force. Keating was prime minister from 1991 - 1996.

The north-western corridor is mostly populated by middle- to upper middle income residents, with smallholdings at the margins. Land is systematically acquired as the corridor expands. It was noted that residents participate in the development through the electoral ward system. He confirmed Ms Rooksby's statement that middle to higher income residents tend to participate more passionately when they consider their property values threatened or when there is a chance of increasing property values.

Mr Nielson noted that smaller businesses in the corridor-region is struggling because of aggressive and concentrated development in the Joondalup region. This compromises the vision of mixed-use development.

⇒ **Mr Brett Woodgush and Mr Peter Camilleri**

Mr Woodgush is an architect and urban designer employed by the City of Joondalup and Mr Peter Camilleri is a social planner at the Shire of Swan. Mr Woodgush obtained his urban design degree at the University of Sydney. A joint interview was held with Mr Woodgush and Mr Camilleri.

Mr Camilleri noted that communities organise themselves. He notes a specific case in the Shire of Swan where the north eastern corridor had to be diverted because of the sustained and effective efforts of the owners of small holdings who felt threatened by the proposed alignment. Agendas of all meetings held at the local council is distributed to residents and anyone is welcome to attend. The process is completely transparant. There however seems to be a culture of lobbying rather than participating. It is the social planner's responsibility to interact with lobbying groups. Community clusters are usually determined by electoral wards.

Responses to enquiry by design workshops initiated by Chip Kaufman and Wendy Morris had variable success. A workshop in the lower to middle income suburb of Mirraboora attracted only 20 residents while more than 300 wealthier residents attended a workshop on the more exclusive coastal strip. Mr Woodgush noted that, because of the hard edges created by transport infrastructure around interchanges, these remained largely undeveloped. In the older areas it was clearly a transit corridor rather than an activity corridor.

Mr Woodgush noted that in outer corridor-areas such as Wanneroo and Joondalup, where densities are lowest, land remained affordable. Any young Australian couple can still afford a patch of land and a free-standing house. The pattern of subdivision is little different than in the pre-sustainable city debate era. He also noted that cosmopolitan communities, mostly of southern European origin settle in higher density redevelopment areas closer to the centre, and not at the outskirts.

A disturbing development from an urban design point of view is the proliferation of packaged lots of relatively high density residential development around some metro stations. The result is a jostling of uncoordinated forms. 'The worst kind of suburbia'. This is caused by urban designers being involved up to the 'local area design stage'. The area of such a design can be quite large. Beyond this developers take control of the layout and coding of substantial parcels of land because the councils simply don't have the capacity to get involved.

Mr Woodgush noted that the Western Australian Planning Commission (state planning body) was very strong and manages to exert significant influence across the city. With the emergence of an urban design ethos within the Ministry of Planning this has a clear impact on the approach of local councils. Rezoning occurs at this level and local governments must fall in line. Recently established Public Private Partnerships such as Landcorp have been overseeing redevelopment of intermediate centres such as East Perth and Subiaco. These enjoy a level of independence from the Western Australian Planning Commission and employ their own consultants.

Interestingly Mr Camilleri noted that the outlying areas of Perth (i.e the furthest down the corridors) was populated by a 'get away from it all' type living on smallholdings. These pockets resisted technological progress and the advance of the city, even when small-scale agriculture is not paying. In a context which nurtures transparancy and participation this has created significant problems, since such communities are often not prepared to sell land at market value. It is the job of social planners like Mr Camilleri to mediate under such conditions.

⇒ **Ms Munira Mackay**

Ms Mackay is an architect and urban designer employed by Western Australian Ministry of Planning. She is part of a group of urban designers working for the ministry who obtained postgraduate degrees in urban design from the Joint Centre for Urban Design in Oxford. The group includes Evan Jones, Malcolm Mackay and Stephen Thorne.

Ms Mackay noted that much of the success of urban design in Western Australia is due to the cohesiveness of the group of urban designers who were first employed by the Ministry at the time of Paul Keating's premiership (1991-1996). As a group they have managed to actively transform planning policy, particularly at the sub regional level. Their efforts have been supported by Professors Peter Newman and Jeff Kenworthy (authors of the book *Sustainability and Cities: Overcoming Automobile Dependency, 1999*) who have been actively pursuing the sustainable city agenda. More recently the group was actively involved in the preparation of a manual called The Sustainable Neighbourhoods Initiative which is informed by urban design principles. The document aims to be influential rather than prescriptive. As noted by Brett Woodgush, urban designers of the Ministry and of local councils are typically involved in the preparation of local area plans. Beyond this it is mostly up to the developers to determine the urban qualities. Urban Designers within the ministry have however encouraged developers to engage others in participatory Enquiry by Design Workshops or Charettes. The Ministry provides support for these ventures. Under no circumstances are developers forced to follow this route. It is however becoming evident that many developers now see urban design involvement as a value-adding exercise. The Sustainable Neighbourhoods Initiative is also an effective way of introducing planners working for local governments to the value of well considered spatial arrangements at the sub regional level and to stress its impact on the overall sustainability of the city.

Mackay noted that the Enquiry by Design process is lengthy. A cycle including assessing issues, preparing an enquiry by design framework, the actual workshop and the drafting of agreed principles can take up to eight months. Outside urban design consultants and environmental planners are therefore often involved in the process due to the limited capacity of the Ministry's in-house team. The Melbourne practice of Wendy Morris and Chip Kaufman (Ecologically Sustainable Design) have been actively involved as consultants in Western Australia. Their approach is biased towards a New Urbanist agenda (see Morris & Kaufman, 1998).

iv) OBSERVATION

Incorporated into main body of the thesis. See CHAPTER 4, pp 144-145

ANNEXURE 6

FIELDWORK REPORT: LIMA, PERU

LOCATION OF FIELDWORK SITES

National map of Peru indicating position of
Lima and the Pan American Highway
(shown dotted along coastline)
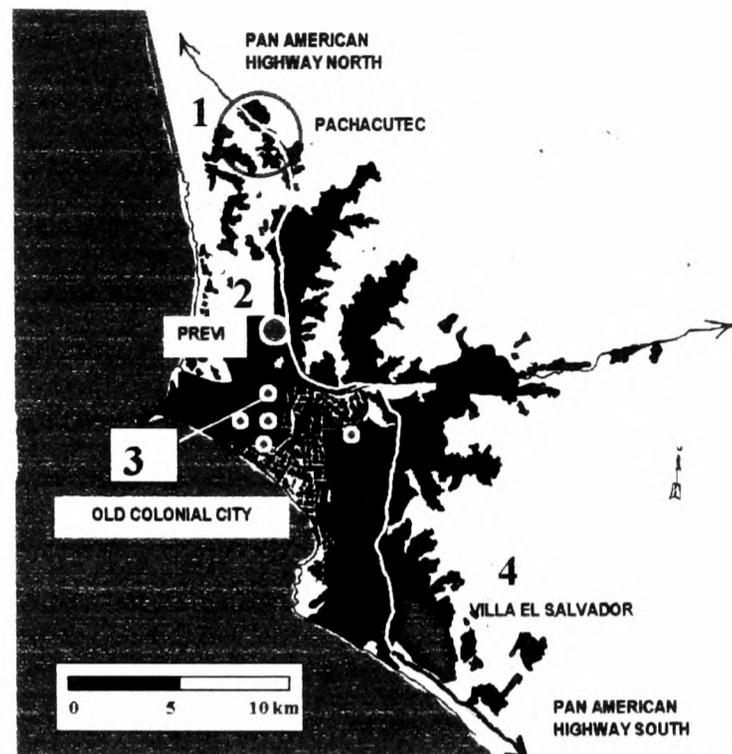
The Lima Metropolitan Area indicating
Fieldwork visit sites
1. Pachacutec
2. PREVI
3 Social Housing Estates.
4. Villa El Salvador

PERU'S POLITICAL ROLLER COASTER
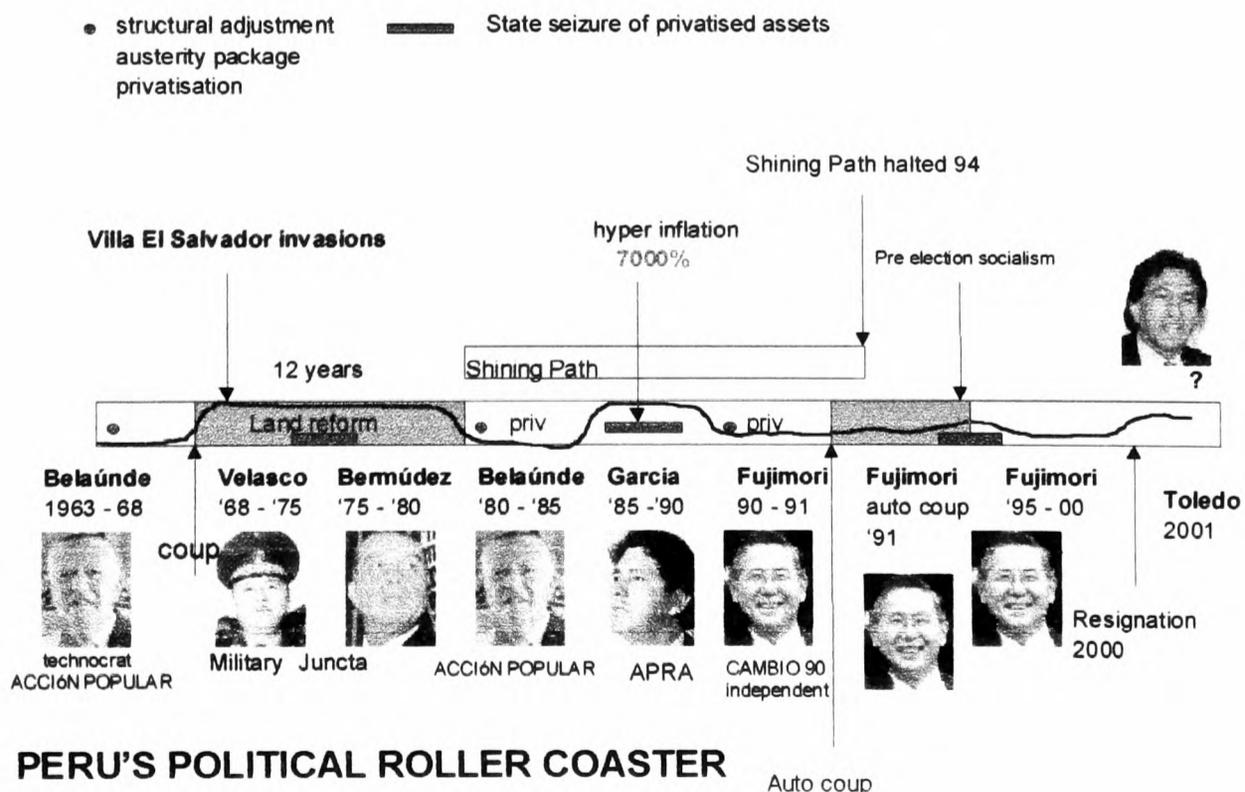
A political time line prepared by the author for presentation at a research seminar, Oxford Brookes University, November 2001. The time line indicates the uneven political landscape associated with Peru's notoriously weak recent governments. Cycles of a democratic free market system (privatisation) and autocratic rule (nationalisation) have generated successive shocks associated with structural adjustment. As a result of this dynamic Peruvians have little faith in the ability of governments to improve their livelihoods.

INCREMENTAL DEVELOPMENT OF VILLA EL SALVADOR

AUTONOMOUS SETTLEMENT ALONG LIMA'S PAN AMERICAN HIGHWAY 1971 -2001
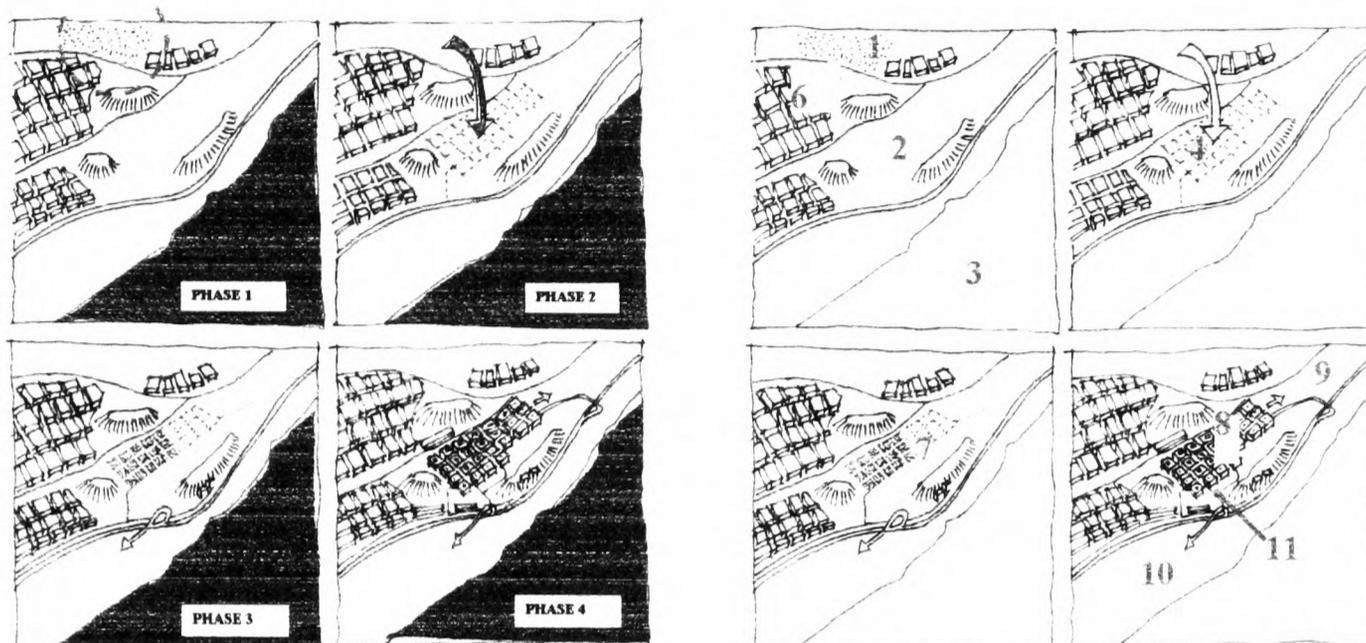
PHASES OF DEVELOPMENT

Phase 1: Invasion of state owned land at Pamplona by 200 families on 28 April 1971 with some 150 additional families joining the following day. The site as shown is diagrammatic only.

Phase 2: Voluntary relocation to the new Villa El Salvador site within a fortnight of the original invasion after agreement was reached between the squatters and the Ministry of Housing

Phase 3: Settlement on a robust grid of urban blocks There is speculation that the grid was worked out in conceptual form before the site at Pamplona was invaded because it had been identified as a possible future site for formal housing development. The grid is reminiscent of a traditional and indigenous chequer board pattern found in weaving and decorative art. The architect Miguel Romero Sotelo however claims that he had literally conceived the enabling grid overnight in the two week period between the date of the invasion at Pamplona and the relocation of squatters to the sandy plain at Villa El salvador.

Phase 4: An autonomous management structure was established and the site was consolidated. The initial palm leaf mat houses were spontaneously replaced with solid structures over the following years. Typically concrete frame with brick in-fill which recognises susceptibility of the area to earthquakes. Vibrant informal sector

Phase 5: (ongoing) Vertical 'generational' extension in a random pattern across the site. Higher order infrastructure developed, mostly with the assistance of international donor organisations, i.e. hospitals, schools, university. Population estimated at 300 000 in 2002

KEY TO SITE ELEMENTS

Refer to the numbers on drawing above.

1. Invasion at Pamplona on 28 April 1971
2. Vacant site at Villa El Salvador which had been previously earmarked for development on the Lima Master Plan.
3. Pacific Ocean
4. Robust block layout credited to architect Miguel Sotelo Romero.
5. Sandy coastal plain traversed by the Pan American Highway which links Lima with Chile (south) and Ecuador (north).
6. End of the formal urban grid (in 1971 the furthest point of development of the city)
7. Initially the grid was populated by squatters living in the most basic palm leaf mat houses.
8. Gradual consolidation of the urban footprint and the construction of self help solid but informal structures and the introduction of water sewerage and electricity.
9. Road connections to provide improved access to the city.
10. Markets for the sale of locally provided goods to the wider Lima market.
11. Communal urban agriculture on western periphery (including livestock).
12. Furniture, shoemaking and upholstery workshops with direct trade to the public. There is a law that only crafts manufactured in Villa El Salvador may be sold in these markets.

SOURCE OF HISTORICAL DATA
-   Pers com Juan Tokeshi of DESCO (NGO)
-   Skinner (1981); Starn (1995); Flindel Klaren (2000) Sotelo Romero (no date)

i) DATE OF FIELDWORK: 25 September - 5 October 2001

ii) METHOD:

Fieldwork in Lima was arranged through the British Council in Lima and through the National Engineering University in Lima (Universidad Nacional de Ingenieria). The visit included four seminars chaired by the author, two each at the Faculty of Architecture, Urbanism and Art and at the Postgraduate Centre in Miraflores. The seminars offered an opportunity to present the South African urban problem and to enter into a debate which relates it to the Peruvian case. The Malaysian (Kuala Lumpur) and Australian (Perth) cases were also presented in order to highlight contrasts. The seminars, and particularly those held at the Postgraduate Centre, presented the opportunity to meet architects and urbanists who had been involved in the development of Lima's squatter settlements (called young cities or *pueblos jovenos* in Peru). This in turn led to a range of field visits, most notably those to Villa El Salvador (southern outskirts) and Pachacutec (northern outskirts). Both settlements are closely associated with the spontaneous corridor created by the Pan American Highway. While Villa El Salvador was established in the early 1970's, Pachacutec is one of the most recent settlements. Both visits offered opportunity to engage with local residents who were proud and keen to share their experiences. Engagement with Peruvians was spontaneous and information was provided by a wide range of individuals. This contrasts greatly with the Kuala Lumpur experience (see Annexure 4 method).

iii) SEMINAR REPORT

The seminars indicated a passionate involvement of architecture students and architects in low income /affordable housing and urban design matters. A visit to design studios indicated a strong awareness of context through the use of sub-regional models. This represents a responsiveness to conditions in Lima where the vast majority of the city's 9 million people live in squatter settlements or in self-build housing. The seminars also indicated a keenness to provide evidence of what has been achieved through people's own efforts. This was made evident by students inviting me to visit specified developments in Lima, including the well published PREVI housing project of the 1970's, the social housing experiments of the 1960's and the rampant *pueblos jovenos*. It was noted that social housing of a very high standard was built during architect president Belaunde's (known to be a technocrat) two terms in office 1963-1968 and again 1980-1985. Students related the South African case to the Lima case by highlighting similar levels of heterogeneity and recent mass migration. The diagram below was constructed during a seminar. It indicates the estimated distribution of the middle class or power-elite within the urban system. Almost two centuries after the end of Spanish colonial rule in 1821 the unequal distribution of wealth persists. The majority of those living in pueblos jovenos today are Mestizo. Like in South Africa the direct European descendants generally live in suburbs. Notably, most of the students belonged to this group.

AMERINDIAN
45%
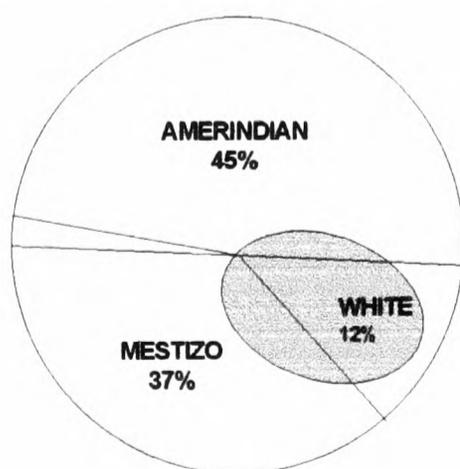
MESTIZO
37%

WHITE
12%

- Amerindian are indigenous people who themselves claim to be of Inca origin (Flindel Klaren 2000:246).
- Mestizo are people of mixed Spanish and Indian origin.
- White are direct decendents of the Spanish colonisers.

## (iv) SEMI-STRUCTURED INTERVIEWS LINKED TO DIFFERENT FIELD VISITS IN LIMA

INTERVIEWEES IN LIMA		
LIMA, PERU		
	Juan Tokeshi	Architect and Urban Designer working for the NGO, DESCO. Villa El Salvador. Lecturer at the Ricardo Palma University. Long involvement with Villa El Salvador development.
	Mirie Arroyo Diaz	Architect and Urban Designer. Housing specialist and part time post graduate student at the Universidad Nacional de Ingeniera. Close involvement with development of squatter settlements e.g. Pachacutec to the north of Lima.
	Maria-Luisa Alvarado	Architect and Urban Designer. Involved with low cost housing under Fujimori regime. Completed post graduate studies in the Netherlands (IHS).
	Familia Pulacke Tores	Residents. Swiss designed middle income Housing Project. PREVI. Autonomous additions.
	Maria Christina Lopez Odria	Director Research Institute Facultad de Arquitectura, Urbanismo y Artes Universidad Nacional de Ingeniera, Lima, Peru
	Mario Lopez and Gladys Vasques Prado	Lecturers Facultad de Arquitectura, Urbanismo y Artes Universidad Nacional de Ingeniera, Lima, Peru
	Luis Delgado Galimberti	Architect with specialist interest in and knowledge of social housing projects: 1960's, 1980's. Lecturer: Facltad de Arquitectura, Urbanismo y Artes, Universidad Nacional de Ingeniera, Lima, Peru
	Prof Dr Wiley Ludena Urquizo	Coordinator, Maestria en Renovacion Urbana Universidad Nacional de Ingenieria Facultad de Arquitectura, Urbanismo y Artes Seccion Postgrado
	Tarupan Liepj Sovedor	Soup kitchen President. Block K2 L3. Pachacutec squatter settlement, Lima North.

⇒ **JUAN TOKESHI, MARIO LOPEZ AND GLADYS VASQUES IN VILLA EL SALVADOR**

Juan Tokeshi is an architect involved with the Catholic NGO Desco and a lecturer at the Ricardo Palma University in Lima. Mario Lopez is an architect in private practice and a postgraduate student at the Postgraduate Centre of the Universidad Nacional de Ingeniera. Gladys Vasques is a lecturer at the Faculty of Architecture, Urbanism and Art at the Universidad Nacional de Ingeniera.

Vasques noted that Villa El Salvador (abbreviated as Villa) is a famous example of autonomous development in Latin America and that many NGO's and international donor organisations continue to point to the case as a successful example of self-help. The settlement originated after squatters in Lima organised themselves and took advantage of favourable conditions which arose when Velasco populist military regime came to power in 1968. Tokeshi notes that to date the national or metropolitan government has done little for the people of Villa but that this has only served to strengthened their resolve. All housing stock and infrastructure have been provided by the people themselves. The relationship of the Villa El Salvador site to the Pan American Highway has contributed to its success as a springboard to opportunities offered by the formal urban economy. Significantly there is no formal public transport system in Lima and the Limenos (word meaning 'the citizens of Lima') have developed an effective taxi based system. Moto taxis are used locally and grand taxis are used to get to the city or to other centres in Peru. Lopez noted that it is notable that only products that are made in Villa may be sold at the markets which line the highway. This includes furniture, clothing and shoes. He noted that everyone in Lima knows that this is the place to come to when looking for quality hand made products and that the decentralised wholesaling system is extremely effective. This unwritten rule of maintaining high quality of craftsmanship and resisting the selling of non local products is fiercely protected by local residents and indicate the capacity of poor Peruvians to sustain a communal support network. Under Peru's famous conditions of successive weak and corrupt governments the cohesion of residents has remained constant.

The table below provides an indication of Villa's primary development phases from 1968 to the present as communicated by Tokeshi, Lopez and Vasques. Reinhard Skinner's PhD thesis titled *Villa El Salvador Community Organisation, Collective Development and Politics in Self Help (1981)* provided valuable information on the early stages of development. Illustrations from Romero (undated) and various pictures taken by the author are used to illuminate sections of the text which refer to Villa (Chapters 6 and 7). The Villa case is significant in that it combines a minimal, designed grid as discussed in Chapter 6 with an autonomous urban management system as discussed in Chapter 7.
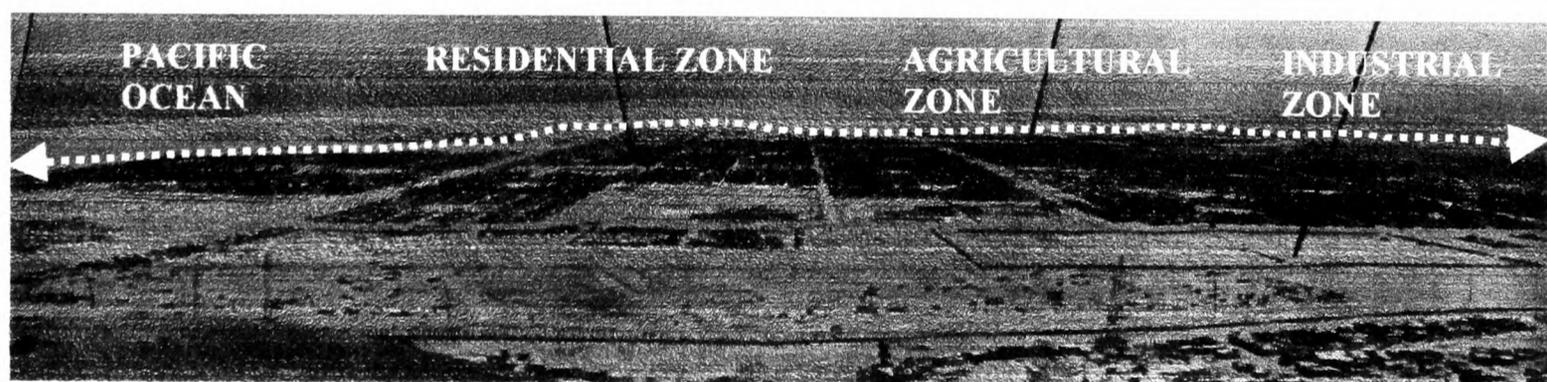

View of Villa El Salvador from the Andean foothills in 1971, three years after it was first settled (Romero: undated).
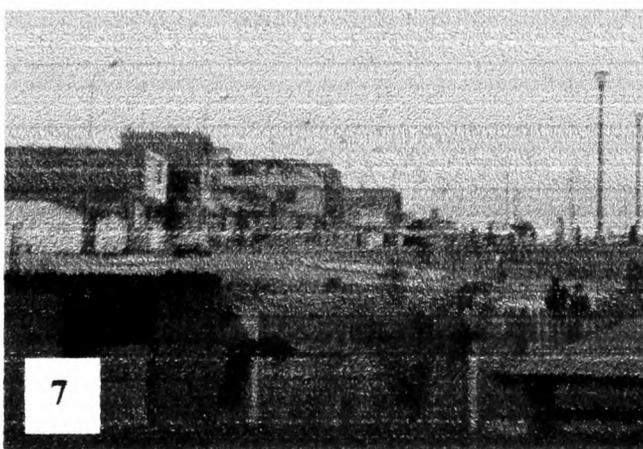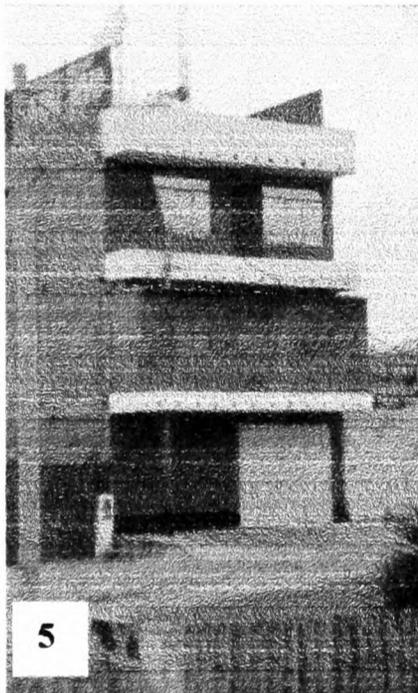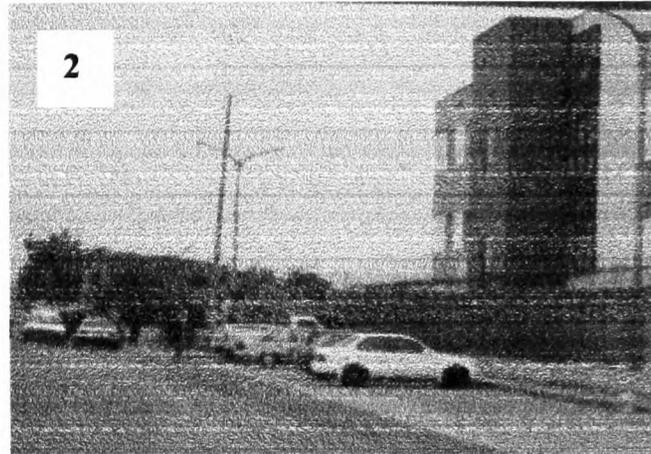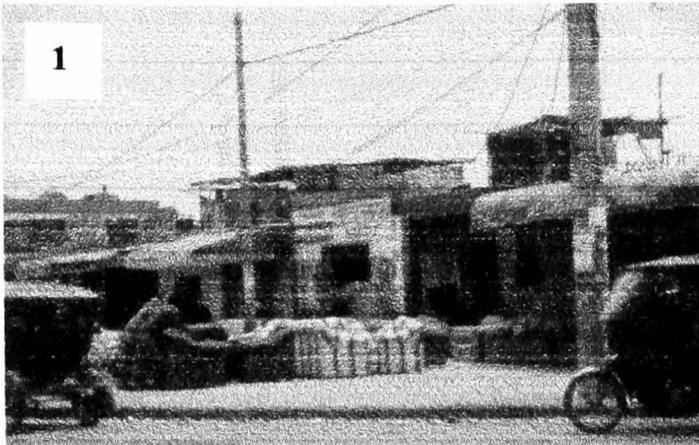
Images of Villa El Salvador in September 2001 after thirty years of piecemeal, self-help development. (1) wholesale outlet of lcally manufactured goods (2) hospital (3) trade outlet along highway: visible but not directly accessible (4) Villa's consolidated high street. (5) ad hoc extensions to house (6) street in the clothes making district of Villa (7) sewerage treatment plant and landscaped boulevard (8) houses in different stages of becoming.

- **MIRRIE ARROYO DIAZ , MARIA LUISA ALVARADO AND TARUPAN LIEPJ SOVEDOR IN PACHACUTEC**

Mirrie Arroyo Diaz and Maria Luisa Alvarado are architects employed by the Peruvian government and who have been working closely with community groups in Lima's pueblos jovenos. Diaz is a postgraduate student at Universidad Nacional de Ingeniera's postgraduate centre in Miraflores, Lima and Alvarado has a postgraduate qualification from the Institute for Housing Studies in Rotterdam.
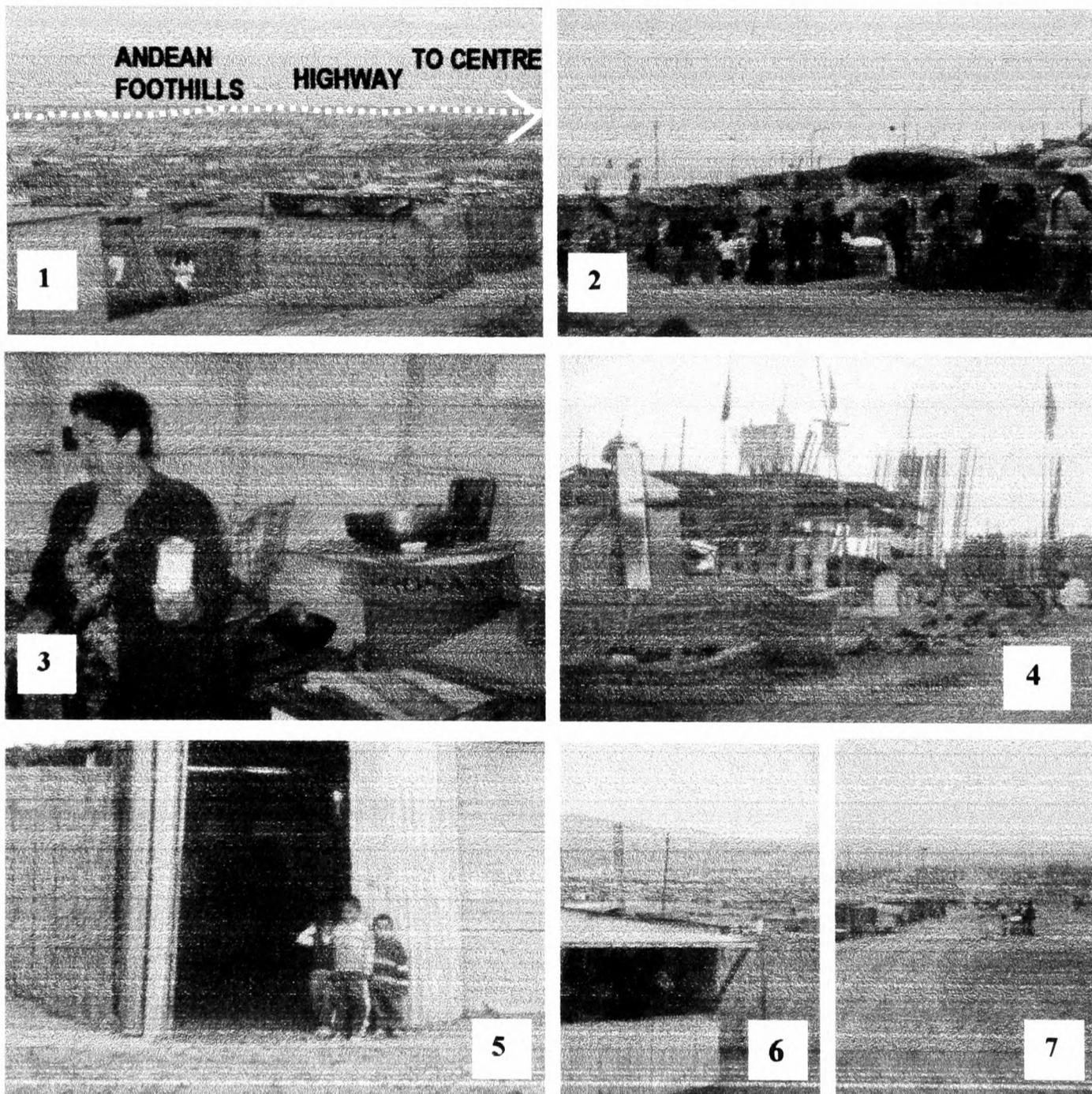
Spaces of hope at Pachacutec (1) sea of temporary palm mat shelters (2) beginnings of a high street, informal traders in the main drag (3) inside a community soup kitchen which typically serves sixty households. Pictured here is Tarupan Liepj Sovedor, the proud president of the soup kitchen (4) a not-for-profit building materials depot (5) Mestizo children outside a makeshift community hall (6) small beginnings towards owning a formal shop (7) a street lined with sewerage containers (blue or red) The vertical masts carry Radio Pachacutec loudspeakers.

Pachacutec is a recently established *pueblo jovenos* on the extreme northern outskirts of Lima. Like Villa El Salvador, it is situated along the Pan American Highway, but on the other side of the city. The settlement consists of a patchwork of 6mx10m stands and communal facilities (a community hall, kitchen and mini soccer pitch/playground) for every 60 households. Unlike at Villa, land was not invaded. The owners aquired the land through a lottery system administered by the Ministry of Housing. The lottery system has proven more effective than waiting lists since the public drawing of lottery tickets reduces corruption.

Alvarado and Diaz notes that, while Pachacutec does not enjoy the same level of autonomy that an incipient Villa El Salvador did in the 1970's, many of the lessons have been acknowledged by officials and have been transferred to more recent *pueblos jovenos*. The government takes a pragmatic view. Most notable amongst these is limited statutory control over the actual formalisation of houses. It is by now clear that Peruvians know how to build when they own even the smallest patch of land. They take pride in the construction and know that the house is part of a patient process of securing a future for their children. Inevitable vertical extension on the small lots require solid foundations. Add to this the high earthquake risk that exists in Peru. Reinforced concrete frame construction has therefore evolved into a local vernacular. People who live here point to older *pueblos jovenos* scattered around Lima and can see improved conditions brought about by the efforts of people who started out with the most basic palm mat shelters like them. Such features as placement of windows and doorways are casually resolved with neighbours.

Diaz and Arroyo introduced me to Tarupan Liepj Sovedor She is the elected president of the soup kitchen of block K2 L3. Like all soup kitchens in Pachacutec, her kitchen serves approximately 60 families. Residents work in the kitchen according to a roster which she manages. Sovedor is a proud woman who discusses the future permanent community hall that would one day rise on the empty patch of land outside the makeshift kitchen. Inside the kitchen she showed me huge pots and large red bins containing dried beans market PRONAA, an acronym for the national food program that keeps many Limenos alive. The government realises that, without food in their stomachs people won't have energy to construct permanent homes and that it creates general instability by raising crime. Arroyo noted that the city is effectively built with dried beans and hope!

At the time of my visit a sewerage system was in the process of being installed and water was delivered in plastic containers. Inhabitants themselves provide the labour. Only a limited number of access roads are negotiable by car. The remainder of the grid is left vacant until such a time as compacting of the soft sand becomes absolutely essential. For now residents of Pachacutec walk to the adjacent Pan American Highway and travel onward via the effective, informal network of taxis that serves Lima. The nearby hive of activity along the edges of the highway indicates that it is as much a place of opportunity as the formal city itself. Many have no income and cannot afford to go any further. Not-for-profit building materials depots are dotted throughout the settlement. Apart from this only a few temporary school buildings, communal ablution facilities and a mobile clinic can be seen. The edges of one of the compacted roads serves as the local market. Diaz notes that, based on her knowledge of the incremental development of other pueblos jovenos, this humble market of tables and umbrellas is likely to develop into the settlement's high street.

A sobering confidence prevails in these spaces despite the dire current conditions. According to Alvarado there are chances of greater assistance from the state since Lima's dramatic urbanisation (from 2 million to 9 million people in thirty years) is showing signs of levelling off. Sovenor noted that Limenos are used to empty promises and do not take anything for granted. They prefer to keep on doing it for themselves.

ANNEXURE 7

FIELDWORK REPORT: SOUTH AFRICA

A 7.1. DATE OF FIELDWORK: April - August 2002

A 7.2. METHOD

The fieldwork comprised a series of semi-structured interviews as part of the reflective practice approach described in CHAPTER 1, a limited and qualified action planning exercise in the Winterveld and observation. Secondary data in the form of urban design frameworks, policy documents and maps were also collected in the field.

A.7.3. CONTENTS

	SOURCE OF DATA	PAGE
A.7.3.1	SEMI-STRUCTURED INTERVIEWS A series of 'reflective practitioner' interviews with urban design- and planning professionals in Pretoria, Johannesburg and Cape Town. Supplementary data was collected by using a questionnaire. A limited number of interviews with a social workers, a politician and an economist.	39-51
A.7.3.2.	ACTION RESEARCH A simulated 'Planning for Real Exercise' in the Mabopane-Centurion Development Corridor based on the methods proposed by Argyris, Hamdi, Gibson, Wates and Mumtaz. Also reconnaissance/observation in corridor contexts. Winterveld, Soshanguve, Akasia (Pretoria) and Philippi, Lansdowne, Wetton (Cape Town)	52-61
A.7.3.3.	SECONDARY DATA Collection of secondary data in the form of urban design frameworks, official policy documents, corridor marketing documents and previous studies on corridor development. Aerial photographs, 1:50 000 topographical maps. Collection of secondary data in the form of books and articles, newspaper clippings which informs an analysis of South Africa's political economy.	62-64
A. 7.3.4.	GUEST EDITING OF AN ACADEMIC JOURNAL The guest editing of a forthcoming issue of Urban Design International. Invited contributions on urban design education and praxis in South Africa relevant to this research.	65

A.7.3.1. SEMI-STRUCTURED INTERVIEWS

A.7.3.1.1. INTRODUCTION

Interviews were held with thirteen practitioners which were/are involved in corridor development at different levels. Interviewees were either in private practice, associated with local government or academics. Three lectures were attended in which practitioners reflected on aspects of their involvement in corridor development .

Since I was based in the Pretoria area during my fieldwork in South Africa, most interviews were conducted there. A dedicated trip was made to Cape Town, where much of South Africa's urban design debate is focused.

SCHEDULE OF SEMI-STRUCTURED INTERVIEWEES

PRACTITIONER		CAPACITY			LOCATION
		Private practice	local government	Education	
Mark Oranje	Planner			•	Pretoria
Ben van der Merwe	Planner/ Economist	•			Pretoria
Mpho Putu	Sociologist		NGO		Pretoria
Simon Nicks	Economist/ Urban designer	•			Cape Town
Barbara Southworth	Architect/ Urban designer		•	•	Cape Town
Moegsien Hendricks	Planner		•		
Fritz Thomashoff	Architect/ Urban des.	•			Pretoria
Andries Naude	Planner Traffic			Research institute	Cape Town: joint interview
Cheri Green	Planner GIS			Research Institute	
Andrew Sonyane	Secretary		Township ward committee		
Jaksa Barbir	Architect Urban des.		• Principal urban designer		
Johnny Coetzee	Planner		• Head of spatial planning		Pretoria; joint lecture Pretoria's Strategic Development Framework
Kestell Serfontein	Planner		•		
Hendrik Kleynhans	Planner		• Project Manager		Pretoria
Brian Marrian	Traffic Engineer		•		Pretoria
David Dewar	Planner, Economist			•	Cape Town
Erky Wood	Planner/Urban designer	•			Johannesburg
Marinda Schoonraad	Planner/Urban designer			•	Pretoria
Gerrit Jordaan	Architect/ Urban des.	•			Pretoria
Sunette Smit	Landscape Architect		•		Cape Town
Gary White	Architect/ Urban designer	•			Johannesburg

DISTRIBUTION OF QUESTIONNAIRES					
RESPONDENT		CAPACITY			LOCATION
		Private practice	Local government	Education	
Rod Lloyd	Architect/ Urban designer	•			Johannesburg
Erky Wood	Planner/ Urban designer	•			Pretoria Supplementary to interview
Fritz Thomashoff	Architect/ Urban designer	•			Pretoria Supplementary to interview
Gerrit Jordaan	Architect/ Urban designer	•			Pretoria Supplementary to interview
Hans Wilreker	Architect/ Urban designer	•			Johannesburg
Suzi du Toit	Architect/ Urban designer	•		•	Cape Town

A 7.3.1.2. SYNOPSIS OF THE FINDINGS OF SEMI STRUCTURED INTERVIEWS

The synopsis is based on each of the following topics:

i	General attitudes towards the corridor concept.
ii	The influence of *theory* on corridor development.
iii	The influence of *generic principles* on corridor development
iv	The influence of *case studies* on corridor development
v	Corridor as *product* vis-à-vis corridor as *process*.
vi	Clientelism/professionalism in corridor development
vii	The prevalence of *technical rationalism* in corridor development
viii	Experience of- and attitudes towards *participative processes* in corridor development.
ix	Attitudes towards *other professionals* involved in corridor development.
xi	Scale/scope of urban design involvement
xii	The role of *universities/education* in corridor development
xiii	The influence of *information technology* and *quantitative methods* on corridor development.
ix	The role of *champions* in corridor development

ANNEXURE 7

Joint Centre for Urban Design   **Oxford Brookes University 2002**

QUESTIONNAIRE TO URBAN DESIGNERS PRACTICING IN SOUTH AFRICA

Please e-mail the completed questionnaire to: hcomrie@postino.up.ac.za or mail to Henri Comrie, PO Box 11998 Hatfield, 0028

Note: Please note that you answers to this questionnaire will be treated confidentially and that no names of respondents or their practices will be mentioned in either the research document or other publications. You may choose to omit answers to questions if you consider them inappropriate.

> **Question 1: Where did you train as an urban designer ?**
>
> *Wits — both undergraduate & post-grad.*

> **Question 2: If you trained abroad, how did you/ do you manage to translate your knowledge to the South African context ?**
>
> *The training at Wits in the early 1980's was very strongly influenced by Barnett and Crane and I've always found them easily translatable (in reasonably so) to South Africa. Whittenbogard and Bower were and still are obviously seminal and relevant.*

> **Question 3: What percentage of you work is (roughly) done for the following client types**
>
> | Private sector (developer): | Public Sector: | Joint public/private |
> |---|---|---|
> | Post '94 70% | 20% | 20% |
> | Pre '94 20% | 70% | 10% |

> **Question 4: Who do you prefer to do urban design work for?**
> Public sector clients: Private sector clients: ___
> Why?
>
> *Public sector still answers the basic need for involvement in the making of "cities" in the broadest sense but increasingly aspires to 'policy' planning. Private sector clients "at scale" (such as Torpat Holdings) is without doubt more fulfilling from a "design junkie" point of view and, increasingly, as a legitimate way in which very large pieces of "city" are delivered.*

> **Question 5: Have you been involved in corridor or spatial linkage projects in South Africa?**
>
> *Yes — metro JHB. Inform spatial framework in which corridors were a principal structuring element. Baralink, Katorus, Jabulani, Makopane/Centurion have all come through as for comment and involved at one time or another. We participated heavily in the N4 Maputo corridor but were not successful — this is a very good case study under your Question 7 below however.*

> **Question 6: How would you define a corridor from an urban design perspective?**
>
> *An urban corridor is a naturally-occurring morphological element and must be distinguished from arterial spines and urban streets at one level and regional corridors at the other. It should comprise several parallel routes of movement interwoven in a complex way (preferably with public transport on those routes—bus and rail with taxis in-between both on the parallel and cross routes) and be extraordinarily complex in its activity and density profiles tending towards a sustained intensity. It is a multi-stranded,...*

> **Question 7: Do you agree with the corridor concept which is so widely propagated by the Department of Trade and industry and by Provincial/Metropolitan governments ? Please give reasons.** *It is an undeniably powerful city element and yet can be used inappropriately and sometimes/often "in lured thought"—ie. it often becomes a knee-jerk ptf response. When used inappropriately at a regional level, it can be particularly dangerous and even impoverish rural/peripheral economies ... to feed centralist economies. In cities they are great egalitarian pieces that laugh at prejudice and "ownership" but at a regional level that can really be misrepresented. My concern with regional corridors is the extent to which traffic engineers have usurped them to argue for more freeways.*

[margin notes, left side top:]
This pre and post '94 distinction doesn't reflect a reluctance of work but due to agencies now less favour by government. Rather it reflects the growing willingness of "wishy-washy" authorities to invest in real city type projects since '94.

[margin notes, left side bottom:]
→ Henri — left most to this one... this one was — Esky

[margin note, right side:]
...interwoven since and never it the city and it life blood.

PAGE 2 OF QUESTIONNAIRE TO URBAN DESIGNERS

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Question 8: Do you adhere to a first principles/generic principles when 'urban designing'. Are there any specific generic principles which you would apply to an urban corridor?

[handwritten response] Any authentic response must be driven by the uniqueness of the issues identified but, yes, the closer the responses are to "first principles" the better. Bear in mind that "first principles" themselves must never be allowed to become an urban design "tool box." Too many responses, first principle or otherwise, are far too often driven by a "generic solution" looking for a "generic "problem"". I don't like the word "problem" because it's pejorative and value laden. Too many times "problems" are defined to fit known "solutions" and first/generic principles are very vulnerable in this way.

Question 9: Corridors (like cities) are essentially long term projects which are manifested in space over long periods of time. How do you suggest we deal with this problem when our involvement is temporal and the scope of our involvement often limited by contracts and annual budgets?

[handwritten response] I don't agree that they're projects nor "devices" — They are consequential, organic and naturally-forming pieces of morphology - i.e. they are what parts of the city will "look like" or "operate like." If certain pre-conditions are met. Viewed in this way the temporal involvement of an urban designer is not an issue. We are not setting out to "make corridors" as projects, — we are simply intending a local people knowing that the larger [...] logic of a particular part of the city will function as a corridor and that is so and OK, [...] consequence

---

Question 10: The government considers the LDO (Local Development Objectives) process as stimulated by the Development Facilitation Act( ) as a democratic way of accommodating the grassroots in the process of urban development. Have these objectives influenced your urban design work in any way?

[handwritten response] Yes they are given (a) not being co-opted/mutilated by traffic engineers (as noted in Ques. 7 above) or (b) being inappropriately conceived (as noted in 9 above). Handled well, they are remarkable, egalitarian, un-contested, robust (and often blood-thirsty) things. We shouldn't over-romanticise them — they are great enablers and generators.

[right margin handwritten] of local projects or intervent'ns. They are not "big ideas" — their strength is that they are a product of ill defined non-prescriptive, non-programmatic influences independent of time.

Question 11: Urban designers often arm wrestle with civil- and traffic engineers when it comes to corridor development. The major investment in roads is considered a 'non-negotiable' first priority. What is your opinion?

[handwritten response] I've come to share great relationships with lots of traffic and other engineers and am awe-struck by many of them. I despise a system that sees a distinction between "traffic planning" and "land-use planning" however and to the extent that urban debate and policy gets hi-jacked and compartmentalised by this, I have a problem with "traffic and infrastructural "planners" vs "Urban Planners"

Question 12: Please note anything which you consider appropriate to my research (perhaps based on my introductory notes).

[handwritten response] Henri - it seems to me there needs to be a broader context of "morphology" and "morphological types" before becoming too focused on just corridors — and then, are these regional corridors, inter-city corridors or intra-city corridors? I think they're all different — let's get some time together and discuss.

Thanks for the approach and all good things,

Eeky.

[left margin handwritten] Let's meet to discuss this too. ←

THEME I: GENERAL ATTITUDES TOWARDS THE CORRIDOR CONCEPT

- Interviewees generally supported the corridor concept.

- Two of South Africa's most articulate and influential urban designers *David Dewar* (Cape Town) and *Erky Wood* (Johannesburg) have been instrumental in promoting corridors since the early 1990's.

- A significant number of urban designers considered the corridor an age old, spontaneous or morphological type (*Jordaan, Wood, Thomashoff, White*).

- Though indicating that '*it is not a panacea for South Africa's urban problems*', state planners involved in the management of corridors were often aggressively defensive of the concept. This may reflect a sense of professional insecurity or -pride; that career advancement of those centrally involved relies on the success of corridor 'projects'. There is however increasing concern that too little has been delivered (*Southworth in referring to the MSDF*). The crisis is brought about by the fact that, whilst most planners understand the open-endedness of corridors as continuous works in progress, politicians face threats to their political careers if they do not deliver on their promises (*Hendricks, Southworth, Kleynhans*).

- Interviewees were asked to define urban corridors. The words *linearity, mobility* and *accessibity* were most commonly used to describe the corridor. A detailed analysis of definitions are contained in Chapter 2.

THEME II: THE INFLUENCE OF THEORY

The following theorists were spontaneously named during interviews and are said to have influenced praxis :

- David Dewar & Roelof Uytenbogaardt: *South African authors of South African Cities: a Manifesto for Change (Nicks, Southworth, Wood, White).*

- Nick Wates: *United Kingdom: The Community Planning Handbook (Nicks).*

- David Crane: *USA; 1960's 'Capital Web' and dynamic city theories developed for Philadelphia (Wood, Thomashoff, White).*

- Jonathan Barnett: *USA: City of a Thousand Designers (Wood).*

- Manfred Max-Neef: *Latin America: Chilean participative processes (Nicks).*

- Hernando De Soto: *Latin America: Sociology Peru (Wood).*

- Karl Popper: *Sociology (Jordaan).*

THEME III: THE USE OF GENERIC PRINCIPLES

Note: see glossary of terms for definition of *generic.*

The use of *mobility spines, activity spines, access routes, mixed use nodes* and various levels of *interface with agricultural development and open space were* commonly referred to during interviews and feature prominently in corridor development frameworks (MCDC, 2000; PLWC,1999). This mirrors the use of these elements in western Australian corridor development, where they support the *sustainable neighbourhoods* agenda.

The CSIR has undertaken various scientific studies which relate alignment and placement of generic elements to local economic development and empowerment *(Green ,Naude).*

The Cape Town frameworks place greater emphasis on hierarchy of scales and on the importance of inter-modal interchanges as places of small-scale economic opportunity than frameworks for other cities *(Dewar, Southworth, Hendricks).*

In referring to typology it was noted that the lateral connections which link interchange points represent some of the most significant opportunities for urban design *(Southworth, Dewar, van der Merwe).*

THEME IV: THE INFLUENCE OF CASE STUDIES

The Curitiba (Brazil) concept of radiating traffic spines and high mobility bus routes has been particularly popular in South Africa. The concept was first adopted in the early post apartheid Metropolitan Spatial Development Framework (MSDF: Cape Town Metro) where it was referred to as the *'what works best scenario'.* Because of the concise and provocative way in which the MSDF was packaged and presented, it became an influential reference document for other South African cities.

Like the corridor concept, the Curitiba model was lauded and/or defended by some interviewees *(Nicks, Kleynhans, van der Merwe).*

Its popularity is often ascribed to the fact that Brazil is a country which has similar socio-economic conditions to those prevalent in South Africa (Green). Its relevance is however increasingly being questioned because:

- it is technocratic and favours top down implementation.

- it was introduced under the leadership of a dictatorial Jaime Lerner, who aggressively controlled land use patterns by effectively saying *'If you don't develop in corridors you don't develop anywhere else' (van der Merwe).*

- the Curitiba model facilitated growth whilst the corridor is retrofitted over existing urban development in South Africa *(Green, Thomashoff, Jordaan, Serfontein).*

THEME V: CORRIDOR AS PROCESS vis-à-vis CORRIDOR AS PROJECT

Corridor development is often linked to five-year metropolitan budgets as in the case of the Philippi-Wetton Lansdowne Corridor and the Mabopane Centurion Development Corridor. This results in the *'delivery'* of *'quantifiables'*. This compromises notions of the corridor as perpetual work in progress *(Hendricks, Barbir, Coetzee, Serfontein)*.

Various interviewees referred to the corridor as a spontaneously occurring phenomenon in pre-industrial societies and in developing countries. It is considered to have been denied by modernist planning and by South Africa's market driven land management system. Since we are in a post modern era and moving into a post industrial and era, it is possibly a good time to review pre-industrial typologies *(Wood, Jordaan, Thomashoff, White)*.

THEME VI: CLIENTELISM AND THE CONTRACT-BASED INVOLVEMENT OF PROFESSIONALS IN CORRIDOR DEVELOPMENT

Contracts, fixed time scales and budgets (as discussed in 1.3.5) have had a significant influence on the development of corridors. Work is contracted out to professionals, who are expected to deliver frameworks as bound documents and *'do participation'* within fixed time scales, according to the Integrated Development Planning (IDP) process. More recently, professionals have been appointed only after tendering on specified corridor (and other public) projects. Competitive fees and fast delivery are crucial components of a successful tender *(Thomashoff)*. Even if urban designers do not consider urban design a profession but a discipline, their involvement in the tendering process forces them to become professional, i.e. to deliver a definable and recognisable service within set time frames.

In a context where there are limited formal opportunities and strong competition between development practitioners and NGO's, this has had a significant impact. Some interviewees expressed their frustration at not being given adequate opportunity to analyse, interact, follow through, reflect, adjust methodologies, etc. *(Thomashoff, White)* while others have adopted a more astute business approach which recognised that in order to survive as a business, the rules of the games need to be acknowledged *(Wood, Jordaan)*. *Nicks* and *Jordaan* noted that it is necessary for urban designers to identify opportunities and generate their own work, particularly under conditions where public private partnerships (PPP's) are encouraged.

The tendering process and time/cost pressures associated with public sector work leads to fragmentation and discontinuity where 'the project' is subdivided and different people/disciplines work on different parts of the framework simultaneously in order to meet deadlines (The classic Marxist division of labour argument). This is the primary reason for falling back on preconceived methodolgies, for using generic principles and for defending ideas by way of *'what works best scenarios/precedents'* *(Jordaan, Thomashoff, White, Nicks)*. The division of labour also relates to participation since the sociological component is contracted out to sociologists who prepare status quo reports for instant use by planners and urban designers *(Thomashoff, Du Toit)*

The continuous restructuring of local government departments further limits the chances of urban design concepts being implemented. Frameworks and projects are frequently frozen or cancelled and resources are continuously shifted around. *Southworth* and *Smit* mentioned the constant struggle they are having in retaining a core team who worked effectively on the Wetton - Lansdowne Corridor and to have their ideas co-opted within the larger, rationalised Cape Metro, where the balance is now being shifted back towards outdated technocratic methodolgies.

Dewar and *Wood* noted that, though many frameworks and especially early frameworks for macro scale restructuring have been shelved due to rationalisation, the ideas live on and are likely to re-emerge in new urban development frameworks. People are predictably lazy and there are only so many good strategists around!

THEME VII: THE PREVALENCE OF TECHNICAL RATIONALISM IN CORRIDOR DEVELOPMENT IN SOUTH AFRICA

This was specifically noted by urban designers who thought the system to be *'closed to intellectual campaigning' (Lloyd, Thomashoff)*. *Dewar* has been engaged in a protracted battle with the old school technocrats and notes that the *technical rational ideology* was and still is as damaging as the *apartheid ideology* was to urban development in South Africa.

Popularity of the rational Curitiba model provides further proof of the wide support for technical rational methods (see subparagraph 7.3.4).

With regards to corridor development, the significant influence of traffic engineers ,who measure success in terms quantifiables has been significant if not overpowering *(Jordaan, Thomashoff, White, Southworth)*. According to *Oranje*, technical rationalism is still a major ingredient of the methods adopted by state planners, who have been schooled in the apartheid/modernist era. Only one urban designer *(Wood)* noted that he enjoyed working with traffic engineers. He noted that, though struggling, they are at least gradually becoming aware of the need for a more integrated approach.

THEME VIII: EXPERIENCE OF- AND ATTITUDES TOWARDS PARTICIPATIVE PROCESSES IN CORRIDOR DEVELOPMENT IN SOUTH AFRICA.

This was the most controversial topic raised. Whilst most recognised the importance of participation, they also pointed to the confusion and lack of scope for participation within a macro-scale, strategically driven process *(Thomashoff, Nicks, White)*.

The system of budgets and allocation of *'participatory work'* to experts as discussed under subparagraph 7.3.6. has also had a significant effect, since development practitioners remain largely removed from the communities which they serve. Some noted that the facilitation of participation is not part of our core skills and that we need to *'work with people who are skilled in the art of participation, facilitation and skills development' (Du Toit, Thomashoff)*.

Crime and dangerous working conditions in remote areas of corridors are further deterrents. Groups of participants are mostly ushered to central, safe venues where workshops are held in the evenings or over weekends (*White, Thomashoff*). Apart from not being representative (mostly elders, unemployed or those rallying for political positions attend workshops) time is often limited and incentives such as a free meal is typically used to motivate people to attend (*White, Thomashoff*).

Nicks noted that there is widespread cynicism about participation, which is seldom acknowledged because, in order to get the job, it is politically correct to 'support participation unequivocally'. *Nicks'* statement echoes provocative notions of '*partcipation as tyranny*' raised by Cooke & Kothari (2001). He noted that they had experimented with *open house* methodologies as proposed by Wates but that it had proved ineffective. There is a cultural/educational bias which mitigates against it. He said that they have made concerted efforts towards accommodating public participation and the only form that really worked was when housing was the focus of such a process and land had already been secured. He noted that people become feverishly involved when the prospects of owning a house become real.

Jordaan noted that the smallest unit of participation as prescribed by metropolitan council was ineffective as a unit for debate. Cities are divided into wards of approximately 10 000 people, each with a democratically elected councillor and a ward committee consisting of ten elected members, each with a different portfolio (*confirmed by Putu and Sonyane*). Geographical demarcation of wards do not recognise social groupings or cohesion. Committees consist mostly of elders who have gained respect in the typical African hierarchical system, but who are generally out of touch with the aspirations of the economically active group and the youth (*Putu*). Interest in participation has declined significantly since 1994 (*Sonyane*), not least because calls remain largely unheeded and promises are mostly not kept.

Schoonraad noted that participation is ineffective under conditions of macro scale strategic planning because people strive towards the next feasible level, typically from a shack to a house or from a township style house to a 'white' suburban house etc. Participation only works at the local level, which she fully supports (this mirrors *Nicks'* sentiments). Metropolitan government's efforts to involve the broad masses in its five year strategic planning processes (as dictated by the Development Facilitation Act, 1996) are largely wasteful, placating exercises which pays lip service to democracy. Personally, she says, she's had enough of '*large halls full of people, breakaway groups and sheets full of good intentions which end in the strategic planners' wastepaper baskets'......* and believes that most who have volunteered their time and effort for long enough will agree.

Wood said participation should play itself out in everyday life and simply means giving people greater control over their lives. He referred to Hernando de Soto's work in Peru. He also noted that politicians represent the greatest threat to the type of personal freedom that South Africans deserve by exerting excessive control. South African cities are becoming juggernauts, which can only be restrained by planning wisdom up to a point. Yet those who see will not believe.

Thomashoff noted that, in corridors, one often deals with transient communities or illegal immigrants who are not in the slightest interested in participatory processes. Illegal immigrants avoid 'official contact' through fear of being arrested and deported. There is also significant hostility between locals and illegal immigrants since they compete for

limited work opportunities and locals resent the unfair competition which illegal immigrants represent. One often deals with hierarchies and delegation associated with African identity and which denies notions of open participation as conceived in liberal democracies (*White*). This was confirmed by *Marsha, Setsedi, Putu* and *Sonyane* and during discussions with various students at Technikon Northern Gauteng.

Hendricks noted that *action planning* was used with some success in the Philippi Wetton Corridor. Their experience was that time was needed to get people committed. However, once committed, you keep on seeing the same faces at workshops despite distributing open invitations. This presents the same problems of hierarchy, delegation or political manoeuvring as noted by *White*.

Jordaan experienced the woes of attempting public participation in a middle class suburb where the only motivation for participation seems to be self-interest. People participate when there is a threat to-, or chances of increase in the commercial value of their property. It proved a bitter struggle to communicate densification, mixed use and other theoretical principles of sustainable development. This resulted in the shelving of *Jordaan's* study for densification and a mixed use street interface along three suburban corridors in Pretoria. *Jordaan* noted that, in the South African, context too much value is still attached to lot size and mono-functional land use and that land it is still to cheap and too easy for the middle classes to acquire. He also noted that the self-centred materialistic attitudes are increasing rather than decreasing because white suburbanites are feeling increasingly vulnerable. (though not specifically mentioned by Jordaan, events such as violent farm seizures in Zimbabwe undoubtedly fueled the anti-communalist sentiment).

THEME IX: ATTITUDES TOWARDS OTHER PROFESSIONALS INVOLVED IN CORRIDOR DEVELOPMENT.

The City of Cape Town (*Hendricks, Southworth*) GAPP (*Wood*), and Chittenden, Nicks, DeVilliers (*Nicks*) provide good examples of how professionals have managed to work together in multidisciplinary teams.

Nicks noted that, despite all the shortcomings of the *Integrated Development Planning* (IDP) process, it facilitates cross-disciplinary co-operation.

Wood noted that their practice, which consists of architects, planners and urban designers, uses urban design as the overlap or glue. While planner/urban designers understand legal issues architect/urban designers remain blissfully ignorant of these issues, knowing full well that they will be redirected by planners in the know before making fools of themselves. Likewise, planners recognise their limited spatial design skills. The partnership is so well developed and interdependent that they cannot imagine how other urban designers would wish to work in disciplinary isolation.

The *City of Cape Town* has used multidisciplinary teams with great success. Spatially organised (in the office) in multidisciplinary teams, each dedicated team has managed to work effectively and to achieve significant results. There are no appointed team leaders and all decisions are taken by consensus (*Southworth, Smit, Dewar*).

Planners involved in private planning practice displayed significant ignorance regarding the role of urban design. All too often the urban designer is considered a three dimensional

graphic artist who assists in selling planners' spatial plans. One planner noted that they *'get the urban designer in to do the pictures.'* By performing this task urban designers reinforce the perception and it may be an indication that urban designers are doing a bad job of promoting their skills. This evidently does not apply to Cape Town, but certainly to Johannesburg and Pretoria.

Significantly the University of Cape Town allows only architects or those who have completed the first three-year of undergraduate studies in architecture to enrol for a Master of City Planning and Urban Design course. Spatial mastery is highly valued at UCT and considered a core skill (*Du Toit, Southworth*).

Problems of integrating traffic engineering, or rather, problems of traffic engineers accommodating other disciplines in corridor development remains a huge stumbling block. Traffic engineers consider corridors their domain and their hand is strengthened by the centralised way in which roads are funded in South Africa (*Marrian*). Minimum standards result in overspending on roads infrastructure and an unwillingness to downgrade roads where conditions call for higher levels of edge interface for informal trading activities (*Dewar, Thomashoff, Jordaan, White*).

THEME X: SCALE/SCOPE OF URBAN DESIGN INVOLVEMENT

Hendricks presented the clearest example of how of a full hierarchy of scales may be accommodated in corridor development. He produced graphic material which shows how Piet Louw worked downwards from a sub regional scale, to a local scale, to a nodal site at an important corridor node. Finally Louw designed a communal bathhouse and informal trading facilities. There are similar examples in the Philippi-Wetton-Corridor such as *Du Toit & Perrin's* Philippi station, which also has associated informal trading facilities. These facilities act as catalysts and work 'upwards' in the hierarchy of urban scales. The *Philippi Wetton Lansdowne Corridor* is some seven kilometers long and small enough to have generated tangible evidence of livelihoods improvement. By contrast, the *Mabopane Centurion Corridor* stretching northwards from Pretoria is 50 kilometers long. Overseen by a single project manager and a dispersed team of consultants, it is struggling on all accounts. The result of a too broad focus is that it is only a corridor in name with very little evidence of actual development and livelihoods improvement (*Thomashoff and own observation*).

Du Toit notes that architect/urban designers should acknowledge the fact that they do not have the capacity or the skills to work on a scale much larger than the local scale. While needing to be aware of strategic issues, they need to find their focus. While trying to reconstruct South African cities we have been looking at cities on an impossible scale and this has taken up much time and energy. We need to consider hierarchy and then invest our efforts where we can realistically achieve incremental results. *Wood* proposes a similar process which he calls *conditional incrementally*. Though himself a planner (and urban designer), he acknowledges the fact that it is a methodology which state planners who are obsessed with linear programming (in the interest of good governance), find hard to accept. *Conditional incrementality* uses an *IF...THEN* causal methodology and considers a range of alternatives, which will improve the chances of actual implementation on the ground. Our developing country context rejects overly deterministic methods, yet that is what is routinely being proposed.

THEME XI: THE ROLE OF UNIVERSITIES/EDUCATION ON CORRIDOR DEVELOPMENT (URBAN DESIGN)

Since Cape Town is the only city in South Africa with a resident urban design school, an open urban debate in important centres such as Johannesburg and Durban has been limited. The fact that urban designers have been educated at various universities has resulted in divergent discourses in these cities. My research indicates that in Johannesburg urban designers have predominantly studied at Rice- (Texas), Harvard-, Oxford Brookes-, Cape Town- and Witwatersrand University (pre 1997).

As in the Boston (MIT and Harvard) tradition, the University of Cape Town's (UCT) urban design school has had a significant influence on the development of the city and is actively consulted *(Southworth)*. *David Dewar* of UCT has been personally responsible for championing the cause of corridors but believes that it has been *'bastardised by others'* *(Southworth)*. UCT's urban design students are often involved with real cases and some work for the Council on a part time basis. Praxis is thus clearly evident in Cape Town. Senior urban designers in local government teach part time at UCT and permanent UCT staff are routinely consulted by local government *(Hendricks, Southworth)*. The UCT ethos of Dewar & Uytenbogaardt is all pervading in Cape Town and has provided the discipline with both vigour and rigour. Praxis is thus clearly evident in Cape Town.

From outside the UCT School has been criticised for being exclusive, dogmatic and for being married to the 1960's ideas of Louis Kahn and David Crane *(Boden)*.

THEME XIII: THE USE OF INFORMATION TECHNOLOGY AND QUANTITATIVE METHODS IN CORRIDOR DEVELOPMENT

The *Centre for Scientific and Industrial Research (CSIR)* in Cape Town's *Transportek* division has developed scientific models for prioritising 'planned' corridors and nodes for public investment. Corridors are weighted by using indicators (High = 3, Medium = 2 and Low =1) for social need, economic potential and public transport orientation (Green, Naude).

After the quantitative comparison of 23 corridors in Durban it was found that Umbilo Road had the highest priority rating (7.8) and Sarnia Road the lowest (3.3).

The CSIR suggests that the following indicators (not used in their study for Durban) could also be used:

- Percentage of Informal dwellings
- Average household income
- Number of formal dwellings constructed
- Dwelling unit density
- Number of employment units per segment
- Daily public transport trips per corridor
- Average distance to work

ANNEXURES: TABLE OF CONTENTS

ANNEXURE 1

GLOSSARY OF TERMS

A1.1. ACTION PLANNING

The word *action planning* is associated with the development practice movement (see definition A 1.4.below). It was conceived as an alternative, more appropriate planning model than the master planning approach then commonly used in developing countries and particularly in ex colonial British countries. It is typically a five step process consisting of (1) reconnaissance (2) guiding concept (3) action programme (4) role casting and (5) monitoring and feedback (Devas & Rakodi,1993: 87.

A1.2. ACTION SPACE

Action space is a term developed in the context of this research. Action space refers to marginal geographies in extended urban corridor zones that are characterised by high levels of poverty and socio-economic transience. It is a shifting geography in which the market has shown very little interest during the first ten post apartheid years. Most development action is dependent on public funding or people's own efforts. Action space is relative to *market space* (see TERM A1.9 and figure 7.18. CHAPTER 7).

A1.3. CAPITAL WEB

Capital web refers to a spatial planning instrument which determines the geography of limited public investment in the city. The concept is closely associated with David Crane and the Pennsylvania School. The capital web is typically based on a 20/80 principle which assumes that a 20% of initial capital expenditure on physical infrastructure will generate 80% of commensurate private investment in capitalist economies. The infrastructure of corridors typically form part of the capital web.

A1.4. DEVELOPMENT PRACTICE (PLANNING)

Otto Koenigsberger set out the alternative approach at the Architectural Association during the 1960's. Its main purpose is to develop appropriate planning practices, particularly in developing world countries where the context for practice is significantly different from and more uncertain than that of industrialised countries. It is based on an ongoing process of learning and skills development rather than on the preconceived curricula of planning schools (book knowledge). It is sometimes called development planning, but the word 'practice' more accurately describes the active involvement of communities and other built environment professionals. It therefore not only questions the knowledge base of orthodox approaches to planning but also recognises limited resources and emergency conditions often found in developing countries. The associated term *action planning* (see term A1.1.) is used to describe the process of actively engaging with communities in the field.

A 1.5. FIRST PRINCIPLES

First principles differs from *generic principles* in the sense that it may derive from a defined or definable source. As with generic principles, first principles are typically used as a point of departure in a variety of contexts. Graduates of The University of Cape Town's urban design school is known to use and refer to *first principles* which in their case may be traced back to principles associated with the capital web ideas of David Crane and the Pennsylvania School (see definition of Capital Web: A1.3. above).

A1.6. GENERIC PRINCIPLES/ ELEMENTS

Generic from Latin *gener-*, genus, birth, kind, class.The Camdridge International Dictionary defines *generic* as shared by, typical of or relating to a whole group of similar things, rather than to any particular thing. It also refers to an unspecified origin. A *generic* wine is a blend of several grape varieties and does not carry the name of any specific grape.

In the context of this research *generic* corridor elements or principles similarly means wide/general application and of an unspecified origin.

A1.7. HEGEMONIC PROJECT

Hegemonic project in the South African context refers to the dominion of the ruling class/party which is grounded in its ability to nurture the active consent of broad sections of society, in concert with other social forces. A complex work in progress and not a thing to be captured, smashed or overthrown (Marais, 2001:233).

A1.8. INTEGRATED DEVELOPMENT PLANNING (IDP)

Integrated Development Planning is the municipal and metropolitan planning model that was introduced in South Africa post 1994 and consolidated in 2000. It is a strategic planning model which seeks broad consensus on deciding on key projects and budgets within five year cycles. It is aimed at integrating sectoral strategies in order support the optimal allocation of scarce resources between sectors and geographical areas and across the population in a manner that promotes sustainable growth and efficiency. See Annexure 8: South African Planning System.

A1.9. MARKET SPACE

Market space is a term developed in the context of this research. The South African urban context is characterised by socio-economic *dualism* (see A1.4. below). Market space refers to those geographies within urban corridors where the market dominates or shows active interest because of the supportive climate generated by a neo-liberal macro economic system. Market space is a shifting geography that influences the geography of *action space* (see TERM A1.2.).

A.1.10. NEW URBANISM

New Urbanism is an urban design movement that emerged in the late 1980s and early 1990s. New Urbanists aim to reform all aspects of real estate development. Their work affects regional and local plans. They are involved in new development, urban retrofits, and suburban infill. In all cases, New Urbanist neighborhoods are walkable, and contain a diverse range of housing and jobs. new Urbanists support regional planning for open space, appropriate architecture and planning, and the balanced development of jobs and housing. They believe these strategies are the best way to reduce how long people spend in traffic, to increase the supply of affordable housing, and to rein in urban sprawl. Many other issues, such as historic restoration, safe streets, and green building are also covered in the Charter of the New Urbanism, the movement's seminal document.

A1.11. PRIMATE CITY

A condition where one city in a developing country grows disproportionately in relation to other urban centres and attracts the majority of investment. Lima, Kuala Lumpur and Johannesburg are examples. Primacy is encouraged by neo-liberal economies where cities rather than nation states compete for outside investment.

A1.12. STRATEGIC PLANNING

Strategic planning was adopted in South Africa post 1994. It aims to be a flexible planning philosophy/approach which makes the most of limited resources while considering the given conditions (DoCD, 2001). It does this by:

- Prioritising a few crucial issues
- Focusing analysis
- Addressing root causes of problems
- Acknowledging available resources and spatial context
- Identifying and analysing alternative strategic options (asking the 'how' question)

A1.13 STRUCTURAL ADJUSTMENT

Structural Adjustment refers to the politically induced process of increased living costs, market driven increase in consumer prices, privatisation, and reduction in the size of the civil service. The phenomenon is directly associated with the adoption of a neo-liberal economy in developing countries.

A1.14 URBAN DUALISM

Refers to an unequal socio-economic condition which is nurtured in neo-liberal political economies in developing countries by policies which favour the international and local investor market.

ANNEXURE 2: A CHRONOLOGY OF LINEAR- AND ASSOCIATED URBAN TYPES

The illustrated table presented below represents a chronology of linear and associated types collected during the research period. The chronology serves two purposes:

- **First**, to act as an accessible reference during the writing up stage of this thesis.
- **Second**, contextualise the urban corridor within the body of linear types (Chapter 1).
- **Third**, to contextualise case studies within the body of linear types.

TABLE A.2.1. CLASSIFICATION OF LINEAR AND RELATED URBAN FORM TYPES

| THE MAIN AGENTS (WHO)		
BOTTOM – UP, GROUP COMMUNITY URBAN POOR DO-ERS	**PROVOCATEURS & AESTHETECISTS INDIVIDUAL/GROUP** VISIONARY PERSON/GROUP PIONEERS AESTHETECISTS TOWNSCAPE THEORISTS	**TOP – DOWN, GROUP/ INSTITUTION** BUROCRACY SPECULATORS REGULATORS
THE MAIN PURPOSE (WHY)		
LIVELIHOOD/ NEED SMALL SURPLUS SETTLEMENT	NEW TECHNOLOGY ZEITGEIST/ TABULA RASA GOOD INTENT/ INFLUENCE/ INTELLECTUAL POWER/ HEROIC SPIRIT/	**First..............** INDUSTRIAL SPACE/ COMMERCIAL SPACE/ HOUSING SPACE **Then.........** SURPLUS GENERATION/ REGIONAL **Then...........** ENERGY-SAVING/ GLOBAL INVESTMENT
TYPE A	**TYPE B**	**TYPE C**
A 1. PREINDUSTRIAL UNPLANNED SETTLEMENT Incremental growth/autonomous Communal organisation Preindustrial/early commercial/ market town/ local scale/ sustainable unit **A 2. POST INDUSTRIAL AD-HOC** Accidental/ extended roadside market Developing country typology/ Planned but not managed/'illegal',anarchic Piecemeal development/ regional scale **A 3. COMMUNITY BASED** Bottom-up urban management approach. Anarchist tradition. Action Planning. **A 4. DEMOCRATIC PROCESS** Managed by local government. Includes stakeholders at different levels	**B1.UTOPIAN/EXPERIMENTAL /VISIONARY** Unbuilt or partially built/ planning pioneers/ diagram / industrial city/ regional scale/ socialist / visionary/ movement-aesthetesists **B2. FORMULAIC** Quantitative calculations of ideal community size, transport needs, etc Industrial zeitgeist. **B3. ARTISTIC PRINCIPLES KINESTHETICS** External view. Analysis of form. Proposes form response to sensoric experience of movement along pedestrian and vehicular routes.	**C1. PREINDUSTRIAL: PLANNED** **C2. PLANNED : CAR ORIENTED** Built/ de-urbanists/ Post war/ speculative/ Functionalist/ car oriented **C3. PLANNED: PUBLIC TRANPORT ORIENTED** Post industrial world. Sustainable city/ city wide/ contained growth/ access to mass transport **C4. PLANNED: MAGNET FOR GLOBAL INVESTMENT** Neoliberal world/ green field site

TABLE A.2.2. A VISUAL CHRONOLOGY OF LINEAR AND RELATED URBAN TYPES/ PROCESSES

| TYPE A	TYPE B	TYPE C
TYPE A1 **PRE INDUSTRIAL** **Stage 1** Incremental growth of an Iranian city along a trade route (Kheirabadi, 1991) Stage 1: agricultural settlement **Stage 2** Agricultural settlement with newly built *karavansaray* (Kheirabadi, 1991) **Stage 3** Early commercial settlement (Kheirabadi, 1991) **Stage 4** Integrated commercial town (Kheirabadi, 1991)	**TYPE B1** **1892 FIRST LINEAR UTOPIA** Diagram of the Ciudad Lineal envisaged for Madrid by Arturo Soria y Mata. The section shows the central traffic spine and the plan shows an urbanised belt connecting two existing nodes. (Fehl, 1998) **TYPE B2** **1904 INDUSTRIAL UTOPIA** Garnier's *Cite Industrièlle* (Korn,1953) **TYPE B1/2** **1926 FORMULAIC/UTOPIAN** Stein and Wright's Valley-plan of urbanisation proposed for the southern embankment of Lake Ontario (Fehl,1998)	**TYPE C1** **EARLY PLANNED (ROMAN) 4th CENTURY** Map of the Roman city Londinium superimposed on part of the present London Forum (shown dark) at crossroads of main east-west and north–south routes.(Korn, 1953) **TYPE C1** **1638 PLANNED PREINDUSTRIAL** Plan of Providence, Rhode Island. *Cottage and field.* No communal system. Soil was soon exhausted. (Moholy-Nagy, 1968). **TYPE C2** **1921 PLANNED: FIRST HIGHWAY** The *Automobil- Verkehr und Ubungstrasse*, Berlin. The world's first true motorway. (Hall, 1988)
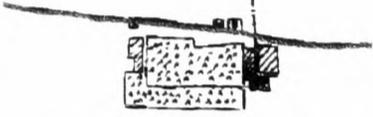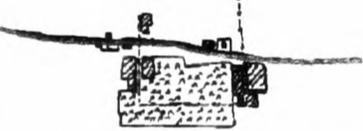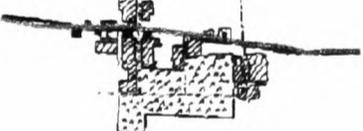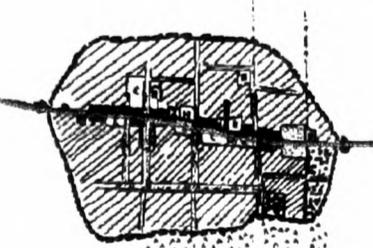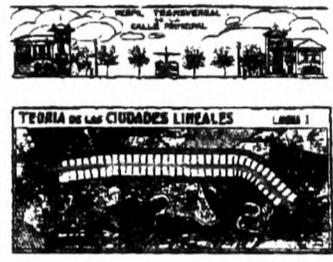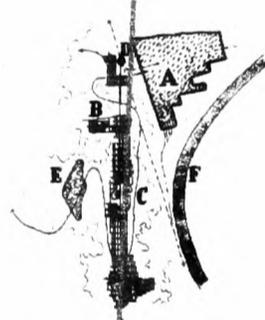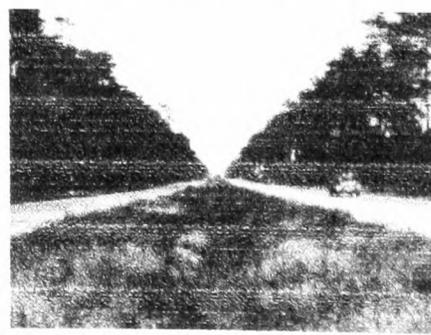
TYPE A	TYPE B	TYPE C
TYPE A1	**TYPE B1/2**	**TYPE C2**
1970 MIDDLE EASTERN SUQ	**1929 SOVIETS**	**1940's PLANNED DEURBANISTS**
	Miliutin's diagrammatic plan for Magnitogorsk, USSR . Linear 'live and work' town. (Korn, 1953)	
Bazar of Isfahan anchored by the Friday Mosque and Shah Mosque. Extended market within an integrated city. (Kheirabadi, 1991)	**TYPE B2**	Semi-detached 'ribbon development'(Cadbury Brothers Limited, 1943)
TYPE A1	**1930 MATHEMATICAL FORMULA**	**TYPE C2**
921 ROMAN/ANGLO SAXON		**1948 SPECULATIVE**
Towcester, England. Village founded by the Romans. Stone wall by Anglo – Saxons. Incremental linear extension along route connecting the village with others.	Friedrich's *Lineare Ordnungstruktur* Friedrich was a mathematician searching for a new formula of regional organisation, which could cope with modern mass transport, labour, industry and service and administration. (Fehl, 1998).	Palm City (Florida). Linear suburban development. Speculative detached homes Mass production techniques. (Kostof, 1991)
TYPE A1	**TYPE B1/2**	**TYPE C2**
16th CENTURY SAXON	**1933 MACHINE CITY**	**1972 COMMERCIAL STRIP**
The Manor of Birmingham in Saxon times: Town and communal land (Cadbury Bros, 1943)	Le Corbusier's *La Ville Radieuse*, supposedly his proposition for Moscow, based on ideas for an expanding linear town. Principles: to augment density, develop the means of transport, increase the parks and open spaces (Korn, 1953).	*The Las Vegas strip.* A- spatial, coded urbanism along the highway in which the buildings are reduced to decorated sheds and billboards. (Hall, 1988)

TYPE A	TYPE B	TYPE C

TYPE A

TYPE A1/C1

1553 MARKET TOWN IN TUDOR TIMES

Birmingham in Tudor times. Linear extension of the market town along regional roads. Cottage and field. (Cadbury Brothers Limited, 1943)

TYPE A1

16ᵗʰ CENTURY LINEAR EUROPEAN VILLAGE
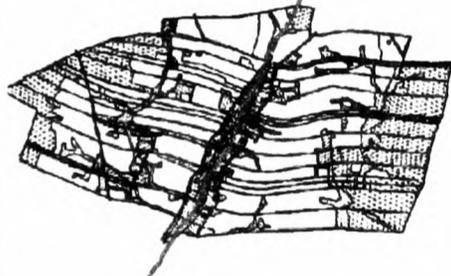
German Woodland Village. Each family worked a strip of mixed land within a small community overseen by a chieftain . (Moholy-Nagy, 1968)

Wormer, linear village in the Netherlands. Narrow strips of agricultural land clearly visible (Helmond, 1988).

TYPE A1

Early 19ᵗʰ CENTURY

Los Angeles in pre- American times. Spanish Pueblo with associated agriculture. The law of the Indies considered town and country to be a working unit (Kostof, 1991).

TYPE B

TYPE B1

1937 MARS PLAN: LONDON

MARS Plan. 'Double comb' system . A diagrammatic transport grid with the main artery along the work area, the local arteries serving the district units of 600 000 and the ring line serving distribution centres on the outside of the town. (Korn 1969)

MARS Plan illustrated on a hypothetical site to show site-specific application (Korn, 1969).

TYPE B1/2

1940's CHICAGO

Hilbersheimer *Replanned Chicago*. Linear new town (Korn, 1953)

TYPE C

→ TYPE C3

REVOLT AGAINST THE HIGHWAY
See Hall, 1988p315
SAN FRANSISCO
1973: Small is Beautiful
SHIFT to Urban Mass Transit
Follow Pioneer trail set by
- Stockholm (since1945),
- Copenhagen (1949)
- Paris (1965)
Revolt started in San Francisco

TYPE C3

1945 ONWARDS STOCKHOLM CORRIDOR PLAN
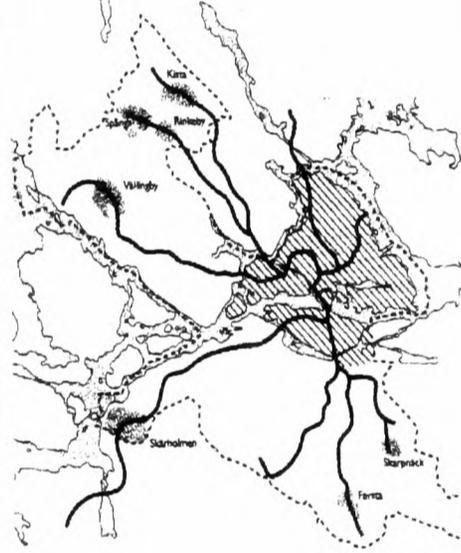
Stocholm's *Tunnelbana Metro* and major satellite new towns. Framework for urban growth.(Cervero, 1998).

Stockholm 1930-1990: The pioneer mass transit corridor. Regional growth guided by rail (Cervero, 1998).

TYPE A	TYPE B	TYPE C
TYPE A1/C2	**TYPE B3**	**TYPE C3**
1875 LOS ANGELES	**1965 POTTERIES THINKBELT, ENGLAND**	**1949 ONWARDS: COPENHAGEN FIVE – FINGER CORRIDOR PLAN**
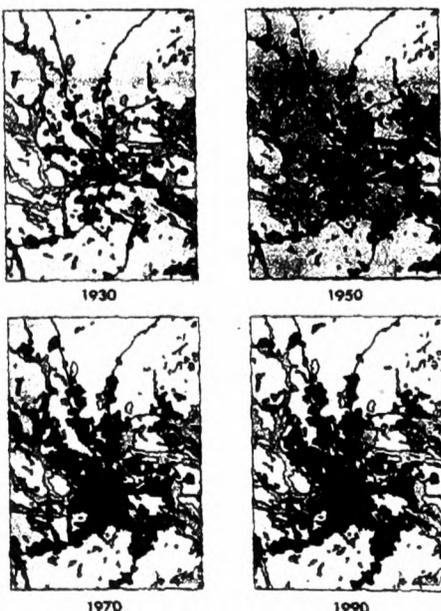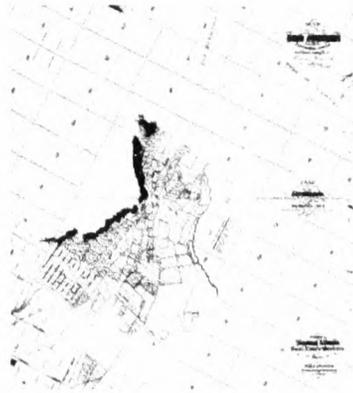
Los Angeles. Plan of the historic Spanish centre with surrounding speculative grid. Mapped by Lt. Edward Ord a year after the town came under American administration.
(Kostof, 1991)

TYPE A1/A2   CASE STUDY

1500 MALAYSIA-PRESENT KUALA LUMPUR, SOUTH EASTERN CORRIDOR
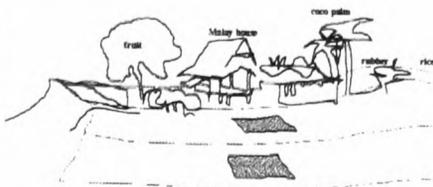
Traditional Malay villages have a distinctive linear form and transverse connections to the main vehicular corridor. (KL South east corridor). Subsistence community, communal land, chieftain.

Cedric Price's proposal was to take the whole rusting and decaying industrial infrastructure of the Potteries, and turn it into a kind of High-Tech. Cedric Price's proposal was to take the whole rusting and decaying industrial infrastructure of the Potteries, and turn it into a kind of High-Tech think-tank. It was to be a new kind of university, called the Potteries Thinkbelt. It was not a "building", but a kind of circuit, or network, with mobile classrooms and laboratories using the existing rail lines to move from place to place, from housing to library to factoty to computer centre. It formed an enormous triangle from Pitts Hill to Madeley to Meir, encompassing all the towns inside, including Stoke. He also planned a tie-in to the University of Keele.

TYPE B3

**1969 LYNCH, APPLEYARD & MYER
THE VIEW FROM THE ROAD
HIGHWAY KINESTHETICS**
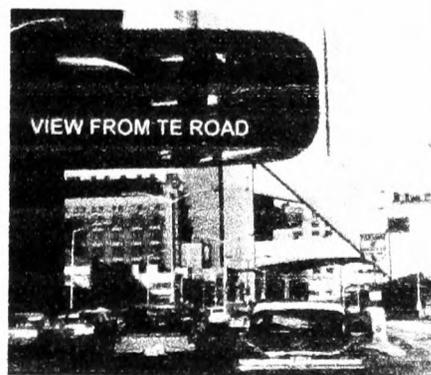
'The highway experience is a work of art. The kinesthetic sensation of driving a car is primarily one of motion and space, felt in a continuous sequence. It is an art from which the highway designer may begin to learn his technique.To our way of thinking, the highway is the great neglected opportunity in city design'.
(Appleyard, et al, 1969)

The Five finger plan has formed the basis of Copenhagen's post-war growth. High speed mass transport system. The result of a quantitative traffic study.
(Doxiades, 1968)

TYPE C2/3   CASE STUDY

1972 PERTH CORRIDOR PLAN
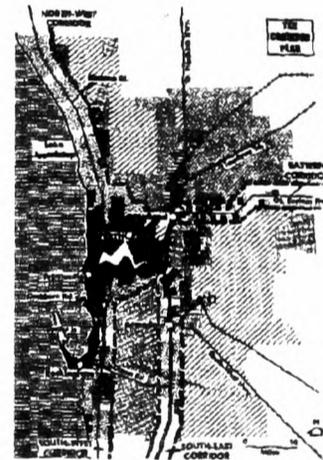
2001

Perth's Corridor Plan: rigorously implemented from 1972 onward. Received Federal funding.

TYPE A	TYPE B	TYPE C

TYPE A

TYPE A2/A3 — **CASE STUDY**

SPIRIT OVER MATTER
LIMA, PERU

PEOPLE INVENTING THEIR OWN URBANISM

1972 – PRESENT , VILLA EL SALVADOR – LIMA

Young town of 300 000 people, Lima Peru: (Miguel Sotelo Romero Architect)

- **THE CITY OF SWEAT EQUITY**
(Peter Hall)

- **FREEDOM TO BUILD**
(John Turner)

An early example of John Turner's autonomous building in Peru (Hall,1988)
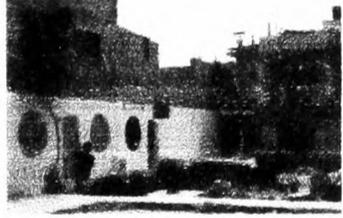
Middle class autonomous building. Lima The ground floor level is James Stirling's 1970 PREVI housing project. The top floor is an 'autonomous extension'. (photo by author, 2001)
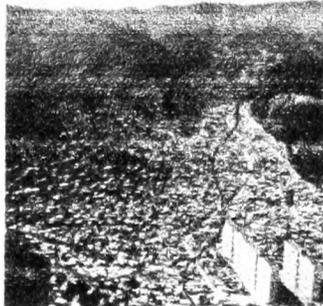
Sprawling informal settlements Caracas, Venuzuela (Castells, 1971).

TYPE B

TYPE B3

SERIAL VISION (CONTINUED)

Serial vision along a Boston highway (Appleyard, et al 1969)

TYPE B3

BRITISH SCHOOL OF TOWNSCAPE THEORISTS ARTISTIC PRINCIPLES 1971 CULLEN

A page from *The Concise Townscape* by Gordon Cullen. Cullen's notion of 'serial vision' represents one attempt to distill design guidelines from preindustrial urbanism (Hall, 1988).

TYPE C

TYPE C3

1978 ONWARDS: CURRITIBA CORRIDOR PLAN

Curitiba's famous cobweb service structure consisting of express (radial) and inter-district (circular) bus routes. (Cervero, 1998)

TYPE C3/4

1970 – 2001: RANDSTAD HOLLAND

The Randstad concept channels development into a ring (circular corridor) while aiming to retain the agricultural heartland. The cities and towns of the Randstad reatain their identity by being separated from each other by green buffer zones.

TYPE C3/4

2000/2020: INTEGRATING THE RANDSTAD INTO THE REGION

Globalisation and the formation of the European Union trade block has necessitated a review of the nation – based and agro-centric Randstad concept. In the Dutch Ministry of Housing, Spatial Planning and the Environment's 2000/2020 Fifth National Policy Document on Spatial Planning, the spatial network is extended beyond the notional borders.

TYPE A	TYPE B	TYPE C
TYPE A3 • **WHEN WE BUILD AGAIN + ANARCHY IN ACTION** (Colin Ward) • **HOUSING WITHOUT HOUSES** (Nabeel Hamdi) • **THE NEIGHBOURHOOD ALTERNATIVE + PEOPLE POWER** (Tony Gibson) **TYPE A4** CASE STUDY **1992 – PRESENT PORTO ALEGRE PARTICIPATIVE MUNICIPAL BUDGETING** participação democracia **TYPE A4** CASE STUDY **1995 – PRESENT BOSTON CENTRAL ARTERY PROJECT** Comprehensive public participation process including stakeholders at various levels. **TYPE A2** CASE STUDY **1960's – PRESENT WINTERVELD: MABOPANE CENTURION DEVELOPMENT CORRIDOR, SOUTH AFRICA** Pre-industrial urban typology alongside industrial infrastructure. Not a township but free settlement area (road, rail).	**TYPE B3** **1997 'MOBILITEITSESTHETIEK'** www.mecanoo.nl Dutch architects and urban designers Mecanoo's analysis of the Amsterdam-Almere Corridor. The visual landscape is a central plank of their Mobiliteitsesthetiek (Houben, F 1997) **BIBLIOGRAPHY** **Appleyard**,D Lynch and Myer, 1969 The View from the Road. Boston: MIT Press **Browne**, K 1976 Life Line 1: Bazaar route: Friday Mosque to the Maidan. The Architectural Review May 1976 vol CLIX no 951 **Doxiades**, CA 1968 EKISTICS: An Introduction to the Science of Human Settlements. London: Hutchinsons. **Fehl**,G 1998 Garden City and Linear City: Competing Visions of Modern Urban Planning and Design In Urban Design Studies vol 4, pp 21-40 **Hall**, P 1988 Cities of Tomorrow. Oxford: Basil Blackwell. **Houben**, F 1997 Almere, City in the Gooi Region. Urban Design International. Vol 2 no 1. **Kheirabadi**, M 1991 Iranian Cities: Formation and Development. Houston: University of Texas Press. **Korn**, A 1953 History Builds the Town. London: Lund Humphries. **Kostof**, S 1991 The City Shaped: Urban Patterns and Meanings through History. London **Kostof**, S 1992 The City Assembled: The Elements of Urban form Through History. London: Thames & Hudson **MacKaye**, B 1930 The Townless Highway. New Republic vol 62, 93-5 **Moholy-Nagy**, S 1968 Matrix of Man: An Illustrated History of the Urban Environment. London: Pall Mall Press.	**TYPE C3/4** **DELTA METROPOLIS** LONDON AMSTERDAM PARIS Trans – European networks The highlighted area indicates the Delta Metropolis,. The Delta Metropolis will replace the Randstad concept dating from the 1970's. (MoH, The Netherlands 2000). **TYPE C3/4** CASE STUDY **1995 MULTIMEDIA SUPER CORRIDOR** The multimedia super corridor is the brainchild of Malaysian Prime Minister Mohammd Mahathir. It comprises a 600 square kilometre, extended stretch of land south of Kuala Lumpur. The corridor is aimed at attracting interrnational investment in information technology. Strongly influenced by globalisation trends and the borderless society. Heroic effort at reinventing society akin to Le Corbusiers efforts of the 1930's The new highway running down the centre of the multimedia super corridor (photo by author, 2001) The multimedia super corridor is the brainchild of Malaysian Prime Minister Mohammad Mahathir. It comprises a 600 square kilometre, extended stretch of land south of Kuala Lumpur. The corridor is aimed at attracting interrnational investment in information technology. Strongly influenced by globalisation trends and the border-less society.

ANNEXURE 3

A SINOPSIS OF SOUTH AFRICA'S POST 2000 INTEGRATED DEVELOPMENT PLANNING SYSTEM

A3.1. INTRODUCTION

This annexure review the two major instruments which determines/influences the spatial development of South African Cities. These are

(i)   The Integrated Development Planning Process (IDP) and
(ii)   Integrated Spatial Development Frameworks (ISDF's)

A3.2. INTEGRATED DEVELOPMENT PLANNING

A3.2.1. BACKGROUND

The information contained in this review was provided by The Department of Provincial and Local Government (IDP Guide Pack; 2001).

With the local government elections held on 5 December 2000, a transitional phase characterised by many uncertain/tentative policy shifts and interim strategies came to an end. According to the Minister of Provincial and Local Government 'the local government system can now start operating on a solid basis'. In contrast to the central role that planning has played in the past, integrated development planning is now seen as a **strategic function** of municipal management. The word 'Integration' refers to the IDP as an instrument which aims integrate cross-cutting issues. Specific reference is made to the need to consider/ integrate economic, social, institutional and environmental development issues.

The IDP process is a strategic planning process which is repeated in five year cycles and reviewed on a yearly basis. The approach relies heavily on *generic guidelines* which are in turn linked to *normative principles*, most notably sustainability. In the context of the IDP, *sustainability* is defined as both a principle and a goal and is considered 'the integration of social, economic, and environmental factors into planning, implementation and decision making so as to ensure that development serves present and future generations. The norms which underpin the strategies are informed by Agenda 21'.

A.3.2.2. THE IDP APPROACH AND METHODOLOGY

-    STRATEGIC APPROACH

The IDP process is repeated in five year cycles and reviewed on a yearly basis. The strategic approach was developed in conjunction with the German agency GTZ (German Agency for Technical Cooperation). The five year cycles commences with 37 week 'strategy phase' (see table below) and the cycle corresponds with the elected term of the local/ metropolitan council. A steering committee, officials, specialists and elected representatives (the IDP Representative Forum) oversee and/or are involved in the process. Ultimately the aim is to determine **priority projects** through consensus and to **allocate budgets**.

-    INSTITUTIONALISED PARTICIPATION

The participatory approach is called **'inclusive and representative consultation and/or participation'**. The IDP Forum, which consists of elected representatives is the main participatory organ. The IDP Representative Forum is actively involved in the 37 week *strategy phase*. In a city the size of Tshwane the forum consists of more than 200 elected representatives.

During the 'Project Phase' (Phase 3) there is a five week window for 'target group participation' in which the Project Task Team has the opportunity for intensive dialogue with affected communities on issues which relate to a specified project. According to the IDP Guide the participatory approach should be flexible and does not need a pre-determined institutional framework.

- THE ROLE OF BUILT-ENVIRONMENT PROFESSIONALS AND EXPERTS DURING THE 37 WEEK STRATEGY PHASE

The strategic model is proposed for municipalities of all sizes, including metropolitan councils. According to the IDP Guide which outlines the activities of the 37 week strategy phase, the most important levels of involvement according to a Why What, How, Who strategy are:

- compiling information (activity 1.1)
- performing a spatial analysis at municipal level (activity 1.4)
- as members of a Project Task Teams involved in designing and presenting project proposals (activities 3.1, 3.3, 3.4, 3.5.)
- evaluating proposed projects in relation to the five year Integrated Spatial Development Framework (ISDF) and other parallel programmes such as the 5 year financial plan (The ISDF largely a planning/urban design exercise concerned with land use management- see separate discussion below)
- amending and presenting an ISDF which considers the cumulative effect of proposed projects and programmes

PHASE	DESCRIPTION OF EVENT/ ACTIVITY		TIME ALLOCATED (WEEKS)
PHASE 1: ANALYSIS			
To ensure that decisions will be based on: - People's priority needs and problems - Knowledge on available and accessible sources	1.1. Compilation of information ♦		2
	1.2. Community & stakeholder analysis		4
	1.3. Reconciliation		5
	1.4. Municipality analysis - Spatial analysis ♦ - Socio-economic analysis		4
	1.5. Prioritise Issues		1
	1.6. In-depth analysis		4
	1.7. Consolidation of analysis results		1
		TOTAL	12 WEEKS (activities overlap)

PHASE	DESCRIPTION OF EVENT/ ACTIVITY		TIME ALLOCATED
PHASE 2: STRATEGIES	2.1. Vision & Objectives		1 weeks
	2.2. Localised strategic guidelines - Localised strategic guidelines - Localised spatial strategic guidelines ◆		1 weeks
	2.3. Defining resource frames		2 weeks
	2.4. Creating strategic alternatives		4 weeks
	2.5. Public debate and alternatives		4 weeks
	2.6. District level strategy workshops ◆		4 weeks
	2.7. Analysing and deciding		4 weeks
	2.8. Local decisions		2 weeks
		total	8 weeks (activities overlap)
PHASE 3: PROJECTS	3.1. Forming project task teams ◆		2 weeks
	3.2. Preliminary budget allocations		2 weeks
	3.3. Designing project proposals ◆		5 weeks
	3.4. Target group participation ◆		5 weeks
	3.5. Including Project Partners PPP's, National and Provincial Partners ◆		5 weeks
	3.6. Technical project decisions - Outputs/targets/locations/budgeting		5 weeks
		TOTAL	7 weeks (activities overlap)
PHASE 4: INTEGRATION	4.1. Screening & 1st Presentation - To ensure that projects are in line with guidelines		2 weeks
	4.2. Integration Projects and Programmes ◆ - Integrated Spatial Development Framework		2 weeks
	4.3. 2nd presentation of integration - Integrated transport plans ◆ - Spatial Development Framework ◆		1 weeks
			5 weeks (activities overlap)
PHASE 5: APPROVAL	5.1. Comments and co-ordination - Public assembly - Draft IDP document		3 weeks
	5. 2. Incorporating/responding - Steering committee		2 weeks
	5.2. Final adoption by council - Becomes legal document		1 weeks
	5.3. District level summaries - To enable wide access		2 weeks
		TOTAL	5 weeks (activities overlap)
	TIME ALLOCATION FOR ALL PHASES		37 weeks

◆ Indicates activities that involve built environment professionals.

A3.3. INTEGRATED SPATIAL DEVELOPMENT FRAMEWORKS (ISDF'S)

A3.3.1. BACKROUND

The review is based on information contained in the IDP Guide (NdoCD, 2001) and the 2002 ISDF for the City of Tshwane.

While the IDP is primarily a budgetary tool which draws on wide consensus, the parallel ISDF's aims to;

- link the approved projects which emanate from the IDP process to a land management programme and to wider provincial and national spatial frameworks.
- adhere to normative principles for spatial development as contained in the Development Facilitation Act (1995).
- form a legally binding component/outcome of the IDP.

A3.3.2. THE CONTENT OF ISDF's

The Development Facilitation Act (which is the national framework for sustainable urban development) requires that the ISDF's for each city must:

- set out objectives that reflect the desired spatial form of the municipality
- contain strategies and policies regarding the manner in which to achieve the objectives (particularly the desirable land use patterns, spatial reconstruction of the city and the location of natural and man made development)
- set out basic guidelines for land use management
- set out a capital investment framework
- contain a strategic assessment of the environmental impact of the framework
- identify programmes and projects for the development of land (which then goes through the next 37 week IDP budgetary approval cycle which is repeated every five years)
- provide visual representation of the desired spatial form of the municipality, including:

  • where public and private development and infrastructure investment should take place
  • desired or undesired utilisation of space in particular areas
  • urban edge (optional)
  • areas where strategic intervention is required
  • areas where priority spending is required

- be aligned with the spatial development frameworks of neighbouring municipalities.

A 3.3.3. WHO PREPARES ISDF's?

- The IDP mandates planning departments of local governments to prepare ISDF's.

- Notably, the authors of the IDP Guide consider this a technical exercise:
  ' The process of preparing the maps and drafting the summary document is essentially technical in nature, and will require the services of a domain specialist such as a cartographer and/or town and regional planner that have a thorough understanding of the outcomes of the local planning process as a whole.'

- The ISDF of the City of Tshwane points to the need for an integrated approach which creatively incorporates a number of sectoral planning interests, i.e. environmental planning, urban design, land use planning, transport planning and infrastructure planning.

A 3.3.4. LAND MANAGEMENT

The Spatial Development Framework forms a legally binding component of the IDP. That means that it needs to be specific and precise in cases where it wants to enforce or prevent certain types of land use (IDP Guide 3:94).

A 3.3.5. PUBLIC PARTICIPATION

The ISDF process relies on a limited consultative process and considers the 37 week strategy cycle of the IDP the main vehicle for achieving consensus/ gaining approval.

It is however noted that *'The general public should have an opportunity to examine the draft ISDF. The draft should thus be exhibited at locations accessible to the general public for a period of time and they should have the opportunity to make inputs, comments, objections, suggestions'.*

A 3.3.6. HOW THE ISDF INFORMS LOCAL PLANS AND THE ALLIGNMENT OF ROADS AND RAIL.

The ISDF is not meant to serve as a blueprint for planning that allocates land uses to every piece of land in the metropolitan area and provides specific development directives and controls. It only provides strategic guidelines and principles in terms of which any development initiative or land use application must be evaluated. It therefore only addresses issues of metropolitan importance. A number of other policies and local spatial development frameworks and urban design frameworks should provide more detailed information or guidelines for specific areas. The Tshwane ISDF (2002) notes that no road or railway routes as indicated in accompanying graphics should be interpreted as definite alignments.

A 3.3.7. URBAN CORES (EXTRACT FROM THE 2002 TSHWANE ISDF)

The ISDF for Tshwane provides specific urban design guidelines for intensification around railway stations, which are defined as 'urban cores'. An urban core is roughly the area within a radius of 1500m around railway stations.

Development within the urban core is to promote the following:
- High intensity development (high floor space ratio, coverage and height)
- Pedestrian friendliness
- Outward development (i.e, development oriented towards the street as opposed to introverted malls)
- High architectural quality (it is not specified what this means)
- Mixed land use development even at the level of individual erven and buildings.
- Buildings should be placed as close to the street boundary as possible and in order to define and shape (zero lining)
- Active ground floor functions

A 3.3.8. ACTIVITY SPINES (EXTRACT FROM THE 2002 TSHWANE ISDF)

At the local level urban cores should be extended into high density, mixed use activity spines along already existing activity spines, until such time as regional and/or local spatial development frameworks specify which routes should be developed as activity spines.

These activity spines can be developed either as gradual extensions of the urban cores or in the beads on a string form.

ANNEXURE 4

FIELDWORK REPORT KUALA LUMPUR, MALAYSIA.

LOCATION OF FIELDWORK SITES

The position of Kuala Lumpur in Peninsular Malaysia

Geographical relationship of key elements in Kuala Lumpur.

1 = Multimedia Super Corridor
2 = Beranang Bangi Corridor
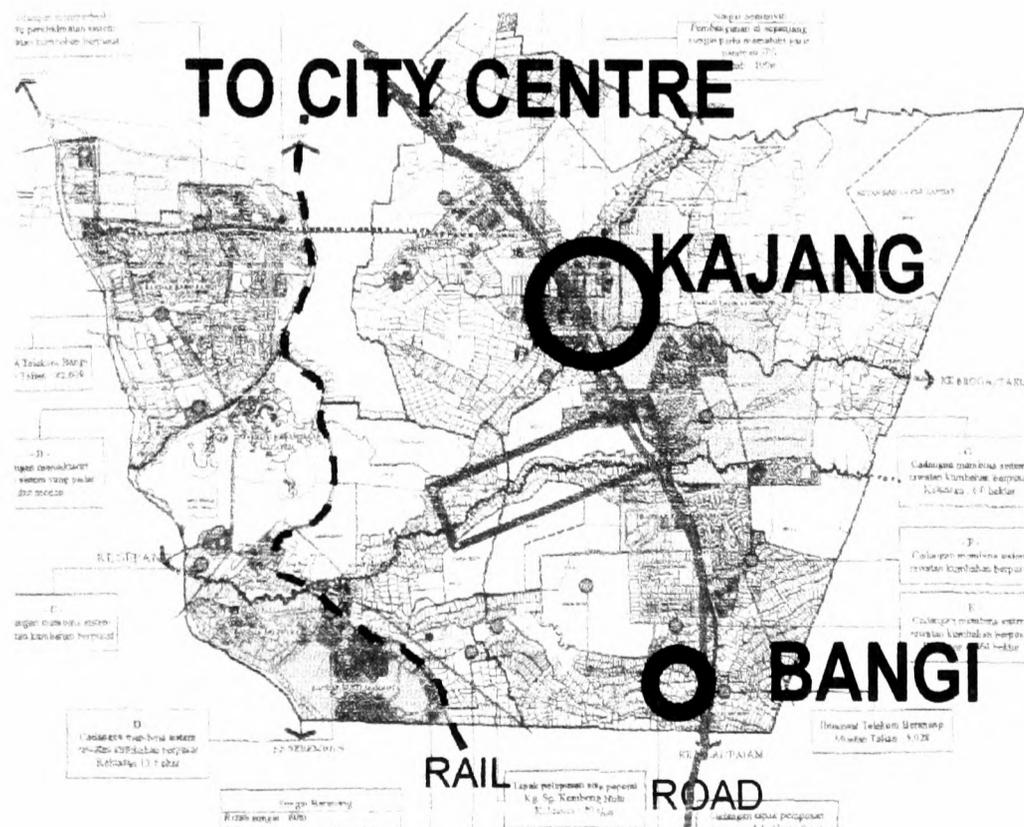
Extract from the Beranang Bangi Seminyi Corridor land use map. Intensive land subdivision along the Beranang Bangi Corridor. The blue rectangle indicates a traditional Malay settlement pattern along the tributory of a river. These settlements are mostly abandoned and in a state of decay.

i) DATE OF FIELDWORK: 26 August - 01 September 2001

ii) METHOD: The fieldwork was preceded by a desk study which included Malaysia's political economy (Kaur & Metcalfe, 1999), its planning system (Devas & Rakodi, 1993) and more detailed texts on the Multimedia Super Corridor (Mohamad, 1998). Brooksfield's *The City in The Village* (1991) provided useful insights into socio-economic changes which have been occurring in the corridor spaces around the towns of Bangi and Kajang to the south of Kuala Lumpur.

Interviews were arranged with much difficulty from Oxford. Officials were clearly wary of transgressing the Internal Security Act, which places restrictions on criticism of the state and the county's leadership. Travel into inside corridor space by train and taxi opened up opportunities for unplanned interactions with Malaysians, most notably in the town of Tampin where a retired headmaster provided a wealth of information on political and sociological dynamics in the region and introduced me to other Malaysians. It was clearly easier for people to express their honest thoughts outside the confines of offices.

INTERVIEWEES/ USERS OF CORRIDOR-SPACE IN KUALA LUMPUR		
	Mr Nizam bin Shaari (planned interview)	Town Planner at the Kajang Local Municipal Council. (Majlis Perbandaran Kajang)
	Ms Roslina Abd Manaf (planned interview)	Town Planner in the Federal Government: Ministry of Planning, KL Town Hall (Dewan Bandaraya), responsible for the Beranang Bangi area
	Ms Lim E Lin. (unplanned interview)	Education and Project Co-ordinator. Badan Warisan Malaysia, Cultural Heritage NGO. Kuala Lumpur
	Mr Chau Yan Chong (unplanned interview)	Retired Headmaster, Tampin, Negeri Sembilan
	Malay Family (unplanned interview: family introduced by Mr Chong)	Kampung, Tampin, Negeri Sembilan
	Illegal immigrants from Java Island, Indonesia (unplanned interview: introduced by Mr Chong)	Workers on mass housing construction site outside Tampin
	Mr Lee	Rikshaw driver + companion for one day
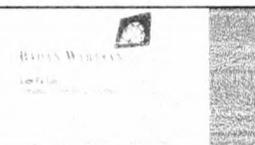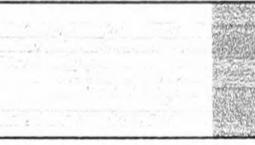
iii) SUMMARY OF INTERVIEWS

⇒ **Ms Roslina Abd Manaf.**

Ms Abd Manaf is a town planner in the fereral capital of Kuala Lumpur. She was responsible for overseeing the framework for the Bangi Beranang Seminyi corridor, a densely populated corridor which stretches south of the capital. The frameworks are prepared in the central office of the federal capital in Kuala Lumpur's city centre. This is because local councils within the corridor zone 'have limited staff who perform executive duties'.

Both the interview and the framework itself display a very weak understanding of urban design. This is perhaps symptomatic of the developing world context in which the problem is set. While the federal capital tries to introduce urban design as indication of good practice, both the context and communities are incohesive. Like with some South African frameworks, urban design becomes an ad-on.

⇒ **Mr Nizam bin Shaari**

The interview with Mr Shaari was much more frank and open than the one with Ms Abd Manaf. He conceded that the framework prepared for his region by planners in the federal capital made little sense to him. Because of his executive position and the pace of development in the region, he does not have the capacity to interpret the 'fuzzy framework'. He preferred to refer to the five year structure plan when evaluating proposals for the region. He conceded that development in the corridor region was ad-hoc and that they looked at the development of space in a piece meal fashion.

He recognised that, while everybody now uses the word 'corridor', development of the region is simply due to the access generated by roads leading into Kuala Lumpur and not by any preconceived corridor plan. For the council 'the corridor' means little more than managing road upgrades in the vicinity of new developments, for which the developers themselves have to pay to ensure such development rights. Observation confirms this approach. There is no aesthetic control to speak of and road surfacing and width changes at frequent intervals.

In terms of participation Mr Bin Shaari said that the five year structure plan is typically made available for public comment as happens in Britain. Malaysia is not known for practising democratic principles. The result is that strategic plans are typically accepted without much opposition. Only when developments actually happen do people become aware of the impact and offer some belated resistance.

⇒ **Mr Chau Yan Chong**

I spent most part of a day with Mr Chong. The retired Chinese headmaster of a multi-racial school took me to several communities within the Tampin region with his car, including the local kampung and to a building site where illegal immigrants from Indonesia were living in makeshift shacks. *Kampungs* are locations where indigenous Malay culture and property rights is being maintained in the face of rampant Chinese commercial development. Much of the debate centred around continued cultural friction between Chinese and Malay and the clear impact of globalisation in the region. I spent time with a family in the local *kampung*. For an outsider their lifestyle reflected a state of cultural confusion and transience. Their situation shows a proud Malay family having to choose between their age-old subsistence culture and the high tech, development driven approach which is engulfing the urban periphery as growth pushes ever further outwards along the corridors. Ultimately they are hesitant to make an outright choice. In this case the family was split down the centre. They were living in a traditional Malay house but were driving a modern car. The one son was well educated and attended university in Kuala Lumpur. The other son could not speak English and minded the homestead. Soon he will be looking after his aging parents like they have been looking after his grandparents. Illegal immigrants on the building site are philosophical about their position. Their presence is tolerated while construction continues outside the capital, but realise that they will be arrested and deported when the economy hits a low.

⇒ **Ms Lim E Lin.**

Ms Lin works for Badan Warisan Malaysia a cultural heritage NGO based in Kuala Lumpur.

NGO's clearly have difficulties working under the autocratic government of Mohamad Mahatir but refused to be drawn on the issue. *Badan Warisan* promotes Malay heritage, which is clearly a priority, if only symbolic, of the state.

Ms Lin indicated that there is rampant decay of the traditional Malay value system. Though Islam is very strong, and while radicalism (which includes anti-western and anti-American radicalism) is on the rise, globalisation has had a severe impact on Malay culture. With a strong drive towards advanced Information Technology infrastructure and knowledge, the younger generation of Malays are rapidly loosing affinity for their indigenous culture. The government has tried to intervene by banning certain secular activities amongst the youth. Increasingly it is up to organisations like Badan Warisan Malaysia to protect the wealth of abandoned traditional Malay icons. The decay is rampant, something which is evident when driving down the Bangi-Beranang corridor.

iv) OBSERVATION

See animated list of list twelve observations: CHAPTER 4 pp 148-153

Field observation in corridor space included the Beranang - Bangi - Seminyi Corridor and the Multimedia Super Corridor. While the Beranang - Bangi - Seminyi Corridor is a spontaneously developing corridor which pushes out ever further into the rural hinterland South of the capital, the Multimedia Super Corridor (MSC) is a meticulously planned corridor which is aimed at attracting an international investor community. Malaysia's dictatorial prime minister Mohamad Mahatir personally oversees the development of the MSC.
The spatial development of these corridors are presented in the TABLE A4.2 below. The condensed table was prepared by the author and presented at a research seminar shortly after returning from the fieldwork visit in October 2001.

The clearly identifiable dualism of the Malaysian urban system as indicated in TABLE A.4.2 has been used to inform the arguments on the influence of identity on corridor development presented in CHAPTER 4.

TABLE (A.4.2.) INCREMENTAL DEVELOPMENT IN KUALA LUMPUR

THE BERANANG BANGI CORRIDOR AND THE MULTIMEDIA SUPER CORRIDOR

1957 - 2003

PHASES OF DEVELOPMENT

Phase 1: (illustration : top left)

Gradual expansion of Kuala Lumpur into the surrounding agricultural hinterland. Large scale abandonment of traditional Malay subsistence agriculture as a rsult of the 1957 National Economic Plan (NEP). The NEP encouraged Malay involvement in trade and industry, those sectors of the economy traditionally dominated bt Chinese.

Phase 2: (illustration top right)

Modern new towns based on British precedent established along corridors extending from Kuala Lumpur, westwards towards Port Klang and southwards towards Beranang. Traditional Malay villages under increased pressure of redevelopment despite government acts to protect Malay kampungs.

Phase 3: (illustration bottom left)

Asian economic boom of the late 1980's and early 1990's changes the urban landscape dramatically. Mahatir's vision 2020, which aims to establish Malaysia as an industrialised nation by 2020 is unveiled. The Multimedia Super Corridor is established as a drawcard for international investment. Modern tower blocks begin to dominate the skyline and (unfortunate) mass housing in the Singapore fashion is considered a sign of progress. A new international airport is built. Development pushes ever further into the agricultural hinterland.

Phase 4: (illustration bottom right)

Asian crash of 1997 places a damper on development. By 2002 Malaysia had partially recovered from the shocks but felt the effects of a downturn in the international economy.
The Beranang Bangi structure plan aims to establish transverse connections between the MCC and the Beranang Bangi Corridor. A new phase of lateral growth between corridors is entered.

KEY TO SITE ELEMENTS

1. Port Klang: modern port built by the British administration between 1911 and 1914.
2. Kuala Lumpur City Centre. First permanent buildings date from 1880. Site of the world's tallest buildings; the Petronas Twin Towers.
3. New Kuala Lumpur International airport completed in 1998. It serves to anchor the Multimedia Super Corridor at its southern end. Clearly over-designed in functional terms, it is intended as an impressive gateway to Malaysia and as a transport hub in the subregion. It is purposefully located 70 km from the city centre as part of the vision to open up a new and controlled development axis or corridor.
4. Multimedia Super Corridor. Malaysian prime minister Mohamad Mahatir's much publicised pet project launched in 1995. It is part of a political vision to create the world's best location for investment in high tech industries. High levels of infrastructure. Vast and sterily; a late twenty first century garden city. At the time of my fieldwork visit in 2001 there was a low occupation and seemingly little interest, typically characterised by political denial.
5. Beranang. Decaying rural village 60 kilometres from Kuala Lumpur. Subject of an intensive sociological study by Brooksfiekd et al (1983).
6. Rubber and coco-palm plantations, previously Malaysia's principal source of income.
7. Linear Malay villages containing linear plots and vernacular Malay pole houses. Subsistence agriculture.
8. Railway line.
9. Modern towns along corridors (high rise housing)
10. Vibrant corridor with ad hoc typologies and illegal roadside trading. The ramshackle road passes through Chinese towns with shop houses. Buildings in severe state of decay.

The problem with this, and other quantitative models are that they disregard the fuzzy nature and open-endedness of corridors. The isolated way in which corridors are weighted as theoretically independent ignores the nested hierarchy of corridors and nodes within a larger urban system *(Dewar)*.

Notes:

- *GIS* also used in CSIR studies on corridor development. See bibliography.
- An *'electronic model'* also used by Professor Romano Del Mistro of the University of Pretoria's Department of Transport Engineering (NdoT, 2000).

A 7.3.2. ACTION RESEARCH

A 7.3.2.1. INTRODUCTION

During the initial stages of my research in the United Kingdom I was exposed to a range of participative methods by:

- Attending seminars given by other research students, notably Gabriel Juarez Galliano's *Planning for Real* work in Mexico (low cost housing) and Tom Medcalfe's studies on urban design qualities in five English rural towns.

- Observing parts of an *action planning* process called *'Planning Matters'* held in Cowley, Oxford (designed by Oxford Brookes University's Nabeel Hamdi and Charles Parrack in association with the Oxford City Council).

- Attending an *action planning* open day in the Oxford City Hall which tested public responses and invited comments on redevelopment proposals for Summertown, Oxford

- Accompanying MA Urban Design students from Oxford Brookes University to Enquiry by Design workshops in Bridport (Dorchester) called *Visions for Bridport* and Witney (Oxfordshire).

- Having an interview with Babar Mumtaz of the Bartlett's Development Planning Unit (DPU). Nabeel Hamdi and Mumtaz are pioneer practitioners of the *Action Planning* approach originally proposed by Otto Koenigsberger at the Architectural Association.

- Attending a focus group discussion at DEGW's offices in London arranged by Liz Kessler and which involved development practitioners (Peter Barber, Laura Nicolau) and community members (Brixton Residents' Association and Angeltown Residents Association).

- Being part of a panel which reviewed the findings of- and methodologies used by Nabeel Hamdi's students in an *action planning* exercise in the shantytowns of Bangkok.

- Studying the video: *Planning for Real; Working with Communities* (The Neighbourhood Initiatives Foundation: 2000), which demonstrates the *Planning for Real* approach as used in the improvement of housing estates in London.

- Studying the methods proposed by Nick Wates (2000) and Hamdi & Goethert (1997) and for use in developing countries.

Gradual exposure to these participative methodologies provided an opportunity to reflect and to arrive at informed ideas on appropriate methodologies for use in the South African context (See discussion in Chapter 7).

A 7.3.2.2. TESTING PARTICIPATIVE METHODS IN A CORRIDOR CONTEXT IN SOUTH AFRICA

In the run up to my fieldwork in South Africa, it was anticipated that most qualitative data would be collected by asking development practitioners to reflect on their involved in corridor development.

As the interviews progressed it became increasingly clear that built environment practitioners were often cynical about aspects of participation or at least lukewarm in their response to questions about participation. It became evident that it would be valuable for my research if I could test some of the action planning approaches which I had been exposed to, since no one was actively employing the methodology.

This presented practical problems, not least the fact that I am a full time research student and not someone actively involved in practice and without a 'real project' to use for testing a methodology. Going into communities and inviting people to action planning workshops on issues related to my PhD topic, merely to test methodologies without being really interested in livelihoods improvement, would be a grossly unethical exercise. I was also not convinced of the merits of using a *enquiry by design* methodology, which is biased in favour of the designer and which, if presented to the public, would raise false hopes. My own urban design practice in South Africa had been involved in *enquiry by design* exercises in Kagiso township during 1998. The experience proved frustrating/ineffective because of a number of reasons:

- The 'project' was firstly aimed at lobbying for provincial funds and *raised* false hopes amongst the mostly homeless and unemployed who attended.

- The venue was the council chambers which formalised matters and seemed to remove us all from the real problems.

- The scale of the corridor project was too vast for people to be able to relate to anything. Most were only concerned with where their new house would be built while some saw it as a platform for advancing their political careers.

- Since nothing came of the 'project', the whole exercise was wasteful and damaging but sadly, representative of the way things were expected to be done at the time. Many such projects competed for a limited pool of provincial funds while wasting valuable resources and time.

Based on my earlier experiences, there was therefore no need to use this methodology since I was aware of its merits and de-merits. I was interested in a more interactive *action planning/planning for real* methodology of the type proposed by Mumtaz(1983). Mumtaz recognises urgency in developing country contexts and proposes the following action planning steps:

(1)reconnaisance→ (2)guiding concept→ (3)action programme→ (4)role casting→ (5)monitoring and feedback

STEP 1 RECONNAISSANCE (AND COLLECTION OF BASE INFORMATION)

The context of the *Mabopane Centurion Corridor* to the north of Pretoria was used as the basis for testing the *action planning* methodology. The corridor includes the Winterveld region, one of the poorest and most under-priveleged urban regions in South Africa (Horn, 1994, 1997). Aerial photographs and topographical maps were collected and the corridor site was explored by car. Urban designer Gary White, who was familiar with the Mabopane Winterveld region, accompanied me. I also visited Technikon Northern Gauteng, which is situated in Soshanguve at the heart of the corridor. Here I had an initial discussion with Raymond Jonas, Head of the School of Architecture at the Technikon on economic and social dynamics in the region and on the logistics of an action planning project.

The alignment of the corridor and its generic elements (mobility spine, activity spine, activity nodes, lateral access routes) as proposed by Urban Econ and GP Greeff and Associates (1997) were drawn onto the aerial photographs and topographical maps. I took the maps and aerial photoraphs to Technikon Northern Gauteng where we had a general discussion on the area. Gary White's first year architecture students provided further insights. Many students had grown up in the area and were able to provide a grounded account of its sociological, economical and physical dimensions. The following were some interesting facts which emerged

- That there were great numbers of illegal immigrants in the area and that people were generally suspicious of them.

- That many of the students lived in backyard shacks because it was more affordable than formal technikon accommodation and 'quite comfortable'.

- That it cost R400 a month to rent a shack. A steep figure for the unemployed.

- That, unlike Soweto and East Rand townships, the area was relatively calm during the years of popular revolt in the middle to late 1980's.

- That there was widespread unemployment in the area.

- That students were fearful of going to certain areas which had notoriously high crime rates. They specifically noted block JJ.

- That North Sotho is the dominant ethnic group in the area but that there are many migrants and new settlers from the Northern Province (Venda) and Mpumalanga (Swazi). There was a reasonable level of tolerance amongst the various groups.

- That it cost R7 to get to the Pretoria central station by train and that it took one hour.

- That facilities were poor in the area and that many people relied on informal shops.

- That students were more interested in designing 'real buildings', i.e. upper class houses, churches and shopping centres than they were in working with the grassroots.

- That upwardly mobile residents who could afford commuting and who often worked closer to Pretoria's inner city preferred to do their shopping there because it was an indication of status.

After the initial reconnaissance, nodes for possible action planning exercises were identified. Here I took my cue from the scale on which Nabeel Hamdi and his students had worked in Bangkok during their fieldwork in January 2002. Each of Nabeel's teams of students worked on a site of manageable scale; no more than a typical urban street block in size.

STEP 2: GUIDING CONCEPT

In research seminars at Oxford Brookes Ian Bentley often noted *'we (urban designers) are not sponges and need to hang our methods onto something'*. I used *David Dewar's* (1996) seven principles of integration in South Africa as the theoretical base for testing a methodology:

- Use Transport Routes to Integrate Urban Areas and to create activity spines.
- Maintain a permanent, fixed edge between rural/urban + encourage urban agriculture.
- Use Transport Routes to Integrate Urban Areas and to create activity spines.
- Promote mixed use.
- Compact the city.
- Create Low Overhead Opportunities for Small Entrepeneurs to Manufacture and Trade in the most Viable Locations within the City.
- Use the Process of Housing Delivery to Stimulate Employment Generation and Wide Income Circulation.

Dewar's principles seemed appropriate enough when related to the context I had explored and were adopted as *'the guiding concept'*.

STEP 3 & 4 COMBINED: ROLE CASTING & ACTION PROGRAMME

Three strategic sites were identified in the Winterveld. The three sites are all situated on nodes along the same lateral *accessibility route* and display divergent socio-economic conditions.
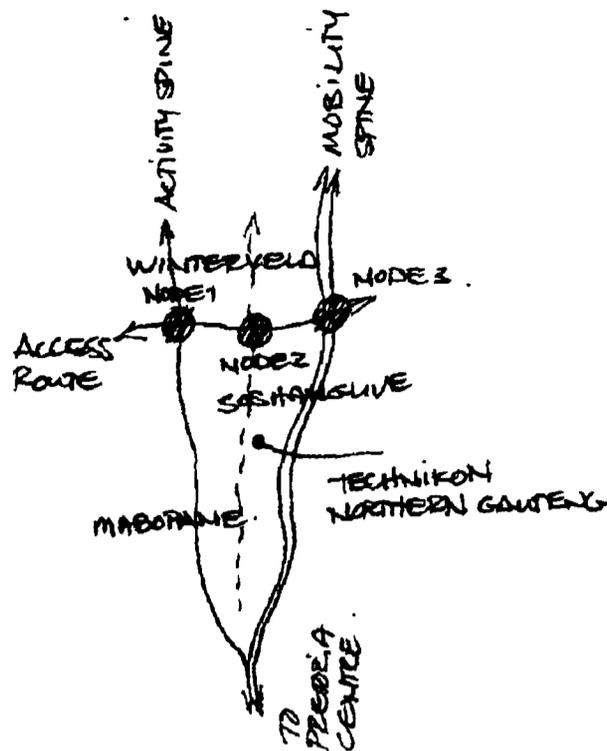
- **Node 1** is on the Winterveld's main drag or the corridor's 'activity spine'. It intersects with the lateral *access route,* which links the *activity spine* with the *mobility spine.* Houses are informal and built of either *wattle and daub* (Tswana vernacular) or corrugated sheet. The footprint in the area is disjointed with significant informal activities along the *activity spine.* There is a permanent buzz and a notoriously high level of crime at the intersection (on account of students and Gary White).

- **Node 2** lies halfway between Node 1 and node 3. The socio-economic profile is significantly different to that found in either node 1 and node 2. Residents are of a local 'elite' and are predominantly employed. They occupy houses which aspire to-, or reach the traditional white middle class ideal; detached, fully serviced houses built of bricks and with pitched, tiled roofs and each set on manicured patches of lawn.

- **Node 3** represents a settlement in the pastoral, semi-rural fringe and is earmarked is situated on the alignment of the proposed mobility spine. People are friendly; they wave and smile and are content with their illegal semi-shacks. There is a strong sense of community and urban agriculture abounds. Western, income related definitions of poverty are challenged here. However, with the introduction of the mobility spine the people resident in this node will experience great upheaval.

In an effort to overcome the problem of creating false hope amongst residents in the corridor context I asked students each to interview two families and to compile profiles. By involving students from the local area I hoped to achieve two goals:

- First, I overcame the problem of my own identity. Students are arguably less intimidating and self conscious than myself and would be able to converse in respondents' own language (with the exception of Portuguese speaking Mozambicans, who would in any event shy away from contact with outsiders).

- Second, it would be educational for students who would be given the opportunity to learn more about the needs and aspirations of people in the context and who could possibly utilise the methodologies in their future careers.

In the run-up to the interviews I enlarged the aerial photographs so that each node fitted onto an A1 sheet. We took these with us on a reconnaissance trip. A bus was arranged and the students visited all three nodes. Ten students were allocated to each of three groups who were each allocated one of the three nodes. While on site, were asked to each mark two houses in their allocated node by putting yellow stickers on the aerial photographs.

Each student subsequently conducted interviews with the people living in the houses/shacks which they had identified and compiled profiles at a time which suited their group. Because of safety concerns expressed by the Technikon, students visited the families in groups of five. Interviewees were informed that the interviews were for academic purposes, i.e. for a student project. A basic questionnaire was used to act as guide, but students were encouraged to uncover less obvious facts. The survey presented useful results and indicate the socio-economical differences within the three nodes. Students in node 1 had a difficult time and faced hostilities, while those working in node 3 presented photos of themselves sitting, smiling amongst interviewees.

STEP 5: MONITORING AND FEEDBACK

Some weeks later we gathered at Technikon Northern Gauteng for a simulated action planning exercise by which each student would represent the families which they had interviewed. The groups (as originally allocated to the three nodes) designed an *action plan* based on the NOW, SOON and LATER method employed by Hamdi.

As in Tony Gibson's excercises, styrofoam was used to build the three phases in successive three hour sessions (over two days). Enlarged aerial photographs were once again used as the bases of A1 planning *for real models*. After each 'phase' groups were interviewed and the interviews were captured on video to be analysed later. While the groups were building their models, individual students were asked to reflect on their own experiences of visiting and interviewing families. As suggested by Nabeel Hamdi, I involved mediators, i.e. architect Morne Pienaar and urban designer Gary White in an effort to diffuse my theoretical pre-occupations.

FINDINGS FROM THE WINTERVELD ACTION PLANNING EXCERCISE

The aim of the *action planning* exercise was not to arrive at sweeping theoretical conclusions regarding corridor development, but to test a methodology which has potential validity in South Africa's urban peripheries, where conditions are reaching emergency status.

The exercise yielded a significant set of findings:

- Universities and technikons in South Africa proved keen to get involved in these kinds of 'task force' exercises and represent an untapped resource. I approached three tertiary education institutions in and around Pretoria, who were all extremely keen to *'get actively involved in working directly with communities'*.

- If arranged in a patient, piecemeal fashion, *action planning* exercises are not the massive logistical nightmares which practitioners associate with public participation. This may be true of the traditional enquiry by design methodology where practitioners are extremely conscious of presentation standards (with reference to my experience of Australian *charette* methodologies).

- Students enjoyed the process enormously and, once they had been through the process, saw all kinds of benefits and future possibilities. They confessed that they had learnt more here, in a relatively short time, than they would in formal lectures.

- That there is perhaps too much emphasis on democratic inclusivity......that everybody must be consulted. In massive corridor zones this is the root of cynicism since the unwieldy participatory process inevitably translates to placation and generalisation. The relatively small scale at which the exercise was conducted yielded unexpected results and uncovered subtle social dynamics, which can be extrapolated beyond each of the identified sites. It is doubtful whether *town hall-* and *open house* type processes would yield such results and give shack dwellers an opportunity to participate as effectively. Here the process was taken to them. The problem of power hierarchies and delegation is very real amongst black communities, a problem which a *task force, action planning* methodology manages to partially overcome.

- That because people (particularly those at the heart of the Winterveld: node 1) are generally fed up with sociological surveys, the methodology opens up new avenues for participative involvement.

- That covert/subtle power structures exist which challenge notions of democracy. In node 1 students were invariably referred to 'the landlord' and often residents/tenants refused to respond to questions. The history of the region as conveyed by students *Khanyile* and *Mahlangu* provides the clues. What looks like a homogenous expanse of informal houses is effectively one hectare freehold lots, each with only one owner. The freehold titles date from the 1930's and have been passed down to successive generations. The remainder of the 'randomly' placed shacks, sometimes fifty per lot, are illegal but controlled by the landlord, who allocates and rents out the informally arranged lots. There is also only one water point per lot. Landlords wield significant power and are bent on sustaining the status quo, which guarantees huge rental turnovers each month.

- What at first glance seems like a homogenous community, is divided into distinct socio economic groupings which is symptomatic of South Africas new intra-racial class divides. *Nodes 1, 2* and *3* which are in relative proximity, all within a cross slice of the corridor zone display very different socio-political conditions and are each likely to respond very differently to the introduction of strategic- or generic corridor elements. For the upwardly mobile group in *node 3*, active trading opportunities on road verges are far less important than to the people in *node 1* for whom it is an important livelihoods function

- That it was possible for the urban designer to gather more useful information about people, their sorrows, their joys and their aspirations than would have been possible by using cold statistics provided on paper (in reference to the LDO process discussed above). Interviews with urban designers confirmed the fact that they mostly left community consultation to paid 'experts' and tended to work with second hand

sociological data *(Du Toit, Jordaan, Thomashoff, White)*. This was also our own experience in the Kagiso project where we were instantly provided with sociological data *'in order to save time'*.

- That it was clearly feasible for the students to act as extractors and translators of rooted information. They were capable of drawing up and motivating NOW, SOON and LATER agendas without too much fuss.

HOUSE PROFILE (PRECINCT 3)

House 2

Note: This is a student project by students of Tecnikon Northern Gauteng with Mr Henri Comrie, a research student from Oxford Brookes University. Information will be used for academic research purposes only. No names will be mentioned in any report.

STUDENT NAME MAHLANGU SIZAKELE 200206297

SKETCH OF HOUSE (VIEW FROM STREET)   SKETCH OR PHOTO OF FAMILY
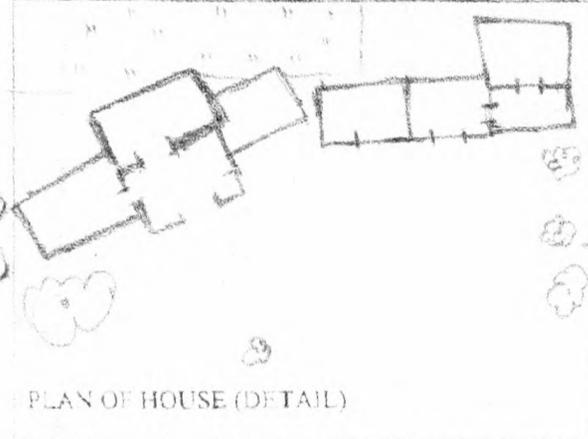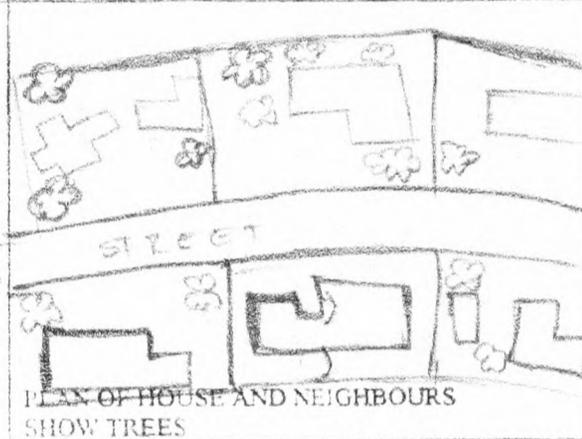
PLAN OF HOUSE (DETAIL)   PLAN OF HOUSE AND NEIGHBOURS SHOW TREES

DO YOU LIKE THIS HOUSE? IF YOU DON'T LIKE IT PLEASE DRAW A PICTURE OF A HOUSE THAT YOU WOULD LIKE? YES
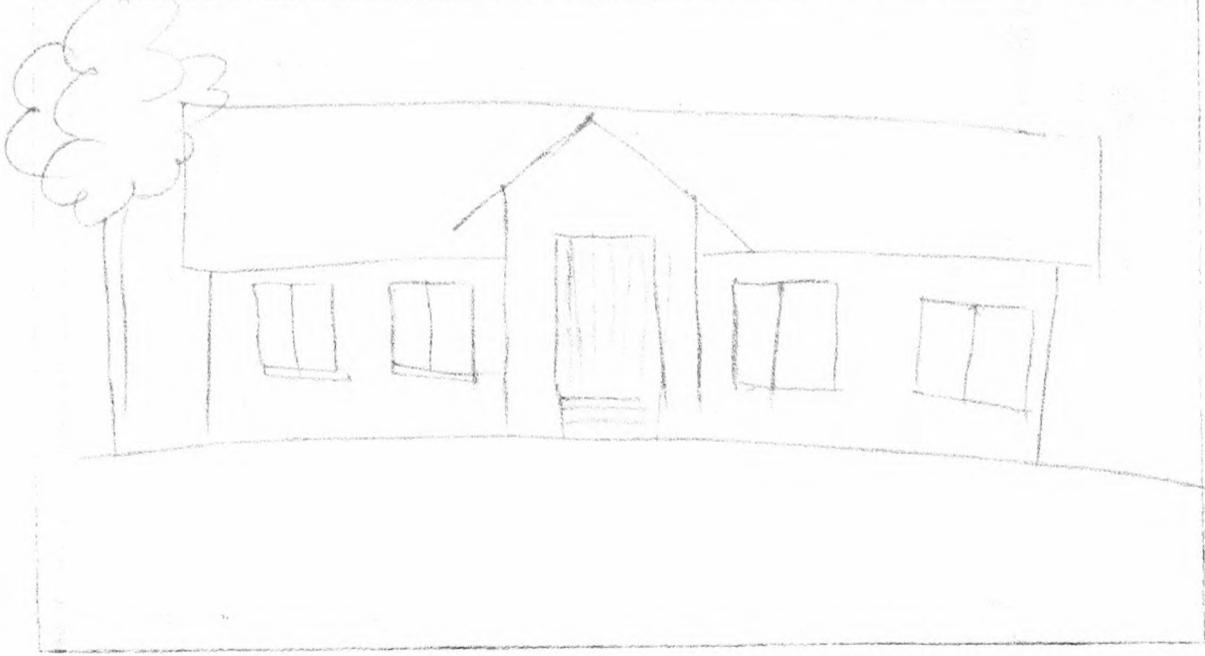
TYPICAL FIELDWORK QUESTIONNAIRE (PAGE 1) COMPLETED BY A STUDENT FROM TECHNIKON NORTHERN GAUTENG

(EXAMPLE) PHOTOS TAKEN IN NODE 3

INTERVIEWER AND INTERVIEWEES
MIND MAP BY INTERVIEWEES (BELOW)

HOW LONG HAVE YOU/ YOUR BEEN LIVING HERE AND WHERE ARE YOU FROM?	For twenty years We are from Tzaneen.
HOW MANY PEOPLE LIVE HERE? SHOW ON PLAN OF HOUSE	We are six in number
NUMBER OF ADULTS .... NUMBER OF CHILDREN	3 3
DO YOU OWN OR RENT THE HOUSE?	own
DO YOU RECEIVE A GOVERNMENT SUBSIDY?	No
WHERE DO YOU BUY YOUR FOOD AND CLOTHES?	Central city and town nearby (spazas) tuckshop
WHAT PERCENTAGE OF YOUR INCOME DO YOU SPEND ON (a) TRAVEL (b) FOOD	40% 60%
WHERE DO YOU WORK AND HOW DO YOU GET TO WORK?	Unemployed
DO YOU THINK IT IS EASY OR DIFFICULT TO GET TO WORK?	It's very difficult
IS THERE ANYTHING THAT YOU MAKE AND SELL YOURSELF?	I sell vegetables I grow on my backyard
DO YOU THINK IT IS THE GOVERNMENT'S RESPONSIBILITY TO PROVIDE JOBS AND HOUSING IN THE AREA OR MUST PEOPLE CREATE THEIR OWN JOBS?	The government must provide the don't have the money to start our own jobs
DO YOU PLANT ANYTHING FOR FOOD IN YOUR GARDEN? (FRUIT AND VEGETABLES) IS THERE ENOUGH SPACE FOR THIS?	Yes plenty of space
ARE YOU HAPPY THAT YOU GET ENOUGH OPPORTUNITY TO TELL THE COUNCIL WHAT YOU WANT YOUR NEIGHBOURHOOD TO BE LIKE? DO THEY LISTEN?	No, they don't heaken to our needs
WHO DO YOU TALK TO WHEN YOU HAVE PROBLEMS IN YOUR NEIGBOURHOOD?	Own counsellor
DO YOU KNOW MOST PEOPLE IN THE NEIGHBOURHOOD? (WITHIN 100 METRES FROM YOUR HOUSE)	Yes, we are a very close neighbourhood

SECOND PAGE OF TYPICAL FIELDWORK QUESTIONNAIRE

A 7.3.3. SECONDARY DATA

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A 7.3.4. GUEST EDITING OF AN ACADEMIC JOURNAL

Guest editing of a forthcoming special issue of *Urban Design International on Urban Design in South Africa*(October 2003) provides opportunities to:

- stimulate an urban design debate

- determine regional variations and external influences on urban design praxis.

- develop a greater understanding of the relationship between education/theory and urban design practice (praxis).

- to consider some of the central issues which South African urban designers are raising ten years after the end of apartheid and to relate this to corridor development.

CONTRIBUTOR	TITLE	TOPIC
1. Paul Sanders and Maria Nomico Lecturers Queensland State University University of Natal	Dichotomies of Urban Change in Durban	Durban's Informal Street Culture and inner city restructuring in response to pedestrian mobility. (comment)
2. Karel Bakker & Graham Young Lecturers University of Pretoria	Urban Design Education as an Integral Aspect of Real Time Revitalisation Processes	The formal involvement of architecture students in the Salvokop urban regeneration project, Pretoria. (Student 'task force'/case study)
3. Barbara Southworth Principal Urban Designer City of Cape Town	Urban Design in Action: The City of Cape Town's Dignified Places Program.	The City of Cape Town's dignified places programme.
4. Iain Low Lecturer University of Cape Town	Space and Reconciliation/ Cape Town and the South African City under Transformation	Confusing signals: Urban Design in Crisis in South Africa? (Theory)
5. Rod Lloyd Urban designer in private practice, Johannesburg	Defining Spatial Concepts Toward an African Urban System	Sociological underpinnings of South African urban design.
6. Alan Lipman Emirates professor, Johannesburg	A case of *urbe in rus*?	Participative development in rural areas (cities of the future)
7. Simon Nicks Urban Designer in Private Practice, Cape Town	Designing the Interface The Role of Urban Design in Reconstructing Apartheid Villages, Towns and Cities	Case studies; urban design practice in Cape Town
8. Erik Schaug Urban Designer in Private Practice, Cape Town	Urban Design in Black South African Settlements.	The Lack of Urban Design in South Africa's Townships ten years after the end of Apartheid.