

**TOWARDS
RESPONSIVE ENVIRONMENTS:
A CASE FOR
URBAN DESIGN & PARTICIPATION**

**TOWARDS
RESPONSIVE ENVIRONMENTS :
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URBAN DESIGN AND PARTICIPATION**

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ACKNOWLEDGMENTS

This dissertation personally represents a major achievement, that is both academic and professional. Looking back, to me, it started a while ago. I have over the last few years constantly grappled with, and debated for, the issues, thoughts and questions raised in the dissertation.

Within this time, there have been certain individuals, whom I have had the opportunity to work with in various forms. These individuals have played a significant role in influencing my thinking and direction within planning. The inspiration and experience, gained from these individuals, has contributed immensely and is reflected in the dissertation. These individuals must be acknowledged. They are: Paul Mikula, Simon Vines, Bernd Rothaug, Tony Markewicz and Clive Forster. I acknowledge in particular Bernd, who has provided over the last few years and during this dissertation, a great source for ideas and a willing partner for debate.

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CHAPTER 1 - INTRODUCTION

"Urban design requires thoughtful, knowledgeable and able designers, who can intervene in the urban processes in a supportive and understanding way and who will know when, in their given role, it is appropriate to design, and when it is more creative not to." (Smith, 1994:15)

1.1 OUTLINE

This dissertation has been undertaken as part of the Master of Town and Regional Planning Degree at the University of Natal. The dissertation topic is, "Towards Responsive Environments : A Case for Urban Design and Participation."

The methodology adopted in the dissertation is based on a broader understanding of research, which starts from a reflection of contemporary experiences of the author and through a qualitative analysis of key case studies in relation to a search for a particular environmental condition namely, a responsive environment.

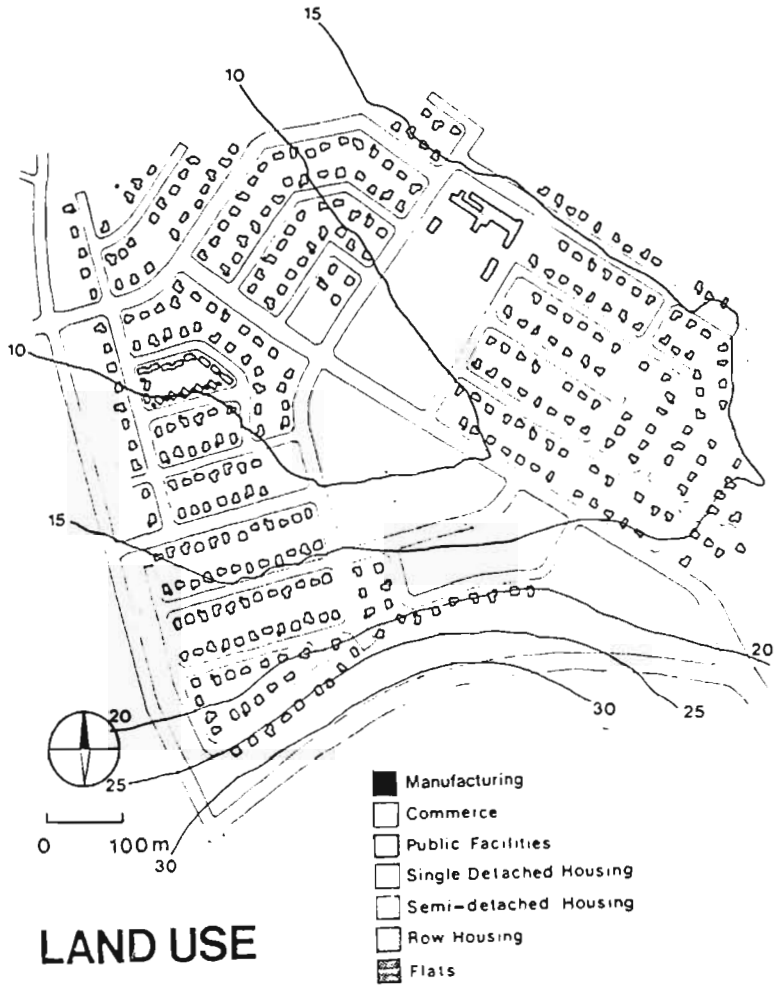
The dissertation posits that initiatives in spatial design relating to housing must adopt an urban design logic which embraces a particular appreciation and approach. This approach is premised on an understanding that societal well-being is inextricably linked to the physical environment. As such, design must set the conditions for the qualities of responsiveness.

Second, the dissertation posits that a responsive environment can be created through the adoption of a strategy that embraces urban design as its premise and community participation as part of its process.

The dissertation attempts to stimulate an academic / professional debate and to provide the basis for further enquiry into responsive environments. This represents the current focus of the author and raises issues considered cardinal in the ongoing development of the author's academic and professional planning position.

The following section, on the background of the dissertation, sets out in detail the content of the dissertation and defines the focus clearly.

Conventional technocratic approach
Sun Valley, (Dewar et al, 1978)



1.2 BACKGROUND

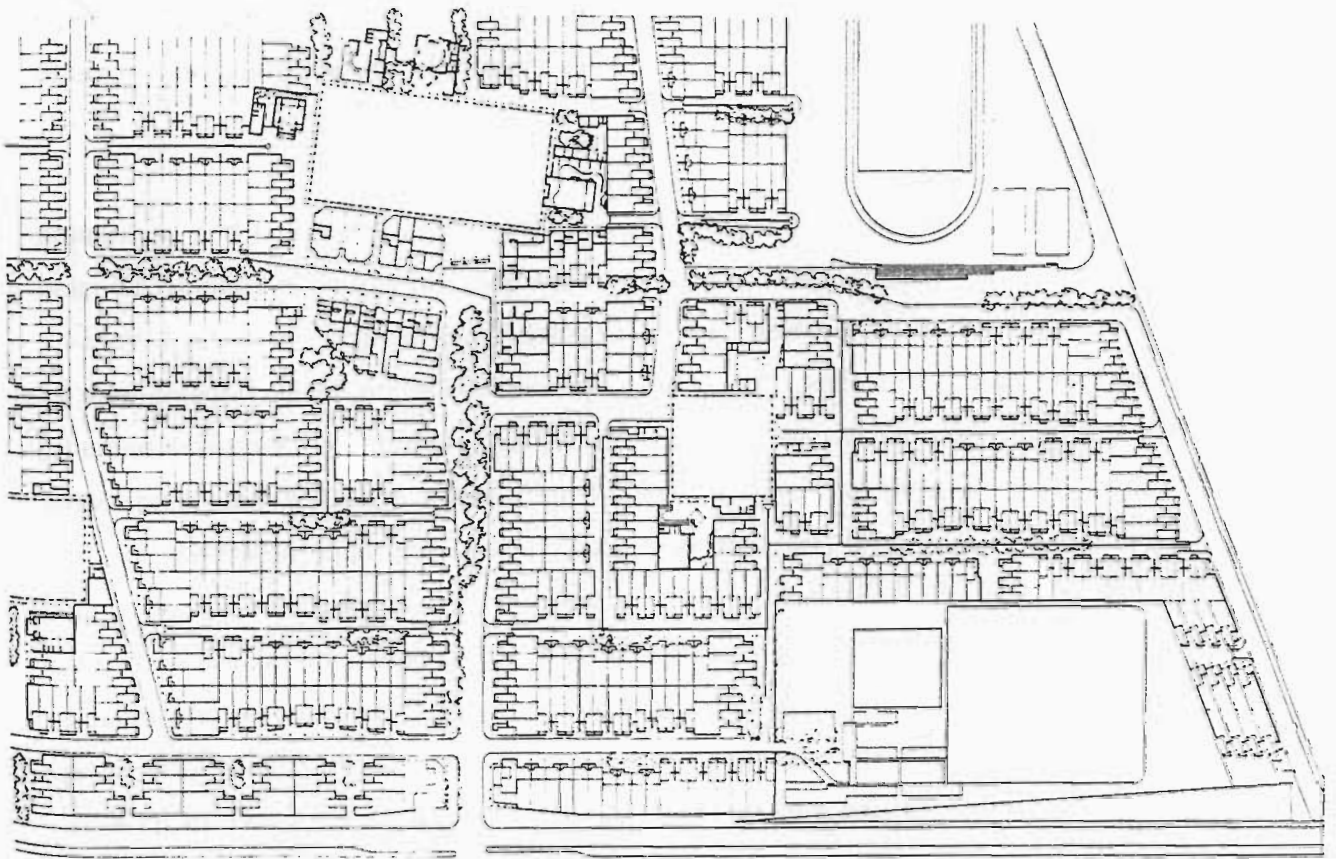
Housing based on traditional planning and design approaches, coupled with a shelter driven ethos, will perpetuate the inequities inherited from apartheid and recreate oppressive, sterile environments.

Low income housing in South Africa contains many facets and has undergone paradigmatic changes over the last few decades. Through such changes housing policy has vigorously attempted to create solutions within specific areas in housing such as end user financing, consumer protection and so on. While housing may be successful within such areas, it fails miserably with regard to creating environments that offer meaning and environments that foster a sense of belonging. Most contemporary housing is guided by technocratic design approaches leading to a monotonous and sterile environment, as depicted in the illustration on the left hand side. It must be understood that the product (the built environment) will outlive the process (end-user financing, consumer protection) and therefore efforts must be refocused towards the making of housing environments in terms of the design processes, the attitudes and approaches involved. This is the primary focus of the dissertation.

The dissertation draws attention to a need for creating housing environments that encapsulate more than just shelter, - shelter in this sense relates to the end product or physical structure required to provide protection and refuge. The search for shelter is argued as forming the key thrust of the current housing practise.

Environments that extend beyond the shelter fetish are those that create conditions for individual betterment, identity and a sense of place, these are considered to be responsive environments. Responsive environments, then, are those environments that are sensitive to the needs of people. Bentley et al, in defining responsive environments suggests, "We start from the same idea as that which has inspired most socially-conscious designers of the last hundred years: the idea that the built environment should provide its users with an essentially democratic setting, enriching their opportunities by maximising the degree of choice available to them." (Bentley et al, 1985:9)

Design of public realm, attempt at responsiveness
Mitchells Plain, (Dewar et al, 1978)



The dissertation argues for a better understanding of the relationship between the built environment and man(sic) and focuses on identifying and testing an approach towards creating an environment that is underpinned by an acknowledgement of this relationship.

In demonstrating the need to pursue responsive environments and a means to achieve such environments, the dissertation investigates two primary factors, namely: urban design and community participation.

The argument pursued is firstly, housing must extend beyond the provision of shelter to effectively achieve responsive environments and secondly that such a quest must include urban design and community participation in order to achieve responsiveness. As such the dissertation explores the role of urban design and community participation as tools to unleash the qualities of responsiveness with particular reference to providing input into the current housing drive. The point of departure is that if existing design approaches are adopted in resolving the current housing crisis, then the alienating **qualities of suburbia** and the bleakness of technocracy will prevail, resulting in environments that will continue to oppress their users. The central issue rests in finding an appropriate design approach that addresses the housing crisis and the quality of residential environments produced in a meaningful way (see illustration on the left).

1.3 **CLARIFICATION OF ASSUMPTIONS**

First, while the focus of the dissertation is on housing environments and their making, this is by no means a "watering down" of other important interventions in housing, such as interventions in the public realm, appropriate financing and so on. The author acknowledges that housing comprises many key dimensions that require a multi-faceted approach to ensure that the housing problem is adequately addressed. The dissertation, however, seeks to contribute to a greater balance between the various sectors within housing policy and physical environment design.

In addition to the above, implicit in the study is a housing background that the

dissertation is linked to. There is an acknowledgement of the issues relating to broader housing processes and delivery, in that while the study focuses on a design strategy, it forms one element in a broader housing process. To this end the argument and the processes emanating out of the study have been developed within a "housing support paradigm" as postulated by Hamdi, 1991.

Second, the dissertation is aimed at providing input into the making of residential environments in greenfield situations. It is in greenfield situations that the conventional devices of modern town planning are dominant and practised unabated, for it is the unchallenged way. In addition, participation in upgrading situations is a "given" while in greenfield situations obtaining participation presents a major challenge.

Third, while the author champions the merits for design in pursuing responsive environments to provide for individual betterment and fulfilment, the author does not seek to make a case for design or spatial determinism. It is acknowledged that factors relating to the broader socio-political and economic context are equally important and have significant bearing on responsiveness. An attempt is made, however, to reassert a design focus for it is the belief of the author that this focus is substantially lacking in present policy and practise.

Fourth, the term participation **in the dissertation** relates to two forms of participation. The first is suggested to be short term participation in which individuals have input into the design and development process, and the second is participation in the long term, which relates to the ongoing involvement of users in shaping their environment. This also implies the shaping of the political, social and economic environments and is linked to processes of empowerment.

Lastly, while the key focus of the dissertation is on urban design and community participation, the dissertation provides only a broad scan of these concepts as the emphasis is on the interface and not necessarily on the absolute detail of these concepts.

1.4 STRUCTURE OF DISSERTATION

Following this introductory chapter, chapter 2 presents the dissertation strategy which identifies the research question and **hypothesis**. This chapter raises the question of **responsive environments** and how such environments are achieved. It is suggested in this chapter that responsive environments are a product of an urban design and community participation strategy. This chapter also identifies and defines the key concepts of the hypothesis.

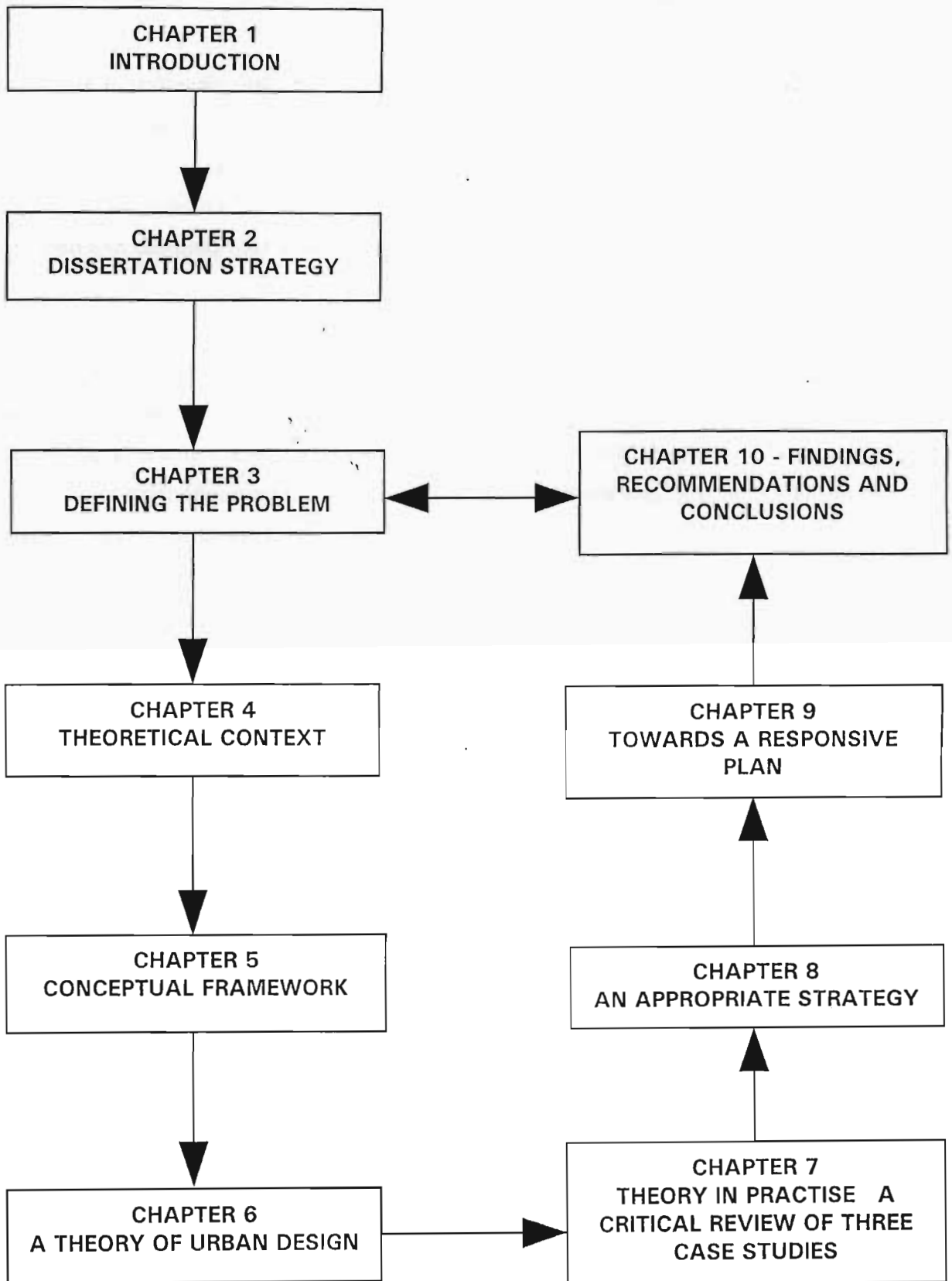
Chapter 3 presents the problem in detail and focuses on why there is a need to examine responsive environments and for which sectors of society would the research aim to assist. This section suggests that there exists a strong relationship between man (sic) and the built environment and that this relationship must form the backdrop of housing **initiatives**. **It also makes a case for pursuing responsive environments in greenfield situations for low income groups**. The key concerns identified in this chapter include: **a lack of focus relating to existing policy**, the potential to use the housing drive positively, a critique of existing practise and the existing disjuncture between theory and practise.

Chapter 4 presents the theoretical context which is a review of the key concepts identified in the previous chapter, **namely: responsive environments, urban design and community participation**. This is undertaken through a review of literature and positions expressed by **various theorists**. Although particular viewpoints on the theoretical context are expressed **within the literature review**, a critical appraisal of the literature is presented as part of the next chapter, the conceptual framework.

Chapter 5 attempts to establish a conceptual framework based on the previous two chapters and the author's developing position. The conceptual framework is not be considered a fixed framework as it is expected that it will be refined through the remaining stages of the dissertation. This chapter presents a critical review of the theoretical context, a position on community participation and an emerging conceptual framework.

Chapter 6, which is an extension of the conceptual framework, focuses specifically

FLOW DIAGRAM 1 - DISSERTATION STRUCTURE



on the qualities of responsive environments established in the theoretical context with a view of establishing a theory for "better" design. This is undertaken by examining the relationship between the qualities of responsiveness, urban design and people (participation). Emanating out of this chapter, is a composite set of design criteria for evaluating and designing responsive environments.

Chapter 7 focuses on the relationship between theory and practice by critically examining two greenfield projects in the Durban Metropolitan Area and an international case study. The local case studies are the Waterloo Development Project and the Wiggins Fast Track Development Projects of the Cato Manor Development Association (CMDA). The international case study reviewed is the Fundasal initiative in El Salvador. These examinations are undertaken at a broad level and focuses primarily on the design processes and responsiveness in terms of the environments generated.

Following a review of the theoretical context and the practical context in the previous chapters and in terms of the emerging conceptual framework, chapter 8 attempts to provide an appropriate process for achieving responsive environments.

Chapter 9 attempts to demonstrate the application of the approach presented in the previous chapter through a simulated project. The project undertaken is currently an infill project in Johannesburg for the Riverlea area.

Lastly, Chapter 10 presents the key findings of the dissertation, the recommendations and the conclusions. Flow diagram 1, on the left, indicates graphically the structure of the dissertation.

CHAPTER 2 - DISSERTATION STRATEGY

"The goal should be to discover the best fit between the physical and cultural contexts and the needs and aspirations of contemporary users." (Trancik, 1986:114)

2.0 OUTLINE

This chapter serves to outline the line of enquiry and the questions the dissertation aims to unravel. Further to this it attempts to put forward the position to be investigated in the dissertation, ^{and} in doing so, this chapter presents the aims, goals and objectives.

2.1 RESEARCH QUESTION

The dissertation explores the notion of responsive environments and how such environments are achieved. The dissertation focuses on answering the following questions,:

- What are responsive environments and why do we need to pursue them?
- What is the context relating to built environment design?
- How does design influence responsiveness?
- How does participation relate to responsiveness?
- What is there a relationship between design and participation?

2.2 THE HYPOTHESIS

The dissertation asserts that responsive environments are products of an approach which embodies urban design and community participation.

The hypothesis has two central arguments or assumptions although exhibiting a cause and effect type relationship in that a specific product emanates out of the combination of two elements. The first assumption relates to the cause and effect relationship in that responsive environments can be created by adopting community participation and urban design as tools in the process. This is explicit and forms the thrust of the dissertation.

The second assumption is more implicit and rests in the undertone and context, which is both theoretical and philosophical. This position is that responsive environments are "good" for us and must be sought in the current housing provision. This is alluded to by Dewar et al, in the following statement, "The total housing problem is much more than merely the provision of houses - it is the provision of total living environments, which satisfy the complex and diverse requirements of urban man and which provides the opportunities inherent in urbanity {responsive environments}." (Dewar et al., 1978:13) {author's addition}

An understanding of the hypothesis is dependant on a clear understanding of the key concepts contained in it, these are presented below. A more detailed analysis is presented in chapter 4 dealing with the theoretical context.

2.2.1 Identifying the Key Concepts

The hypothesis comprises of three main concepts, these are: responsive environments, urban design and community participation.

Responsive environments are suggested to be those environments that are responsive to the needs of people allowing for human well being, identity and development. Such environments are made up of certain qualities that act in a mutually supportive manner to enable responsiveness. These qualities are identifiable and can be used as indicators for measuring responsiveness.

Urban design is a form of design, or an approach to design that seeks to establish responsive environments. This is achieved through a particular design position or attitude and through the use of certain design criteria and principles.

Community participation, in terms of this dissertation, relates to two forms of participation. Firstly, it relates to participation in the short term through a more inclusive design process and secondly, it relates to participation in the longer term, where conditions allow individuals to shape their own

environment on an ongoing basis.

2.3 SCOPE OF DISSERTATION

The dissertation will focus on identifying only the key debates and dimensions of the concepts identified above. It is **not envisaged** that an in-depth or exhaustive study of these concepts would be made as the focus of the dissertation is on the interface of these concepts and their interrelationships. It is intended that appropriate background and understanding can be realised through a wider, rather than deeper, scan of the concepts. This will allow for the building of a conceptual framework to address the hypothesis. The value of this approach is the potential to present a more focused argument.

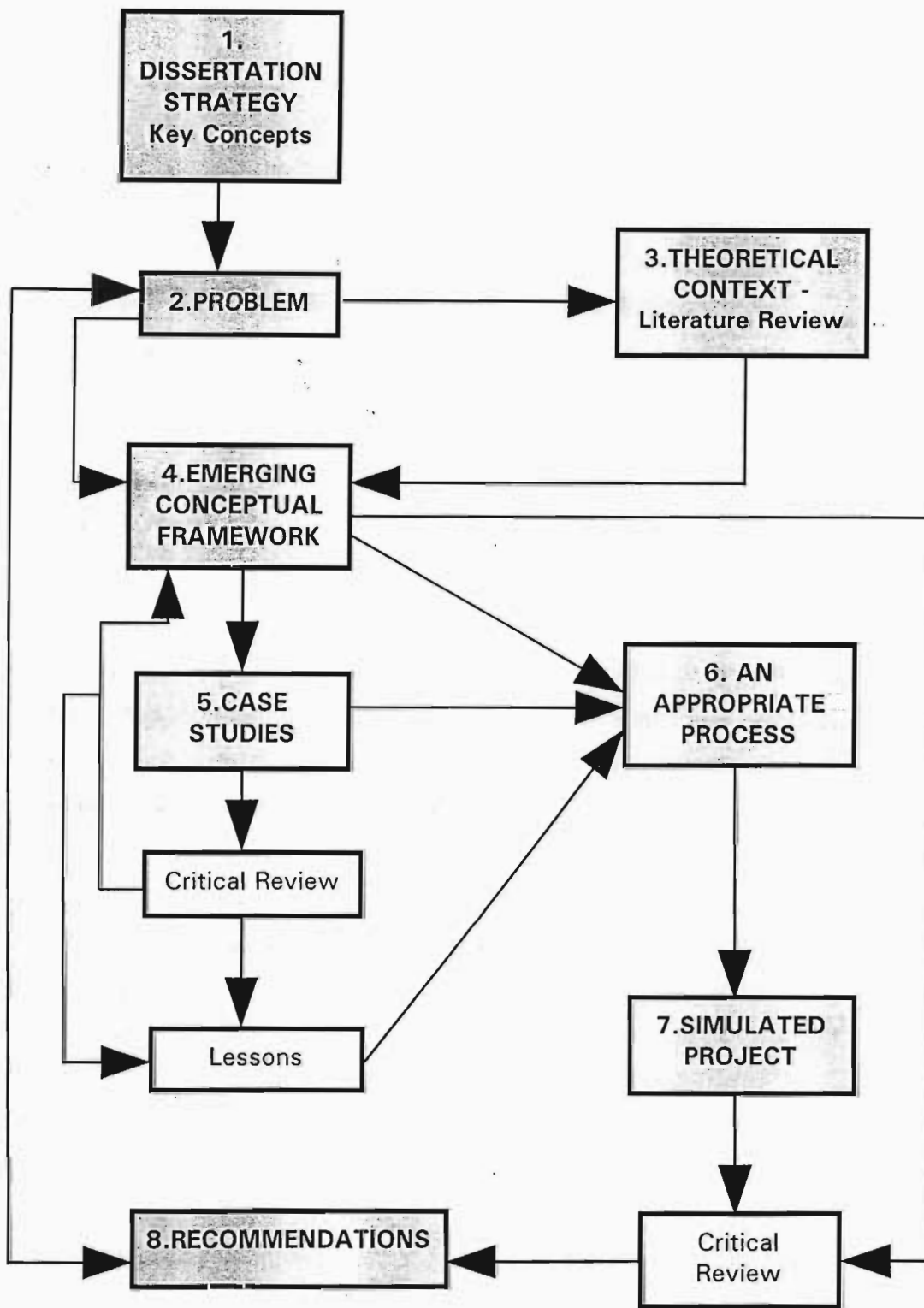
2.4 RESEARCH METHODOLOGY

The approach adopted is to establish a methodology that attempts to answer the dissertation topic and hence relates to the overall dissertation process rather than to a specific section that deals with research per se. Each chapter thus provides a component to an overall research process and thereby forms an integral link to a possible solution.

The following chapter identifies the problem in detail. This is succeeded by an exploration of the theoretical context of the key concepts presented earlier, which is undertaken through a literature review and based primarily on secondary data acquired from key literature and periodicals. At certain stages in this investigation primary data acquired through interviews will be used to substantiate or debate particular viewpoints.

The next stage of the methodology involves establishing a conceptual framework that draws on the previous research. This is undertaken by firstly establishing a position based on the process thus far and secondly by establishing a theoretical position for achieving responsive environments.

FLOW DIAGRAM 2 - DISSERTATION PROCESS



This is followed by an investigation of specific projects. The methodology used will be through a combination of structured interviews and questionnaires (primary data), and by examining existing project documents and articles relating to the project (secondary data).

Drawing on the critical review of these projects and the previous research, the next stage of the process establishes an appropriate approach towards design and participation. This approach would then be demonstrated in a simulated project and evaluated against the conceptual framework.

The last stage of the process would be to establish key recommendations and conclusions.

The dissertation process is indicated on the left in flow diagram 2. The flow diagram indicates, firstly the establishment of the dissertation strategy, which sets out the research question and hypothesis. The next stage expands on the problem and is followed by the theoretical context which examines in detail the key concepts identified. Based on the problem and the theoretical context, the next stage establishes an emerging conceptual framework. The conceptual framework contains various aspects including a theory for the concepts identified. Following this, is a critical review of case studies. As indicated in flow diagram 2, the case studies are critically reviewed in terms of the emerging conceptual framework. The critical review then provides the basis for establishing lessons emerging from the case studies. These lessons, the actual case studies processes and the emerging framework (as indicated in the diagram), then provide direction for the establishment of an appropriate process. This process is tested in a simulated project, which is then critically evaluated in terms of the conceptual framework and through the methodology used in evaluating the case studies. From this evaluation, with the substantive issues that are carried through the various stages, and relating back to the problem, the final stage establishes recommendations. These recommendations are then intended to provide input into resolving the problem.

2.4.1 Primary Research

The primary data for the dissertation was obtained through structured interviews. In cases where respondents are not located locally, the interview sheet, serving as a questionnaire, was faxed to respondents for their comment. Respondents were selected on the basis of their input into specific aspects of the dissertation, such as their involvement in the case studies analysed and for comment on the overall investigation. Attempts have also been made to obtain input from Johannesburg based practitioners and academics in order to obtain a broader geographical response. The completed interview / questionnaires are attached as Addendum A as this could present a valuable resource for further enquiry into the subject. In the case of interviews, the interview sheets have not been completed by the respondents directly, comments have been edited by the author. Therefore such respondents should not be quoted directly and the author takes responsibility for the content.

List of Respondents:

- | | | |
|----------------|---|--|
| Bernd Rothaug | - | Urban and Regional Planner, Seneque Maughan Brown SWK |
| James Copley | - | Urban and Regional Planner, Seneque Maughan Brown SWK |
| Tony Markewicz | - | Urban Designer, Markewicz English and Associates |
| Larry English | - | Urban Designer, Markewicz English and Associates |
| Joanne Lees | - | Architect, Joanne Lees Architects - involvement in case study. |

- Clive Forster - Urban and Regional Planner - Cato Manor Development Association - involvement in case study
- Simon Vines - Urban and Regional Planner - Vines Mikula Associates - involvement in case study.
- Dr.Roger Boden - Lecturer - University of Witwatersrand - Johannesburg
- Erky Wood - Urban Designer - GAPP Architects - Johannesburg

The next chapter defines the problem and initiates the search for responsiveness environments.

CHAPTER 3 - DEFINING THE PROBLEM

"In the final analysis, the measure of performance of housing actions results in environments which give people dignity and facilitate and enrich the normal activities of life. Measured against this, it is apparent that we are failing dismally, even in places where reasonable levels of shelter are being provided." (Dewar, 1993:22)

3.0 OUTLINE

South Africa today is a nation recovering from years of apartheid policy and practice. One of the key programmes identified as part of the reconstruction process is that of housing. This is viewed as a basic human right and substantial energy is being spent on finding solutions for providing housing for many marginalised by the apartheid system. It is suggested in this dissertation that the provision of housing must not only be sought in meeting the huge need and in dismantling the inherited city form, but more fundamentally, as a means to create environments that foster belonging and meaning. It must be understood that the apartheid city was not only a product of a particular socio-political and economic programme but also of a particular development approach. Such an approach based on technocratic and utilitarian decision making was or is rooted in the Modernist framework of development. This approach places little emphasis on the significant relationship between man [sic] and the built environment. Even within the current forging of new political relations, the use of such approaches will continue to create oppressive environments.

The problem at a broad level therefore relates to the lack of concern for human identity and well being in built environment design caused by a neglect of the significant relationship between man [sic] and the built environment. At a detailed level the problem relates to the current housing drive and the possibility of endless dreariness as a result of existing dominant design approaches and institutions being adopted in resolving the housing crisis. The problem is further defined and elaborated on below.

The methodology used in defining the problem is based on a similar framework to Moser's analysis of community participation. In defining community participation, Moser presents her argument by addressing the questions of why, when, whose and how? A similar framework is adopted in defining the problem by responding to the following questions:

- why, motivating why is there a need to focus on responsive living environments;
- whose, who would the research focus on and which sector of society is the research aimed to assist;
- what, identifying the key concerns; and
- how, identifying how the problem can be addressed.

3.1 WHY FOCUS ON THE BUILT ENVIRONMENT?

Throughout history cities have expressed societies' struggles and achievements as Lynch, 1987, describes this as a mirror of society. Bacon, 1976, in referring to man's [sic] achievement, suggests that "the form of his city always has been and always will be a pitiless indicator of the state of civilization." (Bacon, 1976:13). More significantly however, cities possess the ability to contribute towards shaping society in profound ways: apartheid social engineering was/is augmented and concretised through a distinct city form. While it may be argued that apartheid social engineering was more fundamentally a product of a particular political, economic and social programme, such a programme however was (and remains) entrenched through the built environment and a particular city form.

The spatial structure of cities and more specifically, residential environments has contributed substantially to supporting socio-economic and political conditions and, to a certain extent, in contributing to their demise. Examples of this include : the growth of suburbia supported the Fordist means of production and accumulation and the apartheid townships that supported the oppression of certain groups in society are clear examples of the fundamental relationship between the built environment and socio-economic and political relations. Jennifer Robinson, in describing the

Significant relationship between people and the built environment
(Bentley, Alcock et al, 1985:9)



forging of the apartheid city, comments that " ... a rigid, clinical urban order was envisaged in which visual disorder and areas which were administratively difficult to govern were to be replaced by regimented and thoroughly controlled townships." (Smith, 1992:301) While the extent to which this was achieved may be debatable, the author contends that the townships have played a significant role in administering control. An example of this would be the limited main access routes allowed the townships to be cordoned off if so needed.

Explicit in the above is the profound role that the built environment and spatial structure have played in history. If one accepts history and past experience as a strong indicator of reality, then attention needs to focus on the creation of residential environments in terms of the role initiatives in the restructuring of space can play in society. This must be undertaken to both use the envisaged restructuring positively, and to limit the potential for recreating the ill experiences of the past. It is not suggested that society could or should be restructured through the built environment. The author does not seek social determinism and is not trumpeting the merit of ultra modernism in referring to the role initiatives in the restructuring of space can play in society. What is being referred to here is an understanding of the profound relationship between man [sic] and his environment, in that the environment has the potential to both hinder or advance man's [sic] development. (Dewar et al., 1978,1991) (see illustration on left)

The central argument is that an understanding of this relationship must form the background to attempts toward restructuring the built environment. There must be a greater awareness of the relationship between the built environment and society, particularly in contemporary housing and planning initiatives.

South Africa today faces the great challenge of providing homes for many previously ignored by housing and development policy. This is emphasised in the preamble to the White Paper on Housing, 1994, in : "Housing the nation is one of the greatest challenges facing the Government of National Unity."

The need for housing has for once been acknowledged and attempts at providing housing are gaining momentum. These attempts must however, be within a

framework that acknowledges the significant relationship between the built environment and societal well being, and as such, housing initiatives must strive towards creating responsive environments.

3.2 WHOSE RESPONSIVE ENVIRONMENT?

Different income groups confront a different set of housing opportunities and constraints. While the scale may be balanced for some and for certain segments of society greater opportunities exist, the vast majority are significantly marginalised in their choices to housing. While responsive environments must be sought for all segments of society, a greater emphasis must be placed on groups that have the least amount of choice and for those that current planning and development impetus seek to provide solutions for.

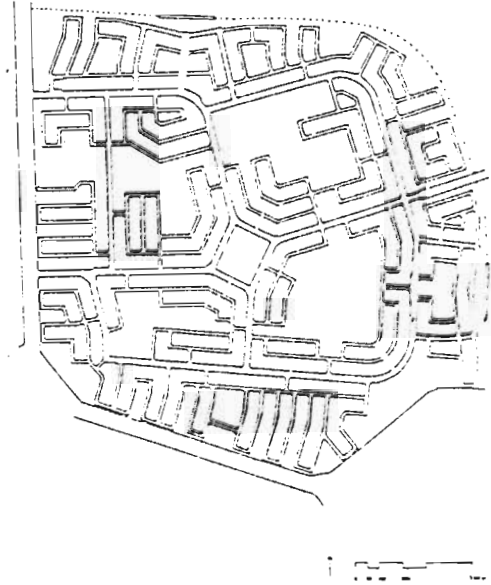
It is the lower income groups onto which, today's solutions and tomorrow's problems will be forced. While economic upliftment may mean a longer term process, improvements can be made to one's day to day tangible experience of a place through providing a responsive environment. Therefore, the dissertation places emphasis on providing input into the national housing focus.

A distinction must be made here however between focusing on lower income informal settlements and lower income greenfield development. Informal settlements exhibit qualities that are responsive to the needs of people relating to scale of development, degree of choice and movement patterns. Such settlements are, by their nature, responsive to the needs of their inhabitants at a particular time. Lower income groups within the formal housing and land delivery systems were significantly marginalised and therefore informal settlements are a response to those needs not provided for within the formal systems. (These inequities can be attributed to past social and political policy). It must be stressed however that this is not a romanticisation of informal settlements - the author acknowledges that the physical conditions are far from ideal and are considerably poor regarding human well-being, health and safety. The point expressed here however relates to the scale of development (that being a human scale), the uniqueness of place and the individual ingenuity expressed in the fine grain nature of the residential fabric.

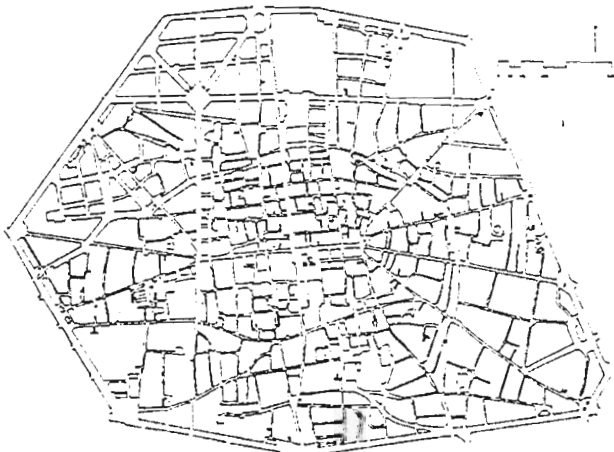
Monotony versus choice
(Dewar et al, 1991:20)



3. Venice, Italy. The coming together of different elements of structure over the surface of the entire city creates a complex, hierarchically-differentiated, but equitable, system of access, and thus opportunity.



5. Bonteheuwel, Cape Town, South Africa. This plan generates conditions of "sameness", which results inevitably in sterility and monotony.



4. Bologna, Italy. The urban system offers degrees of secrecy and exposure but the choices remain real, in the sense of people not having to choose between one or the other, but between gradations of each.



6. Salt River-Woodstock, Cape Town. The structural system, which is highly readable, creates a wide range of conditions to which different activities can respond. The result, without administrative intervention, is a complex, integrated land use pattern.

Of significance is the level of individual expression in the built environment that is far greater than that which exists in contemporary greenfield development and the sterile environments created as a result of conventional planning wisdom. (See illustration on the left)

As for the above, a quest for responsive environments must be sought in the making of new residential areas through greenfield development. It is here that solutions are likely to be forced upon lower income groups through the application of traditional exclusive design approaches.

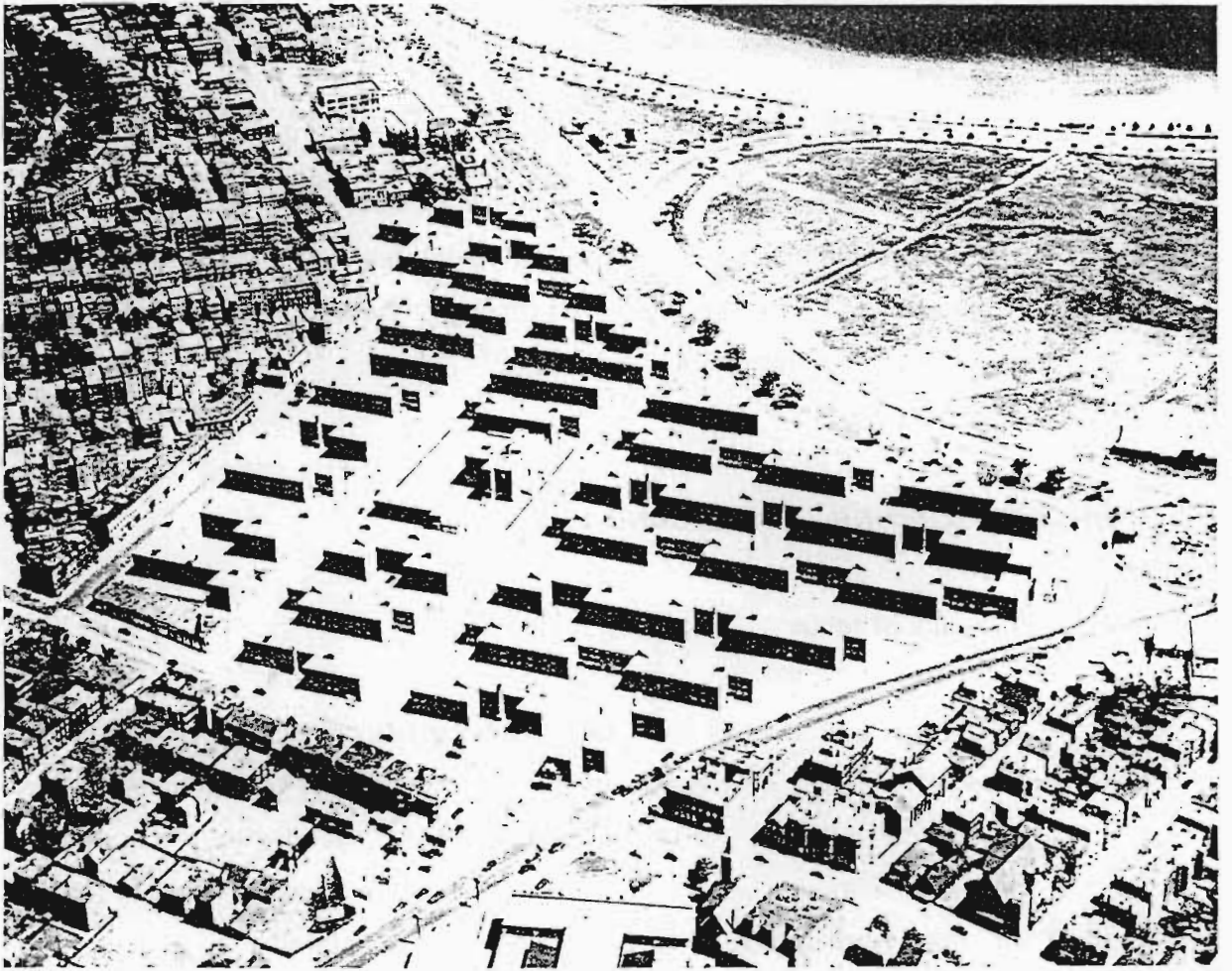
3.3 WHAT, IDENTIFYING THE KEY CONCERNS

3.3.1 The lack of focus

Housing is a product of both policy and practise. While today there exists innovative policy on aspects that deal with delivery, finance, consumer protection etc., there is little emphasis on the environments that **we as planners create and are about to create**. The White Paper on Housing (1994) identifies eight issues in the section on "Key Substantive Approaches and Interventions". These include "Stabilising the Housing environment, Institutional Arrangements, Subsidies, Savings, Housing credit, Housing Support, Land and housing Development Process and Infrastructure, Services Standards and Tariffs." The emphasis in most of this is on the non-physical aspects of housing. The section on "Land and Housing Development Process" deals simplistically with the issue of land use planning, which it sees as important in "managing the allocation of competing development needs." (Department of Housing, 1994:54). The focus within this section is on the regulatory aspects of spatial planning and not on qualitative aspects.

In general the focus is on shelter in its singular form, with public and private sectors expending substantial energy in defining appropriate products for individual households. Aspects dealing with environmental quality relating to the collective realm, in which the physical product is to be located, are

Today's solutions
Instant building, (Hamdi, 1991:34)



Boston. (Source: Boston Housing Authority)

ignored. A greater emphasis is placed on the engineering aspects of the collective realm. This neglect of the human dimensions of the built environment occurs to a large extent at a policy level as well.

Drawing on experiences, both locally and internationally (see illustration on the left), today's solutions can become tomorrow's problems, some of the mass housing schemes considered as a solution in postwar Britain have decades later been demolished due to the social problems related with such environments. It must be realised that the built environment will outlive present policy and will confront not only today's but also tomorrow's generations. The apartheid townships, which remain oppressive environments, is an example of this.

The focus must shift therefore from shelter for the individual, to the total environment and to housing in its broader sense, we must strive towards creating responsive environments.

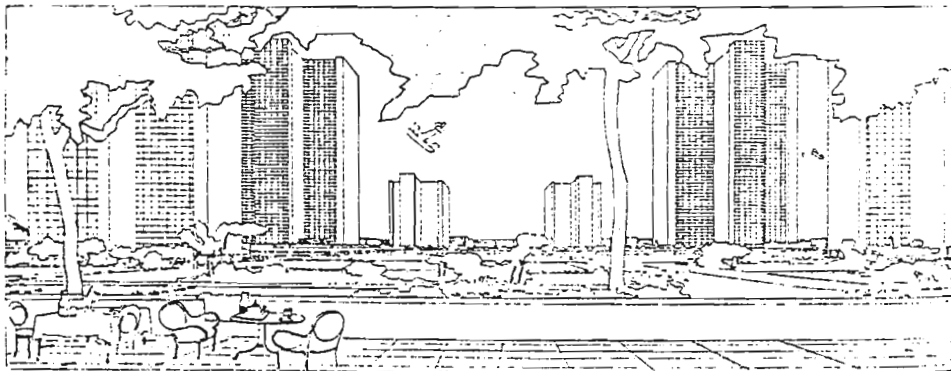
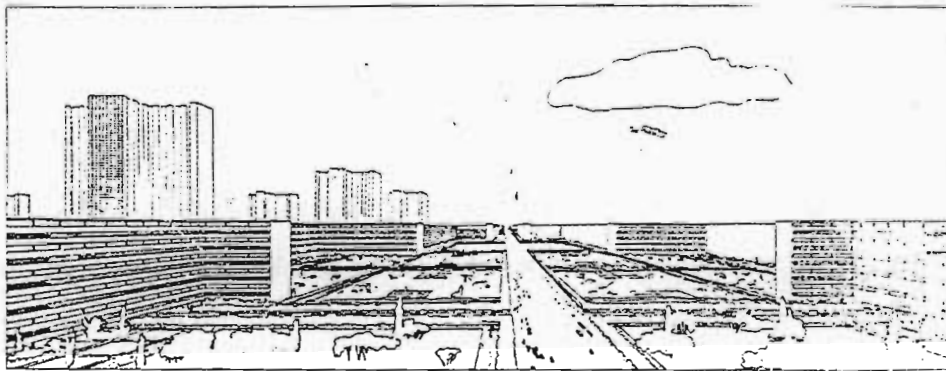
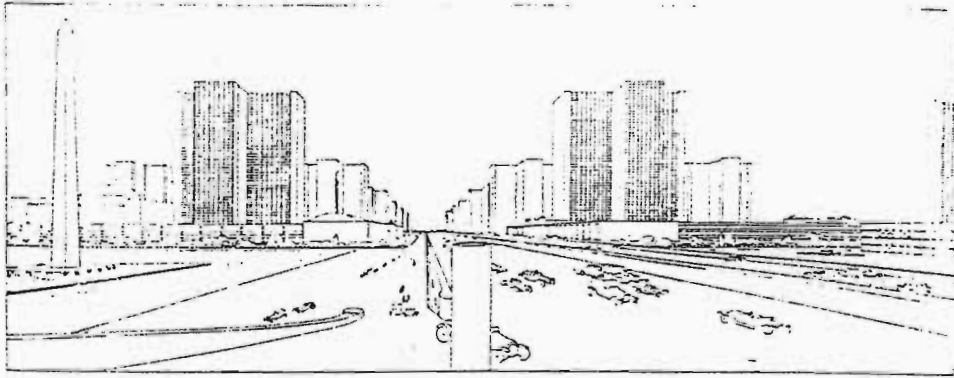
3.3.2 Positive restructuring

As suggested earlier, the built environment has a significant relationship with its users and while in the past the built environment has to a large extent been used to the detriment of many, it can conversely be used in a facilitative manner to act as an enabling device. The point raised earlier relating to the author's position on not being socially deterministic is valid here as well, in that the author is not presenting an argument for the restructuring of society through the restructuring of space. Dewar et al., 1978, posits that the physical environment has a direct relationship with human development.

"At the very least, physical environment forms the stage upon which man plays out the complex and interrelated activities of life, and upon which he imprints his presence, both positive and negative. Environment, however, can be more than a stage. It has the ability to extend beyond his immediate

Modernist approach

Le Corbusier, proposal for three million inhabitants, 1922, (Gosling & Maitland, 1984:19)



experience and to enable and create new opportunities which enrich his life."(Dewar et al., 1978:7) Although Dewar et al. champions the genius of man and individual will and therefore relates to individuals, reference can be made from the above to society, since, individuals form a basic unit of society.

The creation of responsive environments can allow for the building of communities and a nation, one of the cornerstone principles of the Reconstruction and Development Programme.

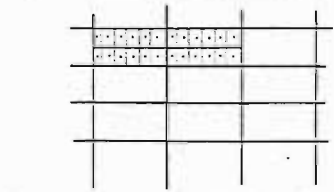
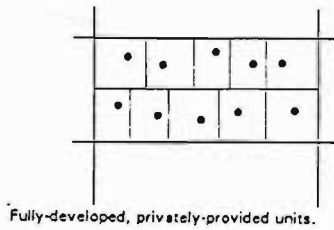
3.3.3 Existing practice

* The South African city is not only a result of apartheid policy, but also a product of a specific development mentality, which was / is Modernist man [sic] and the importation of Modernist planning models and ideals (see illustration on the left). Modernist planning is premised on technocratic and utilitarian ideals. These models and ideals are still dominant in planning and development practice. Such models based on efficiency, the motor vehicle, engineering and maintenance standards, spatial segregation of land uses, rigid zoning, and so on, have produced environments that lack human quality, expression and identity.

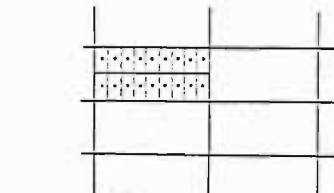
Dewar (1992) in referring to the growth of cities due to monofunctional housing areas, suggests that " Structurally, these housing estates reflect the conventional planning wisdom which were imported from Europe and the United States of America."(Smith, 1992:245)

Responses to such approaches may be located within the humanist positions as postulated by Dewar, Jacobs and others. While the humanist approach, in some respects, can still be considered Modernist, it does, however, present the basis for an argument towards a split from conventional approaches to achieving responsive environments. Therefore only the dominant strand of Modernism (technocratic and utilitarian) is suggested to

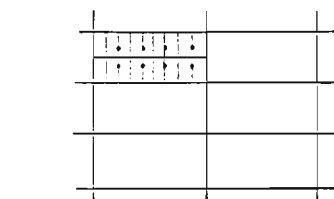
Conventional planning wisdom
(Dewar et al, 1991:61)



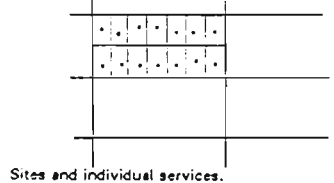
Fully-developed, state-provided units (mass housing).



Fully-developed, para-statal housing provision.

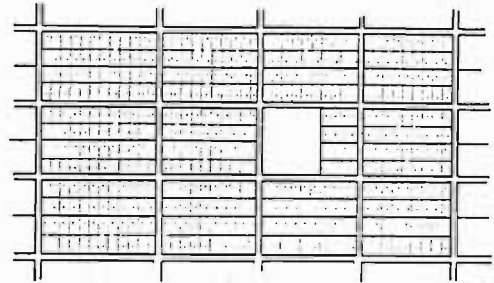


Sites and communal services.

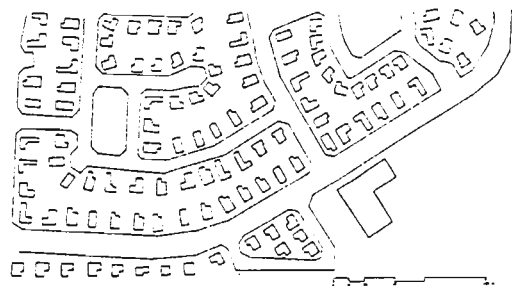
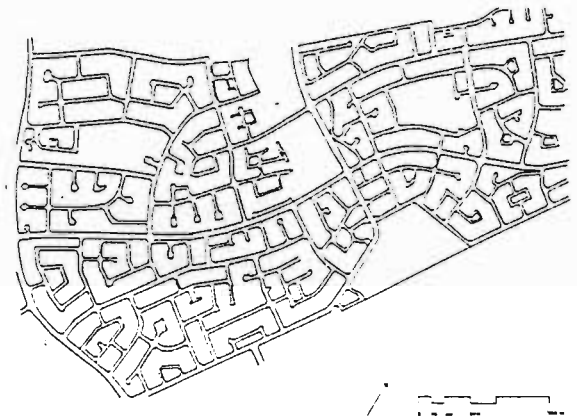


Sites and individual services.

80. At the present time, regardless of the way in which housing is delivered, the essential form - free-standing houses on plots - is the same and monotony is ensured.



81. Site-and-service schemes are inevitably monotonous, because of the degree of over-design.



82-83. Despite energetic attempts to introduce variety, the monotony remains.

form part of the **problem**. It is unfortunate that this strand of thought and such ideals remain **entrenched** in the **bureaucrats** that administer development and **even more disturbing**, in some planners effecting change in the built environment. If **such** inappropriate design institutions and approaches are engaged in the current housing drive then we are doomed to create environments that will continue to oppress their users.

3.3.4 Existing disjuncture - theory and practise

✓ Within this context there is a rich body of literature on creating responsive environments (Dewar, Bacon, Jacobs, Bentley, Lynch), however, these sources are unfortunately untapped or forgotten, practitioners have opted for conventional planning **wisdom** (see illustration on the left). Planners have **succumbed** to the gripes of engineers championing an efficiency approach and the need to deliver housing in **numbers**. In order for both theory and practice to merge, a reassertion of appropriate design approaches must be **made**. Political pressure has **also resulted, to** a certain extent, in an emphasis on quantity and speed of delivery rather than on quality.

In addition, community participation has moved from a 'buzzword' into national policy. It is, however, **substantially lacking** in the design approaches of development agencies and attempts must be made to include participation in design, as alluded to by Mabin (1993):

"With hindsight, it is easy to claim that the planning of townships has proved to be part of the **sowing** of the whirlwind. Perhaps the central problem in the process concerned was the most obvious one - that planning accorded no voice to the people who would live in the townships - no real recognition of these people as subjects capable of speaking of themselves and for themselves. The **price** which that cardinal error would exact has become a little clearer over the past decade." (Mabin, 1993:337)

Identifying a design approach that incorporates participation must form a

core component in housing initiatives. It is acknowledged that participation is fraught with dangers of individual exploitation, however, as suggested earlier, the form and context (greenfield) relates to conditions where exploitative relations do not or have not been formed yet.

3.4 HOW, IDENTIFYING HOW THE PROBLEM CAN BE ADDRESSED.

It is envisaged that by investigating the hypothesis through a literature review and by developing a conceptual framework greater clarity and direction can be achieved. In addition, a review of relevant case studies, the development of an appropriate process and by testing such in the dissertation, substantial input both theoretical and practical can be made to the existing housing drive. The theoretical context forms the focus of the next chapter.

CHAPTER 4 - THEORETICAL CONTEXT

"Urbanity is the generic term used here for those positive qualities which exist in urban areas. It is the quality of urbanity which distinguishes rich urban environments from urban agglomerations, the quality of 'cities' from suburbia." (Dewar et al, 1978:7)

4.0 OUTLINE

This chapter provides the theoretical context for the concepts identified in the hypothesis namely: responsive environments, urban design and participation. It is undertaken through a literature review and based on key theorists' positions of the concepts identified. At various stages in presenting these concepts, critical viewpoints of the author are expressed. **The following** section deals with the notion of responsive environments and attempts to identify the key qualities that make up such an environment. This is followed by a review of urban design and then, community participation.

4.1 RESPONSIVE ENVIRONMENTS

The term responsive environments does not necessarily originate out of a particular theoretical context but rather out of a school of thought. It is one of a few expressions of a particular type of environment - an environment that enables **human well-being** and hence is responsive to the needs of people. Other expressions of such environments include; positive living environments; liveable environments; enabling environments; urbanity. These expressions share a common goal in that they all strive to sum up a particular set of qualities found in certain environments. It is also an acknowledgement of a **relationship between** physical environments, human development and human well-being.

For the purposes of this paper **the author adopts** the term "responsive environments" for convenience and continuity but embraces the magnitude of concern and focus evident in the various terms.

One of the more commonly held expressions of such an environment, is the notion of urbanity. Markewicz (1992), in his unpublished dissertation makes a substantial stride towards positing an approach to creating responsive environments, or as he terms it "urbanity". While making a positive contribution to the thought continuum,

he, within the context of his dissertation, like the many theorists on urbanity, places little emphasis on participation. He does however **acknowledge** both the many interpretations of the concept **and** the commonalities between "responsive environments" and "urbanity". He suggests that, "While never explicitly stated in their work, (referring to : Bentley, Alcock et al, 1985) the notion of "responsive" corresponds with the notion of "urbanity". (Markewicz, 1992:36) Therefore, while the following review may include a review of urbanity, it does correlate with responsiveness.

Relating to the complexity of the concept, Markewicz suggests that, "Urbanity is a complex concept which cannot **be precisely or clearly** defined as a universal entity. Rather it is a phenomenon consisting of identifiable qualities or ingredients each interrelated and interdependent **with each other** in a mutually reinforcing manner." (Markewicz, 1992:40)

This sentiment is also expressed by Dewar et al, 1978: "Urbanity is a complex phenomenon. The qualities of urbanity are complexly interrelated and interdependent, and positively reinforce each other at every scale."(Dewar et al, 1978:9)

Pressman, 1981, in his paper titled "Creating Livable Cities", links urbanity with "human" and "humane" concerns. Pressman suggests that "A sensitivity to the human condition and its expression in physical terms is part of the "new urbanity". (Pressman, 1981:2)

and

"The new meaning of "urbanity" suggests an almost revolutionary turn around from recent town planning practise (which has contributed to urban alienation and a lack of identity) toward on alternative embracing new and more humane forms of using an organising urban space which promotes social contact and psychological composure." (Pressman, 1981:4)

The author subscribes to all the above notions, in that responsive environments are

those environments that contain qualities that allow for individuals to exercise positive freedom to realise individual goals and that of a community.

An integral part of an understanding of responsive environments is an examination of the performance criteria or qualities suggested to be contained in it. Substantial attempts at identifying these have been made by the various theorists, (Dewar, Bentley, Lynch, Jacobs). It is these qualities that form the indicators that measure the performance or attainment of responsiveness and provide greater direction to an understanding of "responsive environments" and inter alia "urbanity".

Dewar et al, one of the chief proponents of the urbanity question has contributed substantially to the debate both internationally and nationally. Their work both, in 1978 and 1991, suggest qualities to be sought in achieving urbanity and inter alia responsive environments. The following are the key qualities identified in their 1978 work, :

- integration / multi-functionality of space : relating to integrating social, cultural, commercial uses with the fabric of a community,
- uniqueness of place : to create opportunities and to promote richness within an area through a commitment to creating a uniqueness of place,
- reinforcement : where activities positively reinforce each other,
- convenience : relating to juxtaposition of integrated activities,
- protection : promoted through appropriate treatment of the interface between public and

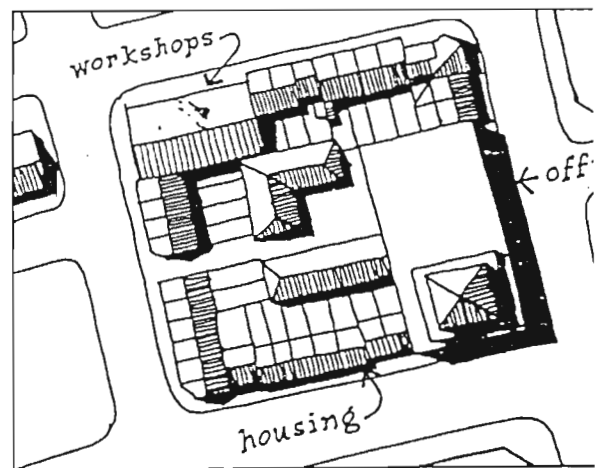
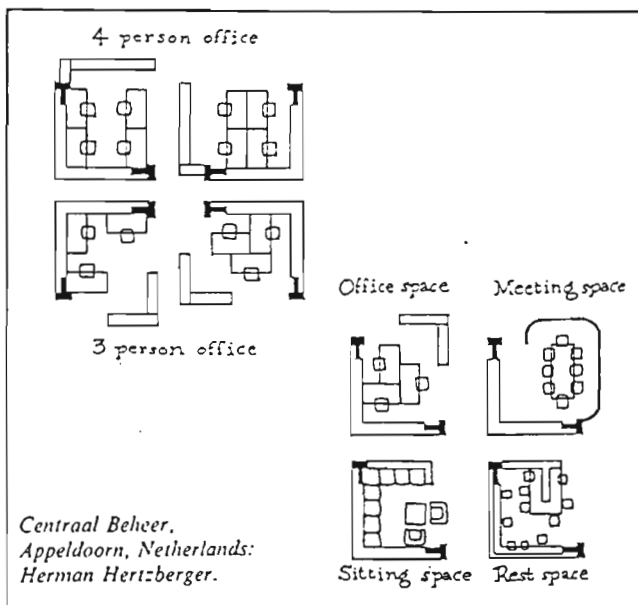
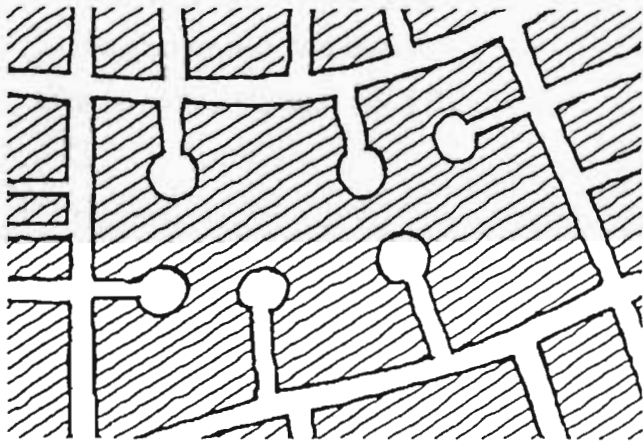
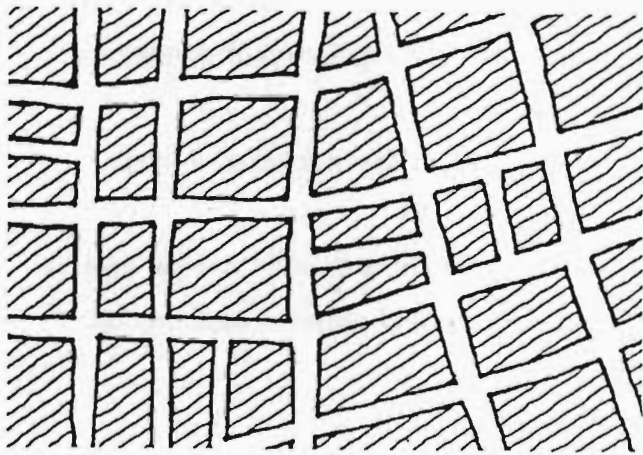
private space,

- choice : an important component of urbanity is the choice in environment condition,
- participation : important in the making of a place,
- constraint : seen as an enabling device allows coherence and protects public good,
- interdependence between public and private space : treatment of interface to support the totality of space and prevent negative impact of public space onto private space.

Although similar to their earlier work, Dewar et al, 1991, suggest six criteria for responsive environments. These are, balance; freedom; equity; integration; intensity, diversity and necessary complexity; and community.

- balance : seeks to maintain relationship between urban change and nature, "society and cosmos" and between people relating to urban activities,
- freedom : promoting freedom for individuals within minimum constraint,
- equity : allowing for ease of access to opportunities to enhance and promote urban life,

Permeability, Variety, Robustness
 (Bentley, Alcock et al, 1985:10)



- intensity, diversity and necessary complexity : promoting multi-functionality of space and overlap of activities to both enable choice, freedom, as well as to reinforce such activities,
- integration : promotes integration of activities and between the different parts and elements of a city,
- community : relates to creating the aspatial qualities of identity and belonging and interaction between individuals.

While these are certainly similar to the criteria posited in previous work, Dewar et al (1991) sum up concisely the key elements and indicators of responsive environments. Another leading source of criteria for responsiveness is Bentley, Alcock et al, 1981. They suggest that responsive environments should contain the following qualities:

- permeability : relates to the ease of access through a particular environment and maximum choice in movement routes
- variety : relating to a variety of uses and experiences promoting choice
- legibility : relating to the ease of differentiation of the different elements of a city thereby increasing orientation and inter alia choice
- robustness : promotes multi-functionality of space thereby increasing choice

- ① • visual appropriateness : appropriate detail design of particular locales and places promotes meaning, visual cues and in so doing increase choice
- ② • richness : relates to the sensory aspects, visual and non-visual, that need to be accommodated at a detail or local scale
- personalisation : encouraging an element of human involvement or for people to personalise their habitat.

Like Dewar et al (1991), Bentley et al (1985) suggests distinct criteria for responsive environments. Their position is strongly premised on the notion that responsive environments are those environments that contain a high degree of choice - "democratising the landscape." While their work (Bentley et al,1985), is a plausible stride towards raising levels of design consciousness, their denial of participation, (while recognising the need for personalisation) is a grave disappointment. This is made clear in the following statement "This is not because we do not value the 'public participation' approach: it is highly desirable. But even with the highest level of public participation, most people still have to live and work in places designed by others."(Bentley, et al, 1985:11)

The above statement reflects a distinct distancing from a participatory approach, as expressed in their reference to "the 'public participation' approach". This 'denial' is not unique to the Bentley et al's position, it is common to many urban designers and will be dealt with later.

Choice and diversity are the two issues that seem central to the both Dewar et al, (1991) and Bentley et al (1985). Another key critic of the failure of modern town planning and proponent for choice and diversity to achieve responsiveness is Jane Jacobs. In her book "The Death and Life of Great American Cities, she defines four

key elements as noted by Broadbent (1990):

"So for Jacobs the essence of urban life lies in exuberant diversity, in the making available to anyone, at any time, a vast range of choices of things to do."
(Broadbent, 1990:141)

Jacobs identifies four central elements or rules in the quest for responsiveness, these are,:

- multi-purpose functions,
- minimal length of blocks,
- co-existence of different buildings, particularly older buildings, and
- high concentration of people in the street.

In addition to Jacobs, the notion of diversity is also considered to be of significance to Pressman, 1981. He quotes the "new urban design manifesto" as posited by Allan Jacobs and Donald Appleyard, who suggest that the goals for better urban living are those of stability, identity and control, opportunity, imagination and joy, open communities and public life. (Pressman, 1981:3) In achieving these qualities they identify five key issues, i.e. : safety, a need minimum density, integration of activities, enclosed public space defined by buildings, and a diversity of buildings and places. (Pressman, 1981)

The author however finds Jacobs and Appleyard's, as quoted by Pressman, position on a need for minimum densities debatable, in that a significant portion of urbanity or responsiveness relates to increasing densities and the ability for compactness to "breed" opportunity, (Dewar et al, 1978, 1991, 1993). The introduction of the issue safety must however be noted.

This issue of safety is also raised in the seven criteria for "Good City Form", by Kevin Lynch,(1985) where safety is dealt with as part of achieving vitality. Other indicators of good city form are,,: sense, fit, access, control, justice and efficiency. (Lynch,1985)

There exist a few other proponents for good city form and responsiveness. Broadbent(1991) refers to such theorists as "urban realities," however substantial energy has been spent at this point on those presented above. In order not to digress, and since it is likely that considerable overlap will exist in a further interrogation of the concept of responsive environments, (as the analysis provided indicates a similar set of concerns between the theorists presented), it is not appropriate to pursue any further understandings of responsive environments.

Achieving responsiveness as argued by Bentley et al (1985), depends on a certain design approach and performance criteria. A major theme identified during the analysis of responsive environments has been the positive role that urban design plays in achieving responsive environments, in that urban design embraces a constant strive towards urbanity and responsiveness. Markewicz, (1992) quotes Senior and Wood (1987:4) in suggesting that "the goal of urban design is to strive for a quality of physical environment which nurtures human dignity and culture through design...." (Markewicz, 1992:17) An investigation of the concept of urban design is thus essential to both the hypothesis and a further search into the making of responsive environments. This investigation into urban design is presented in the following section.

4.2 URBAN DESIGN

4.2.1 Towards an Understanding of Urban Design

The following is an attempt to demystify urban design and synthesise the various debates on approach and understanding. As suggested in the analysis on responsive environments, urban design is a form of design that strives to achieve or unleash the qualities of urbanity and like responsive environments, urban design has many dimensions. It is argued that urban design is both philosophical and physical, a notion that the author supports, as it encapsulates a set of attitudes that inform urban design processes that lead to change in the environment. This is supported by Trancik in suggesting that "Through artistic inquiry the designer states a position,

describes a philosophy, explains a set of values." (Trancik, 1986:228)

In defining urban design, firstly, Barnett (1982), suggests that "urban design is the generally accepted name for a process of giving physical design direction to urban growth, conservation and change." (Barnett, 1982:12) and secondly, Markewicz quotes Boden (1990), in suggesting that urban design is a response to a need for a more holistic approach towards city making:

"It was recognised that the widening gap between the areas of concern of urban planning and architecture left no one profession taking a 'holistic approach' to the design of cities." (Markewicz, 1992:12)

Two key dimensions emerge from the above, the first, as cited by Barnett; urban design provides physical direction. While this is true, it lacks the philosophical quality and is one dimensional. Markewicz, in quoting Boden, makes a point of closing the gap between planning and architecture. This point is often cited in defining urban design, it is the author's opinion that this undermines urban design as it locates it within a spatial planning mainstream - planning dealing with the zoning of lots, architecture dealing with development of a specific lot and urban design dealing with the left over space. Trancik (1986), describes this left-over space as lost space.

While this aligning of urban design to spatial aspects is not entirely erroneous, it does impact on the possible emphasis that could be placed for the inclusion of urban design in the current housing drive. It is essential that urban design is also seen as being unequivocally aspatial in order to promote the discipline since there exists a culture of "belittling" spatial planning and proponents of spatial planning in the built environment professions. This is primarily due to the emphasis placed on politics and political processes, by built environment practitioners, building up to the democratisation of South Africa. While this was essential and is not questioned here, the emphasis must now shift back to the basics, that being the physical environment.

There is hence a need to promote the philosophical and attitudinal processes

within urban design. Markewicz, (1992) supports this in suggesting that urban design is not only a separate discipline, but philosophically deals with attitudes. He quotes Dober, (1969) who in "Environmental Design" states that "Environmental design is not a set of formulae about how to design the space occupied by man, but a set of attitudes about how to arrange the physical elements in the environment to achieve a satisfying and rewarding human habitat." (Markewicz, 1992:13)

Two issues are raised in the above, firstly, that this process is one that is attitudinal and therefore philosophical and secondly, a reassertion is made that urban design is a strive towards a particular environment. This strive, forms the focus of urban design and is a result of a recognition of the failure of planning intervention per se in resolving the housing crisis in a way that creates meaningful environments that allows for social well-being.

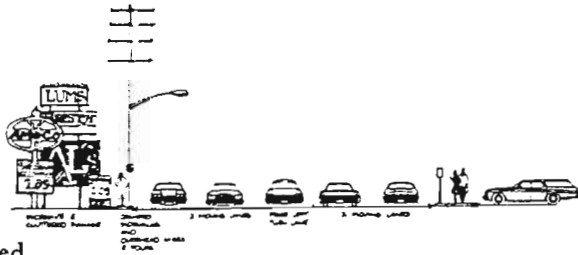
This failure is raised in the following quote, "Senior (1989) suggests that the "hostility" and "sterility" of new housing environments (and by implication its urban environments) is due to the housing issues having been formed on economic and engineering and quantitative needs (i.e. planning focus) alone - at the expense of qualitative and fundamental needs such as community interaction, resident control, security, privacy and identity (i.e.: lack of environmental design)." (Markewicz, 1992:12)

From the above, another dimension to urban design can be seen, : urban design is reactionary - a response to a lack of human focus in planning design. Of considerable importance to the author is that a distinction is also made between planning design and urban design. There are strong arguments that planning design is a product of the Modernist school of thought, but does this distinction imply that urban design is Postmodernist. In terms of locating urban design in a historical or cultural period, Lozano (1990) suggests that urban design is part of the "Professional Design Tradition" which correlates, historically to the Modernist cultural period.

Lozano (1990) suggests that design up until the industrial revolution formed

Physical bias, physical tools
Street furniture and details, (Barnett, 1982:195)

Existing



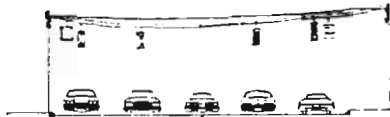
Proposed



SIGNALS

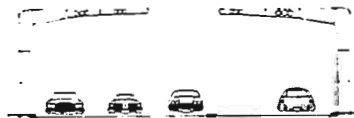
Existing

EXISTING SIGNALS ARE PLACED AT THE END OF THE BLOCK AND ADD TO VISUAL CLUTTER



Proposed

THE PROPOSED DESIGN OF SIGNALS PLACES THEM AT THE END OF THE BLOCK AND ADDS TO VISUAL CLUTTER AND CLUTTER



BIKEWAYS



BIKEROUTE - A ROUTE WITH A SIGN AND A TREE
BIKEROUTE - A ROUTE WITH A SIGN AND A TREE
BIKEROUTE - A ROUTE WITH A SIGN AND A TREE

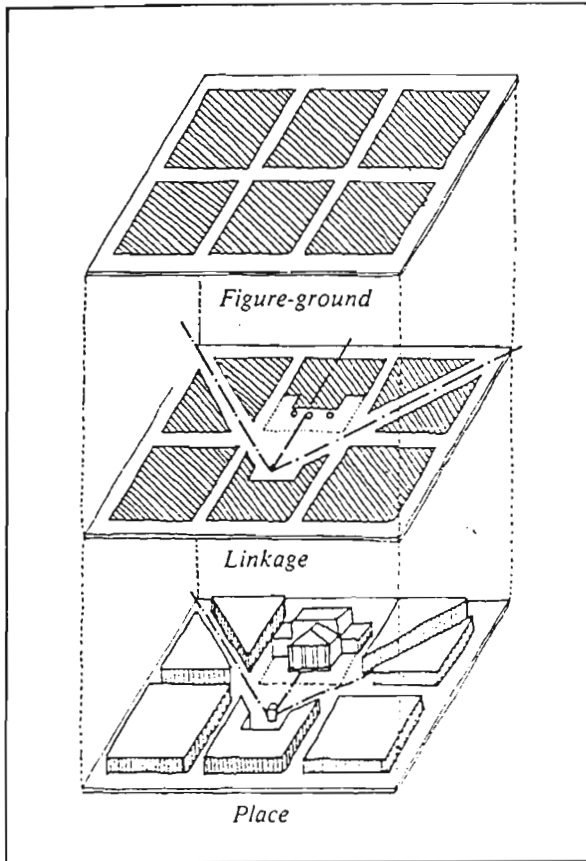
THE PROPOSED DESIGN OF SIGNALS PLACES THEM AT THE END OF THE BLOCK AND ADDS TO VISUAL CLUTTER AND CLUTTER

an integral part of everyday society with people shaping their own environments as he terms it "Popular Design". "Professional Design" which he argues co-existed for a period with "Popular design", but serviced the interests of the elites, designing buildings and places for certain segments of society. He later suggests that after the Industrial Revolution the Professional Design tradition embarked on "community design" with limited success. He argues that the urban design profession is a direct descendant of the "professional tradition." While Lozano's position is well presented, the author suggests that urban design, while being part of the professional tradition, strives towards humane goals and popular interests. Contrary to Lozano's position, where urban design is implicitly linked to Modernism, Relph (1987) presents, although a naïve analysis of urban design (physical bias - see illustration on the left), a strong argument that urban design is Postmodernist. His understanding of Postmodernism however may probably be even more naïve in that everything after Modernism is not necessarily Postmodernist. Dewar et al and Bentley et al still argue for a "strong design arm" although championing the plight of individuals in cities. This juxtaposition of views where, to some extent certain qualities of Postmodernism (Dewar and the focus on individual will) and certain qualities of Modernism's strong design control (Dewar and the design of the public realm) leaves little scope for accurate classification and is probably safest not to. Urban design should be acknowledged as a humane design approach and could broadly be located within the humanist school of thought. In terms of classification, out of sheer persistence if there existed a need for dogmatic classification, one could regard urban design as being Modernist as well as Postmodernist as it deals with products and processes.

The notion of products and processes is also raised by Markewicz (1992) in suggesting that planning with regard to design is ostensibly product driven while urban design is both product and process. "Foley (1964, pp 56-63) makes a distinction between "unitary" and "adaptive" approaches to planning. The former reflects a view that planning has as its primary goal a predetermined future spatial pattern. As such the orientation is toward a product - design approach with the mission of designing and producing a

Main theories in urban design

Figure 4-1 Diagram of Urban Design Theories, (Trancik, 1986:98)



future physical environment towards which a community will develop."
(Markewicz: 1992:15)

Markewicz, (1992), contends that urban design is both product and process driven, in that a product can be both physical (building, street, etc) and non-physical (amenity, equity, justice). "Thus the true product of urban design is the physical environment which enables or promotes or encourages the very processes which perpetuate its own continuation and adaptation and, as such, the continuation of the city." (Markewicz, 1992:17)

Although the author accepts his (Markewicz) position, the author contends that while urban design contains both physical and non-physical properties, it is the non-physical attributes that form the basis (which is philosophical) and the physical products must be seen only as the tools to achieve a particular non-physical quality, as an example, landmarks boost legibility by acting as a visual cue which effectively increases choice , an aspatial quality.

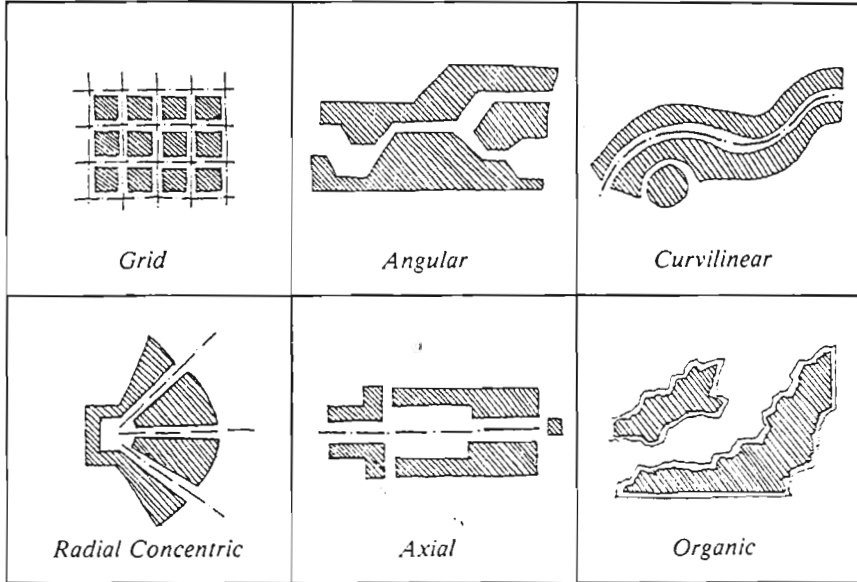
4.2.2 The Theory in Urban Design

In recent years the dominant approaches to urban design can be located within three theories as posited by Trancik, 1986, in "Finding Lost Space". These are the figure-ground theory, the linkage theory and the place theory. These theories while having individual merits, can in combination provide an approach for integrated urban design as depicted in the diagram on the left.

The figure-ground theory is based on the study of the building coverage relationship to the opens spaces, in other words the "figure" to "ground" relationship. Trancik suggests that, "Each urban environment has an existing pattern of solids and voids, and the figure ground approach to spatial design is an attempt to manipulate these relationships by adding to, subtracting from, or changing the physical geometry of the pattern."(Trancik,1986:97)
The idea with these manipulations is to understand the physical structure

Solids and Voids

Six Typological Patterns of Solids and Voids, (Trancik, 1986:101)



and to add a hierarchy of spaces within the system that are enclosed and supported by building volume.

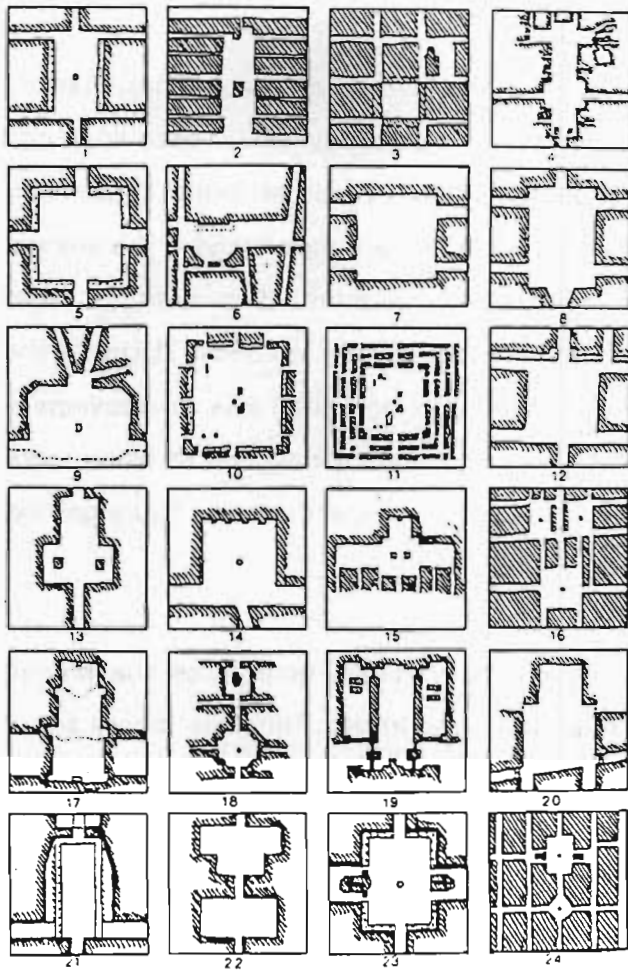
The linkage theory unlike the figure ground theory, places emphasis on the lines that connect various elements of the urban system. These lines can take various forms and would include streets, pedestrian lanes, linear open spaces and so on. Within such a theory, the "designer applying the linkage theory tries to organize a system of connections, or a network, that establishes a structure for ordering spaces." (Trancik,1986:97) Unlike the figure ground theorists, linkages theorists place emphasis on movement patterns, circulation and infrastructure which are considered as being more important, within this theory, than the enclosed spaces of the figure-ground theory.

Place theories, unlike the previous two theories, emphasise the human element within the urban system. Trancik suggests, "In place theory social and cultural values, visual perceptions, of users and an individual's control over the immediate public environment are as important as principles of lateral enclosure and linkage." (Trancik,1986:97-98)

As suggested above, the optimum theory for positive urban design is one that draws on the merits of all three theories and applies these in an integrated and supportive manner. Of significance to the author is the place theory which seeks to base urban change on human needs and on an understanding of social environment. In this regard, Trancik, suggests that "The role of the urban designer, then, is not merely to manipulate form to make space but to create places through a synthesis of the total environment, including the social." (Trancik,1986:114) He suggests further that "the goal should be to discover the best fit between the physical and cultural contexts and the needs and aspirations of contemporary users". (Trancik,1986:114) Implicit in this position is an argument for design to be based on participation.

Creation of meaningful spaces

Rob Krier (1975) : *Square Urban Spaces*, (Broadbent, 1990:190)



4.2.3 New Directions in Urban Design

"Urban Revisions : Current Projects for the Public Realm", a major exhibition held in 1994 in America, highlighted some of the more current approaches to urban design. Featuring a range of "innovative" architects, urban designers and planners the exhibition focused on adopting a wide range of critical thought and often conflicting ideological positions on urban design. A major theme carried through the exhibition was the notion that there exists an unquestionable link between physical design and social well-being. This notion forms one of the premises of this dissertation as discussed earlier and particularly in chapter 3 in the sub-section dealing with "positive restructuring".

Of major significance was the general acceptance that there exists no single planning or design position that should dominate but rather that design should embrace positively the merits of a range of positions in a manner that supports and compliments these various positions. The following quote encapsulates this position,:

"No single method, approach, or ideology should dominate as a paradigm for today's design and planning **strategies. Instead, lessons** can be learned from considering a wide variety of ideas and solutions brought to bear on the particulars of specific sites **and problems in terms** of a clear commitment to public life and public realm that is **transformative** while at the same time responsive to an sustaining of the positive elements of present conditions and social realities." (Smith, 1994:4) (A commitment to public life and the public realm can be enhanced through the inclusion of meaningful public spaces, as indicated on the left of this page.)

The broad framework emanating from the approach adopted in the exhibition is one of adopting an eclectic position that is based on local realities including the social context, and the development of the public realm and public life. The key thematic directions included: " the creation and reclamation of transportation corridors as urban fabrics, the genesis of new

neighbourhoods in existing urban and exurban contexts, the "minimising" of the idea and function of the master plan, and the phenomenon of design for and by communities and constituencies other than professional designers and urbanists." (Smith, 1994:4-5)

Smith suggests that alongside the new directions, described above, has been the growth of Postmodern theory and the effects this has had on the theory and practice of design. This includes a "respect for context - historical and vernacular, an interest in elements of symbol and scale, and an orientation to the pedestrian on the model of the traditional European city." (Smith, 1994:6) These approaches have been used in introducing new neighbourhoods in existing areas.

This emphasis correlates with the design approaches that have become synonymous with the "neo-traditional" approaches, or as termed by Smith, the "new urbanism". This approach is characterised by an emphasis on pedestrianisation, human scale and the integration of activities and functions, an approach subscribed to by the author.

Van der Meulen, 1994 in quoting Lockwood defines the "new urbanism" appropriately, he suggests,:

"The built environment must be diverse in use and population, scaled for the pedestrian, and capable of accommodating the automobile and mass transit. It must have a well-defined public realm supported by an architecture reflecting the ecology and culture of the region." (Van der Meulen, 1994:12)

Apart from the notions of adopting the "new urbanist" positions, another major theme of current direction is the notion of rethinking the master planning process from one of a "totalising" approach to one that attempts to intervene strategically at various scales. The concluding major theme identified in the exhibition, is the idea of obtaining support and involvement from those that design effects the most. There has been a shift from the imposition of grand plans to an interactive design process with communities.

The emergence of community participation

Community activism emerged ascommunity participation in design and planning, (Hamdi, 1991:21)

Community activism emerged as . . .

community participation in design and planning.



Using design tools. (Source: Greater London Council, Department of Architecture and Civic Design)



Designing house plans. (Photo copyrighted by Greater London Council, Department of Architecture and Civic Design)



Making programs. (Photo by Rita Sampat)

What is substantially lacking from urban design in this context and in some theorists positions, is community participation, a dimension to responsive environments, as argued in this dissertation. Since urban design is a constant striving towards people centred environments, it must incorporate participation, a form of re-introducing "popular design" (Lozano,1990). Community participation as a key concept in the hypothesis is investigated below.

4.3 COMMUNITY PARTICIPATION

4.3.1 Defining Community Participation

The following is an attempt to clarify the concept of community participation. The author makes no pretence to try to unravel the complexities or to re-invent the various dimensions to community participation as this has already been covered by several authors. There exists substantial literature on community participation from which this dissertation draws the key debates.

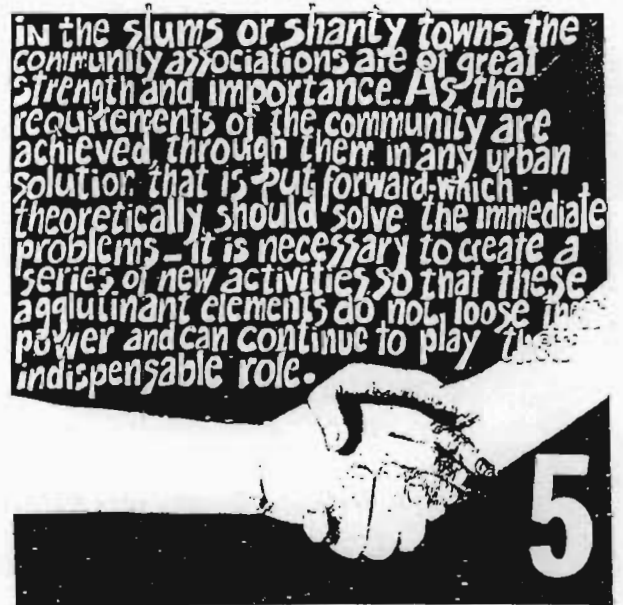
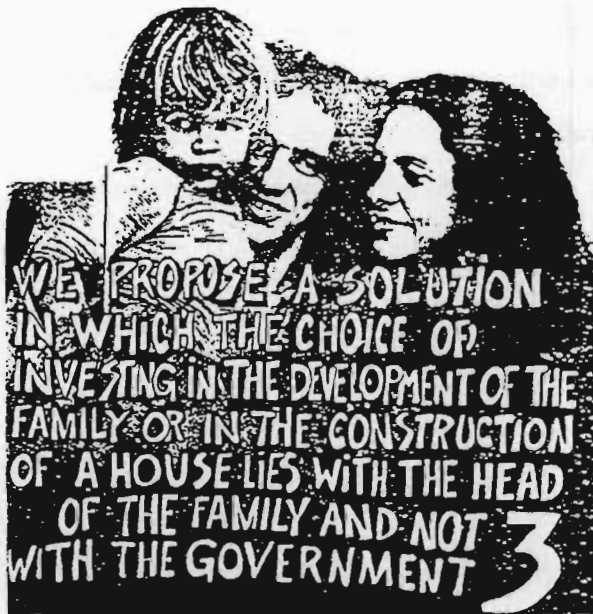
In examining the origins of community participation, there are indications that participation has emerged as a result of a different sets of conditions and implemented through various mechanisms, in the developed and the developing world. Participation in England was institutionalised in 1956 through Government Acts and in 1970 in the United States of America, participation was institutionalised through federal law. (Hamdi, 1991:76). The illustrations on the left show the introduction of participation.

In the developing countries in the mid 1970's, participation was deemed necessary with the recognition by the World Bank that site and service schemes and upgrading was an essential part and legitimate process in housing. (Hamdi,1991; Copley,1993)

Earlier definitions of the concept may be considered "straight-forward".

People and development

M.M.M. Roberto, competition scheme for Manila, 1976, (Gosling & Maitland, 1984:86)



Fagence (1977) suggests that: "Citizen participation may be best conceived, not as an alternative to the conventional decision-making process pursued by the public planning agencies in the institutionalised framework of modern government, **but as a decision-forming partnership, an exercise in collaboration**". (Fagence, 1977:4).

Today it is acknowledged that the meaning of community participation is ambiguous and it **has become quite clear that** no shared meaning exists between planners themselves and between communities. Any form of community involvement, be it ranging from rubber stamping a project that has been driven **totally from** the outside to full ownership of a specific project by the community, is termed community participation.

Broadly, community participation means different things to different people and usually reflects the ideologies of those practising community participation at a specific time, as suggested by Copley, : "Participation is many things to many people, depending on what is understood by development". (Copley, 1993:23). A definition of participation is provided in the illustration on the left.

Copley presents a clear argument that the form of participation is strongly linked to the framework **of development** of practitioners - modernists, dependency theorists and reformists.

He posits, quoting Marden & Moser (1989), that there are three types of participation. These are:

- where participation is seen as an "adjunct" to a development project in order to ensure the project runs smoothly and that cost recovery is unproblematic;
- where participation is **part of a process** driven through "bottom up processes" which is considered to be "authentic";
- where participation **is a result of** a bottom up approach within a context of fixed budgets and programmes, in other words, a more

balanced approach.

Copley argues in favour of a balance between process and product delivery, a position supported by the author.

Haricharan, 1994 suggests that there are two broad approaches to participation. These are the "centralised approach" which views participation as a means to a **particular product**, in which the community is viewed as being homogenous **and where the process** is based on a "manipulative" and "cynical" view of **participation**. (Haricharan,1994:1) The second approach suggested is the "empowerment approach". Within such an approach participation is seen **as a vehicle** to transfer political and economic power to disadvantaged groups thereby introducing radical change. (Haricharan,1994)

Agishanang 1993 provides in an article by Mphela, 1993:23, the various theoretical understandings of the forms of participation. These are quoted hereunder:

- **"Transitive**
It is the form of participation oriented towards a specific goal or target.
- **Intransitive**
Participation takes place without any predefined purpose. One may participate **without** necessarily seeking to achieve a participative objective, for example, participation to avoid being perceived as a dissenter.
- **Manipulated/teleguided**
In this form of participation participants do not feel that they are being forced into **doing something, but** are actually led to actions which are inspired or directed by centres outside their control.

- Induced
Participation **can** be induced formally through committees and boards that take decisions which affect daily lives of communities.
- Suggestive Encouragement
This form merely encourages suggestions without institutionalising the participation process."

Mphela goes on later to **state that most** community participation in South Africa is likely to be in a transitive form.

The international experience has in many ways been very similar to the South African experience. Arnstein (1969) devised a 'ladder of participation' reflecting levels of participation in the developed countries which suggests that what is considered as participation, is not really participation.

In all of the above, participation is suggested to be viewed as either being adopted as a means or **as an end in itself which** is contextualised in the product versus the process debate. **The following** quote sums up the debate concisely,: "Crudely the debate manifests in situations where choices need to be made whether or not, for example, to save time and costs in delivering a "product" efficiently by sacrificing democracy and meaningful participation in the development process." (Pikholz: Agishanang, 1993:6)

There are strong arguments for **the** following position: meaningful participation can only be achieved if community participation is adopted as an end in itself and rests within an acknowledgement that development is part of an ongoing process. **This** involves enabling communities to take an active role in decision making through democratising the development process.

Such initiatives would encompass community empowerment through capacity building which includes training in administration, management, finance etc, enabling communities to shape and manage their own future. In

this regard, Pikhholz suggests,: "Enabling communities to participate effectively demands a level of capacity building, both at the individual and community-wide level. At the individual level, for example, it may involve the development of ability to understand options and to exercise informed choices. At the community level, capacity building could involve enabling the development of material, technical and organisational resources, that are controlled by a popularly mandated leadership." (Pikhholz: Agishanang, 1993:6)

The participation process however is just one element fraught with contradictions, misconceptions and problems. The notion of community also presents challenges to contemporary development exercises where misconceptions exist in defining community.

Existing expressions and the context in which the term community is being used conjures up notions that are inclined towards sub-ordinance, poverty and the disadvantaged. The position adopted in this dissertation is that communities exist across all spectrums of class and are defined in planning terms as being a group of people residing in the area geographically defined who share facilities and infrastructure and who have developed a social relationship over a number of years.

Central in defining what constitutes the community in a community participation exercise is that the community should not be viewed as a homogenous entity. Communities are made up of various individuals with differing needs and expectations of development. Participation with a specific group is destined to **fail and is geared** towards the view that community participation is only a means to a desired goal or product.

"To regard one organisation as representative of the whole "community" is not to do it any favours, but to create expectations which it can never fulfil: the result is not to empower community groups, but to weaken and divide them."(Friedman: Agishanang, 1993:4)

Community representatives that claim to represent the community are often the most formally educated and articulate members, as suggested by Murphy, 1993. "However, both local and international experience shows that organisations which claim to represent "the community" usually represent the stronger, more formally educated and articulate members of a particular geographical neighbourhood." (Murphy: Agishanang, 1993:17)

The most disadvantaged members of the community who probably need development the most are not represented due to either the lack of time and lack of confidence to organise themselves into groups that can effectively articulate their needs. In addition community organisations do not necessarily have the skills to elicit the different needs within the community. Progressive policy should be geared towards defining the various interest groups within the community and secondly towards formulating programmes which ensure that differing needs are addressed in the development process.

The above has provided a synthesis of the key debates in community participation in general. Indicators for a positive participation approach would include in the short term delivery as well as a level of capacity building. Changes to an environment through individual endeavour over the longer term should also be considered as positive participation in development. While this section has focused on defining community participation and the debates contained in it, the following section focuses specifically on design and participation.

4.3.2 A Suggested Current Approach

While there exists a substantial experience of participation and in particular around conducting participation exercises to the extent that such information may provide a discourse on its own, this section reflects on a strategy that deals specifically with participation and design. This is also a reflection of the most current literature available (October 1995), not that being current has any reflection on the content. The approach was presented at a seminar dealing with "Low Cost Housing Projects", by David Du Plooy a planning

practitioner, in a paper titled, "Maximising Community Cohesivity when forming the Physical Layout of a Mass Housing Project on the Ground."

While confessing to have thought long and hard on the title of the paper, Du Plooy unfortunately still maintains a few contradictions and raises (to the author), some ideological **problems**. **First, in this** period the adoption of mass housing schemes with participation or mass housing per se is questioned and second, the modernist notion of wanting to maximise "community cohesivity" through a "physical layout" is seriously questioned. Nevertheless the approach is reviewed below.

Du Plooy suggests that prior to establishing a strategy and implementing such, it is important to start with trying to establish answers to the following questions,:

- "Who is the community?"
- Are the local decision making structures in place, approved and democratically elected?
- How do you reach the community?
- Does the entire community **need** to be reached on all matters?
- What should be conveyed to the community?
- What responses are needed **from the** community?
- How do you build trust between the players?
- Are finance available?"

(Du Plooy, 1995:2)

The actual strategy that should be adopted is then suggested to comprise of the following stages:

The first stage involves conducting socio-economic surveys in order to understand the local community and their needs. It is recommended that local residents are involved in conducting the survey.

Second, it is suggested that a local project centre is established that should

be in a convenient location, provided with services and designed in a manner that allows its conversion into a community facility once the project is complete.

Third, dependent on the type of community being planned for, an appropriate approach should be **established**. In this regard, it is suggested that "bottom up approaches" should be adopted in **upgrading** exercises where a community is known and that "top down approaches" should be adopted in greenfield situations where a community is not known. The bottom up approach would entail **dividing the area into "neighbourhoods"** and electing a 5-7 member committee to form a **"working committee"** that deals with community issues, finance, layout planning and so on. Each chairperson of the working committees would then **form part of a "project committee"** that deals with the broader issues. **The top down** approach is suggested to operate through an **elected 7-11 member committee** elected by the local council and including representation from "interested and affected parties."

The fourth stage would be the formation of a "Housing Group" which is suggested to be a specialist group tasked with assisting residents in the housing process.

The last stage would be the "workshop process", which would focus on the central issues.

While certain aspects of the approach offer merit, such as the initial questions, the emphasis **on understanding** the community and the establishment of a housing group, **the author** finds certain issues and approaches problematic:

Firstly, the process is geared towards viewing participation as a means only. In that it seeks to conduct layout planning in a "socially cohesive" manner only. No attempts are included to ensure **that participation** is seen as an end in itself. As such processes that allow for empowerment and longer term participation in terms of local institutional development are lacking.

Secondly, although not properly detailed, the approach allows one to assume that the process maintains a certain design exclusivity and that the structures established can be seen as ratification vehicles only.

Third, the notion of adopting a top down approach to greenfield development is characteristic of conventional wisdom and a lack of innovativeness. This is however due to a particular understanding of participation which is premised only on short term involvement from an existing, unavoidable stage in a project. There exists no sense of any proactive engagement of the creativity of many, including the community.

4.4 SUMMARY AND CONCLUSIONS

Responsive environments, (urbanity, total living environments etc) share no universal meaning. It is accepted however by many theorists that such environments exhibit qualities that make them substantially different from their counterparts - functionalist, mechanistic, modernist environments. These qualities emerge out of a particular concern or premise, which is, that there exists a strong relationship between human development, well-being and the physical environment.

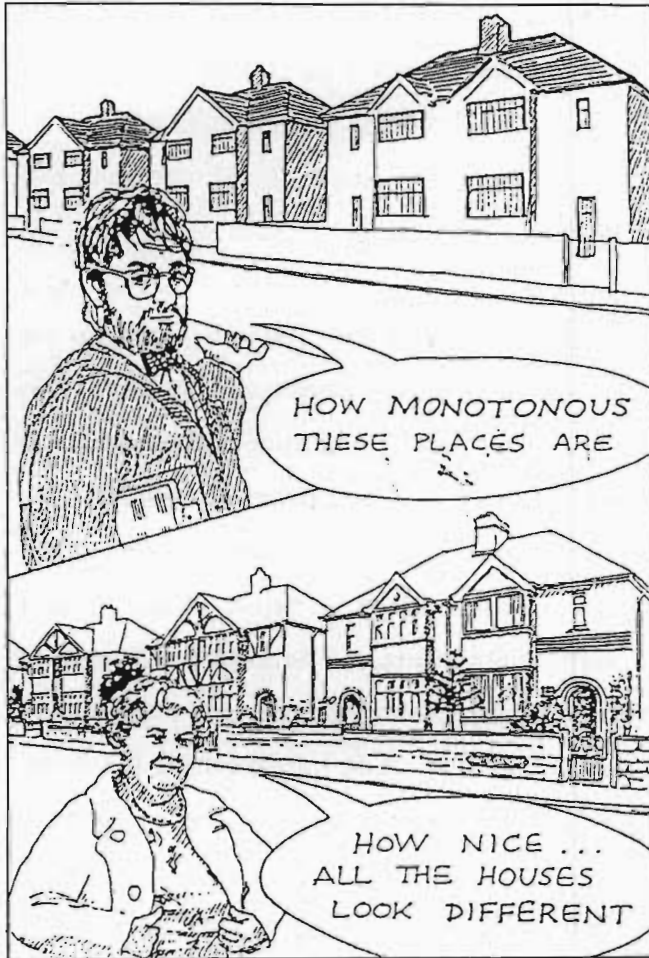
Qualities within responsive environments are: safety, choice, diversity, complexity, integration, personalisation, legibility, fit, convenience, uniqueness of place, community and so on. These qualities provide indicators for measuring responsiveness and should be / must be sought in the current housing drive. The notions of choice and diversity are the most common of the qualities expressed by the various theorists.

In defining urban design, there are indications that urban design: is both attitudinal and philosophical, that it deals with the physical environment, it relates to products and processes and is reactionary. The theories in urban design as suggested by Trancik, 1986, include the Figure Ground, the Linkage and the Place theories.

New directions in urban design seek to minimise the effects of exclusive, placeless planning and design to a broader acceptance of local context, scale and of the need for intervening strategically and through the support and participation of those that are likely to be effected the most, the beneficiary community. The latter forms the key concern of the dissertation. The notions of intervening strategically and not to "masterplan" everything as well as the focus on scale, local context and participation should also inform an appropriate process.

A review of the concept of community participation, however reveals that there are many definitions and contradictions within the concept. Community participation can be seen as a means to achieve a product or as an end in social and political reform. The term community has also been misused and misinterpreted. There needs to be an awareness that communities, if they exist, comprise of individuals who have individual needs that must be accommodated. In terms of design and participation in greenfield situations, appropriate strategies need to be created in order to prevent the practise of conventional top down planning and design. The next chapter deals with establishing a conceptual position based on the literature review and the emerging argument.

Perceptions - people matter
(Bentley, Alcock et al, 1985:76)



CHAPTER 5 - EMERGING CONCEPTUAL FRAMEWORK

"Whatever the arguments, and whether in design or in planning, community participation is no substitute for professional or governmental interventions or for formal planning or design, but an intrinsic part of both processes. And just as when governmental and professional interventions of the wrong kind can distort programs in favor of the needs of those who dominate, so too can community participation" (Hamdi, 1991:86)

5.0 OUTLINE

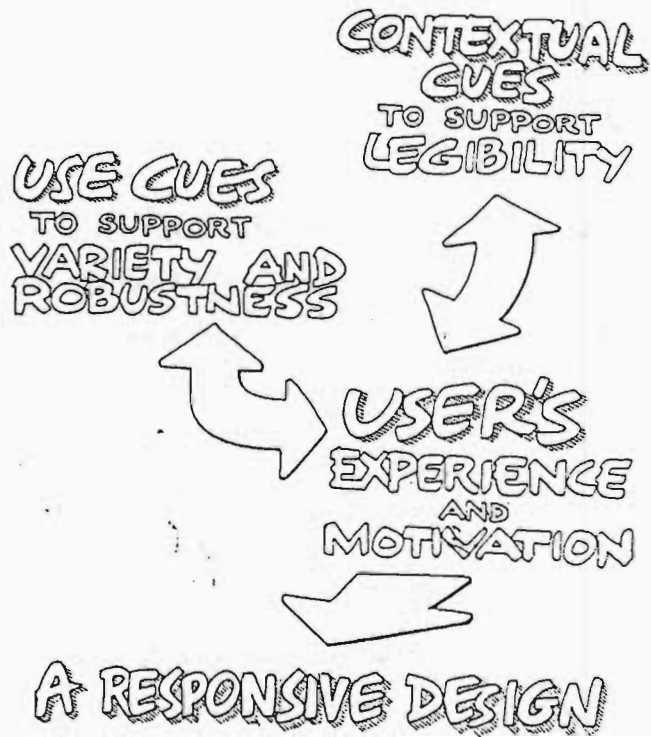
This chapter presents an emerging framework based on the problem identified, the exploration of the theoretical context and the developing position of the author. It is suggested to be an "emerging" framework, to indicate flexibility, as it is expected to be refined through the later stages of the dissertation process. It is not intended to be fixed at this stage. The framework is preceded by a critical review of the theoretical context (literature review) and a redefinition of the notion of "community" participation.

5.1 A CRITICAL REVIEW OF THE SUBSTANTIVE ISSUES AND DIRECTION EMANATING FROM THE LITERATURE

A number of significant aspects emerge from the literature and the positions of the various theorists. First is that their position does not emanate out of any new theory. It is rather out of observation and is derived from an analysis of the existing situation, previous settlement patterns and city forms. Dewar et al 's position evolves from an analysis of the South African city with strong reflections on older European 'organic cities' while Jacobs position emerges out of a critique of the American city and Lynch's position emerges out of an analysis of "Good City Form" in America. This is significant in that the existing city provides empirical evidence of the highest degree in favour of responsive environments.

Secondly, relating to this evidence is the question of people's perceptions of a place and the ability to identify good city form (see illustrations on the left). Everyday man (sic) may not be able to express his concerns in theoretical terms such as legibility, balance, justice and so on. Since responsive environments, as argued by the various theorists, are those places that relate to human identity and hence perceptions, such perceptions should form the basis of design in order to encourage responsiveness. This puts forward a strong argument for achieving

Mutually supportive use of performance criteria
(Bentley Alcock et al, 1985:78)



responsive environments through a participatory process.

With regard to scale and responsiveness, while the various theorists examined view urbanity and the qualities of responsiveness in the context of cities, this does not preclude the search for such qualities in local residential areas - the focus of this dissertation - as Lozano (1990), in "Community Design and the Culture of Cities", suggests, "True cities need not be large, it is important to remember that the cities that cradled civilization were small by contemporary standards, and that even today small towns in many parts of the world still display far more urbanity than some vast metropolises. Small settlements can provide opportunities for choice, exchange, and interaction." (Lozano,1990:5)

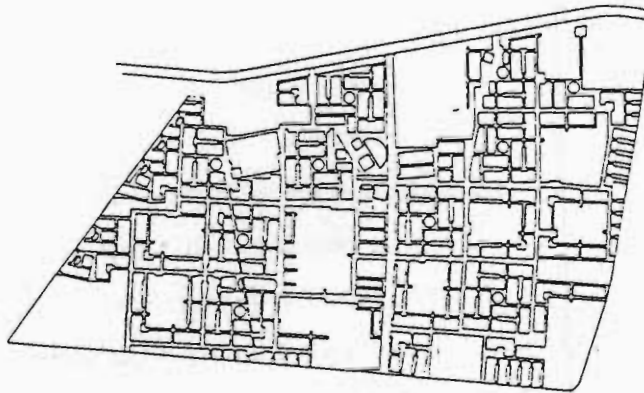
Responsive environments are those environments that are distinguishable from others by the positive qualities they possess for human development and well-being. There is a strong link between urban design and responsive environments in that urban design is a particular design approach that strives towards responsiveness. Clear performance criteria are posited by leading theorists to achieve responsiveness. While these differ between theorists, there is a common thread that binds them, in that they all embrace two notions, first, that human development is dependent on a particular city form, and second, that a key attribute of a responsive environment is choice - which is achieved by accommodating various criteria in a mutually supportive manner. This is depicted in the illustration on the left.

The argument presented in this chapter is that while these theorists promote the notion of choice, they effectively reduce choice by excluding participation from the design process or by allowing for it too late in the design process. Another element that theorists embracing responsive environments acknowledge is human will and man's (sic) ability to transform his habitat.

In this regard Dewar et al (1978) suggests:

"It is held, then, that the degree of success of an environment can only be evaluated in terms of how well it enables and frees man to conduct those activities

Diversity, human agency and time
(Dewar et al, 1991:22)



8-9. Belhar, Cape Town (Uytenbogaardt and Rozendal) and Venice, Italy.
Both plans reflect a high degree of diversity. In the case of Belhar, a new
plan, diversity will be intensified through human response over time.

which are important in his life, how well it fosters meaningful choice and how well it elicits a creative response from man himself".

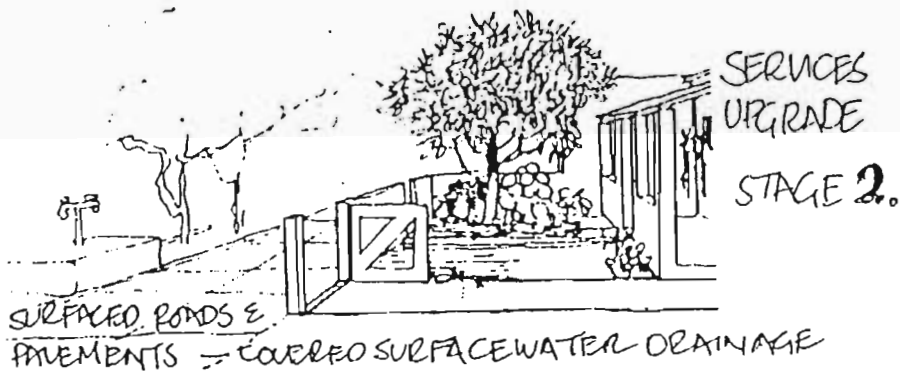
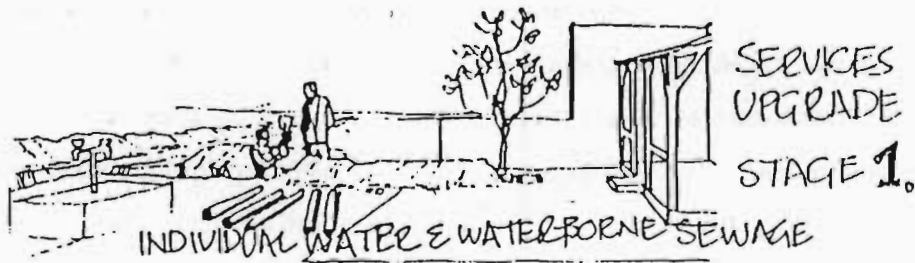
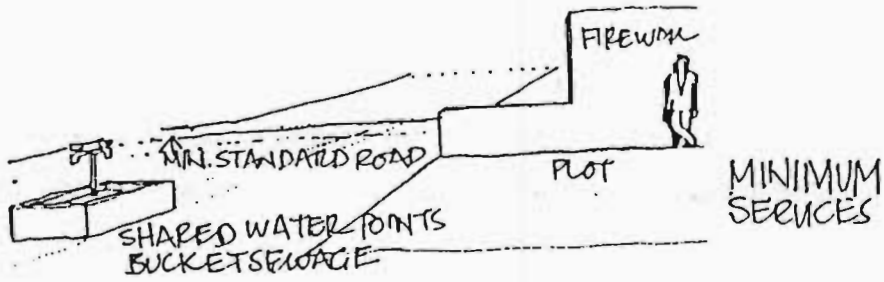
and,

"Implicit in this study is a belief in the genius of man, a belief in the creative ability of man and his ability to manage and mould his environment". (Dewar et al, 1978:7)

Dewar et al therefore acknowledge the importance of human agency in creating responsive environments. Human agency and time are expressed in the illustrations on the left. The hypothesis suggests that participation plays an important role in achieving responsiveness. As suggested earlier, this has two implications with regard to participation - firstly, it relates to participation in the shaping of an environment through an ongoing process of human endeavour, and secondly it relates to design approach, in that participation must be included in the initial design process. Dewar et al's, position is premised on the first implication only.

Dewar et al (1978), further argue that individuals should not be given excessive choice and that minimal constraint must exist to promote choice and response. They use the example of a man in the desert whose choices are increased by the introduction of a wall, in that he now has the choice of sitting in the shade provided by the wall and so on where previously he is confronted by only desert. The wall, they argue, provides the constraint that promotes choice. The author would argue that constraint is not always necessarily derived from physical conditions. Constraint exists more fundamentally in the economic, political and social forces at play where very limited choice is usually available to individuals to effect change. If there is an acceptance that the built environment is the stage which enables man to further and realise socio-economic goals, (key focus of Dewar et al's argument) then it is here that attempts must be made for man to shape his environment during the earlier stages of the development process to promote his social and economic opportunities. Therefore, although the various theorists acknowledge "human will and ability" as essential ingredients in achieving responsive environments, they do not promote the inclusion of participation in the making of such environments.

Incremental growth
(Dewar, Andrew & Watson, 1981:18)



Two reasons prompt the author's motivation for the inclusion of participation, the first relates to the need for a "just" development ethic that is where planning and development is based on actual participants' needs. The second stems from an understanding of urbanity and responsiveness in that such environments are a product of human intervention which must be included in the conceptualisation process. The illustration on the left shows participation as being only in the longer term. It is important to acknowledge that participation should be viewed as being a **proactive device** to achieve responsiveness and not an adjunct to "speedy" and "morally" acceptable delivery. It is also important to understand that the term "community" does not imply a collection of homogenous groups of people with conformist ideals, but rather a group of individuals for which design should extend the widest possible choice. This is discussed below.

5.2 REDEFINING THE NOTION OF COMMUNITY PARTICIPATION

Community participation today represents a major focus of housing debate and impetus. It is argued to be essential in resolving the housing crisis, yet in some cases evidence exists that chief proponents appear to participate only because it has become the doctrine and it has to be done.

Community participation is derived from a need for the public to participate, as expressed years ago (Fagence, 1977), which implies that the public, which means everyday people on an individual basis, must be involved in decision making. This does not relate necessarily to any particular group but to individuals. Today emphasis is placed on finding the evasive community and ensuring their participation.

The author suggests that there are three reasons for the need for participation in this context. The first is out of a genuine need for people to be involved in development and for development to be based on actual beneficiary needs. This is important in ensuring that development is sustainable and that a level of ownership by the community is instilled in the process.

Individuality, long term participation
Building / Street Interface, (Dewar et al, 1978)



BUILDING / STREET INTERFACE
individuality within an urban structure

The second is based on the need for the legitimisation of policy and planning in which participation is used in an exploitative manner to ensure that a product is delivered efficiently. The third which finds growing support, is the moral imperative, irrespective of whether genuine participation is achieved.

It is expected that poor people who are confronted on a daily basis with individual hardship, conform to a particular identity as long as they live in a defined geographic area.

While the argument that strength and political clout can only be achieved in numbers is appreciated, one needs to examine the basis of participation, which is to allow for individuals to achieve their goals. The notion of individuality and long term participation are shown on the left.

Therefore, while the notion of participation is essential in order that planning and design is based on real needs, it must be directed at an appropriate scale and must allow for individuals to realise individual goals. In this regard, participation should become more long-term orientated and based on individuals rather than on those very happy or unhappy communities that development practitioners with misguided interpretations are constantly searching for.

5.3 THE EMERGING FRAMEWORK

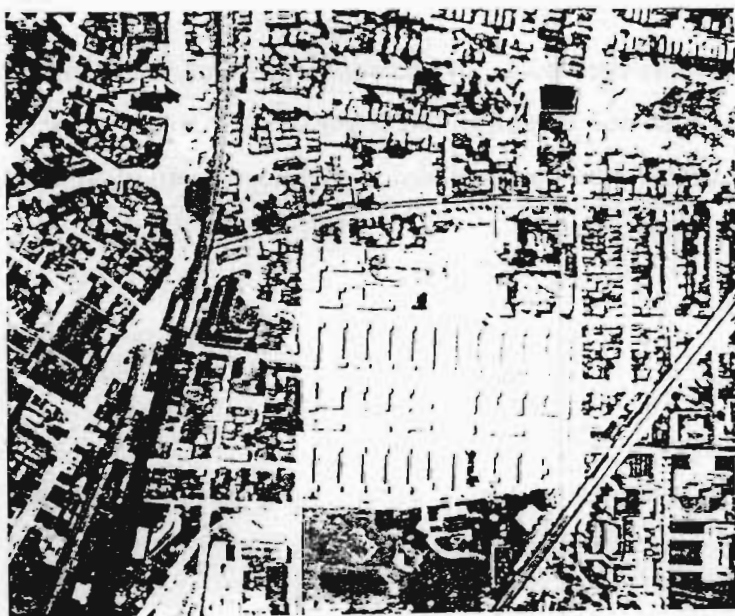
Based on all of the above, the emerging conceptual framework comprises ~~of~~ the following key elements,:

- responsive environments are a product of various qualities, as defined by the various theorists, that act in a mutually supportive manner;
- responsive environments are created by the ability of man (sic) to shape his environment through individual and collective intervention;
- the criteria (legibility, choice, permeability etc.) posited by the various

Responsiveness, individual endeavour and time
Centrally planned projects versus locally managed progressive development
(Hamdi, 1991:33)



Cairo. (Source: Reinhard Gothert)



Boston. (Source: Boston Housing Authority)

theorists (Dewar, Bentley et al, Jacobs, and so on) must be adopted enthusiastically in the search for a responsive environment;

- urban design as a tool has certain potentials to unleash the qualities of responsive environments and must be adopted in resolving the housing crisis; and
- community participation must form part of the development process of responsive environments both from the conceptual planning stages through to longer term participation. This is reflected on the left.

The framework does not imply that the design **process** should be an iterative process with beneficiaries and designers preparing designs 'hand in hand'. What is argued here is a greater sensitivity to including participation in design. The author acknowledges and argues for the ability of "good" design and the potential for urban design to contribute to **unique**, satisfying environments. The issue lies in establishing a correct balance and in developing an appropriate strategy for an amicable relationship **between the essential ingredients** - design and participation. This correct relationship is important not only in demystifying notions of equity, justice, legibility for beneficiary communities, **but also in** contributing to a more equitable, just and legible use of **participation** by practitioners and theorists, in that participation should not be used to legitimise exclusive grand plans.

Barnett (1982) in his book "An Introduction to Urban Design", although arguing initially in favour of participation, uses participation as a legitimising device for design. He suggests that, "Community participation in planning offers an alternative to the **demonstrated** ineffectiveness of the city planner who operated from outside the **political** process on the basis of superior professional knowledge of what was good **for the public**". (Barnett, 1982:28) "Planners and designers should not expect much in the way of specific positive suggestions from community meetings, it is necessary to make specific **proposals to the community**". (Barnett, 1982:35). Barnett goes on to say that when changes to proposals at subsequent meetings are presented it creates the impression that people are participating in the design process. This is an exploitative use of participation, as it seeks to legitimise, what

is actually, an exclusive plan.

What is substantially lacking is a working relationship between participation and urban design. Finding solutions for an effective interface between participation and urban design would be a positive stride towards responsive environments. An attempt at this is made in the following chapters.

CHAPTER 6 - A THEORY OF URBAN DESIGN AND PARTICIPATION

"As people settle and houses are built, all these simple, inexpensive gestures invite the participation of the community, who through a series of improvised and incremental transformations will give shape and meaning to what is otherwise an abstraction of place." (Hamdi, 1991:97)

6.0 OUTLINE

This chapter examines the relationship between responsive environments, urban design and participation and forms an extension of the conceptual framework. In doing so, this chapter presents a theory for the design component of responsive environments.

The first assertion made is that the criteria for responsiveness, as identified in the theoretical context, must be adopted in any positive design strategy. This chapter will therefore attempt to summarise and present a comparison of the various criteria presented by the theorists.

The second assertion made, is that since urban design is an approach to design that seeks responsive environments, a composite set of criteria must be established to enable positive design.

The third basis of the chapter, is an assertion that the attainment of the criteria for responsiveness is fundamentally linked to people and therefore participation. An attempt will therefore be made to demonstrate the linkages between the various criteria (urban design) and participation.

6.1 ADOPTING A POSITIVE CRITERIA BASED DESIGN RESPONSE

The literature provides a detailed list of performance criteria for responsive environments which is often supported by the various theorists. The following Table 1 presents graphically the criteria for responsive environments and the theorists that subscribe to the criteria although expressed in individual terminology. Column 1 lists the various criteria with those having a shared meaning being grouped together.

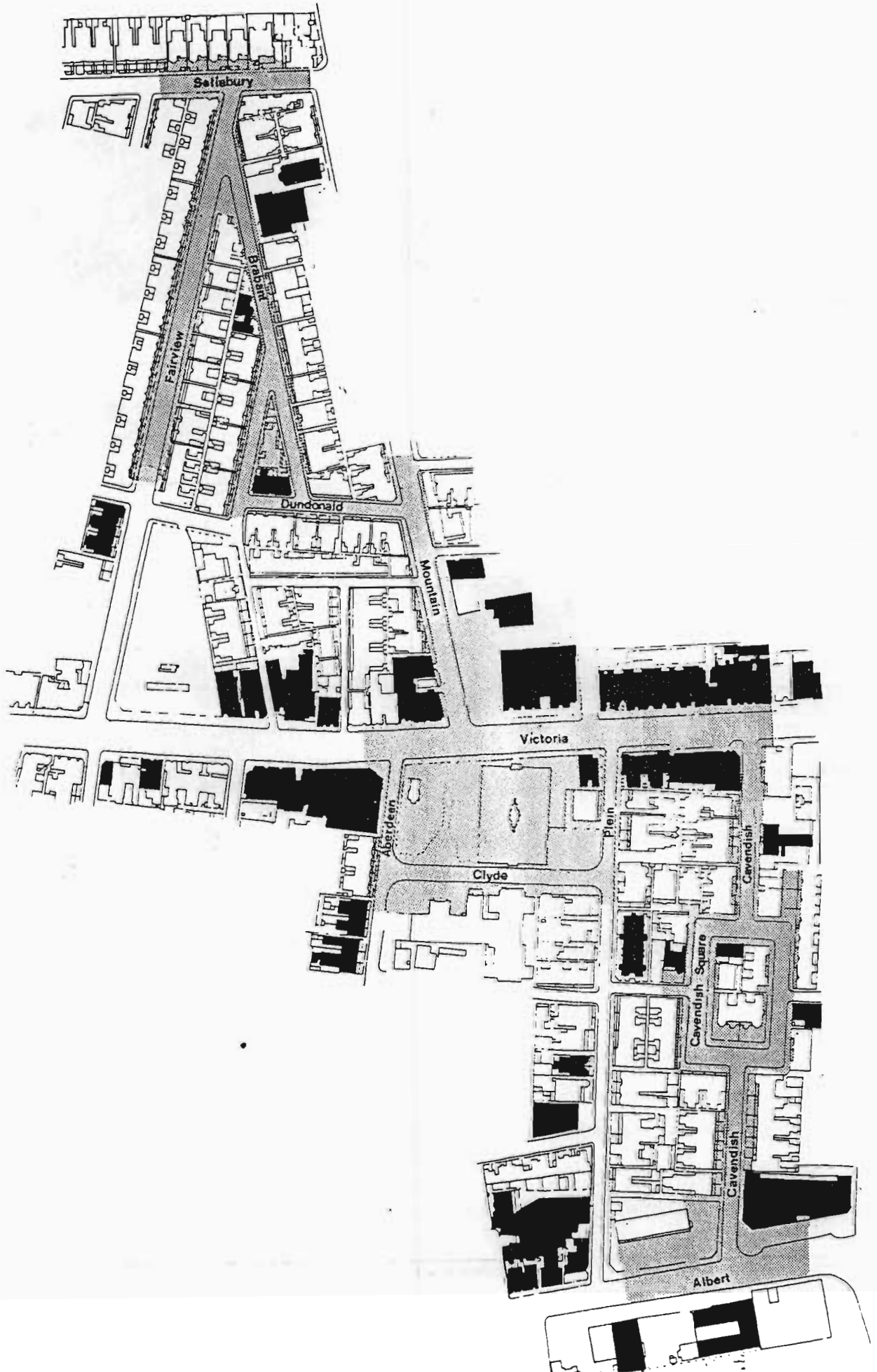
TABLE 1 - CRITERIA FOR RESPONSIVENESS

CRITERIA	Dewar et al 1978	Dewar et al. 1991	Bentley et al	Jacobs	Lynch	Pressman
① Integration / Multi-functionality of space, Convenience, Variety, Robustness, Multi purpose functions, Intensity, Diversity and Necessary Complexity, Fit, Co-existence of Different Buildings, Integration of Activities.	■	■	■	■	■	■
② Uniqueness of Place, Visual Appropriateness, Richness	■	□	■	□	□	□
③ Reinforcement	■	□	□	□	□	□
④ Protection, Vitality, Safety	■	□	□	□	■	■
⑤ Choice	■	□	□	□	□	□
⑥ Participation, Freedom, Personalisation	■	■	■	□	□	□
⑦ Constraint	■	□	□	□	□	□
⑧ Interdependence between Public and Private Space	■	□	□	□	□	□
⑨ Legibility, Sense	□	□	■	□	■	□
⑩ Community	□	■	□	□	□	□
⑪ Equity, Access, Permeability, Minimal length of Blocks	□	■	■	■	■	□

The above table indicates that there exists considerable support from the theorists for the notion of complexity and integration of uses and a concern for increasing permeability. This correlates with the new urbanist approach which posits mixed uses and pedestrianisation. The support for particular criteria is further illustrated below.

Table 1 above also provides the basis for the ranking of the criteria, which is measured in terms of the support for each criteria or notion by the theorists presented in the theoretical context. This is presented in the following Table 2 . The ranking is made in reverse according to the number of theorists that support the notion, for example, a ranking of 1 indicates that all 6 theorists support the criteria

Public space defined and supported by building volume
Woodstock, (Dewar et al, 1978:49)



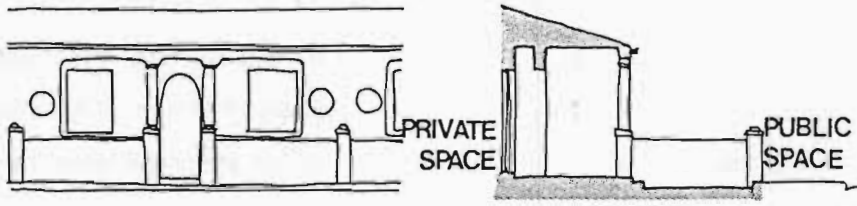
while a ranking of 6 indicates that only 1 theorist supports the criteria.

It should be noted that the ranking is based only on the explicit linkages and that it is expected that implicit linkages between the criteria is held by the theorists since the qualities of responsiveness act in a mutually supportive manner. It should also be understood that although the criteria are ranked, it is not asserted here that such ranking denotes importance. It is undertaken only as a means of indicating support for particular criteria by the various theorists, Table 2 also indicates in the last column an adopted term which is the preferred term of the author, for convenience, which will be used in following discussions.

TABLE 2 - RANKING OF CRITERIA

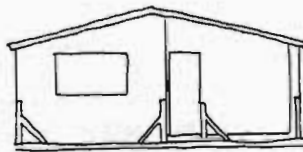
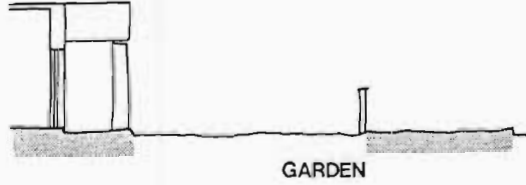
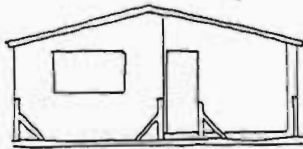
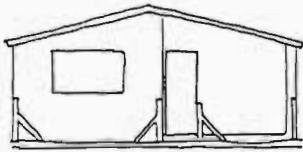
CRITERIA	RANKING	ADOPTED TERM
Integration / Multi-functionality of space, Convenience Variety, Robustness, Multi purpose functions, Intensity, Diversity and Necessary Complexity, Fit, Co-existence of Different Buildings, Integration of Activities.	1	COMPLEXITY AND INTEGRATION
Uniqueness of Place, Visual Appropriateness, Richness	5	PLACE
Reinforcement	6	REINFORCEMENT OF ACTIVITIES
Protection, Vitality, Safety	4	PROTECTION
Choice	6	CHOICE
Participation, Freedom, Personalisation	4	INDIVIDUAL EXPRESSION
Constraint	6	CONSTRAINT
Interdependence between Public and Private Space	6	INTERDEPENDENCE BETWEEN PUBLIC AND PRIVATE SPACE
Legibility, Sense	5	LEGIBILITY
Community	6	COMMUNITY
Equity, Access, Permeability, Minimal length of Blocks	3	PERMEABILITY

Public and Private Space
(Dewar et al, 1978)



LIMIT OF PUBLIC SPACE - front wall

ZONES OF SEMI-PRIVATE SPACE



6.2 CRITERIA FOR POSITIVE URBAN DESIGN

The adopted terms for the criteria and their individual definitions are presented below. These criteria should be embraced positively in the design process and serve as a framework for evaluating design responses.

Complexity and

Integration

- This relates to creating conditions that allow for a range of activities and responses to occur within a similar location to promote choice, experience and freedom. Complexity is also a result of a variety of responses in built form and through the change in the environment brought about by the integration of activities. Integration relates to how well functions overlap and in doing so positively reinforce each other to create complexity.

Place

- Expressing a commitment to creating a rich environment that fosters a sense of place.

Reinforcement

of Activities

- To arrange activities in a manner that complements each other.

Protection

- To create an environment that allows for protection through the treatment of space both public and private.

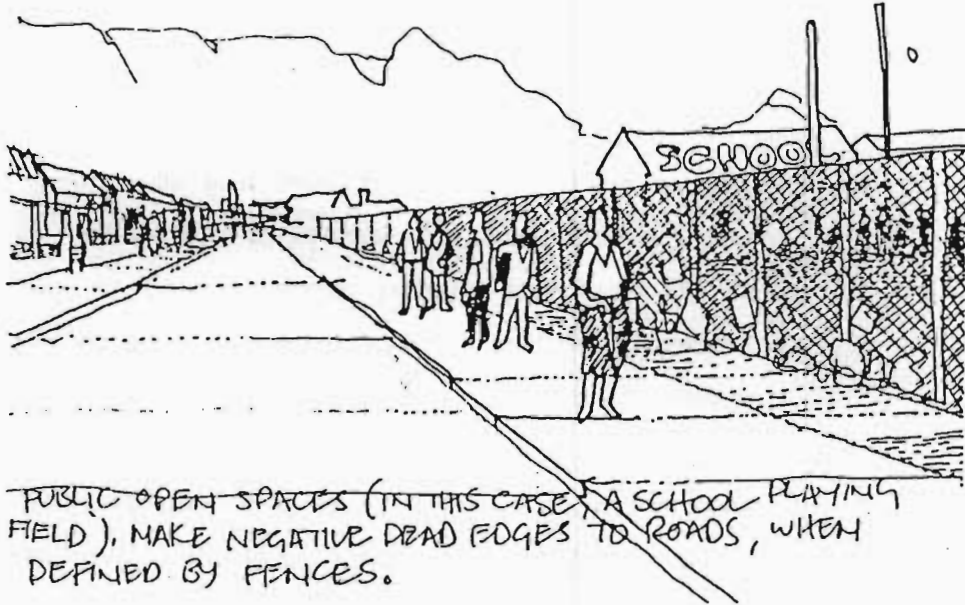
Choice

- The quality of choice is achieved through the application of the other criteria in a mutually supportive manner.

Individual Expression-

- To allow for people to express themselves in the built environment on an ongoing basis.

Negative treatment of interface between public and private space
(Dewar, Andrew & Watson, 1981:19)



- Constraint - To establish the minimum conditions that are required to provoke meaningful responses.

- Interdependence between Public and Private Space - The positive treatment of the interface between public and private space to ensure that each is supportive of the other and that the negative impacts are not exchanged between the public and private realms.

- Legibility - To create an environment that allows for ease of interpretation by its user's to promote choice.

- Community - To create an environment that fosters a sense of belonging and identity.

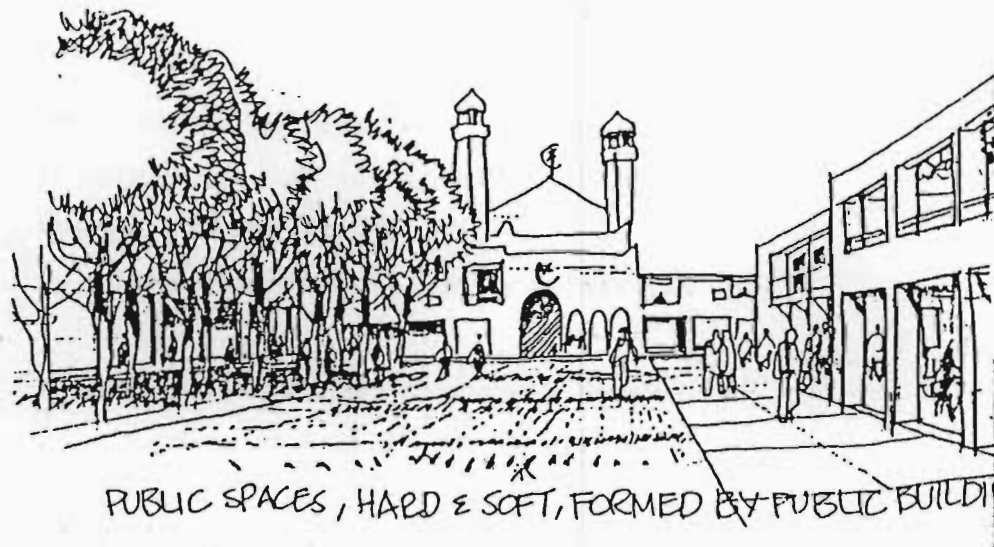
- Permeability - To allow users maximum choice in movement and ease of access within an environment.

6.3 ESTABLISHING LINKAGES - CRITERIA AND PEOPLE

As suggested earlier there exists, in most cases, a direct link between the criteria posited by the theorists and users of the built environment. Since these criteria form design **criteria** and since people relate to participation, a strong case can be made for participation and design. The following discussion focuses on establishing the linkages.

- **Complexity and Integration**
 Since complexity is dependant on the integration of a range of activities to promote choice and meaning, such activities can only be achieved through human endeavour and support. This implies that conditions should be set to allow people to become active participants within a system. Such conditions can only be established if it is based on peoples' decisions and support.

Public spaces supported by building volume
(Dewar, Andrew & Watson, 1981:18)



Further, complexity and integration cannot be something that is static. It requires constant involvement and change which can be achieved through an ongoing involvement of **people** in effecting change in the built environment. The complexity found in older cities (that often forms a reference for theorists on responsive environments), is a product on an ongoing process of human intervention in various forms.

- **Place**

A sense of place can only be created if there is a human element to it, without such, place is nothing more than a space. Concepts of place making are based on Eurocentric ideals and culture. If place is meant to be more than a space, then it needs to be based on the particular users' culture and needs. As such the making of **place** must be undertaken with peoples' input. Further, a sense of place is also fundamentally a product of peoples' ongoing involvement in shaping **the built environment** in a manner that creates a sense of belonging and ownership.

- **Reinforcement of Activities**

While the physical arrangement of activities can be an exclusive process, the introduction of the human element to **bring about** activity is dependent on such activities being based on users' needs. Assumptions in this regard may lead to activities that are not supported by people.

- **Protection**

The definition of private and public space can be undertaken through an exclusive process. However **individual responses** are required to determine what is truly private and **what** is public. This can only be achieved through ongoing involvement and participation in the longer term.

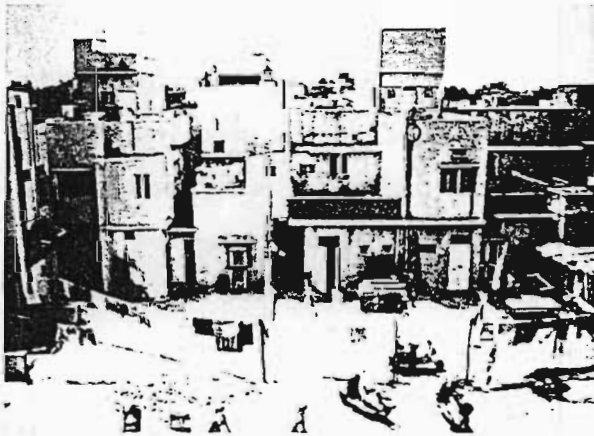
- **Choice**

An environment that offers choice must be based on the users' perceptions and needs. Choice can only be provided if an awareness of a current position exists, to make an evaluation if choice is really being offered. Choice is also fundamentally a result of human endeavour.

Individual expression and change in a higher density block - it can be done.

Informal, locally negotiated additions, extensions, and improvisation to public housing blocks, (Hamdi, 1991:52)

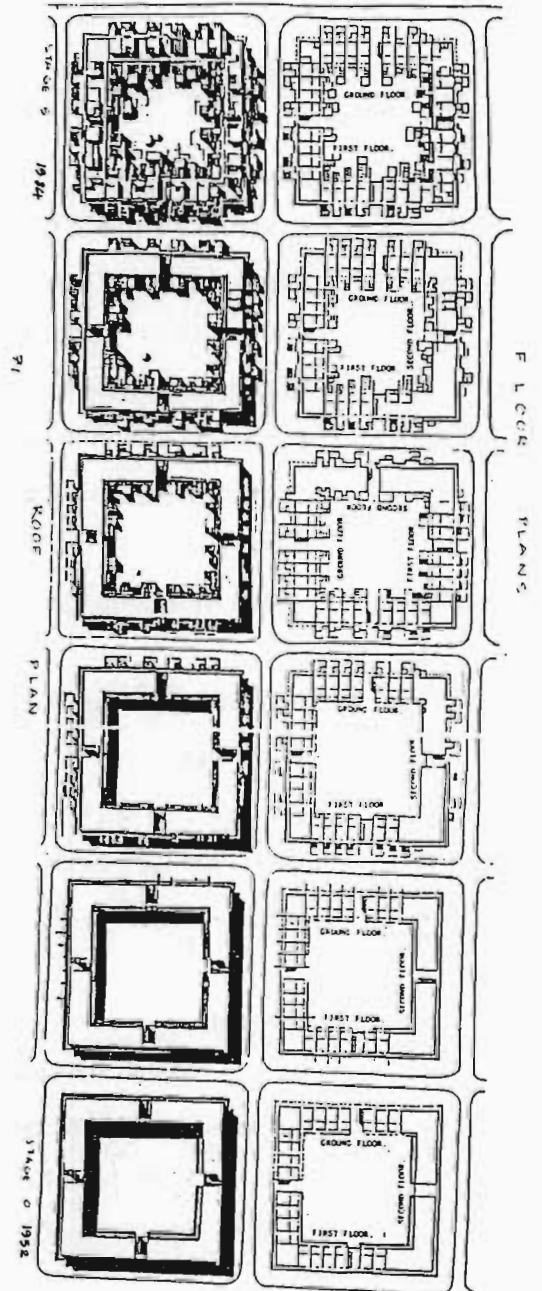
Informal, locally negotiated additions, extensions, and improvisations to public housing blocks.



Bhogal: Interior court.
(Photo by Solomon J. Benjamin)



Helwan, Egypt.
(Photo by Wilkinson and Tipple)



Bhogal, India, transformations: 1952-1984.
(Drawing by Solomon J. Benjamin)

- **Individual Expression**

This is the most explicit case for participation of people in shaping their environment. This can be accommodated in various situations, as indicated in the illustrations and pictures on the left.

- **Constraint**

As argued earlier, constraint is not only derived from the physical environment. More fundamentally constraint emanates from the broader socio-economic environment. In such a context, the minimum constraint to elicit **creative** responses in the built environment should be undertaken with **peoples' participation**. This may be the only area where constraint can be influenced. Acceptable constraint is also one that is individually derived.

- **Interdependence between Public and Private Space**

The positive treatment of the interface between **public** and private space can only be treated once such definition is identified. This may mean peoples' involvement. This **concept** is also a product of a need to provide protection for people and therefore is based on peoples' **needs**.

- **Legibility**

Since this quality is based on peoples' **interpretation** of the environment, legibility can be **substantially influenced and** enhanced through the involvement of people. Further, since **this quality** is supported by other criteria, such as complexity, legibility **is dependent** on peoples' activities.

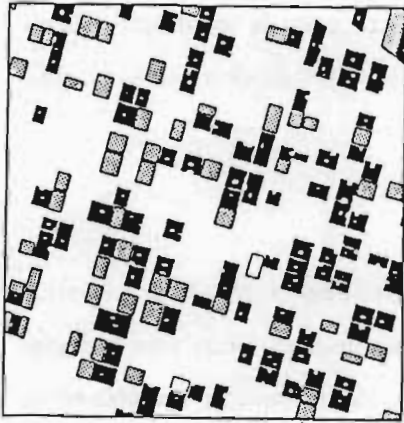
- **Community**

A **sense** of identity can be **enhanced** if people have been involved in the building of an environment and if there exists a sense of ownership.

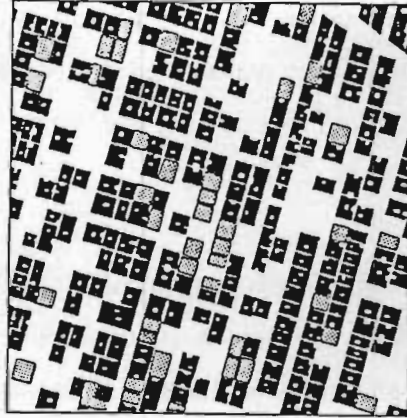
- **Permeability**

Permeability can be achieved through technical decision, however it can be enhanced if people are given a choice in terms of creating ones own movement patterns through longer term participation and through identifying

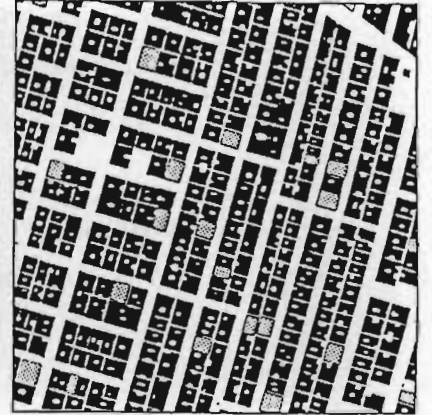
Participation in the long term through incremental growth creates complexity
Incremental informal growth of cities, (Hamdi, 1991:14)



1957



1966



1977

in the design process preferred routes and modes of movement. Choices **must also** be given to the extent of permeability that is required within a **system**, which can be determined through an understanding of the particular needs, culture and experience.

It is held then, that urban design - in pursuing qualities of responsive environments - is inextricably linked to people's understanding of **space** and more important, successful urban design is a product of **people's input** and activity in an urban system in an ongoing manner and is not a product of the static application of technocratic decision. Successful urban design and inter alia the attainment of responsive environments is thus dependant on participation.

The next chapter examines three case studies based on the previous chapter, the emerging conceptual framework, and this chapter, which is, a theory of urban design and participation.

CHAPTER 7 -THEORY IN PRACTISE

A CRITICAL REVIEW OF THREE CASE STUDIES

"Community design was once within the exclusive domain of craftsmen, artisans, townsfolk, villagers, and peasants, who were the designers, builders, and users of their own settlements." (Lozano, 1990:16)

7.0. OUTLINE

This chapter reflects on three case studies of greenfield projects that are suggested to have adopted participation as part of the process. These include two local projects and one international project.

The local projects are the provincially planned Waterloo Township and the Cato Manor Development Association (CMDA) planned Wiggins Fast Track Projects. The methodology employed in analysing these projects is as follows: a description of the project is presented covering the project background, the process and so on. This is followed by the author's critical evaluation and a summary of interviews held with key role players in each of the projects. The evaluation is concluded by an assessment of the project design in terms of the conceptual framework and in particular the performance criteria presented in the conceptual framework.

The international project is the Fundasal initiative in El Salvador. A similar methodology to the local case studies is employed in the evaluation of this project, interviews however do not form part of this evaluation.

It is envisaged that emanating out of the review of these case studies appropriate input can be made into assembling a strategy that combines urban design and participation. It should be pointed out that the review of the case studies is of a focused nature. It is not intended that an exhaustive investigation of all aspects of the projects is undertaken, as the aim is to focus on the specific aspects of these projects that are important to the dissertation only.

Waterloo project locality



7.1 THE WATERLOO DEVELOPMENT PROJECT

7.1.1 Background

In 1990, and as a response to a need to provide land for low income housing within the Durban Functional Region, the Community Services Branch of the Natal Provincial Administration appointed **planning** consultants to prepare a Structure Plan for the **area** of Waterloo. **This** later evolved into a housing project within which individual consultants were appointed to conduct layout planning for specific phases identified in the structure plan.

The Waterloo site was a greenfield project located approximately 35km north of the city centre, having the potential to deliver 6000 residential stands (see project locality on the left). The site, while enjoying good access to the CBD and other work opportunities via **established** provincial roads, remains a peripheral project, a reflection of the **government** of that period desire to concretise the apartheid city. The planning process was suggested to be undertaken through a "**participatory process**", of which the following attempts to analyse. **Secondary data in the** form of an article on the process and primary data in terms of an interview with the structure planners and the author's experience as part of the structure plan team is used in the evaluation of the project.

The secondary data is obtained from an article produced by Dr.DS Rajah and H Ullmann, titled "An Integrated Approach to Community Participation on Greenfields Urbanisation Projects." The article was presented at a World Housing Conference in 1993 focusing on "The Future of Human Settlements". While never explicitly linking the process they describe to the Waterloo Project, the process correlates perfectly with the Waterloo project and since these individuals have been involved at a managerial level with the Waterloo project specifically and with two other greenfield projects undertaken by the Provincial Administration at that time, the secondary data has been adopted.

They suggest that "the need for participative planning on any urbanisation project for the low income sector, in the current political climate, is unquestionable. This need raises the question of whom to speak to in order to determine the needs of an as yet unidentified community for a greenfield project." (Rajah et al, 1993:393)

7.1.2 The Process

The process that Rajah and Ullmann describe comprises a series of working groups around key strategic areas of any typical housing project and a steering committee co-ordinating the activities of the working groups and acting as the approval structure.

The process is described as follows,:

The first phase is the "Project Start-up Phase", during which the project is announced to as wide a forum as possible and it is suggested that a workshop session is held. The workshop they describe may take the form of several sessions which are chaired by various "dignitaries". This is suggested to allow for "an ordered discussion." (Rajah et al, 1993:395) At such a workshop the notion of working groups is introduced to allow particular interest groups to attend and to participate.

The next phase would be the working group project planning phase. Rajah and Ullmann suggest that the working groups should be formed to cover the major aspects of the project. These include: Structure Planning, Bulk Services, Communications, Administrative / Institutional, Physical / Economic, and Community Development.

Each of these groups is then chaired by a specialist. The group then formulates a brief which is translated into action plans, objectives, methodologies and programmes which are then enacted and various products, prepared by "specialists", are ratified by the working groups and then the steering committee.

They suggest that interest groups that should form part of the working group should include, neighbouring local authorities, ratepayers or residents associations and civic organisations, chambers of business, non-government organisations from various fields, private sector developers and so on. A strong case is made by Rajah and Ullmann for the exclusion of political parties from the working groups. It is also alluded to that the inclusion of labour movements, civic organisations and non-government organisations should be avoided as it is suggested that such groups will have strong political linkages that will emerge through the process. A strong case is made for the inclusion of immediately neighbouring communities and interest groups.

The process described above has to date led to the adoption of the structure plan by the authorities and has facilitated the design of internal services and layout planning. A total of approximately 3 800 sites have been developed to date with a further 2 200 site potential. The process of transfer of ownership has only recently begun due to bureaucratic delays and land ownership issues.

At present, on the periphery 3800 sites remain fully developed with the only top structure being that of over grown grass.

7.1.3 Critical Review of Project Process

The project is evaluated by first a critical assessment by the author which is followed by a review of an interview with Simon Vines, the structure planner for the project.

The system of working groups and steering committees can provide an effective strategy for enhancing participation in a situation where the goal is the attainment of a specific end product. However it can only succeed as a truly participative mechanism if beneficiary groups are fully involved in the process. While it is important that surrounding communities form part of

such a forum, it should not extend powers to such surrounding community representation which can be abused. Such surrounding representation is likely to have vested interests around particularly the effects of the proposed development on their constituencies. In cases where surrounding communities are in a position of power and with political process experience and where such surrounding communities are threatened by the project, their elevation within such forums could lead to the detriment of the project. This has been the case in Waterloo, where the representation from adjacent upper income settlements of Umhloti and Umhlanga has led to the shaping of the proposed development in a manner which does not cater for the lowest income groups, the sector that the project initially intended to service.

Second, the process itself is characteristic of a traditional participatory process in which participation is seen as a means to achieving a particular product. The suggested exclusion of popular representation is indicative of traditional norms and a superficial process with limited regard to using participation as a proactive device to achieve a more sensitive and responsive product.

Third, no attempt at combining participation and design is suggested and there are no indications that individuals can express change and the shaping of their own environments during the design process. This being the key point of departure for Rajah and Ullmann, in their suggestion, that there is a need for participation in greenfield projects, since in upgrading projects participation is a "given". While asserting to provide an effective response to obtaining participation in greenfield situations, the actual design process has maintained the exclusivity of traditional planning design which has led to an environment that exhibits traditional design norms. The detail design which effects the people more closely has not been informed by a participatory process.

Fourth, the assumption that an ordered meeting can only be held by "dignitaries" and that a "specialist" should convene working groups is erroneous. This is a reflection of the ideological positions of the Rajah and

Ullmann.

While Rajah and Ullmann, suggest to have found an appropriate participation process for development of greenfield residential areas, their approach is indicative of nothing more than an **"interested and affected parties" approach.**

Discussions with Simon Vines, the structure planner and project manager for the project, indicate the following. He suggests that the steering committee representation consisted of established vested interests. The process excluded the existing land owners, who are suggested to be too emotional and it excluded the existing disadvantaged local authority. Vines recommended that emphasis should have **been** placed on obtaining **representation from future inhabitants.** He further pointed out that although there existed **representation from provincial government,** such representation did not have the mandate to make decisions and often had to refer issues to central government causing **delays in the process.** He made a case for a greater balance between the vested interest groups and future residents. Further he suggests at one **level design** is competent and an intellectual viewpoint that should inform a process that is fundamentally a political one. The author suggests that Vines' position can be debated, firstly, one should seek a **greater representation and decision making from the future residents** and that in some cases a balance can lead to an exploitative relationship if the vested interests are stronger articulated through years of concerted advancement and formal politics. Second **design should not be an intellectual response only,** it should seek fundamentally to become more transparent and responsive to an "un-design intellectual" majority.

Waterloo project - Detail Layout Plan



7.1.4 Review of the Urban Design Response

The following Table 3 presents an evaluation of the detail design of Waterloo in terms of the performance criteria established in the previous chapter. Table 3 should be read with reference to the layout for a portion of Waterloo shown on the left.

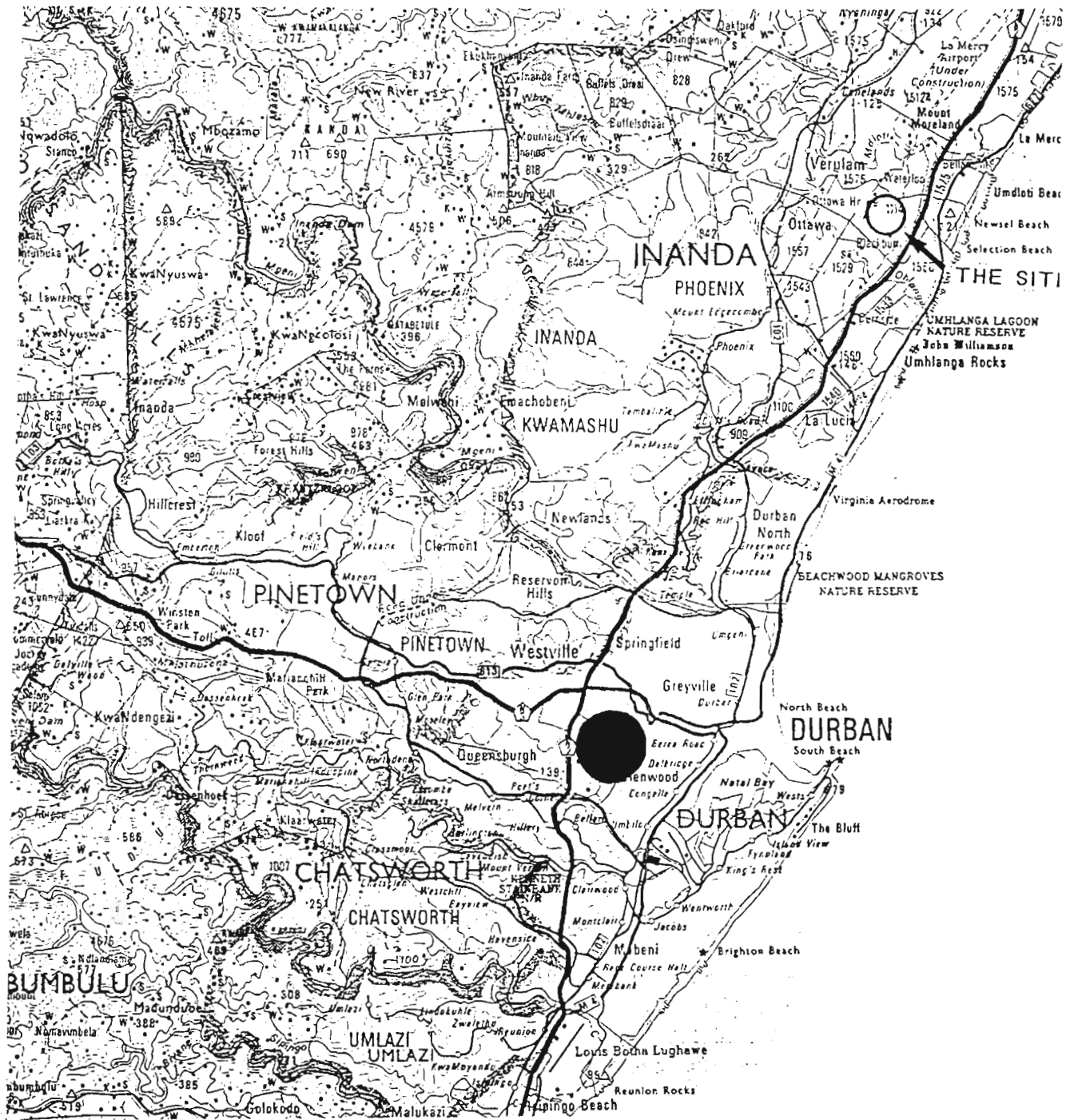
TABLE 3 - WATERLOO IN RELATION TO PERFORMANCE CRITERIA

CRITERIA	EXPLICIT ATTEMPT	IMPLICIT ATTEMPT	NOT DEALT WITH
COMPLEXITY AND INTEGRATION	The introduction of mixed land uses within special zones must be commended as one of the early formal responses to mixed uses in the Durban Functional Region. Such zones however are not integrated in the broader residential fabric.	No concerted effort has been made in the residential component of the proposed development.	
PLACE			not dealt with in detail design.
REINFORCEMENT			not dealt with
PROTECTION		No positive attempt, only as part of normal site definition with conventional subdivision process.	
CHOICE		The development of top structures may extend choice to individuals.	Limited in movement patterns.
INDIVIDUAL EXPRESSION			Not dealt with in public environment, it may be expected in top structure process.
CONSTRAINT			Not dealt with in a facilitative manner.

INTERDEPENDENCE BETWEEN PUBLIC AND PRIVATE SPACE			Not accommodated
LEGIBILITY			Limited legibility facilitated through layout design.
COMMUNITY			No explicit attempt at this.
PERMEABILITY			The design has a vehicular dominance with limited potential for pedestrian linkages at close intervals between roads.

The tragedy of the Waterloo project lies not only in the traditional participation process, but also in the application of traditional planning and design constructs in the detail design phases. This is likely to result in an environment that does not foster meaning and a sense of place. If participation were used in a proactive manner and not in a way that protected the vested interests of the surrounding "interested and affected parties", then the environment created may have been able to reflect the ideologies of those who are confronted by it daily and not of those whose only desire was to maintain a particular city.

Wiggins Fast Track locality



7.2 CATO MANOR WIGGINS FAST TRACK PROJECTS

7.2.1 Background

The Wiggins fast track projects were developed as part of a broader development project dealing with the development of Cato Manor, a strategic resource in the city of Durban. The project was undertaken under the auspices of a section 21 company, the Cato Manor Development Association (CMDA) which is the development vehicle of the Cato Manor Development Forum (CMDF). The CMDF is a widely representative forum established through negotiations between key actors in 1990 and 1991. (Van Der Meulen, 1994:55-56)

The CMDF study area covers an area of approximately 2000 ha of prime land having the potential to integrate portions of the city of Durban spatially and socio-economically. The broader study area is defined by the N 2 in the west, Jan Smuts Highway in the north, Bellair Road in the east and Edwin Swales Drive in the south (see locality plan on the left). The area has the potential to play a significant role in providing housing to a large number of people in a manner that reflects qualities of urbanity.

The broad approach for the development of Cato Manor has been guided by the "Policy Framework for Greater Cato Manor". The main elements of the policy framework are the identification of main transport and mixed use corridors with focal points and nodes that provide a framework for particular land uses. The framework provides the structure that creates various precincts.

Subsequent to the preparation of the policy framework, the CMDA embarked on spatial framework planning exercises for the precincts identified in the policy framework. The spatial framework planning established a framework for each precinct comprising of "super-lot" proposals that attempt to maximise the benefits and respond to particular constraints unique to each precinct. Detail aspects of the super-lot concept and their applicability in

Cato Manor are not the focus here, refer to Van Der Meulen, 1994 for more details on the concept.

The three broad residential development approaches, as cited by Van Der Meulen, 1994 include: the conventional subdivision and development controls; the "Fast Track super-block / lot" approach in the Wiggins precinct and the "Super-Lot" development for the remaining precincts. The case study to be investigated is the "Fast Track" project in the Wiggins precinct.

The context is suggested to be one of intense settlement pressure with rapid growth of informal settlements and invasions. Bond finance for low income groups was generally not available. There was no involvement of the private sector in the particular market and national level subsidy amounts were fixed and unlikely to satisfy peoples' expectations regarding a finished product. In addition a large amount of the subsidy amount was required for professional fees, administration costs, and so on. (CMDA, 1994:Annexure A)

The delivery systems envisaged for Cato Manor include: Institutional rental; Public/Social rental; Social housing/Group based delivery; In-situ upgrading; Private sector delivered bond finance units; and Assisted Incremental Housing. The fast-track project is suggested to test the incremental housing systems approach.

The methodology for evaluation is similar to the one adopted in the previous case study, whereby first a description of the project is presented. This is followed by the author's comment and a summary of interviews held with the practitioners involved in the process. Lastly, an evaluation in terms of the performance criteria **established in the conceptual framework** is presented. It should be noted that the author has been involved in the project and personal experience is **also used in evaluating** the project.

7.2.2 The Project Process

In theory, the project process involved establishing a framework comprising of key infrastructure that defined particular superblocs. Such superblocs would then through a participative process be designed by housing clubs in order to maximise user input, individuality and freedom of choice to provoke creative responses to localised constraint. Through the establishment of various support systems, including housing advice, material supplies and so on, people on an individual basis or through mutual help would develop their own housing. The legal sub-division and transfer would occur only once settlement has occurred. This process is detailed below drawing from a project description document prepared by the CMDA.

The objectives of the project were to allow for choice and participation of beneficiaries in the housing process and to allow for early settlement of land by beneficiaries to respond to homelessness and to prevent further land invasions. Further, the objectives were to maximise the amount of subsidy relating to low maintenance and operating costs and in terms of maximising the amount that is used for shelter and the physical product as opposed to administration, finance charges and so on. In addition, a key objective was to allow for a level of capacity building and the development of skills to extend the delivery system.

The key features of the approach include: allowing beneficiaries to occupy the site at an early stage in the process and to erect temporary shelter if they desire. The tenure transfer process would not be linked to the construction process and the transfer of subsidies would not be determined by tenure transfer. The process would allow increased levels of participation and control of beneficiaries through the process. A fixed amount would be spent during the various stages in order to ensure that sufficient subsidy is maintained for top structure purposes. Increasing densities in order to achieve savings in service costs and increase residual amounts for top structure purposes. The process also includes a reduction in professional fees and the administering of the remaining subsidy in a way that promotes

choice. (CMDA, 1994:Annexure A)

The envisaged delivery process comprises a number of stages. Stage 1 (which deals with the design process) is detailed below.

Stage 1 would include first, establishing the overall design and the density. This would be followed by the design of the super-block roads and infrastructure while at the same time during this process applications from potential participants would be taken in and screened. The next part of this stage would be the appointment of a contractor to build the super-block infrastructure in a manner that releases 100 to 150 potential stands at a time. Once this has occurred groups of 150 at a time would be selected and preliminary pegging of the internal layout for each block would occur. The preliminary pegged internal arrangement would be shown to the group of beneficiaries who could then discuss any proposed modifications and could determine choices of internal services through workshops. The groups could also discuss the allocation of sites within each block. The last part of this stage would be the amendment of the internal site configuration, the design and installation of internal services and the allocation and settlement of the site. Stage 2 deals with the actual occupation and the selection of the desired top structure assembly process, while stages 3 and 4 deal with the building of houses and transfer of tenure respectively. These stages cover the broader housing process and have not been investigated in detail here.

7.2.3 The Project in Practice - A Critical Review

The overall process must be commended as an attempt at creating opportunities for viewing housing in its broader sense, in that housing was seen as a vehicle to empower people socially and economically. The process also attempted to allow people to participate in shaping their own environment. However the process views participation as being a long term process and where it views participation in the short term, it is only within the private environment, hence no attempt was made to engage with beneficiaries regarding the overall framework and the public environment.

Improvements to the process could have been made here.

Second, while the process described above suggests the early involvement of beneficiary groups, in reality this occurred much later. The fixing of **internal arrangements of the superblock** have therefore been undertaken **through a conventional design process**. This however must also be attributed to the bureaucratic and legal process which is based on transfer of ownership prior to settlement which means the final beaconing and establishment of a general plan prior to site occupation. This translates into final detail design of all subdivisions prior to beneficiary input.

Third, **housing workshops** dealing with built form responses were only held with beneficiaries **after the layout planning** was undertaken. This is problematic if design is intended to be holistic it needs to be undertaken with a knowledge of all the elements that would form the total environment and therefore must include housing form.

Fourth, the level of **individual expression** in the built environment **has not occurred**. System builders operating in the area have secured the market **and are** able to present users with **shelter** within three days as opposed to individuals building their **houses** over three months.

Clive Forster (key respondent), the acting C.E.O. of the CMDA ascribes this **occurrence** to the vast marginalisation of **the** target group and the **fundamental deskilling** that has occurred over the years. Further the **lack of an artisan class who are** able to **make** intuitive design decisions on site **compound**s the problem. He suggests that most of the **real** housing decisions **are made** by the **system** builders who have a culture of "**slapping on housing**" and not by **the individuals** themselves. He **further** points out that **individuals** would participate only to **secure access to scarce resources** and that there exists **high social costs** associated with building ones house.

Joanne Lees (key respondent), a practising architect, who was involved in the project in providing architectural support and in conducting housing

workshops with the beneficiary groups suggests that **people were interested** in building their own housing. The problem is suggested to relate to the **speed of delivery** from the system builders which is far more **appealing** than building ones own house. The fact that the system builders were located within the housing support centre legitimised them and sanctioned their involvement. She ascribes the problem to be one of **logistics** and not on the part of the beneficiary groups being unable to participate in **shaping** their environment. **Bureaucratic delays** in the transfer of money to beneficiaries to initiate the construction process and delays in the approval process for individual housing plan submissions was suggested to be the problem. Within this context, the problem is compounded by system builders who are able to **bridge finances** before transfer and build from standardised approved building plans. Lees also raises the need to reach a greater percentage of **involvement from beneficiaries** as only 25% of the beneficiaries were reached for the housing workshops due to bureaucratic delays.

In overall terms the project is a step towards achieving an environment that facilitates and encourages individuals to participate in shaping their environment and the project has presented a potential framework for the merging of **design and participation**. In doing so, the project has also highlighted areas that need to be reviewed in order to facilitate participation **and design**.

7.2.4 Review of the Urban Design Response

The following Table 4 presents an evaluation of the Wiggins West Fast Track design. The evaluation is based on the performance criteria suggested earlier. Reference should be made to the portion of the Wiggins Fast Track layout shown on the left of the table.

Wiggins West Fast Track Layout Plan



TABLE 4 - WIGGINS WEST FAST TRACK IN RELATION TO PERFORMANCE CRITERIA

CRITERIA	EXPLICIT ATTEMPT	IMPLICIT ATTEMPT	NOT DEALT WITH
COMPLEXITY AND INTEGRATION		Achieved through site sizes and multifunctionality of public space and facilities.	
PLACE		Catered for through attempts at providing internal public spaces.	
REINFORCEMENT OF ACTIVITIES			Not specifically dealt with.
PROTECTION		Implicit only.	
CHOICE			
INDIVIDUAL EXPRESSION	environment, has not been adopted due to various reasons. (see above 7.2.5)		Individual expression in public environment has not been catered for.
CONSTRAINT		Implicit understanding, in that minimum site sizes would provide constraint to enable a richer environment in the long term.	
INTERDEPENDENCE BETWEEN PUBLIC AND PRIVATE SPACE		Only in terms of standard subdivision norms, but the interface has not been proactively designed.	
LEGIBILITY	The adoption of a grid system allows users to interpret cues and respond accordingly. A variety in housing responses would also increase legibility.		

COMMUNITY		Implicitly dealt with in the attempts to create public spaces and foci.	
PERMEABILITY			

The Wiggins Fast Track process is potentially a first in this context to allow people to shape their environment in a greenfield situation. The principles for participation however was based on the longer term participation and not on participation in the short term. This has lead to the shaping of the public environment through an exclusive process. The principles however adopted were based on urban design criteria and attempts have been made to increase legibility, permeability and to create public spaces. This process however, could have been substantially enhanced if people had been involved in the process to exchange ideas to obtain a truly "public", public realm.

Although the process was not realised due to factors outside the scope of the project such as: **bureaucratic delays, tenure** policy and so on, the process has indicated a way of introducing participation of users, in the short and long term in shaping the private environment.

7.3 THE FUNDASAL PROJECT - EL SALVADOR

7.3.1 Background

The Fundasal project in El Salvador has been considered highly successful in providing housing solutions that have reached the urban poor (Hamdi, 1991:80-81). Fundasal, a non-profit making organisation established in 1970, sought to bring about social reform through the delivery of housing, thus viewing housing as being more than just the provision of shelter. Key in this pursuit was the adoption of participation as a means to effective delivery and as an end to empower people and build communities.

The context was characterised by the provision of formal housing previously affordable only to the middle and upper income classes, a scarcity of land and resources, a lack of an urban land policy to guide development and a growing need for housing by the urban poor that could not be met. The urban poor formed two-thirds of the population. (Silver et al, 1985:23)

Within this context, and over a few years in operation, the Fundasal project became responsible for 29 percent of the formal housing delivery (Silver et al, 1985). Fundasal achieved its aims by adopting progressive techniques, an emphasis on community participation and through innovative delivery models. Silver, 1985 suggests that "By refining housing layouts it was able to produce housing units with costs four times lower than those previously produced by the formal sector and so affordable to the lowest 17 per centile of the urban population." (Silver et al, 1985:23)

7.3.2 Key Aspects of the Approach

The most vital component of the approach was the use of community participation. To this end, social workers assigned to the project organised groups of between 20 to 30 families who would form the basis of the project. The groups would be responsible for building housing through mutual aid, and to form part of local decision making structures. Silver et al

suggests that "participation is responsible for Fundasal's achievements in areas such as cost recovery, selection and allocation procedures, project maintenance, and provision of social infrastructure and services - areas which have been major **problems for other** institutions."(Silver et al, 1985:24)

Apart from the emphasis on participation, and the success drawn from such emphasis, the Fundasal project explored innovative means in the actual physical development process. The Fundasal explored economies of scale in all facets of the development process, ranging from the site selection to the actual design of the housing unit. In terms of layout planning, the process was driven by engineering criteria which was viewed as the basis of the physical development process. "The layout was generated from engineering requirements rather than preconceived patterns."(Silver et al,1985:27)

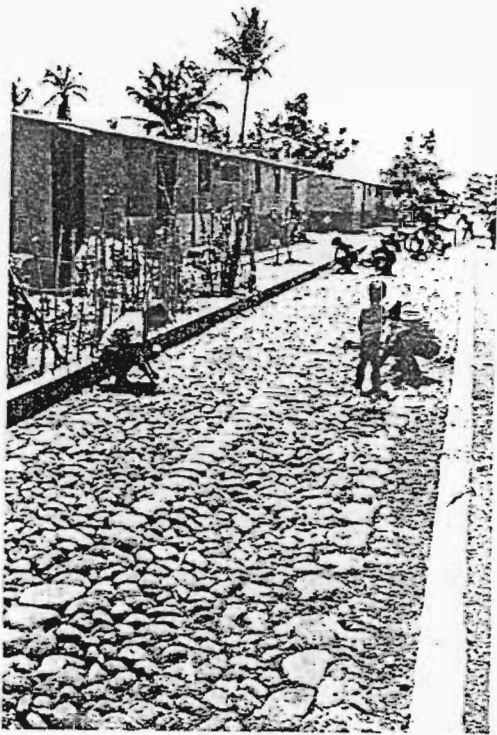
The physical development process was initiated by the design of the stormwater and sewer reticulation schemes, in a manner that maximised natural drainage flows. **Limited earth movement** was required for the development of sites and streets. The plot layout was based on clustering units around a common courtyard to assist in creating a sense of place.

Prior to construction, the designs for plot layouts and housing units were presented to the future residents for comment. The actual extent of each plot was not determined through zoning norms and standards but through user requirements and relationship of plot size to repayments.

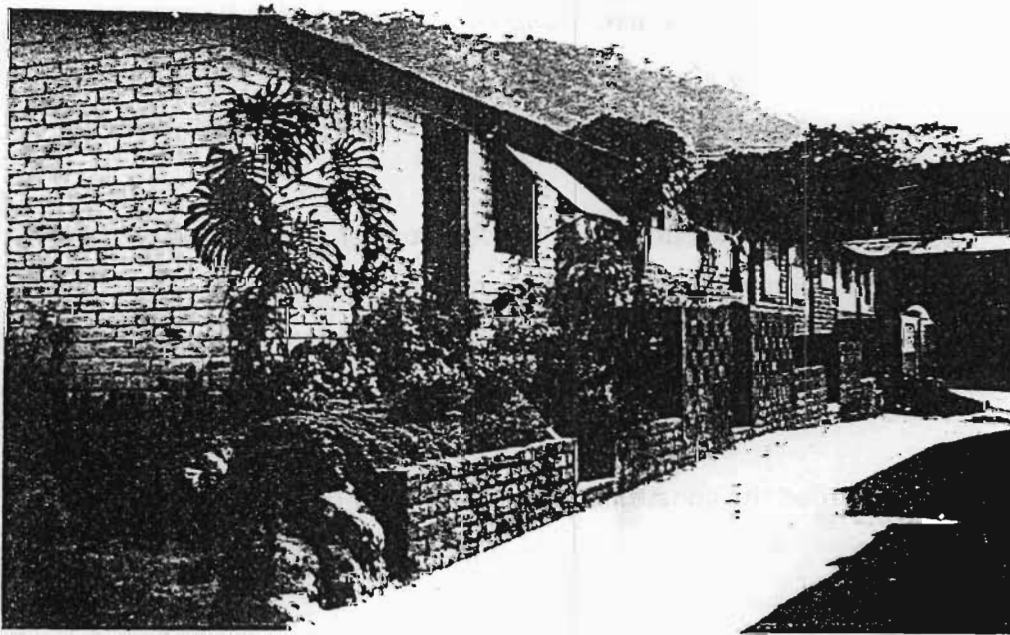
Fundasal monitored the construction process on an ongoing basis. Through detailed studies, **response to the** process was monitored to enable refinements to be made to the design process.

Fundasal initiative - People shaping their Place

The development of public spaces through mutual self help and the creation of an "urbane" environment. (Silver et al, 1985:27)



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7.3.3 Critical Review of the Fundasal Initiative

The process adopted was one of both **participation in short term and participation in the long term**. Emphasis however was placed on the longer term aspects of participation and in creating conditions that enabled people to shape their environment on an ongoing basis. This must be seen as being one of the main successes of the project.

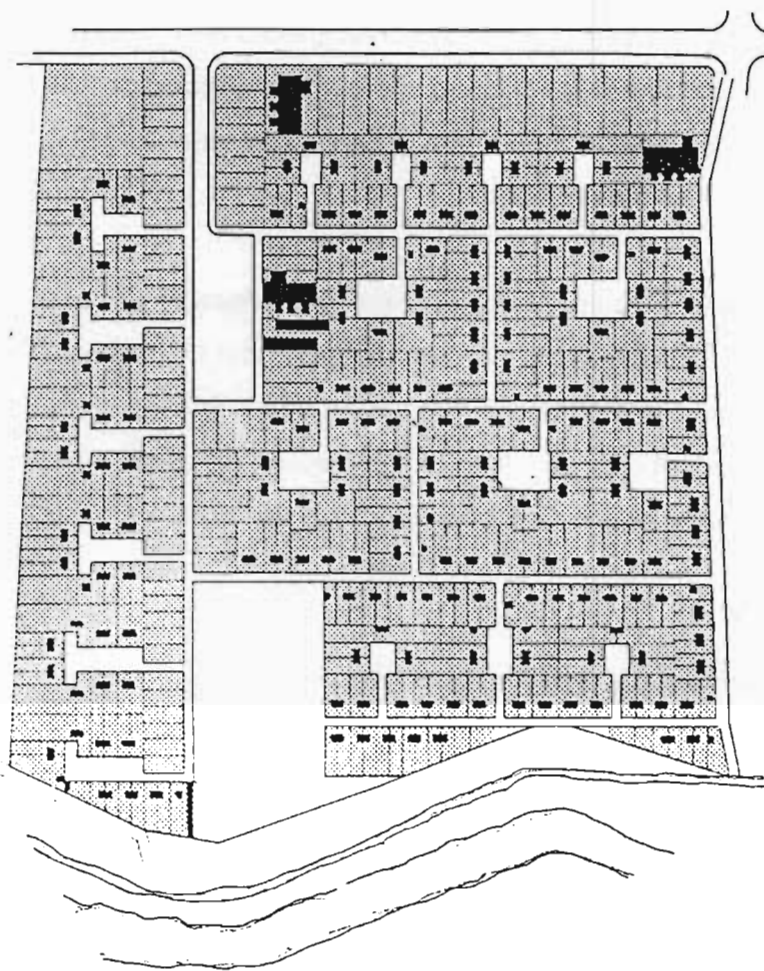
Of significance, is that although placing emphasis on a **participatory process** and in creating enabling conditions, the Fundasal process still managed to **provide housing in numbers**. This questions the notion that housing can be achieved better through a "provider paradigm." (The provider paradigm refers to the mobilisation of highly skilled technical responses at scale- refer to Hamdi, 1991, 1985 for more detail.)

While the design process was successful in meeting needs and to an extent allowing for the creation of a "**human scale**" and "**urbane environment**" (Silver et al, 1985), the **engineering basis** in the **overall framework** can be questioned. While technical engineering aspects are an important component of **successful** housing environments, attention must also focus on the aesthetic quality of the public realm, urban design principles and so on.

The Fundasal project in El Salvador must however be considered a highly successful project in that it presented a process that not only responded to the **needs** of the urban **poor in 'numbers'** but more **fundamentally**, it provided a **framework for the direct involvement of people** in shaping their environment at a physical level and also at a social, economic and political level. This is indicated in the pictures on the left.

Fundasal Layout Plan

The site layout strategy adopted by Fundasal (here at San Jose del Pino), (Silver et al, 1985:24)



7.3.4 Review of the Urban Design Response

The following Table 5 presents an evaluation of the layout design in relation to the criteria posited earlier. The evaluation is based on secondary data in the form of illustrations and photographs of the area contained in Silver et al, 1985. The site layout of a typical project is shown on the left. Table 5 should be read with reference to the layout.

TABLE 5 - FUNDASAL - EL SALVADOR IN RELATION TO PERFORMANCE CRITERIA

CRITERIA	EXPLICIT ATTEMPT	IMPLICIT ATTEMPT	NOT DEALT WITH
COMPLEXITY AND INTEGRATION			
PLACE			
REINFORCEMENT OF ACTIVITIES			Not specifically dealt with.
PROTECTION		Implicit only.	
CHOICE			
INDIVIDUAL EXPRESSION			
CONSTRAINT		Implicitly dealt with.	
INTERDEPENDENCE BETWEEN PUBLIC AND PRIVATE SPACE	Ability of users to define private space.	The development of attached units provide strong definition of space.	
LEGIBILITY		Achieved through individual form responses.	

The development of an intricate solid and void relationship
Sensunapan site, Sousonate a year after plot allocation, (Silver et al, 1985:25)



COMMUNITY			
PERMEABILITY		Implicit attempt through adoption of broader grid framework, however internal courtyards prevent overall permeability of the system.	

The Fundasal project was successful in combining certain elements of participation and design. The design of the public environment was driven by engineering criteria and could have been improved through participation, however the actual development of the public environment through longer term participation by residents must be considered a success. Overall the project has indicated a process for combining participation and design and more fundamentally has demonstrated that a responsive environment can be created through participation of actual users in the process, see left hand side.

7.4 CONCLUSIONS - LESSONS EMERGING FROM THE CASE STUDIES

The following key lessons emerge from the critical review of the three case studies.

- A successful strategy must seek **participation from the actual beneficiary groups** as their needs should be addressed in the project and not those of "interested and effected parties", as in the case of the Waterloo Development Project.
- In cases where surrounding communities are part **of the** process, attempts **must be** made to ensure that **future residents are not at a disadvantage in the process**. This may require a level of capacity building prior to the process to **allow** individuals participating in the process who come from a disadvantaged background to articulate their needs from a position of strength.

- It is essential that participation is seen as going **beyond the delivery of a product** and as such **must** seek to become **more** long term and involve opportunities for **empowerment**. The participation process must be seen as a means to build capacity and understanding.
- Apart from the participation process itself, the **housing process** must be seen as a vehicle to build capacity and to **socially and economically empower** people.
- While the structured working group and steering committee approaches offer opportunities for structured dissemination of information , such a structure can only bring about meaningful participation if it is **truly representative**.
- Further, if representation **within** such working groups is sought from **bureaucracies**, then it is **imperative** that such representation does have **decision-making powers**.
- The Wiggins process of a **framework and super-blocks** has shown potential for merging participation and design. It has the potential to allow for **participation in the short term and in the long term**. In addition the process has indicated ways to obtain actual user participation in the process.
- It is important however that user **participation** is sought **prior to the actual design** process and implementation of services. This requires that a substantial effort is required upfront, which raises the question of what exactly starts a project. Is it design of services or the social process side of the project?
- It is also important that **workshops** on **housing** are held prior to the layout design as the **urban design** must include the elements of the built form in a sensitive manner and in a way that the built form is responsive to a **total environment**.

- Prior to initiating a project, workshopping by roleplayers must occur to identify **bureaucratic delays** that may emerge in the process and to **develop strategies** aimed at preventing such delays.
- The El Salvador experience has shown that within a context of a huge housing need, **participation** can play a **facilitative role** and does not present obstacles to effective **delivery**. It has also shown that a more **responsive environment** can be created through **users' involvement** in shaping their "**place**".
- Lastly, it is imperative in this context that one acknowledges the vast **marginalisation and deskilling** that has occurred through the apartheid years. Further there must exist an understanding of the survival needs of low income people and the potential for **housing to place further burdens** both economic and social on a sector of society whose major concerns relate to survival. In such a context one needs to examine the **role of design**. There exists therefore a strong motivation for aspatial exercises aimed at social and economic empowerment. **In such a case** a more **integrated response** must be achieved and design and the physical environment must seek to become more **responsive to longer term changes in levels of empowerment**.

Based on the theoretical context, the emerging conceptual framework and the lessons emanating from the case studies, the following chapter attempts to put forward a proposal for an appropriate strategy.

CHAPTER 8 - AN APPROPRIATE STRATEGY FOR RESPONSIVE ENVIRONMENTS

"First, we see the importance of a plan that is at once technically competent and yet reliant as much on art and politics in conception and discipline. We see a very high level of indeterminacy in the plan, something conceived of as starting the process of habitation and not ending it." (Hamdi, 1991:102)

8.0 OUTLINE

This chapter attempts to provide an appropriate process for the development of responsive environments in greenfield situations. The process not only accommodates design and participation logistically (which is one of the problems in greenfield projects), but also uses them proactively to achieve responsive environments. While the process is not dissimilar in many respects with the CMDA "Fast Track" approach, the Fundasal El Salvador initiative or from the works of support theorists such as Hamdi, a few innovations are added to the process. These include the followings assertions,:

First, it is imperative that the spatial framework created is driven fundamentally by an urban design logic, in that the public realm must be developed to provide meaning, experience and a sense of place. The framework must be the product of a criteria based design approach to extend the widest possible choice to users and to provoke meaningful responses within the private realm.

Second, as argued earlier, successful urban design must be based on user needs and input since the qualities of responsiveness are linked with people and hence participation. (See Chapter 6)

Lastly, it is asserted here that a strive for responsive environments must start with the initiation of the social process aspects of the project and not the engineering or design aspects.

8.1 AN APPROPRIATE PROCESS FOR RESPONSIVE ENVIRONMENTS

It is important to view the strategy as part of a broader housing framework, within which issues relating to finance, empowerment and capacity building would be linked either as part of the housing process or as part of a wider social upliftment

programme. As such, the focus of the strategy is on the design process, with **implicit** linkages to other **important components of a total** housing process. The principles of the various **stages** are discussed below. It should be noted that each phase would have various **sub-phases**, these **will not be** covered here as it is not intended here to provide a "blue print" but rather a broad framework that should be refined and based on **particular local situations**. The broad stages are discussed below.

8.1.1 Social Process Establishment

This would be the initiation stage of the **process**. It would include the formation of housing groups which can be undertaken through advertising the project through **various** forms of media. While it may be preferable to elicit the **involvement of** existing social formations such as residents associations, savings **clubs**, and so on, mechanisms should also be created to bring people **together through housing**. As such, individual applications should also be included.

Depending on the size of the project, each group would then elect a representative who would provide input in the establishment of the spatial framework. It is expected that appropriate workshopping with the representatives and the **broader group** would occur on the housing process, the design tools that would be used in the process and so on. An important component of this phase would be some form of socio-economic survey to ensure that the housing groups needs are understood and to form a basis for responsive design.

8.1.2 An Urban Design Plan

In parallel with the social process establishment phase, a technical site review and analysis should be undertaken. While there are potentially limited merits in including participation in this review, since this is a technical exercise that can be done **by professionals** through conventional site review processes, it is advisable that future residents have some involvement in this

stage. Future residents may add a particular understanding, that may differ from a "professional" view making the review a much more ~~richer~~ exercise. People may actually see things that professionals do not.

Once the technical review of the site is complete, a workshop session with the representatives for **each** housing group should initiate the design process. Within such workshops, the social analysis would be combined with the technical analysis and key ideas can be discussed and 'listened to'. Since some urban design approaches are based on European norms and culture, this process would help to verify the use of such approaches and to discover more locally appropriate approaches. (Rothaug, English, Lees, - key respondents)

The next stage of the process is the 'urban design' of the spatial framework which should be undertaken by an urban designer with iterations between the representatives of the housing group. The framework would comprise ~~of~~ the main infrastructure grid denoting **residential** superblocks, civic facilities, public realm proposals and so on. The framework must be based on the criteria established earlier. These include:

- Complexity and Integration
- Place
- Reinforcement of Activities
- Protection
- Choice
- Individual Expression
- Constraint
- Interdependence between Public and Private Space
- Legibility
- Community
- Permeability

Through a series of workshops a more locally based application of the criteria can be achieved. It is expected that the framework would be

designed by an urban designer based on discussions and input from the representatives of the housing groups. Included in the participation undertaken to establish the framework would be the input of engineers and other built environment professionals, authority structures and so on. In parallel with this process would be the continuing social process where at this stage, the groups would be in a position to be allocated to specific blocks.

8.1.3 The Development of the Spatial Framework

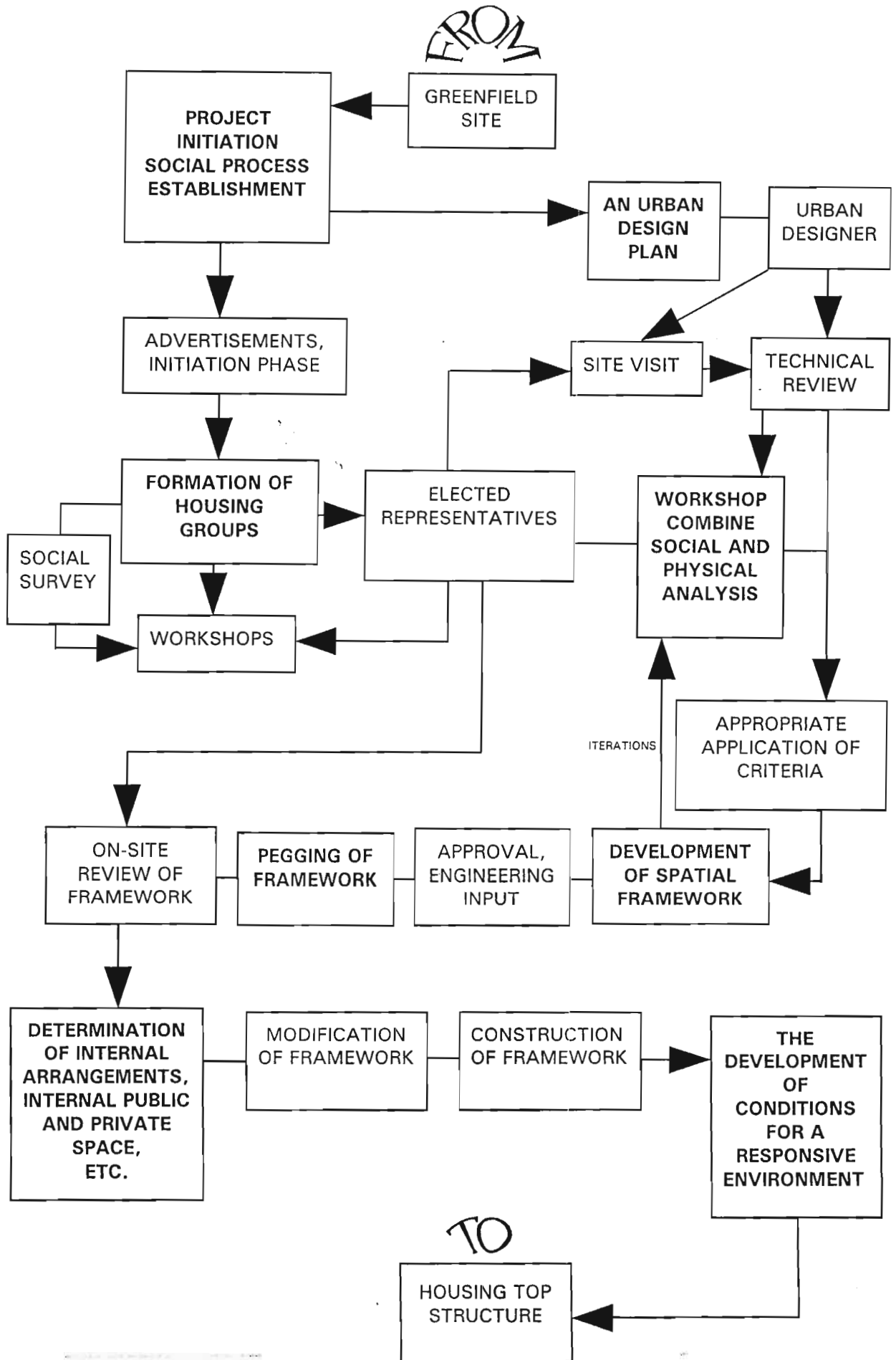
This process would then be guided by the inputs of engineers and urban designers leading to the pegging of the framework on the site. The overall framework may then be reviewed through a site visit with the design team (urban designer and housing group representatives).

Depending on the choices of tenure, the internal arrangements of plots and the allocation process within each group would then take place. Consideration must be given to group ownership as well. The determination of individual sites prior to construction or in cases after construction of the housing units should also be considered. Once these processes have been workshopped with each group for a particular block, and once the finalisation of the framework has been completed (it is expected that changes to the framework will occur through the adaptation within particular blocks) the framework can then be constructed.

8.1.4 The Development of the Conditions for a Responsive Environment

During this stage the shelter process through various modes of construction would commence. Particular blocks could be developed through external agents such as system builders to present immediate shelter and for those who cannot afford the social costs of building ones own home, and for those requiring immediate shelter. Other blocks could be developed through individual self help or mutual help. The existence of various modes of construction would add variety and legibility to the area. Mechanisms should

FLOW DIAGRAM 3 - TOWARDS AN APPROPRIATE PROCESS



be put in place to ensure that conditions allow individual and mutual help to **become** the dominant mode of construction to **allow** for greater individual expression.

The flow diagram 3 on the left indicates graphically the envisaged process. The **following** chapter **demonstrates** the application of the above process in a greenfield simulated project. Emphasis is placed on the design process as the project is a simulated one.

CHAPTER 9 - TOWARDS A RESPONSIVE PLAN

"Through artistic inquiry the designer states a position, describes a philosophy, explains a set of values." (Trancik, 1986:228)

9.0 OUTLINE

This chapter presents a simulated project based on the argument thus far and the **approach emanating out of the previous chapters**. **The** aim of the project is to demonstrate how the approach can be implemented spatially and the application of urban **design principles** and criteria presented earlier. The simulated project is based on an actual project **currently being undertaken** in Johannesburg, in the Riverlea residential township. As **such the** secondary data in the form of mapping, socio-economic surveys from **the actual** project will be used in the simulation project. Apart from the introductory **and** background sections of this chapter, the main substance of the chapter will be presented graphically.

9.1 BACKGROUND

The study area, known as Riverlea Extension 3 & 4, is currently the focus of a planning initiative being managed by Planact (**an NGO located** in Johannesburg) and the Riverlea Civic Association. The site is 36 hectares in extent centrally located within developed portions of Riverlea and lies approximately 7 kilometres west of the Johannesburg central **business** district. It is **bounded by** the Langlaagte industrial area in the north, Riverlea in the south, Extension 2 in the west and Extension 5 in the east.

The land is currently owned by the Greater Johannesburg Metropolitan Council and is situated along the mining belt. **It is** regarded as a strategic **piece** of land having high development priority due to its prime location and the opportunity it presents for **densification** and inner city **development**. Further to this, being located in the south west corridor between the CBD and Soweto, the site can play a role in spatially integrating Soweto with the CBD and in doing so reduce the inequities inherited from the apartheid city planning era.

Apart from the metropolitan significance, the **site presents** the existing residents of Riverlea with **an opportunity to meet** their **growing housing** needs and in integrating currently physically and socially separated parts of the Riverlea community.

The project initiated by the (Riverlea Civic Association), has since the formation of a Steering Committee in 1993, undergone an intensive participatory process resulting in key recommendations for detail design, the housing process, allocation procedures and so on.

The simulation project focuses on the design process since in the context of the dissertation no community exists. The exercise however does focus on the design principles emanating from the actual process and attempts are made to present a design response for these principles. It is expected that in reality, the various stages of the process would be undertaken with participation as described in the previous chapter.

9.2 Design Principles

The following are the broad planning principles extracted from a document summarising the outcomes of the process prepared by Planact, 1995.

- **Sub-regional Integration**
The development should promote the integration of the study area with the greater Johannesburg **area in a manner that** reinforces the compact city notion and in a way that increases residents access to existing services and facilities.
- **Participation**
The development process should involve the local community and use existing capacity within the community during the participation and the construction process.
- **Holistic Development**
The development process must be holistic and include spatial, social and

economic aspects. The development should allow for mixed uses and the integration of places of residences and work. It should also present a range of housing options.

- **Affordability**

The solutions must be affordable to the residents.

- **Beneficiaries for Development**

The development should not discriminate and give priority to low income people and those with the greatest need. Priority should be given to the existing residents of Riverlea.

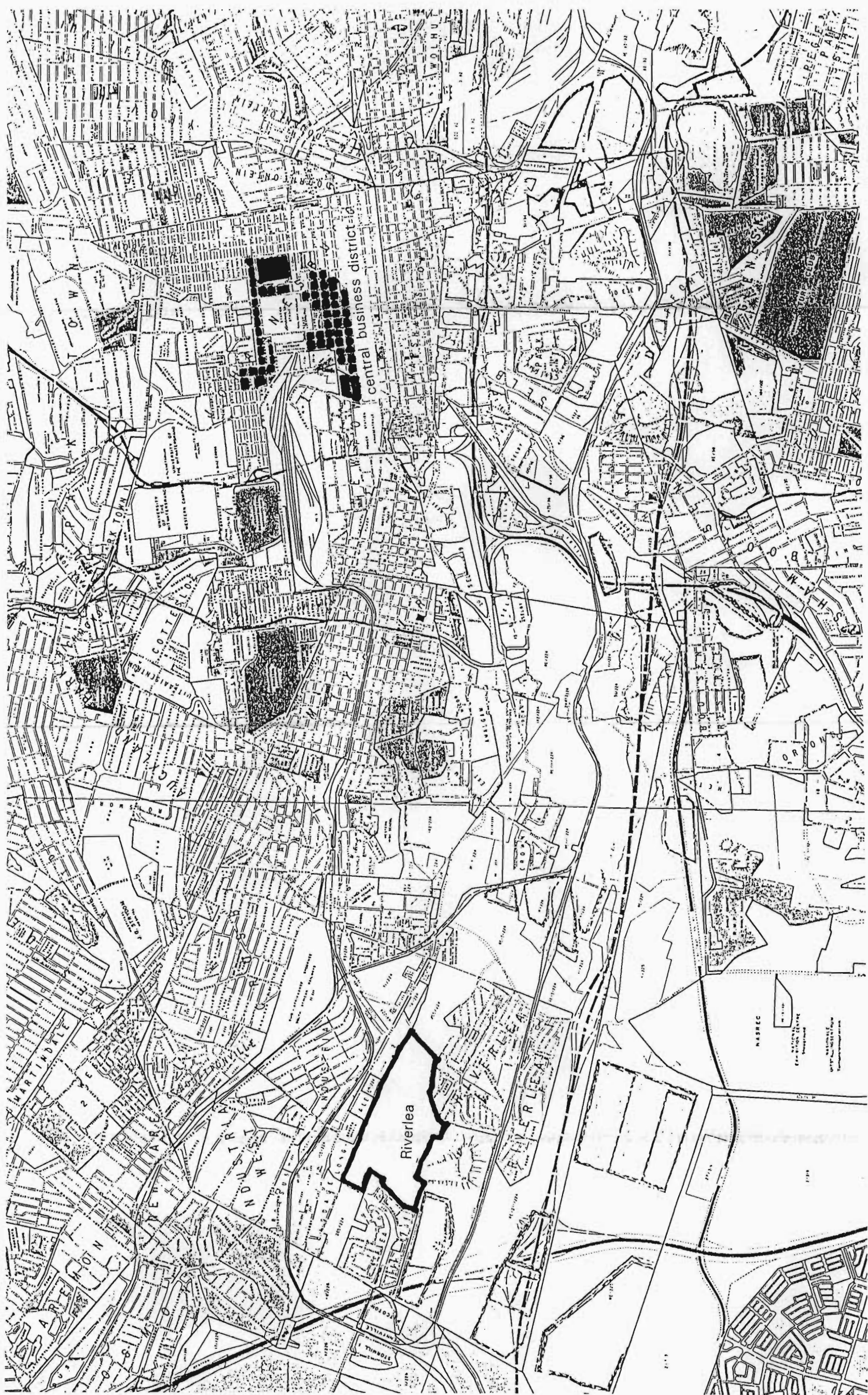
- **Decent Living Environment**

The development must foster a decent living environment and a sense of community.

(Planact,1995:28-30)

9.3. **An Urban Design Response**

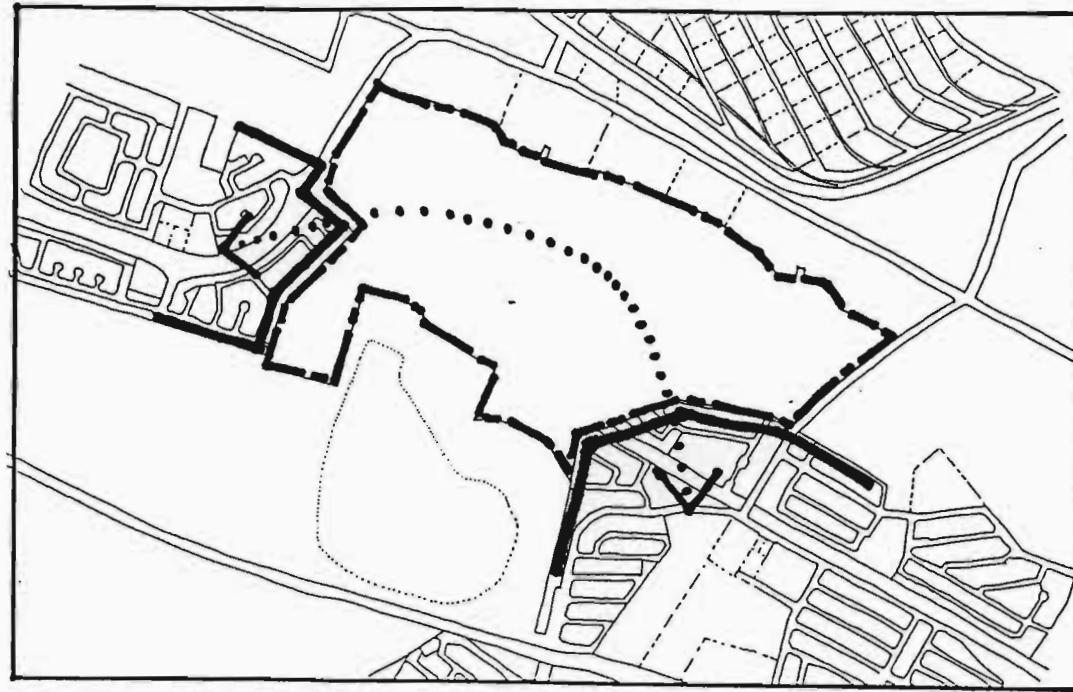
The design response to these principles **are** expressed graphically in this subsection. This includes diagrams and sketches that describe various principles and ideas, and plans showing **the various** elements of the response. The methodology adopted comprises of, **firstly plans** showing the metropolitan and site context. This is followed by an analysis of the site in terms of the constraints and opportunities. Based on the conceptual framework, the next stage indicates various principles and urban design criteria. These principles and the analysis then **form** the basis for the concept development which led to explorations toward a **detail** plan. The detail planning is then expressed **in a** series of plans indicating **the various** key elements of the response such as, the basic framework, the housing blocks and so on.



9.3.1 METROPOLITAN CONTEXT



9.3.2 THE SITE



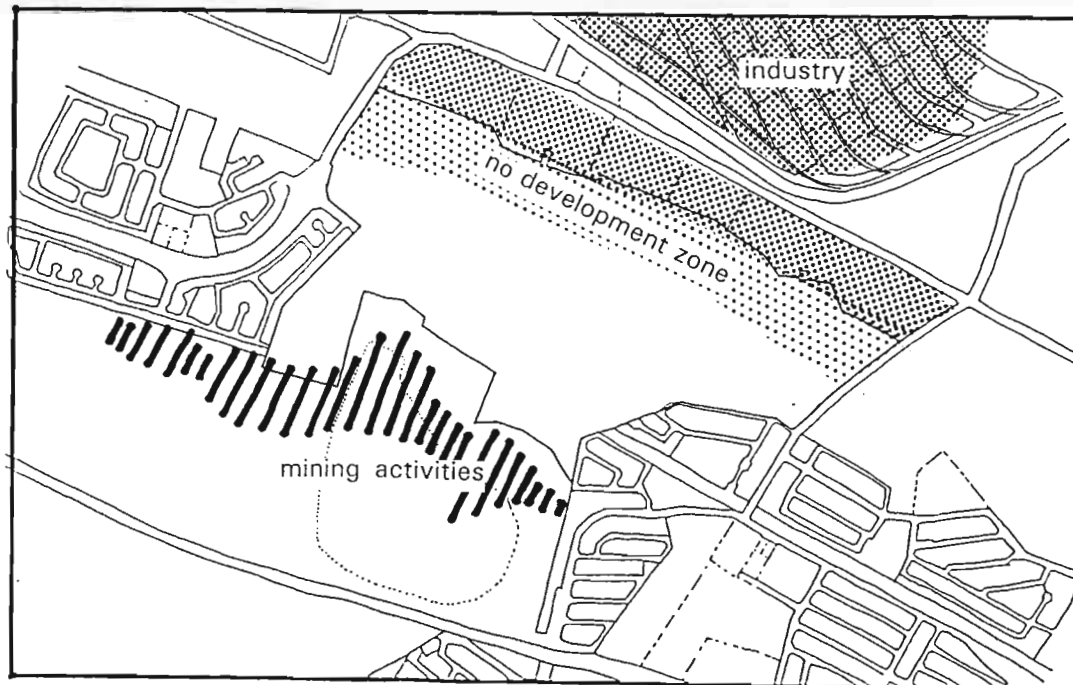
SITE LOCATION

The site is located centrally within two developed extensions of Riverlea, Extension 2 in the west, Riverlea in the south and extension 5 in the east. There exists no existing infrastructure and the site is bounded by the inwardly developed extensions of Riverlea. The site is seen as having potential to alleviate the existing need within such areas and the existing residents see the area as resolving their needs.



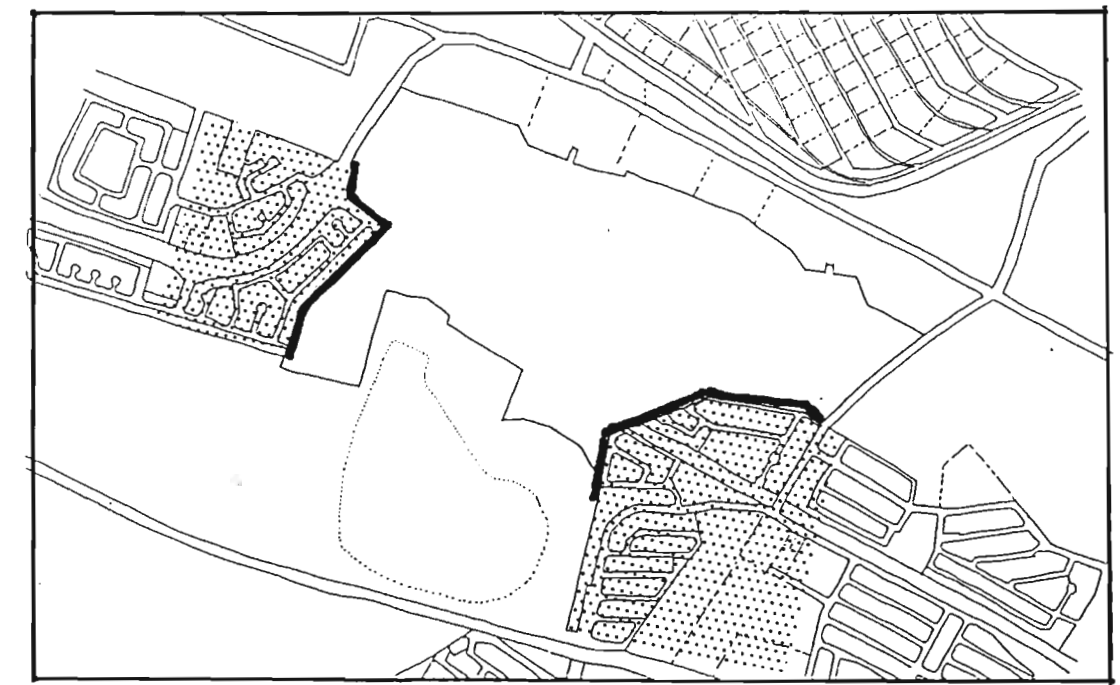
MAIN ROADS

Main Reef road in the north is a route of metropolitan significance and as such attracts substantial traffic. The negative impacts of such would need to be treated appropriately.



INDUSTRIAL LANDSCAPE

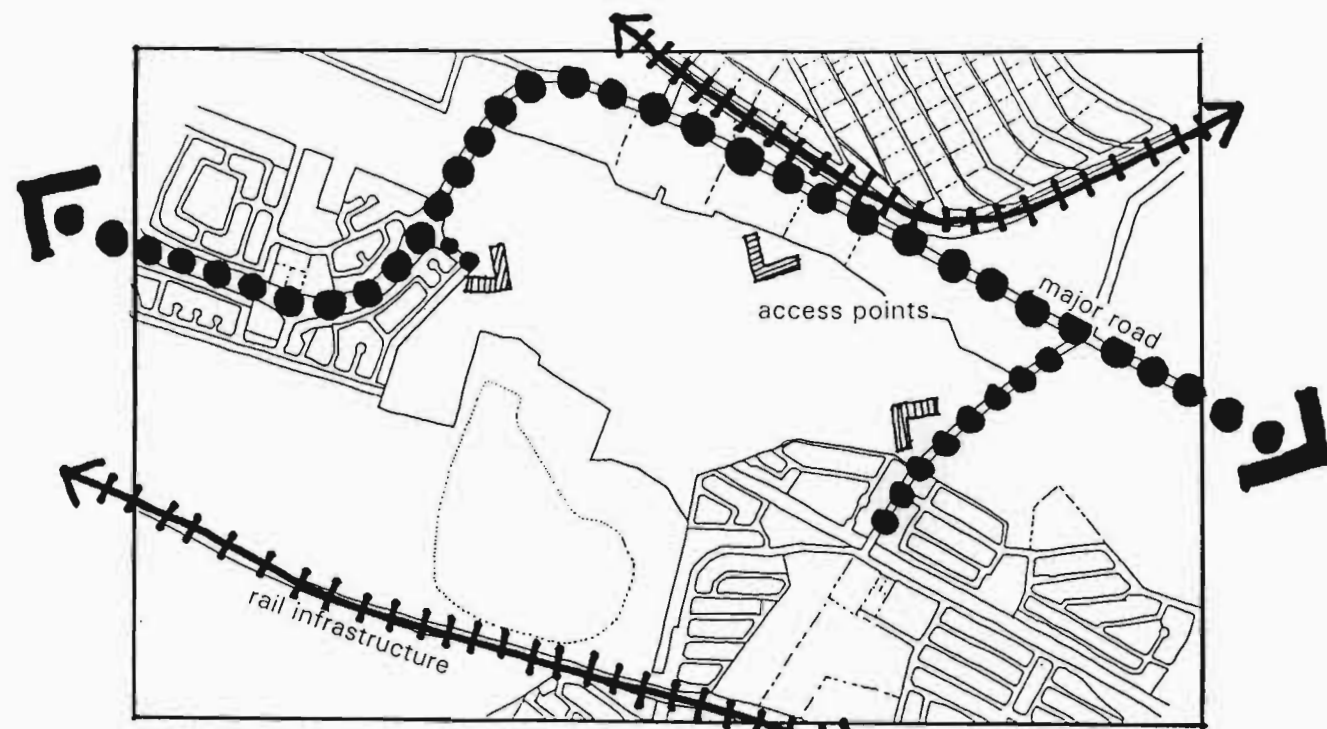
The site is bounded by industrial and mining activities in the north and south respectively. Substantial industry exists in the north which needs to be screened to provide protection for the future residential development. Immediately south of the industry along the northern boundary of the site is a no development zone as this area has been under-mined.



LOW DENSITY RESIDENTIAL INTERFACES

The site is bounded in the east and south west by existing inwardly developed low density residential areas. The proposed infill development must respond according and treat such areas sensitively.

9.3.3 SITE CONSTRAINTS



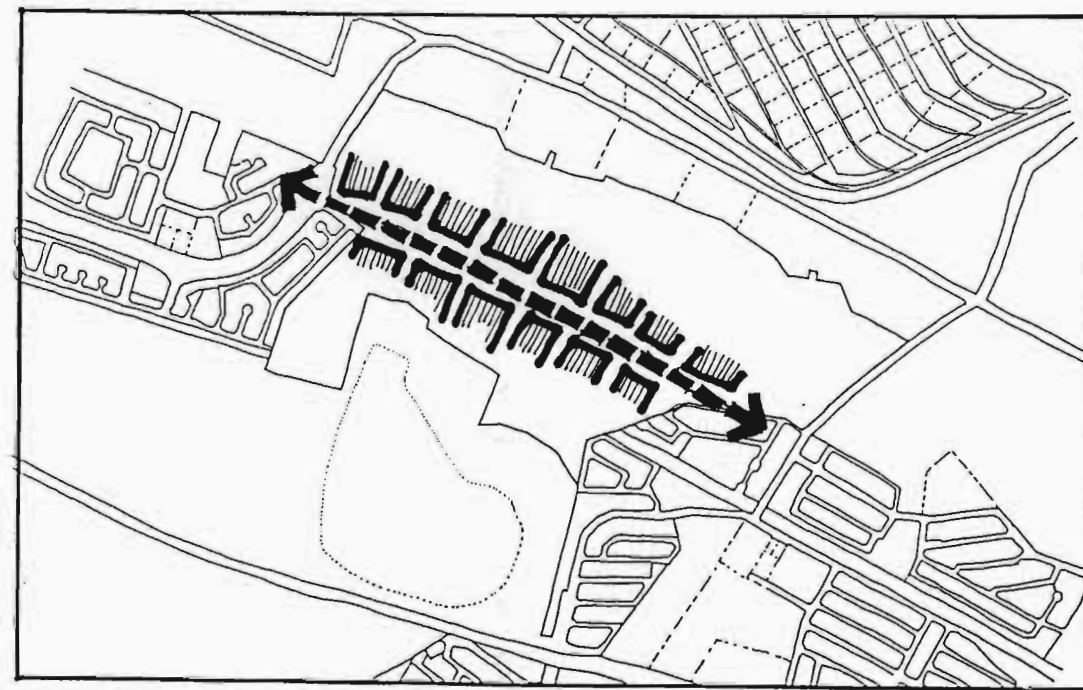
LINKAGES

The site has good access to major road and rail infrastructure to allow choice and ease of movement to various opportunities. There exists potential access points in the north, east and west.



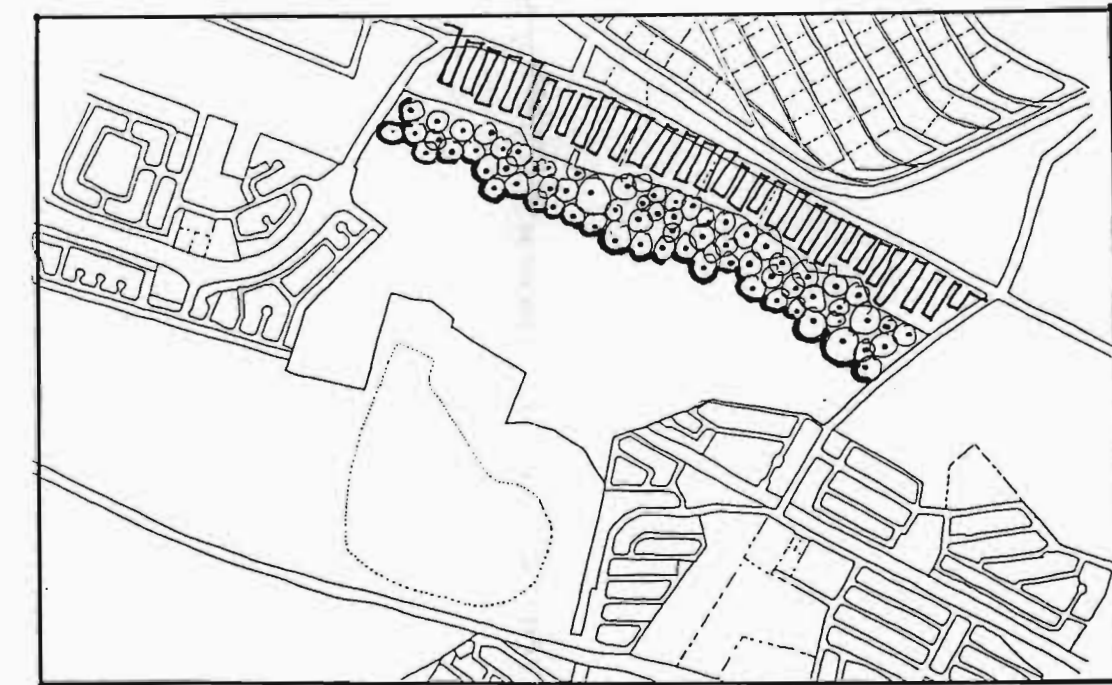
ACCESS TO EMPLOYMENT AND FACILITIES

The industrial areas in the north provide employment opportunities for the proposed development. Within the developed extensions of Riverlea, are existing services and facilities which can also be used by the new development. This would assist in assimilating the new development into the existing development and the building of a sense of community.



INTEGRATION AND COMMUNITY

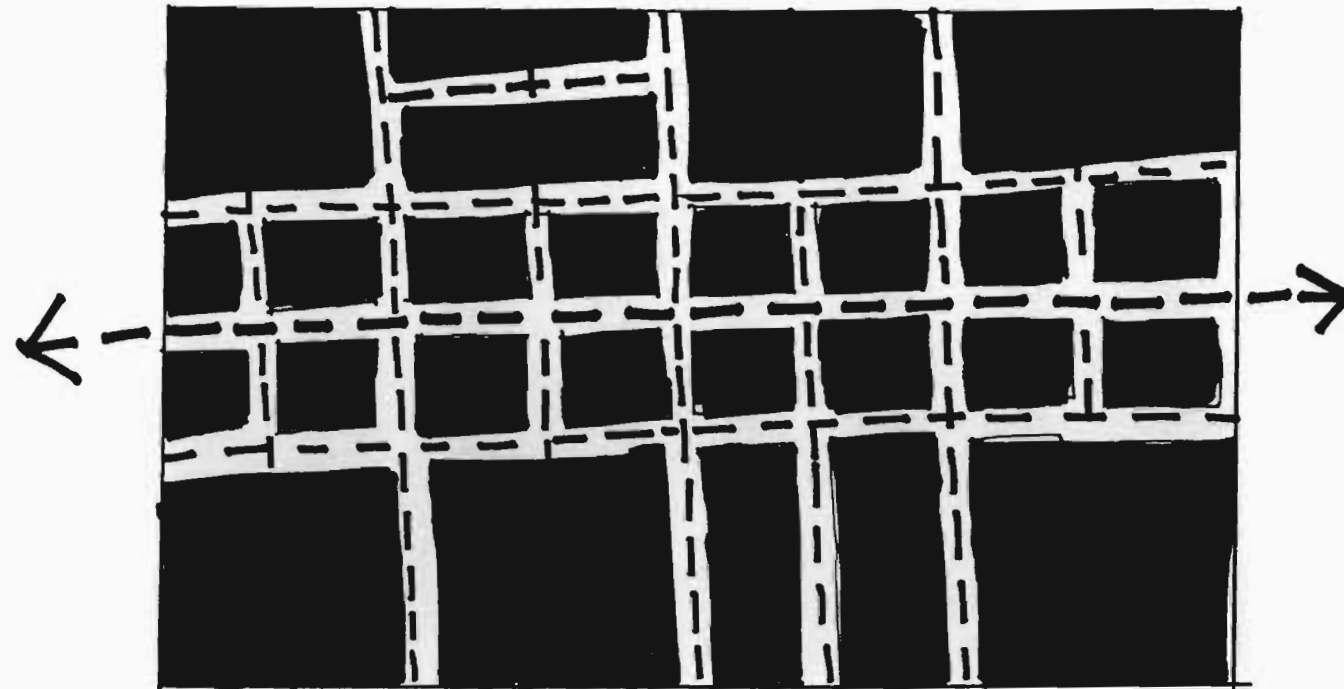
The site being situated centrally between existing spatially disjointed communities has the potential to play an integrative role in consolidating the area into a functional entity.



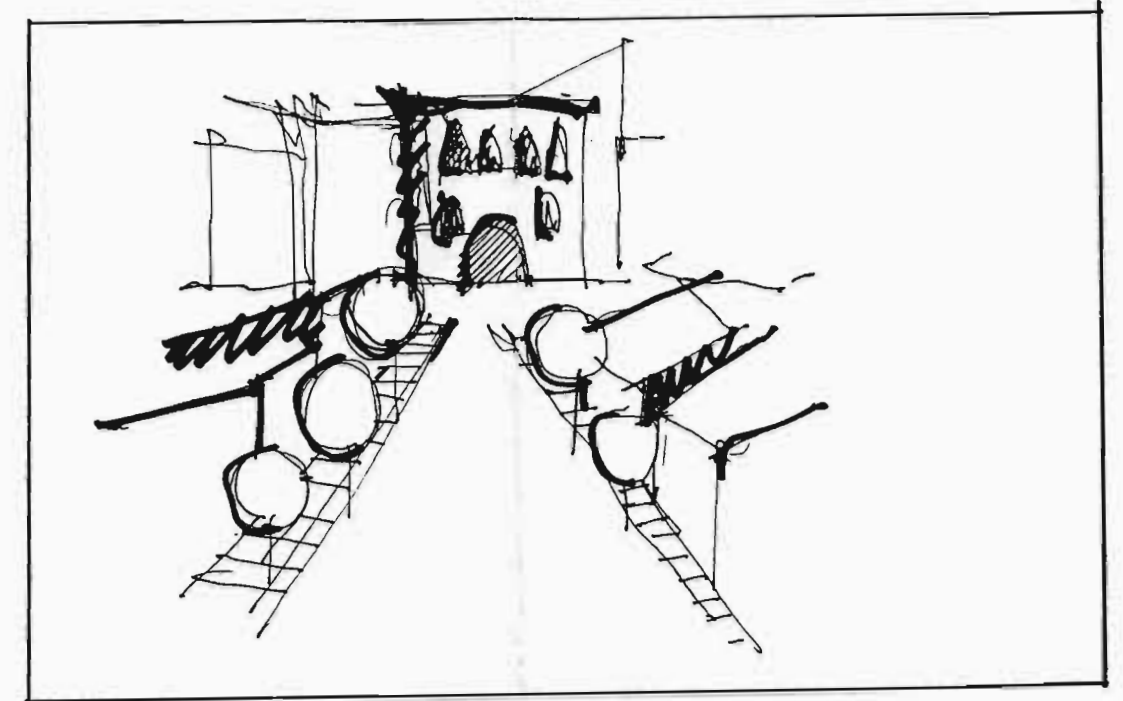
OPEN SPACE SYSTEM

The restricted development area along the northern boundary has the potential to be used as an open space system for recreation purposes. This area currently has substantial vegetation which should be maintained and augmented to act as screening from the negative impacts of the main road and the existing industry.

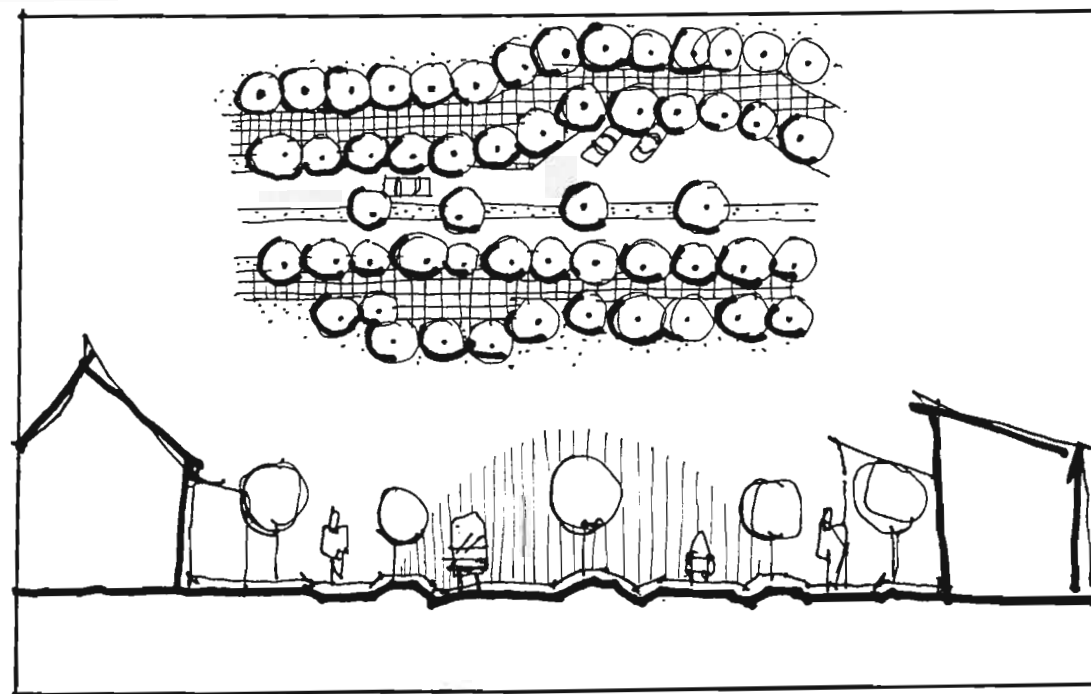
9.3.4 SITE OPPORTUNITIES



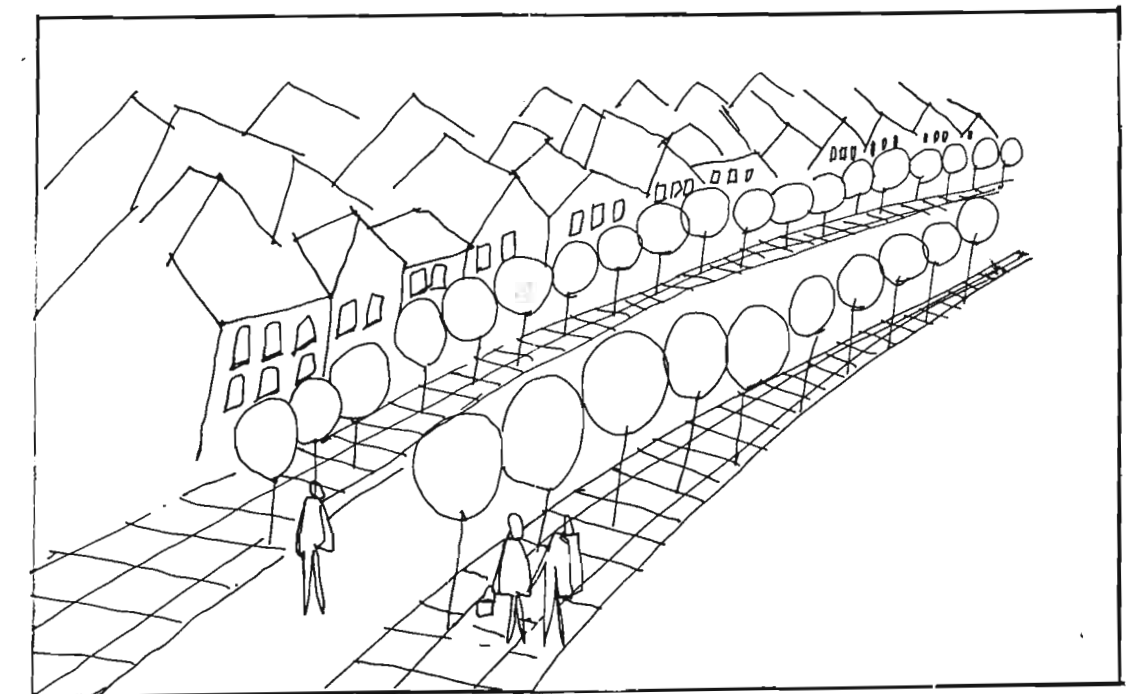
Adopting a grid layout ensures that users have maximum choice regarding movement as a grid system enhances permeability. The grid layout also increases legibility through the ease of interpretation the grid offers. Smaller blocks should be used along key routes to reinforce such routes and to introduce constraint to shape development along such routes in a particular manner.



Providing key focal points / landmarks to enclose views allows users to establish visual cues thereby increasing legibility and inter alia choice.

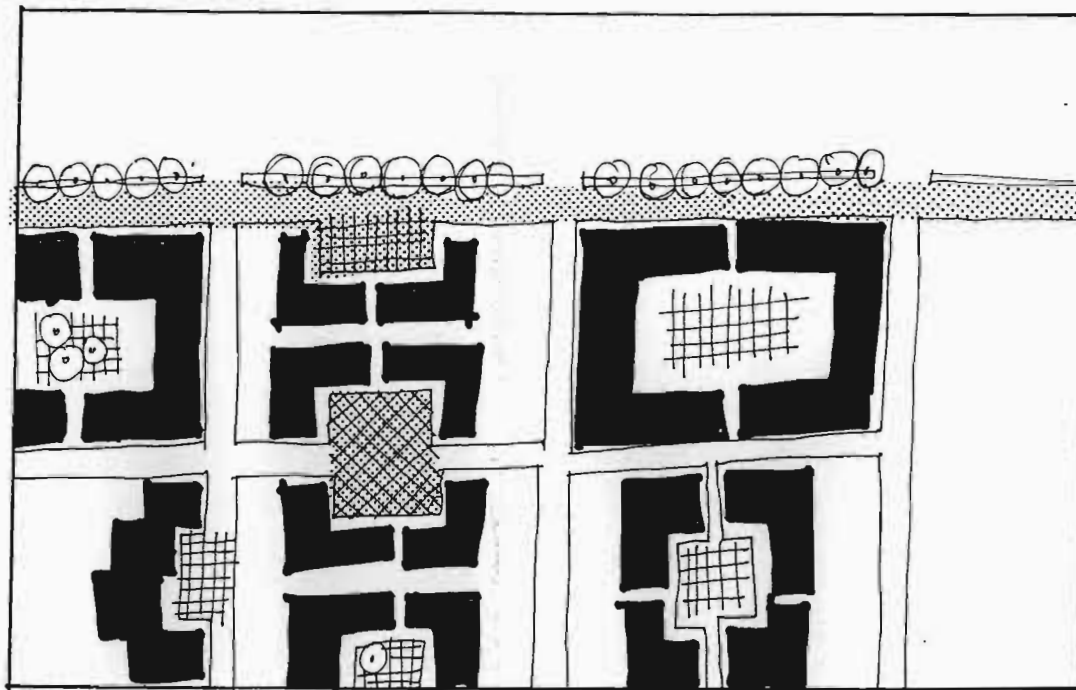


Vegetation must be used to provide protection within areas having various modes of movement. It should also be used to treat the interface between the public and private realms.

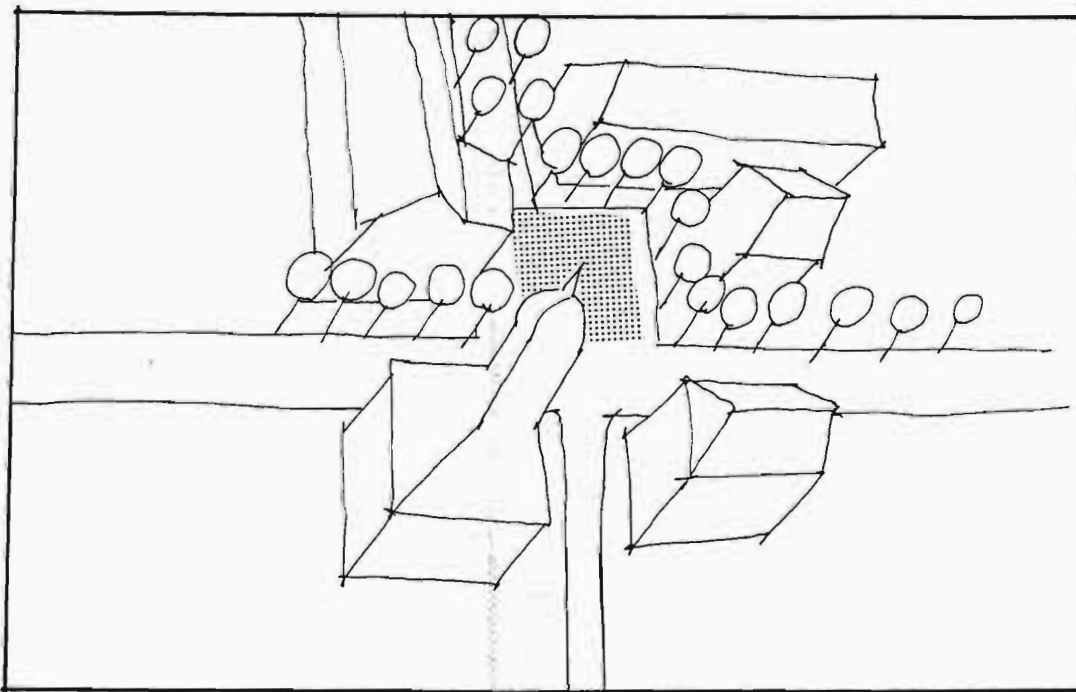


Key routes should also be reinforced with vegetation to denote significance within a system and to provide protection for users.

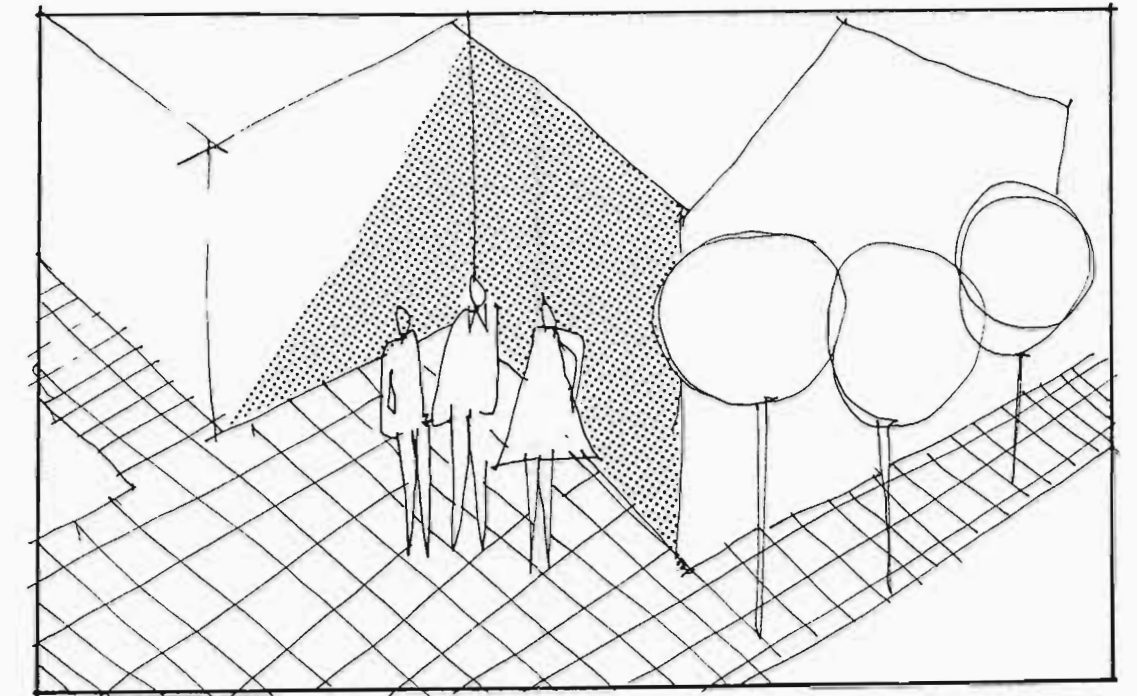
9.3.5 URBAN DESIGN CRITERIA



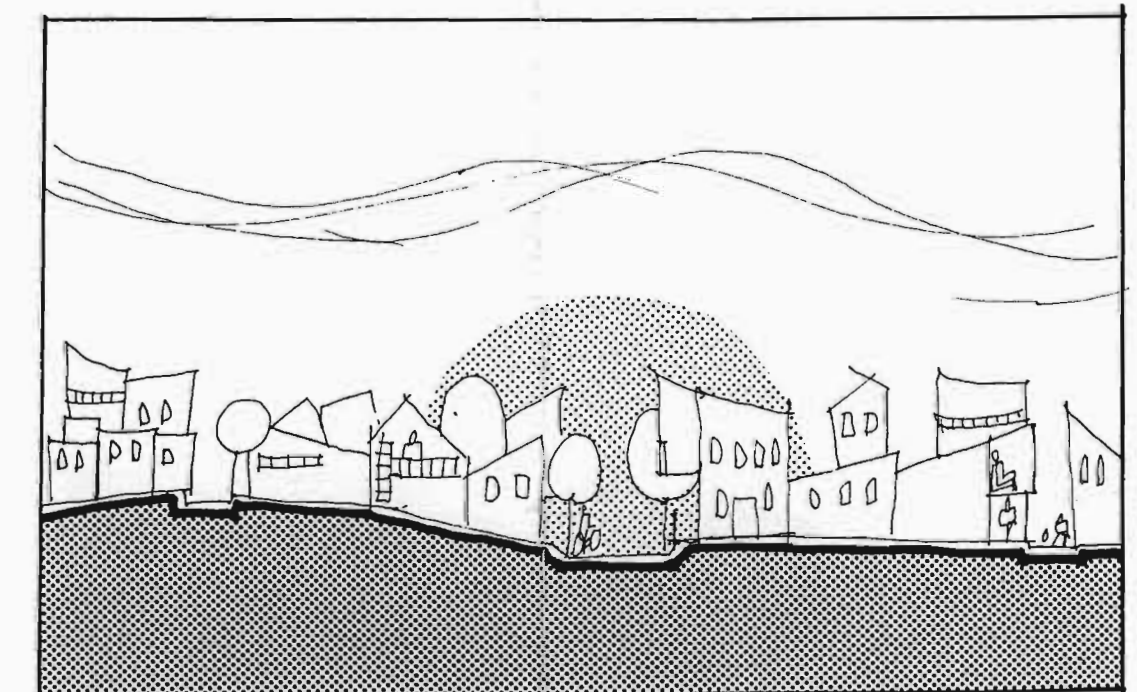
A sense of place and community can be built through the use of public spaces intricately developed within the urban fabric. Such spaces should have a hierarchy in scale to promote experience and meaning.



Integration of activities can be enhanced through clustering activities around key interceptory points and around common public spaces. The clustering of such activities would positively reinforce each other.

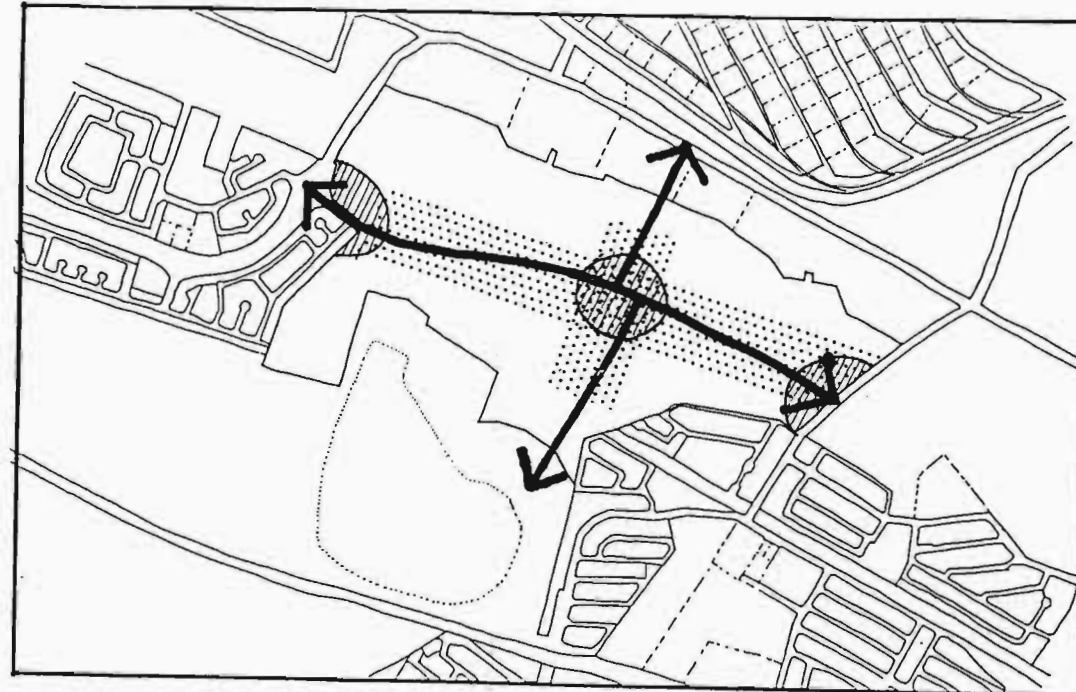


Public and private spaces should be treated and defined clearly within a system. Public spaces must form a key component of a system and developed accordingly. Public spaces should be enclosed and supported by building volume. Such spaces and volume must have a human scale.



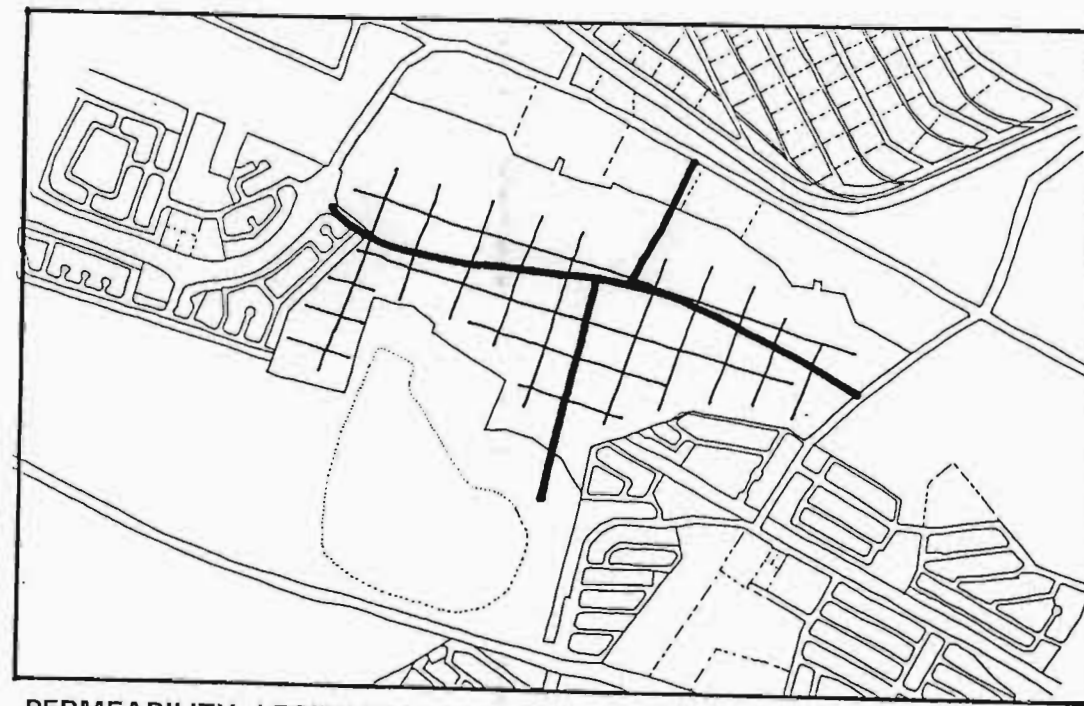
Complexity, variety and integration can be achieved through encouraging diversity in functions and increased densities. It is however fundamentally a product of individual expression in built environment. This increases legibility and a sense of place.

URBAN DESIGN CRITERIA



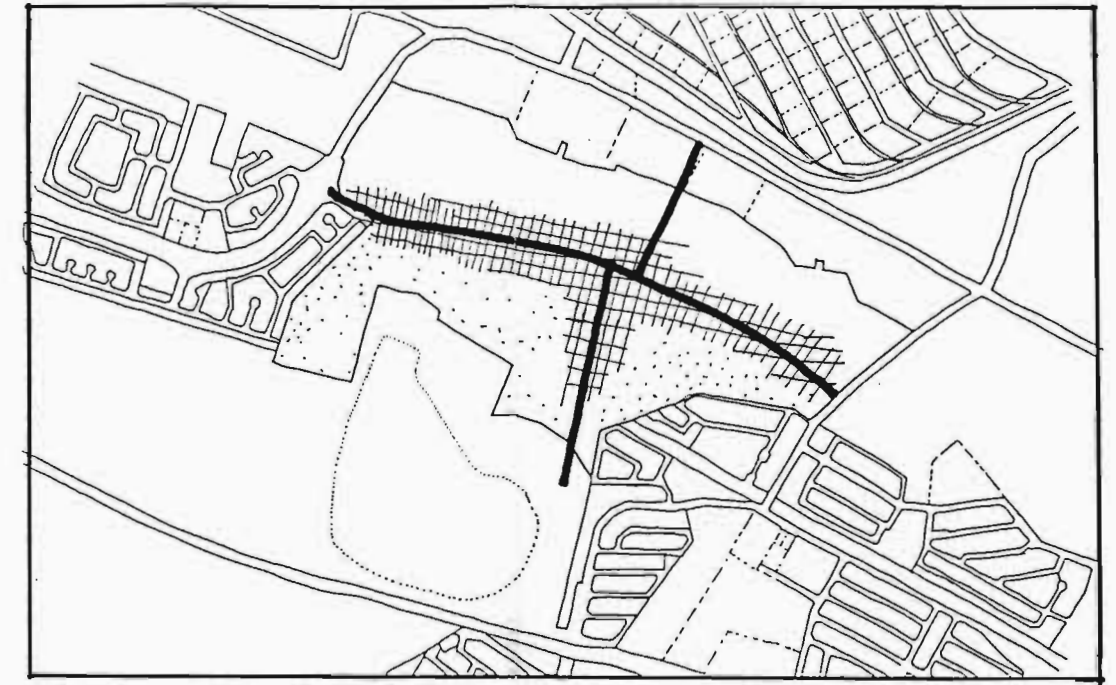
TO INTERVENE STRATEGICALLY

The proposed development should not present a complete "master plan" for the area but rather a framework comprising of key spines and nodes at interceptory points within the system. These spines would provide identity and legibility by acting as structuring elements. A potential connection in the south would allow for future expansion of the area as land is reclaimed from the mining activity.



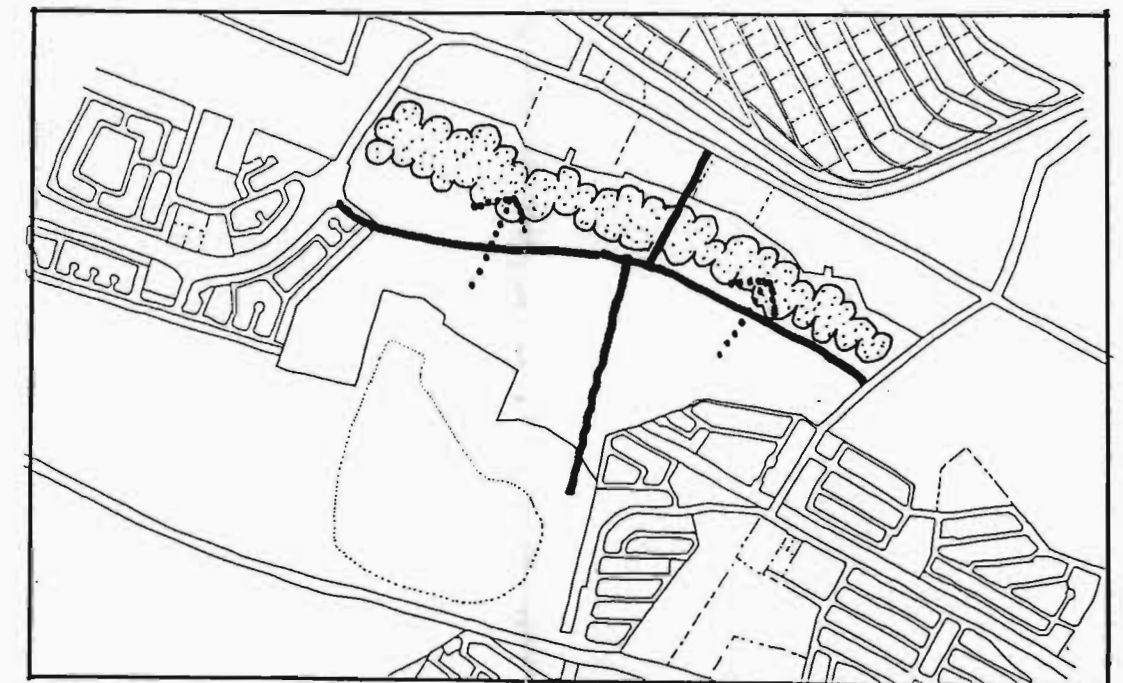
PERMEABILITY, LEGIBILITY AND SCALE

Adopting a grid system that is scaled at approximately 50m between connection points along the main route would ensure that the development has a pedestrian scale and the intricacy of a rich urban environment. The grid system would also increase permeability and legibility. The grid system also allows a range of activities to occur within the area due to the potential it creates at the various interceptory points in the system.



REINFORCEMENT THROUGH DENSITY

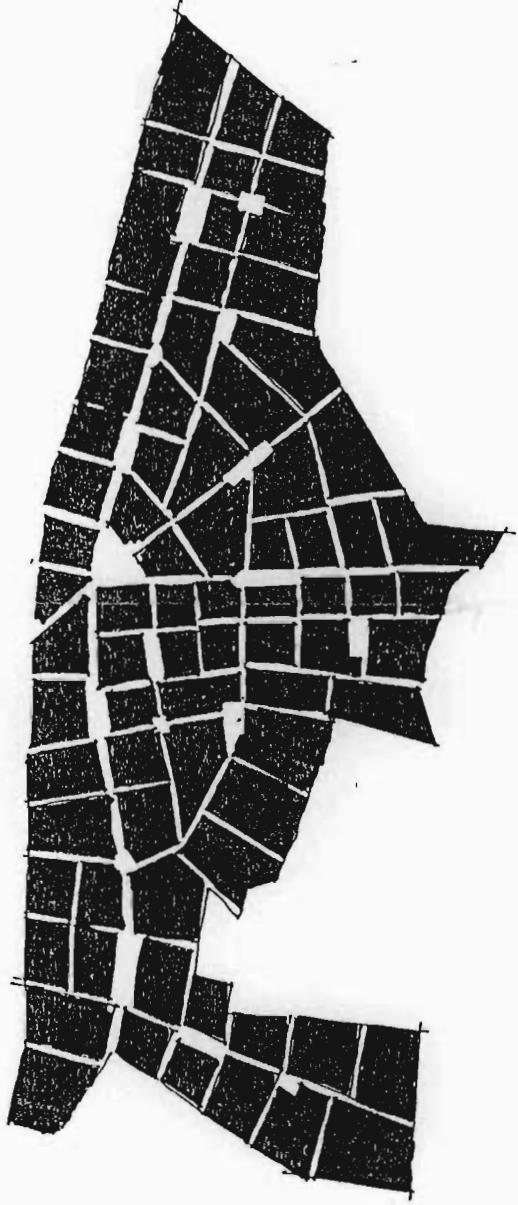
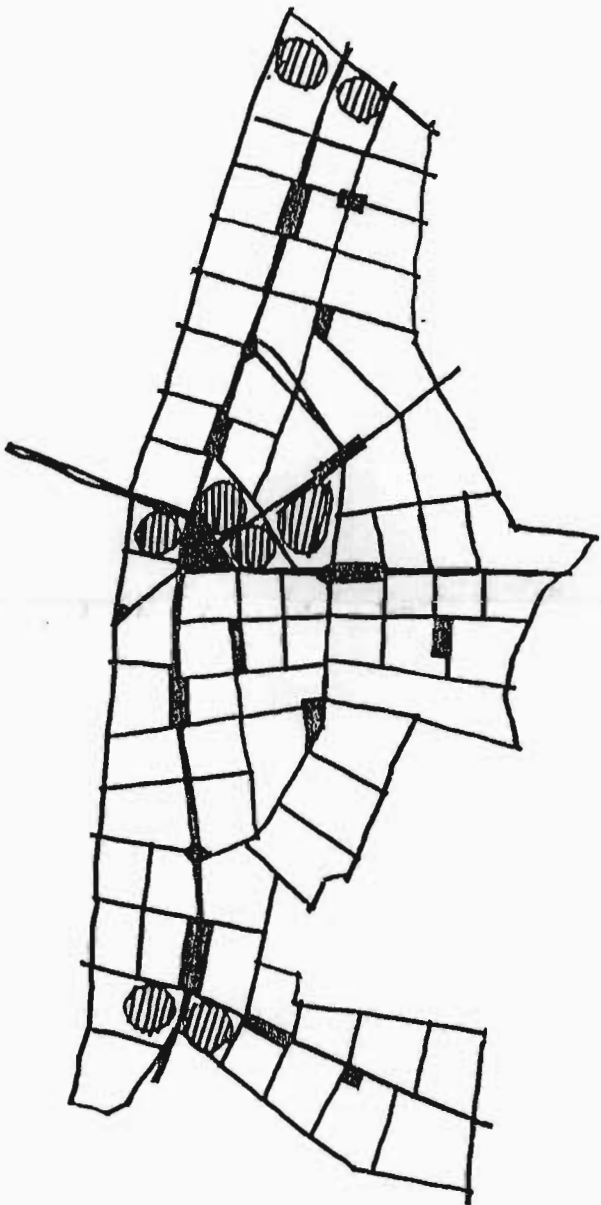
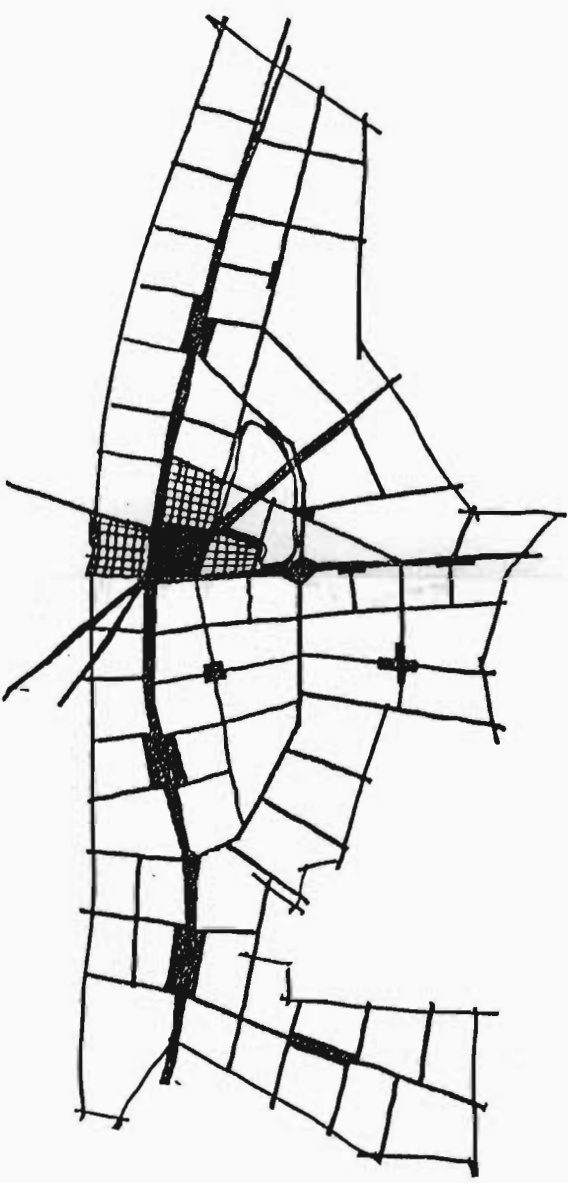
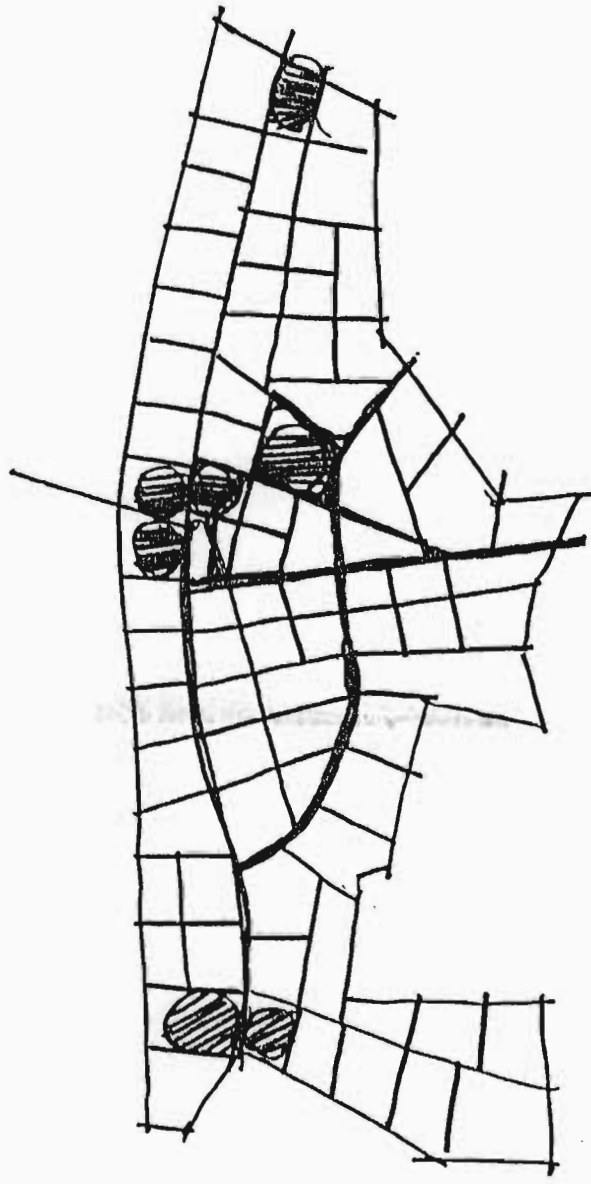
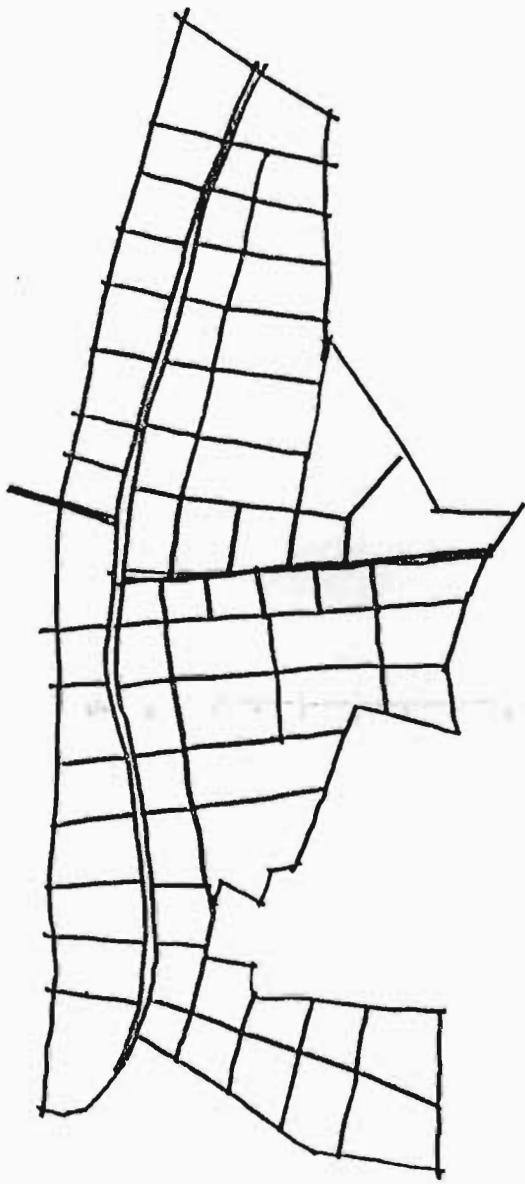
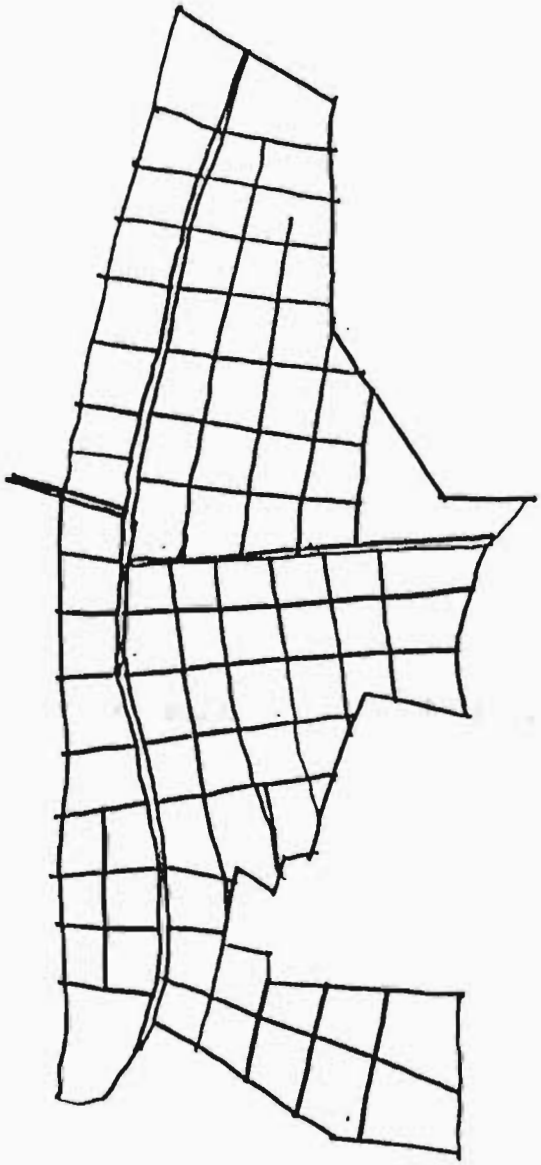
The key routes would be reinforced by encouraging higher density residential development along the spines. This would reinforce activities and would create thresholds to support and encourage complexity along these routes to enhance structure and identity. The low density interfaces would be treated by having low density development adjacent to such areas.



OPEN SPACE SYSTEM

An open space system would be developed along the northern boundary to provide protection, recreation and to serve as a soft enclosure thereby defining the residential and industrial realms. Access to the open space system from the residential fabric must be encouraged.

9.3.6 CONCEPT DEVELOPMENT



9.3.7 EXPLORATIONS



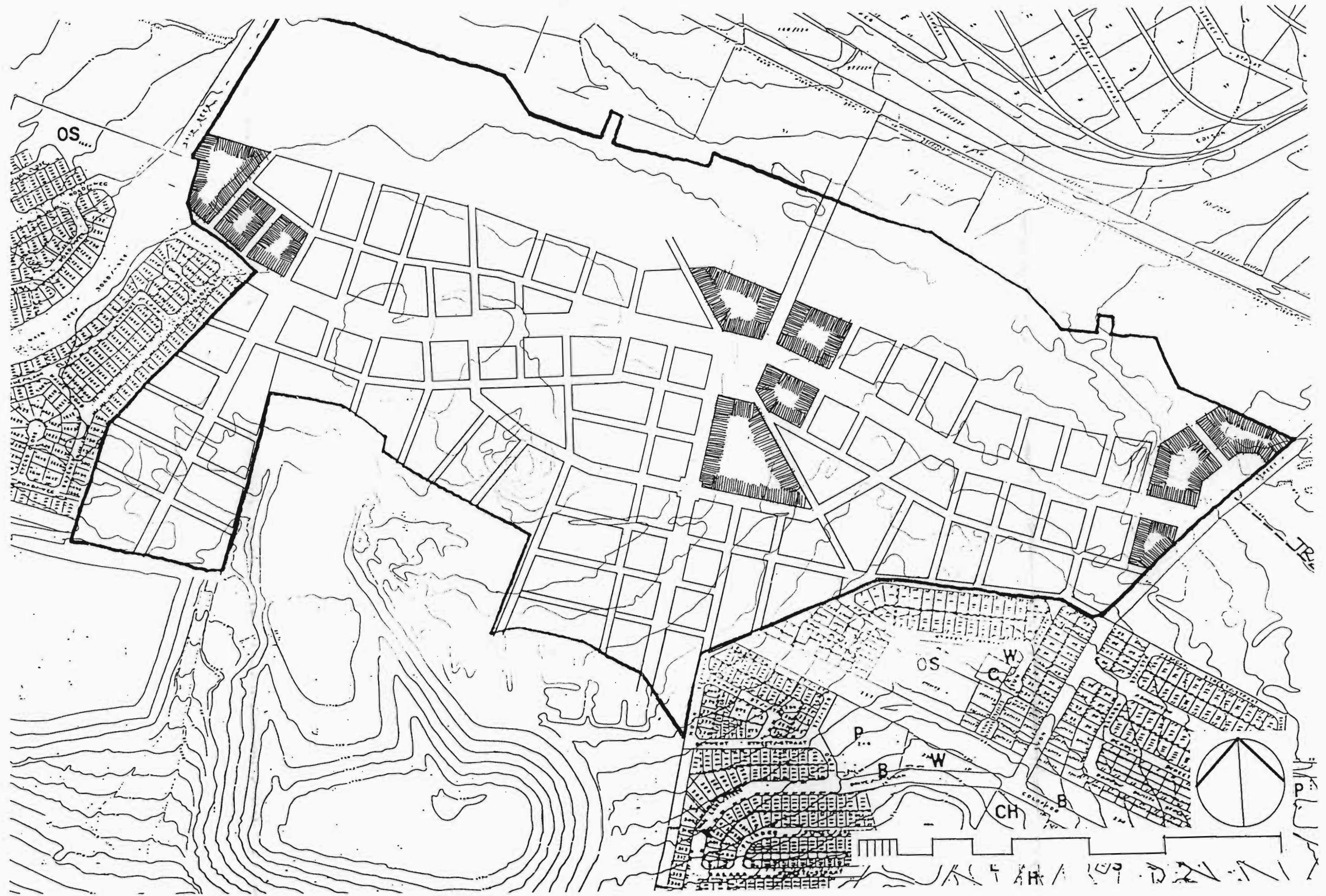
9.3.8 BASIC FRAMEWORK



9.3.9 MOVEMENT LATTICE



9.3.10 HOUSING BLOCKS



9.3.11 SOCIAL AND ECONOMIC INFRASTRUCTURE



9.3.12 SOFT ENVIRONMENT



9.3.13 PUBLIC REALM PROPOSALS



9.3.14 BLOCK - GROUND



9.3.15 SYNTHESIS - A POSSIBLE FUTURE

9.4 EVALUATION OF THE SIMULATED PROJECT

The evaluation of the simulated project is of the urban design response only. The methodology used is the same as in the evaluation of the layout responses in the case studies reviewed. The evaluation is presented in table 6 below.

TABLE 6 - RIVERLEA EXTENSION 3 & 4 IN RELATION TO PERFORMANCE CRITERIA

CRITERIA	EXPLICIT ATTEMPT	IMPLICIT ATTEMPT	NOT DEALT WITH
COMPLEXITY			
PLACE			
REINFORCEMENT OF ACTIVITIES			

PROTECTION		The development of the public realm will allow for the protection of users. The individual design responses based on individual needs within the residential blocks will also allow for protection.	
CHOICE			
INDIVIDUAL EXPRESSION			
CONSTRAINT		Implicitly dealt with, the development of smaller blocks along the activity street would provide constraint to promote particular densities and forms.	
INTERDEPENDENCE BETWEEN PUBLIC AND PRIVATE SPACE	Ability of users to define private space within blocks would assist in this. The landscaping proposals along the activity street would assist in providing a strong definition of space.	The development of attached units in higher density areas would provide strong definition of space.	

LEGIBILITY	This is achieved through adopting a grid system which allows users ease in interpretation and to draw visual cues. The structured activity street and the individual form responses also increases legibility.	Achieved through individual form responses.	
COMMUNITY	Explicit attempt through public realm proposals and through block strategy. The activity street is also used as a tool to foster social integration, within the area and between the developed portions of Riverlea.		
PERMEABILITY	Explicit attempt to...		

While the Riverlea project has not been based on participation in the short term due to it being a simulated project, it has demonstrated the features of the approach that deal with the urban design aspects. It has shown the potential use of the approach in facilitating longer term participation, which is, people shaping their environment and inter alia the making of a responsive environment. The next chapter presents the main findings, recommendations and conclusions.

CHAPTER 10 - MAIN FINDINGS, RECOMMENDATIONS AND CONCLUSIONS

"Clearly "better" design is no panacea for the ills of modern society, it is a simplistic approach that disregards the limited capacity of design to correct problems and often leads to attempts at superficial "embellishments" of wrong solutions. But design can, and must, be a tool of change, reorienting physical solutions towards more humane goals and challenging programmatic assumptions that would be at odds with urbanity and better communities. And one of the components of culture, design should have an active role in shaping human settlements, rather than passively echoing other factors."(Lozano,1990:7)

10.1 MAIN FINDINGS

10.1.1 Policy and Practise

The dissertation through both the review of contemporary literature and resulting from **interviews** with development practitioners has revealed that there are substantial problems with present policy and practise. With regard to the physical environment, present impetus is directed towards achieving shelter, in its singular form, and with great speed. No emphasis is placed on the qualitative aspects of housing environments and on viewing housing as part of a total environment. (Boden, Rothaug, Lees, Markewicz, English, Wood - respondents)

Further, this problem is compounded by the **view** of tenure in a traditional **sense, with** emphasis on individual **ownership** resulting **in** a particular environment and more **importantly** on a particular housing process. (Vines, Forster - key respondents) This is **problematic** in achieving qualities of responsiveness and environments that foster ongoing involvement of people in shaping their built environment.

10.1.2 Understanding Responsive Environments

Responsive environments have been identified as those environments that are responsive to the needs of people and are based on the understanding that there is a relationship between the physical environment (design) and social well-being. Distinct qualities are posited by **various** theorists, which although individually termed, are supported between the various theorists. The most common dimension expressed by the theorists is complexity, a basis for choice. (Wood - respondent)

Urban design is identified as a particular design approach, philosophy and attitude that strives to achieve responsive environments. The **qualities for responsiveness** form a **set of criteria to enable** positive design and to measure the level of responsiveness achieved in design. Such criteria however are fundamentally dependent on **human activity and support**. This provides one basis **for merging design** and participation.

10.1.3 Design and Participation

Within this context, while there is an emphasis on participation, the extent to which **meaningful participation** is **achieved** is dependent on **limited budgets** and therefore **remains** questionable. (Copley - respondent) Evidence also exists that **while accepting a need for participation in greenfield** situations, the **mechanisms** and approaches adopted by some (Rajah et al, 1994; Du Plooy, 1995) will **not** result in genuine participation.

There is an acceptance from most respondents that participation, could be and should be combined with design. Several clarifications are **made here** though.

First there needs to be an understanding of **why participation is being** adopted, the form of participation and the scale within which the process is to occur.

Second, it is **suggested that** one needs to present ideas based on a participatory **process** for comment and refinement to a beneficiary community.

Third, it is important that one understands the level of disempowerment and the ongoing survival needs of the urban poor prior to assuming that people are **able to** participate in housing programmes. In **such** a context, design and the physical environment should be flexible to adapt to changing levels of empowerment. This **change** must also be acknowledged as being derived through programmes broader than housing and design. Design is therefore

not the cure for all evils, but a tool in a broader development programme.

Evidence exists that participation and design can be merged successfully and delivery can be administered expediently. The El Salvador experience has shown that participation can be achieved in the short term and the long term and the Wiggins Fast Track process has indicated a possible means of combining participation and design. More importantly in the context of this dissertation, the process identified and the Riverlea example has indicated a possible means to achieve participation in the short and long terms with urban design leading to a responsive environment.

10.2 RECOMMENDATIONS

10.2.1 Housing as a Total Environment

It is imperative that initiatives in housing embrace the notion of a total environment. Housing provision must seek to achieve responsive environments and not just the provision of shelter. Urban design presents a possible tool to effect such change.

10.2.2 A Need for Responsive Design

Design in itself does not result in a responsive environment. It is only a particular design approach and attitude, that is an urban design approach that can achieve a particular environment. **There is a need** for a greater role of urban design in the making of housing environments. It is possible to *construct* housing environments through conventional technocratic decisions **but such decisions will not create** housing conditions that foster meaning and belonging. Only urban design can.

While urban design plays a significant role in achieving responsive environments, it must **be** combined with participation since the attainment of criteria for responsiveness is premised on people and their involvement. It is therefore recommended that urban design must be adopted in resolving

the housing crisis and participation must form an essential ingredient in this pursuit.

10.2.3 Instill a Design Culture

In order to achieve responsive environments, **there** is an urgent need to create conditions that reassert a design focus **within** the built environment profession. Two **sectors** are particularly **important** in this regard. First, academic institutions must adopt design as a key component in the curricula and promote the notion of responsive environments. Second, professional institutes must initiate **an** awareness of the importance of 'good' design and the need to achieve responsive environments. It is recommended that,

- private practitioners should be guided by **an accepted** code of ethics for design **and** those practitioners without the appropriate skills or with approaches based on traditional technocratic ideals should not be involved in built environment design;
- design is guided by an accepted set of performance criteria;
- 'layout planning' as a lucrative business should not be allowed to take place; and
- academic institutions and professional institutions should initiate debate within its sector and within the broader built environment profession on responsive environments and the need to pursue responsive environments.

10.2.4 Encourage Responsive Design Through Policy

It is essential that housing policy asserts a design emphasis, at the very least a design recognition. It is recommended that housing policy ensures that,:

- an urban designer forms part of all housing initiatives, as it is able to ensure that an engineer, or housing facilitator forms part of the process;
- the design process allows for participation; and

- the formation and monitoring of housing policy is achieved through the input of urban designers and 'responsive environment activists'.

10.2.5 Restructuring Bureaucracies

The attainment of responsive environments requires a commitment not only from practitioners, **academics** and policy makers but also from decision making structures and the bureaucracies at a metropolitan government level and beyond.

It is imperative that such structures develop approval procedures that are based on performance **criteria** relating to responsive environments. The emphasis on engineering, the need for limited maintenance and conventional town planning aspects **within approval procedures** must be re-evaluated. Present approval criteria **is also** based on previous models, in that criteria is based on the apartheid city and the need for limited involvement of bureaucracies within 'perceived no go areas', this must be re-evaluated.

It is recommended that performance criteria be introduced within approval processes and that a **balance of power between** urban design and engineering is achieved within such bureaucracies. Environment quality must not be measured in rands and cents (engineering bias) but rather be measured in terms of the *qualities of responsiveness* (urban design emphasis). There must be an understanding that in the short term, low economic costs as a **result of an engineering** and maintenance bias, may result in the longer term, **in high** social costs. This may also reduce economic spinoffs in the long term. The measure of environmental cost must not exclude the element of time and must not be based on the static calculations of bureaucrats who fail to brace the future with any degree of optimism.

10.3 CONCLUSION

It is essential that a greater understanding of the built environment is asserted in current housing policy and practise. Such an understanding must venture beyond the technician understanding associated with shelter which presently provides comfort for policy makers and for bureaucrats as they have conquered the issue over the last twenty years. Built environment design is perceived as being simplistic and something that is for the many technocrats out there who have been involved over those twenty years, applying their technical rational in defining appropriate technology and comprehensive planning. They are wrong, "design" is much more than lines on a paper.

"A lack of faith in new paradigms finds ill-at-ease policy makers turning back to 'conventional wisdom' for advice." (Wood - respondent)

Successful housing is not "appropriate technology and conventional wisdom" gift wrapped in politically correct jargon. Who needs capacity building and empowerment if the net result is a 2 roomed 'matchbox' regimentally slapped into the middle of Extension A, Unit **CC amongst another** five hundred, 2 roomed 'matchboxes'. It is a recipe for users of such environments to be lost perpetually. There is a need to strive towards responsive environments.

Spatial planning must be understood as being more than the technical arrangement of lines on a paper. There is an urgent need to foster an urban design approach within spatial planning. This however must be based on an appropriate understanding of urban design. It must be understood that urban design is not about street furniture and pavement design. It is more fundamentally philosophical dealing with qualities that improve access and choice and those that enhance the human element within the built environment. **Therefore urban** design is appropriate in all contexts, and can be expressed at various scales.

Urban design is desperately needed to create responsive environments for the lower income housing. In designing **within low** income contexts it is more important to create a supportive and facilitative environment than in contexts where higher

income can purchase choice. So, while not often related to each other due to understandings that link urban design to inner city beautification, there is a desperate need to see urban design as having an important role to play in low income housing.

While urban design has a significant role to play in creating meaningful environments in low income contexts, to think that it presents the ultimate cure is simplistic. Successful urban design is fundamentally linked to people's perceptions and involvement. The notion of participation has therefore an equally significant role to play in achieving responsive environments. It is important however to understand the meaning of participation and not to seek participation as a legitimising device. Participation must be seen as having the ability to enable responsiveness and therefore it should be used proactively in the making of responsive environments. It should not be based on short term "community" participation and should be more long term focused. Within this context, it is important to embrace design positively, with a view to intervening sensitively and strategically to respond to changing levels in empowerment and long term participation. **Attempts must be made to set conditions that enable the built environment to express to creativity of many and not only the "creativity" of the designer.**

The importance of design and the physical environment must be understood in the current housing drive. Assembling appropriate design approaches **towards a new generation of city building that strive to achieve environments where today's solutions are not tomorrow's problems must form an essential component of current housing policy and practise.** This dissertation **has highlighted this need and presented a possible appropriate design approach and a way of merging urban design and participation in pursuing responsive environments.**

In conclusion, there **must be a recognition that the search for responsive environments can never be concluded.** Since responsive environments are a product of people's input and since urban design has a direct link to **people**, the search for responsive environments must be a process which reflects the constant changes in society and which consequently must be reviewed constantly. There is no standard solution and no ultimate truth.

In the end, there can be no argument against design and participation, all the theory can be reduced to a simple fact, which is, it is **common sense**. A responsive environment must be responsive to **the needs** of the people who live in it, and not of the designer who is, in the present context, trapped in a world of conventional wisdom, speed of delivery, **bureaucratic guidelines**, and who is located in most cases, far from the reality of what actually constitutes shelter.

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COMPLETED QUESTIONNAIRES

ADDENDUM A

DISSERTATION TOPIC: AN APPROACH TOWARDS THE DESIGN OF RESPONSIVE ENVIRONMENTS

RESPONDENT : **Bernd Rothaug - Urban and Regional Planner**
Seneque Maughan-Brown SWK

BACKGROUND : The aim of the dissertation is to establish an appropriate design strategy that allows the merging of community participation and urban design.

The problem identified is the possibility of creating oppressive environments within the current housing drive through the use of conventional exclusive, modernist planning ideals and approaches.

Please write a few lines on the following questions.

KEY THEMES:

1. Housing Context

- 1.1 What is your understanding of the current housing context in terms of the housing processes and the shaping of the built environment, is it adequate?

The current emphasis is on numbers and on viewing housing in quantitative terms with little emphasis on a total environment. While it is important to focus on numbers, such provision must also focus on the qualitative aspects of housing as well.

- 1.2 Do you think that existing dominant practise is equipped to deliver meaningful environments?

One of the most fundamental problems with dominant practise is that there is a lack of any accepted standards for the better environments.

- 1.3 Do you think the existing policy environment adequately facilitates responsive environments?

No, it focuses on some aspects of the housing equation such as finance and not on the delivery of complete environments.

2. Responsive Environments

- 2.1 What is your understanding of "Urbanity", "Responsive Environments" etc.?

A responsive environment is one where the necessary supports are provided for housing. In a context of low income housing it is more important in obtaining such supports as opposed to upper income areas.

3. Urban Design

- 3.1 How would you define urban design?

Urban design is about creating environments around the human scale and that cater for human needs.

- 3.2 What role would you see urban design playing in resolving the current housing crisis?

The role of urban design would be to take care of the needs of people in the built environment at an individual or collective level and to basically express a human scale in the design of urban environments.

- 3.3 Should urban design be an exclusive process?

No, design must be based on the needs of those that one is designing for and not on the designers' needs, therefore design must be based on a participatory process.

4. Community Participation

4.1 Do you think that community participation is important?

Participation of a community in the making of an environment is important if one expects that the community would form part of a total environment.

4.2 Do you think that design and participation can be combined? If yes, what are the merits?

Yes, design must comprise of a few iterations between the designer and the community. The merits include a more sensitive product.

DISSERTATION TOPIC: AN APPROACH TOWARDS THE DESIGN OF RESPONSIVE ENVIRONMENTS

RESPONDENT : James Copley - Practising Urban and Regional Planner
Seneque Maughan-Brown SWK

BACKGROUND : The aim of the dissertation is to establish an appropriate design strategy that allows the merging of community participation and urban design.

The problem identified is the possibility of creating oppressive environments within the current housing drive through the use of conventional exclusive, modernist planning ideals and approaches.

Please write a few lines on the following questions.

KEY THEMES:

1. Housing Context

- 1.1 What is your understanding of the current housing context in terms of the housing processes and the shaping of the built environment, is it adequate?

Current initiative are dependent on who is actually involved and their practising ideologies. The current context is not favourable to meaningful participation due to limited budgets.

- 1.2 Do you think that existing dominant practise is equipped to deliver meaningful environments?

At present it is not favourable. There exists limited decisions from local government. Regarding consultants, there exists a mixed bag and consultants are beginning to see there is a world beyond the red and blue

books.

The ability to deliver appropriate environments depends on who is involved as the capabilities vary.

- 1.3 Do you think the existing policy environment adequately facilitates responsive environments?

There appears limited direction from policy. Present policy cant deliver as it is based on bridging finance. It does not specify that participation and planning must occur beyond the social compact. Policy is also aimed at introducing freehold tenure in previously black areas. There are other ways for tenure but present policy is based on a certain ideological position.

2. Responsive Environments

- 2.1 What is your understanding of "Urbanity", "Responsive Environments" etc.?

Responsive environments are those that are compact and dense providing easy access to services and amenities within walking distance.

3. Urban Design

- 3.1 How would you define urban design?

Urban design would deal with creating more liveable environments whereas town planning seeks the more functional environment.

- 3.2 What role would you see urban design playing in resolving the current housing crisis?

Urban design could play a role in making projects more successful on an individual basis. Urban design by definition should balance process and

product.

- 3.3 Should urban design be an exclusive process?

When dealing with a lot of people design should not be an exclusive process.

4. Community Participation

- 4.1 Do you think that community participation is important?

Yes, one needs to be cautious of the differences in community structure from place to place and the willingness of people to participate.

- 4.2 Do you think that design and participation can be combined? If yes, what are the merits?

There exists merits with interacting with people however such participation must be within an economic environment. The merits would include the potential to find a more workable product and while it is not impossible to find a workable product through a "desktop" exercise, such a product may be difficult to implement.

Planners should also adopt tools such as three dimensional models in the process and conduct introductory workshops into understanding planning tools.

It may be possible to include people in establishing principles to guide the designer, but not in actual design.

DISSERTATION TOPIC: AN APPROACH TOWARDS THE DESIGN OF RESPONSIVE ENVIRONMENTS

RESPONDENT : **Tony Markewicz : Practising Urban Designer
Markewicz English and Associates**

BACKGROUND : The aim of the dissertation is to establish an appropriate design strategy that allows the merging of community participation and urban design.

The problem identified is the possibility of creating oppressive environments within the current housing drive through the use of conventional exclusive, modernist planning ideals and approaches.

Please write a few lines on the following questions.

KEY THEMES:

1. Housing Context

- 1.1 What is your understanding of the current housing context in terms of the housing processes and the shaping of the built environment, is it adequate?

Current processes are inadequate for the simple reason that current policy and initiatives are focused around the individual unit and not on the total environment.

Policy is mono-focused (housing in the form of shelter) and not on the support environment(public spaces and facilities).

Another problem is the zoning mindset where private space is regulated through zoning schemes while there exists no regulation of the public environment.

DISSERTATION TOPIC: AN APPROACH TOWARDS THE DESIGN OF RESPONSIVE ENVIRONMENTS

RESPONDENT : **Clive Forster - Urban and Regional Planner**
Cato Manor Development Association

BACKGROUND : The aim of the dissertation is to establish an appropriate design strategy that allows the merging of community participation and urban design.

The problem identified is the possibility of creating oppressive environments within the current housing drive through the use of conventional exclusive, modernist planning ideals and approaches.

Please write a few lines on the following questions.

KEY THEMES:

1. Housing Context

- 1.1 What is your understanding of the current housing context in terms of the housing processes and the shaping of the built environment, is it adequate?

The current practise is driven by traditional layout planning processes with an emphasis on land tenure and the process of establishing a general plan to enable transfer of ownership prior to settlement preventing other potential planning processes.

- 1.2 Do you think that existing dominant practise is equipped to deliver meaningful environments?

In this particular context the designers do not have the adequate skills.

- 1.3 Do you think the existing policy environment adequately facilitates responsive environments?

No, relating to the tenure focus.

2. Responsive Environments

- 2.1 What is your understanding of "Urbanity", "Responsive Environments" etc.?

Responsive environments are those environments that are responsive to culture.

3. Urban Design

- 3.1 How would you define urban design?

Urban design focuses on the third dimension and the relationship between buildings (architecture) and plots (planners). There also exists different schools of thought, the one being the blue print approach in townhouse developments and the other, the dominant which is developing in the University of Witwatersrand and the University of Cape Town which looks at urban contexts in the context of time and enabling frameworks. This is more relevant in this context.

- 3.2 What role would you see urban design playing in resolving the current housing crisis?

To create enabling frameworks that are responsive to change.

- 3.3 Should urban design be an exclusive process?

No.

4. Community Participation

4.1 Do you think that community participation is important?

Yes, but one needs to be clear about the objectives of participation, in that one does not get necessarily a cheaper or better product. But, through a participatory process one can bring about changes in gender relations, building groups and a community, etc.

4.2 Do you think that design and participation can be combined? If yes, what are the merits?

Yes

DISSERTATION TOPIC: AN APPROACH TOWARDS THE DESIGN OF RESPONSIVE ENVIRONMENTS

RESPONDENT : **Larry English - Practising Urban Designer and Architect
Markewicz English and Associates**

BACKGROUND : The aim of the dissertation is to establish an appropriate design strategy **that allows** the merging of community participation and urban design.

The problem identified is the possibility of creating oppressive environments within the current housing drive through the use of conventional exclusive, modernist planning ideals and approaches.

Please write a few lines on the following questions.

KEY THEMES:

1. Housing Context

- 1.1 What is your understanding of the current housing context in terms of the housing processes and the shaping of the built environment, is it adequate?

The current processes are inadequate as they are driven by efficiency with only a few ingredients forming part of the process. Parallels can be drawn with post-war Britain where short term responses evoked protest and unrest in the longer term due to the social problems associated with such solutions.

- 1.2 Do you think that existing dominant practise is equipped to deliver meaningful environments?

No, the problem with existing practise is that people still think along line functions and people are driven by narrow focuses. There exist no one that

- 1.2 Do you think that existing dominant practise is equipped to deliver meaningful environments?

Yes and no, there exists potential skills both within the private and public sectors the results of such skills are being realised. The problem is the lack of will and funding to use such skills and the sensitivities of private practise to stress the use of appropriate skills whilst in the employ of public sector clients.

- 1.3 Do you think the existing policy environment adequately facilitates responsive environments?

Policy which favours a particular form, that being a single freestanding unit, while the policy contains the rhetoric of high density mixed use environments.

2. Responsive Environments

- 2.1 What is your understanding of "Urbanity", "Responsive Environments" etc.?

Understanding of responsive environments must come out of an understanding of value systems of society and out of an understanding of physical fabric of cities. As such the physical environment must respond to value systems.

3. Urban Design

- 3.1 How would you define urban design?

Urban design is conducted inadvertently by non built environment professions, the problems with this is a lack of a conscious design philosophy by such people.

Urban design is about a way of thinking about the city and an understanding of the processes that shape the city and plugging into those processes proactively.

- 3.2 What role would you see urban design playing in resolving the current housing crisis?

The role is one of co-ordination , of getting various actors together and in getting people to start thinking collectively about conceptual design. There exists a physical role and a co-ordinating role and urban design should translate policy into form.

- 3.3 Should urban design be an exclusive process?

No

4. Community Participation

- 4.1 Do you think that community participation is important?

Participation is important in order that a designer understands those he is designing for and if ones expects to design responsive environments then one needs to understand the community so that the deign is responsive to their needs.

While there exists a lot of hype about participation, one must acknowledge that each situation is different and that the level of pitch must suit the particular context one is working within.

- 4.2 Do you think that design and participation can be combined? If yes, what are the merits?

There exists benefits with combining participation and design. Design is a process of interacting with a lot of people and that there should be a few iterations between designers and people.

DISSERTATION TOPIC: AN APPROACH TOWARDS THE DESIGN OF RESPONSIVE ENVIRONMENTS

RESPONDENT : **Simon Vines - Practising Town Planner**
Vines Mikula Associates

BACKGROUND : The aim of the dissertation is to establish an appropriate design strategy that allows the merging of community participation and urban design.

The problem identified is the possibility of creating oppressive environments within the current housing drive through the use of conventional exclusive, modernist planning ideals and approaches.

Please write a few lines on the following questions.

KEY THEMES:

1. **Housing Context**

- 1.1 What is your understanding of the current housing context in terms of the housing processes and the shaping of the built environment, is it adequate?

Current processes involved are inadequate as the processes are totally tenure driven.

Ownership is important it does not promote good design, it promotes little boxes.

- 1.2 Do you think that existing dominant practise is equipped to deliver meaningful environments?

There are potential dangers with the emergence of housing specialists as their such specialists would have a limited understanding of the total

environment and are likely to be driven by "x number of units" emphasis.

- 1.3 Do you think the existing policy environment adequately facilitates responsive environments?

No, once again it is driven by tenure with no recognition of other forms of tenure. Policy also aims is focused on redistributing finance in the form of a plot.

2. Responsive Environments

- 2.1 What is your understanding of "Urbanity", "Responsive Environments" etc.?

Responsive environments are responsive to change. Responsive environments are those environments that are able to respond to lifecycle changes and are able to accommodate a range of peoples needs including the old, children, young couples and so on. An important aspect in such is the level of choice extended to users by the physical environment, the definition of space and the existence of efficient access to services and facilities.

3. Urban Design

- 3.1 How would you define urban design?

Urban design is art. It is architecture for the poor. The main aim is the definition of space.

- 3.2 What role would you see urban design playing in resolving the current housing crisis?

The role would be one of promoting urban living as opposed to suburban living and in so doing express the qualities found in cities.

3.3 Should urban design be an exclusive process?

Urban design should not be exclusive process but one should strive to create a balance.

4. Community Participation

4.1 Do you think that community participation is important?

Participation is important but it is not paramount.

4.2 Do you think that design and participation can be combined? If yes, what are the merits?

It should not be merged and one should be sensitive at a later stage.

pulls all the various sectors together.

- 1.3 Do you think the existing policy environment adequately facilitates responsive environments?

Existing policy is nothing more than site and services. It is undermining social structure by fragmenting people by not focusing on collective mechanisms.

2. Responsive Environments

- 2.1 What is your understanding of "Urbanity", "Responsive Environments" etc.?

Responsive environments are those environments that are responsive to changes over time and to social, political and economic forces. Like the human skeleton which will be rigid in structure, it can be "fleshed" out in various forms over time. In terms of responsive environments, the public environment is the skeleton.

3. Urban Design

- 3.1 How would you define urban design?

Urban design is not a layer after planning. It is about collective impact and the urban environment. The urban environment is constantly being designed by the impacts of decisions by a range of people including engineers, politicians and so on. Urban design in this context seeks to become a generalist activity in that it understands various processes effecting change in the built environment.

- 3.2 What role would you see urban design playing in resolving the current housing crisis?

The role of urban design would be on developing the public realm and on focusing on creating a quality environment and in providing a mediation role between various actors.

- 3.3 Should urban design be an exclusive process?

Urban design should not be an exclusive process, it should be similar to project management in co-ordinating activities of other professions while focusing on the quality aspects, an area neglected by project managers.

4. Community Participation

- 4.1 Do you think that community participation is important?

Participation is important since one cannot make assumptions about peoples environments. He suggests that if one is designing in ones own culture or in a common culture then one may be able to make assumptions.

- 4.2 Do you think that design and participation can be combined? If yes, what are the merits?

The design process should be participatory and one needs to be less critical of participation. Participatory processes also have the merits of informing people of the implications of grassroots decisions on the overall environment.

DISSERTATION TOPIC: AN APPROACH TOWARDS THE DESIGN OF RESPONSIVE ENVIRONMENTS

RESPONDENT : **JoAnne Lees - Practising Architect**
JoAnne Lees Architects

BACKGROUND : The aim of the dissertation is to establish an appropriate design strategy that allows the merging of community participation and urban design.

The problem identified is the possibility of creating oppressive environments within the current housing drive through the use of conventional exclusive, modernist planning ideals and approaches.

Please write a few lines on the following questions.

KEY THEMES:

1. Housing Context

1.1 What is your understanding of the current housing context in terms of the housing processes and the shaping of the built environment, is it adequate?

The processes are inappropriate in the sense that they are driven by finance and speed of delivery. Further, the problem is compounded by an emphasis on individual products with little emphasis on the total environment.

1.2 Do you think that existing dominant practise is equipped to deliver meaningful environments?

No

1.3 Do you think the existing policy environment adequately facilitates responsive environments?

No, there exists a void in current policy.

2. Responsive Environments

2.1 What is your understanding of "Urbanity", "Responsive Environments" etc.?

Refer to thesis - Lees

3. Urban Design

3.1 How would you define urban design?

Refer to thesis - Lees

3.2 What role would you see urban design playing in resolving the current housing crisis?

Urban design must be given priority as urban design has the potential to translate housing environments into nice places instead of bleak environments. Urban design is the only thing that will and that such input does not have to cost much and that a extra bit of thinking could have a lot of benefits for free.

3.3 Should urban design be an exclusive process?

No, it cannot be.

4. Community Participation

4.1 Do you think that community participation is important?

Yes, but it depends on how one perceives participation in terms of whether it is about education or consultation.

4.2 Do you think that design and participation can be combined? If yes, what are the merits?

Yes, the merits of merging participation and design is that it provides a forum to workshop new concepts and ideas.

DISSERTATION TOPIC: AN APPROACH TOWARDS THE DESIGN OF RESPONSIVE ENVIRONMENTS

RESPONDENT : Erky Wood - Practising Urban Designer
GAPP Architects & Urban Designers

BACKGROUND : The aim of the dissertation is to establish an appropriate design strategy that allows the merging of community participation and urban design.

The problem identified is the possibility of creating oppressive environments within the current housing drive through the use of conventional exclusive, modernist planning ideals and approaches.

Please write a few lines on the following questions.

KEY THEMES:

1. Housing Context

- 1.1 What is your understanding of the current housing context in terms of the housing processes and the shaping of the built environment, is it adequate?

The current housing context is one of inadequate shelter, infrastructure and social amenity - this is a given. Nevertheless it is sterile in two larger contexts: (a) current approaches fail dismally to build communities(a fundamental coping mechanism in a culture of poverty and essential to people who are per force (place - bound) (b) current approaches fail to yield life enhancing and sustainable cities and the access to opportunities that go with these. The housing debate is hopelessly adrift of the larger debate of re-structuring post apartheid cities. Where you live in a city is initially more important than how you are housed. The technocratic juggernaut that seeks to deliver housing regardless is simply perpetuating the existing

inequities of the South African city.

- 1.2 Do you think that existing dominant practise is equipped to deliver meaningful environments?

No - the technocratic approach on the one hand and the programmatic aspatial approaches on the other hand both fail to realize the intensely physical bonds of people and place (something which sadly came to be regarded as environmental determinism in the heyday of architectural arrogance). Every aspect of our cities inevitably finds form in space and we can assist in engendering the development of community in how design is focused into communities. Technocratically, of course, we can also "design" environments that ensure that community will never form effectively. Programmatic aspatial approaches, in the absence of design input, simply leaves the vacuum that technocrats fill or provide communities with no spatial competence to do for themselves.

- 1.3 Do you think the existing policy environment adequately facilitates responsive environments?

No -housing per se is not the issue: the making of sustainable, supportive "communities with propinquity" is the issue. The current policy environment has lost the rich context in which "policy in waiting" used to be discussed. Rather an emphasise the need for a new city order, a "memory loss" prevails in the current policy environment and we rush head long into delivering houses and rediscovering the flawed approaches of previous administrations.

2. Responsive Environments

2.1 What is your understanding of "Urbanity", "Responsive Environments" etc.?

Complexity! While the "compact" city has become an idea in good currency (and rightly so), the definitive characteristic of a compact city is its complexity. Allowing cities to do best in assimilating people into meaningful communities (without all the utopians associated social baggage) is what defines the new urbanism and a responsive environment. How work with this "city will" is the art of urban design.

3. Urban Design

3.1 How would you define urban design?

Several years ago Barry Senior and I pursued the following definition and I still see no reason to change this : " In broad terms the goal of urban design is to strive for a quality of physical environment which nurtures human dignity and culture through design based on an understanding of the social, economic, physical, temporal, political and legal processes that influence the structure and form of cities."

3.2 What role would you see urban design playing in resolving the current housing crisis?

To believe that design will "solve" a housing "problem" is clearly misguided. But that it is a context (and an essential context at that) in which all the pieces come together is not misguided. Urban design should pursue the role not only of assisting in the design of enabling frameworks for living environments, but in ensuring that the city context in which the housing crisis is addressed makes sense.

3.3 Should urban design be an exclusive process?

It should be exclusive of nothing other than the "conventional wisdom" that built apartheid cities and which is technocratic and vested interest terms continues to shape our cities. A lack of faith in new paradigms finds ill - at - ease policy maker turning back to "conventional wisdom" for advise. It is in effect, urban design that is still excluded as a "nice - to - have".

4. Community Participation

4.1 Do you think that community participation is important?

There is an assumption here as there is in the policy environment, that a "community" exists and that, with that community we can design responsive environments, In many respects, it is in the process of working with people to establish responsive environments that people transform themselves into communities, "Community based design" is thus possibly a more useful concept with the involvement of people than a notion of "community participation."

4.2 Do you think that design and participation can be combined? If yes, what are the merits?

Certainly - community - based design is precisely this. Design can be used as a focal point in which broader aspects of peoples lives meet and a platform off which community self actualisation moves. Jane Jacobs always said "a successful community is not a community without problems: it is a community that is prepared to face up to its problems." Design is one important aspect in how communities are able to face up to their problems.

DISSERTATION TOPIC: AN APPROACH TOWARDS THE DESIGN OF RESPONSIVE ENVIRONMENTS

RESPONDENT : **Dr.R.Boden**
University of Witwatersrand

BACKGROUND : The aim of the dissertation is to establish an appropriate design strategy that allows the merging of community participation and urban design.

The problem identified is the possibility of creating oppressive environments within the current housing drive through the use of conventional exclusive, modernist planning ideals and approaches.

Please write a few lines on the following questions.

KEY THEMES:

1. Housing Context

- 1.1 What is your understanding of the current housing context in terms of the housing processes and the shaping of the built environment, is it adequate?

Housing process is aimed at a narrow set of objectives -

- i. focuses excessively on numbers and costs.**
- ii. does not consider the question of how the settlement could be designed, bearing in mind the capital web is likely to last for many decades/centuries.**
- iii. too little focus on supporting social and recreational infrastructure.**
- iv. Process is therefore inadequate and in need of deliberate design inputs and parameters.**

- 1.2 Do you think that existing dominant practise is equipped to deliver meaningful environments?

Unclear, is this professional or 'praxis'? Assuming former the answer is no: too much driven by construction focus/ companies and related professions. If latter meaning (praxis) then again there is a problem in that the cyclical advantages are phased housing construction - economically and in terms of design feedback - are overlooked. Current process could easily replicate Soweto.

- 1.3 Do you think the existing policy environment adequately facilitates responsive environments?

In light of above and top down approach inherent in RDP policy and approach, No.

2. Responsive Environments

- 2.1 What is your understanding of "Urbanity", "Responsive Environments" etc.?

The character of being urbane, refined; the state condition or character of being in a town / city. Life in a city / town. A context which permits or encourages people to live a significant part of their life in the public realm.

3. Urban Design

- 3.1 How would you define urban design?

Refer to article in Town and Regional Planning Journal (1991:September) and 1993 (No.35), or PHD.

3.2 What role would you see urban design playing in resolving the current housing crisis?

It can't resolve it. But it should be a major participating professional component.

3.3 Should urban design be an exclusive process?

No.

4. Community Participation

4.1 Do you think that community participation is important?

It is essential but requires definite guidelines / programming to retain its focus and keep moving on.

4.2 Do you think that design and participation can be combined? If yes, what are the merits?

Only at certain stages: problem analysis, evaluation of suite; assessment of alternatives according to **criteria and priorities established with the aid of the community; phasing **determination**, implementation. Essential, because dealing with wicked problems.**

The dissertation topic demands a structure which, although complex, is logically ordered. Layout and presentation is of a high standard.

The topic is a patently relevant one. The research aims and objectives, together with the research questions, are well framed. A broad and appropriate literature base has been digested.

The "Problem Statement" while well presented, could have linked more directly, the need for responsive environments to conditions of anomie and other socio-psychological conditions attributable to un-responsive environments.

The section "Theoretical Context" captures the polemic over the theory of Urban Design and the notion of "responsive environments" while developing the latter into a 'theory for' enquiry.

In attempting to define the preconditions for responsive environments, the dissertation fails to acknowledge, explicitly, how the natural environment can provide some of the most fundamental and valuable cues to good urban form and place making.

Are the "Criteria for Positive Urban Design" held to be timeless and universal?

While the "Review of Three Case Studies" is methodical, the "valuation of the Simulated Project", in a sense, constitutes a high-order self-evaluation which cannot be compared with the case studies with great validity.

The topic has been carefully researched, solidly structured and well argued.

1) The argument that participation in design should occur at the level of the overall framework as well as the detail. In fact none of the cases he refers to has managed to do that (including the Fundasal project). It would have been useful to explore concrete attempts which have been made to do this or literature which looks at this issue. Certainly some attempts to do so in the SA context have proved far more difficult than he suggests. He dismisses a comment that designers should go to communities with a plan to work against, but does not provide any real alternative. He needs to engage more carefully with this issue and with the reality of time constraints. In the end his own design has developed the framework and will allow participation in personal, localised detail and through reaction - not very different from Dewar's position for example.

)The question of who acts as representative on committees overseeing planning. The author dismisses attempts to create communities or to consider them as such in favour of individuals to live in the community. But this still begs the question of different interests, how representation occurs, and whose interests are represented.

The concept of 'empowerment' through design is unclear. What does empowerment mean in this case?

Overall, however, this is a dissertation of a good standard. It is thoughtful and compelling and deserves to do well.

is a very good dissertation. It is coherent, clearly structured and the argument is well developed. It is for the most part well written, although some passages are somewhat cumbersome and repetitive.

The dissertation explores an area of some importance within urban planning, and is also significant in looking at urban design in low income settlements. It deals with an area of considerable academic interest and takes on what has been a difficult and often contradictory issue in planning. The aims and objectives are clearly spelt out, and the conceptual framework is well developed.

The literature is for the most part appropriate. One important omission however is that he has not explored the literature on attempts to incorporate participation into urban design very systematically. Some texts are referred to, and one of the case studies deals with this issue, but much of the literature on participation referred to is on planning in general. Given the interest in participation, one would expect that there have been a greater number of experiments in incorporating it into design in various ways.

The presentation of case study material is well done, although the analysis against criteria in the case of Waterloo is not developed as much as might be the case. Nevertheless, he does demonstrate that he understands and can use the criteria in the other case studies. He goes further in developing his ideas in working through a hypothetical project in the Johannesburg area. The fact that this is done is a strength, at least in demonstrating that he grasps the design principles he is working with, but given the nature of the case study he obviously can't explore the participation interface as much as intended.

The conclusions and recommendations bring the work as a whole together and go considerably further than many dissertations. The concluding chapter is an impassioned argument: this is a very hard fought piece, which is obviously the culmination of years of work to work through these issues. It draws strength from this of personal investment. Nevertheless, some important points have not sufficiently worked through: